S-123 Task Group Update

NIPWG VTC 2022 (June 7, 2022)

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(S-123 Task Lead)

S-123 Task Group Updates

- Six (6) task group meetings have been held to date.
  - Plans to hold at least 3 more meetings before NIPWG9 in September
- Approximately 1/3 of the feedback received has been reviewed so far (16 out of 47 pages).
- Two (2) new members have been added to the task group as they have expressed interest in being part of the S-123 discussions
  - Jason Youé (UKHO, Senior Editor for the Admiralty List of Radio Signals)
  - Neil Salter (UKHO, Senior Editor for the Admiralty List of Radio Signals)

categoryOfRadioStation

- Proposal to remove the following values after discussion with UKHO: Decca (8), Toran (11), Omega (12), Syledis (13) and Chaika (14)
  - Note: Toran and Chaika are listed in S-101.

- Discussions to update the definition for Differential GNSS (10)

Listed Values

Role Name	Name	Code	Description / Remarks
Literal	radio direction-finding station	5	A radio station intended only to determine the direction of other stations by means of transmission from the latter.
Literal	Decca	8	The Decca Navigator System is a high-accuracy, short to medium range radio navigation aid intended for coastal and landfall navigation.
Literal	Loran C	9	A low frequency electronic position fixing system using pulsed transmissions at 100 Khz.
Literal	Differential GNSS	10	A radiobeacon transmitting DGPS correction signals.
Literal	Toran	11	An electronic position fixing system used mainly by aircraft.
Literal	Omega	12	A long-range radio navigational aid which operates within the VLF frequency band. The system comprises eight land based stations.
Literal	Syledis	13	A ranging position fixing system operating at 420-450MHz over a range of up to 400 Km.
Literal	Chaika	14	A low frequency electronic position fixing system using pulsed transmissions at 100 Khz.
Literal	facsimile transmission	17	facsimile transmission (IHO HYDRO register, 2010-11-14)
Literal	radio telephone station	19	The equipment needed at one station to carry on two way voice communication by radio waves only.
Literal	AIS base station	20	Remark: Not defined in GI Registry (2017-04-20).

categoryOfGMDSSArea

- Discussions to update the definition of these areas, such as Area A3 (3), to take into consideration that both Inmarsat and Iridium are involved with GMDSS

Listed Values

Role Name	Name	Code	Description / Remarks
Literal	Area A1	1	Within range of VHF coast stations with continuous DSC alerting available (about 20 – 30 miles)
Literal	Area A2	2	Beyond area A1, but within range of MF coastal stations with continuous DSC alerting available (about 100 miles)
Literal	Area A3	3	Beyond the first two areas, but within coverage of geostationary maritime communication satellites (in practice this means Inmarsat). This covers the area between roughly 70 deg N and 70 deg S.
Literal	Area A4	4	The remaining sea areas. The most important of these is the sea around the North Pole (the area around the South Pole is mostly land). Geostationary satellites, which are positioned above the equator, cannot reach this far.

Communication Content in S-123 1.0.0

«enumeration»
categoryOfMaritimeBroadcast

navigational warning = 1
meteorological warning = 2
ice report = 3
SAR information = 4
pirate attack warning = 5
meteorological forecast = 6
pilot service message = 7
AIS information = 8
LORAN message = 9
SATNAV message = 10
gale warning = 11
storm warning = 12
tropical revolving storm warning = 13
NAVAREA warning = 14
coastal warning = 15
local warning = 16
low water level warning/negative tidal surge = 17
icing warning = 18
tsunami broadcast = 19

Classification of maritime broadcast based on the nature of information conveyed.

«enumeration»
categoryOfFrcstAndWarningArea

World Meteorological Organization (WMO) = 1
National high seas = 2
National offshore = 3
National coastal = 4
National inshore = 5
National local = 6
Ice = 7

Feedback was submitted regarding whether additional enumeration values are warranted such as "Inland Waters," "Commercial Shipping Waters" and "Major Inland Waters."

Feedback was submitted regarding whether additional enumeration values are warranted such as:
- Tides and water flow forecast
- Wave height forecast
- Notice to fish harvesters
- ODAS weather buoys
- Ice hazard bulletin
- Ice boundary information
- Ice forecasts
- Iceberg bulletin
- Water level readings
- Weather watches
- Marine weather statements
- Technical marine synopsis
- Extended marine forecasts
- Military exercise information

Communication Content in S-123 1.0.0

3.87 Transmission content

Name: Transmission content
Definition: Content of transmission
Code: 'transmissionContent'
Remarks: Other than MSI.
Aliases: (none)
Value Type: text

«ComplexAttributeType»
radiocommunications

«SimpleAttribute»
+ categoryOfCommPref: categoryOfCommPref [0..1]
+ categoryOfRadioMethods: categoryOfRadioMethods [0..*]
+ categoryOfMaritimeBroadcast: categoryOfMaritimeBroadcast [0..*]
+ communicationChannel: text [0..*]
+ contactInstructions: text [0..1]
+ selectiveCallNumber: Integer [0..1]
+ signalFrequency: Integer [0..1]
+ transmissionContent: text [0..1]
+ transmissionRegularity: transmissionRegularity [0..*]

