

Template Installations on Aasta Hansteen Field for Statoil - The Deepest Oil and Gas Field Developed on the Norwegian Continental Shelf

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EMAS CHIYODA Subsea



EMAS Chiyoda Subsea

New Company – April 2016



EMAS CHIYODA Subsea's business will remain the same as EMAS AMC's pre-JV business, including:

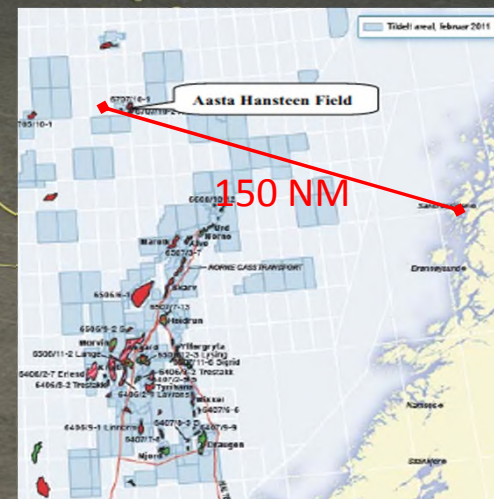
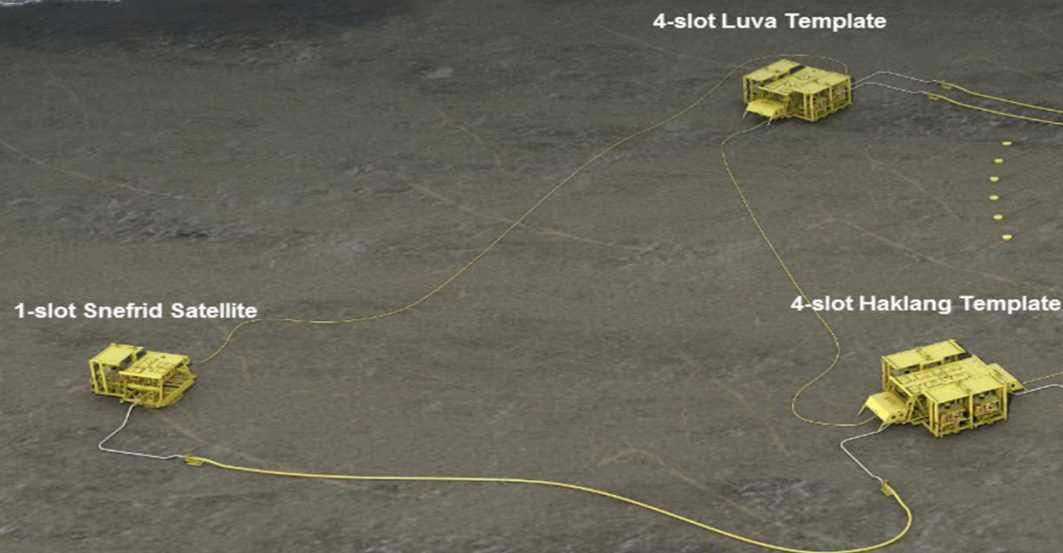
- Provision of EPCIC and T&I services;
- Provision of decommissioning services;
- Provision of life of field services;

for offshore oil & gas projects and offshore renewable energy projects.

