

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.
SECTOR 7 — CHART INFORMATION

SECTOR 7

SWEDEN—EAST COAST—KALMARSUND TO LANDSORT

Plan.—This sector describes the Swedish coast between Krakelund, at the NW end of Kalmarsund, and Landsort. The descriptive sequence is from S to N.

General Remarks

7.1 The coast between the island of Krakelund and Landsort, 86 miles NNE, presents very few natural landmarks that are identifiable from the offing. Numerous islets and rocks from this stretch of coast. They are joined by shoals and fronted by detached shallow patches. Variable depths, with possible uncharted shoals and rocks, lie in the coastal approaches and soundings give no indication of the distance offshore. To facilitate navigation in this area, numerous beacons and daymarks are situated on the points located adjacent to the intricate channels leading to the harbors. Local knowledge is essential for gaining access to the harbors lying along this part of the coast.

Rocky shoals lie as far as 10 miles offshore and buoys or beacons mark the off-lying dangers. Landsortsdjupet (58°38'N., 18°15'E.), the deepest part of the Baltic Sea, lies ESE of Landsort.

Winds—Weather.—The water level range in this area may be as much as 1.5m. The level usually rises with N and NE winds and falls with W and SW winds.

Ice.—During January, February, and March, ice often blocks the coastal approach channels lying along this coast. However, icebreakers keep the main channels and harbors open to shipping.

Pilotage.—Pilotage is mandatory within Swedish coastal waters which include channels, canals, and inland waterway passages leading between the harbors. Pilotage at most of the main ports within this sector is controlled by Oxelosund VTS. Vessels should send a request for pilotage and an ETA at least 12 hours in advance, with a confirmation 5 hours prior to arrival.

The Oxelosund Pilotage Area lies between a line bearing 154° through Ragon (58°48'N., 17°26'E.) and latitude 58°00'N. Pilotage in this area is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 and 3 vessels of 70m in length, 14m beam, and 4.5m draft and over.

In certain channels between Gustav Dalen and Vinterklasen, pilotage is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 vessels of 90m in length or 16m beam and over.
3. Category 3 vessels of 100m in length or 17m beam and over.

In certain channels between Vinterklasen and Oxelosund, pilotage is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 and 3 vessels of 90m in length or 16m beam and over.

In certain channels between Vinterklasen and Norrköping, pilotage is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 vessels of 80m in length or 15m beam and over.
3. Category 3 vessels of 90m in length or 16m beam and over.

In certain channels between Gustav Dalen (through Lillhammarsgrun) and Oxelosund Jarnverk, pilotage is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 and 3 vessels of 90m in length or 16m beam and over.

Pilots can be contacted by VHF and usually board 1.5 miles NNW of Gustav Dalen Light (58°36'N., 17°28'E.) or, by special arrangement, S of Vinterklasen (58°39'N., 17°08'E.).

The Malaren/Landsort Pilotage Area extends E and N from the vicinity of Stora Rotholmen (59°04'N., 18°19'E.) and is fully described under Sodertälje in [paragraph 7.17](#).

Regulations.—Speed restrictions are in effect within each pilotage area and within the coastal approach channels.

Because of the non-tidal nature of these waters, the Swedish authorities have enacted stringent anti-pollution regulations.

Caution.—Anchoring or fishing off this stretch of coast are considered dangerous because of the possibility of mines being adrift on the bottom, and are prohibited within an area, which may best be seen on the chart, centered 5 miles SE of Kungsgrundet (57°41'N., 16°54'E.).

Ice and spring thaws, combined with resultant changes in the tortuous channels, may cause the charted position of buoys to become unreliable.

Local magnetic disturbances are reported to exist along this stretch of coast.

Ice channels, with special regulations, lead through the offshore archipelago to several small harbors.

Krakelund to Arko

7.2 **Krakelund** (57°27'N., 16°43'E.) is [described in paragraph 5.14](#). The rocky and wooded coast extending between this island and Arko (58°30'N., 16°58'E.) is very irregular and indented by several inlets with variable depths. Between Krakelund and Ido Stangskar, located 14 miles N in the S approach to Vastervik, the mainland shore is fronted by several islands, islets, and rocks which extend up to 6 miles seaward.

Prominent landmarks along this stretch of coast include the wooded islands of Vino (57°31'N., 16°42'E.) and Hasselo (57°50'N., 16°45'E.); Huno Bote (57°34'N., 16°37'E.), a wooded and round-topped hill, 51m high; Gindriksnasberget (57°36'N., 16°35'E.), a flat-topped hill, which is 60m high and steep on its S side; and Vindasen (57°55'N., 16°47'E.), an extensive wooded hill.

Ljungskar (57°31'N., 16°47'E.), a bare islet, lies 2 miles E of Vino and is surmounted by a prominent beacon, 10m high. A light is shown from a tower, 9m high, standing on this islet.

Depths—Limitations.—A sheltered inshore channel leads through the archipelago which fronts the coast between Krakelund and the seaward approaches to Stockholm. Vessels with drafts of up to 5m can transit this channel, but local knowledge is required. Several approach fairways lead from seaward, between dangers marked by lights and buoys, to this inshore channel and then to numerous minor, local harbors. The channel may be entered at its S end via Krakelund, Ljungskar SE, or Ljungskar E entrances. The Krakelund entrance can be used by vessels with drafts of up to 3.6m. Ljungskar SE and Ljungskar E entrances can be used by vessels with drafts of up to 5 and 6.8m, respectively.

Keeping in the deep-water sections of the channel, vessels of up to 5m draft can transit through the archipelago channel from Krakelund to Landsort.

Caution.—A local magnetic anomaly is reported to exist within an area centered about 3 miles E of Ljungskar. Deflections of up to 5° and 6° of the compass have been observed.

Depths along the tracks in the deep-water sections of the inshore channels may vary and the local authorities should be contacted for the latest information concerning maximum allowed drafts.

7.3 Blackan (57°29'N., 16°49'E.), a group of shallow and rocky patches, lies in the outer approaches to the inshore channel and is marked by a lighted buoy.

Gasfjarden (57°34'N., 16°35'E.), a bay, lies NW of Vino. It is approached NE of Blackan via a fairway which can be used by vessels with drafts of up to 6.8m. Anchorage can be taken within this bay and to the W of Huno Bote in several places with good holding ground, but local knowledge is required.

Flivik (57°33'N., 16°35'E.), a small loading place, lies on the S side of Gasfjarden. There is a pier, in poor condition, with depths of 2 to 4m alongside. A jetty, used for loading stone, is situated 1 mile N of the pier. It can accommodate small vessels with drafts of up to 5.8m.

