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Office of the
Commander-in-Chief Fleet
Northwood
Middlesex HA6 3HP

244/1/63.W

Commander-in-Chief Fleet

6 November 1986

Sir,

REPORT OF BOARD OF INQUIRY INTO LOSS OF AN ARMY AIR CORPS GAZELLE
OVER THE FALKLAND ISLANDS ON 6 JUNE 1982

Reference:

- A. MODUK ABA/A2G/Z5A 051400Z AUG 86.
- B. CINCFLEET's Memorandum 244/1/63.W dated 16 September 1986 (Convening Order).

1. We have the honour to forward the report of the Board of Inquiry [convened in accordance with the References.]

2. The report is based upon information gathered from a wide range of sources. The investigation proved complicated in that it was necessary to address the procedures in use by the Navy, Army and Army Air Corps and this served to emphasise the difficulties which those fighting the Falklands Campaign had to overcome. Evidence was heard from twenty witnesses some being summoned from as far away as Australia and Canada. The majority of witnesses had to recall details of specific aspects of an operation which took place over four years ago and at a time when they were fully preoccupied with the closing stages of an all out assault on Port Stanley to conclude the Campaign.

3. The following paragraphs provide a summary of the main findings [and should be read in consultation with the map at Annex B]. The Main Report is necessarily very comprehensive to enable the Board to answer its remit, and has the advantage that the material may be of use to the Ministry of Defence in examining the wide range of issues highlighted by this accident. Throughout the Board has been conscious of having the benefit of hindsight and access to much more information than was available to those who fought in the Campaign.

BACKGROUND

4. From the landing on 21 May until the first week of June 1982 land operations had been conducted by 3 Commando Brigade and Special Forces. On 1 June 5 Infantry Brigade arrived in San Carlos and began moving ashore. On the same day 3 Commando Brigade seized Mounts Kent and Challenger subsequently establishing themselves on the high ground to the North and West of Port Stanley by the night 5/6 June. The period 2-5 June was spent completing the offload of 5 Infantry Brigade and attempting to move its units forward to Goose Green and Fitzroy on the Southern flank. These efforts were frustrated by poor weather and a shortage of support helicopters. Nevertheless 5 Infantry Brigade were able to establish 2 PARA at Fitzroy by the night 5/6 June but this unit was exposed

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to counterattack. Hence when communications between 5 Infantry Brigade at Darwin and 2 PARA at Fitzroy became unreliable that night the Commander was sufficiently concerned to order urgent action to restore communications.

5. The Sortie. Gazelle helicopter XX377 of 656 Squadron Army Air Corps, the air element of 5 Infantry Brigade, was tasked to fly signal specialists from Darwin to a Radio Rebroadcast Station on Mount Pleasant Peak. The conditions for the sortie were good with excellent visibility and a full moon. The pilot was experienced and had flown the route a few hours previously. The flight would have taken 10 minutes to cover the 19 miles.

6. As the sortie was to be flown within the airspace of 5 Infantry Brigade on a Brigade mission in accordance with Standard Operating Procedure there was no requirement for a report to be made to any outside authority. Consequently there was no prior knowledge of this sortie in the HQ of Commander Land Forces Falkland Islands, Commodore Amphibious Warfare, the Carrier Battle Group (CTG 317.8) or any ship including HMS CARDIFF.

7. Gazelle XX377 was fitted with IFF but the weight of evidence leaves no doubt that this vital equipment was switched OFF during the sortie.

THE ENGAGEMENT

8. The Gazelle had been called forward from Goose Green and, having collected two passengers and equipment from 5 Infantry Brigade HQ at Darwin, launched at 0350Z on 6 June. About seven minutes later radio contact with the Gazelle was lost and a ball of fire together with the sound of an explosion was reported by those personnel manning the Radio Rebroadcast Station on Mount Pleasant.

9. Post Accident Reports embracing forensic evidence and engagement data convinced the Board that HMS CARDIFF shot down the Gazelle with a Seadart missile.

10. At the time of the accident HMS CARDIFF was operating off the East coast of East Falkland. She was engaged on an Naval Gunfire Support mission in support of 3 Commando Brigade and concurrently was operating under an aggressive interdiction policy aimed at enforcement of the Total Exclusion Zone and a blockade to deter or destroy Argentinian aircraft attempting to re-supply Port Stanley Airfield. Type 42 Destroyers had frequently been engaged on such interdiction missions and HMS CARDIFF herself had been so tasked on 30/31 May and again on 2/3 June when she engaged an Argentinian aircraft attempting to use Port Stanley Airfield.

