

Handover Date	04/10/2024
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CURRENT STATUS	
Project Name	EA Field and OGGS Pipelines
Summary of Work Completed	<i>Mobilised vehicle and integrated with Survey</i> STOP JOB – due to mezz weld and design deck concerns STOP JOB – failure of lifting strop *Both of these are ongoing and yet to be signed off by Manta management
Summary of Future Planned Work	<i>Garage integration and testing</i> <i>Vehicle loading onto vessel & integration</i> Wet tests and survey calibrations Commence survey scope

AUV STATUS	
Summary of AUV	Additional equipment TSS660, FIGS, 2x R2sonics 2024, Edgetech 2205 and Gemini
New Defects	None
Defects Cleared	Blown fuse on TSS660 circuit (F21) See fault report on Caiman
Faults	None
Ongoing Issues	None
New Issues	None
Mods. Completed	None
Mods. Outstanding	None
Software Updates Implemented	None
Software Updates Outstanding	None
Filing Structure Updates	None

CONTROL CABIN STATUS	
Summary of Control Cabin	Setup installation of SAC and reports PC.

	PDU installed and wired, not yet tested as vehicle is still on quayside
New Defects	None
Defects Cleared	None
Faults	None
Ongoing Issues	None
New Issues	None
Mods. Completed	Installation of equipment and computers
Mods. Outstanding	None
Software Updates Implemented	None
Software Updates Outstanding	None
Filing Structure Updates	None

WINCH STATUS	
Summary of Winch	Tested in warehouse prior to arrival at vessel Loaded and sea fastened on mezz deck, deck fibre, deck lead and 440VAC connected Powered up and confirmed operational
New Defects	None
Defects Cleared	None
Faults	None
Ongoing Issues	None
New Issues	None
Mods. Completed	None
Mods. Outstanding	None

STORES	
Stock used	None
Orders Placed	None
Deliveries Received	None
Deliveries Due	Waiting on POCB to be delivered
Tool Status	Good – All new for project



PPE Status	Some spare boots/overalls. Plenty of gloves. More will be sent by Pual Harvey.
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DOCUMENTATION	
DPR's	Up to date & submitted: Yes Location: Online > Caiman
TBT's	Up to date: Yes Location: Online > Caiman
Buoyancy & Trim	Up to date: Yes Location: Online > Caiman - AUT-HV3-BT-R1.0_HAUV3 Buoyancy & Trim Check.docx.pdf
Software VSN's	Up to date: Yes Location:

OPERATIONS

Operations are daylight only; this means we expect to have the TBT at 6am and be ready for launch around 7am once all deck checks are completed. The schedule has been constructed based on 8:30hrs of in water time and the remainder of the day is allocated for pre & post dive checks/charging/vehicle wash down/data backup.

TOOLBOX TALKS

Held every morning prior to starting work, the QHSE officer (Gerald) likes doing it on the back deck and gives us a 'pep talk' about whatever safety initiative he trying to peddle. The TBTs will cover the days activities, launch/recovery of the vehicle and the survey plan for the day, all involved departments will participate - Manta, bridge crew, LARS operators, survey personnel, QHSE officer and Shell Rep.

During the mobilisation Gerald has requested that we email him each evening with our plans for the next 24 hours, not sure if this will continue offshore as at that point everyone will be working towards the same goal.

I would also expect there to be a second one during operations, held prior to recovery and just to reiterate to main points, mostly for bridge/LARS.

RADIO ETIQUETTE

At Shells request we will adopt several standard phrases to use when on comms, this is to help all personnel on the project know exactly what we mean when asking as English isn't everybody's first language. Below is what we have so far, but currently unsure exactly what we will need.

Phrase	Meaning
ALL STOP	EMERGENCY STOP. Vessel comes to a complete stop as fast as possible
Controlled Stop	Vessel slows and comes to a stop This helps with managing the tether
Commenced survey	To let the bridge know we are now on task and that they need to warn us of any vessel movements/debris or problems that might mean they need to deviate from the survey line
Survey Speed	Approximately 2kts

SIMPLIFIED DEPLOYMENT & RECOVERY PROCEDURE

Again, at Shells request, Mubarak, has requested we produce a simplified step by step guide for the deployment and recovery of the vehicle and garage. This has been distributed to all departments, to ensure everyone is fully aware of the steps and what to expect at each stage of deployment and

recovery. A copy can be found on the spread laptop. Please see attached L&R procedure and checklist.

MEETINGS AND CALLS

Currently having a 0800 call with Shell/CSL/Fadfae, a 0845 call with Bright and the office (to get a better understanding what the plan for the day is) and then at 1600(UK time) another with just the Manta office. This is only during the mobilisation phase. Daily progress meetings once we start operations are unclear at the moment.

