

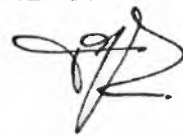
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# SALP

## F-PAC USER SERVICES

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For	DS2	DS4	DS5	DH2	DPP	DJ1	TP	TP2	SMM	SALP	
application to										X	
Models											

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SUMMARY



<b>Confidentiality : no</b>	<b>Type :</b>
<b>Key words : F-Pac, User Service, dissemination, catalog, products, ftp, media</b>	
<b>Summary : This document provide details on the F-PAC user services in term of dissemination.</b>	
<b>Both electronic and media dissemination to the users are covered.</b>	

DOCUMENT CHANGE RECORD

Issue	Date	Modifications	Visa
0.0	16 April 2003	Initial release of the document	N. Picot
1.0	27 April 2006	Added information on serigraphy following F-Pac progress meeting held in April 2006 (SALP-DM-M-382-CN)	N. Picot
1.1	15 January 2007	New ftp server implementation. All products (but SGDR one) are maintain forever on the server (SALP-DM-M-429-CN)	N. Picot
1.2	17 January 2008	Specific needs S-IGDR product and Side B data shall be disseminated to a dedicated and restricted account (SALP-DM-M-496-CN)	N. Picot
1.3	05 August 2008	Stop of USO correction file distribution to users (SALP-DM-M-514-CN rev1)	N. Picot
1.4	29 January	Add new directories for 2009 reprocessing- Updates of times of retention of the products	F Bailly-Poirot
1.5	07 June 2010	(SALP-DM-M-7628-CN) New organization for GDR / SGDR dissemination since the 2010 reprocessing In case of the Network trouble, a backup solution for the dissemination of the products IGDR and IMAR products is the avisofp.cnes.fr	F Bailly-Poirot
1.6	22 october 2010	(SALP-DM-M-7828-CN) F_PAC discontinue systematic DVD generation and dissemination. On line dissemination of RA2_WWV_2P products for entire mission from the upcoming reprocessing RA2 campaign	F Bailly-Poirot



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1.7	16 March 2011	<p>(SALP-DM-M-8046-CN)</p> <p>New directories are created:</p> <p>1) Altimetry_dataset_V2.1 has been created to take in account cycles since cycle 93 and all cycles concerning by the reprocessing campaign ( IFP V 6.04).</p> <p>2) gcm2cds/igdr and gcm2cds/gdr for GCM2CDS project</p>	F Bailly-Poirot
1.8	26 October 2011	Format change for GCM2CDS GDR exports : a zip per day	F Bailly-Poirot
1.9	10 February 2012	<p>Due to the end of the reprocessing , new organization</p> <p>1) altimetry-dataset-V2_0 is deleted</p> <p>All GDR/SGDR products are under directory : altimetry-dataset-V2_1</p> <p>2) VOR_2009 is renamed : vor_gdr_c</p> <p>3) New directory vor_gdr_d for the new POE in <b>gdr_d</b> standard</p>	F Bailly-Poirot

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## ABBREVIATIONS

Sigle	Definition
ADS	Auxiliary Data Suppliers
CMA	Centre Multi-missions Altimétriques
CMC	Control and Monitoring Centre
CNES	Centre National d'Etudes Spatiales
COTS	Commercial Of the Shelves
CSF	Common Services Facility
DF	Dissemination Facility
DORIS	Détermination d'Orbite et Radiopositionnement Intégré par Satellite
F-DAC	French Distribution and Archiving Centre
F-PAC	French Processing and Archiving Centre
FTP	File Transfert Protocol
GDD	Gestionnaire de Données et de Diffusion
INV	Inventory Facility
LRAC	Low Rate Archiving Centre
MWR	Microwave Radiometer
PAC	Processing and Archiving Centre
PDCC	Payload Data Control Centre
PDHS	Payload Data Handling Station
PDS	Payload Data Segment
RA2	Radar Altimeter-2
SD	Serveur de Données (Data Server)
SIF	Simulateur d'Interfaces
SSALTO	Segment Sol Multi-missions Altimétrie, Orbitographie et Localisation Précise
USF	Users Services Facility

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Reference	Document title
	DA1. GSOIP (TO BE ISSUED)
SALP-SP-F-EA-10602-CN	DA2. SPECIFICATIONS DE BESOIN DU F-PAC

TBC/TBD	Paragraph	Brief description
		none

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## 1. PURPOSE

This document provides details on the user services set up in place in F-Pac center to insure data dissemination services.

Both electronic and media dissemination are covered by this document

### 1.1 GENERAL DESCRIPTION

#### 1.1.1 ENVISAT GROUND SEGMENT OVERVIEW

The ENVISAT ground segment is divided in two parts :



- the Flying Operational Segment (FOS),
- the Payload Data Segment (PDS).

