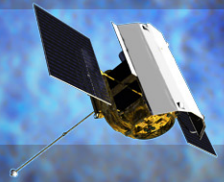




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MErcury Surface, Space ENvironment, GEochemistry, and Ranging



Welcome to the Mercury Dual Imaging System (MDIS) Data Users' Workshop!

Our goal is for you to leave this workshop with the ability to start using MDIS data in your current and future research projects.

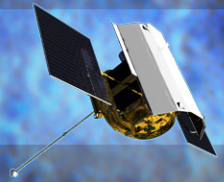
- Installing USB workshop materials on your laptop – please start this now
- ISIS overview and hands-on MDIS examples
- ~4 pm: Overview of MDIS products and additional resources



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Overview of MDIS Imaging Products:

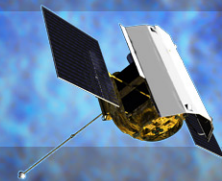
- >250,000 images
- Four global monochrome maps (~250 m/pixel, 750 nm)
 - morphology map (*targeting ~68° incidence angle*)
 - high incidence (~80°) west illumination
 - high incidence (~80°) east illumination
 - *[May 2016: albedo map (min. incidence angle)]*
- Three color maps
 - global 8-color (~1 km/pixel)
 - N. hemisphere 3-color (~300 m/pixel)
 - *[May 2016: Low-phase N. polar 5-color (~300 m/pixel)]*
- Regional targeted mosaics
 - higher resolution monochrome and color mosaics
- *[May 2016: global DEM]* (MLA N. hemisphere DEM available now)



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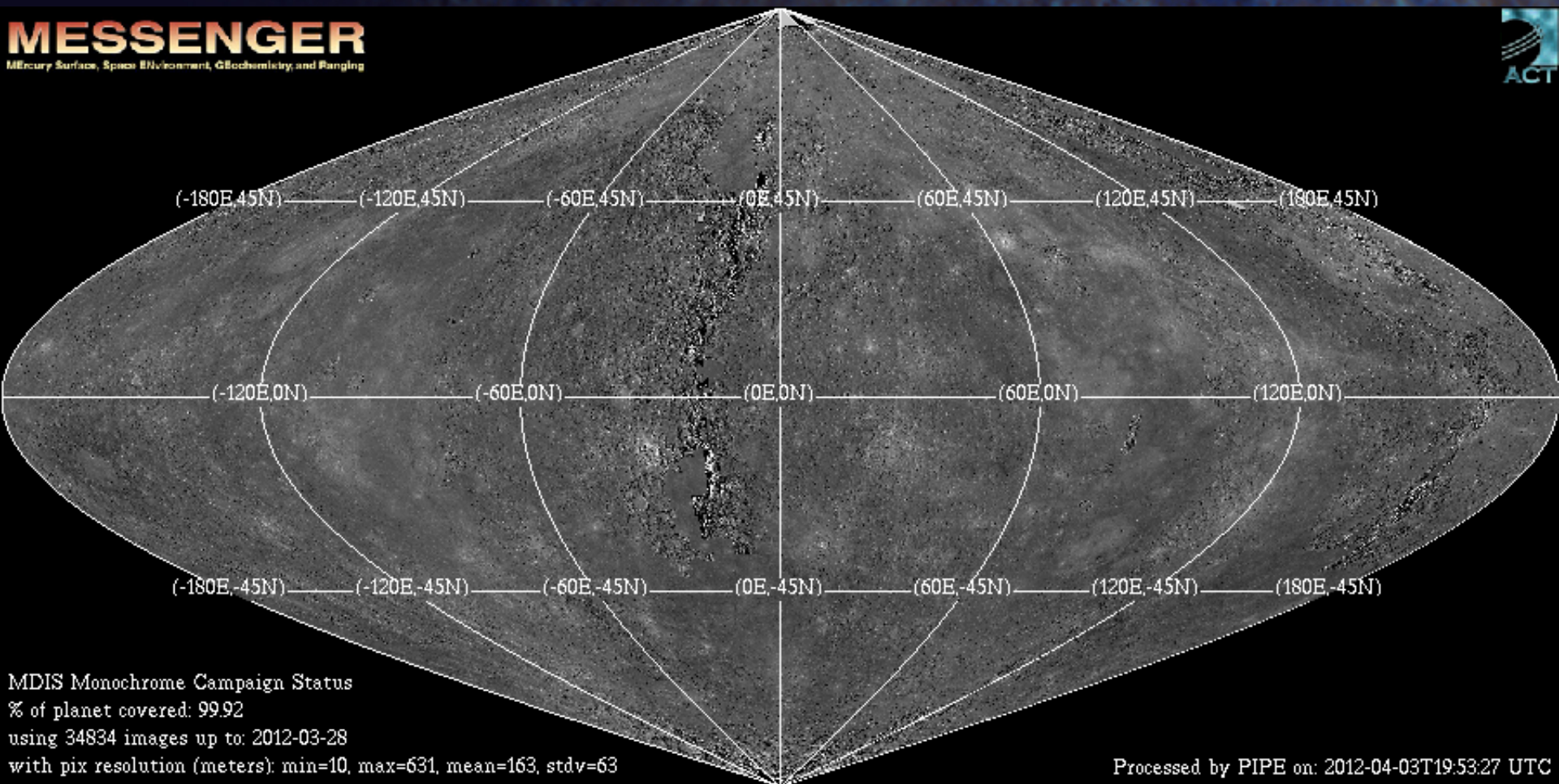
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Morphology Map

