

TROPICAL ATMOSPHERE-OCEAN (TAO) PROGRAM
FINAL CRUISE REPORT
RB-14-04

Area: Equatorial Pacific: 8°N 125°W to 8°S 125°W and 8°S 140°W to 8°N 140°W

Itinerary:

RB-14-04 DEP *August 20, 2014, Newport, OR*
 ARR *September 30, 2014, Honolulu, HI*

CRUISE DESCRIPTION

The Tropical Atmosphere Ocean (TAO) array consists of 70 buoys utilizing a taut line mooring configuration used to mount data collection sensors for climate research purposes. Fifteen buoys are serviced by JAMSTEC and the remaining 55 buoys from 95°W longitude to 165°E longitude are serviced by National Data Buoy Center (NDBC). Repair and maintenance of the buoys is performed by NDBC contracted personnel on an annual basis utilizing the NOAA Ships and other contract vessels. The buoys' deployment lifecycles are up to 18 months to ensure at least one year of data collection can be completed.

NDBC Points of Contact:

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TAO Cruise Objective and Plan:

The objective of this cruise was the maintenance of the TAO Array along the 125°W, and 140°W

meridians.

The scientific complement for the cruise embarked at Newport, OR on August 19, 2014. The ship departed on August 20, 2014 and conducted operations as listed in Section 2.1. The ship arrived in Honolulu, HI on September 30, 2014.

1.0 PERSONNEL

1.1 CRUISE LEAD AND PARTICIPATING SCIENTISTS:

Cruise Lead: James Coleman.

Participating Scientists:

Name	Gender	Nationality	Affiliation
James Coleman	M	US	NOAA/NDBC
Raymond Boone	M	US	NOAA/NDBC
Rodney Watkins	M	US	NOAA/NDBC

2.0 OPERATIONS

2.1 TAO Data Recovery Summary

Mooring Operations conducted are shown in the tables below. The following provides details on the data recovery efforts for the buoys serviced. All noted times in this summary report are Coordinated Universal Time (UTC):

Cruise Summary

Buoy Site: 8N 125W ATLAS			
Mooring Operation: Recovery		Mooring ID#: QM013A	
Deployed Location: 08 00.52N 125 00.32W		Deployed Date: 3/19/13	
Recovered Location: 07 59.78N 124 59.56W		Recovered Date: 9/2/14	
Sensors/Equipment Lost at Sea: T180			
Sensors Damaged/Fouled: Wind monitor damaged, fishing gear on T20			
Fishing/Vandalism: Fishing gear wrapped around T20			
Sensors/Tubes Downloaded: All subsurface downloaded successfully except T180 (lost) and the payload (no comms.)			
General Comments: None			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service

			Observations
Tube (all Met)	7/15/14	Data missing, transmits ceased	None
ATMP/RH	5/13/14	Data erratic	None
SST	6/29/14	Data missing	None
SSS	5/22/13	Drifted high	None
T20	7/15/14	Data missing	Fouled, longliner gear wrapped around
T40 – T140	7/15/14	Data missing	None
T180	1/12/14	Data missing	Lost at sea
TP300	7/15/14	Data missing	None
TP500	4/23/14	Data missing	None

Buoy Site: 8N 125W Refresh	Mooring Depth: 4649 m
Mooring Operation: Deployment	Mooring ID#: DM083A
Deployed Location: 08 02.93N 124 59.22W	Deployed Date: 9/2/2014
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: TP500 stopped transmitting approximately 30min after anchor drop	
General Comments: Routine deployment.	

Buoy Site: 5N 125W ATLAS			
Mooring Operation: Recovery		Mooring ID#: QM007A	
Deployed Location: 05 05.28N 125 56.35W		Deployed Date: 3/30/12	
Recovered Location: 05 04.73N 124 55.95W		Recovered Date: 9/3/14	
Sensors/Equipment Lost at Sea: T80, T100, T120, T140, T180, TP300, TP500, Acoustic Release			
Sensors Damaged/Fouled: None			
Fishing/Vandalism: Nilspin wore down at 120m			
Sensors/Tubes Downloaded: T20 downloaded; No comms. for tube, T40 and T60.			
General Comments: Acoustic release would not function. Deployed line cutter with no success. Used chief boson's hydraulic line cutter to part the Nilspin at approximately 550 meters to release the mooring.			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
Tube (all Met)	2/4/14	Data missing, transmits ceased	No comms.
SST	10/20/13	Data stuck	No comms.
SSS	11/28/12	Drifted high	No comms.
T20	12/21/13	Data missing	None
T40	9/7/12	Data missing	No comms.

