IAEA

Ongoing Monitoring and Verification In Iraq

February 1996

Purpose

Resolution 687 establishes the purpose

•••to assure that Iraq complies with its obligations "not [to] acquire or develop nuclear weapons or nuclear-weapons-usable material or any subsystems or components or any research, development, support of manufacturing facilities related to the above".

Objectives

On-going monitoring and verification should

- "... be credible, comprehensive, and sustainable." (Ambassador Albright)
- Detect a program for the acquisition of nuclear materials and other essential components before weapons can be developed
- Deter Iraq, through risk of detection, from undertaking a weapon development program

It is unrealistic to expect detection of small-scale activities: theoretical studies, laboratory research, development of proto-type machines.

The Plan

The OMV plan provides the IAEA with extensive rights

- Inspection anywhere, anytime
- Unrestricted freedom of movement, including use of its own aircraft
- No-notice inspections
- Advance notice by Iraq of planned nuclear facilities, and of imports and exports
- Inspection by the IAEA of imports, exports, and transportation vehicles
- Continuous monitoring: inspector presence, surveillance equipment, seals
- Uncensored radio, satellite, and other forms of communication

Monitoring

There are two inter-related components to monitoring

- Monitoring declarations
- Detecting and investigating suspected covert activities

Declarations

Declarations serve several important purposes

- Remove valuable resources from use for a nuclear program
- Permit the search for covert activities to focus elsewhere
- Prevent Iraq from conducting any weapon development activities without violating resolution 687

Techniques

- Interviews with Iraqi personnel
- Inspection
- Materials and equipment accounting
- Sampling
- Continuous, unattended monitoring: tags, seals, MIVS cameras

Applications: Inventories of nuclear material, facilities (including those supplied by more than 10 MW), equipment, isotopes

Covert

We have been using a number of techniques in the search for covert activities

- Olive Branch and other aerial surveys
- Intelligence from Member States
- No-notice inspections
- Environmental monitoring

Analysis Center

An integrated set of databases provides for the management and analysis of data

- Seized documents (We broke the code)
- Inspection reports: text and imagery
- Materials and equipment
- Iraqi personnel
- Tags and seals
- Declarations
- Open sources
- Olive Branch and helicopter-based imagery are handled manually
- HUMINT and other classified information is handled manually

The analysis and assessment process combines inputs from Member States, UNSCOM, and the IAEA

Cooperation

OMV is implemented with the assistance of, and in full cooperation with, the UN Special Commission (UNSCOM)

- Logistics (Offices in Bahrain and Baghdad)
- Technical/administrative services (medics, vehicles, interpreters, photographers, communicators)
- High (Olive Branch) and low (heli) altitude imagery
- Designation of new sites
- Sharing of intelligence information
- Sharing of inspection-derived information and of data bases
- Avoidance of duplication in overlapping activities
- Export/import monitoring

