Global Maritime Distress Safety System (GMDSS) and Fleet Xpress

An introduction
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SAVING LIVES
INMARSAT C
FOR 25 YEARS

inmarsat
The mobile satellite company

A brief history

The industry leader for more than 35 years

1979 The International Maritime Satellite Organisation was formed as a not-for profit organisation set up by the IMCO, known as In Mar Sat.

1990 Launch of Inmarsat-2 F1 satellite into geostationary orbit.

1992 The IMO, the agency of the United Nations responsible for ship safety, began a seven year phase-in of a new system called Global Maritime Distress and Safety System, or GMDSS for short.

1996 Inmarsat-3 F1

was launched. The first of five third-generation higher power satellites using the latest spot-beam technology to reallocate bandwidth to meet demand.

1999 Inmarsat became the first inter-governmental

organisation to restructure into a private company.

2005 Inmarsat-4 launched. These fourth-generation satellites, delivered Inmarsat's Broadband Global Area Network (BGAN) and established the world's

first global 3G network.

2010 Marked the launch of Inmarsat's first handheld satellite phone - the IsatPhone Pro.

2013 The successful launch of Alphasat as one of the most technically advanced

satellites for civilian applications and Inmarsat-5 F1 the first of three to deliver Inmarsat's revolutionary Global Xpress service.

2016 Successful launch of Inmarsat-5 F2 and Inmarsat-5 F3.

Business Units

Powering global connectivity

Maritime

Inmarsat Maritime enables essential communications to the maritime market through an unrivalled portfolio of products providing crucial operational, safety and welfare solutions.

Enterprise

Inmarsat Enterprise provides voice, M2M and broadband satellite services worldwide. Together with our partners, we deliver innovative solutions tailored to customer's needs within a diverse range of market sectors.

Aviation

Inmarsat Aviation provides a full range of solutions to suit the needs of any aircraft, anywhere in the world, from safety comms to high-speed broadband in the cabin - powering aviation connectivity.

US Government

Inmarsat provides the U.S. Government with a trusted network of global, mobile mission-critical satellite communication services that are highly reliable, secure, affordable and available.

Global Government

Providing satellite services to governments and militaries worldwide and dedicated to developing systems and solutions to meet their specific needs.
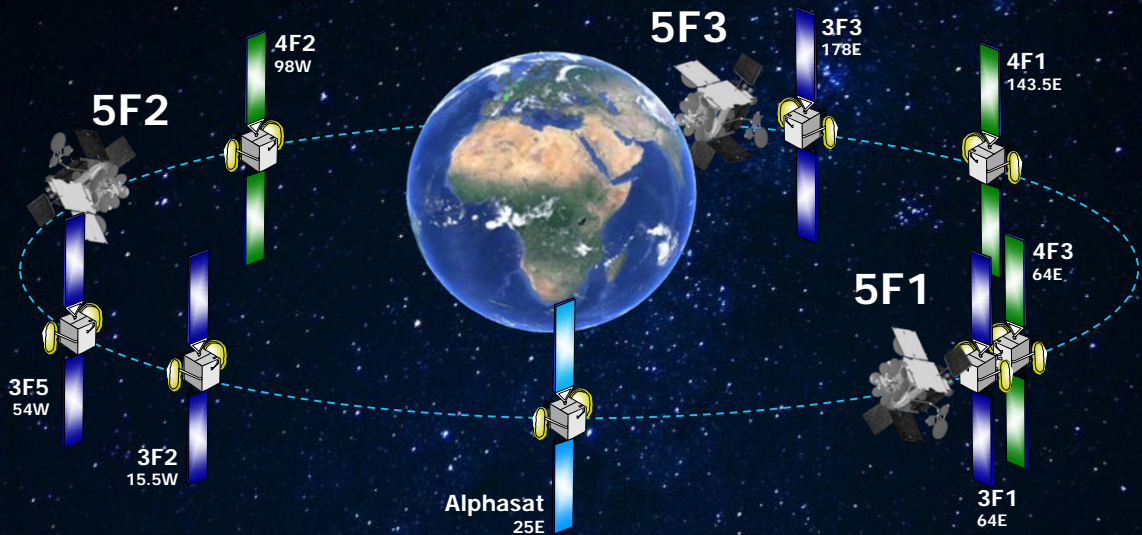
Global Maritime Distress Safety System

An introduction

GMDSS

Set of safety procedures

GMDSS is an internationally agreed-upon set of safety procedures, types of equipment, and communication protocols used to increase safety and make it easier to rescue distressed ships.