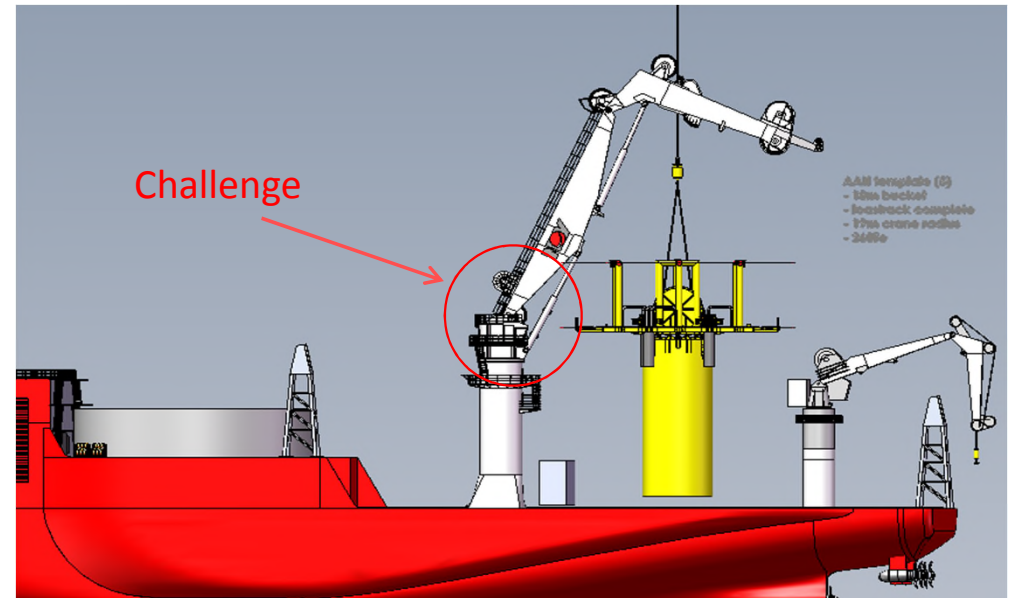
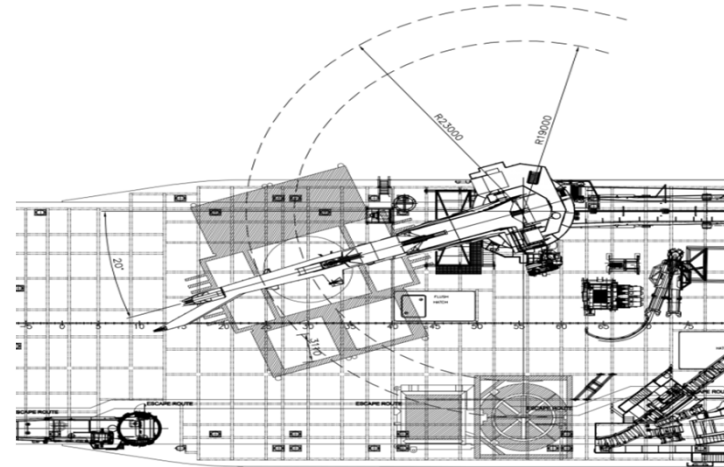


Introduction

- **Aasta Hansteen Field WD - 1280m**
- **Deepest subsea templates installed in the North Sea**
- **3 Templates installed by EMAS AMC**
- **Project awarded 2013 – executed 2015**

