

Mr Taavi Rõivas
Prime Minister
Republic of Estonia

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Application for a new investigation of the causes for the sinking of the passenger ferry MV Estonia

1. Abstract

The passenger ferry MS Estonia sank in the Baltic Sea on the 28th of September, 1994 taking 852 lives. Although this is the shipwreck with the greatest number of victims in the Baltic since World War II the proper cause and sequences in the disaster have, as yet, not been found. By decision of the Prime Ministers of Estonia, Finland and Sweden a joint investigation commission was formed (JAIC, The Joint Accident Investigation Commission) to investigate the disaster. For different reasons, including reasons independent from the members of the commission, the work of this commission was however found deficient and their final report unconvincing. New matters have furthermore surfaced during the past 21 years which raise serious doubts about the scientific validity of the conclusions in the JAIC final report as well as about the credibility of the whole investigation.

IMO, the International Maritime Organization stipulate in their Code of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident, Casualty Investigation Code, Resolution MSC.255(84) Article 26.1: „Marine safety investigating State(s) which have completed a marine safety investigation, should reconsider their findings and consider re-opening the investigation when new evidence is presented which may materially alter the analysis and conclusions reached.“

§44 in the Estonian administrative law has a similar condition stipulating that an administrative proceeding shall be reopened if new circumstances are at hand, and which were unknown during the main proceedings.

Based on the above, and the fact that Estonia was the flag state of the ship, we request that the Government of Estonia shall start proceedings for a new official investigation aimed at finding out the cause and exact sequences in the foundering of MV Estonia. The investigation should be carried out with the participation of impartial experts from abroad and should include an examination and documentation of the wreck to the fullest possible extent. The execution of a thorough, impartial and professionally conducted investigation is necessary not only to safeguard the rights of the relatives of the victims but also to acquire important new knowledge for the safety at sea.

2. Preliminary notes

Before describing the arguments for our application we wish to emphasize two circumstances.

The notion, that it is only some journalists, amateur disbelievers or conspiracy theorists who question the JAIC findings, must be rebutted.

After the JAIC investigation other official investigations have been carried out for which there can be no doubt about their professionalism and integrity.

- Parallel with the JAIC investigation criminal investigations were carried out in Estonia as well as in Sweden.
- Commissioned by the Swedish government a Pre-study attempting to explain the sinking sequence was published in 2003.
- In 2005 the Swedish government further ordered a Research Study on the Sinking Sequence of MV Estonia. The main expected output of the study was to be an explanation of the most probable scenario for the sinking sequence. Two consortia were engaged for the study, both with participation of top international scientists.
- Formed by order of the Estonian Government a Committee of Experts, below called the Committee of Experts, was working in the years 2005 to 2009 with analysis and evaluation of JAIC:s work.
- The Estonian Parliament appointed in 2005 a Riigikogu Committee of Investigation to Ascertain the Circumstances Related to the Export of Military Equipment from the Territory of the Republic of Estonia on the Ferry Estonia.
- Motions for a new Estonia investigation/further knowledge have repeatedly been submitted to the Swedish Parliament and continue to do so. Parliament members started several years ago an informal group, Estoniagruppen i Sveriges Riksdag (The Estonia group in the Swedish Parliament), the group is still active.

Through these studies new facts have emerged and new theoretical knowledge has been gained. However – as diving operations on the wreck are forbidden – all later investigations are inevitably linked to the scenario outlined by JAIC. Simply put – the investigations have not been about why MV Estonia sank, they have been investigating whether the JAIC theory is at all possible.

Underwater examination and documentation of Estonia’s hull is the second and more important circumstance that must be considered when reading the argumentation below.

The wreck, lying at the bottom of the sea, has never been systematically examined or documented on videotape.

Or - if that has been done – the results have not been made public.

Within the framework of the diving operations and examination of the wreck, organized by JAIC, it was only the bow part of the ferry, or more exactly, the part where the bow visor had been located, which was examined. The JAIC conclusion, that there is no unknown hole in the hull, is consequently a theoretical assumption which has never been proved by an actual examination of the hull.

