



*Please print and post at your vessel/ facility for all employees to view*

## Fleet Memo #27: 2012 Master's Reviews

The Masters' Reviews of 2012 were compiled and presented to management for review and response. Many of the issues had already been corrected in the 12.10 version of the SMM. Others were turned into notices of change and are attached to this email. The remaining issues were addressed in previous fleet memos and in the attached spreadsheet.

With this email will be an attachment with a spreadsheet of all masters' comments and management's response to each comment. **Notices of change and fleet memos issued after October 2012 override the 12.10 SMM-** so please post them in a prominent location and make sure your crewmembers are aware of the changes that affect their areas of responsibility.

### Some of the most significant changes were:

- A **Lifting Gear SOP** was developed to clarify equipment identification and crew responsibilities- both when a science team is aboard and when it is not.
- STCW rest hours updated.
- 500 Meter Zone Entry protocol clarified and standard checklist developed.
- Master required to review documents of foreign crewmen to ensure all docs required for their position are the originals and that they have a current fit for duty medical.
- Office addresses and contacts updated for new College Station location.
- Fire/ Explosion and Abandon Ship drill forms were revised to include a check for entering the required drill details in the ship log and the CFR reference was included on the forms.
- **All questions/ issues regarding critical equipment and repairs should be directed as soon as possible to [portengineer@tdi-bi.com](mailto:portengineer@tdi-bi.com).** This e-mail automatically forwards to President Dr. Jim Brooks, Port Engineer Jimmy Skalak, Assistant Port Engineer Charlie Emerson and Field Equipment Coordinator Andy Brooks.

Most other corrections were in wording, outdated references or format. As a reminder, the form for completing the Master's Review for 2013 can be located on the ship web pages/ SMM Forms page and should be completed before you leave the vessel. Please make sure you review the current notices of change and fleet memos before conducting your 2013 review. E-mail your completed 2013 Master's Reviews to [dpa@tdi-bi.com](mailto:dpa@tdi-bi.com).

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2													
3	Chapter	SOP	Section	page	Master's Comment	Has might provided the resources? Are We following procedure?	Needs modification?	Master	NOC#		Management Response	Topic	Who will address
4	Ch 3				I found this section to be greatly improved over my last review in 2011. The Port Captain and his responsibilities are now well defined. Some of the information in section 4 following the introduction of James Howell as Interim HSE Officer is a little disjointed, but it's all there.	Yes	Very Closely	No	Keith Davis	112	SOP #112 revised all positions-James Howell is no longer interim HSE- duties updated and clarified	key positions	DONE
5	General comment				There are many instances where the SMM refers to "safety manager", or "safety officer". Because there is no such position described in "Company Responsibilities and Authority"; it would be less ambiguous if "HSE Officer" or "HSE Manager" were substituted in these references - assuming that this is who is actually being referenced. On the whole the SMM is much more cohesive with fewer gaps in references, and in general it is much more complete and comprehensive than it was during my last review in early 2011. In particular I like the downloadable pdf format which puts the entire SMM in your "shirt pocket". Lots of good work has been done here.	Yes	Very Closely	Yes	Keith Davis	137	Title of Safety mgr used, but not defined NOC #137- reference to safety manager removed Ch 6 Sec 4.8 is Vessel HSE Advisor responsibilities	position title	DONE
6	Ch 5				During an internal audit held on the Brooks McCall August 13, 2012, it was found that the ultimate responsibility for lifting gear management on board was unclear. This needs to be clarified as the responsibility of the Master in this chapter if Management deems it so. If not, it should be stated elsewhere in the SMM designating the responsibility to another department. Or, different areas of this responsibility (Lifting Gear Management documents, proper color coding, periodic load tests, etc.) could be assigned to different individuals such as Party Chief, DPA or Deck Boss.	Yes	Somewhat	Yes	Chris Opel	135	If lift gear is captain responsibility, needs to be stated in this chapter New SOP created to address lifting gear NOC #135	Lift gear	DONE
7	Ch 5		5.2		Section 5.2 States master shall stand regular deck watch might more accurately be stated stand regular bridge watch	Yes	Very Closely	No	Chris Scott Muir	136	NOC #136 Changed "deck watch" to "bridge watch"	terms	DONE
8	Ch 6				See comments below concerning SOP GEN-007A.	Yes	Very Closely	Yes	Chris Scott Muir		see below	duties/ phrasing	DONE
9	Ch 6		2.0 3.0 4.0 4.9		2.0 Responsibility: ...medically fit by ensuring they have had their physical every two years... This will need to be revised in accordance with NOC #78 3.0 Key Vessel Personnel: "The master and crew are on the vessel to facilitate scientific/technical sampling." - Implies that this is our sole purpose for being on the vessel. This could be phrased a little differently: "It is the task of the Master and Crew to facilitate scientific/technical sampling." 4.0 Duties of Primary Vessel Personnel: "Participation in Security & Safety Drills as scheduled by the bridge staff." Could probably be added here. 4.9 Able Body (AB) Seaman: Needs additional: "Server as bridge lookout, and stand security watches."	Yes	Very Closely	Yes	Keith Davis	78 137	Noc 78 is incorporated in new version of smm. 3.0-change to "it is the task of the master...." Mgmt refers back two sentences to the statement that, "...the ship's master is ultimately responsible for the safety of the ship and all personnel on board." This being the primary responsibility of the master. 4.0- add participation in safety drills to vessel personnel duties No need to modify SMM. Management supports the absolute authority of the master to require participation or excuse from attendance in drills. 4.9 AB duties revised-- NOC #137	duties/ phrasing	DONE
10	Ch 6		2.0		6.2.0 In my experience, except for one rotation when Eric Dickerson was Vessel Manager of the JW Powell, the Vessel Manager has had little input in the safe manning of the boat crew.	Yes	Very Closely	No	Scott Munro	137	6.0 the Vessel Manager has had little input in the safe manning of the boat crew. NOC #137 -- 6.2 revised to reflect current practice Two issues need to be addressed here: To comply with new IMO standards, TDI must establish a standard hiring procedure for marine personnel. The Vessel Manager position needs to be eliminated or more accurately defined to reflect current practice. There is no agreement among management or the managers themselves as to a consistent job description or duties.	regulation	Management to address: Vessel Manager position again questioned by masters especially in regard to assisting with manning. Bernie will review- possibly revise responsibilities and qualifications.
11	Ch 7		6.0		7.6.0 States 10 hrs of rest in a 24 hr period and 70 hrs per week. The Manilla STCW Protocols increased those to 77 hrs a week.	Yes	Very Closely	Yes	Scott Munro	126	NOC #126 was created to correct rest hours from 70 hrs per week to 77 hrs per week. Will be issued with group NOC's resulting from MRs	procedure	DONE

