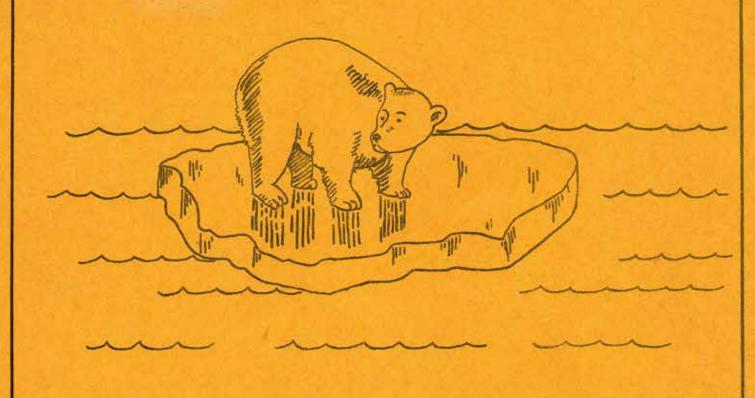


# REPORT OF MARINE OBSERVERS TASK FORGE EIGHTY



JULY - SEPTEMBER - 1948



From:

### MARINE OBSERVERS TASK FORCE EIGHTY

7 October, 1948.

Lieutenant Colonel J.F. Mallard, U.S. Marine Commandant of the Harine Corps. To : (1) Commanding General, Fleet Marine Force, Via: Atlantic. (2) Commander, Task Force Tighty. (3) Commander-in-Chief, U.S. Atlantic Fleet. (4) Chief of Naval Operations. Report of Marine Observers, Task Force Eighty. Subject: (a) CMC ltr ser 03Al3848, dtd 7Junu8, to Reference: CGFIFLant. Enclosure: (A) Eight copies of subject report. In accordance with the provisions of reference (a), the enclosed report is submitted. The following Marine Corps officers were assigned temporary additional duty with Task Force Eighty: Lt-Col J.F. Mallard, USLC. Major W.J. Howatt, USIC. Major H.E. Cook, USLC., (MA). Captain Rufus B. Thompson, Jr., US.C. It is requested that distribution of Enclosure (A) be made as follows: Commandant of the Marine Corps.... 3 copies Chief of Naval Operations.....l copy Commander-in-Chief, U.S. Atlantic Fleet.....l copy Commander, Task Force Eighty .....l copy Commanding Officer, USCGC Eastwind.l copy Commanding General, Fleet Larine Force, Atlantic.....l copy

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### INTRODUCTION

An official report will be prepared by Commander Task Force
Eighty after all phases of the operation have been analyzed, and the
necessary tests completed. This report will include findings and recommendations based on the data collected by the various observers and
agencies present during the operation. Copies of this report will be
furnished to the Commandant, Marine Corps.

The Marine Corps observers have attempted to confine this report to the information requested by the Commandant, Marine Corps in his confidential letter serial number 03Al3848, dated 7 June, 1948, realizing that other phases of the operation will be covered much more adequately in the Task Force Eighty report.

The photographs included in this report have been provided through the cooperation of the Task Force Commander, and copies of all photographs taken on the operation are available and on file at the Bureau of Aeronautics, Navy Department, Tashington, D.C.

The Parine Corps observers wish to thank the Commander and all members of Task Force Eighty for the splendid cooperation and assistance which was at all times extended to them.

### CONFIDENTIAL

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### SECTION I

### MARRATIVE

The Parine Corps officers ordered to temporary duty with Task Force 80, departed Norfolk, Virginia on 9 July, 1948, and reported to Commander Task Force 80 at the South Boston Haval Shipyard on the same date. Lieutenant Colonel J.F. Mallard and Captain Rufus B. Thompson, Jr., were assigned to the USS Edisto, and Major ".J. Mowatt and Major H.E. Cook were assigned to the USCGC Eastwind. Upon reporting to Commander Task Force 80, no additional duties were assigned.

Task Force 80, consisting of the USS Edisto (AG-89), the USCGC East ind (TAG-279), and the USS Tyandot (AKA-92), under the command of Captain George J. Dufek, USN, was organized in July, 1948, and assigned the primary mission of the resupply of the established Arctic Teather Stations located in the Canadian and Greenland Arctic regions. The secondary missions of the task force were as follows:

- (a) Ice breaker reconnaissance, as practical, in the areas where the establishment of satellite weather stations are planned.
- (b) Training personnel, testing ships, and materiel in summer Arctic conditions.
- (c) Observations of geographical, navigational, and aviation interest.
- (d) Recording detailed hydrographic, meteorological, and electro-magnetic propagation data.
- (e) Conducting such other scientific investigations and services as directed by Chief of Naval Operations.

COMPTHETTI

The USS Edicto and the USCGC Castwind sailed independently from Boston as echeduled on 15 July, 1948, with the USS Tyandot getting underway on 16 July, 1948.

The USS Edisto sailed for Godthaab, Greenland, and arrived there on 21 July, after an uneventful trip. Diplomatic courtesies were exchanged by the Danish Governor of Greenland, the American Consul, and the Tack Force Commander. The USS Edisto departed Godthaab on the same evening and arrived at Holstenbarg, Greenland the following morning.

After only a few hours at Holstenbarg the Edisto continued its voyage to Thule, Greenland, where the Edisto, Eastwind, and Typendot rendervoused in North Star Bay, on 24 July. Due to diplomatic reasons, observers were not allowed ashere at either Godthaab or Voictenbarg.

Dundar Harbor, Devon Island, and anchor was dropped at Dundas Harbor on 23 July. The Marine observers aboard were permitted to go ashore for approximately four hours. Major Cook was afforded the opportunity of a helicopter flight to observe beach areas and general terrain features. The area observed during this flight was from Croker Bay to the eastern side of Johnson Bay, a distance of about eight miles. Major Cook was then put a hore to join Major Mowatt who was surveying the beach and inland areas of the peninsula which separates Dundas Harbor and Johnson Bay. The Marine officers returned to the East and by LCVP about 2030.

Upon arrival at Thule, the continuous daylight during this time afforded the opportunity of unloading supplies on a twenty-four hour basis from the 'vandot for the ceather station established there, —ith beach parties furnished by the Edisto and the Eastwind Torking on trelve hour shifts.

On 25 July, the Parine observers on the Edisto spent the entire

day ashore. They hiked approximately six miles inland from the weather station at Thule, covering the western side of the valley on the first leg. On the return leg to the beach, the area along the eastern side of the valley to the airstrip was covered. Again on 26, 27, and 28 July, the Marine observers on the Edisto went ashore to check the beach area, the unloading of cargo, the type of housing used at the weather station, and the suitability of the beach for an amphibious landing. Lieutenant Colonel Mallard made an aerial recommence flight by holicopter on 27 July, covering the entire potential and area.

On 26 July, both Morine officers assigned to the Eastwind were granted a helicopter flight for familiarization of the local area, and were later but ashore by helicopter near the Danish softlement. An observation of the area from this point to the airstrip was made, wellning from the settlement to the high ground and down across the law area to the mather station, thence to the airstrip. Both officers returned to the Eastwind early that evening.

On 27 July, the Cargo Carrier II-29-C aboard the Eastwind was taken ashore by Majors Howatt and Cook and a Coast Guard enlisted engineer. The Cargo Carrier was taken ashore for the purpose of testing the general operating conditions and proceeded ashore under its own power, a distance of about one mile from ship to shore. However, it was returned to the Eastwind by LCVP due to a navardous surf and sea.

Observers were not allowed to go ashere on 29 July, due to a heavy fog.

On 30 July, the East and Edisto weighed ancher a proceeded independently to Smith Sound and rendervoused there on 31 July.

Helicopters were used on 31 July to perform reconnaissance missions and determine leads through a heavy ice pack. They are used

thereafter then ice conditions were sufficiently adverse, and performed an extremely valuable service.

