

# Offshore Survey Industry Perspectives and the Need for Formal Qualifications

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# More than Button Pushers – Overview

- Offshore Survey Activities & Formal Qualifications
- Trends in the Offshore Industry
- An Improvement Proposal

**If only they would  
press the right ones!**

**anon.**

# Main Areas of Commercial Hydrographic Surveying

- Ports & Harbours
- Civil Hydrography
  - Government Agencies (e.g. UK-MCA; US-NOAA; FR-SHOM)
  - Nautical Charting
  - Coastal Zone Management
  - Habitat Mapping
  - Nearshore Marine Engineering Support Surveys
- Offshore
  - Oil & Gas Exploration & Development
  - Cable Route Survey – telecoms, power, pipelines



# Offshore Requirements

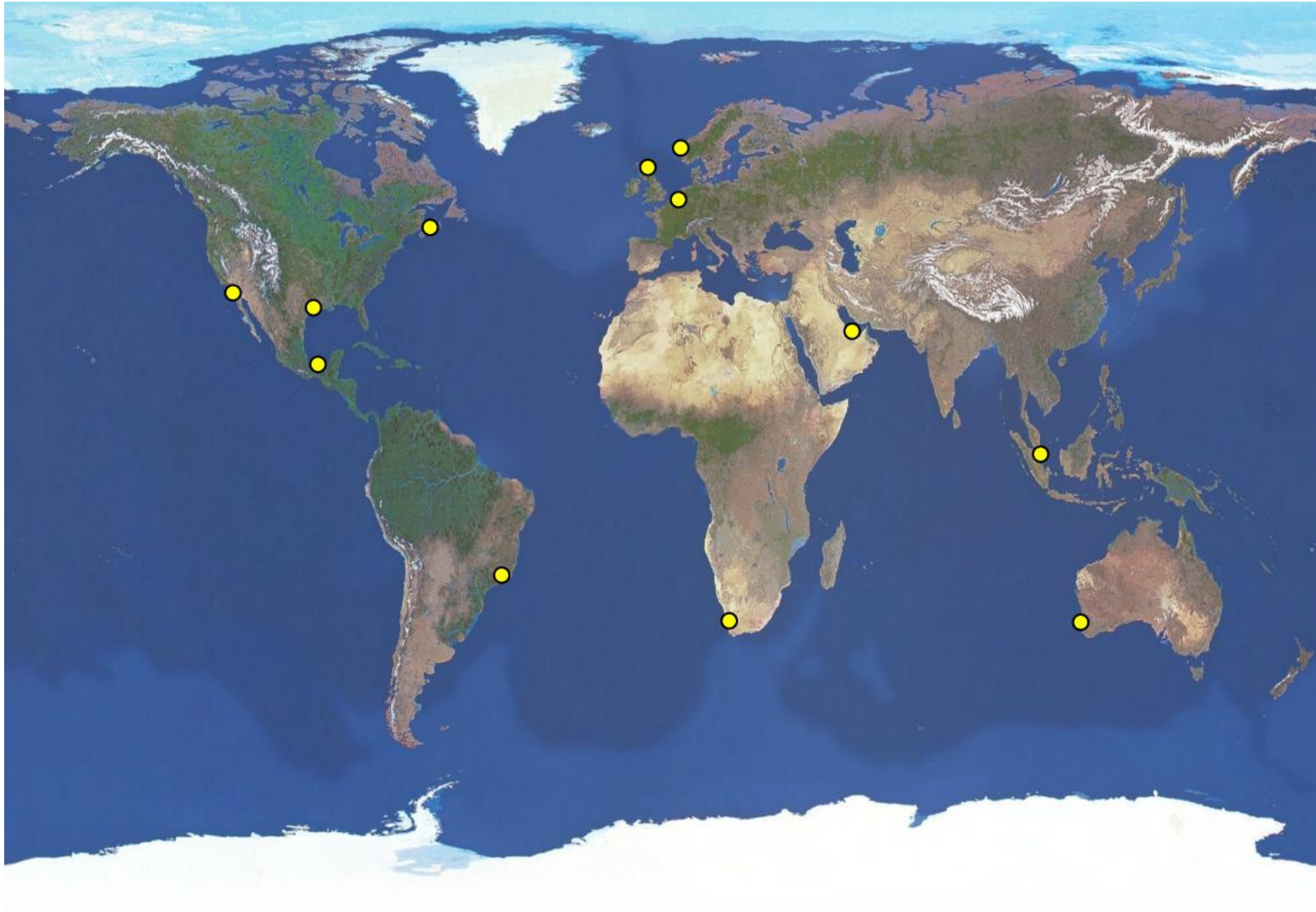
- Currently no/limited formal requirement for qualifications or certification for offshore surveyors
- Typical recruitment largely, but not exclusively, from geomatics courses in recent years
- Earlier industry manning profile dominated by ex-services personnel & others\*
- Growing requirement for competence assessment & assurance systems to be in place by contractors
- IMCA Competence Assurance Guidelines Qualifications
- Company implementation schemes (e.g. Fugro's FOCAS) to meet or exceed such requirements
- These are self-imposed requirements in the absence of any internationally-approved certification schemes