A	B	C	D	E	F	G	H	I	J	K	L	M
12	Ch 8	3.0		8.3.0 Grounding/Foundering drill. On our drill form it lists as one of the first steps after running aground that we turn on the depth sounder. This is a little late in the process. I recommend that it be deleted. I have the depth sounder running whenever we are underway. It shurely falls under the catagory of using all electronic aides to navigation in the Bridge Procedures Guide.	Yes	Very Closely	No	Scott Munro		3.0 states must turn on depth sounder after grounding- need to delete statement (too late)  Removed the line "-turn on echo sounder" from grounding drill form-- Will appear in next web pages-ss	procedure	DONE
13	Ch 8			This may be an oppertunity to introduce a new category, Loss of Power, to the list of Emergency Preparedness considerations. This is touched on in SOP BMC-007Q but this only considers restoration of power, not procedures to follow during a power outage. A complete loss of power could become an extremely dangerous situation, especially if navigating in a port or channel. There are things that can be done to facilitate timely action in this kind of situation such as keeping a backup generator idling while navigating channels or ports. This would speed up generator change-over to restore power. Another action commonly taken is to leave the anchor windlass disengaged so that the anchor can be quickly dropped if the vessel is adrift due to a power outage (or loss of propulsion). Other considerations could be added to the list to create a procedure for loss of power more complete than what is contained in SOP BMC-007Q.	Yes	Very Closely	Yes	Chris Opel	107 128	Suggests new SOP for Loss of power to emergency preparedness-- add leave anchor windlass disengaged, create a more detailed procedure for loss of power, keep b/u generator idling in ports or channels  NOC #107 Required two generators to be on in all restricted maneuvering situations- all vessels. RT was overlooked so Ch 10 Sec 9.4 will be changed to state this in NOC #128.  Each port and situation are different. Specific directions for a particular port/ situation can be addressed in the Bridge Order Book as stated in Sec 6.0  Specific suggestions for revisions to the SMM or stated procedures may be submitted to management as part of the master's review. Attach the rewritten section/ procedures with your email to the DPA and it will be considered.	procedure	DONE
14	Ch 8			Chapter 8, Sec 2.0 deals with Fire / Explosion situations. It should be stated here that a Fire / Explosion drill is to be held sometime during the first 24 hrs. after getting underway. This is stated in SOP GEN-008A but not here in Chapter 8. It should also be mentioned here and/or in SOP-008A that a Fire / Explosion drill cannot be held in conjunction with an initial Abandon Ship drill, they must be held separately. This is part of a CFR associated with drills.	Yes	Very Closely	Yes	Chris Opel	108 109 131- 132	NOC's 108# already modified Ch8 to state Fire drills not to be held with abandon ship .  NOC's #131-132: 46 CFR 131.535 does state that fire drill must be held within 24 hrs. Ch 8 sec 2 and SOP-GEN-008F edited to state this.	procedure	DONE
15	Ch 10	6.3		10.6.3 States that at least one generator be online in restricted maneuvering situations. At least one should be on line in any underway situation. Maybe change to "one generator be online unless the vessel is connected to shore power".	Yes	Very Closely	Yes	Scott Munro	107	noc #107 States 2 generators must be on line in restricted maneuvering situations and is in new version of SMM.	critical equip.	DONE
16	Ch 10	6.8		10.6.8 States that the vessel is protected by a Cerberus Pyrotronics system. The monitor on the main deck passageway failed. I ordered a new one, giving make and model numbers, and received instead a 110V monitor from Home Depot. It has passed all tests but I don't know if it is really compatable with the system. We need to try to get to proper monitor for the system	Yes	Very Closely	Yes	Scott Munro		All questions/ concerns regarding critical equipment and vessel maintenance need to be directed to new address: portengineer@tdi-bi.com.		DONE
17	Ch 10			Should there be a provision here that states the role of the NS5 administrator concerning maintenance of ship and equipment issues in NS5 if a vessel is layed up and without crew for an extended period of time? This is something that affects the Brooks McCall from time to time and there have been no written quidelines for handling of standard jobs records that regularly appear in the NS5 system while crew are absent and these regularly scheduled jobs cannot be done.	Yes	Very Closely	Yes	Chris Opel		That falls under the primary responsibility of the Vessel Systems Mgr in Ch 3 to "Maintain the NS5 software system"		DONE
18	Ch 14			It was pointed out at our ISM audit this week that we should have a basic list of jobs that require a JSA. For example, do you need a JSA for fueling, dropping anchor, mooring, etc.	Yes	Very Closely	Yes	Scott Munro		Which jobs require JSA's- need standard JSA's for common tasks  Mgmt has posted JSA's on the CM for review. It has been suggested that we modify access so vessels may download word versions of JSA and have the ability to upload their updates. Requires a redesign of that section of CM. We could also make a separate section here for JSA's for standard maintenance- such as placing/ storing the gangway, chipping and painting (needlegun), power tools on deck, etc.		This was assigned to James who has completed 9 for BMC. JSA- if workers are unclear on what the hazards or steps of the procedure is, a JSA must be conducted. Samples can be found on CM (where to find- how to download-make sure they can modify (work format?)  At mtg is was discussed that each vessel should develop its own JSA's- which are vessel and equipment specific- but mgmt wants these to be accessible to each boat to download and modify as needed. Will require Pete, Shannon, Chris and Gary to work together to decide where and how to post these.

