

21A

21/1

COS(Misc) 116/742/1

Copy No 27.. of 70 copies

Y'S GOVERNMENT)

AMPHIBIOUS OPERATIONS APPRECIATION

of copies

1. In accordance with the instructions of the Chiefs of Staff (1) the attached draft appreciation on Amphibious Operations has been prepared by ACDS(Pol).



2. The appreciation has been placed as an Agenda Item for the Chiefs of Staff meeting scheduled for Wednesday 14 April 1982 at 10.00 am.

Attachment:

Appreciation of the Options for Landing Operations in the Falkland Islands (20 pages).

Note:

1. COS 11th Meeting/82, Item 1.

Distribution:	Copy No
PSO/CDS	1 - 2
Sec/CNS	3 - 16
MA/CGS	17 - 18
MO Sec	19 - 24
PS/CAS	25 - 26

*Draft taken - can be filed*

Copy to:	
PS/SofS	27
ACAS(Ops)	28 - 35
PUS	36
VCDS(P&L)	37
DCDS(I)	38 - 43
DUS(P)	44
ACDS(Pol)	45 - 48
ACDS(Ops)	49 - 50
AUS(D Staff)	51
DS 11	52
FCO(Def Dept)	53 - 54
COSSEC	55 - 70

13 April 1982

COS TS8(1)

Covering TOP SECRET  
RESTRICTED

oyed in the  
to number  
ce by air  
ison of  
5 or 6  
upport and  
raft  
ft helicopters,  
rt aircraft  
s probably  
e than  
engths and  
by the  
and the  
ine  
egarded  
aken

whether or when to extend the application of the exclusion zone

Note:

1. DCDS(I)26 dated 7 April 1982.

Page 1 of 20 pages

COS TS8(1)

TOP SECRET UK EYES A

(THIS DOCUMENT IS THE PROPERTY OF HER BRITANNIC MAJESTY'S GOVERNMENT)

DP 9/82 (Final Draft)

Copy No 22. of copies

13 April 1982

CHIEF OF THE DEFENCE STAFFAN APPRECIATION OF THE OPTIONS FOR  
LANDING OPERATIONS IN THE FALKLAND ISLANDS  
REVIEW OF THE SITUATION

1. On 11 April 1982 the Argentine ground forces deployed in the Falkland Islands were assessed, on current information, to number between 5,000 and 5,500, with the capability to reinforce by air by up to 500 per day to a likely practical maximum garrison of 7,000 men. The force comprises a reinforced Brigade of 5 or 6 battalions with artillery and armoured reconnaissance support and possibly a limited surface to air missile and anti-aircraft artillery capability. A small number of armed troop lift helicopters, light ground attack, anti-submarine warfare and transport aircraft were deployed at Port Stanley airfield. One frigate was probably on patrol in the Falkland Islands' vicinity, and no more than four transports were in harbour or nearby. Overall strengths and capabilities of the Argentine forces have been assessed by the Defence Intelligence Staff (1).

2. A maritime exclusion zone has been established around the Falkland Islands with effect from 12 April 1982. Argentine Warships and naval auxiliaries within the zone will be regarded as hostile and liable to attack. No decision has been taken whether or when to extend the application of the exclusion zone

## Note:

1. DCDS(I)26 dated 7 April 1982.

Page 1 of 20 pages

to merchant shipping and to civil or military aircraft. The Argentinians retain the capability to reinforce and resupply by air and merchant shipping unopposed.

3. The UK Task Force comprises: 2 Aircraft Carriers, 5 Destroyers, 7 Frigates, 1 Assault Ship, 5 Logistics Ships, 10 Royal Fleet Auxiliaries and a number of ships from trade, including: the SS Canberra (troopship), the SS Uganda (hospital ship), and the Elk (RO-RO). 3 Commando Brigade, 3rd Battalion Parachute Regiment, 1 SAS Squadron, SBS, plus armoured reconnaissance and combat and logistic support are embarked. Aircraft and helicopters embarked include: 20 Sea Harrier, 34 Sea King (12 Commando), 8 Wessex (2 Gunships), 12 Lynx (5 Sea Skua), 4 Wasp, 5 Scout and 9 Gazelle. A number of landing craft are deployed with the amphibious ships.

