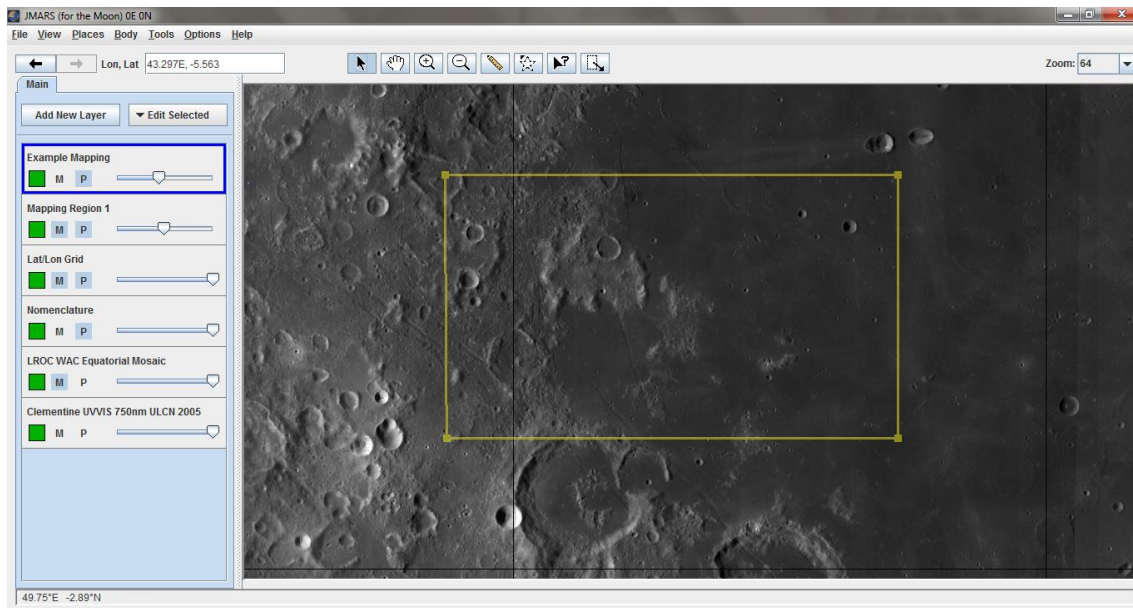


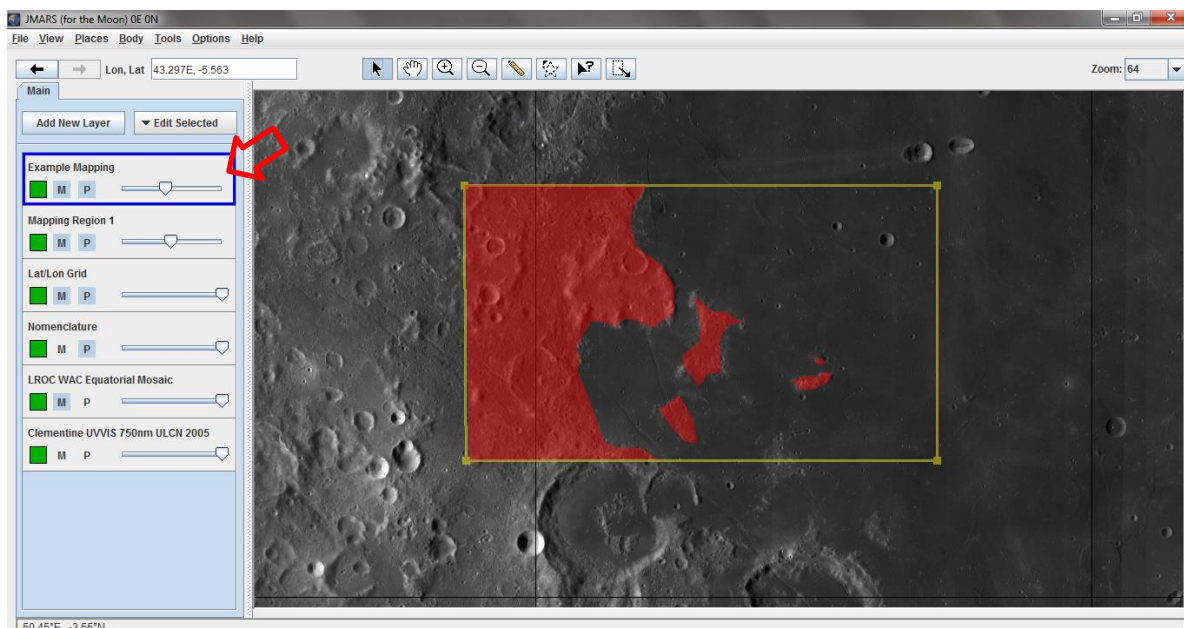
Example Mapping in JMARS

Guide
Dr Marlene Bamberg
March 2015

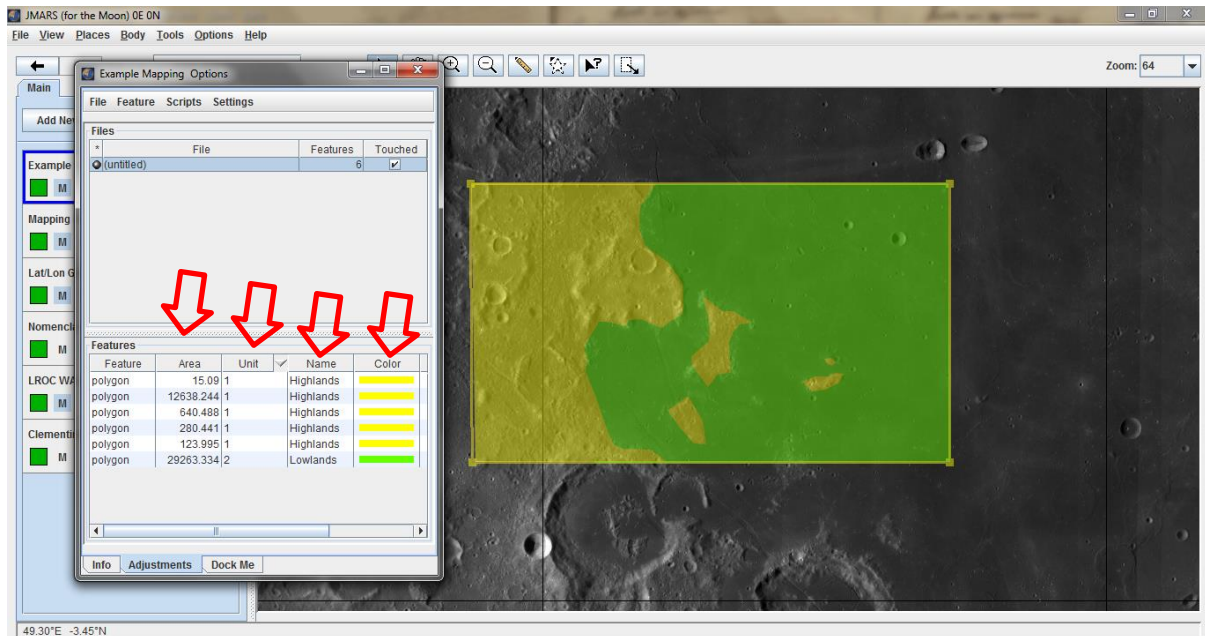
Open all data you need for a geological mapping in JMARS. LROC is a useful dataset for high resolution coverage of Lunar regions. Create a New Shape Layer to start your mapping. The mapping region is shown in yellow. It is recommended to zoom in for mapping the region, but be aware that some high resolution details might not be seen, when you look at your entire mapping. It is important that mappers do not get lost in details, but also provide a good and consistent quality of the map.



