Report of the investigation into
STORM DAMAGE
to
“VOS SAILOR”
whilst on dodging manoeuvres near the Balmoral Platform in the North Sea
15th December 2012
The Bahamas Maritime Authority investigates incidents at sea for the sole purpose of discovering any lessons which may be learned with a view to preventing any repetition. It is not the purpose of the investigation to establish liability or to apportion blame, except in so far as emerges as part of the process of investigating that incident.

It should be noted that the Bahamas Merchant Shipping Act, Para 170 (2) requires officers of a ship involved in an accident to answer an Inspector’s questions fully and truly. If the contents of a report were subsequently submitted as evidence in court proceedings relating to an accident this could offend the principle that a person cannot be required to give evidence against himself. The Bahamas Maritime Authority makes this report available to any interested parties on the strict understanding that it will not be used as evidence in any court proceedings anywhere in the world.

Date of Issue 02 August 2013
Bahamas Maritime Authority
120 Old Broad Street
LONDON
EC2N 1AR
United Kingdom
1. Summary
2. Particulars of Vessel
3. Narrative of events
4. Analysis
5. Conclusions
6. Recommendations

List of Appendices:

I. Safe Manning Document
II. Balmoral Platform – Timeline of Events
III. Ship Manager’s (Vroon) Timeline of Events
IV. Balmoral Platform – Weather Observations
1 SUMMARY

1.1 Shortly after 0400 hours on the 15th December 2012 the ‘Vos Sailor’ was on station off of the Balmoral Platform (“the platform”) in the North Sea. The vessel was struck head-on by a large wave which shattered navigating bridge windows and dislodged the protective shutters that were in place. The damage that was sustained from the impact rendered both the vessel’s navigation systems and propulsion controls ineffective removing the capability to summon assistance or proceed to a place of refuge.

1.2 As a direct result of the wave impact damage, coupled with the vessel’s inability to proceed to safety, large quantities of sea water entered the accommodation spaces causing widespread flooding. Damage to the vessel’s navigation and radio communication equipment exacerbated the hazardous situation by preventing any form of distress communications from being established with the platform or any other vessel in the vicinity. In the absence of further options, communication with the platform was finally established using the inbuilt VHF microphones to the Fast Rescue Craft (FRC) crew helmets, despite the comparatively weak signal.

1.3 Following a muster of the ships complement the Chief Officer (CO), who was on watch on the bridge at the time of the impact, was reported to be missing. Attempts were made to reach the bridge deck where the CO was last seen but it was found that the stairwell had been blocked by debris and flowing sea water. Further attempts were subsequently made through alternative routes resulting in the discovery of the CO beneath a pile of damaged bridge equipment. Despite several rescue attempts to remove the debris and administer life support, there was no response and crew members were forced to retreat to a safer location.

1.4 Following a distress relay from the platform two rescue helicopters were dispatched from the mainland to the ‘Vos Sailor’ to evacuate the survivors. The vessel was left as a dead ship to drift until such time as a tow could be connected.

1.5 The Anchor Handling Vessel “Stril Commander” was in the vicinity but was unable to connect a tow due to the bad weather. The tow was eventually picked up by m.v. “Kestrel” and the vessel was towed to Fraserburgh Harbour and was made all fast alongside on the evening of 16th December 2012.

***

Bahamas Maritime Authority
## PARTICULARS OF VESSEL

### 2.1 The "VOS SAILOR" is an Emergency Response and Rescue Vessel (ERRV) registered in the port of Nassau, Bahamas. It is of all welded steel construction; the navigating bridge and accommodation block is located at the forward end of the vessel with the machinery spaces aft.

