

LOG #2

Franklin Underway Log Sheet

GULF STREAM DRIFT REHEARSAL Time Routine Check

Date 14 JULY 1969

08-12

DIVE 41

Position: PORT OF PALM BEACH, FLA

Weather: CLEAR & HOT (95°F)

1025
Ready for SEA

1043 UNDERWAY - TOW FROM
CHASE BOAT.

1103 UNDER TOW FROM PRIVATEER

1123 PASS SEA BOUY - ZLW
Enroute dive point for
commencement of GSDM
rehearsal. Durr and
Kazimir aboard the tow
W. Kazimir

0800	<ul style="list-style-type: none"> -Replace LiOH panels -Conduct thorough boat inspection -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % _____ -Sea Water Temp. _____ -Cabin Humidity _____ -Cabin Pressure _____ -LOX pressure _____ -Fwd _____ Aft _____ -Record F.W. & LOX tank levels
0900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves
1000	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>as ?</u>
1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves

NOTE: If motors have been idle, meggar before using.

Revision 1

12 May 1969

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>14 July</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm -Check equipment not in use in Off/Standby position -Vent Main Ballast Tanks -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % _____ -Cabin Temperature _____ -Sea water temp. _____ -Cabin Humidity _____ -Cabin Pressure _____	
12-16			
Position: <u>2 mi - East of Lake County</u>			
Weather: <u>Calm, partly cloudy</u>			
1245 Set Mode 4			
1330 Changed fuse for aft trim pump.			
1410 Disconnect BATTERY Charge CABLES at H3 Remfor.			
1500 UNDER TOW - BOAT NORMAL			
	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>ca. 2%</u>	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

H. DORR
7/14/69

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	Time	Routine	Check
Date <u>14 JULY 1969</u>	1600	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % _____ -Cabin Temperature _____ -Sea water temp. _____ -Cabin Humidity _____ -Cabin Pressure _____ 	
16-20			
Position: <u>Approx. 10 mi. S.E. of Palm Beach</u>			
Weather: <u>Calm, Cloudy</u>			
1600 UNDER TOW - BOAT NORMAL			
1635 PUT OUT (12) LiOH PANELS			
1844 ON STATION - SLOW TOW Rubber Boat over for 1st TRIP - READY TOPSIDE FOR DIVE			
1926 Check S.W. INDICATOR LIGHTS, #1 ONLY ON			
<u>H. DORR</u>			
1700	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 		
1800	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.2</u> 		
1900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 		

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	Time	Routine	Check
Date <u>14 JULY 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water	
20-24		-Cycle MBT and VBT hull valves	
Position: <u>Approx. 15 mi. SE. of Palm Beach</u>		-Check hull valves for proper position	
Weather: <u>Calm, Cloudy</u>		-Check LOX tanks for leaks	
2000 WAITING CREW		-Vent Main Ballast Tanks	
2025 Disconnected TOW		-Check emergency ballast hydraulic pressure	
2030 Hatch secured.		-Check VBT's for pressure buildup	
2036 ALL CREW ON BOARD		-Air Flask readings (flasks in service)	
2040 open vents to Dive		Flask #1 _____; #2 _____;	
2041 Engaged shot		#3 _____; #4 _____;	
2054 Submerged - Dive #41 *		#5 _____; #6 _____	
2056 Seasons 2, 5, 9, 10 on		-Check equipment not in use in Off/Standby position	
2115 Descending 0.5 ft/sec		-Check F.W. valves shut	
2120 Salt water sampler #3		-Record battery readings	
2127 Drop shot		-Carbon Dioxide % _____	
2128 " " Starboard 10 sec		-Oxygen % _____	
2129 Drop shot		-Cabin Temperature _____	
		-Sea water temp. _____	
		-Cabin Humidity _____	
		-Cabin Pressure _____	
		-Conduct contaminant checks	
2135 Flooded Starboard VBT slightly	2100	-Vent MBT's	
2150 BOTTOM: 510 meters clear water.		-Check hydraulic pressure	
2202 Ship's Position		-Cycle MBT and VBT hull valves	
2225 [Long. 79.43.0 W	2200	-Vent MBT's	
2230 [Lat. 26.33.8		-Check hydraulic pressure	
2355 Wardroom table UNSAT.	2300	-Cycle MBT and VBT hull valves	
		-Vent MBT's O ₂ % _____	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

L. J. Kaye

* Commenced Day #1 GSDM Rehearsal.

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		Time	Routine	Check
Date <u>15 July 69</u>		0000	-Check bilges, penetrators and main battery fuse boxes for water	✓
00-04			-Cycle MBT and VBT hull valves	✓
Position:	<u>26-33 N</u> <u>79-43 W</u>		-Check hull valves for proper position	✓
Weather:			-Check LOX tanks for leaks	✓
0000	On bottom - 510 meters		-Vent Main Ballast Tanks	NO
	All hands awake checking out gear - soon will cruise at 25 ft altitude.		-Check emergency ballast hydraulic pressure	✓
0050	located at		-Check VBT's for pressure buildup	✓
0056	Blowing Starboard VBT		-Record air flask readings:	✓
0057	VBT Empty		Flask #1 _____; #2 <u>173</u> ;	
0059	Energized shot system		#3 _____; #4 _____;	
0000	Dropped shot Starboard 10 sec		#5 _____; #6 _____	
0103	Dropped shot Port 5 sec		-Check equipment not in use in Off/Standby position	✓
0104	Dropped shot Port 5 sec		-Check F.W. valves shut	✓
0106	Dropped shot		-Record battery readings	NO
0107	" " Starboard 25 sec		-Carbon Dioxide % <u>0.5</u>	
0109	" " Port 25 sec		-Oxygen % _____	
0111	" " Starboard 2 sec		-Cabin Temperature <u>72</u>	
0112	Dropped shot Starboard 2 sec		-Cabin Pressure <u>1.02</u>	
0113	" " Port 2 sec		-Sea Water Temp <u>5.0 °C</u>	
0115	Dropped shot Starboard 3 sec		-Cabin Humidity <u>48%</u>	
0119	Altitude 15 ft		0100 -Vent MBT's	
0121	" 24 ft oscillating		-Check hydraulic pressure	
0135	Ruffled 1 sec port		-Cycle MBT and VBT hull valves	
		0200	-Vent MBT's	NO
			-Check hydraulic pressure	✓
			-Cycle MBT and VBT hull valves	✓
			O ₂ % <u>20.1</u>	
		0300	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>15 July</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water	✓
04-08		-Cycle MBT and VBT hull valves	✓
Position: <u>Approx 12 mi. East of Palm Beach</u>		-Check hull valves for proper position	✓
Weather:		-Check LOX tanks for leaks	
<u>Drift Finj 15 ft. off bottom at 510 meters</u>		-Vent Main Ballast Tanks	NO
0500 Stbd VBT has full sea pressure		-Check emergency ballast hydraulic pressure	✓
<u>Secured #2 air flask completely</u>		-Check VBT's for pressure buildup	
0510 Quite cold - wearing underwear, long johns, coveralls, sweatshirt & wool socks - still cold. All sleeping except Kaymir & Bushy.		-Record air flask readings (flasks in service)	
0515 Drifted shot 1 sec. stbd.		Flask #1 _____; #2 <u>145</u> ;	
0600 Kaymir added extra pair of socks & cap for Bushy by wearing a blanket.		#3 _____; #4 _____;	
0651 #2 TV near full air.		#5 _____; #6 _____;	
0730 Drifted shot 1 sec. stbd		-Check equipment not in use in Off/Standby position	✓
<u>LJ/Kay</u>		-Record battery readings	NO
		-Check F.W. valves shut	✓
		-Carbon Dioxide% <u>1.0</u>	
		-Oxygen % <u>20</u>	
		-Cabin Temperature <u>62°F</u>	
		-Sea Water Temp. <u>5°C</u>	
		-Cabin Pressure <u>1.01</u>	
		-Cabin Humidity <u>55%</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
	0600	-Vent MBT's	NO
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	O ₂ % <u>14.5</u>
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>15 July 69</u>	0800	-Replace LiOH panels -Conduct thorough boat inspection -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service)	NO ✓ ✓ NO ✓ ✓ None in Service
08-12			
Position: _____			
Weather: _____			
Drifting N.E. very slowly <u>2 Kts</u> at approx. 18' above bottom - depth 512 meters			
0805 - water shot 1 sec. strd.		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
0900 WATCH BY ARBERSOLD			
0910 OBCU position: 118° 19 mi. from Palm Beach inlet.		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>10%* guess</u> -Oxygen % <u>19.5</u>	
0950 Beginning ascent - will drift shot periodically to ascend to 600'. 1st bottom drift cut short of 24 hours due to slow drift speed.		-Sea Water Temp. -Cabin Humidity <u>57</u> <u>58%</u> -Cabin Pressure <u>1.0</u> -LOX pressure <u>150</u> -Fwd <u>full</u> Aft <u>full</u> -Record F.W. & LOX tank levels	
1135 SMALL LEAK ON H6 PENETRATOR (NAVOCEANO)			
E. Shand			
	0900	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1000	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.2</u> <u>19.7%</u>	
	1100	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

NOTE: If motors have been idle, meggar before using.

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* CO2 gas not working properly

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	Time	Routine	Check
Date	15 JULY 1969		
12-16			
Position:			
Weather:			
12'00	CO ₂ METER OUT OF COMMISSION	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓	
13'06	SHOT 5" STBD 380 m.	-Air flask readings ALL (flasks in service) SHUT	
* 14'02	328 m.	Flask #1 _____; #2 _____;	
* 14'20	LOST COMMUNICATION WITH PRIVATEER	#3 _____; #4 _____;	
14'45	SHOT 5" PORT	#5 _____; #6 _____	
14'50	Regained comm. - had to shift to full power on 504 unit.	-Test emergency ballast alarm NO -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks NO -Check F.W. valves shut ✓ -Record battery readings	
15'12	SHOT 3" PORT	-Carbon Dioxide % _____	
15:22	Tighten Penetrator in NAVOLCANO AREA	-Oxygen % 19.6	
15'59	LEAK OF PENETRATOR BOW DOWN	-Cabin Temperature 55° F -Sea water temp. 8.64°C -Cabin Humidity 63% -Cabin Pressure 1.01	
* 1410	at 320 meters we were drifting south	1300 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
1500	back drifting north at 304 meters	1400 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves 0% 19.6% ✓	
	<u>E. O. Howard</u>	1500 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull ✓	

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	Time	Routine	Check
Date <u>15 JULY 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓	
16-20		-Cycle MBT and VBT hull valves ✓	
Position: <u>Approx. 20 mi. East of Fort Pierce</u>		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
1730 Noticed current not steady - sometimes debris stays with us, then our heading changes and debris moves past viewports.		-Vent Main Ballast Tanks <u>NO</u>	
1755 Position: <u>26-53 N</u> <u>79-45 W</u>		-Check emergency ballast hydraulic pressure ✓	
<u>E. Oswald</u>		-Check VBT's for pressure buildup	
		-Air flask readings (flasks in service) <u>NO</u>	
		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings <u>NO</u>	
		-Carbon Dioxide % _____	
		-Oxygen % <u>20.6</u>	
		-Cabin Temperature <u>55.5° F</u>	
		-Sea water temp. <u>14.22° C</u>	
		-Cabin Humidity <u>68.5</u>	
		-Cabin Pressure <u>1.01</u>	
	1700	-Vent MBT's <u>NO</u>	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves ✓	
	1800	-Vent MBT's <u>NO</u>	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves <u>0.7, 20.5</u>	
	1900	-Vent MBT's <u>NO</u>	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date	15 JULY 1969		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings -Carbon Dioxide % _____ -Oxygen % <u>20.8</u> -Cabin Temperature <u>58°F</u> -Sea water temp. <u>16.41°C</u> -Cabin Humidity <u>71.5</u> -Cabin Pressure <u>1.01</u> -Conduct contaminant checks	
Position:			
Weather:			
20'00		HEAD 50°	
22'05		REDUCED O ₂ FLOW TO 2.5 LIT/MIN.	
23'35		CONTAMINANT CHECKS E. Board	
	2100	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2200	-Vent MBT's NO -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's NO -Check hydraulic pressure - -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>16 JULY 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 <u>NO</u> ; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings -Carbon Dioxide % _____ -Oxygen % <u>21.4</u> -Cabin Temperature <u>61.5°F</u> -Cabin Pressure <u>1.01</u> -Sea Water Temp <u>17.01°C</u> -Cabin Humidity <u>71%</u>	
00-04			
Position:			
Weather:			
<p><u>Note</u>: Total power used for Day 1 (2100 14 July - 2100 15 July) 110-DC 2.57AH or 282.7 WH 28 DC 206.85 or 577.8 WH Propulsion 65.94 or 1107.92 WH</p>			
0200		Depth 203 meters Temperature in boat comfortable - working conditions much better than during bottom drift.	
0230		Sent Amper hour readings to Privalee - we compared our conversions to KATH and found us below power budget for DAY 1 (142100 - 152100)	
0315		Depth 195 meters	
0316		Pumped up hydraulic system	
0345		B ₂ counter started counting off rapidly - secured AH system + turned it on again - B ₂ OK now WJ Keyser	
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's <u>NO</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.2% 21.5</u>	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>16 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓	
04-08		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
0400 Depth 195 meters		-Vent Main Ballast Tanks <u>NO</u> ✓	
0530 20-18 N 79-41 W (Position)		-Check emergency ballast hydraulic pressure ✓	
0630 Depth 193 meters DJ/Kjuni		-Check VBT's for pressure buildup ✓	
		-Record air flask readings (flasks in service)	
		Flask #1 <u>185</u> ; #2 <u>150</u> ;	
		#3 <u>188</u> ; #4 <u>192</u> ;	
		#5 <u>185</u> ; #6 <u>192</u>	
		-Check equipment not in use in Off/Standby position	
		-Record battery readings <u>NO</u>	
		-Check F.W. valves shut ✓	
		-Carbon Dioxide% <u>0.8</u>	
		-Oxygen % <u>21.7</u>	
		-Cabin Temperature <u>63°</u>	
		-Sea Water Temp. <u>16°C</u>	
		-Cabin Pressure <u>102</u>	
		-Cabin Humidity <u>70%</u>	
		-CABIN TEMP <u>63°F</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's <u>NO</u>	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves <u>0.9, 21.8</u> ✓	
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>16 July</u>	0800	-Replace LiOH panels TO SOON -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>21.8</u> -Sea Water Temp. <u>17.53°C</u> Cabin temp. <u>64°F</u> -Cabin Humidity <u>73%</u> -Cabin Pressure <u>1.02</u> -LOX pressure <u>150</u> -Fwd <u>FULL</u> Aft <u>FULL</u> -Record F.W. & LOX tank levels NO	
08-12			
Position: <u>Approx. 35 mi. East of Ft. Pierce</u>			
Weather:			
08'00 DEPTH <u>190 METERS</u>			
09'30 TRANSMISSION THROUGH THE PRIVATEER OF THE COUNT DOWN OF THE LAUNCH OF APOLLO 11			
10'00 SHUT O ₂ FLOW			
11'00 POSITION <u>27° 31.0 N</u> <u>79° 39.5 W</u> <u>E. Schmitt</u>			
	0900	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1000	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.2</u> <u>22.3</u>	
	1100	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

NOTE: If motors have been idle, meggar before using.

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	Time	Routine	Check
Date <u>16 JULY 1969</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm NO -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks NO -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>22</u> -Cabin Temperature <u>65.5° F</u> -Sea water temp. <u>17.61° C</u> -Cabin Humidity <u>69.5</u> -Cabin Pressure <u>1.025</u>	
12-16			
Position: <u>35 NM EAST OF FORT PIERCE</u>			
Weather:			
13:52 O ₂ = <u>21.8%</u>			
1440 Depth <u>205 m</u> Ext. temp. <u>17.59</u>			
1600 Depth <u>201 meters</u>			
			<i>WJ Kaye</i>
	1300	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1400	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7</u> <u>21.6</u>	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>16 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓	
16-20		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather: Calm, Light wind from S.E.		-Check LOX tanks for leaks ✓	
1600 Drifting nicely in Gulf Stream Core at 201 meters		-Vent Main Ballast Tanks NO ✓	
1.630 Posit. { 27-43 N		-Check emergency ballast hydraulic pressure ✓	
{ 79-39.5 W		-Check VBT's for pressure buildup ✓	
1700 Depth 200m		-Air flask readings (flasks in service) none in service	
1800 Chest may checked iodine concentration in F.W. tanks 1 & 2 - found none - should be 6 ppm. We'll have to put some in - first well report to Dr Jessup. Since end plates OK, well hold off filling system		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
2000 Total Power Consumption -		-Check equipment not in use in Off/Standby position ✓	
End of Day 2		-Check F.W. valves shut ✓	
Prop. 11.098 Kwh		-Record battery readings NO	
110 0.709 Kwh 1.61		-Carbon Dioxide % <u>0.8</u>	
28 8.64 Kwh		-Oxygen % <u>21.8</u>	
15:30 <i>WJ/g</i>		-Cabin Temperature <u>66°</u>	
		-Sea water temp. <u>17.64</u>	
		-Cabin Humidity <u>72.5%</u>	
		-Cabin Pressure <u>1.025</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves <u>O₂ 21.9</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>16 July 69</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water	✓
20-24		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: <u>Calm</u>		-Check LOX tanks for leaks	✓
<u>Low Drifting nicely at 205 meters</u> <u>21:05 CO₂ 1.0%</u> <u>E. Down</u>		-Vent Main Ballast Tanks <u>no</u>	
		-Check emergency ballast hydraulic pressure	✓
		-Check VBT's for pressure buildup	✓
		-Air Flask readings (flasks in service) <u>none in service</u>	
		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____;	
		-Check equipment not in use in Off/Standby position	✓
		-Check F.W. valves shut	✓
		-Record battery readings	✓
		-Carbon Dioxide % <u>1.070</u>	
		-Oxygen % <u>21.7</u>	
		-Cabin Temperature <u>66</u>	
		-Sea water temp. <u>16°C</u>	
		-Cabin Humidity <u>74%</u>	
		-Cabin Pressure <u>1.025</u>	
		-Conduct contaminant checks <u>no</u>	
	2100	-Vent MBT's <u>no</u>	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
	2200	-Vent MBT's <u>no</u>	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	✓
	2300	-Vent MBT's <u>0.2% 21.5</u>	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓

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	Time	Routine	Check
Date <u>17 July 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 <u>NO</u> ; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>1.10</u> -Oxygen % <u>21.5</u> -Cabin Temperature <u>66.5°F</u> -Cabin Pressure <u>1.025</u> -Sea Water Temp <u>17.51°C</u> -Cabin Humidity <u>74.5</u>	
00-04			
Position:			
Weather:			
00:00 DEPTH 208 m. HEAD 180°			
01:00 DEPTH 208 m. HEAD 180°			
02:00 CO ₂ 1.10% DEPTH 208 m. HEAD 210° WATER TEMP. 17.45 C			
02:30 CONTAMINANT ANALYSIS			
03:00 DEPTH 208 m. HEAD 200° WATER TEMP. 17.42° C <i>E. Oswald</i>			
	0100	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂ % 21.5</u>	
	0300	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date <u>17 July 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <u>NO</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>1.10</u> -Oxygen % <u>21.5</u> -Cabin Temperature <u>66.5°F</u> -Sea Water Temp. <u>17.4°C</u> -Cabin Pressure <u>1.025</u> -Cabin Humidity <u>73</u>	
04-08			
Position:			
Weather: <u>overcast, sea state 0-1 5Kts from S.E.</u>			
0400 DEPTH <u>208 m.</u> HEAD <u>172°</u>			
0500 Posn. <u>28-10 N</u> <u>79-38.5 W</u>			
0615 Depth <u>210 m</u> Ext. temp. <u>17.44</u>			
0740 Depth <u>210 m</u>			
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>O₂ 21.6</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

L. K. Kagan

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	Time	Routine	Check
Date <u>17 JULY 1969</u>			
12-16			
Position: APPROX. 50 NM EAST OF COCOA BEACH			
Weather:			
12:00	DEPTH 200 m HEAD 162°	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
12:45	HEARD HEAR PROPELLER NOISE ON THE COM/W PHONE LOAD SPEAKER SM SHRIMP BOAT AT 1500 YARDS	-Test emergency ballast alarm NO -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks NO -Check F.W. valves shut ✓ -Record battery readings NO	
13:55	CO ₂ = 0.7%	-Carbon Dioxide % <u>0.5</u> -Oxygen % <u>21.5</u>	
14:50	POSITION 28° 29.0 N 79° 46.5 W	-Cabin Temperature <u>67° F</u> -Sea water temp. <u>17.34</u> -Cabin Humidity <u>75.5</u> -Cabin Pressure <u>1.025</u>	
15:00	Found one of water leads for macerator touching frame - obviously causing a ground		
15:20	Meggered motors MM 1 25 m Ω MM 3 20 m Ω MM 2 25 m Ω MM 4 30 m Ω PM 1 200 m Ω PM 3 1000 m Ω PM 2 250 m Ω PM 4 500 m Ω		
15:55	Boat has seemed to settle out such that the bow is pointing south as we ^{drift} head northward. E. (Shaw)	1300 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ 1400 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7%</u> <u>21.5</u> 1500 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull ✓	

