



Navigation and Ancillary Information Facility

Remote Sensing Programming Lesson (MPO)

February 2023

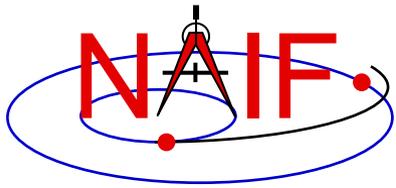


Diagram for “getsta” Exercise

Navigation and Ancillary Information Facility

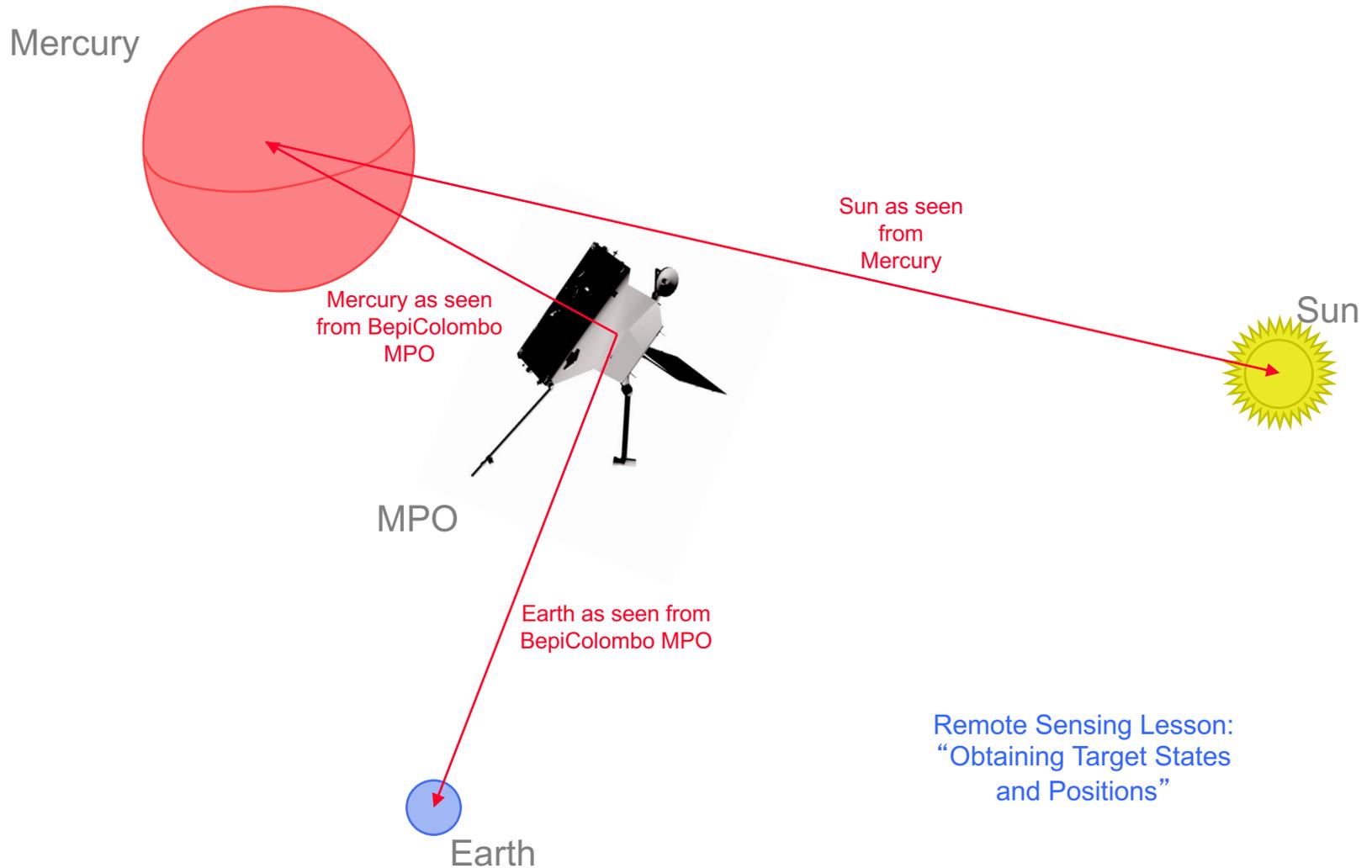
