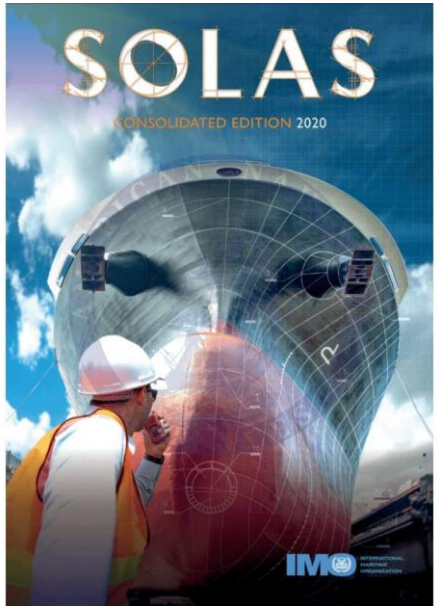
GMDSS – New Regulations from 2024

GMDSS – New Regulations from 2024

SOLAS Chapter IV



SOLAS Chapter IV is the “Bible” for GMDSS. It describes in detail the need for safety communication equipment.

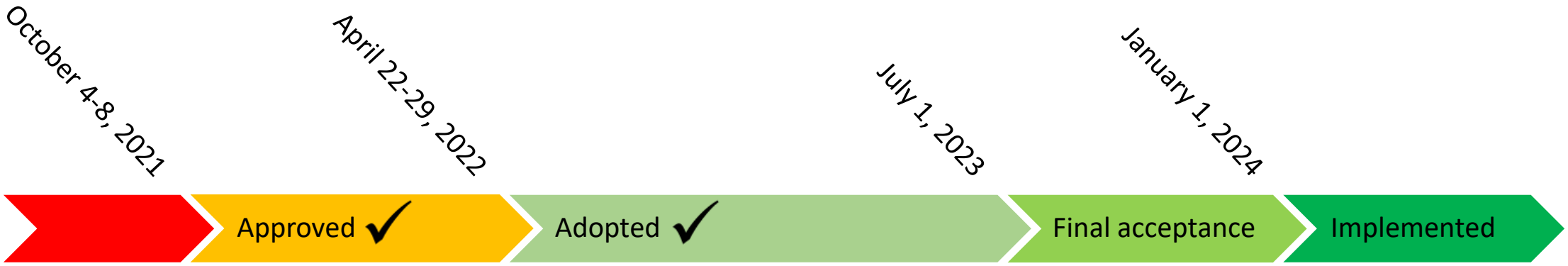
New edition of “SOLAS – Consolidated Edition” is issued every 5-6 years (Latest in 2020)

Now a **complete rewrite of Chapter IV** has been issued

GMDSS – New IMO Resolution

- The new resolution was adopted by IMO in April 2022 – MSC.496(105)
- The new resolution will go into force on January 1, 2024
- No more meetings within IMO – subject closed

MSC
Maritime Safety Committee



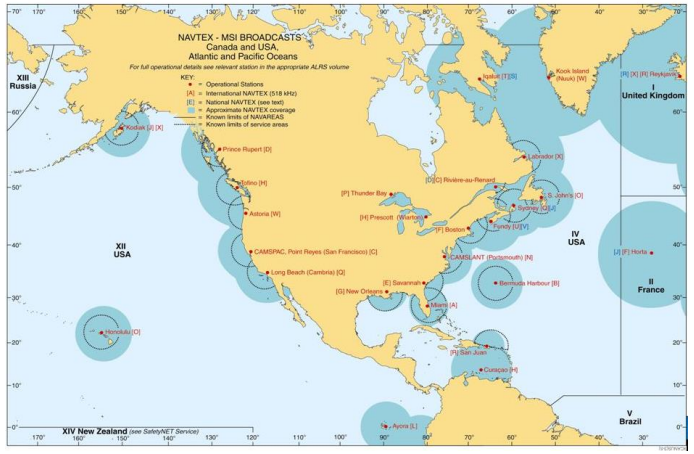
Implementation – a very long process

GMDSS – What's new?

