National Current Observation Program (NCOP)
Current Station Log Instructions

Procedure Number: SOP # 5.4.4.1.A
Created: April 2, 2013
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Approved By: Patrick Burke, Deputy Division Chief (OD). July 1, 2013

1. **Title** National Current Observation Program (NCOP) Current Station Log Instructions

2. **Purpose** This SOP acts as a cover letter for the National Current Observation Program's (NCOP) Current Station Log (CSL, 5.4.4.1.A.1) and its detailed instructions (Appendix A). This single log acts as the official record for self-contained current survey station operations. Metadata recorded on the log, including the planned, deployed and recovered locations and instrumentation setup provides the information needed for entry into the National PORTS Database (NPDB) interface, or its successors. Once completed by the Field Lead and reviewed by the Project Lead, this log is given to the Engineering Division's Operational Engineering Team (OET) for entry. These metadata are used for ingestion, analysis and archival of current stations.

3. **Background/History** Metadata is the foundation on which data can be understood. Without a timely and accurate record of when, where, and how the data were obtained, they cannot be interpreted properly. This log provides the means to record the information needed for analysis. The layout of the log was designed to provide the record keeper, who will often be on the bridge or aft deck of a moving vessel, with a clear and efficient tool to record information. Sections were organized so that the record keeper need not have to change between pages during deployment or recovery operations, when their full attention is often required for "big picture" questions and answers. Furthermore, since the Sensor section is found on its own page, it may be possible to divide the responsibility of acting as record keeper to more than one person and record information simultaneously.

4. **Scope/Applicability** Any current meter station operation which deploys and/or recovers a station not collecting data in real-time.

5. **Main Processes** The log is divided into four sections: Station Information, Operations, Platform, and Sensor. It is imperative that the form be filled out per instructions as it relates to units and time; dates and times are always given in UTC and lengths in meters (except distances). This log is to be completed by the Field Lead (FL), Project Lead (PL), or their designated Record Keeper (RK).

Certain sections may be filled out prior to operations as time permits as noted below. In the event time does not permit, those sections should be filled out by the FL or RK during operations.

a. Station Information.
This section should be filled out by the PL prior to field operations as time permits, and contains information about the project and the station's name and identification.

b. Operations.
This section includes subsections covering the planned location, deployment and recovery operations and should be filled out by the FL or RK unless noted:

i. **Planned** – This section should be filled out by the PL prior to field operation as time permits, and contains the intended location for this station.

ii. **Deploy**- This section is to be filled out as operations occur, and records the actual location the station was deployed at, who was involved and the time that activity took place. Additionally space is provided to record the location of the secondary anchor, if used, as well as data collected by CTD, and any other notes or observations not otherwise recorded. There are also spaces for magnetic variation and flood direction, which can be filled out at any time prior to final submission.

iii. **Recovery**- This section is to be filled out as operations occur, and records the actual location the station was recovered from, who was involved and the time that activity took place. Additional space is provided to record data collected by CTD, as well as any other notes or observations not otherwise recorded.

c. Platform
This section should be filled out by the FL or RK and covers the type of platform used and all its components with the exception of the sensor, which is covered in the following section. Portions of this section may be filled out by the FL or RK prior to operations, but should be verified with the actual equipment used by the FL or RK prior to deployment. This section must also be completed in addition to, not in lieu of any applicable checklists, which should be noted in the space provided.

d. Sensor.
This section should be filled out by the FL or RK, unless noted, and includes subsections covering the sensor used, the configuration plan, the actual settings used, and its recovery.

i. **Sensor**—this section can be filled out by the PL, FL or RK as soon as the instrument has been identified, and includes the type, serial number, frequency and any calibration results. This section must also be completed in addition to, not in lieu of any applicable checklists, which should be noted in the space provided.

ii. **Plan**—this section can be filled out by the PL, FL or RK in advance of operations as the fields are based upon settings determined with software using values derived from reconnaissance, oceanographic and engineering criteria.

iii. **Settings**—this section must be filled out with the actual settings the instrument is configured with. The settings should be verified by reviewing the transcript of the configuration, which is saved as a log file and its name and location noted on the CSL. The fields include the command code for RD Instruments acoustic Doppler current profilers (ADCP) since they are the most commonly used sensors for NCOP operations.

iv. **Instrument Recovery**—fields are completed as their activity occurs, and provides information on the data and the condition of the sensor itself.

6. **Detailed Sub-Processes/Checklists** The requirements for properly entering data into individual fields within each section and subsection are described in Appendix A.

