Access to SPOT, Pleiades and Pléiades-Neo as ESA's Third Party Mission

Terms of Applicability

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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.

Since 2015, the SPOT (1 to 7), Pleiades and Pléiades Neo Satellite Systems 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 service provided by Airbus DS:

- On demand access to the entire SPOT-6 and -7, Pleiades and Pléiades Neo satellite imagery archive, for all ESA Member States and ESA Cooperating/Associate Statesand China (only if the user participates in a Dragon project)

- On demand access to new SPOT-6, Pleiades and Pléiades Neo data (satellite tasking) for worldwide areas with particular emphasis on European Countries

- Activities to be performed by Airbus DS to provide satellite data for ESA and/or ESA approved science and Application development users in the territory of ESA Member States and ESA Cooperating/Associate States and China (only if the user participates in a Dragon project)

- Access to products from the SPOT-6 and -7 satellites in all production levels, and Pleiades and Pléiades Neo products in primary and orthorectified production levels.

- Standard Delivery of products within 5 days after proper order submission (or sensing time for programming orders) to the data provider.

- SPOT-6, Pleiades and Pléiades Neo programming delivered according to the standard tasking service.

- Access to OneAtlas Living Library for SPOT 6-7 , Pleiades and Pleiades Neo (PNEO) data streaming and data download.

2 Data Accessibility Conditions

The data available as part of the ESA TPM are the following:

	Acquisition	Sensor Resolution (m)	Spectral Bands	Processing levels
SPOT 6	Archive & Tasking	1.5 + 6	Bundle (B&W + Color)	level 1A/1B and / or Level 3 orthorectified
		1.5	Pan-Sharpened (Color)	Note: STEREO and TRISTEREO modes are available
SPOT 7	Archive	1.5 + 6	Bundle (B&W + Color)	level 1A/1B and / or Level 3 orthorectified
		1.5	Pan-Sharpened (Color)	Note: STEREO and TRISTEREO modes are available
PLEIADES 1A & 1B	Archive & Tasking	0.5 + 2	Bundle (B&W + Color)	primary, ortho
		0.5	Pan-Sharpened (Color)	Note: STEREO and TRISTEREO modes are available
PLEIADES NEO	Archive & Tasking	0.3	Panchromatic (B&W)	primary, ortho
		0.3 + 1.2	Bundle (B&W + Color)	Note: STEREO and TRISTEREO modes are available

Here is the offer for OneAtlas streaming:

Package	Satellite	Resolution (m)	Corresponding Area
80.000 tiles	SPOT 6&7	1.5	up to 8.000 km2
	Pleiades 1A/1B	0.5	up to 1.000 km2
	PNEO	0.3	up to 470 km2
160.000 tiles	SPOT 6&7	1.5	up to 16.000 km2
	Pleiades 1A/1B	0.5	up to 2.000 km2
	PNEO	0.3	up to 940 km2

Here is the offer for OneAtlas download:

Package	Satellite	Resolution (m)	Corresponding Area
Package A	SPOT 6&7	1.5	up to 7.500 km2
	Pleiades 1A/1B	0.5	up to 1.000 km2
	PNEO	0.3	up to 400 km2
Package B	SPOT 6&7	1.5	up to 15.200 km2
	Pleiades 1A/1B	0.5	up to 1.950 km2
	PNEO	0.3	up to 840 km2

Access to SPOT 6 and 7 Archive and New acquisitions

- The SPOT 6 and 7 available data consists of Bundle and Pan-Sharpened products, in MONO, STEREO and TRISTEREO acquisition modes.
- The ortho-products are automatically generated by SPOT-6 and -7 ground segment (the PIAF), based on SRTM database or Reference3D when available. The projection available for SPOT-6 and -7 ortho-products is UTM, datum WGS84.
- Archive data and new images tasked according to the standard tasking service accessible through OneAtlas portal.
- For archived products, the minimum order area is 100 km². For new acquisitions, the minimum order area is 500 km².
- For new acquisitions, the acquisition timeframe is estimated accurately for each option through a dedicated feasibility study delegated to Airbus DS and to be agreed with users. As a consequence, the orders for new tasking data shall be submitted early enough before the sensing, at least 3 working days before the beginning of the acquisition, to allow Airbus DS to complete the feasibility analysis.
- As of 17 March 2023, new acquisition tasking is only available for SPOT 6.

