

**Technical Report**  
**Issued by the technical Committee**  
**established to Investigate and analyze the causes**  
**which led to the sinking of the Passenger Ferry**  
**Al Slam Boccaccio 98 in the Red Sea in**  
**February 2006**

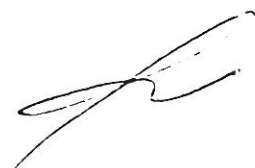
Arab Republic of Egypt  
Alexandria  
June 2006

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Report submitted to: H.E. Minister of Transport  
From the Investigation Committee chaired by:  
Prof. Dr. |Mohamed Abdel Fattah Shama  
Prof of Naval Architecture and Ship Building  
and Former Dean of Faculty of Engineering, Alexandria University.

**Committee Members**

Engineer Sarwat Ahmed – GL representative in Egypt in his personal capacity  
Dr Medhat Abass Kholoussi –Assistant Dean – Faculty of Maritime Transport-  
the Arab Academy of Science, Technology and Maritime Transport  
Mr. Tarek Ezzo – Legal Counsellor  
Mr. Reynaldo Garibaldi, Flag State representative  
Mr. Napoleon Smith – Head of Panama Maritime Authority Office in New York  
Captain Magdy Mostafa Selim – Marine expert  
Admiral Mohamed Abul Anein – Naval Forces- Egypt  
Admiral Mohamed Magdy Abd Elsamee- Naval Forces- Egypt  
Admiral Mokhtar Mohamed Moussad-Search and Rescue Centre, Egypt  
General EssM Mahram Ahmad-Search and Rescue Centre, Egypt  
Admiral Ahmed Abdelfattah Loutfy – Egyptian Authority for the Safety of  
Maritime Navigation  
Dr. Ahmed Mohamed Hosni El Hewy – Lecturer, Faculty of Engineering,  
Alexandria University  
Eng. Mohamed Mahmoud Abdel Nabi, Head of Society of Marine and  
Shipbuilding Engineers



### Declaration

- This report is prepared and written during the period from 12/2/06 until 12/6/06 in execution of the ministerial decree 22/2006.
- The report is a technical report and is based totally on the information, data and documents obtained from all parties concerned.
- The report is not concerned with the political, legal, liabilities, financial or the insurance side of the accident.
- The sole purpose of this report is to:
  - 1- Analyze and disclose the main causes of the sinking of the Al Salam Boccaccio98
  - 2- Highlight the deficiencies and shortcomings, as seen by the committee members, in all entities having direct/indirect connection with Al Salam Boccaccio98
  - 3- Benefit from the lessons learned from the tragic accident by suggesting a set of recommendations to improve the safe transport of passenger by RO-RO passenger ferries so as to prevent similar accidents to occur in the future.



Arab Republic of Egypt  
Alexandria June 2006

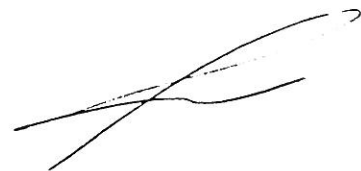
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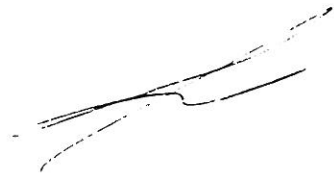
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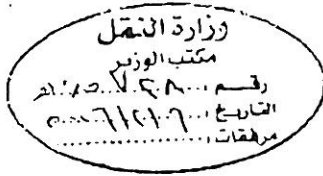
## List of Annexes

### The Annexes are considered coherent and inseparable part of the Report

- Annex No. (1): rules and procedures followed by the committee in preparing
- Annex No. (2): names of persons interviewed (statements taken are given in attachment No. 1)
- Annex No. (3): table of all Ferry certificates and comments given by the committee (copies of all certificates are given in attachment No. 2)
- Annex No. (4): a flow chart showing sequence of events according to the downloaded data from the VDR together with a chart showing the vessel's course and deviations during her sea voyage from Duba.
- Annex No. (5): list of all documents received from the managing Co.
- Annex No. (6): list of all correspondents
- Annex No. (7): main factors having direct effect on the safe operation of RO RO Ferries
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- Annex No. (9): letter of COSPAS-SARSAT in response to committee enquiry concerning the DISTRESS SIGNAL of the Al Salam Boccaccio 98 received by Panama
- Annex No. (10): Committee's comments on the Fire Control Plan (The Plan Attachment No. 17)
- Annex No. (11): Committee's comments on the stability booklet of the ferry
- Annex No. (12): letter from RINA answering committee's enquiries
- Annex No. (13): Ministerial Decree No. 36- 1998



## The Ministerial Decrees of H.E. the Minister of Transport The first decree



ARAB REPUBLIC OF EGYPT  
MINISTRY OF TRANSPORT  
Minister's Office



قرار  
وزير النقل

رقم ٢٠٠٦ لسنة ٢٠٠٦  
صادر في ٨ / ٢ / ٢٠٠٦

مهورية مصر العربية  
وزارة النقل  
مكتب الوزير

٤٢  
٢٠٠٦

### وزير النقل

بعد الإطلاع على :

الفانوم رقم ٧٩ لسنة ١٩٦١ في شأن الكوارث البحرية والحطام البحري  
قرار رئيس الجمهورية رقم ٥٧ لسنة ٢٠٠٢ بتنظيم وزارة النقل ،  
قرار رئيس الجمهورية رقم ٢٩٩ لسنة ٢٠٠٤ بإنشاء الهيئة المصرية لسلامة الملاحة البحرية ،  
كتاب الهيئة المصرية لسلامة الملاحة البحرية المؤرخ ٨ / ٢ / ٢٠٠٦ ،  
ما أرفقناه .

### قرار

( المادة الأولى )

تشكل لجنة برئاسة السيد الأستاذ الدكتور / محمد عبد الفتاح شامه - العميد الأسبق  
لكلية الهندسة جامعة الإسكندرية وعضوية كلاً من :-  
\* السيد المهندس / ثروت أحمد - ممثل هيئة التصنيف Germanischer Lloyd  
بجمهورية مصر العربية  
\* الدكتور ريان / مدحت عباس خلوصي - مساعد عميد كلية النقل البحري بالأكاديمية  
العربية للعلوم والتكنولوجيا والنقل البحري  
\* السيد الأستاذ / طارق عزو - مستشار قانوني  
\* السيد / امريئال دوجار بيالدي - ممثل دولة العلم  
\* السيد / نسابليون سميت - رئيس مكتب بنما بنيويورك  
\* قبطان / مجدي مصطفى السيد سليم - خبير بحري  
\* ممثل عن القوات البحرية المصرية - ترشحه وزارة الدفاع  
\* ممثل عن مركز البحث والإنقاذ بمصر - ترشحه وزارة الدفاع  
\* المهندس / أحمد محمد الفتاح لطفى - الهيئة المصرية لسلامة الملاحة البحرية

ويعاون اللجنة عدد ( ٢ ) خبراء دوليين في الصوادث البحرية يتم ترشيحهما بواسطة

سكرتير عام المنظمة البحرية الدولية ( IMO ) .

وللجنة أن تستعين بمن تراه لآداء مهامها .



ARAB REPUBLIC OF EGYPT  
MINISTRY OF TRANSPORT  
Minister's Office

جمهورية مصر العربية  
وزارة النقل  
مكتب الوزير

قرار  
وزير النقل  
رقم ٢٢ لسنة ٢٠٠٦

( المادة الثانية )

تتولى اللجنة المشكلة بالمادة الأولى من القرار التحقيق وتحليل أسباب غرق العبارة المسماة السلام بوكاشيو ٩٨ ( بنمية الجنسية ) بتاريخ ٢٠٠٦ / ٢ / ٣ أثناء رحلتها من ميناء ضبا إلى ميناء سفاجا ويكون منهج عمل اللجنة طبق القواعد المطبقة عالميا بالمنظمة البحرية الدولية ( IMO ) Code Of Investigation .

( المادة الثالثة )

على الجهات المختصة تنفيذ هذا القرار .

وزير النقل

محمد لطفي منصور  
( مهندس / محمد لطفي منصور )

### The second Decree

يضم أعضاء اللجنة المشكلة بقرار وزير النقل رقم ٢٢ لسنة ٢٠٠٦ المشار إليه بعالية والخاص بالتحقيق : تحايل أسباب غرق العبارة المسماة السلام بوكاشيو ٩٨ بتاريخ ٢٠٠٦ / ٢ / ٣ أثناء رحلتها من ميناء ضبا إلى ميناء سفاجا كلاً من :-

- السيد الدكتور / أحمد محمد حسني الهوي - المدرس بكلية الهندسة جامعة الإسكندرية
- السيد المهندس / محمد محمود عبد النبي - رئيس جمعية المهندسين البحريين ومهندسي بناء السفن

( المادة الثالثة )

على الجهات المختصة تنفيذ هذا القرار .

## I: Definitions of Technical Words and Abbreviations

Abbreviations	Definition
1/E	Chief Engineer
2/E	Second Engineer
2/O	Second Officer
3/E	Third Engineer
3/O	Third Officer
AB	Able Boy
AIS	Automatic Identification System
ARPA	Automatic Radar Plotting Aid
AUTOPILOT	AUTOPILOT
C/E	Chief Engineer
CALL SIGN	CALL SIGN
CCTV	Closed Circuit Television
CO <sub>2</sub> SYSTEM	Carbon Dioxide System
CoC	Certificate of Competency
DISTRESS	DISTRESS
DOC	Document of Conformance
EPIRB	Emergency Position Identification
ETA	Expected Time of Arrival
F/W	Fresh Water
FERRY	Passenger Ship
GMDSS	Global Maritime Distress Ship System
GMT	Greenwich Mean Time
GPS	Global Position System
GT	Gross Tonnage
HF	High Frequency
HFO	Heavy Fuel Oil
IMARSAT	Satellite
IMO	International Maritime Organization
ISM code	Internacional Safety Management Code
ISSC	International Ship Security Certificate
KW	Kilo Watt
L/O	Lubricating Oil
LIFE BOATS	LIFE BOATS
LIFE JACKETS	LIFE JACKETS



LIFE RAFT	LIFE RAFT
LT	Local time
Mayday	Distress Signal by Radio Telephone
MDO	Marine Diesel Oil
MES	Marine Evacuation System
NM	Nautical mile
OS	Ordinary Seaman
OW	Officer of Watch
PMA	Panama Maritime Authority
PSC	Passenger Ship Certificate
PSR	Panama Shipping Registrar
PSSC	Passenger Ship Safety Certificate
RINA	Registro Italiano Navale
RO/RO	Roll on Roll off Ship
RPM	Revolutions per minute
SB	Starboard
S/W	Salt Water
SAR	Search and Rescue
SMC	Safety Management Certificate
SMS	Safety Management System
SOLAS	Safety of Life at Sea
STCW	International Conventions on Standards of Training, Certification and Watch Keeping for Sea Fairers
USMCC	USA Marine Communication Centre
UTC	Universal Time
VDR	Voyage Data Recorder
VHF	Very High Frequency
VTS	Voyage Traffic System
WSS	WATER SPRAY SYSTEM



## II: Procedures followed by the Committee

The Committee reviewed the Ministerial Decree No. 22 issued by H.E. the Minister of Transport on February 8, 2006 for the establishment of the Committee and the letter of the General Secretariat of the Ministry of Defense which nominated the Committee members from the Armed Forces dated February 11, 2006 and Decree No. 84/2006 issued by the Minister of Transport on February 29, adding two members to the Committee. The Ministerial Decree No. 22 assign Prof. Dr. Mohamed Abdel Fattah Shama to be the chairman of the committee.

In line with Ministerial Decree No. 22/2006, the Chairman of the Committee Prof. Dr Mohamed Abdel Fattah Shama, called the members for a meeting in his office at the Faculty of Engineering on Sunday February 12, 2006 at 11.00 a.m. The chairman reviewed the Ministerial decree and Ministry of Defense letter previously referred to.

The Committee convened on a nearly daily basis during the period from 12 February 2006 until the date of report signing.

In the committee meeting on 21 February 2006, the chairman presented the rules & procedures to be followed by the Committee (Annex No 1).

The committee performed as follows:

1- Interviewed Individuals are (names are given in Annex No. 2):

- Rescued members of the ferry crew.
- Responsible officers at the Maritime Safety Authority, the Central Administration of Maritime Inspection, and the Central Administration for the Port State Control in the Arab Republic of Egypt.
- Members of the Managing Company, Higher Management Members and Technical personnel working in the Management Company of the Ferry (Al Salam Boccaccio 98) which at the same time is the Marine Agent and carrier.
- Officer in Charge of the RO (Recognized Organization) by Panama Government (Flag State) which is Panama Shipping Registrar Inco. Egypt.
- Captain of St Catherine's Ferry ( a ferry operated by the same managing company).



- Responsible Officials at the Red Sea Ports Authority.
- Responsible Officials at the Ministry of Communication (Kosair Radio)
- Surveyors of the Classification Society (RINA) in Egypt and its Regional Manager in Dubai.
- The Committee decided it was sufficient to review the report submitted by the Search and Rescue Centre (Annex No 19).
- Detailed Statements of interviewed persons (attachment No 1)

2- Review of copies of the ferry certificates issued by the Italian Classification Society (RINA), Panama Government, Flag State Recognized Organization and the ISM plan issued to the managing company by the Italian Classification Society. The committee also checked the qualification certificates of the crew, certificates of competency and certificates issued by the Egyptian Government (Egyptian passengers certificate) etc.

3- The VDR was retrieved from a depth of approximately 900 m, in the presence of Mr. Reynaldo Garibaldi, the committee member representing the Flag State (Panama). The VDR was expedited to the United Kingdom together with a representative from the Naval Forces (Admiral Mohamed Said Zaghloul) the contents of which were recovered at the Marine Accidents Investigation Branch (MAIB) in Southampton in the UK and in the presence of the Chairman of Committee Prof. Dr. Mohamed Abdel Fattah Shama, Admiral Ahmed Abdel Fattah Lotfi, Mr. Reynaldo Garibaldi, Rear Admiral Mohamed Shaisha, representative of the Egyptian Authority for Maritime Safety. Seven (7) copies of CDs containing all recovered files were prepared and delivered to the Chairman of the Committee whereas MAIB retained an original copy. Broadgate Company has also helped in the data recovery process of the VDR and has submitted a report on its contribution in this respect (attachment No. 20)

One CD was delivered to the Committee established by the General Prosecutor and another CD was delivered to the Chairman of the Investigation Committee of the People's Assembly at his request in his letter addressed to HE Minister of Transport (attachment No.21). A third CD was delivered to the member of the Investigation Committee representing the state of Panama.



The Investigation Committee has thoroughly studied the data and recordings that took place since the passenger ferry Al Salam Boccaccio98 left Duba Port in Saudi Arabia at 16:51 GMT until the sinking of the ferry at 23:33 GMT. Annex No. 4 gives the flow chart of events according to the recovered data and recordings obtained from the VDR as of 19:09 GMT. Attached is the detailed data downloaded from the VDR (attachment No. 3)

4- On Thursday 23/3/2006 the Investigation Committee visited the offices of the ferry's managing company (Al Salam Maritime Transport Co.), interviewed the executives of the managing company and its technical staff and discussed issues related to the casualty of the sinking of the ferry Al Salam Boccaccio 98.

A list of the documents received from the managing company is given in (Annex 5). Documents and drawings received from the managing company are given in (attachment No. 4).