7. **Quality Assurance/Control** Each section of the log should be filled out as close to the actual time of the activity as possible. Each phase should be reviewed by the FL and PL to ensure accuracy and completeness. Upon final completion of operations, the FL ensures the log is accurate and complete and delivers it to the processing lead. The processing lead verifies the form and provides it to OET for metadata entry. Once entered, the metadata is verified by the processing lead as having been entered correctly. If questions arise, open communication between any or all parties is expected to ensure the most correct values are used.

8. **Management/Responsibility** ED/EDB/OET is responsible for the maintenance of these procedures (including the log and instructions) with the review of OD/PMAB/CECAT and ED/AOB and POB Current Operations. Approval of any changes requires the concurrence of the ROS Step 5 coordinator(s). Any technical questions should be addressed to the CECAT or OET leads.

Appendix A
Instructions for Completing the Fields of the NCOP Current Station Log

These instructions provide step-by-step guidance on completing the individual fields of the NCOP Current Station Log (5.4.4.1.A.1). Requirements for each field are provided to ensure uniformity.

A. General Conventions

The following general conventions are used to describe the required format of fields throughout these instructions:

A.1 Format

text	any combination of letters and/or numbers.
number	a numeric value must be entered.
L	a letter must go in that position
#	an integer
$	any character
m	a number representing meters
D	an integer for degrees
d	a decimal
s	a number representing seconds
Date or M/D/YYYY	numbers representing Month/Day/Year with four-digits
HH:MM:ss	numbers representing Hours:Minutes:Seconds in UTC.
Checkbox	If a yes or no option exists, a checkmark will suffice.

A.2 Units

Units are generally metric with the exception of Lbs. and nautical miles.

1. **Date and time** are ALWAYS in UTC and in 24 hour format. UTC is Coordinated Universal Time, and is similar to GMT, +0, and Z, or 'Zulu', in that it is the time at the prime meridian with no correction for daylight savings). When setting the computer's clock, there may be multiple UTC +0 times available. Make sure that you selected either Coordinated Universal Time, if available or Casablanca as no daylight savings is observed.
    a. HHmm or HH:mm are both acceptable.
2. **Lengths (including depths and heights but excluding distances)** are in meters.
    a. Either use whole meters or tenths of a meter, unless otherwise specified.
    b. Rounding should be done if needed using standard conventions.
    c. 1m ≈3.28 feet
3. **Latitude** is expressed as ##.ddddd in °N

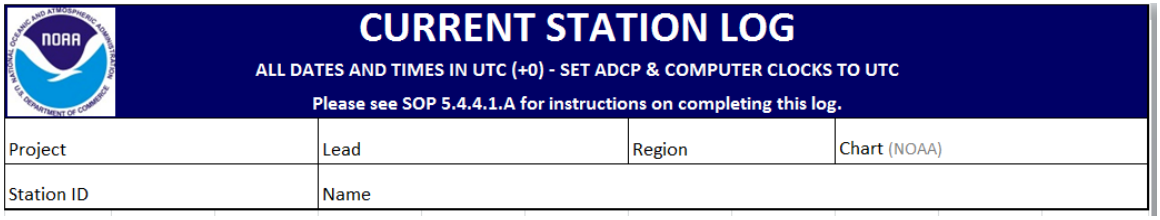
a. If other than °N make note

4. **Longitude** is expressed as ###.ddddd °W
    a. If other than °W make note
5. **Temperatures** are always °C
    a. (°C=(°F-32)*5/9)
6. **Distances** can be either in nautical miles (nm) or meters (m), depending upon scale or purpose. Distances are not expressly used in the form, but can be used in notes and as a reference, along with bearing, to a geographic point in a name (I.e Cape Smith 1.5 nm SSE of).
    a. 1852 meters= 1 nm
    b. 6076 feet= 1nm
    c. 2025.33 Yards= 1nm

B. Fields

The fields follow the sections described in 5.4.4.1.A. In general: Any field with a white background can be filled out in advance of field operations; a field with a green background should be filled out during deployments; and a field with a red background during recoveries.

B.1 Station Information



CURRENT STATION LOG

ALL DATES AND TIMES IN UTC (+0) - SET ADCP & COMPUTER CLOCKS TO UTC

Please see SOP 5.4.4.1.A for instructions on completing this log.

