Perseid Meteor Shower 2016

for Obiter Spaceflight Simulator
by boogabooga

This is a simulation of Perseid meteoroids that will collide with Earth, thereby simulating a brief Perseid "meteor shower". Entry will occur over Eurasia in about 21 hours during the local nighttime. A preset camera has been positioned for the best ground observer view. One can see how the meteors appear to radiate from a point (the radiant) in the constellation Perseus and compare the solar orbit of the meteoroids their parent comet, 109P Swift-Tuttle.

The meteoroid objects included in this mission were put together using meshes and textures from Piper's wonder MPC Database Asteroid Viewer and Exporter v2.0.3:

http://www.orbithangar.com/searchid.php?ID=1436

All credit for these objects goes to Piper. Thank you, Piper. I've resized one of the asteroid meshes to roughly pebble size for use in this mission.

Orbital elements for 109P Swift-Tuttle are from NASA JPL:

http://ssd.jpl.nasa.gov/sbdb.cgi?sstr=109P;cad=1

Important:

In the Orbiter Launchpad in the Parameters section, be sure to **uncheck** the "Radiation Pressure" tab. The size of the meteors has been exaggerated to make the reentry flames more visible, but as an unintended consequence the resulting solar radiation force would be severe. Don't say I didn't warn you.

Also, for best viewing, in the Visual effects section be sure to check "Reentry flames" and consider unchecking "Cloud layers" if they get in your way during meteor viewing. (If only real life were so easy!)

I recommend Bigmac's Damage Module to simulate meteor burn-up:
http://www.orbithangar.com/searchid.php?ID=5927

I also recommend Artlav's Videnie for trajectory viewing:
http://www.orbithangar.com/searchid.php?ID=4864