DPR

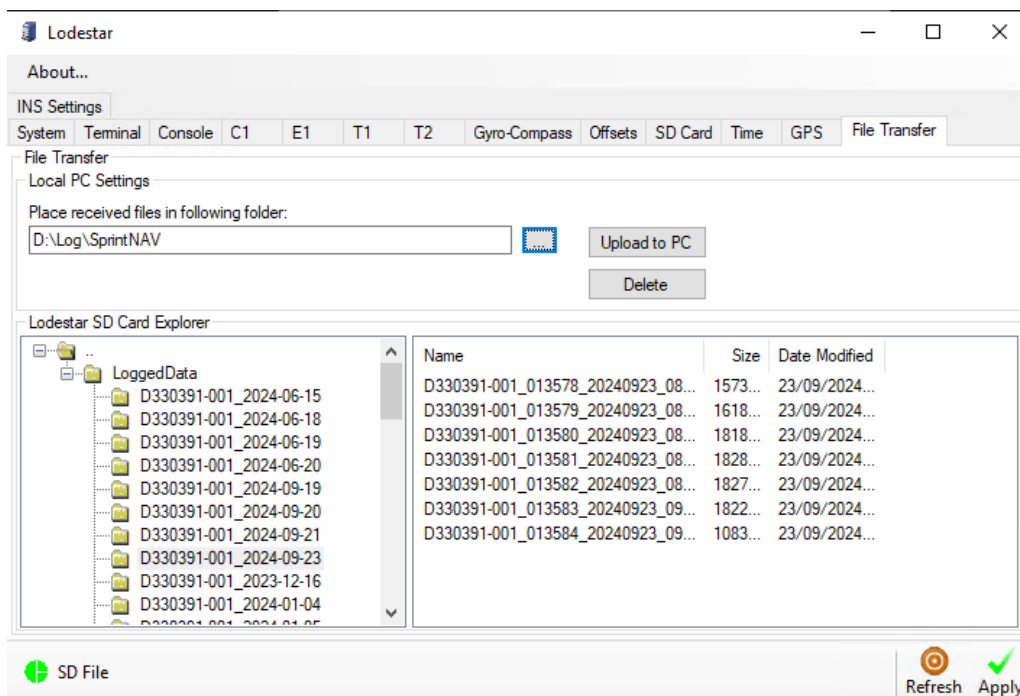
The DPR is being filled out in [Caiman](#), the spread laptop has access to this. We are sending the DPR to Tochi and the Party Chief each evening, their emails can be found on the spread laptop.

SPRINTNAV INSTRUCTIONS FROM SAAB

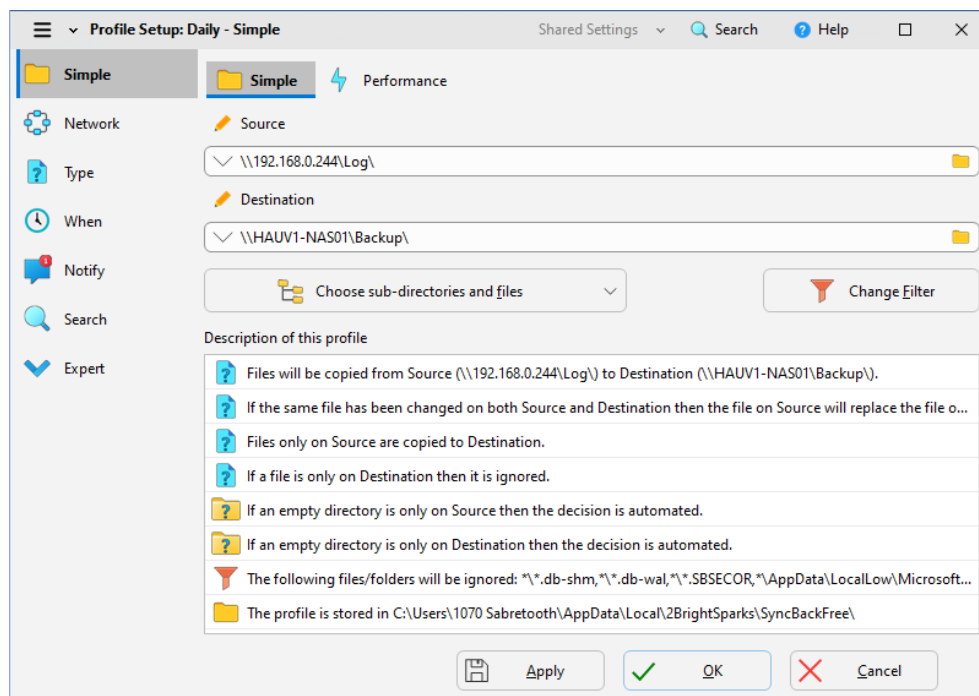
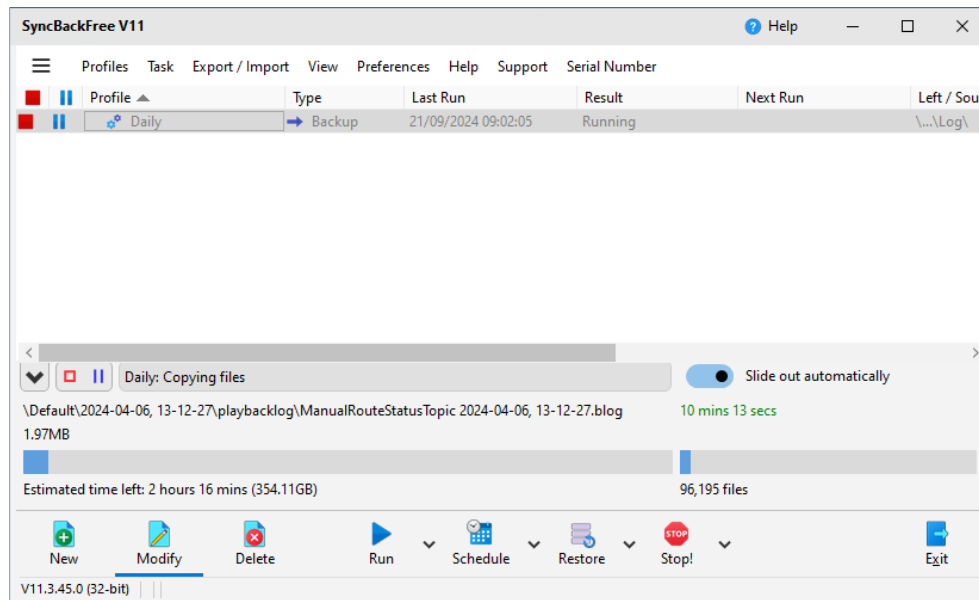
Instructions from Jimmy (Saab) can be found on the spread laptop, for the correct sequence of events for activating the USBL input into the SprintNAV. Testing while alongside with survey and the GAPS USBL appear to give reliable results, and the inputs are being accepted in the INS.

