

Mapping and Planetary Spatial Infrastructure Team

INTRODUCTION

SSB study on NASA PSD R&A Reorganization

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Introducing the Mapping and Planetary Spatial Infrastructure Team

- **Mosaics**, geologic maps, derived regional and global data products and associated geospatial infrastructure are integral to the success of the planetary science enterprise

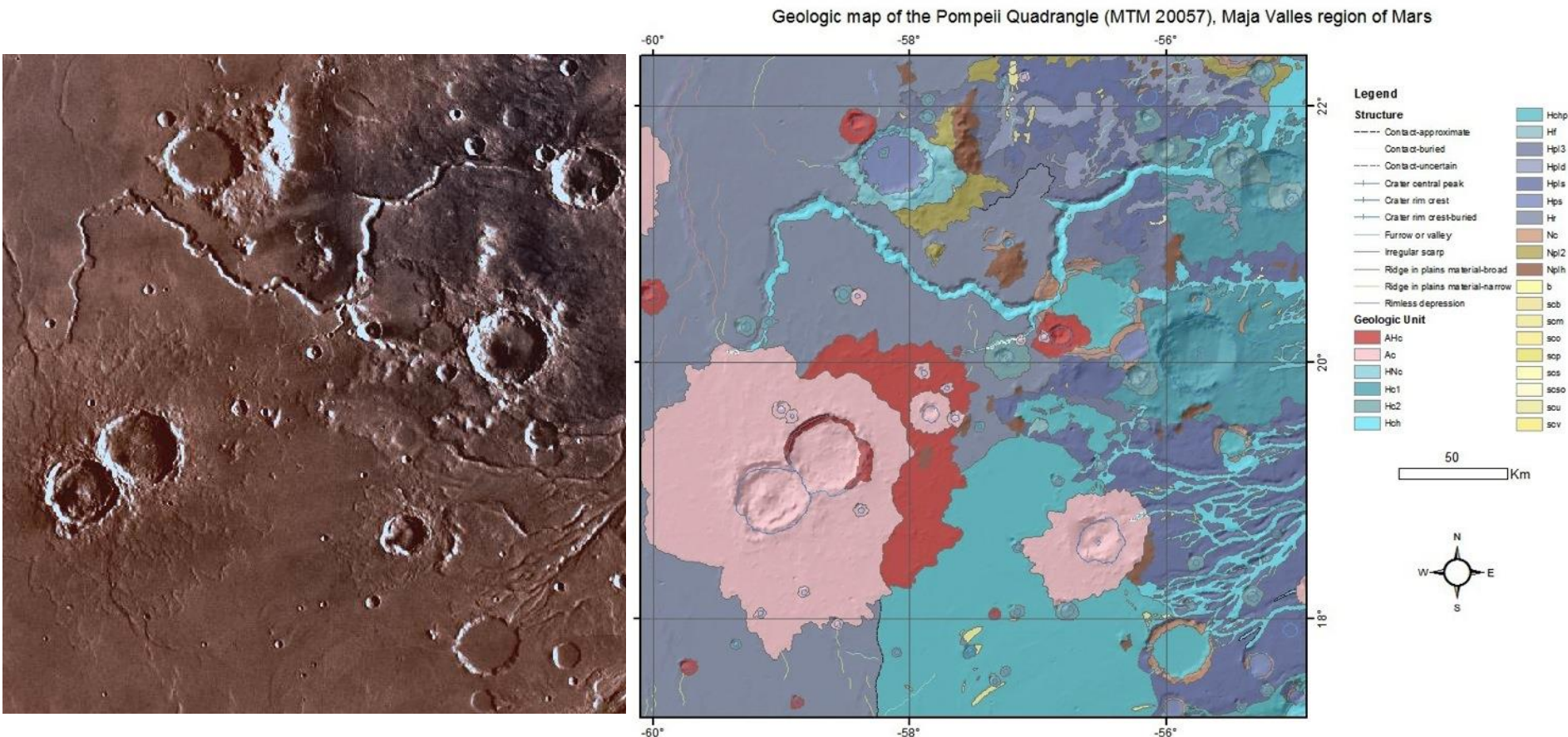


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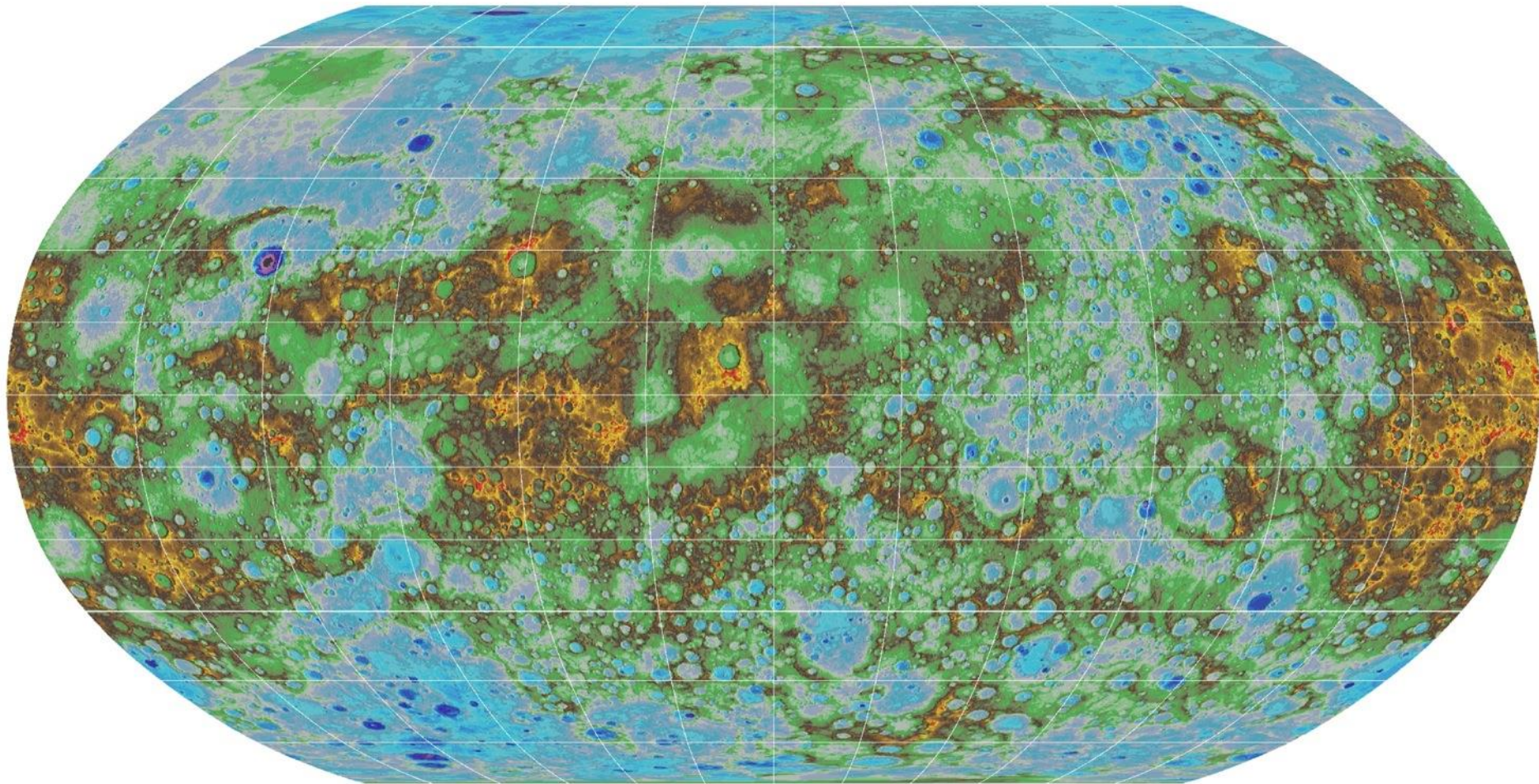
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 - **Influence all phases of the mission lifecycle for science investigations and operations**
 - Strategic needs must be anticipated and prioritized by the community
 - PSS recommended a “Cartography Research and Analysis Group” [CRAG] in Fall 2014.
- A team fulfilling this role now exists in the form of MAPSIT
 - MAPSIT succeeds former Planetary Cartography and Geologic Mapping Working Group (PCGMWG) and assumes strategic planning role
- **We represent the planetary science community**
 - Help evaluate, prioritize and advocate for data, mapping, infrastructure needs

MAPSIT Steering Committee

- Jani Radebaugh, Brigham Young University [Chair]
- Samuel Lawrence, Arizona State University [Chair Emeritus]
- Brad Thomson, Boston University [Vice Chair]
- Shane Byrne, University of Arizona
- Justin Hagerty, United States Geological Survey
- Lisa Gaddis, United States Geological Survey
- Sarah Sutton, University of Arizona
- James Skinner, United States Geological Survey
- Trent Hare, United States Geological Survey
- Daniella DellaGiustina, University of Arizona
- Erwan Mazarico, NASA Goddard Space Flight Center
- David Williams, Arizona State University
- Brent Archinal, United States Geological Survey
- Robin Fergason, United States Geological Survey
- Jay Laura, United States Geological Survey

