Appendix 5

Summary of current and potential monitoring technologies in UN peacekeeping

Table A5.1 Summary of current and potential monitoring technologies in UN peacekeeping

Types	Current UN uses	Potential UN activities
Video • video cameras	• used only in an ad hoc fashion in some missions • personal equipment often employed • no systematic plans, policies or guidelines for use	• use in all missions for patrols and in observation posts • use in an unattended fashion • specialized cameras in aircraft • record peace agreement violations or human rights abuses • maintain database of important clips
• closed-circuit television (CCTV)	• used to protect UN premises • one case of "hotspot" monitoring: Green Line in Nicosia	• remote viewing of hotspots and potential flashpoints
Night vision • image intensifiers	• too few possessed, or deployed in insufficient numbers • inadequate COE standards	• facilitate night patrols and night operations
• thermal imaging	• not used, except in a few advanced aircraft	• night foot/vehicular patrols • border control • forward-looking infrared in aircraft
Motion detectors • intrusion alarms	• underexploited technology	• protect refugee/UN camps • coupled with automatic illuminators
Radars • aerial surveillance radar	• used only in UNIFIL	• track aircraft violating no-fly zones or sanctions or transporting illegal materials • synthetic aperture radar for imaging from satellite and/or aircraft
• artillery-locating radar	• used only in UNIFIL	• determine the source of artillery fire • remove UN personnel from fire

Technology	Use in peacekeeping	Purposes
ground-penetrating radar	not used	• discover underground weapons caches and mass graves • detect landmines and unexploded ordinance
ground surveillance radar	used only in UNIFIL	• detect trespassers along line of control or demilitarized zone • catch illegal smuggling or aggression
X-ray machines • Baggage and shipments	used in entrances to some buildings and UN-run airports	• examine cargo • detect human and or other forms of smuggling
Acoustic sensors • small arms fire location • movement of persons or vehicles	not used (except makeshift)	• identify source of rifle fire for early warning and response • detect weapons being removed from cantonment
Seismic sensors • geophones/ seismometers	not used	• detect persons or vehicles passing through a certain area
Chemical sensors • explosives detector	not used (except perhaps in Middle East PKOs)	• detect weapons and ammunition
Metal detectors • hand-held wand • mine detector	used to detect metal on persons entering some premises widely used for mine detection	• detect weapons and mines • improved sensors with better detection
Electronic monitors • signal-locating equipment • radio scanners / signal monitoring	not used not used systematically (except in Congo 1960–1964 and 2006–2007)	• for electronic countermeasures, e.g. detection of bugs in UN offices or of militia signals in jungles • for tactical operations, e.g. against hostage-takers

Table A5.1 (cont.)

Types	Current UN uses	Potential UN activities
Positioning and tracking systems • Global Positioning System (GPS) • Transponders and tags	• GPS used extensively; devices are individually owned, contingent owned and UN owned • Carlog used in most missions for UN vehicles	• real-time tracking of vehicles • radio-frequency identification used to track weapons and UN supplies
Information analysis • geographic information systems (GIS) • databases	• GIS capabilities increasing • used for mapping • Joint Operations Centre and Joint Mission Analysis Centre structures developing Standard Operating Procedures	• systems allowing user interaction and input for real-time picture