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Franklin Underway Log Sheet

79-49.0
28-355

	Time	Routine	Check
Date <u>17 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20		-Cycle MBT and VBT hull valves ✓	
Position: <u>Approx. 50 mi. east of Cape Kennedy</u>		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
1705 Flooding port VBT in increments to begin descent of bottom.		-Vent Main Ballast Tanks <u>NO</u>	
Depth of bottom should be about 450 meters		-Check emergency ballast hydraulic pressure ✓	
1800 Compass unreliable		-Check VBT's for pressure buildup ✓	
1835 At 452 meters on guide rope about 12 ft. altitude		-Air flask readings (flasks in service) <u>NO</u>	
1855 Bottomed 458 meters		Flask #1 _____; #2 _____	
1908 During the descent we only used flood/drain on VBT & opened it a total of 160 seconds intermittently - we made a very slow descent - set on the guide rope a while & finally touched down as hull cooled we started at 200 m & stopped flooding VBT at 350 m (over. pressure 27.5 kg/cm ²).		#3 _____; #4 _____	
1910 penetrator in H-6 leaking again - not badly		#5 _____; #6 _____	
1920 O ₂ = 20.9 % CO ₂ = 0.6 %		-Check equipment not in use in Off/Standby position ✓	
1940 End of Day 3 Power Usage		-Check F.W. valves shut ✓	
Prop. - 12.31 Kwh		-Record battery readings <u>NO</u>	
110 - 1.46 Kwh 2.02 Kwh		-Carbon Dioxide % <u>0.2</u>	
28 - 1.49 Kwh 20.37		-Oxygen % <u>21.25</u>	
		-Cabin Temperature <u>67°F</u>	
		-Sea water temp. <u>17.33°C</u>	
		-Cabin Humidity <u>78</u>	
		-Cabin Pressure <u>1.025</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>17 July 69</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) ^{none} _(in service) Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
20-24			
Position: <u>ZOCU posit. - 79-49 W</u> <u>28-35.5 N</u>			
Weather: <u>Calm 8-9 Kts from S. S.E.</u>			
2030 We will now ascend to 25ft. alt. by blowing water out of port VBT.			
2115 Current extremely slow - sometimes 0 knots. Visibility excellent.			
2150 General note - Privateer spends too much time communicating with Griffin & beach - not enough with us.		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>61°</u> -Sea water temp. <u>7.13</u> -Cabin Humidity <u>69%</u> -Cabin Pressure <u>Temp 61°</u> -Conduct contaminant checks <u>check well</u>	
2205 at 35ft. alt. doing 50 blasting cycles. We are not drifting - current too slow.			
2230 B-2 AH counter occasionally counts rapidly even though no load.	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
2246 O ₂ = 20.5%	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
2251 CO ₂ = 0.8%	2300	-Vent MBT's <u>0.7</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

W.D. Kay

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	Time	Routine	Check
Date <u>18 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) none	
04-08			
Position:			
Weather:			
0400 at 295 meters ascending slowly			
0405 Bottle out some more silica gel due to high humidity			
0450 at 280 meters ascending slowly		Flask #1 _____; #2 <u>113</u> ; #3 _____; #4 _____; #5 _____; #6 _____	
0445 79-49 Posit. 28-39.5		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% _____ -Oxygen % <u>20.1</u>	
06:00 DEPTH 249 m. CABIN TEMP. 58°F WATER TEMP. 15.97°C HUMIDITY 77.5%		-Cabin Temperature <u>52</u> -Sea Water Temp. <u>14.025°C</u> -Cabin Pressure <u>1.025</u> -Cabin Humidity <u>81.5%</u>	
06:09 SEE NOTE AT 11:15			
06:30 DEPTH 237 m. CABIN TEMP 58°F WATER TEMP 16.58°C POSITION 28° 40.5' N 79° 49.0' W	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
07:00 DEPTH 235 m. CABIN TEMP. 58.05°F WATER TEMP. 16.68°C	0600	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ <u>0.7, 20.1</u>	
07:30 DEPTH 221 m. CABIN TEMP. 58°F WATER TEMP. 16.00°C	0700	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
<u>E. Oshand</u>			

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	Time	Routine	Check
Date	18 JULY 1969		
08-12	0800	-Replace LiOH panels NO -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>20.6</u> -Sea Water Temp. <u>16.95° C</u> -Cabin Humidity <u>74.5</u> -Cabin Temp. <u>59.5° F</u> -Cabin Pressure <u>1.03</u> -LOX pressure <u>150</u> -Fwd _____ Aft _____ -Record F.W. & LOX tank NO levels	
Position:			
Weather:			
08'00	DEPTH 215 m. CABIN TEMP.		
08'30	DEPTH 206 m. CABIN TEMP. 60° F WATER TEMP. 17.11° C		
08'35	SHIP "LINK" IS ARRIVED		
09'00	DEPTH 200 m. CABIN TEMP. 60° F WATER TEMP. 17.27° C		
09'30	DEPTH 195 m. CABIN TEMP. 60° F WATER TEMP. 17.35° C		
10'00	DEPTH 187 m. CABIN TEMP. 60.5° F WATER TEMP. 17.42° C		
10'10	VENTED PORT VBT FLOODED PORT VBT		
10'30	DEPTH 185 m. CABIN TEMP. 61° F WATER TEMP. 17.49° C		
11'00	DEPTH 219 m. CABIN TEMP. 61° F WATER TEMP. 16.00° C		
11'15	Note of interest - we were attacked last night by 2 Broadbill Swordfish - one actually struck the hull. (AT 06'09)		
11'30	DEPTH 228 m. CABIN TEMP. 62° F WATER TEMP. 15.88° C		
		0900	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓
		1000	-Vent MBT's N -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves 0.2% <u>21.0</u>
		1100	-Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓

occurred at 0609

E. [Signature]

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

2859.1
7952.7
165

	Time	Routine	Check
Date	18 July 1969		
12-16			
Position:			
Weather:			
12'00	DEPTH 232 m.	-Check bilges, penetrators and main battery fuse boxes for water ✓	
12'30	DEPTH 237 m. CABIN TEMP 62.5°F WATER TEMP. 15.76°C	-Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) NO	
13'00	DEPTH 240 m. CABIN TEMP. 63°F WATER TEMP. 15.73°C	Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm NO	
1308	28-52.5 } noon 79-53.5 } position	-Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks NO -Check F.W. valves shut ✓ -Record battery readings NO	
13'30	DEPTH 240 m. CABIN TEMP 63°F WATER TEMP 15.75°C	-Carbon Dioxide % 0.4 -Oxygen % 21.4 -Cabin Temperature 62°F	
14'30	DEPTH 240 m. CABIN TEMP. 63°F WATER TEMP. 15.54°C	-Sea water temp. 15.78°C -Cabin Humidity 76.5 -Cabin Pressure 1.04	
15'00	DEPTH 240 m. CAB. TEMP. 63°F WAT. TEMP. 15.53°C	1300 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
1700	Position 28-59.1 79-52.7	1400 -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 0.7% 21.9	
1911	End of Day 4 power Usage (total to date) 110 - 1.588 kWh 28 - 14.631 kWh Prop. - 17.45 kWh	1500 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull ✓	

1920 Penetrator Leak in h-6 has stopped now for several hours

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	Time	Routine	Check
Date <u>18 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service)	
16-20			
Position: <u>Approx. 60 mi. East of New Smyrna Beach.</u>			
Weather: <u>Calm.</u>			
1700 Posit. <u>28-59.1</u> <u>79-52.7</u>			
1911 <u>End of Day 4 power usage (total to date.)</u> <u>110 Kwh ^{6.29} Kwh. 25.98</u> <u>28 14.631 ^{25.98} Kwh</u> <u>prop. 17.45 Kwh</u>		Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
1920 <u>Penetrator leak in h-6 has stopped for many hours now.</u>		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % _____ -Cabin Temperature _____ -Sea water temp. _____ -Cabin Humidity _____ -Cabin Pressure _____	
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date			
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) Flask #1 <u>180</u> ; #2 <u>95</u> ✓ #3 <u>190</u> ; #4 <u>193</u> ✓ #5 <u>184</u> ; #6 <u>191</u> ✓ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> ✓ -Carbon Dioxide % <u>0.8</u> ✓ -Oxygen % <u>22.0</u> ✓ -Cabin Temperature <u>63°F</u> ✓ -Sea water temp. <u>16.28</u> ✓ -Cabin Humidity <u>76%</u> ✓ -Cabin Pressure <u>1.09</u> ✓ -Conduct contaminant checks ✓	
Position:			
Weather:			
2022		Depth <u>238 meters</u> <u>16.28 water temp.</u>	
2137		Deployed additional Silica Gel + also temporarily Secured O ₂ flow (over 22%)	
		<i>LD Sign:</i>	
	2100	-Vent MBT's ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2200	-Vent MBT's <u>NO</u> ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2300	-Vent MBT's <u>O₂ % 22.0 22.0%</u> ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date <u>19 July 69</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓	
00-04		-Cycle MBT and VBT hull valves ✓	
Position: <u>Approx. 60 mi NE. of New Smyrna Beach</u>		-Check hull valves for proper position ✓	
Weather: <u>Calm</u>		-Check LOX tanks for leaks ✓	
0000 Drifting at 234 meters		-Vent Main Ballast Tanks <u>NO</u>	
0100 230 m. CAB. 64° F WATER 16.51° C		-Check emergency ballast hydraulic pressure ✓	
0200 227 m. CAB. 64° F WATER 16.55° C		-Check VBT's for pressure buildup ✓	
0300 223 m. CAB. 64° F WATER 16.57° C		-Record air flask readings: Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
E. <u>Shore</u> →		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings -Carbon Dioxide % <u>0.9</u> -Oxygen % <u>22.0</u> -Cabin Temperature <u>69</u> -Cabin Pressure <u>10.3</u> -Sea Water Temp <u>16.46</u> -Cabin Humidity <u>72</u>	
	0100	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	0200	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7, 21.6</u>	
	0300	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date <u>19 JULY 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <u>NO</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
04-08			
Position:			
Weather:			
04'00 <u>DN 220 m.</u> CAB. 64°F WATER 16.62°C			
05'00 218 m. CAB 64°F WATER 16.66°C O ₂ = 21.3%			
06'00 217 m. CAB. 64°F WATER 16.67°C		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.8</u> -Oxygen % <u>21.4</u> -Cabin Temperature <u>64°F</u> -Sea Water Temp. <u>16.62°C</u> -Cabin Pressure <u>1.07</u> -Cabin Humidity <u>71</u>	
07'00 213 m. CAB. 64°F WATER 16.69°C O ₂ = 21.3 <u>E. Ostrom</u>			
	0500	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	0600	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7, 21.3</u>	
	0700	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date	19 JULY 69		
08-12	0800	-Replace LiOH panels <i>No</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>No</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup - -Air flask readings (flasks in service) <i>No</i> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>No</i> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>21.2</u> -Sea Water Temp. <u>16.72°C</u> -Cabin Humidity <u>74.5</u> -Cabin Pressure <u>1.07</u> -LOX pressure <u>150</u> -Fwd _____ Aft _____ -Record F.W. & LOX tank levels <i>No</i>	
Position:			
Weather:		Overcast, calm, some showers	
0800		DEPTH 208 m. CABIN TEMP. 64°F	
0854		position 29-55.2 29-24.8	
1000		Depth 203 m. Ext. temp. 16.82°C	
1038		Depth 196 m. 16.56°C Vented MBTs ext. temp	
1100		Depth 197 m.	
1128		Depth 197 16.74 ext. temp <i>WD/Kay</i>	
	0900	-Vent MBT's <i>No</i> -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's <i>No</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <i>O₂ % 21.3</i> ✓	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>19 July</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	
12-16		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: <u>Calm</u>		-Check LOX tanks for leaks	
1200 at 198 meters, Drifting north		-Check emergency ballast hydraulic pressure	✓
1300 at 193m ext. temp. 16.69 °C		-Check VBT's for pressure buildup	✓
1400 at 187m ext. temp. 16.70 °C		-Air flask readings (flasks in service)	
1430 at 187m. ext. temp. 16.74 °C		Flask #1 _____; #2 _____;	
1450 At turned off all lights - fairly bright inside - can read lamp print easily.		#3 _____; #4 _____;	
1540 <u>29-36.5N</u> <u>79-58.2W</u> <u>Depth 189 meters</u>		#5 _____; #6 _____	
		-Test emergency ballast alarm	✓
		-Check equipment not in use in Off/Standby position	
		-Vent Main Ballast Tanks	✓
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % <u>0.9</u>	
		-Oxygen % <u>21.3</u>	
		-Cabin Temperature <u>65</u>	
		-Sea water temp. <u>16.69</u>	
		-Cabin Humidity <u>74%</u>	
		-Cabin Pressure <u>1.03</u>	
	1300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves <u>0.7</u> <u>21.3</u>	✓
	1500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

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Franklin Underway Log Sheet

		Time	Routine	Check
	Date <u>19 JULY 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <u>NO</u> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
16-20				
Position:				
Weather:				
16'05	H6 PENETRATOR DRY DEPTH 188 m.			
16'05 17'00	DEPTH 186 m. CAB. 65.5°C WATER 16.79°C CO ₂ 1.4%			
18'00	DEPTH 183 m. CAB. 65.5°F WATER 16.77°C CO ₂ 1.4%		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>1.4</u> -Oxygen % <u>21.1</u> -Cabin Temperature <u>65.5°F</u> -Sea water temp. <u>16.75°C</u> -Cabin Humidity <u>76</u> -Cabin Pressure <u>1.07</u>	
19'00	DEPTH 180 m. CAB. 65.5°F WATER 16.90°C CO ₂ 1.5% O ₂ 21.0%			
1934	End of Day 5 power: 28 - 31.53 Kwh 110 - 110 Kwh 7.71 Prop. - 17.466 Kwh	1700	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
		1800	-Vent MBT's <u>N</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ O ₂ % <u>21.1</u>	
		1900	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

E. Johnson

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	Time	Routine	Check
Date	19 JULY 1969		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) No Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:			
Weather:			
20'00		DEPTH 185 m.	
20'14		CHANGE LIQH PANELS	
21'00		DEPTH 180 m. CAB. 66°F WATER 17.01°C	
22'00		DEPTH 181 m. CAB. 66°F WATER 17.00 CO ₂ 1.0%	
23'00		DEPTH 174 m. CAB 66°F WATER 17.03°C	
		E. Channel	
	2100	-Vent MBT's No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2200	-Vent MBT's M -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2300	-Vent MBT's C ₂ % 20.2 No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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Time Routine Check

Date 20 July 1969

00-04

Position:

Weather:

00:00 DEPTH 171 m.
 01:00 DEPTH 168 m.
 CAB TEMP. 66°F
 WATER TEMP. 17.35°C
 02:00 DEPTH 167 m.
 CAB 66°F
 WATER 17.43°C

CONTAMINANT CHECKS
 E. Shunt

02:30 29 55.0 N
 80 00.5 W

0245 Results of Contaminant Checks:

Carbon monoxide 10 ppm
 Acetone 0.07% or 70 ppm
 hydrazine 0.3 ppm

note: Life Support Manual and Contaminant test log indicate different MAC's. Which is correct?

0300 Temp. (ext.) 17.67°C
 depth 165 m
 heading 110°

0330 Meggan checks
 #1 mm 35mg #3 mm 20mg
 #2 mm 30mg #4 mm 30mg

#1 PM 800 meg #3 PM 1000 meg
 #2 PM 500 meg #4 PM 1000 meg
 21
 W. Kegan

0000 -Check bilges, penetrators and main battery fuse boxes for water ✓
 -Cycle MBT and VBT hull valves ✓
 -Check hull valves for proper position ✓
 -Check LOX tanks for leaks ✓
 -Vent Main Ballast Tanks NO
 -Check emergency ballast hydraulic pressure ✓
 -Check VBT's for pressure buildup ✓
 -Record air flask readings:
 Flask #1 _____; #2 NO;
 #3 _____; #4 _____;
 #5 _____; #6 _____
 -Check equipment not in use in Off/Standby position ✓
 -Check F.W. valves shut ✓
 -Record battery readings NO
 -Carbon Dioxide % 0.8
 -Oxygen % 20.7
 -Cabin Temperature 66°F
 -Cabin Pressure 1.07
 -Sea Water Temp 17.19°C
 -Cabin Humidity 74

0100 -Vent MBT's NO
 -Check hydraulic pressure ✓
 -Cycle MBT and VBT hull valves ✓

0200 -Vent MBT's NO
 -Check hydraulic pressure ✓
 -Cycle MBT and VBT hull valves ✓ 0.7, 20.8

0300 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves ✓

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>20 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <i>None in service</i> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
04-08			
Position:			
Weather:			
0400 Temp. 17.8°C (ext.) Depth 155 m			
0430 142 m 18.10°C			
0450 Adding water to 5th VBT (flushed 3 min.)			
0630 Ext. temp. 17.00°C Depth 188 m			
0641 79-58.5 W } 0630 posit. 30-03.5 N }			
0700 16.98 Ext. temp Depth 197 meters			
0730 Ext. temp 16.8°C Depth 200 m.			
0800 Ext 16.80°C Depth 200 m Heading 315 <i>W. K. J.</i>			
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <i>0.7 20.8</i>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>20 July</u>	0800	<ul style="list-style-type: none"> -Replace LiOH panels <u>NO</u> -Conduct thorough boat inspection -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 <u>185</u>; #2 <u>97</u>; #3 <u>190</u>; #4 <u>193</u>; #5 <u>184</u>; #6 <u>190</u> -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Cabin temp <u>66°F</u> -Carbon Dioxide % <u> </u> -Oxygen % <u>20.8</u> -Sea Water Temp. <u>16.80</u> -Cabin Humidity <u>72%</u> -Cabin Pressure <u>1.03</u> -LOX pressure <u>150</u> -Fwd <u>full</u> Aft <u>full</u> -Record F.W. & LOX tank levels 	
08-12			
Position: <u>Approx. 70 mi. East of Jacksonville Fla.</u>			
Weather: <u>Calm</u>			
0800 <u>Drifting NE in the Gulf stream at 200 m.</u>			
0830 <u>Took battery ground readings</u>			
0900 <u>Ext. temp. 16.70 Depth 198 m</u>			
0930 <u>" " 16.70 Depth 200 m</u>			
General note: <u>our ship's head varies now & then. Also, sometimes we can see the current passing us by and other times we drift with it</u>			
1000 <u>16.70 °C Depth 208</u>			
1030 <u>16.62 °C Depth 213 m</u>			
1200 <u>Depth 208m ext. temp. 16.40</u> <u>WJG</u>			
	0900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>over</u> 	
	1000	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>at 20.8</u> 	
	1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>20 July</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	
12-16		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather: <u>Sea State 1</u>		-Check LOX tanks for leaks	
1200 Depth 208 m Ext. Temp 16.40		-Check emergency ballast hydraulic pressure	
1230 Depth 203 m 16.29 temp. ext.		-Check VBT's for pressure buildup	
1245 General note - Communications have been outstanding!		-Air flask readings (flasks in service) <u>none</u>	
1345 1300 Posit 30-15.7N 79-55.8W		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
1400 DEPTH 210 m. EXT. TEMP. 16.21°C CAB. 4 65.5°F		-Test emergency ballast alarm <u>no</u>	
1430 DEPTH 210 m. EXT. TEMP. 16.12°C CAB. TEMP. 65.5°F		-Check equipment not in use in Off/Standby position ✓	
1500 DEPTH 211 m. EXT. TEMP. 16.04°C CAB. TEMP. 65.0°F		-Vent Main Ballast Tanks <u>no</u>	
1530 DEPTH 212 m. EXT. TEMP. 16.02°C CAB. TEMP. 65.0°F		-Check F.W. valves shut ✓	
<i>E. Schaub</i> →		-Record battery readings <u>no</u>	
		-Carbon Dioxide % <u>0.7</u>	
		-Oxygen % <u>20.8</u>	
		-Cabin Temperature <u>65</u>	
		-Sea water temp. <u>16.40</u>	
		-Cabin Humidity <u>71.5</u>	
		-Cabin Pressure <u>1.03</u>	
	1300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7 20.8</u>	
	1500	-Vent MBT's <u>no</u>	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull ✓	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>20 July 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <u>No</u> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>No</u> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.7</u> -Cabin Temperature <u>65°F</u> -Sea water temp. <u>15.99°C</u> -Cabin Humidity <u>72.5</u> -Cabin Pressure _____	
16-20			
Position:			
Weather:			
16:00 DEPTH 213 m.			
16:30 DEPTH 210 m. EXT. TEMP. 15.99°C CAB. TEMP. 65°F			
17:00 DEPTH 207 m. EXT. TEMP. 16.00°C CAB. TEMP. 65°F			
17:30 DEPTH 203 m. EXT. TEMP. 15.76°C CAB. TEMP.			
18:00 DEPTH 201 m. EXT. TEMP. 15.74°C CAB. TEMP. 65.5°F			
<p>General Note - boat seems to drift stem first - cycles a little either side. Right now she is very stable but sometimes will either go up or down - must be due to thermal structure of water.</p>			
18:30 DEPTH 201 m			
EXT. TEMP. 15.79°C CAB. TEMP. 65°F			
19:00 DEPTH 201 m.			
EXT. TEMP. 15.88°C CAB. TEMP. 65°F			
19:30 DEPTH 200			
EXT. TEMP. 15.88 CAB. TEMP. head 242°			
19:30 Positi 79-56W 30-27.5N			
	1700	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1800	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>O₂ % 20.6</u>	
	1900	-Vent MBT's <u>No</u> -Check hydraulic pressure - -Cycle MBT and VBT hull valves ✓	