Project	Lead	Region	Chart (NOAA)
Station ID	Name		

Figure 1 - Header and Station Information

Project	Text	Name of the project [*San Francisco Bay 2013* or *Florida Keys 2012*]
Lead	Text	Name of the project lead [*Earwaker*]
Region	Text	Ocean Basin or other large region [*Pacific, Gulf of Mexico, Atlantic, Great Lakes, etc]*.
Chart	Number	NOAA Chart number(s) best representing the station and surrounding area. May or may not be the largest scale (smallest area) chart available. [*18649*]

Station ID	LLL####	Unique seven-character station identification. Generally three letters signifying the water body and four integers with the year and station number. For San Francisco 2013 station number 4 (as designated in the plan) the Station ID would be *SFB1304.* Station number 20 would be *SFB1320*, etc. [*FLK1201*]
Name	Text	Typically, a geographically referenced name as established by Project Lead and identified in the plan or as used in the *Tidal Current Tables*. Placeholder names should be avoided. [*Point Bonita Light, 1nm South of.*]

B.2 Operations

OPERATIONS Units: all positions in DD.dddd; all times in UTC, depths in Meters (3.28 ft/m)					
Planned	Lat DD.ddddd		Long DDD.ddddd		Depth m
Deploy	Date mm/dd/yyyy	Field Lead		Field Party	
	Vessel	Captain			
	On Station HH:MM UTC	Released HH:mm		On Bottom HH:mm	
	Lat DD.ddddd		Long DDD.ddddd		Depth m
2°anchor	Lat DD.ddddd		Long DDD.ddddd		Depth Source
Magnetic Variation (+E/-W °)			http://www.ngdc.noaa.gov/geomag-web/#declination		
Flood Direction °T			Based upon		
CTD	Date mm/dd/yyyy	Time HH:MM	Lat DD.ddddd	Long DDD.ddddd	
	Depth m	Avg temp °C	Salinity PSS or PSU	Avg sound speed (m/s)	
Deployment Notes					
Recover	Date mm/dd/yyyy	Field Lead		Field Party	
	Vessel	Captain			
	On Station (HH:mm UTC)	Release 1 HH:mm	Release 2 HH.mm	Surface HH.mm	Depth m
	Lat DD.dddd		Long DDD.dddd		Depth Source
CTD	Date mm/dd/yyyy	Time	Lat DD.dddd	Long DDD.dddd	
	Depth m	Avg temp °C	Salinity PSS or PSU	Avg sound speed (m/s)	
Recovery Notes:					

Figure 2 – Operations, including subsections on planned, deploy and recover.

B.2.1 Planned (White section)

This section may be filled out prior to field operations.

Lat	DD.ddddd	Latitude of the planned location in decimal degrees with 5 significant digits as provided by the plan. If only 4 digits were provided add a trailing zero; if more than 5 digits, standard rounding practices apply. Latitude is assumed to be °N, if other, please note. [*38.04760*]
Long	DDD.ddddd	Longitude of the planned location in decimal degrees with 5 significant digits as provided by the plan. If only 4 digits were provided add a trailing zero; if more than 5 digits, standard rounding practices apply. Longitude is assumed to be °W, if other, please note. [*122.33510*]
Depth	##.d	Depth in meters to the nearest tenth if given. Based upon the plan. [*24.2*]

B.2.2 Deploy (Green Section)

This section is filled out during deployment operations.

Date	Date	Date in UTC that the deployment occurs [*01/01/2014*].
Field Lead	Text	Name of Field Lead [*Bassett*]
Field Party	Text	Name of all NOAA personnel onboard. [*Brkich, Sanford, Ishmael*]
Vessel	Text	Name of vessel [*R/V Discoverer*]
Captain	Text	Nave of Vessel's Captain [*Cook*]
On Station		Time Time in UTC of arrival on station [*1800*]
Released	Time	Time in UTC of releasing the instrument [*1830*]
On Bottom	Time	Time in UTC of instrument arrival on the bottom (estimated) [*1832*]
Lat	DD.ddddd	Latitude of the deployed location in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of release. Standard rounding practices apply. Latitude is assumed to be °N, if other, please note. [*38.04765*]
Long	DDD.ddddd	Longitude of the deployed location in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of release. Standard

