

Record of Oleander ADCP Data Collection

Voyage #	Dates	Have Data	Pro-cessed	Comments
1263	2004/09/24-2004/09/30	X		GPHDT + GPGGA Ashtech data, Ambiguity problems
1264	2004/10/01-2004/10/07	X		
1265	2004/10/08-2004/10/14	X		
1266	2004/10/15-2004/10/21			Bad data collection – little available in the Oleander data files
1267	2004/10/22-2004/10/28			No Good Data
1268	2004/10/29-2004/11/05			No Good Data
1269	2004/11/05-2004/11/11			No Good Data
1270	2004/11/12-2004/11/18			No Good Data
1271	2004/11/19-2004/11/25			No Good Data
1272	2004/11/26-2004/12/02	X		No Ashtech Hdg
1273	2004/12/03-2004/12/09	X		No Ashtech Hdg
1274	2004/12/10-2004/12/16	X		Ashtech hdg ok
1275	2004/12/17-2004/12/23	X		Ashtech hdg ok
1276	2004/12/24-2004/12/30	X	-	Date jump 12/24 to 12/26 (skipped 12/25). Need to adjust time in voyages 1277-1286. No Ashtech Hdg

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1277	2004/12/31 – 2005/01/06	X	X	Outbound data very good; inbound very limited. No good Ashtech heading data. (Dates corrected)
1278	2005/01/07 – 2005/01/13	X	X	Outbound data good; inbound no good data until west of 69W, shallower (generally <200m). No good Ashtech heading data. (Dates corrected)
1279	2005/01/14 – 2005/01/20	X	X	Outbound data good to ~200m; inbound basically no good data (low % good)No good Ashtech heading data. (Dates corrected)
1280	2005/01/22 – 2005/01/27	X	X	Outbound good data begins just north of Stream, also data gap between ~66.8W and 65.2W, several course changes; inbound data limited. No good Ashtech heading data. (Dates corrected)
1281	2005/01/29 – 2005/02/03	X	X	Outbound data ok; inbound limited, low % good, data gaps, numerous course changes (track more southerly than normal). Good Ashtech data (GPPAT). (Dates corrected)
1282	2005/02/05 – 2005/02/10	X	X	Outbound data limited, numerous course changes, considerably south of usual track east of 71W; inbound data good to ~480m until north of Stream , the less than 200m. Ashtech data good (GPPAT). (Dates corrected)

1283	2005/02/12 – 2005/02/17	X	X	Lots of watchdog resets. Outbound data good beyond slope (low % good shelf and slope); inbound shallow (~200m), no good data west of Stream. Ashtech data good outbound only (GPPAT). (Dates corrected)
1284	2005/02/19 – 2005/02/24	X	X	Outbound data only (2/19-2/21), good to ~480m only due to number of bins limitation. Bad GPPAT messages. (Dates corrected)
1285	2005/02/25 – 2005/03/03	-	-	No data
1286	2005/03/05 – 2005/03/10	X	X	Outbound data good (limited to ~480m due to number of bins limitation); inbound track considerably south from usual track, data very limited (near 0% good). Bad GPPAT messages. (Dates corrected)
1287	2005/03/11 – 2005/03/17	X	-	No data after 3/11-- lost communication with deck unit
	2005/03/17			No communication with deckunit – bad RS422 – Changed Comm to RS232 and now able to collect more than 35 bins
1288	2005/03/18 – 2005/03/24	X	X	Outbound data good to 6-700m depth; inbound poor % good, ADCP communication dropouts (no good velocity data inbound).
	2005/03/23			Established connection between BHS and the Oleander w/ Stafford Assoc. Corrected ambiguity problem by disabling heading correction in *.ini files and adding EA+06000 in the *.txt files
1289	2005/03/25 – 2005/03/31	X	X	Outbound data good to ~700m, except 300 to 600m crossing Stream; inbound data gaps, ADCP communication dropouts, shallower penetration
1290	2005/04/01 – 2005/04/07	X	X	Large data gap outbound between approx. 70.5W and 65.7W; bad quality inbound data until approx. 68W, >700m over Stream.

	2005/04/07			Re-plugged power unit for wireless
1291	2005/04/08 – 2005/04/14	-	-	No data
1292	2005/04/15 – 2005/04/21	-	-	No data
1293	2005/04/22 – 2005/04/28	-	-	No data
1294	2005/04/29 – 2005/05/05	X	X	Outbound data only, good to 700m. No good attitude data.
1295	2005/05/06 – 2005/05/12	X	X	Numerous dropout in ADCP communications; outbound route more southerly than normal (maybe weather related?); inbound data limited to south of Stream; depth penetration generally >600m. No good attitude data.
1296	2005/05/13 – 2005/05/19	X	X	No Ashtech hdg data, stuck in SSHelf region (35 - 3m bins); good velocity data to >100m.
1297	2005/05/20 – 2005/05/26	X	X	Good data; depths to ~700m outbound, ~600m inbound (200m over Gulf Stream); some data gaps inbound; some ensemble resets
1298	2005/05/27 – 2005/06/02	-	-	No data
1299	2005/06/03 – 2005/06/09	X	X	Good data; outbound depths >600m, inbound >600m to ~100m at 68W
1300	2005/06/10 – 2005/06/16	X	X	Excellent data outbound to 800m; inbound very good 200-700m penetration.
1301	2005/06/17 – 2005/06/23	X	X	Excellent data outbound to 800m; inbound very good 200-700m penetration.
1302	2005/06/24 – 2005/06/30	X	X	Outbound data very good to ~650m; inbound penetration 250m to 800m.
1303	2005/07/01 – 2005/07/07	X	X	Outbound data only; data good to ~500m.
1304	2005/07/08 – 2005/07/14	X	X	Excellent data outbound to >700m; inbound data OK (less depth penetration).
1305	2005/07/15 – 2005/07/21	X	X	Excellent data outbound to ~800m; inbound very good south of Gulf Stream, then shallower penetration.

1306	2005/07/22 – 2005/07/28	X	-	Lost communication with deck unit outbound ~1 hour after leaving port.
1307	2005/07/29 – 2005/08/04	X	X	Outbound and inbound data very good to ~700-800m penetration.
1308	2005/08/05 – 2005/08/11	X	X	Outbound data very good to ~600-700m; inbound good to ~700m to ~66W, then ~300-100m.
1309	2005/08/12 – 2005/08/18	X	X	Outbound data very good to ~600-700m (short gap in data <2hr. east of 68W); inbound data shallower (but >600m over Gulf Stream).
1310	2005/08/19 – 2005/08/25	-	-	No power to PC – no data collection
1311	2005/08/26 – 2005/09/01	-	-	No power to PC – no data collection
	2005/09/01			Visited Oleander – corrected power outage and altered ADCP configurations
1312	2005/09/02 - 2005/09/07	X	X	Excellent data outbound to 600m (data cutoff due to configuration change). Ensemble resets inbound, intermittent communication problems with deck unit.
1313	2005/09/08 - 2005/09/15	-	-	No data Changed configuration files.
1314	2005/09/16 - 2005/09/22	X	X	Outbound data excellent to 600-700m; inbound often good to 600-700m, but numerous short gaps due to complete Thales dropouts, some watchdog resets, lost communication with deck unit north of Gulf Stream (~71.5W).
1315	2005/09/23 - 2005/09/29	-	-	No Data
1316	2005/09/30 - 2005/10/06	-	-	No Data – Visited ship – deckunit was not on despite on-position of switch
1317	2005/10/07 - 2005/10/13	-	-	No Data
1318	2005/10/14 - 2005/10/20	-	-	No Data – Visited ship – switched out deckunit and UPS on bridge
1319	2005/10/21 - 2005/10/27	-	-	No Data
1320	2005/10/28 - 2005/11/03	-	-	No Data

