3

RECEIPT FOR CLASSIFIED DOCUMENTS

Receipt No.
ACO 430
DSc3 .....
Date 11 April 1982

TO PUS
.....
.....

from ACO. Ministry of Defence, (Room 2271 Main Building)

Please acknowledge receipt of the following document(s) and return this form to address overleaf **without delay.**

REFERENCE OF DOCUMENT(S)	DATE	COPY NO.(S)	CLASSIFICATION AND REMARKS
COS (Misc) 109/742/1	11 April 1982	5	TOP SECRET ATOMIC

Receipt of the above document(s) is hereby acknowledged.

Date.....
Signed.....
Name .....
(IN BLOCK LETTERS)
Branch.....

Rep S(PP)1

M O D Form 61

C (Misc) 109/742/1 Copy No 5 of 22 copies

OPERATION CORPORATE - NUCLEAR WEAPONS IN TG 317.8

1. In accordance with the instructions of the Chiefs of Staff (1) the attached draft paper has been prepared by ACDS(Ops) in conjunction with the Navy and Air Force Departments and Defence Secretariat.

2. The draft will be tabled for consideration by the Chiefs of Staff at their meeting on 11 April 1982.

Attachment:

OPERATION CORPORATE - NUCLEAR WEAPONS IN TG 317.8 (14 pages)

Note:

1. COS 10th Meeting/82, Item 1.

Distribution:	Copy No
PSO/CDS	1
Sec/CNS	2
MA/CGS	3
PS/CAS	4
PUS	5
VCDS(P&L)	6
DCDS(I)	7
ACDS(Pol)	8
ACDS(Ops)	9
AUS(D Staff)	10
ACNS(O)	11
COS CGRM	12
DMO	13
ACAS(Ops)	14
D of D(Ops)	15
D of DP(C)	16
Head of DS 11	17
FCO (Def Dept)	18
SECCOS	19-22

10 April 1982

ATTACHMENT TO
COS(Misc) 109/742/1

E3

NOT TO BE PHOTOCOPIED

D Ops Staff 9/12/3

OPERATION CORPORATE - NUCLEAR WEAPONS IN TG 317.8

1. OD(SA)(82) 3rd meeting invited the Ministry of Defence to review the options available for the removal of nuclear weapons from the Task Force without detriment to its present mission.

AIM

2. The aim of this paper is to identify the military implications of removing some or all the nuclear weapons embarked in TG 317.8 to the Ascension Islands and either storing them there or transporting them by sea or air to the United Kingdom. Of necessity the paper has to include some political considerations.

BACKGROUND

3. The ships within TG 317.8 carrying nuclear weapons for use as depth bombs are:

HMS INVINCIBLE	(CVS)
HMS HERMES	(CVS)
HMS BRILLIANT	(Type 22)
HMS BROADSWORD	(Type 22)

In addition a surveillance round is carried in each of the Type 42s HMS SHEFFIELD and HMS COVENTRY for training and procedural purposes. These rounds are totally inert and contain no fissile material. However for the purpose of this paper they will be considered as live rounds.

CONSIDERATIONS POINTING TO REMOVAL OF THE WEAPONS

4. As it is axiomatic that we would not consider the use of nuclear weapons during these operations, the arguments in favour of removal of the weapons rest both upon potential public and

international reaction should their presence become known and, perhaps more importantly, upon judgements as to their likely fate in the course of any hostilities.

POLITICAL AND INTERNATIONAL ASPECTS

5. Were any of the 6 HM Ships of the task force carrying nuclear weapons to enter territorial waters 3 miles round the Falkland Islands, South Georgia or the South Sandwich Islands (as will be almost inevitable if military action occurs), we should immediately be in breach of our obligations under the Treaty of Tlatelolco. Should this breach of a Treaty undertaking become known, there would be a widespread international outcry, and our moral position in the dispute, upon which much world support for our cause rests, would be seriously undermined. On the other hand adherence to our normal policy of neither confirming nor denying the presence of nuclear weapons would mitigate valid critisism.

6. Leaving aside the question of Treaty obligations, if it were to become known or widely suspected that HM Ships were deploying nuclear weapons in the task force, there could be widespread public misunderstanding, both here and abroad, of the reasons for the presence of the weapons. We should almost certainly be accused of being prepared to use them against Argentina. The fact that we would adhere to our policy of not commenting on the presence or absence of weapons would leave the field open for speculation that they may be carried and would be intended for use by by Sea Harrier aircraft against targets on the Argentine mainland.