The principal particulars are as follows:

<table>
<thead>
<tr>
<th>Particular</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official Number</td>
<td>395516</td>
</tr>
<tr>
<td>IMO Number</td>
<td>8104113</td>
</tr>
<tr>
<td>Length overall</td>
<td>43.00 metres</td>
</tr>
<tr>
<td>LBP</td>
<td>38.02 metres</td>
</tr>
<tr>
<td>Breadth</td>
<td>8.84 metres</td>
</tr>
<tr>
<td>Depth</td>
<td>4.12 metres</td>
</tr>
<tr>
<td>Gross Tonnage</td>
<td>516 tons</td>
</tr>
<tr>
<td>Net Tonnage</td>
<td>154 tons</td>
</tr>
<tr>
<td>Call Sign</td>
<td>C6J18</td>
</tr>
</tbody>
</table>

### 2.2 The minimum safe manning document issued to the vessel by the Bahamas Maritime Authority (BMA) on the 27th July 2009 specified a complement of 9 persons (see Appendix I). At the time of the incident the vessel had a crew of 12.

### 2.3 The ‘Vos Sailor’ is powered by two main engines delivering a combined output of 1250 kW and each driving an independent Controllable Pitch Propeller.

### 2.4 The vessel was constructed in North Vancouver, Canada, in 1981 and was formerly named “Toisa Widgeon”. At the time of the incident the registered owners were Nomis Shipping Ltd with the vessel under the management of Vroon Offshore Services Ltd and engaged in a charter agreement with Premier Oil.

### 2.5 The vessel was first registered with the Bahamas in 1990 and was classed by Lloyds Register. At the time of the incident all statutory certification and surveys were in date and current.

### 2.6 The “Vos Sailor” was last subjected to a BMA Annual Inspection at the Port of Aberdeen on 16th August 2012. The following observation was made:
The vessel had undergone a Port State Control Inspection at the Port of Aberdeen on 16th July 2012 where a total of 4 defects were identified and subsequently rectified to the satisfaction of the inspector. There were no outstanding Port State deficiencies at the time of the incident.

Figure 1: GENERAL ARRANGEMENT PLAN MV ‘VOS SAILOR’
3 NARRATIVE OF EVENTS

3.1 All times noted in this narrative are given in the style of the standard 24 hour clock without additional annotation and as local time in the United Kingdom (UTC). See Appendices II and III for timelines obtained from the platform and the managers.

3.2 The incident occurred shortly after 0400 hours on the 15th December 2012.

3.3 The reported weather conditions at the time of the incident, as received from the weather observation station on board the platform, were as follows: 

- WIND Dir-090 Spd-50 Kts (Gusting 70Kts).
- SEA Dir-120 with a Wave Height ranging between 10 and 12 metres

3.4 The wave impact was reported to have occurred at approximately 04:15 directly on the bow as the vessel was engaged in ‘dodging’ manoeuvres heading into the wind.

3.5 The wave force buckled the forward facing steel navigating bridge window shutters, wrenching them free of their fixings and continued on to shatter all of the toughened glass windows, completely destroying the wheel house internals as it passed through.

3.6 Having lost navigation and propulsion control from the navigating bridge position, the vessel remained head to wind and seas allowing water to continue cascading down into the accommodation block. There was no attempt to engage the emergency steering system as the communication link between the steering gear compartment and the navigating bridge was lost and the presence of a crew member on the navigating bridge would have been an unacceptable risk.

3.7 The ingress of water through the navigating bridge windows gradually ceased as the inherent buoyancy of the vessel started to overcome the initial bow dip.

3.8 Having lost the primary muster station due to the prevailing adverse conditions, the ship’s crew members were mustered in a secondary internal location. A role call was completed identifying that one crew member, the Chief Officer, was missing. After a search he was located beneath debris on the navigating bridge in a lifeless state. Despite attempts to rescue and resuscitate, the crew were eventually forced to retreat to a safer location leaving him behind.

---

1 ‘a manoeuvre in which the vessel runs with the wind for a period of time bearing in mind how far she is from her designated location and then turns and punches into the wind and sea to return to standby position’
In the absence of any designated GMDSS equipment, initial contact was established with the platform using the FRC Helmet VHF Microphones on Channel 16. A MAYDAY message was first transmitted by the ‘Vos Sailor’ at 0425 in GPS Position 58°13.7’ N 001°06.5’ E with a subsequent relay by the platform at 0435.

EPIRB and SARTS were reported to have been activated and deployed by the ship’s crew however there was no confirmation that these activations were indeed successful.

