



National Imagery and Mapping Agency



Joint Mapping Toolkit for TAMPS OAG Spr 98 NAS Fallon

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JMTK for TAMPS OAG



Overview



JMTK in Context

NIMA Map Viewer

JMTK Defined

JMTK Redistribution

JMTK Capabilities

Current Focus

COTS Strategy

JMTK and Mission Planning

NIMA Products Supported

JMTK POCs/Info



JMTK in Context

JY2010, C4IFTW, GCCS, DII COE





JMTK in Context

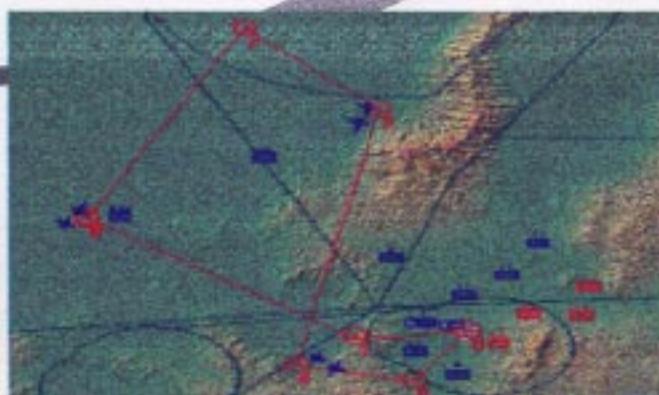
JMTK and mapping in the Operator's World



JMTK supports
GCCS-M (JMCIS)
in the CIC
(C2 display)



TMTK supports
TAMPS in the
CVIC and cockpit
(Kneeboards,
data loads, strip
route charts)





JMTK W5

What is JMTK?

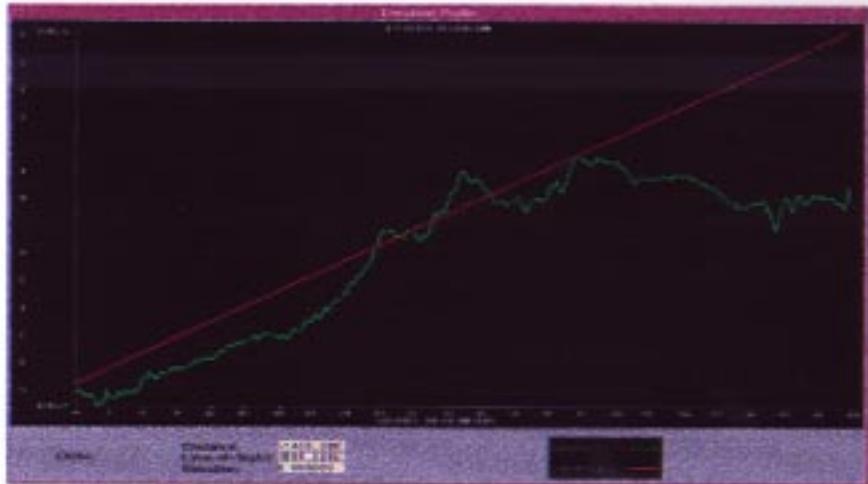
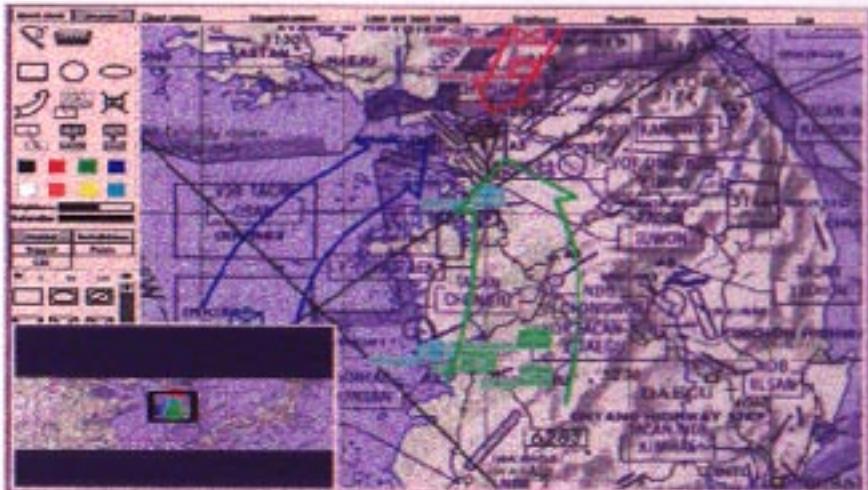


- **What:** Servers, client libraries, code
- **Why:** Interoperability, software reuse
- **Who:** Direct-SW Developers, Indirect-App User
- **Where:** GCCS Apps (COP, GCCS-M, TC4I)
- **When:** Software release every 6 mo.

