

Notices to Mariners (NtM)

Notices to Mariners is published three times a month; on the 10th, 20th and last day of the month. Urgent notices may be published between the regular issues.

Traficom's contact details as of 1 January 2019

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NtM contains notices on arrangements for and amendments to nautical channels and aids to navigation, obstructions, winter navigation, nautical publications etc.

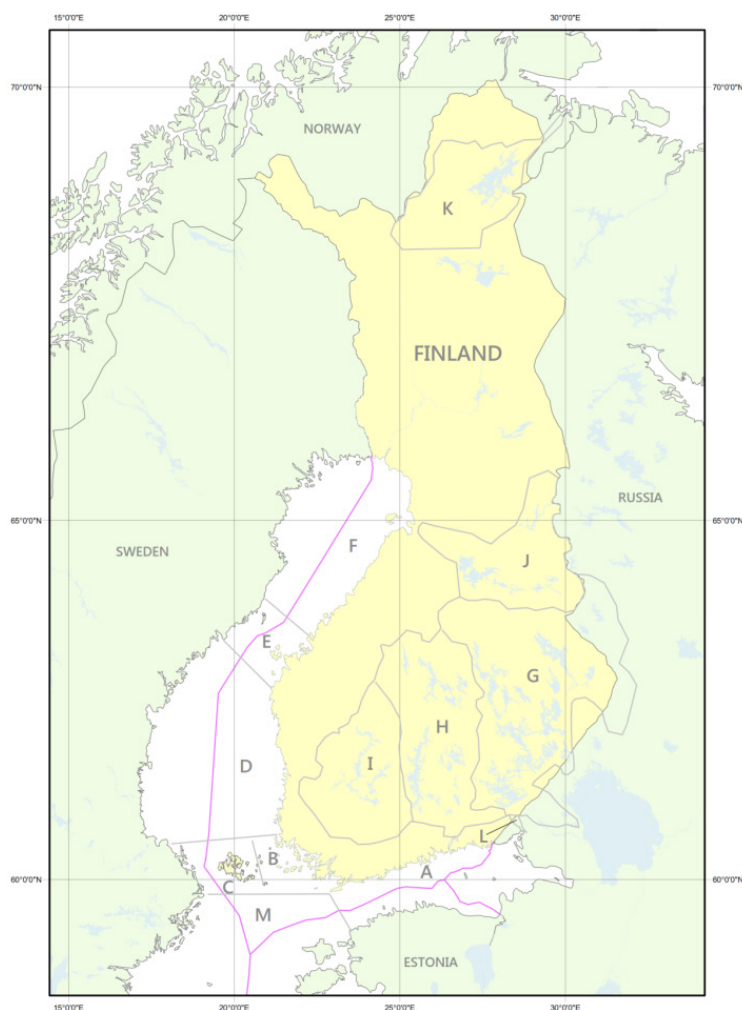
The instructions Insert, Delete, Replace, Amend, Move, according to the IHO S-4 standard, will be used for all chart corrections. When possible, chart symbols will be displayed as images. When required, supplementary chart images and specifications will also be used.

In general the notices published concern the areas covered by Finnish nautical charts. The publication is available in PDF format at: www.traficom.fi/en/nautical-charts and the online search includes published since 10.04.2016.

Notices from the whole Baltic Sea area are occasionally published when these are important to ensure smooth international vessel traffic.

The Nautical Charts Unit is grateful for all information that can be added to the publication. If the information is to be charted, a chartlet or positioning details should be enclosed.

The material is divided into sectors according to the following:



A. The Gulf of Finland is bounded by the line connecting the lighthouses Russarö (59°46.0'N, 22°57.1'E) and Osmussaari (59°18.3'N, 23°22.0'E) to the west. These lighthouses are situated in the Baltic Sea.

B. The Archipelago Sea is bounded by the Gulf of Finland to the east and by the broken line connecting the lighthouses Russarö (59°46.0'N, 22°57.1'E), Utö (59°46.9'N, 21°22.3'E) and Långskär (59°50.5'N, 19°55.0'E) to the south.

