

Leiðsaga á sjó, upplýsinga og eftirlitskerfi

Breytingar og þróun.

Guðjón Sch. Tryggvason
Siglingastofnun Íslands

Hefðbundin leiðsögukerfi til siglinga

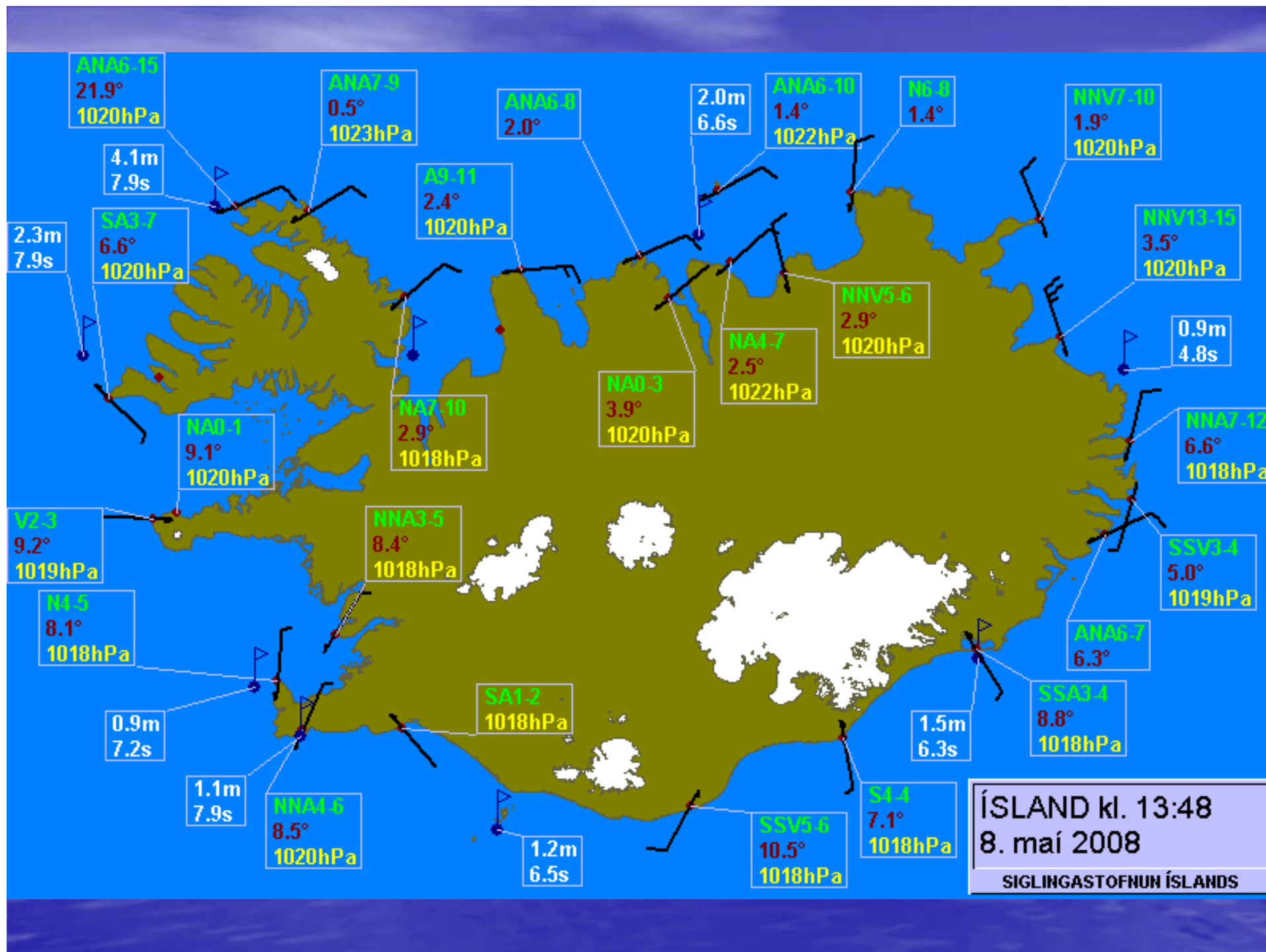
- Radar, Gps, Sjókort, Dýptarmælir
- Sjónræn leiðsaga
- Vitar, Baujur, Sjómerki, Hafnarvitar
- Leiðarljós og Leiðarmerki
- Sjónræn leiðsaga er í fullu gildi.
- Þróun leiðsögukerfa fyrir skip er tiltölulega hæg.
- Kröfur um siglingaöryggi og mengunarvarnir eru sífelld að aukast

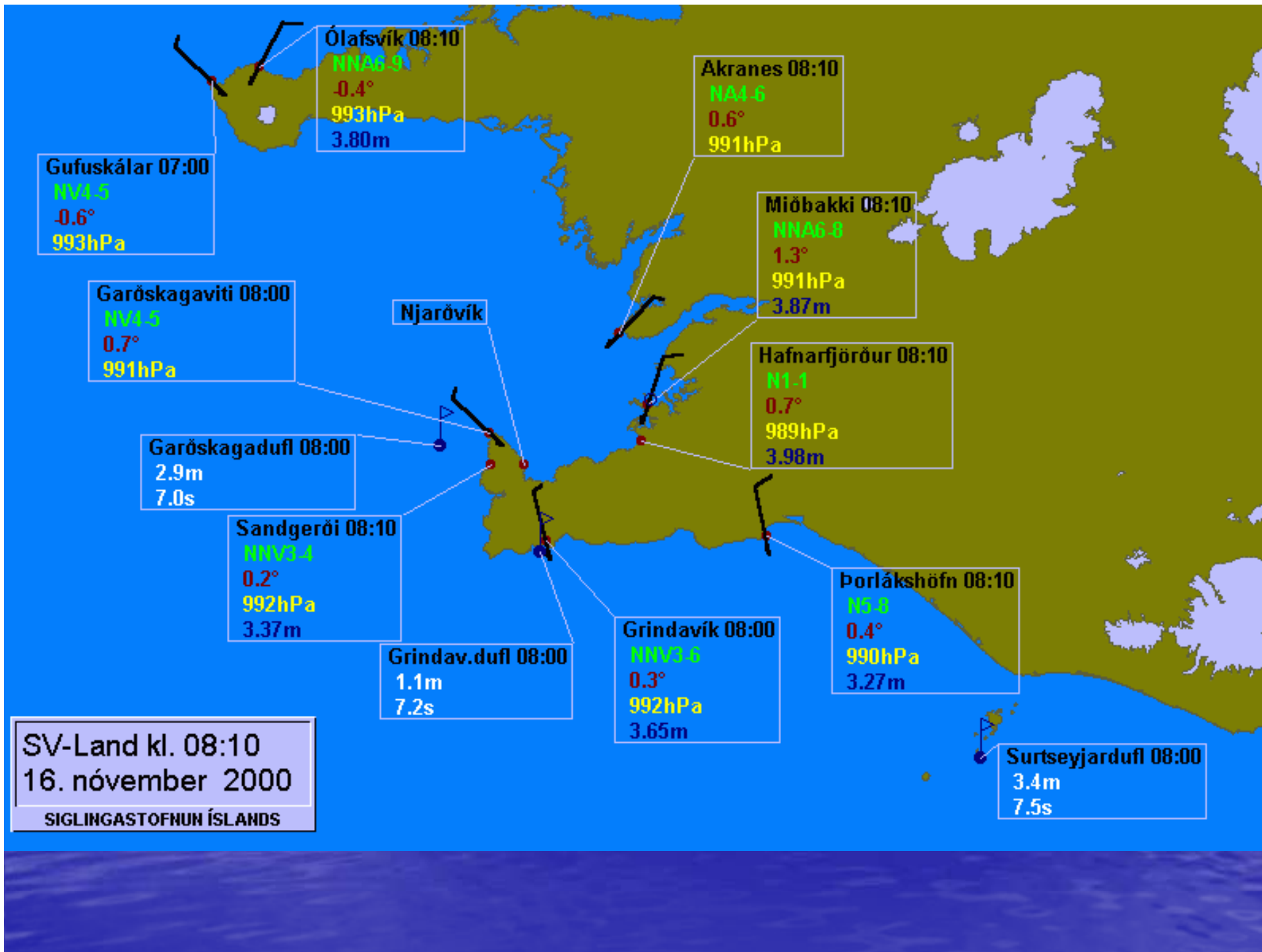
Auknar kröfur um siglingaöryggi

- Auknar kröfur um siglingaöryggi eru bæði innlendar og erlendar.
- Fjöldi upplýsinga- og eftirlitskerfa hafa verið sett upp
- Nefna má Tilkynningakerfi Íslenskra skipa og upplýsingakerfi Siglingastofnunar um veður og sjólag.