Timeline:

> The GMDSS was mandated by the IMO in 1988 in an amendment to the 1974 SOLAS Convention

> The GMDSS was phased-in in stages between 1992 and 1999

> 1 February 1999 was the full implementation date

GMDSS

Vessels

All passenger vessels and cargo vessels of 300 GT and above on international voyages

Exemptions:

> Ships of war

> Ships not propelled by mechanical means

> Wooden ships of primitive build

> Pleasure yachts not engaged in trade

> Fishing vessels

Global Maritime Distress and Safety System (GMDSS)

Continued commitment to save lives at sea

1999
1 February the final implementation of GMDSS became fully effective

300t
Required on all passenger and cargo ships over 300gt on international voyages

99.9%
Consistent availability of Inmarsat's satellite & ground network which meets the GMDSS standards

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The mobile satellite company

GMDSS

5 functions

1. (Distress) Alerting

2. Search and rescue (SAR) coordinating communication

3. On-scene communication

4. Dissemination of Maritime Safety Information (MSI)
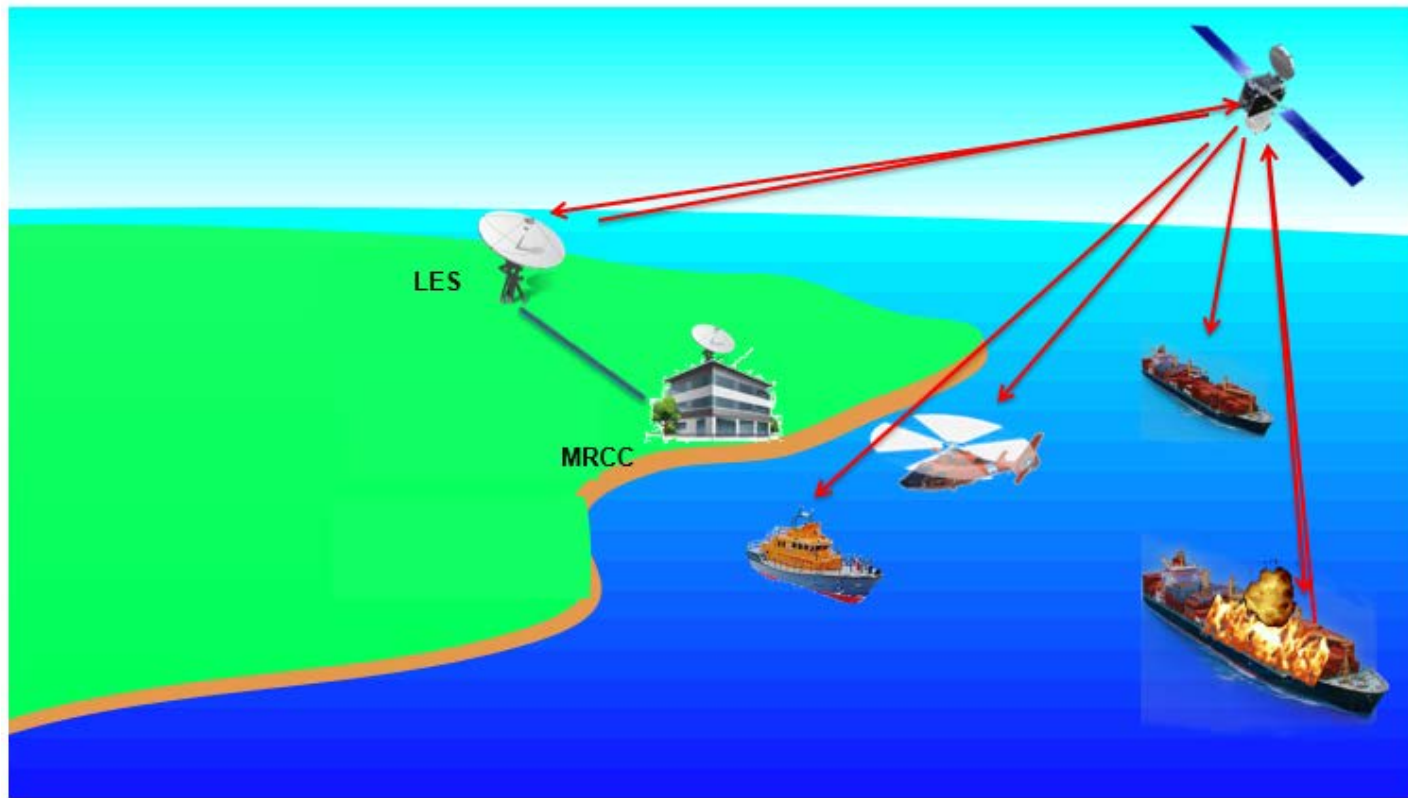
5. General communications

GMDSS

Equipment

The basic concept of GMDSS is that SAR authorities ashore, as well as shipping in the immediate vicinity of the ship in distress, will be rapidly alerted to a distress incident so that they can assist in a co-ordinated Search and Rescue operation with minimum delay.
