



**REPUBLIC OF CYPRUS  
MARINE ACCIDENT AND INCIDENT  
INVESTIGATION COMMITTEE**

**Investigation Report No: 174A/2016 (Simplified)**

**Serious Marine Casualty**

**High Speed Craft “Mykonos Jet” under tow sinking in  
the East China Sea on the 29th of October 2016**





**MAIC**

Marine Accident and Incident Investigation Committee  
Cyprus

## Foreword

The sole objective of the safety investigation under the Marine Accidents and Incidents Investigation Law N. 94 (I)/2012, in investigating an accident, is to determine its causes and circumstances, with the aim of improving the safety of life at sea and the avoidance of accidents in the future.

It is not the purpose to apportion blame or liability.

Under Section 17-(2) of the Law N. 94 (I)/2012 a person is required to provide witness to investigators truthfully. If the contents of this statement were subsequently submitted as evidence in court proceedings, then this would contradict the principle that a person cannot be required to give evidence against themselves.

Therefore, the Marine Accidents and Incidents Investigation Committee, makes this report available to interested parties, on the strict understanding that, it will not be used in any court proceedings anywhere in the world.

This investigation was carried out as a joint investigation with Singapore Maritime Safety Authority.

# Contents

<b>FOREWORD .....</b>	<b>I</b>
<b>LIST OF ACRONYMS AND ABBREVIATIONS .....</b>	<b>II</b>
<b>1. SUMMARY OF THE MARINE CASUALTY .....</b>	<b>1</b>
<b>2. FACTUAL INFORMATION .....</b>	<b>2</b>
2.1. MYKONOS JET .....	2
2.1.1. <i>Ship Particulars</i> .....	
2.1.2. <i>Voyage Particulars</i> .....	
2.1.3. <i>Marine Casualty or Incident Information</i> .....	
2.2. SYMPHONY 14 .....	4
2.2.1. <i>Ship Particulars</i> .....	
2.2.2. <i>Voyage Particulars</i> .....	
2.2.3. <i>Marine Casualty or Incident Information</i> .....	
2.2.4. <i>Shore Involvement and Emergency Response</i> .....	
<b>3. NARRATIVE .....</b>	<b>7</b>
3.1. SEQUENCE OF EVENTS.....	7
<b>4. ANALYSIS .....</b>	<b>10</b>
<b>5. CONCLUSIONS .....</b>	<b>25</b>
<b>6. RECOMMENDATIONS.....</b>	<b>26</b>

# List of Acronyms and Abbreviations

AB	Able Seaman
C/E	Chief Engineer
C/O	Chief Officer
CoC	Certificate of Competency
CMT	Crisis Management Team
DPA	Designated Person Ashore
DO	Diesel Oil
DWT	Deadweight Tonnage
HSC	High Speed Craft
ISM Code	International Management Code for the Safe Operation of Ships
Knots	Speed in nautical miles per hour
Lat.	Latitude
Long.	Longitude
LT	Local Time
m	Meter
MC	Management Company
MRCC	Marine Rescue Coordination Centre
MT	Metric Ton
NAVTEX	Navigational Telex
NM	Nautical Mile
OOW	Officer of the Watch
PSN	Position
RPM	Revolutions per Minute
SAR	Search And Rescue
SMC	ISM Safety Management Certificate
SMM	Safety Management Manual
SMS	Safety Management System
SOLAS	Safety of Life At Sea Convention
STCW95	International Convention on Standards of Training, Certification and Watch keeping for Seafarers 1978, as amended
3/O	Third Officer
VHF	Very High Frequency
VTS	Vessel Traffic Services
UTC	Universal Time Coordinated
VHF	Very High Frequency Hand Held Radio (Walkie Talkie)
ZT	Zone Time

# 1. Summary

In conducting its investigation, the Marine Accident Investigation Committee (MAIC), reviewed events surrounding the accident, examined the ship's file kept by the flag administration, documents photographs and witness statements provided by the Singapore Maritime Safety Authority and the ship's Management Company and performed analyses to determine the causal factors that contributed to the accident. The analysis was based on the information which was possible to be collected. It was not possible to examine the submerged vessel in order to perform in depth analysis. Therefore, the causes of the accident were not established.

## Accident Description

On the 26<sup>th</sup> of October 2016, at 13.50 Hours LT, the Tug-Boat "Symphony 14" (under Singaporean flag) towing the HSC "Mykonos Jet" (under Cypriot flag), departed from Mokpo-South Korea. The general voyage plan was from Mokpo-South Korea via Singapore Straits and via Suez Canal to a shipyard in Greece for repairs. The HSC "Mykonos Jet" was provided with a certificate confirming its fitness to be towed. The fitness to tow survey included verification that the towing arrangement was in compliance with the approved tow plan and voyage plan. It also included an assessment of the suitability of the vessels involved towing equipment, passage planning, navigational equipment etc.

On the 29<sup>th</sup> of October 2016, at about 00:35 Hours LT, the aft draft of the HSC "Mykonos Jet" increased and got trim by the stern. There was very strong tension on the main tow wire from the HSC "Mykonos Jet" and the Tug-Boat "Symphony 14" started surging backwards.

At 01:00 Hours LT, the Tug-Master ordered to pay out the main towing wire to reduce the tension on it. At 01:20 Hours LT, the Tug-Master ordered to let go the main tow wire completely to the end, to avoid imminent danger to the Tug-Boat.

After the Tug-Boat released all the length of the towing wire, remained near the HSC "Mykonos Jet". Subsequently reported that the HSC "Mykonos Jet" submerged about 3/4<sup>ths</sup> of its hull. The Managers of the HSC "Mykonos Jet" requested assistance under Lloyds Open Form (LOF) terms. The Salvage company "Zhoushan Kamji Marine Agency Ltd" organized the salvage operation on an urgent basis. The Tug-Boat "Symphony 14" remained nearby HSC "Mykonos Jet".

At 01:30 Hours LT, the HSC "Mykonos Jet" sunk in position Lat. 29° 50'96 N - Long 123 ° 36'49 E, in the East China Sea (east sea area of Zhoushan city Zhejiang province of People's Republic of China).

The weather conditions at the time of the incident were NE winds 30-32 knots / 7 Beaufort, Sea state 6, with swell 3-4 meters.

The Master of the Tug-Boat "Symphony 14" broadcasted Navigational Warning to all vessels in the vicinity and reported to the Coast Radio Stations in the area.

Following the sinking of the HSC "Mykonos Jet", the vessel's Class was withdrawn on 29 October, 2016 for the reason of Constructive Total Loss (IACS code "1c").

## Conclusions

### Direct Cause:

Flooding of the Towing Object due to compromised watertight integrity for unknown causes.

### Contributing Cause(s):

Environmental conditions such as sea state and wind force, may have been a contributing factor in the accident.

### **Recommendations:**

Due to the fact that the causes of the accident were not possible to be established, there are no safety recommendations.

