

REPORT TO
COMMANDER-IN-CHIEF, FLEET
OF THE BOARD OF INQUIRY
INTO THE LOSS OF

**RFAs SIR TRISTRAM
& SIR GALAHAD**

IN JUNE 1982
MAIN REPORT
ANNEX A-D

Room 1325
Express State Building
Ministry of Defence
Lillie Road
London

The Commander-in-Chief, Fleet
Northwood
Middlesex

23 September 1982

Sir,

REPORT ON THE BOARD OF INQUIRY INTO THE LOSS OF RFA SIR TRISTRAM
AND RFA SIR GALAHAD

Reference: A. CINCFLEET's 00520/8.X of 30 Jun 82.

1. We have the honour to submit our findings as members of the Board of Inquiry which you convened into the disablement and abandonment of the Royal Fleet Auxiliary Ships SIR TRISTRAM and SIR GALAHAD at PORT PLEASANT in the FALKLAND ISLANDS on 8 Jun 82 during Operation CORPORATE. (Reference A).

2. The Terms of Reference for the Board, together with its composition are shown in Annex A. It should be noted that XXXXXXXXXXXXXXXXXXXXXXXX was replaced on the Board by XX on 22 Jul 82.

N/R

3. All times used in this report are ZULU time.

4. Our complete Conclusions and Recommendations are to be found at Annex B.

AIM

5. The aim of the Board of Inquiry was to inquire into the circumstances leading to, and attending, the disablement and abandonment of RFA SIR TRISTRAM (AA) and RFA SIR GALAHAD (AB) on 8 Jun 82 at PORT PLEASANT in the FALKLAND ISLANDS.

METHOD

- 6. Our task fell naturally into three parts:
 - a. Operations leading to the events of 8 Jun.
 - b. The state of readiness of RFA SIR TRISTRAM and the events that took place on board that ship on 8 Jun.
 - c. The state of readiness of RFA SIR GALAHAD and the events that took place on board that ship on 8 Jun.

Annexes E, F and G respectively cover these aspects of our report in full.

7. The availability of witnesses led the Board to examine the events related to both RFA's first and then subsequently to move onto Operations as witnesses returned from the FALKLAND ISLANDS. This method also reduced the likelihood of confusion since each RFA was in effect a Board of Inquiry on its own. The Board was also very aware of the fact that virtually every witness was on leave when he was called before us; this factor together with a natural dimming of the memory with time, the ability of witnesses to discuss matters at length between 8 Jun and late Jul/Aug, and their lack of access to their own records in many cases led the Board to look for a greater corroboration from witnesses before making a judgement on the testimony given than might be necessary in the ordinary course.

8. Visits. The RN members of the Board were very aware of their lack of knowledge of LSL's whilst RFA members wished to refresh their detailed knowledge. The Board therefore paid a visit to RFA SIR PERCIVALE at MARCHWOOD on 28 Jul 82; she was the first available LSL to visit and had just returned from the SOUTH ATLANTIC. The Board also visited PLYMOUTH and MARCHWOOD for a total of 3 days to take evidence. A visit to the BBC Studio at WHITE CITY was also undertaken to achieve access to the complete film footage taken at FITZROY on 8 Jun.

9. The Task. After study of our directive we concluded that we needed to examine the following areas of interest:

- a. Preparedness of both LSL's for war.
- b. Command and Control as it affected amphibious operations.
- c. Assessment of the threat to amphibious support forces.
- d. The plans for the logistic support of advanced units.
- e. The plans for the movement of personnel forward by land, sea and air.
- f. The execution of the plans at d and e above.
- g. The suitability of the FITZROY area for support operations.
- h. The availability of landing craft and Mechanical Handling Equipment (MHE) for the task.
- j. The essential need for SIR GALAHAD to move as soon as possible after 7 Jun to land supporting arms and troops at FITZROY and thus be there at the same time as SIR TRISTRAM.
- k. The measures taken to provide for the defence of the LSL's in terms of:

- (1) Combat Air Patrol (CAP) aircraft.

- (2) Surface escorts.
- (3) Organic PDMS.
- (4) Shore missile defence.
- (5) Air Raid Warning Procedures.

1. Other areas of possible influence such as Communications.

DISCUSSION

10. The Requirement for 2 LSL's To Be In PORT PLEASANT Together.
The original Operation SUTTON plan for the logistic support of 5 Inf Bde was executed to plan by SIR TRISTRAM except she arrived in PORT PLEASANT a day later than originally identified; this was a natural progression from earlier delays. The Board therefore had to examine most closely the arguments for sending SIR GALAHAD to be at the same place, at the same time, as SIR TRISTRAM.

11. The arguments were derived about the following points:
- a. Naval offshore support was limited in intensity to about mid-June due to losses, damage and increasing fatigue amongst aircrew after prolonged operations at high rates. Resistance at PORT STANLEY had to be ended early and before any of the factors became of major significance.
 - b. The constraints placed upon the use of major warships to avoid loss either by air attack or from land based EXOCET; such a loss with many men would be politically unacceptable.
 - c. The political requirement for an early end to hostilities with minimum losses. (This point is not examined further as it lies outside the scope of this report).
 - d. The need to complete land operations as soon as possible. The weather was mostly appalling and rarely good; 3 Cdo Bde had recently moved up into the mountains and casualties due to exposure, trenchfoot etc would mount quickly unless operations progressed in a timely manner.
 - e. The need to move forward to FITZROY the Field Ambulance and 4 RAPIER fire units in addition to the 2 remaining Companies of WELSH GUARDS on the night 7/8 Jun.
 - f. The ability of the enemy to observe and respond quickly to activities in the FITZROY area.
 - g. The effect of good/bad weather on air operations both own and enemy.
 - h. The consequences of delay in not moving forward SIR GALAHAD until SIR TRISTRAM was clear of PORT PLEASANT.

