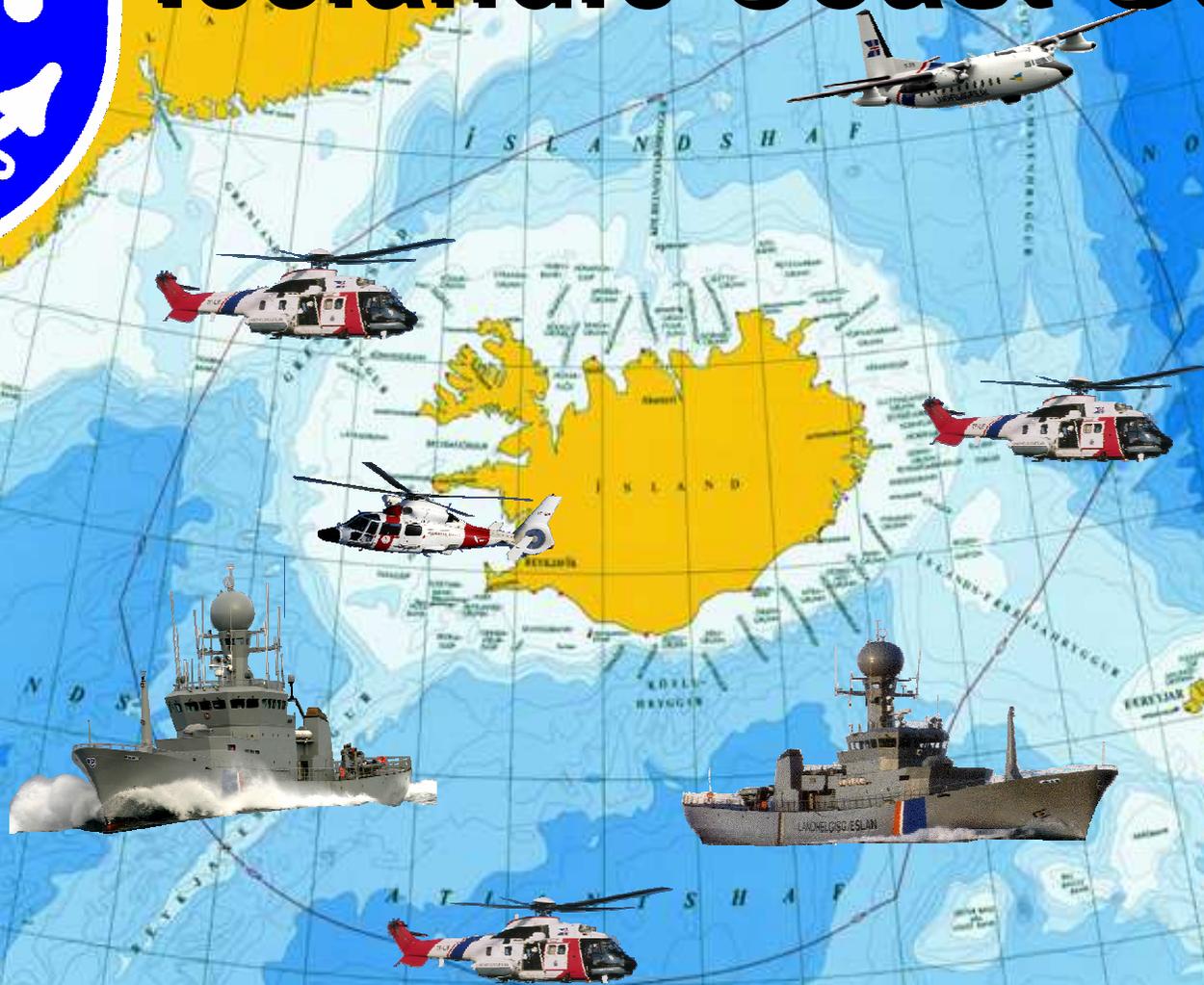




Icelandic Coast Guard



CDR Gylfi Geirsson



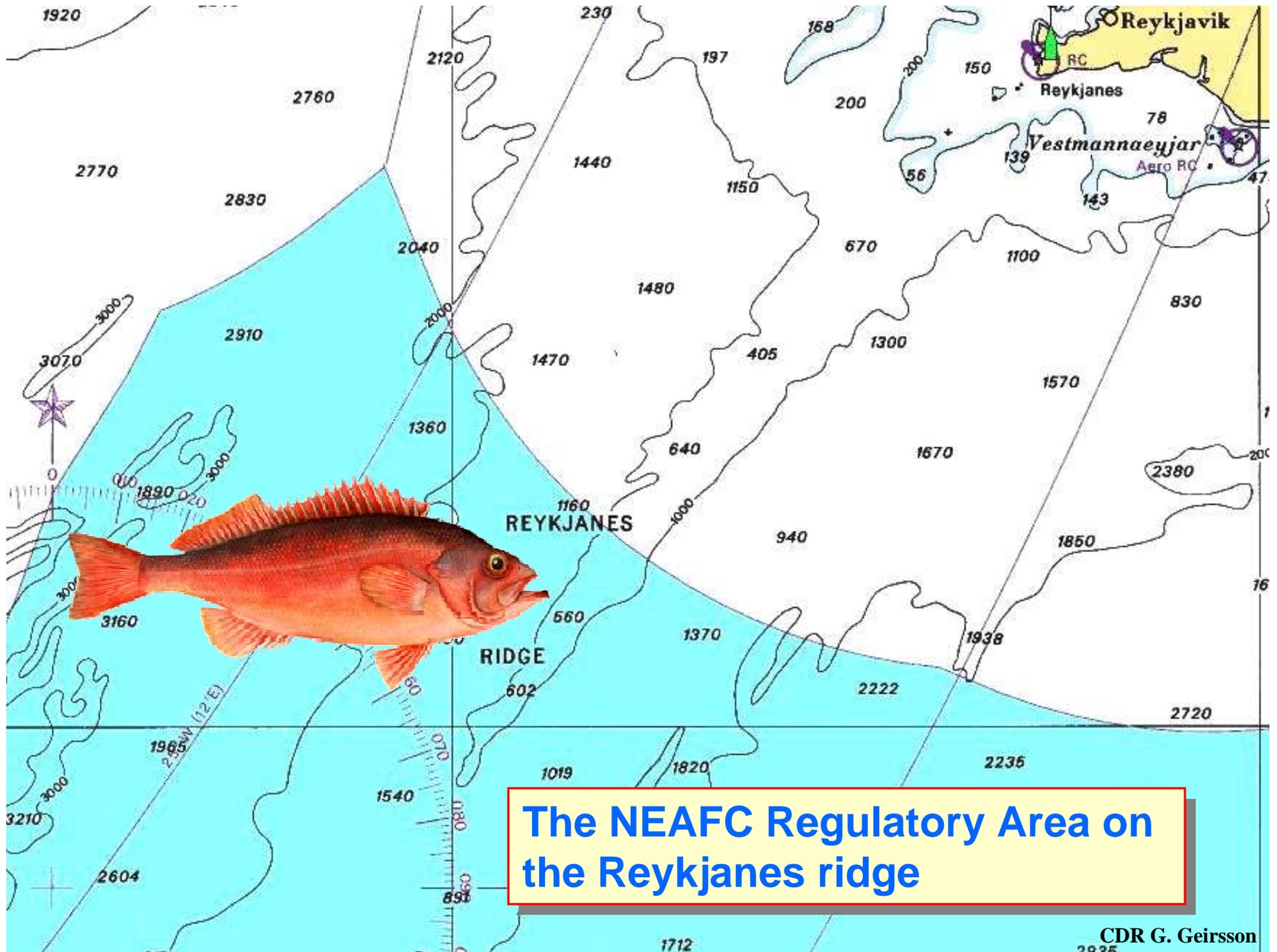
The Icelandic Integrated System

- **One Joint Operation Centre for**
 - **Coast Guard Operation**
 - **Monitoring Control and Surveillance (MCS)**
 - General Policing in the Icelandic EEZ
 - Vessel Monitoring System (VMS)
 - Fisheries Monitoring Centre (FMC)
 - **Maritime Traffic Service (MTS)**
 - **Global Maritime Distress and Safety System**
 - **Single Point of Contact for all Maritime related notifications**
 - Schengen
 - Port Call
 - Transit
 - **Search and Rescue (SAR)**
 - **Emergency response**