1321	2005/11/04 - 2005/11/10	-	-	No Data - Some driver file corrupted so computer would not boot
1322	2005/11/11 - 2005/11/17	-	-	No Data - Installed backup computer with RAID removed
1323	2005/11/18 - 2005/11/24	X	X	Good data outbound to ~600m to ~67W, then to 200-300m penetration; inbound stuck in default mode (50 - 8m bins), good data to ~400m to south of Stream (~68W), then poor % good.
1324	2005/11/25 - 2005/12/1	X	X	Stuck in default mode entire time (50 - 8m bins), so depth limit ~400m; outbound good to 400m north of Stream, decreasing to ~100m near Bermuda; inbound data good 200-400m penetration.
1325	2005/12/02 - 2005/12/08	X	X	Outbound data good to 400-600m, some navigation dropouts, reverted to Default mode just before Bermuda, and stuck in Default mode thereafter. Bad GPPAT (attitude) messages inbound, % good near zero throughout inbound.
1326	2005/12/09 - 2005/12/15	-	-	No Data
1327	2005/12/16 - 2005/12/22	-	-	Visited ship – No Data

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1328	2005/12/23 – 2006/01/05	X	X	Outbound data ok, inbound limited. GPPAT msgs. all bad.
1329	2006/01/06 – 2006/01/12	X	X	Good data outbound (to ~550m). One day date jump in Bermuda, corrected in inbound database. Limited inbound data. GPPAT msgs. all bad.
1330	2006/01/13 – 2006/01/19	X	X	Some date problems--corrected in database. GPPAT msgs. all bad. No good data outbound and inbound (poor % good).
1331	2006/01/20 – 2006/01/26	-	-	No Data
1332	2006/01/27 – 2006/02/02	-	-	No Data
1333	2006/02/03 – 2006/02/09	-	-	No Data
1334	2006/02/10 – 2006/02/16	X	X	Limited outbound data only, then switched to default mode for return trip. Good GPPAT first half outbound, then intermittent with some complete GGA and GPPAt dropouts.
1335	2006/02/17 – 2006/02/23	X	X	Outbound data only, but all bad (low % good). HDT messages collected instead of GPPAT.
1336	2006/02/24 – 2006/03/02	-	-	No Data
1337	2006/03/04 – 2006/03/09	X	X	Could not connect to ship--downloaded data later. Outbound data only; down to ~600m, but 14 hour dropout of Thales (GGA and HDT) south of Stream to ~66.2W.
1338	2006/03/10 – 2006/03/16	-	-	No Data Visited ship – ADCP's UPS was dead – removed. Installed AutoADCP 2.3 to correct date/time

1339	2006/03/17 – 2006/03/23	-	-	No Data
1340	2006/03/24 - 2006/03/30	X	X	Limited outbound data; inbound better, deeper penetration from G. Stream into port. Collected HDT data, flagged all bad in processing since GPPAT have been mostly bad.
1341	2006/03/31 - 2006/04/06	X	-	AutoADCP crashed - in Elizabeth mode the whole time
1342	2006/04/07 - 2006/04/13	X	X	Outbound and inbound data ok. Shallower penetration over G. Stream, to 500m inbound south of Stream. GPPAT messages bad - huge BRMS errors.
1343	2006/04/14 - 2006/04/20	X	X	Couldn't connect to ship; outbound data only, downloaded on 4/28, GPPAT mostly bad; lost gyro for ~10 hrs. middle of transit. (inbound - Bermuda mode the whole time)
1344	2006/04/21 - 04/27	?	-	In Bermuda mode the whole time
1345	2006/04/28 - 05/04	X	X	Poor data quality outbound and inbound (low % good). GPPAT messages bad (huge BRMS or '999'). Reset Thales with \$PASHS,RST (msgs. then ok). GGA msgs. ok
1346	2006/05/05 - 05/11	X	X	Outbound data only (200-600m depths); no PAT or GGA on inbound (blank fields). Reset Thales.
1347	2006/05/12 - 05/18	X	X	Outbound data very good (>600m penetration). Inbound also good, shallower penetration (<200m to 400m). Mostly bad GPPAT in deep mode out and inbound, also some GGA gaps inbound.

1348	2006/05/19 - 05/25	X	X	<p>Outbound data only--good quality (600m depth).</p> <p>Details:</p> <p>Date/time stuck at 5/21, 01:00 (~35.5N, 67.8W)--data may be ok up to that time (in Oleander003 file) -- named May_26_2006_part.zip.</p> <p>AutoADCP v. 2.2 was running instead of 2.3; corrected target in “All Programs -> Startup” for AutoADCP_2.3.exe (was pointing to old version). Reset date/time on PC; reset Thales.</p>
1349	2006/05/26 - 06/01	X	-	<p>Mostly bad data: lost Thales (nav & heading) in file Oleander001 (5/27, 02:42); autoadcp may have restarted - remainder of files are “Default001.....”. PC time ~7 hours behind -- reset to correct time (autoadcp would not start VmDas until time was corrected). Reset Thales, started autoadcp, looked ok. Shutdown, logged back in -- looked ok. Then shutdown for final time.</p>
1350	2006/06/02 - 06/08	X	X	<p>Limited data outbound only: lost all Thales data outbound shortly (~7 hours) after entering deep mode (6/3, 13:04, ~70.6W); VmDas restarted, but stuck in default mode remainder of time; time frozen in autoadcp window at 13:04. Reset PC times/date (date was 6/5, time 5 min. slow); reset Thales. Logged in next day, looked ok; shutdown.</p>

1351	2006/06/09 - 06/15	X	X	Wireless connection down on 6/15. Charlie on ship 6/16 to install 15 v. capacitor (as on Norrona), also downloaded data. Good data outbound (to ~600m), but lost good PAT messages for ~8 hours during G.S. crossing. Inbound: mostly bad PAT, intermittent GGA until after G.S. crossing. Poor %good entire inbound leg. Reset Thales.
1352	2006/06/16 - 06/22	X	X	Outbound good to ~600m, but mostly bad PAT starting in deep mode (west of G.S.) to end; large BRMS. Inbound: all bad PAT (999's or large BRMS). Lost both GGA and PAT from ~69W to 71.5W, then GGA back in. Inbound depth penetration ~150-600m. Reset Thales. George installed new Clary UPS's.
1353	2006/06/23 - 06/29	X		Communication with ADCP lost entering deep mode (Oleander003 file), also lost valid PAT msgs. Autoadcp alternating between Default and whatever region it was in--several hundred files. ADCP back up in Bermuda, but lost communication again shortly after leaving; also some complete Thales dropouts. Reset Thales; turned on AT2 msg. in place of PAT per Thales support (more diagnostic info.), saved config., created "Ticket" file (adu_001.txt)

