Purpose

The major purposes of the NSF Ship Inspection Program are:

1. To assure that the capabilities of the research vessel and technical support meet accepted scientific community standards and expectations;
2. To assure the seaworthiness and safety of research vessels supported by NSF meet or exceed the standards set forth by the *UNOLS Research Vessel Safety Standards (RVSS)*, and applicable requirements of the International Maritime Organization, American Bureau of Shipping (ABS), the Code of Federal Regulations (CFR), and the U.S. Coast Guard;
3. To ensure NSF-owned ships as capital assets, are being adequately maintained;
4. To ensure NSF-funded science is scheduled on properly outfitted and maintained vessels.
Recently Completed
Upcoming Inspections
Appendix A compliance appears to be coming along well.

- Almost all vessels are in compliance at a safety factor of 5.0.
- However, a factor of safety of 5.0 does not meet mission requirements for many vessels, particularly if the calculation method in the Appendix is used \((g=1.75)\).
- Some of the vessels are limited to a factor of safety of 5.0 by sheave diameters and grooving and will also be limited by roller diameters as of 1 June 2015.
- The logging requirements for each tension member are more comprehensive than historically being maintained.
### RVSS Appendix A Compliance:

#### Appendix A Assist Summary for Each Wire or Cable

<table>
<thead>
<tr>
<th>Requirement or Attribute</th>
<th>FS 1.6 or higher</th>
<th>FS 1.4 to 2.9</th>
<th>FS From 2.0 to 2.99</th>
<th>FS From 3.0 to 4.99</th>
<th>FS &gt; 4.5</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Cable/Wire SWL, in clear view of the winch operator (good practice)</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Tension Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you have the ability to keep track of SWL.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>May be calculated using a &quot;R&quot; factor or from Tensionmeter.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Have ability to keep track of SWL. Actual from monitoring system.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tensionmeter display of operator's station with 3 Hz resolution.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tension continuously monitored using a tension trending graph.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tensionmeter logging at 3 Hz.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tensionmeter logging at 25 Hz.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tensionmeter Recallibration at least every 6 mos.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tension measuring system maintained with 4% accuracy.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Tension measuring system maintained with 3% accuracy.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Records</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available and visual tension spanner while logging.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Available and visual tension spanner while logging.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Available and visual tension spanner while logging.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Available and visual tension spanner while logging.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Alarm conditions automatically tagged.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Motions and Fairlead Blocks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheets &amp; Rollers: As large as practical.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Sheets &amp; Rollers: Load ratio meet 40:1 or 4000 lb whichever is greater.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Sheets: Grooves as close to 2 stp possible and no more than 1.5d.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Horizontal Grooves per inch: X 1.1</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Groove size relative to nominal diameter of wire: 3/16&quot; to 1/4&quot; 3% to 5%.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>over 1/4&quot; 2.5% to 5%.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Dock Safety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good safety practices.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Establish danger zones / safety zones.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Warning notice posted.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Physical or visual barriers.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Doors and access secured.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tension testing up to SWL load every 2 years.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Break Testing every 2 yrs.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Break Testing every year if 10% decreases in ABL, or outbreak</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Break Testing every yrs.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td><strong>Cautions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not use the wire transfer with the wire.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of Tension Testing to SWL.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of wire Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of nuts Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of nuts Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of nuts Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of nuts Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Log of nuts Break Testing.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Wire Tree Description.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
<tr>
<td>Maximum load for each cast by calculation or monitoring (and payout).</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Y/N</td>
<td></td>
</tr>
</tbody>
</table>

**JMS**

Naval Architecture
Marine Engineering
Marine Surveying
Salvage Engineering
## Common Findings: Sheave and Fairlead Roller Diameter

Older Levelwinds limit FS to 5.0

<table>
<thead>
<tr>
<th>Requirement or Attribute</th>
<th>FS of 5.0 or higher</th>
<th>FS from 2.5 to 4.99</th>
<th>FS from 2.0 to 2.49</th>
<th>FS from 1.5 to 1.99</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sheaves and Fairlead Rollers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheaves &amp; Rollers: As large as practical</td>
<td>Applies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheaves &amp; Rollers: D/d ratio meet 40:1 or 400d1 whichever is greater</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td></td>
</tr>
<tr>
<td>Sheaves: Groves as close to d as possible and no more than 1.5d</td>
<td>Applies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheaves: Groves per Ref A 1.1 (Groove size relative to nominal diameter of wire rope: 3/16” to 1/4” 3% to 6%; over 1/4” 2.5% to 5%)</td>
<td></td>
<td></td>
<td></td>
<td>Applies</td>
</tr>
</tbody>
</table>
Common Findings: Sheave and Fairlead Roller Diameter
Large rollers installed on RV OCEANUS
Common Findings: Maintaining Accuracy

One common weak area is the concept of “maintaining” calibrations within 4% or 3% depending on the factor of safety selected. There is a need for a standard protocol that may be shared within the fleet.

