

# *atenea*

IRM&CM TOOL



## **atenea**

**atenea** (IRM&CM) supports collection managers in the planning of intelligence, collection and exploitation. **atenea** supports ISR managers in the execution of the collection/execution tasks for all conduction levels in operations, in distributed and collaborative environments according to the principles defined by the multinational program MAJIC (ISR interoperability coalition).

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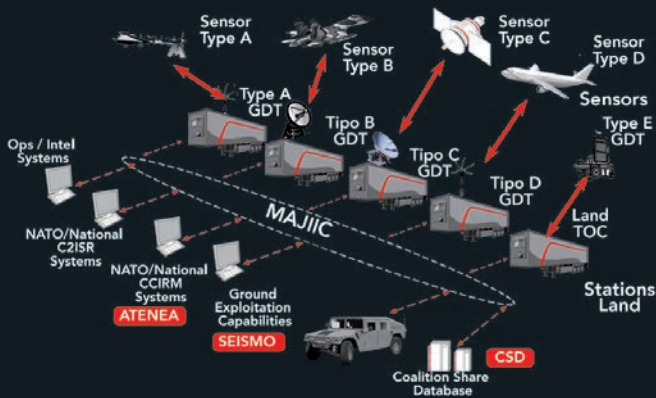
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INNOVATING SOLUTIONS

## JISR

Joint Intelligence, Surveillance and Reconnaissance (JISR) is an activity that synchronizes and integrates the planning and operation of all collection capabilities with exploitation and processing and the dissemination of the resulting information to the right person, at the right time, in the right format, in direct support of current and future operations. JISR encourages the dynamic, agile and coordinated use of platforms, sensors and systems to support a wide range of staff functions.

## MAJIIC

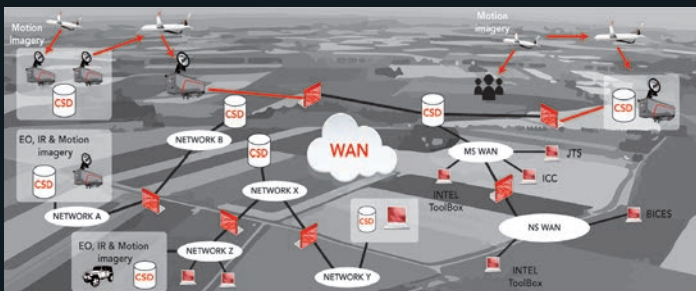
MAJIIC stands for Multi-Intelligence All-Source Joint Intelligence Surveillance and Reconnaissance Interoperability Coalition. The MAJIIC program is a multination program, formed by 9 NATO nations aiming to maximize the military use of Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) resources. For that purpose, the MAJIIC program develops the tactics, techniques and procedures (TTPs) and the architecture and technical common data format to achieve that aim.



## GMV IN MAJIIC

Within the MAJIIC framework, GMV has developed the following products interoperable with any other subsystems develop under this program:

- **seismo** – Exploitation application and scenario simulator.
- **csd** – Coalition shared database.
- **atenea** – Intelligence Requirements Management & Collection Management (IRM&CM).



## atenea IRM&CM TOOL

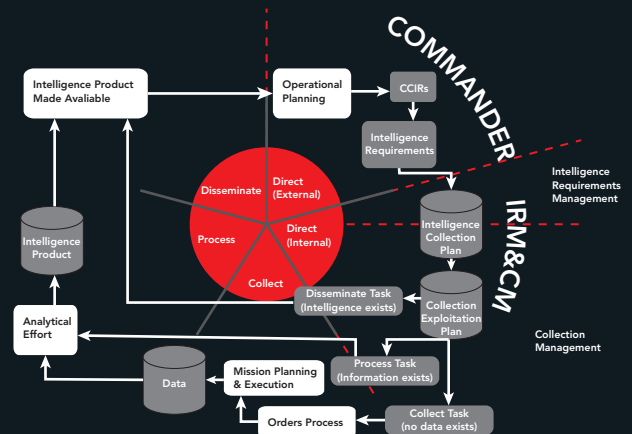
The IRM&CM (Intelligence Requirements Management & Collection Management) **atenea** is the system in charge of performing the "Direction" and "Tasking" capabilities of the intelligence cycle. It has been developed in the context of the MAJIIC program to guarantee the interoperability ISR with other means of the coalition.

