



**“Always On” VSAT :
The Value-Driven Satellite Solution**

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SeaMobile Enterprises

- **Maritime Telecommunications Network** is First to Offer a Stabilized VSAT (Very Small Aperture Terminal) Satellite Solution in 1986
- Offices in Miami, Seattle, Paris, Rome, Athens, London, Los Angeles and Tokyo
- 300+ Stabilized VSAT Systems Currently in Service
- 175+ Fixed Site VSAT Systems
- 135+ Cellular Systems Installed on Ships
- 210+ Experienced, Full-time Staff
- 6 Teleports (Satellite Uplink and Downlink Facilities)
- 15 Satellites
- 9 Global Points of Presence
- 10,000 Miles of Redundant Fiber
- Global and Multi-Regional Satellite Coverage
- Worldwide Technical Service
- 24/7 Network Operations Support

Market Segments



- Passenger Ships
- Offshore Oil & Gas
- Government Systems
- Private Yachts
- Casino Boats
- Shipping Fleets



Satellites Simplified

- Geostationary Satellites are Located 35,786 km Above the Earth's Equator
- "Latency" Due to Round Trip Distance to Satellite
 - Approximately 600 Millisecond Roundtrip
 - Impacts Internet page loading, voice call experience and fax transmissions
- C-Band: Global Beam, Wide Coverage
 - Requires 2.4-meter antenna minimum
 - Circular and Linear Polarizations
- Ku-Band: Regional, Limited Coverage
 - Requires 1.0-meter antenna minimum
- Coverage Area Is Described as a "Footprint"
 - AOR, POR, IOR
 - Regional, Spot, Hemi or Global Beams

Factors Affecting Performance

- C-Band: Electromagnetic or Terrestrial Microwave Interference
- Ku-Band: “Rain Fade” in Extreme Weather
 - Effects can be mitigated by higher power amplifiers from ship and increased satellite power
- Military RF Interference
- Physical Blockage
 - Buildings, Fjords or Ship Superstructure
- Terrestrial Outages
- Satellite Issues
 - Solar Flares or Spacecraft Malfunction
- Ocean Currents should not affect performance due to stabilized antenna design

Why VSAT?

- Always on, always available, unlimited use
- Fixed vs. variable costs
 - No unpredictable “pay by the minute or megabyte” costs
 - No need for a minimalist approach anymore
- 21st Century Requirements
 - Internet access is part of life
 - Need access at sea like on land
 - Operational efficiencies to extend data networks to ships
 - New IT Initiatives require connectivity
 - Crew retention and welfare services
 - Remote monitoring
 - Distance learning
 - Vessel tracking
 - Reporting requirements

Discovering the Benefits

- Predictable, Fixed Monthly Fees for Unlimited “Always On” Communications
- Fully-Managed Turnkey Solution includes:
 - Shipboard and Shoreside Equipment
 - Assembly, Integration and Testing (AIT)
 - Installation, Technical Service and Spare Parts
 - Worldwide Satellite Coverage
 - Global Terrestrial Network
 - Worldwide Teleport Services
 - High-Speed Internet Backbone Access
 - PSTN Call Termination with US or International Dial Tone Options
 - 24x7 Monitor and Control and Remote Diagnostics
 - Web-Based Customer Portal

Quality of Life Services

- Crew Calling Cards
 - Allows crew members to make personal calls at reasonable rates
- Internet Café and Wi-Fi Applications
 - Recreational Internet access
 - 135+ ships in service today with our turnkey solution
- Ocean News
 - 500+ International newspapers are available daily and can be printed onboard on A3 paper
- MPEG4 Television Programming
 - News, Sports, Entertainment and Special Events Content
 - Currently available on C-Band satellites
 - Up to 3 live and 15 store-and-forward channels in 2008
- Cellular Services: GSM/CDMA/GPRS/EDGE
 - Allows shipboard users to send and receive calls and data and be billed by their home carriers

MTN's Technical Services

- Expert Installation, Service and Maintenance
 - 60+ RF and Network Field Technicians
 - "Certified" Service Partners in Europe, Asia and Africa
- Network Operations Center Support 24/7/365
 - Proactive Monitoring and Troubleshooting
- Global Spare Parts Depots
- Web-based Customer Portal
 - Provides Real-Time Monitoring of System Availability
 - Bandwidth Utilization
 - Circuit Availability



Current Trends

- Multi-regional Ku-band is replacing C-band
 - Due to costs and size of equipment
 - Expanded Ku-band capacity is now available
- Smaller Ku-band antennas are being used
 - 1.2-meters was smallest available until 2003/4
- VSAT is now seen as a fixed-price alternative to Inmarsat
 - Visibility of CBB, Broadband Maritime and our own efforts helped to put VSAT "on the map"
- Experienced VSAT customers have become better informed
 - Oversubscribed networks usually are not sustainable

