

# Barges & Vessels

# ZENTECH INC.

INNOVATIVE ENGINEERING SOLUTIONS



GOVERNMENT



SERVICES



NEW DESIGNS



ENGINEERING

## CONTACT US

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[www.zentech-usa.com](http://www.zentech-usa.com)



SCAN ME



**FOUNDED  
1978**

**8 OFFICES IN  
7 COUNTRIES**

**+ 40  
PATENTS AND  
TECHNICAL PAPERS**

**+ 15  
INDUSTRY  
RECOGNITION  
DURING 2015 –  
2024**



**USA**  
Houston  
World Headquarters

**Mexico**

**Brazil**

**Saudi Arabia**  
UAE

**India**  
Mumbai  
Chennai

**Malaysia**  
Kuala Lumpur



**CITY OF HOUSTON**  
OFFICE  
of  
BUSINESS OPPORTUNITY



**Achilles**



**MBE Certified**



# Some Capabilities



Naval Architecture &  
Marine Engineering

Mechanical,  
Piping & HVAC

Structural  
Engineering

Electrical  
Engineering

Process  
Engineering

Construction/Project  
Management



Maintenance &  
Repairs: Barges,  
Cruiser Ships, FPSO,  
LNG Vessel, etc.

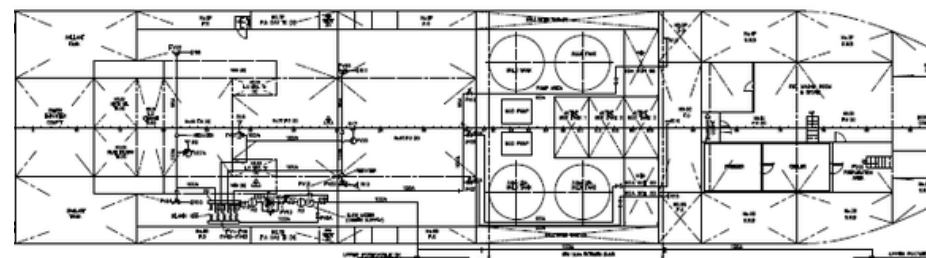
Third Party  
Verification

Software Enabled  
Services

Innovative Design  
Solutions

Zentech Extended  
Reality

Signage  
Service

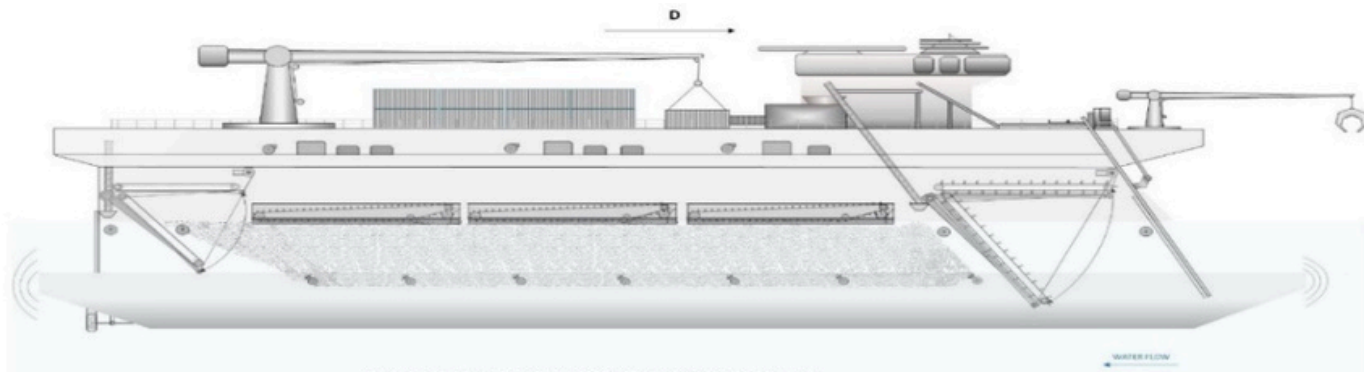




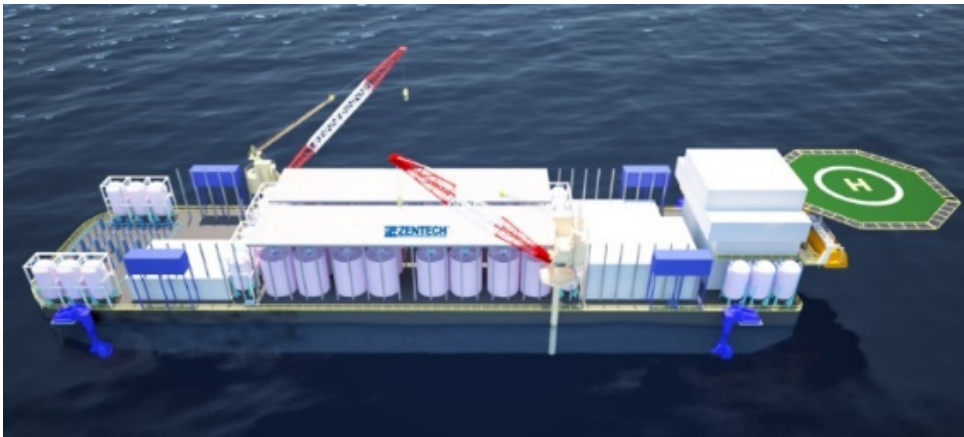
# Some Designs



**Marine Filtration Vessel**  
To clean oceans



**LMPV**  
IADC  
New Technology  
Petroleum Economist Award Best Project



**LNG Solutions**



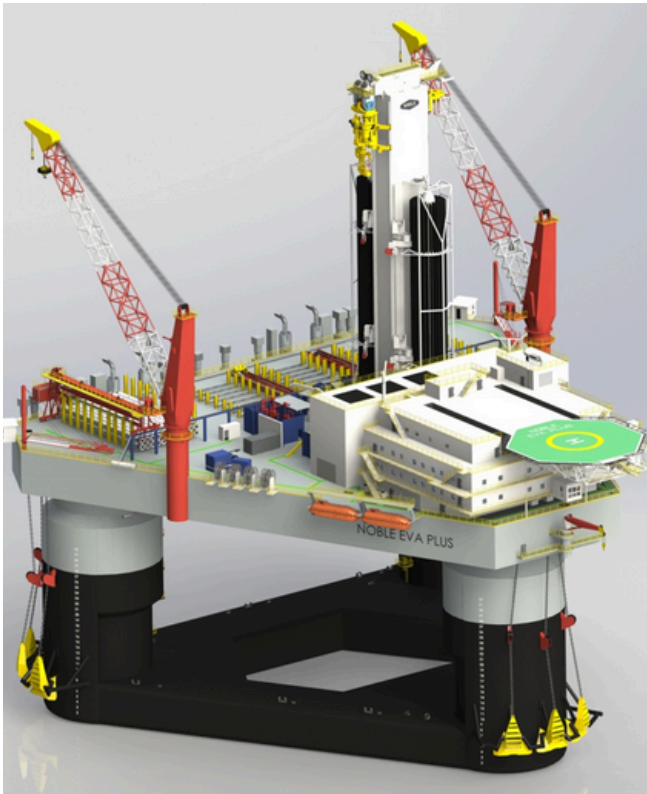
**Arctic Solutions**



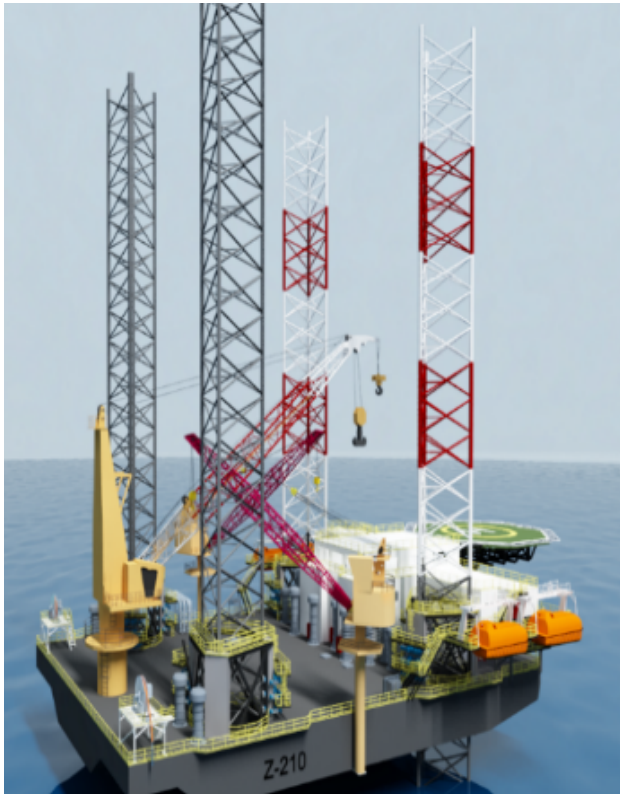
**R-550**  
Hart E & P Award  
Engineering Innovation



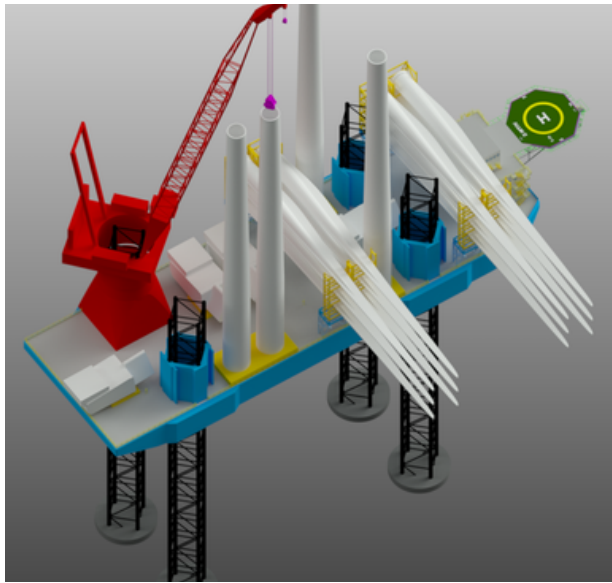
**Semi-Submersible**



**Z-210**  
OJME Award  
Technology Innovation

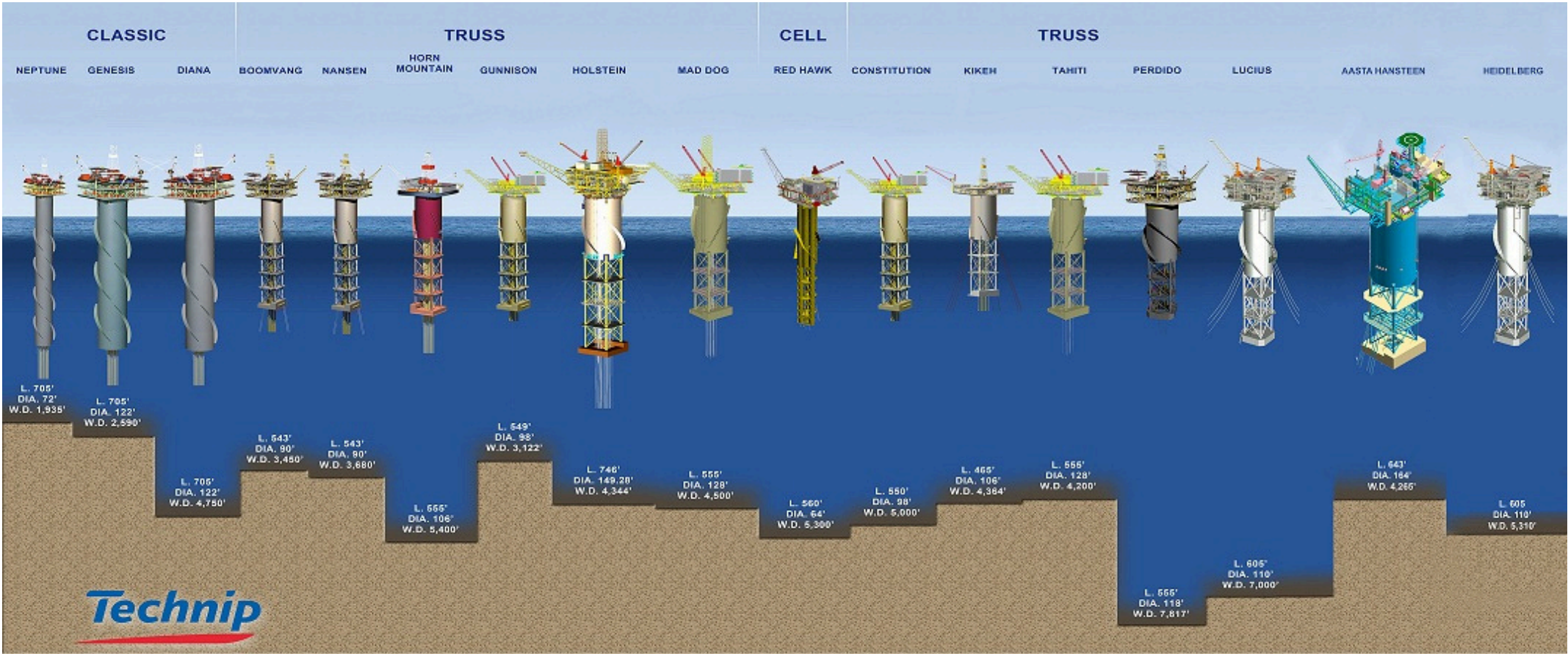
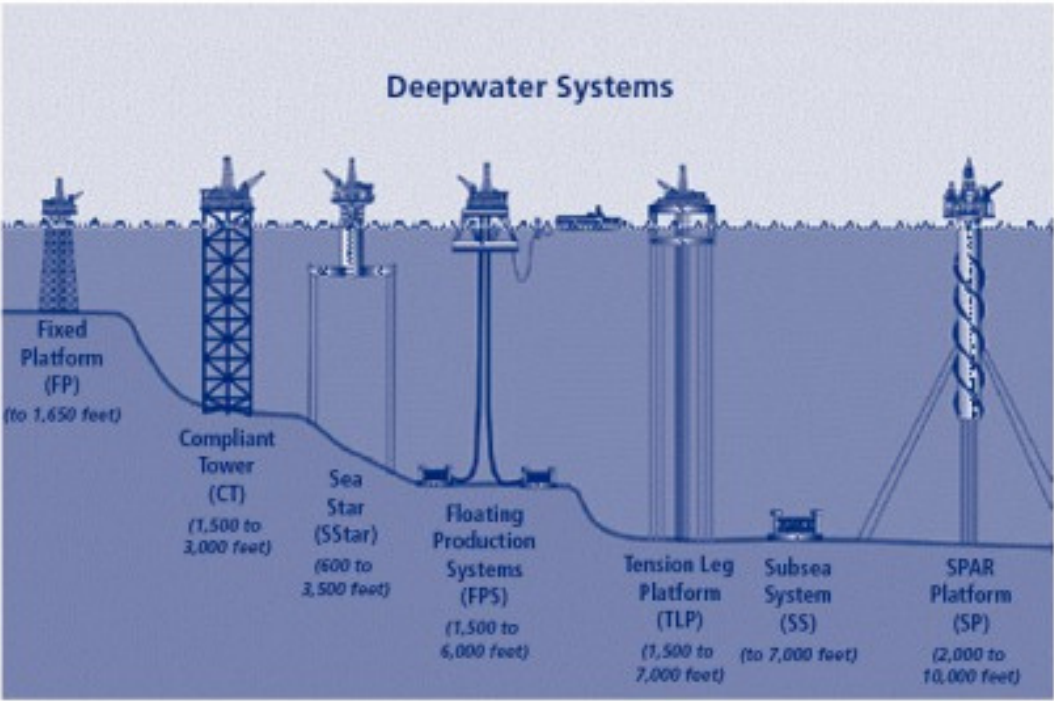


