

**Lillehammer  
2009**

**STEEGE**

# **AUVs and ROVs**

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**Braemar Steege**

**BRAEMAR STEEGE**

# AUVs

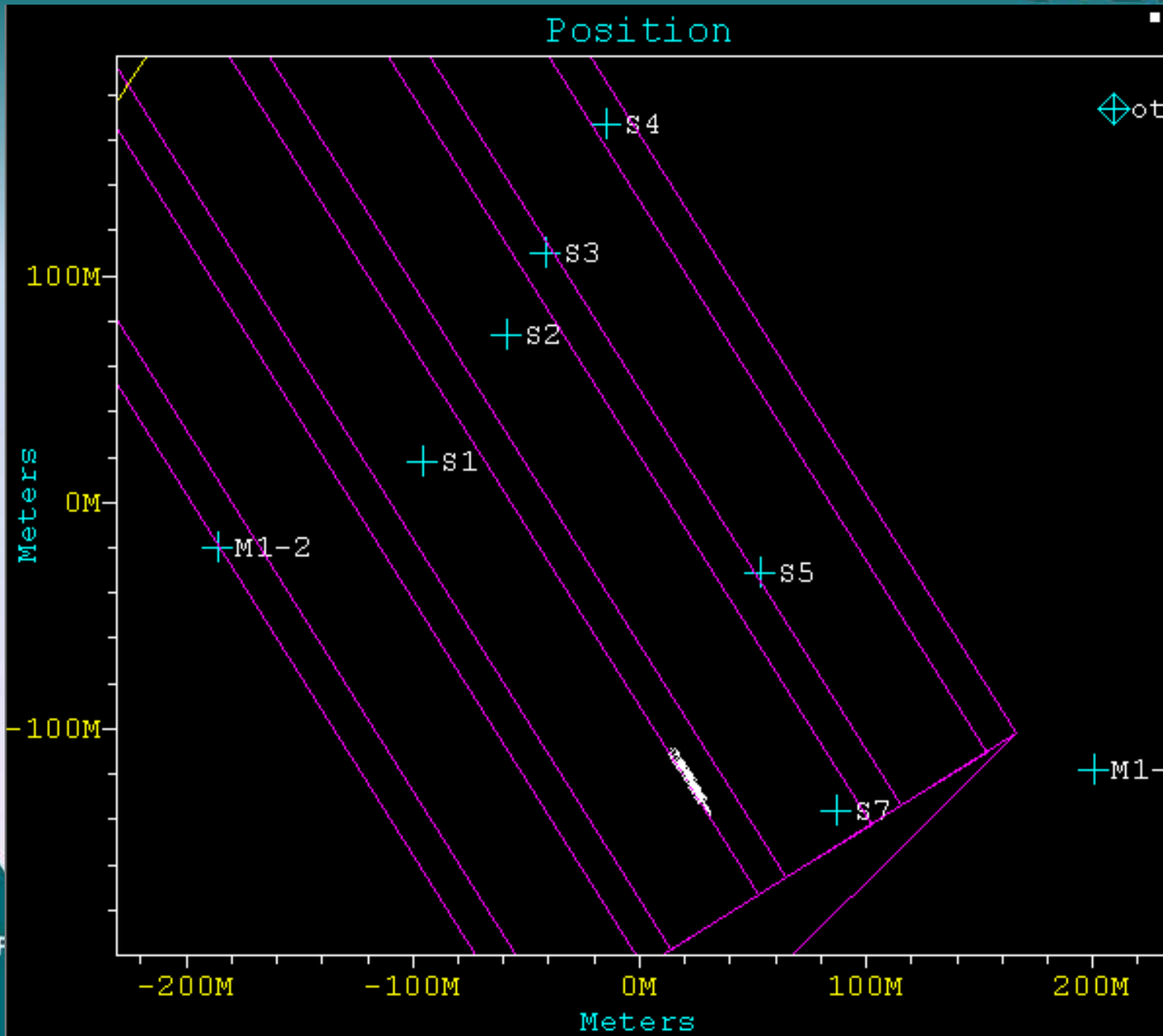


