



## LP DAAC Overview of Data Holdings, Access & Delivery

Land Processes DAAC (LP DAAC) User Working Group August 22-23, 2007

### Tom Maiersperger\* LP DAAC Science

\* SAIC, contractor to U.S. Geological Survey (USGS) Center for Earth Resources Observation and Science, Sioux Falls, SD. Work performed under USGS contract 03CRCN0001.



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

## Outline

## Data Products

- Access Methods
- Selected Metrics
- Recent Projects
  - MRTWeb
  - Website Redesign





# **LP DAAC Public Archive Holdings**

As of 8/8/07	MODIS Land	ASTER
Products	60+	1 archived 20 on-demand
Granules	15 M	1.3 M
Tape Archive	1200 TB	130 TB
Data Pool	17 TB *	8 TB **

\*MODIS: Rolling 1-year for everything except daily L2Gs (rolling 8-day)

\*\* ASTER: Rolling 2-year L1B over U.S. and its territories



Source: LP DAAC Data Management

## **MODIS Data Product Categories**

- MOD 09 Surface Reflectance
- MOD 43 BRDF / Albedo
- MOD 11 Land Surface Temperature / Emissivity
- MOD 14 Thermal Anomalies / Fire
- MOD 12 Land Cover / Change
- MOD 13 Vegetation Indices
- MOD 15 Leaf Area Index / FPAR
- MOD 17 Vegetation Net Primary Production
- MOD 44 Vegetation Continuous Fields

All MODIS data products are provided at no cost to the user http://lpdaac.usgs.gov/modis/dataproducts.asp





C5 Impacts: Improved products; reduced file sizes; discontinuities w/ C4





## **ASTER Data Product Categories**

Reconstructed, Unprocessed Instrument Data
Registered Radiance at Sensor 1B
Brightness Temperature at Sensor
Surface Emissivity
Decorrelation Stretch
Surface Reflectance
Surface Kinetic Temperature
Surface Radiance
Polar Surface and Cloud Classification
Digital Elevation Model (DEM)
Orthorectified (Released March 2007)
DEM + Ortho (Released March 2007)

Archived

All ASTER \$80 except AST 14DMO (\$160) and Data Pool L1Bs (no cost) http://lpdaac.usgs.gov/aster/asterdataprod.asp



## Outline

Data Products

## Access Methods

- Tools
- Selected Metrics
- Recent Projects
  - MRTWeb
  - Website Redesign





## **Overview of Access Methods**

- EOS Data Gateway (transitioning to ECHO/WIST)
  - All EOS products, complex searches, saved searches, shopping cart model
- LP DAAC Data Pool
  - Limited holdings, instant <u>FTP</u> access (human pull or scripted push) or <u>GUI</u> for search, select, and application of limited data conversion services
- GloVis
  - Browse-based visualization, selection, and order
- Spatial Subscription Service
  - Automated means of receiving email notification or FTP-PUSH of incoming ASTER and MODIS data sets in the forward stream
- Machine-to-Machine Gateway
  - Parameterized by user, script-based ordering to retrieve large amounts of historical archive by FTP-PUSH





## **EOS Data Gateway**









## ≥USGS









## Outline

- Data Products
- Access Methods

## Selected Metrics

- Gauging User Community Needs
- Recent Projects
  - MRTWeb
  - Website Redesign





## **Trend & Magnitude of MODIS Demand**



- Positive trend
- Very large magnitude total of 19.7 million granules distributed
- Data Pool becoming a more important distribution mechanism



# **MODIS FY07TD Granules by Source**



For Data Pool distribution:

- 99.9 % by FTP
- 0.1% by GUI

### For Non-Data Pool distribution:

- 88% EDG/WIST
- 7% by Spatial Subscription
- 5% by MTMGW
- 0.3% by GloVis





## **FY07TD MODIS Product Demand**



- Top 18 products accounted for 74% of total distribution
- Top 18 products each had at least 100,000 granules distributed
- MOD14 accounted for 68% of data pool distribution



Source: EOSDIS EDGRS



## **MODIS Unique Users**

**MODIS Users Trend** 



- Does not include Data Pool
- Strong positive trend in new, repeat, and total users
- Seeing about 700 unique users per month in FY07



