



The National Center for Earth Resources Observation and Science CTM Review:

A Day in the Life of a High Resolution
Orthoimagery Chip

U.S. Department of the Interior
U.S. Geological Survey

Internet Access and Data Distribution Team

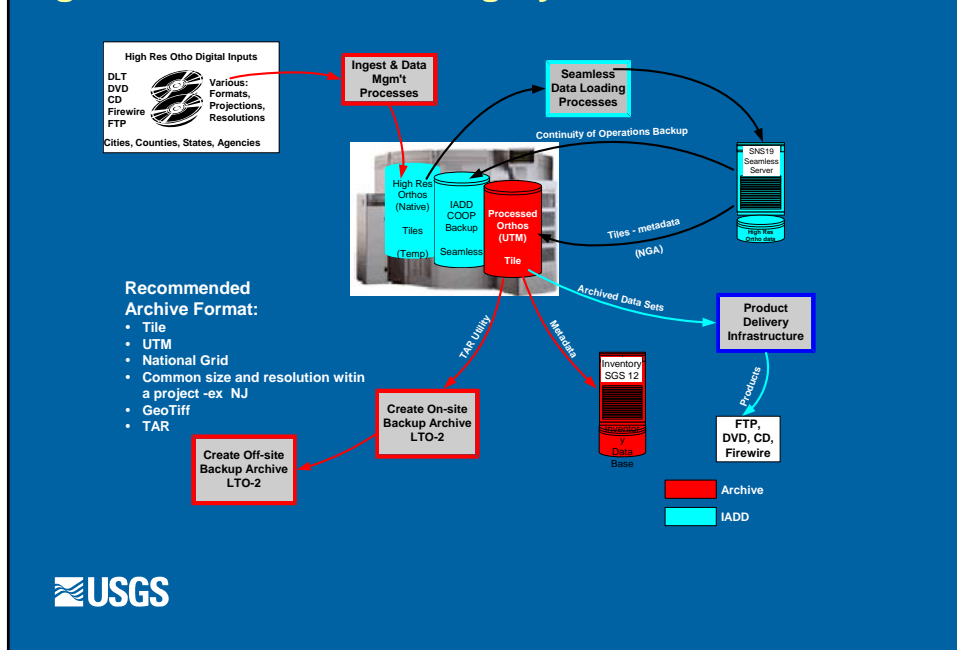
CTM POC: Doug Binnie, USGS	Chief Scientist: Nick Van Driel, USGS
Project Manager: Jean Paulson, USGS	
Work Management: Mike Buswell, SGT Inc. Terry Bobbie, SAIC	Interface Management: Layth A Grangaard, SAIC Chris Rusanowski, SAIC Jennifer Ming, SAIC Jill Krutsch, SGT Inc. Matthew Cast, SAIC Jeff Kautz, SAIC Shyam Balaji, SAIC Susan J Embrock, SGT Inc. Wyatt E Anderson, SAIC
Data Management: Michael W Steuck, SAIC Annie P Johnson, SGT Inc. Jacqueline A Keiner-Jones, SAIC Patrick Danielson, SAIC Sandra Prince, SAIC	
Operations and Maintenance: Brian Peasland, SGT Inc. Troy Meyerink, SGT Inc. Ken Gacke, SAIC Inc. Justin Kalis, SAIC	DAS Management: Kim Brown, SAIC Kelly Lemig, SAIC



