# ÅRSBOK 2000

AXEL AX:SON JOHNSONS INSTITUT FÖR SJÖ- OCH ANNAN TRANSPORTRÄTT VID STOCKHOLMS UNIVERSITET

# ÅRSBOK 2000

Redaktör: Forskningsassistent Anders Hultman


Institutets adress: Stockholms universitet, Juridiska institutionen, 106 91 Stockholm,
tel: 08-16 32 87, fax: 08-612 41 09, e-post anders.hultman@juridicum.su.se
Hemsida: http://www.juridicum.su.se/transport

# Förord

Axel Ax:son Johnsons institut för sjö- och annan transporträtt kan här presentera sin andra årsbok. Precis som föregående år gäller att årsboken utgör en informationsskrift i kontakten med institutets vänner och andra intresserade. Förutom remissvar och protokoll från det gångna årets seminarier publicerar vi även i år ett antal uppsatser författade av tidigare studenter vid Stockholms universitet och Uppsala universitet. Det är Annelie Rask, Länstrafikbolag som sjötransportörer; Martin Tideström, En konkurrensrättslig granskning av Kommissionens beslut 1999/329/EEC International Group of P & I Clubs samt Johan Westman, Skeppsregister á la Factortame. Utöver detta har vi också låtit trycka en uppsats rörande Estonia-haveriet av institutets ”grand old man” Hugo Tiberg, How Can a Seaworthy Ship Sink? samt en uppsats i landsvägstransporträtt skriven av undertecknad, Aktuella problem i Rysslandstrafiken. Det är vår förhoppning att urvalet av uppsatser i någon mån skall kunna spegla utvecklingen på det sjö- och transporträttsliga området under det år som gått.

Under det gångna året 2000 har en del personella förändringar ägt rum på institutet. I mars avgick Hugo Tiberg efter 35 år som föreståndare. Istället svarar numera undertecknad för den dagliga verksamheten. Att Hugo slutat som föreståndare betyder emellertid inte att han lagt ned verksamheten. Hugo är mer aktiv än någonsin när det gäller forskning och skrivande. Dessutom fungerar han numera också som ordförande i både institutets styrelse och Axel Ax:son Johnson stiftelsen.

Beträffande verksamheten har den av institutet bedrivna Uppdateringskursen börjat sätta sig. Vi är dock samtidigt medvetna om att det inte duger att vila på lagrarna. Inför framtiden kommer vi att söka vidareutveckla konceptet genom ta fasta på den rättsliga utvecklingen i stort på olika transportområden. Med andra ord kommer vi i framtiden inte att presentera all ny praxis på ett område utan istället och ta sikte på de mest intressanta fallen — de som markerar en förändring — och sätta in dem i ett vidare perspektiv. Vi kommer också att ytterligare söka internationalisera kursen genom att ta in mer utländskt material, det gäller speciellt på det sjörättsliga området.

Under det gångna året sjösatte också institutet en ny Exporträttskurs. Kursen utgjorde ett led i institutets ökade fokusering på integrationen mellan de köp-, transport- och försäkringsrättsliga reglerna. Kursen blev en succé i flera stycken. Vi hade förmånen att få flera av Sveriges främsta experter på respektive område som föreläsare och deltagarna var mycket nöjda med de två dagarna. Från Institutets sida kunde man dock ha önskat sig lite fler deltagare, men det tar alltid lite tid att marknadsföra en ny produkt.

Vad beträffar studentkurserna gav institutet för första gången kursen Marine Insurance, 10 poäng. Den nya kursen möjliggör, tillsammans med Maritime and Transportation Law-kursen och examensarbetet, för studenterna att under ett helt år specialisera sig inom det sjö- och transporträttsliga området. Kursen är även öppen för praktiserande jurister.

Under året lanserade också institutet en Cd-rom tillsammans med Sjöassuradörernas Förening, CD Transport & Försäkring 2000. Den innehåller Sjöassuradörernas villkor och klausuler samt ett urval lagar och konventioner från det transporträttsliga området. Tanken med Cd:n är att den skall kunna komma att utgöra ett praktiskt arbetsredskap för jurister och andra verksamma inom transportnäringen. Institutet har givit ut ett landsvägstransporträttsligt verk i skriftserien, Last och ersättning, med undertecknad som författare. Under året har också en ny översättning av Sjölagen till engelska gjorts. Ett samlingsverk i lufträtt har också lämnats till tryck. Båda dessa titlar kommer att tillhandahållas i skriftserien under första hälften av 2001.