DATA BACKUPS

SprintNAV - At the end of each dive the sprintNAV log files should be downloaded. This is done through the LodeStar Utility found on the desktop of the RAC under the 'File Transfer' tab, locate the current day folder in the 'Lodestar SD Card' pane, select the files to download. On the RAC choose folder D:/Log/SprintNAV as the destination to save the files.



Vehicle Data - We are running a free version of SyncBack on the survey computer; the plan is to run the backup every evening. Ensure you the NAS drive on and you have connection to the vehicle and press "► Run" to start the backup. This might take a long time due to the volume of data, considering you will be recording video locally. Disk space will need to be monitored closely on the RAC and old log files deleted regularly once they are confirmed to have been fully backed up.



SURVEY INTERGRATION

The onboard survey team are connected to the AUV network via ETH3 on the EdgeX router and they have set their IP address to the below, in order to receive telemetry and data feeds from the vehicle.

IPv4 Address: 192.168.200.90

Subnet: 255.255.255.0

Default Gateway: 192.168.200.1

DNS: 192.168.200.1 / 1.1.1.1

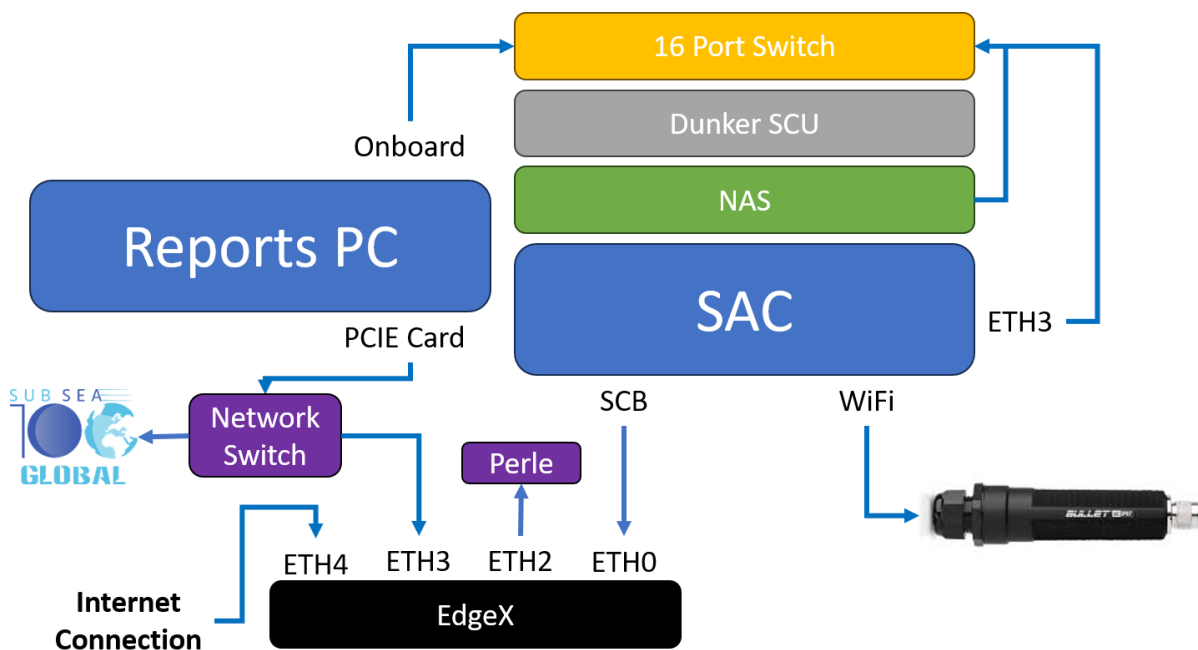
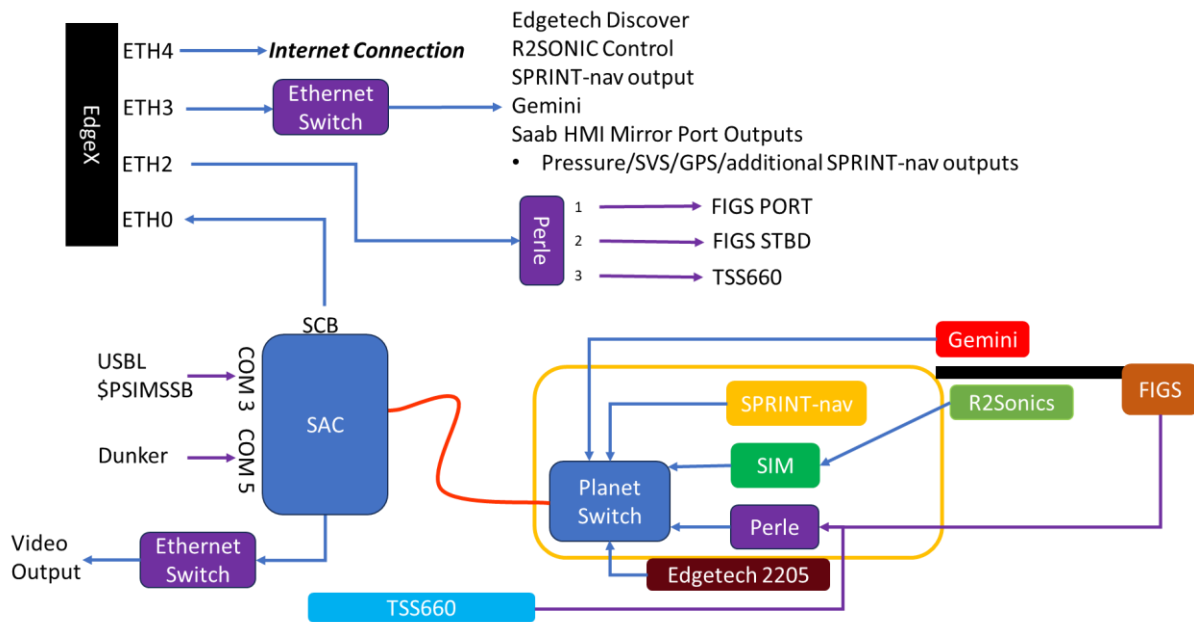
IP Address	Protocol	Description
192.168.200.135	UDP	SIM
192.168.200.134	UDP	Head 1
192.168.200.136	UDP	Head 2
192.168.0.244:20501	UDP	Output - Sonardyne LNAV via Saab mirror ports
192.168.0.244:30502	UDP	Output - Parascientific Pressure Sensor via Saab mirror ports
192.168.0.244:40503	UDP	Output - miniSVS via Saab mirror ports
192.168.0.221:4001	TCP	Output – PD6 DVL data
192.168.0.222:4093	UDP	Output - Sonardyne LNAV output – direct from SPRINT-nav
192.168.0.223:18055	UDP	Output - GGA & ZDA direct from onboard GPS card

