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## **IT Requirements for "Policekeeping"**

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Traditional peace support operations differ by degrees of consent, force and impartiality. Peacekeeping operations require the consent of the belligerent parties, the use of force only in self-defense and the maintenance of impartiality. Peace-enforcement missions do not require absolute consent; force can be used to compel or coerce, and impartiality is usually strained.

Today, peace support operations are caught between these two extremes. Peace support personnel deal more often with crowds than armies and with questions of ownership of houses and pigs rather than buffer zones. Missions are increasingly intrastate with a police mission overtone. These missions do not fall neatly into either the peacekeeping or peace-enforcement category but approach "police-keeping" performed by "policekeepers."<sup>1</sup>

Luckily for peace support personnel facing these new missions, there has been a rapid proliferation of information technology (IT). If properly understood, these new technologies can help policekeepers prevent or control conflict.

### **New Peacemaking/Peacekeeping Model**

On 7 September 2000, the United Nations (UN) Security Council voted unanimously to overhaul its peacekeeping operations. There was strong support in the council for a more professional, high-tech UN force that would work harder at conflict prevention. Former US Secretary of State Madeleine Albright agreed with this reassessment. She had stated earlier that "old models of peacekeeping don't always meet current challenges. Peace operations today often require skills that are neither strictly military nor strictly police but, rather, a combination of the two. The international community needs to identify and train units that are able to control crowds, deter

vigilante actions, prevent looting and disarm civilian agitators while, at the same time, winning the trust of the communities in which they are deployed."<sup>2</sup>

In the past, a peacekeeper's job was to deploy between two opposing militaries at their invitation to serve as a buffer between the forces, usually in interstate operations. Albright noted that today's mission is more intrastate, with more attention directed toward crowds, vigilantes and agitators than to separating traditional military forces. As a result, militaries are in direct contact for long periods of time with the people of a region; they are exposed to local nuances and traditions.



**Soldiers struggle to put a Bosnian protester outside of a gate at Eagle Base in Tuzla. Local farmers were upset at road construction across their land.**

IT, which was seldom available to peacekeepers before, is addressed in the Brahimi Report, which discusses the need for a new peacekeeping strategy and organization to support these efforts. It recommends that an executive information and strategic analysis secretariat (EISAS) be formed and composed of information system specialists, military analysts and criminal network experts. The last category reflects the UN's increased focus on police matters. Further, the report noted that the UN presently has no IT center responsible for user-level strategy and policy in peace support operations. The Brahimi Report also recommends developing a peace operations extranet with access to the EISAS and other databases.<sup>3</sup>

This resolution for change and new technology could not come at a better time. Although currently engaged in 14 peacekeeping operations worldwide that employ more than 37,000 troops, UN police-keepers have had numerous failures over the past few years.<sup>4</sup> Part of the reason is that peace support forces are underequipped for the changed nature of the mission since IT has traditionally gone to the warfighter. This emphasis needs adjustment.

The US Army appears to understand this dilemma and is developing US Army Field Manual (FM) 3-07, *Stability and Support Operations*, to address peace operations. The new FM is a compilation of FM 100-23, *Peace Operations*; FM 90-29, *Noncombatant Evacuation Order*; FM 100-19, *Domestic Support Operations*; and FM 100-20, *Military Operations in Low-Intensity*

*Conflict*.<sup>5</sup> It is still a year or so away from publication but shows the complexity of peace support operations today.

## Potential IT Military Uses

If Albright is correct in her analysis that a new peacekeeping model is required today, then IT is poised to play a significant role in developing the capabilities to assist that model. One of the facilities involved with accelerating the availability of tools and techniques to develop training applications for policekeepers is the Institute for Creative Technologies (ICT) located in Marina Del Ray, California. These efforts are the result of a \$44.5-million contract between the US Army and the University of Southern California that concluded in August 1999. The institute is charged with creating a system adaptable enough to provide the correct virtual environment for policekeepers such as the proper terrain, culture and situational context.<sup>6</sup> Policekeeping forces trained by facilities such as ICT learn how to resolve disputes on city streets or in crowded market squares before they become conflicts.

ICT's first product has met these expectations. The institute constructed an interactive simulation vignette that depicts a peacekeeping operation in Bosnia. It demonstrates how squad leaders and other noncommissioned officers can learn "through simulation to deal diplomatically with people from differing cultures, and without relying on firepower."<sup>7</sup> During a mission rehearsal exercise for a battalion preparing to deploy to a peacekeeping mission, a writer for the *Christian Science Monitor* observed: "A hostile crowd confronts the U.S. Army commander. His troops are supposed to be on a peacekeeping mission. Instead, they're now trying to rescue a local child who has been injured by a U.S. Humvee [high-mobility, multipurpose wheeled vehicle (HMMWV)]. Gunfire erupts over a hill. A helicopter circles deafeningly overhead. What should he do? Teams of soldiers run up and demand orders. He barks out commands. Units disperse in three directions about to carry out the operation when . . . someone turns on the lights. The soldier-though in fatigues-is standing in a small room surrounded by a 180-degree screen. This is no regular movie or video game. It's the Army's latest high-tech tool to train tomorrow's soldiers."<sup>8</sup>