C. The Sea of Åland is bounded by the Sea of Bothnia to the north and by the broken line connecting the lighthouses Långskär (59°50.5'N, 19°55.0'E) and Söderarm (59°45.2'N, 19°24.6'E) to the south.

D. The Sea of Bothnia is bounded by the lines connecting the following positions: Kiparluoto (60°40.05'N, 21°16.56'E), Koxnan (60°28.09'N, 19°56.18'E) and Ångskärskatan (Sweden) (60°30.05'N, 18°04.66'E) to the south; and Korsnäs (62°47.2'N, 21°11.0'E) and Järnäs-Sandö (Sweden) (63°26.0'N, 19°39.0'E) to the north.

E. The Quark is bounded by the Sea of Bothnia to the south and by the line connecting Stubben (63°31.5'N 22°09.5'E) and Ratan Södra (Sweden) (63°59.1'N 20°53.7'E) to the north.

F. The Bay of Bothnia comprises the area north of the Quark.

Inland waterways includes relevant nautical and other information about the Finnish inland waterways

G. Vuoksi watercourse

H. Kymijoki watercourse

I. Kokemäijoki watercourse

J. Oulujoki watercourse

K. Paatsjoki watercourse

L. Saimaa Canal comprises the canal and its entrances from Vyborg Bay to Lauritsala.

M. Northern Baltic Sea comprises the area bordering the above-mentioned areas Gulf of Finland, Archipelago Sea and Sea of Åland.

Announcements contains relevant information to mariners, other than amendments to nautical charts. Announcements can also include notices concerning other areas.

General principles followed in the publication

Numbering of notices

The numbering of the notices starts with number one for the first notice of the year. The consecutive notices are numbered in the order that they are published. The notices in the compilation published three times a month are numbered in ascending order within the region. However, the notice numbers are not necessarily numbered sequentially between the regions.

The positions in the notices are indicated in geographical latitudes and longitudes in accordance with the original source, greatest given exactitude, example 59°49.949'N, 22°52.237'E (WGS 84).

Geographical longitudes are normally measured from the Greenwich Meridian. Exceptions to this rule are indicated in the notices.

Courses and bearings are indicated as true courses from 0° clockwise to 360°. Sector lights are indicated as seen from sea to the light.

Light ranges. In the Finnish sea routes and inland deep water routes the geographic range of light corresponds to 5 metres' height at eye level and in other fairways and routes to 2 metres' height at eye level.

References. In the notices there are references to Finnish and to the relevant countries' nautical charts.

(P) after the notice number denotes a preliminary notice. Such notices are later replaced by an effective notice.

(T) after the notice number denotes a temporary notice.

An updated list of the P and T notices is given with each publication on the Traficom's website with every issue (on the 10th, 20th and last day of the month). The validity possibly indicated in the T notices is with certain exceptions only an estimate of the length of the temporary state. In general a new notice supersedes a temporary notice. When a situation anticipated in a P notice has occurred, the P notice is revoked and a new notice is published in which the entire change is acknowledged.

* **A notice** based on an original source (i.e. the information has not been previously published by any other hydrographic office) is marked with an asterisk (*) which separates it from notices of foreign origin. The primary source is referenced in the notice.

List of nautical charts referred to in the notices. At the beginning of each NtM there is a list of the nautical charts referred to in the published notices.

Information by radio. Mariners are also given important and urgent news in connection with the news broadcasts of the Finnish Broadcasting Company and in the form of navigational warnings.

Navigational warnings and other important information are broadcast on radio along the whole Finnish coast on Turku Radio's working channels and as MSI SWEDEN navtex messages in the Baltic Sea area. The information is given in English and is mainly aimed at commercial shipping. In the Lake Saimaa area, Saimaa VTS gives the warnings in Finnish and English. In addition, the VTS centres provide information about channel conditions in Finnish, Swedish or English.