**Offshore Wind Installation Vessel**

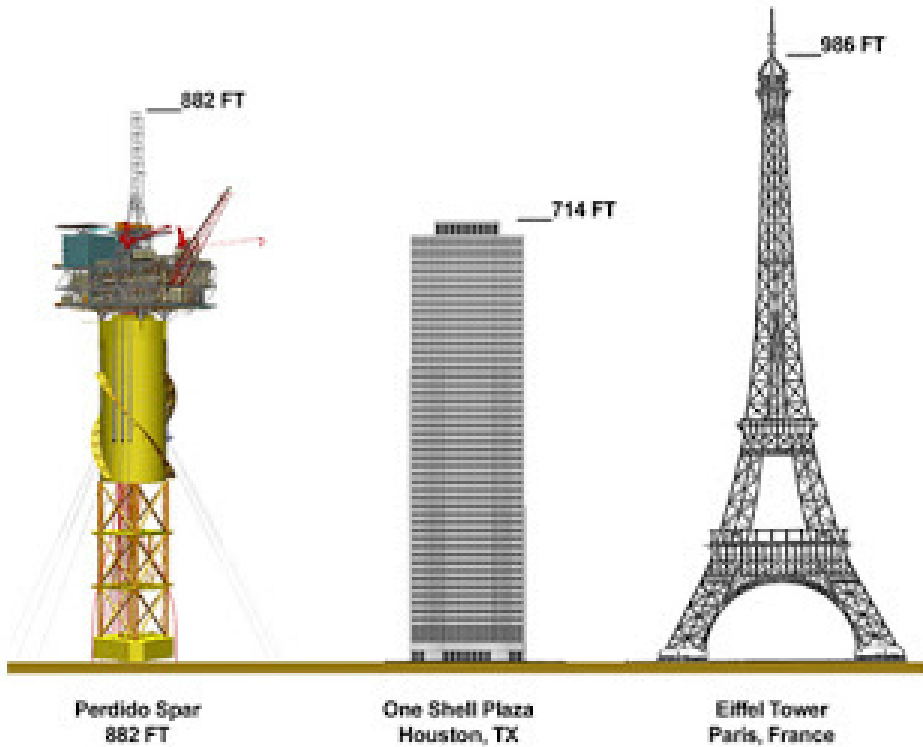




# ZenMASTM In-house proprietary software



EVERY SPAR in the world uses Zentech's, ZenMAS™ mooring advisory & monitoring analysis.







# We deliver optimal results throughout the entire asset life



**Decommissioning**  
Engineering & Project Management



**Basic Design**

DESIGN

**Detail Design**  
Custom Engineering & Design



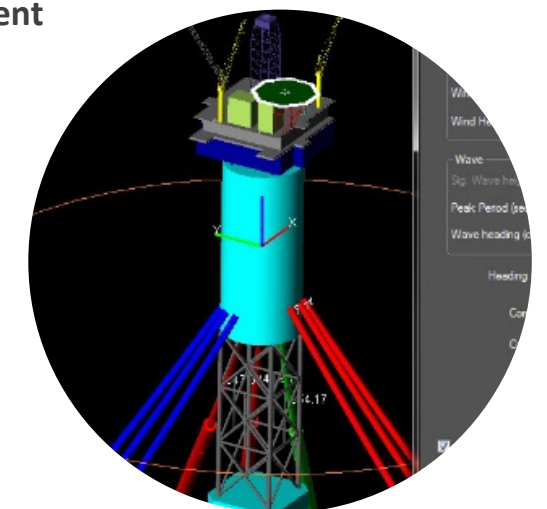
CONSTRUCT

**Construction**  
Project Management



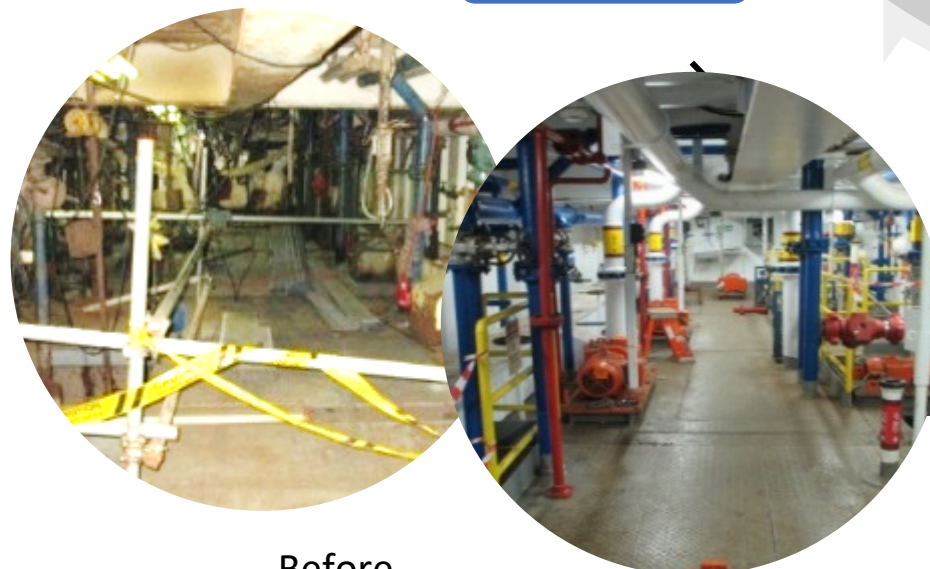
OPERATE

**Operations- Solutions**  
Asset Management



UPGRADE /  
REACTIVATE

**Upgrades & Reactivations**  
Engineering & Project Management



Before

After

DECOMMISSION

EXTEND LIFE

**Asset Life Extensions**  
Engineering & Project Management



Digital  
Transformation

Engineering &  
Design

Construction  
Project  
Management

Advisory &  
Consulting

Asset  
Management

**Asset Lifecycle  
Management**





# Operation

## More Press Releases

The MARITIME  
EXECUTIVE  
INTELLECTUAL CAPITAL FOR EXECUTIVES

NEWS FEATURES PODCASTS MAGAZINE NEWSLETTER BLOGS DIRECTORY JOBS

1164

Views

4

Shares



### Petrobras Awards Large Engineering Support Contract to Zentech



Source: <http://www.petrobras.com.br/>

BY [MAREX](#) 2018-09-13 18:03:39

Petrobras has selected ZENTECH DO BRASIL SERVIÇOS TÉCNICOS LTDA., a subsidiary of ZENTECH, INC. of Houston, Texas, USA for a contract to provide engineering support for its fleet of Ship shape and Semi-submersible type Floating Production, Storage and Offloading Platforms along with the Fixed Gathering and Processing Platform. This award is for a three-year period, with the option to extend in the future. In addition to engineering support, Zentech will provide Virtual Reality Models of these Platforms resulting in an immersive, first-person experience allowing Petrobras access to these models anywhere and at any time.