Upplýsingakerfi Siglingastofnunar um veður og sjólag

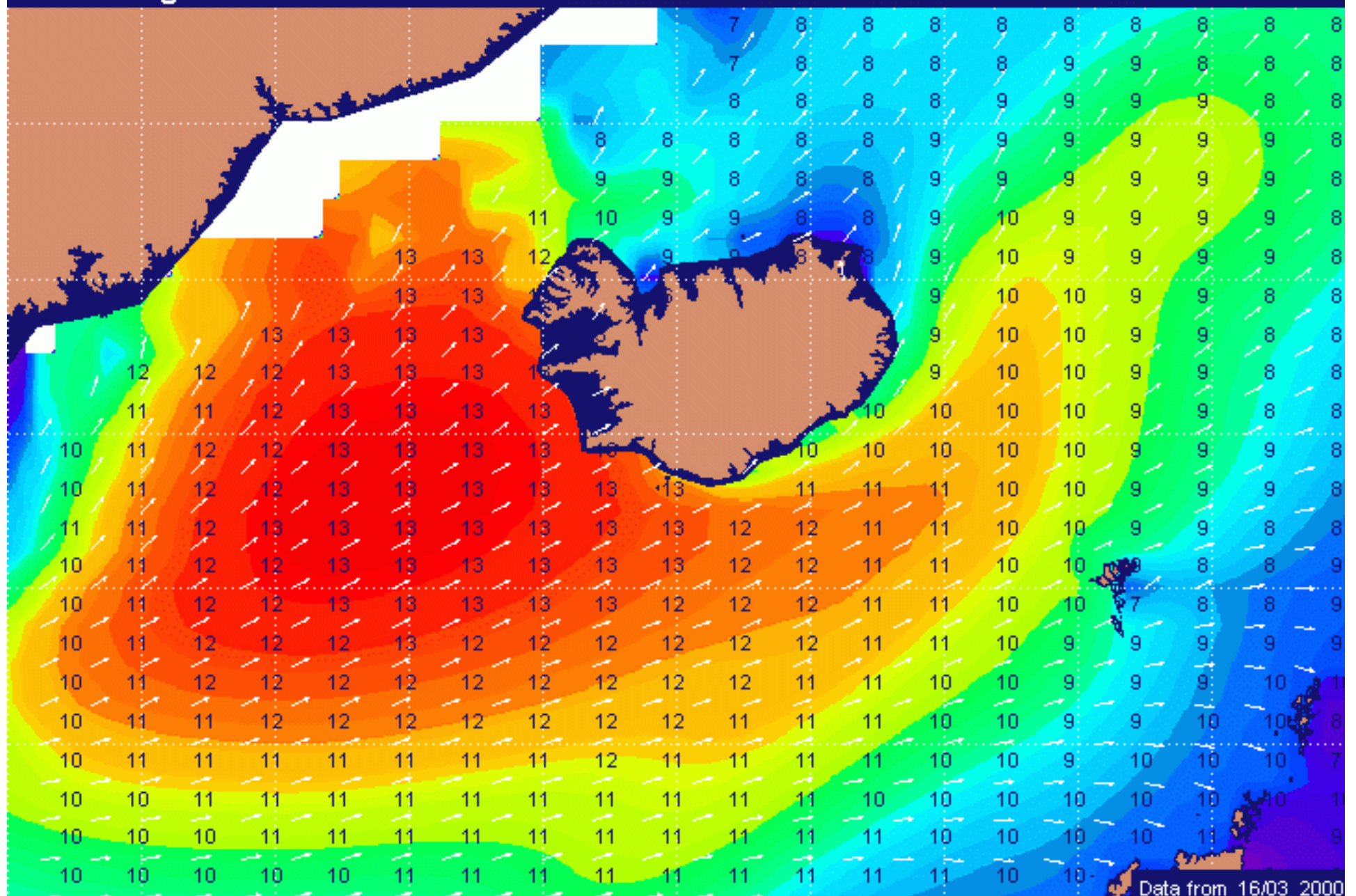
- Ölduhæð
- Vindhraði hiti og loftþrýstingur
- Ölduspá
- Veðurspá
- Sjávarfallastraumar
- Flóðtöflur fyrir hafnir





