

**SECRET**

I.S.T.D./B/31

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**SPECIAL REPORT**

**P O R S A N G E N**

**AND APPROACHES FROM**

**REPPARFJORDEN, REVSBOTN**

**AND LAKSEFJORDEN**

INTER-SERVICE TOPOGRAPHICAL DEPARTMENT

*29 March, 1942*

I.S.T.D./B/31

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SPECIAL REPORT

on

P O R S A N G E N

and approaches from

REPPARFJORDEN, REVSEBOTN and LAKSEFJORDEN

Special report on PORSANGEN and approaches thereto  
from REPPARFJORDEN, REVSBOTN and LAKSEFJORDEN

References - Admiralty Charts 2315, 2316  
Norwegian Charts 99, 105, 106, 107  
Maps. 1/100,000. G.S.G.S. 4090.  
V4. W3. W4. X3.

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1. Introduction

Access to the head of PORSANGEN is only practicable by means of the North Trunk Road and its two branches from REPPARFJORDEN and REVSBOTN to the westward, and from LAKSEFJORDEN to the eastward. Possible landing places in these fjords, and in PORSANGEN itself, are described below.

A force landed in REPPARFJORDEN, REVSBOTN, or on the western shore of PORSANGEN, could only advance towards BANAK along the road, the country inland being high fjeld covered with a network of small lakes, streams, and marshes, making difficult and dangerous going even for infantry. Such an advance along the road by the western shore of PORSANGEN would encounter three obstacles: (i) the STABBURSELV River runs into the fjord, cutting across the line of advance, about 6 miles south of GARADAK; the road crosses it by an iron bowstring girder bridge, with a span of about 55 yards, and a roadway about 8 feet wide; (ii) the road south from the STABBURSELV runs close to the shore and is flanked on the landward side by very steep mountains, thus constituting a defile over 10 miles long, with very little air or ground cover, and open to fire from the peninsula which projects into the head of PORSANGEN; (iii) the LAKSELV River runs into the head of PORSANGEN at its extreme south-west corner, forming a considerable obstacle covering BANAK. It was until recently crossed only by a ferry (photograph 5); a bridge is projected but is not definitely known to have been completed.

2. Landing places and routes inland  
REPPARFJORDEN

REPPARFJORDEN extends south-eastwards from the southern end of SAMMELSUNDET which separates KVALØY from the mainland. It extends in a south-easterly direction for about seven miles.

The HAMMERFEST - KVALSUND ferry-SKAIDELV road follows the south-western shore of REPPARFJORDEN which rises steeply from the fjord, and is steep to throughout its length. Landing is probably feasible anywhere along this stretch of coast, but there are no known facilities except at KVALSUND and HANDELSNESET, about a mile west of the western entrance point of REPPARFJORDEN.

At KVALSUND there is a comparatively good wooden wharf capable of accommodating ships of up to 2,000 tons. Anchorage may be had off KVALSUND in from 7 to 20 fathoms; the holding ground however is poor and mooring rings are fitted here. There is also a small wharf at HANDELSNESET, nearly half a mile north of KVALSUND.

The best place to land in REPPARFJORDEN itself is probably at or near REPPARFJORDBOTN village on the western side of the head of the fjord; here the road is immediately behind the coastline, and as this village is a port of call for coastal steamers there must be amenities for landing of some sort. FAEGFJORD, a village 2 miles north-west of REPPARFJORDBOTN, is also a port of call for coastal steamers and is connected to the HAMMERFEST - SKAIDELV road by a side road about a quarter of a mile long.

The head of REPPARFJORDEN dries out, sand, for about half a mile at low water, but it is not known whether the sand is firm or otherwise. The REPPARFJORDELV flows into the head of the fjord, and about a quarter of a mile from its mouth it is crossed by a bridge (photograph 1). It would obviously be preferable to land on the north-eastern shore of this fjord thus avoiding the necessity of crossing this bridge, assuming the objective is PORSANGEN, but the nature of this coastline is not known and there is no coastal road following along it.

Anchorage

Anchorage may be had anywhere within 2 miles of the head of the fjord. Small ships can anchor in about 5 fathoms south-east of FAEGFJORDHOLMEN, an islet 2½ miles from the head of the fjord.

Obstacles

The KVALSUNDELV runs into the fjord at KVALSUND, and might be an obstacle to troops advancing from the direction of HANDELSNESET; there is a bridge near the mouth of the river.

