

One Atlas / RADAR Tasking and Archive (RADAR Portal)

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TERMINOLOGY

1. I noticed different terminology. What do the terms “*RADAR Tasking and Archive*” as well as “*RADAR Portal*” mean?

Both terms mean exactly the same. They describe the integration of Airbus' online RADAR Tasking and Archive services into OneAtlas.

The RADAR Tasking and Archive services are managed by an easy-to-use online interface, the RADAR Portal. It is accessible through OneAtlas SSO (Single-sign-on) allowing registered users a 24/7 access to directly task the Radar Constellation satellites (TerraSAR-X, TanDEM-X and, if applicable, PAZ) to acquire new radar data and/or access the comprehensive radar archive.

ACCOUNT

2. How can I get an OneAtlas account?

You can create an OneAtlas account directly on the OneAtlas portal, by clicking on <https://account4.intelligence-airbusds.com/account/CreateAccount.aspx>

3. How do I log into my account?

You can visit the following website: <https://oneatlas.airbus.com> and click on “Log In”. You will be asked to enter your Airbus login details and default password to get started.

4. How do I change my OneAtlas password?

You can customize your password by clicking on “My Account” and “Modify my password”.

5. How can I recover my password?

Please use the “Forgot password?” link on the OneAtlas login page. Click on “Forgotten or expired password?” immediately under the sign in button to start the recovery process. Enter your OneAtlas login (email address) and copy the characters displayed to the right of the box. Click on “validate” to submit your request. You will receive an email from our team with an activation link. If not, please check your spam folder.

6. How long does it take until I can access the RADAR Tasking and Archive services through OneAtlas?

You should get access to the RADAR Tasking and Archive services usually within 5 working days. Please allow for delays, especially right after the launch of the RADAR Tasking and Archive services due to high interest and increased customer requests.

7. Several people from my company want to be able to order products. Can I open a generic account?

Each employee of your company that requires to use the RADAR Tasking and Archive services, and is successfully validated and accepted by Airbus, will have his/her own account including individual login and password.

8. How can I track my pay-per-order orders?

Order tracking is available on the RADAR Tasking and Archive services interface, in the “Order Tracking” panel. This is where you can find the list of the orders that you have placed, and the delivery status of each.

9. How will I know when my Radar product is going to be delivered?

Basic Image Products will regularly be delivered via FTPS. The customer will be able to ‘pull’ the delivered data from Airbus delivery server. Login information will be provided by our Customer Service separately. Once available, a delivery notification (e-Mail) will be sent to the customer’s defined e-Mail address.

OUR SATELLITES

10. What are the available image resolutions?

Our Radar satellites offer several Imaging Modes – from up to 25cm to 40m resolution and with individual area coverage.

The following approx. resolution per each Imaging Mode applies:

- Staring SpotLight (ST), **up to 0.25m res.**
- High Resolution SpotLight (HS) 300MHz, **up to 1m res.**
- High Resolution SpotLight (HS) 150MHz, **up to 1.4m res.**
- SpotLight (SL), **up to 2m res.**
- StripMap (SM), **up to 3m res.**
- ScanSAR (SC), **up to 18m res.**
- Wide ScanSAR (WS), **up to 40m res.**

CONSUMPTION

11. How will I be billed?

For pay-per-order contracts, ordering through OneAtlas does not change how we bill customers. Our Customer Service receives notice of all orders placed through the portal and establishes invoices as usual.

12. Can the Radar pay-per-order payment be deducted from the credits already available on the other OneAtlas services (e.g. Living Library)?

The payment for tasking orders cannot be deducted from the Living Library or Analytics credits.

13. Is there a link between my subscriptions in OneAtlas (Living Library, OneAtlas Basemaps...) and my RADAR Tasking and Archive orders?

No, there is no link between the amount dedicated to subscriptions and RADAR Tasking and Archive orders. Subscriptions correspond to pre-paid amounts whereas RADAR Tasking and Archive orders are paid on a per-order basis.