E. Schmitt

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Franklin Underway Log Sheet

Date	Time	Routine	Check
20 July 1969	2000	-Check bilges, penetrators and main battery fuse boxes for water	
20-24		-Cycle MBT and VBT hull valves	
Position: Approx. 70 mi East of Jacksonville		-Check hull valves for proper position	
Weather: Sea State 2 20 Kts. wind		-Check LOX tanks for leaks	
2000 DEPTH 200 heading 240		-Vent Main Ballast Tanks	
Ext. temp. 15.79		-Check emergency ballast hydraulic pressure	
2030		-Check VBT's for pressure buildup	
End of Day 6 power cons. -		-Air Flask readings (flasks in service) none in service	
unstrain (total to date)		Flask #1 _____; #2 _____	
28 - 36.82 Kwh		#3 _____; #4 _____	
110 - 20 10.23 Kwh		#5 _____; #6 _____	
prop. - 17.5 Kwh		-Check equipment not in use in Off/Standby position	
2200		-Check F.W. valves shut	
Depth - 194 heading - 325		-Record battery readings	
ext. temp. - 15.98		-Carbon Dioxide % <u>0.8</u>	
2300		-Oxygen % <u>20.5</u>	
Depth 189 m. heading 345°		-Cabin Temperature <u>65</u>	
ext. temp. 15.95°C		-Sea water temp. <u>15.79</u>	
2330		-Cabin Humidity <u>73%</u>	
Checked for CO - 9.2 10 ppm		-Cabin Pressure <u>1.03</u>	
ext. temp 16.0 Depth 189 m		-Conduct contaminant checks	
heading		<u>Chet will do</u>	
<i>LJF Kegan</i>		2100	
		-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
		2200	
		-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
		2300	
		-Vent MBT's <u>O₂ 20.5</u>	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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		Time	Routine	Check
Date <u>21 July 69</u>		0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>no</u> ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
00-04				
Position:				
Weather: <u>Sea State 2 15 Kts wind</u>				
<u>0000 Drifting north at 185 miles</u>				
<u>Ext. temp. 15.78 heading 310</u>				
00.30	DEPTH 190 m. EXT. TEMP. 15.78°C CAB. TEMP. 64°F			
01.00	DEPTH 180 m. EXT. TEMP. 15.90°C CAB. TEMP. 64°F			
01.30	DEPTH 189 m. EXT. TEMP. 15.96°C CAB. " 64°F		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ -Carbon Dioxide % _____ -Oxygen % <u>20.4</u>	
02.00	DEPTH 190 m. EXT. TEMP. 15.96°C CAB. " 64°F		-Cabin Temperature <u>64°F</u> -Cabin Pressure <u>103</u> -Sea Water Temp <u>15.78</u> -Cabin Humidity <u>74%</u>	
02.30	DEPTH 196 m. EXT. TEMP. 15.81°C CAB. " 64°F			
03.00	DEPTH 200 m. EXT. TEMP. 15.82°C CAB. " 64°F			
03.30	DEPTH 202 m. EXT. TEMP. 15.79°C CAB. 64°F	0100	-Vent MBT's ✓ -Check hydraulic pressure - -Cycle MBT and VBT hull valves -	
<u>E. Oswald</u> →		0200	-Vent MBT's ✓ -Check hydraulic pressure - -Cycle MBT and VBT hull valves <u>O₂ 20.2</u>	
		0300	-Vent MBT's ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date <u>21 July 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <u>NO</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
04-08			
Position:			
Weather:			
04'00 DEPTH 204 m. EXT. TEMP.			
04'30 DEPTH 212 m. EXT. TEMP. 15.77°C CAB " 64°F			
05'00 DEPTH 219 m. EXT. TEMP. 15.76°C CAB 64°F			
05'30 DEPTH 216 m. EXT. TEMP. 15.75°C CAB 64°F			
06'00 DEPTH 220 m. EXT. TEMP. 15.76°C CAB. 64°F		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.5</u> -Oxygen % <u>20.3</u> -Cabin Temperature <u>64°F</u> -Sea Water Temp. <u>15.75°C</u> -Cabin Pressure <u>1.06</u> -Cabin Humidity <u>75</u>	
06'30 DEPTH 230 m. EXT. TEMP. 15.75°C CAB. 64°F			
07'00 DEPTH 235 m. EXT. TEMP. 15.75°C CAB. 64°F			
07'30 DEPTH 229 m. EXT. TEMP. 15.72°C CAB. 64°F			
POSITION 30° 52.8 N 79° 47.2 W AT 07.00 E. <i>Cherish</i>	0500	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.70 20.3</u>	
	0700	-Vent MBT's <u>NO</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date	21 JULY 1969		
08-12	0800	-Replace LiOH panels No -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup } -Air flask readings (flasks in service) NO Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings No -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.3</u> -Sea Water Temp. <u>15.67° C</u> -Cabin Humidity <u>75.5</u> -Cabin Pressure <u>1.06</u> -LOX pressure <u>150</u> -Fwd _____ Aft _____ -Record F.W. & LOX tank levels	
Position:			
Weather:			
08.00	DEPTH 230 m. CAB. 64° F		
08.30	DEPTH 235 m. EXT. TEMP. 15.66° C CAB. " 64° F		
09.00	DEPTH 240 m. EXT. TEMP. 15.66° C CAB. " 64° F		
09.30	DEPTH 229 m. EXT. TEMP. 15.64° C CAB. " 64° F		
10.00	DEPTH 230 m. EXT. TEMP. 15.62° C CAB. " 64° F		
1100	Depth 237 m		
1130	Depth 222 m ext. temp. 15.58 Ship's head 3300		
	0900	-Vent MBT's No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1000	-Vent MBT's No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ O ₂ % <u>20.2</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

E. Johnson

W. J. [Signature]

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>21 July 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	✓
12-16		-Cycle MBT and VBT hull valves	✓
Position: <u>Approx. 90 mi. East of Brunswick, Georgia</u>		-Check hull valves for proper position	
Weather:		-Check LOX tanks for leaks	✓
1200 Depth <u>222 m</u> Temp ext. <u>15.57</u>		-Check emergency ballast hydraulic pressure	✓
1200 Posit. <u>31-22.5N 74-42.6W</u>		-Check VBT's for pressure buildup	✓
1340 Commenced use of SUS charges for acoustic measurements		-Air flask readings (flasks in service)	
1414 Flooded ^{stbd} VBT 20 sec.		Flask #1 <u>182</u> ; #2 <u>96</u>	
Notes - we started at 78 Kg/cm ² in stbd VBT with boat at 218 meters. Bottom is 70 fath. below Keel		#3 <u>187</u> ; #4 <u>192</u>	
1428 Flooded 5 sec. in stbd VBT		#5 <u>182</u> ; #6 <u>190</u>	
1430 " " " " "		-Test emergency ballast alarm	✓
1432 " " " " "		-Check equipment not in use in Off/Standby position	✓
Ext. temp. <u>13.57 °C</u>		-Vent Main Ballast Tanks	NO
1450 Flooded 5 sec. in stbd VBT		-Check F.W. valves shut	✓
1452 " " " " "		-Record battery readings	✓
1502 Tested motor		-Carbon Dioxide % <u>0.8</u>	
1503 Flooded 5 sec. stbd VBT		-Oxygen % <u>20.2</u>	
1509 " " " " "		-Cabin Temperature <u>64</u>	
1540 " " " " "		-Sea water temp. <u>15.57</u>	
1555 Cruising at 20 kts. at depth following at good speed. at 372 meters		-Cabin Humidity <u>75</u>	
Δ Jg		-Cabin Pressure <u>1.03</u>	
	1300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	O ₂ % <u>20.1</u>
	1500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>21 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	←
16-20		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	
Weather:		-Check LOX tanks for leaks	
AT Dive #3 at 20ft.		-Vent Main Ballast Tanks	
Altitude drifting NE about		-Check emergency ballast hydraulic pressure	
1 to 1.5 knots. Depth.		-Check VBT's for pressure buildup	
Ext. temp 8.39		-Air flask readings (flasks in service)	
1630 POSITION 31° 11.0 N		Flask #1 _____; #2 _____	
79° 40.0 W		#3 _____; #4 _____	
1730 Depth 389 m		#5 _____; #6 _____	
Ext. temp 3.86		-Check equipment not in use in Off/Standby position	
1830 Going down to bottom		-Check F.W. valves shut	
using motors to stop and		-Record battery readings	
find motor - flooding port		-Carbon Dioxide % _____	
VBT to descend		-Oxygen % <u>20</u>	
1840 Touched down		-Cabin Temperature <u>61</u>	
1850 Back up to 30ft altitude		-Sea water temp. <u>8.39</u>	
1915 Snow targets - up to		-Cabin Humidity <u>73</u>	
100' now - will drift		-Cabin Pressure <u>1.05</u>	
here until about 2 A.M.		1700 -Vent MBT's	
Then go down for another		-Check hydraulic pressure	
look. Too many snow		-Cycle MBT and VBT hull valves	
targets in the area -		1800 -Vent MBT's	
we'd be using motors		-Check hydraulic pressure	
too much		-Cycle MBT and VBT hull valves	
1930 Depth 335 m		0.7. <u>19.8</u>	
Ext. temp. 8.39		1900 -Vent MBT's	
25 25 <u>50/100</u>		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>21 July 69</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓	
20-24		-Cycle MBT and VBT hull valves ✓	✓
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
2015 at 242 meters		-Vent Main Ballast Tanks <i>No</i>	
13.73°C Ext. Temp		-Check emergency ballast hydraulic pressure ✓	
2022 End of Day 7 power		-Check VBT's for pressure buildup ✓	
usage (total to date)		-Air Flask readings (flasks in service) <i>No</i>	
28-4363 kWh 110 - ⁴⁵⁴ kWh prep. - 23.67 kWh		Flask #1 _____; #2 _____;	
2028 1100 Ext. Temp. 14.96		#3 _____; #4 _____;	
Depth 238		#5 _____; #6 _____	
20.42 31 13.5 N		-Check equipment not in use in Off/Standby position ✓	
79 39.0 W		-Check F.W. valves shut ✓	
POSITION AT 20:00		-Record battery readings <i>No</i>	
21:00 DEPTH 178m EXT 17.51°C		-Carbon Dioxide % <u>1.0</u>	
23:30 DEPTH 260m. EXT. 13.27°C		-Oxygen % <u>19.7</u>	
<i>E. Shull</i>		-Cabin Temperature <u>59°F</u>	
		-Sea water temp. <u>16.13°C</u>	
		-Cabin Humidity <u>82</u>	
		-Cabin Pressure <u>1.05</u>	
		-Conduct contaminant checks 23:30 <u>CHET MAT</u>	
	2100	-Vent MBT's <i>No</i>	
		-Check hydraulic pressure _____	
		-Cycle MBT and VBT hull valves _____	
	2200	-Vent MBT's <i>No</i>	
		-Check hydraulic pressure _____	
		-Cycle MBT and VBT hull valves _____	
	2300	-Vent MBT's <i>0.2 20.0</i>	
		-Check hydraulic pressure _____	
		-Cycle MBT and VBT hull valves _____	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>22 JULY 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 <u>NO</u> ; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.0</u> -Cabin Temperature <u>60°F</u> -Cabin Pressure <u>1.05</u> -Sea Water Temp <u>13.34</u> -Cabin Humidity <u>78.5</u>	
00-04			
Position:			
Weather:			
00.00 DEPTH 262 m.			
00.30 " 270 m. EXT. 13.35°C			
01.00 " 272 m. " 13.50°C			
01.35 " 270 m. " 13.32°C			
0135 Contaminants Check - Acetone 0.08% (80 ppm) Hydrazine 0.20 ppm CO 10 ppm			
0150 Resuming descent to bottom - we'll stop between 200 & 100 ft. off bottom for acoustic tests - flooding STD VBT Note: STD VBT Flood/drain backup leaks			
0255 @ 358 m Ext. Temp 8.5°C	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
0328 at 430 meters	0200	-Vent MBT's -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves 0.2% <u>20.5</u>	
0333 at 438 meters temp. 8.25	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
0350 Many squid around - They are squirting lots of ink			
0415 Holding at 700 ft. altitude and conducting acoustic tests using Hasting Cups Depth 505 meters			
0445 posit. 31-220 N at 0422Q 79-30.0W WJ/g.			

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>22 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Record air flask readings (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Record battery readings -Check F.W. valves shut -Carbon Dioxide% _____ -Oxygen % <u>20.6</u> -Cabin Temperature _____ -Sea Water Temp. _____ -Cabin Pressure _____ -Cabin Humidity _____	<input checked="" type="checkbox"/>
04-08			
Position:			
Weather:			
<i>05W Cruising 30 ft. w/ bottom on the guide rope - good cement - Bottom in hard & bumpy - some escarpments; CTFM Sonar on continuous - going too fast to turn it on/off.</i>			
0530 31-28.3N posit 79-29.0W			
0545 shifted to #1 air flask - #2 about empty - can still use it close to the surface.			
0558 beginning ascent by blowing STD VBT	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O ₂ % _____	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

Time Routine Check

Date 22 July

08-12

Position:

Weather: Sea State

0800 at 430 meters
 0900 at 398 meters 8.21°C ext. temp.
 1000 at 368 m 8.2°C ext. temp.
 1045 Double check of power figures
 Show B₂ counter way
 off. We must have used
 more power than indicated
 position 31-34.2N
 79-26.6W at 1130 Q
 UDK

- 0800 -Replace LiOH panels no
 -Conduct thorough boat inspection ✓
 -Cycle MBT and VBT hull valves ✓
 -Check hull valves for proper position
 -Check LOX tanks for leaks ✓
 -Vent Main Ballast Tanks no
 -Check emergency ballast hydraulic pressure ✓
 -Check VBT's for pressure buildup ✓
 -Air flask readings (flasks in service) none
 Flask #1 _____; #2 _____;
 #3 _____; #4 _____;
 #5 _____; #6 _____
 -Check equipment not in use in Off/Standby position ✓
 -Check F.W. valves shut ✓
 -Record battery readings ~~no~~
 -Carbon Dioxide % _____
 -Oxygen % 20.8
 -Sea Water Temp. 8.21
 -Cabin Humidity 76.5
 -Cabin Pressure 1.03
 -Cabin Temp. 55.0
 -LOX pressure 145
 -Fwd .9 Aft .9
 -Record F.W. & LOX tank levels ✓
 0900 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves
 1000 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves O₂ % 21.2
 1100 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

Date	Time	Routine	Check
22 July	1200	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water <input checked="" type="checkbox"/> -Cycle MBT and VBT hull valves <input checked="" type="checkbox"/> <i>not all</i> -Check hull valves for proper position <input checked="" type="checkbox"/> -Check LOX tanks for leaks <input checked="" type="checkbox"/> -Check emergency ballast hydraulic pressure <input checked="" type="checkbox"/> -Check VBT's for pressure buildup <input checked="" type="checkbox"/> -Air flask readings (flasks in service) <i>NO</i> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm <input checked="" type="checkbox"/> <i>NO</i> -Check equipment not in use in Off/Standby position <input checked="" type="checkbox"/> -Vent Main Ballast Tanks <input checked="" type="checkbox"/> <i>NO</i> -Check F.W. valves shut <input checked="" type="checkbox"/> -Record battery readings <input checked="" type="checkbox"/> <i>NO</i> -Carbon Dioxide % _____ -Oxygen % <u>21.2</u> -Cabin Temperature <u>54</u> -Sea water temp. <u>8.3</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.03</u> 	
12-16			
Position:			
Weather:			
1200 AT 335 meters			
1315 Beginning descent to the bottom			
1430 Cruising 90 ft. off bottom conducting acoustic tests			
1440 Rescending to close altitude			
POSITION AT 1415			
31° 36.5 N			
79° 27.5 W			
1518 Cruising along bottom 50 ft. to 50 ft. alt. depth 440 m.			
1605 Beginning ascent. Blowing port VBT			
1615 POSITION 31° 37.5 N 79° 27.0 W			
<i>E. Obert</i>			
	1300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1400	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>O₂ %</i> _____ 	
	1500	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>22 JULY 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20		-Cycle MBT and VBT hull valves	
Position:		-Check hull valves for proper position	
Weather:		-Check LOX tanks for leaks	
17:00 DEPLOYED SOME SILICAGEL BAGS		-Vent Main Ballast Tanks	
18:52 POSITION AT 17:00		-Check emergency ballast hydraulic pressure	
31° 37.6 N		-Check VBT's for pressure buildup	
79° 28.8 W		-Air flask readings (flasks in service)	
<i>E. Oberst</i>		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % _____	
		-Oxygen % _____	
		-Cabin Temperature _____	
		-Sea water temp. _____	
		-Cabin Humidity _____	
		-Cabin Pressure _____	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <i>0.7</i> _____	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>22 July 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓	
20-24		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
2000 LEAK AT THE N6 PENETRATOR CHANGE LIGN PANELS		-Vent Main Ballast Tanks <i>N6</i>	
2300 DEPTH 223 m. FWT. 14.37° C		-Check emergency ballast hydraulic pressure ✓	
<i>E. Oshorn</i>		-Check VBT's for pressure buildup ✓	
General Note:		-Air Flask readings (flasks in service) <i>N6</i>	
End of Day & :		Flask #1 _____; #2 _____;	
28V = 52.15 Fwh		#3 _____; #4 _____;	
110V = 15.0 "		#5 _____; #6 _____;	
Prog. = 28.18 "		-Check equipment not in use in Off/Standby position ✓	
we have noticed that B2 AH counter is malfunctioning. for		-Check F.W. valves shut ✓	
110V DC power consumption		-Record battery readings <i>N6</i>	
we will use value-based		-Carbon Dioxide % _____	
on equipment logs.		-Oxygen % <u>20.8</u>	
		-Cabin Temperature <u>53.5° F</u>	
		-Sea water temp. <u>11.92° C</u>	
		-Cabin Humidity <u>82</u>	
		-Cabin Pressure <u>1.08</u>	
		-Conduct contaminant checks	
	2100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2200	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

		Time	Routine	Check
	Date <u>23 July 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 <u>No</u> ; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>No</u> -Carbon Dioxide % _____ -Oxygen % <u>21.3</u> -Cabin Temperature <u>56°</u> -Cabin Pressure <u>1.09</u> -Sea Water Temp <u>14.97°C</u> -Cabin Humidity <u>77</u>	
00-04				
Position:				
Weather:				
00.00	DEPTH 230 m. WATER			
00.30	" 210 m. TEMP. 15.36°C			
01.00	" 202 m " 15.84°C			
01.14	" 190 m.			
01.15	VENT STBD VBT			
01.21	FLOOD " " 5"			
	DEPTH 188 m.			
01.30	DEPTH 188 m. W.T. 16.75°C			
01.40	" 170 m. FLOOD 5"			
01.44	" 162 m " 104			
01.50	" 190 m.			
02.00	" 210 m. WT. 16.06°C			
02.05	" 205 m.			
02.10	" 195 m.	0100	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
02.12	" 185 m.			
02.14	" 175 m. FLOOD 5"			
02.18	" 171 m.			
02.30	" 195 m. WT. 15.85°C	0200	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7</u> <u>21.5</u>	
02.40	" 200 m.			
	CONTAMINANT CHECK ALL CHECKS ARE GOOD EXCEPT CARBON MONOXIDE = 10 PPM	0300	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
02.55	DEPTH 225 m. W.T. 15.69°C			
03.30	" 188 m " 15.92°C			
03.50	173 m. VBT STBD FULL WATER			
04.00	182 m. 1575			
	E. Cohen			

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Franklin Underway Log Sheet

		Time	Routine	Check
Date <u>23 JULY 69</u>		0400		
04-08			-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <u>NO</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:				
Weather:				
04.30	DEPTH 200 m. W.T. 15.62 °C			
05.00	" 190 m. " 15.53 °C			
05.30	" 208 m. " 15.61 °C			
06.00	" 201 m. " 15.61 °C			
06.30	" 200 m. " 15.64 °C			
07.00	" 182 m. " 16.06 °C			
07.30	" 170 m. " 16.35 °C			
07.37	" 160 m.			
	VENT PORT VBT FLOOD 10" 20"			
07.42	DEPTH 140 m.			
07.47	" 150 m.			
07.50	" 160 m.			
07.52	" 170 m.			
07.56	" 188 m.			
07.58	" 185 m.			
08.00	" 183 m. WAT TEMP 16.00 °C			
	<i>E. Schmitt</i>			
		0500	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
		0600	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ O ₂ % <u>21.5</u>	
		0700	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>23 JULY 1969</u>	0800	-Replace LiOH panels ✓ -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <i>have in service</i> Flask #1 <u>155</u> ; #2 <u>168</u> ; #3 <u>185</u> ; #4 <u>192</u> ; #5 <u>170</u> ; #6 <u>189</u> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>21.5</u> -Sea Water Temp. <u>16.33</u> -Cabin Humidity <u>76%</u> -Cabin Temp <u>60.5</u> -Cabin Pressure <u>11.10</u> -LOX pressure <u>140</u> -Fwd <u>.95</u> Aft <u>.9</u> -Record F.W. & LOX tank levels ✓	
08-12			
Position:			
Weather:			
08.01 DEPTH 180 m.			
08.03 " 175 m			
08.05 " 170 m			
08.08 " 168 m			
08.10 " 170 m.			
08.12 " 175 m.			
08.15 " 180 m.			
08.24 " 165 m.			
08.40 " 158 m.			
PORT VBT FLOODED P. <i>Shunt</i>			
0900 14.9°C at 190 m.			
0945 Position for 0900 32-00.4 N 78-53.5 W			
1000 Ext. temp. 14.28 Depth 188			
1007 Boat is oscillating up and down rapidly - must be internal waves			
	0900	-Vent MBT's ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	1000	-Vent MBT's ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.7</u>	
	1100	-Vent MBT's ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

NOTE: If motors have been idle, meggar before using.

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HIGH

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>23 July</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) 10 Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
12-16			
Position: 65 mi. S.E. of Charleston S.C.			
Weather: 25 Kts of wind			
1202 Shifted B9 switch to horizontal - hope that it will balance out load on A ₁ & A ₂ groups.			
1214 Depth 220 temp 13.14°C		-Test emergency ballast alarm 10 -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>21.6</u> -Cabin Temperature <u>61.0</u> -Sea water temp. <u>13.19</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.1</u>	
1427 Depth 230 temp 11°C Boat still oscillating but with an overall downward trend at one point she went from 240m to 250m to 210m in 30 minutes This has also been done in 17 mins. <i>W. J. King</i>			
	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u>	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>23 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) <u>none in service</u> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
16-20			
Position: <u>About 100 mi. East of Charleston S.C.</u>			
Weather:			
1630 Depth <u>268 meters</u>			
1640 Posit. <u>32-05.5 N</u> time <u>1600</u> <u>78-38.5 W</u>			
17.20 DEPTH <u>290 m.</u> BLOW 5" PORT VBT OVER PRESSURE <u>5 kg/cm²</u>		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.7%</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>59</u>	
1744 BLOW 5"		-Sea water temp. <u>10°C</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.1</u>	
18.05 BLOW 5" DEPTH <u>285 m.</u>			
18.37 CONTAMINANT CHECKS ALL IS NORMAL EXCEPT CARBON MONOXIDE 10 PPM			
19.37 DEPTH <u>300 m.</u> BLOW 10"	1700	-Vent MBT's <u>N</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	
19.47 POSITION AT 19.30 <u>32° 36.5 N</u> <u>78° 33.5 W</u> ← ? <u>E. Ocean</u> <u>32° 06.5 N</u> SUPPOSED	1800	-Vent MBT's <u>N0</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 20.4</u>	
	1900	-Vent MBT's <u>N0</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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32 36.5 N
78 33.5 W

Franklin Underway Log Sheet

	Time	Routine	Check
Date	23 JULY 1969		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings SECURED (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:			
Weather:			
20'00		OPEN O ₂ FLOW	
20'07		DEPTH 251 m. FATHOMETER 98 FATHOMS	
20'55		DEPTH 270 m. FATHOMETER 94 FATHOMS	
21'00		POSITION AT 20'45 32° - 07' N 78° - 31.2' W	
21'01		SECURED AMP. HRS SYSTEM	
		A1 157.90	
		A2 9.99 10.00	
		B1 93.17	
		B2 24.41	
		C 204.09	
		D 791.58	
21'12		DEPTH 288 m. BLOW 5" PORT	
23'03		DEPTH 248 BLOW 5" PORT 100 FATHOMS BELOW KEEL	
2348		Blew port VBT 5"	
	2100	-Vent MBT's NO ✓ -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's 0.7, 19.8 -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>1.0</u> -Oxygen % <u>19.0</u> -Cabin Temperature <u>57.5° F</u> -Sea water temp. <u>10.14</u> -Cabin Humidity <u>77.5</u> -Cabin Pressure <u>1.09</u> -Conduct contaminant checks	

WJG

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Franklin Underway Log Sheet

Date 24 July 1969

00-04

Position:

Weather: 30 Kts wind

0000 AT 228 meters in Gulf Stream

0018 Blow port VBT 5 sec.

0028 Blow port VBT 5 sec.

0030 72 fathoms below Keel.
Depth 235 m.