EFFECTS OF HOSTILITIES

7. If one of HM Ships carrying nuclear weapons were to be damaged or sunk during the course of hostilities and the weapons it was carrying were damaged, there would be a possibility that fissile

material would be released into the environment. We should be under strong moral pressure to declare the area of the incident as an actual or potential radiological hazard. This itself would cause major international criticism and any actual release of significant quantities of fissile material from the weapons would be very damaging to international opinion.

8. The most vulnerable magazines are those in the Type 22 Frigates. A direct hit with Exocet on the magazine would probably cause fragment penetration of the warhead and lead to radioactive release. The risk of a similar situation in HMS HERMES, with its dedicated armour protected magazine deep in the ship, is assessed as minimal from Exocet and only moderate from a torpedo or mine. The magazine in HMS INVINCIBLE is also deep but it is not so well protected and contains a mixture of torpedoes and nuclear weapons. The risk in HMS INVINCIBLE is thus slightly greater than in HMS HERMES because of the effect that detonation of torpedo warheads would have on their colocated nuclear ones. The RFAs have dedicated magazines deep in the ship and risks are similar to HMS INVINCIBLE.

9. It is also conceivable that weapons might fall into the hands of the Argentines by salvage of one of HM Ships that had been sunk. The consequences of this would be highly undesirable and the acquisition of UK nuclear weapon technology in this way by a State which has no such weapons might well prejudice the special Anglo-US relationship.

10. The implication for our nuclear stockpile of the loss of either HERMES or INVINCIBLE would be very serious, since the ships are carrying approximately 40% and 25% respectively of our entire stockpile of nuclear depth bombs.

OPTIONS FOR DISEMBARRASSMENT

METHODS OF TRANSFER

11. Nuclear weapons could be disembarrassed (that is removed from individual warships) within the Task Force by passing the containerised weapons by heavy jackstay between ships. However the only methods available to transfer weapons to the Ascension Islands are by helicopter or by Landing Craft from HMS FEARLESS. The latter method is not considered feasible, because of the heavy swell that runs throughout the year making loading of the LCTs alongside ships at anchor hazardous, and the lack of suitable facilities ashore.

12. There are two modes of helicopter transfer. The first entails carrying the unprotected weapon in the captive mode on the normal weapon pylon. No firing circuits are connected and throughout the transfer the two-key system is enforced. This mode has high visibility due to the lengthy loading and unloading process. Should the helicopter crash on the short overland section (½ mile) of the route to the airfield or on the airfield itself there is a possibility of semi-permanent area contamination due to fire and subsequent HE explosion. The second mode is to carry the containerised weapon as an underslung load. This has not yet been authorised (as explained in Appendix 1 to Annex A) because of the risk of malfunction of the cargo hook, of which there have been instances, nor can the risk of human error be ruled out. Ministers may regard the increased risks as justified if they consider the removal of the weapons to be essential, but they will wish to consider this very carefully.

DISEMBARRASSMENT WITHIN THE GROUP

13. The nuclear weapons in the Type 22 Frigates could be transferred at sea to RFAs RESOURCE or FORT AUSTIN, where they would be stowed in magazines offering greater protection. (FORT AUSTIN may however be too far away and fully committed).

14. The nuclear weapons in all warships could be transferred to RFAs RESOURCE and FORT AUSTIN. Additional containers would have to be embarked via the Ascension Islands.

15. Disembarrassment of the more vulnerable Type 22s to either RFA would considerably reduce the risk of nuclear weapon accident during action. However further disembarrassment of CVS weapons to RFAs would make no contribution to safety unless operational restrictions were to be placed on the movements of the RFAs to keep them clear of any likely attack by the Argentine Navy, who might well regard them as a prime target in any case. These RFAs are essential for Fleet support, both as supply ships and helicopter platforms, and restricting them would not be acceptable.

DISEMBARRASSMENT BY SEA

16. No other RFAs capable of disembarrassing the Group are available within the timescale of the present operations.

STORAGE IN ASCENSION ISLANDS

17. All the nuclear weapons could be offloaded to Ascension by helicopter in special containers, which would have to be flown to Ascension Island and airlifted to the warships. In the absence of suitable facilities to meet both the safety and security needs, the number of weapons involved could not be stored on the island for any length of time. Even if this were not the case, the weapon

stowage and the necessary security guard would attract attention. The fact that these weapons were ashore would soon become known to the Americans on the base and the Islanders, from whom it could leak further. In addition, it would become obvious to the Americans that we were not complying with the security standards agreed with them.