Representing a Diverse Community:

- *Domain geoscience specialists*
 - *Moon, Mercury, Small Bodies, Outer Planets, Mars...*
- *Photogrammetry and Geodesy*
 - *SOCET-SET, SOCET-GXP*
- *Geologic Mappers*
- *Mission participation*
 - *LRO, MRO, OSIRIS-Rex, MESSENGER, Cassini, Galileo*
- *Cartographic Software expertise*
 - *e.g. ISIS, ArcMAP, QGis, Lunaserv*
- *Human Exploration*
 - *SKG and ISRU expertise*

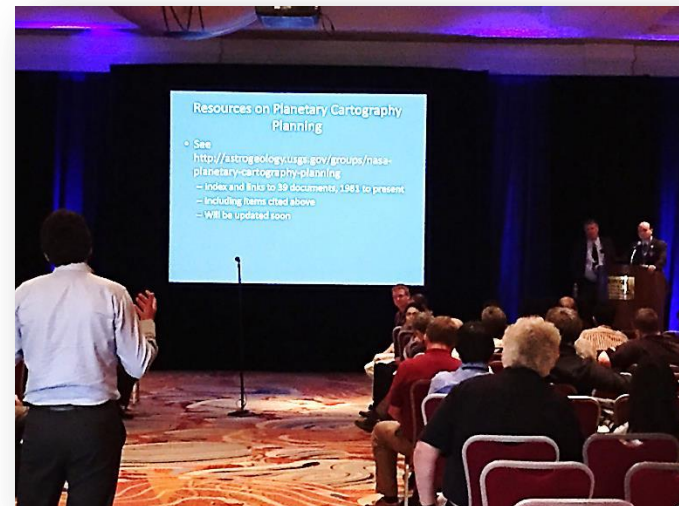
MAPSIT Committees

GEMS (Geologic Mapping Subcommittee)

- David Williams [ASU] (Chair)
 - David Crown [PSI]
 - Debra Buczkowski [JHU-APL]
 - Corey Fortezzo [USGS]
 - James Skinner [USGS]
-
- The first of several standing subcommittees designed to gather community input/concerns
 - Help encourage greater community involvement

MAPSIT Activities

- Town Hall at LPSC 46, 47
- Planetary Geospatial Session, LPSC 47, very well received (GIS/Planetary, Products, Standards, Tools)
- 2nd Data User's Workshop
 - 115 attendees in 2015
- Geological Mapper's Meeting:
 - Flagstaff, June 13-15, 2016
- Steering Committee Meeting June 16, 2016
 - Shoemaker Center, Flagstaff, AZ
- Synthesize 2017-2022 Planetary Geospatial Strategic Plan [PGSP]
 - Undertaking comprehensive community stakeholder input process
 - Nominal delivery by end CY2016
- MAPSIT webpage now up
 - <http://www.lpi.usra.edu/mapsit>



MAPSIT Goals

- Reach out to community, determine key needs
 - Products for all users and stakeholders
 - Standards for software? Instruments? Level-1 data?
- Maintain communication with NASA HQ
- Roll out 2017-2022 Planetary Geospatial Strategic Plan [PGSP]
 - Full community input
 - **Goal is a concise document to inform decision-making**
- Contribute to ISCEG, HEOMD and SMD Strategic Knowledge Gaps as needed
 - e.g., Moon, Small Bodies, Mars
 - *Example from LEAG GAP-SAT II: “Combine Kaguya, ULCN2005, LRO LOLA, and LRO WAC GLD100 topographic products to produce a definitive lunar geodetic grid to facilitate future exploration planning. This enhances current capabilities.” – pg. 24*

MAPSIT R&A Concerns

(Preliminary)

- PDART (Planetary Data Archiving, Restoration and Tools) is a strong addition
 - Recognition that producing data products useable by the community is valued by NASA
 - Concern that program is oversubscribed and underfunded to support the backlog of needed products
- PG&G (Planetary Geology & Geophysics) is a big loss
 - Was the home for mapping proposals – These can be evaluated in other programs, as long as mappers/geologists are among reviewers and if the community recognizes a geologic map is a science investigation.
 - Not clear among community how and what types of maps should be done under PDART or other programs.
- Can DAP programs be used to create data products, or just PDART?
- Should proposals supporting current and future missions be given priority?
- (my musings): What about the NSF experiment of NO deadlines for proposals? (=40% reduction in submissions)

Extras