5- The committee visited on Friday 24/3/2006 in Suez a sister ferry which is Al Salam 92 to give members of the committee the opportunity to have a realistic and true picture of the ferry, the available machinery and equipment relative to the provision of safety and rescue measures. A fire drill was carried out in the garage using the water spray system and abandon ship drill was also carried out to check the suitability of the life saving equipment, numbers, quality, duration and means of launching of rescue equipment. Certificates and documents of the ferry were also reviewed.

6- A lot of correspondence has been exchanged with different departments and authorities in order to obtain the required information – the list of letters sent out and replies received are given in (Annex No 6).

The committee viewed 7 video tapes of the sunken ferry Al Salam Boccaccio 98 which were photographed during the retrieval of the VDR from the ferry.



**III: A Historical Review and Technical Specifications of the RO RO Passenger Ferry Al Salam Boccaccio 98 According to the data provided by RINA and the Committee's comments on it.**

**Introduction**

The RO RO Passenger Ferry Al Salam Boccaccio 98 is owned by a Panamanian company and was operated under the Panamanian flag by an Egyptian management Company. The ferry sank in international waters during her sea voyage from the port of Duba in Saudi Arabia to the port of Safaga in Egypt on Thursday 2/2/06 at 23:33 GMT which is equivalent to 02:33 am Egypt time on Friday 3/2/06.

The main technical data of the ferry are:

Owner: Pacific Sunlight Marine Inc. c/o Al Salam Maritime Transport

Flag: Panama

Main dimensions: LOA = 130.98 m, length b.p. = 118 m, beam = 23.60 m, depth = 29.9 m,

Engine power; 12180 kw

Ship speed: 22 knots

draught 5,90m, height of garage deck = 7.2 m

IMO Number: 6921282

RINA Registration No. : 46913

Gross Tonnage: 11779 GT

Net Tonnage :5555

Keel laid down: 22 August 1968

Date of entry into service: June 1970

The ship has been classed by RINA since its building.

Passenger safety certificate is issued directly by the Flag (Panama).

Previous name: Boccaccio

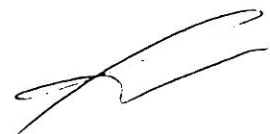
Previous owner. Tirrenia

Previous flag: Italian

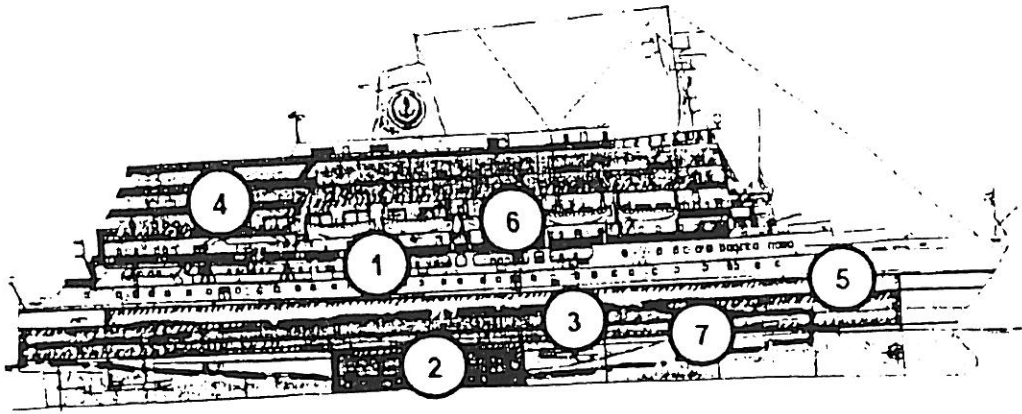
Change of flag and name: 1999

Last inspections carried out by RINA: June 2003

annual hull survey October 2005 ISM survey ,



In 1990-1991 the ship has been modified by adding three superstructures decks and Sponsons.



Al Salam Boccaccio 98

Al Salam Boccaccio 98 illustrated by numbers in the above diagram

- 1- Accommodation area which constitutes a part of the original construction of the vessel and is equipped with a sprinkler system according to method II of SOLAS 60 (automated water spray system and smoke detection system).
- 2- The engine room is equipped with a fixed extinguishing system using carbon dioxide covering the main engine room, aux. machinery space, stabilisers room, and main electric distribution board.
- 3-The main cargo area (garage) is equipped with a fixed fire extinguishing system – Water Spray System.
- 4-Three upper accommodation decks were added during the period from 1990-1991 and were equipped with Water Sprinkler System.
- 5-The upper car deck has been replaced with new accommodation areas equipped with Sprinkler System.
- 6-Life Boats
- 7- Side sponsons installed after increasing the number of accommodation areas on the upper decks.

### Technical History of Al Salam Boccaccio 98

In 1970 Boccaccio was built, IMO No. 6921282, under the supervision of RINA in a shipyard called Italcantieri in Castellammare di Stabia in Naples (Italy) for Terrenia di Navigazione Spa in Napoli Italy, owners.

It was the first ferry in a series of sister vessels built under RINA's supervision. These are:

- Carducci (IMO No. 7000982)
- Leopardi (IMO No. 7015341)
- Manzoni (IMO No. 7052246)
- Pascoli (IMO No. 7070121 )
- Petrarca ( IMO No. 7041651)

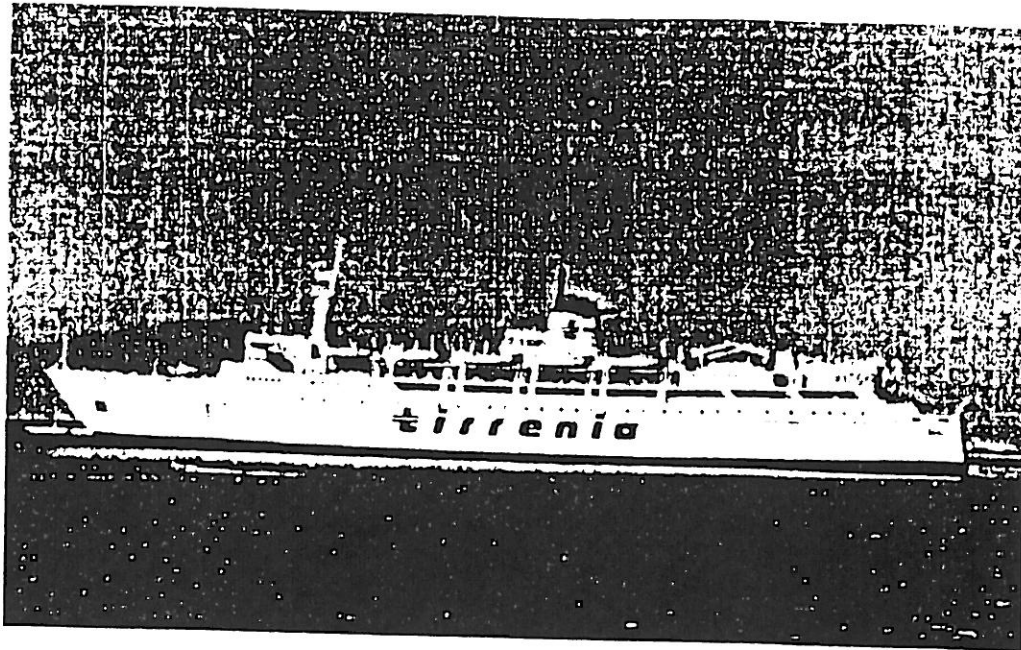
The ferry was built in accordance with RINA Classification Rules 1968 issue, SOLAS 60, ILLC 66 and other terms and conditions related to the Italian law for Marine Safety (law No 616 dated 5 June 1962).

On delivery, the ferry was provided with RINA Classification Certificate and the following International Certificates:

- 1- PSSC issued by the Italian Authorities based on RINA's revision for 1000 passengers and 96 crew members for international voyage.
- 2- ILLC issued by RINA on behalf of the Italian Authorities with a load line of 1648 MM from the deck and a draft of 5564 MM
- 3- The stability booklet was approved by RINA in accordance with SOLAS 60 (Reg. II/Part A/5 (c) (ii) ) as a one compartment vessel.
- 4- In the following years, RINA ensured that the vessel complies with SOLAS requirements which were applied retrospectively.

In 1990 the ferry was modified in a shipyard called SEBM in Naples (Italy) in order to fit car decks at mid height of the main car deck between frames 26 and 160. The fire extinguishing system was provided with a fixed water spray system in the garage to comply with SOLAS 74 and amendments.





The Ferry Al Salam Boccaccio 98 before modifications

The new stability booklet was approved by RINA in accordance with the stability standards and damage stability according to SOLAS 74. The vessel was modified as a one-compartment vessel (Reg. II-1/6.5.2)

In 1991 a new modification was introduced in SEBM shipyard in Naples Italy by adding three upper decks for accommodation and side sponsons. The drawings were approved according to RINA Rules for 1990 and the amended SOLAS 74. Also installed was a fixed fire extinguishing carbon dioxide system in the engine room instead of the fixed fire extinguishing system with low expansion foam.

After completion of works, the ship was provided with RINA classification certificate and the following international certificates:

1- PSSC issued from the Italian Authorities for carrying 1300 passengers and 96 crew members according to RINA revision.

2- IOPP certificate issued by RINA on behalf of the Italian Authorities.

In 1999, the car decks previously fitted in 1990 on the main car deck were removed at Suez and the flag state was changed from Italy to Panama.



After completion of works, RINA certificate was issued and also the following International Certificates:

- PSSC certificate issued from RINA on behalf of the Panamanian Authorities for 1100 passengers and 87 crew members with PSSC attachment showing the following Safety Equipment:

1- Five Life Boats for 445 persons - Port side

2- Five Life Boats for 445 persons – SB side

3- 30 Life Rafts for 620 persons with davit launching.

- ILLC certificates issued by RINA on behalf of Panama Authorities, Load Line C1 & C2 at 1412 mm and 1312 mm respectively from freeboard.
- IOPP certificate issued by RINA on behalf of the Panamanian Authorities.
- The amended stability booklet was approved by RINA in accordance with SOLAS 90 requirements and special Stability Standards for a one compartment vessel (Reg. II-1/6/5.2)

In 2000, the ferry was modified by adding new accommodation decks fitted in lieu of the upper car deck – work also was carried out in Suez. RINA approved and supervised the work according to its classification rules for year 1999 and SOLAS 74 requirements.

In 2004 a new inspection was carried out at Suez and the ship obtained a PSSC from RINA on behalf of the Panamanian Administration and the certificate was issued for 1100 passengers and 86 crew. Lives Saving Appliances are:

1. Five Life Boats for 445 persons, Port side
2. Five Life Boats for 445 persons, SB side
3. 24 Life rafts for 600 persons with Davit launching.

In 2005 Stability booklet was approved by RINA according to SOLAS 90 requirements and in accordance with special Stability Standards for a one compartment vessel (Reg. II-1/6.5.2)



The Committee revised the above booklet and found that it was mainly concerned with Intact Stability and was certified by RINA – our comments will come later.

PSSC certificate issued by RINA in 2004 on behalf of the Panamanian Administration expired on 13 June 2005.

RINA did not issue afterwards any PSSC certificate and did not participate in the revision or inspection of PSSC certificates issued to the Ferry.

N.B. RINA was replaced by PSR.

### History of the Managing Company of the Al Salam Boccaccio 98

From 1970 to 1999 the Ferry named Boccaccio was managed by a company called Tirrenia Di Navigazione to operate between the following ports in Italy.

Civitiavecchia – Caligari

Genova – Caligari

Civitiavecchia -Olbia

In 1999 the company called Tirrenia di Navigazione sold the ferry to the Panamanian Company called Pacific Sunlight Marine Inc. who gave the responsibility of operating the ferry in accordance with ISM to Al Salam Shipping and Trading Est.

Al Salam Shipping and Trading Est. has been previously issued with a DOC by RINA in 1997, and after audit in July 2002, RINA issued a full term DOC valid until July 2007 on behalf of Panama.

In 1999, RINA carried an audit for Al Salam Boccaccio 98 and issued an interim certificate (SMC) on behalf of the Panamanian Administration.

In October 1999, RINA made a preliminary check on board the ferry and issued a long term SMC on behalf of the Panamanian Administration valid until October 2004.

In 2004, after carrying the required audit for renewal, RINA issued a full term SMC on behalf of the Panamanian Administration valid until 29 October 2009.



The Ferry then operated in the Red Sea mainly between Jeddah, Duba, Safaga, and in the Mediterranean in Italy between Vado Ligure, Tanga (Morocco), Ancouna (Italy) Beirut (Lebanon) and was used as a floating hotel for the Group of 8 Summit meeting held in Italy in July 2001. No detention was recorded from the PSC (Equasis database) or Paris MOU database.

In October 2005, Al Salam Shipping & Trading advised RINA of transferring the vessels under their management to Al Salam Maritime Transport Co.

In view of Al Salam Maritime Transport Co was not provided with a DOC and its management system SMS including ISO 9001:2000 was different from previously adopted by the previous Co., RINA therefore considered Al Salam Maritime Transport Co a newly established company, a new procedure for certification of the Co. and the vessels including the Al Salam Boccaccio 98 operating under its management commenced according to Chapter 14 of the ISM Code for the vessels under its management

RINA thus issued:

- an Interim DOC to Al Salam Maritime Transport Co. on behalf of the Panamanian Administration valid until 11 October 2006
- An Interim SMC on behalf of the Panamanian Administration valid until 27 April 2006

Note: The Committee has requested a copy of the management contract from Al Salam Co. and from RINA which both parties failed to provide. On 16/5/2006 RINA replied giving incomplete information and did not provide a copy of the contract or its details. (Attachment No 7).

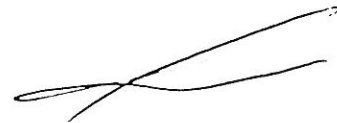
**Certificates issued from RINA for Al Salam Boccaccio 98 which were valid at the time of sinking of the ferry**

Certificates issued by RINA to the ferry and their validity dates:

Type of Certificate	Issued on	Validity date
Classification Certificate	13/11/2003	31/3/2008
ILLC	13/11/2003	31/3/2008
IOPP	13/11/2003	31/3/2008
SMC	27/10/2005	26/4/2006
ISSC	27/10/2005	26/4/2006

**Dates of Inspections carried by RINA (since the last inspection conducted for the renewal of certificates)**

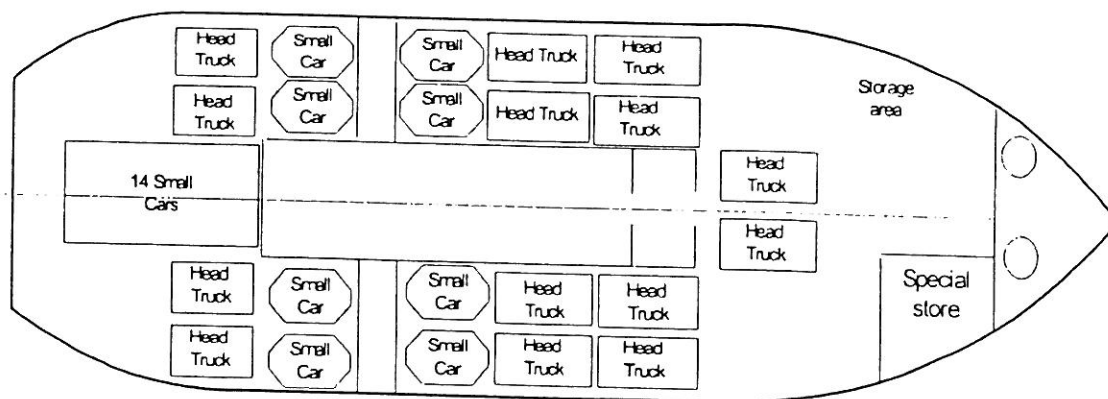
Date	Port	RINA Surveys	Surveys for Int'l Certificates
19/3/2003	Suez	Beginning of inspections For renewal of certificates	
31/3/2003	Suez	Progress of renewal survey Annual survey Continuous survey Machinery	renewal of ILL
29/6/2003	Suez	Completion of survey dry dock survey Propeller shaft survey	IOPP renewal SMC intermediate
29/10/2003	Suez		Inclining test
13/6/2004	Suez	Annual survey Dry dock survey Continuous machinery survey Hull occasional survey	ILL annual IOPP annual Passenger Safety renewal
10/6/2004	Suez		Preliminary audit of ISSC
4/8/2004	Encona	Machinery occasional survey	
5/10/2004	Suez		Renewal of SMC
3/4/2005	Suez	Continuous machinery survey	
25/6/2005	Suez	Commencement of annual survey	
30/6/2005	Suez	Completion of annual survey	Annual survey of ILL Intermediate survey of IOPP
27/10/2005	Safaga		Interim audit of SMC Initial audit of ISSC



**IV: Sequence of events**  
**which led to the sinking of Al Salam Boccaccio 98**  
**according to the recordings of the VDR and statements of the crew**

All mentioned timings are GMT i.e. two hrs less than Egyptian time and three hrs less than Saudi Arabia time at the time of the incident.