Changes within:

- Sea Area 3
- NAVTEX
- HF Radio
- Printers

NAVTEX Coverage NAVAREA IV and XII



Changes in Sea Areas

GMDSS – Definition of Sea Area A3

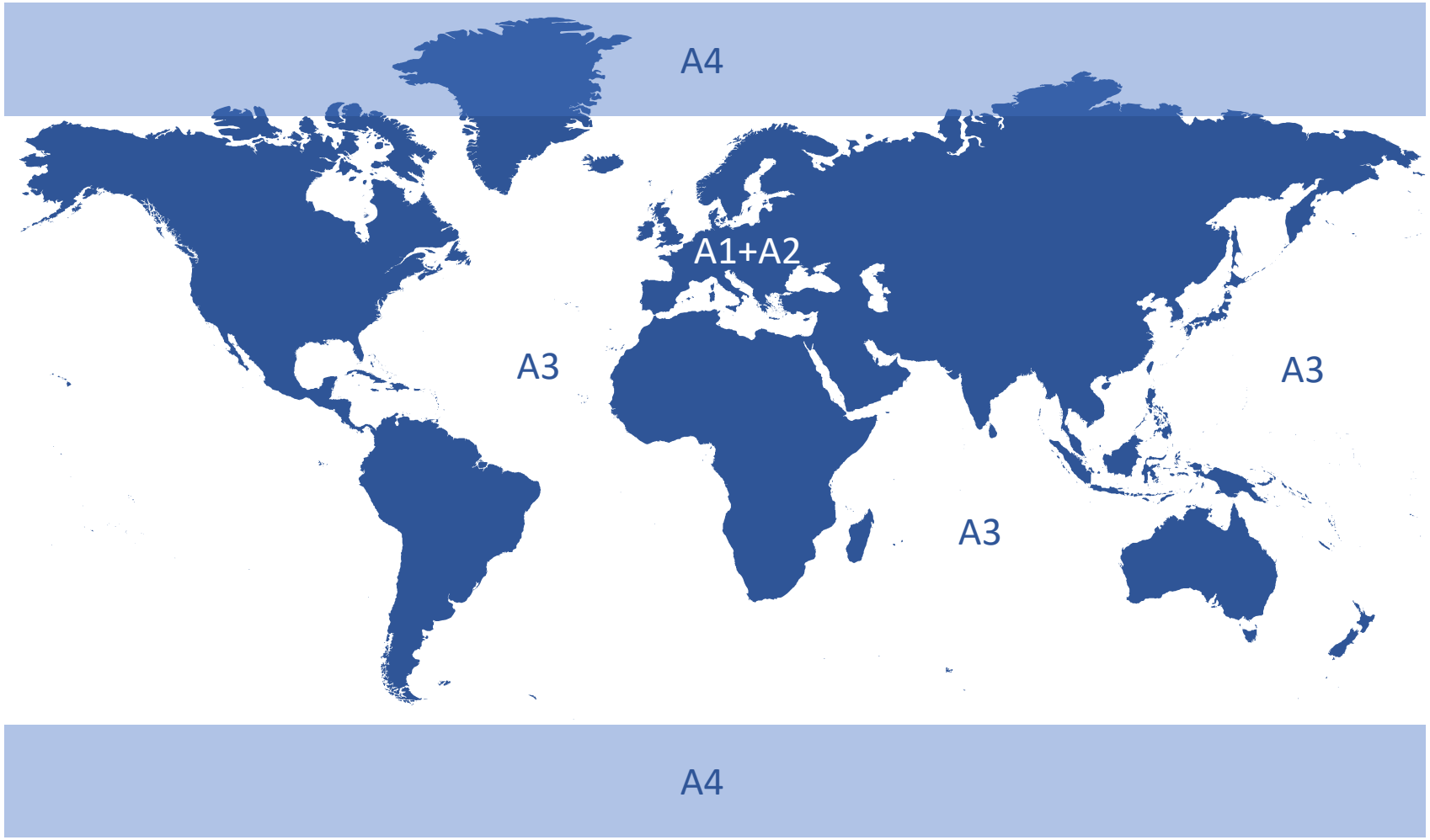
Existing definition for A3:

"Sea area A3 means an area, excluding sea areas A1 and A2, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available".