It is important to know that the wreck lies on the sea bottom at a depth of 80 meters, a depth which is rather shallow in comparison with the average depth in the seas. Carrying out professional diving operations at such a depth was in 1994 a simple task and the Kingdom of Sweden had the means and competence for this. Hobby divers go down to such depths today. The sea bottom can be investigated and filmed even down to 4000 meters using technical means.

This leads inevitably to the assertion that JAIC failed to investigate the most essential evidence, which in reality was easily accessible. It is highly motivated, just based on this circumstance, to claim that the JAIC investigation by no means met the basic standards for a proper accident investigation.

3. Legal basis

As stated above „Marine safety investigating State(s) which have completed a marine safety investigation, should reconsider their findings and consider re-opening the investigation when new evidence is presented which may materially alter the analysis and conclusions reached.“

The following should be regarded as new evidence of such character

- 1) Evidence giving information about the accident e.g. testimonies from witnesses, visible/physical evidence etc.
- 2) Statements of meteorological, engineering/technological or otherwise scientific character giving the possibility to understand the causes of the accident and to establish its sequences.
- 3) Evidence giving reason to question the credibility of the original investigation.

Below follows an analysis of the evidence, primarily of the second category. A number of facts which raise serious doubts regarding the credibility of the JAIC investigation are presented in the latter part of this application.

4. New knowledge

4.1 The JAIC theory and its critics

The ferry MV Estonia was built as a ro-ro type ship meaning that a load can *roll on* board the ship at one end and *roll off* at the other end. That is why the visor was lifted up and the car/bow ramp was lowered. Deck 2, the car deck, was 2,3 m above the water line.

Above the car decks (Deck 3 was a hanging car deck) the deck housing had Decks 4 – 8 with accommodation for passengers and crew and the navigation bridge on Deck 9. Below the car deck were Decks 1 and 0, (1 partially and 0, the tank deck, fully below the water line) with passenger cabins, sauna/pool area and machinery-related spaces. Below the car deck the hull was divided into watertight sections to prevent, in case of accident, water from getting from one part of the ship to another.

According to the JAIC Final Report the ship sank because the locking mechanisms of the visor broke, the visor fell into the sea and the bow ramp opened fully. This happened at approx. 01.15. Great volumes of water rapidly entered the car deck through the open ramp resulting in a heavy starboard list. When the list reached 40° the windows on Deck 4 came under water and broke due to the waves and water pressure and gave the water entry into the deck housing. The list increased even more and when the ship began to lie on its side the stern started sinking under water and the ship disappeared from the surface of the sea at approx. 01.50. Thus it took only 35 minutes from the opening of the bow ramp until the ship sank.¹

There have been a number of objections to this theory, apart from those from seafaring professionals, objections founded on scientific-theoretical basis as well as on existing evidence.

Scientific criticism of the description of the accident has been published in specialist literature. It can be summarized as follows. The list of ship which has lost its stability cannot progress at an even pace from 0 to 180°. After ingress of water in the deck housing the ship will capsize in a few minutes and turn upside down to float for hours or days. Further entry of water is prevented by the air which cannot escape through an - undamaged - hull. As per JAIC the opposite happened to Estonia – she

¹ The JAIC Final Report, English ISBN 951-53-1611-1
 Estonian ISBN 9985-60-531-4
 Swedish ISBN 91-38-31458-4

turned slowly over during 20 minutes and then sank, or even simultaneously. Their report has no explanation for this process.

Before and after the Estonia disaster there have been accidents with other ro-ro ships, where the sequence of events started on the car deck but not one of those ships behaved like Estonia did. The other ships have capsized quickly to stay afloat upside down – and then slowly sink. The time for the sinking has always been several times that of the capsizing. A capsized ship can sink, quickly like Estonia did, only if there is a hole in the hull, a hole that first lets water in and then the air out.

JAIC has been unable to answer two questions from shipbuilders:

- 1) What prevented a fast capsizing?
- 2) Why did the ship sink fast after having capsized?

