AICC January 2020

SIKULIAQ Internet At Sea

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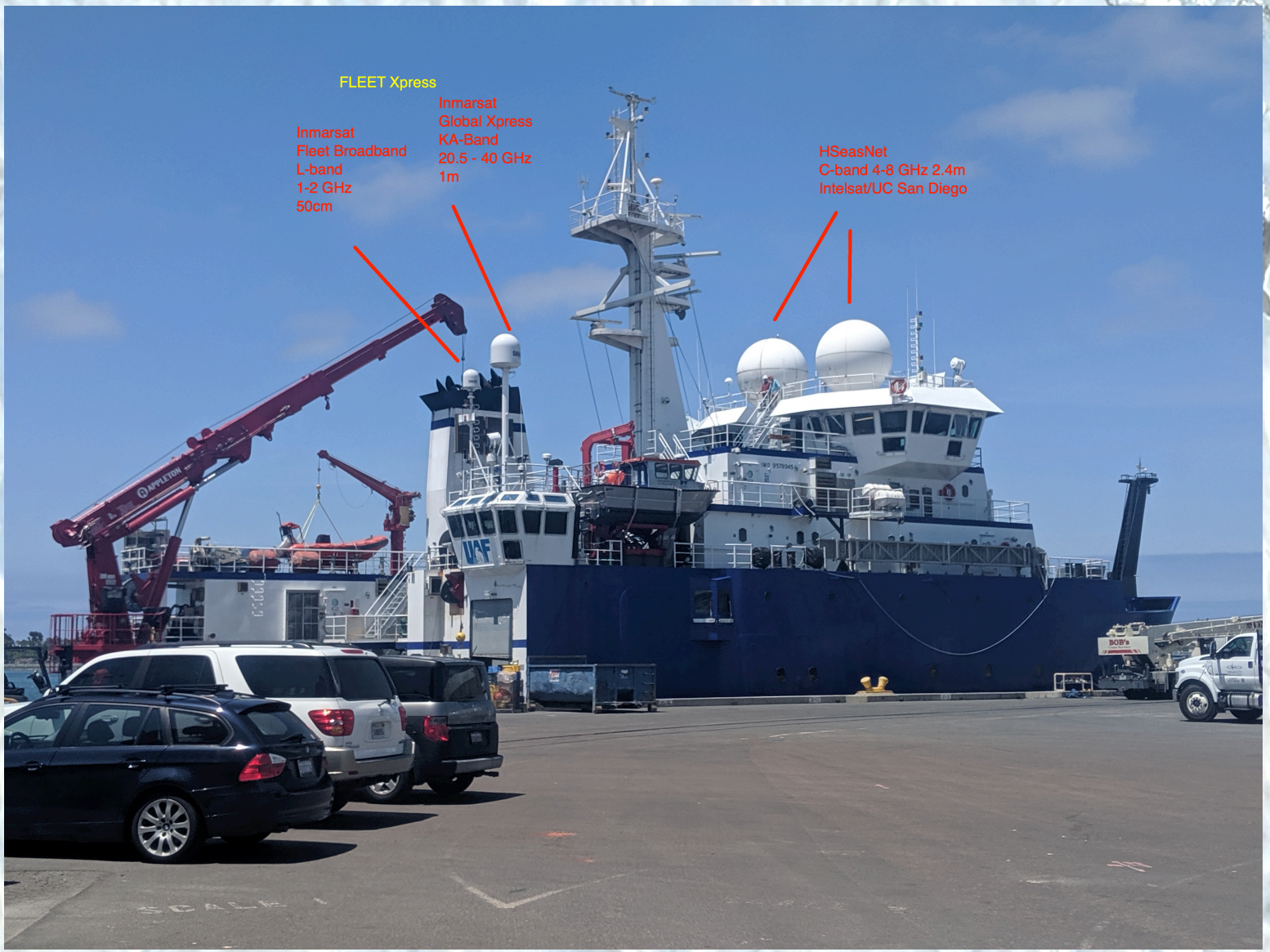

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Metrics

Captive Portal 150MB/Day/Person

Geostationary Orbit (~650ms Latency)

- HSN Uplink 256Kbit
- HSN Downlink 512Kbit (2Mbit Burst)
- HSN Uplink (Expan) 2Mbit (extra charge to Science)
- HSN Down (Expan) 2Mbit (extra charge to Science)
- KA Band Uplink 2Mbit
- KA Band Downlink 4Mbit