Access to Pleiades Archive and New acquisitions

- The Pleiades available data consists of Bundle and Pan-sharpened products in MONO, STEREO and TRISTEREO acquisition modes.

- The ortho-products are automatically generated by Pleiades ground segment (the PIAF), based on SRTM database or Reference3D when available. The projection available for Pleiades ortho-products is UTM, datum WGS84.
- Archive data and new image tasked according to the standard tasking service accessible through OneAtlas portal.
- For archived products, the minimum order area is 25 km² (minimum 5 km in any direction). For new acquisitions, the minimum order area is 100 km² (minimum 5 km in any direction).
- For new acquisitions, the acquisition timeframe is estimated accurately for each option through a dedicated feasibility study delegated to Airbus DS and to be agreed with users. As a consequence, the orders for new tasking data shall be submitted early enough before the sensing, at least 3 working days before the beginning of the acquisition, to let Airbus DS to complete the feasibility analysis

Access to Pléiades Neo Archive and New acquisitions

- The Pléiades Neo available data consists of primary (level 1A), projected (Level 2A) or ortho (level 3) geometric processing level in MONO, STEREO and TRISTEREO acquisition modes.
- All data, archive and new tasking images, are accessible through the OneAtlas portal
- For archived products, the minimum order area is 25 km² (minimum 5 km in any direction). For new acquisitions, the minimum order area is 100 km² (minimum 5 km in any direction).
- For new acquisitions, the acquisition timeframe is estimated accurately for each option through a dedicated feasibility study delegated to Airbus DS and to be agreed with users. As a consequence, the orders for new tasking data shall be submitted early enough before the sensing, at least 3 working days before the beginning of the acquisition, to let Airbus DS to complete the feasibility analysis

Access to OneAtlas Living Library

- Pleaides and SPOT 6-7 optical data are available in streaming mode and for download, both archive and newly acquired imagery (uploaded after around 24 hour) responding to selection criteria based on cloud cover and acquisition angle
  - ✓ Daily acquisitions for Pleiades (with max. 15% cloud cover & 30° acquisition angle)
  - ✓ Pleiades archive (with max. 15% cloud cover & 30° acquisition angle) over North America, Asia, Australia, Europe & Middle East collected since 1st Jan 2016 and over up to 3.000 urban areas worldwide collected since 1st Jan 2013
  - ✓ SPOT 6/7 worldwide full archive and SPOT 6 daily acquisitions (5% cloud cover and < 20° acquisition angle)
  - ✓ Pleiades Neo archive and daily acquisitions
  - ✓ Both SPOT and Pleiades are Pan-Sharpened products
- The OneAtlas Living Library is accessible via portal at https://oneatlas.airbus.com or via API (WMTS Simple Profile /WMS, information on API connection available under https://api.oneatlas.airbus.com/)
- Search functionality – access to image preview in reduced resolution (so called "quick looks") and metadata of relevant images available in the Airbus cloud-based library. Search results are returned as a GeoJSON (or CSW XML in a later version). Search based on parameters (such as resolution, acquisition date, constellation, satellite, incidence angle, orientation angle, cloud cover, snow cover and source ID) and on AOI (which can be uploaded in a GeoJSON KML, KMZ or SHP format or drawn on OneAtlas portal; toponyms and geographic coordinates can also be used to define the AOI).
- View functionality – access to all individual images available in Airbus cloud-based library, in a format that is optimized for screen display/viewing with on-the-fly orthorectification (8 bits, 3 bands products in a Geographic or WebMercator projection, JPEG and PNG format).
- Subscription options valid for a duration of 1 year as from user activation:
  - ✓ Download Package A (corresponding to 1.000 km² Pleiades or 7.500 km² SPOT or 400 km² PNEO)
  - ✓ Download Package B (corresponding to 1.950 km² Pleiades or 15.200 km² SPOT or 840 km² PNEO)
  - ✓ Streaming up to 80,000 tiles (corresponding to 1.000 km² Pleiades or 8.000 km² SPOT or 470 km² PNEO)
  - ✓ Streaming up to 160,000 tiles (corresponding to 2.000 km² Pleiades or 16.000 km² SPOT or 940 km² PNEO)
  - ✓ Unlimited Streaming (all-you-can-eat access)
- The users will be able to monitor their consumption, counted in tiles, in near real time. Tile consumption is not counted for streaming above 10m resolution and therefore not deducted from the user subscription.
- Analytics toolbox is not part of the offer