The crew were unable to launch or activate any pyrotechnics at the time of the incident as these had all been washed away with the bridge debris.

At 0500, two helicopters the ‘Bond Rescue 1’ and ‘Coastguard Rescue 2’ were dispatched to the ‘Vos Sailor’ to evacuate the crew members. Other vessels in the vicinity were also proceeding en route to provide assistance.

At 0658 ‘Bond rescue 1’ had arrived on scene and successfully evacuated 8 of the 12 crew members.

At 0712 ‘Coastguard rescue 102’ was on the scene and had evacuated the remaining survivors.

At 0834 the ‘Vos Sailor’ was in a disabled “dead ship” condition and adrift in position 58°17’ N 000°51.68’ E.

By 2330 of the same day, the seagoing tug ‘Kestrel’ had secured the ‘Vos Sailor’ in tow bound for Fraserborough Harbour where it arrived in the early hours of 16th December 2012.

***
4  ANALYSIS

4.1 The vessel is a designated “ERRV” (Emergency Response & Rescue vessel)

4.2 Vessels that carry out these duties in the North Sea area remain at sea on standby 24 hours per day for 4 (four) weeks and return to port for crew changes at the end of this period.

4.3 The length of stay in port is generally around 24 hours unless emergency repairs are required and in this case a stand-in vessel may be substituted for that period of time.

4.4 Whilst on location these vessels will remain on the perimeter of the 500 metre safety zone and normally operate between the 500 and 900 metre marks subject to weather conditions.

4.5 The “ERRV” may also be required for close standby attendance when a rig or platform is carrying out over the side operations.

4.6 Whilst engaged on these standby duties and when weather conditions permit, the ship’s crew are regularly drilled in the use and operation of the Fast Rescue Craft and other safety equipment.

4.7 These vessels will remain at sea throughout all inclement weather and sea states and are regularly subjected to heavy weather and storm conditions.

4.8 Under these conditions the vessel undertakes a procedure commonly known as “dodging”, whereby the vessel runs with the wind for a period of time bearing in mind how far she is from her designated location and then turns and punches into the wind and sea to return to standby position.

4.9 Turning under these conditions is generally accepted to be the most critical manoeuvre of this exercise and must be executed in a timely and decisive manner.

4.10 Whilst engaged in undertaking these ‘dodging’ manoeuvres on the day of the Incident, the vessel had already installed the Bridge steel shutters over the forward facing windows. This was normal practice when poor weather conditions were forecast or anticipated.

4.11 By 0400 on the 15th December 2012, the vessel was heading into wind and had already experienced a number of large waves making contact with the stem.
4.12 Shortly after the watch handover at 0400, a large impact was felt throughout the vessel as it shuddered to a halt. Almost simultaneously the stem was forced below the water and the vessel was nose down into the oncoming seas.

4.13 At the time of the impact, the Chief Officer (CO) was stationed at the forward controls of the bridge with the watch-keeping AB positioned on the port side near the chart table.

4.14 The wave crashed through the bridge, detaching and buckling the steel window shutters and disintegrating the toughened glass windows as it passed through. The force of the impact destroyed everything in its path including all Bridge electronics, means of communication and propulsion and rudder controls.

4.15 With the vessels nose being forced down into the oncoming seas, large quantities of water cascaded down the bridge stairwell into the accommodation spaces below.

4.16 Initial crew musters resulted in confusion with some attempting to reach their external primary muster station while others gathered inside the crew accommodation. All crew members however were fully prepared with immersion suits and lifejackets given the extent of the impact that had ensued.

4.17 When attempting to don these immersion suits however, the crew encountered difficulties with the integral non-detachable gloves, in particular those which were “three-fingered”. These handling difficulties continued when attempting to use the ships designated distress notification equipment.

4.18 In the immediate aftermath of the wave impact, the bridge watch-keeping AB was thrown into the rear panelling of the bridge and down the internal stairway into the officer’s accommodation. Once he had been located by his colleagues, he was relocated to one of the cabins for immediate treatment due to the injuries he had sustained. Although some exchange of information took place, the AB could not confirm the location or status of the Chief Officer. A rescue party was consequently formed to locate the last missing crew member in the wheel house.