MCS – VMS – FMC – MTS – SAR
All integrated into one single centre

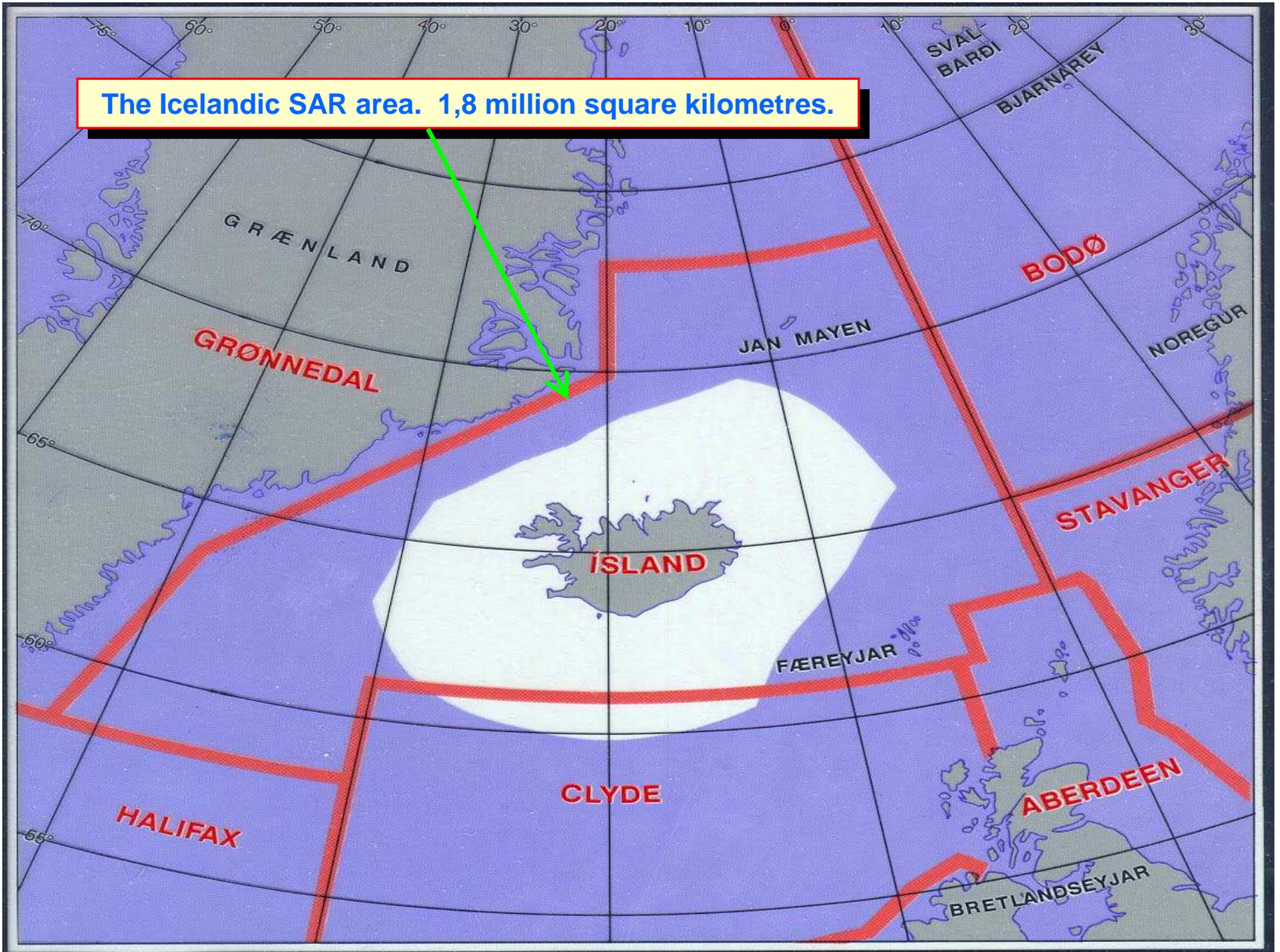


The Area of Operation



The NEAFC Regulatory Area on the Reykjanes ridge

The Icelandic SAR area. 1,8 million square kilometres.





**Merging of all available
maritime information
into one centre**



Additional information into the tracking system (VMS)

- The VMS is complemented with all available maritime notifications
 - **Manual reports**
 - Schengen
 - Port Call
 - Transit
 - Entry – Catch – Exit
 - **AIS**
 - **VDS**
 - **Coastal Radar**
- This forms an almost complete surface picture



Icelandic Coast Guard



AIS

Vessels in tracking

Fisheries VMS

Safety VMS

Vessels in tracking

Schengen

Port call

Position

Entry – Exit

Catch/activity

Sightings

VDS

PSC

Coastal Radar

LRIT

Operation centre

- VMS
- FMC
- MTS
- MRCC / JRCC
- GMDSS
- Coast Guard

- 112 (Emergency hot-line)
- Civil Defence
- State Police

- Voluntary SAR

Fishing licences

Ship Registry

Crew List

NEAFC POS - Catch and Activity – Notifications and Authorisations.

Other States

Coast Guard data base

Coast Guard aircraft

Compiled files automatically distributed to relevant recipients.

Coast Guard vessels

State Police
 Customs
 Directorate of Fisheries
 Icelandic Maritime Administration
 Port security officers
 NEAFC – NAFO
 Other States



Maritime Traffic Service
Coast Guard Operation Centre
 Information Flow Chart



Automatically produced lists

- **Position list of foreign vessels**
- **Catch list of foreign vessels**
- **License list for foreign vessels**
- **Warning list**
 - **Warnings if vessels are outside designated harbour areas;**
 - **Without fishing licence or the licence has been suspended**
 - **Certificate of Seaworthiness has expired**
- **Schengen and Port Call**



Icelandic Coast Guard
Fisheries Monitoring Centre

C a t c h L i s t

Total catch in kilograms for foreign vessels in their current fishing trip. Vessels which have exited on or after 20/04/07 are also listed.

