



**Sjøfartsinspektøren**  
*Maritime Investigator*  
Oslo



**3/2003 M**

## **Vesiliikenneonnettomuuksia ja vaaratilanteita Waterborne accidents and incidents**

MS ANTARES, MOB lifeboat falling into the sea in the port of Uusikaupunki,  
FINLAND, July 5, 2001

MS ANTARES, MOB-veneeseen putoaminen mereen Uudenkaupungin  
satamassa 5.7.2001

**Onnettomuustutkintakeskus  
Centralen för undersökning av olyckor  
Accident Investigation Board Finland**

**Osoite / Address:** Sörnäisten rantatie 33 C      **Address:** Sörnäs strandväg 33 C  
FIN-00580 HELSINKI      00580 HELSINGFORS

**Puhelin / Telefon:** (09) 1606 7643  
**Telephone:** +358 9 1606 7643

**Fax:** (09) 1606 7811  
**Fax:** +358 9 1606 7811

**Sähköposti:** onnettomuustutkinta@om.fi tai etunimi.sukunimi@om.fi  
**E-post:** onnettomuustutkinta@om.fi eller förnamn.släktnamn@om.fi  
**Email:** onnettomuustutkinta@om.fi or forename.surname@om.fi

**Internet:** www.onnettomuustutkinta.fi

**Henkilöstö / Personal / Personnel:**

Johtaja / Direktör / Director	Tuomo Karppinen
Hallintopäällikkö / Förvaltningsdirektör / Administrative director	Pirjo Valkama-Joutsen
Osastosihteeri / Avdelningssekreterare / Assistant	Sini Järvi
Toimistosihteeri / Byråsekreterare / Assistant	Leena Leskelä
Ilmailuonnettomuudet / Flygolyckor / Aviation accidents	
Johtava tutkija / Ledande utredare / Chief air accident investigator	Tero Lybeck
Erikoistutkija / Utredare / Aircraft accident investigator	Esko Lähteenmäki
Raideliikenneonnettomuudet / Spårtrafikolyckor / Rail accidents	
Johtava tutkija / Ledande utredare / Chief rail accident investigator	Esko Värhtiö
Erikoistutkija / Utredare / Rail accident investigator	Reijo Mynttinen
Vesiliikenneonnettomuudet / Sjöfartsolyckor / Maritime accidents	
Johtava tutkija / Ledande utredare / Chief maritime accident investigator	Martti Heikkilä
Erikoistutkija / Utredare / Maritime accident investigator	Risto Repo

---

ISBN 951-836-103-7

Multiprint Oy, Helsinki 2003



## LUKIJALLE

**Vesiliikenneonnettomuuksien tutkinta.** Onnettomuustutkintakeskus tutkii Suomessa vesiliikenneonnettomuudet, jotka ovat tapahtuneet:

- Suomen aluevesillä tai
- joissa osallisena on ollut suomalainen alus.
  
- Myös vesiliikenteessä tapahtunut vaaratilanne voidaan tutkia.

Veneilyssä tapahtunut onnettomuus tutkitaan kuitenkin vain, jos sen tutkiminen on erityisestä syystä perusteltua turvallisuuden lisäämiseksi tai uusien onnettomuuksien ehkäisemiseksi.

Onnettomuuksien tutkinta perustuu lakiin (373/1985) ja asetukseen (79/1996) onnettomuuksien tutkinnasta. Onnettomuuksien tutkinta tehdään IMO:n merionnettomuuksien tutkintaa koskevissa päätöslauselmissa A.849(20) ja A.884(21) esitettyjen periaatteiden mukaisesti ja siinä otetaan huomioon Euroopan Unionin direktiivi 1999/35/EY pakollisesta katsastusjärjestelmästä säännöllisen ro-ro-alusliikenteen ja suurnopeusmatkustaja-alusliikenteen turvallisen harjoittamisen varmistamiseksi. Onnettomuustutkinnan raportoinnissa käytetään Onnettomuustutkintakeskuksessa vakiintunutta muotoa ja tutkintaselostukset julkaistaan joko erillisinä julkaisuina tai kokoomajulkaisussa "Vesiliikenneonnettomuuksia ja vaaratilanteita" sekä myös internet-osoitteessa [www.onnettomuustutkinta.fi](http://www.onnettomuustutkinta.fi).