12. The points above are all addressed in greater detail in Annex E but they do sum up the operational arguments in a more succinct style. AC in giving his views in the following manner was probably speaking for all Commanders when he said to us:

"I think that there is little doubt that the necessity to get on with operations for all sorts of reasons, most of which I have already mentioned to you, was an overriding factor in our planning. I think that the necessity to do this was common really to all of us. If I may take the ground forces, we were constantly having to make our calculation about whether we should wait another day and build up more ammunition, more information from our patrols about the enemy before we attacked them or whether we should go now and get on with it. In the end I think that Commanders were always conscious that their decisions must come down in favour of getting on with it once you've got at least sufficient forward. We cut our calculations pretty fine as I think was shown by the last night's battle in which we started with artillery batteries with 350 or 400 rounds a gun, some batteries by the next morning were down to 6. So I think I would say that this urge to get on with things will have contributed to doing things rather with speed than with thoroughness once or twice. I think that the calculation as to whether that is the right thing to do in war or not is always a very difficult one but I suppose we must conclude that in the end we did win. Maybe we would have won more cheaply if we'd taken longer, I very much doubt it."

The Board are in broad agreement with this view and base their major conclusion below on similar grounds.

13. The Abandonment of the LSL's. This subject is covered in detail in Annexes F and G and the only additional discussion on the conclusions reached therein each on the respective Captains view of the importance of their loads. SIR TRISTRAM had 120 tons of ammunition aboard when she was abandoned and all of this was needed for the vital final push on PORT STANLEY; this factor played little part in the decision making process. SIR GALAHAD on the other hand was quick to recognise the importance of getting as many of the Army personnel ashore uninjured as possible; equipment could be replaced but trained soldiers take far longer.

14. The Overall View. Based on the evidence of Annex E and the factors given in paras 10, 11 and 12 above, the Board consider that AD was correct in making a timely and positive decision, in support of AC request, to send SIR GALAHAD to PORT PLEASANT off FITZROY on 8 Jun 82. The consequences of delay could have led to an equal number of, or even more, casualties than occurred in the LSL's at FITZROY due to later enemy action and weather. This decision was one which was weighed carefully on the morning of 7 Jun after the unsuccessful injection of all of the WELSH GUARDS battalion the night before, and when the RAPIER and Field Ambulance units became available to move forward; both were of prime importance to future operations.

APPRECIATIONS

19. The Board have been very ably supported in this work at both Empress State and Main Buildings by the Office Services Manager, the Audio Typing and Word Processing Pool, DGST(N) Sections 75C and 74A4, who have given excellent support in all that we have required.

20. Similarly the Board are very grateful to all the witnesses who mostly travelled considerable distances whilst on leave to assist. In particular we are most grateful to the witnesses from the Army who all answered our questions with co-operation and help despite the fact that this was a Naval inquiry.

We have the honour to be,
Sir,
Your obedient Servants

A A

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XXXXXXXXXXXX

Technical Superintendent
Royal Fleet Auxiliary

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XXXXXXXXXXXX

Surgeon Lieutenant Commander
Royal Navy

N/R

XXXXXXXXXXXXXXXXXXXX

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XXXXXXXXXXXX

Captain
Royal Fleet Auxiliary

XXXXXXXXXXXX

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Commander
Royal Navy

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SEO
Directorate of Supplies
& Transport (Navy)
Secretary

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

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Captain
Royal Navy
President of the Board

ANNEXES

- A. Terms of Reference and Composition of Board of Inquiry.
- B. Conclusions and Recommendations.
- C.
 - 1. Map of EAST FALKLAND
 - 2. Map of FITZROY area
- D. List of Witnesses.
- E. Events Leading to the Attack on RFAs SIR TRISTRAM AND SIR GALAHAD.
- F. RFA SIR TRISTRAM.
- G. RFA SIR GALAHAD.
- H. Rescue and Salvage.
- J. Witnesses Statements and Transcripts.

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00520/8.X

XXXXXXXXXXXXXXXXXXXXX Royal Navy
President
Board of Inquiry

N/R

21 July 82

BOARD OF INQUIRY - RFAs SIR TRISTRAM AND SIR GALAHAD

Reference: CINCFLEET's 00520/8.X dated 30 June 82.

Further to the reference, XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX will replace Surgeon
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX as a member of the
board of inquiry into the disablement and abandonment
of RFAs SIR TRISTRAM and SIR GALAHAD with effect from
22 July 82.