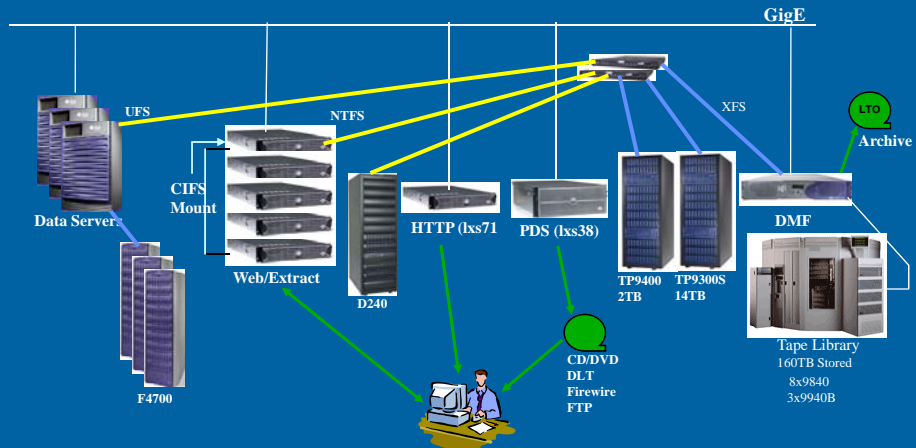
Internet Access and Data Distribution Team Structure



High Resolution Orthoimagery Data Processes



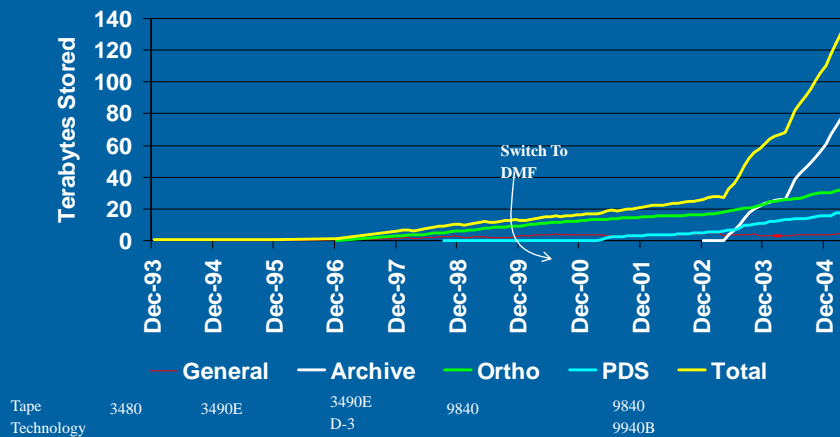
CR1 Silo Shared Architecture



USGS

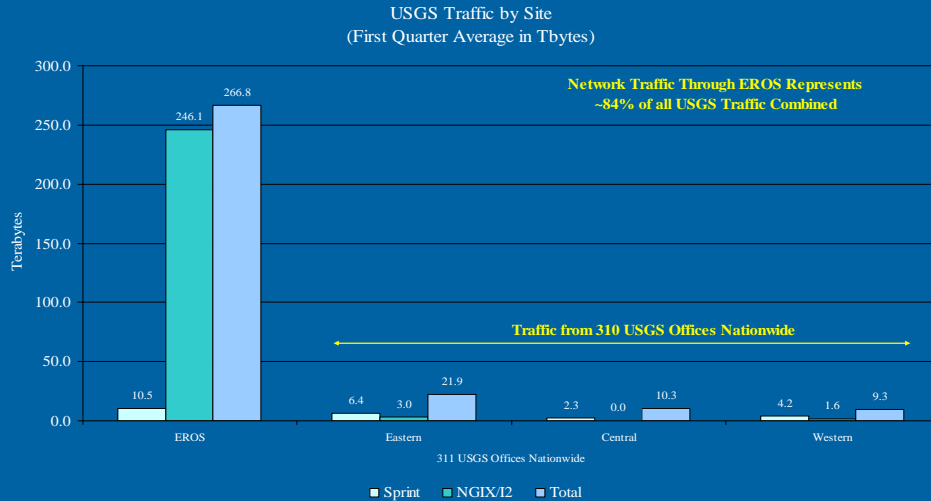
CR1 Silo Storage

Nearline Data Storage



USGS

Network Traffic by Quarter



Urban Area Telecom

- Coordination with Dave Roberts and other mapping centers providing EROS with data and metadata.