Table a Network Data

Location	Port	Baud Rate	Description
SAC	3	9600	Input - USBL \$PSIMSSB
	3	9600	Output - TSS660
Perle	2	115200	Output - FIGS 2
	1	115200	Output - FIGS 1

Table b Serial Data

SIMPLIFIED WIRING DIAGRAMS



SURVEY INTERFACING & MOXA

4 network cables and 1 serial cable have been ran between the survey container and our control cabin, it is the grey/white cables and they have all be labelled.

Network Cable 1 = Data transmission from vehicle (vehicle data, video and MBES)

Network Cable 2 = Edgetech (Survey aren't the best and they have network issues, meaning they couldn't see the SSS data and are running discover on a separate computer now)

Network Cable 3 = Survey MOXA

Network Cable 4 = Gemini (HDMI to RJ45)

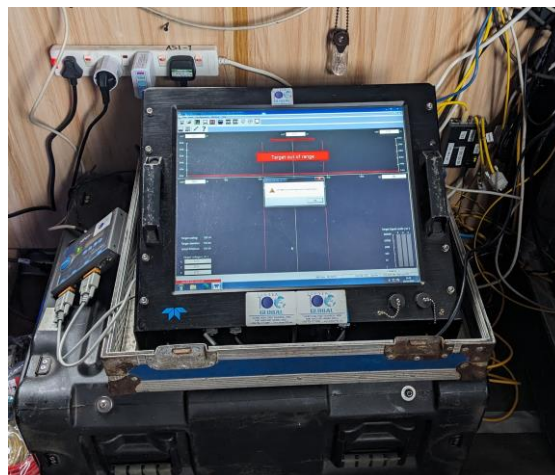
Serial cable = USBL direct from the GAPS system.

We have a Nport 5410 on the cabin, this has been supplied by survey. This is for them to receive the TSS660 data and us the Vessel position which is being displayed in the tactical view.



TSS660

The TSS660 is connected to B2 on the STBD FWD pod lid, this then connect into Port 3 on the Perle server (144). The Data is passed directly to the unit in the control Cabin (143) and connected to COM 2 on the TSS topside unit. The data is output from COM3 and goes into Port 1 on the Survey MOXA. The topside has been deposited in our container and placed on top of the Reports PC. A HDMI cable is ran to the pilot's desk for a repeat of the screen for flying. Survey will be operating the unit, doing the background comps and setting any of the scaling etc prior to commencing surveys. Not sure why we are having it here or why they don't want a repeat of the screen?