The warnings are also available in Finnish, Swedish and English on the website: www.vayla.fi/web/en/merchant-shipping/disturbances-in-merchant-shipping

More information about Turku Radio on the website: www.fintraffic.fi/en/vts

Nautical chart

Mariners are requested to avoid the use of outdated nautical charts. In the Notices to Mariners there is information about the publication of new nautical charts and chart editions.

Nautical charts published in Finland

The following nautical charts covering the sea areas surrounding Finland are published:

- general charts, scale 1:100 000 – 1:500 000, intended for sea-going vessels and route planning;
- coastal charts, scale 1:50 000, intended for archipelago and coastal navigation;
- harbour charts, scale 1:5 000 – 1: 25 000, intended to facilitate harbour traffic;
- chart folios, scale 1:50 000, enlargements in scale 1:20 000, intended for boating.

For navigation on the Finnish inland waterways the following types of charts are available:

- general chart for Lake Saimaa, scale 1:250 000
- inland waterway charts, 1-folio, scale 1: 40 000 – 1:50 000
- chart folios, scale 1:10 000 – 1:40 000
- yachting charts, scale 1:50 000

www.traficom.fi/en/nautical-charts

Sales and marketing of charts and nautical publications:

Agents, well-stocked boating shops and bookshops.

Wholesales, retail contracts

Publisher: Traficom

The nautical publications of the Cartography Unit are sold in the same places as the nautical charts.

Electronic Navigational Charts

In addition to paper charts the Traficom produces electronic navigational charts (ENC) in S-57 vector format for mariners.

ENC data is distributed by Primar in Norway, which has a global network of distributors for the provision of mariners with ENC material. ENC data is encrypted in accordance with the IHO* standard S-63.

For further information on ENC material, its availability and distribution, see the Primar website www.primar.org.

(*IHO = International Hydrographic Organization)

Updating of nautical charts

When printed, the nautical charts are provided with information about the latest Notices to Mariners publication (issue and date), according to which the nautical chart has been updated. The corrections that have been made after this NtM publication date will be included in later issues.

Chart-specific updating service for nautical charts

All chart corrections made in the 2009 chart editions after the correction date, which have been published in the publication Notices to Mariners, are included. The service is designed for use in merchant shipping but can also be used by yachtsmen. The number of charts will increase as new editions are published. The PDF service is available free of charge on the site: www.traficom.fi/en/services/notices-mariners

QR codes will be available on charts published from the beginning of 2017. These charts will be updated in the new system. Charts published prior to 2017 will be published in the chart-specific updating service on the Traficom's website.

Depths

On Finnish charts depths are given in metres. In sea areas depth calculations are based on the Mean Sea Level. In inland waterway charts the plane of reference for depth indications is given separately on each chart and it usually corresponds to the Low Water Level in the watercourse.

Projections

The Finnish charts are, with only a few exceptions, drawn using the Mercator projection. The projection and coordinate system that have been used are given separately in each chart.

The coordinate system of nautical charts

The coordinate system of the Finnish charts is either EUREF-FIN or KKJ, depending on when the chart has been published. The coordinate system of the modernised charts, EUREF-FIN, is based on the international maritime standard WGS 84, the coordinate system also used in e.g. GPS satellite navigation. EUREF-FIN and WGS 84 coincide so closely (precision 1 m) that the difference is in practice negligible.

Coordinates according to the national geodetic chart coordinate system KKJ that is being replaced can still be found. The International Spheroid INT 1924 (Hayford 1910) constitutes the reference ellipsoid in the KKJ system. The KKJ and WGS 84 systems are not directly compatible and they differ about 0.00' – 0.02' in latitudes and about 0.18' – 0.23' in longitudes, depending on the area.

The coordinate systems in charts 446, 447 and 452 differ from those used today. These charts are only suited for relative navigation with the help of land marks.

The utilized coordinate system must be ascertained prior to using foreign nautical charts covering Finnish territory. System for indicating chart corrections and edition data in Finnish charts.