	A	B	C	D	E	F	G	H	I	J	K	L	M
19		GEN-006A	6.0		It would be extremely helpful to have a list or table included somewhere in the SMM that states very specifically the minimum qualification and certification requirements for each position on the vessel as required by Management. There is such a thing available through the Compliance Officer but it may be helpful to make this a fleet-wide available document through the SMM.	No	Very Closely	Yes	Chris Opel		Roger's manning requirement matrices have been added to ship web pages on bridge page and SMM forms page. Will be in next version		DONE
20		GEN-007A	5.3 7.3 5.7		7.3 There is a list here of items to consider prior to sailing. We now have a stamp that is used to enter all required pre-departure checks into the log book. Maybe this should be noted here. On the BMCC, it's been found that the stamp is difficult to use and is mostly illegible when stamped into the log book. To remedy this, I made up an Excel version that can be printed and taped into the log book. I have added this as a second sheet to this review in the case that it can be of use to anyone else. 5.7 It should be included here that the OOW should be required to note and record the name of the person giving permission in a 500 m. zone situation. This came up in a Chevron audit 7-19-11 prior to the Jack St. Malo project. I have noted that this is common practice among most other vessels in 500 m. situations.	Yes	Very Closely	Yes	Chris Opel	127	pre-departure check stamp illegible- BMC uses excel sheet. 7.3- The pre-departure stamp was simply made for the vessel's convenience. As long as the required information is recorded in the ship's log, there is no required standard format.  5.7 500 meter checklist found and emailed to fleet 13 Feb 2013 by Roger with requests for modifications. Shannon posted it on the ship web pages. Will be out in next version.  NOC #127--New 500 Meter checklist added to SOP as reference but not mandated.		DONE
21		GEN-007A	5.3 7.1 0		Section 5.3 Refers to "OOC". I find no definition for OOC anywhere in the SMM. Should this be "OOW"? I found section 5.3 to be well informed, and well written -lots of good stuff here! Section 7 as well - good stuff. In section 7.10 Secured Along Side: I would recommend a fleshing out of the night watch and mooring procedures. Night watches should monitor mooring lines and tidal changes. Look for any protrusions from the quay [such as large fixed fenders] that the vessel might get snagged under at low tide. If the vessel becomes snagged under a protrusion, the results could be catastrophic when the flood tide returns - resulting in the vessel being sunk at the dock.	Yes	Very Closely	Yes	Keith Davis	127	NOC # 127 OOC corrected to Officer on Watch.  Each port and situation are different. Specific directions for a particular port/ situation can be addressed in the Bridge Order Book as stated in Sec 6.0  Specific suggestions for revisions to the SMM or stated procedures may be submitted to management as part of the master's review. Attach the rewritten section/ procedures with your email to the DPA and it will be considered. Liability issues of master to be addressed.	mooring?	DONE
22		GEN-007A	5.3 7.3 5.7		5.3 Masters Standing Orders: I would like to see a more detailed and specific description of situations requiring the OOW to summon the Master in certain situations. In any situation where the Master and/or the Company will be held accountable in any possible legal actions resulting from a decision made on the bridge, the Master should be immediately summoned so that he can personally follow proper procedural and legal protocols while dealing with the situation or decide whether further consultation with management or a management representative on board such as Party Chief is needed. For example, the Master should immediately be made aware of any oil release, no matter how small. There should possibly be a statement somewhere in the SMM (perhaps in Chapter 6 - 4.3 and 4.4) which describes the responsibility of an OOW to make an assessment of the results of any decision being made, i.e. who will ultimately be held liable and accountable. Safety of the vessel and crew is always paramount when making any decisions on the bridge but there are other considerations such as liability.	Yes	Very Closely	Yes	Chris Opel		Chapter 7 Section 4.0 states each master may modify existing orders due to his personal preferences.  Any additional concerns/ instructions of the master to the OOW can be covered in the Bridge Order Book as stated in section 6.0	liability	DONE
23		GEN-007D	3.0		Closing of all sight glass valves when not taking tank readings is now a requirement as well as posting of all associated signs. This should appear in the SMM.	Yes	Very Close	Yes	Chris Opel	120	SOP #120 does this in new SMM	Shannon	DONE
24		GEN-007F			I would like to see an internal PA in the accommodations spaces. The "squack box" intercom system is good for comms between the bridge, nav room, lab and ER shop, but in an emergency, especially a security situation, it takes time to get the work passed to those in their staterooms, especially on the focsle deck.	Yes	Very Closely	No	Scott Munro		All questions/ concerns regarding critical equipment and vessel maintenance need to be directed to new address: portengineer@tdi-bi.com.	Pass to Skalak	DONE
25		GEN-007F			With the recent addition of V-Sat Broadband to our fleet; this SOP will need to be reassessed, and largely revamped.	Yes	Very Close	Yes	Keith Dav		SOP-GEN-007F Communications has been revised/ updated	communications	DONE
26		GEN-007G			This SOP is contradictory. It says we don't do confined space entry and then goes on to say what is need to do confined space entry in an emergency. We don't have atmosphere testers or breathing apparatus specifically on board for the situation. According to our latest ISM auditor. EEBD', SCBA's and Medical oxygen apparatus are not to be used for confined space entry, even in an emergency.	No	Somewhat	Yes	Scott Munro	125	Fleet memo #24 and NOC #125 sent to fleet on 06 Feb 2013 to advise of confined space policy revision.	confined space	DONE
27		GEN-007I	5.0		There has been discussion recently concerning the issuing of EI permits for jobs that will require an extended period of time to complete. As it stands now, no permit can be made valid for more than 24 hrs. This is impractical with an EI permit that could cover a piece of equipment that will be out of service for weeks or months at a time. EI permits should somehow be altered to accommodate this situation or find a way to separately file these while they are in force.	No	Very Closely	Yes	Chris Opel	123	Fleet Memo #19-New permit system sop created- EI permits can be extended indefinitely under certain circumstances.	EI permits	DONE



# Notice of Change to Controlled Documents #135-141 /05 Apr 2013

## Summary of Changes

NOC#	Ch., Sec., SOP	Summary	Revision#
135	SOP-GEN-013A New SOP	New SOP created to assign responsibilities for lifting gear	1
136	Ch 5 Sec 3.2 & 4.0	2.0 Master to stand bridge watch, not deck watch, Master must verify original docs and current fit for duty document for foreign crewmen.	10
137	Ch 6 Sec 2.0- 4.9	Responsibility revised to reflect current practice. Project Manager reference deleted. AB duties modified.	12
138	SOP-GEN-008F Sec 2.0	CFR references with required info to be entered in ship's log added to Fire and Abandon ship drill forms. Grounding drill – reference to depth sounder removed	9
139	SOP-GEN-007L Sec 6.4	Where to put incident investigation in NS5, responsibility reassigned	11
140	SOP-GEN-012B Sec 2	Working at Heights definition modified. References added.	2
141	SOP-GEN-007F	Communications SOP revised and updated.	8

- \_\_\_\_\_ SMM TOC web page updated
- \_\_\_\_\_ NOC web page updated
- \_\_\_\_\_ SMM - each section updated
- \_\_\_\_\_ NOC sent to fleet
- \_\_\_\_\_ NOC pdf posted on CM

Approvals	Approvals

**NOC # 135**  
**SOP-GEN-013A Lifting Gear**  
**New SOP created for lifting gear**

**Topic:** See above.

Revision #	Section(s)
Revision #1	NEW SOP BELOW

SOP GEN-013A Lifting Gear	
1.0	<a href="#"><u>Introduction</u></a>
2.0	<a href="#"><u>Definitions</u></a>
3.0	<a href="#"><u>Types of Lifting Gear</u></a>
4.0	<a href="#"><u>Lifting Gear Registers</u></a>
5.0	<a href="#"><u>Lifting Gear Inspections &amp; Maintenance</u></a>
6.0	<a href="#"><u>Winch Inspections and Maintenance</u></a>
	6.1 <a href="#"><u>Deck Chiefs and Winch Operators</u></a>
	6.2 <a href="#"><u>Masters and Chief Engineers</u></a>


**Revision/ Review Log**

Revision Date	Approved by	Reviewed by	Revision Details/ Proposal Notes
21 March 2013  Revision #1	Dr. Jim Brooks	Dr. Jim Brooks Dr. Bernie Bernard Dr. James Howell	Company policies and procedures for lifting gear established

## 1.0 Introduction

Lifting gear is a critical part of TDI-Brooks field operations. The purpose of this SOP is to establish specific procedures for placing gear in and out of service, documenting gear inspection and use and assigning responsibility for these tasks.

## 2.0 Definitions

<p><b><u>Brummel hook-</u></b> Manganese Bronze or Stainless Steel hook pairs of various sizes- most commonly used to connect the core weight to the trigger assembly on the PC rig</p>	
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**JPC Rig-** Jumbo Piston Core rig with a 4 inch diameter barrel that runs on a track on the back deck

**Liner Extraction tigger-** a small winch used to remove the core liner from the Jumbo Piston Core rig

**Moon Pool-** an open shaft through the hull of the vessel through which survey gear may be deployed into the water below

**PC Rig-** smaller Piston Core rig with a 3 inch diameter barrel that is lowered by main winch and positioned off the vessel by a-frame

**Pendants-** are rotation-resistant wire rope assemblies of various lengths with Spelter sockets at each end. Pendants are used as the connection interface between the main rope and the seabed sampling rigs to facilitate the triggered free-fall of the rig.

**Pendant & Shackle Color Chart-** a chart that is issued annually to indicate the year's color codes for qualified, in-service shackles. Pendants are color coded by length. The entire shackle is painted. The pendants are painted only on the Spelter sockets. The chart should be posted on the deck in an easily accessible area.

**Plasma Line-** an ultra high strength synthetic rope this is used by TDI-Brooks in place of steel wire for most coring operations. It has no weight in water, is resistant to most oils and fuels and is significantly safer to use than wire rope. It is subject to UV degradation and should be covered with a dark tarp when not in use.

**Qualified Rigger-** a person who has been trained as a rigger by an approved outside company or certified by TDI-Brooks to inspect and approve lifting gear for use.



**Removed from Service-** any gear removed from service must be repaired and inspected by a qualified rigger before it may be returned to service.

**Safe Working Load (SWL)-** The amount of load that the lifting gear can safely handle. This should be clearly marked on all lifting points, cranes, and A-frames.



