

Report on the investigation of the grounding  
of the oil tanker

***SAMOTHRAKI***

Gibraltar – 17 March 2007

Government of Gibraltar  
Maritime Administration  
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**NOTE**

This report is not intended to be used for the purpose of litigation. It endeavours to identify and analyse the relevant safety issues pertaining to the accident, and to make recommendations aimed at preventing similar accidents in the future.

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## GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AIS	-	Automatic Identification System
ARPA	-	Automatic Radar Plotting Aid
BA	-	British Admiralty
bhp	-	brake horse power
cable	-	one tenth of a nautical mile
CPA	-	Closest Point of Approach
GPA	-	Gibraltar Port Authority
(D)GPS	-	Differential Global Positioning System
GMA	-	Gibraltar Maritime Administration
IMO	-	International Maritime Organisation
ISM	-	International Safety Management (Code)
m	-	metre
MF	-	Medium Frequency
MOD	-	Ministry of Defence
n.miles	-	Nautical Miles
OOW	-	Officer of the Watch
RV	-	Rendezvous position
SBE	-	Standby engines
SMS	-	Ship Management System
UK	-	United Kingdom
UTC	-	Universal Co-ordinated Time
VHF	-	Very High Frequency
VTS	-	Vessel Traffic Management & Information System

## SUMMARY

At approximately 0200 (UTC + 1) on 17 March 2007, the fully loaded 27,793gt Greek registered oil tanker, *Samothraki* grounded on the Eastern side of Europa Point. The Gibraltar Maritime Administration was informed and an investigation started on that day.

The *Samothraki* was on passage from Libya to the UK, calling off Gibraltar to embark additional crew / technicians by launch at a RV position 1 n.mile East of Europa Point.

The *Samothraki* approached the coast closer than was intended in the ship's passage plan, resulting in her grounding. She sustained damage to the shell plate on her starboard side in way of her permanent ballast tanks, causing the ship to list heavily. There were no injuries to personnel. Due to the double hull construction, no oil escaped from the cargo tanks and consequently there was no damage to the environment.

Following the incident, the ship was initially anchored in the Eastern Anchorage and later re-anchored in the Bay of Gibraltar at the direction of the Captain of the Port. Her cargo was transferred to another vessel and temporary repairs were completed prior to a voyage to a repair yard.

Several factors contributed to the accident including:

- The failure of the Master to take early action to avoid approaching shallow water when it became necessary to depart from the passage plan.
- The failure of the Master to allow for the onshore current.
- The absence of the OOW from the bridge for a short period during the approach to the RV position.
- The position of vessels anchored on the Eastern side of Gibraltar, which limited the Master's option to alter course towards the North.
- Proximity of other vessels manoeuvring in the vicinity.
- The limited availability of effective monitoring of shipping movements within the territorial waters of Gibraltar.
- The limited shore based facility able to provide navigational assistance or advice to vessels approaching Gibraltar.

Appropriate recommendations have been made which can be found in Section 4 of this report.

## SECTION 1 – FACTUAL INFORMATION

### 1.1 PARTICULARS OF *SAMOTHRAKI* AND ACCIDENT

#### Vessel Details

Name:	.	Samothraki
IMO Number	.	8618891
Registered owner	.	Cheetah Shipping Inc
Operator	:	Eletson Corporation, 118, Kolokotroni Str, GR 185 35, Piraeus, Greece
Port of registry	:	Piraeus
Flag	:	Greece
Type	:	Oil Tanker (Double hull)
Built	:	1987
Classification society	:	Lloyds Register
Construction	:	Steel
Gross Tonnage	:	27,793
Engine power and type	:	8055 bhp
Other relevant info	:	Single screw

#### Accident details

Injuries to personnel	:	None reported
Damage	:	Holed in shell plating starboard side – in way of permanent ballast tanks
Pollution	:	Nil.
Location of Accident	:	36°06.56 N 005°20.38 W (Approx. 1.1 cables South of Europa Point Lighthouse)
Date and Time	:	Approx 0200 (UTC + 1) on 17 March 2007

## 1.2 BACKGROUND

*Samothraki*, launched in 1988, is a double-hulled oil tanker with her main superstructure, accommodation and bridge situated aft.

