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Dive Number	Date	Dive Location	Dive Time	Max Depth (meters)	Pilot	Crew 1	Crew 2	Crew 3	Crew 4	Dive Objective	Risk Index	Anomalies	Payload	Total Acoustic Incidents per Sensor	Salinity (PPT)	Dive Notes/Comments
C2_0001	2/6/18	Everett Marina	0.1	3	n/a					Platform Test	18					2 dunks and raises at dock
C2_0002	2/7/18	Everett Marina	0.1	3	n/a					Platform Test	19		1350			2 dunks and raises at dock
C2_0003	2/8/18	Everett Marina	0.2	3	n/a					Platform Test	19					4 dunks and raises at dock - A4 Floats and 1000# of lead added to bow of platform
C2_0004	2/12/18	Everett Marina	1.5	3	Stockton Rush					System Test	21					First manned dive
C2_0005	2/13/18	Everett Marina	1.6	3	Stockton Rush					System Test	21					
C2_0006	2/15/18	Everett Marina	2.3	3	[redacted]		[redacted]			System Test	31					
C2_0007	2/19/18	Everett Marina	0.1	4	n/a					Platform Test			1300			Open water test - vessel sunk and stayed 1 meter below surface
C2_0008	2/21/18	Everett Marina	2.7	3	[redacted]		Jessica			System Test	47					
C2_0009	3/15/18	Everett Marina	1.3	3	Stockton Rush		Carlos			System Test	44	74	1400			
C2_0010	3/19/18	Everett Marina	1.2	3	Stockton Rush					System Test	37	10	1100			
C2_0011	3/20/18	Everett Marina	3.3	3	[redacted]		[redacted]	[redacted]		System Test	40	15				
C2_0012	3/26/18	Everett Marina	2.5	8	Stockton Rush					System Test leaving platform	44	18	1015			New target Dive Wieght 1100 (min. 1015) fresh water.
C2_0013	3/29/18	Everett Marina	1.0	3	Stockton Rush					System Test	36	15	1110			
C2_0014	4/2/18	Everett Marina	1.8	2	Stockton Rush					System test	36	14	1092		1.81	about 30 lbs too heavy - New Target Dive wieght 1030 fresh water
C2_0015	4/3/18	Everett Marina	1.6	4	Stockton Rush					Left platform	36		1112		13.12	Just right - not enough VBT capacity to stay solid on surface
C2_0016	4/6/18	Everett Marina	1.7	3	Stockton Rush					Left platform	32		1163			
C2_0017	4/7/18	Everett Marina	2.5	3	Stockton Rush		[redacted]	[redacted]		iXBlue 2G Integration	53	14	1028		4	
C2_0018	4/9/18	Everett Bay	4.8	37	Stockton Rush		[redacted]			Open water test	42	12	1127		28	estimated SG, wt good
C2_0019	5/8/18	Sea of Abaco - Marsh Harbour	3.9	6	Stockton Rush					Systems test, Emergency recovery trainig	54	20	1240			Too heavy. Dropped 1 38lbs wieght and still heavy with full vbt. Estimated neutral wieght 1190 with full vbt, 1000 w empty
C2_0020	5/11/18	Marsh Harbour Deep Test Site	8.9	35	Stockton Rush					Open Ocean Systems testing	43		1120			Wieght perfect. Multiple squawks and operational challenges - see incident and dive reports
C2_0021	6/5/18	Marsh Harbour Deep Test Site	4.0	6	n/a					unmanned test	13	3	1472			Sub in stripped config for unmanned test. Aft still to heavy. All 1472 as far fwd as possible
C2_0022	6/11/18	Marsh Harbour Deep Test Site	1.5	6	n/a					unmanned test	14	2	1420			Added 102lbs bouyancy syntactic foam to aft. Adjusted forward placed ingot to 1420. Sub manageable with multiple divers.
C2_0023	6/19/18	Marsh Harbour Deep Test Site	4.0	6	n/a					unmanned test	13					
C2_0024	6/21/18	Marsh Harbour Deep Test Site	8.0	1200	n/a					unmanned test	33		1520			
C2_0025	6/23/18	Marsh Harbour Deep Test Site	7.0	2500	n/a					unmanned test	33		1620			
C2_0026	6/26/18	Marsh Harbour Deep Test Site	9.5	4000	n/a					unmanned test	33		1620			
C2_0027	7/30/18	Marsh Harbour Marina	2.0	3	Stockton Rush		[redacted]			Platform test	53	47	1312			Buoyancy check in Little Harbour - low vis.
C2_0028	8/1/18	Sea of Abaco - Marsh Harbour	1.0	10	n/a					Buoyancy Test	48		1059			Buoyancy good to +-10#
C2_0029	9/27/18	Little Harbour Marina	0.7	3	[redacted]					Systems test	41		1092			
C2_0030	10/3/18	Little Harbour Marina	0.7	2	Stockton Rush					Systems Test	31	7				multiple squawks. Port pod/dropweight issue. Incident report for lift
C2_0031	10/6/18	Little Harbour Marina	0.6	2	[redacted]		[redacted]			Systems Test	31					
C2_0032	10/7/18	Little Harbour Deep Test Site	6.5	35	Stockton Rush					Systems Test	33	15	1310			
C2_0033	10/10/18	Little Harbour Deep Test Site	12.2	504	Stockton Rush					Systems Test	38	20	1130		1.030	Actual submerged time=2 hrs. 6-8ft seas, long tow out. Neutral bouyancy with empty VBT - had to thrust down.
C2_0034	10/30/18	Marsh Harbour Marina	1.0	3	[redacted]					Systems Test	24	20	1130		1.030	Actual submerged time=2 hrs. 6-8ft seas, long tow out. Neutral bouyancy with empty VBT - had to thrust down.
C2_0035	11/14/18	Little Harbour Deep Test Site	13.7	720	Stockton Rush					Systems Test	48	35	1294			Submerged time 5.6hrs
C2_0036	11/14/18	Little Harbour Deep Test Site	3.7	8	Stockton Rush					Systems Test	26	35	1316			Submerged time 6.5 hrs
C2_0037	12/5/18	Little Harbour Deep Test Site	6.7	242	Stockton Rush					Systems Test	38	30	1314			
C2_0038	12/7/18	Little Harbour Deep Test Site	16.1	2487	Stockton Rush					Systems Test	54	25	1388	115		Insuffient wieght - descent stopped at 2,400m
C2_0039	12/10/18	Little Harbour Deep Test Site	17.3	3939	Stockton Rush					Systems Test	54	20	1376	152		Good wieght for 4,000m dive
C2_0040	3/8/19	Sugar Loaf	0.7	5						Bouyancy Test						
C2_0041	3/9/19	Little Harbour Shallow	1.5	4						Bouyancy Test						
C2_0042	3/12/19	Liitle harbour Deep	3.1	390	Stockton Rush		[redacted]	[redacted]		Systems Test	31		1460			Sub approx 200# heavy
C2_0043	3/14/19	Little Harbor Offshore	3.5	130	[redacted]		[redacted]	Stockton Rush		Systems Test / Pilot training	27		1278			Roughly 75 lbs heavy for shallow dives
C2_0044	3/16/19	Little Harbor Offshore	3.5	356	[redacted]	Stockton Rush	[redacted]	[redacted]		Systems Test / Pilot training	21	25	1190			36deg max down, 39 max up
C2_0045	3/20/19	Little Harbor Offshore	2.0	2	Unmanned					Buoyancy Test	21		1341			Includes drop wieghts
C2_0045.1	4/12/19	Little Harbour Shallow	4.3	4	[redacted]		[redacted]			System Test			1240			added 100# foam, filled second sphere, 2G laser 60# in water
C2_0046	4/14/19	Little Harbour Deep Test Site	3.1	991	Stockton Rush		[redacted]	[redacted]	[redacted]	Systems Test / Pilot training	36		1645			Total payload about 100# too heavy
C2_0047	4/17/19	Little Harbour Deep Test Site	8.3	3760	Stockton Rush		[redacted]	[redacted]		Systems Test / Pilot training	43		1545			
C2_0048	4/18/19	Little Harbour Shallow	1.0	4	Unmanned					419 drill	3	4				
C2_0049	8/7/19	Everett Marina	0.1	1	[redacted]		[redacted]	[redacted]		System Test	15		1510			Aborted dive due to insert movement on descent of platform
C2_0050	4/29/21	Everett Marina	2.8	3	Stockton Rush	[redacted]				System Test	41	22				
C2_0051	5/2/21	Everett Marina	3.0	7	Stockton Rush					System Test	37	31				

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C2_0052	5/6/21	AO	4.5	79	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	25	33				
C2_0053	5/8/21	Possession Sound	4.0	8	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	50	16				
C2_0054	5/12/21	Everett Marina	3.0	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	System Test	41					Need additional marina dive to dianose thruster drop out from dive 53. Scrubber flow inadeqaute for crew of 4 with quiet fan
C2_0055	5/14/21	Everett Marina	1.5	3	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	33					
C2_0056	5/17/21	Big Al	4.9	79	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	42		1434			
C2_0057	5/19/21	Marina	2.0	3	Stockton Rush	[redacted]	[redacted]	Mini P	[redacted]	System Test	33		1072			
C2_0058	5/20/21	Hat Isl. South	4.5	170	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	34		1392			Add 50 lbs Seems to be good weight.
C2_0059	5/24/21	Marina	2.0	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	System Test	33	14	1418			
C2_0060	5/25/21	Hat Isl. South	4.1	162	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	31					
C2_0061	6/30/21	Titanic	2.6	7	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	48		1632			DVL failure
C2_0062	7/3/21	Titanic	5.8	1700	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	38		1606			Loss of stbd thrusters
C2_0063	7/9/21	Titanic	16.0	3840	Stockton Rush	[redacted]	Nargeolet	[redacted]	[redacted]	System Test	38		1631			Drop weight incident. Good wt at depth
C2_0064	7/13/21	Witless Bay	4.9	89	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	31					
C2_0065	7/19/21	Titanic	11.3	3500	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	34		1695			Weight after dropping 1 drop wt on platform - too heavy at depth drop weight incident #2
C2_0066	7/24/21	Titanic	10.7	3840	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	35	9	1548			Drop weight motor failures
C2_0067	7/27/21	Titanic	9.5	3840	Stockton Rush	PH Nargeolet	[redacted]	[redacted]	[redacted]	Exploration	34		1577			Too light had to thrust at end before stbd battery failed
C2_0068	7/28/21	Titanic	11.1	3840	Stockton Rush	PH Nargeolet	[redacted]	[redacted]	[redacted]	Exploration	42	9	1765			Good weight, neutral on bottom after dropping 70lbs
C2_0069	8/4/21	Titanic	10.7	3840	Stockton Rush	Bridget Buxton	[redacted]	[redacted]	[redacted]	Exploration	37		1738			
C2_0070	8/5/21	Titanic	10.8	3840	Stockton Rush	PH Nargeolet	[redacted]	[redacted]	[redacted]	Exploration	41		1754			
C2_0071	6/16/22	150 SE St. John's	3.5	7	Stockton Rush	PH Nargeolet	[redacted]	[redacted]	[redacted]	System Test	50	13	1722			
C2_0072	6/18/22	Titanic	6.3	1380	Stockton Rush	PH Nargeolet	[redacted]	[redacted]	[redacted]	Exploration	28	10	1760			Too Heavy by 100-200lbs
C2_0073	6/20/22	Titanic	27.0	3840	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	22	22	1674	10		Incident on recovery. Batteries died on approach to platform.
C2_0074	7/1/22	Bay Bulls	5.0	25	[redacted]	PH Nargeolet	[redacted]	[redacted]	[redacted]	System Test	50		1676			
C2_0075	7/3/22	Titanic	13.0	3840	[redacted]	PH Nargeolet	[redacted]	[redacted]	[redacted]	Exploration	30	6	1588	8		Port battery dropped. Control program crash. Flashing dspl. 419 after touchdown on tubs due to control drop. Dive 1530. Surface 109
C2_0076	7/6/22	Titanic	12.0	3840	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	30		1594	16		Roll weight forgotten by diver. Dive 1434. Surface 1092. Locked 1186
C2_0077	7/8/22	Witless Bay	4.2	30	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	System Test	13					Dive 1516. Surface 1102
C2_0078	7/11/22	Cameron Canyon	3.5	10	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Exploration						Platform disconnected from reserve buoyancy floats
C2_0079	7/14/22	Titanic	11.9	3840	Stockton Rush	[redacted]	Golden	[redacted]	[redacted]	Exploration	34		1674	14		Dive 1669 Locked 1267
C2_0080	7/15/22	Titanic	10.9	3840	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	30		1702	12		Loud bang after surfacing. 419 on landing Dive 1674. Surface 1070. Locked 1308
C2_0081	7/19/22	Titanic	12.8	3840	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	34	3	1763	20		Thruster controls mapped incorrectly. Flashing lights. Port battery drop. Sonar drop. 4k drop. 2 KH stuck. 419 after touchdown on tubs
C2_0082	7/22/22	Titanic	11.1	3840	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Exploration	35		1649			Port Horizontal thruster flooded
C2_0083	7/23/22	PH Mystery	12.1	2954	[redacted]	Stockton Rush	[redacted]	[redacted]	[redacted]	Exploration	42	6	1739	40		Dive 1673. Surface 1070. Locked 1255
C2_0084	5/22/23	Enroute Titanic	0.5	8	Unmanned	[redacted]	[redacted]	[redacted]	[redacted]	419 drill	30	14				
C2_0085	5/31/23	Grand Banks	2.0	10	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Test	40		1333			Locked in engineering test dive, platform heavy, Thruster deadman software issue, no external axis cameras
C2_0086	6/5/23	Grand Banks	2.0	10	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	Test	43	14	1450			
C2_0087	6/12/23	Grand Banks	2.0	10	Stockton Rush	[redacted]	[redacted]	[redacted]	[redacted]	abrted dive	40	8	1472			