På forskningsfronten gäller att institutet arrangerade ett sommarseminarium på Stora Tratten i Stockholm skärgård rörande befraktning av fartyg. Det är ett ämne som kommit lite i skymundan till förmån för styckegodsreglerna. I och med att de kvarvarande svenska rederierna i många fall är aktiva inom framförallt produkttanksegmentet samtidigt som de svenska industriföretagen inte sällan helbefraktar fartyg såg vi det som angeläget att åter ta upp en diskussion på det här området. Det seminariet kommer att följas upp genom att institutet kommer att arrangera det traditionella Hässelbykollokviet på det temat under det kommande året.

Institutet tog också tillsammans med Juridiska institutionen i Göteborg initiativ till bildandet av ett nordiskt transporträttsligt nätverk. Nätverkets aktiviteter koordineras från Stockholm, där också den första nätverksträffen arrangerades. Nätverket omfattar ett tjugotal forskare från de nordiska länderna. Tanken med nätverket är att det skall kunna utgör ett forum för diskussion av juridiska forskningsfrågor på det transporträttsliga området. Vid den första träffen diskuterades ett nytt forskningsprojekt vid Åbo Akademi rörande redarens miljöskadeansvar.

Under året har institutet också arbetat med att söka dra igång ett järnvägsrättsligt doktorandprojekt i anslutning till det vägtransporträttsliga projekt som redan bedrivs här. Till följd av vissa avhopp i samband med rekryteringen av personal har detta inte gått. Det ser emellertid ut som institutet i samverkan med Juridiska institutionen i Uppsala och Högskolan Dalarna skulle kunna få igång ett projekt på järnvägsområdet under det kommande året. Institutet kan där genom sitt bibliotek och sina kontakter med SJ komma att fylla en viktig funktion.

I övrigt gäller att institutsbiblioteket vidareutvecklats. Den befintliga litteraturen har omkatalogiserats efter ämnen samtidigt som registret börjat läggas över på data. Och sist men inte minst har vi påbörjat arbetet med att köpa in nya böcker på områden där det tidigare funnits luckor i samlingen. Vi har även satsat på att köpa in nya upplagor av existerande standarverk.

Året har som synes präglats av en intensiv verksamhet på olika områden. All verksamhet drar emellertid stora resurser och jag skulle avslutningsvis vilja tacka alla sponsorer som varit med och stöttat verksamheten med pengar och genom insatser på kurser och seminarier. Utan detta hade det inte varit möjligt att åstadkomma allt detta. Min fromma förhoppning är att institutets vänner och sponsorer även i framtiden skall finna vår verksamhet vara av sådant värde att det framstår som angeläget att stötta denna.

Slutligen vill jag och institutets personal passa på att tillönska alla vänner och sponsorer ett god fortsättning på det nya året 2001.

Stockholm i januari 2001.
*Johan Schelin*

# Innehåll

# How can a seaworthy ship sink?

By Hugo Tiberg, 2000

## Introduction

The Swedish Marine Insurance Plan contains a provision[1] that a vessel which "springs a leak while afloat" is presumed in the absence of other evidence to have been unseaworthy. The provision is largely intended to guard against the risk that a ship that sinks[2] without any explainable cause may have been intentionally scuttled by or at the instigation of her owner.

Indeed, even in the absence of a suspicious insurance interest, there is reason to inquire whether a ship sunken without any collision or other such outside force must not have been unseaworthy. And yet there have always been ships thought to be perfectly seaworthy which have foundered due to weather more violent than they were built for. So seaworthiness is a relative matter.

Against this background I shall consider how, after the worst non-war sea disaster in Nordic waters, the Joint Accident Investigation Commission of Estonia, Finland and Sweden (JAIC) appointed to investigate the *Estonia* accident, could pronounce the sunken vessel to have been seaworthy.[3] Here a large ferry in international traffic, not having run aground or collided with any other ship or structure, not being scuttled or sabotaged, not having in the Commission's view been conducted with negligence causal to the accident and not having encountered weather characterised even as a storm, is sunk by the ordinary action of wind and waves in the limited area of the Baltic Sea, but is still stated to have been seaworthy. What else could have been the cause of the sinking?