**atenea** provides support to the planning and execution of the activities of ISR collection and surveillance. This includes the capability to create, store and disseminate Collection and Exploitation Plans, the capability to report and present the status of each ISTAR system, the capability to detect changes in the system status and of adjusting the collection and exploitation plans adequately, and finally, the capability of monitoring the collection, exploitation and reporting and, consequently, the update of the planned tasks.

Within an intelligence environment multiple **atenea** systems can coexist distributed in different levels of command, and even within the same level of command.

The **atenea** system has the capability of acting as client of the ISR Coalition Shared Database repository (CSD) and of displaying the information on a Geographic Information System (GIS).

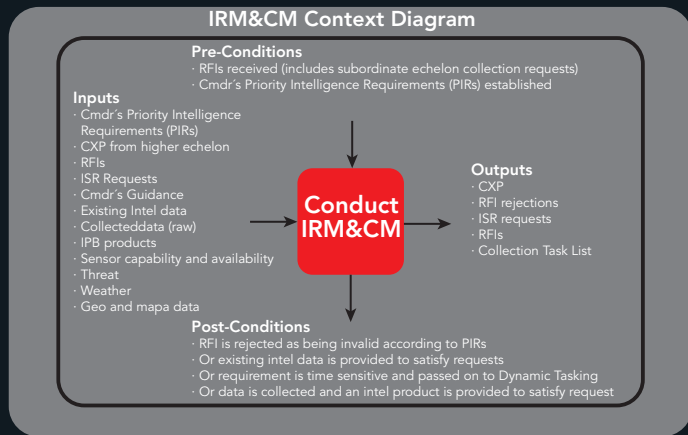
**atenea** system knows which sensor and exploitation systems are involved in an exercise or operation based on the MAJIIC organization documents, in which it is represented the hierarchical structure and assignments (ORBAT), and the capabilities of every system.



The CXP (Collection Exploitation Plan) is the output of the planning activity, in which the tasks assigned to each available resource is contemplated, however, planning is modified along the operation execution to reflect the dynamic assignment of tasks (DIRs). For this reason, the **atenea** system can work with different versions of CXP to reflect the existing alternative strategies. The Collection Task List (CTL) is used to assign information requirements, such as the Essential Elements of Information (EEIs) to subordinate units, once the coordination process with the ICPs has ended.

**atenea** system enable the creation, sending, reception, display and processing of the intelligence messages INTSUM, INTREP, INTREQ and Requests for Information (RFI) in order to include the information there contained in the CXP system.

The system can access to the Exploitation Reports (ISRSPOTREPs, RECCEXREPs, MIEXREPs, MTIEXREPs, WLEXREPs) and analyse if they satisfy the Information Requirements.



## RECONNAISSANCE AND DAMAGE ASSESSMENT REPORTS

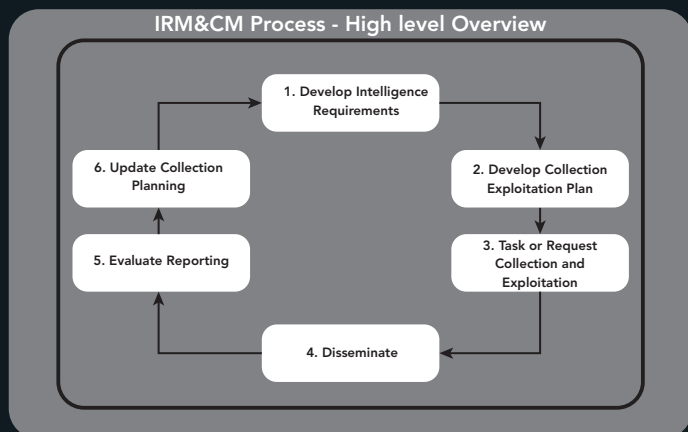
The **atenea** system is also able to handle other types of Reconnaissance reports (ALZREP, BRIDGEREP, DELTREP, DZREP, HELLSREP, ROUTEREP and SPOTREP) and Battle Damage Assessment (BDA), allowing to handle the reconnaissance and damage assessment messages by the display of its content and graphic representation.