FIGS

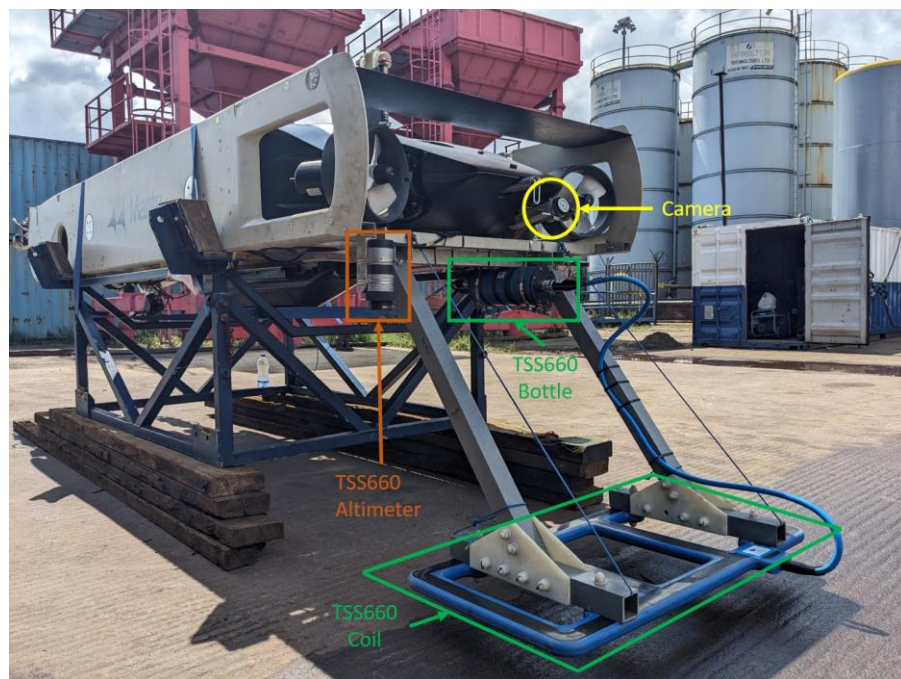
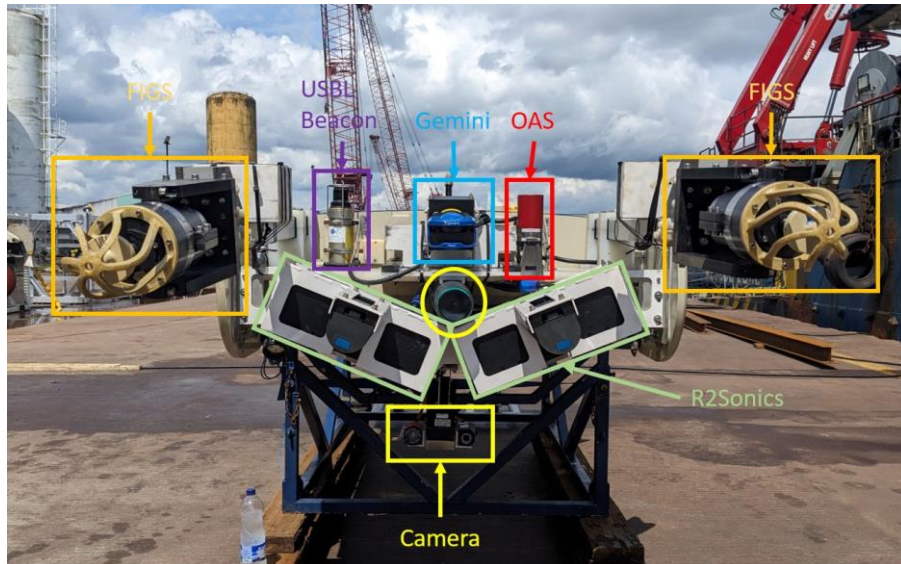
Both FIGS sensors units are connected to B3 on the STBD FWD pod lid using a Y splice, these connect into Port 1 & 2 of the Perle server (144) in the pod. Data is passed directly to the unit in the Control Cabin (143). Where it has been routed to the FIGS specialists on board.

