19980829I1-AXBT

E.4 Boundary-Layer Scientist (On-Board)

The on-board boundary-layer scientist (BLS) is responsible for data collection from AXBT's, AXCP's, BUOY's, and sea surface temperature radiometers (if these systems are used on the mission). Detailed calibration and instrument operation procedures are contained in the air-sea interaction (ASI) manual supplied to each operator. General supplementary procedures follow. (Check off and initial.)

E.4.1 Preflight

_____ 1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).

_____ 2. Confirm mission and pattern selection from the on-board LPS.

_____ 3. Select the mode of operation for instruments after consultation with the HRD/BLS and the on-board LPS.

_____ 4. Complete appropriate preflight check lists as specified in the ASI manual and as directed from the on-board LPS.

E.4.2 In-Flight

_____ 1. Operate the instruments as specified in the ASI manual and as directed by the on-board LPS.

E.4.3 Postflight

_____ 1. Complete summary check list forms and all other appropriate check list forms.

_____ 2. Brief the on-board LPS on equipment status and turn in completed check lists to the LPS.

_____ 3. Debrief as necessary at the appropriate operations center (FGOC or MGOC).

_____ 4. Determine the status of future missions and notify appropriate operations center (FGOC or MGOC) as to where you can be contacted.

Form E-4
Page 1 of 3

AXBT/AXCP Check Sheet Summary

Flight 980829 I

		Number
(1)	Probes dropped	15
(2)	Failures	2
(3)	Failures with no signal	2 (one was stuck in chute)
(4)	Failures with sea surface temperature, but terminated above thermocline	0
(5)	Probes that terminated above 250 m, but below thermocline	unknown
(6)	Probes used by channel number CH12	5
	..... CH14	5
	..... CH16	5
	..... CH__	—

NOTES

25.4N
70.5W

DANIELLE

Form E-4
Page 2 of 3

AXBT and AXCP Check Sheet

Flight Number 980829I

Take-off Time 1820 Z

Storm DANIELLE

AXBT/AXCP Contract Number _____

Landing Time _____

AXCP/ AXBT#/ Type	Channel Number	Lot Number	Predicted Drop Time (HHMMSS)	Actual Drop Time (HHMMSS)	Predicted Lat. Deg. Min.		Predicted Long. Deg. Min.		Actual Lat. Deg. Min.		Actual Long. Deg. Min.		Surface Temp. AXBT	IRT	MLD (m)	Comments
1	12			200844					23	17.7	72	11.3	28.2			Inadvertant Drop
2.	14			201853					24	0.1	71	48.6	27.1			
3	16			202920					24	47.0	71	22.7	27.4			
4	12			213106					25	8.7	70	4.4	~~27.6~~			
5	14			214624					24	6.2	70	0.1	27.2			
6	16			215953					23	13.4	69	43.0	25.7			Temps cool immediately
7	12			223100					25	44.3	68	33.6	28.3			Very shallow - cooled quickly
8	14			224333					25	45.2	69	42.4	—			- Failed
9	16			225144					25	46.0	70	25.6	26.3			
10	12			234416					26	39.6	71	14.2	26.2			
11	14			235730					27	26.6	70	34.3	28.2			
12	16			001137					28	20	69	59	28.5			~30 seconds of ML
13	12			004318					28	06	73	00	26.3			~10 seconds of ML
14	14			005415					27	19	72	32	26.8			~20s of ML
15	16			021548												"Stuck in Tube"

*M = Magnavox; H = Hermes; S = Sippican.

AXCP Log

Flight Number _____

Storm Name _____

Storm Direction/Speed _____

Take-off Time _____

Landing Time _____

Leg #	Out/In	RA (m)	PMIN (mb)	VMAX (m/s)	RMAX (km)	Time PMIN	Time VMAX	Time End Pass

Leg/ Drop No.	Tube No.	Channel No.	Probe Type		Ground Speed	Predicted Drop Time	Actual Drop Time	Latitude	Longitude	Status		Comments
			Slow	Reg.						Good	Bad	
19							2034:5	27.8°	72.9°			