SIKULIAQ Load Balances HSN and KA

Low Earth Orbit (~50ms Latency)

- Iridium Certus Uplink 352 Kbit (testing)
- Iridium Certus Down 700 Kbit (testing)

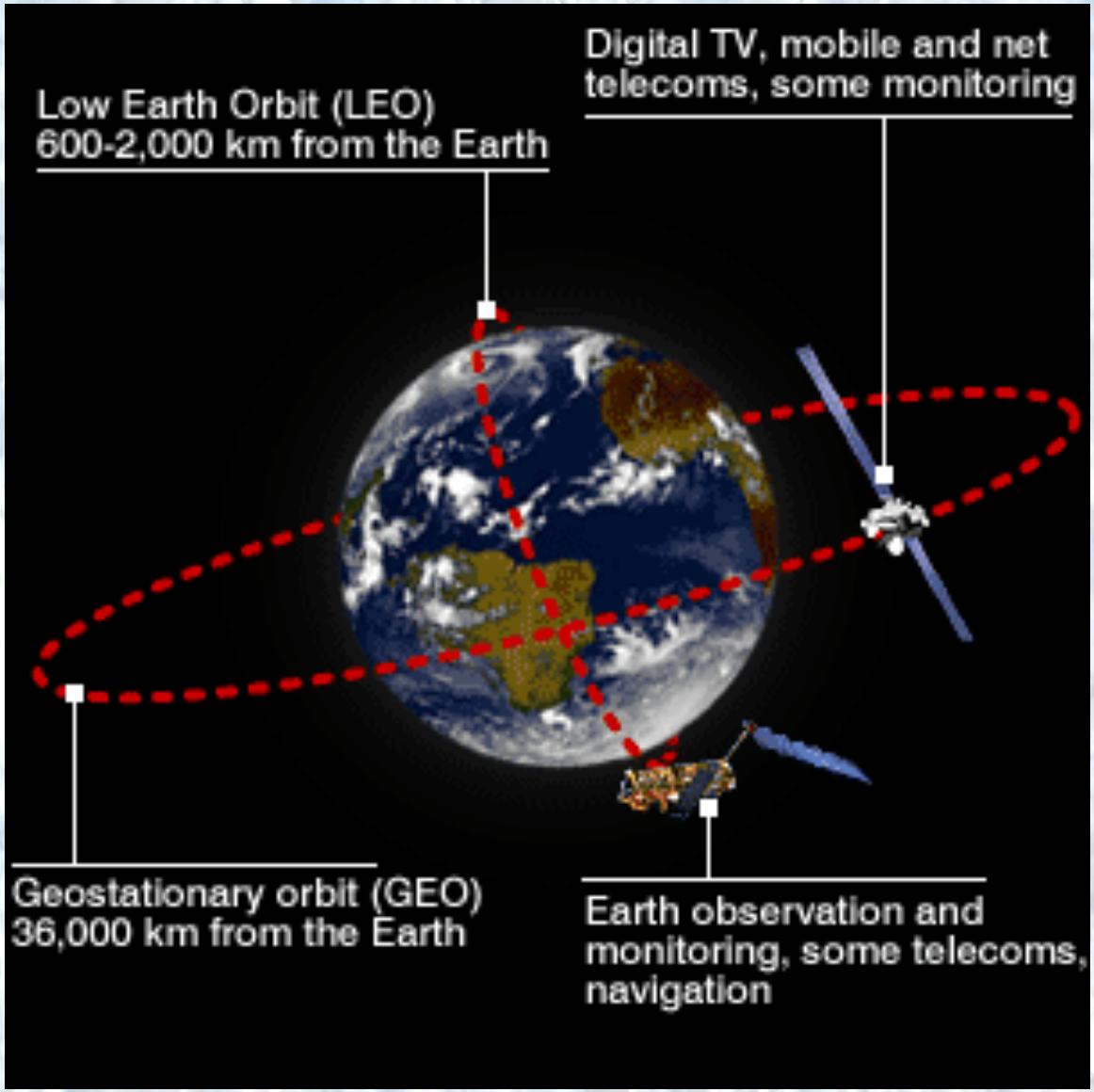

PHOTO from Https://News.BBC.CO.UK.