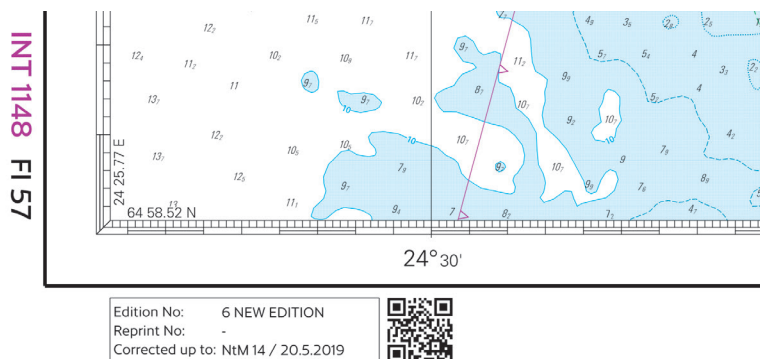
According to the new system chart editions fall into three categories:

1) New Chart: the first publication of a national chart, which has not previously been charted; embraces an area different from any existing chart; or consists of a modernised version.

2) New Edition: a new issue of an existing chart, containing amendments essential to navigation and which includes additional changes to those previously published in Notices to Mariners (NtM).

3) Reprint: a new print of the current edition of a chart incorporating no amendments of navigational significance other than those previously published in NtM. A reprint may, however, contain amendments from other sources provided they are not essential to navigation.

When the New Chart and the New Edition have been published the previous editions are invalid and should not be used. When the updated edition (Reprint) has been published the previous editions are still valid and usable, if the chart corrections announced in the NtM publication have been made.



The chart correction and edition data is indicated in the bottom left corner:

- the Edition No is given on the first line, stating whether it is a New Chart or a New Edition.
- on the second line the Reprint No, if any, is given.
- on the third line the date of the correction (Corrected up to) is given.

DGPS transmissions

The DGPS system is aimed at shipping and no fees are charged for its use. The transmissions are made according to the internationally accepted standard, ITU-R M.823, using radio beacons. The transmitted message types are 3, 6, 7, 9 and 16. Message no 7 includes information about 1–3 other Finnish DGPS stations. The transmission speed is 100 bits/s. Each transmitted message includes information about the reliability of the reference station, as well as information about if a satellite should not be used. Corrections can be sent for a maximum of 9 satellites at a time, provided that these are at least 7 degrees above the horizon. If the deviation exceeds 10 metres for more than 20 seconds, an error message is automatically transmitted. The error messages reach the receiver within 10 seconds. The accuracy of the DGPS system depends on the quality of the used receiver. The best disturbance tolerance is achieved by using a so-called H-field antenna (loop).

DGPS stations in Finland

Station	ID	Reference Station ID	Position	Coverage (km)	Frequency (kHz)	Bitspeed (bit/s)
Porkkala	(400)	600	59°58'N / 24°23'E	250	293.5	100
Mäntyluoto	(401)	601	61°36'N / 21°28'E	250	287.5	100
Puumala	(402)	602	61°24'N / 28°14'E	70	290.0	100
Outokumpu	(403)	603	62°41'N / 29°01'E	70	304.5	100
Turku	(404)	604	60°26'N / 22°13'E	200	301.5	100
Marjaniemi	(405)	605	65°02'N / 24°34'E	250	314.5	100
Klamila	(406)	606	60°30'N / 27°26'E	250	287.0	100
Haarajoki	(407)	607	60°31'N / 25°10'E	250	292.5	100
Kokkola	(408)	608	63°52'N / 23°11'E	250	290.5	100

The ranges are only rough estimates of how the radio waves proceed over open sea. Even if the radio waves proceed only partly over land, this significantly decreases the range. The system is under continuous supervision at the VTS centre in Turku, which if necessary sends a navigational warning. The detailed functions of the system are registered automatically and the results are stored for 30 days.