FRO FAROE ISLANDS

NA: EYSTUROYINGUR RC: OW2003 XR: FD-280
POS: 64.20N - 013.32W DA: 28/04/07 TI: 19:45
Date of ENTRY: 18/04/07 STATUS: OUT TN: 3 MSG: 12

CAA-Atlantic wolffish	3,845
COD-Atlantic cod	10,744
HAD-Haddock	20,332
HAL-Atlantic halibut	0,522
LIN-Ling	0,847
MON-Angler (=Monk)	0,031
POK-Saithe (=Pollock)	0,364
RED-Atlantic redfishes	0,263
SKA-Skates	0,020
USK-Tusk (=Cusk)	8,932
WHG-Whiting	0,078

Total: 45,978



Automatically produced files

- The following database files are compiled with few hour interval and transmitted to the patrol units with automatic import into the units databases
 - **Fishing licences**
 - Domestic
 - NEAFC
 - **Ship registry**
 - Domestic
 - Foreign vessels
 - IUU lists
 - NEAFC
 - **Icelandic crew lists**
 - **VMS positions**
 - **Inspection databases**
 - Update in both directions

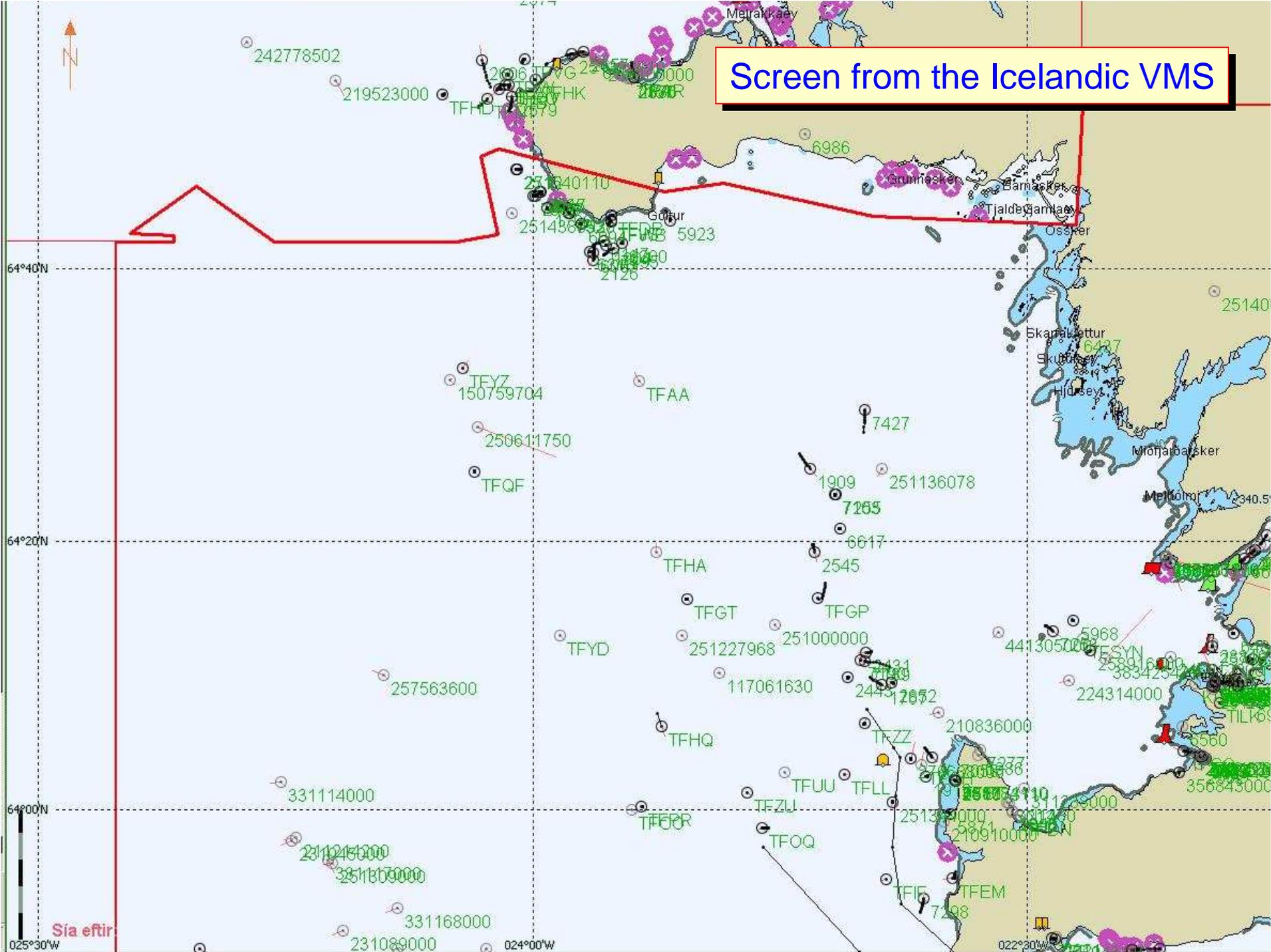
Automatic lookup onboard patrol units of all known information regarding each target/sighting as its identifier is entered into the units database

