



An ABL Group Company



# Dynamic Positioning Services

INDEPENDENT, EXPERT SUPPORT ACROSS THE FULL  
LIFECYCLE OF DYNAMIC POSITIONING (DP) SYSTEMS

[ABL-GROUP.COM](http://ABL-GROUP.COM)

# ABL Dynamic Positioning

**ABL delivers independent, expert support across the full lifecycle of Dynamic Positioning (DP) systems—from concept and design, through construction and commissioning, to operations and life-extension.**

We support shipyards, vessel owners, charterers, and energy companies in designing, operating, and validating DP systems with confidence, ensuring safe, reliable, and economically efficient operations.

Our multidisciplinary global team, including **IMCA Accredited DP Practitioners**, provide technical assurance, specialist consultancy, competence assessment, and project management tailored to each asset's mission, whether for drilling, construction, offshore wind, subsea intervention, accommodation, shuttle tanker, OSV, or SOV operations.

## Benefits to Owners, Shipyards, and Charterers



Safe, fault-tolerant and reliable DP operations



Reduced likelihood of DP incidents, downtime, and off-hire



Stronger technical compliance and smoother class approval



Early identification of design risks and avoidance of costly re-engineering



Improved operational efficiency and project readiness



Transparent assurance for WSOG/ASOG and suitability assessments



Enhanced competence of key DP personnel and independent competencies evaluation



Increased confidence for all parties involved in DP operations



**390+**  
DP Projects  
Completed Globally

# Our Services

## ⚡ Through-Life DP Support

ABL delivers complete lifecycle support for Dynamic Positioning (DP) systems. From early concept and design to commissioning, proving trials, operations, and life-extension, we ensure your DP systems remain safe, compliant, reliable, and ready for mission-critical operations.

## ⚡ DP Assurance

### DP Failure Modes and Effects Analysis (FMEA/FMECA)

ABL performs industry-approved FMEA and FMECA studies to IMCA, OCIMF and EBCV2 standards, to identify single-point failures and validate vessel redundancy. Our DP specialists apply proven methodologies to ensure safety, reliability, and full compliance with class and charterer expectations.

### Proving Trials, Annual DP Trials and 5 Year Periodical DP Trials

- **Proving Trials** – validation of FMEA
- **Annual DP Trials** – verification of function, performance and failure responses
- **5-Year Trials** – full revalidation of FMEA, redundancy concept and class notation

Our systematic trial philosophy ensures clarity, repeatability, and reliable data centric results regardless of vessel type or operation.

### Gap Analysis

DP gap analysis tools provide a structured method for assessing vessel systems, documentation, and operational processes against recognised industry standards, ensuring deviations are identified early and corrective actions are implemented to strengthen safety, reliability, and compliance

### DP Operations Manual and Procedures

We prepare ship-specific DP Operations Manuals and associated procedures aligned with class rules and charterer requirements, including operational modes, checklists, WSOG/ASOG integration and task-specific risk controls.



### Condition and Suitability Surveys

Before a charter or project, ABL surveys confirm the vessel's readiness for safe DP operations, identifying technical gaps early and ensuring compliance with industry standards and mission-specific requirements.

### DP Capability Analysis

Using DNV's ST-0111 methodology and advanced modelling tools, we analyse station-keeping capability, worst-case failure performance, thruster configuration, power availability and environmental limits. This provides clarity for project planning, vessel selection and operational risk management.

### DP Incident Investigation and Root Cause Analysis

ABL supports operators and charterers in analysing DP events, identifying root causes, and implementing corrective actions. Our experts can act as independent investigators or expert witnesses when required.

### DP Operational Marine Risk Management

We develop mission-specific risk management tools such as WSOG and ASOG, ensuring crews have clear decision support before and during operations. Our approach integrates human factors, vessel capabilities, and operational constraints.

## ⚡ DP Technical Consulting

### Power System Engineering and Switchboard Testing

ABL specialists offer a range of services beyond FMEA and proving trials to ensure the integrity of the DP system. This includes detailed power system analysis as short-circuit studies, harmonic analysis, load flow, protection coordination, and transient stability. We ensure correct integration of generators, thrusters, and relevant control systems across all redundancy groups.

### Reliability Engineering and Condition-Centred Maintenance (CCM)

Keeping DP assets reliable requires proactive reliability engineering.

ABL provides:

- Identification of failure-prone components and weak links
- Condition-centred maintenance strategies for main machinery and any other DP critical equipment
- Reliability modelling and failure trend analysis
- Optimised preventive / reliability centered maintenance strategies based on system criticality
- Technical audits focused on system availability and DP resilience

This approach reduces unexpected failures, supports class and charterer expectations, and ensures continuous DP readiness.

### DP Key Personnel Competence

The competence of key DP personnel is fundamental to safe and reliable DP operations.

ABL supports both owners and charterers with:

- Vessel-specific and mission-specific competence assessments
- Verification of DP Operator (DPO) experience and decision-making behaviour
- Practical coaching on failure responses, WSOG/ASOG use, and human-machine interaction
- Competence evaluation prior to charter or project mobilisation
- IMCA-aligned frameworks (M117)

Our methodology strengthens the human element of DP operations, reduces operational risk, and increases confidence across all parties.