4.19 With the bridge communications destroyed, efforts were made to activate the ship’s EPIRB and SART. This proved to be very difficult under the circumstances with the vessel heaving violently and the issues mentioned in paragraph 4.17. The crew were therefore unable to confirm whether or not they had been able to activate any of the equipment, particularly when one SART had already been washed overboard and the EPIRB lost on deck.

4.20 Communication was eventually established with the platform using only a portable VHF radio and the FRC Helmet microphones. The same handling issues were present in this case as detailed in paragraph 4.17.
4.21 The Chief Officer was eventually located on the Port side of the bridge trapped under the debris. Attempts at resuscitation proved unsuccessful and the rescue party was forced to retreat.

4.22 Given the weather conditions at the time of the incident, the Master judged that attempting to launch the ship’s life rafts would place the crew in additional danger. The crew were therefore instructed to remain on board the vessel until assistance arrived. With no further ingress of water at this time this is considered to have been the most appropriate course of action to take. The platform had also advised of the imminent arrival of assisting vessels and that two rescue helicopters would arrive within the hour to evacuate all survivors.

4.23 As a precautionary measure given the levels of water ingress that the vessel had sustained, the Chief Engineer decided to shut down the main generator. Emergency lighting was activated within the accommodation and all crew made their way to the reception area to await evacuation.

4.24 Whilst engaged in the recovery of the first eight able bodied crew members from the ‘Vos Sailor’, the winch man on board the first rescue helicopter, Bond Rescue 1, sustained an injury to his ankle whilst landing on deck. However, all survivors were winched to safety including the Chief Engineer who had gone into the machinery space to stop both main engines prior to leaving the vessel.

4.25 The second helicopter arrived on scene shortly afterwards and evacuated the three remaining crew members to safety. All were transported to the Aberdeen Royal Infirmary for treatment on their arrival ashore.

***
CONCLUSIONS

5.1 Abnormally large waves can occur from time to time, particularly during storm force conditions. The wave height factor itself is dependent on a combination of factors including, but not limited to, the prevailing wind strength and direction, sea state, tidal flows and water depths. Despite the conditions that were experienced during the lead up to the incident on the morning of the 15th December 2012, the crew would not have been able to reasonably predict such an extreme occurrence.

5.2 The severity of the conditions that were experienced in the North Sea on the day of the incident became fully apparent in the immediate aftermath of the incident when it emerged that a number of other vessels in the area had also suffered structural damage as a result of the sea state conditions. None of these other vessels however had suffered to the same extent as the ‘Vos Sailor’.

5.3 The most tragic result of this incident was the death of the Chief Officer. Despite the obviously difficult and dangerous circumstances conditions, the ship’s crew endeavoured to rescue and resuscitate him through any means possible but tragically they were not successful.

5.4 The initial confusion that ensued with regards to the muster location and immediate actions to be taken following impact was likely attributable to disorientation and panic. It could not have been reasonably predicted within the scope of the contingency plans that the ship would suffer the extensive damage to the navigating bridge seen in this incident.

5.5 The level of emergency preparedness under such extreme conditions that was demonstrated by the ship’s crew on the morning of the 15th December 2012 is highly commendable. In opting to remain with the vessel until assistance had arrived, despite the substantial water ingress that was initially sustained, further casualties were undoubtedly prevented.

5.6 Having suffered such substantial losses in terms of the emergency equipment that was available, the crew had the presence of mind under extreme pressure to source and locate the FRC portable VHF radios and to use them to establish distress communications with the platform where personnel were able to relay this information to the SAR authorities.

5.7 The decision not to engage emergency steering following the loss of manoeuvring capabilities from the navigating bridge conning position is understandable bearing in mind the damage and the risk involved following the severity of the wave impact and subsequent water ingress.
5.8 A number of serious equipment-handling issues came as the result of the design of the immersion suits including the securing of the suits themselves (gripping zippers). These problems were concentrated specifically to the glove composition.

