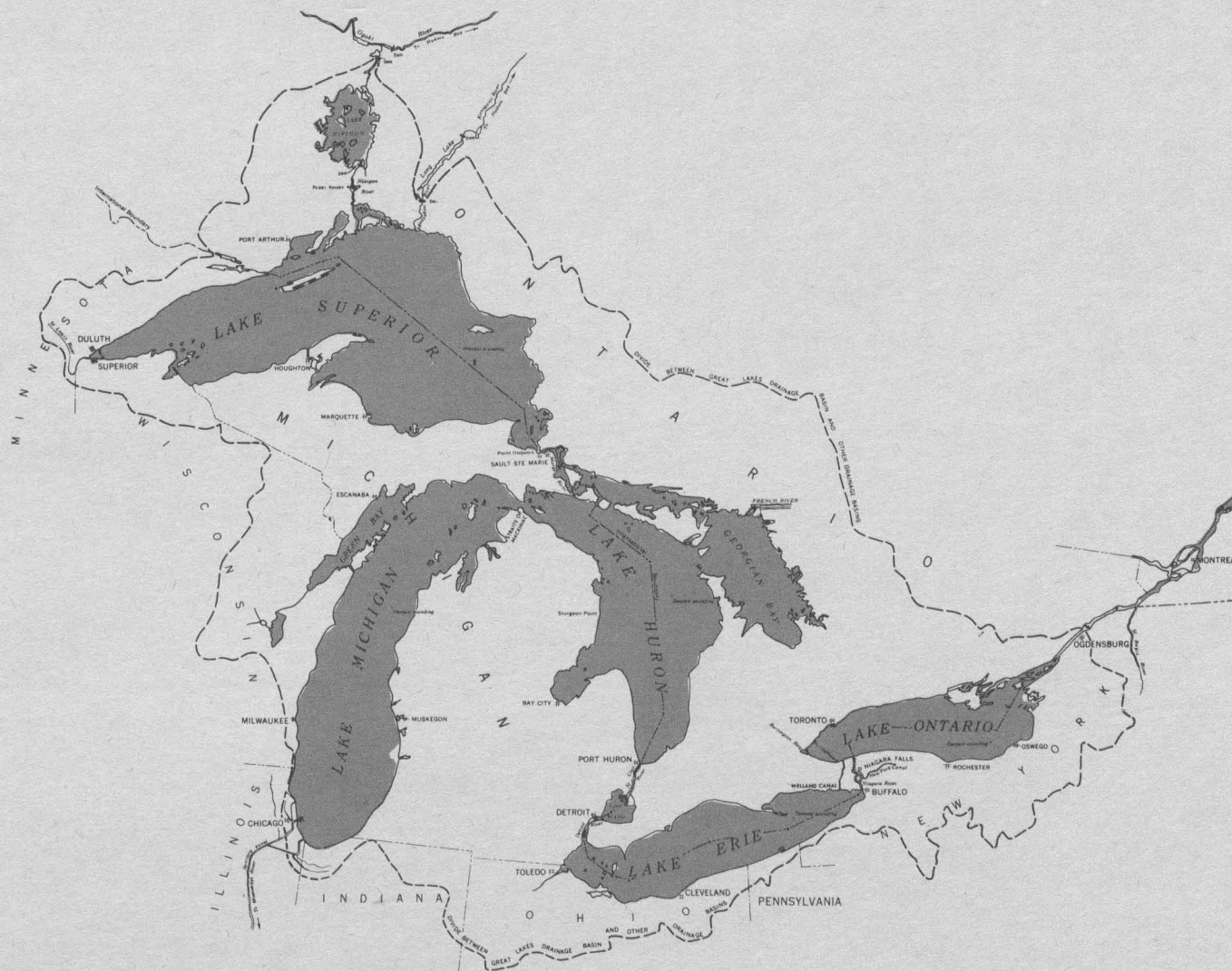


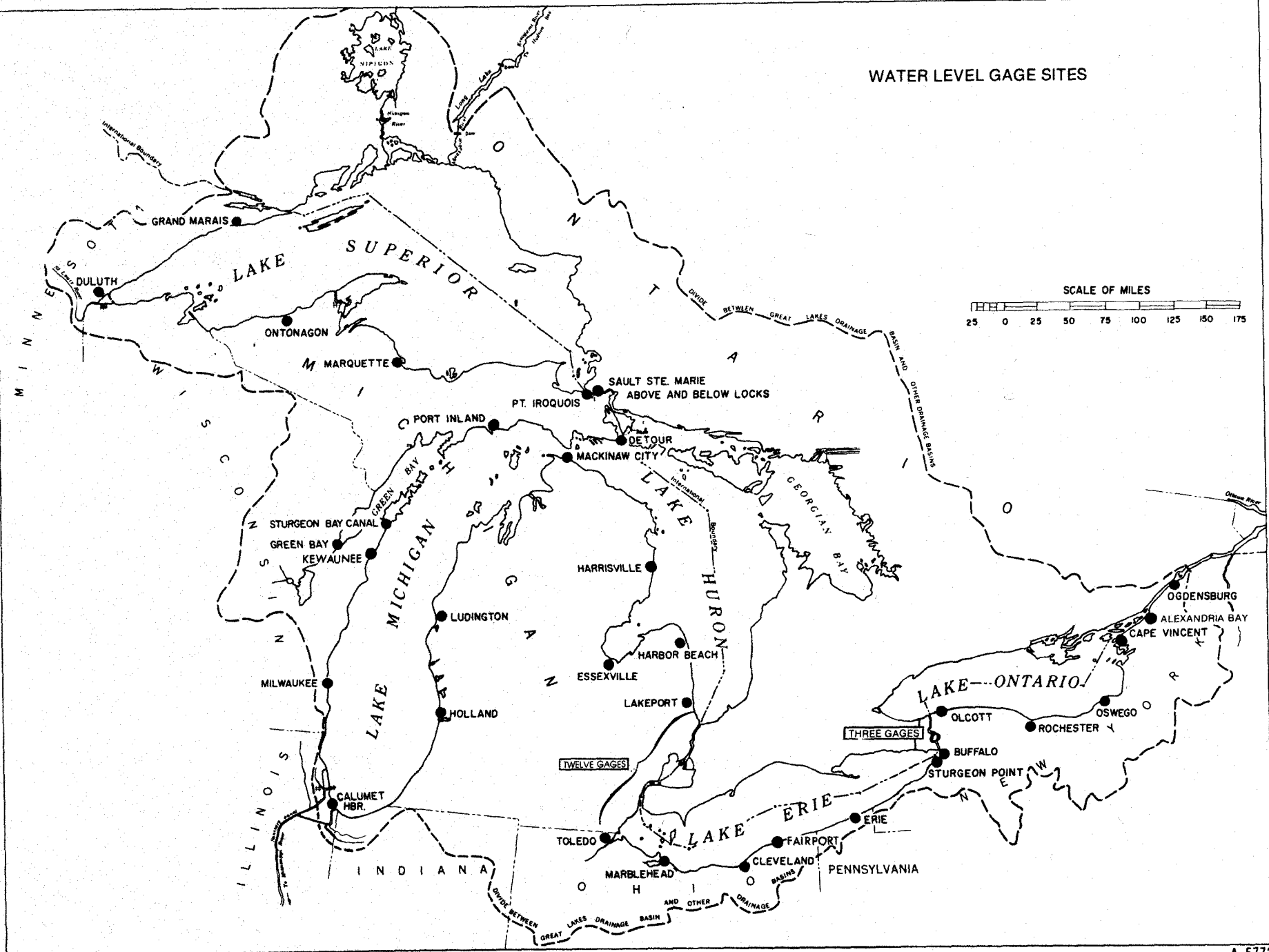
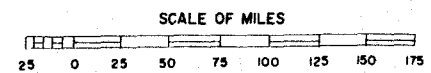


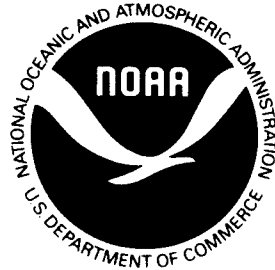
Great Lakes Water Levels, 1993

U.S. DEPARTMENT OF COMMERCE, National Oceanic and Atmospheric Administration, National Ocean Service



WATER LEVEL GAGE SITES





Great Lakes Water Levels

1993

Daily and Monthly Average Water Surface Elevations

August 1994

INTRODUCTION

The Office of Ocean and Earth Sciences (OES), within the National Oceanic and Atmospheric Administration (NOAA), is responsible for collecting water level data for the entire Great Lakes Basin watershed (295,000 square miles), and for maintaining the International Great Lakes Datum (IGLD). In meeting these responsibilities, close coordination is maintained with other Federal agencies and Canadian counterparts. Exchanges of water level data with Canada are made under treaties that require regulation of operations and support of cooperative power generation. These exchanges are coordinated under the International Joint Commission (IJC), a group of six commissioners appointed by the President of the United States and the Prime Minister of Canada. Parties involved in meeting the international agreements include: several boards of control, IJC committees of two Federal agencies, eight states and two Canadian Provinces.

Beginning in 1970 (under authority of Presidential Reorganization Plan No. 4 (now part of U.S. Code 33 Title 883)), OES's predecessor organization began a program of monitoring and collecting water levels, and maintaining a vertical control reference system for the Great Lakes and their connecting channels. The program, required by Congress and by international treaties, has a mission of providing a hydraulic vertical reference datum by which the governments of Canada and the United States manage water resources in the Great Lakes Basin. International management of water resources in the Great Lakes Basin is vital to ensuring the safety of the lakes many users. The Great Lakes Program takes into account fluctuations of the lakes water levels and the outflows of rivers relative to: regulation, lake level forecasting, shipping, international cooperative treaties and agreements, riparian interests, hydroelectric power generation, construction, dredging, litigation, and other water resources management and development activities.

Presently, the Great Lakes Program is divided into office and field functions to address: basic water level measurements, vertical datums, earth movement (for the International Great Lakes Datum), basin precipitation, abstracts of diversions, vertical control support for hydrographic surveys, construction and maintenance activities, and needs of user communities. Since 1973, real-time data has been provided for emergency water planning situations by using water-level gauges with electronic telemetry units. Presently, 28 of these water level measurement units are operating in the field; OES plans to install and operate new state-of-the-art electronic telemetry systems in the future.

This report, published annually, contains water level gauge records for the Great Lakes in units of both meters and feet. The following information is presented in tabular form for the calendar year:

1. Daily and monthly average water levels for each gauge in the network;
2. The highest and lowest daily average water level for each month;
3. A frequency distribution of daily average water levels that shows the number of times each month recorded levels were at or above specific elevations; and
4. Monthly average water level stages for each lake, from 1900 to the present.

OES gauges record water levels, in either analog or digital form, on strip charts retained by OES. Recorded hourly values are used to compute daily averages; monthly values are derived from daily averages.

Locations of gauges for recording water levels are shown on the inside cover page. An index on subsequent pages lists gauge identification numbers, their locations, and their geographic coordinates.

A separate publication, printed every five years, shows only monthly and annual averages, and highest and lowest monthly averages for the period of record (latest issue: Great Lakes Water Levels, 1860-1990). A hydrograph, that depicts data for master control gauges for each lake, is available for a nominal fee by writing: National Ocean Service, Office of Ocean and Earth Sciences, N/OES21, Silver Spring, Maryland, 20910-3281.

DATUM OF REFERENCE: All tabulated elevations are referred to the International Great Lakes Datum 1985. A complete explanation of the datum can be obtained at no charge by writing the address above.

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Station Number and Location		Latitude			Longitude			Page	
		North			West			Meters	Feet
ST. LAWRENCE RIVER									
1030	Ogdensburg, New York	44	42	10	75	29	40	1	105
1062	Alexandria Bay C.G., New York	44	19	56	75	56	06	3	107
LAKE ONTARIO (CHART DATUM 74.2 m. / 243.3ft.)									
2000	Cape Vincent, New York	44	07	45	76	20	15	5	109
2030	OSWEGO, New York	43	27	51	76	30	42	7	111
2058	Rochester, New York	43	16	10	77	37	34	9	113
2076	Olcott, New York	43	20	17	78	43	39	11	115
NIAGARA RIVER									
3007	Ashland Avenue, Niagara Falls, New York	43	06	00	79	03	35	13	117
3009	American Falls, Niagara Falls, New York	43	04	54	79	03	42	15	119
3012	Niagara Intake, Niagara Falls, New York	43	04	40	79	00	55	17	121
LAKE ERIE (CHART DATUM 173.5 m. / 569.2 ft.)									
3020	Buffalo, New York	42	52	39	78	53	27	19	123
3028	Sturgeon Point, New York	42	41	27	79	02	52	21	125
3038	Erie, Pennsylvania	42	09	15	80	04	32	23	127
3053	FAIRPORT, Ohio	41	45	00	81	17	00	25	129
3063	Cleveland, Ohio	41	32	27	81	38	08	27	131
3079	Marblehead, Ohio	41	32	40	82	43	53	29	133
3085	Toledo, Ohio	41	41	36	83	28	20	31	135
3090	Fermi Power Plant, Stony Point, Michigan	41	57	35	83	15	30	33	137

NOTES: Locations shown in **CAPITAL** letters are master gauges.

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Station Number and Location		Latitude			Longitude			Page	
		North			West			Meters	Feet
DETROIT RIVER									
4020	Gibraltar, Michigan	42	05	30	83	11	10	35	139
4030	Wyandotte, Michigan	42	12	12	83	08	50	37	141
4036	Fort Wayne, Detroit, Michigan	42	17	53	83	05	34	39	143
4049	Windmill Point, Detroit, Michigan	42	21	26	82	55	45	41	145
LAKE ST. CLAIR (CHART DATUM 174.4 m. / 572.3 ft.)									
4052	ST. CLAIR SHORES, Michigan	42	28	24	82	52	45	43	147
ST. CLAIR RIVER									
4070	Algonac, Michigan	42	37	15	82	31	37	45	149
4080	St. Clair S.P., St. Clair, Michigan	42	48	45	82	29	09	47	151
4087	Dry Dock, Port Huron, Michigan	42	56	43	82	26	37	49	153
4090	Mouth of the Black River, Port Huron, MI	42	58	27	82	25	14	51	155
4096	Dunn Paper Company, Port Huron, Michigan	43	00	12	82	25	20	53	157
4098	Fort Gratiot, Port Huron, Michigan	43	00	23	82	25	21	55	159
LAKE HURON (CHART DATUM 176.0 m. / 577.5 ft.)									
5002	Lakeport, Michigan	43	08	30	82	29	35	57	161
5014	HARBOR BEACH, Michigan	43	50	45	82	38	38	59	163
5035	Essexville, Michigan	43	38	29	83	50	48	61	165
5059	Harrisville, Michigan	44	39	34	83	17	11	63	167
5080	Mackinaw City, Michigan	45	46	40	84	43	10	65	169
5099	De Tour Village, Michigan	45	59	30	83	53	48	67	171

NOTES: Locations shown in **CAPITAL** letters are master gauges.

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Station Number and Location		Latitude			Longitude			Page	
		North			West			Meters	Feet
ST. MARY'S RIVER									
6060	U.S. Slip below locks, Sault Ste. Marie, MI	46	30	03	84	20	24	69	173
6070	S.W. Pier above locks, Sault Ste. Marie, MI	46	30	05	84	22	21	71	175
LAKE MICHIGAN (CHART DATUM 176.0 m. / 577.5 ft.)									
7023	Ludington, Michigan	43	56	48	86	26	30	73	177
7031	Holland, Michigan	42	46	05	86	12	06	75	179
7044	Calumet Harbor, S. Chicago, Illinois	41	43	48	87	32	18	77	181
7057	Milwaukee, Wisconsin	43	00	05	87	53	13	79	183
7068	Kewaunee, Wisconsin	44	27	48	87	30	00	81	185
7072	Sturgeon Bay Canal, Wisconsin	44	47	40	87	18	48	83	187
7079	Green Bay, Wisconsin	44	32	27	88	00	30	85	189
7096	Port Inland, Michigan	45	58	10	85	52	20	87	191
LAKE SUPERIOR (CHART DATUM 183.2 m. / 601.1 ft.)									
9004	Point Iroquois, Michigan	46	29	06	84	37	52	89	193
9018	MARQUETTE C.G., Michigan	46	32	42	87	22	42	91	195
9044	Ontonagon, Michigan	46	52	40	89	19	15	93	197
9064	Duluth, Minnesota	46	46	32	92	05	34	95	199
9090	Grand Marais, Minnesota	47	44	53	90	20	30	97	201
Lake Ontario Stages at OSWEGO, New York								98	202
Lake Erie Stages at CLEVELAND/FAIRPORT, Ohio								99	203
Lake St. Clair Stages at ST. CLAIR SHORES, Michigan								100	204
Lakes Huron-Michigan Stages at HARBOR BEACH, Michigan								101	205
Lake Superior Stages at MARQUETTE, Michigan								102	206

NOTES: Locations shown in **CAPITAL** letters are master gauges.

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 831-1030 Ogdensburg, New York on St. Lawrence River

HIGHEST

Monthly mean elevation: 75.19 May
Daily mean elevation: 75.35 25 Apr
Instant/hourly elevation: 75.42 1500/25 Apr

LOWEST

Monthly mean elevation: 74.20 Nov
Daily mean elevation: 74.04 25 Nov
Instant/hourly elevation: 73.92 0100/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	74.86	74.82	74.78	75.35	75.28	75.15	74.92	74.79	74.49	74.45	74.33	74.40
Day	25	24	1	25	16	2	12	4	14	4	20	31
Min	74.49	74.64	74.54	74.52	75.08	74.92	74.74	74.47	74.28	74.07	74.04	74.07
Day	1	12	13	1	28	30	25	30	21	31	25	16

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

Elev.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Elev.	No. of days above elev.
75.30				1									75.30	1
75.25				3	1								75.25	5
75.20				5	14								75.20	24
75.15				2	10								75.15	36
75.10				6	3	4							75.10	49
75.05				2	3	2							75.05	56
75.00				2		9							75.00	67
74.95				1		10							74.95	78
74.90						5	2						74.90	85
74.85	1			5			12						74.85	103
74.80	4	2		1			8						74.80	118
74.75	4	7	1				7	5					74.75	142
74.70	7	14	1				2	1					74.70	167
74.65	5	3	9	1				4					74.65	189
74.60	5	2	13					3					74.60	212
74.55	2		6					4					74.55	224
74.50	1		1	1				8					74.50	235
74.45	2							6	10				74.45	253
74.40									6	4			74.40	263
74.35									3	2		1	74.35	269
74.30									9	6	1	3	74.30	288
74.25									2	6	6	5	74.25	307
74.20										8	8	9	74.20	332
74.15										4	9		74.15	354
74.10											2	1	74.10	357
74.05										1	3	3	74.05	364
74.00											1		74.00	365

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 831-1030 Ogdensburg, New York on St. Lawrence River

International
Great Lakes
Datum (1985)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74.49	74.73	74.78	74.52	75.24	75.14	74.88	74.78	74.44	74.36	74.11	74.22
2	74.52	74.76	74.75	74.68	75.18	75.15	74.88	74.77	74.43	74.41	74.18	74.27
3	74.61	74.80	74.70	74.83	75.22	75.11	74.91	74.79	74.48	74.36	74.23	74.29
4	74.66	74.75	74.59	74.87	75.21	75.04	74.88	74.79	74.46	74.45	74.23	74.20
5	74.66	74.74	74.57	74.87	75.22	75.00	74.86	74.76	74.48	74.34	74.20	74.15
6	74.70	74.69	74.66	74.86	75.25	75.07	74.89	74.71	74.44	74.33	74.27	74.19
7	74.71	74.71	74.67	74.87	75.21	75.08	74.87	74.69	74.45	74.35	74.21	74.26
8	74.69	74.72	74.65	74.87	75.22	75.02	74.86	74.69	74.44	74.24	74.28	74.22
9	74.61	74.68	74.67	74.96	75.23	75.04	74.85	74.67	74.46	74.25	74.24	74.24
10	74.57	74.72	74.63	75.08	75.24	75.11	74.89	74.65	74.49	74.27	74.19	74.28
11	74.61	74.64	74.66	75.12	75.25	75.04	74.89	74.66	74.46	74.28	74.23	74.21
12	74.61	74.64	74.62	75.10	75.24	75.03	74.92	74.65	74.48	74.32	74.18	74.21
13	74.50	74.73	74.54	75.16	75.21	75.04	74.90	74.62	74.48	74.27	74.18	74.20
14	74.60	74.74	74.64	75.12	75.20	75.02	74.86	74.59	74.49	74.25	74.22	74.10
15	74.65	74.75	74.66	75.05	75.21	75.05	74.86	74.58	74.44	74.25	74.19	74.08
16	74.68	74.72	74.68	75.13	75.28	75.04	74.84	74.58	74.32	74.24	74.20	74.07
17	74.74	74.78	74.66	75.21	75.22	75.00	74.83	74.56	74.36	74.28	74.19	74.16
18	74.74	74.74	74.62	75.18	75.19	74.99	74.82	74.53	74.38	74.31	74.17	74.20
19	74.77	74.74	74.60	75.13	75.17	74.97	74.80	74.53	74.33	74.22	74.23	74.20
20	74.81	74.72	74.61	75.05	75.17	74.94	74.85	74.54	74.31	74.19	74.33	74.21
21	74.72	74.67	74.64	75.12	75.17	75.00	74.84	74.48	74.28	74.41	74.28	74.19
22	74.75	74.74	74.62	75.13	75.17	74.99	74.84	74.50	74.30	74.43	74.28	74.31
23	74.77	74.79	74.57	75.26	75.14	74.97	74.81	74.48	74.35	74.28	74.11	74.17
24	74.80	74.82	74.57	75.30	75.15	74.95	74.79	74.52	74.33	74.34	74.06	74.24
25	74.86	74.81	74.60	75.35	75.17	74.94	74.74	74.51	74.32	74.17	74.04	74.23
26	74.81	74.80	74.62	75.25	75.16	74.99	74.75	74.50	74.33	74.17	74.06	74.28
27	74.84	74.79	74.63	75.27	75.16	74.98	74.80	74.52	74.33	74.25	74.10	74.19
28	74.74	74.78	74.62	75.22	75.08	74.98	74.76	74.54	74.47	74.24	74.27	74.25
29	74.83		74.64	75.21	75.12	74.94	74.80	74.49	74.36	74.27	74.28	74.31
30	74.75		74.67	75.23	75.10	74.92	74.78	74.47	74.32	74.20	74.22	74.35
31	74.80		74.61		75.10		74.77	74.52		74.07		74.40
Mean	74.70	74.74	74.64	75.07	75.19	75.02	74.84	74.60	74.40	74.28	74.20	74.22
Max. Hr. Day	75.00 0200 25	74.84 1400 24	74.79 0200 1	75.42 1500 25	75.31 0900 16	75.20 1300 1	74.98 1600 12	74.84 1500 3	74.60 0800 28	74.72 0400 4	74.44 2200 28	74.48 1200 31
Min. Hr. Day	74.41 1300 13	74.56 2100 11	74.38 2200 13	74.41 0200 1	75.01 0600 31	74.90 0200 30	74.69 2400 25	74.43 0300 21	74.21 0600 26	74.00 1800 31	73.92 0100 25	74.03 0600 16

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 74.66

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 831-1062 Alexandria Bay C.G., New York on St. Lawrence River

HIGHEST

Monthly mean elevation: 75.41 May
Daily mean elevation: 75.48 25 Apr
Instant/hourly elevation: 75.53 1400/25 Apr

LOWEST

Monthly mean elevation: 74.39 Nov
Daily mean elevation: 74.28 26 Nov
Instant/hourly elevation: 74.17 2400/24 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	75.08	75.14	75.02	75.48	75.47	75.37	75.17	75.01	74.70	74.59	74.48	74.53
Day	29	5	1	25	6	1	3	4	10	4	20	31
Min	74.70	74.91	74.86	74.86	75.33	75.19	75.00	74.70	74.51	74.32	74.28	74.32
Day	2	12	13	1	31	30	31	30	25	31	26	16

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

Elev.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Elev.	No. of days above elev.
75.45				1	3								75.45	4
75.40				7	15								75.40	26
75.35					10	2							75.35	38
75.30				5	3	6							75.30	52
75.25				4		9							75.25	65
75.20				4		10							75.20	79
75.15						3	2						75.15	84
75.10		3		1			10						75.10	98
75.05	2	4		6			10						75.05	120
75.00	4	9	3				6	2					75.00	144
74.95	7	5	11	1			3	3					74.95	174
74.90	5	3	13					3					74.90	198
74.85	2		4	1				5					74.85	210
74.80	5							4					74.80	219
74.75	4							5					74.75	228
74.70	1							8					74.70	237
74.65	1							1	14				74.65	253
74.60									2				74.60	255
74.55									5	5			74.55	265
74.50									9	5		2	74.50	281
74.45										9	2	8	74.45	300
74.40										8	10	13	74.40	331
74.35										3	12	5	74.35	351
74.30										1	3	3	74.30	358
74.25											3		74.25	361

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 831-1062 Alexandria Bay C.G., New York on St. Lawrence River

International
Great Lakes
Datum (1985)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74.72	/	75.02	74.86	75.45	75.37	75.16	75.00	74.68	74.56	74.34	74.41
2	74.70	/	75.01	74.98	75.42	75.36	75.15	75.00	74.67	74.58	74.38	74.46
3	74.78	/	74.99	75.07	75.44	75.35	75.17	75.01	74.70	74.55	74.43	74.46
4	74.81	/	74.90	75.08	75.43	75.31	75.14	75.01	74.69	74.59	74.41	74.40
5	74.82	75.14*	74.90	75.08	75.44	75.28	75.12	74.98	74.70	74.53	74.40	74.38
6	74.86	75.10	74.98	75.08	75.47	75.33	75.14	74.95	74.67	74.52	74.44	74.41
7	74.86	75.11	74.98	75.09	75.44	75.32	75.12	74.94	74.67	74.53	74.40	74.46
8	74.84	75.13	75.00	75.09	75.44	75.29	75.11	74.93	74.67	74.45	74.44	74.43
9	74.79	75.10	75.01	75.13	75.45	75.30	75.10	74.90	74.68	74.46	74.41	74.45
10	74.78	75.07	74.96	75.22	75.45	75.34	75.13	74.88	74.70	74.48	74.37	74.48
11	74.81	74.91	74.99	75.25	75.46	75.31	75.12	74.89	74.67	74.48	74.40	74.43
12	74.82	74.91	74.96	75.24	75.45	75.29	75.14	74.88	74.68	74.51	74.37	74.42
13	74.79	75.00	74.86	75.28	75.44	75.28	75.13	74.86	74.68	74.46	74.38	74.42
14	74.91	75.00	74.95	75.28	75.42	75.27	75.10	74.85	74.68	74.45	74.39	74.35
15	74.94	75.00	74.96	75.23	75.43	75.29	75.10	74.83	74.64	74.44	74.39	74.33
16	74.94	74.98	74.99	75.29	75.46	75.28	75.09	74.83	74.56	74.44	74.38	74.32
17	74.97	75.03	74.97	75.35	75.43	75.25	75.08	74.82	74.59	74.48	74.37	74.38
18	74.94	75.02	74.93	75.34	75.41	75.25	75.06	74.80	74.60	74.49	74.36	74.42
19	74.96	75.01	74.92	75.32	75.40	75.24	75.05	74.79	74.55	74.43	74.41	74.42
20	74.99	75.00	74.93	75.29	75.40	75.21	75.08	74.80	74.53	74.41	74.48	74.42
21	74.94	74.93	74.96	75.34	75.40	75.26	75.07	74.75	74.51	74.58	74.42	74.42
22	74.98	75.01	74.95	75.34	75.39	75.25	75.08	74.75	74.52	74.57	74.42	74.51
23	74.98	75.05	74.91	75.42	75.37	75.23	75.06	74.74	74.56	74.46	74.31	74.39
24	75.01	75.06	74.95	75.43	75.38	75.21	75.04	74.76	74.53	74.50	74.28	74.46
25	75.05	75.03	74.93	75.48	75.39	75.20	75.00	74.75	74.51	74.38	74.28	74.45
26	75.02	75.02	74.94	75.43	75.38	75.23	75.01	74.74	74.54	74.40	74.28	74.48
27	75.06	75.02	74.93	75.45	75.38	75.23	75.04	74.75	74.53	74.45	74.32	74.40
28	74.98	75.02	74.95	75.43	75.34	75.22	75.00	74.76	74.62	74.43	74.46	74.43
29	75.08		74.95	75.43	75.36	75.20	75.02	74.73	74.56	74.46	74.44	74.47
30	74.98		74.95	75.44	75.33	75.19	75.01	74.70	74.52	74.39	74.41	74.49
31	75.04*		74.90		75.33		75.00	74.74		74.32		74.53
Mean	74.91	75.03	74.95	75.26	75.41	75.27	75.08	74.84	74.61	74.48	74.39	74.43
Max. Hr. Day	75.17 0200 25	75.19 1500 16	75.20 0500 8	75.53 1400 25	75.50 0200 16	75.48 1100 27	75.19 1100 3	75.05 0500 4	74.75 0100 10	74.75 0300 4	74.56 1500 20	74.63 0500 22
Min. Hr. Day	74.64 1100 2	74.86 1900 21	74.71 2100 13	74.77 0400 1	75.26 0500 31	75.17 2400 30	74.97 2200 28	74.69 1500 30	74.44 0500 26	74.27 1700 31	74.17 2400 24	74.28 0400 16

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 74.89

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 831-2000 Cape Vincent, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 75.59 May
Daily mean elevation: 75.63 16 May
Instant/hourly elevation: 75.69 2400/15 May

LOWEST

Monthly mean elevation: 74.50 Nov
Daily mean elevation: 74.42 26 Nov
Instant/hourly elevation: 74.37 2300/24 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	75.22	75.21	75.16	75.62	75.63	75.56	75.35	75.15	74.84	74.69	74.56	74.61
Day	29	23	9	30	16	1	3	4	3	1	28	31
Min	74.83	75.06	75.00	75.06	75.51	75.37	75.16	74.86	74.64	74.47	74.42	74.49
Day	2	9	13	1	30	30	31	30	25	31	26	15

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

Elev.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Elev.	No. of days above elev.
75.60				1	14								75.60	15
75.55					13	1							75.55	29
75.50				1	4	4							75.50	38
75.45				5		10							75.45	53
75.40				1		7							75.40	61
75.35				3		8							75.35	72
75.30				2			5						75.30	79
75.25				1			10						75.25	90
75.20	1	1		7			8						75.20	107
75.15	1	5	1	1			8						75.15	123
75.10	7	11	13					5					75.10	159
75.05	4	3	15	1				5					75.05	187
75.00	4		1					4					75.00	196
74.95	1		1					6					74.95	204
74.90	5							6					74.90	215
74.85	3							5					74.85	223
74.80	1								11				74.80	235
74.75									4				74.75	239
74.70									4				74.70	243
74.65									10	5			74.65	258
74.60									1	7		1	74.60	267
74.55										14	2	13	74.55	296
74.50										4	15	15	74.50	330
74.45										1	9	2	74.45	342
74.40											4		74.40	346

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 831-2000 Cape Vincent, New York on Lake Ontario

International
Great Lakes
Datum (1985)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74.87	75.09*	75.14	75.06	75.62	75.56	75.34	75.15	74.84	74.69	74.50	74.53
2	74.83	75.17*	75.14	75.16	75.59	75.53	75.34	75.15	74.83	74.68	74.51	74.56
3	74.88	75.19	75.13	75.22	75.60	75.51	75.35	75.15	74.84	74.68	74.55	74.55
4	74.89	75.16	75.04	75.22	75.59	75.49	75.32	75.15	74.83	74.68	74.53	74.52
5	74.92	75.14	75.07	75.22	75.61	75.48	75.30	75.13	74.83	74.64	74.53	74.52
6	74.95	75.11*	75.13	75.22	75.62	75.51	75.31	75.10	74.81	74.64	74.54	74.54
7	74.96	/	75.12	75.23	75.61	75.50	75.29	75.10	74.82	74.63	74.53	74.57
8	74.94	75.13*	75.12	75.23	75.61	75.47	75.29	75.09	74.81	74.59	74.54	74.55
9	74.91	75.06*	75.16	75.25	75.61	75.49	75.28	75.07	74.82	74.60	74.52	74.57
10	74.91	/	75.11	75.30	75.61	75.51	75.29	75.06	74.83	74.60	74.49	74.59
11	/	/	75.13	75.32	75.62	75.49	75.27	75.05	74.80	74.61	74.52	74.56
12	/	/	75.09	75.33	75.61	75.48	75.30	75.05	74.82	74.63	74.49	74.56
13	/	/	75.00	75.37	75.63	75.46	75.28	75.03	74.80	74.58	74.51	74.55
14	/	/	75.12	75.38	75.61	75.45	75.26	75.02	74.79	74.58	74.50	74.51
15	75.03	75.13*	75.10	75.37	75.62	75.47	75.26	75.00	74.77	74.57	74.51	74.49
16	75.05	75.10	75.13	75.42	75.63	75.46	75.25	75.00	74.72	74.57	74.49	74.50
17	75.09	75.15	75.11	75.47	75.61	75.43	75.24	74.99	74.74	74.62	74.49	74.52
18	75.04*	75.15	75.08	75.46	75.59	75.43	75.21	74.98	74.74	74.60	74.48	74.54
19	75.05	75.18	75.07	75.46	75.59	75.42	75.22	74.97	74.69	74.56	74.52	74.54
20	75.09	75.15*	75.08	75.46	75.59	75.40	75.24	74.96	74.67	74.56	74.56	74.54
21	75.06	/	75.11	75.51	75.59	75.43	75.23	74.93	74.66	74.68	74.52	74.56
22	75.11	/	75.09	75.50*	75.58	75.43	75.23	74.92	74.66	74.64	74.50	74.60
23	75.10	75.21*	75.06	/	75.56	75.42	75.22	74.91	74.69	74.58	74.45	74.54
24	75.15	75.19	75.07	/	75.56	75.39	75.20	74.92	74.66	74.60	74.43	74.59
25	75.15	75.15	75.08	/	75.58	75.39	75.17	74.92	74.64	74.52	74.44	74.58
26	75.15	75.12	75.08	/	75.56	75.40	75.18	74.90	74.67	74.55	74.42	74.57
27	75.17	75.13	75.08	/	75.56	75.39	75.18	74.90	74.66	74.58	74.46	74.53
28	75.13	75.13	75.08	/	75.55	75.39	75.16	74.91	74.72	74.55	74.56	74.54
29	75.22		75.10	/	75.55	75.38	75.16	74.88	74.68	74.57	74.53	74.56
30	75.12		75.11	75.62*	75.51	75.37	75.16	74.86	74.66	74.52	74.51	74.57
31	75.14		75.06		75.54		75.16	74.88		74.47		74.61
Mean	75.03	75.14	75.10	75.34	75.59	75.45	75.25	75.00	74.75	74.60	74.50	74.55
Max. Hr. Day	75.29 2300 24	75.23 2100 23	75.18 1100 9	75.64 1400 30	75.69 2400 15	75.62 1000 1	75.37 0800 1	75.23 1100 2	74.90 2400 9	74.88 2400 17	74.66 2400 5	74.75 0300 22
Min. Hr. Day	74.78 1000 2	75.02 2300 5	74.84 2100 13	74.98 0300 1	75.44 0300 31	75.34 2300 30	75.13 1300 26	74.83 2100 28	74.55 0300 26	74.43 1400 31	74.37 2300 24	74.45 0200 16

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 75.03

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 905-2030 Oswego, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 75.60 May
Daily mean elevation: 75.65 7 May
Instant/hourly elevation: 75.69 2400/12 May

LOWEST

Monthly mean elevation: 74.51 Nov
Daily mean elevation: 74.44 26 Nov
Instant/hourly elevation: 74.35 0500/27 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Max | 75.24 | 75.21 | 75.22 | 75.63 | 75.65 | 75.53 | 75.35 | 75.15 | 74.85 | 74.66 | 74.57 | 74.64 |
| Day | 29    | 24    | 14    | 30    | 7     | 1     | 1     | 1     | 11    | 5     | 20    | 26    |
| Min | 74.82 | 75.09 | 75.09 | 75.16 | 75.51 | 75.37 | 75.13 | 74.87 | 74.64 | 74.53 | 74.44 | 74.50 |
| Day | 3     | 12    | 23    | 1     | 31    | 30    | 26    | 31    | 25    | 31    | 26    | 2     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|----------------------------|
| 75.60 | | | | 5 | 17 | | | | | | | | 75.60 | 22 |
| 75.55 | | | | 3 | 9 | | | | | | | | 75.55 | 34 |
| 75.50 | | | | 2 | 5 | 4 | | | | | | | 75.50 | 45 |
| 75.45 | | | | 4 | | 9 | | | | | | | 75.45 | 58 |
| 75.40 | | | | 3 | | 10 | | | | | | | 75.40 | 71 |
| 75.35 | | | | 2 | | 7 | | | | | | | 75.35 | 80 |
| 75.30 | | | | 2 | | | 4 | | | | | | 75.30 | 86 |
| 75.25 | | | | 2 | | | 12 | | | | | | 75.25 | 100 |
| 75.20 | 1 | 1 | 1 | 5 | | | 7 | | | | | | 75.20 | 115 |
| 75.15 | 4 | 15 | 6 | 2 | | | 5 | | | | | | 75.15 | 147 |
| 75.10 | 4 | 10 | 19 | | | | 3 | | | | | | 75.10 | 189 |
| 75.05 | 5 | 2 | 5 | | | | | 6 | | | | | 75.05 | 204 |
| 75.00 | 4 | | | | | | | 3 | | | | | 75.00 | 214 |
| 74.95 | 7 | | | | | | | 6 | | | | | 74.95 | 226 |
| 74.90 | 3 | | | | | | | 5 | | | | | 74.90 | 236 |
| 74.85 | 2 | | | | | | | 7 | | | | | 74.85 | 242 |
| 74.80 | 1 | | | | | | | 4 | | | | | 74.80 | 253 |
| 74.75 | | | | | | | | | 10 | | | | 74.75 | 258 |
| 74.70 | | | | | | | | | 5 | | | | 74.70 | 262 |
| 74.65 | | | | | | | | | 4 | | | | 74.65 | 273 |
| 74.60 | | | | | | | | | 9 | 2 | | | 74.60 | 288 |
| 74.55 | | | | | | | | | 2 | 10 | | 3 | 74.55 | 317 |
| 74.50 | | | | | | | | | | 13 | 3 | 13 | 74.50 | 348 |
| 74.45 | | | | | | | | | | 6 | 11 | 14 | 74.45 | 363 |
| 74.40 | | | | | | | | | | | 14 | 1 | 74.40 | 365 |
| | | | | | | | | | | | 2 | | | |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 905-2030 Oswego, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 | 74.92 | 75.19 | 75.17 | 75.16 | 75.64 | 75.53 | 75.35 | 75.15 | 74.84 | 74.62 | 74.57 | 74.51 |
| 2 | 74.87 | 75.16 | 75.16 | 75.20 | 75.64 | 75.51 | 75.32 | 75.13 | 74.81 | 74.64 | 74.52 | 74.50 |
| 3 | 74.82 | 75.19 | 75.17 | 75.24 | 75.62 | 75.51 | 75.32 | 75.13 | 74.84 | 74.65 | 74.51 | 74.55 |
| 4 | 74.86 | 75.18 | 75.13 | 75.25 | 75.62 | 75.50 | 75.32 | 75.14 | 74.83 | 74.66 | 74.51 | 74.54 |
| 5 | 74.95 | 75.18 | 75.12 | 75.24 | 75.64 | 75.49 | 75.30 | 75.14 | 74.84 | 74.66 | 74.51 | 74.57 |
| 6 | 74.95 | 75.15 | 75.16 | 75.25 | 75.65 | 75.52 | 75.29 | 75.11 | 74.84 | 74.62 | 74.56 | 74.55 |
| 7 | 74.96 | 75.13 | 75.14 | 75.25 | 75.65 | 75.49 | 75.29 | 75.09 | 74.83 | 74.62 | 74.53 | 74.59 |
| 8 | 74.97 | 75.15 | 75.14 | 75.26 | 75.64 | 75.48 | 75.28 | 75.08 | 74.81 | 74.62 | 74.50 | 74.56 |
| 9 | 74.97 | 75.12 | 75.18 | 75.26 | 75.63 | 75.49 | 75.28 | 75.06 | 74.79 | 74.64 | 74.51 | 74.55 |
| 10 | 74.96 | 75.14 | 75.15 | 75.32 | 75.63 | 75.50 | 75.30 | 75.04 | 74.84 | 74.63 | 74.50 | 74.56 |
| 11 | 74.98 | 75.11 | 75.18 | 75.35 | 75.64 | 75.50 | 75.28 | 75.03 | 74.85 | 74.59 | 74.50 | 74.63 |
| 12 | 74.99 | 75.09 | 75.14 | 75.38 | 75.64 | 75.48 | 75.30 | 75.02 | 74.78 | 74.60 | 74.52 | 74.58 |
| 13 | 75.00 | 75.16 | 75.15 | 75.39 | 75.63 | 75.47 | 75.28 | 75.02 | 74.77 | 74.60 | 74.47 | 74.57 |
| 14 | 75.03 | 75.15 | 75.22 | 75.41 | 75.62 | 75.45 | 75.26 | 75.01 | 74.75 | 74.58 | 74.50 | 74.56 |
| 15 | 75.04 | 75.13 | 75.14 | 75.41 | 75.62 | 75.45 | 75.27 | 75.01 | 74.78 | 74.57 | 74.52 | 74.56 |
| 16 | 75.05 | 75.13 | 75.10 | 75.43 | 75.62 | 75.45 | 75.27 | 75.00 | 74.76 | 74.56 | 74.50 | 74.57 |
| 17 | 75.09 | 75.18 | 75.15 | 75.46 | 75.61 | 75.43 | 75.24 | 74.99 | 74.74 | 74.58 | 74.50 | 74.54 |
| 18 | 75.08 | 75.18 | 75.12 | 75.48 | 75.60 | 75.42 | 75.22 | 74.98 | 74.74 | 74.61 | 74.50 | 74.54 |
| 19 | 75.09 | 75.16 | 75.10 | 75.48 | 75.60 | 75.42 | 75.21 | 74.96 | 74.72 | 74.58 | 74.48 | 74.55 |
| 20 | 75.09 | 75.15 | 75.09 | 75.48 | 75.60 | 75.41 | 75.22 | 74.97 | 74.68 | 74.56 | 74.57 | 74.54 |
| 21 | 75.04 | 75.10 | 75.12 | 75.54 | 75.59 | 75.42 | 75.24 | 74.94 | 74.67 | 74.60 | 74.49 | 74.59 |
| 22 | 75.09 | 75.16 | 75.12 | 75.57 | 75.58 | 75.44 | 75.23 | 74.92 | 74.66 | 74.62 | 74.49 | 74.63 |
| 23 | 75.11 | 75.20 | 75.09 | 75.59 | 75.56 | 75.42 | 75.22 | 74.92 | 74.67 | 74.57 | 74.49 | 74.57 |
| 24 | 75.12 | 75.21 | 75.10 | 75.55 | 75.55 | 75.40 | 75.19 | 74.91 | 74.67 | 74.56 | 74.50 | 74.54 |
| 25 | 75.19 | 75.16 | 75.11 | 75.58 | 75.56 | 75.39 | 75.17 | 74.91 | 74.64 | 74.56 | 74.47 | 74.57 |
| 26 | 75.12 | 75.16 | 75.11 | 75.62 | 75.56 | 75.40 | 75.13 | 74.91 | 74.65 | 74.53 | 74.44 | 74.64 |
| 27 | 75.17 | 75.16 | 75.11 | 75.61 | 75.55 | 75.38 | 75.16 | 74.90 | 74.67 | 74.55 | 74.45 | 74.55 |
| 28 | 75.14 | 75.17 | 75.12 | 75.62 | 75.54 | 75.39 | 75.14 | 74.92 | 74.69 | 74.55 | 74.55 | 74.55 |
| 29 | 75.24 | | 75.13 | 75.63 | 75.56 | 75.38 | 75.15 | 74.90 | 74.69 | 74.55 | 74.54 | 74.52 |
| 30 | 75.17 | | 75.14 | 75.63 | 75.52 | 75.37 | 75.16 | 74.87 | 74.67 | 74.54 | 74.54 | 74.60 |
| 31 | 75.19 | | 75.14 | | 75.51 | | 75.17 | 74.87 | | 74.53 | | 74.55 |
| Mean | 75.04 | 75.16 | 75.14 | 75.42 | 75.60 | 75.45 | 75.24 | 75.00 | 74.75 | 74.59 | 74.51 | 74.56 |
| Max.
Hr.
Day | 75.30
1200
29 | 75.25
2200
3 | 75.31
0400
14 | 75.66
0100
30 | 75.69
2400
12 | 75.57
1000
9 | 75.38
1000
1 | 75.17
0200
1 | 74.91
2200
3 | 74.73
2000
7 | 74.65
1700
20 | 74.72
0400
22 |
| Min.
Hr.
Day | 74.78
2000
3 | 75.04
1800
21 | 75.04
2200
16 | 75.11
0400
1 | 75.46
0500
31 | 75.35
2400
30 | 75.01
1200
26 | 74.81
1000
31 | 74.55
0400
26 | 74.48
2300
20 | 74.35
0500
27 | 74.47
0900
2 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 75.04

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 905-2058 Rochester, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 75.60 May
Daily mean elevation: 75.65 8 May
Instant/hourly elevation: 75.69 0100/30 Apr

LOWEST

Monthly mean elevation: 74.51 Nov
Daily mean elevation: 74.47 27 Nov
Instant/hourly elevation: 74.39 0800/27 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Max Day | 75.17
31 | 75.19
24 | 75.22
13 | 75.64
30 | 75.65
8 | 75.52
2 | 75.36
1 | 75.14
1 | 74.87
4 | 74.64
9 | 74.56
1 | 74.61
11 |
| Min Day | 74.85
3 | 75.12
12 | 75.11
26 | 75.18
1 | 75.52
31 | 75.37
30 | 75.12
26 | 74.84
31 | 74.64
26 | 74.53
29 | 74.47
27 | 74.52
2 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|----------------------------|
| 75.60 | | | | 5 | 18 | | | | | | | | 75.60 | 23 |
| 75.55 | | | | 3 | 8 | | | | | | | | 75.55 | 34 |
| 75.50 | | | | 2 | 5 | 4 | | | | | | | 75.50 | 45 |
| 75.45 | | | | 3 | | 12 | | | | | | | 75.45 | 60 |
| 75.40 | | | | 4 | | 9 | | | | | | | 75.40 | 73 |
| 75.35 | | | | 2 | | 5 | 1 | | | | | | 75.35 | 81 |
| 75.30 | | | | 2 | | | 3 | | | | | | 75.30 | 86 |
| 75.25 | | | | 4 | | | 9 | | | | | | 75.25 | 99 |
| 75.20 | | | 1 | 3 | | | 8 | | | | | | 75.20 | 111 |
| 75.15 | 3 | 12 | 6 | 2 | | | 6 | | | | | | 75.15 | 140 |
| 75.10 | 5 | 16 | 24 | | | | 4 | 5 | | | | | 75.10 | 194 |
| 75.05 | 7 | | | | | | | 3 | | | | | 75.05 | 204 |
| 75.00 | 5 | | | | | | | 7 | | | | | 75.00 | 216 |
| 74.95 | 4 | | | | | | | 6 | | | | | 74.95 | 226 |
| 74.90 | 3 | | | | | | | 6 | | | | | 74.90 | 235 |
| 74.85 | 3 | | | | | | | 3 | 2 | | | | 74.85 | 243 |
| 74.80 | 1 | | | | | | | 1 | 8 | | | | 74.80 | 253 |
| 74.75 | | | | | | | | | 6 | | | | 74.75 | 259 |
| 74.70 | | | | | | | | | 3 | | | | 74.70 | 262 |
| 74.65 | | | | | | | | | 9 | | | | 74.65 | 271 |
| 74.60 | | | | | | | | | 2 | 9 | | 1 | 74.60 | 283 |
| 74.55 | | | | | | | | | | 17 | 1 | 17 | 74.55 | 318 |
| 74.50 | | | | | | | | | | 5 | 15 | 13 | 74.50 | 351 |
| 74.45 | | | | | | | | | | | 14 | | 74.45 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 905-2058 Rochester, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 | 74.88 | 75.19 | 75.16 | 75.18 | 75.64 | 75.52 | 75.36 | 75.14 | 74.86 | 74.62 | 74.56 | 74.54 |
| 2 | 74.86 | 75.16 | 75.16 | 75.20 | 75.64 | 75.52 | 75.33 | 75.11 | 74.83 | 74.63 | 74.53 | 74.52 |
| 3 | 74.85 | 75.15 | 75.16 | 75.23 | 75.64 | 75.51 | 75.32 | 75.11 | 74.84 | 74.62 | 74.50 | 74.54 |
| 4 | 74.87 | 75.17 | 75.17 | 75.24 | 75.64 | 75.51 | 75.32 | 75.12 | 74.87 | 74.63 | 74.50 | 74.56 |
| 5 | 74.94 | 75.17 | 75.15 | 75.25 | 75.64 | 75.50 | 75.30 | 75.12 | 74.85 | 74.64 | 74.51 | 74.58 |
| 6 | 74.94 | 75.17 | 75.14 | 75.26 | 75.65 | 75.50 | 75.29 | 75.09 | 74.85 | 74.61 | 74.53 | 74.56 |
| 7 | 74.95 | 75.14 | 75.14 | 75.27 | 75.65 | 75.50 | 75.29 | 75.07 | 74.82 | 74.60 | 74.52 | 74.57 |
| 8 | 74.99 | 75.15 | 75.14 | 75.28 | 75.65 | 75.49 | 75.30 | 75.06 | 74.81 | 74.62 | 74.50 | 74.57 |
| 9 | 74.99 | 75.14 | 75.15 | 75.28 | 75.64 | 75.49 | 75.30 | 75.05 | 74.78 | 74.64 | 74.51 | 74.56 |
| 10 | 74.98 | 75.14 | 75.15 | 75.32 | 75.64 | 75.50 | 75.30 | 75.03 | 74.82 | 74.62 | 74.51 | 74.56 |
| 11 | 74.99 | 75.14 | 75.15 | 75.35 | 75.64 | 75.50 | 75.28 | 75.03 | 74.83 | 74.60 | 74.50 | 74.61 |
| 12 | 75.01 | 75.12 | 75.15 | 75.37 | 75.64 | 75.49 | 75.28 | 75.03 | 74.79 | 74.59 | 74.51 | 74.58 |
| 13 | 75.02 | 75.14 | 75.22 | 75.39 | 75.64 | 75.47 | 75.27 | 75.04 | 74.77 | 74.60 | 74.50 | 74.57 |
| 14 | 75.03 | 75.14 | 75.19 | 75.42 | 75.63 | 75.46 | 75.25 | 75.03 | 74.76 | 74.58 | 74.51 | 74.57 |
| 15 | 75.03 | 75.13 | 75.14 | 75.43 | 75.62 | 75.46 | 75.25 | 75.01 | 74.79 | 74.57 | 74.51 | 74.56 |
| 16 | 75.04 | 75.15 | 75.12 | 75.42 | 75.62 | 75.46 | 75.25 | 75.00 | 74.77 | 74.57 | 74.51 | 74.56 |
| 17 | 75.06 | 75.15 | 75.15 | 75.45 | 75.62 | 75.44 | 75.24 | 74.99 | 74.73 | 74.57 | 74.50 | 74.55 |
| 18 | 75.08 | 75.15 | 75.13 | 75.48 | 75.61 | 75.43 | 75.21 | 74.98 | 74.72 | 74.60 | 74.51 | 74.54 |
| 19 | 75.07 | 75.15 | 75.11 | 75.49 | 75.60 | 75.42 | 75.20 | 74.97 | 74.72 | 74.60 | 74.48 | 74.55 |
| 20 | 75.07 | 75.15 | 75.11 | 75.50 | 75.60 | 75.41 | 75.21 | 74.98 | 74.69 | 74.57 | 74.50 | 74.54 |
| 21 | 75.08 | 75.14 | 75.11 | 75.53 | 75.59 | 75.42 | 75.22 | 74.97 | 74.68 | 74.57 | 74.49 | 74.56 |
| 22 | 75.09 | 75.16 | 75.12 | 75.54 | 75.58 | 75.44 | 75.22 | 74.94 | 74.66 | 74.58 | 74.49 | 74.57 |
| 23 | 75.10 | 75.17 | 75.11 | 75.56 | 75.57 | 75.43 | 75.20 | 74.93 | 74.66 | 74.58 | 74.51 | 74.58 |
| 24 | 75.11 | 75.19 | 75.12 | 75.56 | 75.56 | 75.42 | 75.18 | 74.93 | 74.67 | 74.56 | 74.50 | 74.54 |
| 25 | 75.15 | 75.18 | 75.11 | 75.58 | 75.57 | 75.39 | 75.16 | 74.93 | 74.66 | 74.57 | 74.48 | 74.55 |
| 26 | 75.13 | 75.17 | 75.11 | 75.61 | 75.56 | 75.40 | 75.12 | 74.92 | 74.64 | 74.55 | 74.47 | 74.56 |
| 27 | 75.14 | 75.17 | 75.12 | 75.62 | 75.55 | 75.40 | 75.14 | 74.89 | 74.66 | 74.55 | 74.47 | 74.55 |
| 28 | 75.15 | 75.17 | 75.12 | 75.63 | 75.54 | 75.41 | 75.15 | 74.91 | 74.65 | 74.55 | 74.52 | 74.55 |
| 29 | 75.16 | | 75.13 | 75.63 | 75.54 | 75.39 | 75.15 | 74.90 | 74.68 | 74.53 | 74.52 | 74.53 |
| 30 | 75.16 | | 75.14 | 75.64 | 75.53 | 75.37 | 75.16 | 74.86 | 74.66 | 74.54 | 74.54 | 74.56 |
| 31 | 75.17 | | 75.16 | | 75.52 | | 75.17 | 74.84 | | 74.56 | | 74.53 |
| Mean | 75.04 | 75.16 | 75.14 | 75.42 | 75.60 | 75.46 | 75.24 | 75.00 | 74.75 | 74.59 | 74.51 | 74.56 |
| Max.
Hr.
Day | 75.22
2200
31 | 75.24
0100
1 | 75.35
2400
13 | 75.69
0100
30 | 75.68
2400
6 | 75.59
0300
10 | 75.38
0200
1 | 75.18
0100
1 | 74.94
0200
4 | 74.70
1400
9 | 74.59
0800
28 | 74.65
1600
11 |
| Min.
Hr.
Day | 74.81
0100
3 | 75.08
1600
2 | 75.07
0900
23 | 75.15
1000
1 | 75.48
0100
31 | 75.34
1000
30 | 75.02
1200
26 | 74.79
0600
31 | 74.58
0100
23 | 74.45
2100
30 | 74.39
0800
27 | 74.48
0300
3 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 75.04

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 905-2076 Olcott, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 75.61 May
Daily mean elevation: 75.66 4 May
Instant/hourly elevation: 75.70 1700/7 May

LOWEST

Monthly mean elevation: 74.52 Nov
Daily mean elevation: 74.47 20 Nov
Instant/hourly elevation: 74.44 1300/20 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Max | 75.17 | 75.21 | 75.21 | 75.64 | 75.66 | 75.52 | 75.36 | 75.12 | 74.87 | 74.65 | 74.55 | 74.58 |
| Day | 30 | 21 | 4 | 30 | 4 | 2 | 2 | 3 | 4 | 1 | 30 | 23 |
| Min | 74.85 | 75.12 | 75.11 | 75.21 | 75.52 | 75.37 | 75.14 | 74.86 | 74.64 | 74.55 | 74.47 | 74.53 |
| Day | 1 | 13 | 21 | 2 | 29 | 30 | 31 | 31 | 28 | 30 | 20 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|----------------------------|
| 75.65 | | | | | 1 | | | | | | | | 75.65 | 1 |
| 75.60 | | | | 5 | 17 | | | | | | | | 75.60 | 23 |
| 75.55 | | | | 2 | 7 | | | | | | | | 75.55 | 32 |
| 75.50 | | | | 4 | 6 | 8 | | | | | | | 75.50 | 50 |
| 75.45 | | | | 2 | | 8 | | | | | | | 75.45 | 60 |
| 75.40 | | | | 4 | | 10 | | | | | | | 75.40 | 74 |
| 75.35 | | | | 2 | | 4 | 2 | | | | | | 75.35 | 82 |
| 75.30 | | | | 3 | | | 6 | | | | | | 75.30 | 91 |
| 75.25 | | | | 4 | | | 6 | | | | | | 75.25 | 101 |
| 75.20 | | | | 4 | | | 4 | | | | | | 75.20 | 111 |
| 75.15 | 2 | 1 | 1 | | | | 7 | | | | | | 75.15 | 144 |
| 75.10 | 6 | 15 | 9 | | | | 6 | | | | | | 75.10 | 193 |
| 75.05 | 7 | 12 | 21 | | | | | 4 | | | | | 75.05 | 206 |
| 75.00 | 8 | | | | | | | 6 | | | | | 75.00 | 220 |
| 74.95 | 2 | | | | | | | 6 | | | | | 74.95 | 228 |
| 74.90 | 2 | | | | | | | 4 | | | | | 74.90 | 234 |
| 74.85 | 3 | | | | | | | 5 | 3 | | | | 74.85 | 245 |
| 74.80 | 1 | | | | | | | | 8 | | | | 74.80 | 254 |
| 74.75 | | | | | | | | | 4 | | | | 74.75 | 258 |
| 74.70 | | | | | | | | | 4 | | | | 74.70 | 262 |
| 74.65 | | | | | | | | | 8 | | | | 74.65 | 270 |
| 74.60 | | | | | | | | | 3 | 12 | | | 74.60 | 285 |
| 74.55 | | | | | | | | | | 16 | | 21 | 74.55 | 322 |
| 74.50 | | | | | | | | | | 3 | 26 | 10 | 74.50 | 361 |
| 74.45 | | | | | | | | | | | 4 | | 74.45 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 905-2076 Olcott, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 | 74.85 | 75.17 | 75.17 | 75.22 | 75.64 | 75.52 | 75.36 | 75.12 | 74.86 | 74.65 | 74.53 | 74.56 |
| 2 | 74.87 | 75.16 | 75.16 | 75.21 | 75.65 | 75.52 | 75.36 | 75.12 | 74.85 | 74.64 | 74.54 | 74.56 |
| 3 | 74.88 | 75.13 | 75.17 | 75.22 | 75.65 | 75.51 | 75.33 | 75.12 | 74.86 | 74.62 | 74.53 | 74.54 |
| 4 | 74.89 | 75.14 | 75.21 | 75.24 | 75.66 | 75.51 | 75.34 | 75.11 | 74.87 | 74.62 | 74.53 | 74.57 |
| 5 | 74.92 | 75.15 | 75.18 | 75.26 | 75.65 | 75.51 | 75.33 | 75.10 | 74.85 | 74.62 | 74.53 | 74.56 |
| 6 | 74.94 | 75.18 | 75.14 | 75.27 | 75.65 | 75.50 | 75.32 | 75.09 | 74.83 | 74.63 | 74.52 | 74.57 |
| 7 | 74.96 | 75.15 | 75.16 | 75.28 | 75.65 | 75.50 | 75.33 | 75.07 | 74.82 | 74.62 | 74.52 | 74.57 |
| 8 | 74.98 | 75.15 | 75.16 | 75.30 | 75.65 | 75.51 | 75.32 | 75.06 | 74.81 | 74.62 | 74.51 | 74.58 |
| 9 | 75.01 | 75.16 | 75.14 | 75.31 | 75.64 | 75.51 | 75.30 | 75.06 | 74.81 | 74.62 | 74.51 | 74.58 |
| 10 | 75.02 | 75.14 | 75.16 | 75.32 | 75.64 | 75.51 | 75.29 | 75.05 | 74.81 | 74.61 | 74.52 | 74.58 |
| 11 | 75.02 | 75.17 | 75.14 | 75.34 | 75.63 | 75.50 | 75.28 | 75.06 | 74.81 | 74.62 | 74.51 | 74.57 |
| 12 | 75.02 | 75.17 | 75.15 | 75.37 | 75.63 | 75.49 | 75.27 | 75.05 | 74.79 | 74.60 | 74.51 | 74.57 |
| 13 | 75.05 | 75.12 | 75.17 | 75.39 | 75.63 | 75.49 | 75.26 | 75.03 | 74.79 | 74.60 | 74.52 | 74.58 |
| 14 | 75.04 | 75.13 | 75.11 | 75.41 | 75.63 | 75.48 | 75.26 | 75.02 | 74.78 | 74.59 | 74.51 | 74.58 |
| 15 | 75.05 | 75.14 | 75.13 | 75.45 | 75.63 | 75.47 | 75.24 | 75.02 | 74.78 | 74.59 | 74.51 | 74.58 |
| 16 | 75.06 | 75.16 | 75.13 | 75.45 | 75.61 | 75.46 | 75.24 | 75.01 | 74.75 | 74.59 | 74.52 | 74.57 |
| 17 | 75.05 | 75.14 | 75.13 | 75.45 | 75.61 | 75.45 | 75.22 | 75.00 | 74.72 | 74.58 | 74.51 | 74.56 |
| 18 | 75.06 | 75.14 | 75.13 | 75.48 | 75.61 | 75.44 | 75.21 | 75.00 | 74.71 | 74.59 | 74.52 | 74.56 |
| 19 | 75.07 | 75.14 | 75.14 | 75.49 | 75.59 | 75.44 | 75.20 | 75.00 | 74.71 | 74.61 | 74.51 | 74.55 |
| 20 | 75.06 | 75.16 | 75.13 | 75.52 | 75.59 | 75.43 | 75.20 | 74.99 | 74.70 | 74.60 | 74.47 | 74.57 |
| 21 | 75.11 | 75.21 | 75.11 | 75.53 | 75.59 | 75.43 | 75.20 | 74.97 | 74.68 | 74.57 | 74.49 | 74.55 |
| 22 | 75.10 | 75.17 | 75.12 | 75.53 | 75.58 | 75.43 | 75.19 | 74.96 | 74.68 | 74.56 | 74.50 | 74.54 |
| 23 | 75.10 | 75.16 | 75.14 | 75.54 | 75.58 | 75.43 | 75.18 | 74.95 | 74.66 | 74.59 | 74.52 | 74.58 |
| 24 | 75.10 | 75.17 | 75.13 | 75.59 | 75.58 | 75.42 | 75.17 | 74.94 | 74.66 | 74.56 | 74.51 | 74.56 |
| 25 | 75.12 | 75.19 | 75.12 | 75.60 | 75.57 | 75.42 | 75.16 | 74.92 | 74.66 | 74.58 | 74.50 | 74.54 |
| 26 | 75.14 | 75.19 | 75.12 | 75.61 | 75.55 | 75.41 | 75.14 | 74.92 | 74.65 | 74.58 | 74.51 | 74.53 |
| 27 | 75.13 | 75.18 | 75.13 | 75.62 | 75.54 | 75.40 | 75.15 | 74.90 | 74.66 | 74.55 | 74.52 | 74.55 |
| 28 | 75.16 | 75.17 | 75.13 | 75.64 | 75.55 | 75.40 | 75.15 | 74.90 | 74.64 | 74.56 | 74.51 | 74.56 |
| 29 | 75.11 | | 75.13 | 75.64 | 75.52 | 75.38 | 75.14 | 74.88 | 74.66 | 74.55 | 74.54 | 74.54 |
| 30 | 75.17 | | 75.14 | 75.64 | 75.53 | 75.37 | 75.15 | 74.87 | 74.65 | 74.55 | 74.55 | 74.54 |
| 31 | 75.13 | | 75.18 | | 75.53 | | 75.14 | 74.86 | | 74.56 | | 74.53 |
| Mean | 75.04 | 75.16 | 75.14 | 75.43 | 75.61 | 75.46 | 75.24 | 75.00 | 74.75 | 74.59 | 74.52 | 74.56 |
| Max.
Hr.
Day | 75.25
2300
31 | 75.26
1500
21 | 75.24
2200
4 | 75.68
2200
29 | 75.70
1700
7 | 75.56
0900
9 | 75.39
1500
1 | 75.16
2200
3 | 74.92
0500
4 | 74.69
0900
2 | 74.60
1700
23 | 74.62
1400
2 |
| Min.
Hr.
Day | 74.82
0100
2 | 75.05
0700
16 | 75.08
0700
17 | 75.20
0900
2 | 75.47
1700
31 | 75.34
1900
29 | 75.09
0900
26 | 74.79
1200
31 | 74.56
0400
28 | 74.49
2300
17 | 74.44
1300
20 | 74.47
0100
22 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 75.04

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3007 Ashland Avenue, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 99.09 Apr
Daily mean elevation: 100.43 31 Jan
Instant/hourly elevation: 102.05 0700/31 Jan

LOWEST

Monthly mean elevation: 96.61 Dec
Daily mean elevation: 95.96 5 Dec
Instant/hourly elevation: 95.87 2100/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Max | 100.43 | 99.40 | 98.77 | 99.56 | 99.49 | 99.23 | 99.38 | 98.98 | 99.50 | 99.08 | 98.05 | 98.26 |
| Day | 31 | 3 | 30 | 3 | 15 | 1 | 30 | 4 | 28 | 21 | 20 | 30 |
| Min | 96.64 | 96.86 | 96.45 | 98.61 | 98.65 | 98.22 | 98.26 | 98.17 | 97.87 | 97.85 | 95.97 | 95.96 |
| Day | 10 | 11 | 4 | 1 | 23 | 20 | 1 | 13 | 30 | 19 | 26 | 5 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 100.40 | 2 | | | | | | | | | | | | 100.40 | 2 |
| 100.20 | | | | | | | | | | | | | 100.20 | 2 |
| 100.00 | | | | | | | | | | | | | 100.00 | 2 |
| 99.80 | | | | | | | | | | | | | 99.80 | 2 |
| 99.60 | | | | | | | | | | | | | 99.60 | 2 |
| 99.40 | 1 | | | 3 | 2 | | | | 1 | | | | 99.40 | 9 |
| 99.20 | 1 | 2 | | 5 | 6 | 1 | 1 | | | | | | 99.20 | 25 |
| 99.00 | 1 | | | 10 | 8 | | 2 | | | 1 | | | 99.00 | 47 |
| 98.80 | 4 | 1 | | 11 | 11 | 6 | 4 | 4 | | 2 | | | 98.80 | 90 |
| 98.60 | 1 | 2 | 2 | 1 | 4 | 7 | 14 | | 1 | | | | 98.60 | 122 |
| 98.40 | 6 | 2 | 4 | | | 10 | 5 | 2 | 2 | | | | 98.40 | 153 |
| 98.20 | 5 | 4 | 3 | | | 6 | 5 | 22 | 12 | 2 | | 1 | 98.20 | 213 |
| 98.00 | 3 | 7 | 3 | | | | | 3 | 5 | 5 | 1 | | 98.00 | 240 |
| 97.80 | 1 | 1 | 8 | | | | | | 9 | 21 | | 1 | 97.80 | 281 |
| 97.60 | 3 | 3 | 5 | | | | | | | | | 2 | 97.60 | 294 |
| 97.40 | 1 | 3 | 4 | | | | | | | | 2 | | 97.40 | 304 |
| 97.20 | | 1 | | | | | | | | | 2 | 1 | 97.20 | 308 |
| 97.00 | 1 | | 1 | | | | | | | | 2 | 1 | 97.00 | 313 |
| 96.80 | | 2 | | | | | | | | | 4 | 3 | 96.80 | 322 |
| 96.60 | 1 | | | | | | | | | | 7 | 2 | 96.60 | 332 |
| 96.40 | | | 1 | | | | | | | | 2 | 6 | 96.40 | 341 |
| 96.20 | | | | | | | | | | | 4 | 5 | 96.20 | 350 |
| 96.00 | | | | | | | | | | | 3 | 4 | 96.00 | 357 |
| 95.80 | | | | | | | | | | | 3 | 5 | 95.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3007 Ashland Avenue, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|---------------------|----------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|
| 1 | 98.36 | 98.69 | 98.07 | 98.61 | 99.05 | 99.23 | 98.26 | 98.52 | 98.20 | 98.04 | 96.80 | 95.97 |
| 2 | 97.71 | 98.36 | 97.82 | 99.50 | 98.86 | 98.90 | 98.62 | 98.87 | 98.18 | 97.96 | 96.72 | 96.30 |
| 3 | 97.72 | 99.40 | 97.48 | 99.56 | 99.07 | 98.82 | 98.55 | 98.94 | 98.39 | 98.37 | 97.53 | 96.49 |
| 4 | 98.14 | 98.72 | 96.45 | 99.24 | 99.14 | 98.49 | 98.38 | 98.98 | 98.31 | 98.99 | 97.32 | 95.97 |
| 5 | 98.59 | 98.60 | 97.04 | 99.11 | 99.32 | 98.45 | 98.53 | 98.38 | 98.32 | 97.98 | 97.21 | 95.96 |
| 6 | 98.72 | 97.28 | 97.80 | 98.98 | 99.33 | 98.82 | 98.71 | 98.31 | 98.24 | 97.88 | 96.89 | 96.90 |
| 7 | 98.37 | 97.51 | 97.49 | 98.99 | 99.13 | 98.88 | 98.78 | 98.26 | 98.31 | 97.97 | 96.61 | 97.02 |
| 8 | 98.10 | 98.18 | 97.92 | 98.93 | 98.97 | 98.59 | 98.92 | 98.26 | 98.26 | 97.91 | 97.45 | 96.49 |
| 9 | 97.07 | 97.73 | 98.01 | 98.96 | 98.98 | 98.68 | 98.73 | 98.25 | 98.48 | 97.93 | 97.09 | 96.45 |
| 10 | 96.64 | 98.19 | 97.68 | 98.98 | 99.06 | 98.92 | 98.64 | 98.20 | 98.78 | 97.93 | 96.64 | 96.46 |
| 11 | 97.80 | 96.86 | 98.18 | 98.84 | 99.28 | 98.67 | 98.72 | 98.23 | 98.40 | 97.92 | 96.80 | 96.54 |
| 12 | 97.56 | 96.97 | 97.68 | 98.95 | 99.35 | 98.50 | 99.12 | 98.24 | 98.28 | 98.13 | 96.45 | 96.19 |
| 13 | 98.31 | 98.38 | 97.46 | 99.00 | 99.07 | 98.66 | 99.02 | 98.17 | 98.55 | 97.94 | 96.10 | 96.28 |
| 14 | 98.34 | 98.19 | 98.48 | 99.01 | 99.14 | 98.56 | 98.75 | 98.34 | 98.21 | 97.93 | 96.12 | 96.00 |
| 15 | 98.81 | 98.33 | 98.43 | 98.97 | 99.49 | 98.45 | 98.79 | 98.88 | 98.30 | 97.97 | 96.81 | 95.98 |
| 16 | 98.45 | 97.80 | 98.58 | 99.18 | 99.37 | 98.42 | 98.93 | 98.31 | 97.90 | 97.97 | 96.22 | 96.05 |
| 17 | 98.81 | 98.42 | 97.92 | 99.27 | 99.22 | 98.26 | 98.56 | 98.25 | 98.10 | 98.19 | 96.37 | 96.14 |
| 18 | 98.41 | 98.91 | 97.95 | 99.10 | 98.93 | 98.39 | 98.43 | 98.21 | 97.96 | 98.05 | 96.60 | 96.39 |
| 19 | 98.29 | 98.20 | 97.96 | 99.04 | 98.89 | 98.29 | 98.68 | 98.27 | 97.94 | 97.85 | 96.80 | 96.51 |
| 20 | 98.13 | 98.10 | 97.63 | 99.03 | 98.90 | 98.22 | 98.74 | 98.48 | 97.94 | 97.89 | 98.05 | 96.72 |
| 21 | 97.90 | 97.52 | 97.98 | 99.22 | 98.94 | 98.65 | 98.70 | 98.28 | 97.92 | 99.08 | 97.07 | 96.90 |
| 22 | 98.83 | 99.27 | 97.72 | 99.26 | 98.78 | 98.59 | 98.77 | 98.27 | 97.94 | 98.81 | 96.95 | 97.62 |
| 23 | 98.54 | 98.30 | 97.52 | 99.32 | 98.65 | 98.40 | 98.88 | 98.23 | 98.12 | 97.93 | 95.98 | 96.05 |
| 24 | 99.02 | 98.17 | 97.85 | 98.96 | 99.07 | 98.34 | 98.58 | 98.33 | 97.95 | 98.03 | 95.97 | 97.22 |
| 25 | 99.22 | 98.12 | 98.25 | 99.12 | 99.42 | 98.53 | 98.33 | 98.25 | 97.91 | 97.88 | 96.01 | 96.77 |
| 26 | 98.60 | 97.65 | 98.33 | 99.08 | 98.91 | 98.64 | 98.36 | 98.24 | 98.19 | 97.93 | 95.97 | 97.75 |
| 27 | 98.88 | 97.56 | 98.36 | 99.07 | 98.80 | 98.74 | 98.78 | 98.23 | 98.37 | 97.91 | 96.22 | 96.37 |
| 28 | 98.46 | 97.88 | 98.55 | 99.04 | 98.89 | 99.00 | 98.38 | 98.25 | 99.50 | 97.97 | 96.67 | 96.33 |
| 29 | 99.53 | | 98.71 | 98.98 | 98.88 | 98.76 | 98.96 | 98.24 | 98.22 | 98.32 | 97.00 | 96.88 |
| 30 | 100.42 | | 98.77 | 99.45 | 98.67 | 98.59 | 99.38 | 98.18 | 97.87 | 97.93 | 96.33 | 98.26 |
| 31 | 100.43 | | 97.96 | | 98.92 | | 98.67 | 98.26 | | 97.87 | | 97.82 |
| Mean | 98.46 | 98.12 | 97.94 | 99.09 | 99.05 | 98.62 | 98.70 | 98.36 | 98.24 | 98.08 | 96.69 | 96.61 |
| Max.
Hr.
Day | 102.05
0700
31 | 100.89
0800
22 | 99.88
1500
14 | 100.83
1600
30 | 100.65
1000
4 | 100.70
1100
1 | 100.50
1200
13 | 100.60
1000
15 | 100.95
0400
28 | 101.61
1300
21 | 99.78
2300
5 | 99.34
1000
30 |
| Min.
Hr.
Day | 96.28
1300
10 | 96.27
2100
11 | 96.22
0300
5 | 96.60
0300
1 | 96.68
2300
27 | 95.99
0100
17 | 96.09
0100
26 | 95.95
0100
30 | 95.93
2200
25 | 95.92
2400
18 | 95.87
2100
25 | 95.90
2000
18 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 98.16

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 906-3009 American Falls, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 170.46 Jan
Daily mean elevation: 170.64 31 Jan
Instant/hourly elevation: 170.75 0200/28 Sep

LOWEST

Monthly mean elevation: 170.36 Feb
Daily mean elevation: 170.23 15 Aug
Instant/hourly elevation: 170.02 2100/2 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 170.64 | 170.46 | 170.44 | 170.53 | 170.48 | 170.51 | 170.49 | 170.47 | 170.58 | 170.52 | 170.49 | 170.58 |
| Day | 31     | 28     | 24     | 2      | 25     | 21     | 8      | 3      | 28     | 21     | 20     | 26     |
| Min | 170.33 | 170.23 | 170.26 | 170.36 | 170.35 | 170.36 | 170.39 | 170.23 | 170.36 | 170.37 | 170.30 | 170.27 |
| Day | 10     | 6      | 4      | 18     | 2      | 12     | 25     | 15     | 2      | 31     | 23     | 14     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 170.60 | 2 | | | | | | | | | | | | 170.60 | 2 |
| 170.55 | 1 | | | | | | | | 1 | | | 1 | 170.55 | 5 |
| 170.50 | | | | 2 | | 1 | | | 2 | 2 | | 2 | 170.50 | 14 |
| 170.45 | 7 | 1 | | 2 | 3 | 10 | 9 | 3 | 8 | 9 | 2 | 2 | 170.45 | 70 |
| 170.40 | 20 | 10 | 26 | 15 | 19 | 12 | 17 | 18 | 14 | 14 | 13 | 5 | 170.40 | 253 |
| 170.35 | | 6 | 4 | 11 | 8 | 7 | 5 | 9 | 5 | 6 | 9 | 6 | 170.35 | 329 |
| 170.30 | 1 | 4 | | | 1 | | | | | | 5 | 9 | 170.30 | 349 |
| 170.25 | | 5 | 1 | | | | | | | | 1 | 6 | 170.25 | 362 |
| 170.20 | | 2 | | | | | | 1 | | | | | 170.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3009 American Falls, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 170.46 | 170.30 | 170.43 | 170.53 | 170.41 | 170.43 | 170.39 | 170.45 | 170.36 | 170.43 | 170.39 | 170.34 |
| 2 | 170.46 | 170.30 | 170.43 | 170.53 | 170.35 | 170.40 | 170.44 | 170.47 | 170.36 | 170.44 | 170.41 | 170.36 |
| 3 | 170.46 | 170.31 | 170.41 | 170.48 | 170.42 | 170.40 | 170.41 | 170.47 | 170.42 | 170.49 | 170.42 | 170.40 |
| 4 | 170.47 | 170.28 | 170.26 | 170.36 | 170.38 | 170.40 | 170.40 | 170.46 | 170.45 | 170.50 | 170.42 | 170.29 |
| 5 | 170.47 | 170.27 | 170.36 | 170.37 | 170.42 | 170.39 | 170.41 | 170.44 | 170.47 | 170.41 | 170.42 | 170.30 |
| 6 | 170.44 | 170.23 | 170.44 | 170.36 | 170.41 | 170.42 | 170.46 | 170.43 | 170.45 | 170.38 | 170.42 | 170.40 |
| 7 | 170.45 | 170.26 | 170.42 | 170.39 | 170.40 | 170.44 | 170.46 | 170.45 | 170.47 | 170.41 | 170.40 | 170.45 |
| 8 | 170.45 | 170.31 | 170.43 | 170.37 | 170.40 | 170.41 | 170.49 | 170.44 | 170.44 | 170.40 | 170.47 | 170.35 |
| 9 | 170.45 | 170.33 | 170.42 | 170.40 | 170.37 | 170.44 | 170.46 | 170.41 | 170.47 | 170.42 | 170.44 | 170.40 |
| 10 | 170.33 | 170.37 | 170.42 | 170.42 | 170.41 | 170.41 | 170.44 | 170.37 | 170.53 | 170.42 | 170.41 | 170.39 |
| 11 | 170.50 | 170.35 | 170.42 | 170.38 | 170.42 | 170.40 | 170.44 | 170.42 | 170.45 | 170.42 | 170.42 | 170.36 |
| 12 | 170.46 | 170.25 | 170.43 | 170.42 | 170.40 | 170.36 | 170.43 | 170.42 | 170.46 | 170.48 | 170.37 | 170.31 |
| 13 | 170.44 | 170.40 | 170.39 | 170.41 | 170.42 | 170.43 | 170.46 | 170.40 | 170.52 | 170.43 | 170.36 | 170.29 |
| 14 | 170.60 | 170.39 | 170.40 | 170.42 | 170.41 | 170.46 | 170.42 | 170.41 | 170.41 | 170.41 | 170.33 | 170.27 |
| 15 | 170.45 | 170.41 | 170.39 | 170.42 | 170.45 | 170.48 | 170.46 | 170.23 | 170.46 | 170.46 | 170.37 | 170.29 |
| 16 | 170.44 | 170.41 | 170.42 | 170.45 | 170.41 | 170.41 | 170.47 | 170.43 | 170.40 | 170.47 | 170.35 | 170.30 |
| 17 | 170.44 | 170.41 | 170.42 | 170.46 | 170.42 | 170.45 | 170.40 | 170.40 | 170.44 | 170.48 | 170.39 | 170.33 |
| 18 | 170.45 | 170.44 | 170.42 | 170.36 | 170.39 | 170.46 | 170.40 | 170.40 | 170.43 | 170.44 | 170.39 | 170.33 |
| 19 | 170.44 | 170.38 | 170.42 | 170.44 | 170.45 | 170.44 | 170.46 | 170.44 | 170.42 | 170.41 | 170.44 | 170.35 |
| 20 | 170.45 | 170.41 | 170.43 | 170.45 | 170.42 | 170.47 | 170.41 | 170.44 | 170.41 | 170.40 | 170.49 | 170.41 |
| 21 | 170.45 | 170.40 | 170.43 | 170.42 | 170.42 | 170.51 | 170.42 | 170.43 | 170.41 | 170.52 | 170.45 | 170.42 |
| 22 | 170.44 | 170.40 | 170.41 | 170.45 | 170.43 | 170.48 | 170.44 | 170.45 | 170.43 | 170.49 | 170.42 | 170.51 |
| 23 | 170.44 | 170.41 | 170.43 | 170.44 | 170.45 | 170.44 | 170.43 | 170.40 | 170.46 | 170.43 | 170.30 | 170.32 |
| 24 | 170.45 | 170.42 | 170.44 | 170.40 | 170.48 | 170.46 | 170.43 | 170.42 | 170.43 | 170.48 | 170.35 | 170.50 |
| 25 | 170.44 | 170.42 | 170.43 | 170.44 | 170.48 | 170.46 | 170.39 | 170.43 | 170.41 | 170.39 | 170.35 | 170.44 |
| 26 | 170.45 | 170.42 | 170.43 | 170.42 | 170.45 | 170.50 | 170.41 | 170.39 | 170.47 | 170.45 | 170.33 | 170.58 |
| 27 | 170.44 | 170.44 | 170.43 | 170.45 | 170.40 | 170.47 | 170.42 | 170.43 | 170.46 | 170.42 | 170.37 | 170.34 |
| 28 | 170.44 | 170.46 | 170.41 | 170.38 | 170.41 | 170.47 | 170.43 | 170.43 | 170.58 | 170.46 | 170.43 | 170.31 |
| 29 | 170.42 | | 170.42 | 170.39 | 170.40 | 170.43 | 170.47 | 170.39 | 170.39 | 170.51 | 170.44 | 170.43 |
| 30 | 170.61 | | 170.42 | 170.41 | 170.41 | 170.38 | 170.44 | 170.38 | 170.40 | 170.39 | 170.37 | 170.53 |
| 31 | 170.64 | | 170.43 | | 170.47 | | 170.43 | 170.39 | | 170.37 | | 170.48 |
| Mean | 170.46 | 170.36 | 170.41 | 170.42 | 170.42 | 170.44 | 170.43 | 170.42 | 170.44 | 170.44 | 170.40 | 170.38 |
| Max. | 170.71 | 170.52 | 170.50 | 170.64 | 170.63 | 170.69 | 170.63 | 170.64 | 170.75 | 170.64 | 170.51 | 170.65 |
| Hr. | 0600 | 1800 | 1400 | 0900 | 0700 | 0700 | 0700 | 0700 | 0200 | 0700 | 1000 | 1100 |
| Day | 31 | 18 | 14 | 3 | 26 | 21 | 25 | 3 | 28 | 29 | 20 | 26 |
| Min. | 170.20 | 170.10 | 170.16 | 170.07 | 170.09 | 170.03 | 170.08 | 170.05 | 170.02 | 170.08 | 170.24 | 170.22 |
| Hr. | 1200 | 0500 | 1800 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 1900 | 0600 | 0900 |
| Day | 10 | 12 | 4 | 6 | 27 | 12 | 4 | 6 | 2 | 18 | 23 | 15 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 170.42

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 906-3012 Niagara Intake, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 171.33 Jan
Daily mean elevation: 171.65 31 Jan
Instant/hourly elevation: 171.78 0300/28 Sep

LOWEST

Monthly mean elevation: 171.20 Dec
Daily mean elevation: 171.00 4 Mar
Instant/hourly elevation: 170.88 2100/1 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 171.65 | 171.35 | 171.36 | 171.40 | 171.34 | 171.36 | 171.38 | 171.36 | 171.52 | 171.47 | 171.38 | 171.48 |
| Day | 31     | 18     | 14     | 2      | 31     | 26     | 29     | 4      | 28     | 21     | 20     | 26     |
| Min | 171.11 | 171.10 | 171.00 | 171.23 | 171.21 | 171.21 | 171.22 | 171.06 | 171.21 | 171.22 | 171.09 | 171.05 |
| Day | 10     | 12     | 4      | 6      | 2      | 12     | 1      | 15     | 2      | 31     | 23     | 14     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 171.60 | 1 | | | | | | | | | | | | 171.60 | 1 |
| 171.55 | 1 | | | | | | | | | | | | 171.55 | 2 |
| 171.50 | | | | | | | | | 1 | | | | 171.50 | 3 |
| 171.45 | 1 | | | | | | | | | 1 | | 1 | 171.45 | 6 |
| 171.40 | | | | | | | | | 1 | 2 | | 1 | 171.40 | 10 |
| 171.35 | 1 | | 1 | 4 | | 2 | 1 | 2 | 1 | 4 | 1 | 3 | 171.35 | 30 |
| 171.30 | 17 | 4 | | 7 | 5 | 7 | 12 | 7 | 11 | 6 | 1 | | 171.30 | 107 |
| 171.25 | 9 | 18 | 18 | 13 | 21 | 16 | 12 | 18 | 13 | 13 | 8 | 4 | 171.25 | 270 |
| 171.20 | | 3 | 10 | 6 | 5 | 5 | 6 | 3 | 3 | 5 | 7 | 5 | 171.20 | 328 |
| 171.15 | | 1 | | | | | | | | | 7 | 4 | 171.15 | 340 |
| 171.10 | 1 | 1 | 1 | | | | | | | | 5 | 7 | 171.10 | 355 |
| 171.05 | | 1 | | | | | | 1 | | | 1 | 5 | 171.05 | 363 |
| 171.00 | | | | | | | | | | | | 1 | 171.00 | 364 |
| 170.95 | | | 1 | | | | | | | | | | 170.95 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3012 Niagara Intake, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 171.31 | 171.29 | 171.29 | 171.38 | 171.28 | 171.31 | 171.22 | 171.32 | 171.22 | 171.30 | 171.21 | 171.13 |
| 2 | 171.29 | 171.29 | 171.26 | 171.40 | 171.21 | 171.26 | 171.29 | 171.36 | 171.21 | 171.31 | 171.23 | 171.17 |
| 3 | 171.30 | 171.32 | 171.22 | 171.37 | 171.28 | 171.26 | 171.25 | 171.35 | 171.29 | 171.40 | 171.27 | 171.21 |
| 4 | 171.31 | 171.28 | 171.00 | 171.24 | 171.25 | 171.24 | 171.24 | 171.36 | 171.31 | 171.42 | 171.26 | 171.07 |
| 5 | 171.34 | 171.27 | 171.14 | 171.24 | 171.30 | 171.24 | 171.26 | 171.31 | 171.34 | 171.28 | 171.26 | 171.08 |
| 6 | 171.31 | 171.19 | 171.26 | 171.23 | 171.29 | 171.27 | 171.32 | 171.29 | 171.32 | 171.24 | 171.25 | 171.24 |
| 7 | 171.30 | 171.24 | 171.25 | 171.26 | 171.27 | 171.30 | 171.32 | 171.31 | 171.33 | 171.28 | 171.22 | 171.29 |
| 8 | 171.29 | 171.28 | 171.27 | 171.25 | 171.25 | 171.26 | 171.35 | 171.29 | 171.30 | 171.27 | 171.33 | 171.16 |
| 9 | 171.26 | 171.26 | 171.26 | 171.28 | 171.23 | 171.31 | 171.31 | 171.27 | 171.34 | 171.29 | 171.27 | 171.22 |
| 10 | 171.11 | 171.25 | 171.25 | 171.28 | 171.28 | 171.28 | 171.29 | 171.23 | 171.42 | 171.29 | 171.22 | 171.22 |
| 11 | 171.35 | 171.15 | 171.26 | 171.26 | 171.29 | 171.26 | 171.29 | 171.28 | 171.31 | 171.29 | 171.25 | 171.18 |
| 12 | 171.28 | 171.10 | 171.27 | 171.30 | 171.28 | 171.21 | 171.30 | 171.28 | 171.32 | 171.37 | 171.17 | 171.11 |
| 13 | 171.31 | 171.32 | 171.25 | 171.29 | 171.28 | 171.28 | 171.32 | 171.26 | 171.39 | 171.30 | 171.16 | 171.08 |
| 14 | 171.48 | 171.30 | 171.36 | 171.30 | 171.27 | 171.32 | 171.26 | 171.27 | 171.28 | 171.28 | 171.12 | 171.05 |
| 15 | 171.32 | 171.27 | 171.29 | 171.30 | 171.33 | 171.33 | 171.30 | 171.06 | 171.33 | 171.32 | 171.19 | 171.07 |
| 16 | 171.31 | 171.24 | 171.30 | 171.35 | 171.27 | 171.25 | 171.32 | 171.30 | 171.25 | 171.35 | 171.15 | 171.08 |
| 17 | 171.32 | 171.29 | 171.26 | 171.36 | 171.28 | 171.28 | 171.23 | 171.26 | 171.30 | 171.37 | 171.19 | 171.13 |
| 18 | 171.31 | 171.35 | 171.25 | 171.24 | 171.25 | 171.30 | 171.23 | 171.26 | 171.29 | 171.30 | 171.20 | 171.13 |
| 19 | 171.30 | 171.30 | 171.25 | 171.32 | 171.31 | 171.27 | 171.31 | 171.31 | 171.28 | 171.26 | 171.28 | 171.17 |
| 20 | 171.30 | 171.28 | 171.25 | 171.33 | 171.28 | 171.30 | 171.28 | 171.32 | 171.26 | 171.25 | 171.38 | 171.24 |
| 21 | 171.30 | 171.26 | 171.26 | 171.30 | 171.28 | 171.36 | 171.29 | 171.30 | 171.26 | 171.47 | 171.29 | 171.27 |
| 22 | 171.32 | 171.33 | 171.23 | 171.34 | 171.28 | 171.32 | 171.31 | 171.32 | 171.28 | 171.39 | 171.25 | 171.39 |
| 23 | 171.31 | 171.28 | 171.25 | 171.33 | 171.28 | 171.27 | 171.31 | 171.27 | 171.32 | 171.29 | 171.09 | 171.11 |
| 24 | 171.35 | 171.27 | 171.27 | 171.27 | 171.32 | 171.29 | 171.30 | 171.29 | 171.29 | 171.34 | 171.14 | 171.38 |
| 25 | 171.35 | 171.27 | 171.28 | 171.32 | 171.32 | 171.30 | 171.25 | 171.30 | 171.26 | 171.24 | 171.14 | 171.29 |
| 26 | 171.32 | 171.27 | 171.28 | 171.30 | 171.30 | 171.36 | 171.28 | 171.25 | 171.34 | 171.32 | 171.12 | 171.48 |
| 27 | 171.33 | 171.28 | 171.28 | 171.32 | 171.26 | 171.32 | 171.31 | 171.30 | 171.35 | 171.28 | 171.17 | 171.15 |
| 28 | 171.31 | 171.30 | 171.26 | 171.25 | 171.28 | 171.32 | 171.30 | 171.29 | 171.52 | 171.34 | 171.26 | 171.11 |
| 29 | 171.36 | | 171.28 | 171.26 | 171.26 | 171.28 | 171.38 | 171.26 | 171.26 | 171.41 | 171.27 | 171.28 |
| 30 | 171.59 | | 171.28 | 171.29 | 171.26 | 171.22 | 171.34 | 171.24 | 171.26 | 171.25 | 171.17 | 171.44 |
| 31 | 171.65 | | 171.24 | | 171.34 | | 171.31 | 171.26 | | 171.22 | | 171.39 |
| Mean | 171.33 | 171.27 | 171.25 | 171.30 | 171.28 | 171.29 | 171.29 | 171.28 | 171.31 | 171.31 | 171.22 | 171.20 |
| Max.
Hr.
Day | 171.78
0600
31 | 171.51
0600
22 | 171.49
1400
14 | 171.56
0900
3 | 171.52
0700
31 | 171.60
0700
21 | 171.57
0700
29 | 171.60
0700
4 | 171.78
0300
28 | 171.66
1200
21 | 171.46
2200
5 | 171.62
0300
26 |
| Min.
Hr.
Day | 170.95
1200
10 | 170.92
0400
12 | 170.88
1800
4 | 170.93
2100
6 | 170.94
2100
27 | 170.90
2100
12 | 170.91
2100
4 | 170.92
2100
31 | 170.88
2100
1 | 170.92
1900
18 | 171.00
0600
23 | 170.99
0900
15 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 171.28

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 906-3020 Buffalo Harbor, Buffalo, New York on Lake Erie

HIGHEST

Monthly mean elevation: 174.66 Apr
Daily mean elevation: 175.11 31 Jan
Instant/hourly elevation: 175.66 0200/28 Sep

LOWEST

Monthly mean elevation: 174.29 Nov
Daily mean elevation: 173.93 25 Nov
Instant/hourly elevation: 173.76 0300/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Max Day | 175.11<br>31 | 174.79<br>3  | 174.65<br>16 | 174.80<br>17 | 174.73<br>25 | 174.75<br>27 | 174.77<br>29 | 174.66<br>4  | 174.75<br>28 | 174.87<br>21 | 174.58<br>20 | 174.58<br>24 |
| Min Day | 174.21<br>9  | 174.06<br>11 | 173.94<br>4  | 174.44<br>1  | 174.52<br>30 | 174.54<br>4  | 174.54<br>25 | 174.37<br>29 | 174.24<br>20 | 174.06<br>31 | 173.93<br>25 | 174.06<br>14 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.10 | 1 | | | | | | | | | | | | 175.10 | 1 |
| 175.05 | 1 | | | | | | | | | | | | 175.05 | 2 |
| 175.00 | | | | | | | | | | | | | 175.00 | 2 |
| 174.95 | | | | | | | | | | | | | 174.95 | 2 |
| 174.90 | 1 | | | | | | | | | | | | 174.90 | 3 |
| 174.85 | | | | | | | | | | 1 | | | 174.85 | 4 |
| 174.80 | | | | | | | | | | | | | 174.80 | 4 |
| 174.75 | 2 | 1 | | 1 | | | 1 | | | | | | 174.75 | 9 |
| 174.70 | 5 | 2 | | 3 | 4 | 6 | 1 | | 1 | | | | 174.70 | 31 |
| 174.65 | 2 | | | 14 | 13 | 4 | 14 | 1 | 1 | 1 | | | 174.65 | 81 |
| 174.60 | 5 | 5 | 2 | 8 | 10 | 15 | 10 | 2 | | | | | 174.60 | 138 |
| 174.55 | 5 | 4 | 3 | 3 | 3 | 4 | 3 | 6 | 3 | 1 | 1 | 2 | 174.55 | 176 |
| 174.50 | 2 | 4 | 10 | | 1 | 1 | 2 | 10 | 3 | 1 | | 2 | 174.50 | 212 |
| 174.45 | 3 | 4 | 7 | | | | | 9 | 6 | 1 | 4 | 4 | 174.45 | 250 |
| 174.40 | 1 | 3 | 4 | 1 | | | | 2 | 5 | 6 | 1 | 1 | 174.40 | 274 |
| 174.35 | 1 | 1 | | | | | | 1 | 4 | | 4 | 3 | 174.35 | 288 |
| 174.30 | | 3 | 4 | | | | | | 3 | 6 | 4 | 4 | 174.30 | 312 |
| 174.25 | 1 | | | | | | | | 3 | 8 | 4 | 7 | 174.25 | 335 |
| 174.20 | 1 | | | | | | | | 1 | 3 | 5 | 3 | 174.20 | 348 |
| 174.15 | | | | | | | | | | 2 | 4 | 1 | 174.15 | 355 |
| 174.10 | | | | | | | | | | | 1 | 2 | 174.10 | 358 |
| 174.05 | | 1 | | | | | | | | 1 | 1 | 2 | 174.05 | 363 |
| 174.00 | | | | | | | | | | | | | 174.00 | 363 |
| 173.95 | | | | | | | | | | | | | 173.95 | 363 |
| 173.90 | | | 1 | | | | | | | | 1 | | 173.90 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3020 Buffalo Harbor, Buffalo, New York on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 174.57 | 174.53 | 174.50 | 174.44 | 174.66 | 174.74 | 174.55 | 174.58 | 174.40 | 174.46 | 174.33 | 174.23 |
| 2 | 174.43 | 174.61 | 174.47 | 174.72 | 174.59 | 174.62 | 174.62 | 174.64 | 174.46 | 174.43 | 174.27 | 174.32 |
| 3 | 174.48 | 174.79 | 174.32 | 174.74 | 174.66 | 174.61 | 174.69 | 174.64 | 174.52 | 174.68 | 174.48 | 174.30 |
| 4 | 174.51 | 174.61 | 173.94 | 174.66 | 174.63 | 174.54 | 174.63 | 174.66 | 174.54 | 174.60 | 174.31 | 174.15 |
| 5 | 174.63 | 174.64 | 174.33 | 174.58 | 174.70 | 174.63 | 174.64 | 174.57 | 174.50 | 174.35 | 174.50 | 174.20 |
| 6 | 174.62 | 174.32 | 174.53 | 174.60 | 174.71 | 174.65 | 174.69 | 174.50 | 174.42 | 174.31 | 174.27 | 174.46 |
| 7 | 174.58 | 174.52 | 174.49 | 174.62 | 174.65 | 174.59 | 174.66 | 174.56 | 174.43 | 174.35 | 174.41 | 174.37 |
| 8 | 174.47 | 174.50 | 174.54 | 174.62 | 174.64 | 174.61 | 174.69 | 174.54 | 174.46 | 174.32 | 174.38 | 174.30 |
| 9 | 174.21 | 174.47 | 174.54 | 174.63 | 174.66 | 174.71 | 174.67 | 174.51 | 174.56 | 174.28 | 174.30 | 174.34 |
| 10 | 174.28 | 174.51 | 174.42 | 174.69 | 174.66 | 174.70 | 174.69 | 174.56 | 174.66 | 174.29 | 174.21 | 174.40 |
| 11 | 174.49 | 174.06 | 174.54 | 174.62 | 174.69 | 174.65 | 174.70 | 174.58 | 174.52 | 174.28 | 174.36 | 174.28 |
| 12 | 174.40 | 174.32 | 174.47 | 174.64 | 174.68 | 174.62 | 174.70 | 174.51 | 174.50 | 174.44 | 174.15 | 174.29 |
| 13 | 174.74 | 174.61 | 174.31 | 174.67 | 174.66 | 174.60 | 174.65 | 174.52 | 174.46 | 174.27 | 174.26 | 174.24 |
| 14 | 174.60 | 174.56 | 174.64 | 174.60 | 174.64 | 174.64 | 174.65 | 174.53 | 174.47 | 174.24 | 174.21 | 174.06 |
| 15 | 174.72 | 174.56 | 174.53 | 174.62 | 174.71 | 174.72 | 174.66 | 174.51 | 174.43 | 174.26 | 174.33 | 174.10 |
| 16 | 174.68 | 174.42 | 174.65 | 174.69 | 174.65 | 174.63 | 174.68 | 174.52 | 174.27 | 174.28 | 174.21 | 174.14 |
| 17 | 174.77 | 174.63 | 174.49 | 174.80 | 174.66 | 174.63 | 174.59 | 174.51 | 174.36 | 174.41 | 174.18 | 174.26 |
| 18 | 174.62 | 174.74 | 174.44 | 174.69 | 174.60 | 174.65 | 174.59 | 174.49 | 174.39 | 174.29 | 174.19 | 174.30 |
| 19 | 174.63 | 174.58 | 174.45 | 174.64 | 174.66 | 174.62 | 174.66 | 174.49 | 174.31 | 174.22 | 174.47 | 174.37 |
| 20 | 174.58 | 174.46 | 174.51 | 174.68 | 174.66 | 174.65 | 174.68 | 174.57 | 174.24 | 174.22 | 174.58 | 174.33 |
| 21 | 174.53 | 174.32 | 174.57 | 174.68 | 174.65 | 174.72 | 174.64 | 174.42 | 174.30 | 174.87 | 174.46 | 174.49 |
| 22 | 174.73 | 174.74 | 174.47 | 174.69 | 174.62 | 174.68 | 174.66 | 174.47 | 174.34 | 174.42 | 174.36 | 174.51 |
| 23 | 174.59 | 174.59 | 174.42 | 174.74 | 174.62 | 174.60 | 174.63 | 174.46 | 174.44 | 174.31 | 174.18 | 174.24 |
| 24 | 174.77 | 174.54 | 174.49 | 174.65 | 174.71 | 174.62 | 174.56 | 174.54 | 174.36 | 174.44 | 174.07 | 174.58 |
| 25 | 174.73 | 174.43 | 174.53 | 174.70 | 174.73 | 174.67 | 174.54 | 174.50 | 174.29 | 174.18 | 173.93 | 174.47 |
| 26 | 174.65 | 174.38 | 174.55 | 174.66 | 174.66 | 174.72 | 174.65 | 174.46 | 174.56 | 174.26 | 174.17 | 174.53 |
| 27 | 174.71 | 174.43 | 174.54 | 174.67 | 174.58 | 174.75 | 174.67 | 174.50 | 174.59 | 174.34 | 174.24 | 174.31 |
| 28 | 174.69 | 174.47 | 174.54 | 174.67 | 174.64 | 174.70 | 174.62 | 174.52 | 174.75 | 174.42 | 174.34 | 174.27 |
| 29 | 174.93 | | 174.58 | 174.67 | 174.62 | 174.65 | 174.77 | 174.37 | 174.41 | 174.54 | 174.38 | 174.43 |
| 30 | 175.07 | | 174.60 | 174.69 | 174.52 | 174.58 | 174.72 | 174.42 | 174.31 | 174.16 | 174.23 | 174.57 |
| 31 | 175.11 | | 174.35 | | 174.70 | | 174.62 | 174.49 | | 174.06 | | 174.49 |
| Mean | 174.63 | 174.51 | 174.48 | 174.66 | 174.65 | 174.65 | 174.65 | 174.52 | 174.44 | 174.36 | 174.29 | 174.33 |
| Max.
Hr.
Day | 175.64
0500
31 | 175.28
0500
22 | 174.93
2100
16 | 175.22
0300
16 | 174.96
0300
25 | 175.06
1300
5 | 175.23
2400
11 | 175.00
0200
4 | 175.66
0200
28 | 175.59
1100
21 | 175.37
2000
5 | 175.07
2400
25 |
| Min.
Hr.
Day | 174.05
0900
10 | 173.82
2300
11 | 173.78
1700
4 | 173.96
0200
1 | 174.42
1700
30 | 174.26
0500
5 | 174.44
2300
25 | 174.19
2000
29 | 173.88
0100
26 | 173.93
1000
31 | 173.76
0300
25 | 173.94
2300
14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.51

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3028 Sturgeon Point, New York on Lake Erie

HIGHEST

Monthly mean elevation: 174.66 Apr
Daily mean elevation: 175.00 31 Jan
Instant/hourly elevation: 175.54 0400/31 Jan

LOWEST

Monthly mean elevation: 174.28 Nov
Daily mean elevation: 173.96 25 Nov
Instant/hourly elevation: 173.79 0300/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.00 | 174.74 | 174.65 | 174.78 | 174.71 | 174.72 | 174.72 | 174.64 | 174.66 | 174.78 | 174.54 | 174.53 |
| Day | 31 | 22 | 16 | 17 | 6 | 27 | 29 | 4 | 28 | 21 | 20 | 29 |
| Min | 174.23 | 174.11 | 173.98 | 174.46 | 174.53 | 174.54 | 174.54 | 174.37 | 174.25 | 174.09 | 173.96 | 174.07 |
| Day | 9 | 11 | 4 | 1 | 30 | 4 | 25 | 29 | 20 | 31 | 25 | 14 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.95 | 2 | | | | | | | | | | | | 174.95 | 2 |
| 174.90 | | | | | | | | | | | | | 174.90 | 2 |
| 174.85 | 1 | | | | | | | | | | | | 174.85 | 3 |
| 174.80 | | | | | | | | | | | | | 174.80 | 3 |
| 174.75 | | | | 1 | | | | | | 1 | | | 174.75 | 5 |
| 174.70 | 4 | 3 | | 4 | 1 | 2 | 1 | | | | | | 174.70 | 20 |
| 174.65 | 5 | | | 13 | 11 | 7 | 10 | | 1 | | | | 174.65 | 67 |
| 174.60 | 4 | 4 | 2 | 8 | 15 | 14 | 15 | 3 | 1 | | | | 174.60 | 133 |
| 174.55 | 6 | 5 | 3 | 3 | 3 | 6 | 3 | 3 | 2 | 1 | | | 174.55 | 168 |
| 174.50 | 1 | 5 | 10 | | 1 | 1 | 2 | 8 | 2 | 1 | 1 | 2 | 174.50 | 202 |
| 174.45 | 4 | 3 | 8 | 1 | | | | 12 | 5 | 1 | 1 | 5 | 174.45 | 242 |
| 174.40 | 2 | 3 | 3 | | | | | 4 | 9 | 3 | 3 | 2 | 174.40 | 271 |
| 174.35 | | 2 | 1 | | | | | 1 | 1 | 4 | 2 | 1 | 174.35 | 283 |
| 174.30 | 1 | 2 | 3 | | | | | | 5 | 4 | 6 | 5 | 174.30 | 309 |
| 174.25 | | | | | | | | | 3 | 9 | 4 | 8 | 174.25 | 333 |
| 174.20 | 1 | | | | | | | | 1 | 4 | 5 | 4 | 174.20 | 348 |
| 174.15 | | | | | | | | | | 2 | 6 | 1 | 174.15 | 357 |
| 174.10 | | 1 | | | | | | | | | | 2 | 174.10 | 360 |
| 174.05 | | | | | | | | | | 1 | 1 | 1 | 174.05 | 363 |
| 174.00 | | | | | | | | | | | | | 174.00 | 363 |
| 173.95 | | | 1 | | | | | | | | 1 | | 173.95 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3028 Sturgeon Point, New York on Lake Erie

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 174.56 | 174.55 | 174.50 | 174.46 | 174.66 | 174.70 | 174.55 | 174.57 | 174.41 | 174.42 | 174.33 | 174.22 |
| 2 | 174.42 | 174.61 | 174.46 | 174.71 | 174.60 | 174.60 | 174.62 | 174.62 | 174.44 | 174.42 | 174.26 | 174.30 |
| 3 | 174.46 | 174.73 | 174.33 | 174.73 | 174.66 | 174.60 | 174.67 | 174.62 | 174.50 | 174.60 | 174.42 | 174.28 |
| 4 | 174.50 | 174.60 | 173.98 | 174.66 | 174.63 | 174.54 | 174.62 | 174.64 | 174.53 | 174.52 | 174.28 | 174.16 |
| 5 | 174.62 | 174.63 | 174.35 | 174.59 | 174.70 | 174.63 | 174.63 | 174.56 | 174.49 | 174.34 | 174.46 | 174.21 |
| 6 | 174.60 | 174.36 | 174.52 | 174.60 | 174.71 | 174.63 | 174.67 | 174.49 | 174.43 | 174.30 | 174.26 | 174.44 |
| 7 | 174.57 | 174.52 | 174.49 | 174.62 | 174.65 | 174.59 | 174.64 | 174.55 | 174.43 | 174.33 | 174.38 | 174.35 |
| 8 | 174.48 | 174.51 | 174.54 | 174.62 | 174.64 | 174.61 | 174.67 | 174.52 | 174.48 | 174.31 | 174.33 | 174.30 |
| 9 | 174.23 | 174.48 | 174.54 | 174.63 | 174.66 | 174.69 | 174.67 | 174.50 | 174.60 | 174.29 | 174.28 | 174.32 |
| 10 | 174.32 | 174.52 | 174.43 | 174.69 | 174.65 | 174.68 | 174.67 | 174.55 | 174.65 | 174.29 | 174.20 | 174.40 |
| 11 | 174.50 | 174.11 | 174.53 | 174.63 | 174.68 | 174.64 | 174.67 | 174.56 | 174.50 | 174.28 | 174.33 | 174.30 |
| 12 | 174.42 | 174.34 | 174.47 | 174.65 | 174.67 | 174.62 | 174.69 | 174.50 | 174.47 | 174.41 | 174.16 | 174.28 |
| 13 | 174.73 | 174.61 | 174.33 | 174.67 | 174.66 | 174.60 | 174.64 | 174.50 | 174.44 | 174.26 | 174.24 | 174.24 |
| 14 | 174.60 | 174.56 | 174.63 | 174.60 | 174.64 | 174.63 | 174.64 | 174.52 | 174.44 | 174.24 | 174.21 | 174.07 |
| 15 | 174.71 | 174.56 | 174.52 | 174.61 | 174.70 | 174.70 | 174.64 | 174.50 | 174.42 | 174.26 | 174.32 | 174.12 |
| 16 | 174.66 | 174.44 | 174.65 | 174.67 | 174.64 | 174.62 | 174.66 | 174.52 | 174.27 | 174.27 | 174.21 | 174.15 |
| 17 | 174.74 | 174.63 | 174.49 | 174.78 | 174.65 | 174.63 | 174.58 | 174.51 | 174.35 | 174.38 | 174.20 | 174.26 |
| 18 | 174.61 | 174.73 | 174.45 | 174.68 | 174.60 | 174.64 | 174.58 | 174.49 | 174.38 | 174.28 | 174.19 | 174.29 |
| 19 | 174.61 | 174.57 | 174.46 | 174.64 | 174.65 | 174.62 | 174.64 | 174.48 | 174.31 | 174.23 | 174.42 | 174.35 |
| 20 | 174.56 | 174.47 | 174.51 | 174.66 | 174.64 | 174.64 | 174.66 | 174.55 | 174.25 | 174.23 | 174.54 | 174.31 |
| 21 | 174.52 | 174.33 | 174.57 | 174.68 | 174.63 | 174.70 | 174.63 | 174.42 | 174.30 | 174.78 | 174.41 | 174.48 |
| 22 | 174.70 | 174.74 | 174.47 | 174.71 | 174.61 | 174.67 | 174.64 | 174.46 | 174.33 | 174.39 | 174.33 | 174.46 |
| 23 | 174.58 | 174.59 | 174.42 | 174.74 | 174.61 | 174.59 | 174.61 | 174.45 | 174.43 | 174.30 | 174.18 | 174.24 |
| 24 | 174.75 | 174.54 | 174.50 | 174.64 | 174.68 | 174.62 | 174.56 | 174.52 | 174.35 | 174.39 | 174.10 | 174.52 |
| 25 | 174.69 | 174.44 | 174.54 | 174.70 | 174.70 | 174.65 | 174.54 | 174.49 | 174.28 | 174.19 | 173.96 | 174.47 |
| 26 | 174.64 | 174.39 | 174.55 | 174.67 | 174.65 | 174.71 | 174.62 | 174.45 | 174.51 | 174.25 | 174.18 | 174.49 |
| 27 | 174.68 | 174.44 | 174.54 | 174.66 | 174.57 | 174.72 | 174.64 | 174.48 | 174.57 | 174.33 | 174.24 | 174.31 |
| 28 | 174.68 | 174.47 | 174.55 | 174.67 | 174.63 | 174.69 | 174.61 | 174.50 | 174.66 | 174.40 | 174.33 | 174.26 |
| 29 | 174.87 | | 174.58 | 174.68 | 174.61 | 174.64 | 174.72 | 174.37 | 174.41 | 174.48 | 174.38 | 174.53 |
| 30 | 175.00 | | 174.60 | 174.69 | 174.53 | 174.57 | 174.70 | 174.42 | 174.32 | 174.17 | 174.23 | 174.49 |
| 31 | 175.00 | | 174.38 | | 174.67 | | 174.61 | 174.48 | | 174.09 | | 174.43 |
| Mean | 174.61 | 174.52 | 174.48 | 174.66 | 174.64 | 174.64 | 174.64 | 174.51 | 174.43 | 174.34 | 174.28 | 174.32 |
| Max.
Hr.
Day | 175.54
0400
31 | 175.18
0400
22 | 174.92
2100
16 | 174.95
1400
17 | 174.86
0300
25 | 174.94
1300
5 | 174.95
0100
12 | 174.91
0200
4 | 175.40
0200
28 | 175.36
1100
21 | 175.20
2000
5 | 174.94
0100
26 |
| Min.
Hr.
Day | 174.09
0900
10 | 173.88
2300
11 | 173.86
2400
4 | 174.03
0200
1 | 174.45
1700
30 | 174.33
0500
5 | 174.44
2300
25 | 174.20
2000
29 | 173.93
0100
26 | 173.98
1000
31 | 173.79
0300
25 | 173.96
1000
14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.51

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 906-3038 Erie, Pennsylvania on Lake Erie

HIGHEST

Monthly mean elevation: 174.69 Apr
Daily mean elevation: 174.88 30 Jan
Instant/hourly elevation: 175.08 0200/30 Jan