## **MODIS User Domains**

(FY02 - FY06)



(FY07 - to date)



- By granule count, does not include Data Pool
- FOR and EDU domains remain most important
- Recent flip in GOV and COM



≈USGS

## **Trend & Magnitude of ASTER Demand**



Spike in FY02 relates to pricing policy change, fairly flat otherwise

- Large magnitude total of 2.5 million granules distributed
- Data Pool does not account for significant proportion of distribution
  - 2 year rolling collection of L1B over U.S. and territories only





# **ASTER FY07TD Granules by Source**



For Data Pool distribution:

- 97% by FTP
- 3% by GUI

### For Non-Data Pool distribution:

- 81% by EDG/WIST
- 18.4% by GloVis
- 0.6% by Spatial Subscription
- 0.01% by MTMGW





## **FY07TD ASTER Product Demand**



- Top 9 products accounted for 89% of distribution
- Top 9 products each had at least 3,000 granules distributed
- AST\_L1B accounted for 100% of Data Pool distribution



Source: EOSDIS EDGRS

## **ASTER Unique Users**



- Does not include Data Pool
- Variable trend relates to pricing policy changes
- Seeing about 300 unique users per month in FY07



## **ASTER User Domains**

### (FY02-FY06)

### (FY07 - to date)





- By granule count, does not include Data Pool
- FOR and EDU domains remain most important
- Large decrease in NET, Large increase in GOV





## Outline

- Data Products
- Access Methods & Conversion Tools
- Selected Metrics
- Gauging User Community Needs

# Recent Projects

## MRTWeb

Website Redesign





## MRTWeb – Purpose and Approach

Purpose: Reduce data usability barriers related to MODIS HDF format and Sinusoidal projection by performing remote, user-specified processing

### **One Approach**

Search & Order MODIS tiles

Download individual tiles in standard format

Conduct user-specified, local processing to create application-ready MODIS data

**Use MODIS data** 

### **MRTWeb Approach**

Select MODIS tiles Specify processing options Initiate and monitor remote processing job

Download application – ready MODIS data

**Use MODIS data** 





## **MRTWeb – Software Re-use**

# LP DAAC adapted and integrated two existing technologies to create MRTWeb

### GloVis (Selection Interface)



MRT (Processing Tool)