Blankaholm, a former timber loading place, lies on the NW side of Gasfjarden, 3 miles NNW of Flivik. It has 300m of berthage and can accommodate vessels up to 4.8m draft. This facility is now only used by pleasure boats and small craft.

Verkebacksviken (57°40'N., 16°39'E.), a deep and narrow inlet, is entered 9 miles N of Vino. It is fronted by shoal patches which extends up to about 7 miles offshore. Handelop Island (57°41'N., 16°44'E.) and several islets lie in the entrance to this inlet.

A fairway leads between the islets in the entrance and allows vessels with draft of up to 7m to proceed to the head of the inlet. Vessels up to 105m in length, 16m beam, 34m airdraft, and 7m draft can reach Gunnebo and Verkeback, two loading places lying 6 miles NW of inlet entrance.

A small quay at Gunnebo serves an iron works. It is 53m long and has depths of 4.3 to 4.8m alongside. Vessels can anchor, in a depth of 25m, clay, off the quay, but local knowledge is required. An outfall pipeline extends seaward in the vicinity of the quay and its landing place is indicated by a notice board.

A small quay at **Verkeback** (57°44'N., 16°32'E.) ([World Port Index No. 25050](#)) is used for loading timber. It has a berth, 90m long, with depths of 2.4 to 6.7m alongside. Vessels can anchor, in a depth of 40m, clay, off the quay, but local knowledge is required. Anchorage can also be taken, in a depth of 24m, clay, at the head of the inlet, but local knowledge is required as an outfall pipeline lies in the vicinity.

7.4 Skaftet (57°39'N., 16°35'E.), a loading place, lies on the SW side of a narrow channel which joins the main fairway leading into Verkebacksviken. There is 305m of total quayage with depths of 3.5 to 5m alongside. Anchorage can be taken in a depth of 20m, clay, off the quay.

Ido Stangskar (57°40'N., 16°47'E.), an islet, lies 1.5 miles E of Handelop Island. A main light is shown from a tower standing on the N side of the islet and a beacon is situated close S of it.

Hannklabbshallan (57°40'N., 16°48'E.), a rock, lies 0.4 mile ESE of Ido Stangskar Light. A light is shown from a tower, 9m high, standing on this rock.

Sparo (57°43'N., 16°44'E.), a barren island, lies close off the coast, 3.2 miles NW of Ido Stangskar. A light is shown from a tower, 8m high, standing on the S extremity of this island and a prominent beacon, 24m high, stands on the W side. A prominent chimney is reported to stand 2.3 miles WNW of the beacon.

Kungsgrund (57°41'N., 16°54'E.), a shoal, lies 4 miles ENE of Ido Stangskar and is awash in places. A main light (Kungsgrundet) is shown from prominent tower, 29m high, standing on this shoal. A racon is situated at the light.

The coast in the vicinity of Sparo and Kungsgrund is fronted by numerous islets, rocks, and reefs. Ido (57°43'N., 16°46'E.) is the easternmost of four islands which lie in the entrance to Gamlebyviken and is marked by a light. Kroko and Grono are two islands lying W of Ido. The area around these islands is encumbered with numerous rocky shoals. Channels, marked by buoys, lead between the dangers and into Gamlebyviken. The inshore channel leads between Ido and Stickskar (57°43'N., 16°45'E.), an islet, which lies close NNW and is marked by a light. Stangskar (57°44'N., 16°45'E.), an islet, lies 0.8 mile NW of Stickskar and is marked by a beacon.

Gamlebyviken (57°44'N., 16°42'E.), a narrow inlet, indents the coast to the NW of Sparo and is bound to the E by Norrlandet, a peninsula. This inlet, which is entered from the inner part of Vastervik harbor, has depths of 7.5 to 25m. A fairway leads through the middle of the inlet and can be used by vessels up to 75m in length, 15m beam, and 5.5m draft.

7.5 Gamleby (57°54'N., 16°25'E.) ([World Port Index No. 25080](#)), a small harbor, lies 2 miles S of the head of the inlet. There is 260m of quayage with depths of 4 to 5m alongside. Small vessels with drafts up to 4.5m can be accommodated alongside. It is reported (1999) that cargo is no longer worked here.

During severe winters, Gamleby and the other harbors along this part of the coast are usually closed by ice from January to March.

Anchorage may be taken by vessels with local knowledge, in depths of 10 to 25m, mud and clay, within an inlet lying on the SW side of Gamlebyviken, 7 miles NW of Vastervik.

Vasterbaden (57°45'N., 16°45'E.), a rock, lies 2.5 miles E of Vastervik. A main light is shown from a prominent tower, 15m high, standing on this rock. A racon is situated at the light.

Caution.—Due to the possible existence of bottom mines, an area, within which anchoring and fishing are prohibited, lies centered 8 miles ENE of Vasterbaden Light and may best be seen on the chart.

Vastervik (57°46'N., 16°39'E.)

World Port Index No. 25060

7.6 Vastervik, a sheltered harbor, lies within the entrance of Gamlebyviken and is formed by several islands, connected by bridges. It is protected on the NE side by Granso, peninsula, which extends SE from the S end of Norrlandet.

Depths—Limitations.—Two main approach routes lead from seaward to Vastervik. The SE approach route, authorized for drafts up to 6.5m, leads 8 miles NW from a position located about 5 miles S of Kungsgrundet Light to Idofjarden (57°42'N., 16°45'E.). It passes SW of Hamnklabbshallan Light and close E of Ido Stangskar. This route then divides into two tracks. The easternmost track, which is authorized for drafts up to 5m, leads N through Idosund, a passage lying between Ido and Kroko, and then W to the entrance of the inlet. The westernmost track, which is authorized for drafts up to 4.5m, leads NW and N through Sparosund, a passage lying between Sparo and Grono.

The E approach route, which is authorized for drafts up to 8.5m, leads W from the vicinity of Vasterviksangoring Lighted Buoy toward Vasterbadan Light. It then leads SSW and passes close SE of the latter light. The track continues though Tallskarshalet, a narrow channel, to the entrance of the inlet.

Secondary tracks lead N and S to the entrance of the inlet from the inshore coastal route.

Lusarna, an island, lies in the inlet and divides the harbor into outer and inner parts. Blockholm Sound, a narrow channel, passes N of Lusarna and leads into the inner part of the harbor. It is marked by buoys and has a least depth of 5.8m. Vessels with drafts up to 5.5m can enter the inner harbor through this passage.