OFFLOAD FROM SHIP VIA ASCENSION TO UK

18. The weapons could be packed in their special containers, lifted ashore by helicopter and then airlifted back to UK. Provided the rate of delivery to shore matched the rate of extraction by air to UK the time on the ground would be minimal. The maximum rate of extraction is assessed as 12 per day. Because of the intricate loading procedures involved, this operation would have high visibility and thus it would be difficult to keep the knowledge from United States personnel, particularly from anyone with previous experience of nuclear weapons. In view of the need to reduce helicopter transit distance, it would be difficult to prevent a shore observer identifying from which ships the containers moved to and fro. A note on the safety problems associated with this operation is at Annex A.

ARGUMENTS AGAINST DISEMBARRASSMENT

EFFECTS ON CURRENT OPERATIONS

19. The principal argument against disembarrassing the force is that the lift of weapons by helicopter to shore would conflict with the heavy storing programme for the ships presently planned for only a 24 hour stopover. CINCFLEET estimates in the case of both INVINCIBLE and HERMES that a further 36 hours would be required to complete the total disembarrassment, with subsequent

prejudice to operations in the Falkland Islands. Disembarkation of weapons by night is not authorised because of the additional hazards involved and would require special authorisation from Ministers.

EFFECTS ON OTHER OPERATIONS IN THE LONG TERM

20. It is possible that, concurrent with the present operations, a state of tension might arise in the NATO area. The disembarrassment of TG 317.8 would make the redeployment of the peacetime ships for NATO tasks dependent on first re-embarking their nuclear weapons. This could cause a delay in their deployment and necessitate a return to a UK port unless we were prepared to re-embark the weapons at sea. To take the latter course in tension would be highly visible to the Soviets who could be expected to be marking our CVSs. However since the stock carried in the Group represents a high proportion of our total stockpile, it could be argued that some of them should be returned to UK thus making them available for use by the ships which still remain within NATO area.

21. The possibility that total or partial disembarrassment would become known (a UK press corps is with the group) could give rise to a number of problems. Although we admit freely that RN helicopters and Sea Harriers have the capability to deploy nuclear weapons (for example, in SDE 81) and it is therefore a relatively simple deduction to establish which classes of ships are capable of carrying nuclear weapons, we have consistently neither confirmed nor denied that such weapons are carried in the ships in peacetime. To change this policy now would set a precedent that would be both restrictive and immutable. It might well

be damaging and could jeopardise future visits by RN ships of the same (or other) classes to foreign ports. In the extreme case of the Seychelles, this has led to their refusing access to our ships, and the Egyptians recently asked us to say whether visiting ships are carrying nuclear weapons or other radioactive material. If potential host Governments were to operate on the presumption that our ships were carrying nuclear weapons, we could find a much greater number of foreign ports closed to us. Furthermore, the movement towards establishment of "nuclear weapon free zones" is likely to increase rather than diminish. Attempts to establish such zones in areas like the Indian Ocean could lead to the presence of RN ships giving rise to increasing controversy.

SECURITY FROM SOVIETS

22. This disembarrassment would not go unnoticed by the Soviets, who are already monitoring the progress of the group by satellite and long range reconnaissance aircraft. They are quite likely to send a merchant or research ship to observe and report the CVSs, and thus would be able to see at first hand the number of weapons transferred and from which ships they came.

23. Storage of nuclear weapons in the Ascension Islands would be vulnerable to special operations by the Soviets, and there would be a risk that a weapon could be captured under the guise of a terrorist attack, or the stock destroyed.

CONCLUSIONS

24. It is concluded that:

a. Revelation of the presence of nuclear weapons in the Task Group could give rise to extremely damaging political consequences.

b. Total disembarrassment from the Task Group to or through Ascension Island presents some risk of an accident, and is unlikely to be kept covert from the US, USSR or embarked press corps.

c. Total disembarrassment would cause a 36 hour delay in TG 317.8's progress to the Falkland Islands.

d. Disembarrassment from the CVSs to the RFAs would not decrease the risk of any nuclear accident unless unacceptable restrictions were placed on the operations of the RFAs.

e. The ships which present the most risk of a nuclear accident due to action damage are the 2 Type 22 Frigates.

RECOMMENDATIONS

25. It is recommended that the Chiefs of Staff should advise Ministers that, bearing in mind the possibility of prejudice to our rigid nuclear security position:

a. Disembarrassment would cause unacceptable delay to TG 317.8.

b. The moderate risks involved in retaining the weapons on board should be accepted.