11. The Rules of Engagement permitted a warship which detected an aircraft contact within the Total Exclusion Zone and identified it by electronic interrogation or track behaviour or flight plan correlation or hostile action as not friendly and therefore Argentinian to engage it without the constraint of visual identification if this was precluded by cloud or light conditions.

12. HMS CARDIFF had detected the Gazelle on radar at 25nm over East Falkland and soon established that there was no response from the contact to interrogation on IFF. No friendly air movements had been forecast; it was heading towards Port Stanley Airfield

along a route previously used by Argentinian aircraft; no friendly radar transmissions were detected and the speed assessment indicated the probability that the contact was a fixed wing aircraft. Based on this information and being unaware of the friendly Radio Rebroadcasting Station on Mount Pleasant Peak HMS CARDIFF assessed the contact as Argentinian. The Board concluded that the contact met the criteria of the Rules of Engagement and that the ship was justified in engaging the contact.

CAUSES OF THE ACCIDENT

14. There was a widespread lack of perception of the conflict between the air interdiction task of the Naval Ships using the SEADART system over the land and the autonomous nature of Land Force helicopter operations in their own Brigade airspace.

15. [Commander Land Forces Falkland Islands Operation Order 1/82 setting out the operational instructions to 3 Commando Brigade and 5 Infantry Brigade for the capture of Port Stanley included a weapons control policy specifying 'WEAPONS TIGHT HELICOPTERS. WEAPONS FREE FIXED WING'. This was a simple and practical procedural device to ensure the safety of friendly helicopters operating over the land from being engaged by own infantry, Rapier and Blowpipe while permitting fixed wing aircraft to be engaged unless positively identified as friendly.] However the Land Forces did not appreciate the significance of a ship's Missile Engagement Zone overlapping the land. [They did not realise that at night or in conditions of low visibility maritime forces were not required to visually identify contacts assessed by electronic means to be Argentinian. Thus Land Forces did not appreciate that a land force helicopter airborne over the land at night was at risk of being assessed by warships as Argentinian and engaged if it did not respond to IFF interrogation, or was assessed by track correlation or flight profile to be an enemy aircraft.]

16. The Gazelle was fitted with IFF. Had IFF been in use there is little doubt that HMS CARDIFF would not have engaged the aircraft that night. However less than half the Scouts and Gazelles in the campaign were equipped with IFF and these had only been fitted shortly before joining the campaign. The Board could find no evidence that notice of this partial change had been promulgated to Naval Forces. This notice might well have prompted the earlier introduction of maritime Weapon Control Orders to restrict the engagement of overland targets or have required identification criteria which were not so dependent on IFF. [Conversely there was no evidence that consideration had been given to the problems of allowing positive identification by electronic (ie no IFF, track correlation etc) rather than visual means when no Army Air Corps or Royal Marine helicopters had ever been fitted with IFF before.] The failure of the Land Forces to inform and the assumption by the Navy that all land helicopters had IFF, had a cumulative effect which was a major cause of this accident.

17. [The requirement for aircraft not under positive control to operate IFF was not perceived by the land Forces except in the context of safety from own Rapier batteries. However, the inhibiting of the Rapier tracking system by friendly IFF led at an early stage to a decision that it should be switched off in the vicinity of Rapier defended areas. Additionally, because the Argentinians were also operating some identical helicopters to those in use by friendly forces, Land Forces imposed a 'WEAPONS TIGHT HELICOPTERS' order making visual identification of a helicopter as Argentinian a pre-requisite before Rapier or Blowpipe could engage. In the view of Land Forces this rendered the need for their helicopters to operate IFF even less important.] There is conflicting evidence which reflects the confusion which surrounded the policy for the use of IFF. The Board have concluded that by the time 5 Infantry Brigade and 656 Squadron Army Air Corps arrived in San Carlos IFF was not being employed by land force helicopters and that 656 Squadron Army Air Corps were directed to fly with the equipment switched off.

18. Throughout the campaign all the staffs were most conscious of the risk of Blue-on-Blue accidents and took great pains to prevent them. In this they were remarkably successful despite the inadequacies of equipment and Standard Operating Procedures and some staffs and units lacking Joint Warfare experience. The pressures and complexities of the campaign exacerbated the effect of these deficiencies. The accident was caused by an accumulation of adverse factors and errors amongst Naval and Military Staffs at all levels. The Board recommends that neither negligence nor blame should be attributed to any individual.

