Health, Safety and Planning for Offshore Surveys

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HSE Planning
- JHAs/HRAs (Job Hazard/Hazard Risk Assessments)
- HASP (Health & Safety Plan)
- TRA (Travel Risk Assessment) & Journey Management

Dealing with Unforeseen Issues
- Preparedness
- Knowing and relying on your JHA and HASP
- Training
- Thinking on the fly
Types of Offshore Surveys

Offshore surveys are conducted for a variety of needs and industry sectors:

- Oil & Gas Exploration
- Pipeline Routing
- Decommissioning
- Telecom Cable Routing
- Dredging
- Navigation Projects
- Coastal Construction and Infrastructure
Types of Offshore Surveys

Common types of offshore surveys:
- EBS (Environmental Baseline Survey)
- G&G (Geophysical & Geotechnical)
- Benthic mapping/investigations
- Research/data gathering
Types of Offshore Surveys

Environmental Baseline Surveys (EBS)
- Water sampling and profiling
- Sediment sampling
- ROV/AUV/Drop-video camera
- Placement of ADCPs
- Fisheries sampling
Types of Offshore Surveys

Geophysical & Geotechnical (G&G) Surveys

- Sidescan sonar
- Swath Bathymetry
- Seismic profiling
Types of Offshore Surveys

Benthic Mapping/Ground-truthing

- Drop-video camera
- ROV (Remotely Operated Vehicle)
- AUV (Autonomous Underwater Vehicle)
Equipment, Hazards and Risks

Types of Hazards, Risks and other Considerations:

- Environmental
- Operational
- Geographical (Security)
Environmental Considerations:

- Weather
- Currents
- Obstacles
- Depth
- Visibility
Equipment, Hazards and Risks

Operational:

- Loading/Unloading
- Equipment operating (cameras, ROVs, seismic fish, box cores, winch, cables, overhead loads, etc.)
- Proximity to infrastructure
Geographical (Security):
- Some locations pose security risk
- Ex: piracy risk off the coast of Nigeria

Map showing piracy and armed robbery reports to IMB Piracy Reporting Center, 2011 (USCG)
ERM’s HSE Planning

Assessment of Hazards and Risks, Mitigations, and Planning:

- WARN (Work Activity Risk Assessment)
- JHA/HRA (Job Hazard/Hazard Risk Assessment)
- TRA (Travel Risk Assessment)
- Health & Safety Plan (HASP)
- Journey Management

“ERM is committed to maintaining a working environment that will protect and promote the physical and mental health of everyone who works for the company, and other people affected by our activities.”
ERM’s HSE Planning

The necessary foundations of ERM’s H&S Program:

- Common standards of performance
- Systems for reporting and investigating incidents
- Documented risk assessment process
- Implementation of risk management programs
- Self-assessment and improvement
- Technical and program management training
ERMs HSE Planning

**Work Activity Risk Assessment**

"W.A.R.N."

- A cornerstone of our HSE program
- Every work task involves some degree of risk
- By formally reviewing and managing risk we try to reduce potential for incidents

The **W.A.R.N. Process:**

- Involves a series of reviews, checks and plans associated with:
  - Office Work
  - International travel
  - Working in undeveloped, remote or inactive sites
  - Working in active facilities
  - Coastal and Offshore work
  - Intrusive investigative work
  - Remediation Projects
ERM’s HSE Planning

Work Activity Risk Assessment

For Coastal and Offshore Work:

- Coastal and Offshore Checklist
- Job Hazard/Hazard Risk Analysis Sheet (JHA/HRA)
- Health and Safety Plan (HASP)
- Travel Risk Assessment (TRA), if required
- Journey Management Plan
ERM’s HSE Planning

Job Hazard Identification/Hazard Risk Assessment

- Identify Risks and Hazards
- Rate the significance of the hazard
- Apply mitigations to lower significance (e.g., PPE, safety procedures, required training, etc.)
ERM’s HSE Planning

Health & Safety Plan

- Incorporates:
  - Team contact information
  - Important health & safety information such as directions to nearest hospital
  - Travel plans
  - JHA/HRA, safety procedures, mitigations and PPE required
  - Detail driven by type of activity and significance of hazards, as well as client requirements

Travel Risk Assessment (TRA) and Journey Management

- Type of form, level of detail and authorization dictated by risk rating for location
- ERM aided by subscription to Control Risks and International SOS
- Interactive TRA tool
ERM’s HSE Planning

**Extreme Risk**
- PIC
- Traveler’s HS Lead
- Dest. Reg. H&S Lead
- Dest. RCEO
- Global CEO
- cc: BUMP/DMD* (if applicable)

* Not required if BUMP/DMD is PIC

**High Risk**
- PIC
- Traveler’s HS Lead
- Dest. Reg. H&S Lead
- Dest. RCEO
- cc: Traveler’s RCEO

**Medium Risk**
- PIC
- Dest. Reg. H&S Lead
- Dest. RCEO
- cc: Traveler’s RCEO

**Low Risk (No Office)**
- PIC
- Dest. Reg. H&S Lead
- cc: Destination Reg. H&S Lead
- cc: Traveler’s BUMP*

* Not required if BUMP is PIC

**Legend**
- Reviewer from Traveler’s BU
- Reviewer from Destination Region
- Approver
- Gate – TRA returned to traveler to address comments
- Optional Gate – Reviewer chooses whether to return the TRA to the traveler to address comments

**Note:** PIC is replaced by Line Manager for non-billable travel
Dealing with Unforeseen Risk

**BOTTOM LINE:** you prepare but you can’t always predict all hazards and risks

Tools to help deal with unforeseen risks:
- Preparedness
- Solid survey plan including HASP, JHA and other elements described above
- Training (BOSIET, etc.)
- Experience and being able to think on the fly
- KEEP CALM!
Any Questions?
Contact Information

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