<table>
<thead>
<tr>
<th>Requirement or Attribute</th>
<th>Select Applicable Column FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement or Attribute</td>
<td>FS of 5.0 or higher</td>
</tr>
<tr>
<td>Requirement or Attribute</td>
<td>FS from 2.5 to 4.99</td>
</tr>
<tr>
<td>Requirement or Attribute</td>
<td>FS from 2.0 to 2.49</td>
</tr>
<tr>
<td>Requirement or Attribute</td>
<td>FS from 1.5 to 1.99</td>
</tr>
<tr>
<td><strong>Tension Monitoring</strong></td>
<td></td>
</tr>
<tr>
<td>Tension measuring system maintained with 4% accuracy</td>
<td>Applies</td>
</tr>
<tr>
<td>Tension measuring system maintained with 3% accuracy</td>
<td>Applies</td>
</tr>
</tbody>
</table>

**JMS**
Naval Architectures
Marine Engineering
Marine Surveying
Salvage Engineering
Common Findings: SWL Documentation

WLL or SWL identified on a block is not the same as max permissible tension. These blocks don't indicate if the WLL is for the tension member or for the shackle/block.
Best Practice: Sheaves

Clear indication of SWL expressed in terms of MPT.
Best Practices: Sheave Wrap Angle

RV SAVANNAH: Instrument blocks that measure the wrap angle in order to measure the tension in the cable.
Common Findings: Log Maximum Load for Each Cast

<table>
<thead>
<tr>
<th>Requirement or Attribute</th>
<th>FS of 5.0 or higher</th>
<th>FS from 2.5 to 4.99</th>
<th>FS from 2.0 to 2.49</th>
<th>FS from 1.5 to 1.99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logbooks: UNOLS wire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>identifier: Cable Inventory/History and Running Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum load for each cast by calculation or monitoring.</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
<td>Applies</td>
</tr>
</tbody>
</table>

One of the requirements in Appendix A is to log the maximum tension per cast. For the crews that record the tensions electronically into a data file (as most do), this is an extra step to accomplish this criteria.
Best Practices: Appendix A

<table>
<thead>
<tr>
<th>Drop #</th>
<th>Drop Date &amp; Time</th>
<th>Maximum Tension Per Cast (Lbs)</th>
<th>Maximum Payout of Each Deployment (Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5/5/12 13:45</td>
<td>2987</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>5/8/12 2:34</td>
<td>1859</td>
<td>1000</td>
</tr>
<tr>
<td>2</td>
<td>5/9/12 2:06</td>
<td>1568</td>
<td>2000</td>
</tr>
<tr>
<td>3</td>
<td>5/9/12 22:06</td>
<td>2368</td>
<td>4572</td>
</tr>
<tr>
<td>4</td>
<td>5/10/12 2:08</td>
<td>1364</td>
<td>1100</td>
</tr>
<tr>
<td>5</td>
<td>5/11/12 2:41</td>
<td>2050</td>
<td>4353</td>
</tr>
<tr>
<td>6</td>
<td>5/11/2012 5:14</td>
<td>1502.9</td>
<td>1811.5</td>
</tr>
<tr>
<td>7</td>
<td>5/11/2012 19:41</td>
<td>2312.3</td>
<td>4617</td>
</tr>
<tr>
<td>8</td>
<td>5/12/2012 3:07</td>
<td>2016.9</td>
<td>4200.3</td>
</tr>
<tr>
<td>9</td>
<td>5/12/2012 23:00</td>
<td>1604.7</td>
<td>2000</td>
</tr>
<tr>
<td>10</td>
<td>5/13/2012 13:15</td>
<td>2859.1</td>
<td>4614.8</td>
</tr>
</tbody>
</table>

RV ATLANTIC EXPLORER:

Logs both the payout per cast and payout at maximum load
RVSS Appendix B Compliance:

Vessels appear to be making progress toward compliance with Appendix B, but we have yet to see a complete package for a complete overboarding handling system.

Assist sheets are available for the system level and component level.
RVSS Appendix B Compliance:

Appendix B contains the following aspects of overboard handling systems:

- System and component descriptions*
- Operation*
- Maintenance*
- Strength (typically requires original design documentation or expert help)
- Testing (may require expert help)

* Typically can be accomplished from shipboard experience and manuals. (No need to wait for experts).
Common Findings: Appendix B
Test Plans:

Develop a test plan/procedure

Include a line diagram

Test the system (all components) as it is intended to be used

RV SIKULIAQ: Testing in the towing position
Common Findings: Lithium batteries

- Develop policy and procedures on how to handle lithium batteries.
- The procedures should cover
  - usage
  - storage
  - disposal
  - how to respond to emergencies
- Incorporate into the cruise planning process.
- Note: Lithium batteries should not be treated the same as lithium ion batteries. Typical portable extinguishers can be used to extinguish a lithium ion fire.
Common Findings: Fuel Efficiency

Need for a *methodical* approach to help use fuel as cost effectively as possible. Requires the ability to take dynamic action based on real-time performance data and known benchmarks. Shipboard Energy Efficiency Management Plan (IMO requirement >400GT) comprised of strategic and tactical actions.