## 2. Factual Information

### 2.1. MYKONOS JET



**HSC “Mykonos Jet” under tow.**

**Photo taken after departure from South Korea - Date: Unverified (27th or 28th October)**

#### **Ship Particulars**

Name of ship: **Mykonos Jet**

IMO number: **9192935**

Call sign: **5BPB4**

MMSI number: **209054000**

Flag State: **Cyprus**

Type of ship: **High Speed Craft RO-RO/PASSENGER**

Gross tonnage: **5889**

Length overall: **113.45m**

Breadth overall: **16.50m**

Classification society: **RINA**

Registered shipowner: **Paracudo Shipping Ltd**

Ship’s company: **Seajets Maritime Company**

Year of build: **2000**

Deadweight: **598**

Hull material: **Aluminium Alloy**

Hull construction: **Single Hull Catamaran**

Propulsion type: **Diesel (6), Jet propeller, 6 X 6083 KW, Caterpillar, Speed=38knots**

Type of bunkers: **Marine Diesel**

Number of crew on ship’s certificate: **12**

### 2.1.1. Voyage Particulars

Port of departure: **Mokpo-South Korea**  
Port of call: **Shipyard in Greece via Suez-Egypt**  
Type of voyage: **International**  
Cargo information: **N/A**  
Manning: **0 (Unmanned)**  
Number of passengers: **0**

### 2.1.3 Marine Casualty or Incident Information

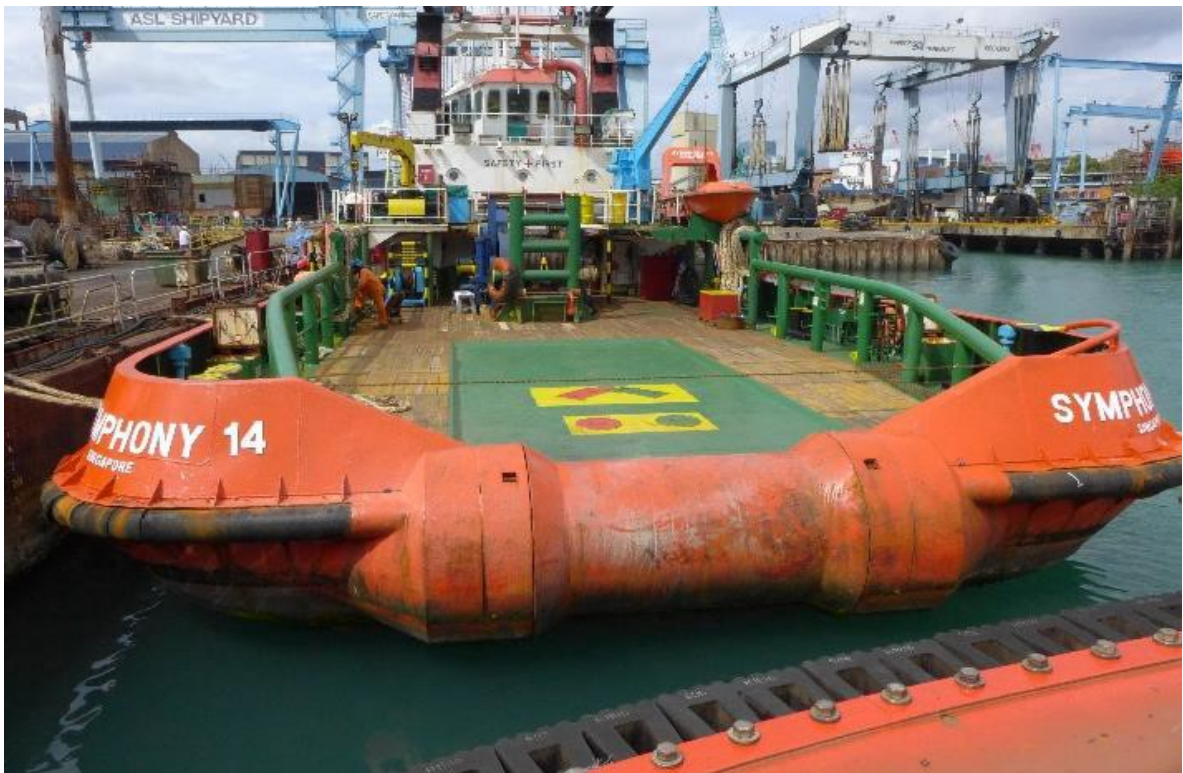
Type of marine casualty/incident:	<b>Serious Marine Casualty</b>
Date/Time:	<b>29/10/2016 @ 01:00 Hours ZT</b>
Location:	<b>Sea (South China Sea)</b>
Position (Latitude/Longitude):	<b>Lat.: 29° 50'.96N – Long.:123° 36' 49E</b>
External and Internal Environment:	<b>Sea State: NE/6 Rough to Very Rough, Wind: NE/7B Near Gale, Night, Clear, Visibility good</b>
Ship operation and Voyage segment:	<b>Under Tow</b>
Human Factors:	<b>NO</b>
Consequences:	<b>Total Loss – HSC Mykonos Jet Sunk (The HSC under tow in dead condition is considered as cargo)</b>



## 2.2. SYMPHONY 14



The Tug-Boat “Symphony 14” viewed from forward



The Tug-Boat “Symphony 14” viewed from aft

### 2.2.1. Ship Particulars

Name of ship: **Symphony 14**  
IMO number: **9549827**  
Call sign: **9V7911**  
MMSI number: **564253000**  
Flag State: **Singapore**  
Type of ship: **Anchor Handling Tug**  
Gross tonnage: **475**  
Length overall: **37.00 m**  
Breadth overall: **11.40 m**  
Classification society: **NKK**  
Registered shipowner: **Regulus Ship Services Private Limited**  
Ship's company: **Regulus Ship Services Private Limited**  
Year of build: **2009**  
Deadweight: **330**  
Hull material: **STEEL**  
Hull construction: **Single Hull**  
Propulsion type: **Diesel**  
Type of bunkers: **Marine Diesel**  
Number of crew on ship's certificate: **7**

### 2.2.2. Voyage Particulars

Port of departure: **Mokpo-South Korea**  
Port of call: **Shipyard in Greece via Suez-Egypt**  
Type of voyage: **International**  
Cargo information: **The HSC "MYKONOS JET" is considered as cargo**  
Manning: **13**  
Number of passengers: **2**

### 2.2.3. Marine Casualty or Incident Information

Type of marine casualty/incident: **Serious Marine Casualty**  
Date/Time: **29/10/2016 @ 01:00 Hours ZT**  
Location: **Sea (South China Sea)**  
Position (Latitude/Longitude): **Lat.: 29° 50'.96N – Long.:123° 36' 49E**  
External and Internal Environment: **Sea State: NE/6 Rough to Very Rough, Wind: NE/7B Near Gale, Night, Clear, Visibility good**  
Ship operation and Voyage segment: **Towing the HSC "Mykonos Jet"**  
Human Factors: **NO**  
Consequences: **Total Loss – HSC "Mykonos Jet" Sunk (The HSC under tow in dead condition is considered as cargo, therefore the accident for the Tug "Symphony 14" is considered as serious and not very serious)**

### 2.2.4. Shore authority involvement and emergency response

Tug-Boat's "Symphony 14" Master broadcasted Navigational Warning to all vessels in the vicinity and reported to the nearest Coast Radio Stations.  
The Maritime Safety Authority (ZHOUZHAN MSA) of the People's Republic of China, sent the below message to the Owner of the HSC "MYCONOS JET".