For more information, please visit the Finnish Transport Infrastructure Agency's website: www.vayla.fi/web/en/merchant-shipping/navigating/radio-navigation

Abbreviations used in this publication:**1. Publications and authorities**

Traficom	Finnish Transport and Communications Agency
Väylä	Finnish Transport Infrastructure Agency
NfS	Nachrichten für Seefahrer, Germany
NtM	Notices to Mariners
SRL, FFK	Suomen rannikon loistot, Fyrar vid Finlands kuster
FLL	Finnish List of Lights
UfS	Underrättelser för Sjöfarande, Finland
Ufs	Underrättelser för sjöfarande, Sweden

2. Other abbreviations

GMT	Greenwich Mean Time
MW	Mean Water
M	nautical mile

3. Points of the compass

N	North
NE	Northeast
E	East
SE	Southeast
S	South
SW	Southwest
W	West
NW	Northwest

4. Light characters

Ki - F - F	Kiinteä valo - Fast sken - Fixed light
Ka - Int - Oc	Katkovalo - Intermittent sken - Single-occulting
Ka - Int(2) - Oc(2)	Ryhmäkatkovalo - Gruppintermittent sken - Group-occulting
Ka - Int(2+3) - Oc(2+3)	Yhdistetty ryhmäkatkovalo - Sammansatt gruppintermittent sken - Composite group occulting
T - K - Iso	Tasarytmivalo - Klippskan - Isophase
V - B - Fl	Vilkkuvalo - Blixtskan - Flashing light
V - B (2) - Fl(2)	Ryhmävilkkuvalo - Gruppblixtskan - Group flashing
V - B (2+1) - Fl(2+1)	Yhdistetty ryhmävilkkuvalo - Sammansatt grupplixtsken - Composite group-flashing
KV - LB - LFI	Kestovilkku - Lång blixt - Long-flashing
Pv - Sx - Q	Jatkuva pikavilkku - Kontinuerligt snabblixt sken - Continuous quick
Pv - Sx(3) - Q(3)	Ryhmäpikavilkku - Grupp snabblixtskan - Group quick
NPv - ESx - VQ	Jatkuva nopea pikavilkku - Kontinuerligt extrasnabbt blixtskan - Continuous very quick
NPv - ESx(3) - VQ(3)	Nopea pikavilkkuryhmä - Extrasnabbt grupp blixtskan - Group very quick
ENPv - EXSx - UQ	Jatkuva erittäin nopea pikavilkku - Kontinuerligt ultrasnabblixtskan - Continuous ultra quick
KeENPv - IntEXSx - IUQ	Keskeytetty erittäin nopea pikavilkku - Intermittent ultrasnabblixtskan - Interrupted ultra quick
Mo (K)	Morsevalo - Morsesken - Morse code

Light characteristics in Finnish nautical charts are indicated in English according to the INT chart symbols and in the WGS 84 coordinate system.

Finland's Winter Navigation

More detailed information and instructions for winter navigation assistance on the website:
<https://vayla.fi/en/transport-network/waterways/winter-navigation>

Weather forecast for shipping

Weather forecasts for shipping are transmitted by the Finnish Broadcasting Company (FBC) and by Turku Radio. In the FBC weather forecasts are given for the next 24 hours for all of the Finnish sea areas. The forecasts are given in Finnish and Swedish five times a day. The weather forecasts for shipping include:

- weather synopsis
- wind direction
- wind speed m/sec.
- visibility or weather phenomena which may restrict visibility
- possible storm and near gale-force warnings or early warnings, rough seas and sea level warnings.

A near gale-force wind warning is added to the weather forecast when the wind speed (10-minute average wind speed) is expected to increase to 14 – 20 m/sec. within the next 24 hours and a storm warning is given when the wind speed is expected to increase to or exceed 21 m/sec.

The warnings include the wind direction from where the near gale-force wind or storm originates as well as the maximum expected wind speed m/sec. (10-minute average).