New definition for A3:

"Sea area A3 means an area, excluding sea areas A1 and A2, within the coverage of a recognized mobile satellite service supported by the ship earth station carried on board, in which continuous alerting is available".

GMDSS – Existing Sea Areas



A1

Sea area covered by VHF DSC coast station

A2

Sea area (ex. A1) covered by MF DSC coast station

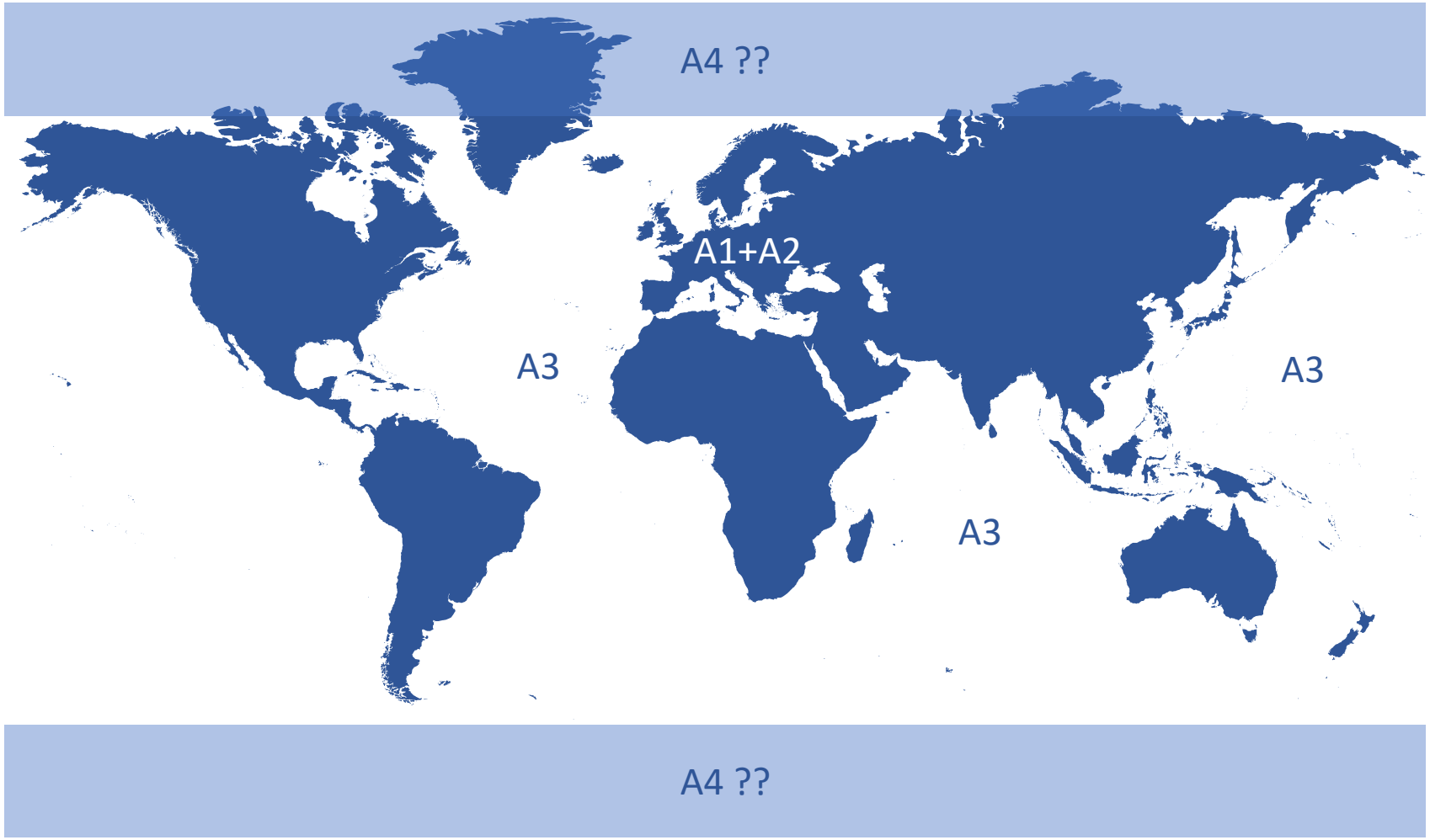
A3

Coverage (ex. A1+A2) of Inmarsat (~70°N - 70°S)