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Date	Dive Number	Issue	Reported By	Dive Critical (Yes/No)	Open/ Closed	Solution	Performed By	Date Completed	Inspected By	Date Inspected
2/4/2018	C2_0003	Sub RAM mounts dislodged	[redacted]	No	Closed	Cleaned and re attached with 5 Minute Epoxy on sub port wood screws to fiberglass on stbd	Stockton Rush	2/26/2018	[redacted]	2/26/2018
2/4/2018	C2_0004	Timing on VBT motor control is incorrect	Stockton Rush	No	Closed	OK for test dives.	Stockton Rush	10/3/2018	[redacted]	10/3/2018
2/8/2018	C2_0009	Aft equipment bay wires need to be routed and secured	Stockton Rush	Yes	Closed	Wiring cleaned up	[redacted]	2/15/2018	Stockton Rush	3/15/2018
2/8/2018		Port Forward thruster inop	[redacted]	Yes	Closed	Replaced signal cable from thruster to tPod with new cable	[redacted]	2/10/2018	Stockton Rush	2/10/2021
2/8/2018		Replace damaged stbd vert male pbof feedback connector	[redacted]	Yes	Closed	Replaced damaged connector	[redacted]	3/8/2018	[redacted]	3/8/2018
2/8/2018	C2_0004	Birns connector cable needs anti-chafing	[redacted]	No	Closed	Rerouted cable to reduce chafe potential	[redacted]	3/15/2018	Stockton Rush	3/15/2018
2/12/2018	C2_0005	Axis Camera failed	Stockton Rush	No	Closed	Fixed with new housing	[redacted]	3/9/2018	Stockton Rush	3/9/2018
2/12/2018	C2_0004	Internal ATM cable loose	Stockton Rush	No	Closed	Secured in place	[redacted]	3/12/2018	[redacted]	3/12/2018
2/12/2018	C2_0004	Internal mat slipped during ascent	Stockton Rush	No	Closed	Attached with strips of velcro	[redacted]	2/15/2018	Stockton Rush	2/20/2018
2/12/2018	C2_0004	Lower sub stbd aft fairing anti-chafe has pulled away	Stockton Rush	No	Closed	Replaced	[redacted]	3/1/2018	Stockton Rush	3/1/2018
2/12/2018	C2_0004	Scrubber tie down missing	Stockton Rush	No	Closed	Installed Strap/Bunge	Stockton Rush	2/13/2018		
2/12/2018	C2_0004	Slow leak on emergency O2 valve when not fully opened	Stockton Rush	No	Closed	Inspected. OK for ops	Stockton Rush	2/14/2018		
2/12/2018	C2_0004	Sub port fwd thruster cable protective housing missing	Stockton Rush	No	Closed	Installed Protective pipe cover	[redacted]	2/15/2018	Stockton Rush	2/15/2018
2/12/2018	C2_0004	Sub stbd forward thruster cable loose near fairing	Stockton Rush	No	Closed	Secured in place	[redacted]	3/12/2018	Stockton Rush	3/12/2018
2/12/2018	C2_0005	VBT activation line spacer pulled off hull	[redacted]	No	Closed	Inspected. OK as is for marina secured ops	Stockton Rush	2/1/5/18	Stockton Rush	
2/13/2018	C2_0005	Need lockout for vaccum pressure valve to avoid inadvertant activation	Stockton Rush	No	Closed	Installed spring loaded collar on valve	[redacted]	3/1/2018	Stockton Rush	3/1/2018
2/13/2018	C2_0006	Port/"New" Ictineu battery offline	[redacted]	No	Closed	Replaced Epod Voltage regulator, tested OK	[redacted]	2/20/2018		
2/13/2018	C2_0005	Rubber spacer missing on landing gear support post	[redacted]	No	Closed	Reinstalled	[redacted]	3/8/2018	Stockton Rush	3/8/2018
2/13/2018	C2_0009	Wifi hub needs to be secured to top shelf	Stockton Rush	No	Closed	Secured in place	[redacted]	3/15/2018	Stockton Rush	3/27/2018
2/15/2018	C2_0009	DVL Cable needs to be routed inside aft fairing mold line	Stockton Rush	No	Closed	Relocated	[redacted]	3/27/2018	Stockton Rush	3/27/2018
2/27/2018	C2_0010	Drop wieght system drops multiple cannisters on single pulse	Stockton Rush	Yes	Closed	Timing changed to 300msec tested OK	[redacted]	3/20/2018	[redacted]	3/20/2018
2/27/2018		Replace damaged port hzntl female pbof feedback connector	[redacted]	Yes	Closed	Replaced	[redacted]	3/8/2018	[redacted]	3/8/2018
2/27/2018		Replace damaged port tpod hzntl feedback bulkhead	[redacted]	Yes	Closed	Replaced	[redacted]	3/8/2018	[redacted]	3/8/2018
2/27/2018		Replace damaged stbd tpod hzntl feedback bulkhead	[redacted]	Yes	Closed	Replaced	[redacted]	3/8/2018	[redacted]	3/8/2018
3/15/2018	C2_0010	Burr on sub port drop wieght where stop bolt was installed	Stockton Rush	Yes	Closed	Filed down washer added to bolt head	Stockton Rush	3/18/2018		
3/15/2018	C2_0009	Need emergency tool kit	Stockton Rush	No	Closed	Installed	Stockton Rush	3/29/2018		
3/15/2018	C2_0009	Need lights in aft bay area	Stockton Rush	No	Closed	Installed	Stockton Rush	3/11/2018		
3/15/2018	C2_0010	Need rear tow float/line	Stockton Rush	No	Closed	Installed from Cyclops 1	[redacted]	3/27/2018	Stockton Rush	3/27/2018
3/15/2018	C2_0010	Rear camera needs alignment	Stockton Rush	No	Closed	Aligned	[redacted]	3/21/2018	Stockton Rush	3/22/2018
3/15/2018	C2_0009	Sonar Cable has very lage air bubble	Stockton Rush	No	Closed	Filled with more oil - check daily for leaks				
3/15/2018	C2_0009	VBT Motor box leaking/has air bubble	Stockton Rush	No	Closed	Filled with more oil - check daily for leaks	Stockton Rush	3/18/2018		
3/19/2018	C2_0012	Aft camera rotated	Stockton Rush	Yes	Closed	Rotated to correct position	[redacted]	3/28/2018	Stockton Rush	3/29/2018
3/19/2018	C2_0012	Water in sub vaccum lost	Stockton Rush	Yes	Closed	O ring greased no water in sub	[redacted]	3/29/2018	Stockton Rush	3/29/2018
3/19/2018	C2_0011	Essential blade lock is loose	Stockton Rush	No	Closed	Tightened	Stockton Rush	3/27/2018		
3/19/2018	C2_0010	No DVL	[redacted]	No	Closed	Installed	[redacted]	3/15/2018	Stockton Rush	3/29/2018
3/19/2018	C2_0010	Port lights intermittent/failed	[redacted]	No	Closed	#1 labelled light	[redacted]	9/5/2018	Leah Smith	9/5/2018
3/19/2018	C2_0011	Sub stbd light cables outside fairing need to relocated inside fairing	Stockton Rush	No	Closed	Relocated	[redacted]	3/27/2018	Stockton Rush	3/27/2018
3/20/2018	C2_0013	Aft top RTM Board needs power connection repaired	Stockton Rush	No	Closed	repaired	[redacted]	4/2/2018	[redacted]	4/2/2018
3/20/2018	C2_0011	Spacer needed to ensure VBT shaft does not get pulled out if line runs against stop	Stockton Rush	No	Closed	Spacer taped in place	Stockton Rush	3/22/2018		
3/20/2018	C2_0012	Vertical thrusters hold water after dive in nose cones	Stockton Rush	No	Closed	Holes drilled in nose cone	[redacted]	3/30/2018	Stockton Rush	3/30/2018
3/26/2018	C2_0012	Brass inserts/guides in Segment 1 are mauled	Stockton Rush	Yes	Closed		[redacted]			
3/26/2018	C2_0012	Gussets for aft frame bent	Stockton Rush	Yes	Closed	Bolts installed	[redacted]	3/27/2018	Stockton Rush	3/28/2018
3/26/2018	C2_0014	Missing comm box	Stockton Rush	Yes	Closed	Installed prior to dive	[redacted]	9/30/2018	[redacted]	9/30/2018
3/26/2018	C2_0018	Thrusters inop with Phins running	Stockton Rush	Yes	Closed	Computer buffer increased from 512 to 1024	[redacted]	4/11/2018	[redacted]	4/11/2018
3/26/2018	C2_0012	Forward Camera white balance needs adjusting	Stockton Rush	No	Closed	Solution - reboot epod				
3/26/2018	C2_0012	GPS in rear equipment bay unsecured	Stockton Rush	No	Closed	Removed due to external GPS installed	[redacted]	6/30/2018	[redacted]	6/30/2018
3/26/2018	C2_0013	Rear camera failed approx 1 minute underwater came back on surface	Stockton Rush	No	Closed	Rewired tested OK	[redacted]	4/5/2018	[redacted]	5/6/2018
3/26/2018	C2_0012	Stbd vertical oil comp line has large air bubble	Stockton Rush	No	Closed	Removed and 1/4 off valve installed	[redacted]	3/28/2018	Stockton Rush	3/29/2018
3/29/2018	C2_0014	Top Fwd Axis Camera needs to be rotated 180 deg	Stockton Rush	No	Closed	Rotated and focus fixed	[redacted]	4/11/2018		

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3/30/2018	C2_0014	4K SubC camera very low resolution	Stockton Rush	No	Closed	As designed	[redacted]	4/3/2018		4/3/2018
4/2/2018	C2_0018	Burn smell in aft bay - cleared in 4 minutes	Stockton Rush	Yes	Closed	Opto isolated blew - confirmed by engineering as non critical item	N/A	4/9/2018	[redacted]	4/9/2018
4/2/2018	C2_0018	#1 and #3 lights inop after 15 seconds of subsea operation (both lower lights)	Stockton Rush	No	Closed	Tested good	[redacted]	10/6/2018	[redacted]	10/6/2018
4/2/2018	C2_0015	Bluetooth adapter not loading at start-up	Stockton Rush	No	Closed	Instructions from Mark - bluetooth system can takE 5 min to boot up.	N/A			
4/2/2018		Incident Report: bolt under landing gear	[redacted]	No	Closed		[redacted]		[redacted]	
4/2/2018	C2_0014	Phins did not get GPS Data	Stockton Rush	No	Closed	addreses changed in software check on surface OK	[redacted]	4/2/2018	[redacted]	4/2/2018
4/8/2018		Wiring in aft bay incorrect - multiple sections directly strain relieved to ethernet connections	Stockton Rush	No	Closed	all components replaced. Wiring fixed	[redacted]	11/1/2018	Stockton Rush	11/30/2018
4/9/2018		12 pin blue cable from hull penetrator top epod has worn area with wires bare	Stockton Rush	Yes	Closed	Replaced with new cable	[redacted]	5/4/2018	[redacted]	5/4/2018
4/9/2018	C2_0018	Drop wieghts did not all dispense	Stockton Rush	Yes	Closed	Added additionl length to extensions on "pez" dispenser arms - tested ok	[redacted]	4/11/2018	Stockton Rush	4/11/2018
4/9/2018		Platform needs full assembly and inspection/test	[redacted]	Yes	Closed	Completed including at sea testing	[redacted]	4/30/2018	[redacted]	4/30/2018
4/9/2018	C2_0019	Screen times out and goes to time display only	Stockton Rush	No	Closed		[redacted]	9/5/2018	[redacted]	9/5/2018
4/23/2018		Platform sustained dent and tear in deck from crane hook	[redacted]	Yes	Closed	temp weld to to make operable after repair after meetings	[redacted]	4/25/2018	[redacted]	4/30/2018
4/23/2018		VBT box almost empty of oil	Stockton Rush	Yes	Closed	Replaced with new VBT actuator box	Stockton Rush	4/30/2018	[redacted]	5/1/2018
4/24/2018		Multiple anamolies in sub power up after transport from Seattle - list stored at:C:\Users\Stockton\Dropbox (Oceangate)\SubOps Master\Maintenance and Equipment Information\Submersibles\Titan	Stockton Rush	Yes	Closed	Suspect lightening damage from severe storms in area. Reloaded software to computers. Replaced multiple routers, switches and relay board components. All systems but rear tv, sonar and subc camera working OK..	[redacted]	5/8/2018	[redacted]	5/8/2018
4/28/2018		hull to epod molded blue wiring harness damaged - 6" from hul 1/2" section of cable worn through to wires.	Stockton Rush	Yes	Closed	Rotated and focus fixed	[redacted]	4/11/2018		
4/28/2018		Sub command module needs full transport reassembly and inspection	Stockton Rush	Yes	Closed	Completed	Stockton Rush	5/6/2018	[redacted]	5/6/2018
4/28/2018		Thruster Pressure comp systems low on oil	Stockton Rush	Yes	Closed	Filled with red dyed carnation oil	Stockton Rush	4/30/2018	[redacted]	5/1/2018
4/29/2018		Stbd horizontal thruster has 6" of water in pressure compensation line	Stockton Rush	Yes	Closed	Drained and filled with dense red dye colored oil	Stockton Rush	5/1/2018		5/1/2018
4/29/2018		Stbd vertical quick connect leaking air	Stockton Rush	Yes	Closed	Replaced with new connector	Stockton Rush	5/1/2018		5/1/2018
4/29/2018		Aft penetration to Access J Box is jagged and rough	[redacted]	No	Closed	temp taped and cleaned up, will need rework. New box installed	[redacted]	10/1/2018	[redacted]	10/1/2018
5/1/2018		Drop wieght system drops multiple cannisters on single pulse	Stockton Rush	Yes	Closed	Lengthened activation arm/solenoid interconnection, installed sponges to slow pipe, filed down retaining post to reduce friction, install resetting springs to levers. Tested with 4 pipes per side. Ready for dive tests.	Stockton Rush	5/5/2018	[redacted]	5/5/2018
5/2/2018	C2_0019	2G system has camara mountiung pins sheared off due to impact with platform	Stockton Rush	Yes	Closed	Removed for future repair.	Stockton Rush	5/10/2018	[redacted]	5/10/2018
5/2/2018		Port horizontal and stbd vertical thrusters have air (6" and 10") in pressure compensation line	Stockton Rush	Yes	Closed	Filled with dense red dye colored oil	Stockton Rush	5/1/2018		5/1/2018
5/2/2018		Port vertical thruster has 6" of water in pressure compensation line	Stockton Rush	Yes	Closed	Drained and filled with dense red dye colored oil	Stockton Rush	5/1/2018		5/1/2018
5/2/2018	C2_0019	Stbd horizontal thruter went offline over 20 times required resetting stbd pod	Stockton Rush	Yes	Closed	Temporary fix to have auto reset when motor controller goes offline. Suspect potential overheating issue. Test on next dive before leaving platform. Feedback cable to the stbd horiz. Thrusyer was found to have two bad solder joints. All solders replaced and reinstalled tested OK	[redacted]	5/10/2018	Stockton Rush	5/10/2018
5/8/2018	C2_0020	Aft camera dislodged by fairing flexing	Stockton Rush	Yes	Closed	fairing securement repaired, mounted camera on bracket	[redacted]	7/27/2018	[redacted]	7/27/2018
5/8/2018	C2_0019	Aft fairing will not join zipties broken	Stockton Rush	Yes	Closed	Removed 2 G systems and joined together. Additional cut outs will be needed when 2G reinstalled.	Stockton Rush	5/9/2018	[redacted]	5/9/2018
5/8/2018	C2_0019	Drop wieght would not work	Stockton Rush	Yes	Closed	4 wieghts per side loaded and tested OK on surface. Reduce load to 2 per side and adjusted engagement angle of drop wieght mechanism. Also sanded and greased port side justr sanded stbd side to see if any difference on next dive	Stockton Rush	5/10/2018		
5/8/2018	C2_0020	Water and air in Stbd Thruster Pressure compensation line	Stockton Rush	Yes	Closed	Drained and filled with dense red dye colored oil	[redacted]	7/28/2018	[redacted]	7/28/2018
5/8/2018		Viewport when exposed to sun can light stuff on fire	[redacted]	No	Closed	Procedures changes to have cover on viewport in sun	Stockton Rush			
5/11/2018	C2_0020	Aft fairing and vertical fairing ripped off sub on tow to shallow waters	Stockton Rush	Yes	Closed	Installed bracketry to support. Vetical fairing not yet recovered	[redacted]	7/20/2018	[redacted]	7/20/2018
5/11/2018	C2_0020	ATM did not work	Stockton Rush	Yes	Closed	Altered settings with rep onsite	[redacted]	7/17/2018	[redacted]	7/18/2018
5/11/2018	C2_0020	Damage to upper cyclinder section fairings	Stockton Rush	Yes	Closed	Paint touch up by vendor	Vendor	7/20/2018	[redacted]	7/20/2018