# UK Civil Hydrography – Requirements

- Requirement by MOD-UKHO/MCA (Maritime & Coastguard Agency) for FIG/IHO Cat A 'qualified' surveyor in charge of survey works
- Limited access to personnel with such qualification and appropriate level of experience
- Excludes many experienced and competent personnel from undertaking such work



# International perspective – Fugro Hydro Opcos



# International Requirement

- Generally no requirement in offshore O&G/CRS areas
- Common requirement for Cat A for civil / government hydrographic work to have 'surveyor in charge'
- However, registered surveyor required in US & Canada for signing off plans
- Offshore sector likely to adopt competence model



# Legacy Approaches to CPT

- Most 'naval' hydrographic agencies i.e. the national hydrographic remit lies within their Navy, have a very similar or identical system
- The US does not, but their organization is very de-centralized
- The USN does not have a core hydrographic structure which is perceived as part of the 'line' officer (Executive Branch) train.
- It's a nuance outside of military circles but very important within it.



# Legacy Approaches to CPT

- Taking the 'stripes' away from the issue, what navies do within their officer corps is to grow and develop managers within a structured career progression system.
- In that more civilian sense, it all starts to become more logical.
- A Cat B is expected to be able to lead an element of a survey program, or a boat, or a small team of 'technicians' and work the day-to-day operations necessary to fulfill a survey requirement.
- The Cat A is expected, having been through this level of experience, to orchestrate and manage the entire operation, to make operational decisions affecting the survey and where necessary to amend the program or methodology to improve or complete the mission.

# Legacy Approaches to CPT

- This would equate a junior-mid level Cat A to a civilian Party Chief in terms of role, education, experience and authority.
- A senior Cat A in the naval environment is often given an unofficial 'rank' of 'Charge' which equates to a senior surveyor in a survey company with even more responsibility for suggested procurements of equipment, software etc. etc.



# Legacy Approaches to CPT

- So, the question pertaining to whether someone is, or should be, going through a Cat A program is steered by the CPT structure:
  - Is the finished article management level or material?
  - Does he or she have the ability or manage a team, a survey and make decisions?
- If they are not, or not quite yet due to lack of experience, then they should be streaming through Cat B initially and gaining core knowledge and then experience before making the next step.



# Legacy Approaches to CPT

- It's also worth noting, and contrary to popular misconception, that the naval system assumes the same academic levels of qualification before an officer (manager) embarks on a Cat B or Cat A course.
- In other words it doesn't matter if one is a high-school graduate and the other is a PhD, they both go through Cat B regardless.
- The Cat B surveyor is a more practical and hands-on product
- this levels the playing field educationally.
- many of Fugro's and other's better field surveyors are high school graduates.



# Managers and Technicians – ‘Chiefs and Indians’

- What of the certification and recognised standards of competence for the civilian equivalent of the military NCO or seaman?
- Retired naval NCOs and seamen surveyors are hugely in demand
- This is a function of several factors over and above simple academic qualification:
  - Discipline
  - Track record for offshore/deployed work
  - Work ethic and dependability
  - Inherent management abilities
- Their training is now given better national academic recognition but not international recognition
- IBSC should consider this technician level as an important part of the structure
- Not ‘Cat C’

# Trends Affecting the Offshore Industry – 1

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- Declining student numbers
  - Fewer students doing geomatics
  - More geomatics career options for students
  - Fewer students choosing offshore survey career option
- Declining courses
  - Course closures
- Varying course standards
  - The 'maths' problem
  - Core and non-core modules
  - Additional 'theory' training required, increased industry overhead

# Trends Affecting the Offshore Industry – 2

- Offshore survey remuneration
  - Declined relative to other areas of geomatics
  - Poor in comparison with other offshore specialists (and non-specialists!)
- Social factors / expectations
  - Time away from home / friends
- Offshore Industry
  - Cyclical nature
  - Difficult to plan long term