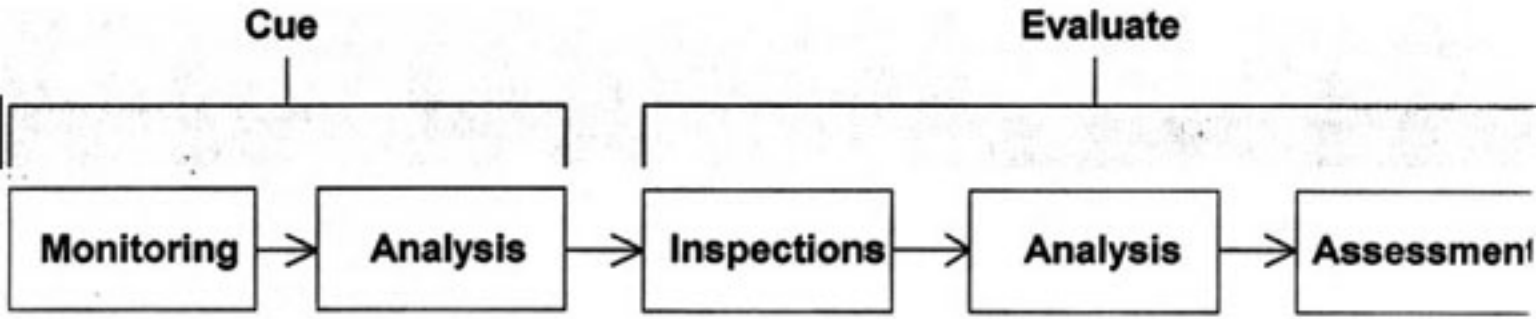
Assistance

Member State assistance is essential to the success of OMV

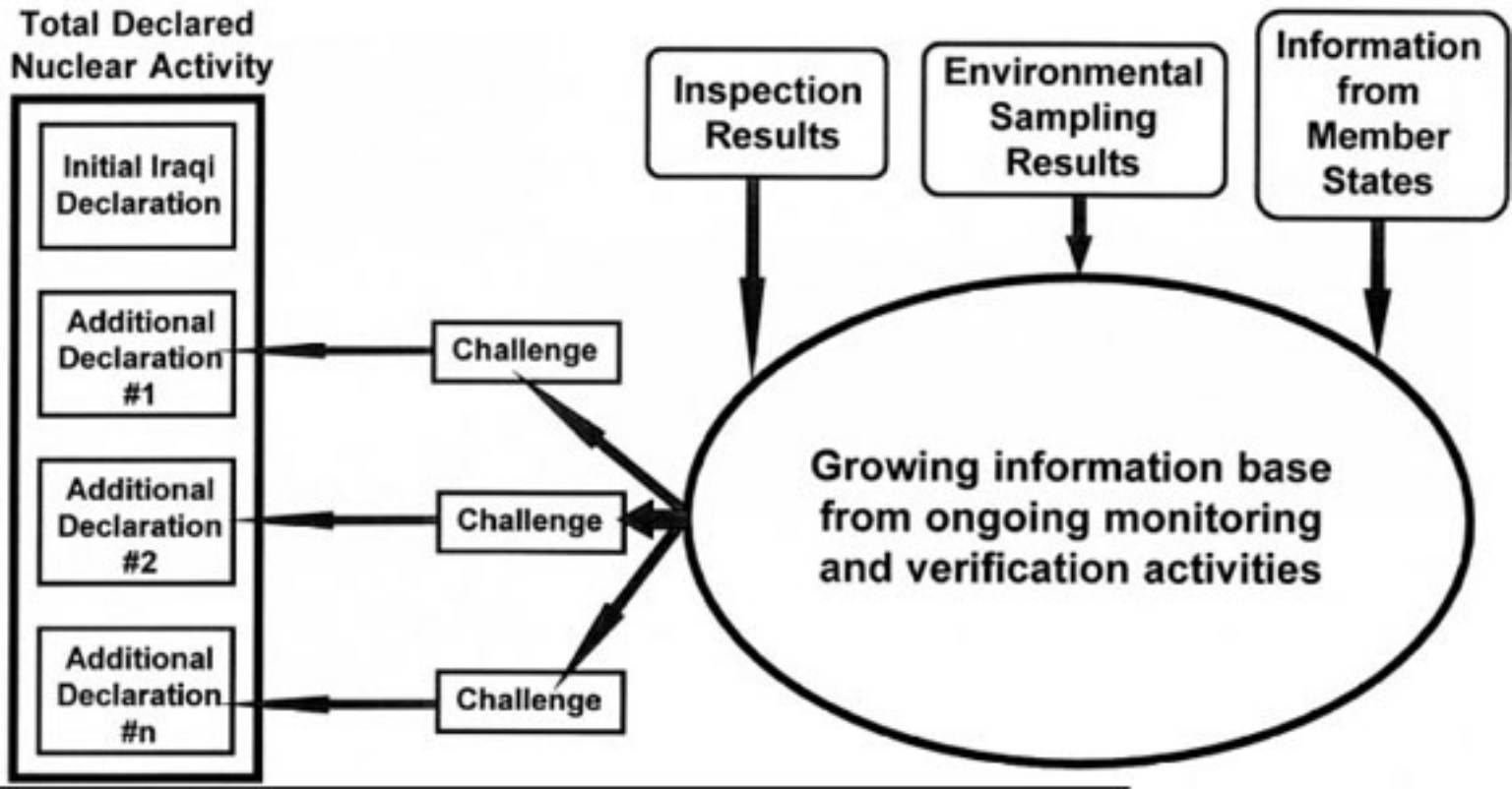
- The essence of identifying covert activities is cuing from all sources
- Member States will continue to be the principal source of cuing information
- We must depend on the initiative of Member States. We cannot ask about that which we do not know.

