DPS Notations:
Clarifying the Role of Classification
Frequently Asked Questions

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ABS
Class Prescriptive Rules

- DPS notation dependent on
  - Redundancy targets
  - Single point of failure
  - FMEA generation
  - Plan review
  - Sea trials
DPS Not Just an “Add On”

- Needs to be considered throughout design
  - Cable routes
  - Ventilation
  - Fire extinguishing
  - Power supplies
    - High power
    - Control power
      - Switchgear
      - Sensors
Elements of a Typical DP System

- Tunnel Thrusters
- Vertical reference unit
- DP Console
- Anemometer
- DGPS
- Artemis
- Laser Reference
- Gyrocompass
- Propellers
- Weight
- Rudders
- Tunnel Thruster
- Azimuth Thruster
- Taut Wire Position Measuring System
- Acoustic Positioning System
- Tunnel Thrusters
- Acoustic Transponder
Possible Developments

- Environmental criteria
- Reliability (other than through redundancy)
- Different (vessel) applications
- More detailed guidance
- More survey guidance
DPS Vessels Entering ABS Class

ABS Class (2005 to 2009)
ABS Vessels with DPS Notation

%

2006  2007  2008  2009  2010

0  2  4  6  8  10  12  14  16  18  20

2006  2007  2008  2009  2010
Dynamic Positioning Systems
ABS DPS Class notation numbers mirror the IMO consequence classes, yet neither demand any particular environmental capability.

Is this an omission?
How do we verify the capability plot?
The IMO Guidance states
“Bus-tie breakers should be open during equipment class 3 operations, unless equivalent integrity of power operation can be accepted according to…”

ABS does not have an equivalent statement, but is this intent applied?
Question 4

ABS requires an Emergency Shut Down, but this could introduce a single point of failure which is to be avoided for DPS-2 and DPS-3 operations.

How can ABS have such contradictory requirements?
In real life equipment is subject to wear and tear and breakdowns. What is the ABS position when equipment, which is subject to the ABS DP Class requirements, is not available day-to-day and at the time of survey?
ABS requirements are silent on the subject of combined operations, but combined operations are frequently the norm rather than the exception?
Last year ABS introduced more DP-specific survey requirements. Does ABS have any plan to accept the reports of other independent specialists in lieu of ABS surveyor attendance?
What about the future?