1354	2006/06/30 - 07/06	X	X	Communication with ADCP lost at ~same location as previous week (in Oleander003 file), alternating between Default and Oleander files, so limited outbound data only. AT2 msgs. ok. Autoadcp hung at file "Default087" (36.5N, 69W), no VmDas window. Created "Ticket" files adu_002 and 003.txt. Reset Thales, shutdown; connected again next day (07/07, 15:26 GMT); there were no ADCP communications until 7/7, 11:47, so had been stuck in Default/Elizabeth modes until then. Then ADCP and Thales looked good. Saved that directory as ADCPData_070706 and zipped all files (Jul_07_2006_all.zip)
1355	2006/07/07 - 07/13	X	-	No good data. Connected ok: file = Default000, ens. 234058. Error box - "Unable to read region file"; closed error box, Elizabeth mode came up. Thales data good in port and when Elizabeth came up; also good in Bermuda -- lost at ~same location as previous cruises. Also invalid GGA data end of 7/7 (~5 hrs. after leaving NJ) until 7/13, 15:15). Created Ticket file (adu_004.txt). Connected ok on 7/14: no "Default" files, all named "Elizabeth000_*". Restarted Autoadcp, normal startup. Stopped Autoadcp, opened "Evaluate", lost wireless connection.
1356	2006/07/14 -07/20	-	-	Charlie at Oleander - unplugged deck unit from UPS, plugged directly into wall. Thales was showing good data in port. PC was frozen since 7/14, rebooted (so no data collected)

1357	2006/07/21 - 7/27	X	X	Outbound data only; lost Thales completely inbound ~3 hours after leaving Bermuda; also some dropouts outbound. No good AT2 msgs. Couldn't connect on 7/27. Charlie at Oleander on 7/28 -- setup power monitor, connected to COM port; hot line showed 52 v., neutral 84 v. Autoadcp had been stuck in NWATL mode, no positions from Thales. Wireless connection still down end of day (7/28)
1358	2006/07/28 - 8/3	X	X	Outbound data ok, AT2 mostly bad; some complete Thales dropouts north of G. Stream. Inbound Thales dropped out after ~5 hours, so no data. Couldn't connect to ship
1359	2006/08/04 - 8/10	X	X	Connected on 8/11. Power files downloaded-- no evident problem w/ output from UPS on Thales, no gaps in power data. Outbound data ok (200-600m depths), mostly good AT2 msgs. Inbound ok to ~69.2W (600m depths), when Thales completely dropped out. Installed VNC (v.4.1.2). Added transducer depth (5m) to .txt files.
1360	2006/08/11 - 8/17	X	X	Connected with VNC. Watchdog restarts at most region changes, maybe due to numerous Thales dropouts. Outbound data ok (200-400m depths), AT2 msgs good at beginning, then bad; inbound data good (>600m depths), but mostly bad AT2 msgs. George and David Luce on ship 8/18-- installed new firmware in Clary UPS, power monitor connection changed to monitor power out of transformer. Started up Leica on COM6. No time to set up mux.

1361	2006/08/18 - 8/24	X	-	<p>No good data.</p> <p>AutoAdcp crashed because of hyperterminal window scrolling Leica data remained in front of other windows, so mouse movements couldn't act on VmDas window to change regions (remained in default mode).</p> <p>Thales failure -- no values for antenna #1.</p> <p>Changed .ini files to use Leica (com6) for navigation (4800,8,N,1)</p> <p>Checked again on 8/25--had lost communication with ADCP, so watchdog resets every 5 min. Tried to reset Thales (1 satellite in antenna 1), failed, rebooted PC and then reset Thales ok.</p> <p>Started Autoadcp, got ADCP timeout again later, stopped and restarted AutoAdcp -- ok.</p> <p>Began e-mail communications with Art Sauer at Thales.</p>
1362	2006/08/25 - 8/31	X	X	<p>Slow connection. Outbound data ok until communication lost with ADCP in file Oleander003 (8/27),~69W. Then watchdog resets every 5 min. (Leica used for navigation data.) Numerous Thales dropouts noted from log file.</p> <p>Thales was down -- Antenna #1 blank.</p> <p>Reset Thales -- ok.</p> <p>Began Thales logging in "Evaluate".</p> <p>Checked on 9/1 -- deck unit still down.</p> <p>Lost wireless connection mid-afternoon.</p>
1363	2006/09/01 - 9/7	-	-	<p>No data.</p> <p>Unable to connect to ship on 9/7. Very slow connection 9/8. Downloaded Thales log files. Deck unit still down.</p>

1364	2006/09/08 - 9/14	-	-	No data. Wireless connection still down at first. Charlie and David at ship (9/15), but no time to work -- UPS on deck unit had been shut off due to "beeping", turned back on. Started AutoAdcp a few hours later -- ok. Continuing ADU logging. All looked ok 9/16 early a.m.
1365	2006/09/16 - 9/21	-	-	No data. Had lost communication with deck unit shortly before leaving port 9/16. Numerous dropouts in Thales data. Charlie and David at ship on 9/22: -- replaced #1 and #2 antennae -- reconnected cable to #2, but unable to solder it -- #1 cable looked good -- removed UPS from deck unit and turned back on (transformer had been turned off) Later on: -- reset PC time and date. -- new antenna recalibration successfully completed. -- restarted Autoadcp -- looked good.
1366	2006/09/22 - 9/28	X	X	Wireless connection down. Outbound data good to 150-250m; inbound 650-700m. Leica used as navigation source.
1367	2006/09/29 - 10/5	X	X	Wireless connection down. Compass lost outbound before Bermuda and inbound (repeater error messages). Outbound depths to ~600m dropped to ~200m south of G. Stream.

1368	2006/10/06 - 10/12	X	X	Charlie on ship (10/13)-- wireless connection still down. Downloaded some Microsoft updates and rebooted PC. Also downloaded latest data and ADU log files. Gyro was ok until just before Bermuda, never came back (repeater errors). Poor data quality outbound (very limited).
1369	2006/10/13 - 10/19	-	-	No data. Charlie on ship 10/20, successfully cleared up problems: -- compass repeater fixed--unplugged fuse in back of unit, plugged back in --wireless back up--DHCP address had changed, new address (192.168.1.102) entered in "DMZ" facility which the router uses to port information to PC. -- soldered center pin of cable to antenna #2. (no good data due to compass problem) Later on: -- changed Nav source back to Thales (COM1) in all .ini files (Thales data since 9/22 look very good) -- set Thales to use WAAS corrections for position
1370	2006/10/20 - 10/26	X	X	Ship arrived 10/27 a.m. due to bad weather. Very slow, intermittent connection. Autoadcp showed file Oleander005 (NYBSOUTH mode)-- unsure why, since nav. looked good. %good dropped outbound before Bermuda, remained that way inbound until shortly before NJ. Outbound data good (to >600m) other than a 3-4 hr. nav. dropout north of G.S. (may be related to WAAS setup since AT2 messages were good). Attitude data good.

