Crawler Inspection of Floating Structures using ACFM
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Building the future, off the steppingstones of the past.

- **Parallels between O&G and the emerging Offshore Wind.**
  - **Structure Design**
    - From land to the deep sea (land rigs, monopiles, jackets, tension leg platforms, semi-submersibles, and spars)
  - **Environmental Challenges**
    - Marine Growth Biofouling
    - Corrosion
    - Weather Induced Stresses
  - **Inspection Requirements**
    - Government Standards and Requirements
    - Class Regulation
• Parallels between O&G and Offshore Wind.

Structural Designs

• From land to the open sea (land rigs, monopiles, jackets, tension leg platforms, semi-submersibles, and spars)

Photo clip provided by Researchgate: https://www.researchgate.net/figure/Types-of-offshore-drilling-rigs-175_fig14_264391238.png
A New Perspective
Parallels between O&G and Offshore Wind.

- Environmental Challenges
  - Marine growth or Biofouling
  - Corrosion
Parallels between O&G and Offshore Wind.

Environmental Challenges

- Structural Damages
- Weather and Storms
- Environmental Impacts
Parallels between O&G and Offshore Wind.

- **Government Standards**
  - BSEE (Burau of Safety and Environmental Enforcement)
  - HSE (Health and Safety Executive)

- **Class Society Standards**
  - ABS
  - DNV
  - Lloyds
Satisfying the Inspection Requirements

- Inspection Requirements
  - GVI and CVI
    - SD, HD, 3D Imaging, Photogrammetry
  - NDT
    - CP, UT, and ACFM
Magnetic Crawlers, Capturing Data in Air or Water.

What Data do You Need

- Ultrasonic Techniques UT and PAUT
- 3D Photogrammetry
- Cathodic Protection Testing
- Electromagnetic Inspection Technique: ACFM
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<th>Z-CP1</th>
<th>Z2</th>
<th>Z-CP2</th>
<th>Z3</th>
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Comment to Inspection: No Crack detected on the Bottom side / HAZ of the weld.
Remote Inspections in Real Time

• Utilization of Incumbent Systems
  • Minimal hardware and personnel needed for installation
  • Use already installed coms systems
  • Multiple user access

• Meeting Clients Needs
  • Class approved and accepted method
  • Reduces client cost.
  • Reduction in personnel
OUR MISSION

WE SOLVE THE UNSOLVABLE.

OUR VISION

We thrive by creating industry-changing technically creative solutions for the most complex operational challenges under water, on land, and in space.