University-National Oceanographic Laboratory System

UNOLS
ADA Guidelines for Research Vessels

ADA Workshop
18-19 September 2006

Committee Member and Observers

Committee Membership:

- Terry Whitledge (UAF) – Chair, FIC Member
- Amy Bower (WHOI) – Sea-going Scientist
- Eric Buck (SIO) - Ship Master
- David Chapman (UDel)
- Jim Cochran (LDEO) - Langseth Conversion Rep, FIC Member
- Matt Hawkins (UDel) - Safety Committee Rep, New Vessel Operator
- Dennis Nixon (URI) - Risk Manager
- Al Suchy (WHOI) - Marine Superintendent
- Joe Ustach (Duke) – RVTEC Rep

Corresponding Member:

- David Glover (WHOI) – Disabled Scientist

Observers:

- NSF – Dolly Dieter and Holly Smith
- NOAA – RADM Behn and Stephan Manzo
- UNOLS – Peter Wiebe and Annette DeSilva
- PEOShips– Dave Barkdale
- LDEO Ship Operator - Paul Ljunggren

Americans with Disabilities Act (ADA) Guidelines for Research Vessels

Background:

- NSF has indicated the need for new ship construction and ship conversion efforts to address ADA requirements. Although UNOLS vessels are not passenger vessels and fall under USCG Subchapter U Classification, vessels that support Federally funded academic research should be equipped and arranged as feasible to accommodate persons with disabilities.
- In turn, procedural guidelines to carry out shipboard operations by persons with disabilities are needed.

ADA Guidelines for Research Vessels

Tasks:

- Draft preliminary ADA Guidelines for the Regional Class acquisition effort.
- Convene a 2-day community workshop to define shipboard and procedural guidelines required to accommodate sea-going scientists with disabilities.
- Establish general ADA Guidelines for new ship construction/conversion.
- Draft procedural guidelines for at-sea research operations by seagoing scientists with disabilities.

Task:

Draft Preliminary ADA Guidelines for the Regional Class Acquisition effort.

- Evaluate existing documentation and activities to determine recommendations that are feasible for the Regional Class design. These could include:
  - The draft ADA paper by Terry Whitledge.
  - The draft ADA Guidelines for passenger vessels <http://www.access-board.gov/pvaac/guidelines.htm>.
  - Modifications implemented or included in the designs for the ARRV, *Marcus Langseth*, and *Hugh R. Sharp*
- Provide Recommended Guidelines to NSF by 1 April 2006.

Task: Establish General ADA Guidelines for new ship construction/conversion.

- Define the UNOLS philosophy for accommodating persons with disabilities at sea.
- ADA guidelines for UNOLS Vessels should be established to take into consideration:
  - The various vessel classes/sizes
  - The nature of the disability (hearing, vision, and mobility).
  - Levels of compliance should be recommended.
- Estimated costs associated with the various design modifications necessary to accommodate ADA requirements should be evaluated and defined.

<u>Task:</u> Convene a 2-day Community Workshop to define shipboard and procedural guidelines required to accommodate sea-going scientists with disabilities.

- Consider holding the workshop with a visit to an UNOLS vessel to learn the challenges faced by the disabled.
- Incorporate workshop recommendations into ADA report to UNOLS Council.

<u>Task:</u> Convene a 2-day Community Workshop to define shipboard and procedural guidelines required to accommodate sea-going scientists with disabilities.

- Convene speakers or a panel with expertise in the area (suggestions):
  - U.S. Coast Guard representative
  - US Access Board representative
  - Sea-going Scientist with disability
  - Naval Architect
- Broadly announce the workshop and ensure that participation will include the science community, sea-going scientists with disabilities, Naval architects, ship master, marine superintendents, agency representation, and a risk manager.

Task: Draft procedural guidelines for at-sea research operations by seagoing scientists with disabilities.

- The guidelines should consider:
- Shipboard mobility and access areas
- Research operations
- Evacuation / safety procedures

Suggested Project Reference Material

- Draft ADA Guidelines paper drafted by Terry Whitledge.
- Evaluate guidelines on how to implement ADA requirements for passenger vessels <http://www.access-board.gov/pvaac/guidelines.htm>.
- Findings from David Chapman's research project.

