

*National Defense University Workshop on
Commercial IT*

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DPKO ICT Presentation topics

- **Why are we providing UN ICT infrastructure ?**
- **Who are we providing service and equipment ?**
- **What is the scope/size of our operation.**
- **Where can we provide strategic ICT support ?**
- **SDS = Strategic Deployment Stock**
 - **SDS Concept**
 - **SDS Deployment Timelines**
 - **MDTS (Mobile Deployable Telecommunications System)**
 - **SDS "new" COTS technologies**
- **Sample of COTS ICT equipment in the UN Field Operations**



Why are we providing a UN ICT infrastructure ?

- Break Down of local infrastructure
- Provide independent and secure means of Communications for coordination with UNHQ.
- Ensure the independence and reliability of “in theatre” ICT systems.
- Provide strategic Communication for military contingents.
- Ensure safety of UN personnel.



Who are we providing service and equipment ?

CITS Supports (as of 31 May):

- Military personnel and civilian police serving in peacekeeping operations: **55,457**
- Countries contributing military personnel and civilian police: **97**
- DPKO UNHQ Staff in New York: **700 (+)**
- International civilian personnel: **3,405**
- Local civilian personnel: **6,508**

CITS Services:

- Approximately 2 million phone calls daily routed through UNLB
- Approximately 3.5 million e-mails routed monthly through UNLB
- Manages 170,000 CITS assets
- Approximately valued at 300,000,000 US \$



What is the scope/size of our operation

- Enterprise Satellite system with UNLB Teleport as hub for Field Operations

INTELSAT

- Enterprise Telephone System

ERICSON

- Mission wide Radio Systems

MOTOROLA, BARRETT, STRATEX NETWORKS (digital low-band),
STRATEX NETWORKS (digital microwave)