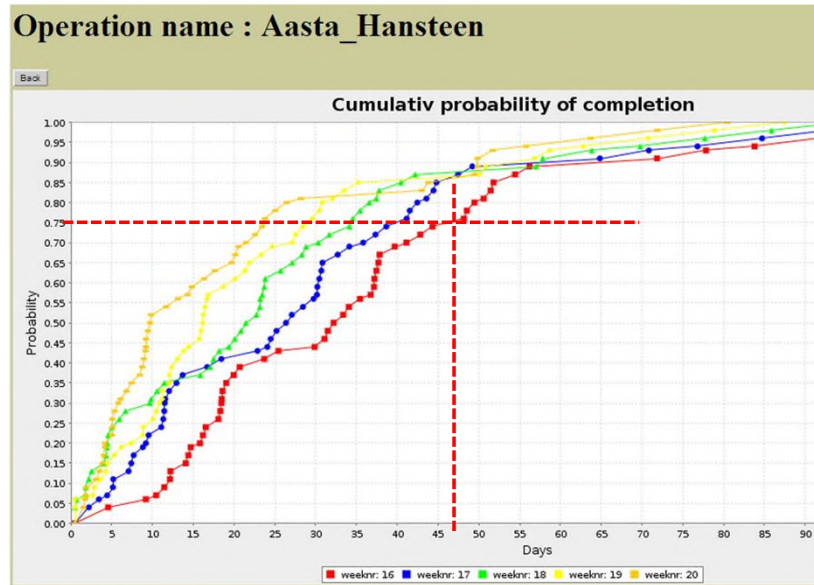


Template Design Development

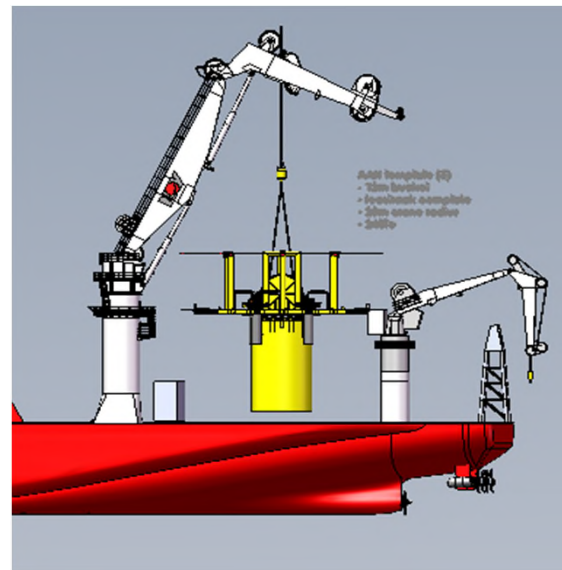


Template Design Development

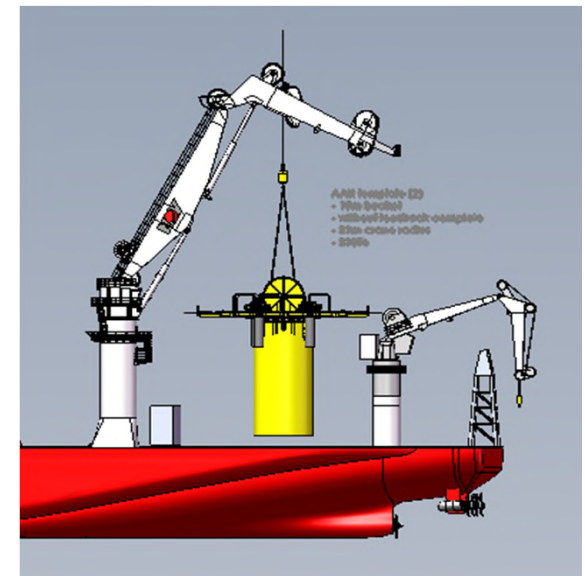
- Risk related to installation of the original design too high, Waiting On Weather (WOW) to be reduced
- In **cooperation** with Statoil and AkerSolutions, the process of changing the design & concept initiated
 - studies and WOW analysis of 4 different concepts



