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NIMA: Guaranteeing the Information Edge

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Why NIMA?

- Strengthen end-to-end management of imagery discipline
- Accelerate fusion of geospatial information and imagery intelligence
- Meet growing and diverse customer need for a common digital view of the mission space
- Increase leverage of RDT&E and commercial resources

Desert Shield/Desert Storm

- Right Product
- Right User
- Right Format
- Right Time

Key Shortfalls

- Dissemination
 - Inadequate delivery and access to imagery and geospatial data
- Archiving
 - Shoebox storage of imagery products
 - Aging, proprietary raw imagery storage
 - Outdated Geospatial Data
- Communications
 - Insufficient bandwidth to support large products
- System Interoperability

- Proprietary systems, incompatible data formats
- Data Fusion
 - Imagery and geospatial data fusion impossible

Imagery and geospatial data are moving from a hardcopy to a digital environment.

National Imagery and Mapping Agency Origin

- Disestablished
 - Defense Mapping agency (DMA)
 - Central Imagery Office (CIO)
 - Defense Dissemination Program Office (DDPO) - National Photographic Interpretation Center (NPIC) (missions & functions only)
- Incorporated: Imagery exploitation, dissemination, & processing elements
 - National Reconnaissance Office (NRO)
 - Defense Intelligence Agency (DIA)
 - Defense Airborne Reconnaissance Office (DARO)
 - Central Intelligence Agency (CIA)

Mission

- Provide timely, relevant, and accurate:
 - Imagery
 - Imagery intelligence, and
 - Geospatial information

In support of the national security objectives of the United States.

Vision

- Guaranteeing the information edge
- NIMA is committed to ensuring information superiority in the 21st century battlespace.
 - Geospatial
 - Imagery intelligence
 - Imagery

Plans and Customer Operations (PCO)

Customer Operations

Why Customer Operations?

- To ensure that NIMA is satisfying the "right" requirements by:
 - Understanding Customer Needs/Assist in defining Customer needs for current *and* future operations
 - Facilitating the development of new solutions to customer requirements
 - Prioritizing competing requirements
 - Ensuring execution of approved programs that have a direct impact on Customer satisfaction
 - Be the single POC into the Agency for our customers
 - Single Point of Accountability for Customer Satisfaction Across NIMA
 - Provide tailored Customer access to entire suite of NIMA's products and services
 - Team with Customers / Inform Customers

Customers

- Many Missions, Many Needs

National and Civil Customers

Have diverse and complex requirements

- Civil
 - Department of the Interior: USGS, NPS, BLM, BOR, F&WS
 - Department of Agriculture: USFS, NRCS
 - FEMA
 - EPA
 - NASA
 - GPO: FDLP
 - National
 - Department of Energy: Office of Energy Intelligence, DOE Labs, Emergency Response
 - Department of Commerce: Office of Executive Support, NOAA
 - Department of State: Office of the Geographer, USAID
 - CIA
 - MSC

- Law Enforcement
 - Department of Justice: DEA, USMS, FBI, INS, Office of National Drug Control
 - Department of the Treasury: Customs, Secret Service, ATF

A Worldwide Presence

- CONUS
 - Bethesda, MD (HQ)
 - Washington DC
 - (Pentagon, Navy Yard, Bolling AFB)
 - Reston, VA
 - Langley, VA
 - Ft. Belvoir, VA
 - Chantilly, VA
- OCONUS
 - 17 Countries (63 civilian/military personnel)
- Customer Operation Branches/liaison officers/technical representatives servicing all major customers

Current Initiatives

- NASA Sensor Calibration
 - DTED 1 and Ground Control Points
 - MOU for storage and re-dissemination of DTED
- USGS Environmental Crisis Support
 - Hurricane Mitch
 - DTED 1 and Hardcopy maps
 - Columbian Earthquake
 - DTED 1 and Hardcopy maps
- Secret Service Support
 - Papal Visit to St. Louis - Energy Conference in Houston - World Trade Organization Conference - Seattle

- National Oceanic and Atmospheric Administration
 - National Ocean Service (NOS)
 - DTED1 for Airport Safety Modeling
 - National Weather Service (NWS)
 - DTED1 for Hurricane flooding and ground tracking
- National Transportation Safety Board
 - DTED 1 and Controlled Image Base (CIB)
- Release of GI products for National and Civil users
 - DTED
 - ADRG/CADRG
 - VMAP1
- Web Page for Public Sale Products

