

**DEFENSE & SECURITY** 

# C5ISR

COMMAND AND CONTROL, COMMUNICATIONS, COMPUTERS, CYBER DEFENSE, INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE

Relevant information at the right time and place

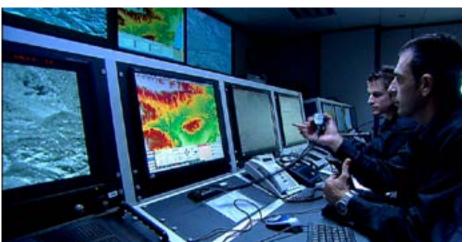
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### C5ISR

Command and Control, Communications, Computers, Cyber Defense, Intelligence, Surveillance and Reconnaissance





A versatile software that offers multiple features for making decisions which apply to military operations in multiple areas

### DESCRIPTION

The Indra C5ISR systems enable commanders making decisions in a timely manner, by acquiring information reported, creating a common picture of the operational situation (COP), and exchanging operational information.

The C5ISR systems have tools to provide the necessary information to enable the command the managing military operations in complex operational scenarios, both in air, land and sea environments and the emerging cyberspace.

The C5ISR system integrates information received from the operational and logistical own forces, the allied forces units, and incumbent civilian agencies. It generates the operational situation, it manages plans, orders, reports and disseminates information among the various levels of command.

#### CHARACTERISTICS AND FEATURES

- Modular, incremental and scalable design.
- Integration with existing systems.
- Adaptable to existing communication networks to collect information and disseminate orders.
- Flexible management of various media against hostile media.
- Interoperability of information systems.
- Service-oriented architecture, platform independent.
- Real-time control of ISR resources.
- Safety solid and robust reliability.
- Distributed system to operate in different geographical scenarios.
- Difference hierarchies with different information needs.

### **CAPABILITIES**

### PERSONNEL

- Organization
- Personnel Management
- Training

### Management

### INTELLIGENCE

- Target Management
- Environmental Analysis
- Enemy Analysis
- Enemy COAs

### **OPERATIONS**

- ORBAT, TASKORG
- Planning
- Monitoring & Assessment

### LOGISTICS

- Logistics Balanced scorecard
- Movement Planning Sanitary support management

### CIVIL

- Strategic Planning Information Management
- Planning, Monitoring and Assessment of **CIMIC Operations** (Clvil-Mllitary-

Cooperation)

- Administration and Monitoring
- Information distribution
- System Preparation
- Comms. Monitoring and Management
- Security

### **CYBER**

- Situation awareness
- Information assurance solutions

## TOTAL AVAILABILITY AND CHARACTERISTICS OF SUPPORT

- Dual redundant servers.
- Dual redundant local network (LAN).
- SW robust architecture with selfrecovery mechanisms.
- This results in a system availability >99,9%.



### STATE OF THE ART TECHNOLOGY

- SOA distributed system architecture that enables a flexible deployment oriented to operational needs.
- Commercial processors.
- Multi platform.
- Standard communication protocols (IEEE, -802.3, TCP / IP, UDP / IP).
- GIS high performance engine.

#### PRODUCTS C5ISR



AIRDEF. Air Defense System

AMPS. Automatic Mission Planning System

COAAAS. Anti-Aerial Artillery

Operation Centre



BMS. Battlefield Management SIMGE. Strategic Management Military

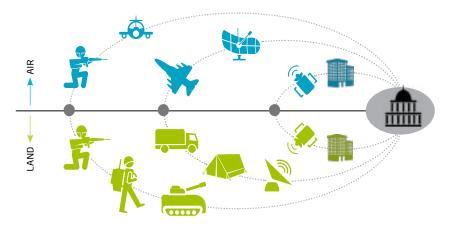


SMCOA. Amphibious Operations Command and Control iMARE. Coast CommAnd and Control



iDEBRIEFING. Mission Debriefing MDLP. Multi Data Link Processor iJOINT. Joint Command and Control





#### FUNCTIONS OF THE C5ISR SYSTEM

### SITUATIONAL AWARENESS

It presents a coherent and comprehensive real-time view of the situation (COP).

Web-based platform, with multiple sources of information (radar, optical, etc.) and formats. Management Tools maps and tables. Presentation multilayer maps, with MIL-STD symbology and adaptable to customer.

### **INTELLIGENCE**

Constant collection and classification of data for decision making throughout the operation.

### STRATEGIC PLANNING

Tools for treatment selection processoriented information improving strategic decision making. Authorization management tools, forms, etc.

### **OPERATIONAL PLANNING**

Generates the "Order of Battle", and generate commands that define the actions to take, the timing of all of them and the geographical area of activity. Functions simulation and prediction of evolution of possible responses adversary.

Tools integrated decision support, such as filters, deviations, etc.

### DEPLOYMENT

Management and dissemination of mission orders for all units involved. Configuration and alerts based on a variety of criteria notices.

### WITHDRAWAL

Is the control and management of the withdrawal of forces, generated information storage and preparation the resources ready for new missions.

## MONITORING, ASSESSMENT AND DRIVING

Tools for real-time monitoring of running actions (monitoring), verification of the actual situation against the planned one (valuation) and implementation of corrective action if deviations (driving) occur. Cartographic view of the position of the units as well as information reported by each. Registration includes tools for further processing.

### SUPPORT SYSTEMS

- Document manager.
- Tools for information protection including encryption protocols, authentication mechanisms and digital signature, elements of physical and logical protection, biometric security mechanisms.
- · GIS Viewer support.
- Messenger service.