## SYSTEM DEPLOYMENT STATUS MANAGEMENT

The System Deployment Status (SDS) report is employed to share the status and localization information of the different systems participating in the exercise or operation.

The system status update (SSU) reports are used for real time sharing of system status information. The SSU reports are periodically distributed by each system through a publication/notification service.

These status reports are used by **atenea** to monitor the capability of the existing systems to perform the collection and exploitation tasks.



## DYNAMIC INFORMATION REQUESTS MANAGEMENT

The Dynamic Information Requests (DIRs) are sent from the exploitation systems or sensors to **atenea** to request the collection of information by some no organic sensor, or to request support from other exploitation system.

**atenea** can also act as representative of a requestor of DIR of a non MAJIC system that cannot create its own DIR.

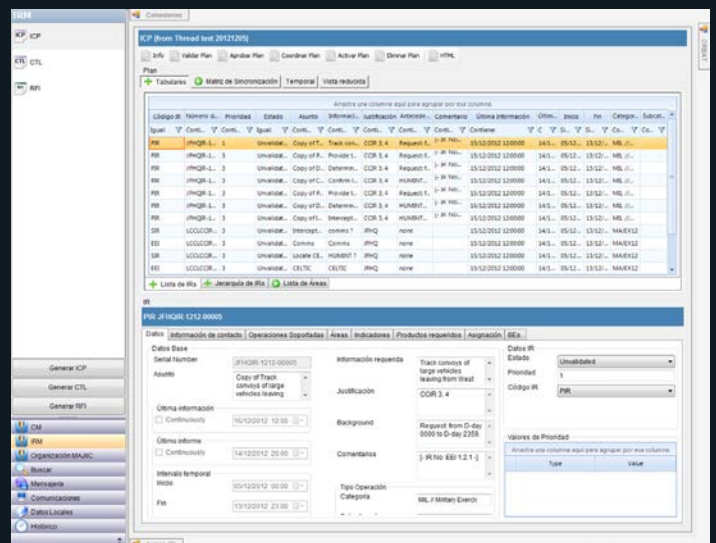
The system, when a DIR is received, can either resend it to other IRM&CM system to request its support or resend it directly to the sensor systems and to the exploitation systems that can respond to the request.

## TACTICAL INFORMATION MANAGEMENT

The Link16 messages are used to communicate the location and status of the ground, maritime or air assets. Each system provides its own position by mean of the PPLI (Precise Participant Location and Identification) messages. **atenea** sends this type of messages and receives and displays the PPLI information from other systems. **atenea** can use this information to monitor the status of the organic and non-organic assets.

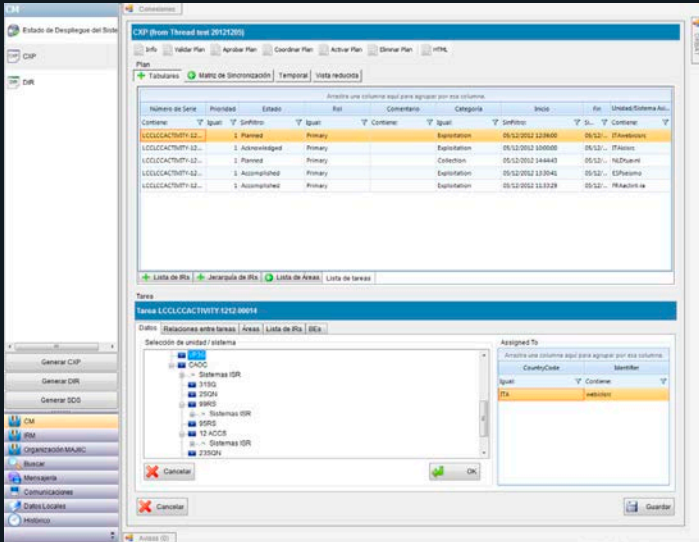
The system has the capability of accessing to the position information and own forces state through the communication protocols NFFI (NATO Friendly Force Information), which will enable the system to exchange the position of own and friendly forces and disseminate own forces position to other systems through the mentioned protocol.

**atenea** can receive and process information from the ADatP-3 ACO and ATO messages to synchronize with the Collection and Exploitation plans, as well as to show tactical information classified in different layers to help the operator during the collection and exploitation plans management phase.