#### FACTORS AFFECTING THE SELECTION OF THE AIM

4. HMG's express policy aim is to bring about the withdrawal of Argentine forces from the Falkland Islands and the re-establishment of British administration. Diplomatic efforts continue and economic sanctions have been imposed; but HMG remain committed to forcible ejection if all else fails.

5. The over-riding requirements to minimise civilian casualties and, to a lesser extent, the destruction of property, precludes a direct assault against the Argentine forces concentrated on Stanley.

#### AIM

6. The aim of this appreciation is to assess the various military options for putting a force ashore in the Falkland Islands, with a view to repossessing the islands.

Page 2 of 20 pages

TOP SECRET UK EYES A

COS TS8(1)

ASSUMPTIONS

7. For the purposes of this appreciation it is assumed that before a landing on the Falkland Islands is contemplated:
- a. South Georgia has been retaken.
  - b. An effective sea/air Exclusion Zone has been established round the islands.

FACTORSTiming

8. Elements of the Task Force capable of implementing fully an air and maritime exclusion zone and achieving an acceptable level of sea control and air superiority could arrive in the Falkland Islands area by 29 April 1982.
9. The timing of a landing operation will be determined by passage time and by the maximum length time troops may remain at sea and retain fitness to fight. This is assessed to be about a month. Thereafter a spell ashore would be required before troops were fit for a further month.
10. The amphibious force is scheduled to arrive at Ascension Island on 19 April 1982 to embark combat and logistic elements. A four day period has been proposed for exercise and rehearsal. The Falkland Islands are a minimum of 11 days steaming from Ascension Island. On this basis the earliest landing date on the Falkland Islands would be 4 May 1982.
11. Alternatively the force could use sheltered anchorage in South Georgia, 4 days steaming from the Falkland Islands. Increased risk of damage from icebergs in the South Georgia area is the limiting factor after July.

12. As a further option the amphibious force could be held in readiness at Ascension, undergoing shore training, until a date for landing operations is decided.

13. Deductions. Landing operations could be contemplated at any time after 4 May 1982. However, delay would allow the Argentine forces longer to:

- a. Reinforce and resupply insofar as the application of the exclusion zone permits.
- b. Prepare defences.
- c. Improve Port Stanley airfield, airstrips and other internal lines of communication.
- d. Prepare for winter operations.

#### Weather

14. The weather in the Falkland Islands is variable. Stormy weather is frequent in late April and winter sets in in mid-May. Prevailing winds are westerly. Mean speeds are of the order of 15 knots and exceed 21 knots for 60-70% of the time. Gales occur on 5 days per month. Day temperatures in April/May at 40°F dropping to below freezing at night. Chill factors are high. Rainfalls on 15 days each month; snow occurs on 10 days a month in June and July but rarely lies for long. Visibility is generally good below an overcast with cloud bases 1,500-2,000 ft; breaks in cloud occur at night.

15. Deductions. With the onset of winter the weather will:

- a. Pose morale and survival problems for troops in the open, especially on high ground.

- b. Lead to Argentine deployments being concentrated in the immediate area of settlements, particularly Port Stanley, where accommodation exists for uncommitted troops.
- c. Severely inhibit parachute operations.
- d. Limit daylight satellite and air reconnaissance.

Close air support operations should be possible for much of the time, while helicopter operations could be limited by gales. The swell built up by strong westerly winds would cause heavy swell and surf on exposed coasts precluding, or making hazardous, amphibious landings and small boat operations.

#### Ground

- 16. East and West Falklands are separated by the Falkland Sound (2-12 miles wide). Together the area is similar in size to that of Wales, but with twice the coastline, deeply indented and with a number of potential landing areas.
- 17. East Falkland has a substantial range of hills running west to east in the north; movement north to south is restricted to a few passes. To the north of the hills the ground is soft peat bog, while to the south it comprises flat grasslands and peat bog.
- 18. West Falkland has a range of hills along the east coast; the ground is less boggy than in East Falkland.
- 19. There are no roads outside the immediate vicinity of Stanley. Tracks exist which are passable by land rover; progress is slow and, without detailed local knowledge, the risk of land rovers becoming bogged down is considerable. Movement between coastal settlements relies on bridges capable of supporting vehicles no heavier than a land rover. Restrictions on the movement of over-snow vehicles, of which there are 70 in the force, may not be so great.