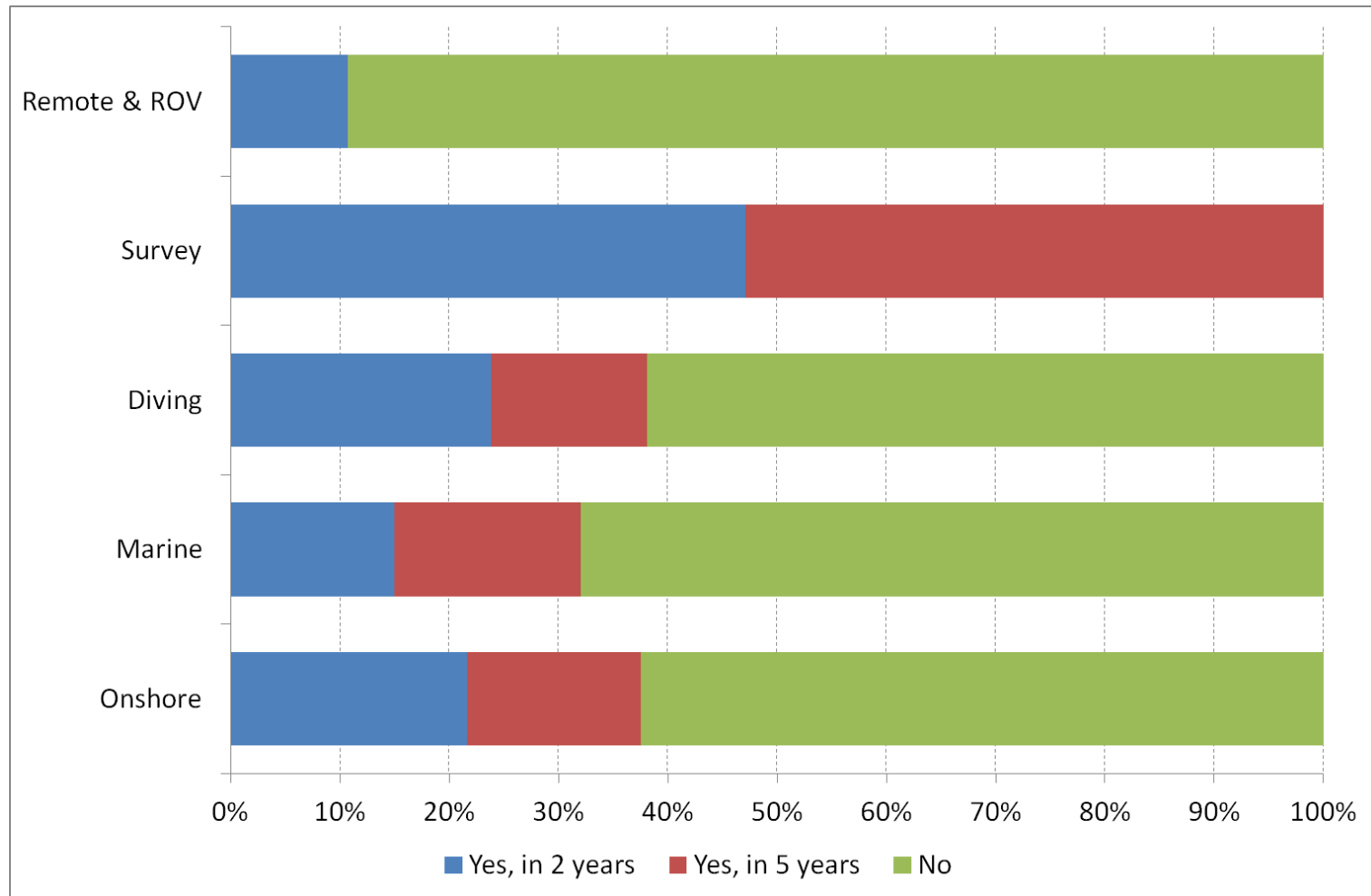


# Trends Affecting the Offshore Industry – 3

- Existing Staff
  - Experience moving away from industry
  - Experience moving into client organisations
  - Age profile reducing 😊
  - Experience profile reducing 😞
- Recruitment
  - Shortages predicted in very near future
  - No quick fixes / fast track for inexperience