There are also objections to the JAIC theory based on statements from witnesses. The sequence of events, as outlined by JAIC, is contrasted by testimonies from three crew members which say that the bow ramp was still in closed position when the ship had reached a list of approx. 30°. The three testified that they were in the Engine Control Room looking at a monitor showing the image from a camera on car deck aimed towards the ramp. They saw that the ramp was still in a closed position but water was pressing in on the sides. They never saw the ramp open and left the ECR at approx. 01.25.

At the moment they left the ECR the ship was already listing approx. 30°. Given the testimonies by these witnesses the ship had arrived at a list 30° without the ramp being open. It should be emphasized that the three witnesses are the only survivors from the crew who saw the ramp at the beginning of the accident.²

Since all scientists, who have investigated this accident, agree that a list of 30° cannot be caused only by ingress of water onto the car deck through a leaking ramp, it must be admitted that there is no way that the JAIC theory can be consistent with these testimonies. In other words – JAIC has disregarded the only crew statements given concerning the ramp - or has defined them as false.

4.2 Adjustments to the JAIC theory

The Swedish government ordered VINNOVA, Sweden's innovation agency to organize a scientific investigation to clarify the sinking of MV Estonia and to get new knowledge for the development of shipping. In 2005 VINNOVA issued a special call for a Research Study on the Sinking Sequence of MV Estonia. It was awarded to two consortia, the first one being

The SSPA consortium consisting of

SSPA, Gothenburg, Sweden, marine consultants. Project management

Safety at Sea Ltd, Glasgow, UK, marine consultants. Technical coordination

Chalmers University of Technology, Gothenburg, Sweden

Maritime Research Institute Netherlands, Wageningen, The Netherlands

² It should be noted that also two surviving passengers have given testimonies concerning the ramp which they saw when getting off the ship from the bow area. The ship was on its side, at a 90° list and they saw the bow ramp closed. All persons who saw the ramp during the course of the accident assert that it was in a closed or next to closed position.

All material assembled for the JAIC investigation as well as later obtained information was put at the disposal of the SSPA consortium. However, as the scientists were not permitted to examine the wreck, they had to take, as a starting point, the JAIC presumption that the hull of the ship is intact. In other words – the task for the consortium was not to find the cause for the accident but to examine whether the JAIC theory was possible and, if necessary, to complete it.

The SSPA consortium arrived at the conclusion that the JAIC theory was possible, provided that substantial changes were to be made on some important points and that matters which have not been investigated are ignored.

The SSPA consortium suggested the following changes to the JAIC theory:

- 1) The time was approx. 01.05 when the visor fell off and the ramp opened - not at 01.15 as JAIC has indicated. The duration of the accident was 45 minutes, not 35.
- 2) The list did not increase in an even succession from 0 to 120° as JAIC maintains but happened in two sudden lurches. In just a few minutes after the ramp opened the ship turned over to a 40° list and during the next approx. 20 minutes the list slowly developed to 80°. The ship then capsized at ca 01.30, i.e. the list went from 80° to 150° in a couple of minutes.
- 3) The windows on Deck 4 did not, as JAIC states, break when they came under water at the 40° list. On the contrary – the strength of the windows is the only physical explanation to why the ship lay floating on her side for 15 - 20 minutes instead of capsizing quickly. This is – of course – with the assumption that the hull was intact.
- 4) Water entered the lower decks not, as JAIC writes, through the doors in the centre casing but mainly through ventilation openings in the ships side. In addition, before the capsize, it would not have been possible to fill the lower decks with great volumes of water unless the watertight doors below the car deck were open.
- 5) Estonia did not start to sink from the position lying on her side (approx. 100° list), as JAIC maintains, but only after she had turned over completely (170° list or more).

The SSPA investigations were thereby confirmed by two theoretical theses (or laws of physics) with which the JAIC theory is in conflict:

- the JAIC claim regarding a continuously growing list is impossible. If the ramp opens the ship will list up to 40° within minutes. If the windows in the deck housing break the ship will capsize in few minutes.
- the ship cannot start sinking while lying on the side, it first turns bottom up and then starts sinking.

Four new conditions were added, all necessary in order to save the JAIC theory:

- 1) The capacity of the windows to withstand water pressure was higher than what was earlier foreseen.
- 2) There were ventilation openings (on Deck 4) which were submerged.
- 3) All doors from car deck into the centre casing broke.
- 4) All watertight doors in the lower part (Decks 1 & 0) of the ship were open.