The REPPARFJORDELV runs into the head of REPPARFJORDEN, and might present a serious obstacle to troops advancing eastwards from the south-western side of the

#### Exits

At the mouth of the KVALSUNDELV there is a small area of level land across which infantry could advance without difficulty to the road.

Along the south-western side of REPPARFJORDEN the coast rises fairly steeply to the mountainous hinterland. A good road, however, runs the whole length of this coast, sometimes above it, but often within easy reach of the shore. There are few places where infantry could not easily scramble from the shore to the road.

At FAEGFJORD there is a short side road leading from the shore to the road which at this point runs a short distance inland.

The hinterland is a rough and barren fjeld with a complicated system of lakes and streams. It is difficult country even for infantry. The main advance towards the east would have to be made along the road.

M/T could only be used on the roads.

#### Routes inland

The HAMMERFEST - KVALSUND - SKAIDELV road runs along the whole length of the south-western coast of the fjord. It is a good road by local standards, with a dirt and gravel foundation. The width varies between 11 feet 6 inches and 13 feet. The surface will be very soft during the spring thaws. The distance from KVALSUND to the head of REPPARFJORD is about 10 miles.

At SKAIDELV this road joins the North Trunk Road which runs south-west to ALTAFJORDEN, and north-east to PORSANGEN. It is similar in quality to the HAMMERFEST road. The north-eastern branch of the road from SKAIDELV to PORSANGEN crosses high fjeld country, and there are no natural defensive positions along it. This section of the road has been blocked by deep snow drifts this winter (1941-2), and the surface is likely to be in very bad condition, and perhaps temporarily impassable by M/T during the coming spring thaws.

#### Cover

The vegetation near to the shore of the fjord is very scanty and practically the only cover is that provided by broken ground off the road. There are a few farms near to the shore.

There are, however, birch woods in REPPARFJORDALEN along the road from REPPARFJORD bridge to SKAIDELV.

#### REVSBOTN

REVSBOTN is about 12 miles north-north-east of REPPARFJORDEN, extends in a south-easterly direction for about 8 miles. Its north-east and south-west shores are steep with no road communication from the entrance to the head of the fjord. At REVNESHAVN, near the southern entrance point to the fjord, there is a small wharf for local steamers, off which anchorage sheltered from westerly winds, may be had in from 9 to 16 fathoms, good holding ground. This small harbour is always ice free and is surrounded by steep shores.

The head of the fjord is low and comparatively flat, and KOKELV at its southern end is a port of call for coastal steamers. Landing could probably be made on the sandy shore anywhere in the vicinity of KOKELV.

#### Anchorage

The only reliable anchorage in REVSBOTN is in LITTLEFJORDEN, south-east of LATTEREN farms, in about 9 fathoms, good holding ground. Ships can also find temporary anchorage off SELKOP, at the head of the fjord, in from 3 to 5 fathoms, but it is exposed to north-westerly winds.

#### Obstacles

The KOKELV and the RUSSELV are both bridged, but in any case are not serious obstacles.

#### Exits

The south-western and north-eastern shores of REVSBOTN are bounded by steep cliffs. The hinterland is high barren fjeld, and there is no road from the entrance to the head of the fjord. Though infantry could advance over the fjeld it would be more profitable if they were landed at the head of the fjord, where the RUSSELV and KOKELV drain an area of comparatively level country.

#### Routes inland

A new road, built in 1939, runs from KOKELV along the head of the fjord to RUSSELV, then strikes inland along the valley of the RUSSELV to RUSSENES on SMORFJORD. From RUSSENES a road runs north to LANGSTRAND and SMORFJORD, and south to join the North Trunk Road at OLDERFJORD. There is an alternative branch south to the North Trunk Road from EIDEVANN.

#### Cover

The country is generally open and bare, affording very little cover. In 1939, however, afforestation was begun along the valleys of the RUSSELV and KOKELV, and

#### PORSANGEN

The North Trunk Road from SKAIDELV reaches PORSANGEN near RUSSENES at the head of OLDERFJORDEN, and follows the southern shore of that fjord eastward to KISTRAND, whence it runs due south and follows the western shore of PORSANGEN closely, except for a few projecting headlands, as far as LAKSELV at the head of the fjord.

South of INDRE BILLEFJORDEN the head of PORSANGEN is usually frozen over in winter from the end of November till March inclusive, but may persist from October to late May or early June.