What You Need to Know

- What are you buying?
 - Committed Information Rate with “Burstability” versus “Contended” or “Best Efforts”
 - Will your bandwidth be sold to multiple other users on the hope everyone will not use it at the same time?
 - What do you believe you are paying for?
 - Will your user experience degrade over time?
 - Lowest Price or Best Value?
- Words of Advice
 - Get a time tested and “future proof” solution
 - Start small and grow over time
 - Evolution not revolution
 - Forecast your data needs three years from now
 - Know the Service Provider
 - Experience, infrastructure and financial strength cannot be overlooked

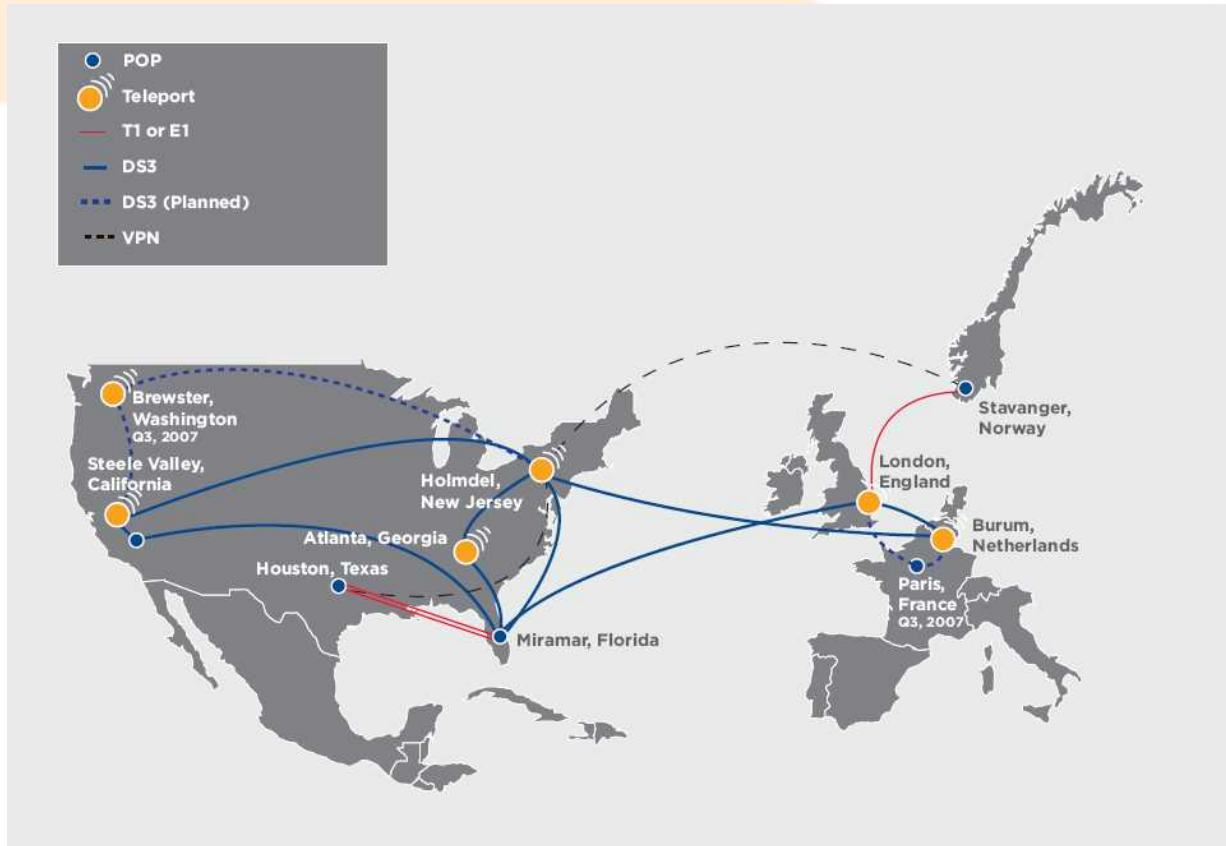
How the Systems are Sold

- Lease of all shipboard components
 - Shoreside equipment at customer headquarters can be leased as well
- Purchase of Above Deck Equipment (ADE) with Lease Below Deck Equipment (BDE)
 - MTN will obligate itself to upgrade BDE to ensure the solution is always state-of-the-art
 - Customers typically have limited appetite for mandatory purchases of new electronics
- Purchase of both ADE and BDE

How VSAT Solutions Are Priced

- Determining the price
 - Contract term
 - Number of vessels
 - Bandwidth requirements
 - Satellite frequency (C-band or Ku-band)
 - Itinerary or coverage requirements
 - Purchase or lease