Wave height warnings are given according to three risk levels when the significant wave height is estimated to exceed 2.5 m (rough waves); 4.5 m (very rough waves) or 7 m (extremely rough waves). Individual waves can be from one and a half to two times higher than the reading given in the warning. Sea water level warnings are issued for each sea area and for low and high sea water levels. Three risk levels are used for high water.

The weather and ice services provided by Turku Radio and the broadcasting times can be found on the website:
www.fintraffic.fi/en/vts/maritime-safety-radio

Finnish Meteorological Institute Weather forecast for shipping: <https://en.ilmatieteenlaitos.fi/weather-and-sea>

Lists of Lights

Traficom's (Finnish Transport and Communications Agency) nautical publications: www.traficom.fi/en/services/list-lights-marine

Floating aids to navigation

Floating aids to navigation are:

- spar buoys and lighted spar buoys
- buoys and light buoys
- ice buoys and lighted ice buoys

Floating aids to navigations include buoys and spar buoys that can be unlit or lit. Mariners are requested to navigate with caution as floating aids to navigation may especially wintertime be off position due to moving ice. They may also be completely under ice or the lighting device may be damaged. The floating aids to navigation may for example be moved in open water by timber rafts in tow. Information about the above-mentioned circumstances caused by the winter conditions is not given separately, but should be taken into consideration by mariners. The inspections of the floating aids to navigation may take several weeks after the break-up of the ice.

The floating aids to navigation as well as the fixed edge marks are usually equipped with radar reflectors, although this is usually not marked in the charts. The symbol of the radar reflector is only included in the aids to navigation which are equipped with an effective, state-of-the-art radar reflector.

Racons

Morse identification signals are depicted as follows:

T = —
 K = — • —
 M = — —
 O = — — —
 G = — — •
 / = — • • — •

Variable = The aid to navigation is equipped with a racon which enables automatic adjustment of the vector length to the radar measuring range. The length of the vector on the radar screen is dependent on the measuring range used. When the measuring range is small the vector length diminishes and when the measuring range is large it increases. If a normal radar with a vector character of constant length is used along with large radar measuring ranges, the vector may become so short that it is difficult or impossible to identify the target on the screen. The identification signal always commences approx. 70 metres beyond the raconequipped seamount. Suomenlinna and Harmaja generate a radar beacon heading

line, which resolves the fairway centerline for navigation. The last dot in Harmaja's Mo-signal lies between the dashes in Suomenlinna's Mo-signal when the racon beacons are lined. Oxhornen front and rear leading lights are equipped with radar reflectors in the leading line azimuth. The displayed signal of Oxhornen front radar beacon equals approx. the interval between the signals. Computed ranges are based on a radar with aerial elevation approx. 30 m and scanner length 2.7 m. The ranges are reduced at lower antenna elevation, at smaller scanner dimensions or in certain types of radars, such as New Technology (NT) radars.

NB

Use of the rain clutter control and similar filtering circuits or a digital processor for the purpose of reducing wave clutter interference will usually cause the racon response to vanish from the PPI display. The rain clutter control and processor should be switched off during the actual observation period to optimize the PPI response. This phenomenon might also be made use of when no racon response is wanted.