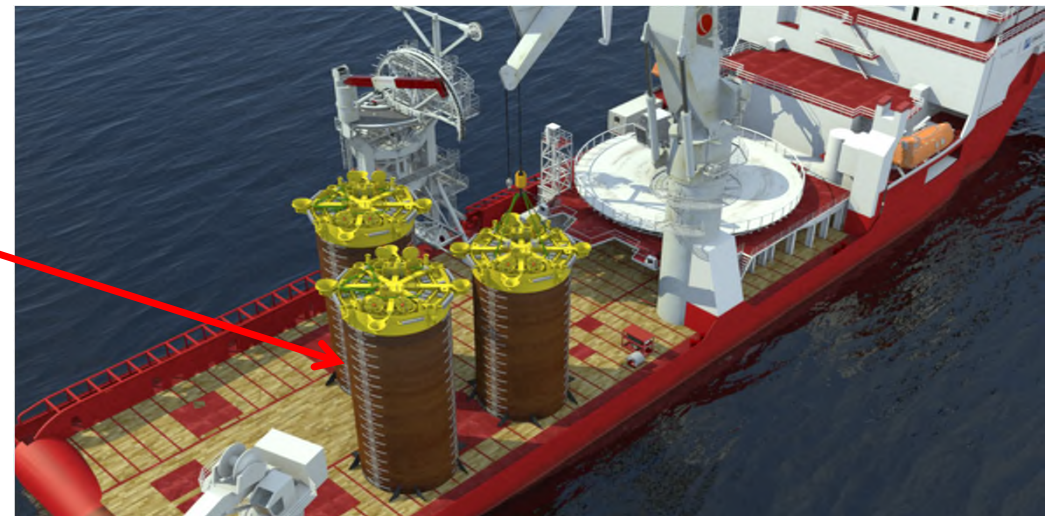
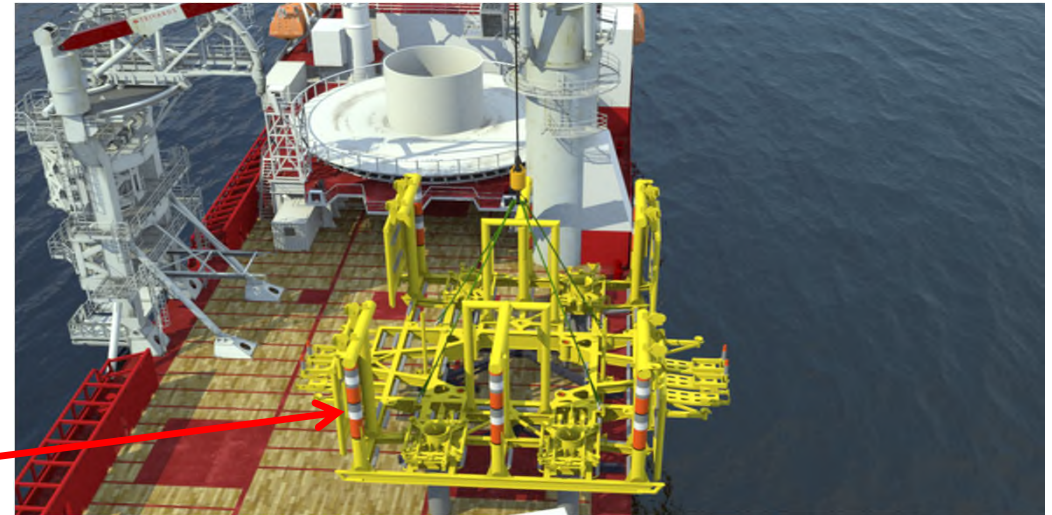
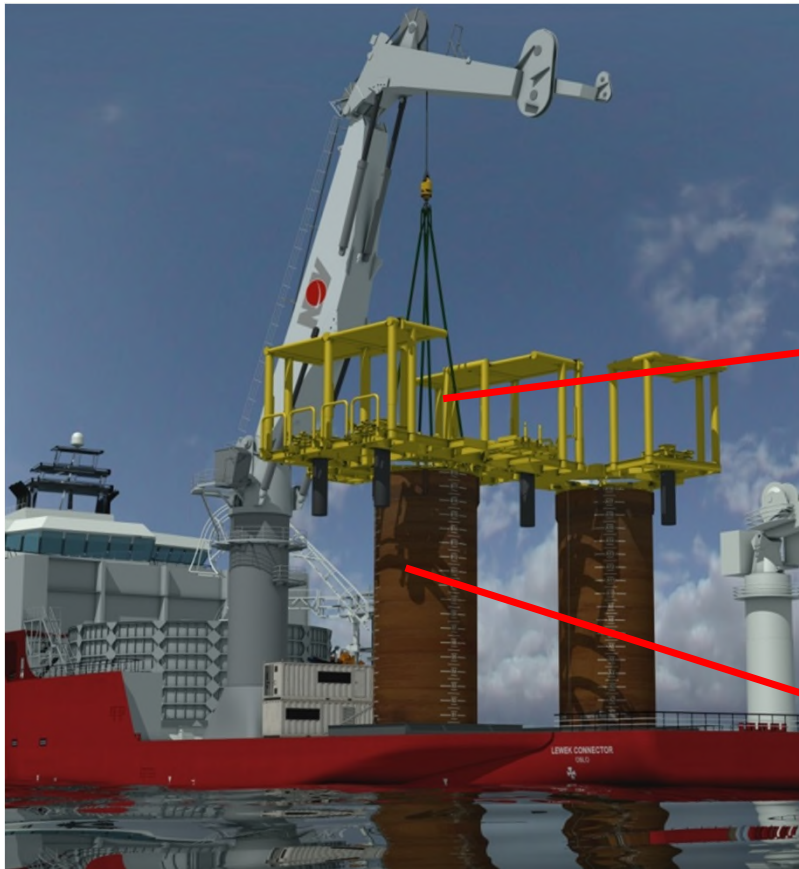
WOW Results - Original Concept