N/R

XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
Admiral

N/R

Information:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Royal Fleet Auxiliary
Service
XXXXXXXXXXXXXXXXXXXXX Royal Fleet Auxiliary
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Royal Navy

N/R

BOARD OF INQUIRY
LOSS OF SIR TRISTRAM &
SIR GALAHAD
ANNEX A dated Sep 82
COMMANDER-IN-CHIEF, FLEET
NORTHWOOD
MIDDLESEX
HA6 3HP
Northwood 26161 Ext. 7157
TELEX 23139

00520/8.X

See Distribution

30 June 82

LOSS OF RFAs SIR TRISTRAM AND SIR GALAHAD - BOARD OF INQUIRY

1. You are to assemble in Room 526, Empress State Building, London SW6, at 1000 on 12 July 1982 as a board of inquiry whereof XXXXXXXXXXXXXXXXXXXX Royal Navy, is to be the President and hold a full and careful investigation into the circumstances leading to and attending the disablement and abandonment of RFA SIR TRISTRAM under the command of AA and RFA SIR GALAHAD under the command of AB on 8 June 1982, calling before you such Service and civilian witnesses as are necessary and reasonably available to enable you to form correct conclusions. N/R
2. Specifically you should ascertain and identify by questioning those involved and other available witnesses the matters listed in Annex A. Although the matters in Annex A are significant, they are not intended to be exhaustive and all other areas of inquiry deemed pertinent should be scrutinized.
3. The preliminary reports of the Masters, RFAs SIR TRISTRAM and SIR GALAHAD are at Annexes B and C respectively.
4. Should any information come to light which the President considers should be communicated urgently to me or to any member of my staff, such information is to be sent by any appropriate manner in anticipation of completion of the inquiry.
5. Lists of those on board the two ships on 8 June 1982 are at Annexes D and E.
6. The inquiry is to be conducted in accordance with the directions contained in QRRN Chapter 23, Appendix 38, and FLAGO 1619.
7. The report of the board is to be accompanied by minutes of evidence, or statements taken, and is to contain an expression of opinion on the degrees of adequacy of personnel, material and procedures.
8. The report is to be signed by each member of the board and is to be forwarded in original and unstapled form. The President is to deliver his report personally and brief me on the principal findings.
9. Shorthand writers and appropriate equipment will be provided by MOD Office Services as coordinated by MOD DGST(N)/DDSF.

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Admiral

N/R

Annexes:

- A. Specimen Matters for Investigation.
- B. Master, RFA SIR TRISTRAM's Report dated 18 June 82. *F. of main report*
- C. Master, RFA SIR GALAHAD's Report dated 18 June 82. *G. of main report*
- D. List of Personnel on board RFA SIR TRISTRAM on 8 June 82
- E. List of Personnel on board RFA SIR GALAHAD on 8 June 82. *N/R*

Distribution:

XXXXXXXXXXXXXXXXXXXX, Royal Navy
XXXXXXXXXXXXXXXXXXXX, (Marine Superintendent), Royal Fleet Auxiliary
XXXXXXXXXXXXXXXXXXXX, (Technical Superintendent), Royal Fleet Auxiliary
XXXXXXXXXXXXXXXXXXXX, Royal Navy
XXXXXXXXXXXXXXXXXXXX, Royal Fleet Auxiliary

N/R

Information:

XXXXXXXXXXXXXXXXXXXX, Royal Fleet Auxiliary Service
XXXXXXXXXXXXXXXXXXXX, Secretary to the Board of Inquiry

N/R

SPECIMEN MATTERS FOR INVESTIGATION

Operational

1. The Task Group Commander's assessment of the threat before the attack.
2. The Task Group Commander's intentions and policies in force at the time of the attack.
3. The Task Group communications plan before the attack.
4. The location of ships of the Task Group.
5. Measures taken to protect RFAs SIR TRISTRAM and SIR GALAHAD.
6. The degree of readiness of protecting forces and the ships, before, during, and after the attack.
7. Any major defects in machinery, systems or equipment immediately before the attack.
8. The damage control state and condition immediately before, and at the time of, the attack.
9. The nature and sequence of events before, during and after the attack.
10. Ship's cargo and personnel loading, and its relevance, at time of the attack.

Design/Maintenance

11. The adequacy of the damage control and fire fighting organisation, procedures, equipment and training.
12. Any problems arising from the design and layout of the ship and her machinery and equipment, with particular regard to any hazardous materials.
13. Any shortcomings in machinery operating procedures.
14. The influence, if any, of the material state of the ship on events.

Environmental

15. Any evidence of stress affecting the ship's company before the attack.
16. Any evidence of efficiency being reduced because of shortage of sleep, or length of time closed up at action and defence stations, or any other cause.

Training

17. The adequacy or otherwise of individual training and preparation of personnel.
18. The adequacy or otherwise of whole-ship training and preparation of personnel.

Administrative/Medical

19. Whether those trained in First Aid were adequate in numbers and in expertise.
20. Whether First Aid parties were closed up.
21. Whether access to the Sick Bay and First Aid stations was affected by damage.

22. Whether any casualties were treated.
23. Whether any clinical diagnoses of causes of death were established.
24. Whether man-made fibres rather than cotton were worn by personnel, and whether these fibres contributed to burns.
25. Any evidence of toxic fumes arising from electrical cable insulation, plastics, cushions, etc.

Rescue and Salvage

26. Brief narrative of immediate rescue assistance by other units to SIR TRISTRAM and SIR GALAHAD and their ships' companies and other embarked personnel.
27. Summary of aircraft, stores, equipment, materials, etc salvaged from the ships.