1371	2006/10/27 - 11/02	X	X	<p>Little good data due to low %good, probably because of rough seas (storm/high winds shortly after departure). Inbound a little better, but poor depth penetration (generally 150-250m).</p> <p>Several hours (~9-10) outbound GGA messages lost as in previous week, with good AT2 messages. Disabled WAAS corrections on Thales. Otherwise nav/attitude data good.</p> <p>Installed Cisco's VPN client on Mac and PC. Outside access to router now disabled.</p>
1372	2006/11/03 - 11/09	X	X	<p>Couldn't connect 11/09, VPN okay, can connect to internal address of wireless bridge. David Luce visited ship on 11/10 to install new UPS on deck unit. Connection problem again due to DMZ assigning new address.</p> <p>Solution:</p> <ul style="list-style-type: none"> --turned off DHCP on PC, set static address to 192.168.1.90, gateway = 192.168.1.1, DNS = 151.198.0.68 --on router, set DMZ to use new static address for PC <p>Data summary:</p> <ul style="list-style-type: none"> --outbound: very little good data (low %good), poor depth penetration --inbound: better data, to 600m leaving Bermuda, decreasing to <100m over G. Stream --Thales data flawless
1373	2006/11/10 - 11/16	X	X	<p>Connected okay. AutoADCP frozen in Bermuda mode with "runtime error" box. Downloaded data as 2 separate zip files. Outbound data ok, but poor depth penetration (100-250m).</p> <p>Thales behaved well again.</p>

1374	2006/11/17 - 11/23	X	X	AutoADCP frozen in Oleander003 (deep) mode, same error as last week. Numerous “serial buffer full” messages in LOG file. Downloaded data to new server (po.msrf.sunysb.edu). Outbound and inbound data look good (600-650m depths, 400m over G. Stream). Thales flawless.
1375	2006/11/24 - 11/30	X	X	Outbound poor data quality; inbound good (>600m depths). Details: AutoADCP frozen in Oleander003 (deep mode) as in last week (10:33:48, 38.239N, 71.213W). Gap in PADCP messages at that time, then NMEA minus PC times ~10sec, gradually decreasing to 2sec. in last N1R file. Numerous “serial buffer full” messages. PADCP messages in previous 2 voyages showed similar behavior at presumed time of freeze.
1376	2006/12/01 - 12/07	X	-	AutoADCP frozen in Elizabeth000 mode (same error as previous weeks), before leaving port Dec.1 (17:48:12, 40.684N, 74.155W). Same behavior of PADCP messages as in previous weeks. New version of AutoADCP installed.
1377	2006/12/08 - 12/14	X	X	Outbound data processed only. AutoADCP in proper mode, but PC date one day behind: clock was set to 00:00:00 on 12/12, 23:59:59, so date never advanced. Revised version of AutoADCP installed to prevent problem.
1378	2006/12/15 - 12/21	X	X	Outbound data only; depths to >400m. AutoADCP frozen in Bermuda mode with same “runtime error” message box. Time: 12/18, 16:35 Data downloaded in 2 separate zip files (outbound and inbound).

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1379	2006/12/22 - 2007/01/04	X	X	Hung in deep mode (Oleander003) outbound before Bermuda. Data gaps. In port in Bermuda 12/25-1/2.
1380	2007/01/05 - 01/11	X	X	Hung in deep mode outbound (Oleander003). Limited data outbound (low % good); no good data inbound. Installed revised AutoAdcp.
1381	2007/01/12 - 01/18	X	X	Hung in deep mode outbound (Oleander003). Outbound data OK (100 to 500m depth); inbound data limited (low % good). Set AutoADCP to run in debug mode.
1382	2007/01/19 - 01/25	X	X	Hung in deep mode inbound (Oleander004). Limited data (low % good). Installed revised AutoAdcp.
1383	2007/01/26 - 02/01	X	X	Outbound OK; limited depth penetration (mostly <200m). Lost communication with deck unit in Bermuda (1/30). Inbound all watchdog resets.

1384	2007/02/02 - 02/08	-	-	Charlie visited ship. Appeared to be ground fault from power monitor. Removed power monitor. Unplugged equipment and plugged back in. UPS indicated alarm--rewired and turned off/on. Started AutoAdcp, but lost communication to deck unit. Removed UPS, connected deck unit to wall through power conditioner. AutoAdcp restarted ok. (no data this week)
1385	2007/02/09 - 02/15	X	X	AutoAdcp worked ok outbound, and inbound until entering NYBSOUTH -- watchdog timeouts until NYBNORTH, ok into port. (When entered NYBSOUTH, sent commands to ADCP, then lost communication, but Default mode communicated ok.) Outbound depth penetration ~400m to 100m north to south; inbound data south of Gulf Stream only (>500m depth), then no good data (low % good).
1386	2007/02/16 - 02/22	X	X	Appears to have lost communication with deck unit outbound ~2 hours into NYBSOUTH mode, yet commands are sent to deck unit, but doesn't ping (times out). Then ok in deep mode outbound and inbound, lost communication in NYBSOUTH, ok in NYBNORTH into port. Outbound data penetration to ~600m; inbound data very limited (low % good).
1387	2007/02/23 - 03/02	X	X	Lost communication with deck unit in NYBSOUTH mode and part of deep mode outbound, and NYBSOUTH inbound (other configurations ok). Very limited data outbound and inbound (low % good).

1388	2007/03/03 - 03/09	X	X	Limited data (poor % good). Log files indicate some problems communicating with deck unit in NYBSOUTH mode, but not complete loss as in previous 3 weeks. Bad AT2 messages from THALES last ~15 hours inbound. Reset, then ok.
1389	2007/03/10 - 03/16	X	X	AutoADCP problems NYBNORTH and NYBSOUTH, many PC clock resets; several watchdog resets inbound NYBSOUTH and NYBNORTH. Deep mode ok.
	2007/03/21 - 04/25 (approx.)			Oleander in drydock Transducer removed, cleaned, reinstalled.
1396	2007/04/27 - 05/03	-	-	No data -- first visit to ship (C. Flagg) since drydock to start deck unit and resume data collection. Alarm from UPS, so disconnected, deck unit plugged into power conditioner and wall. AT2 messages bad--possible problem with antenna #4.
1397	2007/05/04 - 05/10	X	-	Ambiguity errors apparent; transducer appears to have been rotated. AT2 messages good.
1398	2007/05/11 - 05/17	X	-	Ambiguity errors apparent. Configured ADCP to use Narrowband mode (NB velocities not affected by ambiguity issues). AT2 messages good.

