

ERATOSTHENES Centre of
Excellence (ECoE)



ERATOSTHENES:
Excellence Research Centre for Earth Surveillance
& Space-Based Monitoring of the Environment

1st virtual EXCELSIOR International Technical Workshop

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Cyta – a satellite station hosting facility

@excelsior2020eu



Speaker's name: Dr. Sotiris Alexandrou

Organisation: Cyta



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This project has received funding from the Government of the Republic of Cyprus through the Directorate General of the European's Programmes, Coordination and Development

CONSORTIUM



About Cyta

- A corporate government body and the incumbent telecommunications operator in Cyprus.
- A customer-driven enterprise providing the full spectrum of advanced telecommunications products and services.
- Solid turnover, long term profitability and zero debts.
- A Long-term employer, privileged to employ highly skilled and experienced personnel.
- Extensive experience in satellite services, including NGO operations
- An active player in the region and the international arena



Introduction

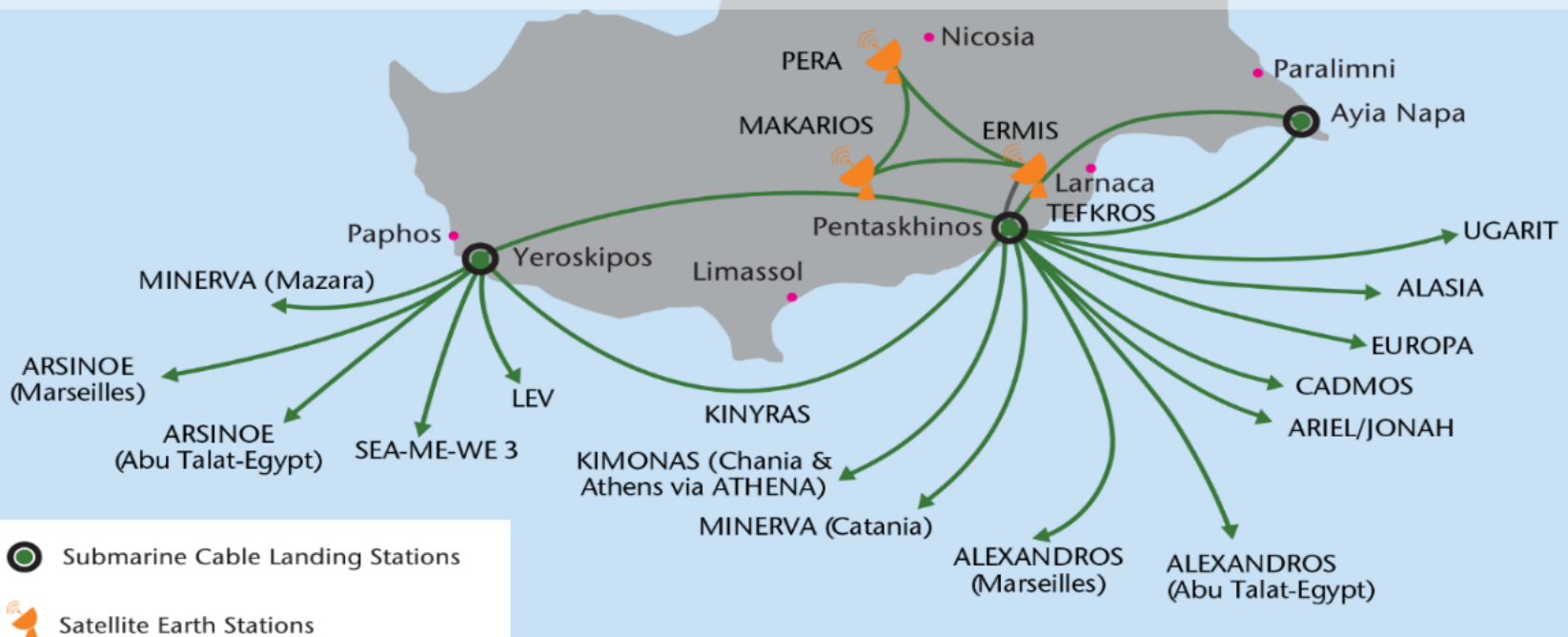
- Cyta supports EXCELSIOR and is ready to contribute towards its success & long-term sustainability
- Offers the strategic position of Cyprus to enable direct access to Earth observation satellites
- Facilitates Near-Real-Time coverage of the Eastern Mediterranean
- Provides visibility to Middle East (Red Sea, Persian Gulf, Caspian Sea)
- Will host the EXCELSIOR Antenna at Ermis Teleport in Cyprus