CONCLUSIONS AND RECOMMENDATIONS

1. The Conclusions of the Board are contained at Appendix 1. After each Conclusion the word or letters in brackets indicate its Annex of origin.
2. The Boards Recommendations are at Appendix 2 with place of origin also shown.

14. No Termination signal was made, nor were any further instructions given by AE as required by the Tactical Doctrine. This resulted in a loose organisation of command once the TA was established. (E2).

15. AD was less clear on his role and authority after the assault phase completed. (E2).

16. The further away from SAN CARLOS that support shipping and land forces moved, the greater became the scope for confusion of responsibilities. (E2).

17. At FITZROY on 8 Jun the position of each officer of authority was not clearly specified by AD AC AF (E2).

18. The Board could not identify a major deficiency of Command and Control by AD AC AG which led to the events at FITZROY on 8 Jun. (E2).

19. The Board identified a significant deficiency by AO staff with respect of command and control. If more consideration had been given to the address and content of the signal to SIR GALAHAD telling her to sail, then correct preparations for her reception at FITZROY would have been achieved and could possibly have led to the WG disembarking much earlier. (E2).

20. The officer responsible for the deficiency above is considered to be AD he was the most senior officer to whom the matter was referred. (This matter is discussed further in Annex E13 and recommendations made there.) (E2).

THE NEED TO TRANSPORT TROOPS ALONG THE SOUTH COAST

21. The use of shipping for the insertion of troops was justified because:

a. A rapid military advance and adverse weather conditions demanded reinforcements at a rate not achievable by marching.

b. Airlift by helicopter was not possible due to a basic shortage of assets caused by the loss of ATLANTIC CONVEYOR, the need to supply 3 Cdo, and poor flying conditions.

c. A delay in establishing Troops and 5 Bde BMA would reflect directly on the speed of advance on PORT STANLEY. (E3).

THE DEVELOPMENT OF PLANS

22. It was only after examining and attempting other means of moving troops forward that it was seen necessary to use sea transport of men as well as their logistic supplies. (E4).

23. The first plan to move men by sea was promulgated on 3 Jun 82. (E4).

24. Given that surprise, lowering cloud, and boldness were present, the first plan to go all the way to BLUFF COVE area was a good one. A first light insertion would not give sufficient time for the Argentinians to react so that an air attack from the mainland could intervene. However there was an element of risk and this plan was ruled out for political reasons. (E4).

25. Modification to plans became faster and more complex as time went by. (E4).

26. AG statement concerning SIR TRISTRAM being "left to her own salvation" did not engender a feeling of confidence or safety in the 2 LSLs concerned. (E4).

27. The plan for insertion of LCUs from a stand-off distance in the hours of darkness was the only practical alternative to meet the constraints imposed by AE (E4).

28. Once units other than infantry and light vehicles required moving urgently to FITZROY area then an LPD was no longer suitable under the prevailing operating conditions; an LSL was the only ship for the task. (E4).

29. The political and military pressures mounted rapidly in the period 3-7 June leading to much hot planning and crisis management; all of these gave rise to the decision to send SIR GALAHAD and for her to be in FITZROY on the same day as SIR TRISTRAM. Risks were not underrated and the military requirement justified the use of 2 LSLs in restricted waters. (E4).

AIR DEFENCE

30. The Board is satisfied that CAP was being operated correctly and consider the action taken in response to the raid in SAN CARLOS to have been justified. (E6).

31. The decision to use FITZROY before deploying Rapier was taken consciously for military reasons and must be accepted as a reasonable risk in war bearing in mind the other priorities for Fire Units at SAN CARLOS and TEAL INLET. (E6).

32. The reliability of Rapier within the first 24 hours of resiting gives cause for concern and effort should be made to rectify this shortcoming. (E6).

33. Commanders lacked an understanding of the capability of Rapier to protect units outside the area enclosed by the Fire Units. (E6).

34. The Board agree with the decision not to use a guardship for the LSLs in view of the doubtful increase in protection and further units placed at risk. (E6).

35. The failure to understand the operation of LAAWC by AA and thereby the failure of AH to respond to an air raid warning may have contributed in a small way to the success of the enemy's attack on the LSLs. (E6).

36. Guidance on the siting of embarked Blowpipe systems should now be included in the LSL Handbook. (E6).

THE LANDING BEACH AND ASSETS AT FITZROY

37. The beach at FITZROY was chosen with considerable care, a limited beach survey was completed but in fact was the only suitable beach in that vicinity. (E7).

38. No one knew before the arrival of the ABU that the beach would not be workable continuously throughout any 24 hour period. (E7).

39. The planned composition of the ABU was satisfactory but in the end the Michigan tractor was unusable due to terrain. (E7).

40. AI did not inform anyone outside the FITZROY area of the limitation in beach usage. It was in fact the responsibility of 5 Inf Bde Advanced HQ to do so, but this did not occur. (E7).

41. Commanders at the planning level were unaware that the beach could only be used for the offload of supplies for 16 hours of any 24 hour period. It did not become a major matter of importance however until the WG were to be disembarked from SIR GALAHAD. (E7).

42. A shortage of MHE was more critical to the offload of SIR TRISTRAM than a shortage of craft. However, the BMA was well placed close to the beach. (E7).

43. It was not possible to complete the offload of SIR TRISTRAM on 7 Jun and sail her the night before SIR GALAHAD arrived. (E7).

