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THE FINDING SYDNEY FOUNDATION

FRIDAY 29TH FEBRUARY

0610 - WELDERS WORKING ON A-FRAME SPREADER BAR

V-SAT SYSTEM TRACKING SAT STILL NOT FULLY FUNCTIONING.

SEA TRIAL TO TAKE PLACE AT "TARGETS" JUST WEST OF THE ABROLHOS ILS. IS 350MSW, OK FOR WTA + DOF.

0830 - MEETING

WTA STATUS

- SM30 FIXED - I.C. REPLACED ON DATA LINK PCB
- DYNACON WIND PUMPS + WORKING
- HPU SECURED
- AMS 60 NOT TESTED YET, TOPSIDE ELECTRONICS ONLY ARRIVED LAST NIGHT
- READY FOR WET TEST AS SOON AS THE LOAD TEST IS COMPLETE.

SEA TRIAL - ABROLHOS POSITION ACCEPTED. USE TO ROUND ISLAND TO THE SOUTH AND LAUNCH TOWFISH ~ 3,000M BEFORE 1ST TARGET POSITION

HELICOPTER SHOTS - DECISION TO SHOOT FOOTAGE IN DARKER WATERS BEFORE THE SEA TRIAL POSITION AND USE THIS AS A PRELIMINARY TOWFISH TEST.

SET PROVISIONAL SAILING TIME OF 1100 HRS

USAT - TRANSMISSION OK BUT STILL NOT 100%
FUNCTIONAL. NEED 1 PERSON TO INTERFACE
WITH USAT TECH. UPDATING SOFTWARE

SEA FASTENING - BRIDGE OFFICER TO DO A WALK AROUND
PRIOR TO SAILING. NEED TO CLEAR FIRE ESCAPE
AFT END OF SURVEY ROOM OF WILLIAMSON'S GEAR

0900 - MEETING WITH BILL OF DOF
USAT SITUATION STILL UNDEAR. CALL IN TO
JOHNATHON IN SYDNEY TO DETERMINE HOW
SERIOUS IS THE PROBLEM.
DECIDES THAT WE CAN'T DEPART WITHOUT A
FULLY FUNCTIONAL USAT.

0940 - LOAD TEST ENGINEER NOT PRESENT. APPARENTLY
THIS WAS CANCELLED THE NIGHT BEFORE BY
TIM IN DISCUSSION WITH PATRICK.

DECIDE TO CONDUCT WET TEST OF SH30
SOONER WHILST WAITING FOR THE LOAD TEST
ENGINEER TO SHOW UP.

1025 WET TEST OF SH30 IN HARBOUR SUCCESSFULLY
TESTED, PORT + STBD SSS + SBP.

1055 LOAD TEST SUCCESSFUL

U-SAT STILL NOT WORKING 100%, + LINK WITH
USI NETWORK. PUSH BACK DEPARTURE TIME
TO 1300 HRS.

1240 U-SAT FUNCTIONING properly. Now Andy is working to link it with USI NETWORK

DEPARTURE TIME SHIFTED TO 1330

Sorting out SEA-FASTENING issues, MOVE ART'S STORAGE INTO THE PARTY CHIEF OFFICE, BDR BOXES OUT FROM UNDERNEATH THE INTERNET CAFE TO SPACE BEHIND SURVEY ROOM. SURVEYORS TO KEEP THEIR INTERNET + EMAIL DESK.

1340 USAT SYSTEM WORKING + LINK TO NETWORK PROVEN. ELECTRIC PICTURES TEST of VIDEO DATA WAS SUCCESSFUL.

HOWEVER, USAT NEEDS TO BE SWITCHED ~~back~~ TO THE WORKING SATELLITE. JONATHAN HAS ASKED THE USAT TECH TO SWITCH ~~the~~ OVER TO THE NZ SATELLITE (GE) BECAUSE THAT IS WHATEVER WHERE THE SHIP WILL BE OPERATING FOR THE NEXT JOB.

THE U-SAT + NETWORK TECHS ASKED FOR 1-HR SO WE SHIFTED DEPARTURE TO 1500 HRS GIVING THEM 1.5 HRS.

DEPARTURE TIME SET AT 1600 HRS BECAUSE WE COULDN'T GET LIFE HANDLERS.

1610 LIVES AWAY.

1635 Pilot off.

1640 ENGINE ROOM REPORTING SMOKE IN ENGINE ROOM, POSSIBLY DUE TO LAGGING ON EXHAUST PIP. ANNOUNCEMENT MADE & USI REQUIRED TO ANCHOR, SHUT DOWN ENGINES AND INVESTIGATE. DAVID MEARS CALLED TO THE BRIDGE.

JOHN PERRY WAS ON BRIDGE. BLAIR PILOTING, GRAHAM NAVIGATING, ANCHORMAN STANDING BY. PILOTING OVER SHOALS TO THE ANCHORAGE, FATHOMETER READ AS LOW AS 1.8M, ADDING CRAB TRAP LINES. DLM ASSISTING WITH FATHOMETER, J.P. LOOKOUT FOR BOATS, LINES, BOATS.

1752 ANCHORS DROPPED IN ANCHORAGE. CHART DEPTH 10M, DEPTH UNDER KEEL AS PER FATHOMETER 3M.

1822 DLM CALL PATRICK FLYNN FORMING LINE OF PROBLEM & SITUATION. DECIDE TO HOLD P.R. UNTIL I CALL WITH CONFIRMATION.

2300 REVIEW SITUATION WITH BLAIR. ENGINEER IS GOING TO MAKE THE CALL AT MIDNIGHT. SHIP HAS 140M³ OF FUEL TOTAL, AND THE TANK IN QUESTION HAS 40M³ OF FUEL. THE STABILITY BOOK INDICATES THAT THEY NEED 60T OF F.O. TO MAINTAIN USI STABILITY.

2315 INSPECTING THE LEAK, WHICH IS STILL OOZING slowly from THE PUTTY, WHICH IS BEING WORKED IN PLACE BY TWO ENGINEERS.

2343 CALL PATRICK, ADVISE HIM OF THE SITUATION

2345 INSPECT THE LEAK AGAIN AND IT IS OOZING STRONGLY NOW & DRIPPING FROM SEVERAL PLACES. THE PUTTY IS NOT GOING TO WORK TO SEAL THE LEAK COMPLETELY.

1 MARCH 2008

2035 BLAIR SAYS THEY HAVE TO GO. NO PILOT ON DUTY NOW, BUT WILL CALL THEM A 7AM. NO INCIDENT REPORT HAS BEEN CREATED YET.

0740 BLAIR IS WORKING THE PROBLEM WITH HIS STORM SUPPORT BUT NO PLAN IS IN PLACE YET.

Mike Wilbur 0408902047
Harish Perincherry 0439945833

DECIDE TO STAY IN THE ANCHORAGE UNTIL A PLAN IS IN PLACE. GERALDINO WHO IS FOOTING THE BILL FOR PILOTS, ETC. DON'T WANT TO CALL THEM & INCUR O.T. COSTS ON A WEEKEND UNLESS WE NEED TO BE ALONGSIDE.

0811 TEL WITH PATRICK.

12

0825 TAKE PHOTOS OF LEAK + BUCKET

0910 TEL W/ PATRICK. DYLAND IS BEING FLOWN
IN TO WORK THE PROBLEM LOCALLY.

1230 PILOT DUE AT 1430

1350 ENGINES STARTED

1426 ANCHOR AWEIGH

1434 PILOT ON BOARD

1511 LINES ASHORE - Tying up.

1512 TANK CLEANING TRUCKS DROVE UP ALONGSIDE

1519 MAIN ENGINE SHUT DOWN

1600 WTA INFORM THEIR SPARE CABLE ON THE
B/L WHICH HAS A SHORT IN THE SHIELD TO ARMOUR
AND WILL NOT WORK. THE ~~SPARE~~ CABLE WAS
TESTED TWICE BEFORE BEING SHIPPED BUT THE
SHORT WAS DETECTED AT THE START OF
MOBILISATION AND DESPITE VARIOUS CUTS AND
OF THE CABLE TOTALING 1,000M THEY HAVEN'T BEEN
ABLE TO GET TO THE BAD SPOT ON THE CABLE,
WHICH THEY NOW BELIEVE IS IN THE MIDDLE.

2 MARCH 2008

13

WELDERS DUE AT 0900. DNU SURVEYOR IN
FREMANTLE. BILL R-GARGILL IS GERARDOS

0840 - ENGINEER CHIPPING AWAY THE HARDENED
JULHY TO EXPOSE THE CRACK. FANS
ARE IN PLACE TO VENT THE FUEL TANK

0905 - PHOTO THE EXPOSED CRACK

1010 - JHA CONDUCTED BEFORE RCR WELDERS
ENTERED TANK TO MAKE REPAIRS.

1530 WELDING OF FUEL TANK COMPLETE

1745 TANKER ARRIVES AT VESSEL

1910 BEGID REFUELLING

2025 REFUELLING COMPLETE

PILOT WILL NOT TAKE US OUT AT SHORT
NOTICE, ON A HOLIDAY WEEKEND. WE ARE
SCHEDULED TO DEPART AT 0800 TOMORROW.

{ 03 MARCH 2008 }

0700 Patrick Flynn onboard for final
handover of information

0811 Depart GERMISTON

0850 Muster Drill

0900 Drill complete - steering to launch
point for SONAR SEA TRIALS.

0918 Informed arrival at SEA TRIAL location
at 1530.

Apparently the MIBS SONAR went down at
about this time, but we were not told
until 1330.

1350 Some MIBS pings coming through.
Boatmen re-seated and now seems
to be working.

1405 - 1425
~~1405 - 1425~~ Tool box meeting on the bridge re:
LAUNCH & RECOVERY procedures for the
SONAR SEA TRIALS.

1430 ENGINEER

~~1430~~ Spoke with ~~TEB~~ GRAHAM who slipped on
deck and hit his head on a winch sustaining
a small cut that bled quite a bit.

GRAHAM WAS PATCHED UP AND FEELS OK ALTHOUGH ~~ORIGINALLY~~ INITIALLY HE WAS DIZZY. AN INCIDENT REPORT WILL BE FILLED OUT.

1530-1630 PREPARING DECK TO LAUNCH SONARS FOR SEA-TRIALS. SHIFTING THE 60 SYSTEM IS POSITION FOR LAUNCH + 30 SYSTEM FURTHER UP THE DECK AWAY FROM THE CRANE.

1634 PERMISSION TO LAUNCH 60 SONAR

1643 SONAR IN WATER

1647 DEPRESSOR IN WATER.

LAUNCH PT. WAS ~ 1,600m TO ~~THE~~ SEAWARD OF THE LINE, US1 NOW TRACKING OVER TO THE LINE AND WILL TURN AT A POINT 1,500m SOUTH OF THE SOUTHERN TARGET AND THEN RUN THE LINE TO THE NORTH.

SONAR & SUB-BOTTOM IMAGERY OK ON ISIS BUT SHOWING ELECTRICAL NOISE ON SONARWIRE, PROBABLY DUE TO A PROBLEM IN THE SONARWIRE INTERFACE BOX.

SONAR PICKED UP A TARGET ON THE PORT SIDE ~ 800m RANGE SOON AFTER IT WAS LAUNCHED.

- 1.7 Start slow recovery of 60 sonar to 100m c/o
- 1831 SEA TRIALS COMPLETE - SATISFACTORY FOR AMS6C
- 1840 Turn vessel into weather to recover sonar.

~~8-12-65 BRIDGE BATT~~

1905 - DEPRESSOR ON DECK

1917 - AMS-60 TOWFISH ON DECK, RIGGING SM-30 FOR LAUNCH

2018 SM30 TOWFISH IN WATER

2022 DEPRESSOR IN WATER, COMMENCE SM-30 SEA TRIALS

2308 RWD BY TWO TARGETS PER DAVID MEXNER TEST SATISFACTORY. MAKING PREPARATIONS TO RECOVER TOWFISH

2340 CAME OUT 30M TOWFISH POWER SECURED

2345 SEA MANEUVER FOR TOWFISH RECOVERY, ADD DECK GREASY + WDSATE. STEAMING TO LEE IN THE ABOULHOS ISLANDS AT 9.5 KTS

104 MARCH

0001 SEAS FROM SOUTH AT 8-12 FEET

0315 IN OTHER WATERS, MAKING PREPARATIONS TO RECOVER.

0325 DEPRESSOR ON DECK

0335 TOWFISH ON DECK

0355 BACK DECK SECURE, PROCEEDING TO SEARCH AREA AT 9.5 KTS.

{ 04 MARCH 08 }

17

0745 MEETING DLM, ART WRIGHT, MASTER
ROBERT BUIZINSKA, MATTHEO
+ FILM CREW

OPERATIONS PLAN - ~~THE~~ DLM ADVISED PLAN

WEATHER - REINSTATE NAVY REPORTS

REPORTS - BRING TO MEETING, MIDNIGHT LATER

HSE - HAZID CARDS 1 HAZID SUBMITTED + CLOSED
OUT.