LOWEST

Monthly mean elevation: 174.27 Nov
Daily mean elevation: 174.08 25 Nov
Instant/hourly elevation: 173.99 0500/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.88 | 174.66 | 174.63 | 174.74 | 174.72 | 174.72 | 174.70 | 174.62 | 174.61 | 174.59 | 174.45 | 174.45 |
| Day | 30 | 22 | 30 | 17 | 6 | 27 | 12 | 2 | 10 | 21 | 20 | 26 |
| Min | 174.38 | 174.31 | 174.16 | 174.55 | 174.57 | 174.58 | 174.58 | 174.42 | 174.31 | 174.22 | 174.08 | 174.18 |
| Day | 9 | 11 | 4 | 1 | 30 | 4 | 25 | 29 | 20 | 31 | 25 | 14 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.85 | 1 | | | | | | | | | | | | 174.85 | 1 |
| 174.80 | 1 | | | | | | | | | | | | 174.80 | 2 |
| 174.75 | 1 | | | | | | | | | | | | 174.75 | 3 |
| 174.70 | 2 | | | 11 | 2 | 1 | | | | | | | 174.70 | 19 |
| 174.65 | 6 | 2 | | 15 | 19 | 15 | 19 | | | | | | 174.65 | 95 |
| 174.60 | 5 | 5 | 3 | 3 | 8 | 13 | 10 | 3 | 1 | | | | 174.60 | 146 |
| 174.55 | 6 | 6 | 7 | | 2 | 1 | 2 | 7 | | 1 | | | 174.55 | 178 |
| 174.50 | 4 | 5 | 11 | 1 | | | | 12 | 4 | | | | 174.50 | 215 |
| 174.45 | 2 | 6 | 7 | | | | | 8 | 8 | 1 | | | 174.45 | 247 |
| 174.40 | 2 | 3 | 1 | | | | | 1 | 8 | 2 | 1 | 6 | 174.40 | 271 |
| 174.35 | 1 | | 1 | | | | | | 5 | 4 | 1 | 4 | 174.35 | 287 |
| 174.30 | | 1 | | | | | | | 4 | 11 | 6 | 7 | 174.30 | 316 |
| 174.25 | | | | | | | | | | 10 | 11 | 9 | 174.25 | 346 |
| 174.20 | | | | | | | | | | 2 | 8 | 4 | 174.20 | 360 |
| 174.15 | | | 1 | | | | | | | | 2 | 1 | 174.15 | 364 |
| 174.10 | | | | | | | | | | | | | 174.10 | 364 |
| 174.05 | | | | | | | | | | | 1 | | 174.05 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3038 Erie, Pennsylvania on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.55 | 174.61 | 174.52 | 174.55 | 174.70 | 174.67 | 174.61 | 174.59 | 174.45 | 174.35 | 174.35 | 174.24 |
| 2 | 174.46 | 174.61 | 174.49 | 174.71 | 174.66 | 174.61 | 174.66 | 174.62 | 174.46 | 174.41 | 174.28 | 174.27 |
| 3 | 174.44 | 174.65 | 174.39 | 174.72 | 174.70 | 174.61 | 174.69 | 174.61 | 174.50 | 174.48 | 174.34 | 174.29 |
| 4 | 174.50 | 174.59 | 174.16 | 174.68 | 174.67 | 174.58 | 174.66 | 174.61 | 174.52 | 174.43 | 174.26 | 174.23 |
| 5 | 174.60 | 174.60 | 174.43 | 174.64 | 174.71 | 174.65 | 174.67 | 174.57 | 174.48 | 174.33 | 174.39 | 174.28 |
| 6 | 174.58 | 174.48 | 174.52 | 174.66 | 174.72 | 174.64 | 174.69 | 174.54 | 174.47 | 174.31 | 174.28 | 174.40 |
| 7 | 174.58 | 174.55 | 174.51 | 174.67 | 174.69 | 174.62 | 174.67 | 174.58 | 174.47 | 174.33 | 174.34 | 174.35 |
| 8 | 174.54 | 174.55 | 174.55 | 174.65 | 174.68 | 174.63 | 174.69 | 174.56 | 174.48 | 174.32 | 174.29 | 174.31 |
| 9 | 174.38 | 174.52 | 174.54 | 174.66 | 174.69 | 174.69 | 174.68 | 174.54 | 174.52 | 174.33 | 174.26 | 174.30 |
| 10 | 174.45 | 174.54 | 174.48 | 174.70 | 174.70 | 174.67 | 174.69 | 174.56 | 174.61 | 174.32 | 174.23 | 174.37 |
| 11 | 174.58 | 174.31 | 174.55 | 174.66 | 174.69 | 174.67 | 174.69 | 174.56 | 174.49 | 174.29 | 174.27 | 174.36 |
| 12 | 174.52 | 174.43 | 174.51 | 174.70 | 174.69 | 174.65 | 174.70 | 174.53 | 174.42 | 174.37 | 174.19 | 174.32 |
| 13 | 174.73 | 174.62 | 174.46 | 174.70 | 174.69 | 174.64 | 174.68 | 174.53 | 174.42 | 174.30 | 174.21 | 174.27 |
| 14 | 174.63 | 174.58 | 174.62 | 174.65 | 174.67 | 174.66 | 174.68 | 174.54 | 174.41 | 174.28 | 174.23 | 174.18 |
| 15 | 174.68 | 174.56 | 174.54 | 174.66 | 174.70 | 174.70 | 174.68 | 174.53 | 174.44 | 174.28 | 174.29 | 174.22 |
| 16 | 174.65 | 174.50 | 174.60 | 174.68 | 174.66 | 174.65 | 174.68 | 174.55 | 174.35 | 174.29 | 174.24 | 174.25 |
| 17 | 174.70 | 174.63 | 174.53 | 174.74 | 174.66 | 174.66 | 174.63 | 174.54 | 174.40 | 174.35 | 174.24 | 174.29 |
| 18 | 174.63 | 174.66 | 174.50 | 174.70 | 174.64 | 174.67 | 174.62 | 174.53 | 174.41 | 174.30 | 174.23 | 174.30 |
| 19 | 174.61 | 174.57 | 174.50 | 174.67 | 174.66 | 174.65 | 174.67 | 174.52 | 174.37 | 174.27 | 174.35 | 174.35 |
| 20 | 174.58 | 174.50 | 174.54 | 174.69 | 174.66 | 174.67 | 174.67 | 174.56 | 174.31 | 174.27 | 174.45 | 174.31 |
| 21 | 174.55 | 174.41 | 174.57 | 174.72 | 174.65 | 174.70 | 174.64 | 174.49 | 174.37 | 174.59 | 174.32 | 174.44 |
| 22 | 174.66 | 174.66 | 174.51 | 174.73 | 174.63 | 174.69 | 174.64 | 174.50 | 174.38 | 174.37 | 174.28 | 174.41 |
| 23 | 174.59 | 174.59 | 174.49 | 174.73 | 174.63 | 174.64 | 174.62 | 174.50 | 174.41 | 174.32 | 174.22 | 174.29 |
| 24 | 174.72 | 174.55 | 174.56 | 174.67 | 174.67 | 174.65 | 174.58 | 174.52 | 174.37 | 174.33 | 174.19 | 174.42 |
| 25 | 174.68 | 174.47 | 174.58 | 174.70 | 174.67 | 174.68 | 174.58 | 174.50 | 174.32 | 174.26 | 174.08 | 174.44 |
| 26 | 174.63 | 174.45 | 174.58 | 174.71 | 174.65 | 174.70 | 174.63 | 174.49 | 174.47 | 174.27 | 174.22 | 174.45 |
| 27 | 174.66 | 174.48 | 174.59 | 174.71 | 174.60 | 174.72 | 174.63 | 174.50 | 174.53 | 174.33 | 174.27 | 174.31 |
| 28 | 174.66 | 174.49 | 174.60 | 174.71 | 174.64 | 174.70 | 174.61 | 174.51 | 174.52 | 174.37 | 174.30 | 174.29 |
| 29 | 174.80 | | 174.62 | 174.71 | 174.63 | 174.68 | 174.69 | 174.42 | 174.42 | 174.40 | 174.35 | 174.36 |
| 30 | 174.88 | | 174.63 | 174.71 | 174.57 | 174.63 | 174.69 | 174.47 | 174.34 | 174.22 | 174.27 | 174.43 |
| 31 | 174.81 | | 174.50 | | 174.65 | | 174.61 | 174.49 | | 174.22 | | 174.33 |
| Mean | 174.61 | 174.54 | 174.52 | 174.69 | 174.66 | 174.66 | 174.66 | 174.53 | 174.44 | 174.33 | 174.27 | 174.32 |
| Max. | 175.08 | 174.86 | 174.79 | 174.85 | 174.78 | 174.83 | 174.82 | 174.77 | 175.04 | 174.87 | 174.79 | 174.73 |
| Hr. | 0200 | 2300 | 1900 | 1200 | 0200 | 1500 | 0200 | 0200 | 2400 | 1000 | 2200 | 2400 |
| Day | 30 | 17 | 16 | 16 | 25 | 5 | 12 | 4 | 27 | 21 | 5 | 25 |
| Min. | 174.30 | 174.13 | 174.06 | 174.28 | 174.50 | 174.41 | 174.52 | 174.26 | 174.15 | 174.13 | 173.99 | 174.10 |
| Hr. | 1100 | 2200 | 0100 | 0200 | 1700 | 0400 | 2300 | 2000 | 0200 | 0800 | 0500 | 0800 |
| Day | 10 | 11 | 5 | 1 | 30 | 5 | 24 | 29 | 26 | 31 | 25 | 14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.52

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 906-3053 Fairport, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 174.71 Apr
Daily mean elevation: 174.75 26 Apr
Instant/hourly elevation: 174.87 1700/19 Jun

LOWEST

Monthly mean elevation: 174.26 Nov
Daily mean elevation: 174.20 13 Nov
Instant/hourly elevation: 174.15 2100/21 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.66 | 174.67 | 174.66 | 174.75 | 174.74 | 174.71 | 174.71 | 174.61 | 174.51 | 174.38 | 174.33 | 174.42 |
| Day | 14 | 1 | 31 | 26 | 2 | 29 | 14 | 2 | 6 | 9 | 1 | 11 |
| Min | 174.47 | 174.50 | 174.48 | 174.69 | 174.63 | 174.62 | 174.60 | 174.49 | 174.37 | 174.24 | 174.20 | 174.21 |
| Day | 3 | 28 | 1 | 9 | 30 | 4 | 27 | 31 | 28 | 29 | 13 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.70 | | | | 15 | 9 | 2 | 1 | | | | | | 174.70 | 27 |
| 174.65 | 1 | 1 | 1 | 15 | 13 | 21 | 18 | | | | | | 174.65 | 97 |
| 174.60 | 18 | 1 | 7 | | 9 | 7 | 11 | | | | | | 174.60 | 151 |
| 174.55 | 7 | 10 | 11 | | | | 1 | 13 | | | | | 174.55 | 193 |
| 174.50 | 1 | 15 | 8 | | | | | 12 | 1 | | | | 174.50 | 230 |
| 174.45 | 4 | 1 | 4 | | | | | 5 | 10 | | | | 174.45 | 254 |
| 174.40 | | | | | | | | | 9 | | | | 174.40 | 264 |
| 174.35 | | | | | | | | | 10 | | | 1 | 174.35 | 277 |
| 174.30 | | | | | | | | | | 3 | | | 174.30 | 313 |
| 174.25 | | | | | | | | | | 20 | 1 | 15 | 174.25 | 347 |
| 174.20 | | | | | | | | | | 7 | 13 | 14 | 174.20 | 364 |
| 174.15 | | | | | | | | | | 1 | 15 | 1 | 174.15 | 365 |
| | | | | | | | | | | | 1 | | | |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3053 Fairport, Ohio on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.49 | 174.67 | 174.48 | 174.70 | 174.73 | 174.63 | 174.69 | 174.60 | 174.49 | 174.31 | 174.33 | 174.28 |
| 2 | 174.48 | 174.59 | 174.49 | 174.69 | 174.74 | 174.63 | 174.69 | 174.61 | 174.47 | 174.38 | 174.26 | 174.26 |
| 3 | 174.47 | 174.55 | 174.50 | 174.69 | 174.71 | 174.62 | 174.68 | 174.60 | 174.50 | 174.31 | 174.23 | 174.28 |
| 4 | 174.49 | 174.58 | 174.54 | 174.70 | 174.71 | 174.62 | 174.69 | 174.60 | 174.49 | 174.30 | 174.22 | 174.34 |
| 5 | 174.56 | 174.56 | 174.56 | 174.70 | 174.72 | 174.67 | 174.68 | 174.60 | 174.48 | 174.33 | 174.25 | 174.33 |
| 6 | 174.56 | 174.61 | 174.51 | 174.70 | 174.72 | 174.64 | 174.68 | 174.58 | 174.51 | 174.32 | 174.29 | 174.31 |
| 7 | 174.58 | 174.57 | 174.51 | 174.69 | 174.72 | 174.65 | 174.70 | 174.58 | 174.50 | 174.31 | 174.25 | 174.32 |
| 8 | 174.61 | 174.57 | 174.53 | 174.69 | 174.72 | 174.65 | 174.70 | 174.57 | 174.49 | 174.32 | 174.21 | 174.32 |
| 9 | 174.65 | 174.57 | 174.54 | 174.69 | 174.71 | 174.66 | 174.69 | 174.56 | 174.47 | 174.38 | 174.22 | 174.29 |
| 10 | 174.65 | 174.55 | 174.55 | 174.70 | 174.70 | 174.67 | 174.69 | 174.55 | 174.49 | 174.34 | 174.24 | 174.34 |
| 11 | 174.65 | 174.59 | 174.54 | 174.71 | 174.70 | 174.69 | 174.69 | 174.55 | 174.45 | 174.33 | 174.22 | 174.42 |
| 12 | 174.64 | 174.58 | 174.56 | 174.72 | 174.70 | 174.69 | 174.70 | 174.56 | 174.40 | 174.31 | 174.24 | 174.32 |
| 13 | 174.64 | 174.58 | 174.63 | 174.71 | 174.70 | 174.69 | 174.70 | 174.55 | 174.42 | 174.33 | 174.20 | 174.30 |
| 14 | 174.66 | 174.55 | 174.56 | 174.71 | 174.69 | 174.68 | 174.71 | 174.54 | 174.40 | 174.32 | 174.25 | 174.34 |
| 15 | 174.62 | 174.53 | 174.52 | 174.70 | 174.68 | 174.68 | 174.69 | 174.55 | 174.45 | 174.30 | 174.25 | 174.35 |
| 16 | 174.62 | 174.58 | 174.49 | 174.70 | 174.67 | 174.68 | 174.67 | 174.57 | 174.46 | 174.30 | 174.26 | 174.34 |
| 17 | 174.62 | 174.55 | 174.58 | 174.70 | 174.67 | 174.67 | 174.67 | 174.56 | 174.43 | 174.32 | 174.29 | 174.31 |
| 18 | 174.62 | 174.52 | 174.56 | 174.71 | 174.68 | 174.67 | 174.65 | 174.56 | 174.42 | 174.33 | 174.28 | 174.30 |
| 19 | 174.60 | 174.52 | 174.56 | 174.70 | 174.67 | 174.69 | 174.66 | 174.54 | 174.41 | 174.33 | 174.25 | 174.31 |
| 20 | 174.60 | 174.52 | 174.56 | 174.72 | 174.67 | 174.68 | 174.66 | 174.55 | 174.40 | 174.34 | 174.28 | 174.28 |
| 21 | 174.61 | 174.55 | 174.56 | 174.74 | 174.66 | 174.69 | 174.65 | 174.56 | 174.42 | 174.30 | 174.22 | 174.35 |
| 22 | 174.60 | 174.52 | 174.57 | 174.73 | 174.66 | 174.70 | 174.64 | 174.53 | 174.40 | 174.32 | 174.22 | 174.30 |
| 23 | 174.61 | 174.54 | 174.59 | 174.71 | 174.64 | 174.69 | 174.63 | 174.52 | 174.40 | 174.32 | 174.25 | 174.32 |
| 24 | 174.65 | 174.52 | 174.61 | 174.70 | 174.64 | 174.68 | 174.62 | 174.51 | 174.39 | 174.28 | 174.30 | 174.27 |
| 25 | 174.64 | 174.51 | 174.60 | 174.72 | 174.64 | 174.69 | 174.62 | 174.52 | 174.37 | 174.32 | 174.28 | 174.33 |
| 26 | 174.62 | 174.54 | 174.61 | 174.75 | 174.64 | 174.69 | 174.61 | 174.51 | 174.42 | 174.32 | 174.26 | 174.30 |
| 27 | 174.63 | 174.52 | 174.62 | 174.73 | 174.65 | 174.70 | 174.60 | 174.50 | 174.42 | 174.32 | 174.30 | 174.30 |
| 28 | 174.64 | 174.50 | 174.63 | 174.73 | 174.64 | 174.71 | 174.62 | 174.50 | 174.37 | 174.27 | 174.28 | 174.29 |
| 29 | 174.64 | | 174.63 | 174.74 | 174.63 | 174.71 | 174.63 | 174.49 | 174.40 | 174.24 | 174.30 | 174.29 |
| 30 | 174.57 | | 174.64 | 174.72 | 174.63 | 174.70 | 174.64 | 174.50 | 174.39 | 174.30 | 174.29 | 174.26 |
| 31 | 174.55 | | 174.66 | | 174.64 | | 174.61 | 174.49 | | 174.37 | | 174.21 |
| Mean | 174.60 | 174.56 | 174.56 | 174.71 | 174.68 | 174.68 | 174.66 | 174.55 | 174.44 | 174.32 | 174.26 | 174.31 |
| Max. | 174.76 | 174.74 | 174.73 | 174.85 | 174.77 | 174.87 | 174.80 | 174.67 | 174.61 | 174.52 | 174.40 | 174.49 |
| Hr. | 0900 | 0900 | 2000 | 0600 | 2400 | 1700 | 2100 | 2200 | 1300 | 1600 | 0900 | 0700 |
| Day | 29 | 1 | 31 | 21 | 12 | 19 | 11 | 2 | 3 | 17 | 1 | 11 |
| Min. | 174.42 | 174.43 | 174.42 | 174.60 | 174.55 | 174.56 | 174.49 | 174.42 | 174.22 | 174.15 | 174.15 | 174.16 |
| Hr. | 0100 | 0600 | 2200 | 0200 | 2300 | 0800 | 2300 | 2000 | 0400 | 1400 | 2100 | 2300 |
| Day | 3 | 22 | 16 | 15 | 28 | 28 | 28 | 29 | 28 | 21 | 21 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.53

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3063 Cleveland, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 174.69 Apr
Daily mean elevation: 174.74 21 Apr
Instant/hourly elevation: 174.92 2000/11 Jul

LOWEST

Monthly mean elevation: 174.22 Nov
Daily mean elevation: 174.12 31 Dec
Instant/hourly elevation: 173.96 2300/5 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.68 | 174.66 | 174.69 | 174.74 | 174.73 | 174.69 | 174.69 | 174.57 | 174.49 | 174.38 | 174.31 | 174.41 |
| Day | 10 | 11 | 31 | 21 | 2 | 30 | 1 | 6 | 6 | 31 | 25 | 11 |
| Min | 174.42 | 174.44 | 174.41 | 174.65 | 174.60 | 174.60 | 174.58 | 174.47 | 174.31 | 174.17 | 174.13 | 174.12 |
| Day | 3 | 18 | 16 | 3 | 24 | 3 | 31 | 24 | 28 | 29 | 21 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.70 | | | | 7 | 3 | | | | | | | | 174.70 | 10 |
| 174.65 | 2 | 2 | 2 | 21 | 13 | 13 | 13 | | | | | | 174.65 | 76 |
| 174.60 | 4 | 2 | 3 | 2 | 14 | 14 | 10 | | | | | | 174.60 | 125 |
| 174.55 | 15 | 2 | 9 | | 1 | 3 | 8 | 6 | | | | | 174.55 | 169 |
| 174.50 | 4 | 11 | 10 | | | | | 16 | | | | | 174.50 | 210 |
| 174.45 | 5 | 10 | 5 | | | | | 9 | 8 | | | | 174.45 | 247 |
| 174.40 | 1 | 1 | 2 | | | | | | 7 | | | 1 | 174.40 | 259 |
| 174.35 | | | | | | | | | 12 | 2 | | 2 | 174.35 | 275 |
| 174.30 | | | | | | | | | 3 | 5 | | 4 | 174.30 | 288 |
| 174.25 | | | | | | | | | | 17 | 8 | 13 | 174.25 | 326 |
| 174.20 | | | | | | | | | | 4 | 9 | 8 | 174.20 | 347 |
| 174.15 | | | | | | | | | | 3 | 7 | 2 | 174.15 | 359 |
| 174.10 | | | | | | | | | | | 5 | 1 | 174.10 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 906-3063 Cleveland, Ohio on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| 1 | 174.46 | 174.66 | 174.43 | 174.72 | 174.71 | 174.60 | 174.69 | 174.57 | 174.48 | 174.25 | 174.30 | 174.25 |
| 2 | 174.46 | 174.56 | 174.46 | 174.65 | 174.73 | 174.60 | 174.67 | 174.57 | 174.44 | 174.35 | 174.22 | 174.21 |
| 3 | 174.42 | 174.49 | 174.51 | 174.65 | 174.70 | 174.60 | 174.66 | 174.56 | 174.46 | 174.21 | 174.14 | 174.24 |
| 4 | 174.46 | 174.54 | 174.65 | 174.67 | 174.70 | 174.61 | 174.67 | 174.56 | 174.46 | 174.23 | 174.15 | 174.33 |
| 5 | 174.52 | 174.51 | 174.56 | 174.69 | 174.69 | 174.64 | 174.66 | 174.57 | 174.45 | 174.30 | 174.17 | 174.32 |
| 6 | 174.52 | 174.62 | 174.48 | 174.69 | 174.69 | 174.61 | 174.64 | 174.57 | 174.49 | 174.28 | 174.27 | 174.23 |
| 7 | 174.55 | 174.54 | 174.47 | 174.67 | 174.71 | 174.62 | 174.66 | 174.55 | 174.48 | 174.27 | 174.18 | 174.28 |
| 8 | 174.60 | 174.55 | 174.49 | 174.67 | 174.70 | 174.62 | 174.66 | 174.55 | 174.46 | 174.28 | 174.14 | 174.28 |
| 9 | 174.68 | 174.55 | 174.51 | 174.67 | 174.69 | 174.61 | 174.66 | 174.55 | 174.42 | 174.37 | 174.17 | 174.24 |
| 10 | 174.68 | 174.53 | 174.55 | 174.68 | 174.68 | 174.64 | 174.65 | 174.52 | 174.46 | 174.32 | 174.20 | 174.29 |
| 11 | 174.64 | 174.66 | 174.52 | 174.69 | 174.67 | 174.66 | 174.66 | 174.51 | 174.42 | 174.30 | 174.15 | 174.41 |
| 12 | 174.64 | 174.61 | 174.54 | 174.69 | 174.68 | 174.67 | 174.67 | 174.54 | 174.35 | 174.26 | 174.23 | 174.29 |
| 13 | 174.58 | 174.54 | 174.66 | 174.68 | 174.68 | 174.67 | 174.68 | 174.53 | 174.37 | 174.30 | 174.16 | 174.28 |
| 14 | 174.63 | 174.52 | 174.51 | 174.71 | 174.67 | 174.64 | 174.67 | 174.52 | 174.36 | 174.29 | 174.22 | 174.36 |
| 15 | 174.58 | 174.49 | 174.46 | 174.70 | 174.65 | 174.65 | 174.67 | 174.52 | 174.43 | 174.27 | 174.21 | 174.36 |
| 16 | 174.58 | 174.59 | 174.41 | 174.68 | 174.67 | 174.67 | 174.65 | 174.52 | 174.46 | 174.26 | 174.23 | 174.33 |
| 17 | 174.58 | 174.50 | 174.59 | 174.67 | 174.64 | 174.65 | 174.65 | 174.54 | 174.41 | 174.27 | 174.28 | 174.28 |
| 18 | 174.60 | 174.44 | 174.55 | 174.68 | 174.66 | 174.64 | 174.64 | 174.54 | 174.39 | 174.31 | 174.26 | 174.26 |
| 19 | 174.58 | 174.47 | 174.55 | 174.68 | 174.65 | 174.67 | 174.63 | 174.53 | 174.39 | 174.32 | 174.18 | 174.26 |
| 20 | 174.59 | 174.50 | 174.53 | 174.68 | 174.64 | 174.65 | 174.64 | 174.52 | 174.40 | 174.31 | 174.22 | 174.23 |
| 21 | 174.59 | 174.55 | 174.53 | 174.74 | 174.63 | 174.65 | 174.63 | 174.55 | 174.41 | 174.20 | 174.13 | 174.29 |
| 22 | 174.55 | 174.47 | 174.56 | 174.70 | 174.63 | 174.68 | 174.61 | 174.51 | 174.38 | 174.28 | 174.17 | 174.23 |
| 23 | 174.58 | 174.51 | 174.60 | 174.68 | 174.61 | 174.68 | 174.60 | 174.50 | 174.36 | 174.27 | 174.23 | 174.31 |
| 24 | 174.59 | 174.47 | 174.60 | 174.67 | 174.60 | 174.67 | 174.60 | 174.47 | 174.36 | 174.22 | 174.28 | 174.17 |
| 25 | 174.61 | 174.50 | 174.58 | 174.70 | 174.62 | 174.67 | 174.60 | 174.49 | 174.36 | 174.29 | 174.31 | 174.27 |
| 26 | 174.57 | 174.54 | 174.59 | 174.73 | 174.62 | 174.66 | 174.58 | 174.50 | 174.36 | 174.29 | 174.24 | 174.26 |
| 27 | 174.59 | 174.49 | 174.59 | 174.72 | 174.63 | 174.65 | 174.58 | 174.48 | 174.34 | 174.30 | 174.26 | 174.27 |
| 28 | 174.58 | 174.47 | 174.61 | 174.71 | 174.61 | 174.68 | 174.58 | 174.48 | 174.31 | 174.18 | 174.26 | 174.27 |
| 29 | 174.59 | | 174.60 | 174.71 | 174.62 | 174.68 | 174.61 | 174.50 | 174.38 | 174.17 | 174.23 | 174.23 |
| 30 | 174.46 | | 174.61 | 174.70 | 174.62 | 174.69 | 174.60 | 174.48 | 174.37 | 174.29 | 174.27 | 174.19 |
| 31 | 174.46 | | 174.69 | | 174.62 | | 174.58 | 174.48 | | 174.38 | | 174.12 |
| Mean | 174.56 | 174.53 | 174.55 | 174.69 | 174.66 | 174.65 | 174.64 | 174.52 | 174.41 | 174.28 | 174.22 | 174.27 |
| Max.
Hr.
Day | 174.77
2100
9 | 174.77
0900
1 | 174.83
2000
31 | 174.90
2200
15 | 174.81
1300
2 | 174.88
1700
19 | 174.92
2000
11 | 174.64
0100
21 | 174.59
1500
3 | 174.46
1300
9 | 174.42
0100
25 | 174.50
2000
25 |
| Min.
Hr.
Day | 174.27
0400
30 | 174.36
0700
22 | 174.28
1900
16 | 174.56
0400
16 | 174.52
1200
24 | 174.48
1900
8 | 174.48
0700
26 | 174.41
0800
31 | 174.10
0300
28 | 173.99
0400
4 | 173.96
2300
5 | 174.04
2300
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.50

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3079 Marblehead, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 174.70 Apr
Daily mean elevation: 175.00 4 Mar
Instant/hourly elevation: 175.14 1600/4 Mar

LOWEST

Monthly mean elevation: 174.19 Nov
Daily mean elevation: 173.96 21 Oct
Instant/hourly elevation: 173.63 2200/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.88 | 174.87 | 175.00 | 174.78 | 174.78 | 174.76 | 174.76 | 174.59 | 174.52 | 174.40 | 174.48 | 174.45 |
| Day | 9 | 11 | 4 | 1 | 2 | 30 | 1 | 21 | 1 | 31 | 25 | 14 |
| Min | 174.20 | 174.30 | 174.34 | 174.61 | 174.54 | 174.56 | 174.50 | 174.46 | 174.16 | 173.96 | 174.04 | 174.04 |
| Day | 30 | 18 | 16 | 17 | 24 | 1 | 29 | 24 | 28 | 21 | 5 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.95 | | | 1 | | | | | | | | | | 174.95 | 1 |
| 174.90 | | | | | | | | | | | | | 174.90 | 1 |
| 174.85 | 1 | 1 | | | | | | | | | | | 174.85 | 3 |
| 174.80 | 1 | | 1 | | | | | | | | | | 174.80 | 5 |
| 174.75 | | | | 2 | 1 | 1 | 1 | | | | | | 174.75 | 10 |
| 174.70 | 1 | 2 | 1 | 7 | 5 | 3 | | | | | | | 174.70 | 29 |
| 174.65 | 1 | | 1 | 16 | 13 | 8 | 9 | | | | | | 174.65 | 77 |
| 174.60 | 2 | 3 | 8 | 3 | 8 | 16 | 15 | | | | | | 174.60 | 132 |
| 174.55 | 4 | 3 | 7 | | 3 | 2 | 3 | 8 | | | | | 174.55 | 162 |
| 174.50 | 6 | 2 | 3 | | 1 | | 2 | 15 | 2 | | | | 174.50 | 193 |
| 174.45 | 5 | 4 | 4 | | | | 1 | 8 | 6 | | 1 | | 174.45 | 222 |
| 174.40 | 4 | 1 | 3 | | | | | | 7 | | | 2 | 174.40 | 239 |
| 174.35 | 1 | | 1 | | | | | | 7 | 3 | | 2 | 174.35 | 253 |
| 174.30 | | | 1 | | | | | | 4 | 7 | 2 | 3 | 174.30 | 270 |
| 174.25 | 1 | 1 | | | | | | | 2 | 10 | 4 | 6 | 174.25 | 294 |
| 174.20 | | | | | | | | | | 5 | 7 | 9 | 174.20 | 315 |
| 174.15 | 1 | | | | | | | | 2 | 1 | 5 | 2 | 174.15 | 326 |
| 174.10 | | | | | | | | | | 1 | 4 | 3 | 174.10 | 334 |
| 174.05 | | | | | | | | | | 2 | 4 | 2 | 174.05 | 342 |
| 174.00 | | | | | | | | | | 1 | 3 | 2 | 174.00 | 348 |
| 173.95 | | | | | | | | | | 1 | | | 173.95 | 349 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3079 Marblehead, Ohio on Lake Erie

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.38 | 174.64 | 174.40* | 174.78 | 174.74 | 174.56 | 174.76 | 174.57 | 174.52 | 174.24 | 174.20 | 174.28 |
| 2 | 174.48 | / | 174.43 | 174.62 | 174.78 | 174.61 | 174.69 | 174.53 | 174.47 | 174.29 | 174.20 | 174.21 |
| 3 | 174.45 | 174.57* | 174.59 | 174.63 | 174.72 | 174.61 | 174.65 | 174.52 | 174.42 | 174.10 | 174.05 | 174.24 |
| 4 | 174.44 | 174.53 | 175.00 | 174.68 | 174.74 | 174.65 | 174.69 | 174.52 | 174.43 | 174.13 | 174.14 | 174.39 |
| 5 | 174.47 | 174.50 | 174.60 | 174.74 | 174.69 | 174.63 | 174.67 | 174.56 | 174.46 | 174.30 | 174.04 | 174.34 |
| 6 | 174.50 | 174.71* | 174.46 | 174.70 | 174.69 | 174.62 | 174.62 | 174.58 | 174.50 | 174.30 | 174.25 | 174.12 |
| 7 | 174.54 | 174.64* | 174.47 | 174.68 | 174.73 | 174.64 | 174.66 | 174.54 | 174.49 | 174.26 | 174.08 | 174.25 |
| 8 | 174.65 | 174.60 | 174.44 | 174.69 | 174.73 | 174.64 | 174.64 | 174.56 | 174.46 | 174.28 | 174.09 | 174.26 |
| 9 | 174.88 | 174.57 | 174.50 | 174.68 | 174.70 | 174.58 | 174.64 | 174.56 | 174.34 | 174.38 | 174.15 | 174.24 |
| 10 | 174.81 | 174.54 | 174.61 | 174.68 | 174.70 | 174.64 | 174.65 | 174.49 | 174.29 | 174.32 | 174.21 | 174.21 |
| 11 | 174.66 | 174.87 | 174.51 | 174.74 | 174.68 | 174.66 | 174.62 | 174.50 | 174.40 | 174.31 | 174.12 | 174.32 |
| 12 | 174.71 | 174.72 | 174.58 | 174.69 | 174.70 | 174.70 | 174.65 | 174.56 | 174.34 | 174.21 | 174.27 | 174.27 |
| 13 | 174.42 | 174.48 | 174.72 | 174.69* | 174.70 | 174.70 | 174.67 | 174.54 | 174.36 | 174.32 | 174.17 | 174.30 |
| 14 | 174.61 | 174.48 | 174.45 | / | 174.67 | 174.65 | 174.67 | 174.52 | 174.34 | 174.32 | 174.24 | 174.45 |
| 15 | 174.53 | 174.47 | 174.47 | / | 174.62 | 174.63 | 174.69 | 174.54 | 174.41 | 174.29 | 174.18 | 174.44 |
| 16 | 174.55 | 174.62 | 174.34 | 174.68* | 174.69 | 174.71 | 174.65 | 174.51 | 174.51 | 174.27 | 174.24 | 174.36 |
| 17 | 174.49 | 174.41 | 174.62 | 174.61 | 174.64 | 174.66 | 174.69 | 174.54 | 174.43 | 174.23 | 174.31 | 174.28 |
| 18 | 174.58 | 174.30* | 174.60 | 174.67 | 174.68 | 174.65 | 174.66 | 174.55 | 174.39 | 174.33 | 174.28 | 174.25 |
| 19 | / | / | 174.58 | 174.70 | 174.66 | 174.67 | 174.61 | 174.54 | 174.44 | 174.35 | 174.10 | 174.21 |
| 20 | / | / | 174.54 | 174.68 | 174.65 | 174.65 | 174.61 | 174.51 | 174.47 | 174.36 | 174.05 | 174.23 |
| 21 | / | / | 174.52 | 174.75 | 174.64 | 174.63 | 174.65 | 174.59 | 174.41 | 173.96 | 174.06 | 174.14 |
| 22 | 174.52* | / | 174.61 | 174.70 | 174.65 | 174.68 | 174.61 | 174.53 | 174.38 | 174.22 | 174.13 | 174.16 |
| 23 | 174.59 | / | 174.67 | 174.67 | 174.61 | 174.74 | 174.62 | 174.51 | 174.34 | 174.27 | 174.25 | 174.32 |
| 24 | 174.49 | / | 174.61 | 174.70 | 174.54 | 174.69 | 174.64 | 174.46 | 174.38 | 174.19 | 174.35 | 174.06 |
| 25 | 174.57 | / | 174.59 | 174.70 | 174.57 | 174.64 | 174.63 | 174.50 | 174.43 | 174.30 | 174.48 | 174.14 |
| 26 | 174.55 | / | 174.60 | 174.77 | 174.61 | 174.65 | 174.55 | 174.51 | 174.27 | 174.30 | 174.29 | 174.16 |
| 27 | 174.56 | / | 174.61 | 174.74 | 174.68 | 174.62 | 174.56 | 174.47 | 174.18 | 174.23 | 174.25 | 174.25 |
| 28 | 174.54 | / | 174.62 | 174.72 | 174.60 | 174.67 | 174.56 | 174.48 | 174.16 | 174.10 | 174.22 | 174.26 |
| 29 | 174.41 | / | 174.61 | 174.71 | 174.63 | 174.71 | 174.50 | 174.57 | 174.36 | 174.05 | 174.16 | 174.10 |
| 30 | 174.20 | / | 174.62 | 174.71 | 174.67 | 174.76 | 174.55 | 174.49 | 174.39 | 174.34 | 174.29 | 174.04 |
| 31 | 174.28 | / | 174.82 | / | 174.58 | / | 174.58 | 174.47 | / | 174.40 | / | 174.05 |
| Mean | 174.53 | 174.57 | 174.57 | 174.70 | 174.67 | 174.66 | 174.63 | 174.53 | 174.39 | 174.26 | 174.19 | 174.24 |
| Max. | 175.00 | 175.06 | 175.14 | 175.12 | 174.88 | 174.87 | 174.88 | 174.72 | 174.63 | 174.52 | 174.62 | 174.56 |
| Hr. | 1600 | 1500 | 1600 | 0200 | 2300 | 1800 | 1100 | 1900 | 2400 | 0100 | 0500 | 0200 |
| Day | 9 | 11 | 4 | 1 | 12 | 30 | 12 | 29 | 3 | 13 | 25 | 15 |
| Min. | 173.88 | 174.18 | 174.16 | 174.49 | 174.44 | 174.43 | 174.36 | 174.34 | 173.63 | 173.69 | 173.65 | 173.85 |
| Hr. | 0600 | 0200 | 2000 | 1100 | 0100 | 1600 | 1000 | 0300 | 2200 | 1100 | 2100 | 1800 |
| Day | 31 | 18 | 16 | 17 | 25 | 5 | 29 | 4 | 27 | 21 | 5 | 6 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.49

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3085 Toledo, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 174.72 Apr
Daily mean elevation: 175.13 4 Mar
Instant/hourly elevation: 175.46 0200/1 Apr

LOWEST

Monthly mean elevation: 174.19 Nov
Daily mean elevation: 173.72 21 Oct
Instant/hourly elevation: 173.15 2400/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.12 | 175.03 | 175.13 | 174.86 | 174.85 | 174.87 | 174.83 | 174.64 | 174.59 | 174.42 | 174.70 | 174.54 |
| Day | 9 | 11 | 4 | 14 | 2 | 30 | 1 | 29 | 20 | 20 | 25 | 14 |
| Min | 173.95 | 174.22 | 174.33 | 174.53 | 174.45 | 174.51 | 174.32 | 174.43 | 174.01 | 173.72 | 173.90 | 173.94 |
| Day | 30 | 18 | 14 | 17 | 24 | 1 | 29 | 24 | 28 | 21 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.10 | 1 | | 1 | | | | | | | | | | 175.10 | 2 |
| 175.05 | | | | | | | | | | | | | 175.05 | 2 |
| 175.00 | 1 | 1 | | | | | | | | | | | 175.00 | 4 |
| 174.95 | | | 1 | | | | | | | | | | 174.95 | 5 |
| 174.90 | | | | | | | | | | | | | 174.90 | 5 |
| 174.85 | | 1 | | 3 | | 1 | | | | | | | 174.85 | 10 |
| 174.80 | 1 | | | 2 | 2 | 1 | 1 | | | | | | 174.80 | 17 |
| 174.75 | | 1 | 1 | 3 | 5 | 3 | | | | | | | 174.75 | 30 |
| 174.70 | 2 | 1 | 2 | 13 | 8 | 3 | 2 | | | | | | 174.70 | 61 |
| 174.65 | 1 | | 2 | 5 | 5 | 7 | 10 | | | | 1 | | 174.65 | 92 |
| 174.60 | 4 | 4 | 12 | 1 | 5 | 11 | 8 | 2 | | | | | 174.60 | 139 |
| 174.55 | 4 | 5 | 1 | 2 | 2 | 2 | 5 | 7 | 2 | | | | 174.55 | 169 |
| 174.50 | 6 | 4 | 4 | 1 | 2 | 2 | 3 | 10 | 3 | | | 1 | 174.50 | 205 |
| 174.45 | 4 | 4 | 3 | | 1 | | 1 | 9 | 6 | | | 1 | 174.45 | 234 |
| 174.40 | 2 | 3 | 2 | | 1 | | | 3 | 3 | 2 | 1 | 2 | 174.40 | 253 |
| 174.35 | | 2 | | | | | | | 6 | 3 | | | 174.35 | 264 |
| 174.30 | 2 | | 2 | | | | 1 | | 5 | 9 | 5 | 5 | 174.30 | 293 |
| 174.25 | 1 | 1 | | | | | | | 1 | 5 | 2 | 7 | 174.25 | 310 |
| 174.20 | | 1 | | | | | | | | 3 | 6 | 4 | 174.20 | 324 |
| 174.15 | | | | | | | | | 1 | 3 | 1 | 1 | 174.15 | 330 |
| 174.10 | | | | | | | | | | 1 | 6 | 3 | 174.10 | 340 |
| 174.05 | 1 | | | | | | | | 2 | 1 | 1 | | 174.05 | 345 |
| 174.00 | | | | | | | | | 1 | 2 | 2 | 4 | 174.00 | 354 |
| 173.95 | | | | | | | | | | 2 | 3 | 1 | 173.95 | 358 |
| 173.90 | 1 | | | | | | | | | 1 | 1 | 2 | 173.90 | 363 |
| 173.85 | | | | | | | | | | | 1 | | 173.85 | 364 |
| 173.80 | | | | | | | | | | | | | 173.80 | 364 |
| 173.75 | | | | | | | | | | | | | 173.75 | 364 |
| 173.70 | | | | | | | | | | 1 | | | 173.70 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3085 Toledo, Ohio on Lake Erie

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.34 | 174.64 | 174.43 | 174.86 | 174.81 | 174.51 | 174.83 | 174.56 | 174.55 | 174.23 | 174.11 | 174.34 |
| 2 | 174.55 | 174.57 | 174.46 | 174.59 | 174.85 | 174.62 | 174.70 | 174.46 | 174.46 | 174.22 | 174.22 | 174.22 |
| 3 | 174.49 | 174.45 | 174.65 | 174.60 | 174.74 | 174.62 | 174.65 | 174.48 | 174.39 | 174.02 | 174.00 | 174.27 |
| 4 | 174.47 | 174.55 | 175.13 | 174.71 | 174.78 | 174.76 | 174.70 | 174.46 | 174.40 | 174.06 | 174.15 | 174.43 |
| 5 | 174.48 | 174.51 | 174.64 | 174.83 | 174.70 | 174.62 | 174.68 | 174.57 | 174.47 | 174.30 | 173.93 | 174.35 |
| 6 | 174.55 | 174.78 | 174.48 | 174.74 | 174.72 | 174.63 | 174.60 | 174.60 | 174.52 | 174.32 | 174.23 | 174.05 |
| 7 | 174.59 | 174.56 | 174.50 | 174.72 | 174.78 | 174.69 | 174.66 | 174.54 | 174.50 | 174.26 | 173.99 | 174.24 |
| 8 | 174.74 | 174.62 | 174.45 | 174.71 | 174.78 | 174.64 | 174.64 | 174.58 | 174.47 | 174.30 | 174.05 | 174.27 |
| 9 | 175.12 | 174.62 | 174.52 | 174.70 | 174.74 | 174.54 | 174.61 | 174.58 | 174.26 | 174.37 | 174.15 | 174.26 |
| 10 | 175.04 | 174.57 | 174.71 | 174.69 | 174.72 | 174.63 | 174.65 | 174.47 | 174.10 | 174.34 | 174.23 | 174.11 |
| 11 | 174.71 | 175.03 | 174.52 | 174.86 | 174.70 | 174.69 | 174.61 | 174.51 | 174.39 | 174.34 | 174.10 | 174.25 |
| 12 | 174.81 | 174.86 | 174.62 | 174.71 | 174.74 | 174.75 | 174.60 | 174.59 | 174.35 | 174.14 | 174.35 | 174.28 |
| 13 | 174.33 | 174.43 | 174.71 | 174.71 | 174.73 | 174.76 | 174.68 | 174.54 | 174.35 | 174.36 | 174.19 | 174.35 |
| 14 | 174.62 | 174.47 | 174.33 | 174.86 | 174.64 | 174.65 | 174.67 | 174.53 | 174.33 | 174.35 | 174.26 | 174.54 |
| 15 | 174.51 | 174.46 | 174.51 | 174.78 | 174.54 | 174.62 | 174.73 | 174.55 | 174.38 | 174.32 | 174.15 | 174.49 |
| 16 | 174.55 | 174.65 | 174.34 | 174.65 | 174.71 | 174.78 | 174.65 | 174.49 | 174.56 | 174.30 | 174.25 | 174.41 |
| 17 | 174.43 | 174.37 | 174.64 | 174.53 | 174.64 | 174.68 | 174.73 | 174.54 | 174.46 | 174.22 | 174.32 | 174.31 |
| 18 | 174.59 | 174.22 | 174.66 | 174.67 | 174.73 | 174.66 | 174.70 | 174.57 | 174.40 | 174.36 | 174.33 | 174.26 |
| 19 | 174.61 | 174.46 | 174.63 | 174.74 | 174.65 | 174.70 | 174.58 | 174.55 | 174.49 | 174.41 | 174.04 | 174.18 |
| 20 | 174.64 | 174.54 | 174.56 | 174.67 | 174.66 | 174.64 | 174.58 | 174.48 | 174.59 | 174.42 | 173.90 | 174.26 |
| 21 | 174.68 | 174.73 | 174.54 | 174.76 | 174.64 | 174.61 | 174.66 | 174.62 | 174.45 | 173.72 | 174.00 | 173.99 |
| 22 | 174.48 | 174.30 | 174.67 | 174.71 | 174.67 | 174.70 | 174.61 | 174.54 | 174.39 | 174.17 | 174.11 | 174.11 |
| 23 | 174.65 | 174.40 | 174.77 | 174.70 | 174.61 | 174.82 | 174.64 | 174.54 | 174.32 | 174.26 | 174.29 | 174.33 |
| 24 | 174.41 | 174.42 | 174.65 | 174.73 | 174.45 | 174.73 | 174.68 | 174.43 | 174.41 | 174.18 | 174.43 | 173.94 |
| 25 | 174.56 | 174.57 | 174.64 | 174.73 | 174.50 | 174.62 | 174.67 | 174.50 | 174.52 | 174.33 | 174.70 | 174.03 |
| 26 | 174.56 | 174.58 | 174.64 | 174.81 | 174.59 | 174.60 | 174.51 | 174.53 | 174.20 | 174.31 | 174.34 | 174.13 |
| 27 | 174.54 | 174.51 | 174.65 | 174.80 | 174.76 | 174.58 | 174.53 | 174.45 | 174.06 | 174.16 | 174.23 | 174.25 |
| 28 | 174.52 | 174.48 | 174.64 | 174.73 | 174.59 | 174.67 | 174.55 | 174.47 | 174.01 | 174.04 | 174.23 | 174.28 |
| 29 | 174.27 | | 174.63 | 174.72 | 174.66 | 174.74 | 174.32 | 174.64 | 174.35 | 173.91 | 174.12 | 174.04 |
| 30 | 173.95 | | 174.64 | 174.72 | 174.77 | 174.87 | 174.48 | 174.50 | 174.42 | 174.34 | 174.32 | 173.94 |
| 31 | 174.08 | | 174.99 | | 174.51 | | 174.58 | 174.45 | | 174.35 | | 174.03 |
| Mean | 174.54 | 174.55 | 174.61 | 174.72 | 174.68 | 174.67 | 174.63 | 174.53 | 174.38 | 174.24 | 174.19 | 174.22 |
| Max. | 175.34 | 175.34 | 175.37 | 175.46 | 175.13 | 175.06 | 175.00 | 174.88 | 174.89 | 174.76 | 174.97 | 174.70 |
| Hr. | 1000 | 0100 | 2100 | 0200 | 2100 | 2000 | 1000 | 2100 | 2200 | 0200 | 0800 | 1000 |
| Day | 10 | 12 | 31 | 1 | 12 | 30 | 12 | 29 | 25 | 13 | 25 | 14 |
| Min. | 173.55 | 174.01 | 174.13 | 174.37 | 174.28 | 174.29 | 174.17 | 174.23 | 173.15 | 173.17 | 173.35 | 173.46 |
| Hr. | 0800 | 2400 | 2000 | 1200 | 0600 | 1500 | 1100 | 0400 | 2400 | 1200 | 2200 | 2200 |
| Day | 31 | 17 | 16 | 20 | 24 | 5 | 29 | 4 | 27 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.50

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3090 Fermi Power Plant, Stony Point, Michigan on Lake Erie

HIGHEST

Monthly mean elevation: 174.71 Apr
Daily mean elevation: 175.04 4 Mar
Instant/hourly elevation: 175.22 0200/1 Apr

LOWEST

Monthly mean elevation: 174.20 Nov
Daily mean elevation: 173.84 21 Oct
Instant/hourly elevation: 173.29 2300/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.88 | 174.91 | 175.04 | 174.79 | 174.81 | 174.79 | 174.78 | 174.61 | 174.54 | 174.41 | 174.58 | 174.48 |
| Day | 9      | 11     | 4      | 14     | 2      | 30     | 1      | 29     | 20     | 20     | 25     | 14     |
| Min | 174.11 | 174.29 | 174.31 | 174.56 | 174.52 | 174.52 | 174.37 | 174.45 | 174.10 | 173.84 | 173.95 | 173.99 |
| Day | 30     | 18     | 14     | 17     | 25     | 1      | 29     | 31     | 28     | 21     | 20     | 30     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.00 | | | 1 | | | | | | | | | | 175.00 | 1 |
| 174.95 | | | | | | | | | | | | | 174.95 | 1 |
| 174.90 | | 1 | | | | | | | | | | | 174.90 | 2 |
| 174.85 | 1 | | 1 | | | | | | | | | | 174.85 | 4 |
| 174.80 | 1 | | | | 1 | | | | | | | | 174.80 | 6 |
| 174.75 | | 1 | | 7 | 2 | 2 | 1 | | | | | | 174.75 | 19 |
| 174.70 | 1 | | 1 | 8 | 7 | 4 | 1 | | | | | | 174.70 | 41 |
| 174.65 | 2 | 2 | | 12 | 9 | 11 | 10 | | | | | | 174.65 | 87 |
| 174.60 | 4 | 1 | 11 | 1 | 6 | 10 | 10 | 1 | | | | | 174.60 | 131 |
| 174.55 | 5 | 7 | 5 | 2 | 4 | 2 | 5 | 7 | | | 1 | | 174.55 | 169 |
| 174.50 | 6 | 4 | 3 | | 2 | 1 | 2 | 12 | 3 | | | | 174.50 | 202 |
| 174.45 | 3 | 6 | 5 | | | | 1 | 9 | 6 | | | 1 | 174.45 | 233 |
| 174.40 | 3 | 2 | 3 | | | | | 2 | 6 | 1 | | 1 | 174.40 | 251 |
| 174.35 | 1 | 2 | | | | | 1 | | 7 | 1 | | 2 | 174.35 | 265 |
| 174.30 | 1 | 1 | 1 | | | | | | 4 | 9 | 5 | 4 | 174.30 | 290 |
| 174.25 | 1 | 1 | | | | | | | | 9 | 3 | 8 | 174.25 | 312 |
| 174.20 | | | | | | | | | 1 | 3 | 7 | 4 | 174.20 | 327 |
| 174.15 | 1 | | | | | | | | | 3 | 3 | 1 | 174.15 | 335 |
| 174.10 | 1 | | | | | | | | 1 | 3 | 5 | 3 | 174.10 | 348 |
| 174.05 | | | | | | | | | 2 | | 4 | 3 | 174.05 | 357 |
| 174.00 | | | | | | | | | | | | 3 | 174.00 | 360 |
| 173.95 | | | | | | | | | | 1 | 1 | 1 | 173.95 | 363 |
| 173.90 | | | | | | | | | | | 1 | | 173.90 | 364 |
| 173.85 | | | | | | | | | | | | | 173.85 | 364 |
| 173.80 | | | | | | | | | | 1 | | | 173.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 906-3090 Fermi Power Plant, Stony Point, Michigan on Lake Erie

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.31 | 174.58 | 174.43 | 174.78 | 174.76 | 174.52 | 174.78 | 174.57 | 174.52 | 174.30 | 174.12 | 174.33 |
| 2 | 174.51 | 174.56 | 174.46 | 174.58 | 174.81 | 174.62 | 174.70 | 174.48 | 174.48 | 174.23 | 174.26 | 174.25 |
| 3 | 174.49 | 174.47 | 174.61 | 174.61 | 174.75 | 174.61 | 174.65 | 174.51 | 174.41 | 174.12 | 174.08 | 174.26 |
| 4 | 174.49 | 174.54 | 175.04 | 174.69 | 174.78 | 174.69 | 174.70 | 174.48 | 174.41 | 174.12 | 174.20 | 174.37 |
| 5 | 174.42 | 174.51 | 174.58 | 174.76 | 174.70 | 174.59 | 174.70 | 174.56 | 174.46 | 174.30 | 174.00 | 174.33 |
| 6 | 174.52 | 174.70 | 174.47 | 174.72 | 174.70 | 174.63 | 174.64 | 174.59 | 174.49 | 174.33 | 174.22 | 174.10 |
| 7 | 174.56 | 174.57 | 174.49 | 174.70 | 174.75 | 174.67 | 174.67 | 174.54 | 174.49 | 174.28 | 174.08 | 174.25 |
| 8 | 174.63 | 174.58 | 174.44 | 174.71 | 174.75 | 174.65 | 174.65 | 174.57 | 174.46 | 174.30 | 174.11 | 174.29 |
| 9 | 174.88 | 174.61 | 174.49 | 174.70 | 174.71 | 174.60 | 174.64 | 174.58 | 174.32 | 174.28 | 174.16 | 174.28 |
| 10 | 174.83 | 174.55 | 174.65 | 174.68 | 174.70 | 174.63 | 174.65 | 174.50 | 174.13 | 174.33 | 174.23 | 174.13 |
| 11 | 174.66 | 174.91 | 174.50 | 174.79 | 174.69 | 174.66 | 174.62 | 174.51 | 174.39 | 174.34 | 174.15 | 174.19 |
| 12 | 174.75 | 174.76 | 174.58 | 174.69 | 174.68 | 174.72 | 174.61 | 174.58 | 174.40 | 174.18 | 174.31 | 174.28 |
| 13 | 174.39 | 174.42 | 174.58 | 174.69 | 174.69 | 174.72 | 174.66 | 174.54 | 174.40 | 174.32 | 174.23 | 174.34 |
| 14 | 174.62 | 174.47 | 174.31 | 174.79 | 174.68 | 174.67 | 174.66 | 174.53 | 174.40 | 174.35 | 174.25 | 174.48 |
| 15 | 174.53 | 174.47 | 174.53 | 174.76 | 174.58 | 174.62 | 174.69 | 174.55 | 174.35 | 174.32 | 174.16 | 174.41 |
| 16 | 174.57 | 174.57 | 174.42 | 174.70 | 174.70 | 174.74 | 174.65 | 174.50 | 174.51 | 174.30 | 174.25 | 174.37 |
| 17 | 174.45 | 174.37 | 174.58 | 174.56 | 174.65 | 174.68 | 174.71 | 174.52 | 174.43 | 174.23 | 174.26 | 174.30 |
| 18 | 174.58 | 174.29 | 174.63 | 174.69 | 174.72 | 174.66 | 174.69 | 174.55 | 174.38 | 174.34 | 174.32 | 174.27 |
| 19 | 174.60 | 174.46 | 174.61 | 174.74 | 174.63 | 174.68 | 174.59 | 174.55 | 174.45 | 174.39 | 174.08 | 174.21 |
| 20 | 174.63 | 174.53 | 174.55 | 174.70 | 174.65 | 174.66 | 174.57 | 174.47 | 174.54 | 174.41 | 173.95 | 174.28 |
| 21 | 174.66 | 174.69 | 174.53 | 174.70 | 174.64 | 174.62 | 174.64 | 174.58 | 174.42 | 173.84 | 174.10 | 174.04 |
| 22 | 174.50 | 174.32 | 174.64 | 174.70 | 174.67 | 174.67 | 174.60 | 174.54 | 174.40 | 174.20 | 174.15 | 174.14 |
| 23 | 174.64 | 174.38 | 174.72 | 174.69 | 174.65 | 174.78 | 174.63 | 174.54 | 174.32 | 174.28 | 174.28 | 174.31 |
| 24 | 174.42 | 174.42 | 174.61 | 174.78 | 174.56 | 174.72 | 174.67 | 174.45 | 174.39 | 174.21 | 174.35 | 174.02 |
| 25 | 174.55 | 174.56 | 174.60 | 174.72 | 174.52 | 174.65 | 174.66 | 174.50 | 174.49 | 174.33 | 174.58 | 174.04 |
| 26 | 174.60 | 174.56 | 174.61 | 174.73 | 174.60 | 174.64 | 174.53 | 174.52 | 174.24 | 174.31 | 174.34 | 174.12 |
| 27 | 174.54 | 174.50 | 174.61 | 174.77 | 174.72 | 174.62 | 174.54 | 174.47 | 174.10 | 174.17 | 174.24 | 174.24 |
| 28 | 174.53 | 174.48 | 174.62 | 174.74 | 174.60 | 174.67 | 174.56 | 174.46 | 174.10 | 174.15 | 174.23 | 174.26 |
| 29 | 174.30 | | 174.62 | 174.73 | 174.62 | 174.70 | 174.37 | 174.61 | 174.33 | 173.97 | 174.15 | 174.06 |
| 30 | 174.11 | | 174.63 | 174.71 | 174.73 | 174.79 | 174.48 | 174.49 | 174.43 | 174.29 | 174.31 | 173.99 |
| 31 | 174.20 | | 174.88 | | 174.53 | | 174.57 | 174.45 | | 174.28 | | 174.09 |
| Mean | 174.53 | 174.53 | 174.58 | 174.71 | 174.68 | 174.66 | 174.63 | 174.53 | 174.39 | 174.25 | 174.20 | 174.23 |
| Max. | 175.09 | 175.18 | 175.16 | 175.22 | 174.91 | 174.95 | 174.88 | 174.84 | 174.72 | 174.64 | 174.78 | 174.59 |
| Hr. | 1000 | 2400 | 2000 | 0200 | 1900 | 2200 | 1000 | 2000 | 2200 | 0100 | 0700 | 0900 |
| Day | 10 | 11 | 4 | 1 | 30 | 23 | 12 | 29 | 25 | 13 | 25 | 14 |
| Min. | 173.75 | 174.04 | 174.12 | 174.40 | 174.36 | 174.29 | 174.26 | 174.28 | 173.29 | 173.36 | 173.46 | 173.52 |
| Hr. | 0700 | 0900 | 0200 | 0800 | 0200 | 1400 | 1200 | 0500 | 2300 | 1000 | 2200 | 2100 |
| Day | 31 | 22 | 14 | 17 | 25 | 5 | 29 | 28 | 27 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.49

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 904-4020 Gibraltar, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 174.76 Apr
Daily mean elevation: 175.00 4 Mar
Instant/hourly elevation: 175.25 0200/1 Apr

LOWEST

Monthly mean elevation: 174.31 Nov
Daily mean elevation: 174.05 21 Oct
Instant/hourly elevation: 173.69 2200/5 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 174.90 | 174.90 | 175.00 | 174.85 | 174.86 | 174.86 | 174.85 | 174.75 | 174.68 | 174.51 | 174.62 | 174.53 |
| Day | 9 | 11 | 4 | 24 | 2 | 30 | 1 | 29 | 1 | 20 | 25 | 14 |
| Min | 174.28 | 174.39 | 174.37 | 174.62 | 174.59 | 174.58 | 174.53 | 174.61 | 174.31 | 174.05 | 174.06 | 174.13 |
| Day | 30 | 18 | 14 | 17 | 31 | 1 | 29 | 4 | 28 | 21 | 20 | 25 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 174.95 | | | 1 | | | | | | | | | | 174.95 | 1 |
| 174.90 | | | | | | | | | | | | | 174.90 | 1 |
| 174.85 | 1 | 1 | 1 | | 1 | 1 | | | | | | | 174.85 | 6 |
| 174.80 | 1 | | | 5 | 1 | 1 | 2 | | | | | | 174.80 | 16 |
| 174.75 | 1 | 2 | | 10 | 8 | 7 | 11 | | | | | | 174.75 | 55 |
| 174.70 | 2 | 1 | 1 | 12 | 10 | 12 | 10 | 5 | | | | | 174.70 | 108 |
| 174.65 | 6 | | 9 | 1 | 7 | 7 | 6 | 15 | 6 | | | | 174.65 | 165 |
| 174.60 | 4 | 7 | 8 | 2 | 2 | 1 | 1 | 11 | 3 | | 1 | | 174.60 | 205 |
| 174.55 | 8 | 7 | 2 | | 2 | 1 | | | 11 | | | | 174.55 | 236 |
| 174.50 | 1 | 4 | 7 | | | | 1 | | 4 | 1 | | 1 | 174.50 | 255 |
| 174.45 | 3 | 3 | 1 | | | | | | 2 | 7 | | 1 | 174.45 | 272 |
| 174.40 | | 2 | | | | | | | 1 | 9 | 2 | 5 | 174.40 | 291 |
| 174.35 | 2 | 1 | 1 | | | | | | 2 | 4 | 5 | 6 | 174.35 | 312 |
| 174.30 | 1 | | | | | | | | 1 | 7 | 9 | 6 | 174.30 | 336 |
| 174.25 | 1 | | | | | | | | | 1 | 3 | 2 | 174.25 | 343 |
| 174.20 | | | | | | | | | | | 8 | 5 | 174.20 | 356 |
| 174.15 | | | | | | | | | | | 1 | 2 | 174.15 | 359 |
| 174.10 | | | | | | | | | | 1 | | 3 | 174.10 | 363 |
| 174.05 | | | | | | | | | | | 1 | | 174.05 | 364 |
| 174.00 | | | | | | | | | | 1 | | | 174.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 904-4020 Gibraltar, Michigan on Detroit River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 174.38 | 174.60 | 174.52 | 174.82 | 174.80 | 174.58 | 174.85 | 174.70 | 174.68 | 174.50 | 174.22 | 174.42 |
| 2 | 174.59 | 174.63 | 174.54 | 174.64 | 174.86 | 174.69 | 174.79 | 174.62 | 174.66 | 174.39 | 174.38 | 174.35 |
| 3 | 174.58 | 174.54 | 174.65 | 174.66 | 174.80 | 174.67 | 174.74 | 174.65 | 174.60 | 174.33 | 174.23 | 174.34 |
| 4 | 174.58 | 174.60 | 175.00 | 174.74 | 174.84 | 174.74 | 174.79 | 174.61 | 174.60 | 174.31 | 174.33 | 174.43 |
| 5 | 174.50 | 174.57 | 174.61 | 174.80 | 174.75 | 174.64 | 174.79 | 174.69 | 174.63 | 174.45 | 174.16 | 174.41 |
| 6 | 174.59 | 174.73 | 174.53 | 174.77 | 174.75 | 174.70 | 174.75 | 174.71 | 174.66 | 174.48 | 174.31 | 174.23 |
| 7 | 174.62 | 174.62 | 174.55 | 174.75 | 174.80 | 174.73 | 174.77 | 174.67 | 174.66 | 174.43 | 174.21 | 174.33 |
| 8 | 174.68 | 174.61 | 174.50 | 174.76 | 174.80 | 174.73 | 174.75 | 174.70 | 174.63 | 174.44 | 174.25 | 174.38 |
| 9 | 174.90 | 174.65 | 174.54 | 174.75 | 174.77 | 174.68 | 174.74 | 174.72 | 174.53 | 174.41 | 174.27 | 174.37 |
| 10 | 174.84 | 174.59 | 174.69 | 174.71 | 174.75 | 174.70 | 174.75 | 174.65 | 174.36 | 174.46 | 174.33 | 174.22 |
| 11 | 174.71 | 174.90 | 174.55 | 174.83 | 174.74 | 174.72 | 174.73 | 174.65 | 174.57 | 174.47 | 174.26 | 174.24 |
| 12 | 174.79 | 174.77 | 174.62 | 174.73 | 174.72 | 174.78 | 174.72 | 174.71 | 174.60 | 174.32 | 174.39 | 174.36 |
| 13 | 174.50 | 174.46 | 174.58 | 174.74 | 174.74 | 174.79 | 174.77 | 174.68 | 174.57 | 174.45 | 174.34 | 174.42 |
| 14 | 174.68 | 174.52 | 174.37 | 174.83 | 174.75 | 174.74 | 174.76 | 174.67 | 174.58 | 174.46 | 174.34 | 174.53 |
| 15 | 174.60 | 174.54 | 174.61 | 174.80 | 174.64 | 174.68 | 174.80 | 174.69 | 174.52 | 174.44 | 174.26 | 174.46 |
| 16 | 174.64 | 174.59 | 174.52 | 174.77 | 174.75 | 174.80 | 174.76 | 174.65 | 174.66 | 174.43 | 174.33 | 174.43 |
| 17 | 174.52 | 174.44 | 174.61 | 174.62 | 174.70 | 174.75 | 174.81 | 174.67 | 174.59 | 174.36 | 174.34 | 174.38 |
| 18 | 174.63 | 174.39 | 174.67 | 174.74 | 174.78 | 174.73 | 174.80 | 174.70 | 174.55 | 174.46 | 174.39 | 174.34 |
| 19 | 174.67 | 174.55 | 174.67 | 174.79 | 174.67 | 174.76 | 174.70 | 174.70 | 174.60 | 174.49 | 174.21 | 174.29 |
| 20 | 174.70 | 174.61 | 174.61 | 174.75 | 174.70 | 174.76 | 174.69 | 174.63 | 174.67 | 174.51 | 174.06 | 174.37 |
| 21 | 174.73 | 174.76 | 174.58 | 174.72 | 174.69 | 174.70 | 174.75 | 174.72 | 174.58 | 174.05 | 174.24 | 174.15 |
| 22 | 174.57 | 174.42 | 174.68 | 174.75 | 174.73 | 174.74 | 174.71 | 174.69 | 174.56 | 174.32 | 174.25 | 174.22 |
| 23 | 174.70 | 174.46 | 174.74 | 174.74 | 174.73 | 174.84 | 174.74 | 174.70 | 174.48 | 174.39 | 174.36 | 174.38 |
| 24 | 174.49 | 174.50 | 174.66 | 174.85 | 174.65 | 174.80 | 174.78 | 174.62 | 174.55 | 174.34 | 174.41 | 174.14 |
| 25 | 174.61 | 174.64 | 174.65 | 174.76 | 174.59 | 174.74 | 174.77 | 174.66 | 174.62 | 174.43 | 174.62 | 174.13 |
| 26 | 174.69 | 174.64 | 174.66 | 174.75 | 174.66 | 174.73 | 174.66 | 174.68 | 174.43 | 174.41 | 174.42 | 174.19 |
| 27 | 174.60 | 174.58 | 174.65 | 174.82 | 174.76 | 174.72 | 174.67 | 174.64 | 174.36 | 174.28 | 174.33 | 174.32 |
| 28 | 174.60 | 174.57 | 174.67 | 174.79 | 174.66 | 174.75 | 174.69 | 174.62 | 174.31 | 174.31 | 174.32 | 174.34 |
| 29 | 174.37 | | 174.67 | 174.78 | 174.67 | 174.78 | 174.53 | 174.75 | 174.48 | 174.12 | 174.24 | 174.22 |
| 30 | 174.28 | | 174.68 | 174.76 | 174.79 | 174.86 | 174.61 | 174.66 | 174.58 | 174.38 | 174.39 | 174.17 |
| 31 | 174.31 | | 174.90 | | 174.59 | | 174.69 | 174.62 | | 174.35 | | 174.26 |
| Mean | 174.60 | 174.59 | 174.63 | 174.76 | 174.73 | 174.73 | 174.74 | 174.67 | 174.56 | 174.39 | 174.31 | 174.32 |
| Max. | 175.08 | 175.17 | 175.18 | 175.25 | 174.98 | 174.99 | 174.98 | 174.92 | 174.82 | 174.72 | 174.82 | 174.64 |
| Hr. | 1000 | 2300 | 1800 | 0200 | 1900 | 2200 | 0900 | 2100 | 2200 | 0100 | 0700 | 0400 |
| Day | 10 | 11 | 31 | 1 | 30 | 23 | 12 | 29 | 25 | 13 | 25 | 15 |
| Min. | 173.93 | 174.16 | 174.17 | 174.47 | 174.44 | 174.36 | 174.42 | 174.42 | 173.76 | 173.69 | 173.69 | 173.71 |
| Hr. | 0700 | 2300 | 0300 | 0800 | 0200 | 1300 | 1200 | 0300 | 2300 | 1100 | 2200 | 2200 |
| Day | 31 | 17 | 14 | 17 | 25 | 5 | 29 | 4 | 27 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.58

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 904-4030 Wyandotte, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 175.09 Jul
Daily mean elevation: 175.19 9 Jan
Instant/hourly elevation: 175.36 0300/1 Apr

LOWEST

Monthly mean elevation: 174.72 Nov
Daily mean elevation: 174.57 20 Nov
Instant/hourly elevation: 174.42 1300/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.19 | 175.00 | 175.15 | 175.15 | 175.12 | 175.17 | 175.18 | 175.07 | 175.02 | 174.89 | 174.94 | 174.86 |
| Day | 9      | 21     | 31     | 1      | 2      | 30     | 1      | 21     | 1      | 20     | 25     | 14     |
| Min | 174.72 | 174.76 | 174.76 | 174.93 | 174.94 | 174.95 | 174.94 | 174.97 | 174.75 | 174.59 | 174.57 | 174.60 |
| Day | 30     | 18     | 14     | 17     | 25     | 1      | 29     | 31     | 28     | 21     | 20     | 24     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.15 | 2 | | | | | 1 | 1 | | | | | | 175.15 | 4 |
| 175.10 | | | | 2 | 2 | 5 | 12 | | | | | | 175.10 | 27 |
| 175.05 | 1 | | 2 | 14 | 13 | 15 | 12 | 2 | | | | | 175.05 | 84 |
| 175.00 | 3 | | 3 | 12 | 10 | 7 | 4 | 21 | 4 | | | | 175.00 | 148 |
| 174.95 | 7 | 4 | 6 | 1 | 5 | 1 | 1 | 8 | 8 | | | | 174.95 | 189 |
| 174.90 | 12 | 5 | 6 | 1 | 1 | 1 | 1 | | 10 | | 1 | | 174.90 | 227 |
| 174.85 | 2 | 12 | 9 | | | | | | 5 | 3 | | 1 | 174.85 | 259 |
| 174.80 | | 4 | 4 | | | | | | 1 | 15 | | 3 | 174.80 | 286 |
| 174.75 | 2 | 3 | 1 | | | | | | 1 | 5 | 7 | 9 | 174.75 | 314 |
| 174.70 | 2 | | | | | | | | 1 | 6 | 9 | 10 | 174.70 | 342 |
| 174.65 | | | | | | | | | | | 9 | 4 | 174.65 | 355 |
| 174.60 | | | | | | | | | | 1 | 3 | 3 | 174.60 | 362 |
| 174.55 | | | | | | | | | | 1 | 1 | 1 | 174.55 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 904-4030 Wyandotte, Michigan on Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 174.80 | 174.92 | 174.85 | 175.15 | 175.10 | 174.95 | 175.18 | 175.05 | 175.02 | 174.86 | 174.70 | 174.79 |
| 2 | 174.92 | 174.93 | 174.85 | 175.03 | 175.12 | 175.00 | 175.14 | 175.00 | 175.00 | 174.81 | 174.77 | 174.74 |
| 3 | 174.91 | 174.87 | 174.92 | 175.02 | 175.09 | 175.01 | 175.10 | 175.01 | 174.98 | 174.74 | 174.68 | 174.74 |
| 4 | 174.92 | 174.89 | 175.13 | 175.07 | 175.11 | 175.05 | 175.13 | 174.99 | 174.98 | 174.74 | 174.72 | 174.81 |
| 5 | 174.93 | 174.88 | 174.93 | 175.10 | 175.07 | 175.01 | 175.12 | 175.04 | 174.99 | 174.83 | 174.64 | 174.79 |
| 6 | 174.99 | 174.97 | 174.86 | 175.07 | 175.08 | 175.03 | 175.09 | 175.05 | 175.01 | 174.85 | 174.72 | 174.69 |
| 7 | 175.00 | 174.90 | 174.87 | 175.05 | 175.10 | 175.06 | 175.11 | 175.03 | 175.01 | 174.81 | 174.65 | 174.74 |
| 8 | 175.04 | 174.87 | 174.84 | 175.04 | 175.10 | 175.06 | 175.10 | 175.05 | 174.98 | 174.83 | 174.67 | 174.77 |
| 9 | 175.19 | 174.88 | 174.86 | 175.03 | 175.08 | 175.02 | 175.09 | 175.05 | 174.90 | 174.84 | 174.70 | 174.75 |
| 10 | 175.16 | 174.81 | 174.96 | 175.02 | 175.07 | 175.04 | 175.10 | 175.00 | 174.80 | 174.85 | 174.74 | 174.69 |
| 11 | 175.05 | 175.00 | 174.87 | 175.09 | 175.06 | 175.06 | 175.09 | 175.01 | 174.92 | 174.85 | 174.69 | 174.70 |
| 12 | 175.08 | 174.96 | 174.91 | 175.05 | 175.05 | 175.09 | 175.08 | 175.04 | 174.94 | 174.76 | 174.77 | 174.76 |
| 13 | 174.92 | 174.79 | 174.89 | 175.04 | 175.06 | 175.10 | 175.12 | 175.03 | 174.92 | 174.85 | 174.74 | 174.79 |
| 14 | 174.98 | 174.82 | 174.76 | 175.07 | 175.05 | 175.06 | 175.12 | 175.02 | 174.90 | 174.85 | 174.74 | 174.86 |
| 15 | 174.93 | 174.83 | 174.88 | 175.06 | 174.97 | 175.04 | 175.14 | 175.03 | 174.91 | 174.83 | 174.70 | 174.84 |
| 16 | 174.95 | 174.88 | 174.82 | 175.00 | 175.05 | 175.11 | 175.12 | 175.01 | 175.00 | 174.83 | 174.74 | 174.82 |
| 17 | 174.88 | 174.79 | 174.88 | 174.93 | 175.03 | 175.08 | 175.14 | 175.03 | 174.95 | 174.79 | 174.76 | 174.78 |
| 18 | 174.94 | 174.76 | 174.92 | 175.01 | 175.07 | 175.07 | 175.13 | 175.04 | 174.93 | 174.85 | 174.78 | 174.76 |
| 19 | 174.98 | 174.86 | 174.93 | 175.05 | 175.02 | 175.09 | 175.08 | 175.04 | 174.96 | 174.88 | 174.68 | 174.72 |
| 20 | 174.99 | 174.91 | 174.90 | 175.05 | 175.03 | 175.09 | 175.06 | 175.00 | 175.01 | 174.89 | 174.57 | 174.75 |
| 21 | 175.01 | 175.00 | 174.89 | 175.06 | 175.02 | 175.07 | 175.09 | 175.07 | 174.95 | 174.59 | 174.65 | 174.64 |
| 22 | 174.92 | 174.85 | 174.95 | 175.06 | 175.03 | 175.10 | 175.08 | 175.03 | 174.93 | 174.75 | 174.68 | 174.66 |
| 23 | 175.00 | 174.86 | 174.99 | 175.05 | 175.02 | 175.15 | 175.09 | 175.04 | 174.88 | 174.80 | 174.75 | 174.76 |
| 24 | 174.89 | 174.86 | 174.97 | 175.12 | 174.96 | 175.14 | 175.11 | 174.98 | 174.91 | 174.75 | 174.79 | 174.60 |
| 25 | 174.93 | 174.91 | 174.96 | 175.07 | 174.94 | 175.10 | 175.11 | 175.01 | 174.96 | 174.82 | 174.94 | 174.62 |
| 26 | 174.99 | 174.92 | 174.98 | 175.08 | 174.99 | 175.08 | 175.03 | 175.01 | 174.86 | 174.81 | 174.80 | 174.63 |
| 27 | 174.93 | 174.88 | 174.99 | 175.10 | 175.06 | 175.08 | 175.03 | 174.98 | 174.82 | 174.74 | 174.74 | 174.71 |
| 28 | 174.94 | 174.86 | 175.01 | 175.08 | 174.99 | 175.11 | 175.05 | 174.99 | 174.75 | 174.71 | 174.74 | 174.74 |
| 29 | 174.79 | | 175.02 | 175.08 | 175.02 | 175.13 | 174.94 | 175.06 | 174.87 | 174.61 | 174.68 | 174.73 |
| 30 | 174.72 | | 175.02 | 175.07 | 175.08 | 175.17 | 175.00 | 175.01 | 174.93 | 174.78 | 174.77 | 174.73 |
| 31 | 174.74 | | 175.15 | | 174.96 | | 175.05 | 174.97 | | 174.78 | | 174.80 |
| Mean | 174.95 | 174.88 | 174.93 | 175.06 | 175.04 | 175.07 | 175.09 | 175.02 | 174.93 | 174.80 | 174.72 | 174.74 |
| Max.
Hr.
Day | 175.31
1100
10 | 175.19
2400
11 | 175.31
1900
31 | 175.36
0300
1 | 175.18
1900
30 | 175.24
1900
30 | 175.22
1500
13 | 175.16
2100
29 | 175.17
2400
25 | 174.98
0200
13 | 175.02
0800
25 | 174.91
0500
15 |
| Min.
Hr.
Day | 174.58
0800
31 | 174.64
2400
17 | 174.68
0400
14 | 174.84
1000
17 | 174.85
0700
25 | 174.86
0600
1 | 174.89
1300
29 | 174.91
0400
4 | 174.48
2300
27 | 174.42
1300
21 | 174.45
2100
5 | 174.44
2300
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 174.94

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 904-4036 Fort Wayne, Detroit, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 175.22 Jul
Daily mean elevation: 175.29 9 Jan
Instant/hourly elevation: 175.41 0200/1 Apr

LOWEST

Monthly mean elevation: 174.86 Nov
Daily mean elevation: 174.74 20 Nov
Instant/hourly elevation: 174.62 1400/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.29 | 175.07 | 175.24 | 175.25 | 175.22 | 175.28 | 175.28 | 175.19 | 175.14 | 175.02 | 175.03 | 174.97 |
| Day | 9 | 21 | 31 | 1 | 2 | 30 | 1 | 21 | 6 | 20 | 25 | 15 |
| Min | 174.88 | 174.89 | 174.90 | 175.03 | 175.06 | 175.07 | 175.09 | 175.10 | 174.92 | 174.76 | 174.74 | 174.79 |
| Day | 30 | 10 | 14 | 17 | 25 | 1 | 29 | 31 | 28 | 21 | 20 | 21 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.25 | 2 | | | | | 2 | 4 | | | | | | 175.25 | 8 |
| 175.20 | | | 1 | 2 | 2 | 6 | 19 | | | | | | 175.20 | 38 |
| 175.15 | 3 | | 1 | 16 | 15 | 15 | 6 | 14 | | | | | 175.15 | 108 |
| 175.10 | 5 | | 3 | 9 | 9 | 6 | 1 | 14 | 10 | | | | 175.10 | 165 |
| 175.05 | 11 | 3 | 5 | 2 | 5 | 1 | 1 | 3 | 8 | | | | 175.05 | 204 |
| 175.00 | 6 | 8 | 8 | 1 | | | | | 9 | 2 | 1 | | 175.00 | 239 |
| 174.95 | | 10 | 11 | | | | | | 2 | 13 | | 2 | 174.95 | 277 |
| 174.90 | 2 | 5 | 1 | | | | | | 1 | 8 | 4 | 7 | 174.90 | 305 |
| 174.85 | 2 | 2 | 1 | | | | | | | 5 | 12 | 9 | 174.85 | 336 |
| 174.80 | | | | | | | | | | 1 | 9 | 4 | 174.80 | 350 |
| 174.75 | | | | | | | | | | 2 | 3 | 2 | 174.75 | 357 |
| 174.70 | | | | | | | | | | | 1 | | 174.70 | 358 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 904-4036 Fort Wayne, Detroit, Michigan on Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1 | 174.94 | 175.03 | 174.98 | 175.25 | 175.20 | 175.07 | 175.28 | 175.18 | 175.14 | 174.99 | 174.85 | 174.92 |
| 2 | 175.03 | 175.04 | 174.96 | 175.15 | 175.22 | 175.11 | 175.26 | 175.14 | 175.13 | 174.95 | 174.91 | 174.88 |
| 3 | 175.02 | 175.00 | 175.01 | 175.14 | 175.19 | 175.12 | 175.22 | 175.14 | 175.11 | 174.89 | 174.83 | 174.88 |
| 4 | 175.04 | 175.01 | 175.17 | 175.18 | 175.21 | 175.15 | 175.25 | 175.12 | 175.12 | 174.89 | 174.86 | 174.93 |
| 5 | 175.08 | 175.00 | 175.02 | 175.20 | 175.18 | 175.13 | 175.23 | 175.16 | 175.13 | 174.97 | 174.80 | 174.92 |
| 6 | 175.12 | 175.06 | 174.98 | 175.18 | 175.19 | 175.14 | 175.21 | 175.18 | 175.14 | 174.98 | 174.86 | 174.84 |
| 7 | 175.14 | 175.00 | 174.99 | 175.16 | 175.20 | 175.16 | 175.23 | 175.16 | 175.13 | 174.95 | 174.80 | 174.88 |
| 8 | 175.17 | 174.97 | 174.96 | 175.15 | 175.20 | 175.17 | 175.22 | 175.17 | 175.11 | 174.96 | 174.82 | 174.91 |
| 9 | 175.29 | 174.95 | 174.98 | 175.14 | 175.18 | 175.14 | 175.21 | 175.17 | 175.03 | 174.99 | 174.84 | 174.88 |
| 10 | 175.27 | 174.89 | 175.04 | 175.13 | 175.17 | 175.16 | 175.23 | 175.13 | 174.96 | 174.99 | 174.87 | 174.84 |
| 11 | 175.16 | 175.04 | 174.99 | 175.19 | 175.17 | 175.18 | 175.22 | 175.14 | 175.05 | 174.99 | 174.84 | 174.85 |
| 12 | 175.19 | 175.03 | 175.02 | 175.16 | 175.17 | 175.20 | 175.21 | 175.17 | 175.06 | 174.92 | 174.90 | 174.90 |
| 13 | 175.07 | 174.91 | 174.99 | 175.14 | 175.16 | 175.20 | 175.24 | 175.15 | 175.05 | 174.98 | 174.88 | 174.92 |
| 14 | 175.09 | 174.94 | 174.90 | 175.16 | 175.15 | 175.18 | 175.25 | 175.15 | 175.03 | 174.98 | 174.88 | 174.97 |
| 15 | 175.06 | 174.94 | 174.99 | 175.15 | 175.09 | 175.16 | 175.27 | 175.16 | 175.05 | 174.96 | 174.85 | 174.97 |
| 16 | 175.06 | 174.97 | 174.93 | 175.09 | 175.16 | 175.21 | 175.25 | 175.14 | 175.12 | 174.96 | 174.87 | 174.94 |
| 17 | 175.01 | 174.91 | 174.98 | 175.03 | 175.14 | 175.19 | 175.26 | 175.16 | 175.08 | 174.94 | 174.90 | 174.92 |
| 18 | 175.06 | 174.90 | 175.02 | 175.10 | 175.17 | 175.18 | 175.25 | 175.16 | 175.07 | 174.98 | 174.91 | 174.89 |
| 19 | 175.10 | 174.96 | 175.03 | 175.15 | 175.13 | 175.20 | 175.21 | 175.16 | 175.09 | 175.01 | 174.83 | 174.86 |
| 20 | 175.11 | 175.00 | 175.01 | 175.15 | 175.13 | 175.20 | 175.19 | 175.14 | 175.13 | 175.02 | 174.74 | 174.88 |
| 21 | 175.12 | 175.07 | 175.00 | 175.16 | 175.12 | 175.20 | 175.22 | 175.19 | 175.08 | 174.76 | 174.79 | 174.79 |
| 22 | 175.05 | 174.96 | 175.05 | 175.16 | 175.14 | 175.22 | 175.20 | 175.16 | 175.06 | 174.90 | 174.82 | 174.80 |
| 23 | 175.10 | 174.97 | 175.09 | 175.16 | 175.13 | 175.26 | 175.22 | 175.15 | 175.02 | 174.94 | 174.88 | / |
| 24 | 175.02 | 174.99 | 175.07 | 175.21 | 175.08 | 175.25 | 175.22 | 175.10 | 175.05 | 174.90 | 174.92 | / |
| 25 | 175.06 | 175.04 | 175.08 | 175.18 | 175.06 | 175.21 | 175.23 | 175.13 | 175.09 | 174.96 | 175.03 | / |
| 26 | 175.11 | 175.06 | 175.10 | 175.19 | 175.11 | 175.20 | 175.17 | 175.14 | 175.01 | 174.94 | 174.92 | / |
| 27 | 175.06 | 175.04 | 175.10 | 175.20 | 175.16 | 175.20 | 175.16 | 175.10 | 174.97 | 174.88 | 174.88 | 174.84* |
| 28 | 175.06 | 175.04 | 175.12 | 175.18 | 175.10 | 175.24 | 175.18 | 175.12 | 174.92 | 174.85 | 174.88 | 174.87* |
| 29 | 174.94 | | 175.14 | 175.18 | 175.13 | 175.25 | 175.09 | 175.17 | 175.02 | 174.77 | 174.83 | / |
| 30 | 174.88 | | 175.14 | 175.17 | 175.17 | 175.28 | 175.14 | 175.14 | 175.06 | 174.91 | 174.90 | / |
| 31 | 174.89 | | 175.24 | | 175.08 | | 175.18 | 175.10 | | 174.92 | | / |
| Mean | 175.07 | 174.99 | 175.03 | 175.16 | 175.15 | 175.19 | 175.22 | 175.15 | 175.07 | 174.94 | 174.86 | 174.89 |
| Max. | 175.38 | 175.20 | 175.38 | 175.41 | 175.26 | 175.32 | 175.32 | 175.25 | 175.28 | 175.08 | 175.10 | 175.02 |
| Hr. | 1100 | 2300 | 2400 | 0200 | 1600 | 1800 | 0600 | 2200 | 2300 | 0200 | 0800 | 1000 |
| Day | 10 | 11 | 31 | 1 | 12 | 30 | 15 | 29 | 25 | 13 | 25 | 14 |
| Min. | 174.77 | 174.80 | 174.84 | 174.97 | 174.96 | 174.99 | 175.04 | 175.04 | 174.72 | 174.62 | 174.64 | 174.70 |
| Hr. | 0800 | 2400 | 1900 | 1000 | 0100 | 0500 | 1400 | 0800 | 2200 | 1400 | 2400 | 2100 |
| Day | 31 | 17 | 16 | 17 | 25 | 1 | 29 | 31 | 27 | 21 | 19 | 6 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 175.06

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 904-4049 Windmill Point, Detroit, Michigan on the Detroit River

HIGHEST

Monthly mean elevation: 175.46 Jul
Daily mean elevation: 175.50 15 Jul
Instant/hourly elevation: 175.57 1100/10 Jan

LOWEST

Monthly mean elevation: 175.12 Nov
Daily mean elevation: 175.02 24 Dec
Instant/hourly elevation: 174.95 0700/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.50 | 175.26 | 175.42 | 175.47 | 175.42 | 175.50 | 175.50 | 175.43 | 175.38 | 175.26 | 175.22 | 175.20 |
| Day | 10     | 1      | 31     | 1      | 7      | 30     | 15     | 1      | 7      | 9      | 25     | 15     |
| Min | 175.16 | 175.06 | 175.14 | 175.25 | 175.29 | 175.32 | 175.37 | 175.35 | 175.22 | 175.07 | 175.04 | 175.02 |
| Day | 31     | 10     | 16     | 17     | 24     | 1      | 29     | 27     | 28     | 29     | 20     | 24     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.45 | 2 | | | 1 | | 6 | 20 | | | | | | 175.45 | 29 |
| 175.40 | 1 | | 1 | 4 | 7 | 12 | 9 | 8 | | | | | 175.40 | 71 |
| 175.35 | 4 | | 3 | 15 | 13 | 9 | 2 | 21 | 9 | | | | 175.35 | 147 |
| 175.30 | 9 | | 3 | 7 | 10 | 3 | | 2 | 8 | | | | 175.30 | 189 |
| 175.25 | 10 | 1 | 3 | 2 | 1 | | | | 11 | 1 | | | 175.25 | 218 |
| 175.20 | 3 | 9 | 11 | 1 | | | | | 2 | 14 | 1 | | 175.20 | 259 |
| 175.15 | 2 | 8 | 9 | | | | | | | 13 | 3 | 7 | 175.15 | 301 |
| 175.10 | | 9 | 1 | | | | | | | | 14 | 18 | 175.10 | 343 |
| 175.05 | | 1 | | | | | | | | 3 | 10 | 4 | 175.05 | 361 |
| 175.00 | | | | | | | | | | | 2 | 2 | 175.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 904-4049 Windmill Point, Detroit, Michigan on the Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 175.21 | 175.26 | 175.18 | 175.47 | 175.41 | 175.32 | 175.50 | 175.43 | 175.38 | 175.22 | 175.14 | 175.15 |
| 2 | 175.26 | 175.24 | 175.18 | 175.41 | 175.41 | 175.33 | 175.49 | 175.40 | 175.37 | 175.22 | 175.14 | 175.12 |
| 3 | 175.24 | 175.21 | 175.18 | 175.39 | 175.39 | 175.35 | 175.47 | 175.38 | 175.37 | 175.16 | 175.10 | 175.12 |
| 4 | 175.27 | 175.22 | 175.27 | 175.41 | 175.41 | 175.37 | 175.47 | 175.39 | 175.38 | 175.18 | 175.10 | 175.17 |
| 5 | 175.34 | 175.21 | 175.25 | 175.41 | 175.41 | 175.37 | 175.46 | 175.41 | 175.38 | 175.22 | 175.08 | 175.17 |
| 6 | 175.38 | 175.25 | 175.21 | 175.39 | 175.41 | 175.37 | 175.44 | 175.41 | 175.38 | 175.22 | 175.12 | 175.11 |
| 7 | 175.40 | 175.21 | 175.20 | 175.37 | 175.42 | 175.39 | 175.47 | 175.41 | 175.38 | 175.20 | 175.07 | 175.13 |
| 8 | 175.43 | 175.17 | 175.19 | 175.35 | 175.41 | 175.39 | 175.46 | 175.41 | 175.36 | 175.22 | 175.07 | 175.15 |
| 9 | 175.50 | 175.12 | 175.19 | 175.34 | 175.40 | 175.36 | 175.44 | 175.41 | 175.28 | 175.26 | 175.10 | 175.12 |
| 10 | 175.50 | 175.06 | 175.23 | 175.34 | 175.39 | 175.39 | 175.47 | 175.38 | 175.26 | 175.24 | 175.12 | 175.11 |
| 11 | 175.40 | 175.11 | 175.21 | 175.38 | 175.39 | 175.42 | 175.46 | 175.38 | 175.30 | 175.23 | 175.10 | 175.14 |
| 12 | 175.40 | 175.17 | 175.23 | 175.38 | 175.40 | 175.42 | 175.46 | 175.40 | 175.29 | 175.20 | 175.14 | 175.15 |
| 13 | 175.34 | 175.12 | 175.22 | 175.34 | 175.38 | 175.42 | 175.48 | 175.40 | 175.28 | 175.24 | 175.11 | 175.15 |
| 14 | 175.32 | 175.14 | 175.17 | 175.34 | 175.35 | 175.40 | 175.48 | 175.40 | 175.26 | 175.23 | 175.13 | 175.19 |
| 15 | 175.30 | 175.14 | 175.18 | 175.32 | 175.33 | 175.40 | 175.50 | 175.40 | 175.32 | 175.21 | 175.11 | 175.20 |
| 16 | 175.29 | 175.17 | 175.14 | 175.26 | 175.37 | 175.43 | 175.49 | 175.40 | 175.35 | 175.21 | 175.13 | 175.19 |
| 17 | 175.27 | 175.14 | 175.18 | 175.25 | 175.37 | 175.41 | 175.49 | 175.41 | 175.34 | 175.20 | 175.16 | 175.16 |
| 18 | 175.30 | 175.12 | 175.21 | 175.30 | 175.38 | 175.41 | 175.48 | 175.40 | 175.32 | 175.23 | 175.16 | 175.14 |
| 19 | 175.32 | 175.13 | 175.22 | 175.34 | 175.37 | 175.43 | 175.46 | 175.40 | 175.34 | 175.25 | 175.08 | 175.12 |
| 20 | 175.31 | 175.15 | 175.21 | 175.36 | 175.35 | 175.43 | 175.44 | 175.40 | 175.36 | 175.25 | 175.04 | 175.11 |
| 21 | 175.31 | 175.20 | 175.22 | 175.40 | 175.35 | 175.44 | 175.46 | 175.42 | 175.34 | 175.08 | 175.05 | 175.08 |
| 22 | 175.29 | 175.18 | 175.24 | 175.39 | 175.35 | 175.46 | 175.45 | 175.40 | 175.31 | 175.17 | 175.09 | 175.08 |
| 23 | 175.32 | 175.17 | 175.28 | 175.39 | 175.33 | 175.48 | 175.45 | 175.39 | 175.29 | 175.19 | 175.12 | 175.12 |
| 24 | 175.28 | 175.18 | 175.30 | 175.39 | 175.29 | 175.48 | 175.46 | 175.35 | 175.30 | 175.16 | 175.16 | 175.02 |
| 25 | 175.30 | 175.19 | 175.32 | 175.39 | 175.31 | 175.44 | 175.46 | 175.37 | 175.33 | 175.20 | 175.22 | 175.04 |
| 26 | 175.32 | 175.21 | 175.32 | 175.43 | 175.34 | 175.44 | 175.42 | 175.37 | 175.29 | 175.19 | 175.15 | 175.06 |
| 27 | 175.31 | 175.21 | 175.35 | 175.40 | 175.37 | 175.45 | 175.42 | 175.35 | 175.25 | 175.16 | 175.12 | 175.10 |
| 28 | 175.30 | 175.21 | 175.37 | 175.39 | 175.34 | 175.48 | 175.43 | 175.37 | 175.22 | 175.09 | 175.13 | 175.12 |
| 29 | 175.24 | | 175.38 | 175.39 | 175.36 | 175.49 | 175.37 | 175.40 | 175.28 | 175.07 | 175.09 | 175.11 |
| 30 | 175.20 | | 175.38 | 175.39 | 175.37 | 175.50 | 175.40 | 175.38 | 175.29 | 175.16 | 175.14 | 175.13 |
| 31 | 175.16 | | 175.42 | | 175.34 | | 175.43 | 175.36 | | 175.19 | | 175.18 |
| Mean | 175.32 | 175.17 | 175.25 | 175.37 | 175.37 | 175.42 | 175.46 | 175.39 | 175.32 | 175.20 | 175.12 | 175.13 |
| Max. | 175.57 | 175.29 | 175.51 | 175.52 | 175.56 | 175.52 | 175.53 | 175.47 | 175.52 | 175.32 | 175.24 | 175.23 |
| Hr. | 1100 | 0700 | 2300 | 0400 | 1600 | 1100 | 2000 | 0600 | 2300 | 0500 | 1600 | 1700 |
| Day | 10 | 1 | 31 | 1 | 12 | 30 | 16 | 21 | 25 | 9 | 25 | 15 |
| Min. | 175.12 | 175.05 | 175.11 | 175.13 | 175.19 | 175.30 | 175.33 | 175.31 | 175.07 | 174.95 | 174.97 | 174.98 |
| Hr. | 0700 | 2200 | 0800 | 0500 | 1900 | 0700 | 1500 | 0400 | 2100 | 0700 | 1800 | 1800 |
| Day | 31 | 10 | 16 | 17 | 24 | 1 | 29 | 25 | 27 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 175.29

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 903-4052 St. Clair Shores, Michigan on Lake St. Clair

HIGHEST

Monthly mean elevation: 175.56 Jul
Daily mean elevation: 175.59 18 Jul
Instant/hourly elevation: 175.63 1600/25 Jul

LOWEST

Monthly mean elevation: 175.22 Dec
Daily mean elevation: 175.13 25 Dec
Instant/hourly elevation: 175.04 1900/25 Dec

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.53 | 175.32 | 175.46 | 175.52 | 175.47 | 175.57 | 175.59 | 175.55 | 175.50 | 175.36 | 175.27 | 175.28 |
| Day | 10     | 6      | 31     | 1      | 7      | 30     | 18     | 1      | 6      | 1      | 25     | 31     |
| Min | 175.27 | 175.14 | 175.25 | 175.32 | 175.38 | 175.39 | 175.50 | 175.47 | 175.35 | 175.20 | 175.16 | 175.13 |
| Day | 31     | 10     | 3      | 17     | 25     | 1      | 29     | 31     | 28     | 29     | 20     | 25     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.55 | | | | | | 3 | 21 | | | | | | 175.55 | 24 |
| 175.50 | 2 | | | 1 | | 8 | 9 | 24 | | | | | 175.50 | 68 |
| 175.45 | 5 | | 1 | 7 | 8 | 11 | 1 | 7 | 9 | | | | 175.45 | 117 |
| 175.40 | 3 | | 6 | 13 | 18 | 6 | | | 13 | | | | 175.40 | 176 |
| 175.35 | 14 | | 4 | 7 | 5 | 2 | | | 7 | 1 | | | 175.35 | 216 |
| 175.30 | 5 | 3 | 13 | 2 | | | | | 1 | 15 | | | 175.30 | 255 |
| 175.25 | 2 | 15 | 5 | | | | | | | 10 | 1 | 3 | 175.25 | 291 |
| 175.20 | | 8 | 2 | | | | | | | 4 | 20 | 19 | 175.20 | 344 |
| 175.15 | | 1 | | | | | | | | 1 | 9 | 6 | 175.15 | 361 |
| 175.10 | | 1 | | | | | | | | | | 3 | 175.10 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 903-4052 St. Clair Shores, Michigan on Lake St. Clair

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 175.29 | 175.31 | 175.26 | 175.52 | 175.46 | 175.39 | 175.58 | 175.55 | 175.50 | 175.36 | 175.24 | 175.24 |
| 2 | 175.34 | 175.32 | 175.25 | 175.48 | 175.46 | 175.40 | 175.58 | 175.52 | 175.49 | 175.33 | 175.25 | 175.22 |
| 3 | 175.33 | 175.30 | 175.25 | 175.46 | 175.45 | 175.41 | 175.56 | 175.51 | 175.49 | 175.30 | 175.22 | 175.21 |
| 4 | 175.35 | 175.30 | 175.31 | 175.46 | 175.46 | 175.42 | 175.56 | 175.51 | 175.50 | 175.30 | 175.22 | 175.24 |
| 5 | 175.42 | 175.29 | 175.39 | 175.46 | 175.46 | 175.42 | 175.55 | 175.52 | 175.50 | 175.33 | 175.20 | 175.25 |
| 6 | 175.46 | 175.32 | 175.36 | 175.45 | 175.47 | 175.44 | 175.54 | 175.53 | 175.50 | 175.33 | 175.21 | 175.22 |
| 7 | 175.48 | 175.30 | 175.33 | 175.42 | 175.47 | 175.45 | 175.55 | 175.52 | 175.49 | 175.32 | 175.19 | 175.22 |
| 8 | 175.49 | 175.26 | 175.31 | 175.41 | 175.46 | 175.46 | 175.56 | 175.53 | 175.47 | 175.32 | 175.19 | 175.24 |
| 9 | 175.53 | 175.21 | 175.31 | 175.39 | 175.46 | 175.45 | 175.55 | 175.53 | 175.42 | 175.32 | 175.21 | 175.22 |
| 10 | 175.53 | 175.14 | 175.32 | 175.40 | 175.44 | 175.46 | 175.56 | 175.51 | 175.39 | 175.34 | 175.22 | 175.19 |
| 11 | 175.47 | 175.17 | 175.33 | 175.42 | 175.44 | 175.47 | 175.56 | 175.51 | 175.42 | 175.34 | 175.20 | 175.19 |
| 12 | 175.46 | 175.25 | 175.33 | 175.43 | 175.44 | 175.47 | 175.56 | 175.51 | 175.42 | 175.30 | 175.23 | 175.24 |
| 13 | 175.43 | 175.24 | 175.32 | 175.40 | 175.43 | 175.48 | 175.57 | 175.51 | 175.41 | 175.32 | 175.23 | 175.24 |
| 14 | 175.40 | 175.25 | 175.30 | 175.38 | 175.42 | 175.47 | 175.58 | 175.51 | 175.40 | 175.32 | 175.21 | 175.25 |
| 15 | 175.39 | 175.25 | 175.28 | 175.37 | 175.40 | 175.46 | 175.59 | 175.51 | 175.42 | 175.31 | 175.21 | 175.26 |
| 16 | 175.38 | 175.28 | 175.26 | 175.33 | 175.43 | 175.49 | 175.59 | 175.52 | 175.45 | 175.31 | 175.22 | 175.26 |
| 17 | 175.36 | 175.26 | 175.26 | 175.32 | 175.43 | 175.48 | 175.58 | 175.52 | 175.45 | 175.30 | 175.23 | 175.25 |
| 18 | 175.39 | 175.24 | 175.31 | 175.36 | 175.44 | 175.48 | 175.59 | 175.51 | 175.44 | 175.32 | 175.25 | 175.23 |
| 19 | 175.40 | 175.22 | 175.32 | 175.39 | 175.42 | 175.49 | 175.57 | 175.51 | 175.45 | 175.34 | 175.20 | 175.21 |
| 20 | 175.39 | 175.23 | 175.32 | 175.41 | 175.42 | 175.51 | 175.56 | 175.51 | 175.46 | 175.35 | 175.16 | 175.21 |
| 21 | 175.39 | 175.26 | 175.32 | 175.44 | 175.41 | 175.51 | 175.57 | 175.53 | 175.44 | 175.21 | 175.18 | 175.17 |
| 22 | 175.38 | 175.28 | 175.33 | 175.44 | 175.42 | 175.53 | 175.57 | 175.51 | 175.43 | 175.27 | 175.19 | 175.17 |
| 23 | 175.39 | 175.26 | 175.38 | 175.45 | 175.41 | 175.55 | 175.57 | 175.51 | 175.40 | 175.29 | 175.21 | 175.19 |
| 24 | 175.37 | 175.26 | 175.39 | 175.47 | 175.38 | 175.55 | 175.57 | 175.48 | 175.41 | 175.27 | 175.22 | 175.14 |
| 25 | 175.39 | 175.26 | 175.41 | 175.44 | 175.38 | 175.54 | 175.58 | 175.49 | 175.43 | 175.30 | 175.27 | 175.13 |
| 26 | 175.41 | 175.26 | 175.42 | 175.46 | 175.41 | 175.52 | 175.54 | 175.48 | 175.40 | 175.28 | 175.25 | 175.15 |
| 27 | 175.38 | 175.27 | 175.44 | 175.46 | 175.43 | 175.53 | 175.54 | 175.47 | 175.38 | 175.26 | 175.21 | 175.19 |
| 28 | 175.38 | 175.28 | 175.45 | 175.45 | 175.40 | 175.56 | 175.55 | 175.48 | 175.35 | 175.23 | 175.22 | 175.21 |
| 29 | 175.33 | | 175.45 | 175.45 | 175.42 | 175.56 | 175.50 | 175.51 | 175.38 | 175.20 | 175.19 | 175.21 |
| 30 | 175.32 | | 175.44 | 175.44 | 175.43 | 175.57 | 175.52 | 175.50 | 175.40 | 175.24 | 175.23 | 175.24 |
| 31 | 175.27 | | 175.46 | | 175.40 | | 175.55 | 175.47 | | 175.25 | | 175.28 |
| Mean | 175.40 | 175.26 | 175.34 | 175.43 | 175.43 | 175.48 | 175.56 | 175.51 | 175.44 | 175.30 | 175.22 | 175.22 |
| Max. | 175.58 | 175.34 | 175.53 | 175.54 | 175.51 | 175.59 | 175.63 | 175.56 | 175.54 | 175.39 | 175.30 | 175.30 |
| Hr. | 1000 | 0400 | 2300 | 0600 | 1500 | 1100 | 1600 | 0500 | 2300 | 1400 | 1600 | 2000 |
| Day | 10 | 6 | 31 | 24 | 12 | 30 | 25 | 21 | 25 | 1 | 25 | 31 |
| Min. | 175.24 | 175.12 | 175.22 | 175.29 | 175.30 | 175.37 | 175.44 | 175.43 | 175.23 | 175.12 | 175.08 | 175.04 |
| Hr. | 0200 | 2300 | 0200 | 0800 | 1900 | 0200 | 1900 | 2300 | 2100 | 0700 | 2400 | 1900 |
| Day | 1 | 10 | 17 | 17 | 24 | 1 | 9 | 27 | 27 | 21 | 19 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 175.38

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 901-4070 Algonac, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 175.72 Jul
Daily mean elevation: 175.81 4 Feb
Instant/hourly elevation: 175.83 2200/3 Feb

LOWEST

Monthly mean elevation: 175.40 Dec
Daily mean elevation: 175.36 27 Dec
Instant/hourly elevation: 175.32 1800/26 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.61 | 175.81 | 175.57 | 175.68 | 175.60 | 175.72 | 175.74 | 175.71 | 175.68 | 175.60 | 175.46 | 175.46 |
| Day | 7      | 4      | 29     | 13     | 6      | 26     | 15     | 3      | 4      | 1      | 3      | 31     |
| Min | 175.47 | 175.42 | 175.45 | 175.51 | 175.54 | 175.56 | 175.69 | 175.64 | 175.57 | 175.43 | 175.36 | 175.36 |
| Day | 3      | 10     | 17     | 18     | 29     | 4      | 5      | 26     | 29     | 31     | 26     | 27     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 175.80 | | 1 | | | | | | | | | | | 175.80 | 1 |
| 175.75 | | | | | | | | | | | | | 175.75 | 1 |
| 175.70 | | 2 | | | | 5 | 26 | 1 | | | | | 175.70 | 35 |
| 175.65 | | 1 | | 2 | | 5 | 5 | 24 | 6 | | | | 175.65 | 78 |
| 175.60 | 2 | 1 | | 3 | | 11 | | 6 | 12 | | | | 175.60 | 113 |
| 175.55 | 10 | 6 | 4 | 19 | 22 | 9 | | | 12 | 3 | | | 175.55 | 198 |
| 175.50 | 14 | 13 | 8 | 6 | 9 | | | | | 10 | | | 175.50 | 258 |
| 175.45 | 3 | 2 | 15 | | | | | | | 15 | 2 | 1 | 175.45 | 296 |
| 175.40 | | 2 | 4 | | | | | | | 3 | 10 | 8 | 175.40 | 323 |
| 175.35 | | | | | | | | | | | 18 | 22 | 175.35 | 363 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 901-4070 Algonac, Michigan on St. Clair River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| 1 | 175.47 | 175.58 | 175.51 | 175.59 | 175.57 | 175.56 | 175.70 | 175.70 | 175.66 | 175.60 | 175.45 | 175.39 |
| 2 | 175.48 | 175.64 | 175.50 | 175.60 | 175.58 | 175.56 | 175.71 | 175.70 | 175.66 | 175.56 | 175.46 | 175.40 |
| 3 | 175.47 | 175.74 | 175.48 | 175.64 | 175.57 | 175.56 | 175.70 | 175.71 | 175.68 | 175.58 | 175.46 | 175.40 |
| 4 | 175.51 | 175.81 | 175.48 | 175.59 | 175.58 | 175.56 | 175.70 | 175.68 | 175.68 | 175.55 | 175.45 | 175.38 |
| 5 | 175.58 | 175.71 | 175.56 | 175.57 | 175.60 | 175.57 | 175.69 | 175.69 | 175.66 | 175.52 | 175.44 | 175.41 |
| 6 | 175.61 | 175.54 | 175.53 | 175.56 | 175.60 | 175.58 | 175.71 | 175.69 | 175.65 | 175.52 | 175.39 | 175.44 |
| 7 | 175.61 | 175.58 | 175.48 | 175.57 | 175.59 | 175.58 | 175.70 | 175.69 | 175.65 | 175.51 | 175.45 | 175.41 |
| 8 | 175.60 | 175.66 | 175.46 | 175.54 | 175.59 | 175.60 | 175.71 | 175.69 | 175.64 | 175.50 | 175.45 | 175.41 |
| 9 | 175.57 | 175.43 | 175.45 | 175.54 | 175.58 | 175.62 | 175.72 | 175.68 | 175.67 | 175.50 | 175.40 | 175.42 |
| 10 | 175.57 | 175.42 | 175.45 | 175.54 | 175.57 | 175.61 | 175.72 | 175.69 | 175.63 | 175.53 | 175.39 | 175.41 |
| 11 | 175.58 | 175.56 | 175.47 | 175.55 | 175.57 | 175.60 | 175.72 | 175.68 | 175.62 | 175.52 | 175.40 | 175.39 |
| 12 | 175.56 | 175.53 | 175.47 | 175.58 | 175.56 | 175.61 | 175.72 | 175.67 | 175.63 | 175.52 | 175.39 | 175.41 |
| 13 | 175.59 | 175.55 | 175.47 | 175.68 | 175.55 | 175.61 | 175.72 | 175.67 | 175.60 | 175.49 | 175.40 | 175.39 |
| 14 | 175.54 | 175.54 | 175.54 | 175.66 | 175.57 | 175.62 | 175.73 | 175.67 | 175.61 | 175.49 | 175.38 | 175.38 |
| 15 | 175.55 | 175.53 | 175.50 | 175.62 | 175.58 | 175.62 | 175.74 | 175.67 | 175.61 | 175.49 | 175.40 | 175.39 |
| 16 | 175.55 | 175.56 | 175.45 | 175.64 | 175.56 | 175.62 | 175.73 | 175.68 | 175.60 | 175.48 | 175.40 | 175.40 |
| 17 | 175.55 | 175.56 | 175.45 | 175.56 | 175.56 | 175.62 | 175.73 | 175.67 | 175.61 | 175.51 | 175.40 | 175.40 |
| 18 | 175.55 | 175.54 | 175.46 | 175.51 | 175.56 | 175.62 | 175.73 | 175.67 | 175.61 | 175.50 | 175.41 | 175.40 |
| 19 | 175.56* | 175.49 | 175.47 | 175.52 | 175.55 | 175.63 | 175.72 | 175.67 | 175.60 | 175.50 | 175.43 | 175.39 |
| 20 | / | 175.49 | 175.46 | 175.56 | 175.55 | 175.65 | 175.72 | 175.68 | 175.58 | 175.50 | 175.42 | 175.40 |
| 21 | / | 175.52 | 175.46 | 175.56 | 175.55 | 175.67 | 175.72 | 175.67 | 175.59 | 175.55 | 175.44 | 175.38 |
| 22 | 175.55* | 175.54 | 175.46 | 175.57 | 175.55 | 175.67 | 175.72 | 175.67 | 175.60 | 175.49 | 175.39 | 175.38 |
| 23 | 175.53 | 175.54 | 175.48 | 175.58 | 175.56 | 175.68* | 175.72 | 175.66 | 175.59 | 175.48 | 175.37 | 175.36 |
| 24 | 175.54 | 175.51 | 175.51 | 175.59 | 175.59 | 175.71* | 175.71 | 175.66 | 175.58 | 175.48 | 175.36 | 175.40 |
| 25 | 175.55 | 175.52 | 175.52 | 175.57 | 175.57 | 175.72 | 175.71 | 175.65 | 175.58 | 175.46 | 175.36 | 175.36 |
| 26 | 175.54 | 175.56 | 175.54 | 175.56 | 175.56 | 175.72 | 175.72 | 175.64 | 175.60 | 175.45 | 175.36 | 175.36 |
| 27 | 175.54 | 175.54 | 175.55 | 175.57 | 175.55 | 175.71 | 175.71 | 175.65 | 175.61 | 175.46 | 175.38 | 175.36 |
| 28 | 175.53 | 175.52 | 175.56 | 175.57 | 175.55 | 175.71 | 175.72 | 175.65 | 175.61 | 175.52 | 175.39 | 175.39 |
| 29 | 175.55 | | 175.57 | 175.58 | 175.54 | 175.70 | 175.72 | 175.65 | 175.57 | 175.46 | 175.41 | 175.40 |
| 30 | 175.57 | | 175.56 | 175.59 | 175.55 | 175.70 | 175.71 | 175.65 | 175.58 | 175.43 | 175.39 | 175.45 |
| 31 | 175.58 | | 175.55 | | 175.56 | | 175.71 | 175.66 | | 175.43 | | 175.46 |
| Mean | 175.55 | 175.56 | 175.50 | 175.58 | 175.57 | 175.63 | 175.72 | 175.67 | 175.62 | 175.50 | 175.41 | 175.40 |
| Max. | 175.66 | 175.83 | 175.58 | 175.77 | 175.66 | 175.74 | 175.80 | 175.78 | 175.71 | 175.67 | 175.52 | 175.49 |
| Hr. | 1600 | 2200 | 1600 | 2400 | 1900 | 0400 | 2100 | 1900 | 1500 | 0500 | 2200 | 1700 |
| Day | 13 | 3 | 28 | 13 | 24 | 26 | 11 | 3 | 9 | 1 | 7 | 31 |
| Min. | 175.44 | 175.36 | 175.42 | 175.49 | 175.47 | 175.53 | 175.66 | 175.61 | 175.54 | 175.40 | 175.32 | 175.33 |
| Hr. | 0900 | 1400 | 1600 | 1500 | 1700 | 0700 | 0800 | 1800 | 2400 | 1800 | 1800 | 0900 |
| Day | 1 | 10 | 16 | 18 | 12 | 9 | 25 | 30 | 29 | 31 | 26 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 175.56

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 901-4080 St. Clair S.P., St. Clair, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 176.14 Jul
Daily mean elevation: 176.18 30 Jul
Instant/hourly elevation: 176.25 2100/11 Jul

LOWEST

Monthly mean elevation: 175.83 Mar
Daily mean elevation: 175.75 16 Mar
Instant/hourly elevation: 175.68 1200/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 175.96 | 176.18 | 175.90 | 176.02 | 175.98 | 176.12 | 176.18 | 176.13 | 176.11 | 176.03 | 175.94 | 175.93 |
| Day | 7 | 9 | 31 | 13 | 25 | 29 | 30 | 20 | 5 | 4 | 1 | 11 |
| Min | 175.78 | 175.86 | 175.75 | 175.86 | 175.93 | 175.97 | 176.08 | 176.05 | 175.99 | 175.88 | 175.76 | 175.80 |
| Day | 3 | 28 | 16 | 9 | 23 | 3 | 5 | 23 | 13 | 26 | 26 | 23 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.15 | | 1 | | | | | 5 | | | | | | 176.15 | 6 |
| 176.10 | | 1 | | | | 6 | 23 | 12 | 3 | | | | 176.10 | 51 |
| 176.05 | | 3 | | | | 5 | 3 | 18 | 13 | | | | 176.05 | 93 |
| 176.00 | | | | 1 | | 10 | | 1 | 12 | 3 | | | 176.00 | 120 |
| 175.95 | 1 | 5 | | 5 | 16 | 9 | | | 2 | 9 | | | 175.95 | 167 |
| 175.90 | 16 | 12 | | 14 | 15 | | | | | 17 | 3 | 1 | 175.90 | 245 |
| 175.85 | 11 | 6 | 9 | 10 | | | | | | 2 | 20 | 7 | 175.85 | 310 |
| 175.80 | 2 | | 14 | | | | | | | | 5 | 22 | 175.80 | 353 |
| 175.75 | 1 | | 7 | | | | | | | | 2 | 1 | 175.75 | 364 |
| 175.70 | | | 1 | | | | | | | | | | 175.70 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 901-4080 St. Clair S.P., St. Clair, Michigan on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 175.88 | 175.99 | 175.85 | 175.90 | 175.95 | 175.99 | 176.12 | 176.12 | 176.09 | 175.97 | 175.94 | 175.82 |
| 2 | 175.85 | 175.94 | 175.83 | 175.91 | 175.93 | 175.98 | 176.11 | 176.13 | 176.08 | 176.02 | 175.88 | 175.81 |
| 3 | 175.78 | 176.08 | 175.82 | 175.95 | 175.93 | 175.97 | 176.12 | 176.12 | 176.11 | 175.99 | 175.90 | 175.85 |
| 4 | 175.86 | 175.99 | 175.82 | 175.92 | 175.94 | 175.98 | 176.10 | 176.13 | 176.11 | 176.03 | 175.88 | 175.84 |
| 5 | 175.95 | 175.97 | 175.86 | 175.89 | 175.96 | 176.00 | 176.08 | 176.13 | 176.11 | 175.98 | 175.88 | 175.86 |
| 6 | 175.95 | 175.90 | 175.85 | 175.89 | 175.98 | 175.98 | 176.11 | 176.12 | 176.08 | 175.94 | 175.89 | 175.86 |
| 7 | 175.96 | 175.98 | 175.81 | 175.88 | 175.96 | 175.98 | 176.12 | 176.12 | 176.08 | 175.96 | 175.90 | 175.88 |
| 8 | 175.95 | 176.10 | 175.80 | 175.86 | 175.95 | 175.98 | 176.12 | 176.12 | 176.06 | 175.95 | 175.90 | 175.85 |
| 9 | 175.92 | 176.18 | 175.81 | 175.86 | 175.95 | 176.00 | 176.12 | 176.10 | 176.07 | 176.02 | 175.87 | 175.83 |
| 10 | 175.91 | 176.15 | 175.80 | 175.90 | 175.95 | 176.03 | 176.15 | 176.10 | 176.10 | 175.98 | 175.86 | 175.89 |
| 11 | 175.91 | 176.07 | 175.81 | 175.90 | 175.96 | 176.02 | 176.14 | 176.11 | 176.07 | 175.94 | 175.86 | 175.93 |
| 12 | 175.90 | 175.97 | 175.80 | 175.92 | 175.97 | 176.02 | 176.15 | 176.10 | 176.02 | 175.99 | 175.88 | 175.84 |
| 13 | 175.92 | 175.94 | 175.83 | 176.02 | 175.94 | 176.02 | 176.15 | 176.10 | 175.99 | 175.94 | 175.81 | 175.82 |
| 14 | 175.89 | 175.91 | 175.86 | 175.98 | 175.95 | 176.02 | 176.16 | 176.10 | 176.03 | 175.92 | 175.86 | 175.82 |
| 15 | 175.90 | 175.89 | 175.79 | 175.96 | 175.97 | 176.05 | 176.17 | 176.10 | 176.09 | 175.91 | 175.87 | 175.88 |
| 16 | 175.89 | 175.92 | 175.75 | 175.95 | 175.97 | 176.04 | 176.15 | 176.10 | 176.04 | 175.90 | 175.88 | 175.85 |
| 17 | 175.93 | 175.90 | 175.85 | 175.92 | 175.96 | 176.02 | 176.14 | 176.11 | 176.06 | 175.97 | 175.91 | 175.83 |
| 18 | 175.91 | 175.90 | 175.80 | 175.88 | 175.95 | 176.04 | 176.13 | 176.11 | 176.05 | 175.96 | 175.86 | 175.83 |
| 19 | 175.91 | 175.91 | 175.79 | 175.89 | 175.96 | 176.05 | 176.14 | 176.09 | 176.06 | 175.94 | 175.86 | 175.83 |
| 20 | 175.94 | 175.91 | 175.80 | 175.94 | 175.96 | 176.06 | 176.16 | 176.13 | 176.01 | 175.94 | 175.93 | 175.81 |
| 21 | 175.88 | 175.91 | 175.81 | 175.96 | 175.95 | 176.10 | 176.15 | 176.10 | 176.02 | 175.94 | 175.86 | 175.83 |
| 22 | 175.88 | 175.94 | 175.81 | 175.94 | 175.94 | 176.11 | 176.15 | 176.09 | 176.02 | 175.99 | 175.86 | 175.85 |
| 23 | 175.87 | 175.95 | 175.81 | 175.94 | 175.93 | 176.09 | 176.14 | 176.05 | 176.05 | 175.91 | 175.82 | 175.80 |
| 24 | 175.90 | 175.94 | 175.84 | 175.91 | 175.96 | 176.08 | 176.12 | 176.07 | 176.02 | 175.94 | 175.85 | 175.83 |
| 25 | 175.93 | 175.90 | 175.86 | 175.93 | 175.98 | 176.09 | 176.10 | 176.08 | 176.02 | 175.92 | 175.80 | 175.82 |
| 26 | 175.85 | 175.92 | 175.87 | 175.97 | 175.96 | 176.11 | 176.12 | 176.06 | 176.04 | 175.88 | 175.76 | 175.85 |
| 27 | 175.92 | 175.91 | 175.88 | 175.93 | 175.96 | 176.11 | 176.14 | 176.07 | 176.06 | 175.94 | 175.82 | 175.82 |
| 28 | 175.88 | 175.86 | 175.90 | 175.92 | 175.95 | 176.11 | 176.13 | 176.10 | 176.06 | 175.92 | 175.85 | 175.85 |
| 29 | 175.92 | | 175.90 | 175.95 | 175.96 | 176.12 | 176.16 | 176.08 | 176.04 | 175.92 | 175.86 | 175.82 |
| 30 | 175.92 | | 175.89 | 175.96 | 175.95 | 176.11 | 176.18 | 176.06 | 176.00 | 175.94 | 175.86 | 175.88 |
| 31 | 175.95 | | 175.90 | | 175.97 | | 176.15 | 176.10 | | 175.94 | | 175.86 |
| Mean | 175.90 | 175.96 | 175.83 | 175.92 | 175.96 | 176.04 | 176.14 | 176.10 | 176.06 | 175.95 | 175.86 | 175.84 |
| Max.
Hr.
Day | 176.17
2300
31 | 176.23
2400
7 | 175.93
2400
4 | 176.07
2300
13 | 176.07
1800
26 | 176.16
1100
22 | 176.25
2100
11 | 176.19
1200
31 | 176.17
1800
3 | 176.17
1000
4 | 176.00
2100
5 | 176.06
2000
10 |
| Min.
Hr.
Day | 175.70
0600
3 | 175.80
2400
28 | 175.68
1200
16 | 175.80
0200
9 | 175.85
1700
2 | 175.88
0900
3 | 176.03
0900
6 | 175.98
1300
23 | 175.92
0600
13 | 175.84
0300
26 | 175.70
2400
26 | 175.72
0500
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 175.96