The ferry left Duba Port in Saudi Arabia on Thursday 2/2/2006 at 16:51 heading to Safaga in Egypt carrying 1310 passengers and 96 crew members. The garage deck contained 22 private cars, 5 trailers and 9 trucks carrying passenger's luggage, toilet papers, diapers, and clothes (76.32 tons of goods). Also in store was 30 barrels of oil for the ferry machinery as stated by crew members. The cargo plan is illustrated in the figure based on crew statements and the cargo manifest obtained from the Management Co. (Attachment No. 8)



The figure shows the cargo plan according to crew statements

Total number of passengers on board is 1433 and 97 crew members  
(Attachment No 9- letter No 2012 from the Ministry of Transport dated  
12/4/2006)

At 19:10 The Auto Pilot alarm sounded. Aly Youssef on watch in the garage area reported to the bridge that the car deck was full of smoke. The captain just arrived in the bridge, other reports also came advising the spread of dark smoke in different parts of the ferry including the garage, decks, passenger's cabins and at all levels forward part of the ship.

19:14 the water spray system was operated in the whole area of the garage to fight the fire, also fire hoses are used to cool the accommodation cabins above the garage.

19:30 heavy smoke appeared in the forward part of the ship.

19:41 the captain was informed that the fire in the garage has been extinguished and he gave orders to discharge the water from the garage deck.

19:44 the crew advised that there was a heavy smoke in the garage and the fire team could not see their way through.

19:52 the captain gave his order to concentrate the water spraying on the SB side of the garage and stop the ones on the Port side.

19:59 the captain was notified that the garage scuppers were blocked and ordered to have it cleared.

20:01 the captain ordered his crew to use fire hoses to cool down the forward part of the ship.

20:08 the captain was informed that the source of fire was found to be one of the trailers carrying passengers luggage on port side forward of pilot door and ordered more use of water spraying in the garage.

20:14 Water was used to cool down the deck, particularly cabin 230 and adjacent cabins, water pressure of the spray system was ordered to be increased.

20:39 the floor in cabin 184 was found to be very hot causing warping and buckling of the steel deck plating, burning the floor carpets and melting the deck covering (Canaltex) in some cabins and alleyways on top of the garage, as stated by the crew.

21:04 the list of the ship increased to 7 degrees to the starboard side.



21:06 the captain ordered the plumber to unclog all scuppers in the garage deck.

21:15 the captain was advised that 4 scuppers on the SB side were cleared.  
21:24 the captain gave his orders to stop the water spraying in the garage area.

21:34 the captain enquired about the quantity of fresh water in tank No 18 starboard side to de-ballast as list reached 9 degrees to the starboard side.

21:47 list increased to 10 degrees. Third officer notified the captain of the presence of ships to the SB side aft in a circle less than 12 miles and could be advised. The captain stated that there was need to do anything.

21:50 the captain told the fire fighting team that the presence of oil barrels in the fore end of the garage is quite dangerous. Water spraying started again in the garage area.

21:58 listing of the ship increased to 12 degrees.

22:07 the captain gave his orders to change the wheel 20 degrees then hard starboard.

22:15:30 list decreased to 9 degrees to the SB side.

N.B. this means that the list occurring because of the wind effect on the Port side of the vessel is more than the list occurring from turning the vessel.

22:35 the captain asked about the possibility of filling tank No 25 port .

22:50 the list reached 13 degrees and the master commented that because the wind is supporting the starboard side of the ship.

N.B the course of the ship was 90 degrees, the wind was south to south west, 4-7 Beaufort (wind speed 16-28 knots-wave height 4-8 ft, according to Radio Jeddah)



23:07-23:08 List reached 15 degrees, during the filling of the ballast tank No 25 port, and the captain asked about the remaining quantity of water required to fill the tank with seawater. The reply was 100 tons; he then commented that this quantity is not enough to bring the ship upright.

23:11 the captain asked about filling tanks Nos. 6,2 and 9 port together with tank 25 to try to stop the increased listing of the ship.

23:13 the captain gave his orders to stop using water spraying and to disconnect all hoses.

23:19 the captain ordered to steer 20 degrees port.

23:25 the list increased to 18 degrees

23:26 list reached 20 degrees

23:28 the captain ordered to steer to starboard

23:30 the list reached 25 degrees and the captain ordered to steer hard port and one of the crew shouted "the ship is sinking" the captain then ordered to send a Mayday (distress by radio telephone).

23:31 the captain asked for a life jacket

23:33 the ship capsized and turned on its SB side.

N.B.

1. The downloaded data from the retrieved VDR were loaded in 12 files; 1 minute was lost in between each file.
2. The captain left his cabin 3 times according to the statement of third officer
3. The captain suffered from seasickness and vomited - this was obvious from the VDR and the statements of some of the crew.





## V: Direct causes of sinking of the ferry Al Salam Boccaccio 98

1. A list of 1 1/2 degree to the starboard side of the ferry was reported at the beginning of the sea voyage as stated by the crew during the interviews. This might have been due to uneven distribution of luggage, ballast, fuel, tanks and prevailing wind acting on the large above waterline port side.
2. The breaking out of fire in the garage and the failure of the crew to detect and fight the fire. Water spray system was used in addition to fire hoses (capacity of the water spray system is 430 tons/hour) in the garage area to extinguish the fire and cool the heated surfaces in the cabins and upper decks of the ship.
3. The accumulation of large quantities of the water used for extinguishing the fire on starboard side of the vessel (due to the original list) increased the list of the ship due the presence of the water free surface.
4. Inefficient discharge of water from the scuppers at the SB side of the garage due to the following reasons:
  - the blockage of some of the scuppers due to the garbage and residuals following the fire fighting process, which might have rushed into and blocked the scuppers. In addition, there is a possibility that these scuppers might have been blocked at the beginning of the sea voyage, according to crew statements. This was noted by the committee members during their visit to the sister ship "Al Salam 92" in Suez when a fire drill was conducted for demonstration. The testing of the spray system and observing the rate of discharge, whilst the vessel was berthed in ideal conditions, the committee realized the deficiency of the water discharge system
  - The water discharge system in the garage area, as designed, does not allow water evacuation from the vessel into the sea when the list is more than 6 1/2 degrees and the water level in the garage is equal to or less than the water level outside the vessel, as the discharge occurs by gravity. The angle is calculated by the committee and was confirmed by RINA's reply on 12.4.2006 (attachment No 10).

- All the above factors led to the ferry's loss of stability and to its turning over on its SB side and sinking at 23:33

N.B. Ro Ro ferries are known for loosing stability if see water enters the big area of the garage, similar events occurred are the sinking of the "Herald of Free Enterprise" in year 1987, "Estonia" in 1994 and "Salem Express" in 1992 in the Red Sea.



## VI: Entities, Authorities and other factors directly or indirectly related to the sinking of the ferry Al Salam Boccaccio 98

The following entities, authorities and factors have a direct impact on ensuring the operational safety of the Al Salam Boccaccio 98:

- The owner, managing company, carrier, agent
- Captain, officers and sailors
- RINA, the Classification Society of the ferry
- Panama –the Flag State of the ferry
- Recognized Organization authorized by the Flag State, which issued the relevant certificates of the ferry.
- The Maritime Sector in Egypt concerned with ensuring the ferry's safety before sailing from Safaga Port.
- The Maritime Sector in Saudi Arabia concerned with ensuring the ferry's safety before sailing from Duba Port.
- Sailing route of the ferry – the weather, wind, waves and currents in the route from Safaga to Duba.
- Design and specifications of the ferry, assurance of adequate stability, safety and rescue equipment provided on the ferry.
- Cargo Loads carried, stowed and secured in the garage area.
- Passengers
- Search and Rescue System
- Crisis management

Please refer to Annex 7 of the attachments



VII: Deficiencies, shortcomings and weaknesses appeared to the Committee during the investigation process in all entities associated directly/indirectly with the Al Salam Boccaccio98

Captain and Crew

- In-securing of cars in the garage as mentioned by members of the crew during the interviews.
- Improper distribution of trailers, trucks, cargo and luggage led to the absence of adequate passages to allow easy movement of crew members in emergency conditions.
- Late detection of fire in the garage area until smoke filled the area and appeared on the upper decks, as there was nobody in garage watch, also late alarm fire signal.
- Emergency plan steps related to fire detection and fighting were not followed as stated in SMS booklet (attachment No. 11).
- Crew failed to extinguish the fire in spite of the excessive use of water.
- Autopilot failure led to loose control on the ferry's course and her turning, as appeared in the data of the VDR. Please refer to the map (Annex No. 4).
- The captain was aware of the serious consequences of having a large quantity of water on the garage deck and was putting all his efforts on fighting the fire by using large quantities of water, which affected the stability of the vessel that led to capsizing.
- The captain's failure to give orders to abandon the ferry before sinking.
- Failure of the captain to advise the surrounding ships that he was facing problems.



- The captain did not make any outside communication by radio or by telephone or give any distress signal until the list of the ferry reached 25 degrees when he ordered to send a Mayday.
- Confusion of orders issued by the captain with regard to change the ferry's course specially the last few minutes before sinking.

### Owner/Managing Company

1- The managing company did not apply the ISM Code when they were advised that contact with the ferry was lost and when the ferry never arrived as scheduled and knowing that the weather conditions was very bad.

2- On 12/10/2005 the name of the ferry changed from Al Salam Shipping and Trading to Al Salam Maritime Transport, at the same address of the former company, which led to the issue of an interim DOC until the new name has been modified on all papers and documents. This is still not an excuse for the managing company not apply the ISM Code.

3- During the committee's visit to the sister ferry Al Salam 92, the committee noticed the following:

- Water discharge from the scuppers in the garage was not quick and efficient during the fire drill.
- Lifeboats were not equipped with bowsing tackle.
- Placing tags not compatible with the number of passengers on the boats.
- Mistakes in recording the number of passengers on the boats.
- Poor securing method of luggage and cargo in the garage area.

4- The Ship Safety certificates issued by Panama Registrar allows 2790 persons on board without specifying the type of the voyage (international or short voyage). The PSSC certificate issued by RINA, which is valid until June 2005, allows only 1100 passengers + 86 crew members for an international voyage.



5- The ferry holds a PSSC for 2790 passengers, although the launching facilities of the life rafts for such a number cannot be fulfilled in 30 minutes according to SOLAS 74 requirements and its modifications.

6- It has been noted that the ferry have two different PSSC one was issued by RINA on 4/8/2004 and valid until 13/6/2005 and the other was issued by PSR (Recognized origination) on 11/11/2004 valid until 1/10/2005 whilst the ferry should carry only one certificate,

7- The owner/managing company did not reveal the exemption certificate of the ferry concerning Reg 26 of Chapter III of SOLAS convention, which restricts trading area within 20 nm from shore. The PSR did not endorse the PSSC for existence of such exemption that allowed him for such misconduct. The PSR corrected this error for other ships managed by the same company after the sinking of Alsalam Boccaccio 98. This was manifested clearly during the visit of the committee to the sister ship Alsalam 92, as PSR issued PSSC for 1100 passengers instead of 2700 which was stated in the previous certificate. Also PSR endorsed the certificate for international voyage and not for short international voyage (attachment 12 clarifies the difference between the certificates).

8- The PSR surveyor Mr. Maher Saeed Reda who issued some statutory certificates was working at the same time as a technical consultant of the managing company. Also he was training the crews of the vessels operated by the managing company according to the statement of Captain Mamdouh Oraby, the DPA at time of accident (the training certificate signed by Mr. Maher Saeed Reda (attachment 13). This throw some doubt on the neutrality supposed to be in the PSR surveyor which was manifested by issuing and dealing with ship certificates.

9- Mr. Maher Saeed Reda while he was working as a consultant in the managing company and a surveyor in the PSR was allowed to conduct training courses for the crew members of the ferry on crowd management, ship



familiarization and passenger safety which shows a conflict of interest between these responsibilities and working capacities.

10- The managing company did not use the high-speed crafts Elyanoor and Fares Elsalam for the search and rescue in due time.

11- Captain Elmodather Mohamed Yousef deputy manger of Safaga port mentioned in his statement that he contacted Mr. Ibrahim Elsaied, the person in charge of Alsalam company in Safaga at 01:35 Egypt time informing that he could not make contact with the ferry Alsalam 98 and asked to take necessary measures to know the real situation of the ferry but the managing company did not take any positive action.

12- The master of the ferry Saint Catherine, operated by the same managing company, was ordered at 02:15 Egypt time to try to make contact with Alsalam Boccacio 98 during his course to Duba in Saudi Arabia as stated by Captain Elmodather Mohamed Yousef.

13- Master of Saint Catherine Ferry was obliged to conduct fine search and communication but the master of Saint Catherine did not fulfill his obligation. Also he reported to the company that the ferry Alsalam Boccacio 98 had sunk only after he had been contacted by the second officer of Alsalam Boccacio 98 who was in one of the life rafts of the sunk ferry at 06:55 Egypt time and who informed the master of Saint Catherine ferry that Alsalam Boccacio 98 had sunk and gave his position.

14- Ultra Tech company, which inspects and carries out maintenance of CO<sub>2</sub> cylinders and fire extinguishers, also Tele Star Co., which inspects and service life rafts for the vessels managed by ALSalam Co., are both owned by Al Salam Company which raises doubts on the reports of these two companies for the inspection of the mentioned equipment.

