

19930820A1-AXBT

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

C JONE

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.

AXBT/AXCP Check Sheet Summary

Flight 980820F

	Number
(1) Probes dropped	<u>7</u>
(2) Failures	<u>2</u>
(3) Failures with no signal	<u>2</u>
(4) Failures with sea surface temperature, but terminated above thermocline	<u>0</u>
(5) Probes that terminated above 250 m, but below thermocline	<u>0</u>
(6) Probes used by channel number	<u>?</u>
..... CH12	<u>?</u>
..... CH14	<u>?</u>
..... CH16	<u>?</u>
..... CH_	<u>X</u>

NOTES

Not sure of CH12/14/16 distribution..
5 of 7 Fully functional (below 200m)
The 2 that failed were full failures
with no signal whatsoever. SSTs
ranged between 28.8°C → 29.2°C. (4/5 were
between 29.1°C - 29.3°C. MLDs ranged between
42-56m (4/5 were between 42-44). The 1
28.8°C reading also had the 100 56m MLD.
Note all AXBT drops were concurrent w/ GPS drops...
Simultaneous

AXBT and AXCP Check Sheet

Flight Number 980820 H

AXBT/AXCP Contract Number _____

Take-off Time _____

Landing Time _____

Storm pre ^(ie TD2) Bonnie / Bonnie

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	Time end' MLD
Drop 1		Sippican		20:48:14					29.2	44	GPS drop 7	20:48:43
" 2		S		20:58:16					29.3	42	w/ GPS drop 8	20:58:44
" 3		"		20:59:18					28.8	56	w/ GPS drop 9	20:59:55
" 4		"		21:06:48					29.1	42	w/ GPS drop 10	21:07:16
" 5		"		21:07:16					-	-	Failure	-
" 6		"		-					-	-	Failure	-
" 7		"		21:37:08					29.1	42	w/ GPS drop 14	21:37:36

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

NOTE: MLD = Time end' MLD(S) - Actual Drop time (S) x 1.5m/s

MLD = M

AXCP Log

Flight Number _____

Storm Name _____

Storm Direction/Speed _____

Take-off Time _____

Landing Time _____

[illegible][illegible]

4/2 3 plane Synoptic
Drops St. Croix - S-Barbados

Aug 19 17:22 1998 /home/hrd/flight_tracks/track03.log Page 2

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 05:22:19 PM on 08/19/98.
File: /home/hrd/flight_tracks/980820hp.ftk

Aircraft: N42RF Altitude: FL180-250 Proposed takeoff: 20/1730Z

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DROP LOCATIONS

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#	LAT	LON	TIME
1	16 00	66 00	0:36
2	14 00	66 00	1:00
3	14 00	64 00	1:25
4	15 10	61 30	1:58
5S	16 20	59 00	2:31
6S	17 40	59 00	2:48
7S	17 00	59 42	2:59
8S	17 00	59 00	3:08
9S	17 00	58 18	3:16
10	17 30	56 00	3:44
11	19 00	54 00	4:14
12	21 30	54 00	4:45
13	24 00	54 00	5:16
14	24 00	51 00	5:50
15	21 30	51 00	6:22
16	19 00	51 00	6:53
17	16 30	52 30	7:28
18	14 00	54 00	8:04