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5/11/2018		Dome dome nut is galled and seized	[redacted]	Yes	Closed	Installed shop dome dolly to use in interim of redesign				
5/11/2018	C2_0020	Drop wieght did not work at depth or on surface	Stockton Rush	Yes	Closed	New actuators installed	[redacted]	7/22/2018	Stockton Rush	7/28/2018
5/11/2018	C2_0020	Foam dislodged from aft of sub	Stockton Rush	Yes	Closed	Installed all thread through foam and bracketry to support	[redacted]	7/25/2018	[redacted]	7/25/2018
5/11/2018	C2_0020	Forward camera and sonar mount ripped off	Stockton Rush	Yes	Closed	Pan/tilt not rated for the weight. Attached to hard mount	[redacted]	7/27/2018	[redacted]	7/27/2018
5/11/2018	C2_0020	Lower cyclinder section fairing flexes excessively underwater	Stockton Rush	Yes	Closed	Installed bracketry to support	[redacted]	7/20/2018	[redacted]	7/21/2018
5/11/2018	C2_0020	OTS communications spotty only working at very short range	Stockton Rush	Yes	Closed	cable ends cleaned and Tested good on next dive	Stockton Rush	5/21/2018	[redacted]	5/21/2018
5/11/2018	C2_0020	Platform had water and delay before launch	Stockton Rush	Yes	Closed	Added step to platform predive	[redacted]	7/26/2018	[redacted]	7/26/2018
5/11/2018	C2_0020	Stbd vertical thruster has water in compensation line	Stockton Rush	Yes	Closed	Drained and filled with dense red dye colored oil	[redacted]	7/28/2018	[redacted]	7/28/2018
5/11/2018	C2_0020	Stbd vertical thruster power and feedback cables damaged	Stockton Rush	Yes	Closed	Refitted with spare	[redacted]	7/26/2018	[redacted]	7/26/2018
5/11/2018	C2_0020	Thruster needed relaunch when sub was at 35m down	Stockton Rush	Yes	Closed	New thruster software installed and tested on C2_0027 seem OK	[redacted]	7/29/2018	Stockton Rush	7/30/2018
5/11/2018	C2_0022	TwinTec siamese 8 line connector has corrosion	[redacted]	Yes	Closed	Clean and check before and after each dive	[redacted]	6/11/2018	[redacted]	6/11/2018
5/23/2018		Install air line tolerant to 10K on vacuum side	Stockton Rush	No	Closed	Swapped out line tolerant to 10k	[redacted]	7/14/2018	[redacted]	7/15/2018
5/27/2018		Emergency drop weight actuators seized and bracket broke	[redacted]	Yes	Closed	Installed stainless actuator and improved design and rebuild	[redacted]	7/18/2018	[redacted]	7/19/2018
5/31/2018		Shop dome dolly jack needs angled zerks to service	[redacted]	No	Closed	Installed angled zerks and sourced flexible tip	[redacted]	7/16/2018	[redacted]	7/16/2018
6/11/2018		Water found in J Box	[redacted]	Yes	Closed	Drained/cleaned/refilled/tested	[redacted]	7/22/2018	[redacted]	7/28/2018
6/14/2018		Hardware on aft cage is mix of stainless and galvinzed	[redacted]	No	Closed		[redacted]	10/17/2018	[redacted]	10/17/2018
6/14/2018		Vacuum line valve tolerant or 10k	[redacted]	No	Closed	No need on open ended VBT line				
6/19/2018		Rust: Rust on bushing on top of Tym Valve	[redacted]	No	Closed	Tym valve redesigned and rusting parts replaced with non-ferrous parts	[redacted]	4/28/2021	[redacted]	4/28/2021
6/20/2018		Oil deteriorating bicycle tubes in oil filled boxes	[redacted]	Yes	Closed	Engineering provided new compensation bladder	[redacted]	10/3/2018	Stockton Rush	10/3/2018
7/5/2018		Battery terminals at forward need lasting cover	[redacted]	No	Closed	CRB - redesigned interior that removes exposed battery terminals and adds a cover over battery area	[redacted]	4/26/2021	[redacted]	4/26/2021
7/5/2018		Rust: Bracket for 4k camera is rusting	[redacted]	No	Closed	Replace	[redacted]	6/5/2019	[redacted]	6/5/2019
7/5/2018		Rust: Eye bolts holding up drop weight assembly are rusty	[redacted]	No	Closed	Replaced ferrous eye bolts with new stainless steel brackets	[redacted]	4/26/2021	[redacted]	4/26/2021
7/5/2018		Rust: Ferrous riv nuts @ horizontal beam rusting	[redacted]	No	Closed	Replaced with Stainless Steel RIV nuts	[redacted]	4/26/2021	[redacted]	4/26/2021
7/5/2018		Rust: Gusset for aft cage rusting	[redacted]	No	Closed	Ophoed and painted	[redacted]	2/2/2019	[redacted]	2/2/2019
7/5/2018		Rust: Platform hull stop valve handles rusting	[redacted]	No	Closed	Replace with stainless	[redacted]	6/5/2019	[redacted]	6/5/2019
7/5/2018		Rust: U bracket for DVL is rusting	[redacted]	No	Closed	Bolt replaced	[redacted]	3/2/2019	[redacted]	3/5/2019
7/5/2018		Starboard drop weight actuator fill port came off	[redacted]	No	Closed	new assembly installed	[redacted]	10/3/2018		
7/5/2018		Thruster mounts inconsistent some riv nut some hat nut	[redacted]	No	Closed	Replaced all hat nuts with new design that enables them to be bolted in place so they can not rotate or fall out - RIV nuts are installed in the steel horizontal beam. New retained hat nuts are installed in the fiberglass fairings. This is as per the design.	[redacted]	4/26/2021	[redacted]	4/26/2021
7/6/2018		thruster hat nut expoxy failed and spin and fall off	[redacted]	No	Closed	CRB - Replaced all hat nuts with new design that enables them to be bolted in place so they can not rotate or fall out	[redacted]	4/26/2021	[redacted]	4/26/2021
7/10/2018		Service shop dome dolly device	[redacted]	No	Closed	Greased and ran full stroke of jack, installed new rolllers	[redacted]	7/16/2018	Stockton Rush	7/16/2018
7/10/2018	C2_0027	Sonar Inop/uninstalled	Stockton Rush	No	Closed	Sonar installed in Everett, found faulty ethernet connection	[redacted]	7/23/2019		
7/15/2018		Shaft of drop weight actuator not retained into mechanism	[redacted]	No	Closed	new assembly installed	[redacted]	10/3/2018		
7/16/2018		Drop weight water instrusion into boxes hard to detect	[redacted]	No	Closed	new assembly installed	[redacted]	10/3/2018		
7/17/2018	C2_0027	Dropwieghts inop	Stockton Rush	Yes	Closed	New rotary system installed and tested	[redacted]	10/1/2018	Stockton Rush	10/7/2018
7/17/2018	C2_0027	VBT not hooked up	Stockton Rush	Yes	Closed					
7/17/2018		Ferrous self tighting straps inop.	[redacted]	No	Closed	[TN] No defect.				
7/17/2018		Port drop weight actuator set crew came sheared off	[redacted]	No	Closed	Removed damaged part, replaced set screw	[redacted]	7/18/2018	[redacted]	7/18/2018
7/17/2018		Port Thruster pod has drill/thread anomaly	[redacted]	No	Closed	Using glass spheres				
7/18/2018		Rust: Ferrous JIC bulkheads on Pods rusting	[redacted]	No	Closed	Using glass spheres				
7/19/2018	C2_0026	Platform outriggers filled with water	Stockton Rush	No	Closed	Drilled holes to drain - should get filled with more foam	[redacted]	7/30/2018	[redacted]	7/30/2018
7/23/2018	C2_0027	Thruster pressure comp systems leaking	Stockton Rush	No	Closed	New pressure comp system installed with barbed fittings	[redacted]	10/1/2018	Stockton Rush	10/6/2018
7/29/2018	C2_0027	ATM inconsistent	[redacted]	No	Closed	Engineering to evaluate	[redacted]	6/30/2018	[redacted]	6/30/2018
7/30/2018	C2_0033	Control computer loose in rack	[redacted]	Yes	Closed	New mount installed	[redacted]	11/9/2018	[redacted]	11/8/2018
7/30/2018	C2_0027	Forward and rear Axis camera offline	Stockton Rush	Yes	Closed	Cameras rerouted to separate junction box	[redacted]	10/1/2018	Stockton Rush	10/3/2018
7/30/2018		Platform buoyancy recheck (outriggers removed)	[redacted]	Yes	Closed	Completed on dive C2_0031 new target wieght is 1304	Stockton Rush	10/7/2018	[redacted]	10/7/2018

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7/30/2018	C2_0027	Port emergency O2 tank empty - others need top off	Stockton Rush	Yes	Closed	Filled				
7/30/2018	C2_0027	Port forward Bennett slow	[redacted]	Yes	Closed	Lubricated bennett	[redacted]	10/2/2018	[redacted]	10/2/2018
7/30/2018	C2_0027	Port Ictineu BMS offline	Stockton Rush	Yes	Closed	Repaired by Ictineu	[redacted]	2/13/2019	[redacted]	2/13/2019
7/30/2018	C2_0027	Port Thrusters pod inop	[redacted]	Yes	Closed	Horizontal thruster moved to starbord pod. Vertical thrusters will be inop with port off offline. OK for testing	[redacted]	10/6/2018	[redacted]	10/6/2018
7/30/2018	C2_0033	Incident Report - Broken rear dead sub recovery eyelet	[redacted]	No	Closed	Incident report complete - awaiting red flag implementation and checklist modification	Stockton Rush	10/31/2018	[redacted]	10/31/2018
7/30/2018		Port computer monitor dislodged	Stockton Rush	No	Closed	Screwed into insert	Stockton Rush	11/8/2018	[redacted]	11/8/2018
7/30/2018	C2_0027	Sub C 4K camera offline	Stockton Rush	No	Closed	Installed and tested. Pin outs had changed fromprototype unit	[redacted]	4/10/2019	[redacted]	4/10/2019
8/30/2018		Dome dolly balls have siezed	[redacted]	Yes	Closed	Installed balls with zerk fittings	[redacted]	10/3/2018	[redacted]	10/3/2018
8/30/2018	C2_0033	VBT seems to not provide usual lift need visual inspection to ensure no bends or folds in bag	Stockton Rush	Yes	Closed	Inserts found to have moved. Realigned so bag can be full	Stockton Rush	11/9/2018	[redacted]	11/9/2018
10/7/2018	C2_0033	Belly cam when flat grey below 300m others just black	Stockton Rush	No	Closed	Cables changed molded from oil filled	[redacted]	11/1/2018	[redacted]	11/1/2018
10/7/2018		Second BMS on port pod is not able to be addresssed	Stockton Rush	No	Closed	Reset plugs	[redacted]	10/15/2019	[redacted]	10/15/2019
10/10/2018	C2_0033	ATM would not recive below 200m	Stockton Rush	Yes	Closed	Noise associated with Thrusters. Will need to try without thrusters enabled	[redacted]	11/1/2018	[redacted]	11/1/2018
10/10/2018	C2_0033	Bluetooth to PS3 controller has short range	Stockton Rush	No	Closed	BT extender installed	[redacted]	11/1/2018	[redacted]	11/1/2018
10/10/2018	C2_0033	Incident Report: Engineering SAT phone flooded during Op.	[redacted]	No	Closed	Replace SAT phone as needed	[redacted]	4/26/2021	[redacted]	4/26/2021
10/10/2018	C2_0033	Lower RTM Board inop	Stockton Rush	No	Closed	Reinstalled connectors				
10/10/2018	C2_0033	No contact with stbd Ictineu BMS at end of dive	Stockton Rush	No	Closed	See prior reference				
10/10/2018	C2_0033	Rear Fairing Loose	Stockton Rush	No	Closed		[redacted]	10/12/2019	[redacted]	10/12/2019
10/11/2018	C2_0033	CB Inop in waves	Stockton Rush	Yes	Closed	New CB mount 18" above water should protect ground plane	[redacted]	11/8/2018	[redacted]	11/8/2018
10/11/2018	C2_0033	DAT lost tracking of sub during 500m dive.	[redacted]	Yes	Closed	Assumed due to sub noise that also effected communications	[redacted]	11/8/2018	[redacted]	11/8/2018
10/11/2018	C2_0033	Dropweight motors may have broken gear (port & stbd)	[redacted]	Yes	Closed	New dropwieghts mechanism with flexible interconnecting shaft installed and tested	[redacted]	11/8/2018	[redacted]	11/8/2018
10/11/2018	C2_0036	Phins went offline after surfacing	Stockton Rush	Yes	Closed	Cable from phins to sub found to have corrosion due to poor supplier workmanship. New cable fabricated and installed.	[redacted]	12/1/2018	[redacted]	12/1/2018
10/11/2018	C2_0033	Platform control lines slip out of the interface coupler.	[redacted]	Yes	Closed	New permanent couplers installed and better strain relief added	[redacted]	11/1/2018	[redacted]	11/1/2018
10/11/2018		Potential HPA leak	Stockton Rush	Yes	Closed	Installed new external "T" fitting	[redacted]	11/12/2018	[redacted]	11/12/2018
10/11/2018	C2_0033	All 4 LED lights inop below 100m	Stockton Rush	No	Closed	Cables changed molded from oil filled	[redacted]	11/1/2018	[redacted]	11/1/2018
10/11/2018	C2_0033	Broken pressure comp indicator on port aft comp	Stockton Rush	No	Closed	Replaced indicator	[redacted]	3/4/2019	Stockton Rush	3/6/2019
10/11/2018	C2_0038	Computers and other blades slide back and forth approx. 1" in swells	Stockton Rush	No	Closed	Redesigned interior and eliminated blade concept so problem no longer exists	Stockton Rush	12/9/2018	[redacted]	4/26/2021
10/12/2018	C2_0036	CB Antenna mount bent	Stockton Rush	Yes	Closed	Repaired and moved to aft GPS mount	[redacted]	12/4/2018	[redacted]	12/4/2018
10/12/2018	C2_0034									
10/13/2018		Slow leak on J Box at Birns connector fitting	Stockton Rush	No	Closed	Fixed with silitex on Birns connector at J - Box	Stockton Rush	3/1/2018	[redacted]	3/1/2018
10/13/2018	C2_0037	Titan Assistant window can not be launched independently	Stockton Rush	No	Closed	Software changed to allow launch from Titan diagnosis	[redacted]	12/6/2018	Stockton Rush	
11/10/2018		November retrofit for manned 4km qual dives	[redacted]	Yes	Closed		[redacted]	11/11/2018	[redacted]	11/11/2018
11/10/2018	C2_0037	Pressure Comp for Jbox low, water and air in lines	Stockton Rush	Yes	Closed	Water drain system filled (took approx 2 pints of oil)	Stockton Rush	12/6/2018		
11/11/2018	C2_0034	CB Antenna damaged and on its side w/o dive flag	Stockton Rush	Yes	Closed					
11/14/2018	C2_0039	Approx. 1 quart of saltwater in cabin at end of dive	Stockton Rush	Yes	Closed	Checklist adjusted to have pressure check of vaccum line				
11/14/2018	C2_0034	CO2 scubber plug inop	Stockton Rush	Yes	Closed					
11/14/2018	C2_0034	No ATM working below 200m	Stockton Rush	Yes	Closed					
11/14/2018	C2_0034	No tracking	[redacted]	Yes	Closed					
11/14/2018	C2_0034	Only 3 drop wieghts could be dumped - rest seemd dragged	Stockton Rush	Yes	Closed					
11/14/2018	C2_0034	Phins went offline after showing power failure warning	Stockton Rush	Yes	Closed					
11/14/2018	C2_0034	Stbd Thruster fairing damaged thrust reduced by 50%	[redacted]	Yes	Closed					
11/14/2018	C2_0037	Time on computers does not match	Stockton Rush	No	Closed	Correct time loaded	[redacted]	12/6/2018	Stockton Rush	
11/14/2018										
12/5/2018		RTM: channels need to be put in the correct locations	[redacted]	Yes	Closed		[redacted]	2/13/2019	[redacted]	2/13/2019
12/5/2018	C2_0039	Multiple fairing attach countersunk head bolts are pulling through/wearing out holes	Stockton Rush	No	Closed	Currently we are not addressing this. It is not dive critical	[redacted]	4/26/2021	[redacted]	4/26/2021
12/5/2018	C2_0038	UTC time not on control computer	Stockton Rush	No	Closed	Clock fixed	[redacted]	12/9/2018	Stockton Rush	12/10/2018
12/7/2018	C2_0038	Lights go out when port drop wt activated	Stockton Rush	No	Closed	Unable to duplicate	Stockton Rush	12/10/2018		
12/7/2018	C2_0038	No depth from CTD	Stockton Rush	No	Closed	Batteries replaced - appears not getting power from Phins	[redacted]	12/9/2018	[redacted]	12/9/2018
12/7/2018	C2_0038	Port Horizontal Thruster bent	Stockton Rush	No	Closed	Replaced by Pete	[redacted]	12/8/2018	Stockton Rush	12/8/2018
12/7/2018	C2_0038	Port Vertical Thruster bent	Stockton Rush	No	Closed	Replaced by Pete	[redacted]	12/8/2018	Stockton Rush	12/8/2018
12/7/2018		RTM: wiring bundles have been unraveld.	[redacted]	No	Closed	When redone, the bends need to be not so sharp.	[redacted]	7/22/2019	[redacted]	7/22/2019
12/7/2018	C2_0038	Stdb Vertical Thruster bent	Stockton Rush	No	Closed	Replaced by [redacted]	[redacted]	12/8/2018	Stockton Rush	12/8/2018
12/7/2018		Zerk fitting on dome jack sheared off	[redacted]	No	Closed	Fitting replaced				

