TOWING SAFETY ADVISORY COMMITTEE

TASK 14-01

Review of and recommendations based on the Report of Investigation Into the Grounding of the Mobile Offshore Drilling Unit (MODU) KULLUK

(Short Title: MODU KULLUK ROI)

Final Report and Recommendations

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
TOWING SAFETY ADVISORY COMMITTEE

November 3, 2014

To: Towing Safety Advisory Committee

From: Capt. Eric Johansson, Chair
       Capt. Mike Vitt, Co-Chair

RE: Task 1401 “Review of and recommendations based on the Report of Investigation Into the Grounding of the Mobile Offshore Drilling Unit (MODU) KULLUK”

At the June 2014 Towing Safety Advisory Intersessional Committee meeting a subcommittee was tasked with providing Review of and recommendations based on the Report of Investigation Into the Grounding of the Mobile Offshore Drilling Unit (MODU) KULLUK

CAPT Mark Grosshans was nominated for Chairman and CAPT Mike Vitt was nominated as Co-Chair of this Subcommittee. Both nominations were approved by TSAC members without dissent.

At the Fall TSAC meeting, September 2014, held in Washington D.C. Chairman Grosshans recused himself as Chair and member of TASK 14-01

Capt. Eric Johansson was nominated as Chairman for TASK 14-01 and approved by the committee without dissent.

Subcommittee participants include TSAC members, industry, and Government Agencies. A complete list of participants is attached as Enclosure (1) to this report.

Respectfully Submitted,

[Signature]

Capt. Eric Johansson
TASK 14-01 Subcommittee Chair

Enclosure: (1) TSAC Representatives & Subcommittee Participants
(2) Task Statement 14-01

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
PLAN OF ACTION (POA)

1. Review the Report of Investigation along with supporting information and provide comments and recommendations to the Coast Guard and the industry based on your findings.

2. Make recommendations regarding additional considerations when towing MODU's in the arctic marine environment.

3. Evaluate the practice of logging ocean towing operations for MODU's or vessels of a similar nature. Determine the effectiveness of a log being kept detailing the history of each item of the towing equipment utilized for the MODU tow. This includes shackles, towing plates, connector links, bridge chains, surge equipment pendant wires and other towing connections.

4. Examine and prescribe technical standard and best practices for ocean tows of MODU’s or vessels of a similar nature to include towing equipment, identification and logging of the use of this equipment, inspection regimes to include trip-in-tow and warranty surveys and non-destructive testing of towing equipment prior to tows. Development of technical standards should include review of existing primary source standards such as the U.S. Navy Towing Manual.

5. Examine and prescribe a process for the issuing of tracking certificates that accompany towing hardware. The process of issuing and tracking certificates that accompany towing hardware to include identifying a particular component by a standardized tracking method currently in review in TSAC Task Statement 13-06 - Towing Gear and that product to be formally incorporated and referenced into the KULLUK TSAC 14-01.

6. Provide a detailed review of towing configurations and tow escorts for MODU ocean tows and development of tow plans in most effective manner.

7. Evaluate usage and application of strain monitoring devices equipped on towing vessels to determine the recommended procedures to reduce the likelihood of towing equipment failures. Examine the correlation between catenary and the information provided by strain monitoring devices to effectively provide safety in towing operations.

8. Examine and make recommendations regarding the competencies and conduct of the towing vessel master, and the tow master (if separate) for ocean towing of MODU’s or other vessels of a similar nature.

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
9. Examine and make recommendations regarding the competencies and conduct of the marine warranty surveyor for trip-in-tow or other surveys for ocean towing of MODU’s or other vessels of a similar nature.

10. Make recommendations for the development of a comprehensive process for planning and executing tows, including final tow plans, in a manner compatible with the use of a safety management system (SMS) for ocean towing of MODU’s or other vessels of a similar nature.

11. Provide any other recommendations to the Coast Guard that the Committee feels is appropriate for this subject matter.