## Quote

### Request to organize safety & anti-pollution measure for wreck “MYCONOS JET” IMMEDIATELY

To: Owner of “Mykonos Jet”

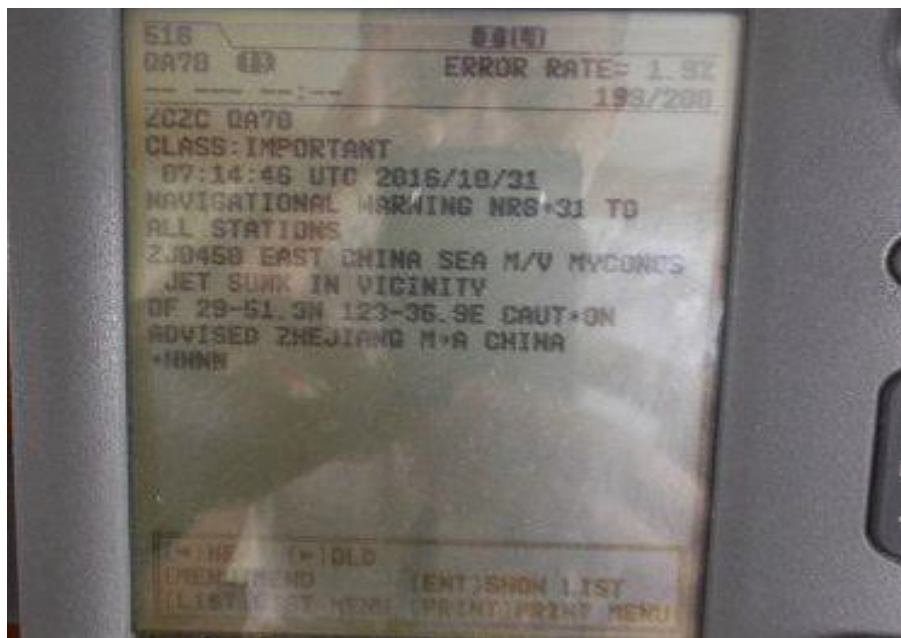
Based on the current report, your good company’s vsl “MYCONOS JET” sank in the east sea area of Zhoushan city Zhejiang province of People’s Republic of China at 0130 LT 30th OCT2016. Currently, the specific location of the wreck is unclear, it has seriously threatened safety of all vessels navigation. Due to possibility of some ROB oil, it may cause huge damage for the ocean environment, fishery resources and coastal landscape for the around sea area and islands. In order to protect the ocean environment, resources and to ensure the safety of all vessels navigation, based on the stipulation of our Chinese Law < Maritime Traffic Safety Law of the People’s Republic of China >, <Law of the People’s Republic of China on exclusive economic zone and the continental shelf >, <The Maritime Environmental Protection Law of the People’s Republic of China> etc, hereby notify as follows:

- 1, Immediately implement the necessary on-site guard, warning and pollution prevention measures for accident area.
- 2, Immediately organize the sweeping survey, confirm the position, damage condition, water depth of the wreck also the oil leakage situation, to be ready as earlier as possible for next step countermeasure.
- 3, Immediately urged related parties & persons to be under investigation from relevant authorities.

ZHOUSHAN MSA OF PEOPLE’S REPUBLIC OF CHINA

2nd-NOV-2016

## Unquote



Nav-warning broadcast on “Mykonos Jet” Sinking



**The Tug-Boat SYMPHONY 14, towing the MYKONOS JET, across the East China Sea. Photo taken after departure from South Korea -Date: Unverified (27th or 28th October)**

## 3. Narrative

### 3.1. Sequence of Events

1. On the 26th of October 2016 at 13:50 Hours LT, the Tug-Boat “Symphony 14” (under Singaporean flag) towing the Tow Object HSC “Mykonos Jet” (under Cypriot flag), departed from Mokpo, South Korea. General voyage plan from Mokpo-South Korea via Singapore Straits and then via Suez Canal to shipyard in Greece for repairs. The Tug-Boat “Symphony 14” was towing the HSC “Mykonos Jet”. The HSC “Mykonos Jet” was on a “Dead Ship Condition”, and without crew and passengers on board. (Dead ship condition is the condition under which the main propulsion plant, boilers and auxiliaries are not in operation due to the absence of power. (Source: IMO Resolution A.1023(26)).

2. On 29/10/2016 at 00:35 Hours LT, the Officer of the Watch (OOW) on the Navigation Bridge of the Tug-Boat “Symphony 14” noticed that the aft draft of the HSC “Mykonos Jet” increased and got trim by the stern. (He noticed that her sidelights were looking higher than before). At the same time, the Third Engineer (3/E) who was in the Engine Room (ER) stated that he felt two “heavy vibrations”, then rushed to the Bridge.
3. At 00:40 Hours LT, there was very strong tension on the main tow wire from the HSC “Mykonos Jet” and the Tug-Boat “Symphony 14” started surging backwards.
4. At 00:45 Hours LT, the OOW focused the Tug-Boats’ aft flood light towards the HSC “Mykonos Jet” and realised that the HSC “Mykonos Jet” started sinking by her stern. The Chief Engineer (C/E) arrived on Bridge. The C/E using the winch control lever on Bridge, started slackening the main tow wire to reduce the tension on it. The Duty AB went down to call the Master and Chief Officer (C/O) on Bridge and crew to go for stand-by on deck.
5. At 00:48 Hours LT, the 3/E went down to call the Mykonos Jet’s Owners representatives, i.e. Master and Bosun, both Greek nationals on Bridge.
6. At 00:50 Hours LT, the stern’s sinking increased and the bow of the HSC “Mykonos Jet” became upright to the waterline. The Tug-Master heard the Duty AB shouting “vessel sinking” and rushed to the Bridge. The Bosun was called by the Duty AB and then he called all ABs and the Fitter to go on deck to assess the situation and if necessary to cut the tow wire. For this purpose, he prepared with his team the gas cutting torch.
7. At 00:52 Hours LT, the Tug-Master and the Greek Master and Bosun went on the Bridge.
8. At 00:55 Hours LT, at Position Lat. 29 ° 51’25N – Long. 123 ° 36’50E, the Tug-Master reported that the Tow HSC “Mykonos Jet” was taking water and its water line had changed.
9. At 01:00 Hours LT, the Tug-Master Master ordered the C/E to pay out the main tow wire to reduce the tension on it. The C/E slackened the main tow wire. The tension on the main tow wire was increasing due to the sinking of the HSC “Mykonos Jet” and the Tug-Boat was surging backwards.
10. At 01:05 Hours LT, the 3/E knocked the cabin door of the Chief Officer (C/O) and informed him that the HSC “Mykonos Jet”, begun sinking. The C/O rushed to the Bridge. On the Bridge were the Tug-Master, the, OOW, the C/E, and the Greek Master and Bosun.  
  
The C/E was paying out the main tow wire. The Tug-master ordered the C/O to go on deck to supervise the preparations for cutting the main tow wire (in case it doesn’t work the emergency release).
11. Tension on main tow wire continued increasing, due to sinking of the HSC “Mykonos Jet”. Tug-Boat “Symphony 14” was surging backwards. The C/O reported that due to the tension on main tow wire, it wasn’t possible to cut it by the gas cutting torch.
12. At 01:20 Hours LT, the Tug-Master ordered crew on deck to let go the main towing wire completely to the end, to avoid imminent danger of surging to the sea bottom of the Tug-Boat. Tug-Boat course =192° and speed =4.3 knots.
13. HSC “Mykonos Jet” was progressively sinking.