plot 4
Readings 12

Form E-4
Page 2 of 3

deg c, wate
1.5 m/s

AXBT and AXCP Check Sheet

Flight Number 980929

Take-off Time

Storm Danielle

AXBT/AXCP Contract Number

Landing Time

Drop

AXCP/ AXBT#/ Type	Channel Number	Lot Number	Predicted Drop Time (HHMMSS)	Actual Drop Time (HHMMSS)	Predicted Lat. Deg. Min.	Predicted Long. Deg. Min.	Actual Lat. Deg. Min.	Actual Long. Deg. Min.	Surface Temp. AXBT	Surface Temp. IRT	MLD (m)	Comments
	AXBT2			200839			23 17.7	72 11.3	28.2		45	MLD used 4 min drop time
				201830			24 0.1	71 48.6	27.1		60	
				202915			24 47.0	71 22.7	27.4		70	in eye wall
				2109?			25 8.7	70 4.4	27.6			
							24 6.2	70 0.1	27.2		90+	
				215400			23 13.4	69 43.0	25.7		?	no ML!
				223056			25.74	69.04	28.3		55	est ML (T was off scale)
				224330			25 45.3	69 46.5				LOST
				225111			25 46.0	70 24.6	26.3		70	
				230230?			25 40	72 05	26.9		60	
				2331			26 4.1	71 12.7	25.5		75-90	lots of data loss spikes
				2343			26 42.3	71 11.7				

*M = Magnavox; H = Hermes; S = Sippican.

AXCP Log

Flight Number _____

Storm Name _____

Storm Direction/Speed _____

Take-off Time _____

Landing Time _____

Leg #	Out/In	RA (m)	PMIN (mb)	VMAX (m/s)	RMAX (km)	Time PMIN	Time VMAX	Time End Pass

Leg/ Drop No.	Tube No.	Channel No.	Probe Type		Ground Speed	Predicted Drop Time	Actual Drop Time	Latitude	Longitude	Status		Comments
			Slow	Reg.						Good	Bad	

$MLD = 1.5 \times t(s)$

AXBT and AXCP Check Sheet

Flight Number _____ AXBT/AXCP Contract Number _____

Take-off Time _____ Landing Time _____

Storm _____

AXCP/ AXBT#/ Type	Channel Number	Lot Number	Predicted Drop Time (HHMMSS)	Actual Drop Time (HHMMSS)	Predicted Lat. Deg. Min.	Predicted Long. Deg. Min.	Actual Lat. Deg. Min.	Actual Long. Deg. Min.	Surface Temp. AXBT	Surface Temp. IRT	MLD (m)	Comments
				?								
				?								
				21:29:46			25.10	71.34	(28.7)		45	~30 sec.
				21:37:14			24.99	71.04	26.8		60	~40 sec.
				21:58:43			26.36	71.23	26.1		75	30 sec. (25) – first slight drop.
				22:00:01			25.71	71.76	26.1		60 (37)	40 sec.
				22:26:42			25.78	70.52	26.5 (27.3)		75	50 sec
				22:56:44			25.97	71.24				? Bad.
				23:04:06			25.43	71.25	26.8		45	30 sec.
				23:08:05			25.15	71.25	27.3		45	30 sec
				23:32:04			25.90	70.92	25.8 (26.9)		75	50 sec
				0:03:29			25.97	71.03	25.9		75	50 sec
				0:39:37			25.49	71.13	26.0		60	40 sec
				0:55:06			26.06	70.79	(28.6)?		?	Bad ?.
				1:59:53			26.73	72.21	27.8 (28.8)		52	35 sec.

*M = Magnavox; H = Hermes; S = Sippican.

AXCP Log

Flight Number _____

Storm Name _____

Storm Direction/Speed _____

Take-off Time _____

Landing Time _____

Leg #	Out/In	RA (m)	PMIN (mb)	VMAX (m/s)	RMAX (km)	Time PMIN	Time VMAX	Time End Pass

Leg/ Drop No.	Tube No.	Channel No.	Probe Type		Ground Speed	Predicted Drop Time	Actual Drop Time	Latitude	Longitude	Status		Comments
			Slow	Reg.						Good	Bad	

AXBT Log

location	Time (UTC)	Latitude (°)	Longitude(°)	SST	Comment
BT1	29:20:08:45.0	23.286	-72.186	28.200	
BT2	29:20:18:35.0	24.050	-71.800	27.000	
BT3	29:20:29:20.0	25.000	-71.252	27.200	
BT4	29:21:30:20.0	25.151	-70.206	27.300	
BT5	29:21:46:30.0	24.167	-69.933	27.200	
BT6	29:21:59:50.0	23.200	-69.833	25.700	
BT7	29:22:29:55.0	25.733	-68.576	28.300	
BT8	29:22:43:20.0	25.750	-69.725		failure
BT9	29:22:51:49.0	25.751	-70.450	26.300	
BT10	29:23:44:15.0	26.615	-71.250	26.200	
BT11	29:23:57:30.0	27.475	-70.575	28.200	
BT12	30:00:11:37.0	28.316	-69.966	28.500	
BT13	30:00:43:15.0	28.260	-72.980	26.100	
BT14	30:00:54:15.0	27.325	-72.525	26.900	
BT15	30:02:15:45.0	25.780	-73.525		failure