## atenea FUNCTIONALITIES

**atenea** provides support to plan the Intelligence and Collection Plan (ICP) to create the collection and exploitation tasks to response the Information Requirements identified by the Commander.



GMV's desktop **atenea** provides the following functionalities:

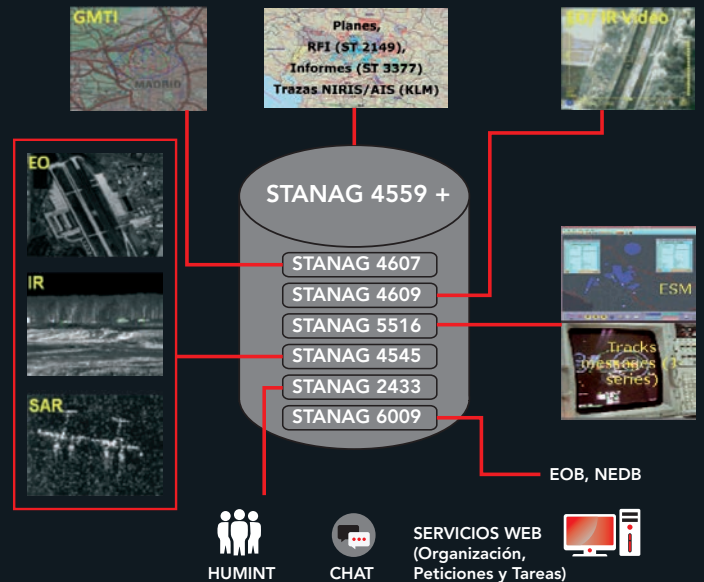
- Information Requirement Management (IRM):
  - Management of the Intelligence Collection Plan (ICP).
  - Management of PIRs, SIRs, EEIs.
  - Management of Geographical Areas of Interest (GAOIs).
  - Generation, Dissemination and Coordination of the ICP.
  - Multiple ICP editable views (tabular, chronological, geographical, summarized).
- Requests For Information Management (RFIs):
  - Management of incoming/outgoing RFIs.
  - Management of RFIs workflow.
  - Management of association of Intel/ISR products in response of RFIs.
- Collection Requirements Management (CRM):
  - Management of Collection Requirements (CRs).
  - Management of ISR Requests (incoming, outgoing).
  - Management of ISR Requests workflow.
  - Management of association of Intel/ISR products in response of ISR Requests.
  - Management of ISR Plans:
    - Management of Collection Requirement List (CRL).
    - Management and Coordination of the Collection Task List (CTL).
    - Management of Collection and Exploitation Plans (CXP).
  - Management of multiple ISR Plans at the same time (D+1, D+2, D+3, etc.).
- Collection Operations Management (COM):
  - Monitoring of the on-going execution of the CXP (D+0).
  - Management of Dynamic ISR Requests and Tasks.
  - Management of Tasking workflow.

- Management of association of Intel/ISR products in response of Tasks.
- Monitoring of current status and location of ISR assets.
- Enables access to ISR products responding to ISR Tasks or ISR Requests.

- Organization Management:
  - Enables access to the ORBAT and Deployed Systems Specifications and Capabilities.
  - Systems Deployment Status (SDS) Management.
  - Management of the own status (Link16 PPLI, SDS).
  - Enables different filters criteria to the Units and Systems.
  - Visualization of the Organization information and status over the GIS and MMI.
- Processing of Tactical Information (Link16, NFFI).
- Processing of Tactical Information (KML) through NIRIS.
- Generation of statistics (RFIs, ISRRs, Tasks).
- Integrated Collaborative tools (Instant messaging (XMPP – Jchat++)).
- Integrated CSD client (Access to the CSD repository and services).
- Integrated Geographical Information System (GIS) (ESRI).
- Application adaptable to user role profiles.
- Database based on MS SQL Server.
- Ready to manage information up to NATO Secret level.
- MMI in multiple languages (English, Spanish).

## INTEROPERABILITY

**atenea** has been developed in accordance with the mandatory standards in the MAJIIC program being interoperable with any other ISR tool developed under the same standards.



## CLIENT REFERENCES

- Spanish Ministry of Defense
- DGAM.
- EMACON.
- Ejército de Tierra.
- Armada.
- Ejército del Aire.
- INTA.