

Summary of the MAIB's inquiries relating to

Fishing Vessel

***Trident***

Lost 16 miles south east of Wick

On 3 October 1974

Marine Accident Investigation Branch  
First Floor  
Carlton House  
Carlton Place  
Southampton  
United Kingdom  
SO15 2DZ

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## Synopsis

The UK registered fishing vessel *Trident* disappeared off the north-east coast of Scotland on 3 October 1974 with the loss of all 7 crew.

A formal investigation into her loss was held in Aberdeen in the summer of 1975 and concluded that it is probable that *Trident* took onboard a sea or succession of seas and foundered. The court also considered it probable that deficient stability in her design contributed to her foundering.

In the summer of 2001 amateur divers looking for a warship wreck accidentally came across the wreck of *Trident*.

There was intense local media interest and the next of kin began a campaign to re-open the formal investigation supported by the local member of Parliament.

The Marine Accident Investigation Branch (MAIB) undertook a survey of the wreck in August 2001 in order to determine if there is new and important evidence which would require the formal investigation to be re-opened.

This report outlines the findings of the survey and other relevant information relating to the loss of *Trident*.

The stability of the vessel, long-held in question by the next of kin and media, is examined along with stability information relating to her sister vessel. Possible causes of the loss are also discussed.

The definition of “important” evidence will determine if the chief inspector of marine accidents recommends that the formal investigation into the loss of *Trident* is to be re-opened or not.

## **Section 1      Background**

### **1.1    PARTICULARS OF TRIDENT AND ACCIDENT**

#### **Vessel details**

Registered owner	:	David Tait
Port of registry	:	Peterhead
Flag	:	UK
Type	:	Trawler
Built	:	1973 Bute (Hull built 1972 at Tees)
Construction	:	Steel
Length overall	:	85' 00"
Gross tonnage	:	160
Engine power and/or type	:	Mirrlees Blackstone ESSL 63 600 BHP
Service speed	:	10.75 knots

#### **Accident details**

Time and date	:	Lost between 1553 and 1644 BST 3 October 1974
Location of incident	:	16 miles south-east of Wick
Persons on board	:	7
Injuries/fatalities	:	All 7 crew lost
Damage	:	Vessel lost
Wreck discovered	:	11 June 2001 by amateur divers

## 1.2 NARRATIVE

*Trident* was built in 1973 at Bute shipyards, her hull having been completed at Tees Marine in 1972 and subsequently towed to Bute for fitting out. She failed to have an inclining experiment upon completion, as required by her building specification, due to late delivery and the subsequent pressure to commence fishing.

From the time of her commissioning in April 1973 until her loss, *Trident* was part of a group of four vessels which were amongst the top earners on the west coast of Scotland, fishing out of Mallaig and Ayr for Herring.

On 1 October 1974 while *Trident* was in Troon the decision was made to accompany *Faithfull II* from Troon to Peterhead as *Faithfull II* had a suspect gearbox. Upon arriving in Peterhead *Trident* was to be slipped for overhaul and survey. The slip had been originally reserved for another vessel, *Starcrest*, who was unable to use the option due to mechanical problems.

The majority owner and skipper of *Trident*, David Tait, decided to go by car to Peterhead to finalise arrangements and left the mate Bobby Cordinar as acting skipper.

*Trident* departed from Troon in the early hours of 2 October 1974 and rendezvoused with *Faithfull II*. She was carrying no fish or ice and had 1200 fish boxes in her hold. The two vessels proceeded through the Pentland Firth in sight and making regular radio contact with each other.

At about 1430 BST on 3 October *Faithfull II* stopped to repair a broken pipe to a sea cock. She was about 3 to 5 miles south-east of Duncansby Head at this time. *Trident* came alongside *Faithfull II* and dropped two rolls of tape, secured to a buoy, for use in the repair.

She then resumed her passage knowing that *Faithfull II* was faster and would catch up with her upon completion of the repairs.

The wind was north-easterly force 5 to 6 and the tide was setting northerly. It was overcast with occasional showers.