James Richard A Cook, General Manager of Brasil commented, "We are delighted with this award as recognition of our service, quality and commitment to Brazil in general and Petrobras in particular.

Ramesh Maini, CEO of Zentech said, "Zentech provides innovative engineering solutions and asset integrity to a variety of clients. While the strength of these Zentech's services was already well established in the marine sector in Brazil, this faith that Petrobras has placed in Zentech firmly positions us in the oil and gas sector of Brazil, as well."

The products and services herein described in this press release are not endorsed by The Maritime Executive.

... contract to provide engineering support for its fleet of ship shape and Semi-submersible type Floating Production, Storage and Offloading Platforms...





Some of  
our  
Services



## Naval Architecture and Marine Engineering Services

Zentech offers end-to-end Naval Architecture and Marine Engineering services to support vessel upgrades, modifications, and operations — with a strong focus on stability, structural integrity, and lifecycle optimization.

### **Our key capabilities include:**

#### **Design & Analysis**

- Pre-FEED & FEED, Detailed Design
- Intact & Damage Stability Analysis
- Motion, Sloshing & Slamming Effects Analysis
- Longitudinal Strength Assessment
- Dynamic Positioning (DP) Capability Analysis
- Load Line Certification for Modified Vessels
- Vessel Life Extension (ZAIMS Component Review)

#### **Operations & Support**

- Commissioning Procedures
- Operations Manuals & Stability Booklets
- Onboard Loading & Stability Software
- Mooring Advisory (Models)
- Mooring Analysis (Static, Dynamic, Fatigue)
- Deadweight Surveys & Inclining Test Execution



# Some of our Services



## ⚡ Electrical Design & Installation Services

### Engineering & System Design

- Pre-FEED, FEED & Detailed Design
- Power System Design (Low & Medium Voltage)
- Energy Storage & Power Electronics Design
- Safety Systems (Fire & Gas, ESD, PA/GA, Telecom, SIS)
- Dynamic Positioning, Instrumentation & Control Systems



### Analysis & Troubleshooting

- Electrical Troubleshooting & Root Cause Analysis
- Simulation of Electrical Phenomena & Custom Studies
- Power Flow, Short Circuit & Protection Coordination
- Harmonics, Motor Starting & Arc Flash Studies





# Some of our Services



## Ship Repair & Maintenance Services

Zentech supports the lifecycle of vessels with a multidisciplinary approach to repair, upgrades, and reliability engineering.

### Key services include:

- FEED, Basic & Detailed Engineering
- Structural & Systems Modifications
- Construction & Commissioning Support
- General Arrangement & Layout Reviews
- Risk & Safety Studies
- Predictive Maintenance (Vibration, Thermography, EX Surveys)
- Project Management & Engineering Oversight
- As-Built Documentation & Verification





An aerial photograph showing two large oil tankers in a canal. The tanker in the foreground has a red deck and a black hull, with the name 'MIRAZ' visible on its side. The tanker behind it has a green deck. Both ships are equipped with various cranes and industrial equipment. The canal is bordered by a road and some industrial buildings on the left, and a forested area on the right. In the background, a bridge spans the canal, and a large body of water is visible under a clear blue sky.

# Inspection & Survey





## Certified & Ready to Fly: ABS Approved UTM by Drone!

We're proud to announce  
that we have officially  
received ABS Certification  
for Thickness  
Measurements, including  
Remote Inspection  
Techniques using Drones



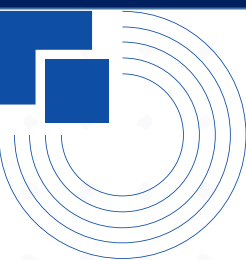
Zentech Extended Reality

[www.zentech-usa.com](http://www.zentech-usa.com)



SCAN ME





Certificate Number 25-7047614-A  
Issue Date 29-July-2025  
Expiry Date 28-July-2028  
ABS Port Office DUBAI, UAE  
Company's Website www.zentech-usa.com

## CERTIFICATE OF Recognized Service Supplier

This is to certify that

**Zentech Technical Services Inc L.L.C-FZ**

located at

Meydan Grandstand, 6<sup>th</sup> floor, Meydan Road, Nad Al Sheba, Dubai, U.A.E.

having been audited by ABS and having given a satisfactory practical demonstration of the service listed below, is recognized by ABS as a Service Supplier to provide services which ABS Surveyors may rely on to make decisions affecting classification or statutory surveys.

### Hull Gauging

Attached Certificate Appendix provides specific scope of approval, authorized personnel, manufacturer authorizations, and subcontractors.

It is the responsibility of the Service Supplier to employ, train and qualify persons in the service provided. If the service requires approval from manufacturers, the Service Supplier is responsible to maintain contact with the manufacturer and maintain any service manuals up to date. Where required by the category of service, the Service Supplier shall provide valid evidence that it is authorized or licensed by the equipment manufacturer to service the makes and models of equipment for which approval is sought. If approval from the manufacturer is not attained, a surveyor must be present at time of survey to continue work. Alternatively, current written instructions from the flag state are to be obtained to continue work without the surveyor present. Service Suppliers must present photo identification, evidence of qualification and authorizations from manufacturers, as applicable, at the time of service.

The ABS office issuing this certificate is to be kept updated with changes to the management of the company, employees, equipment and models on the authorization list and any changes made.



Nikolaos Pasaras, Surveyor



**Sanu Augustine**  
saugustine@zentech-usa.com

## APPENDIX TO ABS SERVICE SUPPLIER CERTIFICATION NO. 25-7047614-A

### Scope of Approval, Limitations or Restrictions

The service recognition is for:

- Thickness measurement of hull structure of non-ESP/ESDC
- Remote Inspection Techniques as An Alternative Means for Close-up Survey and thickness measurements of Ships and Mobile Offshore Units (Drones)

### Authorized Personnel

Supervisor : Ram Mohan (ASNT Level III UT)

Operators: Sanu Augustine (MPI/DPI/RT/UT ASNT Level II) , Ravikumar Maini (Drone Pilot, ASNT Level II UTM), Singh Amit Kumar Ranbahadur (Drone Pilot, ASNT Level II UTM), Durai Bhaskar (ASNT Level II UTM), Akshay P S (Drone Pilot, ASNT Level II UTM), Pratish Malkar (Drone Pilot, ASNT Level II UTM)

### Quality Manager

Mr. Sanu Augustine

### Authorization(s) from Equipment Manufacturers and Flag Administrations

N/A

### Subcontractor and Scope of Subcontracting Work

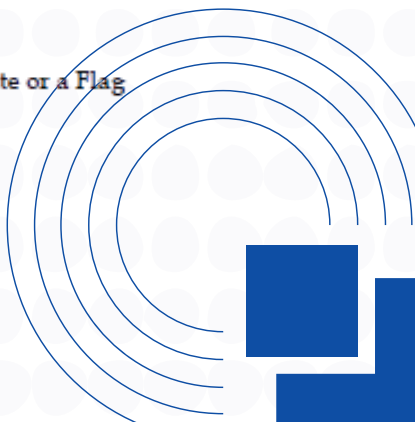
N/A

NOTE: This certificate evidence compliance with one or more of the Rules, Guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau. This certificate is a representation only that the Company has been assessed in accordance with ABS procedures and found capable of providing the listed service as limited by the associated recognition letter. This certificate is governed by the Terms and Conditions on the above page hereof and by the Rules, Guides or Standards of the American Bureau of Shipping, who shall remain the sole judge thereof.