Considering the qualified composition of the consortium and the care and thoroughness with which their investigation was made, these addenda can, from a theoretical point of view, be considered justified. The problem is however that these new conditions just deal with hypotheses which may – or not – be applicable to MV Estonia.

The matter whether the windows of the deck housing were intact or not was not examined by divers nor has there been any testing of what sort of loads the windows could withstand. The ventilation

openings are not even mentioned in the JAIC report and nothing has been done to check what role, if any, they could have played in the sinking process. The same goes for the doors into the centre casing. Although JAIC assumed that these doors broke it did nothing to look into that assumption. Still worse is the situation regarding the watertight doors under car deck. Divers looked at one door and it was closed. A crew member testified that all watertight doors closed in the first phase of the accident.

Another problem with the SSPA investigation is that witness testimonies are in conflict with its findings. As with the JAIC investigation there is no accounting for the testimonies from the three crew members which, on the monitor in ECR, saw the ramp in a closed or almost closed position when the ship already had a considerable list.

The SSPA perception of the timing for various events in the accident shows even greater contradictions. The consortium concluded that the ship must have had a list of ca 70° at 01.24 and 90° at 01.29. There is however the registered MAYDAY radio call from Estonia at 01.24.46 where the second mate on the bridge says: “we have a problem here, we have a strong starboard list approximately 20 – 30 degrees”. It is impossible that he could have misjudged that much when estimating the list. At 70° list it is impossible to stand on the floor, it has turned into a wall. Considering that the bridge on Estonia was a 27 meters wide, open room, the officer would, at 70° list, not have had anywhere to stand, he would have had to find something to hold on to and hang from.

The claim that the ship already had a list of 90° at the time of the last emergency call from Estonia at 01.29.27 is also impossible. If the ship is on its side with that list, half the bridge is under water.

It is interesting to look at what conclusions the SSPA consortium made regarding the matter of a hole in the ship's hull. Although the resources available to them did not make it possible to make any careful investigation of other possible scenarios than that of JAIC, some work was done. Simulations showed that ingress of water under the water line can, to a large extent, be the reason for a similar chain of events as with an open bow ramp leaving the car deck exposed (list – capsize – sinking). There is however a difference, in the case with a hole in the hull, the list would increase gradually and the sinking start earlier, i.e. 2 – 3 minutes after the capsize. This is particularly interesting since the gradually increasing list and fast sinking is the JAIC main hypothesis, which has often been criticized. In other words – the JAIC description of the sequences in the accident fits the ‘hole-in-the-hull’ version better than the ‘lost visor’ version³.

4.3 Further theories and interim summary

The second consortium, to which VINNOVA, Sweden's innovation agency awarded the job to do a Research Study, was

The HSVA consortium⁴ consisting of

Hamburgische Schiffbau-Versuchsanstalt GmbH, Hamburg, Germany. Coordinator

Technische Universität Hamburg-Harburg, Hamburg, Germany

TraffGo HT GmbH, Duisburg, Germany

³ The results of the investigation have been given in 18 reports, published on Internet at www.sspa.se and www.safety-at-sea.co.uk/mvestonia/. The report from The Committee of Experts, dated February 16th, 2009, has a summary in Estonian.

⁴ The HSVA Final report can be found at <http://www.vinnova.se/upload/dokument/Verksamhet/Transporter/Sjosakerhet/Estonia/HSVA1663FINAL.pdf>. The report from The Committee of Experts, dated February 16th, 2009, has a summary in Estonian.

This consortium also came to the conclusion that the JAIC theory was possible given modifications at some essential points. The HSVA scientists came, as well as the ones in SSPA, to the conclusion that the windows had sufficient strength and did not break immediately after the water ingress. As per the HSVA consortium water entered the areas below car deck through the ventilation openings and through the doors in the centre casing, some of which were open or broken. These doors were of critical importance in the accident. Assuming that the ventilation openings were open and the centre casing watertight, the ship would have survived this accident. Regarding the time for when the accident started the HSVA scientists have pushed it back another 5 minutes to arrive at the conclusion that the bow ramp opened at 01.00.