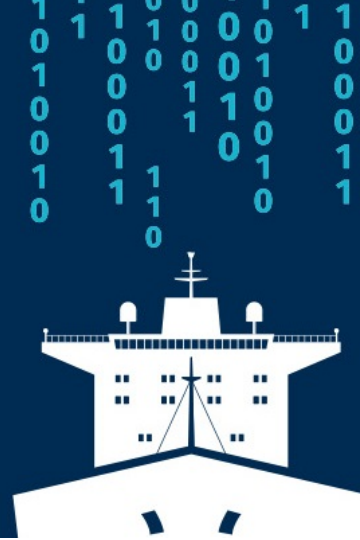
Distress Alert

Fleet Xpress

An introduction

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What is Fleet Xpress?

A new standard in maritime communications

> Fleet Xpress is a revolutionary high-speed maritime service from Inmarsat

> Based on the Global Xpress network, combined with FleetBroadband for unlimited back-up and ultimate reliability

> Fleet Xpress is powering a new ecosystem of value added services from certified third party developers to enhance operational efficiency, crew welfare, safety and compliance

Inmarsat-5, Global Xpress

One high speed network, one trusted provider, one seamless global solution

- First global Ka-band commercial satellite service

- US$1.6 billion investment by Inmarsat

- Single operator delivering seamless coverage, worldwide

- Powered by three Inmarsat-5 satellites built by Boeing

- Steerable beams for flexible, additional network capacity

- Each I-5 satellite has an expected lifespan of 15 years

- Wide range of terminals

- Complements our L-band services

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Fleet Xpress markets

A new standard in maritime communications across all markets
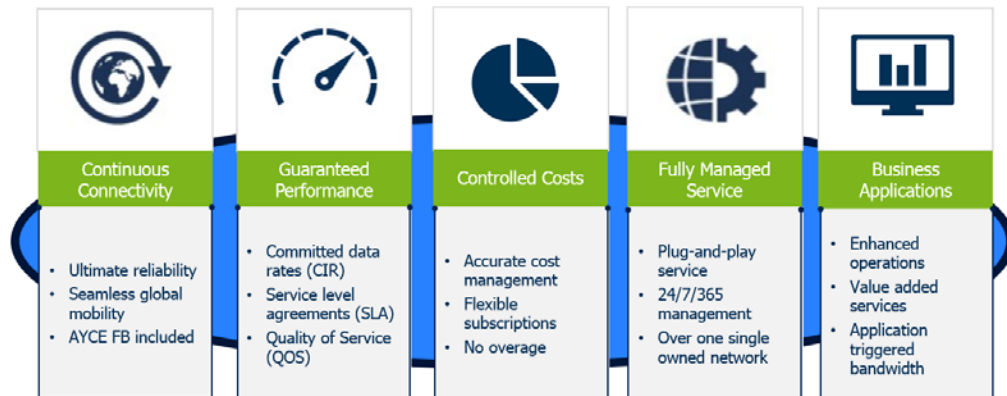