She is fitted with standard navigational equipment, which includes two radars, two DGPS receivers, magnetic and gyrocompasses, autopilot, echo sounder, and MF and VHF radios.

The ship maintains a folio of British Admiralty charts. Charts used for the approach to Gibraltar were BA 3578, 1448 and 144. These were corrected to the latest BA Weekly Notices held on board.

The working language of the ship is English and ISM documentation is in English.

The ship is operated by an experienced and reputable management company and has a good port-state inspection record.

## 1.3 NAVIGATIONAL CREW

At the time of the accident, *Samothraki* had a complement of officers and crew in excess of the requirements of the ship's Safe Manning Document. All the ship's officers were Greek and the crew comprised Greek and Filipino nationals.

The navigational crew on board *Samothraki* consisted of the Master, chief mate and two second mates. All were experienced seafarers and were holders of appropriate certificates of competency. The Master has served at sea for more than 25 years as master. In addition to his certificate of competency, the Master holds certificates of attendance at ECDIS, ARPA, Bridge Resource Management and Passage Planning courses. The navigational officer of the watch on duty at the time of the incident has, in addition to his certificate of competency, completed courses in Bridge Resource Management and Voyage Planning.

The Master had been on board the *Samothraki* for two months and had completed similar operations off Gibraltar on other ships.

At the time of the accident the Master was in charge on the bridge, manoeuvring the ship, and the second mate was engaged in fixing the ship's position and monitoring the ship's progress towards the rendezvous with the launch. The vessel was in hand steering. The Master gave helm orders to the rating at the wheel.

Prior to arrival at the RV position, the officer of the watch called the Master and placed the engine room staff on standby for manoeuvring. The ship's engineers manned the engine room throughout the incident.

During the approach to Gibraltar, the officer of the watch left the bridge for a short period to obtain a ship's official stamp in preparation for completing paperwork required by the launch, leaving the master and helmsman alone on the bridge.

The Master, second officer and rating reported that they had obtained sufficient rest prior to their periods of duty. This is confirmed by the Records of Hours of Work & Rest held on board.

#### **1.4 ENVIRONMENTAL CONDITIONS**

At the time of the accident the weather conditions were an Easterly wind of force 4 with moderate sea. The visibility was good. Predicted tides for Gibraltar Port indicated a High Water of 0.89 m at 0150 (UTC +1).

In the absence of strong winds, a weak current is reported to set southwards off the East side of Gibraltar, turning WSW round Europa Point. However, currents and tidal streams off the Europa Point may be modified by strong winds, particularly from the East and West. During the five days prior to the accident, the winds had been predominantly moderate Northeasterly. (Refer Admiralty Sailing Directions NP 67)

#### **1.5 NARRATIVE OF EVENTS (ALL TIMES UTC + 1)**

On 16<sup>th</sup> March 2007, the *Samothraki* was fully loaded, on passage from Libya, bound towards the United Kingdom, with a planned pause off Gibraltar to embark additional crew.

The passage plan provided for a rendezvous with a launch 1 n.mile East of Europa Point. On reaching the RV position, the plan was to turn to the South, away from the land, and to give the launch a lee from the Easterly wind and sea.

Two hours before arrival at the RV position, the vessel contacted Gibraltar Port by VHF Ch 12. The ship was monitoring VHF Ch 12, 16, 71

17<sup>th</sup> March 2007

0030 Approximately 15 n.miles ESE of Europa Point the OOW called the Master and 2<sup>nd</sup> Engineer for standby

0035 The Master entered the wheelhouse and assumed command. The OOW continued to fix the position of the ship by GPS and radar.