Gamlebyviken extends 12 miles NW from the inner part of the harbor. This inlet can be entered via two canals, one spanned by a bascule bridge and the other by a low fixed bridge. The fairway leading through the inlet passes through the northernmost canal and is authorized for drafts up to 5.5m. The bascule bridge spanning this canal has a navigable width of 18m.

The main commercial facilities in the outer harbor are situated at the E side of Lusarna. The northernmost berth is 150m long and has a depth of 9.5m alongside. It has a ro-ro ramp at the S end with a depth of 8.3m alongside. The central berth is 200m long and has a depth of 8.3m. The southernmost berth is 100m long and has a depth of 6m alongside.

Nya Skeppsbrokajen, the main quay in the inner harbor, is located on the W side. It provides a commercial berth, 240m long, with a depth of 5.5m alongside and a fishing berth, 290m long, with a depth of 5.5m alongside.

There are facilities for tanker, general cargo, ro-ro, container, bulk, and passenger vessels. Vessels up to 25,000 dwt, 165m in length, 25m beam, and 8.5m draft can be accommodated.

Aspect.—Vasterviksangoring Lighted Buoy (57°45'N., 16°55'E.), an outer approach lighted buoy, is moored about 3.8 miles N of Kungsgrundet Light.

Buoys and beacons mark the numerous rocks, islets, and shoals which lie adjacent to the approach tracks and channels. The main fairways are indicated by lighted ranges which may best be seen on the chart.

Granso Kanal, a shallow canal, leads N between the NW end of the Granso peninsula and the SE end of the Norrlandet peninsula. It is spanned by a fixed bridge.

A prominent church and a conspicuous water tower stand in the town.

Pilotage.—Pilotage is compulsory. Pilots are provided by the station at Oskarshamn and may be contacted by VHF. They board about 1 mile E of Vasterviksangoring Lighted Buoy, about 4 miles SSW of Kungsgrundet Light, or near Asken (57°45'N., 16°47'E.).

All ordering of pilots must be made through Oxelosund VTS (see paragraph 7.1).

Regulations.—Speed limits are in force within the harbor areas.

Anchorage.—Good anchorage can be obtained, in depths of 12 to 23m, clay bottom, within Lindodjupet, about 0.2 mile SW of the S extremity of Sparo. Anchorage can be obtained, in depths of 10 to 25m, loose mud bottom, within the outer harbor, SE of Lusarna. Anchorage can be obtained, in depths of 10 to 15m, loose mud bottom, within the inner harbor, W of Lucerna. Local knowledge is required for these roadsteads.

Caution.—A power cable, with a vertical clearance of 30m, spans Sparosund.

Currents with a velocities of 3 to 4 knots may be encountered within Sparosund.

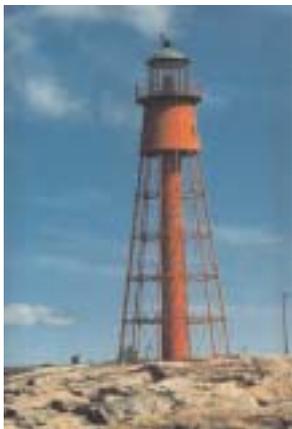
Several submarine cables lie in the approaches and may best be seen on the chart.

Local knowledge is necessary when using any of the entrance fairways.

7.7 Haradskar (58°09'N., 16°59'E.), a small and prominent island, lies 25 miles NNE of Vasterbaden. The coast between is fronted by numerous islets, rocks, and shoals. A main light is shown from a prominent tower, 29m high, standing on the S end of this island.

Numerous small loading places and fishing harbors lie within the inlets which indent this section of the shore. Several channels lead through the offshore obstructions and may be used by vessels with local knowledge.

Between Haradskar and Arko, 20 miles N, the inlets, which indent the coast, cannot be entered from the open sea. Numerous islets and rocks front the shore and extend up to 12 miles seaward in places. A passage, entered 3.5 miles NW of Haradskar, joins the inshore channel and leads to the small harbors of Arko, Soderkoping, and Mem. The mainland is generally too low in this vicinity to be seen from offshore. Gubbo Kupa, a hill, stands on the S side of an island, 3 miles NNW of Haradskar. It is 30m high, surmounted by a beacon, and is visible from seaward.



Haradskar Light

Sandsankan (58°19'N., 17°10'E.), a rock, lies 11.2 miles NNE of Haradskar. A main light is shown from a tower, 15m high, standing on this rock.

Caution.—Due to the possible existence of bottom mines, an area, within which anchoring and fishing are prohibited, lies centered 5 miles SE of Haradskar and may best be seen on the chart.

An unsurveyed area, which may best be seen on the chart, lies between the inshore channel and the open sea and extends between Haradskar and Arko.

Nielsengrund, an off-lying shoal, lies about 26 miles E of Sandankan and has a least depth of 15m.

7.8 Mem (58°29'N., 16°25'E.) ([World Port Index No. 25160](#)), a small harbor, lies at the head of Slatbakenand, 17 miles W of Arko. It has a depth of 3m and is used by pleasure craft. Small vessels may anchor, in depths of 6 to 12m, clay, close off Killingholm, an islet lying 0.4 mile E of the harbor.

Gota Kanal (58°29'N., 16°25'E.), 103 miles long, is the longest canal in Sweden. It connects the Baltic Sea, in the vicinity of Mem, to the North Sea via Lake Vanern and Lake Vattern. There are 58 locks, each 35m long and 7.1m wide, along the canal and it is spanned by 42 bridges. Vessels up to 30m in length, 7m beam, and 2.8m draft can transit. The canal is reported (1993) to be closed to commercial vessels and is used only by pleasure craft.

Arko (58°30'N., 16°58'E.), an island, lies close E of the Vikbolandet peninsula and is separated from it by Arkosund, a passage, which leads NW into Gransosund. The island is fronted by rocks, reefs, and shoals, except on its SW side. A beacon, 20m high, stands on the SE side of the island and a prominent disused light tower, 11m high, is situated on the N side of Viskar, 0.2 mile SSE of it. Maro Kupa, a bare and prominent hill, stands on the S end of Lanjo, a wooded island lying 3.5 miles S of the beacon.

Arkosund (58°29'N., 16°57'E.), the passage leading W of Arko, can be used by vessels with drafts up to 5.5m. The inshore channel leads through Barosund and into Arkosund. Local knowledge is required.

Gransosund (58°31'N., 16°54'E.), a NW continuation of Arkosund, leads W of Granso, an island lying 2 miles NW of

Arko. This marked channel can be used by vessels with drafts up to 5.5m. Two fairways, marked by lights and buoys, lead NNE and NNW from Gransosund. The former fairway passes close W of Maro (58°34'N., 16°53'E.), an island marked by a light, and continues ENE along the coast to Oxelosund. Both fairways can be used by vessels with drafts up to 5m.

