



# Jan De Nul ROV Dual Head and STX Testing

- NORBIT OCEANS

Tormod Vaule, 3.2019

## About Jan De Nul

- Shaping water and land. From complex offshore services for both fossil and renewable energy sectors, over large dredging and reclamation project at the edge of water and land to all possible civil and environmental works onshore.
- Thanks to the continuous investment in people and own equipment, in combination with the intense cooperation between the different departments, Jan De Nul Group studies and executes complex multidisciplinary projects from A to Z. A total package, time after time, and in a sustainable way.



## Location, Belgium





## Boat

- Willem De Vlamingh
- Cable and Umbilical Installation Vessel
- Deadweight: 6.500 t
- Built in: 2011

The DP2 vessel *Willem de Vlamingh* are equipped to execute subsea cable and umbilical installation. With its high transport capacity, the vessels can be used for the very large and long cable projects. Additionally, it can be equipped with trenching tools to execute both cable laying and trenching scopes, and thus drastically lowering the costs for mobilization.





## System setup ROV Dual Head

### ROV Details

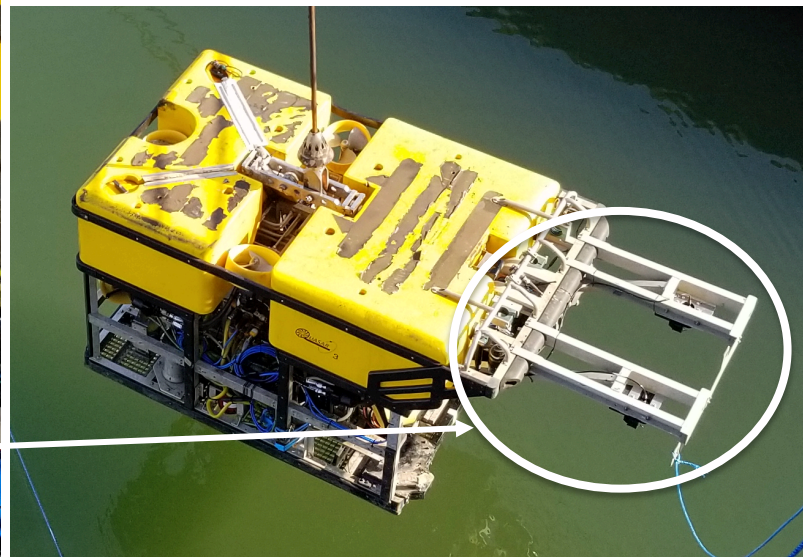
- STD Quasar
- Medium size work class
- 4000meter depth

### Mount

- Aluminum frame
- NORBIT Bracket

### Sensors

- 2 x NORBIT WBMS sonar
- IXBLUE Rovins
- Trimble GNSS
- NORBIT GUI 10.3.6



## ROV Harness

RTS Gen 5 Mux  
Ch 11  
(55A1-2013)

- 1 NC
- 2 NC
- 3 A+ White/Orange - Eth. Tx +
- 4 A- Orange - Eth. Tx -
- 5 B+ White/Green - Eth. Rx +
- 6 B- Green - Eth. Rx -
- 7 NC
- 8 NC
- 9 24V Supply
- 10 24V GND
- 11 NC
- 12 NC
- 13 NC

RTS Gen 5 Mux  
Ch 5  
(MCBH-6-F)

- 1 V+ (24V DC)
- 2 V0 (GND)
- 3 RS232 Tx Data Down
- 4 RS232 Rx Data Up
- 5 SerGND
- 6 Pulse/PPS

RTS Gen 5 Mux  
Ch 10A  
(MCBH-8-F)

- 1 V+ (24V DC)
- 2 V0 (GND)
- 3 A+ White/Orange - Eth. Tx +
- 4 A- Orange - Eth. Tx -
- 5 B+ White/Green - Eth. Rx +
- 6 B- Green - Eth. Rx -
- 7 NC
- 8 NC

RTS Gen 5 Mux  
Ch 6  
(MCBH-6-F)

- 1 V+ (24V DC)
- 2 V0 (GND)
- 3 RS232 Tx Data Down
- 4 RS232 Rx Data Up
- 5 SerGND
- 6 Pulse/PPS

Norbit WBMS  
Primary  
(Lemo)

- 1 LAN Tx +
- 2 LAN Tx -
- 3 LAN Rx +
- 4 LAN Rx -
- 5 RS232 Tx - Trigger Out
- 6 RS232 Rx - Trigger In
- 7 Trigger/GPIO Timing
- 8 RS232/Trigger GND - Timing GND
- 9 PWR GND
- 10 PWR 24V

Sync  
(MCIL-3-M C/w MCDLS-F)

Sync  
(MCIL-3-F C/w MCDLS-M)