Fier Action	iermas item		
weice .			Destination
kystiles.			Coarticlasterille
	an Address of Supervision	1.1939	
		Quest input rite	Ordered Big
		and participant	Colgori Bin 1gger
		1 02000303000000	
	1	Meer Belegal Ste	Procincipality Space
Sugar States			Heared Neighbor
En el branta	and then the		
Picetokran'	1622,4812,4611,460	0.461 0.460 3 460 0.463 0.460	Las Descention Descention -
Productions (	1622, 4612, 6613, 66 Gwer (1410, 540, 560 Genellon (2010, 360, 3 Deant of Circuit (40	2 441 2 461 3 462 2 463 2 463 3 464 2 465 3 448 2 465 3 461 2 1 466 3 468 3 468 3 468 2 1 468 3 468 3 468 3 468 3 468 3 468 3 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Distance Press Store
Annel Sales ( Annel Sales ( Annel Sales ()	Nove (1410, 401 1444 New (1410, 400, 300 Internal of Convert (41)	A CONTRACTOR CONTRACTO	Citle Degention Therevelane -
Annihilation (C	Nord, 441 2, 461 3, 461 3, 461 New (1410, 1410, 1410 Interview (2410, 2410, 2410) Interview (2410, 2410, 2410) Interview (2410, 2410, 2410) Interview (2410, 2410, 2410) Interview (2410, 2410, 2410, 2410) Interview (2410, 2410, 2410, 2410, 2410, 2410) Interview (2410, 2410,	S AN S AN A SHE AND AN S AN S AN AND AND AN A SHE AND AND AN AN AND AN A SHE AND AND AN AN AND AN AN AND AN AN AND AN A	Constants
August strain ( Internet of Internet of	teach de la ver a tea learn da le den anna menter a 2000 anna leann e 2.7 e 8.1 e 8.1 e	State 2 with response of the second s	Contact Production
Annual Sector of the sector of	1022, (4) 2, 401 2, 401 Iver (14) 1, 403, 203 unrelier (24) 0, 203 Unrel (14) 0, 204 1, 20	2017-00-001-000-000-000 1017-000-001-000-000-00-00 1017-000-001-000-000-00 1017-001-000-000-00 00-001-000-000-00 00-001-000-000-00 00-001-000-000-00 00-001-000-000-00 00-001-000-000-00 00-001-000-000-00 00-000-000-00 00-000-000-0	Content Fired Ser
Automotive States	10000 (H) 2, 401 ( 2000 (D) 10000 (1) 410 (2000 (D) 10000 (1) 410 (2000 (D) 10000 (1) 410 (2000 (D) 10000 (1) 410 (2000 (D) 10000 (D) 100	2010 2010 2010 2010 2010 2010 2010 2010 2010	Call Population The restance
Australia ( Australia ( Austr	1000 (1000)         1000 (1000)	A LATE AND I AND A LATE AND A LATE STATE AND A LATE AND A LATE INFO AND A LATE AND A LATE A LATE AND A LATE AND A LATE AND A LATE A LATE AND A LATE AND A LATE AND A LATE A LATE AND A LATE AND A LATE AND A LATE A LATE AND A LATE AND A LATE AND A LATE AND A LATE A LATE AND A LATE A LATE AND A	Call Population The restance - Coloure France Stare Commands Land Deconstance File - Space Francewise File - Physione File
Annual and a first of the second seco	And a second sec	Annual and the second and a sec	Carthogoldes The restant - Orderer Theo Ser Cartmants Last Personaler File Ser Francescrifte Parameter File
Australian ( Linear of Linear of Linear of Linear of Structure Str	neroz na ser i de la color seno meretaria (de la color seno meretaria (de la color seno la color seno de la color seno la color seno de la color seno de la color seno de la color seno de la color seno de la color seno meteoria (de la color seno de la color seno de la color seno la color seno color seno de la color seno color seno de la color seno de la color seno color seno de la color seno color seno de la color seno de la color seno de la color seno color seno de la color seno de la color seno de la color seno color seno de la color seno de la color seno de la color seno color seno de la colo	2012 2012 2012 2012 2012 2012 2012	Control Free See
Analisis ( Linner of Linner of Linner of Linner of Market ( Market	Territor Andre Carlos C	Series Series (Series Series Series Series Series (Series Series) Series (Series) Series (Series) Series (Series) Series Series (Series) Series (Series) Serie	Connection

Mosaic tiles Subset an area from a tile, mosaic, or time series Eliminate unwanted bands or layers Define projection (n=14) Set resampling options Choose file format (HDF, GeoTIFF, binary)

Rapidly visualize tiles within map context Navigate through time and space Select tiles of interest for processing



## **MRTWeb – Create Regional Mosaic**

## Select

Product Tiles / Date Bands / Layers

## Continue to Process Tab







## **MRTWeb – Create Regional Mosaic**

Specify processing options...

**Continue** to Download Tab...

💱 USGS Global Visualizatio	on Viewer			<u>_     ×  </u>
Product Zoom Map Layers	<u>T</u> ools <u>H</u> elp			
Selection K Proc	ess 🌍 Download	]		
Processing Type Reproject				
Spatial Subset				
Output Projection X/Y	Upper Left			
	-250500	752500		
	Ргој. Х	Proj. Y		
	2536500	-2136500		
		Lower	Right	
Projection Lambert Azimuthal	-			
Sphere Ce	ntLon Ce	enterLat	FE	
6370997 -10	00 4:	5	0	
FN				
0				
Output				
File Type GEOTIFF	•			
				Process