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 901-4087 Dry Dock, Port Huron, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 176.49 Jul
Daily mean elevation: 176.58 30 Jul
Instant/hourly elevation: 176.65 1200/31 Aug

LOWEST

Monthly mean elevation: 176.12 Mar
Daily mean elevation: 176.00 16 Mar
Instant/hourly elevation: 175.91 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.27 | 176.33 | 176.18 | 176.32 | 176.34 | 176.48 | 176.58 | 176.51 | 176.50 | 176.44 | 176.34 | 176.36 |
| Day | 31     | 8      | 31     | 26     | 25     | 29     | 30     | 20     | 15     | 9      | 1      | 11     |
| Min | 176.12 | 176.12 | 176.00 | 176.14 | 176.24 | 176.32 | 176.41 | 176.41 | 176.34 | 176.24 | 176.10 | 176.15 |
| Day | 26     | 28     | 16     | 9      | 23     | 8      | 5      | 30     | 13     | 26     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.55 | | | | | | | 1 | | | | | | 176.55 | 1 |
| 176.50 | | | | | | | 12 | 2 | | | | | 176.50 | 15 |
| 176.45 | | | | | | 6 | 14 | 19 | 6 | | | | 176.45 | 60 |
| 176.40 | | | | | | 7 | 4 | 10 | 15 | 2 | | | 176.40 | 98 |
| 176.35 | | | | | | 10 | | | 7 | 7 | | 1 | 176.35 | 123 |
| 176.30 | | 4 | | 2 | 10 | 7 | | | 2 | 8 | 3 | | 176.30 | 159 |
| 176.25 | 2 | 3 | | 6 | 17 | | | | | 13 | 6 | 4 | 176.25 | 210 |
| 176.20 | 15 | 4 | | 11 | 2 | | | | | 1 | 16 | 13 | 176.20 | 272 |
| 176.15 | 7 | 16 | 5 | 8 | | | | | | | 3 | 12 | 176.15 | 323 |
| 176.10 | 3 | 1 | 17 | 3 | | | | | | | 1 | 1 | 176.10 | 349 |
| 176.05 | | | 6 | | | | | | | | | | 176.05 | 356 |
| 176.00 | | | 2 | | | | | | | | | | 176.00 | 358 |
| 175.95 | | | 1 | | | | | | | | | | 175.95 | 359 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 901-4087 Dry Dock, Port Huron, Michigan on St. Clair River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | / | 176.33 | 176.13 | 176.15 | / | 176.36 | 176.47 | 176.48 | 176.46 | 176.28 | 176.34 | 176.18 |
| 2 | / | 176.20 | 176.12 | 176.16 | 176.26* | 176.33 | 176.45 | 176.49 | 176.43 | 176.39 | 176.24 | 176.16 |
| 3 | / | 176.32 | 176.12 | 176.22 | 176.25 | 176.33 | 176.46 | 176.49 | 176.47 | 176.32 | 176.25 | 176.24 |
| 4 | / | 176.25 | 176.13 | 176.21 | 176.26 | 176.34 | 176.43 | 176.51 | 176.47 | 176.43 | 176.24 | 176.24 |
| 5 | 176.21* | 176.26 | 176.14 | 176.18 | 176.28* | 176.36 | 176.41 | 176.50 | 176.48 | 176.36 | 176.24 | 176.25 |
| 6 | 176.23 | 176.19 | 176.12 | 176.18 | 176.32 | 176.34 | 176.47 | 176.48 | 176.45 | 176.29 | 176.30 | 176.22 |
| 7 | 176.26 | 176.18 | 176.09 | 176.18 | 176.30 | 176.33 | 176.49 | 176.49 | 176.45 | 176.33 | 176.26 | 176.26 |
| 8 | 176.25 | 176.33 | 176.10 | 176.15 | / | 176.32 | 176.48 | 176.48 | 176.43 | 176.32 | 176.26 | 176.21 |
| 9 | 176.23 | 176.30 | 176.11 | 176.14 | 176.28* | 176.34 | 176.46 | 176.46 | 176.42 | 176.44 | 176.25 | 176.19 |
| 10 | 176.21* | 176.32 | 176.10 | 176.21 | 176.27* | 176.38 | 176.51 | 176.44 | 176.49 | 176.36 | 176.25 | 176.28 |
| 11 | 176.21 | 176.28 | 176.12 | 176.20 | 176.30* | 176.37 | 176.49 | 176.47 | 176.45 | 176.29 | 176.23 | 176.36 |
| 12 | 176.19 | 176.18 | 176.11 | 176.21 | 176.33 | 176.37 | 176.52 | 176.46 | 176.34 | 176.38 | 176.28 | 176.22 |
| 13 | 176.19 | 176.21 | 176.15 | 176.26 | 176.30 | 176.37 | 176.51 | 176.46 | 176.34 | 176.33 | 176.15 | 176.18 |
| 14 | 176.18 | 176.19 | 176.14 | 176.24 | 176.29 | 176.36 | 176.51 | 176.47 | 176.38 | 176.29 | 176.26 | 176.20 |
| 15 | 176.19 | 176.17 | 176.05 | 176.21 | 176.32 | 176.41 | 176.53 | 176.46 | 176.50 | 176.27 | 176.25 | 176.27 |
| 16 | 176.18 | 176.22 | 176.00 | 176.19 | 176.32 | 176.40 | 176.51 | 176.46 | 176.42 | 176.27 | 176.25 | 176.23 |
| 17 | 176.25 | 176.19 | 176.18 | 176.24 | 176.30 | 176.36 | 176.50 | 176.48 | 176.43 | 176.36 | 176.32 | 176.19 |
| 18 | 176.23 | 176.18 | 176.09 | 176.20 | 176.29 | 176.41 | 176.48 | 176.47 | 176.43 | 176.34 | 176.24 | 176.20 |
| 19 | 176.22 | 176.18 | 176.05 | 176.22 | 176.32 | 176.42 | 176.48 | 176.45 | 176.44 | 176.30 | 176.22 | 176.20 |
| 20 | 176.21* | 176.17 | 176.08 | 176.25 | 176.31 | 176.40 | 176.53 | 176.51 | 176.37 | 176.30 | 176.33 | 176.15 |
| 21 | 176.15 | 176.16 | 176.11 | 176.31 | 176.30 | 176.45 | 176.53 | 176.46 | 176.38 | 176.29 | 176.21 | 176.22 |
| 22 | 176.17 | 176.18 | 176.11 | 176.28 | 176.29 | 176.48 | 176.52 | 176.45 | 176.37 | 176.40 | 176.25 | 176.24 |
| 23 | 176.15 | 176.22 | 176.09 | 176.27 | 176.24 | 176.44 | 176.50 | 176.41 | 176.43 | 176.28 | 176.19 | 176.17 |
| 24 | 176.21 | 176.20 | 176.12 | 176.18 | 176.27 | 176.42 | 176.48 | 176.43 | 176.40 | 176.31 | 176.26 | 176.19 |
| 25 | 176.24* | 176.17 | 176.13 | 176.26 | 176.34 | 176.42 | 176.45 | 176.45 | 176.39 | 176.28 | 176.16 | 176.22 |
| 26 | 176.12 | 176.18 | 176.13 | 176.32* | 176.31 | 176.46 | 176.46 | 176.42 | 176.42 | 176.24 | 176.10 | 176.27 |
| 27 | 176.24 | 176.17 | 176.15 | 176.25 | 176.30 | 176.46 | 176.51 | 176.43 | 176.42 | 176.33 | 176.20 | 176.24 |
| 28 | 176.18 | 176.12 | 176.16 | 176.23 | 176.29 | 176.48 | 176.48 | 176.49 | 176.44 | 176.26 | 176.24 | 176.24 |
| 29 | 176.25 | | 176.16 | 176.27 | 176.33 | 176.48 | 176.53 | 176.44 | 176.43 | 176.30 | 176.25 | 176.17 |
| 30 | 176.24 | | 176.16 | 176.27* | 176.30 | 176.47 | 176.58 | 176.41 | 176.36 | 176.35 | 176.24 | 176.25 |
| 31 | 176.27 | | 176.18 | | 176.31 | | 176.53 | 176.49 | | 176.36 | | 176.19 |
| Mean | 176.21 | 176.22 | 176.12 | 176.22 | 176.30 | 176.40 | 176.49 | 176.46 | 176.42 | 176.32 | 176.24 | 176.22 |
| Max.
Hr.
Day | 176.60
2200
31 | 176.47
0100
1 | 176.26
0700
17 | 176.39
0300
26 | 176.44
2200
15 | 176.55
1100
22 | 176.62
1900
29 | 176.65
1200
31 | 176.56
2400
9 | 176.57
1000
4 | 176.40
2400
19 | 176.54
2000
10 |
| Min.
Hr.
Day | 176.02
1700
26 | 176.07
2000
28 | 175.91
1100
16 | 176.05
2000
24 | 176.13
2300
27 | 176.18
0300
9 | 176.37
0800
5 | 176.32
1400
23 | 176.24
0500
13 | 176.08
0800
21 | 176.00
1700
26 | 175.97
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.30

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 901-4090 Mouth of the Black River, Port Huron, MI on St. Clair River

HIGHEST

Monthly mean elevation: 176.62 Jul
Daily mean elevation: 176.71 30 Jul
Instant/hourly elevation: 176.75 1200/31 Aug

LOWEST

Monthly mean elevation: 176.21 Mar
Daily mean elevation: 176.08 16 Mar
Instant/hourly elevation: 175.97 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.38 | 176.44 | 176.29 | 176.44 | 176.45 | 176.60 | 176.71 | 176.64 | 176.62 | 176.56 | 176.46 | 176.50 |
| Day | 31     | 1      | 31     | 26     | 29     | 29     | 30     | 20     | 15     | 9      | 20     | 11     |
| Min | 176.13 | 176.20 | 176.08 | 176.23 | 176.34 | 176.42 | 176.53 | 176.52 | 176.44 | 176.35 | 176.20 | 176.26 |
| Day | 3      | 28     | 16     | 9      | 23     | 8      | 5      | 30     | 13     | 26     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.70 | | | | | | | 1 | | | | | | 176.70 | 1 |
| 176.65 | | | | | | | 2 | | | | | | 176.65 | 3 |
| 176.60 | | | | | | | 15 | 7 | 2 | | | | 176.60 | 27 |
| 176.55 | | | | | | 8 | 11 | 18 | 6 | 1 | | | 176.55 | 71 |
| 176.50 | | | | | | 7 | 2 | 6 | 15 | 3 | | | 176.50 | 104 |
| 176.45 | | | | | | 8 | | | 5 | 7 | 2 | 1 | 176.45 | 127 |
| 176.40 | | 1 | | 2 | 15 | 7 | | | 2 | 9 | 2 | | 176.40 | 165 |
| 176.35 | 1 | 4 | | 6 | 15 | | | | | | | | 176.35 | 221 |
| 176.30 | 14 | 4 | | 10 | 1 | | | | | 10 | 12 | 8 | 176.30 | 273 |
| 176.25 | 12 | 11 | 6 | 8 | | | | | | 1 | 10 | 12 | 176.25 | 322 |
| 176.20 | 2 | 7 | 13 | 4 | | | | | | | 2 | 10 | 176.20 | 349 |
| 176.15 | 1 | 1 | 9 | | | | | | | | 1 | | 176.15 | 361 |
| 176.10 | 1 | | 2 | | | | | | | | | | 176.10 | 364 |
| 176.05 | | | 1 | | | | | | | | | | 176.05 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 901-4090 Mouth of the Black River, Port Huron, MI on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.34 | 176.44 | 176.21 | 176.24 | 176.39 | 176.47 | 176.59 | 176.60 | 176.58 | 176.37 | 176.46 | 176.29 |
| 2 | 176.27 | 176.27 | 176.21 | 176.25 | 176.36 | 176.45 | 176.57 | 176.61 | 176.54 | 176.51 | 176.35 | 176.26 |
| 3 | 176.13 | 176.39 | 176.22 | 176.31 | 176.36 | 176.45 | 176.59 | 176.60 | 176.58 | 176.43 | 176.35 | 176.35 |
| 4 | 176.27 | 176.33 | 176.23 | 176.30 | 176.37 | 176.45 | 176.55 | 176.62 | 176.58 | 176.55 | 176.35 | 176.36 |
| 5 | 176.35 | 176.36 | 176.22 | 176.28 | 176.40 | 176.48 | 176.53 | 176.62 | 176.60 | 176.47 | 176.35 | 176.37 |
| 6 | 176.33 | 176.29 | 176.21 | 176.28 | 176.43 | 176.45 | 176.59 | 176.60 | 176.55 | 176.40 | 176.42 | 176.33 |
| 7 | 176.35 | 176.25 | 176.18 | 176.27 | 176.40 | 176.44 | 176.62 | 176.61 | 176.56 | 176.44 | 176.37 | 176.38 |
| 8 | 176.35 | 176.40 | 176.19 | 176.25 | 176.38 | 176.42 | 176.60 | 176.60 | 176.54 | 176.42 | 176.36 | 176.32 |
| 9 | 176.33 | 176.33 | 176.21 | 176.23 | 176.40 | 176.44 | 176.60 | 176.57 | 176.52 | 176.56 | 176.37 | 176.30 |
| 10 | 176.30 | 176.37 | 176.20 | 176.32 | 176.39 | 176.50 | 176.64 | 176.56 | 176.61 | 176.47 | 176.37 | 176.40 |
| 11 | 176.30 | 176.34 | 176.22 | 176.29 | 176.41 | 176.49 | 176.62 | 176.59 | 176.56 | 176.39 | 176.35 | 176.50 |
| 12 | 176.28 | 176.25 | 176.20 | 176.31 | 176.45 | 176.49 | 176.65 | 176.58 | 176.44 | 176.49 | 176.40 | 176.34 |
| 13 | 176.29 | 176.30 | 176.26 | 176.35 | 176.41 | 176.48 | 176.64 | 176.58 | 176.44 | 176.44 | 176.25 | 176.28 |
| 14 | 176.28 | 176.27 | 176.23 | 176.32 | 176.40 | 176.47 | 176.64 | 176.59 | 176.48 | 176.40 | 176.37 | 176.31 |
| 15 | 176.29 | 176.26 | 176.13 | 176.29 | 176.42 | 176.53 | 176.66 | 176.58 | 176.62 | 176.38 | 176.37 | 176.39 |
| 16 | 176.28 | 176.31 | 176.08 | 176.26 | 176.43 | 176.52 | 176.64 | 176.59 | 176.53 | 176.38 | 176.36 | 176.34 |
| 17 | 176.35 | 176.27 | 176.28 | 176.35 | 176.41 | 176.48 | 176.62 | 176.61 | 176.54 | 176.47 | 176.44 | 176.31 |
| 18 | 176.33 | 176.27 | 176.18 | 176.31 | 176.40 | 176.54 | 176.60 | 176.60 | 176.54 | 176.46 | 176.35 | 176.30 |
| 19 | 176.31 | 176.26 | 176.14 | 176.33 | 176.42 | 176.54 | 176.61 | 176.57 | 176.55 | 176.41 | 176.33 | 176.31 |
| 20 | 176.31 | 176.25 | 176.17 | 176.36 | 176.42 | 176.52 | 176.66 | 176.64 | 176.48 | 176.42 | 176.46 | 176.26 |
| 21 | 176.23 | 176.24 | 176.20 | 176.43 | 176.41 | 176.58 | 176.65 | 176.59 | 176.49 | 176.39 | 176.31 | 176.32 |
| 22 | 176.26 | 176.26 | 176.20 | 176.40 | 176.40 | 176.60 | 176.64 | 176.57 | 176.47 | 176.52 | 176.37 | 176.36 |
| 23 | 176.24 | 176.30 | 176.18 | 176.37 | 176.34 | 176.56 | 176.62 | 176.53 | 176.54 | 176.39 | 176.30 | 176.28 |
| 24 | 176.30 | 176.29 | 176.21 | 176.27 | 176.37 | 176.53 | 176.60 | 176.55 | 176.51 | 176.43 | 176.39 | 176.29 |
| 25 | 176.34 | 176.25 | 176.23 | 176.36 | 176.45 | 176.54 | 176.56 | 176.57 | 176.51 | 176.40 | 176.28 | 176.33 |
| 26 | 176.20 | 176.25 | 176.23 | 176.44 | 176.42 | 176.58 | 176.58 | 176.54 | 176.53 | 176.35 | 176.20 | 176.37 |
| 27 | 176.34 | 176.25 | 176.25 | 176.34 | 176.39 | 176.57 | 176.63 | 176.55 | 176.54 | 176.44 | 176.31 | 176.32 |
| 28 | 176.28 | 176.20 | 176.26 | 176.34 | 176.39 | 176.60 | 176.60 | 176.61 | 176.55 | 176.36 | 176.35 | 176.35 |
| 29 | 176.35 | | 176.27 | 176.38 | 176.45 | 176.60 | 176.65 | 176.55 | 176.54 | 176.42 | 176.36 | 176.28 |
| 30 | 176.34 | | 176.28 | 176.39 | 176.41 | 176.59 | 176.71 | 176.52 | 176.46 | 176.48 | 176.36 | 176.36 |
| 31 | 176.38 | | 176.29 | | 176.42 | | 176.65 | 176.60 | | 176.48 | | 176.29 |
| Mean | 176.30 | 176.29 | 176.21 | 176.32 | 176.40 | 176.51 | 176.62 | 176.58 | 176.53 | 176.44 | 176.36 | 176.33 |
| Max.
Hr.
Day | 176.73
2200
31 | 176.60
0100
1 | 176.38
0700
17 | 176.50
0900
26 | 176.57
2200
15 | 176.66
1100
22 | 176.75
1000
30 | 176.75
1200
31 | 176.70
2100
10 | 176.68
0900
4 | 176.53
1200
20 | 176.68
2000
10 |
| Min.
Hr.
Day | 176.04
0500
3 | 176.13
1500
28 | 175.97
1100
16 | 176.13
2000
24 | 176.22
2300
27 | 176.27
0300
9 | 176.48
0200
6 | 176.43
1900
27 | 176.30
0500
13 | 176.15
0800
21 | 176.10
2300
26 | 176.09
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.41

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 901-4096 Dunn Paper Company, Port Huron, MI on St. Clair River

HIGHEST

Monthly mean elevation: 176.71 Jul
Daily mean elevation: 176.82 30 Jul
Instant/hourly elevation: 176.87 2200/31 Jan

LOWEST

Monthly mean elevation: 176.29 Mar
Daily mean elevation: 176.15 16 Mar
Instant/hourly elevation: 176.02 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.48 | 176.53 | 176.38 | 176.55 | 176.56 | 176.70 | 176.82 | 176.73 | 176.73 | 176.69 | 176.59 | 176.62 |
| Day | 31     | 1      | 17     | 26     | 29     | 22     | 30     | 20     | 15     | 9      | 20     | 11     |
| Min | 176.21 | 176.26 | 176.15 | 176.29 | 176.44 | 176.53 | 176.60 | 176.61 | 176.54 | 176.46 | 176.32 | 176.36 |
| Day | 3      | 28     | 16     | 1      | 23     | 8      | 5      | 23     | 13     | 28     | 26     | 2      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.80 | | | | | | | 1 | | | | | | 176.80 | 1 |
| 176.75 | | | | | | | 1 | | | | | | 176.75 | 2 |
| 176.70 | | | | | | | 14 | 7 | 3 | | | | 176.70 | 26 |
| 176.65 | | | | | | 8 | 12 | 18 | 11 | 2 | | | 176.65 | 77 |
| 176.60 | | | | | | 7 | 2 | 6 | 9 | 3 | | 1 | 176.60 | 105 |
| 176.55 | | | | | 2 | 11 | 1 | | 5 | 8 | 3 | | 176.55 | 135 |
| 176.50 | | 1 | | 2 | 12 | 4 | | | 2 | 10 | 3 | 2 | 176.50 | 171 |
| 176.45 | 1 | 2 | | 6 | 13 | | | | | 8 | | 9 | 176.45 | 226 |
| 176.40 | 11 | 4 | | 6 | 4 | | | | | | 16 | | 176.40 | 267 |
| 176.35 | 13 | 6 | 2 | 9 | | | | | | | 5 | 11 | 176.35 | 306 |
| 176.30 | 4 | 14 | 6 | 5 | | | | | | | 1 | 8 | 176.30 | 337 |
| 176.25 | 1 | 1 | 18 | 2 | | | | | | | 2 | | 176.25 | 359 |
| 176.20 | 1 | | 3 | | | | | | | | | | 176.20 | 363 |
| 176.15 | | | 1 | | | | | | | | | | 176.15 | 364 |
| 176.10 | | | 1 | | | | | | | | | | 176.10 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 901-4096 Dunn Paper Company, Port Huron, MI on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.42 | 176.53 | 176.29 | 176.29 | 176.48 | 176.59 | 176.68 | 176.70 | 176.68 | 176.46 | 176.58 | 176.40 |
| 2 | 176.36 | 176.34 | 176.29 | 176.30 | 176.44 | 176.55 | 176.66 | 176.72 | 176.64 | 176.62 | 176.45 | 176.36 |
| 3 | 176.21 | 176.47 | 176.30 | 176.37 | 176.44 | 176.56 | 176.67 | 176.70 | 176.69 | 176.52 | 176.46 | 176.48 |
| 4 | 176.35 | 176.41 | 176.33 | 176.37 | 176.45 | 176.56 | 176.63 | 176.73 | 176.68 | 176.66 | 176.46 | 176.47 |
| 5 | 176.42 | 176.45 | 176.30 | 176.36 | 176.47 | 176.58 | 176.60 | 176.72 | 176.71 | 176.58 | 176.46 | 176.48 |
| 6 | 176.40 | 176.37 | 176.30 | 176.35 | 176.51 | 176.56 | 176.68 | 176.70 | 176.66 | 176.51 | 176.54 | 176.44 |
| 7 | 176.44 | 176.31 | 176.26 | 176.35 | 176.48 | 176.55 | 176.71 | 176.71 | 176.66 | 176.55 | 176.48 | 176.50 |
| 8 | 176.43 | 176.47 | 176.28 | 176.33 | 176.47 | 176.53 | 176.68 | 176.69 | 176.64 | 176.54 | 176.48 | 176.43 |
| 9 | 176.41 | 176.37 | 176.30 | 176.31 | 176.48 | 176.54 | 176.67 | 176.67 | 176.61 | 176.69 | 176.49 | 176.41 |
| 10 | 176.38 | 176.43 | 176.29 | 176.41 | 176.48 | 176.60 | 176.72 | 176.65 | 176.73 | 176.58 | 176.49 | 176.52 |
| 11 | 176.39 | 176.41 | 176.30 | 176.38 | 176.50 | 176.59 | 176.70 | 176.68 | 176.67 | 176.50 | 176.46 | 176.62 |
| 12 | 176.38 | 176.31 | 176.28 | 176.38 | 176.55 | 176.59 | 176.73 | 176.68 | 176.54 | 176.60 | 176.52 | 176.45 |
| 13 | 176.37 | 176.38 | 176.34 | 176.41 | 176.51 | 176.58 | 176.73 | 176.68 | 176.54 | 176.56 | 176.35 | 176.40 |
| 14 | 176.37 | 176.35 | 176.30 | 176.38 | 176.49 | 176.57 | 176.74 | 176.69 | 176.58 | 176.51 | 176.50 | 176.42 |
| 15 | 176.37 | 176.34 | 176.19 | 176.36 | 176.51 | 176.63 | 176.74 | 176.68 | 176.73 | 176.49 | 176.50 | 176.52 |
| 16 | 176.36 | 176.40 | 176.15 | 176.34 | 176.53 | 176.62 | 176.73 | 176.67 | 176.64 | 176.49 | 176.49 | 176.45 |
| 17 | 176.45 | 176.35 | 176.38 | 176.44 | 176.51 | 176.57 | 176.71 | 176.70 | 176.66 | 176.59 | 176.57 | 176.41 |
| 18 | 176.42 | 176.34 | 176.25 | 176.40 | 176.50 | 176.64 | 176.69 | 176.69 | 176.66 | 176.57 | 176.47 | 176.42 |
| 19 | 176.40 | 176.32 | 176.22 | 176.44 | 176.53 | 176.65 | 176.69 | 176.66 | 176.66 | 176.53 | 176.44 | 176.43 |
| 20 | 176.40 | 176.32 | 176.25 | 176.47 | 176.52 | 176.61 | 176.75 | 176.73 | 176.58 | 176.53 | 176.59 | 176.37 |
| 21 | 176.31 | 176.31 | 176.29 | 176.52 | 176.51 | 176.67 | 176.75 | 176.68 | 176.60 | 176.49 | 176.41 | 176.44 |
| 22 | 176.34 | 176.33 | 176.29 | 176.50 | 176.50 | 176.70 | 176.74 | 176.66 | 176.57 | 176.64 | 176.49 | 176.47 |
| 23 | 176.33 | 176.38 | 176.27 | 176.48 | 176.44 | 176.66 | 176.72 | 176.61 | 176.66 | 176.50 | 176.41 | 176.40 |
| 24 | 176.39 | 176.36 | 176.29 | 176.36 | 176.46 | 176.62 | 176.70 | 176.64 | 176.62 | 176.55 | 176.51 | 176.40 |
| 25 | 176.44 | 176.32 | 176.30 | 176.47 | 176.56 | 176.62 | 176.65 | 176.67 | 176.62 | 176.51 | 176.39 | 176.46 |
| 26 | 176.27 | 176.32 | 176.30 | 176.55 | 176.53 | 176.67 | 176.68 | 176.64 | 176.64 | 176.46 | 176.32 | 176.50 |
| 27 | 176.44 | 176.32 | 176.32 | 176.45 | 176.50 | 176.66 | 176.74 | 176.64 | 176.65 | 176.56 | 176.43 | 176.44 |
| 28 | 176.37 | 176.26 | 176.33 | 176.44 | 176.49 | 176.69 | 176.69 | 176.72 | 176.65 | 176.46 | 176.46 | 176.47 |
| 29 | 176.44 | | 176.33 | 176.48 | 176.56 | 176.69 | 176.76 | 176.66 | 176.66 | 176.52 | 176.48 | 176.39 |
| 30 | 176.44 | | 176.33 | 176.48 | 176.52 | 176.68 | 176.82 | 176.62 | 176.57 | 176.60 | 176.47 | 176.47 |
| 31 | 176.48 | | 176.36 | | 176.52 | | 176.75 | 176.71 | | 176.61 | | 176.39 |
| Mean | 176.39 | 176.37 | 176.29 | 176.41 | 176.50 | 176.61 | 176.71 | 176.68 | 176.64 | 176.55 | 176.47 | 176.45 |
| Max.
Hr.
Day | 176.87
2200
31 | 176.65
0400
1 | 176.49
0700
17 | 176.63
0400
26 | 176.69
2200
15 | 176.78
1100
22 | 176.86
0900
30 | 176.83
1200
31 | 176.81
1000
15 | 176.85
1000
4 | 176.67
1600
17 | 176.83
2000
10 |
| Min.
Hr.
Day | 176.10
0500
3 | 176.17
1500
28 | 176.02
1100
16 | 176.21
2000
24 | 176.32
0400
28 | 176.30
0800
9 | 176.50
2100
4 | 176.50
1400
23 | 176.38
0500
13 | 176.20
0800
21 | 176.22
1700
26 | 176.15
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.50

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 901-4098 Fort Gratiot, Port Huron, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 176.85 Jul
Daily mean elevation: 176.98 30 Jul
Instant/hourly elevation: 177.05 2200/31 Jan

LOWEST

Monthly mean elevation: 176.39 Mar
Daily mean elevation: 176.22 16 Mar
Instant/hourly elevation: 176.08 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|---------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Max Day | 176.59<br>31 | 176.67<br>1  | 176.50<br>17 | 176.69<br>26 | 176.71<br>29 | 176.85<br>22 | 176.98<br>30 | 176.88<br>28 | 176.89<br>15 | 176.86<br>9  | 176.74<br>20 | 176.79<br>11 |
| Min Day | 176.30<br>3  | 176.34<br>28 | 176.22<br>16 | 176.39<br>2  | 176.56<br>23 | 176.67<br>8  | 176.73<br>5  | 176.73<br>23 | 176.66<br>12 | 176.57<br>28 | 176.43<br>26 | 176.48<br>2  |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | 1 | | | | | | 176.95 | 1 |
| 176.90 | | | | | | | 13 | | | | | | 176.90 | 1 |
| 176.85 | | | | | | | 13 | 6 | 2 | 1 | | | 176.85 | 23 |
| 176.80 | | | | | | 5 | 8 | 14 | 8 | 1 | | | 176.80 | 64 |
| 176.75 | | | | | | 8 | 3 | 9 | 12 | 4 | | | 176.75 | 101 |
| 176.70 | | | | | 1 | 9 | 1 | 2 | 3 | 6 | 3 | 1 | 176.70 | 126 |
| 176.65 | | 1 | | 2 | 9 | 8 | | | 5 | 7 | 2 | 2 | 176.65 | 162 |
| 176.60 | | | | 2 | 16 | | | | | 9 | 10 | 7 | 176.60 | 206 |
| 176.55 | 3 | 2 | | 7 | 5 | | | | | 3 | 10 | 10 | 176.55 | 246 |
| 176.50 | 10 | 2 | | 3 | | | | | | | 3 | 8 | 176.50 | 272 |
| 176.45 | 13 | 7 | 3 | 9 | | | | | | | 1 | 3 | 176.45 | 308 |
| 176.40 | 2 | 12 | 8 | 5 | | | | | | | 1 | | 176.40 | 336 |
| 176.35 | 2 | 3 | 14 | 2 | | | | | | | | | 176.35 | 357 |
| 176.30 | | 1 | 3 | | | | | | | | | | 176.30 | 361 |
| 176.25 | 1 | | 2 | | | | | | | | | | 176.25 | 364 |
| 176.20 | | | 1 | | | | | | | | | | 176.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 901-4098 Fort Gratiot, Port Huron, Michigan on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.55 | 176.67 | 176.38 | 176.39 | 176.63 | 176.72 | 176.83 | 176.84 | 176.83 | 176.57 | 176.73 | 176.53 |
| 2 | 176.48 | 176.43 | 176.40 | 176.39 | 176.58 | 176.69 | 176.80 | 176.85 | 176.78 | 176.76 | 176.57 | 176.48 |
| 3 | 176.30 | 176.55 | 176.41 | 176.46 | 176.57 | 176.70 | 176.81 | 176.84 | 176.83 | 176.64 | 176.58 | 176.61 |
| 4 | 176.46 | 176.50 | 176.44 | 176.47 | 176.59 | 176.71 | 176.76 | 176.88 | 176.82 | 176.81 | 176.58 | 176.62 |
| 5 | 176.54 | 176.56 | 176.40 | 176.46 | 176.62 | 176.74 | 176.73 | 176.87 | 176.85 | 176.72 | 176.59 | 176.63 |
| 6 | 176.49 | 176.49 | 176.39 | 176.45 | 176.66 | 176.69 | 176.81 | 176.84 | 176.81 | 176.64 | 176.69 | 176.57 |
| 7 | 176.55 | 176.38 | 176.35 | 176.46 | 176.62 | 176.67 | 176.85 | 176.86 | 176.80 | 176.68 | 176.61 | 176.64 |
| 8 | 176.55 | 176.56 | 176.38 | 176.44 | 176.61 | 176.67 | 176.83 | 176.84 | 176.78 | 176.68 | 176.60 | 176.57 |
| 9 | 176.54 | 176.41 | 176.40 | 176.42 | 176.62 | 176.68 | 176.81 | 176.81 | 176.74 | 176.86 | 176.62 | 176.53 |
| 10 | 176.51 | 176.50 | 176.40 | 176.52 | 176.62 | 176.74 | 176.87 | 176.78 | 176.88 | 176.73 | 176.63 | 176.66 |
| 11 | 176.50 | 176.49 | 176.41 | 176.50 | 176.64 | 176.74 | 176.85 | 176.81 | 176.81 | 176.63 | 176.59 | 176.79 |
| 12 | 176.48 | 176.39 | 176.39 | 176.50 | 176.70 | 176.73 | 176.88 | 176.81 | 176.66 | 176.75 | 176.65 | 176.58 |
| 13 | 176.47 | 176.48 | 176.47 | 176.50 | 176.65 | 176.72 | 176.87 | 176.82 | 176.67 | 176.70 | 176.47 | 176.52 |
| 14 | 176.48 | 176.45 | 176.43 | 176.49 | 176.63 | 176.70 | 176.88 | 176.83 | 176.70 | 176.64 | 176.63 | 176.56 |
| 15 | 176.47 | 176.44 | 176.28 | 176.46 | 176.65 | 176.78 | 176.90 | 176.82 | 176.89 | 176.62 | 176.64 | 176.67 |
| 16 | 176.46 | 176.51 | 176.22 | 176.42 | 176.67 | 176.76 | 176.87 | 176.80 | 176.79 | 176.62 | 176.62 | 176.59 |
| 17 | 176.56 | 176.44 | 176.50 | 176.56 | 176.65 | 176.70 | 176.85 | 176.84 | 176.80 | 176.73 | 176.72 | 176.54 |
| 18 | 176.53 | 176.43 | 176.35 | 176.52 | 176.64 | 176.77 | 176.82 | 176.83 | 176.80 | 176.72 | 176.60 | 176.55 |
| 19 | 176.50 | 176.41 | 176.30 | 176.55 | 176.68 | 176.78 | 176.83 | 176.79 | 176.81 | 176.67 | 176.57 | 176.56 |
| 20 | 176.50 | 176.41 | 176.34 | 176.58 | 176.66 | 176.74 | 176.89 | 176.88 | 176.71 | 176.66 | 176.74 | 176.49 |
| 21 | 176.40 | 176.40 | 176.38 | 176.67 | 176.65 | 176.81 | 176.89 | 176.82 | 176.74 | 176.61 | 176.54 | 176.58 |
| 22 | 176.44 | 176.42 | 176.39 | 176.61 | 176.63 | 176.85 | 176.88 | 176.80 | 176.70 | 176.80 | 176.63 | 176.62 |
| 23 | 176.43 | 176.48 | 176.36 | 176.59 | 176.56 | 176.80 | 176.86 | 176.73 | 176.80 | 176.63 | 176.54 | 176.54 |
| 24 | 176.50 | 176.46 | 176.38 | 176.44 | 176.58 | 176.76 | 176.84 | 176.77 | 176.76 | 176.68 | 176.66 | 176.53 |
| 25 | 176.55 | 176.41 | 176.39 | 176.58 | 176.69 | 176.75 | 176.78 | 176.80 | 176.76 | 176.65 | 176.53 | 176.59 |
| 26 | 176.36 | 176.42 | 176.39 | 176.69 | 176.66 | 176.80 | 176.81 | 176.77 | 176.78 | 176.59 | 176.43 | 176.65 |
| 27 | 176.55 | 176.41 | 176.42 | 176.56 | 176.63 | 176.80 | 176.88 | 176.78 | 176.79 | 176.71 | 176.56 | 176.57 |
| 28 | 176.47 | 176.34 | 176.42 | 176.56 | 176.63 | 176.84 | 176.82 | 176.88 | 176.80 | 176.57 | 176.60 | 176.61 |
| 29 | 176.56 | | 176.42 | 176.60 | 176.71 | 176.84 | 176.90 | 176.80 | 176.81 | 176.66 | 176.62 | 176.51 |
| 30 | 176.54 | | 176.42 | 176.61 | 176.66 | 176.83 | 176.98 | 176.75 | 176.70 | 176.76 | 176.61 | 176.60 |
| 31 | 176.59 | | 176.46 | | 176.66 | | 176.90 | 176.86 | | 176.77 | | 176.50 |
| Mean | 176.49 | 176.46 | 176.39 | 176.52 | 176.64 | 176.75 | 176.85 | 176.82 | 176.78 | 176.68 | 176.60 | 176.58 |
| Max. | 177.05 | 176.85 | 176.63 | 176.79 | 176.85 | 176.94 | 177.02 | 177.03 | 176.99 | 177.01 | 176.82 | 177.02 |
| Hr. | 2200 | 0300 | 0700 | 0600 | 2200 | 1100 | 0900 | 0300 | 0200 | 1000 | 1600 | 2000 |
| Day | 31 | 1 | 17 | 26 | 15 | 22 | 30 | 28 | 15 | 4 | 17 | 10 |
| Min. | 176.17 | 176.23 | 176.08 | 176.27 | 176.38 | 176.35 | 176.67 | 176.64 | 176.48 | 176.27 | 176.33 | 176.25 |
| Hr. | 0500 | 1500 | 1100 | 2000 | 2400 | 0800 | 2400 | 1400 | 0500 | 0800 | 1700 | 0800 |
| Day | 3 | 28 | 16 | 24 | 27 | 9 | 25 | 23 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.63

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5002 Lakeport, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 177.04 30 Jul
Instant/hourly elevation: 177.08 0800/30 Jul

LOWEST

Monthly mean elevation: 176.49 Mar
Daily mean elevation: 176.34 16 Mar
Instant/hourly elevation: 176.17 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.64 | 176.68 | 176.64 | 176.72 | 176.77 | 176.91 | 177.04 | 176.95 | 176.94 | 176.89 | 176.81 | 176.83 |
| Day | 31 | 1 | 17 | 26 | 29 | 29 | 30 | 4 | 10 | 9 | 20 | 11 |
| Min | 176.37 | 176.45 | 176.34 | 176.46 | 176.63 | 176.72 | 176.80 | 176.80 | 176.75 | 176.65 | 176.51 | 176.56 |
| Day | 3 | 28 | 16 | 16 | 23 | 9 | 5 | 23 | 13 | 21 | 26 | 20 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 177.00 | | | | | | | 1 | | | | | | 177.00 | 1 |
| 176.95 | | | | | | | 5 | | | | | | 176.95 | 6 |
| 176.90 | | | | | | 1 | 11 | 7 | 3 | | | | 176.90 | 28 |
| 176.85 | | | | | | 7 | 10 | 19 | 14 | 3 | | | 176.85 | 81 |
| 176.80 | | | | | | 7 | 3 | 4 | 7 | 4 | 1 | 1 | 176.80 | 108 |
| 176.75 | | | | | 2 | 12 | 1 | 1 | 4 | 8 | 3 | | 176.75 | 139 |
| 176.70 | | | | 1 | 14 | 3 | | | 2 | 9 | 7 | 4 | 176.70 | 179 |
| 176.65 | | 1 | | 4 | 10 | | | | | 6 | 12 | 8 | 176.65 | 220 |
| 176.60 | 8 | 3 | 2 | 7 | 5 | | | | | 1 | 5 | 11 | 176.60 | 262 |
| 176.55 | 9 | 6 | 1 | 5 | | | | | | | 1 | 7 | 176.55 | 291 |
| 176.50 | 9 | 8 | 6 | 10 | | | | | | | 1 | | 176.50 | 325 |
| 176.45 | 3 | 8 | 17 | 3 | | | | | | | | | 176.45 | 356 |
| 176.40 | 1 | 2 | 3 | | | | | | | | | | 176.40 | 362 |
| 176.35 | 1 | | 1 | | | | | | | | | | 176.35 | 364 |
| 176.30 | | | 1 | | | | | | | | | | 176.30 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 907-5002 Lakeport, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.61 | 176.68 | 176.47 | 176.53 | 176.69 | 176.79 | 176.89 | 176.90 | 176.89 | 176.66 | 176.80 | 176.61 |
| 2 | 176.55 | 176.49 | 176.49 | 176.52 | 176.64 | 176.76 | 176.84 | 176.91 | 176.85 | 176.84 | 176.66 | 176.57 |
| 3 | 176.37 | 176.62 | 176.51 | 176.54 | 176.63 | 176.76 | 176.88 | 176.89 | 176.89 | 176.72 | 176.67 | 176.68 |
| 4 | 176.52 | 176.56 | 176.54 | 176.54 | 176.65 | 176.78 | 176.84 | 176.95 | 176.88 | 176.88 | 176.66 | 176.68 |
| 5 | 176.58 | 176.61 | 176.51 | 176.53 | 176.68 | 176.79 | 176.80 | 176.93 | 176.92 | 176.80 | 176.66 | 176.69 |
| 6 | 176.55 | 176.55 | 176.49 | 176.51 | 176.72 | 176.76 | 176.87 | 176.90 | 176.87 | 176.71 | 176.76 | 176.64 |
| 7 | 176.60 | 176.45 | 176.46 | 176.51 | 176.68 | 176.75 | 176.91 | 176.92 | 176.87 | 176.76 | 176.70 | 176.71 |
| 8 | 176.61 | 176.61 | 176.49 | 176.48 | 176.67 | 176.73 | 176.88 | 176.90 | 176.84 | 176.74 | 176.69 | 176.64 |
| 9 | 176.60 | 176.47 | 176.53 | 176.47 | 176.68 | 176.72 | 176.87 | 176.87 | 176.82 | 176.89 | 176.71 | 176.60 |
| 10 | 176.57 | 176.56 | 176.49 | 176.58 | 176.68 | 176.81 | 176.93 | 176.86 | 176.94 | 176.80 | 176.70 | 176.72 |
| 11 | 176.56 | 176.56 | 176.51 | 176.55 | 176.70 | 176.80 | 176.91 | 176.90 | 176.88 | 176.71 | 176.68 | 176.83 |
| 12 | 176.54 | 176.46 | 176.49 | 176.59 | 176.76 | 176.79 | 176.94 | 176.88 | 176.75 | 176.82 | 176.74 | 176.64 |
| 13 | 176.53 | 176.57 | 176.61 | 176.58 | 176.71 | 176.78 | 176.93 | 176.89 | 176.75 | 176.77 | 176.56 | 176.60 |
| 14 | 176.53 | 176.55 | 176.58 | 176.56 | 176.69 | 176.76 | 176.93 | 176.90 | 176.80 | 176.72 | 176.72 | 176.63 |
| 15 | 176.54 | 176.52 | 176.40 | 176.52 | 176.71 | 176.84 | 176.96 | 176.87 | 176.93 | 176.70 | 176.71 | 176.73 |
| 16 | 176.53 | 176.60 | 176.34 | 176.46 | 176.74 | 176.83 | 176.94 | 176.88 | 176.86 | 176.69 | 176.71 | 176.66 |
| 17 | 176.62 | 176.55 | 176.64 | 176.61 | 176.72 | 176.77 | 176.91 | 176.90 | 176.86 | 176.80 | 176.80 | 176.61 |
| 18 | 176.59 | 176.53 | 176.47 | 176.58 | 176.70 | 176.84 | 176.89 | 176.89 | 176.87 | 176.79 | 176.68 | 176.62 |
| 19 | 176.56 | 176.49 | 176.41 | 176.61 | 176.74 | 176.84 | 176.90 | 176.86 | 176.87 | 176.74 | 176.61 | 176.63 |
| 20 | 176.56 | 176.50 | 176.44 | 176.64 | 176.72 | 176.80 | 176.96 | 176.94 | 176.79 | 176.75 | 176.81 | 176.56 |
| 21 | 176.46 | 176.50 | 176.48 | 176.70 | 176.71 | 176.87 | 176.96 | 176.90 | 176.81 | 176.65 | 176.62 | 176.65 |
| 22 | 176.50 | 176.51 | 176.48 | 176.67 | 176.70 | 176.90 | 176.95 | 176.87 | 176.77 | 176.87 | 176.71 | 176.69 |
| 23 | 176.50 | 176.57 | 176.44 | 176.65 | 176.63 | 176.86 | 176.93 | 176.80 | 176.86 | 176.70 | 176.61 | 176.60 |
| 24 | 176.56 | 176.55 | 176.46 | 176.52 | 176.65 | 176.83 | 176.90 | 176.83 | 176.83 | 176.76 | 176.72 | 176.61 |
| 25 | 176.62 | 176.50 | 176.48 | 176.64 | 176.75 | 176.82 | 176.84 | 176.87 | 176.83 | 176.73 | 176.61 | 176.66 |
| 26 | 176.43 | 176.51 | 176.48 | 176.72 | 176.74 | 176.87 | 176.86 | 176.84 | 176.84 | 176.66 | 176.51 | 176.72 |
| 27 | 176.62 | 176.49 | 176.50 | 176.62 | 176.72 | 176.87 | 176.93 | 176.84 | 176.86 | 176.78 | 176.62 | 176.65 |
| 28 | 176.53 | 176.45 | 176.50 | 176.61 | 176.71 | 176.90 | 176.88 | 176.93 | 176.86 | 176.66 | 176.67 | 176.68 |
| 29 | 176.61 | | 176.50 | 176.66 | 176.77 | 176.91 | 176.96 | 176.86 | 176.88 | 176.74 | 176.69 | 176.58 |
| 30 | 176.61 | | 176.49 | 176.67 | 176.72 | 176.88 | 177.04 | 176.82 | 176.77 | 176.83 | 176.69 | 176.67 |
| 31 | 176.64 | | 176.54 | | 176.74 | | 176.96 | 176.92 | | 176.82 | | 176.58 |
| Mean | 176.56 | 176.54 | 176.49 | 176.58 | 176.70 | 176.81 | 176.91 | 176.88 | 176.85 | 176.76 | 176.68 | 176.65 |
| Max. | 177.03 | 176.81 | 176.76 | 176.81 | 176.88 | 176.97 | 177.08 | 177.06 | 177.02 | 177.06 | 176.90 | 177.00 |
| Hr. | 2200 | 0200 | 0700 | 0600 | 2200 | 1100 | 0800 | 0200 | 1900 | 1000 | 1200 | 2000 |
| Day | 31 | 1 | 17 | 26 | 27 | 22 | 30 | 28 | 10 | 4 | 20 | 10 |
| Min. | 176.25 | 176.35 | 176.17 | 176.36 | 176.46 | 176.56 | 176.75 | 176.70 | 176.62 | 176.41 | 176.42 | 176.36 |
| Hr. | 0500 | 1200 | 1100 | 2100 | 0100 | 0800 | 1600 | 1400 | 0500 | 1000 | 2300 | 0700 |
| Day | 3 | 7 | 16 | 15 | 28 | 9 | 25 | 23 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.70

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5014 Harbor Beach, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 177.02 30 Jul
Instant/hourly elevation: 177.05 0900/30 Jul

LOWEST

Monthly mean elevation: 176.48 Mar
Daily mean elevation: 176.40 16 Mar
Instant/hourly elevation: 176.29 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.62 | 176.62 | 176.56 | 176.68 | 176.76 | 176.89 | 177.02 | 176.94 | 176.93 | 176.87 | 176.81 | 176.76 |
| Day | 31     | 1      | 17     | 26     | 29     | 28     | 30     | 4      | 10     | 4      | 20     | 11     |
| Min | 176.40 | 176.44 | 176.40 | 176.47 | 176.62 | 176.72 | 176.82 | 176.82 | 176.77 | 176.67 | 176.54 | 176.60 |
| Day | 3      | 12     | 16     | 8      | 2      | 8      | 5      | 30     | 13     | 26     | 26     | 31     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 177.00 | | | | | | | 1 | | | | | | 177.00 | 1 |
| 176.95 | | | | | | | 1 | | | | | | 176.95 | 2 |
| 176.90 | | | | | | | 14 | | 2 | | | | 176.90 | 26 |
| 176.85 | | | | | | 7 | 12 | 18 | 11 | 2 | | | 176.85 | 76 |
| 176.80 | | | | | | 8 | 3 | 5 | 11 | 2 | 1 | | 176.80 | 106 |
| 176.75 | | | | | 2 | 10 | | | 6 | 12 | 1 | 1 | 176.75 | 138 |
| 176.70 | | | | | 9 | 5 | | | | 11 | 8 | 1 | 176.70 | 172 |
| 176.65 | | | | 3 | 16 | | | | | 4 | 15 | 10 | 176.65 | 220 |
| 176.60 | 4 | 1 | | 7 | 4 | | | | | | 2 | 15 | 176.60 | 253 |
| 176.55 | 9 | 3 | 2 | 5 | | | | | | | 2 | 4 | 176.55 | 278 |
| 176.50 | 15 | 12 | 3 | 6 | | | | | | | 1 | | 176.50 | 315 |
| 176.45 | 2 | 11 | 20 | 9 | | | | | | | | | 176.45 | 357 |
| 176.40 | | 1 | 5 | | | | | | | | | | 176.40 | 363 |
| 176.35 | 1 | | 1 | | | | | | | | | | 176.35 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 907-5014 Harbor Beach, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.58 | 176.62 | 176.48 | 176.49 | 176.66 | 176.78 | 176.86 | 176.91 | 176.88 | 176.72 | 176.76 | 176.62 |
| 2 | 176.55 | 176.50 | 176.48 | 176.50 | 176.62 | 176.76 | 176.85 | 176.93 | 176.85 | 176.84 | 176.69 | 176.60 |
| 3 | 176.40 | 176.59 | 176.49 | 176.53 | 176.63 | 176.75 | 176.87 | 176.92 | 176.88 | 176.77 | 176.70 | 176.69 |
| 4 | 176.53 | 176.54 | 176.50 | 176.53 | 176.65 | 176.76 | 176.84 | 176.94 | 176.89 | 176.87 | 176.70 | 176.66 |
| 5 | 176.57 | 176.59 | 176.49 | 176.50 | 176.67 | 176.76 | 176.82 | 176.92 | 176.91 | 176.80 | 176.66 | 176.67 |
| 6 | 176.55 | 176.52 | 176.48 | 176.50 | 176.72 | 176.75 | 176.89 | 176.89 | 176.86 | 176.74 | 176.73 | 176.65 |
| 7 | 176.59 | 176.46 | 176.47 | 176.50 | 176.66 | 176.74 | 176.92 | 176.91 | 176.86 | 176.77 | 176.72 | 176.70 |
| 8 | 176.58 | 176.56 | 176.48 | 176.47 | 176.66 | 176.72 | 176.88 | 176.89 | 176.85 | 176.74 | 176.72 | 176.64 |
| 9 | 176.56 | 176.47 | 176.51 | 176.48 | 176.66 | 176.74 | 176.88 | 176.88 | 176.85 | 176.82 | 176.70 | 176.63 |
| 10 | 176.53 | 176.54 | 176.47 | 176.57 | 176.66 | 176.81 | 176.93 | 176.88 | 176.93 | 176.79 | 176.71 | 176.69 |
| 11 | 176.54 | 176.52 | 176.49 | 176.53 | 176.70 | 176.79 | 176.91 | 176.90 | 176.89 | 176.72 | 176.69 | 176.76 |
| 12 | 176.52 | 176.44 | 176.48 | 176.55 | 176.74 | 176.78 | 176.95 | 176.87 | 176.79 | 176.80 | 176.72 | 176.64 |
| 13 | 176.51 | 176.53 | 176.56 | 176.56 | 176.70 | 176.76 | 176.93 | 176.87 | 176.77 | 176.76 | 176.60 | 176.61 |
| 14 | 176.52 | 176.54 | 176.54 | 176.54 | 176.69 | 176.77 | 176.91 | 176.88 | 176.82 | 176.72 | 176.71 | 176.62 |
| 15 | 176.54 | 176.52 | 176.44 | 176.50 | 176.71 | 176.83 | 176.95 | 176.87 | 176.90 | 176.70 | 176.70 | 176.68 |
| 16 | 176.54 | 176.55 | 176.40 | 176.48 | 176.73 | 176.82 | 176.93 | 176.86 | 176.84 | 176.70 | 176.72 | 176.64 |
| 17 | 176.61 | 176.53 | 176.56 | 176.60 | 176.70 | 176.78 | 176.90 | 176.88 | 176.85 | 176.79 | 176.75 | 176.61 |
| 18 | 176.58 | 176.52 | 176.47 | 176.59 | 176.69 | 176.82 | 176.88 | 176.88 | 176.86 | 176.78 | 176.69 | 176.62 |
| 19 | 176.56 | 176.50 | 176.41 | 176.59 | 176.72 | 176.84 | 176.89 | 176.86 | 176.86 | 176.73 | 176.66 | 176.63 |
| 20 | 176.55 | 176.49 | 176.44 | 176.61 | 176.72 | 176.80 | 176.95 | 176.91 | 176.79 | 176.73 | 176.81 | 176.60 |
| 21 | 176.47 | 176.48 | 176.48 | 176.66 | 176.70 | 176.86 | 176.95 | 176.87 | 176.79 | 176.69 | 176.68 | 176.64 |
| 22 | 176.51 | 176.50 | 176.47 | 176.64 | 176.69 | 176.88 | 176.93 | 176.85 | 176.79 | 176.86 | 176.70 | 176.68 |
| 23 | 176.52 | 176.55 | 176.43 | 176.63 | 176.65 | 176.84 | 176.92 | 176.83 | 176.86 | 176.73 | 176.62 | 176.61 |
| 24 | 176.54 | 176.53 | 176.45 | 176.54 | 176.67 | 176.82 | 176.89 | 176.84 | 176.83 | 176.76 | 176.68 | 176.63 |
| 25 | 176.62 | 176.50 | 176.46 | 176.63 | 176.76 | 176.82 | 176.86 | 176.88 | 176.83 | 176.73 | 176.60 | 176.66 |
| 26 | 176.48 | 176.49 | 176.47 | 176.68 | 176.74 | 176.88 | 176.88 | 176.84 | 176.83 | 176.67 | 176.54 | 176.71 |
| 27 | 176.60 | 176.48 | 176.47 | 176.62 | 176.70 | 176.87 | 176.93 | 176.86 | 176.85 | 176.77 | 176.62 | 176.64 |
| 28 | 176.53 | 176.46 | 176.48 | 176.62 | 176.70 | 176.89 | 176.90 | 176.92 | 176.86 | 176.72 | 176.67 | 176.68 |
| 29 | 176.60 | | 176.48 | 176.65 | 176.76 | 176.88 | 176.96 | 176.87 | 176.85 | 176.75 | 176.69 | 176.60 |
| 30 | 176.62 | | 176.48 | 176.66 | 176.71 | 176.86 | 177.02 | 176.82 | 176.78 | 176.80 | 176.68 | 176.69 |
| 31 | 176.62 | | 176.52 | | 176.73 | | 176.95 | 176.89 | | 176.77 | | 176.60 |
| Mean | 176.55 | 176.52 | 176.48 | 176.56 | 176.69 | 176.80 | 176.91 | 176.88 | 176.85 | 176.76 | 176.69 | 176.65 |
| Max.
Hr.
Day | 176.81
2200
31 | 176.74
0100
1 | 176.63
0100
14 | 176.74
0500
26 | 176.80
2200
30 | 176.93
1100
22 | 177.05
0900
30 | 177.01
2000
27 | 176.99
1700
10 | 176.95
0900
4 | 176.87
1200
20 | 176.83
0300
11 |
| Min.
Hr.
Day | 176.32
0600
3 | 176.38
0500
7 | 176.29
1100
16 | 176.36
0400
15 | 176.55
0300
3 | 176.58
0200
9 | 176.79
0600
5 | 176.76
0200
31 | 176.66
0400
13 | 176.52
1000
21 | 176.48
2200
26 | 176.47
0600
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.69

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 907-5035 Essexville, Michigan on Lake Huron (Saginaw Bay)

HIGHEST

Monthly mean elevation: 176.90 Jul
Daily mean elevation: 177.01 30 Jul
Instant/hourly elevation: 177.26 1300/12 May

LOWEST

Monthly mean elevation: 176.49 Mar
Daily mean elevation: 176.35 21 Oct
Instant/hourly elevation: 175.77 1000/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.69 | 176.65 | 176.75 | 176.93 | 176.87 | 176.92 | 177.01 | 176.96 | 176.96 | 176.91 | 176.96 | 176.89 |
| Day | 9      | 1      | 31     | 1      | 12     | 30     | 30     | 20     | 15     | 9      | 24     | 15     |
| Min | 176.39 | 176.41 | 176.36 | 176.45 | 176.49 | 176.64 | 176.76 | 176.76 | 176.64 | 176.35 | 176.51 | 176.49 |
| Day | 3      | 7      | 16     | 16     | 24     | 9      | 5      | 24     | 9      | 21     | 21     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 177.00 | | | | | | | 1 | | | | | | 177.00 | 1 |
| 176.95 | | | | | | | 2 | 1 | 1 | | 1 | | 176.95 | 6 |
| 176.90 | | | | 1 | | 4 | 12 | 3 | 2 | 1 | | | 176.90 | 29 |
| 176.85 | | | | 1 | 1 | 5 | 9 | 17 | 8 | 3 | | 1 | 176.85 | 74 |
| 176.80 | | | | | | 8 | 6 | 6 | 11 | 2 | | 1 | 176.80 | 108 |
| 176.75 | | | | 2 | 3 | 6 | 1 | 4 | 3 | 7 | 2 | | 176.75 | 136 |
| 176.70 | | | 1 | | 11 | 6 | | | 3 | 6 | 5 | 2 | 176.70 | 170 |
| 176.65 | 1 | | | 3 | 11 | | | | 1 | 5 | 8 | 7 | 176.65 | 206 |
| 176.60 | 2 | 3 | | 8 | 2 | 1 | | | 1 | 2 | 5 | 6 | 176.60 | 236 |
| 176.55 | 10 | 3 | | 5 | 2 | | | | | 2 | 4 | 10 | 176.55 | 272 |
| 176.50 | 10 | 8 | 5 | 7 | | | | | | 2 | 5 | 3 | 176.50 | 312 |
| 176.45 | 6 | 11 | 21 | 2 | 1 | | | | | | | 1 | 176.45 | 354 |
| 176.40 | 1 | 3 | 3 | 1 | | | | | | | | | 176.40 | 362 |
| 176.35 | 1 | | 1 | | | | | | | | | | 176.35 | 364 |
| 176.30 | | | | | | | | | | 1 | | | 176.30 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5035 Essexville, Michigan on Lake Huron (Saginaw Bay)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.56 | 176.65 | 176.46 | 176.93 | 176.72 | 176.74 | 176.94 | 176.89 | 176.90 | 176.54 | 176.77 | 176.61 |
| 2 | 176.55 | 176.43 | 176.48 | 176.54 | 176.65 | 176.72 | 176.86 | 176.87 | 176.81 | 176.77 | 176.59 | 176.56 |
| 3 | 176.39 | 176.56 | 176.51 | 176.51 | 176.63 | 176.77 | 176.89 | 176.86 | 176.87 | 176.57 | 176.57 | 176.67 |
| 4 | 176.55 | 176.51 | 176.55 | 176.52 | 176.67 | 176.82 | 176.83 | 176.92 | 176.81 | 176.84 | 176.68 | 176.69 |
| 5 | 176.56 | 176.62 | 176.50 | 176.53 | 176.67 | 176.80 | 176.76 | 176.89 | 176.92 | 176.77 | 176.65 | 176.70 |
| 6 | 176.48 | 176.58 | 176.49 | 176.53 | 176.72 | 176.74 | 176.83 | 176.90 | 176.87 | 176.67 | 176.75 | 176.62 |
| 7 | 176.57 | 176.41 | 176.47 | 176.51 | 176.70 | 176.75 | 176.90 | 176.90 | 176.87 | 176.75 | 176.53 | 176.68 |
| 8 | 176.60 | 176.58 | 176.48 | 176.50 | 176.67 | 176.73 | 176.88 | 176.90 | 176.80 | 176.80 | 176.55 | 176.63 |
| 9 | 176.69 | 176.48 | 176.51 | 176.46 | 176.70 | 176.64 | 176.84 | 176.85 | 176.64 | 176.91 | 176.68 | 176.57 |
| 10 | 176.65 | 176.54 | 176.49 | 176.56 | 176.68 | 176.82 | 176.92 | 176.84 | 176.87 | 176.73 | 176.70 | 176.71 |
| 11 | 176.59 | 176.63 | 176.48 | 176.63 | 176.70 | 176.81 | 176.89 | 176.89 | 176.83 | 176.63 | 176.63 | 176.82 |
| 12 | 176.57 | 176.48 | 176.48 | 176.64 | 176.87 | 176.82 | 176.94 | 176.89 | 176.71 | 176.76 | 176.76 | 176.59 |
| 13 | 176.63 | 176.50 | 176.54 | 176.58 | 176.74 | 176.80 | 176.92 | 176.88 | 176.69 | 176.73 | 176.54 | 176.60 |
| 14 | 176.54 | 176.52 | 176.50 | 176.61 | 176.59 | 176.73 | 176.96 | 176.91 | 176.74 | 176.66 | 176.73 | 176.70 |
| 15 | 176.53 | 176.50 | 176.44 | 176.62 | 176.70 | 176.83 | 176.95 | 176.87 | 176.96 | 176.69 | 176.71 | 176.89 |
| 16 | 176.50 | 176.55 | 176.36 | 176.45 | 176.74 | 176.87 | 176.94 | 176.89 | 176.87 | 176.71 | 176.62 | 176.71 |
| 17 | 176.56 | 176.51 | 176.54 | 176.60 | 176.74 | 176.76 | 176.92 | 176.89 | 176.84 | 176.87 | 176.74 | 176.61 |
| 18 | 176.55 | 176.49 | 176.48 | 176.56 | 176.68 | 176.86 | 176.88 | 176.89 | 176.85 | 176.78 | 176.67 | 176.61 |
| 19 | 176.52 | 176.50 | 176.44 | 176.80 | 176.76 | 176.88 | 176.90 | 176.82 | 176.91 | 176.74 | 176.52 | 176.59 |
| 20 | 176.55 | 176.50 | 176.44 | 176.87 | 176.71 | 176.79 | 176.95 | 176.96 | 176.82 | 176.77 | 176.67 | 176.54 |
| 21 | 176.50 | 176.55 | 176.47 | 176.69 | 176.71 | 176.86 | 176.96 | 176.90 | 176.82 | 176.35 | 176.51 | 176.59 |
| 22 | 176.50 | 176.49 | 176.48 | 176.64 | 176.70 | 176.92 | 176.94 | 176.83 | 176.76 | 176.82 | 176.71 | 176.68 |
| 23 | 176.54 | 176.52 | 176.46 | 176.62 | 176.60 | 176.88 | 176.92 | 176.78 | 176.84 | 176.67 | 176.67 | 176.58 |
| 24 | 176.50 | 176.52 | 176.46 | 176.52 | 176.49 | 176.82 | 176.90 | 176.76 | 176.78 | 176.70 | 176.96 | 176.53 |
| 25 | 176.59 | 176.49 | 176.47 | 176.63 | 176.73 | 176.79 | 176.85 | 176.86 | 176.85 | 176.80 | 176.68 | 176.59 |
| 26 | 176.44 | 176.48 | 176.47 | 176.78 | 176.71 | 176.81 | 176.83 | 176.82 | 176.86 | 176.65 | 176.58 | 176.68 |
| 27 | 176.58 | 176.48 | 176.47 | 176.62 | 176.73 | 176.82 | 176.92 | 176.79 | 176.82 | 176.75 | 176.59 | 176.60 |
| 28 | 176.49 | 176.44 | 176.48 | 176.57 | 176.68 | 176.92 | 176.83 | 176.92 | 176.83 | 176.54 | 176.63 | 176.65 |
| 29 | 176.52 | | 176.49 | 176.69 | 176.78 | 176.92 | 176.90 | 176.85 | 176.86 | 176.59 | 176.64 | 176.49 |
| 30 | 176.56 | | 176.48 | 176.67 | 176.74 | 176.92 | 177.01 | 176.80 | 176.72 | 176.86 | 176.68 | 176.57 |
| 31 | 176.55 | | 176.75 | | 176.78 | | 176.94 | 176.90 | | 176.89 | | 176.54 |
| Mean | 176.54 | 176.52 | 176.49 | 176.61 | 176.70 | 176.81 | 176.90 | 176.87 | 176.82 | 176.72 | 176.66 | 176.63 |
| Max. | 176.88 | 176.89 | 177.02 | 177.18 | 177.26 | 177.10 | 177.16 | 177.19 | 177.06 | 177.19 | 177.08 | 177.00 |
| Hr. | 2400 | 0200 | 2400 | 0400 | 1300 | 1400 | 1000 | 2100 | 0700 | 0800 | 1300 | 1300 |
| Day | 31 | 1 | 31 | 1 | 12 | 22 | 14 | 20 | 5 | 4 | 24 | 15 |
| Min. | 176.29 | 176.28 | 176.21 | 176.34 | 176.36 | 176.51 | 176.64 | 176.50 | 176.31 | 175.77 | 176.31 | 176.28 |
| Hr. | 1400 | 1500 | 1700 | 1200 | 1900 | 1600 | 0300 | 0400 | 1300 | 1000 | 0300 | 0800 |
| Day | 26 | 2 | 16 | 16 | 24 | 9 | 6 | 24 | 9 | 21 | 8 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.69

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 907-5059 Harrisville, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 176.97 30 Jul
Instant/hourly elevation: 177.01 1300/30 Jul

LOWEST

Monthly mean elevation: 176.47 Mar
Daily mean elevation: 176.42 23 Mar
Instant/hourly elevation: 176.38 2200/23 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.61 | 176.57 | 176.54 | 176.66 | 176.75 | 176.89 | 176.97 | 176.92 | 176.89 | 176.83 | 176.77 | 176.68 |
| Day | 30     | 5      | 31     | 30     | 25     | 26     | 30     | 5      | 5      | 22     | 20     | 11     |
| Min | 176.46 | 176.43 | 176.42 | 176.48 | 176.61 | 176.72 | 176.85 | 176.82 | 176.78 | 176.68 | 176.58 | 176.59 |
| Day | 3      | 12     | 23     | 8      | 2      | 7      | 5      | 23     | 30     | 26     | 26     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | 1 | | | | | | 176.95 | 1 |
| 176.90 | | | | | | | 16 | 5 | | | | | 176.90 | 22 |
| 176.85 | | | | | | 7 | 12 | 20 | 11 | | | | 176.85 | 72 |
| 176.80 | | | | | | 7 | 2 | 6 | 14 | 3 | | | 176.80 | 104 |
| 176.75 | | | | | | 8 | | | 5 | 10 | 1 | | 176.75 | 128 |
| 176.70 | | | | | 9 | 8 | | | | 15 | 7 | | 176.70 | 167 |
| 176.65 | | | | 1 | 18 | | | | | 3 | 16 | 8 | 176.65 | 213 |
| 176.60 | 1 | | | 9 | 4 | | | | | | 5 | 20 | 176.60 | 252 |
| 176.55 | 8 | 3 | | 5 | | | | | | | 1 | 3 | 176.55 | 272 |
| 176.50 | 20 | 9 | 1 | 6 | | | | | | | | | 176.50 | 308 |
| 176.45 | 2 | 15 | 23 | 9 | | | | | | | | | 176.45 | 357 |
| 176.40 | | 1 | 7 | | | | | | | | | | 176.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5059 Harrisville, Michigan on Lake Huron

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.54 | 176.57 | 176.48 | 176.50 | 176.66 | 176.78 | 176.86 | 176.92 | 176.89 | 176.78 | 176.73 | 176.63 |
| 2 | 176.55 | 176.52 | 176.48 | 176.48 | 176.61 | 176.75 | 176.87 | 176.92 | 176.86 | 176.81 | 176.71 | 176.63 |
| 3 | 176.46 | 176.57 | 176.48 | 176.51 | 176.64 | 176.74 | 176.88 | 176.91 | 176.87 | 176.79 | 176.72 | 176.67 |
| 4 | 176.51 | 176.54 | 176.47 | 176.51 | 176.65 | 176.74 | 176.85 | 176.92 | 176.89 | 176.81 | 176.70 | 176.64 |
| 5 | 176.55 | 176.57 | 176.46 | 176.49 | 176.67 | 176.74 | 176.85 | 176.92 | 176.89 | 176.80 | 176.65 | 176.66 |
| 6 | 176.54 | 176.50 | 176.48 | 176.49 | 176.70 | 176.75 | 176.90 | 176.88 | 176.86 | 176.77 | 176.70 | 176.63 |
| 7 | 176.58 | 176.46 | 176.47 | 176.49 | 176.66 | 176.72 | 176.91 | 176.90 | 176.86 | 176.77 | 176.73 | 176.68 |
| 8 | 176.54 | 176.53 | 176.47 | 176.48 | 176.64 | 176.73 | 176.89 | 176.89 | 176.84 | 176.73 | 176.73 | 176.64 |
| 9 | 176.52 | 176.47 | 176.50 | 176.50 | 176.66 | 176.74 | 176.90 | 176.87 | 176.86 | 176.74 | 176.68 | 176.66 |
| 10 | 176.52 | 176.52 | 176.47 | 176.57 | 176.67 | 176.80 | 176.92 | 176.87 | 176.87 | 176.77 | 176.70 | 176.65 |
| 11 | 176.53 | 176.51 | 176.47 | 176.52 | 176.69 | 176.78 | 176.91 | 176.88 | 176.88 | 176.75 | 176.67 | 176.68 |
| 12 | 176.52 | 176.43 | 176.48 | 176.53 | 176.72 | 176.77 | 176.92 | 176.87 | 176.83 | 176.77 | 176.70 | 176.66 |
| 13 | 176.56 | 176.49 | 176.48 | 176.55 | 176.69 | 176.77 | 176.93 | 176.87 | 176.80 | 176.73 | 176.62 | 176.62 |
| 14 | 176.51 | 176.53 | 176.47 | 176.52 | 176.70 | 176.78 | 176.92 | 176.88 | 176.84 | 176.72 | 176.70 | 176.59 |
| 15 | 176.53 | 176.51 | 176.47 | 176.50 | 176.70 | 176.82 | 176.94 | 176.86 | 176.88 | 176.71 | 176.69 | 176.63 |
| 16 | 176.55 | 176.50 | 176.44 | 176.50 | 176.73 | 176.80 | 176.93 | 176.86 | 176.84 | 176.70 | 176.72 | 176.61 |
| 17 | 176.57 | 176.50 | 176.50 | 176.59 | 176.69 | 176.77 | 176.90 | 176.87 | 176.84 | 176.74 | 176.72 | 176.61 |
| 18 | 176.56 | 176.52 | 176.47 | 176.60 | 176.68 | 176.81 | 176.89 | 176.87 | 176.84 | 176.77 | 176.69 | 176.61 |
| 19 | 176.55 | 176.50 | 176.43 | 176.58 | 176.71 | 176.81 | 176.91 | 176.85 | 176.83 | 176.72 | 176.66 | 176.63 |
| 20 | 176.55 | 176.48 | 176.44 | 176.62 | 176.71 | 176.82 | 176.94 | 176.88 | 176.79 | 176.72 | 176.77 | 176.62 |
| 21 | 176.48 | 176.50 | 176.47 | 176.62 | 176.69 | 176.86 | 176.93 | 176.86 | 176.79 | 176.69 | 176.70 | 176.61 |
| 22 | 176.52 | 176.46 | 176.46 | 176.64 | 176.70 | 176.88 | 176.93 | 176.85 | 176.81 | 176.83 | 176.70 | 176.65 |
| 23 | 176.54 | 176.50 | 176.42 | 176.63 | 176.67 | 176.83 | 176.92 | 176.82 | 176.83 | 176.74 | 176.63 | 176.60 |
| 24 | 176.51 | 176.51 | 176.44 | 176.60 | 176.68 | 176.82 | 176.89 | 176.84 | 176.83 | 176.77 | 176.66 | 176.63 |
| 25 | 176.59 | 176.48 | 176.46 | 176.62 | 176.75 | 176.84 | 176.88 | 176.86 | 176.82 | 176.72 | 176.61 | 176.62 |
| 26 | 176.51 | 176.47 | 176.45 | 176.64 | 176.73 | 176.89 | 176.89 | 176.84 | 176.79 | 176.68 | 176.58 | 176.66 |
| 27 | 176.56 | 176.48 | 176.45 | 176.61 | 176.70 | 176.88 | 176.93 | 176.87 | 176.82 | 176.75 | 176.63 | 176.62 |
| 28 | 176.51 | 176.47 | 176.46 | 176.63 | 176.68 | 176.87 | 176.89 | 176.90 | 176.84 | 176.75 | 176.66 | 176.65 |
| 29 | 176.57 | | 176.47 | 176.65 | 176.74 | 176.88 | 176.94 | 176.87 | 176.81 | 176.74 | 176.68 | 176.59 |
| 30 | 176.61 | | 176.46 | 176.66 | 176.71 | 176.86 | 176.97 | 176.84 | 176.78 | 176.76 | 176.67 | 176.66 |
| 31 | 176.59 | | 176.54 | | 176.71 | | 176.94 | 176.89 | | 176.71 | | 176.61 |
| Mean | 176.54 | 176.50 | 176.47 | 176.56 | 176.69 | 176.80 | 176.91 | 176.88 | 176.84 | 176.75 | 176.68 | 176.63 |
| Max. | 176.67 | 176.67 | 176.59 | 176.76 | 176.78 | 176.96 | 177.01 | 176.98 | 176.96 | 176.87 | 176.81 | 176.73 |
| Hr. | 0700 | 0100 | 2300 | 0800 | 1800 | 2300 | 1300 | 2200 | 0200 | 0600 | 1600 | 1200 |
| Day | 30 | 1 | 31 | 20 | 25 | 26 | 30 | 27 | 15 | 4 | 20 | 7 |
| Min. | 176.40 | 176.39 | 176.38 | 176.40 | 176.58 | 176.63 | 176.80 | 176.75 | 176.72 | 176.52 | 176.48 | 176.55 |
| Hr. | 1400 | 0800 | 2200 | 0100 | 2300 | 0300 | 1900 | 2400 | 0100 | 1100 | 1600 | 0600 |
| Day | 3 | 12 | 23 | 16 | 27 | 9 | 25 | 30 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.69

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 907-5080 Mackinaw City, Michigan on Straits of Mackinac

HIGHEST

Monthly mean elevation: 176.90 Jul
Daily mean elevation: 176.94 26 Jul
Instant/hourly elevation: 177.06 0900/9 Sep

LOWEST

Monthly mean elevation: 176.45 Mar
Daily mean elevation: 176.38 31 Mar
Instant/hourly elevation: 176.30 1800/13 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.61 | 176.56 | 176.49 | 176.69 | 176.75 | 176.90 | 176.94 | 176.91 | 176.90 | 176.86 | 176.78 | 176.70 |
| Day | 26     | 2      | 15     | 28     | 24     | 26     | 26     | 1      | 9      | 1      | 7      | 12     |
| Min | 176.47 | 176.42 | 176.38 | 176.39 | 176.63 | 176.72 | 176.86 | 176.83 | 176.77 | 176.68 | 176.64 | 176.58 |
| Day | 31     | 22     | 31     | 1      | 1      | 4      | 30     | 20     | 29     | 31     | 24     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.90 | | | | | | | 11 | 1 | | | | | 176.90 | 12 |
| 176.85 | | | | | | 5 | 20 | 23 | 5 | 1 | | | 176.85 | 66 |
| 176.80 | | | | | | 9 | | 7 | 13 | 4 | | | 176.80 | 99 |
| 176.75 | | | | | | 9 | | | 12 | 7 | 3 | | 176.75 | 130 |
| 176.70 | | | | | 6 | 7 | | | | 14 | 8 | | 176.70 | 165 |
| 176.65 | | | | 3 | 24 | | | | | 5 | 18 | | 176.65 | 223 |
| 176.60 | 1 | | | 6 | 1 | | | | | | 1 | 8 | 176.60 | 246 |
| 176.55 | 3 | 1 | | 5 | | | | | | | | 14 | 176.55 | 264 |
| 176.50 | 13 | 3 | | 6 | | | | | | | | 9 | 176.50 | 286 |
| 176.45 | 14 | 18 | 11 | 9 | | | | | | | | | 176.45 | 338 |
| 176.40 | | 6 | 18 | | | | | | | | | | 176.40 | 362 |
| 176.35 | | | 2 | 1 | | | | | | | | | 176.35 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 907-5080 Mackinaw City, Michigan on Straits of Mackinac

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.49 | 176.48 | 176.49 | 176.39 | 176.63 | 176.74 | 176.86 | 176.91 | 176.87 | 176.86 | 176.70 | 176.69 |
| 2 | 176.51 | 176.56 | 176.46 | 176.47 | 176.66 | 176.73 | 176.88 | 176.90 | 176.88 | 176.79 | 176.77 | 176.70 |
| 3 | 176.56 | 176.49 | 176.44 | 176.49 | 176.67 | 176.72 | 176.87 | 176.89 | 176.84 | 176.83 | 176.75 | 176.66 |
| 4 | 176.49 | 176.52 | 176.41 | 176.48 | 176.68 | 176.72 | 176.89 | 176.87 | 176.88 | 176.73 | 176.71 | 176.64 |
| 5 | 176.51 | 176.49 | 176.44 | 176.48 | 176.68 | 176.73 | 176.92 | 176.89 | 176.83 | 176.77 | 176.68 | 176.66 |
| 6 | 176.55 | 176.48 | 176.46 | 176.50 | 176.68 | 176.74 | 176.94 | 176.87 | 176.83 | 176.81 | 176.69 | 176.64 |
| 7 | 176.53 | 176.50 | 176.48 | 176.49 | 176.68 | 176.74 | 176.90 | 176.87 | 176.83 | 176.76 | 176.78 | 176.64 |
| 8 | 176.49 | 176.47 | 176.45 | 176.50 | 176.69 | 176.76 | 176.91 | 176.88 | 176.84 | 176.72 | 176.71 | 176.67 |
| 9 | 176.48 | 176.52 | 176.45 | 176.55 | 176.69 | 176.81 | 176.93 | 176.90 | 176.90 | 176.70 | 176.70 | 176.69 |
| 10 | 176.48 | 176.47 | 176.44 | 176.51 | 176.69 | 176.78 | 176.92 | 176.88 | 176.79 | 176.77 | 176.69 | 176.60 |
| 11 | 176.50 | 176.44 | 176.43 | 176.48 | 176.68 | 176.76 | 176.91 | 176.87 | 176.82 | 176.82 | 176.69 | 176.61 |
| 12 | 176.50 | 176.44 | 176.47 | 176.51 | 176.68 | 176.77 | 176.92 | 176.86 | 176.85 | 176.69 | 176.68 | 176.70 |
| 13 | 176.48 | 176.46 | 176.38 | 176.51 | 176.68 | 176.78 | 176.91 | 176.86 | 176.88 | 176.73 | 176.73 | 176.67 |
| 14 | 176.53 | 176.50 | 176.41 | 176.49 | 176.72 | 176.82 | 176.90 | 176.86 | 176.84 | 176.76 | 176.68 | 176.61 |
| 15 | 176.54 | 176.48 | 176.49 | 176.52 | 176.68 | 176.79 | 176.90 | 176.87 | 176.80 | 176.71 | 176.69 | 176.60 |
| 16 | 176.60 | 176.44 | 176.48 | 176.56 | 176.70 | 176.78 | 176.89 | 176.86 | 176.83 | 176.72 | 176.76 | 176.63 |
| 17 | 176.49 | 176.48 | 176.41 | 176.56 | 176.69 | 176.80 | 176.90 | 176.85 | 176.84 | 176.69 | 176.66 | 176.62 |
| 18 | 176.52 | 176.48 | 176.46 | 176.60 | 176.68 | 176.81 | 176.90 | 176.86 | 176.80 | 176.73 | 176.73 | 176.62 |
| 19 | 176.53 | 176.48 | 176.48 | 176.54 | 176.69 | 176.80 | 176.91 | 176.87 | 176.79 | 176.74 | 176.72 | 176.64 |
| 20 | 176.52 | 176.46 | 176.45 | 176.58 | 176.69 | 176.85 | 176.90 | 176.83 | 176.79 | 176.73 | 176.68 | 176.64 |
| 21 | 176.53 | 176.44 | 176.44 | 176.60 | 176.68 | 176.85 | 176.88 | 176.85 | 176.80 | 176.78 | 176.74 | 176.60 |
| 22 | 176.55 | 176.42 | 176.43 | 176.61 | 176.69 | 176.84 | 176.88 | 176.86 | 176.83 | 176.73 | 176.66 | 176.60 |
| 23 | 176.55 | 176.45 | 176.42 | 176.62 | 176.71 | 176.85 | 176.88 | 176.88 | 176.78 | 176.79 | 176.66 | 176.64 |
| 24 | 176.48 | 176.48 | 176.45 | 176.68 | 176.75 | 176.86 | 176.88 | 176.88 | 176.82 | 176.73 | 176.64 | 176.63 |
| 25 | 176.53 | 176.48 | 176.46 | 176.61 | 176.72 | 176.89 | 176.90 | 176.85 | 176.79 | 176.73 | 176.66 | 176.58 |
| 26 | 176.61 | 176.46 | 176.46 | 176.62 | 176.70 | 176.90 | 176.94 | 176.86 | 176.79 | 176.75 | 176.72 | 176.58 |
| 27 | 176.49 | 176.48 | 176.45 | 176.66 | 176.71 | 176.87 | 176.90 | 176.86 | 176.79 | 176.73 | 176.68 | 176.60 |
| 28 | 176.50 | 176.52 | 176.44 | 176.69 | 176.70 | 176.86 | 176.92 | 176.84 | 176.78 | 176.82 | 176.67 | 176.62 |
| 29 | 176.50 | | 176.45 | 176.62 | 176.70 | 176.85 | 176.88 | 176.85 | 176.77 | 176.75 | 176.66 | 176.60 |
| 30 | 176.59 | | 176.44 | 176.65 | 176.69 | 176.84 | 176.86 | 176.87 | 176.83 | 176.68 | 176.67 | 176.63 |
| 31 | 176.47 | | 176.38 | | 176.71 | | 176.89 | 176.84 | | 176.68 | | 176.59 |
| Mean | 176.52 | 176.48 | 176.45 | 176.55 | 176.69 | 176.80 | 176.90 | 176.87 | 176.82 | 176.75 | 176.70 | 176.63 |
| Max. | 176.76 | 176.62 | 176.60 | 176.83 | 176.82 | 176.97 | 177.04 | 177.01 | 177.06 | 177.01 | 176.85 | 176.80 |
| Hr. | 1300 | 1600 | 1200 | 1900 | 0300 | 0100 | 2400 | 2300 | 0900 | 0500 | 2100 | 0500 |
| Day | 26 | 2 | 16 | 24 | 28 | 9 | 5 | 9 | 9 | 1 | 7 | 29 |
| Min. | 176.30 | 176.36 | 176.30 | 176.32 | 176.61 | 176.66 | 176.79 | 176.74 | 176.71 | 176.63 | 176.54 | 176.43 |
| Hr. | 2200 | 1700 | 1800 | 0400 | 2200 | 0100 | 0900 | 0500 | 0900 | 0700 | 2400 | 1900 |
| Day | 28 | 11 | 13 | 1 | 15 | 5 | 1 | 31 | 23 | 12 | 11 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.68

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5099 De Tour Village, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 176.89 Jul
Daily mean elevation: 176.92 13 Jul
Instant/hourly elevation: 177.02 1200/9 Jul

LOWEST

Monthly mean elevation: 176.44 Mar
Daily mean elevation: 176.30 1 Apr
Instant/hourly elevation: 176.27 1100/1 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.62 | 176.55 | 176.52 | 176.67 | 176.74 | 176.90 | 176.92 | 176.90 | 176.88 | 176.87 | 176.77 | 176.70 |
| Day | 30 | 2 | 15 | 28 | 25 | 26 | 13 | 3 | 9 | 1 | 7 | 9 |
| Min | 176.42 | 176.38 | 176.38 | 176.30 | 176.62 | 176.72 | 176.85 | 176.84 | 176.76 | 176.65 | 176.58 | 176.56 |
| Day | 13 | 22 | 13 | 1 | 2 | 7 | 1 | 21 | 26 | 31 | 24 | 25 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.90 | | | | | | | 8 | | | | | | 176.90 | 8 |
| 176.85 | | | | | | 3 | 22 | 24 | 5 | 1 | | | 176.85 | 63 |
| 176.80 | | | | | | 9 | 1 | 7 | 15 | 2 | | | 176.80 | 97 |
| 176.75 | | | | | | 11 | | | 10 | 11 | 4 | | 176.75 | 133 |
| 176.70 | | | | | 7 | 7 | | | | 12 | 6 | | 176.70 | 165 |
| 176.65 | | | | 2 | 20 | | | | | 4 | 13 | 11 | 176.65 | 215 |
| 176.60 | 2 | | | 7 | 4 | | | | | 1 | 4 | 12 | 176.60 | 245 |
| 176.55 | 5 | | | 2 | | | | | | | 3 | 8 | 176.55 | 263 |
| 176.50 | 13 | 6 | 1 | 5 | | | | | | | | | 176.50 | 288 |
| 176.45 | 9 | 14 | 9 | 12 | | | | | | | | | 176.45 | 332 |
| 176.40 | 2 | 6 | 16 | 1 | | | | | | | | | 176.40 | 357 |
| 176.35 | | 2 | 5 | | | | | | | | | | 176.35 | 364 |
| 176.30 | | | | | | | | | | | | | 176.30 | 364 |
| 176.25 | | | | 1 | | | | | | | | | 176.25 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-5099 De Tour Village, Michigan on Lake Huron

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
| 1 | 176.50 | 176.50 | 176.50 | 176.30 | 176.63 | 176.76 | 176.85 | 176.89 | 176.88 | 176.87 | 176.69 | 176.69 |
| 2 | 176.57 | 176.55 | 176.47 | 176.41 | 176.62 | 176.74 | 176.86 | 176.90 | 176.87 | 176.79 | 176.77 | 176.68 |
| 3 | 176.54 | 176.52 | 176.44 | 176.49 | 176.65 | 176.72 | 176.87 | 176.90 | 176.84 | 176.82 | 176.75 | 176.69 |
| 4 | 176.50 | 176.54 | 176.40 | 176.49 | 176.66 | 176.72 | 176.88 | 176.87 | 176.88 | 176.76 | 176.72 | 176.63 |
| 5 | 176.51 | 176.52 | 176.42 | 176.47 | 176.66 | 176.72 | 176.89 | 176.89 | 176.85 | 176.78 | 176.60 | 176.66 |
| 6 | 176.54 | 176.47 | 176.47 | 176.48 | 176.69 | 176.75 | 176.92 | 176.86 | 176.82 | 176.80 | 176.65 | 176.62 |
| 7 | 176.57 | 176.49 | 176.48 | 176.48 | 176.66 | 176.72 | 176.92 | 176.86 | 176.84 | 176.77 | 176.77 | 176.65 |
| 8 | 176.50 | 176.49 | 176.44 | 176.49 | 176.66 | 176.74 | 176.90 | 176.88 | 176.83 | 176.70 | 176.75 | 176.66 |
| 9 | 176.47 | 176.50 | 176.46 | 176.52 | 176.66 | 176.78 | 176.92 | 176.88 | 176.88 | 176.67 | 176.68 | 176.70 |
| 10 | 176.45 | 176.48 | 176.45 | 176.53 | 176.67 | 176.80 | 176.92 | 176.88 | 176.80 | 176.77 | 176.71 | 176.58 |
| 11 | 176.49 | 176.44 | 176.42 | 176.49 | 176.67 | 176.77 | 176.90 | 176.87 | 176.84 | 176.80 | 176.68 | 176.60 |
| 12 | 176.50 | 176.39 | 176.47 | 176.48 | 176.69 | 176.76 | 176.92 | 176.86 | 176.84 | 176.72 | 176.70 | 176.69 |
| 13 | 176.42 | 176.43 | 176.38 | 176.53 | 176.67 | 176.77 | 176.92 | 176.85 | 176.85 | 176.74 | 176.70 | 176.69 |
| 14 | 176.47 | 176.51 | 176.39 | 176.49 | 176.72 | 176.80 | 176.88 | 176.86 | 176.86 | 176.76 | 176.69 | 176.57 |
| 15 | 176.54 | 176.49 | 176.52 | 176.46 | 176.67 | 176.80 | 176.90 | 176.87 | 176.81 | 176.73 | 176.67 | 176.57 |
| 16 | 176.60 | 176.44 | 176.47 | 176.49 | 176.71 | 176.80 | 176.89 | 176.85 | 176.82 | 176.71 | 176.76 | 176.59 |
| 17 | 176.52 | 176.48 | 176.43 | 176.54 | 176.68 | 176.78 | 176.88 | 176.86 | 176.84 | 176.68 | 176.69 | 176.62 |
| 18 | 176.54 | 176.50 | 176.47 | 176.61 | 176.68 | 176.80 | 176.88 | 176.87 | 176.81 | 176.75 | 176.73 | 176.62 |
| 19 | 176.55 | 176.49 | 176.47 | 176.54 | 176.68 | 176.81 | 176.89 | 176.87 | 176.80 | 176.73 | 176.69 | 176.64 |
| 20 | 176.54 | 176.46 | 176.44 | 176.50 | 176.70 | 176.83 | 176.89 | 176.84 | 176.78 | 176.73 | 176.71 | 176.66 |
| 21 | 176.52 | 176.44 | 176.45 | 176.58 | 176.69 | 176.85 | 176.89 | 176.84 | 176.78 | 176.69 | 176.76 | 176.57 |
| 22 | 176.52 | 176.38 | 176.44 | 176.61 | 176.69 | 176.85 | 176.88 | 176.86 | 176.84 | 176.79 | 176.67 | 176.60 |
| 23 | 176.58 | 176.44 | 176.40 | 176.62 | 176.70 | 176.84 | 176.88 | 176.87 | 176.78 | 176.79 | 176.60 | 176.63 |
| 24 | 176.46 | 176.49 | 176.42 | 176.67 | 176.73 | 176.84 | 176.87 | 176.87 | 176.82 | 176.76 | 176.58 | 176.63 |
| 25 | 176.57 | 176.49 | 176.45 | 176.58 | 176.74 | 176.87 | 176.88 | 176.87 | 176.80 | 176.74 | 176.62 | 176.56 |
| 26 | 176.62 | 176.45 | 176.45 | 176.62 | 176.71 | 176.90 | 176.91 | 176.85 | 176.76 | 176.71 | 176.65 | 176.61 |
| 27 | 176.51 | 176.48 | 176.44 | 176.64 | 176.71 | 176.87 | 176.91 | 176.86 | 176.79 | 176.73 | 176.64 | 176.61 |
| 28 | 176.50 | 176.51 | 176.44 | 176.67 | 176.66 | 176.85 | 176.90 | 176.86 | 176.79 | 176.82 | 176.66 | 176.66 |
| 29 | 176.52 | | 176.45 | 176.62 | 176.72 | 176.85 | 176.90 | 176.85 | 176.77 | 176.75 | 176.66 | 176.61 |
| 30 | 176.62 | | 176.45 | 176.63 | 176.69 | 176.84 | 176.89 | 176.86 | 176.82 | 176.72 | 176.68 | 176.66 |
| 31 | 176.51 | | 176.39 | | 176.65 | | 176.89 | 176.85 | | 176.65 | | 176.62 |
| Mean | 176.52 | 176.48 | 176.44 | 176.53 | 176.68 | 176.80 | 176.89 | 176.86 | 176.82 | 176.75 | 176.69 | 176.63 |
| Max.
Hr.
Day | 176.71
1300
26 | 176.60
1300
4 | 176.55
2200
15 | 176.74
1900
24 | 176.79
2000
24 | 176.94
1800
26 | 177.02
1200
9 | 176.94
1800
1 | 176.98
1200
9 | 176.96
0500
1 | 176.85
2300
7 | 176.79
0600
29 |
| Min.
Hr.
Day | 176.30
2200
28 | 176.36
0200
22 | 176.31
2400
31 | 176.27
1100
1 | 176.59
2200
2 | 176.65
0100
1 | 176.82
0200
1 | 176.78
0400
28 | 176.71
0900
26 | 176.59
1200
21 | 176.51
2000
5 | 176.42
1800
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.68

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-6060 US Slip, Sault St Marie, Michigan below locks on St Marys R

HIGHEST

Monthly mean elevation: 177.17 Jul
Daily mean elevation: 177.26 4 Jul
Instant/hourly elevation: 177.42 0600/1 Oct

LOWEST

Monthly mean elevation: 176.86 Apr
Daily mean elevation: 176.71 25 Dec
Instant/hourly elevation: 176.57 2100/25 Dec

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 177.10 | 177.16 | 177.05 | 177.04 | 177.05 | 177.19 | 177.26 | 177.25 | 177.24 | 177.25 | 177.11 | 177.11 |
| Day | 29 | 3 | 2 | 24 | 27 | 24 | 4 | 23 | 4 | 1 | 2 | 31 |
| Min | 176.83 | 176.94 | 176.72 | 176.75 | 176.81 | 177.00 | 177.03 | 177.04 | 176.89 | 176.89 | 176.78 | 176.71 |
| Day | 24 | 22 | 28 | 1 | 31 | 1 | 18 | 7 | 26 | 16 | 28 | 25 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 177.25 | | | | | | | 1 | | | | | | 177.25 | 1 |
| 177.20 | | | | | | | 7 | 9 | 3 | 1 | | | 177.20 | 21 |
| 177.15 | | 2 | | | | 7 | 13 | 8 | 11 | 1 | | | 177.15 | 63 |
| 177.10 | | 2 | | | | 11 | 4 | 7 | 3 | 3 | 1 | 1 | 177.10 | 95 |
| 177.05 | 2 | 3 | | | | 8 | 5 | 6 | 6 | 11 | 6 | 1 | 177.05 | 143 |
| 177.00 | 2 | 10 | 5 | 2 | 3 | 3 | 1 | 1 | 2 | 7 | 5 | 7 | 177.00 | 191 |
| 176.95 | 11 | 10 | 7 | 1 | 18 | 1 | | | 3 | 6 | 11 | 2 | 176.95 | 261 |
| 176.90 | 12 | 1 | 8 | 2 | 8 | | | | 1 | 1 | 5 | 8 | 176.90 | 307 |
| 176.85 | 3 | | 5 | 9 | 1 | | | | 1 | 1 | | 7 | 176.85 | 334 |
| 176.80 | 1 | | 4 | 8 | 1 | | | | | | 1 | 3 | 176.80 | 352 |
| 176.75 | | | 1 | 7 | | | | | | | 1 | 1 | 176.75 | 362 |
| 176.70 | | | 1 | 1 | | | | | | | | 1 | 176.70 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 907-6060 US Slip, Sault St Marie, Michigan below locks on St Marys R

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.88 | 177.11 | 177.05 | 176.75 | 176.91 | 177.00 | 177.16 | 177.15 | 177.20 | 177.25 | 176.97 | 177.05 |
| 2 | 176.95 | 177.16 | 177.05 | 176.78 | 176.99 | 177.03 | 177.20 | 177.10 | 177.23 | 176.92 | 177.11 | 177.03 |
| 3 | 176.99 | 177.16 | 177.03 | 176.90 | 176.98 | 177.01 | 177.19 | 177.21 | 177.16 | 176.97 | 177.08 | 177.01 |
| 4 | 176.95 | 177.12 | 176.99 | 176.90 | 177.01 | 177.06 | 177.26 | 177.15 | 177.24 | 177.00 | 177.07 | 176.94 |
| 5 | 176.93 | 177.10 | 176.95 | 176.86 | 176.97 | 177.04 | 177.24 | 177.22 | 177.16 | 177.04 | 176.94 | 176.92 |
| 6 | 176.95 | 176.97 | 176.95 | 176.84 | 176.99 | 177.10 | 177.25 | 177.19 | 177.16 | 177.10 | 176.92 | 176.95 |
| 7 | 176.98 | 177.04 | 176.96 | 176.83 | 177.00 | 177.08 | 177.22 | 177.04 | 177.16 | 177.06 | 176.99 | 176.90 |
| 8 | 176.97 | 177.05 | 176.95 | 176.85 | 176.99 | 177.10 | 177.20 | 177.22 | 177.15 | 177.04 | 177.06 | 176.99 |
| 9 | 176.93 | 177.03 | 176.94 | 176.88 | 176.95 | 177.13 | 177.23 | 177.16 | 177.22 | 176.96 | 176.98 | 177.02 |
| 10 | 176.91 | 177.02 | 176.94 | 176.86 | 176.93 | 177.11 | 177.20 | 177.12 | 177.06 | 177.07 | 177.01 | 176.89 |
| 11 | 176.92 | 177.00 | 176.90 | 176.85 | 176.93 | 177.09 | 177.19 | 177.09 | 177.00 | 177.15 | 176.98 | 176.84 |
| 12 | 176.92 | 176.98 | 176.93 | 176.80 | 176.97 | 177.10 | 177.19 | 177.10 | 177.03 | 176.98 | 177.00 | 176.99 |
| 13 | 176.88 | 177.00 | 176.88 | 176.83 | 176.93 | 177.11 | 177.20 | 177.09 | 177.17 | 177.05 | 177.10 | 177.04 |
| 14 | 176.87 | 177.06 | 176.83 | 176.80 | 177.04 | 177.14 | 177.15 | 177.12 | 177.20 | 177.10 | 177.01 | 176.89 |
| 15 | 176.94 | 177.07 | 176.94 | 176.78 | 176.95 | 177.07 | 177.14 | 177.08 | 177.12 | 177.06 | 176.99 | 176.85 |
| 16 | 176.92 | 177.05 | 176.98 | 176.79 | 176.96 | 177.14 | 177.18 | 177.10 | 177.18 | 176.89 | 177.08 | 176.89 |
| 17 | 176.98 | 177.04 | 176.92 | 176.78 | 176.98 | 177.14 | 177.08 | 177.11 | 177.18 | 176.97 | 176.98 | 176.94 |
| 18 | 176.99 | 177.04 | 176.97 | 176.89 | 176.97 | 177.14 | 177.03 | 177.18 | 176.97 | 177.02 | 177.03 | 176.92 |
| 19 | 176.98 | 177.02 | 177.01 | 176.84 | 176.94 | 177.15 | 177.08 | 177.19 | 176.94 | 177.04 | 177.05 | 176.91 |
| 20 | 176.97 | 176.99 | 176.98 | 176.78 | 176.99 | 177.19 | 177.18 | 177.14 | 177.07 | 177.07 | 176.91 | 177.01 |
| 21 | 176.94 | 176.98 | 177.00 | 176.84 | 176.99 | 177.16 | 177.15 | 177.20 | 177.08 | 177.06 | 177.10 | 176.89 |
| 22 | 176.95 | 176.94 | 177.02 | 176.88 | 177.00 | 177.16 | 177.16 | 177.22 | 177.16 | 177.10 | 177.00 | 176.88 |
| 23 | 176.99 | 176.97 | 176.99 | 176.88 | 176.99 | 177.19 | 177.20 | 177.25 | 177.02 | 177.14 | 176.98 | 176.94 |
| 24 | 176.83 | 177.00 | 176.90 | 177.04 | 176.99 | 177.19 | 177.06 | 177.21 | 177.15 | 177.09 | 176.93 | 176.85 |
| 25 | 176.96 | 177.01 | 176.90 | 176.83 | 176.96 | 177.18 | 177.07 | 177.22 | 177.00 | 177.12 | 176.97 | 176.71 |
| 26 | 177.05 | 177.00 | 176.90 | 176.88 | 176.96 | 177.17 | 177.09 | 177.20 | 176.89 | 177.07 | 177.05 | 176.78 |
| 27 | 176.99 | 177.00 | 176.76 | 176.95 | 177.05 | 177.14 | 177.23 | 177.19 | 177.08 | 177.01 | 176.81 | 176.87 |
| 28 | 177.05 | 177.05 | 176.72 | 177.02 | 176.98 | 177.10 | 177.25 | 177.18 | 177.07 | 177.19 | 176.78 | 176.92 |
| 29 | 177.10 | | 176.85 | 176.96 | 176.89 | 177.14 | 177.17 | 177.22 | 177.08 | 177.06 | 176.91 | 177.05 |
| 30 | 177.09 | | 176.85 | 176.93 | 176.91 | 177.15 | 177.12 | 177.23 | 177.16 | 177.03 | 176.96 | 177.06 |
| 31 | 176.98 | | 176.84 | | 176.81 | | 177.23 | 177.12 | | 176.97 | | 177.11 |
| Mean | 176.96 | 177.03 | 176.93 | 176.86 | 176.96 | 177.12 | 177.17 | 177.16 | 177.11 | 177.05 | 176.99 | 176.94 |
| Max.
Hr.
Day | 177.16
1500
29 | 177.18
1500
2 | 177.08
0100
1 | 177.27
1400
24 | 177.20
2300
27 | 177.25
1500
23 | 177.34
0100
7 | 177.36
1000
23 | 177.38
1200
9 | 177.42
0600
1 | 177.20
0300
19 | 177.23
1100
29 |
| Min.
Hr.
Day | 176.76
2000
24 | 176.87
0900
6 | 176.70
1800
27 | 176.70
1800
20 | 176.68
1800
31 | 176.91
0400
1 | 176.98
1500
30 | 176.92
1500
2 | 176.74
2000
18 | 176.76
1800
16 | 176.73
1400
27 | 176.57
2100
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 177.02

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 907-6070 SW Pier, Sault St Marie, Michigan above locks, St Marys R

HIGHEST

Monthly mean elevation: 183.49 Sep
Daily mean elevation: 183.70 21 Oct
Instant/hourly elevation: 184.04 1200/21 Oct

LOWEST

Monthly mean elevation: 183.02 Apr
Daily mean elevation: 182.89 18 Apr
Instant/hourly elevation: 182.64 1300/24 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.42 | 183.23 | 183.09 | 183.17 | 183.37 | 183.39 | 183.57 | 183.53 | 183.64 | 183.70 | 183.52 | 183.48 |
| Day | 1 | 3 | 28 | 25 | 31 | 28 | 29 | 31 | 10 | 21 | 19 | 25 |
| Min | 183.14 | 183.03 | 182.96 | 182.89 | 183.09 | 183.20 | 183.25 | 183.38 | 183.35 | 183.28 | 183.16 | 183.21 |
| Day | 30 | 28 | 19 | 18 | 2 | 8 | 4 | 23 | 30 | 25 | 26 | 1 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.65 | | | | | | | | | | 1 | | | 183.65 | 1 |
| 183.60 | | | | | | | | | 1 | | | | 183.60 | 2 |
| 183.55 | | | | | | | 1 | | 3 | 3 | | | 183.55 | 9 |
| 183.50 | | | | | | | 1 | 4 | 6 | 2 | 1 | | 183.50 | 23 |
| 183.45 | | | | | | | 2 | 19 | 12 | 8 | 1 | 1 | 183.45 | 66 |
| 183.40 | 1 | | | | | | 13 | 6 | 7 | 11 | 8 | 3 | 183.40 | 115 |
| 183.35 | 2 | | | | 1 | 4 | 8 | 2 | | 4 | 10 | 1 | 183.35 | 147 |
| 183.30 | 4 | | | | 1 | 11 | 5 | | 1 | 1 | 5 | 11 | 183.30 | 186 |
| 183.25 | 6 | | | | 8 | 12 | | | | 1 | | 10 | 183.25 | 226 |
| 183.20 | 13 | 1 | | | 10 | 2 | 1 | | | | 1 | 5 | 183.20 | 259 |
| 183.15 | 3 | 7 | | 2 | 6 | 1 | | | | | 1 | | 183.15 | 279 |
| 183.10 | 2 | 12 | | 2 | 4 | | | | | | | | 183.10 | 299 |
| 183.05 | | 6 | 18 | 4 | 1 | | | | | | | | 183.05 | 328 |
| 183.00 | | 2 | 5 | 9 | | | | | | | | | 183.00 | 344 |
| 182.95 | | | 8 | 5 | | | | | | | | | 182.95 | 357 |
| 182.90 | | | | 7 | | | | | | | | | 182.90 | 364 |
| 182.85 | | | | 1 | | | | | | | | | 182.85 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 907-6070 SW Pier, Sault St Marie, Michigan above locks, St Marys R

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 183.42 | 183.17 | 183.06 | 183.04 | 183.14 | 183.31 | 183.32 | 183.46 | 183.45 | 183.49 | 183.38 | 183.21 |
| 2 | 183.21 | 183.16 | 183.08 | 183.05 | 183.09 | 183.31 | 183.32 | 183.48 | 183.43 | 183.59 | 183.33 | 183.34 |
| 3 | 183.25 | 183.23 | 183.06 | 183.06 | 183.16 | 183.31 | 183.34 | 183.50 | 183.53 | 183.55 | 183.41 | 183.35 |
| 4 | 183.32 | 183.17 | 183.06 | 183.05 | 183.17 | 183.29 | 183.25 | 183.51 | 183.50 | 183.60 | 183.35 | 183.33 |
| 5 | 183.29 | 183.20 | 183.08 | 183.04 | 183.22 | 183.27 | 183.32 | 183.46 | 183.50 | 183.50 | 183.42 | 183.28 |
| 6 | 183.34 | 183.11 | 183.06 | 183.03 | 183.21 | 183.26 | 183.36 | 183.46 | 183.48 | 183.40 | 183.41 | 183.42 |
| 7 | 183.31 | 183.18 | 183.04 | 183.02 | 183.14 | 183.27 | 183.36 | 183.48 | 183.47 | 183.43 | 183.41 | 183.34 |
| 8 | 183.28 | 183.13 | 183.09 | 182.98 | 183.13 | 183.20 | 183.38 | 183.43 | 183.45 | 183.46 | 183.42 | 183.30 |
| 9 | 183.23 | 183.11 | 183.04 | 183.06 | 183.15 | 183.27 | 183.39 | 183.39 | 183.54 | 183.50 | 183.41 | 183.29 |
| 10 | 183.23 | 183.18 | 183.06 | 183.10 | 183.22 | 183.32 | 183.40 | 183.48 | 183.64 | 183.43 | 183.38 | 183.43 |
| 11 | 183.24 | 183.10 | 183.08 | 183.05 | 183.23 | 183.29 | 183.40 | 183.48 | 183.51 | 183.42 | 183.43 | 183.32 |
| 12 | 183.22 | 183.13 | 183.06 | 183.02 | 183.28 | 183.27 | 183.42 | 183.46 | 183.44 | 183.56 | 183.32 | 183.22 |
| 13 | 183.22 | 183.15 | 183.08 | 182.99 | 183.21 | 183.25 | 183.42 | 183.50 | 183.46 | 183.43 | 183.30 | 183.22 |
| 14 | 183.23 | 183.16 | 183.07 | 182.97 | 183.20 | 183.29 | 183.44 | 183.48 | 183.57 | 183.42 | 183.40 | 183.29 |
| 15 | 183.24 | 183.15 | 182.99 | 182.94 | 183.26 | 183.38 | 183.45 | 183.46 | 183.52 | 183.42 | 183.39 | 183.31 |
| 16 | 183.26 | 183.14 | 183.09 | 183.00 | 183.24 | 183.27 | 183.42 | 183.47 | 183.43 | 183.47 | 183.36 | 183.28 |
| 17 | 183.36 | 183.15 | 183.06 | 182.95 | 183.21 | 183.30 | 183.39 | 183.50 | 183.49 | 183.47 | 183.44 | 183.26 |
| 18 | 183.28 | 183.15 | 183.00 | 182.89 | 183.24 | 183.34 | 183.41 | 183.45 | 183.57 | 183.43 | 183.28 | 183.30 |
| 19 | 183.25 | 183.11 | 182.96 | 182.94 | 183.26 | 183.32 | 183.42 | 183.46 | 183.50 | 183.40 | 183.52 | 183.30 |
| 20 | 183.20 | 183.10 | 183.02 | 182.91 | 183.22 | 183.30 | 183.46 | 183.52 | 183.43 | 183.34 | 183.50 | 183.31 |
| 21 | 183.14 | 183.08 | 183.06 | 182.93 | 183.24 | 183.34 | 183.46 | 183.45 | 183.46 | 183.70 | 183.36 | 183.34 |
| 22 | 183.23 | 183.13 | 183.00 | 182.94 | 183.19 | 183.35 | 183.45 | 183.42 | 183.44 | 183.50 | 183.37 | 183.29 |
| 23 | 183.20 | 183.12 | 183.00 | 182.94 | 183.16 | 183.27 | 183.42 | 183.38 | 183.58 | 183.39 | 183.31 | 183.32 |
| 24 | 183.36 | 183.10 | 183.00 | 182.96 | 183.27 | 183.25 | 183.41 | 183.47 | 183.48 | 183.48 | 183.32 | 183.34 |
| 25 | 183.24 | 183.08 | 182.99 | 183.17 | 183.30 | 183.33 | 183.34 | 183.46 | 183.48 | 183.28 | 183.24 | 183.48 |
| 26 | 183.19 | 183.08 | 183.00 | 183.10 | 183.28 | 183.35 | 183.44 | 183.46 | 183.50 | 183.45 | 183.16 | 183.33 |
| 27 | 183.22 | 183.05 | 183.07 | 183.03 | 183.17 | 183.37 | 183.43 | 183.52 | 183.54 | 183.45 | 183.38 | 183.37 |
| 28 | 183.26 | 183.03 | 183.09 | 183.12 | 183.32 | 183.39 | 183.40 | 183.49 | 183.52 | 183.39 | 183.38 | 183.26 |
| 29 | 183.30 | | 183.07 | 183.14 | 183.28 | 183.38 | 183.57 | 183.45 | 183.48 | 183.52 | 183.40 | 183.42 |
| 30 | 183.14 | | 183.05 | 183.16 | 183.28 | 183.34 | 183.52 | 183.43 | 183.35 | 183.44 | 183.26 | 183.22 |
| 31 | 183.34 | | 183.01 | | 183.37 | | 183.43 | 183.53 | | 183.43 | | 183.24 |
| Mean | 183.26 | 183.13 | 183.04 | 183.02 | 183.22 | 183.31 | 183.40 | 183.47 | 183.49 | 183.46 | 183.37 | 183.31 |
| Max.
Hr.
Day | 183.62
1900
28 | 183.39
1600
3 | 183.28
2100
16 | 183.31
2400
24 | 183.49
1800
31 | 183.54
1200
10 | 183.67
1100
29 | 183.72
1900
27 | 183.78
1400
9 | 184.04
1200
21 | 183.84
0300
20 | 183.83
1100
25 |
| Min.
Hr.
Day | 182.97
1000
26 | 182.94
0200
7 | 182.89
2300
31 | 182.64
1300
24 | 182.95
0700
2 | 182.87
0300
8 | 183.09
1400
4 | 183.08
1600
9 | 183.11
1600
13 | 183.06
1700
7 | 182.92
1400
26 | 183.04
2400
12 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.29

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 908-7023 Ludington, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 176.93 Jul
Daily mean elevation: 176.98 9 Jul
Instant/hourly elevation: 177.07 2000/25 Jul