Cyta's Contribution

- Cyta will undertake the process for the Procurement, Installation and Support of the EXCELSIOR's Receive Earth Station Antenna
- Provide for free appropriate land at Ermis Teleport to host the Antenna and associated systems
- Make available all necessary support, facilities, infrastructure and telecommunications services under Most Favored Customer terms
- Offer our expertise to facilitate the operation of the Antenna in accordance with EXCELSIOR's needs and requirements

Cyta's International Network at a glance

- 3 Teleport sites (Makarinos, Ermis, Pera)
- 3 Cable Landing Stations
- Robust International Core Network
- A regional internet node (Cytanet)
- A modern network management & operations center
- Major international customers & partners



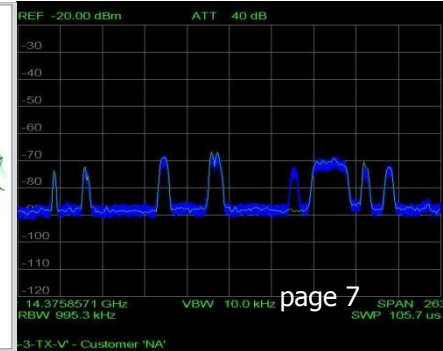
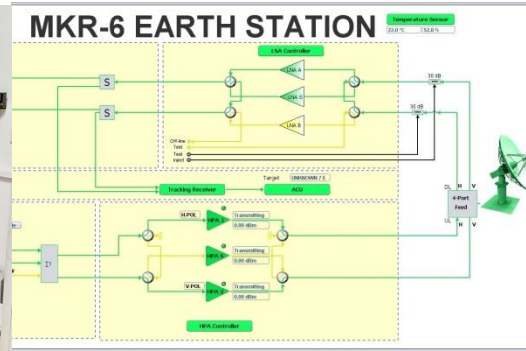
Cyta's Teleport Sites

- Three Teleport Sites in Cyprus at Makarios, Pera & Ermis
- More than 40 major satellite earth stations and 100 Rx antennas installed
- No frequency restrictions & interference free environment
- Ideal climate & optimum location
- Full visibility of the geostationary arc from 35°W and 100°E (Elev.>10°)
- Enhanced service availability with Teleport diversity



Teleport Infrastructure

- Power redundancy with dual 1+1 generator sets
- Multiple protected UPS systems installed
- Protected Air Conditioning Systems for Environmental Control
- Dual and Independent optical fiber connections
- Building Management System
- Satellite Carrier Monitoring System
- Satellite Equipment Management System
- Physical, Network and Information Security
- Fire Protection & Suppression Systems
- Hotline with Police and Fire Brigades

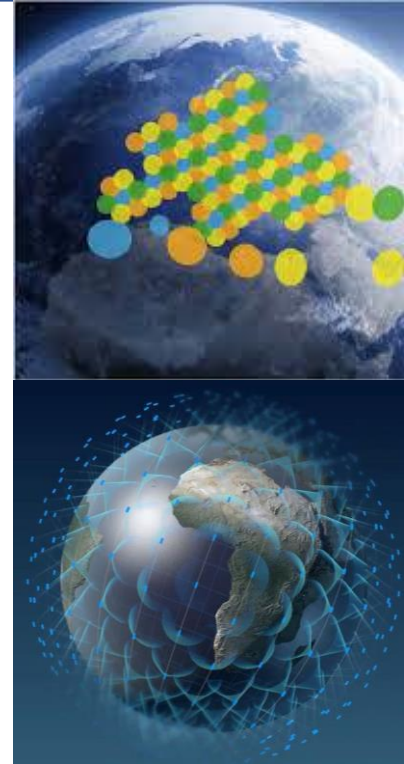


Teleport Operations

- 40+ years of experience in teleport operations & satellite services
- Operations supported continuously on 24/7 basis, 365 days/year
- Shift staffed by qualified & experienced technicians
 - On-site specialists on RF, Baseband Systems and Fiber Network
 - Monitoring of infrastructure & services, service introduction, rearrangement & restoration
- Maintenance in accordance with the relevant standards
 - preventive
 - corrective
- Installations and Upgrades



Teleport Operations (cont.)