T60	12/21/13	Data missing	No comms.
T80	4/28/13	Data missing	Lost at sea
T100	6/4/13	Data missing	Lost at sea
T120	8/22/12	Data missing	Lost at sea
T140	5/25/13	Data missing	Lost at sea
T180	8/2/12	Data missing	Lost at sea
TP300 – TP500	12/20/13	Data missing	Lost at sea

Buoy Site: 5N 125W Refresh	Mooring Depth: 4413m
Mooring Operation: Deployment	Mooring ID#: DM084A
Deployed Location: 05 04.29N 124 55.70W	Deployed Date: 9/4/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: High current in area	

Buoy Site: 2N 125W Refresh			
Mooring Operation: Buoy Adrift, recovery		Mooring ID#: DM033A	
Deployed Location: 01 57.60N 125 01.29W		Deployed Date: 3/31/2012	
Recovered Location: 16 3.02 N 105 58.68 W		Recovered Date: 3/18/2014	
Previous Repair Date: N/A			
Sensors/Equipment Lost at Sea: T20 – TP500, Wind, ATRH			
Sensors Damaged/Fouled: N/A			
Fishing/Vandalism: Upper mast removed – missing all attaching hardware and electronics			
Sensors/Tubes Downloaded: None			
General Comments: Buoy was previously recovered by M/V Bluefin (DA-14-01-BLFN), with just 70 feet of Nilspin remaining.			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
Winds	2/17/14	WDIR erratic	Lost at sea
ATMP/RH	8/30/12	Drifted too low	Lost at sea
SSS	10/25/13	Drifted too low	None
T20	11/26/12	Data missing	Lost at sea
T40 – TP500	6/19/13	Data missing	Lost at sea

Buoy Site: 2N 125W Refresh	Mooring Depth: 4709m
Mooring Operation: Deployment	Mooring ID#: DM085A
Deployed Location: 01 57.87N 125 04.43W	Deployed Date: 9/5/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	

Sensors Damaged During Deployment: None
General Comments: Routine deployment.

Buoy Site: 0 125W ATLAS/CO2			
Mooring Operation: Recovery		Mooring ID#: QM008A	
Deployed Location: 00 11.68S 124 23.61W		Deployed Date: 4/2/2012	
Recovered Location: N/A		Recovered Date: N/A	
Previous Repair Date: None			
Sensors/Equipment Lost at Sea: Payload, AT/RH, Anemometer, Rain gauge, SWR, Acoustic Release, SSC, T20, T40, T60, T80, T100, T120, T140, T180, TP300, and TP500			
Sensors Damaged/Fouled: N/A			
Fishing/Vandalism: Buoy adrift/Mooring lost at sea			
Sensors/Tubes Downloaded: No sensors downloaded.			
General Comments: Acoustic release horizontal on seafloor			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
Tube (all Met)	6/5/12	Data missing, transmits ceased	Lost at sea
Wind	5/25/12	WSPD zeroed out	Lost at sea
Rain	5/25/12	Drifted too low	Lost at sea
T40	4/13/12	Data missing	Lost at sea
T60	4/20/12	Data missing	Lost at sea
T80	4/26/12	Data missing	Lost at sea
T100	5/25/12	Data missing	Lost at sea
T140	4/2/12	Data missing	Lost at sea

Buoy Site: 0 125W Refresh/CO2		Mooring Depth: 4792m	
Mooring Operation: Deployment		Mooring ID#: DM086A	
Deployed Location: 00 10.18S 124 23.23W		Deployed Date: 9/6/14	
Pre-Deployment On Deck Instrument Failures: None			
Sensors/Equipment Lost at Sea: None			
Sensors Damaged During Deployment: None			
General Comments: None			

Buoy Site: 2S 125W ATLAS			
Mooring Operation: Recovery		Mooring ID#: PM983B	
Deployed Location: Buoy Adrift		Deployed Date: 8/11/11	
Recovered Location: N/A		Recovered Date: N/A	
Previous Repair Date: 4/2/12			
Sensors/Equipment Lost at Sea: Buoy hull, Payload, AT/RH, Anemometer, Acoustic Release,			