LOWEST

Monthly mean elevation: 176.51 Mar
Daily mean elevation: 176.44 17 Mar
Instant/hourly elevation: 176.36 0700/2 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.68 | 176.62 | 176.57 | 176.75 | 176.80 | 176.95 | 176.98 | 176.94 | 176.91 | 176.84 | 176.88 | 176.72 |
| Day | 13 | 11 | 31 | 20 | 30 | 24 | 9 | 30 | 2 | 8 | 5 | 2 |
| Min | 176.46 | 176.47 | 176.44 | 176.52 | 176.67 | 176.73 | 176.84 | 176.86 | 176.78 | 176.64 | 176.56 | 176.52 |
| Day | 29 | 18 | 17 | 4 | 16 | 1 | 30 | 28 | 28 | 22 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | 6 | | | | | | 176.95 | 6 |
| 176.90 | | | | | | 7 | 17 | 13 | 1 | | | | 176.90 | 44 |
| 176.85 | | | | | | 8 | 7 | 18 | 9 | | 1 | | 176.85 | 87 |
| 176.80 | | | | | | 9 | 1 | | 13 | 4 | 1 | | 176.80 | 115 |
| 176.75 | | | | | 7 | 5 | | | 7 | 10 | 4 | | 176.75 | 148 |
| 176.70 | | | | 4 | 18 | 1 | | | | 15 | 12 | 4 | 176.70 | 202 |
| 176.65 | 1 | | | 7 | 6 | | | | | 1 | 11 | 15 | 176.65 | 243 |
| 176.60 | 1 | 2 | | 7 | | | | | | 1 | | 6 | 176.60 | 260 |
| 176.55 | 12 | 4 | 2 | 9 | | | | | | | 1 | 3 | 176.55 | 291 |
| 176.50 | 7 | 12 | 12 | 3 | | | | | | | | 3 | 176.50 | 328 |
| 176.45 | 10 | 10 | 16 | | | | | | | | | | 176.45 | 364 |
| 176.40 | | | 1 | | | | | | | | | | 176.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7023 Ludington, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.46 | 176.48 | 176.50 | 176.67 | 176.70 | 176.73 | 176.93 | 176.90 | 176.88 | 176.79 | 176.73 | 176.70 |
| 2 | 176.47 | 176.52 | 176.53 | 176.58 | 176.75 | 176.76 | 176.94 | 176.90 | 176.91 | 176.76 | 176.73 | 176.72 |
| 3 | 176.58 | 176.48 | 176.54 | 176.52 | 176.73 | 176.76 | 176.92 | 176.90 | 176.88 | 176.74 | 176.74 | 176.65 |
| 4 | 176.55 | 176.49 | 176.56 | 176.52 | 176.74 | 176.77 | 176.97 | 176.88 | 176.86 | 176.74 | 176.75 | 176.70 |
| 5 | 176.55 | 176.49 | 176.54 | 176.56 | 176.74 | 176.79 | 176.98 | 176.88 | 176.84 | 176.74 | 176.88 | 176.69 |
| 6 | 176.52 | 176.56 | 176.50 | 176.56 | 176.70 | 176.76 | 176.94 | 176.94 | 176.86 | 176.78 | 176.76 | 176.71 |
| 7 | 176.48 | 176.53 | 176.52 | 176.56 | 176.75 | 176.83 | 176.93 | 176.93 | 176.83 | 176.81 | 176.71 | 176.64 |
| 8 | 176.54 | 176.52 | 176.51 | 176.57 | 176.76 | 176.82 | 176.97 | 176.91 | 176.84 | 176.84 | 176.70 | 176.71 |
| 9 | 176.57 | 176.54 | 176.48 | 176.56 | 176.76 | 176.87 | 176.98 | 176.92 | 176.83 | 176.78 | 176.72 | 176.66 |
| 10 | 176.60 | 176.55 | 176.51 | 176.53 | 176.75 | 176.81 | 176.95 | 176.94 | 176.78 | 176.75 | 176.72 | 176.68 |
| 11 | 176.57 | 176.62 | 176.51 | 176.57 | 176.72 | 176.82 | 176.94 | 176.92 | 176.78 | 176.74 | 176.73 | 176.63 |
| 12 | 176.58 | 176.61 | 176.50 | 176.61 | 176.67 | 176.85 | 176.93 | 176.93 | 176.82 | 176.71 | 176.69 | 176.66 |
| 13 | 176.68 | 176.56 | 176.50 | 176.58 | 176.71 | 176.85 | 176.92 | 176.92 | 176.86 | 176.74 | 176.80 | 176.67 |
| 14 | 176.64 | 176.49 | 176.50 | 176.58 | 176.69 | 176.86 | 176.93 | 176.91 | 176.88 | 176.73 | 176.72 | 176.71 |
| 15 | 176.58 | 176.49 | 176.46 | 176.68 | 176.73 | 176.82 | 176.90 | 176.91 | 176.85 | 176.75 | 176.72 | 176.70 |
| 16 | 176.53 | 176.52 | 176.52 | 176.74 | 176.67 | 176.83 | 176.91 | 176.93 | 176.88 | 176.79 | 176.67 | 176.70 |
| 17 | 176.48 | 176.50 | 176.44 | 176.61 | 176.73 | 176.88 | 176.94 | 176.90 | 176.85 | 176.77 | 176.68 | 176.68 |
| 18 | 176.50 | 176.47 | 176.50 | 176.61 | 176.73 | 176.85 | 176.96 | 176.89 | 176.83 | 176.74 | 176.70 | 176.68 |
| 19 | 176.50 | 176.50 | 176.49 | 176.67 | 176.71 | 176.90 | 176.95 | 176.89 | 176.83 | 176.77 | 176.70 | 176.66 |
| 20 | 176.51 | 176.52 | 176.50 | 176.75 | 176.71 | 176.93 | 176.91 | 176.88 | 176.86 | 176.79 | 176.56 | 176.66 |
| 21 | 176.59 | 176.59 | 176.48 | 176.65 | 176.73 | 176.89 | 176.90 | 176.89 | 176.89 | 176.77 | 176.66 | 176.67 |
| 22 | 176.57 | 176.56 | 176.49 | 176.65 | 176.74 | 176.87 | 176.90 | 176.86 | 176.85 | 176.64 | 176.69 | 176.63 |
| 23 | 176.56 | 176.52 | 176.55 | 176.64 | 176.78 | 176.92 | 176.90 | 176.90 | 176.81 | 176.74 | 176.79 | 176.67 |
| 24 | 176.56 | 176.50 | 176.53 | 176.71 | 176.78 | 176.95 | 176.93 | 176.90 | 176.79 | 176.73 | 176.76 | 176.63 |
| 25 | 176.49 | 176.51 | 176.51 | 176.70 | 176.70 | 176.94 | 176.97 | 176.88 | 176.78 | 176.81 | 176.75 | 176.61 |
| 26 | 176.56 | 176.51 | 176.50 | 176.65 | 176.74 | 176.90 | 176.92 | 176.91 | 176.82 | 176.83 | 176.82 | 176.58 |
| 27 | 176.52 | 176.52 | 176.50 | 176.70 | 176.75 | 176.92 | 176.89 | 176.88 | 176.80 | 176.73 | 176.75 | 176.59 |
| 28 | 176.56 | 176.52 | 176.50 | 176.70 | 176.78 | 176.90 | 176.93 | 176.86 | 176.78 | 176.74 | 176.70 | 176.55 |
| 29 | 176.46 | | 176.50 | 176.71 | 176.72 | 176.91 | 176.88 | 176.89 | 176.81 | 176.72 | 176.68 | 176.57 |
| 30 | 176.47 | | 176.51 | 176.70 | 176.80 | 176.92 | 176.84 | 176.94 | 176.80 | 176.68 | 176.70 | 176.52 |
| 31 | 176.50 | | 176.57 | | 176.79 | | 176.88 | 176.90 | | 176.77 | | 176.54 |
| Mean | 176.54 | 176.52 | 176.51 | 176.63 | 176.73 | 176.85 | 176.93 | 176.90 | 176.84 | 176.76 | 176.72 | 176.65 |
| Max.
Hr.
Day | 176.76
1600
13 | 176.68
2300
21 | 176.66
2300
31 | 176.86
1200
20 | 176.88
2300
30 | 177.05
0700
9 | 177.07
2000
25 | 177.02
2000
9 | 176.97
0200
23 | 176.90
0200
21 | 176.95
1100
5 | 176.80
1100
10 |
| Min.
Hr.
Day | 176.36
0700
2 | 176.38
0600
1 | 176.38
1700
15 | 176.46
1400
10 | 176.62
0800
29 | 176.63
0900
8 | 176.81
0200
30 | 176.79
0800
29 | 176.72
0700
25 | 176.58
1100
22 | 176.50
1500
20 | 176.44
2300
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.72

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7031 Holland, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 176.96 6 Aug
Instant/hourly elevation: 177.02 1800/9 Jul

LOWEST

Monthly mean elevation: 176.52 Mar
Daily mean elevation: 176.44 15 Mar
Instant/hourly elevation: 176.36 1100/26 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.72 | 176.65 | 176.64 | 176.82 | 176.82 | 176.94 | 176.95 | 176.96 | 176.90 | 176.86 | 176.91 | 176.74 |
| Day | 13     | 12     | 31     | 20     | 31     | 30     | 14     | 6      | 3      | 8      | 5      | 6      |
| Min | 176.44 | 176.47 | 176.44 | 176.52 | 176.67 | 176.68 | 176.85 | 176.85 | 176.76 | 176.66 | 176.56 | 176.57 |
| Day | 2      | 3      | 15     | 10     | 16     | 1      | 30     | 22     | 24     | 22     | 20     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | | 1 | | | | | 176.95 | 1 |
| 176.90 | | | | | | 8 | 19 | 8 | | | 1 | | 176.90 | 37 |
| 176.85 | | | | | | 6 | 11 | 21 | 9 | 1 | | | 176.85 | 85 |
| 176.80 | | | | 1 | 1 | 8 | 1 | 1 | 15 | 2 | | | 176.80 | 114 |
| 176.75 | | | | 1 | 4 | 5 | | | 6 | 10 | 4 | | 176.75 | 144 |
| 176.70 | 1 | | | 3 | 20 | 2 | | | | 13 | 10 | 5 | 176.70 | 198 |
| 176.65 | | | | 9 | 6 | 1 | | | | 5 | 11 | 12 | 176.65 | 242 |
| 176.60 | 1 | 2 | 1 | 5 | | | | | | | 3 | 7 | 176.60 | 261 |
| 176.55 | 12 | 4 | 4 | 8 | | | | | | | 1 | 2 | 176.55 | 292 |
| 176.50 | 8 | 16 | 16 | 3 | | | | | | | | | 176.50 | 335 |
| 176.45 | 8 | 6 | 9 | | | | | | | | | | 176.45 | 358 |
| 176.40 | 1 | | 1 | | | | | | | | | | 176.40 | 360 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7031 Holland, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.48 | 176.52 | 176.51 | 176.75 | 176.71 | 176.68 | 176.92 | 176.91 | 176.86 | 176.76 | 176.72 | 176.66 |
| 2 | 176.44 | 176.48 | 176.51 | 176.59 | 176.75 | 176.74 | 176.90 | 176.89 | 176.89 | 176.74 | 176.68 | 176.68 |
| 3 | 176.53 | 176.47 | 176.54 | 176.54 | 176.73 | 176.76 | 176.90 | 176.90 | 176.90 | 176.72 | 176.70 | 176.65 |
| 4 | 176.59 | 176.48 | 176.60 | 176.54 | 176.75 | 176.77 | 176.92 | 176.90 | 176.85 | 176.76 | 176.74 | 176.71 |
| 5 | 176.56 | 176.49 | 176.56 | 176.56 | 176.73 | 176.76 | 176.92 | 176.88 | 176.87 | 176.72 | 176.91 | 176.66 |
| 6 | 176.54 | 176.56 | 176.50 | 176.56 | 176.69 | 176.74 | 176.91 | 176.96 | 176.89 | 176.72 | 176.78 | 176.74 |
| 7 | 176.51 | 176.54 | 176.51 | 176.56 | 176.75 | 176.80 | 176.92 | 176.94 | 176.85 | 176.77 | 176.66 | 176.64 |
| 8 | 176.56 | 176.53 | 176.54 | 176.57 | 176.75 | 176.82 | 176.95 | 176.91 | 176.86 | 176.86 | 176.69 | 176.69 |
| 9 | 176.58 | 176.53 | 176.48 | 176.56 | 176.76 | 176.81 | 176.94 | 176.90 | 176.82 | 176.83 | 176.71 | 176.63 |
| 10 | 176.60 | 176.55 | 176.53 | 176.52 | 176.76 | 176.79 | 176.93 | 176.91 | 176.82 | 176.72 | 176.70 | 176.72 |
| 11 | 176.60* | 176.60 | 176.55 | 176.61 | 176.74 | 176.83 | 176.94 | 176.90 | 176.80 | 176.70 | 176.72 | 176.65 |
| 12 | 176.58* | 176.65 | 176.49 | 176.62 | 176.73 | 176.84 | 176.92 | 176.91 | 176.82 | 176.73 | 176.69 | 176.58 |
| 13 | 176.72 | 176.55 | 176.58 | 176.59 | 176.73 | 176.84 | 176.92 | 176.91 | 176.82 | 176.70 | 176.74 | 176.62 |
| 14 | 176.64 | 176.51 | 176.52 | 176.63 | 176.70 | 176.84 | 176.95 | 176.90 | 176.85 | 176.68 | 176.73 | 176.71 |
| 15 | 176.59 | 176.52 | 176.44 | 176.75 | 176.74 | 176.82 | 176.90 | 176.90 | 176.88 | 176.74 | 176.74 | 176.72 |
| 16 | 176.51 | 176.55 | 176.48 | 176.76 | 176.67 | 176.83 | 176.91 | 176.93 | 176.87 | 176.77 | 176.64 | 176.69 |
| 17 | 176.53 | 176.53 | 176.48 | 176.62 | 176.72 | 176.87 | 176.93 | 176.90 | 176.84 | 176.80 | 176.69 | 176.67 |
| 18 | 176.50 | 176.51 | 176.46 | 176.59 | 176.74 | 176.86 | 176.94 | 176.89 | 176.84 | 176.75 | 176.65 | 176.69 |
| 19 | 176.49 | 176.53 | 176.49 | 176.70 | 176.70 | 176.88 | 176.93 | 176.90 | 176.83 | 176.79 | 176.70 | 176.65 |
| 20 | 176.48 | 176.54 | 176.51 | 176.82 | 176.69 | 176.91 | 176.89 | 176.91 | 176.84 | 176.78 | 176.56 | 176.66 |
| 21 | 176.59 | 176.58 | 176.47 | 176.67 | 176.71 | 176.88 | 176.90 | 176.89 | 176.87 | 176.77 | 176.61 | 176.70 |
| 22 | 176.57 | 176.62 | 176.50 | 176.66 | 176.72 | 176.89 | 176.90 | 176.85 | 176.82 | 176.66 | 176.71 | 176.67 |
| 23 | 176.53 | 176.56 | 176.57 | 176.65 | 176.74 | 176.93 | 176.90 | 176.86 | 176.80 | 176.72 | 176.78 | 176.66 |
| 24 | 176.59 | 176.54 | 176.54 | 176.68 | 176.74 | 176.94 | 176.92 | 176.87 | 176.76 | 176.72 | 176.79 | 176.66 |
| 25 | 176.48 | 176.52 | 176.51 | 176.70 | 176.69 | 176.92 | 176.92 | 176.87 | 176.79 | 176.78 | 176.74 | 176.65 |
| 26 | 176.48 | 176.53 | 176.51 | 176.68 | 176.73 | 176.87 | 176.90 | 176.90 | 176.81 | 176.82 | 176.80 | 176.57* |
| 27 | 176.52 | 176.50 | 176.52 | 176.67 | 176.75 | 176.93 | 176.88 | 176.89 | 176.82 | 176.74 | 176.72 | / |
| 28 | 176.57 | 176.48 | 176.51 | 176.67 | 176.79 | 176.94 | 176.92 | 176.86 | 176.79 | 176.67 | 176.69 | / |
| 29 | 176.47 | | 176.52 | 176.71 | 176.72 | 176.93 | 176.90 | 176.88 | 176.82 | 176.72 | 176.68 | / |
| 30 | 176.47 | | 176.53* | 176.69 | 176.78 | 176.94 | 176.85 | 176.90 | 176.78 | 176.73 | 176.66 | / |
| 31 | 176.52 | | 176.64* | | 176.82 | | 176.87 | 176.89 | | 176.79 | | / |
| Mean | 176.54 | 176.54 | 176.52 | 176.64 | 176.73 | 176.85 | 176.91 | 176.90 | 176.84 | 176.75 | 176.71 | 176.67 |
| Max.
Hr.
Day | 176.78
1900
13 | 176.68
0100
22 | 176.73
2400
31 | 176.91
1300
20 | 176.94
0400
31 | 177.02
1200
30 | 177.02
1800
9 | 177.01
0600
31 | 176.97
1400
14 | 176.95
2200
8 | 176.98
1500
5 | 176.83
1300
10 |
| Min.
Hr.
Day | 176.36
1100
26 | 176.42
0600
5 | 176.39
1600
15 | 176.48
1300
10 | 176.63
0600
14 | 176.64
1700
1 | 176.82
1800
30 | 176.82
0100
24 | 176.68
1900
30 | 176.61
1200
28 | 176.52
1400
20 | 176.54
2200
12 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.72

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7044 Calumet Harbor, Illinois on Lake Michigan

HIGHEST

Monthly mean elevation: 176.90 Jul
Daily mean elevation: 176.99 9 Oct
Instant/hourly elevation: 177.16 0500/9 Oct

LOWEST

Monthly mean elevation: 176.56 Mar
Daily mean elevation: 176.36 30 Jan
Instant/hourly elevation: 176.08 1200/26 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.77 | 176.74 | 176.75 | 176.92 | 176.86 | 176.97 | 176.97 | 176.95 | 176.93 | 176.99 | 176.89 | 176.79 |
| Day | 9 | 12 | 31 | 1 | 31 | 30 | 14 | 20 | 15 | 9 | 24 | 15 |
| Min | 176.36 | 176.40 | 176.42 | 176.59 | 176.66 | 176.71 | 176.84 | 176.82 | 176.67 | 176.54 | 176.50 | 176.41 |
| Day | 30 | 28 | 16 | 10 | 25 | 1 | 5 | 24 | 12 | 28 | 21 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | 2 | 1 | | | 1 | | | 176.95 | 4 |
| 176.90 | | | | 1 | | 2 | 14 | 10 | 1 | | | | 176.90 | 32 |
| 176.85 | | | | 1 | 1 | 9 | 15 | 16 | 6 | 2 | 2 | | 176.85 | 84 |
| 176.80 | | | | | 1 | 6 | 1 | 5 | 12 | 2 | | | 176.80 | 111 |
| 176.75 | 1 | | | 3 | 7 | 8 | | | 7 | 6 | 4 | 2 | 176.75 | 149 |
| 176.70 | 2 | 2 | 3 | 7 | 12 | 3 | | | 1 | 8 | 4 | 4 | 176.70 | 195 |
| 176.65 | 2 | 1 | | 6 | 10 | | | | 3 | 7 | 9 | 4 | 176.65 | 237 |
| 176.60 | 8 | 6 | 2 | 10 | | | | | | 4 | 6 | 10 | 176.60 | 283 |
| 176.55 | 5 | 5 | 12 | 2 | | | | | | | 3 | 6 | 176.55 | 316 |
| 176.50 | 4 | 8 | 6 | | | | | | | 1 | 1 | 3 | 176.50 | 339 |
| 176.45 | 6 | 5 | 5 | | | | | | | | 1 | 1 | 176.45 | 357 |
| 176.40 | 2 | | 3 | | | | | | | | | 1 | 176.40 | 363 |
| 176.35 | 1 | 1 | | | | | | | | | | | 176.35 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7044 Calumet Harbor, Illinois on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.48 | 176.64 | 176.42 | 176.92 | 176.77 | 176.71 | 176.94 | 176.91 | 176.89 | 176.68 | 176.72 | 176.62 |
| 2 | 176.41 | 176.51 | 176.49 | 176.65 | 176.76 | 176.75 | 176.90 | 176.87 | 176.85 | 176.72 | 176.60 | 176.63 |
| 3 | 176.49 | 176.48 | 176.60 | 176.60 | 176.73 | 176.79 | 176.90 | 176.88 | 176.90 | 176.62 | 176.59 | 176.64 |
| 4 | 176.62 | 176.50 | 176.74 | 176.61 | 176.74 | 176.85 | 176.89 | 176.90 | 176.80 | 176.72 | 176.68 | 176.76 |
| 5 | 176.63 | 176.53 | 176.61 | 176.64 | 176.71 | 176.78 | 176.84 | 176.86 | 176.85 | 176.71 | 176.87 | 176.66 |
| 6 | 176.57 | 176.66 | 176.51 | 176.62 | 176.68 | 176.74 | 176.86 | 176.91 | 176.89 | 176.67 | 176.80 | 176.70 |
| 7 | 176.55 | 176.56 | 176.47 | 176.61 | 176.75 | 176.76 | 176.88 | 176.92 | 176.84 | 176.71 | 176.53 | 176.63 |
| 8 | 176.68 | 176.62 | 176.53 | 176.62 | 176.76 | 176.76 | 176.89 | 176.91 | 176.83 | 176.86 | 176.61 | 176.62 |
| 9 | 176.77 | 176.58 | 176.51 | 176.61 | 176.74 | 176.76 | 176.88 | 176.82 | 176.67 | 176.99 | 176.70 | 176.57 |
| 10 | 176.71 | 176.62 | 176.57 | 176.59 | 176.75 | 176.76 | 176.90 | 176.86 | 176.79 | 176.73 | 176.70 | 176.74 |
| 11 | 176.63 | 176.74 | 176.60 | 176.69 | 176.73 | 176.84 | 176.91 | 176.88 | 176.76 | 176.63 | 176.68 | 176.71 |
| 12 | 176.66 | 176.74 | 176.54 | 176.68 | 176.81 | 176.86 | 176.90 | 176.90 | 176.67 | 176.72 | 176.70 | 176.51 |
| 13 | 176.74 | 176.59 | 176.73 | 176.65 | 176.78 | 176.85 | 176.92 | 176.92 | 176.70 | 176.73 | 176.66 | 176.59 |
| 14 | 176.64 | 176.51 | 176.58 | 176.72 | 176.73 | 176.81 | 176.97 | 176.88 | 176.76 | 176.66 | 176.76 | 176.75 |
| 15 | 176.62 | 176.53 | 176.44 | 176.78 | 176.72 | 176.80 | 176.94 | 176.87 | 176.93 | 176.70 | 176.73 | 176.79 |
| 16 | 176.50 | 176.63 | 176.42 | 176.73 | 176.68 | 176.84 | 176.93 | 176.93 | 176.87 | 176.77 | 176.64 | 176.72 |
| 17 | 176.56 | 176.51 | 176.59 | 176.65 | 176.73 | 176.84 | 176.95 | 176.91 | 176.81 | 176.84 | 176.74 | 176.65 |
| 18 | 176.56 | 176.47 | 176.53 | 176.63 | 176.76 | 176.87 | 176.94 | 176.91 | 176.82 | 176.76 | 176.62 | 176.65 |
| 19 | 176.48 | 176.46 | 176.49 | 176.77 | 176.70 | 176.87 | 176.92 | 176.89 | 176.88 | 176.79 | 176.65 | 176.60 |
| 20 | 176.49 | 176.54 | 176.50 | 176.90 | 176.68 | 176.88 | 176.91 | 176.95 | 176.84 | 176.77 | 176.56 | 176.61 |
| 21 | 176.62 | 176.64 | 176.50 | 176.74 | 176.70 | 176.87 | 176.92 | 176.94 | 176.88 | 176.68 | 176.50 | 176.66 |
| 22 | 176.60 | 176.64 | 176.57 | 176.68 | 176.70 | 176.88 | 176.92 | 176.86 | 176.79 | 176.64 | 176.68 | 176.68 |
| 23 | 176.54 | 176.56 | 176.63 | 176.68 | 176.68 | 176.93 | 176.93 | 176.83 | 176.82 | 176.65 | 176.78 | 176.64 |
| 24 | 176.63 | 176.52 | 176.59 | 176.68 | 176.66 | 176.90 | 176.95 | 176.82 | 176.78 | 176.68 | 176.89 | 176.60 |
| 25 | 176.54 | 176.52 | 176.55 | 176.72 | 176.66 | 176.87 | 176.92 | 176.86 | 176.85 | 176.77 | 176.79 | 176.62 |
| 26 | 176.41 | 176.57 | 176.56 | 176.76 | 176.69 | 176.80 | 176.88 | 176.86 | 176.84 | 176.80 | 176.75 | 176.60 |
| 27 | 176.58 | 176.50 | 176.58 | 176.72 | 176.71 | 176.89 | 176.88 | 176.84 | 176.83 | 176.72 | 176.67 | 176.60 |
| 28 | 176.63 | 176.40 | 176.58 | 176.69 | 176.79 | 176.94 | 176.88 | 176.84 | 176.80 | 176.54 | 176.65 | 176.55 |
| 29 | 176.52 | | 176.56 | 176.74 | 176.75 | 176.96 | 176.88 | 176.90 | 176.84 | 176.66 | 176.68 | 176.53 |
| 30 | 176.36 | | 176.57 | 176.73 | 176.80 | 176.97 | 176.86 | 176.87 | 176.73 | 176.83 | 176.65 | 176.41 |
| 31 | 176.48 | | 176.75 | | 176.86 | | 176.87 | 176.90 | | 176.86 | | 176.46 |
| Mean | 176.57 | 176.56 | 176.56 | 176.69 | 176.73 | 176.84 | 176.90 | 176.88 | 176.82 | 176.73 | 176.69 | 176.63 |
| Max. | 176.84 | 176.83 | 176.92 | 177.06 | 177.08 | 177.10 | 177.09 | 177.03 | 177.07 | 177.16 | 177.02 | 176.90 |
| Hr. | 1600 | 1500 | 2300 | 1500 | 0400 | 2100 | 0900 | 2300 | 1400 | 0500 | 1700 | 1400 |
| Day | 13 | 11 | 31 | 20 | 31 | 30 | 1 | 20 | 15 | 9 | 5 | 15 |
| Min. | 176.08 | 176.26 | 176.26 | 176.51 | 176.56 | 176.40 | 176.69 | 176.46 | 176.41 | 176.42 | 176.40 | 176.27 |
| Hr. | 1200 | 2300 | 1300 | 2200 | 2000 | 0800 | 2100 | 1400 | 0800 | 0700 | 1700 | 1700 |
| Day | 26 | 28 | 16 | 10 | 5 | 8 | 8 | 9 | 9 | 28 | 7 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.72

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7057 Milwaukee, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 176.92 Jul
Daily mean elevation: 176.96 25 Jul
Instant/hourly elevation: 177.19 2000/7 Jun

LOWEST

Monthly mean elevation: 176.53 Mar
Daily mean elevation: 176.40 30 Jan
Instant/hourly elevation: 176.33 0500/30 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.75 | 176.70 | 176.71 | 176.88 | 176.81 | 176.96 | 176.96 | 176.94 | 176.88 | 176.88 | 176.86 | 176.75 |
| Day | 13 | 11 | 31 | 1 | 31 | 30 | 25 | 21 | 20 | 9 | 5 | 15 |
| Min | 176.40 | 176.46 | 176.47 | 176.52 | 176.68 | 176.72 | 176.86 | 176.84 | 176.73 | 176.64 | 176.55 | 176.47 |
| Day | 30 | 18 | 16 | 10 | 25 | 1 | 30 | 28 | 9 | 22 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | 1 | 6 | | | | | | 176.95 | 7 |
| 176.90 | | | | | | 6 | 15 | 12 | | | | | 176.90 | 40 |
| 176.85 | | | | 1 | | 8 | 10 | 18 | 6 | 2 | 1 | | 176.85 | 86 |
| 176.80 | | | | 2 | 2 | 6 | | 1 | 12 | | 3 | | 176.80 | 112 |
| 176.75 | | | | 1 | 10 | 8 | | | 9 | 8 | 2 | | 176.75 | 150 |
| 176.70 | 1 | | 1 | 3 | 17 | 1 | | | 3 | 14 | 9 | 4 | 176.70 | 203 |
| 176.65 | 2 | 3 | | 10 | 2 | | | | | 4 | 10 | 10 | 176.65 | 244 |
| 176.60 | 4 | 1 | 2 | 6 | | | | | | 3 | 3 | 9 | 176.60 | 272 |
| 176.55 | 6 | 8 | 4 | 4 | | | | | | | 1 | 4 | 176.55 | 299 |
| 176.50 | 7 | 10 | 13 | 3 | | | | | | | 1 | 3 | 176.50 | 336 |
| 176.45 | 9 | 6 | 11 | | | | | | | | | 1 | 176.45 | 363 |
| 176.40 | 1 | | | | | | | | | | | | 176.40 | 364 |
| 176.35 | 1 | | | | | | | | | | | | 176.35 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7057 Milwaukee, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.47 | 176.55 | 176.49 | 176.88 | 176.74 | 176.72 | 176.96 | 176.90 | 176.88 | 176.73 | 176.72 | 176.68 |
| 2 | 176.49 | 176.49 | 176.52 | 176.61 | 176.78 | 176.76 | 176.94 | 176.88 | 176.88 | 176.71 | 176.68 | 176.67 |
| 3 | 176.55 | 176.46 | 176.57 | 176.54 | 176.76 | 176.77 | 176.92 | 176.89 | 176.87 | 176.68 | 176.67 | 176.65 |
| 4 | 176.59 | 176.48 | 176.65 | 176.55 | 176.76 | 176.78 | 176.96 | 176.88 | 176.82 | 176.71 | 176.75 | 176.71 |
| 5 | 176.54 | 176.51 | 176.58 | 176.58 | 176.73 | 176.77 | 176.93 | 176.88 | 176.84 | 176.72 | 176.86 | 176.67 |
| 6 | 176.52 | 176.60 | 176.52 | 176.56 | 176.71 | 176.77 | 176.89 | 176.93 | 176.86 | 176.73 | 176.76 | 176.70 |
| 7 | 176.49 | 176.54 | 176.51 | 176.58 | 176.77 | 176.82 | 176.90 | 176.92 | 176.85 | 176.76 | 176.64 | 176.64 |
| 8 | 176.59 | 176.56 | 176.52 | 176.61 | 176.78 | 176.84 | 176.94 | 176.91 | 176.84 | 176.86 | 176.67 | 176.67 |
| 9 | 176.67 | 176.56 | 176.49 | 176.56 | 176.78 | 176.80 | 176.92 | 176.89 | 176.73 | 176.88 | 176.70 | 176.64 |
| 10 | 176.67 | 176.57 | 176.56 | 176.52 | 176.76 | 176.79 | 176.92 | 176.90 | 176.75 | 176.73 | 176.70 | 176.70 |
| 11 | 176.62 | 176.70 | 176.55 | 176.67 | 176.73 | 176.83 | 176.93 | 176.89 | 176.75 | 176.70 | 176.71 | 176.66 |
| 12 | 176.65 | 176.69 | 176.50 | 176.63 | 176.74 | 176.85 | 176.89 | 176.91 | 176.80 | 176.72 | 176.73 | 176.60 |
| 13 | 176.75 | 176.56 | 176.60 | 176.61 | 176.74 | 176.86 | 176.94 | 176.91 | 176.76 | 176.72 | 176.74 | 176.65 |
| 14 | 176.65 | 176.51 | 176.50 | 176.67 | 176.71 | 176.84 | 176.94 | 176.90 | 176.79 | 176.68 | 176.74 | 176.74 |
| 15 | 176.56 | 176.52 | 176.47 | 176.82 | 176.72 | 176.80 | 176.91 | 176.92 | 176.84 | 176.74 | 176.72 | 176.75 |
| 16 | 176.49 | 176.56 | 176.47 | 176.77 | 176.68 | 176.85 | 176.93 | 176.93 | 176.85 | 176.77 | 176.64 | 176.71 |
| 17 | 176.50 | 176.49 | 176.49 | 176.64 | 176.73 | 176.88 | 176.96 | 176.90 | 176.81 | 176.78 | 176.69 | 176.68 |
| 18 | 176.51 | 176.46 | 176.50 | 176.62 | 176.75 | 176.86 | 176.96 | 176.91 | 176.80 | 176.74 | 176.66 | 176.67 |
| 19 | 176.50 | 176.51 | 176.50 | 176.74 | 176.71 | 176.90 | 176.92 | 176.91 | 176.85 | 176.79 | 176.64 | 176.63 |
| 20 | 176.53 | 176.57 | 176.50 | 176.85 | 176.71 | 176.91 | 176.90 | 176.92 | 176.88 | 176.78 | 176.55 | 176.64 |
| 21 | 176.61 | 176.66 | 176.48 | 176.68 | 176.73 | 176.87 | 176.91 | 176.94 | 176.86 | 176.67 | 176.60 | 176.65 |
| 22 | 176.56 | 176.61 | 176.54 | 176.66 | 176.74 | 176.88 | 176.93 | 176.91 | 176.82 | 176.64 | 176.71 | 176.66 |
| 23 | 176.54 | 176.53 | 176.61 | 176.67 | 176.77 | 176.94 | 176.93 | 176.89 | 176.79 | 176.71 | 176.82 | 176.65 |
| 24 | 176.56 | 176.51 | 176.54 | 176.71 | 176.72 | 176.95 | 176.96 | 176.86 | 176.78 | 176.71 | 176.85 | 176.61 |
| 25 | 176.48 | 176.54 | 176.52 | 176.69 | 176.68 | 176.91 | 176.96 | 176.87 | 176.82 | 176.79 | 176.82 | 176.59 |
| 26 | 176.49 | 176.56 | 176.51 | 176.70 | 176.73 | 176.86 | 176.89 | 176.89 | 176.82 | 176.79 | 176.80 | 176.58 |
| 27 | 176.52 | 176.51 | 176.52 | 176.70 | 176.77 | 176.90 | 176.90 | 176.86 | 176.80 | 176.71 | 176.72 | 176.59 |
| 28 | 176.56 | 176.47 | 176.51 | 176.68 | 176.77 | 176.92 | 176.90 | 176.84 | 176.77 | 176.65 | 176.69 | 176.54 |
| 29 | 176.43 | | 176.51 | 176.72 | 176.74 | 176.93 | 176.86 | 176.90 | 176.83 | 176.65 | 176.66 | 176.52 |
| 30 | 176.40 | | 176.52 | 176.70 | 176.81 | 176.96 | 176.86 | 176.90 | 176.80 | 176.74 | 176.68 | 176.47 |
| 31 | 176.46 | | 176.71 | | 176.81 | | 176.90 | 176.87 | | 176.79 | | 176.53 |
| Mean | 176.55 | 176.55 | 176.53 | 176.66 | 176.74 | 176.85 | 176.92 | 176.90 | 176.82 | 176.74 | 176.71 | 176.64 |
| Max. | 176.82 | 176.78 | 176.91 | 177.00 | 176.90 | 177.19 | 177.10 | 177.02 | 176.94 | 176.98 | 176.94 | 176.85 |
| Hr. | 1100 | 1100 | 2300 | 0700 | 2200 | 2000 | 0300 | 1100 | 0100 | 0300 | 0800 | 0700 |
| Day | 13 | 21 | 31 | 1 | 30 | 7 | 9 | 16 | 2 | 9 | 5 | 14 |
| Min. | 176.33 | 176.40 | 176.41 | 176.48 | 176.64 | 176.65 | 176.80 | 176.73 | 176.62 | 176.55 | 176.50 | 176.42 |
| Hr. | 0500 | 0400 | 1100 | 1300 | 2300 | 2400 | 0800 | 1200 | 0700 | 2400 | 1300 | 1800 |
| Day | 30 | 3 | 16 | 10 | 28 | 8 | 9 | 9 | 9 | 21 | 20 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.72

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7068 Kewaunee, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 176.95 18 Jul
Instant/hourly elevation: 177.15 0800/9 Jul

LOWEST

Monthly mean elevation: 176.49 Mar
Daily mean elevation: 176.42 17 Mar
Instant/hourly elevation: 176.35 0200/4 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.69 | 176.62 | 176.58 | 176.73 | 176.79 | 176.94 | 176.95 | 176.92 | 176.88 | 176.80 | 176.81 | 176.69 |
| Day | 13 | 12 | 31 | 20 | 30 | 30 | 18 | 21 | 2 | 8 | 5 | 16 |
| Min | 176.44 | 176.44 | 176.42 | 176.50 | 176.68 | 176.72 | 176.84 | 176.83 | 176.73 | 176.63 | 176.55 | 176.47 |
| Day | 31 | 18 | 17 | 4 | 16 | 1 | 30 | 28 | 10 | 22 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.90 | | | | | | 4 | 17 | 5 | | | | | 176.90 | 26 |
| 176.85 | | | | | | 10 | 12 | 22 | 4 | | | | 176.85 | 74 |
| 176.80 | | | | | | 8 | 2 | 4 | 14 | | 1 | | 176.80 | 103 |
| 176.75 | | | | | 6 | 5 | | | 11 | 6 | 5 | | 176.75 | 136 |
| 176.70 | | | | 2 | 18 | 3 | | | 1 | 14 | 5 | | 176.70 | 179 |
| 176.65 | 1 | | | 8 | 7 | | | | | 9 | 12 | 11 | 176.65 | 227 |
| 176.60 | 1 | 2 | | 6 | | | | | | 2 | 6 | 12 | 176.60 | 256 |
| 176.55 | 6 | 3 | 1 | 6 | | | | | | | | 1 | 176.55 | 273 |
| 176.50 | 7 | 6 | 6 | 6 | | | | | | | 1 | 2 | 176.50 | 301 |
| 176.45 | 11 | 15 | 22 | 2 | | | | | | | | 3 | 176.45 | 354 |
| 176.40 | 5 | 2 | 2 | | | | | | | | | | 176.40 | 363 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7068 Kewaunee, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1 | 176.44 | 176.50 | 176.48 | 176.66 | 176.70 | 176.72 | 176.92 | 176.90 | 176.88 | 176.73 | 176.72 | 176.69 |
| 2 | 176.49 | 176.49 | 176.48 | 176.56 | 176.76 | 176.75 | 176.94 | 176.88 | 176.88 | 176.70 | 176.70 | 176.67 |
| 3 | 176.56 | 176.44 | 176.51 | 176.50 | 176.73 | 176.75 | 176.90 | 176.89 | 176.85 | 176.72 | 176.67 | 176.64 |
| 4 | 176.48 | 176.47 | 176.53 | 176.50 | 176.73 | 176.76 | 176.95 | 176.87 | 176.83 | 176.69 | 176.73 | 176.68 |
| 5 | 176.52 | 176.47 | 176.52 | 176.53 | 176.73 | 176.78 | 176.94 | 176.88 | 176.82 | 176.72 | 176.81 | 176.68 |
| 6 | 176.50 | 176.57 | 176.49 | 176.54 | 176.68 | 176.76 | 176.90 | 176.92 | 176.86 | 176.74 | 176.75 | 176.67 |
| 7 | 176.47 | 176.53 | 176.50 | 176.54 | 176.75 | 176.84 | 176.88 | 176.91 | 176.83 | 176.75 | 176.68 | 176.64 |
| 8 | 176.53 | 176.51 | 176.48 | 176.60 | 176.76 | 176.90 | 176.90 | 176.90 | 176.84 | 176.80 | 176.65 | 176.68 |
| 9 | 176.58 | 176.55 | 176.48 | 176.55 | 176.75 | 176.84 | 176.94 | 176.90 | 176.76 | 176.77 | 176.69 | 176.64 |
| 10 | 176.59 | 176.50 | 176.50 | 176.51 | 176.74 | 176.79 | 176.89 | 176.90 | 176.73 | 176.73 | 176.69 | 176.64 |
| 11 | 176.56 | 176.61 | 176.50 | 176.58 | 176.70 | 176.81 | 176.94 | 176.88 | 176.77 | 176.70 | 176.70 | 176.63 |
| 12 | 176.60 | 176.62 | 176.49 | 176.58 | 176.68 | 176.82 | 176.89 | 176.88 | 176.82 | 176.67 | 176.70 | 176.66 |
| 13 | 176.69 | 176.52 | 176.48 | 176.55 | 176.72 | 176.84 | 176.91 | 176.89 | 176.79 | 176.72 | 176.76 | 176.64 |
| 14 | 176.62 | 176.49 | 176.47 | 176.61 | 176.73 | 176.84 | 176.93 | 176.89 | 176.77 | 176.70 | 176.68 | 176.68 |
| 15 | 176.55 | 176.49 | 176.47 | 176.70 | 176.71 | 176.78 | 176.88 | 176.92 | 176.80 | 176.72 | 176.71 | 176.68 |
| 16 | 176.48 | 176.51 | 176.47 | 176.70 | 176.68 | 176.82 | 176.90 | 176.91 | 176.85 | 176.74 | 176.65 | 176.69 |
| 17 | 176.44 | 176.47 | 176.42 | 176.60 | 176.72 | 176.86 | 176.94 | 176.89 | 176.81 | 176.74 | 176.64 | 176.68 |
| 18 | 176.48 | 176.44 | 176.48 | 176.60 | 176.72 | 176.85 | 176.95 | 176.90 | 176.80 | 176.73 | 176.69 | 176.65 |
| 19 | 176.47 | 176.49 | 176.50 | 176.65 | 176.70 | 176.87 | 176.94 | 176.90 | 176.82 | 176.78 | 176.62 | 176.63 |
| 20 | 176.50 | 176.53 | 176.48 | 176.73 | 176.71 | 176.92 | 176.89 | 176.87 | 176.87 | 176.76 | 176.55 | 176.64 |
| 21 | 176.60 | 176.57 | 176.45 | 176.65 | 176.72 | 176.87 | 176.90 | 176.92 | 176.85 | 176.68 | 176.64 | 176.64 |
| 22 | 176.55 | 176.56 | 176.48 | 176.63 | 176.73 | 176.86 | 176.91 | 176.90 | 176.82 | 176.63 | 176.67 | 176.62 |
| 23 | 176.54 | 176.50 | 176.55 | 176.64 | 176.76 | 176.91 | 176.92 | 176.89 | 176.77 | 176.74 | 176.78 | 176.65 |
| 24 | 176.52 | 176.48 | 176.52 | 176.72 | 176.75 | 176.94 | 176.94 | 176.85 | 176.78 | 176.70 | 176.77 | 176.59 |
| 25 | 176.47 | 176.50 | 176.49 | 176.65 | 176.69 | 176.90 | 176.94 | 176.85 | 176.79 | 176.79 | 176.79 | 176.55 |
| 26 | 176.51 | 176.50 | 176.49 | 176.67 | 176.72 | 176.88 | 176.89 | 176.88 | 176.82 | 176.78 | 176.80 | / |
| 27 | 176.49 | 176.50 | 176.49 | 176.70 | 176.76 | 176.89 | 176.88 | 176.86 | 176.78 | 176.71 | 176.72 | / |
| 28 | 176.50 | 176.50 | 176.48 | 176.68 | 176.75 | 176.87 | 176.92 | 176.83 | 176.77 | 176.68 | 176.67 | 176.48* |
| 29 | 176.44 | | 176.48 | 176.68 | 176.71 | 176.90 | 176.85 | 176.88 | 176.81 | 176.65 | 176.65 | 176.47 |
| 30 | 176.44 | | 176.51 | 176.68 | 176.79 | 176.94 | 176.84 | 176.90 | 176.83 | 176.67 | 176.68 | 176.47 |
| 31 | 176.44 | | 176.58 | | 176.78 | | 176.91 | 176.85 | | 176.75 | | 176.52 |
| Mean | 176.52 | 176.51 | 176.49 | 176.62 | 176.73 | 176.84 | 176.91 | 176.89 | 176.81 | 176.72 | 176.70 | 176.63 |
| Max. | 176.73 | 176.67 | 176.70 | 176.81 | 176.88 | 177.08 | 177.15 | 177.03 | 176.93 | 176.87 | 176.93 | 176.76 |
| Hr. | 0500 | 1900 | 2400 | 0700 | 0100 | 1000 | 0800 | 2100 | 0200 | 0200 | 1200 | 0200 |
| Day | 13 | 11 | 31 | 16 | 28 | 8 | 9 | 15 | 12 | 21 | 23 | 2 |
| Min. | 176.35 | 176.40 | 176.36 | 176.41 | 176.59 | 176.69 | 176.75 | 176.72 | 176.63 | 176.54 | 176.48 | 176.37 |
| Hr. | 0200 | 0800 | 0500 | 1700 | 1100 | 0800 | 1000 | 0600 | 2400 | 2200 | 0600 | 0900 |
| Day | 4 | 18 | 17 | 4 | 29 | 4 | 25 | 28 | 9 | 21 | 17 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.70

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7072 Sturgeon Bay Canal, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 176.96 18 Jul
Instant/hourly elevation: 177.51 0600/22 Jul

LOWEST

Monthly mean elevation: 176.49 Mar
Daily mean elevation: 176.42 17 Mar
Instant/hourly elevation: 176.30 1700/17 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.68 | 176.61 | 176.57 | 176.73 | 176.79 | 176.92 | 176.96 | 176.93 | 176.88 | 176.80 | 176.82 | 176.69 |
| Day | 13     | 12     | 31     | 24     | 31     | 30     | 18     | 6      | 20     | 26     | 26     | 16     |
| Min | 176.43 | 176.43 | 176.42 | 176.50 | 176.67 | 176.72 | 176.86 | 176.83 | 176.73 | 176.63 | 176.54 | 176.47 |
| Day | 29     | 18     | 17     | 3      | 6      | 1      | 29     | 24     | 10     | 22     | 20     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | 1 | | | | | | 176.95 | 1 |
| 176.90 | | | | | | 4 | 19 | 7 | | | | | 176.90 | 31 |
| 176.85 | | | | | | 9 | 11 | 20 | 5 | | | | 176.85 | 76 |
| 176.80 | | | | | | 7 | | 4 | 14 | | 2 | | 176.80 | 103 |
| 176.75 | | | | | 6 | 7 | | | 9 | 9 | 3 | | 176.75 | 137 |
| 176.70 | | | | 2 | 16 | 3 | | | 2 | 12 | 6 | | 176.70 | 178 |
| 176.65 | 1 | | | 6 | 9 | | | | | 8 | 12 | 10 | 176.65 | 224 |
| 176.60 | 1 | 1 | | 7 | | | | | | 2 | 6 | 13 | 176.60 | 254 |
| 176.55 | 8 | 2 | 1 | 8 | | | | | | | | 1 | 176.55 | 274 |
| 176.50 | 8 | 6 | 4 | 6 | | | | | | | 1 | 5 | 176.50 | 304 |
| 176.45 | 8 | 16 | 22 | 1 | | | | | | | | 2 | 176.45 | 353 |
| 176.40 | 5 | 3 | 4 | | | | | | | | | | 176.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7072 Sturgeon Bay Canal, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 176.44 | 176.50 | 176.44 | 176.64 | 176.70 | 176.72 | 176.92 | 176.92 | 176.88 | 176.74 | 176.72 | 176.68 |
| 2 | 176.49 | 176.51 | 176.45 | 176.56 | 176.76 | 176.75 | 176.91 | 176.92 | 176.87 | 176.71 | 176.70 | 176.67 |
| 3 | 176.56 | 176.44 | 176.49 | 176.50 | 176.73 | 176.75 | 176.89 | 176.89 | 176.85 | 176.72 | 176.67 | 176.64 |
| 4 | 176.50 | 176.48 | 176.52 | 176.51 | 176.73 | 176.76 | 176.93 | 176.88 | 176.82 | 176.70 | 176.74 | 176.68 |
| 5 | 176.54 | 176.47 | 176.52 | 176.53 | 176.71 | 176.76 | 176.92 | 176.88 | 176.84 | 176.72 | 176.82 | 176.68 |
| 6 | 176.51 | 176.57 | 176.48 | 176.54 | 176.67 | 176.76 | 176.88 | 176.93 | 176.86 | 176.76 | 176.75 | 176.67 |
| 7 | 176.46 | 176.54 | 176.50 | 176.54 | 176.75 | 176.77 | 176.89 | 176.91 | 176.84 | 176.76 | 176.66 | 176.64 |
| 8 | 176.52 | 176.49 | 176.49 | 176.60 | 176.74 | 176.85 | 176.92 | 176.90 | 176.84 | 176.80 | 176.64 | 176.68 |
| 9 | 176.57 | 176.55 | 176.46 | 176.56 | 176.74 | 176.80 | 176.93 | 176.90 | 176.74 | 176.77 | 176.69 | 176.64 |
| 10 | 176.58 | 176.49 | 176.49 | 176.51 | 176.73 | 176.78 | 176.89 | 176.89 | 176.73 | 176.72 | 176.69 | 176.62 |
| 11 | 176.57 | 176.60 | 176.49 | 176.57 | 176.70 | 176.81 | 176.93 | 176.88 | 176.77 | 176.69 | 176.70 | 176.63 |
| 12 | 176.59 | 176.61 | 176.49 | 176.58 | 176.68 | 176.82 | 176.90 | 176.90 | 176.81 | 176.66 | 176.70 | 176.64 |
| 13 | 176.68 | 176.52 | 176.45 | 176.54 | 176.72 | 176.83 | 176.92 | 176.90 | 176.80 | 176.72 | 176.76 | 176.63 |
| 14 | 176.62 | 176.49 | 176.47 | 176.59 | 176.72 | 176.84 | 176.94 | 176.89 | 176.77 | 176.70 | 176.68 | 176.69 |
| 15 | 176.56 | 176.49 | 176.47 | 176.68 | 176.71 | 176.79 | 176.90 | 176.90 | 176.82 | 176.73 | 176.72 | 176.68 |
| 16 | 176.50 | 176.50 | 176.47 | 176.69 | 176.68 | 176.81 | 176.91 | 176.91 | 176.85 | 176.76 | 176.64 | 176.69 |
| 17 | 176.44 | 176.48 | 176.42 | 176.60 | 176.71 | 176.86 | 176.94 | 176.89 | 176.81 | 176.75 | 176.64 | 176.68 |
| 18 | 176.48 | 176.43 | 176.48 | 176.60 | 176.72 | 176.83 | 176.96 | 176.89 | 176.81 | 176.73 | 176.69 | 176.65 |
| 19 | 176.48 | 176.46 | 176.50 | 176.63 | 176.69 | 176.88 | 176.94 | 176.90 | 176.83 | 176.76 | 176.61 | 176.63 |
| 20 | 176.51 | 176.50 | 176.48 | 176.71 | 176.70 | 176.92 | 176.89 | 176.87 | 176.88 | 176.78 | 176.54 | 176.64 |
| 21 | 176.60 | 176.54 | 176.46 | 176.65 | 176.72 | 176.87 | 176.90 | 176.92 | 176.86 | 176.67 | 176.64 | 176.65 |
| 22 | 176.56 | 176.53 | 176.48 | 176.63 | 176.73 | 176.86 | 176.92 | 176.88 | 176.83 | 176.63 | 176.68 | 176.64 |
| 23 | 176.55 | 176.48 | 176.55 | 176.64 | 176.77 | 176.91 | 176.91 | 176.90 | 176.78 | 176.75 | 176.78 | 176.65 |
| 24 | 176.52 | 176.46 | 176.52 | 176.73 | 176.75 | 176.92 | 176.94 | 176.83 | 176.78 | 176.70 | 176.75 | 176.59 |
| 25 | 176.48 | 176.46 | 176.49 | 176.65 | 176.69 | 176.90 | 176.95 | 176.85 | 176.78 | 176.80 | 176.79 | 176.55 |
| 26 | 176.52 | 176.46 | 176.49 | 176.65 | 176.71 | 176.87 | 176.91 | 176.89 | 176.83 | 176.80 | 176.82 | 176.54 |
| 27 | 176.49 | 176.45 | 176.49 | 176.67 | 176.76 | 176.89 | 176.89 | 176.87 | 176.80 | 176.72 | 176.72 | 176.54 |
| 28 | 176.51 | 176.46 | 176.47 | 176.68 | 176.76 | 176.87 | 176.94 | 176.84 | 176.77 | 176.68 | 176.68 | 176.52 |
| 29 | 176.43 | | 176.49 | 176.69 | 176.70 | 176.88 | 176.86 | 176.87 | 176.82 | 176.64 | 176.65 | 176.47 |
| 30 | 176.45 | | 176.50 | 176.69 | 176.77 | 176.92 | 176.87 | 176.91 | 176.80 | 176.67 | 176.68 | 176.48 |
| 31 | 176.44 | | 176.57 | | 176.79 | | 176.91 | 176.85 | | 176.75 | | 176.52 |
| Mean | 176.52 | 176.50 | 176.49 | 176.61 | 176.72 | 176.83 | 176.91 | 176.89 | 176.82 | 176.73 | 176.70 | 176.62 |
| Max. | 176.73 | 176.75 | 176.65 | 176.84 | 176.87 | 177.01 | 177.51 | 177.02 | 176.93 | 176.87 | 176.93 | 176.75 |
| Hr. | 1200 | 2000 | 1700 | 2400 | 2300 | 2100 | 0600 | 1500 | 0900 | 0200 | 1400 | 0900 |
| Day | 13 | 7 | 31 | 15 | 27 | 8 | 22 | 2 | 2 | 26 | 26 | 14 |
| Min. | 176.36 | 176.41 | 176.30 | 176.46 | 176.62 | 176.66 | 176.81 | 176.76 | 176.67 | 176.56 | 176.50 | 176.37 |
| Hr. | 0200 | 0100 | 1700 | 1300 | 1400 | 2100 | 2000 | 0700 | 2000 | 0400 | 1400 | 2200 |
| Day | 30 | 19 | 17 | 4 | 6 | 7 | 29 | 24 | 14 | 22 | 20 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.70

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 908-7079 Green Bay, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 177.18 15 Apr
Instant/hourly elevation: 177.74 1900/15 Apr

LOWEST

Monthly mean elevation: 176.50 Mar
Daily mean elevation: 176.40 29 Jan
Instant/hourly elevation: 176.11 0700/17 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.67 | 176.62 | 176.80 | 177.18 | 176.91 | 176.97 | 177.00 | 176.99 | 176.92 | 176.97 | 177.08 | 176.80 |
| Day | 13     | 12     | 31     | 15     | 30     | 30     | 18     | 6      | 20     | 8      | 5      | 14     |
| Min | 176.40 | 176.44 | 176.44 | 176.50 | 176.67 | 176.69 | 176.82 | 176.84 | 176.63 | 176.50 | 176.47 | 176.43 |
| Day | 29     | 3      | 17     | 3      | 25     | 1      | 6      | 28     | 9      | 21     | 20     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 177.15 | | | | 1 | | | | | | | | | 177.15 | 1 |
| 177.10 | | | | | | | | | | | | | 177.10 | 1 |
| 177.05 | | | | | | | | | | | 1 | | 177.05 | 2 |
| 177.00 | | | | | | | | | | | | | 177.00 | 2 |
| 176.95 | | | | | | 1 | 2 | 1 | | 1 | 2 | | 176.95 | 9 |
| 176.90 | | | | 2 | 1 | 5 | 15 | 11 | 1 | | | | 176.90 | 44 |
| 176.85 | | | | 1 | 1 | 9 | 12 | 15 | 6 | 1 | | | 176.85 | 89 |
| 176.80 | | | | | 1 | 5 | 2 | 4 | 9 | 4 | 3 | | 176.80 | 117 |
| 176.75 | | | 1 | 1 | 8 | 7 | | | 9 | 6 | 2 | 2 | 176.75 | 153 |
| 176.70 | | | | 5 | 10 | 2 | | | 3 | 6 | 4 | 1 | 176.70 | 184 |
| 176.65 | 1 | | | 3 | 10 | 1 | | | 1 | 4 | 7 | 8 | 176.65 | 219 |
| 176.60 | 2 | 2 | | 6 | | | | | 1 | 5 | 5 | 10 | 176.60 | 250 |
| 176.55 | 7 | 1 | 1 | 5 | | | | | | 2 | 2 | 3 | 176.55 | 271 |
| 176.50 | 10 | 10 | 7 | 5 | | | | | | 1 | 2 | 5 | 176.50 | 311 |
| 176.45 | 7 | 13 | 19 | 1 | | | | | | 1 | 2 | | 176.45 | 354 |
| 176.40 | 2 | 2 | 3 | | | | | | | | | 2 | 176.40 | 363 |
| 176.35 | 2 | | | | | | | | | | | | 176.35 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7079 Green Bay, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 176.40 | 176.50 | 176.49 | 176.78 | 176.78 | 176.69 | 176.95 | 176.90 | 176.84 | 176.64 | 176.69 | 176.66 |
| 2 | 176.49 | 176.49 | 176.50 | 176.57 | 176.77 | 176.72 | 176.93 | 176.86 | 176.84 | 176.63 | 176.60 | 176.63 |
| 3 | 176.58 | 176.44 | 176.51 | 176.50 | 176.76 | 176.77 | 176.92 | 176.88 | 176.88 | 176.65 | 176.61 | 176.63 |
| 4 | 176.53 | 176.48 | 176.51 | 176.51 | 176.75 | 176.78 | 176.90 | 176.87 | 176.79 | 176.74 | 176.81 | 176.70 |
| 5 | 176.53 | 176.48 | 176.51 | 176.56 | 176.72 | 176.76 | 176.93 | 176.85 | 176.86 | 176.71 | 177.08 | 176.67 |
| 6 | 176.48 | 176.59 | 176.49 | 176.55 | 176.70 | 176.75 | 176.82 | 176.99 | 176.84 | 176.67 | 176.72 | 176.68 |
| 7 | 176.46 | 176.54 | 176.51 | 176.55 | 176.76 | 176.86 | 176.90 | 176.94 | 176.84 | 176.85 | 176.51 | 176.64 |
| 8 | 176.53 | 176.49 | 176.49 | 176.62 | 176.74 | 176.88 | 176.92 | 176.89 | 176.80 | 176.97 | 176.63 | 176.66 |
| 9 | 176.56 | 176.55 | 176.47 | 176.52 | 176.75 | 176.80 | 176.94 | 176.85 | 176.63 | 176.87 | 176.66 | 176.61 |
| 10 | 176.58 | 176.51 | 176.51 | 176.52 | 176.77 | 176.79 | 176.90 | 176.91 | 176.69 | 176.64 | 176.69 | 176.70 |
| 11 | 176.56 | 176.62 | 176.48 | 176.75 | 176.69 | 176.82 | 176.91 | 176.90 | 176.73 | 176.58 | 176.71 | 176.63 |
| 12 | 176.60 | 176.62 | 176.50 | 176.62 | 176.86 | 176.83 | 176.89 | 176.91 | 176.80 | 176.72 | 176.72 | 176.59 |
| 13 | 176.67 | 176.51 | 176.45 | 176.58 | 176.70 | 176.83 | 176.93 | 176.93 | 176.75 | 176.71 | 176.72 | 176.64 |
| 14 | 176.62 | 176.48 | 176.45 | 176.75 | 176.67 | 176.81 | 176.95 | 176.92 | 176.85 | 176.66 | 176.77 | 176.80 |
| 15 | 176.55 | 176.49 | 176.46 | 177.18 | 176.73 | 176.80 | 176.90 | 176.94 | 176.88 | 176.78 | 176.68 | 176.79 |
| 16 | 176.51 | 176.49 | 176.46 | 176.87 | 176.69 | 176.83 | 176.92 | 176.92 | 176.83 | 176.81 | 176.50 | 176.72 |
| 17 | 176.42 | 176.47 | 176.44 | 176.58 | 176.70 | 176.92 | 176.96 | 176.91 | 176.80 | 176.80 | 176.65 | 176.68 |
| 18 | 176.49 | 176.45 | 176.48 | 176.58 | 176.75 | 176.90 | 177.00 | 176.90 | 176.87 | 176.75 | 176.62 | 176.65 |
| 19 | 176.48 | 176.49 | 176.52 | 176.93 | 176.70 | 176.94 | 176.94 | 176.89 | 176.88 | 176.76 | 176.51 | 176.59 |
| 20 | 176.51 | 176.53 | 176.50 | 176.95 | 176.70 | 176.90 | 176.90 | 176.94 | 176.92 | 176.79 | 176.47 | 176.64 |
| 21 | 176.62 | 176.55 | 176.47 | 176.65 | 176.72 | 176.88 | 176.90 | 176.92 | 176.89 | 176.50 | 176.58 | 176.64 |
| 22 | 176.57 | 176.52 | 176.50 | 176.64 | 176.73 | 176.88 | 176.91 | 176.86 | 176.80 | 176.62 | 176.82 | 176.69 |
| 23 | 176.57 | 176.48 | 176.58 | 176.65 | 176.77 | 176.90 | 176.93 | 176.86 | 176.77 | 176.69 | 176.96 | 176.61 |
| 24 | 176.51 | 176.47 | 176.52 | 176.68 | 176.68 | 176.91 | 176.95 | 176.86 | 176.76 | 176.72 | 177.00 | 176.57 |
| 25 | 176.46 | 176.50 | 176.48 | 176.71 | 176.67 | 176.90 | 176.95 | 176.86 | 176.82 | 176.83 | 176.83 | 176.52 |
| 26 | 176.52 | 176.51 | 176.50 | 176.71 | 176.73 | 176.79 | 176.84 | 176.89 | 176.81 | 176.79 | 176.79 | 176.51 |
| 27 | 176.52 | 176.51 | 176.49 | 176.61 | 176.76 | 176.90 | 176.88 | 176.85 | 176.78 | 176.68 | 176.69 | 176.52 |
| 28 | 176.51 | 176.52 | 176.48 | 176.66 | 176.80 | 176.91 | 176.87 | 176.84 | 176.79 | 176.55 | 176.68 | 176.51 |
| 29 | 176.40 | | 176.50 | 176.75 | 176.72 | 176.94 | 176.88 | 176.88 | 176.83 | 176.58 | 176.66 | 176.43 |
| 30 | 176.46 | | 176.50 | 176.70 | 176.91 | 176.97 | 176.86 | 176.91 | 176.73 | 176.78 | 176.64 | 176.45 |
| 31 | 176.43 | | 176.80 | | 176.81 | | 176.88 | 176.88 | | 176.81 | | 176.52 |
| Mean | 176.52 | 176.51 | 176.50 | 176.67 | 176.74 | 176.85 | 176.91 | 176.89 | 176.81 | 176.72 | 176.70 | 176.62 |
| Max.
Hr.
Day | 176.83
0100
27 | 176.76
0300
12 | 177.02
2300
31 | 177.74
1900
15 | 177.26
2000
30 | 177.48
1800
8 | 177.22
1300
5 | 177.16
1900
6 | 177.25
0700
15 | 177.11
0500
4 | 177.51
0100
5 | 176.97
2200
14 |
| Min.
Hr.
Day | 176.13
0600
27 | 176.25
0300
8 | 176.11
0700
17 | 176.34
0400
10 | 176.45
1000
16 | 176.52
0800
9 | 176.66
1400
6 | 176.56
0800
24 | 176.31
0700
9 | 176.15
0800
21 | 176.27
0100
20 | 176.20
1300
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.70

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 908-7096 Port Inland, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 176.91 Jul
Daily mean elevation: 176.97 28 Jul
Instant/hourly elevation: 177.09 0800/9 Sep

LOWEST

Monthly mean elevation: 176.48 Feb
Daily mean elevation: 176.42 6 Feb
Instant/hourly elevation: 176.37 1800/5 Feb

----- Extreme Daily Means by Month -----

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 176.51 | 176.53 | 176.54 | 176.66 | 176.77 | 176.92 | 176.97 | 176.93 | 176.90 | 176.84 | 176.82 | 176.72 |
| Day | 10 | 2 | 29 | 24 | 24 | 25 | 28 | 30 | 2 | 1 | 26 | 2 |
| Min | 176.46 | 176.42 | 176.44 | 176.49 | 176.63 | 176.71 | 176.82 | 176.81 | 176.73 | 176.64 | 176.57 | 176.52 |
| Day | 7 | 6 | 31 | 10 | 12 | 1 | 30 | 20 | 28 | 30 | 20 | 11 |

----- Frequency Distribution of Daily Mean Levels -----

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 176.95 | | | | | | | 3 | | | | | | 176.95 | 3 |
| 176.90 | | | | | | 2 | 11 | 3 | | | | | 176.90 | 19 |
| 176.85 | | | | | | 9 | 15 | 22 | 8 | | | | 176.85 | 73 |
| 176.80 | | | | | | 6 | 2 | 6 | 11 | 4 | 2 | | 176.80 | 104 |
| 176.75 | | | | | 1 | 8 | | | 9 | 8 | 2 | | 176.75 | 132 |
| 176.70 | | | | | 10 | 5 | | | 2 | 11 | 11 | 2 | 176.70 | 173 |
| 176.65 | | | | 1 | 17 | | | | | 5 | 9 | 5 | 176.65 | 210 |
| 176.60 | | | | 5 | 1 | | | | | 3 | 5 | 12 | 176.60 | 236 |
| 176.55 | | | | 5 | | | | | | | 1 | 5 | 176.55 | 247 |
| 176.50 | 2 | 1 | 6 | 9 | | | | | | | | 7 | 176.50 | 272 |
| 176.45 | 3 | 3 | 1 | 4 | | | | | | | | | 176.45 | 283 |
| 176.40 | | 2 | 1 | | | | | | | | | | 176.40 | 286 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 908-7096 Port Inland, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|---------|
| 1 | / | 176.50* | / | 176.52 | / | 176.71 | 176.90 | 176.92 | 176.87 | 176.84 | 176.70 | 176.72 |
| 2 | / | 176.53 | / | 176.53 | / | 176.74 | 176.90 | 176.89 | 176.90 | 176.73 | 176.78 | 176.72 |
| 3 | / | 176.50* | / | 176.50 | 176.68* | 176.73 | 176.87 | 176.87 | 176.83 | 176.78 | 176.71 | 176.64 |
| 4 | / | 176.50 | / | 176.50 | 176.69 | 176.73 | 176.94 | 176.85 | 176.85 | 176.68 | 176.71 | 176.66 |
| 5 | / | 176.44 | / | 176.52 | 176.69 | 176.76 | 176.94 | 176.87 | 176.81 | 176.75 | 176.71 | 176.68 |
| 6 | 176.50* | 176.42* | / | 176.53 | 176.66 | 176.74 | 176.94 | 176.89 | 176.85 | 176.82 | 176.70 | 176.66 |
| 7 | 176.46 | / | / | 176.51 | 176.71 | 176.79 | 176.90 | 176.87 | 176.82* | 176.76 | 176.73 | 176.62 |
| 8 | 176.49 | / | / | 176.56 | 176.72 | 176.86 | 176.93 | 176.88 | 176.86* | 176.75 | 176.67 | 176.70 |
| 9 | 176.51 | / | / | 176.59 | 176.72 | 176.88 | 176.95 | 176.91 | 176.86 | 176.68 | 176.71 | 176.68 |
| 10 | 176.51* | / | / | 176.49 | 176.71 | 176.76 | 176.91 | 176.88 | 176.73 | 176.74 | 176.68 | 176.64* |
| 11 | / | / | / | 176.51 | 176.67 | 176.78 | 176.94 | 176.87 | 176.79 | 176.81 | 176.70 | 176.52* |
| 12 | / | / | / | 176.53 | 176.63 | 176.78 | 176.91 | 176.88 | 176.86 | 176.64 | 176.68 | 176.61 |
| 13 | / | / | / | 176.51 | 176.69 | 176.80 | 176.90 | 176.88 | 176.88 | 176.74 | 176.82 | 176.58 |
| 14 | / | / | / | 176.51 | 176.72 | 176.85 | 176.90 | 176.86 | 176.79 | 176.76 | 176.65 | 176.63 |
| 15 | / | / | / | 176.50 | 176.69 | 176.76 | 176.88 | 176.88 | 176.80 | 176.72 | 176.71 | 176.60 |
| 16 | / | / | / | 176.62 | 176.67 | 176.80 | 176.89 | 176.90 | 176.87 | 176.74 | 176.72 | 176.63 |
| 17 | / | / | / | 176.56 | 176.70 | 176.84 | 176.92 | 176.86 | 176.83 | 176.70 | 176.63 | 176.65 |
| 18 | / | / | / | 176.60 | 176.70 | 176.82 | 176.94 | 176.86 | 176.79 | 176.71 | 176.76 | 176.64 |
| 19 | / | / | / | 176.56 | 176.68 | 176.81 | 176.94 | 176.89 | 176.81 | 176.77 | 176.68 | 176.63 |
| 20 | / | / | / | 176.63 | 176.68 | 176.90 | 176.87 | 176.81 | 176.85 | 176.76 | 176.57 | 176.63 |
| 21 | / | / | / | 176.63 | 176.70 | 176.85 | 176.86 | 176.86 | 176.84 | 176.75 | 176.71 | 176.61 |
| 22 | / | / | / | 176.61 | 176.69 | 176.82 | 176.87 | 176.85 | 176.84 | 176.64 | 176.64 | 176.57 |
| 23 | / | / | / | 176.62 | 176.74 | 176.88 | 176.88 | 176.90 | 176.77 | 176.80 | 176.72 | 176.63* |
| 24 | / | / | 176.54* | 176.66* | 176.77 | 176.91 | 176.90 | 176.89 | 176.80 | 176.71 | 176.65 | 176.59 |
| 25 | / | / | 176.54 | / | 176.67 | 176.92 | 176.97 | 176.85 | 176.78 | 176.81 | 176.74 | 176.53 |
| 26 | / | / | 176.54 | / | 176.70 | 176.88 | 176.96 | 176.88 | 176.84 | 176.79 | 176.82 | 176.55 |
| 27 | / | / | 176.53 | / | 176.73 | 176.88 | 176.88 | 176.86 | 176.77 | 176.71 | 176.73 | 176.55 |
| 28 | / | / | 176.54 | / | 176.74 | 176.87 | 176.97 | 176.83 | 176.73 | 176.80 | 176.67 | 176.56 |
| 29 | / | / | 176.54* | / | 176.68 | 176.87 | 176.83 | 176.87 | 176.79 | 176.69 | 176.63 | 176.54 |
| 30 | / | / | 176.48* | / | 176.71 | 176.89 | 176.82 | 176.93 | 176.89 | 176.64 | 176.70 | 176.55 |
| 31 | / | / | 176.44 | / | 176.74 | / | 176.90 | 176.84 | / | 176.70 | / | 176.54 |
| Mean | 176.49 | 176.48 | 176.52 | 176.55 | 176.70 | 176.82 | 176.91 | 176.87 | 176.82 | 176.74 | 176.70 | 176.62 |
| Max. | 176.56 | 176.54 | 176.59 | 176.77 | 176.91 | 177.01 | 177.09 | 177.04 | 177.09 | 177.05 | 176.99 | 176.81 |
| Hr. | 2100 | 2000 | 1500 | 1300 | 2400 | 0800 | 0200 | 0100 | 0800 | 0400 | 1900 | 2200 |
| Day | 8 | 4 | 26 | 24 | 27 | 20 | 6 | 24 | 9 | 1 | 26 | 1 |
| Min. | 176.41 | 176.37 | 176.39 | 176.39 | 176.54 | 176.67 | 176.75 | 176.74 | 176.65 | 176.53 | 176.44 | 176.39 |
| Hr. | 0100 | 1800 | 1400 | 1100 | 1500 | 1900 | 2200 | 2000 | 2400 | 0600 | 0800 | 0300 |
| Day | 7 | 5 | 31 | 15 | 12 | 1 | 29 | 20 | 14 | 22 | 20 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 176.69

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 909-9004 Point Iroquois, Michigan on Lake Superior (Whitefish Bay)

HIGHEST

Monthly mean elevation: 183.63 Sep
Daily mean elevation: 183.78 21 Oct
Instant/hourly elevation: 184.01 1100/21 Oct

LOWEST

Monthly mean elevation: 183.24 Apr
Daily mean elevation: 183.16 8 Apr
Instant/hourly elevation: 183.06 1200/24 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.56 | 183.43 | 183.31 | 183.33 | 183.49 | 183.53 | 183.69 | 183.66 | 183.74 | 183.78 | 183.64 | 183.58 |
| Day | 1 | 3 | 16 | 25 | 31 | 28 | 29 | 31 | 10 | 21 | 19 | 29 |
| Min | 183.33 | 183.24 | 183.18 | 183.16 | 183.27 | 183.39 | 183.43 | 183.54 | 183.51 | 183.46 | 183.38 | 183.39 |
| Day | 21 | 28 | 19 | 8 | 2 | 8 | 4 | 23 | 30 | 25 | 26 | 12 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.75 | | | | | | | | | | 1 | | | 183.75 | 1 |
| 183.70 | | | | | | | | | 2 | | | | 183.70 | 3 |
| 183.65 | | | | | | | 1 | 2 | 7 | 3 | | | 183.65 | 16 |
| 183.60 | | | | | | | 1 | 18 | 13 | 9 | 2 | | 183.60 | 59 |
| 183.55 | 1 | | | | | | 14 | 10 | 7 | 13 | 6 | 3 | 183.55 | 113 |
| 183.50 | 1 | | | | | 4 | 8 | 1 | 1 | 4 | 10 | 2 | 183.50 | 144 |
| 183.45 | 7 | | | | 2 | 13 | 6 | | | 1 | 8 | 13 | 183.45 | 194 |
| 183.40 | 10 | 1 | | | 6 | 12 | 1 | | | | 3 | 10 | 183.40 | 237 |
| 183.35 | 10 | 6 | | | 12 | 1 | | | | | 1 | 3 | 183.35 | 270 |
| 183.30 | 2 | 11 | 1 | 2 | 8 | | | | | | | | 183.30 | 294 |
| 183.25 | | 8 | 14 | 6 | 3 | | | | | | | | 183.25 | 325 |
| 183.20 | | 2 | 11 | 17 | | | | | | | | | 183.20 | 355 |
| 183.15 | | | 5 | 5 | | | | | | | | | 183.15 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 909-9004 Point Iroquois, Michigan on Lake Superior (Whitefish Bay)

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 183.56 | 183.37 | 183.26 | 183.22 | 183.29 | 183.46 | 183.49 | 183.60 | 183.61 | 183.64 | 183.55 | 183.39 |
| 2 | 183.39 | 183.37 | 183.28 | 183.23 | 183.27 | 183.46 | 183.49 | 183.61 | 183.60 | 183.68 | 183.50 | 183.49 |
| 3 | 183.42 | 183.43 | 183.26 | 183.24 | 183.33 | 183.46 | 183.50 | 183.64 | 183.67 | 183.65 | 183.55 | 183.50 |
| 4 | 183.48 | 183.38 | 183.26 | 183.22 | 183.34 | 183.44 | 183.43 | 183.64 | 183.65 | 183.69 | 183.52 | 183.48 |
| 5 | 183.45 | 183.39 | 183.28 | 183.21 | 183.36 | 183.43 | 183.47 | 183.60 | 183.64 | 183.62 | 183.59 | 183.44 |
| 6 | 183.48 | 183.30 | 183.26 | 183.20 | 183.35 | 183.43 | 183.49 | 183.62 | 183.64 | 183.56 | 183.56 | 183.55 |
| 7 | 183.46 | 183.38 | 183.24 | 183.19 | 183.31 | 183.44 | 183.52 | 183.61 | 183.62 | 183.59 | 183.54 | 183.48 |
| 8 | 183.46 | 183.33 | 183.30 | 183.16 | 183.29 | 183.39 | 183.53 | 183.58 | 183.60 | 183.62 | 183.56 | 183.45 |
| 9 | 183.43 | 183.31 | 183.25 | 183.22 | 183.31 | 183.44 | 183.53 | 183.56 | 183.66 | 183.65 | 183.55 | 183.46 |
| 10 | 183.42 | 183.36 | 183.27 | 183.26 | 183.36 | 183.47 | 183.54 | 183.61 | 183.74 | 183.57 | 183.54 | 183.58 |
| 11 | 183.41 | 183.29 | 183.28 | 183.24 | 183.38 | 183.44 | 183.55 | 183.61 | 183.63 | 183.57 | 183.56 | 183.48 |
| 12 | 183.39 | 183.32 | 183.27 | 183.24 | 183.42 | 183.44 | 183.56 | 183.60 | 183.57 | 183.67 | 183.50 | 183.39 |
| 13 | 183.40 | 183.34 | 183.28 | 183.24 | 183.36 | 183.42 | 183.56 | 183.63 | 183.61 | 183.58 | 183.49 | 183.40 |
| 14 | 183.39 | 183.35 | 183.26 | 183.23 | 183.37 | 183.45 | 183.57 | 183.62 | 183.71 | 183.56 | 183.56 | 183.45 |
| 15 | 183.40 | 183.34 | 183.20 | 183.24 | 183.40 | 183.52 | 183.57 | 183.60 | 183.66 | 183.57 | 183.54 | 183.47 |
| 16 | 183.41 | 183.34 | 183.31 | 183.28 | 183.39 | 183.44 | 183.56 | 183.62 | 183.59 | 183.60 | 183.50 | 183.44 |
| 17 | 183.51 | 183.35 | 183.26 | 183.26 | 183.36 | 183.47 | 183.52 | 183.62 | 183.64 | 183.60 | 183.56 | 183.42 |
| 18 | 183.45 | 183.34 | 183.21 | 183.22 | 183.38 | 183.49 | 183.54 | 183.60 | 183.68 | 183.56 | 183.45 | 183.45 |
| 19 | 183.42 | 183.30 | 183.18 | 183.25 | 183.39 | 183.47 | 183.56 | 183.61 | 183.63 | 183.55 | 183.64 | 183.45 |
| 20 | 183.37 | 183.29 | 183.24 | 183.27 | 183.37 | 183.47 | 183.60 | 183.66 | 183.58 | 183.51 | 183.61 | 183.47 |
| 21 | 183.33 | 183.28 | 183.26 | 183.24 | 183.38 | 183.50 | 183.60 | 183.61 | 183.60 | 183.78 | 183.51 | 183.49 |
| 22 | 183.40 | 183.32 | 183.22 | 183.22 | 183.34 | 183.49 | 183.59 | 183.58 | 183.60 | 183.63 | 183.54 | 183.45 |
| 23 | 183.38 | 183.31 | 183.21 | 183.22 | 183.33 | 183.43 | 183.57 | 183.54 | 183.69 | 183.55 | 183.49 | 183.47 |
| 24 | 183.49 | 183.29 | 183.21 | 183.19 | 183.41 | 183.42 | 183.54 | 183.62 | 183.63 | 183.61 | 183.49 | 183.47 |
| 25 | 183.41 | 183.28 | 183.20 | 183.33 | 183.43 | 183.48 | 183.49 | 183.61 | 183.61 | 183.46 | 183.43 | 183.58 |
| 26 | 183.37 | 183.28 | 183.20 | 183.25 | 183.43 | 183.49 | 183.56 | 183.60 | 183.62 | 183.60 | 183.38 | 183.48 |
| 27 | 183.39 | 183.25 | 183.21 | 183.20 | 183.35 | 183.51 | 183.58 | 183.65 | 183.67 | 183.59 | 183.50 | 183.52 |
| 28 | 183.45 | 183.24 | 183.23 | 183.27 | 183.47 | 183.53 | 183.57 | 183.65 | 183.68 | 183.55 | 183.50 | 183.43 |
| 29 | 183.50 | | 183.23 | 183.29 | 183.42 | 183.52 | 183.69 | 183.61 | 183.62 | 183.64 | 183.54 | 183.58 |
| 30 | 183.34 | | 183.21 | 183.31 | 183.42 | 183.49 | 183.65 | 183.59 | 183.51 | 183.61 | 183.42 | 183.44 |
| 31 | 183.50 | | 183.19 | | 183.49 | | 183.60 | 183.66 | | 183.59 | | 183.46 |
| Mean | 183.43 | 183.33 | 183.24 | 183.24 | 183.37 | 183.46 | 183.55 | 183.61 | 183.63 | 183.60 | 183.52 | 183.47 |
| Max. | 183.71 | 183.56 | 183.45 | 183.41 | 183.53 | 183.60 | 183.73 | 183.76 | 183.82 | 184.01 | 183.82 | 183.79 |
| Hr. | 1800 | 1500 | 2000 | 1000 | 0800 | 1000 | 1200 | 1800 | 0500 | 1100 | 0200 | 1000 |
| Day | 28 | 3 | 16 | 25 | 31 | 15 | 29 | 27 | 23 | 21 | 20 | 25 |
| Min. | 183.19 | 183.18 | 183.13 | 183.06 | 183.19 | 183.25 | 183.36 | 183.43 | 183.40 | 183.40 | 183.25 | 183.29 |
| Hr. | 0900 | 1600 | 1300 | 1200 | 0600 | 2300 | 1500 | 1200 | 1500 | 2200 | 1400 | 2100 |
| Day | 26 | 28 | 19 | 24 | 2 | 8 | 4 | 9 | 13 | 25 | 26 | 1 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.45

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 909-9018 Marquette Coast Guard, Michigan on Lake Superior

HIGHEST

Monthly mean elevation: 183.63 Sep
Daily mean elevation: 183.70 14 Sep
Instant/hourly elevation: 183.78 0400/14 Sep

LOWEST

Monthly mean elevation: 183.25 Apr
Daily mean elevation: 183.21 7 Apr
Instant/hourly elevation: 183.17 2100/18 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.47 | 183.39 | 183.29 | 183.31 | 183.45 | 183.52 | 183.63 | 183.64 | 183.70 | 183.64 | 183.61 | 183.54 |
| Day | 1      | 5      | 8      | 30     | 31     | 28     | 29     | 31     | 14     | 8      | 5      | 10     |
| Min | 183.38 | 183.26 | 183.21 | 183.21 | 183.30 | 183.44 | 183.51 | 183.60 | 183.56 | 183.56 | 183.47 | 183.42 |
| Day | 30     | 28     | 19     | 7      | 1      | 7      | 5      | 23     | 30     | 28     | 30     | 31     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.65 | | | | | | | | | 3 | | | | 183.65 | 3 |
| 183.60 | | | | | | | 2 | 27 | 25 | 9 | 1 | | 183.60 | 67 |
| 183.55 | | | | | | | 19 | 4 | 2 | 22 | 3 | | 183.55 | 117 |
| 183.50 | | | | | | 5 | 10 | | | | 19 | 2 | 183.50 | 153 |
| 183.45 | 4 | | | | | 17 | | | | | 7 | 22 | 183.45 | 203 |
| 183.40 | 16 | | | | 7 | 8 | | | | | | 7 | 183.40 | 241 |
| 183.35 | 11 | 6 | | | 15 | | | | | | | | 183.35 | 273 |
| 183.30 | | 17 | | 1 | 8 | | | | | | | | 183.30 | 299 |
| 183.25 | | 5 | 17 | 9 | 1 | | | | | | | | 183.25 | 331 |
| 183.20 | | | 14 | 20 | | | | | | | | | 183.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

Station: 909-9018 Marquette Coast Guard, Michigan on Lake Superior

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 183.47 | 183.39 | 183.27 | 183.25 | 183.30 | 183.44 | 183.51 | 183.61 | 183.63 | 183.60 | 183.55 | 183.47 |
| 2 | 183.42 | 183.36 | 183.28 | 183.25 | 183.31 | 183.44 | 183.51 | 183.62 | 183.61 | 183.62 | 183.53 | 183.49 |
| 3 | 183.43 | 183.37 | 183.28 | 183.23 | 183.33 | 183.44 | 183.51 | 183.63 | 183.65 | 183.62 | 183.55 | 183.50 |
| 4 | 183.46 | 183.36 | 183.27 | 183.21 | 183.35 | 183.44 | 183.51 | 183.62 | 183.63 | 183.63 | 183.58 | 183.49 |
| 5 | 183.46 | 183.39 | 183.27 | 183.21 | 183.35 | 183.44 | 183.51 | 183.62 | 183.64 | 183.61 | 183.61 | 183.47 |
| 6 | 183.42 | 183.35 | 183.26 | 183.21 | 183.35 | 183.44 | 183.53 | 183.62 | 183.62 | 183.59 | 183.56 | 183.51 |
| 7 | 183.43 | 183.35 | 183.26 | 183.21 | 183.35 | 183.44 | 183.53 | 183.61 | 183.62 | 183.63 | 183.51 | 183.49 |
| 8 | 183.45 | 183.35 | 183.29 | 183.22 | 183.34 | 183.45 | 183.54 | 183.60 | 183.61 | 183.64 | 183.54 | 183.47 |
| 9 | 183.46 | 183.32 | 183.27 | 183.23 | 183.35 | 183.46 | 183.55 | 183.60 | 183.62 | 183.63 | 183.53 | 183.47 |
| 10 | 183.44 | 183.37 | 183.28 | 183.23 | 183.36 | 183.46 | 183.55 | 183.61 | 183.66 | 183.59 | 183.54 | 183.54 |
| 11 | 183.43 | 183.35 | 183.28 | 183.25 | 183.36 | 183.46 | 183.56 | 183.62 | 183.63 | 183.58 | 183.54 | 183.48 |
| 12 | 183.42 | 183.34 | 183.26 | 183.24 | 183.38 | 183.46 | 183.56 | 183.62 | 183.61 | 183.60 | 183.53 | 183.44 |
| 13 | 183.44 | 183.33 | 183.28 | 183.24 | 183.36 | 183.46 | 183.56 | 183.62 | 183.63 | 183.58 | 183.54 | 183.44 |
| 14 | 183.42 | 183.33 | 183.26 | 183.24 | 183.38 | 183.47 | 183.56 | 183.62 | 183.70 | 183.57 | 183.57 | 183.47 |
| 15 | 183.40 | 183.33 | 183.22 | 183.27 | 183.37 | 183.48 | 183.56 | 183.61 | 183.66 | 183.57 | 183.53 | 183.48 |
| 16 | 183.39 | 183.33 | 183.27 | 183.29 | 183.37 | 183.47 | 183.57 | 183.62 | 183.61 | 183.58 | 183.50 | 183.47 |
| 17 | 183.42 | 183.32 | 183.27 | 183.25 | 183.37 | 183.49 | 183.56 | 183.62 | 183.62 | 183.58 | 183.52 | 183.46 |
| 18 | 183.40 | 183.31 | 183.22 | 183.25 | 183.38 | 183.48 | 183.56 | 183.62 | 183.64 | 183.57 | 183.50 | 183.46 |
| 19 | 183.38 | 183.31 | 183.21 | 183.26 | 183.37 | 183.48 | 183.56 | 183.61 | 183.63 | 183.56 | 183.54 | 183.45 |
| 20 | 183.38 | 183.31 | 183.25 | 183.26 | 183.38 | 183.50 | 183.57 | 183.64 | 183.62 | 183.56 | 183.55 | 183.46 |
| 21 | 183.38 | 183.31 | 183.25 | 183.24 | 183.37 | 183.49 | 183.58 | 183.62 | 183.61 | 183.61 | 183.51 | 183.49 |
| 22 | 183.39 | 183.33 | 183.23 | 183.24 | 183.36 | 183.49 | 183.57 | 183.60 | 183.60 | 183.60 | 183.55 | 183.47 |
| 23 | 183.41 | 183.32 | 183.22 | 183.24 | 183.38 | 183.48 | 183.57 | 183.60 | 183.63 | 183.57 | 183.53 | 183.46 |
| 24 | 183.42 | 183.29 | 183.22 | 183.26 | 183.42 | 183.48 | 183.57 | 183.61 | 183.62 | 183.58 | 183.52 | 183.45 |
| 25 | 183.39 | 183.27 | 183.22 | 183.28 | 183.41 | 183.51 | 183.56 | 183.62 | 183.62 | 183.57 | 183.50 | 183.49 |
| 26 | 183.38 | 183.28 | 183.22 | 183.27 | 183.40 | 183.50 | 183.57 | 183.62 | 183.63 | 183.58 | 183.50 | 183.47 |
| 27 | 183.40 | 183.27 | 183.22 | 183.25 | 183.41 | 183.51 | 183.57 | 183.63 | 183.64 | 183.58 | 183.49 | 183.46 |
| 28 | 183.43 | 183.26 | 183.22 | 183.28 | 183.42 | 183.52 | 183.59 | 183.64 | 183.64 | 183.56 | 183.50 | 183.43 |
| 29 | 183.42 | | 183.22 | 183.30 | 183.43 | 183.51 | 183.63 | 183.62 | 183.62 | 183.60 | 183.52 | 183.48 |
| 30 | 183.38 | | 183.23 | 183.31 | 183.44 | 183.51 | 183.61 | 183.62 | 183.56 | 183.63 | 183.47 | 183.44 |
| 31 | 183.42 | | 183.26 | | 183.45 | | 183.60 | 183.64 | | 183.60 | | 183.42 |
| Mean | 183.42 | 183.33 | 183.25 | 183.25 | 183.37 | 183.47 | 183.56 | 183.62 | 183.63 | 183.59 | 183.53 | 183.47 |
| Max.
Hr.
Day | 183.54
0400
1 | 183.45
0700
5 | 183.36
1700
16 | 183.36
0900
16 | 183.50
1300
28 | 183.59
0700
30 | 183.67
1200
29 | 183.69
0900
20 | 183.78
0400
14 | 183.77
1100
7 | 183.65
0600
5 | 183.62
1200
10 |
| Min.
Hr.
Day | 183.29
0600
26 | 183.22
1900
28 | 183.17
2100
18 | 183.18
1800
7 | 183.26
0700
2 | 183.37
2000
8 | 183.43
0800
2 | 183.54
1800
15 | 183.48
1600
30 | 183.50
0400
28 | 183.43
2100
30 | 183.34
0200
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.46

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 909-9044 Ontonagon, Michigan on Lake Superior

HIGHEST

Monthly mean elevation: 183.63 Aug
Daily mean elevation: 183.66 12 Sep
Instant/hourly elevation: 183.75 0900/15 Aug

LOWEST

Monthly mean elevation: 183.27 Apr
Daily mean elevation: 183.22 4 Apr
Instant/hourly elevation: 183.20 2100/3 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.46 | 183.39 | 183.30 | 183.34 | 183.47 | 183.55 | 183.62 | 183.65 | 183.66 | 183.63 | 183.58 | 183.53 |
| Day | 3      | 5      | 31     | 29     | 30     | 24     | 31     | 29     | 12     | 25     | 13     | 1      |
| Min | 183.38 | 183.28 | 183.24 | 183.22 | 183.34 | 183.45 | 183.53 | 183.61 | 183.60 | 183.54 | 183.50 | 183.44 |
| Day | 29     | 28     | 26     | 4      | 1      | 5      | 1      | 21     | 23     | 21     | 29     | 31     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.65 | | | | | | | | | 2 | | | | 183.65 | 2 |
| 183.60 | | | | | | | 3 | 31 | 27 | 4 | | | 183.60 | 67 |
| 183.55 | | | | | | | 25 | | 1 | 26 | 4 | | 183.55 | 123 |
| 183.50 | | | | | | 16 | 3 | | | 1 | 23 | 5 | 183.50 | 171 |
| 183.45 | 2 | | | | 3 | 13 | | | | | 3 | 24 | 183.45 | 216 |
| 183.40 | 18 | | | | 9 | 1 | | | | | | 2 | 183.40 | 246 |
| 183.35 | 11 | 9 | | | 18 | | | | | | | | 183.35 | 284 |
| 183.30 | | 13 | | 4 | 1 | | | | | | | | 183.30 | 302 |
| 183.25 | | 6 | 19 | 17 | | | | | | | | | 183.25 | 344 |
| 183.20 | | | 12 | 9 | | | | | | | | | 183.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 909-9044 Ontonagon, Michigan on Lake Superior

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 183.43 | 183.39 | 183.28 | 183.26 | 183.34 | 183.47 | 183.53 | 183.61 | 183.65 | 183.61 | 183.57 | 183.53 |
| 2 | 183.46 | 183.36 | 183.29 | 183.22 | 183.36 | 183.46 | 183.54 | 183.62 | 183.66 | 183.60 | 183.56 | 183.51 |
| 3 | 183.46 | 183.37 | 183.30 | 183.22 | 183.38 | 183.47 | 183.55 | 183.62 | 183.62 | 183.60 | 183.55 | 183.52 |
| 4 | 183.45 | 183.37 | 183.29 | 183.22 | 183.38 | 183.46 | 183.57 | 183.61 | 183.64 | 183.59 | 183.58 | 183.52 |
| 5 | 183.44 | 183.39 | 183.28 | 183.23 | 183.38 | 183.45 | 183.56 | 183.63 | 183.63 | 183.60 | 183.53 | 183.52 |
| 6 | 183.43 | 183.38 | 183.29 | 183.23 | 183.40 | 183.46 | 183.56 | 183.63 | 183.63 | 183.62 | 183.52 | 183.50 |
| 7 | 183.45 | 183.37 | 183.30 | 183.24 | 183.41 | 183.47 | 183.57 | 183.62 | 183.63 | 183.62 | 183.52 | 183.50 |
| 8 | 183.44 | 183.37 | 183.28 | 183.26 | 183.42 | 183.50 | 183.58 | 183.62 | 183.62 | 183.56 | 183.54 | 183.48 |
| 9 | 183.43 | 183.35 | 183.28 | 183.26 | 183.42 | 183.48 | 183.58 | 183.64 | 183.64 | 183.57 | 183.54 | 183.50 |
| 10 | 183.43 | 183.35 | 183.29 | 183.28 | 183.39 | 183.48 | 183.58 | 183.63 | 183.63 | 183.59 | 183.54 | 183.48 |
| 11 | 183.43 | 183.36 | 183.27 | 183.29 | 183.38 | 183.50 | 183.58 | 183.63 | 183.64 | 183.58 | 183.54 | 183.46 |
| 12 | 183.44 | 183.35 | 183.26 | 183.27 | 183.38 | 183.50 | 183.58 | 183.62 | 183.66 | 183.57 | 183.55 | 183.49 |
| 13 | 183.45 | 183.33 | 183.26 | 183.26 | 183.39 | 183.51 | 183.58 | 183.61 | 183.64 | 183.57 | 183.58 | 183.49 |
| 14 | 183.42 | 183.33 | 183.25 | 183.27 | 183.39 | 183.50 | 183.58 | 183.61 | 183.62 | 183.58 | 183.55 | 183.49 |
| 15 | 183.41 | 183.32 | 183.26 | 183.27 | 183.37 | 183.49 | 183.58 | 183.63 | 183.62 | 183.58 | 183.53 | 183.48 |
| 16 | 183.39 | 183.33 | 183.26 | 183.25 | 183.38 | 183.52 | 183.59 | 183.61 | 183.62 | 183.57 | 183.52 | 183.47 |
| 17 | 183.40 | 183.32 | 183.24 | 183.25 | 183.38 | 183.51 | 183.60 | 183.61 | 183.62 | 183.56 | 183.52 | 183.48 |
| 18 | 183.39 | 183.33 | 183.25 | 183.28 | 183.38 | 183.51 | 183.59 | 183.62 | 183.62 | 183.57 | 183.54 | 183.47 |
| 19 | 183.39 | 183.33 | 183.26 | 183.27 | 183.37 | 183.52 | 183.58 | 183.62 | 183.63 | 183.57 | 183.51 | 183.47 |
| 20 | 183.40 | 183.33 | 183.25 | 183.26 | 183.38 | 183.54 | 183.58 | 183.61 | 183.64 | 183.58 | 183.53 | 183.48 |
| 21 | 183.42 | 183.33 | 183.24 | 183.25 | 183.38 | 183.53 | 183.58 | 183.61 | 183.62 | 183.54 | 183.52 | 183.48 |
| 22 | 183.40 | 183.31 | 183.25 | 183.27 | 183.40 | 183.54 | 183.59 | 183.62 | 183.61 | 183.58 | 183.52 | 183.47 |
| 23 | 183.41 | 183.30 | 183.25 | 183.28 | 183.41 | 183.55 | 183.59 | 183.65 | 183.60 | 183.59 | 183.53 | 183.47 |
| 24 | 183.39 | 183.28 | 183.25 | 183.30 | 183.41 | 183.55 | 183.59 | 183.64 | 183.61 | 183.59 | 183.51 | 183.46 |
| 25 | 183.40 | 183.28 | 183.24 | 183.28 | 183.41 | 183.54 | 183.61 | 183.65 | 183.63 | 183.63 | 183.52 | 183.48 |
| 26 | 183.41 | 183.29 | 183.24 | 183.30 | 183.41 | 183.53 | 183.59 | 183.64 | 183.62 | 183.57 | 183.54 | 183.47 |
| 27 | 183.41 | 183.28 | 183.26 | 183.32 | 183.46 | 183.53 | 183.60 | 183.63 | 183.61 | 183.57 | 183.50 | 183.46 |
| 28 | 183.40 | 183.28 | 183.25 | 183.33 | 183.43 | 183.53 | 183.62 | 183.64 | 183.61 | 183.58 | 183.50 | 183.46 |
| 29 | 183.38 | | 183.25 | 183.34 | 183.45 | 183.53 | 183.60 | 183.65 | 183.61 | 183.59 | 183.50 | 183.46 |
| 30 | 183.41 | | 183.27 | 183.32 | 183.47 | 183.54 | 183.60 | 183.64 | 183.62 | 183.58 | 183.51 | 183.45 |
| 31 | 183.39 | | 183.30 | | 183.46 | | 183.62 | 183.64 | | 183.57 | | 183.44 |
| Mean | 183.42 | 183.34 | 183.27 | 183.27 | 183.40 | 183.51 | 183.58 | 183.63 | 183.62 | 183.58 | 183.53 | 183.48 |
| Max. | 183.49 | 183.41 | 183.32 | 183.36 | 183.50 | 183.57 | 183.65 | 183.75 | 183.73 | 183.70 | 183.62 | 183.56 |
| Hr. | 0100 | 1200 | 0900 | 0200 | 1800 | 1800 | 1700 | 0900 | 0600 | 0800 | 0200 | 1900 |
| Day | 3 | 5 | 31 | 28 | 27 | 30 | 31 | 15 | 2 | 7 | 13 | 1 |
| Min. | 183.36 | 183.26 | 183.23 | 183.20 | 183.32 | 183.43 | 183.50 | 183.53 | 183.56 | 183.44 | 183.46 | 183.42 |
| Hr. | 1200 | 0500 | 1600 | 2100 | 0600 | 1200 | 0700 | 2200 | 2300 | 0400 | 2200 | 1600 |
| Day | 29 | 28 | 14 | 3 | 1 | 6 | 1 | 13 | 22 | 8 | 16 | 31 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.47

Annual Summary of Levels, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 909-9064 Duluth, Minnesota on Lake Superior

HIGHEST

Monthly mean elevation: 183.64 Aug
Daily mean elevation: 183.71 4 Nov
Instant/hourly elevation: 183.79 0900/7 Oct

LOWEST

Monthly mean elevation: 183.26 Mar
Daily mean elevation: 183.18 16 Mar
Instant/hourly elevation: 183.06 1800/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.53 | 183.43 | 183.42 | 183.36 | 183.50 | 183.59 | 183.66 | 183.68 | 183.66 | 183.69 | 183.71 | 183.54 |
| Day | 12 | 11 | 31 | 27 | 27 | 30 | 25 | 23 | 20 | 7 | 4 | 1 |
| Min | 183.26 | 183.25 | 183.18 | 183.19 | 183.33 | 183.44 | 183.54 | 183.58 | 183.55 | 183.44 | 183.38 | 183.33 |
| Day | 29 | 28 | 16 | 9 | 15 | 1 | 6 | 2 | 9 | 21 | 19 | 29 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.70 | | | | | | | | | | | 1 | | 183.70 | 1 |
| 183.65 | | | | | | | 1 | 8 | 2 | 1 | | | 183.65 | 13 |
| 183.60 | | | | | | | 9 | 18 | 14 | 2 | 2 | | 183.60 | 58 |
| 183.55 | | | | | | 5 | 19 | 5 | 13 | 17 | 7 | | 183.55 | 124 |
| 183.50 | 1 | | | | | 11 | 2 | | 1 | 9 | 12 | 8 | 183.50 | 168 |
| 183.45 | 2 | | | | 2 | 10 | | | | 1 | 7 | 11 | 183.45 | 201 |
| 183.40 | 12 | 2 | 1 | | 9 | 4 | | | | 1 | | 6 | 183.40 | 236 |
| 183.35 | 5 | 4 | | 1 | 18 | | | | | | 1 | 5 | 183.35 | 270 |
| 183.30 | 10 | 9 | 1 | 6 | 2 | | | | | | | 1 | 183.30 | 299 |
| 183.25 | 1 | 11 | 16 | 12 | | | | | | | | | 183.25 | 339 |
| 183.20 | | 2 | 11 | 9 | | | | | | | | | 183.20 | 361 |
| 183.15 | | | 2 | 2 | | | | | | | | | 183.15 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 909-9064 Duluth, Minnesota on Lake Superior

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 183.37 | 183.39 | 183.26 | 183.26 | 183.38 | 183.44 | 183.57 | 183.59 | 183.65 | 183.52 | 183.60 | 183.54 |
| 2 | 183.50 | 183.28 | 183.30 | 183.21 | 183.38 | 183.45 | 183.54 | 183.58 | 183.63 | 183.54 | 183.54 | 183.48 |
| 3 | 183.45 | 183.33 | 183.32 | 183.20 | 183.37 | 183.45 | 183.58 | 183.59 | 183.61 | 183.56 | 183.56 | 183.51 |
| 4 | 183.42 | 183.30 | 183.28 | 183.23 | 183.36 | 183.46 | 183.62 | 183.60 | 183.59 | 183.53 | 183.71 | 183.51 |
| 5 | 183.42 | 183.42 | 183.27 | 183.26 | 183.36 | 183.46 | 183.59 | 183.62 | 183.60 | 183.59 | 183.53 | 183.52 |
| 6 | 183.34 | 183.40 | 183.28 | 183.24 | 183.39 | 183.48 | 183.54 | 183.61 | 183.59 | 183.61 | 183.50 | 183.43 |
| 7 | 183.42 | 183.32 | 183.27 | 183.25 | 183.43 | 183.52 | 183.58 | 183.62 | 183.61 | 183.69 | 183.51 | 183.50 |
| 8 | 183.44 | 183.38 | 183.26 | 183.26 | 183.45 | 183.55 | 183.59 | 183.64 | 183.61 | 183.59 | 183.52 | 183.47 |
| 9 | 183.45 | 183.31 | 183.29 | 183.19 | 183.43 | 183.48 | 183.58 | 183.65 | 183.55 | 183.55 | 183.54 | 183.50 |
| 10 | 183.43 | 183.40 | 183.28 | 183.27 | 183.38 | 183.49 | 183.59 | 183.62 | 183.56 | 183.60 | 183.53 | 183.44 |
| 11 | 183.45 | 183.43 | 183.26 | 183.31 | 183.35 | 183.50 | 183.56 | 183.64 | 183.63 | 183.55 | 183.51 | 183.46 |
| 12 | 183.53 | 183.35 | 183.23 | 183.25 | 183.38 | 183.51 | 183.56 | 183.63 | 183.65 | 183.56 | 183.58 | 183.52 |
| 13 | 183.50 | 183.31 | 183.25 | 183.25 | 183.39 | 183.52 | 183.59 | 183.63 | 183.63 | 183.57 | 183.57 | 183.51 |
| 14 | 183.42 | 183.28 | 183.21 | 183.27 | 183.38 | 183.45 | 183.57 | 183.67 | 183.60 | 183.58 | 183.54 | 183.51 |
| 15 | 183.36 | 183.29 | 183.28 | 183.28 | 183.33 | 183.48 | 183.58 | 183.67 | 183.63 | 183.60 | 183.50 | 183.51 |
| 16 | 183.32 | 183.29 | 183.18 | 183.24 | 183.37 | 183.56 | 183.62 | 183.64 | 183.65 | 183.57 | 183.46 | 183.49 |
| 17 | 183.33 | 183.25 | 183.20 | 183.26 | 183.40 | 183.50 | 183.61 | 183.65 | 183.60 | 183.56 | 183.50 | 183.50 |
| 18 | 183.34 | 183.29 | 183.25 | 183.28 | 183.37 | 183.50 | 183.60 | 183.66 | 183.62 | 183.59 | 183.55 | 183.46 |
| 19 | 183.35 | 183.34 | 183.26 | 183.31 | 183.36 | 183.54 | 183.56 | 183.62 | 183.66 | 183.58 | 183.38 | 183.45 |
| 20 | 183.42 | 183.35 | 183.23 | 183.24 | 183.37 | 183.51 | 183.56 | 183.63 | 183.66 | 183.57 | 183.51 | 183.46 |
| 21 | 183.42 | 183.35 | 183.25 | 183.25 | 183.40 | 183.50 | 183.58 | 183.64 | 183.63 | 183.44 | 183.50 | 183.49 |
| 22 | 183.35 | 183.31 | 183.26 | 183.28 | 183.43 | 183.55 | 183.61 | 183.67 | 183.58 | 183.58 | 183.61 | 183.47 |
| 23 | 183.41 | 183.27 | 183.26 | 183.30 | 183.44 | 183.57 | 183.62 | 183.68 | 183.57 | 183.57 | 183.63 | 183.42 |
| 24 | 183.33 | 183.26 | 183.25 | 183.30 | 183.38 | 183.56 | 183.64 | 183.63 | 183.58 | 183.60 | 183.57 | 183.42 |
| 25 | 183.37 | 183.28 | 183.23 | 183.27 | 183.40 | 183.53 | 183.66 | 183.66 | 183.63 | 183.65 | 183.60 | 183.38 |
| 26 | 183.37 | 183.30 | 183.25 | 183.32 | 183.42 | 183.51 | 183.56 | 183.66 | 183.59 | 183.51 | 183.56 | 183.40 |
| 27 | 183.40 | 183.26 | 183.26 | 183.36 | 183.50 | 183.51 | 183.63 | 183.62 | 183.57 | 183.55 | 183.53 | 183.36 |
| 28 | 183.31 | 183.25 | 183.24 | 183.31 | 183.42 | 183.52 | 183.60 | 183.64 | 183.59 | 183.51 | 183.50 | 183.40 |
| 29 | 183.26 | | 183.24 | 183.35 | 183.45 | 183.56 | 183.58 | 183.67 | 183.59 | 183.50 | 183.49 | 183.33 |
| 30 | 183.33 | | 183.29 | 183.31 | 183.47 | 183.59 | 183.61 | 183.64 | 183.65 | 183.55 | 183.53 | 183.39 |
| 31 | 183.35 | | 183.42 | | 183.42 | | 183.62 | 183.60 | | 183.56 | | 183.42 |
| Mean | 183.39 | 183.32 | 183.26 | 183.27 | 183.40 | 183.51 | 183.59 | 183.64 | 183.61 | 183.57 | 183.54 | 183.46 |
| Max. | 183.64 | 183.54 | 183.53 | 183.44 | 183.58 | 183.70 | 183.76 | 183.78 | 183.76 | 183.79 | 183.76 | 183.62 |
| Hr. | 0400 | 0200 | 0700 | 2000 | 1100 | 1700 | 0800 | 1700 | 0900 | 0900 | 1800 | 1800 |
| Day | 13 | 6 | 31 | 27 | 27 | 8 | 25 | 14 | 13 | 7 | 4 | 1 |
| Min. | 183.16 | 183.17 | 183.06 | 183.10 | 183.25 | 183.33 | 183.46 | 183.47 | 183.46 | 183.36 | 183.28 | 183.20 |
| Hr. | 1500 | 2200 | 1800 | 0900 | 1100 | 0300 | 1200 | 0900 | 2000 | 1100 | 1200 | 0800 |
| Day | 29 | 4 | 16 | 9 | 15 | 10 | 11 | 2 | 22 | 21 | 19 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.46

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Meters, 1993

Station: 909-9090 Grand Marais, Minnesota on Lake Superior

HIGHEST

Monthly mean elevation: 183.62 Sep
Daily mean elevation: 183.65 1 Sep
Instant/hourly elevation: 183.82 1300/13 Sep

LOWEST

Monthly mean elevation: 183.25 Mar
Daily mean elevation: 183.20 2 Apr
Instant/hourly elevation: 183.14 1700/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 183.49 | 183.40 | 183.29 | 183.32 | 183.45 | 183.55 | 183.62 | 183.65 | 183.65 | 183.63 | 183.58 | 183.54 |
| Day | 2 | 6 | 3 | 29 | 30 | 24 | 31 | 29 | 1 | 25 | 4 | 1 |
| Min | 183.35 | 183.29 | 183.22 | 183.20 | 183.33 | 183.45 | 183.54 | 183.60 | 183.58 | 183.50 | 183.46 | 183.37 |
| Day | 29 | 28 | 16 | 2 | 1 | 3 | 3 | 6 | 27 | 21 | 19 | 29 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 183.60 | | | | | | | 4 | 27 | 21 | 3 | | | 183.60 | 55 |
| 183.55 | | | | | | | 23 | 4 | 9 | 26 | 5 | | 183.55 | 122 |
| 183.50 | | | | | | 12 | 4 | | | 1 | 23 | 6 | 183.50 | 168 |
| 183.45 | 3 | | | | | 15 | | | | 1 | 2 | 15 | 183.45 | 204 |
| 183.40 | 13 | | | | 11 | 3 | | | | | | 7 | 183.40 | 238 |
| 183.35 | 13 | 5 | | | 16 | | | | | | | 3 | 183.35 | 275 |
| 183.30 | 2 | 14 | | 4 | 4 | | | | | | | | 183.30 | 299 |
| 183.25 | | 9 | 14 | 8 | | | | | | | | | 183.25 | 330 |
| 183.20 | | | 17 | 17 | | | | | | | | | 183.20 | 364 |
| 183.15 | | | | 1 | | | | | | | | | 183.15 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Meters, 1993

International
Great Lakes
Datum (1985)

Station: 909-9090 Grand Marais, Minnesota on Lake Superior

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 183.41 | 183.39 | 183.28 | 183.23 | 183.33 | 183.45 | 183.54 | 183.61 | 183.65 | 183.58 | 183.57 | 183.54 |
| 2 | 183.49 | 183.34 | 183.28 | 183.20 | 183.34 | 183.45 | 183.54 | 183.60 | 183.63 | 183.58 | 183.58 | 183.50 |
| 3 | 183.47 | 183.35 | 183.29 | 183.21 | 183.35 | 183.45 | 183.54 | 183.60 | 183.63 | 183.59 | 183.56 | 183.52 |
| 4 | 183.44 | 183.35 | 183.28 | 183.22 | 183.35 | 183.46 | 183.58 | 183.60 | 183.61 | 183.57 | 183.58 | 183.52 |
| 5 | 183.44 | 183.39 | 183.26 | 183.23 | 183.36 | 183.47 | 183.58 | 183.62 | 183.61 | 183.59 | 183.53 | 183.52 |
| 6 | 183.40 | 183.40 | 183.28 | 183.23 | 183.38 | 183.47 | 183.56 | 183.60 | 183.60 | 183.61 | 183.52 | 183.47 |
| 7 | 183.42 | 183.33 | 183.28 | 183.23 | 183.40 | 183.47 | 183.55 | 183.61 | 183.60 | 183.61 | 183.54 | 183.50 |
| 8 | 183.43 | 183.36 | 183.27 | 183.25 | 183.42 | 183.50 | 183.56 | 183.62 | 183.62 | 183.58 | 183.54 | 183.48 |
| 9 | 183.43 | 183.34 | 183.28 | 183.22 | 183.41 | 183.48 | 183.56 | 183.63 | 183.59 | 183.57 | 183.54 | 183.48 |
| 10 | 183.43 | 183.34 | 183.27 | 183.25 | 183.38 | 183.48 | 183.57 | 183.62 | 183.58 | 183.60 | 183.54 | 183.44 |
| 11 | 183.44 | 183.36 | 183.26 | 183.26 | 183.37 | 183.49 | 183.57 | 183.62 | 183.61 | 183.57 | 183.52 | 183.48 |
| 12 | 183.46 | 183.34 | 183.24 | 183.24 | 183.37 | 183.50 | 183.56 | 183.62 | 183.64 | 183.56 | 183.55 | 183.51 |
| 13 | 183.45 | 183.32 | 183.25 | 183.24 | 183.40 | 183.51 | 183.56 | 183.62 | 183.63 | 183.57 | 183.55 | 183.51 |
| 14 | 183.42 | 183.30 | 183.24 | 183.25 | 183.38 | 183.48 | 183.58 | 183.63 | 183.61 | 183.57 | 183.55 | 183.48 |
| 15 | 183.39 | 183.31 | 183.27 | 183.25 | 183.37 | 183.48 | 183.56 | 183.64 | 183.64 | 183.58 | 183.53 | 183.47 |
| 16 | 183.38 | 183.31 | 183.22 | 183.23 | 183.38 | 183.51 | 183.58 | 183.62 | 183.64 | 183.57 | 183.52 | 183.47 |
| 17 | 183.37 | 183.29 | 183.23 | 183.24 | 183.39 | 183.49 | 183.59 | 183.63 | 183.62 | 183.56 | 183.52 | 183.48 |
| 18 | 183.39 | 183.31 | 183.25 | 183.26 | 183.38 | 183.49 | 183.58 | 183.64 | 183.61 | 183.57 | 183.56 | 183.46 |
| 19 | 183.38 | 183.33 | 183.26 | 183.26 | 183.37 | 183.51 | 183.57 | 183.63 | 183.63 | 183.57 | 183.46 | 183.47 |
| 20 | 183.41 | 183.33 | 183.24 | 183.24 | 183.39 | 183.50 | 183.56 | 183.62 | 183.63 | 183.58 | 183.52 | 183.46 |
| 21 | 183.41 | 183.33 | 183.23 | 183.25 | 183.39 | 183.50 | 183.56 | 183.63 | 183.63 | 183.50 | 183.51 | 183.46 |
| 22 | 183.38 | 183.30 | 183.24 | 183.27 | 183.41 | 183.51 | 183.58 | 183.64 | 183.62 | 183.58 | 183.52 | 183.46 |
| 23 | 183.40 | 183.29 | 183.24 | 183.27 | 183.41 | 183.54 | 183.58 | 183.65 | 183.60 | 183.58 | 183.53 | 183.44 |
| 24 | 183.36 | 183.29 | 183.24 | 183.28 | 183.40 | 183.55 | 183.60 | 183.63 | 183.60 | 183.59 | 183.51 | 183.44 |
| 25 | 183.39 | 183.29 | 183.24 | 183.27 | 183.42 | 183.53 | 183.61 | 183.64 | 183.62 | 183.63 | 183.53 | 183.40 |
| 26 | 183.39 | 183.30 | 183.24 | 183.29 | 183.42 | 183.53 | 183.59 | 183.64 | 183.61 | 183.56 | 183.55 | 183.42 |
| 27 | 183.41 | 183.29 | 183.24 | 183.32 | 183.45 | 183.52 | 183.60 | 183.62 | 183.58 | 183.58 | 183.52 | 183.40 |
| 28 | 183.35 | 183.29 | 183.23 | 183.31 | 183.42 | 183.52 | 183.62 | 183.63 | 183.59 | 183.56 | 183.51 | 183.44 |
| 29 | 183.35 | | 183.23 | 183.32 | 183.44 | 183.52 | 183.58 | 183.65 | 183.60 | 183.54 | 183.50 | 183.37 |
| 30 | 183.38 | | 183.24 | 183.31 | 183.45 | 183.53 | 183.61 | 183.64 | 183.64 | 183.56 | 183.52 | 183.42 |
| 31 | 183.37 | | 183.28 | | 183.43 | | 183.62 | 183.62 | | 183.57 | | 183.43 |
| Mean | 183.41 | 183.33 | 183.25 | 183.26 | 183.39 | 183.50 | 183.58 | 183.62 | 183.62 | 183.58 | 183.53 | 183.47 |
| Max.
Hr.
Day | 183.60
2300
3 | 183.48
0200
6 | 183.33
0700
31 | 183.37
2100
27 | 183.51
1100
27 | 183.62
0500
24 | 183.68
0100
28 | 183.75
0600
9 | 183.82
1300
13 | 183.73
1300
25 | 183.66
2400
12 | 183.60
0200
2 |
| Min.
Hr.
Day | 183.26
2200
30 | 183.22
1100
28 | 183.14
1700
16 | 183.17
0400
2 | 183.26
1800
2 | 183.41
1100
9 | 183.47
0300
3 | 183.54
0800
1 | 183.53
2400
13 | 183.42
1100
7 | 183.38
1600
19 | 183.30
0700
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 183.46

Monthly Water Level Stages, in Meters, 1900 thru Dec 1993

L a k e O n t a r i o a t O s w e g o

International Great
Lakes Datum (1985)

Chart Datum
74.2

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1946 | 1952 | 1952 | 1973 | 1952 | 1952 | 1947 | 1947 | 1947 | 1945 | 1945 | 1945 |
| High | 75.17 | 75.28 | 75.37 | 75.65 | 75.73 | 75.77 | 75.67 | 75.58 | 75.42 | 75.24 | 75.19 | 75.20 |
| Mean | 74.56 | 74.59 | 74.67 | 74.87 | 75.00 | 75.03 | 75.00 | 74.89 | 74.76 | 74.64 | 74.56 | 74.54 |
| | 1935 | 1936 | 1935 | 1935 | 1935 | 1935 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 |
| Low | 73.82 | 73.80 | 73.94 | 74.04 | 74.12 | 74.20 | 74.15 | 74.00 | 73.90 | 73.83 | 73.75 | 73.76 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1991 | 1932 | 1976 | 1936 | 1929 | 1947 | 1917 | 1915 | 1915 | 1945 | 1926 | 1927 |
| Max
Rise | +0.29 | +0.21 | +0.35 | +0.47 | +0.30 | +0.34 | +0.15 | +0.09 | +0.01 | +0.11 | +0.09 | +0.24 |
| Mean | +0.02 | +0.03 | +0.08 | +0.21 | +0.12 | +0.04 | -0.04 | -0.11 | -0.13 | -0.12 | -0.08 | -0.02 |
| | 1918 | 1963 | 1978 | 1915 | 1987 | 1993 | 1993 | 1973 | 1974 | 1974 | 1964 | 1904 |
| Max
Fall | -0.18 | -0.16 | -0.14 | -0.07 | -0.07 | -0.15 | -0.21 | -0.26 | -0.28 | -0.28 | -0.20 | -0.17 |