## **MRTWeb – Create Regional Mosaic**

Product Zoom Map Layers Tools Help     Selection      Process   Dob MRT1183473399420   Delete   Download   Delete      Monitor & Download   Job MRT118228425   FTP directory /MRT1183473399420 at clpdvx153/cr.Ltgs.gov - Windows Internet Explorer   Selection   Singli:   Impl//dpdvx153/cr.Ltgs.gov / MRT1183473399420 at el.   FTP directory /MRT1183473399420 at el.   Impl//dpdvx153/cr.Ltgs.gov / MRT1183473399420 at el.
Selection Process Download Job MRT1183473399420 Delete Download Job MRT118228425 FTP directory /MRT1183473399420 at elpdvx153.cr.usgs.gov - Windows Internet Explorer Final Status S
Job MRT1183473399420     Delete     Download     Jub MRT118228425     CFTP directory /MRT1183473399420 at elpdvx153.cr.usgs.gov - Windows Internet Explorer     Snagit     Coogle     Snagit     Coogle     FTP directory /MRT1183473399420 at el.     Snagit     Coogle     Snagit     Coogle     Snagit     Coogle     Snagit     Coogle     Snagit     Coogle     Snagit     Coogle     Snagit
Delete Download     Job MRT118228425     FIP directory /MRT1183473399420 at elpdvx153.cr.usgs.gov - Windows Internet Explorer     SnagIt     SnagIt     SnagIt     SmagIt
Delete       Download         Job MRT118228425       FTP directory /MRT1183473399420 at dpdvx153.cr.usgs.gov - Windows Internet Explorer         Snaglt       FTP directory /MRT1183473399420         FTP directory /MRT1183473399420 at el.       Snaglt         FTP directory /MRT1183473399420 at el.       Snaglt
Job MRT118228425 FTP directory /MRT1183473399420 at el
Job MRT118228425 FTP directory /MRT1183473399420 at elpdvx153.cr.usgs.gov - Windows Internet Explorer  Snagit E II  FTP directory /MRT1183473399420 at el
Image: Specific End       Image: Specific End         Image: Specific End       Image: Specific End </th
Snaglt       ⊡
ETD directory (MDT1183473300420 at alndys153 or usgs gay
Job MRT118228363 TTT directory /TriktTT105475577420 at cipdvX155.cf.usgs.gov
To view this FTP site in Windows Explorer, click Page, and then click Open FTP Site in Windows Explorer.
Up to higher level directory
07/03/2007 03:00FM 75,069,520 1183473399168 A2007129 1.500m 16 days NDVI.tif
Job MRT118220476 07/03/2007 03:12EM 37,559,980 1183473399168 A2007129 1.500m 16 days pixel reliability.tif
07/03/2007 02:37EM 65,872,827 MOD1341.8207129.h08v05.005.207154131819.hdf
07/03/2007 02:37EM 66,182,103 MOD13A1.A2007129.h08v06.005.2007155130234.hdf
07/03/2007 02:37EM 55,888,300 MODIAL A2007/29,h09w04.005.200715523421.hdf
07/03/2007 02:38EM 23,573,235 MOD13A1.A2007129.h09v06.005,207151082807.hdf
07/03/2007 02:38EM 78,674,350 MODI3A1.A2007129.h10v04.005.2007152142521.hdf
abh MRT148220138 07/03/2007 02:39FM 74,505,866 MOD13A1.A2007129.h10v05.005.2007155043121.hdf
07/03/2007 02:39EM 18,130,137 MODISAL.A2007129.140v06.005.2007155030201.hdf
07/03/2007 02:39FM 74,222,333 MODIAL.2207129.h11/09.005.2007152/204533.h0T
07/03/2007 02:39EM 59.728.131 M0D1341.a2007129.h12v04.005.2007153065339.hdf
07/03/2007 02:39EM 5,664,854 MODI3A1.A2007129.h12v05.005.2007151011921.hdf
07/03/2007 03:12FM 35 ProcessingComplete MRT1183473399420 1.log
07/03/2007 02:41FM 2,677 <u>TmpMosaicMRT1183473399420 1_093953.log</u>
Java Applet Window 07/03/2007 02:39EM 1,118 TmpCoaic@Wm1103473394920 1 093953.prm
07/03/2007 03:12FT 3,040 TEPEPARAMET11834/3399420 1 094117.10g
0//03/200/02.41PM 0300 ImpPatamuk111054/3395420 1 094117.prm
ftp://elpdvx153.cr.usgs.gov/MRT1183473399420/MOD13A1.A2007129.h11v05.0