5.9 The absence of a spare emergency equipment storage location away from the navigating bridge resulted in a lack of available distress alerting options when they were needed the most.

***
Recommendations for the operator:

6.1 Given the extreme weather conditions that an Emergency Rescue and Response Vessel (ERRV) can expect to encounter as a consequence of its operating area its operation, the operator should consider the location of muster stations in the light of this incident.

6.2 The proactive use of emergency exercises on board cannot be overemphasised: the operator should incorporate unexpected factors into the process to ensure crew members remain fully prepared for the worst case scenario.

6.3 The operator should consider the establishment of a secondary storage location for emergency distress signalling and VHF radio equipment which would compensate for the loss of the primary location.

6.4 The operator should review the equipment-handling issues that were encountered with the ship’s immersion suits with regard to the type and design provided on board and whether they are appropriate for the intended operation.

Note: The BMA notes that the Company commissioned its own comprehensive independent investigation of this incident and records its appreciation to Vroon for the Controlled Copy provided.

Recommendations for the Flag State

6.5 The equipment-handling issues associated with the three finger design immersion suit should be raised by the Bahamas at the International Maritime Organisation under the review of immersion suit design and performance standards.
LIST OF APPENDICES

1. Safe Manning Document

2. Balmoral Platform: Time Line and Flow Diagram of Events

3. Ship Managers (Vroon Offshore) Timeline of Events

4. Balmoral Platform Weather Observation Station readings: (15.12.12-0330LT – 0600LT)
   - Wind Speed
   - Wind Gust
   - Wind Direction
   - Wave Height
   - Wave Period
   - Visibility
APPENDIX I: Minimum Safe Manning Document

THE COMMONWEALTH OF THE BAHAMAS

MINIMUM SAFE MANNING DOCUMENT

Issued by the BAHAMAS MARITIME AUTHORITY

under the provisions of regulation V/14.2 of the INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, as amended:

Pursuant to section 21 of the Bahamas Merchant Shipping (Training, Certification, Manning and Watchkeeping) Regulations 1998

Particulars of the ship:

<table>
<thead>
<tr>
<th>Name of Ship</th>
<th>Port of Registry</th>
<th>IMO Number</th>
<th>Official Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOS SAILOR</td>
<td>NASSAU</td>
<td>8104113</td>
<td>395516</td>
</tr>
</tbody>
</table>

Gross Tonnage: 516

Trading Area: World Wide

The ship named in this document is to be considered to be safely manned if, when it proceeds to sea, it carries not less than the number and grades/capacities of personnel specified in the table below, subject to any attached conditions.

<table>
<thead>
<tr>
<th>GRADE / CAPACITY</th>
<th>Certificate (STCW Req.)</th>
<th>Number of persons</th>
<th>GRADE / CAPACITY</th>
<th>Certificate (STCW Req.)</th>
<th>Number of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master</td>
<td>I/2</td>
<td>1</td>
<td>Chief Engineer</td>
<td>III/3</td>
<td>1</td>
</tr>
<tr>
<td>Chief Mate</td>
<td>I/2</td>
<td>1</td>
<td>Second Engineer</td>
<td>III/3</td>
<td>1</td>
</tr>
<tr>
<td>Officer in Charge of a Navigation watch</td>
<td>I/1</td>
<td>1</td>
<td>Officer in Charge of an Engineering watch</td>
<td>II/4</td>
<td>1</td>
</tr>
<tr>
<td>Category 1 Seaman</td>
<td>I/4</td>
<td>1</td>
<td>Electro-Vtech Officer</td>
<td>Category 1 E.R. Rating</td>
<td>1</td>
</tr>
<tr>
<td>Seaman/Cook</td>
<td>-</td>
<td>1</td>
<td>Category 2 E.R. Rating</td>
<td>III/4</td>
<td>1</td>
</tr>
<tr>
<td>Radio Officer</td>
<td>-</td>
<td>-</td>
<td>Doctor</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Periodically unattended machinery space: ☐ Yes ☑ No

The above Manning levels are appropriate to the machinery space being periodically unattended. If the automated engine management systems and bridge control of the propulsion machinery are not operational for a period of more than 7 days, an additional Officer in Charge of an Engineering Watch must be carried from the next available port.