*Faithfull II* completed her repairs and made both radio and radar contact with *Trident*. Her last radio contact with *Trident* was between 1530 and 1545 when two deckhands had a conversation. At 1520 and again between 1545 to 1550 a deckhand on watch on *Faithfull II* saw an echo on the radar at a range of about 5½ miles on the starboard bow which was assumed to be *Trident*.

*Trident* spoke to Wick radio at 1419 and again at 1553 and was told to stand by to be called later. At 1644 Wick radio called *Trident* but received no answer.

At about 1800 *Faithfull II* called *Trident* but received no answer and attempted, unsuccessfully, to call her many times over the next few hours.

At around 0030 *Faithfull II* arrived in Peterhead and was surprised to find that *Trident* had not already arrived.

David Tait was already waiting in the harbour and was becoming concerned. The coastguard were informed and a full air and sea search was launched.

Many vessels and aircraft searched the area over the next few days.

An oil slick was sighted to the south east of Duncansby head on 4 October and 300 fish boxes, of a type similar to those carried on *Trident*, were recovered on 6 October.

Two lifebuoys, positively identified as coming from *Trident* were washed ashore in March 1975 and February 1978. A liferaft, also confirmed as coming from the vessel, was recovered in January 1977.

### 1.3 THE CREW

At the time of her loss the following crew were onboard:

Robert Cordiner (Aged 36) Acting skipper. Held a full skippers certificate.

Tom Thain (32) Deckhand.

Alex Ritchie (35) Engineer/acting mate. Held a 2<sup>nd</sup> hand (full) certificate. Held 3/16 of ownership. (David Tait had remainder of share holding) Son-in-law of George Nicol.

George Nicol (58) Deckhand. Held a full skippers certificate.

James Tait (32) Deckhand. (No relation to David Tait.)

Alex Summers (41) Cook.

Alexander Mair (30) Deckhand. Cousin of David Tait.

No bodies have been recovered. It is possible their remains could still be on board.

## 1.4 FORMAL INVESTIGATION

See annex one.

A formal investigation was held into the loss of *Trident* at Aberdeen's sheriff court from 17 June 1975 until 1 July 1975. The report of court was published on 12 September 1975.

The report's findings were

*"that it is probable that Trident took onboard a sea or succession of seas and foundered, the precise causes of the casualty being unascertainable. The court considers it probable that deficient stability in her design contributed to her foundering."*

The report also discussed the possibility of five other factors which possibly caused or contributed to the disaster namely;

- 1 *Collision with an explosive device or with a floating obstruction.*
- 2 *Failure in the rudder stock assembly.*
- 3 *Sudden unintended change of course.*
- 4 *Neglect of good seamanship.*
- 5 *Inadequate stability.*

The first four factors were considered unlikely to have occurred by the court. The bulk of the evidence related to the last item, stability.

The court considered that no wrongful act or default was established and that no party should be held liable for her loss.

## 1.5 DISCOVERY OF THE WRECK

On 11 June 2001 amateur divers looking for the wreck of HMS Exmouth came across the wreck of *Trident* by accident. Their account can be read at <http://www.hmsexmouth.com/TRIDENT.HTM>.

The vessel is lying to the NE, heeled over to starboard, in flat sand, in 58 metres of water, 16 miles south east of Wick in position 58°20.3 ' N 2°40.0 ' W. (see annex two) This is about 10 miles to the south east of the position that the FI assumed she was lost in.

The discovery of the wreck prompted intense Scottish media interest. The next of kin unfortunately found out from the media. MAIB being informed of the wreck's discovery after it had become public knowledge.

The divers showed their video to MAIB (a copy is attached) and gave full co-operation.

MAIB placed an exclusion zone around the wreck to prevent unauthorised access on 29 June 2001.

## 1.6 SISTER VESSEL

There was a sister vessel to *Trident* called *Silver Lining*. She is now renamed *Celestial Dawn* and is currently trading out of La Coruna in Spain. The vessel was visited to assist with the survey in July 2001. Heavily modified, she has been lengthened and fitted with a watertight shelter running the length of the deck. She was not an exact sister due to internal fittings and engine room differences however her hull form was the same.