ISSUES / QUESTIONS - NONE

AC UNIT - TO BE LOOKED AT

BLAIR'S SHIFT 8-12 ON BRIDGE

0925 - 0940 - TELECON WITH PATRICK

- 10:00 - TALK WITH COOKS RE: FOOD. MAIN POINTS
- INITIAL ESTIMATE FOOD TO LAST FOR 21 DAYS
 - CATERING MANAGER IN SINGAPORE ORDERED FOOD WITHOUT CONSULTING COOKS ON BOARD
 - WE HAVE TOO MUCH OF WHAT WE DON'T NEED (BREAD, SWEETS, CARROTS) + NOT ENOUGH OF WHAT WE DO NEED.
 - WILL TAKE A FEW DAYS TO TAKE STOCK OF SLOWLY ORGANISED FREEZERS TO KNOW FOR SURE
 - DLM REQUESTED THAT FOOD BE STRETCHED OUT.

1010 - TELEPHONED PATRICK TO DISCUSS FOOD SITUATION. MAY NEED THE BOAT BEING LINED UP FOR FUEL TRANSFERS TO ALSO CARRY OUT FRESH PROVISIONS / VEG + FRUIT.

1618 THE MBES HAS CRASHED A COUPLE OF TIMES + RESTARTED. NIGEL IS INVESTIGATING THE LIKELY CAUSE OF THE CRASHES.

23:22 Vessel arrives on location for sonar deployment south of survey area. Preparing sonar for launch.

23:30 Rub test on deck

23:48 Sonar towfish deployed (with depressor)

Swell easing to $< 2m$ and wind speed approx. 12kts at launch.

105 MARCH 08

Continuing to pay out cable. Vessel speed 3 kts.

02:08 Williamson request a reduction in vessel speed to 2.5 kts

03:21 Vessel enters Northern Survey Area. Towfish at altitude of 300m with C/O of 66900m

03:38 Vessel requests increase in speed in order to maintain heading. Speed increased to 2.8 kts

03:43 Targets on sonar visible, the larger being in the port channel. However, considering size, appears to be more likely to be geology. Mike has captured file and identified a position. Note: the towfish was still 3400m from the SOL (Altitude 235m)
Two targets; 62 pings and 41 pings respectively with numerous smaller point reflectors.

05:06 Towfish enters search area. Towfish altitude of 275m with C/O of 6700m.

06:00 Shift Change. Sonarwiz display on main screen not working well. STBD channel shows lots of noise + bad bottom track

06:35 - Replesten Carter to RW BNC cables to CODA

06:55 - Isis + Sonarwiz appear to have locked up. STBD channel of SSS only giving

DATA OUT TO 2, ZOOM NOT 3000M. CLEAR
CROSSTALK ON STRO CHANNEL. CARTER IS
TROUBLESHOOTING PROBLEM WITH ISIS + SOWARWIZ.
EPC'S STILL RECORDING.

* QUESTION OF LOSS OF DATA AT THIS TIME?

0700 - NOW ALL SCREENS SLACK. COMPUTERS
NOT UPDATING. EPC STILL RECORDING.

0730 - SHIP HAVING A DIFFICULT TIME ~~BE~~ MAINTAINING
STEERAGE AT SLOW SPEED GOING NORTH.

0712 - NOTICED THAT METEIZ IS SHOWING
SHIELD SHORTING TO ARMOUR.

0745 MT6. ALI, DLM, J.P., GLEYS, NIGEL

REQUEST SPEED TO BE FILTERED

NAVY FORECASTS ARE BACK ON LINE

TOOLBOX + JHA FOR LAUNCH

FOOD - COOK TO REPORT TO BLAIR SITUATION

0855 CARTER ~~JOES~~ CHANGES SOME SETTINGS ON
THE SM30 CONTROLS + CREATES A SMALL
HOLIDAY.

PROBLEMS WITH SM30

- GROWS FAULT
- STRIKE DOWN STBD CHANNEL @ 2200H
- POSSIBLE LOSS OF DATA BEYOND 2200H on STBD CHANNEL
- PITCH STUCK AT 18
- ROLL STUCK AT 11
- SWITCH MAIN SCREEN TO ISIS
- WHAT IS STORY WITH SNAKEWIZ? WHO KNOWS IT?
- REMOTE DISPLAY IN CLIENT SPACE

P30 - 1055 TELECOM WITH PATRICK

1 06 March 08 1

01:20 EOL. Sonar swathe changed to 1km on instruction from Carter to assess shield shorting. Shield shorting is still present.

02:41 Recording data with towfish at approx. 400m above seabed over an area of topographical variance. Returns show contrasting signal expected over topographically variable area. Carter however does not seem to be convinced that there is significant signal after he ran his short tests. The side scan return on 1km swathe appears to be better than what was observed on the last few hours of 6km swathe data (File = ~~SM301~~ SM301_LINE07_ROWOUT.TXT)

05, Williamson crew preparing deck for SM30 recovery.
500m c/o

05:42

Depressor recovered. Ground to shield still present.

05:57

SM 30 recovered to deck. Testing of system to fault find.

Vessel maintaining position just north of survey block.

0640

Discussed tracing the G.F. with CARTER using the bucket/mop test. He had never done this before, neither had JEFF K. They were opening up the bottles and CARTER BELIEVED THAT HIS GFI WAS CLEAR, SO HE HAD TO plug sack with cables & close the bottles.

0745

MEETING. DNM, TRADTS, BLAIR, MATTHEW, ART W. JOHN P.

Topics discussed

- SOAR DOWNTIME - REPAIRS TO TAKE ~ 6 hrs
- FOOD - will know more in a week. Should be able to go longer than 21 days.
- NEED GOOD ADVANCE WARNING & ORGANISATION IF THE EP FILM TRANSFER BOAT IS TO BE USED FOR RE-PROVISIONING.
- COMPETITION TO BE KEPT PRIVATE & LOW KEY

SOAR INTERCONNECT CABLE TO BE FOUND WITH A COUPLE OF NICKS IN IT THAT WERE TAPED OVER BUT NOT PROPERLY SEALED.

10:00 I PROBLEM FOUND ON TOWFISH ELECTRONICS
A CHIP ON A BOARD WAS BAD, WHICH WOULD
AFFECT THE ~~BOARD'S ABILITY~~ CONTROL OF THE
SONAR GAIN HIGH-LOW SWITCH. STILL CHASING
DOWN A TVG PROBLEM.

1245 CARTER HAS FIXED THE TOWFISH PROBLEMS
AND THEY ARE BEGINNING TO PUT THE ELECTRONICS
BACK IN THE TOWFISH. ONE OF THE SUSPECT
CARDS (^{DATA} DECODER) WAS CAUSING AN INTERMITTENT
FAULT BECAUSE THE CONNECTOR STRIP WASN'T
MAKING A GOOD CONTACT. THE COPPER IS BEING
WORN AWAY AS THIS BOARD IS TAKEN OUT & PUT
BACK IN MANY TIMES OVER. THE REPAIR INCLUDED
BUILDING UP THE CONTACTOR STRIP WITH MORE
SOLDER.

UNSUCCESSFUL

1357 AFTER SEVERAL ^{UNSUCCESSFUL} TRIES TO GET THE SONAR ELECTRONICS
TO OPERATE CORRECTLY IN THE SUTLE IT WAS
DECIDED TO TAKE THE ELECTRONICS OUT OF THE
BOOTHES & BRING THEM BACK DOWN TO THE LAB
TO DETERMINE THE CAUSE OF THE INTERMITTENT
FAULT.

1433 CYCLOPE OPHELIA IS TURNING MORE SOUTHERLY
NOW AND WE ARE STARTING TO FEEL THE
EFFECTS IN TERMS OF INCREASED SWELL
HEIGHTS, CLOUDS, & SOME RAIN.

1600 TOWFISH WORKING IN THE LAB. REPAIR MADE BY
INCREASING THE SOLDER LEADS ON THE

CONNECTOR STRIP. PUTTING THE ELECTRONICS BACK
IN THE BOTTLES ON DECK.

1620 TELECON WITH PATRICK

- SUNDAY STARTS NEW 2-WEEK FIRM PERIOD
- IF WE DON'T AGREE TO 35 DAYS THEN
SEARCH MIGHT CONTINUE TO APRIL 4/5.

1625 - TOOLBOX MTG FOR W+A CREW

1632 - DEPRESSOR IN WATER

1634 - TOWFISH IN WATER.

700 - 1945 DISCUSSIONS WITH BLAIR + ART RE:
CYCLO = OPHELIA WHICH HAS TURNED TOWARDS
US AND WILL TRACK OVER OUR POSITION
TOMORROW AFTERNOON.

TEL WITH LEO V. BURGEL

9263 2258
BRUCE BUCKLEY - SR. FORECASTER

BRAD CEDROS 9263 2245

SAT IMAGERY - CYCLOPE WEAKENING
NEAR

GALE FORCE 34 KTS 25-35 KTS

SPRINKLES 45-50 KTS
ACCELERATE 45 KTS

SLOWED DOWN A FRACTION

MOVING 410 KGS TO SOUTH
STILL A RISK, BUT A LOW RISK
RISK OF A CAPTURE, THERE, BUT LOW
LOPH -

BRAD - 10:30

8 2025 BRIEFED BLAIR ON THE CYCLOPE SITUATION
+ GAVE HIM THE # TO THE BOM MET
SPECIALIST.

2140 BRIAN B. CALLS ~~THE~~ TO MAKE A TOWFISH
RECOVERY BECAUSE THE TOWFISH IS STILL
NOW FUNCTIONAL AND THEY NEED TO GET
BACK IN THE SOTTLES + STRING ALL THE
ELECTRONICS, INCLUDING THE WADILICAL DOWN
INTO THE LAB FOR CARTER TO PROPERLY
TROUBLE SHOOT THE TOWFISH.

RIGHT AS THIS CALL WAS MADE THE SHIP
SUFFERED A POWER FAILURE ~~THE~~ OF ABOUT
5-10 SECS THAT SHUT ALL COMPUTERS AND
SCREENS DOWN.

2200 GRAEME THE ENGINEER CAME IN TO REPORT
THAT A GENERATOR OVER HEATED + FAILED. THEY
SWITCHED OVER TO A 2ND GENERATOR, AND
TRYING TO FIND CIRCUIT SWITCHES ~~THE~~ TO
RESTORE POWER TO THE CLIENT LABS OUTLETS.

| 7 MARCH 08 |

00:00 Continue recovery of SM30 towfish. Weather and sea state becoming very marginal for recovery.

01:30 Recovery of SM30 towfish and depressor to deck the depressor requiring to be stowed in order to keep the aft deck clear of rigging which was tripping the crew up while attempting to recover the towfish umbilical. The movement of the aft deck area caused snatch on the umbilical making it difficult to hold and pass around the A-frame. However the final lift and recovery of the towfish went smoothly without incident. Vessel heading NE to avoid Cyclone Ophelia path. Williamson crew commencing fault finding and testing of the equipment while on deck while vessel in calmer conditions.

0745 MEETING, DUM, BLAIR, AIRT, JOHN P. MATTHEWS, Nigel, ROB B.

Currently running 071° away from Ophelia
TOWFISH all submersed up & SECURE
PLAN TO STRIKE UMBILICAL DOWN TO LAB &
TOWFISH ELECTRONICS TO TROUBLESHOOT fault
FEEDBACK from Seattle is THAT IT COULD BE
THE SUB-BOTTOM PROFILER STEPPING ON THE
SSS SIGNALS

2 TOOL BOX MEETINGS LAST NIGHT.

0945 LATEST BOM UPDATE SHOWS Ophelia to be
AN EX-KYCLOWE. EXPECT NO FURTHER

updates. Blair is unhappy with this. Doesn't feel he knows where the low is moving and what his next move should be. I advise W+A crew comfortable working and do not want to stray far from search box or burn excess fuel.

Blair has turned NE and slowed down. Winds on bridge 27 kts, pressure 1010, and ~~sea~~ heading into swell ~ 2 to 3 metres.

I would be happy with coming about in a following sea and heading back to site. Advise that low is not going to strengthen and the sea conditions will be the same in every direction so might as well go back.

Blair to call up the Bom Forecaster.

1145 Sonar electronics checks out is the las.

Carter can't replicate the noise looking through the O-scope, which suggests the problem could be with the transducers or cabling on the towfish. Carter is going to go through the transmit side one more time to verify it is OK.

1200 Winds increased a bit to 27-30 kts. Plan is to keep us pointed into seas N, with only slight speed on. Forecaster say Ophelia is now moving SE or ESE. We need to stay away from the southern quadrant.