Possible landing places with access to the North Trunk Road are as follows:-

#### (1) RUSSENES

A State Road runs north from here to SMORFJORD, via LANGSTRAND, about 3 miles to the northward. SMORFJORD is a small trading station and has a wharf for local steamers which dries out at low water. It is situated on the northern side of a small bay, in the entrance to which there is a depth of 2 fathoms which increases to 10 fathoms in the bay itself which ices up in winter, necessitating the use of the bay north of HALSEN where anchorage may be had in 6 fathoms. Landing should be feasible on the western side of SMORFJORDEN with easy access to the road to RUSSENES.

At RUSSENES, on the southern side of DJUPVIK, there is a wharf for small local steamers of up to 500 tons with direct access to the road.

South of RUSSENES, at the head of OLDERFJORDEN, landing could be made on a sandy beach about three-quarters of a mile long with access to the North Trunk Road.

OLDERFJORDEN is ice-free throughout the year.

There is a telephone office at RUSSENES.

#### Anchorage

Anchorage may be had in DJUPVIK in from 6 to 15 fathoms, sand and clay.

#### Obstacles

The SMORFJORDELV runs into OLDERFJORD from a south-westerly direction. It is a comparatively small stream and would not be a serious obstacle. It is crossed by a bridge on the SMORFJORD - OLDERFJORD road.

#### Exits

At the heads of SMORFJORDEN and OLDERFJORDEN easy slopes lead up to the road which runs near to the shore.

The STRØMSNES peninsula which separates SMORFJORDEN and OLDERFJORDEN is steep and rocky and affords no access to the interior.

#### Routes inland

A good State Road runs south from SMORFJORD to the south-west corner of OLDERFJORD, where it joins the North Trunk Road. There is a branch running west from LANGSTRAND to REVSBOTN and KOKELV.

From OLDERFJORD the North Trunk Road runs west to REPPARFJORD and east along the south shore of OLDERFJORDEN to KISTRAND, then south along the western shore of PORSANGEN.

As an alternative to the coast road from LANGSTRAND to OLDERFJORD follow the LANGSTRAND - REVSBOTN road as far as EIDEVANN, where a short branch road runs south to join the North Trunk Road at RAKSIVARRA.

#### Cover

There are low bushes near the heads of SMORFJORDEN and OLDERFJORDEN.

#### (2) KISTRAND and YTRE VEINESBUGT (70°25' N., 25°11' E.)

KISTRAND is about 2 miles south of the entrance to OLDERFJORDEN, and about 5½ miles from RUSSENES by road. It is one of the most populated areas in PORSANGEN and has a resident doctor, school and telegraph and telephone station.

There is a small wharf for coastal steamers.

YTRE VEINESBUGT has a sandy beach at its head, about three-quarters of a mile long, with easy access to the North Trunk Road about 600 yards to the westward. The approach from the north-eastward, between two sunken rocks, is about half a mile wide.

#### Anchorage

There is anchorage for a capital ship and two or three cruisers in from 13 to 21 fathoms. The bay is ice-free.

#### Obstacles

None known.

#### Exits

The North Trunk Road runs close to the shore and is approached from the beach by an easy slope.

(7) HAVNEBUKT (HAMNEBUKT)

HAVNEBUKT is on the western side of ÖSTERBOTN. There are two wooden wharves on the north and east sides of the small headland. The northern, or old, wharf is used by coastal steamers and the eastern wharf which has recently been constructed by the Germans is reported to be 65 feet long, and capable of taking ships up to 4,000 tons. There is a telegraph or telephone office here. A road runs south across the isthmus to BANAK.

About three-quarters of a mile south of HAVNEBUKT there is reported to be a pontoon jetty from which there is a road connection westwards to the HAVNEBUKT - BANAK road. There are said to be a repair shop and several hutchments near this jetty.

Landing could probably be carried out at the jetty and on the sandy and fairly steep-to coast at the head of ÖSTERBOTN.

Anchorage

HAVNEBUKT is usually ice-bound during the winter, but there is anchorage in summer anywhere in the bay where depths permit.

Obstacles

The land at the base of the peninsula between VESTERBOTN and ÖSTERBOTN is marshy. Vehicles would be confined to the roads.

Exits

There is easy access from the shore to the road anywhere near the wharves; north of these the coast is steep and difficult. The whole of the peninsula tends to be marshy, but serious difficulty is only likely to be encountered in the marshes at the base of the peninsula mentioned above.

Routes inland

A fairly good, though narrow road runs south-west across the peninsula from HAVNEBUKT to BANAK cross roads.

From BANAK the North Trunk Road runs west and then north across the LAKSELV to follow the western shore of PORSANGEN; it runs east and then north along the eastern shore of PORSANGEN to BÖRSELV.

