

CRISM Data Products Map Introduction

Explore Mars' distant past with this interactive map of high-resolution observations made by the Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on NASA's Mars Reconnaissance Orbiter.

The map is best viewed with Firefox 2.0, Netscape 7.2, or Internet Explorer 7.0, or better.

CRISM's primary mission is to search for signs that liquid water once existed on Mars, by identifying minerals that could have formed only in the presence of water. Learn how CRISM looks for traces of Mars' watery past [here](#).

CRISM's observations highlight the mineral residues of ancient bodies of water or groundwater, peeking out from beneath layers of volcanic lavas and dust—testaments to the Red Planet's progression from wet through dry eras.

The instrument's complex observations have been converted into easier-to-understand "mineral indicator maps" that show the locations having the spectral "fingerprints" of different kinds of minerals. The minerals, in turn, point at the processes that formed Mars surface. For example, iron-containing igneous minerals formed by volcanic activity or cratering; other iron minerals formed by alteration by water or Mars' thin atmosphere; and clay-like and sulfate minerals formed by past liquid water. The maps in this collection also show the location of water ice and carbon dioxide ice both in the permanent polar caps and in the seasonal frosts that form and disappear each Martian year.

How to use the map:

1. Choose from a selection of background maps by clicking on the Legend  icon in the toolbar. The default map is from the [Mars Orbiter Laser Altimeter](#).
2. Use the various zoom options to find the CRISM observations that dot the maps.
3. Select the Information  tool and then click on an observation to access maps made from it, or draw a box around a region to select of the observations within it.

To access a variety of other maps of Mars including place names, [click here](#).

CRISM Data Products Map User Guide

There are several ways to explore these maps. Read the simple instructions below and start exploring.

1. Map Information Buttons



Click this button to display a keymap that allows you to select portions of the map by dragging the red box.



Click this button to display a list of map layers. By selecting or deselecting checkboxes, layers will be drawn on the map. Such layers include observations and background images.



Click the print button to save the current map to a file that can be downloaded and printed.

2. Zoom Buttons



Click the hand button to pan around the current map. Click anywhere on the map with your left mouse button and hold the button down. While you have the button held down, move the mouse. The map will move with you and it will refresh when you release the button. The area visible is indicated by the red box on the keymap.



Click this button to zoom in and recenter the map. This will show a closer view of the map, showing more detail.



Click this button to zoom in on the map. This will show a closer view of the map, showing more detail.



Click this button to zoom out on the map. This will show a broader area of the map, but with less detail.



Click this button to zoom the map to a full view, showing less detail.

3. Search Buttons



Select the pull down menu to choose a desired magnification.



Click on the information button to select an area on the map and display observations. Once the list of observations is displayed, clicking the appropriate sensor (S or L) will take you to the observation details.



Click on the binocular buttons to search by an 8 digit observation id.



Click on this button to view the current map URL in the status bar at the bottom of your browser or e-mail a link for the chosen map view.

2. Using the Mouse



Double click anywhere on the map to recenter the map at your chosen location. If you want to center the map on a particular point, say a crater, double click on it. The map will move smoothly over to recenter.



Another way to move the map is to click and drag, or 'drag and drop' with your left mouse button. Click anywhere on the map with your left mouse button and hold the button down. While you have the button held down, move the mouse. The map will move with you and it will refresh when you release the button.

3. Using the Keyboard



Zooms in on the map. This will show a closer view of the map, showing more detail.



Zooms out on the map. This will show a broader area of the map, but with less detail.



Moves the map view to the left.



Moves the map view to the right.



Moves the map view up.



Moves the map view down.



Moves the map view left a greater amount than the left arrow key.



Moves the map view right a greater amount than the right arrow key.



Moves the map view up a greater amount than the up arrow key.



Moves the map view down a greater amount than the down arrow key.