0130 Blow port VBT 5 sec.
72 fathoms below Keel.
Depth 222 meters

0144 Blow port VBT 5 sec.

0201 Blow port VBT 5 sec.

0212 0200 Posit. 32-48 N
78-28 W

E. Stewart

Time Routine Check

- 0000 -Check bilges, penetrators and main battery fuse boxes for water ✓
 -Cycle MBT and VBT hull valves ✓
 -Check hull valves for proper position ✓
 -Check LOX tanks for leaks ✓
 -Vent Main Ballast Tanks NO
 -Check emergency ballast hydraulic pressure ✓
 -Check VBT's for pressure buildup ✓
 -Record air flask readings: NO

Flask #1 _____; #2 _____;
 #3 _____; #4 _____;
 #5 _____; #6 _____

- Check equipment not in use in Off/Standby position ✓
 -Check F.W. valves shut ✓
 -Record battery readings NO
 -Carbon Dioxide % 0.8
 -Oxygen % 19.8
 -Cabin Temperature 56°
 -Cabin Pressure 1.07
 -Sea Water Temp 10.65°C
 -Cabin Humidity 76

- 0100 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves

- 0200 -Vent MBT's NO
 -Check hydraulic pressure ✓
 -Cycle MBT and VBT hull valves 0.7, 20.0

- 0300 -Vent MBT's
 -Check hydraulic pressure
 -Cycle MBT and VBT hull valves

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	24 JULY 1969		
04-08		-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) SECURED Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:			
Weather:			
04'01	DEPTH 208 m. 160 FATHOMS BELOW KEEL		
05'00	DEPTH 210 m. 158 FATH. BELOW KEEL		
06'00	DEPTH 270 m. 150 FATH BELOW KEEL		
06'02	PROPELLER NOISE OF THE LYNCH		
07'00	DEPTH 242 m. 168 FATHOMS BELOW KEEL		
07'43	POSITION AT 07'00 32° 03.8 N 78° 11.0 W		
	<i>E. Sabauit</i>		
		-Check equipment not in use in Off/Standby position ✓ -Record battery readings NO -Check F.W. valves shut ✓ -Carbon Dioxide % 0.8 -Oxygen % 20.0 -Cabin Temperature 57° F -Sea Water Temp. 15.10 °C -Cabin Pressure 1.09 -Cabin Humidity 77	
		0500 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
		0600 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves 0.7, 20.3 ✓	
		0700 -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	24 July 1969		
08-12	0800	<ul style="list-style-type: none"> -Replace LiOH panels <i>N_o</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>N_o</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <i>secured</i> (flasks in service) 	
Position:		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Weather:		<ul style="list-style-type: none"> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>N_o</i> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.5</u> -Sea Water Temp. <u>17.23</u> -Cabin Humidity <u>79</u> <i>59.5° F</i> -Cabin Pressure <u>1.09</u> -LOX pressure <u>150</u> -Fwd <u>FULL</u> Aft <u>7/8 FULL</u> -Record F.W. & LOX tank levels 	
08'00 DEPTH 222 m. 190 FATHOMS BELOW KEEL			
09'00 DEPTH 230 m 198 FATHOMS			
10'00 DEPTH 180 m. FATH. 220			
10:30 Boat is again oscillating up and down due to internal waves - recently she was ^{went} from 185 m ^{DK} to 240 m back to 185 m in 20 minutes.			
11:30 Changed Purafil in head blower. also - note: Bacteria filters in each sink were replaced replaced 20 July. Distwater usually changed twice per day (we are using one bucket) - frequency of change may be increased.			
	0900	<ul style="list-style-type: none"> -Vent MBT's <i>N_o</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ 	
	1000	<ul style="list-style-type: none"> -Vent MBT's <i>N_o</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <i>O₂</i> % <u>20.8</u> 	
	1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
		NOTE: If motors have been idle, meggar before using.	

UJ Kegan

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>24 July 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) <i>secured</i>	
12-16			
Position: <u>Approx, 90 mi. S.E. of Cape Romain S.C.</u>		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Weather: <u>Sea state 4</u>		-Test emergency ballast alarm -Check equipment not in use in Off/Standby position -Vent Main Ballast Tanks <u>NO</u> -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>21.2</u> -Cabin Temperature <u>62</u> -Sea water temp. <u>18.46</u> -Cabin Humidity <u>77.5</u> -Cabin Pressure <u>1.1</u>	
1200 Oscillating between 150m and 220 meters.			
1225 <u>General Note</u> : humidity readings are unusually high because humidity gage is located near shower. Prior to GSDM shower was not used and humidity readings generally were below 70%.			
1240 1200 Posit <u>32-03.0 N</u> <u>77-56.0 W</u>			
1245 Depth 190 m, 284 fathoms below keel			
1250 Ext. temp <u>18.59°C</u> Depth <u>205 m</u>	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
1500 Depth 195 m 236 fathoms Ext. temp 18.9 below keel			
1545 up to 145 m - flooded some water in Stbd VBT.	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.2% 21.4</u>	
1555 Depth 176 m Temp 19.0	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

[Handwritten signature]

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>24 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <u>None in service</u> Flask #1 _____; #2 <u>Service</u> #3 _____; #4 _____ #5 _____; #6 _____	
16-20		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>21.7</u> -Cabin Temperature <u>65°</u> -Sea water temp. <u>19.0</u> -Cabin Humidity <u>76%</u> -Cabin Pressure <u>1.15</u>	
Position:			
Weather:			
1600 Depth 170 m.			
1615 Depth 138 m - Flooded some more in Stbd VBT. These internal wave are a real pain.			
1630 Moved humidity gage to wardrobe			
1710 Waste tank (mini) dry - will drain some cold water into mini waste tank.			
1720 32-09N 77-45W Posit. for 1700			
1733 Depth 218 m Temp. 18.4°	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
1815 CHANGE PAPER ROLL OF THE DEPTH RECORDER	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O ₂ % <u>21.6</u>	
1830 DEPTH 238 m. EXT. TEMP. 18.18° C			
1900 " 219 m. " 18.18° C	1900	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
1915 1900 Posit 77-41 W 32-12.5 N E. <u>Richard</u>			

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	24 JULY 1969		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) SECURED Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>1.2</u> -Oxygen % <u>21.6</u> -Cabin Temperature <u>63°F</u> -Sea water temp. <u>18.15°C</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.12</u> -Conduct contaminant checks _____	
Position:			
Weather:			
20'00	DEPTH	205 m.	
20'30	"	188 m. TEMP. 18.24°C	
21'00	"	185 m " 18.44°C	
21'30	"	158 m. " 18.50°C	
22'00	"	150 m " 18.52°C	
22'25	"	165 m	
		220 FATHOMS BELOW KEEL	
1032		32-17N posit. for zero	
		77-40W	
11'30	DEPTH	275 m. TEMP. 16.73°C	
		32° 21.2 N } AT 11.30	
		77° - 39.5 W }	
		<i>E. Record</i>	
Note: Power Consumption - end of Day 10			
		28 - 59.21 Kwh	
		110 - 19.65 Kwh	
		prop - 21.18 Kwh	
	2100	-Vent MBT's No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2200	-Vent MBT's No -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
	2300	-Vent MBT's <u>0.2</u> <u>21.4</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	25 JULY 1969		
00-04	0000	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: <ul style="list-style-type: none"> Flask #1 <u>SECURED</u>; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>1.3</u> -Oxygen % <u>21.0</u> -Cabin Temperature <u>66°F</u> -Cabin Pressure <u>measuring</u> -Sea Water Temp <u>16.50°C</u> -Cabin Humidity <u>72.5</u> 	
Position:			
Weather:			
00'00	DEPTH	270 m.	
00'05	"	290 m. blow VBT 5"	
		138 FATH. BELOW KEEL	
00'00	DEPTH	275 m. TEMP. 16.21°C	
01.30	"	280 m. " 16.05°C	
		130 FATHOMS BELOW KEEL	
02'00	DEPTH	272 m. TEMP. 16.00°C	
02'30	"	265 m. " 15.65°C	
03'00	"	261 m. " 15.25°C	
		126 FATHOMS BELOW KEEL	
		E. Schmidt	
	0100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0200	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O₂ % <u>20.6</u> 	
	0300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>25 July 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water	
04-08		-Cycle MBT and VBT hull valves	
Position: <u>Approx. 90 mi. South of Cape Fear, N.C.</u>		-Check hull valves for proper position	✓
Weather: <u>12-15 Kts. wind, sea state 3</u>		-Check LOX tanks for leaks	
		-Vent Main Ballast Tanks <u>NO</u>	
		-Check emergency ballast hydraulic pressure	✓
0400 Depth 272m Ext. Temp 14.5		-Check VBT's for pressure buildup	✓
0500 Depth 268m Ext. Temp 14.15		-Record air flask readings (flasks in service) <u>NO</u>	
Position 77-39W 32-28N		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
0600 Temp. (Ext.) 13.75		#5 _____; #6 _____	
Depth 267m.		-Check equipment not in use in Off/Standby position	✓
0700 Ext. Temp 13.24		-Record battery readings <u>NO</u>	
Depth 267m		-Check F.W. valves shut	
		-Carbon Dioxide% <u>1.0</u>	
		-Oxygen % <u>20.6</u>	
		-Cabin Temperature <u>65</u>	
		-Sea Water Temp. <u>14.5</u>	
		-Cabin Pressure <u>1.12</u>	
		-Cabin Humidity <u>79%</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>air 20.3</u>	
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

D. Kagan

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Franklin Underway Log Sheet

Time Routine Check

Date 25 July 69

08-12

Position: Approx. 60 mi. south of Frying Pan Shoals

Weather:

0800 Depth 272 Ext. temp. 12.87°

8.25 O₂: 20%

8.35 268 m - 12° 65 (sea); inside; 62 F

9.00 262 m - 12° 50 - 90 fath. below keel

9.25 262 m - blow 5" port VBT, upon surface request (we seem out of G.S.?)

9.30 259 m - 12, 40° C sea

10.00 265 m 12, 20° C 87 fath. below keel

O₂: 20%
inside from us: 1, 12 atm.

10.08 blow 5" VBT st.

10.27 blow 5" VBT st.

10.29 258 m 12.12° C

11.00 12.57° C 259 m -

80 fath. below keel

O₂: 20%

humidity: 75.5%

11.12 measured motors 1 P. cont

#1 mm - 3 meg

#2 mm - 30 meg

~~#3 mm~~ #1 pm 500 meg

#2 pm 500 meg

11.23 Surface reported we were out of

the Gulfstream - broke

through both walls. We are

now underway on motors 102

at 60 amps

W. J. [Signature]
23

- 0800 -Replace LiOH panels N.A.
- Conduct thorough boat inspection ✓
- Cycle MBT and VBT hull valves ✓
- Check hull valves for proper position ✓
- Check LOX tanks for leaks ✓
- Vent Main Ballast Tanks NO
- Check emergency ballast hydraulic pressure ✓
- Check VBT's for pressure buildup ✓
- Air flask readings none (flasks in service) in service
- Flask #1 _____; #2 _____;
- #3 _____; #4 _____;
- #5 _____; #6 _____
- Check equipment not in use in Off/Standby position ✓
- Check F.W. valves shut ✓
- Record battery readings NO
- Carbon Dioxide % 1.0
- Oxygen % 20.0
- Sea Water Temp. 12.87
- Cabin Humidity 75.9%
- Cabin Temp. 63°
- Cabin Pressure 1.12
- LOX pressure 150
- Fwd .9 Aft .85
- Record F.W. & LOX tank levels
- 0900 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves
- 1000 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves 0%
- 1100 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

Time Routine Check

Date 25 July 69

12-16

Position:

Weather:

1200 Proceeding on course 100 at 60 amps on motors 1 & 2 at 100 meters. We are attempting to get back into the high speed core of the Gulf Stream. Ampere hours prior to start: A1 = 157.90 A2 = 10.0

1332 Ext. Temp 19.07°C Depth 105 meters Changing course to 130°

1340 CO2 - 1.50 humidity - 72% Cabin Temp. - 68°F Cabin pressure - 1.12 O2 % - 20.6

1405 Deployed LIQH

1630 Completed transit

posit. 32-34.5W at 79-39.2N 1630

1647 Driving down to deeper depth - [Signature]

- 1200 -Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1; #2; #3; #4; #5; #6 -Test emergency ballast alarm -Check equipment not in use in Off/Standby position -Vent Main Ballast Tanks -Check F.W. valves shut -Record battery readings -Carbon Dioxide % -Oxygen % -Cabin Temperature -Sea water temp. -Cabin Humidity -Cabin Pressure 1300 -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 1400 -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O2 % 20.6 1500 -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>25 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
16-20			
Position: <u>32-34.5 N } at 1630</u> <u>79-39.2 W }</u>			
Weather:			
1645 Driving down to 250 m.			
1702 at 300 m. Ext. temp 12.02			
1705 Seamed propulsion Final readings AH A ₁ 507.38 A ₂ 356.13			
1710 Ascending - hopefully the 300 meters cooled off The hull enough so we can stabilize at something greater than 150 m.		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % <u>20.5</u> -Cabin Temperature <u>73</u> -Sea water temp. _____ -Cabin Humidity <u>70.5</u> -Cabin Pressure <u>1.12</u>	
18'45 DEPTH 90 m. FLOOD SAME WATER IN STRD VOT			
18'55 DEPTH 122 m. 154 FATH. BELOW KEEL <i>E. Abund</i>	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>C₂ 7</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Date	Time	Routine	Check
	25 JULY 1969	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>N</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings SECURED (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
20-24				
Position:				
Weather:				
	20'00 DEPTH 125 m. FATH. 138 BELOW KEEL			
	21'00 DEPTH 118 m. TEMP. 19.04°C FATH. 150 BELOW KEEL			
	21'10 FLOOD SOME WATER. STOOD VBT			
	21'25 DEPTH 120 m. 115 m.			
	21'30 POSITION 32° 38.1 N 77° 39.9 W			
	21'33 DEPTH 142 m. TEMP 18.44°C			
	22'00 DEPTH 192 m. TEMP. 16.78°C 102 FATH. BELOW KEEL			
	22'30 DEPTH 212 TEMP 15.82°C			
	23'00 " 220 " 14.73°C 88 FATH. BELOW KEEL			
	23'25 DEPTH 229 m. BLW PORT VBT 5"			
	23'30 DEPTH 228 m. TEMP. 14.17°C 86 FATH. BELOW KEEL			
	23'46 DEPTH 232 BLW PORT VBT IT IS NOW EMPTY			
	<i>E. Cahend</i>			
		2100	-Vent MBT's <i>No</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
		2200	-Vent MBT's <i>No</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
		2300	-Vent MBT's <i>0% 20.5</i> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

Note Power for end of Day 11
 28 67.08 Kuh
 110 ~~22.668~~ 22.668 Kuh
 Prop 144.68 Kuh.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>26 JULY 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 <u>SECURED</u> ; #3 _____; #4 _____; #5 _____; #6 _____	
00-04			
Position:			
Weather:			
00.00 DEPTH 233 m. 80 FATHOMS BELOW KEEL			
00.02 BLOW STBD VBT 5"			
00.03 " " " 5"			
00.13 CONTAMINANT CHECKS CARBON MONOXIDE 10 PPM			
00.15 DEPTH 228 m			
00.30 DEPTH 238 m. BLOW STBD VBT 5"		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.2</u> -Cabin Temperature <u>68°F</u> -Cabin Pressure _____ -Sea Water Temp <u>13.77°C</u> -Cabin Humidity <u>71.5</u>	
01.00 DEPTH 230 TEMP. 13.71°C 76 FATHOMS BELOW KEEL			
01.10 DEPTH 239 m. BLOW STBD VBT 5"			
01.15 DEPTH 238 m.			
01.21 POSITION 32° 41.2 N 77° 41.0 W	0100	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	
01.30 DEPTH 230 TEMP. 13.67°C 76 FATHOMS BELOW KEEL BLOW STBD VBT 5"	0200	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>O₂ 20.1</u>	
02.00 DEPTH 227 m. TEMP. 13.95°C 80 FATHOMS BELOW KEEL	0300	-Vent MBT's _____ -Check hydraulic pressure _____ -Cycle MBT and VBT hull valves _____	
0300 Blow STBD VBT 5"			
0337 Blow STBD VBT 5" W J Kayan			

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>26 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ^(some)	<input checked="" type="checkbox"/>
04-08		-Cycle MBT and VBT hull valves	<input type="checkbox"/>
Position: <u>Approx 45 mi. South of Frying Pan Shoals</u>		-Check hull valves for proper position	<input checked="" type="checkbox"/>
Weather: <u>Calm, 2 to 3 Kts wind</u>		-Check LOX tanks for leaks	
0400 Depth <u>235 m</u> Ext. temp. <u>13.68</u>		-Vent Main Ballast Tanks	
<u>70 fathoms below Keel</u>		-Check emergency ballast hydraulic pressure	<input checked="" type="checkbox"/>
<u>Blew stbd VBT 5" Clear of Gulf Stream drifting NW</u>		-Check VBT's for pressure buildup	<input checked="" type="checkbox"/>
0455 <u>Blow stbd VBT 5"</u>		-Record air flask readings (flasks in service) ^{none}	
0505 <u>215 m 14.85 ext. temp</u>		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
<u>0500 posit. 32-41.8 N 77-43.2 W</u>		-Check equipment not in use in Off/Standby position	<input checked="" type="checkbox"/>
0600 <u>205 m Ext. Temp. 15.7°</u>		-Record battery readings	<input checked="" type="checkbox"/>
<u>62 fathoms below Keel</u>		-Check F.W. valves shut	<input checked="" type="checkbox"/>
0631 <u>Blow stbd VBT 5 sec.</u>		-Carbon Dioxide% <u>0.4</u>	
<u>W. J. King</u>		-Oxygen % <u>20.1</u>	
		-Cabin Temperature <u>64</u>	
		-Sea Water Temp. <u>13.68</u>	
		-Cabin Pressure <u>612</u>	
		-Cabin Humidity <u>72.70</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7 20.0</u>	
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>26 July 69</u>	0800	-Replace LiOH panels <i>NO</i>	
08-12		-Conduct thorough boat inspection	
Position:		-Cycle MBT and VBT hull valves	
Weather: <u>Sea state 0, Clear</u>		-Check hull valves for proper position	
0800 Depth <u>185 m</u>		-Check LOX tanks for leaks	
0800 Ext. temp <u>17.48 °C</u>		-Vent Main Ballast Tanks	
Depth <u>150 m</u>		-Check emergency ballast hydraulic pressure	
0915 Preparing to surface for tow back to Gulf Stream Core.		-Check VBT's for pressure buildup	
0928 Commencing slow ascent to surface (blow <i>std VBT</i>)		-Air flask readings (flasks in service) <i>None</i>	
0940 holding at 82 meters <i>partially</i>		Flask #1 _____; #2 _____;	
0950 Ascending slowly. Can hear gas bubbles escaping		#3 _____; #4 _____;	
1042 At 34 meters ascending		#5 _____; #6 _____	
1125 Hanging at 30 m. S.W. sensors		-Check equipment not in use in Off/Standby position	
1138 1, 2, 5, 6, 9, 10 "on"		-Check F.W. valves shut	
1147 Slowing ascent with motors		-Record battery readings <i>NO</i>	
		-Carbon Dioxide % _____	
		-Oxygen % <u>20.0</u>	
		-Sea Water Temp. <u>16.6</u>	
		-Cabin Humidity <u>71.5</u>	
		-Cabin Pressure <u>1.12</u>	
		-LOX pressure <u>150</u>	
		-Fwd <u>.9</u> Aft <u>.8</u>	
		-Record F.W. & LOX tank levels	
		Cabin temp. <u>63.5</u>	
	0900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1000	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7</u>	
	1100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

DJK

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

Date	Time	Routine	Check
<p>12-16</p> <p>Position:</p> <p>Weather:</p> <p>1205 Surfaced: Privateer Crew using scuba air to blow out MBT's also we are taking some shot to help us dive later on. Added 2000 lbs of shot.</p> <p>1322 Under tow by Privateer Course 135° T</p> <p>1337 1336 Posif 32-39.4N 77-51.7W</p>	<p>1200</p> <p>1300</p> <p>1400</p> <p>1500</p>	<p>-Check bilges, penetrators and main battery fuse boxes for water</p> <p>-Cycle MBT and VBT hull valves</p> <p>-Check hull valves for pro- per position</p> <p>-Check LOX tanks for leaks</p> <p>-Check emergency ballast hydraulic pressure</p> <p>-Check VBT's for pressure buildup</p> <p>-Air flask readings (flasks in service)</p> <p>Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____</p> <p>-Test emergency ballast alarm</p> <p>-Check equipment not in use in Off/Standby position</p> <p>-Vent Main Ballast Tanks <i>NO</i></p> <p>-Check F.W. valves shut</p> <p>-Record battery readings <i>Done earlier</i></p> <p>-Carbon Dioxide % _____</p> <p>-Oxygen % <u>19.6</u></p> <p>-Cabin Temperature <u>71</u></p> <p>-Sea water temp. <u>29.0</u></p> <p>-Cabin Humidity <u>63.5</u></p> <p>-Cabin Pressure <u>1.1</u></p> <p>-Vent MBT's</p> <p>-Check hydraulic pressure</p> <p>-Cycle MBT and VBT hull valves</p> <p>-Vent MBT's</p> <p>-Check hydraulic pressure</p> <p>-Cycle MBT and VBT hull valves <u>0.7</u></p> <p>-Vent MBT's</p> <p>-Check hydraulic pressure</p> <p>-Cycle MBT and VBT hull</p>	