**Shackles-** Shackles are U shaped connections of various sizes that form part of most of our lifting assemblies. They are to be qualified for use by inspection by a qualified rigger annually and painted the correct color for that year. Any shackle that is not painted with the correct year's color must NOT be used in any lifting gear assembly and must be removed from service immediately.



**Sheave-** a wheel with a groove for a rope to run on. An integral part of a block.

**Shock Load-** a rapid application of force (such as impacting or jerking), or the rapid movement of a static load.

**Snatch Block-** a block that can be opened on one side to receive the looped part of a rope.



**Spelter Socket-** the metal termination piece at the end of a pendant that is used to connect to the main rope or the rig to the pendant



**Termination-** the loop at the end of the mainline Plasma rope to which coring equipment is attached, or the act of splicing that loop

**Trigger Assembly-** a set of parts that compose the trigger arm of either the PC or JPC rig

**Trigger Tugger-** a small winch mounted near A-Frame for lifting the trigger assembly and core weights during PC operations

**USBL Pole-** a long, pivoting pole mounted on the side of the vessel that properly holds the USBL transducer below the vessel during coring operations

**WLL-** Working Load Limit- the maximum working load permitted by a specific piece of equipment (often used interchangeably with Safe Working Load) On smaller pieces it may be stamped into the metal or raised on the surface.



### 3.0 *Types of Lifting Gear*

Lifting gear is generally divided into three categories:

- **Vessel lifting gear-** defined as part of the vessel and necessary for regular vessel operations. This category includes:
  - Main winch
  - Stern and side A-Frames
  - Back deck crane
  - SOLAS Davit or rescue boat crane
  - Lifting points integrated into the vessel structure, overhead beams or decks
  
- **Survey/ Scientific lifting gear-** defined as gear specific to the coring and survey work of the scientific crew. This category includes:
  - Coring related winches (Moon Pool, USBL pole, JPC tracks, JPC liner removal, Trigger tugger, JPC deployment and retrieval tuggers)
  - Pendants, pendant connections
  - Plasma rope on tuggers
  
- **Common lifting gear-** defined as part of the vessel gear but used for both ship and scientific operations. This category includes:
  - Chain hoists
  - Blocks and Sheaves
  - Shackles
  - Slings
  - Plasma rope on main winch

#### **4.0 Lifting Gear Registers**

Each vessel has a lifting gear register. The register contains the manufacturer's specifications for each purchased piece of lifting gear or their assemblies as well as the history of the gear on that vessel.

The Master is responsible for entering information and certs for Vessel lifting gear, which includes:

- Load test dynamometers
- Load test certificates for Vessel gear- lifting points, crane, SOLAS davit/ crane

The Party Chief or Deck Chief is responsible for entering information for Scientific lifting gear, which includes:

- Pendant numbers, in service and removed from service info
- Load test certificates for tuggers used for scientific gear

#### **5.0 Lifting Gear Inspections & Maintenance**

**Vessel Lifting Gear** is inspected by the Master or Mate, maintained by the vessel's Chief Engineer and should be recorded in NS5 and linked to that equipment.

**Scientific Lifting Gear** is the responsibility of the Party Chief on board. Prior to each departure from the dock, the Party Chief is responsible for ensuring that the lifting gear he needs on that job is on board in sufficient quantity, has been inspected by a **qualified rigger**. Shackles approved by the qualified rigger should be painted the appropriate year's color. Gear failing inspection shall be removed from service.

**Common Lifting Gear** is inspected by a qualified rigger and relevant certificates, in and out of service information and serial numbers should be recorded in the Lifting Gear Register.

#### **6.0 Winch Inspections & Maintenance**

SOP-GEN-007X "Crane and Winch Operations" describes the general operational procedures for winches, a-frames and cranes and specifies operator training. It also assigns responsibilities regarding adding any new lifting gear to a vessel and the standards to which they are held.

This purpose of this section is to assign responsibilities for inspections, use and maintenance of winches. This changes depending on if a scientific crew

with a deck chief and winch operator is on board or if the vessel is manned only by ship crew.

## 6.1 Deck Chiefs and Winch Operators

**Inspections & Maintenance**- When a Deck Chief and/or TDI winch operator is on board, it is the responsibility of the Deck Chief to ensure that the winch operator conducts an inspection of the winch before each shift and records it in the winch inspection log using the current form.

It is the responsibility of the Deck Chief or operator/ mechanic (in that order) to ensure that the winch is maintained and operated safely during back deck operations. Repairs must be coordinated with and approved by the vessel's Chief Engineer and entered into NS5.

In the absence of a Chief Engineer, the Port Engineer, Master or Party Chief (in that order) may authorize repairs.

## 6.2 Masters and Chief Engineers

**Inspections & Maintenance**- When there is no Deck Chief or TDI winch operator on board, winches and levelwinds should be inspected and run weekly by the Chief Engineer to maintain them in good working order.

Once a week, whether a science crew is on board or not, the Master will complete the NS5 standard job named "WINCH INSPECTION SUMMARY". He will review the winch inspections completed that week and enter any unusual notes or comments from the inspections. If there are no winch inspections for that week, the work order can be closed with the comment "Winch not used this week" under the findings tab.

In the absence of a Chief Engineer, the Port Engineer, Master or Party Chief (in that order) may authorize repairs.

**NOC # 136**  
**Chapter 5 Master's Responsibility and Authority**  
**Section 3.2 Lifting Gear**

**Topic:** Deck watch changed to bridge watch. Master must ensure foreign crew have original docs and current fit for duty exam.

Revision #	Section(s)
Revision #10	<p><b>2.0 The Master's (Captain's) Primary Responsibilities:</b></p> <p>...</p> <ul style="list-style-type: none"> <li>• Consult with scientists and the port engineer regarding mission and requirements;</li> <li>• Stand regular deck <b>bridge</b> watch;</li> <li>• Work under the supervision of port captain or his designee; and</li> </ul> <p>...</p> <p><b>4.0 Review of Crew Documents</b></p> <p>Upon joining the vessel, all new crewmembers must submit to the Master or his designee all necessary documents required for his position. Before the new crewman may begin work on the vessel, the Master shall first review all documents for validity and expiration dates. <b>If the crewman is not a US licensed mariner, the captain must ensure the crewman has the originals of all mariner documents required for their position. This will include a current mariner's medical fitness for duty certificate with a date of exam and expiration of 2 years.</b> The Master or his designee will make color scans of these documents for the ship's file and then send copies to the TDI-Brooks International office for posting to the Crewing Module.</p>

**NOC # 137**  
**Chapter 6 Resources and Personnel**  
**Section 2.0- 4.9 Responsibility**

**Topic:** Responsibility revised to reflect current practice. Safety manager reference deleted. AB duties modified.

Revision #	Section(s)
Revision #12	<p><b>2.0 Responsibility</b></p> <p>Adequate manning of the vessel with properly trained, qualified and medically fit personnel is the responsibility of the Company President; <b>and</b> Compliance Manager <del>and Vessel Manager</del>. The <del>Vessel's Manager is assisted by the Company President,</del> <b>The Compliance Manager Officer</b> and <del>Administrative Assistant to</del> <b>Quality Management Representative</b> ensure that all required professional documents <b>of sea going personnel</b> are adequate and up-to-date for the position. <del>The HSE manager verifies</del> <b>and</b> <del>that sea going personnel are medically fit by ensuring they have had their</del></p>

~~physical every two years~~ **with a current physical** and all necessary vaccinations required at their destination. The Company President, **Project Manager** and Party Chief are responsible for the adequate manning of technical/scientific personnel. The Compliance Manager will ~~assist the Vessel Managers by keeping abreast of any changes in requirements that affect seafarers currently employed.~~ Pertinent crew information and required training will be tracked in the TDI-Brooks Crewing Module. ...