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12/10/2018		Batteries have lunged fwd	[redacted]	Yes	Closed	Installed 3/8 alumimium bar and made 2x4 cross brace to stop fwd motion once dome is closed	Stockton Rush	3/11/2019	[redacted]	3/12/2019
12/10/2018		FWD water alarm sensor removed	[redacted]	No	Closed	No water sensors are currenly installed or designed into Titan	[redacted]	4/26/2021	[redacted]	4/26/2021
12/12/2018		Dome dampener leaks	[redacted]	Yes	Closed	Replaced hose with ard line and filled with carnation oil	[redacted]	3/8/2019	Stockton Rush	3/8/2019
12/12/2018		Port vertical thruster missing comp line	[redacted]	Yes	Closed	Install new fittings and fill line				
12/12/2018		Removed Axis hub	[redacted]	Yes	Closed	Reinstalled	[redacted]	2/13/2019	[redacted]	2/13/2019
12/12/2018		Removed CTD	[redacted]	Yes	Closed		[redacted]	3/11/2019	Stockton Rush	3/11/2019
12/12/2018		Removed external hard drive	[redacted]	Yes	Closed		[redacted]	2/13/2019	[redacted]	2/13/2019
12/12/2018		Removed PHINS	[redacted]	Yes	Closed		[redacted]	2/13/2019	[redacted]	2/13/2019
12/12/2018		Removed port and stbd thruster control pods	[redacted]	Yes	Closed	Removed and replaced with glass pods	[redacted]	3/1/2019	[redacted]	3/1/2019
12/12/2018		Replace vertical bolt in aft horizontal cross member	[redacted]	Yes	Closed	All 4 support bolts replaced, all showed bending. Check all bolts after each dive.				
12/12/2018		Enerpac assembly rusting out for drop weight system	[redacted]	No	Closed	Designed new cylinders for drop weights to replace the cylinders made from steel that had been used on Titan and were rusting	[redacted]	4/26/2021	[redacted]	4/26/2021
12/12/2018		Remove viewport displacement instruments	[redacted]	No	Closed					
12/12/2018		Removed 4K camera	[redacted]	No	Closed	Camera was removed, trobleshot, and re-installed - tested and now working	[redacted]	4/10/2019	Stockton Rush	4/10/2019
12/12/2018		Vbt motor assembly runs too slowly (5 minutes to raise/lower)	[redacted]	No	Closed	Installed new motor into system	[redacted]	3/15/2019	Stockton Rush	3/15/2019
12/12/2018		Wiring in aft dome need cleanup and routing	[redacted]	No	Closed		[redacted]	7/22/2019	[redacted]	7/22/2019
2/26/2019		Port vertical making noise and inop	[redacted]	Yes	Closed	Swapped port vert. thruster can with spare. Found broken connector in signal wiring harness and replaced cable.	[redacted]	3/1/2019	[redacted]	3/1/2019
3/1/2019	C2_0042	PS3 controller dropped out after 1-2 minutes	Stockton Rush	Yes	Closed	Recharged PS3	[redacted]	3/13/2019	Stockton Rush	3/14/2019
3/1/2019		Removed Syntactic foam above Ictineu	[redacted]	Yes	Closed	Reinstall if needed	[redacted]			
3/1/2019	C2_0041	Reserve o2 bottle removed for faulty OPV	[redacted]	Yes	Closed	Tank removed more than 72 hours with 3 tanks	[redacted]	3/10/2019	[redacted]	3/10/2019
3/1/2019	C2_0042	Adhesive residue on dome sealing face at 4 o'clock	Stockton Rush	No	Closed	Adhesive was removed	Stockton Rush	4/9/2019	Stockton Rush	4/9/2019
3/1/2019	C2_0043	CTD reads -8 meter when on surface	Stockton Rush	No	Closed	CTD removed from sub and sent back to teledyne	[redacted]	7/22/2019	[redacted]	7/22/2019
3/1/2019		Fwd dome hinge bolts rusting out and bolts all loose	[redacted]	No	Closed	Tightened, Ospho and paint				
3/1/2019		Ictineu batteries need oil filled	[redacted]	No	Closed	Filled still need pressure comp for deep dives	[redacted]	3/6/2019	Stockton Rush	3/6/2019
3/1/2019		Internal floor bowed forward	[redacted]	No	Closed	Pushed floor back, made brace and bracket to secure floor on dives	[redacted]	3/8/2019	Stockton Rush	3/12/2019
3/1/2019	C2_0042	Low pressure tanks shifted in saddles	Stockton Rush	No	Closed	Loosen and straighten then tighten	[redacted]	3/25/2019	[redacted]	3/25/2019
3/1/2019		Tools missing from sub and sub kit	[redacted]	No	Closed	Kit in 4th O2 Tank position				
3/3/2019	C2_0043	Controller software and assistant windows shutdown without command on surface. Coincided with reduced video update on cameras.	[redacted]	Yes	Closed	Could not duplicate - assumed pilot accidental closure	[redacted]	3/14/2019	Stockton Rush	3/14/2019
3/12/2019	C2_0042	Port horizontal thrusterPVC loose	[redacted]	Yes	Closed	Tighten				
3/12/2019	C2_0044	Upper AE board off mounts and hanging from wires	Stockton Rush	Yes	Closed	Mount in original position	[redacted]	3/20/2019	[redacted]	3/20/2019
3/12/2019	C2_0042	Air in J Box	Stockton Rush	No	Closed	Removed excess pressure comp lines to sub port pressure comp, filled J box with oil small leak at fitting still present replace with vinyl system when able.	See prior repair data			
3/12/2019	C2_0042	CTD slipped off single band clamp	Stockton Rush	No	Closed	Moved and used double bands	[redacted]	4/9/2019	Stockton Rush	4/9/2018
3/12/2019	C2_0044	Ictinue BMS could not be accessed by program	Stockton Rush	No	Closed	See later squawk, Ictinues have been disassembled and reassembled since this point and are currently working	[redacted]	4/26/2021	[redacted]	4/26/2021
3/12/2019	C2_0042	Lights in overhead handles inop	Stockton Rush	No	Closed	Butt splice found disconnected in aft bay	[redacted]	4/9/2019	Stockton Rush	4/10/2019
3/12/2019	C2_0042	Need greater airflow in cabin from aft bay to forward to help with CO2 scrubbing	Stockton Rush	No	Closed	Larger fans installed	[redacted]	4/11/2019	Stockton Rush	4/12/2019
3/12/2019	C2_0043	Phins mag heading over 180 deg out of true	[redacted]	No	Closed	Phins rotated 180 degrees	[redacted]	3/16/2019	Stockton Rush	3/16/2019
3/14/2019	C2_0044	ATM could receive topside, heard transmissions from sub, but no reception by topside	Stockton Rush	Yes	Closed	Evidence of pin pushed to wrong hole. Tested on dunk works OK, cable needs lockingcollars	[redacted]	4/12/2019	[redacted]	4/12/2019
3/14/2019	C2_0043	CO2 display not working	Stockton Rush	No	Closed	Software fixed	[redacted]	4/12/2019	Stockton Rush	4/12/2019
3/14/2019	C2_0044	Forward upper camera went black (no signal) at surface came back after passing through 50m	Stockton Rush	No	Closed	Clean cable connections	[redacted]	3/25/2019	[redacted]	3/25/2019
3/14/2019	C2_0044	Need CB thru hole and mic holder	[redacted]	No	Closed	Got wireless CB microphone and transmitter so no longer need hold in back wall for CB passthough	[redacted]	4/26/2021	[redacted]	4/26/2021
3/16/2019	C2_0044	Fairings need to be installed	[redacted]	Yes	Closed	Install upper and lower aft fairings	[redacted]	3/18/2019	[redacted]	3/18/2019
3/16/2019	C2_0044	J Box leaking from fill fittings	Stockton Rush	Yes	Closed		[redacted]	4/12/2019	[redacted]	4/12/2019
3/16/2019	C2_0044	Need new Ictinue Pressure comp w Ictinue oil	Stockton Rush	Yes	Closed	Added comp with green Ictinue fluid	[redacted]	4/11/2019	Stockton Rush	4/11/2019
3/16/2019	C2_0044	Need to install sonar / pan tilt	[redacted]	Yes	Closed	Find hardware and mount to install (see notes)	[redacted]	3/25/2019	[redacted]	3/25/2019
3/16/2019	C2_0044	Starboard vertical thruster needs three drain holes in nose cone	Stockton Rush	Yes	Closed	Drill holes	[redacted]	3/25/2019	[redacted]	3/25/2019
3/16/2019	C2_0044	VBT seems to not provide usual lift need visual inspection to ensure no bends or folds in bag	Stockton Rush	Yes	Closed	VBT reinforcements found to havce been moved. Reinstalled with cross braces to stop movement	[redacted]	4/2/2019	[redacted]	4/2/2019

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3/16/2019	C2_0044	Analox alarm reset to 1% CO2	Stockton Rush	No	Closed	Reset alarm limit low 1.0% medium 1.5% high 3%	[redacted]	4/9/2019	Stockton Rush	4/10/2019
3/16/2019	C2_0044	Anodes on cage need cleaning	[redacted]	No	Closed	Remove and wire wheel, Grease bolts and reinstall	[redacted]	3/21/2019	[redacted]	3/21/2019
3/16/2019	C2_0044	Dome dampner needs 1/4 turn valve for better fluid control.	[redacted]	No	Closed	Replace needle valve with 1/4 turn stainless.	[redacted]	3/25/2019	[redacted]	3/25/2019
3/16/2019	C2_0044	Interior lighted handles inop	Stockton Rush	No	Closed	Found internal butt splice in aft bay loose	[redacted]	4/7/2019	Stockton Rush	4/9/2019
3/16/2019	C2_0044	PS3 controller dropped out twice and required program reset	Stockton Rush	No	Closed	Software time out changed check on next dive	[redacted]	4/12/2019		
3/18/2019	C2_0044	Need rebreathers from shop (old Antipodes and or 02 reserve manifold)	[redacted]	Yes	Closed	Taken care of by using existing O2 and cannula				
3/18/2019	C2_0044	Spheres need to be oil filled (See Comments)	[redacted]	Yes	Closed	Filled spheres Port red, stbd blue.	[redacted]	4/11/2019	[redacted]	4/11/2019
3/18/2019	C2_0044	Fwd Hemisphere needs floor cut out for comfort and stability	[redacted]	No	Closed	Fabricate cut out for feet	[redacted]	4/2/2019	Stockton Rush	4/12/2019
3/18/2019	C2_0044	Phins mounting hardware rusty.(80/20)	[redacted]	No	Closed	Replace 80/20 nuts with new. Phins unit sent back to manufacture since it was on lone and is no longer a part of Titan build	[redacted]	4/26/2021	[redacted]	4/26/2021
3/18/2019	C2_0044	Scrubber tray needs new screen	[redacted]	No	Closed	Cut out old screen and replace with new	[redacted]	3/21/21019	[redacted]	3/21/2019
3/18/2019		Strobe missing	[redacted]	No	Closed	Strobe now aquired / purchased	[redacted]	7/22/2019	[redacted]	7/22/2019
3/19/2019		Both drop wieght boxes leaking	[redacted]	Yes	Closed	Cracks found in plastic cases, one glued other replaced filled with oil and installed	[redacted]	4/12/2019	[redacted]	4/12/2019
3/19/2019	C2_0046	VBT level indicator not working - no change full or empty	Stockton Rush	No	Closed	Old VBT level indicator hardware removed from sub and not replaced.	[redacted]	4/26/2021	[redacted]	4/26/2021
3/21/2019	C2_0046	Lost tracking	Stockton Rush	Yes	Closed	Transduced caught in surface ship prop and sevred when to bottom. Replacement unit acquired and installed on sub and support vessel	[redacted]	4/17/2019	[redacted]	4/17/2019
3/21/2019	C2_0044	Dome hinge bolts need to be pulled and inspected (one was loose and all rest rusty)	[redacted]	No	Closed		[redacted]	4/11/2019		
3/21/2019		Need spacers for thruster cable strain relief	[redacted]	No	Closed	3D printed longer ones and installed	[redacted]	4/8/2019	Stockton Rush	4/9/2019
3/21/2019		Penny zincs need servicing	[redacted]	No	Closed	Serviced by brushing surfaces	[redacted]	4/10/2019	Stockton Rush	4/10/2019
4/1/2019	C2_0045	VBT binding and will not move	Stockton Rush	Yes	Closed	Cable was not installed properly and wieght on end of tube was too heavy. Cable rerouted, wieght removed so just plastic tube. Tested OK	Stockton Rush	4/13/2019	[redacted]	4/13/2019
4/1/2019	C2_0045	laser scanner inop	[redacted]	No	Closed	Cable on unit found to have moved about 3mm out. Reseated tested OK	[redacted]	4/12/2019		
4/8/2019	C2_0046	Control program crashed - keyboard/mouse might have been touched	Stockton Rush	Yes	Closed	"are you sure" added to eliminate accidental closure of program	[redacted]	4/16/2019	Stockton Rush	4/17/2019
4/10/2019	C2_0046	Incident report - Tracking transducer lost		No	Closed		[redacted]			
4/12/2019	C2_0045	Iridium satelitte not communicating	[redacted]	Yes	Closed	Changed Batteries	[redacted]	4/14/2019	Stockton Rush	4/14/2019
4/12/2019	C2_0047	Lower AE board failed on ascent	Stockton Rush	Yes	Closed					
4/12/2019		Rust: Winches holding tanks on platfrom are rusting	[redacted]	No	Closed	Replace with new	[redacted]	6/5/2019	[redacted]	6/5/2019
4/14/2019		Starboard vertical thruster has nick on a blade and low oil	Stockton Rush	Yes	Closed	Nick OK for ops. Replaced leaking kent shutoff connector and filled with red oil	Stockton Rush	5/21/2018	[redacted]	5/21/2018
4/14/2019	C2_0047	Vertical lctinue (=port/aft?) BMS could not be accessed	Stockton Rush	Yes	Closed					
4/14/2019	C2_0047	Aft fairing need mounting hardware and spacers fairning moves too much (3+in)when submerged	[redacted]	No	Closed	Redesigned aft fairing sub structure and mounts. New design can be found in Onshape. Per discussion with Stockton on 4/27/2021 - We will move forward with just the horizontal parts of the fairing mounts and see how that does. This decsion was based on reducing the cost of the overall aft fairing structure - UPDATE - Stockton decided not to go with the designed up parts and will try to fab something with Al Palmer at some later date.	[redacted]	4/28/2021	[redacted]	4/28/2021
4/14/2019	C2_0047	Sub seemed to pull to left when moving forward	Stockton Rush	No	Closed	On surface noticed fairing shift 2-3 inches out on port side - likely causing increased drag	[redacted]	6/5/2019	[redacted]	6/5/2019
4/17/2019	C2_0047	ATM and RTM programs shutdown and had to be restarted	Stockton Rush	Yes	Closed	Fixed GTK issue	[redacted]	6/3/2019	[redacted]	6/3/2019
4/17/2019	C2_0047	ATM would not receive data after leaving bottom - coincided with DVL and CTD drop outs. Topside could receive sub transmissions	Stockton Rush	Yes	Closed	Removed CTD that was shorted out and blowing a fuse	[redacted]	6/3/2019	[redacted]	6/3/2019
4/17/2019	C2_0047	Control system uncommanded shutdown	Stockton Rush	Yes	Closed	Fixed timer function in control software	[redacted]	6/3/2019	[redacted]	6/3/2019
4/17/2019	C2_0047	DVL and CTD lost after leaving bottom	Stockton Rush	Yes	Closed	Removed CTD that was shorted out and blowing a fuse	[redacted]	6/3/2019	[redacted]	6/3/2019
4/17/2019	C2_0047	Lights flickered after leaving bottom	Stockton Rush	Yes	Closed	Removed CTD that was shorted out and blowing a fuse	[redacted]	6/3/2019	[redacted]	6/3/2019
4/17/2019	C2_0047	No schematics in Titan	[redacted]	Yes	Closed	Update drawings and fuse locations and add to Titan	[redacted]	5/20/2019		
4/17/2019	C2_0047	PS3 controller timed out and control program had to be reset 3 times to get back online	Stockton Rush	Yes	Closed	Control Program fix for controller function	[redacted]	8/6/2019	[redacted]	8/6/2019