44. Landing craft assets on 7 Jun were more than adequate for the offload of SIR TRISTRAM. (E7).

45. If 5 Bde Advanced HQ had known that SIR GALAHAD was to arrive on 8 Jun they may well have reconsidered their decision to send F4 to GOOSE GREEN and kept her to assist in the offload of both ships. (E7).

46. More than 1 LCU and Mexeflote were needed to ensure the rapid disembarkation of personnel, stores and equipment from both SIR GALAHAD and SIR TRISTRAM. That this was not so is due to the fact the 5 Inf Bde did not know she was coming; nor what she was carrying. (E7).

47. It is considered that no one individual was to blame for these events; each one, small in its way, added up to a very difficult situation. What was unacceptable was that poor communications from FITZROY to AD AC prevented an adequate flow of information. (E7).

DESTINATION OF SIR GALAHAD

48. That looseness of nomenclature (between the names FITZROY and BLUFF COVE) crept in and that the significance of this was not apparent to staff officers and those in relevant command positions was a contributory factor to the WG being on board SIR GALAHAD at the time of the attack.

THE WELSH GUARDS

49. In the opinion of the Board the decision by AJ not to proceed with his cross country march to DARWIN was reasonable. (E9).

50. Resulting from 49. above, and the lack of helicopter resources, there was a clear necessity to move the WG by sea. (E9).

51. AK correctly assumed the duties of OC Troops and carried out the duties associated with this well. (E9).

52. AK was not aware on 8 Jun that FITZROY Bridge was passable to infantrymen. (E9).

53. The situation as seen by AK at 081205 was very relevant in that his last orders were:

- a. To land at BLUFF COVE.
- b. To allow no separation of his men or equipment;

and that he knew his route from FITZROY by land would entail a 15 mile march. Taking into account that he also believed the landing craft would return relatively quickly then the Board consider his actions to have been justified. (E9).

OFFLOAD OF SIR GALAHAD

54. There was no one major failure at FITZROY which led to the WELSH GUARDS being on board SIR GALAHAD when the attack occurred. The factors listed in paras 55-60 below all contributed to a confused situation. (E10).

55. The weakness in Command and Control from 5 Brigade significantly affected the time for offloading the Welsh Guards, and thereby affected the casualties suffered. (E10).

56. The inability of AD to communicate with the Beach Master compounded this failure if it is accepted that ATP 36 is strictly applied, although no acknowledgement to this document has been given throughout the Inquiry. (E10).

57. The decision not to offload the Welsh Guards is accepted as reasonable in view of the knowledge available at the time. (E10).

RFA SIR GALAHAD

90. Whereas there were shortcomings in certain areas, ^{AB} policy of involvement of others in the formulation of new plans and organisations, and the ready flow of information that existed via the daily Head of Department meetings produced a well led ships company that acted and thought of themselves as a team. (G1).

91. It is concluded that a greater liaison between the communication departments of SIR GALAHAD and SIR TRISTRAM on arrival at FITZROY would have resulted in both ships listening to the correct frequency. It might also have resolved the mistaken impression SIR TRISTRAM had that she would be given a specific ARW for the FITZROY area, addressed by her own personal callsign, which led the AH to disregard the ARW Red heard shortly before the attack. (G2).

92. In all other respects SIR GALAHAD was at the correct state of readiness. (G2).

93. RFA SIR GALAHAD was hit by 3 x 500 lb HE bombs starboard side aft; none of these bombs exploded. (G3).

94. The ship was also struck by a short burst of 30mm cannon fire in the vicinity of the Engineers Office and possibly the Troops Cafeteria. (G3).

95. Three types of fire quickly established themselves in the ship:

(i) A fierce diesel fuel fire in the funnel, funnel uptakes and upper part of the Engine room.

(ii) A fireball followed by fire and cordite explosions in the stern trunk of the tank deck.

(iii) Miscellaneous small fires started as a result of the effects of (i) and (ii) above. (G2).

96. Deflagration, rather than detonation, of one or more weapons caused the immediate effects of burns and thick smoke. The path of unexploded bombs passing through a ship cannot be accurately assessed after the point when its passage has been positively identified by a witness. Therefore it is not possible to state categorically which weapon was exactly responsible for what damage. (G3).

97. Deflagration was the cause of the damage, fire, burns and injuries on the Tank Deck, and in its immediate vicinity. (G3).

98. The most likely cause of the diesel fuel fire in the funnel was the rupture of the 500 gallon diesel header tank in the port engine uptake at poop deck level; this rupture was probably caused by the passage of weapon 3 in its path through the ship. (G3).

99. After very considerable deliberation the Board cannot come to firm conclusions as to what caused each individual area of damage described in testimony given by witnesses. (G3).

100. AB assessed the situation rapidly and correctly. (G3).

101. With power gone, an incredibly rapid spread of smoke, and very limited access to BA, no major fire fighting effort could be achieved
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S38, S40,
S44

LSLS GENERAL

102. Furniture and mattresses were of suitable standard compatible with habitability. (G4).

103. Lack of BA external to accommodation hindered search for survivors and any subsequent fire fighting effort in SIR GALAHAD. (G4).

104. Provision of ELSA throughout the ship accessible not only to Engine Room personnel but to all ships company and embarked troops could have contributed in saving further lives. (G4).

