TOOLS OF THE TRADE?

MONITORING TECHNOLOGIES IN UN PEACEKEEPING

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Presentation to the UN Special Committee on Peacekeeping Operations (C34)

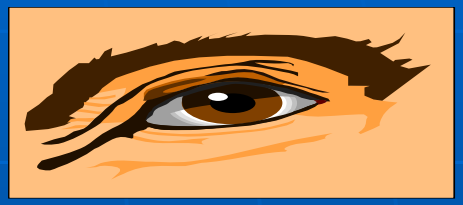
5 March 2007

Monitoring Mandates

- Cease-fire and peace-agreement verification
- Protected areas and persons
- Sanctions and no fly-zones
- Armed groups and spoilers
- Resource exploitation
- Elections and human rights
- DDR and SSR
- Safety and security of UN personnel

TRADITIONAL TOOLS

- The Human Eye ... sometimes aided by binoculars



PROBLEMS OF CURRENT MONITORING

Limited capabilities …

- over large areas
- at night
- for underground detection
- in remote/difficult terrain
- information recording, analyzing, sharing and storage

Technology to the rescue?

Four Conclusions

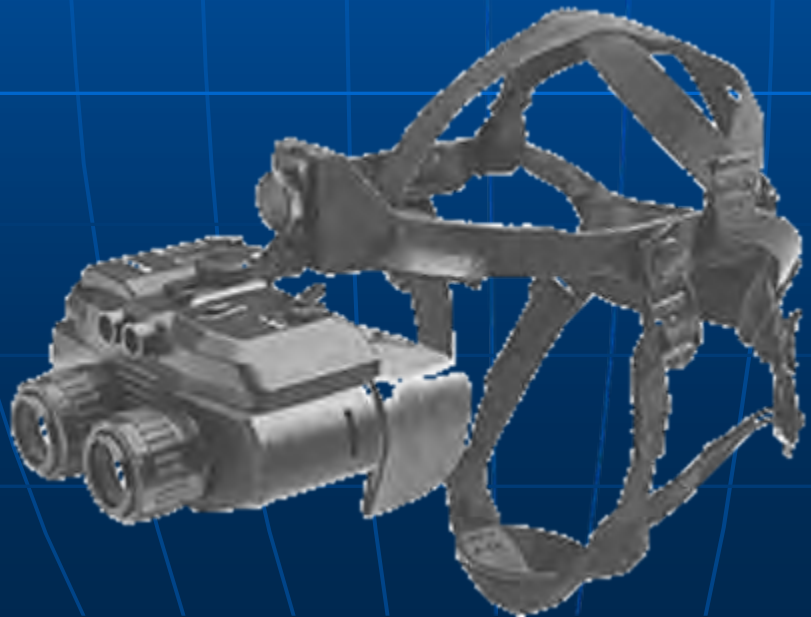
1. **Technology can be of immense value in monitoring, preventing and mitigating conflict.**

2. **Technical monitoring can increase the safety and security of peacekeepers as well as the effectiveness of the mission.**

BENEFITS OF MONITORING TECHNOLOGIES

- Increases *range* and *accuracy* of observation
- Permits *continuous* monitoring
- Increases *effectiveness* (including *cost-effectiveness* in some cases)
- Decreases *intrusiveness*
- Increases *safety*
- Provides *recordings*