The Eastwind fouled its bow propeller in heavy ice during the afternoon of 31 July, as the Edisto proceeded independently to Cape Sheridan, Ellesmere Island. The Edisto, while breaking through ice near Cape Sheridan on the morning of 2 August, lost its port propeller, so a planned further advance northward was halted at this point. During the afternoon the Marine observers from the Edisto went ashere to select a beach to land weather station equipment. The time ashere was limited to two hours and it was impossible to reconnoiter much of the inland area. The Eastwind joined the Edisto in the early evening of 2 August, but due to a heavy ice pack closing in on the anchorage in the Dumb-Boll Bay area, both ships were forced to weigh anchor and proceed south to Lincoln Bay, Ellesmere Island.

On 3 August, while at anchor in the Lincoln Bay area, supplies were transferred from the Edisto to the Eastwind. The destination of those supplies was Cape Sheridan and consisted of material for a weather station to be erected there in the future.

On 6 August, the Eastwind was successful in gaining entrance to Cape Sheridan - Dumb-Bell Bay area, and unloading the supplies. The larine officers were permitted to go ashore, but were requested to remain in the immediate beach area in order to expedite departure of the Eastwind in the event the ice pack moved in to the anchorage.

The Edisto and Eastwind departed from the Lincoln Bay area late on 6 August, and until the ships rendezvoused off Dundas Harbor on 9 August, no opportunity was afforded to any of the Harine observers to go ashore at the short stops made at Fort Conger and Bache Peninsula, Ellesmore Island.

GOTTO THE PARTY

Due to the damage the Edisto suffered on the trip to Cape Sheridan, she was ordered to Boston on 10 August, for repairs and at this time the Parine observers were assigned to other ships. Lieutenant Colonel J.F. Mallard was ordered to the Eastwind, and Major W.J. Howatt, Major H.E. Cook, and Captain R.B. Thompson, Jr., were ordered to the "yandot. The Eastwind then visited Pond Inlet and Slidre Bay.

The Wyandot proceeded to Resolute Bay, Corrallis Island and on 12 August, the three Harine observers about were permitted to go ashore for a period of about three hours.

On 1h August, Majors Howatt and Cook, and Captain Thompson went ashore with a Cargo Carrier M-29-C, made available to them by CTF 80, for use as transportation and shelter, and remained ashore until the afternoon of 16 August.

On 20 August, Lieutenant Colonel Hallard and Hajors Howatt and Cook went ashere again utilizing the Cargo Carrier H-29-C. An arc of approximately ten miles radius from coast to coast from the airstrip has surveyed for prospective maneuver areas. A total of approximately one hundred and ninety miles was covered by use of the Cargo Carrier.

An ice pack which moved into the bay area on 21 August made a return trip to the ships impossible at that time.

On 24 August, the anchorage was cleared of ice by a slight shift of the wind, and the three Marine observers were evacuated by helicopters and returned to their respective ships in mid-afternoon. Ice conditions made it impossible to unload the 'yandot by small boats, and for the Marine observers to return ashore until 2 September.

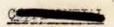
On 2 September, ice conditions in Resolute Bay fore sufficiently clear to allow the 'yandot to unload utilizing LCH and LCVP landing craft. Majors Howatt and Cook, and Captain Thompson acted as the beachmasters

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for this unloading operation which was completed at 0430, 5 September. On this date, Licuterant Colonel Hallard and Captain Thompson were reassigned to the Edicto which had returned from Boston, and Majors Howatt and Cook were assigned to the Eastwind. During the day, Captain Thompson assisted in cargo handling operations ashore.

At 2230, 5 Soptember, the Edisto left Resolute Bay and proceeded to Bridgert Inlet, Melville Island, arriving there on the evening of 6 September. A cache of supplies were unloaded here for a prospective meather station, and the Edisto departed therefrom in the morning of 8 September. An attempt to reach Prince Patrick Island was rendered impossible due to extremely heavy ice conditions, the Edisto having reached Cape Dundas, Melville Island on the evening of 8 September. The return to Resolute Bay was accomplished on the evening of 12 September, and on 13 September, the Marine observers abourd the Edisto embarked on aircraft, returning to Morfolk on 16 September, via Fairbanks, Alaska, Scattle, Moffat Field, California, and Mashington, D.C.

Leaving Resolute Bay on 5 September, the Eastwind convoyed the Tyandot to ice-free waters in Baffin Bay. She was then ordered to reconnoiter a route through Prince Regent Sound, Heela and Fury Straits, Foxe Basin, and Hudson Straits to Davis Straits. During this trip, she was released by CTF-80 and ordered to return to Boston, arriving there on 19 September. The Marine observers aboard were released then and reported to Morfolk on 20 September.





### SECTION II

GENERAL ACCOUNT OF DUTI'S PERFROITED BY THE ATTACHED MARINE OBSERVERS IN COMMECTION WITH THE ASSIGNED OBJECTIVES OF THE TASK FORCE

The Marine officers were not assigned, or rather ordered, to any additional duties. Occasions did arise where the services of the Marine officers could be utilized and their services volunteered as the occasions arose. The Marineofficers were assigned as officers—in—charge of beach parties, furnished by the Eastwind for unloading supplies from the Wyandot while anchored in North Star Bay at Thule, Greenland. On 29 July, Majors Howatt and Cook were in charge of a beach party to salvage dunnage from the beach areas and also from the other ships of the Task Force.

Another occasion for the services of the Harine officers crose on 3 August, while at anchor in Lincoln Bay, and Major Howatt supervised the transferring of supplies from the Edisto to the Eastwind.

On 2 September, when the ice cleared sufficiently from Resolute Bay, it was possible to continue the unloading of the Myandot, which was completed on 5 September. Cargo which had been transferred from the Myandot to the Eastwind on 1 September, was also unloaded during this period. Majors Howatt and Cook, and Captain Thompson acted as the beachmasters for this operation.

The Phrine observers were not assigned any duties while the Task Force was underway. All observers and passengers were assigned to abandon ship stations, but otherwise did not participate in the regular ships drills and exercises.

The Marine observers were permitted at all times to frequent the bridge of the respective ships, and every effort was made by the Tack Force personnel to acquaint all observers on board with the problems encountered on an operation in Arctic regions.

COMETABLE

### SECTION III

SPECIAL ROCOL ENDATIONS AS TO PARTICULAR POINTS TO BE EXPHASIZED IN TRAINING FOR OPERATIONS IN THESE AREAS

The weather during the summer months of July and August, in the areas covered by Task Force 80, closely approximates the normal uniter climate encountered in such temperate areas as Camp Lejeune, North Carolina. The temperature was generally in the range of thirty and low forty degrees Farenheit, with occasional drops into the high twenties. There were frequent fors and some snow and rain, however the total precipitation (including rain and snow) in these areas averages only about three to four inches annually. The areas near the coast are generally clear of snow except for a short three to four hour period following a snowfall. Weather conditions were quite changeable on very short notice.

while staying ashore for continuous periods of three or four days and nights, the observers were adequately protected in the regular issue of the "Cold "eather" type clothing issued through regular laring Color supply agencies.

Training for operations under Arctic conditions has been the subject of extensive research by the United States and Canadian Armies, and all necessary reference material on the subject can be readily obtained from these sources, as well as from reports of the numerous other services and agencies conducting similiar research programs.

However, personnel should be thoroughly indoctrinated in map reading, sketch making, elementary aerial photographic interpretation, and direction finding by means other than the compass. Due to the near proximity of the magnetic north pole, all compasses are subject to extensive

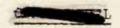
error, and in the opinion of the observers, a compass in the hands of only semi-skilled personnel is unserviceable and inaccurate.

Because of the complete lack of vegetation as known in temperate climates, all personnel should receive intensified training in comouflage principles, and the utilization of available natural cover and concealment. Camouflage in these areas must stress dispersal rather than concealment.

Due to the lack of normal soil, the ground surface being mainly rough stones and gravel with an abundance of musics (i.e., swampy
bog areas), drivers of both wheeled and tracked vehicles will require
additional training in the proper driving and maintenance of their
respective type vehicles under these conditions. Maintenance of vehicular transportation will be a major problem in this area.