Wave height 12:00 18/03 2000

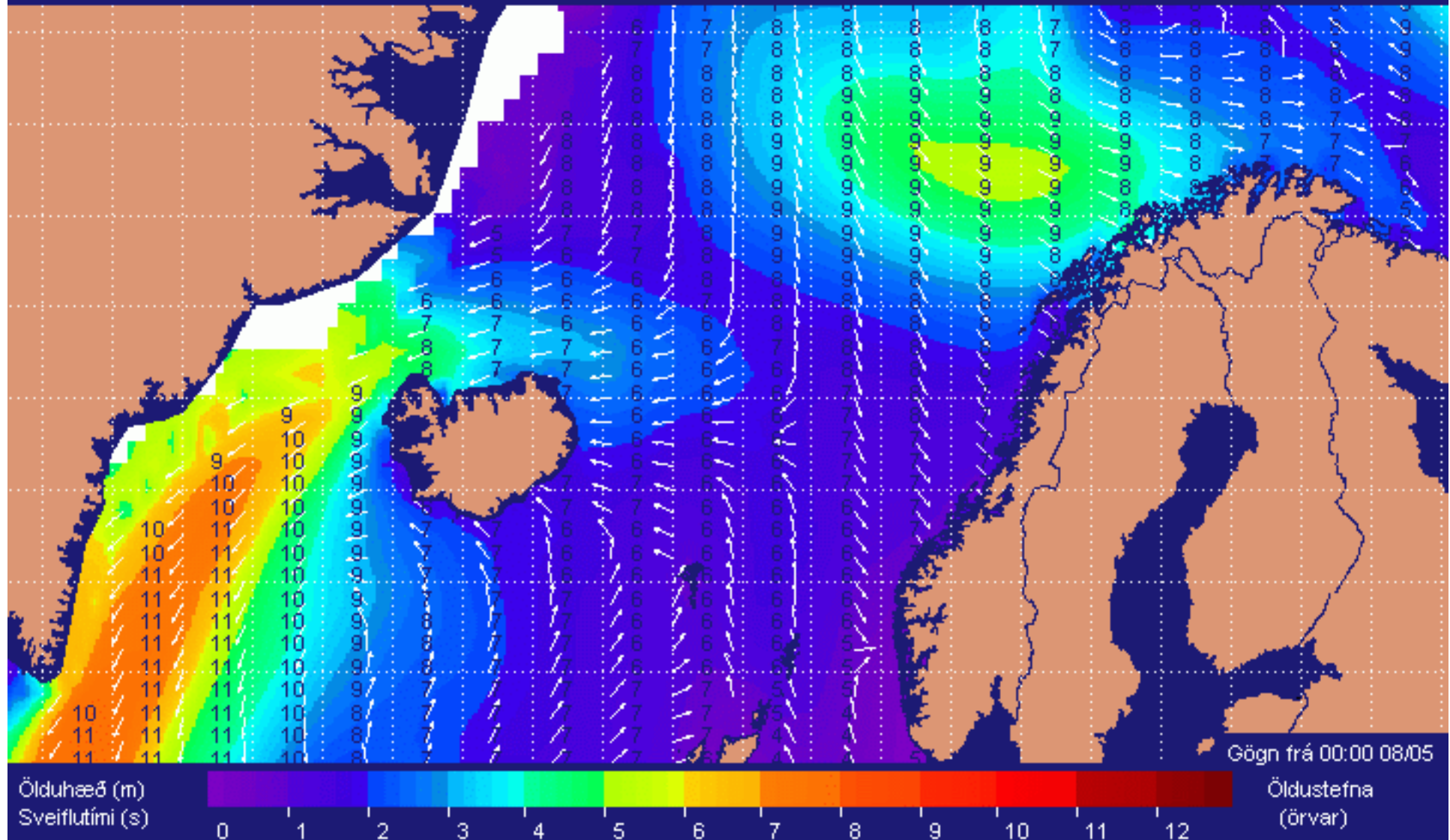
THE ICELANDIC MARITIME ADMINISTRATION



Ný framsetning ölduspár

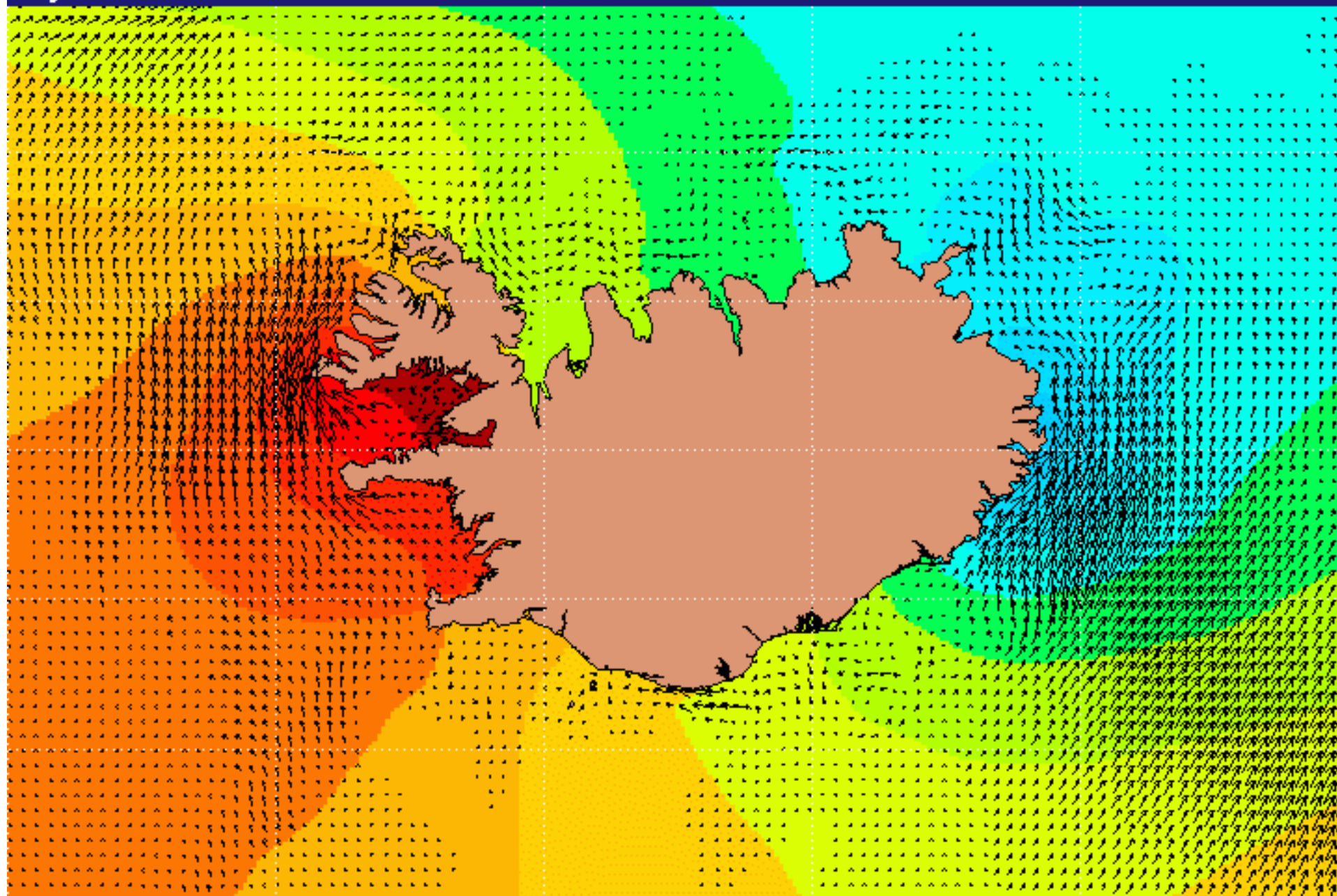
Ölduhæð 06:00 10/05 2008

SIGLINGASTOFNUN ÍSLANDS

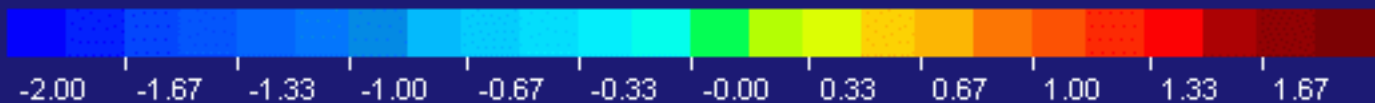


Sjávarföll með veðri 09/05 2008 23:00

SIGLINGASTOFNUN ÍSLANDS



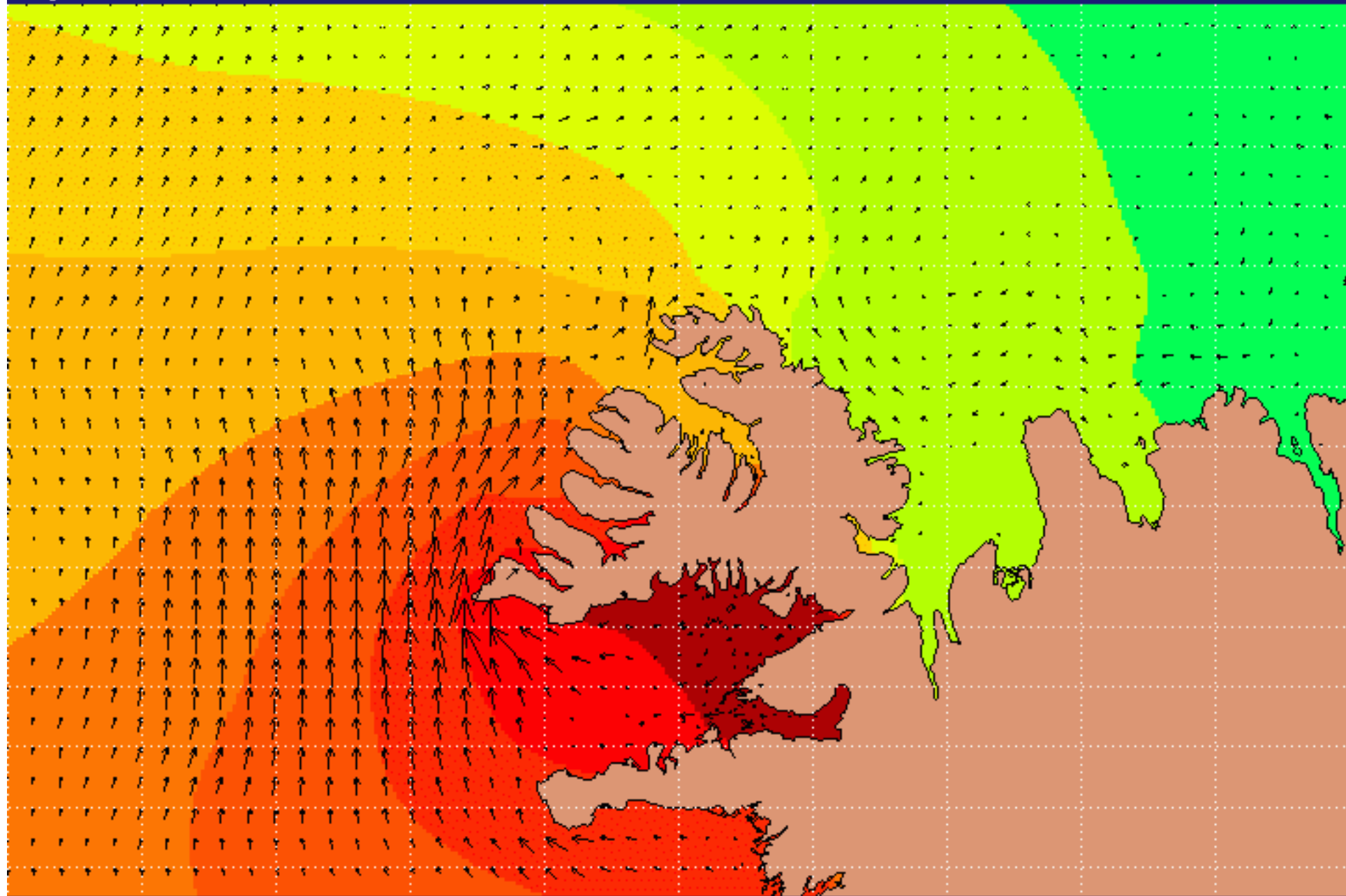
Gögn frá:
07/05 2008



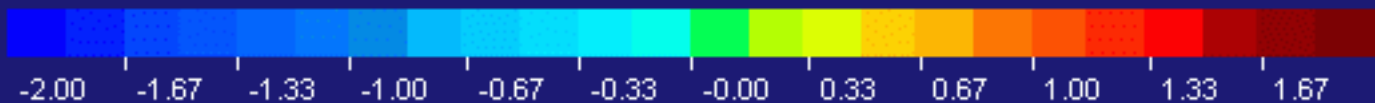
0.5 m/s

Sjávarföll með veðri 09/05 2008 23:00

SIGLINGASTOFNUN ÍSLANDS



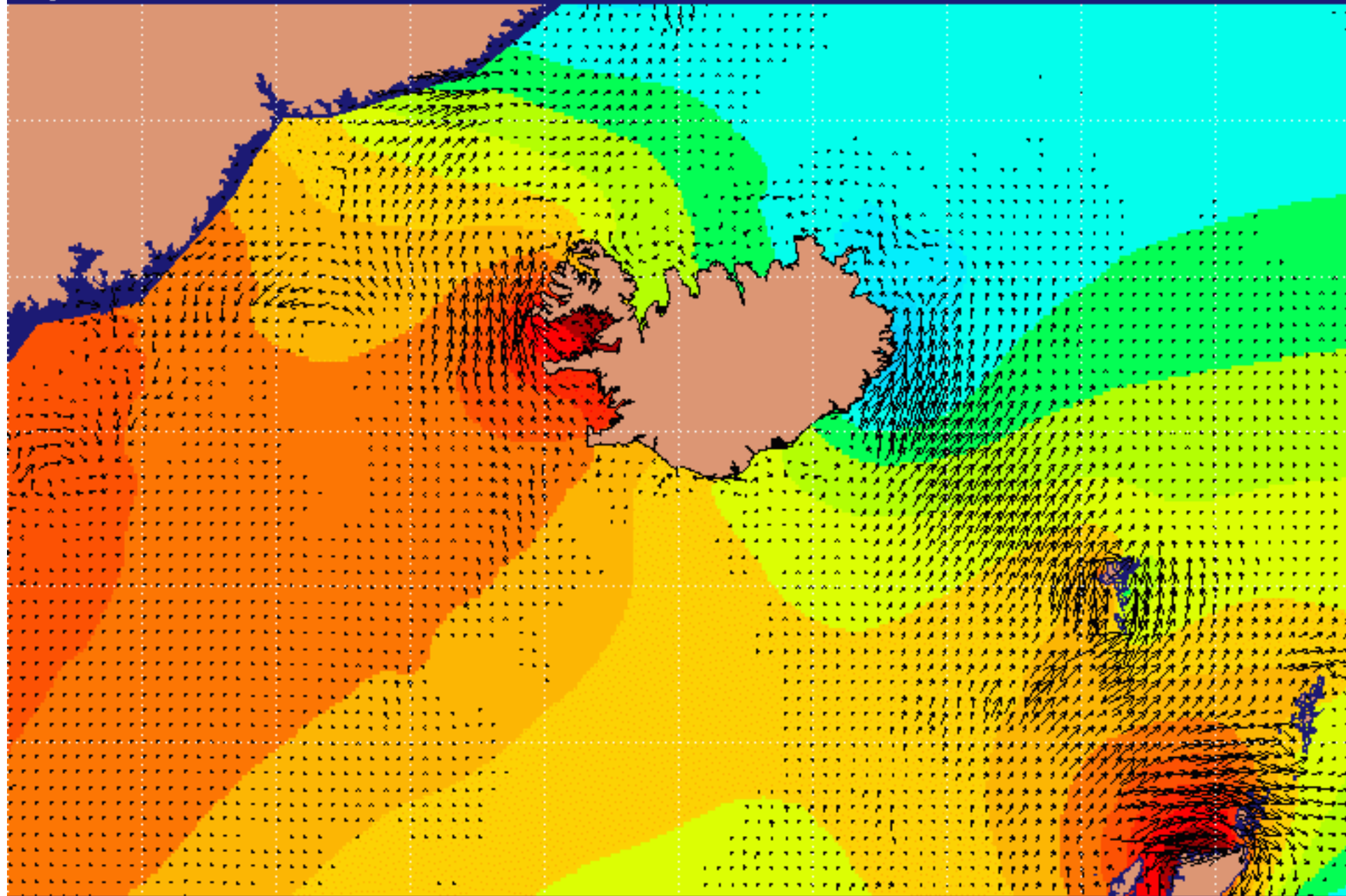
Gögn frá:
07/05 2008



0.5 m/s

Sjávarföll með veðri 09/05 2008 23:00

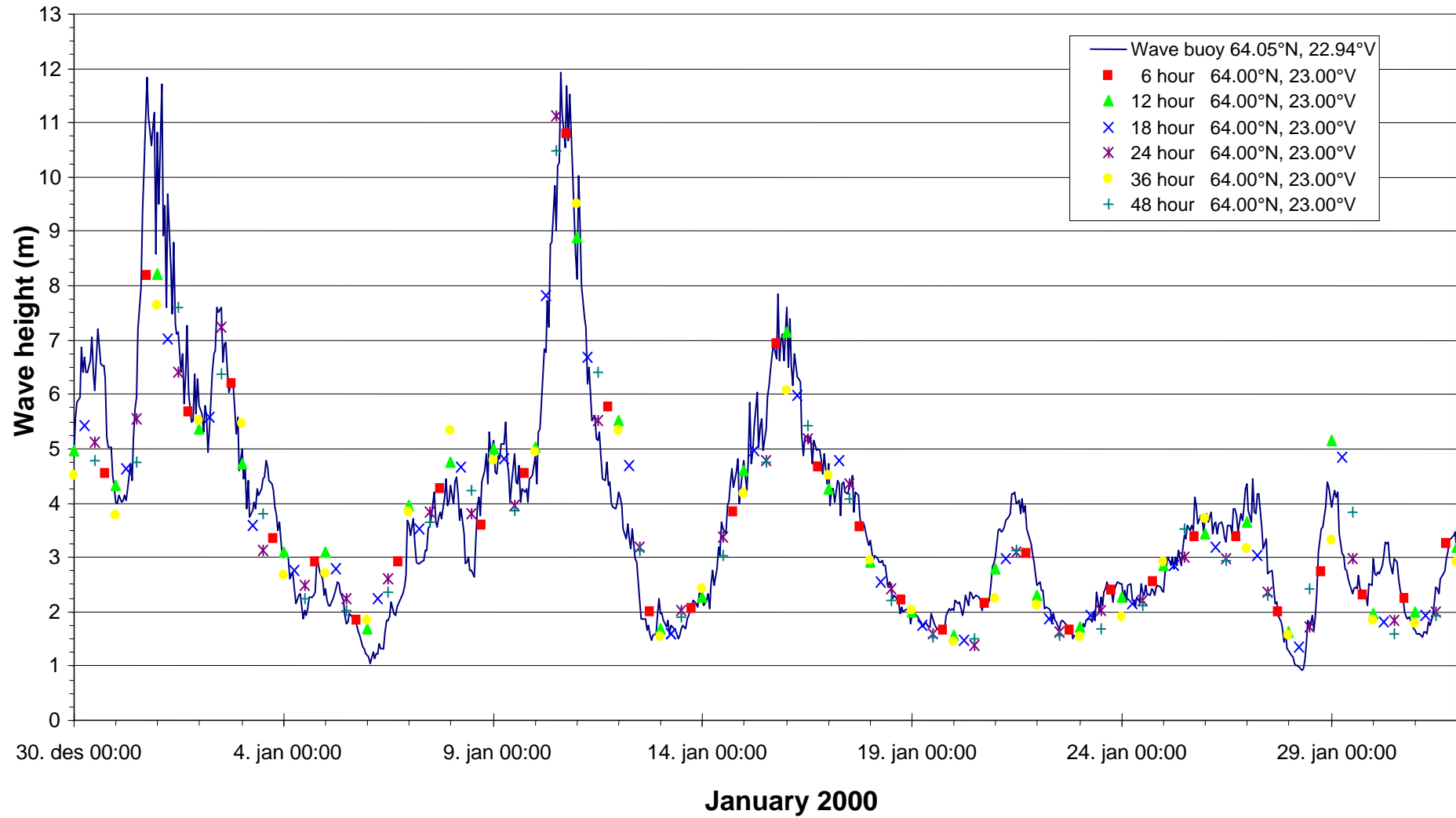
SIGLINGASTOFNUN ÍSLANDS



Gögn frá:
07/05 2008



Ölduspá og mældar öldur



Tilskipun Evrópuráðsins 2002/59/EB

- Tilskipun um eftirlits og upplýsingakerfi fyrir umferð á sjó