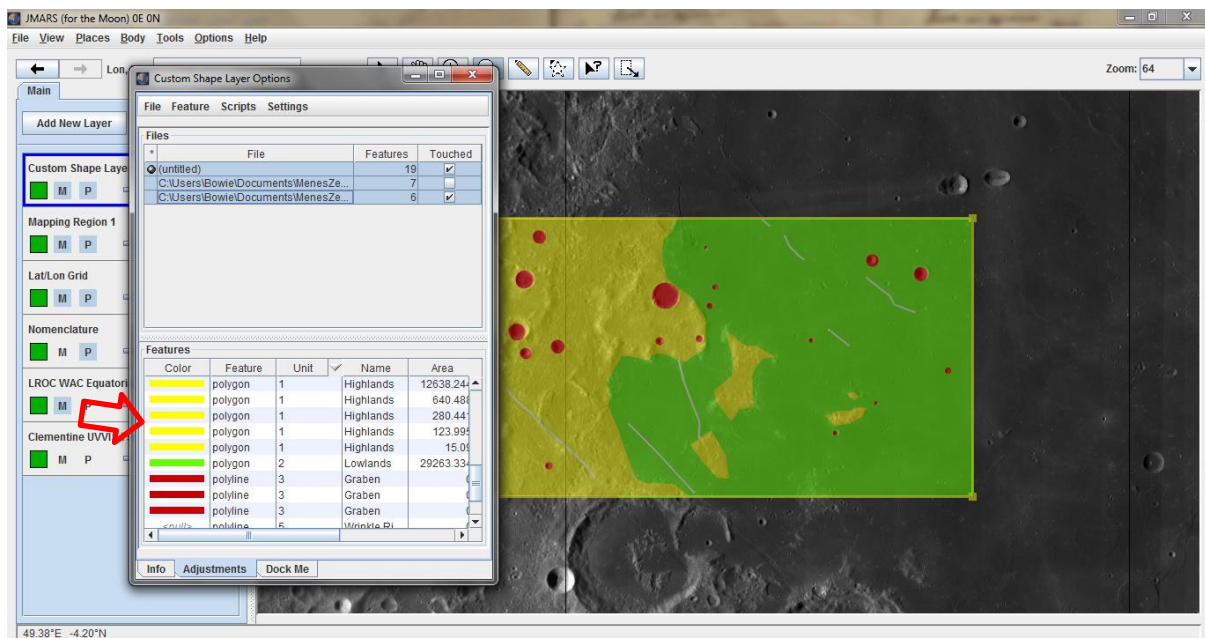
It is important that you spend some time studying the region you are going to map. This will help you identify changes on the surface and therefore, different units. Just get started! It is important to have the layer on the left selected, that you want to store your mapping in.



When clicking your new layer you can make adjustments to your mapping. Add new columns to the table to store important information (e.g. name, unit, area, description, notes). You can fill in the table by double clicking the fields. You can also change the color and outlines of each polygon, line, and point.



Add more details to your map as you go. You can also switch to line and point features. Use polygons, lines, or points as you think it is useful! Keep track of the different units!



When you are done with your mapping you should add a scale bar (new layer) and adapt the coordinate system to a scale useful for the map. You can also export your mapping database.

Further advanced mappings contain even more information, such as:

- Title
- Area Description
- Global Map for Context
- Map!
- North Arrow
- Used Data
- Scale Bar
- Resolution
- Coordinate System
- Author
- Date
- Legend
- Timeline
- Different Projections

Below a geological map of the Taurus-Littrow region and a global map of the Moon are shown. Both maps were not created in JMARS, but rather in ArcGIS.