15- The Committee requested from the company to have telephone numbers of the chairman Mr. Mamdouh Ismael, or his son Amr (Vice-Chairman), in order to

contact them for some information regarding the company. On 8/5/2006, an envelope was received from Al Salam company containing a memorandum ( attachment No. 14) and the Committee remarks on that, are as follows:-

- The memorandum is written on a white paper without address or communication details, and the Committee has no means to contact the chairman as all company's personnel denied that they know his telephone numbers, and this is against ISM code.
- The signature is not original (copy), and the memorandum is not dated.
- This memorandum received after the Committee asked, during a telephone call from Mr. Amr Ismael, some questions already asked during the interview of : Capt. Emad Abu Taleb, Eng. Magdy El Saady, and Capt. Ahmed Helmi ( from the company)
- The memorandum did not mention this telephone call. Also some questions were not answered, though he promised to reply during the telephone communication in writing by his father Mr. Mamdouh Ismael, especially: who are the owners of "Sunlight Pacific Co Ltd"? and where is the management contract between Al Salam Co. and the owners?, also where is the insurance policy for hull and machinery?, and the passengers insurance policy?.
- The reply did not answer these questions and only explained the company's role in informing the concerned Authorities in Safaga, with the accident, from his point of view. In addition, he submitted documents in this respect only, and that file was delivered in an unofficial way.
- It is clear from that memorandum that the chairman of Al Salam Co. has not clearly informed the concerned authorities that the Al Salam Boccaccio 98 ferry had sunk. He asked for an airplane for search for the ferry and not for rescue.
- His reasons for the exemption certificate is incorrect and referred to a letter written by a member of the Flag State dated 12/4/2006 (attached with the memorandum) to try to justify the error of the presence of the exemption certificate.





- Despite of the information indicated that no communication with the ferry "Al Salam Boccaccio 98" was established at 01:30 (Egypt time), the company did not take any positive action for emergency preparedness.

16- The management company did not implement the contingency plan, in spite of:

- Loss of communications with the ferry
- The ferry has not arrived in the ETA as reported by her master at 02:30 (Egypt time),
- The ferry's agent at Duba informed the management company that the ferry has left in her ETD.
- Although the communications was lost with the ferry and the ferry didn't arrive in its ETA in addition to the bad weather conditions, the responsible person in the management company's Safaga office informed the DPA (Capt. Mamdouh Orabi) only at 04:30 (Egypt time).

17- The managing Co. was sure at 07:00 (Egypt time) on 3/2/2006, that the ferry has sunk, and they had the exact position, from the information given by the master of Sainte Catherine, however, the company did not declare the sinking of the ferry, and asked only for search on account of loss of communication.

18- The managing Co. has not activated the cooperation plan for search and rescue, with the center of search and rescue. It is well known fact that all companies operating passenger ships have to sign such plan.

19- The responsibilities of the top management and managers of the company are not well defined, as per the statements of top rank managers of the company.

### Flag State (Panama)

1. The flag state did not accurately revise the certificates issued by PSR as the mistakes in the passenger ship safety certificate has not been detected and its annex issued on 18/10/2005 and valid until 14/9/2006.
2. There was conflict between the number of passengers in form "P" issued by PSR representative in Suez as he stated in form "P" that the number of passengers is 2410 while the number of passengers found in the form "P"



issued by PSR - Panama in the same date was 2700. This confirms the inaccuracy of this certificate.

3. The PSSC and its annex showed that the ferry "Al Salam Boccaccio98" could carry 2790 persons in breach of Chapter III of SOLAS 74, as amended which requires that the area of emergency stations should accommodate all persons. However, the survey of the sister ferry Al Salam 92 showed that the area onboard Al Salam 92 is not adequate and it is impossible to accommodate that number of persons, as there was (5) boat stations and (3) life rafts stations on each side of the vessel. Taking into account that each lifeboat could carry 99 persons as written on it, and 89 persons as shown in the certificate and 25 persons for each life raft.
4. The PSR allowed the ferry to carry two PSSCs, one of them was issued on 4/8/2004 and valid until 13/6/2005 by RINA Classification Society for International Voyage and the second issued by PSR on 11/11/2004 and valid until 1/10/2005 for a different number of passengers and did not clarify whether the voyage is International or short international. Both certificates were valid for the same ferry within the period from 11/11/2004 until 13/6/2005 while there must be only one certificate on board the ferry.
5. Approval of the stability booklet for the ferry Al Salam Boccaccio 98, although it has not considered:-
  - The effect of beam wind on the side of the ferry
  - The effect of crowding of passengers on one side
  - Turning of the ferry
  - Damage stability
  - Fulfilling the minimum criteria for stability mentioned in the booklet with regard to the angle of heel at which the maximum righting arm occurs which was stated to be not less than 30 degrees. In all loading conditions given in the booklet, it is shown that this criterion is not fulfilled as this angle varies between 20-22 degrees (attachment No. 15) and Annex No. 11.
6. The PSSC issued by PSR for 2790 persons which was valid at the time of accident without ensuring that the stability booklet include the calculations



for this loading condition. This was assured as RINA did her calculations for 2500 passengers only as required by the management Company on 10/2/2006 after the vessel has sunk. ( Appendix 16)

7. The Maritime Authorities of the Panama Government did not provide the Committee with the necessary information and data needed for the investigation. The letter was sent to the Maritime Authority on the 9/4/2006. ( Annex No.8)
8. Although the flag state received distress signal at 23:37 GMT from (USMCC), the United States of America Mission Control Center, it was not clear to the Committee the actions taken by the flag state.
9. The PSR allowed the ferry to carry two PSSC certificates, the first issued from RINA on the 4/8/2004 valid until 13/6/2005 and the second certificate was issued by PSR in 11/11/2004 and valid until 1/10/2005. The ferry should carry one certificate only. PSR should have withdrawn one of them.

Panama Shipping Registrar the Recognized Organization by the Flag State to survey and issue certificates: -

- Conflict of interests as PSR surveyor in Egypt works also as a consultant for the management company.
- The aforementioned R.O. issued a PSSC for 2790 persons but the corresponding safety equipment can not satisfy the time of evacuation of the passengers according to SOLAS 74, as amended (30 mins.)
- During the fire fighting drill and the "Abandon ship drill" conducted in the sister ship "ALSalam Carducci 92", the Committee noted the low efficiency of the training of the crew, in spite of granting compulsory training certificates by the aforementioned R.O.
- The issuance of passenger safety certificate valid for 2790 persons without any stability calculations, as the stability booklet does not contain the stability calculations for this loading condition.
- There was no revision to the faulty PSSC issued by their surveyor in Egypt on 18/10/2005 valid until 14/9/2006 as he did not determine the kind

of the voyage by deleting the inapplicable one, as well as not showing the 20 miles exemption certificate.

- In spite of the fact that Mr. Maher Saed Reda was working as a consultant to the management company as well as the R.O. surveyor, the PSR authorized him to perform training courses in " Crowd Management", " Ship borne Familiarization" , " Passenger Safety" and " Crisis Management". As well as the conflict of interests between his capacities and responsibilities.
- The PSSC and its attachment show that the ferry is provided with safety equipment for 2790 persons, without taking into consideration Chapter III of SOLAS 74, as amended, which requires that each emergency station should be adequate to accommodate all persons who will assemble there.
- The actual inspection of the sister ferry Al Salam 92 showed the impossibility to comply with this requirement, because of the insufficient space for such persons as there are 5 boat emergency stations and 3 life rafts emergency stations on each side, knowing that each boat capacity is 99 persons (as marked on the boats) and 89 persons as per the certificate and each life raft capacity is 25 persons.
- The permission to get two safety passenger certificates; the first issued from RINA on the 4/8/2004 up to 13/6/2005 ; the second issued by PSR in 11/11/2004 up to 1/10/2005 with different number of passengers, without determining the kind of the international voyage.
- The difference in number of passengers in the attachment form P issued in Suez port by the PSR representative with 2410 passengers, but PSR main office ( in Panama) issued on the same date with 2700 passengers, this point shows the non-accurate performance in issuing and revising the certificates.

#### "Registro Italiano Navale" RINA

- There are errors in the fire control plan. (Annex No. 10)
- The stability booklet is approved by RINA according to RINA stability criteria and not according to the criteria issued by the international conventions. In spite of that the criteria given are not completely satisfied for all loading conditions.(Annex 11)



- The documents presented by RINA did not show any warning to the ferry nor to the managing company that when the list reaches 6.5°, the scuppers will reach the level of sea water outside the vessel ( according to RINA fax dated 12/4/2006- Annex 12). This means that the rate of discharge of water will be reduced with the increase of angle of heel of the ferry from zero to 6.5° according to the water level in the garage. This indicates that the scuppers will cease to function when the water level inside the garage is less or equal to the water level outside the vessel.
- There is no damage stability booklet for the vessel and when RINA was asked to provide a copy, RINA sent a computer printout.
- The Committee asked RINA office in Cairo to forward a copy of the Management Contract concluded between the owners and the management Co. based on which the DOC was issued on 27/10/2005 in Safaga and signed by Shehab Al Matbouly RINA's surveyor in Egypt. When Mr. Al Matbouly was asked about the management contract, he informed the committee by phone that he got oral instructions from RINA Head Office in Italy that this contract is in the Head Office. The Committee asked for a copy of the contract. The documents provided did not include a copy of the contract.

#### The Egyptian Authorities:

- The Committee found out that there are several laws, regulations, orders and instructions controlling passenger transport between Egypt and Saudi Arabia and also safety of passengers and ferries that transport Egyptian passengers from Egyptian ports including foreign flagged vessels. This resulted in the lack of effectiveness of inspection of these vessels.
- It is difficult to execute these regulations with the required quality and effectiveness due to the nature of these sea voyages (voyage short time- large number of passengers- high frequency of calling on ports- inadequate number of inspectors).
- The disimplementation of the Ministerial decree number 36/1998 (Maritime Transport) issued on 20/5/1998 concerning the operating regulations of passenger ships between Egyptian and Saudi ports. (Annex No. 13).



- The ferry "Al Salam Boccaccio 98" was issued an exemption certificate from regulation 26 of Chapter III of SOLAS concerning MES issued on 9/11/2005 by the Government of Panama and expires on 14/9/2006. Accordingly, the operating range was limited to 20 NM from shore while the PSSC certificate issued by PSR has not indicated whether an exemption certificate has/has not been issued. This led to the inability of the inspectors of the Maritime Authority to detect the existence of exemption and limited trade.
- The numerous bodies concerned with ship communications, reception of distress signals and search & rescue and their association to different authorities caused the absence of an integrated and effective system of communication, search and rescue compatible with the number and type of passengers and the ferries operating in the Red Sea. This has led to the delay of rescue operation and the increase of casualties.

Saudi Authorities:

- The inability of the Saudi inspection authorities to detect the errors in the PSSC and the incompatibility of safety appliances with the required time of evacuation.
- Lack of verification of the nature of transit goods transported through Duba port.



## VIII. Recommendations for all entities concerned with safety of ships and passenger ferries

After studying the circumstances, causes of the sinking of the ferry "Al Salam Boccaccio 98", the analysis of deficiencies, shortcomings and faults of all entities and authorities, also the factors having direct and indirect relation with the accident as well as the analysis of the lessons learnt from the accident, the Committee arrived to a set of recommendations, so as to prevent/reduce the occurrence of similar incidents, and to ensure adequate safety in passenger sea transport.

### 1- Recommendations to the Egyptian Authorities:-

- Preservation of passengers' rights

The Egyptian authorities should ensure that the ticket, issued by the carrier, contain all necessary information about the name of the owner, the management company, the name of the carrier, voyage information and all relevant information necessary to preserve passenger rights.

- Insurance coverage

It is necessary to reactivate the ministerial decree No. 36 for the year 1998 (Maritime Transport) issued on 20/5/1998 (annex 13) concerning the special regulations for ships trading between Egyptian and Saudi ports, which imply that the concerned authority should ensure that the companies operating ships for passenger transport, obtain insurance coverage for their liabilities for death, injury, luggage, goods, and pollution from one of the International insurance companies in this respect.

- Ministerial decrees and Administrative resolutions

It is necessary to review all laws, ministerial decrees, administrative resolutions and protocols in respect of vessels operating on regular lines for passenger transport between Egyptian and foreign ports, with a view to ensure compatibility with the circumstances and developments of passenger transport.

Meantime, as a temporary measure, the ministerial decree No. 36 for the year 1998 should be implemented.

- Class and statutory certificates

No Egyptian Passenger to be allowed to be transported by regular maritime lines operating between Egyptian & Foreign ports, unless the ship is provided with a class and statutory certificates issued by one of the International Classification societies recognized by the Egyptian Governments.

- Selection and upgrading of marine inspectors and port state control officers

- The Committee noted that the Egyptian Authority for Maritime Safety since its establishment by the presidential decree No. 399 on December 2004 replacing "Ports and Lighthouses Administration" has taken organizational and corrective actions, which indicated the efforts done by the responsible personnel, and the Committee recommends its support with the necessary expertise.
- It is necessary to have effective criteria for the selection of the inspectors for maritime authority and port state control, guided by the criteria laid by the international resolutions.
- A plan for effective and continuous training should be organized for inspectors in order to ensure their competency and keeping abreast the international development.

- A permanent Committee for the safety of maritime transport:

It is essential to establish a "permanent Committee for the safety of maritime transport which consists of marine experts reporting directly to the Minister of Transport. One of the main missions of this committee is to analyze and study the results of marine accidents according to the maritime law and conventions, in order to issue recommendations to avoid similar accidents to occur in the future.

- Enhancing the role of the VTS in the Red Sea

- It is essential to enhance the role of VTS in the Red Sea and increase radar surveillance in such a manner that the VTS role will not only be limited to monitoring of ships but also to have an active role in decreasing the number of marine accidents and for immediate reporting of any emergency situation to the concerned authorities.





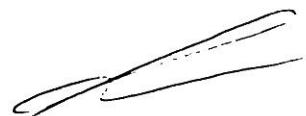
- The Protocol between the Egyptian and Saudi Arabia Governments

In view of the large numbers of passengers transported between the Egyptian and Saudi ports, it is necessary to review the Protocol between the two countries, concerning the maritime transport of the passengers, so that the Protocol should contain the following:

- The increase of radar surveillance range of VTS centers in both countries so that each country will cover not less than 60 nautical miles to ensure a complete coverage of the trade lines.
- Each VTS center of both countries should communicate with the other VTS center, as soon as any ferry leaves its coverage range and enters the other range.
- All the Egyptian and Saudi ports which deal with the passengers should have well prepared halls to play video films to show Emergency procedures, abandon ship and assembly stations of the ferry; before embarkation
- Cancellation of resolution No. 263 dated 19<sup>th</sup> December 1993 issued by the head of the Egyptian Maritime Sector, which considered the voyage between Suez and Jeddah ports a short international voyage because it is contradicting with SOLAS 74 Convention which considers the short international voyage up to 600 nautical miles; knowing that the distance between Suez and Jeddah ports is more than 600 nautical miles. (Attachment No. 17)

- Crisis Management System of Marine Casualties

It is necessary to review the crisis management system in case of marine casualties which is applied in Egypt with a view to enhance sea and airborne rescue procedures and also to solve resulting problems associated with these accidents; such as providing medical care for survivors; dealing with families of casualties and proper action with corps.



- Communications, Search and Rescue

It is recommended to merge all authorities concerned with communications, Search & Rescue and vessels' safety control in one entity to ensure efficient performance and rescue

## 2. Recommendations to IMO

- Certificates of Competency and compulsory training

- 

- Masters of passenger ships, especially Ro-Ro ferries, should attend training courses on stability calculations.
- Certificate should only be granted for those who attend and passed the examination satisfactorily before allowing them to work on such vessels.
- Crew certificates of competency and compulsory training courses, should end by an examination, and certificates to be issued on passing the examination
- Staff members of training centers that issue certificates to crew members, should be of the highest standard and competency, also should attend training courses to keep abreast the continuous development in the maritime transport industry in order to ensure that the trainees obtain practical and realistic training courses compatible with International standards

- Provision of the garage space in Ro-Ro passenger vessels with suction pumps and water level indicators

- The Committee proposes to IMO, to take necessary actions, for fitting suction pumps to Ro-Ro passenger garage decks (using gravity operated scuppers) to be used in case of fire. The proposed pumps should have a capacity not less than the capacity of the water spray system pump.
- The garage should be provided with water level indicators that can operate the pumps automatically when the water level in the garage reaches a specified predetermined height.