OTHER CONDITIONS & FURTHER DETAILS: See overleaf and Bulletin #115.

Issued at LONDON on 27 July 2009

Date of Expiry: 27 July 2014

Seal or stamp of the Administration

For and on behalf of the Bahamas Maritime Authority

D. A. Williams

Bahamas Maritime Authority
APPENDIX II: Balmoral Platform Timeline of Events

TIMELINE EARS 200530

- 04:25 VHF “MAYDAY” call from Vos Sailor
- 04:35 “MAYDAY” relayed by Balmoral bridge
- 04:39 Vos Sailor report 1 casualty
- 04:40 Gramplan Spite requested to assist,
- 04:41 Faint message from Vos Sailor (no steering)
- 04:43 Balmoral PSSCR instructed to activate GA
- 04:45 Confirm Vos Explorer on route 09NM from scene
- 04:50 Balmoral initiate Shutdown/ Blowdown
- 04:55 Full Muster on board Balmoral
- 04:59 Vos Sailor 2-3NM North of Balmoral
- 04:59 Britannia/ GP3 & Tiffany released SBV’s to aid SAR
- 05:00 Air support ETA 06:15hrs
- 05:08 Petrofac Emergency Response contacted
- 05:15 RB1 & R102 on route ETA 06:20 & 06:30 respectively
- 05:15 Vos Sailor 4NM NW loss of EPR8
- 05:29 Vos Sailor 58°15.02.96 North 001°10.36 East
- 05:30 No personnel comms, SBV alarms heard
- 05:40 Confirm report of Vos Sailor/ NOT sinking
- 05:45 SBV “no access to flares”
- 05:50 Vos Sailor 58°16.04, North 001°01.9 East
- 06:00 RB1 ETA 06:30
- 06:20 Vos Sailor 58°16.75, North 000°59.8 East
- 06:30 RB1 commence winching operation from Vos Sailor
- 07:15 R102 on scene assisting with rescue operations
- 07:30 Vos Sailor 58°17.48, North 000°54.91 East
- 07:30 3-4 Casualties recovered to RB1
- 07:38 RB1-7 recovered from Vos Sailor
- 08:02 RB1-11 recovered from Vos Sailor, on route to ART
- 08:13 Balmoral/ Tiffany agree share of SBV
- 08:34 Vos Sailor 58°17.0 North 000°51.68 East
- 09:06 Vos Sailor Approx 1.2NM from NSP
- 09:37 NSP start down-manning by R107
- 13:29 Balmoral relinquish On Scene Commander status
ERRV “Vos Sailor” - Casualty Investigation Report