Merchant shipping

Offshore

Fishing

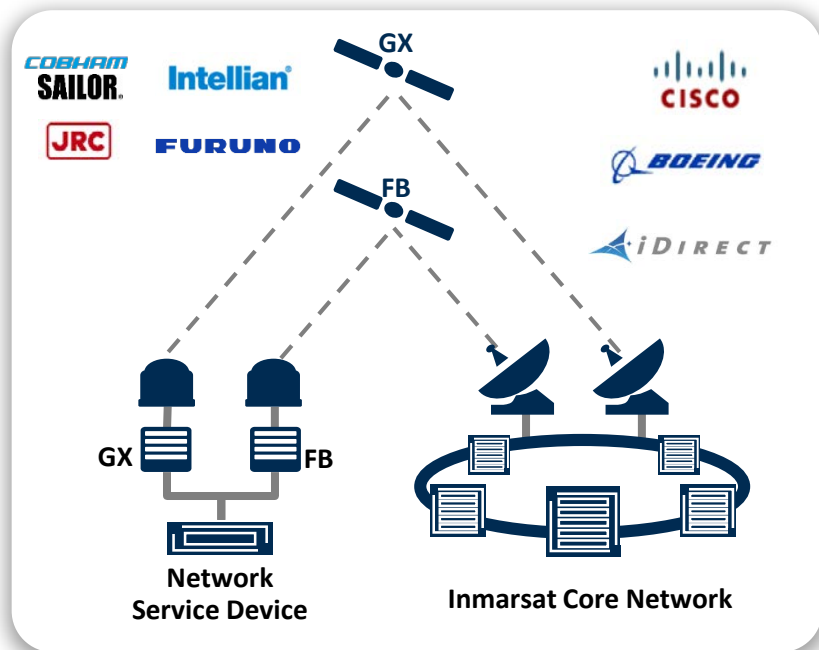Superyacht

Fleet Xpress overview
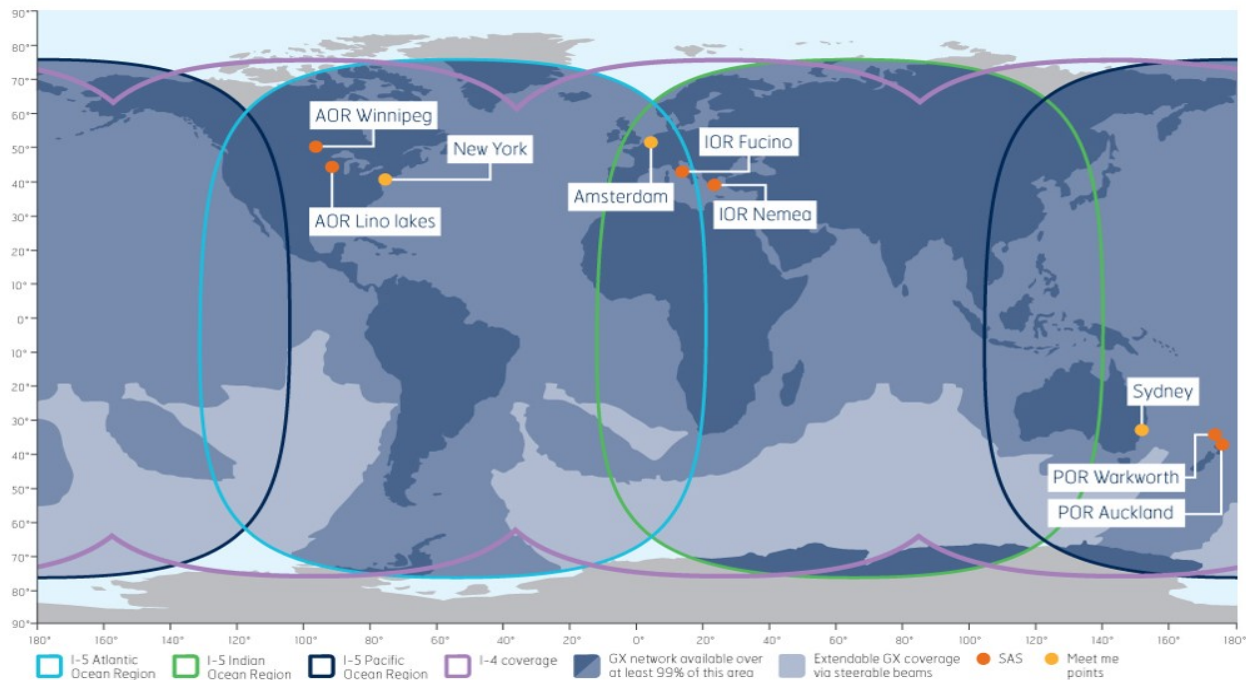
Maritime offering of Global Xpress