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MDIS Monochrome Campaign Status

% of planet covered: 99.92

using 34834 images up to: 2012-03-28

with pix resolution (meters): min=10, max=631, mean=163, stdv=63

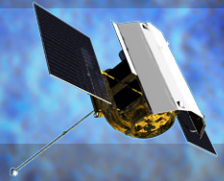
Processed by PIPE on: 2012-04-03T19:53:27 UTC



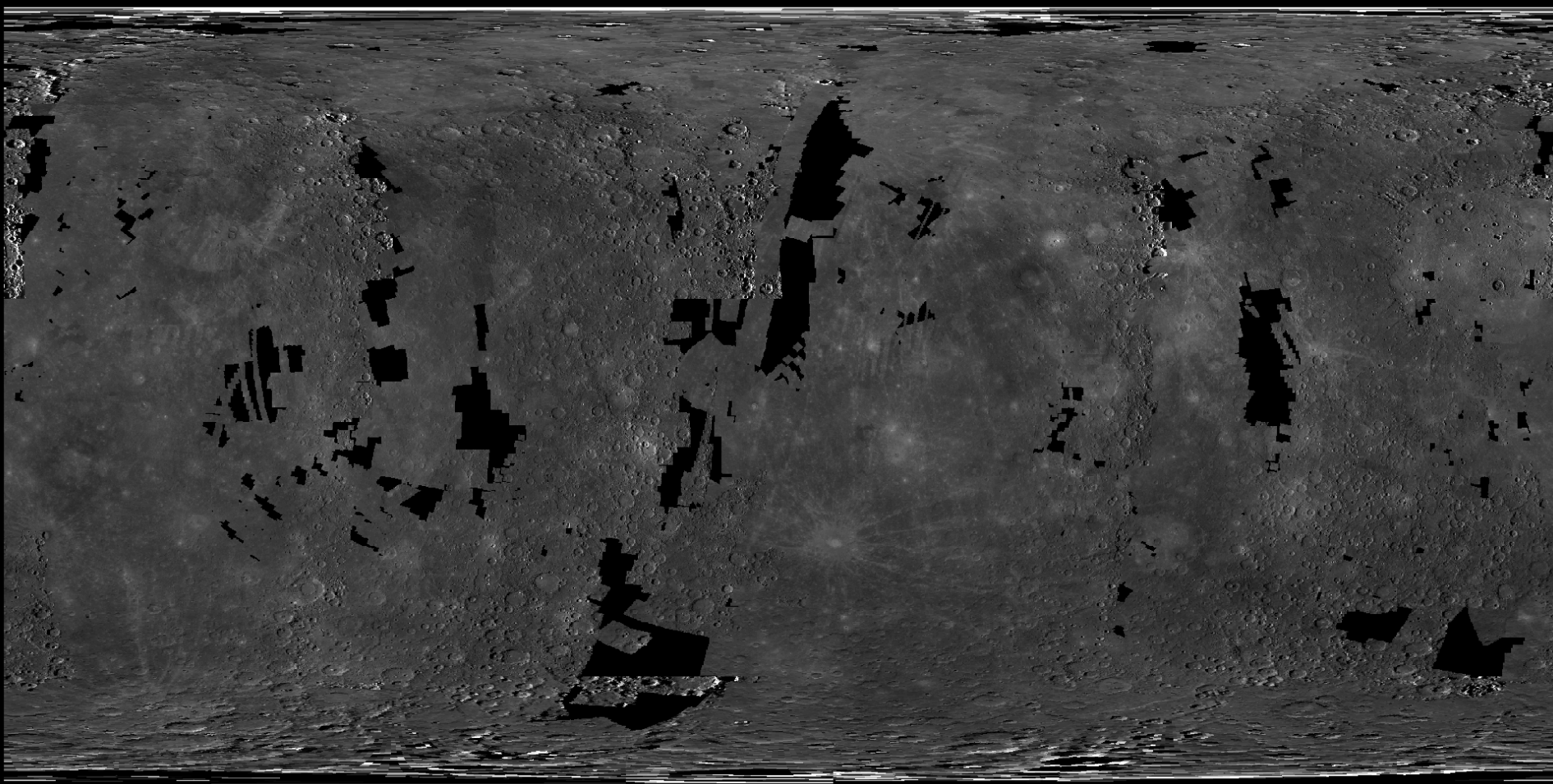
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High Incidence West

