



XOCEAN

Ocean data, **delivered.**





We operate the **largest fleet of survey class USVs**

OPERATIONS

- **130,000** hours of operation
- **1,085** missions completed
- **20** jurisdictions in **4** continents
- **30th** USV hull in production

PEOPLE

- **224** people including **52** STCW USV Pilots
- **31%** female seafarer gender balance
- Global virtual team across **15** jurisdictions

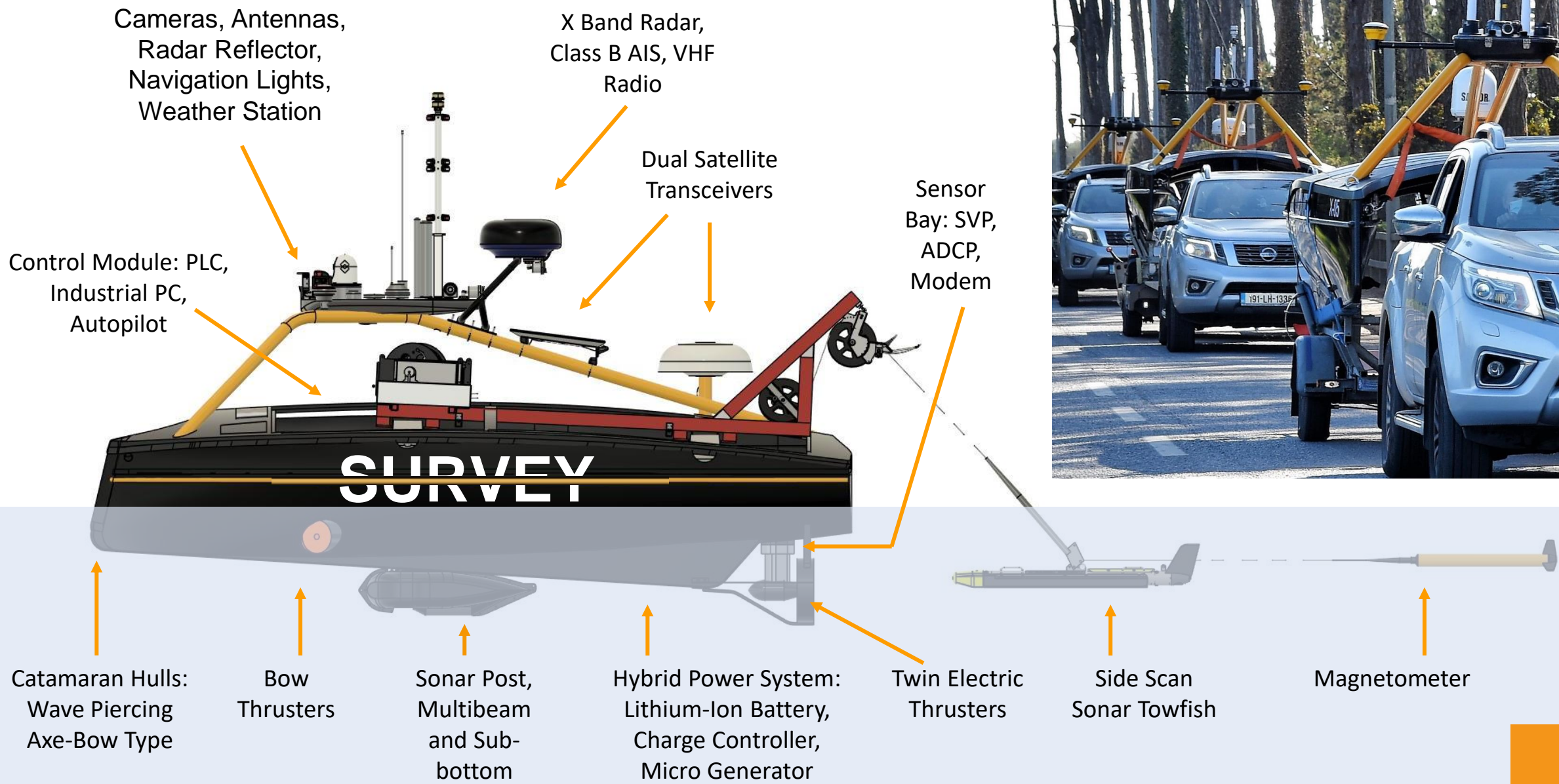




XOCEAN XO-450 USV

TECHNOLOGY

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XOCEAN USV **Autonomy**

LEVEL 3 AUTONOMY

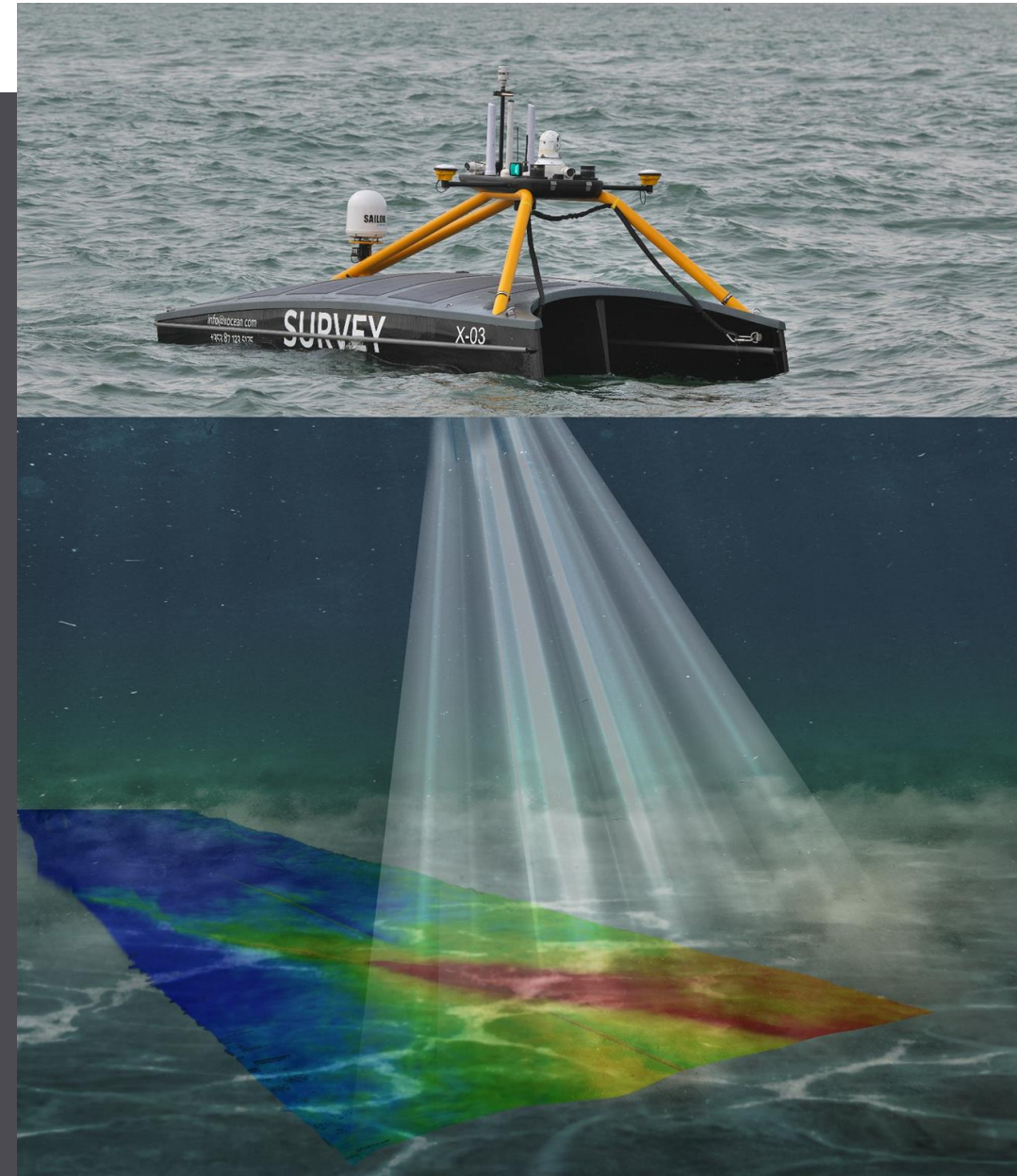
- Remotely operated; persistent orders “follow route”
- USV Pilot monitors execution

SAFE BEHAVIOURS

- Heartbeat for USV Pilot connection
- Imminent grounding and collision

REMOTE ENGINEERING

- 3,000 monitored indications
- Redundant critical systems
- Automated checks and trends



MASS Regulatory Framework

CURRENT STATE

- Regulatory requirements vary by individual coastal states
- Most are ad hoc risk based, some cross-jurisdiction recognition

CHALLENGES

- Inconsistent and unpredictable
- Ship-scale risks applied to small USVs

FOR IMO MS CONSIDERATION

- Size and speed differentiation
- Compatibility and reciprocity
- Role of IMO for small USVs





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