**ACTION**

1. Subcommittee review and approved amended TASK
2. Identify preliminary public documents
3. Identify collate TASK statement items for sub groups
   a. Tow Plans, Voyage Plans, Towing Configurations
   b. Tow Gear – Identification, selection, testing, utilization, monitoring and logging
   c. Towing Master and Tow Master competencies and responsibilities
   d. Competencies and conduct of Marine Warranty Surveyor Work
4. Identify sub group leaders
   a. Tow Plans, Voyage Plans, Towing Configurations
      i. CAPT R. Glas, Sub Group Leader
   b. Tow Gear – Identification, selection, testing, utilization, monitoring and logging
      i. Bartley Eckhardt, Sub Group Leader
   c. Towing Master and Tow Master competencies and responsibilities
      i. CAPT M. Vitt, Sub Group Leader
   d. Competencies and conduct of Marine Warranty Surveyor Work
      i. Kord Spielmann, Sub Group Leader
5. Subcommittee meeting, December 2nd New Orleans, LA
6. Member and public comments.
8. Revised Draft Report Summer 2015 Tele-Conference Meeting
9. Revised Draft Report to be published on U. S. Coast Guard Homeport website for comments.
10. Final Report and Recommendations to be presented for consideration by Towing Safety Advisory Committee Fall 2015

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
PROBLEM OF PRACTICE

RECOMMENDATIONS

REFERENCES

AUTHORITIES

TSAC Task 14-01 Final Report & Recommendations

Enclosure (1) TSAC Representatives and Subcommittee Participants

<table>
<thead>
<tr>
<th>TSAC Members</th>
<th>Company / Organization</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eric Johansson (A,B,C,D)</td>
<td>Tug &amp; Barge Committee Port of NY/NJ</td>
<td><a href="mailto:safemariner@me.com">safemariner@me.com</a></td>
</tr>
<tr>
<td>Mike Vitt (C)</td>
<td>E. N. Bisso &amp; Son, Inc.</td>
<td><a href="mailto:mvitt@enbisso.com">mvitt@enbisso.com</a></td>
</tr>
<tr>
<td>Steven Huttman</td>
<td>G &amp; H Towing Company</td>
<td><a href="mailto:shuttman@gandhtowing.com">shuttman@gandhtowing.com</a></td>
</tr>
<tr>
<td>General Public</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IJ Arora (A,B,C,D)</td>
<td>Quality Management International</td>
<td><a href="mailto:iarora@QMII.com">iarora@QMII.com</a></td>
</tr>
<tr>
<td>Bartley Eckhardt, P.E (B)</td>
<td>Robson Forensic</td>
<td><a href="mailto:beckhardt@robsonforensic.com">beckhardt@robsonforensic.com</a></td>
</tr>
<tr>
<td>Dean Fabian</td>
<td>McAllister Towing</td>
<td><a href="mailto:dfabian@mcallistertowing.com">dfabian@mcallistertowing.com</a></td>
</tr>
<tr>
<td>Gene Facey</td>
<td>Past Chair NOSAC</td>
<td><a href="mailto:gfacey@msn.com">gfacey@msn.com</a></td>
</tr>
<tr>
<td>John Francic</td>
<td>ABS Group</td>
<td><a href="mailto:jfrancic@absconsulting.com">jfrancic@absconsulting.com</a></td>
</tr>
<tr>
<td>Robert Glas (A)</td>
<td>Glas Naviagion</td>
<td><a href="mailto:bob@glasnavigation.com">bob@glasnavigation.com</a></td>
</tr>
<tr>
<td>Brian Guidry</td>
<td>Edison Chouest Offshore</td>
<td><a href="mailto:brian.guidry@chouest.com">brian.guidry@chouest.com</a></td>
</tr>
<tr>
<td>John MacDonald (A)</td>
<td>Transocean</td>
<td><a href="mailto:John.Macdonald@deepwater.com">John.Macdonald@deepwater.com</a></td>
</tr>
<tr>
<td>Ian McVicker (B)</td>
<td>ABS Group</td>
<td><a href="mailto:IMcVicker@eagle.org">IMcVicker@eagle.org</a></td>
</tr>
<tr>
<td>Dan Mirelez</td>
<td>Rolls Royce</td>
<td><a href="mailto:dan.mirelez@rolls-royce.com">dan.mirelez@rolls-royce.com</a></td>
</tr>
<tr>
<td>Colin Nelson</td>
<td>BP Global Wellls Org.</td>
<td><a href="mailto:Colin.Nelson@bp.com">Colin.Nelson@bp.com</a></td>
</tr>
<tr>
<td>Steven Newes (A)</td>
<td>DonJon Marine</td>
<td><a href="mailto:steven.newes@donjon.com">steven.newes@donjon.com</a></td>
</tr>
<tr>
<td>Craig Reid (A,D)</td>
<td>Noble Denton</td>
<td><a href="mailto:craig.reid@dnvgl.com">craig.reid@dnvgl.com</a></td>
</tr>
<tr>
<td>Louis Richmond</td>
<td>Edison Chouest Offshore</td>
<td><a href="mailto:louis.richmond@chouest.com">louis.richmond@chouest.com</a></td>
</tr>
<tr>
<td>Kord Spielmann (D)</td>
<td>Hartford</td>
<td><a href="mailto:kord.spielmann@thehartford.com">kord.spielmann@thehartford.com</a></td>
</tr>
<tr>
<td>Carl R. Smith</td>
<td>Diamond Offshore Drilling</td>
<td><a href="mailto:captcrs@cox.net">captcrs@cox.net</a></td>
</tr>
</tbody>
</table>