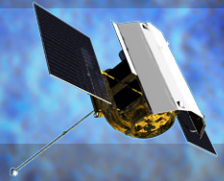




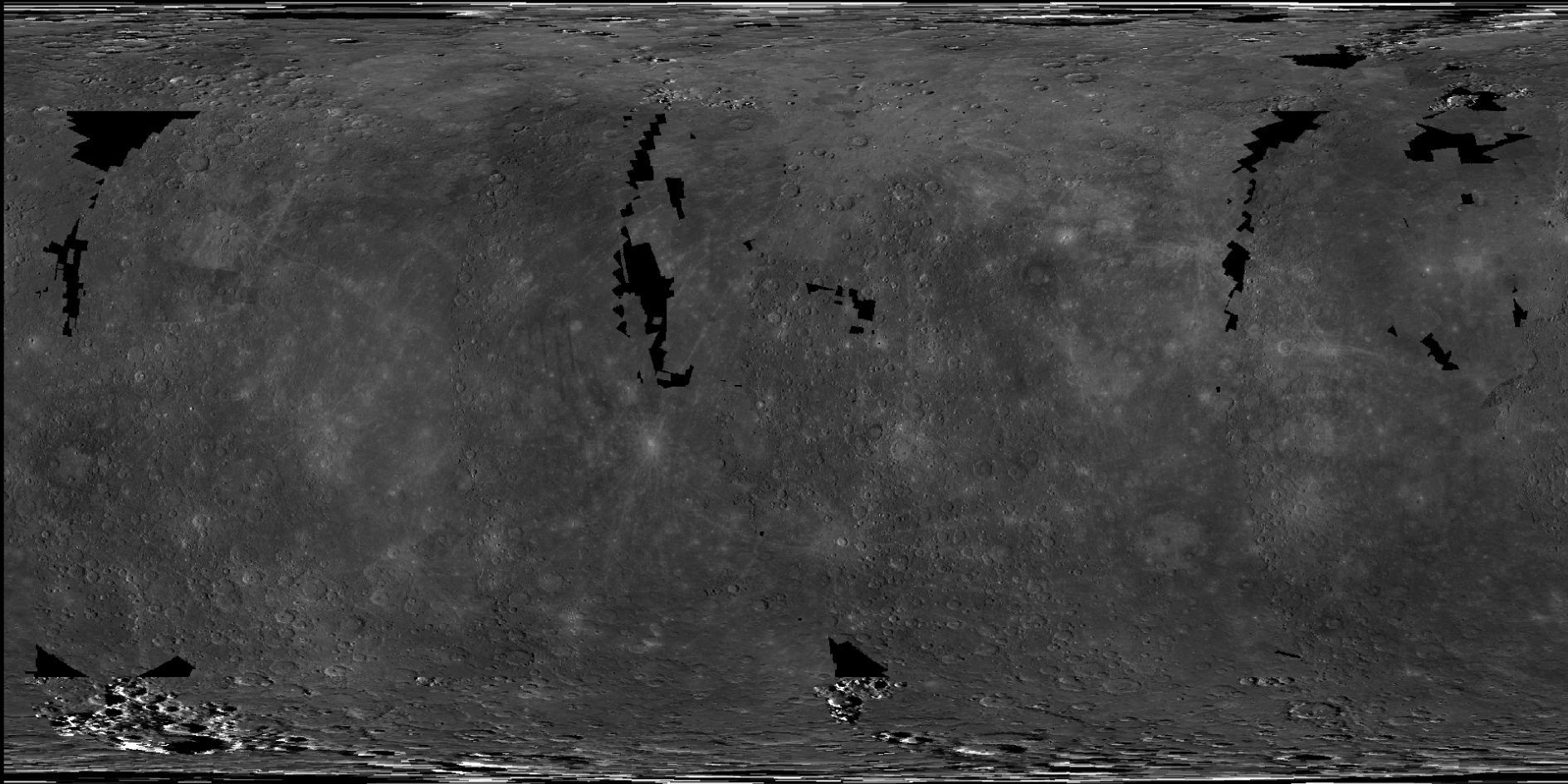
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MERCURY SURFACE, SPACE ENVIRONMENT, GEOCHEMISTRY, AND RANGING