1900 thru 1993 mean 74.76

Monthly Water Level Stages, in Meters, 1900 thru Dec 1993

L a k e E r i e a t F a i r p o r t

Chart Datum
173.5

International Great
Lakes Datum (1985)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1987 | 1987 | 1986 | 1985 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 174.87 | 174.78 | 174.88 | 174.98 | 174.97 | 175.05 | 175.04 | 174.95 | 174.83 | 174.94 | 174.85 | 174.89 |
| Mean | 173.93 | 173.93 | 174.01 | 174.17 | 174.25 | 174.29 | 174.28 | 174.22 | 174.13 | 174.03 | 173.96 | 173.94 |
| | 1935 | 1936 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 |
| Low | 173.19 | 173.15 | 173.20 | 173.37 | 173.44 | 173.45 | 173.45 | 173.42 | 173.38 | 173.29 | 173.19 | 173.16 |

M o n t h l y C h a n g e s

| | Dec-Jan | Jan-Feb | Feb-Mar | Mar-Apr | Apr-May | May-Jun | Jun-Jul | Jul-Aug | Aug-Sep | Sep-Oct | Oct-Nov | Nov-Dec |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1950 | 1952 | 1976 | 1913 | 1947 | 1989 | 1902 | 1915 | 1926 | 1986 | 1985 | 1927 |
| Max
Rise | +0.24 | +0.20 | +0.34 | +0.48 | +0.29 | +0.20 | +0.19 | +0.08 | +0.04 | +0.11 | +0.17 | +0.16 |
| Mean | +0.00 | -0.01 | +0.08 | +0.16 | +0.08 | +0.04 | -0.01 | -0.06 | -0.09 | -0.10 | -0.08 | -0.02 |
| | 1918 | 1956 | 1931 | 1918 | 1985 | 1977 | 1919 | 1930 | 1937 | 1966 | 1980 | 1917 |
| Max
Fall | -0.20 | -0.17 | -0.10 | +0.01 | -0.06 | -0.07 | -0.10 | -0.14 | -0.17 | -0.20 | -0.20 | -0.13 |

1900 thru 1993 mean 174.09

Monthly Water Level Stages, in Meters, 1900 thru Dec 1993

L a k e S t . C l a i r a t S t . C l a i r S h o r e s

International Great
Lakes Datum (1985)

Chart Datum
174.4

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 175.80 | 175.81 | 175.81 | 175.82 | 175.83 | 175.91 | 175.93 | 175.89 | 175.85 | 175.97 | 175.82 | 175.80 |
| Mean | 174.80 | 174.73 | 174.85 | 175.01 | 175.10 | 175.15 | 175.17 | 175.14 | 175.07 | 174.98 | 174.90 | 174.90 |
| | 1936 | 1926 | 1934 | 1901 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1925 |
| Low | 173.88 | 173.89 | 174.05 | 174.26 | 174.42 | 174.45 | 174.50 | 174.41 | 174.34 | 174.27 | 174.18 | 174.24 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | 1916 | 1981 | 1956 | 1913 | 1984 | 1901 | 1902 | 1915 | 1912 | 1986 | 1985 | 1914 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Max
Rise | +0.17 | +0.30 | +0.54 | +0.47 | +0.43 | +0.25 | +0.19 | +0.07 | +0.02 | +0.12 | +0.13 | +0.19 |
| Mean | -0.09 | -0.07 | +0.12 | +0.16 | +0.08 | +0.05 | +0.02 | -0.03 | -0.07 | -0.09 | -0.09 | +0.00 |
| | 1956 | 1939 | 1932 | 1984 | 1987 | 1977 | 1919 | 1921 | 1913 | 1948 | 1924 | 1919 |
| Max
Fall | -0.57 | -0.51 | -0.25 | -0.47 | -0.04 | -0.05 | -0.06 | -0.10 | -0.15 | -0.17 | -0.20 | -0.15 |

1900 thru 1993 mean 174.98

Monthly Water Level Stages, in Meters, 1900 thru Dec 1993

L a k e H u r o n - M i c h i g a n a t H a r b o r B e a c h

Chart Datum
176.0

International Great
Lakes Datum (1985)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1987 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 177.20 | 177.11 | 177.12 | 177.23 | 177.27 | 177.32 | 177.39 | 177.41 | 177.38 | 177.49 | 177.39 | 177.26 |
| Mean | 176.36 | 176.35 | 176.37 | 176.45 | 176.54 | 176.61 | 176.65 | 176.63 | 176.58 | 176.52 | 176.46 | 176.41 |
| | 1965 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 |
| Low | 175.59 | 175.61 | 175.58 | 175.58 | 175.72 | 175.75 | 175.77 | 175.77 | 175.76 | 175.71 | 175.65 | 175.60 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1960 | 1938 | 1976 | 1929 | 1960 | 1943 | 1917 | 1972 | 1912 | 1986 | 1928 | 1934 |
| Max
Rise | +0.04 | +0.11 | +0.11 | +0.21 | +0.25 | +0.21 | +0.13 | +0.06 | +0.04 | +0.11 | +0.05 | +0.07 |
| Mean | -0.04 | -0.01 | +0.01 | +0.08 | +0.09 | +0.07 | +0.04 | -0.02 | -0.05 | -0.06 | -0.06 | -0.05 |
| | 1944 | 1987 | 1968 | 1915 | 1987 | 1988 | 1988 | 1931 | 1955 | 1948 | 1930 | 1929 |
| Max
Fall | -0.12 | -0.09 | -0.08 | -0.04 | -0.02 | -0.02 | -0.06 | -0.08 | -0.17 | -0.17 | -0.16 | -0.16 |

1900 thru 1993 mean 176.49

Monthly Water Level Stages, in Meters, 1900 thru Dec 1993

L a k e S u p e r i o r a t M a r q u e t t e

International Great
Lakes Datum (1985)

Chart Datum
183.2

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1985 | 1985 | 1985 | 1985 |
| High | 183.72 | 183.64 | 183.62 | 183.68 | 183.75 | 183.76 | 183.81 | 183.85 | 183.85 | 183.91 | 183.91 | 183.83 |
| Mean | 183.34 | 183.28 | 183.24 | 183.25 | 183.35 | 183.44 | 183.50 | 183.54 | 183.54 | 183.53 | 183.49 | 183.42 |
| | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1925 | 1925 | 1925 |
| Low | 182.79 | 182.73 | 182.71 | 182.69 | 182.71 | 182.81 | 182.92 | 182.97 | 183.06 | 183.07 | 182.97 | 182.90 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1939 | 1937 | 1979 | 1945 | 1960 | 1950 | 1952 | 1911 | 1900 | 1941 | 1970 | 1909 |
| Max
Rise | -0.02 | -0.02 | +0.03 | +0.14 | +0.23 | +0.19 | +0.15 | +0.14 | +0.16 | +0.11 | +0.07 | +0.00 |
| Mean | -0.08 | -0.06 | -0.04 | +0.02 | +0.10 | +0.09 | +0.07 | +0.03 | +0.01 | -0.02 | -0.04 | -0.07 |
| | 1908 | 1978 | 1956 | 1975 | 1929 | 1986 | 1910 | 1954 | 1954 | 1952 | 1952 | 1904 |
| Max
Fall | -0.13 | -0.12 | -0.09 | -0.06 | -0.01 | +0.02 | -0.01 | -0.03 | -0.07 | -0.14 | -0.15 | -0.12 |

1900 thru 1993 mean 183.41

W a t e r L e v e l s

i n

F e e t

(I G L D 1 9 8 5)

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 831-1030 Ogdensburg, New York on St. Lawrence River

HIGHEST

Monthly mean elevation: 246.69 May
Daily mean elevation: 247.21 25 Apr
Instant/hourly elevation: 247.45 1500/25 Apr

LOWEST

Monthly mean elevation: 243.43 Nov
Daily mean elevation: 242.92 25 Nov
Instant/hourly elevation: 242.51 0100/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 245.61 | 245.48 | 245.33 | 247.21 | 246.97 | 246.55 | 245.78 | 245.38 | 244.40 | 244.26 | 243.85 | 244.09 |
| Day | 25 | 24 | 1 | 25 | 16 | 2 | 12 | 4 | 14 | 4 | 20 | 31 |
| Min | 244.40 | 244.87 | 244.57 | 244.50 | 246.34 | 245.79 | 245.23 | 244.31 | 243.70 | 243.01 | 242.92 | 243.00 |
| Day | 1 | 11 | 13 | 1 | 28 | 30 | 25 | 30 | 21 | 31 | 25 | 16 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 247.20 | | | | 1 | | | | | | | | | 247.20 | 1 |
| 247.00 | | | | 1 | | | | | | | | | 247.00 | 2 |
| 246.80 | | | | 4 | 7 | | | | | | | | 246.80 | 13 |
| 246.60 | | | | 4 | 16 | | | | | | | | 246.60 | 33 |
| 246.40 | | | | 7 | 5 | 4 | | | | | | | 246.40 | 49 |
| 246.20 | | | | 4 | 3 | 3 | | | | | | | 246.20 | 59 |
| 246.00 | | | | | | 14 | | | | | | | 246.00 | 73 |
| 245.80 | | | | 1 | | 8 | | | | | | | 245.80 | 82 |
| 245.60 | 1 | | | 4 | | 1 | 11 | | | | | | 245.60 | 99 |
| 245.40 | 5 | 2 | | 2 | | | 12 | | | | | | 245.40 | 120 |
| 245.20 | 7 | 12 | 2 | | | | 8 | 5 | | | | | 245.20 | 154 |
| 245.00 | 6 | 11 | 1 | 1 | | | | 3 | | | | | 245.00 | 176 |
| 244.80 | 3 | 3 | 19 | | | | | 5 | | | | | 244.80 | 206 |
| 244.60 | 6 | | 8 | | | | | 4 | | | | | 244.60 | 224 |
| 244.40 | 2 | | 1 | 1 | | | | 10 | | | | | 244.40 | 238 |
| 244.20 | 1 | | | | | | | 4 | 15 | 2 | | | 244.20 | 260 |
| 244.00 | | | | | | | | | 2 | 2 | | 1 | 244.00 | 265 |
| 243.80 | | | | | | | | | 11 | 7 | 1 | 2 | 243.80 | 286 |
| 243.60 | | | | | | | | | 2 | 8 | 6 | 7 | 243.60 | 309 |
| 243.40 | | | | | | | | | | 8 | 11 | 13 | 243.40 | 341 |
| 243.20 | | | | | | | | | | 3 | 6 | 5 | 243.20 | 355 |
| 243.00 | | | | | | | | | | 1 | 3 | 2 | 243.00 | 361 |
| 242.80 | | | | | | | | | | | 3 | 1 | 242.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 831-1030 Ogdensburg, New York on St. Lawrence River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 244.40 | 245.17 | 245.33 | 244.50 | 246.84 | 246.53 | 245.69 | 245.32 | 244.23 | 243.97 | 243.15 | 243.50 |
| 2 | 244.49 | 245.26 | 245.23 | 245.01 | 246.65 | 246.55 | 245.66 | 245.32 | 244.18 | 244.12 | 243.39 | 243.68 |
| 3 | 244.79 | 245.39 | 245.09 | 245.51 | 246.77 | 246.41 | 245.76 | 245.38 | 244.34 | 243.96 | 243.55 | 243.72 |
| 4 | 244.93 | 245.24 | 244.71 | 245.63 | 246.77 | 246.20 | 245.68 | 245.38 | 244.28 | 244.26 | 243.53 | 243.43 |
| 5 | 244.93 | 245.21 | 244.65 | 245.62 | 246.79 | 246.08 | 245.62 | 245.26 | 244.37 | 243.91 | 243.42 | 243.28 |
| 6 | 245.07 | 245.05 | 244.94 | 245.59 | 246.87 | 246.30 | 245.69 | 245.10 | 244.23 | 243.87 | 243.66 | 243.40 |
| 7 | 245.12 | 245.12 | 244.98 | 245.64 | 246.76 | 246.34 | 245.64 | 245.04 | 244.27 | 243.94 | 243.47 | 243.64 |
| 8 | 245.03 | 245.13 | 244.91 | 245.63 | 246.79 | 246.11 | 245.59 | 245.03 | 244.24 | 243.57 | 243.69 | 243.52 |
| 9 | 244.78 | 245.02 | 244.99 | 245.94 | 246.81 | 246.19 | 245.57 | 244.99 | 244.30 | 243.61 | 243.58 | 243.59 |
| 10 | 244.66 | 245.13 | 244.85 | 246.33 | 246.84 | 246.42 | 245.70 | 244.92 | 244.40 | 243.68 | 243.39 | 243.69 |
| 11 | 244.80 | 244.87 | 244.94 | 246.46 | 246.89 | 246.19 | 245.69 | 244.96 | 244.30 | 243.69 | 243.53 | 243.46 |
| 12 | 244.78 | 244.89 | 244.81 | 246.40 | 246.84 | 246.16 | 245.78 | 244.90 | 244.34 | 243.84 | 243.39 | 243.46 |
| 13 | 244.42 | 245.19 | 244.57 | 246.59 | 246.76 | 246.19 | 245.74 | 244.81 | 244.37 | 243.67 | 243.38 | 243.42 |
| 14 | 244.76 | 245.20 | 244.88 | 246.47 | 246.71 | 246.14 | 245.59 | 244.73 | 244.40 | 243.60 | 243.50 | 243.10 |
| 15 | 244.90 | 245.24 | 244.94 | 246.22 | 246.76 | 246.22 | 245.59 | 244.68 | 244.23 | 243.59 | 243.41 | 243.05 |
| 16 | 245.02 | 245.14 | 245.00 | 246.50 | 246.97 | 246.18 | 245.53 | 244.68 | 243.84 | 243.58 | 243.43 | 243.00 |
| 17 | 245.21 | 245.33 | 244.96 | 246.75 | 246.80 | 246.06 | 245.50 | 244.63 | 243.97 | 243.69 | 243.40 | 243.30 |
| 18 | 245.22 | 245.22 | 244.81 | 246.67 | 246.69 | 246.03 | 245.46 | 244.52 | 244.03 | 243.79 | 243.35 | 243.43 |
| 19 | 245.31 | 245.20 | 244.77 | 246.48 | 246.62 | 245.98 | 245.40 | 244.53 | 243.86 | 243.49 | 243.53 | 243.44 |
| 20 | 245.43 | 245.15 | 244.78 | 246.24 | 246.62 | 245.88 | 245.57 | 244.54 | 243.81 | 243.39 | 243.85 | 243.48 |
| 21 | 245.15 | 244.99 | 244.88 | 246.46 | 246.62 | 246.05 | 245.53 | 244.36 | 243.70 | 244.12 | 243.69 | 243.40 |
| 22 | 245.24 | 245.21 | 244.83 | 246.48 | 246.61 | 246.04 | 245.55 | 244.43 | 243.76 | 244.21 | 243.70 | 243.81 |
| 23 | 245.32 | 245.38 | 244.65 | 246.90 | 246.54 | 245.95 | 245.45 | 244.37 | 243.93 | 243.71 | 243.13 | 243.34 |
| 24 | 245.41 | 245.48 | 244.66 | 247.03 | 246.56 | 245.91 | 245.38 | 244.47 | 243.86 | 243.90 | 242.98 | 243.56 |
| 25 | 245.61 | 245.43 | 244.75 | 247.21 | 246.63 | 245.85 | 245.23 | 244.47 | 243.82 | 243.33 | 242.92 | 243.53 |
| 26 | 245.44 | 245.40 | 244.82 | 246.87 | 246.59 | 246.02 | 245.26 | 244.43 | 243.85 | 243.35 | 242.96 | 243.71 |
| 27 | 245.54 | 245.39 | 244.84 | 246.95 | 246.59 | 245.99 | 245.42 | 244.49 | 243.85 | 243.60 | 243.11 | 243.42 |
| 28 | 245.20 | 245.36 | 244.83 | 246.79 | 246.34 | 245.99 | 245.27 | 244.55 | 244.31 | 243.56 | 243.67 | 243.61 |
| 29 | 245.52 | | 244.89 | 246.76 | 246.46 | 245.85 | 245.40 | 244.40 | 243.97 | 243.67 | 243.72 | 243.79 |
| 30 | 245.24 | | 244.97 | 246.81 | 246.37 | 245.79 | 245.33 | 244.31 | 243.82 | 243.43 | 243.50 | 243.93 |
| 31 | 245.39 | | 244.79 | | 246.38 | | 245.32 | 244.50 | | 243.01 | | 244.09 |
| Mean | 245.07 | 245.21 | 244.87 | 246.28 | 246.69 | 246.12 | 245.53 | 244.76 | 244.09 | 243.71 | 243.43 | 243.51 |
| Max. | 246.05 | 245.54 | 245.39 | 247.45 | 247.07 | 246.73 | 246.00 | 245.54 | 244.74 | 245.15 | 244.21 | 244.36 |
| Hr. | 0200 | 1400 | 0200 | 1500 | 0900 | 1300 | 1600 | 1500 | 0800 | 0400 | 2200 | 1200 |
| Day | 25 | 24 | 1 | 25 | 16 | 1 | 12 | 3 | 28 | 4 | 28 | 31 |
| Min. | 244.13 | 244.62 | 244.02 | 244.12 | 246.10 | 245.73 | 245.06 | 244.20 | 243.47 | 242.77 | 242.51 | 242.89 |
| Hr. | 1300 | 2100 | 2200 | 0200 | 0600 | 0200 | 2400 | 0300 | 0600 | 1800 | 0100 | 0600 |
| Day | 13 | 11 | 13 | 1 | 31 | 30 | 25 | 21 | 26 | 31 | 25 | 16 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 244.94

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 831-1062 Alexandria Bay C.G., New York on St. Lawrence River

HIGHEST

Monthly mean elevation: 247.42 May
Daily mean elevation: 247.64 25 Apr
Instant/hourly elevation: 247.81 1400/25 Apr

LOWEST

Monthly mean elevation: 244.05 Nov
Daily mean elevation: 243.68 25 Nov
Instant/hourly elevation: 243.34 2400/24 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 246.32 | 246.52 | 246.14 | 247.64 | 247.59 | 247.28 | 246.61 | 246.11 | 245.08 | 244.73 | 244.36 | 244.51 |
| Day | 29     | 5      | 1      | 25     | 6      | 1      | 3      | 4      | 10     | 4      | 20     | 31     |
| Min | 245.09 | 245.75 | 245.60 | 245.60 | 247.14 | 246.67 | 246.05 | 245.09 | 244.45 | 243.82 | 243.68 | 243.84 |
| Day | 2      | 12     | 13     | 1      | 30     | 30     | 28     | 30     | 25     | 31     | 25     | 16     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 247.60 | | | | 1 | | | | | | | | | 247.60 | 1 |
| 247.40 | | | | 7 | 17 | | | | | | | | 247.40 | 25 |
| 247.20 | | | | 1 | 11 | 2 | | | | | | | 247.20 | 39 |
| 247.00 | | | | 5 | 3 | 9 | | | | | | | 247.00 | 56 |
| 246.80 | | | | 6 | | 13 | | | | | | | 246.80 | 75 |
| 246.60 | | | | 1 | | 6 | 1 | | | | | | 246.60 | 83 |
| 246.40 | | 3 | | 1 | | | 12 | | | | | | 246.40 | 99 |
| 246.20 | 3 | 5 | | 6 | | | 10 | | | | | | 246.20 | 123 |
| 246.00 | 7 | 13 | 8 | | | | 8 | 4 | | | | | 246.00 | 163 |
| 245.80 | 7 | 1 | 17 | 1 | | | | 4 | | | | | 245.80 | 193 |
| 245.60 | 2 | 2 | 5 | | | | | 5 | | | | | 245.60 | 207 |
| 245.40 | 6 | | 1 | 1 | | | | 4 | | | | | 245.40 | 219 |
| 245.20 | 4 | | | | | | | 11 | | | | | 245.20 | 234 |
| 245.00 | 2 | | | | | | | 3 | 9 | | | | 245.00 | 248 |
| 244.80 | | | | | | | | | 7 | | | | 244.80 | 255 |
| 244.60 | | | | | | | | | 4 | | | | 244.60 | 264 |
| 244.40 | | | | | | | | | 10 | 5 | | | 244.40 | 282 |
| 244.20 | | | | | | | | | | 6 | | 2 | 244.20 | 310 |
| 244.00 | | | | | | | | | | 13 | 5 | 10 | 244.00 | 348 |
| 243.80 | | | | | | | | | | 6 | 16 | 16 | 243.80 | 357 |
| 243.60 | | | | | | | | | | 1 | 5 | 3 | 243.60 | 361 |
| | | | | | | | | | | | 4 | | | |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 831-1062 Alexandria Bay C.G., New York on St. Lawrence River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 245.14 | / | 246.14 | 245.60 | 247.55 | 247.28 | 246.58 | 246.07 | 245.02 | 244.61 | 243.91 | 244.13 |
| 2 | 245.09 | / | 246.10 | 245.99 | 247.44 | 247.24 | 246.55 | 246.07 | 244.99 | 244.68 | 244.02 | 244.28 |
| 3 | 245.33 | / | 246.04 | 246.29 | 247.49 | 247.20 | 246.61 | 246.08 | 245.07 | 244.58 | 244.19 | 244.28 |
| 4 | 245.43 | / | 245.73 | 246.33 | 247.48 | 247.08 | 246.54 | 246.11 | 245.03 | 244.73 | 244.13 | 244.11 |
| 5 | 245.48 | 246.52* | 245.75 | 246.33 | 247.52 | 246.98 | 246.47 | 246.00 | 245.08 | 244.52 | 244.09 | 244.04 |
| 6 | 245.59 | 246.40 | 246.00 | 246.33 | 247.59 | 247.15 | 246.51 | 245.89 | 244.98 | 244.48 | 244.23 | 244.12 |
| 7 | 245.61 | 246.43 | 246.01 | 246.37 | 247.52 | 247.13 | 246.47 | 245.86 | 244.99 | 244.51 | 244.09 | 244.29 |
| 8 | 245.54 | 246.48 | 246.07 | 246.36 | 247.52 | 247.00 | 246.43 | 245.84 | 244.98 | 244.27 | 244.23 | 244.20 |
| 9 | 245.38 | 246.39 | 246.10 | 246.49 | 247.53 | 247.04 | 246.41 | 245.75 | 245.01 | 244.31 | 244.13 | 244.27 |
| 10 | 245.32 | 246.30 | 245.94 | 246.77 | 247.53 | 247.19 | 246.49 | 245.69 | 245.08 | 244.34 | 244.00 | 244.35 |
| 11 | 245.43 | 245.78 | 246.02 | 246.87 | 247.58 | 247.08 | 246.44 | 245.71 | 244.99 | 244.34 | 244.10 | 244.19 |
| 12 | 245.47 | 245.75 | 245.92 | 246.83 | 247.53 | 247.02 | 246.54 | 245.68 | 245.02 | 244.47 | 244.01 | 244.17 |
| 13 | 245.36 | 246.05 | 245.60 | 246.99 | 247.51 | 246.99 | 246.48 | 245.62 | 245.01 | 244.29 | 244.04 | 244.16 |
| 14 | 245.77 | 246.05 | 245.91 | 246.97 | 247.45 | 246.96 | 246.39 | 245.56 | 245.01 | 244.25 | 244.06 | 243.92 |
| 15 | 245.86 | 246.06 | 245.92 | 246.83 | 247.47 | 247.02 | 246.40 | 245.51 | 244.88 | 244.24 | 244.05 | 243.87 |
| 16 | 245.86 | 246.01 | 246.02 | 247.01 | 247.58 | 246.99 | 246.35 | 245.51 | 244.63 | 244.24 | 244.02 | 243.84 |
| 17 | 245.98 | 246.15 | 245.97 | 247.22 | 247.47 | 246.89 | 246.32 | 245.47 | 244.73 | 244.35 | 243.99 | 244.04 |
| 18 | 245.87 | 246.12 | 245.84 | 247.18 | 247.40 | 246.88 | 246.25 | 245.39 | 244.74 | 244.39 | 243.98 | 244.15 |
| 19 | 245.93 | 246.11 | 245.80 | 247.10 | 247.38 | 246.84 | 246.23 | 245.39 | 244.58 | 244.18 | 244.11 | 244.15 |
| 20 | 246.03 | 246.06 | 245.84 | 247.00 | 247.38 | 246.76 | 246.33 | 245.40 | 244.52 | 244.13 | 244.36 | 244.16 |
| 21 | 245.87 | 245.83 | 245.93 | 247.18 | 247.38 | 246.90 | 246.31 | 245.24 | 244.46 | 244.67 | 244.17 | 244.17 |
| 22 | 245.98 | 246.10 | 245.89 | 247.19 | 247.35 | 246.89 | 246.33 | 245.25 | 244.48 | 244.65 | 244.16 | 244.45 |
| 23 | 246.01 | 246.24 | 245.75 | 247.42 | 247.28 | 246.83 | 246.25 | 245.20 | 244.63 | 244.30 | 243.80 | 244.07 |
| 24 | 246.10 | 246.24 | 245.89 | 247.47 | 247.30 | 246.76 | 246.19 | 245.27 | 244.51 | 244.42 | 243.72 | 244.29 |
| 25 | 246.23 | 246.15 | 245.84 | 247.64 | 247.35 | 246.73 | 246.07 | 245.24 | 244.45 | 244.04 | 243.68 | 244.25 |
| 26 | 246.14 | 246.12 | 245.86 | 247.46 | 247.30 | 246.82 | 246.10 | 245.21 | 244.54 | 244.09 | 243.69 | 244.35 |
| 27 | 246.26 | 246.12 | 245.83 | 247.54 | 247.32 | 246.82 | 246.18 | 245.23 | 244.52 | 244.26 | 243.84 | 244.08 |
| 28 | 246.01 | 246.12 | 245.90 | 247.48 | 247.18 | 246.78 | 246.05 | 245.28 | 244.83 | 244.19 | 244.28 | 244.18 |
| 29 | 246.32 | | 245.90 | 247.47 | 247.25 | 246.72 | 246.12 | 245.18 | 244.60 | 244.27 | 244.24 | 244.32 |
| 30 | 246.01 | | 245.89 | 247.51 | 247.14 | 246.67 | 246.09 | 245.09 | 244.49 | 244.07 | 244.12 | 244.39 |
| 31 | 246.18* | | 245.73 | | 247.15 | | 246.08 | 245.22 | | 243.82 | | 244.51 |
| Mean | 245.76 | 246.15 | 245.91 | 246.91 | 247.42 | 246.96 | 246.34 | 245.55 | 244.80 | 244.34 | 244.05 | 244.19 |
| Max.
Hr.
Day | 246.61
0200
25 | 246.69
1500
16 | 246.73
0500
8 | 247.81
1400
25 | 247.72
0200
16 | 247.63
1100
27 | 246.68
1100
3 | 246.22
0500
4 | 245.24
0100
10 | 245.23
0300
4 | 244.62
1500
20 | 244.86
0500
22 |
| Min.
Hr.
Day | 244.87
1100
2 | 245.60
1900
21 | 245.12
2100
13 | 245.31
0400
1 | 246.91
0500
31 | 246.61
2400
30 | 245.96
2200
28 | 245.04
1500
30 | 244.22
0500
26 | 243.66
1700
31 | 243.34
2400
24 | 243.71
0400
16 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 245.70

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 831-2000 Cape Vincent, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 248.00 May
Daily mean elevation: 248.12 16 May
Instant/hourly elevation: 248.32 2400/15 May

LOWEST

Monthly mean elevation: 244.44 Nov
Daily mean elevation: 244.16 26 Nov
Instant/hourly elevation: 243.99 2300/24 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 246.77 | 246.77 | 246.57 | 248.08 | 248.12 | 247.88 | 247.20 | 246.57 | 245.54 | 245.04 | 244.63 | 244.78 |
| Day | 29     | 23     | 9      | 30     | 16     | 1      | 3      | 4      | 3      | 1      | 28     | 31     |
| Min | 245.52 | 246.26 | 246.05 | 246.27 | 247.75 | 247.27 | 246.57 | 245.60 | 244.87 | 244.32 | 244.16 | 244.40 |
| Day | 2      | 9      | 13     | 1      | 30     | 30     | 28     | 30     | 25     | 31     | 26     | 15     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 248.00 | | | | 1 | 19 | | | | | | | | 248.00 | 20 |
| 247.80 | | | | | 11 | 1 | | | | | | | 247.80 | 32 |
| 247.60 | | | | 3 | 1 | 11 | | | | | | | 247.60 | 47 |
| 247.40 | | | | 4 | | 10 | | | | | | | 247.40 | 61 |
| 247.20 | | | | 3 | | 8 | | | | | | | 247.20 | 72 |
| 247.00 | | | | 3 | | | 10 | | | | | | 247.00 | 85 |
| 246.80 | | | | 3 | | | 10 | | | | | | 246.80 | 98 |
| 246.60 | 2 | 5 | | 4 | | | 7 | | | | | | 246.60 | 116 |
| 246.40 | 7 | 12 | 14 | 1 | | | 4 | 5 | | | | | 246.40 | 159 |
| 246.20 | 6 | 3 | 15 | 1 | | | | 7 | | | | | 246.20 | 191 |
| 246.00 | 2 | | 2 | | | | | 5 | | | | | 246.00 | 200 |
| 245.80 | 4 | | | | | | | 6 | | | | | 245.80 | 210 |
| 245.60 | 5 | | | | | | | 7 | | | | | 245.60 | 222 |
| 245.40 | 1 | | | | | | | 1 | 13 | | | | 245.40 | 237 |
| 245.20 | | | | | | | | | 3 | | | | 245.20 | 240 |
| 245.00 | | | | | | | | | 6 | | | | 245.00 | 251 |
| 244.80 | | | | | | | | | 8 | | | | 244.80 | 265 |
| 244.60 | | | | | | | | | | 5 | | | 244.60 | 265 |
| 244.40 | | | | | | | | | | 6 | 2 | 14 | 244.40 | 296 |
| 244.20 | | | | | | | | | | 15 | 18 | 16 | 244.20 | 334 |
| 244.00 | | | | | | | | | | 4 | 8 | 1 | 244.00 | 344 |
| | | | | | | | | | | 1 | 2 | | 244.00 | 346 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 831-2000 Cape Vincent, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|---------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 245.64 | 246.36* | 246.53 | 246.27 | 248.09 | 247.88 | 247.19 | 246.56 | 245.53 | 245.04 | 244.44 | 244.51 |
| 2 | 245.52 | 246.63* | 246.51 | 246.57 | 247.99 | 247.79 | 247.17 | 246.56 | 245.51 | 245.02 | 244.45 | 244.61 |
| 3 | 245.68 | 246.68 | 246.49 | 246.79 | 248.03 | 247.74 | 247.20 | 246.55 | 245.54 | 245.02 | 244.60 | 244.59 |
| 4 | 245.71 | 246.59 | 246.19 | 246.78 | 248.01 | 247.67 | 247.11 | 246.57 | 245.52 | 245.02 | 244.51 | 244.48 |
| 5 | 245.82 | 246.51 | 246.28 | 246.78 | 248.06 | 247.63 | 247.06 | 246.48 | 245.50 | 244.90 | 244.53 | 244.50 |
| 6 | 245.91 | 246.42* | 246.49 | 246.80 | 248.11 | 247.74 | 247.07 | 246.40 | 245.45 | 244.89 | 244.56 | 244.56 |
| 7 | 245.92 | / | 246.46 | 246.83 | 248.07 | 247.70 | 247.03 | 246.40 | 245.46 | 244.86 | 244.51 | 244.66 |
| 8 | 245.86 | 246.49* | 246.47 | 246.83 | 248.06 | 247.62 | 247.01 | 246.36 | 245.44 | 244.72 | 244.55 | 244.59 |
| 9 | 245.77 | 246.26* | 246.57 | 246.89 | 248.06 | 247.68 | 246.98 | 246.29 | 245.47 | 244.77 | 244.49 | 244.66 |
| 10 | 245.77 | / | 246.41 | 247.05 | 248.05 | 247.74 | 247.02 | 246.26 | 245.50 | 244.76 | 244.40 | 244.71 |
| 11 | / | / | 246.49 | 247.12 | 248.11 | 247.68 | 246.95 | 246.24 | 245.42 | 244.77 | 244.48 | 244.62 |
| 12 | / | / | 246.37 | 247.15 | 248.06 | 247.63 | 247.04 | 246.22 | 245.47 | 244.85 | 244.39 | 244.61 |
| 13 | / | / | 246.05 | 247.28 | 248.12 | 247.58 | 246.97 | 246.17 | 245.41 | 244.69 | 244.45 | 244.58 |
| 14 | / | / | 246.45 | 247.32 | 248.06 | 247.54 | 246.91 | 246.12 | 245.38 | 244.68 | 244.41 | 244.46 |
| 15 | 246.17 | 246.48* | 246.40 | 247.28 | 248.10 | 247.60 | 246.93 | 246.08 | 245.30 | 244.66 | 244.46 | 244.40 |
| 16 | 246.24 | 246.39 | 246.49 | 247.43 | 248.12 | 247.56 | 246.88 | 246.07 | 245.16 | 244.66 | 244.40 | 244.41 |
| 17 | 246.35 | 246.55 | 246.42 | 247.61 | 248.05 | 247.48 | 246.84 | 246.04 | 245.22 | 244.81 | 244.40 | 244.50 |
| 18 | 246.18* | 246.57 | 246.33 | 247.58 | 248.00 | 247.46 | 246.77 | 245.98 | 245.19 | 244.74 | 244.36 | 244.56 |
| 19 | 246.21 | 246.66 | 246.29 | 247.58 | 248.01 | 247.44 | 246.78 | 245.95 | 245.05 | 244.63 | 244.49 | 244.56 |
| 20 | 246.37 | 246.56* | 246.34 | 247.57 | 248.01 | 247.38 | 246.84 | 245.95 | 244.99 | 244.61 | 244.62 | 244.55 |
| 21 | 246.26 | / | 246.42 | 247.72 | 248.01 | 247.48 | 246.81 | 245.85 | 244.95 | 245.02 | 244.50 | 244.63 |
| 22 | 246.41 | / | 246.36 | 247.70* | 247.96 | 247.48 | 246.81 | 245.81 | 244.95 | 244.87 | 244.44 | 244.76 |
| 23 | 246.40 | 246.77* | 246.25 | / | 247.89 | 247.43 | 246.78 | 245.77 | 245.05 | 244.69 | 244.25 | 244.56 |
| 24 | 246.56 | 246.69 | 246.29 | / | 247.91 | 247.35 | 246.72 | 245.81 | 244.94 | 244.75 | 244.19 | 244.72 |
| 25 | 246.56 | 246.55 | 246.33 | / | 247.95 | 247.34 | 246.61 | 245.78 | 244.87 | 244.49 | 244.21 | 244.68 |
| 26 | 246.54 | 246.47 | 246.34 | / | 247.91 | 247.39 | 246.66 | 245.75 | 244.97 | 244.59 | 244.16 | 244.67 |
| 27 | 246.63 | 246.48 | 246.34 | / | 247.90 | 247.34 | 246.67 | 245.75 | 244.95 | 244.68 | 244.29 | 244.53 |
| 28 | 246.48 | 246.50 | 246.33 | / | 247.85 | 247.35 | 246.57 | 245.76 | 245.14 | 244.60 | 244.63 | 244.54 |
| 29 | 246.77 | | 246.39 | / | 247.87 | 247.30 | 246.60 | 245.67 | 245.01 | 244.66 | 244.52 | 244.63 |
| 30 | 246.45 | | 246.43 | 248.08* | 247.75 | 247.27 | 246.58 | 245.60 | 244.93 | 244.48 | 244.47 | 244.66 |
| 31 | 246.54 | | 246.27 | | 247.82 | | 246.58 | 245.68 | | 244.32 | | 244.78 |
| Mean | 246.17 | 246.53 | 246.38 | 247.18 | 248.00 | 247.54 | 246.88 | 246.08 | 245.24 | 244.75 | 244.44 | 244.59 |
| Max. | 247.00 | 246.83 | 246.67 | 248.18 | 248.32 | 248.08 | 247.28 | 246.83 | 245.72 | 245.66 | 244.93 | 245.23 |
| Hr. | 2300 | 2100 | 1100 | 1400 | 2400 | 1000 | 0800 | 1100 | 2400 | 2400 | 2400 | 0300 |
| Day | 24 | 23 | 9 | 30 | 15 | 1 | 1 | 2 | 9 | 17 | 5 | 22 |
| Min. | 245.35 | 246.13 | 245.52 | 245.98 | 247.52 | 247.17 | 246.49 | 245.50 | 244.59 | 244.19 | 243.99 | 244.25 |
| Hr. | 1000 | 2300 | 2100 | 0300 | 0300 | 2300 | 1300 | 2100 | 0300 | 1400 | 2300 | 0200 |
| Day | 2 | 5 | 13 | 1 | 31 | 30 | 26 | 28 | 26 | 31 | 24 | 16 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 246.15

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 905-2030 Oswego, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 248.03 May
Daily mean elevation: 248.19 7 May
Instant/hourly elevation: 248.32 2400/12 May

LOWEST

Monthly mean elevation: 244.45 Nov
Daily mean elevation: 244.22 26 Nov
Instant/hourly elevation: 243.93 0500/27 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 246.86 | 246.75 | 246.78 | 248.12 | 248.19 | 247.81 | 247.22 | 246.55 | 245.56 | 244.95 | 244.67 | 244.89 |
| Day | 29     | 24     | 14     | 30     | 7      | 1      | 1      | 1      | 11     | 4      | 20     | 26     |
| Min | 245.47 | 246.36 | 246.36 | 246.57 | 247.75 | 247.29 | 246.50 | 245.63 | 244.89 | 244.51 | 244.22 | 244.43 |
| Day | 3      | 12     | 23     | 1      | 31     | 30     | 26     | 30     | 25     | 26     | 26     | 2      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 248.00 | | | | 5 | 20 | | | | | | | | 248.00 | 25 |
| 247.80 | | | | 5 | 9 | 1 | | | | | | | 247.80 | 40 |
| 247.60 | | | | 3 | 2 | 11 | | | | | | | 247.60 | 56 |
| 247.40 | | | | 3 | | 10 | | | | | | | 247.40 | 69 |
| 247.20 | | | | 4 | | 8 | 1 | | | | | | 247.20 | 82 |
| 247.00 | | | | 1 | | | 8 | | | | | | 247.00 | 91 |
| 246.80 | 1 | | | 7 | | | 10 | | | | | | 246.80 | 109 |
| 246.60 | 4 | 9 | 5 | 1 | | | 7 | | | | | | 246.60 | 135 |
| 246.40 | 4 | 17 | 22 | 1 | | | 5 | 6 | | | | | 246.40 | 190 |
| 246.20 | 8 | 2 | 4 | | | | | 3 | | | | | 246.20 | 207 |
| 246.00 | 3 | | | | | | | 8 | | | | | 246.00 | 218 |
| 245.80 | 7 | | | | | | | 6 | | | | | 245.80 | 231 |
| 245.60 | 2 | | | | | | | 8 | | | | | 245.60 | 241 |
| 245.40 | 2 | | | | | | | | 10 | | | | 245.40 | 253 |
| 245.20 | | | | | | | | | 7 | | | | 245.20 | 260 |
| 245.00 | | | | | | | | | 5 | | | | 245.00 | 265 |
| 244.80 | | | | | | | | | 8 | 9 | | 3 | 244.80 | 285 |
| 244.60 | | | | | | | | | | 15 | 3 | 13 | 244.60 | 316 |
| 244.40 | | | | | | | | | | 7 | 19 | 15 | 244.40 | 357 |
| 244.20 | | | | | | | | | | | 8 | | 244.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 905-2030 Oswego, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 245.80 | 246.68 | 246.61 | 246.57 | 248.16 | 247.81 | 247.22 | 246.55 | 245.55 | 244.80 | 244.65 | 244.45 |
| 2 | 245.63 | 246.60 | 246.60 | 246.73 | 248.15 | 247.74 | 247.10 | 246.48 | 245.45 | 244.90 | 244.48 | 244.43 |
| 3 | 245.47 | 246.70 | 246.61 | 246.85 | 248.08 | 247.72 | 247.13 | 246.48 | 245.54 | 244.91 | 244.45 | 244.59 |
| 4 | 245.60 | 246.67 | 246.48 | 246.88 | 248.09 | 247.71 | 247.10 | 246.51 | 245.50 | 244.95 | 244.45 | 244.55 |
| 5 | 245.90 | 246.64 | 246.47 | 246.86 | 248.15 | 247.66 | 247.03 | 246.52 | 245.54 | 244.94 | 244.45 | 244.67 |
| 6 | 245.89 | 246.54 | 246.58 | 246.89 | 248.18 | 247.76 | 247.01 | 246.41 | 245.55 | 244.82 | 244.61 | 244.59 |
| 7 | 245.92 | 246.50 | 246.54 | 246.89 | 248.19 | 247.68 | 247.01 | 246.35 | 245.52 | 244.81 | 244.52 | 244.72 |
| 8 | 245.97 | 246.54 | 246.54 | 246.91 | 248.16 | 247.64 | 246.98 | 246.32 | 245.44 | 244.80 | 244.44 | 244.63 |
| 9 | 245.96 | 246.46 | 246.65 | 246.92 | 248.14 | 247.67 | 246.97 | 246.26 | 245.38 | 244.87 | 244.44 | 244.59 |
| 10 | 245.94 | 246.51 | 246.55 | 247.10 | 248.13 | 247.70 | 247.03 | 246.19 | 245.52 | 244.84 | 244.42 | 244.61 |
| 11 | 246.00 | 246.43 | 246.64 | 247.21 | 248.15 | 247.70 | 246.97 | 246.16 | 245.56 | 244.72 | 244.41 | 244.84 |
| 12 | 246.03 | 246.36 | 246.51 | 247.30 | 248.15 | 247.65 | 247.04 | 246.15 | 245.36 | 244.73 | 244.48 | 244.70 |
| 13 | 246.06 | 246.59 | 246.54 | 247.33 | 248.13 | 247.60 | 246.97 | 246.13 | 245.32 | 244.76 | 244.32 | 244.65 |
| 14 | 246.17 | 246.56 | 246.78 | 247.40 | 248.08 | 247.55 | 246.92 | 246.11 | 245.26 | 244.68 | 244.42 | 244.63 |
| 15 | 246.21 | 246.50 | 246.53 | 247.41 | 248.08 | 247.55 | 246.96 | 246.11 | 245.34 | 244.64 | 244.49 | 244.63 |
| 16 | 246.23 | 246.49 | 246.38 | 247.47 | 248.09 | 247.54 | 246.95 | 246.07 | 245.26 | 244.60 | 244.44 | 244.64 |
| 17 | 246.35 | 246.66 | 246.54 | 247.58 | 248.05 | 247.48 | 246.84 | 246.04 | 245.22 | 244.68 | 244.43 | 244.57 |
| 18 | 246.33 | 246.64 | 246.46 | 247.62 | 248.04 | 247.44 | 246.79 | 246.00 | 245.19 | 244.79 | 244.43 | 244.55 |
| 19 | 246.35 | 246.59 | 246.40 | 247.63 | 248.03 | 247.45 | 246.76 | 245.94 | 245.13 | 244.70 | 244.34 | 244.59 |
| 20 | 246.36 | 246.55 | 246.37 | 247.65 | 248.02 | 247.40 | 246.80 | 245.95 | 245.03 | 244.61 | 244.67 | 244.54 |
| 21 | 246.21 | 246.37 | 246.45 | 247.82 | 247.99 | 247.45 | 246.85 | 245.88 | 244.99 | 244.74 | 244.40 | 244.73 |
| 22 | 246.36 | 246.60 | 246.46 | 247.93 | 247.96 | 247.51 | 246.83 | 245.82 | 244.93 | 244.83 | 244.39 | 244.85 |
| 23 | 246.43 | 246.72 | 246.36 | 248.00 | 247.89 | 247.45 | 246.78 | 245.80 | 244.98 | 244.67 | 244.38 | 244.65 |
| 24 | 246.46 | 246.75 | 246.41 | 247.87 | 247.86 | 247.39 | 246.69 | 245.77 | 244.97 | 244.64 | 244.43 | 244.56 |
| 25 | 246.67 | 246.60 | 246.41 | 247.95 | 247.90 | 247.34 | 246.61 | 245.78 | 244.89 | 244.62 | 244.31 | 244.65 |
| 26 | 246.45 | 246.57 | 246.42 | 248.10 | 247.88 | 247.36 | 246.50 | 245.78 | 244.90 | 244.51 | 244.22 | 244.89 |
| 27 | 246.61 | 246.59 | 246.44 | 248.07 | 247.88 | 247.33 | 246.59 | 245.73 | 244.97 | 244.58 | 244.26 | 244.59 |
| 28 | 246.51 | 246.62 | 246.45 | 248.08 | 247.82 | 247.33 | 246.52 | 245.81 | 245.06 | 244.59 | 244.60 | 244.57 |
| 29 | 246.86 | | 246.49 | 248.12 | 247.88 | 247.33 | 246.55 | 245.74 | 245.04 | 244.57 | 244.55 | 244.49 |
| 30 | 246.62 | | 246.53 | 248.12 | 247.76 | 247.29 | 246.60 | 245.63 | 244.99 | 244.54 | 244.55 | 244.76 |
| 31 | 246.70 | | 246.53 | | 247.75 | | 246.62 | 245.64 | | 244.52 | | 244.60 |
| Mean | 246.19 | 246.57 | 246.51 | 247.44 | 248.03 | 247.54 | 246.86 | 246.07 | 245.25 | 244.72 | 244.45 | 244.63 |
| Max. | 247.06 | 246.89 | 247.09 | 248.22 | 248.32 | 247.94 | 247.32 | 246.62 | 245.76 | 245.19 | 244.93 | 245.15 |
| Hr. | 1200 | 2200 | 0400 | 0100 | 2400 | 1000 | 1000 | 0200 | 2200 | 2000 | 1700 | 0400 |
| Day | 29 | 3 | 14 | 30 | 12 | 9 | 1 | 1 | 3 | 7 | 20 | 22 |
| Min. | 245.36 | 246.21 | 246.20 | 246.44 | 247.57 | 247.21 | 246.11 | 245.44 | 244.58 | 244.37 | 243.93 | 244.33 |
| Hr. | 2000 | 1800 | 2200 | 0400 | 0500 | 2400 | 1200 | 1000 | 0400 | 2300 | 0500 | 0900 |
| Day | 3 | 21 | 16 | 1 | 31 | 30 | 26 | 31 | 26 | 20 | 27 | 2 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 246.19

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 905-2058 Rochester, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 248.05 May
Daily mean elevation: 248.20 7 May
Instant/hourly elevation: 248.32 0100/30 Apr

LOWEST

Monthly mean elevation: 244.44 Nov
Daily mean elevation: 244.31 27 Nov
Instant/hourly elevation: 244.05 0800/27 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 246.63 | 246.69 | 246.78 | 248.15 | 248.20 | 247.78 | 247.23 | 246.51 | 245.63 | 244.87 | 244.61 | 244.78 |
| Day | 31     | 24     | 13     | 30     | 7      | 1      | 1      | 1      | 4      | 9      | 1      | 11     |
| Min | 245.57 | 246.45 | 246.42 | 246.65 | 247.77 | 247.29 | 246.46 | 245.54 | 244.87 | 244.53 | 244.31 | 244.49 |
| Day | 3      | 12     | 26     | 1      | 31     | 30     | 26     | 31     | 26     | 29     | 27     | 2      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 248.00 | | | | 5 | 20 | | | | | | | | 248.00 | 25 |
| 247.80 | | | | 5 | 9 | | | | | | | | 247.80 | 39 |
| 247.60 | | | | 3 | 2 | 13 | | | | | | | 247.60 | 57 |
| 247.40 | | | | 4 | | 11 | | | | | | | 247.40 | 72 |
| 247.20 | | | | 3 | | 6 | 1 | | | | | | 247.20 | 82 |
| 247.00 | | | | 1 | | | 9 | | | | | | 247.00 | 92 |
| 246.80 | | | | 6 | | | 7 | | | | | | 246.80 | 105 |
| 246.60 | 1 | 10 | 3 | 3 | | | 8 | | | | | | 246.60 | 130 |
| 246.40 | 7 | 18 | 28 | | | | 6 | 5 | | | | | 246.40 | 194 |
| 246.20 | 7 | | | | | | | 4 | | | | | 246.20 | 205 |
| 246.00 | 8 | | | | | | | 8 | | | | | 246.00 | 221 |
| 245.80 | 4 | | | | | | | 9 | | | | | 245.80 | 234 |
| 245.60 | 3 | | | | | | | 3 | 1 | | | | 245.60 | 241 |
| 245.40 | 1 | | | | | | | 2 | 9 | | | | 245.40 | 253 |
| 245.20 | | | | | | | | | 6 | | | | 245.20 | 259 |
| 245.00 | | | | | | | | | 4 | | | | 245.00 | 263 |
| 244.80 | | | | | | | | | 10 | 7 | | | 244.80 | 280 |
| 244.60 | | | | | | | | | | 19 | 1 | 17 | 244.60 | 317 |
| 244.40 | | | | | | | | | | 5 | 23 | 14 | 244.40 | 359 |
| 244.20 | | | | | | | | | | | 6 | | 244.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 905-2058 Rochester, New York on Lake Ontario

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 245.67 | 246.68 | 246.59 | 246.65 | 248.17 | 247.78 | 247.23 | 246.51 | 245.59 | 244.81 | 244.61 | 244.54 |
| 2 | 245.62 | 246.59 | 246.60 | 246.71 | 248.16 | 247.76 | 247.15 | 246.44 | 245.50 | 244.84 | 244.51 | 244.49 |
| 3 | 245.57 | 246.56 | 246.60 | 246.80 | 248.16 | 247.74 | 247.11 | 246.43 | 245.52 | 244.81 | 244.43 | 244.56 |
| 4 | 245.64 | 246.63 | 246.63 | 246.86 | 248.16 | 247.72 | 247.11 | 246.46 | 245.63 | 244.85 | 244.44 | 244.63 |
| 5 | 245.85 | 246.62 | 246.56 | 246.89 | 248.18 | 247.71 | 247.06 | 246.45 | 245.56 | 244.87 | 244.46 | 244.67 |
| 6 | 245.87 | 246.61 | 246.54 | 246.92 | 248.20 | 247.72 | 247.03 | 246.37 | 245.56 | 244.80 | 244.53 | 244.62 |
| 7 | 245.91 | 246.53 | 246.54 | 246.94 | 248.20 | 247.69 | 247.02 | 246.31 | 245.48 | 244.76 | 244.49 | 244.67 |
| 8 | 246.02 | 246.55 | 246.54 | 246.97 | 248.18 | 247.68 | 247.06 | 246.27 | 245.43 | 244.80 | 244.41 | 244.65 |
| 9 | 246.02 | 246.54 | 246.56 | 246.97 | 248.15 | 247.67 | 247.05 | 246.23 | 245.35 | 244.87 | 244.45 | 244.62 |
| 10 | 245.99 | 246.52 | 246.56 | 247.11 | 248.16 | 247.72 | 247.03 | 246.17 | 245.49 | 244.83 | 244.45 | 244.60 |
| 11 | 246.04 | 246.52 | 246.57 | 247.21 | 248.15 | 247.71 | 246.99 | 246.16 | 245.51 | 244.73 | 244.42 | 244.78 |
| 12 | 246.08 | 246.45 | 246.55 | 247.28 | 248.15 | 247.67 | 246.98 | 246.17 | 245.36 | 244.71 | 244.46 | 244.69 |
| 13 | 246.14 | 246.51 | 246.78 | 247.34 | 248.16 | 247.61 | 246.95 | 246.18 | 245.30 | 244.75 | 244.41 | 244.65 |
| 14 | 246.17 | 246.52 | 246.68 | 247.42 | 248.12 | 247.57 | 246.89 | 246.15 | 245.27 | 244.69 | 244.44 | 244.65 |
| 15 | 246.16 | 246.48 | 246.51 | 247.47 | 248.11 | 247.58 | 246.89 | 246.11 | 245.38 | 244.66 | 244.45 | 244.63 |
| 16 | 246.20 | 246.55 | 246.44 | 247.43 | 248.11 | 247.57 | 246.89 | 246.07 | 245.30 | 244.65 | 244.45 | 244.63 |
| 17 | 246.25 | 246.56 | 246.55 | 247.55 | 248.09 | 247.51 | 246.83 | 246.04 | 245.18 | 244.66 | 244.44 | 244.60 |
| 18 | 246.31 | 246.55 | 246.50 | 247.62 | 248.07 | 247.48 | 246.76 | 245.98 | 245.15 | 244.74 | 244.47 | 244.57 |
| 19 | 246.28 | 246.55 | 246.44 | 247.66 | 248.04 | 247.45 | 246.71 | 245.96 | 245.15 | 244.74 | 244.37 | 244.57 |
| 20 | 246.30 | 246.56 | 246.42 | 247.71 | 248.02 | 247.41 | 246.74 | 245.99 | 245.05 | 244.67 | 244.42 | 244.54 |
| 21 | 246.33 | 246.54 | 246.43 | 247.81 | 247.99 | 247.45 | 246.78 | 245.97 | 245.00 | 244.66 | 244.39 | 244.63 |
| 22 | 246.35 | 246.58 | 246.45 | 247.84 | 247.98 | 247.50 | 246.78 | 245.87 | 244.95 | 244.69 | 244.39 | 244.66 |
| 23 | 246.40 | 246.62 | 246.43 | 247.91 | 247.93 | 247.48 | 246.72 | 245.83 | 244.93 | 244.68 | 244.47 | 244.68 |
| 24 | 246.44 | 246.69 | 246.44 | 247.91 | 247.90 | 247.43 | 246.65 | 245.84 | 244.98 | 244.63 | 244.42 | 244.57 |
| 25 | 246.54 | 246.65 | 246.43 | 247.98 | 247.92 | 247.34 | 246.57 | 245.85 | 244.95 | 244.64 | 244.35 | 244.58 |
| 26 | 246.50 | 246.62 | 246.42 | 248.07 | 247.92 | 247.36 | 246.46 | 245.81 | 244.87 | 244.57 | 244.31 | 244.62 |
| 27 | 246.53 | 246.61 | 246.45 | 248.10 | 247.88 | 247.39 | 246.52 | 245.71 | 244.94 | 244.59 | 244.31 | 244.58 |
| 28 | 246.55 | 246.61 | 246.46 | 248.13 | 247.84 | 247.40 | 246.55 | 245.77 | 244.92 | 244.58 | 244.50 | 244.59 |
| 29 | 246.59 | | 246.49 | 248.14 | 247.83 | 247.34 | 246.56 | 245.73 | 245.00 | 244.53 | 244.48 | 244.51 |
| 30 | 246.58 | | 246.53 | 248.15 | 247.79 | 247.29 | 246.60 | 245.60 | 244.96 | 244.55 | 244.55 | 244.62 |
| 31 | 246.63 | | 246.59 | | 247.77 | | 246.61 | 245.54 | | 244.63 | | 244.53 |
| Mean | 246.18 | 246.57 | 246.53 | 247.45 | 248.05 | 247.56 | 246.85 | 246.06 | 245.24 | 244.71 | 244.44 | 244.61 |
| Max. | 246.77 | 246.84 | 247.22 | 248.32 | 248.31 | 248.00 | 247.32 | 246.64 | 245.86 | 245.09 | 244.72 | 244.91 |
| Hr. | 2200 | 0100 | 2400 | 0100 | 2400 | 0300 | 0200 | 0100 | 0200 | 1400 | 0800 | 1600 |
| Day | 31 | 1 | 13 | 30 | 6 | 10 | 1 | 1 | 4 | 9 | 28 | 11 |
| Min. | 245.44 | 246.33 | 246.29 | 246.55 | 247.64 | 247.16 | 246.11 | 245.37 | 244.70 | 244.26 | 244.05 | 244.36 |
| Hr. | 0100 | 1600 | 0900 | 1000 | 0100 | 1000 | 1200 | 0600 | 0100 | 2100 | 0800 | 0300 |
| Day | 3 | 2 | 23 | 1 | 31 | 30 | 26 | 31 | 23 | 30 | 27 | 3 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 246.19

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 905-2076 Olcott, New York on Lake Ontario

HIGHEST

Monthly mean elevation: 248.05 May
Daily mean elevation: 248.22 4 May
Instant/hourly elevation: 248.34 1700/7 May

LOWEST

Monthly mean elevation: 244.48 Nov
Daily mean elevation: 244.31 20 Nov
Instant/hourly elevation: 244.22 1300/20 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 246.61 | 246.74 | 246.75 | 248.17 | 248.22 | 247.77 | 247.26 | 246.47 | 245.62 | 244.90 | 244.58 | 244.70 |
| Day | 30     | 21     | 4      | 30     | 4      | 2      | 1      | 1      | 4      | 1      | 30     | 8      |
| Min | 245.57 | 246.46 | 246.44 | 246.75 | 247.78 | 247.28 | 246.51 | 245.59 | 244.90 | 244.58 | 244.31 | 244.52 |
| Day | 1      | 13     | 21     | 2      | 29     | 30     | 31     | 31     | 28     | 27     | 20     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 248.20 | | | | | 3 | | | | | | | | 248.20 | 3 |
| 248.00 | | | | 6 | 16 | | | | | | | | 248.00 | 25 |
| 247.80 | | | | 3 | 11 | | | | | | | | 247.80 | 39 |
| 247.60 | | | | 4 | 1 | 14 | | | | | | | 247.60 | 58 |
| 247.40 | | | | 4 | | 11 | | | | | | | 247.40 | 73 |
| 247.20 | | | | 2 | | 5 | 2 | | | | | | 247.20 | 82 |
| 247.00 | | | | 4 | | | 8 | | | | | | 247.00 | 94 |
| 246.80 | | | | 4 | | | 6 | | | | | | 246.80 | 104 |
| 246.60 | 1 | 11 | 6 | 3 | | | 8 | | | | | | 246.60 | 133 |
| 246.40 | 7 | 17 | 25 | | | | 7 | | | | | | 246.40 | 193 |
| 246.20 | 10 | | | | | | | 4 | | | | | 246.20 | 211 |
| 246.00 | 5 | | | | | | | 8 | | | | | 246.00 | 224 |
| 245.80 | 3 | | | | | | | 5 | | | | | 245.80 | 232 |
| 245.60 | 4 | | | | | | | 5 | | | | | 245.60 | 244 |
| 245.40 | 1 | | | | | | | 1 | 3 | | | | 245.40 | 254 |
| 245.20 | | | | | | | | | 8 | | | | 245.20 | 259 |
| 245.00 | | | | | | | | | 5 | | | | 245.00 | 264 |
| 244.80 | | | | | | | | | 5 | | | | 244.80 | 283 |
| 244.60 | | | | | | | | | 9 | 10 | | | 244.60 | 321 |
| 244.40 | | | | | | | | | | 18 | | 20 | 244.40 | 363 |
| 244.20 | | | | | | | | | | 3 | 28 | 11 | 244.20 | 365 |
| | | | | | | | | | | | 2 | | | |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 905-2076 Olcott, New York on Lake Ontario

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 245.57 | 246.62 | 246.61 | 246.78 | 248.16 | 247.75 | 247.26 | 246.47 | 245.61 | 244.90 | 244.51 | 244.61 |
| 2 | 245.63 | 246.58 | 246.60 | 246.75 | 248.19 | 247.77 | 247.25 | 246.45 | 245.57 | 244.88 | 244.54 | 244.62 |
| 3 | 245.65 | 246.49 | 246.62 | 246.77 | 248.20 | 247.73 | 247.15 | 246.46 | 245.61 | 244.82 | 244.51 | 244.56 |
| 4 | 245.71 | 246.54 | 246.75 | 246.85 | 248.22 | 247.73 | 247.16 | 246.43 | 245.62 | 244.81 | 244.53 | 244.65 |
| 5 | 245.79 | 246.55 | 246.67 | 246.93 | 248.21 | 247.75 | 247.14 | 246.38 | 245.58 | 244.83 | 244.52 | 244.63 |
| 6 | 245.87 | 246.64 | 246.54 | 246.96 | 248.19 | 247.70 | 247.13 | 246.35 | 245.51 | 244.84 | 244.48 | 244.65 |
| 7 | 245.94 | 246.56 | 246.58 | 246.98 | 248.21 | 247.70 | 247.15 | 246.29 | 245.48 | 244.82 | 244.47 | 244.65 |
| 8 | 245.99 | 246.55 | 246.57 | 247.04 | 248.19 | 247.74 | 247.10 | 246.27 | 245.44 | 244.83 | 244.47 | 244.70 |
| 9 | 246.09 | 246.60 | 246.52 | 247.08 | 248.17 | 247.73 | 247.05 | 246.26 | 245.44 | 244.82 | 244.46 | 244.68 |
| 10 | 246.11 | 246.51 | 246.60 | 247.11 | 248.17 | 247.73 | 247.02 | 246.24 | 245.44 | 244.79 | 244.48 | 244.69 |
| 11 | 246.13 | 246.63 | 246.51 | 247.19 | 248.12 | 247.70 | 246.97 | 246.24 | 245.43 | 244.81 | 244.46 | 244.66 |
| 12 | 246.12 | 246.61 | 246.56 | 247.27 | 248.13 | 247.68 | 246.95 | 246.22 | 245.38 | 244.75 | 244.46 | 244.66 |
| 13 | 246.21 | 246.46 | 246.62 | 247.35 | 248.12 | 247.66 | 246.93 | 246.17 | 245.36 | 244.74 | 244.50 | 244.68 |
| 14 | 246.19 | 246.49 | 246.44 | 247.42 | 248.13 | 247.64 | 246.91 | 246.15 | 245.33 | 244.72 | 244.45 | 244.69 |
| 15 | 246.23 | 246.51 | 246.50 | 247.54 | 248.13 | 247.60 | 246.85 | 246.11 | 245.33 | 244.71 | 244.44 | 244.67 |
| 16 | 246.25 | 246.60 | 246.48 | 247.53 | 248.07 | 247.58 | 246.85 | 246.10 | 245.24 | 244.70 | 244.48 | 244.65 |
| 17 | 246.22 | 246.51 | 246.50 | 247.53 | 248.07 | 247.55 | 246.78 | 246.05 | 245.15 | 244.69 | 244.47 | 244.64 |
| 18 | 246.28 | 246.52 | 246.50 | 247.62 | 248.06 | 247.52 | 246.75 | 246.05 | 245.11 | 244.72 | 244.49 | 244.62 |
| 19 | 246.28 | 246.54 | 246.53 | 247.68 | 248.01 | 247.49 | 246.72 | 246.06 | 245.12 | 244.77 | 244.47 | 244.60 |
| 20 | 246.26 | 246.59 | 246.48 | 247.78 | 248.00 | 247.48 | 246.71 | 246.04 | 245.07 | 244.75 | 244.31 | 244.64 |
| 21 | 246.44 | 246.74 | 246.44 | 247.80 | 248.00 | 247.48 | 246.72 | 245.95 | 245.03 | 244.64 | 244.40 | 244.59 |
| 22 | 246.38 | 246.63 | 246.46 | 247.81 | 247.97 | 247.48 | 246.70 | 245.95 | 245.00 | 244.63 | 244.43 | 244.55 |
| 23 | 246.39 | 246.60 | 246.54 | 247.82 | 247.98 | 247.46 | 246.66 | 245.90 | 244.96 | 244.71 | 244.49 | 244.67 |
| 24 | 246.40 | 246.61 | 246.49 | 248.00 | 247.98 | 247.44 | 246.62 | 245.86 | 244.95 | 244.63 | 244.47 | 244.61 |
| 25 | 246.46 | 246.68 | 246.46 | 248.02 | 247.92 | 247.43 | 246.58 | 245.82 | 244.95 | 244.69 | 244.43 | 244.57 |
| 26 | 246.54 | 246.68 | 246.46 | 248.07 | 247.88 | 247.40 | 246.52 | 245.79 | 244.92 | 244.68 | 244.46 | 244.52 |
| 27 | 246.48 | 246.65 | 246.49 | 248.11 | 247.83 | 247.39 | 246.55 | 245.74 | 244.94 | 244.58 | 244.48 | 244.57 |
| 28 | 246.58 | 246.62 | 246.50 | 248.16 | 247.87 | 247.38 | 246.56 | 245.74 | 244.90 | 244.61 | 244.46 | 244.60 |
| 29 | 246.42 | | 246.50 | 248.16 | 247.78 | 247.32 | 246.53 | 245.66 | 244.96 | 244.59 | 244.54 | 244.56 |
| 30 | 246.61 | | 246.53 | 248.17 | 247.81 | 247.28 | 246.55 | 245.63 | 244.92 | 244.60 | 244.58 | 244.55 |
| 31 | 246.48 | | 246.65 | | 247.81 | | 246.51 | 245.59 | | 244.61 | | 244.53 |
| Mean | 246.18 | 246.58 | 246.54 | 247.47 | 248.05 | 247.58 | 246.85 | 246.08 | 245.25 | 244.73 | 244.48 | 244.62 |
| Max.
Hr.
Day | 246.88
2300
31 | 246.91
1500
21 | 246.86
2200
4 | 248.30
2200
29 | 248.34
1700
7 | 247.90
0900
9 | 247.34
1500
1 | 246.57
2200
3 | 245.79
0500
4 | 245.05
0900
2 | 244.73
1700
23 | 244.82
1400
2 |
| Min.
Hr.
Day | 245.46
0100
2 | 246.22
0700
16 | 246.32
0700
17 | 246.70
0900
2 | 247.61
1700
31 | 247.19
1900
29 | 246.35
0900
26 | 245.36
1200
31 | 244.60
0400
28 | 244.38
2300
17 | 244.22
1300
20 | 244.31
0100
22 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 246.20

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3007 Ashland Avenue, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 325.10 Apr
Daily mean elevation: 329.48 31 Jan
Instant/hourly elevation: 334.82 0700/31 Jan

LOWEST

Monthly mean elevation: 316.95 Dec
Daily mean elevation: 314.85 5 Dec
Instant/hourly elevation: 314.53 2100/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 329.48 | 326.13 | 324.04 | 326.64 | 326.41 | 325.57 | 326.06 | 324.75 | 326.43 | 325.08 | 321.70 | 322.37 |
| Day | 31 | 3 | 30 | 3 | 15 | 1 | 30 | 4 | 28 | 21 | 20 | 30 |
| Min | 317.05 | 317.78 | 316.44 | 323.53 | 323.66 | 322.25 | 322.38 | 322.08 | 321.11 | 321.03 | 314.85 | 314.85 |
| Day | 10 | 11 | 4 | 1 | 23 | 20 | 1 | 13 | 30 | 19 | 26 | 5 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 329.00 | 2 | | | | | | | | | | | | 329.00 | 2 |
| 328.50 | | | | | | | | | | | | | 328.50 | 2 |
| 328.00 | | | | | | | | | | | | | 328.00 | 2 |
| 327.50 | | | | | | | | | | | | | 327.50 | 2 |
| 327.00 | | | | | | | | | | | | | 327.00 | 2 |
| 326.50 | 1 | | | 1 | | | | | | | | | 326.50 | 4 |
| 326.00 | | 1 | | 2 | 3 | | 1 | | 1 | | | | 326.00 | 12 |
| 325.50 | 1 | 1 | | 5 | 5 | 1 | | | | | | | 325.50 | 25 |
| 325.00 | | | | 6 | 6 | | 1 | | | 1 | | | 325.00 | 39 |
| 324.50 | 1 | 1 | | 14 | 8 | 2 | 4 | 2 | | 1 | | | 324.50 | 72 |
| 324.00 | 4 | | 1 | 1 | 7 | 5 | 5 | 2 | 1 | 1 | | | 324.00 | 99 |
| 323.50 | 1 | 2 | 1 | 1 | 2 | 6 | 10 | | | | | | 323.50 | 122 |
| 323.00 | 4 | 1 | 3 | | | 7 | 4 | 2 | 2 | | | | 323.00 | 145 |
| 322.50 | 6 | 5 | 3 | | | 6 | 5 | 5 | 6 | 2 | | | 322.50 | 183 |
| 322.00 | 1 | 5 | 2 | | | 3 | 1 | 20 | 9 | 1 | | 1 | 322.00 | 226 |
| 321.50 | 3 | 2 | 2 | | | | | | 2 | 4 | 1 | | 321.50 | 240 |
| 321.00 | 1 | 1 | 7 | | | | | | 9 | 21 | | | 321.00 | 279 |
| 320.50 | 3 | 2 | 3 | | | | | | | | | 2 | 320.50 | 289 |
| 320.00 | 1 | 2 | 3 | | | | | | | | | 1 | 320.00 | 296 |
| 319.50 | | 2 | 4 | | | | | | | | 2 | | 319.50 | 304 |
| 319.00 | | 1 | | | | | | | | | 1 | | 319.00 | 306 |
| 318.50 | | | | | | | | | | | 2 | 1 | 318.50 | 309 |
| 318.00 | 1 | 1 | 1 | | | | | | | | 3 | 1 | 318.00 | 316 |
| 317.50 | | 1 | | | | | | | | | 5 | 3 | 317.50 | 325 |
| 317.00 | 1 | | | | | | | | | | 3 | 2 | 317.00 | 331 |
| 316.50 | | | | | | | | | | | 2 | 4 | 316.50 | 337 |
| 316.00 | | | 1 | | | | | | | | 3 | 5 | 316.00 | 346 |
| 315.50 | | | | | | | | | | | 2 | 3 | 315.50 | 351 |
| 315.00 | | | | | | | | | | | 2 | 3 | 315.00 | 356 |
| 314.50 | | | | | | | | | | | 4 | 5 | 314.50 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3007 Ashland Avenue, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 322.70 | 323.80 | 321.77 | 323.53 | 324.98 | 325.57 | 322.38 | 323.24 | 322.18 | 321.65 | 317.57 | 314.85 |
| 2 | 320.57 | 322.71 | 320.93 | 326.45 | 324.34 | 324.49 | 323.57 | 324.38 | 322.12 | 321.38 | 317.33 | 315.94 |
| 3 | 320.59 | 326.13 | 319.83 | 326.64 | 325.04 | 324.22 | 323.33 | 324.59 | 322.80 | 322.74 | 319.99 | 316.56 |
| 4 | 321.99 | 323.88 | 316.44 | 325.60 | 325.27 | 323.14 | 322.76 | 324.75 | 322.55 | 324.76 | 319.29 | 314.87 |
| 5 | 323.45 | 323.48 | 318.36 | 325.18 | 325.86 | 323.00 | 323.26 | 322.75 | 322.57 | 321.44 | 318.94 | 314.85 |
| 6 | 323.87 | 319.14 | 320.85 | 324.73 | 325.89 | 324.21 | 323.86 | 322.55 | 322.32 | 321.12 | 317.87 | 317.93 |
| 7 | 322.74 | 319.91 | 319.86 | 324.76 | 325.22 | 324.40 | 324.10 | 322.38 | 322.55 | 321.42 | 316.96 | 318.31 |
| 8 | 321.84 | 322.11 | 321.27 | 324.59 | 324.69 | 323.46 | 324.54 | 322.37 | 322.38 | 321.23 | 319.71 | 316.58 |
| 9 | 318.48 | 320.65 | 321.56 | 324.68 | 324.75 | 323.75 | 323.91 | 322.35 | 323.11 | 321.30 | 318.53 | 316.43 |
| 10 | 317.05 | 322.15 | 320.48 | 324.75 | 325.00 | 324.55 | 323.63 | 322.18 | 324.08 | 321.29 | 317.07 | 316.46 |
| 11 | 320.87 | 317.78 | 322.13 | 324.27 | 325.72 | 323.71 | 323.89 | 322.27 | 322.84 | 321.25 | 317.58 | 316.73 |
| 12 | 320.07 | 318.15 | 320.47 | 324.63 | 325.95 | 323.16 | 325.19 | 322.30 | 322.43 | 321.95 | 316.45 | 315.58 |
| 13 | 322.55 | 322.77 | 319.74 | 324.80 | 325.04 | 323.68 | 324.88 | 322.08 | 323.34 | 321.34 | 315.28 | 315.89 |
| 14 | 322.63 | 322.16 | 323.10 | 324.83 | 325.25 | 323.37 | 323.99 | 322.63 | 322.20 | 321.30 | 315.37 | 314.95 |
| 15 | 324.17 | 322.61 | 322.93 | 324.71 | 326.41 | 323.00 | 324.11 | 324.40 | 322.49 | 321.42 | 317.62 | 314.89 |
| 16 | 323.00 | 320.87 | 323.42 | 325.40 | 326.01 | 322.91 | 324.58 | 322.55 | 321.18 | 321.42 | 315.69 | 315.14 |
| 17 | 324.17 | 322.90 | 321.25 | 325.70 | 325.53 | 322.39 | 323.36 | 322.34 | 321.85 | 322.16 | 316.17 | 315.44 |
| 18 | 322.88 | 324.51 | 321.35 | 325.11 | 324.58 | 322.80 | 322.94 | 322.22 | 321.41 | 321.70 | 316.95 | 316.23 |
| 19 | 322.47 | 322.16 | 321.39 | 324.94 | 324.46 | 322.47 | 323.75 | 322.42 | 321.34 | 321.03 | 317.60 | 316.64 |
| 20 | 321.95 | 321.83 | 320.31 | 324.89 | 324.48 | 322.25 | 323.93 | 323.10 | 321.33 | 321.15 | 321.70 | 317.31 |
| 21 | 321.21 | 319.96 | 321.45 | 325.52 | 324.61 | 323.64 | 323.84 | 322.43 | 321.27 | 325.08 | 318.47 | 317.92 |
| 22 | 324.26 | 325.68 | 320.60 | 325.67 | 324.07 | 323.45 | 324.06 | 322.40 | 321.34 | 324.19 | 318.07 | 320.28 |
| 23 | 323.28 | 322.51 | 319.95 | 325.84 | 323.66 | 322.84 | 324.42 | 322.28 | 321.91 | 321.28 | 314.90 | 315.12 |
| 24 | 324.87 | 322.09 | 321.03 | 324.67 | 325.03 | 322.64 | 323.43 | 322.60 | 321.35 | 321.63 | 314.87 | 318.98 |
| 25 | 325.54 | 321.90 | 322.35 | 325.20 | 326.17 | 323.26 | 322.62 | 322.34 | 321.24 | 321.13 | 314.98 | 317.49 |
| 26 | 323.49 | 320.36 | 322.59 | 325.07 | 324.51 | 323.64 | 322.71 | 322.30 | 322.15 | 321.28 | 314.85 | 320.71 |
| 27 | 324.39 | 320.10 | 322.70 | 325.04 | 324.15 | 323.95 | 324.09 | 322.29 | 322.75 | 321.23 | 315.67 | 316.19 |
| 28 | 323.02 | 321.14 | 323.32 | 324.94 | 324.44 | 324.82 | 322.77 | 322.34 | 326.43 | 321.42 | 317.16 | 316.04 |
| 29 | 326.55 | | 323.84 | 324.74 | 324.40 | 324.01 | 324.66 | 322.33 | 322.23 | 322.57 | 318.24 | 317.84 |
| 30 | 329.47 | | 324.04 | 326.27 | 323.73 | 323.47 | 326.06 | 322.11 | 321.11 | 321.29 | 316.04 | 322.37 |
| 31 | 329.48 | | 321.41 | | 324.56 | | 323.72 | 322.38 | | 321.09 | | 320.93 |
| Mean | 323.02 | 321.91 | 321.31 | 325.10 | 324.96 | 323.54 | 323.82 | 322.70 | 322.29 | 321.78 | 317.23 | 316.95 |
| Max.
Hr.
Day | 334.82
0700
31 | 331.01
0800
22 | 327.67
1500
14 | 330.82
1600
30 | 330.23
1000
4 | 330.38
1100
1 | 329.73
1200
13 | 330.07
1000
15 | 331.19
0400
28 | 333.38
1300
21 | 327.35
2300
5 | 325.91
1000
30 |
| Min.
Hr.
Day | 315.88
1300
10 | 315.85
2100
11 | 315.68
0300
5 | 316.92
0300
1 | 317.19
2300
27 | 314.92
0100
17 | 315.27
0100
26 | 314.80
0100
30 | 314.73
2200
25 | 314.71
2400
18 | 314.53
2100
25 | 314.62
2000
18 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 322.05

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 906-3009 American Falls, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 559.26 Jan
Daily mean elevation: 559.84 31 Jan
Instant/hourly elevation: 560.21 0200/28 Sep

LOWEST

Monthly mean elevation: 558.94 Feb
Daily mean elevation: 558.50 15 Aug
Instant/hourly elevation: 557.82 2100/2 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 559.84 | 559.24 | 559.17 | 559.48 | 559.33 | 559.41 | 559.35 | 559.30 | 559.63 | 559.46 | 559.34 | 559.64 |
| Day | 31     | 28     | 31     | 2      | 24     | 21     | 8      | 2      | 28     | 21     | 20     | 26     |
| Min | 558.83 | 558.51 | 558.59 | 558.92 | 558.90 | 558.94 | 559.02 | 558.50 | 558.92 | 558.95 | 558.74 | 558.62 |
| Day | 10     | 6      | 4      | 6      | 2      | 12     | 1      | 15     | 2      | 31     | 23     | 14     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 559.80 | 1 | | | | | | | | | | | | 559.80 | 1 |
| 559.60 | 2 | | | | | | | | 1 | | | 1 | 559.60 | 5 |
| 559.40 | | | | 2 | | 1 | | | 2 | 2 | | 1 | 559.40 | 13 |
| 559.20 | 16 | 1 | | 6 | 7 | 11 | 9 | 6 | 11 | 10 | 3 | 4 | 559.20 | 97 |
| 559.00 | 11 | 14 | 29 | 16 | 21 | 16 | 22 | 22 | 14 | 17 | 16 | 8 | 559.00 | 303 |
| 558.80 | 1 | 4 | 1 | 6 | 3 | 2 | | 2 | 2 | 2 | 10 | 8 | 558.80 | 344 |
| 558.60 | | 6 | | | | | | | | | 1 | 9 | 558.60 | 360 |
| 558.40 | | 3 | 1 | | | | | 1 | | | | | 558.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3009 American Falls, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 559.25 | 558.73 | 559.17 | 559.47 | 559.07 | 559.16 | 559.02 | 559.21 | 558.93 | 559.15 | 559.02 | 558.86 |
| 2 | 559.26 | 558.71 | 559.14 | 559.48 | 558.90 | 559.06 | 559.20 | 559.30 | 558.92 | 559.20 | 559.09 | 558.94 |
| 3 | 559.27 | 558.75 | 559.09 | 559.33 | 559.10 | 559.06 | 559.09 | 559.29 | 559.12 | 559.36 | 559.13 | 559.05 |
| 4 | 559.27 | 558.65 | 558.59 | 558.93 | 558.98 | 559.05 | 559.07 | 559.27 | 559.21 | 559.38 | 559.13 | 558.70 |
| 5 | 559.28 | 558.62 | 558.91 | 558.96 | 559.13 | 559.02 | 559.10 | 559.18 | 559.28 | 559.08 | 559.10 | 558.73 |
| 6 | 559.19 | 558.51 | 559.17 | 558.92 | 559.10 | 559.11 | 559.25 | 559.14 | 559.23 | 558.99 | 559.12 | 559.06 |
| 7 | 559.23 | 558.60 | 559.12 | 559.01 | 559.06 | 559.18 | 559.25 | 559.22 | 559.29 | 559.08 | 559.04 | 559.22 |
| 8 | 559.23 | 558.75 | 559.17 | 558.97 | 559.05 | 559.09 | 559.35 | 559.18 | 559.18 | 559.06 | 559.28 | 558.89 |
| 9 | 559.23 | 558.82 | 559.11 | 559.05 | 558.97 | 559.18 | 559.24 | 559.09 | 559.27 | 559.12 | 559.17 | 559.06 |
| 10 | 558.83 | 558.95 | 559.12 | 559.11 | 559.10 | 559.09 | 559.18 | 558.96 | 559.47 | 559.11 | 559.08 | 559.04 |
| 11 | 559.40 | 558.89 | 559.12 | 559.00 | 559.12 | 559.06 | 559.20 | 559.12 | 559.22 | 559.12 | 559.13 | 558.94 |
| 12 | 559.24 | 558.56 | 559.14 | 559.12 | 559.07 | 558.94 | 559.17 | 559.11 | 559.27 | 559.33 | 558.95 | 558.76 |
| 13 | 559.17 | 559.06 | 559.04 | 559.08 | 559.12 | 559.17 | 559.26 | 559.06 | 559.43 | 559.15 | 558.92 | 558.69 |
| 14 | 559.71 | 559.04 | 559.06 | 559.10 | 559.10 | 559.27 | 559.11 | 559.07 | 559.09 | 559.10 | 558.84 | 558.62 |
| 15 | 559.21 | 559.09 | 559.03 | 559.12 | 559.22 | 559.31 | 559.24 | 558.50 | 559.25 | 559.24 | 558.96 | 558.69 |
| 16 | 559.20 | 559.10 | 559.13 | 559.23 | 559.09 | 559.09 | 559.29 | 559.14 | 559.06 | 559.28 | 558.90 | 558.72 |
| 17 | 559.19 | 559.10 | 559.12 | 559.24 | 559.12 | 559.21 | 559.05 | 559.07 | 559.19 | 559.31 | 559.01 | 558.82 |
| 18 | 559.21 | 559.18 | 559.11 | 558.93 | 559.03 | 559.26 | 559.06 | 559.04 | 559.16 | 559.17 | 559.02 | 558.81 |
| 19 | 559.19 | 559.00 | 559.12 | 559.19 | 559.21 | 559.19 | 559.25 | 559.18 | 559.14 | 559.07 | 559.20 | 558.90 |
| 20 | 559.22 | 559.09 | 559.15 | 559.22 | 559.11 | 559.27 | 559.09 | 559.18 | 559.08 | 559.04 | 559.34 | 559.07 |
| 21 | 559.23 | 559.07 | 559.15 | 559.11 | 559.12 | 559.41 | 559.12 | 559.16 | 559.08 | 559.46 | 559.21 | 559.11 |
| 22 | 559.18 | 559.06 | 559.09 | 559.21 | 559.14 | 559.31 | 559.17 | 559.22 | 559.16 | 559.36 | 559.11 | 559.40 |
| 23 | 559.19 | 559.10 | 559.15 | 559.19 | 559.22 | 559.20 | 559.17 | 559.06 | 559.24 | 559.16 | 558.74 | 558.78 |
| 24 | 559.21 | 559.12 | 559.17 | 559.06 | 559.33 | 559.26 | 559.15 | 559.13 | 559.16 | 559.31 | 558.89 | 559.40 |
| 25 | 559.19 | 559.13 | 559.16 | 559.20 | 559.32 | 559.27 | 559.04 | 559.15 | 559.07 | 559.04 | 558.88 | 559.19 |
| 26 | 559.21 | 559.12 | 559.15 | 559.13 | 559.23 | 559.40 | 559.08 | 559.02 | 559.28 | 559.22 | 558.83 | 559.64 |
| 27 | 559.20 | 559.17 | 559.16 | 559.22 | 559.06 | 559.27 | 559.12 | 559.16 | 559.27 | 559.10 | 558.95 | 558.85 |
| 28 | 559.19 | 559.24 | 559.07 | 559.01 | 559.08 | 559.28 | 559.15 | 559.14 | 559.63 | 559.27 | 559.15 | 558.75 |
| 29 | 559.13 | | 559.13 | 559.02 | 559.06 | 559.16 | 559.29 | 559.03 | 559.02 | 559.41 | 559.18 | 559.15 |
| 30 | 559.74 | | 559.13 | 559.10 | 559.08 | 559.00 | 559.19 | 558.97 | 559.06 | 559.04 | 558.96 | 559.49 |
| 31 | 559.84 | | 559.17 | | 559.29 | | 559.15 | 559.02 | | 558.95 | | 559.30 |
| Mean | 559.26 | 558.94 | 559.10 | 559.12 | 559.11 | 559.18 | 559.16 | 559.11 | 559.19 | 559.18 | 559.05 | 558.99 |
| Max. | 560.06 | 559.46 | 559.38 | 559.85 | 559.82 | 560.02 | 559.82 | 559.84 | 560.21 | 559.85 | 559.42 | 559.86 |
| Hr. | 0600 | 1800 | 1400 | 0900 | 0700 | 0700 | 0700 | 0700 | 0200 | 0700 | 1000 | 1100 |
| Day | 31 | 18 | 14 | 3 | 26 | 21 | 25 | 3 | 28 | 29 | 20 | 26 |
| Min. | 558.39 | 558.06 | 558.28 | 557.98 | 558.04 | 557.85 | 557.99 | 557.90 | 557.82 | 558.01 | 558.52 | 558.45 |
| Hr. | 1200 | 0500 | 1800 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 1900 | 0600 | 0900 |
| Day | 10 | 12 | 4 | 6 | 27 | 12 | 4 | 6 | 2 | 18 | 23 | 15 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 559.12

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3012 Niagara Intake, Niagara Falls, New York on Niagara River

HIGHEST

Monthly mean elevation: 562.11 Jan
Daily mean elevation: 563.15 31 Jan
Instant/hourly elevation: 563.59 0600/31 Jan

LOWEST

Monthly mean elevation: 561.69 Dec
Daily mean elevation: 561.04 4 Mar
Instant/hourly elevation: 560.64 2100/1 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 563.15 | 562.18 | 562.19 | 562.33 | 562.14 | 562.20 | 562.25 | 562.22 | 562.73 | 562.56 | 562.28 | 562.60 |
| Day | 31     | 18     | 14     | 2      | 31     | 26     | 29     | 2      | 28     | 21     | 20     | 26     |
| Min | 561.38 | 561.35 | 561.04 | 561.79 | 561.71 | 561.71 | 561.75 | 561.22 | 561.73 | 561.73 | 561.31 | 561.19 |
| Day | 10     | 12     | 4      | 6      | 2      | 12     | 1      | 15     | 2      | 31     | 23     | 14     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 563.00 | 1 | | | | | | | | | | | | 563.00 | 1 |
| 562.80 | 1 | | | | | | | | | | | | 562.80 | 2 |
| 562.60 | | | | | | | | | 1 | | | | 562.60 | 3 |
| 562.40 | 1 | | | | | | | | 2 | 2 | | | 562.40 | 8 |
| 562.20 | | | | 4 | | | 1 | 1 | 2 | 5 | 1 | 3 | 562.20 | 25 |
| 562.00 | 20 | 4 | 1 | 9 | 7 | 12 | 15 | 8 | 11 | 9 | 1 | | 562.00 | 122 |
| 561.80 | 7 | 20 | 26 | 16 | 22 | 15 | 12 | 19 | 14 | 14 | 11 | 4 | 561.80 | 302 |
| 561.60 | | 2 | 2 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 7 | 6 | 561.60 | 333 |
| 561.40 | | 1 | 1 | | | | | | | | 9 | 7 | 561.40 | 351 |
| 561.20 | 1 | 1 | | | | | | 1 | | | 1 | 8 | 561.20 | 363 |
| 561.00 | | | 1 | | | | | | | | | 1 | 561.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3012 Niagara Intake, Niagara Falls, New York on Niagara River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 562.04 | 561.97 | 561.98 | 562.27 | 561.94 | 562.05 | 561.75 | 562.06 | 561.74 | 562.02 | 561.70 | 561.45 |
| 2 | 561.98 | 561.98 | 561.87 | 562.33 | 561.71 | 561.89 | 561.98 | 562.22 | 561.73 | 562.05 | 561.77 | 561.57 |
| 3 | 561.99 | 562.07 | 561.76 | 562.23 | 561.96 | 561.89 | 561.86 | 562.19 | 561.97 | 562.33 | 561.90 | 561.73 |
| 4 | 562.05 | 561.96 | 561.04 | 561.81 | 561.83 | 561.82 | 561.82 | 562.19 | 562.04 | 562.41 | 561.87 | 561.26 |
| 5 | 562.14 | 561.90 | 561.49 | 561.82 | 562.01 | 561.79 | 561.88 | 562.04 | 562.12 | 561.94 | 561.89 | 561.30 |
| 6 | 562.04 | 561.64 | 561.88 | 561.79 | 561.98 | 561.92 | 562.06 | 561.97 | 562.07 | 561.82 | 561.84 | 561.79 |
| 7 | 562.02 | 561.80 | 561.84 | 561.86 | 561.91 | 562.00 | 562.08 | 562.03 | 562.11 | 561.94 | 561.74 | 561.97 |
| 8 | 561.98 | 561.93 | 561.90 | 561.84 | 561.86 | 561.89 | 562.18 | 561.99 | 562.00 | 561.91 | 562.10 | 561.54 |
| 9 | 561.88 | 561.88 | 561.86 | 561.93 | 561.78 | 562.05 | 562.04 | 561.91 | 562.15 | 561.98 | 561.92 | 561.74 |
| 10 | 561.38 | 561.85 | 561.86 | 561.96 | 561.93 | 561.94 | 561.98 | 561.78 | 562.39 | 561.98 | 561.76 | 561.74 |
| 11 | 562.17 | 561.52 | 561.89 | 561.86 | 561.98 | 561.86 | 561.98 | 561.94 | 562.05 | 561.97 | 561.84 | 561.61 |
| 12 | 561.95 | 561.35 | 561.92 | 562.00 | 561.93 | 561.71 | 562.01 | 561.93 | 562.09 | 562.25 | 561.58 | 561.37 |
| 13 | 562.03 | 562.08 | 561.83 | 561.98 | 561.95 | 561.94 | 562.09 | 561.86 | 562.31 | 562.02 | 561.53 | 561.29 |
| 14 | 562.59 | 562.00 | 562.19 | 562.00 | 561.92 | 562.06 | 561.88 | 561.91 | 561.93 | 561.95 | 561.43 | 561.19 |
| 15 | 562.08 | 561.91 | 561.98 | 562.01 | 562.11 | 562.12 | 562.02 | 561.22 | 562.12 | 562.09 | 561.66 | 561.27 |
| 16 | 562.03 | 561.82 | 561.99 | 562.16 | 561.92 | 561.86 | 562.09 | 561.99 | 561.84 | 562.16 | 561.51 | 561.30 |
| 17 | 562.09 | 561.97 | 561.86 | 562.21 | 561.96 | 561.94 | 561.78 | 561.89 | 562.00 | 562.23 | 561.66 | 561.44 |
| 18 | 562.03 | 562.18 | 561.85 | 561.81 | 561.84 | 562.01 | 561.78 | 561.88 | 561.98 | 562.02 | 561.70 | 561.45 |
| 19 | 562.00 | 562.00 | 561.84 | 562.08 | 562.05 | 561.90 | 562.05 | 562.03 | 561.93 | 561.89 | 561.96 | 561.57 |
| 20 | 562.01 | 561.94 | 561.85 | 562.12 | 561.93 | 562.01 | 561.93 | 562.06 | 561.87 | 561.85 | 562.28 | 561.80 |
| 21 | 562.00 | 561.87 | 561.89 | 562.01 | 561.94 | 562.19 | 561.98 | 562.00 | 561.87 | 562.56 | 561.99 | 561.90 |
| 22 | 562.07 | 562.09 | 561.79 | 562.13 | 561.93 | 562.06 | 562.03 | 562.06 | 561.96 | 562.30 | 561.84 | 562.31 |
| 23 | 562.03 | 561.94 | 561.85 | 562.11 | 561.95 | 561.92 | 562.04 | 561.90 | 562.09 | 561.98 | 561.31 | 561.39 |
| 24 | 562.16 | 561.92 | 561.90 | 561.92 | 562.09 | 561.98 | 561.99 | 561.99 | 561.98 | 562.15 | 561.48 | 562.27 |
| 25 | 562.16 | 561.91 | 561.93 | 562.06 | 562.06 | 562.02 | 561.83 | 561.99 | 561.88 | 561.81 | 561.47 | 561.98 |
| 26 | 562.06 | 561.90 | 561.93 | 561.99 | 562.02 | 562.20 | 561.93 | 561.85 | 562.16 | 562.06 | 561.41 | 562.60 |
| 27 | 562.11 | 561.94 | 561.94 | 562.08 | 561.88 | 562.06 | 562.03 | 561.99 | 562.18 | 561.94 | 561.57 | 561.50 |
| 28 | 562.03 | 562.00 | 561.86 | 561.85 | 561.93 | 562.09 | 562.02 | 561.98 | 562.73 | 562.14 | 561.87 | 561.38 |
| 29 | 562.20 | | 561.96 | 561.86 | 561.89 | 561.95 | 562.25 | 561.86 | 561.88 | 562.36 | 561.91 | 561.93 |
| 30 | 562.96 | | 561.95 | 561.98 | 561.88 | 561.75 | 562.16 | 561.80 | 561.89 | 561.85 | 561.58 | 562.46 |
| 31 | 563.15 | | 561.82 | | 562.14 | | 562.03 | 561.87 | | 561.73 | | 562.29 |
| Mean | 562.11 | 561.90 | 561.85 | 562.00 | 561.94 | 561.96 | 561.98 | 561.95 | 562.03 | 562.05 | 561.74 | 561.69 |
| Max. | 563.59 | 562.68 | 562.62 | 562.85 | 562.72 | 562.98 | 562.88 | 562.99 | 563.58 | 563.17 | 562.52 | 563.07 |
| Hr. | 0600 | 0600 | 1400 | 0900 | 0700 | 0700 | 0700 | 0700 | 0300 | 1200 | 2200 | 0300 |
| Day | 31 | 22 | 14 | 3 | 31 | 21 | 29 | 4 | 28 | 21 | 5 | 26 |
| Min. | 560.85 | 560.75 | 560.64 | 560.79 | 560.83 | 560.68 | 560.73 | 560.75 | 560.64 | 560.76 | 561.03 | 561.00 |
| Hr. | 1200 | 0400 | 1800 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 1900 | 0600 | 0900 |
| Day | 10 | 12 | 4 | 6 | 27 | 12 | 4 | 31 | 1 | 18 | 23 | 15 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 561.93

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3020 Buffalo Harbor, Buffalo, New York on Lake Erie

HIGHEST

Monthly mean elevation: 573.03 Apr
Daily mean elevation: 574.52 31 Jan
Instant/hourly elevation: 576.30 0200/28 Sep

LOWEST

Monthly mean elevation: 571.82 Nov
Daily mean elevation: 570.65 25 Nov
Instant/hourly elevation: 570.09 0300/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 574.52 | 573.45 | 573.00 | 573.49 | 573.26 | 573.31 | 573.38 | 573.03 | 573.32 | 573.73 | 572.79 | 572.75 |
| Day | 31     | 3      | 16     | 17     | 25     | 27     | 29     | 4      | 28     | 21     | 20     | 30     |
| Min | 571.54 | 571.06 | 570.65 | 572.31 | 572.57 | 572.63 | 572.65 | 572.09 | 571.67 | 571.05 | 570.65 | 571.06 |
| Day | 9      | 11     | 4      | 1      | 30     | 4      | 25     | 29     | 20     | 31     | 25     | 14     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.40 | 1 | | | | | | | | | | | | 574.40 | 1 |
| 574.20 | 1 | | | | | | | | | | | | 574.20 | 2 |
| 574.00 | | | | | | | | | | | | | 574.00 | 2 |
| 573.80 | 1 | | | | | | | | | | | | 573.80 | 3 |
| 573.60 | | | | | | | | | | 1 | | | 573.60 | 4 |
| 573.40 | 1 | 1 | | 1 | | | | | | | | | 573.40 | 7 |
| 573.20 | 5 | 2 | | 3 | 2 | 5 | 2 | | 1 | | | | 573.20 | 27 |
| 573.00 | 3 | | | 14 | 15 | 7 | 16 | 1 | 1 | 1 | | | 573.00 | 85 |
| 572.80 | 6 | 5 | 3 | 10 | 11 | 15 | 10 | 2 | 1 | 1 | | | 572.80 | 149 |
| 572.60 | 5 | 6 | 9 | 1 | 2 | 3 | 3 | 8 | 3 | 1 | 1 | 3 | 572.60 | 194 |
| 572.40 | 4 | 3 | 7 | | 1 | | | 14 | 4 | | 2 | 4 | 572.40 | 233 |
| 572.20 | 1 | 6 | 7 | 1 | | | | 5 | 9 | 6 | 3 | 2 | 572.20 | 273 |
| 572.00 | 1 | 1 | 1 | | | | | 1 | 4 | 3 | 4 | 3 | 572.00 | 291 |
| 571.80 | | 3 | 3 | | | | | | 5 | 6 | 5 | 8 | 571.80 | 321 |
| 571.60 | 1 | | | | | | | | 2 | 7 | 5 | 6 | 571.60 | 342 |
| 571.40 | 1 | | | | | | | | | 4 | 7 | 1 | 571.40 | 355 |
| 571.20 | | | | | | | | | | | 1 | 2 | 571.20 | 358 |
| 571.00 | | 1 | | | | | | | | 1 | 1 | 2 | 571.00 | 363 |
| 570.80 | | | | | | | | | | | | | 570.80 | 363 |
| 570.60 | | | 1 | | | | | | | | 1 | | 570.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3020 Buffalo Harbor, Buffalo, New York on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 572.73 | 572.61 | 572.51 | 572.31 | 573.05 | 573.29 | 572.67 | 572.78 | 572.19 | 572.37 | 571.94 | 571.61 |
| 2 | 572.28 | 572.88 | 572.40 | 573.22 | 572.79 | 572.90 | 572.91 | 572.98 | 572.38 | 572.29 | 571.76 | 571.90 |
| 3 | 572.43 | 573.45 | 571.92 | 573.31 | 573.04 | 572.86 | 573.13 | 572.97 | 572.56 | 573.08 | 572.43 | 571.84 |
| 4 | 572.55 | 572.86 | 570.65 | 573.04 | 572.94 | 572.63 | 572.93 | 573.03 | 572.63 | 572.82 | 571.89 | 571.35 |
| 5 | 572.93 | 572.97 | 571.95 | 572.77 | 573.17 | 572.94 | 572.97 | 572.73 | 572.50 | 572.01 | 572.51 | 571.52 |
| 6 | 572.92 | 571.92 | 572.60 | 572.84 | 573.21 | 572.99 | 573.13 | 572.51 | 572.25 | 571.88 | 571.75 | 572.39 |
| 7 | 572.77 | 572.57 | 572.47 | 572.91 | 573.00 | 572.80 | 573.02 | 572.69 | 572.28 | 572.01 | 572.21 | 572.08 |
| 8 | 572.42 | 572.51 | 572.65 | 572.89 | 572.95 | 572.85 | 573.13 | 572.62 | 572.37 | 571.93 | 572.10 | 571.84 |
| 9 | 571.54 | 572.40 | 572.64 | 572.94 | 573.02 | 573.18 | 573.07 | 572.55 | 572.71 | 571.80 | 571.84 | 571.97 |
| 10 | 571.80 | 572.55 | 572.25 | 573.14 | 573.02 | 573.16 | 573.13 | 572.71 | 573.04 | 571.83 | 571.56 | 572.18 |
| 11 | 572.47 | 571.06 | 572.63 | 572.90 | 573.13 | 573.01 | 573.17 | 572.76 | 572.56 | 571.80 | 572.05 | 571.79 |
| 12 | 572.18 | 571.90 | 572.40 | 572.95 | 573.11 | 572.88 | 573.17 | 572.53 | 572.49 | 572.29 | 571.36 | 571.82 |
| 13 | 573.30 | 572.85 | 571.87 | 573.06 | 573.02 | 572.85 | 573.01 | 572.56 | 572.37 | 571.74 | 571.72 | 571.66 |
| 14 | 572.82 | 572.71 | 572.96 | 572.82 | 572.98 | 572.98 | 573.01 | 572.59 | 572.40 | 571.66 | 571.55 | 571.06 |
| 15 | 573.23 | 572.70 | 572.59 | 572.90 | 573.20 | 573.24 | 573.02 | 572.55 | 572.29 | 571.73 | 571.95 | 571.18 |
| 16 | 573.10 | 572.26 | 573.00 | 573.12 | 572.99 | 572.92 | 573.08 | 572.58 | 571.75 | 571.80 | 571.56 | 571.34 |
| 17 | 573.39 | 572.95 | 572.48 | 573.49 | 573.02 | 572.94 | 572.81 | 572.54 | 572.04 | 572.20 | 571.45 | 571.72 |
| 18 | 572.88 | 573.28 | 572.32 | 573.12 | 572.82 | 573.01 | 572.81 | 572.46 | 572.15 | 571.81 | 571.49 | 571.84 |
| 19 | 572.93 | 572.75 | 572.34 | 572.95 | 573.03 | 572.91 | 573.02 | 572.47 | 571.88 | 571.60 | 572.40 | 572.07 |
| 20 | 572.75 | 572.39 | 572.55 | 573.11 | 573.02 | 573.00 | 573.09 | 572.72 | 571.67 | 571.59 | 572.79 | 571.95 |
| 21 | 572.61 | 571.91 | 572.74 | 573.09 | 572.99 | 573.24 | 572.98 | 572.24 | 571.86 | 573.73 | 572.37 | 572.48 |
| 22 | 573.25 | 573.30 | 572.40 | 573.14 | 572.89 | 573.10 | 573.02 | 572.40 | 572.00 | 572.25 | 572.06 | 572.55 |
| 23 | 572.80 | 572.79 | 572.24 | 573.30 | 572.90 | 572.84 | 572.93 | 572.39 | 572.32 | 571.89 | 571.46 | 571.65 |
| 24 | 573.41 | 572.62 | 572.47 | 572.99 | 573.19 | 572.91 | 572.71 | 572.63 | 572.05 | 572.31 | 571.10 | 572.75 |
| 25 | 573.26 | 572.29 | 572.62 | 573.18 | 573.26 | 573.05 | 572.65 | 572.50 | 571.82 | 571.45 | 570.65 | 572.42 |
| 26 | 572.99 | 572.11 | 572.67 | 573.03 | 573.05 | 573.24 | 572.99 | 572.38 | 572.72 | 571.73 | 571.41 | 572.61 |
| 27 | 573.20 | 572.29 | 572.64 | 573.05 | 572.76 | 573.31 | 573.06 | 572.51 | 572.81 | 571.97 | 571.66 | 571.89 |
| 28 | 573.13 | 572.40 | 572.64 | 573.05 | 572.96 | 573.15 | 572.91 | 572.56 | 573.32 | 572.26 | 572.00 | 571.75 |
| 29 | 573.91 | | 572.79 | 573.07 | 572.91 | 572.99 | 573.38 | 572.09 | 572.22 | 572.63 | 572.11 | 572.29 |
| 30 | 574.39 | | 572.82 | 573.14 | 572.57 | 572.77 | 573.24 | 572.26 | 571.89 | 571.41 | 571.62 | 572.75 |
| 31 | 574.52 | | 572.01 | | 573.15 | | 572.91 | 572.48 | | 571.05 | | 572.47 |
| Mean | 572.93 | 572.55 | 572.43 | 573.03 | 573.01 | 573.00 | 573.00 | 572.57 | 572.32 | 572.03 | 571.82 | 571.96 |
| Max.
Hr.
Day | 576.24
0500
31 | 575.05
0500
22 | 573.91
2100
16 | 574.86
0300
16 | 574.02
0300
25 | 574.34
1300
5 | 574.90
2400
11 | 574.16
0200
4 | 576.30
0200
28 | 576.09
1100
21 | 575.35
2000
5 | 574.37
2400
25 |
| Min.
Hr.
Day | 571.02
0900
10 | 570.26
2300
11 | 570.15
1700
4 | 570.73
0200
1 | 572.25
1700
30 | 571.70
0500
5 | 572.30
2300
25 | 571.50
2000
29 | 570.48
0100
26 | 570.62
1000
31 | 570.09
0300
25 | 570.66
2300
14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.55

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3028 Sturgeon Point, New York on Lake Erie

HIGHEST

Monthly mean elevation: 573.02 Apr
Daily mean elevation: 574.15 31 Jan
Instant/hourly elevation: 575.90 0400/31 Jan

LOWEST

Monthly mean elevation: 571.78 Nov
Daily mean elevation: 570.73 25 Nov
Instant/hourly elevation: 570.19 0300/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 574.15 | 573.29 | 573.01 | 573.41 | 573.18 | 573.22 | 573.23 | 572.96 | 573.04 | 573.41 | 572.65 | 572.61 |
| Day | 31 | 22 | 16 | 17 | 6 | 27 | 29 | 4 | 28 | 21 | 20 | 29 |
| Min | 571.61 | 571.21 | 570.79 | 572.39 | 572.59 | 572.64 | 572.63 | 572.07 | 571.68 | 571.16 | 570.73 | 571.09 |
| Day | 9 | 11 | 4 | 1 | 30 | 4 | 25 | 29 | 20 | 31 | 25 | 14 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.00 | 2 | | | | | | | | | | | | 574.00 | 2 |
| 573.80 | | | | | | | | | | | | | 573.80 | 2 |
| 573.60 | 1 | | | | | | | | | | | | 573.60 | 3 |
| 573.40 | | | | 1 | | | | | | 1 | | | 573.40 | 5 |
| 573.20 | 3 | 3 | | 2 | | 1 | 1 | | | | | | 573.20 | 15 |
| 573.00 | 6 | | 1 | 15 | 14 | 8 | 10 | | 1 | | | | 573.00 | 70 |
| 572.80 | 6 | 5 | 2 | 10 | 15 | 18 | 15 | 3 | 2 | 1 | | | 572.80 | 147 |
| 572.60 | 4 | 6 | 9 | 1 | 1 | 3 | 5 | 6 | 1 | | 1 | 1 | 572.60 | 185 |
| 572.40 | 4 | 4 | 8 | | 1 | | | 16 | 6 | 2 | | 5 | 572.40 | 231 |
| 572.20 | 3 | 5 | 6 | 1 | | | | 5 | 9 | 2 | 4 | 3 | 572.20 | 269 |
| 572.00 | | 2 | 2 | | | | | 1 | 4 | 5 | 2 | 3 | 572.00 | 288 |
| 571.80 | 1 | 2 | 2 | | | | | | 4 | 8 | 6 | 7 | 571.80 | 318 |
| 571.60 | 1 | | | | | | | | 3 | 9 | 7 | 6 | 571.60 | 344 |
| 571.40 | | | | | | | | | | 2 | 7 | 2 | 571.40 | 355 |
| 571.20 | | 1 | | | | | | | | | 1 | 3 | 571.20 | 360 |
| 571.00 | | | | | | | | | | 1 | 1 | 1 | 571.00 | 363 |
| 570.80 | | | | | | | | | | | | | 570.80 | 363 |
| 570.60 | | | 1 | | | | | | | | 1 | | 570.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3028 Sturgeon Point, New York on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 572.72 | 572.68 | 572.52 | 572.39 | 573.05 | 573.16 | 572.67 | 572.73 | 572.20 | 572.23 | 571.94 | 571.59 |
| 2 | 572.25 | 572.86 | 572.39 | 573.19 | 572.83 | 572.85 | 572.89 | 572.90 | 572.33 | 572.24 | 571.73 | 571.84 |
| 3 | 572.38 | 573.25 | 571.94 | 573.26 | 573.02 | 572.82 | 573.06 | 572.89 | 572.52 | 572.83 | 572.25 | 571.79 |
| 4 | 572.52 | 572.83 | 570.79 | 573.02 | 572.93 | 572.64 | 572.92 | 572.96 | 572.60 | 572.57 | 571.80 | 571.39 |
| 5 | 572.89 | 572.92 | 572.02 | 572.79 | 573.15 | 572.93 | 572.94 | 572.70 | 572.46 | 571.97 | 572.39 | 571.56 |
| 6 | 572.82 | 572.04 | 572.58 | 572.85 | 573.18 | 572.93 | 573.07 | 572.48 | 572.26 | 571.84 | 571.71 | 572.32 |
| 7 | 572.73 | 572.59 | 572.47 | 572.91 | 573.01 | 572.79 | 572.98 | 572.66 | 572.28 | 571.96 | 572.11 | 572.02 |
| 8 | 572.45 | 572.54 | 572.65 | 572.90 | 572.96 | 572.87 | 573.06 | 572.59 | 572.43 | 571.89 | 571.95 | 571.83 |
| 9 | 571.61 | 572.45 | 572.62 | 572.93 | 573.02 | 573.14 | 573.05 | 572.52 | 572.82 | 571.81 | 571.77 | 571.90 |
| 10 | 571.92 | 572.56 | 572.26 | 573.12 | 573.01 | 573.09 | 573.06 | 572.66 | 572.99 | 571.83 | 571.53 | 572.17 |
| 11 | 572.52 | 571.21 | 572.62 | 572.93 | 573.09 | 572.98 | 573.05 | 572.70 | 572.49 | 571.77 | 571.95 | 571.84 |
| 12 | 572.26 | 571.97 | 572.42 | 572.99 | 573.07 | 572.89 | 573.13 | 572.50 | 572.40 | 572.20 | 571.38 | 571.80 |
| 13 | 573.25 | 572.86 | 571.95 | 573.06 | 573.03 | 572.83 | 572.98 | 572.52 | 572.30 | 571.74 | 571.65 | 571.65 |
| 14 | 572.83 | 572.71 | 572.93 | 572.84 | 572.97 | 572.93 | 572.98 | 572.56 | 572.30 | 571.65 | 571.55 | 571.09 |
| 15 | 573.20 | 572.69 | 572.59 | 572.87 | 573.17 | 573.17 | 572.97 | 572.50 | 572.25 | 571.72 | 571.90 | 571.25 |
| 16 | 573.04 | 572.30 | 573.01 | 573.06 | 572.97 | 572.90 | 573.04 | 572.58 | 571.75 | 571.77 | 571.55 | 571.36 |
| 17 | 573.29 | 572.93 | 572.47 | 573.41 | 573.00 | 572.93 | 572.78 | 572.53 | 572.02 | 572.11 | 571.51 | 571.70 |
| 18 | 572.86 | 573.26 | 572.34 | 573.10 | 572.82 | 572.98 | 572.79 | 572.46 | 572.12 | 571.78 | 571.50 | 571.81 |
| 19 | 572.88 | 572.74 | 572.37 | 572.96 | 572.99 | 572.92 | 572.97 | 572.44 | 571.89 | 571.62 | 572.25 | 572.03 |
| 20 | 572.71 | 572.40 | 572.55 | 573.04 | 572.98 | 572.97 | 573.03 | 572.66 | 571.68 | 571.61 | 572.65 | 571.88 |
| 21 | 572.58 | 571.94 | 572.74 | 573.10 | 572.94 | 573.18 | 572.93 | 572.26 | 571.86 | 573.41 | 572.21 | 572.43 |
| 22 | 573.16 | 573.29 | 572.40 | 573.18 | 572.86 | 573.07 | 572.97 | 572.36 | 571.96 | 572.15 | 571.95 | 572.39 |
| 23 | 572.77 | 572.80 | 572.26 | 573.29 | 572.87 | 572.81 | 572.86 | 572.35 | 572.26 | 571.87 | 571.47 | 571.66 |
| 24 | 573.33 | 572.63 | 572.50 | 572.97 | 573.11 | 572.89 | 572.69 | 572.57 | 572.01 | 572.16 | 571.19 | 572.58 |
| 25 | 573.12 | 572.31 | 572.63 | 573.16 | 573.15 | 572.99 | 572.63 | 572.46 | 571.78 | 571.50 | 570.73 | 572.41 |
| 26 | 572.96 | 572.13 | 572.67 | 573.07 | 572.99 | 573.19 | 572.92 | 572.35 | 572.55 | 571.69 | 571.44 | 572.47 |
| 27 | 573.11 | 572.31 | 572.65 | 573.05 | 572.73 | 573.22 | 572.96 | 572.44 | 572.75 | 571.94 | 571.65 | 571.87 |
| 28 | 573.09 | 572.40 | 572.67 | 573.06 | 572.94 | 573.13 | 572.86 | 572.52 | 573.04 | 572.17 | 571.94 | 571.72 |
| 29 | 573.73 | | 572.78 | 573.09 | 572.88 | 572.98 | 573.23 | 572.07 | 572.21 | 572.44 | 572.11 | 572.61 |
| 30 | 574.15 | | 572.82 | 573.12 | 572.59 | 572.74 | 573.18 | 572.23 | 571.90 | 571.42 | 571.62 | 572.46 |
| 31 | 574.15 | | 572.11 | | 573.08 | | 572.85 | 572.44 | | 571.16 | | 572.26 |
| Mean | 572.88 | 572.56 | 572.44 | 573.02 | 572.98 | 572.96 | 572.95 | 572.54 | 572.28 | 571.97 | 571.78 | 571.93 |
| Max. | 575.90 | 574.74 | 573.87 | 573.98 | 573.68 | 573.94 | 573.99 | 573.84 | 575.46 | 575.33 | 574.81 | 573.94 |
| Hr. | 0400 | 0400 | 2100 | 1400 | 0300 | 1300 | 0100 | 0200 | 0200 | 1100 | 2000 | 0100 |
| Day | 31 | 22 | 16 | 17 | 25 | 5 | 12 | 4 | 28 | 21 | 5 | 26 |
| Min. | 571.16 | 570.48 | 570.42 | 570.97 | 572.33 | 571.96 | 572.31 | 571.51 | 570.63 | 570.79 | 570.19 | 570.72 |
| Hr. | 0900 | 2300 | 2400 | 0200 | 1700 | 0500 | 2300 | 2000 | 0100 | 1000 | 0300 | 1000 |
| Day | 10 | 11 | 4 | 1 | 30 | 5 | 25 | 29 | 26 | 31 | 25 | 14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.52

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3038 Erie, Pennsylvania on Lake Erie

HIGHEST

Monthly mean elevation: 573.12 Apr
Daily mean elevation: 573.76 30 Jan
Instant/hourly elevation: 574.41 0200/30 Jan