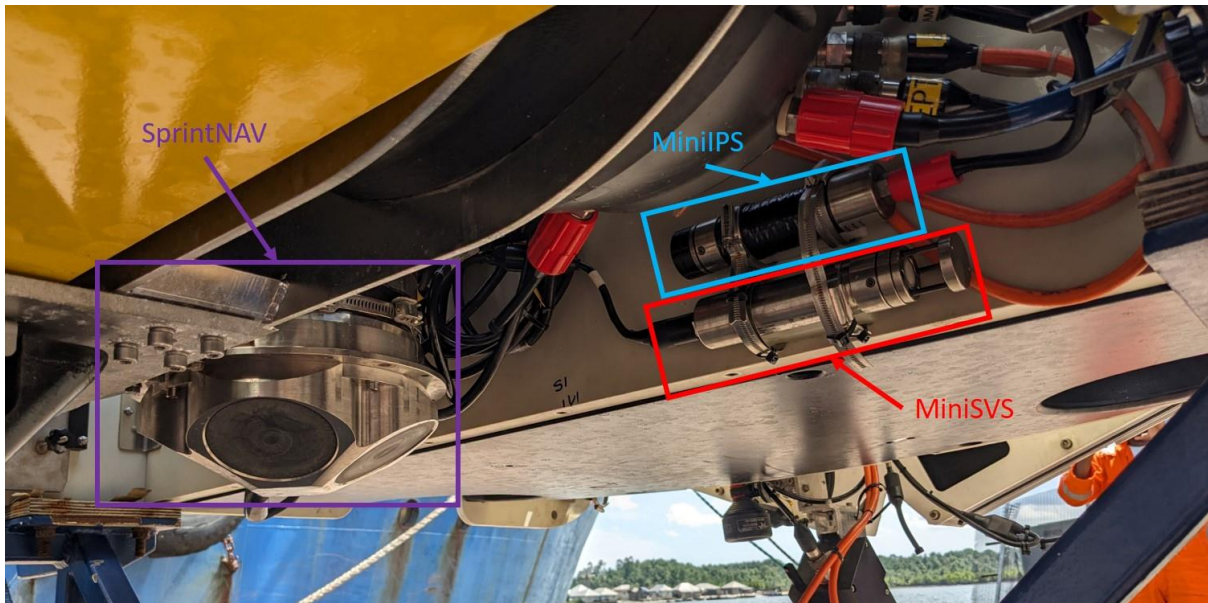
GEMINI

The Gemini is being ran on a laptop in front of the main pilot's screen. Survey is planning on having a repeat of the screen in their container, a network cable is ran for this and we are just waiting on getting the HDMI to RJ45 extenders.

VEHICLE AND GARAGE

SURVEY SENSORS



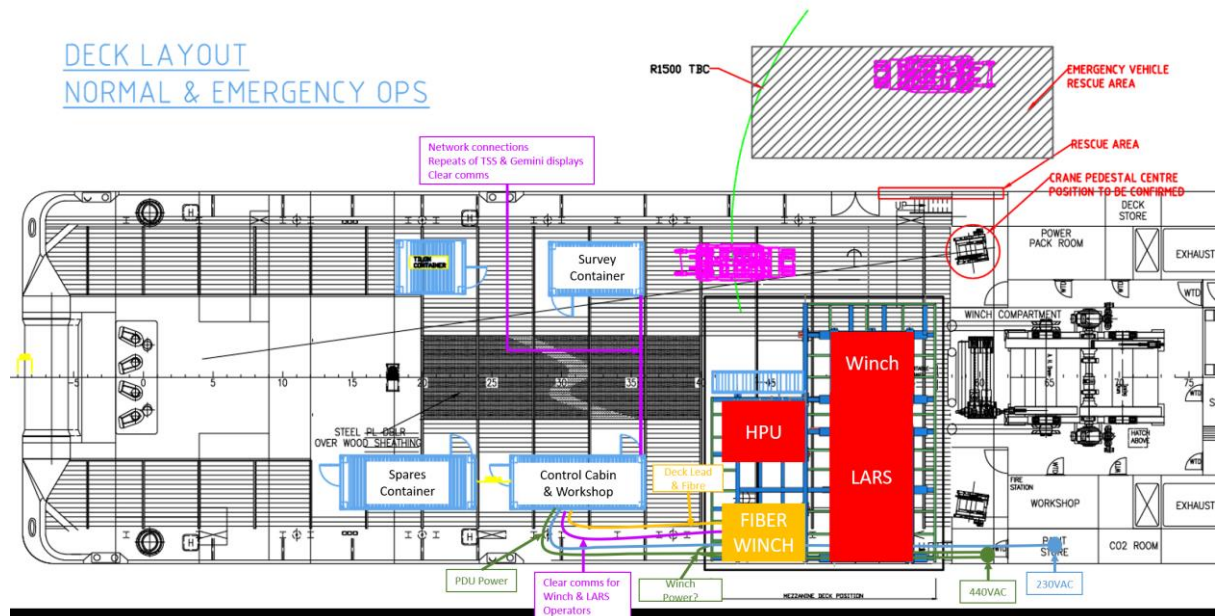


GARAGE CONSTRUCTIONS

The garage was designed by David Lyndsey and constructed in the UK. There are 8 bolts that need to be undone on each leg before the garage can be separate into 2 pieces, with the base acting as a work stand. It is a little high to be comfortable to work on, but does allow access to all areas of the vehicle. The idea from the office is that if we have to split the garage to work on the vehicle at sea, the wings are removed, the top section is lifted into the snubber and outboarded to leave the LARS platform clear. We will discuss this further when you arrive and can see it in person.

