# RESTRICTED Covering SECRET

Cony No

REPRO 14

COS (Misc) 105/742/1

Copy No - 1. of 47 copies

# OPERATIONAL AND SUPPORT PLANNING - OPERATION CORPULATE

- The attached paper has been prepared by the Navy Department.
- Unless the DSC Controller hears to the contrary by telephone (Ext 7586) by 1200 on Sunday 11 April 1982 it will be assumed that the Defence Operations Executive have agreed the assumptions in the paper.

#### Attachment:

Distribution.

OPERATION CORPORATE -Operational and Support Planning Assumptions (12 pages).

Distribution:	Copy N	O LMIFE OF DEFENCE STAFF		
VCDS(P&L)	s to be progressed, and	DATE 10/4/12	COPIES	
ACDS(Ons)		C CDS	CNS	
DMO	2 - 3		CGS	
ACNS(O)		Hd SCDS(A)	GAS	
ACAS(Ops)	8 - 9	1 1.03 4 171	TRECCOS	
	will not continue beyon		1223 (P&L)	
	quired for an occupation	Ha Carley A	6 to 103 (II)	
Copies to:	sta, woapons and 10 et	1 6351	223 (QR)	
PSO/CDS Sec/CNS		, a constant	1,05 (OPS)	
MA /CGS	12	ADC *	POL)	
DO JOAG	13	SO/CDS	ACDS (P&L)	
	14	PA/CDS	ACDS (3)	
ACDS(S)	15	FILE: 2038/11	DS SEC	
ACDS(P&L)	16			
DS Int		8	1	
Navy Ops	19 - 2	0 ' '		
Army Ops	21 - 2			
Air Force Ops		4		
DOM	y which has 25 - 2			
DSC(Coord)	27 - 3	0		
SCPL	31			
DS 12	32 - 3	4		
Cabinet Office	35			
Bor Depo 100	36	7		
SECCOS	37 - 4	7		

# OPERATION CORPORATE

#### ATTACHENT TO COS(Nisc) 100/742/1

# DOE AGENDA ITEM

1. Originator DNOT

- 2. Item Operational and Support Flanning
- 3. Rationale (to include forces involved, implications for other decisions and other Departments)
  - a. The Forces allocated to Operation Corporate can remain at sea for only a finite time after which they must be replaced. For example, SSN's can remain at sea for about 3 months whilst the Landing Force efficiency is expected to drop after only 2 months. Also, it is necessary to plan for the replacement of battle casualties.
  - b. To bring forward more men and equipment, a number of decisions are needed.
  - c. VCNS has forwarded the attached paper for consideration by the DOE. To enable long lead items to be progressed, an early decision is required on the assumption at paragraph 21. These are:
    - (1) Operational and support planning should be based on 6 months duration of operations in the area, assuming 25% battle attrition of naval, and maritime air forces.
    - (2) The land battle will not continue beyond the point at which the ammunition WMR has been consumed (30 days at limited war rates), and logistics will be required for an occupation force for up to 6 months.
    - (3) Strengths of units, weapons and logistic support within the NATO area should be restored to declared levels as soon as possible.
  - d. The application of these assumptions (if approved), could require the COS to make further decisions or other Government Departments to take action. In each case a separate submission will be made for Ministerial or COS approval.
- 4. Decision Required from DOE

Approval/Note/Refer to COS/9D for Approval/Info.

5. Date/Time Decision by which Required

111200 April

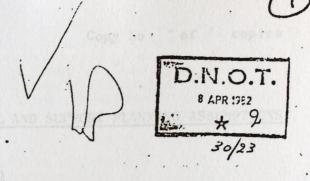
6. Disposal by Controller DSC

Referred: Out of Committee/CETY/Meeting-at-----on

DN Plans 6/31/3

ACNS(0)

Copy to:
Sec/VCNS
DNOT
DNW
DNAW
DNOR
CGRM
DS 4
DS 5
DNAP
STP(N)
DNMP
NSAG Coord



# OPERATION CORPORATE - OPERATIONAL AND SUPPORT PLANNING

#### ASSUMPTIONS

1. Chairman NSAG asked for a paper to state the assumptions upon which CINCFLEET and MOD(N) departments could base their operational and support planning. In particular, guidance is needed on the assumption to be made for the duration of operations.

forces would have to be sucta

SECRET

2. A paper is enclosed. I recommend that you obtain the concurrence of VCNS before referring the paper to the DOE. This step is recommended so that consistent inter-Service planning assumptions are used, and so that other MOD departments can assess implications.