Night Vision



Thermal Imaging

Radars

Aerial

Ground

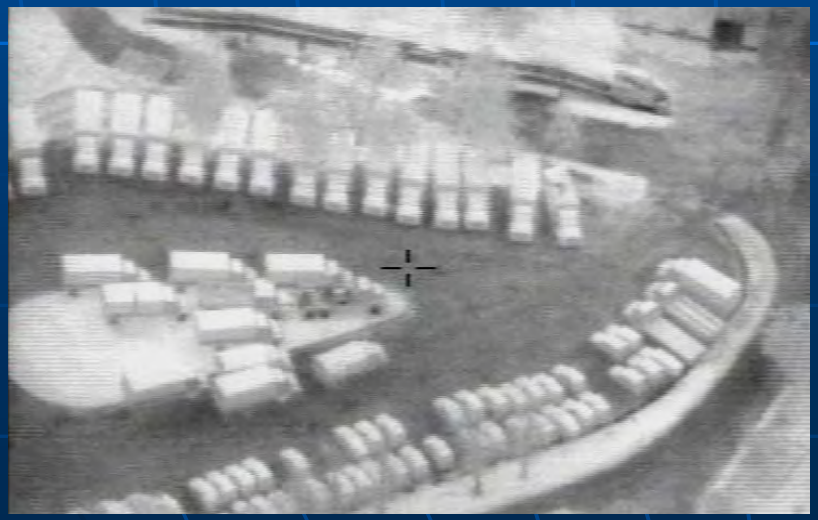
Underground

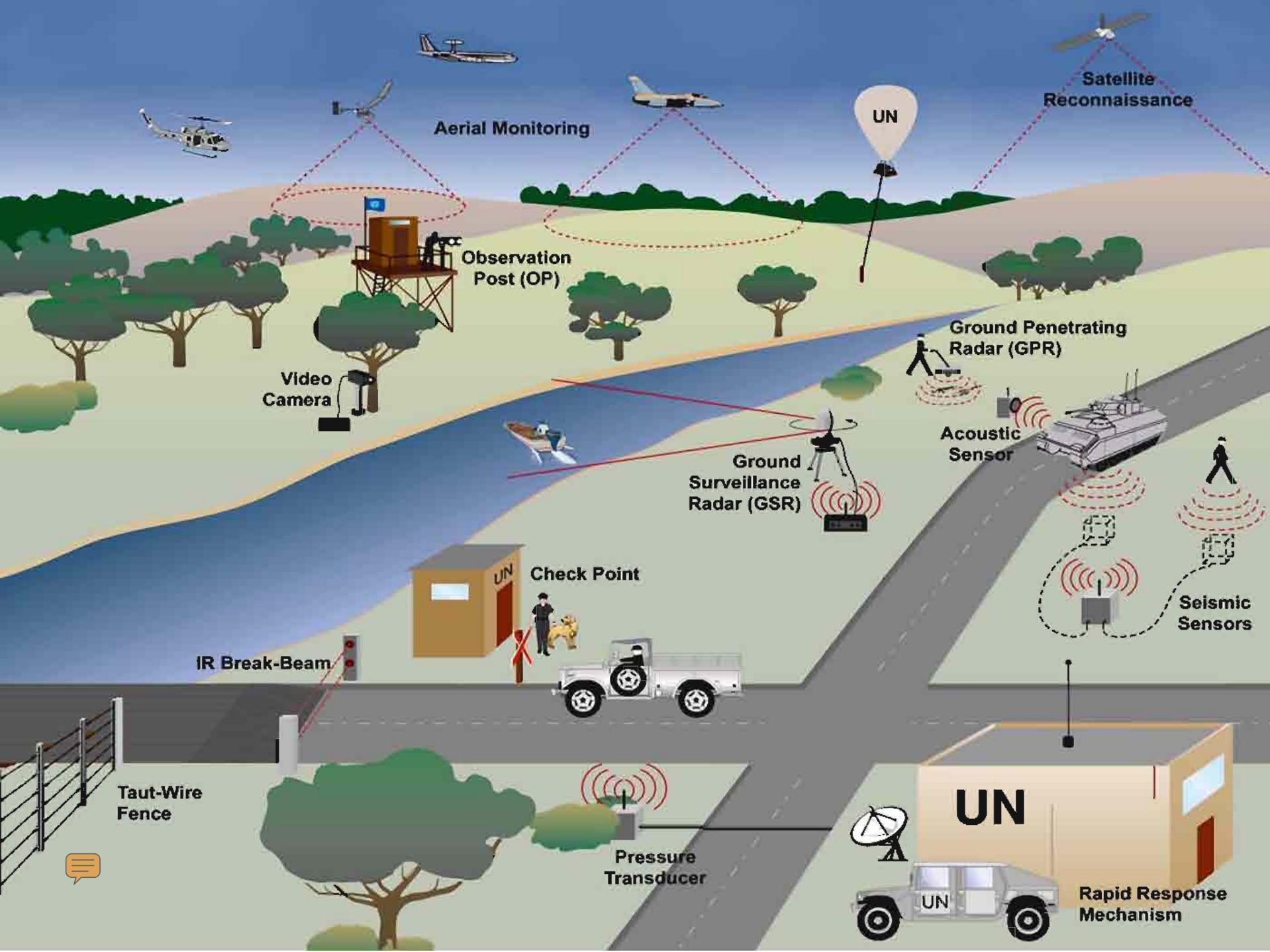
MULTISENSOR SYSTEMS

- Reconnaissance Vehicles
- APC with
  - GSR
  - IR sensors
  - low light TV
  - laser range finder
- Mobile
- Extendible mast

Aerial surveillance

- UAVs in EUFOR in DRC




Aerial Monitoring
UN
Satellite Reconnaissance
Observation Post (OP)
Video Camera
Ground Penetrating Radar (GPR)
Acoustic Sensor
Ground Surveillance Radar (GSR)
Seismic Sensors
Check Point
UN
IR Break-Beam