Annex:

A. Safety Factors.

ANNEX A TO
D OPS STAFF 9/12/3
DATED 16 APR 82

SAFETY FACTORS

1. The plan for the removal of nuclear depth bombs from the Task Force would be to put the weapons in containers (flown out from the UK) on board the ships; to transfer the weapons in their containers one by one to a temporary holding site near the airfield by ship's helicopter; and to fly them out to UK by RAF VC10s at a rate of twelve a day under normal procedures, although it will be difficult to divert aircraft if this became necessary. There is usually a heavy swell off the Island which rules out the option of moving the weapons ashore in LCTs from HMS FEARLESS. Helicopter flying would be restricted to daylight hours if at all possible, although in the event of delays to the intended programme, MODUK might need to authorise limited flying by night. It will not be possible to observe in all respects the normal approved handling procedures, as set out at Appendix 1. In particular clearance has not been given for carriage of the underslung weapon in its container by helicopter. At a meeting of the various safety authorities on 10 April 1982 it was assessed that, provided the weapon in its container was carried at a height not more than 75 ft over the sea and 40 ft over land, the weapon should remain safe if the container was accidentally dropped from the aircraft or damaged. The general view was that in the present circumstances this would

be a reasonable procedure to adopt if Ministers consider that the removal of the weapons from the ships is essential. ACSA(N) is being consulted about the possible desirability of seeking further advice from the Chairman of the Nuclear Weapons Safety Committee.

2. Maximum attention to safety will be given in drawing up detailed operation orders. Experts from the UK will direct the various stages, and specialist accident response teams will be sent out beforehand. It is most unlikely that in any phase of the removal operation more than one weapon would be involved because of the normal safety rules for storage and handling.

3. In the event of a nuclear weapons accident there is no risk of an atomic bomb type explosion. However there is a possibility that quantities of fissile material may be dispersed into the atmosphere (or the sea) as a result of the detonation of the conventional high explosive in the weapon or a fire. Essential personnel (others will be kept away) in the immediate vicinity of the accident may be killed or injured as a result of blast or debris. Outside this area the dispersal of fissile material would extend downwind out to 2½ kilometres in average weather conditions, resulting in individuals receiving doses in excess of those permitted in National Radiological Protection Board (NRPB) guidance unless counter-measures are taken. Although in a heavily populated area this might result in up to about 50 additional delayed deaths from cancer, in a lightly populated area the figure would be very much less.

4. If on the other hand the weapons are not removed from the Task Force at Ascension it is conceivably possible for a hit on the magazine in action to lead to the dispersal of fissile material from some or all of the weapons. The significant effects, again in average weather conditions, might extend downwind to 5 kilometres and the consequences would be proportionately greater than in the case of a single weapon.

5. In either case in the longer term people might not be able to live or work safely in certain areas until these had been decontaminated.

6. Dispersal of fissile material in or on the sea would have much less significant consequences for health than an accident on land.

Appendix:

1. Stages of Disembarrassment.

APPENDIX 1 TO
ANNEX A TO
D (OPS) 3/7 Pt 9/12/3
DATED [illegible]

STAGES OF DISEMBARRASSMENT

MEASURE	CHANGES TO APPROVED PROCEDURES	REMARKS
1. Putting weapons in containers on board ship.	None	RN specialists from HMS EXCELLENT and PSTO(N) Portsmouth flown out to assist the trained ship's teams.
2. Carriage of weapons in their containers by SEA KING helicopters from ship to shore: containers underslung from aircraft.	Clearance already exists for a range of helicopters to carry the Nuclear Depth Bomb in the captive position (i.e. in the weapon position) which is not without certain risks. Clearance has not been given for carriage of the weapon underslung in its container. However at a meeting of the various safety authorities on 10 Apr 82 it was assessed that, provided the weapon in its container was carried at a height not more than 75 ft over the sea and 40 ft over land, the weapon should remain safe if accidentally dropped from the aircraft or if the container made contact with the ground due to turbulent air conditions. The general view is that in the present circumstances this would be a reasonable procedure to adopt if Ministers consider that the removal of the weapons from the ships is essential.	Flying time overland will be short as the airfield is only half a mile from the beach.
3. Temporary storage (i.e. up to 3 days) ashore whilst awaiting aircraft, of up to 6 weapons at a time in one location, at prescribed distances and with shelter from the heat.	In general it should be possible to follow approved procedures.	Storage ashore of weapons for any longer period could not be contemplated on safety grounds, unless a range of facilities requiring considerable installation or construction work was provided.

MEASURE	CHANGES TO APPROVED PROCEDURES	REMARKS
4. Loading of weapons, with the assistance of a mobile or forklift crane into RAF VC 10 aircraft.	None	
5. Return by VC 10 aircraft to RAF HONINGTON on specially selected overland route in UK.	None	Normal operation: but difficult to divert aircraft en route if this became necessary.
6. Movement from RAF HONINGTON	None	There is adequate storage at RAF HONINGTON for all the weapons as they would be moved according to a phased plan which would by unlikely to attract attention.