# AUVs

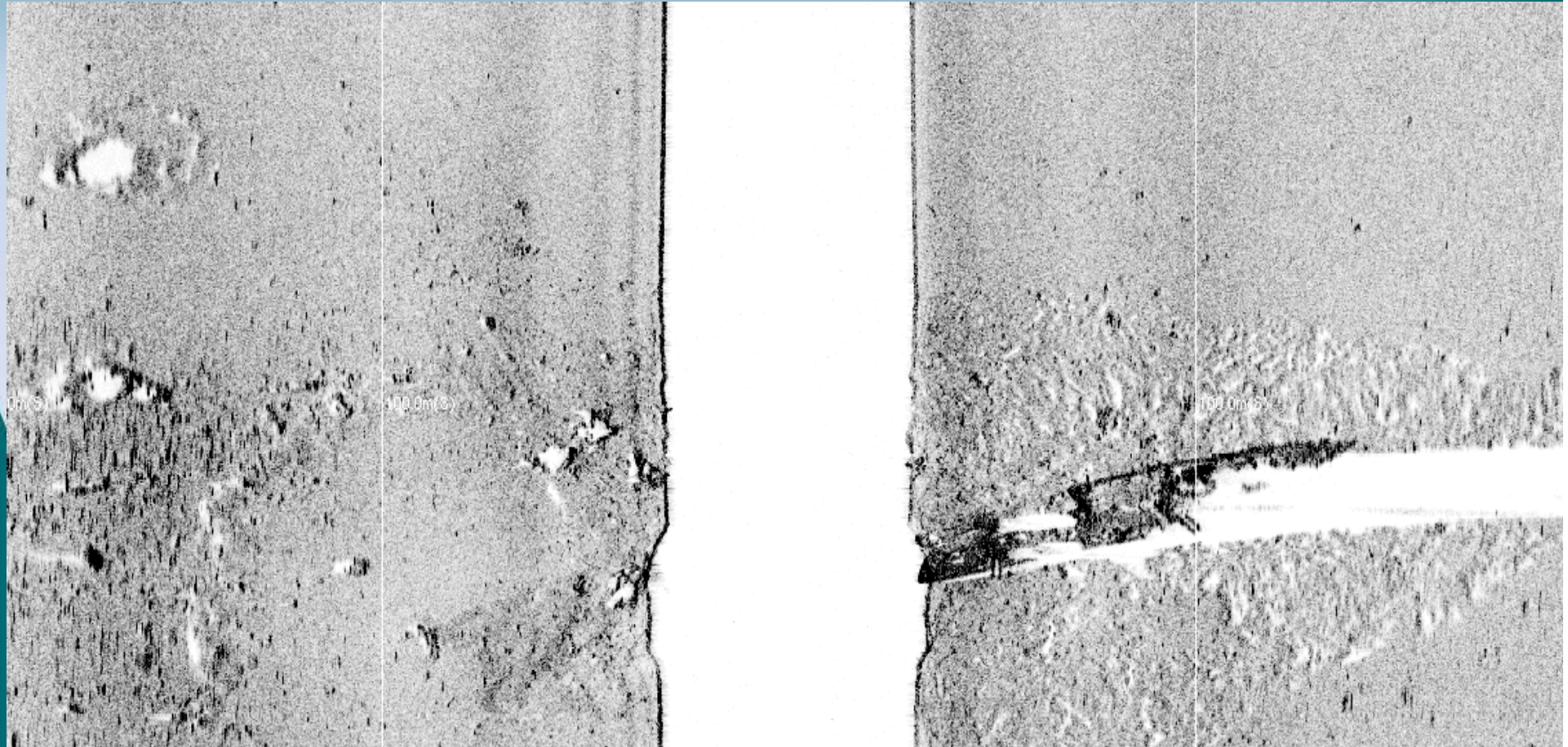


# AUV HUGIN 3000





# FS DANTON



# FS DANTON

E: 418194 N: 4290538 12:01:05 18 Jan 08  
KP: 228.78 DCG: 29.8 H: 237 D: 1022 A: 60  
Task: Galsi-Artemis Cable Crossing Survey