In regards to aviation units required for operation in those areas, the recommendations enumerated below are opinions which have been acquired from U.S. Air Force pilots operating in this area. Undeabtedly, there are many other points to be emphasized, but due to the few contacts with pilots and since no aircraft were available to the Marine Corps officers, it was impossible to gain information through actual experience. However, it is believed that the items below are of prime importance to pilots who anticipate flying operations in the Arctic region:

- (a) All aircraft sent to the Arctic be equipped with radar, whether they be carrier or land based.
- (b) Thorough indoctrination of pilots in the use of de-icing equipment and the oil dilution system.
- (c) All pilots be instrument qualified within the past three months in type aircraft to be utilized.



(d) Pilots be thoroughly briefed on the characteristics of the magnetic compass and the large errors which result due to flying near the magnetic pole. (This was particularly noted at Devon Island. A turn of ninety degrees in a helicopter resulted in no change of magnetic compass heading. For this reason, great care should be taken to insure that the gyro compass is operating at maximum officiency.)

Then the occasion does arise to order single engine aircraft into the Arctic regions, it is the observers! opinion that the trained personnel of the "all weather" squadrons would be the better qualified.

Other than the numerous fog banks and the magnetic compass errors encountered, it is believed that aircraft operations during the summer months are parallel to the winter months encountered on the northeast coast of the United States.

The training of personnel for the operation of helicopters should keep pace with other phases of Marine Aviation. The two-seater Bell helicopters employed by the Task Force were perhaps one of its most valuable units. The helicopters nade flights which consisted of reconnaissance and photography of areas visited, aid to ship navigation by determining leads through ice packs, forrying supplies and personnel to and from the shore particularly at times when ice conditions precluded the use of landing craft, and many other tasks too numerous to mention.

Operations of air and ground forces in the Arctic area in summertime would involve no great change in present training curricula and techniques, due to the comparative mildness of the climate at this time

of year. Terrain, ice, and visibility conditions constitute the main problems to be encountered in use of present techniques.

### SECTION IV

ANY RECORDENDATIONS AS TO CHANGES IN TACTICS OR TECHNIQUES LIKELY TO BE NECESSARY TO SUCCESSFUL OPERATION IN THESE AREAS

Present basic tactical and logistical doctrine is entirely sound and adequate for operations in Arctic <u>summer</u> conditions. Due to the lack of vegetation and works of man, the very few strategic localities widely scattered over a very large expense of this area, and the twenty-four hour light, it is considered that tactical doctrine in this area would involve fast moving operations against limited objectives. Basically, a concept of securing a defensible Force Beachead Line around strategic localities such as weather stations, cirstrips, and useable harbors. The actual operations would themselves consist of fast, highly organized, well planned amphibious assaults including normal dir and naval gunfire support, and/or airborne or cir-transported operations, launched particularly against key terrain features because of the lack of vegetation and works of man, the securing of a beachead line, and the defense of the area from land, air, airborne, and/or amphibious assaults launched at the beachead line or the beach area.

There are no native materials present in this area for use by a landing force as supplies, equipment, or construction material, except rock and gravel which generally occurs in large amounts. The large amount of cargo required to support the few personnel living year round at the weather stations well illustrated the extreme impracticability of a force the size of a reinforced battalion landing team, or even reinforced infantry company remaining in this area at any time except during the summer. The ruggedness of the soil cover and terrain makes movement by ground

units very difficult and tiring in these areas. The extremely severe weather conditions encountered in this area any time other than during the fer summer months, would render any sort of operations by friendly or enemy forces extremely impractical.

Due to the unpredictable conditions of the wind, ice, and fog, unloading from ship should be conducted most expeditiously. Alternative resupply and evecuation by air would have to be planned, and instantly available, particularly in event of ice or weather a aditions delaying or randoming impossible ship movement as occured at Resolute Bay. Here the unloading of supplies for the weather station from the lyandet was randomed impossible, due to the adverse ice and weather conditions for a period of nearly three weeks. Such conditions might well preclude the use of normal ship to shore technique, and availability of naval gunfire and air support. This would in turn necessitate a disproportionate increase in the amount of artillery support provided due to the unreliability of air and naval gunfire support.

The lack of vegetation and general unavailability of cover and conscalment in this area, would necessitate continuous and increased air coverage and anti-aircraft and radar varning protection to protect the landing force and its naval components. The importance of the use of aircraft in offensive, defensive, reconnaissance, and supply missions, as well as the air transportation of the troops in this area, cannot be over-emphasized. For operation in Arctic areas during the summer months, it is believed that the present air tactics and technique are adequate and proper. Only the actual experience of operating in these areas could determine the changes which might be necessary. In addition to the many tasks performed by the helicopters, it is suggested that the helicopter be given an opportunity to display its great suitability for

short range aerial reconnaissance and artillery spotting.

In addition to the previously mentioned air support, the articlery, tanks, engineers, and an augmented shore party would be extremely valuable and necessary supporting elements to the ground forces involved. In spite of the rugged soil cover, muskeg, and fairly rugged terrain involving extensive maintenance problems, tanks would be a very efficient reason in this area.

Construction of normal individual hasty and unit deliberate fortifications would be rendered extremely difficult by the perma-frost existing from eight to twenty-four inches below the ground surface.

Personnel would have to be given thorough indestrination in dispersal and the use of rocks to make built-up shelters.

### SECTION V

SPECIAL RECOVE ENDATIONS FOR MECESSARY EQUIPMENT, SUPPLIES, AND CONSTRUCTION HATERIAL, OVER AND ABOVE PRESENT ALLO THESE, REQUIRED BY A BATTALION LANDING TEAM FOR OPERATIONS IN THIS AREA

As indicated in the previous section, summer Arctic operations involve a greater logistical than tactical problem, because of the complete lack of any native materials except rock and gravel, and the adversity of climate, ice, terrain, and soil cover.

"Cold "cather" type clothing as issued to the observers was completely adoquate for climatic conditions encountered during the Arctic summer months. It is, however, recommended that the article, "vest, alpaca or pile lined", be lengthened to reach the hips, to protect the larger spinal regions. Heated facilities for galleys, heads, and bathing should be made available. Heated food cools very quickly, and distribution in the chow line must be rapid and to relatively small numbers of personnel. The small portable gasoline cooker should be issued extensively to personnel, probably on the basis of not less than one per three mon, for the prupose of heating energency canned rations and washing "ter thich is vitally essential in this climate. Cold rations other then for the noon meel would be unsatisfactory in this climate. The above suggestions are made from random observations cathered by the observers in the course of their activities ashore. It is considered that complete and comprehensive information on this subject can be readily obtained from the various reports and texts published by other services and agencies.

A Cargo Carrier II-29-C was extensively utilized by the observers at Resolute Bay and Thule, and proved to be exceptionally well adapted to this terrain and climate. It has sufficient power to traverse all

the terrain encountered. Due to the rough rocky soil cover encountered, the track and suspension system must be strengthened. This vehicle would be far superior to theeled vehicles for cross-country purposes, particularly reconnaissance and the supply of forward elements, and it is recommended that they be extensively utilized in this area. An incrossed allowance of tractors with dozer blades should be provided. Inbilo cranes (i.e., "cherry pickers") should be made available to expodite the unloading of supplies at the beach. Sheds, skids, and reinforced pollets will also be necessary in increased numbers for the movement of supolies and material. Artillery units should be furnished with self-propelled weapons due to the necessity for dispersal and rapid change to alternate positions because of the extreme lack of natural concerlment and the difficulty of digging emplacements due to permafrost. In addition because of the above, extensive supplies of demolitions materials must be made evailable. In additional amount of tentage and heaters would have to be made available for Command Post, medical, and maintenance facilities, as even in the summer in this area, personnel could not work in unheated quarters "ithout gloves and heavy clothing. Maintenance supplies, particularly for tanks and vehicular transportation would have to be augmented due to the ruggedness of the predominately rocky soil cover. Tank retrievers should be available to remove the tanks and vehicles which will undoubtedly get mired in some muskeg areas. Due to the complete lack of native naterials except rock and gravel, all supplies and construction materials desired must be provided by the landing force. It is recommended that for operations in this area, tentage and ponches be made with one side white, and the other brom.