14. On 29/10/16, at approximately 01:30 Hours LT, the HSC “Mykonos Jet”, sank in position Lat. 29°50' 96 N - Long 123°36' 49 E in the East China Sea. Her stern touched the sea bottom and about 15m of the fore part, were extending over the sea level.
15. During the sinking of the HSC “Mykonos Jet”, the Tug-Boat “Symphony 14” manoeuvred in order to save it. While manoeuvring, got a fishing net on its stbd propeller. From that time, its stbd Main Engine was out of order.
16. The Weather conditions at the time of incident were Wind: NE/7B 30-32 knots, Sea state:6 with Swell 3-4 m.
17. The Master of the Tug-Boat “Symphony 14” transmitted a Navigational Warning to all vessels in the vicinity and reported to the nearest Coast Radio Stations.
18. The Charterers made arrangements for the Salvage Tug “Dong Hai Jiu 112”.
19. On 30/10/16 at 07:10 Hours LT, the Tug-Boat “Symphony 14” and the Salvage-Tug “Dong Hai Jiu 112”, reached the location of the sinking. At that time, the ex-Tow Object HSC “Mykonos Jet” bow, was not visible above the water, she was fully sunk.
20. After one hour, the Salvage-Tug “Dong Hai Jiu 112” was instructed by its owners to leave.



**On the 29th of October 2016, at 01:30 Hours LT, the HSC “Mykonos Jet” sank in position Lat. 29° 50'96 N - Long 123 ° 36'49 E, in the East China Sea**

## 4. Analysis

*(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).*

The following analysis is based on documents provided by the HSC “Mykonos Jet” Management Company (MC) and statements from the crew of the Tug-Boat “Symphony 14”.

TSIB Singapore Investigators, boarded the Tug-Boat “Symphony 14” “when called at Singapore and carried out interviews with the Tug-Master, Officers and Crew.

### 4.1 The Crew

#### **Manning level**

At the time of the incident, the Tug-Boat “Symphony 14” was manned in excess of the vessel’s Minimum Safe Manning Document. There was sufficient crew on board taking into account the duration of the tow, environmental conditions to be encountered and the possibility of emergency requirements as well as normal watchkeeping arrangements.

*Manning level was not considered as a factor to the accident*

#### **Alcohol Impairment**

Although no alcohol test was carried out after the incident, there was no evidence that alcohol or drugs were taken by any of the crew members involved.

*Drugs and alcohol was not considered as a factor to the accident.*

#### **Fatigue**

There was no evidence to suggest, that, fatigue was a contributory factor to the accident.

*Fatigue was not considered as a factor to the accident.*

#### **Working and Living Conditions**

*There was no evidence to suggest, that, the working and living conditions was a contributory factor to the accident.*

#### **Physiological, Psychological, Psychosocial Condition**

The crew members of the Tug-Boat “Symphony 14”, were holders of medical certificate for service at sea.

*There was no evidence to suggest that their physical, physiological, psychological, or psychosocial condition was such that could have contributed to the accident. They were physically and mentally fit to perform their job.*

## 4.2 The Ships (The Tug and the Tow)

### 4.2.1. The Tug Boat “Symphony 14”

Owner: EAST COAST TOWING LIMITED

IMO Number: 9549827

Flag: SINGAPORE

Registration Port: SINGAPORE

Class: NKK

Call Sign: 9V7911

Gross Tonnage: 476 GT

#### Classification

The Tug Boat “Symphony 14” was provided with Class Certificate issued by NKK in full validity.

#### Towing survey.

At the request of Owner’s representative, the NKK Surveyor had attended the Tug Boat, while she was berthed in the port of Mokpo-Korea and carried out towing survey. Upon satisfactory completion, a **Towing Statement** had been issued.

NKK Surveyor issued the below report:

#### Quote

During the towing survey on 25/10/2016, it had been verified the towing arrangement and material documents according to approved towing arrangement plan (approved on 21/10/2016 with No. PYST-3222). Upon satisfactory verification, the **Towing Statement** (No. 2016/PU/1620-007) had been issued.

1. Main towing line, 50mm Dia, 640m length, S.W. L 1660 KN, (Certificate of product issued by CCS on 13/01/2009 with No. NT09P00053\_15 and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-7)
2. Towing pennant line, 50mm Dia, 60m length, S.W.L 35.4 Ton, (Certificate of Testing and examination issued by Kim, Test Certificate on 12/06/2009 with No. KIM AF325-2 and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-8)
3. Tow towing pennant line (W53614/1-1 & 2), 48mm Dia, 20m length, S.W. L 29.6T (Certificate of Test and Examination issued by Liftek on 12/05/2016 with No. LFTK/16-1965 and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-9)
4. Tow anchor chain, 56mm Dia, 16.5m length, S.W.L 2430 KN (Certificate of Conformity issued by Emirate Safety Services LLC on 15/08/2011 with No. L788 and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-11) Form VISITE 2 – 02/2015
5. Delta plate, S.W.L 1177.2 KN (120T) (Certificate of test and thorough examination of lifting equipment issued by Emirate Safety Services LLC on 15/08/2011 with No.C 14951W and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-10)
6. Four (4) of Bow shackles, S.W.L 539.55 KN(55T) (Certificate of test and examination issued by Bridge Testing Centre LTD on 11/06/2009 with No.M8395 and Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-2).  
Five (5) of Bow shackles, S.W.L 539.55 KN(55T) (Certificate of thorough examination issued by Aries Marine & Engg. Services on 14/09/2016 with No.LT 1926-3).

#### Unquote



## 4.2.2. The HSC “Mykonos Jet”

The HSC “Mykonos Jet” was in Laid - Up condition under the name “QUEEN STAR” at Mokpo, Korea. Her class was suspended by the Korean Register of Shipping (KR).

At the request of the vessel’s Owner, on 21/01/2016, an Occasional Survey for Laying-Up was carried out by the KR and found in order all the examined items. The Survey confirmed the Laying-Up period from 22/01/2016 to 21/01/2017.

The examined items were:

1. General condition of hull above waterline
2. Laying-Up condition and anchoring arrangements
3. Lightings and whistle
4. Sanitary and accommodation condition
- 5. General operating condition of machinery and electrical installation**
6. Firefighting and life-saving equipment
7. Drainage arrangements
8. Radio apparatuses for communication to shore

The Greek Company SEAJETS bought the HSC “Mykonos Jet” and provisionally registered her on 23/09/2016 in the Cyprus Register of Ships, on a Non- Navigation Basis.

SEAJETS had taken a commercial decision to tow the vessel without main engines operating and bring it to Greece for repairs. It is noted that the examination on 21/01/2016, during the Occasional Survey for Laying-Up, found in order the general operating condition of machinery and electrical installation (above item 5).

The Recognized Organization (RO) of the SEAJETS was the Russian Register and the new Class Society of the vessel was RINA.