SSC, T20, T40, T60, T80, T100, T120, T140, T180, TP300, and TP500			
Sensors Damaged/Fouled: Buoy not located			
Fishing/Vandalism: Buoy not located			
Sensors/Tubes Downloaded: All sensors lost at sea.			
General Comments: Buoy determined lost at sea.			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
All (Tube)	5/25/12	Data missing, transmits ceased	Lost at sea
RH	4/2/12	Drifted too low	Lost at sea
T40	4/21/12	Drifted too high	Lost at sea
T60	8/19/11	Data missing	Lost at sea
T180	12/17/11	Data missing	Lost at sea
TP300	10/12/11	Data missing	Lost at sea

Buoy Site: 2S 125W Refresh	Mooring Depth: 4700m
Mooring Operation: Deployment	Mooring ID#: DM087A
Deployed Location: 02 3.64S 124 55.06W	Deployed Date: 9/7/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: None	

Buoy Site: 5S 125W Refresh	Mooring Depth: 4546m
Mooring Operation: Deployment	Mooring ID#: DM088A
Deployed Location: 05 0.61S 124 55.11W	Deployed Date: 9/8/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: 8S 125W Refresh	
Mooring Operation: Recovery	Mooring ID#: DM034A
Deployed Location: 07 59.25S 124 58.83W	Deployed Date: 4/5/12
Recovered Location: 07 58.95S 124 59.58W	Recovered Date: 9/9/14
Previous Repair Date: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged/Fouled: AT/RH crack in housing, T20 fouled, Nilspin head mold broken, SSC fouled with sea growth	
Fishing/Vandalism: None	

Sensors/Tubes Downloaded: No sensors were downloaded as per new procedures			
General Comments: Top section hose severed from Nilspin to bridle; hose corroded			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
Wind	12/28/12	Compass missing	None
ATMP/RH	9/27/12	Drifted low	Crack in housing
SST	7/30/14	Data missing	Fouled
SSS	8/23/12	Drifted low	Fouled
T20	5/3/14	Excessive spiking	Fouled
T40	5/3/14	Excessive spiking	None
T60 – T80	4/14/14	Excessive spiking	None
T100 – T120	5/3/14	Excessive spiking	None
T140	4/14/14	Excessive spiking	None
T180 – TP500	5/3/14	Excessive spiking	None

Buoy Site: 8S 125W Refresh	Mooring Depth: 4510 m
Mooring Operation: Deployment	Mooring ID#: DM089A
Deployed Location: 07 59.14S 124 58.92W	Deployed Date: 9/9/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: DART 51406 Buoy/BPR	
Mooring Operation: Recovery	Mooring ID#: B31568
Deployed Location: 08 28.80S 125 01.80W	Deployed Date: 4/17/10
Recovered Location: N/A	Recovered Date: 9/10/14
Sensors/Equipment Lost at Sea: Surface Buoy lost at sea	
Sensors Damaged/Fouled: None	
Fishing/Vandalism: None	
Sensors/Tubes Downloaded: None	
General Comments: Both second set of floats imploded.	

Buoy Site: 5S 140W Refresh	
Mooring Operation: Recovery	Mooring ID#: DM035A
Deployed Location: 05 00.83S 139 53.92W	Deployed Date: 4/9/12
Recovered Location: 05 00.88S 139 55.56W	Recovered Date: 9/13/14
Previous Repair Date: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged/Fouled: ATRH housing cracked, SSC fouled from sea growth and	

connector pins bent			
Fishing/Vandalism: None			
Sensors/Tubes Downloaded: No sensors were downloaded as per new procedures.			
General Comments: Top section hose severed from nilspin to bridle; hose corroded			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
Wind	12/24/12	WDIR off 30-45°	None
RH	9/14/12	Drifted high	Housing cracked
SST/SSS	4/14/12	Data missing	Fouled, connector pins bent
T20 – TP500	6/2/13	Data missing	None