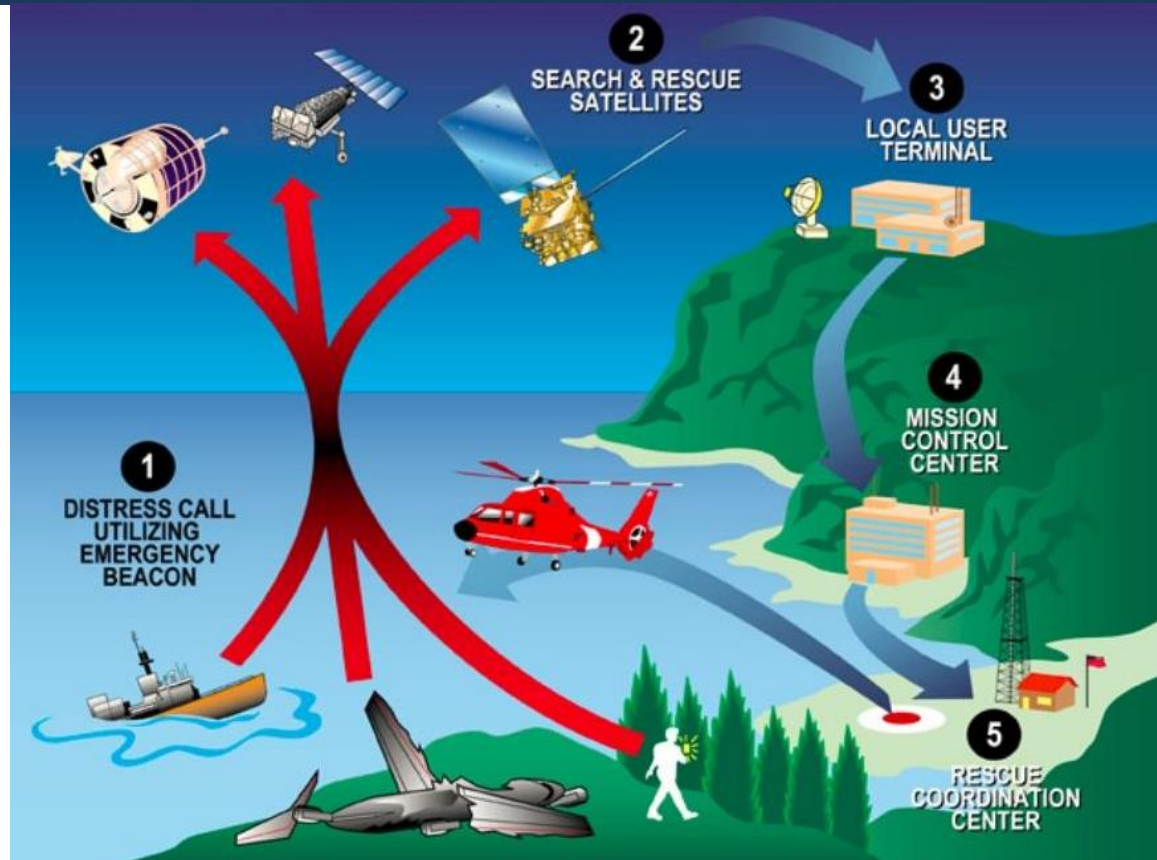


- Broad experience in a wide range of satellite applications
 - Satellite TV broadcasting, VSAT services, Gateways to HTS satellites & Constellations
 - Satellite Control and Satellite Monitoring services
- Non Geostationary Operations
 - MEOLUT - Critical service for life support at risk
 - EGNOS V3 RIMS – correction signal for satellite navigation
- International and local certifications
 - Tier 4 full certification by World Teleport Association (WTA), only 15 in the world
 - Member of Eutelsat teleport partner network
 - ISO certification



