

TOP SECRET.*See Commission Report
(for information)*

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To: Director of Naval Intelligence, Admiralty.Date: 19th February, 1940.From: The British Naval Representative, Allied Military Committee.PETSAVO AREA - ADDITIONAL INFORMATION.

The following notes on the PETSAVO area, which may supplement information already available in the Naval Intelligence Division, are forwarded for your information.

I.

Notes on conversation between Lt.-General
Marshall-Cornwall and Mr. Pam of the
Mond Nickel Company, 19th February, 1940.

2. LIINAVAMARI. At LIINAVAMARI, besides the wooden piers, there is a concrete pier, with a depth of 28 ft. alongside, which has recently been built by the Mond Nickel Company. It would be difficult to destroy this entirely. Mr. Pam was doubtful if heavy vehicles like tanks could be disembarked here.

3. KIRKENES. Mr. Pam stated that, besides the road to the Arctic Highway at SALMIJARVI already reported, there is a track which runs from KIRKENES to ELVENES, the nearest point on the Finnish frontier, and thence just inside the Finnish frontier to the Arctic Highway. Tanks could easily be landed at KIRKENES.

4. The mines to which the mineral railway runs from KIRKENES are iron-ore, belonging to the Sydvaranger Mining Company, a Norwegian enterprise with German capital. No German personnel are employed at KIRKENES. The iron-ore is of a high grade, very nearly as good as the Swedish ore from KIRUNA.

5. KOLOJOKI. East of SALMIJARVI, on the opposite side of the lake, the Mond Nickel Company have lately built a town at KOLLOJOKI on the edge of the lake. There are a great many flats and other substantial brick buildings. There is a subsidiary power station at KOLLOJOKI, the source of power being Atlas Diesel engines. A large quantity of lumber has been floated down to the saw-mill at KOLLOJOKI.

6. Mr. Pam also stated that there are now in the Finnish army about half a dozen engineers, who have worked for the Mond Nickel Company before the war. These men are surveyors and road-engineers and would be useful as guides in the PETSAVO area. They speak English well. If these men were wanted by the British Government, the Mond Nickel Company could get in touch with their representative at HAILUJOKI, who is a member of the Finnish Government, and he could arrange for these men to be released from army service. It might, however, take a certain amount of time to find these men and get them released.

II.

Notes made by Commander Litchfield-Saunders during a journey from HELSINGFORS to PETSAVO and KILBIL, and thence by sea to MARVIA and by railway to STOKHOLM via GALLIVARE and LULEA in August, 1935. The notes have been checked and amplified by reference to the Admiralty Pilots.

7. BEACHES IN THE PETSAVO AREA.

(a) PETSAVO Fiord. The western shore of the fiord is suitable for landing from boats for most of its length, except near the entrance where the cliffs are steep. The road from PETSAVO to LIINAHAMARI skirts the western shore a few yards from the beach; on the other side of the road the ground rises to rocky hills which command the beach and have little vegetation but some natural cover in the shape of boulders. The beach is rocky but appears to be fairly steep - to 4. There is a wooden pier at LIINAHAMARI 150 ft. long with a depth of 23 ft. alongside, and there is also a small ferry boat pier near the S.W. end of the fiord where boats could go alongside.

(b) The entrance to PETSAVO fiord, about 3/4 mile in width, is commanded by steep rocky bluffs, nearly barren, which could probably be easily defended. The "port" of LIINAHAMARI lies in a cove on the western shore of the fiord, some 5 miles south of the entrance, and is not open to direct bombardment from the sea. There is a sheltered anchorage off LIINAHAMARI capable of accommodating one ship of 600 ft. length and 30 ft. draught, and anchorage for 4 more ships of similar size at the southern end of the fiord. Otherwise, the fiord is too deep to anchor in.

(c) Coast to the west of PETSAVO fiord. In general, the coast to the west of PETSAVO fiord as far as the Norwegian frontier near JAKOBELV is steep and rocky with high cliffs in places, but there are a few coves or small inlets where a landing might possibly be effected. None of these possible landing places, however, have any proper communication with the interior. Taking these coves in order from east to west, there are:-

- (1) MURMANSKI (MURMANSKI PETTICHUA). On each side of the isthmus there are small bays, but only the eastern bay is used by fishing boats, as the western bay although larger is rocky and open north-westward. The eastern bay is about 3 1/2 cables long by 1 cable wide and is sheltered from seaward. It lies about 1 1/2 miles west of the entrance to PETSAVO. The settlement of MURMANSKI consists of only a few turf covered huts, but there is a wooden pier with a depth of 23 ft. The beach is rocky, and the entrance into the bay is marked by an oblique bar. There is a short stretch of flatish ground behind the bay but the beach is now commanded by high ground beyond.

Communications inland are bad. There is no road, only a rough track across the hills to LIINAHAMARI. This track, which is marked by posts at intervals, runs in parts through defiles and is commanded almost all the way by high ground on both sides. On the other hand, by this route, high ground can be reached which overlooks LIINAHAMARI and the PETSAMO fiord.

- (ii) DOLGAYA BAY - about 6 miles west of PETSAMO. Is a narrow gap running south eastward between 2 high hills, and is so shallow at the entrance that even small vessels cannot enter at low water.

- (iii) BAZARNAYA BAY - 10 miles west of PETSAMO and about 4 miles from the Norwegian frontier. Is a narrow inlet extending about 1 mile south eastward. There is a bar with a depth of 4 fathoms inside the entrance but farther in there are depths of 12 fathoms. The bay is open to northerly winds but the swell does not penetrate. The width of the bay is about half a mile.