High Incidence East

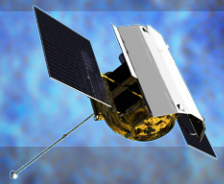




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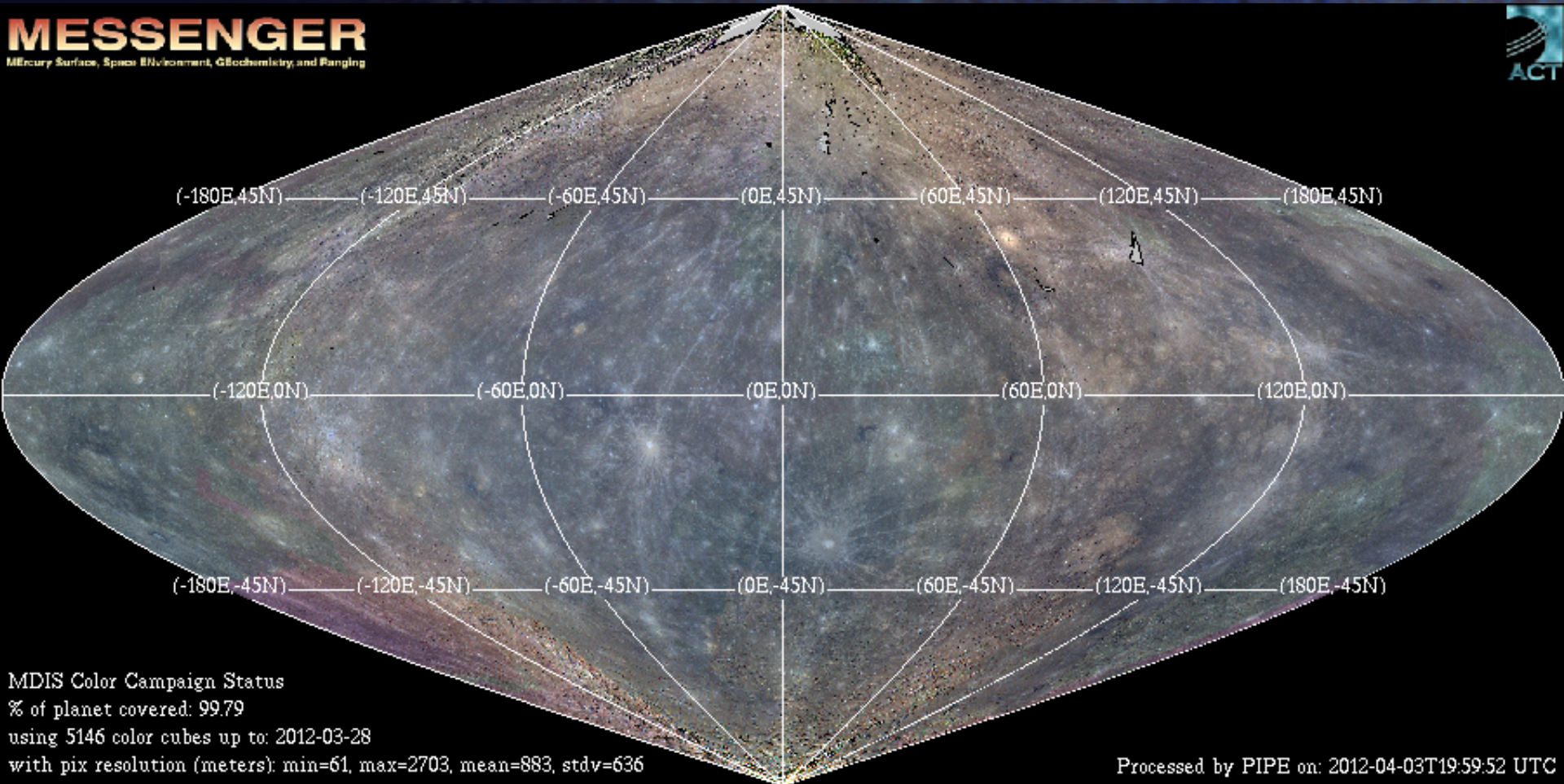
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8-Color Map