		rounding practices apply. Longitude is assumed to be °W, if other, please note. [*122.33512*]
Depth	##.d	Depth in meters to the nearest tenth if given. Based upon the actual depth recorded on the fathometer or other device. [*24.4*]
2° Anchor		
.. Lat	DD.ddddd	Latitude of the dragline anchor in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of setting. Standard rounding practices apply. Latitude is assumed to be °N, if other, please note. [*38.04768*]
.. Long	DDD.ddddd	Longitude of the dragline anchor in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of setting. Standard rounding practices apply. Latitude is assumed to be °W, if other, please note. [*122.33516*]
Depth Source	Text	Source of depth recorded. Generally a fathometer, but may be a single beam, multi-beam sonar, lead line, or charted. [*fathometer*]
Mag. Var.	(+/-) ##.d	Using the NGDC calculator (or its successor) at the link provided on the form, [http://www.ngdc.noaa.gov/geomag-web/#declination] determine the magnetic variation (the angular difference between the true and magnetic North Poles) using the location and date of station occupation. Note the sign convention of (+) for °E and (-) for °W. [*-16.4*]
Flood Dir.	###°T	Approximate flood direction at the station in degrees true. [*045*]
Based Upon	Text	Basis upon which the flood direction was estimated. [*Tide Tables, observation, channel, etc*].

CTD

These fields are for a CTD cast taken at deployment and are based upon a YSI Cast Away CTD. If using other, enter as much information as possible based upon that sensors output.

Date	M/D/YYYY	Date of the CTD cast in UTC as provided by the sensor if available.
Time	HH:MM	Time of the CTD cast in UTC as provided by the sensor if available.
Lat	DD.dddd	Latitude of the CTD Cast in decimal degrees with 4 significant digits as indicated on the sensor if available, or a GPS. Standard rounding practices apply. Latitude is assumed to be °N, if other, please note. [*38.04768*]
Long	DDD.dddd	Longitude of the CTD Cast in decimal degrees with 4 significant digits as indicated on the sensor if available, or a GPS. Standard rounding practices apply. Longitude is assumed to be °W, if other, please note. [*122.33518*]
Depth	##.d	Depth in meters, to the nearest tenth if given. Based upon the actual depth recorded on the CTD if available. [*24.4*]
Ave Temp	##.d	Temperature in °C as reported by the CTD. [*8.3*]
Salinity	##.dd	Salinity in PSS or PSU as provided by the sensor. [*33.35*]
Avg Sound Speed	####	Average speed of sound as provided by the sensor, in m/s. Round to the nearest whole number.
Deployment Notes	Text	General notes or observations on the deployment. Use this space to provide any lessons learned or elaborations.

B.2.3 Recover

This section is filled out during recovery operations.

Date	Date	Date in UTC that the deployment occurs [*01/01/2014*]
Field Lead	Text	Name of Field Lead [*Roggenstein*]
Field Party	Text	Name of all NOAA personnel onboard. [*Maddock, Standridge, & Spock*]
Vessel	Text	Name of vessel [*R/V Fram*]
Captain	Text	Nave of Vessel's Captain [*Nansen*]
On Station	Time	Time in UTC of arrival on station [*1100*]

Release 1	Time	Time in UTC that the first attempt at opening the release is made. [*1115*]
Release 2	Time	Time in UTC that the second attempt at opening the release is made if a single release, or time of attempting to open second release if dual releases are present. [*1120*]
Surface	Time	Time in UTC that the float or instrument breaches the surface. [*1122*]
Lat	DD.ddddd	Latitude of the recovery location in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of release. Standard rounding practices apply. Latitude is assumed to be °N, if other, please note. For bottom mounts, this location is determined by taking a GPS (or similar) reading when the recovery line is taut and tending up and down. [*38.04764*]
Long	DDD.ddddd	Longitude of the recovery location in decimal degrees with 5 significant digits as indicated on the GPS or other positioning device at the time of release. Standard rounding practices apply. Longitude is assumed to be °W, if other, please note. For bottom mounts, this location is determined by taking a GPS (or similar) reading when the recovery line is taut and tending up and down. [*122.33516*]
Depth	##.d	Depth in meters to the nearest tenth if given. Based upon the actual depth recorded on the fathometer or other device at the time of recovery. [*25.2*]
Depth Source	Text	Source of depth recorded. Generally a fathometer, but may be a single beam, multi-beam sonar, lead line, or charted. [*fathometer*]
CTD		These fields are for a CTD cast taken at recovery and are based upon a YSI Cast Away CTD. If using other, enter as much information as possible based upon that sensors output.
Date	M/D/YYYY	Date of the CTD cast in UTC as provided by the sensor if available.
Time	HH:MM	Time of the CTD cast in UTC as provided by the sensor if available.