# AUV use in Offshore Oil & Gas Fields

## Existing Applications

- Pipeline and Cable Route Surveys
- Touchdown point surveys
- Seabed survey for Subsea installation

## Applications in development

- *Pipeline condition surveys (almost on stream)*
- *Structured Subsea Intervention ( future development)*

# Remotely Operated Vehicles



# Observation ROV



# ROV

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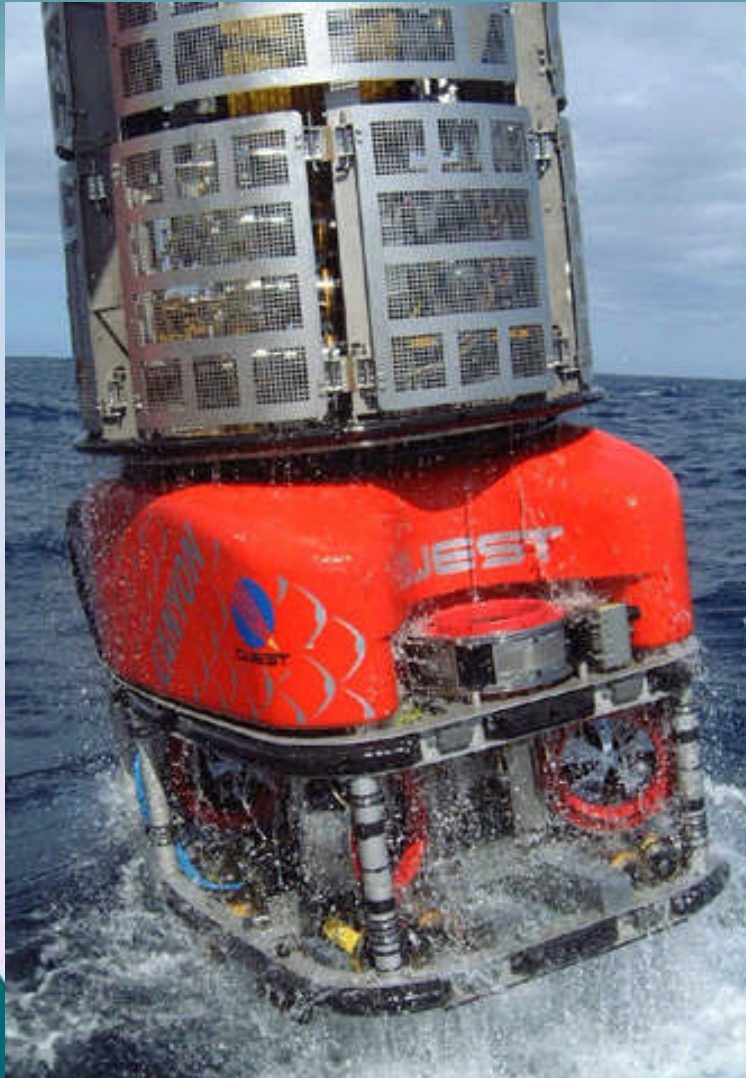
# ROV Leak Detection STEEGE