### **RINA Surveyor Report before sailing**

At the request of SEAJETS, RINA Surveyor had attended the vessel at the port of Mokpo-Korea, in order to carry out the Admission to Class survey and allow the vessel to carry out a single voyage in towing condition from Mokpo, Korea to Piraeus (Greece).

RINA Surveyor issued the below report:

#### **Quote**

Upon request of Owner's representative, the undersigned surveyor has attended the vessel while she was in berthing condition in the port of Mokpo, Korea, in order to carry out the Admission to Class survey and allow the vessel to carry out a single voyage in towing condition from Mokpo, Korea to Piraeus (Greece). The ship was at the time of the survey in lay-up condition, as also confirmed in the Laying Up Society survey status (Korean Register of Shipping).

The following ascertainties were satisfactorily carried out:

- bottom in water survey;
- hull renewal survey commencement, except survey operations connected with the drydock **(Class Machinery notation was not assigned being ship's machinery totally inoperative at the time of the survey);**

- Design Assessment by Pusan Plan Approval Center for granting the single voyage in towing condition from Mokpo, Korea to Piraeus (Greece);

- occasional survey for granting the single voyage in towing condition from Mokpo, Korea to Piraeus (Greece). In water survey has been carried out by a diving company duly certified on 17 - 18 of October. **No damages/defects have been found affecting integrity of hull structure.** Minor damages were found at the after end of all four stabilizers. These minor damages have been verified not affecting at all the ship's hull integrity as stabilizers are an independent rotating fin and its shaft sealing was verified with no any damage/trace of leakage. Being stabilizers not covered by Class rules, only an information memoranda has been issued on the survey status.

Within the scope of the hull renewal survey commencement and the occasional survey for granting the single voyage in towing condition from Mokpo, Korea to Piraeus (Greece), the following ascertainments were satisfactorily carried out:

a) internal inspection of all accessible compartments (fore peak tank, void spaces) has been carried out with satisfactory results and found in good condition, no structure damages and no trace of leakage.

b) thickness measurements have been carried out by a RINA approved Company (thickness measurements are to be completed with ship in drydock) **to confirm ship's hull structures soundness to undertake the voyage**, to the satisfaction of the attending surveyor. The thickness measurements have been taken in way of: - the required three transverse section (Frames 28, 35 and 40) - the fore peak tank - the wind & water strakes - the stern ramp - the exposed forward mooring deck - the engine room structure **found all within allowable limits.** See enclosed thickness measurement report. A recommendation has been issued with remaining thickness measurements to cover the full scope of renewal survey (remaining UTM to be taken in drydock: keel plates full length, plating of sea chests and shell plating in way of overboard discharges as considered necessary by attending surveyor).

c) visual inspection with satisfactory results has been carried out of the following items: - superstructures integrity verified including any ventilation duct and relevant closing systems, all side scuttles and windows integrity and proper closure, all external doors integrity and proper closure - mooring and anchoring equipment satisfactory condition - all exposed hatches integrity and proper closure/locking - all side shell doors integrity and proper closure/locking - stern ramp satisfactory condition - air pipes heads satisfactory condition - all ro-ro spaces inspection confirming no structural damages and no trace of leakages - engine room inspection confirming no structural damages and no trace of leakages - all the sea chests and overboard valves thorough inspection confirming full integrity, closing arrangement effectiveness and satisfactory condition - shafts sealing arrangement satisfactory verification.

As regards the statutory surveys, a general examination has been carried out in order to confirm that the ship is in condition to perform the said voyage. Upon satisfactory result of the above mentioned surveys, the **Class Certificate (assigned Class Hull notation only)** and relevant statutory certificates, upon authorization of Cyprus Flag administration (ref.no:RCS 9192935-01-1871-2016), have been issued to allow **one single voyage in towing condition, without cargo and persons on board, in favorable weather conditions (sea condition not exceeding 5 degrees of the Beaufort scale) and speed not exceeding 5 knots, from Mokpo, Korea to Piraeus, Greece.**

Unquote



**Stern view of HSC “Mykonos Jet”, showing: Port ramp door for passengers, Centre ramp door for vehicles, Starboard ramp door for passengers  
Class Assessment (for admission to Class): Port of survey MOKPO-South Korea. Date of survey 25/10/2016: - Outside shell plate with doors and steering device have been inspected visually and found in good condition**



**Passengers ramp door**



**Close-up view of the hydraulic locking (fail safe) arrangement**



**Inside engine room – (was reported in dry condition)**



**Inside engine room – (was reported in dry condition)**



**Inside engine room – (was reported in dry condition)**



**Vehicles deck– (was reported in dry condition) - Ro-Ro space (garage deck) visual inspection before sailing found it in good condition**



**Tug-Boat “Symphony 14” full length of the primary tow wire was released from the wire clamp during sinking of the HSC “Mykonos Jet”**



**The Wire clamp of the tow wire which was released during the sinking**



**Navigation Chart used on Tug-Boat “Symphony 14”**



**Chart used on Tug-Boat “Symphony 14” - Location at the time of the incident**

## 4.3 The Environment

According to the Master's Sea Protest: "the incident is a consequence of bad weather, encountered heavy weather conditions with NE wind 6 BS (22 – 27 m/sec) and sea 5 BS (Height 2,5- 3,0m)". According to an e-mail message sent within the Tug's "Symphony 14" Management Company (MC) by the Technical Manager to the Marine Safety Department, the weather conditions at the time of the incident were NE winds 30-32 knots / 7 Beaufort, with swell 3-4 meters.

A dedicated company specialized in Weather forecasting (<http://www.wriwx.com>) was assigned by the insurers to follow the voyage and issue regularly weather bulletin to ship Owner. The Tug Owner, was needed to send regularly weather bulletin to the ship Owner. In case of significant discrepancy of the two bulletins received, the ship Owner needed to approach a third independent company specialized in Weather forecasting and take in consideration their suggestions for the safety of the journey.

Not any weather bulletin from the dedicated company specialized in Weather forecasting was presented to the Investigators.

NAVTEX warnings which were presented to the Investigators were for the 02 October and 03 October 2016. These dates are not related to the accident. They may have been the latest NAVTEX warnings received after sailing, given the NAVTEX range is roughly 250NM.

Below is the Tug-Master's "Sea Protest describing the weather encountered.