- Tilgangur tilskipunarinnar er að koma á fót eftirlits- og upplýsingakerfi innan EB til að fylgjast með siglingum skipa sem flytja hættulegan farm
- Draga úr hættu á skipsköðum og mengun sjávar og lágmarka þau áhrif er skipskaðar hafa á lífríki sjávar, strandsvæði og efnahag strandríkja.

Tilskipun 2002/59/EB

- Tilskipunin á við til skip 300 BRT og stærri
- Tilskipunin á ekki við um :
 - a) Herskip, varðskip og önnur skip í eign eða rekstri aðildarríkja EB og sem ekki eru rekin í viðskiptalegum tilgangi
 - b) Fiskiskip, skólaskip (traditional ships) og lystiskip styttri en 45 m
 - c) Eigin olíu skipa undir 5000 t og birgðir og búnað skipa

Helstu atriði sem tilskipunin tekur til :

- Stofnun Vaktstöðvar siglinga
- Uppsetning AIS, sjálfvirks auðkenniskerfis skipa
- Innleiðing rafræns tilkynningakerfis SSN
- Tilnefna Neyðarhafnir og skipaafdrep

Vaktstöð siglinga

Sett á stofn í kjölfar laga um vaktstöð siglinga frá 2003.

Hlutverk Vaktstöðvar er m.a.

- Vöktun STK og AIS
- Móttaka og miðlun upplýsinga frá skipum sem flytja hættulegan eða mengandi varning
- Móttaka og miðlun neyðarkalla og tilkynninga um óhöpp eða slys á sjó
- Móttaka og miðlun tilkynninga frá farþegaskipum
- Vöktun alþjóðlegs neyðar og öryggisfjarskiptakerfis (GMDSS) og ritstjórn fyrir Navtex
- Skráningu skipa sem falla undir hafnarríkiseftirlit
- Móttaka og miðlun upplýsinga um bilanir í vitakerfinu
- Samskipti við neyðarhafnir
- Önnur verkefni sem Samgönguráðherra heimilar

A blue-tinted photograph of a calm sea under a cloudy sky. The text is centered on the image.

Sjálfvirkt auðkennikerfi skipa

AIS

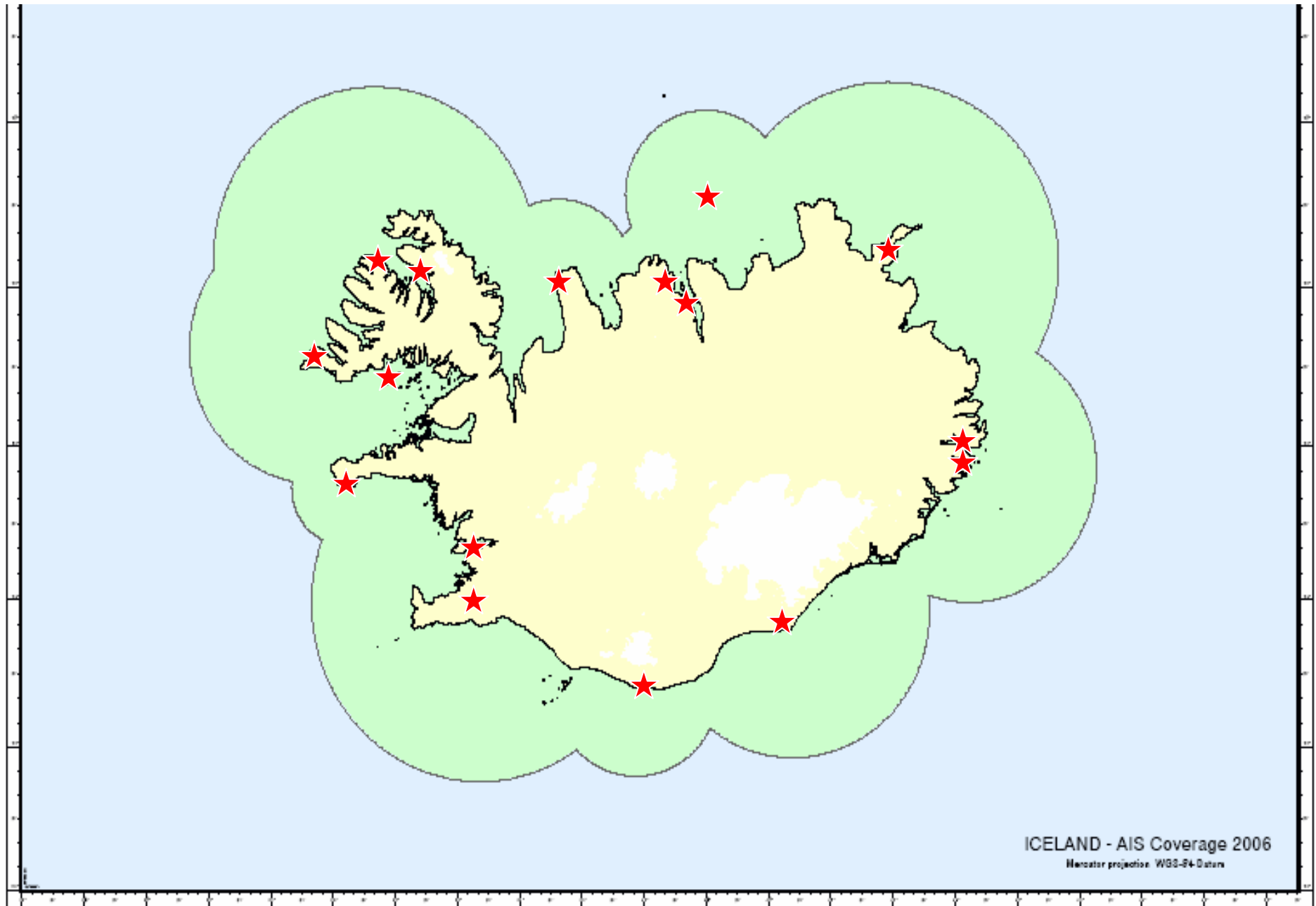
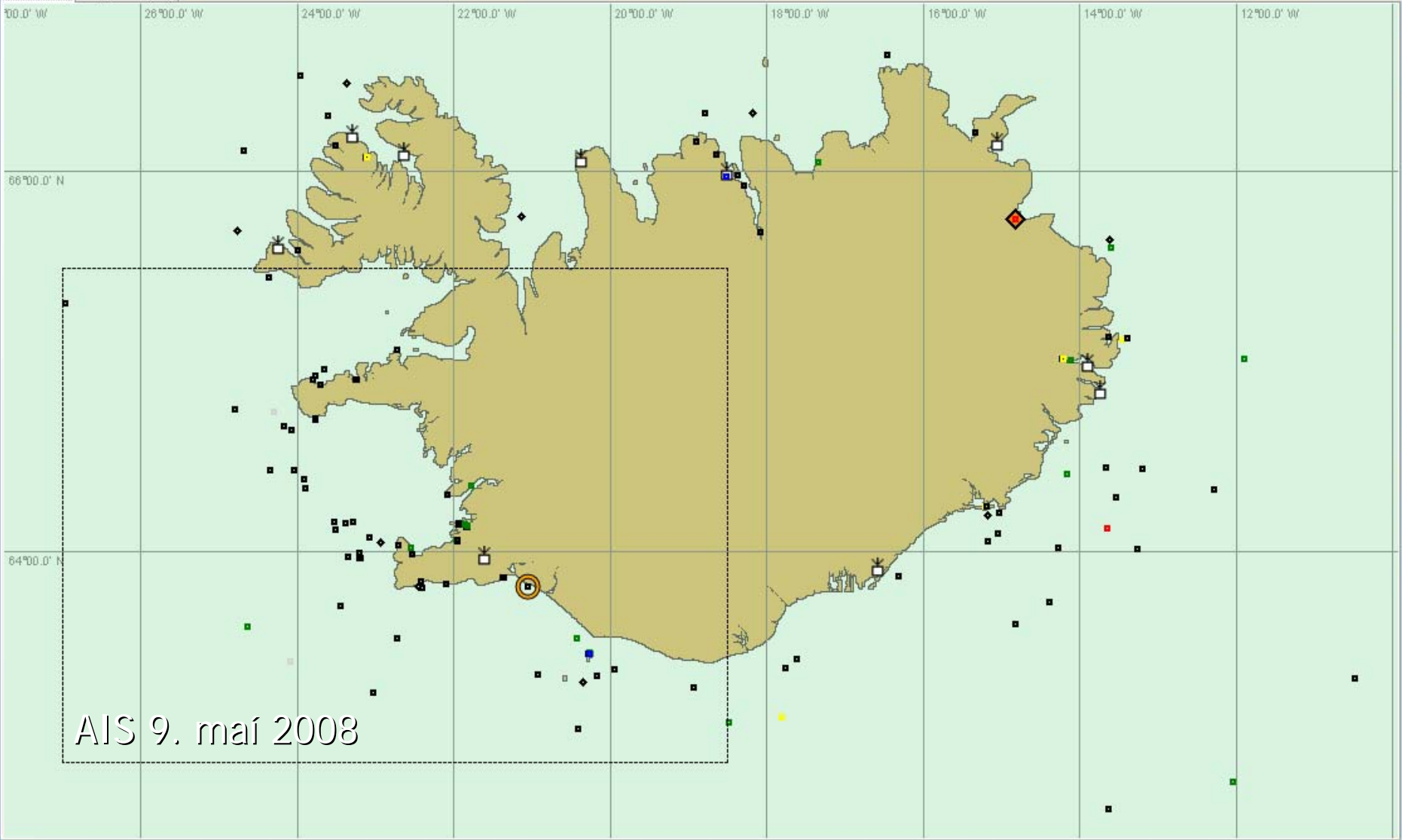