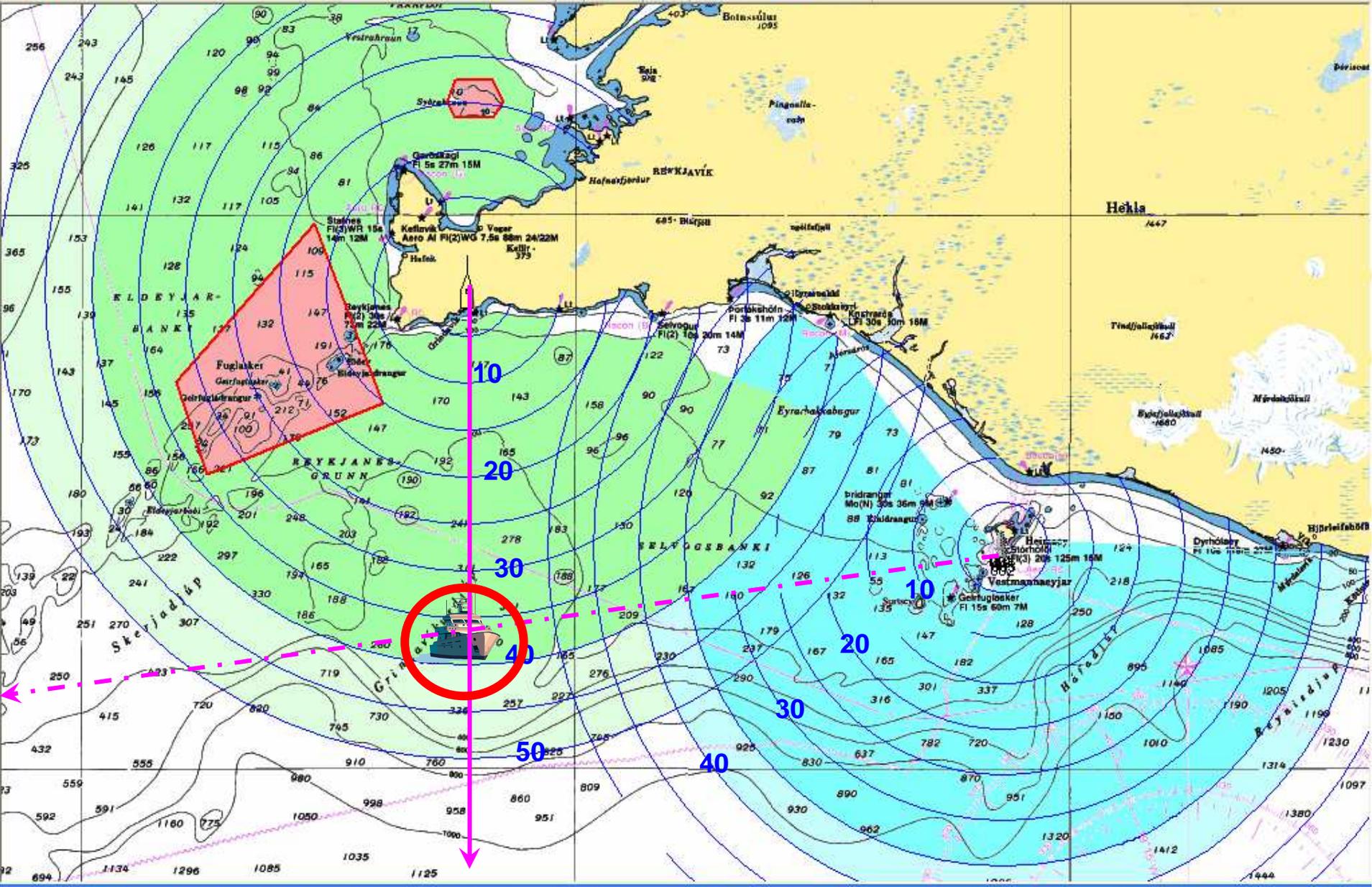


Further Enhancements planned

- **Increased automation**
 - **Increased automatic area watch**
 - **Comparison of vessels licences with regulation for relevant area**
 - **Changing of icon shape/colour if vessel is on the warning list**
 - **Automatic comparison with quota status**