Buoy Site: 5S 140W Refresh	Mooring Depth: 4357m
Mooring Operation: Deployment	Mooring ID#: DM090A
Deployed Location: 05 00.80S 139 54.25W	Deployed Date: 9/13/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: 2S 140W ATLAS			
Mooring Operation: Recovery/Buoy Adrift		Mooring ID#: QM009A	
Deployed Location: 02 02.05S 140 00.28W		Deployed Date: 4/10/12	
Recovered Location: 02 17.19S 140 27.06W		Recovered Date: 9/14/14	
Previous Repair Date: None			
Sensors/Equipment Lost at Sea: T20, T40, T60, T80, T100, T120, T140, T180, TP300 and TP500			
Sensors Damaged/Fouled: None			
Fishing/Vandalism: Buoy had contact damage.			
Sensors/Tubes Downloaded: No comms with tube or SSC all other sensors downloaded successfully.			
General Comments: None			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
All (Tube)	12/7/13	Data missing, transmits ceased	No comms
Rain	11/15/13	Data erratic	None
Wind	11/15/13	Data missing	None
T20 – T100	7/4/13	Data missing	Lost at sea
T120	1/17/13	Data missing	Lost at sea
T140 – TP500	7/4/13	Data missing	Lost at sea

Buoy Site: 2S 140W Refresh	Mooring Depth: 4333m
Mooring Operation: Deployment	Mooring ID#: DM091A
Deployed Location: 02 02.78S 140 00.71W	Deployed Date: 9/14/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: 0 140W Refresh/CO2	Mooring Depth: 4352m
Mooring Operation: Deployment	Mooring ID#: DM092A
Deployed Location: 00 01.65N 139 58.01W	Deployed Date: 9/16/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: 0 140W ADCP	
Mooring Operation: Recovery	Mooring ID#: CA017
Deployed Location: 00 01.67N 140 02.37W	Deployed Date: 9/2/11
Recovered Location: 00 1.67 N 140 2.37W	Recovered Date: 9/15/14
Previous Repair Date: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged/Fouled: None	
Fishing/Vandalism: None	
Sensors/Tubes Downloaded: ADCP and sensors not downloaded as per new procedures.	
General Comments: ARGOS transmitter was not working	

Buoy Site: 0 140W ADCP	Mooring Depth: 4310m
Mooring Operation: Deployment	Mooring ID#: CA018
Deployed Location: 00 02.37N 140 02.26W	Deployed Date: 9/15/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Routine deployment.	

Buoy Site: 2N 140W ATLAS	
Mooring Operation: Buoy Adrift	Mooring ID#: QM011A
Deployed Location: 02 00.09N 139 58.64W	Deployed Date: 4/13/12

Recovered Location: 08 28.90N 136 17.06W		Recovered Date: 9/20/14	
Previous Repair Date: None			
Sensors/Equipment Lost at Sea: T20, T60, T100, TP300, TP500 and the acoustic release			
Sensors Damaged/Fouled: None			
Fishing/Vandalism: Buoy had green polypropylene rope tied off			
Sensors/Tubes Downloaded: payload had no comms, T120 and T140 were downloaded; all other sensors had low voltage or no comms			
General Comments: Nylon parted ~300m down first spool.			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
All (Tube)	9/6/13	Data missing, transmits ceased	No comms
Wind	6/30/13	Data missing	None
Rain	5/10/13	High rain % with no rain-rate	None
ATMP/RH	9/20/12	Drifted too high	None
SST/SSS	9/6/13	Data missing	Low battery
T20	11/16/12	Data missing	Lost at sea
T40	6/14/13	Data missing	Low battery
T60	6/13/13	Data missing	Lost at sea
T80	6/13/13	Data missing	Low battery
T100	6/13/13	Data missing	Lost at sea
T120	6/13/13	Data missing	None
T140	6/12/13	Data missing	None
T180	7/17/12	Data missing	Low battery
TP300	10/27/12	Data missing	Lost at sea
TP500	6/12/13	Data missing	Lost at sea

Buoy Site: 2N 140W Refresh		Mooring Depth: 4377m	
Mooring Operation: Deployment		Mooring ID#: DM093A	
Deployed Location: 01 58.55N 140 02.05W		Deployed Date: 9/18/14	
Pre-Deployment On Deck Instrument Failures: None			
Sensors/Equipment Lost at Sea: None			
Sensors Damaged During Deployment: None			
General Comments: Routine deployment.			