GX

FB

GX   FB

Network Service Device

Inmarsat Core Network

COBHAM SAILOR · Intellian · JRC · FURUNO · CISCO · BOEING · iDIRECT

Continuous Connectivity	Guaranteed Performance	Controlled Costs	Fully Managed Service	Business Applications
• Ultimate reliability • Seamless global mobility • AYCE FB included	• Committed data rates (CIR) • Service level agreements (SLA) • Quality of Service (QOS)	• Accurate cost management • Flexible subscriptions • No overage	• Plug-and-play service • 24/7/365 management • Over one single owned network	• Enhanced operations • Value added services • Application triggered bandwidth

99.9% network availability

Always-connected

Unlimited back-up

Ground infrastructure and coverage

Robust ground network

Inmarsat Data Communications Network

> Highly secure ground network designed for full redundancy across all services

> Hot back-up Satellite and Network Operations Centres

> Fully redundant high speed BGAN and GX Data Communications Network (DCN). Operated end-to-end by Inmarsat - ensuring quality
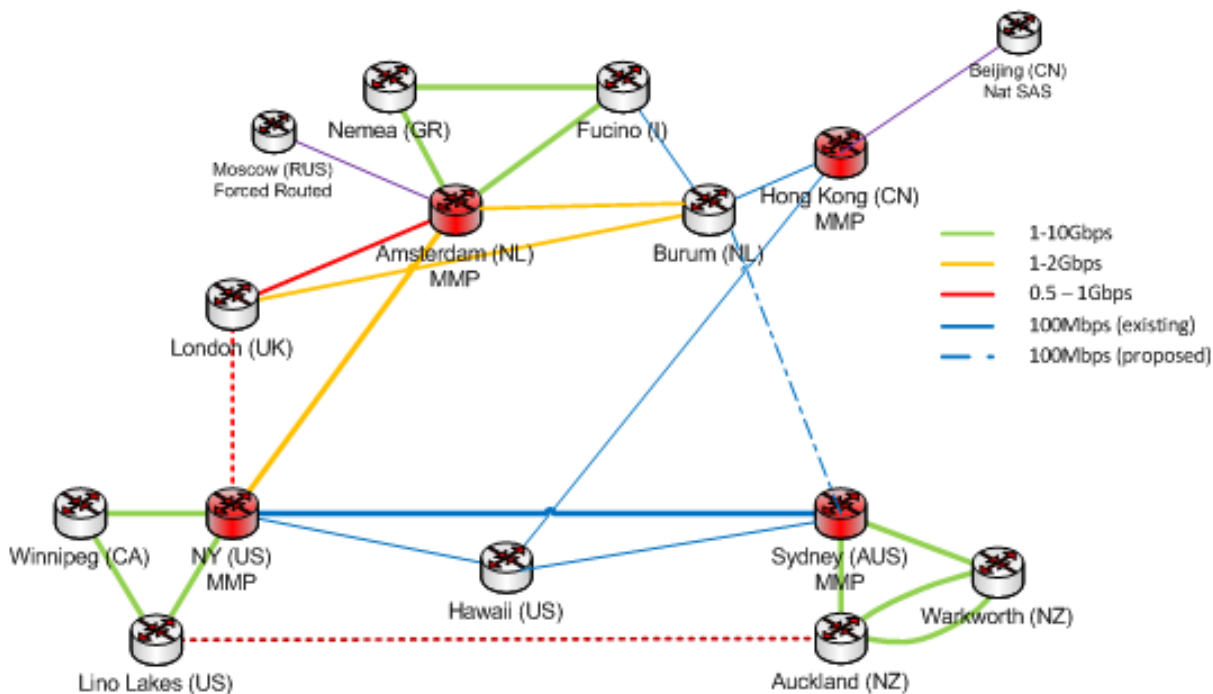
Redundant operations and support centres