A good road runs south from BANAK, up the LAKSELV valley, to KARASJOK (46½ miles). From KARASJOK a new road runs over the Finnish frontier to link up with the INARI road at KAMANEN.

Cover

There are bushes on the peninsula between VESTERBOTN and ÖSTERBOTN.

On the mainland there is thick forest along the valley of the LAKSELV and down the KARASJOK road.

Between the head of ÖSTERBOTN and BANINES (70°15'N., 25°25'E.), a distance of 13 miles, the coast is almost precipitous and although the North Trunk Road follows this closely there is no information as to its height above sea level.

(8) BANINES to BÖRSELV

This stretch of coast is wooded interspersed with marshy ground; landing may be possible here, and the North Trunk Road is probably nowhere at a greater distance than half a mile from the foreshore. The coastline is, however, probably rocky.

Anchorage

There is spacious anchorage suitable for a fleet between this coast and the off lying islands. The approach through REINOSUND is reasonably easy.

Obstacles

Probably rocks along the foreshore.

Exits

The road runs near to the shore and it is possible that infantry could reach the road from the shore in several places. The hinterland east of the road is high barren fjeld and there are no routes across it.

Routes inland

The North Trunk Road runs north to BÖRSELV and south to BANAK. This is a very new section of the road and its exact routing is not known, but it appears from the contours that it must run fairly close to the fjord.

Cover

There are a few low trees on the hill sides behind the fjord, but there is probably very little air or ground cover on the road.

(9) HESTNES (70°19' N., 25°28' E.)

At HESTNES, 1½ miles south-east of BÖRSELVNESET, a new wharf has been built by the Germans; it is of wooden construction and projects in a

the North Trunk Road. At BÖRSELV there is a telephone office and a school.

The north side of the mouth of BÖRSELV dries out for a distance of nearly three-quarters of a mile, and landing would have to be made at HESTNES where the land is comparatively flat.

Obstacles

An advance southwards would have to cross the BÖRSELV River, which is a fairly wide stream. It is bridged by the North Trunk Road.

Exits

Easy slopes lead from the shore to the side road which leads to BÖRSELV and the North Trunk Road. The hinterland north of the fjord is very marshy.

Routes inland

A narrow side road leads from HESTNES east to BÖRSELV and the North Trunk Road.

The North Trunk Road runs from BÖRSELV south along the fjord to BANAK, and east up the BÖRSELV valley to LAKSEFJORDEN. This stretch of road between BÖRSELV and LAKSEFJORDEN has been closed during this winter (1941-2) by snow drifts and is likely to be in very bad condition during the spring thaws.

Cover

There are a few trees and some bushes along the BÖRSELV valley.

LAKSEFJORDEN

LAKSEFJORDEN is separated from PORSANGEN by a projecting mass of high land named SVAERHOLTHALVOYA, which, in DJUPVIKTIND, about 13 miles south-westward of the north-eastern end of the mass, attains a height of 1,506 feet.

The fjord extends in a southerly direction for about 37 miles, and varies from about 7 to 12 miles in breadth for the greater part of its length.

Anchorage

This large fjord is mostly too deep for anchorage, but a large fleet could be accommodated by utilizing the following anchorages, which open off it:

LITTLE PORSANGEN, on the west side, has about 3 square miles of anchorage with depths of from 7 to 25 fathoms. The nature of the bottom is now known, and it is exposed to the north-eastward. It is capable of being defended and is easy of access.

STORE TORSKEFJORDEN, immediately opposite, has well-sheltered anchorage for three or four cruisers in depths of from 12 to 28 fathoms. It could be easily defended and has an easy approach, but there is no information about the holding ground.

LEBESBY has also fairly well-sheltered anchorage for three or four cruisers.

FRIARFJORDEN has about one square mile of practically land-locked anchorage, with apparently good holding ground, but it is doubtful if it is ice-free in the winter.

STORFJORDEN and ADAMSFJORDEN opening off it, provide a land-locked anchorage suitable for three or four cruisers, with apparently good holding ground, but they are probably frozen over in the winter.

Tidal streams

In LAKSEFJORDEN the tidal streams set southward with the flood tide and northward with the ebb, the turn of the tidal streams occurring at the times of high and low water; with northerly winds the south-going tidal stream runs for a longer period than the north-going stream, and with southerly winds the reverse occurs. In spring the tidal streams in the inner portion of LAKSEFJORDEN set almost continuously northward.

The tidal streams attain their maximum rate at the entrance to the fjord, and decrease in strength gradually towards its head.