1399	2007/05/18 - 05/24	X	X	<p>Very poor wireless connection--unable to transfer data file (5/30 ok). Good AT2 messages. Only DEEP mode valid--problem with other configurations; outbound good south of Gulf Stream only (to ~500m); inbound good to 500-600m throughout. Transducer misalignment estimated at ~73.4deg, scale factor = -0.999. Applying these values in processing produced believable velocities.</p>
1400	2007/05/25 - 05/30	X	X	<p>Better connection -- transferred current and last week's data files. AT2 messages good outbound only, antenna #4 problems verified. Several watchdog resets inbound west of DEEP mode. Transducer misalignment estimated to be the same as previous week. Only DEEP mode valid as in previous voyage; outbound data good (200-500m penetration); inbound okay, some gaps south and north of Gulf Stream.</p> <p>Visit to ship confirmed beam #3 rotation at +165deg; modified EA commands in .txt files to reflect this; set to run in Broadband mode except in DEEP region to test new offset (since Narrowband data appears to be salvageable).</p>
1401	2007/06/01 - 06/07	X	X	<p>Velocities and bottom tracking look good. Set DEEP configuration to Broadband mode. Outbound data very good to 6-700m; inbound poor quality (low % good), very little data. Several watchdog resets inbound NYBSOUTH region to port. AT2 messages all bad (antenna #4 problem).</p>

1402	2007/06/08 - 06/14	X	X	Outbound good 200-600m penetration; inbound limited and shallow (low %good). Inbound watchdog resets as in previous voyage (1401). AT2 messages all bad (antenna #4 problem). Charlie and George on ship--determined Thales problem is cable/connector, not antenna itself; tried to install UPS--hardware failure.
1403	2007/06/15 - 06/21	X	X	Outbound and inbound penetration ~600m in Sargasso Sea, <200m south of Gulf Stream to NJ. No watchdog resets. All blank fields in AT2 (attitude) messages. Connected to Thales--antennae 2 and 4 bad, then #3 also bad after sending reset command. So only antenna #1 appears to be working (giving position information).
1404	2007/06/22 - 06/28	X	X	Outbound very limited (poor %good); inbound data similar to previous week. Thales condition as in previous week.
1405	2007/06/29 - 07/05	X	X	Outbound <200m depth until Sargasso Sea, the ~600m depth. Inbound limited--deck unit failed ~12 hours after leaving Bermuda (>600m depth penetration). Thales condition as in previous week.
1406	2007/07/06 - 07/12	-	-	No data-deck unit was down. Charlie Flagg visited ship--swapped out deck unit, then discovered surge protector had blown the breaker; removed surge protector, deck unit connected to wall through power conditioner. Powered Thales off/on--all antennae now appear good, AT2 messages good.
1407	2007/07/13 - 07/19	X	X	Outbound data good to 6-700m; inbound limited (poor %good). Thales attitude data good throughout.

1408	2007/07/20 - 07/26	X	X	<p>Outbound data good to 700m; inbound varied between ~300 and 700m. Thales attitude data good throughout.</p> <p>NY Harbor setup altered to try to improve data quality in that region (changed from 4m bins to 2m bins).</p>
1409	2007/07/27 - 08/02	X	X	<p>Outbound data good to >600m until Sargasso, then ~300m; inbound data quality similar to outbound. Thales attitude data good throughout.</p> <p>Connected again on 8/2--compass repeater errors as in Oct. '06. Modified VmDas to use Thales ATT messages for heading (instead of gyro).</p>
1410	2007/08/03 - 08/09	X	X	<p>Outbound data depth penetration varies 200-600m; inbound generally less than 200m, ~350m north of Gulf Stream.</p> <p>Thales navigation and heading data good.</p>
1411	2007/08/10 - 08/16	X	X	<p>Outbound data good to >600m from Stream to Bermuda, 200-400m north of Stream; inbound data limited, generally <200m; Thales data good.</p> <p>C. Flagg on ship: restarted gyro; installed power controller for Thales on COM4 for remotely powering Thales off/on.</p>
1412	2007/08/17 - 08/23	X	X	<p>Outbound data limited and shallow (~200m north of Stream, then ~100m); inbound data ok, but shallow south of Stream (~200m), then 400m crossing Stream, >600m north of Stream. Thales data good.</p>

1413	2007/08/24 - 08/30	X	X	Outbound data variable, numerous dropouts below 200m; virtually no good data inbound. Thales AT2 messages good outbound only; reset command showed only antenna 1 was up, powered Thales off/on through power controller--data look good (all antenna up).
1414	2007/08/31 - 09/06	X	X	Gyro went down in Bermuda--same "ScanRepeater" error messages as before (early Aug.). Modified VmDas to use Thales ATT messages for heading as done before (Thales data were good throughout voyage). Outbound data ok (300 to 600m penetration); inbound also generally ok (used Thales to correct constant gyro value inbound).
1415	2007/09/07 - 09/13	X	X	Outbound data extremely limited; inbound better, but shallow shortly after leaving Bermuda (~100m). Gyro still down, Thales data good.
1416	2007/09/14 - 09/20	X	X	PC went down inbound ~10 hours after leaving Bermuda--powered off/on by NOAA personnel in NJ, rebooted ok. No good outbound data over Stream (~69W to 71W), otherwise ok (depth 200-600m). Gyro still down, Thales data good.
1417	2007/09/21 - 09/27	X	X	Data ok outbound and inbound, variable penetration (200-600m). Thales data good. Gyro appeared to be working again, left Thales as heading source for now (will check gyro next week).

1418	2007/09/28 - 10/04	X	X	<p>Outbound data very good to >600m until ~66.5W, then to ~100m; inbound data ok, but shallow (100-200m).</p> <p>Gyro ok, so changed VmDas to use gyro, Thales output to AT2 messages</p>
1419	2007/10/05 - 10/11	X	X	<p>AutoADCP stuck in Bermuda mode, so outbound data only--poor quality (gaps, <100m penetration). Gyro and Thales data ok.</p>
1420	2007/10/12 - 10/18	X	X	<p>Outbound data poor (gaps, ~60m penetration; inbound better, but not good (generally 100-200m, 500m just north of Stream).</p> <p>Gyro scan repeater alarm (different message--"400-CA" rather than "800-CA"). Modified VmDas to use Thales again.</p>
1421	2007/10/19 - 10/25	X	X	<p>Stuck in Bermuda mode, so outbound data only, but very limited (poor %good). Thales ok, no change in gyro.</p> <p>Poor wireless connection (slow, dropouts).</p>
1422	2007/10/26 - 11/01	X	X	<p>Outbound data all bad (poor %good); inbound good (500-600m penetration). Many watchdog resets. No change in gyro; Thales good.</p>
1423	2007/11/02 - 11/08	X	X	<p>Poor data quality outbound and inbound (very limited); outbound course altered to south due to storm (Noel)--essentially no good data; inbound slightly better, but gaps and shallow. No change in gyro, Thales good.</p>
1424	2007/11/09 - 11/15	X	X	<p>Limited data outbound and inbound (low %good); shallow penetration (100-150m).</p>