LOWEST

Monthly mean elevation: 571.77 Nov
Daily mean elevation: 571.12 25 Nov
Instant/hourly elevation: 570.84 0500/25 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.76 | 573.03 | 572.92 | 573.30 | 573.23 | 573.21 | 573.16 | 572.89 | 572.86 | 572.80 | 572.34 | 572.34 |
| Day | 30 | 22 | 30 | 17 | 6 | 27 | 12 | 2 | 10 | 21 | 20 | 26 |
| Min | 572.10 | 571.88 | 571.41 | 572.68 | 572.74 | 572.78 | 572.76 | 572.23 | 571.89 | 571.58 | 571.12 | 571.45 |
| Day | 9 | 11 | 4 | 1 | 30 | 4 | 25 | 29 | 20 | 31 | 25 | 14 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 573.60 | 1 | | | | | | | | | | | | 573.60 | 1 |
| 573.40 | 2 | | | | | | | | | | | | 573.40 | 3 |
| 573.20 | 2 | | | 7 | 1 | 1 | | | | | | | 573.20 | 14 |
| 573.00 | 6 | 2 | | 21 | 21 | 17 | 19 | | | | | | 573.00 | 100 |
| 572.80 | 7 | 7 | 5 | 1 | 8 | 11 | 10 | 3 | 1 | | | | 572.80 | 153 |
| 572.60 | 7 | 8 | 11 | 1 | 1 | 1 | 2 | 14 | 1 | 1 | | | 572.60 | 200 |
| 572.40 | 2 | 7 | 11 | | | | | 13 | 8 | 1 | | | 572.40 | 242 |
| 572.20 | 3 | 3 | 2 | | | | | 1 | 10 | 2 | 1 | 6 | 572.20 | 270 |
| 572.00 | 1 | | 1 | | | | | | 6 | 6 | 3 | 5 | 572.00 | 292 |
| 571.80 | | 1 | | | | | | | 4 | 13 | 6 | 10 | 571.80 | 326 |
| 571.60 | | | | | | | | | | 6 | 14 | 8 | 571.60 | 354 |
| 571.40 | | | 1 | | | | | | | 2 | 5 | 2 | 571.40 | 364 |
| 571.20 | | | | | | | | | | | | | 571.20 | 364 |
| 571.00 | | | | | | | | | | | 1 | | 571.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3038 Erie, Pennsylvania on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 572.67 | 572.86 | 572.56 | 572.68 | 573.18 | 573.07 | 572.86 | 572.79 | 572.34 | 572.03 | 572.03 | 571.67 |
| 2 | 572.37 | 572.86 | 572.48 | 573.20 | 573.02 | 572.87 | 573.04 | 572.89 | 572.39 | 572.22 | 571.78 | 571.77 |
| 3 | 572.33 | 572.99 | 572.16 | 573.23 | 573.15 | 572.86 | 573.12 | 572.86 | 572.51 | 572.45 | 571.99 | 571.81 |
| 4 | 572.50 | 572.80 | 571.41 | 573.09 | 573.06 | 572.78 | 573.04 | 572.88 | 572.57 | 572.29 | 571.73 | 571.63 |
| 5 | 572.84 | 572.84 | 572.29 | 572.97 | 573.20 | 572.99 | 573.06 | 572.75 | 572.45 | 571.94 | 572.15 | 571.79 |
| 6 | 572.78 | 572.44 | 572.58 | 573.04 | 573.23 | 572.96 | 573.12 | 572.64 | 572.40 | 571.89 | 571.79 | 572.19 |
| 7 | 572.75 | 572.68 | 572.53 | 573.05 | 573.13 | 572.89 | 573.07 | 572.76 | 572.40 | 571.94 | 571.98 | 572.02 |
| 8 | 572.65 | 572.67 | 572.68 | 573.01 | 573.10 | 572.94 | 573.13 | 572.70 | 572.45 | 571.91 | 571.80 | 571.89 |
| 9 | 572.10 | 572.58 | 572.65 | 573.03 | 573.13 | 573.12 | 573.11 | 572.64 | 572.58 | 571.94 | 571.71 | 571.87 |
| 10 | 572.35 | 572.65 | 572.44 | 573.17 | 573.15 | 573.08 | 573.12 | 572.71 | 572.86 | 571.93 | 571.61 | 572.07 |
| 11 | 572.76 | 571.88 | 572.66 | 573.04 | 573.13 | 573.07 | 573.12 | 572.71 | 572.46 | 571.81 | 571.77 | 572.06 |
| 12 | 572.57 | 572.28 | 572.55 | 573.15 | 573.13 | 573.01 | 573.16 | 572.60 | 572.24 | 572.08 | 571.50 | 571.91 |
| 13 | 573.27 | 572.90 | 572.38 | 573.16 | 573.13 | 572.98 | 573.10 | 572.61 | 572.23 | 571.85 | 571.57 | 571.76 |
| 14 | 572.95 | 572.78 | 572.90 | 573.01 | 573.07 | 573.04 | 573.09 | 572.64 | 572.22 | 571.77 | 571.61 | 571.45 |
| 15 | 573.09 | 572.70 | 572.63 | 573.04 | 573.16 | 573.15 | 573.09 | 572.61 | 572.30 | 571.79 | 571.82 | 571.58 |
| 16 | 572.99 | 572.51 | 572.84 | 573.09 | 573.02 | 572.99 | 573.08 | 572.67 | 572.00 | 571.81 | 571.64 | 571.68 |
| 17 | 573.17 | 572.93 | 572.61 | 573.30 | 573.05 | 573.02 | 572.94 | 572.65 | 572.17 | 572.01 | 571.64 | 571.81 |
| 18 | 572.93 | 573.03 | 572.49 | 573.16 | 572.95 | 573.05 | 572.91 | 572.60 | 572.20 | 571.86 | 571.63 | 571.86 |
| 19 | 572.86 | 572.73 | 572.52 | 573.06 | 573.04 | 572.99 | 573.06 | 572.58 | 572.07 | 571.75 | 572.03 | 572.00 |
| 20 | 572.76 | 572.49 | 572.64 | 573.12 | 573.02 | 573.07 | 573.06 | 572.71 | 571.89 | 571.75 | 572.34 | 571.87 |
| 21 | 572.67 | 572.21 | 572.75 | 573.23 | 573.00 | 573.17 | 572.97 | 572.47 | 572.07 | 572.80 | 571.93 | 572.29 |
| 22 | 573.04 | 573.03 | 572.55 | 573.27 | 572.93 | 573.12 | 572.98 | 572.52 | 572.12 | 572.08 | 571.78 | 572.21 |
| 23 | 572.81 | 572.81 | 572.48 | 573.27 | 572.93 | 572.97 | 572.89 | 572.50 | 572.22 | 571.90 | 571.59 | 571.80 |
| 24 | 573.23 | 572.66 | 572.69 | 573.06 | 573.06 | 573.01 | 572.77 | 572.57 | 572.08 | 571.96 | 571.48 | 572.24 |
| 25 | 573.10 | 572.41 | 572.76 | 573.18 | 573.07 | 573.08 | 572.76 | 572.52 | 571.92 | 571.71 | 571.12 | 572.29 |
| 26 | 572.92 | 572.35 | 572.79 | 573.21 | 573.01 | 573.18 | 572.92 | 572.46 | 572.41 | 571.76 | 571.58 | 572.34 |
| 27 | 573.04 | 572.45 | 572.79 | 573.18 | 572.84 | 573.21 | 572.94 | 572.51 | 572.62 | 571.94 | 571.75 | 571.89 |
| 28 | 573.02 | 572.49 | 572.82 | 573.20 | 572.98 | 573.16 | 572.88 | 572.55 | 572.59 | 572.07 | 571.86 | 571.80 |
| 29 | 573.51 | | 572.89 | 573.19 | 572.93 | 573.10 | 573.12 | 572.23 | 572.25 | 572.18 | 572.00 | 572.06 |
| 30 | 573.76 | | 572.92 | 573.21 | 572.74 | 572.93 | 573.12 | 572.41 | 571.99 | 571.60 | 571.75 | 572.28 |
| 31 | 573.52 | | 572.51 | | 573.00 | | 572.87 | 572.47 | | 571.58 | | 571.95 |
| Mean | 572.88 | 572.64 | 572.58 | 573.12 | 573.05 | 573.03 | 573.02 | 572.62 | 572.30 | 571.96 | 571.77 | 571.93 |
| Max.
Hr.
Day | 574.41
0200
30 | 573.68
2300
17 | 573.46
1900
16 | 573.66
1200
16 | 573.43
0200
25 | 573.60
1500
5 | 573.54
0200
12 | 573.39
0200
4 | 574.27
2400
27 | 573.71
1000
21 | 573.47
2200
5 | 573.26
2400
25 |
| Min.
Hr.
Day | 571.84
1100
10 | 571.30
2200
11 | 571.08
0100
5 | 571.79
0200
1 | 572.50
1700
30 | 572.21
0400
5 | 572.58
2300
24 | 571.72
2000
29 | 571.35
0200
26 | 571.28
0800
31 | 570.84
0500
25 | 571.21
0800
14 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.58

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3053 Fairport, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 573.20 Apr
Daily mean elevation: 573.33 26 Apr
Instant/hourly elevation: 573.72 1700/19 Jun

LOWEST

Monthly mean elevation: 571.71 Nov
Daily mean elevation: 571.54 13 Nov
Instant/hourly elevation: 571.35 2100/21 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.02 | 573.05 | 573.02 | 573.33 | 573.28 | 573.20 | 573.19 | 572.86 | 572.55 | 572.13 | 571.94 | 572.23 |
| Day | 14     | 1      | 31     | 26     | 2      | 29     | 14     | 2      | 6      | 9      | 1      | 11     |
| Min | 572.40 | 572.49 | 572.44 | 573.12 | 572.92 | 572.91 | 572.85 | 572.47 | 572.08 | 571.67 | 571.54 | 571.55 |
| Day | 3      | 28     | 1      | 2      | 30     | 4      | 27     | 29     | 28     | 29     | 13     | 31     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 573.20 | | | | 11 | 7 | | | | | | | | 573.20 | 18 |
| 573.00 | 3 | 1 | 1 | 19 | 15 | 24 | 20 | | | | | | 573.00 | 101 |
| 572.80 | 19 | 2 | 8 | | 9 | 6 | 11 | 5 | | | | | 572.80 | 161 |
| 572.60 | 5 | 16 | 15 | | | | | 16 | | | | | 572.60 | 213 |
| 572.40 | 3 | 9 | 7 | | | | | 10 | 9 | | | | 572.40 | 251 |
| 572.20 | 1 | | | | | | | | 10 | | | 1 | 572.20 | 263 |
| 572.00 | | | | | | | | | 11 | 3 | | 2 | 572.00 | 279 |
| 571.80 | | | | | | | | | | 25 | 6 | 20 | 571.80 | 330 |
| 571.60 | | | | | | | | | | 3 | 17 | 7 | 571.60 | 357 |
| 571.40 | | | | | | | | | | | 7 | 1 | 571.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3053 Fairport, Ohio on Lake Erie

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 572.47 | 573.05 | 572.44 | 573.18 | 573.26 | 572.92 | 573.12 | 572.83 | 572.47 | 571.89 | 571.94 | 571.79 |
| 2 | 572.43 | 572.81 | 572.46 | 573.12 | 573.28 | 572.93 | 573.13 | 572.86 | 572.41 | 572.13 | 571.72 | 571.74 |
| 3 | 572.40 | 572.66 | 572.51 | 573.13 | 573.21 | 572.91 | 573.09 | 572.82 | 572.50 | 571.89 | 571.63 | 571.77 |
| 4 | 572.48 | 572.77 | 572.62 | 573.16 | 573.20 | 572.91 | 573.12 | 572.84 | 572.48 | 571.85 | 571.59 | 571.97 |
| 5 | 572.69 | 572.70 | 572.69 | 573.16 | 573.23 | 573.06 | 573.11 | 572.82 | 572.45 | 571.95 | 571.70 | 571.95 |
| 6 | 572.70 | 572.86 | 572.55 | 573.17 | 573.22 | 572.96 | 573.10 | 572.78 | 572.55 | 571.93 | 571.80 | 571.88 |
| 7 | 572.76 | 572.73 | 572.54 | 573.14 | 573.23 | 573.00 | 573.15 | 572.76 | 572.50 | 571.89 | 571.69 | 571.92 |
| 8 | 572.86 | 572.74 | 572.61 | 573.14 | 573.23 | 573.01 | 573.15 | 572.75 | 572.47 | 571.92 | 571.56 | 571.91 |
| 9 | 573.01 | 572.73 | 572.62 | 573.14 | 573.20 | 573.04 | 573.13 | 572.72 | 572.40 | 572.13 | 571.58 | 571.80 |
| 10 | 572.99 | 572.68 | 572.67 | 573.17 | 573.18 | 573.06 | 573.12 | 572.67 | 572.48 | 571.99 | 571.65 | 571.98 |
| 11 | 572.99 | 572.80 | 572.65 | 573.19 | 573.16 | 573.14 | 573.13 | 572.67 | 572.36 | 571.94 | 571.59 | 572.23 |
| 12 | 572.97 | 572.77 | 572.69 | 573.22 | 573.16 | 573.14 | 573.15 | 572.69 | 572.18 | 571.89 | 571.66 | 571.92 |
| 13 | 572.97 | 572.76 | 572.93 | 573.20 | 573.17 | 573.12 | 573.17 | 572.67 | 572.23 | 571.95 | 571.54 | 571.84 |
| 14 | 573.02 | 572.68 | 572.71 | 573.21 | 573.13 | 573.11 | 573.19 | 572.65 | 572.19 | 571.90 | 571.68 | 571.98 |
| 15 | 572.91 | 572.60 | 572.58 | 573.18 | 573.10 | 573.10 | 573.12 | 572.67 | 572.35 | 571.87 | 571.69 | 572.01 |
| 16 | 572.90 | 572.76 | 572.48 | 573.17 | 573.07 | 573.11 | 573.07 | 572.72 | 572.36 | 571.84 | 571.72 | 571.97 |
| 17 | 572.92 | 572.68 | 572.77 | 573.15 | 573.06 | 573.08 | 573.05 | 572.70 | 572.27 | 571.92 | 571.82 | 571.87 |
| 18 | 572.91 | 572.58 | 572.71 | 573.19 | 573.08 | 573.07 | 573.00 | 572.70 | 572.23 | 571.96 | 571.80 | 571.86 |
| 19 | 572.85 | 572.59 | 572.72 | 573.18 | 573.06 | 573.12 | 573.02 | 572.65 | 572.20 | 571.95 | 571.69 | 571.89 |
| 20 | 572.84 | 572.58 | 572.71 | 573.23 | 573.05 | 573.10 | 573.03 | 572.67 | 572.18 | 571.97 | 571.79 | 571.80 |
| 21 | 572.87 | 572.67 | 572.69 | 573.29 | 573.03 | 573.13 | 573.01 | 572.69 | 572.24 | 571.83 | 571.58 | 572.01 |
| 22 | 572.84 | 572.58 | 572.74 | 573.26 | 573.02 | 573.17 | 572.95 | 572.59 | 572.19 | 571.91 | 571.60 | 571.84 |
| 23 | 572.85 | 572.62 | 572.80 | 573.18 | 572.96 | 573.14 | 572.92 | 572.58 | 572.18 | 571.91 | 571.70 | 571.93 |
| 24 | 573.01 | 572.56 | 572.87 | 573.17 | 572.96 | 573.11 | 572.89 | 572.55 | 572.15 | 571.77 | 571.83 | 571.76 |
| 25 | 572.95 | 572.55 | 572.85 | 573.22 | 572.98 | 573.14 | 572.90 | 572.57 | 572.08 | 571.90 | 571.79 | 571.94 |
| 26 | 572.91 | 572.62 | 572.87 | 573.33 | 572.98 | 573.13 | 572.86 | 572.55 | 572.24 | 571.90 | 571.73 | 571.86 |
| 27 | 572.95 | 572.57 | 572.89 | 573.26 | 572.99 | 573.16 | 572.85 | 572.52 | 572.23 | 571.93 | 571.83 | 571.86 |
| 28 | 572.95 | 572.49 | 572.93 | 573.27 | 572.96 | 573.19 | 572.91 | 572.52 | 572.08 | 571.75 | 571.80 | 571.82 |
| 29 | 572.98 | | 572.94 | 573.28 | 572.94 | 573.20 | 572.94 | 572.47 | 572.19 | 571.67 | 571.84 | 571.83 |
| 30 | 572.75 | | 572.96 | 573.23 | 572.92 | 573.16 | 572.95 | 572.51 | 572.16 | 571.84 | 571.81 | 571.73 |
| 31 | 572.68 | | 573.02 | | 572.95 | | 572.87 | 572.48 | | 572.07 | | 571.55 |
| Mean | 572.83 | 572.69 | 572.72 | 573.20 | 573.10 | 573.08 | 573.04 | 572.67 | 572.30 | 571.91 | 571.71 | 571.88 |
| Max.
Hr.
Day | 573.35
0900
29 | 573.31
0900
1 | 573.25
2000
31 | 573.65
0600
21 | 573.40
2400
12 | 573.72
1700
19 | 573.47
2100
11 | 573.06
2200
2 | 572.86
1300
3 | 572.56
1600
17 | 572.19
0900
1 | 572.48
0700
11 |
| Min.
Hr.
Day | 572.24
0100
3 | 572.28
0600
22 | 572.24
2200
16 | 572.83
0200
15 | 572.66
2300
28 | 572.70
0800
28 | 572.47
2300
28 | 572.23
2000
29 | 571.57
0400
28 | 571.35
1400
21 | 571.35
2100
21 | 571.37
2300
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.59

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3063 Cleveland, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 573.13 Apr
Daily mean elevation: 573.28 21 Apr
Instant/hourly elevation: 573.87 2000/11 Jul

LOWEST

Monthly mean elevation: 571.57 Nov
Daily mean elevation: 571.25 31 Dec
Instant/hourly elevation: 570.74 2300/5 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.10 | 573.04 | 573.14 | 573.28 | 573.27 | 573.13 | 573.14 | 572.75 | 572.48 | 572.11 | 571.88 | 572.21 |
| Day | 9 | 1 | 31 | 21 | 2 | 30 | 1 | 2 | 6 | 31 | 25 | 11 |
| Min | 572.26 | 572.32 | 572.22 | 573.00 | 572.84 | 572.84 | 572.76 | 572.42 | 571.87 | 571.43 | 571.28 | 571.25 |
| Day | 3 | 18 | 16 | 2 | 24 | 3 | 27 | 31 | 28 | 29 | 21 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 573.20 | | | | 4 | 1 | | | | | | | | 573.20 | 5 |
| 573.00 | 2 | 2 | 2 | 25 | 15 | 15 | 15 | | | | | | 573.00 | 81 |
| 572.80 | 7 | 3 | 8 | 1 | 15 | 15 | 12 | | | | | | 572.80 | 142 |
| 572.60 | 14 | 8 | 8 | | | | 4 | 14 | | | | | 572.60 | 190 |
| 572.40 | 2 | 12 | 9 | | | | | 17 | 3 | | | | 572.40 | 233 |
| 572.20 | 6 | 3 | 4 | | | | | | 11 | | | | 572.20 | 258 |
| 572.00 | | | | | | | | | 14 | 2 | | | 572.00 | 276 |
| 571.80 | | | | | | | | | 2 | 12 | 2 | | 571.80 | 297 |
| 571.60 | | | | | | | | | | 12 | 12 | 19 | 571.60 | 340 |
| 571.40 | | | | | | | | | | 5 | 10 | 3 | 571.40 | 358 |
| 571.20 | | | | | | | | | | | 6 | 1 | 571.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3063 Cleveland, Ohio on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 572.38 | 573.04 | 572.29 | 573.22 | 573.19 | 572.85 | 573.14 | 572.74 | 572.42 | 571.69 | 571.83 | 571.68 |
| 2 | 572.37 | 572.70 | 572.36 | 573.00 | 573.27 | 572.85 | 573.06 | 572.75 | 572.32 | 572.00 | 571.59 | 571.56 |
| 3 | 572.26 | 572.48 | 572.54 | 573.01 | 573.15 | 572.84 | 573.02 | 572.69 | 572.39 | 571.56 | 571.34 | 571.67 |
| 4 | 572.36 | 572.65 | 572.99 | 573.07 | 573.15 | 572.87 | 573.05 | 572.70 | 572.36 | 571.61 | 571.37 | 571.95 |
| 5 | 572.56 | 572.55 | 572.70 | 573.14 | 573.14 | 572.95 | 573.02 | 572.73 | 572.35 | 571.84 | 571.42 | 571.91 |
| 6 | 572.57 | 572.90 | 572.42 | 573.12 | 573.14 | 572.88 | 572.98 | 572.74 | 572.48 | 571.78 | 571.76 | 571.62 |
| 7 | 572.67 | 572.64 | 572.42 | 573.06 | 573.19 | 572.92 | 573.04 | 572.68 | 572.44 | 571.76 | 571.45 | 571.79 |
| 8 | 572.83 | 572.68 | 572.47 | 573.06 | 573.17 | 572.92 | 573.02 | 572.66 | 572.38 | 571.79 | 571.31 | 571.79 |
| 9 | 573.10 | 572.66 | 572.54 | 573.07 | 573.13 | 572.88 | 573.04 | 572.66 | 572.26 | 572.07 | 571.43 | 571.67 |
| 10 | 573.09 | 572.60 | 572.66 | 573.08 | 573.11 | 572.96 | 573.01 | 572.57 | 572.37 | 571.93 | 571.53 | 571.80 |
| 11 | 572.96 | 573.02 | 572.56 | 573.13 | 573.06 | 573.03 | 573.04 | 572.54 | 572.24 | 571.83 | 571.37 | 572.21 |
| 12 | 572.98 | 572.86 | 572.63 | 573.13 | 573.11 | 573.08 | 573.05 | 572.63 | 572.01 | 571.73 | 571.63 | 571.80 |
| 13 | 572.76 | 572.64 | 573.02 | 573.10 | 573.08 | 573.05 | 573.08 | 572.61 | 572.08 | 571.85 | 571.40 | 571.77 |
| 14 | 572.94 | 572.57 | 572.55 | 573.19 | 573.05 | 572.98 | 573.06 | 572.58 | 572.03 | 571.81 | 571.59 | 572.06 |
| 15 | 572.76 | 572.48 | 572.39 | 573.16 | 573.00 | 572.99 | 573.05 | 572.58 | 572.27 | 571.74 | 571.57 | 572.06 |
| 16 | 572.77 | 572.81 | 572.22 | 573.10 | 573.06 | 573.06 | 572.99 | 572.58 | 572.36 | 571.73 | 571.62 | 571.95 |
| 17 | 572.75 | 572.49 | 572.80 | 573.06 | 572.97 | 573.01 | 573.01 | 572.63 | 572.20 | 571.74 | 571.77 | 571.77 |
| 18 | 572.82 | 572.32 | 572.67 | 573.09 | 573.02 | 572.95 | 572.95 | 572.63 | 572.14 | 571.89 | 571.71 | 571.74 |
| 19 | 572.76 | 572.40 | 572.67 | 573.10 | 573.00 | 573.07 | 572.94 | 572.60 | 572.16 | 571.91 | 571.46 | 571.71 |
| 20 | 572.79 | 572.51 | 572.60 | 573.11 | 572.97 | 573.00 | 572.96 | 572.58 | 572.19 | 571.89 | 571.57 | 571.63 |
| 21 | 572.80 | 572.68 | 572.60 | 573.28 | 572.93 | 573.01 | 572.95 | 572.66 | 572.21 | 571.53 | 571.28 | 571.81 |
| 22 | 572.66 | 572.42 | 572.71 | 573.18 | 572.94 | 573.08 | 572.87 | 572.54 | 572.10 | 571.79 | 571.41 | 571.63 |
| 23 | 572.76 | 572.53 | 572.82 | 573.08 | 572.86 | 573.10 | 572.84 | 572.50 | 572.06 | 571.77 | 571.63 | 571.88 |
| 24 | 572.80 | 572.41 | 572.83 | 573.07 | 572.84 | 573.05 | 572.85 | 572.42 | 572.06 | 571.57 | 571.77 | 571.44 |
| 25 | 572.86 | 572.50 | 572.78 | 573.16 | 572.90 | 573.06 | 572.84 | 572.47 | 572.05 | 571.83 | 571.88 | 571.75 |
| 26 | 572.74 | 572.62 | 572.81 | 573.27 | 572.88 | 573.03 | 572.76 | 572.49 | 572.04 | 571.80 | 571.64 | 571.73 |
| 27 | 572.80 | 572.48 | 572.81 | 573.23 | 572.92 | 573.00 | 572.76 | 572.44 | 571.98 | 571.83 | 571.74 | 571.75 |
| 28 | 572.78 | 572.40 | 572.87 | 573.20 | 572.86 | 573.09 | 572.78 | 572.43 | 571.87 | 571.44 | 571.72 | 571.75 |
| 29 | 572.81 | | 572.85 | 573.18 | 572.88 | 573.11 | 572.87 | 572.49 | 572.10 | 571.43 | 571.61 | 571.61 |
| 30 | 572.36 | | 572.86 | 573.17 | 572.91 | 573.13 | 572.83 | 572.45 | 572.09 | 571.82 | 571.74 | 571.49 |
| 31 | 572.39 | | 573.14 | | 572.89 | | 572.77 | 572.42 | | 572.11 | | 571.25 |
| Mean | 572.72 | 572.61 | 572.66 | 573.13 | 573.02 | 572.99 | 572.96 | 572.59 | 572.20 | 571.78 | 571.57 | 571.75 |
| Max. | 573.40 | 573.38 | 573.59 | 573.83 | 573.54 | 573.77 | 573.87 | 572.97 | 572.80 | 572.37 | 572.23 | 572.52 |
| Hr. | 2100 | 0900 | 2000 | 2200 | 1300 | 1700 | 2000 | 0100 | 1500 | 1300 | 0100 | 2000 |
| Day* | 9 | 1 | 31 | 15 | 2 | 19 | 11 | 21 | 3 | 9 | 25 | 25 |
| Min. | 571.76 | 572.05 | 571.77 | 572.72 | 572.59 | 572.43 | 572.44 | 572.20 | 571.21 | 570.85 | 570.74 | 571.01 |
| Hr. | 0400 | 0700 | 1900 | 0400 | 1200 | 1900 | 0700 | 0800 | 0300 | 0400 | 2300 | 2300 |
| Day | 30 | 22 | 16 | 16 | 24 | 8 | 26 | 31 | 28 | 4 | 5 | 30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.50

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3079 Marblehead, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 573.15 Apr
Daily mean elevation: 574.14 4 Mar
Instant/hourly elevation: 574.61 1600/4 Mar

LOWEST

Monthly mean elevation: 571.50 Nov
Daily mean elevation: 570.72 21 Oct
Instant/hourly elevation: 569.65 2200/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.77 | 573.71 | 574.14 | 573.41 | 573.42 | 573.35 | 573.35 | 572.80 | 572.56 | 572.17 | 572.44 | 572.35 |
| Day | 9 | 11 | 4 | 1 | 2 | 30 | 1 | 21 | 1 | 31 | 25 | 14 |
| Min | 571.52 | 571.86 | 571.98 | 572.88 | 572.64 | 572.72 | 572.49 | 572.38 | 571.39 | 570.72 | 570.99 | 570.98 |
| Day | 30 | 18 | 16 | 17 | 24 | 1 | 29 | 24 | 28 | 21 | 5 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.00 | | | 1 | | | | | | | | | | 574.00 | 1 |
| 573.80 | | | | | | | | | | | | | 573.80 | 1 |
| 573.60 | 1 | 1 | | | | | | | | | | | 573.60 | 3 |
| 573.40 | 1 | | 1 | 1 | 1 | | | | | | | | 573.40 | 7 |
| 573.20 | | 2 | 1 | 6 | 5 | 3 | 1 | | | | | | 573.20 | 25 |
| 573.00 | 2 | | 1 | 18 | 13 | 10 | 11 | | | | | | 573.00 | 80 |
| 572.80 | 3 | 4 | 13 | 3 | 9 | 15 | 13 | | | | | | 572.80 | 140 |
| 572.60 | 7 | 3 | 3 | | 3 | 2 | 5 | 15 | | | | | 572.60 | 178 |
| 572.40 | 6 | 4 | 5 | | | | 1 | 15 | 6 | | 1 | | 572.40 | 216 |
| 572.20 | 5 | 2 | 4 | | | | | 1 | 9 | | | 2 | 572.20 | 239 |
| 572.00 | 1 | | 1 | | | | | | 7 | 4 | 1 | 2 | 572.00 | 255 |
| 571.80 | | 1 | 1 | | | | | | 5 | 12 | 2 | 4 | 571.80 | 280 |
| 571.60 | 1 | | | | | | | | 1 | 7 | 8 | 11 | 571.60 | 308 |
| 571.40 | 1 | | | | | | | | 1 | 3 | 7 | 3 | 571.40 | 323 |
| 571.20 | | | | | | | | | 1 | 1 | 4 | 5 | 571.20 | 334 |
| 571.00 | | | | | | | | | | 3 | 6 | 3 | 571.00 | 346 |
| 570.80 | | | | | | | | | | | 1 | 1 | 570.80 | 348 |
| 570.60 | | | | | | | | | | 1 | | | 570.60 | 349 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3079 Marblehead, Ohio on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 572.13 | 572.97 | 572.18* | 573.41 | 573.28 | 572.72 | 573.35 | 572.73 | 572.56 | 571.65 | 571.52 | 571.79 |
| 2 | 572.44 | / | 572.28 | 572.91 | 573.42 | 572.87 | 573.13 | 572.61 | 572.41 | 571.83 | 571.54 | 571.55 |
| 3 | 572.33 | 572.74* | 572.81 | 572.92 | 573.22 | 572.85 | 573.01 | 572.59 | 572.26 | 571.18 | 571.03 | 571.66 |
| 4 | 572.32 | 572.60 | 574.14 | 573.10 | 573.29 | 573.01 | 573.12 | 572.57 | 572.28 | 571.31 | 571.32 | 572.15 |
| 5 | 572.40 | 572.50 | 572.85 | 573.29 | 573.14 | 572.94 | 573.07 | 572.72 | 572.36 | 571.84 | 570.99 | 571.98 |
| 6 | 572.52 | 573.21* | 572.39 | 573.17 | 573.12 | 572.89 | 572.91 | 572.77 | 572.52 | 571.84 | 571.68 | 571.27 |
| 7 | 572.64 | 572.97* | 572.41 | 573.10 | 573.25 | 572.97 | 573.04 | 572.65 | 572.49 | 571.73 | 571.12 | 571.69 |
| 8 | 572.99 | 572.84 | 572.32 | 573.12 | 573.25 | 572.97 | 572.98 | 572.69 | 572.39 | 571.79 | 571.16 | 571.74 |
| 9 | 573.77 | 572.73 | 572.50 | 573.11 | 573.16 | 572.76 | 572.98 | 572.69 | 572.00 | 572.11 | 571.35 | 571.66 |
| 10 | 573.53 | 572.65 | 572.88 | 573.08 | 573.15 | 572.95 | 573.01 | 572.49 | 571.83 | 571.93 | 571.55 | 571.57 |
| 11 | 573.04 | 573.71 | 572.55 | 573.31 | 573.09 | 573.04 | 572.91 | 572.51 | 572.18 | 571.89 | 571.25 | 571.91 |
| 12 | 573.19 | 573.24 | 572.75 | 573.12 | 573.15 | 573.16 | 573.00 | 572.69 | 571.99 | 571.55 | 571.76 | 571.76 |
| 13 | 572.25 | 572.45 | 573.23 | 573.14* | 573.15 | 573.17 | 573.05 | 572.62 | 572.04 | 571.92 | 571.41 | 571.87 |
| 14 | 572.85 | 572.45 | 572.36 | / | 573.05 | 573.00 | 573.06 | 572.59 | 571.99 | 571.90 | 571.64 | 572.35 |
| 15 | 572.59 | 572.40 | 572.42 | / | 572.89 | 572.94 | 573.13 | 572.63 | 572.21 | 571.81 | 571.44 | 572.31 |
| 16 | 572.67 | 572.90 | 571.98 | 573.09* | 573.12 | 573.21 | 573.00 | 572.53 | 572.55 | 571.76 | 571.64 | 572.06 |
| 17 | 572.48 | 572.22 | 572.90 | 572.88 | 572.98 | 573.04 | 573.12 | 572.62 | 572.27 | 571.63 | 571.88 | 571.80 |
| 18 | 572.76 | 571.86* | 572.84 | 573.07 | 573.09 | 573.00 | 573.04 | 572.68 | 572.16 | 571.96 | 571.79 | 571.70 |
| 19 | / | / | 572.77 | 573.16 | 573.03 | 573.06 | 572.86 | 572.64 | 572.30 | 572.03 | 571.20 | 571.55 |
| 20 | / | / | 572.63 | 573.10 | 572.99 | 572.99 | 572.88 | 572.53 | 572.42 | 572.05 | 571.04 | 571.63 |
| 21 | / | / | 572.57 | 573.34 | 572.95 | 572.94 | 572.99 | 572.80 | 572.22 | 570.72 | 571.05 | 571.31 |
| 22 | 572.58* | / | 572.86 | 573.18 | 573.00 | 573.11 | 572.86 | 572.60 | 572.13 | 571.59 | 571.30 | 571.39 |
| 23 | 572.81 | / | 573.05 | 573.08 | 572.87 | 573.28 | 572.89 | 572.54 | 571.99 | 571.74 | 571.69 | 571.91 |
| 24 | 572.47 | / | 572.88 | 573.17 | 572.64 | 573.13 | 572.96 | 572.38 | 572.12 | 571.48 | 572.01 | 571.05 |
| 25 | 572.73 | / | 572.81 | 573.16 | 572.74 | 572.98 | 572.94 | 572.49 | 572.26 | 571.86 | 572.44 | 571.33 |
| 26 | 572.67 | / | 572.85 | 573.38 | 572.86 | 573.00 | 572.66 | 572.54 | 571.75 | 571.85 | 571.81 | 571.38 |
| 27 | 572.69 | / | 572.86 | 573.30 | 573.09 | 572.90 | 572.70 | 572.42 | 571.45 | 571.61 | 571.68 | 571.69 |
| 28 | 572.63 | / | 572.90 | 573.21 | 572.82 | 573.05 | 572.69 | 572.44 | 571.39 | 571.18 | 571.60 | 571.74 |
| 29 | 572.22 | / | 572.86 | 573.18 | 572.92 | 573.18 | 572.49 | 572.74 | 572.04 | 571.03 | 571.41 | 571.19 |
| 30 | 571.52 | / | 572.88 | 573.19 | 573.07 | 573.35 | 572.66 | 572.48 | 572.16 | 571.97 | 571.80 | 570.98 |
| 31 | 571.79 | / | 573.54 | / | 572.78 | / | 572.77 | 572.42 | / | 572.17 | / | 571.03 |
| Mean | 572.61 | 572.73 | 572.75 | 573.15 | 573.05 | 573.02 | 572.94 | 572.60 | 572.16 | 571.71 | 571.50 | 571.64 |
| Max. | 574.14 | 574.35 | 574.61 | 574.54 | 573.77 | 573.72 | 573.75 | 573.23 | 572.94 | 572.58 | 572.88 | 572.72 |
| Hr. | 1600 | 1500 | 1600 | 0200 | 2300 | 1800 | 1100 | 1900 | 2400 | 0100 | 0500 | 0200 |
| Day | 9 | 11 | 4 | 1 | 12 | 30 | 12 | 29 | 3 | 13 | 25 | 15 |
| Min. | 570.47 | 571.44 | 571.39 | 572.48 | 572.33 | 572.29 | 572.05 | 571.98 | 569.65 | 569.86 | 569.71 | 570.36 |
| Hr. | 0600 | 0200 | 2000 | 1100 | 0100 | 1600 | 1000 | 0300 | 2200 | 1100 | 2100 | 1800 |
| Day | 31 | 18 | 16 | 17 | 25 | 5 | 29 | 4 | 27 | 21 | 5 | 6 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.49

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3085 Toledo, Ohio on Lake Erie

HIGHEST

Monthly mean elevation: 573.24 Apr
Daily mean elevation: 574.57 4 Mar
Instant/hourly elevation: 575.66 0200/1 Apr

LOWEST

Monthly mean elevation: 571.49 Nov
Daily mean elevation: 569.95 21 Oct
Instant/hourly elevation: 568.08 2400/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 574.54 | 574.25 | 574.57 | 573.69 | 573.67 | 573.73 | 573.59 | 572.96 | 572.81 | 572.25 | 573.16 | 572.63 |
| Day | 9 | 11 | 4 | 11 | 2 | 30 | 1 | 29 | 20 | 20 | 25 | 14 |
| Min | 570.72 | 571.60 | 571.96 | 572.62 | 572.33 | 572.55 | 571.92 | 572.29 | 570.91 | 569.95 | 570.54 | 570.67 |
| Day | 30 | 18 | 14 | 17 | 24 | 1 | 29 | 24 | 28 | 21 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.40 | 1 | | 1 | | | | | | | | | | 574.40 | 2 |
| 574.20 | 1 | 1 | | | | | | | | | | | 574.20 | 4 |
| 574.00 | | | 1 | | | | | | | | | | 574.00 | 5 |
| 573.80 | | | | | | | | | | | | | 573.80 | 5 |
| 573.60 | | 1 | | 3 | 1 | 1 | | | | | | | 573.60 | 11 |
| 573.40 | 1 | 1 | | 4 | 4 | 2 | 1 | | | | | | 573.40 | 24 |
| 573.20 | 1 | 1 | 2 | 11 | 9 | 5 | 2 | | | | | | 573.20 | 55 |
| 573.00 | 2 | | 3 | 8 | 6 | 7 | 11 | | | | 1 | | 573.00 | 93 |
| 572.80 | 5 | 4 | 12 | 3 | 5 | 12 | 9 | 3 | 1 | | | | 572.80 | 147 |
| 572.60 | 7 | 7 | 2 | 1 | 3 | 2 | 4 | 13 | 2 | | | 1 | 572.60 | 189 |
| 572.40 | 6 | 3 | 5 | | 2 | 1 | 3 | 9 | 5 | | | 1 | 572.40 | 224 |
| 572.20 | 1 | 6 | 3 | | 1 | | | 6 | 5 | 2 | 1 | 1 | 572.20 | 250 |
| 572.00 | 1 | 2 | | | | | | | 9 | 5 | | 3 | 572.00 | 270 |
| 571.80 | 2 | 1 | 2 | | | | 1 | | 3 | 10 | 6 | 3 | 571.80 | 298 |
| 571.60 | 1 | | | | | | | | 1 | 3 | 6 | 10 | 571.60 | 319 |
| 571.40 | | 1 | | | | | | | 1 | 4 | 2 | 2 | 571.40 | 329 |
| 571.20 | | | | | | | | | | 2 | 6 | 3 | 571.20 | 340 |
| 571.00 | 1 | | | | | | | | 2 | 1 | 2 | 1 | 571.00 | 347 |
| 570.80 | | | | | | | | | 1 | 2 | 4 | 4 | 570.80 | 358 |
| 570.60 | 1 | | | | | | | | | | 1 | 2 | 570.60 | 362 |
| 570.40 | | | | | | | | | | 1 | 1 | | 570.40 | 364 |
| 570.20 | | | | | | | | | | | | | 570.20 | 364 |
| 570.00 | | | | | | | | | | | | | 570.00 | 364 |
| 569.80 | | | | | | | | | | 1 | | | 569.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3085 Toledo, Ohio on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 571.97 | 572.97 | 572.26 | 573.69 | 573.52 | 572.55 | 573.59 | 572.70 | 572.67 | 571.62 | 571.23 | 571.97 |
| 2 | 572.66 | 572.72 | 572.39 | 572.81 | 573.67 | 572.89 | 573.18 | 572.38 | 572.38 | 571.59 | 571.60 | 571.59 |
| 3 | 572.47 | 572.35 | 572.99 | 572.85 | 573.28 | 572.90 | 573.00 | 572.43 | 572.13 | 570.92 | 570.87 | 571.74 |
| 4 | 572.41 | 572.66 | 574.57 | 573.19 | 573.44 | 573.35 | 573.17 | 572.38 | 572.19 | 571.06 | 571.35 | 572.29 |
| 5 | 572.42 | 572.53 | 572.96 | 573.60 | 573.15 | 572.90 | 573.09 | 572.75 | 572.41 | 571.84 | 570.65 | 572.02 |
| 6 | 572.67 | 573.44 | 572.45 | 573.30 | 573.22 | 572.93 | 572.84 | 572.83 | 572.56 | 571.93 | 571.62 | 571.04 |
| 7 | 572.79 | 572.71 | 572.49 | 573.22 | 573.44 | 573.12 | 573.04 | 572.65 | 572.51 | 571.74 | 570.84 | 571.67 |
| 8 | 573.29 | 572.91 | 572.34 | 573.20 | 573.43 | 572.97 | 572.95 | 572.76 | 572.40 | 571.84 | 571.04 | 571.76 |
| 9 | 574.54 | 572.90 | 572.58 | 573.16 | 573.29 | 572.65 | 572.87 | 572.79 | 571.72 | 572.07 | 571.35 | 571.72 |
| 10 | 574.27 | 572.73 | 573.20 | 573.13 | 573.22 | 572.93 | 572.99 | 572.41 | 571.20 | 571.97 | 571.61 | 571.24 |
| 11 | 573.19 | 574.25 | 572.59 | 573.69 | 573.16 | 573.14 | 572.87 | 572.53 | 572.14 | 571.97 | 571.18 | 571.70 |
| 12 | 573.51 | 573.68 | 572.88 | 573.21 | 573.31 | 573.34 | 572.82 | 572.80 | 572.00 | 571.34 | 572.00 | 571.77 |
| 13 | 571.94 | 572.29 | 573.21 | 573.20 | 573.25 | 573.34 | 573.09 | 572.64 | 572.02 | 572.05 | 571.49 | 572.02 |
| 14 | 572.91 | 572.40 | 571.96 | 573.68 | 572.98 | 573.00 | 573.07 | 572.60 | 571.95 | 572.01 | 571.74 | 572.63 |
| 15 | 572.55 | 572.39 | 572.53 | 573.42 | 572.63 | 572.89 | 573.25 | 572.67 | 572.11 | 571.91 | 571.35 | 572.47 |
| 16 | 572.66 | 572.99 | 572.00 | 573.00 | 573.19 | 573.43 | 573.01 | 572.47 | 572.70 | 571.84 | 571.69 | 572.20 |
| 17 | 572.28 | 572.07 | 572.96 | 572.62 | 572.98 | 573.08 | 573.27 | 572.62 | 572.36 | 571.59 | 571.93 | 571.87 |
| 18 | 572.81 | 571.60 | 573.04 | 573.08 | 573.27 | 573.02 | 573.17 | 572.72 | 572.17 | 572.05 | 571.94 | 571.72 |
| 19 | 572.86 | 572.37 | 572.94 | 573.30 | 572.99 | 573.15 | 572.76 | 572.67 | 572.47 | 572.22 | 570.99 | 571.47 |
| 20 | 572.96 | 572.65 | 572.71 | 573.05 | 573.02 | 572.97 | 572.75 | 572.44 | 572.81 | 572.25 | 570.54 | 571.71 |
| 21 | 573.08 | 573.25 | 572.63 | 573.37 | 572.97 | 572.86 | 573.02 | 572.91 | 572.33 | 569.95 | 570.86 | 570.84 |
| 22 | 572.45 | 571.87 | 573.08 | 573.21 | 573.08 | 573.16 | 572.86 | 572.65 | 572.15 | 571.43 | 571.23 | 571.24 |
| 23 | 572.99 | 572.16 | 573.40 | 573.16 | 572.86 | 573.55 | 572.97 | 572.63 | 571.92 | 571.73 | 571.81 | 571.94 |
| 24 | 572.20 | 572.24 | 573.00 | 573.25 | 572.33 | 573.27 | 573.10 | 572.29 | 572.20 | 571.45 | 572.27 | 570.68 |
| 25 | 572.69 | 572.74 | 572.97 | 573.26 | 572.49 | 572.90 | 573.06 | 572.52 | 572.58 | 571.95 | 573.16 | 570.96 |
| 26 | 572.72 | 572.77 | 572.97 | 573.52 | 572.80 | 572.83 | 572.53 | 572.59 | 571.53 | 571.89 | 571.99 | 571.28 |
| 27 | 572.65 | 572.53 | 572.99 | 573.49 | 573.35 | 572.79 | 572.60 | 572.36 | 571.06 | 571.40 | 571.63 | 571.70 |
| 28 | 572.57 | 572.46 | 572.97 | 573.26 | 572.79 | 573.08 | 572.67 | 572.40 | 570.91 | 570.99 | 571.61 | 571.78 |
| 29 | 571.76 | | 572.93 | 573.21 | 573.03 | 573.29 | 571.92 | 572.96 | 572.01 | 570.57 | 571.27 | 570.98 |
| 30 | 570.72 | | 572.96 | 573.22 | 573.38 | 573.73 | 572.45 | 572.52 | 572.26 | 571.98 | 571.92 | 570.67 |
| 31 | 571.12 | | 574.11 | | 572.53 | | 572.76 | 572.35 | | 572.02 | | 570.97 |
| Mean | 572.65 | 572.66 | 572.87 | 573.24 | 573.10 | 573.07 | 572.93 | 572.60 | 572.13 | 571.65 | 571.49 | 571.60 |
| Max.
Hr.
Day | 575.28
1000
10 | 575.28
0100
12 | 575.35
2100
31 | 575.66
0200
1 | 574.57
2100
12 | 574.34
2000
30 | 574.13
1000
12 | 573.76
2100
29 | 573.80
2200
25 | 573.36
0200
13 | 574.06
0800
25 | 573.16
1000
14 |
| Min.
Hr.
Day | 569.39
0800
31 | 570.91
2400
17 | 571.28
2000
16 | 572.07
1200
20 | 571.80
0600
24 | 571.83
1500
5 | 571.42
1100
29 | 571.61
0400
4 | 568.08
2400
27 | 568.13
1200
21 | 568.73
2200
5 | 569.09
2200
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.50

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 906-3090 Fermi Power Plant, Stony Point, Michigan on Lake Erie

HIGHEST

Monthly mean elevation: 573.20 Apr
Daily mean elevation: 574.26 4 Mar
Instant/hourly elevation: 574.87 0200/1 Apr

LOWEST

Monthly mean elevation: 571.54 Nov
Daily mean elevation: 570.34 21 Oct
Instant/hourly elevation: 568.55 2300/27 Sep

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.77 | 573.85 | 574.26 | 573.47 | 573.52 | 573.46 | 573.43 | 572.87 | 572.65 | 572.21 | 572.77 | 572.44 |
| Day | 9      | 11     | 4      | 14     | 2      | 30     | 1      | 29     | 20     | 20     | 25     | 14     |
| Min | 571.22 | 571.81 | 571.88 | 572.71 | 572.59 | 572.56 | 572.09 | 572.34 | 571.20 | 570.34 | 570.70 | 570.84 |
| Day | 30     | 18     | 14     | 17     | 25     | 1      | 29     | 31     | 28     | 21     | 20     | 30     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.20 | | | 1 | | | | | | | | | | 574.20 | 1 |
| 574.00 | | | | | | | | | | | | | 574.00 | 1 |
| 573.80 | | 1 | | | | | | | | | | | 573.80 | 2 |
| 573.60 | 1 | | 1 | | | | | | | | | | 573.60 | 4 |
| 573.40 | 1 | | | 5 | 2 | 2 | 1 | | | | | | 573.40 | 15 |
| 573.20 | 1 | 1 | 1 | 9 | 8 | 4 | | | | | | | 573.20 | 39 |
| 573.00 | 2 | 2 | | 13 | 10 | 12 | 11 | | | | | | 573.00 | 89 |
| 572.80 | 6 | 1 | 12 | 1 | 7 | 10 | 11 | 1 | | | | | 572.80 | 138 |
| 572.60 | 6 | 10 | 5 | 2 | 2 | 1 | 5 | 14 | 1 | | 1 | | 572.60 | 185 |
| 572.40 | 6 | 4 | 6 | | 2 | 1 | 2 | 13 | 6 | | | 1 | 572.40 | 226 |
| 572.20 | 3 | 5 | 4 | | | | | 3 | 7 | 1 | | 1 | 572.20 | 250 |
| 572.00 | 1 | 2 | | | | | 1 | | 9 | 1 | 1 | 2 | 572.00 | 267 |
| 571.80 | 2 | 2 | 1 | | | | | | 3 | 14 | 4 | 6 | 571.80 | 299 |
| 571.60 | | | | | | | | | 1 | 6 | 9 | 9 | 571.60 | 324 |
| 571.40 | 1 | | | | | | | | | 4 | 2 | 2 | 571.40 | 333 |
| 571.20 | 1 | | | | | | | | 2 | 3 | 7 | 3 | 571.20 | 349 |
| 571.00 | | | | | | | | | 1 | | 4 | 3 | 571.00 | 357 |
| 570.80 | | | | | | | | | | | 1 | 4 | 570.80 | 362 |
| 570.60 | | | | | | | | | | 1 | 1 | | 570.60 | 364 |
| 570.40 | | | | | | | | | | | | | 570.40 | 364 |
| 570.20 | | | | | | | | | | 1 | | | 570.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 906-3090 Fermi Power Plant, Stony Point, Michigan on Lake Erie

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 571.87 | 572.77 | 572.28 | 573.42 | 573.34 | 572.56 | 573.43 | 572.75 | 572.57 | 571.87 | 571.24 | 571.95 |
| 2 | 572.53 | 572.71 | 572.37 | 572.79 | 573.52 | 572.90 | 573.17 | 572.45 | 572.43 | 571.62 | 571.70 | 571.69 |
| 3 | 572.46 | 572.40 | 572.87 | 572.86 | 573.31 | 572.87 | 573.00 | 572.55 | 572.21 | 571.26 | 571.13 | 571.73 |
| 4 | 572.46 | 572.63 | 574.26 | 573.12 | 573.42 | 573.13 | 573.16 | 572.44 | 572.20 | 571.25 | 571.53 | 572.07 |
| 5 | 572.25 | 572.55 | 572.76 | 573.37 | 573.16 | 572.80 | 573.15 | 572.70 | 572.37 | 571.85 | 570.86 | 571.95 |
| 6 | 572.57 | 573.16 | 572.41 | 573.23 | 573.18 | 572.94 | 572.97 | 572.80 | 572.49 | 571.96 | 571.58 | 571.20 |
| 7 | 572.69 | 572.73 | 572.46 | 573.17 | 573.33 | 573.06 | 573.06 | 572.63 | 572.46 | 571.79 | 571.11 | 571.69 |
| 8 | 572.95 | 572.76 | 572.29 | 573.19 | 573.34 | 573.00 | 572.99 | 572.73 | 572.38 | 571.86 | 571.23 | 571.81 |
| 9 | 573.77 | 572.85 | 572.48 | 573.16 | 573.21 | 572.82 | 572.95 | 572.78 | 571.93 | 571.80 | 571.40 | 571.78 |
| 10 | 573.59 | 572.66 | 573.00 | 573.09 | 573.16 | 572.94 | 573.00 | 572.52 | 571.31 | 571.94 | 571.61 | 571.30 |
| 11 | 573.04 | 573.85 | 572.51 | 573.45 | 573.14 | 573.03 | 572.89 | 572.54 | 572.16 | 571.99 | 571.35 | 571.48 |
| 12 | 573.34 | 573.35 | 572.76 | 573.13 | 573.11 | 573.21 | 572.86 | 572.77 | 572.17 | 571.45 | 571.88 | 571.79 |
| 13 | 572.15 | 572.24 | 572.78 | 573.14 | 573.14 | 573.24 | 573.04 | 572.63 | 572.17 | 571.92 | 571.62 | 571.98 |
| 14 | 572.90 | 572.40 | 571.88 | 573.47 | 573.11 | 573.06 | 573.03 | 572.60 | 572.16 | 572.00 | 571.69 | 572.44 |
| 15 | 572.62 | 572.42 | 572.60 | 573.38 | 572.77 | 572.89 | 573.14 | 572.66 | 572.02 | 571.92 | 571.40 | 572.22 |
| 16 | 572.74 | 572.73 | 572.23 | 573.16 | 573.16 | 573.31 | 573.00 | 572.51 | 572.55 | 571.86 | 571.68 | 572.07 |
| 17 | 572.34 | 572.08 | 572.78 | 572.71 | 573.00 | 573.10 | 573.19 | 572.58 | 572.29 | 571.62 | 571.72 | 571.87 |
| 18 | 572.77 | 571.81 | 572.93 | 573.13 | 573.24 | 573.02 | 573.14 | 572.68 | 572.13 | 572.00 | 571.90 | 571.74 |
| 19 | 572.82 | 572.38 | 572.87 | 573.30 | 572.93 | 573.11 | 572.79 | 572.68 | 572.34 | 572.15 | 571.13 | 571.54 |
| 20 | 572.92 | 572.61 | 572.67 | 573.16 | 572.99 | 573.04 | 572.75 | 572.41 | 572.65 | 572.21 | 570.70 | 571.77 |
| 21 | 573.03 | 573.12 | 572.60 | 573.16 | 572.95 | 572.89 | 572.96 | 572.78 | 572.25 | 570.34 | 571.18 | 571.00 |
| 22 | 572.49 | 571.91 | 572.96 | 573.15 | 573.08 | 573.06 | 572.82 | 572.63 | 572.19 | 571.52 | 571.35 | 571.32 |
| 23 | 572.97 | 572.12 | 573.22 | 573.14 | 573.01 | 573.41 | 572.93 | 572.65 | 571.91 | 571.78 | 571.78 | 571.90 |
| 24 | 572.23 | 572.24 | 572.87 | 573.42 | 572.72 | 573.22 | 573.05 | 572.36 | 572.16 | 571.56 | 572.01 | 570.94 |
| 25 | 572.68 | 572.69 | 572.85 | 573.22 | 572.59 | 573.01 | 573.02 | 572.49 | 572.47 | 571.94 | 572.77 | 570.99 |
| 26 | 572.84 | 572.70 | 572.85 | 573.26 | 572.83 | 572.96 | 572.60 | 572.58 | 571.64 | 571.88 | 571.97 | 571.24 |
| 27 | 572.64 | 572.50 | 572.88 | 573.41 | 573.22 | 572.91 | 572.64 | 572.42 | 571.21 | 571.42 | 571.65 | 571.67 |
| 28 | 572.60 | 572.44 | 572.91 | 573.28 | 572.83 | 573.05 | 572.71 | 572.38 | 571.20 | 571.35 | 571.61 | 571.73 |
| 29 | 571.85 | | 572.89 | 573.26 | 572.90 | 573.17 | 572.09 | 572.87 | 571.96 | 570.76 | 571.35 | 571.07 |
| 30 | 571.22 | | 572.92 | 573.21 | 573.27 | 573.46 | 572.43 | 572.48 | 572.26 | 571.83 | 571.89 | 570.84 |
| 31 | 571.51 | | 573.76 | | 572.60 | | 572.74 | 572.34 | | 571.79 | | 571.15 |
| Mean | 572.61 | 572.60 | 572.77 | 573.20 | 573.08 | 573.04 | 572.93 | 572.59 | 572.14 | 571.69 | 571.54 | 571.61 |
| Max.
Hr.
Day | 574.43
1000
10 | 574.73
2400
11 | 574.66
2000
4 | 574.87
0200
1 | 573.86
1900
30 | 573.97
2200
23 | 573.76
1000
12 | 573.61
2000
29 | 573.22
2200
25 | 572.98
0100
13 | 573.41
0700
25 | 572.79
0900
14 |
| Min.
Hr.
Day | 570.04
0700
31 | 571.00
0900
22 | 571.27
0200
14 | 572.19
0800
17 | 572.05
0200
25 | 571.83
1400
5 | 571.71
1200
29 | 571.78
0500
28 | 568.55
2300
27 | 568.78
1000
21 | 569.08
2200
5 | 569.29
2100
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.48

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 904-4020 Gibraltar, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 573.35 Apr
Daily mean elevation: 574.16 4 Mar
Instant/hourly elevation: 574.95 0200/1 Apr

LOWEST

Monthly mean elevation: 571.87 Nov
Daily mean elevation: 571.04 21 Oct
Instant/hourly elevation: 569.84 2200/5 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 573.83 | 573.84 | 574.16 | 573.66 | 573.67 | 573.67 | 573.66 | 573.34 | 573.09 | 572.55 | 572.91 | 572.60 |
| Day | 9 | 11 | 4 | 24 | 2 | 30 | 1 | 29 | 1 | 20 | 25 | 14 |
| Min | 571.77 | 572.16 | 572.08 | 572.89 | 572.81 | 572.76 | 572.61 | 572.85 | 571.89 | 571.04 | 571.06 | 571.30 |
| Day | 30 | 18 | 14 | 17 | 31 | 1 | 29 | 4 | 28 | 21 | 20 | 25 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.00 | | | 1 | | | | | | | | | | 574.00 | 1 |
| 573.80 | 1 | 1 | 1 | | | | | | | | | | 573.80 | 4 |
| 573.60 | 1 | | | 1 | 2 | 2 | 1 | | | | | | 573.60 | 11 |
| 573.40 | 1 | | | 9 | 6 | 5 | 7 | | | | | | 573.40 | 39 |
| 573.20 | 1 | 3 | 1 | 17 | 12 | 14 | 14 | 4 | | | | | 573.20 | 105 |
| 573.00 | 7 | 1 | 9 | 1 | 7 | 7 | 7 | 17 | 6 | | | | 573.00 | 167 |
| 572.80 | 7 | 8 | 8 | 2 | 4 | 1 | 1 | 10 | 7 | | 1 | | 572.80 | 216 |
| 572.60 | 5 | 8 | 6 | | | 1 | 1 | | 9 | | | | 572.60 | 246 |
| 572.40 | 4 | 2 | 4 | | | | | | 4 | 4 | | 1 | 572.40 | 265 |
| 572.20 | | 4 | | | | | | | 1 | 12 | | 6 | 572.20 | 289 |
| 572.00 | 2 | 1 | 1 | | | | | | 2 | 6 | 6 | 7 | 572.00 | 314 |
| 571.80 | 1 | | | | | | | | 1 | 6 | 9 | 6 | 571.80 | 337 |
| 571.60 | 1 | | | | | | | | | 1 | 8 | 3 | 571.60 | 350 |
| 571.40 | | | | | | | | | | | 3 | 5 | 571.40 | 358 |
| 571.20 | | | | | | | | | | 1 | 1 | 3 | 571.20 | 363 |
| 571.00 | | | | | | | | | | 1 | 1 | | 571.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 904-4020 Gibraltar, Michigan on Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 572.13 | 572.85 | 572.57 | 573.55 | 573.48 | 572.76 | 573.66 | 573.16 | 573.09 | 572.51 | 571.59 | 572.24 |
| 2 | 572.80 | 572.92 | 572.62 | 572.97 | 573.67 | 573.12 | 573.46 | 572.89 | 573.02 | 572.15 | 572.10 | 572.01 |
| 3 | 572.77 | 572.63 | 573.00 | 573.03 | 573.49 | 573.06 | 573.29 | 573.00 | 572.83 | 571.95 | 571.62 | 572.00 |
| 4 | 572.76 | 572.82 | 574.16 | 573.28 | 573.61 | 573.29 | 573.47 | 572.85 | 572.82 | 571.89 | 571.94 | 572.27 |
| 5 | 572.52 | 572.73 | 572.87 | 573.51 | 573.33 | 572.97 | 573.46 | 573.12 | 572.93 | 572.33 | 571.39 | 572.21 |
| 6 | 572.80 | 573.25 | 572.60 | 573.38 | 573.33 | 573.16 | 573.32 | 573.21 | 573.03 | 572.44 | 571.87 | 571.61 |
| 7 | 572.90 | 572.90 | 572.68 | 573.32 | 573.50 | 573.26 | 573.38 | 573.07 | 573.02 | 572.28 | 571.57 | 571.95 |
| 8 | 573.11 | 572.87 | 572.50 | 573.35 | 573.50 | 573.25 | 573.33 | 573.16 | 572.92 | 572.32 | 571.70 | 572.10 |
| 9 | 573.83 | 573.01 | 572.65 | 573.33 | 573.39 | 573.11 | 573.29 | 573.21 | 572.60 | 572.20 | 571.75 | 572.09 |
| 10 | 573.63 | 572.79 | 573.14 | 573.21 | 573.34 | 573.17 | 573.33 | 573.01 | 572.03 | 572.36 | 571.94 | 571.59 |
| 11 | 573.19 | 573.84 | 572.67 | 573.58 | 573.31 | 573.24 | 573.26 | 573.00 | 572.72 | 572.40 | 571.72 | 571.65 |
| 12 | 573.46 | 573.39 | 572.90 | 573.27 | 573.23 | 573.41 | 573.22 | 573.19 | 572.82 | 571.93 | 572.14 | 572.05 |
| 13 | 572.50 | 572.39 | 572.76 | 573.28 | 573.29 | 573.45 | 573.39 | 573.08 | 572.75 | 572.33 | 572.00 | 572.24 |
| 14 | 573.09 | 572.58 | 572.08 | 573.59 | 573.33 | 573.31 | 573.38 | 573.07 | 572.75 | 572.39 | 571.98 | 572.60 |
| 15 | 572.84 | 572.62 | 572.87 | 573.50 | 572.95 | 573.09 | 573.47 | 573.12 | 572.58 | 572.29 | 571.73 | 572.38 |
| 16 | 572.96 | 572.79 | 572.57 | 573.40 | 573.34 | 573.49 | 573.35 | 573.00 | 573.02 | 572.26 | 571.95 | 572.26 |
| 17 | 572.57 | 572.30 | 572.86 | 572.89 | 573.18 | 573.32 | 573.52 | 573.05 | 572.80 | 572.06 | 571.98 | 572.10 |
| 18 | 572.94 | 572.16 | 573.08 | 573.29 | 573.42 | 573.27 | 573.50 | 573.15 | 572.67 | 572.37 | 572.16 | 572.00 |
| 19 | 573.05 | 572.67 | 573.07 | 573.47 | 573.07 | 573.35 | 573.18 | 573.16 | 572.83 | 572.48 | 571.56 | 571.83 |
| 20 | 573.16 | 572.88 | 572.86 | 573.34 | 573.17 | 573.35 | 573.13 | 572.93 | 573.07 | 572.55 | 571.06 | 572.09 |
| 21 | 573.27 | 573.35 | 572.78 | 573.22 | 573.13 | 573.17 | 573.32 | 573.24 | 572.77 | 571.04 | 571.64 | 571.36 |
| 22 | 572.74 | 572.26 | 573.09 | 573.31 | 573.27 | 573.30 | 573.20 | 573.13 | 572.71 | 571.91 | 571.69 | 571.60 |
| 23 | 573.17 | 572.38 | 573.31 | 573.30 | 573.25 | 573.62 | 573.31 | 573.17 | 572.46 | 572.16 | 572.05 | 572.11 |
| 24 | 572.47 | 572.52 | 573.02 | 573.66 | 573.00 | 573.49 | 573.41 | 572.89 | 572.66 | 571.97 | 572.20 | 571.33 |
| 25 | 572.88 | 572.97 | 573.00 | 573.36 | 572.81 | 573.31 | 573.40 | 573.02 | 572.91 | 572.27 | 572.91 | 571.30 |
| 26 | 573.12 | 572.95 | 573.02 | 573.32 | 573.02 | 573.25 | 573.04 | 573.09 | 572.28 | 572.21 | 572.26 | 571.50 |
| 27 | 572.82 | 572.79 | 573.00 | 573.56 | 573.37 | 573.23 | 573.05 | 572.96 | 572.04 | 571.79 | 571.94 | 571.91 |
| 28 | 572.83 | 572.72 | 573.07 | 573.45 | 573.02 | 573.32 | 573.12 | 572.91 | 571.89 | 571.89 | 571.91 | 571.98 |
| 29 | 572.09 | | 573.06 | 573.43 | 573.06 | 573.43 | 572.61 | 573.34 | 572.45 | 571.24 | 571.65 | 571.58 |
| 30 | 571.77 | | 573.10 | 573.37 | 573.47 | 573.67 | 572.86 | 573.04 | 572.77 | 572.10 | 572.14 | 571.43 |
| 31 | 571.89 | | 573.83 | | 572.81 | | 573.14 | 572.89 | | 572.02 | | 571.73 |
| Mean | 572.84 | 572.80 | 572.93 | 573.35 | 573.26 | 573.27 | 573.28 | 573.07 | 572.71 | 572.13 | 571.87 | 571.91 |
| Max.
Hr.
Day | 574.41
1000
10 | 574.71
2300
11 | 574.75
1800
31 | 574.95
0200
1 | 574.06
1900
30 | 574.10
2200
23 | 574.08
0900
12 | 573.88
2100
29 | 573.54
2200
25 | 573.24
0100
13 | 573.56
0700
25 | 572.96
0400
15 |
| Min.
Hr.
Day | 570.65
0700
31 | 571.37
2300
17 | 571.43
0300
14 | 572.40
0800
17 | 572.32
0200
25 | 572.05
1300
5 | 572.24
1200
29 | 572.25
0300
4 | 570.09
2300
27 | 569.86
1100
21 | 569.84
2200
5 | 569.90
2200
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 572.78

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 904-4030 Wyandotte, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 574.45 Jul
Daily mean elevation: 574.78 9 Jan
Instant/hourly elevation: 575.32 0300/1 Apr

LOWEST

Monthly mean elevation: 573.24 Nov
Daily mean elevation: 572.74 20 Nov
Instant/hourly elevation: 572.23 1300/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 574.78 | 574.15 | 574.63 | 574.63 | 574.55 | 574.70 | 574.72 | 574.36 | 574.21 | 573.79 | 573.93 | 573.68 |
| Day | 9      | 21     | 31     | 1      | 2      | 30     | 1      | 21     | 1      | 20     | 25     | 14     |
| Min | 573.24 | 573.37 | 573.35 | 573.91 | 573.94 | 573.98 | 573.96 | 574.06 | 573.34 | 572.79 | 572.74 | 572.83 |
| Day | 30     | 18     | 14     | 17     | 25     | 1      | 29     | 31     | 28     | 21     | 20     | 24     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 574.60 | 2 | | 1 | 1 | | 2 | 3 | | | | | | 574.60 | 9 |
| 574.40 | 1 | | 1 | 7 | 6 | 11 | 19 | | | | | | 574.40 | 54 |
| 574.20 | 2 | | 1 | 19 | 16 | 13 | 7 | 17 | 1 | | | | 574.20 | 130 |
| 574.00 | 8 | 3 | 7 | 2 | 8 | 3 | 1 | 14 | 11 | | | | 574.00 | 187 |
| 573.80 | 12 | 7 | 8 | 1 | 1 | 1 | 1 | | 11 | | 1 | | 573.80 | 230 |
| 573.60 | 2 | 12 | 11 | | | | | | 4 | 10 | | 2 | 573.60 | 271 |
| 573.40 | 2 | 5 | 1 | | | | | | 2 | 12 | 3 | 8 | 573.40 | 304 |
| 573.20 | 2 | 1 | 1 | | | | | | 1 | 6 | 13 | 12 | 573.20 | 340 |
| 573.00 | | | | | | | | | | 1 | 10 | 5 | 573.00 | 356 |
| 572.80 | | | | | | | | | | 1 | 2 | 4 | 572.80 | 363 |
| 572.60 | | | | | | | | | | 1 | 1 | | 572.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 904-4030 Wyandotte, Michigan on Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 573.48 | 573.88 | 573.65 | 574.63 | 574.46 | 573.98 | 574.72 | 574.32 | 574.21 | 573.68 | 573.15 | 573.47 |
| 2 | 573.87 | 573.91 | 573.66 | 574.24 | 574.55 | 574.16 | 574.59 | 574.14 | 574.16 | 573.51 | 573.39 | 573.31 |
| 3 | 573.84 | 573.73 | 573.88 | 574.21 | 574.44 | 574.17 | 574.49 | 574.17 | 574.06 | 573.29 | 573.09 | 573.30 |
| 4 | 573.89 | 573.79 | 574.57 | 574.36 | 574.51 | 574.30 | 574.57 | 574.11 | 574.07 | 573.28 | 573.24 | 573.51 |
| 5 | 573.93 | 573.76 | 573.91 | 574.47 | 574.38 | 574.17 | 574.53 | 574.28 | 574.13 | 573.59 | 572.98 | 573.47 |
| 6 | 574.12 | 574.05 | 573.69 | 574.38 | 574.40 | 574.24 | 574.45 | 574.32 | 574.19 | 573.66 | 573.24 | 573.14 |
| 7 | 574.16 | 573.82 | 573.73 | 574.31 | 574.48 | 574.33 | 574.52 | 574.25 | 574.17 | 573.54 | 573.01 | 573.29 |
| 8 | 574.29 | 573.73 | 573.62 | 574.29 | 574.47 | 574.33 | 574.48 | 574.30 | 574.08 | 573.58 | 573.08 | 573.41 |
| 9 | 574.78 | 573.74 | 573.69 | 574.26 | 574.40 | 574.21 | 574.44 | 574.31 | 573.80 | 573.62 | 573.16 | 573.34 |
| 10 | 574.69 | 573.53 | 574.01 | 574.22 | 574.37 | 574.28 | 574.49 | 574.16 | 573.49 | 573.65 | 573.28 | 573.13 |
| 11 | 574.30 | 574.15 | 573.72 | 574.45 | 574.35 | 574.36 | 574.45 | 574.19 | 573.88 | 573.66 | 573.14 | 573.16 |
| 12 | 574.41 | 574.00 | 573.85 | 574.30 | 574.32 | 574.46 | 574.42 | 574.29 | 573.93 | 573.35 | 573.39 | 573.36 |
| 13 | 573.90 | 573.45 | 573.78 | 574.27 | 574.35 | 574.48 | 574.53 | 574.24 | 573.89 | 573.66 | 573.29 | 573.45 |
| 14 | 574.07 | 573.57 | 573.35 | 574.39 | 574.30 | 574.35 | 574.55 | 574.23 | 573.84 | 573.65 | 573.30 | 573.68 |
| 15 | 573.93 | 573.58 | 573.76 | 574.33 | 574.06 | 574.27 | 574.62 | 574.26 | 573.86 | 573.58 | 573.17 | 573.64 |
| 16 | 573.98 | 573.75 | 573.55 | 574.16 | 574.32 | 574.50 | 574.53 | 574.19 | 574.13 | 573.58 | 573.28 | 573.54 |
| 17 | 573.74 | 573.46 | 573.74 | 573.91 | 574.24 | 574.40 | 574.62 | 574.24 | 573.99 | 573.47 | 573.37 | 573.43 |
| 18 | 573.94 | 573.37 | 573.88 | 574.18 | 574.39 | 574.37 | 574.58 | 574.28 | 573.91 | 573.66 | 573.43 | 573.36 |
| 19 | 574.07 | 573.68 | 573.91 | 574.32 | 574.20 | 574.45 | 574.40 | 574.28 | 574.01 | 573.74 | 573.08 | 573.22 |
| 20 | 574.11 | 573.86 | 573.84 | 574.30 | 574.24 | 574.44 | 574.35 | 574.16 | 574.17 | 573.79 | 572.74 | 573.34 |
| 21 | 574.19 | 574.15 | 573.79 | 574.33 | 574.20 | 574.38 | 574.46 | 574.36 | 574.00 | 572.79 | 573.00 | 572.97 |
| 22 | 573.90 | 573.64 | 573.99 | 574.34 | 574.26 | 574.48 | 574.40 | 574.25 | 573.91 | 573.32 | 573.10 | 573.03 |
| 23 | 574.13 | 573.67 | 574.11 | 574.31 | 574.23 | 574.65 | 574.45 | 574.26 | 573.76 | 573.50 | 573.33 | 573.36 |
| 24 | 573.78 | 573.70 | 574.04 | 574.52 | 574.02 | 574.59 | 574.50 | 574.07 | 573.86 | 573.33 | 573.45 | 572.83 |
| 25 | 573.92 | 573.86 | 574.00 | 574.38 | 573.94 | 574.47 | 574.51 | 574.17 | 574.02 | 573.56 | 573.93 | 572.89 |
| 26 | 574.11 | 573.87 | 574.08 | 574.42 | 574.12 | 574.40 | 574.26 | 574.19 | 573.70 | 573.52 | 573.49 | 572.94 |
| 27 | 573.92 | 573.74 | 574.13 | 574.48 | 574.35 | 574.41 | 574.26 | 574.08 | 573.56 | 573.28 | 573.30 | 573.20 |
| 28 | 573.95 | 573.70 | 574.17 | 574.41 | 574.12 | 574.52 | 574.32 | 574.10 | 573.34 | 573.20 | 573.28 | 573.28 |
| 29 | 573.46 | | 574.20 | 574.41 | 574.20 | 574.59 | 573.96 | 574.35 | 573.73 | 572.86 | 573.10 | 573.25 |
| 30 | 573.24 | | 574.23 | 574.37 | 574.40 | 574.70 | 574.15 | 574.19 | 573.91 | 573.41 | 573.39 | 573.25 |
| 31 | 573.29 | | 574.63 | | 574.02 | | 574.32 | 574.06 | | 573.43 | | 573.49 |
| Mean | 573.98 | 573.76 | 573.91 | 574.33 | 574.29 | 574.38 | 574.45 | 574.22 | 573.93 | 573.47 | 573.24 | 573.29 |
| Max.
Hr.
Day | 575.16
1100
10 | 574.76
2400
11 | 575.16
1900
31 | 575.32
0300
1 | 574.74
1900
30 | 574.92
1900
30 | 574.85
1500
13 | 574.68
2100
29 | 574.69
2400
25 | 574.07
0200
13 | 574.22
0800
25 | 573.86
0500
15 |
| Min.
Hr.
Day | 572.76
0800
31 | 572.97
2400
17 | 573.09
0400
14 | 573.63
1000
17 | 573.64
0700
25 | 573.70
0600
1 | 573.77
1300
29 | 573.85
0400
4 | 572.45
2300
27 | 572.23
1300
21 | 572.33
2100
5 | 572.29
2300
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 573.94

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 904-4036 Fort Wayne, Detroit, Michigan on Detroit River

HIGHEST

Monthly mean elevation: 574.86 Jul
Daily mean elevation: 575.10 9 Jan
Instant/hourly elevation: 575.50 0200/1 Apr

LOWEST

Monthly mean elevation: 573.70 Nov
Daily mean elevation: 573.28 20 Nov
Instant/hourly elevation: 572.91 1400/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 575.10 | 574.38 | 574.94 | 574.96 | 574.86 | 575.06 | 575.08 | 574.76 | 574.61 | 574.23 | 574.26 | 574.05 |
| Day | 9      | 21     | 31     | 1      | 2      | 30     | 1      | 21     | 6      | 20     | 25     | 14     |
| Min | 573.76 | 573.80 | 573.83 | 574.26 | 574.34 | 574.37 | 574.44 | 574.48 | 573.88 | 573.38 | 573.28 | 573.47 |
| Day | 30     | 18     | 14     | 17     | 25     | 1      | 29     | 27     | 28     | 21     | 20     | 21     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 575.00 | 2 | | | | | 1 | 2 | | | | | | 575.00 | 5 |
| 574.80 | | | 1 | 3 | 3 | 12 | 22 | | | | | | 574.80 | 46 |
| 574.60 | 4 | | 2 | 21 | 16 | 13 | 5 | 18 | 2 | | | | 574.60 | 127 |
| 574.40 | 8 | | 5 | 5 | 10 | 3 | 2 | 13 | 12 | | | | 574.40 | 185 |
| 574.20 | 12 | 10 | 6 | 1 | 2 | 1 | | | 11 | 1 | 1 | | 574.20 | 230 |
| 574.00 | 1 | 11 | 15 | | | | | | 3 | 13 | | 2 | 574.00 | 275 |
| 573.80 | 2 | 5 | 2 | | | | | | 2 | 11 | 7 | 8 | 573.80 | 312 |
| 573.60 | 2 | 2 | | | | | | | | 4 | 13 | 12 | 573.60 | 345 |
| 573.40 | | | | | | | | | | | 8 | 2 | 573.40 | 355 |
| 573.20 | | | | | | | | | | 2 | 1 | | 573.20 | 358 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 904-4036 Fort Wayne, Detroit, Michigan on Detroit River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 573.95 | 574.26 | 574.09 | 574.96 | 574.79 | 574.37 | 575.08 | 574.74 | 574.61 | 574.13 | 573.66 | 573.88 |
| 2 | 574.26 | 574.27 | 574.03 | 574.65 | 574.86 | 574.52 | 574.99 | 574.60 | 574.57 | 573.99 | 573.85 | 573.74 |
| 3 | 574.23 | 574.14 | 574.18 | 574.62 | 574.77 | 574.55 | 574.89 | 574.59 | 574.51 | 573.80 | 573.60 | 573.74 |
| 4 | 574.29 | 574.18 | 574.70 | 574.73 | 574.84 | 574.65 | 574.95 | 574.56 | 574.52 | 573.79 | 573.70 | 573.93 |
| 5 | 574.42 | 574.14 | 574.20 | 574.80 | 574.75 | 574.56 | 574.91 | 574.69 | 574.57 | 574.05 | 573.50 | 573.90 |
| 6 | 574.54 | 574.35 | 574.07 | 574.73 | 574.76 | 574.62 | 574.83 | 574.72 | 574.61 | 574.10 | 573.70 | 573.62 |
| 7 | 574.61 | 574.15 | 574.10 | 574.66 | 574.82 | 574.69 | 574.91 | 574.68 | 574.58 | 573.98 | 573.50 | 573.74 |
| 8 | 574.71 | 574.04 | 574.01 | 574.63 | 574.80 | 574.71 | 574.87 | 574.72 | 574.50 | 574.03 | 573.55 | 573.84 |
| 9 | 575.10 | 574.00 | 574.07 | 574.59 | 574.74 | 574.61 | 574.84 | 574.71 | 574.25 | 574.10 | 573.63 | 573.76 |
| 10 | 575.04 | 573.80 | 574.29 | 574.56 | 574.71 | 574.66 | 574.90 | 574.59 | 574.00 | 574.10 | 573.73 | 573.61 |
| 11 | 574.67 | 574.29 | 574.11 | 574.76 | 574.70 | 574.74 | 574.86 | 574.60 | 574.32 | 574.11 | 573.62 | 573.65 |
| 12 | 574.76 | 574.24 | 574.20 | 574.66 | 574.69 | 574.80 | 574.85 | 574.69 | 574.34 | 573.87 | 573.82 | 573.81 |
| 13 | 574.37 | 573.86 | 574.10 | 574.59 | 574.69 | 574.81 | 574.93 | 574.65 | 574.30 | 574.09 | 573.74 | 573.89 |
| 14 | 574.44 | 573.93 | 573.83 | 574.66 | 574.63 | 574.72 | 574.96 | 574.65 | 574.24 | 574.08 | 573.74 | 574.05 |
| 15 | 574.33 | 573.94 | 574.11 | 574.63 | 574.44 | 574.66 | 575.02 | 574.67 | 574.30 | 574.02 | 573.65 | 574.04 |
| 16 | 574.35 | 574.06 | 573.92 | 574.45 | 574.67 | 574.85 | 574.96 | 574.61 | 574.54 | 574.02 | 573.73 | 573.95 |
| 17 | 574.17 | 573.85 | 574.08 | 574.26 | 574.60 | 574.76 | 575.00 | 574.66 | 574.42 | 573.95 | 573.82 | 573.87 |
| 18 | 574.34 | 573.80 | 574.23 | 574.48 | 574.72 | 574.74 | 574.97 | 574.68 | 574.36 | 574.10 | 573.86 | 573.80 |
| 19 | 574.48 | 574.02 | 574.24 | 574.63 | 574.57 | 574.81 | 574.83 | 574.68 | 574.44 | 574.18 | 573.58 | 573.67 |
| 20 | 574.49 | 574.16 | 574.17 | 574.65 | 574.58 | 574.81 | 574.78 | 574.60 | 574.57 | 574.23 | 573.28 | 573.76 |
| 21 | 574.54 | 574.38 | 574.15 | 574.68 | 574.55 | 574.79 | 574.86 | 574.76 | 574.43 | 573.38 | 573.47 | 573.47 |
| 22 | 574.31 | 574.03 | 574.30 | 574.69 | 574.62 | 574.87 | 574.81 | 574.67 | 574.34 | 573.81 | 573.57 | 573.50 |
| 23 | 574.49 | 574.04 | 574.44 | 574.68 | 574.57 | 575.00 | 574.86 | 574.65 | 574.23 | 573.95 | 573.75 | / |
| 24 | 574.23 | 574.11 | 574.38 | 574.83 | 574.39 | 574.96 | 574.89 | 574.49 | 574.30 | 573.81 | 573.87 | / |
| 25 | 574.33 | 574.26 | 574.40 | 574.72 | 574.34 | 574.84 | 574.90 | 574.58 | 574.45 | 574.00 | 574.26 | / |
| 26 | 574.49 | 574.33 | 574.46 | 574.77 | 574.50 | 574.81 | 574.70 | 574.59 | 574.19 | 573.97 | 573.88 | / |
| 27 | 574.34 | 574.29 | 574.48 | 574.82 | 574.68 | 574.82 | 574.69 | 574.48 | 574.06 | 573.77 | 573.74 | 573.64* |
| 28 | 574.36 | 574.27 | 574.53 | 574.75 | 574.49 | 574.92 | 574.74 | 574.52 | 573.88 | 573.65 | 573.75 | 573.72* |
| 29 | 573.95 | | 574.60 | 574.75 | 574.57 | 574.98 | 574.44 | 574.71 | 574.20 | 573.40 | 573.58 | / |
| 30 | 573.76 | | 574.62 | 574.72 | 574.71 | 575.06 | 574.60 | 574.60 | 574.33 | 573.86 | 573.82 | / |
| 31 | 573.78 | | 574.94 | | 574.43 | | 574.75 | 574.49 | | 573.88 | | / |
| Mean | 574.39 | 574.11 | 574.26 | 574.67 | 574.65 | 574.76 | 574.86 | 574.63 | 574.37 | 573.94 | 573.70 | 573.77 |
| Max.
Hr.
Day | 575.41
1100
10 | 574.79
2300
11 | 575.38
2400
31 | 575.50
0200
1 | 575.02
1600
12 | 575.21
1800
30 | 575.21
0600
15 | 574.96
2200
29 | 575.06
2300
25 | 574.41
0200
13 | 574.47
0800
25 | 574.20
1000
14 |
| Min.
Hr.
Day | 573.39
0800
31 | 573.49
2400
17 | 573.64
1900
16 | 574.04
1000
17 | 574.03
0100
25 | 574.10
0500
1 | 574.28
1400
29 | 574.29
0800
31 | 573.22
2200
27 | 572.91
1400
21 | 572.97
2400
19 | 573.15
2100
6 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 574.34

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 904-4049 Windmill Point, Detroit, Michigan on the Detroit River

HIGHEST

Monthly mean elevation: 575.65 Jul
Daily mean elevation: 575.80 1 Jul
Instant/hourly elevation: 576.01 1100/10 Jan

LOWEST

Monthly mean elevation: 574.53 Nov
Daily mean elevation: 574.21 24 Dec
Instant/hourly elevation: 573.99 0700/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 575.79 | 574.99 | 575.52 | 575.69 | 575.52 | 575.78 | 575.80 | 575.55 | 575.41 | 575.01 | 574.87 | 574.82 |
| Day | 10 | 1 | 31 | 1 | 7 | 30 | 1 | 1 | 6 | 9 | 25 | 15 |
| Min | 574.69 | 574.34 | 574.62 | 574.97 | 575.10 | 575.19 | 575.36 | 575.30 | 574.86 | 574.38 | 574.29 | 574.21 |
| Day | 31 | 10 | 16 | 17 | 24 | 1 | 29 | 27 | 28 | 29 | 20 | 24 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 575.60 | 2 | | | 1 | | 7 | 23 | | | | | | 575.60 | 33 |
| 575.40 | 4 | | 1 | 15 | 12 | 16 | 7 | 23 | 1 | | | | 575.40 | 112 |
| 575.20 | 3 | | 4 | 10 | 17 | 6 | 1 | 8 | 14 | | | | 575.20 | 175 |
| 575.00 | 16 | | 5 | 3 | 2 | 1 | | | 11 | 1 | | | 575.00 | 214 |
| 574.80 | 4 | 10 | 12 | 1 | | | | | 4 | 17 | 1 | 1 | 574.80 | 264 |
| 574.60 | 2 | 9 | 9 | | | | | | | 10 | 7 | 11 | 574.60 | 312 |
| 574.40 | | 8 | | | | | | | | 1 | 18 | 14 | 574.40 | 353 |
| 574.20 | | 1 | | | | | | | | 2 | 4 | 5 | 574.20 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 904-4049 Windmill Point, Detroit, Michigan on the Detroit River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 574.83 | 574.99 | 574.75 | 575.69 | 575.49 | 575.19 | 575.80 | 575.55 | 575.40 | 574.88 | 574.62 | 574.63 |
| 2 | 575.00 | 574.92 | 574.72 | 575.49 | 575.50 | 575.24 | 575.75 | 575.45 | 575.36 | 574.88 | 574.62 | 574.54 |
| 3 | 574.93 | 574.84 | 574.75 | 575.43 | 575.44 | 575.31 | 575.69 | 575.39 | 575.36 | 574.67 | 574.46 | 574.55 |
| 4 | 575.02 | 574.86 | 575.02 | 575.48 | 575.48 | 575.37 | 575.69 | 575.42 | 575.39 | 574.72 | 574.49 | 574.70 |
| 5 | 575.27 | 574.84 | 574.96 | 575.49 | 575.49 | 575.37 | 575.64 | 575.48 | 575.40 | 574.89 | 574.41 | 574.70 |
| 6 | 575.39 | 574.96 | 574.85 | 575.42 | 575.50 | 575.35 | 575.58 | 575.50 | 575.41 | 574.88 | 574.55 | 574.52 |
| 7 | 575.46 | 574.84 | 574.82 | 575.35 | 575.52 | 575.41 | 575.68 | 575.49 | 575.38 | 574.81 | 574.36 | 574.58 |
| 8 | 575.54 | 574.70 | 574.76 | 575.30 | 575.50 | 575.44 | 575.66 | 575.49 | 575.33 | 574.85 | 574.37 | 574.63 |
| 9 | 575.79 | 574.54 | 574.77 | 575.25 | 575.46 | 575.34 | 575.61 | 575.48 | 575.08 | 575.01 | 574.49 | 574.55 |
| 10 | 575.79 | 574.34 | 574.91 | 575.28 | 575.43 | 575.43 | 575.68 | 575.38 | 575.00 | 574.93 | 574.55 | 574.50 |
| 11 | 575.45 | 574.52 | 574.84 | 575.40 | 575.41 | 575.51 | 575.64 | 575.41 | 575.15 | 574.91 | 574.46 | 574.59 |
| 12 | 575.46 | 574.72 | 574.89 | 575.39 | 575.47 | 575.52 | 575.67 | 575.46 | 575.10 | 574.79 | 574.60 | 574.63 |
| 13 | 575.25 | 574.56 | 574.87 | 575.28 | 575.40 | 575.53 | 575.71 | 575.45 | 575.08 | 574.92 | 574.50 | 574.65 |
| 14 | 575.20 | 574.60 | 574.71 | 575.25 | 575.30 | 575.45 | 575.73 | 575.45 | 574.99 | 574.89 | 574.56 | 574.76 |
| 15 | 575.14 | 574.60 | 574.72 | 575.18 | 575.23 | 575.45 | 575.79 | 575.45 | 575.20 | 574.83 | 574.51 | 574.82 |
| 16 | 575.11 | 574.71 | 574.62 | 575.02 | 575.36 | 575.55 | 575.76 | 575.45 | 575.31 | 574.82 | 574.56 | 574.77 |
| 17 | 575.02 | 574.59 | 574.75 | 574.97 | 575.35 | 575.50 | 575.75 | 575.49 | 575.25 | 574.82 | 574.66 | 574.68 |
| 18 | 575.13 | 574.54 | 574.82 | 575.14 | 575.38 | 575.50 | 575.72 | 575.47 | 575.21 | 574.91 | 574.67 | 574.62 |
| 19 | 575.20 | 574.58 | 574.86 | 575.26 | 575.35 | 575.56 | 575.65 | 575.46 | 575.28 | 574.97 | 574.42 | 574.54 |
| 20 | 575.16 | 574.64 | 574.84 | 575.31 | 575.31 | 575.54 | 575.60 | 575.45 | 575.34 | 574.98 | 574.29 | 574.51 |
| 21 | 575.17 | 574.79 | 574.87 | 575.47 | 575.29 | 575.59 | 575.65 | 575.54 | 575.26 | 574.39 | 574.30 | 574.39 |
| 22 | 575.09 | 574.72 | 574.95 | 575.42 | 575.30 | 575.67 | 575.63 | 575.45 | 575.17 | 574.70 | 574.43 | 574.40 |
| 23 | 575.19 | 574.69 | 575.08 | 575.41 | 575.23 | 575.71 | 575.63 | 575.42 | 575.11 | 574.77 | 574.53 | 574.52 |
| 24 | 575.08 | 574.73 | 575.14 | 575.41 | 575.10 | 575.72 | 575.64 | 575.31 | 575.13 | 574.67 | 574.66 | 574.21 |
| 25 | 575.14 | 574.77 | 575.19 | 575.43 | 575.16 | 575.59 | 575.66 | 575.37 | 575.24 | 574.81 | 574.87 | 574.28 |
| 26 | 575.19 | 574.84 | 575.20 | 575.56 | 575.28 | 575.60 | 575.51 | 575.37 | 575.10 | 574.77 | 574.64 | 574.33 |
| 27 | 575.16 | 574.84 | 575.31 | 575.48 | 575.35 | 575.62 | 575.53 | 575.30 | 574.97 | 574.67 | 574.55 | 574.47 |
| 28 | 575.14 | 574.83 | 575.37 | 575.42 | 575.28 | 575.73 | 575.55 | 575.36 | 574.86 | 574.44 | 574.57 | 574.55 |
| 29 | 574.92 | | 575.40 | 575.44 | 575.33 | 575.75 | 575.36 | 575.45 | 575.07 | 574.38 | 574.46 | 574.51 |
| 30 | 574.79 | | 575.38 | 575.42 | 575.37 | 575.78 | 575.47 | 575.41 | 575.10 | 574.69 | 574.61 | 574.57 |
| 31 | 574.69 | | 575.52 | | 575.25 | | 575.57 | 575.33 | | 574.76 | | 574.74 |
| Mean | 575.18 | 574.72 | 574.96 | 575.36 | 575.36 | 575.51 | 575.65 | 575.43 | 575.20 | 574.79 | 574.53 | 574.56 |
| Max. | 576.01 | 575.10 | 575.81 | 575.87 | 575.98 | 575.86 | 575.89 | 575.69 | 575.85 | 575.19 | 574.95 | 574.89 |
| Hr. | 1100 | 0700 | 2300 | 0400 | 1600 | 1100 | 2000 | 0600 | 2300 | 0500 | 1600 | 1700 |
| Day | 10 | 1 | 31 | 1 | 12 | 30 | 16 | 21 | 25 | 9 | 25 | 15 |
| Min. | 574.55 | 574.30 | 574.51 | 574.58 | 574.76 | 575.13 | 575.24 | 575.15 | 574.37 | 573.99 | 574.04 | 574.07 |
| Hr. | 0700 | 2200 | 0800 | 0500 | 1900 | 0700 | 1500 | 0400 | 2100 | 0700 | 1800 | 1800 |
| Day | 31 | 10 | 16 | 17 | 24 | 1 | 29 | 25 | 27 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 575.10

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 903-4052 St. Clair Shores, Michigan on Lake St. Clair

HIGHEST

Monthly mean elevation: 575.99 Jul
Daily mean elevation: 576.09 15 Jul
Instant/hourly elevation: 576.22 1600/25 Jul

LOWEST

Monthly mean elevation: 574.85 Dec
Daily mean elevation: 574.58 25 Dec
Instant/hourly elevation: 574.29 1900/25 Dec

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 575.90 | 575.21 | 575.67 | 575.84 | 575.69 | 576.02 | 576.09 | 575.94 | 575.79 | 575.33 | 575.04 | 575.07 |
| Day | 10     | 6      | 31     | 1      | 7      | 30     | 15     | 1      | 5      | 1      | 25     | 31     |
| Min | 575.03 | 574.59 | 574.96 | 575.19 | 575.39 | 575.42 | 575.80 | 575.68 | 575.29 | 574.79 | 574.66 | 574.58 |
| Day | 31     | 10     | 3      | 17     | 24     | 1      | 29     | 27     | 28     | 29     | 20     | 25     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 576.00 | | | | | | 1 | 13 | | | | | | 576.00 | 14 |
| 575.80 | 2 | | | 1 | | 10 | 17 | 24 | | | | | 575.80 | 68 |
| 575.60 | 5 | | 3 | 11 | 10 | 13 | 1 | 7 | 12 | | | | 575.60 | 130 |
| 575.40 | 12 | | 6 | 13 | 19 | 6 | | | 15 | | | | 575.40 | 201 |
| 575.20 | 9 | 2 | 7 | 4 | 2 | | | | 3 | 10 | | | 575.20 | 238 |
| 575.00 | 3 | 11 | 11 | 1 | | | | | | 15 | 1 | 3 | 575.00 | 283 |
| 574.80 | | 13 | 4 | | | | | | | 5 | 21 | 19 | 574.80 | 345 |
| 574.60 | | 1 | | | | | | | | 1 | 8 | 7 | 574.60 | 362 |
| 574.40 | | 1 | | | | | | | | | | 2 | 574.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 903-4052 St. Clair Shores, Michigan on Lake St. Clair

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 575.10 | 575.15 | 575.00 | 575.84 | 575.66 | 575.42 | 576.04 | 575.94 | 575.77 | 575.33 | 574.92 | 574.94 |
| 2 | 575.26 | 575.21 | 574.96 | 575.71 | 575.66 | 575.47 | 576.03 | 575.86 | 575.76 | 575.24 | 574.98 | 574.85 |
| 3 | 575.23 | 575.13 | 574.96 | 575.65 | 575.63 | 575.50 | 575.99 | 575.81 | 575.76 | 575.14 | 574.87 | 574.85 |
| 4 | 575.30 | 575.13 | 575.17 | 575.67 | 575.66 | 575.54 | 575.99 | 575.81 | 575.78 | 575.12 | 574.89 | 574.92 |
| 5 | 575.51 | 575.10 | 575.41 | 575.67 | 575.67 | 575.54 | 575.96 | 575.87 | 575.79 | 575.22 | 574.79 | 574.95 |
| 6 | 575.66 | 575.21 | 575.33 | 575.61 | 575.68 | 575.58 | 575.91 | 575.89 | 575.77 | 575.24 | 574.84 | 574.87 |
| 7 | 575.71 | 575.12 | 575.24 | 575.53 | 575.69 | 575.62 | 575.96 | 575.86 | 575.76 | 575.19 | 574.78 | 574.88 |
| 8 | 575.75 | 575.01 | 575.17 | 575.48 | 575.66 | 575.67 | 575.98 | 575.88 | 575.70 | 575.20 | 574.78 | 574.93 |
| 9 | 575.89 | 574.83 | 575.15 | 575.44 | 575.64 | 575.61 | 575.96 | 575.87 | 575.53 | 575.20 | 574.82 | 574.88 |
| 10 | 575.90 | 574.59 | 575.21 | 575.46 | 575.61 | 575.65 | 575.99 | 575.81 | 575.41 | 575.26 | 574.86 | 574.78 |
| 11 | 575.70 | 574.70 | 575.22 | 575.54 | 575.60 | 575.70 | 575.99 | 575.81 | 575.53 | 575.27 | 574.81 | 574.76 |
| 12 | 575.66 | 574.96 | 575.22 | 575.56 | 575.58 | 575.70 | 575.99 | 575.83 | 575.54 | 575.15 | 574.90 | 574.92 |
| 13 | 575.55 | 574.94 | 575.19 | 575.46 | 575.56 | 575.71 | 576.02 | 575.82 | 575.50 | 575.21 | 574.89 | 574.93 |
| 14 | 575.47 | 574.95 | 575.14 | 575.39 | 575.52 | 575.70 | 576.06 | 575.82 | 575.45 | 575.20 | 574.85 | 574.96 |
| 15 | 575.44 | 574.96 | 575.06 | 575.35 | 575.45 | 575.66 | 576.09 | 575.83 | 575.53 | 575.17 | 574.83 | 575.01 |
| 16 | 575.41 | 575.07 | 574.98 | 575.24 | 575.57 | 575.74 | 576.08 | 575.84 | 575.64 | 575.15 | 574.87 | 575.01 |
| 17 | 575.31 | 575.00 | 575.01 | 575.19 | 575.55 | 575.73 | 576.06 | 575.84 | 575.62 | 575.14 | 574.91 | 574.97 |
| 18 | 575.42 | 574.93 | 575.16 | 575.33 | 575.58 | 575.72 | 576.07 | 575.83 | 575.57 | 575.21 | 574.96 | 574.91 |
| 19 | 575.46 | 574.88 | 575.19 | 575.44 | 575.51 | 575.76 | 576.03 | 575.82 | 575.62 | 575.27 | 574.79 | 574.83 |
| 20 | 575.43 | 574.91 | 575.19 | 575.50 | 575.51 | 575.81 | 575.97 | 575.82 | 575.67 | 575.29 | 574.66 | 574.83 |
| 21 | 575.41 | 575.00 | 575.18 | 575.57 | 575.49 | 575.83 | 576.00 | 575.89 | 575.60 | 574.85 | 574.72 | 574.69 |
| 22 | 575.39 | 575.05 | 575.22 | 575.60 | 575.52 | 575.89 | 576.02 | 575.83 | 575.55 | 575.03 | 574.76 | 574.70 |
| 23 | 575.43 | 575.00 | 575.38 | 575.62 | 575.49 | 575.94 | 576.01 | 575.81 | 575.47 | 575.10 | 574.83 | 574.78 |
| 24 | 575.36 | 575.00 | 575.44 | 575.68 | 575.39 | 575.96 | 576.02 | 575.72 | 575.50 | 575.02 | 574.89 | 574.59 |
| 25 | 575.43 | 574.98 | 575.49 | 575.60 | 575.40 | 575.90 | 576.04 | 575.75 | 575.57 | 575.13 | 575.04 | 574.58 |
| 26 | 575.48 | 575.02 | 575.54 | 575.66 | 575.48 | 575.87 | 575.93 | 575.73 | 575.46 | 575.07 | 574.95 | 574.64 |
| 27 | 575.40 | 575.04 | 575.59 | 575.66 | 575.54 | 575.90 | 575.92 | 575.68 | 575.39 | 574.99 | 574.83 | 574.77 |
| 28 | 575.38 | 575.05 | 575.61 | 575.63 | 575.48 | 575.99 | 575.94 | 575.73 | 575.29 | 574.89 | 574.86 | 574.83 |
| 29 | 575.23 | | 575.62 | 575.63 | 575.52 | 575.99 | 575.80 | 575.81 | 575.39 | 574.79 | 574.78 | 574.83 |
| 30 | 575.19 | | 575.60 | 575.60 | 575.55 | 576.02 | 575.85 | 575.78 | 575.45 | 574.94 | 574.90 | 574.93 |
| 31 | 575.03 | | 575.67 | | 575.45 | | 575.95 | 575.70 | | 574.97 | | 575.07 |
| Mean | 575.45 | 575.00 | 575.27 | 575.54 | 575.56 | 575.74 | 575.99 | 575.82 | 575.58 | 575.13 | 574.85 | 574.85 |
| Max.
Hr.
Day | 576.04
1000
10 | 575.27
0400
6 | 575.88
2300
31 | 575.93
0600
24 | 575.83
1500
12 | 576.09
1100
30 | 576.22
1600
25 | 576.00
0500
21 | 575.92
2300
25 | 575.43
1400
1 | 575.15
1600
25 | 575.12
2000
31 |
| Min.
Hr.
Day | 574.92
0200
1 | 574.53
2300
10 | 574.88
0200
17 | 575.09
0800
17 | 575.13
1900
24 | 575.35
0200
1 | 575.58
1900
9 | 575.57
2300
27 | 574.91
2100
27 | 574.55
0700
21 | 574.43
2400
19 | 574.29
1900
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 575.40

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 901-4070 Algonac, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 576.49 Jul
Daily mean elevation: 576.82 4 Feb
Instant/hourly elevation: 576.86 2200/3 Feb

LOWEST

Monthly mean elevation: 575.45 Dec
Daily mean elevation: 575.31 26 Dec
Instant/hourly elevation: 575.19 1800/26 Nov

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 576.15 | 576.82 | 576.00 | 576.39 | 576.10 | 576.50 | 576.56 | 576.48 | 576.37 | 576.11 | 575.67 | 575.67 |
| Day | 7      | 4      | 29     | 13     | 6      | 25     | 15     | 3      | 4      | 1      | 3      | 31     |
| Min | 575.69 | 575.51 | 575.62 | 575.82 | 575.92 | 575.97 | 576.42 | 576.26 | 576.00 | 575.55 | 575.33 | 575.31 |
| Day | 3      | 10     | 16     | 18     | 29     | 4      | 5      | 26     | 29     | 30     | 26     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 576.80 | | 1 | | | | | | | | | | | 576.80 | 1 |
| 576.60 | | | | | | | | | | | | | 576.60 | 1 |
| 576.40 | | 2 | | | | 7 | 31 | 5 | | | | | 576.40 | 46 |
| 576.20 | | 2 | | 4 | | 5 | | 26 | 10 | | | | 576.20 | 93 |
| 576.00 | 10 | 2 | | 14 | 15 | 14 | | | 19 | 2 | | | 576.00 | 169 |
| 575.80 | 16 | 17 | 12 | 12 | 16 | 4 | | | 1 | 11 | | | 575.80 | 258 |
| 575.60 | 3 | 2 | 19 | | | | | | | 16 | 6 | 2 | 575.60 | 306 |
| 575.40 | | 2 | | | | | | | | 2 | 19 | 21 | 575.40 | 350 |
| 575.20 | | | | | | | | | | | 5 | 8 | 575.20 | 363 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 901-4070 Algonac, Michigan on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 575.69 | 576.03 | 575.81 | 576.09 | 576.01 | 575.99 | 576.45 | 576.45 | 576.30 | 576.11 | 575.62 | 575.44 |
| 2 | 575.71 | 576.24 | 575.79 | 576.13 | 576.03 | 575.99 | 576.47 | 576.46 | 576.30 | 575.97 | 575.66 | 575.45 |
| 3 | 575.69 | 576.57 | 575.71 | 576.25 | 576.03 | 575.97 | 576.46 | 576.48 | 576.37 | 576.07 | 575.67 | 575.44 |
| 4 | 575.81 | 576.82 | 575.73 | 576.10 | 576.05 | 575.97 | 576.44 | 576.39 | 576.37 | 575.96 | 575.62 | 575.40 |
| 5 | 576.04 | 576.49 | 575.97 | 576.01 | 576.10 | 576.01 | 576.42 | 576.40 | 576.32 | 575.87 | 575.58 | 575.48 |
| 6 | 576.15 | 575.92 | 575.88 | 575.99 | 576.10 | 576.03 | 576.47 | 576.41 | 576.28 | 575.86 | 575.44 | 575.59 |
| 7 | 576.15 | 576.04 | 575.73 | 576.00 | 576.09 | 576.05 | 576.46 | 576.40 | 576.28 | 575.83 | 575.63 | 575.50 |
| 8 | 576.10 | 576.30 | 575.66 | 575.93 | 576.07 | 576.11 | 576.48 | 576.40 | 576.25 | 575.80 | 575.61 | 575.49 |
| 9 | 576.02 | 575.56 | 575.62 | 575.92 | 576.05 | 576.19 | 576.51 | 576.38 | 576.35 | 575.80 | 575.45 | 575.52 |
| 10 | 576.02 | 575.51 | 575.63 | 575.93 | 576.03 | 576.16 | 576.50 | 576.41 | 576.22 | 575.88 | 575.43 | 575.50 |
| 11 | 576.04 | 575.97 | 575.68 | 575.94 | 576.01 | 576.11 | 576.52 | 576.37 | 576.17 | 575.86 | 575.47 | 575.44 |
| 12 | 575.97 | 575.90 | 575.68 | 576.04 | 575.97 | 576.14 | 576.50 | 576.35 | 576.20 | 575.86 | 575.43 | 575.50 |
| 13 | 576.07 | 575.95 | 575.69 | 576.39 | 575.96 | 576.15 | 576.50 | 576.34 | 576.11 | 575.77 | 575.45 | 575.44 |
| 14 | 575.92 | 575.92 | 575.91 | 576.30 | 576.03 | 576.19 | 576.53 | 576.34 | 576.16 | 575.75 | 575.41 | 575.39 |
| 15 | 575.96 | 575.88 | 575.78 | 576.17 | 576.05 | 576.17 | 576.56 | 576.35 | 576.15 | 575.74 | 575.45 | 575.44 |
| 16 | 575.96 | 575.99 | 575.62 | 576.26 | 575.99 | 576.18 | 576.55 | 576.38 | 576.12 | 575.72 | 575.46 | 575.46 |
| 17 | 575.94 | 575.97 | 575.63 | 575.97 | 575.99 | 576.17 | 576.53 | 576.35 | 576.16 | 575.82 | 575.46 | 575.46 |
| 18 | 575.94 | 575.92 | 575.67 | 575.82 | 575.98 | 576.20 | 576.53 | 576.35 | 576.15 | 575.79 | 575.49 | 575.45 |
| 19 | 575.98* | 575.74 | 575.68 | 575.84 | 575.96 | 576.23 | 576.52 | 576.36 | 576.13 | 575.77 | 575.57 | 575.43 |
| 20 | / | 575.74 | 575.67 | 575.97 | 575.96 | 576.28 | 576.52 | 576.38 | 576.06 | 575.79 | 575.54 | 575.44 |
| 21 | / | 575.84 | 575.66 | 575.98 | 575.96 | 576.35 | 576.49 | 576.34 | 576.08 | 575.96 | 575.58 | 575.40 |
| 22 | 575.95* | 575.91 | 575.65 | 576.02 | 575.94 | 576.35 | 576.51 | 576.35 | 576.11 | 575.76 | 575.44 | 575.38 |
| 23 | 575.88 | 575.91 | 575.73 | 576.04 | 576.00 | 576.36* | 576.49 | 576.31 | 576.08 | 575.73 | 575.35 | 575.33 |
| 24 | 575.93 | 575.83 | 575.83 | 576.07 | 576.08 | 576.47* | 576.47 | 576.32 | 576.06 | 575.74 | 575.34 | 575.47 |
| 25 | 575.95 | 575.84 | 575.87 | 576.02 | 576.03 | 576.50 | 576.47 | 576.27 | 576.05 | 575.67 | 575.34 | 575.33 |
| 26 | 575.94 | 575.97 | 575.90 | 576.00 | 575.97 | 576.49 | 576.52 | 576.26 | 576.11 | 575.62 | 575.33 | 575.31 |
| 27 | 575.93 | 575.93 | 575.96 | 576.02 | 575.95 | 576.48 | 576.49 | 576.27 | 576.15 | 575.66 | 575.39 | 575.34 |
| 28 | 575.90 | 575.86 | 575.99 | 576.03 | 575.94 | 576.49 | 576.50 | 576.28 | 576.14 | 575.85 | 575.43 | 575.42 |
| 29 | 575.95 | | 576.00 | 576.06 | 575.92 | 576.43 | 576.53 | 576.28 | 576.00 | 575.67 | 575.49 | 575.46 |
| 30 | 576.01 | | 575.99 | 576.07 | 575.95 | 576.44 | 576.49 | 576.28 | 576.04 | 575.55 | 575.42 | 575.62 |
| 31 | 576.06 | | 575.96 | | 575.97 | | 576.47 | 576.33 | | 575.56 | | 575.67 |
| Mean | 575.95 | 575.98 | 575.78 | 576.05 | 576.01 | 576.22 | 576.49 | 576.35 | 576.17 | 575.80 | 575.49 | 575.45 |
| Max.
Hr.
Day | 576.33
1600
13 | 576.86
2200
3 | 576.04
1600
28 | 576.68
2400
13 | 576.32
1900
24 | 576.56
0400
26 | 576.76
2100
11 | 576.72
1900
3 | 576.49
1500
9 | 576.35
0500
1 | 575.84
2200
7 | 575.75
1700
31 |
| Min.
Hr.
Day | 575.58
0900
1 | 575.33
1400
10 | 575.54
1600
16 | 575.77
1500
18 | 575.69
1700
12 | 575.89
0700
9 | 576.33
0800
25 | 576.16
1800
30 | 575.92
2400
29 | 575.47
1800
31 | 575.19
1800
26 | 575.24
0900
25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 575.98

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 901-4080 St. Clair S.P., St. Clair, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 577.87 Jul
Daily mean elevation: 578.03 9 Feb
Instant/hourly elevation: 578.26 2100/11 Jul

LOWEST

Monthly mean elevation: 576.88 Mar
Daily mean elevation: 576.60 16 Mar
Instant/hourly elevation: 576.38 1200/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 577.31 | 578.03 | 577.10 | 577.51 | 577.37 | 577.81 | 578.02 | 577.86 | 577.80 | 577.52 | 577.24 | 577.19 |
| Day | 7 | 9 | 31 | 13 | 6 | 29 | 30 | 2 | 5 | 4 | 1 | 11 |
| Min | 576.72 | 576.98 | 576.60 | 576.95 | 577.20 | 577.33 | 577.70 | 577.60 | 577.41 | 577.03 | 576.64 | 576.77 |
| Day | 3 | 28 | 16 | 9 | 2 | 3 | 5 | 23 | 13 | 26 | 26 | 23 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 578.00 | | 1 | | | | | 1 | | | | | | 578.00 | 2 |
| 577.80 | | 1 | | | | 1 | 25 | 9 | | | | | 577.80 | 38 |
| 577.60 | | 3 | | | | 10 | 5 | 21 | 16 | | | | 577.60 | 93 |
| 577.40 | | | | 1 | | 12 | | 1 | 14 | 3 | | | 577.40 | 124 |
| 577.20 | 6 | 10 | | 12 | 30 | 7 | | | | 20 | 1 | | 577.20 | 210 |
| 577.00 | 20 | 12 | 5 | 15 | 1 | | | | | 8 | 13 | 5 | 577.00 | 289 |
| 576.80 | 4 | 1 | 16 | 2 | | | | | | | 13 | 23 | 576.80 | 348 |
| 576.60 | 1 | | 9 | | | | | | | | 3 | 3 | 576.60 | 364 |
| 576.40 | | | 1 | | | | | | | | | | 576.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 901-4080 St. Clair S.P., St. Clair, Michigan on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 577.03 | 577.40 | 576.95 | 577.09 | 577.26 | 577.39 | 577.81 | 577.83 | 577.73 | 577.34 | 577.24 | 576.84 |
| 2 | 576.93 | 577.25 | 576.88 | 577.12 | 577.20 | 577.35 | 577.78 | 577.86 | 577.69 | 577.49 | 577.05 | 576.80 |
| 3 | 576.72 | 577.69 | 576.83 | 577.26 | 577.21 | 577.33 | 577.82 | 577.84 | 577.80 | 577.39 | 577.08 | 576.93 |
| 4 | 576.97 | 577.40 | 576.85 | 577.16 | 577.24 | 577.35 | 577.75 | 577.85 | 577.78 | 577.52 | 577.03 | 576.90 |
| 5 | 577.27 | 577.33 | 576.97 | 577.07 | 577.31 | 577.41 | 577.70 | 577.84 | 577.80 | 577.35 | 577.02 | 576.98 |
| 6 | 577.28 | 577.09 | 576.93 | 577.05 | 577.37 | 577.36 | 577.79 | 577.81 | 577.70 | 577.23 | 577.06 | 576.98 |
| 7 | 577.31 | 577.37 | 576.80 | 577.04 | 577.30 | 577.35 | 577.84 | 577.83 | 577.71 | 577.28 | 577.08 | 577.02 |
| 8 | 577.27 | 577.77 | 576.76 | 576.98 | 577.28 | 577.37 | 577.83 | 577.81 | 577.64 | 577.25 | 577.09 | 576.92 |
| 9 | 577.18 | 578.03 | 576.79 | 576.95 | 577.27 | 577.44 | 577.83 | 577.75 | 577.66 | 577.49 | 577.01 | 576.88 |
| 10 | 577.13 | 577.92 | 576.77 | 577.10 | 577.27 | 577.54 | 577.92 | 577.74 | 577.77 | 577.36 | 576.98 | 577.06 |
| 11 | 577.14 | 577.65 | 576.81 | 577.09 | 577.31 | 577.49 | 577.88 | 577.79 | 577.66 | 577.22 | 576.98 | 577.19 |
| 12 | 577.08 | 577.32 | 576.78 | 577.15 | 577.33 | 577.49 | 577.92 | 577.75 | 577.48 | 577.39 | 577.03 | 576.92 |
| 13 | 577.16 | 577.22 | 576.86 | 577.51 | 577.24 | 577.49 | 577.91 | 577.75 | 577.41 | 577.25 | 576.79 | 576.83 |
| 14 | 577.06 | 577.14 | 576.98 | 577.38 | 577.25 | 577.49 | 577.94 | 577.77 | 577.52 | 577.17 | 576.98 | 576.84 |
| 15 | 577.10 | 577.05 | 576.74 | 577.28 | 577.33 | 577.58 | 577.98 | 577.75 | 577.74 | 577.13 | 577.01 | 577.02 |
| 16 | 577.07 | 577.18 | 576.60 | 577.26 | 577.32 | 577.56 | 577.93 | 577.77 | 577.56 | 577.12 | 577.02 | 576.94 |
| 17 | 577.19 | 577.10 | 576.94 | 577.17 | 577.28 | 577.49 | 577.90 | 577.79 | 577.62 | 577.33 | 577.12 | 576.87 |
| 18 | 577.14 | 577.10 | 576.77 | 577.03 | 577.25 | 577.56 | 577.84 | 577.78 | 577.60 | 577.31 | 576.97 | 576.88 |
| 19 | 577.14 | 577.15 | 576.73 | 577.07 | 577.29 | 577.60 | 577.89 | 577.71 | 577.61 | 577.24 | 576.98 | 576.88 |
| 20 | 577.24 | 577.13 | 576.78 | 577.23 | 577.28 | 577.62 | 577.95 | 577.85 | 577.45 | 577.22 | 577.19 | 576.80 |
| 21 | 577.05 | 577.14 | 576.82 | 577.30 | 577.26 | 577.74 | 577.92 | 577.77 | 577.49 | 577.22 | 576.96 | 576.88 |
| 22 | 577.04 | 577.23 | 576.81 | 577.24 | 577.23 | 577.78 | 577.91 | 577.73 | 577.48 | 577.39 | 576.98 | 576.92 |
| 23 | 576.99 | 577.26 | 576.81 | 577.23 | 577.21 | 577.72 | 577.90 | 577.60 | 577.60 | 577.15 | 576.82 | 576.77 |
| 24 | 577.10 | 577.21 | 576.91 | 577.13 | 577.28 | 577.69 | 577.84 | 577.65 | 577.50 | 577.24 | 576.94 | 576.87 |
| 25 | 577.19 | 577.10 | 576.97 | 577.21 | 577.35 | 577.73 | 577.77 | 577.68 | 577.51 | 577.15 | 576.77 | 576.85 |
| 26 | 576.94 | 577.15 | 576.99 | 577.32 | 577.30 | 577.79 | 577.82 | 577.62 | 577.56 | 577.03 | 576.64 | 576.93 |
| 27 | 577.17 | 577.13 | 577.04 | 577.19 | 577.29 | 577.78 | 577.89 | 577.67 | 577.61 | 577.21 | 576.83 | 576.84 |
| 28 | 577.04 | 576.98 | 577.08 | 577.16 | 577.27 | 577.80 | 577.85 | 577.75 | 577.61 | 577.17 | 576.93 | 576.92 |
| 29 | 577.18 | | 577.10 | 577.25 | 577.30 | 577.81 | 577.96 | 577.69 | 577.56 | 577.17 | 576.98 | 576.84 |
| 30 | 577.18 | | 577.08 | 577.28 | 577.28 | 577.78 | 578.02 | 577.62 | 577.42 | 577.22 | 576.96 | 577.04 |
| 31 | 577.27 | | 577.10 | | 577.32 | | 577.93 | 577.77 | | 577.24 | | 576.97 |
| Mean | 577.12 | 577.30 | 576.88 | 577.18 | 577.28 | 577.56 | 577.87 | 577.76 | 577.61 | 577.27 | 576.98 | 576.91 |
| Max. | 577.98 | 578.19 | 577.21 | 577.65 | 577.67 | 577.95 | 578.26 | 578.04 | 577.99 | 577.99 | 577.44 | 577.63 |
| Hr. | 2300 | 2400 | 2400 | 2300 | 1800 | 1100 | 2100 | 1200 | 1800 | 1000 | 2100 | 2000 |
| Day | 31 | 7 | 4 | 13 | 26 | 22 | 11 | 31 | 3 | 4 | 5 | 10 |
| Min. | 576.44 | 576.77 | 576.38 | 576.76 | 576.93 | 577.02 | 577.51 | 577.37 | 577.17 | 576.89 | 576.44 | 576.52 |
| Hr. | 0600 | 2400 | 1200 | 0200 | 1700 | 0900 | 0900 | 1300 | 0600 | 0300 | 2400 | 0500 |
| Day | 3 | 28 | 16 | 9 | 2 | 3 | 6 | 23 | 13 | 26 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 577.31