The OMV system

On-going monitoring and verification is comprised of the following functions

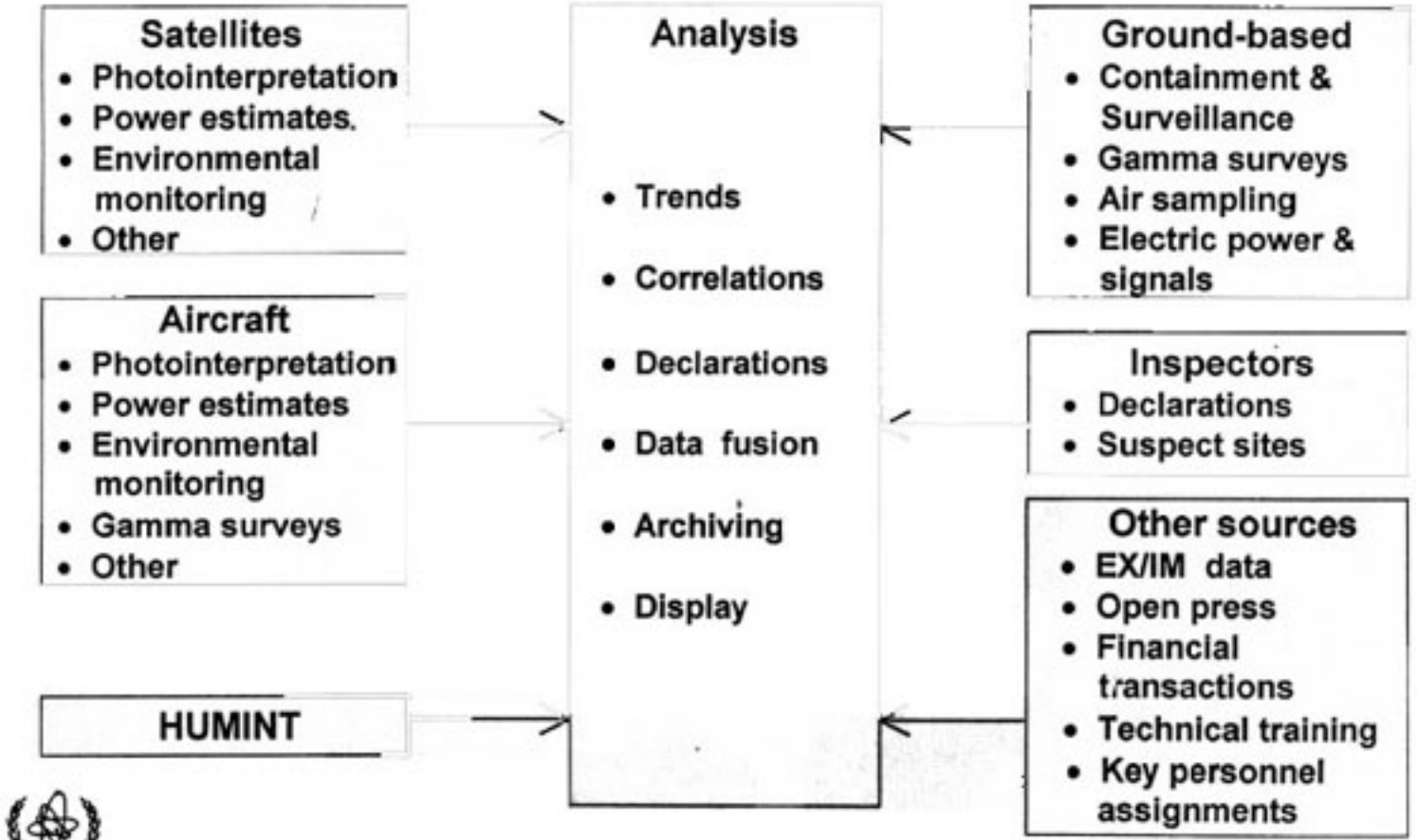


Information Gathering Cycle in the Ongoing Monitoring and Verification System



Prototypical system

The monitoring system will be an integration of IAEA, UNSC and Member States resources



List of monitoring techniques

- Member State intelligence
  - Overhead imagery
  - HUMINT, defectors, etc.
  - Miscellaneous
- UNSCOM imagery resources
  - Olive Branch
  - AIT
- Mobile air sampling network
  - Ground vehicles
  - Helicopters
- Vegetation sampling
- Smear samples
- Soil deposition samples
- Airborne gamma survey equipment

Surface vehicle gamma survey equipment

Hand-carried gamma survey equipment

Manually-operated ground-penetrating radar

Uranium soil deposition detector

Surveillance cameras

Tags and seals

EX/IM monitoring mechanism

Other data integrated in our computer database
- EX/IM data
- Open sources
- Key personnel interviews

Inspectors

- Continuous presence
- Experienced personnel
- Experts for special circumstances

Fixed site air samplers