Orthoimagery Steering Team:
Doug Binnie, Terry Bobbie, Jean Paulson,
Kim Brown, Mike Buswell, and Brenda Jones

City	State	Characteristics	Covers NGA Footprint	Date Flown	Burdened Cost	Date to EDC	Date to NGA	Date in SDDS
Augusta	GA	6" natural color, lic.	Yes	Winter 2002	\$525.00	10/15/03	9/25/03	
Baltimore-Annapolis	MD	6" natural color, PD	Balt. City only	Spring 2004	\$73,500.00	9/27/04	1/5/05	

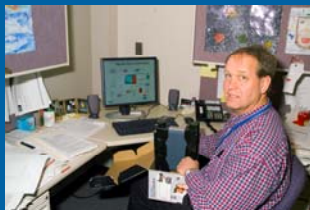


Dave Robert's Urban Area Status Tracking Spreadsheet

Data Ingest

■ Archive Management

- Brent Johnson:
 - EROS point of contact for data receipt.
 - Inventories data and metadata.
 - Sets file structure on the mass storage silo.
 - Sends media to Computer Room One for loading to silo.



Brent Johnson, Archiving and Ingest Task Lead



Workstation for staging data to silo



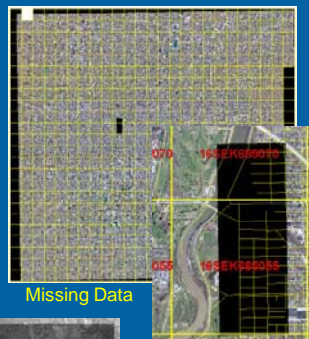
Computer Room 1 mass storage silo



Data QC/QA

■ Data Management Team:

- Mike Steuck, Patrick Danielson, Jackie Keiner-Jones:
 - Inspects data for geospatial consistency, projection and quality.



Missing Data



Data Gaps

Bad Data



Mike Steuck, Data Management Task Lead



Load to Seamless Server

Data Management Team:

- Mike Steuck, Patrick Danielson, Jackie Keiner-Jones:
 - Pull data out of the silo.
 - Load into sns19's ArcSDE/Oracle database.
 - Build pyramids and create statistics.

Pat Danielson,
Data Analyst



Sandy Prince,
Data Analyst



Geospatial Data Servers
w/
attached storage.

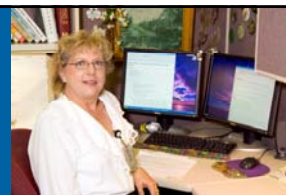


Reproject Data

Interface Management Team and Data Management Team:

- Matt Cast, Jackie Keiner-Jones and Pat Johnson.
 - Reproject data from native projection to UTM.
 - Reload data back into sns19
 - Rechip data into 1500 m by 1500 m based on the National Grid Coordinate System.
 - Reload reprojected, rechipped data back into silo for archiving.
 - Create new metadata at the chip level.

Pat Johnson, Metadata Analyst



Matt Cast,
Software Engineer



Jackie Keiner-Jones,
Data Analyst



Creating Copy of Data on DVDs for NGA

Customer Support Management Team:

- Kim Brown.
 - Activates rechipping order to produce DVDs for NGA.
 - DORRAN order.
 - PDS stages data and creates media in operations
 - QA/QC DVDs.
 - Dissemination packages and ships DVDs to NGA.

Kelly Lemig,
DAS Associate



Rimage units
used to create DVDs



Dissemination sending out orders

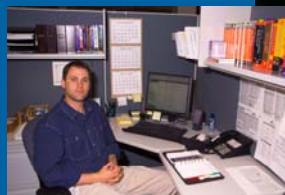


Creating Oracle Table Space Copy of Data on Removable Drives for NGA

Operations and Maintenance Team:

- Brian Peasland and Troy Meyerink.
 - Create tablespace copy from sns19 and place on silo.
 - Operators transfer data from silo to removable disk drives.
 - Dissemination packages and ships drives to NGA.