The military can use IT to guide or force combatants and civilians of disputing nations away from conflict. IT can be used to distract, pacify, appease, intimidate, provoke, immobilize, wear out, confuse, weaken, suggest or mislead.<sup>9</sup> This is an important list of uses since many can help slow or prevent the use of force. An IT difficulty is producing software that can reflect cultural sensitivities and expectations. If software developers interact with academicians, religious and cultural leaders, and others with experience in regional sensitivities, then such computer developments stand a chance. Remember that IT cannot replace troops.

IT supports peace operations at both the operational and tactical levels. It can demonstrate simultaneity of effort. A simulation capability known as Spectrum simulates the actions of several interagency groups all working together in a peacekeeping environment. Policekeepers could develop a synchronization matrix to monitor this process and keep it under observation. It might demonstrate where help is needed, what combinations of agencies are most effective and so on.

IT can also demonstrate the vulnerabilities of those involved in the conflict. Bahktar Associates has reportedly developed radar that gathers intelligence on hidden or underground weapons facilities, enemy bunkers and other hard-to-find structures. Known as ground-penetrating radar (GPR), it can provide three-dimensional images up to 45.7 meters below the surface of land or sea. GPR's Doppler radar uses very little power, thus reducing its probability of detection. The system can also identify unexploded ordnance, find utility lines or mass graves and help map minefields.<sup>10</sup>

Another development is the Discover II satellite system. The House Appropriations Committee recently delayed accepting the satellite system but did not cancel it outright. Discover II offers warfighters and policekeepers affordable, continuous and contiguous battlefield coverage in all weather, day or night. Discover II detects camouflage, concealment, deception and movement by combining synthetic aperture radar, moving target indicators and digital terrain-elevation data. Designed for the theater commander, the entire system involves 20 satellites and could be in place by 2005 if approved.<sup>11</sup>

IT enables compelling compliance by simulating actions and consequences. The best example of compelling compliance through simulations remains using digital maps at the Dayton Peace Accords. As one participant noted, "Digitized map information (points, lines and areas in vector form), names data, elevation data, scanned map images and imagery could be pulled into the PowerScene terrain visualization systems and presented to negotiators as still screen shots, fly-through videos, or dynamic fly-throughs under joystick control. PowerScene also supported dynamic annotation and visual assists such as flooding, slope computations and intervisibility exploration. Any realignment of real or negotiated boundaries between the factions could be reflected in automated recompilations of areas and in adjustments of buffer zones."<sup>12</sup>

Digital mapping allows policekeepers to intimidate negotiators by showing detail, displaying the instantaneous ability to change the format from peacekeeping to war, providing absolute consistency and offering flexibility and responsiveness of support. The technology intimidated the negotiators by giving them a sense of loss of control and privacy since they had to work with computer operators who were not on their team.<sup>13</sup>

IT can assist policekeepers by monitoring and reviewing actions for participants and the international community. For example, unmanned aerial vehicles provide situational awareness and locate unauthorized equipment. Commercial imagery is now available to UN policekeepers and can revolutionize the way they do business. For example, the imaginative policekeeper can look for refugees, artillery positions or arms-control storage sites, or he can search for conventional terrain imagery. A US company called Orbimage offers 1-meter imagery applications for resource deployment, mission planning, targeting, battle damage assessment, intelligence gathering and trend analysis. While some of these do not apply to peacekeeping, it is important to know the capabilities available because potential combatants have the same access to this cost-effective combat multiplier. This capability offers continuous monitoring of any area for less than the cost of operating a reconnaissance aircraft.<sup>14</sup> Money and download capabilities are the only limitations.

For the policekeeper, the most important uses of imagery at the operational level are:

- Verifying claims by potential belligerents.
- Observing terrain that can be inspected by ground forces.
- Searching for refugees or mass graves.
- Building confidence and security measures between disputing parties.
- Destigmatizing intelligence use in UN peacekeeping operations.
- Providing hard evidence to confirm or deny claims made by disputants.<sup>15</sup>

## **IT Policekeeper Needs at the Tactical Level**

Discussions with policekeepers who have served in Bosnia, Kosovo, Haiti and Somalia reveal the need for other specific types of IT. A partial list includes:

**Electronic tagging.** One of the most difficult problems policekeepers face is tracking troublemakers. Tagging troublemakers or opposition leaders to follow their movements would significantly help peacekeeping forces; however, this may not be possible due to legal constraints. By tagging friendly troops, commanders could follow their subordinates' whereabouts in cities and in the countryside. If one were taken hostage, the commander would immediately know the hostage's location.