Global Terrestrial Network

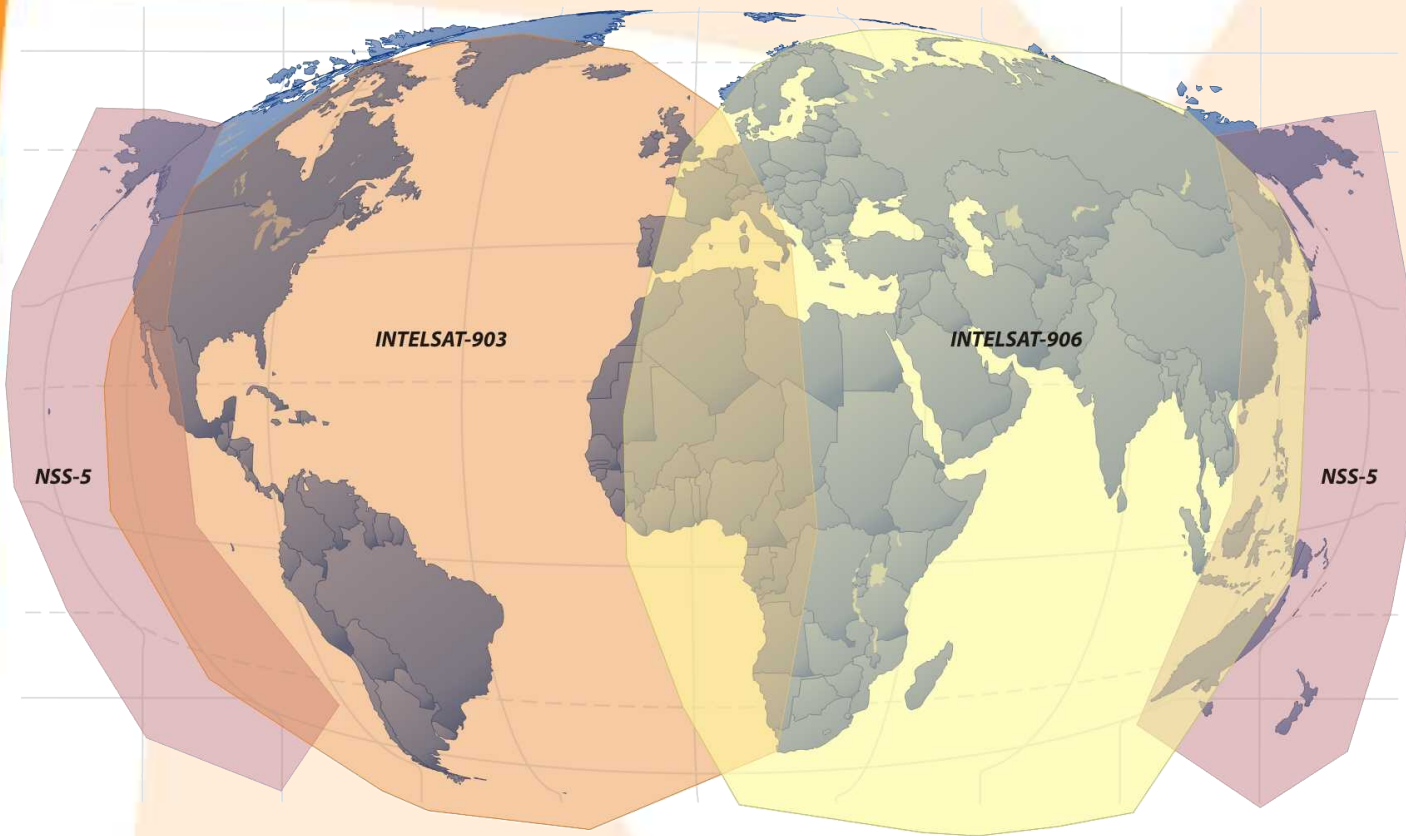


POINTS OF PRESENCE

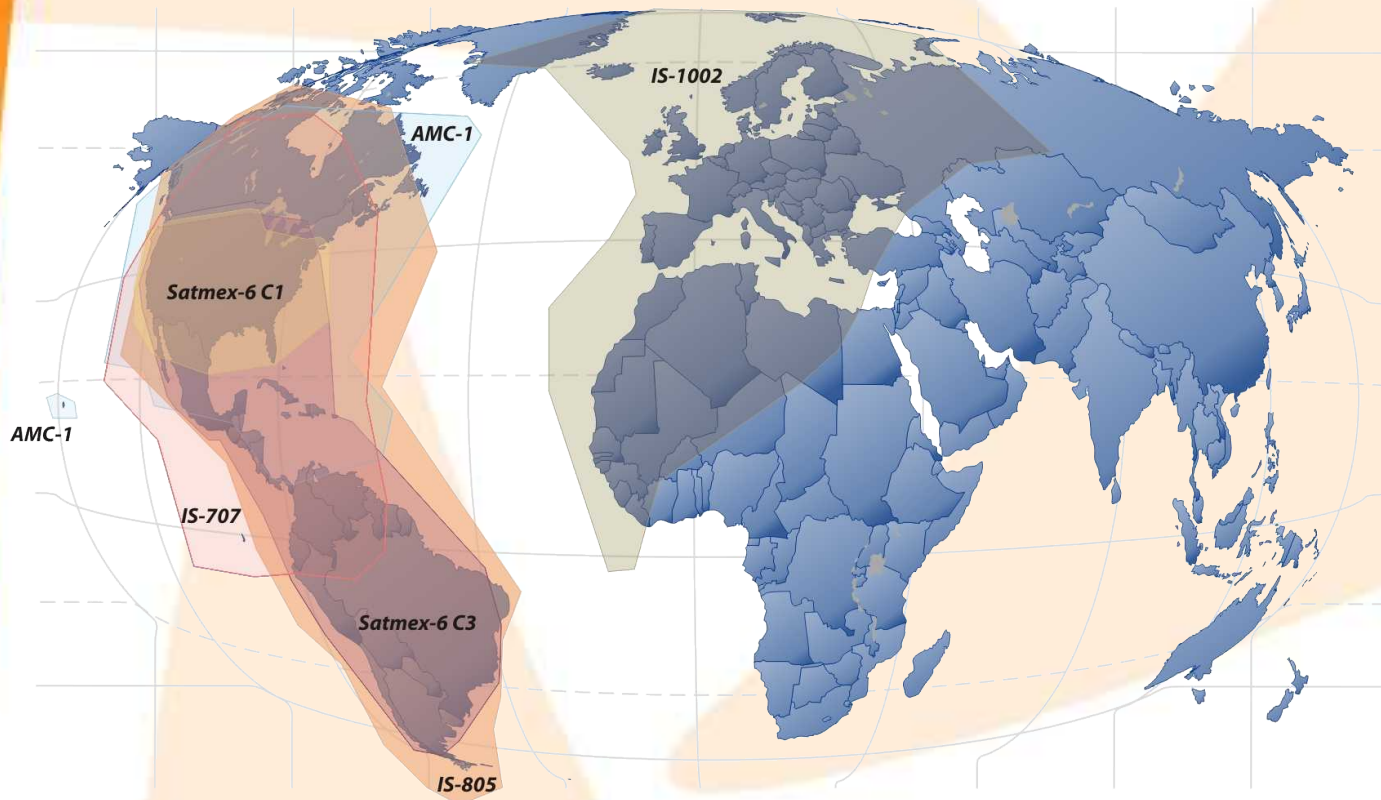
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 Atlanta, Georgia
 Steel Valley, California
 Burum, Netherlands