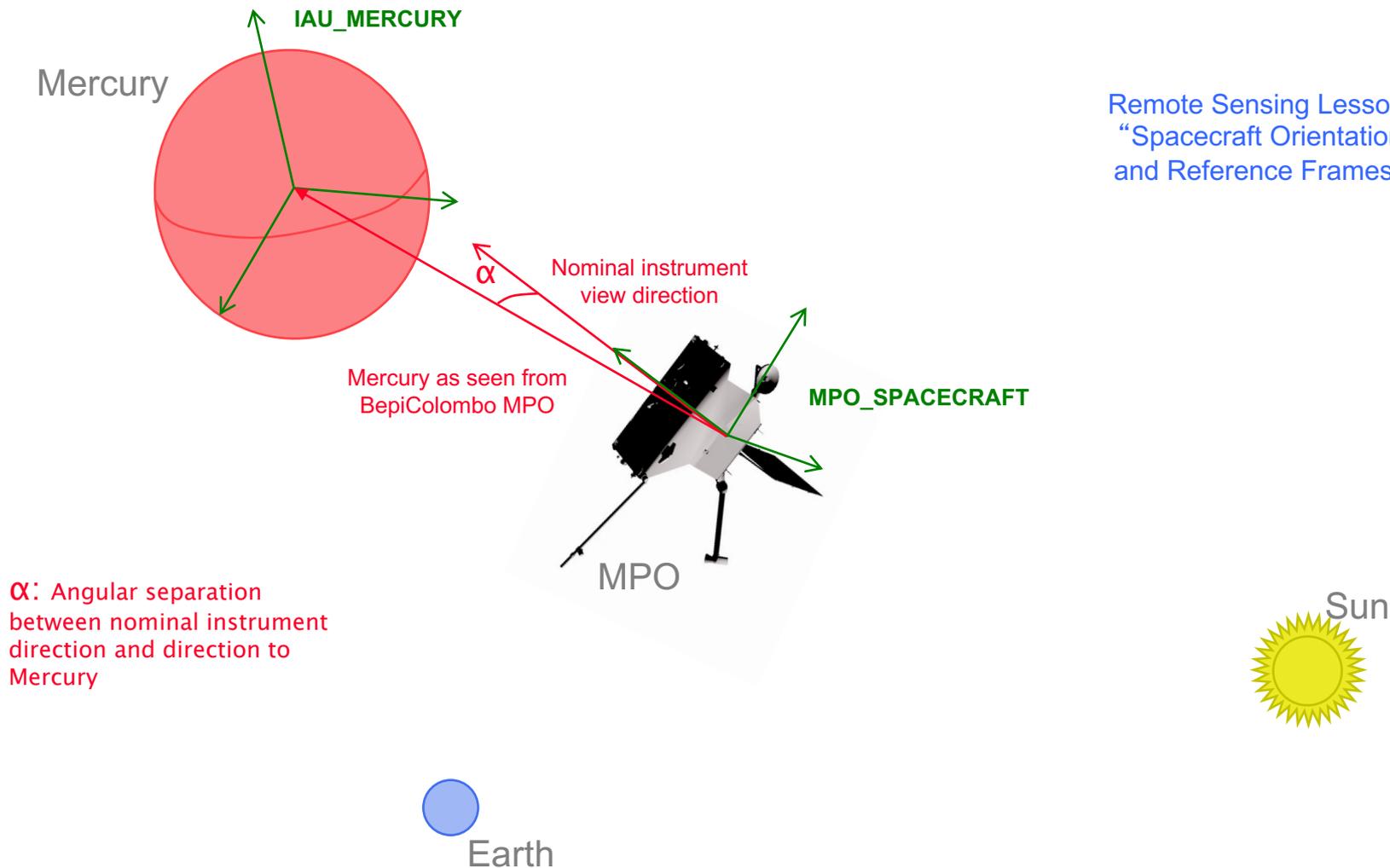


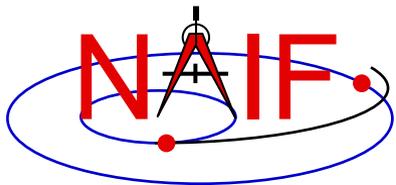


Diagram for “xform” Exercise

Navigation and Ancillary Information Facility

Remote Sensing Lesson:
“Spacecraft Orientation
and Reference Frames”