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4/17/2019	C2_0047	Stbd drop wieght motor failed with one wieght left in tray	Stockton Rush	Yes	Closed	Connector found disconnected reconnect and use rescue tape on flat only to reduce probability of disonnect and still allow tray to fall away				
4/17/2019	C2_0047	VBT motor housing have slight water intrusion	[redacted]	Yes	Closed	Drain water and replace or modify shaft pentration	[redacted]	7/19/2019	[redacted]	8/1/2019
4/17/2019	C2_0047	Rhino lining to titanium easily peeled back	[redacted]	No	Closed	Inspect 360 degrees fore and aft for water intrusion and make plan to seal to titanium. Old hull along with its Rhino lining was replaced. New Rhino lining painted on.	[redacted]	4/26/2021	[redacted]	4/26/2021
5/13/2019	C2_0047	Dome dampner shaft seal bad	[redacted]	Yes	Closed	Replace seal/ replace carnation oil with recommended oil	[redacted]	6/6/2019	[redacted]	6/6/2019
5/13/2019		Found hull crack	[redacted]	Yes	Closed	Inspected crack				
5/13/2019	C2_0047	HPA tank clamps extremely loose	[redacted]	Yes	Closed	Make new tank straps	[redacted]	6/5/2019	[redacted]	6/5/2019
5/13/2019	C2_0047	J box removed	[redacted]	Yes	Closed	Get wiring diagram while disconnected for new box/ oil fill/reinstall	[redacted]	5/20/2019		
5/13/2019	C2_0047	No check valve on HPA system	[redacted]	Yes	Closed	Identify location for check and install	[redacted]	6/5/2019	[redacted]	6/5/2019
5/13/2019	C2_0047	Phins cable removed	[redacted]	Yes	Closed	Meg. Cable/ rewire cable/ install	[redacted]	5/20/2019		
5/13/2019	C2_0047	Platform fwd docking U channel welds cracked	[redacted]	Yes	Closed	Ground off old welds and weld new with bracing	[redacted]	6/3/2019	[redacted]	6/4/2019
5/13/2019	C2_0047	Port aft axis/hydraulic penetrator removed	[redacted]	Yes	Closed	Install new multi pen.	[redacted]	5/15/2019	[redacted]	5/15/2019
5/13/2019	C2_0047	Wiring in aft hemisphere need strain relief/ proper cable routing	[redacted]	Yes	Closed	Organize wiring nicely	[redacted]	7/18/2019	[redacted]	7/19/2019
5/13/2019		Insert sliding forward	[redacted]	No	Closed	Added welded mounts into rear dome and design entrely new substructure to attach the insert to the aft from welded plates. Also added a forward floor that would also stop the insert from sliding but this should never be needed for that purpose	[redacted]	4/26/2021	[redacted]	4/26/2021
5/13/2019	C2_0047	Strobe uninstalled	[redacted]	No	Closed	Strobe reinstalled and ready for testing in the water	[redacted]	4/26/2021	[redacted]	4/26/2021
5/14/2019	C2_0003	Hull insert shifted forward	[redacted]	Yes	Closed	Repositioned and installed 4 threaded inserts and bolts	[redacted]	2/9/2018	Stockton Rush	2/12/2018
5/29/2019		Crack seen on inside of main pressure vessel at 0900 clock position	[redacted]	Yes	Closed					
6/5/2019		Broken LEDs on LED strips	[redacted]	Yes	Closed	Replaced LED strips	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Cut away part of insert to expose hull crack	[redacted]	Yes	Closed	fiberglassed panel in insert installed				
6/5/2019	C2_0047	DVL removed	[redacted]	Yes	Closed	Reinstalled DVL	[redacted]	7/12/2019	[redacted]	7/12/2019
6/5/2019	C2_0047	J-box oil level low	[redacted]	Yes	Closed	J-box is filled, has one bubble but should be ok for shallow diving	[redacted]	7/29/2019	[redacted]	7/31/2019
6/5/2019		Remove DVL for travel	[redacted]	Yes	Closed	Reinstalled DVL	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Remove sonar for travel	[redacted]	Yes	Closed	Reinstalled sonar	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Remove thrusters for travel	[redacted]	Yes	Closed	Reinstalled thrusters	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Removed 2G laser for travel	[redacted]	Yes	Closed	Reinstalled 2G Laser	[redacted]	7/18/2019		
6/5/2019		Removed CB for travel	[redacted]	Yes	Closed	Reinstalled CB	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Removed GPS for travel	[redacted]	Yes	Closed	Reinstalled GPS	[redacted]	7/18/2019	[redacted]	7/18/2019
6/5/2019		Removed lights for travel	[redacted]	Yes	Closed	Reinstalled lights	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Disconnected circulation fans	[redacted]	Yes	Closed	Installed connectors on fans and reinstalled in sub	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Disconnected interior light wiring	[redacted]	Yes	Closed	Installed connectors on interior wiring and connected	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Extent of crack needs more analysis	[redacted]	Yes	Closed	Ground / fethered crack	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Inspected hull crack	[redacted]	Yes	Closed	Inspected by Boeing rep and manufacture	[redacted]	7/18/2019	Stockton Rush	7/18/2019
6/12/2019		Interior handles coming loose	[redacted]	Yes	Closed	Through bolted interior light handles	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Platform stbd fwd check valve union bent	[redacted]	Yes	Closed	Replaced union for check valve	[redacted]	7/12/2019		
6/12/2019		Ram mounts falling off	[redacted]	Yes	Closed	Through bolted RAM mounts to insert	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Removed floor from sub	[redacted]	Yes	Closed	Reinstalled floor	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Removed insert	[redacted]	Yes	Closed	Reinstalled insert in sub	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Removed internal batteries from sub	[redacted]	Yes	Closed	Reinstalled battery system	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Removed Monitors from sub	[redacted]	Yes	Closed	Reinstalled monitors in sub	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019		Removed O2 bottles from sub	[redacted]	Yes	Closed	Reinstalled O2 system / Charged O2	[redacted]	7/18/2019	[redacted]	7/18/2019
6/12/2019	NA	Install replacement vertical fairing previously ripped off at sea	[redacted]	No	Closed	Installation required by 8/5/2019	[redacted]	8/5/2019	[redacted]	8/5/2019
6/12/2019	C2_0047	Pan and tilt not functional	Stockton Rush	No	Closed	Sent to manufacture under RMA number. Pan and Tilt returned, installed and tested	[redacted]	4/26/2021	[redacted]	4/26/2021
7/7/2019		Sonar not working	[redacted]	No	Closed	Replaced ethernet cable, resolved problem	[redacted]	7/23/2019	[redacted]	7/23/2019
7/12/2019	NA	Starboard drop weight motor not working	[redacted]	Yes	Closed	Reinstalled drop weight motor and filled oil in housing	[redacted]	7/29/2019	[redacted]	7/31/2019
7/22/2019		Fairings need to be installed and mounting system for fairings needs tuning	[redacted]	No	Closed	Designed new fairing mounting substructure. Latest drawings are in Onshape and parts are out for quoting. UPDATE - Stockton decided not to go with the designed up parts and will try to fab something with Al Palmer at some later date.	[redacted]	4/28/2021	[redacted]	4/28/2021

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7/23/2019	NA	Depth value not coming from PHINS	[redacted]	No	Closed	Removed PHINS and sent back to MFG since it was on loan	[redacted]	4/26/2021	[redacted]	4/26/2021
7/23/2019		Titan autostart scripts need to be installed	[redacted]	No	Closed	Autoscripts installed	[redacted]	7/25/2019	[redacted]	7/25/2019
7/24/2019		Dome dampner quarter turn handle is missing	[redacted]	Yes	Closed					
7/25/2019	NA	Control computer sceen worked intermittantly	[redacted]	No	Closed	Micro USB connector is damaged (CRB) - Replaced both screens in Titan with new touch screens	[redacted]	4/26/2021	[redacted]	4/26/2021
7/26/2019	NA	Axis home program not starting up when clicking icon	[redacted]	Yes	Closed	found that we were not connected to the correct network	[redacted]	8/5/2019	[redacted]	8/5/2019
7/26/2019	NA	Birns connetor oil filled hose in routed outside frame of submersible	[redacted]	Yes	Closed	Rounted inside of frame	[redacted]	7/29/2019	[redacted]	7/30/2019
7/26/2019	NA	Blow valve handle is missing	[redacted]	Yes	Closed	Blow knob put back on valve	[redacted]	7/31/2019	[redacted]	7/31/2019
7/26/2019	NA	Cables near VBT are messy and not secured in place	[redacted]	Yes	Closed	Cleaned up cables in area best possible	[redacted]	7/29/2019	[redacted]	7/30/2019
7/26/2019	NA	Connector pins open to sea on subsea laser	[redacted]	Yes	Closed	Put dummy plug in open connector	[redacted]	7/29/2019	[redacted]	7/30/2019
7/26/2019	NA	Day bottle holder needs installation	[redacted]	Yes	Closed	Holder installed	[redacted]	7/26/2019	[redacted]	7/26/2019
7/26/2019	NA	Emergency equipment is loose	[redacted]	Yes	Closed	Talk with Kenny about this	[redacted]	8/5/2019	[redacted]	8/5/2019
7/26/2019	NA	Emergency equipment not in submersible	[redacted]	Yes	Closed	Equipment put in sub	[redacted]	7/26/2019	[redacted]	7/26/2019
7/26/2019	NA	Lifting straps on hull not stowed or secure	[redacted]	Yes	Closed	Straps secured with cable ties and 550 cord	[redacted]	7/29/2019	[redacted]	7/30/2019
7/26/2019	NA	O2 Sensor requires installation	[redacted]	Yes	Closed	O2 Sensor Installed	[redacted]	7/26/2019	[redacted]	7/26/2019
7/26/2019	NA	Pilot monitors sitting loosely on floor of sub	[redacted]	Yes	Closed	one mounted complete, locating parts for 2nd mount	[redacted]	8/6/2019	[redacted]	8/6/2019
7/26/2019	NA	Sonar cables on top of sub are loosly routed and need cleanup	[redacted]	Yes	Closed	cleaned up cabling and move extra back to inside faring area	[redacted]	7/29/2019	[redacted]	7/30/2019
7/26/2019	NA	Vacuum pressure in port thruster is low	[redacted]	Yes	Closed	Thruster pods are filled with oil and therefore pressue sensor inside thruster pod may be accurate. No oil is seen on the floor of platform. Current pressure reading in POD is Port = 75kpa, starboard = 39kpa. These should be monitored for changes	[redacted]	7/31/2019	[redacted]	7/31/2019
7/26/2019	NA	VBT motor sounds like its binding when running	[redacted]	Yes	Closed	Found tygon hose against VBT line, tied back tygon	[redacted]	7/31/2019	[redacted]	7/31/2019
7/26/2019	NA	Vertical thruster fairings hanging loosely on hull	[redacted]	Yes	Closed	Fairings have been secured on Titan	[redacted]	8/5/2019	[redacted]	8/5/2019
7/26/2019	NA	Video from top camera is upside down	[redacted]	Yes	Closed	Found camera 1 and camera 3 were rotated so top was up. Also went into software and removed rotation from software setting	[redacted]	7/31/2019	[redacted]	7/31/2019
7/26/2019	NA	Lower Light on 2G Arm needs to be connected	[redacted]	No	Closed	2G Lazer has been removed from sub at this time and will be installed at a later date. Extra lights were sent back to 2G as they were loaners	[redacted]	4/26/2021	[redacted]	4/26/2021
7/26/2019	NA	Strain reliefs for thruster cables are missing	[redacted]	No	Closed	Talk with Taran about strain relief since he is working on verticle thruster fairings	[redacted]	8/12/2019	[redacted]	8/12/2019
7/26/2019	NA	Windows Logger inop	[redacted]	No	Closed	Software has been redesign and there is now a data center that logs many different aspects of the software settings and levels	[redacted]	4/26/2021	[redacted]	4/26/2021
7/31/2019	NA	DVR Computer does not connect to PHINS or Sonar	[redacted]	Yes	Closed	Replaced ethernet cable	[redacted]	8/6/2019	[redacted]	8/6/2019
7/31/2019	NA	O2 day bottle not secure	[redacted]	Yes	Closed	O2 bottle saddle was upside down	[redacted]	7/31/2019	[redacted]	7/31/2019
8/5/2019		Aft of sub too heavy and causing downward in the aft attitude of the vehicle	[redacted]	No	Closed	Made floor for addition of floatation in the aft cage of Titan. Will perform dive in marina on platform to get the vehicle trim correct on 4/28/2021	[redacted]	4/28/2021	[redacted]	4/28/2021
8/5/2019	NA	Translation thruster movements reversed	[redacted]	No	Closed	Fixed translation function in Control Program	[redacted]	8/6/2019	[redacted]	8/6/2019
8/6/2019		Rust on Lp tanks	[redacted]	Yes	Closed	Sand and touch up	[redacted]	10/17/2019	[redacted]	10/21/2019
10/16/2019		Growth on hull	[redacted]	Yes	Closed	buff and pressure wash	[redacted]	10/17/2019	[redacted]	10/22/2019
10/16/2019		Viewport contaminated with carbon fiber dust	[redacted]	Yes	Closed	Remove viewport and clean - New viewport purchased and installed	[redacted]	12/13/2019	[redacted]	4/26/2021
12/13/2019		Viewport dropped while removing carbon fiber dust		Yes	Closed	Document damage area, polish where required and add incident report to documentation. - New viewport purchased and installed	[redacted]	4/26/2021	[redacted]	4/26/2021
12/26/2019		Viewport damaged-incident report on dropbox	[redacted]	Yes	Closed	New viewport purchased and installed	[redacted]	4/26/2021	[redacted]	4/26/2021
1/6/2020		Tym valve stuck open	[redacted]	Yes	Closed	Possible debrie from water. Need to service O-rings . Removed all tym valves and added butterfly valves below them so they can be isolated if there are any leaks in the field	[redacted]	4/26/2021	[redacted]	4/26/2021
1/6/2020		Viewport removed for cleaning	[redacted]	Yes	Closed	New viewport purchased and installed	[redacted]	4/26/2021	[redacted]	4/26/2021
2/11/2020		Bowes connector blew out o ring on condensation blow down.	[redacted]	Yes	Closed	Stole o ring from connector in shop. Ordered spares	[redacted]	2/27/2020	[redacted]	2/27/2020
2/27/2020		slippery deck on platform	[redacted]	Yes	Closed	Added grip tape to areas in front of dome				
3/6/2020	C2_0050	Emergency O2 panel needle valves blowing by	[redacted]	Yes	Closed	Tightened nuts around needle valve stem	[redacted]	4/30/2021	[redacted]	4/30/2021
4/27/2021	C2_0050	Two ingot on sub did not have eyes on them for lifting	[redacted]	No	Closed	Installed lifting eyes on both ingot	[redacted]	4/30/2021	[redacted]	4/30/2021

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4/28/2021	C2_0050	Drop Weights got stuck in exit of drop weight carriage and jammed	[redacted]	Yes	Closed	Inspected drop weight tray and found the tray on sub was different then the tray on the iron sub. Tray on sub had weight supports that extended into the exit area of the tray. The stop bar and "mud flap" have reduces the area for the weight to exit the tray and therefore the weights got stuck. Cut back the weight support guides by about an inch to ensure there is enough area for the weights to drop.	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021		Internal batteries needed to be shifted forward but battery cables in aft bay were not long enough	[redacted]	Yes	Closed	Removed old battery cables and reinstalled cables that had been lengthened by about 15 inches	[redacted]	4/28/2021	[redacted]	4/28/2021
4/28/2021	C2_0051	Sonar was was working on surface but stopped working when sub went underwater	Stockton Rush	Yes	Closed	new cable with twisted pair construction		5/4/2021	Stockton Rush	5/4/2021
4/28/2021		Starboard horizontal thurster not working intermitantly	[redacted]	Yes	Closed	Replaced thuster data cable and thruster started working again. Need to monitor this to be sure this is the root cause of the problem	[redacted]	4/28/2021	[redacted]	4/28/2021
4/28/2021	C2_0050	Aluminum panel on platform for dome dolly slid when platform was submerged	Stockton Rush	No	Closed	Tied down plate better with 550 cord	[redacted]	5/1/2021	[redacted]	5/1/2021
4/28/2021	C2_0051	ATM not sending comms automatically every 10 minutes. Per [redacted] this is a software bug	Stockton Rush	No	Closed	Fixed software bug for this in software version 3.0.41.1 but have not installed it in sub yet	[redacted]	5/6/2021	[redacted]	5/6/2021
4/28/2021	C2_0050	Dropping leg mechanism not retacted all the way	[redacted]	No	Closed	There is some binding between the aftmost bushing and pin on the rear mechanism. This is likely being caused by the tail putting weight on the aft plate that has the rear most bushing in it. Long term solution is to open up the busing slightly or support the aft cage weight on the rear dome tab a little better. Short term solution is to tap the mechanism back with a rubber mallet after the pre-dive test.	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Fans on aft wall are blowing in the wrong direction	Stockton Rush	No	Closed	flipped fans over so they blow towards the front of the sub	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Hydraulic needle valves need stickers to show which way they are pointing	Stockton Rush	No	Closed	Put tape with an arrow on it for temporary use	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Internal aft wall camera cable needs routing	Stockton Rush	No	Closed	Route cable on aft wall up around insert	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Joystick needs extenders on thumb controls	Stockton Rush	No	Closed	Printed extenders and put on joystick	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Light cables were not tied down completely	Stockton Rush	No	Closed	Used tie downs to secure light cables	[redacted]	5/1/2021	[redacted]	5/1/2021
4/28/2021	C2_0050	LV cables were in a position where they could be chaffed	Stockton Rush	No	Closed	Put chaffing around cables so they would be protected	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Small air bubbles in data cables on verticle thrusters	Stockton Rush	No	Closed	Removed air bubbles	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0050	Sonar display not pointing in the correct direction	stockton Rush	No	Closed	Rotated base of Pan & Tilt to align front mark	Stockton Rush	4/30/2021	Stockton Rush	4/30/2021
4/28/2021	C2_0050	Strobe on Titan did not work	[redacted]	No	Closed	Removed Strobe for dive. Latter looked at Strobe and realized it was our old non-functioning stobe that had been put on the sub for mockup. Swapped out with working strobe	[redacted]	4/30/2021	[redacted]	4/30/2021
4/28/2021	C2_0034									
5/1/2021	C2_0057	Bellt Axis Camera out	Stockton Rush	Yes	Closed	Replaced external junction box. Existing has suspect bulkhead connector	[redacted]	5/19/2021	Stockton Rush	5/19/2021
5/1/2021	C2_0050	Drop weight are rusty and need grinding to navigate the track successfully	[redacted]	Yes	Closed	Grind and grease drop weights	[redacted]	4/30/2021	[redacted]	4/30/2021
5/1/2021	C2_0052	Thruster locations moved for troubleshooting. IP addresses therefore need to be updated	Stockton Rush	Yes	Closed	Changed IP addresses in Configuration file for correct operation	[redacted]	5/6/2021	[redacted]	5/6/2021
5/1/2021	C2_0051	Axis camera did not come up on the 1st try. Had to use a work around proceedure to get the cameras up and running.	Stockton Rush	No	Closed	This is caused by the belly camera not alway sending data. When this happens you need to unplug all the cameras, plug back in the internal camera and get the system to start up using the internal camera. Then plug the other cameras back in - [redacted] to trouble shoot to try to fix problem				
5/1/2021	C2_0052	Change thruster wiring back to Starboard / Port vs Horizontal / Verticle. This is to help batteries get more consistant use so that we dont end up with one external battery completely drained and the other with lots of charge left in it.	Stockton Rush	No	Closed	Swapped PWR and Data wires on PODs so that verticle and horizontal thruster on Port come off Port POD and verticle and horizontal thruster on STBD come off STBD POD. Written up in CBR - XXXX	[redacted]	4/30/2021	[redacted]	4/30/2021
5/1/2021	C2_0051	Horizontal and vertical thrusters turned at 1000rpm (which seemed low) also the total amperage seemed to add up to 30amps. Need to check Elmo setting to see if we can improve this or if our overall current is limited in software.	Stockton Rush	No	Closed	Bollard test showed 200lbs pull. Suspect measurement error in Ictineu and Elmos	[redacted]	5/18/2021	Stockton Rush	5/18/2021