## SOLAS

International maritime safety work around the world has seemed to be characterised by a sort of "rear view mirror" attitude, where each large disaster has led to an agreement designed to stop just that kind of accident happening again. Work got under way in 1912, after the great Titanic disaster, and resulted in the first SOLAS (Safety of Life at Sea) Convention, which only concerned passenger vessels and particularly the matters that had

---

[1] Swedish Marine Insurance Plan (Sjöförsäkringsplan) 1957 § 84 subsection 2.

[2] "Sinking" is not to be understood wholly literally. Some vessels may be constructed of wood or fitted with buoyancy tanks that will allow them to continue floating while waterlogged. But if a ship is understood, as commonly defined, as a structure supported on the water by enclosed air (thus the standard German definition requires a "Schiff" to be "ein schwimmfähiger Hohlkörper", see e.g. Wüstendörfer, Neuzeitliches Seehandelsrecht, 2nd ed. Tübingen 1950 p.38) the puncturing of the hull gets her waterlogged, and that, for the purposes of this exposition, is "sinking" or at any rate foundering. Of course large steel ships like Estonia will always sink if filled with water. Structures that cannot sink in the above sense, such as log rafts, are not ships and will not be considered here.

[3] Final Report on the Capsizing on 28 September 1994 of the Estonian Ro-ro vessel Estonia, Helsinki 1997, ISBN 951-53-1611-1 (Final Report). On p. 55 (5.2.) it is stated that "On departure .. the *Estonia* was seaworthy and properly manned.

failed on the thought-to-be unsinkable Titanic, i.e. watertight compartments and lifeboats. The Convention never came into force due to the outbreak of the First World War.

The next effort was also heralded by a disaster, viz. the sinking of the combined passenger and cargo ship Vestris, which sank with 110 passengers. This resulted in the first SOLAS to win general acceptance, agreed in London 1929, and in later versions adopted by all seafaring countries of any importance.[4] There followed new disasters, and new versions of SOLAS, until in the 1974 it was agreed that partial amendments would thereafter be made through a so-called tacit ratification system, whereby proposed amendments are considered to be adopted by Member States that do not expressly object.

In a series of ferry accidents, particularly *Herald of Free Enterprise*, *Scandinavian Star* and *Estonia*, the particular risks of ferry transportation have been brought to life, which has resulted in amendments of the Convention but far from the final suppression of further disasters. Lately, the so-called ISM (International Safety Management) Code[5], incorporated by reference into SOLAS, has focussed the much more fundamental issue of creating awareness and responsibility regarding safety issues on the part of shipping operators.

## Vessel Safety Act and Ordinance

The SOLAS agreement and its amendments are continually implemented into the legislation of the member countries. In Sweden the central provisions – apart from a few general statements on seaworthiness in the Maritime Code[6] – are inserted in the Vessel Safety Act[7] and the Vessel Safety Ordinance[8], both of 1988, while more detailed provisions are delegated to the Swedish Maritime Administration and found in its Regulations (SjöFS)[9], including incorporation rules for the ISM Code.[10]

All these rules impose a general requirement of seaworthiness on all ships in Swedish waters and Swedish ships in any waters and submit the larger ones and all passenger vessels to supervision by the Ship Inspection of the Swedish Maritime Administration. For avoidance of double work and a need for double competence, the Administration is authorised[11] to delegate certain survey and inspection tasks to a number of recognised

---

[4] The 1978 SOLAS Protocol, for example, had 94 contracting States including ratifications for dependencies. A short presentation f SOLAS 1974 with later amendments, see IMO site www.imo.org/imo/convent/safety.htm .

[5] The Code, added by agreement in 1994, was automatically ratified by "tacit ratification" by SOLAS States on 1st July 1998 and is gradually extended to all forms of tonnage.

[6] The Maritime Code (MC) is divided into chapters and sections, here cited divided by colon (e.g. 1:9). In 1:9 it is provided that a ship in employment must be seaworthy in a wide sense including aptitude to protect against ill-health and accidents, properly manned, victualled and properly loaded or ballasted. MC 6:1 charges the master with checking such seaworthiness at the beginning of the voyage and surveying it during the voyage as well as to notify the owner of deficiencies. MC 13:13 and 14:7 charges the owner with the duty of providing a seaworthy ship for the carriage of cargo, while 15:4 states the corresponding duty in the carriage of passengers. MC 13:26 contains a particular Hague duty of being diligent to make the ship seaworthy at the beginning of the voyage in carriage of general cargo. MC 20:1 and 20:10 contains penal provisions for failure in the stated respects.

[7] Parliament-enacted Fartygssäkerhetslagen (1988:49).