**Tässä julkaisussa** on englannin- ja suomenkielinen tutkintaselostus onnettomuudesta:

*C 6/2001 M MS ANTARES, MOB lifeboat falling into the sea in the port of Uusikaupunki,  
Jnr. 397A/01 FINLAND, July 5, 2001*

*C 6/2001 M MS ANTARES, MOB-veneeseen putoaminen mereen Uudenkaupungin  
Jnr. 397A/01 satamassa 5.7.2001*

Helsingissä 5.3.2003



## TO THE READER

**Investigation of accidents in waterborne traffic.** In Finland the Accident Investigation Board investigates all waterborne traffic accidents that have occurred:

- in Finland's territorial waters or
- in which a Finnish vessel have been involved.
  
- In addition, incidents in waterborne traffic can also be investigated.

An accident in which a leisure boat has been involved will only be investigated if the investigation is considered useful for improving safety and preventing new accidents.

The statutory basis of accident investigation in Finland is the Accident Investigation Act (373/1985) and the Accident Investigation Degree (79/1996). The investigations are carried out in accordance with the principles stated in the IMO Code for the investigation of maritime casualties and incidents, agreed upon in resolutions A.849(20) and A.884(21) as well as in EU directive 1999/35/EC on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high speed passenger craft services. In the reporting of accident investigations, the Accident Investigation Board follows an established form and the investigations are published either in separate publications or in the publication series "*Waterborne accidents and incidents*" as well as in the internet address [www.onnettomuustutkinta.fi](http://www.onnettomuustutkinta.fi).

The investigation reports contained in this publication are:

*C 6/2001 M MS ANTARES, MOB lifeboat falling into the sea in the port of Uusikaupunki,  
Jnr. 397A/01 FINLAND, July 5, 2001*

*C 6/2001 M MS ANTARES, MOB-veneeseen putoaminen mereen Uudenkaupungin  
Jnr. 397A/01 satamassa 5.7.2001*

Helsinki, March 5, 2003



**Sjøfartsinspektøren**  
*Maritime Investigator*  
Oslo



## **Investigation report**

C 6/2001 M  
Jnr. 397A/01

# **Ms ANTARES, MOB lifeboat falling into the sea in the port of Uusikaupunki, FINLAND, July 5, 2001**

This investigation report was written to improve safety and prevent new accidents. The report does not address the possible responsibility or liability caused by the accident. The investigation report should not be used for purposes other than the improvement of safety.



## SUMMARY

Norwegian roro vessel ANTARES was berthed in port of Uusikaupunki, Finland on July 5, 2001. Ship's fast rescue boat, MOB, was to be served and it was lowered to water with two men, an engineer and the third mate. The engineer and mate serviced the boat and then gave it a trial run in the harbour basin. They proceeded close to the ship's stern ramp, where the bosun and chief mate were watching the loading of the vessel. The engineer wanted to go to the ship's engine room, and he asked the chief mate if he could be replaced in the MOB boat. The chief mate ordered the bosun to go to the boat station and he went into the boat himself. The chief and third mates then got the boat to its hoisting position, made the block fast and used an extra chain to secure the block. The boat was hoisted up almost to its storage position. The chief mate was just about to step off the boat when he heard a noise, and the boat fell into the sea with both mates. The third mate died and the chief mate got injured.

The investigation concludes that the mechanical splice, (talurite, ferrule) in the fall wire failed either because of a fault in the splicing process, or because it had been subjected to external stress or an outside force during its use prior to the accident.



## INDEX

SUMMARY.....	I
1 GENERAL DESCRIPTION AND INVESTIGATION OF THE ACCIDENT .....	1
1.1 The Vessel .....	1
1.1.1 General data.....	2
1.1.2 Company.....	2
1.1.3 Manning and Restrictions.....	2
1.1.4 Lifeboats.....	3
1.2 The Accident .....	3
1.2.1 Weather conditions .....	3
1.2.2 Using the MOB boat, hoisting and the accident.....	3
1.3 Rescue operations .....	3
1.3.1 Alarms .....	3
1.3.2 Rescuing Human Life.....	4
1.3.3 Personal injuries.....	5
1.3.4 Other damage .....	5
1.4 Regulations, MOB-boats.....	6
1.5 Accident Investigation .....	7
1.6 Tests and research work done during investigation .....	7
2 ANALYSIS.....	9
2.1 Official rules and regulations.....	9
2.2 Company's standing safety Orders.....	9
2.3 The boat and the fall wires.....	9
2.4 MOB boat's fall wire and the talurit clamp failure .....	10
2.5 Rescue operation, alarm and rescue.....	12
2.6 Other similar accidents .....	13
3 CONCLUSIONS.....	15
3.1 The causes.....	15
3.2 Latent factors .....	15
3.3 Ship board practices .....	15
3.4 Ship's lifting gear, inspections .....	15
4 RECOMMENDATIONS .....	17