*provides the functions necessary to render
a common view of the battlespace*



JMTK Capabilities



VISUALIZATION

- Support map windows and map layers
- Support variety of projections
- Support pan, zoom, re-center, and home
- Cursor oriented queries
- Server support multiple clients in same window

ANALYSIS

- Profile
- Fresnel
- Fan
- Mobility
- Terrain Masking
- Point to Point
- Line of Sight
- Calculate Distance

SPATIAL DATABASE MANAGEMENT

- Store/retrieve metadata
- Link to Map Server



COTS Strategy



- Commercial Sector driving technology - FAST!
- NIMA recognizes this, will exploit
- Mission Planning = area of opportunity to capitalize on commercial advances (e.g. Falcon View?)
- Interoperability without duplication

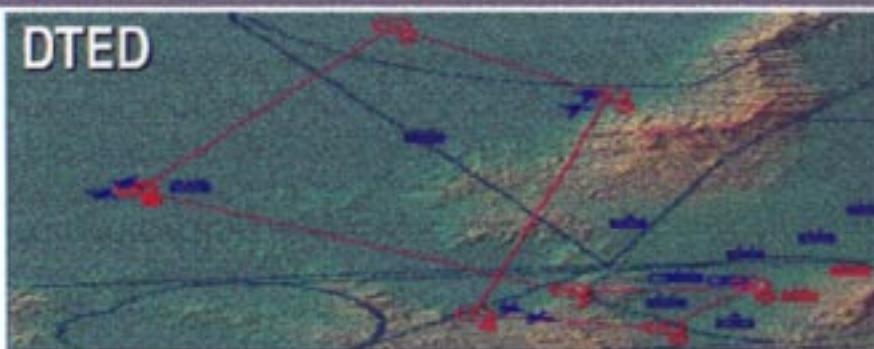
***Challenge: Bridging the gap between
commercial success and DII COE
compliance***



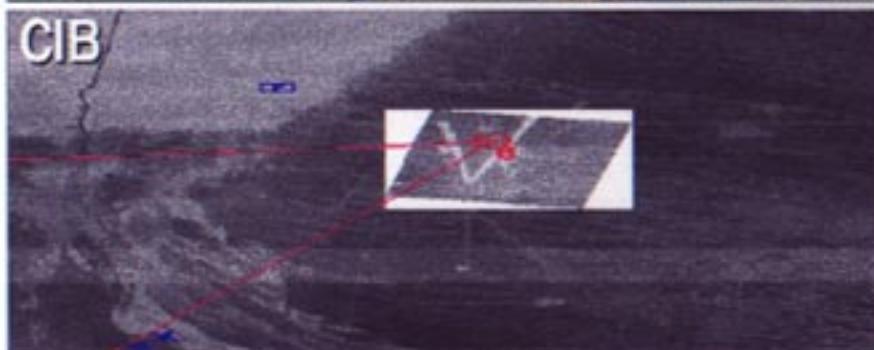
NIMA Products Supported



DTED



CIB



ADRG



- Digital Chart of the World (DCW)
- Digital Nautical Chart (DNC)
- VMap (0,1,2, Urban)
- World Vector Shoreline (WVS)
- Digital Aero Flight Info File (DAFIF)
- Digital Terrain Elevation Data (DTED)
- ARC Digitized Raster Graphics (ADRG)
- Compressed ADRG (CADRG)
- Compressed Aeronautical Chart (CAC)
- Controlled Image Base (CIB)
- Interim Terrain Data (ITD)

New in JMTK 4.0, 10/98

- Digital Chart Updating Manual (DCHUM)
- Littoral Warfare Data (LWD)
- Tactical Ocean Data (TOD0,1,2,3)
- Digital Bathymetric Data Base (DBDB)