### Quote:

**I, .....Master of the tug boat Symphony 14 of Singapore registry, IMO No. 9549827 and 476 GT, which sailed from port Mokpo (S. Korea) on the 26 of October 2016 towing vessel "Mykonos Jet", IMO # 9192935 and 5889 GT, across the East China sea, bound for Singapore.**

**Fearing that, notwithstanding all measures of good seaman ship taken by my crew and me, and it is obvious that some damage was done to said vessel "Mykonos Jet" by reason of heavy weather conditions with wind from NE Force 6 BS (22-27 m/s), and sea 5 BS (high 2, 5-3, 0 m) encountered during 28 of October to 29 of October 2016. The tugboat "Symphony-14" and tow "Mykonos Jet" suffered rolling and pitching heavily, shipping water fore and aft. At navigation in the specified rough sea condition object "Mykonos Jet", owing to the small drafts, at a fair wind, excitement, under weight of tow wire, sunk unexpectedly in position: lat. 29 51,25'N, long. 123 36, 93'E.**

**During the aforementioned heavy weather conditions the tug boat "Symphony-14" was obliged to reduce speed for the safety of the towing. In towing under such difficult weather conditions, the tow line was paying out until 400 m.**

**On October 29, at 00:35 Tow vessel "Mykonos Jet" started to trim astern, at 00:45 the main tow wire was slacken out to reduce the tension on it, but tow Vessel suddenly started to sink from astern and her bow became upright above the waterline. At 01:20 we have to let go completely our main towing wire up to end, to avoid imminent danger to our vessel "Symphony 14" as it was jeopardizing with the safety of our crew and vessel.**

**I hereby note my sea protest against any claims by all persons or person whom it shall or may concern and declare that all and every damage and loss sustained by the said tug "Symphony-14" and tow "Mykonos Jet" in consequence of the bad weather aforesaid and shall be borne by those who, according to the laws and customs of the sea, shall bear the consequences thereof, the same having occurred as above-stated and not by or through the want of care of my crew or myself.**

### Unquote



## 4.4 Safety Management

### **Letter issued by the Cyprus Department of Merchant Shipping (DMS)**

The DMS issued a letter to the Classification Society, RINA Piraeus with C.C.: SEA JETS, stating that it would have no objection to allow the HSC “Mykonos Jet” to sail from Pusan, Korea to Piraeus, Greece, under tow, provided that the requirements set by IMO Res. A.765(18) and IMO MSC Circ.884 and IMO Res. A. 749(18) as well as the requirements set by RINA and all safety precautions that prudent seamanship requires are fulfilled.

In order to confirm that the HSC “MYKONOS JET” would be in condition to perform the intended voyage, the DMS letter stated that a **Short-Term HS RO-RO Passenger craft certificate** should be issued by RINA, valid for the voyage from Pusan to Piraeus.

Also, the DMS letter stated that upon satisfaction of the attending RINA Surveyor or the Towing Master regarding the voyage plan which should be prepared by the shipowner, a **Towing Statement** for the intended voyage could be issued by RINA.

The above-mentioned requirements of the DMS had been fulfilled by RINA, with the issue of a Short-Term Certificate of Class and Towing Statement (For fitness to proceed in tow from Mokpo, South Korea to Suez) as below:

#### **Short Term Certificate of Class**

A Surveyor from the Classification Society RINA, surveyed the “Mykonos Jet” at Mokpo-South Korea and issued on 25/10/2016 a Short Term Certificate of Class valid until 24/02/2017.

She had been assigned the class C\*Hull, HSC-B-MONO; Ro-Ro Passenger Ship; Unrestricted. Under two conditions (Remarks):

1) the certificate is valid for one single voyage in tow, without cargo and person, in favorable weather conditions, (sea condition not exceeding 5 degrees of the Beaufort scale) and speed not exceeding 5 knots, from Mokpo, Korea to Piraeus, Greece for Ship’s repair facility.

2) Service notation for Class assigned Hull notation only.

Service: Ship intended one single voyage in tow, without cargo and person, in favorable weather conditions.

Navigation: Unrestricted

#### **Towing Statement (For fitness to proceed in tow from Mokpo, Korea to Suez)**

A surveyor from the Classification Society RINA, attended the MYKONOS JET at Mokpo-South Korea on 25/10/2016 in order to ascertain the fitness to proceed in tow from Mokpo, Korea to Suez and issued a Towing Statement valid until 24/02/2017, stating that she will be towed by the Tug Boat “SYMPHONY 14” - IMO 9549827 and that, during the survey, it had been checked that towing arrangements were in accordance with approved drawing (Approval no. PYST-3222 on 21/10/2016), material documentation verified and found in good condition and that the Tug-Master should operate in ballast condition and in fair weather and sea conditions.

## Towing Plan Approval by RINA

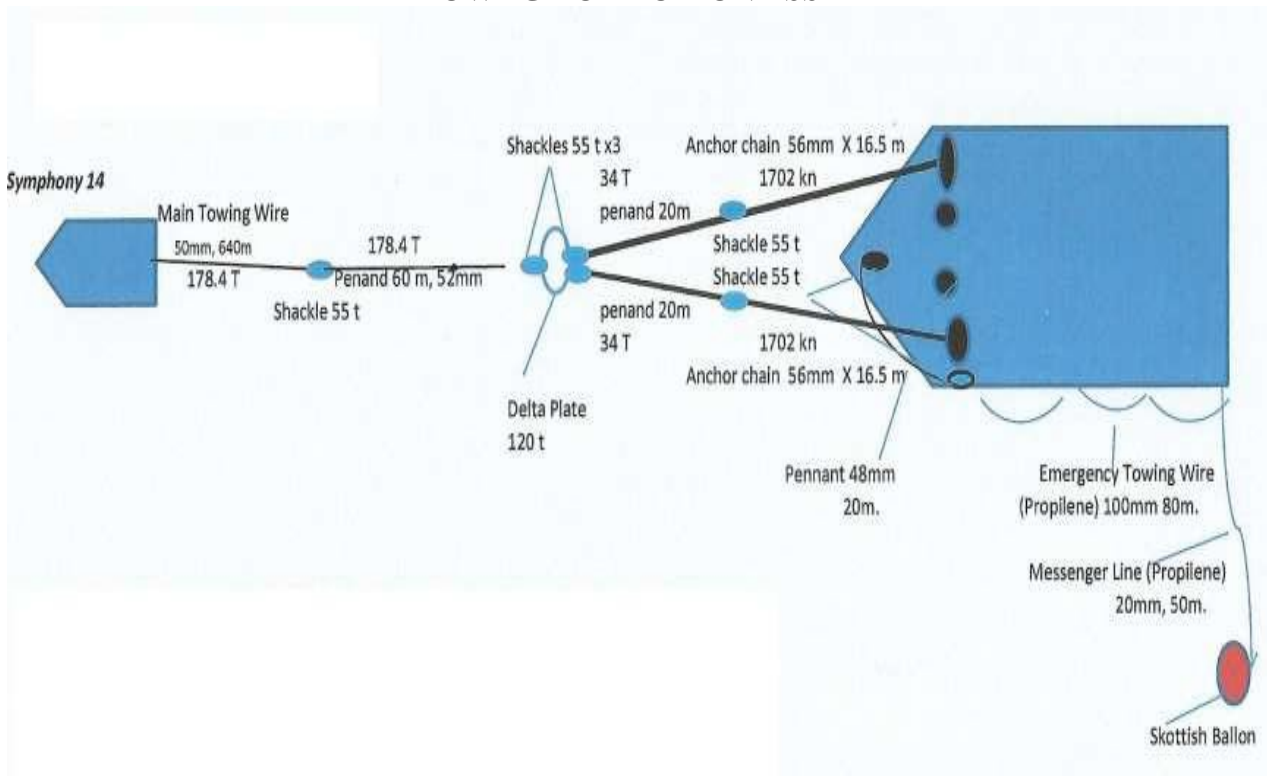
Towing plan was approved by RINA and relevant Towing Statement was issued.