## APPENDICES

Appendix 1. Report of the laboratory of National Bureau of Investigation, Finland

Appendix 2. Statement of the Finnish Maritime Administration

## LIST OF SOURCES

## 1 GENERAL DESCRIPTION AND INVESTIGATION OF THE ACCIDENT

### 1.1 The Vessel



Figure 1. MV ANTARES, the MOB boat in its station (© Finnlines Ltd).





### 1.1.1 General data

Name of ship	MV ANTARES
Home Port	Oslo
Flag state	Norway
IMO code	8500186
Registration	NIS
Call sign	LAPW5
Type	Ro-Ro vessel
Crew	20 persons
Passengers, maximum	5 persons
Operator	Finnlines, Finland
Classification society	Det Norske Veritas
Classification	1A1 General Cargo Carrier Ro / Ro EO Ice – 1A
Year and place of construction	1988 (Hull 489-Gdansk, Poland)
Length	157.63 m
Width	25.30 m
Draught	7.31 m (summer)
Gross capacity	19963
Net volume	5989
Dead weight	8400 tons
Machine power	14400 kW
Speed	20.5 knots

### 1.1.2 Company

ANTARES changed to Norwegian flag on August 10, 2000. She was registered in the Norwegian International Ship Register (NIS). The owner is Actinor RoRo II AS, Rådhusgaten 27, 0158 Oslo, Norway. The management company is Barber Ship Management AS, Postbox 33, 1324 Lysaker, Norway.

### 1.1.3 Manning and Restrictions

The operational shipping company used a Polish Manning Company to enlist a crew. The Master is Norwegian, while all other officers and crew are Polish.



#### **1.1.4 Lifeboats**

The ship has two life boats each holding 10 persons, situated on the sides of the superstructure, and one fast rescue boat (MOB) on the port side, midships.

The ANTARES was built in Poland 1988 for Finnish owners. She was the first vessel of this type in Finland that was obliged to carry a MOB boat.

### **1.2 The Accident**

#### **1.2.1 Weather conditions**

The weather was good, variable wind, force 2 Beaufort. It was daylight and the visibility was good. Air temperature was +27° C. There were no waves or current.

#### **1.2.2 Using the MOB boat, hoisting and the accident**

The ANTARES' third engineer wanted to change the MOB boat's fuel, and also clean/change the engine's fuel filter. He and the third mate were on board the MOB boat when it was lowered into the water by the ship's bosun just after 1300 hrs, using the winch on deck. The engineer and mate serviced the boat and then gave it a trial run in the harbour basin. They proceeded close to the ship's stern ramp, where the bosun and chief mate were watching the loading of the vessel. The engineer wanted to go to the ship's engine room, and he asked the chief mate if he could be replaced in the MOB boat. The chief mate ordered the bosun to go to the boat station and he went into the boat himself. The chief and third mates then got the boat to its hoisting position, made the block fast and used an extra chain to secure the block. The boat was hoisted up almost to its storage position. The time was 1500–1502 hrs. The chief mate was just about to step off the boat when he heard a noise, and the boat fell into the sea with both men.

### **1.3 Rescue operations**

#### **1.3.1 Alarms**

The master was in his cabin when he felt a movement of the ship and heard a noise. He looked out of the window and noticed that there was no steel wire or boat in the MOB davit. He heard the second mate calling out over the internal radiotelephone: "Man overboard. The bosun was hoisting the MOB boat when the wire came loose and the boat fell." The master ran down to the after ramp where he asked the stevedore to call for help. The rescue centre was called at 1502 hrs and informed that there was a man-overboard situation on board the ANTARES. The rescue centre sent five rescue units, the first four of which arrived between 1510 and 1511 hrs. The rescue centre informed the police at 1506 hrs and the Maritime Rescue Co-ordination Centre (MRCC) at 1517 hrs.



Figure 2. The rigging station for the MOB boat.