APPENDIX II: Cont.
ERRV “Vos Sailor” - Casualty Investigation Report

APPENDIX III: Ship Managers Timeline of Events

Vos Sailor incident
15/12/12

04:30 – Mayday relay on VHF Ch 16 from Balmoral Marine: Vos Sailor is sinking
04:43 – Vos Venturer released from the Andrew platform
04:48 – Distress relay received on 2187.5kHz: 300062000 Disabled and adrift at 58°13.7’N 001°06.5’E
04:54 – Departed from location
05:06 – Balmoral informed: Vos Venturer on route to scene
05:06 – Bigo informed
05:31 – Grampan Osprey ETA 1½ hours
05:12 – Two helicopters on route ETA 1 hour
02:14 – Balmoral informs that Vos Sailor’s Bridge is destroyed
05:17 – Vos Explorer & Stril Commander in best position to help the Vos Sailor which is NW of Balmoral
05:22 – Balmoral confirming Vos Explorer on route to Vos Sailor
05:28 – Vos Sailor 4 miles from the Balmoral but no confirmed position
05:30 – Grampan Sprite ETA of 1½ hours
05:32 – Balmoral contact Vos Sailor to confirm all crew are together
05:36 – Grampan Osprey 1 hour 15min from location
05:40 – Balmoral confirm Vos Sailor is not sinking or taking on water but has lost steering/propulsion
05:42 – Balmoral asked for flares from the Vos Sailor
05:43 – Balmoral tells Vos Sailor 3 helicopters are coming & to launch flares, Vos Sailor unable to send flares as lost its bridge
05:45 – Balmoral to Vos Venturer confirmed 1 hour ETA
05:45 – Balmoral to Vos Sailor: 2 casualties, all crew accounted for, one walking wounded, one deceased
05:55 – Balmoral asked Vos Sailor if all crew were in same location
05:57 – Vos Venturer contacts Balmoral for confirmation on all 12 crewmen. Received 11 in one location 1 (1st officer) was on watch
05:58 – Rescue helicopter Bond Rescue 1 has a 1 hour 20 minute ETA
06:07 – Vos Explorer and Stril Commander have an ETA of 30min
06:13 – Balmoral to Explorer: 11 persons confirmed, 1 walking wounded
06:19 – 58°16.7’N 001°09.8’E Position of Vos Sailor by Stril Commander
06:24 – Stril Commander 1.8NM from Vos Sailor, Helicopter due in 10-15min. Stril Commander proceeding with caution, will report on sighting Vos Sailor
06:28 – Balmoral asks if Stril Commander is able to tow, but due to weather was unable to at that present time
06:51 – Rescue Helicopter Bond 1 due in 5 min
06:36 – Vos Venturer spotted Vos Sailor
06:42 – Helicopter Bond 1 on scene
06:44 – Helicopter was unable to see Vos Sailor so asked for them to use a light
06:45 – On location at Vos Sailor VHF wind 690°*30kts Sea:120°*9kts
06:46 – Bond 1 using highline technique to the Vos Sailor
07:06 – From Bond 1 trying to get highline to crew
07:12 – Coastguard Helicopter Rescue 102 on scene
07:49 – Bond 1 left scene and Rescue 102 above Vos Sailor
08:01 – Coastguard rescue 102 away from Vos Sailor
08:07 – Confirmed 11 casualties in the helicopters, 1 missing person position possibly still on board the Vos Sailor
09:05 – Helicopter Rescue 137 contacts North Sea Producer (128.4MHz, VHF Ch60)
09:17 – N.S.P General Alarm partial evacuation, Vos Sailor BRG 106°*0.9NM drift 300°*1.8NM
09:45 – Rescue 137 on loiter N.S.P can evacuate at any time during loiter
10:01 – Vos Sailor BRG 101.3°*2.2NM from NSP
10:15 – Vos Sailor BRG 97.6°*2.0NM from NSP
10:24 – Balmoral told Grampan Osprey to resume normal duties
10:40 – Rescue 102 on scene N.S.P
10:40 – Rescue 137 commenced taking men off
10:42 – Vos Sailor BRG 089°*1.5NM from NSP
10:48 – Rescue 137 Clear of MacCulloch
10:49 – Rescue 102 at MacCulloch, visibility 2NM
10:58 – Vos Sailor BRG 081°*1.2nm from NSP, drift 305°*1.5 NM
11:03 – Rescue 102 away to Alba
11:03 – Vos Sailor’s position 58°19.6’N 000°45.2’E
11:09 – Bond Rescue 102 at MacCulloch
11:15 – Vos Sailor BRG 66.4°*0.9NM from NSP, drift 319°*1.4kts – passing clear of North Sea Producer
11:30 – Balmoral Marine: Vos Venturer released to go back to the Andrew Platform

Bahamas Maritime Authority
APPENDIX IV: Balmoral Platform Weather Observations

![Wind Gust Graph](image1)

![Wind Direction Graph](image2)
ERRV “Vos Sailor” - Casualty Investigation Report

Visibility

0 2000 4000 6000 8000 10000
Vis (1 minute mean) Vis (10 minute mean)

Sat 15 Dec 2012
03:30 04:00 04:30 05:00 05:30 06:00

Graph Selection:
Wave Height
Wave Period
Cloud (0-5,000ft)
Cloud (0-25,000ft)
Visibility (0-1000m)
Visibility (0-7500m)

***