1425	2007/11/16 - 11/22	X	X	Appears to have lost navigation Nov.18 just west of Bermuda. Outbound data very good to >600m. Gyro messages appear to be ok.
1426	2007/11/23 - 11/28	X	X	Numerous watchdog resets. Poor data quality--outbound to ~100-150m; inbound >600m leaving Bermuda, but data gap due to lost navigation ~65.5W - 67W, then 600m to ~100m at 68.5W, then very limited. Upgraded VmDas to version 1.44 (from 1.42), set gyro as primary heading source. Still many "Nav I/O errors" while VmDas running.
1427	2007/11/30 - 12/06			AutoADCP hung before leaving port in NJ, so no data.
1428	2007/12/07 - 12/13	X	X	Many PC clock resets; AutoADCP updated to optionally disable clock checking (which was chosen for next voyages). Outbound and inbound data limited to <200m penetration; some data gaps due to low % good.
1429	2007/12/14 - 12/20	X	X	Outbound data good to ~550m north of Stream, then varies 200-500m; no usable data inbound. PC clock ~20 sec. fast -- reset.

Record of Oleander ADCP Data Collection

Voyage #	Dates	Have Data	Pro-cessed	Comments
1430	2007/12/21 - 2008/01/02	X	X	Very little good velocity data (low percent good); in port in Bermuda during holidays; low ship velocities, so possibly bad weather. PC clock 27.5 sec fast -- did not reset.
1431	2008/01/04 - 01/10	X	X	Very little good velocity data PC clock 44 sec fast -- reset
1432	2008/01/11 - 01/17	X	X	Very little good velocity data PC clock 12 hr, 11 sec fast -- reset
1433	2008/01/18 - 01/24	X	X	Inbound velocity data only; ~500m penetration in Sargasso, otherwise generally <200m with data gaps. No good velocity data outbound.
1434	2008/01/25 - 01/31	X	X	Limited data outbound, generally <=200m, with gaps. Inbound near 0% good throughout, so no good velocity data.
1435	2008/02/01 - 02/06	X	X	Ship in port a day early for repairs. Slow wireless connection most of the day, later ok. Connection intermittent the next day, unable to connect to PC. Velocity data extremely limited.

1436	2008/02/08 - 02/13	X	X	<p>Ship in port a day early for repairs. Limited data (low % good)-- outbound data ok west of 69W, penetration to ~200m only; inbound limited between ~69.3W and 71W, shallow. Configuration remained in DEEP mode inbound.</p> <p>DEEP configuration changed to run in Narrowband mode</p>
1437	2008/02/15 - 02/20	X	X	Ship in port a day early for repairs. Very good wireless connection. Very good data outbound (600-700m to ~68W, then varied 200-400m). Inbound limited--no good data west of ~67.5W.
1438	2008/02/23 - 02/27	X	X	Ship in port a day early for repairs. Good connection on 2/27, but unable to connect 2/28 and 2/29. PC clock 12 sec. fast, reset. Outbound data limited until Sargasso, then down to 600m; inbound limited, generally <200m with gaps.
1439	2008/02/29 - 03/05	X	X	<p>Outbound data good--generally 500-700m depth except ~250m over Stream; inbound data very limited.</p> <p>Good wireless connection.</p>
1440	2008/03/07 - 03/13	X	X	<p>Large gaps in velocity data outbound and inbound, with depths mostly < 200m -- probable bad weather. Outbound to 600m at ~72W and 66W to Bermuda; inbound to 600m at ~70W.</p> <p>Good wireless connection.</p>
1441	2008/03/14 - 03/21	X	X	<p>Outbound data very good, >600m (short gap around 69W); inbound very limited, probably due to bad weather (arrived late in port due to weather).</p> <p>Good wireless connection.</p>

1442	2008/03/22 - 03/28	X	X	Outbound data very good, 500-600m (short gap around 68W); inbound somewhat limited with gaps, but to ~600m in Sargasso. Arrived late in port (Friday morning) probably due to bad weather (ship speed 12-14 kts). PC clock 19 sec. fast--reset.
1443	2008/03/29 - 04/03	X	X	AutoADCP hung in Bermuda, so outbound data only; data very good, 600 to >700m west of 67W, then generally ~500m penetration. PC clock 13 sec. fast--reset.
1444	2008/04/04 - 04/10	X	X	Good data. Outbound 200-600m to ~68W, then >600m in Sargasso; inbound ~500m in Sargasso to >600m east of ~69W (some gaps at depth). Gyro ScanRepeater warnings began in Bermuda, so HDT messages invalid (but heading corrected using Thales data); configures VmDas to use Thales AT2 messages for primary heading. PC clock ~11 sec. fast, reset.
1445	2008/04/11 - 04/17	X	X	Ship arrived late at night due to bad weather; inbound data very sparse. Outbound data very good (>600m at times). PC clock ~14 sec. fast, reset.
1446	2008/04/18 - 04/24	X	X	Limited outbound data; inbound data very good (~600m depth). PC clock ~12 sec. fast, reset.
1447	2008/04/25 - 05/01	X	X	Inbound Thales attitude messages flagged bad, so no heading information available. Outbound data limited until Sargasso, then 200 -> 600m depth.

1448	2008/05/02 - 05/08	X	X	Outbound data excellent (600m to near 800m penetration). Inbound shallow (100-200m) east of 68W, better west of 68W (200-600m), some gaps. PC clock ~15 sec. fast, reset.
1449	2008/05/09 - 05/16	X	X	Arrived a day late due to engine problems that were fixed at sea 05/14-15; no good velocity data inbound until after engine repair (~69.2W), then good data to 600m. Outbound very limited north of Stream, then irregular to south of Stream, then good to 600m. PC clock ~15 sec. fast, reset.
1450	2008/05/17 - 05/22	X	-	AutoADCP hung soon after leaving NJ, after numerous watchdog resets, so no data available. Slow communications with PC and other problems required rebooting of PC, then ok.
1451	2008/05/23 - 05/29	X	X	Slow wireless connection. Several watchdog resets between regions. Outbound data good to 600m except in middle of Sargasso. Inbound shallower with some gaps in good data.
1452	2008/05/30 - 06/05	X	X	Some gaps in good data, especially outbound. Depth generally 200-300m, to >600m in some locations.
1453	2008/06/06 - 06/12	X	X	Outbound data very poor (bad weather?); inbound ok west of ~67W (to 600m in places, but some gaps at depths >200m). Good wireless connection.