Chart Display

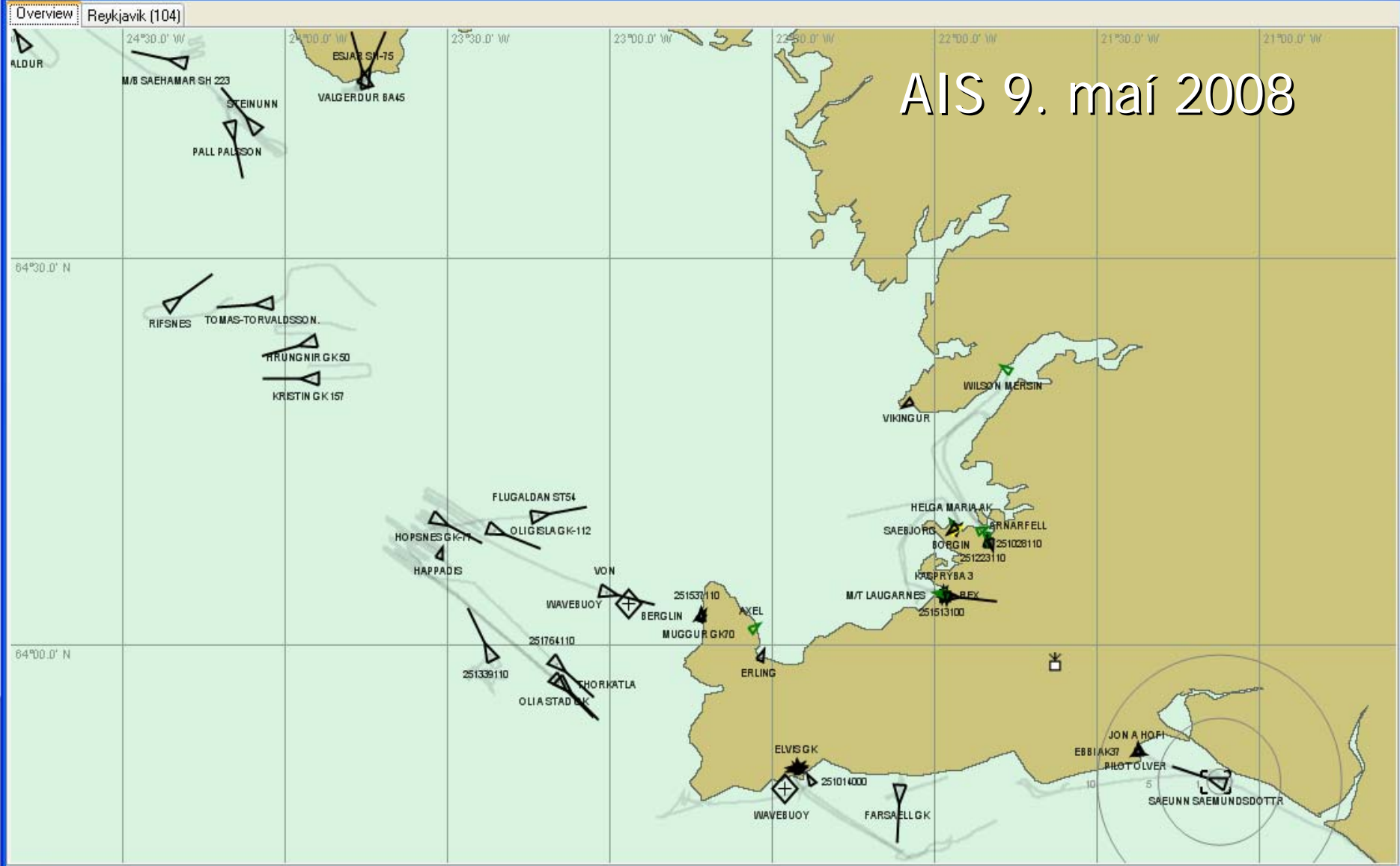
Overview Reykjavik (104)