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	Time	Routine	Check
Date <u>26 July 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20	1800	-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
1600 Under tow to dwt site		-Vent Main Ballast Tanks <u>NO</u>	
in Gulf Stream - Course 135°		-Check emergency ballast hydraulic pressure ✓	
<i>L. J. G.</i>		-Check VBT's for pressure buildup ✓	
		-Air flask readings (flasks in service) <u>SECURED</u>	
		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings <u>NO</u>	
		-Carbon Dioxide % _____	
		-Oxygen % <u>19.5</u>	
		-Cabin Temperature <u>80°F</u>	
		-Sea water temp. <u>29.0 °C</u>	
		-Cabin Humidity <u>64.5</u>	
		-Cabin Pressure <u>1.07</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>C₂%</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>26 July, 69</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water	
20-24		-Cycle MBT and VBT hull valves	
Position:		-Check hull valves for proper position	
Weather: <u>Calm</u>		-Check LOX tanks for leaks	
<u>2000 Under tow remedy</u>		-Vent Main Ballast Tanks	
<u>currents due site in</u>		-Check emergency ballast hydraulic pressure	
<u>Gulf Stream high speed</u>		-Check VBT's for pressure buildup	
<u>core. Course 135°T</u>		-Air Flask readings (flasks in service)	
<u>WJK</u>		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % _____	
		-Oxygen % _____	
		-Cabin Temperature _____	
		-Sea water temp. _____	
		-Cabin Humidity _____	
		-Cabin Pressure _____	
		-Conduct contaminant checks	
	2100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2200	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>O₂</u> _____	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>27 July 69</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Record air flask readings: Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
00-04			
Position:			
Weather: <u>Calm</u>			
0313 - Arrive crew on deck to disconnect fan and rig hoses - we are well in Gulfstream Core.		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % _____ -Cabin Temperature _____ -Cabin Pressure _____ -Sea Water Temp _____ -Cabin Humidity _____	
0317 - Fan disconnected			
0315 - 32-22.2 N Position 776 76-51.7 W for 0315			
0340 - O ₂ - 19.8% LJ/Kay			
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O ₂ % _____	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>27 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Record air flask readings (flasks in service)	
04-08			
Position: <u>Approx. 75 mi. S.E. of Flying Pan Shoals</u>			
Weather: <u>Calm</u>			
0400 Preparing to dive. Topsides personnel seated in circles. Sounding 520 fathoms			
0401 Opened vents to dive - dive 42		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____;	
0409 going down - dribbling Shot - <u>very</u> heavy		-Check equipment not in use in Off/Standby position -Record battery readings -Check F.W. valves shut -Carbon Dioxide% _____ -Oxygen % _____ -Cabin Temperature _____ -Sea Water Temp. _____ -Cabin Pressure _____ -Cabin Humidity _____	
0427 AT 430 meters Ext. temp. 16°C			
0436 S. W. Sensors. 1, 2, 3, 5, 6, 9, 10, 11 "on"			
0505 at 430 meters oscillating while boat cools & seeks its depth - we had to dribble quite a bit of shot and will continue to dribble in order to stabilize at 200 m <u>WJ/Kj</u>	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>02.7, 20.2</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
4.30 : 390 m			
5.00 : 393 m			
5.30 : 390 m			
6.00 : 340 m			
6.38 : 362 m			
7.00 : 326 m			
7.30 : 289 m			
8.00 : 300 m			
			Between 4.07 and 4.22: 180 seconds of shot. 5.47: 5" shot (St.) 5.31: 5" " (Pat) 7.08: 5" " (Pat) 22
			4.23: 20" shot 5.05: 5" shot (St.) 5.24: 5" shot (St.) Revision 1 12 May 1969 Total shot to 8.00: 225" shot

Franklin Underway Log Sheet

		Time	Routine	Check
Date <u>27 July 69</u>		0800	-Replace LiOH panels <u>NO</u>	
08-12	8.30 : 310 m 5" shot (St.)		-Conduct thorough boat inspection	✓
	9.00 : 245 m		-Cycle MBT and VBT hull valves	✓
Position:	9.30 : 249 m		-Check hull valves for proper position	✓
Weather:			-Check LOX tanks for leaks	✓
0400	at 300m temp: 17.91 °C		-Vent Main Ballast Tanks <u>NO</u>	
	Ascending slowly while dropping shot periodically - enroute to 185m		-Check emergency ballast hydraulic pressure	✓
10 ⁰⁰	20.04% O ₂		-Check VBT's for pressure buildup	✓
	252 m - 18° 24 C sea		-Air flask readings (flasks in service) <u>none in service</u>	
10.30	250 m 18° 25 C sea		Flask #1 _____; #2 _____;	
10.35	262 m 3" of shot (St.)		#3 _____; #4 _____;	
11.00	215 m 18,51°C sea		#5 _____; #6 _____	
11.30	220 m 18,44°C		-Check equipment not in use in Off/Standby position	✓
12.00	220 m 18,38°C		-Check F.W. valves shut	✓
12.10	218 m term. mag. on		-Record battery readings <u>NO</u>	
	<i>J. Picent</i>		-Carbon Dioxide % <u>0.5%</u>	
			-Oxygen % <u>20.4</u>	
			-Sea Water Temp. <u>17.91</u>	
			-Cabin Humidity <u>76%</u>	
			-Cabin Pressure <u>1.05</u>	
			-LOX pressure <u>145</u> <u>75°F</u>	
			-Fwd <u>.9</u> Aft <u>.8</u>	
			-Record F.W. & LOX tank levels	✓
		0900	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves	
		1000	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves <u>0.7</u>	
		1100	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves	
NOTE: If motors have been idle, meggar before using.				

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	27 JULY 1969		
12-16	1200	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) SECURED Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm NO -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks NO -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.2</u> -Cabin Temperature <u>72.5°F</u> -Sea water temp. <u>18.38°C</u> -Cabin Humidity <u>78.5</u> -Cabin Pressure <u>1.05</u> 	
Position:			
Weather:			
12'00	DEPTH 220 m.		
12'30	212 m. 18.36°C		
13'00	215 m. 18.37°C		
13'30	217 m. 18.37°C		
14'00	220 m. 18.33°C		
1401	76 - 40 W 1300 POSIT.		
	32 - 36 N		
14'30	221 m. 18.32°C		
15'00	224 m. 18.30°C		
General Note: Boat very stable now - behaving like she was designed to. Depth changes are single and fast. No unusual waves noted.			
15'30	228 m. 18.27°C		
16'00	210 m. 18.35°C		
	E. Observed		
	1300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1400	<ul style="list-style-type: none"> -Vent MBT's NO -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves a.7. <u>20.3</u> 	
	1500	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>27 July 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>SECURED</u> (flasks in service) Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings No -Carbon Dioxide % _____ -Oxygen % <u>20.5</u> -Cabin Temperature <u>71°F</u> -Sea water temp. <u>18.35°C</u> -Cabin Humidity <u>75.5</u> -Cabin Pressure <u>1.05</u>	
16-20			
Position:			
Weather:			
17:00 202 m. 18.55° C			
17:30 203 m. 18.57° C			
1800 Position 32-43 N at 1800 74-34 W			
19:30 211 m. 18.59° C			
<i>E. Oswald</i>			
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>a.?</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>27 JULY 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓	
20-24		-Cycle MBT and VBT hull valves ✓	✓
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
20:00 210 m.		-Vent Main Ballast Tanks ^{NO}	
2200 208 m Ext. temp 18.47		-Check emergency ballast hydraulic pressure ✓	
2205 End of Day 13 power:		-Check VBT's for pressure buildup ✓	
28 79.99 Kwh		-Air Flask readings <u>SECURED</u> (flasks in service)	
110 25.72 Kwh		Flask #1 _____; #2 _____;	
PROP. 145.61 Kwh		#3 _____; #4 _____;	
2315 Messered waters		#5 _____; #6 _____	
MM #1 30 megs		-Check equipment not in use in Off/Standby position ✓	
MM #2 1.5 megs		-Check F.W. valves shut ✓	
MM #3 20 megs		-Record battery readings ^{NO}	
MM #4 30 megs		-Carbon Dioxide % <u>0.9</u>	
PM #1 500 megs		-Oxygen % <u>20.5</u>	
PM #2 500 megs		-Cabin Temperature <u>70° F</u>	
PM #3 1000 megs		-Sea water temp. <u>18.59° C</u>	
PM #4 1000 megs		-Cabin Humidity <u>74</u>	
1155 32-57.5 N 2340 Position		-Cabin Pressure <u>1.05</u>	
76 - 29.0 W		-Conduct contaminant checks	
LJ Kay	2100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
		2200 -Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
		2300 -Vent MBT's ^{0.7} <u>20.6</u>	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>28 July 69</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water	
00-04		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks	
0000 Depth 210 m		-Vent Main Ballast Tanks <u>NO</u>	
0100 Washed down interior of boat with Microguard		-Check emergency ballast hydraulic pressure ✓	
02'00 211 m. 18.30 °C		-Check VBT's for pressure buildup ✓	
02'30 SURFACE INFORMATION: HOT WATER TANK HEATER 1000 W. EACH		-Record air flask readings: Flask #1 <u>none in service</u> ; #2 _____;	
03'00 211 m. 18.35 °C		#3 _____; #4 _____;	
04'00 212 m 18.34 °C E. Submerg		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings <u>NO</u>	
		-Carbon Dioxide % <u>1.0</u>	
		-Oxygen % <u>20.5</u>	
		-Cabin Temperature <u>69°</u>	
		-Cabin Pressure <u>104</u>	
		-Sea Water Temp <u>18.42°C</u>	
		-Cabin Humidity <u>75%</u>	
	0100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0200	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7, 20.5</u>	
	0300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

		Time	Routine	Check
Date <u>28 July 1969</u>		0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Record battery readings -Check F.W. valves shut -Carbon Dioxide% <u>1.1</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>69°F</u> -Sea Water Temp. <u>18.34°C</u> -Cabin Pressure <u>1.05</u> -Cabin Humidity <u>75.5</u>	
04-08				
Position:				
Weather:				
04.00	212 m			
05.00	212 m.	18.35° C		
06.00	211 m.	18.30° C		
07.00	211 m.	18.21° C		
	<i>E. Edward</i>			
		0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂% 20.5</u>	
		0700	-Vent MBT's <u>No</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓	

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	Time	Routine	Check
Date	28 July 1969		
08-12	0800	-Replace LiOH panels <u>NO</u> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>SECURED</u> (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>1.2</u> -Oxygen % <u>20.7</u> -Sea Water Temp. <u>18.29°C</u> -Cabin Humidity <u>79</u> <small>comp. temp 68°F</small> -Cabin Pressure <u>1.05</u> -LOX pressure <u>150</u> -Fwd <u>7/8</u> Aft <u>3/4</u> -Record F.W. & LOX tank levels	
Position:			
Weather:			
08:00	214 m.		
08:18	<u>POSITION</u>	33° 01.0 N 76° 17.4 W	
09:00	218 m.	18.31°C	
10:00	220 m	18.30°C	
		O ₂ : 20.8%	
		<i>DJG</i>	
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.2 20.8</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

NOTE: If motors have been idle, meggar before using.

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	Time	Routine	Check
Date <u>28 July 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	<input checked="" type="checkbox"/>
12-16		-Cycle MBT and VBT hull valves	<input checked="" type="checkbox"/>
Position:		-Check hull valves for proper position	<input checked="" type="checkbox"/>
Weather: Sea State 3 10-15 kts wind from South		-Check LOX tanks for leaks	<input checked="" type="checkbox"/>
1200 Depth 220m		-Check emergency ballast hydraulic pressure	<input checked="" type="checkbox"/>
1222 Beginning descent to 1500'		-Check VBT's for pressure buildup	<input checked="" type="checkbox"/>
Flooding Port VBT partially		-Air flask readings (flasks in service) <i>none in service</i>	
Ext. temp. 17.7°C Depth 328 meters		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
1325 Depth 340m - can hear USNS Lynch pass overhead.		-Test emergency ballast alarm	<input checked="" type="checkbox"/>
1442 AT 456 m - can hear Lynch pass overhead.		-Check equipment not in use in Off/Standby position	<input checked="" type="checkbox"/>
		-Vent Main Ballast Tanks <i>10</i>	
		-Check F.W. valves shut	<input checked="" type="checkbox"/>
		-Record battery readings	<input checked="" type="checkbox"/>
		-Carbon Dioxide % <u>1.4</u>	
		-Oxygen % <u>20.8</u>	
		-Cabin Temperature <u>68</u>	
		-Sea water temp. <u>18.26</u>	
		-Cabin Humidity <u>76.1</u>	
		-Cabin Pressure <u>1.04</u>	
1519 33-11.5 N Posit at 76-10 W 1575	1300	-Vent MBT's	
<i>WJG</i>		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <i>0.7, 20.7</i>	
	1500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>28 July 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	✓
16-20		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather:		-Check LOX tanks for leaks	✓
1600 at 565m (1800')		-Vent Main Ballast Tanks <u>no</u>	
Pressurizing Port VBT.		-Check emergency ballast hydraulic pressure	✓
We used <u>2830</u> kg/cm ² air to pressurize it to later blow VBT		-Check VBT's for pressure buildup	✓
Flooded Port VBT 85 seconds to get down.		-Air flask readings (flasks in service)	
		Flask #1 <u>147</u> ; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
1605 Deployed LI0H		-Check equipment not in use in Off/Standby position	✓
1930 33-11.5 N		-Check F.W. valves shut	✓
76-05 W Posit.		-Record battery readings <u>Deploying LI0H</u>	✓
1944 Beginning ascent to 600'		-Carbon Dioxide % <u>20.7</u>	
<u>LDK</u>		-Oxygen % <u>20.7</u>	
		-Cabin Temperature <u>67° F.</u>	
		-Sea water temp. <u>13.6</u>	
		-Cabin Humidity <u>79.5%</u>	
		-Cabin Pressure <u>1.04</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's <u>no</u>	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves <u>20.7</u>	✓
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>28 July 69</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓	
20-24		-Cycle MBT and VBT hull valves ✓	
Position: <u>Approx 85 mi SSE. of Cape Lookout N.C.</u>		-Check hull valves for proper position ✓	
Weather: <u>Sea State 2</u>		-Check LOX tanks for leaks ✓	
2000 Depth 510m. ascending		-Vent Main Ballast Tanks <u>NO</u>	
2313 Depth 300m ascending		-Check emergency ballast hydraulic pressure ✓	
very slowly		-Check VBT's for pressure buildup ✓	
24'00 290m 17.82 °C		-Air Flask readings (flasks in service)	
E. <u>Johnson</u>		Flask #1 <u>118</u> ; #2 _____ ; #3 _____ ; #4 _____ ; #5 _____ ; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings <u>NO</u>	
		-Carbon Dioxide % <u>1.0</u>	
		-Oxygen % <u>20.7</u>	
		-Cabin Temperature <u>6.4</u>	
		-Sea water temp. <u>14.14</u>	
		-Cabin Humidity <u>78</u>	
		-Cabin Pressure <u>1.04</u>	
		-Conduct contaminant checks _____	
	2100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2200	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>0.7</u> <u>20.7</u>	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	29 July 1969		
00-04	0000	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>No</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: <i>SECURED</i> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>No</i> -Carbon Dioxide % <u>1.0</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>65°F</u> -Cabin Pressure <u>1.03</u> -Sea Water Temp <u>17.82°C</u> -Cabin Humidity <u>74</u> 	
Position:			
Weather:			
00.00	290 m.		
01.00	280 m.	17.95°C	
02.00	268 m.	17.99°C	
03.00	260 m.	18.07°C	
	<i>S. Schmitt</i>		
	0100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0200	<ul style="list-style-type: none"> -Vent MBT's <i>No</i> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves ✓ 	
	0300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>29 July 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service)	
04-08			
Position:			
Weather: <u>Rough - stormy</u>			
0400 Depth <u>250m</u> Ext. temp. <u>18.1°C</u>		Flask #1 <u>none in service</u> ; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
0500 Posit. <u>33-18.0N</u> <u>75-51.5W</u>		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.8</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>65</u> -Sea Water Temp. <u>18.1</u> -Cabin Pressure <u>1.03</u> -Cabin Humidity <u>71</u>	
0600 Depth <u>243m</u> Temp <u>18.23°C</u>	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
0700 Depth <u>238m</u> Ext. temp <u>18.23°C</u>	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>a % 20.8</u>	
0750 <u>Blew a little in port VBT</u> <u>WJG</u>	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>29 July 69</u>	0800	-Replace LiOH panels <u>NO</u> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>none in service</u> (flasks in service) <u>service</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ -Cabin temp <u>66°F</u> -Carbon Dioxide % _____ -Oxygen % <u>20.8</u> -Sea Water Temp. <u>18.35</u> -Cabin Humidity <u>71.5</u> -Cabin Pressure <u>1.03</u> -LOX pressure <u>141</u> -Fwd <u>18</u> Aft <u>17</u> -Record F.W. & LOX tank levels ✓	
08-12			
Position:			
Weather: <u>20 Kts. from rain</u>			
<u>0800 Depth 205 m Ext. temp 18.35</u> <u>This is original depth prior to 1st bottom excursion.</u>			
<u>0900 200 m 18,38°C</u>			
<u>0930 200 m</u>			
<u>1000 200 m</u>			
<u>1030 200 m</u>			
<u>1100 200 m 18,49°C</u>			
<u>1130 200 m</u>			
<u>1200 200 m 18,50°C</u>			
<u>J. Piccini</u>			
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 21</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		NOTE: If motors have been idle, meggar before using.	

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	Time	Routine	Check
Date <u>July 29, 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>122</u> ; #2 <u>45</u> ; #3 <u>181</u> ; #4 <u>195</u> ; #5 <u>182</u> ; #6 <u>192</u> -Test emergency ballast alarm <u>NO</u> -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks <u>NO</u> -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>21.1</u> -Cabin Temperature <u>66.5</u> -Sea water temp. <u>18.50°C</u> -Cabin Humidity <u>71%</u> -Cabin Pressure <u>1.03</u>	
12-16			
Position:			
Weather: <u>SEA STATE 3</u> <u>WIND 10-15 KTS FROM 210°</u>			
12.30 200m 18.50°C			
13.00 198m. 18.53			
14.00 196m 18.56			
15.00 198m. 18.58°C			
15.05 33° 32 N 75° 46 W			
<i>E. Oberholt</i>			
	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1400	-Vent MBT's <u>NO</u> -Check hydraulic pressure ✓ -Cycle MBT and VBT hull valves <u>0.9 21.0</u> ✓	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>29 JULY 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>SECURED</u> (flasks in service) Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings No -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>21.0</u> -Cabin Temperature <u>67.5° F</u> -Sea water temp. <u>18.60° C</u> -Cabin Humidity <u>72.5</u> -Cabin Pressure <u>1.03</u>	
16-20			
Position:			
Weather: <u>Sea State 4</u>			
<u>16:00 193 m. 18.60° C</u>			
<u>17:00 188 m. 18.60° C</u>			
<u>18:00 183 m. 18.60° C</u>			
<u>1830 Remagnetized shot</u>			
<u>19:00 171 m. 18.68° C</u>			
<u>E. Observed</u>			
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.2</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>29 July 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings <u>SECURED</u> (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
20-24			
Position:			
Weather:			
20'00 168 m			
2035 Position 292030 75-34.5 33-35.0			
2230 Power (total usage) end of day 15: 28 9507 Kwh 110 27.8 Kwh prop 14561 Kwh <i>D J Kagan</i>		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>20.1</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>18.72°C</u> -Cabin Humidity <u>72 74</u> -Cabin Pressure <u>1.03</u> -Conduct contaminant checks	
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>0.7, 21.1</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>30 July 69</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water	
00-04		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather:		-Check LOX tanks for leaks ✓	
0000 Depth 165 m		-Vent Main Ballast Tanks <u>NO</u>	
0300		-Check emergency ballast hydraulic pressure ✓	
166m. 18.88 °C		-Check VBT's for pressure buildup ✓	
E. Observed		-Record air flask readings: Flask #1 <u>none in service</u> ; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings <u>NO</u>	
		-Carbon Dioxide % <u>0.5</u>	
		-Oxygen % <u>21.0</u>	
		-Cabin Temperature <u>68</u>	
		-Cabin Pressure <u>1.03</u>	
		-Sea Water Temp <u>18.83</u>	
		-Cabin Humidity <u>72.5</u>	
	0100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0200	-Vent MBT's	
		-Check hydraulic pressure ✓	
		-Cycle MBT and VBT hull valves <u>0.9 21</u>	
	0300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>30 July 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
04-08			
Position:			
Weather:			
04'00 157 m.			
05'00 154 m. 18.91° C			
06'00 150 m. 18.90° C			
06'35 147 m. FLOOD STRD MBT VBT 3"			
07'00 143 m. 18.91° C FLOOD STRD VBT 3"			
07'15 150 m.			
07'30 150 m. <i>E. Submerged</i>			
		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>No</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.8</u> -Oxygen % <u>21.0</u> -Cabin Temperature <u>67.5° F</u> -Sea Water Temp. <u>18.88° C</u> -Cabin Pressure <u>1.03</u> -Cabin Humidity <u>72.5</u>	
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 21.1</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date	30 July 1969		
08-12	0800	<ul style="list-style-type: none"> -Replace LiOH panels <i>NO</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <i>SECURED</i> 	
Position:			
Weather:			
08:00	150 m		
08:10		33° 50.3 N 75° 23.2 W	
09:00	150 m	sea 18.84°C	
09:30	147 m		
10:00	146 m	18.85°C	
10:15	143 m	flood 3" VBT A.	
11:00	150 m	18:77C.	
		<i>15 Jtg</i>	
			<ul style="list-style-type: none"> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>21.1</u> -Sea Water Temp. <u>18.85°C</u> -Cabin Humidity <u>73</u> -Cabin Pressure <u>1.04</u> -LOX pressure <u>150</u> -Fwd _____ Aft _____ -Record F.W. & LOX tank levels
	0900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1000	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>O₂ 21.1</i> 	
	1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

NOTE: If motors have been idle, meggar before using.