### SECTION VI

## OBSETVITIONS OF POTENTIAL LANDING DEACHES AND TRAINING ITES FOR A PHIBEOUS TRANSCISES UP TO DIVISION LEVEL

Of the areas visited by the observers, only two were found suitable for this purpose, namely Resolute Bay, Cornvallis Island, and Thule, Greenland. Of these two, Resolute Bay presented the best area, Thule, while offering suitable terrain and a shall red bay, night be unavailable due to diplomatic reasons.

The Cape Sheridan area on northeast Ellesmere Island, offered good terrain, but ice difficulties in the passage to the area and lack of a protected harbor (see CTF 30 Report), would render it very impractical to attempt the movement of anything but ice breakers to that area, thereby precluding the transportation of a landing force in normal shipping. No airstrip is available there at the present time.

Dundas Harbor, Devon Island, contains insufficient useable ground area for consideration of its use for maneuvers by any size landing force.

Resolute Bay is ideal for use as a division maneuver area, in that it provides an all weather airstrip (6000 feet long and 300 feet wide), a good beach, sufficient water resources, and very favorable terrain embodying all the Arctic types. It is believed that this area has already been aerial mapped. The climate, terrain, snow, soil, cover and concealment, and ice conditions all typify those to be found generally throughout the Arctic area during surmer months. (See detailed report on Resolute Bay in Appendix "A").





### SECTION VII

The observers believe that indoctrination in summer Arctic conditions should be made available to more Marine Corps ground and air officers because of the striking difference between summer and winter Arctic conditions. However, it is not considered advisable for one group of observers to remain with the Task Force throughout the entire period of its operations. Rather, it is considered in a desirable that three groups of observers be attached to the Task Porce at alternate intervals. Sufficient importantion can be obtained in a period of three weeks if the elsern of remain ashore the autimut available time at all areas visited by the Pask Force. It is currested that arrangements be made for a Cargo Carrier 1-29-C to be available for use of the observers ashare, as otherwise it would be impossible to cover large areas such as the Resolute Bay area, and study the different types of terrain and soil cover. It is suggested that, if possible, the Exrine Corps send an element of the Marine transport squadrons to the Marctic during the summer months for a period of about three weeks for indectrination. The Air Force policy of detailing certain pilots to the Arctic regions for indectrination while accompanying other plane crew is considered to be a valuable nothed which should be adopted by the Marine Corps.

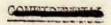
The present basic air and ground tactical and logistical doctrine for ambibious operations is applicable for summer Arctic operations, and the observers recommend that a battalian landing team with its normal reinforcements including one VIF(n) "all weather" squadron and several helicopters be sent to the Resolute Bay area for maneuvers. It is

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emphasized that due to the adversity of the climate and the terrain, the best trained and fully established force available be sent. The meneuver ashore should be of short duration (seven to ten days maxinum), preceded by a period of acclimation of about one rocks duration at a location south of the arctic Circle, possibly in Labrador. All personnel, particularly non-commissioned and junior officers, should be thoroughly indoctrinated in the plan and purpose of the maneuverso that the interest and assistance of all personnel can be obtained inspite of the odverse climatic conditions. Since operations in this area do not involve any changes in basic tactical or logistical doctrine, and involve mainly the application and adaptation of personnel, equipment, preventive maintenance procedures, and present tactical and logistical doctrine to summer Arctic conditions, particular emphasis in the manouvering units' reports should be placed on suggestions and corments offered by non-commissioned and junior officers. Due to the climatic and terrain we blens involved, the naneuver must be thoroughly organized and planned. All details should be considered to insure the maxi results being obtained from a minimum time ashore. This planning must not only include the landing force elements, but should apply ec willy to the air and naval units due to the extremely variable weather and ice conditions.

Experimental operations should be made dealing with the feasibility of conducting airborne and/or air-transported operations in place of, or supplementing normal amphibious operations in this area. Normal amphibious tectical and logistical doctrine is firm and perfectly capable of application to summer conditions in this area although certain techniques will have to be altered due to climate, visibility, terrain, and ice conditions; particular emphasis should be laid on the foundation of a Farine Corps tectical and logistical doctrine for airborne and airtransported operations in this area, as well as operations dealing
with offensive, defensive, reconnaissance, and supply missions by Marine
Corps air units. Natural conditions in this area may well indicate
the added efficiency of air over that of normal amphibious tactics and
techniques.

Strategic considerations in this area will be mainly tempered by logistical considerations. The problem of supplying a force in this area is a formidable one. It would seem that installations in this area because of the logistical problems involved will be mainly radar early worning and weather stations, with troop operations restricted to raids on strategic localities and protection of such localities in the survey months by occupation.



APPENDIX "A"

DESCRIPTION OF AREAS

VIGITED BY MARINE OBSERVERS



### RESOLUTE PAY.

COMMENTALIS ISLAND, CANADIAN NORTHWEST TERRITORIES

### 1. Introduction.

Resolute Bay is located on the southern coast of Cornwallis Island, Canadian Northwest Territories. The USS Wyandot anchored at Resolute Bay on 12 August, to unload general cargo supplies for the established weather station and also to put ashore a quantity of aviation gasoline and motor fuel. The unloading operations were scheduled for a ten day period, but due to inclement weather and ice conditions, the unloading was not completed until 5 September.

The Marine observers were ashore at Resolute Bay for a total period of about eight days, which included overnight camps on both occasions. The Marine observers were afforded ample opportunity to familiarize themselves with the area while utilizing the Cargo Carrier M-29-C.

### 2. Maps and Charts.

(a) Recommaissance Survey, Canada, Cornwallis Island,
Resolute Bay, Task Force 68, Scale 1:10,000.

Note: This is a photostatic copy of a chart
compiled by Task Force 68, original believed to be in possession of the U.S.



RESOLUTE BAY, CORNWALLIS ISLAND.

Hydrographic Office,

(b) National Topographic Series, Canadian Hydrographic and Map Service, Aeronautical Edition, Wellington Channel Sheet, Northwest Territories.

### 3. Hydrography.

(For detailed information see pertinent Hydrographic Office charts and CTF-80 report.)

harbor unuseable except for small landing craft (ICM, ICVP).

Its depth is very unpredictable and changeable due to the extreme variance of ice conditions. Small bars appear frequently for a short time and then disappear. Although there was little evidence of offshore rocks, a few do exist at shallow depth, and these coupled with the uncertain bar conditions necessitate the surveying and marking of a channel for use of landing craft, thereby restricting the size of the useable beach area. Although LST's probably could not enter the bay in its present hydrographical state, they could ground on the bar that now runs across the entrance of the bay, and unload via a pontoon cause-way.

The roadstead off Resolute Bay while useable by large



RESOLUTE BAY, CORNWALLIS ISLAND.

ships, requires that a constant lookout, radar search, and aerial ice reconnaissance be maintained to guard against damage to shipping because of the rapid and very unpredictable movements of ice.

### 4. Leaches.

The Resolute Bay weather station and airstrip has but one useable beach in its near vicinity, that being the beach within Resolute Bay. Allen Bay to the west of Resolute Bay is approximately two miles from the northwest end of the airstrip. However, it has not been sounded, and the observers noted that ice conditions there were generally less favorable than those off Resolute Bay. On visual inspection from the beach, the bay seemed to have a shallow gradient.

The usually accessible beach at Resolute Bay is approximately five hundred to six hundred yards long. However, the variance of off-shore hydrographical conditions necessitating the marking of channels for landing craft greatly restricts the useable beach area.

The beach itself is about three to five yards wide, terminating in a terrace approximately three to four feet high. A similar alternating terrace and shelf condition RESOLUTE BAY, CORNWALLIS ISLAND.

then extends to the high ground which is approximately one hundred and twenty-five feet above sea level, and a horizontal distance of about one hundred and fifty yards from the water line.

The beach is composed of fairly hard packed, large gravel. A bulldozer would be necessary to open roadways through the first terrace for wheeled vehicles. Further cutting of the remaining terraces is desireable but not absolutely necessary. The gravel will easily support all types of vehicles, thereby offering easy routes of egress off the beach and to the weather station and the high ground surrounding the beach area.

See Appendix "B" for photographic coverage of beach area.