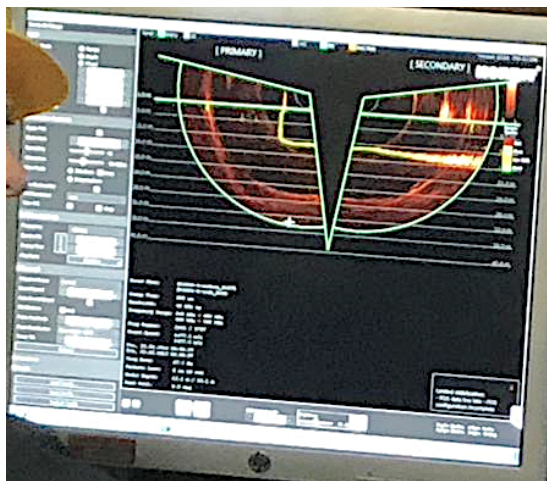
Norbit WBMS  
Secondary  
(Lemo)

- 1 LAN Tx +
- 2 LAN Tx -
- 3 LAN Rx +
- 4 LAN Rx -
- 5 RS232 Tx - Trigger Out
- 6 RS232 Rx - Trigger In
- 7 Trigger/GPIO Timing
- 8 RS232/Trigger GND - Timing GND
- 9 PWR GND
- 10 PWR 24V

## Results ROV Dual Head

### Results

- Systems performed as expected on ROV.
- Timing, trigger and TSS1 was verified.





## System setup STX Multidetect

### System Details

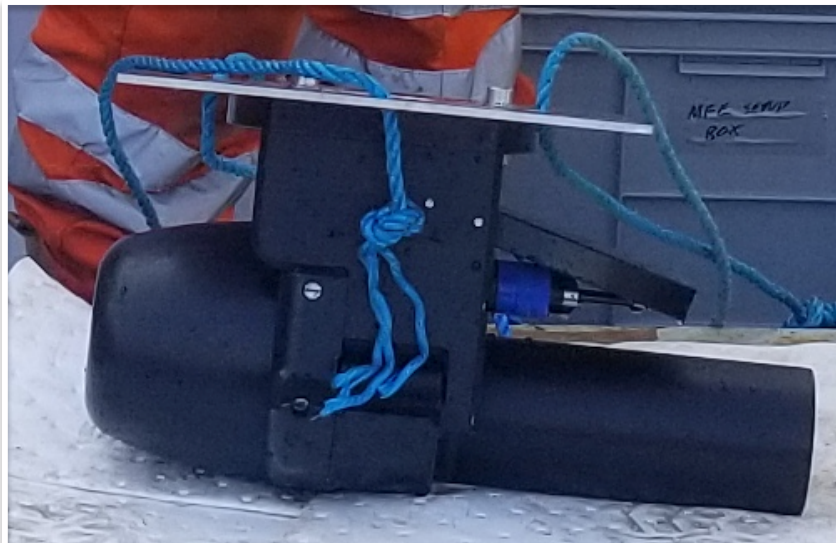
- NORBIT iWBMSH STX
- NORBIT GUI 10.3.6 (10.4 multidetect)
- QPS with 3D View.

### Target

- Plastic box

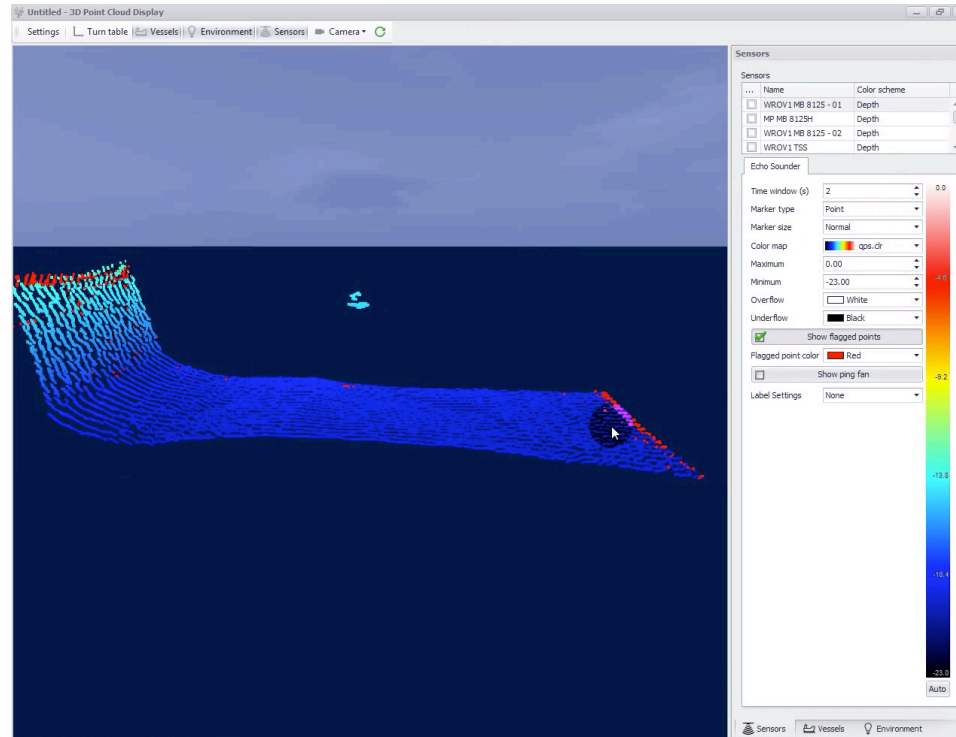
### Mount

- Aluminium plate
- Attached with ropes



# Results STX Multidetect

Watch video [HERE](#)







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