[8] Government-enacted Fartygssäkerhetsförordningen (1988:594).

[9] SjöFS 1980:8 with a long series of additions and amendments.

[10] SjöFS 1996:2, corrected 2000:17, and SjöFS 1997:14.

[11] Vessel Safety Act Chapter 1 section 6.

Classification Societies. These functions concern largely hull and machinery, while the Inspection certifies mainly the internal safety on the vessel.

Passenger vessels are subject to a *seaworthiness survey* before they may be taken into use, and thereafter to *periodic seaworthiness inspections* and *passenger vessel inspections* for renewal of their certificates. After major repairs and there will be *extra inspections.* All these are *flag State inspections* for which the flag or home State is responsible. In addition there is increasingly a *Port State Control (PSC)* which is carried out by random inspections on a large proportion of all visiting ships of the types subject to supervision. According to the *Paris Memorandum of Understanding* (MOU)[12] agreed upon between seafaring nations these random inspections should cover about 25 % of all visiting ships of the relevant kind, and the inspectors should accept documents duly issued by the port State unless they have "clear grounds for believing" that there exists a substantial deviation.[13]

After any accident of importance to safety on board a Swedish vessel there must be made a report to the Maritime Administration,[14] and after serious events of the kinds enumerated in the Maritime Code there must be a *maritime declaration*[15] before a court of law for the purpose of securing evidence. After particularly momentous events there should be instituted a special investigation by the Government's Casualty Commission,[16] in which case the Government may dispense with the Maritime Declaration.[17] The provisions do not apply to foreign vessels, such as Estonia, for which an investigation was instituted upon the agreement of Estonia, Finland and Sweden.[18]

# Estonia's seaworthiness record

In the autumn of 1979 there was delivered from the Jos. L Meyer shipyard in Papenburg in West Germany a ferry for a Finnish partner of the Viking Line. The vessel was commissioned for the Åbo-Stockholm line under the name of *Viking Sally*. In the design of the vessel there was embodied, inside the opening bow visor, a car-ramp which at sea would be raised to serve as a watertight bulkhead as required by applicable rules. Under SOLAS such a bulkhead must be located at a certain distance from the stem, mainly to create a deformation zone in the event of a collision from forward. The ramp closed against a ledge in a recess on the vessel and could withstand great pressure from forward.

On *Viking Sally* like many other ferries the interspace prescribed between the stem and the raised ramp had been somewhat reduced for the purpose of increasing space on the

---

[12] Paris Memorandum on Port State Control agreed between European Maritime authorities plus Canada's. (Annex to 1993 IMO resolution A. 742(18).)

[13] Paris MOU 1.3. and 3.1.

[14] MC 6:14.

[15] MC 18:6 and MC 18:7.

[16] MC 18:20 and Act (1990:712) on investigation of accidents. According to section 2 (2) such investigations shall be made for accidents to … merchant ships where several persons have died or been severely injured, where the vessel or property outside the vessel or the environment has suffered extensive damage, or when the vessel has disappeared or been abandoned at sea.

[17] MC 18:17 second paragraph.

[18] See Final Report p. 5.

car deck.[19] This was considered acceptable since the above-mentioned deformation zone existed on these ferries in the form of a large underwater bulb forward of the stem proper. The design was permitted on ferries in coastal waters which would sail no further than 20 miles from land, as was the case in the traffic that *Viking Sally* was originally intended for.[20] But this divergence from ordinary standard required a special exemption which was neither given nor applied for in respect of this vessel. Yet she was approved by the Finnish Maritime Administration and the classification society Bureau Veritas, which inspected the vessel on behalf of that Administration.[21]

After a series of convulsions in the Owner Company, the vessel was taken over by the Silja Line and in 1990 was transferred to the rather exposed line between Umeå and Vasa. She stayed there until 1993, when she was bought by Cyporiot Estline Marine Co., owned in equal parts by the Swedish Norström & Thulin and the Estonian State company ESCO and was given the name *Estonia.*

The vessel was however bareboat chartered to the Estonian E-Line Limited to be operated by that Company under Estonian flag and supervision. The reason for the Cypriot ownership was that the new State of Estonia had not yet developed a ship register where vessels could be mortgaged. It was thus an Estonian vessel with an Estonian crew that set out on her fateful last voyage for Stockholm on the evening of the 27th September 1994.