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 901-4087 Dry Dock, Port Huron, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 579.04 Jul
Daily mean elevation: 579.34 30 Jul
Instant/hourly elevation: 579.56 1200/31 Aug

LOWEST

Monthly mean elevation: 577.81 Mar
Daily mean elevation: 577.44 16 Mar
Instant/hourly elevation: 577.14 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 578.33 | 578.52 | 578.03 | 578.49 | 578.53 | 579.00 | 579.34 | 579.10 | 579.06 | 578.86 | 578.54 | 578.62 |
| Day | 31     | 8      | 31     | 26     | 25     | 22     | 30     | 20     | 15     | 9      | 1      | 11     |
| Min | 577.81 | 577.83 | 577.44 | 577.87 | 578.23 | 578.46 | 578.76 | 578.76 | 578.55 | 578.21 | 577.77 | 577.93 |
| Day | 26     | 28     | 16     | 9      | 23     | 8      | 5      | 23     | 13     | 26     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 579.20 | | | | | | | 1 | | | | | | 579.20 | 1 |
| 579.00 | | | | | | | 18 | 11 | 3 | | | | 579.00 | 33 |
| 578.80 | | | | | | 10 | 11 | 18 | 16 | 2 | | | 578.80 | 90 |
| 578.60 | | | | | | 11 | 1 | 2 | 8 | 3 | | 1 | 578.60 | 116 |
| 578.40 | | 4 | | 2 | 14 | 9 | | | 3 | 15 | 3 | | 578.40 | 166 |
| 578.20 | 8 | 4 | | 10 | 15 | | | | | 11 | 19 | 10 | 578.20 | 243 |
| 578.00 | 15 | 12 | 2 | 14 | | | | | | | 5 | 16 | 578.00 | 307 |
| 577.80 | 4 | 8 | 16 | 4 | | | | | | | 2 | 4 | 577.80 | 345 |
| 577.60 | | | 10 | | | | | | | | 1 | | 577.60 | 356 |
| 577.40 | | | 3 | | | | | | | | | | 577.40 | 359 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 901-4087 Dry Dock, Port Huron, Michigan on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | / | 578.52 | 577.85 | 577.91 | / | 578.60 | 578.97 | 579.02 | 578.94 | 578.34 | 578.54 | 578.01 |
| 2 | / | 578.07 | 577.83 | 577.94 | 578.26* | 578.52 | 578.90 | 579.04 | 578.84 | 578.72 | 578.21 | 577.95 |
| 3 | / | 578.46 | 577.82 | 578.15 | 578.24 | 578.51 | 578.95 | 579.03 | 578.98 | 578.48 | 578.23 | 578.22 |
| 4 | / | 578.25 | 577.87 | 578.11 | 578.29 | 578.54 | 578.85 | 579.09 | 578.96 | 578.84 | 578.23 | 578.20 |
| 5 | 578.12* | 578.30 | 577.87 | 578.03 | 578.36* | 578.62 | 578.76 | 579.06 | 579.02 | 578.60 | 578.23 | 578.25 |
| 6 | 578.18 | 578.06 | 577.83 | 578.01 | 578.47 | 578.53 | 578.96 | 579.00 | 578.90 | 578.38 | 578.40 | 578.16 |
| 7 | 578.27 | 578.02 | 577.72 | 578.02 | 578.40 | 578.51 | 579.05 | 579.04 | 578.90 | 578.50 | 578.29 | 578.30 |
| 8 | 578.25 | 578.52 | 577.74 | 577.93 | / | 578.46 | 578.99 | 579.01 | 578.84 | 578.47 | 578.28 | 578.11 |
| 9 | 578.19 | 578.40 | 577.79 | 577.87 | 578.36* | 578.53 | 578.95 | 578.92 | 578.81 | 578.86 | 578.26 | 578.06 |
| 10 | 578.11* | 578.47 | 577.77 | 578.12 | 578.30* | 578.66 | 579.09 | 578.87 | 579.04 | 578.60 | 578.26 | 578.35 |
| 11 | 578.11 | 578.34 | 577.81 | 578.08 | 578.40* | 578.65 | 579.05 | 578.96 | 578.89 | 578.37 | 578.20 | 578.62 |
| 12 | 578.04 | 578.02 | 577.78 | 578.11 | 578.51 | 578.64 | 579.14 | 578.93 | 578.56 | 578.66 | 578.33 | 578.16 |
| 13 | 578.06 | 578.13 | 577.92 | 578.30 | 578.41 | 578.63 | 579.11 | 578.94 | 578.55 | 578.50 | 577.92 | 578.01 |
| 14 | 578.03 | 578.04 | 577.89 | 578.21 | 578.37 | 578.60 | 579.09 | 578.97 | 578.66 | 578.38 | 578.27 | 578.07 |
| 15 | 578.06 | 577.98 | 577.60 | 578.11 | 578.46 | 578.77 | 579.18 | 578.93 | 579.06 | 578.33 | 578.26 | 578.33 |
| 16 | 578.02 | 578.14 | 577.44 | 578.04 | 578.47 | 578.74 | 579.11 | 578.92 | 578.80 | 578.31 | 578.25 | 578.17 |
| 17 | 578.25 | 578.05 | 578.01 | 578.23 | 578.42 | 578.61 | 579.06 | 579.01 | 578.84 | 578.59 | 578.47 | 578.06 |
| 18 | 578.18 | 578.02 | 577.71 | 578.10 | 578.39 | 578.78 | 578.99 | 578.98 | 578.85 | 578.55 | 578.22 | 578.08 |
| 19 | 578.13 | 578.00 | 577.60 | 578.16 | 578.46 | 578.82 | 579.01 | 578.89 | 578.86 | 578.43 | 578.16 | 578.09 |
| 20 | 578.13* | 578.00 | 577.69 | 578.25 | 578.44 | 578.76 | 579.16 | 579.10 | 578.63 | 578.43 | 578.52 | 577.93 |
| 21 | 577.92 | 577.97 | 577.78 | 578.44 | 578.41 | 578.90 | 579.15 | 578.95 | 578.69 | 578.37 | 578.11 | 578.14 |
| 22 | 577.98 | 578.02 | 577.78 | 578.35 | 578.37 | 579.00 | 579.13 | 578.89 | 578.63 | 578.73 | 578.26 | 578.21 |
| 23 | 577.93 | 578.13 | 577.73 | 578.31 | 578.23 | 578.88 | 579.07 | 578.76 | 578.83 | 578.34 | 578.04 | 578.00 |
| 24 | 578.10 | 578.10 | 577.82 | 578.02 | 578.31 | 578.79 | 579.01 | 578.83 | 578.73 | 578.45 | 578.29 | 578.04 |
| 25 | 578.23* | 577.98 | 577.86 | 578.28 | 578.53 | 578.82 | 578.90 | 578.89 | 578.72 | 578.36 | 577.97 | 578.14 |
| 26 | 577.81 | 578.00 | 577.87 | 578.49* | 578.46 | 578.95 | 578.95 | 578.81 | 578.79 | 578.21 | 577.77 | 578.32 |
| 27 | 578.22 | 577.98 | 577.93 | 578.24 | 578.40 | 578.93 | 579.09 | 578.85 | 578.82 | 578.50 | 578.08 | 578.21 |
| 28 | 578.02 | 577.83 | 577.95 | 578.18 | 578.37 | 578.99 | 578.99 | 579.04 | 578.86 | 578.26 | 578.21 | 578.22 |
| 29 | 578.24 | | 577.97 | 578.32 | 578.52 | 578.99 | 579.18 | 578.89 | 578.83 | 578.41 | 578.26 | 577.99 |
| 30 | 578.22 | | 577.97 | 578.32* | 578.41 | 578.97 | 579.34 | 578.77 | 578.60 | 578.58 | 578.22 | 578.25 |
| 31 | 578.33 | | 578.03 | | 578.44 | | 579.15 | 579.03 | | 578.60 | | 578.06 |
| Mean | 578.11 | 578.14 | 577.81 | 578.15 | 578.40 | 578.72 | 579.04 | 578.95 | 578.81 | 578.49 | 578.23 | 578.15 |
| Max.
Hr.
Day | 579.38
2200
31 | 578.98
0100
1 | 578.28
0700
17 | 578.72
0300
26 | 578.86
2200
15 | 579.22
1100
22 | 579.48
1900
29 | 579.56
1200
31 | 579.28
2400
9 | 579.31
1000
4 | 578.75
2400
19 | 579.21
2000
10 |
| Min.
Hr.
Day | 577.49
1700
26 | 577.66
2000
28 | 577.14
1100
16 | 577.60
2000
24 | 577.85
2300
27 | 578.03
0300
9 | 578.63
0800
5 | 578.47
1400
23 | 578.22
0500
13 | 577.68
0800
21 | 577.44
1700
26 | 577.32
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 578.42

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 901-4090 Mouth of the Black River, Port Huron, MI on St. Clair River

HIGHEST

Monthly mean elevation: 579.45 Jul
Daily mean elevation: 579.75 30 Jul
Instant/hourly elevation: 579.90 1200/31 Aug

LOWEST

Monthly mean elevation: 578.12 Mar
Daily mean elevation: 577.71 16 Mar
Instant/hourly elevation: 577.34 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 578.66 | 578.87 | 578.39 | 578.86 | 578.90 | 579.40 | 579.75 | 579.53 | 579.46 | 579.28 | 578.95 | 579.06 |
| Day | 31     | 1      | 31     | 26     | 29     | 22     | 30     | 20     | 15     | 9      | 1      | 11     |
| Min | 577.84 | 578.07 | 577.71 | 578.18 | 578.56 | 578.81 | 579.16 | 579.12 | 578.86 | 578.57 | 578.10 | 578.28 |
| Day | 3      | 28     | 16     | 9      | 23     | 8      | 5      | 30     | 13     | 26     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 579.60 | | | | | | | 1 | | | | | | 579.60 | 1 |
| 579.40 | | | | | | | 17 | 9 | 2 | | | | 579.40 | 29 |
| 579.20 | | | | | | 8 | 12 | 20 | 12 | 2 | | | 579.20 | 83 |
| 579.00 | | | | | | 11 | 1 | 2 | 10 | 4 | | 1 | 579.00 | 112 |
| 578.80 | | | | 2 | 7 | 11 | | | 6 | 11 | 3 | | 578.80 | 153 |
| 578.60 | 1 | 1 | | 6 | 22 | | | | | 12 | 12 | 6 | 578.60 | 216 |
| 578.40 | 17 | 6 | | 11 | 2 | | | | | 2 | 11 | 16 | 578.40 | 281 |
| 578.20 | 10 | 16 | 7 | 10 | | | | | | | 3 | 8 | 578.20 | 335 |
| 578.00 | 2 | 1 | 20 | 1 | | | | | | | 1 | | 578.00 | 360 |
| 577.80 | 1 | | 3 | | | | | | | | | | 577.80 | 364 |
| 577.60 | | | 1 | | | | | | | | | | 577.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 901-4090 Mouth of the Black River, Port Huron, MI on St. Clair River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 578.53 | 578.87 | 578.13 | 578.21 | 578.72 | 578.98 | 579.37 | 579.40 | 579.32 | 578.65 | 578.95 | 578.37 |
| 2 | 578.33 | 578.33 | 578.12 | 578.24 | 578.59 | 578.90 | 579.30 | 579.44 | 579.19 | 579.10 | 578.56 | 578.29 |
| 3 | 577.84 | 578.71 | 578.14 | 578.45 | 578.61 | 578.89 | 579.36 | 579.41 | 579.34 | 578.83 | 578.58 | 578.59 |
| 4 | 578.31 | 578.52 | 578.20 | 578.41 | 578.63 | 578.91 | 579.24 | 579.47 | 579.31 | 579.23 | 578.58 | 578.60 |
| 5 | 578.59 | 578.61 | 578.17 | 578.34 | 578.72 | 579.00 | 579.16 | 579.46 | 579.38 | 578.97 | 578.58 | 578.65 |
| 6 | 578.51 | 578.37 | 578.13 | 578.33 | 578.83 | 578.90 | 579.36 | 579.39 | 579.24 | 578.73 | 578.80 | 578.52 |
| 7 | 578.59 | 578.24 | 578.01 | 578.32 | 578.73 | 578.87 | 579.46 | 579.44 | 579.27 | 578.86 | 578.65 | 578.67 |
| 8 | 578.58 | 578.75 | 578.05 | 578.25 | 578.68 | 578.81 | 579.40 | 579.40 | 579.19 | 578.82 | 578.63 | 578.49 |
| 9 | 578.52 | 578.50 | 578.11 | 578.18 | 578.72 | 578.86 | 579.38 | 579.30 | 579.15 | 579.28 | 578.65 | 578.41 |
| 10 | 578.43 | 578.65 | 578.08 | 578.48 | 578.72 | 579.06 | 579.51 | 579.26 | 579.44 | 578.97 | 578.65 | 578.74 |
| 11 | 578.43 | 578.56 | 578.13 | 578.39 | 578.78 | 579.05 | 579.46 | 579.35 | 579.28 | 578.71 | 578.56 | 579.06 |
| 12 | 578.36 | 578.25 | 578.09 | 578.43 | 578.90 | 579.03 | 579.56 | 579.33 | 578.87 | 579.04 | 578.73 | 578.53 |
| 13 | 578.37 | 578.41 | 578.26 | 578.56 | 578.78 | 579.01 | 579.53 | 579.34 | 578.86 | 578.88 | 578.25 | 578.36 |
| 14 | 578.34 | 578.31 | 578.19 | 578.49 | 578.75 | 578.96 | 579.53 | 579.37 | 578.99 | 578.74 | 578.65 | 578.44 |
| 15 | 578.39 | 578.27 | 577.85 | 578.39 | 578.82 | 579.17 | 579.60 | 579.35 | 579.46 | 578.68 | 578.64 | 578.72 |
| 16 | 578.34 | 578.44 | 577.71 | 578.29 | 578.84 | 579.15 | 579.53 | 579.35 | 579.16 | 578.68 | 578.62 | 578.55 |
| 17 | 578.58 | 578.32 | 578.36 | 578.57 | 578.77 | 578.99 | 579.48 | 579.44 | 579.21 | 578.97 | 578.87 | 578.43 |
| 18 | 578.50 | 578.31 | 578.01 | 578.45 | 578.74 | 579.18 | 579.39 | 579.38 | 579.21 | 578.93 | 578.58 | 578.43 |
| 19 | 578.44 | 578.27 | 577.88 | 578.52 | 578.82 | 579.20 | 579.44 | 579.31 | 579.24 | 578.78 | 578.52 | 578.45 |
| 20 | 578.44 | 578.26 | 577.99 | 578.61 | 578.79 | 579.13 | 579.58 | 579.53 | 578.99 | 578.80 | 578.94 | 578.28 |
| 21 | 578.19 | 578.22 | 578.09 | 578.85 | 578.76 | 579.32 | 579.56 | 579.37 | 579.05 | 578.72 | 578.44 | 578.49 |
| 22 | 578.28 | 578.28 | 578.10 | 578.73 | 578.72 | 579.40 | 579.53 | 579.29 | 578.97 | 579.15 | 578.64 | 578.60 |
| 23 | 578.23 | 578.41 | 578.03 | 578.65 | 578.56 | 579.27 | 579.48 | 579.16 | 579.20 | 578.71 | 578.40 | 578.36 |
| 24 | 578.42 | 578.37 | 578.12 | 578.30 | 578.65 | 579.18 | 579.40 | 579.24 | 579.09 | 578.84 | 578.69 | 578.39 |
| 25 | 578.56 | 578.25 | 578.17 | 578.62 | 578.89 | 579.20 | 579.27 | 579.29 | 579.10 | 578.73 | 578.34 | 578.52 |
| 26 | 578.07 | 578.26 | 578.18 | 578.86 | 578.80 | 579.33 | 579.33 | 579.21 | 579.16 | 578.57 | 578.10 | 578.65 |
| 27 | 578.54 | 578.24 | 578.25 | 578.55 | 578.72 | 579.30 | 579.49 | 579.23 | 579.18 | 578.89 | 578.44 | 578.46 |
| 28 | 578.33 | 578.07 | 578.29 | 578.56 | 578.71 | 579.39 | 579.38 | 579.43 | 579.23 | 578.60 | 578.59 | 578.56 |
| 29 | 578.58 | | 578.32 | 578.67 | 578.90 | 579.39 | 579.57 | 579.23 | 579.21 | 578.79 | 578.62 | 578.33 |
| 30 | 578.54 | | 578.33 | 578.70 | 578.78 | 579.35 | 579.75 | 579.12 | 578.93 | 578.99 | 578.60 | 578.61 |
| 31 | 578.66 | | 578.39 | | 578.79 | | 579.55 | 579.41 | | 579.01 | | 578.38 |
| Mean | 578.41 | 578.39 | 578.12 | 578.48 | 578.75 | 579.10 | 579.45 | 579.34 | 579.17 | 578.86 | 578.60 | 578.51 |
| Max. | 579.82 | 579.39 | 578.68 | 579.08 | 579.29 | 579.61 | 579.88 | 579.90 | 579.72 | 579.66 | 579.16 | 579.64 |
| Hr. | 2200 | 0100 | 0700 | 0900 | 2200 | 1100 | 1000 | 1200 | 2100 | 0900 | 1200 | 2000 |
| Day | 31 | 1 | 17 | 26 | 15 | 22 | 30 | 31 | 10 | 4 | 20 | 10 |
| Min. | 577.54 | 577.84 | 577.34 | 577.86 | 578.15 | 578.31 | 579.02 | 578.84 | 578.40 | 577.92 | 577.75 | 577.73 |
| Hr. | 0500 | 1500 | 1100 | 2000 | 2300 | 0300 | 0200 | 1900 | 0500 | 0800 | 2300 | 0800 |
| Day | 3 | 28 | 16 | 24 | 27 | 9 | 6 | 27 | 13 | 21 | 26 | 29 |

* Indicates Less than '90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 578.76

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 901-4096 Dunn Paper Company, Port Huron, MI on St. Clair River

HIGHEST

Monthly mean elevation: 579.75 Jul
Daily mean elevation: 580.10 30 Jul
Instant/hourly elevation: 580.27 2200/31 Jan

LOWEST

Monthly mean elevation: 578.38 Mar
Daily mean elevation: 577.92 16 Mar
Instant/hourly elevation: 577.49 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.00 | 579.16 | 578.67 | 579.24 | 579.26 | 579.73 | 580.10 | 579.83 | 579.82 | 579.68 | 579.37 | 579.46 |
| Day | 31     | 1      | 17     | 26     | 29     | 22     | 30     | 4      | 15     | 9      | 20     | 11     |
| Min | 578.11 | 578.27 | 577.92 | 578.37 | 578.86 | 579.18 | 579.40 | 579.42 | 579.20 | 578.92 | 578.47 | 578.62 |
| Day | 3      | 28     | 16     | 1      | 23     | 8      | 5      | 23     | 12     | 26     | 26     | 2      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.00 | | | | | | | 1 | | | | | | 580.00 | 1 |
| 579.80 | | | | | | | 12 | 2 | 2 | | | | 579.80 | 17 |
| 579.60 | | | | | | 6 | 14 | 20 | 5 | 1 | | | 579.60 | 63 |
| 579.40 | | | | | | 9 | 3 | 9 | 16 | 5 | | | 579.40 | 106 |
| 579.20 | | | | 1 | 3 | 14 | 1 | | 6 | 10 | 3 | | 579.20 | 144 |
| 579.00 | | 1 | | 3 | 20 | 1 | | | 1 | 12 | 12 | 5 | 579.00 | 199 |
| 578.80 | 10 | 4 | | 8 | 8 | | | | | 3 | 10 | 14 | 578.80 | 256 |
| 578.60 | 15 | 8 | 1 | 11 | | | | | | | 3 | 11 | 578.60 | 305 |
| 578.40 | 4 | 14 | 12 | 6 | | | | | | | 2 | | 578.40 | 343 |
| 578.20 | 1 | 1 | 15 | 1 | | | | | | | | | 578.20 | 361 |
| 578.00 | 1 | | 2 | | | | | | | | | | 578.00 | 364 |
| 577.80 | | | 1 | | | | | | | | | | 577.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 901-4096 Dunn Paper Company, Port Huron, MI on St. Clair River

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 578.82 | 579.16 | 578.38 | 578.37 | 578.99 | 579.35 | 579.68 | 579.72 | 579.67 | 578.95 | 579.34 | 578.74 |
| 2 | 578.63 | 578.56 | 578.39 | 578.41 | 578.89 | 579.24 | 579.60 | 579.78 | 579.54 | 579.47 | 578.90 | 578.62 |
| 3 | 578.11 | 578.97 | 578.42 | 578.65 | 578.87 | 579.26 | 579.63 | 579.74 | 579.69 | 579.15 | 578.92 | 578.99 |
| 4 | 578.59 | 578.76 | 578.50 | 578.64 | 578.91 | 579.27 | 579.49 | 579.83 | 579.67 | 579.59 | 578.93 | 578.98 |
| 5 | 578.82 | 578.90 | 578.43 | 578.61 | 578.98 | 579.33 | 579.40 | 579.80 | 579.76 | 579.33 | 578.93 | 579.01 |
| 6 | 578.73 | 578.65 | 578.40 | 578.59 | 579.11 | 579.26 | 579.65 | 579.72 | 579.60 | 579.10 | 579.20 | 578.88 |
| 7 | 578.87 | 578.44 | 578.28 | 578.59 | 579.01 | 579.23 | 579.75 | 579.75 | 579.60 | 579.23 | 579.01 | 579.07 |
| 8 | 578.85 | 578.97 | 578.34 | 578.52 | 578.98 | 579.18 | 579.67 | 579.70 | 579.53 | 579.21 | 579.01 | 578.85 |
| 9 | 578.78 | 578.65 | 578.40 | 578.45 | 579.02 | 579.22 | 579.63 | 579.63 | 579.44 | 579.68 | 579.03 | 578.76 |
| 10 | 578.68 | 578.84 | 578.38 | 578.76 | 579.02 | 579.40 | 579.81 | 579.57 | 579.82 | 579.32 | 579.04 | 579.13 |
| 11 | 578.71 | 578.77 | 578.42 | 578.67 | 579.08 | 579.36 | 579.73 | 579.65 | 579.64 | 579.07 | 578.95 | 579.46 |
| 12 | 578.66 | 578.46 | 578.36 | 578.69 | 579.24 | 579.37 | 579.82 | 579.65 | 579.20 | 579.41 | 579.12 | 578.89 |
| 13 | 578.63 | 578.68 | 578.54 | 578.77 | 579.10 | 579.34 | 579.82 | 579.66 | 579.22 | 579.26 | 578.59 | 578.73 |
| 14 | 578.63 | 578.58 | 578.40 | 578.69 | 579.04 | 579.30 | 579.84 | 579.69 | 579.32 | 579.10 | 579.07 | 578.82 |
| 15 | 578.65 | 578.55 | 578.05 | 578.62 | 579.11 | 579.49 | 579.87 | 579.66 | 579.82 | 579.03 | 579.07 | 579.12 |
| 16 | 578.61 | 578.73 | 577.92 | 578.53 | 579.17 | 579.45 | 579.83 | 579.63 | 579.54 | 579.03 | 579.04 | 578.92 |
| 17 | 578.89 | 578.57 | 578.67 | 578.87 | 579.11 | 579.31 | 579.74 | 579.71 | 579.59 | 579.36 | 579.29 | 578.78 |
| 18 | 578.80 | 578.55 | 578.26 | 578.74 | 579.06 | 579.51 | 579.69 | 579.69 | 579.58 | 579.30 | 578.96 | 578.80 |
| 19 | 578.74 | 578.48 | 578.13 | 578.85 | 579.17 | 579.55 | 579.70 | 579.58 | 579.60 | 579.17 | 578.87 | 578.83 |
| 20 | 578.73 | 578.48 | 578.25 | 578.98 | 579.13 | 579.44 | 579.89 | 579.81 | 579.34 | 579.15 | 579.37 | 578.63 |
| 21 | 578.44 | 578.46 | 578.37 | 579.15 | 579.11 | 579.64 | 579.89 | 579.67 | 579.40 | 579.03 | 578.79 | 578.89 |
| 22 | 578.56 | 578.51 | 578.38 | 579.06 | 579.06 | 579.73 | 579.84 | 579.59 | 579.30 | 579.53 | 579.02 | 578.97 |
| 23 | 578.51 | 578.67 | 578.30 | 579.00 | 578.86 | 579.58 | 579.80 | 579.42 | 579.59 | 579.06 | 578.77 | 578.74 |
| 24 | 578.71 | 578.62 | 578.37 | 578.62 | 578.95 | 579.47 | 579.73 | 579.52 | 579.47 | 579.22 | 579.09 | 578.75 |
| 25 | 578.86 | 578.48 | 578.42 | 578.98 | 579.25 | 579.45 | 579.57 | 579.62 | 579.48 | 579.09 | 578.72 | 578.93 |
| 26 | 578.32 | 578.49 | 578.41 | 579.24 | 579.17 | 579.64 | 579.65 | 579.52 | 579.51 | 578.92 | 578.47 | 579.08 |
| 27 | 578.85 | 578.46 | 578.47 | 578.90 | 579.06 | 579.59 | 579.84 | 579.54 | 579.56 | 579.28 | 578.83 | 578.86 |
| 28 | 578.64 | 578.27 | 578.50 | 578.88 | 579.05 | 579.68 | 579.69 | 579.80 | 579.55 | 578.93 | 578.93 | 578.97 |
| 29 | 578.89 | | 578.51 | 579.00 | 579.26 | 579.69 | 579.91 | 579.58 | 579.60 | 579.15 | 579.01 | 578.70 |
| 30 | 578.87 | | 578.51 | 579.02 | 579.14 | 579.66 | 580.10 | 579.45 | 579.29 | 579.40 | 578.98 | 578.98 |
| 31 | 579.00 | | 578.60 | | 579.12 | | 579.88 | 579.77 | | 579.42 | | 578.72 |
| Mean | 578.69 | 578.64 | 578.38 | 578.76 | 579.06 | 579.43 | 579.75 | 579.66 | 579.53 | 579.22 | 578.97 | 578.89 |
| Max.
Hr.
Day | 580.27
2200
31 | 579.57
0400
1 | 579.03
0700
17 | 579.49
0400
26 | 579.68
2200
15 | 579.99
1100
22 | 580.24
0900
30 | 580.14
1200
31 | 580.08
1000
15 | 580.22
1000
4 | 579.63
1600
17 | 580.15
2000
10 |
| Min.
Hr.
Day | 577.74
0500
3 | 577.98
1500
28 | 577.49
1100
16 | 578.11
2000
24 | 578.47
0400
28 | 578.41
0800
9 | 579.06
2100
4 | 579.06
1400
23 | 578.69
0500
13 | 578.09
0800
21 | 578.16
1700
26 | 577.93
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.08

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 901-4098 Fort Gratiot, Port Huron, Michigan on St. Clair River

HIGHEST

Monthly mean elevation: 580.21 Jul
Daily mean elevation: 580.63 30 Jul
Instant/hourly elevation: 580.86 2200/31 Jan

LOWEST

Monthly mean elevation: 578.70 Mar
Daily mean elevation: 578.17 16 Mar
Instant/hourly elevation: 577.68 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.37 | 579.63 | 579.06 | 579.70 | 579.77 | 580.22 | 580.63 | 580.32 | 580.35 | 580.25 | 579.86 | 580.02 |
| Day | 31     | 1      | 17     | 26     | 29     | 22     | 30     | 20     | 15     | 9      | 20     | 11     |
| Min | 578.40 | 578.56 | 578.17 | 578.70 | 579.27 | 579.62 | 579.81 | 579.84 | 579.59 | 579.29 | 578.85 | 579.02 |
| Day | 3      | 28     | 16     | 1      | 23     | 8      | 5      | 23     | 12     | 28     | 26     | 2      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | 1 | | | | | | 580.60 | 1 |
| 580.40 | | | | | | | | | | | | | 580.40 | 1 |
| 580.20 | | | | | | 1 | 16 | 7 | 3 | 1 | | | 580.20 | 29 |
| 580.00 | | | | | | 7 | 11 | 18 | 14 | 2 | | 1 | 580.00 | 82 |
| 579.80 | | | | | | 12 | 3 | 6 | 7 | 6 | 2 | | 579.80 | 118 |
| 579.60 | | 1 | | 2 | 5 | 10 | | | 5 | 9 | 3 | 1 | 579.60 | 154 |
| 579.40 | | | | 2 | 21 | | | | 1 | 10 | 12 | 8 | 579.40 | 208 |
| 579.20 | 9 | 3 | | 8 | 5 | | | | | 3 | 8 | 12 | 579.20 | 256 |
| 579.00 | 11 | 6 | 1 | 6 | | | | | | | 3 | 9 | 579.00 | 292 |
| 578.80 | 8 | 8 | 6 | 9 | | | | | | | 2 | | 578.80 | 325 |
| 578.60 | 1 | 9 | 17 | 3 | | | | | | | | | 578.60 | 355 |
| 578.40 | 1 | 1 | 5 | | | | | | | | | | 578.40 | 362 |
| 578.20 | 1 | | 1 | | | | | | | | | | 578.20 | 364 |
| 578.00 | | | 1 | | | | | | | | | | 578.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 901-4098 Fort Gratiot, Port Huron, Michigan on St. Clair River

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 579.23 | 579.63 | 578.68 | 578.70 | 579.48 | 579.81 | 580.15 | 580.18 | 580.14 | 579.30 | 579.83 | 579.16 |
| 2 | 579.01 | 578.84 | 578.73 | 578.71 | 579.34 | 579.70 | 580.07 | 580.23 | 579.99 | 579.93 | 579.31 | 579.02 |
| 3 | 578.40 | 579.25 | 578.78 | 578.95 | 579.30 | 579.71 | 580.10 | 580.18 | 580.16 | 579.54 | 579.32 | 579.43 |
| 4 | 578.92 | 579.08 | 578.88 | 578.98 | 579.36 | 579.75 | 579.93 | 580.32 | 580.11 | 580.09 | 579.33 | 579.45 |
| 5 | 579.20 | 579.27 | 578.74 | 578.92 | 579.47 | 579.85 | 579.81 | 580.28 | 580.23 | 579.79 | 579.35 | 579.48 |
| 6 | 579.04 | 579.03 | 578.71 | 578.92 | 579.59 | 579.70 | 580.08 | 580.18 | 580.07 | 579.52 | 579.69 | 579.31 |
| 7 | 579.22 | 578.67 | 578.58 | 578.94 | 579.45 | 579.63 | 580.22 | 580.24 | 580.06 | 579.66 | 579.44 | 579.53 |
| 8 | 579.23 | 579.26 | 578.67 | 578.85 | 579.43 | 579.62 | 580.14 | 580.18 | 579.99 | 579.65 | 579.41 | 579.29 |
| 9 | 579.21 | 578.78 | 578.76 | 578.79 | 579.47 | 579.68 | 580.08 | 580.08 | 579.87 | 580.25 | 579.48 | 579.16 |
| 10 | 579.09 | 579.05 | 578.72 | 579.15 | 579.46 | 579.85 | 580.27 | 579.98 | 580.32 | 579.81 | 579.48 | 579.60 |
| 11 | 579.07 | 579.03 | 578.76 | 579.06 | 579.53 | 579.84 | 580.22 | 580.10 | 580.10 | 579.48 | 579.37 | 580.02 |
| 12 | 579.01 | 578.72 | 578.69 | 579.08 | 579.73 | 579.83 | 580.31 | 580.10 | 579.59 | 579.89 | 579.57 | 579.32 |
| 13 | 578.98 | 579.02 | 578.97 | 579.06 | 579.57 | 579.78 | 580.29 | 580.12 | 579.62 | 579.72 | 578.97 | 579.14 |
| 14 | 578.99 | 578.90 | 578.83 | 579.03 | 579.49 | 579.72 | 580.31 | 580.16 | 579.74 | 579.54 | 579.50 | 579.27 |
| 15 | 578.98 | 578.87 | 578.34 | 578.95 | 579.57 | 579.98 | 580.38 | 580.12 | 580.35 | 579.46 | 579.51 | 579.63 |
| 16 | 578.94 | 579.09 | 578.17 | 578.81 | 579.64 | 579.93 | 580.30 | 580.05 | 580.01 | 579.46 | 579.47 | 579.37 |
| 17 | 579.27 | 578.89 | 579.06 | 579.27 | 579.57 | 579.71 | 580.21 | 580.19 | 580.05 | 579.82 | 579.78 | 579.21 |
| 18 | 579.17 | 578.84 | 578.59 | 579.13 | 579.52 | 579.95 | 580.12 | 580.15 | 580.05 | 579.79 | 579.40 | 579.23 |
| 19 | 579.08 | 578.76 | 578.43 | 579.23 | 579.65 | 579.98 | 580.16 | 580.01 | 580.08 | 579.62 | 579.29 | 579.26 |
| 20 | 579.05 | 578.78 | 578.56 | 579.31 | 579.58 | 579.87 | 580.36 | 580.32 | 579.77 | 579.61 | 579.86 | 579.03 |
| 21 | 578.75 | 578.76 | 578.67 | 579.61 | 579.55 | 580.07 | 580.36 | 580.13 | 579.85 | 579.42 | 579.18 | 579.33 |
| 22 | 578.88 | 578.81 | 578.70 | 579.44 | 579.49 | 580.22 | 580.32 | 580.05 | 579.73 | 580.04 | 579.49 | 579.46 |
| 23 | 578.84 | 578.99 | 578.60 | 579.37 | 579.27 | 580.05 | 580.26 | 579.84 | 580.06 | 579.50 | 579.20 | 579.18 |
| 24 | 579.06 | 578.92 | 578.66 | 578.88 | 579.34 | 579.91 | 580.18 | 579.94 | 579.93 | 579.67 | 579.61 | 579.16 |
| 25 | 579.23 | 578.78 | 578.71 | 579.34 | 579.69 | 579.88 | 579.98 | 580.06 | 579.93 | 579.57 | 579.16 | 579.38 |
| 26 | 578.60 | 578.80 | 578.71 | 579.70 | 579.60 | 580.07 | 580.08 | 579.97 | 579.98 | 579.36 | 578.85 | 579.55 |
| 27 | 579.24 | 578.76 | 578.79 | 579.27 | 579.50 | 580.04 | 580.30 | 579.99 | 580.02 | 579.75 | 579.27 | 579.30 |
| 28 | 578.97 | 578.56 | 578.82 | 579.26 | 579.51 | 580.18 | 580.11 | 580.31 | 580.04 | 579.29 | 579.41 | 579.42 |
| 29 | 579.26 | | 578.80 | 579.40 | 579.77 | 580.18 | 580.38 | 580.06 | 580.09 | 579.59 | 579.45 | 579.11 |
| 30 | 579.19 | | 578.81 | 579.44 | 579.58 | 580.15 | 580.63 | 579.89 | 579.71 | 579.92 | 579.44 | 579.40 |
| 31 | 579.37 | | 578.94 | | 579.60 | | 580.36 | 580.25 | | 579.94 | | 579.08 |
| Mean | 579.05 | 578.93 | 578.70 | 579.12 | 579.52 | 579.89 | 580.21 | 580.12 | 579.99 | 579.68 | 579.41 | 579.33 |
| Max. | 580.86 | 580.21 | 579.48 | 580.01 | 580.21 | 580.52 | 580.77 | 580.79 | 580.69 | 580.75 | 580.13 | 580.76 |
| Hr. | 2200 | 0300 | 0700 | 0600 | 2200 | 1100 | 0900 | 0300 | 0200 | 1000 | 1600 | 2000 |
| Day | 31 | 1 | 17 | 26 | 15 | 22 | 30 | 28 | 15 | 4 | 17 | 10 |
| Min. | 577.98 | 578.20 | 577.68 | 578.31 | 578.67 | 578.57 | 579.61 | 579.52 | 579.01 | 578.31 | 578.52 | 578.24 |
| Hr. | 0500 | 1500 | 1100 | 2000 | 2400 | 0800 | 2400 | 1400 | 0500 | 0800 | 1700 | 0800 |
| Day | 3 | 28 | 16 | 24 | 27 | 9 | 25 | 23 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.50

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 907-5002 Lakeport, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 580.41 Jul
Daily mean elevation: 580.84 30 Jul
Instant/hourly elevation: 580.98 0800/30 Jul

LOWEST

Monthly mean elevation: 579.04 Mar
Daily mean elevation: 578.54 16 Mar
Instant/hourly elevation: 577.99 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.51 | 579.67 | 579.52 | 579.81 | 579.96 | 580.40 | 580.84 | 580.53 | 580.50 | 580.34 | 580.09 | 580.14 |
| Day | 31     | 1      | 17     | 26     | 29     | 29     | 30     | 4      | 10     | 9      | 20     | 11     |
| Min | 578.64 | 578.90 | 578.54 | 578.95 | 579.48 | 579.81 | 580.07 | 580.06 | 579.88 | 579.56 | 579.11 | 579.28 |
| Day | 3      | 28     | 16     | 16     | 3      | 9      | 5      | 23     | 12     | 21     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.80 | | | | | | | 1 | | | | | | 580.80 | 1 |
| 580.60 | | | | | | | | | | | | | 580.60 | 1 |
| 580.40 | | | | | | | 16 | 7 | 3 | | | | 580.40 | 27 |
| 580.20 | | | | | | 8 | 10 | 19 | 15 | 3 | | | 580.20 | 82 |
| 580.00 | | | | | | 12 | 4 | 5 | 8 | | 3 | 1 | 580.00 | 123 |
| 579.80 | | | | 1 | 7 | 10 | | | 4 | 8 | 2 | 1 | 579.80 | 157 |
| 579.60 | | 1 | | 3 | 19 | | | | | 9 | 16 | 9 | 579.60 | 214 |
| 579.40 | 9 | 4 | 2 | 8 | 5 | | | | | 9 | 7 | 15 | 579.40 | 266 |
| 579.20 | 11 | 9 | 2 | 7 | | | | | | 2 | 1 | 5 | 579.20 | 301 |
| 579.00 | 8 | 10 | 15 | 8 | | | | | | | 1 | | 579.00 | 343 |
| 578.80 | 2 | 4 | 9 | 3 | | | | | | | | | 578.80 | 361 |
| 578.60 | 1 | | 2 | | | | | | | | | | 578.60 | 364 |
| 578.40 | | | 1 | | | | | | | | | | 578.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5002 Lakeport, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 579.43 | 579.67 | 578.96 | 579.16 | 579.68 | 580.01 | 580.34 | 580.39 | 580.34 | 579.61 | 580.04 | 579.42 |
| 2 | 579.22 | 579.05 | 579.03 | 579.13 | 579.51 | 579.90 | 580.19 | 580.41 | 580.21 | 580.17 | 579.59 | 579.29 |
| 3 | 578.64 | 579.46 | 579.10 | 579.19 | 579.48 | 579.93 | 580.30 | 580.35 | 580.35 | 579.79 | 579.61 | 579.65 |
| 4 | 579.14 | 579.26 | 579.20 | 579.21 | 579.56 | 579.98 | 580.17 | 580.53 | 580.32 | 580.31 | 579.61 | 579.68 |
| 5 | 579.33 | 579.44 | 579.09 | 579.16 | 579.65 | 580.03 | 580.07 | 580.49 | 580.46 | 580.04 | 579.59 | 579.69 |
| 6 | 579.24 | 579.23 | 579.05 | 579.11 | 579.80 | 579.92 | 580.30 | 580.38 | 580.28 | 579.76 | 579.92 | 579.53 |
| 7 | 579.40 | 578.92 | 578.94 | 579.10 | 579.65 | 579.88 | 580.42 | 580.45 | 580.28 | 579.91 | 579.71 | 579.77 |
| 8 | 579.42 | 579.43 | 579.04 | 579.00 | 579.61 | 579.81 | 580.33 | 580.39 | 580.19 | 579.86 | 579.70 | 579.51 |
| 9 | 579.41 | 578.96 | 579.16 | 578.97 | 579.64 | 579.81 | 580.30 | 580.29 | 580.12 | 580.34 | 579.75 | 579.41 |
| 10 | 579.29 | 579.28 | 579.03 | 579.33 | 579.64 | 580.07 | 580.48 | 580.24 | 580.50 | 580.04 | 579.74 | 579.80 |
| 11 | 579.27 | 579.28 | 579.10 | 579.24 | 579.74 | 580.06 | 580.43 | 580.36 | 580.32 | 579.75 | 579.67 | 580.14 |
| 12 | 579.20 | 578.94 | 579.02 | 579.36 | 579.92 | 580.03 | 580.51 | 580.32 | 579.88 | 580.12 | 579.84 | 579.53 |
| 13 | 579.17 | 579.28 | 579.43 | 579.32 | 579.76 | 579.97 | 580.49 | 580.33 | 579.89 | 579.95 | 579.26 | 579.39 |
| 14 | 579.17 | 579.22 | 579.35 | 579.27 | 579.68 | 579.92 | 580.47 | 580.37 | 580.04 | 579.79 | 579.78 | 579.50 |
| 15 | 579.21 | 579.14 | 578.75 | 579.15 | 579.77 | 580.17 | 580.57 | 580.29 | 580.47 | 579.73 | 579.76 | 579.81 |
| 16 | 579.16 | 579.41 | 578.54 | 578.95 | 579.85 | 580.15 | 580.53 | 580.30 | 580.25 | 579.69 | 579.75 | 579.58 |
| 17 | 579.47 | 579.22 | 579.52 | 579.44 | 579.78 | 579.95 | 580.43 | 580.39 | 580.26 | 580.05 | 580.04 | 579.44 |
| 18 | 579.37 | 579.17 | 578.98 | 579.33 | 579.74 | 580.18 | 580.33 | 580.36 | 580.28 | 580.02 | 579.66 | 579.48 |
| 19 | 579.28 | 579.05 | 578.78 | 579.42 | 579.84 | 580.19 | 580.40 | 580.27 | 580.29 | 579.87 | 579.44 | 579.49 |
| 20 | 579.27 | 579.06 | 578.89 | 579.51 | 579.79 | 580.06 | 580.57 | 580.51 | 580.03 | 579.89 | 580.09 | 579.28 |
| 21 | 578.93 | 579.08 | 579.00 | 579.72 | 579.74 | 580.27 | 580.57 | 580.36 | 580.09 | 579.56 | 579.45 | 579.55 |
| 22 | 579.06 | 579.09 | 579.02 | 579.62 | 579.72 | 580.39 | 580.54 | 580.27 | 579.95 | 580.29 | 579.75 | 579.69 |
| 23 | 579.07 | 579.30 | 578.88 | 579.56 | 579.50 | 580.25 | 580.47 | 580.06 | 580.26 | 579.73 | 579.43 | 579.41 |
| 24 | 579.26 | 579.22 | 578.95 | 579.14 | 579.57 | 580.14 | 580.37 | 580.14 | 580.14 | 579.92 | 579.79 | 579.42 |
| 25 | 579.46 | 579.08 | 578.99 | 579.51 | 579.90 | 580.11 | 580.20 | 580.27 | 580.15 | 579.83 | 579.42 | 579.59 |
| 26 | 578.83 | 579.10 | 579.00 | 579.81 | 579.86 | 580.28 | 580.27 | 580.17 | 580.19 | 579.61 | 579.11 | 579.80 |
| 27 | 579.47 | 579.03 | 579.05 | 579.47 | 579.80 | 580.29 | 580.47 | 580.18 | 580.23 | 579.99 | 579.45 | 579.57 |
| 28 | 579.18 | 578.90 | 579.07 | 579.42 | 579.76 | 580.37 | 580.32 | 580.49 | 580.26 | 579.60 | 579.64 | 579.66 |
| 29 | 579.43 | | 579.05 | 579.58 | 579.96 | 580.40 | 580.57 | 580.25 | 580.30 | 579.84 | 579.69 | 579.34 |
| 30 | 579.43 | | 579.05 | 579.63 | 579.79 | 580.31 | 580.84 | 580.11 | 579.96 | 580.15 | 579.69 | 579.62 |
| 31 | 579.51 | | 579.21 | | 579.85 | | 580.59 | 580.45 | | 580.12 | | 579.35 |
| Mean | 579.25 | 579.19 | 579.04 | 579.33 | 579.73 | 580.10 | 580.41 | 580.33 | 580.21 | 579.91 | 579.67 | 579.56 |
| Max. | 580.79 | 580.08 | 579.93 | 580.07 | 580.30 | 580.60 | 580.98 | 580.90 | 580.76 | 580.92 | 580.38 | 580.69 |
| Hr. | 2200 | 0200 | 0700 | 0600 | 2200 | 1100 | 0800 | 0200 | 1900 | 1000 | 1200 | 2000 |
| Day | 31 | 1 | 17 | 26 | 27 | 22 | 30 | 28 | 10 | 4 | 20 | 10 |
| Min. | 578.26 | 578.56 | 577.99 | 578.60 | 578.93 | 579.28 | 579.88 | 579.71 | 579.45 | 578.78 | 578.81 | 578.59 |
| Hr. | 0500 | 1200 | 1100 | 2100 | 0100 | 0800 | 1600 | 1400 | 0500 | 1000 | 2300 | 0700 |
| Day | 3 | 7 | 16 | 15 | 28 | 9 | 25 | 23 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.73

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 907-5014 Harbor Beach, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 580.40 Jul
Daily mean elevation: 580.78 30 Jul
Instant/hourly elevation: 580.88 0900/30 Jul

LOWEST

Monthly mean elevation: 579.00 Mar
Daily mean elevation: 578.74 16 Mar
Instant/hourly elevation: 578.39 1100/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.45 | 579.47 | 579.26 | 579.65 | 579.92 | 580.33 | 580.78 | 580.51 | 580.48 | 580.28 | 580.08 | 579.92 |
| Day | 31     | 1      | 17     | 26     | 25     | 28     | 30     | 4      | 10     | 4      | 20     | 11     |
| Min | 578.75 | 578.86 | 578.74 | 578.98 | 579.45 | 579.80 | 580.12 | 580.11 | 579.97 | 579.61 | 579.20 | 579.39 |
| Day | 3      | 12     | 16     | 8      | 2      | 8      | 5      | 30     | 13     | 26     | 26     | 20     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | 1 | | | | | | 580.60 | 1 |
| 580.40 | | | | | | | 15 | 8 | 2 | | | | 580.40 | 26 |
| 580.20 | | | | | | 7 | 12 | 19 | 16 | 2 | | | 580.20 | 82 |
| 580.00 | | | | | | 10 | 3 | 4 | 10 | 7 | 1 | | 580.00 | 117 |
| 579.80 | | | | | 6 | 12 | | | 2 | 15 | 4 | 1 | 579.80 | 157 |
| 579.60 | | | | 1 | 20 | 1 | | | | 7 | 18 | 10 | 579.60 | 214 |
| 579.40 | 5 | 1 | | 10 | 5 | | | | | | 5 | 18 | 579.40 | 258 |
| 579.20 | 13 | 6 | 2 | 5 | | | | | | | 1 | 2 | 579.20 | 287 |
| 579.00 | 11 | 16 | 13 | 12 | | | | | | | 1 | | 579.00 | 340 |
| 578.80 | 1 | 5 | 14 | 2 | | | | | | | | | 578.80 | 362 |
| 578.60 | 1 | | 2 | | | | | | | | | | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5014 Harbor Beach, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 579.32 | 579.47 | 578.99 | 579.03 | 579.61 | 580.00 | 580.26 | 580.41 | 580.33 | 579.80 | 579.93 | 579.47 |
| 2 | 579.24 | 579.07 | 579.02 | 579.06 | 579.45 | 579.91 | 580.20 | 580.47 | 580.22 | 580.18 | 579.69 | 579.40 |
| 3 | 578.75 | 579.37 | 579.04 | 579.16 | 579.48 | 579.89 | 580.27 | 580.44 | 580.31 | 579.96 | 579.71 | 579.69 |
| 4 | 579.16 | 579.21 | 579.08 | 579.15 | 579.55 | 579.91 | 580.18 | 580.51 | 580.35 | 580.28 | 579.72 | 579.61 |
| 5 | 579.30 | 579.37 | 579.04 | 579.08 | 579.64 | 579.91 | 580.12 | 580.45 | 580.41 | 580.07 | 579.59 | 579.64 |
| 6 | 579.22 | 579.14 | 579.02 | 579.07 | 579.78 | 579.90 | 580.34 | 580.34 | 580.26 | 579.86 | 579.83 | 579.55 |
| 7 | 579.37 | 578.92 | 578.96 | 579.06 | 579.61 | 579.86 | 580.43 | 580.41 | 580.27 | 579.96 | 579.80 | 579.73 |
| 8 | 579.32 | 579.27 | 579.01 | 578.98 | 579.58 | 579.80 | 580.33 | 580.36 | 580.22 | 579.86 | 579.79 | 579.53 |
| 9 | 579.27 | 578.96 | 579.11 | 579.00 | 579.61 | 579.84 | 580.32 | 580.30 | 580.22 | 580.12 | 579.72 | 579.51 |
| 10 | 579.17 | 579.20 | 578.97 | 579.30 | 579.61 | 580.08 | 580.49 | 580.30 | 580.48 | 580.01 | 579.75 | 579.69 |
| 11 | 579.19 | 579.13 | 579.04 | 579.16 | 579.72 | 580.01 | 580.42 | 580.37 | 580.34 | 579.81 | 579.69 | 579.92 |
| 12 | 579.14 | 578.86 | 579.01 | 579.23 | 579.84 | 579.97 | 580.55 | 580.30 | 580.01 | 580.07 | 579.81 | 579.54 |
| 13 | 579.10 | 579.17 | 579.26 | 579.25 | 579.72 | 579.93 | 580.48 | 580.29 | 579.97 | 579.90 | 579.39 | 579.43 |
| 14 | 579.12 | 579.20 | 579.18 | 579.19 | 579.69 | 579.94 | 580.42 | 580.32 | 580.11 | 579.78 | 579.77 | 579.45 |
| 15 | 579.20 | 579.13 | 578.86 | 579.06 | 579.74 | 580.14 | 580.54 | 580.29 | 580.38 | 579.74 | 579.71 | 579.68 |
| 16 | 579.21 | 579.22 | 578.74 | 579.01 | 579.84 | 580.10 | 580.47 | 580.25 | 580.18 | 579.71 | 579.79 | 579.52 |
| 17 | 579.43 | 579.16 | 579.26 | 579.41 | 579.72 | 579.99 | 580.37 | 580.32 | 580.20 | 580.02 | 579.88 | 579.43 |
| 18 | 579.34 | 579.15 | 578.97 | 579.36 | 579.68 | 580.12 | 580.31 | 580.32 | 580.23 | 580.00 | 579.68 | 579.45 |
| 19 | 579.26 | 579.07 | 578.77 | 579.37 | 579.79 | 580.17 | 580.35 | 580.23 | 580.24 | 579.82 | 579.58 | 579.51 |
| 20 | 579.24 | 579.04 | 578.86 | 579.43 | 579.78 | 580.07 | 580.53 | 580.42 | 580.03 | 579.84 | 580.08 | 579.39 |
| 21 | 578.98 | 579.00 | 579.00 | 579.58 | 579.71 | 580.25 | 580.54 | 580.28 | 580.03 | 579.69 | 579.65 | 579.52 |
| 22 | 579.09 | 579.06 | 578.97 | 579.54 | 579.70 | 580.32 | 580.48 | 580.22 | 580.03 | 580.26 | 579.74 | 579.67 |
| 23 | 579.15 | 579.22 | 578.83 | 579.50 | 579.55 | 580.17 | 580.44 | 580.14 | 580.25 | 579.81 | 579.46 | 579.43 |
| 24 | 579.21 | 579.17 | 578.90 | 579.20 | 579.62 | 580.10 | 580.34 | 580.19 | 580.15 | 579.93 | 579.65 | 579.48 |
| 25 | 579.45 | 579.06 | 578.93 | 579.49 | 579.92 | 580.13 | 580.24 | 580.30 | 580.14 | 579.81 | 579.41 | 579.60 |
| 26 | 579.02 | 579.02 | 578.96 | 579.65 | 579.86 | 580.31 | 580.31 | 580.19 | 580.15 | 579.61 | 579.20 | 579.77 |
| 27 | 579.39 | 579.01 | 578.96 | 579.46 | 579.73 | 580.29 | 580.49 | 580.24 | 580.21 | 579.96 | 579.47 | 579.54 |
| 28 | 579.17 | 578.93 | 579.01 | 579.45 | 579.71 | 580.33 | 580.37 | 580.45 | 580.27 | 579.80 | 579.63 | 579.65 |
| 29 | 579.41 | | 579.01 | 579.56 | 579.90 | 580.32 | 580.58 | 580.28 | 580.23 | 579.90 | 579.70 | 579.41 |
| 30 | 579.45 | | 579.00 | 579.60 | 579.75 | 580.24 | 580.78 | 580.11 | 579.99 | 580.07 | 579.65 | 579.70 |
| 31 | 579.45 | | 579.14 | | 579.81 | | 580.53 | 580.36 | | 579.94 | | 579.41 |
| Mean | 579.23 | 579.13 | 579.00 | 579.28 | 579.70 | 580.07 | 580.40 | 580.32 | 580.21 | 579.92 | 579.68 | 579.56 |
| Max. | 580.08 | 579.86 | 579.50 | 579.87 | 580.04 | 580.49 | 580.88 | 580.74 | 580.68 | 580.55 | 580.27 | 580.14 |
| Hr. | 2200 | 0100 | 0100 | 0500 | 2200 | 1100 | 0900 | 2000 | 1700 | 0900 | 1200 | 0300 |
| Day | 31 | 1 | 14 | 26 | 30 | 22 | 30 | 27 | 10 | 4 | 20 | 11 |
| Min. | 578.47 | 578.67 | 578.39 | 578.61 | 579.23 | 579.32 | 580.02 | 579.93 | 579.60 | 579.13 | 579.01 | 578.96 |
| Hr. | 0600 | 0500 | 1100 | 0400 | 0300 | 0200 | 0600 | 0200 | 0400 | 1000 | 2200 | 0600 |
| Day | 3 | 7 | 16 | 15 | 3 | 9 | 5 | 31 | 13 | 21 | 26 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.71

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 907-5035 Essexville, Michigan on Lake Huron (Saginaw Bay)

HIGHEST

Monthly mean elevation: 580.38 Jul
Daily mean elevation: 580.73 30 Jul
Instant/hourly elevation: 581.56 1300/12 May

LOWEST

Monthly mean elevation: 579.03 Mar
Daily mean elevation: 578.57 21 Oct
Instant/hourly elevation: 576.69 1000/21 Oct

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.70 | 579.57 | 579.88 | 580.49 | 580.29 | 580.45 | 580.73 | 580.58 | 580.57 | 580.43 | 580.56 | 580.36 |
| Day | 9 | 1 | 31 | 1 | 12 | 30 | 30 | 20 | 15 | 9 | 24 | 15 |
| Min | 578.70 | 578.78 | 578.62 | 578.91 | 579.03 | 579.52 | 579.92 | 579.91 | 579.52 | 578.57 | 579.11 | 579.02 |
| Day | 3 | 7 | 16 | 16 | 24 | 9 | 5 | 24 | 9 | 21 | 21 | 29 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | 1 | | | | | | 580.60 | 1 |
| 580.40 | | | | 1 | | 4 | 14 | 3 | 3 | 1 | 1 | | 580.40 | 28 |
| 580.20 | | | | 1 | 1 | 5 | 10 | 19 | 10 | 3 | | 1 | 580.20 | 78 |
| 580.00 | | | | 1 | | 12 | 5 | 7 | 10 | 4 | | 1 | 580.00 | 118 |
| 579.80 | | | 1 | 1 | 9 | 7 | 1 | 2 | 3 | 10 | 5 | | 579.80 | 157 |
| 579.60 | 1 | | | 3 | 16 | 1 | | | 3 | 5 | 10 | 9 | 579.60 | 205 |
| 579.40 | 2 | 3 | | 8 | 2 | 1 | | | 1 | 3 | 5 | 7 | 579.40 | 237 |
| 579.20 | 15 | 6 | 2 | 5 | 2 | | | | | 3 | 6 | 9 | 579.20 | 285 |
| 579.00 | 10 | 15 | 14 | 8 | 1 | | | | | 1 | 3 | 4 | 579.00 | 341 |
| 578.80 | 2 | 3 | 13 | 2 | | | | | | | | | 578.80 | 361 |
| 578.60 | 1 | 1 | 1 | | | | | | | | | | 578.60 | 364 |
| 578.40 | | | | | | | | | | 1 | | | 578.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5035 Essexville, Michigan on Lake Huron (Saginaw Bay)

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|
| 1 | 579.26 | 579.57 | 578.94 | 580.49 | 579.80 | 579.86 | 580.50 | 580.33 | 580.38 | 579.20 | 579.95 | 579.44 |
| 2 | 579.24 | 578.84 | 578.99 | 579.20 | 579.57 | 579.80 | 580.24 | 580.29 | 580.08 | 579.95 | 579.36 | 579.28 |
| 3 | 578.70 | 579.26 | 579.11 | 579.10 | 579.49 | 579.94 | 580.34 | 580.25 | 580.28 | 579.31 | 579.30 | 579.62 |
| 4 | 579.24 | 579.11 | 579.25 | 579.14 | 579.62 | 580.13 | 580.15 | 580.44 | 580.08 | 580.18 | 579.66 | 579.70 |
| 5 | 579.28 | 579.48 | 579.07 | 579.16 | 579.62 | 580.06 | 579.92 | 580.36 | 580.45 | 579.95 | 579.57 | 579.71 |
| 6 | 579.00 | 579.33 | 579.03 | 579.16 | 579.80 | 579.87 | 580.14 | 580.37 | 580.27 | 579.62 | 579.90 | 579.48 |
| 7 | 579.30 | 578.78 | 578.97 | 579.09 | 579.72 | 579.89 | 580.37 | 580.38 | 580.28 | 579.89 | 579.17 | 579.67 |
| 8 | 579.38 | 579.32 | 579.01 | 579.06 | 579.63 | 579.84 | 580.31 | 580.38 | 580.07 | 580.06 | 579.24 | 579.48 |
| 9 | 579.70 | 579.00 | 579.09 | 578.95 | 579.71 | 579.52 | 580.20 | 580.20 | 579.52 | 580.43 | 579.68 | 579.30 |
| 10 | 579.55 | 579.21 | 579.05 | 579.28 | 579.67 | 580.10 | 580.44 | 580.17 | 580.30 | 579.81 | 579.71 | 579.76 |
| 11 | 579.37 | 579.51 | 579.02 | 579.51 | 579.72 | 580.10 | 580.34 | 580.35 | 580.15 | 579.48 | 579.51 | 580.12 |
| 12 | 579.30 | 579.01 | 579.01 | 579.54 | 580.29 | 580.11 | 580.53 | 580.33 | 579.75 | 579.92 | 579.91 | 579.37 |
| 13 | 579.48 | 579.08 | 579.19 | 579.31 | 579.86 | 580.05 | 580.43 | 580.32 | 579.68 | 579.81 | 579.21 | 579.39 |
| 14 | 579.19 | 579.14 | 579.06 | 579.44 | 579.36 | 579.83 | 580.58 | 580.40 | 579.85 | 579.58 | 579.83 | 579.73 |
| 15 | 579.16 | 579.08 | 578.88 | 579.46 | 579.72 | 580.16 | 580.54 | 580.29 | 580.57 | 579.70 | 579.74 | 580.36 |
| 16 | 579.07 | 579.23 | 578.62 | 578.91 | 579.85 | 580.29 | 580.51 | 580.34 | 580.28 | 579.76 | 579.48 | 579.74 |
| 17 | 579.26 | 579.10 | 579.22 | 579.39 | 579.85 | 579.93 | 580.44 | 580.35 | 580.17 | 580.29 | 579.86 | 579.42 |
| 18 | 579.22 | 579.03 | 579.00 | 579.27 | 579.65 | 580.25 | 580.31 | 580.34 | 580.22 | 579.98 | 579.63 | 579.44 |
| 19 | 579.14 | 579.08 | 578.87 | 580.07 | 579.90 | 580.33 | 580.38 | 580.13 | 580.41 | 579.86 | 579.12 | 579.37 |
| 20 | 579.23 | 579.08 | 578.88 | 580.28 | 579.76 | 580.03 | 580.54 | 580.58 | 580.10 | 579.94 | 579.63 | 579.19 |
| 21 | 579.08 | 579.22 | 578.98 | 579.69 | 579.77 | 580.26 | 580.57 | 580.39 | 580.11 | 578.57 | 579.11 | 579.37 |
| 22 | 579.06 | 579.04 | 579.02 | 579.54 | 579.74 | 580.45 | 580.51 | 580.15 | 579.93 | 580.11 | 579.77 | 579.67 |
| 23 | 579.18 | 579.13 | 578.92 | 579.47 | 579.38 | 580.33 | 580.45 | 579.99 | 580.18 | 579.63 | 579.63 | 579.33 |
| 24 | 579.06 | 579.14 | 578.92 | 579.12 | 579.03 | 580.10 | 580.39 | 579.91 | 580.00 | 579.74 | 580.56 | 579.16 |
| 25 | 579.36 | 579.03 | 578.96 | 579.51 | 579.81 | 580.02 | 580.23 | 580.25 | 580.22 | 580.04 | 579.66 | 579.37 |
| 26 | 578.86 | 579.02 | 578.96 | 579.99 | 579.76 | 580.09 | 580.14 | 580.12 | 580.24 | 579.56 | 579.33 | 579.65 |
| 27 | 579.31 | 579.02 | 578.96 | 579.45 | 579.81 | 580.11 | 580.44 | 580.03 | 580.10 | 579.90 | 579.36 | 579.41 |
| 28 | 579.05 | 578.88 | 579.02 | 579.30 | 579.67 | 580.43 | 580.16 | 580.46 | 580.14 | 579.21 | 579.51 | 579.57 |
| 29 | 579.13 | | 579.02 | 579.70 | 580.00 | 580.45 | 580.38 | 580.22 | 580.23 | 579.36 | 579.54 | 579.02 |
| 30 | 579.26 | | 579.01 | 579.64 | 579.87 | 580.45 | 580.73 | 580.04 | 579.79 | 580.26 | 579.66 | 579.30 |
| 31 | 579.24 | | 579.88 | | 579.98 | | 580.50 | 580.37 | | 580.36 | | 579.20 |
| Mean | 579.22 | 579.13 | 579.03 | 579.44 | 579.72 | 580.09 | 580.38 | 580.28 | 580.13 | 579.79 | 579.59 | 579.50 |
| Max.
Hr.
Day | 580.30
2400
31 | 580.35
0200
1 | 580.77
2400
31 | 581.30
0400
1 | 581.56
1300
12 | 581.03
1400
22 | 581.25
1000
14 | 581.33
2100
20 | 580.90
0700
5 | 581.34
0800
4 | 580.96
1300
24 | 580.72
1300
15 |
| Min.
Hr.
Day | 578.37
1400
26 | 578.35
1500
2 | 578.13
1700
16 | 578.54
1200
16 | 578.62
1900
24 | 579.11
1600
9 | 579.53
0300
6 | 579.06
0400
24 | 578.45
1300
9 | 576.69
1000
21 | 578.45
0300
8 | 578.35
0800
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.69

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 907-5059 Harrisville, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 580.40 Jul
Daily mean elevation: 580.61 30 Jul
Instant/hourly elevation: 580.75 1300/30 Jul

LOWEST

Monthly mean elevation: 578.96 Mar
Daily mean elevation: 578.80 23 Mar
Instant/hourly elevation: 578.69 2200/23 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.43 | 579.31 | 579.19 | 579.58 | 579.90 | 580.34 | 580.61 | 580.46 | 580.34 | 580.15 | 579.94 | 579.65 |
| Day | 30     | 5      | 31     | 30     | 25     | 26     | 30     | 2      | 5      | 22     | 20     | 11     |
| Min | 578.92 | 578.84 | 578.80 | 578.99 | 579.42 | 579.79 | 580.20 | 580.13 | 580.00 | 579.67 | 579.32 | 579.35 |
| Day | 3      | 12     | 23     | 8      | 2      | 7      | 5      | 23     | 30     | 26     | 26     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | 1 | | | | | | 580.60 | 1 |
| 580.40 | | | | | | | 14 | 5 | | | | | 580.40 | 20 |
| 580.20 | | | | | | 7 | 15 | 21 | 11 | | | | 580.20 | 74 |
| 580.00 | | | | | | 9 | 1 | 5 | 18 | 5 | | | 580.00 | 112 |
| 579.80 | | | | | 4 | 13 | | | 1 | 17 | 4 | | 579.80 | 151 |
| 579.60 | | | | | 20 | 1 | | | | 9 | 17 | 3 | 579.60 | 201 |
| 579.40 | 1 | | | 10 | 7 | | | | | | 8 | 26 | 579.40 | 253 |
| 579.20 | 15 | 3 | | 6 | | | | | | | 1 | 2 | 579.20 | 280 |
| 579.00 | 14 | 18 | 5 | 12 | | | | | | | | | 579.00 | 329 |
| 578.80 | 1 | 7 | 25 | 2 | | | | | | | | | 578.80 | 364 |
| 578.60 | | | 1 | | | | | | | | | | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5059 Harrisville, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 579.21 | 579.29 | 579.02 | 579.07 | 579.58 | 579.99 | 580.26 | 580.46 | 580.34 | 579.99 | 579.83 | 579.50 |
| 2 | 579.24 | 579.13 | 579.00 | 579.00 | 579.42 | 579.89 | 580.29 | 580.46 | 580.26 | 580.10 | 579.76 | 579.48 |
| 3 | 578.92 | 579.31 | 578.99 | 579.11 | 579.53 | 579.86 | 580.31 | 580.42 | 580.30 | 580.03 | 579.78 | 579.63 |
| 4 | 579.11 | 579.20 | 578.96 | 579.10 | 579.56 | 579.84 | 580.21 | 580.44 | 580.33 | 580.10 | 579.74 | 579.51 |
| 5 | 579.23 | 579.31 | 578.95 | 579.03 | 579.64 | 579.86 | 580.20 | 580.44 | 580.34 | 580.04 | 579.55 | 579.59 |
| 6 | 579.19 | 579.08 | 579.00 | 579.05 | 579.74 | 579.89 | 580.37 | 580.32 | 580.24 | 579.95 | 579.71 | 579.50 |
| 7 | 579.33 | 578.95 | 578.96 | 579.04 | 579.59 | 579.79 | 580.41 | 580.37 | 580.27 | 579.95 | 579.82 | 579.65 |
| 8 | 579.19 | 579.17 | 578.96 | 578.99 | 579.54 | 579.82 | 580.35 | 580.35 | 580.20 | 579.81 | 579.81 | 579.52 |
| 9 | 579.15 | 578.98 | 579.05 | 579.07 | 579.58 | 579.86 | 580.39 | 580.29 | 580.24 | 579.85 | 579.68 | 579.58 |
| 10 | 579.12 | 579.13 | 578.96 | 579.28 | 579.61 | 580.04 | 580.44 | 580.28 | 580.29 | 579.96 | 579.73 | 579.55 |
| 11 | 579.16 | 579.09 | 578.97 | 579.13 | 579.70 | 579.98 | 580.40 | 580.30 | 580.30 | 579.88 | 579.64 | 579.65 |
| 12 | 579.14 | 578.84 | 579.00 | 579.17 | 579.80 | 579.95 | 580.46 | 580.28 | 580.15 | 579.95 | 579.73 | 579.58 |
| 13 | 579.26 | 579.03 | 579.01 | 579.22 | 579.69 | 579.95 | 580.47 | 580.28 | 580.05 | 579.83 | 579.47 | 579.48 |
| 14 | 579.09 | 579.16 | 578.97 | 579.13 | 579.73 | 579.98 | 580.43 | 580.30 | 580.20 | 579.79 | 579.73 | 579.37 |
| 15 | 579.18 | 579.11 | 578.96 | 579.07 | 579.73 | 580.11 | 580.50 | 580.26 | 580.32 | 579.77 | 579.68 | 579.50 |
| 16 | 579.25 | 579.07 | 578.85 | 579.07 | 579.83 | 580.06 | 580.47 | 580.24 | 580.19 | 579.74 | 579.79 | 579.44 |
| 17 | 579.30 | 579.08 | 579.07 | 579.37 | 579.69 | 579.94 | 580.38 | 580.29 | 580.17 | 579.85 | 579.79 | 579.43 |
| 18 | 579.25 | 579.12 | 578.96 | 579.40 | 579.67 | 580.10 | 580.36 | 580.28 | 580.18 | 579.95 | 579.70 | 579.43 |
| 19 | 579.24 | 579.06 | 578.83 | 579.33 | 579.77 | 580.09 | 580.40 | 580.20 | 580.14 | 579.80 | 579.60 | 579.49 |
| 20 | 579.22 | 579.01 | 578.87 | 579.47 | 579.76 | 580.13 | 580.50 | 580.32 | 580.02 | 579.80 | 579.94 | 579.45 |
| 21 | 579.01 | 579.08 | 578.97 | 579.46 | 579.70 | 580.25 | 580.49 | 580.25 | 580.02 | 579.70 | 579.73 | 579.42 |
| 22 | 579.12 | 578.95 | 578.92 | 579.52 | 579.71 | 580.30 | 580.47 | 580.21 | 580.09 | 580.15 | 579.71 | 579.55 |
| 23 | 579.21 | 579.07 | 578.80 | 579.48 | 579.63 | 580.14 | 580.45 | 580.13 | 580.15 | 579.86 | 579.50 | 579.41 |
| 24 | 579.10 | 579.09 | 578.86 | 579.38 | 579.68 | 580.12 | 580.36 | 580.20 | 580.15 | 579.95 | 579.59 | 579.51 |
| 25 | 579.36 | 579.01 | 578.92 | 579.48 | 579.90 | 580.19 | 580.30 | 580.24 | 580.12 | 579.80 | 579.44 | 579.45 |
| 26 | 579.11 | 578.97 | 578.91 | 579.54 | 579.81 | 580.34 | 580.35 | 580.17 | 580.03 | 579.67 | 579.32 | 579.59 |
| 27 | 579.27 | 579.00 | 578.90 | 579.44 | 579.73 | 580.30 | 580.49 | 580.27 | 580.13 | 579.90 | 579.51 | 579.48 |
| 28 | 579.10 | 578.96 | 578.95 | 579.49 | 579.65 | 580.30 | 580.36 | 580.38 | 580.17 | 579.90 | 579.58 | 579.57 |
| 29 | 579.28 | | 578.97 | 579.57 | 579.87 | 580.30 | 580.50 | 580.28 | 580.10 | 579.86 | 579.67 | 579.35 |
| 30 | 579.43 | | 578.94 | 579.58 | 579.76 | 580.24 | 580.61 | 580.19 | 580.00 | 579.93 | 579.62 | 579.58 |
| 31 | 579.35 | | 579.19 | | 579.74 | | 580.50 | 580.33 | | 579.74 | | 579.43 |
| Mean | 579.20 | 579.08 | 578.96 | 579.27 | 579.69 | 580.05 | 580.40 | 580.30 | 580.18 | 579.89 | 579.67 | 579.50 |
| Max.
Hr.
Day | 579.64
0700
30 | 579.64
0100
1 | 579.36
2300
31 | 579.91
0800
20 | 580.00
1800
25 | 580.59
2300
26 | 580.75
1300
30 | 580.63
2200
27 | 580.57
0200
15 | 580.28
0600
4 | 580.08
1600
20 | 579.83
1200
7 |
| Min.
Hr.
Day | 578.75
1400
3 | 578.72
0800
12 | 578.69
2200
23 | 578.76
0100
16 | 579.33
2300
27 | 579.49
0300
9 | 580.06
1900
25 | 579.88
2400
30 | 579.78
0100
13 | 579.12
1100
21 | 579.00
1600
26 | 579.23
0600
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.68

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 907-5080 Mackinaw City, Michigan on Straits of Mackinac

HIGHEST

Monthly mean elevation: 580.38 Jul
Daily mean elevation: 580.50 26 Jul
Instant/hourly elevation: 580.92 0900/9 Sep

LOWEST

Monthly mean elevation: 578.89 Mar
Daily mean elevation: 578.66 13 Mar
Instant/hourly elevation: 578.40 1800/13 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.42 | 579.26 | 579.05 | 579.68 | 579.88 | 580.38 | 580.50 | 580.40 | 580.37 | 580.26 | 579.99 | 579.73 |
| Day | 26     | 2      | 15     | 28     | 24     | 26     | 26     | 1      | 9      | 1      | 7      | 2      |
| Min | 578.98 | 578.82 | 578.66 | 578.70 | 579.48 | 579.80 | 580.24 | 580.15 | 579.95 | 579.66 | 579.52 | 579.31 |
| Day | 31     | 22     | 13     | 1      | 1      | 4      | 1      | 20     | 29     | 31     | 24     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | | 10 | | | | | | 580.40 | 10 |
| 580.20 | | | | | | 9 | 21 | 27 | 5 | 1 | | | 580.20 | 73 |
| 580.00 | | | | | | 8 | | 4 | 22 | 6 | | | 580.00 | 113 |
| 579.80 | | | | | 1 | 11 | | | 3 | 17 | 7 | | 579.80 | 152 |
| 579.60 | | | | 2 | 28 | 2 | | | | 7 | 19 | 6 | 579.60 | 216 |
| 579.40 | 1 | | | 8 | 2 | | | | | | 4 | 18 | 579.40 | 249 |
| 579.20 | 7 | 1 | | 5 | | | | | | | | 7 | 579.20 | 269 |
| 579.00 | 20 | 9 | 4 | 12 | | | | | | | | | 579.00 | 314 |
| 578.80 | 3 | 18 | 22 | 2 | | | | | | | | | 578.80 | 359 |
| 578.60 | | | 5 | 1 | | | | | | | | | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5080 Mackinaw City, Michigan on Straits of Mackinac

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 579.03 | 578.99 | 579.04 | 578.70 | 579.48 | 579.87 | 580.24 | 580.40 | 580.28 | 580.26 | 579.72 | 579.69 |
| 2 | 579.10 | 579.26 | 578.95 | 578.98 | 579.60 | 579.83 | 580.30 | 580.39 | 580.31 | 580.01 | 579.94 | 579.73 |
| 3 | 579.25 | 579.03 | 578.86 | 579.03 | 579.63 | 579.80 | 580.27 | 580.36 | 580.17 | 580.14 | 579.89 | 579.59 |
| 4 | 579.03 | 579.13 | 578.78 | 579.01 | 579.65 | 579.80 | 580.36 | 580.30 | 580.31 | 579.82 | 579.74 | 579.51 |
| 5 | 579.10 | 579.04 | 578.88 | 578.99 | 579.66 | 579.83 | 580.45 | 580.33 | 580.14 | 579.97 | 579.65 | 579.60 |
| 6 | 579.24 | 578.99 | 578.95 | 579.07 | 579.65 | 579.86 | 580.50 | 580.28 | 580.16 | 580.09 | 579.69 | 579.54 |
| 7 | 579.16 | 579.07 | 578.99 | 579.05 | 579.66 | 579.84 | 580.39 | 580.28 | 580.16 | 579.91 | 579.99 | 579.54 |
| 8 | 579.04 | 578.96 | 578.90 | 579.08 | 579.69 | 579.91 | 580.41 | 580.31 | 580.20 | 579.81 | 579.75 | 579.61 |
| 9 | 579.00 | 579.12 | 578.90 | 579.25 | 579.69 | 580.08 | 580.48 | 580.37 | 580.37 | 579.71 | 579.73 | 579.70 |
| 10 | 579.01 | 578.96 | 578.88 | 579.11 | 579.68 | 579.98 | 580.46 | 580.32 | 580.03 | 579.96 | 579.69 | 579.39 |
| 11 | 579.07 | 578.88 | 578.84 | 579.01 | 579.66 | 579.93 | 580.43 | 580.27 | 580.12 | 580.11 | 579.68 | 579.43 |
| 12 | 579.05 | 578.89 | 578.96 | 579.09 | 579.65 | 579.95 | 580.45 | 580.26 | 580.20 | 579.70 | 579.68 | 579.71 |
| 13 | 579.01 | 578.93 | 578.66 | 579.11 | 579.66 | 579.99 | 580.41 | 580.26 | 580.30 | 579.84 | 579.84 | 579.63 |
| 14 | 579.16 | 579.06 | 578.78 | 579.04 | 579.78 | 580.13 | 580.37 | 580.26 | 580.19 | 579.93 | 579.65 | 579.42 |
| 15 | 579.21 | 579.01 | 579.05 | 579.14 | 579.67 | 580.03 | 580.38 | 580.27 | 580.04 | 579.75 | 579.69 | 579.39 |
| 16 | 579.39 | 578.88 | 579.02 | 579.28 | 579.71 | 580.00 | 580.34 | 580.25 | 580.16 | 579.79 | 579.91 | 579.48 |
| 17 | 579.02 | 578.99 | 578.78 | 579.27 | 579.68 | 580.07 | 580.36 | 580.23 | 580.19 | 579.69 | 579.60 | 579.48 |
| 18 | 579.12 | 578.99 | 578.95 | 579.39 | 579.68 | 580.08 | 580.36 | 580.24 | 580.06 | 579.81 | 579.82 | 579.48 |
| 19 | 579.17 | 579.00 | 579.01 | 579.19 | 579.69 | 580.06 | 580.40 | 580.28 | 580.03 | 579.85 | 579.79 | 579.51 |
| 20 | 579.12 | 578.94 | 578.92 | 579.33 | 579.69 | 580.22 | 580.37 | 580.15 | 580.03 | 579.82 | 579.66 | 579.53 |
| 21 | 579.17 | 578.86 | 578.87 | 579.41 | 579.68 | 580.22 | 580.32 | 580.20 | 580.04 | 579.97 | 579.84 | 579.41 |
| 22 | 579.22 | 578.82 | 578.85 | 579.43 | 579.69 | 580.17 | 580.32 | 580.24 | 580.16 | 579.83 | 579.59 | 579.41 |
| 23 | 579.24 | 578.89 | 578.81 | 579.45 | 579.77 | 580.21 | 580.32 | 580.31 | 580.00 | 580.02 | 579.61 | 579.52 |
| 24 | 578.99 | 578.99 | 578.90 | 579.65 | 579.88 | 580.26 | 580.31 | 580.31 | 580.12 | 579.84 | 579.52 | 579.48 |
| 25 | 579.18 | 579.00 | 578.93 | 579.42 | 579.78 | 580.35 | 580.39 | 580.23 | 580.01 | 579.83 | 579.61 | 579.33 |
| 26 | 579.42 | 578.93 | 578.92 | 579.46 | 579.74 | 580.38 | 580.50 | 580.24 | 580.03 | 579.89 | 579.78 | 579.31 |
| 27 | 579.03 | 579.01 | 578.90 | 579.59 | 579.75 | 580.27 | 580.37 | 580.26 | 580.01 | 579.84 | 579.68 | 579.40 |
| 28 | 579.06 | 579.12 | 578.89 | 579.68 | 579.72 | 580.23 | 580.45 | 580.20 | 579.98 | 580.10 | 579.62 | 579.45 |
| 29 | 579.08 | | 578.90 | 579.48 | 579.74 | 580.22 | 580.32 | 580.21 | 579.95 | 579.88 | 579.60 | 579.40 |
| 30 | 579.36 | | 578.88 | 579.55 | 579.70 | 580.20 | 580.27 | 580.27 | 580.16 | 579.67 | 579.62 | 579.50 |
| 31 | 578.98 | | 578.69 | | 579.76 | | 580.35 | 580.19 | | 579.66 | | 579.36 |
| Mean | 579.13 | 578.99 | 578.89 | 579.24 | 579.69 | 580.06 | 580.38 | 580.27 | 580.13 | 579.89 | 579.72 | 579.50 |
| Max. | 579.92 | 579.45 | 579.40 | 580.14 | 580.12 | 580.60 | 580.85 | 580.74 | 580.92 | 580.73 | 580.21 | 580.07 |
| Hr. | 1300 | 1600 | 1200 | 1900 | 0300 | 0100 | 2400 | 2300 | 0900 | 0500 | 2100 | 0500 |
| Day | 26 | 2 | 16 | 24 | 28 | 9 | 5 | 9 | 9 | 1 | 7 | 29 |
| Min. | 578.42 | 578.62 | 578.40 | 578.48 | 579.43 | 579.59 | 580.01 | 579.85 | 579.75 | 579.49 | 579.20 | 578.85 |
| Hr. | 2200 | 1700 | 1800 | 0400 | 2200 | 0100 | 0900 | 0500 | 0900 | 0700 | 2400 | 1900 |
| Day | 28 | 11 | 13 | 1 | 15 | 5 | 1 | 31 | 23 | 12 | 11 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.66

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 907-5099 De Tour Village, Michigan on Lake Huron

HIGHEST

Monthly mean elevation: 580.36 Jul
Daily mean elevation: 580.46 10 Jul
Instant/hourly elevation: 580.76 1200/9 Jul

LOWEST

Monthly mean elevation: 578.88 Mar
Daily mean elevation: 578.42 1 Apr
Instant/hourly elevation: 578.30 1100/1 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.47 | 579.22 | 579.13 | 579.62 | 579.85 | 580.40 | 580.46 | 580.38 | 580.31 | 580.27 | 579.96 | 579.73 |
| Day | 30     | 2      | 15     | 28     | 25     | 26     | 10     | 3      | 9      | 1      | 2      | 9      |
| Min | 578.80 | 578.69 | 578.67 | 578.42 | 579.46 | 579.79 | 580.20 | 580.18 | 579.93 | 579.57 | 579.34 | 579.27 |
| Day | 13     | 22     | 13     | 1      | 2      | 5      | 1      | 21     | 26     | 31     | 24     | 25     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | | 8 | | | | | | 580.40 | 8 |
| 580.20 | | | | | | 7 | 22 | 28 | 7 | 1 | | | 580.20 | 73 |
| 580.00 | | | | | | 10 | 1 | 3 | 18 | 7 | | | 580.00 | 112 |
| 579.80 | | | | | 2 | 9 | | | 5 | 14 | 7 | | 579.80 | 149 |
| 579.60 | | | | 2 | 21 | 4 | | | | 8 | 15 | 8 | 579.60 | 207 |
| 579.40 | 2 | | | 7 | 8 | | | | | 1 | 5 | 15 | 579.40 | 245 |
| 579.20 | 8 | 2 | | 2 | | | | | | | 3 | 8 | 579.20 | 268 |
| 579.00 | 16 | 13 | 2 | 14 | | | | | | | | | 579.00 | 313 |
| 578.80 | 4 | 11 | 23 | 3 | | | | | | | | | 578.80 | 354 |
| 578.60 | 1 | 2 | 6 | 1 | | | | | | | | | 578.60 | 364 |
| 578.40 | | | | 1 | | | | | | | | | 578.40 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-5099 De Tour Village, Michigan on Lake Huron

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 579.06 | 579.06 | 579.06 | 578.42 | 579.50 | 579.91 | 580.20 | 580.35 | 580.31 | 580.27 | 579.68 | 579.70 |
| 2 | 579.31 | 579.22 | 578.96 | 578.79 | 579.46 | 579.85 | 580.26 | 580.37 | 580.29 | 580.02 | 579.96 | 579.67 |
| 3 | 579.19 | 579.15 | 578.89 | 579.04 | 579.55 | 579.80 | 580.30 | 580.38 | 580.18 | 580.13 | 579.90 | 579.68 |
| 4 | 579.05 | 579.21 | 578.74 | 579.03 | 579.61 | 579.79 | 580.32 | 580.28 | 580.30 | 579.92 | 579.80 | 579.49 |
| 5 | 579.09 | 579.13 | 578.81 | 578.97 | 579.58 | 579.79 | 580.36 | 580.36 | 580.21 | 579.98 | 579.40 | 579.58 |
| 6 | 579.21 | 578.98 | 578.96 | 579.01 | 579.70 | 579.90 | 580.45 | 580.25 | 580.12 | 580.05 | 579.57 | 579.47 |
| 7 | 579.31 | 579.04 | 578.99 | 579.02 | 579.61 | 579.80 | 580.45 | 580.25 | 580.18 | 579.94 | 579.94 | 579.57 |
| 8 | 579.08 | 579.03 | 578.87 | 579.03 | 579.58 | 579.85 | 580.37 | 580.31 | 580.16 | 579.73 | 579.88 | 579.58 |
| 9 | 578.97 | 579.08 | 578.93 | 579.14 | 579.60 | 579.97 | 580.46 | 580.33 | 580.31 | 579.63 | 579.68 | 579.73 |
| 10 | 578.92 | 578.99 | 578.90 | 579.18 | 579.61 | 580.04 | 580.46 | 580.31 | 580.07 | 579.96 | 579.75 | 579.33 |
| 11 | 579.03 | 578.87 | 578.81 | 579.04 | 579.63 | 579.94 | 580.39 | 580.27 | 580.20 | 580.07 | 579.66 | 579.40 |
| 12 | 579.05 | 578.70 | 578.97 | 579.00 | 579.69 | 579.92 | 580.44 | 580.25 | 580.19 | 579.78 | 579.73 | 579.70 |
| 13 | 578.80 | 578.83 | 578.67 | 579.15 | 579.63 | 579.95 | 580.43 | 580.23 | 580.22 | 579.85 | 579.73 | 579.69 |
| 14 | 578.98 | 579.10 | 578.70 | 579.04 | 579.79 | 580.04 | 580.31 | 580.26 | 580.24 | 579.91 | 579.69 | 579.31 |
| 15 | 579.18 | 579.04 | 579.13 | 578.95 | 579.64 | 580.04 | 580.37 | 580.27 | 580.10 | 579.81 | 579.62 | 579.29 |
| 16 | 579.40 | 578.86 | 578.96 | 579.05 | 579.76 | 580.04 | 580.36 | 580.22 | 580.13 | 579.75 | 579.90 | 579.38 |
| 17 | 579.15 | 579.00 | 578.84 | 579.19 | 579.67 | 579.98 | 580.31 | 580.24 | 580.19 | 579.64 | 579.68 | 579.46 |
| 18 | 579.20 | 579.07 | 578.96 | 579.42 | 579.66 | 580.07 | 580.31 | 580.27 | 580.10 | 579.89 | 579.81 | 579.46 |
| 19 | 579.22 | 579.05 | 578.97 | 579.19 | 579.68 | 580.08 | 580.34 | 580.27 | 580.07 | 579.83 | 579.69 | 579.52 |
| 20 | 579.21 | 578.92 | 578.85 | 579.06 | 579.73 | 580.16 | 580.35 | 580.18 | 580.00 | 579.82 | 579.75 | 579.61 |
| 21 | 579.13 | 578.86 | 578.90 | 579.33 | 579.68 | 580.22 | 580.33 | 580.18 | 579.98 | 579.70 | 579.92 | 579.31 |
| 22 | 579.13 | 578.69 | 578.88 | 579.44 | 579.69 | 580.23 | 580.30 | 580.23 | 580.17 | 580.02 | 579.62 | 579.40 |
| 23 | 579.33 | 578.85 | 578.74 | 579.47 | 579.71 | 580.17 | 580.31 | 580.28 | 579.97 | 580.02 | 579.40 | 579.48 |
| 24 | 578.92 | 579.02 | 578.79 | 579.62 | 579.81 | 580.18 | 580.27 | 580.28 | 580.13 | 579.91 | 579.34 | 579.50 |
| 25 | 579.30 | 579.03 | 578.91 | 579.32 | 579.85 | 580.27 | 580.33 | 580.27 | 580.07 | 579.86 | 579.45 | 579.27 |
| 26 | 579.47 | 578.91 | 578.91 | 579.45 | 579.74 | 580.40 | 580.41 | 580.22 | 579.93 | 579.75 | 579.55 | 579.42 |
| 27 | 579.10 | 579.00 | 578.87 | 579.53 | 579.77 | 580.28 | 580.41 | 580.25 | 580.03 | 579.84 | 579.52 | 579.43 |
| 28 | 579.06 | 579.09 | 578.88 | 579.62 | 579.60 | 580.22 | 580.39 | 580.25 | 580.01 | 580.10 | 579.60 | 579.59 |
| 29 | 579.14 | | 578.90 | 579.48 | 579.80 | 580.22 | 580.36 | 580.23 | 579.96 | 579.89 | 579.61 | 579.43 |
| 30 | 579.47 | | 578.89 | 579.50 | 579.69 | 580.17 | 580.33 | 580.25 | 580.12 | 579.79 | 579.66 | 579.61 |
| 31 | 579.09 | | 578.71 | | 579.57 | | 580.36 | 580.20 | | 579.57 | | 579.47 |
| Mean | 579.15 | 578.99 | 578.88 | 579.18 | 579.67 | 580.04 | 580.36 | 580.27 | 580.13 | 579.89 | 579.68 | 579.50 |
| Max. | 579.75 | 579.38 | 579.24 | 579.84 | 580.03 | 580.50 | 580.76 | 580.50 | 580.65 | 580.59 | 580.20 | 580.02 |
| Hr. | 1300 | 1300 | 2200 | 1900 | 2000 | 1800 | 1200 | 1800 | 1200 | 0500 | 2300 | 0600 |
| Day | 26 | 4 | 15 | 24 | 24 | 26 | 9 | 1 | 9 | 1 | 7 | 29 |
| Min. | 578.40 | 578.59 | 578.45 | 578.30 | 579.35 | 579.57 | 580.12 | 580.00 | 579.74 | 579.36 | 579.09 | 578.81 |
| Hr. | 2200 | 0200 | 2400 | 1100 | 2200 | 0100 | 0200 | 0400 | 0900 | 1200 | 2000 | 1800 |
| Day | 28 | 22 | 31 | 1 | 2 | 1 | 1 | 28 | 26 | 21 | 5 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.64

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 907-6060 US Slip, Sault St Marie, Michigan below locks on St Marys R

HIGHEST

Monthly mean elevation: 581.27 Jul
Daily mean elevation: 581.56 4 Jul
Instant/hourly elevation: 582.09 0600/1 Oct

LOWEST

Monthly mean elevation: 580.25 Apr
Daily mean elevation: 579.74 25 Dec
Instant/hourly elevation: 579.29 2100/25 Dec

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 581.02 | 581.22 | 580.89 | 580.85 | 580.86 | 581.33 | 581.56 | 581.54 | 581.48 | 581.54 | 581.06 | 581.08 |
| Day | 29     | 3      | 1      | 24     | 27     | 24     | 4      | 23     | 4      | 1      | 2      | 31     |
| Min | 580.16 | 580.52 | 579.81 | 579.89 | 580.08 | 580.70 | 580.80 | 580.83 | 580.36 | 580.34 | 580.00 | 579.74 |
| Day | 24     | 22     | 28     | 1      | 31     | 1      | 18     | 7      | 26     | 16     | 28     | 25     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 581.40 | | | | | | | 8 | 7 | 3 | 1 | | | 581.40 | 19 |
| 581.20 | | 2 | | | | 7 | 13 | 10 | 11 | 1 | | | 581.20 | 63 |
| 581.00 | 1 | 3 | | | | 16 | 4 | 10 | 3 | 6 | 3 | 1 | 581.00 | 110 |
| 580.80 | 3 | 9 | 3 | 1 | 2 | 5 | 5 | 4 | 7 | 13 | 7 | 4 | 580.80 | 173 |
| 580.60 | 9 | 12 | 7 | 1 | 16 | 2 | 1 | | 4 | 6 | 11 | 6 | 580.60 | 248 |
| 580.40 | 14 | 2 | 10 | 3 | 11 | | | | 1 | 3 | 6 | 8 | 580.40 | 306 |
| 580.20 | 3 | | 5 | 11 | 1 | | | | 1 | 1 | 1 | 9 | 580.20 | 338 |
| 580.00 | 1 | | 4 | 9 | 1 | | | | | | 1 | 1 | 580.00 | 355 |
| 579.80 | | | 2 | 5 | | | | | | | 1 | 1 | 579.80 | 364 |
| 579.60 | | | | | | | | | | | | 1 | 579.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-6060 US Slip, Sault St Marie, Michigan below locks on St Marys R

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 580.32 | 581.06 | 580.89 | 579.89 | 580.42 | 580.70 | 581.25 | 581.20 | 581.38 | 581.54 | 580.60 | 580.87 |
| 2 | 580.53 | 581.22 | 580.87 | 580.00 | 580.69 | 580.81 | 581.35 | 581.05 | 581.46 | 580.43 | 581.06 | 580.80 |
| 3 | 580.67 | 581.22 | 580.81 | 580.36 | 580.64 | 580.74 | 581.34 | 581.40 | 581.25 | 580.61 | 580.98 | 580.73 |
| 4 | 580.55 | 581.10 | 580.66 | 580.36 | 580.74 | 580.92 | 581.56 | 581.19 | 581.48 | 580.72 | 580.94 | 580.50 |
| 5 | 580.49 | 581.04 | 580.53 | 580.24 | 580.62 | 580.86 | 581.51 | 581.42 | 581.24 | 580.83 | 580.51 | 580.45 |
| 6 | 580.55 | 580.62 | 580.56 | 580.17 | 580.67 | 581.02 | 581.52 | 581.35 | 581.25 | 581.03 | 580.46 | 580.54 |
| 7 | 580.63 | 580.84 | 580.58 | 580.16 | 580.70 | 580.97 | 581.43 | 580.83 | 581.22 | 580.90 | 580.68 | 580.37 |
| 8 | 580.60 | 580.86 | 580.54 | 580.22 | 580.69 | 581.02 | 581.36 | 581.44 | 581.20 | 580.84 | 580.92 | 580.68 |
| 9 | 580.49 | 580.81 | 580.50 | 580.32 | 580.53 | 581.14 | 581.45 | 581.24 | 581.45 | 580.57 | 580.64 | 580.76 |
| 10 | 580.41 | 580.78 | 580.51 | 580.26 | 580.48 | 581.06 | 581.35 | 581.12 | 580.92 | 580.94 | 580.73 | 580.35 |
| 11 | 580.45 | 580.70 | 580.40 | 580.21 | 580.47 | 581.02 | 581.35 | 581.00 | 580.72 | 581.20 | 580.65 | 580.19 |
| 12 | 580.46 | 580.64 | 580.47 | 580.04 | 580.61 | 581.03 | 581.32 | 581.03 | 580.82 | 580.65 | 580.71 | 580.68 |
| 13 | 580.31 | 580.72 | 580.31 | 580.15 | 580.48 | 581.07 | 581.37 | 581.00 | 581.28 | 580.87 | 581.04 | 580.83 |
| 14 | 580.30 | 580.91 | 580.14 | 580.05 | 580.84 | 581.15 | 581.19 | 581.12 | 581.35 | 581.03 | 580.74 | 580.34 |
| 15 | 580.52 | 580.94 | 580.51 | 579.98 | 580.54 | 580.94 | 581.15 | 580.95 | 581.10 | 580.89 | 580.69 | 580.22 |
| 16 | 580.46 | 580.86 | 580.63 | 580.03 | 580.56 | 581.15 | 581.29 | 581.04 | 581.29 | 580.34 | 580.99 | 580.34 |
| 17 | 580.66 | 580.84 | 580.45 | 579.97 | 580.65 | 581.17 | 580.98 | 581.06 | 581.29 | 580.60 | 580.64 | 580.50 |
| 18 | 580.67 | 580.84 | 580.60 | 580.35 | 580.62 | 581.16 | 580.80 | 581.29 | 580.61 | 580.79 | 580.81 | 580.46 |
| 19 | 580.65 | 580.76 | 580.73 | 580.17 | 580.52 | 581.19 | 580.95 | 581.35 | 580.50 | 580.85 | 580.86 | 580.42 |
| 20 | 580.62 | 580.69 | 580.63 | 579.99 | 580.69 | 581.33 | 581.32 | 581.18 | 580.93 | 580.94 | 580.42 | 580.73 |
| 21 | 580.51 | 580.64 | 580.69 | 580.17 | 580.69 | 581.24 | 581.20 | 581.38 | 580.97 | 580.91 | 581.02 | 580.34 |
| 22 | 580.53 | 580.52 | 580.78 | 580.32 | 580.71 | 581.24 | 581.22 | 581.45 | 581.24 | 581.02 | 580.72 | 580.32 |
| 23 | 580.67 | 580.60 | 580.68 | 580.33 | 580.69 | 581.33 | 581.36 | 581.54 | 580.79 | 581.15 | 580.66 | 580.51 |
| 24 | 580.16 | 580.71 | 580.39 | 580.85 | 580.69 | 581.33 | 580.90 | 581.39 | 581.20 | 581.00 | 580.47 | 580.21 |
| 25 | 580.58 | 580.74 | 580.38 | 580.16 | 580.58 | 581.28 | 580.94 | 581.41 | 580.70 | 581.12 | 580.62 | 579.74 |
| 26 | 580.86 | 580.70 | 580.39 | 580.33 | 580.58 | 581.25 | 581.00 | 581.35 | 580.36 | 580.93 | 580.86 | 579.99 |
| 27 | 580.67 | 580.73 | 579.93 | 580.55 | 580.86 | 581.17 | 581.45 | 581.33 | 580.99 | 580.74 | 580.09 | 580.27 |
| 28 | 580.87 | 580.87 | 579.81 | 580.77 | 580.64 | 581.05 | 581.54 | 581.30 | 580.94 | 581.34 | 580.00 | 580.45 |
| 29 | 581.02 | | 580.20 | 580.58 | 580.36 | 581.17 | 581.26 | 581.42 | 580.96 | 580.92 | 580.40 | 580.88 |
| 30 | 581.00 | | 580.20 | 580.48 | 580.41 | 581.20 | 581.09 | 581.47 | 581.24 | 580.81 | 580.59 | 580.90 |
| 31 | 580.64 | | 580.20 | | 580.08 | | 581.47 | 581.11 | | 580.62 | | 581.08 |
| Mean | 580.57 | 580.82 | 580.48 | 580.25 | 580.59 | 581.09 | 581.27 | 581.24 | 581.07 | 580.88 | 580.68 | 580.50 |
| Max. | 581.25 | 581.31 | 580.96 | 581.58 | 581.37 | 581.52 | 581.81 | 581.88 | 581.96 | 582.09 | 581.37 | 581.46 |
| Hr. | 1500 | 1500 | 0100 | 1400 | 2300 | 1500 | 0100 | 1000 | 1200 | 0600 | 0300 | 1100 |
| Day | 29 | 2 | 1 | 24 | 27 | 23 | 7 | 23 | 9 | 1 | 19 | 29 |
| Min. | 579.91 | 580.29 | 579.72 | 579.71 | 579.64 | 580.40 | 580.64 | 580.46 | 579.85 | 579.91 | 579.83 | 579.29 |
| Hr. | 2000 | 0900 | 1800 | 1800 | 1800 | 0400 | 1500 | 1500 | 2000 | 1800 | 1400 | 2100 |
| Day | 24 | 6 | 27 | 20 | 31 | 1 | 30 | 2 | 18 | 16 | 27 | 25 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 580.79

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 907-6070 SW Pier, Sault St Marie, Michigan above locks, St Marys R

HIGHEST

Monthly mean elevation: 602.00 Sep
Daily mean elevation: 602.69 21 Oct
Instant/hourly elevation: 603.81 1200/21 Oct

LOWEST

Monthly mean elevation: 600.46 Apr
Daily mean elevation: 600.04 18 Apr
Instant/hourly elevation: 599.22 1300/24 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 601.78 | 601.15 | 600.70 | 600.96 | 601.62 | 601.69 | 602.27 | 602.12 | 602.51 | 602.69 | 602.11 | 601.97 |
| Day | 1      | 3      | 16     | 25     | 31     | 28     | 29     | 31     | 10     | 21     | 19     | 25     |
| Min | 600.84 | 600.49 | 600.27 | 600.04 | 600.69 | 601.05 | 601.20 | 601.63 | 601.53 | 601.30 | 600.93 | 601.08 |
| Day | 30     | 28     | 19     | 18     | 2      | 8      | 4      | 23     | 30     | 25     | 26     | 1      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.60 | | | | | | | | | | 1 | | | 602.60 | 1 |
| 602.40 | | | | | | | | | 1 | | | | 602.40 | 2 |
| 602.20 | | | | | | | 1 | | 3 | 3 | | | 602.20 | 9 |
| 602.00 | | | | | | | 1 | 7 | 10 | 6 | 2 | | 602.00 | 35 |
| 601.80 | | | | | | | 8 | 19 | 15 | 9 | 1 | 1 | 601.80 | 88 |
| 601.60 | 1 | | | | 1 | 3 | 13 | 5 | | 10 | 14 | 4 | 601.60 | 139 |
| 601.40 | 6 | | | | 1 | 11 | 7 | | 1 | 1 | 7 | 11 | 601.40 | 184 |
| 601.20 | 8 | | | | 8 | 15 | | | | 1 | 4 | 10 | 601.20 | 230 |
| 601.00 | 14 | 2 | | | 12 | 1 | 1 | | | | 1 | 5 | 601.00 | 266 |
| 600.80 | 2 | 14 | | 3 | 8 | | | | | | 1 | | 600.80 | 294 |
| 600.60 | | 10 | 10 | 3 | 1 | | | | | | | | 600.60 | 318 |
| 600.40 | | 2 | 14 | 11 | | | | | | | | | 600.40 | 345 |
| 600.20 | | | 7 | 6 | | | | | | | | | 600.20 | 358 |
| 600.00 | | | | 7 | | | | | | | | | 600.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 907-6070 SW Pier, Sault St Marie, Michigan above locks, St Marys R

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 601.78 | 600.94 | 600.58 | 600.52 | 600.86 | 601.42 | 601.43 | 601.90 | 601.87 | 602.01 | 601.65 | 601.08 |
| 2 | 601.08 | 600.91 | 600.67 | 600.57 | 600.69 | 601.41 | 601.45 | 601.97 | 601.81 | 602.32 | 601.48 | 601.49 |
| 3 | 601.22 | 601.15 | 600.58 | 600.58 | 600.93 | 601.40 | 601.52 | 602.04 | 602.12 | 602.19 | 601.74 | 601.53 |
| 4 | 601.46 | 600.95 | 600.59 | 600.57 | 600.95 | 601.34 | 601.20 | 602.06 | 602.03 | 602.37 | 601.56 | 601.49 |
| 5 | 601.35 | 601.04 | 600.67 | 600.51 | 601.11 | 601.28 | 601.43 | 601.91 | 602.03 | 602.02 | 601.78 | 601.32 |
| 6 | 601.51 | 600.74 | 600.59 | 600.48 | 601.08 | 601.25 | 601.57 | 601.90 | 601.98 | 601.71 | 601.74 | 601.78 |
| 7 | 601.42 | 600.98 | 600.51 | 600.46 | 600.87 | 601.29 | 601.59 | 601.97 | 601.95 | 601.81 | 601.73 | 601.50 |
| 8 | 601.33 | 600.82 | 600.70 | 600.34 | 600.83 | 601.05 | 601.62 | 601.80 | 601.87 | 601.90 | 601.78 | 601.36 |
| 9 | 601.15 | 600.76 | 600.54 | 600.59 | 600.88 | 601.29 | 601.68 | 601.68 | 602.17 | 602.03 | 601.73 | 601.36 |
| 10 | 601.16 | 600.97 | 600.57 | 600.72 | 601.13 | 601.45 | 601.70 | 601.96 | 602.51 | 601.81 | 601.65 | 601.80 |
| 11 | 601.19 | 600.73 | 600.64 | 600.56 | 601.15 | 601.35 | 601.70 | 601.98 | 602.07 | 601.78 | 601.79 | 601.46 |
| 12 | 601.11 | 600.82 | 600.59 | 600.47 | 601.31 | 601.29 | 601.78 | 601.92 | 601.84 | 602.21 | 601.46 | 601.13 |
| 13 | 601.12 | 600.90 | 600.67 | 600.35 | 601.09 | 601.21 | 601.76 | 602.03 | 601.90 | 601.80 | 601.39 | 601.13 |
| 14 | 601.14 | 600.91 | 600.61 | 600.29 | 601.06 | 601.35 | 601.84 | 601.97 | 602.26 | 601.78 | 601.71 | 601.36 |
| 15 | 601.19 | 600.88 | 600.36 | 600.18 | 601.26 | 601.64 | 601.86 | 601.90 | 602.10 | 601.77 | 601.66 | 601.42 |
| 16 | 601.26 | 600.86 | 600.70 | 600.39 | 601.19 | 601.29 | 601.78 | 601.95 | 601.81 | 601.94 | 601.56 | 601.30 |
| 17 | 601.59 | 600.90 | 600.60 | 600.24 | 601.09 | 601.36 | 601.69 | 602.04 | 602.00 | 601.93 | 601.83 | 601.25 |
| 18 | 601.31 | 600.88 | 600.39 | 600.04 | 601.17 | 601.51 | 601.75 | 601.88 | 602.27 | 601.80 | 601.32 | 601.38 |
| 19 | 601.22 | 600.76 | 600.27 | 600.19 | 601.24 | 601.44 | 601.78 | 601.92 | 602.02 | 601.72 | 602.11 | 601.38 |
| 20 | 601.05 | 600.71 | 600.48 | 600.10 | 601.10 | 601.39 | 601.89 | 602.11 | 601.81 | 601.51 | 602.03 | 601.41 |
| 21 | 600.87 | 600.66 | 600.57 | 600.16 | 601.17 | 601.51 | 601.90 | 601.88 | 601.89 | 602.69 | 601.57 | 601.52 |
| 22 | 601.15 | 600.83 | 600.38 | 600.18 | 601.01 | 601.55 | 601.88 | 601.77 | 601.84 | 602.05 | 601.60 | 601.36 |
| 23 | 601.06 | 600.77 | 600.38 | 600.20 | 600.93 | 601.27 | 601.76 | 601.63 | 602.29 | 601.67 | 601.40 | 601.45 |
| 24 | 601.56 | 600.72 | 600.38 | 600.26 | 601.27 | 601.21 | 601.75 | 601.93 | 601.96 | 601.97 | 601.44 | 601.51 |
| 25 | 601.18 | 600.65 | 600.37 | 600.96 | 601.37 | 601.49 | 601.51 | 601.90 | 601.98 | 601.30 | 601.18 | 601.97 |
| 26 | 601.03 | 600.67 | 600.41 | 600.72 | 601.33 | 601.56 | 601.83 | 601.89 | 602.02 | 601.87 | 600.93 | 601.48 |
| 27 | 601.12 | 600.57 | 600.61 | 600.50 | 600.96 | 601.59 | 601.81 | 602.08 | 602.16 | 601.88 | 601.64 | 601.61 |
| 28 | 601.24 | 600.49 | 600.68 | 600.78 | 601.44 | 601.69 | 601.72 | 602.00 | 602.12 | 601.68 | 601.66 | 601.26 |
| 29 | 601.37 | | 600.62 | 600.85 | 601.33 | 601.64 | 602.27 | 601.87 | 601.95 | 602.12 | 601.70 | 601.76 |
| 30 | 600.84 | | 600.55 | 600.92 | 601.30 | 601.50 | 602.10 | 601.79 | 601.53 | 601.85 | 601.26 | 601.12 |
| 31 | 601.51 | | 600.41 | | 601.62 | | 601.81 | 602.12 | | 601.80 | | 601.19 |
| Mean | 601.24 | 600.82 | 600.54 | 600.46 | 601.12 | 601.40 | 601.72 | 601.93 | 602.00 | 601.91 | 601.60 | 601.42 |
| Max.
Hr.
Day | 602.43
1900
28 | 601.67
1600
3 | 601.31
2100
16 | 601.42
2400
24 | 601.99
1800
31 | 602.18
1200
10 | 602.60
1100
29 | 602.76
1900
27 | 602.96
1400
9 | 603.81
1200
21 | 603.14
0300
20 | 603.13
1100
25 |
| Min.
Hr.
Day | 600.30
1000
26 | 600.20
0200
7 | 600.03
2300
31 | 599.22
1300
24 | 600.22
0700
2 | 599.96
0300
8 | 600.69
1400
4 | 600.67
1600
9 | 600.76
1600
13 | 600.58
1700
7 | 600.12
1400
26 | 600.54
2400
12 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.35

International
Great Lakes
Datum (1985)

Annual Summary of Levels, in Feet, 1993

Station: 908-7023 Ludington, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 580.47 Jul
Daily mean elevation: 580.65 5 Jul
Instant/hourly elevation: 580.95 2000/25 Jul

LOWEST

Monthly mean elevation: 579.09 Mar
Daily mean elevation: 578.86 17 Mar
Instant/hourly elevation: 578.62 0700/2 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.66 | 579.46 | 579.29 | 579.88 | 580.06 | 580.55 | 580.65 | 580.51 | 580.40 | 580.20 | 580.30 | 579.80 |
| Day | 13     | 11     | 31     | 20     | 30     | 24     | 5      | 30     | 2      | 8      | 5      | 2      |
| Min | 578.92 | 578.97 | 578.86 | 579.12 | 579.63 | 579.81 | 580.18 | 580.25 | 579.97 | 579.53 | 579.27 | 579.12 |
| Day | 1      | 18     | 17     | 4      | 12     | 1      | 30     | 28     | 25     | 22     | 20     | 30     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | 4 | | | | | | 580.60 | 4 |
| 580.40 | | | | | | 7 | 17 | 11 | | | | | 580.40 | 39 |
| 580.20 | | | | | | 10 | 9 | 20 | | | | | 580.20 | 91 |
| 580.00 | | | | | 2 | 8 | 1 | | 12 | 7 | 1 | | 580.00 | 126 |
| 579.80 | | | | 2 | 18 | 5 | | | 14 | | 3 | | 579.80 | 184 |
| 579.60 | 1 | | | 9 | 11 | | | | 4 | 20 | 9 | | 579.60 | 239 |
| 579.40 | 1 | 2 | | 7 | | | | | | 3 | 15 | 16 | 579.40 | 260 |
| 579.20 | 14 | 5 | 3 | 9 | | | | | | 1 | 1 | 9 | 579.20 | 296 |
| 579.00 | 10 | 19 | 24 | 3 | | | | | | | 1 | 4 | 579.00 | 354 |
| 578.80 | 5 | 2 | 4 | | | | | | | | | 2 | 578.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7023 Ludington, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 578.92 | 579.00 | 579.08 | 579.64 | 579.71 | 579.81 | 580.48 | 580.39 | 580.31 | 580.02 | 579.81 | 579.73 |
| 2 | 578.97 | 579.12 | 579.16 | 579.34 | 579.89 | 579.91 | 580.52 | 580.39 | 580.40 | 579.92 | 579.81 | 579.80 |
| 3 | 579.31 | 579.01 | 579.18 | 579.13 | 579.84 | 579.92 | 580.44 | 580.39 | 580.32 | 579.86 | 579.86 | 579.57 |
| 4 | 579.25 | 579.04 | 579.26 | 579.12 | 579.86 | 579.96 | 580.60 | 580.33 | 580.26 | 579.85 | 579.89 | 579.73 |
| 5 | 579.23 | 579.05 | 579.18 | 579.25 | 579.87 | 580.02 | 580.65 | 580.31 | 580.19 | 579.87 | 580.30 | 579.68 |
| 6 | 579.13 | 579.28 | 579.06 | 579.25 | 579.71 | 579.93 | 580.52 | 580.50 | 580.26 | 579.99 | 579.92 | 579.74 |
| 7 | 579.00 | 579.17 | 579.13 | 579.27 | 579.90 | 580.14 | 580.47 | 580.47 | 580.16 | 580.08 | 579.76 | 579.52 |
| 8 | 579.20 | 579.12 | 579.10 | 579.30 | 579.91 | 580.13 | 580.62 | 580.40 | 580.20 | 580.20 | 579.73 | 579.77 |
| 9 | 579.30 | 579.20 | 579.00 | 579.26 | 579.91 | 580.28 | 580.63 | 580.45 | 580.16 | 579.98 | 579.80 | 579.61 |
| 10 | 579.38 | 579.23 | 579.09 | 579.16 | 579.88 | 580.08 | 580.53 | 580.51 | 579.97 | 579.89 | 579.78 | 579.64 |
| 11 | 579.29 | 579.46 | 579.10 | 579.30 | 579.79 | 580.13 | 580.52 | 580.44 | 579.99 | 579.86 | 579.82 | 579.49 |
| 12 | 579.34 | 579.44 | 579.06 | 579.44 | 579.63 | 580.22 | 580.49 | 580.48 | 580.12 | 579.77 | 579.69 | 579.60 |
| 13 | 579.66 | 579.26 | 579.06 | 579.34 | 579.75 | 580.20 | 580.46 | 580.44 | 580.26 | 579.85 | 580.04 | 579.63 |
| 14 | 579.53 | 579.04 | 579.07 | 579.32 | 579.69 | 580.23 | 580.47 | 580.40 | 580.31 | 579.82 | 579.78 | 579.76 |
| 15 | 579.33 | 579.04 | 578.94 | 579.67 | 579.83 | 580.12 | 580.38 | 580.41 | 580.20 | 579.90 | 579.79 | 579.74 |
| 16 | 579.15 | 579.13 | 579.12 | 579.85 | 579.64 | 580.14 | 580.40 | 580.47 | 580.33 | 580.01 | 579.63 | 579.71 |
| 17 | 579.01 | 579.07 | 578.86 | 579.42 | 579.82 | 580.33 | 580.52 | 580.38 | 580.23 | 579.94 | 579.64 | 579.65 |
| 18 | 579.06 | 578.97 | 579.05 | 579.44 | 579.84 | 580.22 | 580.57 | 580.35 | 580.14 | 579.85 | 579.71 | 579.65 |
| 19 | 579.06 | 579.07 | 579.04 | 579.63 | 579.77 | 580.38 | 580.54 | 580.35 | 580.14 | 579.97 | 579.73 | 579.58 |
| 20 | 579.09 | 579.13 | 579.07 | 579.88 | 579.76 | 580.48 | 580.40 | 580.32 | 580.26 | 580.02 | 579.27 | 579.59 |
| 21 | 579.37 | 579.36 | 579.00 | 579.57 | 579.82 | 580.34 | 580.37 | 580.34 | 580.33 | 579.96 | 579.60 | 579.63 |
| 22 | 579.30 | 579.27 | 579.03 | 579.55 | 579.84 | 580.29 | 580.38 | 580.26 | 580.21 | 579.53 | 579.69 | 579.51 |
| 23 | 579.27 | 579.14 | 579.23 | 579.53 | 579.99 | 580.44 | 580.40 | 580.36 | 580.07 | 579.86 | 580.02 | 579.62 |
| 24 | 579.27 | 579.08 | 579.16 | 579.77 | 579.99 | 580.55 | 580.47 | 580.37 | 580.01 | 579.81 | 579.91 | 579.49 |
| 25 | 579.05 | 579.09 | 579.10 | 579.71 | 579.71 | 580.51 | 580.62 | 580.31 | 579.97 | 580.07 | 579.89 | 579.43 |
| 26 | 579.25 | 579.11 | 579.08 | 579.55 | 579.84 | 580.38 | 580.46 | 580.41 | 580.12 | 580.14 | 580.10 | 579.33 |
| 27 | 579.14 | 579.13 | 579.06 | 579.72 | 579.88 | 580.46 | 580.36 | 580.33 | 580.04 | 579.83 | 579.88 | 579.37 |
| 28 | 579.25 | 579.15 | 579.06 | 579.71 | 579.98 | 580.40 | 580.47 | 580.25 | 579.98 | 579.85 | 579.72 | 579.25 |
| 29 | 578.95 | | 579.05 | 579.75 | 579.80 | 580.41 | 580.33 | 580.35 | 580.09 | 579.79 | 579.67 | 579.31 |
| 30 | 578.96 | | 579.09 | 579.72 | 580.06 | 580.43 | 580.18 | 580.51 | 580.06 | 579.66 | 579.73 | 579.12 |
| 31 | 579.07 | | 579.29 | | 580.02 | | 580.32 | 580.37 | | 579.95 | | 579.20 |
| Mean | 579.20 | 579.15 | 579.09 | 579.49 | 579.84 | 580.23 | 580.47 | 580.39 | 580.17 | 579.90 | 579.80 | 579.56 |
| Max.
Hr.
Day | 579.92
1600
13 | 579.66
2300
21 | 579.58
2300
31 | 580.26
1200
20 | 580.32
2300
30 | 580.88
0700
9 | 580.95
2000
25 | 580.79
2000
9 | 580.61
0200
23 | 580.38
0200
21 | 580.54
1100
5 | 580.06
1100
10 |
| Min.
Hr.
Day | 578.62
0700
2 | 578.66
0600
1 | 578.68
1700
15 | 578.94
1400
10 | 579.45
0800
29 | 579.50
0900
8 | 580.08
0200
30 | 580.01
0800
29 | 579.79
0700
25 | 579.34
1100
22 | 579.06
1500
20 | 578.88
2300
29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.77

