Observations on the Tasking and Allocation of ISR Systems in a Coalition Environment

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Overview

- ISR

- ISR Interoperability

- ISR Management

- ISR Tasking

- Transition

- Conclusion

ISR DEFINED

Intelligence, surveillance, and reconnaissance (ISR) are integrated capabilities to collect, process, exploit, and disseminate accurate and timely information that provides the battlespace awareness necessary to successfully plan and conduct operations.

AFDD 2-5.2 Joint ISR operations

ISR GOAL

To provide precise, timely intelligence to the warfighters (commanders).

AFDD 2-5.2 Joint ISR operations

ISR Interoperability

Coalition Aerial Surveillance and Reconnaissance (CAESAR)

Multi-sensor Aerospace Joint ISR Interoperability Coalition (MAJIIC)

Coalition Aerial Surveillance And Reconnaissance

Multi-Sensor Aerospace-Ground Joint Interoperable ISR Coalition

"What enables the wise sovereign and the good general to strike and conquer, and achieve things beyond the reach of ordinary men, is foreknowledge."

Sun Tzu
The Art of War

ISR Planning

System Classes

- **Aerospace Ground Surveillance and Reconnaissance (AGS&R)**
  - **Ground Radar Surveillance and Imagery (GMTI and SAR)**
  - **Electro-Optical/Infrared (EO/IR)**
- **Signals Intelligence (SIGINT)**
  - **Electronic Intelligence (ELINT)**
  - **Electronic Support Measures (ESM)**