≊USGS





## **MRTWeb – Subset Area from Time Series**

Select

Product Tile(s) Bands / Layers Time Range

### **Continue** to Process Tab





## **MRTWeb – Subset Area from Time Series**

## Specify Processing

Spatial Subset Resampling Projection Output File Type

Continue to Download Tab

😵 USGS Global Visualization Vie	wer				
<u>P</u> roduct <u>Z</u> oom <u>M</u> ap Layers <u>T</u> o	ols <u>H</u> elp				
Selection K Process	s 🍼 Downle	oad			
Processing Type Reproject					
Spatial Subset					
Input Lat/Long 💌	Upper Left 37 Latitude 35	-85 Longitude -83 Lower	Right		
Resampling Type Pixel Nearest Neighbor 💌 Nativ	Size re 💌 meters				
Projection					
Lambert Azimuthal	-				
Sphere CentL	on	CenterLat	FE	_	
6370997 -84		36	0		
FN 0					
Output File Type GEOTIFF 💌					
				Process	
Java Applet Window					



# MRTWeb – Subset Area from Time Series Monitor & Download







## **MRTWeb Status & Plans**

- Completed Beta testing with internal users
  - Refinements and fixes in work
- Public release pending
- Will replace Data Pool GUI & conversion services for MODIS tiled data
- Other development opportunities -
  - QA/QC bit filtering
  - Additional file formats (e.g, NetCDF)



## **MODIS Data Pool Planning**

- In FY08, more DP space (~70TB), smaller file sizes (C5 file compression)
  - Enough for 10-day rolling L2G + everything else through CY08
  - Can be maintained with ~8 TB increase/year
- Can put entire MODIS record on data pool with large expansion to cover L2Gs
  - ~275 TB additional through CY08
  - ~35 TB increase/year to maintain
- More DP = faster & more direct access, increased MRTWeb functionality, less impact to tape archive



## Outline

- Data Products
- Access Methods & Conversion Tools
- Selected Metrics
- Gauging User Community Needs

## Recent Projects

- MRTWeb
- Website Redesign





## Website Redesign

User Need: Improved access to information:

- Streamline site navigation
- Clarify product specifications & documentation
- Provide clear pathway to appropriate data acquisition method
- Communicate significance and impact of data products
- Institute additional user feedback mechanisms



## **Website Sections**

- Home
  - What's new?
- About
  - Who are we & what do we do?
- Product Information
  - What data are available and what are their characteristics?
- Get Data
  - What methods are available to access data and which is best for me?
- Tools
  - What tools are available to use with the data?
- Community
  - How are the data being used?
- Customer Service
  - How do I get help?





## Website Redesign





### Another Test Title

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis tincidunt molestie odio. Integer sit amet nisl ut eros pharetra varius. Morbi pellentesque... read more

### Test Article Cache

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis egestas erat sit amet mauris, Pellentesgue at urna. In tortor, Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec et felis. Donec porta... read more

### Archived news article

Lorem insum dolor sit amet, consectetuer adipiscing elit. Proin vitae ante nec lectus tristique accumsan. Nam aliquam vehicula nibh. Pellentesque purus est, auctor in. tempor sit amet, facilisis vel, diam. Pellentesque lobortis, Vivamus condimentum guam at ligula. In hac habitasse platea dictumst, Nulla laoreet, Aliguam Jacus, Cum sociis natogue penatibus et magnis dis parturient montes, nascetur ridiculus mus... read more



### ASTER & MODIS Image Galleries

Scenes Available - September 01, 2006

ASTER Over 1,089,000 MODIS Over 14,210,000



•





## **Product One-Pagers (old)**

Land Processes Distributed Active Archive Cente

About Products Data Tools Order Data News Help/Edu

EDG Data Set Name	ShortName
MODIS/Terra Surface Reflectance 8-Day L3 Global 500m SIN Grid V005	MOD09A1

Version	Acquisition Range	Science Quality Status
<u>003</u>	August 29, 2002 - October 7, 2002	Provisional from 11/01/2000
004	February 24, 2000 - December 31, 2006	Validated Stage 1 from 01/01/2003
005	February 24, 2000 -	Validated Stage 1 from 02/24/2000

V005 MOD09A1 Changes (abbreviated Points of Interest below)

V005 MOD09A1 Science Data Sets (specifications for data layers)