0100 OOW rang SBE and contacted Gibraltar Port on VHF to advise that the ship was proceeding to a position 1n.mile East of Europa Point with ETA 0145. At this time the auto helm was disengaged and the duty navigational watch rating commenced steering by hand.

0110 Tarifa Traffic was contacted by VHF Ch 10 to advise them of the intended operation.

0140 Echo sounder was turned on and correct operation confirmed

0144 OOW left the bridge for approximately 3 to 5 minutes

0153 The launch Polaco was alongside to transfer personnel and equipment and the ship heading on a Southerly course to transfer personnel

Between 0153 and 0200 the ship touched bottom and quickly developed a starboard list. Transfer of personnel had been completed. Transfer of equipment/luggage was suspended and the Polaco pulled clear of the ship.

0153 - 0242 No positions recorded on the chart

0153 – 0203 Using engines and helm, the Master manoeuvred the ship free and proceeded southwards

0242 Position on the chart by GPS indicates vessel approx 1 n.mile Southwest of Europa Point

0250 Gibraltar Pilot and Port Authority Boarding Officer boarded and vessel proceeding towards Eastern anchorage

0412 Anchored in position Lat. 36 07.5 N Long. 005 19.5 W

0440 GMA and Classification surveyors boarded to assess damage

1712 Initial damage assessment completed and ballast modified. Vessel considered safe to be proceed to a more sheltered anchorage. Weighed anchor and proceeded to Bay of Gibraltar with tug escort

1854 Anchored in Gibraltar Bay for further assessment and temporary repairs, prior to proceeding to a repair yard.

## **1.6 ENGINE READINESS**

The engine room was continuously manned with the Second Engineer in charge in the ER control room. The ship's engines were placed in a condition to enable rapid response to engine orders from the Master on the bridge.

## **1.7 PILOTAGE**

Pilotage is not compulsory for vessels engaged in off-port limits operations.

## **1.8 PORT CONTROL**

Gibraltar Port Control is manned 24 hours a day, 7 days a week, on a rotational basis by one port lookout operative, assisted as necessary by other port personnel on duty.

The Port does not have an effective VTS system.

The Port does not have radar coverage on the Eastern side of Gibraltar and does not monitor radar coverage in the Bay of Gibraltar. AIS information is received in the Port operations office from the MOD Maritime Data Centre, Windmill Hill. This information is subject to signal interruptions and delays and the displayed data is not in real time.

The role of the port lookout operatives does not involve radar monitoring or intervention in navigational situations.

There is no facility for the recording of VHF traffic.

It is normal practice for vessels transferring personnel, spares and stores off Europa Point to call Gibraltar Port Authority by VHF prior to the transfer. Launches providing offshore services should report to Port Operations by VHF prior to departure from the Port.

## **SECTION 2 - ANALYSIS**

### **2.1 AIM**

The purpose of the analysis is to determine the contributory causes and circumstances of the accident as a basis for making recommendations to prevent similar accidents occurring in the future.

### **2.2 TRANSFERS AT SEA**

Ship-to-ship and launch-to-ship transfers at sea are a common occurrence, both off Gibraltar and in many other parts of the world. Limitations on these operations are related to the sea room available in relation to navigational hazards and water depth, the degree of exposure to sea and weather conditions, the strength and direction of the wind, the proximity of other vessels and tidal and current streams and the handling characteristics of the vessels involved. In particular, for safe personnel transfers, the larger vessel must provide a suitable lee to enable the operation to be completed safely.. All of the above factors must be taken into consideration when pre-planning such operations, particularly when the operation takes place in close proximity to the coast.

The decision to rendezvous with the launch 1 n.mile off Europa Point was based on the information supplied to the Master by his agents in Gibraltar, previous experience of the Master when conducting similar operations off Gibraltar, the prevailing wind direction and the common practice of the port.