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	Time	Routine	Check
Date <u>30 July</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service)	
12-16		Flask #1 <u>122</u> ; #2 <u>46</u> ; #3 <u>190</u> ; #4 <u>195</u> ; #5 <u>182</u> ; #6 <u>192</u>	
Position: <u>Approx. 70 mi. South of Cape Hatteras</u>		-Test emergency ballast alarm <u>NO</u> -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>21.0</u> -Cabin Temperature <u>68</u> -Sea water temp. <u>18.77</u> -Cabin Humidity <u>74</u> -Cabin Pressure <u>1.03</u>	
Weather: <u>Sea State 3, raining, stormy</u>			
1200 Depth <u>148 m</u> Ext. temp. <u>18.77</u>	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
1400 Depth <u>150 m</u> Ext. temp. <u>18.73</u>	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 21</u>	
1500 Depth <u>141 m</u> . <u>Beant has been slowly rising The past 2 days</u> <u>WJ Key</u>	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>30 July</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: <u>Stormy</u>		-Check LOX tanks for leaks	
<u>1600</u> Depth <u>140 m</u>		-Vent Main Ballast Tanks	✓
Ext. temp. <u>18.75</u>		-Check emergency ballast hydraulic pressure	✓
Fluecool sthd. <u>VIST 4 Sec.</u>		-Check VBT's for pressure buildup	✓
<u>1730</u>		-Air flask readings <u>None</u> (flasks in service) <u>1 in service</u>	
<u>1700</u> Posit. <u>34-04.8N</u>		Flask #1 _____; #2 _____	
<u>75-16 W</u>		#3 _____; #4 _____	
<u>18:00</u> <u>146 m.</u> <u>18.65 °C</u>		#5 _____; #6 _____	
<u>19:00</u> <u>146 m.</u> <u>18.69 °C</u>		-Check equipment not in use in Off/Standby position	✓
<u>19:34</u> POSITION <u>34° 08.0 N</u>		-Check F.W. valves shut	✓
<u>75° 19.5 W</u>		-Record battery readings	✓
<u>E. Oberved</u>		-Carbon Dioxide % <u>0.8</u>	
		-Oxygen % <u>21.1</u>	
		-Cabin Temperature <u>68</u>	
		-Sea water temp. <u>18.75</u>	
		-Cabin Humidity <u>75</u>	
		-Cabin Pressure <u>1.03</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7</u> <u>21.1</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	


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	Date	Time	Routine	Check
	30 JULY 1969	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) SECURED	
20-24				
Position:				
Weather:				
	20'00 150 m.			
	Commenced running Contaminant removal system for 1 hr.		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
	21'00 142 m.	18.65°C		
	22'00	CONTAMINANT REPORT CARBON MONOXIDE 20 PPM		
	23.00	143 m.	18.65°C	
		150 m.	18.65	
		E. Standby		
	22'30	POSITION	34° 13.1 N	
	22'30		75° 09.9 W	
		E. Standby		
		2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		2300	-Vent MBT's ^{O₂} 20.5 -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date	<u>31 July 1969</u>		
00-04	0000	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.7</u> -Cabin Temperature <u>68.5 °F</u> -Cabin Pressure <u>1.04</u> -Sea Water Temp <u>18.65 °C</u> -Cabin Humidity <u>75.5</u> 	
Position:			
Weather:			
00'00	152 m.		
01'00	143 m.	18.68 °C	
01'33	138 m.		
	FLOOD STBD VBT 4"		
01'40	141 m.		
02'00	152 m.	18.52 °C	
03'00	159 m.	18.47 °C	
	E. Channel 		
	0100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0200	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u> <u>21.0</u> 	
	0300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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	Time	Routine	Check
Date <u>31 July 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service)	
04-08			
Position:			
Weather: <u>Sea State 2-3</u>			
0400 Ext. Temp <u>18.48° C</u> Depth <u>160 meters</u>		Flask #1 <u>secured</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
0500 Pos. <u>34-25.5 N</u> <u>75-02 W</u>			
0700 Ext. Temp <u>18.39</u> Depth <u>155</u>		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>1.1</u> -Oxygen % <u>20.9</u> -Cabin Temperature <u>68° F</u> -Sea Water Temp. <u>18.48</u> -Cabin Pressure <u>1.04</u> -Cabin Humidity <u>74</u>	
0730 Secured heater (single) on hot water tank #3. Heater had been on since 0500 and brought temp up about 35° F <i>L. K. J.</i>	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂ 20.9</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>31 July 69</u>		
08-12	0800	<ul style="list-style-type: none"> -Replace LiOH panels <u>no</u> -Conduct thorough boat inspection -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>no</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>none</u> (flasks in service) <u>in service</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>no</u> -Carbon Dioxide % <u>1.2</u> -Oxygen % <u>21.0</u> -Sea Water Temp. <u>18.4</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.03</u> -LOX pressure <u>140</u> -Fwd <u>0.8</u> Aft <u>0.7</u> -Record F.W. & LOX tank levels 	
Position:	<u>Approx. 35 mi SSE of Cape Hatteras Light</u>		
Weather:	<u>Sea wind 15 kts Sea state 2</u>		
0800	Depth	<u>34-30.3 N</u>	<u>Pos. 7 for</u>
	<u>158 m.</u>	<u>75-02.0 W</u>	<u>0800</u>
930	160 m	18.35°C	
10.00	156 m	18.35°C	
11.00	150 m	18.35°C	
12.00	150 m	18.35°C	
		<i>J. Picard</i>	
	0900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1000	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 20.9</u> 	
	1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>31 July 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>122</u> ; #2 <u>45</u> ; #3 <u>184</u> ; #4 <u>195</u> ; #5 <u>182</u> ; #6 <u>192</u> -Test emergency ballast alarm <u>NO</u> -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks <u>NO</u> -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>1.4</u> -Oxygen % <u>20.9</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>18.35°C</u> -Cabin Humidity <u>76%</u> -Cabin Pressure <u>1.04</u>	
12-16			
Position:			
Weather: <u>10 Kts wind</u>			
1200 - 150 m 18.35°C			
1230 - 158 m 18.34°C			
1300 - 151 m 18.33°C			
1400 158 m 18.34°C			
1500 158 m 18.34°C			
1510			
Posit. at 1510 <u>34-43 N</u> <u>74-56 W</u> <u>S. Chand</u>			
	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u> , <u>20.8</u>	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>31 July 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings #0 -Carbon Dioxide % <u>1.2</u> -Oxygen % <u>20.7</u> -Cabin Temperature <u>68° F</u> -Sea water temp. <u>18.35° C</u> -Cabin Humidity <u>78</u> -Cabin Pressure <u>1.04</u>	
16-20			
Position:			
Weather:			
16:00 171 m.			
16:20 CHANGE LIOH PANELS			
17:00 172 m. 18.34° C			
18:00 175 m. 18.31° C			
1810 Exchanged approx. 500 lbs of silica gel.			
19:00 166 m. 18.32° C E. <u>Obvious</u>			
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>9.7 20.5</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>31 JULY 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) SECURED Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>68.5° F</u> -Sea water temp. <u>18.32° C</u> -Cabin Humidity <u>74.5</u> -Cabin Pressure <u>1.04</u> -Conduct contaminant checks	
20-24			
Position: <u>34-51.0 N</u> <u>74-54.5 W at 2030</u>			
Weather: <u>Sea state 1 15Kts wind</u> <u>20'00 168 m. R</u>			
2042 <u>CO concentration 20 ppm</u>			
2208 <u>Power report - total</u> <u>usage at end of Day 17</u> <u>28 105.24 kWh</u> <u>110 35.34 "</u> <u>Prop: 145.6 "</u>			
2303 <u>Ext. temp 18.34</u> <u>Depth 168 m</u> <u>UJG</u>			
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>0.7 20.9</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>1 Aug. 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Record air flask readings: Flask #1 <u>none in service</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>20.2</u> -Cabin Temperature <u>68.5</u> -Cabin Pressure <u>1.03</u> -Sea Water Temp <u>18.32</u> -Cabin Humidity <u>72%</u>	
00-04			
Position:			
Weather: <u>Scat state 1</u> <u>10-15 Kts</u> <u>wind</u>			
⁰⁰⁰⁰ +200 <u>Depth 170 m</u> <u>74 40 W</u> } <u>no</u> <u>Ext. temp. 18.32</u> <u>34 49 N</u> } <u>Posit. for 0000</u>			
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u> <u>20.2</u>	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>1 AUG. 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.4</u> -Oxygen % <u>20.4</u> -Cabin Temperature <u>67.5 °F</u> -Sea Water Temp. <u>18.32 °C</u> -Cabin Pressure <u>1.04</u> -Cabin Humidity <u>71</u>	
04-08			
Position:			
Weather:			
04'00 171 m.			
05'00 166 m. 18.32 °C			
06'00 165 m. 18.33 °C			
07'00 167 m. 18.34 °C			
<i>E. Sebend</i>			
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂ ?</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	1 Aug. 1969		
08-12	0800	-Replace LiOH panels <i>NO</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>122</u> ; #2 <u>46</u> ; #3 <u>190</u> ; #4 <u>195</u> ; #5 <u>182</u> ; #6 <u>182</u> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>0.4</u> -Oxygen % <u>20.5</u> -Sea Water Temp. <u>18.34° C</u> -Cabin Humidity <u>70.0</u> -Cabin Pressure <u>1.04</u> -LOX pressure <u>149</u> -Fwd <u>3/4</u> Aft <u>2/3</u> -Record F.W. & LOX tank levels ✓	
Position:			
Weather:			
08:00		CABIN TEMP. 68°F	
		167 m.	
		POSITION 35° 06.0 N	
		07.00 74° 35.0 W	
09:00		170 m 18,33°C	
10:00		171 m 18,34°C	
11:00		170 m 18,37°C	
12:00		172 m 18,34°C	
		<i>J. P. ...</i>	
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.5</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>1 Aug 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings none (flasks in service) (in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
12-16		-Test emergency ballast alarm no -Check equipment not in use in Off/Standby position ✓ -Vent Main Ballast Tanks no -Check F.W. valves shut ✓ -Record battery readings ✓ -Carbon Dioxide % <u>0.4</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>68</u> -Sea water temp. <u>18.32</u> -Cabin Humidity <u>71.0%</u> -Cabin Pressure <u>103</u>	
Position: <u>Approx. 35 mi East of Hatteras</u>	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
Weather: <u>Sea State 2</u>	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>ca. 20.4</u>	
<u>Ext Temp 18.32°C</u>	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	
<u>Depth: 170 m</u>			
<u>1545 35-12.7N 1500 Posit.</u>			
<u>74-19W</u>			
<u>W. Kaye</u>			

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	Time	Routine	Check
Date <u>1 Aug 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20		-Cycle MBT and VBT hull valves	
Position: <u>Approx. 50 mi East of Cape Hatteras</u>		-Check hull valves for proper position	
Weather: <u>10 Kts wind Sea State 2</u>		-Check LOX tanks for leaks	
<u>16.00 Depth 148 m.</u>		-Vent Main Ballast Tanks	
<u>18.00 160 m. 18.46 °C</u>		-Check emergency ballast hydraulic pressure	
<u>19.00 161 m. 18.47 °C</u>		-Check VBT's for pressure buildup	
<u>E. Schmitt</u>		-Air flask readings (flasks in service)	
		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % _____	
		-Oxygen % <u>20.4</u>	
		-Cabin Temperature <u>67.5</u>	
		-Sea water temp. <u>18.44</u>	
		-Cabin Humidity <u>71.5</u>	
		-Cabin Pressure <u>1.03</u>	
	1700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>O₂ 7.0</u> <u>20.2</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>1. AUG. 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>no</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) <u>recording</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
20-24			
Position:			
Weather:			
20:00 165 m.			
2055 Released SATS ball with 3 fecals and 3 urine samples			
22:00 175 m. 18.43° C			
22:40 Posit. for 2211 35° 17.5' N 74° 03.0' W		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>no</u> -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.2</u>	
23:00 172 m. 18.42° C E. Observed		-Cabin Temperature <u>67.5° F</u> -Sea water temp. <u>18.51° C</u> -Cabin Humidity <u>74</u> -Cabin Pressure <u>1.04</u> -Conduct contaminant checks	
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>o₂ % 19.9</u>	
	2300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>2 AUG. 1969</u>		
00-04	0000	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 <u>SECURED</u>; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>20.0</u> -Cabin Temperature <u>67.5°F</u> -Cabin Pressure <u>1.04</u> -Sea Water Temp <u>18.43°C</u> -Cabin Humidity <u>74</u> 	
Position:			
Weather:			
00:00	171 m.		
01:00	165 m.	18.45° C	
02:00	170 m.	18.45° C	
03:00	170 m.	18.45° C	
		<i>W. J. King</i>	
	0100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0200	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.0</u> 	
	0300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>2 Aug 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓	
04-08		-Cycle MBT and VBT hull valves ✓	
Position:		-Check hull valves for proper position ✓	
Weather: <u>Sea State 2</u>		-Check LOX tanks for leaks ✓	
0400 Depth <u>164m</u>		-Vent Main Ballast Tanks <u>no</u>	
0600 Ext. temp. <u>18.5</u>		-Check emergency ballast hydraulic pressure ✓	
Depth <u>165</u>		-Check VBT's for pressure buildup ✓	
Position <u>35-23 N</u>		-Record air flask readings (flasks in service). <u>none in service</u>	
<u>73-47 W</u>		Flask #1 _____; #2 _____;	
<i>W. J. [Signature]</i>		#3 _____; #4 _____;	
→ see next page		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Record battery readings <u>no</u>	
		-Check F.W. valves shut ✓	
		-Carbon Dioxide% _____	
		-Oxygen % <u>20.0</u>	
		-Cabin Temperature <u>68°F</u>	
		-Sea Water Temp. <u>18.49</u>	
		-Cabin Pressure <u>1.03</u>	
		-Cabin Humidity <u>73.5</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7, 20.1</u>	
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>2 Aug 69</u>	0800	-Replace LiOH panels <u>NO</u> -Conduct thorough boat inspection -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>none</u> (flasks in service) <u>service</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -CABIN TEMP. <u>68°F</u> -Carbon Dioxide % <u>0.8%</u> -Oxygen % <u>20.2</u> -Sea Water Temp. <u>18.53°C</u> -Cabin Humidity <u>74.5</u> -Cabin Pressure <u>1.03</u> -LOX pressure <u>140</u> -Fwd <u>.75</u> Aft <u>.70</u> -Record F.W. & LOX tank levels ✓	
08-12			
Position:			
Weather: <u>10-15 Kts wind from S.E.</u>			
0800 Depth <u>163m</u>			
0900 160m 18.56°C			
1000 150m 18.64°C			
Position at <u>6.00 35 26</u> corrected by <u>73 45</u> Privaten at 10am.			
11.00 152m 18.68°C			
12.00 153m 18.68°C			
<u>J. Picent</u>			
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 20.0</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

NOTE: If motors have been idle, meggar before using.

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12 May 1969

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>August 2, 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	
12-16		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: Tropical storm Anna at 35° N 75° W		-Check LOX tanks for leaks	
		-Check emergency ballast hydraulic pressure	✓
1200 152 m 18,73° C		-Check VBT's for pressure buildup	✓
1300 152 m 18,73° C		-Air flask readings (flasks in service)	
1400 150 m 18,75° C		Flask #1 <u>122</u> ; #2 <u>63</u> ;	
		#3 <u>183</u> ; #4 <u>195</u> ;	
		#5 <u>181</u> ; #6 <u>192</u>	
		-Test emergency ballast alarm	
1440 Privater Reports (from Lynch) 10 mi. NW of Gulfstream Core and 10 mi. SE. of North Wall.		-Check equipment not in use in Off/Standby position	
		-Vent Main Ballast Tanks	
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % _____	
1500 Depth 145 m Ext. temp. 18.81° C		-Oxygen % <u>20.2</u>	
1545 Meggered motors 1 & 2 MM1 - 22 megs MM2 - 5 megs		-Cabin Temperature <u>68 F</u>	
		-Sea water temp. <u>18.68° C</u>	
		-Cabin Humidity <u>74.5</u>	
		-Cabin Pressure <u>1.04</u>	
1552 Depth 140 m Flooded STD VBT S3C.	1300	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
	1400	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves <u>0.7</u> <u>19.9</u>	✓
	1500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

J. Picant

W. King

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	Time	Routine	Check
Date <u>2 Aug 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
16-20			
Position:			
Weather: <u>Sea state 1 to 2</u>			
1600 Temp. (ext.) <u>18.91°C</u> Depth <u>147m</u>		Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
1700 <u>151 m</u> <u>18.75°C</u>		-Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>19.8</u> -Cabin Temperature <u>69</u> -Sea water temp. <u>18.91</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.04</u>	
1725 Position for 1700: <u>35-32 N</u> <u>73-18 W</u>			
1800 <u>162 m.</u> <u>18.72°C</u>	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
1900 <u>155 m.</u> <u>18.75°C</u> <u>35° 39.0 N</u> <u>73° 10.5 W</u>	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u> <u>20.0</u>	
1930 CONTAMINANT CHECKS <u>20 PPM CO</u> <u>0.25 PPM HYDROZINE</u> <u>200 PPM ACETONE</u> <u>E. Chand</u>	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>2 AUG. 1969</u>		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks NO -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) <u>SECURED</u> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings NO -Carbon Dioxide % <u>1.0</u> -Oxygen % <u>20.1</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>18.74°C</u> -Cabin Humidity <u>77.5</u> -Cabin Pressure <u>1.04</u> -Conduct contaminant checks ✓	
Position:			
Weather:			
20'00	145 m.		
21'00	150 m.	18.81 °C	
2115	Shifted some water from #1 h.w. tank to #3 h.w. tank - started 1 heater in #3 tank at 2120		
22'00	148 m.	18.82 °C	
2210	Total power used to date: 28 16.75 kWh 110 35.40 " prop 147.19 "		
2243	Flashed stbd VBT 5 sec.		
2245	Depth 130 m.		
2358	Secured heating hot water		
			D. J. K. J.
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>0.7 20.2</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>3 Aug.</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water	✓
00-04		-Cycle MBT and VBT hull valves	✓
Position: <u>Approx. 120 mi. east of Cape Hatteras</u>		-Check hull valves for proper position	✓
Weather: <u>5Kts. wind sea state 1</u>		-Check LOX tanks for leaks	✓
0000 Ext. temp. <u>18.68</u> ; Depth <u>153m</u>		-Vent Main Ballast Tanks	NO
Drifting in the Gulf Stream		-Check emergency ballast hydraulic pressure	✓
0200 Ext. temp <u>18.68</u> Depth <u>150</u>		-Check VBT's for pressure buildup	✓
0300 <u>145m. 18.75°C</u>		-Record air flask readings: ^{none in service}	
<u>g. Johnson</u>		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	✓
		-Check F.W. valves shut	NO
		-Record battery readings	NO
		-Carbon Dioxide % <u>1.0</u>	
		-Oxygen % <u>20.2</u>	
		-Cabin Temperature <u>68</u>	
		-Cabin Pressure <u>1.05</u>	
		-Sea Water Temp <u>18.68</u>	
		-Cabin Humidity <u>76.7</u>	
	0100	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0200	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>0.7, 20.1</u>	
	0300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>3 Aug. 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings <i>NO</i> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>1.0</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>68°F</u> -Sea Water Temp. <u>18.73°C</u> -Cabin Pressure <u>1.05</u> -Cabin Humidity <u>76</u>	
04-08			
Position:			
Weather:			
04:00 147 m.			
05:00 145 m. 18.77°C			
06:00 148 m. 18.78°C			
07:00 140 m. 18.87			
POSITION 35° 48.7 N 72° 37.0 W			
<i>E. Shourd</i>			
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>0.7, 20.5</i>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>3 AUG.</u>	0800	<ul style="list-style-type: none"> -Replace LiOH panels <i>NO</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <li style="padding-left: 20px;">Flask #1 <u> </u>; #2 <u> </u>; <li style="padding-left: 20px;">#3 <u> </u>; #4 <u> </u>; <li style="padding-left: 20px;">#5 <u> </u>; #6 <u> </u> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>1.9</u> -Oxygen % <u>20.5</u> -Sea Water Temp. <u>18.92°C</u> -Cabin Humidity <u>76</u> -Cabin Pressure <u>1.05</u> -LOX pressure <u>135</u> -Fwd <u>3/4 full</u> Aft <u>2/3 full</u> -Record F.W. & LOX tank levels 	
08-12	0900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
Position:	1000	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>C-7, 20.6</u> 	
Weather:	1100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
<p>08'00 138m FLOOD - STBD VBT 6" CAB. TEMP. 68° F</p>	<p>NOTE: If motors have been idle, meggar before using.</p>		
0855 162m sea: 18,70°C	Revision 1		
1000 170m, 18,56°C	12 May 1969		
1030 position at 10.00: 35°54.5' 72°29'			
11.00 179m 18.47°C			
12.00 180m 18.40°C			