April 1982

J/B KERR
Captain Royal Navy
Director of Naval Plans
MB 5399 2160 MB

Enclosure:

Operation CORPORATE - Operational and Support Planning Assumptions (11 pages).

material, and there rould be battle casualties. Reclace ESNs will be required, and FOSN is already preparing 3 & for the math wave, mining to sustain 1, to 3 Says on at

mobilisation could be ordered with a view to making all the nation's resources for the task at hand. It purpose of this paper to establish assumptions upon

three member of intenendent desisions one

to Swing. If operations last lenger than those in a write current ships in the Task Force, replacements to the long transit distances,

OPERATION CORPORATE - OPERATIONAL AND SUPPORT PLANNING ASSUMPTIONS

#### BACKGROUND

- 1. The current objective of Operation CORPORATE is to bring about the withdrawal of Argentinian forces from the Falkland Islands and the re-establishment of British administration there as quickly as possible and with minimal loss of life to British subjects. To this end it is planned to send a Brigade Group (4 Cdo/Inf Bn) landing force, with sufficient shipping (warship, support and merchant) and aircraft to project the force ashore and provide defence against the Argentinian Navy and Air Force. It has been assumed within the Navy Department that for initial planning purposes, forces would have to be sustained for 3 months, and that military action (with losses of men and equipment) should be assumed.
- 2. Having mounted the operation using readily available forces, it is now necessary to make a number of independent decisions about bringing forward more men and equipment to sustain operations and to replace casualties. At one end of the scale, if only limited further preparations are made, the options open to the Task Force Commander would be restricted to those achievable by his own forces and reinforcements drawn from other readily available forces (eg a number of submarines, escorts and aircraft; HMS INTREPID; ISL SIR BEVIDERE; units of 5 Inf Bde; STUFT). At the other end of the scale, full mobilisation could be ordered with a view to making available all the nation's resources for the task at hand. It is the purpose of this paper to establish assumptions upon which a large number of independent decisions can be founded.

# AIM

3. To establish planning assumptions on which decisions on reprovision of men and equipment for Operation CORPORATE can be based.

## DECISION AREAS

# SHIPS AND SUBMARINES

- 4. Submarines. It is considered that 3 months continuous operations (from sailing until return to home port) is the maximum for a single submarine with regards to manpower and materiel, and there could be battle casualties. Replacement SSNs will be required, and FOSM is already preparing 3 SSNs for the next wave, aiming to sustain 1½ to 2 SSNs on station.
- 5. Surface Ships. If operations last longer than those sustainable by the current ships in the Task Force, replacements will be required. Because of the long transit distances, and

Page 1 of 11 pages

in order to keep ships available for other tasks, it will be necessary to maintain the longest time on task as possible, and early decisions to deploy replacements will be needed. These would come from the operational fleet but, may involve cancelling other tasks such as ARMILLA, West Indies Guardships and Nato commitments. CINCFLEET-is preparing plans for relieving ships on station, but needs guidance on the duration of operations to be assumed.

6. Extra ships could be made available by delaying refits (this has already been done), accelerating ships in refit or DED and in the final stages of new construction, and bringing ships forward from the Disposal List (Sales) (ships in the last 3 categories are listed at Annex A). Additionally, ships due for sale or disposal (eg BACCHANTE and NALAD in 1982) could be retained in RN service.

#### AIRCRAFT

7. Extra ASW Sea Kings to replace attrition losses and to form an additional squadron for IMS ILLUSTRIOUS (should it be required) can be drawn from aircraft in service. Further amphibious helicopter lift capacity is also available from existing Wessex 5 Commando Squadrons. However to provide further Sea Harrier aircraft will require the early formation of a new squadron, bringing forward reserve aircraft and redeployment of aircrew, including the recall of pilots on loan service overseas. This new squadron which is forming at YEOVILTON will be required to meet attrition losses if the deployed force levels are to be maintained and to provide aircraft for ILLUSTRIOUS. The embarkation of RAF Harrier GR3 squadrons is also a possibility. There are sufficient Wasp and Lynx to provide flights for ships being brought forward.