1530 US1 DAD LEADING WEST BACK TO THE SEARCH AREA. WTA HAVE DETERMINED THAT A RECEIVER BOARD IN THE TOWFISH WAS DEFECTIVE AND THIS WAS SCREWING UP THEIR GAUGS. THE BOARD WAS BEEN REPLACED AND THE SYSTEM IS BEING RE-TUNED.

1635 COMPLETELY REPAIRS + TESTING IN LAB. PUTTING ELECTRONICS BACK IN THE BOTTLE TO TEST SM30 ON DECK.

1700 DECK TESTS OF SM30 SUCCESSFUL, TOWFISH READY FOR LAUNCHING. US1 STEAMING OVER TO SEARCH BOX. VESSEL ~ 400M EAST OF LAUNCH PT.

1710 WIND SUDDENLY INCREASED TO 38 KTS. SEAS INCREASING + ~~WAVE TOPS~~ WAVE TOPS BEING SLOWED OFF. SEAS FORCE 8.

WAITING ON WEATHER

8 MARCH 2008

31

0330 PREPARING TO LAUNCH SONAR, CHECK CHECKS AND TESTS

0415 DEPLOY TOWFISH + DEPRESSOR.

0745 MTG. BLAIR, DLM, JOHN P. ART., NIGEL M.

- WEATHER - IMPROVING
- LIVE DRAWING - OK, TRY TO SPEED UP A BIT
- ~~BLAIR~~ WHEN ASKED ~~ABOUT~~ HOW FAR THE TOWFISH WAS LAUNCHED AWAY FROM THE LEAD IS LINE, NIGEL SAID HE WASN'T RECEIVING CLEAR COMMUNICATIONS FROM WTA. ~~BLAIR~~ THIS NEEDS TO BE AGREED + BETTER COMMUNICATED FOR ANY SUBSEQUENT LAUNCHES.
- 2 TOOT BOX MEETINGS

0800 SETTINGS FOR CODA ACQUISITION

ANALOGUE PORT + STRO		TRIGGER	
VOLTAGE RANGE $\pm 5V$		SOURCE	EXT
CUSTOM		ACTIVE EDGE	+VE
SAMP FREQ	4000		
SAMP / PIX	16,000		
START DELAY	0		
FIXED SWEEP - click NO + it gives a TRUE RANGE of 2785 METRES			
$\frac{16000 \text{ SAMP/PIX}}{4000 \text{ Hz}} = 4 \text{ SECS PER PIX.}$			

10:00 - WORKING TO SET UP CODA DATA.
ACQUIRING DATA NOW. SHED WORKING
OK. STILL SOME PROBLEMS THAT
DETRACT FROM THE DATA.

- THE NEW RECEIVER CARD ~~IS~~ ~~STILL~~ ~~WORKING~~ ~~THE~~ HAS A PROBLEM
IN THAT IT IS ONLY ALLOWING DATA OUT
TO ABOUT 2,600M ON THE STBD CHANNEL
AND 2850M ON THE PORT CHANNEL.
- THERE IS QUITE A BIT OF ACOUSTIC
NOISE ON THE OUTER RANGES
- INCREASING AMOUNTS OF DROP-OUTS ON
THE STBD CHANNEL

1015 TRIED TO CALL PATRICK. PHONE WOULD NOT
CONNECT.

1047 CODA RECORDING ON TO F: DRIVE
LINE 060. XT4.

1140 NAV DATA NOW BEING RECORDED IN CODA.
UTC TIME - 9 HOURS FROM LOCAL TIME
LOCAL TIME 1140 UTC 0240

1600 NOISE ON THE OUTER RANGES & DROP-OUTS
ON STBD CHANNEL APPEARS TO BE GETTING
WORSE.

1705 (0805 UTC) WATER COLUMN FINALLY DISAPPEARS
ON THE STBD CHANNEL AT 2360 METRES

WITH THE SEABED AT 2,800 METRES.

1714 (0814 UTC) GEOLOGY COMING IS AT THE PORT CHANNEL, LARGE SCALE TEXTURAL CHANGE WITH INDIVIDUAL ROCKS POKING OUT.

1730 Seabed is generally featureless.

2130 Increase in vessel movement felt down below. Called the bridge as to the status of sea and wind - 20 kts S with a swell 1-2 m. Forecast for a high to move in from the west.

2300 Seabed is still generally featureless with no significant point sonar targets.

2359 Vessel continue to head south along runline Line #06. Seabed featureless. No change in sea state or weather conditions.

19 MARCH 08

- 0340 Intermittent ground fault showing up. Data still fit for purpose. Drop out still present on the stbd channel and gradually deteriorating.
- ~ 0350 → Significant amount of outcrop/subcrop present port channel.
- 0545 Vessel finding it difficult to maintain line heading at < 2.8 kts. Currently 8200m c/o and 430m towfish height.
- 0745 Mtb: DLM, BLAIR, ART WRIGHT, JOHN P. MATTHEW, ROBERT B.
- TOWFISH problems - LIKELY NEED TO RECOVER
 - LINE RUNNING - DIFFICULT TO THE SOUTH, MORE THAN EXPECTED, POSSIBLE EDDY CURRENT PUSHING. TALKED ABOUT EASING THE TRAWLERS TO 50M IN SUCH CIRCUMSTANCES.
 - WINDS ~ 20KTS, FAIRLY CONSTANT
 - SAFETY Mtb + DRILL TOMORROW
 - 1 TOOL BOX TALK.
- 0744 EOL #6 C/O 8279 DEPTH 3260m
TESTING TO SEE IF ISTS WAS ANYTHING TO DO WITH DROP OUTS ON STBD CHANNEL.
- 0800 BEGIN RECOVERY OF SM30.

1216 DEPRESSOR ON DECK

1229 TOWFISH ON DECK

1255 - Deployed umbilical to check whether the umbilical has a ground fault.

1335 - BRING TOWFISH ELECTRONICS DOWN INTO THE SURVEY HAD TO BE CHECKED OUT.

GROUND FAULT FOUND TO BE COMING FROM THE POTTED TERMINATION AT THE WET-END OF THE TOWCABLE. START RETERMINATION OF TOWCABLE. ALSO PLAN TO CHANGE OUT UMBILICAL. CARTER IS WORKING ON THE TOWFISH ELECTRONICS TO SORT OUT THE RANGE PROBLEMS ASSOCIATED WITH THE RECEIVER CARD.

1400 TELECOM WITH PATRICK.

2208 Equipment ready for deck rub test

2210 Toolbox meeting prior to deployment

2228 Deploy SM30 sonar towfish

2230 Deploy depressor. Vessel heading for SOL Line 08 hdg 000°.

2359 5500m to SOL for towfish. c/o 2638m.

10 MARCH 08

- 0040 Drop out started in stbd channel. Approximately 3400m %.
- 0238 Vessel enters survey area SOL Line 08 Hdg 0°
Height of towfish ~ 675m above seabed
% 6565m
- 0315 Carter is up for some fine tuning. Port chan appears reasonable however the stbd channel appears to lack signal strength
- 0334 Seabed tracking finally locked on. Towfish height 640m above seabed % 7471m
- 0405 * Sonar target in port channel. Along-track pings = 26. Probable geology but worth a second look (?). No significant shadow though. 26 pings = ~86m
(0504334 E, 7038222 N) line 08 between Fix 6 and Fix 7.
- 0421 Towfish in the survey area. % 8364m
- 0600 THE STBD CHANNEL DATA IS VIRTUALLY USELESS. HALF THE ^{RANGE} ~~DATA~~ IS OBLITERATED WITH NOISE. THE OTHER HALF IS OBLITERATED WITH DROP-OUTS.

THIS IS UNACCEPTABLE TO ME AND MY IMMEDIATE REACTION IS TO RECOVER THE

TOWFISH FOR MORE REPAIRS. ART WRIGHT EXPLAINS THAT HE WOULD PREFER TO CONTINUE WITH THE LIVE AS THE PERSON ~~WHO~~ WHO IS NEEDED FOR THE REPAIRS (CARTER LE) ONLY JUST GOT TO BED AFTER A LONG SESSION AWAKE.

0645 My decision is to RECOVER THE SONAR AND PUT W+A ON ~~DOWNTIME~~ CONTINUED DOWNTIME. THE 4 HOURS NEEDED TO RECOVER, AND EXTRA HOURS NEEDED TO GET THE ELECTRONICS SET UP IN THE LAB + MOVE THE SHIP BACK TO THE SOUTHERN SOL WILL GIVE CARTER THE REST HE WILL NEED BEFORE STARTING AGAIN.

Apparently CARTER WASTED TO SPEND MORE TIME BALANCING THE SIGNAL OF THE BOARDS BUT ART DIDN'T LET HIM. THIS IS AT LEAST THE 3RD TIME THAT I HAVE HEARD CARTER BEING OVER-RULED. THE OTHER TIMES WERE WHEN WE WANTED TO TUNE THE SONAR + BALANCE THE CHANNEL DURING THE 1ST DEPLOYMENT AND, WHEN WE WANTED TO RECOVER THE TOWFISH AS SOON AS WE SAW THE GROUND FAULT.

0700 - SHORT LIVED GROUND FAULT INDICATION WHILE RECOVERING.

1000 - CABLE ON WITCH NOT LEVEL - WINDING CORRECTLY. PROBLEM APPARENTLY IS THAT THE SPRINGS ON THE ROLLERS ARE WORN OUT. NO SPARES ON BOARD, W+A WILL HAVE THESE SENT OUT WITH THE NEXT ROTATION.

1020 SAFETY MEETING

- KEEP ESCAPE HATCH DEAD
- DON'T GO IN CHILL ROOM OR FREEZER BOXES
- MINIMIZE POWER CABLES ON DECK IN SURVEY ROOM
- SALAD TONGS ON TOP OF CONTAINER VICE IN CONTAINER

1113 TOOL BOX MEETING FOR TOWFRIT RECOVERY.

1119 DEPRESSOR ON DECK. IN 10-12 FT SEAS.

1132 TOWFRIT ON DECK.

1300 INSPECTION OF SPLICES REVEALS WET END TERMINATION SPLICE DID NOT HARDEN AND BOSS TO THE CABLE. THIS PROBABLY CAUSED THE LEAKAGE OF WATER CAUSING THE G.F. REDO ELECTRICAL + MECHANICAL SPLICE.

1520 MECHANICAL SPLICE COMPLETE.

1555 ELECTRICAL TERMINATION COMPLETE. NEEDS 4 HOURS TO SET.

2120 - ELECTRONIC BACKS GOING BACK INTO THE BOTTLES

2125 - TELECOM WITH PATRICK

210

Fault encountered in the termination. Retermination (wet end) requires approximately 4 hrs for potting compound to dry.

2339

Art informs that all avenues that can be tested on deck have been and that all ground faults have been eliminated. Waiting on retermination of wet end connectors to dry sufficiently before launching. Proposed launch time is 0400hrs on 11/03.

11 MARCH 08

0000

Vessel standing by south of survey area

0520

W+A crew preparing towfish SM30 for launch scheduled at 0400hrs.

0430

Toolbox meeting

0439

Towfish deployed. Vessel heading into the Wx.

0444

Depressor deployed. Vessel turning to north and heading for line (Line #08A). Gain on outer edge of stb channel appears high. Art responds with the towfish should be deeper to assess better.

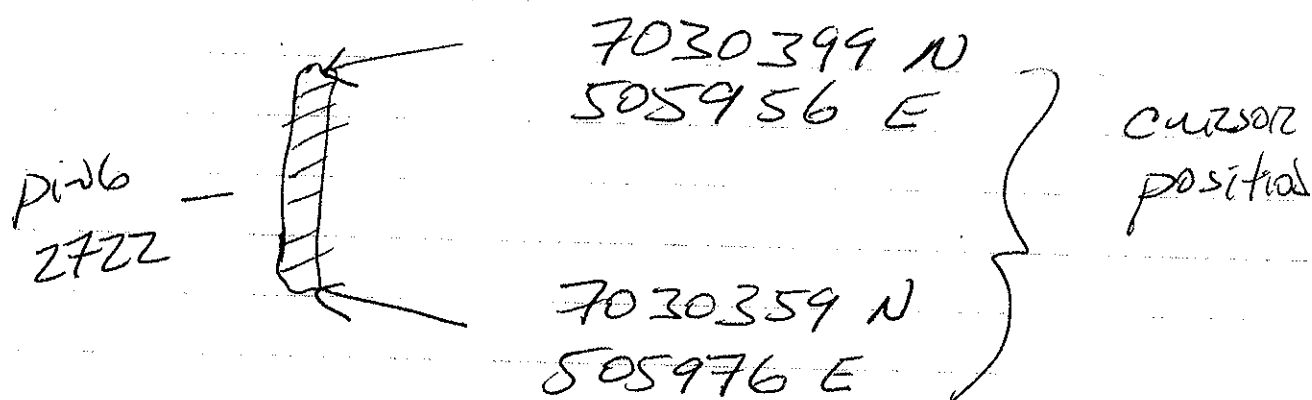
0745

Daily MTG - 2 WEEKS SOFTENED WATER REMAINING - WEATHER TO IMPROVE SLIGHTLY DURING WEEKENDS THEN BACK TO THE SAME STUFF EARLY NEXT WEEK.