### 5. Terrain.

The actual soil content found at Resolute Bay is very similiar to that of Dundas Harbor. (See Appendix "A").

A six hundred to seven hundred foot flat topped hill range extends in a northwesterly direction (all directions are based on true north) inland from the beach for approximately five miles. The airstrip, elevation three hundred and forty feet, and weather station, elevation one hundred and thirty feet,



RESOLUTE BAY, CORNUALLIS ISLAND.

are located on low ground west of this range. The airstrip is situated approximately three miles inland in a northwesterly direction from the weather station. An improved one way road connects the two areas, being laid over gently rolling ground that rises to the north.

A lake approximately five thousand feet in length is located immediately west of the weather station, its long axis running in a generally north-south direction. This lake is used as a landing strip by aircraft when frozen over in late fall, winter, and early spring.

The area from the southwest corner of Resolute Day west to Cape Martyr rises generally to a high plateau which rises fairly steeply from the water to a height of about six hundred feet.

From the airstrip west to the Allen Bay area, and the area from Cape Martyr north to Allen Bay, the terrain is generally rolling with a low gradient except for one or two low flattopped ridges running in a westerly direction to the sea. There are numerous small lakes and muskeg in this area.

The area east of Resolute Day is a steep sided plateau about six hundred and fifty to seven hundred feet in height.

This high ground continues northwestward, a distance of about



RESOLUTE DAY, CORNWALLIS ISLAND.

ten miles, joining the high plateau which is about ten or fifteen miles inland, and usually snow covered. This inland plateau, though cut by a few east-west valleys, is the high ground of southwest Cornwallis Island, and appears to be of large area. It slopes gradually off in a westerly direction to Decher Day-Claxton Point area, taking the form of wide gently sloping plains, deeply cut by east-west tending stream valleys. This plateau would mark the probable northern limit of the proposed maneuver area.

A flat-floored valley about one mile in width lies between the two plateaus that run northwest from Resolute Pay. Its southern terminus is a relatively high plateau, about two hundred and fifty feet in elevation, but it is accessible from the northeast side of the beach. This valley has fairly steep east-west sides at its southern end, with many steep gorges and contains numerous lakes, muskeg, and small ravines containing streams. It widens to the north, and reaches the large plateau mentioned in the preceding paragraph.

North and northeast of the airstrip is a wide rolling plain that on the west slopes gradually to Allen Bay and extends north to the predominate high plateau that would be the

LESOLUTE BAY, CORNWALLIS ISLAND.

probable northern extent of the maneuver area. This area. coupled with the valley mentioned in the paragraph above, is recommended as an outstanding location for the conduct of maneuvers. It contains all types of ground cover noted in Arctic areas including muskeg, gravel, sharp rocky limestone outcrops, and lakes. There are also some deep ravines (stream valleys, twenty to fifty feet in depth running in a generally east-west direction) at its northern end. These ravines do, however, have tapering sides at a few locations which allow crossing for vehicles. This plain, owing to the terminus of the plateau that runs northwesterly from immediately east of the airstrip, joins with the valley mentioned in the preceding paragraph and continues as a wide, gentle sloping plain to the high central plateau. The terrain in this plain affords excellent observation. A two hundred foot hill located about two miles north of the airstrip affords complete observation of the area and would make an outstanding observation post.

The Marine officers observed the entire area mentioned above utilizing a Cargo Carrier M-29-C, and believe it to be an exceptional area for any summer maneuvers which would be conducted in the Arctic area. All types of Arctic terrain,

AMERICAN PLANS

RESOLUTE BAY, CORNWALLIS ISLAND.

soil, vegetation, and weather will be encountered by units operating in this area. The entire area, because of the fine observation it affords and its many terrain compartments, would provide exceptional firing ranges for all the weapons used by the Marine Corps.

### 6. Vegetation.

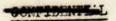
The vegetation is composed of the small flowers and moss, which are common in the Arctic, and is located generally near the numerous small streams and lakes, and in the muskeg areas. However, the soil is very fertile, as the small flowers dot the rocky areas in each place that soil is available.

The beach areas are composed of "shingle" (i.e., loose slate forming coarse gravel), and is barren of vegetation.

For all practical purposes, the description of vegetation on Dovon Island is equally applicable to the Resolute Bay area, as well as the other areas visited by the observers.

### 7. Climate.

It is believed that a review of the weather conditions which existed between the arrival of the Wyandot on 12 August and the weather subsequently encountered will clearly illustrate



RESOLUTE PAY, CORNWALLIS ISLAND.

the general conditions which are prevalent in the Arctic area at this time of year. On 12 August, the temperature was in the high forties, with the sun shining brightly, and visibility unlimited. This favorable weather continued only for the next twenty-four hours. From 14 August until 20 August, very little unloading could be accomplished due to rain, snow, high winds, pack ice, and rough seas, with the temperature occasionally dropping into the twenties. On 21 August, an ice pack, which was blown into Resolute Bay and Barrow Strait, halted all unloading operations. The high winds, with gusts up to fiftyfive miles per hour continued to pack ice in the bay area and the heavily packed ice prevented the LCM's from returning to the Wyandot. The ice remained in the bay until 2 September, and unloading was completed on 5 September. With few exceptions, rain, snow or fog was a daily occurrence, and would restrict the maximum use of air support for ground operations.

### 8. Population.

The personnel at Resolute Bay consisted of a member of the Royal Canadian Mounted Police, the weather station personnel who are permanent employees on a yearly basis and a detachment of Air Force engineers, consisting of four officers and fortyRESOLUTE BAY, CORNWALLIS ISLAND.

four enlisted, who are engaged in airstrip construction during the summer months and will be returned to their permanent base in October.

The general area of Resolute Bay is frequented during the winter months by Eskimo hunters who cross from island to island on the ice pack.

9. Photographic Coverage.

See Appendix "B".

## 10. Summary.

Of the areas visited by the Marine Observers while with Task Force 80, it is believed that the Resolute Bay area is typical of most Arctic regions in which amphibious operations could be conducted. The area embodies most types of climate and terrain which were observed during the operation. The six thousand foot airstrip available further auguments its desireability.

The beach area is adequate and could probably accommodate maneuvers up to division level. The rolling plains and valleys to the north would afford excellent maneuver area and prominent terrain features for observation.



RESOLUTE BAY, CORNWALLIS ISLAND.

The area is more easily accessible to amphibious forces than other areas visited.

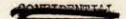
It is believed that the Resolute Fay area has been subjected to aerial photographic coverage by the U.S. Air Force. If maneuvers are contemplated in this area, it is recommended that a large scale aerial map, and a topographic battle map, scale of 1:25,000, should be provided.

# CAPE SHERIDAN-DUMB BELL BAY AREA ELLESMERE ISLAND, CANADIAN NORTHWEST TERRITORIES

#### 1. Introduction.

The Cape Sheridan-Dumb Bell Bay area is situated in the northeast portion of Ellesmere Island, in the Canadian North-west Territory.

On 2 August, 1948, the USS Edisto, and the USCGC Eastwind arrived at an anchorage in ice free water a few miles north of Cape Sheridan in the Dumb Bell Bay area. The Edisto having arrived earlier, started to unload the supplies which were destined for the prospective weather station at Cape Columbia, but due to ice conditions rendering passage to Cape Columbia too difficult, it had been decided to leave the supplies at this area. However, a few minutes after the arrival of the Eastwind, the ice pack started to move in rapidly, and it was necessary for both ships to leave the anchorage and proceed south through the ice to Lincoln Bay. Here, the supplies for the prospective weather station were transferred to the Eastwind, but due to bad weather and ice, she was not able to return to the area until 6 August. Upon arrival off Dumb Bell Bay, the Eastwind anchored, and the two Marine observers, Majors Cook and Howatt, proceeded ashore. Due to the limited amount of time, and the necessity of quick withdrawal of the Eastwind in case of the ice pack moving in to anchorage, the observers were not allowed to leave the immediate -34-



CAPE SHERIDAN, ELLESMERE ISLAND.

beach area.

## 2. Maps and Charts.

(a) National Topographic Series, Canadian Hydrographic and Map Service, Aeronautical Edition, Markham Inlet Sheet, Northwest Territories.