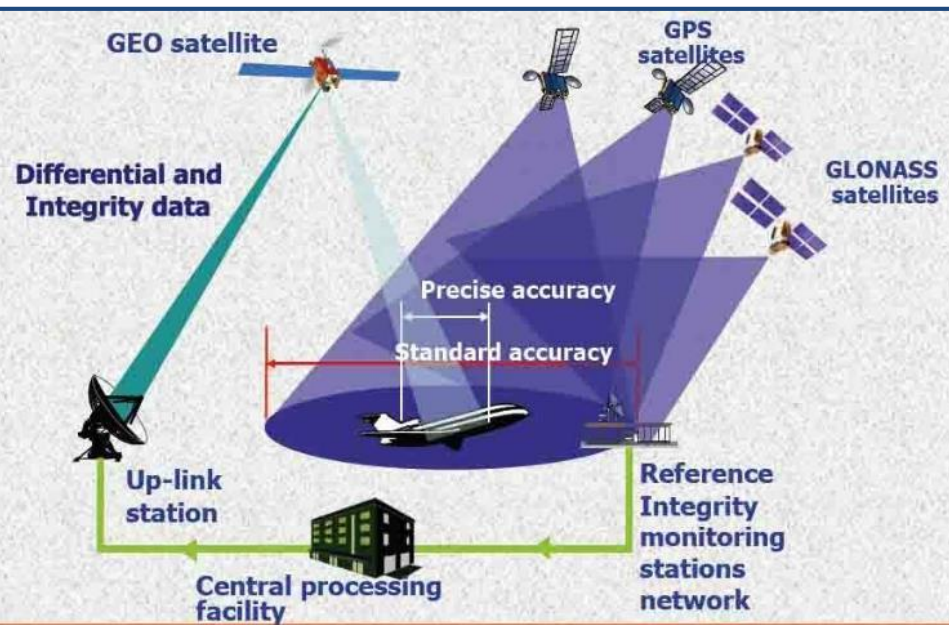
The European MEOLUT at Makarios Teleport

- MEOLUT detects & locates distress beacons from Medium Earth Orbit Satellites
- Forwards information to Mission Control Centers for Action
- One of 3 Rx stations in Europe – Competitive EU project
- Hosted & supported by Cyta at Makarios Teleport
- Critical service for life support at risk



EGNOS V3 RIMS is arriving at Ermis

- Cyta was selected by the European Global Navigation Satellite Systems Agency to host an EGNOS V3 RIMS in Cyprus.
- The system provides correction signal for satellite navigation systems
- The Correction is crucial for the provision of life critical & safety services:
 - Precision Positioning, Timing and Synchronization, Search & Rescue, Aircraft Navigation, Mapping and Surveying



Ermis Teleport to host EXCELSIOR's Receive Earth Station Antenna

- Ermis Teleport is a suitable site for earth observation applications:
 - Ample land and space for unobstructed satellites access
 - Optimal horizon visibility down to 10° elevation in every direction
 - Interference free environment verified by on-site RFI measurements performed by the Department of Electronic Communications and the European Global Navigation Satellite Systems Agency
 - No restrictions for the use of radio frequencies in the satellite bands of interest, including X-band



About Ermis Teleport (cont.)

- Unmanned site well integrated with Cyta's national and international networks
- Protected location with integrated security provisions
- Infrastructure to support reliable satellite services
- Protected and diverse fiber connections to the desired international Telehouses or any local destination
- Full range of telecommunication services available



Cyta is ready to support EXCELSIOR

- Facilitate the Procurement, Installation, Hosting and Support of the Receive Earth Station Antenna
- Engage with the partners and contribute towards its success & long-term sustainability
- Explore opportunities in Earth Observation, Remote Sensing and associated activities



THANK YOU FOR YOUR ATTENTION

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