105. The present system of launching valise type liferafts is not conducive to the rapid evacuation of the ship in an emergency and is therefore not acceptable. (G4).

106. Communication equipment was outdated in one case and the fit was only just adequate for essential comms with no redundancy to allow for maintenance or repair. (G4).

107. The use of aluminium in construction is acceptable, as alternatives have severe operational penalties. (G4).

108. Partition bulkheads consisting of asbestos filled materials are a hazard and ideally should be replaced in existing ships. This type of material should not be used in new construction. (G4).

109. External wooden doors were adequate but hinges and locking arrangements were weak points. (G4).

110. All cabin doors were liable to jam when subjected to associated weapon damage; alternative methods of escape must be provided. (G4).

111. Existing Roller Shutter fire doors operated effectively and no replacement is required. (G4).

112. Due to operational considerations the AVCAT tank cannot be resited. Remote starting of the resupply pump by flight deck team at the ready use tank is supported. (G4).

113. The siting of the Alternator fuel header tank gives the Board cause for great concern; although it is clear that this problem is recognised, the Board in the light of experience gained, support a review of the situation. (G4).

114. Foam tubes to assist in fire fighting is essential for compartments such as the steering gear and compartments containing inflammable stores which have only one access. (G4).

115. No evidence supported that breaching of firemain was in any way a problem; desirable enhancement of the system is not considered essential. (G4).

116. The isolation system fitted to LSLs is adequate for the tasks they have to undertake. (G4).

117. The emergency lighting system is comprehensive and effective, no lighting system could have provided visibility in the conditions of smoke that existed in SIR GALAHAD. (G4).

G1441

118. Certain relaxations of peacetime standards and regulations must be acceptable as in the case of tank deck lighting if Military Commanders are to achieve their aims in war. (G4).

RECOMMENDATIONS

1. No further action be taken in respect of AD
AB . AP should be instructed
to report as required by Annex E13 para 19c on one member of his
staff. (Main).
2. The Commander in Chief considers whether he wishes to take
further action in respect of XXXXXXXXXXXXXXXX . (Main). S38, S40, S44
3. Further study of the Command and Control Organisation
for OPERATION CORPORATE be undertaken to ensure that all lessons
are fully learnt; this Board was not tasked to do this in its
entirety. (E2).
4. If the Royal Navy is to be tasked to carry out national
amphibious operations of the nature of CORPORATE, then either
national doctrine must be developed or the relevant ATP's require
review so as to cover the requirements. (E2).
5. The reliability of Rapiere on initial installation in a fire
position needs further investigation. (E6).
6. Sea and land commanders involved in the planning and execution
of amphibious operations be given better guidance in the capability
of Rapiere to defend both shore and amphibious units. (E6).
7. RFA personnel be better trained in Air Raid Warning procedures
and limitations in giving accurate raid warnings. (E6).
8. Guidance on the employment and siting of BLOWPIPE in RFA's be
included in the LSL Handbook. (E6).
9. Units given control of amphibious units must be trained to
have full knowledge of their capabilities and limitations. (E7).
10. Units given control of forward amphibious units must have
compatible and working communications with the amphibious commander.
(E7).
11. In future operations of this nature more MHE is required to be
available to ABUs. (E7).
12. In future joint operations of this nature much more attention
must be paid to the clear definition of support responsibilities
both within a Task Group, and between Task Groups. (E10).
13. The failure of relevant information reaching 5 Brigade's BMA
at FITZROY should be represented to the Army for further investigation.
(E10).

29. All RFA Officers regardless of specialisation should receive first aid training early in their careers. This should comprise a course of at least two days with particular emphasis on practical aspects. This should be reinforced by regular exercises involving dummy casualties. (G1).
30. Training of Chinese crew or indeed any rating designated as first aid party should be undertaken by the ships Medical Officer, who should satisfy himself as to their performance. (G1).
31. The present establishment for LSLs of six Neil Robertson stretchers should be revised to eighteen. At present there are no stretchers readily available for evacuation from the troops accommodation spaces, although these dormitories can sleep more than 300 men. One stretcher should be fitted in A1 and A2 dormitories, and three should be sited in the port and starboard troop alleyways at the top of the ladders leading to the lower dormitories. One should be stowed at each end of the tank deck, and one each side in the crews accommodation alleyways. (G1).
32. Additional BA sets be sited externally on the upper decks of LSLs. (G4).
33. ELSA be carried in sufficient quantity to cover all personnel embarked in LSLs. (G4).
34. A study be carried out into changing the present valise type liferafts in LSLs, and resiting them in positions in the quick release mode. (G5).
35. A review of the communications fit of LSLs be undertaken.
36. Asbestos filled materials should not be used in new construction RFAs, and that existing ships continue the policy of replacement as time on an opportunity basis exists. (G4).
37. External doors in LSLs to have hinges and securing arrangements strengthened. (G4).
38. All LSL cabin doors to be fitted with escape panels. (G4).
39. The feasibility of fitting remote start facility to AVCAT resupply pump from the bulk tank, be progressed in LSLs. (G4).
40. A review into the resiting of the Diesel Alternator fuel header tank in LSLs be undertaken. (G4).
41. Remote foam tube accesses be fitted to the steering flat one either side in way of Fridge Flat handling space and the Bonded Store access lobby. Similar compartments used for the temporary stowage of flammable materials, ie. paint store. Should also be considered. (G4).