AIS 9. maí 2008



Chart Display

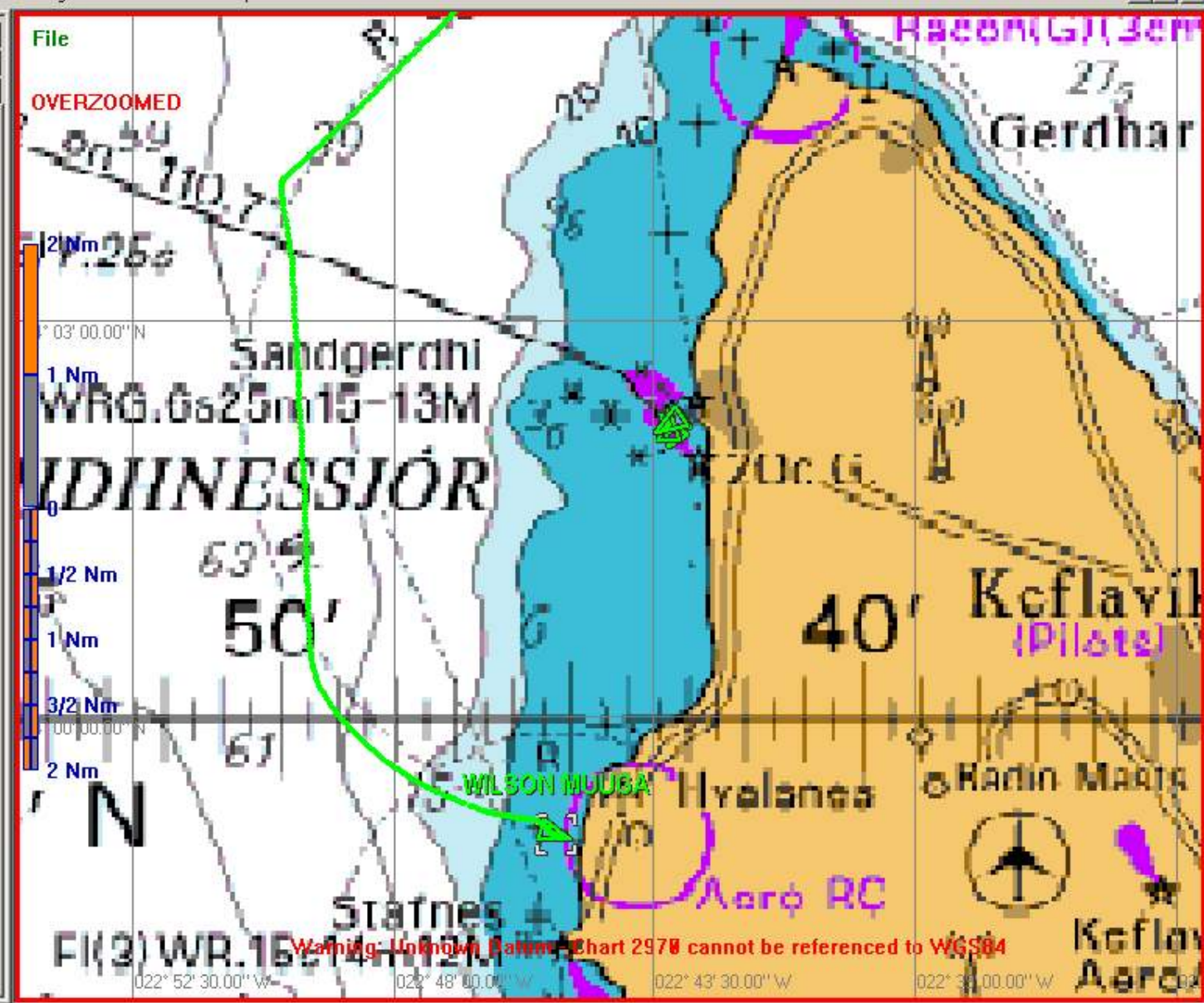


AIS 9. maí 2008

S57 Lists	New	AtoN	Met/Hyd	New 2
Nav	Route	GPS	Radar	AIS Info
AIS ?	AIS Tx	All Targets	S57	S57 ?

Targets	CPA	Type
WILSON MUUGA	N/A	M
VILBORG	N/A	M
VIGRI	N/A	M
VALDIMAR GK ...	N/A	M
TURIDUR HALL...	N/A	M
TOMAS-TORVA...	N/A	M
THORKATLA	N/A	M
THOR	N/A	M
STURLA	N/A	M
STEINUNN SF 10	N/A	M
SIGHVATUR BJ...	N/A	M
SELFOSS	N/A	M
PILOT OFFICE	N/A	M

Remote Name	WILSON MUUGA
MMSI Number	210910000
Call Sign	P3SA3
Latitude	63° 59' 07.36" N
Longitude	022° 45' 13.29" W
COG	000.0° T
SOG	0.000 Kts
ETA to Cursor Local	N/A
Nav Status	Under Way Engine
Destination	MURMANSK
Channel	VDL Channel B
DTE Status	N/A
Positional Accuracy	Low
Time Since Last Update	00h 00m 03s
Operating Mode	Autonomous



Navigation controls including zoom in/out buttons, a scale indicator set to 1:70,000, and a compass rose.

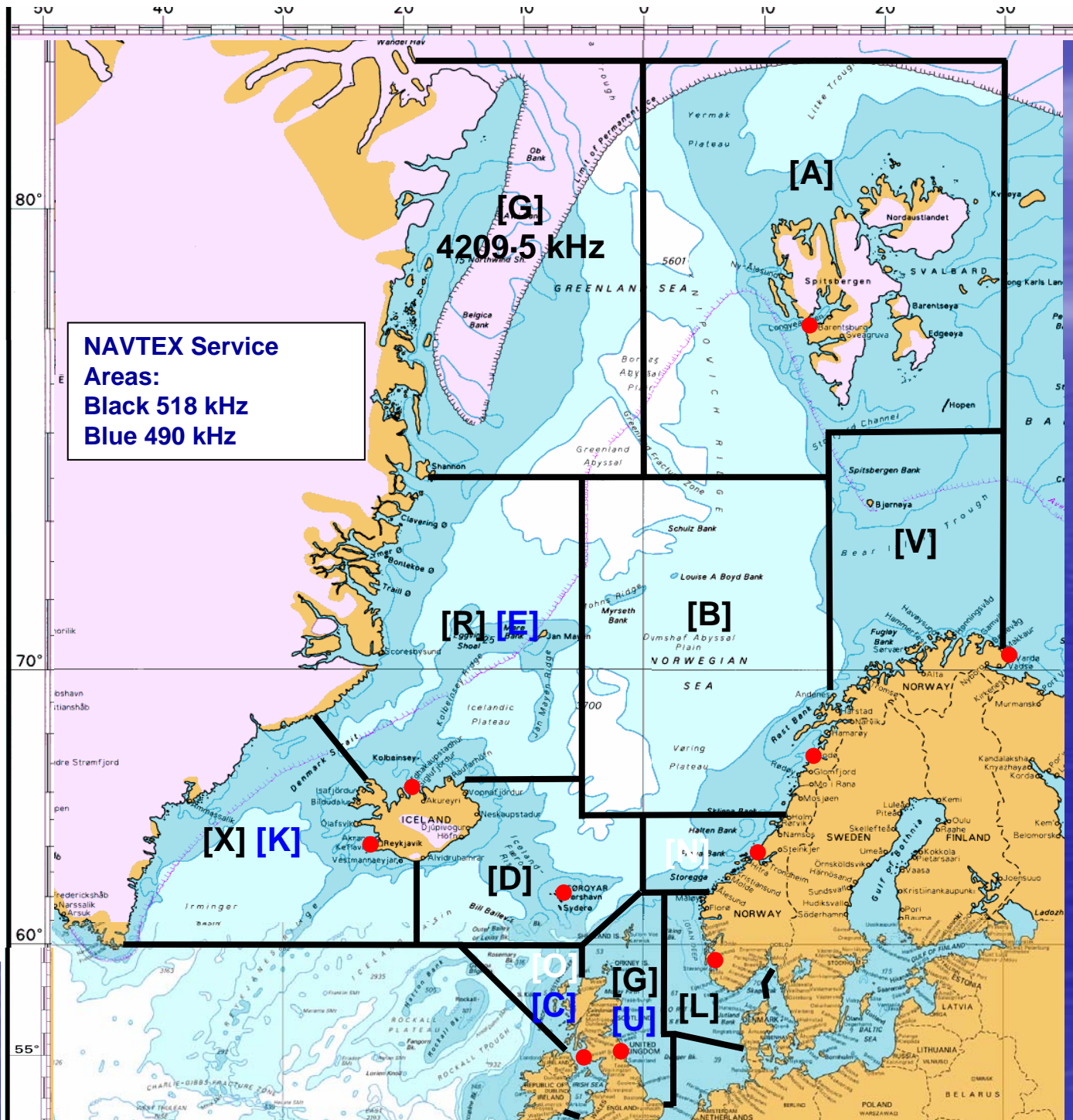
System status and log area. Includes 'Silence' and 'Ack' buttons, and a log showing three entries: 'UTC 09:57:38 NET Port disconnected - Aldebaran', 'UTC 09:58:09 NET Port disconnected - Aldebaran', and 'UTC 09:58:40 NET Port disconnected - Aldebaran'.