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5/1/2021	C2_0052	Noticed 4k camera was rebooting intermittently	[redacted]	No	Closed	Problem related to using FreeNFS on Windows 10, problem resolved when switched to Linux NFS (control computer).				
5/1/2021	C2_0052	Scurbber fan needs on / off switch	Stockton Rush	No	Closed	Renamed critial circuit breaker to "Scrubber" and moved other aft fans to lights circuit breaker.	[redacted]	5/6/2021	[redacted]	5/6/2021
5/1/2021	C2_0051	Starboard battery was showing a small current without thrusters running. 0.3 AMPs with nothing running. Thruster on but not running.	Stockton Rush	No	Closed	Non issue sensor calibration	[redacted]	6/27/2021	[redacted]	6/27/2021
5/1/2021	C2_0051	Water speed and ground speed not working well during the dive	Stockton Rush	No	Closed	DVL related see earlier entries	[redacted]	5/20/2021	Stockton Rush	5/20/2021
5/7/2021	C2_0054	Crack in port aft pneumatic line.	[redacted]	Yes	Closed	Replaced damaged lines	[redacted]	5/13/2021	[redacted]	5/14/2021
5/7/2021	C2_0052	4k camera network storage not working consistently.	[redacted]	No	Closed	Changed formate of 4k video compression to H.264 as per request form film crew	[redacted]	5/6/2021		
5/7/2021	C2_0055	Aft fairning mount supports and structure needs aligning	Stockton Rush	No	Closed	Adjusted stbd spring supports, aligned all top "button" fastners and redrilled couping plates for tighter fit.				
5/7/2021	C2_0052	CO2 meter not reading correctly	Stockton Rush	No	Closed	Validated that CO2 was operating and maxed out at 5000ppm (half a percent). Also put handheld CO2 meter in the sub that just came in. Verified CO2 was within about 300ppm of the installed sensor and tracking of CO2 was also similar	[redacted]	5/6/2021		
5/7/2021	C2_0052	Horizontal thruster dropped out serveal times	[redacted]	No	Closed	Swapped horizontal thruster with veritcla thruster on SBRD side of sub to mitiage risk of failure. Cables move along with thruster so this will not help with diagnostics	[redacted]	5/6/2021		
5/7/2021	C2_0052	logging of the CO2 is not working correctly	[redacted]	No	Closed	Made software change to fix logging issue but new software version 3.0.41.1 but have not installed it in sub yet	[redacted]	5/6/2021		
5/7/2021	C2_0052	Network NTP connection is intermittant	[redacted]	No	Closed	Verified that NTP was working at time of check. Need to keep an eye on this	[redacted]	5/6/2021		
5/7/2021	C2_0052	No tablets in sub	[redacted]	No	Closed	Installed tablet in sub and connected it to Axis camera video feed	[redacted]	5/6/2021		
5/7/2021	C2_0055	Port horiz. and Stnd Vertical thrusters failed on submergence. Returned after resetting batteries	Stockton Rush	No	Closed	Diagnosed ground fault running through cases of Maxon motors in VBT and Drop Wt systems. Replace Drop wt with new lower torque motors and VBT with modified Maxon. Tested OK	[redacted]	5/16/2021	[redacted]	5/16/2021
5/13/2021		Software Update - v3.0.41.1	[redacted]	No	Closed	Updated to Version 3.0.41.1 - OC-513 : Drop Weight not stopping correctly OC-528 : Log error when thrusters error out OC-525 : Error messages go to log, not to screen OC-529 : Log battery params OC-530 : Add config value for max thruster current OC-526 :Cleanup program warnings OC-485 : Add subsystem tags to debug messages OC-517 : AE hits stay on screen after clearing OC-524 : CO2 sensor data not alarming OC-507 : Remove decimal places from GLG compass OC-519 : Change default VBT current limit OC-515 : ATM Status messages not auto sending	[redacted] / [redacted]	5/13/2021		
5/14/2021	C2_0054	Leak on exrternal HPA Blow / Vent valve	[redacted]	Yes	Closed	Removed fitting, adjusted collar, reinstalled and tested good.				
5/14/2021	C2_0054	Noted eveness in thruster pod lids	[redacted]	Yes	Closed	buffed surfaces to allow for even install removed parbak rings	[redacted]	7/25/2018	Stockton Rush	7/27/2018
5/14/2021	C2_0057	Belly camera flashing intermittent purple screen	[redacted]	No	Closed	Placed aluminium foil over aft port equipment bay to sheild EMI	[redacted]	7/21/2021	Stockton Rush	7/21/2021
5/14/2021	C2_0050	Control program crashed for no reason	Stockton Rush	No	Closed	Could not duplicate				
5/14/2021	C2_0051	Internal CO2 Sensor tops out at .5%	Stockton Rush	No	Closed	Replaced with new sensor - tested OK				
5/14/2021	C2_0057	Internal penetrators need labels	[redacted]	No	Closed	Labels added				
5/14/2021	C2_0051	When you transmit on the CB the TV goes black but comes back when you stop transmitting	Stockton Rush	No	Closed	Added ferrits to antenna cable, rerouted cable to be clear of other data lines.	[redacted]	5/18/2021	Stockton Rush	5/18/2021
5/18/2021	C2_0054	Drop wieght motors and VBT inop	Stockton Rush	Yes	Closed	Found the motors had short to caselikely due to hermetically sealed motor partially crushing at depth and shorting lead to case. Melted plastic hole in last remaing good motor and installed on VBT. Installed new motors from past designs (that were tested to 4,000m) in drop wieght motors.	[redacted]	5/16/2021	Stockton Rush	5/16/2021

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5/18/2021	C2_0054	Scrubber not keeping up with crew needs	[redacted]	Yes	Closed	Replace scrubber box intake with larger mesh. Replace lid with stronger fan, or double fan.	[redacted]	5/19/2021	Stockton Rush	5/19/2021
5/19/2021	C2_0057	VBT motor jammed	Stockton Rush	Yes	Closed	Found line had two knots and one jammed in a joint. Cut second knot and melted remaining knot so it would not release. Also changed retract mechanism from spring loaded to reverse wind on spool as in previous configuration.	[redacted]	5/19/2021	Stockton Rush	5/19/2021
5/19/2021		Software Update - v3.0.42.1	[redacted]	No	Closed	Updated to Version 3.0.42.1 - OC-532 : Thruster retry, correct CO2 reading OC-537 : Updated External battery thresholds in config file OC-534 : Reverse range on thruster bars on Nav Page OC-523 : Add Conformation Dialog for VBT home button	[redacted] / [redacted]	**5/18/2021**		
5/19/2021		Software update Version 3.0.43.1	[redacted]	No	Closed	Updated to version 3.0.43.1: OC-541 : Update CO2 thresholds in config file OC-538 : Correct Thruster position labels OC-516 : DVL Water speed / Ground speed incorrect				
5/20/2021	C2_0056	Drop weights did not work	[redacted]	Yes	Closed	New motors installed on boxes. Old style motors installed on boxes. Monitor performance.	[redacted]	5/19/2021	Stockton Rush	5/19/2021
5/20/2021	C2_0058	Altitude intermittent on DVL	[redacted]	No	Closed	Duplicate entry see later entry for resolution				
5/20/2021	C2_0058	ATM comms intermittent on bottom with thrusters active.	[redacted]	No	Closed	Installed ATM topside transducer 200 meter extension	[redacted]	6/27/2021	[redacted]	6/27/2021
5/20/2021	C2_0058	Belly camera field of view doesn't see the whole VBT spool.	[redacted]	No	Closed	Adjusted field of view	[redacted]	6/27/2021	Stockton Rush	6/27/2021
5/20/2021	C2_0058	C02 sensor panel is unsecured.	[redacted]	No	Closed	Ziptied to internal support	[redacted]	6/27/2021	[redacted]	6/27/2021
5/20/2021	C2_0058	Port forward pneumatic vent line leaking.	[redacted]	No	Closed	Replaced with new line				
5/20/2021		Software Update Version 3.0.44.1	[redacted]	No	Closed	Updated to version 3.0.44.1: OC-542 : Log Elmo actual current				
5/21/2021		DVL tracking poorly	[redacted]	No	Closed	Correct "EA" parameter in DVL to match physical alignment of transducers. EA set to = 4500 (45 degrees)				
5/24/2021	C2_0056	VBT bag appears to be leaking on surface	[redacted]	yes	Closed	Straightened internal VBT hose supports and lowered donkey tail for more fill ability. Removed spring return on VBT line and re configured 550 cord to spool in and out on same spool.	[redacted]	5/20/2021	[redacted]	5/20/2021
5/24/2021	C2_0058	CO2 meter calibration check	[redacted]	No	Closed	3% canister shows 2.8 %, 100% nitrogen canister shows 0,03%	[redacted]	5/25/2021	[redacted]	5/25/2021
5/24/2021	C2_0058	Software Update v3.0.45.1	[redacted]	No	Closed	Updated software to version 3.0.45.1 - OC-539 : Add heading to atm topside ping OC-548 : Enlarge serial light button on relay page OC-549 : Calculate vertical speed from delta depth OC-550 : Correct VBT direction controls				
5/25/2021	C2_0060	CO2 Scrubber having trouble keeping up with Need (ran at approx 1%)	Stockton Rush	Yes	Closed	Second scrubber and Y splice added	[redacted]	7/1/2021	Stockton Rush	7/2/2021
5/25/2021	C2_0060	VBT motor stopped functioning in fill direction pre-dive	Stockton Rush	Yes	Closed		[redacted]	5/25/2021	Stockton Rush	5/25/2021
5/25/2021	C2_0060	Vertical speed not working	Stockton Rush	No	Closed	Assumed DVL related check on next dive	[redacted]	7/5/2021	Stockton Rush	7/5/2021
6/4/2021		Pre transport checks	[redacted]	Yes	Closed	Reinstall all gear and unpack internal equipment	Team Oceangate	6/27/2021	[redacted]	6/27/2021
6/28/2021		Control keyboard mouse not communicating with computer	[redacted]	Yes	Closed	Moved dongle to control computer from usb hub	[redacted]	6/27/2021	Stockton Rush	6/27/2021
6/28/2021	C2_0060	Control spheres intermittent	[redacted]	Yes	Closed	Open spheres and clean up wiring.Found multiple loose components and reattached. Check all connections and change stbd side thruster feedback bulkhead.	[redacted]	6/1/2021	[redacted]	6/1/2021
6/28/2021		Dome air caster UHMW spacers slid out of position	[redacted]	Yes	Closed	Spacers counter sunk and installed with screws	[redacted]	6/29/2021	[redacted]	6/29/2021
6/28/2021		Internal house battery life at 60 percent roughly	[redacted]	Yes	Closed	Installed new interal 6 volt house batteries.	[redacted]	6/1/2021	[redacted]	6/1/2021
6/28/2021		LP fill line blew during filling	Stockton Rush	Yes	Closed	Replaced line and used metal clamps on all hoses and barbs to stop future failures	[redacted]	6/28/2021	[redacted]	6/28/2021
6/28/2021		No internal bilge water alarms	[redacted]	Yes	Closed	Installed battery powered system with detectors in front and aft	[redacted] H.	7/1/2021	Stockton Rush	7/2/2021

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6/28/2021		4k camera image blown out by location of 4k lighting	[redacted]	no	closed	Moved location of lighting to upper ear points on dome ring and added ram mounts to adjust lighting. Added second light.	[redacted]	6/27/2021	[redacted]	6/27/2021
6/28/2021		4K camera image has dome foot in frame	[redacted]	no	closed	Added 3 inch spacer block on 4k mount to shift camera location to starboard	[redacted]	6/27/2021	[redacted]	6/27/2021
6/28/2021		CTD required for project	[redacted]	No	Closed	CTD mounted on 2G bracket aft of Titan	[redacted]	6/27/2021	[redacted]	6/27/2021
6/28/2021		Dome dampener action spongy due to only air fill	[redacted]	no	closed	Filled with distilled water	[redacted]	6/27/2021	[redacted]	6/27/2021
6/28/2021		Ictineu batteries not communicating with Titan	[redacted]	No	Closed	Changed sensing sytem to Elmo controllers and added to control program.	[redacted]	6/29/2021	Stockton Rush	6/30/2021
6/28/2021		Kongsberg tracking system requested for additional tracking	[redacted]	No	Closed	C-node mounted on new bracket on aft spine of Titan.	[redacted]	6/27/2021	[redacted]	6/27/2021
6/29/2021		Control sphere connector looks worn and components seem dislodged	[redacted]	Yes	Closed	Both sphere disassembled, cleaned and reinstalled	[redacted]	6/29/2021	[redacted]	6/29/2021
6/29/2021		Added tracking needed	[redacted]	No	Closed	Mounted C Node transducer borrowed from Horizon Arctic	[redacted]	6/29/2021	[redacted]	6/29/2021
6/30/2021	C2_0061	Incident - Forward dome fell off during recovery to ship	Stockton Rush	Yes	Closed	Inspected and reinstalled - Incident report completed	[redacted]	6/30/2021	[redacted]	7/1/2021
6/30/2021	C2_0061	DVL not working	Stockton Rush	No	Closed	Duplicate entry see later entry for resolution				
6/30/2021	C2_0061	Floor and toilet damaged when dome fell off	Stockton Rush	No	Closed	Repaired and reinstalled	[redacted]	7/16/2021	[redacted]	7/16/2021
7/1/2021		Need CTD for Titanic dive	Stockton Rush	No	Closed	Rented CTD installed on laser scanned mount	[redacted]	7/1/2021	[redacted]	7/1/2021
7/2/2021		Sonardyne not communicating with software	Stockton Rush	No	Closed	Software updated and tested with transducer in the water	[redacted]	7/5/2021	[redacted]	7/5/2021
7/3/2021	C2_0062	Incident - External hull HPA valve set in wrong position for dive	Stockton Rush	Yes	Closed		[redacted]	7/9/2021	Stockton Rush	7/9/2021
7/3/2021	C2_0062	Starbord control pod failed at 1,700m after pop sound heard 0 vaccum 0 temp green water alarm	Stockton Rush	Yes	Closed	Control cable found broken at connector joint area. Cable replaced and tested OK	[redacted]	7/7/2021	[redacted]	7/7/2021
7/3/2021	C2_0062	Two drop wieghts jammed in stbd channel	Stockton Rush	Yes	Closed	Wts removed, surface of rail smoothed future wieghts to have more ground edges and greased with heavier grease	[redacted]	7/5/2021	[redacted]	7/7/2021
7/3/2021	C2_0062	#1 and #3 Acoustic sensros have extreme and unusual events - thousands of hits with 5000-6000 levels only. All other sensors appear normal	Stockton Rush	No	Closed	Disconnected not needed evaluate for EMI on annual	[redacted]	7/25/2021	Stockton Rush	7/25/2021
7/3/2021	C2_0062	Dome hinge retention plate bent	Stockton Rush	No	Closed	Repaired				
7/3/2021	C2_0062	DVL intermittent	[redacted]	No	Closed	Rewired to use GPS cables and tested OK	[redacted]	7/7/2021	[redacted]	7/7/2021
7/3/2021	C2_0062	External lights flickering and drawing 14 amps	Stockton Rush	No	Closed	Could not duplicate on surface locking collars installed	[redacted]	7/8/2021	[redacted]	7/8/2021
7/3/2021	C2_0062	Pan and tilt not functional	[redacted]	No	Closed					
7/3/2021		Port Ictineu battery will not turn on	[redacted]	No	Closed	Replaced BMS board. Removed communications cable to avoid future failures as Elmo board can provide amp and voltage information	[redacted]	7/11/2021	[redacted]	7/11/2021
7/3/2021	C2_0062	Rear axis camera mount broken	[redacted]	No	Closed	Mount replaced	[redacted]	7/5/2021	[redacted]	7/5/2021
7/3/2021	C2_0062	Sub comes off platform in rough launch	Stockton Rush	No	Closed	Installed automatic locking mechanism per CRB	Stockton Rush	7/11/2021		
7/7/2021		Stbd horizontal thruster found leaking at main power connector	[redacted]	Yes	Closed	Removed thruster replaced connector with new, reinstalled and calibrated	[redacted]	7/8/2021	[redacted]	7/8/2021
7/7/2021		Platform float cables found to be different lengths	[redacted]	No	Closed	Replaced two cables with new to match	[redacted]	7/7/2021	[redacted]	7/7/2021
7/7/2021		Port vertical thruster sticky when turned by hand	Stockton Rush	No	Closed	Replaced with spare thruster and re calibrated	[redacted]	7/8/2021	[redacted]	7/8/2021
7/9/2021	C2_0063	Dropweight carriage/mechanism dropped.	Stockton Rush	Yes	Closed	Replaced drop weight system including new motors and all associated parts. Tested OK	[redacted]	7/13/2021	[redacted]	7/13/2021
7/9/2021	C2_0063	Incident - Drop weight tray jettisoned due to failed electric drop weight motors	Stockton Rush	Yes	Closed	Incident report complete chnages implemented	Stockton Rush	7/13/2021	[redacted]	7/13/2021
7/9/2021	C2_0063	Aft port fairing ripped off	Stockton Rush	No	Closed	Repaired and reinstalled	Stockton Rush	7/18/2021	[redacted]	7/18/2021
7/9/2021	C2_0063	Blueview sonar inoperative	Stockton Rush	No	Closed	Cable found with <100megohm resistance in two lines. Switched to unused twisted pair circuit and tested OK	[redacted]	7/13/2021	[redacted]	7/13/2021
7/9/2021	C2_0063	DVL intermittent	Stockton Rush	No	Closed	Cable found with <100megohm resistance in two lines. Switched to unused twisted pair circuit and tested OK	[redacted]	7/13/2021	[redacted]	7/13/2021
7/9/2021	C2_0063	External LED flights flicker and will ot dim	Stockton Rush	No	Closed	LED driver circuit found overheating, heatsniks ordered OK to dive if power kept below 80%. Heat sink added.	[redacted]	7/17/2021	[redacted]	7/17/2021
7/9/2021		Operating Manual, drawings and Titan checklist need modification for passive locking system	Stockton Rush	No	Closed	Test locking mech installed on platform				
7/9/2021	C2_0063	SubC 4K camera has a round halo in middle of screen	[redacted]	No	Closed	Could not duplicate on 89m dive				
7/9/2021	C2_0063	VBT motor seems slow 90 secounds to run vs 50 prior	Stockton Rush	No	Closed	Motor found to be slipping on shaft, locking pin tightened	[redacted]	7/13/2021	[redacted]	7/13/2021
7/13/2021	C2_0064	Port drop weight motor would not drop	Stockton Rush	Yes	Closed	weight found jammed installed mud flap to ensure even deployment of weight. Tdropped 12 weights tested OK.	[redacted]	7/14/2021	[redacted]	7/14/2021