After the loss of *Trident*, *Silver Lining* was tied up in Peterhead for about 18 months. Her owner had problems getting a crew. After the FI was held she was lengthened by ten feet. She then resumed fishing.

Two other vessels also had the same hull forms but with major structural differences;

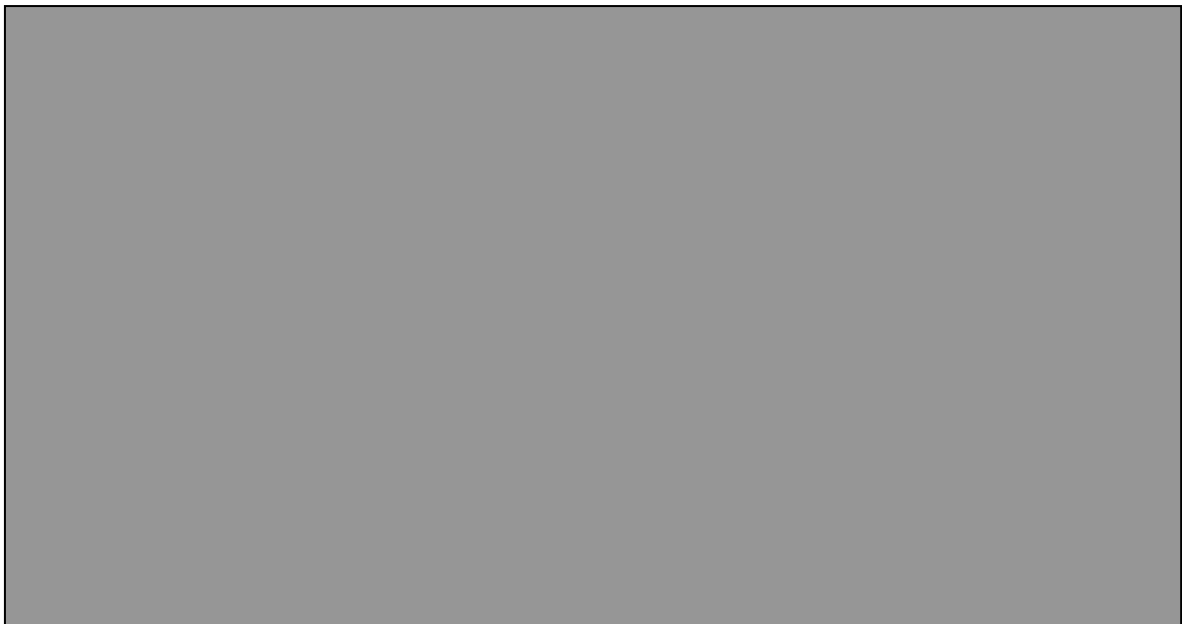
*Stanhope III* renamed *Fear Not* and registered in Peterhead. Her hull was built in Liverpool and she was fitted out in Bute.

*Albannach* renamed *Fair Dawn* and registered in Inverness. Her hull was built in Liverpool and she was fitted out in Aberdeen.