\* For statutory related activities, unless specially directed by the Administration, this approval is not to be construed as a substitute or a Flag Administration's approval for the purpose of SOLAS (2020 Consolidated Edition), as amended.

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- Thickness measurement of hull structure of non-ESP/ESDC
- Remote Inspection Techniques as An Alternative Means for Close-up Survey and thickness measurements of Ships and Mobile Offshore Units (Drones)





# Technical Inspection Consultancy



We provide world-class visual and corrosion inspection services to help ensure the safety, reliability and longevity of your assets, using cutting-edge technology and leading experience from over 40 years in the oil and gas industry.

## How We Conduct Our Inspections

1. **Planning & Preparation:** Define the scope and objectives of the inspection, focusing areas.
2. **Use of Technology:** Use our equipment depending on the SOW.
3. **Data Collection:** Gather detailed imagery and precise measurements during a single inspection session, ensuring maximum efficiency.
4. **Analysis & Reporting:** Process and analyze the data to identify corrosion trends and/or areas of interest.
5. **Actionable Insights:** Provide detailed, actionable recommendations, if required.





# Why Corrosion Inspection Matters



**Preventing Structural Failures:** Corrosion can lead to material degradation, structural weakening, and catastrophic failures, especially in the oil and gas sector.

**Cost Savings:** Early detection of corrosion minimizes costly repairs and operational downtimes.

**Regulatory Compliance:** Ensuring that assets and equipment meet industry safety and compliance standards is paramount to avoiding legal and financial repercussions.



## ZXR - Inspection Technology

### UAV Drones:

- Flyability Elios 3 w/UTI Module
- Scout 137 w/UTI Module

### ROV:

- VideoRay Defender

### Capabilities added to Zentech:

- UT Gauging of Steel Structures via UAV Drones
- UnderWater Inspections via ROV Drone



## TECHNOLOGY DRIVEN INSPECTIONS

- ROV Defender by Video Ray
- Flyability Elios 3
- Scout 137 Drone System
- Other Scanning Equipment and Software:
  - FARO S120 and FARO S150
  - Leica BLK-360
  - NavVis VLX 3
  - Elios 3
  - Matterport Pro3
  - Faro Scene and FARO As-Built
  - Flyability Inspector 5
  - Autodesk RECAP



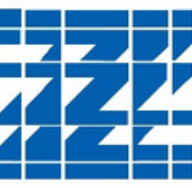




# Signage Service



# Signage Service



All the signages shall be customized according to client's requirement, which includes:

**MANDATORY**

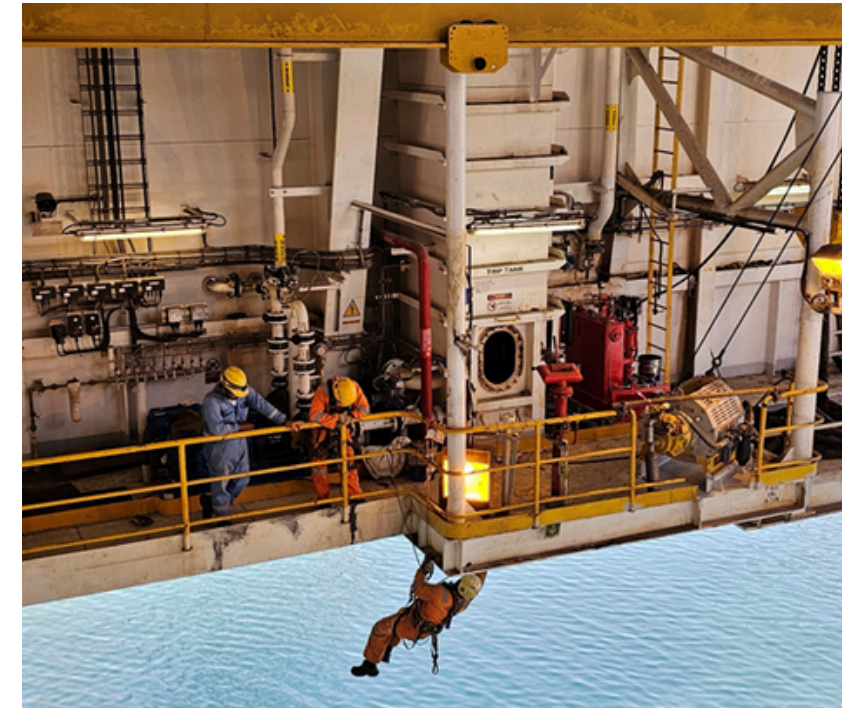
**PROHIBITORY**

**DUAL LANGUAGE**

**PIPE MARKINGS**

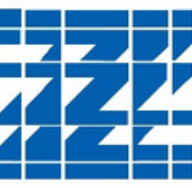
**ZENTECH  
SIGNAGE**

**SERVICES**





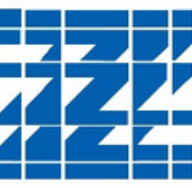
# Why Zentech?



- Our goal is to supply and install scientifically more durable identification materials that meets client needs, with minimum of 5 year replacement warranty
- We are capable of doing signage survey and provide GAP analysis report in accordance with all the field and class regulations



# Our products



Provide protection from sunlight and maximum resistance to acids and bases found in process operations. Service temperature range from -40 deg to 250 deg F

All signages shall comply field and class regulations

Signage installation shall be completed in committed time frame (using our rope access team)