Further to the mentioned circumstances HSVA has two essential points which JAIC and SSPA did not consider important. To begin with, HSVA considers speed to be an important factor. At the beginning of the accident the ship must have gone at high speed at least 14,2 knots and had continued straight ahead at that speed for 2-3 minutes after the ramp opened. Had the ship gone at a lower speed, or if the speed had been immediately reduced, she would have been able to survive the disaster. The second point of HSVA, is that the crew, 2-3 minutes after having proceeded straight ahead, reduced speed and made a left turn against the waves. This change of course was the reason for the ship to heel over sharply to the right – not that there was water ingress through an open bow.

The HSVA report contains conclusions which differ on very important points from those of SSPA. The differences relate not only to theories proposed by the various scientists but also to conclusions based on purely technical grounds. The following are some examples:

- 1) SSPA claims that there is water ingress through the open ramp at a speed of 1500 – 1800 tons per minute causing a list of 45° within 3-4 minutes. The HSVA analysis however shows a considerably smaller inflow (300 – 700 t/min) meaning that only a 10° list can be acquired within 3-4 minutes.
- 2) SSPA claims that the list of a ship which has lost its stability cannot develop slowly, it capsizes fast after the windows in the deck housing have broken. HSVA concludes the opposite – there can be no rapid capsize.
- 3) SSPA claims that a ship which has lost its stability always turns upside down and then starts to sink. HSVA however draws the conclusion that the ship sinks already at a 135° list.
- 4) SSPA claims that if the ship has a minimum of 2104 m³ of air trapped below car deck, it will not sink at all but remain floating upside down. HSVA however claims that not even 3500 m³ of air trapped inside will prevent the sinking.

From the above it is evident that there is still today no agreement in the scientific knowledge concerning a number of matters which are of great importance in the accident. In other words – there have been no explanations regarding Estonia's stability and floatability in relation to the laws of physics.

Thus neither the JAIC theory - nor any of the others - is credible.

If there is some uncertainty regarding a theory, no fact (e.g. whether there is a hole or not) can be derived from that theory, but facts have to be clarified in reality. Several of the scientists, i.a. in the SSPA consortium, have understood this and strongly recommended in their final report that the whole hull of MV Estonia should be inspected and documented in detail. The same recommendation was made by the Committee of Experts chaired by the Estonian Chief State Prosecutor.

5. Evidence reducing the reliability of the JAIC investigation

One outcome of every investigative process should be – not only information about the investigated events – but also an evaluation of the validity of the evidence as well as the entire investigation. As indicated below there are a number of facts which raise serious doubts whether the JAIC investigation was objective and impartial.

5.1 In 2006 the Swedish Defense Department commissioned SKL, the National Laboratory of Forensic Science, to examine whether video tapes, documenting the official diving operations on MV Estonia, were genuine. All available tapes, claimed to be originals, were handed over and the request was for SKL to establish whether it was really originals, or if the material had been edited, manipulated or in any way distorted. The SKL analysis showed that out of 35 VHS cassettes 5 were copies of recorded material for which SKL had not received any original material. This proves that parts of the material, presented to the public as originals, are copies of something which is not the original recording and that the master tapes have been destroyed or are kept secret.

5.2 According to JAIC the accident started on the car deck where water entered through the opened bow ramp and passed to the lower decks through broken doors in the centre casing. To verify this theory it should have been essential to examine the car deck. Claiming security reasons this was however not done. Chapter 8.7 of the Final Report states that the car deck was not surveyed due to the hazards for the divers working in the area. Later information gives reason to believe that this statement is not true.

Point 3a in the report from the diving contractor, issued in Rotterdam December 8th, 1994, has a clear notation that the car deck was examined with a ROV⁵ as far as 20 meters into the ship. The log for the VHS videocassette SPRINT/947ESTONIA70019 states clearly that the ROV was on the car deck. Several persons, with good knowledge of shipbuilding who have seen this video recording, are convinced that the ROV really was on the car deck. There are consequently good reasons to assume that the car deck was at least in part examined and documented during the diving operations but JAIC decided to keep it secret. The deliberate suppression of this information by JAIC is proved by the abovementioned videotape which was one of the edited tapes, according to SKL (see points 5.1 and 6).