1454	2008/06/13 - 06/19	X	X	Excellent data outbound to ~800m. Inbound shallow (200-300m) with gaps. PC clock ~43 sec. fast, reset. Slow wireless connection; unable to connect later on 06/20.
1455	2008/06/20 - 06/26	X	X	Outbound data generally ~200m with gaps, but to ~600m in part of Sargasso (after small decrease in ship speed?); inbound data very limited, no good data west of ~69W. Unable to connect on 06/26, but C. Flagg on ship 06/27--PC had been disconnected from router, so reconnected. Resynced gyro, but left configs as is. PC time reset (~11 sec. fast).
1456	2008/06/27 - 07/03	X	X	Unable to connect until following week (07/10). Outbound data excellent to max. depth; inbound limited until ~71.3W, then to max. depth (corresponded to slight decrease in ship speed of ~2 kts.)
1457	2008/07/04 - 07/10	X	X	Very poor connection, but managed to download data from last week and this week over several hours. Outbound data shallow until east of ~66W (probably weather related); inbound very limited.
1458	2008/07/11 - 07/17	X	X	Ship arrived late (~4:30pm), probably due to nearby Hurricane Bertha. Good connection at first, but lost halfway through download, unable to reconnect on 07/17 or 07/18. Discovered on the following week that we were unplugged again from router, plugged back in by Capt. after e-mail inquiry. PC time ~13s fast--reset. Outbound good to Stream, then limited (weather related--ship speed to 11 kts); inbound very limited due to storm.

1459	2008/07/18 - 07/24	X	X	Slow connection. AutoADCP stuck in Default mode shortly after leaving NJ (07/19) (Default = 50 8m bins). Outbound and inbound similar, generally <200m depth. PC time ~10s fast--reset.
1460	2008/07/25 - 07/31	X	X	Slow connection, better on 08/01. Outbound data excellent; inbound very good (shallow in middle of Sargasso). PC time ~13s fast--reset.
1461	2008/08/01 - 08/07	X	X	Unable to connect until end of day due to network work at high school. Outbound data excellent; inbound varied with slight speed changes (200-600m), limited west of ~71W. PC time ~12s fast--reset.
1462	2008/08/08 - 08/14	X	X	Slow connection. Outbound data excellent; inbound good, ~200m to ~69.5W, then 600-400m. PC time ~13s fast--reset.
1463	2008/08/15 - 08/21	X	X	Thales heading lost outbound at ~68.7W; only antenna #1 appeared to be working; reset command didn't help, so powered off/on using serial power controller, all antenna then ok. Changed configs to use gyro as primary heading. Outbound data generally <200m, no good velocity data east of ~68.7W or inbound. PC time ~20s fast--reset.
1464	2008/08/22 - 08/28	X	X	Good connection. Thales heading lost in Bermuda, gyro ok. Switched off/on with power controller--ok, but antenna #2 appears to have lower SNR values. Outbound data limited, shallow; inbound very good (>700m).

1465	2008/08/29 - 09/04	X	X	Connection ok. Outbound data good, generally 600-800m except 200-400m over Stream; inbound ok but gaps in good velocities ~67W to ~70W. PC time ~13s fast--reset.
1466	2008/09/05 - 09/11	X	X	Very good connection. Thales antenna #2 still showing lower SNR values. Outbound hardly any good velocity data, inbound velocities ok (depth varies 200-700m) except gap ~68W to ~69.8W. PC time ~13s fast--reset.
1467	2008/09/12 - 09/18	X	X	Gyro went down in Bermuda (“Repeater Alarm” warning), Thales remained up for heading. Changed configs to use Thales AT2 msgs. for primary heading. Outbound data very good to >700m most of the time. Inbound shallow to ~69.2W (south of Stream) probably due to weather, then >600m. PC time ~13s fast--reset.
1468	2008/09/19 - 09/25	X	X	Good connection. AutoADCP remained in deep mode inbound. Appear to be some Thales heading dropouts, antenna #2 weaker as before. Outbound data very limited, shallow; inbound better, but gaps in data and generally shallow (<400m). Probable rough weather (slower ship speeds). PC time ~13s fast--reset.
1469	2008/09/26 - 10/02	X	X	Slow connection. Stormy weather outbound, altered course south until past Stream, then east. Outbound data limited; inbound data excellent (700-800m). PC time ~13s fast--reset.

1470	2008/10/03 - 10/09	X	X	Outbound data very good (generally >700m, less over Stream); inbound poor until ~66.5W (probably weather related), then very good (600-800m). PC time ~13s fast--reset.
1471	2008/10/10 - 10/16	X	X	Slow connection. Thales ok, but antenna #2 weaker as before. Outbound good to ~600m to Northwall of Stream, then 200-400m; inbound no good velocity data to ~67.5W, then varies 200-600m. PC time ~13s fast--reset.
1472	2008/10/17 - 10/23	X	X	Outbound data only, to ~67W: Thales heading dropout and PC disk out of space west of Bermuda. Various files deleted to make space, virus scan and windows updates done. Thales reest--heading messages unstable. Outbound data good to >700m north and south of Stream, <200m over Stream. PC time ~13s fast--reset.
1473	2008/10/24 - 10/30	X	X	Lost communication with deck unit inbound at ~69.8W--can't wake ADCP up, though can communicate with BBTALK (takes commands, passes built-in tests). Attempt at troubleshooting with RDI reached no solution. Outbound data ok to 400-600m except no good velocity data over Stream. Inbound essentially no good data. Thales heading unstable inbound.
1474	2008/10/31 - 11/05	-	-	No data. ADCP wouldn't wake up. Dan Smith (NOAA) on ship, powered deck unit off/on, checked cables--no better. BBTALK not always successful, did not pass all built-in tests.

	2008/11/05 - 2009/01/23	-	-	Deck unit removed and sent out for repair, reinstalled 1/23/09. Firmware was upgraded to 23.17 from 23.11. Also, power supply replaced in Cisco router.
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Record of Oleander ADCP Data Collection

Voyage #	Dates	Have Data	Pro-cessed	Comments
1485	2009/01/23 - 01/29	X	X	Limited data outbound and inbound. Outbound depth 200-300m, with gaps; inbound 200-500m ~69.7W to 71.7W only, otherwise no good data. Gyro being used as primary heading.
1486	2009/01/30 - 02/05	X	X	Numerous watchdog resets in NYBSOUTH region outbound and inbound; lost good AT2 messages outbound NYBSOUTH. Some data outbound (2-400m), gap ~69.5-66W; almost no good data inbound.
1487	2009/02/06 - 02/12	X	X	C. Flagg on ship: reset gyro repeater, checked Thales antennae (cleaned connectors)-no change. No good AT2 messages. Created "ticket" file for troubleshooting. Antenna #2 weak. Outbound very good to 5-600m; inbound very poor.
1488	2009/02/13 - 02/19	X		Hung in default mode ~14 hours after entering deep mode outbound. Used Thales as primary heading in default mode, so most data no good since Thales AT2 no good. Changed default mode to use gyro.
1489	2009/02/20 - 02/26	X	X	Numerous watchdog resets in NYBSOUTH as in v. 1486. Outbound data very good from ~71.5W, to 600m; inbound very limited (probable bad weather). C. Flagg on ship to replace antennae 2 and 4 -- 4 better, 2 no change. Plan to replace cables.
1490	2009/02/27 - 03/05	X	X	Outbound data only, very limited; Thales headings bad.