Ice

Ice lies from the head of LITTLE PORSANGEN for a distance of about 2 miles: there is ice in the inner parts of STORE TORSKEFJORDEN and BEKKARFJORDEN.

Coast, roads, ports of call

The North Trunk Road from PORSANGEN joins the head of LAKSEFJORD at KUNES and leads eastward via IFJORD to SKJAERNES at the head of TANAFJORDEN.

KUNES

KUNES, at the head of STORFJORDEN, is, as already mentioned, on the North Trunk Road. The rivers STÖRELVEN and ÖSTERELVEN discharge into the head of STORFJORDEN west of KUNES, the mouths being about a mile apart

creeping plants (scented and dwarf birch, etc.) (photograph 7). A reconnaissance report on landing possibilities, dated 1936, is as follows:-

"(a) The landing would be a few yards from the TRONDHEIM-KIRKENES road. Guns and motor transport could be put on to this road from the landing. If the country were already in the hands of the enemy there would seem to be little or no chance of ground attack from the enemy with other than portable weapons, except along the road itself, either from the east or west. The surrounding country provides cover for hiding from aerial observation. It is broken, often intersected by gorges, hilly and sometimes precipitous.

"(b) By a march of about 30 miles nearly due south, our troops might dominate TANAEVA (TANA river) from good cover in the tree-slopes down to its northern bank.

"As this river is navigable by large boats or small barges and has a track along its southern side, it might presumably be used by enemy troops passing from northern Sweden or north-west Norway to the sea at TANAFJORDEN and so to PETSAMO.

"At KUNES in 1936 there were only four or five inhabited log houses. Along the sides of LAKSEFJORDEN, towards its head, were a few scattered hamlets.

"The coastal steamer from BERGEN (in peace-time) takes passengers to KJOLLEFJORD, then transfers the passengers to a smaller boat which lands them at KUNES, where there is shallower water owing to silting from the river (STORELVEN).

"At the landing-place, in 1936, there were 3 or 4 feet of sloping rock, then grass with gentle upward slope." (Photograph 8)

#### Routes inland

The North Trunk Road runs west from KUNES to BØRSELV in PORSANGEN, and north-east from KUNES to IFJORD then east to KIRKENES. The stretch of road from KUNES over barren fjeld to BØRSELV has been closed by snow drifts this winter (1941-2), and is likely to be in bad condition during the spring thaws.

#### 3. Snow Cover

In the PORSANGEN district snow begins to fall in October and there is then continuous snow cover from November until April. The average date of the first thaw is the 9th April.

The sun is below the horizon from the 21st November until the 20th January.

The average depth of snow cover (in inches) as recorded by the meteorological stations round the fjord are as follows:-

Station	Height of Stn. above M.S.L.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.
(70°29'N. 25°17'E. approx.) OLDERØEN.	16 ft.	3.5	7.0	8.6	10.6	11.0	7.5	1.2
(69°51'N. 25°7'E.) SKOGANVARRE	230 ft.	7.0	9.5	13.4	18.5	21.3	17.7	4.0
(70°19'N. 15°31'E.) BØRSELVEN	33 ft.	5.5	11.5	16.1	25.6	28.0	25.2	11.0
(70°33'N. 26°58'E.) SJÅNES	6½ ft.	2.0	2.75	2.75	3.5	3.1	2.0	0.8

In this district generally, the ground is snow covered from the middle of October until the end of May. In the interior this period lasts from the end of September till early June. At BANAK, however, the thaw begins about April 20 and the ground is clear of the snow by the end of the month.

There is a road from the head of the fjord to KARASJOK, where the temperature is below freezing point from 8th October until 3rd May. At KARASJOK the mean monthly temperature is 14°F. in November, 3°F. in January and 19°F. in March. The average depth of snow cover recorded is, in inches:

Height of Stn. above M.S.L.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.
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#### 5. KEY TO SKETCH PLAN OF HEAD OF PORSANGEN