24-NOV-07  
13:06:50

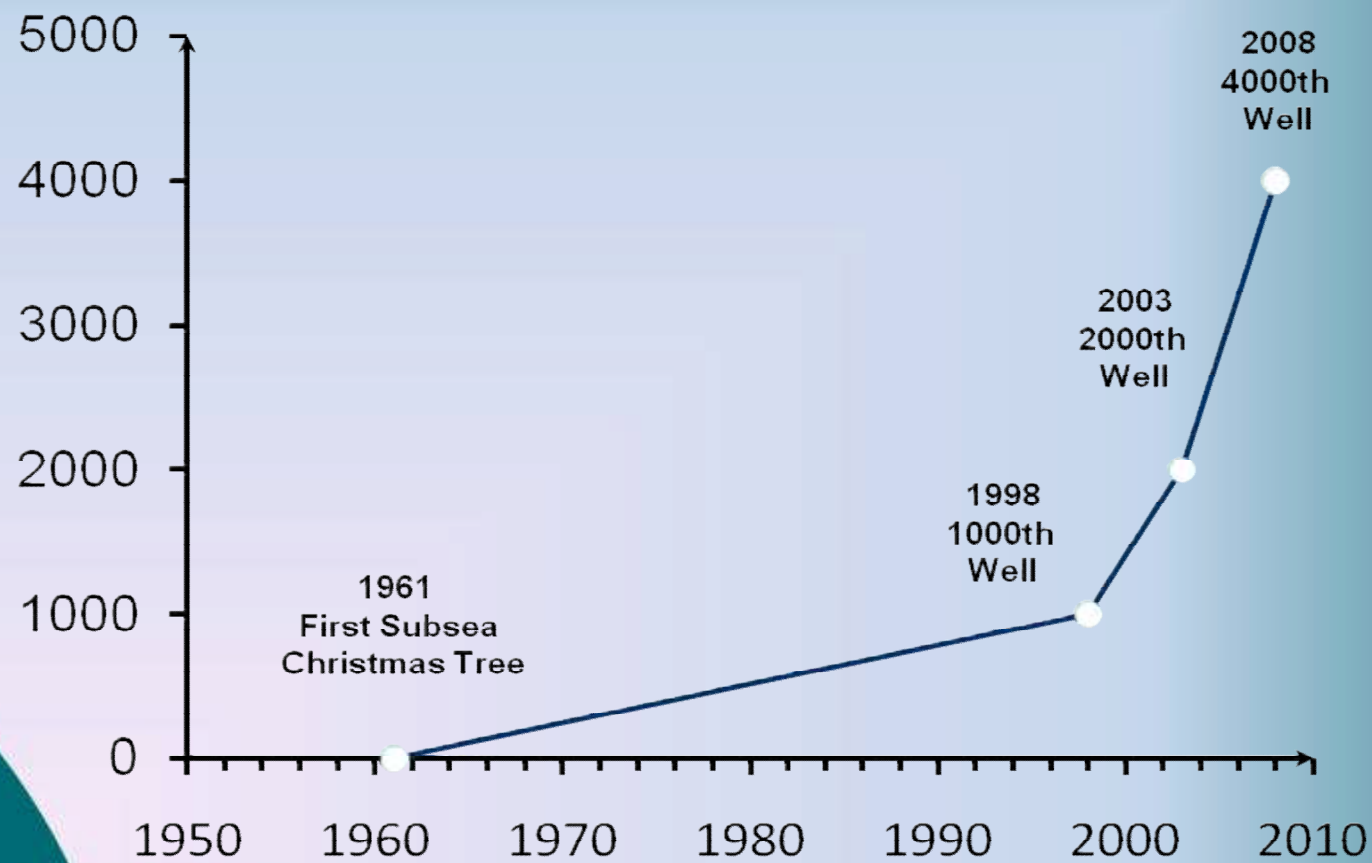
D:044.1M  
H:018

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# Work-Class ROV