V005 MOD09A1 Quality Control Bit Legend

V005 Surface Reflectance Accuracy



teres and the second	ristics: « 10 degrees latilong	Top Left: A combination of <u>Bands 1, 4, 3</u> displays an R. G. B Surface Reflectance image using 500-m data acquired between January 1 - 8, 2007 over much of Mexico (h08v06).
ion Sinusoid ormat HDF-E	tal EOS	giving a clear view of the pine-oak torests defining the Sierra Madre Occidental in the west, across the altiplano region
		occupying much of the Mexican Interior
tions: 2400 x tion: 500 met	2400 rows/columns ters	Top Right: This subset from the lower central portion of the top-left image, highlights Lago de Chapala between the
e Data Sets (	SDS HDF Layers): 13	states of Jalisco and Michoacan. Covering approximately 1100 km <sup>2</sup> , it is Mexico's largest freshwater lake
		-
Thange Poin	its of Interest:	
Reduced fil Improved a	e volume: internal compression erosol retrieval	1
ct Description ODIS Surface red at ground otheric gases its.	on Reflectance products provide a sievel in the absence of atmosp and aerosols, yielding a invel-2	an estimate of the surface spectral reflectance as it would be here scattering or absorption. Low-level data are corrected for basis for several higher-order gridded level-2 (L2G) and level-3
A1 provides ion. Each M sis of high ob the Data Sets the year for t	Bands 1-7 at 500-meter resolut DD09A1 pixel contains the best servation coverage, low view an provided for this product include the pixel along with solar, view, a	tion in an 8-day gridded level-3 product in the Sinusoidal possible L2G observation during an 8-day period as selected on gie, the absence of clouds or cloud shadow, and aerosol loading, reflectance values for Bands 1-7, quality assessment, and the ind zenth angles.
n-5 MODIS/Te ted using a si I-truth/field pr fic publication	erra Surface Reflectance produc mail number of independent mea rogram efforts. Although there m is	cbs are Validatied Stage 1: meaning that accuracy has been asurements obtained from selected locations and time periods and vay be later improved versions, these data are ready for use in
rinter Friend	tly Version	
the MODOR	A1.5 MODIS product through the meddps01u ecs.nasa.gov 2200 p./re0dps01u.ecs.nasa.gov/MOL	e LP. DAAC Data Pool 20:0PS/or/(Patrich-esidtéesidt-MOD09A1.5&group-MOLT LTA/OD09A1.005/
ata through t	the EOS Data Gateway	
deimiswww.er.	usgs.gov/pub/msweicome/)	
ata Gateway	Search Tips	
venner.	LPDAAG	
	MUDIS	CONTRACTOR AND CONTRACTOR AND CONTRACTOR
	A AND PARTY OF A DAY OF A DAY OF A DAY OF A DAY	A Deside Disease Filler Cal Contract
et.	MODIS/Terra Surface Reflecta	ance 8-Day L3 Global 500m SN Grid V005
et: A:	MODIS/Terra Surface Reflecta HORIZONTAL TILENUMBER M	ance 8-Day L3 Global 500m SIN Grid V005 as/Min VERTICALTILENUMBER Max/Min
et 1. aphic Extent	MODIS/Terra Surface Reflecta HORIZONTAL TILENUMBER M Type Lat/Long Range or Draw	ance 8-Day L3 Global 500m SIN Grid V005 asr/Min VERTICAL TILENUMBER Max/Min r on Map
et é: aphic Extent xral Extent	MODIS/Terra Surface Reflecta HORIZONTAL TILENUMBER M Type Lat/Long Range or Draw 2000-02-24 to present	ance 8-Day L3 Global Solom SN Gnd V005 aanMin VERTICAL TILEMUMBER Max/Min ron Map
et # aphic Extent oral Extent of Informatic of Description	MODIS/Terra Surface Reflecta HORIZONTAL TILEHUMBER M Type Latit.ong Range or Draw 2000-02-24 to present	ance 8-Day L3 Global 500m BH Grd V005 aanMin VERTICALTILENUNBER MaanMin on Map