# WEAPONS

8. There is a number of new weapon projects which could add significantly to the capabilities of forces in Operation CORPORATE, and the delivery of weapons currently being procured could be accelerated (eg Sub Harpoon, Sidewinder AIM 9L, Sea Skua). There are also some minor equipment development projects which could make a contribution to the operation. A list of weapon projects for possible acceleration in procurement over the period April to September 1982 is at Annex B.

# MANPOWER

9. Front Line Troops. Present plans are for a landing force consisting of 5 kM Cdos and 1 Para Bn, with a Bde HQ and full supporting elements. After 3 months afloat, there would inevitably be a progressive deterioration in the battle readiness of the Landing Force. 5 Inf Bde is held in reserve in UK, out at present no trooping shipping has been identified. Battle Casualty Replacements can be made available to 3 Cdo Bde from dual appointed regulars and possibly RM reserves.

- 10. Naval Personnel. Naval officers and ratings would be required to man some of the reinforcement ships, aircraft and weapons at a time when manpower is already stretched to the limit under normal conditions. The extent of the measures required to provide manpower will depend upon the number and types of ships brought forward from the list at Annex A.
  - 11. Shore training activities will have to be kept under continuous review both in the light of developing manpower requirements and as training priorities change. It is presently planned to safeguard new entry and basic professional training, if necessary by re-deploying training manpower. However as manning requirements unfold, the need for specialist training and PJTs associated with particular ships and equipments being brought forward will dictate that new priorities are established. Areas already identified include aircrew and communications.
  - 12. Approval has already been given (1) for Limited Redeployment which enables normal Harmony and drafting rules to be waived and permits CND to re-draft ratings from shore billets. To obtain the manpower suggested in paragraphs 8 and 9, further measures (Listed at Annex C) would be required.

#### LOGISTICS

13. Action is already in hand to arrange logistic support for operations of between 2 and 6 months duration; in particular, fuel is being purchased in order to restore stocks in UK to their previous level (30 days). If the Landing Force has to be sustained ashore for more than 30 days, fuel, rations and high consumption priority items will need to be provided. Action may be required to accelerate or re-open industrial production lines, particularly for ammunition.

# DOCKYARDS AND REPAIRS

14. While the dockyards are currently underloaded as a number of potential customers have been diverted to Operation CORPORATE, there will in due course be heavy overloading either to repair damage or to cope with the surge of ships returning for periodic maintenance. In the meantime, Chatham, Portsmouth and Gibralter are implementing their rundown plans; their full capacity could be required, and Gibraltar is the closest repair base which could be used within current political constraints.

#### OPERATING PATTERNS

15. The present outline plan of a single Task Force deployment, with a British Forces Support Unit in Ascension, is barely acceptable for operations lasting 3 months. If operations are extended, a different operating pattern, involving roulement of land, sea and air forces, will be required; better equipped and closer forward operating bases become important.

