### Hashtags: #earth, #imagespacestation

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### Tags: Imagery

**Challenge Description**

Create an app that locates publically available Space Station images of Earth and presents them on a 2- or 3-dimensional map. Viewers can comment, vote, download, and share the images. One of the cameras onboard is the iSERV – short for International Space Station SERVIR Environmental Research and Visualization System. ISERV's primary targets are areas threatened by or already experiencing floods, landslides, forest fires, earthquakes, or other disasters. Currently, over 1100 geo-referenced ISERV images are available through the Global Hydrology Resource Center (GHRC) Distributed Active Archive Centers (DAAC). Other images are available that have been taken of Earth by astronauts onboard Station. All are accessible and usable.

**Background**

The International Space Station, circling the Earth once every 93 minutes, offers a unique observing platform with nearly 95 percent of the Earth’s populated area visible from the space station orbit. Six crew members, representing the 15 partner nations, live and work onboard Station for six months at a time. Taking images of Earth is one of their favorite jobs and hobbies. ISERV complements the human touch. ISERV images are currently available via the Global Hydrology Resource Center (one of NASA’s Distributed Active Archive Centers located in Huntsville, AL). The images are geo-referenced and in zip format, which include JPG and JGW files.

**Solution Ideas**

Here are some ways for you to frame this solution:

Create a web or mobile app that lets people locate and view astronaut and ISERV imagery on a 2D/3D global map with viewable image metadata, such as date and time of acquisition, location (lat/long), etc. Users can choose a set of images they want to display, group images of specific places (a single country, continent, or phenomena; features like watersheds, coastlines, or deserts; or time sequences of a single location). Allow users to comment, nominate and vote for their favorite images; and print, download, and share images via social networking sites. One option could allow users to view favorite images of the week or month.

**Sample Resources**

* NASA Space Station Mission Images and Videos: <http://www.nasa.gov/mission_pages/station/multimedia/index.html#.Ux_DYP2DHEE>
* Human Spaceflight Images: <http://spaceflight.nasa.gov/gallery/index.html>
* ISERV-GHRC DAAC image archive: <ftp://ghrc.nsstc.nasa.gov/pub/iserv/data/L0/>
* ISERV image naming format and related information: <ftp://ghrc.nsstc.nasa.gov/pub/iserv/doc/>