MINISTRY OF DEFENCE

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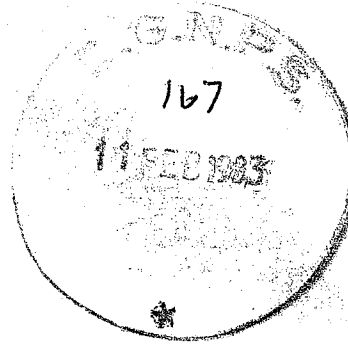
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From: A R M JAFFRAY CB., Deputy Under-Secretary of State (Navy)

Ref: 14/2/35(51)

8 February 1983

Commander-in-Chief Fleet
Northwood
Middlesex HA6 3HP



Sir

BOARD OF INQUIRY - REPORT INTO THE LOSS OF RFAs SIR TRISTRAM
AND SIR GALAHAD

Reference: 520/242.L dated 26 October 1982

1. I am commanded by the Admiralty Board of the Defence Council to inform you that they have taken note of your report and the Board of Inquiry proceedings forwarded under the reference.
2. You will have seen the Ministerial statement on 21 December 1982 at the close of the Parliamentary debate on the Falklands campaign (Hansard Vol 34, Col 918; sidelined in the enclosed copy). That statement was made before your report and the proceedings had been seen by all Board members, and therefore contained interim conclusions only. However, these conclusions have now been confirmed by the Admiralty Board.
3. I also enclose a copy of a fuller account which has been based on your report and the proceedings, amplified in consultation with your staff. It is not at present intended to publish this more widely; it may, however, be drawn upon in the event of further Parliamentary, public and media interest.
4. The Admiralty Board made the following observations:
 - a. The cardinal finding was that in all the circumstances the decision to order the advance by sea to Bluff Cove was justified in spite of the acknowledged risks. That decision having been taken, it was difficult to see how disaster could have been altogether avoided, as events unfolded, even without the contributory factors to which the report draws attention.

Nevertheless, the Board considered that although these factors were not decisive in themselves, they culminated in a lack of clear intention and decisive action which, allied to the lack of clear command authority on the spot, were sufficient to hazard the operation.

b. The principal underlying factor was the low priority which has necessarily been given to amphibious and joint warfare training over many years as a consequence of the adoption of a defence policy which has specifically excluded the requirement to prepare for this type of operation. The Board acknowledged that this has resulted in a lack of resources for training and the development of expertise, which in the event led to a failure fully to appreciate the problems and risks of the operation at Bluff Cove, and to staff and communications failures in a fast moving situation. The measures needed to re-provide this expertise are being studied; it is, however, intended that all officers appointed in future to AW posts, and some senior ratings, will complete the appropriate course.

c. The failure of communications which led to lack of preparedness for SIR GALAHAD's arrival and consequently delayed unloading, was particularly significant.

d. Only air cover might have been effective in averting disaster; the diversion of the CAP to deal with another raid before the one on Fitzroy was sighted was nevertheless correct. Given adequate air defence assets in the form of either AD frigates or carrier borne aircraft, Commodore Amphibious Warfare would not have been compelled deliberately to place these LSLs at risk in order to provide vital support to the land battle.

e. The theory that reports of unexploded bombs in other ships had enabled the Argentines to improve their fusing arrangements before this attack is not supported by the findings of this inquiry.

f. Your comments about the role, manning and training of LSLs are endorsed. LSLs have been almost wholly dedicated to providing a secure line of communication to British Forces in Germany, in which role they have performed economically and well. Their precise tasks in war, and the relative priority of these in a period of prolonged tension, have not been clearly established. As they were untrained and inexperienced in this specialised employment, it is hardly surprising that there were failures, including the morale of the Chinese crew; in the circumstances the gallantry of the officers was noteworthy. The need to define the LSLs' true role both in peace and war, and to make material changes in order to meet this role, is acknowledged. Approval has now been given to replace the Chinese crews of LSLs with UK seamen. The need to provide adequate tactical training for RFA staff, particularly in the amphibious role, is agreed.

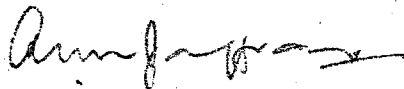
g. The recommendations of the report are being taken into account in the design of replacement LSLs. Although the cardinal dimensions of the design are to be based upon that of the present LSLs, the use of aluminium in the ships' structure will be avoided, as will be that of marinite and other asbestos filled partition bulkheads. Other detailed design changes will take account of revised staff requirements, international regulations for Merchant ships and equipment obsolescence. Should Ro-Ro ships be taken up by purchase or charter as interim replacements, the extent to which the lessons learned should be incorporated by modification will need to be determined.

h. Your comments on the medical organisation and stretchers are agreed: the medical and first aid organisation of RFAs is being examined.

5. The Army Board have seen and noted your report and the proceedings:

6. Your report and the proceedings have been taken into account in the "Lessons Learned" studies in the Navy Department. The detailed lessons in your report and the proceedings are being followed up by the staffs responsible. The Admiralty Board may wish to make further observations when all the lessons learned from Operation CORPORATE and in the reports and Boards of Inquiry into other ship losses have been fully examined.