Arko to Enskar

7.9 The irregular and wooded coast lying between the islands of Arko and Enskar (58°41'N., 17°29'E.), 20 miles NE, forms a bight which is fronted by numerous obstructions. The coast is indented by several inlets and numerous small harbors and loading places lie within them. Several passages lead between the obstructions into these inlets. The fairways are indicated by lighted ranges, lights, and buoys, but local knowledge is required.

Variable depths and detached rocky shoals, with depths of less than 4m, lie up to 9 miles E of Arko and 5 miles SE of Enskar.

Norra Fallbadan (58°27'N., 17°06'E.), a group of rocks awash, lies centered 5 miles SE of Arko. A light is shown from a prominent tower, 17m high, standing on these rocks.

Havringe (58°36'N., 17°19'E.), an islet, lies at the center of an extensive group of rocks and shoals, 11.6 miles NE of Norra Fallbadan Light. A large and prominent beacon, 19m high, stands on the W side of this islet and a small floodlit beacon stands at the NW extremity. Another small beacon is situated on a rock lying close W of the NW extremity of the islet. Foul ground and obstructions extend up to 4 miles E and S of the islet.



Havringe Beacon

Vastra Korpen Light (58°36'N., 17°19'E.) is shown from a prominent floodlit tower, 7m high, standing on a small islet close NE of Havringe.

Gustaf Dalen Light (58°36'N., 17°28'E.) is shown from a prominent floodlit tower, 26m high, standing on a shoal, about 5 miles E of Havringe. A racon is situated at the light.

Norra Krankan (58°37'N., 17°23'E.), a rock, lies 2.3 miles ENE of Havringe. A main light is shown from a prominent floodlit tower, 11m high, standing on this rock. A racon is situated at the light.

Gullangsberg (58°37'N., 16°56'E.), a steep-to and conspicuous promontory, is located 8 miles N of Arko. Kummelberg, a wooded hill, rises 2.3 miles NNW of this promontory. It is 802m high and prominent.

Caution.—Unsurveyed areas, within which uncharted shoals may lie, front the coast between Arko and Enskar and may best be seen on the chart.

7.10 Braviken (58°38'N., 16°35'E.), an extensive inlet, extends 23 miles W of Gullangsberg and is encumbered by rocks, reefs, and shoals which constrict the navigable passages. The main fairways are indicated by sector lights and lighted ranges, and the obstructions lying adjacent to the channels are marked by buoys. Several small loading places are situated within this inlet and may be used by vessels with local knowledge. The port of Norrköping lies near the head of the inlet.

Ice.—The port approaches are kept open during the winter by icebreakers. Ice bridges may be established during the winter in the inner part of the inlet when the ice is strong enough to support road traffic.

Depths—Limitations.—Two principal entrance channels lead into Braviken and may best be seen on the chart. The main S channel, which is less than 200m wide in places, leads about 7.5 mile NW from a position located 5 miles S of Gustaf Dalen Light (58°36'N., 17°28'E.). It then leads about 2 miles WNW and passes close NE of Havringe (58°36'N., 17°19'E.) and close SW of Vastra Korpen Light. This track continues in a WNW direction and joins the main deep-water channel, 1.5 miles WNW of Havringe. This route can be used by vessels with drafts up to 6m. Local knowledge is required.

An alternate route leads 6.5 miles WNW from a position located 2.5 miles SSE of Gustaf Dalen Light and joins the main S channel close ESE of Havringe.

The main N channel, the principal deep-water route, leads in a NNW direction and passes close E of Gustaf Dalen Light (58°36'N., 17°28'E.). It then leads NW and W, passing N of Norra Krankan Light (58°37'N., 17°23'E.). This track continues W for about 10 miles to Vinterklasen (58°38.5'N., 17°08.0'E.), S of Oxelosund. Vessels with drafts up to 15.3m can proceed in this channel as far as Syd Vinterklasen, a lightening anchorage area lying 6 miles WNW of Havringe. Vessels with drafts up to 12.6m can proceed farther W for about 26 miles to the anchorage at Norrköping.

Vessels with suitable drafts can also approach from the E. They may proceed in a W direction and pass N of Gustaf Dalen Light. This track then joins the main N channel about 1.7 miles NNW of Gustaf Dalen Light.

An alternative channel, authorized for drafts up to 6m, runs almost parallel to and S of the main deep-water route between Vinterklasen, S of Oxelosund, and Gullangsberget (58°37'N., 16°56'E.).

From the vicinity of Havringe, other passages NW to Oxelosund and Nyköping, and N via Tvaren to harbors in the approaches to Stockholm.

Caution.—Local magnetic anomalies exist in the offshore approaches to Braviken.

Large unsurveyed areas, which may best be seen on the chart, lie in the approaches to Braviken.

Norrköping (58°35'N., 16°12'E.)

World Port Index No. 25190

7.11 Norrköping, a large commercial port, lies 3 miles above the mouth of the Motala River, which discharges into the head of Braviken. The Swedish Hydrographic Office is situated here.

Winds—Weather.—The mean water level may be raised by up to 0.9m by prevailing E winds and lowered by as much as 0.6m by prevailing W winds.

Depths—Limitations.—The two principal entrance channels leading into Braviken have been previously described in paragraph 7.10. The main channel leading from the vicinity of Havringe to the port is about 35 miles long and follows the N shore of the inlet to the anchorage roadstead off Stora Juten. Vessels with drafts up to 12.6m can proceed through the inlet, under normal conditions, to this anchorage.

From the vicinity of Stora Juten, a channel, dredged to a depth of 12.3m, leads SW to Pampus Oil Terminal and the entrance to the Lindo Canal. This canal leads to the inner harbor and is dredged to a depth of 9.5m.

The inner harbor has about 4,500m of total quayage with depths of 5 to 9m alongside. There are facilities for ro-ro, ferry, and passenger vessels. Vessels up to 190m in length and 8.4m draft can be accommodated.

Pampushammen is located on the E side of Handelo, 2 miles NE of the town. The bulk quay is 460m long and has a depth of 12m alongside. A ro-ro berth, 80m long, is situated at the SE end of the quay and has a depth of 9m alongside. The oil terminal has three berths, 180 to 230m long, with depths of 7.5 to 12m alongside.

Bravikenshamn is located on the SE side of the Malmolandet peninsula, 3.5 miles NE of the town. It is fronted by several small islets. The paper quay is 126m long and has a depth of 8.8m alongside. A ro-ro berth is situated at the SW end of the quay and has a depth of 6.8m alongside. It consists of dolphins and is 135m long.