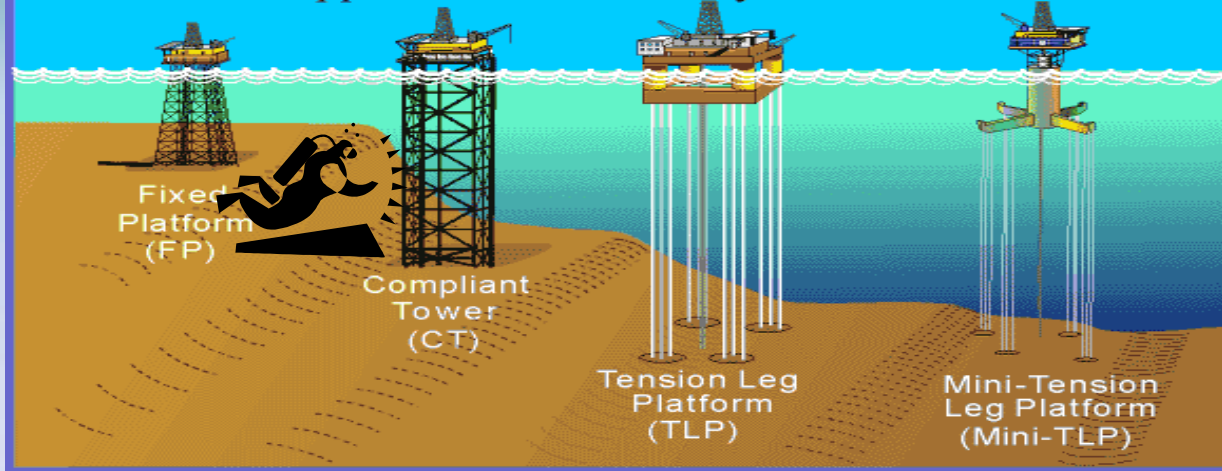
# Subsea Well Completions



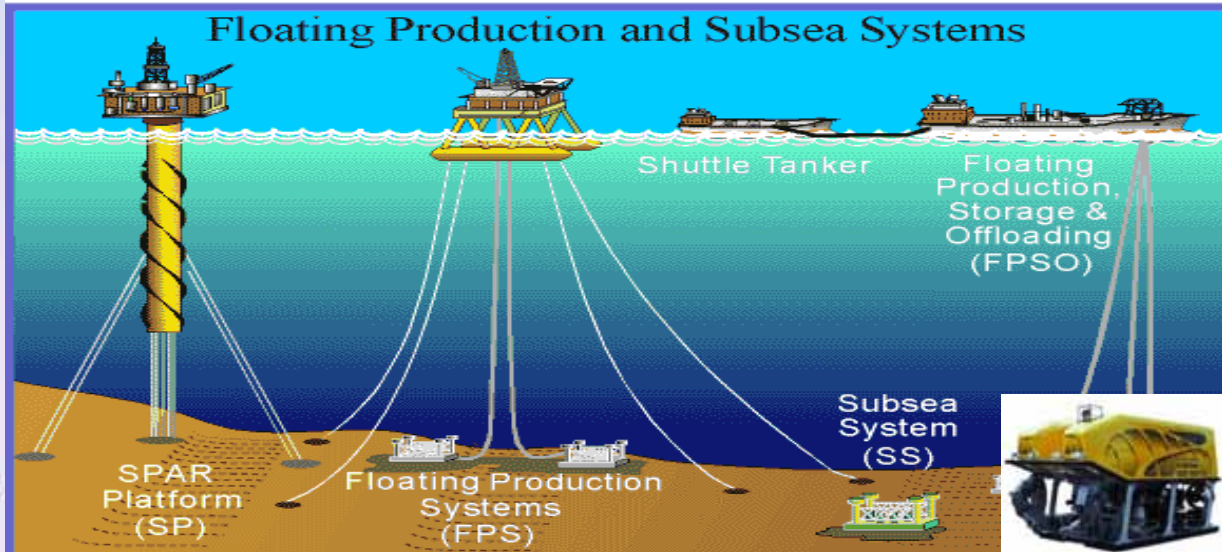
# Work-Class ROV

## Deepwater Development Systems

### Bottom