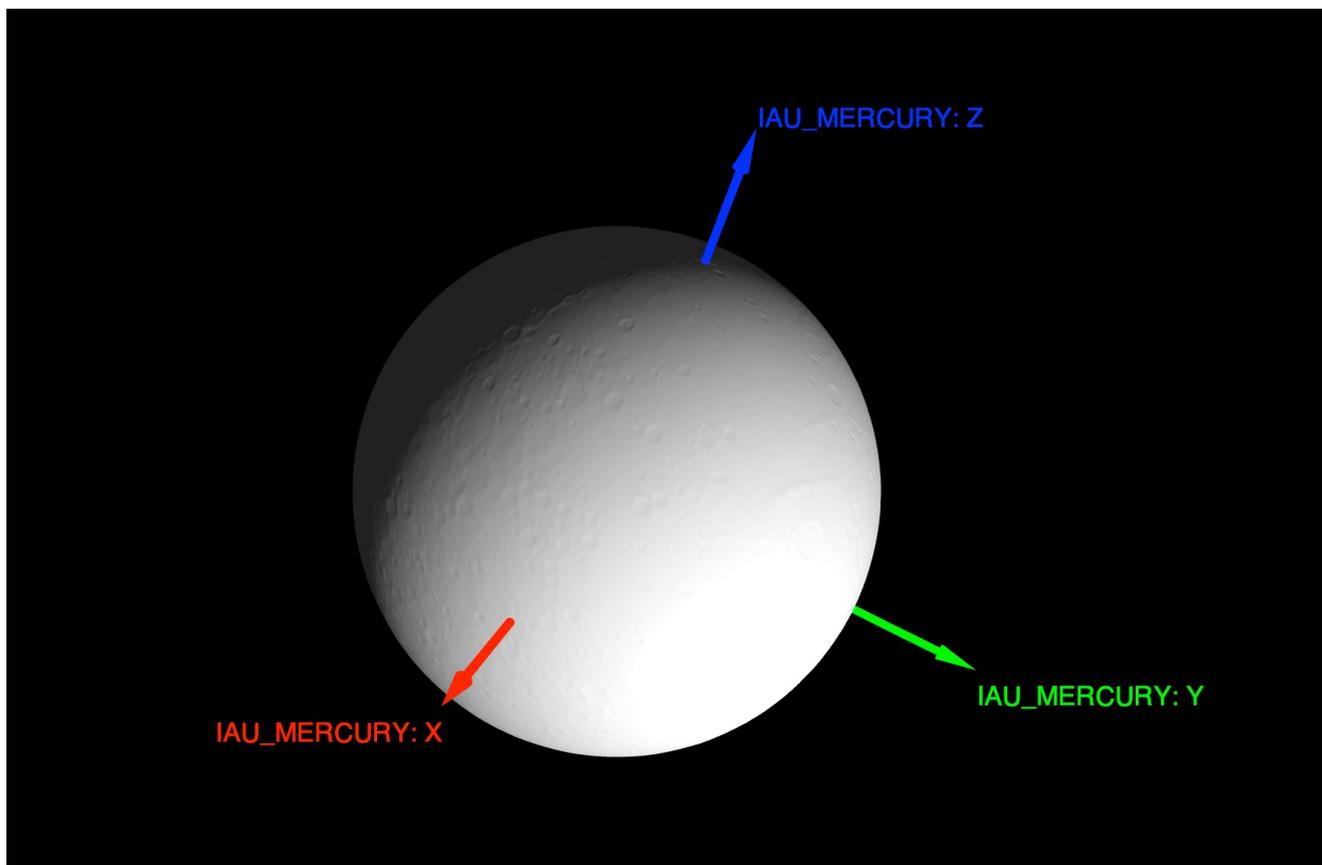




Mercury Shape

Navigation and Ancillary Information Facility

The next two tasks ask for computing observation geometry parameters for Mercury modeled as a triaxial ellipsoid and as a triangular plate model provided in a DSK, resulting in significantly different values for these two cases. This should not be surprising given how different Mercury topography is from the ellipsoidal surface, for some areas by many kilometers, as illustrated by the view below.