20. Deductions.

- a. Surface vehicular movement would be difficult and slow, and limited mainly to land rovers. The BV 202 (RM over-snow troop transport) may provide an additional cross country capability; it could not use the majority of bridges but could by-pass them, though the swim capability is untried and therefore risky. It is likely, therefore, that vehicles and equipment not transported by helicopter would be confined to the Stanley area for the Argentines or the point of landing for our own forces.
- b. Movement of foot is limited by boggy ground, swollen streams and rock runs on high ground.
- c. Helicopter landing sites can be found on hard beaches, inland on drier ground in most areas, except the rock runs.
- d. Cover for movement on high ground is good, but exposed on the plains.
- e. There are a number of beaches which may be suitable for landing operations. Those exposed to the westerly winds will be prone to swell. Few, if any, offer rapid access inland for wheeled vehicles. Kelp concentrations will be a limiting factor. Detailed reconnaissance for beach composition, gradient, off-lying dangers and enemy defences, including mines, would be essential. Strong tidal streams could cause problems for small boat or "swim" operations.
- f. Tactical mobility, including the deployment of artillery, and logistic support will depend primarily on helicopter lift, supplemented where possible by boat and over-snow vehicles.

g. The size of the islands precludes complete ground surveillance by OPs. It may well be possible, therefore, to achieve an unobserved amphibious landing, particularly if the sea approach is by night.

h. The political/military importance of Stanley, its harbour and airfield, and the accommodation it offers, indicate that there will be strong Argentine defences. The ring of hills dominating Stanley will be of particular tactical significance to both sides and will probably be the site for Observation Posts (OPs) and major defensive positions/fire bases.

Relative Strengths: Maritime/Air

21. Numerically the Argentine Navy is marginally inferior to the UK Task Force. Its strength lies in its anti-ship capability, with 8 ships armed with EXOCET missiles and in its 2 fast, quiet German submarines. The maritime capability is enhanced by A4 aircraft embarked in a carrier. The Argentine Navy has a limited mining capability using either surface ships or aircraft. Its weaknesses are assessed to be in tactical training, logistic support, lack of airborne early warning capability, equipment unreliability and ocean surveillance, although this last could well be made by the Soviets. The deductions below draw on the Navy Department's detailed assessment (2) of relative capabilities, and Air Force Department studies (3).

Notes:

2. D/DNW/97/3/10 dated 7 April 1982.
3. D/AFOps/TF16 dated 11 April 1982.



22. Deductions.a. Sub-Surface Operations.

(1) The Argentine Type 209 submarine could pose a threat to UK SSNs if it was able to close short range; if well-handled the Type 209 would present a difficult target for UK SSNs.

(2) The UK Task Force's anti-submarine capability should be effective against the Argentine Guppy class submarines, but less so against well-handled Type 209s, particularly in shallow water. The latter equipped with long range torpedoes pose a threat to UK surface units, though the type 182 towed decoy in the warships should afford protection. UK SSNs would risk detection in attacking Argentine major units but should be able to evade.

(3) The Argentine Navy is unlikely to have a submarine mining capability. Subject to mines being made available, UK SSNs could lay a small offensive minefield.

b. Surface Operations.

(1) Superior EXOCET tactics and more modern gunnery systems should give the UK Task Groups advantages over the Argentine surface fleet.

(2) The Argentine Navy has 7 gun armed fast patrol boats. It is doubtful if weather conditions at this time of year would permit transit to the Falkland Islands. If some could be deployed they would pose a threat to amphibious landings. UK missile armed helicopters should provide an effective counter.

c. Anti-Aircraft Operations. The UK Task Force is well equipped for area and point air defence. At the limits and beyond of Argentine land based air cover the Task Force should be secure from air attack; it would be more vulnerable in areas where sustained attacks from land based air were possible. The Argentine fleet is vulnerable to air attack; it has few effective medium range surface to air missiles or point defence missile systems, and relies primarily on outdated and probably ineffective gun systems.

d. UK Air Operations.

(1) The UK Task Force's organic air assets, although limited in number, give it a good surveillance and attack capability against sub-surface and surface targets.

(2) From Ascension Island, at some risk, limited tactical photographic reconnaissance of the Falkland Islands might just be possible using a Victor aircraft with a limited camera fit.