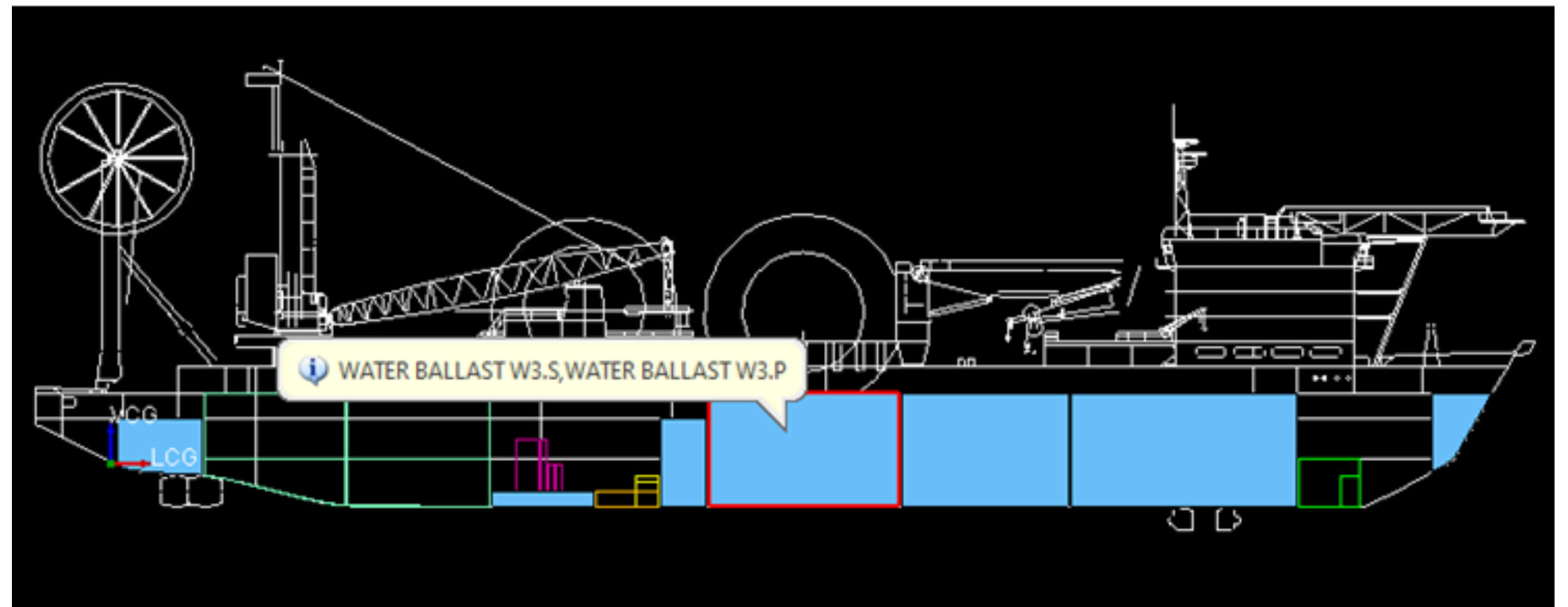
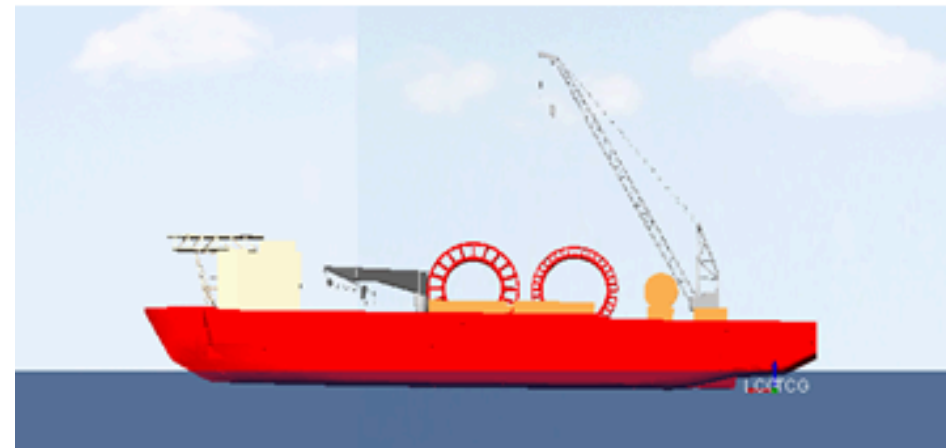


# Software LoShip



## On-Board Load and Stability Proprietary Software for Ships

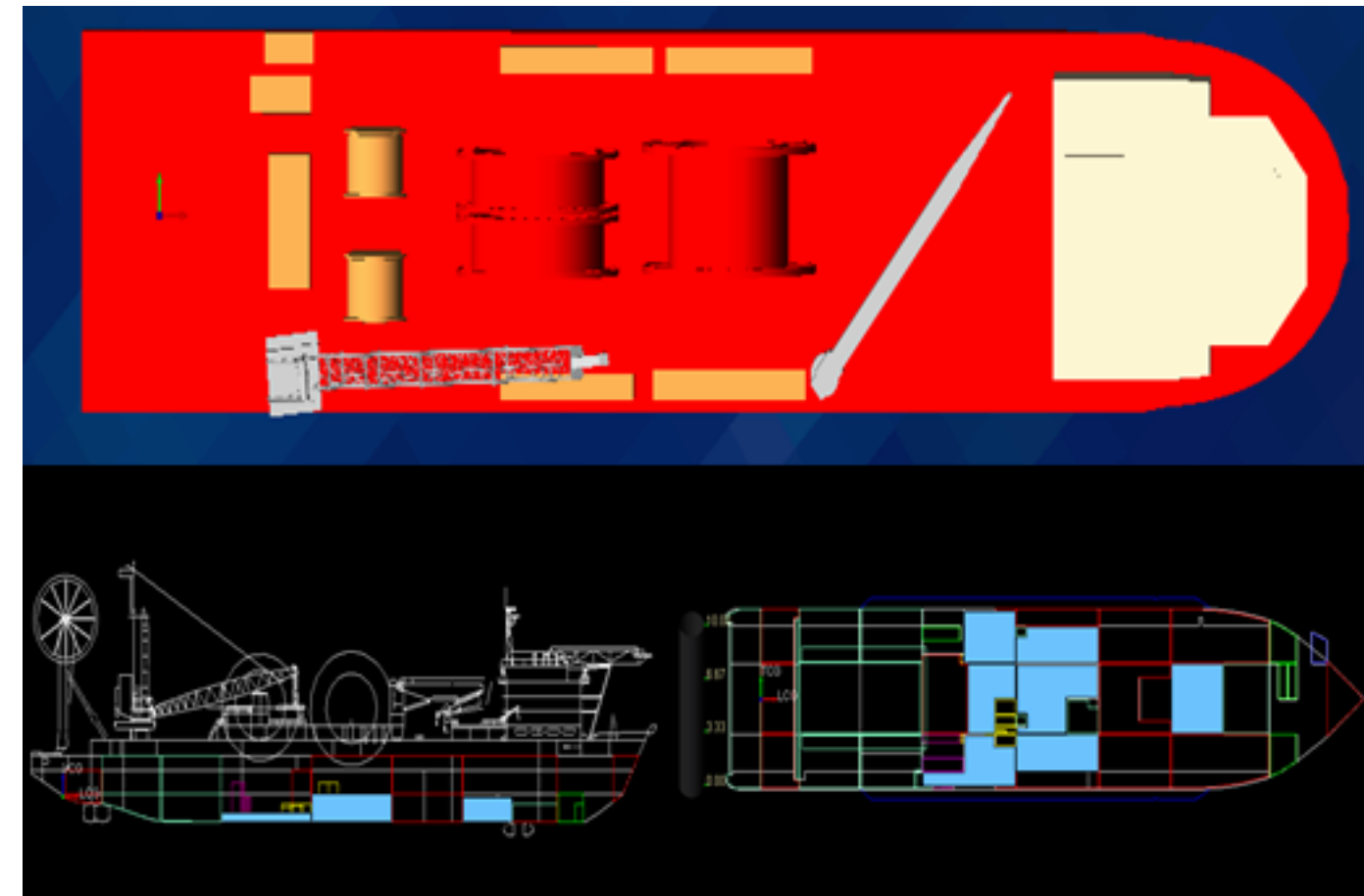
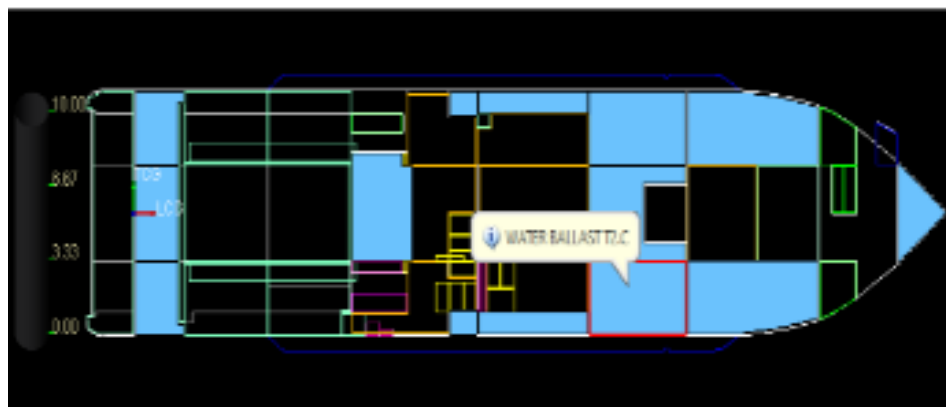
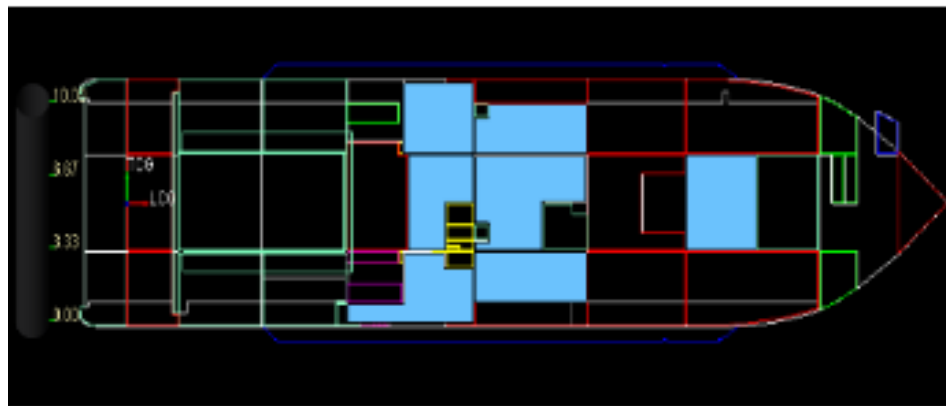
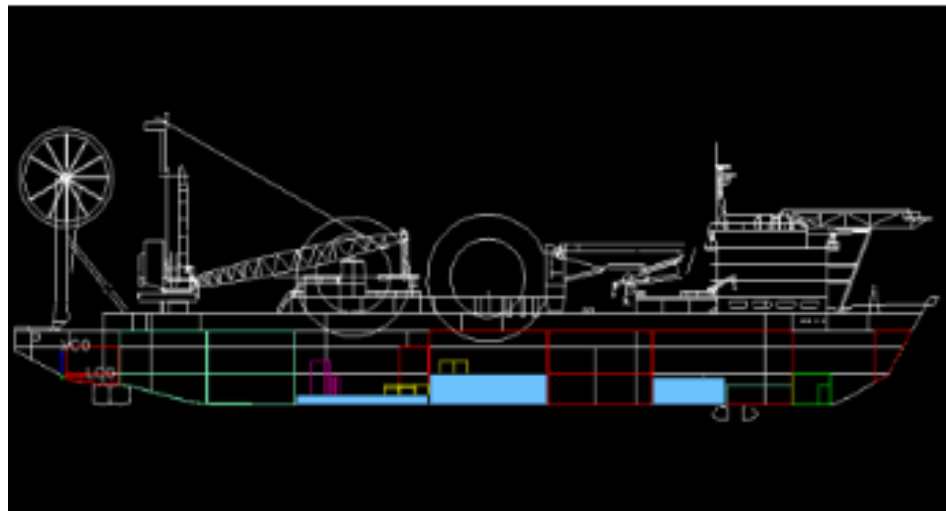
LoShip™ is an interactive; menu driven program used on-board ships and other offshore supply vessels to perform loading and stability calculations. This system is a windows based application, with a user friendly interface. It has numerous error checking routines to warn the user when improper input data is used and/or limits are exceeded. The program is customized to fully comply with the requirements and procedures of the vessel's Operating Manual.