CLOSED FOR 40 YEARS UNDER FOI SECTION 27

#### Note:

1. MOD(UK) Navy AAA/19F/WAW 061850Z APR 82.

## FACTORS AFFECTING THE ASSUMPTIONS

- 16. Weather/Time and Space. The onset of winter in the southern South Atlantic is likely to degrade the serviceability and efficiency of both men and equipment, which will lead to a requirement to carry out roulement more frequently than would be expected in kinder climates. This factor brings into relief the other important environmental factors: the long and difficult LOC. The conclusions drawn from these factors are that forces need to be carmarked and prepared for reinforcement, and that decisions to deploy them must be taken early because of the long transit distances. This is particularly important for replacement of battle losses, the timing of which cannot be predicted.
- 17. Political. Although there are numerous and powerful pressures, both internal and external, to resolve the Falkland Islands dispute without any further use of force, there is little indication that this will be possible. For planning purposes, therefore, it must be assumed that some form of military action will take place. It is further assumed that, despite overall local superiority of the RN Task Force, up to 25% attrition of ships and aircraft could be suffered. The attrition of the landing forces will depend upon Argentinian numbers and dispositions, and is very difficult to predict.
- 18. Military. Military assumptions about the duration of operations follow from political considerations. It is assessed, however, that a land battle would not continue beyond the point at which the ammunition WMR has been consumed (30 days at limited war rates) and there would be considerable practical difficulties in providing Battle Casualty Replacements. Nevertheless, to plan for only 3 months maritime operations could close a number of military, and political, options. The risk that forces have to be withdrawn after 3 months, if no solution has been found, cannot be accepted. It is proposed therefore that a planning assumption of 6 months duration of operations in the area is selected: the figure is somewhat arbitrary but includes in its timescale a large number of the measures mentioned in paragraphs 4 to 15.
- 19. Military Occupation. The level of forces required to garrison the Falkland Islands following a successful re-occupation would depend upon the attrition to the Argentinian armed forces, particularly their air force and navy. An assumption of 6 months' duration of operations provides some cover for a garrison (depending upon when re-occupation could be completed), and assumptions thereafter would have to be framed to fit the longer term requirements.
- 20. NATO Commitments. While it is accepted that the level of units, weapons and logistic support available in the NATO area must reduce, efforts need to be made to sustain them as far as possible. This is primarily in order to avoid presenting a vulnerable gap in NATO which could be exploited by a potential aggressor, but it is also important politically for UK to continue to demonstrate our military commitment. Actions need to be taken, therefore, to restore forces to declared levels as soon as possible.

# FACTORS AFFECTING THE ASSUMPTIONS

- 16. Weather/Time and Space. The onset of winter in the southern South Atlantic is likely to degrade the serviceability and efficiency of both men and equipment, which will lead to a requirement to carry out roulement more frequently than would be expected in kinder climates. This factor brings into relief the other important environmental factors: the long and difficult LOC. The conclusions drawn from these factors are that forces need to be carmarked and prepared for reinforcement, and that decisions to deploy them must be taken early because of the long transit distances. This is particularly important for replacement of battle losses, the timing of which cannot be predicted.
- 17. Political. Although there are numerous and powerful pressures, both internal and external, to resolve the Falkland Islands dispute without any further use of force, there is little indication that this will be possible. For planning purposes, therefore, it must be assumed that some form of military action will take place. It is further assumed that, despite overall local superiority of the RN Task Force, up to 25% attrition of ships and aircraft could be suffered. The attrition of the landing forces will depend upon Argentinian numbers and dispositions, and is very difficult to predict.
- 18. Military. Military assumptions about the duration of operations follow from political considerations. It is assessed, however, that a land battle would not continue beyond the point at which the ammunition WMR has been consumed (30 days at limited war rates) and there would be considerable practical difficulties in providing Battle Casualty Replacements. Nevertheless, to plan for only 3 months maritime operations could close a number of military, and political, options. The risk that forces have to be withdrawn after 3 months, if no solution has been found, cannot be accepted. It is proposed therefore that a planning assumption of 6 months duration of operations in the area is selected: the figure is somewhat arbitrary but includes in its timescale a large number of the measures mentioned in paragraphs 4 to 15.
- 19. Military Occupation. The level of forces required to garrison the Falkland Islands following a successful re-occupation would depend upon the attrition to the Argentinian armed forces, particularly their air force and navy. An assumption of 6 months' duration of operations provides some cover for a garrison (depending upon when re-occupation could be completed), and assumptions thereafter would have to be framed to fit the longer term requirements.
- 20. NATO Commitments. While it is accepted that the level of units, weapons and logistic support available in the NATO area must reduce, efforts need to be made to sustain them as far as possible. This is primarily in order to avoid presenting a vulnerable gap in NATO which could be exploited by a potential aggressor, but it is also important politically for UK to continue to demonstrate our military commitment. Actions need to be taken, therefore, to restore forces to declared levels as soon as possible.