Lat	DD.dddd	Latitude of the CTD Cast in decimal degrees with 4 significant digits as indicated on the sensor if available, or a GPS. Standard rounding practices apply. Latitude is assumed to be °N, if other, please note. [38.04777]
Long	DDD.dddd	Longitude of the CTD Cast in decimal degrees with 4 significant digits as indicated on the sensor if available, or a GPS. Standard rounding practices apply. Longitude is assumed to be °W, if other, please note. [122.33512]
Depth	##.d	Depth in meters, to the nearest tenth if given. Based upon the actual depth recorded on the CTD if available. [25.3]
Ave Temp	##.d	Temperature in °C as reported by the CTD. [9.4]
Salinity	##.dd	Salinity in PSS or PSU as provided by the sensor. [32.35]
Avg Sound Speed	####	Average speed of sound as provided by the sensor, in m/s. Round to the nearest whole number.
Recovery Notes	Text	General notes or observations on the deployment. Use this space to provide any lessons learned or elaborations

B.3 Platform

This section describes the platform used. Much of this section may be completed prior to operations if specifics are known beforehand. The white section at the top is determined by the project lead working with the engineering to determine the platform configuration.

PLATFORM						
Type		Height m		Method		
Rec Line	Length m		New or Used	Type/Notes		
2° Line	Length m		New or Used	Type/Notes		
	Model	S/N	Enable	Disable/Transmit	Release / Receive	Ch./ code
Release 1						
Release 2						
Argos						
Pinger						
Platform Notes						
Platform checklist completed?			Filename:			

Figure 3 - Platform section, including electronics.

Type Text Type of platform used [*TRBM, MTRBM, mTRBM, ES2, SUBS, etc.*]

Height ##.d Height of ADCP in the platform above the seafloor in meters.

Method Text Means of deploying platform. [*free fall, slip line or lowered*].

Rec & 2° Line

These fields are for the lines used as the primary recovery line (to float from base) and the secondary recovery line (from the base to a mushroom or other anchor to act as a ground-line for dragging). No entry is made for taut-line moorings.

Length ### Length of the line in whole meters. Should typically be at least 3x water depth. [*45*]

New or Used Text Is the line being used new, or has it been used previously? [*New, Used*]

Type/Notes Text The type of line used [*Spectra, Vectran, polypropylene, etc*] and any general notes or observations [*only used once and not frayed or damaged*].

Electronics

This subsection contains information on electronics included on the station, such as releases and beacons. It is set up as a table with the type of electronics on one axis and the specs (Model, S/N, frequencies and codes) on the other. Requirements for the fields vary by make and model and may change over time. Refer to the manufacturer's manual (available in the ROS in 4.3.1.3(C)) if needed.

Model	Text	The manufacturer's model, or the manufacturer itself if no model given.
S/N	Text	The serial number of the device as established by the manufacturer or assigned internally.
Enable	Number	The code or frequency provided by the manufacturer to enable communications with the device.
Disable/Transmit	Number	The code or frequency provided by the manufacturer to disable communications with the device, or the frequency the deck box should be set at to receive communications (device transmits at that frequency).
Release/Receive	Number	The code or frequency provided by the manufacturer to activate the release function with the device, or the frequency the deck box should be set at to transmit communications (device receives at that frequency) .
Ch./ Code	Text	Either the channel number on a transponder (pinger), typically user-selectable using dip-switches, or a letter code on a release as provided by the manufacturer.
Platform Notes	Text	General notes or observations on the platform, such as damage or instrumentation not otherwise captured. Use this space to provide any lessons learned or elaborations.

Checklist completed?

	Checkbox	Indication if the checklist for setting up the platform has been completed or not. Not all platforms have checklists as of this writing.

Filename Text If the checklist was scanned in, provide the name and location of the file here.

B.4 Sensor

This section contains information on the sensor used at the station, typically an RDI Acoustic Doppler Current Profiler (ADCP). This section can be partially filled out prior to field operations; however compass calibrations should be conducted in accordance with manufacturer's instructions.

Station ID	Please see SOP 5.4.4.1.A for instructions on completing this log	
SENSOR		
Type	Freq	S/N
Sensor Checklist completed?	Firmware	Orientation
Filename:	Compass Cal Before	After (<5°)
Sensor Notes		

Figure 4- Sensor Section including Page 2 Station ID header

Station ID	LLL####	Enter the same station ID (if it did not do so automatically) in this space and on the top of page one of this form (see B.1 above). [*FLK1201*]
Type	Text	Manufacturer or model of instrument used, as specified in the NPDB. [*Workhorse ADCP*]
Freq	Number	Frequency of the sensor denoted with a kHz (typical) or MHz . [*600kHz*]
S/N	Text	The serial number of the device as established by the manufacturer or assigned internally.

Sensor Checklist completed?