## Key Highlights

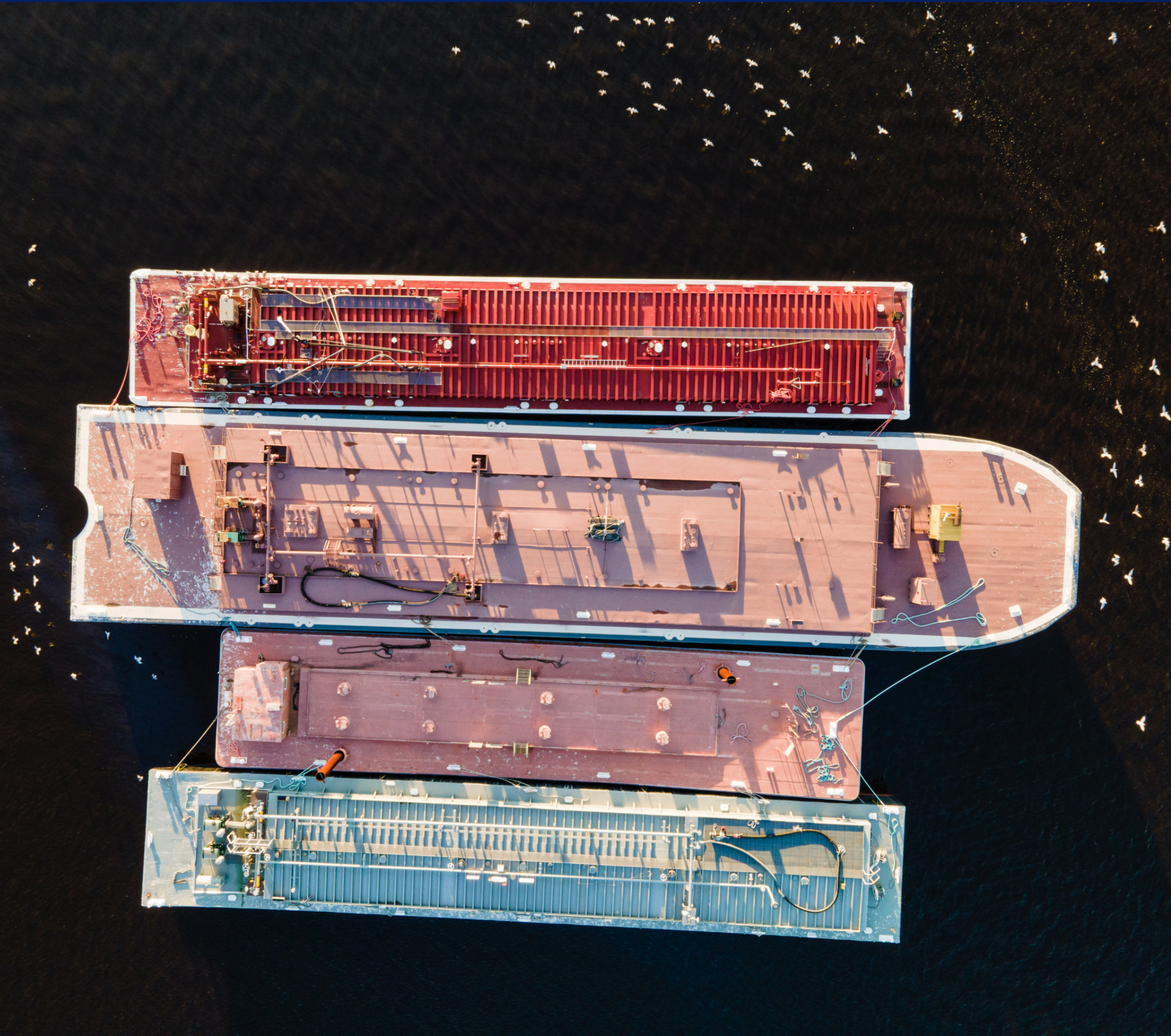
- Updates of draft, trim and heel, deck loads and KG margin, 3D/2D views with every entry.
- Weight management by grouping and sub-grouping.
- Various modes of operation (Transit-Survivaland-Operating)
- Grouping of weights based on Solids, Liquids and Miscellaneous items.
- Ballasting and De-ballasting procedures and load equalization calculations
- Calculation of stability parameters.
- Validates the input values and displays warning messages
- Interface with Mooring advisory software ZenMAP.