- It is necessary to increase the scuppers area in the garage deck than that required by Load Line Convention, to ensure a high rate of water discharge.
- Provision of the garage space with CCTV  
Ro-Ro passenger ferries should have improved garage watching by fitting CCTV system covering all garage area which should be monitored in the bridge.
- Critical angle of heel
  - The critical angle of heel of the vessel, at which the master should order abandon ship should be indicated in the contingency plan of RO/RO passenger ships. This angle should be determined according to stability calculations, accumulation of water in the garage, and ability to launch life saving appliances.
  - The magnitude of the angle of vanishing stability (zero righting arm) should be reconsidered to ensure adequate safety.
  - The Committee urges IMO to recommend extra measures for protection of electrical cables fitted and passing in the garage, from fire hazards as the burning of these cables add more hazards to the vessel.
- Cargo securing manual  
  
The Committee recommends that the cargo-securing manual should include that:
  - Cargo stowage in the garage should allow adequate spaces and passages for patrolling, control and fire fighting in case of emergency
  - The maximum height of the cargo in the garage should be determined to ensure the effectiveness of the water spray system in the garage.
  - Passengers luggage loaded on trailers should be covered with fire proof covers or to be loaded in closed containers

### 3 - Flag states:

- Flag states should reconsider the criteria of selecting the R.Os to be compatible with the international standards.



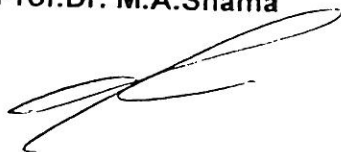
**N.B.**

- This report is issued in one original and (14) copy. The original and one copy are presented to H.E Minister of Transport. The remaining copies are given to each member of the Committee signatory of the report including the Committee's Chairman.
  
- This report is a translation into the English language from the original report that is written in Arabic and was submitted to H.E Minister of Transport. In case of any uncertainty, ambiguity or confusion, the Arabic version of the cited report to be consulted and prevails on any other interpretation.

**Engineer Sarwat Ahmed**  
**Dr Medhat Abass Kholoussi –**  
**Mr. Tarek Ezzo –**  
**Mr. Reynaldo Garibaldi,**  
**Mr. Napoleon Smith –**  
**Captain Magdy Mostafa Selim**  
**Admiral Mohamed Abul Anein**  
**Admiral Mohamed Magdy Abd Elsamee**  
**Admiral Mokhtar Mohamed Moussad**  
**General Essam Mahram Ahmad**  
**Admiral Ahmed Abdelfattah Loutfy**  
**Dr. Ahmed Mohamed Hosni El Hewy**  
**Eng. Mohamed Mahmoud Abdel Nabi**

**Chairman**

**Prof.Dr. M.A.Shama**

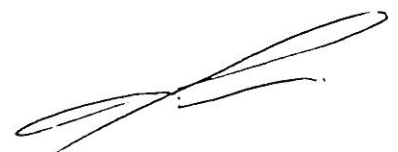


## IX. Annexes



## Annex No.1

**Rules and procedures followed  
by the committee to conduct the  
investigation and prepare  
the final Report**



## Board of Investigation of the Al Salam 98 Casualty

### Rules of Procedures

The Board of Investigation of the Al Salam 98 Casualty has been established, and its Members named, by the Ministerial Decree n°22/2006 issued 8<sup>th</sup> February 2006 with the following assignment: "Investigation and analysis of the causes of the sinking of the passenger ferry Al Salam Boccaccio 98 during her voyage from Duba to Safaga. The investigation and reporting of the casualty to be carried out according to the code of investigation issued by IMO".

The following Rules of Procedures, which apply to the Chairman and to the Members of the Board, have been established to ease the work of the Board and to facilitate communications between its Members.

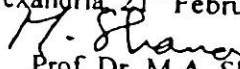
- 1 – The work of the Board is carried out in accordance with the Code contained in the IMO Resolution A.849(20), Code for the Investigation of Marine Casualties and Incidents, as amended by the Resolution A.884(21).
- 2 – According to article 94 of the United Nations Convention on the Law of the Sea and Regulation I/21 of the SOLAS Convention, and in line with Resolution A.849(20), Panama as "flag State" and Egypt as a "substantially interested State" have agreed to co-operate in one only investigation, Egypt being the lead investigating State.
- 3 – All records of interviews and other evidences produced to the Board of Investigation are numbered in the order they are received, registered and kept available to all Members of the Board only.
- 4 – The Members of the Board shall not disseminate any information collected in the framework of the investigation outside the Board. The Chairman is the only responsible for communicating with the Medias and the other outside parties.
- 5 – The Board normally works in plenary session. However, the interviews of witnesses and other collections of evidence can be made by some Members only. In that case, due records is taken and made available to the other Members at the next plenary session of the Board.
- 6 – The meetings and other activities of the Board are fixed by the Chairman at least one week in advance. In case of urgency, this time can be shortened and the Members are informed through e-mails or telephone calls.
- 7 – This investigation is not for civil or criminal actions. It is a technical investigation to establish the circumstances relevant to the casualty, to establish the causal factors and to make safety appropriate recommendations. The Board of investigation is not in charge of investigating the search and rescue operation conducted by the shore Authorities.

8 – The work of the Board will end with the production of a final report, when it is presented to the Minister of Transport and conveyed to the Panamean Authorities. The report will be drafted in English by the Chairman or under his responsibility.

9 – Before issuing the final report, it shall be approved by all Members of the Board. If one or several Members have objections, their objections shall be sent to the Chairman and added to the report. Then the report is communicated to the main parties involved in the accident and their comments, if any, are added to the report.

10 – If necessary, the Chairman can take the initiative to issue an interim report and address it to the Minister of Transport and to the Panamean Authorities. The content of this interim report shall be approved by all Members of the Board.

Alexandria, 21<sup>st</sup> February 2006,

  
Prof. Dr. M.A. Shama

Chairman of the Board of Investigation





## Annex No.2

List of all persons' names  
who had been investigated  
by the committee

**Witnesses Briefings:**

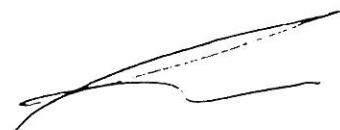
S.N	Name	Job
1	Medhat Abbas Mahmoud Abdel-Meguid	O/S
2	Ahmed Essayed Fath-Allah Mohamed Amin	Cab- supervisor
3	Mostafa Mohamed Essayed Metwalli	Café.- supervisor
4	Abu-Bakr Gaber Abdel-Rahman Abu-Bakr	Cabin- supervisor
5	Mohamed Hamed Mohamed Hamed	Market head
6	Ahmed Mohamed Ahmed Ateya Abdel-Hadi	A/B
7	Rani Kamal-Eddin Mohamed Mounir	3 <sup>rd</sup> officer
8	Ahmed Nasr-Eddin Mahmoud Suleiman	3rd officer
9	Mamdouh Mohamed Abdel Kader	Fleet Manager
10	Salah Eddin Mahmoud Gomaa	St. Catherine Master
11	Essayed Abdel Moniem Essayed	2 <sup>nd</sup> officer
12	Nabil Essayed Ibrahim Shalabi	AlSalam Safaga Manager
13	Omar Fathi Abdel-Rahman Ahmed	Cafe.- supervisor
14	Mohamed Tawfeek Abdel-Meguid El-Tayeb	Cab- supervisor
15	Tamer Fikri Hakim Slouanas	Cafe.- supervisor
16	Rani Kamal-Eddin Mohamed Mounir	3 <sup>rd</sup> officer
17	Ahmed Nasr-Eddin Mahmoud Suleiman	3rd officer
18	Ali Youssef Mahmoud Selim	2 <sup>nd</sup> wilder man
19	Mohamed Bayoumi Hashem Abdel-Rahman	Baker
20	Essam Fouad Mahmoud Hashem	Trainee Cafe.- supervisor
21	Mohamed Abdel-Mohsen Mahmoud Hanafi	Trainee Cafe.- supervisor
22	Mohamed Saleh Abdel-Wahed	Wiper
23	Ahmed Essayed Kasem Suleiman	A/B
24	Yaseen Mohamed Waziri Ismael	Mechanic
25	Waleed Fawzi Ismael Ibrahim	Storekeeper
26	Waleed Helmi Zaki Ibrahim	Asst. Steward
27	Ali Ibrahim Ali Eldehna	Cab- supervisor
28	Maher Saed Mahmoud Reda (1/2)	Inspection Expert
29	Mohamed Emad-Eddin M. Abu Taleb (+ hand written statement)	Vice-Chairman High-seas master
30	Magdy Saady_1-2	Q & S Controller
31	Medhat Abbas	O/S
32	Ahmed Helmi 1-2-3	Fleet Manager
33	Hossam-eddin Ismael	Recruitment manager
34	Ashraf Nazmi Ibrahim	Marine inspector
35	Ihsan Shagar Badawi	PSC officer
36	Ahmed M. Youssef Oleiba	Inspection and auditing GM
37	AlModdather M. Youssef	Safaga Deputy Manager
38	Ahmed Helmi_2	Fleet Manager
39	Shehab Al Matbouli+ Keith Java	RINA
40	Fathi Abbas	Ex Chief engineer aboard AlSalam 98
41	Basem M. M. Al-Amir	Previous C/engineer
42	Ahmed Ateya	Radio Quseir
43	Ibrahim Sayyed M. Ahmed	Al-Salam, Safaga

44	Salah Gomaa	St. Catherine Master
45	Nabil Shalabi	AlSalam Safaga Manager
46	Hayder Abdel-Aleim	Central Marine Inspection Manager
47	A. El-Shal	M.I
48	A. ElHousini	Ex - Hurghada manager
49	A. Abdel-Karim	Hurghada M.I manager
50	Adm. Hussein Gamil El Hemeel	EX - EAFMS Chairman



## Annex No.3

**Table of All Ferry's certificates  
and the committee comments**



**The Ferry certificates are as follows:**

- Tonnage Certificate
- Load lines Certificate
- Intact stability booklet
- Damage stability booklet
- Minimum safe manning
- Certificates for Master, Officers
- Cargo securing manual
- Document of Compliance
- Safety Management Certificate
- Passenger Safety Certificate
- Exemptions Passenger Safety Certificate (if any)
- SAR cooperation plan
- List of operational limitations
- Decision support system for masters
- Registration
- Class report Hull and machinery



SN	Name of Certificate	Its purpose	Issued by	Place Of issuance	Date of issuance	Valid till	Remarks
1	Interim Document of Compliance (DOC) after change of management	Management Co. compliance of ISM Code	RINA	Cairo	12/10/2005	11/10/2006	Change of management to "Al Salam Maritime Transport" with the same address: 30 Yakoub Arten, Heliopolis
2	Interim Safety Management Certificate (SMC) after change of management	"Al Salam Boccaccio 98" compliance with ISM	RINA	Safaga	27/10/2005	26/4/2006	
3	Registry Certificate	Ownership of the ferry	Panama	Panama	27/11/2002	26/11/2006	Owners: Pacific Sunlight Marine Inc.
4	Bottom survey Report		RINA	Suez	8/6/2004		
5	International Tonnage 69 Certificate	Tonnage value	Panama	Genoa	30/7/1999		
6	Class Certificate	Classification	RINA	Genoa	13/11/2003	Valid for five years from 31/3/2003	Endorsed for Annual surveys on 13/6/2004 and 30/6/2005
7	Passenger Ship Safety Certificate	-Safety of navigation - Fire fighting equipment - Life saving appliances	RINA	Genoa	4/8/2004	13/6/2005	No. of passengers: 1100 No. of Liferafts: 24 No. of Bouyant app.: 6 No. of lifebuoys: 25 No. of Lifejackets: 1500 No. of Immersion suits: 42 No. of thermal protective aids: 1200
8	International Load line Certificate	Load lines	RINA	Genoa	13/11/2003	31/3/2008	Endorsed for annual surveys dates on 13/6/2004 and 30/6/2005
9	International Oil	Pollution	RINA	Genoa	13/11/2003	31/3/2008	Endorsed for

	Pollution Prevention Certificate	prevention equipment and installations					annual surveys same dates as Load Line Certificate above
10	Annex to Class Certificate	Carriage of cars with fuel in their tanks	RINA	Genoa	4/8/2004	31/3/2008	
11	Passenger Ship Safety Certificate	- Safety of navigation - Fire fighting - Life saving equipment	PSR	Panama	15/10/2005	14.9/2006	Faulty- not showing if for International or "Short/Int." and if Exemption Cert. is issued or not - For 2790 pax
12	Attachment Form (P) Signed by Maher Saed Reda	Life saving appliances	PSR	Suez	18/10/2005		Faulty- for 2500 persons - which is not included in Stability - 88 liferafts how can be served by 6 davits, three on each side?
13	Attachment Form (P)	Life saving appliances	PSR	Panama	18/10/2005		Faulty- for 2700 persons - neglected Stability Booklet ignorance- numbers for life saving are wrong.
14	Entry for P&I	Joining the club	Steamship		20/2/2005	20/2/2006	Issued to Al Salam Shipping and Trading Co.
15	International Oil Pollution Prevention Certificate	Pollution prevention equipment and installations	PSR	Panama	13/6/2003	28/3/2008	Endorsed by M.S. Reda for annual surveys on 3/4/2004 and 24/3/2005.
16	Crew Accommodation Certificate	Fitness of crew accommodation	Panama	Panama	21/5/2003	9/5/2007	
17	Safe Manning Certificate	Minimum crew hended	Panama	Panama			Mediterranean and Red Sea navigation
18	International Ship Security Certificate	ISPS Code	RINA	Safag	27/10/2005	26.4.2006	
19	Radio station License	Radio station	Panama	Panama	11/7/2003	10.7.2007	

20	Passenger Certificate	Short Int. voyage	Egyptian Administration	Alex.	22/12/2005	31/1/2006	2790 persons (80 crew) – Stability calculations to be considered
21	Passenger Certificate	Short Int. voyage	Egyptian Administration	Alex.	1/2/2006	20/2/2006	2790 passengers (90 crew) – Stability calculations to be considered
22	Exemption Certificate of Reg. III/26	Exemption from MES	Panama	New York	9/11/2005	14/9/2006	Limited navigation 20 miles from shore
23	Exemption certificate	Exemption from Immersion suits and Thermal protective aids	Panama	NY	29/9/2005	14/9/2006	Trading between lat 32' N and 32' S

**Remarks on the certificates:**

**Certificate No.**

**Remarks**

1 The managing company name changed from Al Salam Shipping and Trading Co. to Al Salam maritime transport, although it is the same company with same address- for enjoying further tax holding

10 Passenger ship safety certificate, issued by Panama Shipping Registrar Inc. The certificate is faulty as it does not show if it is for International or short International voyage and it does not show if exemption certificate is issued or not ( see table of certificates Nos 21 and 22)

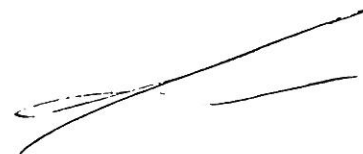
11 Form (P) for certificate No. 10 issued by PSR at Suez signed by Maher Said Reda, for number of persons 2500 – No stability calculation for such number at that time. Number of liferafts 88, served by 3 davits each side (there is no practical possibility) – the increase of number of persons has no justification and the reason of different life saving equipment.

