

Iridium GMDSS – An Improved, Truly Global Solution

NOW! Mariners have a Choice for a Feature-Rich, GLOBAL Safety & Security System at Sea!

What's Changed?

Increased COVERAGE • Enhanced CAPABILITY • Lower COST

System Comparison Features	Iridium GMDSS	Inmarsat C GMDSS	Comments
IMO/SOLAS Recognized GMDSS	YES	YES	Iridium 2018; Inmarsat 1999
SATELLITE COVERAGE	GLOBAL Incl. Polar Region	From 72° N to 72° S	01/24 - Dual IR GMDSS Eliminates A4
Number of Satellites & Type	66 + Spares - LEO	4 - GEO	Outage Impact > When Fewer Satellites
GMDSS - FREE SAFETY FEATURES			
Distress Alert & Relay to RCC*	YES	YES	PRIORITY Alert: ID, Status & GPS
Distress Voice Call to RCC	Auto-Dials VOICE Call After ALERT Text Sent to RCC	NO Voice Capability	VOICE Enables Sharing Critical Details
Maritime Safety Info (MSI) (Navigation, Weather, Safety Broadcasts)	Iridium <i>SafetyCast</i> Stored on LT-3100S for Future Review**	Inmarsat <i>Safety/RescueNET</i> PRINTED for Future Review	Iridium GMDSS Enables MSI Access via PC Browser-Accessible Web Interface
SAFETY VOICE CALLS: SAR Emergency, Medical Assistance, NAV Danger Reporting	YES	NO Voice Capability	
NON-GMDSS SAFETY & SECURITY FEATURES			
SSAS	YES w/ SSAS Interface	YES w/ SSAS Accessories	
LRIT	YES	YES	Fully Supported in Control Unit
Position Reporting and Tracking	YES Built-In	YES w/ DNID & 3rd Party Svc	Local & Remote Management
Alert & Information Outputs (BAM & INS)	Distress Alerts, GNSS, MSI, Status	Distress Alerts	LT-3100S Outputs on RS-422 & LAN Interface
STANDARD MARITIME COMMS FEATURES			
Global Voice	YES Non-Priority	NO Voice Capability	SIP Server Enables Up to 8 Devices
SMS & Email	YES	Limited/Restricted Access	
COST COMPARISONS (typical)			
MSRP Basic Unit	\$6,100	\$5300 - \$9500	
Annual Subscription	\$250	\$780 w/ Inmarsat NAF	For Non-GMDSS Iridium Voice
Activation (One-Time Fee)	\$75	\$250	Some Flag States Charge Higher Fees
Annual Accounting Authority	NOT Required	\$180 per Vessel	
Printer & Materials	Supported, NOT Required	Est. \$1800 + Materials	**MSI & Alerts Stored on LT-3100S & Printable
Arctic Region MF/HF Radio Requirement	ONLY 1 After 01/24	2 ALWAYS Required	Typically \$10k / Radio
Voice Charges	FREE Distress & Medical, Fee-based Voice Bundles	Not Available	IR Basic, Monthly & Annual Bundles
SMS & Email	Integrated, Simple	Limited & Costly Messaging	
Power Usage	Less than any Inmarsat-C	Varies with Model	No Change to GMDSS Backup Power
Installation Time & Cost	Simple (Compact)	Complicated (Multi-Devices)	Warranty w/ Certified Installer

* RCC Rescue Coordination Centers - 12 Current & 22+ in Near Future to Increase Response Time & Linguistic Clarity

Lars Thrane LT-3100S



LARS
Thrane
communication systems

GMDSS is a set of protocols, equipment, & communication systems (satellite & radio) mandated by the IMO in the 1990's to ensure no matter where a ship is in distress, aid can be dispatched. The Safety of Life at Sea (SOLAS) Convention requires ships over 300 gross tons carry specified GMDSS equipment, to send & receive distress & safety communications.***

For decades, Inmarsat was the only approved GMDSS satellite service provider, albeit technology advances & increased vessels at sea. Iridium & partners persistently worked with regulatory & rescue entities, while perfecting their services & products.

In a 2018 watershed announcement, the IMO's Maritime Safety Committee's Resolution MSC.451(99) recognized Iridium as a GMDSS satellite service provider, followed by the approval of Lars Thrane LT-3100S Iridium GMDSS Terminal.

iridium[®]