#### **4.0 Duties of Primary Vessel Personnel**

##### 4.1 Vessel Manager

The Vessel Manager is responsible for:

- Ensuring the vessel is staffed with technical personnel having appropriate qualifications.
- Monitoring vessel operations.
- Assisting in planning the scientific operation with ship ~~compliance and maintenance items.~~
- Assisting Captain and Party Chief to ensure the vessel is in good working condition and compliant with SMM.
- Serving as a resource for monitoring the vessel and equipment conditions.
- ~~Assisting HSE Manager, Compliance Manager and office staff in ensuring color copies of crew certs get posted in the TDI Crewing Module.~~ **Usually captain must do this**

...

##### 4.8 HSE Advisor/Representative

...

- ~~Review all incident reports and annually review HSE plan with TDI-Brooks safety~~ **HSE** manager; and ~~—~~

##### 4.9 Able Body (AB) Seaman

Details of the AB's duties include the following:

- Serve as day worker at sea and in port;
- ~~Supervise unlicensed deck department personnel;~~
- **Serve as bridge watch lookout**
- ~~Ensure that unlicensed crewmembers under bosun's supervision adhere to established safety guidelines, practices, and policies;~~
- **Serve as gangway watch and security watch**
- and
- **Assist in training** ~~train~~ new crewmembers **and survey party in ship and safety procedures.**

## NOC # 138

### Fire, Abandon Ship and Grounding Forms revised

**Topic:** Forms revised.

Revision #	Section(s)
Revision dates: Feb 2013, Mar 2013	Fire and Abandon ship forms now include a checklist for the four items required to be entered in the ship's log.  Grounding form no longer states to turn on the depth sounder after grounding.

## NOC # 139

### SOP-GEN-007L Incident Reporting and Investigation Section 6.4 Investigation Completion and Review

**Topic:** Where to put incident investigation in NS5, responsibility reassigned.

Revision #	Section(s)
Revision #11	<b>6.4 Investigation Completion and Review</b>  <b>The results of accident investigation are to be documented in the original NS5 report under the <del>Root Cause Investigation</del> Preventative Action tab.</b> Any additional documents or photos may be attached to the NS5 report using the Attachments tab.  <del>The company management that assigned the</del> <b>The</b> lead investigator <b>assigned</b> to the incident is responsible for ensuring the incident investigation is completed, recorded in NS5, and that remedial action has been implemented. The TDI-BI president and management will review HSE performance including incident reports and investigations annually.  <b>Management may determine</b> that lessons learned from in depth incident investigations should be forwarded to the fleet in the form of a fleet memo and should be posted in a public space for all to review.

**NOC # 140**  
**SOP-GEN-012B Permit to Work System**  
**Section 2.0 Definitions**

**Topic:** Working at Heights definition modified. References added.

Revision #	Section(s)
Revision #2	<p><b>2.0 Definitions</b></p> <p>...</p> <p style="text-align: center;"><u>Working at Heights Permit</u>-- <b>TDI Policy is that</b> a permit that is required for any task that requires working 5 feet or more from the surface of the deck <b>or and</b> when working over dangerous equipment and machinery, <b>unless it is determined that the fall protection system would create a greater hazard over that machinery.</b> <del>regardless of the fall distance. The 5 ft rule in public shipyards is derived from 29 CFR 1915.73(d) which states, "When employees are exposed to unguarded edges of decks, platforms, flats, and similar flat surfaces, more than 5 feet above a solid surface, the edges shall be guarded by adequate guardrails meeting the requirements of 1915.71(j)(1) and (2), unless the nature of the work in progress or the physical conditions prohibit the use or installation of such guardrails."</del></p> <p><b>3.0 References</b></p> <p>Hot Work – 29 CFR 1915.11, 1915.14            Fire Watch - 29CFR 1915.504, 1910.252            Energy Isolation (Lockout/ Tagout) – 29 CFR 1910.147, 1910.269(d) and 1915.89  <b>Working at Heights – 29 CFR 1915- Shipyard Employment, 1917 Marine Terminal, 1918 Longshoring. For most TDI activities at the dock side or in a shipyard, the 1918 Longshoring rule applies.</b></p>





## Safety Management Manual

### SOP GEN-007F Communications

# NOC # 141

## SOP-GEN-007F Communications

### All

**Topic:** Entire SOP revised and updated.

Revision #	Section(s)
Revision #8	New SOP below

### SOP GEN-007F Communications

- 1.0 [Introduction](#)
- 2.0 [Responsibility](#)
- 3.0 [Types of Communication Equipment](#)
- 4.0 [Communication Protocols](#)
  - 4.1 [Ship's Operations](#)
  - 4.2 [Science Communications](#)
  - 4.3 [Communication System Constraints](#)

### Revision/ Review Log

Revision Date	Approved by	Reviewed by	Revision Details/ Proposal Notes
11 January 2010 Revision #5	Dr. Jim Brooks	HSE Manager: Sue McDonald	
15 October 2010 Revision #6	Dr. Jim Brooks Dr. Bernie Bernard	HSE Manager: Russell Putt  Port Captain: Capt. Pat Fallwell	Changed to electronic format
15 October 2011 Revision #7	Dr. Jim Brooks Dr. Bernie Bernard	Dr. Jim Brooks Dr. Roger Fay Capt. Pat Falwell	Duplicate line removed.



## Safety Management Manual

### SOP GEN-007F Communications

18 March 2013	Dr. Jim Brooks Dr. Bernie Bernard	Chris King	Entire SOP updated
Revision #8			

#### **1.0 Introduction**

This SOP describes the policies and procedures for communications on the vessel and those between the vessel and shore-based facilities, including the home office.

#### **2.0 Responsibility**

TDI-Brooks is responsible for providing all the necessary communications equipment to this vessel. Communication equipment and protocols are the responsibility of the operations manager. The operation manager shall ensure that the communications equipment is in good order and meets the needs of the vessel, home office, client, and is accessible worldwide. The operations manager will also verify that the equipment meets all applicable U.S. and international regulations.

The operations manager, under the directions of the port engineer, will schedule any required license reviews. The operations manager will coordinate any maintenance and repairs.

The operations manager shall ensure that all individuals serving as communication technicians and masters are properly trained in the set-up, use, and basic maintenance of communications equipment.

The master has the immediate responsibility for communication equipment on board the vessel. He will contact either the operations manager or port engineer should he need support. During science or technical operations, the master may also received support from the navigator who serves as a communications technician.