Buoy Site: 5N 140W Refresh			
Mooring Operation: Recovery		Mooring ID#: DM036A	
Deployed Location: 05 01.61N 139 57.40W		Deployed Date: 4/15/12	
Recovered Location: 05 01.61N 139 57.40W		Recovered Date: 9/17/14	
Previous Repair Date: None			
Sensors/Equipment Lost at Sea: None			

Sensors Damaged/Fouled: ATRH had cracked housing; T80, T100, T120, T140 were entangled in long line fishing gear.			
Fishing/Vandalism: Long line fishing gear from T80-T140.			
Sensors/Tubes Downloaded: No sensors were downloaded as per new procedures			
General Comments: Top section hose severed from Nilspin to bridle, hose corroded; T120 slid down to 140m			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
ATMP/RH	7/6/13	Data erratic	Housing cracked
SST/SSS	10/12/13	Data missing	None
T20 – T60	6/14/13	Data missing	None
T80 – T100	6/14/13	Data missing	Fouled
T120	6/14/13	Data missing	Fouled, slid to 140m
T140	6/14/13	Data missing	Fouled
T180 – TP500	6/14/13	Data missing	None

Buoy Site: 5N 140W	Mooring Depth: N/A
Mooring Operation: NOT DEPLOYED	Mooring ID#: N/A
Deployed Location: N/A	Deployed Date: N/A
Pre-Deployment On Deck Instrument Failures: N/A	
Sensors/Equipment Lost at Sea: N/A	
Sensors Damaged During Deployment: N/A	
General Comments: Buoy not deployed due to shortage of nylon.	

Buoy Site: 9N 140W Refresh			
Mooring Operation: Recovery	Mooring ID#: DM037A		
Deployed Location: 09 00.19N 140 14.89W	Deployed Date: 4/17/12		
Recovered Location: 08 59.86N 140 14.95W	Recovered Date: 9/21/14		
Previous Repair Date: None			
Sensors/Equipment Lost at Sea: None			
Sensors Damaged/Fouled: AT/RH was hanging by its cable; SSC had excessive sea growth, T140 only secured by inductive mount			
Fishing/Vandalism: None			
Sensors/Tubes Downloaded: No sensors were downloaded as per new procedures.			
General Comments: Top section hose severed from Nilspin to bridle, hose corroded			
Site Sensor Failures	Date Data Flagged	Why Data Flagged	Field Service Observations
All (Tube)	8/18/14	Data missing, transmits ceased	None
ATMP/RH	6/1/12	Drifted too low	Damaged, hanging by cable
SST/SSS	9/20/12	Data missing	Fouled

T20	3/25/13	Data missing	None
T40	3/17/14	Data missing	None
T60	5/24/14	Data missing	None
T80 – T100	5/26/14	Data missing	None
T120	10/25/13	Data missing	None
T140	1/31/14	Data missing	Fouled
T180	4/19/14	Data missing	None
TP300	10/14/13	Data missing	None
TP500	5/26/14	Data missing	None

Buoy Site: 9N 140W Refresh	Mooring Depth: 4823m
Mooring Operation: Deployment	Mooring ID#: DM094A
Deployed Location: 08 59.80N 140 15.21W	Deployed Date: 9/21/14
Pre-Deployment On Deck Instrument Failures: None	
Sensors/Equipment Lost at Sea: None	
Sensors Damaged During Deployment: None	
General Comments: Had to use older nylon as we were short in stock.	

2.2 *CTD Casts Completed*

A Sea-Bird 911plus CTD with dual temperature and conductivity sensors was provided by the NMAO. Temperature and conductivity sensors are calibrated yearly at Sea-Bird and sent in for diagnostics as necessary.

The following outlines the CTD casts completed during the cruise:

CTD Operations			
Coordinates	Date	Cast #	Comments
08 00.24N 124 58.60W	9/2/14	RB14040011	
06 59.99N 124 58.53W	9/3/14	RB14040021	
06 00.05N 124 57.67W	9/3/14	RB14040031	
05 05.83N 124 57.92W	9/4/14	RB14040041	
03 59.97N 124 58.06W	9/4/14	RB14040051	
03 00.02N 124 59.06W	9/4/14	RB14040061	
01 58.86N 125 02.85W	9/5/14	RB14040071	
00 59.87N 124 41.52W	9/5/14	RB14040081	
00 07.90N 124 24.37W	9/6/14	RB14040091	
01 00.10S 124 35.50W	9/7/14	RB14040101	
01 57.70S 124 35.50W	9/7/14	RB14040111	
02 59.99S 124 54.34W	9/8/14	RB14040121	