### 1.3.2 Rescuing Human Life

The chief mate found himself in the water and he started to swim to the partly submerged MOB boat. He took off his lifebelt because it was hampering his movements in the water. He stayed with the boat and saw a small craft approaching. A man from Uusikaupunki town had been close by with his motor boat, had noticed the splash from the falling boat and had then approached to see what was going on. He helped the chief mate into his own boat and then went to the pier, from where the chief mate was taken to hospital.

The third mate could not be seen on the surface of the water. The rescue divers began an underwater search. The first diver went down at 1515 hrs and another at 1517 hrs. At around 1600 hrs it was decided to stand down the search-and-rescue divers. The police officer who was at the scene asked the rescue department to provide assistance for searching for the missing person who was then presumed dead. Divers on home leave were called and the diving continued. The body of the dead mate was found at 1800 hrs in the depth of 10 metres, 20 metres aft and about 5 metres sidewise from the hull from where the MOB boat had fallen.

### 1.3.3 Personal injuries

The third mate was killed and the chief mate suffered of broken right hand and muscular injuries.

### 1.3.4 Other damage

The MOB boat's hull and equipment were badly damaged.



Figure 3. The damaged boat's steering pulpit.



Figure 4. The MOB boat after the accident.

#### 1.4 Regulations, MOB-boats

In every seafaring country, the regulations concerning lifeboats, rescue boats and drills are based on the International Maritime Organization's (IMO) Safety of Life at Sea (SOLAS) Resolution<sup>1</sup>. A ro-ro passenger ferry like the ANTARES was required to have a fast rescue boat. The boat, davits and winches must be inspected and maintained according to SOLAS Chapter III, part B, Reg 20 Nos. 1-7: "Operational readiness, maintenance and inspections". The rule stipulates that the gear should be visually inspected weekly and that a monthly inspection should be carried out, according to a check list, to ensure that the boat and its equipment are complete and in good order. These inspections are carried out by the ship's crew. Same Reg Nos. 11.1-11.2 also stipulates that launching appliances and on-load release gear are serviced at recommended intervals in accordance with instructions for on-board maintenance.

Other lifting gear on board, such as cargo-handling and engine-room lifting appliances, come under the International Labour Organization (ILO) Convention 152<sup>2</sup>. The rules state that the gear must be visually inspected before every use; inspected every 3 months by personnel delegated by the master; inspected annually by a competent person; and be subjected to thorough excessive load tests every 5 years by a competent person.

<sup>1</sup> SOLAS Consolidated Edition 2001, Chapter III, Part B, Section I and Section III

<sup>2</sup> International Labour Office, Convention 152, Health and Safety in Dockwork, 1979



## 1.5 Accident Investigation

The police immediately started an investigation to ascertain what had happened. An inspector from the Finnish Maritime Administration and an inspector from the Labour Safety Inspectorate arrived to the scene. The Maritime Inspector informed the Accident Investigation Board's duty officer.

With the decision C 6/2001 M, Accident Investigation Board Finland ordered captain Risto **Repo** to act as Investigator of the case. The Norwegian investigation was conducted by captain Finn **Paulsrud**, the Maritime Investigator in Oslo.

It was agreed to make a joint investigation and this is the report prepared together by the Finnish and Norwegian investigators.

The ANTARES' master gave a Maritime declaration on July 20, 2000 in the Royal Norwegian Embassy in Helsinki

## 1.6 Tests and research work done during investigation

The Maritime Inspector of the Southwest District, Finnish Maritime Administration, and an inspector from Labour Safety Inspectorate came on site on the day of the accident. Some evidence was then taken ashore and the hoisting machinery was sealed on board for future investigation. The limit switches of the davit were checked and found being in good operative condition. The Uusikaupunki police started to make a formal investigation to find out the cause of death of the third mate.

On July 9, when ANTARES was back in Uusikaupunki, the accident investigator and police made some open interviews among the crew. The MOB boat, its rigging onboard and the fall wire were thoroughly inspected.

When the Maritime Declaration was given in Helsinki, the accident investigator was present as well as the Maritime Inspector from Norway.

The fall wire of the accident boat was tested in the laboratory of National Bureau of Investigation, Finland.



## **2 ANALYSIS**

### **2.1 Official rules and regulations**

The Regulations concerning Life Boats, Rescue Boats and drills are based in every seafaring country on IMO's SOLAS Resolution. A ro-ro passenger ferry like ANTARES was to have a fast rescue boat. According to the regulations the crew must train with the boat regularly and the boat, davits and winches must be serviced by ship's personnel.

