



Indo Pacific GeoIntelligence Forum 2026

Assured & Resilient PNT

Cdr Siddharth Dubey (Retd)
Director, Program HQ

HUGHES
An EchoStar Company



IMPORTANCE OF WEEK
FY CLOSURE ~ FIFTH WEEK !!!



IMPORTANCE OF DAY
DAILY WAGE WORKER



PT USHA MISSES OUT
OLYMPIC MEDAL BY 0.01 SECONDS

IMPORTANCE OF TIME!



EVERY NANO SECOND COUNTS
IN COMMUNICATION. IN OPERATIONS. IN OUTCOMES.

Complexity of Timing in SATCOM



Timing Inputs & Operational Imperatives



Orbits

- **LEO**
 - ✓ Low Latency
 - ✓ Global coverage
- **GEO**
 - ✓ Stable work horse from ISRO
 - ✓ High Throughput Satellites



Hubs

- ✓ **Positioning**
 - India & Abroad ~ LEO downlink
 - Farthest reaches especially for LEO
- ✓ **Geographical redundancy**
- ✓ **Bands**
 - Diversity in C | Ku | Ka | U | V

- ✓ **Below-the-Noise Floor**
 - A must have capability in the coming times
- ✓ **Strategic User ~ proven heritage**
- ✓ **DVB-S2X | MFTDMA**
 - Globally stable
 - Supports large capacities



Technology

- ✓ **Helicopters**
 - Most significant capability
- ✓ **Man-portable ~ Vehicle mount**
 - Both complement the other
 - Man-portable ~ Operational edge
- ✓ **Fixed wing ~ auto relay to terrestrials**



Platforms

LEO Augmentation of GEO

Seamless Integration. Assured PNT. Operational Advantage.



LEO ~ The Way Ahead



LEO Constellations

Enabling next-generation PNT services with global reach and high resilience.



Space Based AIS | ADS – B

Enhanced situational awareness for air and maritime domains.



Remote Sensing Payload

High-resolution, all-weather monitoring for critical insights.



Assured Timing through SATCOM

Highly stable and secure timing for mission-critical operations.



ACCELERATING PNT EXCELLENCE

Reliable. Resilient. Global.
Powering Operations. Enabling Confidence.

MTCTE Offerings

GOVERNMENT OF INDIA

भारत सरकार



सत्यमेव जयते

TELECOMMUNICATION MANDATORY TESTING & CERTIFICATION



TRUSTED
Compliance with
Government
Standards



CERTIFIED
Ensuring Quality,
Safety &
Reliability



COMPLIANT
Meeting TEC
Requirements for
Telecom Equipment



CONNECTED
Building a Secure
& Resilient
Network

KEY EQUIPMENT CATEGORIES



BUC
Block Up Converter



LNB
Low Noise Block
Converter



VSAT ANTENNA
Compact, High Performance
Antenna System



BUC & LNB
Integrated Outdoor
Unit

OUR PARTNERS

HUGHES
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JRC

New Japan Radio Co., Ltd.

Nisshinbo Micro Devices Inc.

KYMETA

inster
grupo oesía



IDU
Indoor Unit



MODEM
Network Management
& Performance Monitoring



TERMINAL
User Terminal
(Indoor/Outdoor)



“

Any sufficiently advanced technology is indistinguishable from **magic**.

”

Arthur C. Clarke

Science Fiction Author & Futurist

