

Underway Geophysics Lab Cookbook

Seismic Survey Considerations

DRAFT JUNE 2002

Pre-Survey Considerations:

- Ask the co-chiefs (or survey proponents) for the survey line (with waypoints) and desired ships speed. Tell them to give a copy of the survey line to the bridge well in advance of the survey (or you can bring a copy of the proposed survey line to the bridge).
- Ask the proponents to take into account that the UW lab needs about 30 mins to a 1 hour for equipment set-up and testing before the survey.

Some questions to ask the survey proponents are:

- What is the expected water depth?
 - What is the expected length of survey?
 - Which gun do you want to use?
 - What filtering do you want to use on both the analog recorders and the SUN?
- etc.

Data Collection Set-Up:

- Enter survey line to WinFrog 1. See the WinFrog Cookbook, "Setting up Waypoints and Survey Line for Seismic Survey" for the specifics. Be sure to delete the Vehicle "Sedco 471" from the graphics screen.
- Label two tapes, one 4mm and one 8mm tape (e.g. Leg 203, L1S, Seismic Survey). Load into tape drive on whichever SUN will be used to collect data.
- Check the EPC recorder paper supply on the EPC 4 recorders. If you think you will run out of paper in the middle of a survey, change the roll before the survey begins.
- Start testing all systems several days ahead of time.
- Set up Waypoint Checklist in your leg notebook. This information may be useful for later data processing. Here is an example.

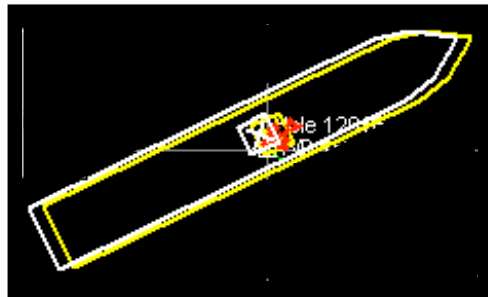
Waypoint Checklist
(SITE SURVEY, PAT-26A (Site 1216), Leg 199)

WP #	LAT - LONG	COMMENT	FIX/SHOT# (WINFROG)	SEG-Y Shot # (SUN)	TIME (UTC)	JULIAN DAY	NOTES
SETUP POINT	N 21 36.00 W 139 31.60	STREAM GEAR COME TO 6 KNOTS					
WP #1	N 21 32.00 W 139 30.30						