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steven N. Walker</td>
<td>Transocean</td>
<td><a href="mailto:Steven.Walker@deepwater.com">Steven.Walker@deepwater.com</a></td>
</tr>
<tr>
<td>J.Elliot Westfall</td>
<td>McAllister Towing</td>
<td><a href="mailto:ewestall@mcallistertowing.com">ewestall@mcallistertowing.com</a></td>
</tr>
<tr>
<td>Dan Fridline, Ph.D., P.E (B)</td>
<td>Maritime College, State University of NY</td>
<td><a href="mailto:dfridline@sunymaritime.edu">dfridline@sunymaritime.edu</a></td>
</tr>
<tr>
<td><strong>Government Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert Blomerth</td>
<td>USCG - Marine Safety Specialist</td>
<td><a href="mailto:robert.a.blomerth@uscg.mil">robert.a.blomerth@uscg.mil</a></td>
</tr>
<tr>
<td>Keith Fawcett</td>
<td>USCG – Technical Representative</td>
<td><a href="mailto:george.k.fawcett@uscg.mil">george.k.fawcett@uscg.mil</a></td>
</tr>
<tr>
<td>Julio A. Martinez</td>
<td>USCG - Marine Safety Specialist</td>
<td><a href="mailto:Julio.A.Martinez@uscg.mil">Julio.A.Martinez@uscg.mil</a></td>
</tr>
<tr>
<td>LCDR W. Nabach</td>
<td>USCG - ADFO</td>
<td><a href="mailto:William.A.Nabach@uscg.mil">William.A.Nabach@uscg.mil</a></td>
</tr>
<tr>
<td>Peter Squicciarini</td>
<td>USCG - Marine Safety Specialist</td>
<td><a href="mailto:peter.d.squicciarini@uscg.mil">peter.d.squicciarini@uscg.mil</a></td>
</tr>
</tbody>
</table>

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
Enclosure (2) TASK Statement

TOWING SAFETY ADVISORY COMMITTEE (TSAC)

TASK STATEMENT TASK #14-01

I. TASK TITLE:

Review of and recommendations based on the Report of Investigation Into the Grounding of the Mobile Offshore Drilling Unit (MODU) KULLUK (Short Title: MODU KULLUK ROI)