## 3. Hydrography,

The hydrographic conditions encountered in this area appeared, from visual inspection, to be suitable for amphibious landings. Accurate information can be obtained from reference to the hydrographic charts used by the Task Force, and the report of Task Force 80. The possibility of the ice pack moving into the anchorage and the unpredictable heavy fogs are an ever present threat to shipping.

## 4. Beaches.

The most important beach and off-shore feature was the apparent steep gradient. The Eastwind was anchored only two hundred yards off-shore in twenty fathoms. However, with the exception of the beach area of the spit located at the entrance to Dumb Bell Bay (see "Terrain") which provided about twenty-five



Carmente

CAPE SHERIDAN, ELLESMERE ISLAND.

to fifty yards of useable gravel beach, most of the remainder of the shore line presented two or three foot mud and gravel banks at the shore line. Generally, the land rises sharply from the shore line to the inland plateau. The western side of the spit (northeast side of Dumb Bell Bay), presented a useable although fairly steep gravel beach for LCVP's which had entered Rumb Bell Bay through its mouth. It is believed that LCM r and LCT's could also utilize this area. It is assumed that hanches permitting ready egress to the plateau are available in the southwest part of Dumb Bell Bay.

See Appendix "B" for photograph coverage of beach area.

## 5. Terrain,

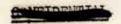
The only area visited by the observers in their alloted short stay ashore was in the immediate vicinity of Dumb Bell Bay. This bay is actually a submerged river bed (or small fjord) inland of the anchorage. It is shaped like a gymnastic dumb bell, extending inland in a westerly direction for a distance of over one mile. Its mouth is about fifty yards wide, but it immediately opens up to a width of about two hundred and fifty yards. To the north of this narrow portion



CAPE SHERIDAN, ELLESMERE ISLAND.

is a spit, about fifty to one hundred feet in elevation and measuring about two hundred and fifty yards in an east-west direction (from anchorage into bay) and about one hundred and fifty to two hundred yards in a north-south direction (from narrow entrance of bay to high ground). This spit was chosen as the site for the cache of equipment which will be utilized by U. S. Weather Bureau personnel who will land by aircraft on the toe in the bay, probably in April of 1949. With the exception of the spit, the ground rises rapidly from the coast to a height of about three hundred feet, where it lovels off into a plateau which extends westward and southwestward to a range of mountains which are approximately three miles to the southwest at their nearest point to the Bay. In this immediate area, the mountains rise to a surveyed point of seventeen hundred feet elevation.

At the base (northeast) of this mountain is a prospective area for an airstrip running in a southeast-northwest direction. This area was observed only through field glasses, and no account was available of wind conditions. Another locality offering a possibility of use as an airstrip, was the plateau immediately south of Dumb Bell Bay. This strip would have its long axis running in an approximate southeast-northwest direction,



CAPE SHERIDAN, ELLESMERE ISLAND.

The ground is composed of aggregate or glacial till on the slopes and plateaus. In some of the low spots there is mud and also muskeg.

## 6. Vegetation,

With the exception of very spurse growth of small flowers (one to two inch stems) and some moss, particularly in the muskeg areas, this erea is completely bare of any vegetation.

## 7. Climate.

The weather was similiar to other Arctic areas at this time of year. The temperature at the time of landing was in the low thirty degrees farenheit, and no great personal discomfort was noted. Fogs and snow are to be expected at any time.

## 8. Population.

There was no evidence of any habitation.

9. Photographic Coverage,

See Appendix "B".



CAPE SHERTDAN ELLESMERE ISLAND.

10. Summery.

Because of the major difficulties encountered by the ice breakers in reaching this area (see report CIF 80), it would be extremely difficult, if not impossible, to attempt landing an amphibious force in this area from the normal type vessels provided. As a weather station situated so far north, this area will no coubt be of great importance, however, it is believed that any attempt to move troops into this area could only be done efficiently by air, with small numbers being transported by ice breakers.

## POND INLET, BAFFIN ISLAND

## CANADIAN NORTHWEST TERRITORIES

#### 1. Introduction

The USCGC Eastwind sailed from Dundas Harbor, Devon Island about 0330 on 10 August to deliver a small amount of Royal Canadian Air Force supplies to Pond Inlet. After an uneventful trip through Lancaster Sound and Navy Board Inlet, the ship anchored off Pond Inlet and commenced unloading cargo. Transportation to the beach for all observers desiring to go ashore was immediately available; however, the time to be spent ashore was limited due to the expected short stay of the ship in this area. Due to the limited time available, no planned reconnaissance of the area was attempted by the Marine Observer, however, the beaches immediately adjacent to the settlement were reconnoitered as was the terrain inland for a distance of about one half mile.

## 2. Hydrography and Beaches

A beach, composed of coarse white and about one mile long ran from the village west to the mouth of a small river. This beach appeared to be excellently suited for amphibious operations, and LCVP's fully loaded had no difficulty in dropping ramps above the water line. It is believed that LCM's and other landing craft including LST's could also use this beach without difficulty. However, this could not be determined without a more thorough examination of the beach gradient. There were a few offshore rocks which would be dangerous to small boats. The immediate beach area of coarse sand and small pebbles average about fifteen yards in width, but this area was sufficiently hard-packed to support vehicular traffic of all types.

This beach appeared to be more favorable for use by an amphib-

ious force than any other encountered by the Marine observers while with the Task Force. Tide variations are not large in this area, and it is considered unlikely that surf conditions would interfere with amphibious landings.

#### 3. Terrain

About a hundred yards inland from the beach and in rear of the village rose a fairly steep terrace averaging about fifty feet in height which ran the length of the entire beach. This terrace would not offer a serious obstacle to traffic however, at there were several small draws through which vehicular traffic could pass inland. From the top of this terrace, the terrain for several miles inland is composed of low rolling hills with numerous shallow gullies through which intermittent streams flow. Most of the soil is covered with small rocks and pebbles, but would offer good traction for wheeled vehicles. There are no prominent hills in the immediate area. To the west along the coast from the village is a broad level plateau which appeared to be well suited for the construction of an airfield. The Canadian government has surveyed an airfield site in this area but no construction work has yet been attempted.

## 4. Vegetation and Climate

Vegetation is this area was typical of other Arctic areas although grass around the village was luxuriant. Although this was the
southernmost point visited by the Task Force, it was still too far north
for any type of trees or shrubs.

The climate was mild during our stay at Pond Inlet with temperature in the mid-forties; however, the area is subject to below -41-

WHET DELIVERY

freezing temperatures through the summer months. Precipitation is light throughout the year, but fog occurs frequently.

## 5. Population

The Hudson Bay Company maintains a trading post at Pond Inlet which is operated by the factor and his wife. There are also two Mounted Police stationed here. In addition, there are several Eskimo families living within the village and surrounding country.

## 6. Photographs

See Appendix B.

## 7. Summary

From the hasty reconnaissance made of the Pond Inlet area, it is believed that this area is potentially a very suitable site for a maneuver area involving an amphibious operation, because of the excellent beaches, terrain which will withstand vehicular traffic, but however, the absence of possibility of offshore ice interfering with the shipping and small boat movement, makes this area less desireable than Resolute Bay. This area is not recommended for use until a more comprehensive survey of the area has been made.

SLIDRE FJORD, EUREKA SOUND, ELLESMERE ISLAND, N.W.T.

The USCOC Eastwind (WAG 279) got underway about 1630 on 25 August,

1948 from Resolute Bay, Cornwallis Island, N.W.T., for Slidre Fjord,

Ellesmere Island, N.W.T., with one marine aboard as an observer; the other

three observers remaining aboard the USS Wyandot at Resolute Bay. The

run up to Slidre Fjord was without incident there being very little ice

at any point along the route. The Eastwind arrived at Slidre Fjord at

1530 on 28 August, 1948, and anchored about 300 yards offshore from

the weather station which is located on the north side of the fjord about

three miles from the entrance.

The observers were allowed ashore in the first boat. A reconnaissance was made of the area on foot from the location of the weather station to the airfield, about five miles by road from the beach. No helicapter flights were made.