SPEED \sim 3.5 KTS

0840 TARGET SEED OF STB CHANNEL
CABLE OUT 6899

LAYBACK CALCULATED 6540M
TOWFISH DEPTH 2170
WATER DEPTH \sim 3,600M



of pixels

15 pixels of target

1020-1047 TELECON WITH PATRICK

1300-1315 FIRE DRILL + MUSTER

1317 - BEGINS RECORDING OF Coda LINE #
08. TOWFISH ALREADY IS SET, BUT RECORDING
WASNT TURNED ON EARLIER BECAUSE WTA
WANTED TO BE SURE THAT THE Coda WAS
NOT INTRODUCING ANY NOISE TO THE SOWAR.

1420 SEND TARGET REPORT TO PATRICK.

1 25-1700 INTERESTING TARGETS OF STB CHANNEL
STARTED TO LOOK LIKE A DEBRIS FIELD
BUT THEN MORE LIKE GEOLOGY. TOO
LARGE, & THE PATTERN OF SCATTERING
WASNT CORRECT.

12 MARCH 08

12:36

Generally featureless seabed. Bottom rising rapidly compared to wind speed set. Lowest point of towfish approximately 164 m above seabed.

01:34

Blair pays a visit to the lab and informs us that gales are forecast for mid-morning Thursday 13/03, in case this may impact on plans.

04:23

Vessel departs survey area

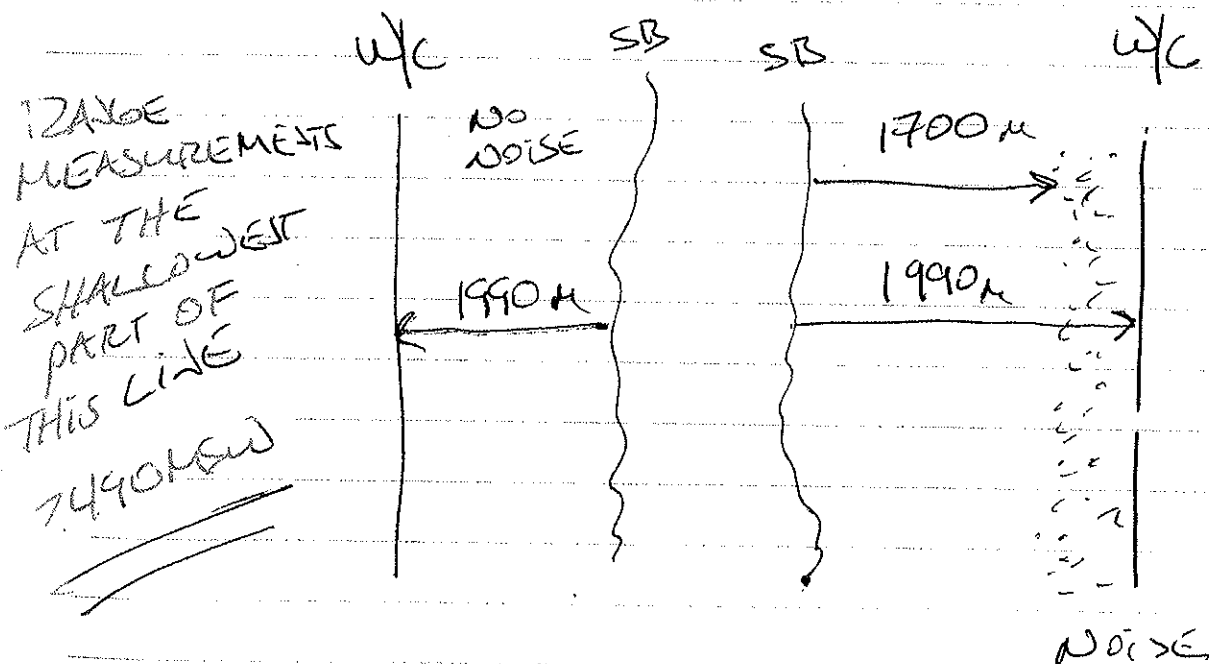
05:32

Towfish departs survey area $C_0 = 6992m$ $d = 2140m$
EOL return line #08

Seabed remained featureless with no sonar contacts of any significance observed.

Range from towfish to sea-surface return 2150m.

0602



0710 CODA logging stopped.

1128 CODA LOGGED TURNER OS - IS TLUW
IS TO LIVE # 09

TELECOM WITH PATRICK

1305 SHIP AT SOL.

1405 TOOFISH AT SOL.

1425 ON BRIDGE COULD SEE A LARGE SHIP
(CAR CARRIER) AT 12.7 NM, JUST A SMUDGE
ON THE HORIZON WITH GLASSES.

1430 DISCUSSION WITH BLAIR RE: DURATION

- DOF ENSHORE WORKING HARD TO GIVE US
OUT "28" DAYS.
- CURRENT FUEL SUFFICIENT FOR STAYING
OUT UNTIL 25TH MARCH - I.E. TROUGHLY
14 DAYS FROM ~~END~~ TODAY.
- WE COULD STAY OUT UNTIL THE 31ST OR
POSSIBLY 1 MORE WEEK, IF THEY CAN KEEP
MAKING WATER TO KEEP THE FLW TANKS
PRESSED UP TO AVOID FREE SURFACE
WATER EFFECT.
- HOWEVER THEY WILL NEED TO RESUPPLY THE
T/O FILTERS WITH A BOAT TRANSFER TO
BUY THE EXTRA WEEK.
- THEY HAVE A 20M CRAYBOAT THAT IS

WILLING TO MAKE THE TRANSFER + BLAIR IS OK WITH THIS BECAUSE THE TRANSFER WILL BE SHORT + SIMPLE:

- ANY LONGER TRANSFER OF LEANER ITEMS OR PERSONS WOULD REQUIRE EITHER A PORT CALL OR RUN TO SHARK BAY ~~WOULD BE REQUIRED~~ FOR THE TRANSFER.

517: 3852 ping MAJ-MADE TARGET
1110M TO PORT MEASURES 35M LENGTH
VERY HARD + STRAIGHT.

1730 First piece of WRECKAGE DETECTED TO
STBD SIDE. LARGE, HARD, RECTANGULAR
CONTACT, MEASURING ABOUT 35-40M LENGTH.
SMALL PIECES OF DEBRIS, HARD CONTACTS
NEARBY. MUST BE 1ST SIGNS OF A DEBRIS
FIELD.

MORE DEBRIS SCROLLING DOWN. COMING INTO THE
CENTRE OF A LARGE DEBRIS FIELD, SURELY
A SHIPWRECK. DEBRIS FIELD ABOUT 880M
AWAY FROM THE 1ST CONTACT. WHERE IS
THE REST OF THE HULL?

HERE IT IS LARGE HARD CONTACT WITH A
CLEAR ACOUSTIC SHADOW. HSK KORMORAN
IS FOUND!

1916 - VERY LARGE PIECES OF WRECKAGE
FOUND ~ 5 KM FURTHER SOUTH
OF KORMORAN.

~~THE~~ SMALL PIECES OF WRECKAGE
SCATTERED QUITE GREATLY IS WHAT
SURELY MUST BE THE ACTION POSITION
OF THE BATTLE BETWEEN KORMORAN
AND SYDNEY.

LARGE RECTANGULAR TARGET
MEASURES 4 KM LONG, WITH A
CLEAR ACOUSTIC SHADOW

Probable battle location $26^{\circ} 09' 57'' S$

$111^{\circ} 04' 38.5'' E$

HSK Kormoran location $26^{\circ} 05' 36.5'' S$

$111^{\circ} 04' 38.7'' E$

0843 40

$26^{\circ} 05' 36.5'' S$

$111^{\circ} 04' 38.7'' E$

HSK KORMORAN

1915

$26^{\circ} 09' 57'' S$

$111^{\circ} 04' 38.5'' E$

BATTLE ?
LOCATION.

13 MARCH 08

745 MTG: DLM, BLAIR, ART WRIGHT, JOHN P. MATTHEW, NIGEL.

0945-1003 TELECOM WITH PATRICK

1024 SMALL TARGET - 4 PIXELS - SEEN 228M TO STARBOARD.

1036 - DEBRIS TO PORT CHANNOI

1147 - EDS of DEBRIS?

1211 - ENDS OF LINE - BEG'D TO RECOVER TOW FISH

2015 CODA set up for acquisition of 3km swathe on approach to line # 09 - Ext, 1000m west of line # 09
 Sample Freq ~~77400~~ ⁷⁷⁴⁰⁰ Hz = True Range 1506m
 Samples / Ping ~~16000~~ ¹⁶⁰⁰⁰ ~~7400~~ 2sec/pings

1419 Commence turn to come onto line # 09 - Ext, 1000m west of Line 09.

1717 Turn completed. Paying out cable

1845 SOL Line 09 - Ext hdg north. Line run to further investigate sonar targets to south of survey area identified during run-in of Line 08. Range set to 1500m (3km swathe).
 Targets identified are all considered to be related to subcropping / outcropping geology, of which there is a considerably large area at the start of line
 R.T.O.

This 'geology' with its surface expression peters out as the line is run northward. Three targets noted on original line 09 identified on line 09-Ext also and are all considered to be geology related.

2335 EOL Line 09-Ext. Vessel eases over to approach line 10 (hdg North). Initial 10° bearing while cable pulled in to safe height then further 10° adjustment to vessel track when towfish at safe height. Line from Line 09-Ext to start of Line 10 has been logged as Line 10~~1~~-Lead in. Swathe width returned to 6 km.

2340 SOL Line 10 hdg north. Offset from original line 09 is 4200m to the east. Line started when vessel and towfish were aligned generally N-S. (CODA File data logged as Line 10-Lead in until 0257)

14 MARCH 08

0211 Isolated linear target north of Fix 15 on CODA line 10. Lead in. 1810m stb channel ~ 50m long (9 pings)

0257 Start CODA file line 10
Seabed is generally featureless with localised areas of subcropping/outcropping hard substrate exhibiting higher reflectivity particularly in areas of undulating topography
North of CODA fix 19 - featureless seabed.

0745 MEETING DWM, ART WRIGHT, JOHN P., BLAIR, NIGEL, MATTHEW, WILLE.

- TURN TIMES - CAN THIS BE IMPROVED, CAN THE TIMES BE DECREASED. ONE PROBLEM IS THE AMOUNT OF CABLE OUT. THE TURNS IN THE SOUTHERN SEX ARE TAKING PLACE WITH ~ 9000m OF CABLE OUT AND THIS IS COSTING A LOT OF TIME TO REEL IN THE CABLE AND THEN PAY IT OUT AGAIN. WE NEED BETTER COMMUNICATION BETWEEN THE NAVIGATION, W/A SUPERVISOR + BRIDGE.

- TRANSFER TOMORROW - THE TRANSFER OF VIDEO TAPES WILL BE COORDINATED BETWEEN WILLE + RUPERT BEFOREHAND TO MAKE SURE BOTH SIDES ARE HAPPY.

0915 TELECOM WITH PATRICK. AGREE NEWS LASTING

10:25 DECIDE TO CUT OFF END OF CURRENT LINE TO GET BETTER IMAGE OF KORMORANT'S BOW.

1100 ALTER COURSE TO MAKE HIGH-DEES PASS
ON KORMORAN. TRACK RECON OF
AFC TO NEW BASE COURSE 351° T

1305 THE STD SSS CHANNEL CHANGED APPEARANCE
VERY SUDDENLY WITHOUT NOTICE OR BEING
TOUCHED. TUG HAD TO BE ADJUSTED

1405 REDUCE RANGE TO

1431 START LOGGING - NEW ACQUISITION SETUP
KORMORAN RECON I - FILE

$\pm 2.5V$

SAMP FREQ 8000

SAMP/PIDG 8,600

TRUE RANGE 749M - MEASURED RANGE
679M

1519 BEGID LAUNCH CABLE - END OF SONAR
PASS.

1932

SOL KORMORAN RECCE LINE 2 Hdq. SSE
 Fish height $\sim 100m \rightarrow$ target 50m height for line.
 START logging CODA - New setup for 375m range
 (750m swath)

KORMORAN RECCE 2 - FILE
 $\pm 5V$

SAMP FREQ	16000 Hz	For 0.5 sec / ping
SAMP/PING	8000	
TRUE RANGE	348m	Measured @ 50m height = 342m

Nav file is KORMORAN RECCE-1.

2210

Small target on stb channel $\sim 58m$
 v. strong return. Start of debris field.

2212

Small target on stb channel $\sim 181m$.