1491	2009/03/06 - 03/12	X	X	Data limited: some outbound between ~70W-67W to ~200m; nothing inbound (probable bad weather). Flagg and Schwartz on ship to replace cables, but wrong cables so need to reorder.
1492	2009/03/13 - 03/19	-	-	No data since Thales is down (cables had been removed), so no GPS positions.
1493	2009/03/20 - 03//26	-	-	No data; Thales cables replaced, but antenna problem remains. Thales unit removed to send out for repair.
	2009/04/16	-	-	Thales reconnected, recalibration run successfully, looked good. New backup Leica GPS set up.
1497	2009/04/17 – 04/23	X	X	Thales data looked good. Configured VmDas to use Leica as backup navigation (N3R files will now be produced). Lost communication with deck unit in NYBSOUTH after ~3 hours, and inbound in entire region (before and after NYBSOUTH was ok—same issue Feb. 5 and Feb. 26). Outbound data very good (6-700m); inbound data limited.
1498	2009/04/24 - 04/29	X	X	Outbound data ok, but shallower (2-400m); inbound mostly bad. Same issue with NYBSOUTH region. Tried several modifications to .txt file which failed in port; final change: 100 8m bins, 1000m bottom search depth. Sent message to RDI.
1499	2009/05/01 - 05/07	X	X	Data fair (better outbound), some gaps. Same issue with NYBSOUTH region; turned off bottom tracking.

1500	2009/05/09 - 05/14	X	X	Outbound data fair, some gaps; inbound hardly any good data. AutoADCP stayed in NYBSOUTH mode outbound through return to NJ (though history file showed change to NWATLOCN). Changed baud rate to 38400 in .txt file (as per RDI), turned bottom tracking back on.
1501	2009/05/15 - 05/21	X	X	Outbound data very good (~600m), inbound limited. AutoADCP stayed in NYBNORTH outbound until NWATLOCN (i.e. skipped NYBSOUTH); inbound lost communication with ADCP in NYBSOUTH as before. Turned off BT in NYBSOUTH region.
1502	2009/05/23 - 05/29	X	X	Outbound data very good (>600m), inbound shallower, some gaps. AutoADCP region changes ok outbound, inbound stayed in NYBSOUTH after normal region change. Thales data have been good since reinstallation.
1503	2009/05/30 - 06/04	X	X	Outbound data excellent; inbound ok, but generally shallower, some gaps. Lost good Thales attitude messages outbound after ~1 day, but looked good in port.
1504	2009/06/05 - 06/11	X	X	Outbound data ok, shallow in some places; inbound ok where ship speed decreased, poor where slight speed increase. AutoADCP ok. No good Thales attitude data.
1505	2009/06/12 - 06/18	X	X	Outbound data very good; inbound shallower, some gaps. Thales attitude good outbound, lost in Bermuda and inbound.

1506	2009/06/19 -06/25	X	X	Outbound data good, some short gaps below 300m in Gulf Stream; inbound limited, shallow. Thales messages good.
1507	2009/06/26 - 07/02	X	X	Outbound data very good; inbound variable with ship speed changes (~1.5 to 2 kts). Thales messages good.
1508	2009/07/03 – 07/09	X	X	Outbound data very good; inbound shallow, limited
1509	2009/07/10 – 07/16	X	X	Outbound data ok, inbound limited. Lost good Thales attitude messages outbound after entering deep mode; reset with RST command.
	2009/07/18 – 08/13	-	-	Transit to drydocking, time in drydock, and return to NJ. We were not aware of drydock plan, so transducer pinged in air for a day before being turned off. Subsequent testing and data processing showed no apparent problems. Transducer removed for maintenance and reinstalled.
1514	2009/08/14 – 08/20	X	X	Outbound data very good (to 600m); inbound limited, some gaps.
1515	2009/08/21 – 08/27	X	X	Outbound headed directly south to ~36.5N to avoid Hurricane Bill, then southeast to Bermuda; data limited, AutoADCP stuck in Oleander002 (NYBSOUTH) the remainder of the transit out and in; inbound data better, but generally <200m. Strong surface currents observed outbound and inbound. No good attitude messages inbound. Unable to download data.
1516	2009/08/28 – 09/03	X	X	Outbound and inbound data ok, but some gaps—probable effects of T.S. Danny. Attitude messages bad. Still unable to download data.

1517	2009/09/04 – 09/10	X	X	Charlie on ship—replaced wireless antenna and swapped out PC. Connection speed still variable. On PC, did the following: --turned off DHCP --set static address to 192.168.1.90 gateway 192.168.1.1 DNS 151.198.0.68 Attitude messages bad throughout, reset Thales. Outbound data good; inbound poor.
1518	2009/09/11 – 09/17	X	X	Variable connection. Outbound data poor (weather related); inbound variable. Thales good throughout.
1519	2009/09/17 – 09/23	X	X	Outbound data good, shallower in Sargasso (slight speed increase near Bermuda resulted in increased depth); inbound data generally shallow and scattered. Enabled bottom tracking in NYBSOUTH to try to obtain more bottom track data since transducer was reinstalled.
1520	2009/09/25 – 10/01	X	X	Same resets in NYBSOUTH as earlier in year, so disabled bottom tracking again. Outbound and inbound data shallow and limited.
1521	2009/10/02 – 10/08	X	X	Outbound data very good; inbound variable.
1522	2009/10/09 – 10/15	X	-	Thales stopped outputting data and AutoADCP stuck in Default mode (not configured to use backup GPS device), so no good velocity data. Thales reset.
1523	2009/10/16 – 10/22	X	X	Outbound—no data until 70W, then to >600m. Inbound data shallow, limited.
1524	2009/10/23 – 10/29	X	X	Outbound data scattered, limited until Sargasso; inbound good to ~66.2W, then nothing until some scattered data north of Gulf Stream.

1525	2009/10/30 – 11/04	X	X	Outbound data okay, some gaps; inbound data limited.
1526	2009/11/06 – 11/11	X	X	Outbound data good, some minor gaps at depth; inbound started okay, but stopped collecting data at ~68W. Appeared that COM port for ADCP wasn't recognized—rebooted PC, then okay.
1527	2009/11/14 – 11/19	X	X	Outbound data poor, limited; course began more southward due to weather, better in Sargasso. Inbound data limited, but better than outbound.
1528	2009/11/21 – 11/26	X	X	Outbound okay, but variable depths. Inbound data very good, generally to 600m.
1529	2009/11/27 – 12/03	X	X	No good velocity data; stuck in shallow mode (30 2m bins); ship speed generally 10-12 kts.
1530	2009/12/04 – 12/09	X	X	Outbound very poor. Inbound limited: some shallow in eastern Sargasso, then gap to Gulf Stream (Stream and north okay).
1531	2009/12/11 – 12/17	X	X	Outbound very good (~400m north of Stream, then to >600m). Inbound no good velocity data, ship speed variable.
1532	2009/12/18 – 12/25	X	X	Outbound very poor, limited. Inbound no good velocity data.