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MDIS Color Campaign Status
 % of planet covered: 99.79
 using 5146 color cubes up to: 2012-03-28
 with pix resolution (meters): min=61, max=2703, mean=883, stdv=636

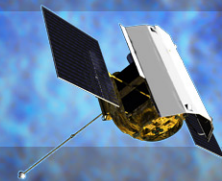
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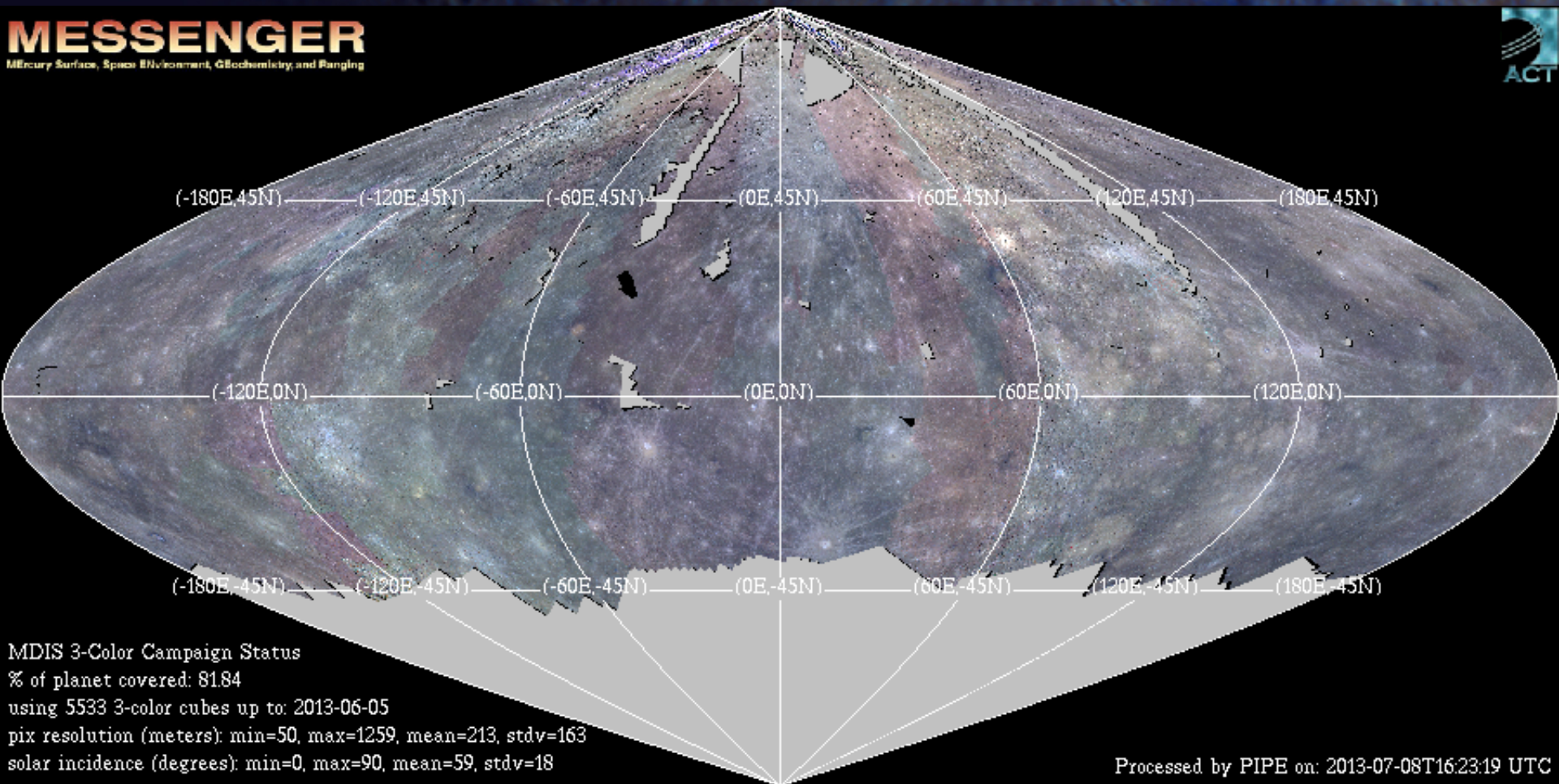
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3-Color Map