**Electronic informants.** Any type of device that could provide information to improve situational awareness would be of great assistance. This could include electronic monitoring devices, tape recorders, sensors or other such devices.

**Satellite monitoring.** On the sidelines at National Football League contests are satellite dishes designed to pick up sounds from the game. Similar systems could be invaluable for policekeepers trying to monitor crowds or troublemakers.

**Search and seizures.** Drug-detection, pulse or X-ray devices to help with searches for contraband would be invaluable.

**Language decoders.** Hand-held instantaneous language translators would relieve tension between policekeepers and soldiers where hand signals are sometimes the only communication. These devices are presently undergoing testing and will offer some relief from the conundrum of unintelligible languages.

**Flying transport discs.** It is difficult to cordon off an area or chase someone through a city, forest or countryside. A flying disc that could hover above the ground and move at speeds up to 15 miles per hour would be invaluable to policekeepers.

**Vector technology.** Cameras, the Remotely Monitored Battlefield Sensor System or other types of sensors, including global positioning systems (GPS) that get policekeepers to the proper place quickly and precisely.

**Intimidating technologies by culture.** Different cultures are coerced by different degrees of intimidation. In Haiti, a club was enough to get someone moving. However, in Somalia, it took

something much more intimidating-weapons. In Bosnia, a tracked recovery vehicle was often more intimidating than a tank.<sup>16</sup>

**Crowd control.** Various items such as rubber sting balls, foam grenades and foam batons can disperse a crowd without causing fatalities.<sup>17</sup>

**Observer support.** The plethora of readily available commercial observation equipment can provide observers more remote viewing, sensing and listening capabilities.

**Transparency.** Communication technologies are being touted as a confidence-building measure to demonstrate to all parties that everyone is adhering to agreements in a similar fashion.

**Separation zone.** Sensors and GPS can be used to locate or establish zones of separation and security. Linking this information with the peace process in real time is key to developing a mandate.<sup>18</sup>

IT also offers systems that create time and space to give other courses of action a chance. Using IT to manage time and space can help policekeepers when they handle potential conflicts. For example, if a crowd confronts a policekeeping force at a roadblock, soldiers must know how to manage the space between the checkpoint and the policekeepers' backup to ensure the backup has access to the checkpoint. The same scenario applies for VIP safety in a crowd. It can also depict how a policekeeper handles time and space before deployment. For example, time and space parameters are enhanced for the policekeeper who trains while en route to an area or in theater and immediately before a mission. This helps hastily assembled joint or multinational teams to reach a common understanding of a mission.

The University of Houston's Virtual Environment Research Laboratory, which is part of a joint venture with the National Aeronautical Space Administration's Johnson Space Center, is developing such technology for the US Army and Marines. They have developed software that creates virtual crowds and opposing forces for



**Disruptive Haitians are reined in by MPs after jumping a perimeter fence.**

policekeepers to confront. Perhaps most important, policekeepers can train on simulated rules of engagement before deploying. The software also demonstrates how to deal with other cultures and situations where verbal communications will not work. The idea "is to be able to provide crowd scenes, for example, that behave as crowds behave: that may run at the sound of gunfire, that may provide hiding places for opposing forces . . . we want to enable people who are planning a mission of this type to rapidly examine the alternatives. What if this happens? What if that happens? What would I do in this situation? Without having to go to the real environment,

which is often at times impossible, or do it basically as a mental exercise with the obvious limitations you would have without having a detailed copy of the environment to work with."<sup>19</sup>

Identifying those responsible for vigilante action, agitation and looting is a huge problem for policekeepers. In the Balkans this process also involves finding armed individuals. Early identification puts time and space between these people and the policekeepers. The military can use IT as a deterrent or confidence-building measure to contain or block the actions of vigilantes or crowds. As a deterrent, IT can pressure people or organizations, instill fear over consequences of potential actions, threaten to expose a leader's state secrets, demonstrate that a nation cannot pose a credible threat or expose troop deployments or other forms of military buildups. These activities can uncover blatant lies designed to manipulate public opinion.

The policekeeper, however, has always been the neglected soldier when it comes to new and exciting technology. It was assumed in the past that policekeepers could use IT developed for combat soldiers. That was and is true, especially for peace-enforcement missions, but the tables have turned somewhat-past peacekeeping models do not apply. Intrastate conflicts are now more common than interstate conflicts. Peacekeeping missions are now more oriented toward police actions and require new IT, as interviews with US policekeepers demonstrate. Today's policekeepers request language encoders, satellite dishes, electronic informants, crowd-control devices and drug-detection or X-ray technologies. The warfighter can use these technologies as well, especially in urban combat.