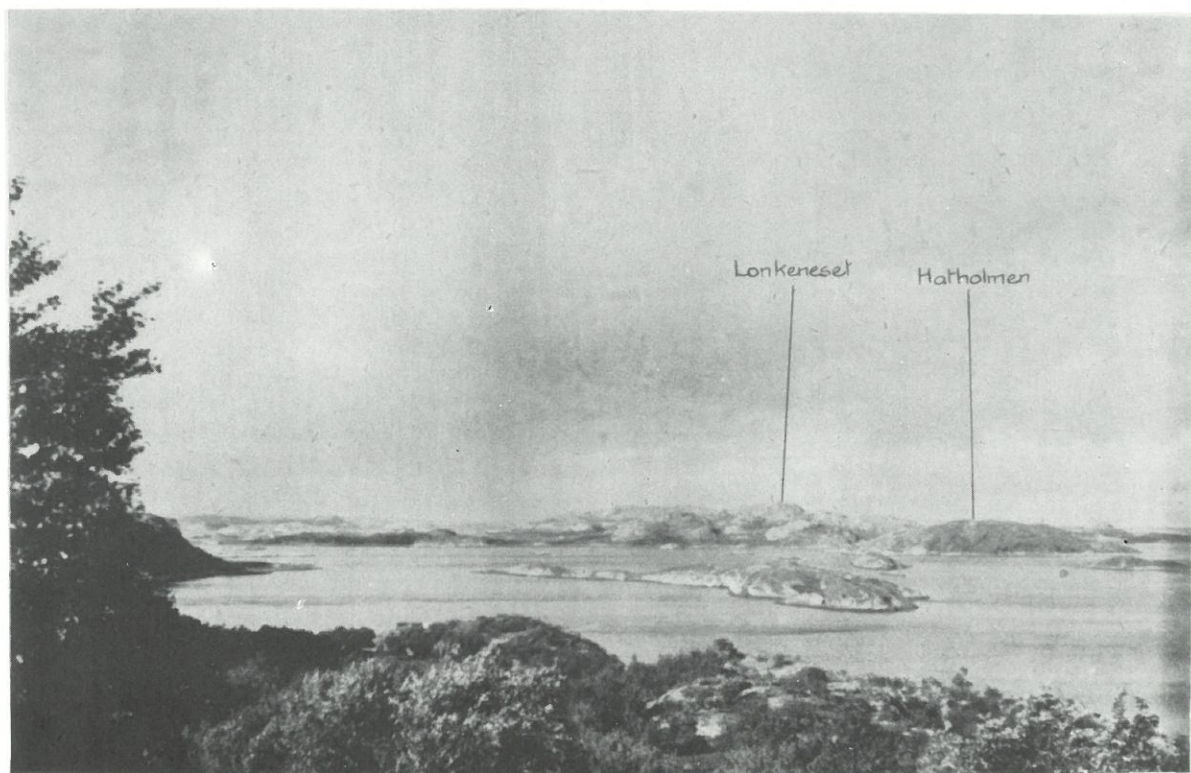
1. Old Wharf.
2. New Wharf.
3. Transporter.
4. Loading point for transporter.
5. Pontoon jetty.
6. Repair shop.
7. Hutments.
8. Engine house for the transporter. Also used as stores.
9. Store.
10. Officers' hutments.
11. Repair shop with a generator for electric light supply.
12. Hutments for Norwegians.
13. Park for 50 - 70 lorries.
14. Transport office.
15. Oil tank.
16. Garage.
17. Civilian houses.
18. Food office.
19. Petrol station.
20. Barbed wire fence.
21. Farm requisitioned by the Germans.
22. Shop and telephone exchange.
23. Officers' mess.
24. W/T station.
25. Cold storage house.
26. Telegraph and Telephone exchange.
27. Store for telegraph and telephone materials. The German workers are living here.
28. Offices.
29. Small power station.
30. Central administration building.
31. Hospital.
32. Brothel.
33. Villa Falkenhorst.
34. Kitchen.
35. New theatre and cinema.
36. Underground store.
37. High tension cable.
38. Repair shop.
39. Hangar.
40. Old administration offices.
41. Main power station.
42. Old hangar.
43. Large hospital.
44. Canteen and kitchen.
45. Old cinema.
46. Food stores.
47. Underground oil store.
48. Stores and repair shops.