12 Form (P) for certificates No. 10 also, issued by PSR at Panama Republic, on the same date as No. 11 above, giving the number of persons 2790



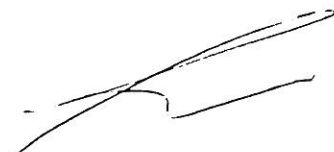
– There is no stability calculation for such number of persons at that time. Also there are several wrong numbers for equipment (buoys and buoyant apparatus) – No justification for increase in number of persons (see cert. No. 7)

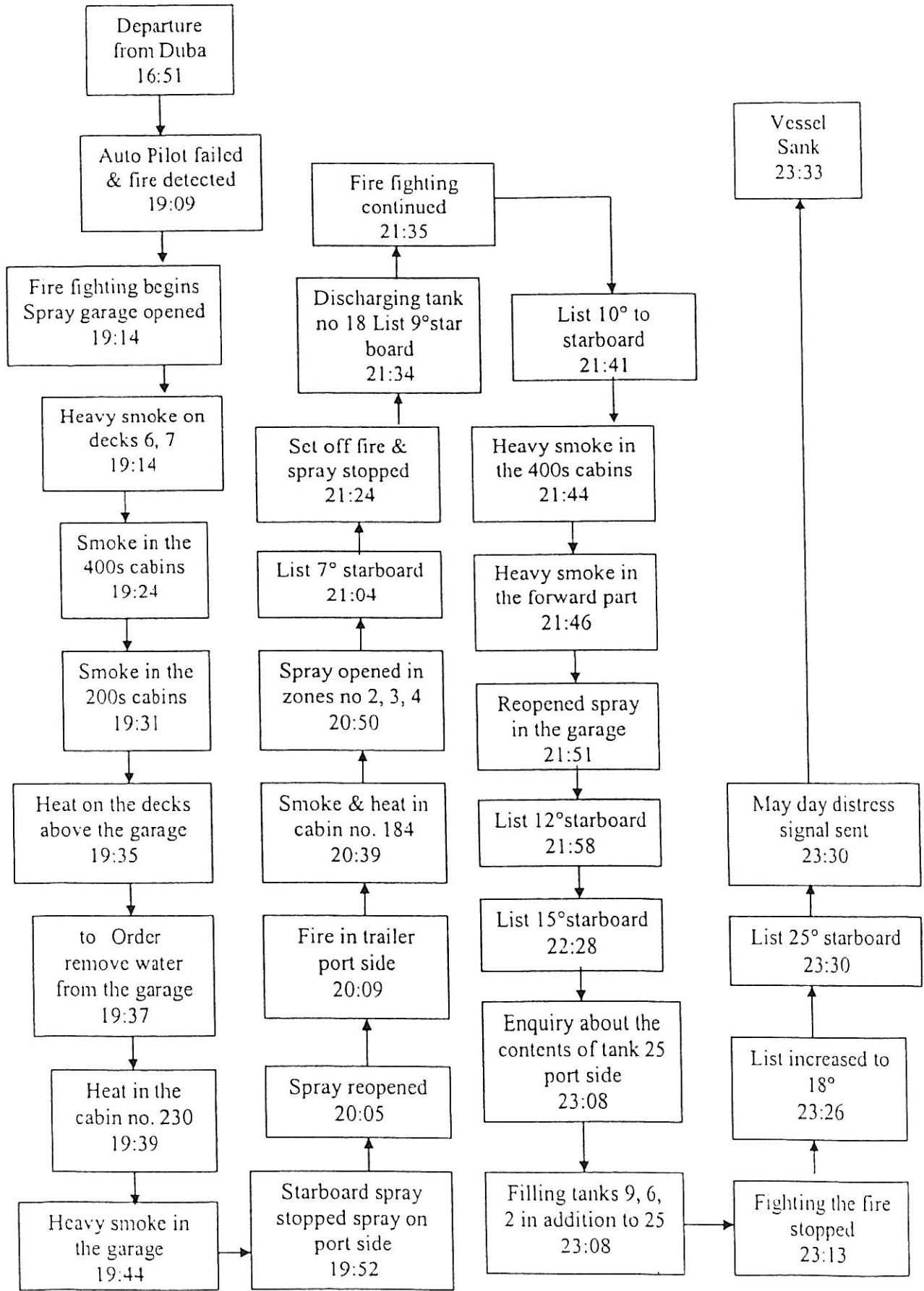
- 13 Subscription in P&I is in the name of “ Al Salam Shipping and Trading Co.” and not in the name of the new management Co. “ Al Salam Maritime Transport”.
- 14 & 9 No. 9 issued by RINA and No. 14 issued by PSR (signed by Maher Saed) in the same date and endorsement on both certificates by both bodies for annual surveys – 2 International certificates for oil pollution issued by two organizations.
- 19 Passenger certificate issued by Egyptian Authority for 2790 persons including 80 crew members based on PSR certificate (the faulty one – No. 10 in the table)
- 20 Passenger certificate issued by Egyptian Authority for 2790 persons including 90 crew members, based on PSR certificate (the faulty one)
- 21 Exemption certificate for MES, issued on 19/11/2005 after the issue of PSSC (No. 10) on 18/10/2005, i.e., during the period from 18/10/2005 to 9/11/2005 there must be MES on board.
- 22 Exemption certificate from Immersion suits and thermal protective aids issued on 29/9/2005 but the PSSC issued by PSR does not show this fact.



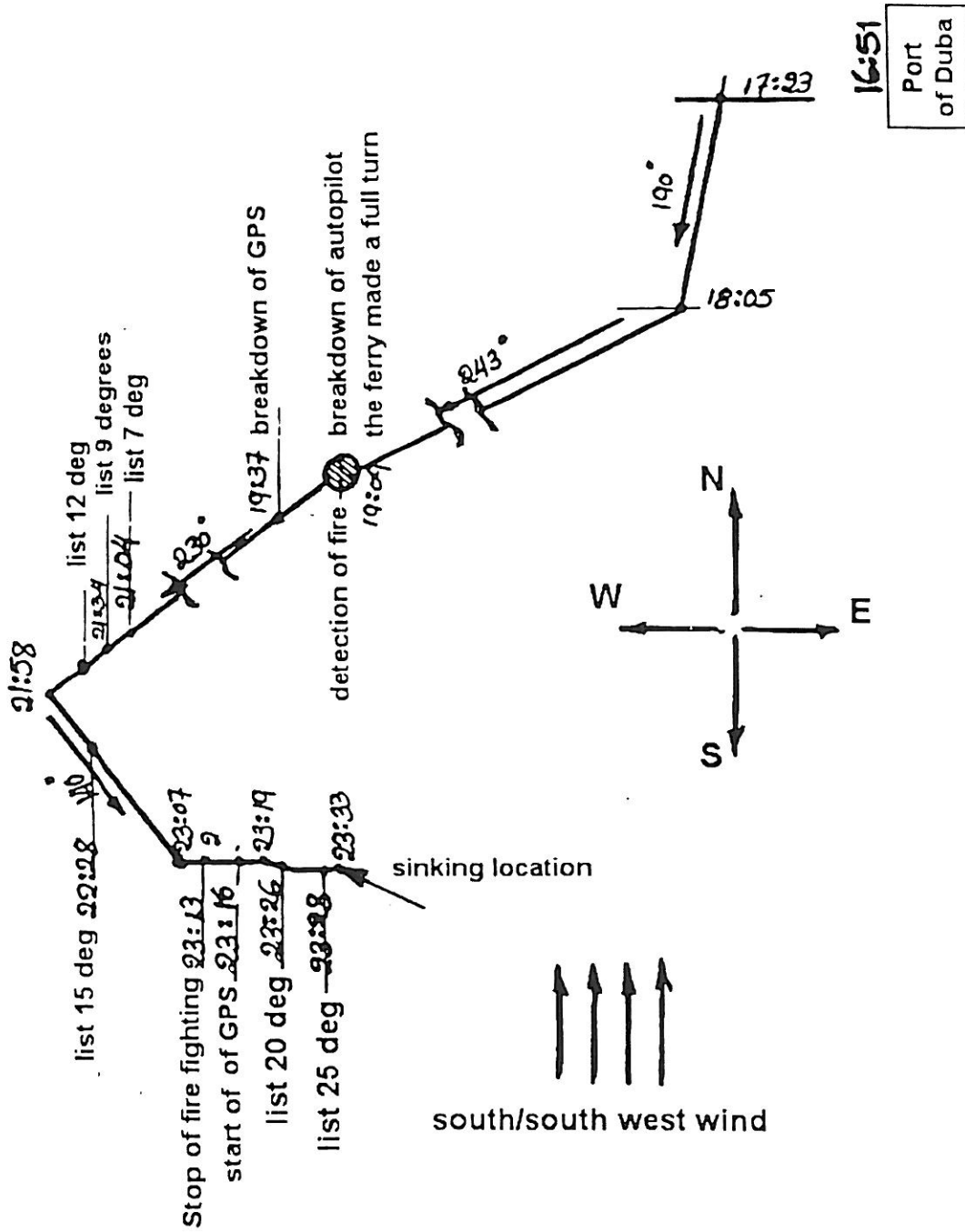
## Annex No.4

**Flowchart of sequences of  
voyage events  
According to the `VDR`  
and a map of the ferry's course  
during her last voyage**





A map showing the ferry course during the voyage



## Annex No.5

**List of all documents received  
from the managing company**



I. Al Salam for shipping and trade documents

1. Al Salam Boccaccio 98 crew Certificates(deck<sup>1</sup> and engine<sup>2</sup>)
2. Stability Booklet, Lashing Booklet, 3 drawings and a chart
3. Al-Salam Co. Quality and Safety Management System Manual
4. Emergency Preparedness
5. Al-Salam Boccaccio 98 Search and Rescue (SAR) Manual
6. Life raft certificates
7. Complete file delivered by Mr. Tarek Ezzo
8. 2<sup>nd</sup> copy of crew certificates
9. A file delivered from AlSalam Co. Executives
10. A file from Eng./ Mamdouh Ismael
11. A letter from AlSalam Co.
12. A letter delivered on the 20<sup>th</sup> May 2006

<sup>1</sup> Minus two names

<sup>2</sup> Plus one name

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## Annex No.6

List of all committee  
outgoing and received  
letters



**Incoming Correspondences**

SN	Date	From	Subject	Remarks
1	03/02/2006	Safaga VTS	Denial of receiving of a distress	To: EAFMS
2	05/02/2006	Navy	EPIRB Recovery	To: MTS / EAFMS
3	05/02/2006	Al-Salam Co.	British Station Details	To: EAFMS
4	06/05/2006	G. Attorney	Tec. Committee establishment	To: EAFMS
5	07/02/2006	Navy	2 SARTs recovery	To: EAFMS
6	08/02/2006	Al-Salam Co.	Ste Catherine Arr-Dept Schedule	To: EAFMS
7	08/02/2006	EAFMS	IN/OUT phone calls records	To : AlSalam Co.
8	12/02/2006	MOT	Armed forces nominations	To: EAFMS
9	13/02/2006	Safaga Radio	Latest Information on casualites	To: EAFMS
10	14/02/2006	AlSalam Co.	Duba PSC reply feed back	



**Outgoing Correspondences:**

SN	Date	To	Subject	Remarks
1	13/02/2006	Mr. K. Jacoby	Appointing of Mr. Sarwat as member	
2	13/02/2006	AlSalam Co.	Documents request	
3	15/02/2006	Mr. K. Jacoby	Appointing of Mr. Sarwat as member	
4	15/02/2006	H.E /MOT	Feed back on the Committee's work	
5	16/02/2006	AlSalam Co.	Request of Docs and survival , etc.	
6	21/02/2006	H.E /MOT	Docs of Duba port	
7	22/02/2006	H.E /MOT	Related phone calls list	
8	25/02/2006	RINA	Technical data request	
9	25/02/2006	AlSalam Co.	AlSalam 98 Contingency Plan	
10	25/02/2006	H.E /MOT	Request of Saudi member participation	
11	25/02/2006	AlSalam Co.	Interviewees nomination and schedule	
12	26/02/2006	EAFMS	Last PSC reports	
13	01/03/2006	AlSalam Co.	Consent to deliver VDR to owners rep.	
14	16/03/2006	Red Sea G.A	Reply on VDR request	
15	16/03/2006	AlSalam Co.	Headquarters visit notice	
16	26/03/2006	RINA	Info request	
17	26/03/2006	PSR	Docs request	
18	30/03/2006	Radio Holland Eg.	VDR installation details inquiry	
19	30/03/2006	Red Sea port Aut.	Inspectors interview	
20	30/03/2006	Egyptian PSC	PSCOs interview schedule	
21	30/03/2006	RINA	Inspector interview schedule	
22	04/04/2006	AlSalam Co.	Safaga office employee interview	
23	06/04/2006	Quseir Radio	Watch responsible interview	
24	11/04/2006	H.E /MOT	Assistance concerning Saudi party	
25	12/04/2006	PMA	Reply on a previous letter	
26	12/04/2006	PMA	PSR assistance in Docs supply	
27	09/04/2006	COSPAS SARSAT	EPIRB alerts received	E-mail
28	17/04/2006	Jeddah Radio	Related Navtex message	
29	18/04/2006	H.E /MOT	Al Salam 98 2/O Mili call postponement	
30	18/04/2006	EAFMS	Marine inspection memos	
31	18/04/2006	RINA	Stability conditions inquiry	
32	29/04/2006	PMA	Pre-report request	
33	02/05/2006	MOD	Inquiry on Committee members	
34	04/05/2006	AlSalam Co.	Former C/Os and 1st Engs	
35	07/05/2006	AlSalam Co.	Data request	
36	07/05/2006	RINA-Egypt	Declaration of owners as per DOC.	

37	09/05/2005	MTS	COSPAS-SARSAT letter	
38	09/05/2006	EAFMS	Former masters and C/Os	
39	09/05/2006	Safaga passports' Dep..	Former masters and C/Os	
40	09/05/2006	Suez passports' Dep..	Former masters and C/Os	
41	20/05/2006	Committee's members	Meeting invitation	6 members



## Annex (7)

### Main Factors Affecting the Assurance of Operation Safety of RORO Passenger Ferries.



## Main Factors affecting safe operation and safety assurance System of RORO passenger ferries.

The main Factors affecting safe operation and safety assurance system of RORO passenger ferries are:

### Owner- Managing Co.

Managing Company plays the major role in the safety system of RORO passenger ferries through ensuring safe operation of the vessel and her engines and through fitting her with the safety equipment and appliances needed for her passengers as well as operating her by competent and experienced masters and crew. This could be fulfilled by:

- Ensuring that the ferries are fulfilling all safety requirements issued by the international maritime organizations
- Employing qualified, competent and experienced technical and maritime management personnel complying with the requirements of the international maritime organizations.
- Implementing a safety management system satisfying all requirements of the international maritime organizations.
- Implementing the laws that control the manning and operation of this type of passenger ferries. (Master Officers, Engineering, Services and Sailors).

### Flag State (Panama)

- The ferry – Al Salam Boccaccio 98 - is registered in Panama and carried the Panamanian flag.
- The flag state plays a major role in ensuring the safety of the ferry through issuing the statutory certificates of safety by her maritime authorities or by authorized organizations for that purpose.
- The certificates issued by the flag state are – PSSC– Hull Safety Certificate– Radio Certificate –Tonnage Certificate – Load Line certificate.