# FACTORS AFFECTING THE ASSUMPTIONS

- 16. Weather/Time and Space. The onset of winter in the southern South Atlantic is likely to degrade the serviceability and efficiency of both men and equipment, which will lead to a requirement to carry out roulement more frequently than would be expected in kinder climates. This factor brings into relief the other important environmental factors: the long and difficult LOC. The conclusions drawn from these factors are that forces need to be earmarked and prepared for reinforcement, and that decisions to deploy them must be taken early because of the long transit distances. This is particularly important for replacement of battle losses, the timing of which cannot be predicted.
- 17. Political. Although there are numerous and powerful pressures, both internal and external, to resolve the Falkland Islands dispute without any further use of force, there is little indication that this will be possible. For planning purposes, therefore, it must be assumed that some form of military action will take place. It is further assumed that, despite overall local superiority of the RN Task Force, up to 25% attrition of ships and aircraft could be suffered. The attrition of the landing forces will depend upon Argentinian numbers and dispositions, and is very difficult to predict.
- 18. Military. Military assumptions about the duration of operations follow from political considerations. It is assessed, however, that a land battle would not continue beyond the point at which the ammunition WMR has been consumed (30 days at limited war rates) and there would be considerable practical difficulties in providing Battle Casualty Replacements. Nevertheless, to plan for only 3 months maritime operations could close a number of military, and political, options. The risk that forces have to be withdrawn after 3 months, if no solution has been found, cannot be accepted. It is proposed therefore that a planning assumption of 6 months duration of operations in the area is selected: the figure is somewhat arbitrary but includes in its timescale a large number of the measures mentioned in paragraphs 4 to 15.
- 19. Military Occupation. The level of forces required to garrison the Falkland Islands following a successful re-occupation would depend upon the attrition to the Argentinian armed forces, particularly their air force and navy. An assumption of 6 months' duration of operations provides some cover for a garrison (depending upon when re-occupation could be completed), and assumptions thereafter would have to be framed to fit the longer term requirements.
- 20. NATO Commitments. While it is accepted that the level of units, weapons and logistic support available in the NATO area must reduce, efforts need to be made to sustain them as far as possible. This is primarily in order to avoid presenting a vulnerable gap in NATO which could be exploited by a potential aggressor, but it is also important politically for UK to continue to demonstrate our military commitment. Actions need to be taken, therefore, to restore forces to declared levels as soon as possible.

# ASSUMPTIONS.

- 21. The main assumptions which are deduced from the factors discussed above are:
  - a. Operational and support planning should be based on 6 months duration of operations in the area, assuming 25% battle attrition of naval and maritime air forces.
  - b. The land battle will not continue beyond the point at which the ammunition WMR has been consumed (30 days at limited war rates), and logistics will be required for an occupation force for up to 6 months.
  - c. Strengths of units, weapons and logistic support within the NATO area should be restored to declared levels as soon as possible.

# SENSITIVITY OF ASSUMPTIONS

22. If the duration of operations or attrition rate is less than that assumed, reprovisioning of men and material will be sufficient for the task. On the other hand, when examining the results of the somewhat arbitrary assumptions stated in paragraphs 21a and 21b, a general statement should be made on the implications of the need to sustain maritime operations for longer than 6 months, or for more than 30 days at limited war rates in the case of the Landing Force.

#### CONCLUSIONS

23. It is concluded that the assumptions in paragraph 21 should be used as the basis for reprovision of men and equipment for Operation CORPORATE, but that the broad implications of a longer duration of operations should be stated.

# RECOMMENDATION

24. ACNS(0) is recommended to agree the assumptions and refer them to DOE for approval.

8 April 1982

#### Annexes:

- A. Ships and Submarines which could be brought forward for Operation CORPORATE.
- B. List of Weapon Items for possible acceleration in Procurement.
- C. Further Measures to Provide Manpower.

# SHIPS AND SUBMARINES WHICH COULD BE BROUGHT FORWARD FOR OPERATION CORPORATE REINFORCEMENTS

1. Ships in Operational Time (including DED) available to CINCFLEET for early deployment:

LPD 1 (INTREPID)

DDG 5 (of which 1 is on GOO Patrol and 1 West Indies Guardship).

FF 26 (of which 1 is on GOO Patrol).

SSN 5

SSK 10

RFA 6 (including REGENT and ENGADINE; of the remaining 4 tankers, 2 are committed to GOO and West Indies Guardship).

2. Ships and Submarines in Refit. (Those marked \* could be candidates for earlier Completion Dates). Figures in brackets are CINCFLEET proposals for advancement.

