

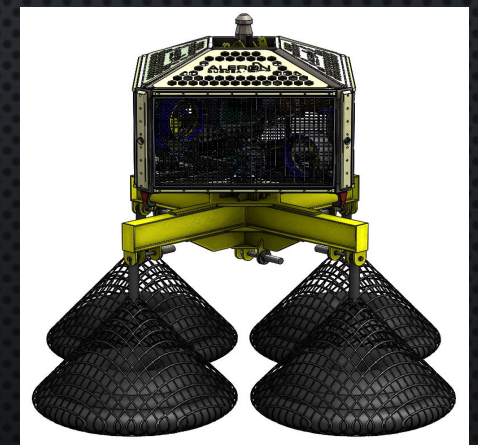


# HYBRID ROV SOLUTIONS

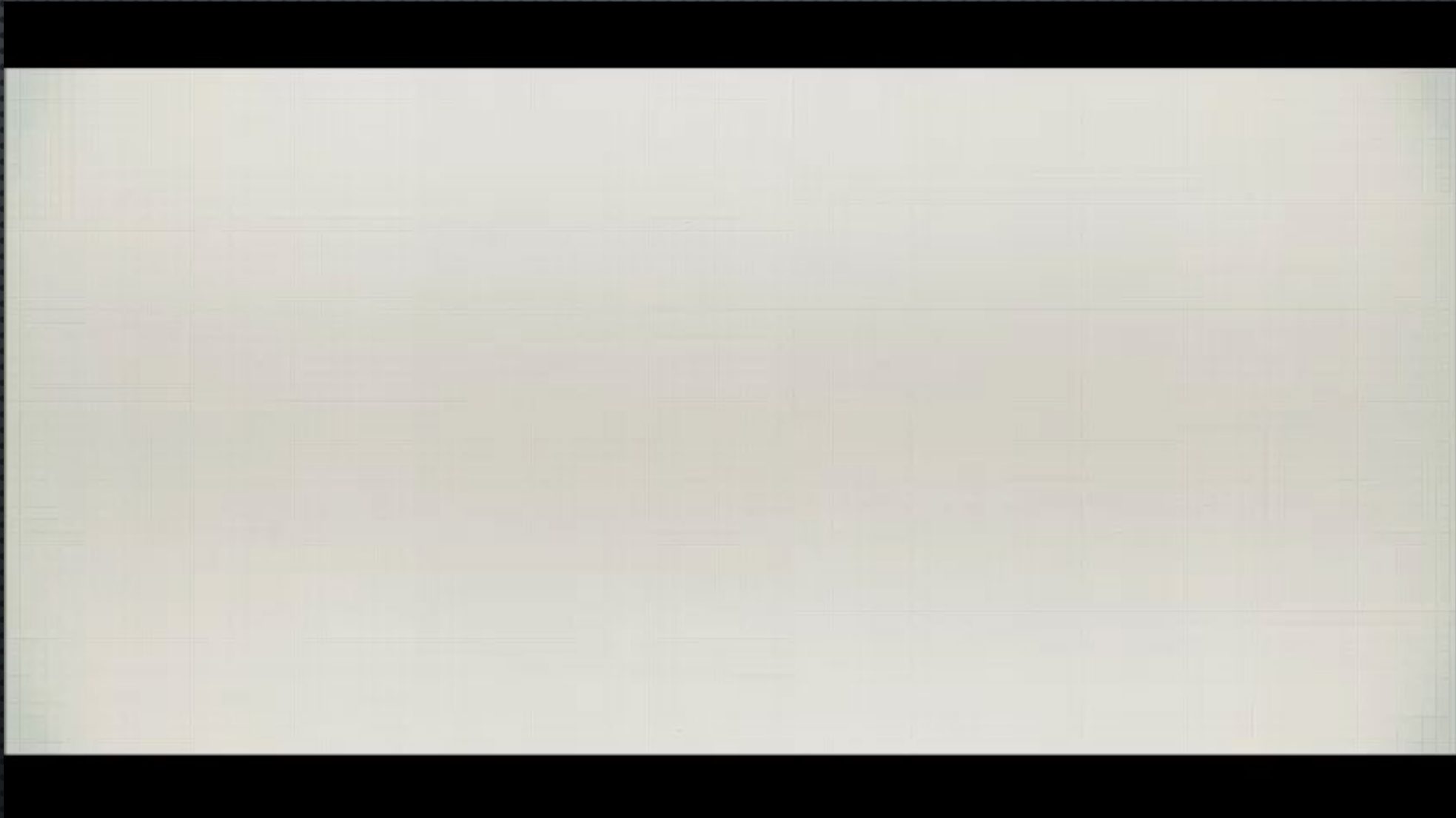
“Transforming ROV Operations”