# Surveys and inspections

Owing to widespread suspicion of the correctness of the findings of the JAIC, private investigations have been made concerning the matter. Among these is the research conducted by a group called The Independent Fact Group, which has issued its observations in printed form, hereinafter cited as The Fact Group.[22] Another, known as The Working Group for Investigating the MV Estonia Shipwreck, AgnEf for short, arranged an *Estonia* Seminar in Stockholm in May 2000, during which the substance of the present article was presented.

As previously stated, *Estonia* lacked the dispensation certificate formally required of vessels of her design with regard to the location of the collision bulkhead. While this may have been acceptable in substance on the route for which the vessel was originally built, the route between Tallinn and Stockholm was not protected in the way intended by the dispensation.

Moreover, although it might be said that the requirement of a space between stem and bulkhead fulfilled a purpose which had no direct bearing on the sinking, the design chosen to reduce this forward area turned out in fact to have a fatal effect on the course of events during the accident, as analysed by the JAIC. This was because the car ramp's forward position left too little headroom for the raised car ramp under the visor deck, which was therefore provided with a housing over the top of the ramp/bulkhead. When during the course of the accident the bow visor was torn off from its hinges, this housing

---

[19] Final Report p. 46.

[20] Final reportpp. 46 and 217–220.

[21] MV Estonia, Partial Report on Technical Questions by the Joint Inquiry Commission, April 1995 p. 19 f.

[22] The Independent Fact Group, Urkundsförfalskning för att dölja bristande sjävärdighet, Stockholm 1999, ISBN 91-630-8637-9.

according to JAIC pulled out the ramp, which was not designed to withstand such forces from inside, so that water could enter the car deck in large quantities.

The Fact Group has found that after the flag shift to Estonian flag, the ship never received a permanent Passenger Ship Safety Certificate but only had interim certificates issued by the Bureau Veritas. The reason for this is reported[23] to be the non-completion of a new stability file for the vessel, which had been in preparation since 1991 but was not yet ready.

There have also been reports that *Estonia* had life rafts instead of lifeboats to a greater extent than was permissible under SOLAS rules without special dispensation, which *Estonia* could not show,[24] and the Fact group states that that the rafts were of a type not approved. [25] If there is substance to these remarks, the observation concerning the raft type seems more relevant than that that about the lifeboats, as the latter were in any case hard to launch under the circumstances and the survivors were saved almost entirely into life rafts.

# Final inspection on the day of departure

As was observed earlier, the State of Estonia was a new country just emerged from the Soviet Union, and her infrastructure for shipping was in many ways not complete. Among other things, her Maritime Administration and Ship Inspection were not completely organised, and the personnel were not trained. The Swedish Maritime Administration had undertaken, on a contract basis, to instruct the Estonian personnel, and in this capacity two Swedish instructors were present in Tallinn to train inspectors. On the very day of departure, a "random inspection" was carried out by Estonian inspection trainees under their Swedish instructors. This was not a PSC but an instruction conducted by the Swedish inspectors to show how such a control should be carried out, and the JAIC describes it as "thorough"[26]. A protocol was established of the findings before the ship left Tallinn on the day preceding the fatal accident.[27] This protocol has been examined by the Fact Group, which maintains that certain parts of the documents have been forged.[28]

The protocol enumerates fourteen particular defects in the ship, which were all given their respective codes: 17 indicating that the master had been instructed to rectify the defect before departure and 99, meaning "other measure to be specified" (in writing); code 10, meaning that a noted defect has been rectified, was not used.

Some of the noted defects appear rather minor, while others are certainly important. An enumeration will be made here with short comments on the apparent gravity of the observations.

---

[23] The Fact Group report ISMN 91-630-8637-9.p. 65.

[24] Statement from Mr Anders Björkman of the AgnEf Group.

[25] This appears a number of times in the Fact Group report, such as on p. 25. Mr. Björkman from AgnEf states that the SOLAS 80 rafts used on *Estonia* did not allow "dry evacuation' from under davits and were not approved.

[26] Final Report p. 55.

[27] The following information is all from the Fact Group's report, which is accompanied by photostat copies and seems convincing.

[28] The title of the report is Urkundsförfalskning för att dölja bristande sjövärdighet, Forgery to hide lack of seaworthiness.

1. "*Bow door packing damage"* (code 99), indicating damage to the rubber sealing between the hull and the bow visor to prevent water leakage; a matter which could clearly be important and which might also have been significant to the course of the accident. However, the inspectors on interrogation after the accident asserted that the damage in question was minor.