et e aphic Extent oral Extent tt Informatic c1.Description mode-land p builde	MODISTERTA Surface Reflects HORIZONITAL, TILEHUMBER M. Type Lati/Long Range or Draw 2000-02-24 to present Int. nasa, gov/surfad.htm)	ance 8-Day L3 Global 500m SH Grd V005 aanMin VERTICALTILEHUNBER MaanMin on Map
et aphic Extent oral Extent ti Informatic ti Description modis-land g Satte Imodis-Sriftion thm Theorem	MODISTERTS Surface Reflects HORIZONTAL, TILEHUMBER M, Type LatUrog Range or Draw 2000-02-24 to present als. nasa. gov/surface htm als. nasa. gov/surface htm crightmipupes htm	ance 8-Day L3 Global 500m SH Grd V005 aaMin VERTICALTILEHUNBER Mau/Min on Map
et aphic Extent oral Extent ti Informatic ci Description imode-land g isote mode-sr iten tim Theoretic mode, galt, n	MODISTERTA Surface Reflects HORIZONTAL TILEHUMBER M Type LatLong Range or Draw 2000-02-24 to present on sit. nasa. gov/surfaci htm)  orghtmiguse.htm) ata Bass. Document (ATBD) asa. gov/sata/atbo/atbo/mod08.	Ince B-Day L3 Global 500m SH Grd V005 as/Min VERTICALTILEHUNBER Mau/Min on Map
et aphic Extent oral Extent ti Informatic ti Description modis-ari itur isate modis-sr itur tim Theoretis modis gist, in Sistandard D modis gist, in	MODB/Terra Surface Reflects HORECONTALTLE/HUMBRER M HORECONTALTLE/HUMBRER M 2000-02-24 to present 2000-02-24 to present 1 alt. nasa.gov/surf.rad.htm) cog/throgude.htm) alt Basis.Document (ATBO) na gov/surf.rad.htm) alt Basis.Document (ATBO) html gov/surf.rad.html html	ext B-Day L3 Global 500m SH Grd V005 as/Min VERTICAL TILEHUNBER Mau/Min on Map
et a a caphic Extent ct Information india-land g issite imode-ant d issite india-set iton in Theoretic india Freducto to spice office	MODB/Terra Surface Refects HORIZONTAT, LENAMBER M. Type Lakiong Range or Draw 2000-02-24 to present In International Control (International International Control (International	exter B-Day L3 Global 500m BH Grd V005 as/Min VERTICAL TILEHUNBER Mau/Min on Map
e t t t t t t t t t t t t t	MODB/Terra Surface Refects InfoRcort AT, ILENAMEER M. Type LaftLong Range or Draw (2000-02-24 to present 2000-02-24 to present ist. nass. govsurfad Jhtm InfoRcore Surface (Jhtm) Longthreigude hhm) LaftBass Document (Jhtm) Bass. governos. The Surface (Jhtm) Bass. governos. The Surface (Jhtm) Data governos. The Surface (Jhtm) Data governos. The Surface (Jhtm) Part (Jhtm) Surface (Jht	ence 8-Day L3 Global 500m SH Grd 1005 aanMin VERTICALTILEHUNBER Mau/Min on Map
et i aphic Extent oral Extent ct Informatic ct Description mode-and g Sade mode-and g Sade sode and g Sade mode ash d mode ash d s Standard D mode ash o s S S S S S S S S S S S S S S S S S S S	MODB/Terra Surface Refects (MODB/Terra Surface Refects) Type LatiLong Range or Draw 2000-02-24 to present Dr Dr Dr Dr Dr Dr Dr Dr Dr Dr	ence 8-Day L3 Global 500m BH Grd 1005 an Min VERTICAL TILEHA/INBER Main/Min on Map
et apha Extent oral Extent ct Informatic ct Description model-and page base model-and page to a standard D model-and page to a standard D model-and to a standard D model-and to a standard D to	MODBITTERIA SURface Reflects (MODBITTERIA SURface RAMINE) (Progecurat JL, MELLANDRER RAMINE) (Progecurat JL, MELLANDRER RAMINE) (Progecuration (Progecular) (Progecuration) (Progecular) (Proge	exc 68-Day L3 Global 500m BH Grd 1005 JaxMin VERTICAL TILEHA/INBER Maw/Min on Map