Djuronshamn is located on the NW part of the Djuron peninsula, 5 miles NE of the town. Lilla Juten, a small islet, lies close W of this harbor. The main grain berth is 160m long and has a depth of 12.2m alongside.

The port has facilities for general cargo, passenger, ferry, bulk, tanker, container, and ro-ro vessels. Dry cargo vessels up to 43,700 dwt, 183m in length, and 11.4m draft can be accommodated. Tankers up to 66,800 dwt, 236m in length, 33.3m beam, and 11.4m draft can be accommodated.

Aspect.—A conspicuous aeronautical light is shown from a structure standing 1.5 miles SE of the town. A prominent tank farm is situated in the vicinity of the harbor.

Pilotage.—All ordering of pilots for Norrköping must be made through Oxelosund VTS (see paragraph 7.1).

Regulations.—A Vessel Traffic Service (VTS) system has been established within the approaches to Braviken and is managed by the pilot station at Oxelosund. The system is mandatory for vessels over 300 grt, vessels over 50m in length, and towing vessels if the length including the tow is over 50m.

The Oxelosund VTS area includes the waters enclosed between Norrköping, Kallvik (58°47'N., 17°29'E.), Hartso Stangskar (58°42'N., 17°28'E.), Gustaf Dalen Light, and Arkosund.

This VTS system is designed to prevent large vessels, constrained by their draft, from being impeded while in the sections of the channel extending from Falkensgrund (58°37'N., 17°02'E.) to Munken (58°37'N., 16°58'E.) and from Stora Juten (58°30'N., 16°20'E.) to Norrköping. All vessels should obtain traffic information prior to transiting these sections

Vessels must report to the VTS traffic center on VHF channel 9, as follows:

1. On entry to or exit from the VTS area.
2. On passing Gustaf Dalen Light (58°37'N., 17°28'E.), Vinterklasen (58°38'N., 17°07'E.), Hargo (58°36'N., 16°54'E.), Algersgrund (58°39'N., 16°27'E.), and Arkosund (58°29'N., 16°57'E.).
3. Upon arrival and immediately before departure from a berth or anchorage; when changing from an intended route; and on being involved in a grounding, or collision, or any other occurrence causing any defect in navigation or maneuvering equipment.

All reports should include name, call sign, position, intended route, and destination.

The VTS traffic center may be contacted by E-mail at vtloxelosund@sjofartsverket.se.

Anchorage.—Designated anchorage areas lie centered 2 miles ENE and 10 miles E of Gustaf Dalen Light. The limits of these areas may best be seen on the chart.

It is reported (2002) that an anchorage area, designated for large vessels, lies centered 2 miles SE of Gustaf Dalen Light and has general depths of 45m.

During good weather, vessels with local knowledge can anchor, in a depth of 9m, clay, close inside of Havringe. Anchorage, where suitable, can also be taken throughout Braviken. Sheltered anchorage can be taken, in depths of 12 to 16m, clay, within the roadstead at Pampus, 0.4 mile SW of Stora Juten Light (58°38'N., 16°20'E.).

Caution.—Several submarine cables and pipelines lie across the fairway channel and may best be seen on the chart.

Islets, rocks, reefs, and shoal patches, too numerous to describe, lie adjacent to the entrance fairway and are best seen on the chart. Strict adherence to the marked fairways is advisable as uncharted shoal patches may also lie in the vicinity of the channels.

7.12 Falkens Grund Light (58°37'N., 17°02'E.) is shown from a prominent floodlit tower, 7m high, standing on a rock at the N side of the entrance to Braviken.

The coast between this light and Enskar (58°41'N., 17°28'E.), about 14 mile ENE, is rocky, wooded, and fronted by innumerable obstructions and detached shoals. Several inlets indent the shore and are accessible by passages which lead between the dangers. These passages should only be used by vessels with local knowledge.

Hargberg, a conspicuous wooded hill, rises on the NW side of Hartso Island (58°43'N., 17°28'E.) and has a prominent bare patch on its S side.

Lillhammarsgrund (58°40'N., 17°20'E.), an islet, is located 3.2 miles NNW of Norra Krankan. A main light is shown from a prominent tower, 12m high, standing on this islet. A racon is situated at the light.

Marsviken (58°39'N., 17°04'E.), an inlet, is entered between Falkens Grund Light and Oxelosund. It is fringed by shoals and fronted by several islets. A branch passage, authorized for drafts up to 4.3m, leads NW into the inlet from the N side of the entrance to Braviken. A dredged entrance channel, marked by buoys, leads from the anchorage roadstead at the head of the inlet into a small harbor. It has a depth of 4.4m and can be used by vessels up to 3.5m draft. The harbor has a pier, 70m long,

with a depths of 3.9m alongside. Anchorage can be taken, in depths of 7 to 12m, clay, near the head of the inlet. Local knowledge is required as several submarine cables and pipelines lie across the inlet.

Oxelosund (58°40'N., 17°07'E.)

World Port Index No. 25280

7.13 Oxelosund, an industrial port, is situated on a peninsula, 7.5 miles WNW of Havringe. The port includes the facilities at Jarnverk, a steelworks basin, located at the E side of the peninsula, 1 mile NE of the main harbor.

Winds—Weather.—The harbor, which is open to the S, is sheltered from strong S winds by the outer islands and rocks, but some ground swell may be encountered.

Ice.—During severe winters, ice may hinder vessels between January and April, but the main entrance channel is kept open by icebreakers.

Depths—Limitations.—The wooded peninsula, on which the port lies, is fronted at the E and SE sides by an extensive bank containing numerous islands, islets, rocks, and shoals. Most of the larger islands are situated SE of the harbor and provide good protection.

For information concerning the main approach channels leading into the entrance of Bravikean from seaward, see [paragraph 7.10](#). The main entrance channel branches NW from the principal N route within Bravikean at a position located about 1.2 miles SE of Vinterklasen (58°38.5'N., 17°08.0'E.); it is authorized for drafts up to 15.3m.

A secondary channel, authorized for drafts up to 6m, leads ENE and NE from the N side of Braviken. This narrow channel leads through the obstructions fronting the port and passes about 0.3 mile NNW of Vinterklasen before joining the main entrance fairway.

Another secondary channel, authorized for drafts up to 3.9m, leads SW from the alternate Nykoping entrance channel and joins the main fairway 0.4 mile NNE of Vinterklasen.

The entrance channel leading to Jarnverk branches off from the main approach route to Nykoping. It leads WNW and WSW for about 3.5 miles to the basin.