SERVICES

14. Which acquisition/imaging options do you provide for Radar Constellation (TerraSAR-X/TanDEM-X and PAZ)?

The following Basic Image Products are available:

| Acquisition/Imaging Options | |
|-----------------------------|---|
| Acquisition/Imaging Mode | Staring SpotLight (ST) – up to 0.25m resolution High Resolution SpotLight (HS), 300MHz – up to 1m resolution High Resolution SpotLight (HS), 150 MHz – up to ~1.4m resolution SpotLight (SL) – up to 2m resolution StripMap (SM) – up to 3m resolution ScanSAR (SC) – up to 18m resolution Wide ScanSAR (WS) – up to 40m resolution |
| Polarisation Mode | Single (S) for all modes Dual (D) for High Resolution SpotLight (HS), SpotLight (SL) and StripMap (SM) |
| Processing Level | SSC - Single Look Slant Range Complex MGD - Multi Look Ground Range Detected GEC - Geocoded Ellipsoid Corrected EEC - Enhanced Ellipsoid Corrected (for detailed explanation – please see below) |

The Basic Image Product in SSC Processing Level is delivered in the DLR-defined COSAR binary format. The detected products (MGD, GEC and EEC Processing Levels) are delivered in GeoTiff format. The annotation information of all Basic Image Products is provided in xml format.

Standard COTS software packages (e.g. Leica Geosystems Erdas Imagine, PCI Geomatics, ENVI, etc.) support the formats.

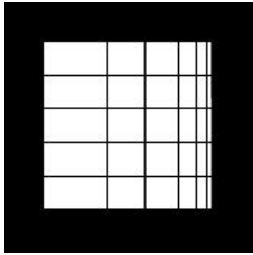
All Basic Image Products are processed and delivered in radar brightness β_0 , making them comparable to the detected ground range products from ERS-1 and 2, ENVISAT/ASAR and RADARSAT. In contrast to ENVISAT and ERS, the complex slant range products are also delivered in radar brightness.

With respect to the geometric projection and data representation of the data, Basic Image Products are differentiated into four product types, which are described in the following. Each product type is available individually; a combination is also possible.

Processing Level: Slant Range Product

The slant range product is a single look product of the focused radar signal. For this product, no additional processing options are available.

SSC - Single Look Slant Range Complex



The SSC product is a single look product of the focused radar signal. The pixels are spaced equidistant in azimuth (according to the pulse repetition interval $PRI=1/PRF$) and in slant range (according to the range sampling frequency). The data are represented as complex numbers containing amplitude and phase information. Each image pixel is processed to zero Doppler coordinates in range direction, i.e. perpendicular to the flight track. Due to the nature of azimuth/slant-range coordinates, no geocoding is available. The SSC is delivered in the DLR-defined binary COSAR format (see TerraSAR-X Level1B Product Format Specification).

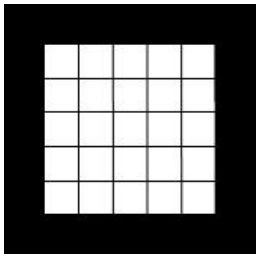
The product is compatible with the standard slant range products (SLC) available from ERS-1/2, ENVISAT ASAR, RADARSAT-1 and X-SAR/SIR-C.

The SSC product is intended for applications that require the full bandwidth and phase information, e.g. for SAR interferometry and polarimetry. Depending on the required application, this product may be preferred to geocoded data, since it does not include any radiometric artefacts, which may be introduced during spatial resampling and geocoding.

Processing Level: Detected Products

In the detected products, the spatial resolution is reduced (the number of looks is increased accordingly) in order to reduce speckle and thermal noise, i.e. to improve the radiometric resolution. Three different product types of detected image products exist for all imaging modes.

MGD - Multi Look Ground Range Detected

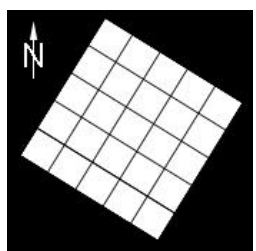


The MGD product is a detected multi look product with reduced speckle and approximately square resolution cells. The image coordinates are oriented along flight direction and along ground range. The pixel spacing is equidistant in azimuth and in ground range. For the slant to ground range projection the WGS84 ellipsoid and an average, constant terrain height value are used.

The MGD corresponds to the ERS-1/2 PRI or ENVISAT ASAR product called ASA_IMP_1P.

The advantage of this product is the fact that no image rotation to a map coordinate system has been performed and interpolation artefacts are thus avoided. This product is useful, if geocoding or orthorectification is to be applied by the customer, or in case geocoding is not required.