04 00.12S 124 54.27W	9/8/14	RB14040131	
05 00.93S 124 53.32W	9/8/14	RB14040141	
05 59.89S 124 56.70W	9/9/14	RB14040151	
06 59.89S 124 58.25W	9/9/14	RB14040161	
07 59.81S 124 59.69W	9/9/14	RB14040171	
05 02.60S 139 54.23W	9/13/14	RB14040181	
04 00.02S 139 56.85W	9/14/14	RB14040191	
03 00.05S 139 58.77W	9/14/14	RB14040201	
02 03.32S 139 59.61W	9/14/14	RB14040211	
01 00.21S 140 13.33W	9/15/14	RB14040221	
00 00.42S 140 02.31W	9/15/14	RB14040231	
00 59.91N 140 00.41W	9/16/14	RB14040241	
01 59.00N 140 01.27W	9/16/14	RB14040251	
03 00.03N 139 59.85W	9/16/14	RB14040261	
04 00.04N 139 58.46W	9/17/14	RB14040271	
04 59.20N 139 58.24W	9/17/14	RB14040281	
8 59.00S 140 01.80W	9/21/14	RB14040291	

2.3 Ancillary Science Projects Completed on the Cruise

The following outlines the ancillary science work performed in conjunction with the TAO operations on the cruise:

Pacific Marine Environmental Laboratory (PMEL) Argo Profiling CTD Floats

Ten (10) Argo floats were scheduled for deployment on this cruise. The chief scientist verified and briefed the Operations Officer on the deployment positions prior to the start of the cruise. All Argo Float deployments were completed as scheduled.

Questions concerning ARGO Floats should be directed to:

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 Tel: (206) 526-6806
 E-mail: pmel_floats@noaa.gov

or

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 E-mail: pmel_floats@noaa.gov

The following outlines the Argo floats deployed during the cruise:

ARGO Floats			
Coordinates	Date	SN#	Comments
06 21.10N 125 02.73W	9/2/14	F0213	
05 04.20N 124 54.90W	9/3/14	F0199	
00 10.66S 124 22.68W	9/6/14	F0238	
02 04.15S 124 54.78W	9/7/14	F0237	
05 02.17S 124 55.07W	9/8/14	F0239	

05 00.31S 139 55.02W	9/13/14	F0235	
02 03.69S 140 02.64W	9/14/14	F0254	
00 02.20N 139 59.48W	9/16/14	F0255	
01 59.38N 140 01.35W	9/16/14	F0258	
04 59.87N 139 57.81W	9/17/14	F0256	

Atlantic Oceanographic and Meteorological Laboratory (AMOL) Surface Drifting Floats

Twenty (20) AOML Surface Drifters were scheduled for deployment on this cruise. The chief scientist verified and briefed the Operations Officer on the deployment positions prior to the start of the cruise. All AOML Surface Drifter deployments were completed as scheduled.

Questions concerning AOML Surface Drifters should be directed to:

Shaun Dolk, NOAA/AOML
Global Drifter Center,
Tel: (305) 361-4546
Fax: (305) 361-4436
E-mail: shaun.dolk@noaa.gov

The following outlines the AOML Drifting floats deployed during this cruise:

AOML Floats			
Coordinates	Date	SN#	Comments
06 21.10N 125 02.73W	9/2/14	127384	
06 21.10N 125 02.73W	9/2/14	127385	
03 59.34N 124 58.197W	9/4/14	127388	
00 10.66S 124 22.68W	9/6/14	127383	
00 10.66S 124 22.68W	9/6/14	127386	
02 03.79S 124 54.78W	9/7/14	127332	
02 03.79S 124 54.78W	9/7/14	127382	
04 00.99S 124 54.20W	9/8/14	127328	
04 00.99S 124 54.20W	9/8/14	127330	
03 59.50S 140 56.87W	9/14/14	127329	
03 59.50S 140 56.87W	9/14/14	116234	
02 03.69S 140 02.64W	9/14/14	116235	
02 03.69S 140 02.64W	9/14/14	116233	
00 02.20N 139 59.48W	9/16/14	116232	
00 02.20N 139 59.48W	9/16/14	116236	
01 59.38N 140 01.35W	9/16/14	116231	
01 59.38N 140 01.35W	9/16/14	127391	
04 01.29N 139 13.97W	9/17/14	127389	
01 01.98S 140 26.88W	9/17/14	116230	

01 01.93S 140 58.30W	9/17/14	127390	
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