#### MAPS AND CHARTS

As far as could be determined, there are no large scale maps of the area suitable for use by a landing force.

#### BEACHES

The weather station at Slidre Fjord is located on the bank of an intermittent stream. Where this stream empties into the fjord, the beach has a shallow gradient but could still be used for landings with boats grounding a few feet offshore. On either side of the mouth of the stream good beaches with a steep gradient are available. These beaches are suitable for any type of landing craft including LSTs. The Eastwind, though



#### BEACHES (CONT'D)

anchored only about three hundred yards offshore, was in 32 fathoms of water.

The immediate beach area is composed of coarse gravel and small pebbles making it easy to retract landing craft. Landings were made by

LCVPs throughout the rise and fall of the tide and no difficulties were

experienced at any stage. As far as could be determined, there were

no off-shore rocks dangerous to landing craft. All types of vehicles

which have all-wheel drive could negotiate the beaches without difficulty.

#### TERRAIN

The terrain adjacent to the weather station is relatively flat, but is cut by numerous shallow gullies through which intermittent streams flow during the spring thaw. About six miles east of the station a range of ranged mountains approximately 1500-2000 feet high rise at the share of the fjord and run in a general north-south direction. To the northwest (about 5000 yards) are low rolling hills which partially cover the beach approaches near the weather station. Between these hills lies a broad level plateau with an elevation of 300-400 feet, upon which the airfield is located. At present this airfield can only be used during freeze-up, because the surface is too soft during the summer months to support heavy aircraft.

This area is quite different from other areas visited in the Arctic in that it was practically free of rocks. The soil was a clay loam which would support wheeled traffic except during periods of them.



## TERRAIN (CONT'D)

There are no roads in the area, but a trail has been made from the weather station to the airfield with a small air-borne bull-dozer. This road in its present condition is of no military value but could be easily improved with suitable equipment.

The U.S. Air Forces, in conjunction with Royal Canadian Air Forces, have tentatively selected this area as a link in the Loren system being established throughout the north. A spot near the airstrip was selected for the location of a 1200 foot tower and station which will require considerable operating personnel.

The fjord itself is about 15 miles in length and about an average of two miles wide, running in a general east-west direction. It is dominated on either side by low hills up to the weather station site.

No number was encountered in this area. A small lake is located about it mines from the station which can be used as a landing site when sufficiently frozen. There is one small stream in the area that furnishes water for the weather station personnel, but it is sometimes necessary to supplement this capply by melting ice from a grounded iceberg.

Water in the winter is secured by melting snow and ice.

#### VEGETATION

Comparatively speaking, vegetation was quite abundant. The arctic willow tree is predominant, but grass is sufficiently plentiful to support large herds of musk-ox. Fifty or sixiy of these strange animals could be seen in the vicinity of the airstrip. Wolves and caribou were present as were arctic hares in large numbers.



#### CLIMATE

Average temperatures by months for this area, as recorded by the weather station, are as follows:

| December | 147 - minus 37.5 F | April 148 - minus 18.9 F |  |
|----------|--------------------|--------------------------|--|
| January  | 148 - minus 36.7 P | May +48 - plus 16.9 F    |  |
| February | 148 - minus 44.5 F | June :45 - plus 36.5 F   |  |
| March    | 148 - minus 34.8 F | July '48 - plus 41.9 F   |  |

Prevailing winds are easterly October through February and northeasterly March through September. The precipitation is very slight,
being about three or four inches annually. Fog is occasional, although
none was evident during the period the Task Force was there. The complete freeze-up occurred on 11 September, 1947, and the break-up came
on 14 July, 1948. The perma-frost is approximately 20 inches below the
surface wing the summer months.

#### POPULATION

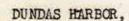
the e is no native population this far north. The weather station at the present rime is sensed by four Canadian and four American Weather Direct personnel.

#### PHOTOGRAPHS

See appendix (B)

#### SUMMARY

This area has suitable landing beaches and sufficient maneuver area for a unit of division size; however, it is so far north, the ice-free period so short, and this period so unpredictable that this area is not considered suitable or desirable as a maneuver area.



## DEVON ISLAND. CANADIAN NORTHWEST TERRITORIES

## 1. Introduction.

Dundas Harbor is situated on the scuthern coast of

Devon Island, in the Canadian Northwest Territories. The

USCGC Eastwind stopped there for approximately four hours on

23 July, 1948, to land two U. S. Weather Dureau personnel

whose mission was to dismantle and remove the automatic weather

station which was located on the southeast tip of the Dundas

Harbor shoreline. These personnel and the automatic weather

station were subsequently picked up by the USS Wyandot. The

Eastwind anchored within Dundas Harbor, and opportunity was

afforded all observers to go ashore. Major H. E. Cook surveyed

the area from a helicopter. Major W. J. Howatt surveyed beaches

and ternain from the shore. Aerial photographs of the area were

taken from the helicopter by a naval photographer. The two Marine

observers remained ashore for approximately four hours and

covered the majority of the salient terrain features.

## 2. Maps and Charts,

1

- (a) Canada: Sheet No. 1, North Deven Island, Dundas
  Harbor. U. S. Hydrographic Office.
- (b) National topographic Series, Catadian Hydrographic

DUNDAS HARBOR, DEVON ISLAND.

and Map Service, Aeronautical Edition, Devon East Sheet, Northwest Territories.

## 3. Hydrography.

The hydrographic conditions off Dundas Harbor and Johnson Bay appeared, from visual inspection ashore, to be suitable for amphibious landings. Detailed information can be obtained from reference to the hydrographic charts used by the Task Force, and the report of Task Force 80.

#### 4. Beaches.

All the beaches in this area were inspected and in view of parrowness, off-shore rocks, and the beach cliffs (three to to feet high with hard-packed gravel banks) immediately in rear of beaches, it was determined that there are only a few desireable beaches.

In general, all beaches are composed of hard packed, large size gravel. Due to the glaciation of the area, there are many single large rocks strewn irregularly over inland, beach, and off-shore areas. Particularly off-shore under water these rocks present a serious hazard to landing craft. It was not possible to measure any off-shore beach gradients, but it is

DUNDAS HARBOR, DEVON ISLAND.

assumed that the beaches indicated sufficiently steep off-shore gradients to allow beaching of all landing craft, including LSM's and LST's. The potential landing beaches are fairly narrow, usually about ten yards of gravel, terminating either in a gravel bank, or muskeg, or rocky shelf of larger extent.

Ice, in the form of growlers and small bergs, was present off most beaches. No pack ice was encountered at this time. Although the terrain inland from the beaches is generally rocky or muskeg with no cover or concealment, there are small declivities, irregular rocks, and folds which would afford some cover to personnel.

See Appendix "B" for detailed study of useable beaches.

## 5. Torrain.

Dundas Harbor is a bay about three miles long and one mile wide, bounded on the east and west by steep mountains, on the north by a glacial valley, and on the woutheast by hills and low ground. The relatively low ground in the southeast extends east from the harbor approximately three miles to a glacier which reaches the coast at that point. There are a few lakes and some marshy ground (muskeg) in this coastal plain, but it is mostly hilly. This immediate area constitutes the uscable part of the

WETTERNIT!

DUNDAS HARDOR, DEVON ISLAND

Dundas Harbor area. Immediately east of Dundas Harbor is a limestone spit tending in a northeast-southwest direction for approximately one mile. This spit is in the form of a saddle. The eastern side of this spit forms the western half of Johnson Bay. Eastward from Johnson Bay to the glacier is a flat plain approximately four hundred yards wide (north-south direction). This plain is generally muskeg, with some high features caused by resistant rock strata outcrops. Its northern extent is marked by steep cliffs, rising four or five hundred feet to flat torpod mountains. The ice cap of Devon Island is about four miles inland from the Dundas Harbor-Johnson Bay area. The ground in this area is generally either muskeg, particularly in the flat areas immediately inland from the beaches, or rocky ground consisting of gravel and small rocks. This muskeg could be traversed only by tracked vehicles. The rocky area however, would generally support all types of wheeled and tracked vehicles. Any abtempt to dig fortifications in this area would be beset with great difficulties. In amskeg areas, at a depth of from six inches to one fact, water is encountered. In rocky areas, the surface rock is very hard to handle, and perma-frost is encountered at a depth of about the feet. Extensive demolitions work would be required to establish andding remotely approximating normal type hasty or deliberate field fortifications.



