



Access to Vision-1 as ESA's Third Party Mission

Terms of Applicability

Date: 01 March 2022

Rev. 1 Iss. 0

Document type: Technical Note



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1 General

Within the Third Party Mission scheme, ESA provides to Earth Observation users data from non-ESA missions, so-called Third Party Missions, to complement the data from ESA EO missions and to support and build up the scientific user community for those data in Europe.

A Third Party Mission (TPM) is a mission

- that is operated by any legal body, governmental or non-governmental entity other than ESA or
- for which ESA assumes some formal responsibility towards the mission operator or to which ESA contributes financially, usually through sharing of Ground Segment facilities or operations cost or
- for which ESA assumes a data distribution responsibility, usually towards European Users, but sometimes towards a worldwide user community for a subset of the geographic coverage of this mission.

The implementation of a new Third Party Mission follows a Selection Procedure approved by the Program Board on Earth Observation in 2004. This procedure evaluates a yearly list of Third Party Candidate Missions according to a set of criteria (e.g. European User benefits and excellence, accessibility etc.). In order to gain access to the TPM data, ESA establishes co-operation schemes with the owners/operators of the Third Party Missions. In these co-operation schemes, one option foresees to provide ground segment support to the TPM owner/operator in exchange for access to the TPM data (e.g. share acquisition or archiving facilities or support respective operations).

Since 2021, the Vision-1 Satellite Imagery products are part of the Third Party Missions Program.

Within the ESA CAT-1 TPM Scheme, ESA offers to the CAT-1 user community the following services provided by Airbus DS:

- Delivery to Category-1 worldwide users of on-demand products (archiving and/or new tasking products) for category-1 use (see also Section 3)
- Access to on-line archive for data discovery and ordering (for new and archive data)
- Standard tasking option for new acquisition order
- Standard delivery option: product delivery within a maximum of 3 working days from the date of order submission for archive orders or within 5 working days after the data acquisition for tasking orders



2 Data Accessibility Conditions

The archive and new tasking data available as part of the ESA TPM offer are the following:

| Spectral Bands | Sensor Resolution (m) | Geometrical levels | Radiometric levels | Acquisition Mode |
|---------------------|-----------------------|---------------------------|---------------------|------------------|
| Panchromatic (PAN) | 0.87 | Primary Standard ortho | Basic (radiance) | Strip |
| Multispectral (MS4) | 3.48 | | | |
| Bundle (BUN) | 0.87 + 3.48 | | | |
| Pan-Sharpned (PSH) | 0.87 | | | |

Vision-1 products are considered “archive data” if the data is already in Vision-1 catalogue; tasking data are product whose acquisition has to be planned.

The applicable Minimum Order Size (MOS) is 25 km² for archive data and 100 km² for tasking data; the minimum width is 500m in any direction for archive data and 5 km in any direction for tasking data. MOS is the minimum area of each single, contiguous, closed polygon composing the order; each acquisition in a time is considered as one order for which the MOS applies.

| | NEW TASKING | ARCHIVE |
|--------------------------|---------------------|--------------------|
| Minimum order Size (MOS) | 100 km ² | 25 km ² |
| Minimum width | 5 km | 500 m |

The full archive is accessible for data discovery on the Airbus UK Satellites Online Catalogue at <http://catalogue.dmcii.com/>. Data ordering is available via direct contact with the Vision-1 order desk: the catalogue portal contains contact details.

In case of new acquisitions ordering, the feasibility analysis is delegated to Airbus DS. New acquisition requests shall be submitted enough in advance (5 days) to the sensing time to let Airbus Operations Team to perform the feasibility study, finalize the order and plan the acquisition¹.

¹ The acquisition plans are updated daily (Monday to Friday) by 5pm (local UK time) two days before the planned acquisition date; changes to the schedule must be received by 9am (local UK time) on the morning of the planning day



3 Data users

- Access to data is considered for worldwide users, but it can be subject to restriction or limitation by Airbus DS, in its sole discretion, in terms of supplying products relating to a specific geographical area or specific customers. Evaluation is done on case by case basis.
- Restrictions on specific acquisition areas are applied: the project proposal is not accepted if the Area of Interest crosses over People's Republic of China, Australia EEZ mainland including Tasmania and within a two hundred nautical (200) mile limit of its shores.



4 Assignment and usage of quota

Assignment of quota

A user requesting access to Vision-1 products in the frame of the TPM shall submit a project proposal to ESA. During the project submission, the user shall specify his needs as:

- Number of km² (split in archive and new tasking)
- Area of interest (as kmz or shape file)
- Time of interest
- Spectral Bands Combination (Panchromatic, Multispectral, Bundle or PanSharpened)
- Geometric Processing level (Projected, Standard Ortho)
- Max viewing angle

ESA, then, evaluates the scientific content of a submitted project proposal against the data requirements of the PI and a respective quota will be assigned to the project. ESA tries to support as many high-quality and innovative projects as possible within the quota limit available, therefore only a limited amount of products can be made available to each project.

The assigned quota is valid for one year after reception of the final acceptance email. This validity period can be superseded if clearly specified to the user.

Usage of quota

The PI (and Co-PIs if any) is allowed to order the products from Airbus DS within the limit of the quota assigned by ESA.

The PI (and Co-PIs if any) is not strictly constrained to order exactly the products corresponding to the quota assigned to his project. The ordered products can change with respect to the original proposal provided that the new request is within the original assigned quota (e.g. if a Project has a quota per archive data, the Project can exchange such quota for new acquisition data types if the total quota is not exceeded). PIs (and Co-PIs if any) willing to order something different than the quota (but within the list of available products above) are invited to contact Airbus DS prior to submit the order to evaluate the impact on the quota.

PIs (and Co-PIs if any) are responsible to consume the credits assigned to the project within the validity period of 1 year. After the validity period of 1 year, ESA reserves the right to re absorb them.

Data Ordering

The ordering is done directly through Airbus DS by following the procedure received by EOHelp@esa.int after final acceptance of the project.

The user can discover the archive products directly through the catalogue at <http://catalogue.dmcii.com/>. No feasibility study is needed, the request proceeds directly to the product generation stage.

The order is performed by submitting the request via email to the Airbus Order Desk (ukintelligence-imagerysupport@airbus.com): the order has to contain the Scene Id and the KMZ file as retrieved from the catalogue, the desired spectral bands combination (Panchromatic, Multispectral, Bundle or Pansharpened) and the geometrical processing level for product generation (Projected, Standard Ortho).

For new acquisitions, the order is submitted via email to the Airbus order desk (ukintelligence-imagerysupport@airbus.com) at least 5 days before the planned acquisition date. In order to allow Airbus to perform the feasibility study, to accept the order and to proceed with the acquisition and processing, the email has to contain:

- Area of interest (in KMZ or SHP format)
- The period of interest
- The number of coverages required
- Spectral bands (Panchromatic, Multispectral, Bundle or Pansharpened)
- Geometrical Level for product generation (Projected, Standard Ortho)
- Viewing angle maximum limit

A feasibility assessment is performed by Airbus Operations Team in order to confirm the acquisition is achievable; in case of issues, an interaction with the PI will try to identify how to best increase the likelihood of a successful imaging campaign.

Data delivery



- Products are delivered via ftp pickup
- Products are delivered free of charge in the limit of the quota approved by ESA
- Archive data are provided within 3 normal working days of initial request. Products generated from new acquisitions are delivered within 5 normal working days of the acquisition. Mixed request of archive and tasking data are generated and delivered in 3 normal working days.
- Once the deliveries are ready, the Airbus Operation Team notifies the PI about the data availability
- The retention time for data download is 30 days.