(3)



CLOSED FOR 40 YEARS UNDER  
FOI SECTION 27

e. Argentine Air Operations.

(1) A limited inflight refuelling capability exists.

(2) From the airfield at Puerto Madryn and those further south, the Argentine Air Force could mount air defence and attack operations in the western sector of the exclusion zone. Operations in the Eastern maritime sector would be confined to the limited Canberra force. The Canberra, A4 and Mirage V have the unrefuelled radius of action to reach Port Stanley, though the latter could only carry 2 x 2,000 lb bombs: moreover they could deploy a small offensive force at Port Stanley, and this capability could be improved over time if the Argentines extended the airfield facilities.

(3) The effectiveness of air operations would be limited by poor maritime surveillance and restricted air defence radar cover. The positioning of a TPS 43 radar at Port Stanley would largely overcome the latter deficiency.

(4) Carrier borne aircraft could pose a threat to the UK Task Force, particularly if EXOCET armed Super Etentard aircraft become operational by late April. Air defence operations are likely to be limited by air search radar maintenance problems. Night, poor weather and co-ordinated operation capabilities are likely to be somewhat limited.

23. Summary.

a. The UK Task Force could operate successfully in the eastern sector of the exclusion zone with only a minor threat from Canberra aircraft in that sector. If, however, the

Argentines have improved the Stanley airfield to support offensive air operations, these will need to be countered to achieve air superiority.

b. The UK Task Force would be at increasing risk as the western boundary of the exclusion zone was approached. The greater vulnerability of units in this area could preclude the fully effective implementation of the western part of the exclusion zone.

c. Local sea and air superiority could be established to allow amphibious and/or heliborne assault landings on the Falkland Islands; East Falkland presents the least problem in this respect. The lack of a sea mine detection/mine clearance capability could prove a deficiency.

d. UK land based maritime reconnaissance and offensive air from Chile would greatly increase the UK Task Forces ability to carry out operations and reduce significantly its vulnerability.

Relative Strengths: Land Forces

24. The Argentine land forces deployed are numerically superior to those embarked on the UK Task Force. Argentine supporting arms are likely to include 81 mm mortars, artillery (105 mm and possibly, though unlikely, 155mm) BLOWPIPE, TIGERCAT and OERLIKON anti-aircraft systems; the air defence systems have a daylight, fair weather capability only, and the number of launchers and missiles deployed is likely to be limited (eg 4-6 BLOWPIPE posts with 20 - 30 missiles). These systems have a significant capability against helicopters but are likely to be deployed primarily in support of Argentine concentrations in the Stanley area. Some

may, however, be sited forward or be held as part of a quick reaction force. Argentine freedom of action will depend on a solution being found to the provision of adequate aviation fuel supplies, and a substantial increase to their current holdings of helicopters.

25. The UK Amphibious Force is equipped with organic artillery and air defence weapons. Training standards, tactics, reliability of equipment and, most importantly, tactical mobility should be superior to those of the Argentine forces. But against this, there will be time available to the Argentine forces to reinforce and prepare forward positions, defences, shelters and internal lines of communication.

26. Deductions. The UK Amphibious Force has the capability to counter Argentine forces deployed forward from Stanley. With local air and sea superiority established an amphibious and/or heliborne landing could be achieved with minimal casualties if mounted outside the engagement zones of the Argentine air defence and artillery weapons which are likely to be concentrated on Stanley. A direct assault on Argentine concentrations around Stanley is precluded because we do not have the capacity for such an operation, and by the need to minimise civilian casualties.

Sustainability.

27. The UK forces embarked have war maintenance reserves for 30 days at limited war consumption rates. The duration of the land battle should not be more than 30 days but logistic support may be required for an occupation force of up to 6 months. Given the extended supply lines for the United Kingdom early provision of those items of logistic support not available in the RFAs must be

set in train. Additional ammunition could only be provided from stocks held in UK and BAOR against Priority 1 requirements.

28. 5 Infantry Brigade could be earmarked to reinforce or relieve the initial assault force. The Brigade is currently not issued with CLANSMAN radios.