London, England
 Dallas, Texas
 Houston, Texas
 Stavanger, Norway

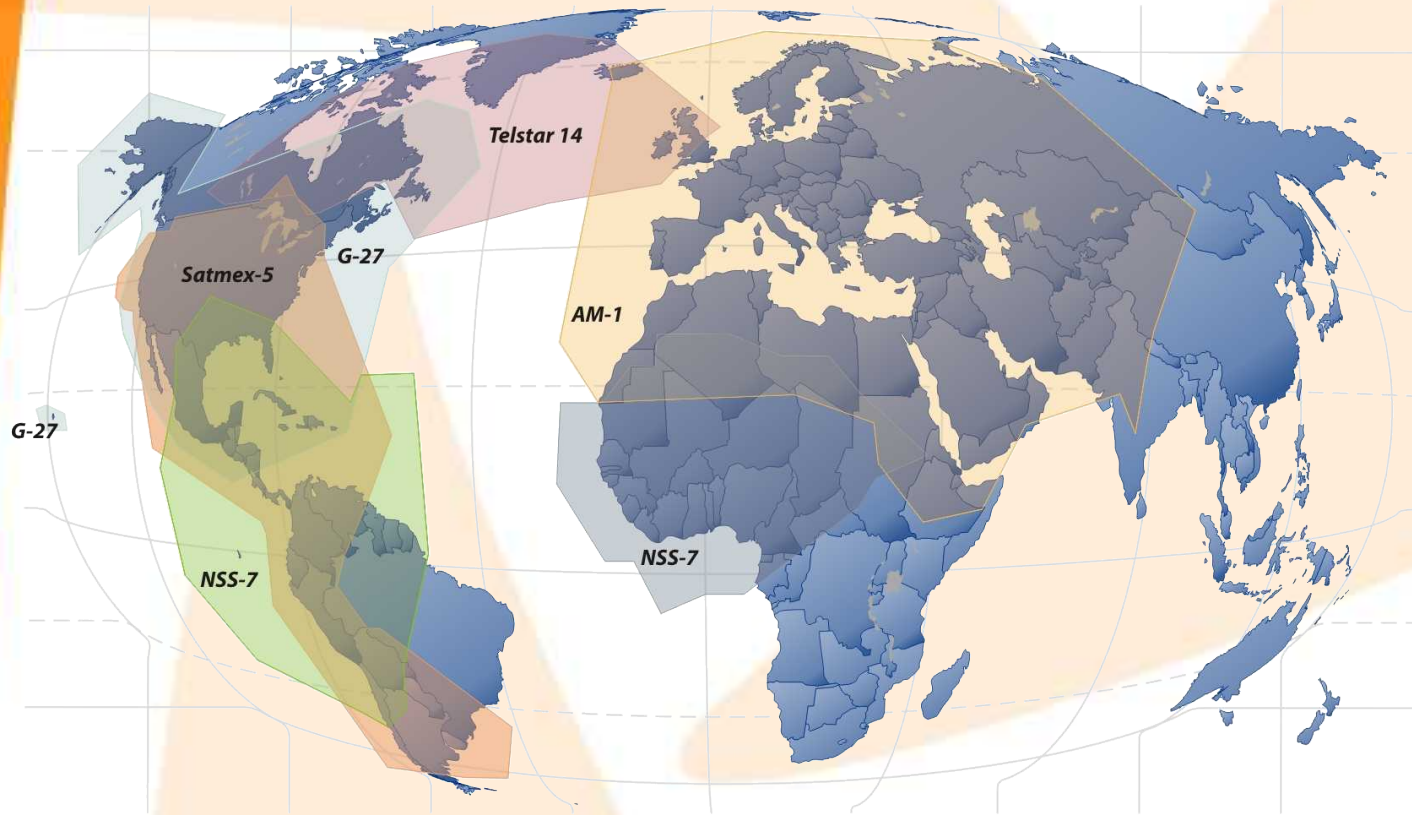
Global C-Band Network



Regional C-Band Coverage