2217

target port side @ 123m + 320m

2219.

target port side @ 280m

2221

large target (main target) Poss. accom block?

2227

Start of dense debris field.

2231

2 pieces of the ~~stern~~ ^{stern} in the centre of the debris field. Numerous items of debris with very strong returns.

2237

Main bow piece 265m stb side, 83m long overall. 70m from bow to accom.

22:46

EOL stop logging and heading south to approach
 stat of battle site. Continue logging along
 this line on the CODA - same file name
 KORMORAN RECCE-2.xtf

~~SOL~~

23:13

SOL Battle site Recce. Approx. 1hr to targets
 know, however will log data on the way down
 on CODA - filename Battle Site Recce-Hogs-TP.x

15 MARCH 08

- 00:24 Target identified on stb side 232m.
(north of Fix 11 on CODA file)
- 00:27 Target identified 129m port side, Elongate
poss. part buried object.
- 00:28 Targets (strong) identified on the 332m
11m wide with scouring.
- 00:32 Target (strong) port 128m.
Target 230m port side. A number of targets
showing up now ranging in size from 2m to
12m in size.
- 00:38 7m target 151m stbd side.
- 00:44 8m target 105m stbd side.
- 00:48 130m + 160m stb side 31m wide largest
piece
Debris field within battle site appears to run
from NE to SW (run line direction South)
- 01:19 Stopped recording on CODA. Vessel transit
south to pick up Line 10. Isis and Nav
continue logging.
- 03:30 Commence turn to port for transit to
recommence terminated Line 10.
Cable out = 3799m Tow Depth = 1177m
Layback = 3045m
- 05:00 Vessel coming onto Line 10 and paying out
cable to operating depth. < 200m in order to
increase sonified area before sea surface return.

0730

Start logging on CODA File - Line 10 - cont - Hdq.
Vessel approaching previously terminated point
along Line 10 (prior to high res runs over Kar.)

0840

TEL WITH PATRICK - MUTUALLY AGREE
TO TRIGGER NEXT OPTION PERIOD WHICH
WOULD TAKE US THROUGH 29 MARCH.

0940-1050

CRAYBOAT COMING ALONGSIDE ~~SEED~~ ^{PORT} TO
GEOSOUNDER TO OFFLOAD BOXES. MADE
2 GOOD TRANSFERS BUT AT A BAD ANGLE
AND THEN LOST STEERING CONTROL, SLIDING
DOWN PORT SIDE OF GEOSOUNDER AFT WITH
NO CONTROL. CRAYBOAT GUNWEL CLIPPED ITSELF
AGAINST ~~SE~~ GEOSOUNDER AND DAMAGED WITH A
SMALL HOLE. MADE ONE OR TWO MORE
UNSUCCESSFUL PASSES AT A BAD ANGLE, ONCE
SANKING HIS ANCHOR FAIRHEAD INTO
GEOSOUNDER'S SIDE, BEFORE REGROUPING.

11:02 - TOWELH EOL. EXTENDED LINE # 10 ~
2500 M NORTH, WHICH WILL BE THE NEW
NORTHERN BOUNDARY OF THE SEARCH
BOX.

THE NEXT LINE EASTWARD WILL BE AT A LINE
SPACING OF 4,500 METRES.

12:56

Start logging. SOL # 11 hdq south. 15:12 turfish straight
113 1ST SMALL TARGET - 510M PORT

23:28

Vessel exits survey area in the south.

16 MARCH 08

00:33 EOL #11. Towfish exits survey area. Bringing in cable from 6800m before turning to port for search line #12 heading north. Cable in to 3300m before turn.

Next line (Line #12) will be 4300m to the east of Line #11.

0500 Complete turn and towfish at survey depth of 450m
Start logging on CODA. (0542 Nav) % 6200m

0559 Vessel enters survey area % 7166m Depth=246m

0705 Towfish enters survey area % 7367

(1003)

HMAS SYDNEY II

1103 (WAST)

0203 (UTC)

FALLOUT!

RAV

~~RAW~~ CONTINUED THE LINE UNTIL ALL WRECKAGE WAS OFF OUR SCREENS AND NO SIG OF DEBRIS. THEN COMMENCE RECOVERY & TURN TO 3KM SWATH WIDE RECIPROCAL COURSE TO GET WRECK ON STARBOARD SIDE.

1835 1ST DEBRIS COMING INTO VIEW
STBD CHANNEL - RANGE 1177M
TOWFISH Ht. 114M.

1847 RAW THROUGH DEBRIS FIELD & WRECK
NOW RECOVERING FOR NEXT PASS.

2116 Vessel heading for line # Sydney 1500m
Hdg 320°. Paying cable out and reducing speed.
S 4915m height 530m above seabed.
SOL. Start logging on CODA
Rle Sydney - SN30 - 1500m - Hdg 320. xtf.

2249 Approaching target area. Increasing towfish height to 100m above seabed.

2300 Sydney wreck on port side 115m towfish height @ 290m off. L = ~169m

2305 Over debris field. Fish height = 106m.

2315 EOL. Recovering towfish cable too early before image is off the screen! Next line will be Hdg 140°, keeping Sydney on port side. Swathe 750m (Range 875m). Stop logging CODA @ 2329.

17 MARCH 08 1

0341

Target identified on the port side on approach to the Sydney wreck site.

0348

Start logging CODA (file Sydney-SM30-750m
Run exact line with AMS60 -Hdg140.tif

as there are a number of targets identified. Suggest running line at survey depth from Kormoran wreck site to Sydney wreck site. Check with Mikey after processing data.

0400

targets identified on port side. Port channel appears to have very low signal response. Carter is trying to tune but not looking good.

0428

Changed from $\pm 5v$ to $\pm 2.5v$. Image improved dramatically. CODA file: Sydney-SM30-750m-Hdg140-2.tif.

0521

SOL line

0522

Debris identified.

0527

Sydney on stb side.

0539

Stop logging CODA. Isis and Nau continue logging in case any other targets identified.

0558

EOL # Sydney Recce ~~750m~~ 750m

RECOVERING SM30 SONAR

0855 TOOL BOX TALK - WTA SONAR RECOVERY

0911 DEPRESSOR + TOWFISH RECOVERED

0915 GEDSOWER TURNING AROUND TO HEAD UP TO THE KORMORAN WRECK SITE TO DEPLOY THE AM360 SONAR.

11045 BLAIR INFORMS ME THAT THE SHIP IS HAVING ENGINE PROBLEMS + THAT A HEAD GASKET WILL HAVE TO BE REPLACED. THE REPAIR WILL TAKE 4-6 HRS AND WILL HAVE TO BE DONE BEFORE WE HEAD BACK IN TO PORT. IN THE MEANTIME WE WILL ONLY BE ABLE TO DO 5-6 KTS

1125 KORMORAN MEMORIAL SERVICE ON THE FASTAIL.

1210 BLAIR / BRIDGE WASN'T INFORMED OF THE CEREMONY AND HE WAS VERY ANGRY.

1425 WE ARE SAIZELY MAKING MORE THAN 3 KTS.
CALL BRIDGE TO REQUEST TO SPEAK WITH C/E. ENGINE SETTING REDUCED TO 600 RPM + PITCH OF 6.

Vessel currently able to do only 5 kts 'downwind', less into the seas as revs are restricted to 600 rpm and pitch to 6° due to leaking head gasket.

- 1453 Preparing AMS60 towfish for deployment
- 1512 Toolbox meeting
- 1517 Towfish and depressor deployed beginning turn to head for Kormoran high resolution line, 500m swath (250m range).
- 1534 Altering course to recover towfish as telemetry link down which normally shows ~~hence~~ pitch and roll and altitude information. Side scan data is coming through. Commence fault finding once on deck.
- 1600 Depressor and towfish recovery commences after toolbox meeting
- 1610 Sonar onboard and commence removal of bottle to lab for fault finding.
- 1830 Fault finding complete and reinstalling sonar bottle into towfish. Commence toolbox meeting for sonar redeployment
- 1905 Deploy depressor and towfish. Vessel is some ways south of target (approx 4.5 hrs @ 2.5 kts)
- 2205 Towfish at depth approaching lead in to Line # AMS60 - Kormoran - 500m. Blair informs survey that winds are 25kts gusting 30kts.
- 2339 Start logging CO2A: File Kormoran - AMS60 - 500m - Hdg026.

60

18 MARCH 08

0009

Coming into Kormoran wreck site with a number of debris on approach, 500m swath

0011

Kormoran wreck on stb side showing shadowing and reverbs from hard metallic targets along the vessel. Alt. 50m
Target 105 to 106 ~ long.

0019

0026

2 large targets at limit of range.
Passing through the end of the main debris field. Few large targets on port side.

0035

EDL #AMSGO - KORMORAN - 500m. Stop logging on CODA. Recovering cable for heading change to pick up line SE for high resolution pass of Sydney. Line will run through Sydney position on a hdg of 140°, 500m swath sonar setting.

0440

Art aired his concerns regarding the vessel speed (currently struggling at 4.5 kts into the Wx.) and the safety of W+A equipment. We had a chat with 1st mate Rupert and he is still at 600 Revs and 6° pitch but cannot find anymore speed in the southerly transit direction. Decision made to recover towfish to a safe altitude (< water depth) for remainder of transit.

0745 Daily Log: DLM, Blair, Art Wright,
Robert B, Nigel M., Matthew

- THREE MAJOR OBJECTIVES/ISSUES FOR THE DAY
- SYDNEY ~~HEAR~~ COMMEMORATION SERVICE
 - FINAL SIDE SCAN SONAR TUGS
 - ENGINE PROBLEM - WHEN/IF TO REPAIR

THE DRIVING ISSUE FOR THE DAY IS TO CONDUCT THE SERVICE OVER THE WRECK POSITION, WITH ALL GEAR OUT OF WATER + WORK COMPLETE, MAKE IT IN DAYLIGHT HOURS, WITH THE VESSEL DIRECTLY OVER THE WRECK POSITION.

REQUESTED BLAIR TO ADVISE THE RANGE OF POSSIBLE SPEEDS WE COULD MAKE ON TRANSIT HOME. ASKED FOR INFORMATION ASAP AS THIS WAS CRITICAL TO FUEL PLANNING.

At 0930 JOHN P. VISITS THE BRIDGE TO EXPLAIN THE ORDER OF SERVICE TO BLAIR. INFORMED LOWEST RETURNING SPEED TO Geraldton. could be 2 knots.

DISCUSSED WITH BLAIR, WE CONFIRMED POSSIBLE SLOW SPEED OF 2 KTS ALTHOUGH THIS INFORMATION WASN'T OFFERED DURING ~~THE~~ EITHER THE 0745 MTG OR AFTERWARDS WHEN REQUESTED. FROM THE CLIENT POV, THIS IS ABSOLUTELY UNACCEPTABLE FOR ME NOT TO BE INFORMED OF THIS EARLIER, AS THIS IMPORTANT INFORMATION SEVERELY RESTRICTS OUR OPERATIONAL PLANS.

FORCED TO RE-JIG PLAN FOR THE DAY. DECISION TO END PROJECT AFTER THIS NEXT SONAR RUN IS COMPLETE DUE TO ENGINE PROBLEMS. INFORM PATRICK OF MY PLANS + ISSUES WITH CAPTAIN AND VESSEL. AS FAR AS I AM CONCERNED THE USF SHOULD BE ON DOWNTIME AFTER TOWFISH RECOVERY.

1140 Coda Logging TURNED ON. SONAR SIGNAL VERY LOW, EVEN TOO LOW FOR Coda ± 1.250 SETTING SO IMAGE LOOKS POOR. SIGNAL IS 0.150

1223 PASSING Sydney of STBD CHANNEL

1230 SONAR SURVEY COMPLETE.

1233 RIBBING CABLE GREASER.

1245 RECOVERING TOWFISH.

1520 TOOL BOX MEETING

1536 DEPRESSOR ON DECK

1543 TOWFISH ON DECK. RECOVERY COMPLETE SURVEY COMPLETE.

1600 COMMEMORATION SERVICE OVER THE WRECK SITE OF HMAS Sydney II.

1620 W/W TO GERALDTON

1720 SPEED ~ 6 KNOTS.

19 MARCH 08

VESSEL MIDNIGHT POSITION
26° 45' 111° 51'

TRANSITING TO GERALDTON

20 MARCH 08

1235 USL ARRIVES ALONGSIDE GERALDTON.
PHOTOGRAPHER + TED GRAHAM COMES
ON BOARD.

1300. BEGIN DEMOBILISATION OF WTA EQUIPMENT
+ PERSONNEL.

DAVID MERRICK, JOHN D. + GLEYS
SIBBS OFF VESSEL. CHECK IN TO ALL SEASONS
MOTEL.

ROV VIDEO INVESTIGATION PHASE

29 MARCH

0900 ROV TECHNICIAN BRUCE BURMAN ARRIVES ON BOARD.

10:10 AFT ROV CAMERA REPAIRED. ROV NOW CONSIDERED TO BE FUNCTIONAL.