et aphic Extent oral Extent ct Informatic ct Informatic ct Description models and the models gate in the products oral Standard Di models gate in that Products oral Standard Di models gate in the products oral Standard Di the products or	MODB/Terra Surface Refects (MODB/Terra Surface Refects) (Progecont ALL INELIMMERE M. Type Latituding Range or Draw (2000-02-24 to present (2000-02-24 to present (2000-0	ance 8-Day L3 Global 500m BH Grd 1005 an Min VERTICAL TILEHA/INBER Main/Min rom Map 
e aphic Edent oral Extent ct Informatic ct Description imodia-sind g adde imodia-sind g adde imodia-sind g state imodia-sind g state imodia-sind g state imodia-sind g state imodia-sind g state imodia-sind g state imodia-sind g state imodia-sind g state stat	MODBITTER SURface Reflectly (MODBITTERS SURface Reflectly) (Progecurital TurkenMetter Mul- (Progecurital TurkenMetter Mul- (Progecurital TurkenMetter) (Progecurital TurkenMetter) (Prog	exe E-Day L3 Global 500m BH Grd 1005 JaxMin VERTICALTILEHUNBER MaxMin on Map
e et aphic Extent oral Extent cal Extent cal Extent cal Description imode-saint grant cal Description imode-saint cal Description imode-saint cal Description cal Des	MODBITTerra Surface Refects HORDONTATION TERNINGER M. Type LatiLong Range or Draw 2000-02-24 to present 2000-02-24 to present 2000-02-24 to present 2000-02-24 to present and mass.gov/surfad.html and mass.gov/surfad.html and products Catholic Action and products Catholic Action (VISICAS) provided Catholic Action 40,0001 00-594-4116 66-570-3222 00-594-4116 66-570-3222 00-594-4065 EPLACAGE ON LINES ADV	ance B-Day L3 Global 800m BH Grd Y005 aanMin VERTICALTILEHUMBER MauMin on Map 
e aphic Extent oral Extent oral Extent ct Informatic ct Description Imodes and g adde Imodes art and modes gate, n stanformatic Sc Lister, Sec records gate, n informatic Sc Lister, Sec sc Lister, S	MODB/Terra Surface Refects (MODB/Terra Surface Refects) Type Labl.ong Range or Draw 2000-02-24 to present an An Losa gov(Surfad J101) (org/thrib guide J101) all Dass Document (A150) all Dass D	ence B-Day L3 Global 800m BH Grd V005 aanMm VERTICALTILEHUNBER MawMm on Map 
e aphic Extent oral Extent of Informatics of Informatics of Informatics of Informatics Standard D Informatics Standard D Informatics Stan	MODBITTERIA SURface Reflectly (MODBITTERIA SURface RAMINE) (Type Latituding Range or Draw (Type Latituding Range or Draw (Data)	exe E-Day L3 Global 500m BH Grd 1005 JaxMin VERTICAL TILEHA/INBER Maw/Min rom Map 
A Constraints of the second se	MODENTERIA SURFACE REFECT (MODENTERIA SURFACE AND ADDRESS AND ADD	ance 8-Day U.S Global 500m BH Grd V005 aaxMn VERTICALTILEHUMBER MaxMm rom Map 

Data 1 Area File Si Projec Data F

> Produ The M measu atmost product

MODO projec the ba Scien day of Versio estima groun scienti

View P

Via Sea Via FTR

nttp //

Data ( Senso Datas Datas Spatu Geog Temp

Produ Produ (http:// uter.i (http:// http:// http:// http:// chttp:// chttp

Conta U.S. G Center 47914 Sioux

LP D





## **Product One-Pagers (new)**







## Website Redesign Status

- Completed prototype look, feel, & structure
- Selected content management system
- Designated content ownership
- Planning implementation





## Context

Land						
Active		2000			2007	USGS
Archive					/	LTA
System	Design	Implem	ent Ma	intain	Evolve	
						New
Missions		TERRA	AQU	A <mark>Se</mark>	nior Reviev	Missions?
		C1	C3	C4	C5	C6?
Collect's						
100000		EDG	Data	GloVis		Online
Access			Pool		MRTWeb	storage +
Tools 8		MRT	F	IEG		improved
10015 &		LDO	PE			discovery
Services		Μ	RTswat	h		& delivery
						services?



## **Questions?**