1. Repparfjord Bridge.



2. Oterberget.



3. Sommaröyan from Havnbukt.



4. Foreshore near Havnbukt.

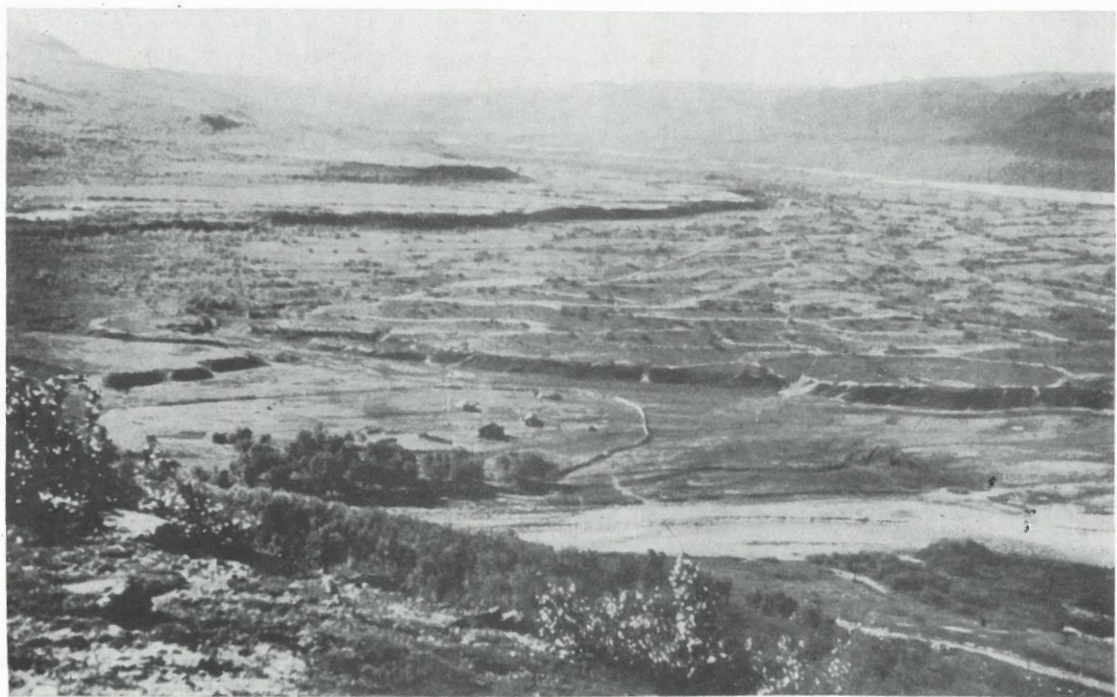


5. Lakselv ferry.

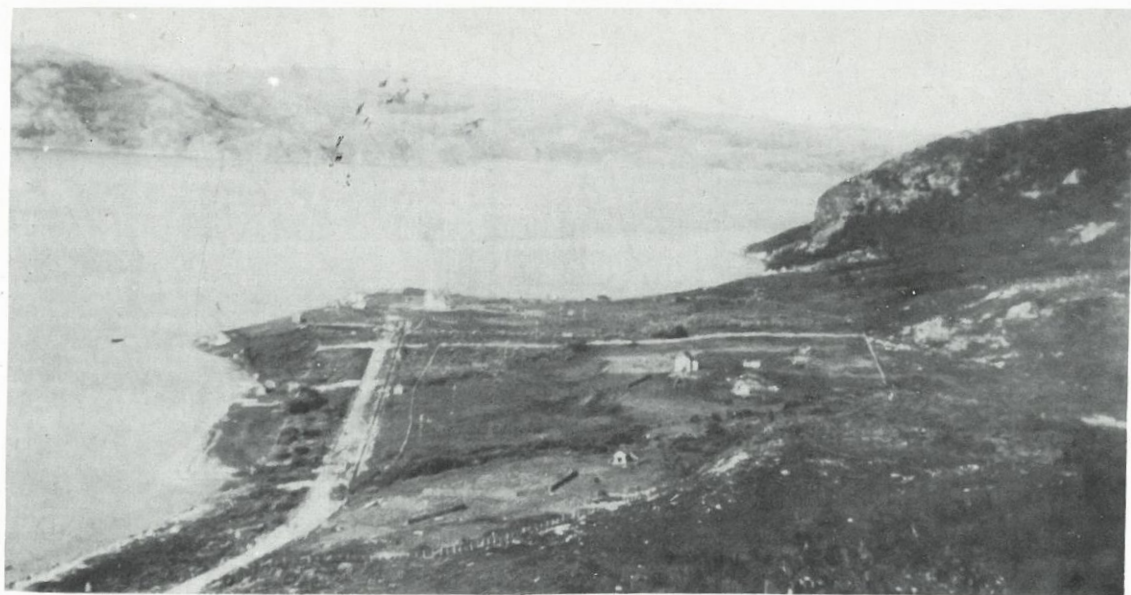


6. Storfjorden. Head of fjord, looking west from quarter of a mile south of Kunes.