11:30 MEETING WITH GRAEME, BILL, PATRICK TO DISCUSS COMMERCIAL TERMS - AGREE DOWNTIME.

1700 Dyllard informs that he intends to leave port because the swells are forecast to increase ~~and~~ to 1.5m inside the harbour + the GEOSOUNDER is going to be left smashing AGAINST THE QUAY WALL FEEDERS.

1510 DEPART GERALDTON

1615 Wind slowing Hazy from THE EAST 25-30KTS. NO SHELTERED WATERS EAST OF THE ASROLLWAS. DECIDE TO ROUND THE ISLANDS IN THE SOUTH, UNABLE TO GO THROUGH THE CHANNEL

WOW

{ 30 MARCH 08 }

0001 US1 ARRIVES ON LOCATION FOR R200 SEA TRIALS. WEATHER TOO TROUGH FOR R200 LAUNCH. HI PAP POLE DEPLOYED.

0013 US1 ON DP, STANDING BY W00

0730 DLM MEETS WITH CAPTAIN. US1 CAN HOLD DP BUT CONDITIONS STILL TOO TROUGH FOR LAUNCHING THE R200. ADVISED THAT THE WEATHER UP NORTH AT THE WRECK SITES, AND WHERE THE LOW ~~IS~~ CURRENTLY LIES, WOULD BE WORSE AND NO SHELTERED CONDITIONS COULD BE FOUND IN AND AROUND THE ISLANDS AS SE FOUND. NO OTHER OPTION BUT TO STAND BY WEST OF THE ASTROLLOS.

FISH FOR DOLPHIN FISH. HOOK UP 4 FISH, LAND ONE.

1300 FIRE DRILL AND MUSTER.

1330 DECIDE TO STEAM NORTH + SHELTER JUST WEST OF THE NORTH ASTROLLOS ISL. IN OUR CURRENT LOCATION WE ARE GETTING INCREASED SWELLS COMING THROUGH THE CHANNEL.

1800 WINDS COME DOWN TO 22 KTS. TRY FOR
1830 AS R200 LAUNCH.

~~1845~~ 1845 SET UP US1 OF DP. BEST LEADING
087° INTO WIND. SWELL + SEAS COMING
FROM DIFFERENT DIRECTIONS. CONFUSED
SEAS. ASSESSING CONDITIONS FOR
ROW LAUNCH.

~~1830~~ 1930 WIND PICKED TO 30 KTS. US1 HOLDING
ON DP WELL BUT STILL TAKING SOME
LARGE SWELLS. WEATHER DEEMED TO
BROUGH TO LAUNCH ROW.

VESSEL OFF DP. DECIDE TO STEAM TO
THE WRECK SITES AT COMFORTABLE SPEEDS
6-7 KNOTS.

~~1837~~ 0.5 WCH PLUS 6.5 KNOTS.

68

31 MARCH 08

0745 - MORNING MEETING, ALL PARTIES. WEATHER STILL TOO TROUGH FOR T200 LAUNCH. SPEEDS REDUCED TO 5-6 KTS.

CAPTAIN REPORTS CONDITIONS AT 0100 WERE BAD. SHIP WENT HUE TO FOR A COUPLE OF HOURS AS THE WINDS VEERED TO THE SOUTH. A SQUALL MOVED THROUGH WITH GUSTS OF 50 KTS AND SWELLS WERE ABOVE 3 METERS. THEREAFTER US1 RESUMED SLOW TRANSIT TO NORTH.

0845 TOOK A SERIES OF BAD ROLLS. CUPS + LOOSE ITEMS SLID OFF DESKS IN THE SURVEY LAB, BREAKING + MAKING A MESS.

01 APRIL 08

- 0001 Vessel continuing transit north towards HMAS Sydney wreck site. The weather is continuing to ease. Swell is down to 1-1.5m while winds have dropped to around 15 kts.
- 0200 Vessel arrives on site. Weather conditions are favourable for a launch and the vessel goes on DP. HIPAP transceiver lowered.
- 0230 ROV team carry out ~~to~~ pre-dive checks and pre-launch toolbox meeting.
- 0305 Commencing deployment of ROV.
- 0310 ROV at ~40m depth. Descent halted at request of DOF surveyors in order to locate transponder beacons. Speaking with Nigel (DOF surveyor) - all transponders work in "transponder" mode i.e. being interrogated, however do not in "responder" mode. He is currently investigating the cause - whether system setup or ROV power to the transponders.
- 0357 ROV recovered to deck upon thruster control problems encountered while at depth. ROV team carrying out checks on the thruster system while on deck. Vessel is standing by on DP.
- 0500 Dave Norton (ROV night shift supervisor) reveals how there was no control over the thrusters while recovering ROV to the garage.

He also revealed that the bathymetry and sonar were also lost. He says that it may be possible that the above failures are due to a common fault and is investigating them further to confirm.

0745 MT6. Captain, DLM, John P. Gleeson M. MATTHEW. DAVE ROV supervisor

ROV PROBLEMS

- 2 out of control THRUSTERS, NOT RESPONDING TO COMMANDS.
- NO SONAR
- NO BATHY
- INCORRECT VOLTAGE TO THRUSTERS GETTING $\pm 12V$ WHEN THEY SHOULD BE GETTING $\pm 5V$.
- INVESTIGATING TOPSIDE TELEMETRY DOWNLINK AS THE SOURCE OF THE PROBLEMS.
- HIPAP could only see the BEACON in TRANSPONDER MODE NOT RESPONDER MODE.

0905 DAVE NORTON informs that they found the THRUSTER problem, which was due to a failure of the Gyizo power supply BOARD THAT SOMEHOW CONTROLS THE THRUSTERS.

DAVE SAID THEY HAVE NO COMPONENT SPECIFICATION FOR THE SYSTEM AND THUS CAN ONLY CHANGE OUT BOARDS, REPLACING BROKEN BOARDS.

1025 DAVE NORRIS INFORMS THAT THEY FOUND THE PROBLEM WITH THE SONAR. IT WAS A BROKEN WIRE IN AN OIL FILLED CABLE, THAT WAS ALSO RELATED TO THE OTHER PROBLEMS LIKE THE ALTIMETER.

1323 SIMON INFORMS THAT THE SONAR PROBLEM WAS DOWN TO A MALFUNCTION OF THE FIBRE MUX BOARD, WHICH WHEN CHANGED THE SONAR CAME UP STRAIGHT AWAY. THE BROKEN WIRE COULD HAVE BEEN A COINCIDENCE. THEY ARE NOW PROCEEDING TO BULLDOZE THE VEHICLE UP.

1700 THE ROV IS READY TO DIVE ABOARD BUT SIMON FEELS THE WEATHER IS TOO ROUGH, ESPECIALLY AS THE ROV IS TURNED AROUND THE WRONG WAY AND THE CAMERAS ARE FACING TOWARDS THE HULL. THE SHIP IS HOLDING STATION ON DP VERY WELL. AS FAR AS I AM CONCERNED THE SPREAD REMAINS OFF-HIRE UNTIL THIS ROV IS PROVEN OPERATIONAL.

KAMIL EXPRESSED THE OPINION THAT POSSIBLY THE ROOT CAUSE OF THE PROBLEMS IS THAT THE SHIP'S POWER IS DIRTY AND FULL OF SPIKES. THEY HAVE NO REAL WAY OF MONITORING THIS. KAMIL ALSO SAID THAT THE ROV GAVE THEM A LOT OF TROUBLE FOR THE 1ST WEEK OF THE LAST 2 JOBS.

02 APRIL 08

W.O.W

02 APRIL 08

0001 Wx continues to be marginal for ROV launch. Wind SE'ly 25 kts gusting 30 kts. Swell 1.5m to 2m, SE

0305 Wx conditions are deteriorating. Bridge has requested that the HIPAP pole be lifted in case they need to go off DP. Bridge having difficulty maintaining station. Wind SE'ly 25-30 kts gusting 36 kts. Swell 2.5-3m, SE. Likely that vessel will go off DP when Peter (2nd mate) hands over to John (1st Mate) if conditions continue to deteriorate.

0545 Weather continues to be too poor for launch. Wind SE'ly 28-30 kts gusting 36 kts, Swell SE'ly 3m

03 APRIL 08

0745 MTG. DAVE N. DYLAOS, DAVID M. MATTHEW, NIGEL, JOHN P., GLENYS.

WEATHER IS IMPROVING (14 KTS) AND SWELL/SEAS COMING DOWN. FORECASTS SHOW IMPROVING WEATHER OVER THE NEXT SEVERAL DAYS.

ROV IS READY. THEY HAVE TESTED EVERYTHING THEY CAN AND REPLACED ANYTHING THAT WAS QUESTIONABLE OR A POSSIBLE PROBLEM. THEY HAD BEEN GETTING AN INTERMITTANT ILIAS (sp?) ALARM ABOUT EVERY 20-30 MINUTES DURING TESTING, WHICH WENT AWAY AFTER SEING RE-SET. WHEN THEY REPLACED THE AFT THRUSTER THIS PROBLEM CLEARED UP FOR GOOD AND THEY NO LONGER HAD ANY ALARMS.

0755: VSI GOES ONTO DP OVER THE WRECK SITE

0920: DECK TEST OF ROV. MANIP P/T UNIT WORKS PAN. DLM ASKED FOR THIS TO BE FIXED AND TO STOW THE STBD MANIP AS FAR OUT OF THE LINE OF THE CAMERAS, AS POSSIBLE

0940 DAVE N. INFORMS THAT THE PAN FUNCTION IS DEAD, PROBABLY THE MOTOR HAS FAILED AND THEY HAVE NO SPARES. ONLY OPTION IS TO CENTER UP THE ~~PA~~ CAMERAS.

1100 PRE DIVE MEETING ON BRIDGE

1112 ROV IN WATER

1138 ROV @ 100m. FUNCTION TESTING BEGINS

1220 ALL STOP ON WISCH. LEVELWIND NOT OPERATING INVESTIGATION SHOWED INSIDE CABLE BROKEN, IN A COMPLETELY RUINED STATE. ENGINEERS PROVIDED A SPARE CABLE BUT IT DID NOT FIT THE SPROCKET. NO OTHER OPTION BUT TO UNDO THE LEVELWIND AND LET IT FREE SPOOL WITH THE LOAD OF THE CABLE.

1305 SUP NOT WORKING, THEREFORE UNABLE TO INPUT SV CURVE INTO HIPAP FOR MOST ACCURATE POSITIONING. USE NOMINAL SOUND SPEED OF 1500 M/SEC. BATHY BOTTLE ALSO NOT WORKING BECAUSE THE ROV IS SENDING DATA BACK TO SURVEY ON AN INTERMITTENT BASIS. SO 1st + 2nd SUP SOURCES ARE TANGO UNIFORM

1308 LOST VIDEO FEED IN SURVEY ROOM. DUE TO A POWER RESET BECAUSE OF A PROBLEM WITH THE TMS DRIVE MOTOR WHICH WAS STOPPED WORKING. AT THE 500M DEPTH.

1345 MTG ON BRIDGE WITH DYLAN, JOHN, NIBEL, DAVID & SMOS. DECISION IS TO DIVE TO THE WRECK WITH THE ROV IN THE GARAGE.

1405 INFORM PATRICK BY TELEPHONE OF CURRENT STATUS & PLAN.

1500 2300M DEPTH.

1516 2409M DEPTH - DESCENDING SLOWLY TO MAKE CONTACT WITH THE SEABED.

1510 ON WRECK OF HMAS SYDNEY. PORT SIDE NEAR X TURRET.

1530 MOVING THE VESSEL AFT ABOUT 25 METERS TO VIDEO THE STERN.

1535 TEL W/ PATRICK. LEFT MESSAGE.

1550 to 1718 ROV INSPECTED AND POSITION - FIXED 'X' TURRET LOCATION, stern, aft funnel section, catapult stand, life raft stand, crane, anchor, bridge, 'B' turret, 'A' turret and bow position.

1729 Decision made to standby (with ROV at safe distance above wreck) in order to send images and blogs.

to the beach.

1.15 Primary Veripos down, changing over to secondary Veripos ops.
1930 ROV alarm goes off in the ROV shack and decision made to recover ROV to deck to investigate.

2100 ROV on deck and team commences fault-finding and inspection of the TMS drive motor.

2324 TMS drive motor not functioning due to mechanical failure and repairs commence.

David M makes decision to dive even if the TMS is inoperable if cannot be repaired.

04 APRIL 08

3 1 Dave Norton gets Kameel up as they have isolated the TMS problems to the drive motor and intend to replace the unit with a thruster driver motor, which is of the same type. Only problem may be the length of the wiring loom.

0350 Wind 20-25 kts NNE, Swell 2m from NE with residual from South.

0400 New motor installed. Plate and cables to be reinstalled and general tidy up. Transponder beacon also moved from garage and reinstalled on ROV.