# WHAT IS THE AUXROV?

- The AUXROV is Aleron Subsea's Auxiliary ROV system. It is a highly powered deep water Non Buoyant ROV system which was designed for providing large amounts of hydraulic flow, pressure, electronic power and data handling to a range of key subsea tools & sensors at depths of up to 3000m (we can go deeper.....).
- The system was originally designed around the operation of Hydraulic Grabs for Boulder clearance Operations in the wind farm market but with having been designed by ROV operators Aleron Subsea designed a system that can perform multiple subsea tasks.
- For example; operating large dredging tools for subsea excavation, operating Mass Flow Excavators, Operation various cutting tools, deploying rock bags for protecting pipes and cables, Subsea Survey with pipe trackers or seabed mapping skids, operating on subsea tracks holding station in high currents.



# HOW DOES IT WORK?





# POWER AT THE TOOL

**A key Feature is power.**

**By providing power at tool subsea the AUXROV removes downlines and large deck HPU's which are used for these tools conventionally.**

**This means we can take these tools into deep water environments.**

**The AUXROV's operate with a dual HPU system which is used as redundancy or a combined power depending on the operation.**

**System 2 has a combined 300HP delivering flows of up to 520 LPM @ 210 bar in order to supply MFE's with optimum power.**

# TOOLING INTERFACE

The systems uses a simple hydraulic latching system and interface plate. Additional framework can be used for interfacing larger tools such as MFE's and when multiple tools are being used on one project quick connects on the hydraulic lines allow for quick tooling change outs.

Power is distributed through a hydraulic valve pack so proportional control can be used.

There is a sensor built into the hydraulic ram that tells the software that its fully engaged and safety mechanisms built into the software to ensure that it can't be disengaged without using a password



# TRACKROV

While talking to our clients we came to understand their key problems has been operating in high current / low tide environments. We started looking at a variety of potential operations and came up with the TRACKROV....

- UXO IDENTIFICATION
- DEPTH OF BURIAL
- DREDGING OPERATIONS
- TSS / MAGNETOMETER OPS
- GENERAL SURVEY INSPECTION
- CLEANING
- MANIPULATOR OPS

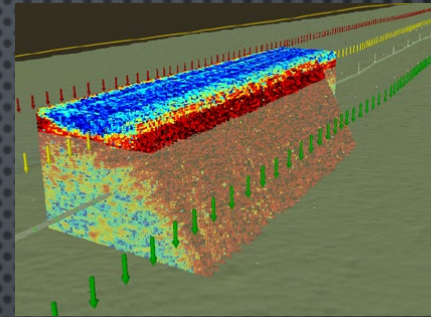


# PANGEO SUBSEA SBI SYSTEM

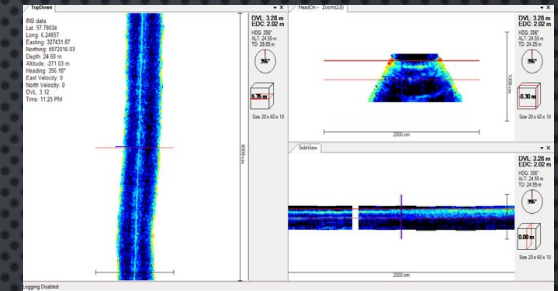
One of the key design considerations when developing the TRACKROV was operating the Pangeo Subsea Sub Bottom Imager (SBI). The Pangeo SBI system has proved itself as a leading tool for target identification. With the rise in renewables UXO identification and removal has become a key operation prior to subsea construction.