System Capabilities and Limitations

- **JSTARS vs. HORIZON**
- **Nimrod R1 vs. E-3A**

System Requirements

- **Security**
- **Airspace**
- **Fuel**
- **Connectivity**

ISR Management

Theater Collection Management

- The Commander

- Theatre Collection Manager

- Liaison Officers

- Operators

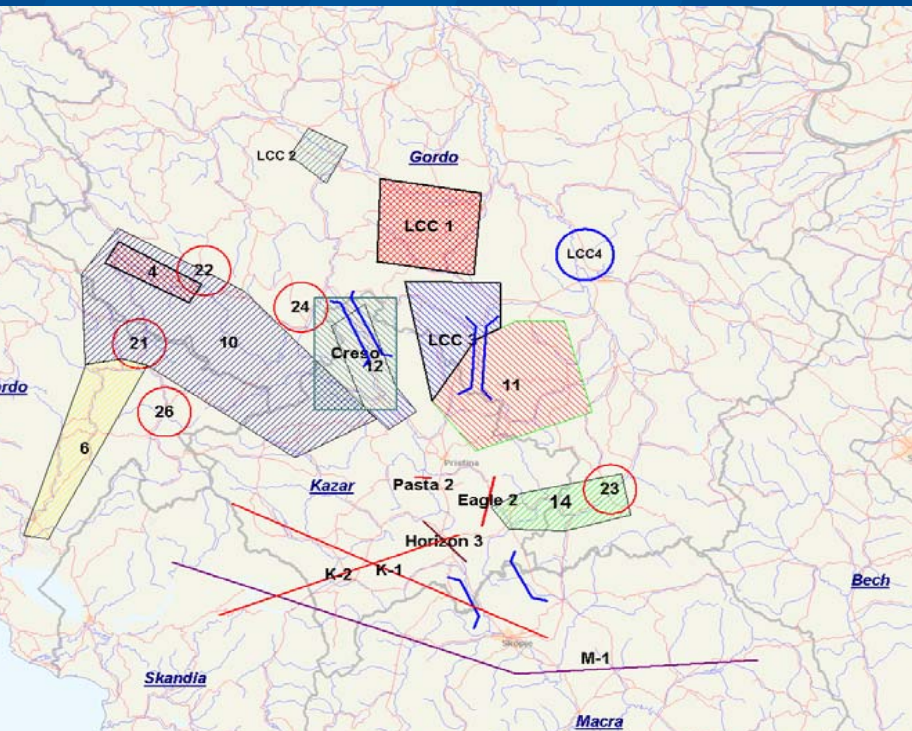**Collection Management and Targeting**

- CCIRM

- Time Sensitive Targeting

ISR Tasking

Collection Task

- Pre-Planned
- System Based
- Prioritized

				AOI Coords							
				Latitude/Longitude							
*Index	Area of Interest	RQSTR	BE#	Degrees/Decimal	Degrees/Minutes/Seconds	Radius	Time	CRITERIA	AMPN	REPORT FREQ	OBSR
1	NAI 1	J2		44.7425000 J20.3688889	44'44'33N 020'22'08E		700 1800	MTI_p20	Logistics movement into and out of assembly areas	1 MINUTES	Rail Road Traffic LOCs from Beograde to Karguievak
				44.7900000 J20.5972214	44'47'24N 020'35'50E						
				44.0097237 J21.0230560	44'00'35N 021'01'23E						
				43.9750000 J20.8433342	43'58'30N 020'50'36E						
3	NAI 3	J2		43.8088875 J21.4691658	43'48'32N 021'28'09E		700 1800	MTI_p20	Logistics movement into and out of assembly areas	1 MINUTES	Locs from Beograde, Karguievak, Paracin to crossroads at 43'45N 021'57E
				43.8938900 J21.4827785	43'53'38N 021'28'58E						
				43.8675000 J22.0613880	43'52'03N 022'03'41E						
				43.7613900 J22.0497227	43'45'41N 022'02'59E						
5	NAI VRANJE	J2		42.5500000 J21.9333324	42'32'60N 021'55'60E	10KM	700 1800	MTI_p1	ADA OPERATIONS. Possible SA-6 site in vicinity	1 MINUTES	Significant movement into and out of area
23	LCC 3	J2		43.1447220 J21.4202785	43'08'41N 021'25'13E		700 1800	MTI_p20		1 MINUTES	Report convoys of 20 or more vehicles
				43.3069458 J21.4319439	43'18'25N 021'25'55E						
				43.3069458 J20.9780560	43'18'25N 020'58'41E						
				42.8697200 J21.1136112	42'52'11N 021'06'49E						
				43.0905571 J21.3022213	43'05'26N 021'18'08E						
				43.1491661 J21.4202785	43'08'57N 021'25'13E						
24	LCC 4	J2		43.3363876 J21.8533325	43'20'11N 021'51'12E	10KM	700 1800	MTI_p5		1 MINUTES	Report increased activity at airfield for convoys of 10 or more vehicles.

Collection Plan

* for reference only

NC3A 2003 - Collection Plan xsl stylesheet version 1.1

- **ISR Overlay**
  - Collection Requirements
  - ISR Locations

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ISTAR MATRIX FOR 21st OCT 2003 APPROVED

RTY	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11;30	12:00
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									U2						
	RADAR SAT				J-STARS					J-STARS					
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					J-STARS					J-STARS					
	RADAR SAT														
								GLOBAL HAWK							
	RADAR SAT							ASTOR							
				HORIZON										HOR
					J-STARS					J-STARS					
	RADAR SAT							ASTOR							
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	RADAR SAT				J-STARS					J-STARS					
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	RADAR SAT				J-STARS					J-STARS					
	RADAR SAT							GLOBAL HAWK							
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									U2						
	RADAR SAT														
									U2						
								GLOBAL HAWK							
	RADAR SAT														

- **Cooperative Planning**
  - **Collection Requirements**
  - **ISR Systems**
  - **Priorities**
  - **"Backing Up" The Collection Process**

Tasking ISR as a Total System

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NAI 4	NAI 6	NAI 10	NAI 11	NAI 12	NAI 14	NAI 22	NAI 24	NAI 26	NAI 21	NAI 32	NAI L1	NAI L2	NAI L3	NAI L4	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI	NAI
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(P)RIMARY / (S)ECONDARY