Issues at High Latitudes Geosynchronous (HSN,KA)

- Low Antenna Angle
- Curvature of the Earth Blocks Access to the Geostationary Constellation at ~ 80 Degrees of Latitude

HiSeasNet C-Band

- Mast Blockage at High Latitudes Due to Pennant Yard Arms

KA Inmarsat

- Suspect Dropped Coverage During Winter in Northern Hemisphere

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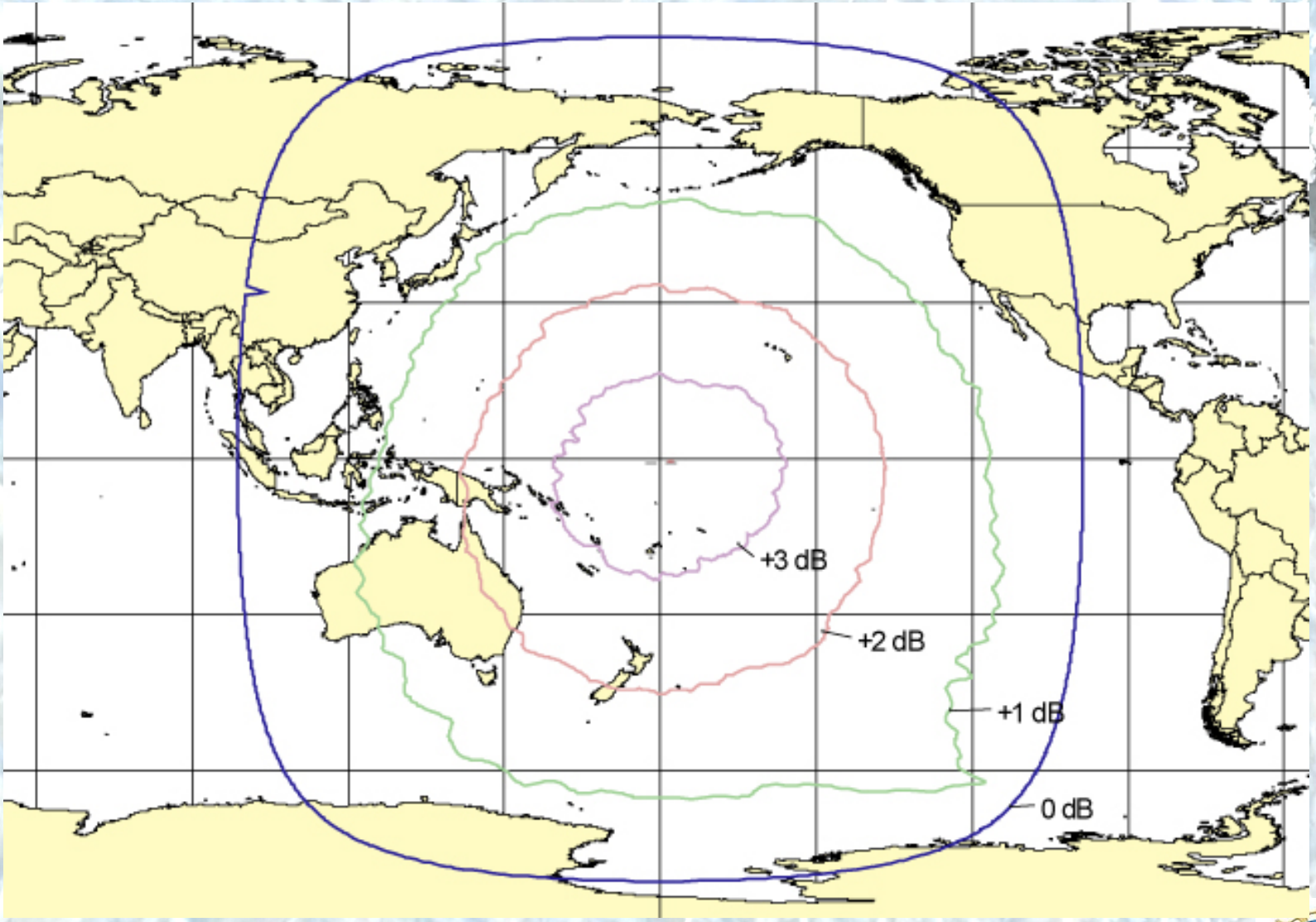
Intelsat – Pacific Region Foot Print