5.3 Another part of the ship which needed to be investigated in order to clarify the development and causes of the accident was the navigation bridge. On the control panel for the watertight doors, situated on the bridge, it would have been possible to verify whether they had been closed or not. Point 5.5 in the report from the diving contractor shows that the divers were in fact ordered to check that and it is surprising that nothing is known about the result. Point 2.8 in the same report states that, in contrast with the accounting for work in all other areas of the ship, the divers were not to report anything about their examination of the bow area or the navigation bridge. Evidently NMA (the Swedish National Maritime Administration which on board the diving platform directed the operations) and the representatives of JAIC had decided that the investigation of these areas, which could be most informative, were not to be known. Such decision is irreconcilable with the purpose of an official accident investigation and shows intent to hide evidence.

5.4 The accident began, according to the JAIC Final Report, with the visor locks breaking and the visor falling into the sea. The biggest and strongest lock was the bottom lock, also called the Atlantic lock, situated on the forepeak deck where the lowest part of the visor met the corresponding structure in the ship's bow. A hydraulically operated locking bolt engaged into a mating lug (ear) attached to the bottom of the visor.

⁵ From surface remotely operated underwater vehicle fitted with a camera

All three lugs, attaching the bottom lock to the forepeak deck, broke according to chapter 8.6.1 in the Final Report, but the lug on the visor bottom and the locking bolt were intact. During the diving operations the bolt was cut away and brought to the surface for a closer examination. The JAIC member Börje Stenström, who was on board the diving platform, regrettably decided to throw the bolt back into the water, thus destroying an important piece of evidence. Anyone would see that decision as totally incomprehensible. It however shows up as a kind of strategic decision to make it impossible to verify or falsify the JAIC conclusions.

5.5 Chapter 8.3 in the Final Report says that the MV Estonia visor was found in the sea on October 18th, 1994 i.e. 20 days after the accident. There are reasons to question that date. Proof of this is a fax in Swedish, sent by the JAIC member Kari Lehtola to fellow member Olof Forsberg on the morning of Oct. 9. The content of the fax is that *among the debris on the sea bottom where Estonia turned over there is an object, 10 meters long and 5-7 meters wide, probably metallic. The shape has a good similarity to the visor. Depth 70 meters. The sea bottom is hard.*

The same day Tuomo Karppinen and Simo Aarnio (member respectively expert in the Finnish part of JAIC) and the ROV-group boarded Tursas at 11.00 (Finnish time) in Nagu and the work started at 13.00 videotaping the "big object". Kari Lehtola later claimed that it was a big steel plate. It has however never been explained exactly what it was which had size and shape similar to the visor. All films of this object have disappeared.

Another piece of evidence shows that the real circumstances of when and where the visor had actually been found were purposely obscured. A sonar image shows an area of the bottom with the wreck. The image was most probably taken on September 30th 1994 by the Finnish vessel Suunta which at approx. 17.30 located the wreck by echo sounding and took four sonar images.

The sonar image shows a shape, identical in form and size with the visor, standing upside down next to the bow part of the wreck.

Sonar is used for underwater measuring the distance to an object by emitting a pulse and registering the time to reception of the echo. An object lying under something else cannot be registered. The sonar image is a detail in a larger drawing, obtained by the undersigned organization from the Swedish National Maritime Administration, showing a wide area of the sea bottom at the disaster site. The fact that depth curves are visible through the wreck needs an explanation.

In the preparation for the planned covering of the wreck with concrete some 400 000 m³ of sand and stone were to form three strings of pressure banks as a foundation. The mud and clay sea bottom needed this reinforcement to prevent a bottom slide which might be caused by the combined weight of wreck and concrete.

With the purpose of creating a working material for the execution of this task the contractor, Nordic Marine Contractors, transferred the sonar image onto an existing bottom map of the area showing depth curves. The map was thus merged with the sonar image. There have been no official comments on the existence or whereabouts of the original of this sonar image.