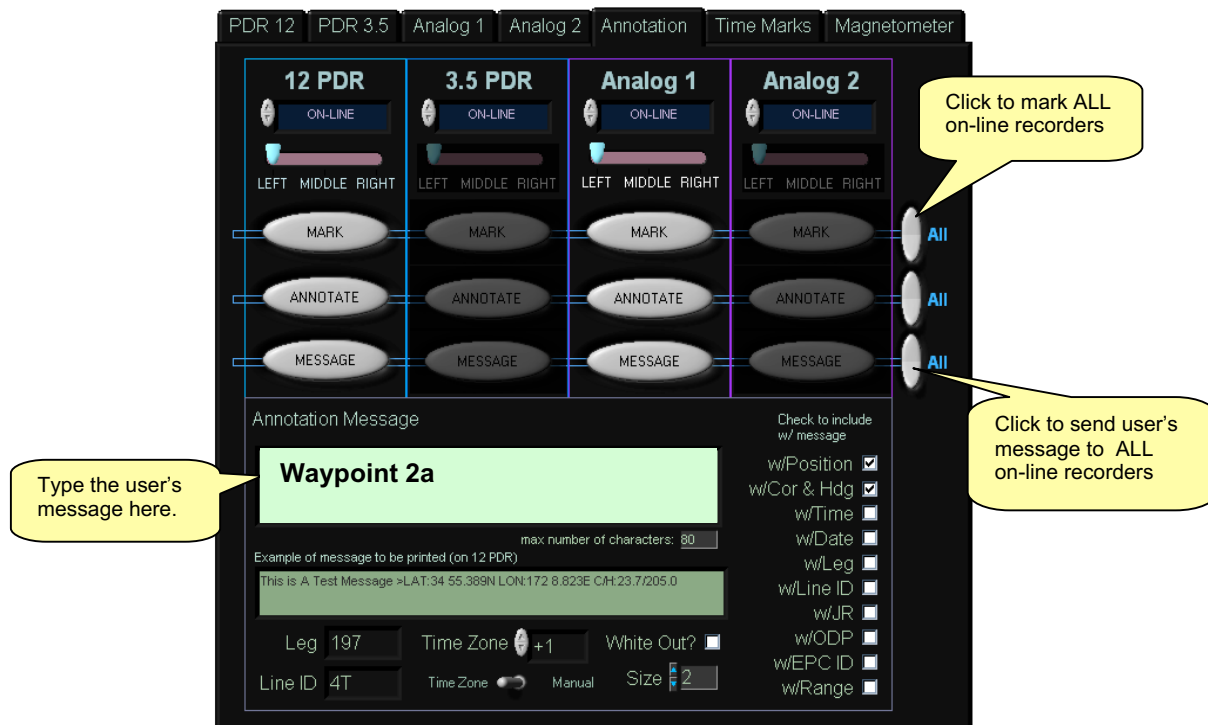
WP #2a	N 21 27.162 W 139 28.68	PAT-26A (Site 1216)					
WP#3	N 21 25.00 W 139 28.00						
WP#4	N 21 28.00 W 139 26.00						
WP#2b	N 21 27.162 W 139 28.68	PAT-26A (Site 1216)					
WP#5	N 21 26.60 W 139 31.50	PULL GEAR, CALL BRIDGE WHEN GEAR IS IN					

Event Annotation for Seismic Surveys:

1. During the survey, set the zoom in the graphics display in WinFrog1 large enough so the “x” that marks the moonpool is always visible.

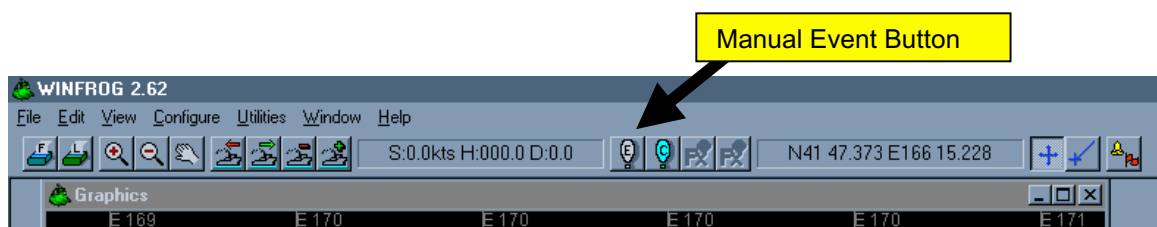


2. Just as the moonpool crosses a waypoint, call-out to your analog record markers (typically the tech doing Underway Watch) to mark all records by clicking on the “mark” and “message” buttons in the Labview UW Watch Application on WinFrog 2 (note: make sure the “Annotation Message” is updated to the current waypoint number). Have the tech-on-watch make note of the waypoint name and time in the handwritten UW Geophysics Log.



The word “MARK” said loudly by the Underway Tech usually gets the attention of the tech-on-watch and besides it’s about the only time during a cruise when one gets to yell in a socially acceptable way.

3. At the same time, you (the UW tech) should click on the “manual event” button in WinFrog 1.



A screen will pop up asking for the name of the event. You might want to call it the waypoint # (or the site number if you are over the waypoint for the proposed drill site). Make note of the WinFrog Fix (Shot)# and the SEG-Y (Sun) Fix # in your handwritten Waypoint Checklist.

4. Manually update to the next waypoint in WinFrog 1 by going to the Waypoint Button in the vehicle screen and selecting the next waypoint in the survey line.