Brian Peasland Oracle DBA
O&M Task Lead
at home in Fargo



Troy Meyerink,
Oracle DB Engineer



Transferring data to Firewire drives
for NGA, ESRI Mirror



Adding Data to Seamless Data Distribution System

Interface Management Team:

- Layth Grangaard, Jennifer Ming, Wyatt Anderson, and Jill Krutsch .
 - Add data layers to interface with OGC Web Map Specifications.
 - Update Urban Area vector intersection file.
 - Enable custom spatial metadata for seamless downloads.
 - Maintain and update EDC catalog of layers and services.



Wyatt Anderson,
Software Engineer



Layth Grangaard,
Software Project Lead



Jill Krutsch,
Software Engineer



Jennifer Ming working in Des Moines
Software Engineer

Creating Enhancements to Seamless Data Distribution System

Interface Management Team:

- Chris Rusanowski, Jeff Kautz, and Suz Embrock.
 - Add specialized tools to interactive Viewer.
 - Creating Tiled Data Delivery System (TDDS).
 - Update entry page and maintain compliance to USGS standards.



Chris Rusanowski,
Software Engineer



Suz Embrock,
Web Designer



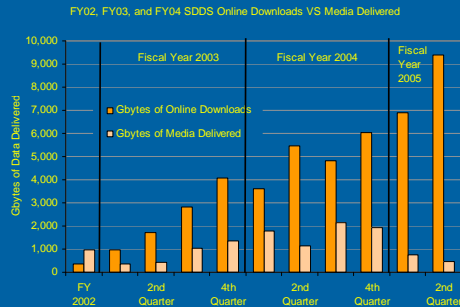
Jeff Kautz,
Software Engineer



Distribution Data from Seamless to the Public

Data and Application Support Team:

- Kim Brown and Kelly Lemig.
 - Direct downloads.
 - Custom orders, data on removable drives.
 - Data on DVDs.
 - Customer support.
 - Statistical reporting.



Web servers, application servers and spatial servers



Kim Brown, DAS Task Lead



Ensuring Continuity of Operations and Long Term Preservation

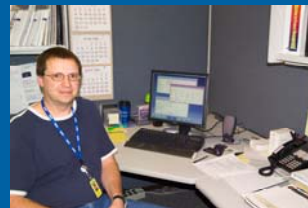
Operations & Maintenance Team:

- Brian Peasland, Justin Kalis, Ken Gacke, and Troy Meyerink.
 - Copy of Oracle table space that resides on silo serves as our COOP backup.
 - Create copy of Oracle table space and send to ESRI mirror.
 - Maintain software offsite at Augustana College and ESRI
 - Metadata records stored in inventory server.
 - Create copy of UTM orthochips send offsite for long term preservation.

Justin Kalis, System SA



Ken Gacke, Mass Storage Task Lead



Legato Backup Server for dynamic datasets



LTO2 tape drive & DMF silo cache for offsite backups

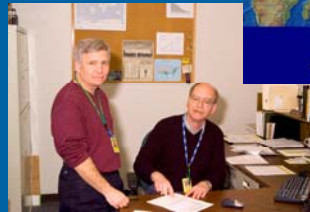
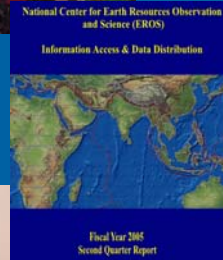


Project Management

- TSSC Project Management:
 - Mike Buswell and Terry Bobbie.
 - Managing business expectations.
 - Progress Reports
 - Financial Statements
 - Managing Technical Expectations
 - Requirements Gathering
 - Requirements Growth
 - Requirements Clarification
 - Requirements Modification
 - Status Meetings
 - Managing Communications
 - Progress, Problems, Prouds, Plans.
 - Requirements, Milestones, Priorities, Budget.



Mike Buswell,
Work Manager



Dave Clausen CR 1 Manager

Terry Bobbie, Work Manager



IADD Second Quarter Budget Snapshot

Projects by Funding Source Supported by IADD Team