Taut-Wire Fence
Pressure Transducer
UN
UN
Rapid Response Mechanism

3. UN lacks the equipment, resources, preparation/training needed for effective and efficient use of modern monitoring technology.

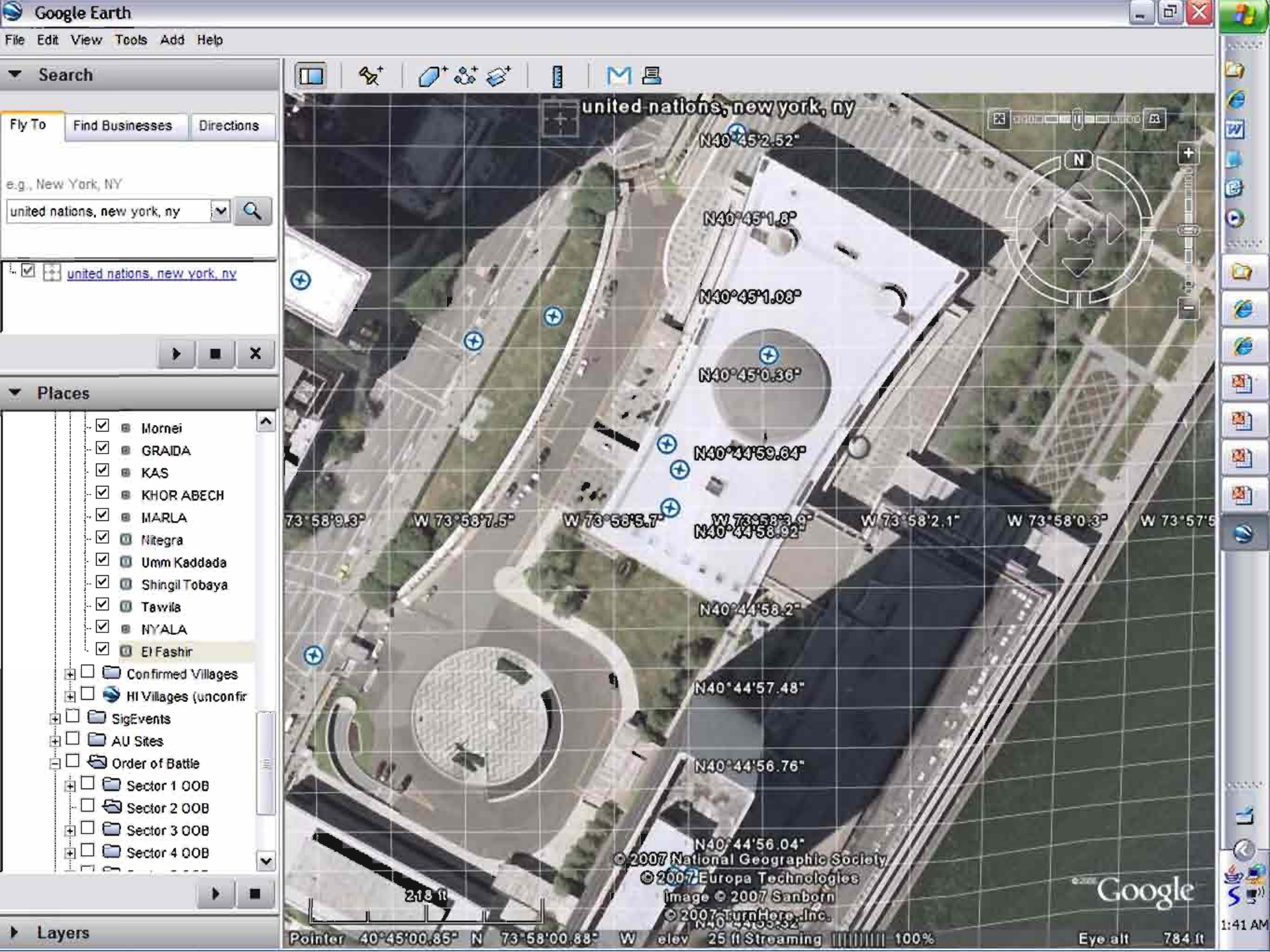
- *some* monitoring technologies in *some* missions but *ad hoc* and *unsystematic*
  - radars
  - 400 NVE (Gen 2+)
- no thermal imagers, seismic or acoustic ground sensors
- platforms: recce vehicles and aircraft
- absence of policies, doctrine, SOPs and training materials
- need to re-engage capable contributors