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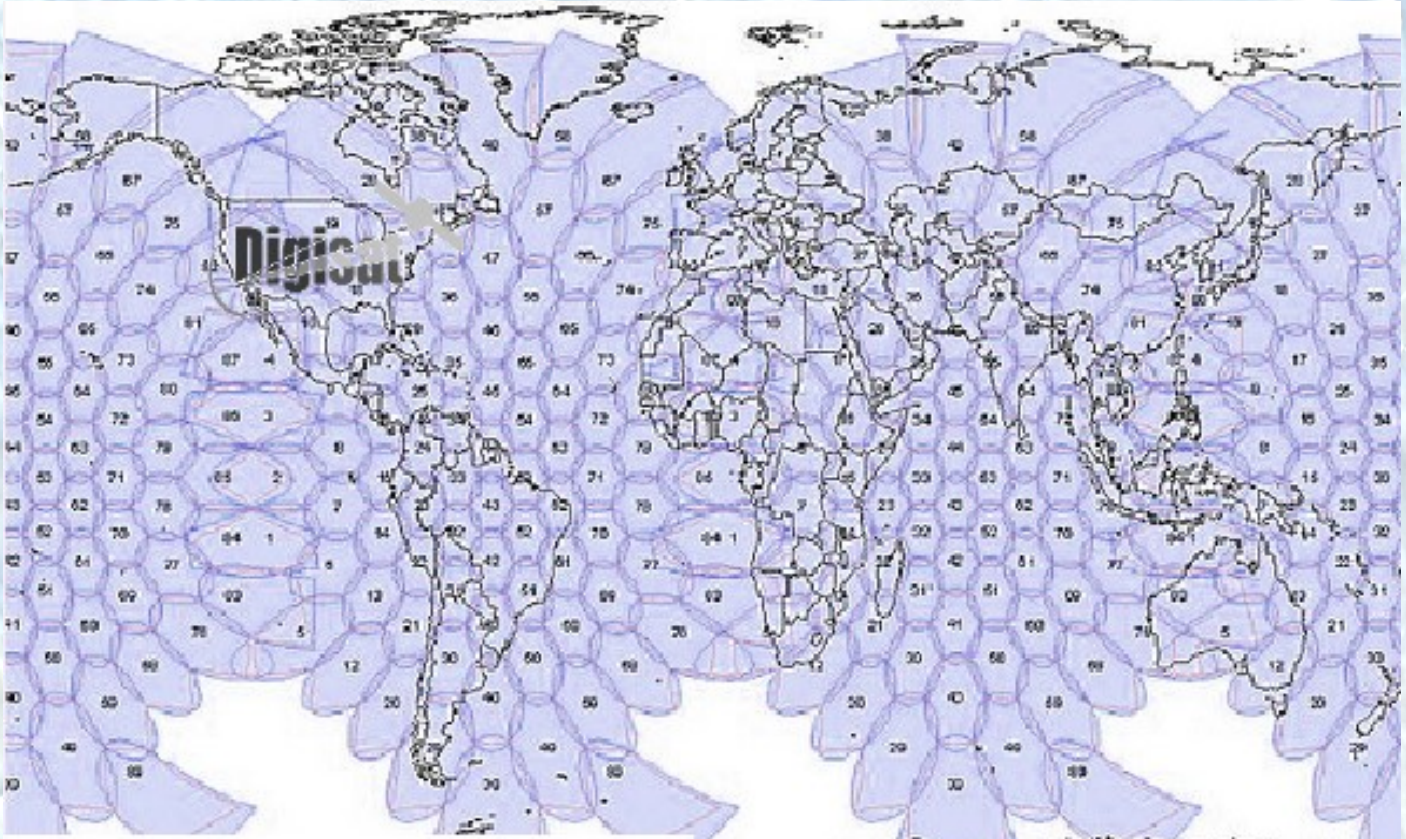
Inmarsat – Pacific Foot Print



Worldwide Broadband Service

- 89 Ka-Band Beams per satellite
- 50 Mbps download speeds
- Compact antennas and equipment

inmarsat
Global Xpress™

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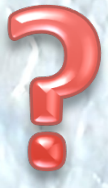

- ONEWEB –”OneWeb brings fiber-like internet for the Arctic in 2020”
- STARLINK-”Starlink is targeting service in the Northern U.S. and Canada in 2020”