SAFETY AT SEA

NSF LARGE FACILITY WORKSHOP

JON ALBERTS- UNOLS OFFICE

MAY 4, 2010

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

THE UNOLS FLEET

OUR WORK PLACE

Our operating areas: coastal, regional, open ocean, polar, extreme environments, pirate infested waters

Subject: ONI Special Advisory: Indian

Ocean   Monday, April 5, 2010

Please be advised:

A merchant vessel reported coming under fire 5 Apr 10 at 1238 UTC while underway in position 13:41N – 055:30E, approximately 90NM northeast of Socotra Island. The master reported one white skiff with six persons onboard fired RPG rounds at the vessel. There were no casualties reported and no significant damage to the vessel. This area will remain high risk for the next 24-48 hours as weather conditions continue to be conducive to small boat operations. Mariners are warned to avoid transiting these waters if possible. If necessary to transit these waters, mariners are encouraged to use all counter-piracy measures and employ all best management practices.

Will Ostrom/WHOI

OVER THE SIDE OPERATIONS

Lab Work with Hazardous Chemicals
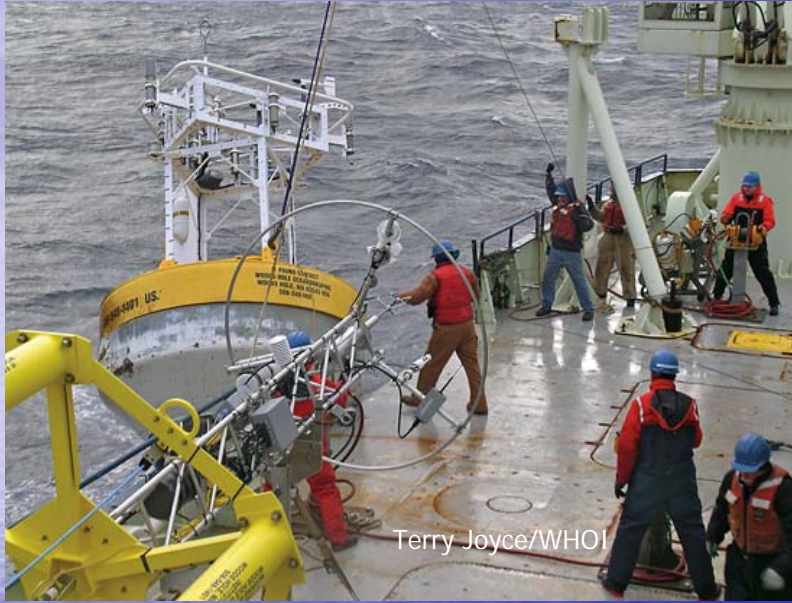

Tom Kleindinst/WHOI

Larry Madin/WHOI

Craig Dickson/WHOI

Chris Linder/WHOI

Open Water Diving

4500 Meter Deep Submergence

Extreme Environments

Terry Joyce/WHOI

Rick Krishfield/WHOI

Mooring Operations- rolling decks, 10,000 lbs weights, wires and cables under high tension

UNOLS Approach to:

❖ **Creating a Safe Environment-**

❖ **Managing the Risks-**

❖ **Preventing Accidents-**
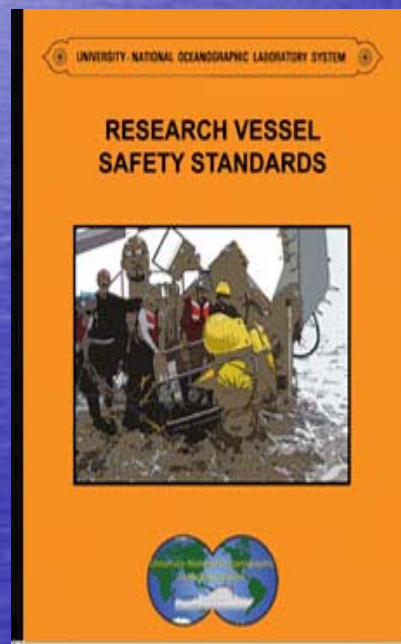
❖ **Informing and Educating our crews and scientists-**