# International Marine Contractors Association Skills Survey



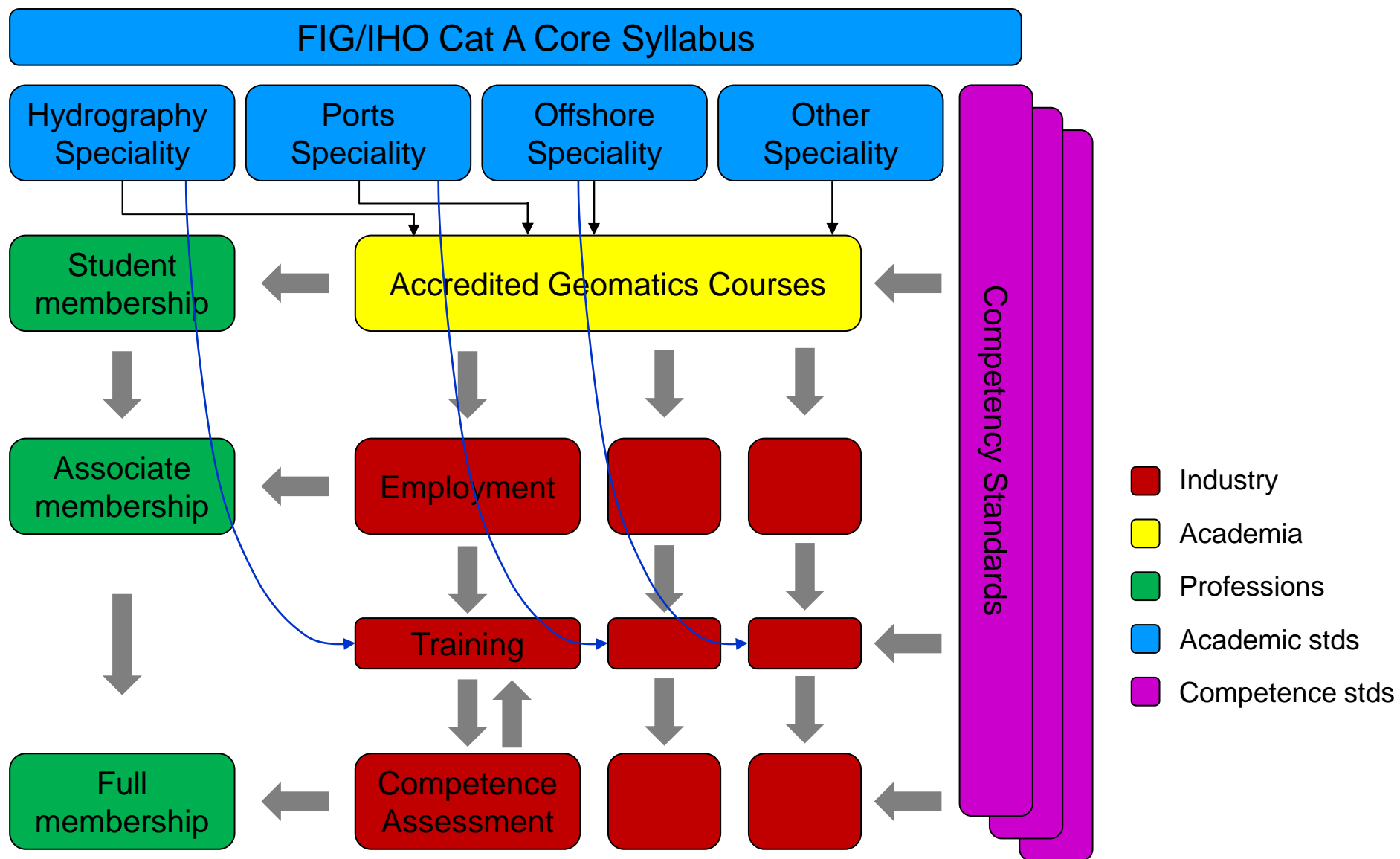
“Do you anticipate future recruitment difficulties within the time frames given?”

Source: IMCA C008 (2005)

# Do We Need to Improve the Current System?

- Yes
- But a number of problems need addressed ...
  - Few drivers from offshore industry for professional qualifications, little business benefit
  - Relevance of Professional Bodies to all surveyors needs reviewed
  - Limited courses accredited to the only internationally recognised hydrographic qualification FIG/IHO Cat A/B
  - Lack of follow-on from FIG/IHO Cat A/B academic qualification
  - Limited recognition of competence schemes by Professional Bodies
  - Number of Professional Bodies / organisations competing for members
  - Lack of a 'joined up' geomatics / geospatial profession

# A Possible Model?



# Summary

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- Offshore Survey facing increasing difficulties with recruitment and retention
- Plight of academia is not/will not help the situation
- Currently limited requirement for formal or professional qualifications in UK offshore survey sector
- Growing requirement for competence assessment & assurance
- Neither Academic not Professional qualifications currently meet offshore industry's requirement for competence
- Opportunity for Academics, Professional Institutions, Trade Association and Employers to create a better framework for the geomatics professional?

# Thank you