FOLLOW UP ACTION

19. Immediate actions were implemented by Commander Task Group 317.8 onboard HMS HERMES on the evening of 6 June. [The Maritime Weapon Control Order 'WEAPONS TIGHT' was ordered for all air contacts over East Falkland if they were flying at less than 2000 feet at speeds under 200 knots with the additional proviso that ships in doubt about such contacts should check contact identity with the Anti Air Warfare Co-ordinator in HMS FEARLESS. These measures were effective in terms of the safety of our own helicopters. Also at this stage of the campaign with so few enemy helicopters and slow fixed wing aircraft remaining, there was negligible risk of a slow speed enemy aircraft breaking through. Nonetheless such measures would not have been so acceptable in blockade terms a week or two earlier because of the higher level of threat in coastal waters and the restriction that such measures would have placed upon effective enforcement of the Total Exclusion Zone.]

WAY AHEAD

20. In the period of this Inquiry the Board have identified a number of areas which merit examination to ensure adequate progress is being made to rectify the shortcomings which were instrumental in causing the accident.

21. [The integration of the very capable Medium Range Guided Missile Destroyer Area Air Defence system into coastal operations and the increasingly important use of helicopters by land forces place greater demands on the procedures and equipments needed to ensure safe airspace coordination during Joint Warfare operations inshore.] There is clearly a need to [introduce early amendment to ATP 37 and ATP 4B, Amphibious Warfare and Naval Gunfire Support Publications, to] alert all forces to the problem of the

Missile Engagement Zone of a Guided Missile Destroyer overlapping Brigade airspace. A Joint Headquarters Planning Staff now exists and it is understood that joint Standard Operating Procedures for airspace control are being developed. Parallel action is in hand by Commodore Amphibious Warfare. [The Board urges that care be taken to ensure neither ship survivability nor land force flexibility are degraded and that the significant overland air defence capability of Guided Missile Destroyers operating in coastal waters is fully exploited.]

22. [IFF is now fitted to all Army Air Corps and Royal Marine Gazelle and Lynx helicopters. The Board heard that the problem of operating IFF in the vicinity of Rapier Batteries had now been solved but did not establish if the operational effectiveness and compatibility of the improved Rapier equipment had been adequately tested in Joint Warfare inshore exercises.] The Board urge [that Rapier Batteries be made available for deployment in] suitable joint warfare exercises. [The Board noted that the problem for aircrew changing codes during sortie will remain until automatic equipment is introduced.]

23. The Board identifies the need for an obligatory exchange of specific information on Weapon Control Orders and Rules of Engagement between land, sea and air forces as a requirement for safe and successful integration. [Early drafts of Joint Force SOP 311 address aspects of Weapon Control Orders and may well be a suitable document in which to incorporate these considerations. Equipment also is vital to the integration of joint forces and with developments in data link exchange and improved secure communications it may be that the transmission of real-time information on friendly aircraft movements over land will improve and allow a more flexible approach.]

24. This accident has emphasised the importance of achieving real-time secure information exchange on the positions and intended movements of friendly forces. This information requires interpretation which can only properly be provided by Naval and Military Advisors on Naval Staffs and on the Staffs of Amphibious and land Force Commanders. These Advisors need thorough joint warfare training and the opportunity to exercise their skills in major exercises.

25. The Naval Gunfire Support Liaison Officers made a significant contribution to the Campaign. Their current role is confined to safety of friendly forces in the immediate vicinity of the gun-target line and the bombardment area itself. The specialist advice of the then Commander Royal Artillery to Commander Land Forces Falkland Islands indicates that the scope of Naval Gunfire Support Liaison Officers' responsibilities could be broadened to include interpretation of the air defence problem in Joint Warfare Operations inshore. [The Board welcomes this view and considers that if these officers were given suitable secure communications with the Supporting Arms Coordinating Centre and the Fire Support Coordinating Cell, they should be capable of collating information on friendly forces and presenting a clearer picture to the command at sea.]

ENVOI

26. The lessons learnt from this accident which occurred over 4 years ago in the South Atlantic have application wherever Joint Warfare operations are conducted and particularly today in the demanding environment of the NATO area.

27. The Board were encouraged to note that the Joint Warfare exercise PURPLE WARRIOR is scheduled to take place in [November] 1987 and view that exercise as an opportunity to further resolve the problem areas highlighted in the report attached.

[We have the honour to be
Sir
Your obedient Servants

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Commander
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Captain
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[Enclosure: Report of the Board of Inquiry.]