	Checkbox	Indication if the checklist for setting up the sensor has been completed or not. ADCP's have a checklist which should be completed prior to deployment. If using other than a Teledyne RDI some modification may be required.
Firmware	Number	The version of firmware presently installed on the sensor. Usually indicated on the checklist or through communications with the instrument.
Orientation	Text	Orientation of the sensor within the platform. Typically up, but other orientations are possible in taut-line or buoy mounted systems. [*up*]

Filename	Text	The name (and location if on the network) of the log file saved during the setup.

Compass Cal
Prior to deploying a sensor a compass calibration must be performed in compliance with manufacturer's instructions. The results of the calibration are recorded here.

.. Before	##.d	compass error, in degrees after the first stage of the compass calibration as given by the instrument; can be found on the instrument checklist. [*5.5°*]
.. After	##.d	compass error, in degrees after the final stage of the compass calibration as given by the instrument; can be found on the instrument checklist. Final error should be below 5°. [*0.25°*]
Sensor Notes	Text	General notes or observations on the sensor, including the condition. Use this space to provide any lessons learned or elaborations.

B.4.1 Plan

This section contains the configuration and the results of planning software. A screenshot of Teledyne RDI's *PlanADCP* (Figure 6) is provided for illustrative purposes.

Plan			
Plan file		Depth	Salinity
Range	1st cell	Last cell	Max
Sigma	Storage Est.	Battery Usage	CF 111n1?
Planning Notes:			

Figure 5- Sensor Plan section.

Plan file	Text	The name (and location if on the network if available) of the log file saved during the setup.
Depth	## or ##.d	Depth in meters, based upon the depth entered into the plan software; can be whole meters or tenths. If using TRDI's plan software, it is the amount entered under transducer. In bottom mounts this number will be close to the actual depth, with taut-line moorings, it will be about depth-sensor height above the bottom. [*10*]

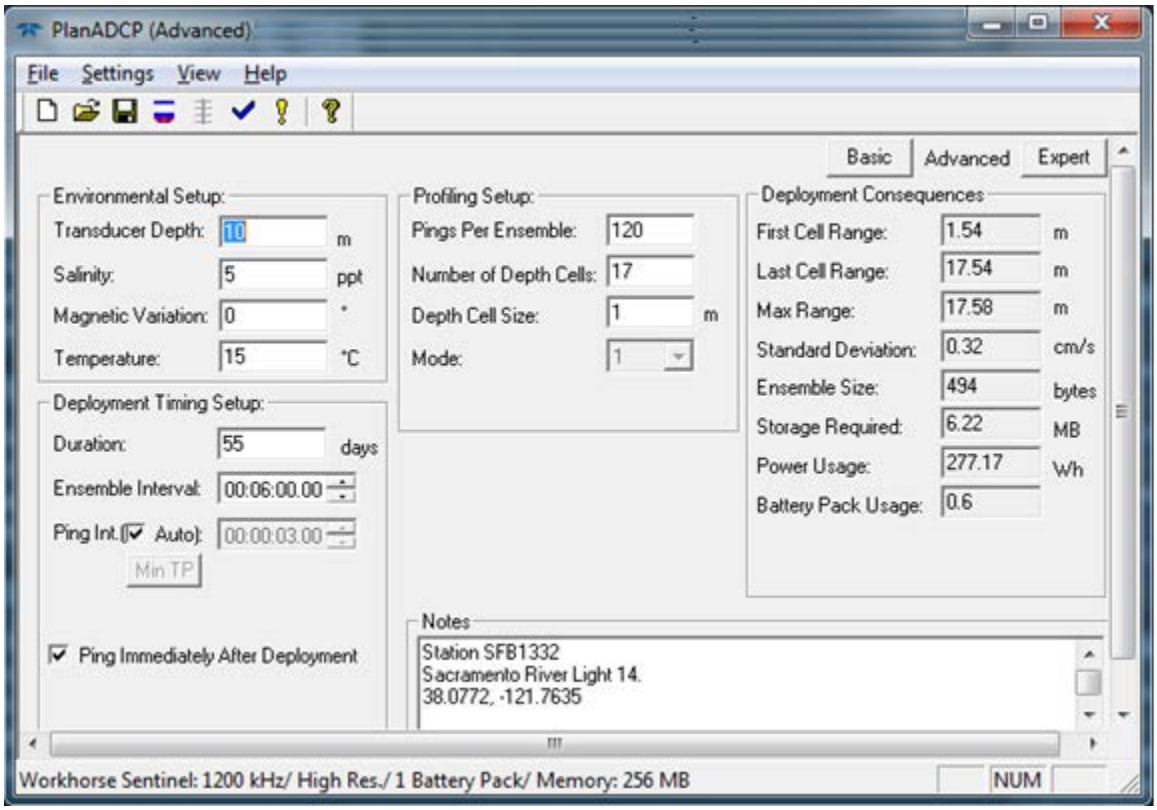


Figure 6- Example of TRDI's Plan software

Salinity ## Estimated salinity, in ppt based upon the value entered in the planning software. [*5*]

Range

The estimated ranges for data collection as based upon the output of the planning file, as seen in the example on the right hand column under *Deployment Consequences*.