GEC - Geocoded Ellipsoid Corrected



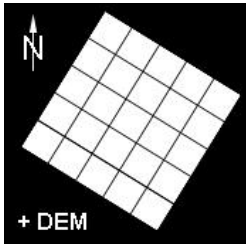
The GEC product is a multi-look detected product, which is resampled and projected to the WGS84 reference ellipsoid assuming one average height. The image is represented in map geometry with ellipsoidal corrections only, thus no terrain correction is performed. Available grid formats are UTM (Universal Transversal Mercator) and UPS (Universal Polar Stereographic).

Since the ellipsoid correction does not use height information from a Digital Elevation Model (DEM) for geometric correction, the pixel location accuracy varies depending on the local terrain. For other types of relief, the terrain induced SAR specific distortions are not corrected and significant location shifts can appear, particularly for a strong relief and/or steep incidence angles (see Annex for details on pixel location accuracy).

The product corresponds to the ERS-1/2 GEC or the ENVISAT SAR product called ASA_IMG_1P.

The GEC allows a fast orientation for the interpreter. Further, the data can be combined directly with other sources of information. For flat terrain, a good pixel location accuracy of the multi-temporal and reference data sets is achieved.

EEC - Enhanced Ellipsoid Corrected



The EEC product is a multi-look detected product as well, projected and resampled to the WGS84 reference ellipsoid. However, image distortions caused by varying terrain height are corrected using an external Digital Elevation Model (DEM). The image is represented in map geometry with terrain correction. The available map projections are UTM or UPS.

The pixel localization of this product is of a higher accuracy, however, it depends on the type of terrain, the quality and the resolution of the DEM used for the ortho-rectification and the incidence angle of the acquisition (see Annex for details on pixel location accuracy).

The product corresponds to the ERS-1/2 GTC or respective ENVISAT ASAR DLR-value-added product.

The EEC product features the highest level of geometric correction available for Basic Image Products and is thus quickly interpretable and combinable with other sources of information.

SEARCH & ORDER IMAGERY

15. How can I define my area of interest (AOI)?

You can navigate the map as you are used from similar tools (e.g. Google Earth). Additionally, you have the following options to create an AOI:

- **Polygon** Click and include multiple reference points around your AOI to create a polygon covering the entire area between each point. You can lock the area by double-clicking on the last point.
- **Bounding Box** Click and drag to select your AOI. Click again to fix the area.
- **Point / Center Coordinate** Place a point on the map with a simple click.
- **Import** GeoJSON, KML, KMZ and zipped Shapefiles either by dragging them onto the map or via the corresponding Import button. The AOIs are currently limited to a maximum of 100.000 points.

16. How can I order single Radar new acquisition or archive image?

The 'Getting Started - RADAR Tasking and Archive services' user guide document, or alternatively, the 'Getting started' section embedded within the RADAR Tasking and Archive services tool (RADAR Portal) provide an easy to read user guideline with respect to acquisition tasking and ordering. Alternatively you may watch the video tutorial.

17. Which browsers are supported?

Chrome, Firefox are supported. Internet Explorer is not supported.

18. Will the service be available on a 24/7 basis?

Yes, the RADAR Tasking and Archive services access is available for customers 24/7.

You will be notified about planned maintenance outages in advance both via the RADAR Tasking and Archive services tool (RADAR Portal) and e-Mail. You can check the system status live in the 'About this portal' section embedded within the RADAR Tasking and Archive services tool.

19. How can I access my products once acquired?

Radar Basic Image Products will regularly be delivered via FTPS with the customer having to 'pull' the data from Airbus' delivery server. Login information will be provided by our Customer Service separately, either upfront or with the initial data delivery. Once available, a delivery notification (e-Mail) will be sent to the customer's defined e-Mail address.

20. Can I track the progress of my tasking order?

You can track the progress of your acquisitions by using the 'Order Tracking' section (marked by the 'clock' symbol) within the RADAR Tasking and Archive services tool. It provides the current status of each individual tasking/ordered image.

21. How are Radar images being invoiced?

Radar imagery is acquired, delivered and invoiced on a per-scene basis.

LEGAL

22. Where can I learn more about your product licences?

Radar Constellation and TerraSAR-X End User licenses (EULA) are available on our website at <https://www.intelligence-airbusds.com/legal/licences>.

23. Where can I learn more about your terms & conditions?

The General Terms and Conditions for the Supply of Radar Acquisition or Archive Products are available on the RADAR Tasking and Archive (RADAR Portal) website at [https://radarportal.sarapi.intelligence-airbusds.com/\(main:about/legal\)](https://radarportal.sarapi.intelligence-airbusds.com/(main:about/legal)).