Many



**Illegal immigrants hidden within a shipment of bananas are discovered by a backscatter X-ray.**

technologies policekeepers want are still in the US Army's procurement system. Some potential opponents, if they have sufficient financial assets, can purchase commercial off-the-shelf high-technology products faster than the US military can procure them. The procurement cycle for equipment can thus put US forces at a disadvantage. Potential opponents might use these technologies to prejudice troop-contributing countries through media or situation manipulation.

Peace support personnel should benefit from IT more than they have in the past, especially if the UN expects them to confront IT-enhanced criminals and insurgents. IT can explain, pressure, instill fear, uncover manipulation, expose deployments or plans, threaten and demonstrate impotence. It can contain and recover, and offers certainty of punishment in an invisible, anonymous manner that ignores sovereignty. In addition, IT-enhanced policekeeping can deter conflict by:

- Coercing by demonstrating potential military power in benign form.
- Building confidence, mustering support, saving time, explaining visually complicated processes, offering to reach people or places directly with speed, providing accurate and timely information, eliminating mistrust and disinformation, and compelling compliance.
- Developing common values for the world community.
- Offering a virtual show of force and potential outcomes.
- Modeling information friction or those areas needing special attention.
- Signaling acceptable behavior.
- Offering a preemptive strategy.
- Capitalizing on the transparent world.
- Developing an information blockade or overloading to compel behavior.
- Integrating all assets such as law, people and technologies.
- Reverting to a react-act mode due to its speed.
- Offering precise information on a variety of issues for decisionmakers.
- Helping connect data perceptual systems.
- Enabling nations to manage or leverage the consequences of their actions.
- Allowing smaller nations to dominate larger ones.

These issues require intense doctrinal policy and legal review. IT can prevent conflict by manipulating, interrupting or interfering with information systems and infrastructures, areas where there are serious legal questions. IT needs to be regulated under such circumstances. IT remains a national issue. It is not a focal point for the UN, which remains inundated with more pressing issues. States must develop their own peace support IT within international guidelines. But, the issue is crucial. Without such support, peace operations may indeed lose their effectiveness and ability to keep the peace. Give IT-supported policekeepers, not criminals and insurgents, a chance to succeed.

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1. Author's term to describe the current situation. No such term actually exists in the peace support operations lexicon. It has been brought to the author's attention that Graham Day used this term in the past when he described another peace support operation.

2. Jason Sherman, "Middle March," *Armed Forces Journal International*, August 2000, 8.

3. See [http://www.un.org/peace/reports/peace\\_operations/](http://www.un.org/peace/reports/peace_operations/), the Brahimi Report.

4. "U.N. Council Votes to Improve Forces," *The Kansas City Star*, 8 September 2000, A9.

5. US Army Field Manual (FM) 100-23, *Peace Operations* (Washington, DC: US Government Printing Office [GPO], 30 December 1994); FM 90-29, *Noncombatant Evacuation Order* (Washington, DC: GPO, 17 October 1994); FM 100-19, *Domestic Support Operations* (Washington, DC: GPO, 1 July 1993); FM 100-20, *Military Operations in Low-Intensity Conflict* (Washington, DC: GPO, 5 December 1990).



6. Jim Starling, "Soldiers Help Create Cultural Training Vignette," *Defense News*, 4 September 2000, 14.
7. Ibid.
8. Gloria Goodale, "Army Enlists Hollywood to Help Harden Its Soldiers," *The Christian Science Monitor*, 2 October 2000.
9. S.A. Komov, "On the Methods and Forms of Conducting Information War," *Military Thought*, July-August 1997.
10. Bryan Bender, "Radar Breakthrough Could Help DOD See Underground," *Jane's Defense Weekly*, 22 December 1999.
11. Kenneth Israel, "Space-Based Radar Essential in Future Conflicts," *Aviation Week and Space Technology*, 25 September 2000, 98.
12. Richard G. Johnson, "Negotiating the Dayton Peace Accords Through Digital Maps," United States Institute of Peace, 25 February 1999.
13. Ibid.
14. Mark Stout and Thomas Quiggin, "Exploiting the New High Resolution Satellite Imagery: Darwinian Imperatives?" Commentary No. 75, Canadian Security Intelligence Service, Summer 1998.
15. Ibid.
16. Based on talks with US Army officers Lieutenant Colonel Mike Chura, Major Rick Nussio, Major John DeJarnette and Captain Clay Mountcastle. The author would like to thank these officers for their policekeeping and IT ideas.
17. Jon R. Anderson, "Nonlethal Weapons Pack Powerful Punch," *European Stars and Stripes*, 9 April 2000, 3.
18. Author's discussion with retired Colonel William Flavin, US Army Peacekeeping Institute, 10 October 2000.
19. Peter La Franchi, "Going Virtual to Get the Rules Right," *Simulation and Training Technology*, October 1999, 7 and 10.

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Photos:  
US Army  
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