.. 1st cell ##.dd Distance of the first cell from the transducer head. [*1.54*]

.. Last Cell ##.dd Distance of the last cell from the transducer head, based upon the configuration. [*17.54*]

.. Max ##.dd Theoretical maximum range of the range based upon the frequency and the present configuration and mode. [*17.58*]

Sigma #.dd Standard deviation of ensembles from the software. Should be less than 1.00. [*0.32*]

Storage Est.	#.dd	Estimated amount of space required on the internal storage [*8.66*]
Battery Usage	#.d	Estimated amount of battery depletion from 1.0 (100%) to 0. [*0.6*]
CF111n1?	Text	Verify that the settings in the plan file show the command CF111n1 where n can be either a 1 or 0. This command instructs the sensor to record internally. Can only be no if it is cabled to an external data logger, otherwise must be set correctly (and then only if n=1). [*Yes* or *no*]
Planning Notes	Text	General notes on any assumptions or deviations from the norm used in the planning of the sensor configuration.

B.4.2 Settings

This section records the settings actually used in the configuration of the sensor. The values of most fields can be found in the log file captured during configuration.

Settings				
Log file			Deployment Name	
Pressure coefficients	C3	E	C2	E
	C1	E	Offset	E
Time in UTC verify computer is set to UTC			Bins/Cells	
Interval (TE)			Blank (WF)	
Start Pinging (TF)			Number (WN)	
Pings/Ensemble (WP)			Size (WS)	
Time/ping (TP)			Ambiguity (WV)	
Time Set (TS)			Center to Bin1	
Ensured data are being recorded internally (CF 111n1) and checklist is complete (if applicable).				

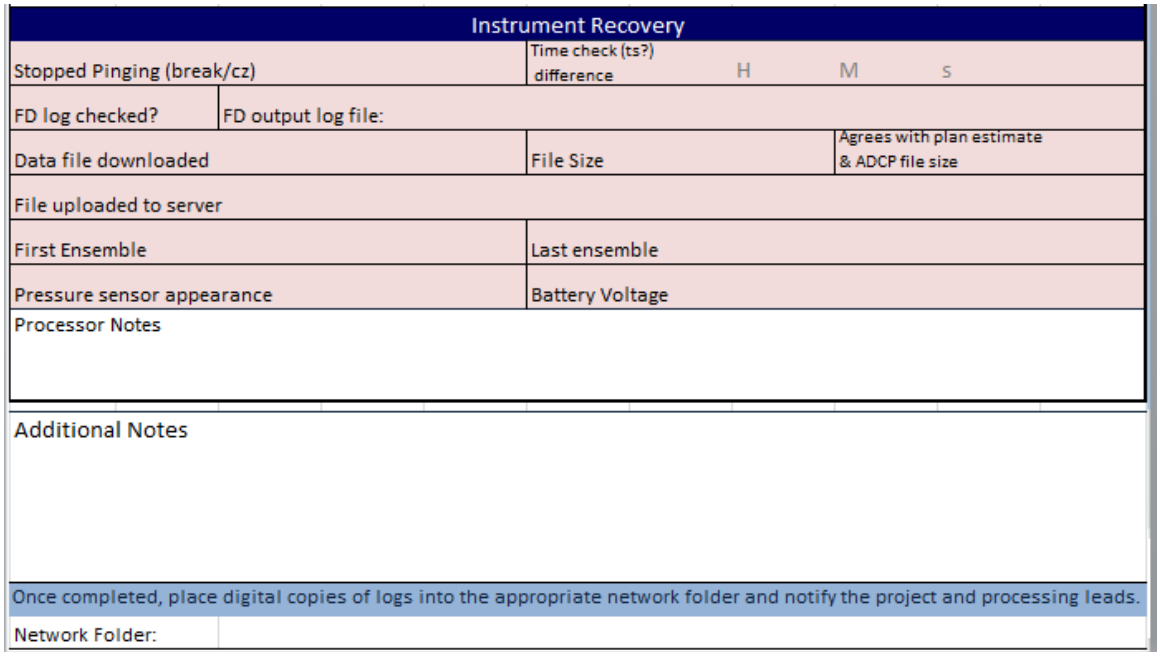
Figure 7 - Settings Section

Log File	Text	Name and location on the network (if known) of the configuration log file. Typical naming is the station_setup_Sensor Serial number. [*SFB1215_setup_SN7526*].
Deployment Name	LL$##	Deployment name is set for Teledyne RDI ADCP's using the RN command and is 5 characters long. The standard naming convention is to use at least the first 2 spaces as the water body and the last two for the station number. The final slot can either be the number of the last digit of