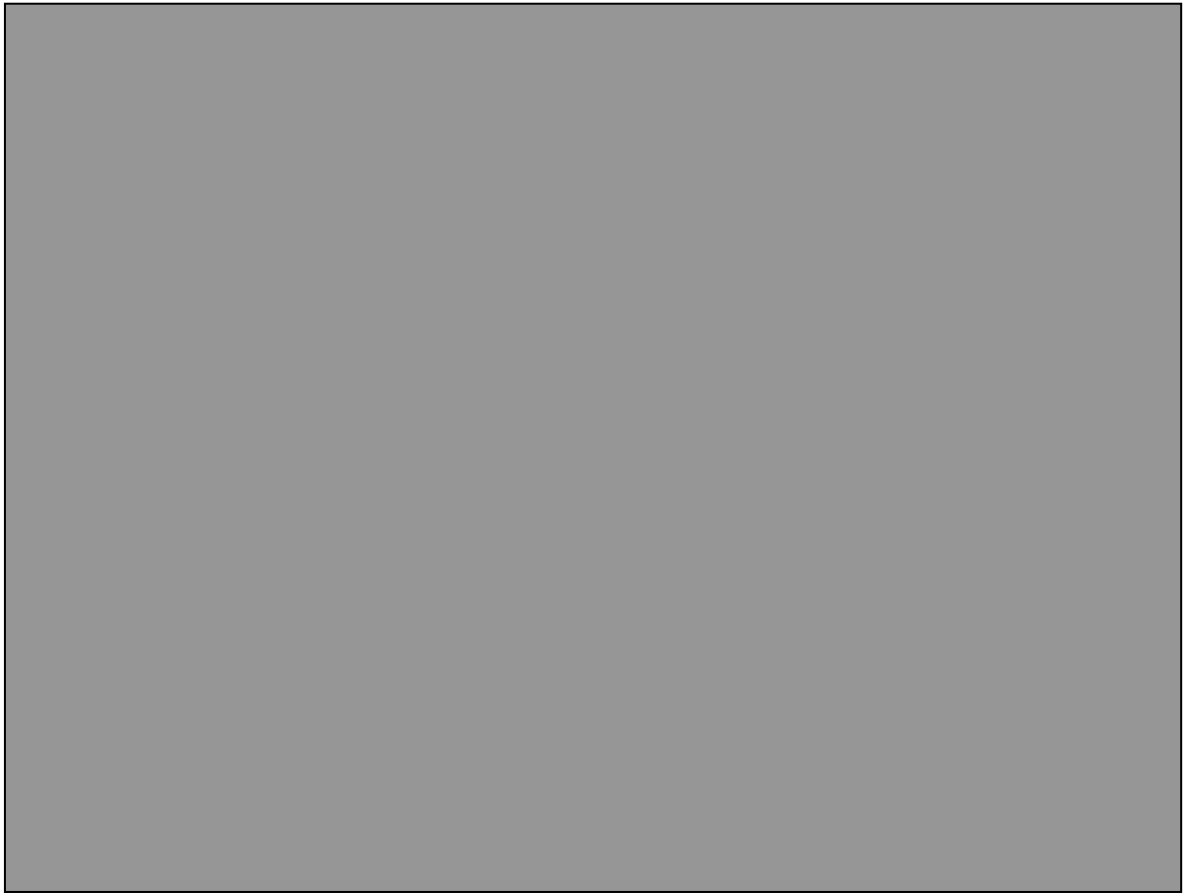
## 1.7 RESEARCH

In order to assist the analysis of the survey information the following were also conducted:

Interviews: (all in confidence)





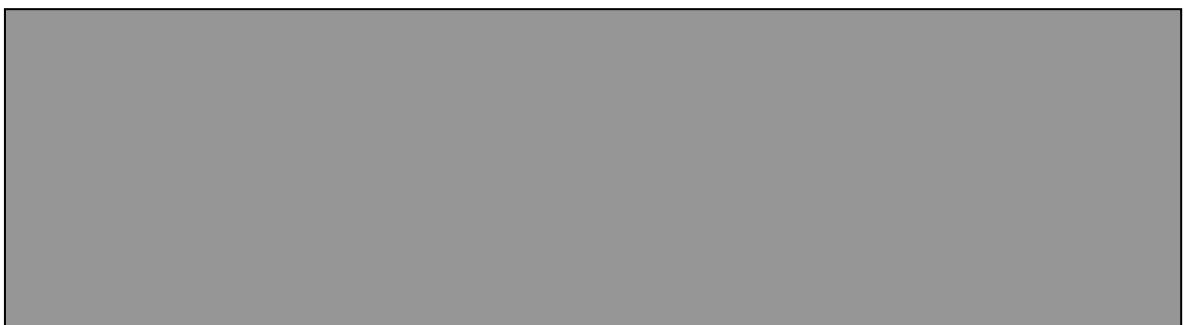


#### Other research

The 1975 FI transcripts have been obtained (every spoken word during the 10 day hearing) plus additional documentation presented at the FI. The MAIB also has many photographs of the vessel obtained from various sources and a magazine article written when the vessel was being built.