4. UN is capable of incorporating advanced technologies.

- communications and information technology
- Carlog
- GIS progress
  - Commercial satellite imagery
- aerial recce in DRC

Carlog

www.e-drivetech.com


Google Earth
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Order of Battle
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Sector 2 OOB
Sector 3 OOB
Sector 4 OOB
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N40°45'1.08"
N40°45'0.36"
N40°44'59.64"
N40°44'58.92"
N40°44'58.2"
N40°44'57.48"
N40°44'56.76"
N40°44'56.04"
W 73°58'9.3"
W 73°58'7.5"
W 73°58'5.7"
W 73°58'3.9"
W 73°58'2.1"
W 73°58'0.3"
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Google
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Eye alt 784 ft
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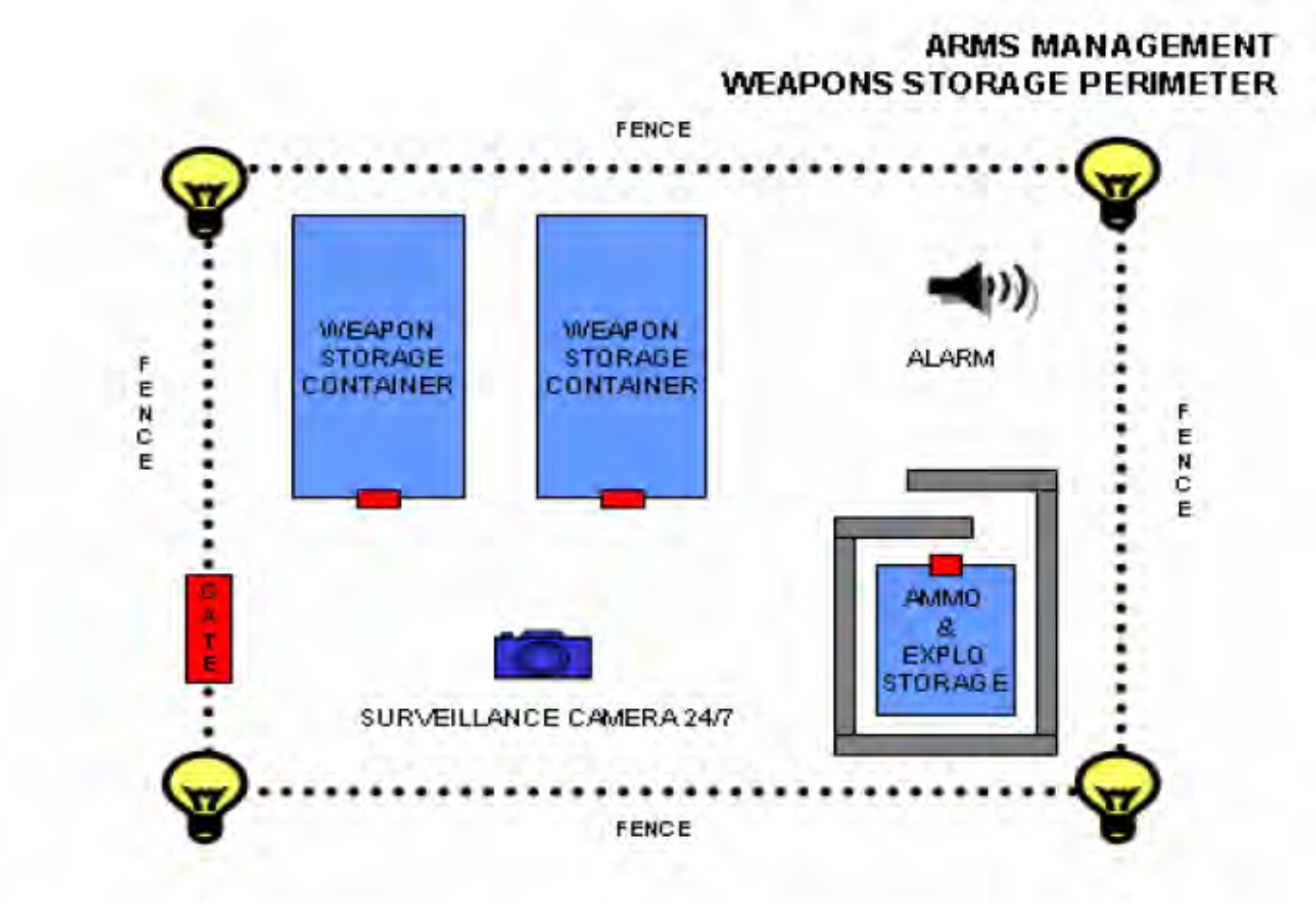
ZI890
UN
UN