A4

Sea area outside A1, A2 and A3

GMDSS – New Definition of Sea Areas



A1

Sea area covered by VHF DSC coast station

A2

Sea area (ex. A1) covered by MF DSC coast station

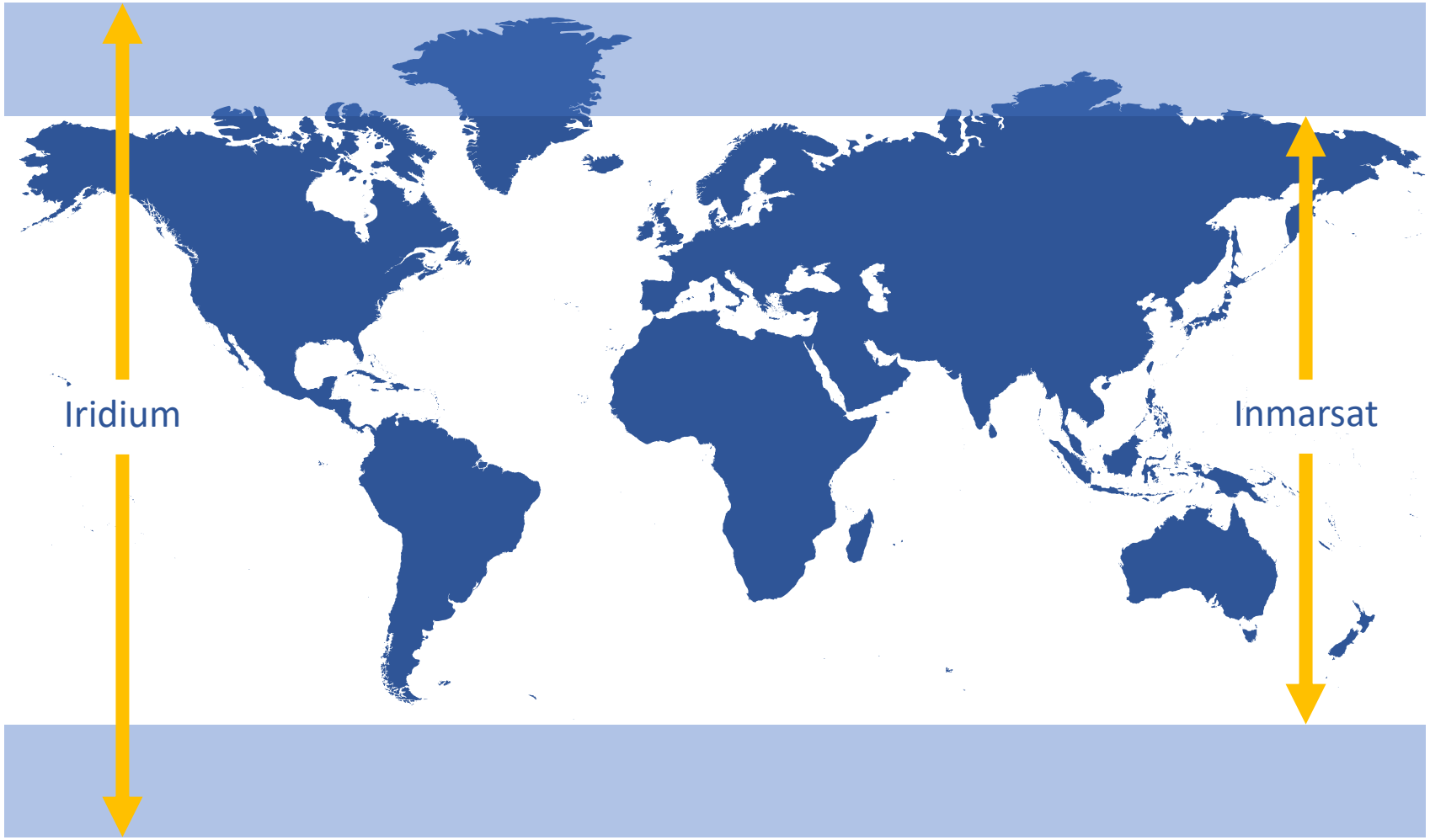
A3 *New!*

Coverage (ex. A1+A2) of **a recognized satellite service provider**

A4

Sea area outside A1, A2 and A3

GMDSS – Satellite Coverage



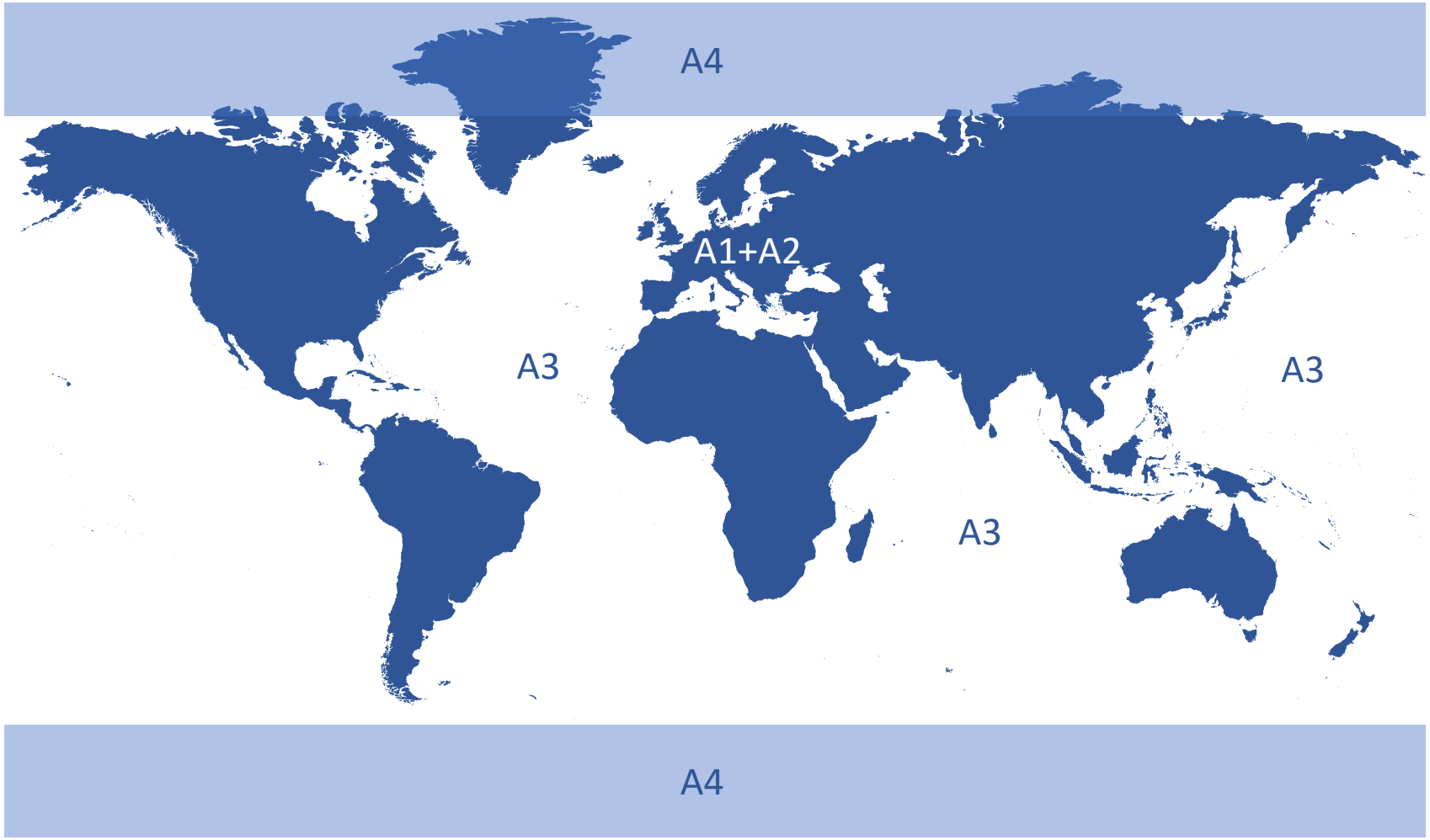
Inmarsat

Coverage ~70°N - 70°S

Iridium

100% global coverage

GMDSS – Satellite Coverage of Inmarsat C



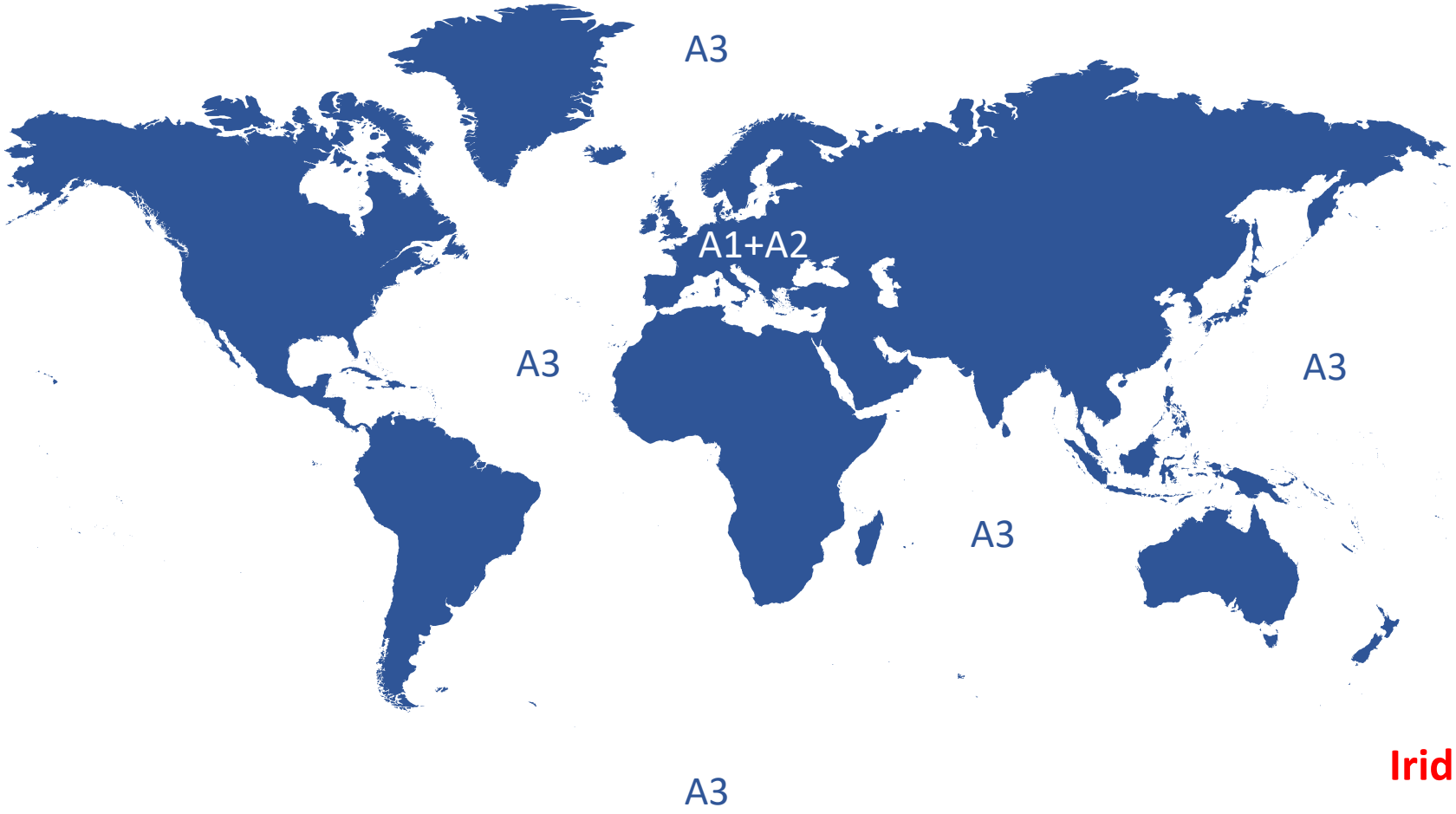
Inmarsat C

Coverage ~70°N - 70°S

Due to the limitations of the coverage of Inmarsat…

A4 will only exist in a Sat-C configuration

GMDSS – Satellite Coverage of Iridium