DD/FF		<u>CD</u>	SSN	<u>CD</u>
FIFE	(P)	Apr 83	SWIFTSURE (D)	Nov 82
NEWCASTLE	(P)	Dec 82* (Aug 82)	SOVEREIGN (D)	Mar 84
CHARYBDIS	(D)	Jul 82* (Jun 82)	CHURCHILL (C)	Nov 82
SIRIUS	(D)	Jul 82* (Jun 82)	SSK	
JUPITER	(D)	Jul 83	SEALION	Feb 82
SCYLLA	(D)	Jun 84	OPPORTUNE	Aug 83
CLEOPATRA	(D)	Mar 83	OBERON	Jun 82* (May 82)
MINERVA	(D)	Jul 83	WALRUS	Nov 82
PHOEBE	(C)	Apr 82	ODIN	Jan 84* (Jun 82 cancel refit)
HERMIONE	(C)	Jul 83	ORPHEUS	Jun 82*
JUNO	(R)	Apr 84	RFA	0 W1 02
			BLACK ROVER (R)	Jun 82* (May 82)
			OLWEN (G)	May 82*

FORT GRANGE

May 82\*

#### 3. New Construction

Ship

Acceptance Date (ie trials not carried out).

ILLUSTRIOUS

Sep 82 (already under investigation)

LIVERPOOL

May 82

NOTTINGHAM

Nov 82

MANCHESTER

Nov 82

BRAZEN

Sep 82

BOXER

Dec 83

- 4. Ships on Disposal List (Sales) or (Scrap). No stocks or reserves are allocated to these ships.
  - a. <u>FALMOUTH</u> could be ready after 5 weeks provided extra WE ratings provided. Ships company mainly from SBS personnel.
  - b. BERWICK Major boiler defect. Recommended as spares for FALMOUTH.
  - c. TARTAR and ZULU. 6 weeks from date ships' companies join. De-equipping has been stopped.
  - d. GURKHA. 10 weeks from date ship's company joins.
  - e. ESKIMO. Poor state and stores removed. 3-4 months to bring forward.
  - f. LONDONDERRY (Scrap List). Destoring has not yet commenced, but the ship is very lightly armed.
- 5. Aircraft. Disposition of Front Line and training assets ahore.
  - a. Fixed Wing: 6 Shar within one week. 7th Shar within 14 days. All non-radar fitted. 3 radars with commercial firms (Ferranti/Dunsfold). 2 Addnl Indian Navy radars could be made available from Ferranti.

Rotar	y Wing	. (rea	ad in 7 co	lumns):		
Sqn	Role	SKA	SKD	SKJ	WX 5	Lynx
706	ASW		13	2		
814	ASW		1 (Ex 82	6) 7		
819	ASW	work w	7		cstablish	
824	ASW	di ko	2 (GIB)	2 (Ex 8	14)	
707	CDO	,			10	
845	CDO				13	
771	SAR	- ·			8	
772	SAR		agcole		6	
782				HONATE IN	C - COHIC	8

o fuse Tigorfish (Nk 24 Mod 1) - (They know about it Iros FOSM).

eplacement (thought to be commercially available).

(7) Fin-fitted unward-booking Bohe Sounder Type 780

(8) Peripheral Computer to TDHS - to enhance AN Sub

Double the range of EXOCET (with OTH! facility) -

he GHS 25/Servoir improvements - software improvements to

been trialled. (New computer program tapes would need to be sent to ships).

e. Fit replacement small callbrg gum (TARDEN) - 2 systems are available (could be fitted with EC and forward-looking IR if requires).

(contact evalution plat

5

# c. Aircraft in Reserve (Fleetlands).

10 SK 2/5 in conversion

1 SK2 Cat 4

815(IIQ)

b.

roasibile

2 Wx 5 LTS

3 Wx 5 spares recovery

7 Lynx MOD programmes

Egracon and The performance

Surface Ship Items

Above Sucrace Mariane

# WEAPON ITEMS FOR POSSIBLE ACCELERATION IN PROCUREMENT

1. The following are lists of possible short-term weapon improvements. Further work would be required to establish the feasibility of a number of items.