2. "*Sounding pipes for measuring oil/fuel level in auxiliary engine room*" (17). I am informed that the defect is not of acute importance, but there is no sign that it was rectified before departure, as the code indicates that it should be.

3. "*Two portable fire extinguishers missing engine room"* (17). This is clearly a matter that could be of importance and, as the code indicates, should have been rectified immediately.

4. "*Safety plan only in English"* (99). This plan is a detailed plan indicating control stations, location of fire fighting equipment etc. for the event of an accident, and according to SOLAS it should be in the ship's flag language as well as English or French. This is a document mainly used for planning and drills etc. but is also said to have a checking function, for which purpose the English original should most probably suffice.

5. "*Muster list only in English"* (99). The muster list (also known as alarm list) shows the duties of each member of the crew in the event of an emergency alarm and should also be available in the flag state language. This is also a document needed for planning though it may also be needed as a checklist in an emergency, for which purpose, again, the English version should suffice.

6. "*Damage control plan only in English (or missing)"* (99). This is an instruction indicating all compartments in the ship and their closure and the correction of any list due to flooding, and it should be "permanently exhibited for the guidance of the officer in charge of the ship", which indicates its operational importance. If it was in place in the English version – insufficient under SOLAS – it is vital that the officer in charge was proficient in English.

7. "*No cargo operation manual"* (99). This is an instruction for the loading and lashing of the cargo – mainly vehicles – on board. According to the evidence before the JAIC it seems unclear whether it was on board at all. The remarks that lashing was usually not completed on departure but took place on the way out of port indicate that it was not applied on board. Improper lashing will seriously aggravate a list developed by action of the weather or otherwise. Also, the *Estonia* is reported to have actually departed with 1 % list to starboard compensated to the utmost by full port ballast tanks, thus leaving no margin to neutralise a possible further list caused by weather or other conditions.

8. "*Fire prevention nav. bridge door. Boiler room closing device missing. Fire door in galley not working properly"* (17). In evidence, the inspectors indicate that some doors – but this seems to have referred partly to watertight doors below the car deck – could not be closed properly, and that these matters are important. One inspector states that the defects were rectified immediately; if so, the proper code should however have been not 17, but 10.

9. *"Off-course alarm not installed"* (99). This is a reference system indicating if one compass on board shows a deviating course from another. The Independent Fact Group

remarks[29] that the vessel's actual course is unknown but that it appears to have been far more southerly than would have been normal.

10. *"Means of control, MIMIC panel"* (10). This is a control panel which according to SOLAS should be in a central position on the navigation bridge and which should clearly indicate the opened or closed position as well as the remote closing of all watertight doors. It appears that the SOLAS standard for the colours of the lamps had been changed and that *Estonia* had the older system applicable when she was built (green instead of red for closed), of which the first mate was not properly aware. One inspector indicates that some doors could not be closed manually, due perhaps to impulse from the bridge, which would be contrary to SOLAS and very dangerous. With at least three compartments closed by means of these doors the *Estonia* could not have sunk even if otherwise water-filled, according to the Fact Group.[30]

11. "Manuals and instructions: emergency generator, bridge routines, emergency handling, steering gear and manoeuvre characteristics" (99). This seems to concern a series of disparate deficiencies which mostly are not of the kind that could be used in an emergency, but the absence of which might indicate insufficient attention to maintenance and order on board.

12. "*Windows in galley not possible to close"* (17). Under SOLAS all openings must be closeable. Although an inspector indicates that the defect was remedied, this was not verified by the code being changed to 10.

13. *"Covers on bulkhead deck to be closed"* (17). This concerns various lids for openings through the car deck which were open and whereof at least one had apparently not ever been closed. This is serious but was said to be rectified after notification, although this was not reflected in the protocol, and the evidence indicates that some covers may have been missed.

14. "*Cargo securing devices (a few pieces of securing devices worn out)"* (99). These are mostly cargo lashings and need to be in proper condition to avoid shifting of cargo, mainly trucks, which may be fatal and seriously aggravate a list incurred by the vessel. The actual lashing had not been done on the occasion of the inspection but was reported to be normally postponed until the actual departure of the vessel, contrary to SOLAS 74 that "in ships with ro-ro cargo spaces, all securing of cargo units according to the Cargo Securing Manual, shall be completed before the ship leaves her berth.