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7031 Holland, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 580.42 Jul
Daily mean elevation: 580.57 6 Aug
Instant/hourly elevation: 580.79 1800/9 Jul

LOWEST

Monthly mean elevation: 579.13 Mar
Daily mean elevation: 578.88 2 Jan
Instant/hourly elevation: 578.60 1100/26 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.78 | 579.55 | 579.53 | 580.13 | 580.11 | 580.52 | 580.55 | 580.57 | 580.39 | 580.25 | 580.41 | 579.84 |
| Day | 13     | 12     | 31     | 20     | 31     | 30     | 14     | 6      | 3      | 8      | 5      | 6      |
| Min | 578.88 | 578.97 | 578.89 | 579.14 | 579.64 | 579.68 | 580.23 | 580.23 | 579.92 | 579.58 | 579.28 | 579.28 |
| Day | 2      | 3      | 15     | 10     | 16     | 1      | 30     | 22     | 24     | 22     | 20     | 26     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | 8 | 18 | 8 | | | 1 | | 580.40 | 35 |
| 580.20 | | | | | | 6 | 13 | 23 | 11 | 1 | | | 580.20 | 89 |
| 580.00 | | | | 1 | | 10 | | | 17 | 5 | 2 | | 580.00 | 126 |
| 579.80 | | | | 3 | 18 | 5 | | | 2 | 13 | 7 | 1 | 579.80 | 175 |
| 579.60 | 1 | | | 9 | 11 | 1 | | | | 11 | 16 | 13 | 579.60 | 237 |
| 579.40 | 2 | 2 | 2 | 6 | | | | | | 1 | 3 | 10 | 579.40 | 263 |
| 579.20 | 11 | 7 | 5 | 8 | | | | | | | 1 | 2 | 579.20 | 297 |
| 579.00 | 12 | 18 | 20 | 3 | | | | | | | | | 579.00 | 350 |
| 578.80 | 5 | 1 | 4 | | | | | | | | | | 578.80 | 360 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7031 Holland, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 579.02 | 579.14 | 579.09 | 579.88 | 579.75 | 579.68 | 580.46 | 580.40 | 580.25 | 579.92 | 579.79 | 579.58 |
| 2 | 578.88 | 579.02 | 579.09 | 579.36 | 579.88 | 579.85 | 580.39 | 580.34 | 580.34 | 579.87 | 579.67 | 579.67 |
| 3 | 579.18 | 578.97 | 579.19 | 579.18 | 579.82 | 579.93 | 580.38 | 580.39 | 580.39 | 579.80 | 579.71 | 579.56 |
| 4 | 579.36 | 579.02 | 579.41 | 579.20 | 579.88 | 579.95 | 580.45 | 580.39 | 580.20 | 579.93 | 579.84 | 579.76 |
| 5 | 579.27 | 579.04 | 579.27 | 579.25 | 579.82 | 579.92 | 580.46 | 580.32 | 580.28 | 579.80 | 580.41 | 579.61 |
| 6 | 579.20 | 579.26 | 579.07 | 579.26 | 579.68 | 579.86 | 580.42 | 580.57 | 580.34 | 579.79 | 580.00 | 579.84 |
| 7 | 579.09 | 579.20 | 579.10 | 579.27 | 579.88 | 580.05 | 580.43 | 580.52 | 580.22 | 579.94 | 579.61 | 579.54 |
| 8 | 579.26 | 579.18 | 579.21 | 579.29 | 579.90 | 580.13 | 580.53 | 580.41 | 580.26 | 580.25 | 579.68 | 579.68 |
| 9 | 579.35 | 579.16 | 579.02 | 579.28 | 579.90 | 580.07 | 580.52 | 580.40 | 580.11 | 580.14 | 579.77 | 579.49 |
| 10 | 579.41 | 579.22 | 579.17 | 579.14 | 579.91 | 580.03 | 580.47 | 580.43 | 580.12 | 579.79 | 579.72 | 579.79 |
| 11 | 579.38* | 579.40 | 579.23 | 579.42 | 579.85 | 580.16 | 580.52 | 580.39 | 580.05 | 579.74 | 579.77 | 579.56 |
| 12 | 579.34* | 579.55 | 579.05 | 579.46 | 579.84 | 580.20 | 580.44 | 580.42 | 580.12 | 579.82 | 579.69 | 579.34 |
| 13 | 579.78 | 579.24 | 579.34 | 579.36 | 579.81 | 580.20 | 580.46 | 580.42 | 580.13 | 579.73 | 579.85 | 579.47 |
| 14 | 579.53 | 579.10 | 579.12 | 579.50 | 579.71 | 580.19 | 580.55 | 580.38 | 580.23 | 579.67 | 579.83 | 579.77 |
| 15 | 579.35 | 579.15 | 578.89 | 579.88 | 579.85 | 580.13 | 580.38 | 580.38 | 580.32 | 579.84 | 579.84 | 579.79 |
| 16 | 579.09 | 579.23 | 579.01 | 579.91 | 579.64 | 580.14 | 580.40 | 580.49 | 580.29 | 579.96 | 579.54 | 579.69 |
| 17 | 579.17 | 579.16 | 578.99 | 579.47 | 579.80 | 580.28 | 580.49 | 580.40 | 580.19 | 580.04 | 579.70 | 579.63 |
| 18 | 579.08 | 579.10 | 578.95 | 579.37 | 579.87 | 580.26 | 580.52 | 580.36 | 580.17 | 579.88 | 579.57 | 579.69 |
| 19 | 579.03 | 579.16 | 579.04 | 579.71 | 579.71 | 580.32 | 580.49 | 580.37 | 580.16 | 580.01 | 579.71 | 579.56 |
| 20 | 579.00 | 579.20 | 579.10 | 580.13 | 579.70 | 580.41 | 580.33 | 580.42 | 580.18 | 579.99 | 579.28 | 579.60 |
| 21 | 579.36 | 579.33 | 578.97 | 579.64 | 579.77 | 580.32 | 580.39 | 580.34 | 580.29 | 579.96 | 579.44 | 579.72 |
| 22 | 579.29 | 579.47 | 579.07 | 579.58 | 579.78 | 580.34 | 580.38 | 580.23 | 580.10 | 579.58 | 579.76 | 579.62 |
| 23 | 579.18 | 579.27 | 579.28 | 579.57 | 579.86 | 580.47 | 580.36 | 580.25 | 580.06 | 579.77 | 579.99 | 579.61 |
| 24 | 579.37 | 579.20 | 579.19 | 579.68 | 579.86 | 580.51 | 580.43 | 580.27 | 579.92 | 579.79 | 580.03 | 579.58 |
| 25 | 579.02 | 579.14 | 579.10 | 579.73 | 579.69 | 580.44 | 580.45 | 580.30 | 580.03 | 580.00 | 579.87 | 579.57 |
| 26 | 579.00 | 579.17 | 579.09 | 579.66 | 579.83 | 580.29 | 580.37 | 580.37 | 580.08 | 580.10 | 580.05 | 579.28* |
| 27 | 579.13 | 579.07 | 579.12 | 579.64 | 579.89 | 580.47 | 580.32 | 580.35 | 580.12 | 579.85 | 579.80 | / |
| 28 | 579.28 | 579.01 | 579.11 | 579.64 | 580.02 | 580.51 | 580.43 | 580.25 | 580.03 | 579.63 | 579.69 | / |
| 29 | 578.97 | | 579.13 | 579.75 | 579.78 | 580.48 | 580.37 | 580.31 | 580.12 | 579.79 | 579.65 | / |
| 30 | 578.98 | | 579.17* | 579.68 | 579.99 | 580.52 | 580.23 | 580.39 | 579.99 | 579.82 | 579.61 | / |
| 31 | 579.15 | | 579.53* | | 580.11 | | 580.29 | 580.35 | | 580.01 | | / |
| Mean | 579.21 | 579.18 | 579.13 | 579.53 | 579.83 | 580.20 | 580.42 | 580.37 | 580.17 | 579.88 | 579.76 | 579.62 |
| Max.
Hr.
Day | 579.99
1900
13 | 579.66
0100
22 | 579.83
2400
31 | 580.40
1300
20 | 580.52
0400
31 | 580.76
1200
30 | 580.79
1800
9 | 580.73
0600
31 | 580.62
1400
14 | 580.53
2200
8 | 580.66
1500
5 | 580.16
1300
10 |
| Min.
Hr.
Day | 578.60
1100
26 | 578.81
0600
5 | 578.71
1600
15 | 579.02
1300
10 | 579.48
0600
14 | 579.54
1700
1 | 580.13
1800
30 | 580.11
0100
24 | 579.66
1900
30 | 579.42
1200
28 | 579.14
1400
20 | 579.19
2200
12 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.78

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7044 Calumet Harbor, Illinois on Lake Michigan

HIGHEST

Monthly mean elevation: 580.39 Jul
Daily mean elevation: 580.69 9 Oct
Instant/hourly elevation: 581.24 0500/9 Oct

LOWEST

Monthly mean elevation: 579.26 Mar
Daily mean elevation: 578.61 30 Jan
Instant/hourly elevation: 577.70 1200/26 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.95 | 579.87 | 579.90 | 580.43 | 580.26 | 580.60 | 580.60 | 580.55 | 580.48 | 580.69 | 580.35 | 580.02 |
| Day | 9      | 11     | 31     | 1      | 31     | 30     | 14     | 20     | 15     | 9      | 24     | 15     |
| Min | 578.61 | 578.74 | 578.79 | 579.35 | 579.58 | 579.76 | 580.20 | 580.11 | 579.62 | 579.19 | 579.08 | 578.77 |
| Day | 30     | 28     | 16     | 10     | 24     | 1      | 5      | 24     | 9      | 28     | 21     | 30     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.60 | | | | | | | | | | 1 | | | 580.60 | 1 |
| 580.40 | | | | 1 | | 4 | 13 | 9 | 1 | | | | 580.40 | 29 |
| 580.20 | | | | 1 | 1 | 10 | 17 | 17 | 8 | 2 | 2 | | 580.20 | 87 |
| 580.00 | | | | | 3 | 8 | 1 | 5 | 14 | 4 | 2 | 1 | 580.00 | 125 |
| 579.80 | 2 | 2 | 3 | 7 | 14 | 7 | | | 4 | 7 | 5 | 3 | 579.80 | 179 |
| 579.60 | 2 | | | 9 | 11 | 1 | | | 3 | 10 | 9 | 4 | 579.60 | 228 |
| 579.40 | 9 | 7 | 3 | 10 | 2 | | | | | 6 | 7 | 14 | 579.40 | 286 |
| 579.20 | 6 | 5 | 13 | 2 | | | | | | | 3 | 5 | 579.20 | 320 |
| 579.00 | 6 | 10 | 8 | | | | | | | 1 | 2 | 2 | 579.00 | 349 |
| 578.80 | 3 | 3 | 2 | | | | | | | | | 1 | 578.80 | 358 |
| 578.60 | 3 | 1 | 2 | | | | | | | | | 1 | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7044 Calumet Harbor, Illinois on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
| 1 | 579.00 | 579.53 | 578.80 | 580.43 | 579.97 | 579.76 | 580.50 | 580.41 | 580.33 | 579.65 | 579.77 | 579.45 |
| 2 | 578.78 | 579.11 | 579.03 | 579.56 | 579.92 | 579.90 | 580.38 | 580.28 | 580.20 | 579.80 | 579.39 | 579.48 |
| 3 | 579.03 | 579.00 | 579.41 | 579.40 | 579.82 | 580.03 | 580.38 | 580.31 | 580.38 | 579.47 | 579.37 | 579.52 |
| 4 | 579.48 | 579.06 | 579.84 | 579.44 | 579.84 | 580.20 | 580.35 | 580.39 | 580.07 | 579.81 | 579.65 | 579.91 |
| 5 | 579.49 | 579.18 | 579.44 | 579.53 | 579.75 | 579.99 | 580.20 | 580.25 | 580.23 | 579.76 | 580.28 | 579.58 |
| 6 | 579.29 | 579.58 | 579.10 | 579.47 | 579.65 | 579.84 | 580.24 | 580.43 | 580.34 | 579.62 | 580.04 | 579.72 |
| 7 | 579.22 | 579.27 | 578.98 | 579.43 | 579.89 | 579.93 | 580.32 | 580.45 | 580.19 | 579.75 | 579.18 | 579.48 |
| 8 | 579.67 | 579.46 | 579.16 | 579.47 | 579.92 | 579.91 | 580.36 | 580.40 | 580.16 | 579.26 | 579.43 | 579.47 |
| 9 | 579.95 | 579.34 | 579.11 | 579.43 | 579.86 | 579.93 | 580.30 | 580.12 | 579.62 | 580.69 | 579.72 | 579.30 |
| 10 | 579.76 | 579.45 | 579.31 | 579.35 | 579.88 | 579.94 | 580.37 | 580.26 | 580.03 | 579.83 | 579.74 | 579.87 |
| 11 | 579.50 | 579.87 | 579.38 | 579.68 | 579.83 | 580.18 | 580.40 | 580.31 | 579.93 | 579.50 | 579.65 | 579.76 |
| 12 | 579.59 | 579.86 | 579.21 | 579.66 | 580.10 | 580.25 | 580.38 | 580.37 | 579.63 | 579.79 | 579.72 | 579.09 |
| 13 | 579.86 | 579.35 | 579.81 | 579.57 | 579.98 | 580.22 | 580.45 | 580.45 | 579.73 | 579.81 | 579.60 | 579.35 |
| 14 | 579.53 | 579.09 | 579.33 | 579.79 | 579.83 | 580.10 | 580.60 | 580.32 | 579.91 | 579.60 | 579.91 | 579.88 |
| 15 | 579.48 | 579.18 | 578.86 | 580.00 | 579.79 | 580.04 | 580.52 | 580.29 | 580.48 | 579.74 | 579.84 | 580.02 |
| 16 | 579.07 | 579.49 | 578.79 | 579.81 | 579.65 | 580.18 | 580.48 | 580.47 | 580.27 | 579.97 | 579.51 | 579.80 |
| 17 | 579.26 | 579.11 | 579.37 | 579.57 | 579.83 | 580.20 | 580.53 | 580.41 | 580.10 | 580.17 | 579.86 | 579.55 |
| 18 | 579.26 | 578.96 | 579.16 | 579.50 | 579.93 | 580.30 | 580.51 | 580.42 | 580.11 | 579.92 | 579.47 | 579.57 |
| 19 | 578.99 | 578.94 | 579.05 | 579.94 | 579.73 | 580.30 | 580.45 | 580.34 | 580.31 | 580.01 | 579.55 | 579.41 |
| 20 | 579.03 | 579.19 | 579.08 | 580.40 | 579.66 | 580.31 | 580.40 | 580.55 | 580.19 | 579.96 | 579.25 | 579.43 |
| 21 | 579.46 | 579.54 | 579.05 | 579.86 | 579.73 | 580.28 | 580.45 | 580.53 | 580.31 | 579.65 | 579.08 | 579.60 |
| 22 | 579.39 | 579.53 | 579.30 | 579.66 | 579.73 | 580.30 | 580.46 | 580.26 | 580.03 | 579.53 | 579.66 | 579.67 |
| 23 | 579.20 | 579.25 | 579.48 | 579.66 | 579.66 | 580.48 | 580.47 | 580.14 | 580.11 | 579.55 | 579.98 | 579.54 |
| 24 | 579.49 | 579.12 | 579.35 | 579.66 | 579.58 | 580.39 | 580.56 | 580.11 | 579.98 | 579.65 | 580.35 | 579.39 |
| 25 | 579.19 | 579.13 | 579.24 | 579.79 | 579.60 | 580.29 | 580.43 | 580.24 | 580.22 | 579.95 | 580.01 | 579.45 |
| 26 | 578.76 | 579.30 | 579.26 | 579.93 | 579.69 | 580.07 | 580.32 | 580.25 | 580.18 | 580.04 | 579.89 | 579.41 |
| 27 | 579.32 | 579.08 | 579.31 | 579.78 | 579.76 | 580.34 | 580.31 | 580.18 | 580.14 | 579.78 | 579.64 | 579.40 |
| 28 | 579.48 | 578.74 | 579.32 | 579.69 | 580.03 | 580.50 | 580.30 | 580.18 | 580.05 | 579.19 | 579.56 | 579.22 |
| 29 | 579.12 | | 579.26 | 579.86 | 579.89 | 580.57 | 580.31 | 580.38 | 580.19 | 579.58 | 579.68 | 579.17 |
| 30 | 578.61 | | 579.31 | 579.83 | 580.05 | 580.60 | 580.26 | 580.30 | 579.83 | 580.14 | 579.57 | 578.77 |
| 31 | 579.00 | | 579.90 | | 580.26 | | 580.27 | 580.39 | | 580.25 | | 578.94 |
| Mean | 579.30 | 579.27 | 579.26 | 579.70 | 579.83 | 580.18 | 580.39 | 580.33 | 580.11 | 579.82 | 579.68 | 579.49 |
| Max.
Hr.
Day | 580.17
1600
13 | 580.16
1500
11 | 580.44
2300
31 | 580.92
1500
20 | 580.95
0400
31 | 581.02
2100
30 | 581.00
0900
1 | 580.81
2300
20 | 580.93
1400
15 | 581.24
0500
9 | 580.78
1700
5 | 580.36
1400
15 |
| Min.
Hr.
Day | 577.70
1200
26 | 578.28
2300
28 | 578.27
1300
16 | 579.11
2200
10 | 579.27
2000
5 | 578.75
0800
8 | 579.69
2100
8 | 578.93
1400
9 | 578.76
0800
9 | 578.81
0700
28 | 578.75
1700
7 | 578.31
1700
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.78

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7057 Milwaukee, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 580.45 Jul
Daily mean elevation: 580.59 24 Jul
Instant/hourly elevation: 581.34 2000/7 Jun

LOWEST

Monthly mean elevation: 579.17 Mar
Daily mean elevation: 578.73 30 Jan
Instant/hourly elevation: 578.51 0500/30 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.88 | 579.71 | 579.77 | 580.31 | 580.10 | 580.56 | 580.59 | 580.50 | 580.32 | 580.30 | 580.25 | 579.88 |
| Day | 13 | 11 | 31 | 1 | 31 | 30 | 24 | 21 | 20 | 9 | 5 | 15 |
| Min | 578.73 | 578.93 | 578.97 | 579.15 | 579.67 | 579.79 | 580.23 | 580.18 | 579.82 | 579.52 | 579.23 | 578.97 |
| Day | 30 | 3 | 15 | 10 | 25 | 1 | 30 | 28 | 9 | 22 | 20 | 30 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | 7 | 21 | 11 | | | | | 580.40 | 39 |
| 580.20 | | | | 2 | | 9 | 10 | 19 | 9 | 2 | 1 | | 580.20 | 91 |
| 580.00 | | | | 1 | 2 | 8 | | 1 | 15 | 4 | 4 | | 580.00 | 126 |
| 579.80 | 1 | | | 2 | 21 | 5 | | | 6 | 10 | 5 | 2 | 579.80 | 178 |
| 579.60 | 2 | 2 | 1 | 12 | 8 | 1 | | | | 12 | 13 | 10 | 579.60 | 239 |
| 579.40 | 4 | 2 | 2 | 6 | | | | | | 3 | 6 | 11 | 579.40 | 273 |
| 579.20 | 8 | 10 | 6 | 5 | | | | | | | 1 | 4 | 579.20 | 307 |
| 579.00 | 12 | 11 | 20 | 2 | | | | | | | | 3 | 579.00 | 355 |
| 578.80 | 3 | 3 | 2 | | | | | | | | | 1 | 578.80 | 364 |
| 578.60 | 1 | | | | | | | | | | | | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7057 Milwaukee, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|----------------------|---------------------|----------------------|----------------------|----------------------|
| 1 | 578.96 | 579.25 | 579.03 | 580.31 | 579.86 | 579.79 | 580.57 | 580.37 | 580.31 | 579.82 | 579.79 | 579.65 |
| 2 | 579.04 | 579.04 | 579.13 | 579.43 | 580.00 | 579.93 | 580.51 | 580.31 | 580.30 | 579.76 | 579.64 | 579.62 |
| 3 | 579.23 | 578.93 | 579.30 | 579.20 | 579.91 | 579.96 | 580.44 | 580.33 | 580.30 | 579.65 | 579.62 | 579.57 |
| 4 | 579.37 | 579.02 | 579.56 | 579.23 | 579.93 | 579.99 | 580.57 | 580.30 | 580.13 | 579.77 | 579.88 | 579.75 |
| 5 | 579.20 | 579.11 | 579.32 | 579.33 | 579.82 | 579.96 | 580.47 | 580.31 | 580.20 | 579.80 | 580.25 | 579.64 |
| 6 | 579.12 | 579.39 | 579.12 | 579.27 | 579.76 | 579.95 | 580.34 | 580.48 | 580.27 | 579.83 | 579.91 | 579.73 |
| 7 | 579.03 | 579.20 | 579.10 | 579.33 | 579.96 | 580.13 | 580.39 | 580.43 | 580.21 | 579.91 | 579.52 | 579.53 |
| 8 | 579.37 | 579.27 | 579.14 | 579.44 | 579.98 | 580.18 | 580.50 | 580.41 | 580.17 | 580.25 | 579.64 | 579.64 |
| 9 | 579.63 | 579.27 | 579.04 | 579.28 | 579.97 | 580.07 | 580.46 | 580.36 | 579.82 | 580.30 | 579.74 | 579.53 |
| 10 | 579.64 | 579.29 | 579.25 | 579.15 | 579.93 | 580.02 | 580.44 | 580.37 | 579.88 | 579.82 | 579.72 | 579.72 |
| 11 | 579.46 | 579.71 | 579.24 | 579.63 | 579.82 | 580.15 | 580.49 | 580.34 | 579.90 | 579.71 | 579.77 | 579.59 |
| 12 | 579.55 | 579.69 | 579.08 | 579.48 | 579.86 | 580.20 | 580.36 | 580.42 | 580.05 | 579.77 | 579.82 | 579.40 |
| 13 | 579.88 | 579.27 | 579.40 | 579.42 | 579.86 | 580.24 | 580.50 | 580.40 | 579.93 | 579.79 | 579.87 | 579.56 |
| 14 | 579.55 | 579.09 | 579.07 | 579.63 | 579.77 | 580.17 | 580.51 | 580.38 | 580.01 | 579.68 | 579.84 | 579.85 |
| 15 | 579.27 | 579.15 | 578.97 | 580.13 | 579.80 | 580.07 | 580.42 | 580.45 | 580.20 | 579.85 | 579.77 | 579.88 |
| 16 | 579.05 | 579.27 | 578.98 | 579.97 | 579.67 | 580.21 | 580.48 | 580.48 | 580.22 | 579.96 | 579.51 | 579.76 |
| 17 | 579.06 | 579.03 | 579.02 | 579.51 | 579.84 | 580.30 | 580.58 | 580.39 | 580.09 | 579.97 | 579.69 | 579.67 |
| 18 | 579.11 | 578.95 | 579.07 | 579.45 | 579.90 | 580.25 | 580.59 | 580.41 | 580.06 | 579.87 | 579.60 | 579.63 |
| 19 | 579.05 | 579.10 | 579.07 | 579.86 | 579.76 | 580.38 | 580.46 | 580.41 | 580.21 | 580.02 | 579.54 | 579.49 |
| 20 | 579.17 | 579.28 | 579.08 | 580.23 | 579.76 | 580.42 | 580.39 | 580.44 | 580.32 | 580.00 | 579.23 | 579.51 |
| 21 | 579.44 | 579.59 | 579.01 | 579.66 | 579.82 | 580.30 | 580.41 | 580.50 | 580.26 | 579.62 | 579.41 | 579.56 |
| 22 | 579.26 | 579.44 | 579.20 | 579.61 | 579.86 | 580.31 | 580.48 | 580.41 | 580.11 | 579.52 | 579.76 | 579.58 |
| 23 | 579.22 | 579.17 | 579.42 | 579.64 | 579.95 | 580.50 | 580.49 | 580.36 | 580.01 | 579.76 | 580.12 | 579.55 |
| 24 | 579.25 | 579.10 | 579.21 | 579.77 | 579.78 | 580.54 | 580.59 | 580.26 | 579.98 | 579.75 | 580.20 | 579.43 |
| 25 | 579.02 | 579.21 | 579.13 | 579.69 | 579.67 | 580.42 | 580.56 | 580.29 | 580.12 | 580.02 | 580.12 | 579.37 |
| 26 | 579.02 | 579.25 | 579.10 | 579.72 | 579.83 | 580.24 | 580.35 | 580.34 | 580.10 | 580.02 | 580.05 | 579.31 |
| 27 | 579.14 | 579.09 | 579.15 | 579.73 | 579.95 | 580.39 | 580.37 | 580.24 | 580.05 | 579.75 | 579.79 | 579.35 |
| 28 | 579.27 | 578.98 | 579.11 | 579.67 | 579.96 | 580.44 | 580.39 | 580.18 | 579.96 | 579.57 | 579.68 | 579.19 |
| 29 | 578.84 | | 579.11 | 579.77 | 579.85 | 580.48 | 580.26 | 580.36 | 580.14 | 579.57 | 579.58 | 579.13 |
| 30 | 578.73 | | 579.15 | 579.72 | 580.08 | 580.56 | 580.23 | 580.39 | 580.04 | 579.85 | 579.67 | 578.97 |
| 31 | 578.92 | | 579.77 | | 580.10 | | 580.37 | 580.28 | | 580.03 | | 579.16 |
| Mean | 579.22 | 579.22 | 579.17 | 579.61 | 579.87 | 580.22 | 580.45 | 580.37 | 580.11 | 579.84 | 579.76 | 579.53 |
| Max.
Hr.
Day | 580.10
1100
13 | 580.00
1100
21 | 580.40
2300
31 | 580.71
0700
1 | 580.37
2200
30 | 581.34
2000
7 | 581.02
0300
9 | 580.79
1100
16 | 580.50
0100
2 | 580.63
0300
9 | 580.52
0800
5 | 580.22
0700
14 |
| Min.
Hr.
Day | 578.51
0500
30 | 578.75
0400
3 | 578.77
1100
16 | 579.01
1300
10 | 579.51
2300
28 | 579.56
2400
8 | 580.05
0800
9 | 579.83
1200
9 | 579.45
0700
9 | 579.22
2400
21 | 579.08
1300
20 | 578.79
1800
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.78

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7068 Kewaunee, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 580.41 Jul
Daily mean elevation: 580.55 18 Jul
Instant/hourly elevation: 581.20 0800/9 Jul

LOWEST

Monthly mean elevation: 579.04 Mar
Daily mean elevation: 578.80 17 Mar
Instant/hourly elevation: 578.58 0200/4 Jan

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.69 | 579.45 | 579.34 | 579.81 | 580.03 | 580.52 | 580.55 | 580.45 | 580.33 | 580.04 | 580.09 | 579.69 |
| Day | 13 | 12 | 31 | 20 | 30 | 30 | 18 | 21 | 2 | 8 | 5 | 16 |
| Min | 578.85 | 578.87 | 578.80 | 579.06 | 579.67 | 579.80 | 580.18 | 580.14 | 579.81 | 579.48 | 579.22 | 578.97 |
| Day | 30 | 18 | 17 | 3 | 16 | 1 | 30 | 28 | 10 | 22 | 20 | 29 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | 4 | 17 | 4 | | | | | 580.40 | 25 |
| 580.20 | | | | | | 11 | 12 | 26 | 7 | | | | 580.20 | 81 |
| 580.00 | | | | | 1 | 8 | 2 | 1 | 15 | 2 | 3 | | 580.00 | 113 |
| 579.80 | | | | 1 | 15 | 6 | | | 8 | 14 | 5 | | 579.80 | 162 |
| 579.60 | 1 | | | 8 | 15 | 1 | | | | 13 | 15 | 10 | 579.60 | 225 |
| 579.40 | 2 | 2 | | 7 | | | | | | 2 | 6 | 13 | 579.40 | 257 |
| 579.20 | 8 | 4 | 2 | 9 | | | | | | | 1 | 2 | 579.20 | 283 |
| 579.00 | 12 | 16 | 19 | 5 | | | | | | | | 1 | 579.00 | 336 |
| 578.80 | 8 | 6 | 9 | | | | | | | | | 3 | 578.80 | 362 |
| 578.60 | | | 1 | | | | | | | | | | 578.60 | 363 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7068 Kewaunee, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 578.86 | 579.06 | 579.00 | 579.59 | 579.71 | 579.80 | 580.46 | 580.37 | 580.31 | 579.82 | 579.79 | 579.69 |
| 2 | 579.03 | 579.05 | 579.01 | 579.28 | 579.92 | 579.90 | 580.52 | 580.32 | 580.33 | 579.71 | 579.72 | 579.62 |
| 3 | 579.25 | 578.87 | 579.09 | 579.06 | 579.84 | 579.89 | 580.37 | 580.34 | 580.23 | 579.78 | 579.64 | 579.52 |
| 4 | 579.02 | 578.98 | 579.18 | 579.08 | 579.83 | 579.92 | 580.53 | 580.28 | 580.16 | 579.70 | 579.84 | 579.67 |
| 5 | 579.13 | 578.97 | 579.13 | 579.18 | 579.81 | 579.98 | 580.51 | 580.33 | 580.13 | 579.79 | 580.09 | 579.66 |
| 6 | 579.05 | 579.29 | 579.03 | 579.20 | 579.68 | 579.91 | 580.37 | 580.44 | 580.25 | 579.86 | 579.88 | 579.63 |
| 7 | 578.97 | 579.15 | 579.06 | 579.21 | 579.89 | 580.18 | 580.33 | 580.40 | 580.16 | 579.88 | 579.66 | 579.53 |
| 8 | 579.17 | 579.09 | 579.02 | 579.39 | 579.91 | 580.37 | 580.38 | 580.39 | 580.18 | 580.04 | 579.56 | 579.66 |
| 9 | 579.34 | 579.24 | 578.99 | 579.23 | 579.88 | 580.17 | 580.50 | 580.37 | 579.92 | 579.95 | 579.70 | 579.52 |
| 10 | 579.37 | 579.08 | 579.06 | 579.10 | 579.85 | 580.02 | 580.36 | 580.36 | 579.81 | 579.81 | 579.68 | 579.53 |
| 11 | 579.28 | 579.43 | 579.07 | 579.31 | 579.71 | 580.10 | 580.52 | 580.30 | 579.96 | 579.74 | 579.73 | 579.51 |
| 12 | 579.39 | 579.45 | 579.04 | 579.33 | 579.67 | 580.13 | 580.34 | 580.33 | 580.11 | 579.62 | 579.74 | 579.60 |
| 13 | 579.69 | 579.15 | 578.99 | 579.23 | 579.79 | 580.19 | 580.41 | 580.35 | 580.02 | 579.81 | 579.94 | 579.54 |
| 14 | 579.46 | 579.03 | 578.98 | 579.42 | 579.81 | 580.19 | 580.47 | 580.34 | 579.96 | 579.74 | 579.66 | 579.68 |
| 15 | 579.23 | 579.03 | 578.97 | 579.72 | 579.75 | 580.00 | 580.32 | 580.44 | 580.05 | 579.80 | 579.77 | 579.65 |
| 16 | 579.02 | 579.09 | 578.96 | 579.71 | 579.67 | 580.12 | 580.39 | 580.41 | 580.22 | 579.85 | 579.57 | 579.69 |
| 17 | 578.87 | 578.97 | 578.80 | 579.39 | 579.79 | 580.26 | 580.51 | 580.35 | 580.08 | 579.87 | 579.52 | 579.65 |
| 18 | 579.01 | 578.87 | 579.00 | 579.39 | 579.80 | 580.22 | 580.55 | 580.36 | 580.04 | 579.83 | 579.68 | 579.56 |
| 19 | 578.98 | 579.03 | 579.07 | 579.56 | 579.71 | 580.29 | 580.50 | 580.38 | 580.11 | 579.99 | 579.48 | 579.48 |
| 20 | 579.06 | 579.15 | 579.01 | 579.81 | 579.75 | 580.46 | 580.35 | 580.29 | 580.29 | 579.93 | 579.22 | 579.51 |
| 21 | 579.41 | 579.31 | 578.91 | 579.57 | 579.78 | 580.28 | 580.38 | 580.45 | 580.21 | 579.66 | 579.54 | 579.53 |
| 22 | 579.24 | 579.25 | 579.02 | 579.50 | 579.82 | 580.25 | 580.41 | 580.38 | 580.13 | 579.48 | 579.63 | 579.47 |
| 23 | 579.21 | 579.06 | 579.25 | 579.52 | 579.92 | 580.43 | 580.44 | 580.35 | 579.96 | 579.86 | 579.99 | 579.56 |
| 24 | 579.12 | 578.99 | 579.12 | 579.79 | 579.89 | 580.50 | 580.52 | 580.23 | 579.97 | 579.73 | 579.94 | 579.37 |
| 25 | 578.98 | 579.05 | 579.04 | 579.55 | 579.68 | 580.37 | 580.50 | 580.21 | 580.01 | 580.03 | 580.01 | 579.23 |
| 26 | 579.10 | 579.07 | 579.02 | 579.61 | 579.80 | 580.31 | 580.36 | 580.32 | 580.13 | 580.00 | 580.06 | / |
| 27 | 579.05 | 579.07 | 579.05 | 579.71 | 579.93 | 580.36 | 580.30 | 580.25 | 580.00 | 579.76 | 579.78 | / |
| 28 | 579.08 | 579.07 | 579.00 | 579.65 | 579.90 | 580.30 | 580.45 | 580.14 | 579.95 | 579.68 | 579.63 | 579.00* |
| 29 | 578.86 | | 579.01 | 579.66 | 579.75 | 580.37 | 580.20 | 580.31 | 580.10 | 579.55 | 579.56 | 578.97 |
| 30 | 578.85 | | 579.09 | 579.67 | 580.03 | 580.52 | 580.18 | 580.39 | 580.16 | 579.62 | 579.67 | 578.98 |
| 31 | 578.87 | | 579.34 | | 579.99 | | 580.42 | 580.21 | | 579.90 | | 579.12 |
| Mean | 579.13 | 579.10 | 579.04 | 579.45 | 579.81 | 580.19 | 580.41 | 580.33 | 580.10 | 579.80 | 579.72 | 579.49 |
| Max.
Hr.
Day | 579.83
0500
13 | 579.64
1900
11 | 579.71
2400
31 | 580.10
0700
16 | 580.33
0100
28 | 580.97
1000
8 | 581.20
0800
9 | 580.80
2100
15 | 580.49
0200
12 | 580.28
0200
21 | 580.48
1200
23 | 579.93
0200
2 |
| Min.
Hr.
Day | 578.58
0200
4 | 578.73
0800
18 | 578.62
0500
17 | 578.79
1700
4 | 579.37
1100
29 | 579.69
0800
4 | 579.88
1000
25 | 579.79
0600
28 | 579.51
2400
9 | 579.19
2200
21 | 579.01
0600
17 | 578.64
0900
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.71

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7072 Sturgeon Bay Canal, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 580.43 Jul
Daily mean elevation: 580.57 18 Jul
Instant/hourly elevation: 582.40 0600/22 Jul

LOWEST

Monthly mean elevation: 579.02 Mar
Daily mean elevation: 578.81 17 Mar
Instant/hourly elevation: 578.41 1700/17 Mar

----- Extreme Daily Means by Month -----

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.66 | 579.43 | 579.30 | 579.81 | 580.01 | 580.44 | 580.57 | 580.48 | 580.31 | 580.06 | 580.12 | 579.70 |
| Day | 13 | 12 | 31 | 24 | 31 | 30 | 18 | 6 | 1 | 25 | 26 | 16 |
| Min | 578.84 | 578.85 | 578.81 | 579.06 | 579.64 | 579.80 | 580.24 | 580.16 | 579.82 | 579.49 | 579.20 | 578.97 |
| Day | 29 | 18 | 17 | 3 | 12 | 1 | 29 | 24 | 10 | 22 | 20 | 29 |

----- Frequency Distribution of Daily Mean Levels -----

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | 4 | 20 | 6 | | | | | 580.40 | 30 |
| 580.20 | | | | | | 10 | 11 | 23 | 7 | | | | 580.20 | 81 |
| 580.00 | | | | | 1 | 8 | | 2 | 15 | 3 | 3 | | 580.00 | 113 |
| 579.80 | | | | 1 | 13 | 7 | | | 8 | 13 | 6 | | 579.80 | 161 |
| 579.60 | 1 | | | 7 | 17 | 1 | | | | 12 | 13 | 10 | 579.60 | 222 |
| 579.40 | 1 | 1 | | 8 | | | | | | 3 | 7 | 13 | 579.40 | 255 |
| 579.20 | 10 | 4 | 2 | 10 | | | | | | | | 2 | 579.20 | 283 |
| 579.00 | 11 | 13 | 18 | 4 | | | | | | | 1 | 5 | 579.00 | 335 |
| 578.80 | 8 | 10 | 11 | | | | | | | | | 1 | 578.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7072 Sturgeon Bay Canal, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 578.88 | 579.07 | 578.89 | 579.53 | 579.72 | 579.80 | 580.46 | 580.45 | 580.31 | 579.84 | 579.78 | 579.67 |
| 2 | 579.02 | 579.11 | 578.89 | 579.28 | 579.92 | 579.88 | 580.41 | 580.45 | 580.30 | 579.75 | 579.71 | 579.64 |
| 3 | 579.25 | 578.88 | 579.03 | 579.06 | 579.83 | 579.89 | 580.36 | 580.34 | 580.22 | 579.80 | 579.63 | 579.52 |
| 4 | 579.06 | 579.00 | 579.14 | 579.11 | 579.84 | 579.91 | 580.49 | 580.31 | 580.13 | 579.72 | 579.84 | 579.68 |
| 5 | 579.21 | 578.97 | 579.12 | 579.17 | 579.76 | 579.91 | 580.46 | 580.30 | 580.19 | 579.81 | 580.10 | 579.67 |
| 6 | 579.11 | 579.29 | 579.02 | 579.21 | 579.64 | 579.92 | 580.32 | 580.48 | 580.24 | 579.90 | 579.88 | 579.64 |
| 7 | 578.93 | 579.21 | 579.06 | 579.21 | 579.88 | 579.96 | 580.34 | 580.43 | 580.18 | 579.93 | 579.58 | 579.52 |
| 8 | 579.12 | 579.04 | 579.02 | 579.39 | 579.87 | 580.22 | 580.45 | 580.38 | 580.17 | 580.05 | 579.53 | 579.66 |
| 9 | 579.31 | 579.23 | 578.95 | 579.27 | 579.87 | 580.05 | 580.47 | 580.36 | 579.87 | 579.96 | 579.70 | 579.51 |
| 10 | 579.34 | 579.05 | 579.02 | 579.09 | 579.82 | 579.99 | 580.35 | 580.35 | 579.82 | 579.78 | 579.69 | 579.48 |
| 11 | 579.29 | 579.40 | 579.04 | 579.30 | 579.73 | 580.10 | 580.48 | 580.32 | 579.94 | 579.70 | 579.72 | 579.50 |
| 12 | 579.36 | 579.43 | 579.05 | 579.32 | 579.64 | 580.12 | 580.39 | 580.37 | 580.08 | 579.59 | 579.73 | 579.54 |
| 13 | 579.66 | 579.14 | 578.90 | 579.21 | 579.80 | 580.15 | 580.46 | 580.37 | 580.05 | 579.80 | 579.93 | 579.50 |
| 14 | 579.47 | 579.02 | 578.97 | 579.36 | 579.77 | 580.17 | 580.51 | 580.35 | 579.94 | 579.74 | 579.66 | 579.70 |
| 15 | 579.27 | 579.05 | 578.96 | 579.65 | 579.77 | 580.03 | 580.39 | 580.39 | 580.12 | 579.83 | 579.81 | 579.66 |
| 16 | 579.07 | 579.07 | 578.96 | 579.70 | 579.66 | 580.08 | 580.42 | 580.41 | 580.21 | 579.92 | 579.52 | 579.70 |
| 17 | 578.87 | 579.01 | 578.81 | 579.39 | 579.75 | 580.24 | 580.51 | 580.34 | 580.10 | 579.88 | 579.52 | 579.64 |
| 18 | 579.01 | 578.85 | 579.02 | 579.41 | 579.78 | 580.16 | 580.57 | 580.36 | 580.07 | 579.83 | 579.69 | 579.56 |
| 19 | 579.00 | 578.95 | 579.07 | 579.50 | 579.69 | 580.32 | 580.50 | 580.36 | 580.16 | 579.93 | 579.43 | 579.49 |
| 20 | 579.11 | 579.06 | 579.02 | 579.75 | 579.72 | 580.44 | 580.34 | 580.29 | 580.30 | 580.00 | 579.20 | 579.54 |
| 21 | 579.38 | 579.19 | 578.94 | 579.56 | 579.78 | 580.28 | 580.40 | 580.44 | 580.25 | 579.61 | 579.53 | 579.55 |
| 22 | 579.27 | 579.18 | 578.99 | 579.50 | 579.82 | 580.23 | 580.45 | 580.32 | 580.15 | 579.49 | 579.67 | 579.51 |
| 23 | 579.24 | 579.01 | 579.22 | 579.54 | 579.96 | 580.41 | 580.41 | 580.37 | 579.98 | 579.88 | 579.98 | 579.55 |
| 24 | 579.13 | 578.94 | 579.12 | 579.81 | 579.88 | 580.44 | 580.52 | 580.16 | 579.98 | 579.74 | 579.89 | 579.37 |
| 25 | 579.00 | 578.95 | 579.04 | 579.56 | 579.68 | 580.38 | 580.54 | 580.22 | 580.00 | 580.06 | 580.01 | 579.23 |
| 26 | 579.12 | 578.94 | 579.04 | 579.57 | 579.77 | 580.28 | 580.42 | 580.33 | 580.15 | 580.04 | 580.12 | 579.19 |
| 27 | 579.04 | 578.91 | 579.04 | 579.63 | 579.93 | 580.33 | 580.35 | 580.29 | 580.04 | 579.78 | 579.78 | 579.19 |
| 28 | 579.09 | 578.92 | 578.98 | 579.65 | 579.92 | 580.27 | 580.50 | 580.20 | 579.95 | 579.68 | 579.65 | 579.15 |
| 29 | 578.84 | | 579.04 | 579.70 | 579.74 | 580.31 | 580.24 | 580.30 | 580.11 | 579.54 | 579.56 | 578.97 |
| 30 | 578.92 | | 579.05 | 579.69 | 579.95 | 580.44 | 580.28 | 580.40 | 580.07 | 579.64 | 579.65 | 579.02 |
| 31 | 578.85 | | 579.30 | | 580.01 | | 580.41 | 580.21 | | 579.90 | | 579.12 |
| Mean | 579.14 | 579.06 | 579.02 | 579.44 | 579.80 | 580.16 | 580.43 | 580.34 | 580.10 | 579.81 | 579.72 | 579.47 |
| Max. | 579.82 | 579.90 | 579.55 | 580.19 | 580.29 | 580.74 | 582.40 | 580.76 | 580.48 | 580.28 | 580.49 | 579.89 |
| Hr. | 1200 | 2000 | 1700 | 2400 | 2300 | 2100 | 0600 | 1500 | 0900 | 0200 | 1400 | 0900 |
| Day | 13 | 7 | 31 | 15 | 27 | 8 | 22 | 2 | 2 | 26 | 26 | 14 |
| Min. | 578.63 | 578.77 | 578.41 | 578.92 | 579.48 | 579.58 | 580.08 | 579.90 | 579.62 | 579.27 | 579.08 | 578.64 |
| Hr. | 0200 | 0100 | 1700 | 1300 | 1400 | 2100 | 2000 | 0700 | 2000 | 0400 | 1400 | 2200 |
| Day | 30 | 19 | 17 | 4 | 6 | 7 | 29 | 24 | 14 | 22 | 20 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.71

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7079 Green Bay, Wisconsin on Lake Michigan

HIGHEST

Monthly mean elevation: 580.42 Jul
Daily mean elevation: 581.30 15 Apr
Instant/hourly elevation: 583.13 1900/15 Apr

LOWEST

Monthly mean elevation: 579.07 Mar
Daily mean elevation: 578.74 29 Jan
Instant/hourly elevation: 577.80 0700/17 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.61 | 579.48 | 580.04 | 581.30 | 580.40 | 580.61 | 580.72 | 580.67 | 580.46 | 580.60 | 580.96 | 580.05 |
| Day | 13 | 11 | 31 | 15 | 30 | 30 | 18 | 6 | 20 | 8 | 5 | 14 |
| Min | 578.74 | 578.86 | 578.88 | 579.05 | 579.61 | 579.70 | 580.12 | 580.20 | 579.50 | 579.06 | 578.96 | 578.83 |
| Day | 29 | 3 | 17 | 3 | 25 | 1 | 6 | 28 | 9 | 21 | 20 | 29 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 581.20 | | | | 1 | | | | | | | | | 581.20 | 1 |
| 581.00 | | | | | | | | | | | | | 581.00 | 1 |
| 580.80 | | | | | | | | | | | 1 | | 580.80 | 2 |
| 580.60 | | | | | | 1 | 1 | 1 | | | 1 | | 580.60 | 6 |
| 580.40 | | | | 2 | | 5 | 16 | 11 | 1 | 1 | 1 | | 580.40 | 43 |
| 580.20 | | | | 1 | 2 | 9 | 12 | 17 | 6 | 2 | | | 580.20 | 92 |
| 580.00 | | | 1 | | 2 | 9 | 2 | 2 | 15 | 6 | 4 | 2 | 580.00 | 135 |
| 579.80 | | | | 4 | 14 | 5 | | | 6 | 6 | 1 | | 579.80 | 171 |
| 579.60 | 1 | | | 4 | 13 | 1 | | | 1 | 6 | 9 | 7 | 579.60 | 213 |
| 579.40 | 2 | 2 | | 7 | | | | | 1 | 6 | 7 | 12 | 579.40 | 250 |
| 579.20 | 8 | 4 | 1 | 7 | | | | | | 3 | 2 | 3 | 579.20 | 278 |
| 579.00 | 12 | 16 | 20 | 4 | | | | | | 1 | 3 | 5 | 579.00 | 339 |
| 578.80 | 5 | 6 | 9 | | | | | | | | 1 | 2 | 578.80 | 362 |
| 578.60 | 3 | | | | | | | | | | | | 578.60 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7079 Green Bay, Wisconsin on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 578.75 | 579.08 | 579.05 | 579.99 | 579.99 | 579.70 | 580.54 | 580.36 | 580.19 | 579.53 | 579.69 | 579.59 |
| 2 | 579.05 | 579.04 | 579.06 | 579.29 | 579.96 | 579.81 | 580.49 | 580.24 | 580.20 | 579.50 | 579.39 | 579.51 |
| 3 | 579.32 | 578.86 | 579.10 | 579.05 | 579.93 | 579.96 | 580.45 | 580.33 | 580.33 | 579.55 | 579.43 | 579.49 |
| 4 | 579.16 | 579.01 | 579.11 | 579.09 | 579.89 | 579.98 | 580.36 | 580.29 | 580.02 | 579.84 | 580.09 | 579.74 |
| 5 | 579.17 | 578.99 | 579.09 | 579.26 | 579.79 | 579.93 | 580.49 | 580.21 | 580.24 | 579.75 | 580.96 | 579.62 |
| 6 | 579.01 | 579.37 | 579.04 | 579.25 | 579.74 | 579.88 | 580.12 | 580.67 | 580.19 | 579.62 | 579.80 | 579.65 |
| 7 | 578.95 | 579.21 | 579.09 | 579.24 | 579.92 | 580.24 | 580.38 | 580.51 | 580.17 | 580.23 | 579.09 | 579.51 |
| 8 | 579.16 | 579.05 | 579.04 | 579.45 | 579.87 | 580.30 | 580.43 | 580.35 | 580.05 | 580.60 | 579.48 | 579.58 |
| 9 | 579.27 | 579.23 | 578.97 | 579.12 | 579.90 | 580.05 | 580.51 | 580.22 | 579.50 | 580.30 | 579.60 | 579.42 |
| 10 | 579.33 | 579.10 | 579.10 | 579.12 | 579.94 | 580.02 | 580.38 | 580.41 | 579.70 | 579.52 | 579.70 | 579.73 |
| 11 | 579.28 | 579.48 | 579.00 | 579.90 | 579.68 | 580.11 | 580.41 | 580.38 | 579.81 | 579.32 | 579.77 | 579.48 |
| 12 | 579.39 | 579.45 | 579.05 | 579.47 | 580.26 | 580.16 | 580.36 | 580.42 | 580.04 | 579.81 | 579.77 | 579.36 |
| 13 | 579.61 | 579.11 | 578.90 | 579.32 | 579.74 | 580.15 | 580.47 | 580.48 | 579.88 | 579.76 | 579.78 | 579.54 |
| 14 | 579.47 | 578.99 | 578.91 | 579.89 | 579.63 | 580.09 | 580.54 | 580.46 | 580.20 | 579.60 | 579.95 | 580.05 |
| 15 | 579.24 | 579.02 | 578.95 | 581.30 | 579.82 | 580.05 | 580.39 | 580.53 | 580.32 | 579.97 | 579.68 | 580.03 |
| 16 | 579.09 | 579.04 | 578.92 | 580.27 | 579.69 | 580.15 | 580.44 | 580.46 | 580.15 | 580.09 | 579.08 | 579.80 |
| 17 | 578.79 | 578.98 | 578.88 | 579.34 | 579.71 | 580.44 | 580.56 | 580.42 | 580.05 | 580.05 | 579.57 | 579.65 |
| 18 | 579.04 | 578.89 | 579.02 | 579.33 | 579.88 | 580.40 | 580.72 | 580.39 | 580.29 | 579.89 | 579.47 | 579.56 |
| 19 | 579.00 | 579.04 | 579.13 | 580.49 | 579.71 | 580.52 | 580.51 | 580.35 | 580.33 | 579.91 | 579.10 | 579.35 |
| 20 | 579.11 | 579.16 | 579.06 | 580.54 | 579.71 | 580.40 | 580.37 | 580.52 | 580.46 | 580.01 | 578.96 | 579.54 |
| 21 | 579.46 | 579.22 | 578.98 | 579.55 | 579.80 | 580.33 | 580.39 | 580.45 | 580.36 | 579.06 | 579.32 | 579.52 |
| 22 | 579.30 | 579.15 | 579.06 | 579.51 | 579.84 | 580.31 | 580.42 | 580.25 | 580.05 | 579.46 | 580.13 | 579.69 |
| 23 | 579.31 | 579.01 | 579.34 | 579.55 | 579.96 | 580.39 | 580.47 | 580.24 | 579.95 | 579.70 | 580.57 | 579.44 |
| 24 | 579.11 | 578.97 | 579.14 | 579.65 | 579.66 | 580.41 | 580.55 | 580.24 | 579.90 | 579.79 | 580.72 | 579.29 |
| 25 | 578.93 | 579.07 | 579.02 | 579.74 | 579.61 | 580.38 | 580.55 | 580.25 | 580.10 | 580.15 | 580.16 | 579.13 |
| 26 | 579.12 | 579.09 | 579.06 | 579.76 | 579.82 | 580.03 | 580.17 | 580.36 | 580.07 | 580.01 | 580.01 | 579.10 |
| 27 | 579.12 | 579.10 | 579.04 | 579.43 | 579.91 | 580.37 | 580.30 | 580.20 | 579.98 | 579.65 | 579.68 | 579.15 |
| 28 | 579.10 | 579.15 | 578.99 | 579.59 | 580.05 | 580.43 | 580.29 | 580.20 | 580.02 | 579.24 | 579.67 | 579.09 |
| 29 | 578.74 | | 579.05 | 579.90 | 579.78 | 580.53 | 580.31 | 580.30 | 580.15 | 579.32 | 579.60 | 578.83 |
| 30 | 578.93 | | 579.08 | 579.74 | 580.40 | 580.61 | 580.25 | 580.42 | 579.83 | 579.99 | 579.53 | 578.91 |
| 31 | 578.83 | | 580.04 | | 580.07 | | 580.32 | 580.31 | | 580.10 | | 579.14 |
| Mean | 579.13 | 579.10 | 579.07 | 579.64 | 579.86 | 580.20 | 580.42 | 580.36 | 580.09 | 579.78 | 579.72 | 579.47 |
| Max. | 580.15 | 579.93 | 580.76 | 583.13 | 581.55 | 582.29 | 581.42 | 581.22 | 581.52 | 581.07 | 582.38 | 580.61 |
| Hr. | 0100 | 0300 | 2300 | 1900 | 2000 | 1800 | 1300 | 1900 | 0700 | 0500 | 0100 | 2200 |
| Day | 27 | 12 | 31 | 15 | 30 | 8 | 5 | 6 | 15 | 4 | 5 | 14 |
| Min. | 577.87 | 578.26 | 577.80 | 578.56 | 578.92 | 579.12 | 579.59 | 579.27 | 578.44 | 577.91 | 578.31 | 578.08 |
| Hr. | 0600 | 0300 | 0700 | 0400 | 1000 | 0800 | 1400 | 0800 | 0700 | 0800 | 0100 | 1300 |
| Day | 27 | 8 | 17 | 10 | 16 | 9 | 6 | 24 | 9 | 21 | 20 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.74

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 908-7096 Port Inland, Michigan on Lake Michigan

HIGHEST

Monthly mean elevation: 580.40 Jul
Daily mean elevation: 580.60 28 Jul
Instant/hourly elevation: 581.01 0200/6 Jul

LOWEST

Monthly mean elevation: 579.01 Feb
Daily mean elevation: 578.81 6 Feb
Instant/hourly elevation: 578.63 1800/5 Feb

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 579.10 | 579.17 | 579.20 | 579.60 | 579.96 | 580.44 | 580.60 | 580.47 | 580.37 | 580.18 | 580.13 | 579.79 |
| Day | 9      | 2      | 24     | 24     | 24     | 25     | 28     | 30     | 2      | 1      | 26     | 2      |
| Min | 578.93 | 578.81 | 578.86 | 579.02 | 579.49 | 579.77 | 580.13 | 580.08 | 579.82 | 579.51 | 579.28 | 579.12 |
| Day | 7      | 6      | 31     | 10     | 12     | 1      | 30     | 20     | 28     | 30     | 20     | 11     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 580.40 | | | | | | 2 | 13 | 3 | | | | | 580.40 | 18 |
| 580.20 | | | | | | 11 | 16 | 25 | 11 | | | | 580.20 | 81 |
| 580.00 | | | | | | 7 | 2 | 3 | 14 | 7 | 2 | | 580.00 | 116 |
| 579.80 | | | | | 5 | 9 | | | 5 | 12 | 5 | | 579.80 | 152 |
| 579.60 | | | | | 22 | 1 | | | | 9 | 17 | 5 | 579.60 | 206 |
| 579.40 | | | | 6 | 2 | | | | | 3 | 5 | 14 | 579.40 | 236 |
| 579.20 | | | | 5 | | | | | | | 1 | 9 | 579.20 | 251 |
| 579.00 | 4 | 4 | 7 | 13 | | | | | | | | 3 | 579.00 | 282 |
| 578.80 | 1 | 2 | 1 | | | | | | | | | | 578.80 | 286 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 908-7096 Port Inland, Michigan on Lake Michigan

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | / | 579.08* | / | 579.12 | / | 579.77 | 580.38 | 580.43 | 580.30 | 580.18 | 579.71 | 579.79 |
| 2 | / | 579.17 | / | 579.15 | / | 579.84 | 580.39 | 580.36 | 580.37 | 579.81 | 579.99 | 579.79 |
| 3 | / | 579.06* | / | 579.05 | 579.67* | 579.81 | 580.27 | 580.29 | 580.14 | 579.98 | 579.77 | 579.51 |
| 4 | / | 579.07 | / | 579.07 | 579.69 | 579.84 | 580.52 | 580.23 | 580.21 | 579.67 | 579.76 | 579.60 |
| 5 | / | 578.87 | / | 579.12 | 579.69 | 579.90 | 580.52 | 580.27 | 580.10 | 579.90 | 579.75 | 579.66 |
| 6 | 579.05* | 578.81* | / | 579.15 | 579.58 | 579.84 | 580.51 | 580.36 | 580.22 | 580.12 | 579.71 | 579.59 |
| 7 | 578.93 | / | / | 579.09 | 579.76 | 580.03 | 580.37 | 580.28 | 580.11* | 579.91 | 579.83 | 579.46 |
| 8 | 579.05 | / | / | 579.27 | 579.80 | 580.24 | 580.49 | 580.31 | 580.25* | 579.89 | 579.62 | 579.72 |
| 9 | 579.10 | / | / | 579.37 | 579.77 | 580.30 | 580.53 | 580.42 | 580.25 | 579.66 | 579.76 | 579.64 |
| 10 | 579.09* | / | / | 579.02 | 579.76 | 579.91 | 580.41 | 580.33 | 579.82 | 579.85 | 579.67 | 579.54* |
| 11 | / | / | / | 579.11 | 579.64 | 579.97 | 580.50 | 580.28 | 580.01 | 580.10 | 579.72 | 579.12* |
| 12 | / | / | / | 579.18 | 579.49 | 580.00 | 580.40 | 580.30 | 580.26 | 579.51 | 579.66 | 579.43 |
| 13 | / | / | / | 579.10 | 579.69 | 580.07 | 580.38 | 580.32 | 580.33 | 579.86 | 580.12 | 579.34 |
| 14 | / | / | / | 579.11 | 579.78 | 580.21 | 580.38 | 580.26 | 580.03 | 579.91 | 579.55 | 579.50 |
| 15 | / | / | / | 579.08 | 579.70 | 579.91 | 580.33 | 580.32 | 580.04 | 579.79 | 579.75 | 579.39 |
| 16 | / | / | / | 579.48 | 579.62 | 580.05 | 580.34 | 580.38 | 580.27 | 579.84 | 579.80 | 579.50 |
| 17 | / | / | / | 579.26 | 579.73 | 580.17 | 580.46 | 580.23 | 580.15 | 579.72 | 579.50 | 579.55 |
| 18 | / | / | / | 579.39 | 579.72 | 580.10 | 580.50 | 580.26 | 580.01 | 579.76 | 579.91 | 579.54 |
| 19 | / | / | / | 579.27 | 579.65 | 580.09 | 580.50 | 580.35 | 580.08 | 579.95 | 579.66 | 579.49 |
| 20 | / | / | / | 579.48 | 579.68 | 580.37 | 580.29 | 580.08 | 580.22 | 579.93 | 579.28 | 579.50 |
| 21 | / | / | / | 579.49 | 579.71 | 580.23 | 580.24 | 580.25 | 580.18 | 579.90 | 579.75 | 579.43 |
| 22 | / | / | / | 579.44 | 579.69 | 580.13 | 580.28 | 580.22 | 580.18 | 579.54 | 579.51 | 579.29 |
| 23 | / | / | / | 579.46 | 579.87 | 580.32 | 580.30 | 580.38 | 579.94 | 580.07 | 579.80 | 579.48* |
| 24 | / | / | 579.20* | 579.60* | 579.96 | 580.41 | 580.39 | 580.34 | 580.06 | 579.77 | 579.57 | 579.37 |
| 25 | / | / | 579.19 | / | 579.62 | 580.44 | 580.60 | 580.22 | 579.97 | 580.07 | 579.84 | 579.18 |
| 26 | / | / | 579.19 | / | 579.71 | 580.31 | 580.59 | 580.32 | 580.17 | 580.03 | 580.13 | 579.22 |
| 27 | / | / | 579.17 | / | 579.82 | 580.32 | 580.30 | 580.25 | 579.96 | 579.76 | 579.83 | 579.23 |
| 28 | / | / | 579.18 | / | 579.86 | 580.29 | 580.60 | 580.15 | 579.82 | 580.06 | 579.63 | 579.26 |
| 29 | / | / | 579.18* | / | 579.67 | 580.30 | 580.15 | 580.28 | 580.01 | 579.69 | 579.49 | 579.20 |
| 30 | / | / | 579.01* | / | 579.76 | 580.34 | 580.13 | 580.47 | 580.33 | 579.51 | 579.71 | 579.24 |
| 31 | / | / | 578.86 | / | 579.84 | / | 580.38 | 580.18 | / | 579.72 | / | 579.21 |
| Mean | 579.05 | 579.01 | 579.12 | 579.25 | 579.72 | 580.12 | 580.40 | 580.30 | 580.12 | 579.86 | 579.73 | 579.45 |
| Max.
Hr.
Day | 579.28
2100
8 | 579.21
2000
4 | 579.35
1500
26 | 579.95
1300
24 | 580.41
2400
27 | 580.74
0800
20 | 581.01
0200
6 | 580.83
0100
24 | 581.00
0800
9 | 580.86
0400
1 | 580.67
1900
26 | 580.08
2200
1 |
| Min.
Hr.
Day | 578.76
0100
7 | 578.63
1800
5 | 578.70
1400
31 | 578.72
1100
15 | 579.19
1500
12 | 579.64
1900
1 | 579.90
2200
29 | 579.87
2000
20 | 579.55
2400
14 | 579.16
0600
22 | 578.88
0800
20 | 578.70
0300
30 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 579.68

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9004 Point Iroquois, Michigan on Lake Superior (Whitefish Bay)

HIGHEST

Monthly mean elevation: 602.47 Sep
Daily mean elevation: 602.96 21 Oct
Instant/hourly elevation: 603.71 1100/21 Oct

LOWEST

Monthly mean elevation: 601.17 Apr
Daily mean elevation: 600.92 8 Apr
Instant/hourly elevation: 600.58 1200/24 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 602.22 | 601.81 | 601.40 | 601.48 | 601.99 | 602.12 | 602.65 | 602.56 | 602.82 | 602.96 | 602.48 | 602.30 |
| Day | 1      | 3      | 16     | 25     | 31     | 28     | 29     | 31     | 10     | 21     | 19     | 25     |
| Min | 601.48 | 601.17 | 600.97 | 600.92 | 601.28 | 601.67 | 601.80 | 602.18 | 602.07 | 601.91 | 601.63 | 601.66 |
| Day | 21     | 28     | 19     | 8      | 2      | 8      | 4      | 23     | 30     | 25     | 26     | 1      |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.80 | | | | | | | | | 1 | 1 | | | 602.80 | 2 |
| 602.60 | | | | | | | 1 | | 4 | 2 | | | 602.60 | 9 |
| 602.40 | | | | | | | 1 | 12 | 15 | 8 | 1 | | 602.40 | 46 |
| 602.20 | 1 | | | | | | 14 | 18 | 9 | 15 | 9 | 3 | 602.20 | 115 |
| 602.00 | 4 | | | | | 8 | 9 | 1 | 1 | 4 | 14 | 4 | 602.00 | 160 |
| 601.80 | 7 | 1 | | | 2 | 17 | 5 | | | 1 | 3 | 20 | 601.80 | 216 |
| 601.60 | 16 | 4 | | | 13 | 5 | 1 | | | | 3 | 4 | 601.60 | 262 |
| 601.40 | 3 | 11 | | 2 | 12 | | | | | | | | 601.40 | 290 |
| 601.20 | | 11 | | 8 | 4 | | | | | | | | 601.20 | 329 |
| 601.00 | | 1 | 16 | 19 | | | | | | | | | 601.00 | 363 |
| 600.80 | | | 1 | 1 | | | | | | | | | 600.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 909-9004 Point Iroquois, Michigan on Lake Superior (Whitefish Bay)

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 602.22 | 601.62 | 601.26 | 601.12 | 601.35 | 601.89 | 601.99 | 602.38 | 602.39 | 602.48 | 602.19 | 601.66 |
| 2 | 601.66 | 601.59 | 601.33 | 601.16 | 601.28 | 601.89 | 602.00 | 602.40 | 602.35 | 602.62 | 602.04 | 601.99 |
| 3 | 601.76 | 601.81 | 601.25 | 601.18 | 601.47 | 601.89 | 602.03 | 602.50 | 602.59 | 602.52 | 602.21 | 602.02 |
| 4 | 601.98 | 601.62 | 601.26 | 601.10 | 601.49 | 601.85 | 601.80 | 602.49 | 602.52 | 602.67 | 602.11 | 601.96 |
| 5 | 601.88 | 601.68 | 601.32 | 601.08 | 601.56 | 601.80 | 601.94 | 602.37 | 602.51 | 602.44 | 602.33 | 601.83 |
| 6 | 601.96 | 601.37 | 601.23 | 601.05 | 601.54 | 601.79 | 601.99 | 602.42 | 602.48 | 602.22 | 602.23 | 602.20 |
| 7 | 601.91 | 601.64 | 601.18 | 601.03 | 601.41 | 601.83 | 602.11 | 602.39 | 602.43 | 602.34 | 602.15 | 601.97 |
| 8 | 601.90 | 601.47 | 601.36 | 600.92 | 601.35 | 601.67 | 602.12 | 602.31 | 602.36 | 602.44 | 602.23 | 601.88 |
| 9 | 601.80 | 601.40 | 601.22 | 601.11 | 601.40 | 601.84 | 602.15 | 602.21 | 602.56 | 602.52 | 602.21 | 601.89 |
| 10 | 601.76 | 601.58 | 601.27 | 601.24 | 601.58 | 601.93 | 602.15 | 602.40 | 602.82 | 602.27 | 602.16 | 602.29 |
| 11 | 601.74 | 601.35 | 601.31 | 601.18 | 601.63 | 601.85 | 602.19 | 602.39 | 602.46 | 602.25 | 602.22 | 601.97 |
| 12 | 601.67 | 601.45 | 601.27 | 601.19 | 601.77 | 601.82 | 602.24 | 602.36 | 602.26 | 602.59 | 602.02 | 601.68 |
| 13 | 601.69 | 601.52 | 601.31 | 601.19 | 601.57 | 601.76 | 602.23 | 602.46 | 602.39 | 602.31 | 602.00 | 601.69 |
| 14 | 601.66 | 601.55 | 601.25 | 601.16 | 601.60 | 601.88 | 602.25 | 602.41 | 602.72 | 602.25 | 602.24 | 601.86 |
| 15 | 601.72 | 601.52 | 601.04 | 601.19 | 601.71 | 602.09 | 602.26 | 602.35 | 602.57 | 602.26 | 602.15 | 601.93 |
| 16 | 601.75 | 601.50 | 601.40 | 601.33 | 601.67 | 601.84 | 602.24 | 602.42 | 602.34 | 602.35 | 602.04 | 601.84 |
| 17 | 602.07 | 601.54 | 601.26 | 601.24 | 601.59 | 601.94 | 602.11 | 602.44 | 602.49 | 602.37 | 602.23 | 601.77 |
| 18 | 601.86 | 601.51 | 601.07 | 601.10 | 601.65 | 602.01 | 602.16 | 602.36 | 602.63 | 602.25 | 601.88 | 601.87 |
| 19 | 601.77 | 601.39 | 600.97 | 601.22 | 601.67 | 601.94 | 602.23 | 602.40 | 602.46 | 602.19 | 602.48 | 601.87 |
| 20 | 601.60 | 601.35 | 601.16 | 601.27 | 601.61 | 601.94 | 602.37 | 602.56 | 602.31 | 602.06 | 602.38 | 601.93 |
| 21 | 601.48 | 601.30 | 601.23 | 601.17 | 601.63 | 602.02 | 602.35 | 602.40 | 602.37 | 602.96 | 602.07 | 602.01 |
| 22 | 601.70 | 601.45 | 601.10 | 601.12 | 601.50 | 602.01 | 602.32 | 602.30 | 602.35 | 602.46 | 602.17 | 601.88 |
| 23 | 601.63 | 601.40 | 601.09 | 601.11 | 601.46 | 601.82 | 602.25 | 602.18 | 602.66 | 602.20 | 602.00 | 601.94 |
| 24 | 602.01 | 601.36 | 601.08 | 601.01 | 601.75 | 601.77 | 602.17 | 602.42 | 602.46 | 602.40 | 602.01 | 601.94 |
| 25 | 601.73 | 601.30 | 601.05 | 601.48 | 601.80 | 601.97 | 602.00 | 602.39 | 602.41 | 601.91 | 601.80 | 602.30 |
| 26 | 601.62 | 601.31 | 601.05 | 601.21 | 601.79 | 602.00 | 602.24 | 602.36 | 602.42 | 602.35 | 601.63 | 601.96 |
| 27 | 601.68 | 601.23 | 601.08 | 601.04 | 601.54 | 602.07 | 602.29 | 602.53 | 602.59 | 602.33 | 602.02 | 602.09 |
| 28 | 601.88 | 601.17 | 601.14 | 601.29 | 601.93 | 602.12 | 602.25 | 602.52 | 602.61 | 602.20 | 602.05 | 601.82 |
| 29 | 602.04 | | 601.14 | 601.35 | 601.77 | 602.08 | 602.65 | 602.40 | 602.42 | 602.51 | 602.16 | 602.28 |
| 30 | 601.49 | | 601.09 | 601.41 | 601.77 | 602.01 | 602.51 | 602.34 | 602.07 | 602.38 | 601.78 | 601.82 |
| 31 | 602.02 | | 601.02 | | 601.99 | | 602.35 | 602.56 | | 602.32 | | 601.92 |
| Mean | 601.79 | 601.46 | 601.19 | 601.17 | 601.61 | 601.91 | 602.19 | 602.40 | 602.47 | 602.37 | 602.11 | 601.94 |
| Max.
Hr.
Day | 602.71
1800
28 | 602.22
1500
3 | 601.87
2000
16 | 601.75
1000
25 | 602.14
0800
31 | 602.36
1000
15 | 602.79
1200
29 | 602.89
1800
27 | 603.07
0500
23 | 603.71
1100
21 | 603.09
0200
20 | 602.98
1000
25 |
| Min.
Hr.
Day | 601.02
0900
26 | 601.00
1600
28 | 600.82
1300
19 | 600.58
1200
24 | 601.01
0600
2 | 601.20
2300
8 | 601.56
1500
4 | 601.81
1200
9 | 601.70
1500
13 | 601.71
2200
25 | 601.21
1400
26 | 601.34
2100
1 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.88

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9018 Marquette Coast Guard, Michigan on Lake Superior

HIGHEST

Monthly mean elevation: 602.45 Sep
Daily mean elevation: 602.70 14 Sep
Instant/hourly elevation: 602.94 0400/14 Sep

LOWEST

Monthly mean elevation: 601.21 Apr
Daily mean elevation: 601.07 19 Mar
Instant/hourly elevation: 600.94 2100/18 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 601.92 | 601.67 | 601.33 | 601.40 | 601.86 | 602.09 | 602.45 | 602.51 | 602.70 | 602.48 | 602.39 | 602.17 |
| Day | 1 | 5 | 8 | 30 | 31 | 28 | 29 | 28 | 14 | 8 | 5 | 10 |
| Min | 601.63 | 601.24 | 601.07 | 601.08 | 601.39 | 601.82 | 602.05 | 602.36 | 602.21 | 602.22 | 601.93 | 601.77 |
| Day | 26 | 28 | 19 | 7 | 1 | 5 | 5 | 9 | 30 | 28 | 30 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.60 | | | | | | | | | 1 | | | | 602.60 | 1 |
| 602.40 | | | | | | | 2 | 25 | 23 | 7 | | | 602.40 | 58 |
| 602.20 | | | | | | | 19 | 6 | 6 | 24 | 5 | | 602.20 | 118 |
| 602.00 | | | | | | 7 | 10 | | | | 23 | 4 | 602.00 | 162 |
| 601.80 | 8 | | | | 2 | 23 | | | | | 2 | 25 | 601.80 | 222 |
| 601.60 | 23 | 2 | | | 15 | | | | | | | 2 | 601.60 | 264 |
| 601.40 | | 21 | | | 13 | | | | | | | | 601.40 | 298 |
| 601.20 | | 5 | 18 | 15 | 1 | | | | | | | | 601.20 | 337 |
| 601.00 | | | 13 | 15 | | | | | | | | | 601.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9018 Marquette Coast Guard, Michigan on Lake Superior

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 601.92 | 601.67 | 601.29 | 601.23 | 601.39 | 601.84 | 602.08 | 602.41 | 602.46 | 602.36 | 602.21 | 601.93 |
| 2 | 601.77 | 601.58 | 601.32 | 601.21 | 601.42 | 601.85 | 602.05 | 602.42 | 602.41 | 602.43 | 602.15 | 602.00 |
| 3 | 601.80 | 601.60 | 601.30 | 601.16 | 601.48 | 601.84 | 602.07 | 602.47 | 602.51 | 602.43 | 602.19 | 602.04 |
| 4 | 601.90 | 601.58 | 601.29 | 601.08 | 601.54 | 601.84 | 602.08 | 602.44 | 602.45 | 602.46 | 602.29 | 602.00 |
| 5 | 601.90 | 601.67 | 601.29 | 601.09 | 601.54 | 601.82 | 602.05 | 602.42 | 602.50 | 602.39 | 602.39 | 601.94 |
| 6 | 601.77 | 601.53 | 601.26 | 601.10 | 601.55 | 601.84 | 602.14 | 602.43 | 602.43 | 602.32 | 602.24 | 602.06 |
| 7 | 601.80 | 601.56 | 601.26 | 601.08 | 601.56 | 601.85 | 602.15 | 602.40 | 602.44 | 602.47 | 602.08 | 602.00 |
| 8 | 601.86 | 601.56 | 601.33 | 601.11 | 601.50 | 601.86 | 602.18 | 602.37 | 602.39 | 602.48 | 602.17 | 601.94 |
| 9 | 601.89 | 601.45 | 601.28 | 601.14 | 601.54 | 601.89 | 602.20 | 602.36 | 602.43 | 602.46 | 602.15 | 601.94 |
| 10 | 601.82 | 601.59 | 601.30 | 601.16 | 601.58 | 601.89 | 602.19 | 602.41 | 602.57 | 602.34 | 602.16 | 602.17 |
| 11 | 601.79 | 601.53 | 601.30 | 601.20 | 601.59 | 601.91 | 602.24 | 602.43 | 602.46 | 602.28 | 602.16 | 601.98 |
| 12 | 601.78 | 601.50 | 601.25 | 601.19 | 601.63 | 601.90 | 602.24 | 602.42 | 602.39 | 602.38 | 602.13 | 601.84 |
| 13 | 601.83 | 601.49 | 601.31 | 601.16 | 601.57 | 601.89 | 602.24 | 602.44 | 602.45 | 602.29 | 602.18 | 601.83 |
| 14 | 601.77 | 601.49 | 601.24 | 601.17 | 601.62 | 601.94 | 602.24 | 602.43 | 602.70 | 602.26 | 602.25 | 601.92 |
| 15 | 601.72 | 601.47 | 601.11 | 601.28 | 601.62 | 601.98 | 602.23 | 602.40 | 602.56 | 602.26 | 602.14 | 601.96 |
| 16 | 601.67 | 601.48 | 601.29 | 601.34 | 601.62 | 601.94 | 602.25 | 602.41 | 602.40 | 602.30 | 602.05 | 601.93 |
| 17 | 601.79 | 601.44 | 601.27 | 601.21 | 601.60 | 602.00 | 602.23 | 602.42 | 602.44 | 602.28 | 602.11 | 601.89 |
| 18 | 601.70 | 601.42 | 601.11 | 601.21 | 601.63 | 601.98 | 602.23 | 602.41 | 602.50 | 602.27 | 602.02 | 601.90 |
| 19 | 601.66 | 601.42 | 601.07 | 601.24 | 601.61 | 601.97 | 602.23 | 602.41 | 602.45 | 602.24 | 602.15 | 601.88 |
| 20 | 601.63 | 601.42 | 601.20 | 601.25 | 601.62 | 602.03 | 602.27 | 602.49 | 602.42 | 602.22 | 602.19 | 601.92 |
| 21 | 601.64 | 601.42 | 601.21 | 601.17 | 601.62 | 602.00 | 602.30 | 602.42 | 602.40 | 602.39 | 602.08 | 601.99 |
| 22 | 601.67 | 601.48 | 601.15 | 601.16 | 601.58 | 601.99 | 602.27 | 602.37 | 602.37 | 602.37 | 602.19 | 601.94 |
| 23 | 601.74 | 601.45 | 601.13 | 601.16 | 601.63 | 601.98 | 602.26 | 602.38 | 602.46 | 602.27 | 602.15 | 601.92 |
| 24 | 601.78 | 601.35 | 601.12 | 601.24 | 601.77 | 601.98 | 602.27 | 602.41 | 602.43 | 602.30 | 602.11 | 601.87 |
| 25 | 601.67 | 601.29 | 601.11 | 601.33 | 601.73 | 602.05 | 602.25 | 602.43 | 602.43 | 602.25 | 602.02 | 602.01 |
| 26 | 601.63 | 601.32 | 601.10 | 601.27 | 601.70 | 602.05 | 602.27 | 602.44 | 602.46 | 602.30 | 602.03 | 601.95 |
| 27 | 601.72 | 601.29 | 601.11 | 601.21 | 601.74 | 602.07 | 602.27 | 602.45 | 602.48 | 602.28 | 601.99 | 601.89 |
| 28 | 601.81 | 601.24 | 601.12 | 601.31 | 601.79 | 602.09 | 602.33 | 602.51 | 602.51 | 602.22 | 602.02 | 601.80 |
| 29 | 601.76 | | 601.13 | 601.36 | 601.79 | 602.08 | 602.45 | 602.44 | 602.43 | 602.36 | 602.09 | 601.96 |
| 30 | 601.65 | | 601.14 | 601.40 | 601.84 | 602.06 | 602.41 | 602.44 | 602.21 | 602.45 | 601.93 | 601.83 |
| 31 | 601.76 | | 601.24 | | 601.86 | | 602.35 | 602.49 | | 602.35 | | 601.77 |
| Mean | 601.76 | 601.48 | 601.21 | 601.21 | 601.62 | 601.95 | 602.23 | 602.42 | 602.45 | 602.34 | 602.13 | 601.94 |
| Max. | 602.17 | 601.86 | 601.59 | 601.59 | 602.03 | 602.33 | 602.58 | 602.66 | 602.94 | 602.92 | 602.54 | 602.41 |
| Hr. | 0400 | 0700 | 1700 | 0900 | 1300 | 0700 | 1200 | 0900 | 0400 | 1100 | 0600 | 1200 |
| Day | 1 | 5 | 16 | 16 | 28 | 30 | 29 | 20 | 14 | 7 | 5 | 10 |
| Min. | 601.34 | 601.10 | 600.94 | 600.97 | 601.25 | 601.62 | 601.80 | 602.16 | 601.95 | 602.03 | 601.80 | 601.52 |
| Hr. | 0600 | 1900 | 2100 | 1800 | 0700 | 2000 | 0800 | 1800 | 1600 | 0400 | 2100 | 0200 |
| Day | 26 | 28 | 18 | 7 | 2 | 8 | 2 | 15 | 30 | 28 | 30 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.90

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9044 Ontonagon, Michigan on Lake Superior

HIGHEST

Monthly mean elevation: 602.45 Aug
Daily mean elevation: 602.57 2 Sep
Instant/hourly elevation: 602.86 0900/15 Aug

LOWEST

Monthly mean elevation: 601.27 Mar
Daily mean elevation: 601.10 3 Apr
Instant/hourly elevation: 601.04 2100/3 Apr

~~~~~ Extreme Daily Means by Month ~~~~~

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 601.90 | 601.68 | 601.38 | 601.52 | 601.93 | 602.19 | 602.44 | 602.53 | 602.57 | 602.45 | 602.30 | 602.14 |
| Day | 2 | 1 | 3 | 29 | 30 | 24 | 31 | 29 | 2 | 25 | 4 | 1 |
| Min | 601.64 | 601.31 | 601.17 | 601.10 | 601.50 | 601.88 | 602.15 | 602.39 | 602.35 | 602.16 | 602.03 | 601.85 |
| Day | 29 | 28 | 21 | 3 | 1 | 5 | 1 | 16 | 23 | 21 | 29 | 31 |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.40 | | | | | | | 2 | 26 | 24 | 3 | | | 602.40 | 55 |
| 602.20 | | | | | | | 26 | 5 | 6 | 27 | 5 | | 602.20 | 124 |
| 602.00 | | | | | | 20 | 3 | | | 1 | 25 | 8 | 602.00 | 181 |
| 601.80 | 9 | | | | 5 | 10 | | | | | | 23 | 601.80 | 228 |
| 601.60 | 22 | 5 | | | 22 | | | | | | | | 601.60 | 277 |
| 601.40 | | 16 | | 4 | 4 | | | | | | | | 601.40 | 301 |
| 601.20 | | 7 | 25 | 18 | | | | | | | | | 601.20 | 351 |
| 601.00 | | | 6 | 8 | | | | | | | | | 601.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 909-9044 Ontonagon, Michigan on Lake Superior

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| 1 | 601.79 | 601.68 | 601.33 | 601.23 | 601.50 | 601.93 | 602.15 | 602.41 | 602.52 | 602.40 | 602.25 | 602.14 |
| 2 | 601.90 | 601.59 | 601.35 | 601.13 | 601.59 | 601.92 | 602.17 | 602.42 | 602.57 | 602.37 | 602.23 | 602.08 |
| 3 | 601.89 | 601.61 | 601.38 | 601.10 | 601.63 | 601.92 | 602.19 | 602.43 | 602.44 | 602.38 | 602.20 | 602.09 |
| 4 | 601.86 | 601.60 | 601.35 | 601.13 | 601.66 | 601.91 | 602.27 | 602.40 | 602.48 | 602.33 | 602.30 | 602.08 |
| 5 | 601.85 | 601.67 | 601.31 | 601.16 | 601.64 | 601.88 | 602.24 | 602.46 | 602.47 | 602.36 | 602.14 | 602.11 |
| 6 | 601.80 | 601.66 | 601.34 | 601.16 | 601.69 | 601.90 | 602.23 | 602.47 | 602.47 | 602.42 | 602.09 | 602.04 |
| 7 | 601.86 | 601.62 | 601.37 | 601.17 | 601.74 | 601.94 | 602.26 | 602.43 | 602.45 | 602.43 | 602.11 | 602.05 |
| 8 | 601.85 | 601.60 | 601.33 | 601.26 | 601.76 | 602.03 | 602.28 | 602.44 | 602.42 | 602.23 | 602.15 | 601.98 |
| 9 | 601.81 | 601.54 | 601.32 | 601.25 | 601.76 | 601.98 | 602.28 | 602.49 | 602.49 | 602.25 | 602.16 | 602.03 |
| 10 | 601.79 | 601.55 | 601.34 | 601.31 | 601.67 | 601.98 | 602.29 | 602.45 | 602.45 | 602.34 | 602.16 | 601.96 |
| 11 | 601.79 | 601.56 | 601.27 | 601.35 | 601.64 | 602.04 | 602.30 | 602.45 | 602.49 | 602.28 | 602.17 | 601.92 |
| 12 | 601.84 | 601.53 | 601.26 | 601.28 | 601.64 | 602.05 | 602.29 | 602.42 | 602.54 | 602.27 | 602.21 | 601.99 |
| 13 | 601.86 | 601.49 | 601.26 | 601.23 | 601.69 | 602.06 | 602.31 | 602.40 | 602.48 | 602.25 | 602.28 | 602.00 |
| 14 | 601.78 | 601.47 | 601.21 | 601.27 | 601.66 | 602.03 | 602.30 | 602.41 | 602.43 | 602.28 | 602.20 | 602.00 |
| 15 | 601.73 | 601.46 | 601.26 | 601.29 | 601.60 | 601.99 | 602.29 | 602.47 | 602.42 | 602.31 | 602.13 | 601.97 |
| 16 | 601.68 | 601.48 | 601.24 | 601.20 | 601.62 | 602.09 | 602.33 | 602.39 | 602.43 | 602.27 | 602.10 | 601.95 |
| 17 | 601.71 | 601.44 | 601.19 | 601.20 | 601.65 | 602.08 | 602.35 | 602.41 | 602.42 | 602.24 | 602.10 | 601.96 |
| 18 | 601.67 | 601.49 | 601.23 | 601.30 | 601.64 | 602.06 | 602.32 | 602.43 | 602.42 | 602.27 | 602.15 | 601.94 |
| 19 | 601.67 | 601.49 | 601.24 | 601.28 | 601.60 | 602.09 | 602.31 | 602.41 | 602.47 | 602.26 | 602.06 | 601.93 |
| 20 | 601.71 | 601.48 | 601.20 | 601.23 | 601.63 | 602.16 | 602.29 | 602.40 | 602.48 | 602.31 | 602.13 | 601.96 |
| 21 | 601.77 | 601.48 | 601.17 | 601.22 | 601.65 | 602.14 | 602.30 | 602.40 | 602.42 | 602.16 | 602.10 | 601.97 |
| 22 | 601.69 | 601.40 | 601.20 | 601.28 | 601.71 | 602.16 | 602.32 | 602.44 | 602.39 | 602.30 | 602.11 | 601.93 |
| 23 | 601.74 | 601.36 | 601.23 | 601.31 | 601.74 | 602.19 | 602.33 | 602.51 | 602.35 | 602.32 | 602.15 | 601.95 |
| 24 | 601.68 | 601.33 | 601.21 | 601.38 | 601.73 | 602.19 | 602.34 | 602.48 | 602.38 | 602.32 | 602.06 | 601.92 |
| 25 | 601.69 | 601.32 | 601.19 | 601.32 | 601.73 | 602.18 | 602.39 | 602.53 | 602.46 | 602.45 | 602.09 | 601.98 |
| 26 | 601.75 | 601.35 | 601.19 | 601.38 | 601.75 | 602.15 | 602.34 | 602.50 | 602.42 | 602.27 | 602.16 | 601.92 |
| 27 | 601.74 | 601.32 | 601.24 | 601.44 | 601.91 | 602.14 | 602.38 | 602.47 | 602.39 | 602.26 | 602.05 | 601.91 |
| 28 | 601.72 | 601.31 | 601.22 | 601.47 | 601.81 | 602.14 | 602.42 | 602.49 | 602.39 | 602.30 | 602.03 | 601.89 |
| 29 | 601.64 | | 601.21 | 601.52 | 601.87 | 602.14 | 602.35 | 602.53 | 602.39 | 602.33 | 602.03 | 601.89 |
| 30 | 601.75 | | 601.28 | 601.46 | 601.93 | 602.16 | 602.38 | 602.50 | 602.43 | 602.30 | 602.08 | 601.87 |
| 31 | 601.67 | | 601.37 | | 601.91 | | 602.44 | 602.49 | | 602.26 | | 601.85 |
| Mean | 601.77 | 601.50 | 601.27 | 601.28 | 601.70 | 602.05 | 602.30 | 602.45 | 602.44 | 602.31 | 602.14 | 601.98 |
| Max.
Hr.
Day | 602.01
0100
3 | 601.74
1200
5 | 601.46
0900
31 | 601.59
0200
28 | 602.04
1800
27 | 602.26
1800
30 | 602.53
1700
31 | 602.86
0900
15 | 602.78
0600
2 | 602.70
0800
7 | 602.43
0200
13 | 602.24
1900
1 |
| Min.
Hr.
Day | 601.57
1200
29 | 601.26
0500
28 | 601.14
1600
14 | 601.04
2100
3 | 601.45
0600
1 | 601.80
1200
6 | 602.04
0700
1 | 602.14
2200
13 | 602.24
2300
22 | 601.82
0400
8 | 601.90
2200
16 | 601.78
1600
31 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.93

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9064 Duluth, Minnesota on Lake Superior

HIGHEST

Monthly mean elevation: 602.48 Aug
Daily mean elevation: 602.72 4 Nov
Instant/hourly elevation: 602.97 0900/7 Oct

LOWEST

Monthly mean elevation: 601.25 Mar
Daily mean elevation: 600.98 16 Mar
Instant/hourly elevation: 600.59 1800/16 Mar

----- Extreme Daily Means by Month -----

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 602.12 | 601.81 | 601.78 | 601.57 | 602.03 | 602.34 | 602.56 | 602.62 | 602.57 | 602.67 | 602.72 | 602.17 |
| Day | 12 | 11 | 31 | 27 | 27 | 30 | 25 | 23 | 20 | 7 | 4 | 1 |
| Min | 601.25 | 601.21 | 600.98 | 601.02 | 601.47 | 601.83 | 602.15 | 602.29 | 602.19 | 601.84 | 601.63 | 601.47 |
| Day | 29 | 28 | 16 | 9 | 15 | 1 | 2 | 2 | 9 | 21 | 19 | 29 |

----- Frequency Distribution of Daily Mean Levels -----

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.60 | | | | | | | | 1 | | 1 | 1 | | 602.60 | 3 |
| 602.40 | | | | | | | 7 | 24 | 13 | 2 | 1 | | 602.40 | 50 |
| 602.20 | | | | | | 5 | 22 | 6 | 16 | 20 | 8 | | 602.20 | 127 |
| 602.00 | 3 | | | | 1 | 15 | 2 | | 1 | 7 | 17 | 12 | 602.00 | 185 |
| 601.80 | 4 | 1 | | | 6 | 10 | | | | 1 | 2 | 9 | 601.80 | 218 |
| 601.60 | 10 | 5 | 1 | | 18 | | | | | | 1 | 8 | 601.60 | 261 |
| 601.40 | 13 | 8 | 1 | 7 | 6 | | | | | | | 2 | 601.40 | 298 |
| 601.20 | 1 | 14 | 17 | 15 | | | | | | | | | 601.20 | 345 |
| 601.00 | | | 11 | 8 | | | | | | | | | 601.00 | 364 |
| 600.80 | | | 1 | | | | | | | | | | 600.80 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9064 Duluth, Minnesota on Lake Superior

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 601.60 | 601.69 | 601.26 | 601.26 | 601.63 | 601.83 | 602.25 | 602.32 | 602.53 | 602.11 | 602.35 | 602.17 |
| 2 | 602.02 | 601.30 | 601.37 | 601.07 | 601.63 | 601.87 | 602.15 | 602.29 | 602.46 | 602.15 | 602.18 | 601.98 |
| 3 | 601.86 | 601.48 | 601.44 | 601.06 | 601.60 | 601.88 | 602.30 | 602.34 | 602.40 | 602.22 | 602.23 | 602.07 |
| 4 | 601.78 | 601.38 | 601.32 | 601.16 | 601.58 | 601.92 | 602.43 | 602.35 | 602.33 | 602.15 | 602.72 | 602.06 |
| 5 | 601.79 | 601.77 | 601.27 | 601.23 | 601.57 | 601.89 | 602.32 | 602.44 | 602.37 | 602.34 | 602.12 | 602.11 |
| 6 | 601.51 | 601.71 | 601.31 | 601.18 | 601.68 | 601.96 | 602.18 | 602.40 | 602.34 | 602.41 | 602.04 | 601.79 |
| 7 | 601.78 | 601.46 | 601.28 | 601.23 | 601.81 | 602.12 | 602.29 | 602.41 | 602.38 | 602.67 | 602.06 | 602.04 |
| 8 | 601.83 | 601.63 | 601.26 | 601.26 | 601.86 | 602.20 | 602.34 | 602.51 | 602.40 | 602.33 | 602.11 | 601.92 |
| 9 | 601.86 | 601.42 | 601.34 | 601.02 | 601.81 | 601.98 | 602.28 | 602.52 | 602.19 | 602.21 | 602.15 | 602.04 |
| 10 | 601.80 | 601.72 | 601.31 | 601.28 | 601.63 | 602.00 | 602.34 | 602.43 | 602.22 | 602.37 | 602.13 | 601.83 |
| 11 | 601.87 | 601.81 | 601.23 | 601.41 | 601.54 | 602.05 | 602.24 | 602.48 | 602.47 | 602.21 | 602.07 | 601.92 |
| 12 | 602.12 | 601.55 | 601.16 | 601.23 | 601.62 | 602.08 | 602.22 | 602.46 | 602.53 | 602.23 | 602.31 | 602.11 |
| 13 | 602.05 | 601.40 | 601.20 | 601.21 | 601.68 | 602.10 | 602.32 | 602.47 | 602.47 | 602.25 | 602.25 | 602.06 |
| 14 | 601.79 | 601.32 | 601.09 | 601.29 | 601.63 | 601.87 | 602.27 | 602.60 | 602.38 | 602.28 | 602.15 | 602.07 |
| 15 | 601.57 | 601.35 | 601.32 | 601.32 | 601.47 | 601.95 | 602.28 | 602.59 | 602.46 | 602.37 | 602.02 | 602.07 |
| 16 | 601.44 | 601.36 | 600.98 | 601.17 | 601.61 | 602.22 | 602.43 | 602.49 | 602.53 | 602.26 | 601.90 | 602.01 |
| 17 | 601.48 | 601.21 | 601.06 | 601.26 | 601.70 | 602.04 | 602.40 | 602.53 | 602.38 | 602.24 | 602.04 | 602.03 |
| 18 | 601.51 | 601.36 | 601.21 | 601.33 | 601.62 | 602.03 | 602.35 | 602.58 | 602.41 | 602.32 | 602.19 | 601.90 |
| 19 | 601.55 | 601.50 | 601.24 | 601.42 | 601.57 | 602.16 | 602.23 | 602.44 | 602.55 | 602.29 | 601.63 | 601.88 |
| 20 | 601.78 | 601.54 | 601.15 | 601.20 | 601.61 | 602.06 | 602.22 | 602.45 | 602.57 | 602.27 | 602.08 | 601.89 |
| 21 | 601.76 | 601.56 | 601.20 | 601.20 | 601.70 | 602.03 | 602.28 | 602.51 | 602.45 | 601.84 | 602.03 | 601.99 |
| 22 | 601.54 | 601.41 | 601.26 | 601.31 | 601.79 | 602.20 | 602.40 | 602.60 | 602.31 | 602.29 | 602.40 | 601.93 |
| 23 | 601.75 | 601.27 | 601.25 | 601.37 | 601.84 | 602.26 | 602.44 | 602.62 | 602.27 | 602.27 | 602.45 | 601.77 |
| 24 | 601.48 | 601.26 | 601.20 | 601.37 | 601.64 | 602.24 | 602.50 | 602.46 | 602.31 | 602.35 | 602.26 | 601.77 |
| 25 | 601.61 | 601.30 | 601.14 | 601.28 | 601.71 | 602.13 | 602.56 | 602.57 | 602.46 | 602.52 | 602.35 | 601.63 |
| 26 | 601.59 | 601.38 | 601.20 | 601.44 | 601.77 | 602.06 | 602.22 | 602.57 | 602.32 | 602.08 | 602.23 | 601.72 |
| 27 | 601.72 | 601.25 | 601.24 | 601.57 | 602.03 | 602.07 | 602.45 | 602.42 | 602.27 | 602.20 | 602.13 | 601.59 |
| 28 | 601.41 | 601.21 | 601.17 | 601.42 | 601.76 | 602.12 | 602.36 | 602.50 | 602.33 | 602.08 | 602.02 | 601.70 |
| 29 | 601.25 | | 601.18 | 601.54 | 601.88 | 602.23 | 602.30 | 602.60 | 602.34 | 602.05 | 602.00 | 601.47 |
| 30 | 601.48 | | 601.35 | 601.42 | 601.94 | 602.34 | 602.40 | 602.48 | 602.51 | 602.21 | 602.12 | 601.66 |
| 31 | 601.53 | | 601.78 | | 601.76 | | 602.43 | 602.36 | | 602.21 | | 601.76 |
| Mean | 601.68 | 601.45 | 601.25 | 601.28 | 601.70 | 602.06 | 602.33 | 602.48 | 602.40 | 602.25 | 602.16 | 601.90 |
| Max. | 602.48 | 602.15 | 602.14 | 601.83 | 602.28 | 602.67 | 602.88 | 602.96 | 602.89 | 602.97 | 602.89 | 602.42 |
| Hr. | 0400 | 0200 | 0700 | 2000 | 1100 | 1700 | 0800 | 1700 | 0900 | 0900 | 1800 | 1800 |
| Day | 13 | 6 | 31 | 27 | 27 | 8 | 25 | 14 | 13 | 7 | 4 | 1 |
| Min. | 600.92 | 600.95 | 600.59 | 600.73 | 601.22 | 601.47 | 601.91 | 601.94 | 601.89 | 601.59 | 601.32 | 601.06 |
| Hr. | 1500 | 2200 | 1800 | 0900 | 1100 | 0300 | 1200 | 0900 | 2000 | 1100 | 1200 | 0800 |
| Day | 29 | 4 | 16 | 9 | 15 | 10 | 11 | 2 | 22 | 21 | 19 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.91

Annual Summary of Levels, in Feet, 1993

International
Great Lakes
Datum (1985)

Station: 909-9090 Grand Marais, Minnesota on Lake Superior

HIGHEST

Monthly mean elevation: 602.44 Aug
Daily mean elevation: 602.54 23 Aug
Instant/hourly elevation: 603.08 1300/13 Sep

LOWEST

Monthly mean elevation: 601.23 Apr
Daily mean elevation: 601.04 2 Apr
Instant/hourly elevation: 600.87 1700/16 Mar

~~~~~ Extreme Daily Means by Month ~~~~~

|     | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Max | 601.99 | 601.69 | 601.35 | 601.46 | 601.88 | 602.19 | 602.43 | 602.54 | 602.51 | 602.47 | 602.31 | 602.17 |
| Day | 2      | 6      | 3      | 27     | 27     | 24     | 31     | 23     | 1      | 25     | 4      | 1      |
| Min | 601.54 | 601.33 | 601.10 | 601.04 | 601.48 | 601.87 | 602.16 | 602.36 | 602.29 | 602.04 | 601.89 | 601.60 |
| Day | 29     | 28     | 16     | 2      | 1      | 2      | 3      | 3      | 10     | 21     | 19     | 29     |

~~~~~ Frequency Distribution of Daily Mean Levels ~~~~~

| Elev. | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Elev. | No. of days
above elev. |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|----------------------------|
| 602.40 | | | | | | | 3 | 25 | 16 | 1 | | | 602.40 | 45 |
| 602.20 | | | | | | | 24 | 6 | 14 | 28 | 8 | | 602.20 | 125 |
| 602.00 | | | | | | 19 | 4 | | | 2 | 21 | 8 | 602.00 | 179 |
| 601.80 | 7 | | | | 4 | 11 | | | | | 1 | 18 | 601.80 | 220 |
| 601.60 | 20 | 3 | | | 21 | | | | | | | 4 | 601.60 | 268 |
| 601.40 | 4 | 14 | | 3 | 6 | | | | | | | 1 | 601.40 | 296 |
| 601.20 | | 11 | 15 | 14 | | | | | | | | | 601.20 | 336 |
| 601.00 | | | 16 | 13 | | | | | | | | | 601.00 | 365 |

Daily Mean Water Levels, Monthly Means and Extremes, in Feet, 1993

Station: 909-9090 Grand Marais, Minnesota on Lake Superior

International
Great Lakes
Datum (1985)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 601.74 | 601.66 | 601.32 | 601.15 | 601.48 | 601.88 | 602.18 | 602.38 | 602.51 | 602.28 | 602.27 | 602.17 |
| 2 | 601.99 | 601.50 | 601.32 | 601.04 | 601.53 | 601.87 | 602.16 | 602.36 | 602.45 | 602.29 | 602.28 | 602.04 |
| 3 | 601.93 | 601.54 | 601.35 | 601.07 | 601.53 | 601.88 | 602.16 | 602.36 | 602.45 | 602.34 | 602.22 | 602.08 |
| 4 | 601.83 | 601.54 | 601.32 | 601.12 | 601.55 | 601.91 | 602.29 | 602.37 | 602.40 | 602.25 | 602.31 | 602.08 |
| 5 | 601.84 | 601.67 | 601.26 | 601.15 | 601.58 | 601.93 | 602.29 | 602.42 | 602.40 | 602.33 | 602.13 | 602.10 |
| 6 | 601.71 | 601.69 | 601.31 | 601.14 | 601.63 | 601.93 | 602.23 | 602.37 | 602.37 | 602.40 | 602.11 | 601.93 |
| 7 | 601.78 | 601.48 | 601.32 | 601.15 | 601.69 | 601.94 | 602.19 | 602.40 | 602.37 | 602.40 | 602.16 | 602.04 |
| 8 | 601.79 | 601.58 | 601.27 | 601.22 | 601.76 | 602.02 | 602.25 | 602.43 | 602.41 | 602.29 | 602.17 | 601.98 |
| 9 | 601.80 | 601.50 | 601.30 | 601.13 | 601.74 | 601.96 | 602.22 | 602.46 | 602.32 | 602.25 | 602.16 | 601.98 |
| 10 | 601.79 | 601.52 | 601.27 | 601.21 | 601.63 | 601.97 | 602.28 | 602.41 | 602.29 | 602.37 | 602.16 | 601.85 |
| 11 | 601.83 | 601.58 | 601.24 | 601.24 | 601.60 | 602.01 | 602.25 | 602.43 | 602.41 | 602.27 | 602.11 | 601.96 |
| 12 | 601.91 | 601.50 | 601.19 | 601.19 | 601.61 | 602.04 | 602.24 | 602.44 | 602.49 | 602.24 | 602.21 | 602.07 |
| 13 | 601.86 | 601.44 | 601.20 | 601.19 | 601.70 | 602.06 | 602.25 | 602.41 | 602.47 | 602.26 | 602.19 | 602.07 |
| 14 | 601.78 | 601.39 | 601.17 | 601.21 | 601.65 | 601.98 | 602.28 | 602.45 | 602.38 | 602.27 | 602.21 | 601.98 |
| 15 | 601.68 | 601.40 | 601.29 | 601.22 | 601.61 | 601.98 | 602.24 | 602.49 | 602.48 | 602.29 | 602.14 | 601.95 |
| 16 | 601.63 | 601.40 | 601.10 | 601.15 | 601.64 | 602.07 | 602.28 | 602.42 | 602.50 | 602.25 | 602.11 | 601.93 |
| 17 | 601.59 | 601.35 | 601.16 | 601.18 | 601.67 | 602.01 | 602.32 | 602.46 | 602.41 | 602.24 | 602.10 | 601.97 |
| 18 | 601.66 | 601.41 | 601.22 | 601.26 | 601.64 | 602.01 | 602.31 | 602.50 | 602.40 | 602.27 | 602.22 | 601.92 |
| 19 | 601.65 | 601.48 | 601.26 | 601.24 | 601.62 | 602.05 | 602.27 | 602.45 | 602.46 | 602.27 | 601.89 | 601.92 |
| 20 | 601.73 | 601.48 | 601.17 | 601.19 | 601.67 | 602.04 | 602.25 | 602.42 | 602.47 | 602.31 | 602.12 | 601.91 |
| 21 | 601.74 | 601.47 | 601.16 | 601.22 | 601.67 | 602.04 | 602.24 | 602.46 | 602.45 | 602.04 | 602.07 | 601.90 |
| 22 | 601.64 | 601.37 | 601.18 | 601.28 | 601.75 | 602.08 | 602.29 | 602.50 | 602.41 | 602.29 | 602.10 | 601.89 |
| 23 | 601.71 | 601.34 | 601.18 | 601.29 | 601.75 | 602.16 | 602.31 | 602.54 | 602.35 | 602.31 | 602.14 | 601.84 |
| 24 | 601.59 | 601.34 | 601.18 | 601.32 | 601.69 | 602.19 | 602.36 | 602.47 | 602.38 | 602.32 | 602.07 | 601.82 |
| 25 | 601.67 | 601.34 | 601.17 | 601.27 | 601.77 | 602.13 | 602.41 | 602.49 | 602.41 | 602.47 | 602.14 | 601.69 |
| 26 | 601.66 | 601.37 | 601.17 | 601.35 | 601.76 | 602.12 | 602.32 | 602.51 | 602.39 | 602.21 | 602.21 | 601.79 |
| 27 | 601.73 | 601.35 | 601.18 | 601.46 | 601.88 | 602.11 | 602.35 | 602.44 | 602.31 | 602.28 | 602.11 | 601.72 |
| 28 | 601.54 | 601.33 | 601.15 | 601.40 | 601.77 | 602.09 | 602.43 | 602.47 | 602.33 | 602.25 | 602.06 | 601.83 |
| 29 | 601.54 | | 601.15 | 601.44 | 601.85 | 602.10 | 602.30 | 602.51 | 602.36 | 602.16 | 602.02 | 601.60 |
| 30 | 601.66 | | 601.19 | 601.42 | 601.87 | 602.15 | 602.38 | 602.50 | 602.49 | 602.24 | 602.11 | 601.79 |
| 31 | 601.61 | | 601.32 | | 601.82 | | 602.43 | 602.41 | | 602.25 | | 601.81 |
| Mean | 601.73 | 601.47 | 601.23 | 601.23 | 601.68 | 602.02 | 602.28 | 602.44 | 602.41 | 602.28 | 602.14 | 601.92 |
| Max. | 602.37 | 601.98 | 601.47 | 601.61 | 602.06 | 602.41 | 602.63 | 602.85 | 603.08 | 602.79 | 602.55 | 602.35 |
| Hr. | 2300 | 0200 | 0700 | 2100 | 1100 | 0500 | 0100 | 0600 | 1300 | 1300 | 2400 | 0200 |
| Day | 3 | 6 | 31 | 27 | 27 | 24 | 28 | 9 | 13 | 25 | 12 | 2 |
| Min. | 601.25 | 601.12 | 600.87 | 600.95 | 601.24 | 601.73 | 601.94 | 602.16 | 602.14 | 601.77 | 601.63 | 601.37 |
| Hr. | 2200 | 1100 | 1700 | 0400 | 1800 | 1100 | 0300 | 0800 | 2400 | 1100 | 1600 | 0700 |
| Day | 30 | 28 | 16 | 2 | 2 | 9 | 3 | 1 | 13 | 7 | 19 | 29 |

* Indicates Less than 90% of the Hourly Data Available.
/ Indicates No Data.

Annual Mean 601.90

Monthly Water Level Stages, in Feet, 1900 thru Dec 1993

L a k e O n t a r i o a t O s w e g o

International Great
Lakes Datum (1985)

Chart Datum
243.3

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1946 | 1952 | 1952 | 1973 | 1952 | 1952 | 1947 | 1947 | 1947 | 1945 | 1945 | 1945 |
| High | 246.62 | 246.98 | 247.29 | 248.21 | 248.47 | 248.58 | 248.26 | 247.97 | 247.43 | 246.85 | 246.70 | 246.71 |
| Mean | 244.62 | 244.71 | 244.97 | 245.65 | 246.06 | 246.17 | 246.05 | 245.70 | 245.26 | 244.87 | 244.62 | 244.57 |
| | 1935 | 1936 | 1935 | 1935 | 1935 | 1935 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 |
| Low | 242.19 | 242.11 | 242.60 | 242.90 | 243.19 | 243.43 | 243.27 | 242.78 | 242.46 | 242.24 | 241.97 | 242.00 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1991 | 1932 | 1976 | 1936 | 1929 | 1947 | 1917 | 1915 | 1915 | 1945 | 1926 | 1927 |
| Max
Rise | +0.94 | +0.70 | +1.15 | +1.54 | +0.99 | +1.12 | +0.48 | +0.30 | +0.03 | +0.36 | +0.31 | +0.80 |
| Mean | +0.06 | +0.09 | +0.26 | +0.68 | +0.40 | +0.12 | -0.12 | -0.35 | -0.44 | -0.39 | -0.25 | -0.06 |
| | 1918 | 1963 | 1978 | 1915 | 1987 | 1993 | 1993 | 1973 | 1974 | 1974 | 1964 | 1904 |
| Max
Fall | -0.58 | -0.51 | -0.48 | -0.23 | -0.24 | -0.49 | -0.68 | -0.84 | -0.93 | -0.91 | -0.67 | -0.55 |

1900 thru 1993 mean 245.26

Monthly Water Level Stages, in Feet, 1900 thru Dec 1993

L a k e E r i e a t F a i r p o r t

Chart Datum
569.2

International Great
Lakes Datum (1985)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1987 | 1987 | 1986 | 1985 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 573.71 | 573.44 | 573.77 | 574.07 | 574.05 | 574.30 | 574.27 | 573.97 | 573.58 | 573.95 | 573.66 | 573.78 |
| Mean | 570.65 | 570.63 | 570.89 | 571.42 | 571.70 | 571.82 | 571.78 | 571.58 | 571.30 | 570.98 | 570.72 | 570.67 |
| | 1935 | 1936 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 |
| Low | 568.22 | 568.09 | 568.25 | 568.80 | 569.03 | 569.06 | 569.06 | 568.96 | 568.83 | 568.55 | 568.20 | 568.13 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1950 | 1952 | 1976 | 1913 | 1947 | 1989 | 1902 | 1915 | 1926 | 1986 | 1985 | 1927 |
| Max
Rise | +0.78 | +0.67 | +1.12 | +1.58 | +0.95 | +0.66 | +0.63 | +0.26 | +0.13 | +0.37 | +0.55 | +0.52 |
| Mean | +0.00 | -0.02 | +0.26 | +0.53 | +0.28 | +0.12 | -0.04 | -0.19 | -0.28 | -0.32 | -0.26 | -0.05 |
| | 1918 | 1956 | 1931 | 1918 | 1985 | 1977 | 1919 | 1930 | 1937 | 1966 | 1980 | 1917 |
| Max
Fall | -0.67 | -0.56 | -0.31 | +0.02 | -0.21 | -0.24 | -0.33 | -0.46 | -0.57 | -0.64 | -0.67 | -0.42 |

1900 thru 1993 mean 571.17

Monthly Water Level Stages, in Feet, 1900 thru Dec 1993

L a k e S t . C l a i r a t S t . C l a i r S h o r e s

International Great
Lakes Datum (1985)

Chart Datum
572.3

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 576.76 | 576.79 | 576.80 | 576.84 | 576.88 | 577.14 | 577.19 | 577.07 | 576.94 | 577.32 | 576.83 | 576.76 |
| Mean | 573.50 | 573.26 | 573.67 | 574.19 | 574.47 | 574.64 | 574.70 | 574.59 | 574.38 | 574.09 | 573.81 | 573.82 |
| | 1936 | 1926 | 1934 | 1901 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1925 |
| Low | 570.48 | 570.50 | 571.03 | 571.71 | 572.26 | 572.36 | 572.50 | 572.22 | 571.98 | 571.75 | 571.45 | 571.67 |

M o n t h l y C h a n g e s

| | Dec-Jan | Jan-Feb | Feb-Mar | Mar-Apr | Apr-May | May-Jun | Jun-Jul | Jul-Aug | Aug-Sep | Sep-Oct | Oct-Nov | Nov-Dec |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1916 | 1981 | 1956 | 1913 | 1984 | 1901 | 1902 | 1915 | 1912 | 1986 | 1985 | 1914 |
| Max
Rise | +0.57 | +0.98 | +1.79 | +1.53 | +1.42 | +0.81 | +0.62 | +0.22 | +0.08 | +0.38 | +0.42 | +0.63 |
| Mean | -0.30 | -0.24 | +0.40 | +0.52 | +0.28 | +0.17 | +0.07 | -0.11 | -0.21 | -0.28 | -0.28 | +0.01 |
| | 1956 | 1939 | 1932 | 1984 | 1987 | 1977 | 1919 | 1921 | 1913 | 1948 | 1924 | 1919 |
| Max
Fall | -1.86 | -1.68 | -0.82 | -1.55 | -0.14 | -0.16 | -0.21 | -0.32 | -0.49 | -0.56 | -0.65 | -0.48 |

1900 thru 1993 mean 574.09

Monthly Water Level Stages, in Feet, 1900 thru Dec 1993

L a k e H u r o n - M i c h i g a n a t H a r b o r B e a c h

Chart Datum
577.5

International Great
Lakes Datum (1985)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1987 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |
| High | 581.35 | 581.06 | 581.10 | 581.45 | 581.60 | 581.77 | 581.98 | 582.05 | 581.96 | 582.33 | 581.99 | 581.57 |
| Mean | 578.63 | 578.58 | 578.63 | 578.89 | 579.20 | 579.42 | 579.55 | 579.50 | 579.34 | 579.13 | 578.92 | 578.77 |
| | 1965 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 | 1964 |
| Low | 576.09 | 576.14 | 576.05 | 576.06 | 576.49 | 576.60 | 576.66 | 576.67 | 576.64 | 576.47 | 576.27 | 576.10 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1960 | 1938 | 1976 | 1929 | 1960 | 1943 | 1917 | 1972 | 1912 | 1986 | 1928 | 1934 |
| Max
Rise | +0.13 | +0.37 | +0.35 | +0.70 | +0.83 | +0.68 | +0.43 | +0.18 | +0.13 | +0.36 | +0.16 | +0.23 |
| Mean | -0.14 | -0.04 | +0.04 | +0.27 | +0.30 | +0.22 | +0.13 | -0.05 | -0.16 | -0.21 | -0.20 | -0.16 |
| | 1944 | 1987 | 1968 | 1915 | 1987 | 1988 | 1988 | 1931 | 1955 | 1948 | 1930 | 1929 |
| Max
Fall | -0.39 | -0.30 | -0.26 | -0.12 | -0.07 | -0.08 | -0.20 | -0.27 | -0.55 | -0.55 | -0.53 | -0.51 |

1900 thru 1993 mean 579.05

Monthly Water Level Stages, in Feet, 1900 thru Dec 1993

L a k e S u p e r i o r a t M a r q u e t t e

International Great
Lakes Datum (1985)

Chart Datum
601.1

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1985 | 1985 | 1985 | 1985 |
| High | 602.77 | 602.51 | 602.44 | 602.62 | 602.85 | 602.90 | 603.04 | 603.17 | 603.19 | 603.38 | 603.37 | 603.12 |
| Mean | 601.52 | 601.31 | 601.17 | 601.22 | 601.55 | 601.83 | 602.05 | 602.15 | 602.18 | 602.12 | 601.99 | 601.77 |
| | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1926 | 1925 | 1925 | 1925 |
| Low | 599.71 | 599.50 | 599.45 | 599.36 | 599.43 | 599.76 | 600.12 | 600.28 | 600.59 | 600.62 | 600.30 | 600.07 |

M o n t h l y C h a n g e s

Dec-Jan Jan-Feb Feb-Mar Mar-Apr Apr-May May-Jun Jun-Jul Jul-Aug Aug-Sep Sep-Oct Oct-Nov Nov-Dec

| | | | | | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1939 | 1937 | 1979 | 1945 | 1960 | 1950 | 1952 | 1911 | 1900 | 1941 | 1970 | 1909 |
| Max
Rise | -0.08 | -0.05 | +0.09 | +0.45 | +0.75 | +0.61 | +0.49 | +0.47 | +0.52 | +0.35 | +0.22 | +0.00 |
| Mean | -0.25 | -0.21 | -0.14 | +0.05 | +0.33 | +0.28 | +0.22 | +0.11 | +0.03 | -0.06 | -0.13 | -0.22 |
| | 1908 | 1978 | 1956 | 1975 | 1929 | 1986 | 1910 | 1954 | 1954 | 1952 | 1952 | 1904 |
| Max
Fall | -0.44 | -0.38 | -0.31 | -0.20 | -0.02 | +0.05 | -0.02 | -0.09 | -0.23 | -0.47 | -0.48 | -0.40 |

1900 thru 1993 mean 601.74