- (iv) JAKOBSELV. The JAKOBSELV river forms the boundary between Finland and Norway. From the Admiralty Pilot it does not appear that the inlet at the mouth of the river would be suitable for effecting any landing on account of shoals. There are one or two small bays to the eastward but none of them appear at all suitable.

- (d) Norwegian Coast from Finnish frontier to KIRKENES.
 This coast is very indented, but the only point at which any communication inland exists at all is at KIRKENES, where there is a road which joins the Finnish Arctic Highway at SALMIJARVI. There is a ferry to be crossed on this road. Taking the inlets from east to west, there are:-

- (i) KOBHOLM fiord - about 15 miles west of PETSAMO. A bay $2\frac{1}{2}$ miles ~~deep~~ by 1 mile in width. No use as an anchorage on account of depth of water and foul ground.

- (ii) JAR fiord - 22 miles west of PETSAMO. Is a deep inlet 10 miles long by about $\frac{1}{2}$ mile in width. There are anchorages for 2 ships of 600 ft. length in 34 fathoms near the head of the fiord, but there appear to be no proper communications into the interior.

- (iii) There are a number of small bays immediately east and west of JAR fiord but none of them appear worthy of note.

- (e) Coast to the east of PETSAMO fiord. The coast between

PETSAVO and the RIBACHI PENINSULA is bold and steep, but further to the east the west coast of the RIBACHI PENINSULA is less steep and landings could probably be made at a number of points. Going east from PETSAVO, there are:-

- (i) ANDARNAYA GULF. This lies immediately to the east of the entrance to PETSAVO and is surrounded by hilly country which would not favour a landing except at the extreme head of the Gulf.
- (ii) HAATTIVUONO. This is a small fishing settlement east of PETSAVO, lying in a broad bay open to the westward. There is a small pier and a rocky or shingle beach with sloping ground behind.
- (iii) GREDENI PENINSULA. The west coast of the GREDENI Peninsula is high and steep, but there are no cliffs. The ground is barren and there are no inlets.
- (iv) RIBACHI PENINSULA. Landings might be effected in BOLSHAYA BAY where open ground slopes up from the shore. There is a small pier at KERVANTO. This coast is, however, fully exposed to the west and north-west. The Russian frontier runs across the Peninsula near its western shore. There is a small and rather exposed harbour at the frontier settlement of VAITOLANTI at the northern tip of the Peninsula. East of the RIBACHI Peninsula is the MURMAN coast, which I had no opportunity to reconnoitre, although I was able to visit the whole coast as far as VAITOLANTI in a motor boat.
- (f) HEINASAARI ISLANDS. These islands lie 7 miles due north of PETSAVO and are shown on the chart as BOLSHOI AINOVSKI ISLANDS. They are low lying and have no harbours, but there is an anchorage off the southern shore of the main island. They are uninhabited and covered with a thick ground heath. It is just possible that aircraft might be operated from the main island but I am extremely doubtful about this as the ground is rough and undulating and there is a marshy lake in the middle.

8. CONTINUED FROM ISLAND FROM PETSAVO.

(a) The village of PETSAVO is a few miles south of LIINAHAMARI, with which it is connected by road. The only communication between PETSAVO and the railhead at ROVANIEMI, some 300 miles to the south, is by a single road, the Arctic Highway. This road, although a good one for such a remote region, is narrow, with a sand and gravel surface, fairly free from holes (before the war) but very loose in parts, and death on pneumatic tyres. There are a number of wooden bridges, and at two points rivers are crossed by rather primitive pontoon ferries. In the extreme north the vegetation is sparse and the ground is covered with a low growth of heath which bears edible berries in late summer. South of SAINIJARVI the country becomes less rugged and the forest begins, pine and birch at first, with firs further south.

The forest is fairly free from undergrowth and scrub, and can be penetrated on foot, but there are few tracks except those of reindeer and direction is very difficult. The going in the forest is sometimes tedious on account of rocks and boulders, and would be quite impracticable for M.T. Except in the extreme north, the forest would give excellent cover against air attack. Near the Arctic coast the hills are usually quite bare and afford no cover, but there are usually small trees in sheltered valleys and near the lakes and rivers.

(b) North of ROVANIELMI there are no Finnish towns in the accepted sense; names on the map usually represent a collection of wooden buildings built around a church, with perhaps a small modern inn. In some cases villages consist of no more than a few log huts.

(c) The country is extremely healthy in summer - one feels exceptionally fit and full of energy. June and July are however, bad months for mosquitoes, which are a real pest and cause acute discomfort unless veils are provided, although they are not malarial. Reindeer are fairly plentiful and the rivers and lakes teem with fish, and there is, of course, plenty of water and unlimited supply of wood in the forest country.

9. KIRKENES.

(a) The Norwegian port of KIRKENES, the terminus of the Norwegian coast mail service and a port of export for iron ore and timber, lies about 40 miles west of PETSAMO and is situated at the head of a network of fiords, 9 miles from the sea. There are 4 quays which have a least depth of 10 fathoms alongside, and the usual facilities of a small port. In the surrounding fiords there are suitable anchoring berths for about 9 ships of 600 ft. length and 30 ft. draught, and a further 21 berths are available in depths of between 25 and 35 fathoms (information about berths calculated by D. of N.).

(b) There is a short railway line from KIRKENES to the southward to some mines, but the only connection by land with the PETSAMO-ROVANIEMI road to the south is by road to SALLIJARVI, which is on the PETSAMO road.

III.

10. Photographs taken by Commander Hitchfield-Speer of the PETSAMO fiord and its entrance, ROKKENSATTI and some other parts of the PETSAMO coast, and of the Arctic Highway and the country near KIRKENES are available and could be reproduced if required.

(Signed)

V. J. CHURCHILL
Rear-Admiral.