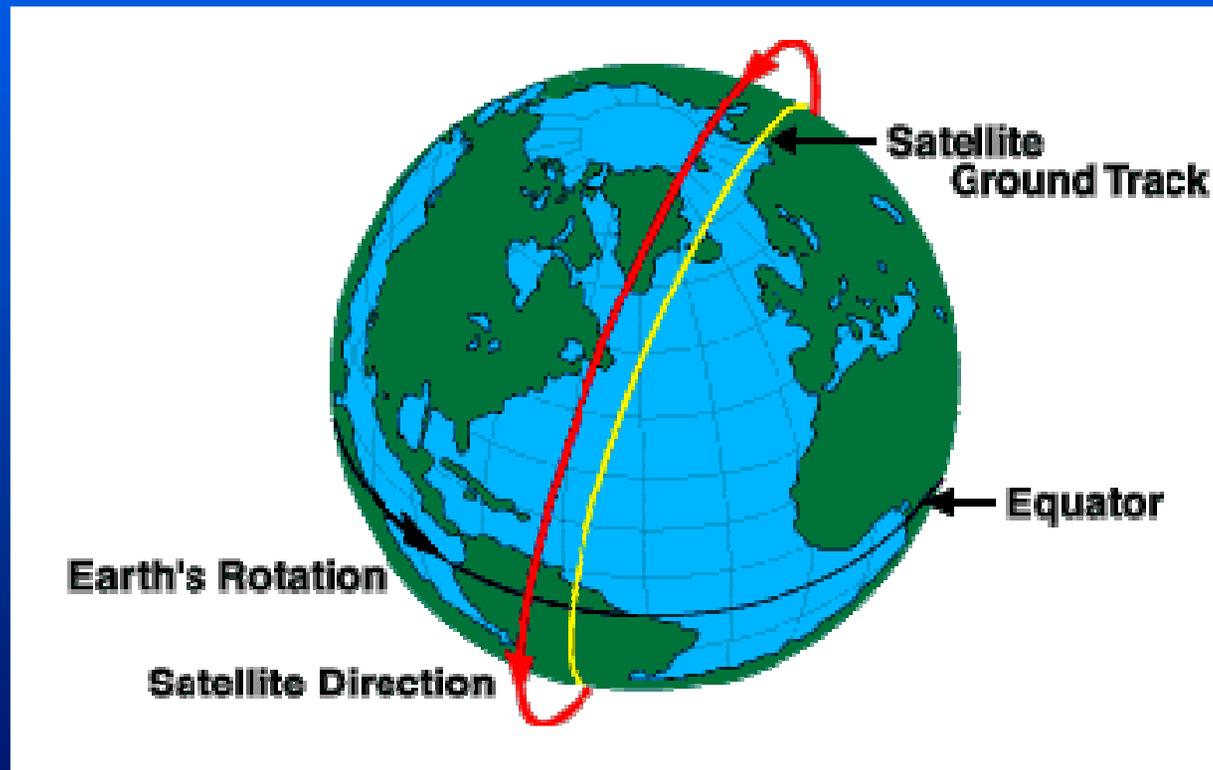
Screen from the Icelandic VMS



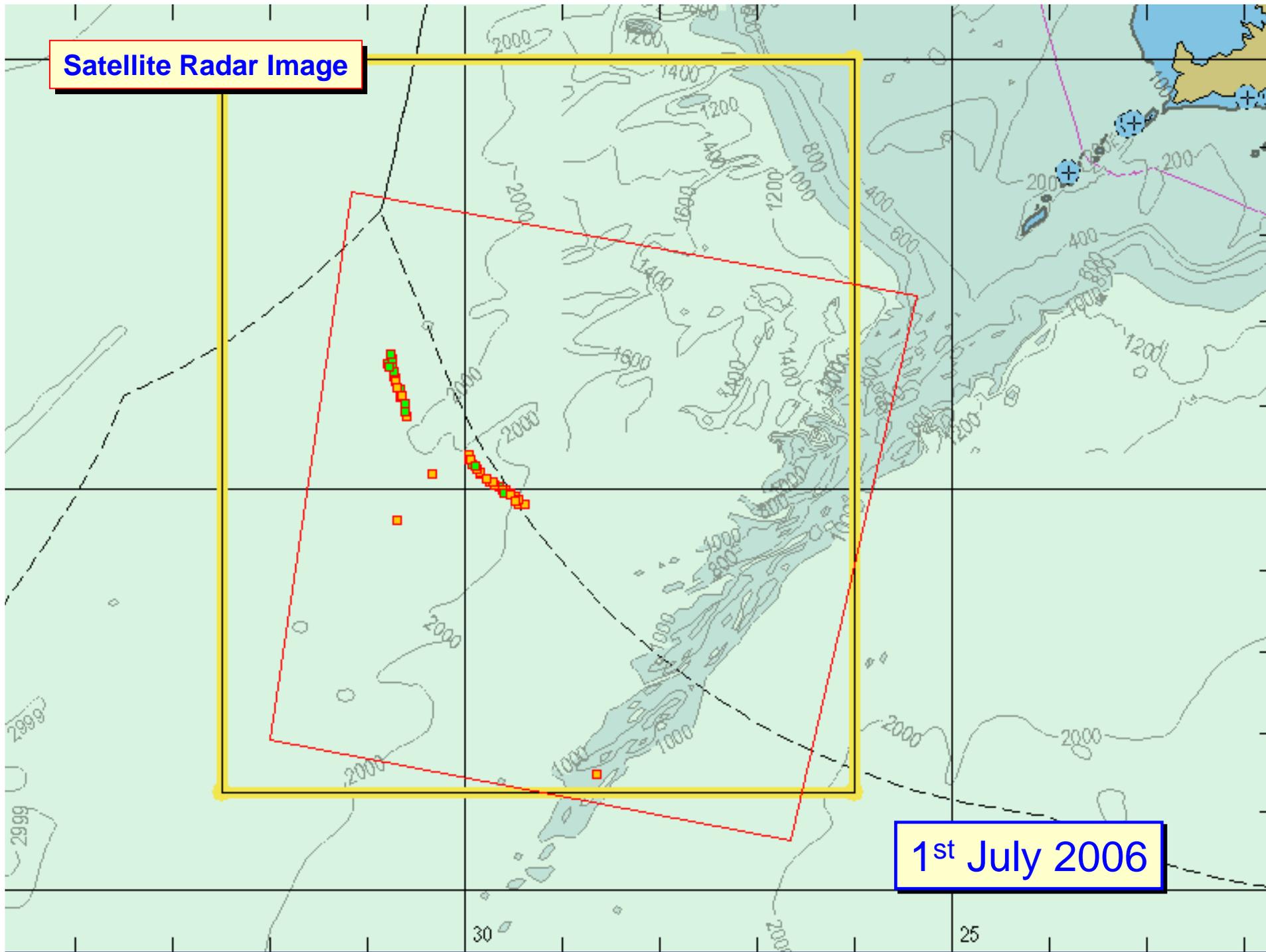




Satellite Radar



Satellite Radar Image

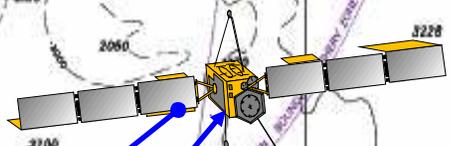


1st July 2006



Bilateral Tracking Agreements

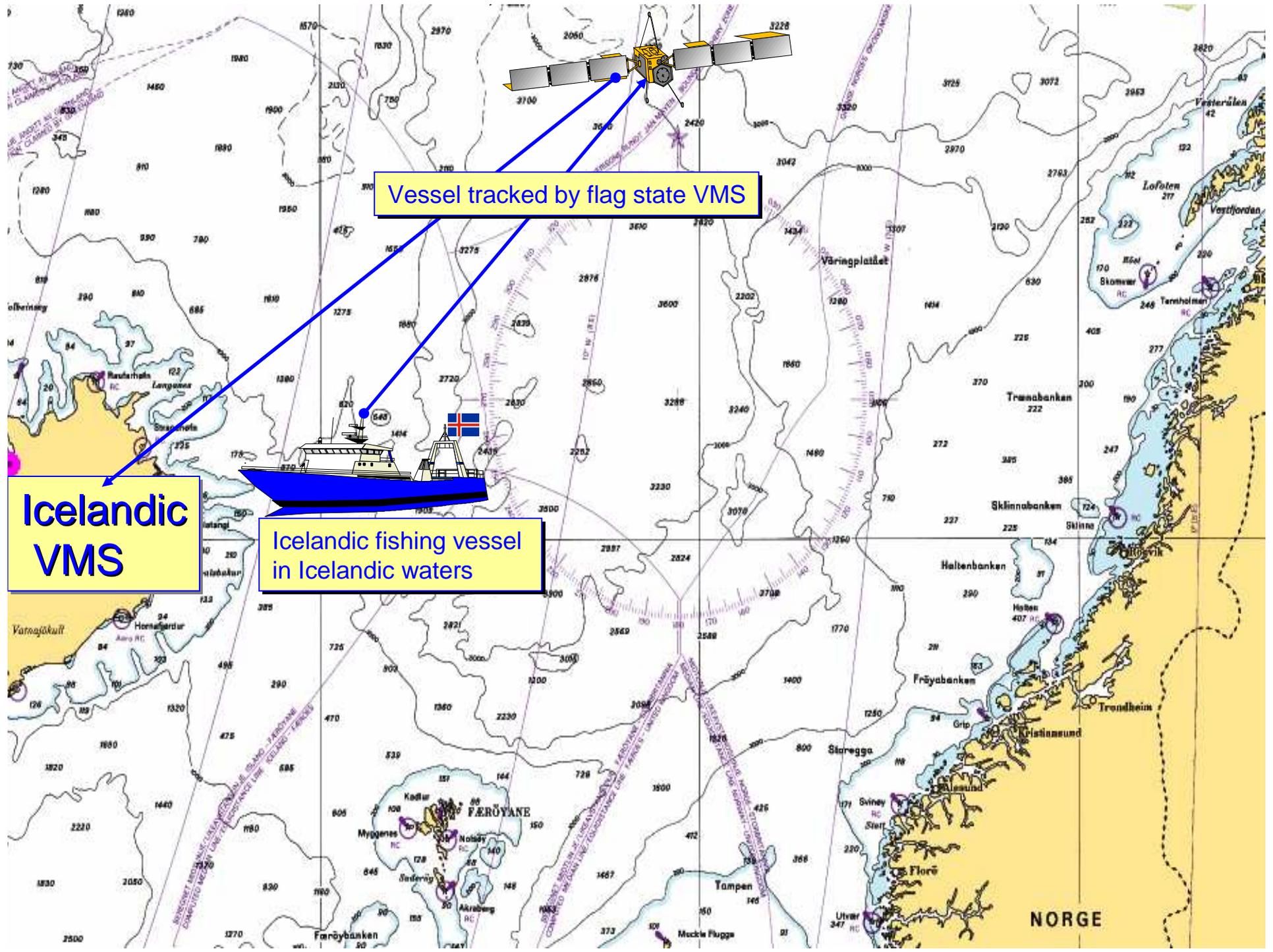
- **Icelandic example**
 - **Agreements for automatic exchange of tracking information with;**
 - **Faroe Islands**
 - **Greenland**
 - **Norway**
 - **Russia**
 - **Automatic transmission of Entry and Exit messages upon crossing limits**
 - **Position automatically forwarded every two hours when vessels are in waters of one another**
 - **Further developements for electronic reporting is being discussed.**