The ideology of life-saving equipment on board is for one time use only to abandon the ship. This is why the davits and wires of life-boats and rescue boats are not included in ship's lifting gear. This ideology is not valid today anymore. These are often used more regularly than other lifting gear on board but the inspection rules are different as described in paragraph 1.4.

### **2.2 Company's standing safety Orders**

The ANTARES was not certified according to the International Safety Management (ISM) code on the date of the accident, but preparation for this certification had already been started. The ship/company was ISM certified on December 5, 2001. The final date for cargo ships to be ISM certified was July 1, 2002.

An internal audit had been carried out on board on November 18, 2000. This meant, in effect, that ISM procedures were being followed on board at the time of the accident.

### **2.3 The boat and the fall wires**

A MOB boat on this type of a ship with a significantly high deck has to be of the single-hook type for practical reasons. When the ANTARES was under the Finnish flag, it was the practice to use the steel fall wire for 2½ years, then to turn it around (change ends) to make sure that wear and tear would not always occur at the same place on the wire. After another 2½ years the wire was replaced with a new one. From the time under the Finnish flag, the last note made on the MOB boat's wire was on April 18, 1998 and read: "Turned fall wires end for end". On the same day, this same operation was carried out on the lifeboats' wire ropes. This was noted in the ship's lifting-appliance register by the chief mate.

Under the Norwegian flag, the following was entered in the regular-inspection book for loose gear on October 7, 2000: "Renewed wire fall, checked release hook on MOB rescue boat".

Thus, even though the ship's flag and operator had changed, the same procedures with respect to the fall wires had been followed.

## 2.4. MOB boat's fall wire and the talurit clamp failure

The MOB boat's galvanized fall wire was manufactured in Rotterdam on September 12, 2000 and had certificate nr. 069423. The nominal diameter of the fall wire was 16 millimetres, its length 35 metres, and its breaking load 193.1 kN. The ship received the fall wire on September 15, 2000.

A talurite clamp (mechanical splice) was fitted to one end of the fall wire before it was installed on the MOB boat. The mounting of the talurite clamp was not done on board but by a company in Aarhus, Denmark on September 26, 2000.

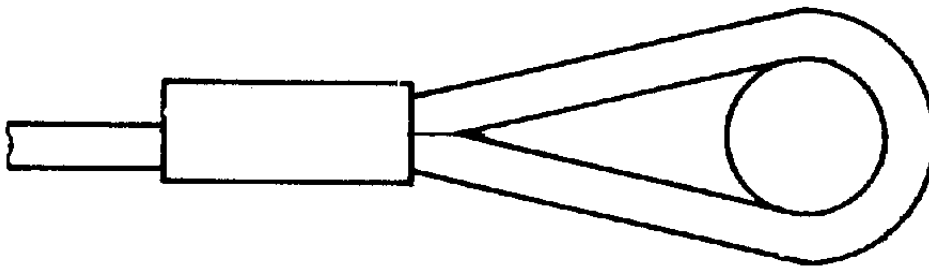


Figure 5. Extract from Standard SFS 4759, Ferrules, showing a typical mechanical splice, talurite, ferrule (all three terms are used in this report).

When ordering the mounting of the talurite clamp, no breaking load or specification had been given. The company in Aarhus, Denmark did not issue any certificate for the talurit clamp regarding breaking stress, load limit, etc. The company could not provide any documentation for the talurit clamp when this was asked for by the investigators.

The talurite clamp had a length of approximately 13 cms. The thickness of the clamp is unknown (the talurite clamp is missing as it fell into the water at the time of the accident).

The fall wire, with the talurite clamp, was installed on the MOB boat on October 7, 2000.

The investigation has not proved that any modification or adjustment had been made to the talurit clamp after the wire was installed. The laboratory of National Bureau of Investigation, Finland analysed the wire. The conclusion was that the wire had not been broken by stretching. There were no markings left by tools in these strands either. (An English translation of the report is appended).





Figure 6. The position of the fall wire's eye and talurite and the guide hole for the wire.



Figure 7. The fall wire; in the middle part there can be seen traces of the talurite clamp (mechanical splice).