Racons

No	Name	Position	Height				Morse signal	Length of vector	Model			
			(m)	f(x)	f(s)	R(x) R(s)			Model	Model	Model	
8874	Kemi 1	65°23,08'N 24°05,98'E	23,5	K	K	14	11,7	T: _	1,2	Ericon	MK II	X/S
8887	Keminkraaseksi	65°36,63'N 24°33,75'E	27,0	K	K	14	11,9	T: _	variable	Tideland Sea	Beacon 2Sys5	X/S
9776	Pohjantähti	65°37,51'N 24°22,32'E	10,9	K	E	11		T: _	1,2	AEI Marconi	Seawatch 300	X
8969	Oulu 1	65°11,42'N 24°30,42'E	24,0	K	K	14		T: _	variable	PharosMarine	Phalcon-2000	X/S
8975	Luodematala	65°10,05'N 24°59,60'E	11,5	K	E	11		T: _	1,2	AEI Marconi	Seawatch 300	X
9030	Nahkiainen	64°36,69'N 23°54,03'E	30,7	K	K	15	13,2	T: _	1,2	Ericon	MK II	X/S
9031	Raaha	64°39,08'N 24°13,62'E	22,0	K	K	13		T: _	variable	PharosMarine	Phalcon-2000	X/S
9189	Heikinkari alempi	64°39,03'N 24°21,15'E	7,0	K	K	9,8	7,8	T: _	1,2	Ericon	MK II	X/S
9778	Äijänkallio	64°14,25'N 23°37,06'E	8,9	K	E	10		T: _	1,2	AEI Marconi	Seawatch 300	X
9071	Kokkolan majakka	63°59,80'N 22°52,05'E	24,0	K	K	14	11,8	T: _	1,2	Ericon	MK II	X/S
7339	Kallan	63°45,07'N 22°31,59'E	24,0	K	K	13	10,5	T: _	1,2	Kannad Hekleo		Sx
7453	Utgrynnan	63°21,04'N 20°45,98'E	25,0	K	K	14	12	T: _	1,2	Ericon	MK II	X/S
7205	Vaasan majakka	63°14,34'N 20°55,87'E	17,5	K	K	13	10,5	T: _	1,2	Ericon	MK II	X/S
7400	Gåsgrund alempi	63°06,52'N 21°10,65'E	10,0	K	K	12	10	T: _	variable	PharosMarine	Phalcon-2000	X/S
7233	Skvättan	63°07,83'N 20°41,92'E	15,0	K	K	12	10	T: _	variable	PharosMarine	Phalcon-2000	X/S
39912	Cneif	62°17,20'N 21°10,15'E	12,0	K	K	11	9,4	M: _ _	Variable	PharosMarine	Phalcon-2000	X/S
7359	Storremmargrund	62°19,81'N 21°12,70'E	9,7	K	E	11		T: _	1,2	AEI Marconi	Seawatch 300	X
20637	Kristiinankaupungin majakka	62°12,19'N 21°10,40'E	22,7	K	K	14	11,6	T: _	1,2	Ericon	MK II	X/S
3041	Merikarvian majakka	61°55,80'N 21°16,80'E	17,0	K	K	12	10,4	T: _	1,2	Ericon	MK II	X/S
7321	Kupeli	61°38,03'N 21°20,30'E	10,6	K	K	11	9,2	T: _	1,2	Ericon	MK II	X/S
24416	Morris	61°34,84'N 21°24,97'E	13,0	K	K	12	9,6	T: _	1,2	Ericon	MK II	X/S
3067	Rauman majakka	61°08,98'N 21°09,80'E	26,0	K	K	14	12,2	T: _	1,2	Ericon	MK II	X/S
3083	Kajakulma	60°59,93'N 21°11,00'E	11,0	K	E	11		T: _	1,2	AEI Marconi	Seawatch 300	X
3099	Sandbäck	60°45,91'N 20°44,67'E	14,3	K	K	12	9,9	T: _	1,2	Ericon	MK II	X/S
6345	Flötjan	59°48,50'N 19°47,12'E	28,0	K	K	15	12,6	T: _	1,2	Ericon	MK II	X/S
6099	Rannö	60°31,72'N 20°12,13'E	20,0	K	E	13		T: _	1,2	AEI Marconi	Seawatch 300	X