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7/13/2021		Dropweight motors running in reverse	[redacted]	No	Closed	Motor + and - swapped. Motors tested OK	[redacted]	7/14/2021	[redacted]	7/14/2021
7/13/2021	C2_0064	Sonar seem noisy in display	Stockton Rush	No	Closed	Replaced patched cable with new	[redacted]	7/16/2021	[redacted]	7/16/2021
7/13/2021		Sub needs second backup sonar	Stockton Rush	No	Closed	Installed Oculus sonar, mount, wired to spare penetrator and added software to media computer	[redacted]	7/17/2021	[redacted]	7/17/2021
7/17/2021		Incident - Electrical cable fire in forward dome from dehumidifier	[redacted]	Yes	Closed	Incident report completed, sub inspected and no damage	[redacted]	7/18/2021	[redacted]	7/18/2021
7/19/2021	C2_0065	Incident - Drop weight motor failure at depth	Stockton Rush	Yes	Closed	CRB - Removed drop weight carriage replaced with hydraulic drop system and Stockton Roll weights	[redacted]	7/26/2021	[redacted]	7/26/2021
7/19/2021	C2_0065	DVL inop below 1,000m. Intermittent above 1,000m	Stockton Rush	No	Closed	Replaced DVL to J-Box cable with spare cable	[redacted]	7/20/2021	[redacted]	7/20/2021
7/19/2021	C2_0065	Passive lock cylinder twisted outboard	[redacted]	No	Closed	Installed retaining bracket to limit motion	[redacted]	7/20/2021	Stockton Rush	7/20/2021
7/20/2021		Strobe inoperative	[redacted]	No	Closed	Inspected and replaced batteries, switch is sensitive to assembly.	[redacted]	7/20/2021	[redacted]	7/20/2021
7/24/2021	C2_0066	Both port and stbd drop weight motors failed	Stockton Rush	Yes	Closed	Completed switch to hydraulic drop per CRB 151	[redacted]	7/26/2021	[redacted]	7/26/2021
7/24/2021	C2_0066	Stbd thrusters would not come on at 3,500m. Pods and batteries had been off for 2 hours. Came back at 500m	Stockton Rush	Yes	Closed	In consultation with Triton learned that oscillator on Ictinue board can fail at depth. Solution is to leave Batteries on.	[redacted]	7/25/2021	Stockton Rush	7/25/2021
7/24/2021	C2_0066	VHF antenna bent by max on recovery operation	[redacted]	Yes	Closed	Replaced with spare antenna	[redacted]	7/25/2021	Stockton Rush	7/25/2021
7/24/2021	C2_0066	When running emergency drop weight system on Birns landing board saw puff of smoke	Stockton Rush	Yes	Closed	No traces burned likely switch failure. Not needed with new system	[redacted]	7/25/2021	Stockton Rush	7/25/2021
7/24/2021	C2_0066	DVL continues to be flacky and inoperative below 1,700m	Stockton Rush	No	Closed	Replaced cable with PBOF cable	[redacted]	7/26/2021	[redacted]	7/26/2021
7/24/2021	C2_0066	One heavy Stockton Roll weight failed to deploy	Stockton Rush	No	Closed	Bent tabs to lower angle	[redacted]	7/26/2021	Stockton Rush	7/26/2021
7/26/2021	C2_0066	Blueview sonar failed after 30 minutes at depth	Stockton Rush	No	Closed	Removed connector at J Box filled subconn connector 1/3 with grease, reconnected.	Stockton Rush	7/28/2021	[redacted]	7/28/2021
7/26/2021		Port light cable pinched and sheild broken	[redacted]	No	Closed	Rep;laced with spare cable	[redacted]	7/26/2021	[redacted]	7/26/2021
7/27/2021	C2_0067	Stockton Roll weights did not come off	Stockton Rush	Yes	Closed	Adjusted bend angle on support	[redacted]	7/27/2021	Stockton Rush	7/27/2021
7/27/2021	C2_0067	Media computer monitor display flickering (1 hz) then distorted	Stockton Rush	No	Closed	Replaced with spare monitor. Tested on beanch and monitor was OK after drying out	[redacted]	7/27/2021	Stockton Rush	7/27/2021
7/27/2021	C2_0067	Port top external light flickering (1Hz) when on at depth	Stockton Rush	No	Closed	Removed connector at light filled subconn connector 1/3 with grease, reconnected. Removed tight zip tie on cable	Stockton Rush	7/27/2021	[redacted]	7/27/2021
7/28/2021	C2_0067 and C2_0068	Incident - Platform sustained damage on return to vessel	Stockton Rush	Yes	Closed					
7/28/2021	C2_0068	Media screen distorted and erractic	Stockton Rush	Yes	Closed	Replaced with spare screen appears to have been water/humidity damage old screen fine after being dried out	[redacted]	7/28/2021	Stockton Rush	7/28/2021
7/28/2021	C2_0068	DVL inop below 1,500m	Stockton Rush	No	Closed	Tested in pressure chamber suspect wiring in birns				
7/28/2021	C2_0068	Top fwd Axis camera screen went to purple flash mode at end of dive	Stockton Rush	No	Closed	Moved usb cable 3" up - still needs better shielding	Stockton Rush	7/28/2021		
8/4/2021	C2_0069	#5 AE channel giving hundreds of thousands of hit with no pressure on hull	Stockton Rush	No	Closed	Disconnect sensor as clearly in error still 5 operating	[redacted]	8/4/2021	Stockton Rush	8/4/2021
8/4/2021	C2_0069	Blueview sonar inop on bottom - display shows working but no objects seen	Stockton Rush	No	Closed	Regreased connector at J Box	Stockton Rush	8/4/2021	[redacted]	8/4/2021
8/4/2021	C2_0069	Oculus sonar upside down left=right	Stockton Rush	No	Closed	Flipped 180 deg	[redacted]	8/4/2021	Stockton Rush	8/4/2021
8/4/2021	C2_0069	Stbd battery test light shows working and switchable at depth - needs to be reconnected	Stockton Rush	No	Closed	Batteries returned to normal configuration. Oscillator was changed before dive.	[redacted]	8/4/2021	[redacted]	8/4/2021
8/5/2021	C2_0070	Platform stbd tow point weld damaged on recovery	Stockton Rush	Yes	Closed	Reenforced and stainless inserts added for chaffing				
8/5/2021	C2_0070	Blueview sonar inop on bottom after 1-2 hours of working - display shows working but no objects seen	Stockton Rush	No	Closed	Changed to Burton drymate bulkhead and new cable				
8/19/2021	Road Show	Both Ictineu batteries removed,external lights, external cameras, pan and tilit/ sonar, tracking and comms, strobe , DVL removed.	[redacted]	Yes	Closed	Reinstalled				
8/19/2021	C2_0070	Landing Gear strength members bent in center when sub slid off platform on last dive.	[redacted]	Yes	Closed	Straightened landing gear				
8/19/2021	Road Show	Port control monitor flashing on and off due to poor HDMI connection on monitor side.	[redacted]	Yes	Closed	New monitors				
8/19/2021	Road Show	Port control monitor temporarily replaced with old spare, which has water condensation visible on internal.	[redacted]	Yes	Closed	New monitors				
8/19/2021	Road Show	Scrubber and Analox removed	[redacted]	Yes	Closed	Reinstalled				
8/19/2021	Road Show	Stbd aft HPA penetrator removed and 3D printed model installed for air blower and power pass through.	[redacted]	Yes	Closed	Reinstalled				
8/19/2021	Road Show	Toilet bucket removed and discarded due to odor.	[redacted]	No	Closed	Replaced and spares purchased				
10/11/2021	road Show	Dome dolly jack rusty and needs treatment/ paint	[redacted]	no	Closed	Painted				

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10/11/2021	Road Show	Dome dolly plate casters rusty and need treatment/paint	[redacted]	no	Closed	using as spare				
10/28/2021	road Show	dome opening/closing kit missing procedural checklist	[redacted]	No	Open					
10/28/2021	road Show	dome opening/closing kit has no designated spare tools/ hardware	[redacted]	yes	Closed	Spares added				
10/28/2021	road Show	dome opening/closing kit missing tools for more than one tech	[redacted]	no	Closed	Multiple tools added				
10/28/2021	road Show	ratcheting tie down straps inconsistent and dont properly fit trailer rails. need more "keeper 47217" units	[redacted]	no	Closed	[redacted]ordered more keeper 47217 to be delivered to IL				
11/5/2021	road Show	Dome dolly plate needs replacement due to divots from dome dolly casters in place during transit	[redacted]	yes	Closed	Plate replaced	[redacted]			
11/6/2021	road Show	Stbd and port monitors intermittent. need long term solution. loose connection 20+ times per hour	[redacted]	yes	Closed	Purchased industrial monitors	[redacted]	3/18/2022	[redacted]	6/12/2022
6/12/2022	N/A	Major maintenance	Ops/Eng	yes	Closed					
6/16/2022	C2_0071	Checklists need updating and new laminations	Stockton Rush	No	Closed		Stockton Rush	6/12/2023	[redacted]	6/12/2023
6/16/2022	C2_0071	Air in Port Vertical Thruster Cables	Stockton Rush	No	Closed	Removed air bubbles				
6/16/2022	C2_0071	Axis Cameras flicker/flash when transmitting on VHF	Stockton Rush	No	Closed	Operate on 5W poer seeting	[redacted]	6/16/2022	Stockton Rush	6/16/2022
6/16/2022	C2_0071	Electronic Water detects are unreliable - switch on and off without any reason	Stockton Rush	No	Closed	Threshholds changed in sofware	[redacted]	6/19/2022	Stockton Rush	6/19/2022
6/16/2022	C2_0071	Labels on external HPA manifold are faded and hard to see	Stockton Rush	No	Closed	New Panel installed	[redacted]	3/23/2023	Stockton Rush	3/23/2023
6/16/2022	C2_0071	LiOH Canisters in aft bay fall forward during steep ramp descents and blow out retaining door	Stockton Rush	No	Closed	Step barrier installed to constrain motion	[redacted]	6/18/2022	Stockton Rush	6/18/2022
6/16/2022	C2_0071	Port Axis Belly cam goes black repeatedly (out 20% of the time)	Stockton Rush	No	Closed	Removed Camera				
6/16/2022	C2_0071	Software needs updating - Sonardyne and Kongsberg differienation, text on ATM should be white on grey background	Stockton Rush	No	Closed	Software updated and tested with transducer in the water				
6/19/2022	C2_0072	Axis Cameras inoperative - appears no power to Axis hub	Stockton Rush	Yes	Closed	Port belly camera housing found flooded and shorting system. Removed and capped cable as not needed for operations	[redacted]	6/19/2022	Stockton Rush	6/19/2022
6/19/2022	C2_0072	Incident - Platform damaged during recovery	[redacted]	Yes	Closed	Draft published				
6/19/2022	C2_0072	New thread dome dampener failed during closing at sea	Stockton Rush	Yes	Closed	Steel box made to replace aluminium box	[redacted]	6/19/2022	[redacted]	6/19/2022
6/19/2022	C2_0072	Sonardyne comms were not consistently recieved by ship from Titan	Stockton Rush	Yes	Closed	Syntax error found and corrected in code	[redacted]	6/19/2022	Stockton Rush	6/20/2022
6/19/2022	C2_0073	Aft fairings torn off sub during surface Incident	Stockton Rush	No	Closed	New Fairings installed	[redacted]	4/15/2023	Stockton Rush	4/15/2023
6/19/2022	C2_0072	DSP&L lights flashed when on but power at zero and when on and powered up	Stockton Rush	No	Closed	no flash on dive 76 continue testing				
6/19/2022	C2_0072	Emergency drop wieght fell off during launch/descent	Stockton Rush	No	Closed	Attach after launch from ship				
6/19/2022	C2_0072	Stbd Niskin bottle failed to work	Stockton Rush	No	Closed	Wood pin replaced with aluminium pin	[redacted]	6/20/2022	Stockton Rush	6/20/2022
6/19/2022	C2_0072	Teledyne ADVL intermittent (on for 1 second very 10+-) at depth of more than 200m	Stockton Rush	No	Closed	Moved to a 6amp supply line	[redacted]	4/19/2023	[redacted]	4/19/2023
6/19/2022	C2_0072	Teledyne ATM has very short range	Stockton Rush	No	Closed	Using CDL on surface	[redacted]	4/20/2023	Stockton Rush	4/20/2023
6/20/2022		Port and stb comp have fasteners that don't catch nyloc of nut	[redacted]	No	Open					
6/20/2022	C2_0073	check torque on sub carriage structure fasteners	[redacted]	Yes	Closed	Checked, some tightened 1/2 turn	PH Nargeolet	6/25/2022	[redacted]	6/25/2022
6/20/2022	C2_0073	damaged mounts for lights	[redacted]	Yes	Closed	Replaced those with spares ordered those without spares	[redacted]	6/28/2022	[redacted]	6/28/2022
6/20/2022	C2_0073	Internal emergency gear used	[redacted]	Yes	Closed	Replenished and updated inventory sheet	[redacted]	6/28/2022		
6/20/2022	C2_0073	no interior storage map in sub	[redacted]	Yes	Closed	Updated sheet. Inventory to [redacted]for document	[redacted]	6/28/2022		
6/20/2022	C2_0073	oculus installed upside down	[redacted]	Yes	Closed	Reinstalled with different orientation	[redacted]	6/28/2022	[redacted]	6/29/2022
6/20/2022	C2_0073	VHF antenna bent on recovery	[redacted]	Yes	Closed	Replaced with new	[redacted]	6/26/2022	[redacted]	6/28/2022
6/20/2022	C2_0073	atm comms not received	[redacted]	No	Closed	worked great from atm on dive 74	[redacted]	7/1/2022	[redacted]	7/1/2022
6/20/2022		broken deep sea power and light brackets	[redacted]	No	Closed	Should be in St. john's by 7/1				
6/20/2022	C2_0073	Niskin bottles destroyed on recovery	[redacted]	No	Closed	Replaced with new	[redacted]	6/29/2022	Stockton Rush	6/29/2022
6/20/2022		no interior inventory sheet in sub	[redacted]	No	Closed					
6/20/2022	C2_0073	Teledyne sonar inop at depth	[redacted]	No	Closed	Moved from Birns box to bulkhead				
6/20/2022		TV HDMI damaged	[redacted]	No	Closed	Replaced with new cable	[redacted]	6/29/2022	[redacted]	6/29/2022
6/21/2022	C2_0073	DVL intermittent	Stockton Rush	Yes	Closed	Moved Power supply to Pan/Tilt relay	[redacted]	6/28/2022	[redacted]	6/29/2022
6/21/2022	C2_0073	Incident - Titan damaged during recover	[redacted]	Yes	Closed	Draft published	[redacted]			
6/21/2022	C2_0073	Pan and Tilt will not tilt	Stockton Rush	No	Closed	Water intrusion PCB board damaged. Return to ROS				
6/22/2022	C2_0073	Top retention screw binds toward end of travel	[redacted]	No	Closed	Moved pivot point in line with forward attach point to cure binding issue	[redacted]	6/25/2022	Stockton Rush	6/25/2022
6/23/2022		Battery compensator at zero and line has water	[redacted]	Yes	Closed	Refilled and charged	[redacted]	6/27/2022	[redacted]	6/27/2022
6/23/2022		Birns box has crack and leaking	[redacted]	Yes	Closed	drained, inspected, crack glued, filled, reinstalled	Stockton Rush	6/29/2022	[redacted]	6/29/2022
6/23/2022	C2_0073	Camera junction box damaged	[redacted]	Yes	Closed	removed drained inspected refilled installed tested good	[redacted]	6/28/2022	[redacted]	6/28/2022