Demand from the Parties (Video Camera Network)

2006 Nepal peace agreement



Technology of immense potential value

To fill the “Monitoring Gap” between mandates and UN capacities

Recommendations

1. Develop and improve UN policies, doctrine and training materials to incorporate appropriate monitoring technologies.

- SOPs and TOE
- Handbook on Multidimensional Peacekeeping
- seminars for military and civilian personnel (*MPAC, C-34*)
- technology options “menu document”

2. To gain experience, the UN should test, deploy and evaluate sensor suites on a trial and operational basis.

- select one or more regions in selected PKOs (e.g., video equipment, UGS, thermal cameras, UAVs)
- case studies (UNIFIL, UNFICYP, UNMIN)
  - *National and partner reports* (EUFOR)
- implement JAM recommendations for DRC, esp. aerial surveillance

3. Identify *TCCs* and contractors that are capable of providing monitoring equipment and expertise. It could invite them to

- specialists vs regular troops
- contingent capacities for larger-ticket items
- outsource vendor could be sought
- move from personal equipment to mission-operated monitoring systems
- share some of their technological expertise and experiences.

4. Revise and update the Contingent-Owned Equipment (COE) Manual so that the requirements are clearer, more detailed and more specific.

- Observation and Identification (recording) categories – vague, needs annex
- 2008 review of COE manual by the *COE Working Group*

5. Build on recent progress in developing Geographic Information Systems (GIS).

- GIS progress
- moving from paper maps to user-input GIS (layered, multi-agency)
- UNMO, field reports on centralized database (incl. imagery)
- intranet base

6. Include imagery in UN reports, both still and links to video, and primary source data access.

- digital imagery in the UNMO reports, Sitreps, links to GIS databases (field and hq) for clearer picture, video clips

- experts in image analysis should be deployed to the field (JOC and JMAC)

7. Increase the capacity of UN headquarters to select, stockpile and maintain technologies and apply innovative methods of technical monitoring.