Examples of Alternative Concepts



Conclusion - Split Design



Installation Scope – 4 trips



Preparations

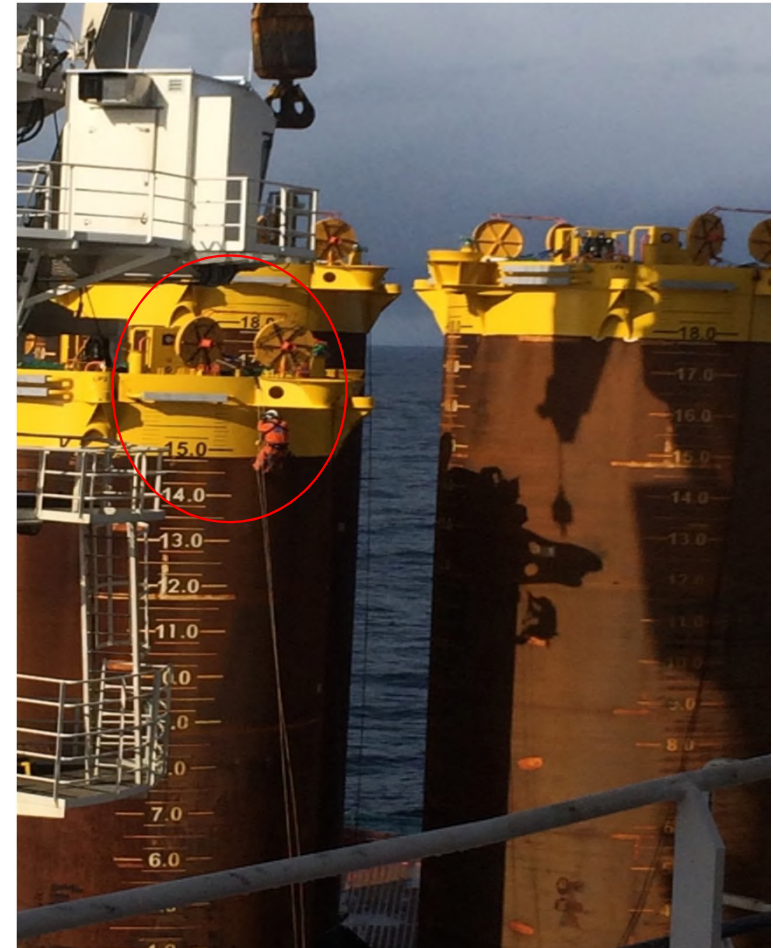
- Installed survey equipment
- Pre-installed rigging
- Prepacked all small items in Half Height (HH) containers
- Dropped object sweep
- Familiarization and time-out for safety



Installation of Suction Anchors



- High focus on Working at Heights
 - Use of Rope Access Technicians (RAT) team for connection of rigging



Video & Animation - Suction Anchor installation

Courtesy of
Aker Solutions



Mobilization & Loadout TTS

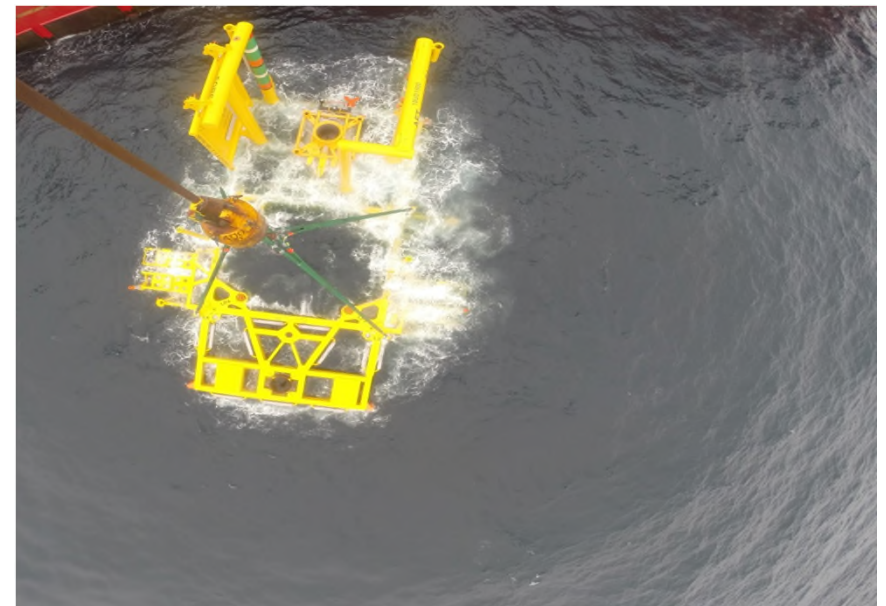
- Adjustment of TTS leveling system
- Familiarization using 3D models
- Test lift at site