J. Picent

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>3 Aug 69</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water ✓	
12-16		-Cycle MBT and VBT hull valves ✓	
Position: <u>Approx 150 mi East of Cape Hatteras</u>		-Check hull valves for proper position ✓	
Weather: <u>S.E. wind 6-10 Kts. Sea state 1</u> W. wind 10-15 Kts. Sea state 2		-Check LOX tanks for leaks ✓	
W. wind 10-15 Kts. Sea state 2		-Check emergency ballast hydraulic pressure ✓	
1200 Drifting in Gulf Stream		-Check VBT's for pressure buildup ✓	
1300 Ext. temp. 18.32 °C Depth 180 m		-Air flask readings (flasks in service)	
1400 Ext. temp. 18.22 Depth 200 m		Flask #1 <u>122</u> ; #2 <u>43</u> ;	
position for 1500 : <u>35-59 N</u> <u>72-14 W</u>		#3 <u>190</u> ; #4 <u>194</u> ;	
<u>DD Key</u>		#5 <u>170</u> ; #6 <u>192</u>	
		-Test emergency ballast alarm ✓	
		-Check equipment not in use in Off/Standby position ✓	
		-Vent Main Ballast Tanks ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings ✓	
		-Carbon Dioxide % <u>1.2</u>	
		-Oxygen % <u>20.6</u>	
		-Cabin Temperature <u>68°</u>	
		-Sea water temp. <u>18.92 °C</u>	
		-Cabin Humidity <u>77.5</u>	
		-Cabin Pressure <u>1.05</u>	
		-Cabin Temp. <u>68°</u>	
	1300	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>O₂ % 20.8</u>	
	1500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>3 Aug. 69</u>	1600	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <u>none in service</u> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>1.5</u> -Oxygen % <u>20.9</u> -Cabin Temperature <u>68</u> -Sea water temp. <u>18.11</u> -Cabin Humidity <u>77%</u> -Cabin Pressure <u>1.06</u> 	
16-20			
Position:			
Weather: <u>Sea State 1-2</u>			
1600 Depth 220 Ext. Temp 18.0			
1730 Deployed L10H			
1735 CHANGE PAPER ROLL OF THE DEPTH RECORDER			
1800 Ext. Temp 17.98 Depth 235m			
1820 Blew about 8 sec. port VBT - appeared to be all air.			
19.00 ROOM. 18.25° C POSITION 36° 02.9 N 72° 02.8 W			
E. Channel			
	1700	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1800	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7% 20.8</u> 	
	1900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>3 Aug. 1969</u>		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) SECURED Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:			
Weather:			
20'00	195 m.		
21'00	198 m.	18.31° C	
22'00	196 m.	18.33° C	
22'30	POSITION AT 22'00	30° 04.8 N 71° 53.7 W	
23'00	198 m.	18.34° C	
23'40	Power used to date:		
	28V	121.36 kWh	
	110V	42.43 kWh	
	prop.	147.34 kWh	
			-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.6</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>18.31° C</u> -Cabin Humidity <u>78</u> -Cabin Pressure <u>1.06</u> -Conduct contaminant checks
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <i>0.7, 20.6</i> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>4 AUG. 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>68°F</u> -Cabin Pressure <u>1.07</u> -Sea Water Temp <u>18.33°C</u> -Cabin Humidity <u>77</u>	
00-04			
Position:			
Weather:			
00:00 199 m.			
01:00 199 m. 18.34°C			
02:00 207 m. 18.34°C			
03:00 195 m. 18.36°C			
		<i>W. Keyser</i>	
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.8</u>	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>4 Aug 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water	
04-08		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: 10 Kts. wind		-Check LOX tanks for leaks	✓
0400 Depth 189 Ext. temp 18.41		-Vent Main Ballast Tanks	✓
		-Check emergency ballast hydraulic pressure	✓
		-Check VBT's for pressure buildup	✓
0430 Posit. 36-14.5 N for 0400 71-36 W		-Record air flask readings (flasks in service)	
		Flask #1 <u>secured</u> ; #2 _____;	
		#3 _____; #4 _____;	
0600 Ext. temp. 18.46 Depth 182m		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	✓
0730 Position 36-19.2 N for 0700 77-26 W		-Record battery readings	NO
Drifting at 3 Kts.		-Check F.W. valves shut	✓
		-Carbon Dioxide % <u>0.8</u>	
		-Oxygen % <u>20.8</u>	
		-Cabin Temperature <u>68°F</u>	
		-Sea Water Temp. <u>18.41</u>	
		-Cabin Pressure <u>1.07</u>	
		-Cabin Humidity <u>77%</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	at <u>20.8</u>
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

W D/Kay

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12 May 1969

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>4 Aug 69</u>	0800	-Replace LiOH panels <u>M</u> -Conduct thorough boat inspection -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings <u>none in service</u> (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.8</u> -Sea Water Temp. <u>18.56</u> -Cabin Humidity <u>74.5</u> -Cabin Pressure <u>1.07</u> -LOX pressure <u>140</u> -Fwd <u>.7</u> Aft <u>.65</u> -Record F.W. & LOX tank levels <u>CABIN TEMP. 68°</u>	
08-12			
Position: <u>Approx 300 miles South of Block Island</u>			
Weather:			
0800 Depth 164 m ext. temp. 18.56 °C			
0900 160 m 18.51 °C			
10.00 152 m 18.75 °C			
11.00 148 m 18.86 °C			
12.00 153 m 18.90 °C			
<u>J. Picard</u>			
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂ 21.1</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		NOTE: If motors have been idle, meggar before using.	

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			Time	Routine	Check
Date <u>Aug 4, 1969</u>			1200	-Check bilges, penetrators and main battery fuse boxes for water	
12-16				-Cycle MBT and VBT hull valves	
Position:				-Check hull valves for proper position	✓
Weather:				-Check LOX tanks for leaks	
12.00	153m	18.90°C		-Check emergency ballast hydraulic pressure	✓
13.00	152m	19.00°C		-Check VBT's for pressure buildup	✓
14.00	150m	19.04°C		-Air flask readings (flasks in service)	
15.00	152m	19.14°C		Flask #1 <u>normal</u> ; #2 <u>normal</u> ;	✓
				#3 <u>1</u> ; #4 <u>u</u> ;	✓
				#5 <u>u</u> ; #6 <u>u</u>	✓
				-Test emergency ballast alarm	
				-Check equipment not in use in Off/Standby position	
				-Vent Main Ballast Tanks	
				-Check F.W. valves shut	
				-Record battery readings	
				-Carbon Dioxide % _____	
				-Oxygen % <u>21.2</u>	
				-Cabin Temperature <u>68</u>	
				-Sea water temp. <u>18.90°C</u>	
				-Cabin Humidity <u>74%</u>	
				-Cabin Pressure <u>1.07</u>	
			1300	-Vent MBT's	
				-Check hydraulic pressure	✓
				-Cycle MBT and VBT hull valves	✓
			1400	-Vent MBT's	
				-Check hydraulic pressure	✓
				-Cycle MBT and VBT hull valves <u>at 21.2</u>	
			1500	-Vent MBT's	✓
				-Check hydraulic pressure	✓
				-Cycle MBT and VBT hull	

W. H. King

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12 May 1969

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>4 Aug 69</u>			
16-20	1600	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) 	
Position: <u>1600 36-32 N</u> <u>70-59 W</u>		<ul style="list-style-type: none"> Flask #1 <u>SECURED</u>; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____ 	
Weather: <u>20-25 Kts wind 6-8 ft sea</u>		<ul style="list-style-type: none"> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>21.2</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>19.11 °C</u> -Cabin Humidity <u>77.5</u> -Cabin Pressure <u>1.07</u> 	
<u>Max Depth 155 Ext. temp. 19.1</u>			
17:00 152 m 19.19 °C			
18:00 150 m. 19.26 °C			
19:00 135 m. 19.42 °C			
19:50 130 m. <u>FLOODED STRD VBT 4"</u> <u>E. Seaward</u>			
	1700	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	1800	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 21.0</u> 	
	1900	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	4 AUG. 1969		
20-24			
Position:			
Weather:			
20:00	134 m.		
20:55	124 m. FLOODED STD VBT 5"		
	Boat has been rising again for the past several hours.		
21:25	Power used to date -		
	28V 126.39 kWh		
	110V 43.71 "		
	110V 147.34 "		
21:51	120 m. FLOODED STD VBT 4"		
21:55	RE_MAGNETISED SHOT SYSTEM		
22:00	118 m. 19.69° C		
22:03	115 m. FULL UP STD VBT		
22:47	Position for 2200 :		
	36-46 N		
	70-42.5 W		
22:58	blow 5" st. vbt		
23:00	" 5" " "		
23:30	" 3" " "		
23:49	" 3" " "		
23:55	" 3" " "		
	23:00 250 m 17 93° C		
	BLOW STD 5"		
23:08	256 m. BLOW STD 5"		
23:30	BLOW ST. 3"		
	LJ Kayumi		
2000		-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air Flask readings (flasks in service) Flask #1 _____ ; #2 _____ ; #3 _____ ; #4 _____ ; #5 _____ ; #6 _____ ; -Check equipment not in use in Off/Standby position -Check F.W. valves shut -Record battery readings -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>21.0</u> -Cabin Temperature <u>68° F</u> -Sea water temp. <u>19.50° C</u> -Cabin Humidity <u>76.5</u> -Cabin Pressure <u>1.07</u> -Conduct contaminant checks	
2100		-Vent MBT's ✓ -Check hydraulic pressure -Cycle MBT and VBT hull valves	
2200		-Vent MBT's ✓ -Check hydraulic pressure -Cycle MBT and VBT hull valves	
2300		-Vent MBT's <u>O₂ 21.0</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	


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	Time	Routine	Check
Date <u>5 Aug 69</u>	0000	-Check bilges, penetrators ✓ and main battery fuse boxes for water -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 <u>none in service</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
00-04			
Position: <u>270 mi South of Martha's Vineyard</u>			
Weather: <u>Sea state 2 to 3</u>			
0000 <u>At 261 meters</u> <u>Total blow between 0000 and 0100: 13"</u> <u>Note: Drifting at 3Kts for past 24 hrs</u> <u>blow between 0100 and 0130: 15"</u>			
0200 <u>Est. temp 18.1 Depth 222m</u>		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>NO</u> -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>21</u> -Cabin Temperature <u>68</u> -Cabin Pressure <u>1.07</u> -Sea Water Temp <u>17.7</u> -Cabin Humidity <u>75.5</u>	
0200 <u>Position for 0200:</u> <u>36-53 N</u> <u>70-30.5 W</u>			
03'00 <u>220 m. 18'00 °C</u> <u>E. SubmerU</u>			
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 21.2</u>	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	5 AUG. 1969		
04-08	0400	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) 	
Position:			
Weather:			
04'00	219 m.		
05'00	218 m.	17.96°C	
06'00	220 m.	17.92°C	
06'32	228 m.		
	BLOW STBD VBT 3"		
07'00	221 m.	17.98°C	
			
		<ul style="list-style-type: none"> Flask #1 <u>SECURED</u>; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings ✓ -Check F.W. valves shut ✓ -Carbon Dioxide% <u>0.5</u> -Oxygen % <u>21.1</u> -Cabin Temperature <u>68°F</u> -Sea Water Temp. <u>18.01°C</u> -Cabin Pressure <u>1.07</u> -Cabin Humidity <u>76.5</u> 	
	0500	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0600	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O₂? <u>21.1</u> 	
	0700	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	5 AUG. 1969		
08-12	0800	-Replace LiOH panels -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>M₃</u> -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>21.2</u> -Sea Water Temp. <u>17.97 °C</u> -Cabin Humidity <u>75.5</u> -Cabin Pressure <u>1.07</u> -LOX pressure <u>120</u> -Fwd <u>3/4 Full</u> Aft <u>5/8 Full</u> -Record F.W. & LOX tank levels	
Position:			
Weather:			
08:00	226 m.	CAB. TEMP. 68° F	
08:37	229 m.	BLOW STBD VBT 5" POSITION AT 08:00 70 17.0W 37 05.0N	
9:00	209 m	18.09 °C	
*10:00	205 m	18.12 °C	
11:00	218 m	18.13 °C blow 4" SV VBT	
12:00	212 m	18.26 °C	
1230	Sighted 21 Bluefin Tuna - shot stills & movies while they paraded back & forth past lights		
	WJ/Kym		
* USS LAPON (SSA 661) sighted on surface by Privateer - we spoke with her briefly on underwater phone			
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves O ₂ % <u>21.1</u>	✓
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	✓

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

Date	Time	Routine	Check
5 Aug 69	1200	-Check bilges, penetrators	✓
12-16	1300	-and main battery fuse boxes for water	
Position: 236 mi. South of Nantucket Island		-Cycle MBT and VBT hull valves	✓
Weather: Calm		-Check hull valves for proper position	✓
1200 At 212 m Ext. temp. 18.26°C		-Check LOX tanks for leaks	
1300 At 201 m Ext. temp. 18.30		-Check emergency ballast hydraulic pressure	✓
1420 Posit. for 1400: 37-19 N 70-02 W		-Check VBT's for pressure buildup	✓
Drift speed 3 Kts.		-Air flask readings (flasks in service)	
L.D. Kagan		Flask #1 <u>116</u> ; #2 116 ⁴³	
		#3 <u>191</u> ; #4 <u>194</u>	
		#5 <u>179</u> ; #6 <u>192</u>	
		-Test emergency ballast alarm	✓
		-Check equipment not in use in Off/Standby position	✓
		-Vent Main Ballast Tanks	no
		-Check F.W. valves shut	
		-Record battery readings	—
		-Carbon Dioxide % <u>0.8</u>	
		-Oxygen % <u>20.8</u>	
		-Cabin Temperature <u>68</u>	
		-Sea water temp. <u>18.30</u>	
		-Cabin Humidity <u>78.5</u>	
		-Cabin Pressure <u>1.07</u>	
		-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
		-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	0.2 <u>21.1</u>
		-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull	

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	Time	Routine	Check
Date <u>5 Aug 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓	
16-20		-Cycle MBT and VBT hull valves ✓ <i>NO</i>	
Position: <i>Approx. 200 mi. South of Nantucket Shoals</i>		-Check hull valves for proper position ✓	
Weather: <i>Calm</i>		-Check LOX tanks for leaks ✓	
<i>1600 Depth 175m Ext. temp 18.36</i>		-Vent Main Ballast Tanks ✓	
		-Check emergency ballast hydraulic pressure ✓	
		-Check VBT's for pressure buildup ✓	
<i>1700 Lynch reports we are 8 miles in from the north wall.</i>		-Air flask readings (flasks in service) <i>none in service</i>	
		Flask #1 _____; #2 _____	
		#3 _____; #4 _____	
		#5 _____; #6 _____	
<i>1718 Depth 153 Flooding port VBT slightly</i>		-Check equipment not in use in Off/Standby position ✓	
<i>1800 137m 18.94°C</i>		-Check F.W. valves shut ✓	
<i>1900 136m FLOODED PORT VBT 5"</i>		-Record battery readings ✓	
<i>1950 130m " " " 5"</i>		-Carbon Dioxide % <u>0.8</u>	
<i>E. Sound</i>		-Oxygen % <u>21.1</u>	
		-Cabin Temperature <u>68</u>	
		-Sea water temp. <u>18.36</u>	
		-Cabin Humidity <u>78.5</u>	
		-Cabin Pressure <u>1.07</u>	
	1700	-Vent MBT's ✓	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves <u>O₂ ?</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>5 AUG. 1969</u>	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) Flask #1 <u>Secured</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>No</u> -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>68°F</u> -Sea water temp. <u>19.10°C</u> -Cabin Humidity <u>75</u> -Cabin Pressure <u>1.07</u> -Conduct contaminant checks	
20-24			
Position: <u>180 mi South of Nantucket Shoals Lightship</u>			
Weather:			
20'00 133 m			
20'11 132 m. FLOODED PORT VBT 5"			
21'00 155 m. 18.70°C 39-32.5 N 69-40.5 W			
2147 Total power used to date: 28 V 134.69 kWh 110 44.99 " prop. 147.95 "			
Carbon monoxide 30 ppm.			
2200 Plumbing Contaminant removal system for 4 hrs. CO before - 30 ppm CO2 before - 1.07%	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
22'00 161 m. 18.52°C	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
23'00 172 m. 18.32°C E. Christ	2300	-Vent MBT's <u>0.9 20.9</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>6 AUG. 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
00-04			
Position:			
Weather: <u>30-35 kts wind</u>			
00'00 175 m.			
01'00 162 m. 18.38° C			
02'00 175 m. 18.37° C			
CARBON DIOXIDE 1.0%			
CARBON MONOXIDE 30 PPM			
03'00 205 m. 18.17° C			
MONITOR STRD VBT 5" BLW <u>419 kg</u>		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>N</u> -Carbon Dioxide % <u>1.1</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>68° F</u> -Cabin Pressure <u>1.07</u> -Sea Water Temp <u>18.34° C</u> -Cabin Humidity <u>74</u>	
	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u>	
	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>6 Aug 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves <u>NO</u> -Check hull valves for proper position ✓ -Check LOX tanks for leaks -Vent Main Ballast Tanks -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <i>type in service:</i> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
04-08			
Position: <u>165 mi. South of Nantucket Shoals Lightship</u>			
Weather: <u>30-35 Kts wind</u>			
0400 <u>at 216 m elevs</u> <u>Blowing to stbd VBT 3"</u>			
0417 <u>at 225 m blew 5"</u>			
0420 <u>blew 5"</u>			
0500 <u>Ext. Temp. 18.12 °C</u> <u>222m</u> <u>Depth</u> <u>0500 position: 37-42 N</u> <u>69-19.5 W</u>		-Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide % <u>1.1</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>68°</u> -Sea Water Temp. <u>18.09</u> -Cabin Pressure <u>1.075</u> -Cabin Humidity <u>73.5</u>	
0600 <u>AT 224 meters</u> <u>Ext. temp. 18.06</u>			
0619 <u>blew stbd VBT 4"</u>			
0630 <u>" " " "</u>			
0700 <u>AT 228 m. Ext. temp. 18.06</u> <u>blew stbd VBT 4"</u>	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.8</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

1. J. J. Kegan

Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>6 Aug 69</u>	0800	-Replace LiOH panels <u>NO</u> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves <u>NO</u> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings <u>None</u> (flasks in service) ^{in service}	
08-12		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position: <u>37-45.5 N</u> <u>69-06 W</u>		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ✓ <u>CABIN Temp. 67.5</u> -Carbon Dioxide % <u>1.27</u> -Oxygen % <u>20.8</u>	
Weather: <u>30-35 Kts wind</u>		-Sea Water Temp. <u>18.1</u>	
<u>0800 Depth 221 meters</u> <u>When blowing 5 kts VBT -</u> <u>Could not hear water</u> <u>coming out - maybe plugged</u> <u>slightly. Some water did</u> <u>come out since boat is</u> <u>ascending.</u>		-Cabin Humidity <u>73.5</u> -Cabin Pressure <u>1.07</u> -LOX pressure <u>120</u> -Fwd <u>7</u> Aft <u>.6</u>	
<u>0900 At 178 meters</u> <u>Ext. temp 18.33</u>		-Record F.W. & LOX tank levels ✓	
<u>0905 173 m ± flood Port VBT 3"</u>	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
<u>1000 172 m 18,44°C</u>	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 20.8</u>	✓
<u>1030 160 m flood P. VBT 4"</u>			
<u>1042 158 m " " " 4"</u>			
<u>1100 160 m 18,46°C</u>	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	✓
<u>1120 150 m flood P. VBT 5"</u>			
<u>1200 171 m 18,43°C</u>			

J. Picard

NOTE: If motors have been idle, meggar before using.

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	Time	Routine	Check
Date <u>Aug. 5, 1969</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Test emergency ballast alarm -Check equipment not in use in Off/Standby position -Vent Main Ballast Tanks -Check F.W. valves shut -Record battery readings -Carbon Dioxide % _____ -Oxygen % <u>20.8</u> -Cabin Temperature <u>67.5 F</u> -Sea water temp. <u>18.43°C</u> -Cabin Humidity <u>74%</u> -Cabin Pressure <u>1.08</u>	✓ ✓ ✓
12-16			
Position:			
Weather:			
1200 171m - 18.43°C			
1300 : 191m 18.33°C			
1400 : 200m 18.15°C			
1500 : 220m 18.14°C			
<i>J. Picent</i>			
	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	✓ ✓
	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7%</u>	✓
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	✓

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	Time	Routine	Check
Date <u>6 Aug 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <i>none in service</i> Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
16-20			
Position: <u>AT 1600 - 37-⁵²39 N</u> <u>08-02³⁹ W</u>			
Weather: <u>Sea State 4 - Rough</u>			
1600 Ext. Temp. <u>18.05</u>			
Depth <u>232 meters</u>			
18'00 <u>260 m. 17.95° C</u> <u>Whales sighted from</u> <u>Privateer - we can hear</u> <u>them on underwater phone</u>			
18'45 <u>CHANGE LIQH PANELS</u>			
19'00 <u>277 m. 17.82° C</u> <u>E. Sound</u>			
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.8</u>	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>6 AUG. 1969</u>		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>N</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Position:			
Weather:			
20'00	280 m.		
21'00	282 m. 17.67° C		
22'00	295 m. 17.62° C		
	POSITION 68 15.5 W		
	AT 22'00 37 56.0 N		
22'10	302 m.		
	BLOW STBD VBT 54	-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>No</i> -Carbon Dioxide % <u>1.0</u> -Oxygen % <u>20.8</u>	
22'45	300 m.		
	BLOW STBD VBT 5"	-Cabin Temperature <u>67.5° F</u> -Sea water temp. <u>17.77° C</u> -Cabin Humidity <u>75.5</u> -Cabin Pressure <u>1.08</u> -Conduct contaminant checks _____	
2319	Total power used to date		
	28V - 139.26 kWh		
	110V - 46.01 "		
	Propulsion - 147.95 "		
	<u>E. Sabers</u>		
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <i>O₂ 20.8</i> -Check hydraulic pressure -Cycle MBT and VBT hull valves	


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	Time	Routine	Check
Date <u>7 Aug. 1969</u>	0000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ^{NO} -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 ^{SECURED} _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ^{NO} -Carbon Dioxide % <u>0.8</u> -Oxygen % <u>20.6</u> -Cabin Temperature <u>67.5 °F</u> -Cabin Pressure <u>1.08</u> -Sea Water Temp <u>17.59 °C</u> -Cabin Humidity <u>75</u>	
00-04			
Position:			
Weather:			
00'00 298 m.			
00'08 BLOW STD VBT 3" WITH 10 kg/cm ² OVER PRESSURE. Prior to this, STD VBT blow seemed to be plugged - seems OK now - maybe we blew clear an obstruction.			
01'00 288 m. 17.57 °C			
01'04 Completed 4 hour run of Contaminant removal System. CO level 30ppm			
01'08 BLOW STD VBT 3" (10 kg/cm ²)	0100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
02'00 280 m. 17.74 °C	0200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves ^{0.7} <u>20.6</u>	
03'00 277 m. 17.68 °C E. Observed	0300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>7 AUG. 1969</u>			
04-08	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves <u>No</u> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) <u>SECURED</u> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>N</u> -Check F.W. valves shut ✓ -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>20.6</u> -Cabin Temperature <u>67°F</u> -Sea Water Temp. <u>17.72°C</u> -Cabin Pressure <u>1.08</u> -Cabin Humidity <u>74.5</u>	
Position:			
Weather:			
04'00	274 m.		
05'00	272 m.	17.67°C	
06'00	268 m.	17.62°C	
07'00	269 m.	17.63°C	
		Σ <u>Observed</u> 	
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>O₂ % 20.7</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date	7 AUG. 1969		
08-12			
Position:	38° 01.5 N } 0700 67° 41.0 W }		
Weather:			
0800	282 m.	CABIN TEMP. 67° F	
0900	279 m	17.63°C	
1000	285 m	17.62°C	
1100	290 m	17.62°C	
1200	290 m	17.62°C	
		<i>y Picard</i>	
	0800	-Replace LiOH panels -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves No -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings No -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>20.7</u> -Sea Water Temp. <u>17.64°C</u> -Cabin Humidity <u>72</u> -Cabin Pressure <u>1.08</u> -LOX pressure <u>120</u> -Fwd _____ Aft _____ -Record F.W. & LOX tank levels	
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7 20.9</u>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		NOTE: If motors have been idle, meggar before using.	