## The Classification Society of the ferry

The Al-Salam Boccaccio98 ferry was classed with the Italian Classification Society, RINA, which also approved her design.

The Classification Society plays a major role in ensuring the safety of the vessel through issuing and conducting the following:

- Class certificate of the vessel –Type passenger RORO Ferry  
This certificate ensures that the hull has adequate strength to sustain the forces resulting from her loading, the waves and wind.
- Inspection and survey of the vessel's hull and machinery
- Review and approval of the Stability Booklet, which ensures compliance with the relevant stability criteria issued by the international maritime organizations for all expected loading conditions.
- Dry dock inspection and survey of the bottom structure of the ship.
- Check the light weight of the vessel and/or conducting the inclining test every 5 years
- Conducting any technical items on behalf of the flag state.

## The Ferry Sea Route

The ferry operates on regular voyages between the Egyptian and Saudi ports according to the protocol No. 33 - 1998 that controls the work and procedures of inspection and survey of the ferries and their safety equipment to ensure the safety of the ferry, her passengers, her crew and her cargo.

## Main Design Features of the Ferry – her Stability and her Safety Equipment

### Design of the Ferry

- The main dimensions of the ferry should be adequate to satisfy her safety and the safety of her passengers and crew.
- The hull of the ferry should be capable of sustaining all forces and moments affecting her through her sea voyages among waves.

- The design should satisfy the stability criteria issued by the International Maritime Organizations for this type of vessel for all expected loading conditions.
- The design should satisfy the requirements of seaworthiness.
- The design should ensure that the vessel has minimum motions among waves (rolling – pitching – heaving) to ensure comfort for her passengers, crew, and efficient work for her equipment – appliances and engines, as well as her safety when she is subjected to high dynamic forces.

### Navigational and Safety Equipment

The ferry should be provided with all safety equipment and appliances required for emergency conditions and that this equipment should be adequate and suitable for the certified number of passengers and crew.

These equipment and appliances includes:

- Rescue equipment (lifeboats, life rafts, life jackets, Fast rescue boat, etc.)
- Fire detection and fighting equipment
- Light and audio alarms
- Communication equipment (VHF Radio-NAVTEX-Satellite EPIRP, VDR, etc)
- Navigation equipment (radar– GPS- magnetic compass–autopilot-echo-sounder, etc.)

### Inspection and survey procedures conducted in the port of departure

- The ferry departed from Duba port (Saudi Arabia) on Thursday, February 2<sup>nd</sup>, 2006. This was the last port of departure of the ferry Al-Salam Boccaccio 98.
- The port maritime authorities is concerned with inspection and survey on the ferry – her cargo – her equipment and her safety equipment as well as issuing the necessary certificates and reports for ensuring her safety and the safety of her passengers.
- The authorities allow the ferry to depart only after all safety requirements are fulfilled.



### Port of arrival

The ferry was expected to arrive in the port Safaga (Egypt) on Friday February 3<sup>rd</sup>, 2006, at 2.30 am (Egypt time).

### Safety procedures in Safaga Port

- The laws, regulations and ministerial decrees issued since 1980 until 2005 plays a major role in ensuring the safety of vessels operating from Egyptian Ports, particularly RORO passenger vessels.
- Light and Ports authority was responsible for all inspection procedures on ships until December 2004.
- The Egyptian maritime safety authority is responsible for safety of ships from January 2005 through issuing certificates and reports to ensure the safety of Egyptian vessels and their passengers according to the laws and regulations and ministerial decrees issued by the maritime sector in Egypt for that purpose. These tasks are carried out by:

#### - Central Maritime Administration

This administration is concerned with:

- Ships carrying the Egyptian flag
- Conducts the annual inspection
- Authorizes classification societies, that the vessel is classed with, for issuing some certificates and conducting some technical issues.
- Inspects passenger ferries that carries foreign flag and operates in regular voyages between Egyptian and Saudi ports according to the ministerial decree No. 33 for the year 1998.
- Issuing Egyptian passenger certificates for these vessels

### The Port State Control Administration

This administration conducts surveys on not less than 15 percent of all foreign ships that operate from the Egyptian ports according to the memorandum of understanding of the Mediterranean Sea States.

## Cargo Load

- The type of cargo loaded on the garage deck, the system of loading and their distribution represents one of the indirect factors affecting safety of RORO passenger ferries.
- Cargo securing on the garage deck, particularly cars and trailers, should comply with the approved securing manual.
- It is necessary to satisfy all safety requirements when carrying dangerous cargo.
- It is necessary to leave adequate spaces and passages on the garage deck to enable crew to work efficiently in emergency conditions.

## Passengers

The large number of passengers, their culture, traditions, and behavior during sea voyages represent one of the main indirect causes affecting their safety, particularly in emergency conditions. This requires that the crew should take all actions to raise passengers safety awareness with all necessary information required in emergency conditions.

## Search and Rescue Operations

- The effectiveness of search and rescue system is considered one of the main elements of ensuring safety and rescue of passengers and crew when their ship is subjected to danger of sinking, fire or any other hazard.
- The effectiveness of communication, search and rescue system depends on the integration and merging activities of this system so as to operate under a unified management.
- The communication, search and rescue system includes:
  - Highly qualified personnel trained to operate and function properly under all hazardous conditions that ships are subjected to in severe sea conditions, particularly RORO passenger vessels.
  - Various communication equipment
  - High speed boats designed to operate under severe weather and sea conditions.





## Annex No.8

### The committee's letter to the Flag State



Prof. Dr. M.A. Shama  
Prof. of Naval Architecture and Shipbuilding  
Ex-Dean, Faculty of Engineering  
Alexandria University  
Head of Investigation Team of Al-Salam Boccaccio 98

Tel: 0123371045  
Fax: 03 592 1853  
e-mail: mohamedshama@hotmail.com

From: The Board of Investigation of Al Salam Boccaccio 98

4/9/2006

To: Panama Maritime Authority

Subject: AlSalam Boccaccio 98

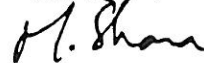
In reference to our previous fax to PSR dated 26<sup>th</sup> March 2006, copy of which is herein attached for easy reference.

You will appreciate that PSR has requested an authorization to release information and documentation required, such as was reported to your representative Mr. Reynaldo Garibaldi, who is a member in this Committee. Mr. Garibaldi has promised that your good self will give PSR the necessary authorization to release the following information and documentation.

Accordingly would you please be kind enough to instruct PSR to provide the technical investigation committee with the following:

- A copy of the file of "Al-Salam Boccaccio 98" including the history of the vessel, all reports, certificates and all additional safety requirements, if any, for the last five years.
- A copy of all information, calculations reports, tests, inclining experiments results and other relevant information related to the modification and conversion.
- Why, how and when it was decided to increase the number of passengers to become 2700 plus 90 crew, also details of the loading condition and stability for that number of passengers for both limited navigation (less than 20nm) and for unlimited navigation.
- Records of all Radio and navigation equipment.
- All the PSSC and survey reports and exemption certificates that were issued for the last 5 years.
- Survey reports ASI for the years 2004 and 2005.
- Contract agreement between Panama Shipping Registrar and the Panama Shipping Registrar Inc. Egypt with details carrying out the surveys in Egypt and Saudi Arabia.
- Authorization given to Capt. M.S.M. Reda to approve Cargo Securing Manual.

Best regards,



Prof. Dr. M. A. Shama

Chairman,

Investigation Board of Al-Salam Boccaccio 98



Copy Received  
10/4/06



## Annex No.9

**Letter of COSPAS-SARSAT  
in response to committee enquiry  
concerning the DISTRESS SIGNAL  
of the Al Salam Boccaccio 98  
received by Panama**



Adm Shireen Hassan Mahmoud  
Head of Maritime Transport Sector

CS06/088/F420

7 March 2006

Dear Sir

Please find below the answers to your letter received at the Cospas-Sarsat Secretariat on 6 March 2006. The information available to Cospas-Sarsat on the Al-Salam EPIRB transmissions is outlined in the attached document entitled "Summary of Cospas-Sarsat Initial Alert Data regarding the Vessel Al-Salam 98".

I also wish to underline that Cospas-Sarsat does not have responses to questions that are not in direct relation to the mission of the Programme. The responsibilities and commitments of Cospas-Sarsat Participants are solely to deliver distress alert notifications for 406 MHz EPIRBs to the responsible SAR Services, as identified to Cospas-Sarsat by National Administrations. Therefore, Cospas-Sarsat has no authority to request information from Administrations or SAR Services on matters beyond its competences, such as radio communications between coastal radio stations and ships in the vicinity of the Al-Salam distress site.

First question: "when the [first distress signal sent from France to Panama as the country of register] has been received in Panama and when it has been sent to the Owner or the Operator of the ship?"

The first alert message, which did not include location data for the distress site since no such data was provided in the EPIRB alert message (see attached summary document), was sent by the USA Mission Control Center (USMCC) at 23:37 (UTC) - 2 February 2006 to Aeronautica Civil of Panama. Aeronautica Civil is the contact point designated by Panama for Cospas-Sarsat alerts. Receipt of this message was confirmed by Aeronautica Civil, with the information that the alert had been forwarded to the maritime authorities of Panama. The follow-up actions of the Panamanian maritime authorities are not known to Cospas-Sarsat; therefore, I do not know when the alert might have been sent to the owner or the operator of the ship.

I would also like to comment that all alerts received in the Cospas-Sarsat system are forwarded to the intended recipient in accordance with a detailed Data Distribution Plan. This document (reference C/S A.001), which can be downloaded from the Cospas-Sarsat website ([www.copsas-sarsat.int](http://www.copsas-sarsat.int)), indicates that, in the case of alerts from the Central Data Distribution Region (e.g. Europe) to be sent to Panama, such alerts should be routed via the French Mission Control Centre (FMCC), a "node" of the Cospas-Sarsat

communication network, to the USMCC, for distribution to the designated authority in Panama. Therefore, the alert sent by France referred to in your letter was actually delivered via the USMCC, in accordance with the procedures spelled out in the Cospas-Sarsat Data Distribution Plan.

Second question: *"When [the second message which contained the position] has been received in Algeria and when it has been sent to Egypt and Saudi Arabia ... and to whom?"*

The details of the transmission to Egypt of the second alert with a computed location are provided in the attached Summary document.

In accordance with Cospas-Sarsat procedures, all alerts obtained by the Cospas-Sarsat System that included Doppler position data for this distress event were routed by each MCC in the System on the basis of the location. As the locations were all in Egypt's area of responsibility for Search and Rescue, these alerts were all forwarded to the Spanish Mission Control Center (SPMCC) that serves as communication node for this Data Distribution Region, then to the Algerian Mission Control Center (ALMCC) which has responsibility for the distribution of Cospas-Sarsat alerts located in the Egyptian SAR region.

The first message to the Egyptian SAR Point of Contact (SPOC) was sent by ALMCC at 00:37 (UTC) - 3 February 2006. The recipient was Egypt SAR Centre at Almaza Air Force Base, the search and rescue contact designated by Egypt to Cospas-Sarsat. The network used was the Aeronautical Fixed Telecommunication Network (AFTN) and all messages were sent with high priority (SS).

The third alert message with a resolved Doppler position was sent to Egypt SAR Centre at 01:10 (UTC) - 3 February 2006. All subsequent alerts were also sent to Egypt SAR Centre. ALMCC indicated that no acknowledgement was received from the Egyptian SPOC for these alert messages.

Third Question: *"When and at any time did Radio Jeddah or any other Saudi stations or authorities in the region have received and broadcasted the distress signal or SAR messages from the EPIRB or from the passing ships in vicinity, especially Sainte Catherine?"*

Since all position data for the EPIRB indicated a location in the Egyptian Search and Rescue Region, the Cospas-Sarsat System alerts described above were not sent to Saudi Arabia.

The Cospas-Sarsat Secretariat has no information on the operation of the Cospas-Sarsat satellite station located at Jeddah, Saudi Arabia, which did not transmit any alerts over the Cospas-Sarsat communications network in respect of the Al-Salam 98 incident.



Regarding this matter, you may wish to directly contact the Representative of Saudi Arabia in the Cospas-Sarsat Programme:


Mr. Salem Al Jahdli, Head SAMCC  
Presidency of Civil Aviation  
Air Traffic Services, P.O.Box 929  
Jeddah 21421  
Saudi Arabia

Tel: +966 2 6855033 / 038  
+966 2 6855812  
Fax: +966 2 6854021  
Email: salemjahdli@gawab.com

Cospas-Sarsat cannot respond on matters concerning other Saudi Arabia authorities. In particular Cospas-Sarsat is not aware of any distress alert message, received or sent, in respect of the ship Sainte Catherine.

I hope this information will help you in your inquiry on the Al-Salam disaster. Please accept, Sir, the assurances of my highest consideration.

Daniel Levesque  
Head Cospas-Sarsat Secretariat



## Annex No.10

### Committee comments on The Fire control plan



Fire prevention, detection and fighting according to plan approved by RINA on 5/8/2004

1. The garage is fitted with water spray system ( manually operated) also heat sensors
2. The accommodation is fitted with smoke detection and sprinkler system
3. Several non-profitable 25 kg powder fire extinguishers are distributed
4. Several portable 6 kg powder fire extinguishers are distributed
5. Several fire stations provided with hydrants and hoses are distributed
6. Several breathing apparatus and emergency escape breathing apparatus are distributed
7. Fixed fire extinguishing system by CO<sub>2</sub> for fighting in Engine room.

Remarks on the plan:

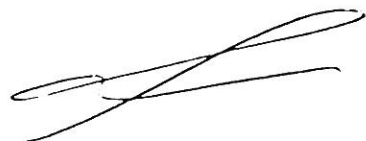
1. Only powder extinguishers are shown
2. The symbols in the table are incomplete and do not cover all equipment.