		the year for a multi-year survey or the 3rd character from the water body. [*SF301* or *FLK03*]
Pressure coeff.	Number	These are found are found on the log file after the PS0 command or can be obtained directly from the sensor using the 'AP?' command. [*5.733217E-13 -1.426368E-08 3.311908E-02 -4.461214E+00*]
Interval (TE)	HH:MM:ss.dd	This is the ensemble length, typically six-minutes. [*00:06:00.00*]
Pings/Ensemble (WP)	###	Number of pings per ensemble. [*90*]
Time/Ping (TP)	MM:ss.dd	Amount of time per ping, usually determined by the software. [*00:04.00*]
Time Set	Y/M/D, HH:MM:ss	Time TS command was sent. Helps verify that the date and time is correct on the sensor. [*13/07/14,20:25:27*]
Blank (WF)	#.dd	Distance in meters required for the transducers to quiet to be able to receive the signal back. Typically set by the sensor, but can be modified. [*88*]
Number (WN)	##	Number of bins in the profile. [*20*]
Size (WS)	###	Bin size in meters (WS is in centimeters, but should be converted to meters on the log) . [*050*]
Ambiguity (WV)	###	Ambiguity velocity. Typically 175 cm/s, but can be modified. See sensor manual form more information. [*175*]
Center to Bin 1	#.dd	Distance to the center of bin or cell 1 in meters. [*1.54*]
Ensured data are being recorded internally (CF111n1) and checklist is complete (if applicable).		
	Checkbox	If the settings were checked and the checklist is complete, Yes (or checkmark) otherwise, no. [*Yes or no*].

B.4.3 Instrument Recovery

This section records information obtained at the time of sensor recovery and includes checks of the sensor's health. Care should be given to ensuring the clock drift is recorded correctly and any faults noted.



Instrument Recovery			
Stopped Pinging (break/cz)		Time check (ts?) difference H M s	
FD log checked?	FD output log file:		
Data file downloaded		File Size	Agrees with plan estimate & ADCP file size
File uploaded to server			
First Ensemble		Last ensemble	
Pressure sensor appearance		Battery Voltage	
Processor Notes			
Additional Notes			
Once completed, place digital copies of logs into the appropriate network folder and notify the project and processing leads.			
Network Folder:			

Figure 8 - Instrument Recovery Section

Stopped pinging	Time	Time (or date and time if day is not the same as recovery) that the cz or break command was sent to stop the sensor from pinging. [*1845*]
Time check difference	+/-HMs	Number of hours, minutes and seconds of difference between the ADCP and the actual time in UTC based upon a 'ts?' or similar command. Pay careful attention to all three, as well as the date. A positive number means the sensor's clock is fast. [*+0, 1, 30*]
FD Log Checked	Checkbox	Did you check the fault log by using command FD?
FD Error Log File	Text	If there were errors present in the sensor, record the output and save the file. Make a note of the file name in this field.
Data file downloaded	Text	Name of the data file(s) downloaded. Usually a *.000 file. [*SF301001.000*]

File Size	#.dd	Size of the downloaded file, in MB.[*8.54*]
Agrees with plan estimate & ADCP Size	Text	Verify that the size of the file is about the same size as the predicted file and is the same size as the file(s) on the sensor.
File uploaded to server	Text	Location on the network that the file is uploaded to.
First ensemble	Date and Time	Date and time of the first data record collected.
Last ensemble	Date and Time	Date and time of the last data record collected.
Pressure sensor appearance	Text	General appearance of the pressure sensor orifice, making note of any fouling or debris.
Battery Voltage	#.dd	Voltage of the battery after recovery in VDC. [*18.5*]
Processor Notes	Text	Notes for the processor, or to be included on the processing checklist.
Additional Notes	Text	Any notes not otherwise captured. This field can also be used for continuation of notes from other sections above.
Network Folder	Text	Location on the network for files related to this station.