nations. The over-reliance of UNSCOM on American and other Western experts had been dealt with, removing at least one excuse for future Iraqi non-cooperation.

UNMOVIC also had better technological capabilities than UNSCOM. Surveys and the inspections were greatly assisted by significant improvements in technology after 1998. Detection devices were smaller, lighter, faster and more accurate. They included miniature radiation sensors, portable CBW detectors and ground-penetrating radar.[52] The IAEA used environmental sampling techniques developed for improved nuclear safeguards to monitor water, air and vegetation.[53] Information technology developments also helped UNMOVIC. The IAEA and UNMOVIC databases were connected and cross-disciplinary analysis not previously available was used to look for patterns and linkages.

UNMOVIC's capabilities were also to be enhanced by the establishment of two regional offices, the freedom to fly into Baghdad rather than an airport several hours' drive away, a fleet of British, Canadian and Russian helicopters, access to colour satellite images, including from commercial providers, and the use of Mirage and U-2 aircraft for reconnaissance (although the latter took some time to arrange). It was also planned to obtain data from unmanned aerial vehicles (UAVs), but these could not be deployed before UNMOVIC's premature withdrawal from Iraq.

Strategic lessons

The first strategic lesson to be drawn from the cases of UNSCOM and UNMOVIC, and the experiences of their partner in the nuclear field, the IAEA, is that international verification can work effectively even under the most disadvantageous of conditions. Despite Iraq's non-cooperation and deliberate attempts at sabotage all three bodies broadly succeeded in their verification mission. All demonstrated that international inspection regimes are able to prepare themselves well, deploy quickly, use technology skilfully, organize efficiently, maintain their impartiality and produce sober, balanced reports of a high technical standard. They were also able to follow intelligence leads successfully and reach quick and decisive, albeit suitably caveated, conclusions.

The findings of UNSCOM, the IAEA and UNMOVIC respectively have subsequently been found to be true for the most part. Iraq did destroy the bulk of its WMD assets, either unilaterally before inspections commenced or under international supervision. The IAEA's conclusion that Iraq no longer possessed significant nuclear capabilities and could not rejuvenate them swiftly has proved to be correct. Similarly UNMOVIC determined that Iraq's CW programme had, with a few innocuous exceptions, largely been eradicated. In the BW area, while substantive questions remained after UNSCOM's withdrawal, some of which even now have not been satisfactorily explained, the more outlandish claims made by US intelligence, such as the existence of mobile BW laboratories and pilotless drones for BW dissemination, were credibly rebuffed by UN inspections. In the missile realm, where question marks remained after UNSCOM's departure, UNMOVIC did detect violations and was in the process of removing them when it was extricated.

---

[52] Multi-channel analysers (MCAs) were used to detect and assess gamma radiation from radioisotopes and neutron radiation from plutonium, while a gamma spectrometer was utilized to identify high-enriched uranium. Importantly, as nuclear activities often require exotic metals, X-ray fluorescence spectrometers were employed to distinguish between various metal alloys.

[53] The equipment employed to survey Iraq's watercourses was so sensitive that it could detect the permitted use by Iraq of radioisotopes for medical applications.