6116	Bogskär	59°30,27'N 20°21,05'E	29,0	K	K	15	12,8	T: _	1,2	Ericon	MK II	X/S
80357	Svenska Björn	59°32,88'N 20°01,33'E		E	E			B: _ _ _	11	Ericon	MK II	X/S
6118	Korsö alempi	60°02,36'N 19°54,03'E	8,5	K	K	10	8,4	T: _	1,2	Ericon	MK II	X/S
6312	Fästorna	59°51,37'N 20°20,77'E	19,0	K	K	13	10,8	T: _	1,2	Ericon	MK II	X/S
3169	Kihti	60°04,56'N 21°08,46'E	13,0	K	E	12		T: _	1,2	AEI Marconi	Seawatch 300	X
3205	Bokullankivi	59°50,82'N 21°25,33'E	10,0	K	E	11		T: _	1,2	AEI Marconi	Seawatch 300	X
3296	Lillharun	59°43,66'N 21°24,24'E	18,0	K	K	13	10,6	T: _	1,2	Ericon	MK II	X/S
3302	Söderkobb	59°56,03'N 21°14,21'E	8,3	K	K	10	8,3	T: _	1,2	Ericon	MK II	X/S
3309	Kalkskärskobb	60°00,31'N 21°04,86'E	15,0	K	K	12	10	T: _	1,2	Ericon	MK II	X/S
11476	Lilla Tärnskär	59°45,19'N 22°58,00'E	10,3	K	K	11	9,1	T: _	variable	PharosMarine	Phalcon-2000	X/S
11495	Längden	59°46,64'N 23°15,06'E	16,7	K	K	12	10,3	M: _ _	1,2	Ericon	MK II	X/S
11406	Inkoo 2	59°51,94'N 24°11,06'E	8,0	K	K	10	8,2	K: _ _	2,4	Ericon	MK II	X/S
11537	Oxhornen alempi	59°57,63'N 24°16,65'E	15,0	K	K	12	10	O: _ _ _	1,2	Ericon	MK II	X/S
11696	Jaktgrund	59°59,80'N 24°33,28'E	10,0	K	K	9,5	9	T: _	1,2	Ins.tsto Ylinen	TMS-2	S
11435	Helsinki	59°56,93'N 24°55,77'E	27,0	K	K	14	12,4	T: _	1,2	Ericon	MK II	X/S
11436	Harmaja	60°06,29'N 24°58,72'E	23,0	K	K	14	11,6	/: _ _ _	3,2	AGA-Ericon		X/S
11437	Suomenlinnan kirkko	60°08,86'N 24°59,37'E	54,2	K	K	18	15,1	M: _ _	1	Tideland Sea	Beacon 2Sys5	X/S
11587	Ytter Tjärhällen	60°08,23'N 25°18,87'E	8,2	K	K	11	9	T: _	1,2	Ericon	MK II	X/S
81	Skarvgaddarna	60°10,96'N 26°07,76'E	10,3	K	K	11	9	G: _ _ _	0,4	Ericon	MK II	X/S
335	Skarven	60°17,76'N 26°20,91'E	8,0	K	E	10		T: _	1,2	AEI Marconi	Seawatch 300	X
69429	Itätoukki	60°06,04'N 25°11,83'E	20,1	K	K	13	11	T: _	variable	SeaBeacon 2	System 6	
627	Kalbådagrund	59°59,13'N 25°36,11'E	29,0	K	K	15	12,8	K: _ _	2	Ericon	MK II	X/S
294	Porvoo	60°05,58'N 25°36,02'E	11,3	K	K	11	9	T: _	1,2	Ericon	MK II	X/S
631	Gåsskvättan	60°11,01'N 26°03,01'E	12,0	K	K	11	9,4	T: _	1,2	Ericon	MK II	X/S
104	Tiiskeri	60°09,74'N 26°15,71'E	18,5	K	K	13	10,7	T: _	1,2	Ericon	MK II	X/S
105	Orregrund alempi	60°16,40'N 26°27,17'E	16,0	K	K	12	10,2	T: _	1,2	Ericon	MK II	X/S
13055	Kotkan majakka	60°10,33'N 26°39,24'E	22,7	K	K	14	11,5	K: _ _	2,4	Ericon	MK II	X/S
323	Veitkari	60°15,99'N 27°14,59'E	8,0	K	E	10		T: _	1,2	Ins.tsto Ylinen	TM-7	X
169	Rankin Kivikari	60°21,20'N 26°57,39'E	10,5	K	K	11	9,1	T: _	1,2	SeaBeacon 2	System 6	