However, the RV position left very little margin for error, bearing in mind the draft of the Samothraki and the proximity of shallow water. Vessel traffic congestion near to the RV point and vessels anchored to the North of the RV point resulted in the Master having few options once the ship had passed the RV point. In addition, the prevailing Easterly current and wind at the time further exacerbated the Master's problems.

While there may have been sufficient sea room if the passage plan had been followed precisely, in exercising prudence and good seamanship, the Master should have been prepared for a departure from the plan, given the traffic density to be expected in the Straits of Gibraltar and the approaches to the bay of Gibraltar and the approach to a lee shore.

### **2.3 RENDEZVOUS POSITION**

While the rendezvous point may have been acceptable when there is little or no traffic, an RV position further South and further off Europa Point may have been more appropriate. For example, an RV position 2 n.miles South East of

Europa Point would have allowed the *Samothraki* to approach the coast away from the anchored vessels and remaining in deeper water.

## **2.4 ONBOARD RESPONSE**

Following the accident, the Master implemented procedures outlined in the emergency guidelines contained in the ship's ISM SMS, including communications and co-operation with the Gibraltar Port Authority, Gibraltar Maritime Administration, Classification Society and the management company's Emergency Response Team.

## **2.5 GIBRALTAR PORT**

Gibraltar port control operatives had no involvement in the actual grounding incident even though the accident occurred in their jurisdiction. Subsequently they were an integral and effective part of the emergency response provided by the Port.

The Port does not provide a navigational assistance service to assist on-board navigational decision-making and does not have the resources to monitor and provide such a service.

The Gibraltar Port Authority should consider developing a port control policy including a navigational assistance service. In line with this service there is also a case for Gibraltar Port Authority to take a more active role in the allocation of anchorage positions both in Gibraltar bay and in the Eastern anchorage.

Had this been the case and had the situation been monitored, timely advice may have assisted the master.

## **SECTION 3 – CONCLUSIONS**

### **3.1 SAFETY ISSUES**

The following are safety issues identified by the investigation. They are not listed in any order of priority:

The failure of the master to make a full and comprehensive appraisal of the situation and to take early action when it became necessary to depart from the voyage plan.

The failure of the master to ensure full and effective monitoring of the ship's position at a critical period during the approach to Gibraltar by permitting the OOW to leave the bridge.

The failure of the 2<sup>nd</sup> Officer and Master to effectively monitor the echo-sounder.

The constraints imposed by vessels anchored to the North and vessels manoeuvring adjacent to the RV area.

The lack of an effective VTS system for Gibraltar waters, capable of providing accurate monitoring and control of shipping movements and effective navigational assistance.

The lack of any defined limits for anchoring on the Eastern side of Gibraltar.

The lack of an exclusion zone adjacent to the coast of Gibraltar, in the vicinity of Europa Point.

## **SECTION 4 – RECOMMENDATIONS**

### **The owners / operators of *Samothraki* are recommended to:**

1. Ensure adequate operating procedures are promulgated in its safety management system in accordance with ISM to ensure:
  - Carefully planning of ship transfers in the vicinity of the coast, taking into consideration, but not limited to: proximity of shallow water, traffic density, navigational hazards, ship's handling characteristics at slow speeds and the prevailing currents, tides and weather conditions.
  - The provision of an effective bridge team at all times, appropriate to the intended operation.

### **The Gibraltar Port Authority is recommended to:**

1. Consider a port control policy aimed at providing a navigational assistance service.
2. Consider establishing a Southerly limit to the Eastern anchorage
3. Consider requiring all vessel anchoring within 3 miles of Gibraltar on the Eastern side to report to GPA with anchor position and basic ship information
4. Consider establishing an exclusion zone in the vicinity of Europa Point, up to 1 n.mile from the shore.
5. Consider requiring off-port limits transfers to be completed further offshore, and to the South East of Europa Point