The main harbor provides about 1,050m of quayage with depths of 2.3 to 16.5m alongside. The main berth is 250m long. There are two ro-ro berths with depths of 6.9m and 8m alongside. There are facilities for bulk, general cargo, container, ro-ro, tanker, and ferry vessels. Generally, cargo vessels up to 265m in length, 41m beam, and 15.3m draft can be accommodated. Tankers up to 265m in length and 12.8m draft can be accommodated. It was reported (1994) that a vessel of 130,000 dwt had been handled within the port.

There is a quay at Jarnverk, 300m long, with a depth of 9.5m alongside. Vessels up to 25,000 dwt and 9.2 draft can be accommodated.

Aspect.—A conspicuous water tower stands in the E part of the town. A prominent church is situated in the NW part of the town. Several prominent chimneys stand in the vicinity of the steelworks at Jarnverk.

Several islands lie in the entrance to the harbor and may best be seen on the chart. The entrance fairway leads NW and is indicated by lighted ranges. Several rocks and detached shoal

patches lie close to the edge of the fairway and are marked by lights, buoys, and beacons.

Pilotage.—All ordering of pilots must be made through Oxelosund VTS (see paragraph 7.1).

Regulations.—The port lies within the Oxelosund VTS area. For more information, see paragraph 7.11 (Norrköping).

Anchorage.—Anchorage can be taken, in depths of 30 to 39m, clay, about 0.5 mile W of Vinterklasen (58°38.5'N., 17°08.0'E.). Anchorage can be taken in the approach to Jarnverk, in a depth of 22m, clay, about 0.7 mile ENE of Kolhalsen Light (58°41.5'N., 17°10.7'E.).

For the outer designated anchorage areas, see paragraph 7.11 (Norrköping).

Caution.—Islets, rocks, reefs, and shoal patches, too numerous to describe, lie adjacent to the entrance fairway and are best seen on a large scale chart of the area. Strict adherence to the marked fairways is advisable as uncharted shoal patches may also lie adjacent to the channels.

A permanent defensive minefield lies in the approach to the harbor and may best be seen on the chart. Anchoring and fishing are prohibited within the field and vessels passing through it during a thunderstorm do so at their own risk.

Nyköping (58°45'N., 17°01'E.)

World Port Index No. 25290

7.14 The port of Nyköping is situated 5.5 miles NNW of Oxelosund in the NW part of Stadsfjärden. It is formed by the outer part of the Nyköping River.

Winds—Weather.—The harbor and approaches are sheltered from bad weather.

Ice.—Between January and the middle of March, ice may obstruct the entrance channel and harbor basin, but icebreakers generally keep the port open.

Tides—Current.—The river creates a weak current which, during the spring flood, sometimes causes maneuvering problems within the inner part of the harbor.

Depths—Limitations.—Two approach channels lead to the anchorage roadstead in Orsbaken (58°42'N., 17°10'E.). The principal channel, which can be used by vessels with drafts up to 10.8m, is entered between Norra Krankan and Enskar, 4.5 miles NNE. From a position located 2 miles N of Gustaf Dalen Light (58°36'N., 17°28'E.), this route leads NW for about 12 miles to the roadstead. It passes NE of Lillhammarsgrund Light (58°40'N., 17°20'E.) and NE of Norra Masklubbshallan Light (58°40.2'N., 17°17.1'E.).

A secondary channel, which can be used by vessels with drafts up to 5m, branches off from the main N channel leading into Braviken. From a position located 0.8 mile NNW of Havringe, this route leads NW through the archipelago for about 7 miles to the roadstead.

The entrance channel leads NW and WNW for about 4 miles from the N side of the roadstead in Orsbaken to the harbor. It is dredged to a depth of 5.4m, over a bottom width of 30m, and can be used by vessels with drafts up to 4.9m.

The main quay, with a ro-ro ramp at the N end, is 140m long and has a depth of 6m alongside. The remaining part of the harbor basin provides 560m of berthage with depths of 3.2 to 5.4m alongside. There are facilities for general cargo, bulk, and

ro-ro vessels. There are also extensive facilities for pleasure craft. Generally, Vessels up to 100m in length, 15m beam, and 4.9m draft can be accommodated.

Aspect.—The approach channels are indicated by sector lights and lighted ranges. Several rocks and detached shoal patches lie close to the edge of the fairway and are marked by lights, buoys, and beacons.

A prominent fixed bridge spans the head of the harbor basin and a conspicuous water tower is situated in the town.

Pilotage.—All ordering of pilots must be made through Oxelosund VTS (see paragraph 7.1).

Regulations.—The port lies within the Oxelosund VTS area. For more information, see paragraph 7.11 (Norrköping).

Anchorage.—Anchorage can be taken, in a depth of 22m, clay, in the S and central parts of the roadstead in Orsbaken (58°42'N., 17°10'E.). This roadstead is sheltered, except during SE winds.

For the outer designated anchorage areas, see paragraph 7.11 (Norrköping).

Caution.—Entry to the harbor at night is restricted to vessels up to 1,000 dwt.

7.15 The coast between Nyköping and Enskar (58°41'N., 17°29'E.) is fronted by innumerable islets, rocks, and shoals which may best be seen on the chart. The inshore coastal channel leads NE from Ledskar Light (58°42'N., 17°13'E.) through the offshore archipelago to a position E of Bergo Islet (58°45'N., 17°25'E.). It then joins the approach fairway which leads N and passes W of Enskar. This latter fairway can be used by vessels with drafts up to 6.7m. The inshore coastal channel from Bergo divides W of Savo Island. One branch rounds the N end of the island and leads SE; the other branch leads E through Savosund (58°46'N., 17°29'E.), where it rejoins the first branch. Vessels with drafts up to 6m and 4.2m can use the N branch and E branch, respectively.

Enskar (58°41'N., 17°28'E.), a sparsely-wooded island, lies about 7 miles NE of Havringe and has a prominent white patch on its S extremity.

Enskar to Landsort

7.16 The wooded, rocky, and irregular coast extending between Enskar and Landsort is fronted by numerous islets, rocks, and shoals. Several inshore and coastal channels lead through these obstructions. The principal channel leads N to Sodertälje Harbor and the entrance of the inland waterway system. There are few natural landmarks in this vicinity, except Landsort.

Sector lights, buoys, and beacons mark many of the obstructions lying near the approach and entrance fairways. Detached shoals extend up to 5 miles seaward of Enskar and Landsort. There are areas of deep water between many of these obstructions, but without local knowledge only the prescribed and charted fairways should be used.