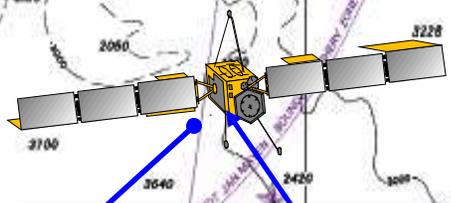


Vessel tracked by flag state VMS

Icelandic VMS

Icelandic fishing vessel in Icelandic waters





Vessel tracked by flag state VMS

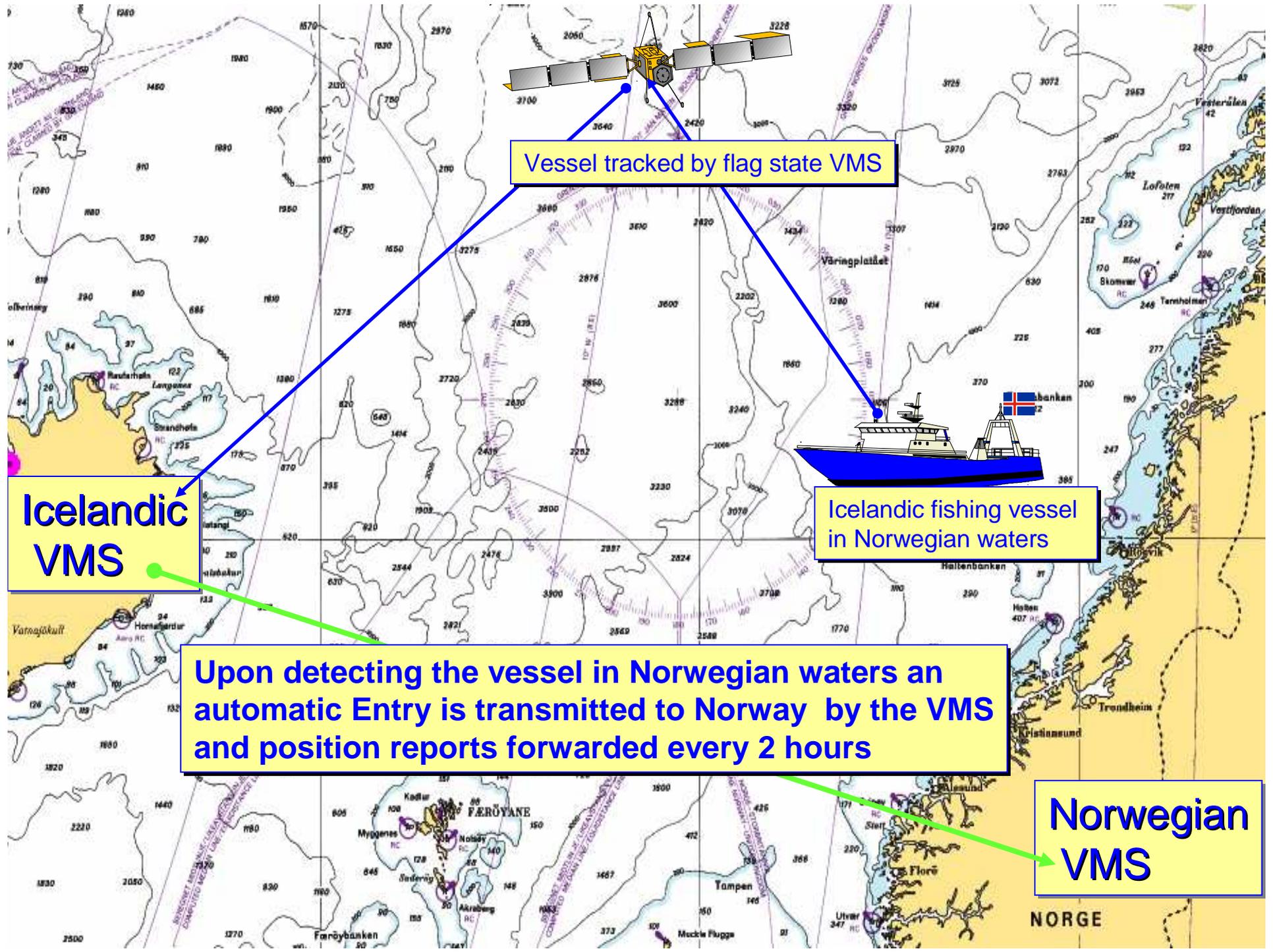
Icelandic VMS

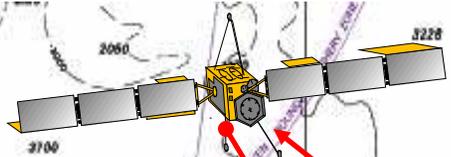


Icelandic fishing vessel in Norwegian waters

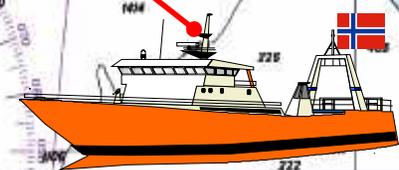
Upon detecting the vessel in Norwegian waters an automatic Entry is transmitted to Norway by the VMS and position reports forwarded every 2 hours

