

NASA's Mars Odyssey Maneuvers to Image Comet Siding Spring

On October 19 comet Siding Spring will be making a very close fly by of Mars. The particles coming off of the comet pose a little bit concern to our orbiters so what we're trying to do is phase is phase our orbiters to go behind Mars during that period.

Coming into view you'll see here our simulation of a comet. The comet is depicted here by a sphere and the tail as the small cone that comes off of it.

Mars Odyssey camera field of view is this rectangle with a green rectangle within it and that reflects the push broom imager. We're going to sweep the comet and its tail multiple times in order to put together a full composite image of the comet and its tail.

The imager is not big enough to do it all at once. So we do it several times to try to make sure we cover the whole area.

We sweep it back and forth and then that will be put together on the ground to generate a full blown image of the entire area. Once that's done, the comet basically goes back out of our field of view as we come around the back side of Mars. And then we reconfigure the orbiter. We slew back to our normal attitude, reconfigure our solar arrays and then we slew our high gain antenna back to Earth so we can reestablish Earth communications. This is a rare opportunity for us. Typically, we send our orbiter to comets to do cometary science but we're getting this for free. We've got three orbiters ready to go to images the comet as it gets close to Mars. We're really looking forward to that.