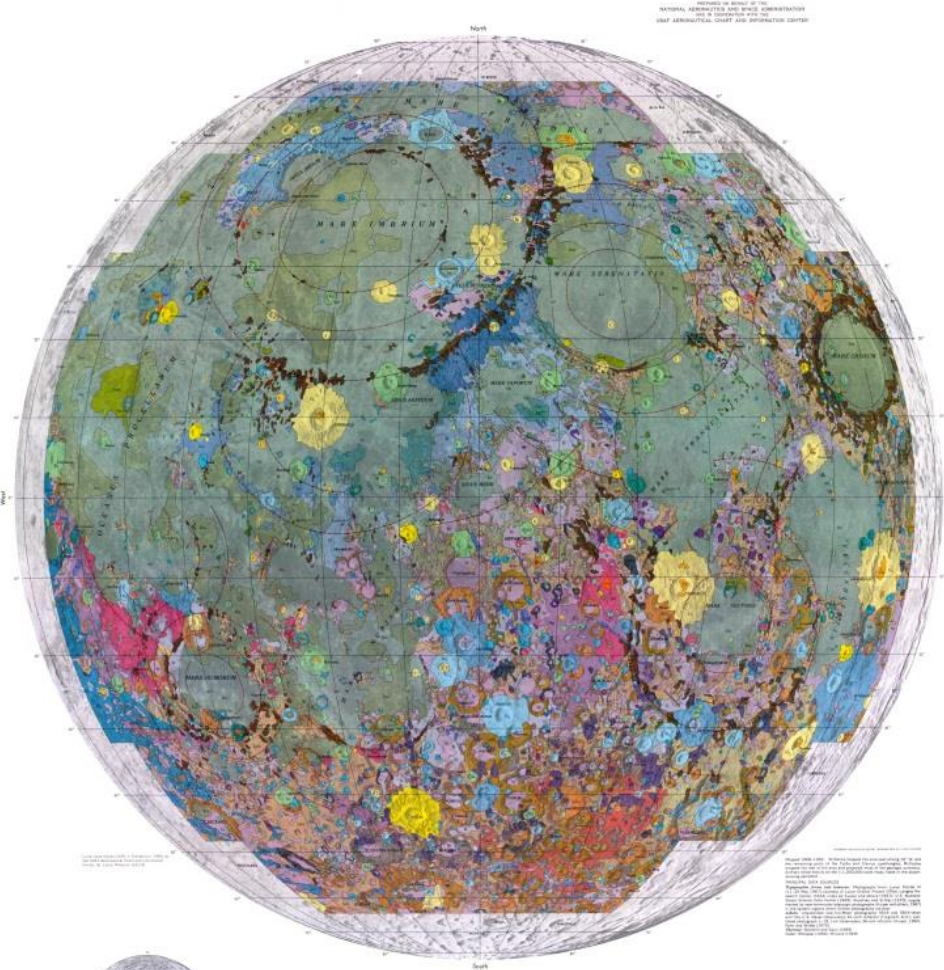
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Geological Summary

The geologic map of the near side of the Moon, as shown on this map, is based on the photographic data obtained from the Lunar Orbiter spacecraft during its orbit around the Moon from August, 1966, to April, 1967. The map is a composite of 11 maps, each covering a different area of the Moon. The maps are arranged in a grid, with each map showing a different area of the Moon. The maps are color-coded to show different geological features, such as craters, maria, and highlands. The map is a composite of 11 maps, each covering a different area of the Moon. The maps are arranged in a grid, with each map showing a different area of the Moon. The maps are color-coded to show different geological features, such as craters, maria, and highlands.

Map Symbols

The map uses a variety of symbols to represent different geological features. Craters are shown as circles, with some having a central peak. Maria are shown as large, dark, flat areas. Highlands are shown as lighter, more rugged areas. The map uses a variety of symbols to represent different geological features. Craters are shown as circles, with some having a central peak. Maria are shown as large, dark, flat areas. Highlands are shown as lighter, more rugged areas.



REPORT OF RESULTS OF THE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND U.S. GEOLOGICAL SURVEY
MAP AERONAUTICAL CHART AND INFORMATION CENTER

EXPLANATION

MAP SYMBOLS	DESCRIPTION SYMBOLS	LINE SYMBOLS, INCLUDING THE LINE SYMBOLS	SHADING SYMBOLS	OTHER SYMBOLS

BASE MATERIALS

The base materials of the Moon are divided into three main groups: the lunar highlands, the lunar maria, and the lunar lowlands. The lunar highlands are the oldest and most extensive of the lunar surfaces, composed of dark, granitic rocks. The lunar maria are younger, basaltic lava flows that filled large impact basins. The lunar lowlands are the youngest and most recent of the lunar surfaces, composed of dark, basaltic rocks.

EXPLANATION OF DATA

The data for this map were obtained from the Lunar Orbiter spacecraft during its orbit around the Moon from August, 1966, to April, 1967. The data include photographic images, topographic profiles, and spectral data. The data were processed and analyzed to identify and map the various geological features of the Moon.

SYMBOLS FOR CRATERS

Craters are shown as circles, with some having a central peak. The size of the crater is indicated by the diameter of the circle. The depth of the crater is indicated by the shading of the interior. Craters are named after various scientists and explorers.

SYMBOLS FOR MARIA

Maria are shown as large, dark, flat areas. The shape and size of the maria are indicated by the outline of the area. Maria are named after various planets and moons.

SYMBOLS FOR HIGHLANDS

Highlands are shown as lighter, more rugged areas. The topography of the highlands is indicated by the shading and contour lines. Highlands are named after various geographical features.

GEOLOGIC MAP OF THE NEAR SIDE OF THE MOON
By Don E. Wilhelms and John F. McCauley
1971