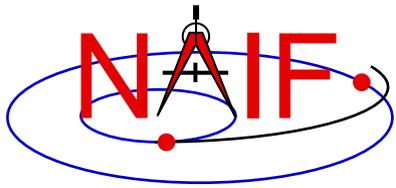
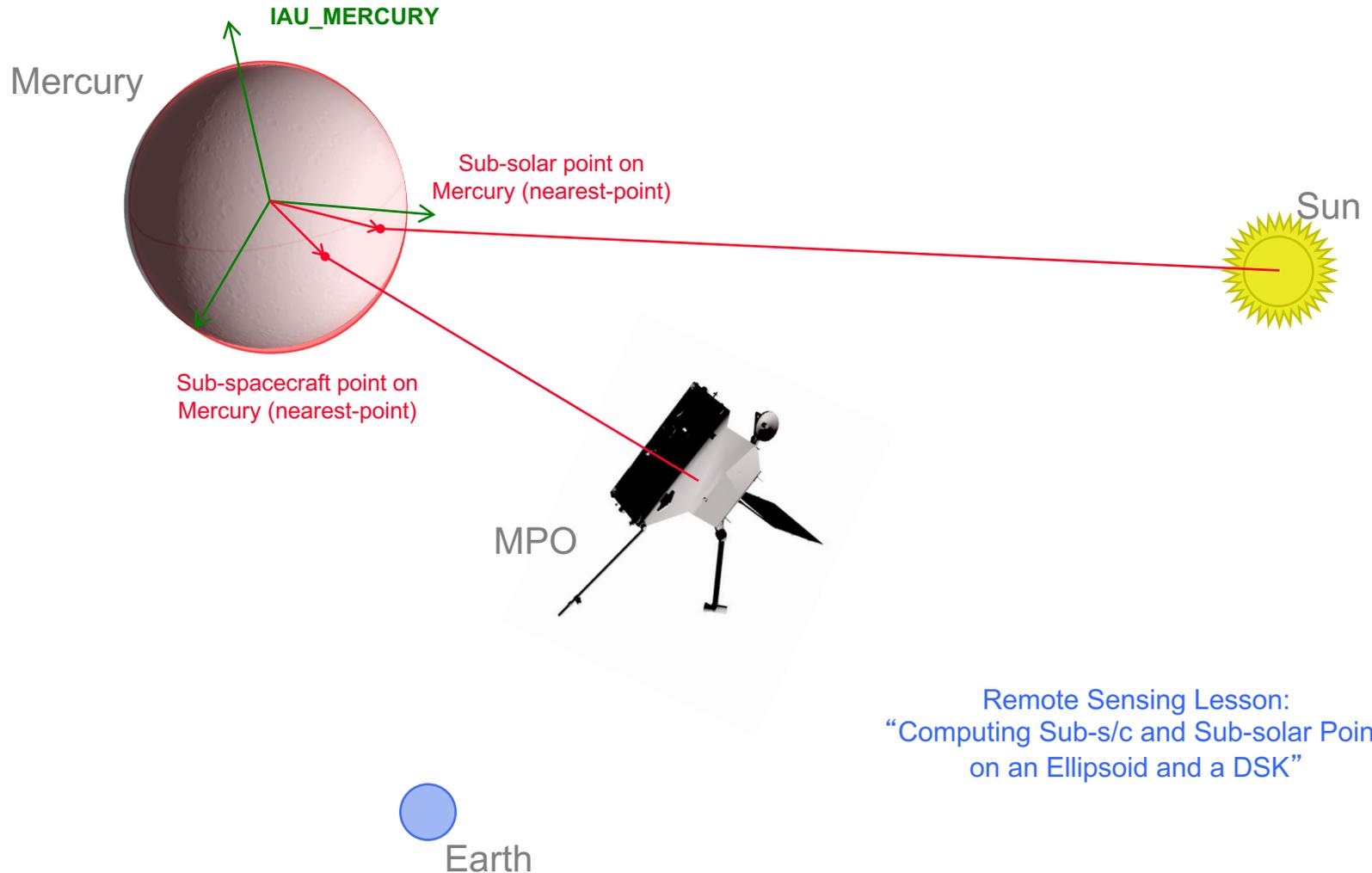


Diagram for “subpts” Exercise

Navigation and Ancillary Information Facility



Remote Sensing Lesson:
“Computing Sub-s/c and Sub-solar Points
on an Ellipsoid and a DSK”