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MDIS 3-Color Campaign Status

% of planet covered: 81.84

using 5533 3-color cubes up to: 2013-06-05

pix resolution (meters): min=50, max=1259, mean=213, stdv=163

solar incidence (degrees): min=0, max=90, mean=59, stdv=18

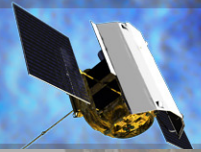
Processed by PIPE on: 2013-07-08T16:23:19 UTC



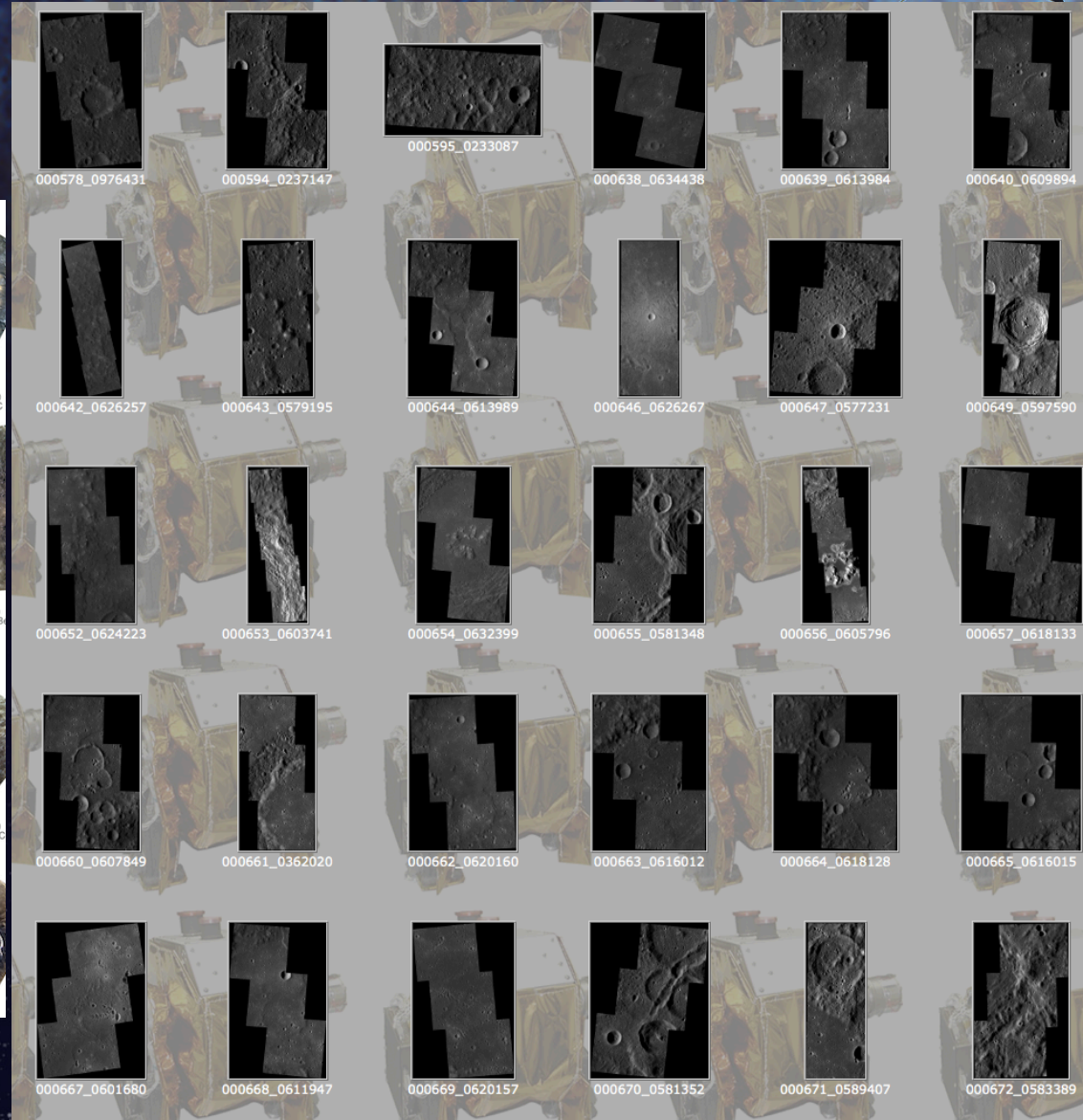
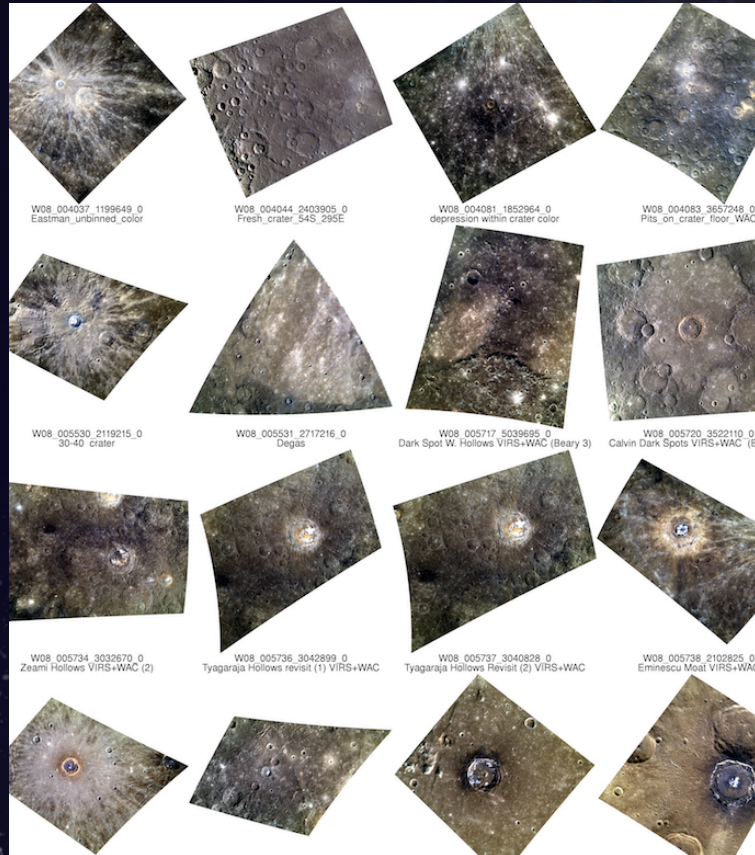
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Regional Targeted Mosaics

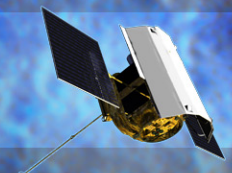




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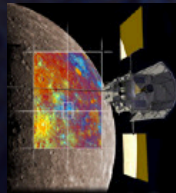
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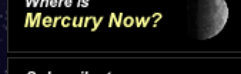
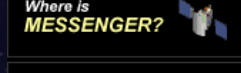
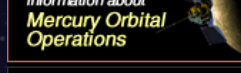
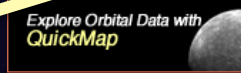
Website

This website has all of today's presentation materials and more!