The PDS contains :

- the PDCC (Payload Data Control Centre) which controls all the other Centres/Stations of the PDS,
- the PDHS (Payload Data Handling Station) in charge of the real-time processing,
- the LRAC (Low Rate Archiving Centre) in charge of the off-line processing and archive,
- the ADS server (Auxiliary Data Suppliers) which stores the auxiliary data "near-line" at PDS format,
- the PACs (Processing and Archiving Centres) in charge of the off-line processing, archiving and of the users dissemination.

#### 1.1.2 F-PAC

The F-PAC (French Processing and Archiving Centre) is in charge of the off-line processing of RA2, MWR and Doris instruments on board ENVISAT satellite. It insure archiving and user interfaces for the RA2, MWR and DORIS products and some auxiliary files (orbit files, DOR\_CON and DOR\_INS) . In order to ease operations and user services, ESA has authorized CNES to develop a specific system for the data dissemination. This is therefore not covered by the Generic Elements even if part of the GE hardware configuration is used.

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## 1.2 GENERAL ASSUMPTION

### FPA-GEN-010

Any product must be described either in a Product Handbook or a Product Spec document. Those documents will be archived by the F-PAC User Desk.

### FPA-GEN-020



Any reading tool generated either by ESA or by F-PAC will be archived by the F-PAC User Desk.

### FPA-GEN-030

Any product characteristics must be specified in a brief Product sheet. Products sheets are available in Annex A and contain :

- File name information
- Applicable document (product spec or handbook)
- Product description
- Product type
- Delay
- Volume
- Dissemination (ftp server, media)
- Reading tools



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## 2. TECHNICAL SPECIFICATIONS OF THE ELECTRONIC DISSEMINATION

### 2.1 FTP SERVER : FUNCTIONAL DESCRIPTION

The F-PAC File Server must allow the registered users to retrieve products generated by F-PAC both in near real-time (ie RA2\_IGD, RA2\_WWV, DOR\_POR) or off-line (ie RA2\_GDR, RA2\_MWS, DOR\_VOR, DOR\_DOP). This server must also allow to disseminate data to a restricted group, known as 'dpqc' in this document (validation purposes, investigations, ...).

The requirements for this server are the following :

#### FPA-ARC-010

The FS\_FPA is hosted by the diss-nas-fp.eo.esa.int host on HiSeen system.

#### FPA-ARC-015

In case of the network or system trouble on Hiseen system a backup solution for the dissemination of IGDR and IMAR products is in place.

Products are put on the avisoftp.cnes.fr (login anonymous) under following directories

/AVISO/pub/envisat/igdr  
/AVISO/pub/envisat/imar

with a purge set to 1 month.

#### FPA-ARC-020



For the nominal data circulation, the FS\_FPA directory structure is :

```

doris
  aux (no subdirectory)
  dop
    <aaa><mm>
    latest_data
  por
    <aaa><mm>
    latest_data
  vor_gdr_c
    <aaa><mm>
    latest_data
  vor_gdr_d
    <aaa><mm>
    latest_data

  igdr
    <aaa><mm>
    latest_data
  igdr_ous_corr (no subdirectory)
  imar

```

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<aaaa><mm>  
lastest\_data

**FPA-ARC-025**

For the DORIS in gdr\_c standard data circulation, the FS\_FPA directory structure is :

doris  
vor\_version\_gdr\_c  
<aaaa><mm>

For the DORIS in gdr\_d standard data circulation, the FS\_FPA directory structure is :

doris  
vor\_version\_gdr\_d  
<aaaa><mm>

Quality of product was improved with new software version, so new directory was created. Structure is :

altimetry\_dataset\_V2.1  
gdr/ cycle\_<ccc>  
sgdr/ cycle\_<ccc>  
gdr\_validation\_report

**FPA-ARC-030**



For the restricted data circulation, the FS\_FPA directory structure is :  
dpqc

**FPA-ARC-035**

Data circulation for GCM2CDS project , the FS\_FPA directory structure is :

**gcm2cds/**  
**igdr**  
**gdr** To optimize the space a zip file is done per day , named  
gdr\_cycle\_xxx\_AAAAMMJJ.zip

GCM2CDS project must delete the files after retrieving

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**FPA-ARC-040**

There is a directory for each product type to disseminate.

