

This directory contains TMA (trimetrogon aerial) photographs taken over Antarctica, dates ranging from the late 1940s through the late 1990s. The photos were compiled by the United States Geologic Survey (USGS), scanned, and provided to the Polar Geospatial Center in June 2009.

Trimetrogon photography is a system of aerial cameras where one vertical and two oblique pictures are taken simultaneously for topographic mapping purposes. Thus, images in this collection are either the vertical photograph (taken on nadir; designated by a V in the file name) or left or right obliques (at an angle off-nadir; designated by either L or R) taken along a single TMA flight line. Not all flights were equipped with oblique cameras and camera malfunctions some times limited availability of a complete set of photos.

Reading the file names and folders

Example: File name: CA026433R0058
 TMA Number: 0264 (CA026433R0058)
 Roll: **33R** (CA0264**33R**0058)
 Frame: *0058* (CA026433R*0058*)

The TMA flight line is identified by the first four numbers in the file name, regardless of the letters that precede them (the letters in the file name can be ABCA, ABC, or CA). In this example, we are looking at a frame along TMA flight line 264. *Note that in the file name, we look for 0264.

The next two numbers followed by a letter (either L, V, or R) designates the roll number and the particular camera used to take the picture; the left, vertical, or right camera.

Finally, the last 4 numbers designate the frame number along the flight line. In this example, we have frame number 58. *Note that in the file name, we look for 0058.

Putting all this information together, we are looking at frame 58 of the right-facing camera along TMA flightline 264.

To date, none of the aerial photographs in PGC's collection have been georeferenced in any way. However, we do have digitized flight lines, which depict the approximate location of the entire flight line in Antarctica.