- Global Videoconferencing Services

POLYCOM, TANDBERG, MCI



What is the scope/size of our operation

continued

- Global Network Monitoring & Support

HP OPENVIEW, CISCO WAN/LAN NNM, MRTG

- COMPUTING

HP, IBM, DELL, COMPAC

- NETWORKS

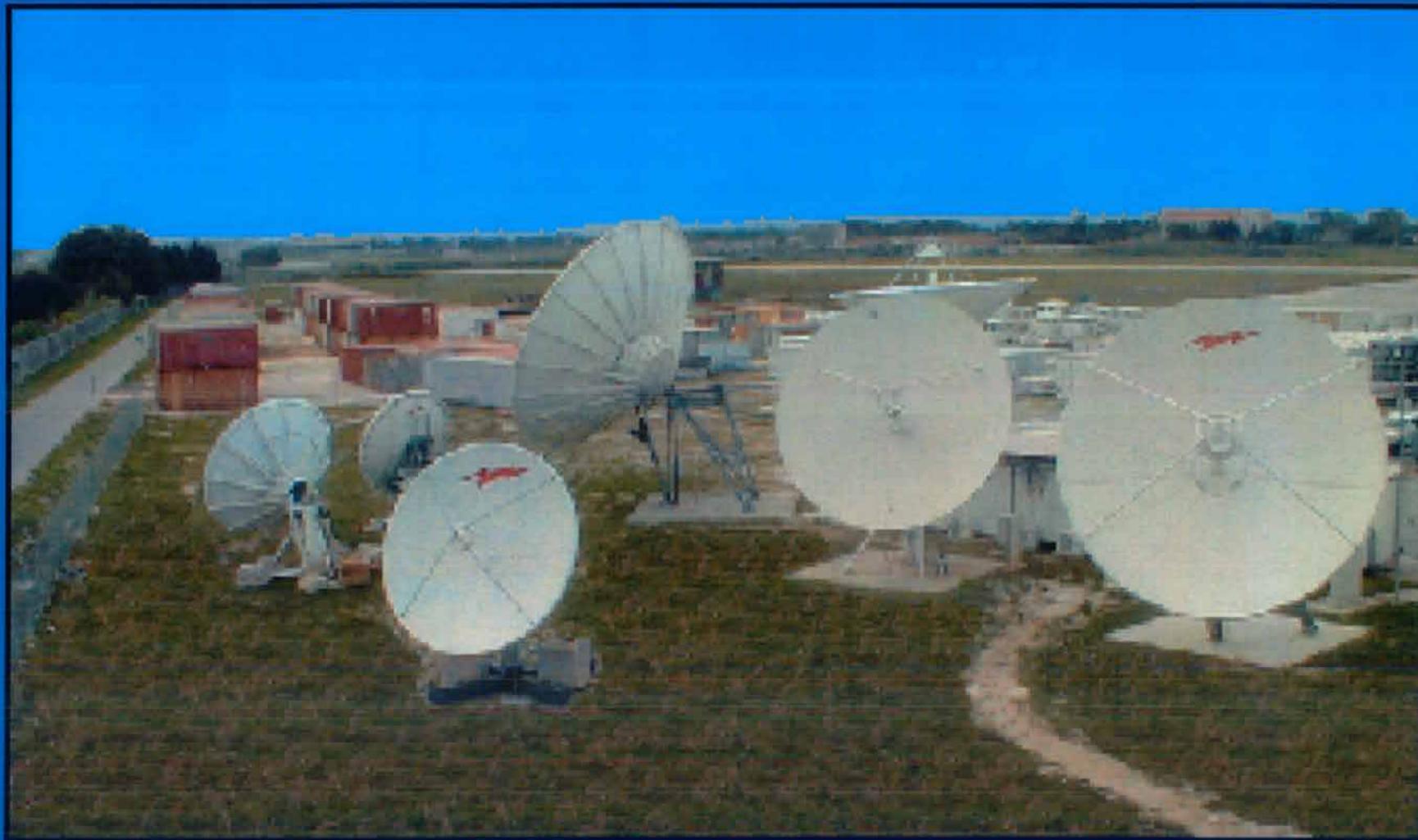