Excluding some forgery the existence of a sonar image showing wreck and visor close together needs to be investigated. One theory to be explored could be that the visor hinges broke but the starboard hydraulic actuator (lifting cylinder for opening the visor found fully extended and bent) had remained sufficiently strong to keep the visor turned out of position but still attached to the wreck.

5.6 JAIC was formed on September 29th, 1994 by decision of the Governments in Estonia, Sweden and Finland. Andi Meister, the Estonian Minister for Transport and Communications was appointed

chairman, Olof Forsberg headed the Swedish and Kari Lehtola the Finnish part of the commission. The Final Report was signed only by the last of the three. Andi Meister resigned in the summer of 1996. Caught lying to a journalist about an insignificant letter Forsberg was discharged from JAIC and his main job as Director General of SHK, The Swedish Accident Investigation Authority (to be appointed a Justice in the Svea Court of Appeal).

Andi Meister has in his book "Löpetamata logiraamat" written that he stepped down from his post as chairman because information all the time was kept hidden from him. There is also objective evidence that essential information was kept away from the Estonian side.

On the day following the accident Kari Lehtola sent a fax to the JAIC Estonian representative where he gave as coordinates for the wreck of MV Estonia, 59°23,09' and 21°42,09'E. The wreck is, in reality, at 59°22,9' and 21°41,0'E, a misdirection of half a nautical mile.

Copies of the video documentation were sent to Estonia after the diving operations were terminated. There was however nothing in this material that showed the examination of the navigation bridge and the bow area. This documentation, which was of the greatest importance in finding the cause of the accident, was not sent to the Estonian part of JAIC.

A third document that is an evidence of the concealment of information comes from the archives of the Estonian Ministry for Foreign Affairs. Their Embassy in Sweden sent on Oct. 1st, 1994 a note to the Swedish Ministry for Foreign Affairs on the matter that the Estonian Consul had not been permitted access to rescued Estonian citizens being held in Stockholm hospitals, nor was he given any information about them. This is in violation of the Vienna Convention on Consular Relations. The Consul has confirmed that the Swedish authorities did not give him any information about the accident or the rescued persons. Nor did he, during the first days, get any permission to meet with the rescued Estonians and no information was given by the hospitals regarding the names or how many Estonians there were at the hospital.

5.7 Closing the theme it should be mentioned that today, 21 years after the accident, there are a number of documents which are classified as state secrets. As stated in point 34 in the March 10th, 2006 report from the Committee of Experts, an intelligence document from the Estonian Internal Security Service is today classified as state secret. Furthermore there are in the archives of the United States National Security Agency three documents (7pages) which cannot be released under the Freedom of Information Act (FOIA) as *"their disclosure could reasonably be expected to cause serious damage to the national security"*.

The Committee of Experts was not able to establish whether Finland also has classified Estonia documentation. The Swedish Government has classified an unknown quantity of documentation concerning the Estonia disaster, allegedly for the duration of 70 years, most of them said to be at the Ministry for Foreign Affairs.

This account of questionable aspects of the JAIC investigation could well continue but what already has been brought up is sufficient to ascertain that it does not meet required standards in accident investigation. The signature of a true and diligent investigation is that the result can be verified and criticized. This is valid for all investigations whether scientific, journalistic or those carried out by the state. Verification is possible only if important evidence has been collected, stored or at least documented. The JAIC investigation has serious flaws in this respect and the result of their work cannot be considered trustworthy.

6. Evidence in contrast with the JAIC visor theory

The Swedish Government decided in December 1994 to cover the wreck with concrete, something which, for technical reasons, later proved impossible to do. However, during the preparatory work some 400 000 tons of sand and rock were dumped on the site, of which an unknown quantity ended up against and on the wreck. Further to this Estonia, Finland and Sweden decided to forbid diving and other underwater activities on the wreck and in an area around the wreck site as well as to pass laws bringing criminal prosecution against offenders. The outcome of this was that the wreck of MV Estonia was made inaccessible for the investigators even before JAIC had completed its work. In view of this it is understandable that there have not appeared, during the past years, any images, videotapes or other material which unconditionally could disprove the JAIC theory. There is however a sequence in a videotape which allows challenging the JAIC hypothesis that the hull is intact. That is the aforementioned cassette SPRINT/94/ESTONIA/ 001 from which it is clear that the car deck was examined with a ROV (see point 5.2).