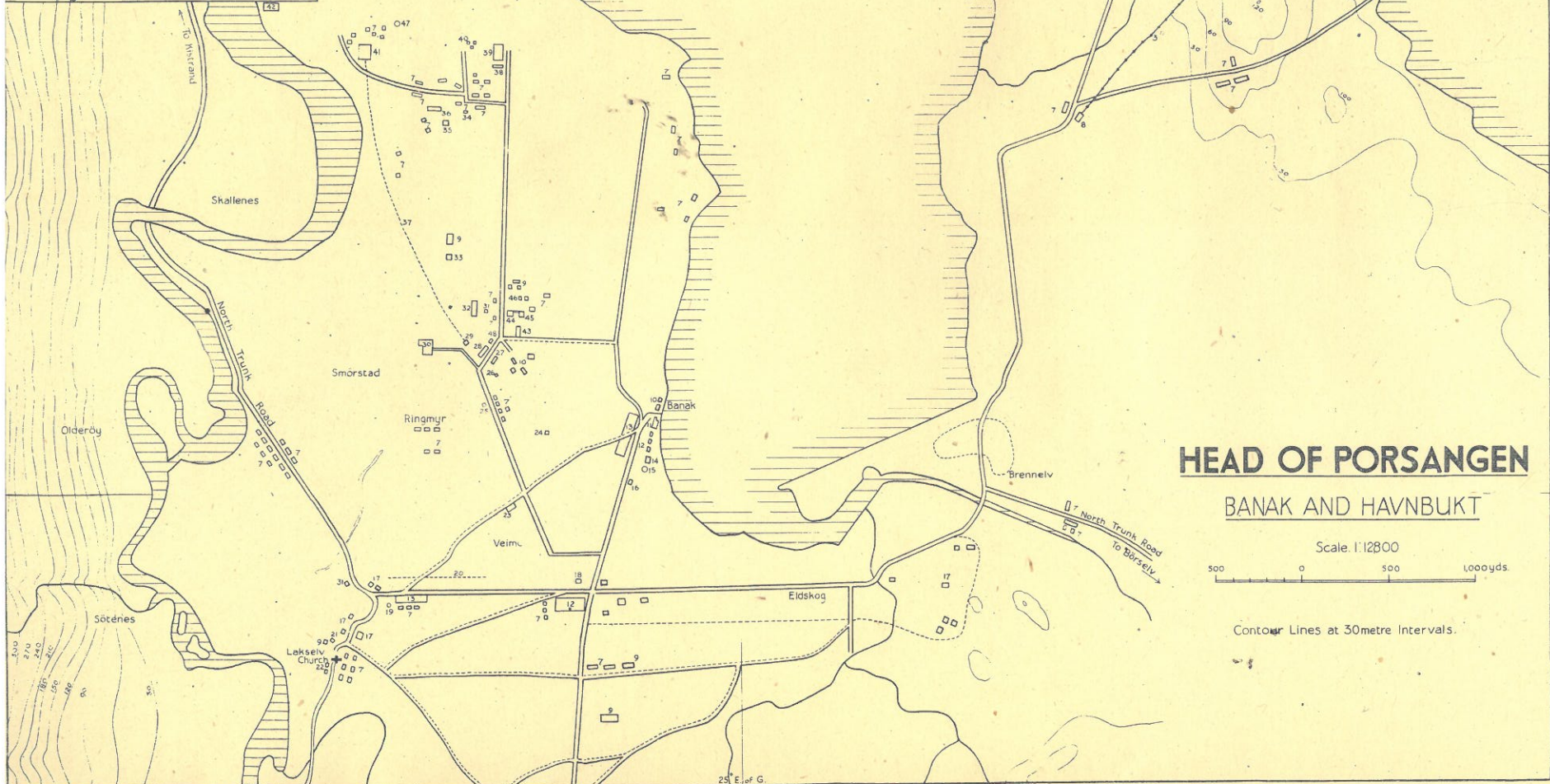
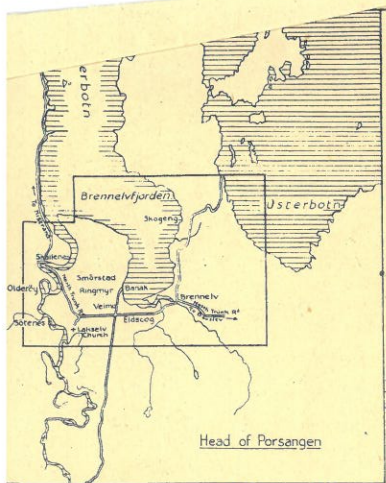




7. Kunes beaches.

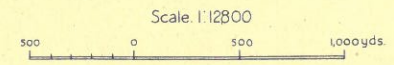


8. Kunes, showing small branch road which joins the North Trunk Road.



# HEAD OF PORSANGEN

## BANAK AND HAVNBUKT



Contour Lines at 30metre Intervals.