Global Command & Control System
STC Conference

Lt Col Intae Kim
GCCS Chief Engineer (DISA)
22 April 1998
(703)735-8712
## Form SF298 Citation Data

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Report Type</th>
<th>Dates Covered (from... to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23041999</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title and Subtitle</th>
<th>Contract or Grant Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Command &amp; Control System</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Authors</th>
<th>Project Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Performing Organization Name(s) and Address(es)</th>
<th>Performing Organization Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Assurance Technology Analysis Center (IATAC) 3190 Fairview Park Drive Falls Church VA 22042</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sponsoring/Monitoring Agency Name(s) and Address(es)</th>
<th>Monitoring Agency Acronym</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Distribution/Availability Statement</th>
<th>Monitoring Agency Report Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved for public release, distribution unlimited</td>
<td></td>
</tr>
</tbody>
</table>

| Supplementary Notes | |
|---------------------| |

| Abstract | |
|------------------| |

| Subject Terms | |
|---------------| |

<table>
<thead>
<tr>
<th>Document Classification</th>
<th>Classification of SF298</th>
</tr>
</thead>
<tbody>
<tr>
<td>unclassified</td>
<td>unclassified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification of Abstract</th>
<th>Limitation of Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>unclassified</td>
<td>unlimited</td>
</tr>
</tbody>
</table>

| Number of Pages | |
|-----------------| |
| 15              | |
This briefing, on the Global Command and Control System (GCCS) presented at the STC Conference on 22 April 1998, describes the background, describes GCCS Users, GCCS functional capabilities, and supporting software technology in the context of the Joint System for Command and Control. It describes GCCS software in terms of the requirements process, the GCCS applications, and system architecture concluding with a look ahead to GCCS in the future.
Overview

- Background
- GCCS Users
- Functional Capabilities
- Software Technology
Command & Control Cycle

Peacetime Operations

Readiness

Mobilization

Deliberate Planning

The Joint System for Command and Control

Crisis Planning & Execution

Fight and Win Decisively

4/16/98
Commanders Fielded Separate Systems

- Duplication of Effort
- Not Interoperable

WWWCCS Sites

CINC/Service Systems

DII Bringing Enterprises Together
GCCS Users

- Commanders
- Command Centers
- Planners
- Tactical Execution
- Intelligence Analysts
- Transportation
Commanders Require a Fused View of the Battlespace

- Displayed on large screen display
- Integrated/correlated information
- Operations, Intelligence, Combat Support

A Multitude of Windows but no clear view of the world

A Single Integrated view of the world

Information Integration Problem
Exercise/Operations Support

- GCCS involved in many activities & operational contingencies
  - CENTCOM AOR
  - Bosnia
  - Ulchi Focus Lens
  - Unified Endeavor
  - Vigilant Guardian ‘98
  - Showdown with IRAQ
- Combined interoperability with theater systems
  - Coalition allies and combined exercises
    (NORAD, Saudi Arabia)
- Foreign Military Sales to allies
  - Saudi Arabia, Japan, Canada, New Zealand, Australia
- Releasability of data, hardware and software
  - Using C2 Guard and Radiant Mercury for data
  - Must follow appropriate technology transfer policy for hardware and software
Software Requirements Process

NEW REQUIREMENT

MIGRATION

SYSTEM TOOLS

TECHNOLOGY TRANSFER

GRiD PROCESS
CJCSM 6721.01

MCEB MIGRATION WG OVERVIEW IN GRiD

J6 SIWG

ARCHITECTURAL OVERSIGHT WG/CCB

GRiD FAST TRACK PROCESS
CJCSM 6721.01

DII Bringing Enterprises Together
Functional Capabilities

- NEWS GROUP
- GLOBAL STATUS OF RESOURCES AND TRAINING
- SENSITIVE RECON SCHEDULING
- DELIBERATE PLANNING
- CRISIS ACTION PLANNING & EXECUTION
- COMMON OPERATIONAL PICTURE
- INTELLIGENCE SUPPORT
- AIR TASKING ORDER READ CAPABILITY
- SECRET WEB (E-MAIL, HOME PAGES, ETC)
- IMAGERY SUPPORT/INTELLIGENCE DATABASE
- THEATER BALLISTIC MISSILE DEFENSE
## Software Applications

- DII Operating System/Kernel
- DII Infrastructure/Common Support
- Database Applications
- Message Handling
- JOPES Applications
- GSORTS
- JMAS

- COP
- TBMWD
- Intelligence Applications
- Systems Support
- Security
- Office Automation
- Service/Site Applications
Software Technology

- GCCS following Commercial Industry
  - Hardware advances increase performance
  - Introducing thin client applications
  - COTS replacing proprietary & government software
  - Network enhancements (WANS, LANs being upgraded)

- Technology is changing the business process
DII COE Migration

Functionality Migrates to GCCS with DII COE

Fewer systems - All sharing DII COE compliant applications

Today's Picture

Mission Applications using one DII Common Operating Environment
Many Separate, Redundant Systems

Multiple Operating Environments

4/16/98
Periodically refresh "underpinnings" via COE releases

Rapidly develop and electronically deploy applications

Reduce sustainment and training tail
  - Centralize system administration
  - Consolidate data bases
  - "Single-up" on platforms
  - On-line training