### 3.0 *Types of Communication Equipment*

Each vessel is equipped with a variety of communication equipment ranging from satellite devices to hand held radios and include the following:

- Global Marine Distress and Safety System (GMDSS) as required by SOLAS
- UHF and VHF radio systems. ~~including hand held radios~~
- Emergency Position Indicating Radio Beam (EPIRB), Search and Rescue Transponders (SARTS) and survival craft radios
- ~~Telephone/ FAX/e-mail satellite systems~~ **Satellite telephone and data communications systems (Iridium, Mini-M, Data Communications System, etc.)**
- ~~Mobile phones~~
- Intercom systems
- ~~Email/Internet systems~~

The GDMSS, EPIRB, and SARTS are communication devices for vessel emergencies such as sinking and launch of survival crafts. UHF and VHF are used for local communications such as monitoring other ship's communications, calling ports, and on vessel communications. ~~Satellite, email, and mobile phone communications are used to communicate with the home office, clients, and whatever other contacts needed. A SAILOR250 Fleet Broad Band system is available that permits communication speeds up 284 kbps. The SAILOR system used Inmarsat's 1-4 satellite service. The system is configured to provide both voice and data communication simultaneously. It is configured to allow data traffic to/from specific IP addresses. Our company's IP domain is accessible from the vessel. Domains can also be opened for client use. The SAILOR system also permits internet access to sites important to the operation of the vessel such as weather and Notice to Mariners.~~ **Satellite communications, email, and mobile phone communications are used to communicate with the home office, clients, and other contacts.**

### 4.0 *Communication Protocols*

This vessel operates in remote locations of the world and it is critical to be able to communicate with the home office, emergency groups, clients, agents, port authorities, etc. **The company provides a primary and a secondary constantly connected data service as well as a dial-up mechanism if the primary and secondary systems fail.**



#### **4.1 Ship's Operations**

When at sea, the vessel is expected to send a daily report once every 24 hours. The master or party chief submits the ship's daily report. The party chief will submit the daily report during times of science or technical services operations during a project, and the master will during other times, such as transits between operations. The daily report may be transmitted via e-mail or fax. The master or party chief submits the daily report to the company president, operations manager, port engineer, HSE manager, business manager and administrative assistant. The vessel will submit departure and arrival notices, incorporated into the appropriate daily report. The following information is included in the reports submitted:

##### Departure Message:

- Vessel name and time of departure
- Location of departure
- Fuels received, if any
- Fuel on board
- Oil received, if any
- Oil on board
- Personnel on board
- Water on board
- Projected next port call
- Estimated time of travel to destination
- Any other issues that the home office needs to be aware of

##### Arrival Message:

- Vessel name and time of arrival
- Location of arrival
- Fuel on board
- Oil on board
- Water on board

##### Daily Reports:

- Vessel name and date
- Position
- Course



## Safety Management Manual

### SOP GEN-007F Communications

- Speed
- Weather
- Sea state
- Forecast
- Unusual currents
- Fuel consumption and fuel on board
- Oil consumption and oil on board
- Water consumption and water on board
- Operational information

Additionally, information concerning the vessel such as supplies and equipment requested, personnel travel and issues, or needs for the next port call are also transmitted on an as needed basis.

#### **4.2 Science Communications**

The party chief will submit a daily report once every 24 hours during science/technical services operations. The daily report is submitted via e-mail or fax. The party chief submits the daily report to the company president, operations manager, port engineer, HSE manager, business manager, administrative assistant, and client designees. The following information is to be included (the information may vary depending upon client requirements):

- Vessel name and date
- Position
- Weather
- Sea state
- Fuel consumption and fuel on board
- Oil consumption and oil on board
- Water consumption and water on board
- Contact list
- Job name and number
- Work summary of previous 24 hours
- Daily event log of previous 24 hours
- HSE statistics (man hours, meetings, drills, incidents, near misses)
- Proposed work for next 24 hours
- Party chief comments
- Client representative comments

#### **4.3 Communication System Constraints**



## Safety Management Manual

### SOP GEN-007F Communications

The primary most often used mechanism for vessel communications is via e-mail. The vessel will send and receive e-mail a minimum of twice a day. One of the satellite phone systems should be used for voice or fax communications if e-mail is not functioning or more timely and urgent communications are required.

E-mail is a very efficient mechanism for communications. However, there are some constraints of using a satellite-based e-mail system:

- Personal webmail addresses may be accessed, but may not work well.
- When personal laptops are connected to our network, all the automatic updates must be turned off.
- We do not allow personal POP3 email on a personal laptop without prior approval.
- We do not allow personal thumb drives to be used on vessel computers, for email text or any other purpose.
- E-mail and web site transfer rates are typically slower than on land. Connections may be intermittent or non-functional for long periods.
- E-mail size is limited to 4MB, and it is our policy to ZIP attachments if they exceed 500 kB.
- E-mail sent to the ship's standard addresses (vesselstaff@, vesselcrew@, and [vesselclient@txcyber.com](mailto:vesselclient@txcyber.com)), should have the intended recipient's name in the subject line so that it can be placed in the proper electronic mail box. Such mail should not be considered private.
- A sender on land may need his address registered with TDI-Brooks in order to get through the vessels' standard email addresses.
- Phones are available for limited and disciplined personal use.

**E-mail is an efficient mechanism for communication with the ships crew and staff. However, email is not completely reliable since the Internet, with all of its complex interconnections and decentralized management, cannot be controlled to the point of assuring that it always works. In addition, Satellite Data Communications is much slower and less reliable, with frequent outages due to natural occurrences such as atmospheric weather and solar flares.**

**Crew and staff are allowed access to the Internet for personal purposes (i.e. online banking, news, and communications with friends and family). Shore based systems are used to monitor the ships data connectivity and policies are implemented as needed to insure bandwidth is provided for the highest priority usage.**

# Notice of Change to Controlled Documents #142 /05 Apr 2013

## Summary of Changes

NOC#	Ch., Sec., SOP	Summary	Revision#
141	SOP-GEN-007L Sec 5.0	Incident reporting/ investigation forms and procedures introduced.	11
	New incident / investigation forms	Incident report forms created for employee and supervisor. Incident investigation form created for management assigned investigations	

\_\_\_\_\_ SMM TOC web page updated  
 \_\_\_\_\_ NOC web page updated  
 \_\_\_\_\_ SMM - each section updated  
 \_\_\_\_\_ NOC sent to fleet  
 \_\_\_\_\_ NOC pdf posted on CM

Approvals	Approvals

**NOC # 141**  
**SOP-GEN-007L Incident Reporting and Investigation**  
**Section 5.0 Reporting**

**Topic:** Incident reporting/ investigation forms and procedures introduced.

Revision #	Section(s)
Revision #11	<p><b>2.0 Responsibility</b></p> <p style="color: red;"><b>It is the responsibility of the vessel crew to report all incidents, illnesses or injuries to the Master of the vessel. It is the responsibility of the technical/ science crew to report all incidents, illnesses or injuries to the Party Chief. All these events are to be reported as soon as possible.</b></p> <p>The Master is responsible for reporting incidents related to ship crew and the vessel. The Party Chief is responsible for reporting incidents related to science or technical crew and operations.</p> <p>It is the responsibility of management to review the incident and determine the type and class of incident (accident, near miss, reportable, non-reportable). Should management determine an incident merits an investigation, it will be the responsibility of the Company President to assign an individual to conduct the investigation, complete the record in NS5 and write a fleet memo with lessons learned if needed.</p> <p>If a fleet memo is required, it is the responsibility of the Vessel Systems Manager to distribute it to the fleet in the appropriate format and place a copy on the TDI Crewing Module.</p> <p>...</p> <p><b>5.0 Reporting</b></p> <p><del>All incidents reports must be created in NS5 and a pdf of the NS5 report forwarded to management.</del></p> <p style="color: red;"><b>TDI has created two forms for reporting an incident:</b></p> <ul style="list-style-type: none"> <li>• <u>The Employee form</u>- to be completed as soon as possible after the event and turned in to the supervisor</li> <li>• <u>The Supervisor form</u>- the supervisor receives the employee report, fills in a more detailed version of his own and creates an electronic report in NS5. <b>The supervisor must then forward a pdf of the incident report to <a href="mailto:dpa@tdi-bi.com">dpa@tdi-bi.com</a>.</b></li> </ul> <p>Management will review the report and decide if an incident</p>



investigation is required. An investigation may require the involvement of the company HSE Officer, client safety representatives, or other outside resources, including regulatory agencies. **All investigations will be recorded in the original NS5 report** under the Root Cause Investigations **Preventative Actions** tab. **Action items resulting from an investigation will be entered on the Crewing Module for assignment and completion.**