NIMA Map Viewer

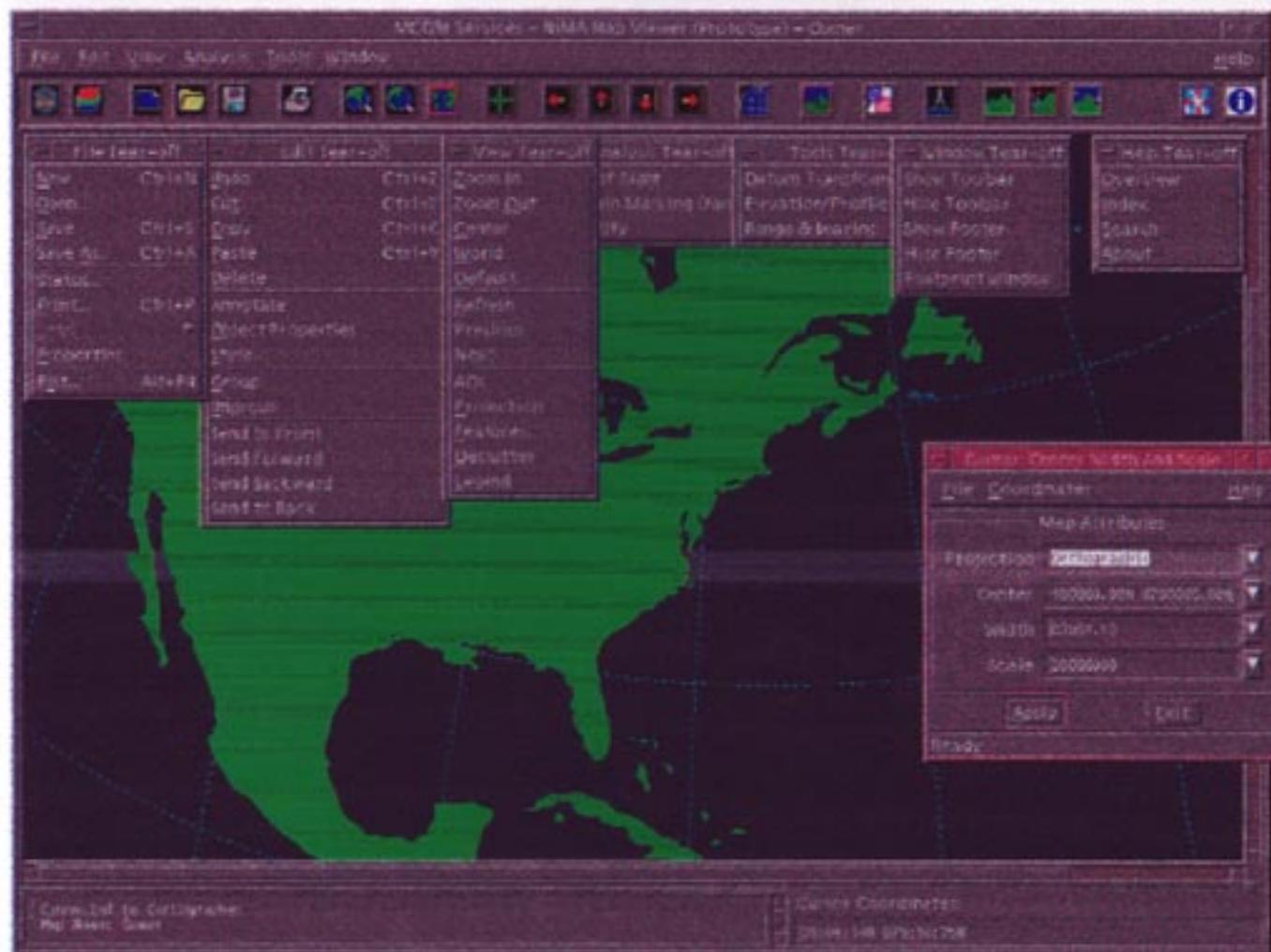


GOALS

- *Provide an application to access/manipulate NIMA Products*
- *Provide a software tool to test JMTK*
- *Provide a reference implementation for developers to access all published APIs*



NMV-Visualization





JMTK Redistribution



To expedite development of JMTK Visualization capabilities
DISA and NIMA have agreed to redistribute JMTK responsibilities:

- **DISA Responsible:**
 - JMTK-V, System Integration, Documentation
- **NIMA Responsible:**
 - JMTK-A, JMTK-S, Chair MCG&I TWG, Reqmts, New draw modules for NIMA products.
- **Joint Responsibilities:**
 - Imagery Toolkit, 3-D, COTS enhancements