«ComplexAttribute»
+ facsimileDrumSpeed: facsimileDrumSpeed [0..1]
+ frequencyPair: frequencyPair [0..*]
+ timeOfObservation: timeOfObservation [0..1]
+ timesOfTransmission: timesOfTransmission [0..1]
+ tmIntervalsByDoW: tmIntervalsByDoW [0..*]

Populate transmissionContent only if categoryOfMaritimeBroadcast is not populated

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«FeatureType»
RadioStation

«SimpleAttribute»
+ callSign: text [0..1]
+ categoryOfRadioStation: categoryOfRadioStation [0..1]
+ estimatedRangeOfTransmission: Real [0..1]
+ status: status [0..1]

«ComplexAttribute»
+ orientation: orientation [0..1]
+ radiocommunications: radiocommunications [0..*]

«SpatialAttribute»
+ geometry: GM_Point

constraints
{only categoryOfMaritimeBroadcast, communicationChannel, signalfrequency, transmissionContent allowed for radiocommunications}

Other Types of Communications?

Example from Canadian Coast Guard (CCG) *Radio Aids to Marine Navigation* publication

Sites located at	Channels	Frequencies		Remarks
		Transmit	**Receive**	
Kingsburg 44°16'32"N 064°17'15"W	Ch16 Ch24 Ch26 Ch70	-	-	VHF Direction Finding service is available. Ch24, Ch26, 2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
	-	-	2182 2118 2206	

Example from International Telecommunication Union (ITU) *List of Coast Stations and Special Services* publication

CP - Public correspondence service

Address: No information available
E-addr.: PHONE: +1 888 528 6444 (TOLL FREE)
PHONE: +1 902 426 9750
TELEFAX: +1 902 426 4483
EMAIL: Supervisor.mcts-halifax@dfo-mpo.gc.ca

Nature of Service: CP
Num. Notes: CP1 CP2 CP22 CP24 → See the Notes
Remarks: CP8
Charge Notes: A → See the Notes

Call Sign	Sel Call	MMSI	Latitude	Longitude	Priority	Tx Freq.	Unit	Rx Freq.	Channel	Emission Class	Freq. Band	Tx Power	Tx Hrs	Watch Hours	Remote Name	Num. Note	Remarks
VCS			44°16'32"N	064°17'15"W		161.8	M		C24	F3E	VHF	0.05		H24	KINGSBURG		
VCS			44°16'32"N	064°17'15"W		161.9	M		C26	F3E	VHF	0.05		H24	KINGSBURG		
VCS			44°16'32"N	064°17'15"W			k	2182		J3E	MF	1.2		H24	KINGSBURG		
VCS			44°16'32"N	064°17'15"W			k	2206		J3E	MF	5		H24	KINGSBURG		

Other Types of Communications?

Example from International Telecommunication Union (ITU) *List of Coast Stations and Special Services* publication

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Nature of Service: CP
Num. Notes: CP1 CP2 CP22 CP24   See the Notes
Remarks: CP8
Charge Notes: A   See the Notes

CP - Coast stations providing a public correspondence service

NOTES.

CP1   Owned by: Government of Canada, Department of Fisheries and Oceans, Ottawa, Ontario.

CP2   Accepts AMVER traffic. No land station charge is assessed if messages are addressed to AMVER Halifax or AMVER Vancouver.

CP22   No commercial Ship's business messages or Private messages accepted. Messages handled without charge include:
– Messages pertaining to weather or ice information and ice routing;
– Messages concerning aids to navigation;
– AMVER Messages that are addressed AMVER HALIFAX;
– Radio-medical messages;
– Messages reporting pollution;
– Messages addressed to a port or a member of the Canadian Coast Guard that involve a report of a ship movement, position or condition;
– Messages addressed to a Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC);
– Pilotage messages;
– Official Naval messages;
– Quarantine messages addressed to "Quarantine"; and,
– Messages requesting a doctor to meet a ship on arrival.

CP23   Ship's telephone service (duplex calls) only provided in specific areas of Atlantic Canada.

CP24   Ship's telephone service (duplex calls) available.

AAIC - Charges and accounting authorities

A   Accounting authority: Fisheries and Oceans Canada, 200 Kent Street, Ottawa, Ontario K1A ON6 (Canada).
E-mail: infopol@dfo-mpo-gc.ca

Other Types of Communications?

Question for NIPWG:

- What types of services or information are provided via radio (either broadcast or 2-way) in your country, that are not currently covered by S-123 enumerations (see previous slides)?

- In other words, if you would use the text attribute **transmissionContent** to describe a service or information type because the enumerations on the previous slide do not list it, what would you be putting in **transmissionContent**?
    - Example: "connecting to commercial telephone system on shore"

For reference, the S-123 1.0.0 model is online at
http://wp12183585.server-he.de/npubwiki/S123HTML/index.htm

Closing Remarks

- The task group continues to remain on track to meets its mandate to review all feedback collected to date in order to provide a list of changes for approval at NIPWG9 in September 2022.

- The NIPWG is invited to:
    - note this presentation and
    - take any actions as appropriate.