Between Enskar and Landsort, the coastline turns abruptly N and is indented by several inlets. These inlets are fronted by dangers through which narrow fairways lead to several minor loading places. The inshore coastal channel, after leaving Savosund, leads E between the dangers and joins the Sodertälje approach fairway, about 4 miles NW of Landsort.

Prominent landmarks in this vicinity include Storro (58°41'N., 17°33'E.), a high and barren island, which lies 2.5 miles ENE of Enskar; and a high look-out tower standing on the island of Lacka (58°45'N., 17°34'E.).

Hallsviken (58°53'N., 17°28'E.), a small loading place, lies at the head of an inlet, 15 miles NW of Landsort. It is approached through an inlet, 5 miles long, which has depths of 7 to 27m and is fringed by reefs. The inshore coastal channel, with a least depth of 6.7m, leads to the entrance of this loading place. Anchorage can be taken, in depths of 8 to 15m, clay, throughout the inlet, but local knowledge is required.

Morko (58°59'N., 17°40'E.), an island 10 miles long, lies in the middle of the inlet leading to Sodertälje. Palsundet, a constricted passage, extends N between Morko and the mainland. It has a least depth of 3m and is spanned by a bridge. A ferry and a submarine cable cross the passage, 4.2 miles N of the bridge.

Oaxen (58°58'N., 17°43'E.), an island, lies close E of Morko and adjacent to the approach fairway leading to Sodertälje. Anchorage can be taken, in depths of 13 to 27m, clay, E of the island or in depths of 10 to 22m, clay, S or W of the island.

Stora Vika (58°56'N., 17°47'E.) a small harbor, lies at the E side of an inlet located 3 miles SE of Oaxen. A branch fairway leads NNE from the main Sodertälje approach channel to this harbor. A quay, 200m long, fronts a cement works and has depths of 6 to 7m alongside. Vessels with drafts up to 6.3m can be accommodated. It is reported (2002) that the cement works are disused.

Sodertälje (59°11'N., 17°39'E.)

[World Port Index No. 25320](#)

7.17 The port of Sodertälje stands on both sides of the head of an inlet in the vicinity of the entrance to the Sodertälje Canal. It lies 28 miles NNW of Landsort and 22 miles SW of Stockholm. The port serves as an important link between the Baltic Sea and the Swedish inland waterway system. The canal leads N into Lake Malaren, an extensive inland sea encumbered by numerous islands.

Ice.—Between January and the end of March, ice may hinder vessels entering the port or the Sodertälje Canal.

Depths—Limitations.—An intricate approach fairway leads to Sodertälje from W of Landsort and local knowledge is necessary for transit. Vessels should approach the pilot boarding position from the S and pass about 0.3 mile E of Landsorts Angoring Lighted Buoy (58°40'N., 17°52.0'E.). This main approach fairway can be used by vessels with drafts up to 9m as far as the outer part of the harbor, S of the canal entrance.

The port consists of several berthing areas. The main commercial facilities lie on each side of the harbor fairway and S of the canal entrance.

Sydhamnen, at the W side, has four ro-ro berths. The berths are 100 to 160m long and have depths of 6.4 to 9.8m alongside.

Oljehamnen, the oil harbor, lies close above Sydhamnen. It has two berths, 70 and 120m long, with depths of 10.1m and 6.9m alongside, respectively.

Igelstahamnen, a bulk harbor, lies close above Oljehamnen at the E side. It has a quay, 145m long, with a depth of 10.5m alongside.

Uthamnen, the outer harbor, lies adjacent to the canal entrance. The N part has a cargo quay, 90m long, with a depth of 8m alongside. The S part has a bulk jetty berth, 130m long, with a depth of 8.4m alongside. Another quay, located in the N part, provides 280m of berthage but is no longer used.

Maren, a basin, lies close S of the canal lock. It has depths of 3 to 4m and is used by yachts and small craft.

The port has facilities for general cargo, container, bulk, and ro-ro vessels. Vessels up to 35,000 dwt, 200m in length, 32m beam, and 9m draft can be accommodated.

Vessels with air drafts up to 50m can enter Sydhamnen, but are limited beyond this S harbor to air drafts of 40.5m.

The Sodertälje Canal connects Uthamnen, the outer harbor, with Lake Malaren and is about 3 miles long. It is 61m wide and has depths of 7.6 to 8.4m. Generally, vessels are limited to a maximum draft of 6.8m, but vessels with drafts up to 7m can transit with prior special permission. A lock is located in the central part of the canal and limits the size of vessels transiting. It is 135m long and 19.6m wide, with a depth of 8m over the sill. Vessels are limited to a maximum length of 124m. A vessel with a beam of 17m can transit with a draft up to 6.8m and a vessel with a beam of 18m can transit with a draft up to 6.5m.

The canal is spanned by five bridges and vessels are limited N of Sodertälje to an air draft of 34m.

Malarhamnen, a small harbor, lies at the N end of the canal. It provides 280m of berthage, with depths of 3 to 6m alongside. This harbor is mainly used by vessels waiting to transit the canal. Snackvikshamnen is located close NW of Malarhamnen. This quay is 80m long and has a depth of 5.5m alongside.

Vessels up to 8,000 dwt and 6.8m draft can reach Stockholm and Malaren via the lake.

Aspect.—The approach channel is marked by lighted ranges, sector lights, and buoys. The numerous dangers lying adjacent to the fairway may best be seen on local Swedish charts of the area. A number of conspicuous silos stand in the harbor area.

Pilotage.—Pilotage is compulsory in the Malaren/Landsort Traffic Area (see Regulations) for the following vessels:

1. All Category 1 vessels.
2. Category 2 and 3 vessels of 70m in length, 14m beam, and 4.5m draft and over.

In certain channels between Landsort and Nynashamn, pilotage is compulsory for the following vessels:

1. All Category 1 vessels.
2. Category 2 vessels of 90m in length or 16m beam and over.
3. Category 3 vessels of 100m in length or 17m beam and over.

All ordering of pilots within the area must be made through the Traffic Information Center of the Malaren/Landsort VTS at Sodertälje (Sodertälje Pilots). Vessels should send an ETA and request for pilotage at least 12 hours in advance of arrival at the boarding place with a confirmation at least 5 hours in advance.

Vessels intending to enter Lake Malaren with a draft of 7m must request special permission at least 48 hours in advance.

Boarding positions can be discussed with the pilot vessel on VHF channel 11 after first calling on VHF channel 68.

Pilots generally board about 2 miles S of Landsort Light or near Nynashamn Approach Lighted Buoy (58°45'N., 18°11'E.) for large vessels. Pilots also board at the Sodertälje station on Slussbron Lock (59°11'N., 17°39'E.).