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6/23/2022		Some syntactic foam fell off	[redacted]	Yes	Closed	Bouyancy ckeck after fairing loss.	Stockton Rush	6/29/2022	[redacted]	6/29/2022
6/23/2022		Thruster compensator at zero psi	[redacted]	Yes	Closed	drained ,inspected, filled, pressurized	[redacted]	6/28/2022	[redacted]	6/29/2022
6/23/2022		Fairings missing	[redacted]	No	Closed	Acceptable for operations once buoyancy calculations adjusted. Exposed foam painted for aesthetics	Stockton Rush	6/23/2022	[redacted]	6/23/2022
6/23/2022		Missing Rear fairings	[redacted]	No	Closed	New fairing installed	[redacted]	4/20/2023	Stockton Rush	4/20/2023
6/23/2022		Some fairing attached bolts pulled through	[redacted]	No	Closed	Reinstalled fasteners fiberglass work for permanent repair	[redacted]	6/29/2022	[redacted]	6/29/2022
6/26/2022		Mark Forward platform floats	[redacted]	No	Closed	Painted floats to have white top	PH Nargeolet	6/27/2022	Stockton Rush	6/28/2022
6/26/2022		Paint Syntactic Foam white	Stockton Rush	No	Closed	Painted with White Enamel paint	PH Nargeolet	6/27/2022	Stockton Rush	6/28/2022
6/27/2022		TV HDMI protection guard not installed	[redacted]	No	Closed	Guard fabricated and installed	[redacted]	7/6/2022	[redacted]	7/7/2022
6/28/2022		Medications in Sub First Aid kit expired	[redacted]	No	Closed		[redacted]	6/12/2023	Stockton Rush	6/12/2023
6/28/2022		Add additional O2 sensor due to analox O2 inop	[redacted]	Yes	Closed	Added O2 sensor	[redacted]	6/29/2022	PH Nargeolet	6/29/2022
6/28/2022		Aft cage bolts loose	[redacted]	Yes	Closed	torque fasters on all joints	[redacted]	6/29/2022	[redacted]	6/29/2022
6/28/2022		No Analox in Sub	[redacted]	Yes	Closed	Analox placed in sub needs O2 sensor	PH Nargeolet	6/29/2022	[redacted]	6/29/2022
6/28/2022		Aft bay cabinets need fasteners adjusted tighter	[redacted]	No	Closed	Tightened fasteners	[redacted]	6/28/2022	[redacted]	6/28/2022
6/28/2022		debris in bilge	[redacted]	No	Closed	Cleaned	[redacted]	6/28/2022	[redacted]	6/28/2022
6/28/2022		Interpac hand pump fasterners installed incorrectly	[redacted]	No	Closed	Changed orientation to fix	[redacted]	6/28/2022	[redacted]	6/28/2022
6/28/2022		LIHO blanket pouch has abrasion due to interpac	[redacted]	No	Closed	Added tape over abraded portion	[redacted]	6/28/2022	[redacted]	6/28/2022
6/28/2022		Missing syntactic foam	[redacted]	No	Closed	installed 120lbs of foam				
6/28/2022		Straighten pins on oculus head	[redacted]	No	Closed	Straightened	[redacted]	6/28/2022	[redacted]	6/28/2022
6/29/2022		Bent fastener for port aft landing skid	[redacted]	No	Open					
6/29/2022		Deep Dive ballast securement points not installed	[redacted]	Yes	Closed	550 cord added to clip in weights	[redacted]	7/1/2022	[redacted]	7/1/2022
6/29/2022		loose fasteners on landing skids	[redacted]	Yes	Closed	Tightened fasteners	[redacted]	6/29/2022	[redacted]	6/29/2022
6/29/2022		Port vertical thruster has bubbles when thrusting	[redacted]	Yes	Closed	Refilled	[redacted]	7/1/2022	[redacted]	7/1/2022
6/29/2022		Reinstall icteneu battery horizontal strap	[redacted]	Yes	Closed	reinstalled	[redacted]	6/29/2022	[redacted]	6/29/2022
6/29/2022		02 sensor in analox is bad	[redacted]	No	Closed	Installed new sensor	[redacted]	5/26/2023	[redacted]	5/26/2023
6/29/2022		DVL activted by switch to pan/tilt relay	[redacted]	No	Closed	Moved in software to proper naming convention	[redacted]	7/5/2022	[redacted]	7/6/2022
6/29/2022		DVL relay switch turns on nothing	[redacted]	No	Closed	Corrected in software to proper naming convention	[redacted]	7/5/2022	[redacted]	7/6/2022
6/29/2022		Need improvement in fairing securement at fastener holes	[redacted]	No	Closed	Added fender washers				
6/29/2022		No accurate weight and Balance for dive	[redacted]	No	Closed	Test dive set target on dive 74				
6/29/2022		Oculus head inop	[redacted]	No	Closed	Repaired and returned	[redacted]	4/15/2023	[redacted]	4/15/2023
6/29/2022		Port vertical forward nyloc is improper	[redacted]	No	Closed	Installed longer bolt to utilize nyloc	[redacted]	6/29/2022	[redacted]	6/29/2022
6/29/2022		Remove old bungee cords from lost fairings	[redacted]	No	Closed	Removed	[redacted]	6/29/2022	[redacted]	6/29/2022
6/29/2022		Verify torque on aft hull segment	[redacted]	No	Closed	Torque verified	[redacted]	6/29/2022	[redacted]	6/29/2022
7/1/2022		Axis Camera lens are blurry	Stockton Rush	No	Open					
7/3/2022		Stb battery reads 2.6v lower than actual	[redacted]	no	Closed	Known issue in Ictinue system	[redacted]			
7/9/2022		reroute and secure control lines on platfrom	[redacted]	Yes	Closed	Rerouted	[redacted]	7/9/2022	[redacted]	7/9/2022
7/10/2022		carbon fiber to sub frame bolts loose-extract and look for damage	[redacted]	Yes	Closed	Inspected/replaced	[redacted]	7/10/2022	[redacted]	7/10/2022
7/10/2022		carbon fiber to vertical leg bracket inspect	[redacted]	Yes	Closed	Inspected and adjusted	[redacted]	7/10/2022	[redacted]	7/10/2022
7/10/2022		lights flashed when thrusters enabled	[redacted]	No	Closed	Disconnect light junction box and swapped pods to troubleshoot				
7/11/2022		Implement CRB for bungee floats	Stockton Rush	No	Open	Installed bungees removed cables				
7/11/2022		Spare controller dead batteries	Stockton Rush	Yes	Closed	Replaced batteries check more frequently				
7/11/2022		Two inop SubC lights	Stockton Rush	No	Closed	Replaced with new spares	[redacted]	7/18/2022	Stockton Rush	7/18/2022
7/13/2022		Missing two smoke hoods	[redacted]	Yes	Closed	Added co-pilot gas mask to sub inventory	[redacted]	7/14/2022	[redacted]	7/14/2022
7/13/2022		Scratch in viewport at 12' o clock	[redacted]	no	Closed	Polished	[redacted]	7/13/2022	[redacted]	7/14/2022
7/14/2022		No spare smoke hoods	[redacted]	No	Closed	25-15 minute smoke hoods in sub				
7/15/2022	C2_0080	4k laser inop	[redacted]	no	Closed	Figured out alternative way to turn on in 4k setup	Stockton Rush	7/17/2022	[redacted]	7/18/2022
7/15/2022		dspl light would only emit low light late in dive	[redacted]	no	Closed	Could not Duplicate	[redacted]	7/18/2022		
7/15/2022	C2_0080	Missing Ext. HPA gauge	[redacted]	no	Closed	Broken. Capped - use internal gauge.	[redacted]	7/16/2022	[redacted]	7/16/2022
7/15/2022	C2_0080	Need Pool noodle for acme thread	[redacted]	no	Closed	Installed	[redacted]	7/18/2022	[redacted]	7/18/2022
7/15/2022	C2_0080	Port and stb drop take mult inputs to drop	[redacted]	no	Closed	Replace drive motors in both	[redacted]	7/17/2022	[redacted]	7/17/2022
7/15/2022	C2_0080	Port comp gauge is broken	[redacted]	No	Closed	Capped off need replacement - replaced	[redacted]	4/14/2023	Stockton Rush	4/14/2023
7/18/2022		Fill SWE battery box	[redacted]	no	Closed	Filled	[redacted]	7/19/2022	[redacted]	7/20/2022
7/18/2022		Light junction box corrosion issue	[redacted]	no	Closed	Added bonding cable	[redacted]	7/11/2022	[redacted]	7/11/2022
7/19/2022	C2_0081	2 port drop weights would not drop	[redacted]	Yes	Closed	Found wrap lines were done wrong, duplicated and docuemneted correct wrap procedure.				
7/19/2022	C2_0081	Damage to Tym valve	[redacted]	Yes	Closed					
7/19/2022	C2_0081	horizontal thrusters not mapped correctly	[redacted]	yes	Closed	After several reboots software mapped correctly with no other change	[redacted]	7/23/2022	Stockton Rush	7/24/2022
7/19/2022	C2_0081	Sonar dropped out and end of dive	[redacted]	Yes	Closed	changed cable and reterminated in Birns box	[redacted]	7/22/2022	[redacted]	7/22/2022
7/19/2022	C2_0081	DSPL lights flash	[redacted]	no	Closed	Could not duplicate	[redacted]	7/19/2022		

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7/19/2022	C2_0081	Keystokes on media typed backwards in chat sonrdyne chat program	[redacted]	No	Closed	not relevant with sonardyne system gone.	Stockton	4/21/2023		
7/19/2022	C2_0081									
7/19/2022	C2_0081									
7/21/2022		Swap batteries in GPS beacon	[redacted]	Yes	Closed	replaceed with new	[redacted]	7/22/2022	[redacted]	7/22/2022
7/21/2022		Swap batteries in strobe	[redacted]	Yes	Closed	replaced with new	[redacted]	7/22/2022	[redacted]	7/22/2022
7/22/2022		Port Horizontal thruster flooded with water	[redacted]	Yes	Closed	Replaced with spare	[redacted]	7/22/2022	[redacted]	7/22/2022
7/22/2022	C2_0083	Port Thruster flooded	[redacted]	no	Closed	Replaced with spare	[redacted]	7/22/2022	[redacted]	7/22/2022
7/23/2022		Pan & Tilt inop	Stockton Rush	No	Open					
7/23/2022	C2_0083	4k lights switching on/off inconsistent with controls test good on rpe-dive	[redacted]	No	Closed	Could not duplicate				
7/23/2022	C2_0083	DSPL inop on dive/ test good on pre-dive	[redacted]	No	Closed	OK on surface				
7/23/2022	C2_0083	Thruster came up with swapped reverse/forward	[redacted]	no	Closed	Rebooted OK	[redacted]	7/23/2022	[redacted]	7/23/2022
3/24/2023		Need new control software for RPM control and better spool down resilence	[redacted]	No	Open					
3/26/2023		Need more syntactic foam and permanent wieghts on forward landing cross brace for balance	Stockton Rush	No	Closed	Foam Added	Stockton Rush	5/28/2023	[redacted]	5/28/2023
3/26/2023		Need new molded data cables for thrusters	Stockton Rush	No	Closed	Four new cables installed , routed and tested	[redacted]	3/26/2023	Stockton Rush	3/26/2023
3/27/2023		Main Cyclinder fairings need retouch/painting	Stockton Rush	No	Open					
3/27/2023		BH& connector cable at port pod needs oil top off	Stockton Rush	No	Closed	Drained water and filled	[redacted]	4/14/2023	Stockton Rush	4/14/2023
4/20/2023		Aft foam needs adjusting to let fairing close	Stockton Rush	Yes	Closed		Stockton Rush	5/10/2023	[redacted]	5/10/2023
5/8/2023		CO2 Sensor reads high (.6% w fresh air)	Stockton Rush	Yes	Closed	Installed new sensor	[redacted]	5/25/2023		
5/8/2023		Missing clip in rings for 419 line at crossmembers	[redacted]	No	Closed	Added threaded rings to cross members for 419 points	[redacted]	5/23/2023		
5/8/2023		Fix leak on emergency O2 needle valve in aft bay	Stockton Rush	No	Closed		[redacted]	5/10/2023		
5/9/2023		Mount platform Lock	Stockton Rush	No	Closed		[redacted]	5/10/2023	[redacted]	5/10/2023
5/22/2023	C2_0084	Missing tail cone for rear fairing	[redacted]	No	Open					
5/26/2023		Strobe light needs clocking orietation for easy switching	[redacted]	No	Open					
5/26/2023		Niskin motor need female dummy	[redacted]	No	Closed	Used grease and glove				
5/28/2023		Data Cable on stbd control pod locking rings show damage	[redacted]	Yes	Closed	Inspected OK	[redacted]	5/29/2023	[redacted]	5/29/2023
5/28/2023		Some foam blocks missing	Stockton Rush	Yes	Closed	Replaced	[redacted]	5/29/2023	PH	5/28/2023
5/28/2023		Stbd Ictinue comp line knocked off no oil in battery	Stockton Rush	Yes	Closed	Flushed and refilled	[redacted]	5/29/2023	[redacted]	5/29/2023
5/28/2023		Sub locking block lost at sea	Stockton Rush	Yes	Closed	Replacement made	Stockton Rush	5/29/2023	[redacted]	5/29/2023
5/30/2023		STBD control pod won't boot consistently	[redacted]	Yes	Closed	MtM ethernet connectors in aft bay likely saw salt water during tow incident cleaned and external connectors cleaned and reset. Tested OK twice	[redacted]	5/30/2023	Stockton Rush	5/30/2023
5/31/2023	C2_0085	External Axis Cameras not functioning	[redacted]	No	Open					
5/31/2023	C2_0085	Blue bushing at rear leg drop mech out of place	[redacted]	No	Open					
5/31/2023	C2_0085	HPA line and elect line needs chafe at internal star. pent	[redacted]	No	Open					
5/31/2023	C2_0085	10k internal line has super slow leak before hull stop valve	[redacted]	No	Open					
5/31/2023	C2_0085	Aft bay starboard light escutcheon ring fell off	[redacted]	No	Open					
5/31/2023	C2_0085	Deadman switch sticky on starboard pod	[redacted]	No	Open					
5/31/2023	C2_0085	Port comp missing male plug at comp bladder	[redacted]	No	Open					
5/31/2023	C2_0085	port vertical thruster comp line has 2 dime size air bubble	[redacted]	No	Open					
5/31/2023	C2_0085	unessary slack in vbt activation cordage	[redacted]	No	Open					
5/31/2023	C2_0085	Starboard vertical thruster comp has 2 quarters size air bubble	[redacted]	Yes	Closed	Filled	Stockton Rush	6/8/2023		
5/31/2023	C2_0085	Spare controller removed from sub	[redacted]	Yes	Closed	Installed bungees removed cables	Stockton Rush	6/8/2023		
5/31/2023	C2_0085	Sub manual locking device does not stay in place	[redacted]	Yes	Closed	New lock made	[redacted]	6/5/2023	Stockton Rush	6/5/2023
5/31/2023	C2_0085	Comms with starboard sphere drop out occeasionally when not thrusting	[redacted]	Yes	Closed	Cables cleaned connector between RJ cables replaced	[redacted]	6/5/2023	Stockton Rush	6/5/2023
6/8/2023		GPS Satelitte tracking batteries old	Stockton Rush	No	Closed	Replaced batteries	Stockton Rush	6/8/2023		
6/11/2023		CO2 on Control Computer inop	Stockton Rush	No	Closed	Replaced board	Stockton Rush	6/14/2023	[redacted]	6/14/2023
6/17/2023		Antenna flag missing ziptie	Stockton Rush	No	Open					
		Sealant on titanium to carbon insert unsightly		Yes	Closed	Ground off bumps in sealant to make smooth surface	[redacted]	7/18/2019	[redacted]	7/18/2019
		slow leak on HPA line coming out of hull penetration after shutoff valve	Stockton Rush	Yes	Closed	NPT fitting tightend 1/12 of a turn	[redacted]	6/30/2021	Stockton Rush	6/30/2021
	C2_0055	VBT motor failed to go to vent	Stockton Rush	Yes	Closed	Motor suspected to have been damaged by pressure due to sealed housing. Melted hole in plastic of new motor reassembled and installedReplaced motor with new motor	[redacted]	5/14/2021	[redacted]	5/14/2021
	C2_0003	Water spray from vacuum/vent port may spray on electronics	Stockton Rush	Yes	Closed	Installed tube to deflect spray	[redacted]	2/9/2018	Stockton Rush	2/12/2018

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		Floor mat slid on dive 76 surfacing	[redacted]	No	Closed	Installed two 6" strips of duralock at edge of mat near bay door	[redacted]	7/7/2022	[redacted]	7/7/2022
		Need sight holes for pre dive inspection of VBT level tube	Stockton Rush	No	Closed	Down hole completed Top hole unnecessary once aft fairing curt for lifting strap	Sunbacker Fiberglass	3/1/2018	Stockton Rush	3/1/2018
		Sonardyne tracking system and software upgrade to media computer	[redacted]	No	Closed					