Papal Visit to St. Louis January 1999

- NIMA supported Secret Service with information that helped them plan for initial technical security operations prior to and during the event, as well as plan for any emergency response operations that could potentially occur during the event
- Data produced by NIMA included:
 - Large scale annotated intelligence imagery
 - 1:2,000 scale and 1:5,000 scale Gridded Reference Graphics which depicted an orientation map as well as individual imagery shots of the various event sites and surrounding areas with accompanying reference grid overlay
 - A CD-ROM Photomap with a commercial city map, corresponding annotated commercial imagery, and ERDAS Imagizer software
 - Annotated paper plots generated from the CD Photomap data

Support to State Department Ecuador/Peru Border Dispute

- NIMA provided geospatial information, imagery, and terrain visualization capabilities to Department of State
- Supported negotiations under the four nation Guarantor Observer Group and cease-fire verification of the Multinational Military Observer Mission Ecuador/Peru
- NIMA Liaison acted as technical advisor to U.S. Representatives to treaty negotiations

Digital Product Availability

Digital Terrain Elevation Level 0

30 Arc Second Terrain Data

- This DTED® product is a uniform matrix of terrain elevation values which provides basic quantitative data for systems and applications that require terrain elevation, slope, and/or surface roughness information. DTED® Level 0 elevation post spacing is 30 arc second (nominally one kilometer)
- In addition to this discrete elevation file, a separate binary file provides the minimum, maximum, and mean elevation values computed in 30 arc second square areas (organized by one degree cell).
- Finally, DTED® Level 0 contains the NIMA Digital Mean Elevation Data (DMED) providing minimum, maximum, and mean elevation values and standard deviation for each 15 minute by 15 minute area in a one degree cell.
- This data set may be freely copied, manipulated, adapted or combined with other geospatial information as desired by the user. It allows a gross representation of the Earth's surface for general modeling and assessment activities. Such reduced resolution data is not intended and should not be used for automated flight guidance or other precision activity involving the safety of the public.

Digital Product Availability

Shuttle Radar Topography Mission

Terrain Data Level ½

- The Jet Propulsion Laboratory will process the SRTM Data in Seven Blocks:
 - North America
 - South America
 - Africa
 - Eurasia
 - Indonesia
 - Australia
 - Islands

Digital Product Availability

Shuttle Radar Topography Mission

Terrain Data Level ½

- Releasability of Data
 - Global DTED 1 will be released through USGS EDC
 - DTED 2 over United States will be released through USGS EDC
 - All other SRTM Data will be Limited Distribution.

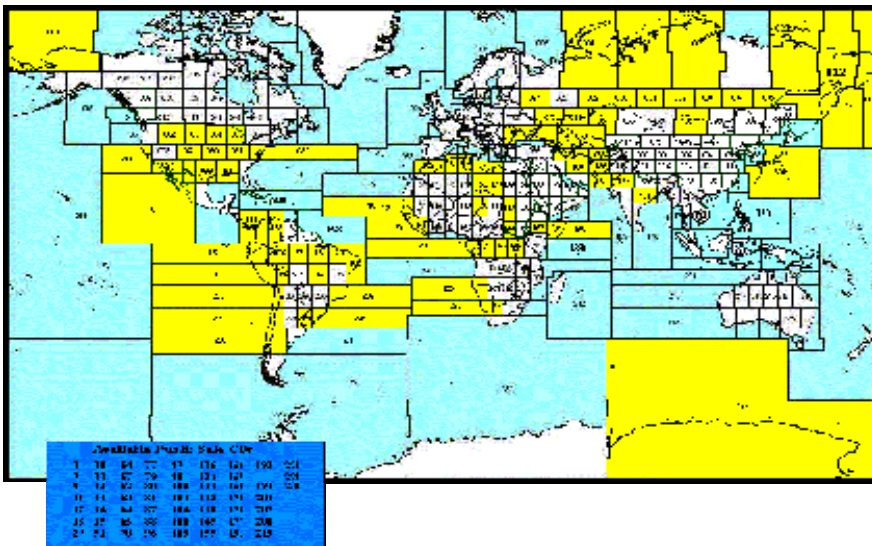
Digital Product Availability

Arc Digitized Raster Graphic (ADRG)

- ADRG is a digital image produced by scanning paper charts and transforming the data into the ARC Raster System on WGS 84. Data is collected from a single series and scale to be maintained as a world-wide seamless database, and is stored on CD-ROM.