Norwegian VMS



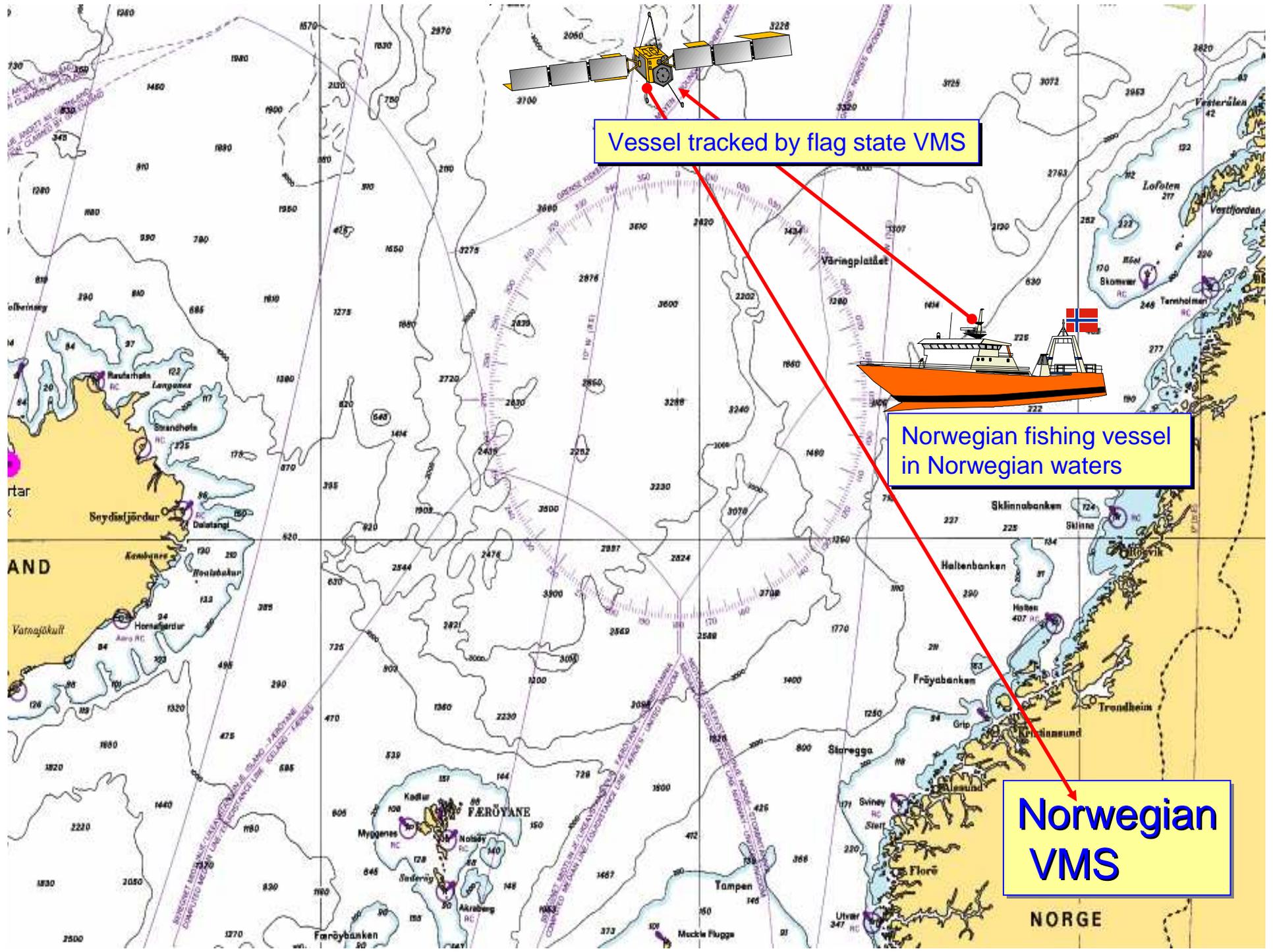


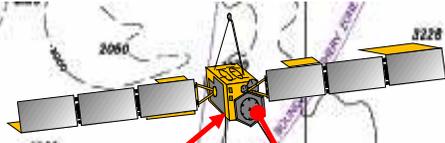
Vessel tracked by flag state VMS



Norwegian fishing vessel in Norwegian waters

Norwegian VMS





Vessel tracked by flag state VMS

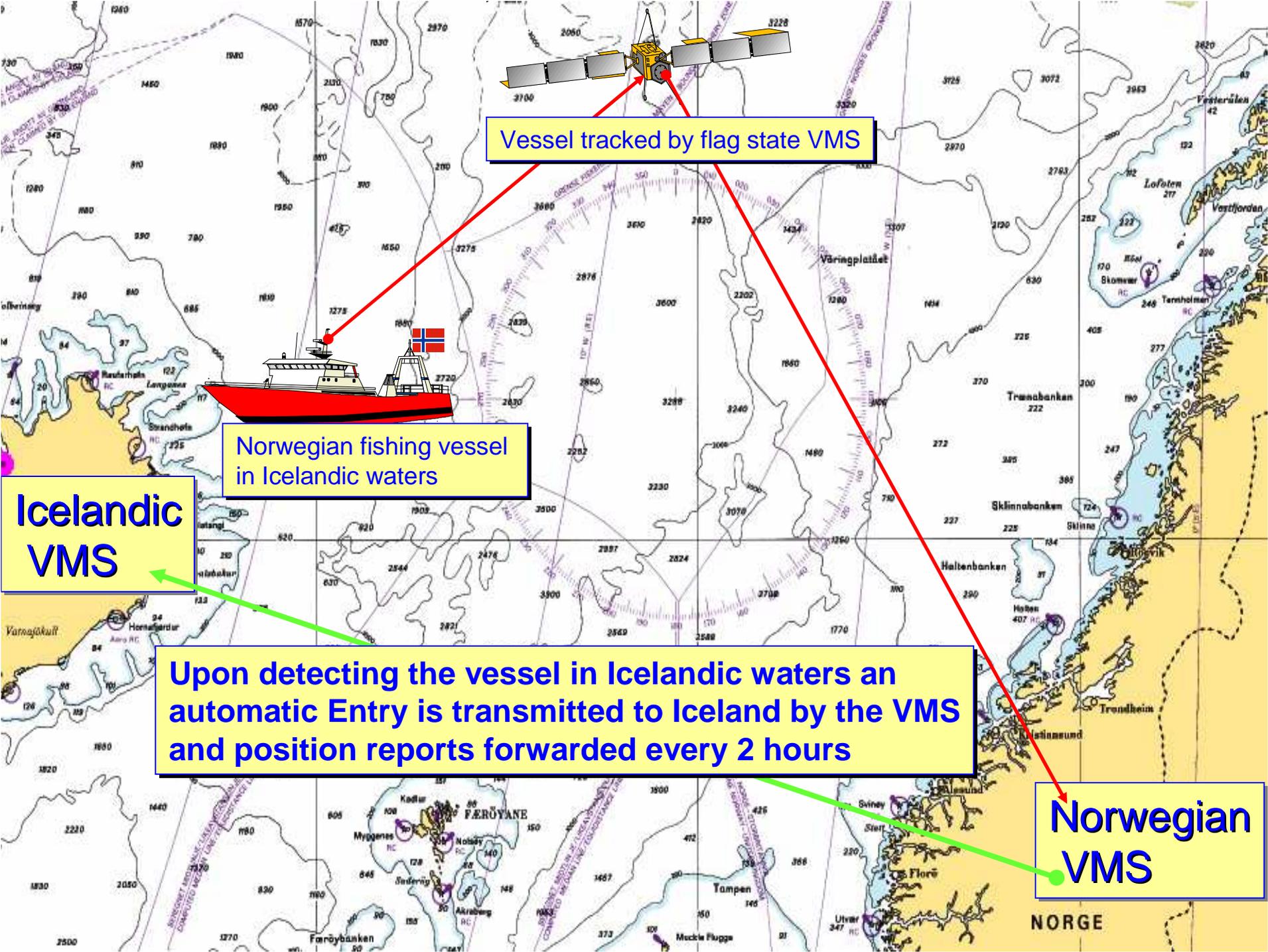


Norwegian fishing vessel in Icelandic waters

Icelandic VMS

Upon detecting the vessel in Icelandic waters an automatic Entry is transmitted to Iceland by the VMS and position reports forwarded every 2 hours