Ku-Band Coverage

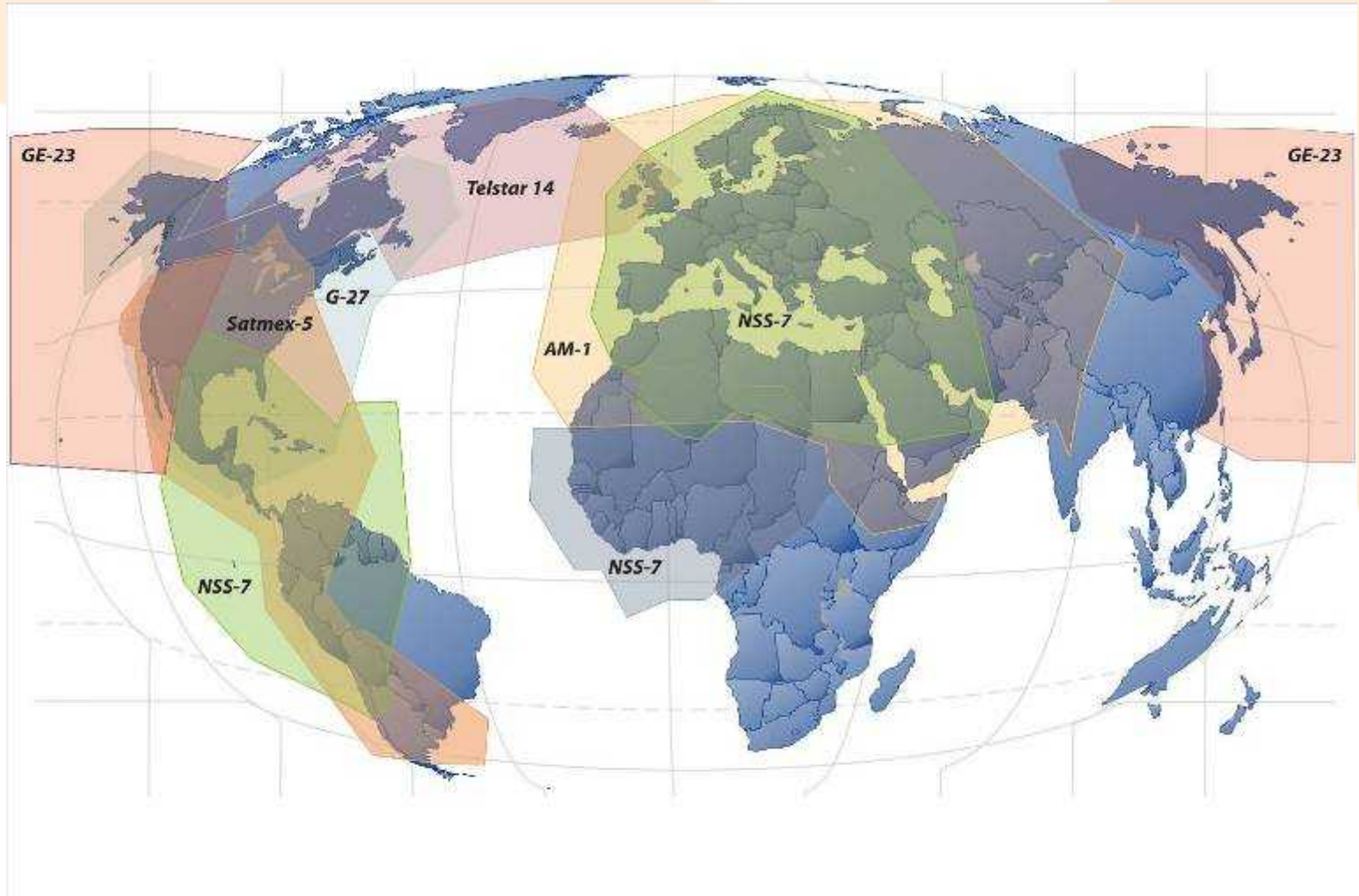


Ku-Band POR Coverage

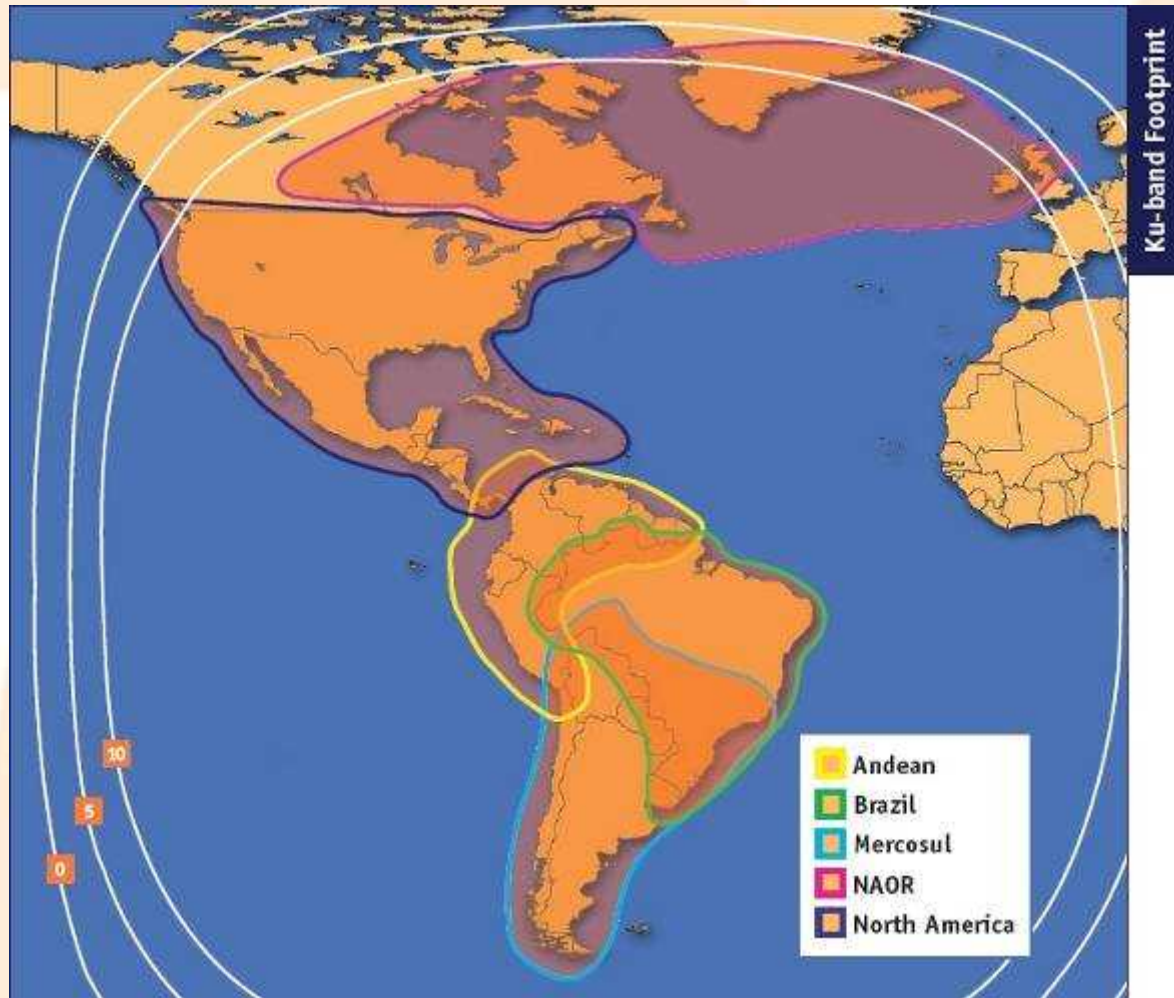
(Launched August 2007)