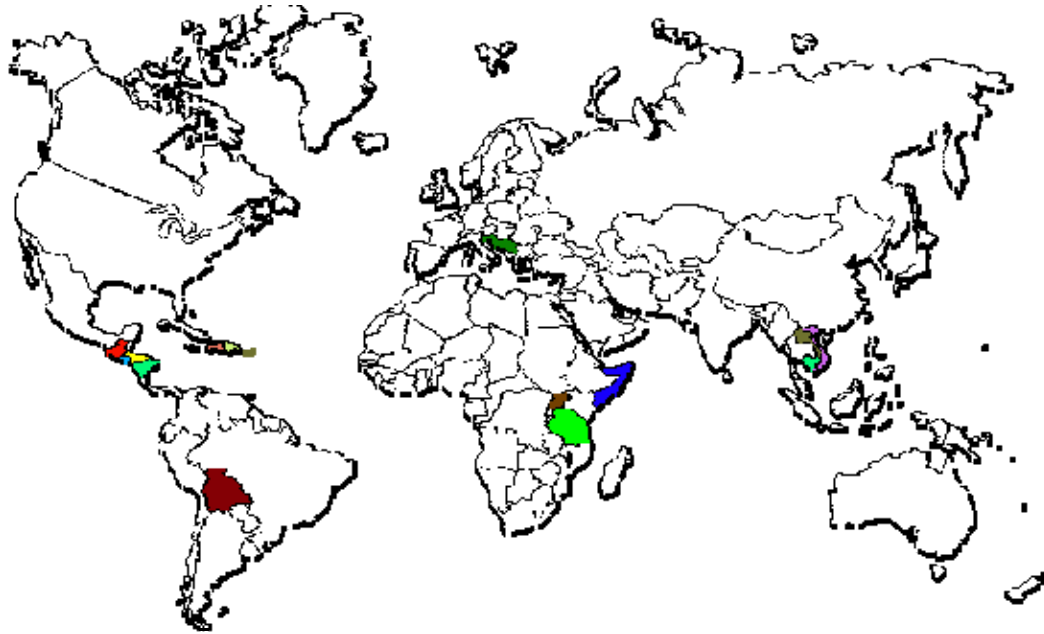
Digital Product Availability

Vector Map Level 1 (VMAP1)



Digital Product Availability

Large Scale Product Availability



Hardcopy Product Availability

Large Scale Map Series

Series	Scale	Map Type	Country Coverage	Remarks
E732	1:50,000	TLM	Haiti	
E935	VARIOUS	CITY	"	
E751	1:50,000	TLM	Nicaragua	
E956	VARIOUS	CITY	"	
E752	1:50,000	TLM	Honduras	
E752Z	1:50,000	TLM	"	
E952	VARIOUS	CITY	"	
E753	1:50,000	TLM	El Salvador	
E955	VARIOUS	CITY	"	
E754	1:50,000	TLM	Guatemala	
E754Z	1:50,000	TLM	"	
E954	VARIOUS	CITY	"	

G742	1:50,000	TLM	Sierra Leone	
H731	1:50,000	TLM	Bolivia	
H632	1:100,000	"	"	
H632Z	"	"	"	
H931	VARIOUS	CITY	"	
H032	LANDSAT	IMAGE	"	
H032Z	"	IMAGE	"	
L7014	1:50,000	TLM	Vietnam	
L7015	1:50,000	TLM	Laos	
L7016	1:50,000	TLM	Cambodia	Sheets produced before 1994
M709	1:50,000	TLM	Yugoslavia	
M6010	1:100,000	"	"	
M903	VARIOUS	CITY	"	Only NIMA produced City Maps
Y629	1:100,000	TLM	Somalia	
Y630	1:100,000	"	"	
Y921	VARIOUS	CITY	"	
Y745	1:50,000	TLM	Tanzania	
Y941	VARIOUS	CITY	"	
Y737	1:50,000	TLM	Uganda	
Y932	VARIOUS	CITY	"	
Z901	VARIOUS	CITY	Zaire	
Z724	1:50,000	TLM	Burundi	
Z921	VARIOUS	CITY	"	

Z922	VARIOUS	CITY	Rwanda	
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