

H.M. Ships keeping pointed in the direction from which attack is expected.

(1) *Northern Entrance*. Closed by A/T Baffle.

(2) *Eastern Side*. Covered by line of B.I Indicator Net outside from Maagoy to Harstad Light.

(3) *Southern Entrance*. Covered by mine-loop if possible.

(4) *Patrol*. One A/S small craft, and for watching Indicator Net.

(5) *Examination Service*. Armed Trawlers.

B. TJELDSUNDET ANCHORAGE AND BASE—NORTHERN END:

(1) *TAAKEBOEN BEACON to HELLA*. Shallow mines. Bottom is unsuitable for nets; any S/M attempting to get in would have to be shallow owing to navigational difficulties.

(2) *TAAKEBOEN to STEGHOLM*. 4-cable wide channel, 70 to 80 fathoms deep. Deep mines or mine loop.

(3) *Patrol*. One A/S small craft.

(4) *4.7-inch L.A. Battery*. $\frac{3}{4}$ mile north of Langkvitneset.

(5) *12-Pdr. Battery*. At Langkvitneset.

(6) *A/B Boom*. At Langkvitneset.

C. TJELDSUNDET ANCHORAGE AND BASE SOUTHERN END:

(1) *RAMSUNDET*. A/B Boom and Light Battery (further reconnaissance required).

(2) *STAKSVOLLHOLM Net*. B.I Indicator Net and Gate $\frac{1}{2}$ mile south of Island.

(3) *12-Pdr. Battery on STAKSVOLLHOLM ISLAND*.

(4) *A/B Boom by STAKSVOLLHOLM Island*.

(5) *Mine Loop*. Possibly in Southern Tjeldsundet.

(6) *Patrol*. Vessel with D.Cs. watching Net.

D. BALLANGEN.

A/S Vessel on patrol outside when required.

E. NARVIK—Awaiting capture.

No defences suggested at present.

F. TROMSO—N.E. APPROACHES.

(1) *GROTSUNDET*. Closed with deep and shallow mines from small island with light off Sjørnes to south shore. This will leave a narrow channel close to north shore for local craft and probably warships up to and including Cruisers.

(2) *KVALSUNDET*. Shallow mines, but few will be necessary, owing to its existing navigational difficulties.

(3) *Patrols*. Armed patrol vessel to control channel by Sjørnes. Patrol at inner end of Kvalsundet would be desirable.

G. TROMSO—S.E. APPROACHES.

(1) *RYOY ISLAND*. Narrows controlled by a light battery on the Island and A/S Patrol craft. Deep mines might also be laid if no A/S vessel was available.

OUTER DEFENCES.

A. TROMSO—S. APPROACH TO TROMSO AND N. APPROACH TO VAAGS FIORD VIA GI SUND.

(1) *MALANGEN FIORDS*. H.D.A.s between Lokvik and Boenoes. Also a heavy battery (reconnaissance required). A/S Patrol. Local protection would be necessary for these defences.

(2) *Patrol*. Less effective but simpler alternative would be patrol of 2 A/S Destroyers.

(3) *GI SUND*. Norwegian patrol vessels watching narrows where S/M must pass at shallow depth.

B. VAAGS FIORD—N.E. APPROACH.

One destroyer off Tranoy Fiord, for general patrol duties in Vaags Fiord and backing up of other patrols.

C. VAAGS FIORD—N. APPROACH.

(1) *SANDSOY to LEMMINGVOER*. Fiord to be closed on this line with deep and shallow mines.

(2) *Patrol*. One destroyer inside mine-field.

D. VAAGS FIORD—W. APPROACH—TOPSUNDET.

(1) *H.D.A.s*. Western End.

(2) *Mine Loop*. Possibly.

(3) *6-inch or 4.7 inch Battery* at Western end.

(4) *12-Pdr. Battery and A/B Boom* at Eastern end.

(5) *Patrols*. One A/S small craft behind H.D.A.s and one standby. Detailed reconnaissance is required for all Topsundet defences.

E. TJELDSUNDET SOUTH and OFOT FIORD.

(1) *H.D.A.s*. Between Rotvaer and Baroy.

(2) *Deep Mines*. $\frac{1}{4}$ mile each side just inside H.D.A.s.

(3) *Shallow Mines*. Three lines $1\frac{3}{4}$ miles long approximately: 310° from S.W. point of Baroy. (Navigation buoy S.W. of Rotvaer.)

(4) *Open Channel*. North of Rotvaer Island for small local craft. Controlled by small armed vessel at inner end.

(5) *6-inch Battery* at Lodingen.

(6) There is a possibility of effectively locating another 6-inch Battery in unfinished Norwegian emplacements at Ramnes but a further reconnaissance is required.

(7) *Patrols*. Two A/S small craft with H.D.A.s. One destroyer between Baroy and Ramsundet.

8. Of the foregoing, the patrols were established early and worked regularly. None of the guns were actually mounted but the sites had been prepared. All the preparatory planning work for the mining had been done. The B.I Indicator Net had been laid south of Staksvollholm but both ends still required completing to the shore and the gate had not been laid. A B.I Net, originally intended for Narvik,