Updated Ku-Band Coverage

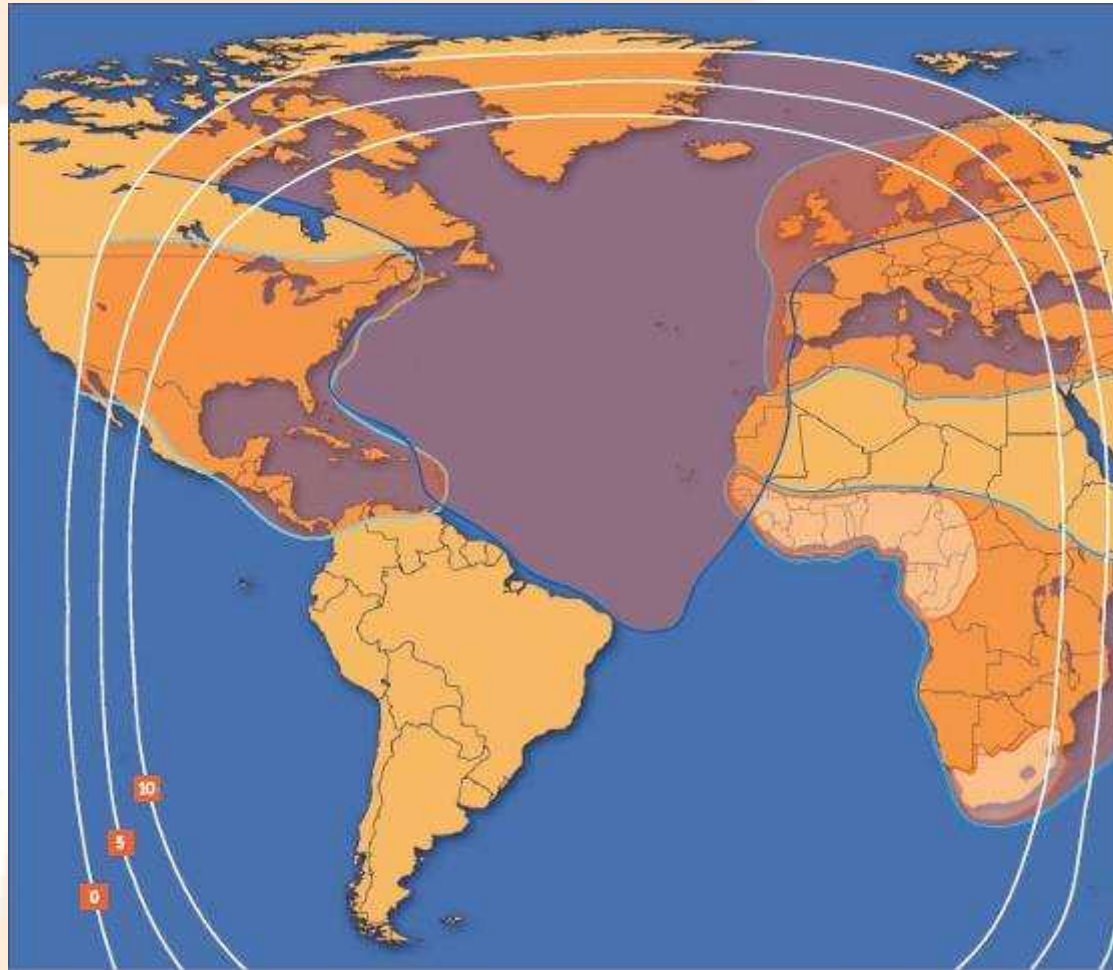


Ku-Band AOR Coverage (Current)



Ku-Band AOR Coverage

(Expected mid-2008)

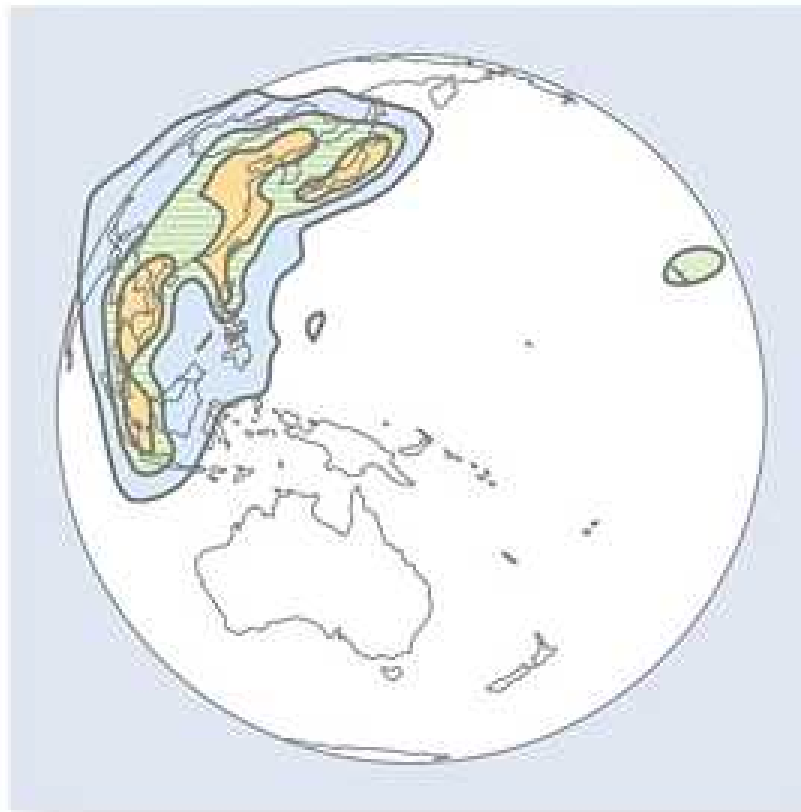


Ku-Band SE Asia

(Available October 2007)

JCSAT-1B
Ku-band EIRP*1

- 46dBW
- 44dBW
- 38dBW
- 54dBW Hawaii Beam



ShipTracker

- Ship's Position (Latitude/Longitude)
- Speed
- Heading
- Graphical Location of Ship
- Graphical Track of Ship's Course
- Linked to Google Maps
- Satellite Signal Strength
- Satellite Footprint Overlays
- Data is Derived from GPS
- Updated Weather Maps from NOAA
- Updates Approximately Every Fifteen Minutes