A file of press cuttings from the months after the loss was given to the MAIB by one of the next of kin.

Other parties, still alive, not yet spoken to:





## 1.8 ROV SURVEY

In August 2001 the MAIB undertook a 3-day remote operated vehicle (ROV) survey of the wreck. (Video attached) The main findings were as follows:

### Damage:

- Foremast broken off and lying to starboard, the top resting on the sea bed
- Gilson wire derrick boom broken off and lying on the main deck
- Landing derrick broken off and lying on the main deck
- Corrosion hole in port side shell plating close to bulwark, amidships, about 40cm diameter
- Triplex powerblock missing
- Several wheelhouse window panes missing
- Galley window pane missing
- Galley appears to have electric cabling hanging down and sink and cooker damaged
- Wheelhouse appears to be heavily covered in growth, fixtures/equipment unobservable
- Several nets/wires and rope cover the vessel, most are thought to be hers
- Radar and mast missing
- Bow, shell plating and accommodation has heavy marine growth

### Observations:

- The observed portion of the hull (port side, starboard bow and aft) appears to be intact
- Starboard side up to gunwale and aft end to just below rudder stock covered in sand
- Fish hatch lid is missing
- Fish hatch coaming and cleats appear to be undamaged
- Hatch lid securing wedges missing
- 4 out of the 8 ice scuttles are missing (rims intact), 2 are in place and 2 were not able to be observed.
- Starboard forward weathertight accommodation door appears to be missing
- Net stowed forward of accommodation appears to be missing
- None of the 6 tyre fenders are hanging outboard (as thought to be at the time of disappearance) all were sighted, 2 on the starboard side
- A net is covering the whole of the aft mast which appears intact
- None of the 4 lifebuoys or 2 liferafts sighted (2 lifebuoys and a liferaft washed ashore in late 70's)
- Blue hull and wooden deck sheathing mostly in good condition
- Rudder and propeller not seen as vessels aft end immersed in sandy sea bed to close to rudder top
- Rope wrapped around rudder stock with at least 3 turns apparently under tension
- Top of rudder may be just visible – not certain about this
- Ship's name and part of Port of Registry clearly visible on stern
- Unable to enter any part of vessel, went up close to wheelhouse and galley windows, did not enter fish hold.

## 1.9 STABILITY

*Trident's* stability has often been questioned since her loss. As she was not inclined after completion it is impossible to assert categorically that she did or did not comply with the stability recommendations for a vessel of her type and size.

A year after *Trident* was commissioned, the designer, Andrew Cummings, discovered that he had miscalculated the size of the fuel and fresh water tanks. Fuel capacity on both vessels was 22½ tons compared with an intended capacity of 13 tons. The fresh water tank was 2 tons under the intended capacity. David Tait was advised to limit the amount of bunkers carried.

She was known as a “wet” ship, shipping water on deck even in reasonable weather conditions. There was also a heavy prolonged roll reported when the vessel was fishing off Holland while David Tait was on leave.

The Dutch builder of *Accord* once came on the vessel and said she was unstable because there was no ballast carried in the double bottom. David Tait informed Andrew Cummings and was told not to put any ballast in.

The stability information book, based on the sister vessel's information and various estimates, was given to David Tait by Andrew Cummings several months after the vessel was commissioned.

After the loss of *Trident*, *Silver Lining* was subject to intensive stability testing including an inclining test. She was found to be marginally deficient in the loaded condition, but in the light condition, the condition *Trident* was in when she was lost, she was found to have adequate stability.

*Trident's* depth and small freeboard was mentioned at the FI. She also had a transom stern fitted which is not found on many fishing vessels today. If a transom was to come out of the water in a seaway the waterplane area would be subject to change and may lead to a subsequent loss of stability.