## Annex No.11

**Comments of the committee  
on the stability booklet  
of the Passenger RO-RO Ferry  
Al Salam Boccaccio 98**



## Errors in implementing stability criteria in the stability booklet issued by RINA in 2005

### Stability criteria used

1. Initial GM  $\geq 0.15$  m
2. Area from  $\Theta = 0$  to  $30^\circ$   $\geq 0.055$
3. Area from  $\Theta = 0$  to  $40^\circ$   $\geq 0.09$
4. Area from  $\Theta = 30^\circ$  to  $40^\circ$   $\geq 0.03$
5. Maximum GZ to accurate at an angle not less than  $30^\circ$
6. Maximum GZ to be at least 0.2m

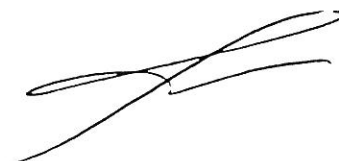
The following table gives a summary of the main results obtained from reviewing the fulfillment of the stability criteria for all loading conditions given in the stability booklet of the Al Salam boccaccio98,

Loading Condition	Loading	Angle at GZ max	Range of $\Theta$	Area under GZ curve bet. $30^\circ$ and $40^\circ$	GM (m)	GZ @ $\Theta = 30^\circ$	Area between $\Theta = 30^\circ$ and capsizing
1- Departure	1077 Pass+ 96 crew	21.5'	50'	0.104 m-radius	2.842	0.714	0.1494
2- Arrival	1077 Pass+ 96 crew	20'	42.5'	0.0487	2.5989	0.463	0.0605
3- Departure	1077 Pass+270 t cargo	22'	48.5'	0.097	2.7706	0.68	0.1314
4- Arrival	1077 Pass+270 t cargo	20'	46.5'	0.07	2.649	0.561	0.0968
5- Departure	1300 pass	21.5'	49'	0.094	2.835	0.673	0.1332
6- Arrival	1300 pass	20'	42'	0.04	2.564	0.441	0.0553
7- Departure	1300 pass + cargo	22'	48.5'	0.10	2.748	0.672	0.130
8- Arrival	1300 pass + cargo	20.5'	46'	0.07	2.6267	0.562	0.0940
9- Arrival	1300 pass + cargo + 10% fuel & stores	20'	44'	0.05	2.538	0.472	0.069
10- Arrival	1300 pass+ 10% fuel & stores	20'	40'	0.03	2.469	0.354	0.0370
11- Departure	Ballast	22'	50'	0.104	2.968	0.724	0.1515
12- Arrival	Ballast + 10% fuel & stores	20.5'	46'	0.07	2.6735	0.562	0.0940
AA- Departure	2500 pass+ cargo	21.5'	48'	0.09	2.625	0.624	0.1175
AB- Arrival	2500 pass+ cargo	20'	43'	0.05	2.416	0.468	0.0636

From the analysis of this table, it is concluded that some of the loading condition do not satisfy the minimum requirements of the criteria given above as follows:

- Criteria (1) is fulfilled
- Criteria (2) is fulfilled
- Criteria (3) is fulfilled
- Criteria (4) is critical for some loading conditions
- Criteria (5) is not fulfilled for all loading conditions
- Criteria (6) is fulfilled

Note: 1- Loading conditions AA-AB are calculated after sinking of the ferry  
 2- The angle of vanishing stability varies between 40 and 50 deg., which is rather low for this type of vessel.



## Annex No.12

### RINA answers to the committee enquiries



RINA

- e. Any questions relating to Statutory Certificates not issued by RINA should therefore be addressed to the Flag Administration and/or to the RO which issued those Statutory Certificates.

**Q5. RINA approval of a stability condition for 2790 passengers**

RINA has neither approved, nor has RINA been involved in, any verification, survey or calculation, regarding a stability condition for 2790 passengers, or persons, on board.

**Q6. Smoke detection system in the garage**

The ship was provided with heat detectors in the garage. No smoke detectors were fitted.

**Q7. Commercial registration of the RINA Cairo Office**

The RINA Cairo Office will provide a copy of this document directly to the Investigation Committee.

**Q8. Damage stability calculations**

RINA carried out damage stability calculations and relevant approval of the stability booklet, both at the time of construction (in compliance with SOLAS '60 stability standards and special subdivision standards as a one-compartment ship) and in subsequent years (in accordance with applicable SOLAS requirements).

In 2004, the ship was provided with a Passenger Ship Safety Certificate (PSSC) issued by RINA on behalf of the Panamanian Administration, for 1100 passengers and 86 crew members on board.

In 2005, RINA approved an updated stability booklet, in compliance with SOLAS '90 stability standards and special subdivision standards (Reg. II-1/8.5.2) as a one-compartment ship.

The last PSSC certificate issued by RINA on behalf of the Panamanian Administration for this vessel expired on 13 June 2005. No further PSSC has subsequently been issued by RINA, nor has RINA been involved in any verification, survey, or calculation relevant to any further PSSC issued for this ship.

**Q9. Stability calculations with different levels of water in the garage deck**

Assuming that; (i) the initial angle of heel before any accumulation of water on deck is equal to zero, (ii) water cannot be discharged through the scuppers, and (iii) no other inclining effect occurred; the actual angle of heel ( $\theta$ ) is a function of the amount of water on deck ( $M$ ) and the internal level of water along the side shell ( $h$ ) (see Figure 2).

The results of stability calculations are shown, as requested, for the following conditions:

- (i) For an amount of water on deck  $M=185t$ , corresponding to  $h=0,25m$  and  $\theta=0,9^\circ$ . The relevant stability diagram is shown in Figure 3.
- (ii) For an amount of water  $M=205t$ , corresponding to  $h=0,40m$  and  $\theta=2,2^\circ$ . The relevant stability diagram is shown in Figure 4.
- (iii) For an amount of water  $M=450t$ , corresponding to  $h=1,15m$  and  $\theta=8,4^\circ$  (same amount of water for an angle of heel equal to  $0^\circ$  and  $h=0,25m$  throughout the whole deck). The relevant stability diagram is shown in Figure 5.
- (iv) For an amount of water  $M=720t$ , corresponding to  $h=1,93m$  and  $\theta=14,4^\circ$  (same amount of water for angle of heel equal to  $0^\circ$  and  $h=0,40m$  throughout the whole deck). The relevant stability diagram is shown in Figure 6.



RINA

Q10. Midship section drawing

Drawing sent by separate letter, by courier.

Further details about the activities carried out by RINA relating to this ship are available on the RINA web site ([www.rina.org](http://www.rina.org)), technical update #3, Ship History.

FIGURES

M (Mass of water on deck) - Theta (heel angle)

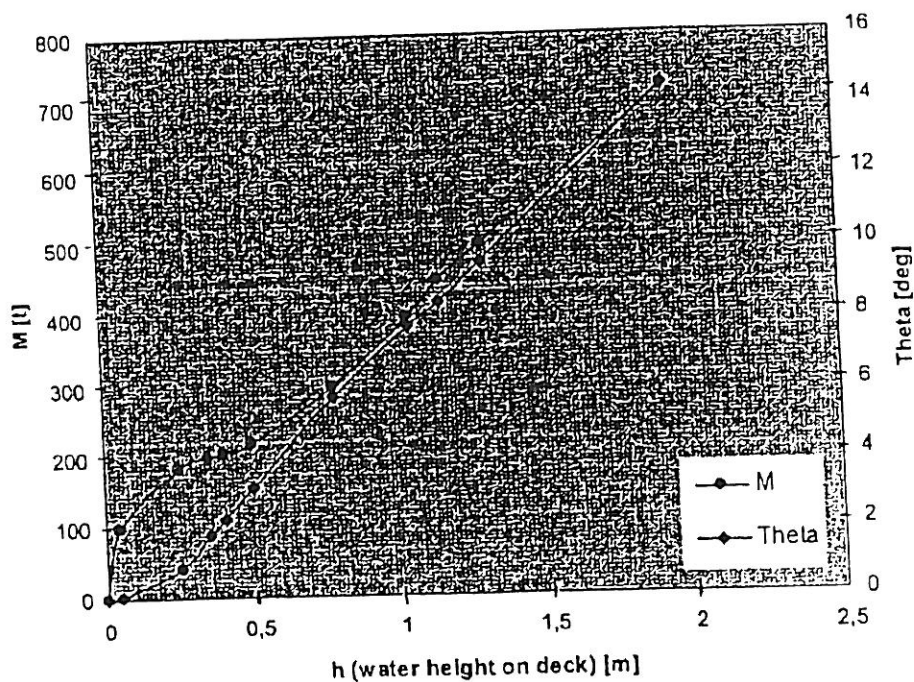


Figure 2



RINA

Stability diagram

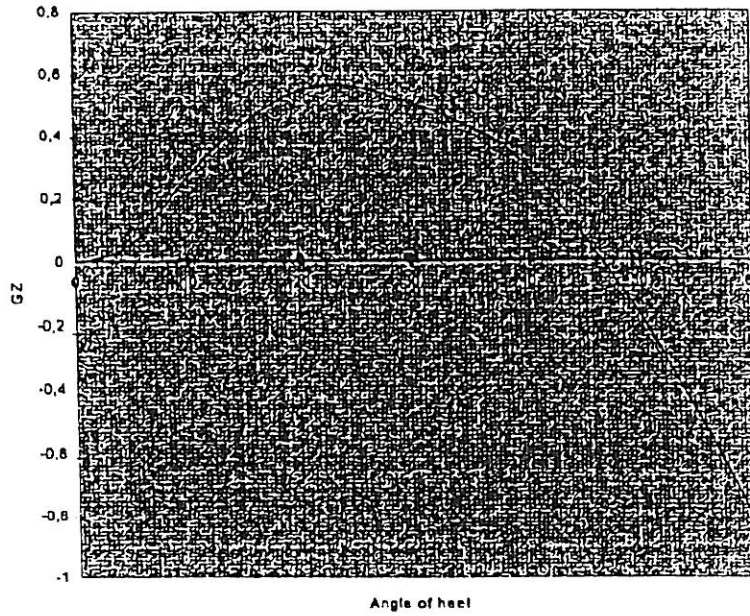


Figure 3 (M=185 t)

Stability diagram

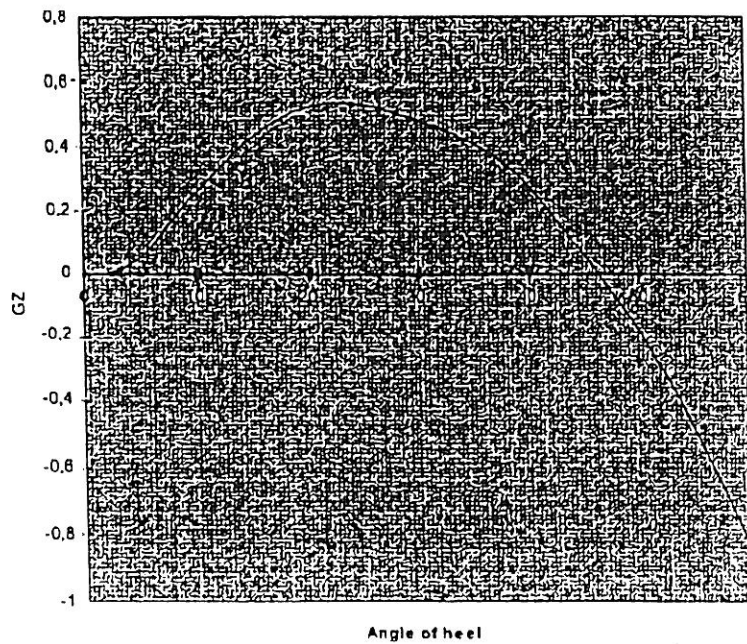


Figure 4 (M=205 t)



RINA

Stability diagram

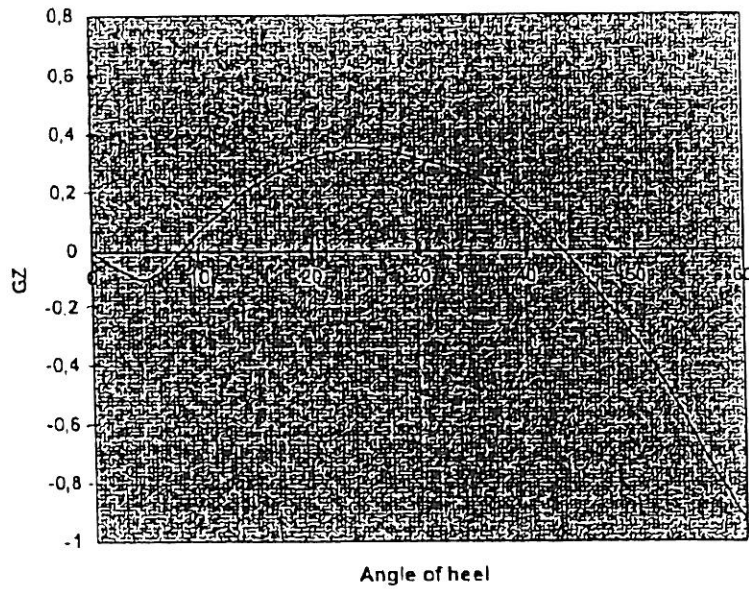


Figure 5 (M=450 t)

Stability diagram

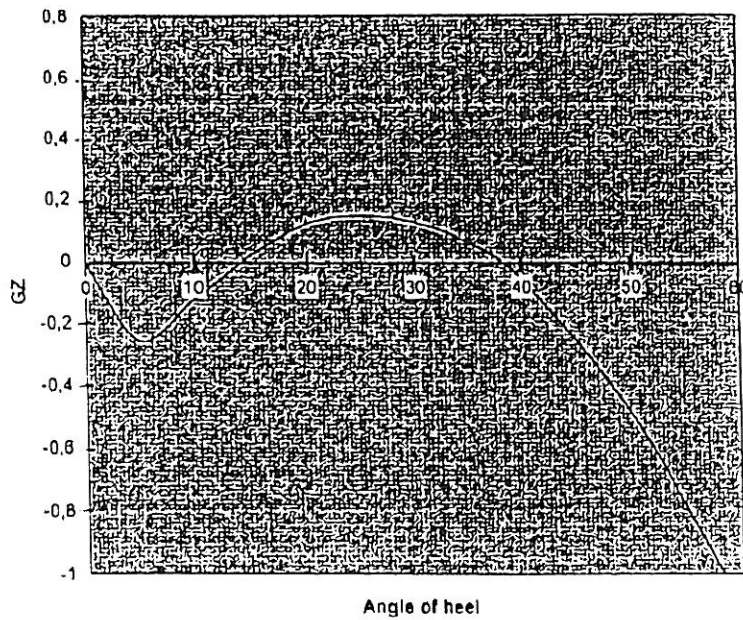


Figure 6 (M=720 t)

## Annex No.13

**Ministerial decree  
No. 36 Year 1998**





## List of Attachments

### Attachment No.

### Contents

1	statements taken from all persons
2	ferry's certificates
3	downloaded data from the VDR
4	documents received from management Co.
5	all communications of the committee
6	7 video tapes
7	letter from RINA
8	cargo manifest
9	ministry letter of No. of passengers
10	RINA's letter
11	ISM code of the Ferry Al Salam Boccaccio98
12	2 PSSC OF Al Salam 92
13	data of the training course of PSR



دولة فلسطين

وزارة النقل والمواصلات

مكتب الوزير

ARAB REPUBLIC OF EGYPT

MINISTRY OF TRANSPORT  
AND COMMUNICATIONS

Minister's Office

- ٢٠٠ -

مادة (٨) تقوم الجهة المختصة بإجراء عمليات تفتيش ومعاينة دورية ولجانية على عبارات ومفن نقل الركاب العاملة بين الموانئ المشار إليها للتأكد من استمرار صلاحيتها الفنية واستيفائها لجميع متطلبات السلامة طبقاً لأحكام الأنظمة الدوائية المصرية فهي مسر ولا يجوز بأي حال من الأحوال تقرير أية إعفاءات للسفن يكون من شأنها التأثير على سلامة السفن أو النفايل من كفاءتها أو المساس بسلامة الركاب .

مادة (٩) لا يصدر ح لوية عبارة أو مةينة بنقل ركاب من الموانئ المصرية الى الموانئ السعودية إلا بعد التأكد من أنها متدلة بنامين على الركاب وامتدتهم من إحدى شركات التامين أو أحد اذوية الحماية والتأمين ( I & P ) .

مادة (٧) وز الجهة المختصة الامتدانة على نذتها بخبراء متخصصين من الهيئات أو الجهات المتخصصة للنشرك في عمليات التفتيش والمعاينة الدورية أو الفجانية للسفن والبارات العاملة بين الموانئ المشار إليها وذلك فيما يتعلق بتقرير صلاحية الهدن والالانت وخطوط الشحن .

مادة (٨) ينشر هذا القرار في الرقاع المصرية ويعمل به اعتباراً من اليوم التالى لتاريخ نشره .

وزير

النقل والمواصلات

( مهندس / سليمان مؤولى سليمان )