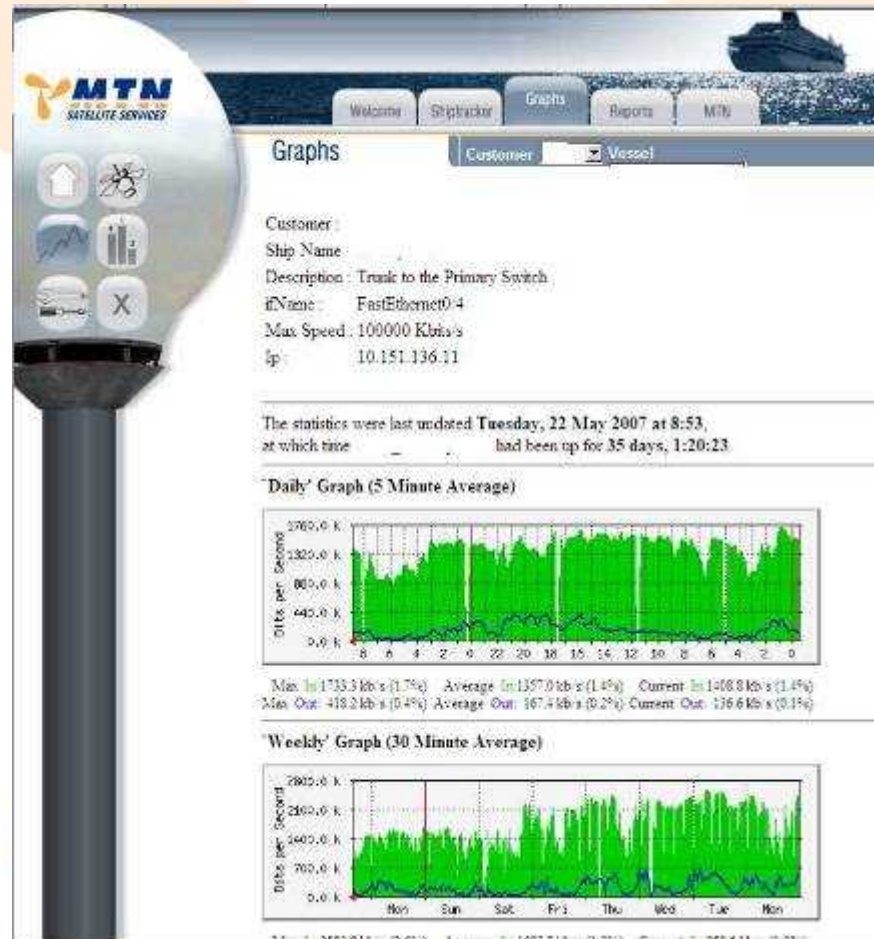
WeatherNet

- Contains most extensive collection of weather products for mariners
 - Aviation
 - Buoy
 - Graphical Buoy Charts
 - GRIB meteorological format
 - Ice
 - Interactive Weather Nexrad
 - Ocean Charts
 - Pro Services
 - Satellite Imagery
 - Text
 - Weather Charts



Reporting Tools

- Bandwidth Utilization
- Uptime Reports
- Latency (satellite delay)
- Availability Percentages
- Graphs provide daily, weekly, monthly and yearly performance



Crew Welfare



Stored Value Calling Services

- Allows Crew Members to Make Prepaid Telephone Calls From the Site at Affordable Rates
- Creates Goodwill for the Crew
- Generates Revenue
- MTN Manages Platform, PINs and Activations
- Customized Rate Tables

Internet Access

- Over 130 sites installed with Internet services
- Value-added service over existing network infrastructure
- Full technical and operational support
- Wi-Fi integration
- Available in nine languages
- Custom rate plans and billing options

Crew Welfare



OceanNews

- Newspapers from around the world delivered daily
- 580 titles from 75 countries in 37 languages available
- Newspapers are printed on 11x17 or A3 paper
- New high speed printer with low consumable costs available

Wave
ENTERTAINMENT
NETWORK



Wave Entertainment Network

- MPEG 4 multicast available on C-Band Globally
- Utilizes MTN's global satellite network and existing onboard communications antennas.
- MTN currently delivers Fox News
- Expand programming and coverage in 2008

Wave Entertainment Network

- A wholly owned subsidiary of SeaMobile Enterprises offering a digital television to the Maritime industry
- Single point of contact for Digital TV solution
 - Content Acquisition
 - Access to licensed programming content
 - Equipment and maintenance
 - Special Events production and/or unique programming acquisition
 - Technical service resolution
- Dedicated Broadcast Center at Holmdel Teleport
- Satellite Transmission
 - Deliver via a seamless network with a goal of worldwide coverage
 - Via VSAT or TVRO
- Shipboard Distribution
 - State-of-the-Art servers
 - Set-top box



Potential Programming

News & Financial

CNN
Fox News
Fox Business
Channel
CNBC



Sports

ESPN
NFL Network
NBA TV
MLB TV
Golf Channel
European Football



Lifestyle

Discovery Channel
The Learning
Channel
Animal Planet
Military Channel
A&E
History Channel
Biography Channel
Food Network
HGTV



Entertainment

Comedy Central
VH1
TNT
HBO@Sea



Music

Various Genres

Note: Final channel line up subject to change

Video On Demand Ideas

- Video-On-Demand
 - New movies
 - Movie classics
 - "Catch-Up TV"
 - Sports: live and replay
 - Adult content

