BOS Launch Scenarios

Platform Constraints

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R/V John Martin

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- A-Frame: H: 116" W: 102"
- Winch: 1,500m 1/4"SC
- Max Load: 1,000 lbs
- Deck Space: ??
- Capstain: Yes

Platform Constraints

R/V John Martin

R/V Shearwater

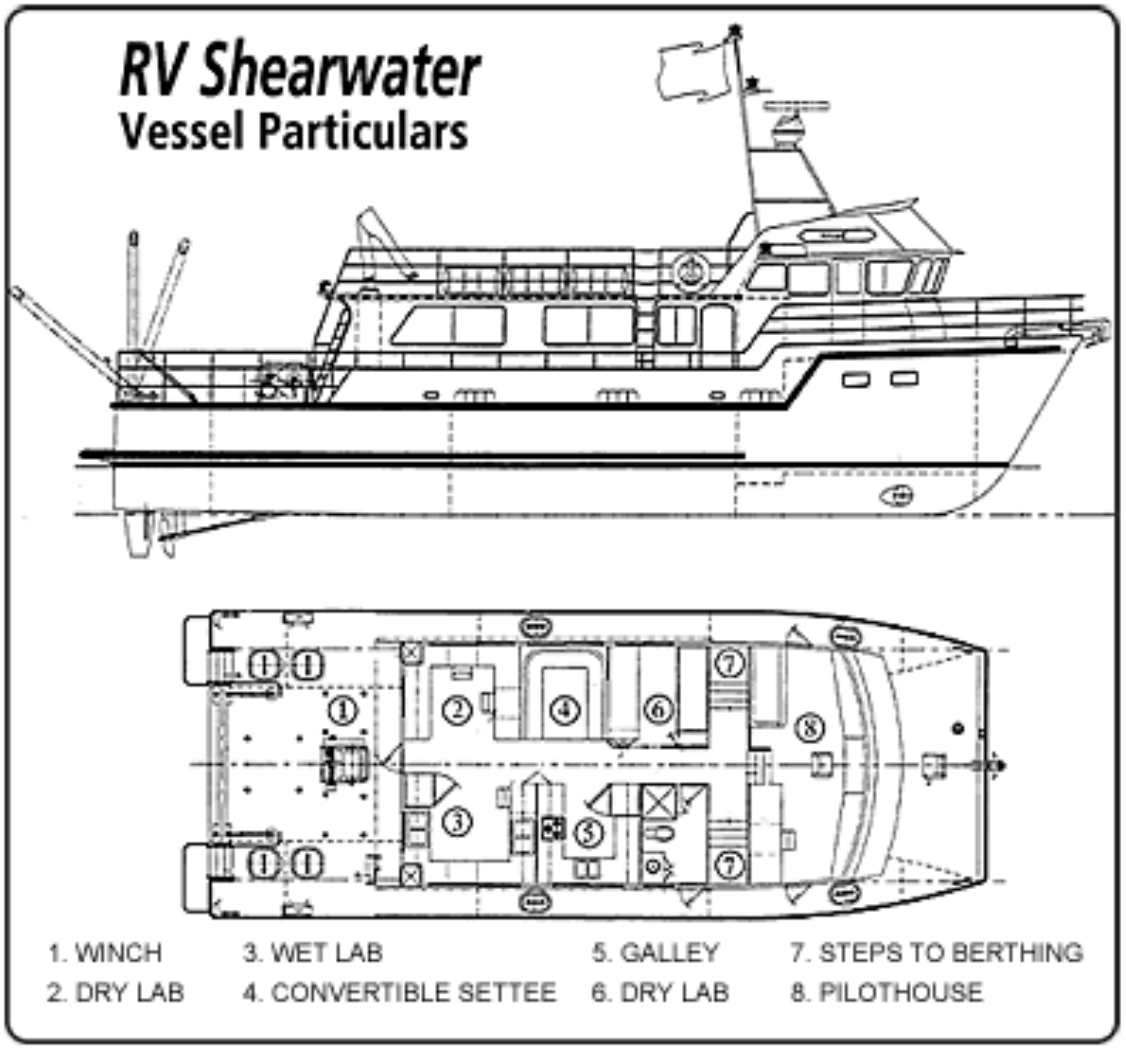
R/V John Martin

- A-Frame: H: 116" W: 102"
- Winch: 1,500m 1/4"SC
- Max Load: 1,000 lbs
- Deck Space: ??
- Capstan: Yes

R/V Shearwater

- A-Frame: H: ~14' W: 10'
- Winch: 1,800 0.322"MC
- Max Load: 800 lbs
- Deck Space: F/A: 7' P/S: 10'
- Capstan: ??