## SBI Features:

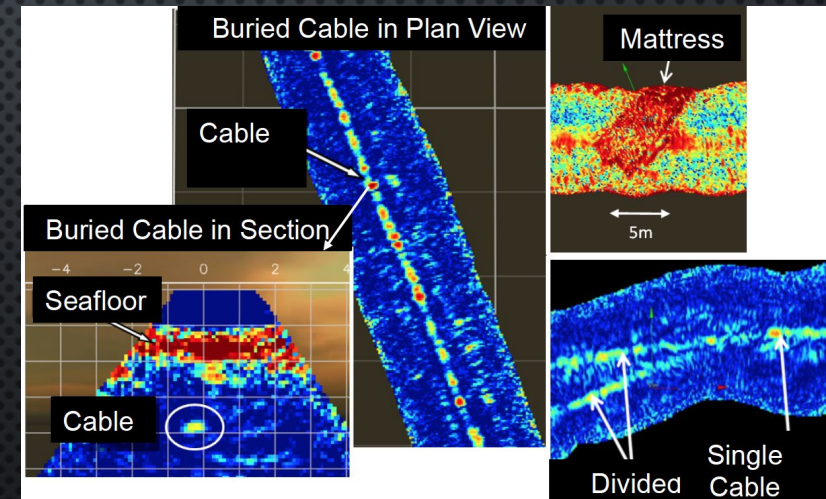
- ACQUIRES CONTINUOUS 3D ACOUSTIC VOLUMETRIC SWATH: 5M WIDE TO DEPTHS OF 5 – 8M
- APPLICATIONS: SHALLOW GEOHAZARD PRE-ROUTE SURVEYS (UXO AND BOULDERS), DEPTH OF BURIAL, OUT OF STRAIGHTNESS, DEBRIS AND DECOMMISSIONING SURVEYS
- IDENTIFIES SIZE, SHAPE, AND ORIENTATION OF BURIED HAZARD WITH 10CM RESOLUTION
- IMAGES AC/DC CABLES: NO TONE OR POWER REQUIRED
- DEPTH OF BURIAL REPEATABILITY BETTER THAN 10 CM ACCURACY
- IMAGES BEYOND THE 1.5M LIMITATION OF OTHER SYSTEMS
- VERIFICATION OF MAG. TARGETS: REDUCING REQUIRED UXO INVESTIGATIONS UP TO 80%



3D Volumetric Swath



Real Time On-Line Viewer



HVDC Cable  
Depth Burial

# SUBSEA TOOLING SERVICES DREDGE PUMP

Once targets are identified the TRACKROV can operate high flow dredge pumps to clear the area around unknown targets to establish whether they are a “real” target or a “ghost” target. This offers a huge time saving in the overall project.

An example of the dredge pumps that can be used is the Subsea Tooling Services 8” MKI Predator Dredger as below but these units come from 4” to 12” for different scopes.

