

A NEW MODEL TO DECREASE THE REVIEW PERIOD FOR PLANETARY GEOLOGIC MAPS SUBMITTED TO THE U.S. GEOLOGICAL SURVEY FOR PUBLICATION. C. M. Fortezzo and J. A. Skinner, Jr.; U.S. Geological Survey, Astrogeology Science Center, 2255 N. Gemini Dr., Flagstaff, Arizona 86001 (cfortezzo@usgs.gov).

Introduction: We are currently adapting and testing a new model for the review process of USGS planetary geologic maps in an effort to decrease the amount of time between an author's submission, technical review, and eventual publication as a USGS Scientific Investigation Map (SIM) series product. Thus far, the adapted model decreases the time of the review by 250%. The old (two technical reviewer) model is still being used as this new model is being tested.

Background: NASA-funded planetary geologic mapping projects that intend to submit maps to the USGS for publication are required to submit their map packages for technical review by at least two community members. Each map must also undergo a review from the USGS Map Coordinator to ensure consistency in review and conformity to community standards. Researcher that proposes to produce a geologic map published by the USGS can include a line item in their NASA proposal budgets for two weeks (80 hours) of time to review two maps over the course of their two to four year project.

The planetary mapping community is a small subset of the planetary science community and finding available and willing reviewers is often a challenge. Map reviews are more complicated than most journal article reviews in that there are multiple components that need to be evaluated: the geologic map, correlation of map units, description of map units, map text, figures, cross-sections, and tables. All of these components are expected to be evaluated for internal consistency, cross-consistency between the components, accuracy, conciseness, representation, and scientific substantiality. These reviews are expected to be completed within 2 months of assignment.

After an available technical reviewer is identified and the materials are delivered, they are expected to set aside sufficient time to conduct a thorough. Though the time required is variable based on the map product being reviewed, it is often expected that a single map review will take a minimum of 40 hours. It is obviously a challenge for any professional, multi-project scientist to set aside a contiguous 40 hours for a single task. As a result, the technical review process can unintentionally extend for several months or longer, depending on reviewer availability, amount of comments, quality of the map and associated components, and other unexpected life events.

Once both of the reviews are returned to the USGS, time is taken to collate the two reviews into a single review. Then, the single review is then reviewed by the Map Coordinator and any additional comments either about the mapping or related components or other programmatic concerns are added to the collated review. The review package is then sent back to the authors for edits and responses to comments.

Since we began collecting statistics on the mapping process from proposal to publication, the average time from the author's submission to the USGS to the return of the review package to the author is ~8 months. This is an untenable length of time and impinges upon the successful completion of the product by the author and the delivery of quality scientific material funded by NASA. As a result, a new, streamlined methods for handling reviews is being explored.

New Model: The new model for handling reviews is to conduct the reviews in two parts: (1) individual reviews and write ups, and (2) an in-person panel review. The first part of the process works much like the existing review process, but USGS is requesting an initial review and write up using ~16 hours of the review time budgeted by the mapper. This process works in a very similar way to the work a person would do for a NASA R&A panel review. The expectation is that the reviewer will read through and assess the material, and compile an assessment using a component-by-component template. This review will be provided by scheduled date of the second part of the process.

During the second part of this process, the reviewer will travel to the USGS Astrogeology Science Center in Flagstaff, Arizona where they would be sequestered for up to 3 days to discuss the map and collate their reviews. When the reviewers have reached consensus and finished their write up, typically on the second day, they present their findings to the Map Coordinator, who adds their comments to the review. The reviewers and coordinator agree on a Review Recommendation and the package is finalized by the Map Coordinator and sent back to the authors for edits and comment responses.

Results: So far, we have conducted three reviews using this process. The average time from submission to the USGS to the return of the review package to the author is 99 days, a decrease of ~5 months from the existing model for reviews.

Future Work: We plan to expand the program to include all submitted maps that do not have either of the authors of this abstract as lead authors. We will continue to utilize the community members local to Flagstaff until testing is concluded. At that point, we

will begin to have reviewers from around the country participate in the program.

Acknowledgements: This work is funded by the NASA/USGS Planetary Spatial Data Infrastructure Inter Agency Agreement.