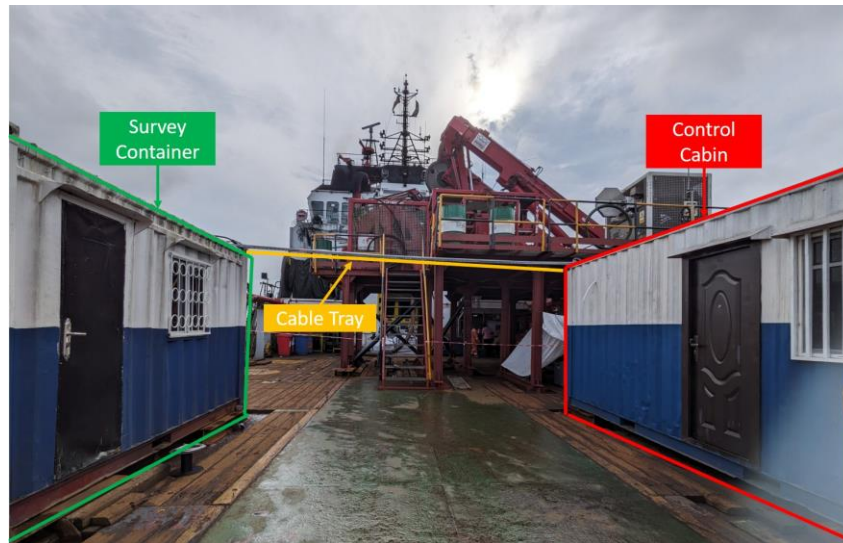


DECK LAYOUT

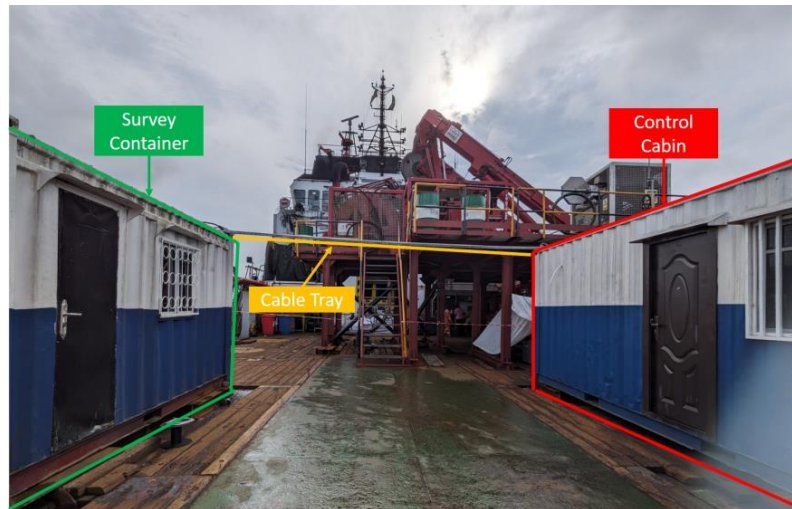


The vessel is equipped with 2 containers for us, a control cabin (as seen detailed below) and a spares container. There is also a container for survey, one for the client and a spares container for the LARS.





Cable to survey run in the cable tray running over head between the containers.



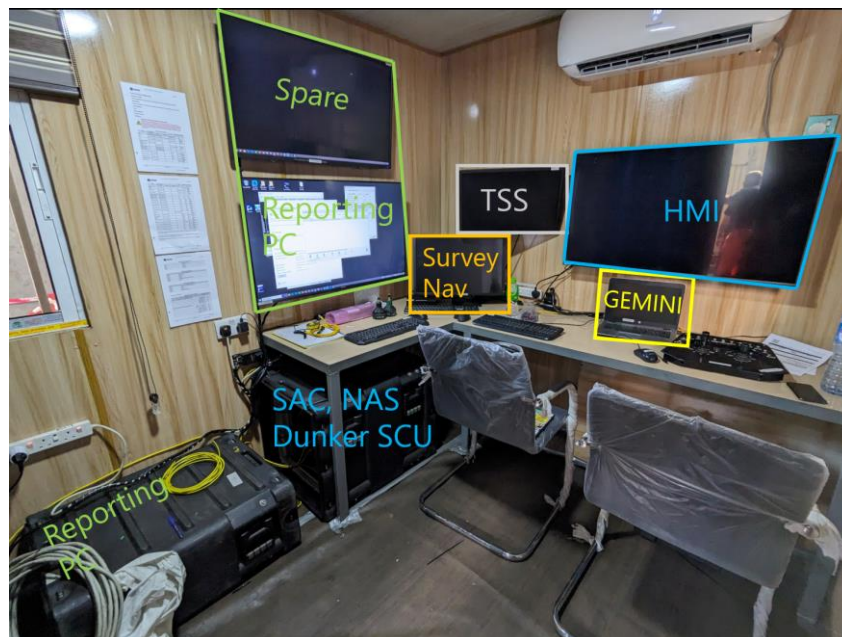
Goose neck on backside of the container for all connections.

The LARS has been supplied by Fadfae and comes with two operators.



CONTROL CABIN

The Control Cabin is a 20'-foot container that has been split in half (reminiscent of how HAUUV1 is setup, with a workshop and office space).