A specialist from U.K. was asked to give a general description and explanation how such a talurite splice of a wire rope may become loose. He wrote: "The effect of swaging or pressing a ferule to secure a wire rope eye termination, normally results in softer metal (alloy) being squeezed into the segments of the wire rope. A ferule that has been correctly applied, becomes an integral part of the wire rope and thus when subjected to an ultimate breaking load, the wire will part at the base of the ferule, whilst the ferule itself remains intact."



Figure 8. The ends of the strands of the fall wire are not stretched, instead they are even.

## 2.5 Rescue operation, alarm and rescue

When the master heard what had happened, he ran to the stern ramp where he knew the stevedoring company's representative would be and this man then called the rescue centre. Divers were soon at the scene and were in the water within 13 and 15 minutes respectively of the alarm being given. The underwater visibility in the harbour basin was practically zero and the divers had to carry out their search by touch.



An analysis of the rescue activities shows that the local rescue organisation operated quickly and properly.

## **2.6 Other similar accidents**

Use of rescue facilities, either in servicing them or in training with them seems to be one of the most dangerous activities onboard. This can be seen on statistics globally. The Marine Accident Investigation Branch (MAIB), UK has recently published a Safety Study "Review of Lifeboat and launching system's accidents". Other Investigation bodies world wide have become to the same conclusion as the UK study: There is an urgent need for the IMO to review the present requirements for lifeboats. The investigators on ANTARES case do see the need for a review not only of lifeboats but of all lifesaving appliances on board as well as of the training practices.



### **3 CONCLUSIONS**

#### **3.1 The causes**

The talurit splice of the fall wire to the MOB boat failed in the accident: it exploded under lifting conditions. This happened either as a result of a fault in the splicing process, or because it had been subjected to external stress or an outside force during its use prior to the accident.

#### **3.2 Latent factors**

When the ship (company) ordered the talurite splice, no specifications were given for the breaking stress, load limit etc.

#### **3.3 Ship board practices**

The investigation has not found anything negative with regard to how the SOLAS practices of servicing and inspecting the lifesaving appliances on board were carried out. There was a maintenance order to use replacement parts only of the types shown on the original drawings. The handling of the boat, as well as its launching and hoisting, had been practised in February and May 2001.

#### **3.4 Ship's lifting gear, inspections**

All lifting gear onboard merchant vessels are required to be under a regular inspection by a competent person.



#### 4 RECOMMENDATIONS

- 1 The investigators fully support the MAIB recommendation to IMO in its Safety Study on Lifeboat and Launching Systems' Accidents and do recommend that

*the Finnish and Norwegian Maritime Administrations give full support to the MAIB's recommendation adressed to IMO that the Organisation undertakes a study on the present value, need, and desirability of lifeboats.*

- 2 The investigators recommend that

*The Finnish and Norwegian Maritime Administrations take such international initiatives that aim to change present situation of inspecting the lifting gear of lifeboats. All lifting equipment as part of the rescue equipment on board should be included to ship's lifting gear and to be inspected by a competent person following the procedures described ILO Convention 152.*

Oslo, December 4, 2002

Risto Repo

Finn Paulsrud

**FINNISH BUREAU OF INVESTIGATION , LABORATORY,  
32347/1/01**

**STATEMENT RTL**

(Free translation from Finnish)

**Ref.** 6810/S/10611/01/18.7.2001

**Specimens** Specimens that arrived on December 27th, 2001  
1. A steel wire rope and guide tube

**Requested studies**

1. Did the end of the wire break or was it cut?
2. Are there any signs of talurite in the guide tube of the life boat's fastening system?

**Results of the studies**

1. One end of the cable wire of sample 1 is frayed. The ends of the strands of the frayed end are not stretched instead they are even. The ends of the strands are blackened and oxidised. In the ends of the strands there are no markings that suit to be left by tools. At distances 2 cm and 30 cm from the frayed end there are lighter-coloured areas, their width is 5 cm. These markings fit by their type and approximately by their size to be caused by an object like for example the same sized talurite which was performed as a reference specimen.
2. The talurite is made mainly of aluminium with a.o. magnesium, manganese and iron as blend components. The specimen wire is of galvanised steel that is steel coated with zinc. In the guide tube of the life boat's fastening system and between the strands of the wire-end there were remainders of metal which were of the same composition as the metal of the specimen talurite. On the remainders of metal found in the guide tube there was zinc which is very likely from the zinc on the skin of the wire.