## 1.10 MERCHANT SHIPPING ACT 1995

The merchant shipping act 1995, chapter 21, states in section 269;

1. *Where a formal investigation has been held under section 268 the secretary of state may order the whole or part of the case to be reheard, and **shall** do so-*
  - (a) *if **new and important** evidence which could not be produced at the investigation has been discovered; or*
  - (b) *if there appear to the secretary of state to be other grounds for suspecting that a miscarriage of justice may have occurred.*

## 1.11 NEXT OF KIN

Since the discovery of the wreck the next of kin have mounted a campaign, backed by the local media, to have the formal investigation re-opened. They are also being supported by the local MP Alex Salmond. The next of kin also have legal representation.

At the heart of their campaign is the claim that the vessel was unstable. They support this by maintaining the *Silver Lining* was lengthened due to instability.

Jeanie Ritchie, the widow of Alex Ritchie and daughter of George Nichol is the spokesperson and driving force behind the campaign.

When the wreck was discovered, the next of kin were adamant that they didn't want it disturbed. In the months since the discovery their opinion has changed to now suggesting the wreck be raised in order to uncover the "truth".

The next of kin maintain that there is already new and important evidence, in addition to the discovery of the wreck, regarding the lengthening of *Silver Lining*, which occurred after the FI, and the new evidence provided by Bobby Ritchie.

The next of kin have stated they will stop at nothing in order to have the FI re-opened. Alex Salmond has been quoted in the Scottish press as saying he is dedicated to ensuring the re-opening of the formal investigation into the loss of *Trident*.

## **Section 2      Analysis**

### **2.1 FINDINGS FROM ROV SURVEY**

The major findings from the ROV survey are as follows:

The location of the wreck is about 10 miles to the south east of the position the FI assumed she was lost in, indicating that the vessel most probably sank later than the FI concluded, at or immediately before 1644 when Wick radio tried to contact her. It is, however, also possible that she could have capsized and remained afloat, drifting to the south prior to sinking.

The fish hatch appears not to have been secured. If the hatch had imploded as the FI consider likely, then the hatch coaming and cleats would be likely to be damaged. The hatch was, almost certainly, not in place when the vessel sank due to the fish boxes being found three days after the disappearance. All the fish boxes were in the hold, none were stowed on deck.

The four missing ice scuttles are unexplained. They are constructed of cast and would not corrode. They may have been displaced if the vessel capsized having been in place but not locked in position. If they had not been in place whilst the vessel was underway then, given how wet the deck was known to be at sea, this could have lead to water entering the fish hold. It is also possible that the vessel has been dived on in the past and the missing scuttles taken as “souvenirs”.

The position of nets and fenders indicate a capsize has taken place. The absence of any distress message and crew escape also indicate a capsize which is normally quick and with little warning.

The rope around the rudder is also unexplained. It appears unlikely to have wound itself around the rudder stock, under tension, after the vessel had sunk. It is possible the rope is wrapped around the propeller as well, this would account for the tension. As the rudder and propeller are not visible it cannot be established if they are both intact or not. If the rope was caught around the rudder stock whilst the vessel was underway then this could lead to a sudden, unintended alteration of course which may have put the vessel beam on to the seas. This could then have lead to broaching.

The ROV survey was unable to observe the starboard side of the hull due to it being immersed in sand up to the gunwale. The port bow was also unable to be observed due to the time constraints of the survey. The rest of the vessel's hull appears to be intact, however due to not being able to observe the whole of the hull it is not possible to categorically state that the hull is not holed and is completely intact.

## 2.2 “NEW AND IMPORTANT” EVIDENCE

Under the 1995 merchant shipping act the “*secretary of state may order the whole or part of the case to be reheard, and **shall** do so-*

(c) if **new and important** evidence which could not be produced at the investigation has been discovered.....”

There is little doubt that the discovery of the wreck is “new” evidence. Doubt exists over the definition of “important”. The MAIB’s own opinion is that this refers to evidence contrary to the original findings of the FI.