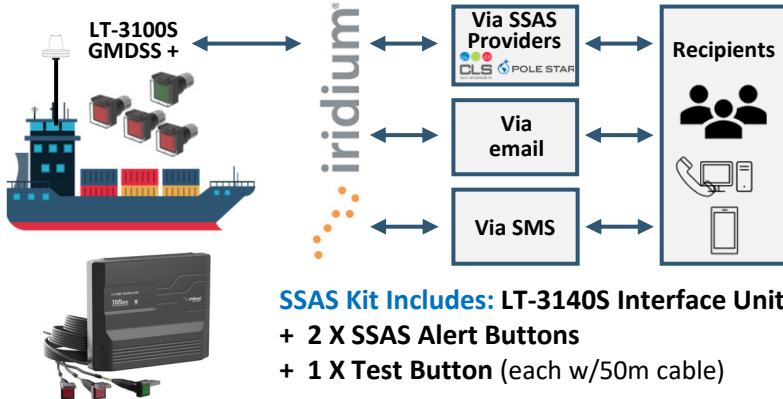
Mackay

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www.mackaymarine.com

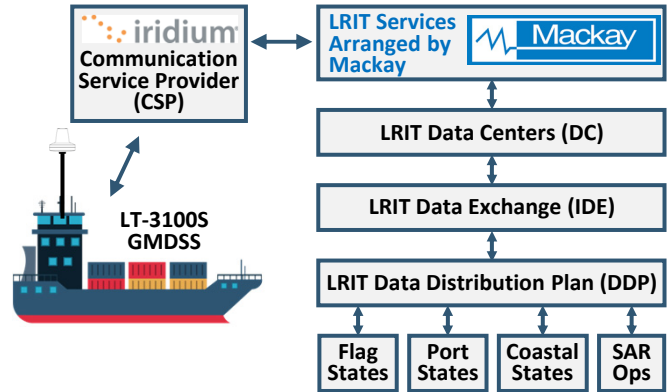
***Paraphrased from Iridium GMDSS FACTS documents; Displays adapted from Lars Thrane presentation.

Iridium GMDSS System – Additional Features & Configurations

SSAS for LT-3100S GMDSS



LRIT for LT-3100S GMDSS



BONUS Lars Thrane LT-3100S FEATURES

LAN Port & Interface Connect to any Network Device

- Access enables MSI, SMS, email & web interface
- Connect multiple voice devices

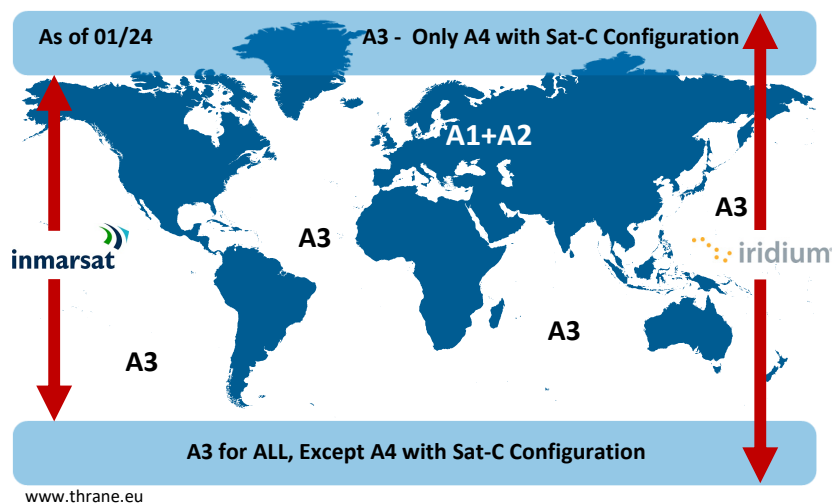
SINGLE COAX Cable Installation (up to 500m)

- Iridium's certified GLOBAL GMDSS Service is available via a compact integrated Iridium Connected terminal at reduced costs.
- Provides SOLAS & non-SOLAS vessels with reliable access to critical life-saving services and assured SafetyVoice connection + added communication features.

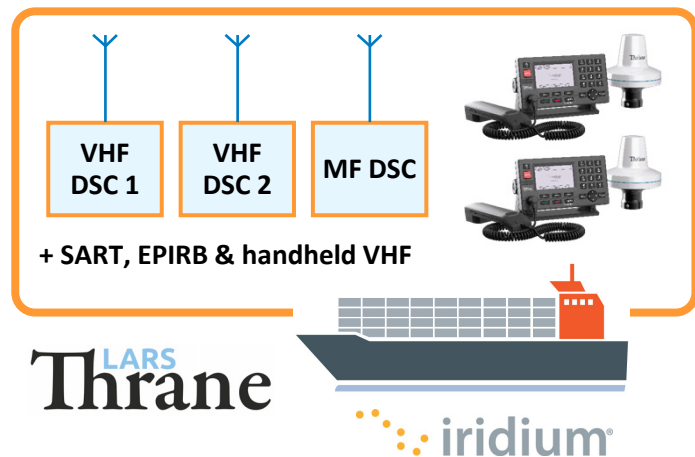


MSC.496(105) IMO GMDSS Resolution Effective January 2024

- **Sea Area 3** (ex. A1+A2) "recognized satellite service provider"; (**A4** exists ONLY w/ Sat-C use)
- **NO NAVTEX** → Receive MSI Data via Iridium & Sat-C GMDSS
- **A3: MF Radio** (DSC/Voice) or **HF Radio** (DSC); if Sat-C (A4) Requires 2nd MF/HF
- **NO Printer** if have Display Screen & Memory



100% Global Iridium A1-3 Solution + Lars Thrane LT-3100S



SOLAS Approved OPTIONS for GMDSS Configuration for Vessels > 300 GWT:
2 X Inmarsat C or 2 X Iridium GMDSS, or 1 each Inmarsat C & IR GMDSS

Contact Mackay for GMDSS System Details, Installation/Service**, Activation, LRIT, SSAS, Voice, & Data Services: marinesales@mackaymarine.com
 +1 919 850 3100

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** To-Date, 70+ Certified Iridium GMDSS LT-3100S Mackay Technicians