- **Examples of strategic actions that can be adopted:**
  - Repowering
  - Advanced hull coatings
  - Optimized propeller and rudder design
  - Addition of stern wedges
  - Use of shaft generators

- **Examples of tactical actions that can be adopted:**
  - Trim/draft optimization
  - Speed management / real time fuel flow monitoring
  - Maintenance: Tune engine compression, u/w hull cleaning, etc.
  - Energy conservation
  - Provide crew and staff guidance and awareness training
Common Findings: Environmentally Acceptable Lubricants [EAL]

- All vessels (not only new vessels) must use environmentally acceptable lubricants (EALs) in all oil-to-sea interfaces, unless technically not feasible.

- EPA defines EALs as lubricants that are "biodegradable" and "minimally-toxic" and are "not bioaccumulative".

- The vessel’s Annual Report must identify the complete brand names of EALs used. The vessel should also maintain a copy of certificates and technical data sheets for each EAL.

- EALs are only mandated for use in specific oil-to-sea interfaces. Vessels are not required to change to an EAL for above deck equipment, but EPA strongly encourages the use.

Oil-to-Sea Interfaces include:

- Controllable pitch propeller
- Thrusters
- Stern tubes
- Thruster bearings
- Stabilizers
- Rudder bearings (excluding head bearing)
- Azimuth thrusters
- Wire rope
- Mechanical equipment subject to immersion (including dredges and grabs)
Common Findings: Shipyard Documentation

• Lack of post-shipyard documentation/reports
  – summary of what was accomplished
  – records of clearances, NDT, etc.
• Incomplete NDT surveys
  – “portable” equipment that hasn’t moved in years (under winch foundations, A-Frame foundations, cranes
  – bilges, machinery foundations
  – internal structure – webs, flanges
• Need to maintain/update shell expansion plans
  – document readings and plate renewal
Common Findings: Impractical Life Raft Embarkation Plans

Due to their storage locations it is often difficult to launch the rafts and tend them aft to where science personnel could embark.

Procedures often differ from the science safety brief or station bill.
Each control and control setting should be labeled. The label should describe the control function and the result of the control movement in words and/or symbols. All deck equipment controls should be labeled consistently and be clearly visible by the operator with adequate lighting and a conspicuous format.
Common Findings: Human Factors
Best Practice: Hydraulic Hoses

- Tag provides the serial number of the item for cross reference in a Hose Log and installation date.
- The following information should be provided on the tag and/or log:
  - Hose serial number
  - Hydrostatic Test Pressure and Test Date
  - Installation or Replacement Date
Common Findings: Science Safety

More than just a preunderway safety brief is needed!

• Welcome aboard
• Safety Brief
  • Pre underway is best, use of real examples is most effective
• Shipboard policies
  • Sexual harassment, drug & alcohol, environmental, etc.
• General safety training information
  • RVOC Safety Training Manual & video
• Ship specific safety items
  • Use ship photos, PowerPoint or videos
• Reinforce in the Cruise Planning Manual, ship’s web site, in labs and in staterooms
Best Practices: Muster List

Standard Practice for Preparing and Locating Emergency Muster Lists

This standard is issued under the fixed designation F1270; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

Title 33 and Title 46 of the Code of Federal Regulations (CFR) and the Safety of Life at Sea Convention (SOLAS) contain requirements for muster lists. Emergency muster lists are required to be on board tank vessels, passenger vessels, cargo vessels, oceanographic research vessels, nautical school ships, mobile offshore drilling units (MODUs), and outer continental shelf (OCS) facilities other than MODUs. This practice is a consolidated source for muster list requirements, combining requirements from all of the subparts of the Code of Federal Regulations listed above and SOLAS 1974 as amended through 1996.
Best Practices: Battle lanterns

- LED bulbs
- Rechargeable batteries
- Refit kits available
Best Practices: Realistic Drills
Marine Safety Alert

Maintaining Machinery, Knowing Escape Routes, & Conducting Thorough Engineering Watches:

The Coast Guard strongly recommends that owner and operators of all types of vessels develop policy and procedures to ensure:

- Vessel engineers are cognizant of and take action on engine manufacturer technical bulletins;
- Any persons working within machinery spaces understand the escape routes and available emergency equipment;
- That all engineering personnel know how to perform effective and comprehensive inspections and rounds to detect abnormalities and problematic systems, equipment, and components as early as possible.
System design, proper human engineering, labeling, and detailed training will substantially reduce the risk of human error:

The Coast Guard strongly reminds all maritime operators of the importance:

- Designing and maintaining emergency systems to be logical and easily operated in high stress situations,
- Maintaining a high level of crew familiarity with emergency systems, and
- Exercising safeguards during testing to mitigate the risk of human error or system malfunction.
Marine Safety Alert

Overloaded Lifting Gear:
Several catastrophic failures of masts, booms, and lift cables have occurred on vessels that have resulted in loss of life and severe injuries.

The Coast Guard strongly recommends:

* Know the design limits of load bearing structures and winches, hoist, and haul components;
* Ensure they are inspected and tested on a regular basis;
* Evaluate and revise operational procedures as needed.

Appendix B!
Marine Safety Alert

Surge “Protective” Devices:

Most surge protects are designed for use ashore and will interrupt only the hot conductor.

A Delta wired circuit has two hot leads one at +/- 60 VAC, the other at +/- 60 VAC, simultaneously to provide the 120 VAC potential. Here lies the problem with inexpensive and older SPDs that only disconnect one "hot" terminal lead. The other "hot" terminal remains hot if the circuit breaker supplying the receptacle and SPD does not trip.

It should be noted that related issues (mismatches between Delta or WYE systems) have been reported with 120 VAC Uninterrupted Power Supplies purchased ashore and used onboard vessels. Such devices should be selected to match the power supply configuration.
Marine Safety Information Bulletin

Recreational and Medicinal Marijuana Use Policies for Maritime Transportation Workers:

The U.S. Coast Guard is providing this notice to ensure that mariners, marine employers, Medical Reviewing Officers and the public are knowledgeable of the continuing prohibition of marijuana use by those serving in safety-sensitive positions in the maritime transportation industry.

It is important to note that marijuana remains a drug listed in Schedule I of the Controlled Substances Act. It remains unacceptable for any safety-sensitive employee serving in the maritime industry and subject to drug testing under the Department of Transportation’s drug testing regulations to use marijuana. The Department of Transportation’s Drug and Alcohol Testing Regulation – 49 CFR Part 40 – does not authorize the use of Schedule I drugs, including marijuana, for any reason.

As such, Medical Review Officers will not verify a drug test as negative based upon learning that the employee used “recreational marijuana” or “medicinal marijuana.” Furthermore, mariners/employees that hold a Merchant Mariner Credential and fail a drug test due to recreational or medicinal marijuana usage, will be subject to administrative action against their credential in accordance with federal regulations.

The Department of Transportation’s Drug and Alcohol Testing Regulation – 49 CFR Part 40 – does not authorize the use of Schedule I drugs, including marijuana, for any reason.
NTSB Lessons Learned

Summary of Lessons Learned from Accident Investigations

Of the 23 reports completed in 2014, fishing vessels and towing vessels were the most common vessel types:
- 5 fishing vessel accident reports
- 9 towing vessel accident reports

Important Issues:
- CONTROL, SYSTEM UNDERSTANDING: As bridge systems become increasingly technologically advanced, it is important that operators have a thorough understanding of the systems they are using. In two casualties reported this year, a lack of understanding of vessel control systems led to accidents (Seawall Wall Street and Megan MVB)
- PASSENGER SAFETY DURING CRITICAL MANEUVERS: Stairways on passenger vessels can be a hazard when docking and undocking. During the Seawall Wall Street collision, people standing near the stairways were seriously injured when the vessel collided with the dock. Vessel operators should develop procedures to control passenger access to stairways during docking and undocking. (Please see NTSB video on stairway safety at: [http://www.ntsb.gov/safety-alerts/Pages/safety-Videos.aspx](http://www.ntsb.gov/safety-alerts/Pages/safety-Videos.aspx))
- PROPER MAINTENANCE: Proper maintenance is of utmost importance with wooden vessels. Two accident reports from this publication highlight this fact. In both accidents the wooden vessels had maintenance issues that had been identified, but repair work was deferred. Both vessels encountered problems when facing heavy weather and both sank as a result. (Bounty and Mavislight, New)
- CREW TRAINING: Several accidents from this publication highlight the importance of training. Know your vessel and its systems. Use realistic drills. Inadequate response to a fire on the Marguerite L. Semil and flooding on the Rocky II led to the loss of both vessels.
Congratulations!
Fastest MOB Recovery, Best Grub & Cleanest Bilge Winners
Questions?

Stan Bergstrom and J. Wenzel launch a depth charge as Atlantis powers ahead.
Questions?

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