Operational specifications of the 8”:

Hydraulic Flow	80– 100 Litres per minute
Optimal Hydraulic Pressure	180 – 210 Bar
Gross Water Flow	8500 Litres per minute (Through Ejector)
Removal Capacity Sand m3/h (Tons per hour)	78.2 m3/h (100 tons per hour)
Removal Capacity Rocks m3/h (Tons per hour)	53.2 m3/h (85 tons per hour)
Unrestricted Diameter	200mm
Dimensions of Dredger L x W x H + Weight in Kg	3100mm x 350mm x 670mm 130 Kg
Dimensions of Transit Case L x W x H	2200mm x 850mm x 1000mm
Hydraulic Hoses Supplied	3 x Certified Hose's 3000mm Long c/w 8 JIC Female Swivel (6 JIC Case)





# THE GLADIATOR CONTROL SYSTEM

- Aleron Subsea's easy to use Gladiator control system is designed and controlled in house. The system features include an easy to use touch screen, flying joystick and optional pilots chair.
- Client specific software modifications are easy to perform and implement with simple software updates; for example a proportional slider can be added for fine hydraulic control of tools or a separate page can be added for the control and operation of a Mass Flow Excavators.
- The control system is also build with survey data in mind. It has the capability of running 12 x RS232, 12 x RS485 serial channels, 4 x 1 Gig Ethernet and 6 SD video. These can all be expanded through modular boards if needed.

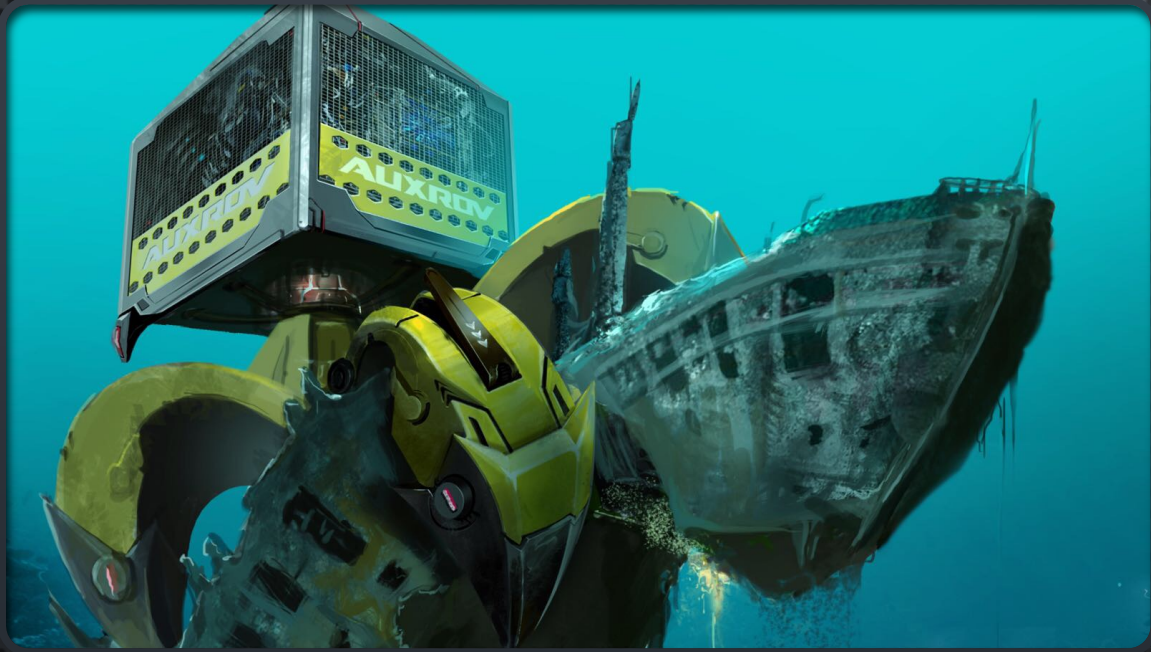


# TRACK RECORD

The AUXROV was awarded work for JFMS and Britannia's Gold in their high profile salvage operations exploring a wreck for WWII gold. The system was used to operate two hydraulic grabs and a high flow dredge pump during the 42 salvage scope.

It assisted with boulder relocation and rock bag installation with JFMS in 2018.

The TRACKROV was built in 2018 and awarded a 4 month UXO survey contract in the Netherlands where it worked extensively opening up the weather window and surveying over 400 targets



If you have any questions or want further info please get in touch:

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