# Meaning of seaworthiness

The term seaworthiness is used in a number of connections and cannot have the same meaning in all of them. In the previous Maritime Code, seaworthiness indicated fitness to withstand the stress of the sea, and there was added a requirement that the ship must be fitted out to provide against ill-health and accidents on board, properly manned, victualled and equipped as well as properly loaded or ballasted for the safety of vessel, life and goods.[31] The 1994 Code widens the notion to include these other circumstances under

[29] Fact Group, p. 39.

[30] Fact Group, p. 42 f.

[31] MC 1981 sec. 9.

seaworthiness. The preparatory works[32] suggest that the new definition[33] would express a distinction between "technical seaworthiness" (the ship being "tight. staunch and strong" and stable), "voyageworthiness" (manning and accoutrement for the particular voyage) and "cargoworthiness" (holds being clean and fitted for the carriage of the particular cargo), but these distinctions are not clearly written out in the law text. On the other hand, the preparatory works indicate that the new notion is *relative* and must be varied for the respective contract type in question, but little is clarified of this for passenger transportation.[34]

On the other hand the Vessel Safety Act, 1988,[35] employs a more limited notion of seaworthiness, namely, that the vessel "is so designed, built, fitted out and maintained as to offer adequate safety with regard to the purpose and the trade for which she is used or intended to be used". A vessel may be detained by inspectors for lack of seaworthiness in this sense or for other breaches of the applicable rules.[36] Similarly in Swedish marine insurance, a quite limited notion of seaworthiness is used.[37] This is also the terminology generally employed in marine safety connections and the one relevant to the Estonia disaster.

Thus when the JAIC indicated the *Estonia* to have been seaworthy on departure from Tallinn on the 17th September 1994 they were concerned with her condition for the trade on which she was employed, which was the line from Tallinn to Stockholm. Seaworthiness in this sense is a general evaluation of all criteria for determining whether the ship is suited for her intended employment in such a way that she can perform her voyage or voyages without mishap in such weather conditions as may be anticipated. In this general sense seaworthiness is thus a general evaluation that does not necessarily require all SOLAS criteria to be fulfilled, though on the other hand the failure of vital such criteria are fatal to seaworthiness. Other shortcomings may require the vessel to be detained under express provisions of the Maritime Code or the Paris MOU, without necessarily reflecting on the general evaluation of seaworthiness.

In general parlance, seaworthiness is surely seen as an objective criterion, in the sense that lack of it will not depend on being noticed by the individual inspector. A ship found on survey to be properly built and maintained might later sink owing to unseen metal fatigue, or a design recognised as adequate may turn out in the light of later developments to be insufficient. It would be normal to see such situations as indicating actual though unknown unseaworthiness. On the other hand an actually seaworthy ship might still suffer sea damage, for example by an unprecedented hurricane or a freak wave not proper to the waters where she is used or by colliding with wreckage or other objects in the water.

---

[32] Government Bill 1993/94:195 p. 166.

[33] MC 1:9, cf. 6:1, 13:12, 14:7 and 15:4.

[34] For the carriage of cargo MC 13:12 and 14:7 emphasise that seaworthiness includes, besides proper manning, victualling and equipment, that "cargo holds, cool and freezing rooms and other space in the vessel wherein cargo is loaded are in good condition to receive, carry and maintain the cargo"; for passenger transport MC 15:4 only add the manning and victualling to the basic technical seaworthiness.

[35] Vessel Safety Act (1988:49), chapter 2 section 1.

[36] Vessel Safety Act, chapter 11 section 1. This is also how the term is used by the JAIC report, which states, on p. 55, that on departure the *Estonia* was seaworthy *and* properly manned.

[37] Marine Insurance Plan, 1957, § 83, which does not define seaworthiness but shows by adding the requisites that the limited notion is used.

This objective terminology is clearly not that used by JAIC when they describe the *Estonia* as being seaworthy on departure. No proof of anything extraordinary had been shown but only, in the Commission's appreciation, that the ship sank due to a design failure that had not come to light on any earlier occasions. For purposes of the following discussion I shall adopt the Commission's subjective approach and view seaworthiness in the light of what was known or could be known at the time of the *Estonia's* departure on the evening of the 27th September 1994.