## 2. Underwater Warfare...

#### a. Submarine Items.

- (1) RN Sub Harpoon accelerate deliveries from US (currently 10 per month). WARSPITE fit could be completed by mid-June.
- (2) SSN clip-on Towed Arrays ('wet end' of Sonar Type 2024) this is a CFS item.
- (3) Weapon modules interface units for weapons/fire control (SSN). 2 x 24 Mod 0 modules and 4 x Mk 8 modules.
- (4) Mod kits to fuze Tigerfish (Mk 24 Mod 1) MSDS to hasten supply. (They know about it from FOSM).
- (5) Wideband Analyser for Towed Array-fitted SSNs (thought to be commercially available now).
- (6) 'DIABLO' SSN CEP (contact evalution plot) replacement (thought to be commercially available).
- (7) Fin-fitted upward-looking Echo Sounder Type 780 for under-ice operations.
- (8) Peripheral Computer to TDHS to enhance RN Sub-Harpoon and TA performance.

# b. Surface Ship Items NIL

#### 3. Above Surface Warfare.

- a. Double the range of EXOCET (with OTHT facility) would need ships alongside for 5 weeks (Available today).
- b. GWS 25/Scawolf improvements software improvements to give better capability versus sea skimming missiles has been trialled. (New computer program tapes would need to be sent to ships).
- c. Fit replacement small calibre gun (RARDEN) 2 systems are available (could be fitted with EO and forward-looking IR if required).

- d. Radar Type 992 possibly fit MTI to all ships fitted (?)
- e. Radar Type 994 possibly fit MTI to all ships fitted (?)
- f. Fit thermal imager sights (IR 18) (commercially available).
- 4. C3 . NIL

# 5. Lynx

- a. Seaspray Improvements obtain 'Track while scan' available at FERRANTI now accelerate development and production of ECCM improvements.
- b. Sea Skua accelerate production of missiles and associated installation and test equipment accelerate investigation and rectification of ECM limitations.
- c. Orange Crop accelerate improvements.
- d. MAD (NSR 6156) purchase additional equipments available from manufacturers stocks.
- e. GPMG (NSM 3095) accelerate introduction trial installation of machine gun being conducted now and clearance anticipated by 13 April.
- f. Improve passenger carrying capacity by adopting Dutch passenger seat modifications.

# 6. Sea King.

- a. MAD as for Lynx at 5d above.
- b. Orange Crop accelerate production.
- c. CHAFF HOTEL purchase off the shelf.
- d. Stabilised Binoculars purchase off the shelf.
- e. Secure Speech would require 'robbing' from US sources.
- f. LAPADS accelerate production of Receiver Units, Control Units and Signal Processing Units.

# 7. Sea Harrier

- a. BLUE FOX RADAR/NAVHARS/AIRCRAFT/ROLE EQUIPMENT (ancilliary equipment to support Weapon Systems) accelerate production and/or divert Indian equipment.
- b. Sidewinder AIM 9L loan from RAF.

#### FURTHER MEASURES TO PROVIDE MANPOWER

- 1. If further manpower is required to provide front line troops or naval manpower, the following measures would be considered:
  - a. A Defence Council Regulation to cover the extension of service of ratings and other ranks already serving (this is in hand).
  - b. A further source of trained manpower could be re-entries for which recruiting ceilings might have to be lifted. Vote A ceilings could not be exceeded without parliamentary sanction.
  - c. Another source of trained RV manpower is the Reserves. Without amendment to the Reserve Forces Act, the only categories of naval reserves which may be called out other than in the event either of actual or apprehended attack on the UK (S.16) or of imminent national danger or great emergency (S.10) are:
    - (1) Naval and Marine pensioners who under S.30 are liable to serve during any emergency should S of S require their services;
    - (2) The Royal Fleet Reserve Special Class liable for call out under S.11 if warlike operations (by the UK) are in preparation or progress;
    - (3) Emergency and Retired List officers whose liabilities are governed by the prerogative (Orders in Council);
    - (4) Officers of Reserve to the Royal Navy (RNR Officers), whose terms and conditions of service are regulated by S of S under S.46. It may, however, be possible to encourage RNRs to carry out their annual training now (e.g. RNR (Air) branch pilots).
  - d. The arrangements for RM Reserves are broadly similar to paragraph 1c above.
  - e. Details of the measures at paragraphs 1c and 1d above are currently under discussion with the Treasury Solicitor.