Primary subscription

Revolutionary bandwidth design for accurate bandwidth planning, management and support

> Customer bandwidth for business and crew

> Voice service is separate from customer bandwidth

> Site management and support for service assurance

> Separate bandwidth for third party business applications

> Unlimited FleetBroadband back-up
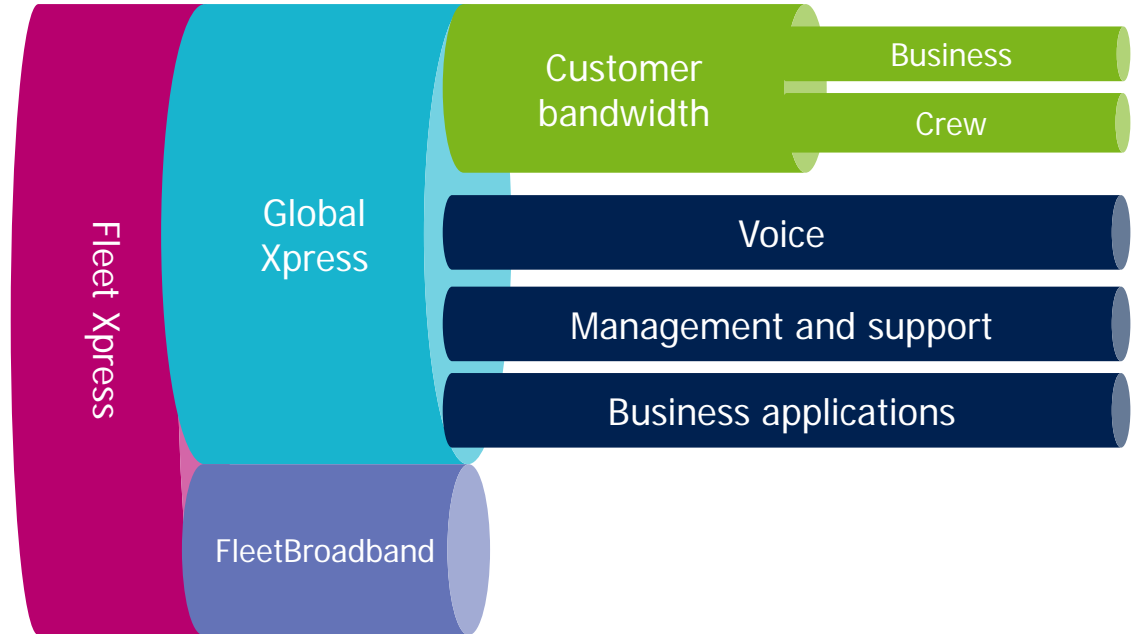
A new maritime ecosystem of business applications

Development of specialist third party maritime applications

Operational efficiency
> Engine monitoring
> Planned maintenance
> Chart updates
> Weather / routing

Safety and compliance
> Emissions monitoring
> Anti-piracy
> Telemedicine
> Remote surveillance

Crew welfare
> Internet access
> Voice and video
> Current news and sports
> TV, radio and gaming

IT and security
> Remote IT support
> Corporate email
> Voice and video chat
> Cybersecurity

Powered by Fleet Xpress