Current Focus



- ***Deliver JMTK to DII COE for GCCS***
 - Incremental deliveries with increased capability, standardization, and interoperability
 - Deliver JMTK-S, JMTK-A capabilities 10/98
- ***Enhance to Satisfy Emerging Requirements***
 - DII COE, DoDIIS, Mission Planning, COP, METOC, Intel, etc.
 - COTS Enhancements (under guidance from Chief Engr DII COE)
 - Imagery Toolkit
 - 3-D Visualization



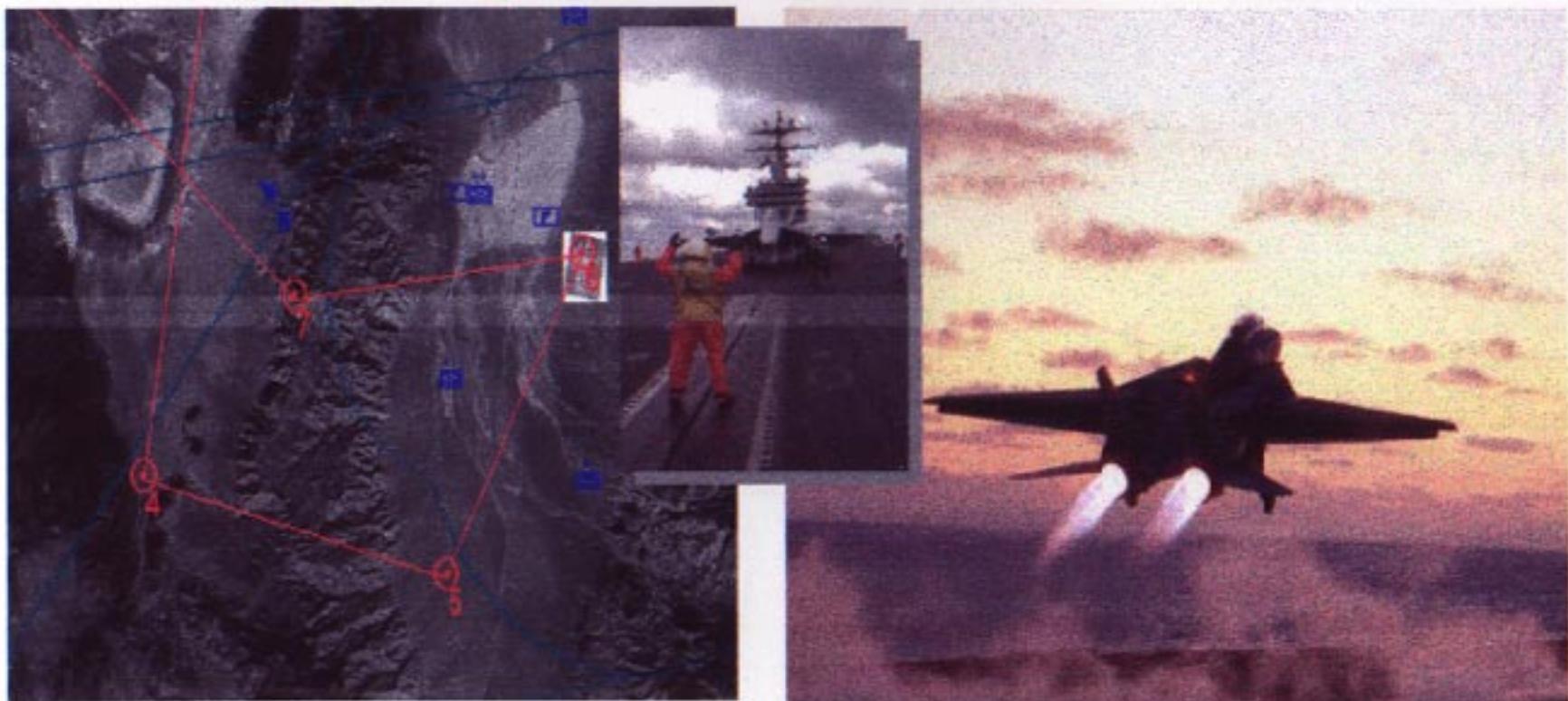
JMTK and Mission Planning

The Future



JMTK to provide the geospatial foundation for joint mission planning in the DII COE environment: *Joint Mission Planning System*

Challenge: Leverage commercial successes in a DII COE world



bmv

JMTK for TAMPS OAG



JMTK POCs/Info



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TAMPS reqmts for JMTK may be forwarded to

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