# Recent Projects





# Recent Projects



## Shipyard Construction Project Management

**Client:** Confidential

**SOW:** Project Management Service

Zentech PM will liaise with the client OI conversion manager regarding the manning and deploy the team as per site requirement to optimize the team for efficiency and cost effectiveness.

**Zentech's project management team:**

1. Project Manager
2. Construction Manager
3. Project Engineer – Structural
4. Project Engineer – Mechanical
5. Project Engineer – Piping
6. Project Engineer – E&I
7. Planning and Cost Control Engineer
8. Project Admin /Document Controller





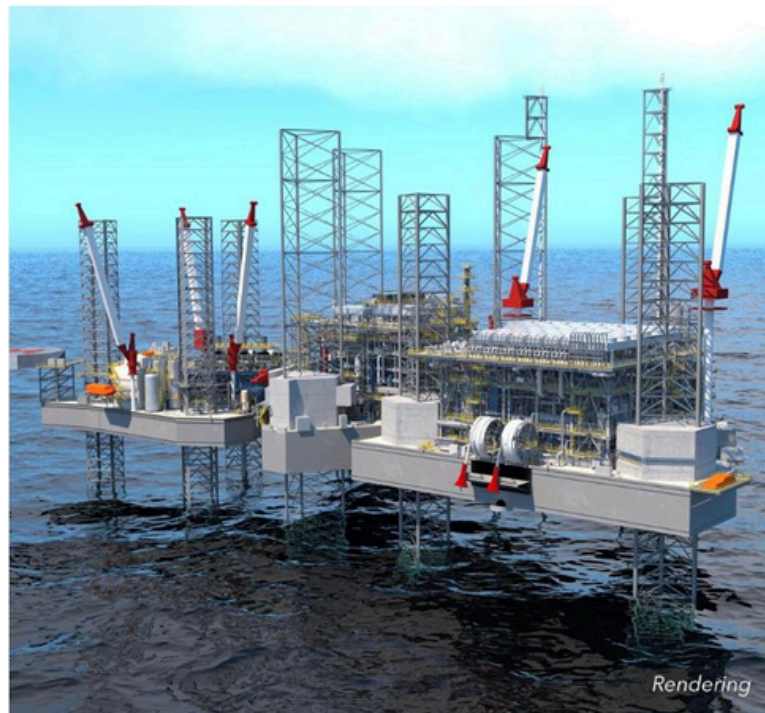
# EPC Project – New Fortress Energy



## Scope of work:

New Fortress Energy (NFE) planned to convert three jack ups into Offshore Installation (OI) units. Two of the units will be installed with gas processing and liquification modules installed on deck and the 3rd unit will be used as the accommodation and utility structure.

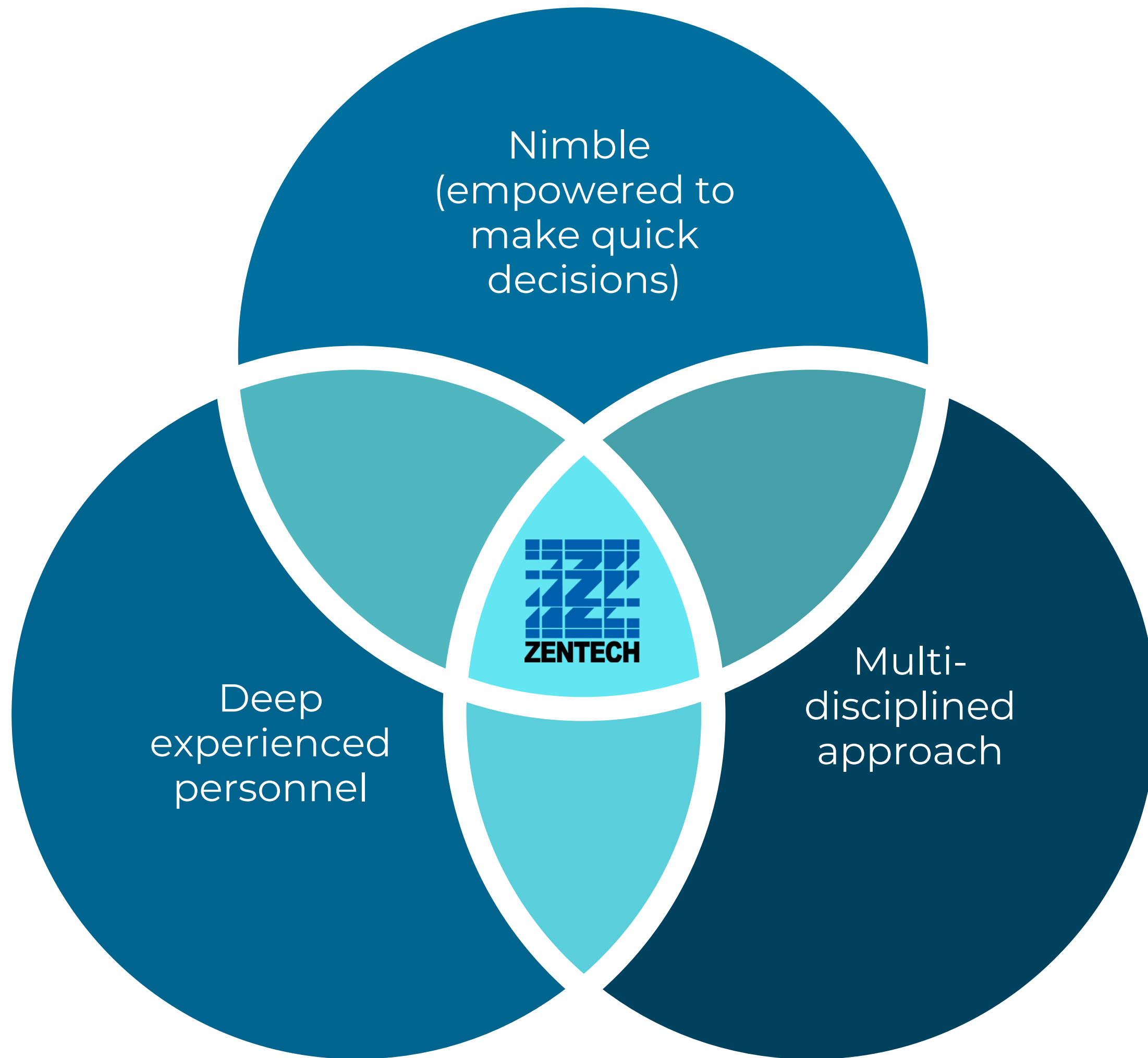
Video



Source: LinkedIn – NFE Pioneer II







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## Our Differentiated Approach to Solving YOUR' Challenges





ISO  
9001:2015  
certification

Proven Track  
record with  
any type of  
vessel

Staff  
certified  
available to  
go offshore

MBE  
Designation

We are  
recognized for  
our expertise in  
maintenance of  
fleet

Multi-  
disciplinary  
team of  
engineers

High Skill  
and  
Experience

Innovative  
digital value  
addition

***We want to be your extended  
engineering arm***  
[www.zentech-usa.com](http://www.zentech-usa.com)





## CONTACT US

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