0540 All repairs and tidying up complete. Oil pressure to TMS drive motor topped up. Preparing ROV for deck test. Checking ROV garage camera for obs to umbilical and diamond bar.

76

0600

Hannes also now has the ROV battery running using the SVS port now that the ROV's mini SVS is up. Primary Veripos still down so will continue to use secondary Veripos.

0607

All ROV systems checks and deck test complete. ROV ready for launch. Assessing weather conditions prior to launch and will hold pre-dive meeting on bridge.

0651

Toolbox meeting and ROV off the deck. Position of dive will be off the wreck bow.

0824

TROU out of GARAGE.

0833

TROU on SEABED.

TOOK 2 PICTURES OF SEABED
1ST WITH FLASH ON, 2ND WITH FLASH
OFF. TWINKING THE FLASH BACK ON
RESETS THE CAMERA.

SEABED DEPTH AT BOW 2,481 METRES

ONLY INTERMITTANT ~~FLASH~~ TROU &
GARAGE POSITIONS.

TOOK A SERIES OF TEST PHOTOS OF THE
SEABED JUST TO TEST THE SHUTTER ACTION.

0855 MOVING SHIP OVER ROU POSITION.
THIS DEPTH 2436 M.

NO CURRENT ON SEABED.

0902 CAPTURING SONAR IMAGERY TO VIDEO
RECORDING.

0909 END CAPTURE OF SONAR IMAGERY. SHORT
BRIEF WITH DEAN EXPLAINING DIVE OBJECTIVES,
ESPECIALLY IMAGERY OF SOW DAMAGE.

0914 MOVING AHEAD, APPROACHING SOW.

0923 GETTING ROU SORTED OUT, TETHER
MANAGED AND ESTIMATE OF POSITION ON
NAV

0926 APPROACHING SOW FROM STARBOARD SIDE
LOOKING OVER THE BACK OF A+B
TURRETS.

0943 NIGEL + DUM BRIEFING THE ROU PILOTS ON
WHERE THEY ARE AND OUR OBJECTIVES. THEY
ARE RELYING TOO HEAVILY ON THE USBL POSITIONS
~~FOR~~ FOR THEIR LOCATION RELATIVE TO THE
GARAGE, WHICH ARE NOT ACCURATE IN ANY
CASE.

TO GIVE THEM A MORE COMFORTABLE APPROACH
WE ARE MOVING THE SHIP OVER TO THE PORT

SIDE SO THEY CAN ACQUIRE THE FWD GUNS "A" + "B"
AND THEN MOVE OVER TO THE BOW.

0955 VERY GOOD ISOLAR IMAGE OF FWD TURRETS
WITH GUNS POINTING TO STARBOARD. RECORDED
TO VIDEO BUT THE 1ST IMAGES NOT RECORDED
WERE THE BEST.

1000 SHIFTED US! SEVERAL TIMES TO THE NORTH.

1010 SORTING OUT TETHER. TURNED OFF
SEARCH LIGHTS. USIDG GARAGE CAMERA
TO SORT OUT TETHER.

1015 TETHER SORTED OUT. ROV ON WAY BACK
TO THE WRECK.

1014 MOVED SHIP ANOTHER 20M EAST OF THE
WRECK TO AVOID TETHER ESTABLISHMENT WITH
THE WRECK.

1027 - 1110 - WORKING AROUND THE BOW - DETAILED
VIDEO + STILL PICTURES OF THE BRICKED BOW.
IDENTIFIED, STBD FAIR LEAD, 2 LARGE
SHELL HOLES ON THE PORT SIDE, ETC.

1115 LOOKING AT A LARGE PIECE OF HYDRAULIC
OR STEAM DRIVEN MACHINERY JUST OFF THE
STBD SIDE OF THE SEABED.

1120 PHOTO OF TWO ANCHORS ON ~~THE~~ WRECKAGE

ON THE SEABED.

1125. MOVING SHIP + TROU COMING OFF SEABED TO
CLEAR ~~WHERE~~ VISIBILITY + GET TETHER
SORTED OUT.

1143 BACK OF WRECK STBD SIDE AT BOO BREAK.

1220 ON A TURRET - TOOK A SERIES OF STILL
PICTURES, INCLUDING 2-3 WITH NO FLASH.

1225 - STILLS OF 2 SMALL SHELL HOLES IN A TURRET
WITH + W/O FLASH.

125 - STILLS OF B TURRET WITH 2 LARGE SHELL

1338 - TRACKING SHOT OF B TURRET.

1300 - DIRECTOR CONTROL TOWER + HIGH ANGLE DIRECTOR
WITH LARGE ENTRY + EXIT SHELL IS THE
FORMER.

1310 - PEDESTAL FOR 0.5 PLYMOUTH MOUNT.

1320 SMALL CALIBRE SHELL HITS ON PORT SIDE + LARGE
CALIBRE HOLE INTO THE BAKERY JUST BELOW
BOAT DECK.

1327 BLACKSMITH'S WORKSHOP - SHELL HITS + FIRE
DAMAGE

1335 - FWD FLOWEL + 20" SEARCHLIGHT YOKE.

1338 - VSL THW OFF. TROO BACK TO THW.

1350 - TRACKING SHOT OF BOAT CRADLE.

1355 - DECKING + ANEMONE

1412 - P1 4" GUN

1417 4" AMMO LOCKERS

1418 - MOVING VSL 20 METERS.

"23 - CIRCULAR MOUNT FOR QUAD TORPEDOES

1430-1445 - X + Y TURRETS

1500-1515 - STERN + 2 PROP SHAFTS

1515 - MOVING FWD A/OWB SIDE OF HULL

1520-1525 LOTS OF SHELLS HOLES - DIFFERENT CALIBRES

1528 - VERY LARGE CALIBRE HOLE IN THE SIDE
JUST BELOW 'B' TURRET

scuttle — ○

○ — scuttle

○ — small gun

○ — 5.9"

- 1553 - BACK AT STERN. MOVING SHIP ONE MORE TIME. PREPARING TO DO SONAR SEARCH FOR 3 ~~TARGETS~~ SONAR OFF STERN ON PORT SIDE.
- 1407 ON 1ST PIECE OF WRECKAGE
- 1420 2ND PIECE OF DEBRIS - LARGE FLAT SECTION OF SHELL PLATING WITH RECTANGULAR WHITE BRICK ON TOP & NICE GRILLIE STAR & ANEMONES.
- 1425 ON 3RD PIECE. MORE UNIDENTIFIABLE SHELL PLATING.
- 1430 FOUND ALL 3 TARGETS TO PORT. NOW MOVING SHIP TO INSPECT STBD SIDE.
- 1705 LOST THE STROBE LIGHT RECYCLED PROGRAMME GOT STROBE BACK. STARTING AT STERN MOVING FORWARD ON STBD SIDE
- 1720 FUNNEL DRAPED OVER Y TURRET.
- 1730 CAPTAIN'S QUARTERS APPEARS BURNED
- 1749 TWO SHELL HITS TO BACK END OF X TURRET.
- 70 BREAK FOR 30 MINS FOR SUPPER & REST SIZES.

82

1850 Row opposite X + Y OR PORT SIDE, BUT SUPPOSED TO BE OPPOSITE A ON STBD SIDE?

1915 - BACK ON STBD SIDE CAPTAIN'S QUARTERS

1915 - 2020 - LOOKED AT ENTIRE STBD SIDE. DOCUMENTING ALL DAMAGE, SHELL HOLES + FIRE DAMAGE

2015 - REACHED BOW AND THEN REVERSED GOING TOWARDS THE STERN ALONG THE BILGE KEEL + MMS LINE.

2027 LAST PHOTOS OF STBD PROP. MONITOR SAID 1308.

2155 ROW ON DECK.

5 APRIL 08

83

- 0001 All data downloaded from stills camera-files transferred to A. Mearns laptop took some time due to the number of images taken.
- 0100 Once all ROV deck tests were complete, and the ROV secured, the bridge was instructed to manoeuvre towards the debris field 566m NW of the Sydney wreck. The vessel took approximately 40 mins to manoeuvre onto the first dive target location using DP. This gave the surveyors some time to recharge the ROV transponders and responder beacons.
- 21 A dive plan meeting was held on the bridge to discuss the upcoming debris field inspection.
- 1140 Vessel is standing by on location and mini beacons are taken off charge. Beacons are still attached to the ROV and its garage from the previous dive.
- 145 Dave Norton (ROV team leader) informs R Bruinsma that a 300v Lims alarm has gone off and needs to be investigated. Dave explains that this may be due to water ingress in the power plugs. The ROV experienced a total drop out due to a ground fault initially and once again but to a lower level drop-out. The problem requires a number of hours potentially to check each 300v power plug. The ROV team commences their search. Meantime vessel is standing by on DP above the debris field.

84

0745 Update from Dave. The Lims 300v power short alarm goes away when the 'Shilling' control box, which drives the HPU, is disconnected. The team will continue to look for water ingress once this unit is opened. This operation is expected to take at least another hour or so.

0745 Morwiss MT6, DLM, Dylan, JONAS P. GLEYS, MATTHEW, ROBERT B., DAVE NORTON.

THE ROV MALFUNCTION APPEARS TO BE DOWN TO A SHORT IN THE SCHILLING CONTROL UNIT THAT CONTROLS BOTH MANIPULATORS. THIS UNIT IS BEING ISOLATED, WHICH WILL ELIMINATE PROBLEM, BUT WILL ALSO PUT THE PORT MANIP OUT OF ACTION ALONG WITH THE STAR MANIP WHICH FAILED EARLIER.

0915 DAVE NORTON INFORMS THAT ROV IS REPAIRED & READY TO GO.

0947 ROV OFF DECK. DIVE #3 TO SYDNEY DEBRIS FIELD

1100 Finally SORTED OUT ~~THE~~ GETTING THE OVERLAY ONTO THE VIDEO RECORDER IN ONE OF THE LARGE STORAGE COMPUTERS.

1113 SURVEY + ROV CREWS READY TO START DIVE. ROV MAKING FINAL DESCENT TO THE SEABED.

DSC CAMERA MONITOR SHOWS # 1414

1117 TOW ON SEABED. DEPTH AT WRECKAGE
FILED 2488M.

LARGE SONAR TARGET IN SIGHT.

1122 ON FOREMAST. TAKE A SERIES OF DSC PICS
CONTINUOUSLY ALONG ITS LENGTH TO ALLOW A
MOSAIC OF THE FOREMAST. TARGET S12

1135 TRIED 1 TRACKING SHOT OF THE FOREMAST BUT
IT WAS CENTRED OFF THE DSC, NOT THE
BROADCAST CAMERA. WILL TRY A 2ND TIME.

1204 ~~ON~~ THE BOW. TARGET S11

1250 STILL IMAGING THE BOW, PORT SIDE, INCLUDING
WHAT I BELIEVE IS WHERE THE TORPEDO
IMPACTED THE HULL.

1305 - STBD SIDE OF BOW. ONE BIB HIT. COULD
NOT SEE PORTHOLES.

1335 - ANCHOR CABLE OFF THE STBD SIDE OF THE BOW,
INCLUDING SOME PIECE OF HULL WITH HYDRAULIC
OR STEAM PIPES BRACKETED TO THE SIDE.

→ 1405 AFT 0.5-INCH PLAD MOUNT

130 AVIATION SPIRIT CYLINDER

1420 - DCT + BRIDGE ROOF. TARGET S10

- 1445 4-inch READY USE AMMO LOCKER WITH LARGE SHELL HOLE - ENTRY + EXIT.
- 1455 LARGE CYLINDER TANK PART OF AVIATION SPIRIT TANK ADJACENT TO A LARGE PIECE OF HULL PLATE.
- 1510 ~~CATAPULT - BROKEN~~ ROOT OF MAIN MAST + AFTER SEARCH LIGHT PLATFORM
- 1525 FUNNEL - POSSIBLY THE AFTER FUNNEL AS IT DIDN'T HAVE THE STEEL OR LADDER ATTACHED TO IT.
- 1545 TIRE - AIRPLANE - "BARNET"
- 1548 DEPTH CHARGE RACK.
- 1600 - 4" GUN - UPSIDE DOWN
- 1602 - AIRPLANE CATAPULT S9.
- 1615 - CABLE WAS LYING LOOSE ON THE SEALED + WAS TURNED AROUND SOME WRECKAGE.
- 1625 BOAT WITH RAGS. JUST ADJACENT TO CATAPULT.
- 1642 TRACKING SHOT DOWN THE AXIS OF THE CATAPULT.
- 1655 2nd PARADANE.