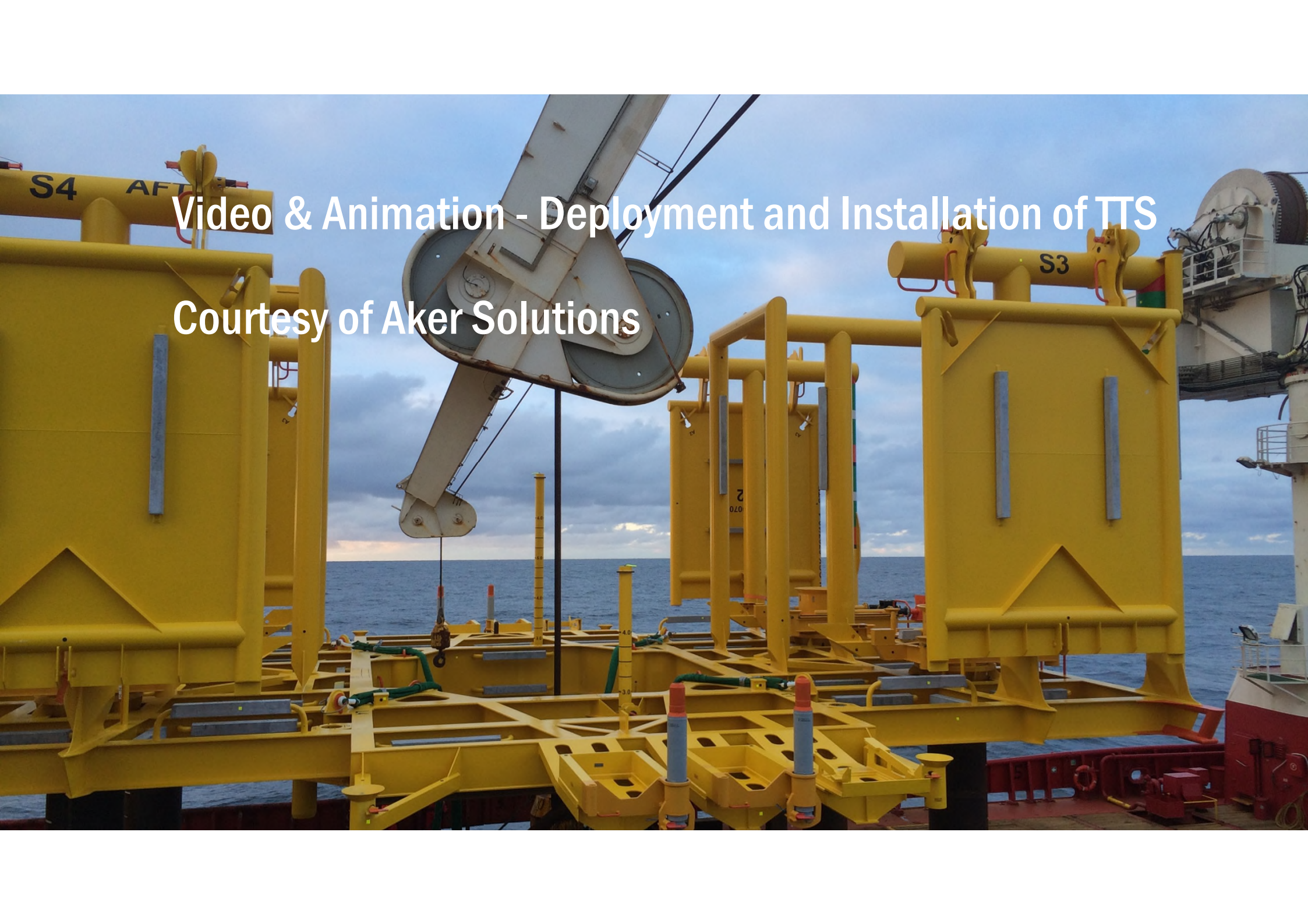


Installation of the TTS



- Weldless seafastening solution
- No use of deck tuggers



A photograph of an offshore oil rig deck. In the foreground, there are several large, yellow, rectangular modules, likely part of a Tension Leg Platform (TLP) system. A crane is visible in the center, lifting one of these modules. The background shows the ocean and a cloudy sky. The text "Video & Animation - Deployment and Installation of TTS" and "Courtesy of Aker Solutions" is overlaid on the image.

Video & Animation - Deployment and Installation of TTS

Courtesy of Aker Solutions

Success Criteria

- Managed to minimize WOW by early involvement
- Rope Access Technicians (RAT) for hook-up
- Utilization of 2 suction pumps for Suction Anchors (~ 6hrs suction time)
- Optimized seafastening and grillage design
- Simplified design. No tugger-lines
- Preparations for next mob done in parallel time offshore
- Offshore personnel with the «right» qualifications and experience.
- Thorough familiarizations before every new task
- Open and good working relationship between Statoil/AkerSolutions/Vessel/Construction crew





Thank You



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