There is also a contact email that will stay active.



- Why Mercury?
- The Mission
- Gallery
- Education
- News Center
- Science Operations
- Who We Are
- FAQs
- Related Links
- Contacts
- Home



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MErcury Surface, Space ENvironment, GEochemistry, and Ranging

A NASA Discovery mission to conduct the first orbital study of the innermost planet



MESSENGER Mercury Dual Imaging System (MDIS) Data Users' Workshop 2015

- [About the Workshop](#) | [Online Registration](#) | [Agenda](#) | [Presentations and Resources](#) | [Contact Information](#)

This workshop will introduce [MESSENGER's Mercury Dual Imaging System \(MDIS\)](#) images and advanced data products available in [NASA's Planetary Data System \(PDS\)](#) and will focus on getting users to work with MDIS data. Tools and software to navigate and analyze MDIS data will be discussed. The overall goal of the workshop is to increase the awareness and accessibility of MDIS datasets to the larger scientific community, to support ongoing scientific projects, and to enable future research proposals. The workshop is open to any one in the community, and no previous experience with MDIS data is required.

Since entering orbit in 2011, MESSENGER has acquired >250,000 images of Mercury's surface and created the first global maps of the Solar System's innermost planet. MESSENGER's operational mission will end in April 2015, as the spacecraft depletes its fuel and impacts the planet. MDIS images and global mosaics are available in the PDS, with additional PDS deliveries planned through spring 2016.

This MESSENGER MDIS Data Users' Workshop is planned to be held in association with the [46th Lunar and Planetary Science Conference](#) 1:30 pm to 4:30 pm on Sunday, March 15, 2015, in the Grogan's Mill room. Visit the LPSC website link above for location and other logistical information.

March 10, 2015 Workshop Announcement

This workshop will be hands-on and activity oriented, to give all participants some direct experience working with MDIS data during the workshop. As such, the three items below would be useful for participants to do prior to the workshop if possible.

1. Bring a laptop if possible! (We'll be running the activities on VirtualBox, which supports a large variety of operating systems; see the VirtualBox link below for more information about the systems supported)
2. Install VirtualBox, available for free off this website: <https://www.virtualbox.org/>
3. If you are new to ISIS, we encourage you to check out some of the basics ahead of time with these online tutorials: ISIS online workshop: <http://isis.astrogeology.usgs.gov/IsisWorkshop/index.php/IsisWorkshop>
Specifically:
 - a) <http://isis.astrogeology.usgs.gov/IsisWorkshop/index.php/IsisWorkshop#Fundamentals>
 - b) <http://isis.astrogeology.usgs.gov/IsisWorkshop/index.php/IsisWorkshop#Cartography>

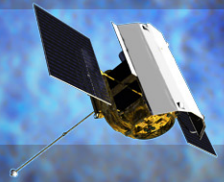
<http://messenger.jhuapl.edu/workshop2015/index.html>



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Website

The [Presentations and Resources](#) page has a lot of additional information!

[About the Workshop](#) | [Online Registration](#) | [Agenda](#) | [Presentations and Resources](#) | [Contact Information](#)

Presentations and Resources

- [ISIS Tutorial for MDIS Data Users' Workshop](#)
- [Accessing MDIS Data and Products in the PDS](#)
- [Importing MDIS Products into ENVI](#)

Resources from the 2013 MDIS Workshop

- [ISIS Support Posting](#)
- [Workshop Presentation Slides](#)
- [Exploring MDIS Products in QuickMap](#)
- [Overview of MESSENGER mission, instruments, and imaging campaigns](#)
- [MDIS Calibration](#)

<http://messenger.jhuapl.edu/workshop2015/index.html>