Icelandic Coast Guard

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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 Icelandic EEZ.
An area of 754,000 km²
The NEAFC Regulatory Area on the Reykjanes ridge
The NEAFC Regulatory Area East of Iceland
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
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

Catch List

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

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POS: 64.20N - 013.32W DA: 28/04/07 TI: 19:45
Date of ENTRY: 18/04/07 STATUS: OUT TN: 3 MSG: 12
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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
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Total: 45,978
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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
The same screen is available at the operation centre and onboard the Coast Guard vessels.
Satellite Radar

- Satellite Ground Track
- Equator
- Earth's Rotation
- Satellite Direction
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 developments for electronic reporting is being discussed.
Icelandic fishing vessel in Icelandic waters

Vessel tracked by flag state VMS

Icelandic VMS
Upon detecting the vessel in Norwegian waters an automatic Entry is transmitted to Norway by the VMS and position reports forwarded every 2 hours.
Vessel tracked by flag state VMS

Norwegian fishing vessel in Norwegian waters

Norwegian 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.
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.
• Data exchange with two RFMOs, NEAFC and NAFO
  – Tracking data every two hours
  – Catch and Activity reports
    • Catch on Entry
    • Entry
    • Catch
    • Transhipment
    • 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
The route is flown in 5 hrs in low altitude but 4 hrs in higher altitude.

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)
Search and Rescue features incorporated into the VMS

- Measurement of distance and time of travel between the vessel in distress and the rescue units.
- Automatic listing of all known vessels within selected distance from the vessel in distress.
- Search and Rescue features incorporated into the VMS.
- Automatic warning if a vessel is not reporting as scheduled. SAR operation can be started much earlier for those vessels in the system, in the case of emergency situation but no distress call.
- Vessel in distress.

Measurement of distance and time of travel between the vessel in distress and the rescue units.
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
This concludes the briefing
Thank you for the attention