Norwegian VMS

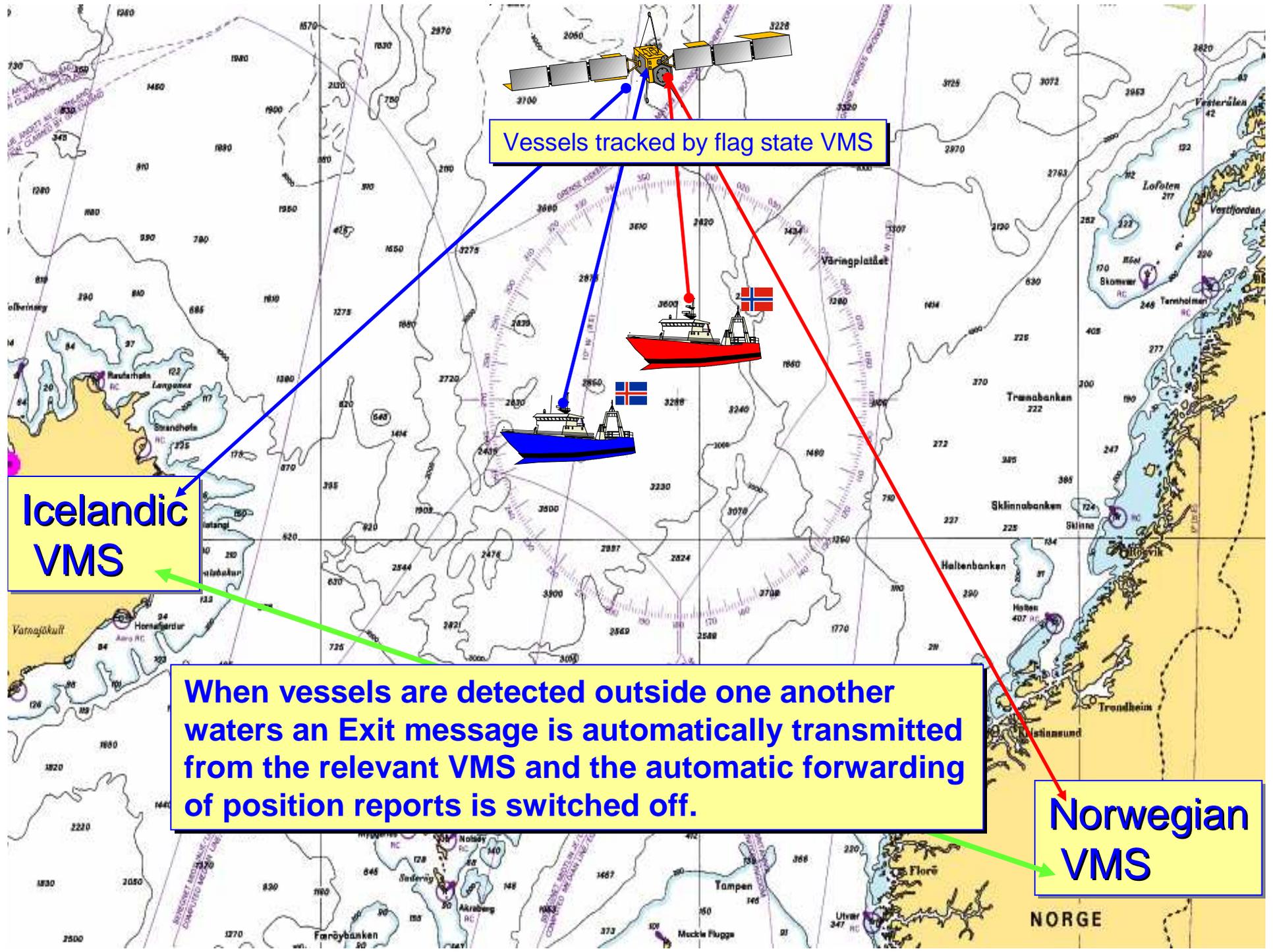


Vessels tracked by flag state VMS

Icelandic VMS

When vessels are detected outside one another waters an Exit message is automatically transmitted from the relevant VMS and the automatic forwarding of position reports is switched off.

Norwegian VMS





- **Data exchange with two RFMOs, NEAFC and NAFO**
 - **Tracking data every two hours**
 - **Catch and Activity reports**
 - **Catch on Entry**
 - **Entry**
 - **Catch**
 - **Transshipment**
 - **Port of Landing**
 - **Catch on Exit**
 - **Exit**
 - **Surveillance Data**
 - **Inspection Data**
 - **Port State Control**



Increased flow of information

- **Can, if used in a co-ordinated way, lead to more cost effective operations**
 - **Conduct airborne surveillance from greater altitudes**
 - **Remote identification**
 - **Unknown vessels will be very visible**



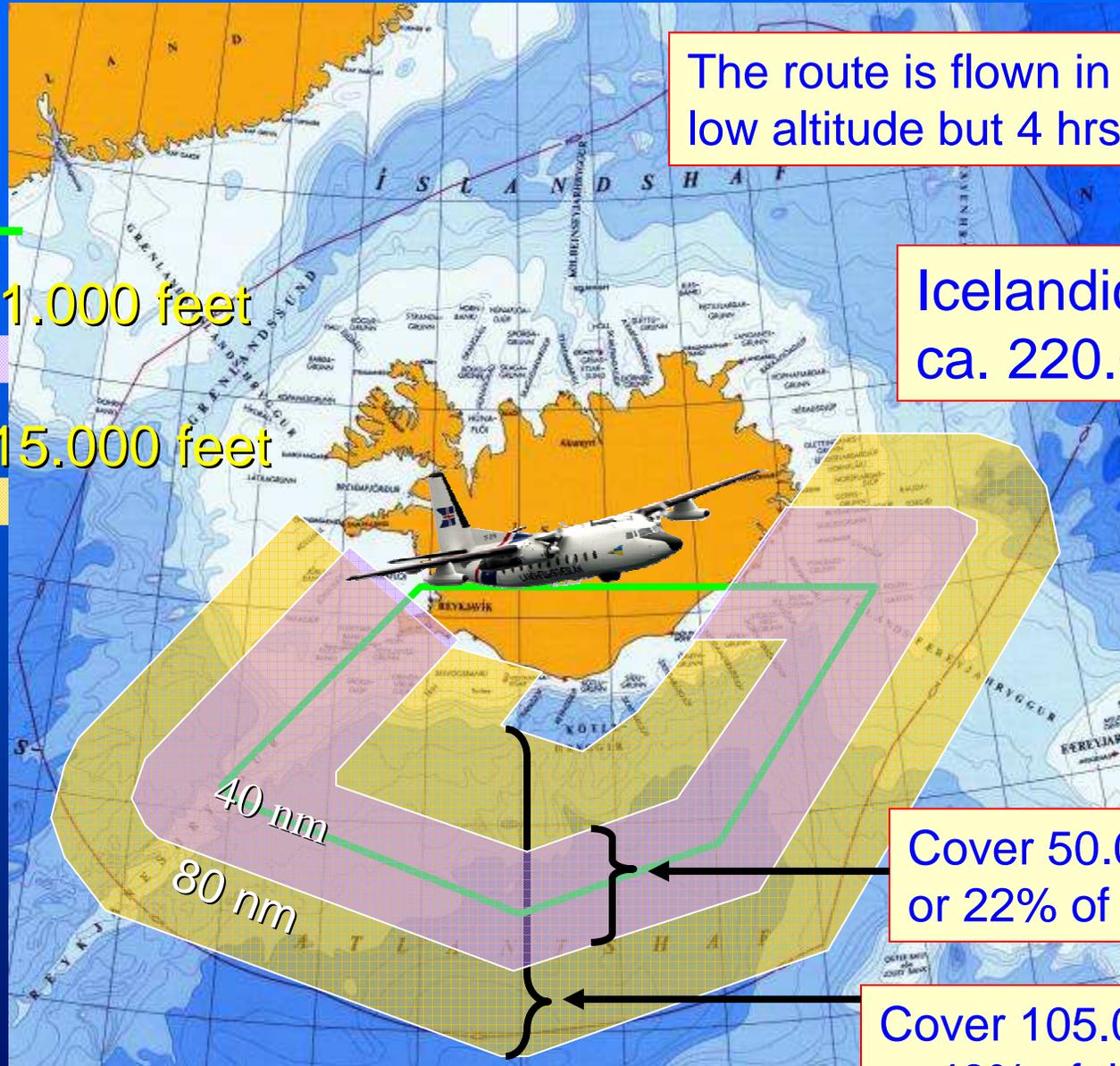
Route

Cover in 1.000 feet

Cover at 15.000 feet

The route is flown in 5 hrs in low altitude but 4 hrs in higher

Icelandic EEZ
ca. 220.000 nm²



Cover 50.000 nm²
or 22% of the EEZ

Cover 105.000 nm²
or 49% of the EEZ



The integrated system

- **The joint centre has greatly enhanced all responses for Search And Rescue (SAR) operations**
 - **Almost complete surface picture**
 - **Full information on all available response units**
 - **Fully equipped Joint Rescue Co-ordination Centre at the same location (JRCC)**

Activation of Coast Guard patrol vessels



If a vessel is not reporting its position according to schedule investigation must start after 30 minutes with a following full scale Search and Rescue operation if needed.

Activation of Coast Guard patrol aircraft



Activation of Coast Guard rescue helicopters





This picture shows a
real rescue mission



Activation of ground rescue teams



Activation of high speed rescue boats





Key Points

- **The Integrated System facilitates for;**
 - **Fisheries Monitoring Control and Surveillance**
 - **General Maritime Surveillance**
 - **Maritime Security**
 - **Battle IUU fishing and other illegal activity**
 - Environmental protection
 - Illegal migration
 - Illegal drug trafficking
 - **Search and Rescue**



Icelandic Coast Guard



This concludes the briefing
Thank you for the attention