Iridium

100% global coverage

A4 will not exist in an Iridium configuration

Iridium GMDSS = 100% Global A3!

Changes in hardware

GMDSS – NAVTEX

Existing requirements for all sea areas:

"Every ships shall be provided with a receiver capable of receiving international NAVTEX service broadcasts….".

New requirements for all sea areas:

"Every ships shall be provided with receiver(s) capable of receiving MSI and search and rescue related information throughout the entire voyage in which the ship is engaged".

Both Iridium and Sat-C fulfill the requirements of receiving MSI

GMDSS – MF/HF Radio

Existing requirements for sea area A3:

MF **and** HF Radio:

- Transmitting and receiving on
  - MF: 1.605 – 4.000 kHz
  - HF: 4.000 – 27.500 kHz

New requirements for sea area A3:

MF **or** HF Radio:

- MF: Transmitting and receiving on only two channels:
  - DSC: 2.187,5 kHz
  - Voice: 2.182 kHz

or

- HF: Transmitting and receiving on all DSC channels

GMDSS – Printers

Existing requirements for all sea areas:

Printer:
”Direct-printing telegraphy” for both SES and MF/HF Telex

New requirements for all sea areas:

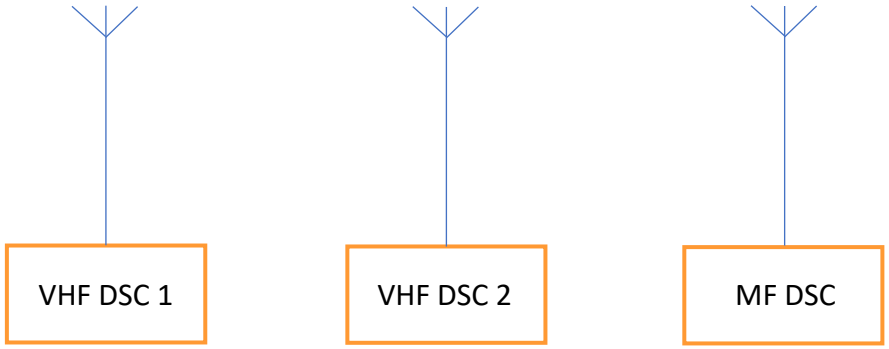
Printer:
No requirements for ”direct-printing telegraphy”, if equipment has a screen and suificient memory capacity

New requirements for GMDSS

Sea Areas	VHF DSC	MF DSC	MF Radio	HF DSC + Radio	SES Iridium/ Inm C	~~NAVTEX~~ MSI receiver
A1	X					X
A1-2	X	X	X			X
A1-3 SES+MF Telex	X X	X	X		X	X
A1-3 Inmarsat	X X	X	2182 kHz		X X Sat C + Sat C/Iridium	X
A1-3 Iridium 100% Global	X X	X	2182 kHz		X X Iridium + Iridium	X
A1-4 Inmarsat	X X	X	X	X X	X	X

Requirements for all merchant vessels > 300 BRT & all passenger vessels in any size enganged on international voyages.
Requirements for handheld VHF radios, Epirb & Sart are not listed here.
Please note: A4 does not exist in a dual Iridium SES solution, since Iridium offers 100% global coverage

100% Global Iridium A1-3 Solution



+ SART, EPIRB & handheld VHF

- **No HF**
- **No NBDP Telex**
- **No Navtex**
- **No Printers**
- **No A4!**

Thank You!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communication systems