I am, Sir
Your obedient Servant

A handwritten signature in dark ink, appearing to be 'Amf...'. The signature is written in a cursive style and is positioned below the typed text.

and the registration of ships abroad, there has been a steady decline in the merchant fleet over the years. It has been estimated that if the Falklands crisis had occurred at the end of the decade, and if the decline had continued at the present rate, there would be few British merchant ships left to send to the South Atlantic.

It is all very well to talk glibly about reinforcing decks and doing other work on cargo ships, but that cannot be done unless the ships are British. It is time that the Government started to put money into the British merchant fleet to reverse that decline. In addition, they should also consider the powers in the Exchange Control Act and in the income tax Acts to prevent the deregistering of United Kingdom flag ships. As the House recognises, the White Paper inevitably means that more money will be spent on defence in the next few years. In 1982-83, the total will probably be about £16 billion, or about 5.7 per cent. of our gross domestic product, which, incidentally, is growing very slowly. I believe, that that is the highest percentage of gross domestic product since 1963, before the withdrawal from east of Suez. The percentage will probably increase during the next few years, especially as a result of the 3 per cent. NATO commitment, the new frigates and the increasing cost of Trident.

Indeed, the senior analyst at Greenwell, the stockbrokers, was quoted in *The Sunday Times* recently as saying:

"It is staggering how fast the figures are growing"

There will have to be another review of expenditure in the next few years. When the Secretary of State produced his famous White Paper of 25 June 1981 he said:

"No enhancement of our conventional forces could possibly prove of equal deterrent value."—[*Official Report*, 25 June 1981; Vol. 7, c. 389.]

That is a wrong, and very simplistic, way of looking at the issue.

The right hon. Gentleman still believes that we can have a low level of conventional forces and that we can rely on nuclear weapons for defence and deterrence. However, all the thinking in Britain and in NATO is moving away from that point of view and towards saying that we must have strong conventional forces to avoid the only use of nuclear weapons. We shall cancel Trident and use some of the money saved to provide adequate conventional forces.

When introducing his first White Paper to the House the Secretary of State said that our defence policy was unbalanced and overextended. He has now apparently introduced his last White Paper and his defence policy is even more unbalanced and overextended. His successor will have to look at the whole issue again. I can only hope that the right hon. Gentleman will do a bit better with his daffodils.

9.38 pm

The Under-Secretary of State for Defence Procurement (Mr. Geoffrey Pattie): One hon. Member who took part in the debate expressed surprise that nearly all of the 46 pages in the White Paper produced by the Ministry of Defence and presented by my hon. Friend the Secretary of State for Defence should be devoted to military matters. Of course, I realise that one could talk about other issues, and, indeed, many of today's participants have done so. However, we are not debating the findings of the Franks committee or public

expenditure. Therefore, I shall concentrate on responding to the points that have been raised before turning, if time permits, to the performance of our equipment.

The right hon. Member for Cardiff, South-East (Mr. Callaghan) mentioned the tragic events at Fitzroy. That is an important matter. The right hon. Member for Llanelli (Mr. Davies) also referred to it. The reports on that operation have been studied carefully in the Ministry of Defence.

We have concluded that the land force commander's concept for committing 5 Brigade to the south by sea was fully justified in view of the need for an early and concerted operation with 3 Commando Brigade against Port Stanley. The tragedy came about not through any major error but through the ordinary chances of war, involving a combination of circumstances such as difficult and overloaded communications, disruption of plans by weather, and resources being pushed to their limit to achieve an early end to hostilities.

I noted the right hon. Gentleman's words. He said how lucky we were that we did not have to fight much longer. I am sure that he will appreciate that it was substantially in the interests of speed that that manoeuvre was put into action. The risks taken were no greater than some others in the campaign. Precisely the same manoeuvre was carried out successfully at Teal inlet earlier in the campaign, although on that occasion there were no casualties.

Although it may be possible to criticise in retrospect some of the judgments that were made by individuals, they are of the type that will always be made in rapidly developing operations; and no blame is attached to anyone. The decision to press on with speed rather than a slow and methodical build-up was right. The loss of life at Fitzroy was tragic, but the overall loss of life would have been greater—casualties from exposure would certainly have been greater—if our forces had moved too cautiously.

The right hon. Member for Cardiff, South-East asked whether the Commander-in-Chief at Northwood knew that the "Sir Galahad" had men on board for disembarkation. He will realise that since he made his speech we have endeavoured to check on that point. I cannot confirm that Northwood knew the precise plans on that day for the "Sir Galahad". Many planning signals were copied to the Commander-in-Chief, who could intervene when he chose. However, decisions were being taken at great speed and the initiative lay, as the right hon. Gentleman will appreciate, with the commanders on the spot. There seems to be no reason why the Commander-in-Chief should have intervened in this case. Logistic landing ships such as the "Sir Galahad" have a troop carrying capacity comparable to that of HMS "Fearless".

Mr. James Callaghan: I am much obliged for that explanation. I only asked about Northwood because I understood—I only asked and I may be wrong—that on a previous occasion, Northwood intervened because it was felt that "Sir Tristram" was not capable of being properly defended when carrying men and that the operation had been stopped. I was asking whether, if the operation was stopped in the earlier instance, Northwood authorised it on the second.

Mr. Pattie: The right hon. Member for Cardiff, South-East will appreciate that I have taken some care to check