Supported and Vertically Moored Structures



### Floating Production and Subsea Systems



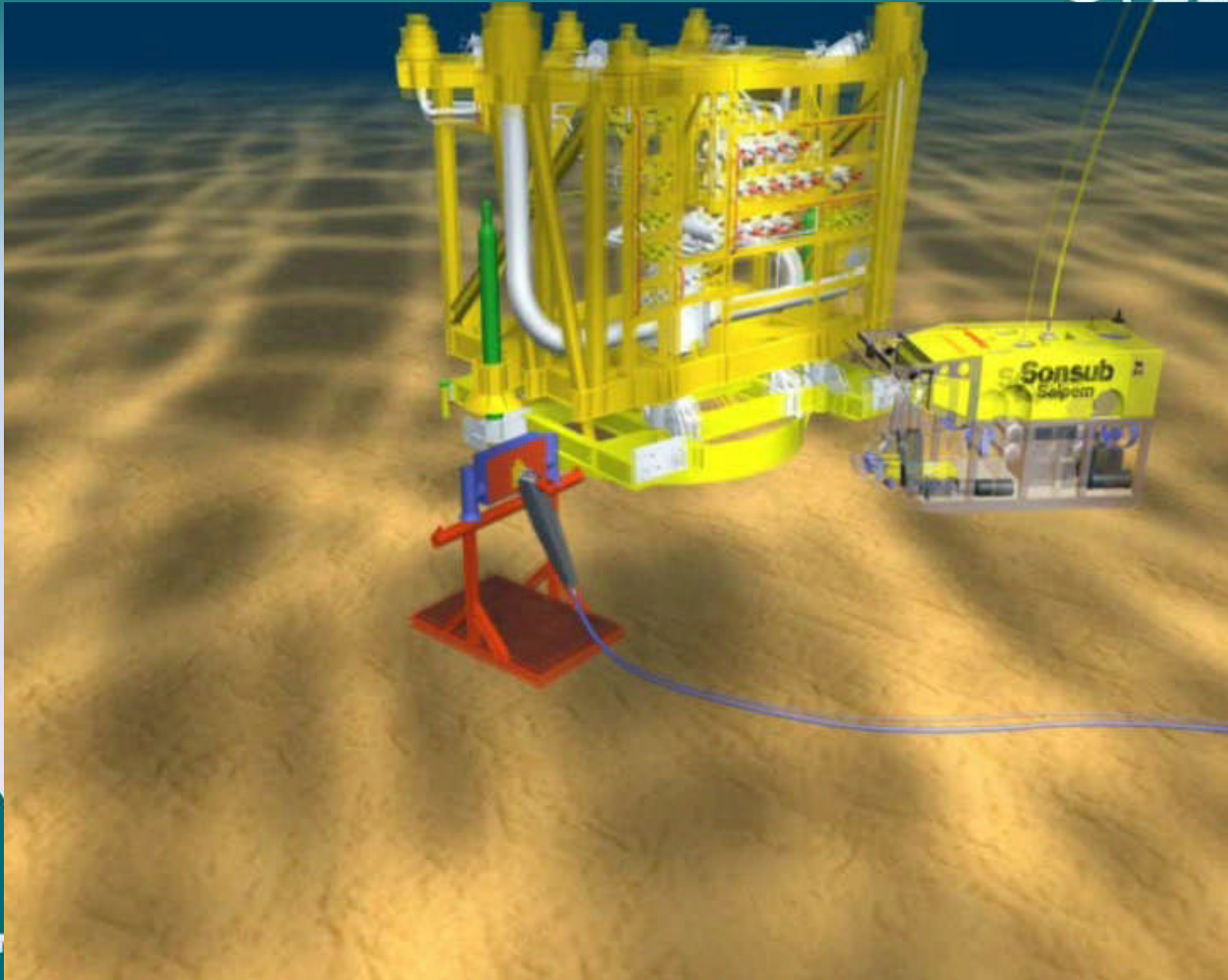
# INSTALLATION PROCEDURE