Regulations.—A Vessel Traffic Service (VTS) reporting system operates within the Malaren/Landsort Traffic Area. It is mandatory for all vessels over 300 grt, all vessels over 50m in length, and towing vessels with tow lengths exceeding 50m.

The Malaren/Landsort Traffic Area has a seaward limit bounded by a line joining Stora Rotholmen (59°04'N., 18°19'E.), Langbaling (59°00'N., 18°23'E.), Stuphall (58°41'N., 18°00'E.), Landsorts Angoring Buoy (58°41'N., 17°52'E.), Hartso Stangskar (58°41'N., 17°28'E.), and Savosund (58°46'N., 17°29'E.).

Vessels within the VTS area must maintain a continuous listening watch on VHF, channel 68. Vessels unable to maintain a dual watch may, on request, use VHF channel 16. Vessels must report to the Traffic Information Center at Sodertälje, as follows:

1. Upon entering or leaving the Malaren/Landsort traffic area. Reports by vessels proceeding into the area should include name, call sign, position, intended route, and destination.
2. Upon arrival at or before departing a berth or an anchorage; when changing from the intended route; and on being involved in a grounding, or collision, or any other occurrence causing any defect in navigation or maneuvering equipment.
3. Upon passing the designated reporting points at Pipskar (58°55'N., 17°47'E.), Skansundet (59°04'N., 17°41'E.), and Flasklosa (59°07'N., 17°41'E.).

Upon request, the Malaren/Landsort Traffic Information Center will provide details of other vessels navigating in the near vicinity, passage information, ice conditions, and other pertinent facts. The center may be contacted by E-mail at vtssodertalje@sjofartsverket.se.

A similar VTS system serves the Sodertälje Canal and the inland waters to the N of it.

Speed restrictions are in force throughout parts of the approach fairway, the harbor, and the canal.

Anchorage.—Anchorage areas, designated for large vessels, lie centered 9 miles SSW and 10 miles ESE of Landsort Light and may best be seen on the chart. Anchorage can be taken, in depths of 8 to 12m, mud and clay, within the outer part of the harbor. Anchorage can also be obtained, in depths of 8 to 16m, gravel over clay, within Lina Inlet, 2 miles N of Sodertälje.

Caution.—A power cable, with a vertical clearance of 42m, spans the main approach fairway near the entrance of the canal.

A railroad bridge, with a vertical clearance of 40.5m, spans the port between Sydhamnen and Igelsthamnen.

A restricted area is situated in the approaches to the port and vessels must stay in the fairway channel routes.

Ferries cross the main approach fairway in the vicinity of the narrows at Skanssund.

7.18 Vasteras (59°37'N., 16°33'E.) ([World Port Index No. 25395](#)), the largest inland port of Sweden, lies on the NW side of Lake Malaren, about 50 miles from Sodertälje and 60 miles from Stockholm.

Ice.—Between January and March, ice in the approach canals may hinder vessels, but the port is kept open by icebreakers.

Depths—Limitations.—Vessels with drafts up to 6.8m can reach the port. From the N entrance of the Sodertälje Canal, the fairway leads 4.5 miles NNW to the SE corner of Lake Malaren. A main deep-water channel then leads across the lake in a predominantly WNW direction to Vasteras.

Locks in the Sodertälje Canal limit the size of vessels to 124m in length, 18m beam, and 6.8m draft. Hammarbyleden, the channel leading to the port from Stockholm, has a least depth of 6.1m. A canal lock in this channel is 115m long, 17.4m wide, and has a depth of 7m over the sill. It limits the size of vessels transiting to 110m in length, 15m beam, and 5.6m draft.

The W harbor basin has 930m of commercial quayage with depths of 7.4 to 7.6m alongside. The E harbor basin has 790m of commercial quayage with depths of 5 to 7.6m alongside. It also provides 130m of berthage for ferries with depth of 4 to 4.5m alongside.

The oil terminal berth is 125m long and has depths of 6 to 7.6m alongside. There are facilities for container, ro-ro, tanker, and bulk vessels. Vessels of up to 10,400 dwt and 6.8m draft can be accommodated.

Aspect.—Lights, pilings, beacons, and buoys mark the sides, turns, and directions of the fairway leading to the port. Numerous dangers lie adjacent to the channel and are marked by beacons and buoys. A number of conspicuous silos and tanks stand in the vicinity of the harbor.

Caution.—Numerous submarine cables and pipelines lie across the channel and may best be seen on the chart.



Landsort Light

7.19 Koping (59°31'N., 16°00'E.) lies at the extreme W end of Lake Malaren, 60 miles WNW of Stockholm. The port is accessible via the canals and channels leading from Sodertälje and Stockholm. It is open all year round and icebreakers are used when necessary.

Depths—Limitations.—The entrance fairway has a dredged depth of 7.6m and a width of 60m. The oil terminal jetty, with mooring dolphins, is located at the NE side of the

outer basin. It has an outer berth, 65m long, with a depth of 7.6m alongside and an inner berth, 65m long, with a depth of 5.8m alongside.

The central basin has a grain storage quay at the NE side. It is 80m long and has a depth of 7.6m alongside. A cement quay is located at the SE side. It is 110m long and has a depth of 7.6m alongside. There is also 605m of commercial quayside, with depths of 6.2 to 7.6m alongside, located close NW of the cement quay. The old inner basin has 194m of quayside with a depth of 4.5m alongside.

There are facilities for container, tanker, general cargo, and bulk vessels. Vessels of up to 8,800 dwt, 124m in length, and 6.8m draft can be accommodated.

Aspect.—A number of conspicuous silos and a prominent chimney stand in the vicinity of the harbor.

Caution.—A power cable, with a vertical clearance of 35m, spans the fairway in the vicinity of the harbor.

7.20 Landsort (58°44'N., 17°52'E.) is located at the S end of Oja, 12.5 miles ENE of Enskar. A main light is shown from a prominent tower, 25m high, standing at Landsort. Landsorts Angoring Lighted Buoy is moored about 4 miles S of this light.

Bredgrund (58°43'N., 17°52'E.), a detached shoal, lies 0.5 mile SSE of Landsort. A main light is shown from a prominent floodlit tower, 19m high, standing on this shoal. A racon is situated at the light.

Detached shoals, awash, and drying rocks lie up to about 5 miles E and 3.5 miles ESE of Bredgrund.

Caution.—A restricted area, the limits of which are shown on the chart, lies in the vicinity of Landsort.

Local magnetic disturbances are reported to exist in the vicinity of Landsort.