Final GEMS Meeting, LPSC, March 23, 2017

Report to MAPSIT
April 13 2017

GEMS Chair: David A. Williams, ASU
USGS Mapping Coordinator: Jim Skinner
Members attending: David A. Williams (X), David A. Crown (X), Debra L. Buczkowski (X), Corey Fortezzo (X), Jim Skinner (X). NASA Program Officer: Sarah Noble ().

GEMS stands down as a Standing Committee of MAPSIT effective March 23, 2017. Discussion was had on issues related to planetary geologic mapping that must now be assumed by MAPSIT and its Steering Committee. Specifically:

(1) Update GEMS page on MAPSIT webpage. Recommend changing the opening text to read:

The Geologic Mapping Subcommittee was a standing subcommittee that functioned beneath the NASA-recognized Mapping and Planetary Spatial Infrastructure Team (MAPSIT), the advisory (or assessment) panel for planetary spatial infrastructure issues within NASA's Planetary Science Division. It operated from 1996 to 2017, until its duties were assumed by MAPSIT. GEMS was originally a subcommittee of the Planetary Cartography and Geologic Mapping Working Group.

(2) Now that GEMS has been folded into MAPSIT, who will handle the responsibilities of former GEMS Chair?

The MAPSIT Chairperson should review the existing GEMS charter and ensure that activities conducted by GEMS are incorporated into the MAPSIT charter as relevant/appropriate. This is important to ensure that MAPSIT embraces the responsibilities that GEMS had and that those are documented for future use. We have outlined these activities below.

GEMS RECOMMENDATION TO MAPSIT:
I. MAPSIT ensure that the Steering Committee continuously has members who have experience investigating planetary surface processes and creating geoscience maps that document those processes.

II. MAPSIT formally identify a Steering Committee member who has experience producing planetary geoscience maps, including at least one USGS SIM series geologic map, but who is non-USGS personnel. This individual will henceforth be called the Planetary Geologic Mapping Community Representative (PGMCR). The PGMCR will act on behalf of MAPSIT:

a) To convene the annual Planetary Geologic Mappers Meeting and organize and run the meeting;
b) To report MAPSIT activities to the planetary geologic mapping community as necessary, but specifically at the annual Planetary Geologic Mappers Meeting;

c) To facilitate discussions within the planetary geologic mapping community regarding the full range of their current and future needs and concerns as necessary, but specifically at the annual Planetary Geologic Mappers Meeting;
d) To collect, collate, post, and present findings related to planetary geologic mapping community current and future needs and concerns to MAPSIT as necessary, but specifically following the annual Planetary Geologic Mappers Meeting. MAPSIT Steering Committee attendees will assist.
e) To act as "Planetary Geologic Mapping Coordinator" (i.e., Guest Editor) when the USGS Planetary Geologic Mapping Coordinator has a map that must undergo editorial handling and peer review for which he/she has a conflict.
f) To assist, as necessary, the organization and functional operation of a temporary geologic mapping subcommittee underneath MAPSIT if and when such is deemed necessary.

We recommend that Dave Williams, the prior GEMS Chair who has experience with all of the above, assume the role of PGMCR effective immediately.

(3) What kinds of situations does GEMS and the geologic mapping community feel might require the temporary re-formulation of GEMS-like subcommittee?
In response to a specific request from MAPSIT regarding GEMS to ascertain when a geologic mapping subcommittee might need to be re-formulated, we find that such a committee is warranted when discussion within MAPSIT and/or geologic mapping community forums (e.g., the annual Planetary Geologic Mappers Meeting) are too time-limited to effectively come to a consensus on a particular topic or planning strategy. These might include:

I. Recommendations on technical and scientific issues related to geologic mapping of small and/or irregularly-shaped bodies (i.e., asteroids, comets, and dwarf planets) such as quadrangle schemes, cartographic symbol sets, unit definitions and stratigraphic correlations, and geographic nomenclature.

II. Recommendations on evaluating potential needs and planning for dedicated planetary geologic mapping campaigns, including *ad hoc* campaigns related to future NASA missions.

III. Recommendations on strategies to develop and implement some level of scientific and technical geologic mapping requirements and standards for maps published in multiple venues.

(4) Other issues discussed:

We discussed the potential for reducing the cadence of Planetary Mappers Meetings from annual to every two years. In order to maintain community interaction, MAPSIT and the planetary geologic mapping community would make efforts to hold special sessions and town hall events in off years. We note, however, that there was no consensus on this topic. As such, we recommend that the pros and cons of reducing meeting cadence be specifically discussed with the community at the annual Planetary Geologic Mappers Meeting in June, 2017. The PGMCR will collate and present these points to MAPSIT with other community findings.