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	Time	Routine	Check
Date <u>7 Aug</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water -Cycle MBT and VBT hull valves -Check hull valves for proper position -Check LOX tanks for leaks -Check emergency ballast hydraulic pressure -Check VBT's for pressure buildup -Air flask readings (flasks in service) <i>normal</i>	✓ ✓ ✓
12-16			
Position: <i>195° 320 mi from Cape Sable Nova Scotia</i>			
Weather: <i>good, 5 Kts wind</i>			
12.00 <i>290 m. 17.62°C</i>		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
1330 <i>#4. w. tank empty - will drain #1 & #2 into #3 and heat.</i>		-Test emergency ballast alarm -Check equipment not in use in Off/Standby position -Vent Main Ballast Tanks -Check F.W. valves shut -Record battery readings	
1417 <i>Privateer reports they are drifting .25 Kts faster than B. Franklin</i>		-Carbon Dioxide % <u>0.6</u> -Oxygen % <u>20.9</u>	
1500 <i>Ext. temp. 17.56°C Depth 290 meters</i>		-Cabin Temperature <u>66.5 F</u> -Sea water temp. <u>17.62 C</u> -Cabin Humidity <u>73 %</u> -Cabin Pressure <u>1.08</u>	
1600 <i>289 m - 17.56°C Position for 1600 38-04 N 67-13 W</i>	1300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1400	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>C. 7. 20.8</i>	
	1500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull	

J. Keyser

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	Time	Routine	Check
Date <u>7 Aug 69</u>	1600	-Check bilges, penetrators ✓	
1600 16-20	1600	-and main battery fuse boxes for water	
Position: 58-04N 67-13W		-Cycle MBT and VBT hull valves ✓	
Weather: Sea state 1		-Check hull valves for proper position ✓	
1600 Depth 290 meters		-Check LOX tanks for leaks	
1712 Depth 303m 17.59°C Blew std VBT 4"		-Vent Main Ballast Tanks NO	
WJ Kay		-Check emergency ballast hydraulic pressure ✓	
		-Check VBT's for pressure buildup ✓	
		-Air Flask readings (flasks in service)	
		-Flask #1 _____; #2 _____	
		-#3 _____; #4 _____	
		-#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position ✓	
		-Check F.W. valves shut ✓	
		-Record battery readings ✓	
		-Carbon Dioxide % <u>0.5</u>	
		-Oxygen % <u>20.9</u>	
		-Cabin Temperature <u>74.5 66</u>	
		-Sea water temp. <u>17.6</u>	
		-Cabin Humidity <u>74.5</u>	
		-Cabin Pressure <u>1.08</u>	
		-Conduct contaminant checks <u>NO</u>	
	1700	-Vent MBT's	
	2100	-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
	1800	-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	2000	-Vent MBT's O ₂ <u>7.210</u>	
	1900	-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

		Time	Routine	Check
Date	<u>7 Aug.</u>			
Time	<u>20-24</u>	2000 2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves <u>NO</u> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
Position:				
Weather:				
20'00	275 meters			
21'00	265 m. 17.75 °C Position for 2100: 38 - 03.5 N 66 - 58.0 W			
22'00	267 m. 17.77 °C		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>N</u> -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>66° F</u> -Sea water temp. <u>17.77° C</u> -Cabin Humidity <u>76</u> -Cabin Pressure <u>1.08</u>	
2244	Total power used to date: 28 V 143.51 kWh 110 V 53.66 " Prop. 147.95 "			
23'00	263 m. 17.75 °C E. Channel			
		2100 2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
		2200 2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.6</u>	
		2300 2300	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	8 AUG. 1969		
00-04	0000	<ul style="list-style-type: none"> -Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves <i>NO</i> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: <i>STANDARD</i> 	
Position:		Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____	
Weather: <i>Sea State 1, Calm</i>		<ul style="list-style-type: none"> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>0.5</u> -Oxygen % <u>20.6</u> -Cabin Temperature <u>66°F</u> -Cabin Pressure <u>1.08</u> -Sea Water Temp <u>17.78°C</u> -Cabin Humidity <u>76</u> 	
00.00 268 m.			
01.00 264 m. 17.77°C			
02.00 266 m. 17.78°C			
03.00 270 m. 17.79°C			
0335		Position for 0300: 38-04 N 66-38 W <i>U/D/Agini</i> to be ignored! (Tel from Princeton at 09.10) <i>mf.</i>	
	0100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	0200	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>O₂ 7, 20.6</i> 	
	0300	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>8 Aug 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water	✓
04-08		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: <u>Calm, sea state 1</u>		-Check LOX tanks for leaks	
0400 Depth <u>262</u>		-Vent Main Ballast Tanks	
0600 Depth <u>258</u>		-Check emergency ballast hydraulic pressure	✓
Temp. <u>17.81</u>		-Check VBT's for pressure buildup	✓
<u>W. K. G.</u>		-Record air flask readings (flasks in service)	
		Flask #1 <u>Secured</u> ; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	✓
		-Record battery readings	✓
		-Check F.W. valves shut	✓
		-Carbon Dioxide% <u>0.7</u>	
		-Oxygen % <u>20.7</u>	
		-Cabin Temperature <u>66.5</u>	
		-Sea Water Temp. <u>17.82</u>	
		-Cabin Pressure <u>1.08</u>	
		-Cabin Humidity <u>77%</u>	
	0500	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	0600	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	0.7, 20.7
	0700	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date 17 8 Aug 69	0800	-Replace LiOH panels <u>NO</u>	
08-12		-Conduct thorough boat inspection	✓
Position: 38-03N } to be ignored 66-30W } (tel from Princeton 0210) aft.		-Cycle MBT and VBT hull valves	NO
Weather: 3Kt. wind, calm, sunny		-Check hull valves for proper position	✓
OSW Depth 268m		-Check LOX tanks for leaks	✓
Ext. temp. 17.83°C.		-Vent Main Ballast Tanks	NO
0900 263m 17.88°C		-Check emergency ballast hydraulic pressure	✓
0910 : position at 0900 : 37° 55.5' N		-Check VBT's for pressure buildup	✓
10.00 : 269m 17.88°C		-Air flask readings secured (flasks in service)	✓
1100 271m 17.89°C		Flask #1 _____; #2 _____;	
y Picard		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Check equipment not in use in Off/Standby position	✓
		-Check F.W. valves shut	✓
		-Record battery readings	NO
		-Carbon Dioxide % <u>0.8</u>	
		-Oxygen % <u>20.7</u>	
		-Sea Water Temp. <u>17.83</u>	
		-Cabin Humidity <u>77.5</u>	
		-Cabin Pressure <u>1.08</u>	
		-LOX pressure <u>115</u>	
		-Fwd <u>6</u> Aft <u>.55</u>	
		-Record F.W. & LOX tank levels	
		CABIN TEMP. <u>66°</u>	
	0900	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
	1000	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves <u>0.7, 20.8</u>	✓
	1100	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓

NOTE: If motors have been idle, meggar before using.

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>Aug. 8</u>	1200	-Check bilges, penetrators and main battery fuse boxes for water	
12-16		-Cycle MBT and VBT hull valves	
Position: at 15.00 <u>37° 50' N</u> <u>65° 51' W</u>		-Check hull valves for proper position	✓
Weather:		-Check LOX tanks for leaks	✓
12.00 . 270m <u>17.90°C</u>		-Check emergency ballast hydraulic pressure	✓
13.00 274m <u>17.93°C</u>		-Check VBT's for pressure buildup	✓
14.00 275m <u>17.93°C</u>		-Air flask readings (flasks in service) <u>round</u>	✓
15.00 270m <u>17.93°C</u>		Flask #1 _____; #2 _____;	
		#3 _____; #4 _____;	
		#5 _____; #6 _____	
		-Test emergency ballast alarm	
		-Check equipment not in use in Off/Standby position	
		-Vent Main Ballast Tanks	
		-Check F.W. valves shut	
		-Record battery readings	
		-Carbon Dioxide % _____	
		-Oxygen % <u>20.7</u>	
		-Cabin Temperature <u>66 F</u>	
		-Sea water temp. <u>17.90°C</u>	
		-Cabin Humidity <u>77%</u>	
		-Cabin Pressure <u>1.08 atm / in</u>	
	1300	-Vent MBT's	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	
	1400	-Vent MBT's	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves <u>0.9, 20.5</u>	
	1500	-Vent MBT's	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull	

J. Picard


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	Time	Routine	Check
Date <u>Aug 8, 1969</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water	
16-20		-Cycle MBT and VBT hull valves	
Position:		-Check hull valves for proper position	✓
Weather: <u>Sea State 1-2 Wind 8-10 Kts</u>		-Check LOX tanks for leaks	
16.00 268m 17.90°C		-Vent Main Ballast Tanks	✓
17.00 266m 17.92°C		-Check emergency ballast hydraulic pressure	✓
1800 266m 17.43°C		-Check VBT's for pressure buildup	✓
1900 268m 17.97°C		-Air flask readings (flasks in service)	
1930 Messaged meters:		Flask #1 _____; #2 _____	
#MM1 - 25 m-se		#3 _____; #4 _____	
MM2 - 1.5 "		#5 _____; #6 _____	
MM3 - 18 "		-Check equipment not in use in Off/Standby position	✓
MM4 - 25 "		-Check F.W. valves shut	✓
PM1 - 300 "		-Record battery readings	✓
PM2 - 400 "		-Carbon Dioxide % <u>0.8</u>	
PM3 - 1000 "		-Oxygen % <u>20.9</u>	
PM4 - 1000 "		-Cabin Temperature <u>66.5 F</u>	
20.00 : 263m 17.93°C	1700	-Vent MBT's	
<i>W.D. Ryan</i>		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	
	1800	-Vent MBT's	
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	
		<u>O₂ % 20.8</u>	
	1900	-Vent MBT's	
		-Check hydraulic pressure	
		-Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>8 Aug 69</u>	2000	<ul style="list-style-type: none"> -Check bilges, penetrators ✓ and main battery fuse boxes for water -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper ✓ position -Check LOX tanks for leaks -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast ✓ hydraulic pressure -Check VBT's for pressure ✓ buildup -Air Flask readings <u>Secured</u> (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use ✓ in Off/Standby position -Check F.W. valves shut ✓ -Record battery readings <u>no</u> -Carbon Dioxide % <u>1.0</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>67°</u> -Sea water temp. <u>17.93</u> -Cabin Humidity <u>77%</u> -Cabin Pressure <u>1.08</u> -Conduct contaminant checks ✓ 	
20-24			
Position:			
Weather: <u>Sea State 1-2 (Nice)</u>			
<u>2000 Depth 263 m Ext. temp 17.93</u>			
<u>2100 Depth 251</u>			
<u>2130 Position for 2100: 37-42 N 65-30.5 W</u>			
<u>2145 Total power used to date:</u> <u>28V 148.62 Kwh</u> <u>110V 55.30 "</u> <u>Prng 147.95 "</u> 			
	2100	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	2200	<ul style="list-style-type: none"> -Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves 	
	2300	<ul style="list-style-type: none"> -Vent MBT's <u>0%</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves 	

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Franklin Underway Log Sheet

Time Routine Check

Date 9 Aug 69

00-04

Position:

Weather: Sea State 1

0000

Ext. temp 18.0°C

Depth 269 m

02'00

265 m.

18.01 °C

03'00

265 m.

18.01 °C

04'00

260 m.

18.00 °C

E. Observed

- 0000 -Check bilges, penetrators and main battery fuse boxes for water ✓
- Cycle MBT and VBT hull valves N
- Check hull valves for proper position ✓
- Check LOX tanks for leaks ✓
- Vent Main Ballast Tanks N
- Check emergency ballast hydraulic pressure ✓
- Check VBT's for pressure buildup ✓
- Record air flask readings:
 Flask #1 Secured; #2 _____;
 #3 _____; #4 _____;
 #5 _____; #6 _____
- Check equipment not in use in Off/Standby position ✓
- Check F.W. valves shut ✓
- Record battery readings N
- Carbon Dioxide % _____
- Oxygen % 20.8
- Cabin Temperature 66.5
- Cabin Pressure 1.06
- Sea Water Temp 18.0
- Cabin Humidity 78.5
- 0100 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves
- 0200 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves O. 7. 20.8
- 0300 -Vent MBT's
- Check hydraulic pressure
- Cycle MBT and VBT hull valves

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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>9 AUG. 1969</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves <u>NO</u> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>NO</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings (flasks in service) Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Record battery readings <u>NO</u> -Check F.W. valves shut ✓ -Carbon Dioxide% <u>1.0</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>66.5 °F</u> -Sea Water Temp. <u>18.00 °C</u> -Cabin Pressure <u>1.08</u> -Cabin Humidity <u>77.5</u>	
04-08			
Position:			
Weather:			
04'00 260 m.			
05'00 258 m.	17.98°C		
06'00 250 m.	17.96°C		
07'00 254 m.	17.98°C		
E.			
	0500	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	0600	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7</u>	
	0700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	9 Aug. 1969		
08-12			
Position:	64° 42' W 37° 34.5' N		
Weather:			
08'00	248 m.		
09.00	254 m	18.02°C	
10.00	258 m	18.02°C	
11.00	252 m	18.04°C	
12.00	232 m.	18.02 C	
		J. P. [Signature]	
	0800	-Replace LiOH panels -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves <i>NO</i> -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <i>NO</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings SECURED (flasks in service) Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>NO</i> -Carbon Dioxide % <u>1.2</u> -Oxygen % <u>20.6</u> -Sea Water Temp. <u>17.98°C</u> -Cabin Humidity <u>79</u> -Cabin Pressure <u>1.08</u> -LOX pressure <u>120</u> -Fwd <u>2/3 Full</u> Aft <u>1/2 Full</u> -Record F.W. & LOX tank levels	
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.7, 20.8</u>	✓
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	✓
		NOTE: If motors have been idle, meggar before using.	

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Franklin Underway Log Sheet

		Time	Routine	Check
Date <u>Aug. 9, 1959</u>		1200	-Check bilges, penetrators and main battery fuse boxes for water	✓
12-16			-Cycle MBT and VBT hull valves	NO
Position:			-Check hull valves for proper position	✓
Weather:			-Check LOX tanks for leaks	
			-Check emergency ballast hydraulic pressure	✓
12.00 : 232m	18.02°C		-Check VBT's for pressure buildup	✓
13.00 : 245m	18.02°C		-Air flask readings (flasks in service) <u>secured</u>	
			Flask #1 _____; #2 _____;	
			#3 _____; #4 _____;	
			#5 _____; #6 _____	
1400	255m 18.1°C		-Test emergency ballast alarm	✓
1430	position : 37-30 N 64-18 W		-Check equipment not in use in Off/Standby position	✓
1500	250m 18.10		-Vent Main Ballast Tanks	NO
			-Check F.W. valves shut	✓
			-Record battery readings	✓
			-Carbon Dioxide % <u>1.4</u>	
			-Oxygen % <u>20.8</u>	
			-Cabin Temperature <u>66.5 F</u>	
			-Sea water temp. <u>18.02°C</u>	
			-Cabin Humidity <u>77.5%</u>	
			-Cabin Pressure <u>1,08(5)</u>	
		1300	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves	
		1400	-Vent MBT's	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull valves	
		1500	-Vent MBT's <u>O₂ 7. 20.8</u>	
			-Check hydraulic pressure	
			-Cycle MBT and VBT hull	

W. J. Kazumi


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Franklin Underway Log Sheet

	Time	Routine	Check
Date <u>9 Aug 69</u>	1600	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks ✓ -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings Secured (flasks in service)	
16-20		Flask #1 _____; #2 _____ #3 _____; #4 _____ #5 _____; #6 _____	
Position:		-Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings ✓	
Weather:		-Carbon Dioxide % <u>1.3</u> -Oxygen % <u>20.8</u> -Cabin Temperature <u>66.5</u> -Sea water temp. <u>18.12</u> -Cabin Humidity <u>77.5</u> -Cabin Pressure <u>1.08</u>	
1600 Depth 253 meters Ext. Temp. 18.12	17:00	257m. 18.12° C	
	18:00	260 m. 18.14° C	
	18:11	DESCENDING TO 500 m.	
	18:14	DEPLOYING SILICATE BAGS	
	19:00	412m 16.78°C E. Ocean ✓	
	1700	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1800	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves C ₂ 7. _____	
	1900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	<u>9 AUG. 1969</u>		
20-24	2000	-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks <u>No</u> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air Flask readings (flasks in service) Flask #1 <u>105</u> ; #2 <u>secured</u> #3 <u>✓</u> ; #4 <u>✓</u> #5 <u>✓</u> ; #6 <u>✓</u> -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <u>No</u> -Carbon Dioxide % <u>0.7</u> -Oxygen % <u>20.5</u> -Cabin Temperature <u>67° F</u> -Sea water temp. <u>15.52° C</u> -Cabin Humidity <u>72.5</u> -Cabin Pressure <u>1.09</u> -Conduct contaminant checks	
Position:			
Weather:			
20'00	482 m.		
20'36	AT 500 m.		
21.00	503 m.		
22'00	503 m. 14.02° C		
General note:	Vibrations from The SUS changes could be felt through the hull. 64-03.6 position for 37-26.1 2200		
2250	Power used to date: 28V - 153.55 kWh 110V - 56.08 Prop. - 147.95		
2400	498 m 14.67° C		
			E. Channel 
	2100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2200	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	2300	-Vent MBT's <u>0.7, 20.2</u> -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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Franklin Underway Log Sheet

	Time	Routine	Check
Date	10 AUG. 1969		
00-04			
Position:			
Weather:	SEA STATE 3-4		
00.00	498 m. 498 m		
0030	Completed bottom excursion - beginning ascent by blowing STD VBT		
	One purpose of excursion was to determine drift speed.		
	Start positi. $\begin{matrix} 37-26.1 \\ 64-63.6 \end{matrix}$		
	Finish positi. $\begin{matrix} 37-27 \\ 63-53 \end{matrix}$		
	total time 4 hrs		
	2000 $\begin{matrix} 37-29.5 \\ 64-02 \end{matrix}$		
	2100 $\begin{matrix} 37-28.5 \\ 63-59 \end{matrix}$		
	2400 $\begin{matrix} 37-23.5 \\ 63-53 \end{matrix}$		
			2K12
01.35	305 m.		
02.00	284 m. 17.94°C		
03.00	232 m. 18.18		
			WJ Kay
0000		-Check bilges, penetrators and main battery fuse boxes for water ✓ -Cycle MBT and VBT hull valves ✓ -Check hull valves for proper position ✓ -Check LOX tanks for leaks ✓ -Vent Main Ballast Tanks No -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Record air flask readings: Flask #1 <u>SECURED</u> ; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings No -Carbon Dioxide % <u>0.6</u> -Oxygen % <u>20.2</u> -Cabin Temperature <u>64°F</u> -Cabin Pressure <u>1.09</u> -Sea Water Temp <u>19.0°C</u> #.67 -Cabin Humidity <u>74.5</u>	
0100		-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
0200		-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <u>0.70 20.3</u>	
0300		-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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	Time	Routine	Check
Date <u>10 Aug 69</u>	0400	-Check bilges, penetrators and main battery fuse boxes for water	✓
04-08		-Cycle MBT and VBT hull valves	✓
Position:		-Check hull valves for proper position	✓
Weather: <u>Sea State 3-4</u>		-Check LOX tanks for leaks	✓
6400 Depth 200m Ext. temp. 18.5		-Vent Main Ballast Tanks	NO
0500 At 143m, ext. temp 19.34		-Check emergency ballast hydraulic pressure	✓
0600 At 140m 19.83°C		-Check VBT's for pressure buildup	✓
0700 At 138m 19.85°C		-Record air flask readings (flasks in service)	✓
W. D. Kaye		Flask #1 <u>95</u> ; #2 _____;	✓
		#3 _____; #4 _____;	✓
		#5 _____; #6 _____	✓
		-Check equipment not in use in Off/Standby position	✓
		-Record battery readings	NO
		-Check F.W. valves shut	✓
		-Carbon Dioxide% <u>0.7</u>	✓
		-Oxygen % <u>20.4</u>	✓
		-Cabin Temperature <u>64.5</u>	✓
		-Sea Water Temp. <u>18.5</u>	✓
		-Cabin Pressure <u>1.08</u>	✓
		-Cabin Humidity <u>72%</u>	✓
	0500	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
	0600	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓
		<u>O₂ % 20.5</u>	✓
	0700	-Vent MBT's	✓
		-Check hydraulic pressure	✓
		-Cycle MBT and VBT hull valves	✓

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	Time	Routine	Check
Date <u>10 Aug 69</u>	0800	-Replace LiOH panels <i>no</i> -Conduct thorough boat inspection ✓ -Cycle MBT and VBT hull valves <i>no</i> -Check hull valves for proper position ✓ -Check LOX tanks for leaks -Vent Main Ballast Tanks <i>no</i> -Check emergency ballast hydraulic pressure ✓ -Check VBT's for pressure buildup ✓ -Air flask readings (flasks in service) <i>secured</i> Flask #1 _____; #2 _____; #3 _____; #4 _____; #5 _____; #6 _____ -Check equipment not in use in Off/Standby position ✓ -Check F.W. valves shut ✓ -Record battery readings <i>no</i> -Carbon Dioxide % <u>6.6</u> -Oxygen % <u>20.3</u> -Sea Water Temp. <u>19.58</u> -Cabin Humidity <u>70%</u> -Cabin Pressure <u>1.08</u> -LOX pressure <u>105</u> -Fwd <u>.2</u> Aft <u>.5</u> -Record F.W. & LOX tank levels	
08-12			
Position: <i>0800</i> 37-22.5 N 63-13 W			
Weather: 25 Kts wind from south			
<i>0800 Depth 160 meters</i>			
0900 163 meters 19.83°C			
1000 151 " 19.90°C			
1050 flood VBT st - a few reads			
1100 " " " "			
1130 " " " 5"			
1138 " " " 5"			
1143 " " " 5"			
1146 " " " 8"			
1152 " " " 5"			
1200 140 m 19.88°C			
	0900	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	
	1000	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves <i>0.7, 2.0</i>	
	1100	-Vent MBT's -Check hydraulic pressure -Cycle MBT and VBT hull valves	

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NOTE: If motors have been idle, meggar before using.

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