

IODMS0 Ancillary Document

Detailed Data Description

This data set contains Level-0 DMS imagery in JPEG format taken over Antarctica and Greenland. The related data set, IceBridge DMS L0 Camera Calibration, contains corresponding DMS camera calibration summary reports in PDF format for IceBridge DMS missions flown over Antarctica and Greenland. To access these calibration reports by campaign, see the user guide for the IceBridge DMS L0 Camera Calibration data set.

Format

The data files are in JPEG (.JPG) image format.

File Naming Convention

Files are named using the conventions shown below. File name variables are described in Table 1:

2012_03_06_00007.JPG
YYYY_MM_DD_nnnnn.JPG

Table 1. File Naming Convention

Variable	Description
YYYY	Four-digit year
MM	Two-digit month
DD	Two-digit day
fffff	Frame number (some frame numbers have four digits)
.JPG	Indicates JPEG (.JPG) image file

Parameter or Variable

The DMS Level-0 files contain 3-banded imagery.

Software and Tools

The image files can be opened using any software capable of displaying JPEG files.

Data Acquisition and Processing

Data Acquisition Methods

DMS is a visible imaging system, capturing data throughout flight. Level-0 products for raw DMS include raw JPEG files. Most imagery was acquired in panchromatic mode, but all provided output is 3-banded imagery.

Sensor or Instrument Description

The DMS airborne digital camera acquires high-resolution natural color and panchromatic imagery from low and medium altitude research aircraft. The system configuration includes a 21 megapixel Canon EOS 5D Mark II digital camera, a computer-controlled intervalometer, and an Applanix POS/AV precision orientation system. In-flight operators maximize image quality with adjustments to exposure and intervalometer settings.

Related Data Collections

- [IceBridge DMS L1B Geolocated and Orthorectified Images](#)

- [IceBridge DMS L3 Photogrammetric DEM](#)
- [IceBridge DMS L0 Camera Calibration](#)
- [IceBridge CAMBOT L1B Geolocated Images](#)

Related Websites

- [NASA Digital Mapping System web page](#)
- [IceBridge data website at NSIDC](#)
- [IceBridge website at NASA](#)
- [ICESat/GLAS website at NASA Wallops Flight Facility](#)
- [ICESat/GLAS website at NSIDC](#)

Contacts and Acknowledgments

Roseanne Dominguez
Airborne Sensor Facility
NASA Ames Research Center
MS 244-15
Moffett Field, CA 94035-1000 USA

Acknowledgments

DMS is supported by the NASA Airborne Science Program. Data collection and exceptional image quality is the result of the phenomenal efforts of our field team: Robert Billings, Kent Dunwoody, Eric Fraim, Dennis Gearhart and James Jacobson. Software integration and development was provided by Dr. Haiping Su (UCSC).