**The incident report in NS-5 should include:**

~~Names and positions of persons involved~~  
~~Names and positions of anyone who witnessed but was not involved in the event~~  
~~Detailed description of what happened~~  
~~What safety procedures were/ were not followed or in place~~  
~~Immediate corrective action taken~~  
~~What can be done to prevent it from happening again~~

5.1 Incidents Requiring an Immediate Report

Incidents involving serious injury, potential loss of life, fire or damage to the vessel, significant delays in the project schedule, or requiring immediate assistance from the office or any shore based facility or rescue organization will be **reported to management immediately by the most expeditious means and must be followed up by an NS5 generated report as soon as practical to dpa@tdi-bi.com**. Pdf copies of the NS5 report should be sent to the TDI-Brooks President with a copy to the Vice President, HSE Officer and Compliance Officer.

5.2 Reporting a Marine Accident, Injury or Death- Form CG-2692

If an incident meets any of the following criteria, a CG-2692A form must be filled out and delivered or mailed to the nearest Coast Guard Marine Safety or Marine Inspection Office as soon as practicable. This form is located on the ship web pages on the Bridge Resource page.

The completed form ~~will~~ **must** be scanned and sent **to dpa@tdi-bi.com** as soon as possible. Consult the Compliance Officer or Port Captain if you are not sure the situation meets the following requirements. When in doubt -- fill it out.

*... ellipses indicate unchanged material has been skipped for the sake of brevity.*



Name of Vessel \_\_\_\_\_

Revision March 2013

### Employee's Incident Report Form

**Instructions:** Employees shall use this form to report all work related injuries, illnesses, or "near miss" events (which could have caused an injury or illness) – *no matter how minor*. This includes equipment failure, damage or loss. Reporting these events helps us to identify and correct hazards before they cause serious injuries. **This form shall be completed by the employee and given to his/ her supervisor for entry into NS5 as soon as possible.**

I am reporting a work related:		<input type="checkbox"/> Near miss	<input type="checkbox"/> Injury	<input type="checkbox"/> Illness
<input type="checkbox"/> Chemical Exposure	<input type="checkbox"/> Equipment damage	<input type="checkbox"/> Equipment Failure	<input type="checkbox"/> Equipment Loss	
Your Name:				
Job title:				
Supervisor:				
Date of incident:			Time of incident:	
Names and positions of witnesses (if any):				
Where, exactly, did it happen?				
What were you doing at the time?				
Describe step by step what led up to the incident. (continue on the back if necessary):				
What could have been done to prevent this incident?				
What parts of your body were injured? If a near miss, how could you have been hurt?				
What PPE were you wearing at the time of injury?				
Your signature:			Date:	



Revision March 2013

Name of Vessel \_\_\_\_\_

### Supervisor's Incident Report Form

Entered into NS5 Quality & Compliance section as incident # \_\_\_\_\_

Title of incident \_\_\_\_\_

Name of Supervisor completing this report \_\_\_\_\_

This is a report of a:	<input type="checkbox"/> Near Miss	<input type="checkbox"/> First Aid Only	<input type="checkbox"/> Illness	<input type="checkbox"/> Chemical Exposure
	<input type="checkbox"/> Initial Dr/ Hospital visit	<input type="checkbox"/> Follow up Dr/ Hospital visit	<input type="checkbox"/> Fatality	
	<input type="checkbox"/> Equipment Damage	<input type="checkbox"/> Equipment Failure	<input type="checkbox"/> Equipment Loss	
Date of incident:	Date of report:			

Was employee working full or part time when incident occurred? \_\_\_\_\_

How long has employee been working this position? \_\_\_\_\_

Were TDI procedures/ PPE in place and used? \_\_\_\_\_ If not, why?

\_\_\_\_\_  
\_\_\_\_\_

What caused the event? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**If an injury/ injuries resulted, complete this section. If not, skip to next section.**

Name of Injured Person \_\_\_\_\_ (Circle one) Male Female

Date of Birth \_\_\_\_\_ Telephone Number \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

What part of the body was injured? Describe in detail. \_\_\_\_\_

\_\_\_\_\_  
What was the nature of the injury? Describe in detail. \_\_\_\_\_  
\_\_\_\_\_

Was employee on or off shift, traveling to or from work site at time of injury?

\_\_\_\_\_  
What equipment, chemicals, tools were being used by the employee?  
\_\_\_\_\_  
\_\_\_\_\_

Did injury occur because of:

\_\_\_\_\_ Substance abuse \_\_\_\_\_ Failure to use safety devices/ PPE \_\_\_\_\_ Failure to follow procedures

Was employee taken to a doctor's office for evaluation/ treatment? \_\_\_\_\_

Was employee treated in an Emergency Room? \_\_\_\_\_

Was employee hospitalized overnight as in-patient? \_\_\_\_\_

Name and Address of treating practitioner and hospital

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Was employee unable to work as a result of injury? \_\_\_\_ If yes, what was employee's first day unable to work? \_\_\_\_\_ Date of return to work? \_\_\_\_\_

If still off work, what is estimated date of return? \_\_\_\_\_

**If the incident is related to equipment damage, failure or loss, complete this section.**

List major equipment involved: \_\_\_\_\_

\_\_\_\_\_

Did the equipment have any known defects/ damage before this event occurred? \_\_\_\_\_

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

List any other possible contributing factors to the event- weather, employee experience/ training, off spec procedures, communications, etc. \_\_\_\_\_

\_\_\_\_\_

Was a new JSA required/ held to handle this incident? \_\_\_\_\_

How was the equipment repaired/ recovered? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If not recovered, record the location of equipment here:

\_\_\_\_\_

\_\_\_\_\_

Recommended action to prevent future reoccurrence:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
**Supervisor Signature**

\_\_\_\_\_  
**Date**



Revision March 2013

Name of Vessel \_\_\_\_\_

### Incident Investigation Report

**Instructions:** Complete this form as a part of your investigation and email to [dpa@tdi-bi.com](mailto:dpa@tdi-bi.com) when complete. Include attachments such as photos, notes, sketches, records of employee interviews or other relevant documents.

This is a report of a: <input type="checkbox"/> Near Miss <input type="checkbox"/> Injury <input type="checkbox"/> Illness <input type="checkbox"/> Fatality <input type="checkbox"/> Chemical Exposure <input type="checkbox"/> Equipment Damage <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Equipment Loss	
Date of incident:	Person Completing investigation/ report
Date of report:	

<b>Step 1: Documents Reviewed</b>
List the documents that were reviewed in connection with this incident. Be sure to include employee, supervisor and third party reports, company policies and procedures, equipment maintenance, rigging/ deployment checklists, inspection logs.