RESEARCH VESSEL OPERATORS COMMITTEE- 1962
RVOC Safety Training Manual – Chapter 1

UNOLS ORGANIZED 1971

RESEARCH VESSEL SAFETY STANDARDS- First adopted in 1976- focus on ship safety

Became a UNOLS Standard and a requirement to become a UNOLS vessel

Has become a maritime industry standard for research vessels

UNOLS RESEARCH VESSEL SAFETY STANDARDS

WHAT- WHERE-WHY- WHEN & HOW

WHAT- A set of safety standards, applicable to all UNOLS vessels

WHERE- Aboard the Academic Research Fleet

WHY- To create a safe working environment

WHEN- At all times, while in port or working at sea

HOW- By making available a recognized, time-tested, proven, and up-to-date set of guidelines

STEPS TO PLANNING A SAFE EXPEDITION

SHIPS OFFICERS & CREW

❖INTERGRAL PART OF THEIR CAREER TRAINING

❖ MAINTAINING THEIR LICENSES AND PREPARING FOR INSPECTIONS

❖REQUIREMENT OF MERCHANT MARINER DOCUMENTATION

❖STCW 95- STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING in Firefighting, Personal Survival, Personal Safety, Social Responsibility and Basic First Aid- Renewed every 5 years

❖SENSE OF MARITIME ENVIRONMENT, HEIGHTENED AWARENESS- SIXTH SENSE

STEPS TO PLANNING A SAFE EXPEDITION

A SAFE AND SEAWORTHY PLATFORM TO WORK FROM

- ❖UNITED STATES COAST GUARD INSPECTIONS
- ❖CLASSIFICATION SOCIETY INSPECTIONS
- ❖SHIP OWNER INSPECTIONS- NATIONAL SCIENCE FOUNDATION VESSEL INSPECTION PROGRAM AND THE NAVY INSURV PROGRAM
- ❖VIGILANCE OF THE CREW ON A DAY TO DAY BASIS
- ❖PRUDENT MARINER KEEPS A SEAWORTHY VESSEL AT ALL TIMES

STEPS TO PLANNING A SAFE EXPEDITION

SCIENCE TEAM MEMBERS

❖Scientists with lots of sea going experience and/or first time experience working at sea

❖Training in Lab Safety and knowledge of sampling gear

❖Well thought out science plan that has been discussed with ship's crew, institution's marine office and support personnel.

❖Detailed explanations of the science activity to take place- (radioisotope, diving, small boat work, science schedule, working hours, etc.)

❖Risk assessments

❖Communication plans

❖Chain of command

❖Written Documentation for hazardous materials with MSDS sheets and spill kits.

STEPS TO PLANNING A SAFE EXPEDITION

❖Read the UNOLS Safety Training Manual- Chapter 1

❖Operator's Vessel Handbooks- outline unique nature of their ship

❖Safety Orientation- Required by Federal Regs for all Vessels

❖Drills- prior to sailing or soon after getting underway

❖Station Bills- Conspicuously posted safety information

❖Personal Floatation Devices, life rings, lifeboats

❖Immersion Suits

❖Personal Protective Equipment- work vests, hard hats, close-toed shoes or hard toed boots, safety glasses, etc.

STEPS TO PLANNING A SAFE EXPEDITION

❖**Medical Screening Process**

❖**MEDAIRE**

❖**Post Cruise Reports- Identify safety concerns and trends**

❖**Safety Reports- Tracking accidents, time/days lost**

DOES OUR SYSTEM WORK AND WHY ?

YES- OUR SAFETY RECORDS INDICATE SO

- ❖ EXPERIENCED CREW
- ❖ EXPERIENCED SCIENCE PARTY MEMBERS
- ❖ LOOKING OUT FOR EACH OTHER
- ❖ WILLINGNESS TO LISTEN TO OTHERS WITH MORE EXPERIENCE
- ❖ HEALTHY RESPECT FOR THE SEA
- ❖ COMMON SENSE

ROOM FOR IMPROVEMENT- YES, ALWAYS

"MUST REPACKAGE THE IDEA OF SAFETY EVERYDAY WITH INCREASED VIGILANCE"

Dennis Nixon-UNOLS Risk Manager-