

# ICEYE

## Access to ICEYE as ESA's Third Party mission

### Terms of Applicability

---

Date: 05 October 2020

---

Rev. 1 Iss. 1

---

Document type: Technical Note

---



## 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.

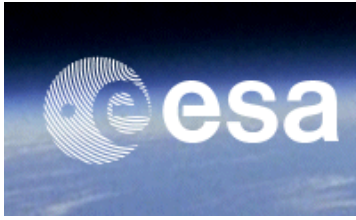
The implementation of a new Third Party Mission follows a Selection Procedure approved by the Program Board on Earth Observation in 2004. This procedure evaluates a yearly list of Third Party Candidate Missions according to a set of criteria (e.g. European User benefits and excellence, accessibility 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).

ICEYE Constellation, developed and operated by ICEYE, is part of the Third Party Program since 2020. This mission is considered a Third Party Mission under evaluation. The evaluation will tackle cal/val activities and assess the products specifications. This analysis will be performed in the framework of the Earthnet Data Assessment Pilot (EDAP). The evaluation will also allow any interested user to investigate the suitability of the data for scientific and R&D activities.

Within the ESA CAT-1 TPM Scheme, ICEYE offers the ESA CAT-1 community:

- Delivery to Category-1 Users worldwide of on-demand ICEYE products (archiving and/or new tasking products) for category-1 use
- Tasking option for submission on new acquisition order

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.



## 2 Data Accessibility Conditions

The data available as part of the ESA TPM are the following, distributed by scene:

Mode	Scene Size (W x L)	Resolution	Polarisation
Spotlight	5 x 5 km <sup>2</sup>	1 m	VV
Spotlight High	5 x 5 km <sup>2</sup>	25 cm	VV
Stripmap	30 x 50 km <sup>2</sup>	3 m	VV
Stripmap High	30 x 50 km <sup>2</sup>	50 cm	VV

Available processing levels:

- Single Look Complex (SLC): Level 1a. The pixels are spaced equidistant in azimuth and in slant range
- Ground Range Detected (GRD): Level 1b. Multi-look image processed and projected to the ground range. The pixels are spaced equidistant in azimuth and in ground range. No image rotation to a map coordinate system

### Archive and tasking products

- Products are considered “archive data” if the image is in the archive. “Tasking products” are products whose acquisition have to be planned
- Order for new acquisition have to be finalized and sent to ICEYE in advance, at least 3 days before the sensing
- Standard product delivery of products is completed in 24 hours from the date of order submission for archived data, from the image acquisition for tasking data,
- Data are delivered to customers on a SFTP server

## 3 Data users

- Access to data can be provided by ESA to worldwide users
- No geographical restriction but ICEYE reserves the opportunity to reject the project proposal if the Area of Interest crosses over specific zones where contractual arrangements inhibit the data provision
- Access to ICEYE data is subject to further ICEYE control which might introduce limitations or even the rejection of the order: in this case, ICEYE will interact with the user to find the best possible solution



## 4 Assignment and usage of quota

### **Project Proposal submission and evaluation**

A user requesting access to ICEYE products in the frame of the TPM shall submit a project proposal to ESA. During the project submission, the user shall specify his need as

- Mode
  - Spotlight
  - Spotlight High
  - Stripmap
  - Stripmap High
- Number of products (split in archive and new acquisition)

For evaluation of the project, the provision of Time of Interest and Area of Interest are mandatory for new tasking data to allow a preliminary feasibility analysis of the order request to exclude possibly conflict with another schedule on the same location.

During the evaluation process, the scientific content of a submitted project proposal is evaluated by ESA and ICEYE against the data requirements of the PI and a respective quota is granted to the PI allowing getting a defined number of scenes.

### **Order submission and data delivery**

Upon acceptance of the project proposal by ESA, the PI is entitled to submit via email to [customer@ICEYE.com](mailto:customer@ICEYE.com) the order request and supply Imagery Order Form duly filled in with contact information and details about Area of Interest (provision of kmz or kml with scene center and/or polygon is mandatory), Time of interest (TOI) and the associated order parameters.

The PI is not strictly constrained to order exactly the products requested into the proposal. The ordered products can change in mode, AOI or TOI with respect to the original proposal provided that the new request is within the original assigned credits (e.g. if a Project has a quota per specific data type, the Project can exchange such quota for other data types if the total quota is not exceeded).

In case of new tasking request, the order is evaluated by ICEYE Customer Success Specialist (CSS) and within 24 hours an acquisition scenario (AOI, TOI, look side, orbit direction, area coverage) is sent back to the PI and have to be approved within the next 24 hours. Once approved by both parties, the acquisition event is scheduled.

In case of request for archive data, the suitable products in ICEYE archive are identified by ICEYE Customer Success Team within 1 working day, the order is submitted and confirmed to the PI via email.

The quota shall be consumed within a year from assignment. After the validity period of 1 year, ESA reserves the right to remove the credits or to extend the end date.

Products are delivered via SFTP pickup. As soon as the requested data are available, the PI is notified by email about the data availability on ICEYE SFTP server and instructed on the data download procedure. The retention time for data download is 30 days.