JAC Request -- Location and activity of GORDO's most combat capable units from 1st Corp - 43 Tank BDE/5 Mech/ARTY BDE. 2nd Corp - 34 Tank BDE/ARTY BDE.
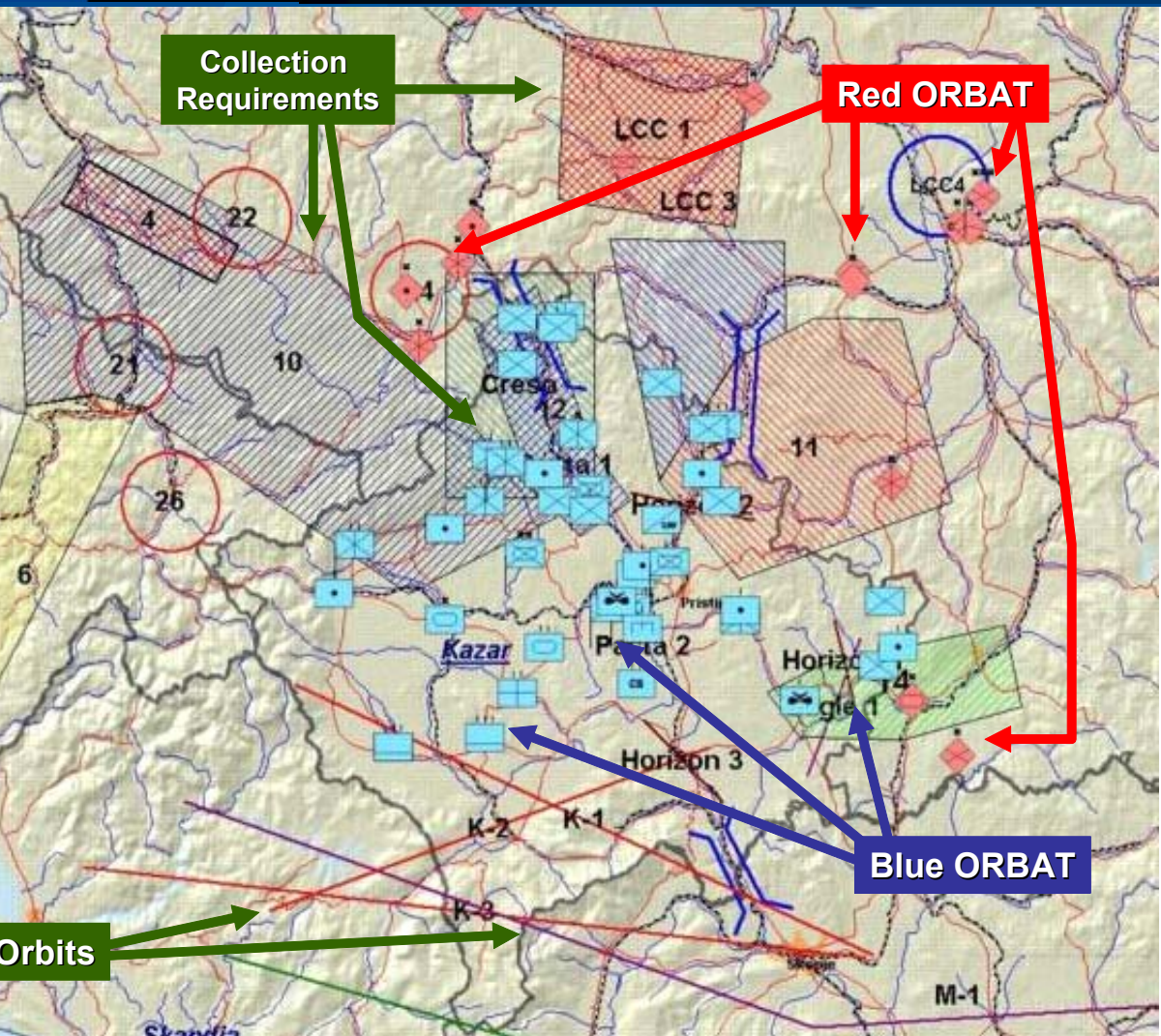
REPORTING CRITERIA
According to collection plan dated **21 Oct 03.**