DUNDAS HARBOR, DEVON ISLAND.

The most important terrain feature of the area is the limestone spit, with its three high points (Hills 270, 182, 100), and the six hundred foot conical peak at its northern terminus.

## 6. Vogotation.

As throughout the Arctic area, there is a noticeable and almost complete absence of vegetation. There is no vegetation; with the exception of (1) moss growing in the muskeg areas, (2) some flowers about two inches in height, and (3) moss all greating generally over the area wherever there is any soil.

Inis area is mostly rock in form of weathered glacial material, talus fall from the cliffs, and rocky hills. The beaches are covered with large gravel and no sand is present.

## 7, Climate.

As is general throughout the Arctic area in the summer nonths, the temperature seldem drops below thirty degrees.

Generally summer tic temperatures approximates the winter conditions at Camp Lejeune, North Carolina. A heavy fog settled over the peninsula in the early evening and was still present after the observers had returned to the ship and were again underway.





DUNDAS HARBOR, DEVON ISLAND

## 8. Population.

Except for occasional Eskimo hunters in the winter who move across the ice from island to island, the only personnel at Devon Island are two Royal Canadian Mounted Police constables and three Eskimo families who hunt and work for them.

9. Photographic Coverage.

See Appendix "B".

## 10. Summary.

In the opinion of the Marine Observers, Dundas Harbor contains insufficient useable ground area to be considered for any Marine Corps operation.



#### TEULE, GREENLAND

#### Narrative

On 24 July, 1948, after having proceeded independently from Boston, the USS Edisto. USCGC Eastwind and the USS Wyandot rendezvoused in North Star Bay, Thule, Greenland.

During the period of 24 July - 30 July, the Marine Observers assigned to the Task Force had ample opportunity to reconnoiter the Thule area by helicopter flight, vehicle (M29 C Cargo), boats (ICVP), and on foot.

Due to the area being under Danish control no attempt was made to camp ashore but a maximum amount of time ashore was possible however, as boats were running continuously to the beach unloading cargo.

The weather during the stay at Thule was ideal for reconnaissance work with the exception of one day, 29 July, when a heavy fog precluded observers the opportunity of going ashore.

An attempt was made to obtain good contoured, hachured, or shaded maps of the Trile area but this was to no avail as medium and large scaled maps are almost non-existent for the arctic area.

Due to the fact that an active glacier is near Thule at the head of Wolstenholme Fiord, North Star Bay had numerous icebergs present.

Three of the Marine Observers made helicopter flights of the area during the stay at Thule. These flights were primarily for the purpose of locating other probable beaches. Due to a limitation that the planes had to remain within sight of the ships, the large area contained within a probable force beachhead line was not covered by aerial reconnaissance.





#### MAPS and CHARTS

The most accurate and up-to-date chart of the area is Hydrographic Office Chart #11953-9, scale 1:13.625, which was used for all navigation by the Task Force in Wolstenholms Fiord. This chart does not indicate any contour lines above the high water level, and would not be adequate for the use of a landing force.

An attempt was made to locate maps or rough sketches of the area but these efforts were fruitless. The Task Force had oblique aerial photographs taken of the area and these are enclosed herewith for information and possible use.

#### HYDROGRAPHY

North Star Bay was sounded during the summer of 1946 and additional soundings were made in 1948, with information obtained being available from the Hydrographic Office.

No discrepencies were noted by Task Force #80 in any of these soundings during the stay in North Star Bay.

#### BEACHES

In North Star Bay there is a potential beach for the landing of an amphibious ferce. This beach is located on the southeastern side of the bay and is the only one in the immediate area suitable for such a purpose.

This beach is between the weather station and the airstrip being about two thousand yards from the airstrip and about one thousand yards from the weather station. (Note. This weather station will be closed upon the completion of the new weather station which is located at Thule village.)



## BEACHES (cont'd)

The immediate beach area is sendy and in some parts contains gravel. Wheeled vehicles can negotiate the beach area with some difficulty, whereas, it will not interfere with the movements of tracked vehicles. In the center of the potential landing beach is a fifteen foot cliff about twenty yards in from the high water level and extending about one hundred yards along the beach.

The beach area is commanded by high ground to the south beyond the airstrip (approximate distance - 3000 yards) and by high ground to the northeast (approximate distance - 4000 yards). The area directly inland from the beach opens into a large valley which extends to Greeland's permanent ice cap approximately thirteen miles inland from North Star Bey.

The useable beach is approximately nine-hundred yards long. The gradient is adequate to accommodate beaching of LSTs with the use of bow pontoon floats and ICMs and ICVPs with no difficulty. Loaded ICMs were beached in this near that the ramps were dropped on the beach above the water line except at low tide, when the ICMs grounded a few feet offshore. To the right of the approach to the beach, the water shoals off to a depth of about five feet. This is shown on the navigational chart referenced for this area.

#### TERRAIN

The terrain in the Thule area is the rolling type with a few hills up to about eight-hundred feet elevation.

Immediately to the north of North Star Bay is Mt. Dundas (Elevation 703 feet), the prominent terrain feature of the area. It is easily identified in that it is a flat plateau and has almost vertical cliffs near the top and steen shale side.

## TERRAIN (cont'd)

and steep shale sides sloping into the bay on three sides. The northeastern slope of Mt. Dundas joins the peninsula upon which is located Thule village and the site of the new weather station.

The Thule airstrip is about two thousand yards long and has a gravel surface. It is reported that the wind keeps the strip swept clear of snow during the winter. This strip is usable throughout the year but is sometimes ogged in.

The only road in this area is about two miles long running from the airstrip to the old weather station. This road is graded and has a gravel surface. It is impossible to use wheeled vehicles in cross country travel during the summer months as most of the valley is covered with muskeg.

Tracked vehicles can negotiate the terrain provided discretion is used in selecting the areas to be traversed. The ground along the valley and on the slopes of the bills is covered with between 80 and 90 percent shale and rock. Pages it st is about two feet below the surface of the ground during the summer months.

Many small lakes are in the area and provide fresh water for the weather station. An intermittent river which is active throughout the summer months flows through the main valley and empties into North Star Bay. The size of this stream is dependent on the melting conditions of the ice cap.

#### MORTATION

It is only necessary to mention that vegetation in the Thule area is similiar to other arctic regions in that it is almost non-existent. There



are no trees or shrubs with the exception of the arctic willow tree which grows prostrate on the ground to a length of about four feet. A few wild flowers are to be found during the summer season, and grass grows in the muskeg areas.

#### CLIMATE

The temperature during the summer season remains above freezing most of the time; however, it does drop below the freezing point at times.

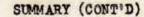
During the stay at Thule the weather was cool but pleasant with the temperature wall above freezing.

#### POPULATION

The population of Thule village includes some 200 Eskimos and about twenty Panes and Greenlanders. In addition, the weather station is manned by expressionably ten Danes and eight Americans. The Eskimo population varies with the seasons as they are a nomadic people and travel to different appass for hunting.

#### SUMMARY

The Cruic area has a potential landing beach of sufficient size for an amphibious operation of a battalion landing team and the area inland is sufficiently large for maneuvering. However, the depth of penetration by ground larges is limited by the permanent Greenland ice cap, which is approximately thirteen miles distant from the beaches. The topography and of thate are typical of the artic regions visited by Task Force 80 with



the exception that there is more muskeg in the immediate vicinity of Thule than in any other area encountered. North Star Bay remains comparatively free of pack ice throughout the summer months, but small icedergs coming from Wolstenholme Fiord are numerous. The airstrip located to the south of the beach area is usuable all year and presents a good base for air support operations. This area is not recommended as a suitable maneuver area for use by the Marine Corps however, because of difficulties which would be opecuntered, in all probability, in obtaining this area for militar; 286.

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APPENDIX "B"

PHOTOGRAPHS OF AREAS

VISITED BY MARINE OBSERVERS