29. Major repair will present problems. Accommodation will be required in the longer term.

30. Deductions.

a. Resupply from the UK for the landing force should commence by 28 April 1982 against the contingency of the landing being made at the earliest possible time.

b. Prolonged operations ashore could create serious deficiencies in Priority 1 stocks, some of which could take 18 months to replace.

c. Prolonged operations could cause major problems of equipment maintenance, repair and replacement.

MORALE

31. Morale is likely to be a significant factor. Despite reinforcement and improved defences, morale among the Argentine troops deployed in the Falkland Islands is likely to deteriorate as worsening weather takes its toll and equipment deficiencies are revealed. The knowledge that a strong, well trained, well equipped, British Task Force is approaching is likely to lead to increasing apprehension, especially among young conscripts. This apprehension would be heightened by:

a. An increasingly effective blockade.

b. The successful re-occupation of South Georgia.

c. Disruptive and diversionary operations prior to the landing.

d. Psychological operations.

32. A successful British landing, followed by individual operations against Argentine out-posts could have a marked effect on Argentine morale. Effective isolation of the force, inability of mainland based aircraft and naval forces to provide support could seriously undermine the Argentine will to resist.

33. Deduction. Argentine morale is likely to be lower at the time when it is anticipated that a British landing could take place. Should the landing be deferred overlong British morale could suffer and the Argentine forces could perceive a lack of British resolve.

#### ENEMY COURSES

34. The Argentine forces are likely to take advantage of the time available before the arrival of UK Task Groups in the Falkland Islands area to:

- a. Upgrade Stanley airfield facilities and aviation fuel storage.
- b. Stockpile war maintenance reserves.
- c. Improve internal communications and supply lines.
- d. Establish defensive positions and landing obstructions, including mining.
- e. Deploy additional forces, particularly helicopters, heavy weapons and, subject to airfield improvements, offensive air and air defence aircraft.

35. Three Argentine Regiments are likely to be deployed in the Stanley area, with others in Lafonia and West Falkland. Artillery and air defence weapons could be deployed tactically to increase coverage, and a quick reaction force could be formed relying on helicopters for tactical mobility.

36. Argentine surface naval units may not try to penetrate the maritime exclusion zone until an assault operation is judged imminent; equally, the Argentine fleet may not seek to intercept the UK Task Force well in advance of its arrival in the Falkland Islands area. Argentine operations, therefore, might be confined initially to surveillance, shadowing and, perhaps, sub-surface harassment. Air, sub-surface and surface launched missile attacks could be expected if the Task Force entered the Argentine exclusion zone.

37. Should the Argentine Navy avoid being drawn into combat in contesting the UK exclusion zone the force would be intact to counter a British landing. However, given the very considerable impact the loss of a major unit would have on domestic public opinion, the Argentine Navy may be reluctant to put these ships at risk until major action is judged essential to avert loss of the Falkland Islands.

#### OWN COURSES

38. Own courses of action are constrained by: the ability to establish sea control and air superiority, the ability to obtain tactical intelligence of enemy dispositions and the suitability of beaches and landing sites, and the rate of build-up of forces ashore and their subsequent support.

39. Sea and Air Superiority. There is confidence that the Task Force could establish sea control and a reasonable degree of air superiority over the Falkland Islands. The ability to do so in the Western extremes of the exclusion zone is less certain because of the proximity of the mainland. However, this should not affect



the choice of landing options significantly. The achievement of this superiority might require counter-air operations against Stanley airfield in advance of a-landing.

40. Intelligence. Knowledge of enemy dispositions could be achieved by covert or overt means. SBS or SAS operations would be covert and would have the benefit of retaining the maximum degree of surprise; but problems exist in the covert landing of special forces. Visual and photographic air reconnaissance by carrier based aircraft would be the alternative, but an element of surprise could be lost. Beach and landing site reconnaissance could be conducted only by special forces; these forces could also:

- a. Act as pathfinders.
- b. Assist in target acquisition for Naval Gunfire Support and air to ground attacks.
- c. Create diversions.
- d. Take direct action against key elements of the Argentine Garrison; helicopters, aircraft stockpiles etc.
- e. Conduct "coup de main" operations.

41. Ship to Shore Mobility. Ship to shore mobility could be limited by strong winds and high sea states. Given favourable conditions a simultaneous two company helicopter lift would be possible, while a further 2 companies and combat support could be landed concurrently using LCVPs. A rapid build-up of combat elements can be achieved by using helicopters and landing craft, to establish a strong bridgehead. This is judged adequate to counter the likely response of Argentine quick reaction forces.

