

## Trip Objectives:/Accomplishments = (√) Not Done = (°)

- ü Service ADCP's (EL, BH, OK
- ü Splice OK shore cable
- ü Swap out Sediment traps
  - Retrieve extra ADCP pod from EL
- ü Install new ADCP pod at OK 30 feet closer to shore (Cable splice)
- ü Install new screw anchor/pipe for OK sediment trap near new pod
  - Retrieve old ADCP pod from OK

### Data:

#### Good Data:

- ü EL14, OK15, BH15, BH time set to DST instead of EST for deployment BH15 ending 8 Dec 03)

## Equipment Recovered and Deployed

Location	Equipment	Recovered SN	Deployed SN	Date
BH	ADCP	2989	0481	8 Dec 03
OK	ADCP	1885	2989	9 Dec 03
EL	ADCP	1818	1091	9 Dec 03
BH	Ext Battery	3027	ADCPBAT001	8 Dec 03

OK	Ext Battery	BAT002	194	9 Dec 03
EL	Ext Battery	3020	161	9 Dec 03
OK	ADCP Pod	None	N/A	9 Dec 03
BH	Sed. Trap	N/A	N/A	8 Dec 03
OK and El	Sed. Trap	N/A	N/A	9 Dec 03

All pulled instruments were cleaned and returned to the FRF.

**NEXT SERVICE DUE DATE: 16 June 2004**

EL15 is good for 190 days from 9Dec to 16Jun04

OK16 is good for 98 days if it has to go to battery power

BH16 is good for 211 days from 8Dec03 to 7Jul04

Actual service date to be determined

OK splice was completed and new pod was deployed approximately 50 toward shore.

Communications with the gage to the shore were verified.

Amp meter verified that the gage is using power from shore. During send data the gage draws approx 1.7 to 1.8 milliAmps, during idle time (currents) drops to .07 mA.

**OK shore station:**

AC power: Having a new circuit breaker (Non-GFI) installed in house with separate line down to room under house where computer is. This is to prevent tripping existing GFI circuit breaker, which is not compatible with our AC surge suppressor. Cost approx. \$175.

The UPS battery is dead and the UPS is too small. I will find a replacement and have it sent to Buck Vest for installation. Meanwhile Buck has installed a loaner. I'd like a

smart UPS that would notify us via the computer when power goes out. I will ask Cliff and Kent for help with this.

Web site: The EHI Wilmington web page is not updating. Keith Kurrus was checking on it in Seattle.

Gage is running via WavesMon Real Time and was operating fine when I left 10Dec 03.

### **Suspense Items:**

**OK UAT:** Replace UAT it has corrosion inside it. New batteries installed and it's working.

**Sediment Traps:** The new traps for BH, OK and EL were not taped so the Plexiglas will be covered with barnacles when we recover them. Can we get replacement canisters?

OK the sediment trap needs to be moved to the new pod location. Requires jetting in a pipe or screw anchor.

**Old ADCP pods:** The old pods at EL and OK need to be recovered.

**OK shore station:** Need to get the station running as it was before the cable problem. Then transfer communications and reporting to FRF.

Steps to achieve transfer to FRF:

- 1) Understand how it is being done now with help from EHI
- 2) Set up the BH computer here at the FRF and run a mock system
- 3) Upgrade software in shore station (WavesMon)
- 4) Obtain software from EHI or have EHI purchase new (SnagIT, Newsender, PC Anywhere)
- 5) Set up BH computer to replace OK computer and redirect output to FRF

- 6) Set up web page on FRF Wilmington web site
- 7) Notify all users of new web address (put new address link on EHI server)

**Chronology and technical data from 7-10 Dec 03 Service trip:**

<b>Location</b>	<b>Lat</b>	<b>Lon</b>	<b>UAT Freq</b>	
BH	33° 50.6633 N	078° 00.6633 W	25 Khz	
Old OK	33° 53.6668 N	078° 05.0717 W	30 Khz	
New OK	33° 53.6739 N	078° 05.0653 W	30 KHz	Eason Waypoint 45
EL	33° 43.2774 N	078° 00.7969 W	28 KHz	

Replaced batteries on BH and OK UAT's. OK UAT needs to be replaced it has corrosion inside it from leaking batteries.

All ADCPs had ping check and Destin cream applied to transducer faces

7 DEC 03 At FRF packed Excursion and hitched Zodiac

Arrived Southport went to hotel

8DEC 03 At Coast Guard station put 2 ADCP cassettes together and calibrated ADCP compasses. Went to shore station to do preliminary check, cable disconnected computer running.

14:48 divers are ready to depart Oak Island Coast Guard Station dock.

Dive safety brief

16:11 Done with BH service, Sed trap was partially buried and UAT didn't work. Replaced batteries in UAT, tested now works, redeployed

16:21 Diver in to re-deploy UAT pinger 30 KHz

16:45 Back at dock

9 Dec 03

06:00 at OK shore station house, put new AC line from outlet into tub.

07:00 on Eason boat

07:28 Left Dock after dive safety brief

08:10 Anchored at EL

08:17 Diver in 48 ft dept, 55°F, vis 1.5 feet

08:44 new ADCP in water

Sand trap partially buried, changed

Destin

The UAT worked and we didn't change batteries in it

Some sand in pod

09:17 Diver up

09:54 Back at dock

Loaded new pod, pipes, tested jetting pump, launched Zodiac with splice kit, Loaded serviced ADCP for OK

10:45 left dock for OK towing Zodiac

Diver got cable up and put it and Dan in Zodiac

Dan did splice and continuity check on cable with Buck on shore via radio.

Divers jettied in new pod

Put new sed trap on old pod screw anchor

UAT didn't work replaced batteries, now works, but is corroded inside. Deployed on new pod

Divers couldn't recover old pod due to malfunctioning pipe cutter brought from FRF

Waiting for splice to cure

16:30 diver in to deploy cable in pod

Diver brought cable up after threading into pod. Connected cable to ADCP and deployed

Armor slack is in loops near pod. Armor is anchored inside pod with wrap-on to shackle to eyelet in floor of pod. On the soft cable side of splice the cable is anchored in pod via a Kellum Chinese fingers shackled to an eyelet on the other side of the pod

The soft cable is jacketed with garden hose and is coiled up in two coils inside the pod.

17:26 back at dock

New Splice wire continuity

Wire #	Wire #	Resistance
5	4	75.4
5	1	75.4
5	2	75.9
5	3	75.9
5	6	75.8
5	7	75.9

4	1	74.7
4	2	74.8
4	3	75.1
4	5	74.9
4	6	74.8
4	7	74.9