TRACKING CRITTERIA
If any reporting criteria is met

Tasking the "whole" system

- Sensor vs. Exploitation - inefficiencies of overlap vs. efficiencies of mutual support

- Exploitation using multiple sensor feeds and archived data

- "Backing up" the commanders through efficient employment of the whole system

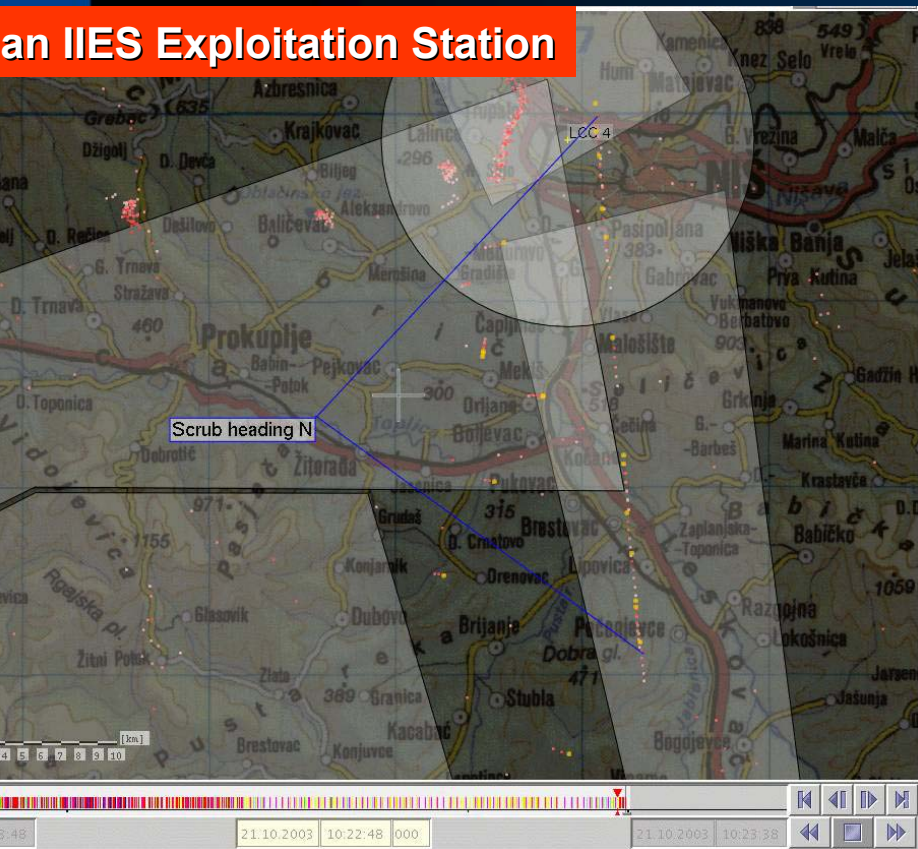# Integrated C2ISR
Tying it All Together

Collection Requirements

Red ORBAT

Blue ORBAT

Orbits

- **Integration into C2**
  - **Collection Management**
  - **ISR Systems**
  - **Order of battle**
    - **- Supports -**
- **Operations**
  - **OAS, CSAR, TMD, SEAD, TST**
- **Intelligence**
  - **IPB, I&W, BDA, Targeting**