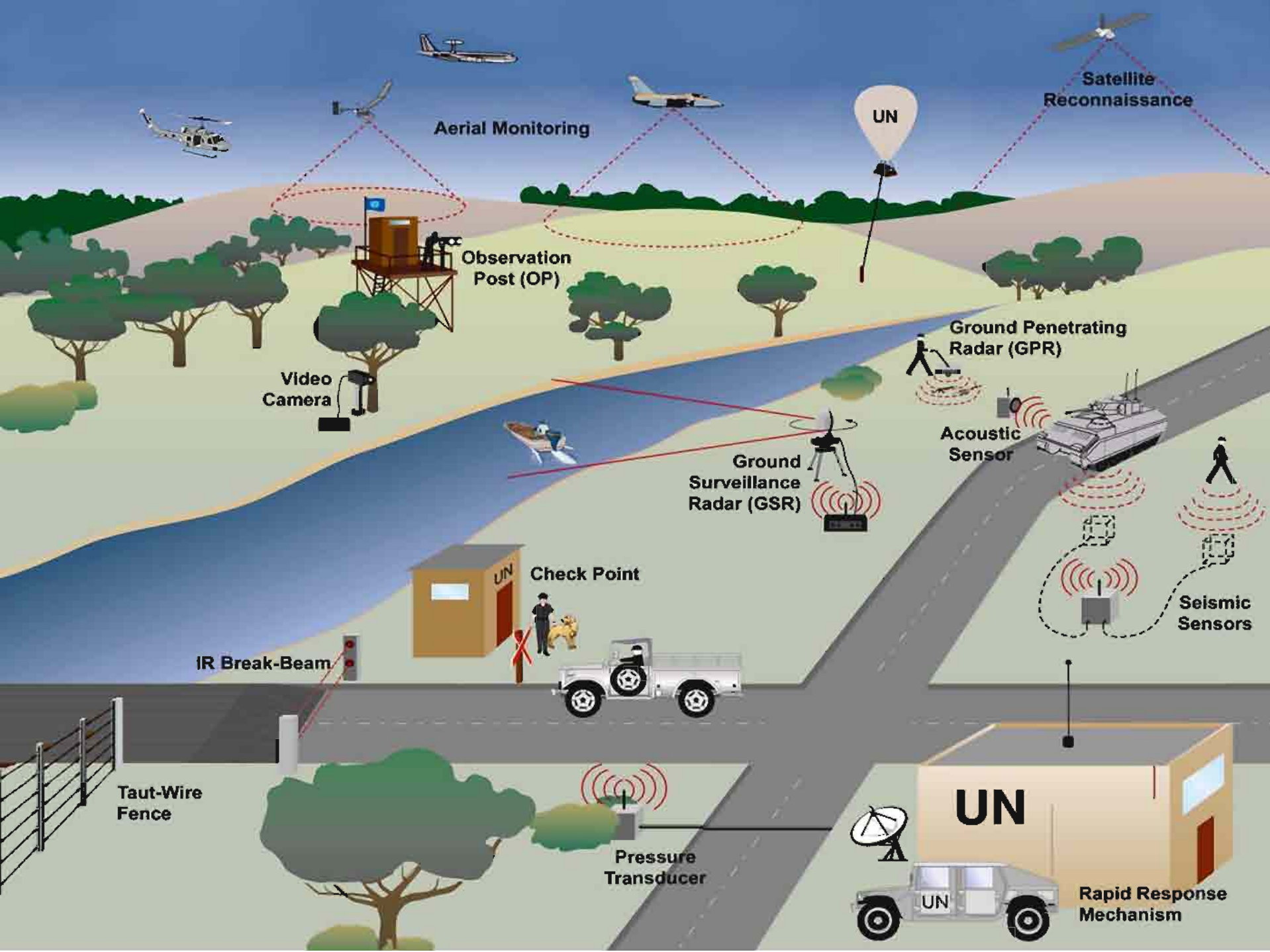
- basic stockpile
- *export licenses from leading manufacturing states*
- small headquarters team for familiarity with technologies
  - monitoring technology service or technology support office (like CITS)
  - institutional memory; conduct capability/equipment performance reviews
  - technical assessments during mission start-up
  - cooperative monitoring with information sharing with parties (e.g., webcam)

Concluding Concepts

- “information power”, situational awareness for safety and security
- move from a “culture of reaction” toward a “culture of prevention”
- concentration and rapid reaction

- situational awareness to improve safety, security and effectiveness

Monitoring technologies not yet “tools of the trade,” but they can and should be.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