## ⚡ DP Project Management

### Design Review

From concept design onward, ABL conducts detailed DP design reviews to identify potential weaknesses early. This reduces risk, prevents costly redesigns, and ensures the FMEA process is correct from day one.

### Newbuild Project Management

ABL acts as client representative for newbuild vessels, overseeing engineering, yard activity, FAT/SAT, commissioning, DP trials and documentation. We ensure timely delivery, compliance and reliable DP performance straight out of the yard.

### Conversion / Retrofit Project Management

Whether upgrading DP components or moving from DP1 to DP2/DP3 class notation, we manage the required engineering, system integration, and trials to ensure safe and compliant conversion with minimal downtime.

## ⚡ Hybrid Power Systems

ABL combines DP system expertise with electrical engineering to deliver smarter, greener hybrid solutions.

We support:

- DP load profile analysis
- Energy storage system integration
- Savings modelling and hybrid feasibility studies
- Upgrade and conversion engineering

## ⚡ Walk-to-Work Gangway Systems

Aligned with IMCA M254, ABL delivers:

- FMEA documentation
- System analysis
- Identification of single-point failures and mitigations
- Proving trials



**Get in touch  
via our website**

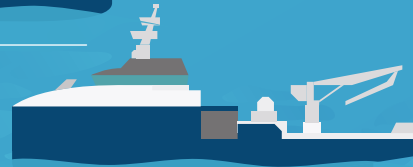
# ABL supports the following **DP** **Critical Missions**



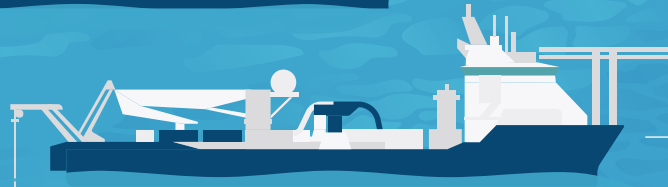
DRILL SHIP



ROV VESSEL

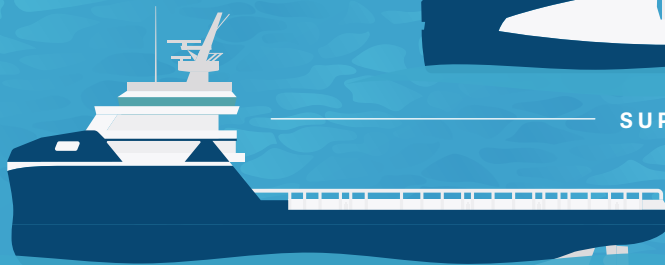


DIVE SUPPORT  
VESSEL



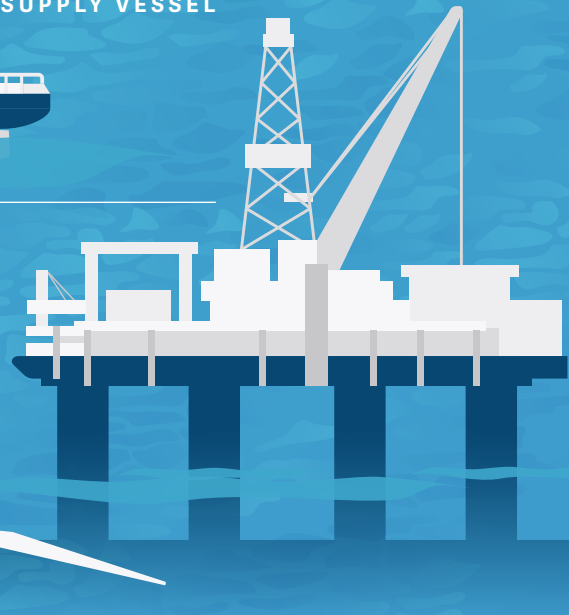
CABLE LAY /  
PIPE LAY SYSTEM

MULTI-PURPOSE OFFSHORE  
CONSTRUCTION VESSEL (MPOCV)



SUPPLY VESSEL

SEMI-SUBMERSIBLE  
DRILL RIG



JACK-UP INSTALLATION  
VESSEL



WALK-TO-WORK  
SOV

# ABL Group

**ABL Group ASA** – a global brand family combining energy, marine and engineering excellence to offer **technical advisory, consultancy, and software solutions**, driving **safety and sustainability** throughout the **lifecycle of an asset or project**.

**ABL: The Energy & Marine Consultants.**

Global, independent energy, marine and engineering consultant working to derisk and drive sustainability across projects and assets in renewables, marine and oil & gas.

**AGR: The Energy & Software Consultants.**

Multi-disciplinary engineering consultancy and software provider specialising in wells and reservoirs. We have the experience, agility and creativity to deliver a compelling solution that solves today and tomorrow's energy challenges.

**OWC: The Renewable Energy Consultants.**

Dedicated engineering, technical advisory and consultant for the commercial development of offshore and onshore renewable energy.

**Longitude Engineering: The Engineering Consultants.**

Independent engineering, design and analysis consultants working across marine markets, renewables, oil & gas, maritime, small craft and defence, and infrastructure.



## Our global footprint

- 77 offices across 43 countries
- Presence in Europe, Africa, Middle East, Asia, Australasia, North America, and South America



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We have offices around the world in all markets. Please visit our websites for more information.

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