Joint Intelligence, Surveillance & Reconnaissance (JISR) in NATO

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Objective:

Provide a broad high-level overview of NATO’s key JISR activities.
The synchronisation and integration of Operations and Intelligence capabilities and activities, geared to provide timely information to support decision effects.

JISR is a combined Intelligence / Operations function requiring extensive cross-Community of Interest (COI) coordination and interoperability at many levels.

JISR integrates NATO and Nation's ISR capabilities, policies, procedures and systems to provide information support to leaders, commanders and decision makers - strategic to the tactical level.

Functional JISR structures built on the DOTMLPFI framework

Doctrine, Organisation, Training, Materiel, Leadership, Personnel, Facilities & Interoperability
The Key Message: “JISR as NATO’s Operational Glue”

From the experts report:

- “Understand JISR as NATO’s operational glue..”
- “JISR capabilities provide operational sinew…a high priority for future investment”
- “Allies should invest smartly in the latest JISR systems, capabilities and standards”

Confirmed through Operational Lessons

- Balkans, Iraq, ISAF, OUP, Ukraine,…
  “….integrated and coherent JISR remains fundamental to ensure mission success,….”
“...Information and Intelligence are to the twenty-first century what fire and manoeuvre were to the twentieth....”

ADM James Stavridis – former SACEUR
“As one of its most critical capability needs, NATO seeks an enduring JISR capability which will permit the coordinated collection, processing, dissemination and sharing within NATO of ISR material gathered by the AGS, NATO’s Airborne Early Warning and Control (NAEW&C), as well as many extant and emerging national ISR assets”.

“Such a capability will be based on the JISR initiative to address identified shortfalls in information sharing capabilities and qualified JISR personnel”.

“It will also aim to re-use dividends realized through the MAJIIIC programme”
JISR Initiative for 2016 (IOC)

- ‘Team of Teams’
  - Joint ISR Initial Operational Capability
• The JISR Project Group endorsed the JISR Capability Development Strategy (CDS) under silence procedure in December 2015.
• The CNAD and MC have also now endorsed the JISR CDS (Apr 2016)
• Project Implementation Plan (PiP) under development. (CP anticipated)
JISR Capability Development Strategy

The Process

- Continuing evolution of capabilities allowing more rapid incorporation of new ideas, capabilities, and processes
....So what does all that actually mean,...?
JISR capabilities support Ops and INTEL Commander’s objectives and requirements
JISR Services in Support of Operations

Multi-national, multi-service, multi-echelon processes
Example Operations Supported by JISR

- Joint Intelligence Preparation of the Environment (JIPOE)
- Indications and Warning (I&W)
- Situation Awareness (SA)
- Support to Targeting
- Suppression of Enemy Air Defence (SEAD)
- Force Protection / Base Defence
- Personnel Recovery
- TMD Conventional Counter Force
- Counter Terrorism
  - C-IED Defeat the Network
  - Counter Piracy
Example JISR Capabilities Impacting Operations

- Core Geographic Information Service (Core GIS)
- NATO Airborne Early Warning & Control (NAEW&C) Force
- NATO Alliance Ground Surveillance (AGS) Force
- Intelligence (INTEL) Functional Services (FS)
- ISR Collection Management Tool (ICMT)
THE ‘MAJIIC’ PROJECT
What was MAJIIC?

**MAJIIC**

*Multi-intelligence*
*All-source*
*Joint*
*Intelligence Surveillance And Reconnaissance (ISR)*
*Interoperability*
*Coalition*

A Multinational R&D project to investigate and provide ways and means to allow Coalition ISR interoperability

- 9 Nations + NCI Agency (Technical Management and Support)
- Active (national) industry and research communities involvement
- Liaisons from NATO organisations (ACO, ACT, BGX, JCGISR, NAEW&C, NAGSMA)
What was MAJIIIC?

This all started with two questions....
- How can I best use my ISR information collection assets in Operations?
- How can I exchange Intelligence with Allies in Operations?

This resulted in the successful journey that...
- built technology based on standards and to test implementations
- developed processes & procedures to support Operational needs
JISR Adaptation

Improving Staff (ACO + NFS) IRM&CM capabilities

Implementing AGS Capabilities

Ensuring the right number and Types of ISR capabilities (forces + assets)

Improving ISR Operations capabilities (including Federated PED)

Improving ISR Support to Operations capabilities (direct support, combat cloud)

Improve dynamic capabilities (cross cue and dynamic re-task)

Optimising NAEW&C contribution to Joint ISR

NATO Joint ISR

the ‘what’
The Future NATO Joint ISR Enterprise

Making the best use of available capabilities to enhance NATO's strategic anticipation

NATO UNCLASSIFIED
Strategic Challenges and the Way Forward

‘Maximizing ISR through Enterprise Integration’

Strategic Challenges:

- Increasing number of ISR data sources
- Skyrocketing requirements
- “Drowning in data, starved of information”
- Operating in a C5ISR environment (the extra “C” is for Coalition)

Way Forward:

- Prioritize, prioritize, prioritize….!
- Deepen trust within coalitions
- Expand Intel-sharing agreements
- Leverage the ISR capabilities each partner brings
- Optimise swift integration of emergent technologies
JISR in NATO: ‘Take Aways’

- **JISR is NATO’s operational ‘glue’**
- **JISR Supports Full Spectrum operations**
  - Air, Land, Maritime, SoF, Space Collectors
  - Associated tasking, planning, exploitation and dissemination
  - Provides access to information, reports and near-real-time access to sensor feeds

- **NATO & National JISR capabilities will be better integrated and more interoperable**
  - National capabilities complement NATO ISR systems (*JISR CDS & CIP provide the future framework*)
  - Open architectures and modular design support JISR ‘plug-and-play’ integration
  - Aiming for quicker adoption of new capabilities
  - Formalizing JISR doctrine, SOPs and training
  - CIS challenges posed by JISR are recognised:
    - *Volume, complexity, capacity, security, storage, cross-domain,…*
NATO’s JISR Environment

NCIA Support:
- Governance
- Technical Knowledge
- Operational Knowledge
- Systems
- Capabilities
- Integration
- Interoperability
- Coherence
- IV&V
- O&M
- CD&E

+ National JISR Systems
+ CIS Architectures
+ Core GIS
What are JISR Collectors?
JISR Services – Future Focus Areas
New Opportunities & Challenges

• **Asymmetric & Hybrid Warfare the ‘new normal’**
  – C-IED efforts remain critical
  – Need to stop IEDs earlier in process
  – HUMINT, OSINT, Biometric policy challenges

• **National-NATO ISR Interoperability**
  – Commonly agreed standards (STANAGS), protocols and processes - National systems
  – ISR information exchange and sharing policies

• **Volume & Complexity of Intel Data**
  – Network & storage/archival challenges
  – Compress analysis through automated decision support, cognitive & AI technologies
  – Cross-domain & robust Cyber solutions needed

• **Multinational Cooperation & Partnering**
  – Subsets of NATO Nations & Non-NATO Nations
  – Industry partnerships & cooperation
  – Cooperatively developed systems, processes and plug and play architectures
  – CIV-MIL Challenges