### General Remarks:

- Approved in order to issue the statement of compliance of the towing plan with the requirements of RINA L.C. No.IV/1568 of 06/05/1983
- The approval refers only to the towing plan and not to the strength of the towed or towing item
- The approval doesn't refer to the arrangement of the emergency towing plan
- Approve considering Bollard Pull equal to 468.75 kN (47.80 MT)
- All equipment assumed to be made of steel (except as noted)


## VOYAGE FROM MOKPO KOREA TO SUEZ EGYPT TOWAGE OF RO-RO VESSEL



**Towing Arrangement plan** (Approved in order to issue the statement of compliance)

# Voyage plan

The voyage plan for the voyage, provided for places of shelter and ports of shelter.

 <p>REGULUS SHIP SERVICES PTE LTD Reg. No: 1202912079W 3 International Business Park #02-24 Nordic European Centre Singapore 039227</p>										<p>Form : Issue : Date : 27.06.2015 Approved :</p>				
<b>SAFETY MANAGEMENT MANUAL</b>														
<p><b>D - 07</b> Symphony- 14 GPS ROUTE: 04</p>		<p><b>PASSAGE PLAN</b> (SEA PASSAGE) -</p>												
<p><b>FROM: MOKPO</b></p>		<p><b>TO: SUEZ</b></p>		<p>Distance: <b>7010.7</b></p>										
No	WP	LAT			LONG			COURSE	Dist.	TO GO	Position fix int.	CPA/PI DIST	UKCL m	REMARKS/CROSSING, TRAFFIC, TRAFFIC SEPARATIONS, REPORTING, ETC)
	GPS	deg.	min	N/S	deg.	min	E/W							
1	52	34	00.00	N	125	41.20	E	209°	173.3	7010.7				BA 3928,1007,3365,3480,2412,1761,1760,1968,3488
2	53	31	29.00	N	124	00.00	E	192°	228.1	6837.4				MOKPO TO SINGAPORE THROUGH YELLOW SEA, EAST CHINA SEA TO TAIWAN STRAIT, SOUTH CHINA SEA
3	54	27	46.00	N	123	5.00	E	225°	330.9	6609.3				PLACE OF SHELTER : ISLANDS TAIWAN, PARASES AND ANAMBAS
4	55	23	52.00	N	118	45.00	E	238°	284.9	6278.4				PORT OF SHELTER : SHANGHAI, HONG KONG, KAMRAN, WUNGTAU
5	56	21	22.10	N	114	22.50	E	190°	540.4	5993.5				SINGAPORE
6	57	12	30.00	N	112	44.00	E	214°	604.7	5453.2				BA 3482, 3833, 3902, 2403
7	58	4	10.00	N	107	00.00	E	240°	103.8	4848.5				SINGAPORE STRAIT REPORTING
8	59	3	18.00	N	105	30.00	E	207°	121.6	4744.7				SECTOR 9 CH#10
9	60	1	30.00	N	104	34.00	E	233°	18.7	4623.1				SECTOR 8 CH#14
10	61	1	18.80	N	104	19.00	E	261°	19.3	4604.4				SECTOR 7 CH#73
11	62	1	15.65	N	104	00.00	E	247°	13.5	4585.1				SINGAPORE TO ADEN
12	63	1	10.40	N	103	47.60	E	237°	3.7	4571.6				THROUGH MALACCA STRAIT, BAY OF BENGAL, ARABIAN SEA GULF OF ADEN
13	64	1	8.40	N	103	44.50	E	302°	5.3	4567.9				
14	65	1	11.20	N	103	40.00	E	282°	14.8	4562.6				
15	66	1	14.40	N	103	25.50	E	306°	45.1	4547.8				
16	67	1	40.90	N	102	49.00	E	296°	37.9	4502.7				
17	68	1	57.70	N	102	15.00	E	310°	57.3	4464.8				
18	69	2	34.50	N	101	31.10	E	296°	34.5	4407.5				
19	70	2	49.60	N	101	00.00	E	324°	6.7	4373.0				
20	71	2	55.00	N	100	56.10	E	309°	15.6	4366.3				
21	72	3	4.90	N	100	44.00	E	262°	3.0	4350.7				
22	73	3	4.50	N	100	41.00	E	314°	202.4	4347.7				MALACCA STRAIT
23	74	5	24.00	N	098	14.00	E	285°	179.4	4145.3				BA CHART 3901, 3919, 3940, 3946
24	75	6	11.00	N	095	20.00	E	268°	557.1	3966.0				
25	76	5	54.00	N	086	00.00	E	269°	328.3	3408.8				TSS SRILANKA DONDRA HEAD
26	77	5	49.00	N	080	30.00	E	-	-	-				

SEE NOTE BELOW.

**NOTES**

- ALL POSITIONS TO BE VERIFIED BY ALTERNATIVE METHOD. AT OPEN SEA: GPS COMPARISON, COASTAL AND PILOTAGE: RADAR/VISUAL/GPS OBS.
- USE EXTRA FORM SHEETS IF REQUIRED.
- Under Keel Clearance to be calculated as required in Standing Instructions Ch#6 of the Company Bridge Procedure Guide.

Prepared by: *MD* /2/O Sighted by: *MD* /2/O Sighted by: *Jap* /2/O C/O Approved by: *Jap* Master

SYMPHONY 14  
REG : SINGAPORE  
OFF NO : 395036  
GRT : 476  
NRT : 343

## Approved voyage plan

**D - 07** PASSAGE PLAN (continued)  
 Symphony- 14 (SEA PASSAGE)

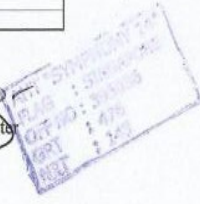
Voyage No: 0  
 FRC **MOKPO** **SUEZ**

No	WP GPS	LAT			LONG			COURSE	Dist.	TO GO	Position fix int.	CPA/PI DIST	UKCL m	REMARKS/CROSSING, TRAFFIC, TRAFFIC SEPARATIONS, REPORTING, ETC)	
		deg.	min	N/S	deg.	min	E/W								
27	78	7	50.00	N	072	50.00	E	309°	290.9	3080.5				<b>SEE NOTE BELOW.</b>	PLACE OF SHELTER: NICOBAR ISLAND, SRILANKA, LAKSHADWEEP, SUCUTRA
28	79	10	52.00	N	069	0.00	E	292°	666.6	2789.6					ADEN TO SUEZ THROUGH RED SEA
29	80	15	0.00	N	058	25.00	E	272°	198.1	2123.0					PORT OF SHELTER JIZAN, JEDDAH
30	81	15	7.00	N	055	0.00	E	252°	352.1	1924.9					BA Chart 2375,2373,2374
31	82	13	17.00	N	049	15.00	E	253°	260.8	1572.9					BA Chart 159
32	83	11	59.00	N	045	0.00	E	291°	88.0	1312.1					BA Chart 158
33	84	12	30.90	N	043	36.10	E	294°	15.1	1224.1					BA Chart 157
34	85	12	37.00	N	043	22.00	E	335°	38.6	1209.1					BA Chart 143
35	86	13	11.90	N	043	5.00	E	346°	54.1	1170.4					BA Chart 1925
36	87	14	4.50	N	042	52.00	E	318°	10.1	1116.3					BA Chart 3661
37	88	14	12.00	N	042	45.10	E	335	59.4	1106.3					BA Chart 06
38	89	15	6.00	N	042	19.50	E	324	214.9	1046.9					BA CHART 3784
39	90	18	0.00	N	040	8.00	E	328	140.8	832.0					SUEZ BAY-VHF CHANNEL 14
40	91	20	0.00	N	038	50.00	E	338	194.5	691.2					
41	92	23	0.00	N	037	30.80	E	329	280.8	496.7					
42	93	27	0.00	N	034	50.02	E	312	49.7	215.9					
43	94	27	33.00	N	034	8.20	E	307	18.7	166.2					
44	95	27	44.30	N	033	51.40	E	320	12.1	147.5					
45	96	27	53.60	N	033	42.60	E	303	5.1	135.4					
46	97	27	56.38	N	033	37.81	E	315	20.9	130.4					
47	98	28	11.15	N	033	21.00	E	330	28.5	109.4					
48	99	28	35.80	N	033	4.80	E	336	51.2	81.0					
49	102	29	22.70	N	032	41.38	E	337	13.9	29.8					
50	103	29	35.48	N	032	35.20	E	351	13.4	15.9					
51	104	29	48.68	N	032	32.80	E	8	2.5	2.5					
52	105	29	51.20	N	032	33.20		-	-	-					