Timeline

- Preliminary ADA Guidelines for Regional Class Vessels – 1 April
- ADA Guidelines for new ship construction and conversions – first draft by summer 2006
- Procedural ADA Guidelines for at-sea operations – late summer 2006
- Workshop – Sept 2006
- Submit Draft ADA Guidelines to UNOLS for review – Oct 2006

Action Item – Regional Class

Examples from R/V Hugh R. Sharp

- Main deck head expanded to accommodate hand-held shower, ADA sink and grab rails
- Door widths increased to 32 inches
- Width of main passage increased to 48 inches
- Conference room on main deck is convertible to stateroom with berth
- Modular lab benches can be adjusted to conform to ADA heights
- Placement of objects, controls and operating mechanisms normally accessed by the science party will be placed within reach range
- Visual and audible alarms will be provided
- Fire extinguishers, fire stations and emergency equipment will be mounted in recesses so as not to protrude into passageways
- Water tight door with a swing sill (approved by ABS) that can be opened for access giving a 2 inch sill to main deck
- Full stern loading ramp is envisioned for egress

Jubilee Sailing Trust

Patron of the JST- HRH The
Duke of York

a unique charity that aims to promote the integration of people of all physical abilities through the challenge and adventure of tall ship sailing.

The Jubilee Sailing Trust was established in 1978 with a donation from the Queen's Silver Jubilee Appeal Fund, following an idea conceived by it's founder, Christopher Rudd.

The aim of the charity is to promote integration between able-bodied and physically disabled adults through the medium of tall ship sailing.

This is achieved by enabling a mixed ability crew between the ages of 16 and 70 plus to crew a tall ship at sea. Voyages range between 4 and 11 days and able bodied and physically disabled people participate on as near equal terms as possible. There are no passengers; everyone works to the best of his or her ability.

http://www.jst.org.uk

Since her maiden voyage in 1986, the LORD NELSON has taken 21,874 people to sea. Of these, 8,630 people were physically disabled and 3,394 were wheelchair users. Their disabilities included: Cerebral Palsy, Multiple Sclerosis, Spina Bifida, Paraplegia and many more...

The LORD NELSON is unique in being the only purpose built tall ship in the world. Her many facilities enable disabled crew to perform their duties independently alongside their able-bodied shipmates.

The ship has access throughout for disabled crew, including wheelchair users, with flat wide decks and powered lifts. There is a speaking compass for the use of blind crew members and bright track radar for partially sighted crew. An induction loop and vibrator alarms have been installed for hard of hearing crew members.

There are special cabins, toilets and shower facilities for disabled crew and the ship is fitted with a mess deck, fully equipped galley, workshop and of course, a well stocked bar and saloon area.

The special facilities on board both ships include:

*Flat, wide decks which facilitate access for wheelchair users.

*Lifts between decks for those with limited mobility - these can be operated by the user.

*A stair lift of the type used in the home.

*Vibrator pads fitted to the bunks which alert people who are deaf or hard of hearing in the event of an emergency.
*An induction loop fitted in the lower mess room to assist those with hearing impairment during the briefing sessions.
*Wide aisles below decks and low level fittings.
*Guidance track on deck to help blind and visually impaired crew remain central.
*Tactile pointers around the handrails on deck which indicate the direction of the bow and the stern.
*Bright track radar screen.
*Speaking compass with digital readout screen which enables blind people to steer the ship.
*Signs in Braille.
*Tactile surfaces at the top of stairways to alert blind crew.
*Power assisted hydraulic steering which makes it easy for people with little strength to steer the ship.
‘*Unwin' fixing points throughout the ship so that wheelchairs can be secured during rough weather.

"What an amazing ship… I couldn't believe that it was easier for me to get around on board than in my own home"

Mary, Leatherhead

Over 1,744 people were physically disabled and over 630 were wheelchair users.
Their disabilities included:

Amputation
Blindness
Cerebral Palsy
Deafness
Diabetes
Muscular Dystrophy
Epilepsy
Head Injury
Hemiplegia (Stroke)
Hydrocephalus
Multiple Sclerosis
Osteoarthritis
Paraplegia
Polio (old)
Quadriplegia
Rheumatoid Arthritis
Spina Bifida
Spinal Injury