CISCO

- SYSTEMS

SQL, MICROSOFT .NET, RATIONAL ROSE, LOTUS NOTES



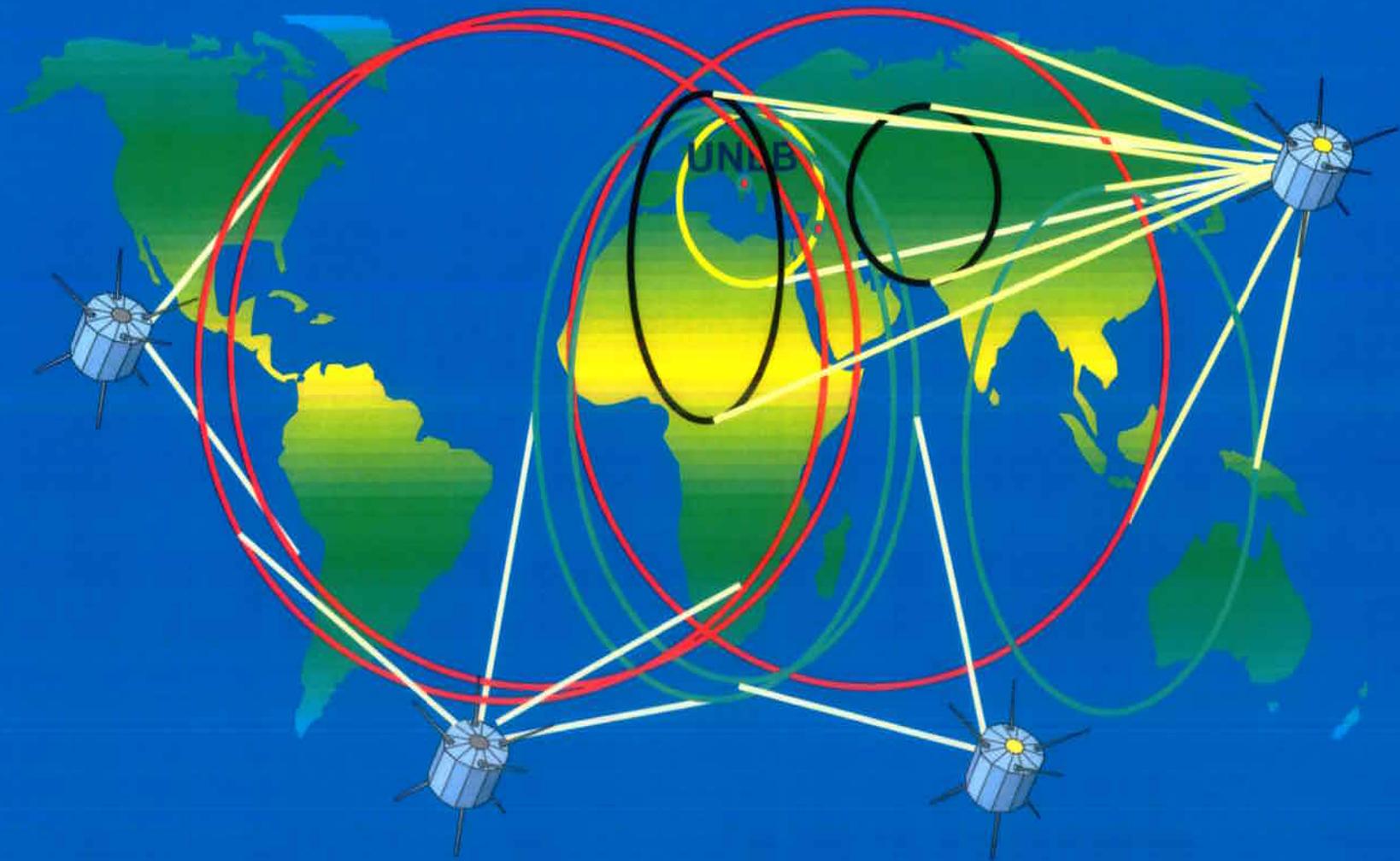
UNLB Teleport



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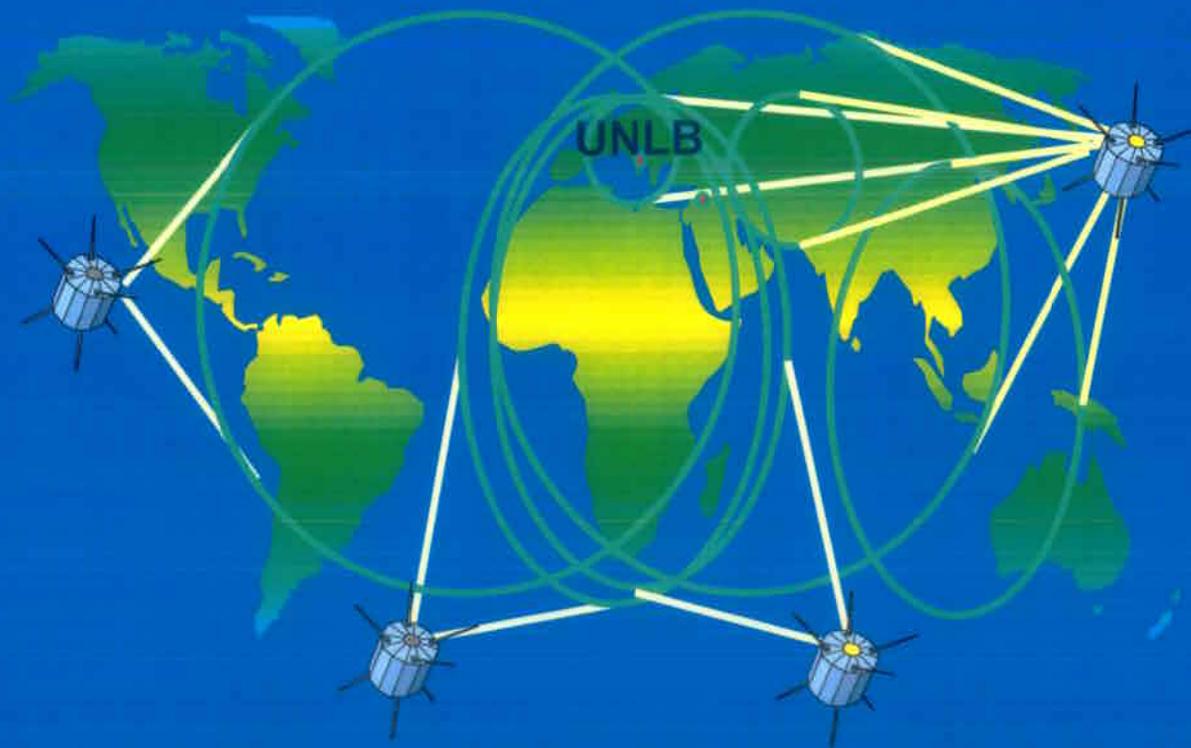
Where can we deploy ?