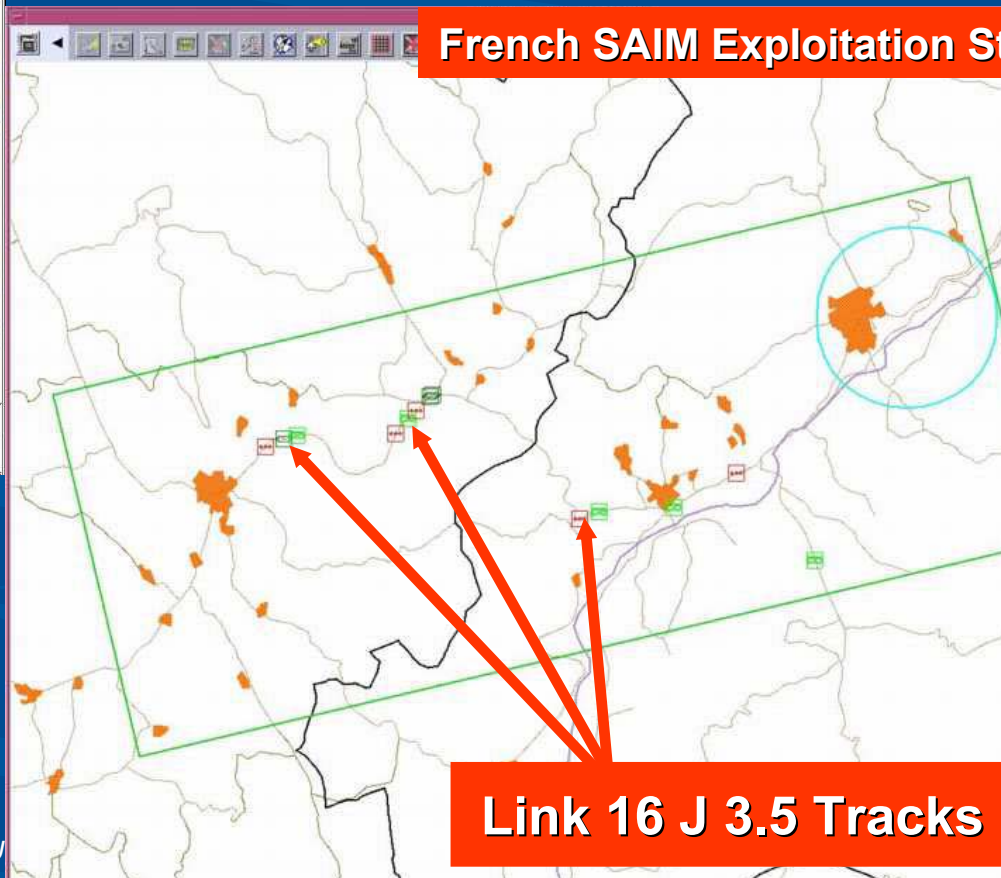**ISR Data and Information Provided to the Full Range of Commanders**

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an IIES Exploitation Station

Scrub heading N

21.10.2003 10:22:48 000   21.10.2003 10:23:38

- **ISR Databases**
  - **Archived and NRT data and Informa**
  - **Web services = more dissemination**
  - **Increased system efficiency**

French SAIM Exploitation St

Link 16 J 3.5 Tracks

ata Link

- **NRT data forwarded to non-ISR equipped commanders**

- **Increased exploitation, C2**

NATO U

Direct Support to Operational Directives and Regulations

- BI-SC 65-5, BI-SC 80-70 (TST) and AIRN 80-6

Direct Support to Developmental Programs

- Shared Tactical Ground Picture (STGP)
- Alliance Ground Surveillance (AGS)

Experimentation and Development

- Coalition Shared Database (CSD)
- Theatre Collection Manager and TCM Tool Box
- Link 16 Translation to Operational Networks

Direct support to Transition to MAJIIC

Simultaneous Development of the Capability and the Requirement

Summary

- **ISR as a Commanders Resource**
- **ISR Assets**
  - **Planning**
  - **Management**
  - **Tasking**
  - **Integrating**
  - **Disseminating**
- **Transition of emerging capabilities**

Providing a Force Multiplier for the Joint Commander