R/V Shearwater



R/V John Martin

Winch

R/V John Martin

Winch

A-frame

Launch Scenarios

Launch Scenarios

A: Direct Winch Wire

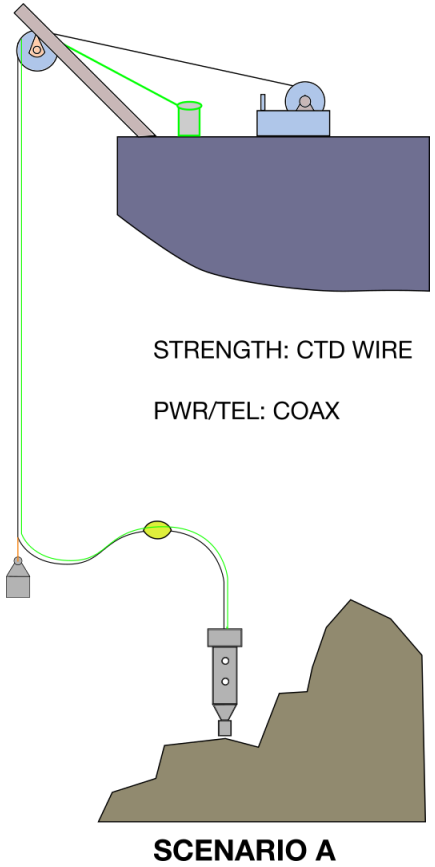
Using the winch wire, directly shackle it to the BOS and secure it to the coax using cable straps until the clump and then the line hooks to marry the two after that. Football Float in the middle of section b/t clump and BOS.

Pros:

- Least amount of hardware stowed on the winch.
- Familiar operation for equipment handlers.

Cons:

- Requires over the side marrying operations.
- Some entanglement hazard.



SCENARIO A

Launch Scenarios

A: Direct Winch Wire

B: Synthetic Flying Lead

Spool a length of synthetic strength member, such as Spectra, onto the winch and shackle it to the bitter end of the CTD wire. Provides a shackling point for the clump, and may reduce the need for a float in the section between the clump and BOS.

Pros:

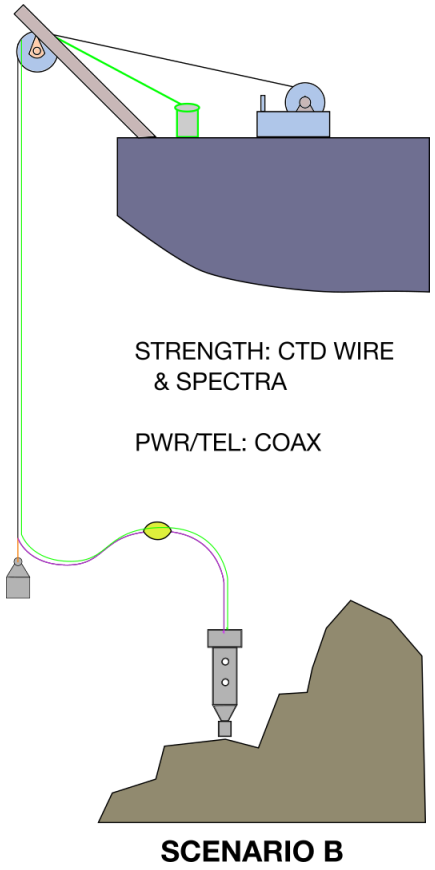
- Float may be unnecessary, but is still recommended.
- Doesn't require yale grip for clump attachment.

Cons:

- More equipment.
- Requires over the side marrying operations.

Notes:

- RV John Martin cannot overload its CTD winch, and the dedicated blocks cannot pass the CTD Wire termination



SCENARIO B

Launch Scenarios

A: Direct Winch Wire

B: Synthetic Flying Lead

C: Synthetic Only

Deploy using only a synthetic strength member such as Spectra, using a hydraulic capstan to lift and drop the lander. The clump could be attached using a shackle, and the coax would still be married over the side. It is possible to premarry the cable to the spectra, but the capstains can be too small for this in some uses.

Pros:

- Float may be unnecessary, but is still reccommended.
- No yale grip for clump attachment.

Cons:

- Slightly more dangerous operation, since the line must be handled by hand.
- Requires over the side marrying.

Launch Scenarios

A: Direct Winch Wire

B: Synthetic Flying Lead

C: Synthetic Only

D: Coax Only

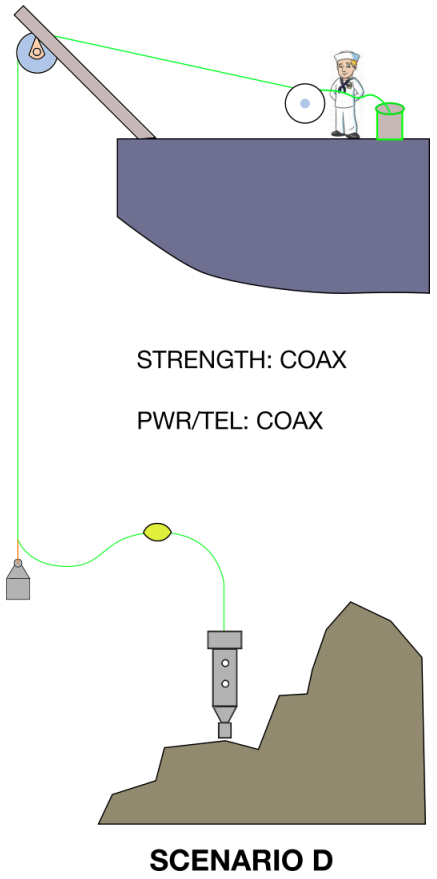
Launch and recover with aid of the winch or deck line, then use a powered capstan and deploy using the coax alone. Clump would have to be attached and launched in the same way. Still requires the float.

Pros:

- No need for line marrying.

Cons:

- Complicated launch and recovery.
- Best way to recover would be hooking in recovery lines at the surface, and slipping those lines for launch.
- Puts strain on the coax, not sure of the rating.



SCENARIO D