

Data Product Overview

The in-focus SamCam images of the TAGSAM Contact Surface are post-TAG images taken of the bottom plate of the TAGSAM head.

Overview

- This product consists of images.
- It measures the TAGSAM head contact surface at mm-scales.
- This product contributes to satisfying MRD-190.
- This product requires observations of the TAGSAM contact surface at a number of different incidence angles post-Sampling and the same angles pre-Sampling (for calibration).
- These observations are acquired pre-Sampling (calibration) and post-Sampling.
- Time for Initial Pipeline Processing (minutes)
- This product is of science value.

Data Product Structure and Organization

The data product consists of a suite of post-Sampling images taken of the bottom of the TAGSAM head at a variety of incidence angles and (possibly) emission angles.

Data Format Descriptions

Header information included with the plume map will be those of a standard OCAMS image header. Each of the image files that contribute to this suite of images will include (but not be limited to)

- Date of Observation
- Exposure Start/End/Duration Times
- CCD Temperature
- Object
- Calibration History giving what processing steps have been applied
- Name of Calibration Files used in processing
- Lat/Lon of the Imaging Location

Detailed Description of data format

The images will be recorded in jpeg, or other standard image format.

Data Product Generation

How and by whom is the product generated?

The inputs for this are:

- Images Acquired of the TAGSAM head Pre-Sampling under lighting conditions similar to those anticipated for the post-Sampling imaging situation
- SPK, PcK, SCLK, CK, FK and other kernels
- Radiometrically Calibrated SamCam images

What algorithms and/or calibration data is used to generate products?

The standard OCAMS pipeline will be used to generate this product

Has a specific Science Team Member been assigned to produce this product?

This product is provisionally assigned to Bashar Rizk, who will reassign it as necessary.

Will multiple versions of the product be generated?

There will not be multiple versions of this product.

Data Product Validation

How will the product be vetted to ensure contents and format are correct?

It will be compared to the pre-Sampling TAGSAM head image suite.

Data Flow

Update Phase B data flow diagrams with more detailed based on current processing configuration.

Flow Diagram TBD

Sources, destinations, and transfer procedures for data products

- State the size of an individual data product and the total size of all the data products generated over the course of each mission phase
- The image suite will occupy 30-80 MB of space.
- State the time span covered by a product, if applicable, and the rate at which products are generated and delivered.

- The image suite will be acquired post-Sampling by the SamCam with minimal time pressure; all the images are acquired at once and then processed together. If necessary, the image set may be taken again.

Standards used to generate data product

- Time (e.g. times are all converted to UTC)
- OCAMS Instrument clock time (equivalent to S/C time)
- Coordinate System
- None
- Data Storage Conventions (i.e. byte order, compression, machine dependence)
- fits, jpeg or some other standard image format