PGC Satellite Tasking Frequently Asked Questions

What is tasking?

The PGC works with the National Geospatial-Intelligence Agency (NGA) to coordinate collection of high-resolution commercial satellite images from Maxar in support of U.S. Federally Funded Polar Science and Logistics initiatives. Included satellites include WorldView-1, WorldView-2, and WorldView-3. PGC submits a coordinated tasking plan for the Antarctic in late July and the Arctic in late January for planned collections during the upcoming season (sun up to sun down, when it's high enough in the sky). Also, tasking is not PGC control over the satellite on a daily basis. Maxar ultimately controls what is collected (and they have very sophisticated algorithms to do it…). Only under extreme circumstances will this tasking plan change after it has been submitted as the plan is designed to meet the needs of all science and logistics groups equally.

What are the satellite parameters?

Mono imagery is collected in single swath and results in a single image. In-track stereo collections are swaths collecting at two intervals during a single satellite pass over the same location, only seconds apart. These images, then, can be used to create stereo-derived digital surface models at a very high resolution.

Panchromatic is grayscale imagery collected at native resolution; all the satellites have a panchromatic band that is included in every collection. Multispectral imagery contains many bands (e.g. red, blue, green, near-infrared, etc.) and only WorldView-2 and WorldView-3 have multispectral capability. For more information, you can read more on the Maxar website.

What are the limitations?

There is absolutely no guarantee that any imagery you specify will be collected. This is due to natural conditions (e.g. clouds, fog, shadows, sun-angle), commercial competition, satellite image collection capacity, or nearby sites that have equal or higher priority. However, because we are the group that manages a large amount of tasking in the Arctic and Antarctic, we coordinate all the requests and submit a plan that maximizes imagery collection potential for all users.

Also, it is almost impossible that imagery can be collected on a specific day (or even +/- 7 days). So, it is best to select a designated frequency and a date range (see attached file READ ME tab) for attempted collections.

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When will the imagery be available for delivery?

Unless there is a very unique circumstance (e.g. search and rescue, logistics priority), imagery will typically be unavailable in the PGC archive until the summer of following the Antarctic Field Season and the winter following the Arctic Field Season. Do not expect imagery to be available on-demand. You can then submit a request through your PGC POC to receive the imagery after it is collected and in the PGC archive. If you want to periodically check what has been collected, use Maxar's Search & Discovery Tool.

How should I plan my tasking?

First, accurate coordinates are crucial. The average collection swatch for an image is only 17km wide; so if you're coordinates are off, the collection will be off. Second, the less point locations and the fewer constraints you put on collection (e.g. date ranges, frequency, or band requirements) the more likely your image collection requirements will be met. Valid requests are for logistics planning (e.g. field camps, aircraft landings, site reconnaissance) or for science analysis (remote sensing analysis, time-series, etc.). If you're unsure of what you're interested in, contact your PGC POC.

How do I submit tasking?

Please read the README tab included in the PGC Tasking Request Table for the parameter explanations. Then, use the TARGETS tab in the PGC Tasking Request Table (rename the spreadsheet with your last name or USAP event number) to list your sites. Then, submit the spreadsheet back to your PGC POC and we'll check it over for anything that needs to be adjusted or is not applicable. Please only submit one tasking request per individual or group when possible.