**Conclusion**

1. On sample 1 the evenness of the ends of the strands of the frayed end of the wire indicates that the wire has not broken by stretching. There were no markings left by tools in these strands either. Additionally the lighter-coloured areas indicate that the talurite would have been attached there.
2. In the guide tube of the life boat's fastening system and on the cable wire there are remainders of metal from the talurite.

**Research methods**

Stereomicroscopy  
Electron microscopy and X-ray analysis (SEM/EDS)



28 January 2003

Dno. 108/311/2003

Risto Repo  
 Maritime Accident Investigator  
 AIB Finland  
 Sörnäisten rantatie 33 C  
 00580 HELSINKI

SAAPUNUT

3 0. 01. 2003  
 44/5M

AIB report No. 244/54, 9 December 2002

**M/S Antares: MOB lifeboat falling into the sea in the port of Uusikaupunki, Finland, July 5, 2001**

Careful expert study of your report at the Maritime Safety Department has resulted in the following statement:

The mechanical splice (talurite) did not meet IMO requirements in Resolutions A.520(13) and a new instruction MSC (81)70 (Testing and Evaluation of Life-Saving Appliances).

The Danish company could not present sufficient evidence of the durability of talurite. It is important to note that only certified material may be used.

We would like to remind that the following SOLAS regulations should be seen as having particular relevance in the context:

*SOLAS Regulation III/20 paragraph 11.1 Launching appliances*

Paragraph 11.1: Launching appliances shall be serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation 36.

Paragraphs 11.1.2 and 11.1.3: Launching appliances and their winches shall be subject to a thorough examination at intervals not exceeding 5 years. Upon completion of the examination the launching appliances shall be subjected to a dynamic test of the winch brake in accordance with paragraph 6.1.2.5.2 of the LSA Code.

On board Finnish vessels these duties (paragraphs 11.1.2 and 11.1.3) should be performed exclusively by a properly trained person.

*SOLAS Regulation III/11.2 Lifeboat (and Rescue boat) on-load release gear*

Paragraph 11.2.1: Lifeboat on-load release gear shall be serviced at recommended intervals in accordance with instructions for on board maintenance as required by regulation 36.

Street Address  
 Poikkikalankatu 5  
 00180 Helsinki

Postal Address  
 P.O. Box 171  
 FIN-00181 Helsinki  
 Finland

Telephone  
 +358 204 48 1

Fax  
 +358 204 48 4355

Paragraphs 11.2.2 and 11.2.3: The examinations and tests carried out at five-year intervals should be performed exclusively by properly trained personnel familiar with the system.

The Administration should control this during ISM audits.

It should also be noted that the Cargo Ship Safety Equipment Certificate is valid only if the ship is fitted with required equipment and it is operative and serviced.

Therefore, stricter compliance with existing regulations might, in our opinion, have prevented the whole accident from happening.

As a rule, we do not find it appropriate to abolish part of the inspections which form a whole.

We therefore recommend that sufficient regard is paid to compliance with the present rules. If rules are obeyed strictly, we do not consider ILO participation or application of forthcoming ILO regulations necessary nor of particular benefit to the matter. In our opinion, new regulations or involving other parties does not necessarily improve things in the manner expected.

The prime goal should be to achieve maximum compliance with existing regulations.

For this reason, the Maritime Safety Department does not find real cause to change the present practice.



Pekka Korhonen  
Head of Nautical Division



Jan Jansson  
Senior Maritime Inspector, LSA



## LIST OF SOURCES

- 1 AIB Finland, Decicion C &/2001 M
- 2 Minutes of the Maritime Declaration
- 3 Barber Ship Management, copies of operational instructions and manuals
- 4 Copy (3 pages) Register of ship's lifting appliances, mv ANTARES
- 5 Uusikaupunki Police, report 6810/S/10611/01
- 6 Uusikaupunki Rescue Center, diary, 5.7.2001
- 7 Mv ANTARES, copies of drill history with MOB Boat and Instruction Manual
- 8 Paul Auston, Description of mechanical splices, letter to investigator
- 9 Photographs
- 10 MAIB, UK, Safety Study 1/2001, Review of Lifeboat and Launching Systems' Accidents
- 11 ATSB, Australia, Safety Bulletin 03, Lifeboat accidents
- 12 Norwegian Maritime Directorate, Safety message 1/2002
- 13 Investigators' own memos