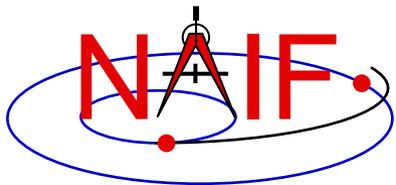
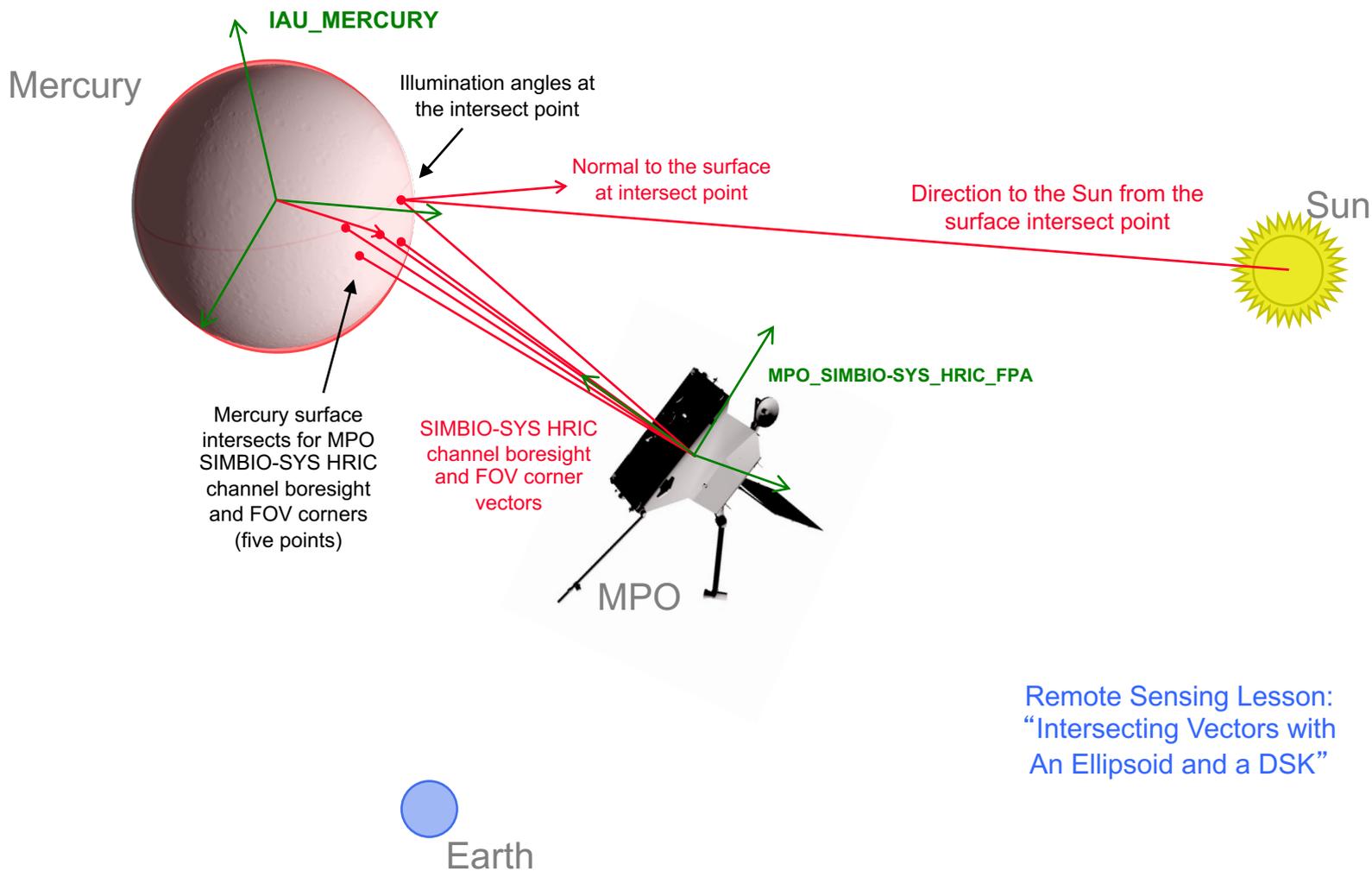


Diagram for “fovint” Exercise

Navigation and Ancillary Information Facility



Remote Sensing Lesson:
“Intersecting Vectors with
An Ellipsoid and a DSK”