According to the official theory there are no other openings in the hull (save openings cut by divers), at the level of the car deck or below, than the ca 70 cm wide opening between the upper part of the ramp and its frame in the front bulkhead of the ship. JAIC explains this opening by saying that after having been fully open the ramp fell by gravity to an almost closed position when the ship turned upside down in the sinking. Looking at said sequence in the video something unexpected occurs – a ROV enters the car deck, however not through the opening between ramp and its frame, but steered by a diver downwards and to the left along the side of the ship. This is understood both by audio comments from the diver and the running depth and position information in the video picture. Poor visibility and interruptions in the video makes it unclear exactly how the ROV ends up on the car deck but all of a sudden it is there. This is confirmed by experts who have viewed the video as well as by the Video Tape Log and the report from the diving operations (see point 5.2).

Considering the entry of the ROV onto the car deck as proven, the fact must be admitted that there has to be a hole in the car deck wall i.e. the hull of MV Estonia.

In view of this there is another piece of evidence, not verified, which will get a completely different significance. The Swedish citizen Håkan Bergmark informed a journalist that he, just a few days after the accident, participated in a diving operation on the wreck of MV Estonia organized by the Swedish Armed Forces. His task was to examine and document on video the bow area of the wreck. He discovered a large hole on the starboard side which showed signs of having been caused by explosion. The hole was oblong in shape, estimated to be ca four meters high and reached both above and below the ships waterline. Bergmark gave the names of two persons which also participated in the operation, one of them being his commanding officer. His statements have never been investigated nor disproved, neither has the alleged commander, an officer in the Swedish Armed Forces ever made any comment. As per point 25 in the report of March 10th, 2006 from the Committee of Experts, both men refused to meet with the chairman Chief State Prosecutor Margus Kurm. There is no way to confirm whether Bergmark's statement is the truth. Suspicions arise however when such information is ignored.

The allegation that MV Estonia was used for transporting military equipment was for a long time dismissed as a rumour. The investigation made in 2006 by the President of the Swedish Court of Appeal, Johan Hirschfeldt, confirmed that on two occasions, two weeks respectively one week before the accident, MV Estonia carried – secretly – military equipment from Tallinn to Stockholm. There could have been some secret cargo on board on the night of the disaster with something going wrong with it - or because of it.

There must also have been something important in those two trailers which arrived to the ship at the last minute. The captain would not otherwise have delayed the departure by 15 minutes – a fact which for a long time was subjected to malicious rumours but now has been confirmed by two

witnesses. One of these witnesses, a Swedish passenger, observed the trailers - engaged in a transport which she perceived as being of a military character - arriving late to the port with motorcycle escort, and being let onto the ship just before departure. Another witness has provided details about peculiar circumstances surrounding the ownership and load of the trailers. Both these witness accounts strongly indicate that the trailers were carrying contraband of a qualified and possibly dangerous nature, alien to what should be ordinary for a passenger ferry like Estonia. This incident, and its possible connection with what hours later happened at sea, has never been investigated.

There must also be some very particular reason for the fact that Estonian ships were forbidden to approach the site for the disaster in order to save human lives. In the Lehtma port in Hiiumaa (Õsel) three ships prepared to leave for joining in the rescue work. Shortly after they had put to sea came a message through a high official that Estonian ships were not allowed to go to the disaster site. It follows that there was something in the sunken ship or its vicinity which was more important than saving lives.

In conclusion - the facts listed above show that there are ample reasons for our request for the Government of Estonia to start proceedings for a new official investigation with necessary authorization to do whatever is needed to arrive at an impartial and factual investigation of the cause and sequences in the foundering of MV Estonia.

We remain at your service for any further information and/or documentation. Should it be deemed that a meeting would contribute to bringing the matter forward we are prepared to travel to Estonia and attend such a meeting at your convenience.

Yours sincerely

Please refer to the signature on the following page!