Landing Options

42. With the exception of the immediate area around Stanley and other areas within the known engagement zones of Argentine artillery, unopposed landings could be achieved on both East and West Falkland. Prevailing winds and sea states are, however, likely to preclude landings on exposed western coasts. Three principal options exist:

- a. West Falkland.
- b. South of East Falkland (Lafonia).
- c. North of East Falkland.

43. West Falkland.a. Advantages.

- (1) Minimal opposition, unopposed landing possible.
- (2) Better ground and cover for deployed troops.
- (3) Maximum distance from quick reaction forces likely to be based at Stanley.
- (4) Minimal risk of civilian casualties in ensuing operations.

b. Disadvantages.

- (1) Greatest vulnerability to mainland based offensive air.
- (2) No direct pressure on the main Argentine force at Stanley.
- (3) Subsequent move to East Falkland would be exposed.
- (4) West coast exposed to prevailing weather and much of East coast lacks suitable beaches.

44. South of East Falkland (Lafonia).a. Advantages.

- (1) Light opposition, but unopposed landing still possible.
- (2) Minimal risk of civilian casualties.
- (3) It would create slightly more direct pressure on the main Argentine force than a landing in West Falkland.

b. Disadvantages.

- (1) Cover for deployed troops is poor.
- (2) Surface movement to ground of strategic importance near Stanley constrained by a wide water gap and by the ring of hills encircling Stanley.

45. North of East Falkland.a. Advantages.

- (1) A landing closer to Stanley would be possible and would exert immediate pressure on the Argentine force both in Stanley itself and in the likely key positions on the surrounding hills.
- (2) Coup de main operations less difficult to mount.
- (3) Forces and logistic support could be concentrated close to the area of main tactical interest.

b. Disadvantages.

- (1) Unopposed landing less likely.
- (2) Difficult ground.
- (3) Tactical surprise less likely.
- (4) Argentine quick reaction forces would be closer at hand.

46. Selection of Landing Location. The final choice between the main landing options must depend, among other things, on current and detailed intelligence. Subject to this, and in purely military terms, a landing on the North of East Falkland appears most likely to achieve early and significant results.

47. The landing of a brigade does not in itself achieve the overall political aim. It re-establishes the presence of British Armed Forces on the Falkland Islands and provides the means to effect military pressure on the Argentine forces to withdraw or surrender. But a direct assault on the main Argentine force could not be conducted without the risk of major loss of life among the civilian population. Operations subsequent to a landing may have to be confined to attacks on selected Argentine positions and to special force operations. It is difficult to foresee how the Argentine garrison would react to such an attack; on the one hand their morale might collapse, on the other they might become more entrenched.

48. A corollary to the constraints on post-landing operations is that additional forces deployed would not necessarily accelerate the achievement of the ultimate objective and would greatly magnify the logistic support and resupply problem. Indeed the helicopter lift required to support a greater force in the field could limit tactical mobility to a marked degree. A decision on the commitment of 5 Infantry Brigade should be deferred, therefore, pending a decision on the timing of the assault and be reviewed in the light of the tactical appreciation at the time.

Conclusions

49. There are a number of landing sites, both in West and East Falklands, where it should be possible to achieve tactical surprise, make an initially opposed landing, and attain local superiority. The fundamental choices are to land on West Falkland Island, Lafonia, or the North part of East Falkland. The former has the least risk, but also the least impact on Argentine forces; the latter would lead to heavier fighting as the main Argentine forces were engaged. All three options are seen to be feasible in principle; and a British presence should be sustainable, albeit with some problems if operations are prolonged.

50. The aim includes the phrase "with a view to repossessing the islands". There may be political possibilities following the re-establishment of a British presence ashore; but military eviction of Argentine forces from Port Stanley itself will be difficult, even if the desire to avoid loss of civilian life and property is waived. The isolated Argentine forces may capitulate, but the outcome of the final phase is uncertain.

51. The assessments in this paper may well be affected by the long interval before landing operations become possible. If the general assessments in this appreciation are accepted, it is recommended that further detailed study of landing sites and ground operations be undertaken in conjunction with the writing of a plan by the appropriate force Commanders