DPKO Satellite Infrastructure

- 300+ Satellite Earth Stations worldwide
- 5 hub stations at UNLB
- 66 of the stations have direct connections to UNLB





Enterprise Telephone Systems



- Networked from UNLB & extended to all DPKO operations
- Each Mission assigned 3-digit Area Code (1xx) + standard dialing
- Mission codes & phonebooks published with Lotus Notes
- 300+ PABX systems installed
- UNLB switching 65,000 + telephone calls every 24 hours = 45 call per minute, 1 call per second (approximately)



Enterprise Radio Systems



- Conventional VHF/UHF Two-way Radio systems
 - 21,000 handheld;
 - 13,000 mobiles;
 - 3,000 Base/Repeater stations

- Trunked UHF Two-way Radio Systems
 - 2,700 Base & Mobile HF radios for long- range voice & data networks;
 - 1000+ VHF/UHF "Rural" telephone links for low-density telephone;
 - 750 Microwave links for high-density voice & data connections



SDS = Strategic Deployment Stock

- “Brahimi report” recommendation to improve on the “Start-up kit” concept
 - http://www.un.org/peace/reports/peace_operations/
- Acquire long lead time equipment
 - 140 Million US \$
 - ~ 45 Million US \$ in ICT (about 20,000 items)
- Capabilities/Goal
 - Deploy a “normal” PKO in 30 days and “Complex” PKO in 90 days
 - Including Radio Broadcasting facilities



SDS Concept

- Modular “military” concept - 26 modules

– **“Civilian” Modules**

- Mission HQ module
- Complementary Mission HQ Module
- Airport Module
- Seaport Module
- Transit Camp
- Medical Level 2 (2)
- Sector HQ (3)

– **Military Modules**

- Infantry Battalion (3)
- Military Police Module
- Engineering Company Module
- De-mining Company Module
- Logistics Company Module (3)
- Aviation Company Module
- Reserve Company Module
- HQ support Unit Module

– **Milobs and Civpol Modules**

- Civpol Module (2)
- Milobs Module (2)



MDTS Strategic deployment



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MDTS Test deployment



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MDTS - Inside view





MDTS “in mission” deployment



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Systems to deploy from D to D +5

- Strategic Satellite connectivity to UNLB
- Immediate deployment of a basic Conventional VHF Two-way Radio system for security (MDTS + a small number of high point repeaters)
- Limited "Mission area" VSAT Satellite connectivity for Voice/fax/data/video by MDTS
- Basic wireless/wired Phone system, using PABX in the MDTS
- Wireless data connectivity using wireless LAN
- INMARSAT terminals for remote voice/fax/data connectivity
- Mobile/Base HF radio for long range voice networks



IT Systems to deploy from D to D +5

- **Establish Mission HQ plus Airport facility:**

- IT will provide encrypted wireless LAN connectivity for up to 50 people, which will entail
 - o Office applications including telephone billing application
 - o E-mail (IBM LOTUS NOTES)
 - o Intranet (Windows 2000/2003 IS5/IS6 .NET FRAMEWORK)
 - o Internet (Windows 2000/2003 IS5/IS6 .NET FRAMEWORK)
 - o Document Management Solution (TRIM/DOCUMENTUM)
 - o Inventory Management Galileo (SQL; MS .NET)
- For those using INMARSAT/HF technology to communicate for the following services are offered:
 - o E-mail
 - o Office Application



“New” COTS Hardware

- Improved MDTS 4x4 with bigger generators
- All-terrain vehicle (CITSV) for remote off-road temporary deployments/site surveys
 - Wireless LAN
 - Voice, Video, and Data using INMARSAT, IRIDIUM
 - Communications analyzer
- Stand-alone GSM systems (4)
- Multi-site Tetra Radio trunking system
- FM Radio Broadcasting MDTS Studio/Transmitter
- Fixed Studio and FM Transmitters (4)
- Groove
- VM Ware
- EMC/SYMETRIX



New Technologies in IT/IS

- SANs for field missions (HP)
- Enterprise Backup System is Veritas Netbackup in MDTs, RDTs
- Enterprise Storage Devices (EMC)
- "Galileo" Asset Management system (UN In-house)
- Blade Servers (COMPAC)
- Ruggedised Laptops (PANASONIC)



Standards: commercially available GIS applications

- Open GIS Consortium (OGC)-Web Feature Services (WFS) 1.0.0
- OGC-Web Map Services (WMS) 1.0.0 to 1.1.1
- OGC Context (future intended : Web Terrain Services (WTS), Web Coverage Services (WCS))
- ISO 19115/19139 (Metadata)
- Geographic Markup Language (GML2/GML3)
- Styled Layer Descriptor (SLD) 0.7.1 & 1.0
- ISO-19119 (Services), 19128 (WMS)
- W3C XML Schema
- W3C Scalable Vector Graphics (SVG)

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Thanks for your attention.

Questions ?

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