3 Data users

- Access to data is restricted to ESA and/or ESA approved science and application development users (PIs, and Co-PIs if any) located in the territory of ESA Member States and ESA Cooperating/Associate States
- Even users from China participating in a Dragon project are eligible for this ESA Third Party Mission but Airbus DS reserves the rights, in its sole discretion, to accept or reject the proposal (evaluation done on case by case basis)
- No geographic restrictions on Area of Interests (AOI) unless ESA defines otherwise
- Access to SPOT, Pleiades and Pléiades Neo data is subject to further Airbus DS control and orders may be rejected for security reasons.

4 Assignment and usage of quota

Assignment of quota

For the traditional data provision

- 'SPOT 6&7 1.5m Color or bundle (all production levels)',
- 'PLEIADES 0.5m Color or bundle, primary or ortho'
- 'PNEO 0.3m PAN or Bundle, all production levels'

during the project submission, the user shall specify his need as:

- the number of square kilometers for SPOT 6/7, Pleiades and Pléiades Neo (products are delivered clipped to the Area Of Interest ordered), split in archive and new acquisitions. For each product type, the Minimum Order Area is defined as per below table

Mission	Product type	Product description	Archive/programming	Minimum Order Area
SPOT 6&7	SPOT 6&7 1.5m Color or bundle (all production levels)	Pan-Sharpened (1.5m) or Bundle (B&W 1.5m + MS 6m) all production levels	Archive	100 km2
			Programming (Only SPOT 6)	500 km2
PLEIADES 1A&1B	PLEIADES 0.5m Color or bundle, primary or ortho	Pan-Sharpened (0.5m) or Bundle (B&W 0.5m + MS 2m) all primary or ortho	Archive	25 km2
			Programming	100 km2
PLEIADES NEO	PNEO 0.3m PAN or Bundle, all production levels	PAN 0.3m or Bundle (B&W 0.3m + MS 1.2m) all production levels	Archive	25 km
			Programming	100 km2

- the Acquisition mode (MONO, STEREO or TRISTEREO). Default mode is MONO; STEREO and TRISTEREO Data Acquisition modes are available for new acquisitions subjected to feasibility study

For OneAtlas Living Library data streaming, the user shall specify his need as:

- Type of subscription package
  - 80.000 tiles
  - 160.000 tiles
  - unlimited

For OneAtlas Living Library data download, the user shall specify his need as:

- Type of subscription package
  - Package A
  - Package B

After ESA evaluation, if the project is approved, a quota is granted to the PI allowing getting:

- A number of square kilometers for SPOT 6/7, Pleiades and Pléiades Neo, split in archive and new acquisitions
- Confirmation of the OneAtlas Living Library data streaming package
- Confirmation of the OneAtlas Living Library data download package

Usage of quota

During the evaluation process, the scientific content of a submitted project proposal is evaluated against the data requirements of the PI and a respective quota will be assigned to the project. The PI (and Co-PIs if any) is allowed to order the products corresponding to the quota.

The user shall order the products directly through the OneAtlas portal, it makes the quota consumption mechanism different if the quota is assigned for archive products or for new acquisitions.

Ordering:

To allow the orders to be placed in the OneAtlas portal, a Premier account is assigned to the PI (and Co-PIs if any) and loaded with enough spendable credits in order to get the products corresponding to the quota assigned to the project. The PI will be provided by Airbus with the Premier account credentials and the instructions to proceed with the order in their own environment.

PIs (and Co-PIs if any) are responsible to consume the credits assigned to the project in the OneAtlas portal within the validity period of 1 year. After the validity period of 1 year, ESA reserves the right to re absorb them. Modification of product type the can be accepted after project acceptance on the condition of not exceeding the original credit assignment.

Data delivery

- Products are delivered via ftp pickup
- Products are delivered free of charge in the limit of the quota approved by ESA
- Products are available on FTP server for download for a 1 month

OneAtlas data streaming/download

To allow the usage of data streaming/download packages on OneAtlas living Library, an account is assigned to the PI (and the same also to Co-PIs, if any) charged with the allocated amount of tiles/download allowance. The PI will be provided by Airbus with the credentials for the OneAtlas Living Library access.

The account shall be active for a duration of 1 year as from the user activation request.