If this is so then the findings of the FI still appear to stand as in “*took onboard a sea or succession of seas and foundered*”, however the various options as discussed in the detail of the FI could be argued either way. The FI ruled out crew negligence however the survey found that the hatch lid appears to have been unsecured. The fact that watertight openings (ice scuttles) are not in place and may not have been in place at the time could also be argued to be contrary to the original findings. The rope around the rudder could also indicate that she had lost her steering and/or propulsion and broached. However the resultant foundering would still be in accordance with the FI’s main finding.

It could also be argued that we have not seen all we can and are not in a position to make a decision as we have not seen the port bow hull, two of the ice scuttles, have not determined if the rudder and propeller are in place and have not entered the fish hold which would indicate if the starboard hull is intact or not.

The next of kin also maintain that the other “new and important” evidence, in addition to the wreck’s discovery, should be taken into account. The decision to lengthen the *Silver Lining* was taken after the FI. The decision to modify her is thought to have been made for the purpose of getting a crew to serve on her and also for insurance purposes. The affidavit given by Bobby Ritchie relates to a conversation he overheard 27 years ago stating that the steel used to construct *Trident* was heavier than the design specification.

## 2.3 STABILITY

Doubts over the stability of *Trident* were made during the FI and have re-surfaced since the wreck’s discovery. The subsequent lengthening of *Silver Lining* only fuelled the instability argument. As *Trident* was never inclined after completion of fitting out, it will never be possible to categorically state her precise stability condition at the time of her loss. The condition was estimated at the FI largely based on *Silver Lining*’s criteria along with other estimates.

The next of kin maintain that the wreck should be raised and inclined in order to determine her stability. Her condition has, of course, changed due to 27 years on the sea bed. Her steelwork will be reduced by varying extents and she has fixtures damaged and missing. If the wreck was raised then it would be possible to incline it, however the results would be of little value due to the

change in condition. Various estimates would need to be made in order to align the actual condition at the time of inclining with her condition at the time of her loss. The subsequent results would be as accurate as the estimates.

Her owner and skipper David Tait did not have any cause for concern with regard to the vessel's stability during the 18 months the vessel was in commission. The mis-calculation of the fuel and water tank sizes did not lead him to place a great deal of confidence in the designer. However *Trident* fished in all weather conditions and had 26 tons of Herring suspended from the top of the powerblock, on one occasion, without giving any concerns as to her stability.

The fact that she was a “wet” vessel having water on deck, even in the slightest seas was, most likely, due to her depth and freeboard. If the water did not clear from the decks, possibly even becoming trapped in the whaleback, before a second successive wave washed over the decks, then the resultant topweight would lead to a reduction in stability. The weather conditions at the time of the loss were not poor, with quarterly seas of force 5 to 6. It is, however, difficult to imagine a vessel capzising in such conditions without some other factor being involved.

It is possible she may have flooded internally through pipework. She may also have experienced downflooding through her ice scuttles and fish hatch. She may also have lost her propulsion and/or steering and broached after coming beam onto the weather. The large net stowed forward of the accommodation may have shifted, this alone would have caused a large angle of heel. The net was not seen during the ROV survey.

The evidence of *Silver Lining* only leads to marginal deficiencies in her stability and that in the loaded condition not the light condition *Trident* was in at the time of her loss.

The majority of the questions relating to *Trident's* stability remain unanswered.



### Section 3      **CONCLUSION**

The discovery of the wreck of *Trident* in the summer of 2001 has lead to calls for the formal investigation, originally held in 1975, to be re-opened. The MAIB has surveyed the wreck and conducted other research to assist with the analysis of the survey findings.

The chief inspector of marine accidents will recommend to the secretary of state if there are grounds for the formal investigation to be re-opened or not.

The secretary of state may re-open a formal investigation at any time but is obliged to do so if there is new and important evidence which could not be produced at the original investigation.

With the discovery of the wreck of *Trident* after 27 years there is little doubt that there is “new” evidence. What is in doubt is if the evidence is “important” or not.

The definition of “important” evidence will determine if the chief inspector of marine accidents recommends that the formal investigation into the loss of *Trident* is to be re-opened or not.