<b>Step 2: Describe the incident</b>	
Exact location of the incident:	Exact time:
What part of employee's workday? <input type="checkbox"/> Before or after work shift <input type="checkbox"/> During work shift <input type="checkbox"/> Other	
Names and positions of witnesses (if any):          	

Number of attachments	Written witness statements:	Photographs:	Other:
What personal protective equipment, if any, was required?  Was it being used properly? _____			
Describe, step-by-step the events that led up to the injury. Include names of any machines, parts, objects, tools, materials and other important details.          Description continued on attached sheets: <input type="checkbox"/>			

**Step 3: Root Cause Analysis-- Why did the incident happen?**

<p><b>Unsafe workplace conditions:</b> (Check all that apply)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inadequate guard</li> <li><input type="checkbox"/> Unguarded hazard</li> <li><input type="checkbox"/> Safety device is defective</li> <li><input type="checkbox"/> Tool or equipment defective</li> <li><input type="checkbox"/> Workstation layout is hazardous</li> <li><input type="checkbox"/> Unsafe lighting/ lack of visibility</li> <li><input type="checkbox"/> Unsafe ventilation</li> <li><input type="checkbox"/> Lack of appropriate equipment / tools</li> <li><input type="checkbox"/> Unsafe clothing</li> <li><input type="checkbox"/> Other: _____</li> </ul>	<p><b>Unsafe acts</b> by people: (Check all that apply)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Operating without permission</li> <li><input type="checkbox"/> Operating at unsafe speed</li> <li><input type="checkbox"/> Servicing equipment that has not been locked/tagged out</li> <li><input type="checkbox"/> Making a safety device inoperative</li> <li><input type="checkbox"/> Using defective equipment</li> <li><input type="checkbox"/> Using equipment in an unapproved way</li> <li><input type="checkbox"/> Unsafe lifting</li> <li><input type="checkbox"/> Taking an unsafe position or posture</li> <li><input type="checkbox"/> Distraction, teasing, horseplay</li> <li><input type="checkbox"/> Failure to use the available equipment / tools</li> <li><input type="checkbox"/> Other: _____</li> </ul>
<p><b>Company Policies/ Procedures:</b> (Check all that apply)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Procedure does not exist</li> <li><input type="checkbox"/> Existing procedure does not cover this situation</li> <li><input type="checkbox"/> Employee not trained on company policy/ procedure</li> <li><input type="checkbox"/> Employee aware of but did not follow policy/ procedure</li> </ul>	<p><b>Personal Protective Equipment - PPE:</b> (Check all that apply)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> PPE defective or inadequate for the job</li> <li><input type="checkbox"/> Employee not trained on proper PPE use</li> <li><input type="checkbox"/> PPE not provided or available</li> <li><input type="checkbox"/> Employee did not wear required PPE</li> </ul>

List any other contributing factors leading up to the incident:	
What factors would have you determined are the ROOT CAUSE of this event?	
Were the unsafe acts or conditions reported prior to the incident?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have there been similar incidents or near misses prior to this one?	<input type="checkbox"/> Yes <input type="checkbox"/> No

<b>Step 4: Preventative Actions-- How can future incidents be prevented?</b>
<p><b>What changes do you suggest to prevent this incident/near miss from happening again?</b></p> <p> <input type="checkbox"/> Stop this activity                <input type="checkbox"/> Guard the hazard                <input type="checkbox"/> Train the employee(s)                <input type="checkbox"/> Train the supervisor(s)         </p> <p> <input type="checkbox"/> Redesign task steps              <input type="checkbox"/> Redesign work station              <input type="checkbox"/> Write a new policy              <input type="checkbox"/> Revise existing policy         </p> <p> <input type="checkbox"/> Enforce existing policy              <input type="checkbox"/> Routinely inspect for the hazard              <input type="checkbox"/> Personal Protective Equipment         </p> <p> <input type="checkbox"/> Other: _____         </p>
<p>What should be (or has been) done specifically to carry out the suggestion(s) checked above?</p>

<b>Step 5: Who reviewed this form? (Please Print)</b>	
Management's final decision on corrective action:	
<p>Reviewed by:</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p> <p>Name _____</p>	<p>Date: _____</p> <p>Title: _____</p> <p>Title: _____</p> <p>Title: _____</p> <p>Title: _____</p> <p>Title: _____</p>

# Masters Reviews 2012- Acknowledged by DPA

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## Scott Munro- GX

X-Mailer: QUALCOMM Windows Eudora Version 7.1.0.9  
Date: Fri, 09 Nov 2012 13:31:02 -0600  
To: drjmbrooks@aol.com,shannonsmith@tdi-bi.com,rogerfay@tdi-bi.com,  
gma@embarqmail.com  
From: Bernie Bernard <berniebernard@tdi-bi.com>  
Subject: GX SMM Masters Review  
all:

I just received this Masters Review of the SMM from Scott Munro on GX. I have acknowledged my receipt.

bbb

Bernie B. Bernard  
tel 979-220-3804



[GX Dec2012 SMM Masters review.xls](#)

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## Keith Davis- RT

Date: Fri, 05 Oct 2012 01:24:18 +0300  
To: Bernie Bernard <berniebernard@tdi-bi.com>,  
"James Howell" <jameshowell@tdi-bi.com>  
From: Rylan T <rylant@txcyber.com>  
Subject: Re: Rylan T - Master's Review Safety Management Manual  
Cc: "Dr. Jim Brooks" <drjmbrooks@aol.com>,  
shannon Smith <shannonsmith@tdi-bi.com>,Roger Fay <rogerfay@tdi-bi.com>,  
pat falwell <gma@embarqmail.com>

Got it.  
Thanks Bernie,  
Keith

At 00:50 10/5/2012, Bernie Bernard wrote:  
Keith:  
I acknowledge receipt of your Master's Review.  
thank you,  
Bernie Bernard, DPA

At 05:46 PM 10/3/2012, Rylan T wrote:



Bernie / James,  
Please find attached:  
Master Review Rylan-T Oct 2012 v2.xls  
Keith

TDI-Brooks on R/V Rylan T.

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## Chris Opel- BMC

Date: Mon, 03 Dec 2012 12:29:18 -0600  
To: Roger Fay <rogerfay@tdi-bi.com>, jameshowell <jameshowell@tdi-bi.com>  
From: Bernie Bernard <berniebernard@tdi-bi.com>  
Subject: Re: Fwd: BMCC Annual SMM Review  
Cc: pat falwell <gma@embarqmail.com>, drjmbrooks@aol.com,  
shannon Smith <shannonsmith@tdi-bi.com>

Captain Chris:

I hereby acknowledge your Master's Review of our SMM, sent to Roger on 08 October. Please also copy me as DPA on these in the future, and I will acknowledge them more promptly.

regards,  
Bernie Bernard

At 08:02 AM 10/10/2012, Roger Fay wrote:

From: "chrisopel@tdi-bi.com" <chrisopel@tdi-bi.com>  
To: "rogerfay@tdi-bi.com" <rogerfay@tdi-bi.com>  
Subject: BMCC Annual SMM Review  
Date: Mon, 8 Oct 2012 14:20:59 -0500  
Reply-To: chrisopel@tdi-bi.com  
X-Originating-IP: [76.205.166.15]  
X-SmarterMail-TotalSpamWeight: 0 (Authenticated)

Roger,

Here is my 2012 SMM review. It may be a little light in the engineering dept. since there is no engineer on board to contribute.

Chris

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**John Pirak-**

Date: Wed, 06 Feb 2013 17:34:09 -0600

To: Shannon Smith <shannonsmith@tdi-bi.com>, dpa@tdi-bi.com

From: Bernie Bernard <berniebernard@tdi-bi.com>

Subject: Re: Bernie- please ack masters review

Cc: pirakjm@hotmail.com

X-SmarterMail-TotalSpamWeight: 0 (Authenticated)

John Pirak:

receipt of your Master's review acknowledged.

thank you for your efforts.

Bernie