**NOTES**

- ALL POSITIONS TO BE VERIFIED BY ALTERNATIVE METHOD. AT OPEN SEA: GPS COMPARISON. COASTAL AND PILOTAGE: RADAR/VISUAL/GPS OBS.
- USE EXTRA FORM SHEETS IF REQUIRED.
- Under Keel Clearance to be calculated as required in Standing Instructions Ch. 6 of the Company Bridge Procedure Guide.

Prepared by: *[Signature]* /O Sighted by: *[Signature]* /O Sighted by: *[Signature]* /O Approved by: *[Signature]* Master



**Approved voyage plan**

## Insurance Warranties

Insurance cover was provided for the voyage specific to the tow. Requirements included a **maximum towing speed of 5 Knots** and appropriate **weather criteria not exceeding 5B**. The tow was under BIMCO Towcon towage contract.

A “Towage Statement” (based on Towage plan, Tug Boat connection, Towage Routing Plan) assuring tow worthiness was required prior to departure. It was issued by Class Society, thus covered the DMS requirement and the Insurance requirements.

Both, Hull and Machinery (H&M) and Protection and Indemnity (P&I) Club, in order to provide cover, placed the below Warranties:

- Ship to be IACS classed and class maintained.
- Towage to be performed from tug boat “Symphony 14”
- Flat AP 1.735% for full towage from Mokpo, South Korea to Greece via Suez Canal with 50% No Claims Bonus (NCB) at arrival.
- Towage plan duly approved by RINA
- Tug Boat connection to be followed by RINA surveyor whom will attend and issue Towage Certificate of compliance with Towage Plan recommendations. Weather forecasting to be presented to Claims leader (..) few days before Journey for their considerations.
- Favorable weather forecasting before departure of Towage.
- Towage Routing Plan to be presented to () before journey.
- A dedicated company specialized in Weather forecasting (..) will follow the journey and should issue regularly weather bulletin to ship Owner. Tug Owner need to send regularly whether bulletin to ship owner; in case of significant discrepancy of the two bulletins received the ship owner need to approach a third independent company specialized in Weather forecasting and take in consideration their suggestions for the safety of the journey.
- Weather reports should remain available at request.

## 5. Conclusions

### General

The Greek Company SEAJETS bought the HSC “Mykonos Jet” from Lay-Up condition and provisionally registered her on a Non-Navigation-Basis in the Cyprus register of ships on 18/08/2016.

SEAJETS had taken a commercial decision to tow the vessel without main engines operating and bring it to Greece for repairs.

On board the Tug-Boat were two Greek superintendents (an experienced Captain and a Bosun) as representatives of the buyers SEAJETS.

The HSC “Mykonos Jet” was without crew and passengers on board, on a “Dead Ship Condition”

### Certification

RINA Pusan Office, proceeded with Class Entry Surveys from the loosing Society KR to RINA. Class Hull Renewal Survey was carried out by RINA and an Interim Class Certificate for Hull was issued for a time period to allow the HSC “Mykonos Jet” to complete the voyage in tow. Machinery Survey was not carried out, since the vessel was to proceed in tow.

A Towage Statement (based on Towage plan, Tug Boat connection, Voyage Plan) assuring tow worthiness was required prior to departure. It was issued by Class Society RINA, thus covered the Flag (DMS) as well as, P&I and H&M Insurance requirements.

(The Voyage plan provided for ports of refuge and areas of shelter)

The Interim Class Certificate for Hull issued by RINA, contained two conditions:

- 1) the certificate is valid for one single voyage in tow, without cargo and person, in favourable weather conditions, (sea condition not exceeding 5 degrees of the Beaufort scale) and speed not exceeding 5 knots, from Mokpo, Korea to Piraeus, Greece for Ship’s repair facility.
- 2) Service notation for Class, was assigned Hull notation only.

### **It was likely that HSC “Mykonos Jet” took on water during the tow**

Although pre-tow fitness surveys were duly conducted prior to the tow’s departure, the ferry was fitted with ramp doors. These doors were held together in place with “hydraulic” locks as a fail-safe. However, it should be noted that the ferry was being towed in dead-ship condition. As such a hydraulic leak in the system may cause “creeping” of the ramp doors allowing water to enter the engine room spaces slowly until the stern spaces were below the water.

While the investigation was not able exactly identify the actual cause of the HSC to sink, this possibility of water entering the ferry in the course of the voyage cannot be ruled out.

**The direct cause of the accident was Flooding of the Towing Object due to compromised watertight integrity for unknown causes.**

## Weather Conditions

According to the Interim Class Certificate for Hull issued by RINA sea condition should not exceeding 5 degrees of the Beaufort scale and speed not exceeding 5 knots.

According to the Towing Statement issued by RINA the Tug-Master should operate in ballast condition and in fair weather and sea conditions.

Warranties of P&I and H&M Insurance cover which was provided for the voyage, included a max. towing speed of 5 Knots and appropriate weather criteria not exceeding Beaufort Force 5.

While plying the East China Sea on the 28th to 29th of October 2016, i.e. two days after sailing, bad weather over Beaufort Force 5, was encountered. The respective port of shelter Shanghai, was about 200NM. To weather the effects of the encountered sea conditions, the speed was reduced and the tow was lengthened to 400m. The port of shelter Shanghai choice, was not stated that it had been considered. It is also not clear why the Owners representatives and the Master of “Symphony 14” did not update the Ship Owner when the weather was noted to be more than what was stipulated in the towing conditions provided by DMS and relevant parties.

Weather, reaching wind force and sea state over 5B, may have affected safe ship’s movement, resulting in unsafe situation and compromised watertight integrity. The rapid flooding of the HSC “Mykonos Jet”, with the subsequent danger to surge the Tug-Boat with it to the sea bottom, obliged the Tug-Master to urgently release the main tow wire.

**Therefore, environmental conditions such as sea state and wind force, may have been a contributing factor in the accident.**

## 6. Recommendations

Due to the fact that the causes of the accident were not possible to be established, there are no safety recommendations.