Öll fjarskiptakerfi fyrir sjó eru í endurnýjun

- 26 VHF stöðvar endurnýjaðar
- 8 Millibylgju og Stuttbylgjusendar endurnýjaðir
- 6 Millibylgju og 2 stuttbylgjumóttakarar endurnýjaðir
- Miðju og stjórnbúnaður fjarskiptakerfisins verður endurnýjaður
- Uppsetningu á að vera lokið í ágúst á þessu ári

Navtexsendar hafa verið endurnýjaðir

- Nýr navtexsendir við Grindavík
- Nýr Navtexsendir á Sauðanesi
- Samvinna með Færeyska Navtex fyrir SA-land
- Samvinna við Dani um sendingar til Grænlands
- Sent verður á 518 og 490 kHz



Rafrænt tilkynningakerfi. Safe Sea Net

- Safe Sea Net er net gagnagrunna, einn í hverju aðildarríki EB ásamt Íslandi og Noregi
- Allir gagnagrunnar tengdir miðlægum yfirlits (index) gagnagrunni (CID)
- Gagnagrunnur hvers ríkis tekur við tilkynningum frá skipum og geymir þær en sendir tilvísun til CID
- Aðildarríki getur beðið um upplýsingar frá öðru aðildarríki í gegnum yfirlitsgagnagrunn CID á sjálfvirkan hátt

Notendur / tengiliðir Safe Sea Net

- Skipstjórnarmenn, eigendur / útgerðaraðilar skipa og umboðsmenn. Aðgangur um internetið
- Hafnaryfirvöld
- Strandgæsla
- Vaktstöðvar
- Björgunarstöðvar
- Hafnarríkiseftirlit
- Siglingamálayfirvöld
- Evrópuráðið / EMSA

Neyðarhafnir og skipaafdrepp, tillaga um hafnir

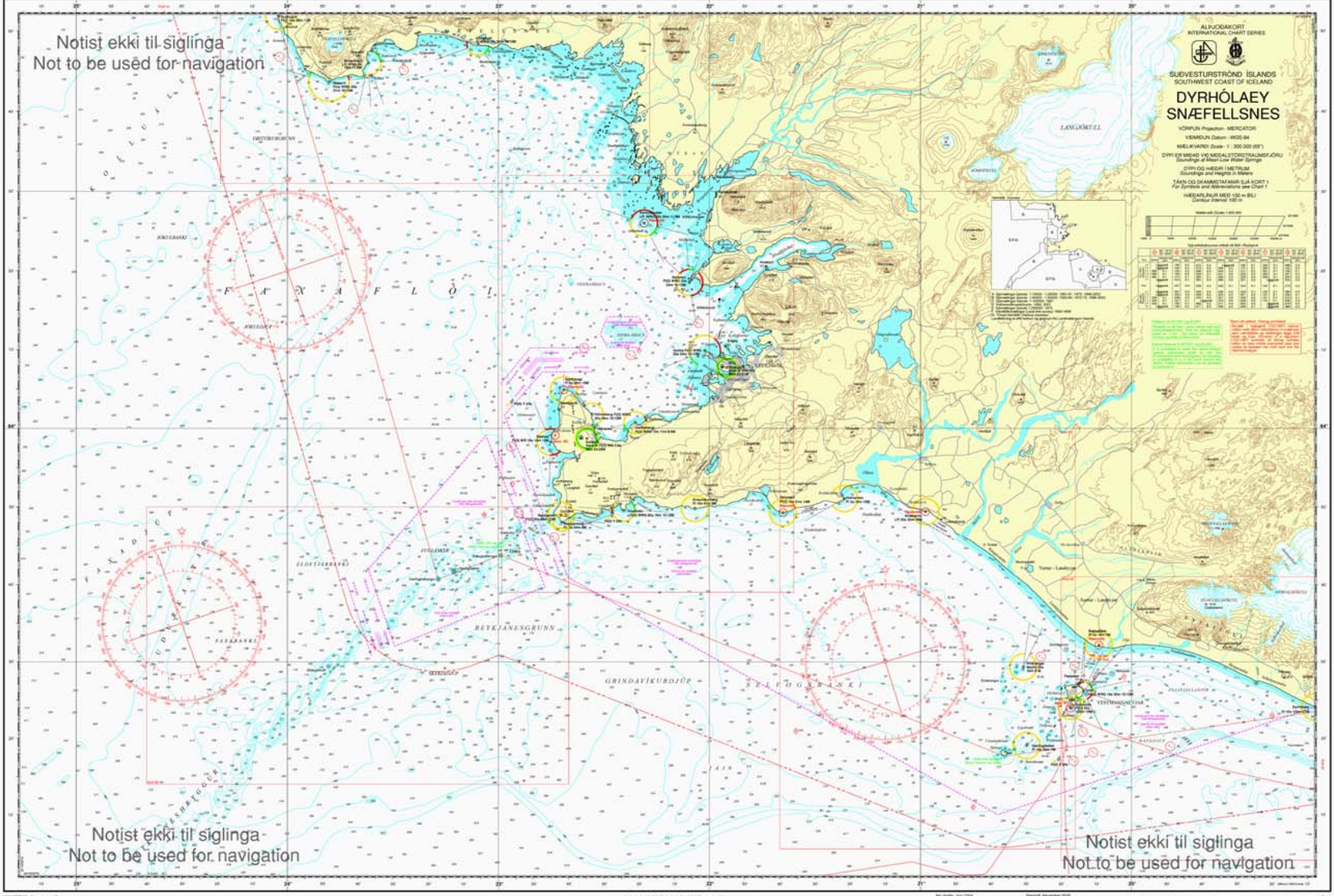
- Helguvíkurhöfn
- Hafnarfjarðarhöfn
- Ísafjarðarhöfn
- Akureyrarhöfn
- Reyðarfjarðarhöfn
- Vestmannaeyjahöfn

Neyðarhafnir og skipaafdrepp, tillaga um legu

- Hvalfjörður
- Ísafjarðardjúp
- Dýrafjörður
- Eyjafjörður
- Reyðarfjörður
- Vestmannaeyjar

Aðskildar siglingaleiðir

- Aðskildar siglingaleiðir fyrir Reykjanes
- Taka gildi í júlí 2008
- Öðluðust gildi með samþykki IMO á s.l. ári



Notist ekki til siglinga
Not to be used for navigation

Notist ekki til siglinga
Not to be used for navigation

Notist ekki til siglinga
Not to be used for navigation

ALÞJÓÐAKRÖFT
INTERNATIONAL CHART SERIES

SÚÐVESTURSTRÖND ÍSLANDS
SOUTHWEST COAST OF ICELAND

**DYRHÖLAÆY
SNÆFELLSNES**

VÖRÐUN: Þróun: MERCATOR
SEMIUM: 1:300 000
MÁLFRÓÐUN: Scale: 1:300 000 (887)
DYRÐIR MÉR: VIG MEGALSTÖRÐAUMFRÖÐUR
Soundings and Heights: in Meters
DYRÐIR MÉR: 1:300 000
TÁNN OG SVANASTARFANNS SLÁ SÖRT 1
FOR SIGHTING AND INFORMATION SEE CHART 1
MÉR: 1:300 000

Color	Meaning
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light
Red	Light
White	Light
Green	Light
Blue	Light
Black	Light
Yellow	Light
Pink	Light
Orange	Light
Grey	Light
White	Light

Kerfi á leiðinni

- LRIT (Long Range Identification and Tracking)
- Verður komið í gagnið um mitt ár 2009.
- Alþjóðlegt kerfi samþykkt af IMO (Alþjóðasiglingamálastofnunin)
- Rekið af Siglingaöryggisstofnun Evrópu (EMSA) fyrir Evrópusambandslönd + Noreg og Ísland
- Tilkynningar frá skipum á 6 klst. fresti í allt að 400 sjómílu frá landi

- VTMIS (Siglingaeftirlits og upplýsingakerfi) fyrir norðanvert N-Atlantshaf og Barentshaf. Væntanlegir þáttakendur : Noregur, Ísland, Danmörk, Færeyjar, Írland, Bretland og Rússland. Miðlægt kerfi í Noregi þangað sem öllum upplýsingum er beint (AIS, LRIT, Radarmyndir frá gerfihnöttum o.s.frv.). Sérstakur hugbúnaður (viðmót) skrifaður til að meðhöndla gögn og nota.

Framtíð STK

- Hefur verið rekið frá 2000
- Sérhannað kerfi frá einum framleiðanda
- Þjónustu framleiðanda hefur hrakað
- Erfitt og dýrt að fá tæki og varahluti
- Verið er að setja upp VHF/DSC kerfi
- Verið er að setja upp AIS kerfi
- Margar þjóðir láta VHF/DSC nægja á A1
- Getur AIS og / eða VHF/DSC komið í stað STK?

DGPS

- Reykjanesviti Bjargtangaviti
- Skagatáarviti Raufarhöfn
- Djúpivogur Skarðsfjöruviti
- Staðsetningarnákvæmni innan við meter
- Verður í rekstri til amk 2012



Takk fyrir