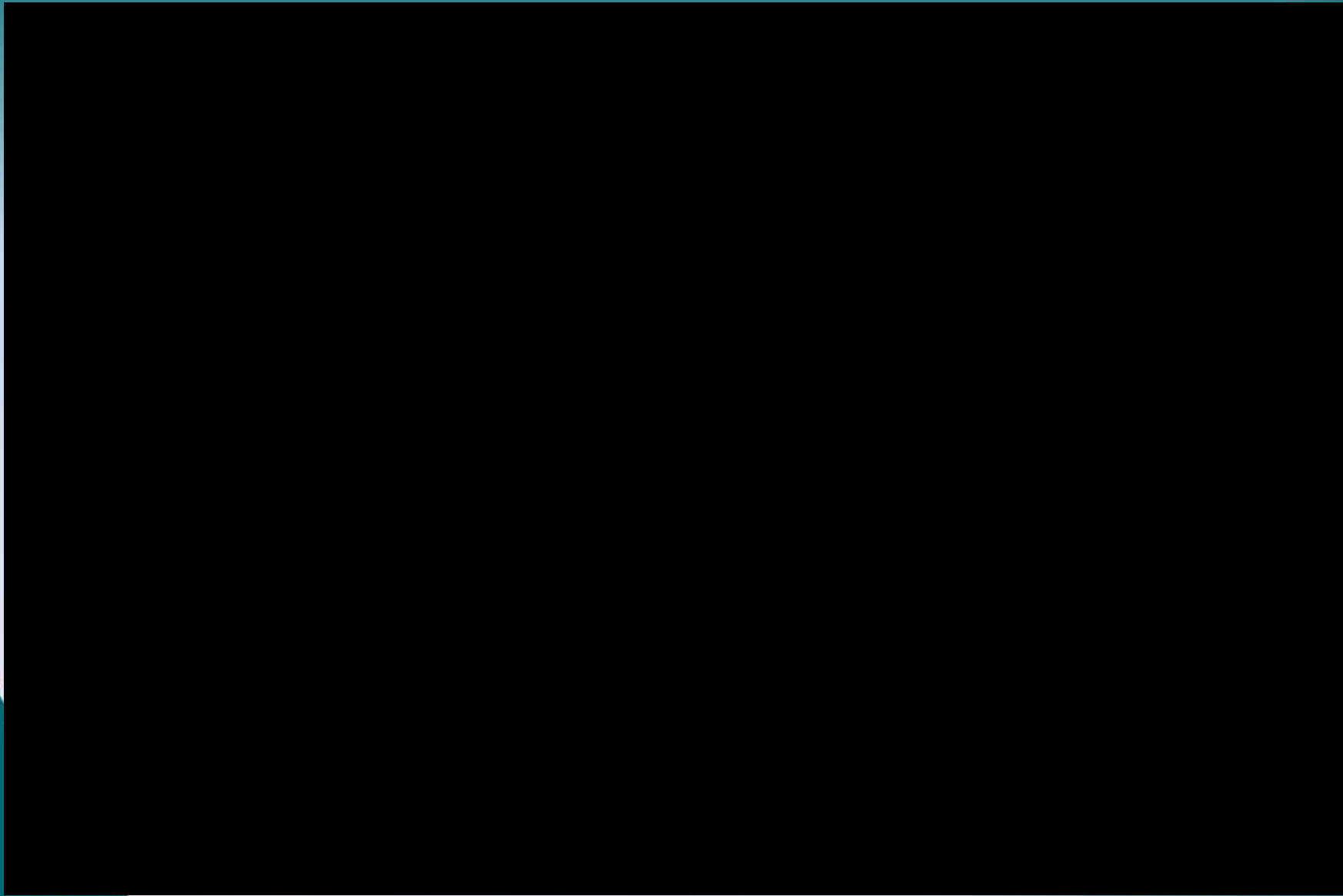


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# Marine Perils



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