II. BACKGROUND:

The conically shaped Mobile Offshore Drilling Unit (MODU) KULLUK (O.N. 802785) was being towed by a single towing vessel in heavy seas off of Southwestern Alaska when the towing equipment failed. The Kulluk was manned by eighteen persons and following a near shore route from Dutch Harbor, Alaska to the Seattle, Washington area. Following the towing equipment failure, the single towing vessel experienced significant mechanical difficulties and additional response vessels were dispatched to assist the towing vessel and the Kulluk. The extreme winter weather which is typical for this geographic area and encountered during this operation compounded the challenging response efforts. The personnel were evacuated from the Kulluk due to the severity of the situation. Towing operations were reestablished at various times during the response phase of this operation and each attempt failed for a variety of reasons. The MODU Kulluk grounded off of Oceans Bay, Alaska on Monday, December 31, 2012.

III. DISCUSSION:

Within the Report of Investigation into the incident and in the interests of reducing the possibility of the occurrence of similar events, the investigators recommended that the Coast Guard partner with the Towing Safety Advisory Council (TSAC) to address the towing related issues raised by this marine casualty and the towage of MODU's in the arctic marine environment, in general.

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
IV. TASKS:

1. Review the Report of Investigation along with supporting information and provide comments and recommendations to the Coast Guard and the industry based on your findings.

2. Make recommendations regarding additional considerations when towing MODU's in the arctic marine environment.

3. Evaluate the practice of logging ocean towing operations for MODU's or vessels of a similar nature. Determine the effectiveness of a log being kept detailing the history of each item of the towing equipment utilized for the MODU tow. This includes shackles, towing plates, connector links, bridge chains, surge equipment pendant wires and other towing connections.

4. Examine and prescribe technical standard and best practices for ocean tows of MODU’s or vessels of a similar nature to include towing equipment, identification and logging of the use of this equipment, inspection regimes to include trip-in-tow and warranty surveys and non-destructive testing of towing equipment prior to tows. Development of technical standards should include review of existing primary source standards such as the U.S. Navy Towing Manual.

5. Examine and prescribe a process for the issuing of tracking certificates that accompany towing hardware. The process of issuing and tracking certificates that accompany towing hardware to include identifying a particular component by a standardized tracking method currently in review in TSAC Task Statement 13-06 - Towing Gear and that product to be formally incorporated and referenced into the KULLUK TSAC 14-01.

6. Provide a detailed review of towing configurations and tow escorts for MODU ocean tows and development of tow plans in most effective manner.

7. Evaluate usage and application of strain monitoring devices equipped on towing vessels to determine the recommended procedures to reduce the likelihood of towing equipment failures. Examine the correlation between catenary and the information provided by strain monitoring devices to effectively provide safety in towing operations.

8. Examine and make recommendations regarding the competencies and conduct of the towing vessel master, and the tow master (if separate) for ocean towing of MODU’s or other vessels of a similar nature.

"This is a working draft document of a Towing Safety Advisory Subcommittee (TSAC). The report contains pre-decisional content that does not yet reflect the official position of the Towing Safety Advisory Committee. The report has been posted or distributed for further subcommittee review and public access prior to official TSAC review and approval."
9. Examine and make recommendations regarding the competencies and conduct of the marine warranty surveyor for trip-in-tow or other surveys for ocean towing of MODU’s or other vessels of a similar nature.

10. Make recommendations for the development of a comprehensive process for planning and executing tows, including final tow plans, in a manner compatible with the use of a safety management system (SMS) for ocean towing of MODU’s or other vessels of a similar nature.

11. Provide any other recommendations to the Coast Guard that the Committee feels is appropriate for this subject matter.

V. DUE DATE:

Provide all recommendations to the Coast Guard no later than Fall 2015.

VI. TSAC REPRESENTATIVE:

Chair: CAPT Eric Johansson, M 631-766-8571, safemariner@me.com

Co-Chair: CAPT Michael Vitt, W (504) 828-7178, mvitt@enbisso.com

VII. COAST GUARD REPRESENTATIVE:

Mr. Keith Fawcett, Investigations National Center of Expertise;

985.285.0310, george.k.fawcett@uscg.mil