- 1700 CAME BACK TO THE FUNNEL.
- 1704 NOW MOVING TO A DIFFERENT CLUSTER OF DEBRIS LOCATED TO THE SE.
- 1742- SINGLE SHOE.
- 1727- 0.5 inch QUAD GUN MOUNT.
- 1745- FLAT WRECKAGE WITH UNUSUAL TUBULAR FRAME STRUCTURE. POSSIBLY RELATED TO THE AIRCRAFT.
- 1750- BREAK FOR TEA.
- 1750 - ROW BACK ON SEABED, LEAVING TO SONAR TARGETS.
- 1855 2 SHELLS STANDING UPRIGHT
- 1905 SMALL BOAT PROPELLER ALL BY ITSELF.
- 1915 4" HIGH ANGLE GUN DIRECTOR, WITH "MATS" AROUND IT THAT ARE THE SPLITTER MATS.
- 1925 LARGE MOTOR BOAT. PROBABLY 30' BOAT.
- 1953 SHOE & TIRE
- 2007 LOTS OF LOOSE SHOES.
- 2011 PILE OF CABLE

2025 - GALLEY FUSED.

2030 HE LOCKER FOR 4" SHELLS

2038 RADAR ENDSIDE FOR THE WALKING AIRCRAFT.

2109 TOP OF THE 30' MOTOR BOAT.

2117 WINCH WITH CABLE STREAMING OFF IN 616
LOOPS.

2127 BACK TO THE CABLE DRAPED OVER THE SPOOL.
NIGEL + MIKE TRYING TO RE-LOCATE THEMSELVES.

2145 4-WHEEL CART WITH LOOSE PULL HANDLE, WOODEN
CART IS ROTTED AWAY.

2150 BACK AT HA. DIRECTOR.

2205 2 BOATS, ONE ON TOP - CROSSWISE - OF THE
OTHER, ~~HAVE~~ RECORDED THE SONAR IMAGING
FIRST, THEN THE VIDEO.

THAT MAKES A TOTAL OF 4 BOATS SEEN TO
THIS POINT.

2230 BOOR.

2240 SINGLE TORPEDO.

2256 BACK AT CABLE DRAPED OVER SPOOL.

2325 - BACK AT WINCH WITH CABLE + LOOPS SEEN AT 2117.

2327 - NAVIGUCESSORS CAN'T FIND THEIR TARGETS ON THE WESTERN EDGE OF THE DEBRIS FIELD. SONAR SET A 75M RANGE SCALE LOOKING 210° AND NO TARGETS APPEARED. ABANDON THIS SEARCH AND VECTOR TO S5 + S6. TARGET S8 WAS NEVER FOUND.

2006 April 2008

0010 SMALLISH PIECE, UNIDENTIFIED, POSSIBLY SHOWS SAME DAMAGE, HEAVY PIECE OF HULL STRUCTURE?

0020 PORT SIDE QUAD TORPEDO UNIT WITH 2 TORPEDOES + A SMALL PIECE OF UNIDENTIFIED WRECKAGE JUST A FEW METERS AWAY

0105 VERY LARGE WIRE + DRUM FOR SERTHING.

0112 2 SMALLER CALIBRE SHELLS.

0100 LARGE TARGET ZON OFF THE HULL. 3 WINDOW SLIT LIKE PANELS + 1 LARGE I BEAM. PART OF CRADLE FOR ONE OF THE LARGER BOATS.

0200 AT STERN. TOOK A COUPLE OF SNAPS OF THE BUCKLED STERN FROM THE STEADY QUARTER.

0210 27-FT BOAT THE 5TH BOAT CONFIRMED AS TARGET 51

0255 BEST I-BEAM.

0317 SMALL UNIDENTIFIED WRECKAGE.

0336 TIME - PHOTOGRAPH

0350 ROO NOT IN CONTROL. INADVERTENT IMPACT WITH BOW.

0410 AT BOW BREAK, PORT SIDE, LOOKING FOR POSSIBLE SLIDE SCAR. NO TILT ON THE CAMERA.

0430 CROSSED THE POSSIBLE SLIDE SCAR ON THE PORT SIDE OF THE HULL TWO TIMES AND IT WAS A NATURAL ~~BT~~ HUMMOCK & DEPRESSION - POSSIBLY CAUSED BY THE WRECK'S IMPACT BUT DEFINATELY NOT BY THE WRECK SLIDING.

0432 LAST 2 PHOTOS OF SMALL PIECE OF WRECKAGE
PICTURE 1088

TERMINATE DIVE.

- 0440 ROV in garage. Commence ascent.
- 0605 ROV on deck. Commence downloading stills images. USB connector needs looking at as connection seems poor. All pictures from 04/04 and 05-06/04 downloaded then deleted off stills camera.
- 0609 HIPAP transceiver pole raised and bridge requested to transit to NW corner of Battle Site block. Vessel off DP for transit.
- 0740 Arrive at NW corner of Battle Site. Mikey now up and supplying bridge + survey with a coordinate for the 1st and northernmost sonar contact to dive on.
- 0820 Bridge meeting held with Deland, Dave Norton, John, Mikey and Robert B. to discuss dive plan for the Battle Site debris field. Mikey shows us that there are targets to the east and north outwith the main field.
- 0840 Vessel manoeuvring to sit over 1st target.
- 0855 Deploy HIPAP pole.
- 0910 ROV off the deck.
- 0930 Provide John Perryman with a copy of all ROV pictures from DIVE 1, 2, + 3.

1053 - 1200 AT SEA BED 2786M

1120 200M SONAR SWEEP SOUTH - NO TARGETS

1123 200M SONAR SWEEP EAST - ^{possibly 1} TARGET - COULDN'T
REALLY HEAR

1127 200M SONAR SWEEP NORTH - NO TARGETS

1129 200M SONAR SWEEP WEST - NO TARGETS

1132 MOVING 280°T USING 100M SONAR RANGE

1145 BREAK FOR LUNCH. HAD 1200 MOVING SOUTH
LOOKING FOR TARGETS.

1215 1ST SONAR TARGET ON 75M RANGE.

1221 APPROACH 1ST TARGET. ANOTHER TARGET APPEARS
TO THE ~~WEST~~ EAST AT 66M.

1338 LARGE LONG STRIPS OF ROCKS THAT LOOK LIKE
PILLOW BASALTS.

1420 SONAR IMAGE OF THE TARGET ROCK B1 + B2

1428 TOOK A SERIES OF SNAPS - CLOSE UP - OF
PILLOW BASALTS. RECOVERING 1200.

1410 1200 ON DECK.

1825 ROW IN WATER. DIVE # 05

2000 ROW ON BOTTOM. NOT BEING ABLE TO GET OUT OF THE GARAGE. LOOKS LIKE ONE OF THE ARMS WAS SHIFTED & IS OBSTRUCTING THE VEHICLE FROM GETTING OUT OF THE GARAGE.

2005 DECIDE TO DO A RECCO DIVE ON THE WRECK WITH THE ROW IN THE GARAGE.

2111 AT PT. OF BOW. TAKING ROW DEPTH (2,562m) AND POSITION:

2115 DIVE TERMINATES TO FIX ROW EXIT FROM GARAGE.

07 April 2008

0050 ROW ON SEABED.

0100 1ST piece of Hull plate.

0112 ON PT. of KORMORAN'S BOW

0222 COMPLETED STBD SIDE of Hull, LAUSE
OPENING, FWD GUN CAMOFLAGUE LINKERS,
FWD 5.4" GUN, TORPEDO FLAP CAMOFLAGUE,
W/O TORPEDO OPENING, STERN BREAK.

REPOSITIONING SHIP.

0252 BACK ON THE BREAK, WENT UP & DOWN THE
BREAK A COUPLE OF TIMES, THE DECKS HAVE
COLLAPSED ON EACH OTHER LIKE A LAYER CAKE.
AN EDGE MACHINERY SPACE WAS EVIDENT ON
THE STARBOARD SIDE.

0320 ON PORT SIDE - LOOKED AT ACCOMMODATION
LADDER, BOLLARDS, W/O TORPEDO W/O ~~W/O~~

0423 TAKING A BREAK.

0550 ROW BACK ON SEABED IN THE DEBRIS FIELD
WITH WRECKAGE EVERYWHERE. 2583 H
DECIDE TO HEAD EAST.

0605 ON A VERY BIG PIECE OF DEBRIS.

0645 DECIDE THIS LARGE PIECE WAS THE

18m off THE SEA BED
SUPERSTRUCTURE UPSIDE DOWN.

0700 - MOVING OVER TO THE LARGEST PIECE IN
THE DEBRIS FIELD WITH THE VERY HIGH SHADOW,
MEASURED TO BE ~ 15 M.

0725 HEADING TO THE STERN TARGET.

0915 ROV BACK ON SEA BED IN POSITION FOR VIDEO
OF THE FINAL KAMOIAN WRECKAGE - MOST
NORTHERN SONAR TARGET. 2602M.

1037 - COMPLETED INSPECTION OF LARGE PIECE STICKING
UP 15M. THE PIECE TURNED OUT TO BE A
LARGE SECTION OF THE PORT MIDSHIPS AND
INCLUDED AN ENGINE, THE ANCHOR END BROKEN
OFF AND SOME WRITING JUST ABOVE THE
BILGE KEEL.

OK

BB

1045 TERMINATE DIVE.

1158 ROV ON DECK

1358 ON SURVEY LOCATION

1427 ROV OFF DECK

1545 ROV ON THE SEA BED.

1546 ON TANK, ADD GRATING

1600 COMPASS ON RAILING OF THE DCT.

1607 ROUND RED OBJECT

1620 AFT SEARCHLIGHT PLATFORM

1645 ROUND OBJECT - ? PAN?

1647 LONG PIPE

1650 AFT FUNNEL.

1710 AMMUNITION IS STORAGE RACK. POSSIBLY 4" AMMO FROM THE HE LOUVERS.

1716 PARACHUTE

1718 ~~THE~~ ANOTHER RACK OF SHELLS WITH A CIRCLE OF CORROSION AROUND IT.


1720 UNIDENTIFIED PLATE - RIVETED.

1730 WOODEN GUAGED TO ONE OF THE SEATS.

1737 - CURVED PLATE

1750 - VERY CORRODED, POSSIBLY BURNED, UNIDENTIFIED, WRECKAGE, WITH LONG METAL RODS.

1800 BREAK TIME FOR SUPPER.

- 1845 1200 back of Sottom. Long pole with a curly end.
- 1945 BASE of MAIN MAST, PARADISE AND BASE of SEARCHLIGHT PLATFORM.
- 2015 INVERTER - VERY SQUARE WITH HEAVY MESH SIDES & AN OPEN TOP.
- 2024 SEARCHLIGHT - 36" MARK 
- 2037 FAIRLY DENSE FIELD OF SMALLER ITEMS NEVER SEEN BEFORE
 BUCKET, & WIRE / CABLE
 SMALL TANK / RESERVOIR
 WOODEN RECTANGULAR CASE w/ IRON STRAPS
 SMALL TWISTED PIECE OF STRUCTURE
- 2045 WIRE & BLUE DRUM WITH PATTERN OF CIRCULAR CUT-OUTS.
- 2055 TYRE
- 2100 51 4" GUN MOUNT
- 2110 BASE of the HIGH ANGLE CONTROL STATION. THE BREAK MATCHES THE STUMP LEFT of the SHIP AND it SUGGESTS THAT IT WAS HIT by A SHELL.

2120 - ANKLE BOOT

2125 - SECTION OF CIRCULAR STRUCTURE,
INCLUDES 2 PORTHOLES, 2 HATCH DOORS
OPENS INWARD, LADDER ON INSIDE.

2130 PORCELAIN PITCHER
OVEN BURNER TOP
RECTANGULAR WOODEN? OBJECT.

2150 QUAD TORPEDO MOUNT W/ 3 FISH LOADED.

2200 PILE OF WIRE

2207 DRUM WITH WIRE

2212 10" SIGALLING PROJECTOR

2214 STEEL HELMET.

2220 BACK OF TORPEDO QUAD FOUND YESTERDAY.
PHOTOGRAPHED INSTRUCTION PLATE WITH
WRITING.

HEADING OVER TO THE WRECK.

2247 RELOCATED TO WRECK - AT STERN

2252 BUCKLE OF STBD AFT QUARTER

MOVED DOWN THE STARBOARD SIDE PHOTOGRAPHING
ALL THE LARGEST SHELL HITS ~~ON THE~~ NEAR THE
DECK, PHOTOGRAPHED THE TWO DAVITS FOR THE
32' CUTTER WHICH WERE MISSING, LOOKED
FOR THE LIFE RING WHICH WASN'T A LIFE
RING AFTER ALL, THEN IMAGED THE
COMPASS PLATFORM FROM A BIRD'S EYE VIEW

2330 HEADED BACK TO THE GUN PLATFORM
AND DROVE OFF TO FIND 1 LAST SONAR
TARGET AT 90M OFF THE HULL.

2342 TERMINATE DIVE.

I OFFICIALLY DECLARE THIS EXPEDITION
SATISFACTORILY COMPLETED.

David Myers

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