# The various defects

As was mentioned earlier, the *Estonia* had a bow visor design intended for protected waters and not for the waters on which she was used after leaving the service of the Viking Line. She also lacked the exemption certificate prescribed by IMO for such sea voyages. It may be said that the reason for this particular limitation was unconnected with seaworthiness as it was rather concerned with collision protection, but the various authorities' reasons for limiting the certificates of these vessels to coastal waters are not known. Moreover, the particular design necessitated by this departure from the rules did in fact cause the opening of the ramp and thus arguably the sinking, according to the JAIC's own reconstruction of the events.[38] In view of these facts alone, the *Estonia* should have been regarded as unseaworthy.

The several years' lack of a permanent passenger ship safety certificate was certainly a serious omission, that could cover all kinds of other defects outside of the inspector's ability to control. The actual reason for the lacking document was the non-completion of a stability file, which seems particularly portentous in view of the ship's eventual capsizing.

The Fact Group's statement that a special certificate was missing concerning the standard of liferafts is not substantiated by any document in JAIC's report, which states merely that lifeboats and rafts were in accordance with the SOLAS 1974 specifications applicable at the time of building. In any case neither the standard of the rafts nor the ratio between rafts and lifeboats can have had any bearing on the accident, though it has afterwards been said that the rafts left much to be desired in respect of functioning and access from the water.

The fourteen observations of the inspectors in Tallinn were of varying character. The leaking bow visor is played down by the inspectors in their evidence to the JAIC but may have been relevant in the events that occurred, since the forces created by the vessel's speed against steep waves may have much increased the leakage. Among the other observations, those concerning the closing of watertight doors and the bridge indication panel for these (MIMIC panel) seem particularly important and may well have directly caused the actual sinking, if not capsizing, of the ship. It should be observed that these doors are alarmed and make a loud ring or other noise when closed, but nothing in the JAIC report indicates that such a signal was heard by the engine room personnel or others below the car deck.

---

[38] Final Report 13.2.5. p. 175, cf. 18.2. p. 218, where it is said that compliance with the rules would have increased the *Estonia's* chances of survival.

The lack of a cargo operation manual and worn state of cargo securing devices combined with the practice of lashing of cargo after departure as well as leaving deck openings unclosed on the car deck all seem to indicate sloppy routines that could not be cured in a moment but would require a long-term revision. The ship's departure with a slight starboard list in spite of full trim tanks to port is a serious and possibly causative defect that did not fall under the inspection, but absence of the manual may well indicate nonchalance in routine observance.

It is hard to understand how the JAIC could fail to find that the mentioned shortcomings must have constituted unseaworthiness on the part of *Estonia* on leaving Tallinn. But in addition to this general deficiency, which in itself should have provided a valid and necessary reason for detaining the vessel, there is a long line of matters (coded 17) which should have required detention of the vessel unless rectified before departure, and of which there does not seem to have been any further checking.

So properly, both for lack of seaworthiness and more technical reasons, there was ample cause to detain the *Estonia* to the salvation of 852 lives. This is quite apart from other defects concerning the hinging of the bow visor, which were not checked and did not belong to the intended PSC exercise as long as there was no clear indication of them.

# Duties of the Swedish Administration

The Swedish Maritime Administration now stresses that the inspection was not a PSC but merely an exercise designed to train the Estonian inspectors. Is this a valid argument for allowing the vessel to leave?

It is clear that in a foreign country the Swedish inspectors do not have direct authority to detain a foreign vessel, and the *Estonia* was not Swedish. The Fact Group concludes that the inspectors also had authority to act on behalf of the State of Estonia, but this seems like an overstrained interpretation.[39] Surely an instructor can tell his trainees how to act, and the reasonably assiduous trainee will follow suit. There is no sign in the protocol of any divided views, and there is not even an indication that there was any thought fo detaining the ship for lack of seaworthiness or specific defects.

# Conclusion

On interrogation of the inspectors, the JAIC has inferred[40] that no defects were found which would have caused the vessel to be detained or would have resulted in any other serious observation if the inspection had been an ordinary PSC. That inference seems to reflect upon the conduct of such ordinary PSCs rather than show the propriety of this particular exercise inspection. If omissions of the kind noted in the exercise will not give cause for detention or serious notations in a real PSC in this country, our assurance of the safety of vessels leaving from Swedish ports seems to be in a deplorable state.

---

[39] I do not have access to this contract, but the Fact Group on p. 7 cites its Appendix B, according to which the Estonian authorities are to provide "all necessary permits, including facilitation of visa formalities and authorisations for the casrrying out of the service". But the intended service, surely, was instruction and certain other matters, and the authorisation must have concerned the Swedes being instructors, not inspectors.

[40].JAIC Final Report 5.2., p. 55.