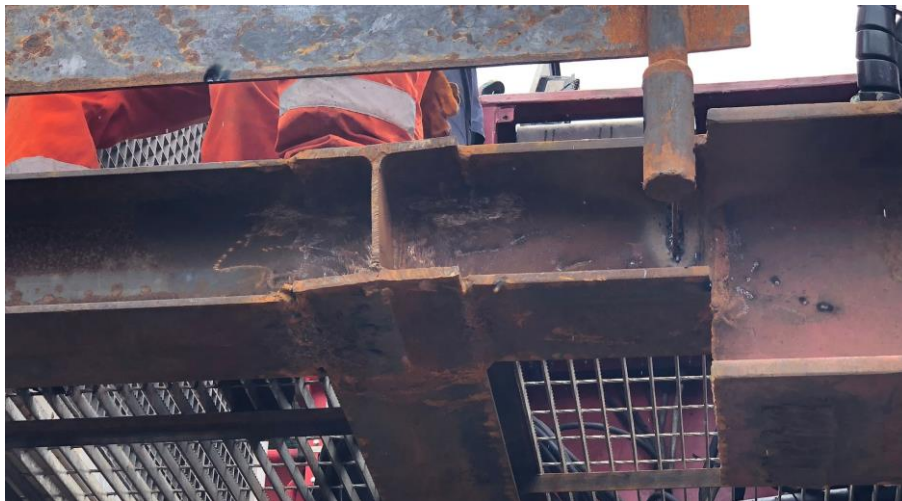


AOB

UNACCEPTABLE WELDING PRACTICES

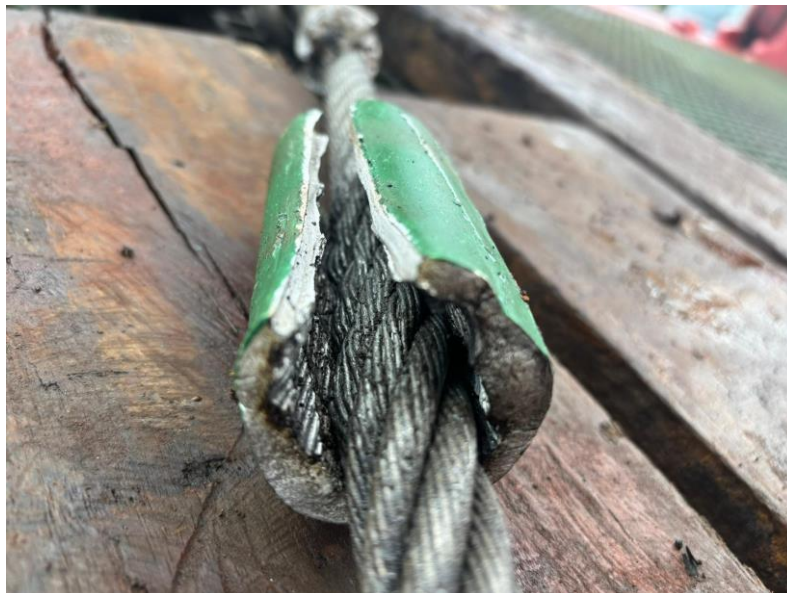
Upon arrival on the vessel concerns were raised regarding the quality of the welds for the mezz deck, an 'All Stop' was called for Manta operations on the vessel, a report was compiled and sent to Fadfae.

Fadfae have enlisted a third party DNV registered company (Bureau Veritas) to inspect the welds, advise what needs to be done and complete the works with qualified welders. Manta management are still awaiting the BV report as of writing this. Please see attached all stop report.



NEAR MISS INCIDENT

No sooner had we been given the go ahead to start loading our equipment, we had a High Potential near miss. The small link cable between the LARS winch cable and garage bullet parted while latched in, this threw the winch cable up over the sheave wheel and onto the quayside. Luckily no one was hurt, and it was all caught on camera, the investigation is still on going. The garage stayed in the latches and was released at the next day. It is currently being inspected for damage around the lift point. Rectification is underway, and changes are being made. Please see attached HiPo incident report and action tracker.



CREW CHANGE

Shell do not expect to be doing any interim crew changes once the vessel sails, expecting to sail as soon as out mobilisation is complete and the current projected duration is 30 days. Worth noting that the vessel only has fresh stores for 20 days and dry stores for 30, so I guess there might be an opportunity at around that period if things were to run on.

MARINE CREW AND VESSEL CONTROL

No idea, the language barrier might be an issue and the fact that they have never done a survey before. With everything going on we haven't yet had talks with the bridge crew about how we will need the vessel setup, how we expect them to follow the line etc.

CABIN ALLOCATION

Cabins are basic and the beds a little firmer than we'd like. The temperature can get be a little warm and then cold as the night progresses, but the Chief Engineer has said once the main engines are on things should be better. Showers are a little hit and miss, obviously the system is struggling with a full capacity crew compliment. It took 2 weeks for them to fit shower curtains and towels seem in short supply. The steward does his best to keep them clean and tidy, so can't fault that.

206 – Tom Banks & Jon Ryding

205 – Teo Malmsten & Matt Gossett

216 – Keith Akogun

MEALTIMES

During the mobilisation I have been down at 5:30am, but no breakfast has been available. I hope that once the project starts the times will be adhered to more strictly, if not then something will have to be mentioned. The food has been perfectly edible and some meals even quite nice. There is a lack of vegetables & fruit on board, only one meal option and some days the portions are meagre. There are biscuits and soda in the stores, but there seems to be a reluctance to share them out and we have to badger the galley crew to get anything extra.

MEAL SCHEDULE FOR VESSEL CREW AND PASSENGERS			
VESSEL CREW	BREAKFAST	LUNCH	DINNER
TIME	0630 - 0730	1130 - 1230	1900 - 2000
PAX	BREAKFAST	LUNCH	DINNER
TIME	0530 - 0630	1230 - 1330	1830 - 1900

LAUNDRY

The laundry room is located just inside accommodation on the port side, the vessel hasn't supplied any form of laundry bag...so bring your own. You are best off letting the steward know when you have a load, as he doesn't do the everyone's washing and other crew are using the laundry.

Off-going Supervisor Name & Sig.	Matthew Gossett
On-coming Supervisor Name & Sig.	Martin Hayes