6 different product types are to be disseminated using this server :

- RA2\_IGD\_2P (directory .../igdr) systematic
- RA2\_WWV\_2P (directory .../imar) systematic
- RA2\_GDR\_2P (directory .../gdr) systematic
- RA2\_MWS\_2P (directory .../sgdr) upon request
- RA2\_MWI\_2P (directory .../dpqc) systematic
- DOR\_DOP\_1P (directory .../doris/dop) systematic

Each IGDR product is disseminated in :

1. a directory named .../igdr/<aaaa><mm> with no purge applied
2. a directory named .../igdr/lastest\_data with a purge set to 10 days

Each WWV product is disseminated in :

1. a directory named .../imar/<aaaa><mm> with no purge applied
2. a directory named .../imar/lastest\_data with a purge set to 30 days

Each GDR product is disseminated in a directory named .../gdr/cycle\_<ccc>/ with no purge applied

To optimize the space a zip file is done per day , named  
gdr\_cycle\_xxx\_AAAAMMJJ.zip

MWS products are disseminated in a directory named .../sgdr/cycle\_<ccc>/ with no purge applied

To optimize the space a zip file is done per day, named  
sgdr\_cycle\_xxx\_AAAAMMJJ.zip

Each MWI product is disseminated in the directory named .../sigdr (no subdirectory) with a purge set to 1 day

Each DOP product is disseminated in :

1. a directory named .../doris/dop/<aaaa><mm> with no purge applied
2. a directory named .../doris/dop/lastest\_data with a purge set to 100 days

**FPA-ARC-041**

There is a directory for each main auxiliary type to disseminate.



4 different auxiliary types are to be disseminated using this server :

- DOR\_VOR\_AX (directory .../doris/vor) systematic
- DOR\_POR\_AX (directory .../doris/por) systematic
- DOR\_INS\_AX (directory .../doris/aux) systematic
- DOR\_CON\_AX (directory .../doris/aux) systematic

Each VOR product is disseminated in :

For the gdr-c DORIS standard, each VOR product is disseminated in :

1. a directory named .../doris/vor\_gdr\_c/<aaaa><mm> with no purge applied

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2. a directory named .../doris/vor\_gdr\_c/lastest\_data with a purge set to 30 days

For the gdr-d DORIS standard, each VOR product is disseminated in :

1. a directory named .../doris/vor\_gdr\_d/<aaaa><mm> with no purge applied
2. a directory named .../doris/vor\_gdr\_d/lastest\_data with a purge set to 30 days

Each POR product is disseminated in :

1. a directory named .../doris/por/<aaaa><mm> with no purge applied
2. a directory named .../doris/por/lastest\_data with a purge set to 30 days

Each INS product is disseminated in the directory named .../doris/aux (no subdirectory) with no purge applied

Each CON product is disseminated in the directory named .../doris/aux (no subdirectory) with no purge applied

**FPA-ARC-042**

There is a directory for GDR validation reports (ocean surfaces) :

- BilanCalval\_EN\_Cycle\_<ccc>.pdf (directory .../gdr\_validation\_report) systematic

**FPA-ARC-043**

There is a directory for GDR OUS correction files :

- RA2\_USO\_clock\_C-GDR-<ccc>.txt.gz (directory .../gdr\_ous\_corr) systematic

Note : with the inclusion of USO correction in IPF level1 processing, those files have not to be disseminated any more on the ftp server.

As the reprocessing is ended , the directory doesn't not exist any more .

**FPA-ARC-044**

There is a directory for IGDR OUS correction files :

- RA2\_USO\_clock\_D-IGDR-<aaaa><mm><dd>.txt (directory .../igdr\_ous\_corr) systematic



Note : with the inclusion of USO correction in IPF level1 processing, those files have not to be disseminated any more on the ftp server. We however keep the existing files for safe of consistency to users.

**FPA-ARC-045**

The 'dpqc' directory is used for dissemination of specific data sets to dpqc group. This group has no access to the nominal data circulation directories.

**FPA-ARC-050**

There is 2 profiles types : one "read only" for users, one "read/write" for the entity in charge of the data circulation.

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**FPA-ARC-060**

Each user must be declared and has a login and a password. A user account may be a user group upon ESA decision. This solution was used for the CalVal phase with the unique login : *ccvt*.

**FPA-ARC-070**

The SSALTO SD component is the entity in charge of the data circulation from the SD disks to the DF-FS.

**FPA-ARC-080**



The SSALTO SD component manages the life duration of the files on the server, except for GCM2CDS project.

**FPA-ARC-090**

Scientific users allowed to access to RA2 data are able to access to all product types (meaning that they have access to Doris data) but the one in 'dpgc' directory.

**FPA-ARC-091**

Scientific users allowed to access to DORIS data are **NOT** able to access to all product types (meaning that they do **NOT** have access to RA2 data).

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**FPA-ARC-100**

All IP transfers will be logged to allow for any on request analysis. Systematic analysis of IP traffics will be added to the F-Pac monthly reports. Those statistics will cover :

- list of incoming IP
- number of products retrieved by the users with an history login
- number of bytes transferred

**FPA-DIM-010**

All products, but /MWI ones, are permanently available on the server.

**FPA-DIM-060**

The dimension of the file system(s) will be computed so that it shall never be more than 90% used. As the SD component is not able to monitor the disk space used, a tool based on standard "df -k" and "du -sk" unix commands will be developed and the outputs sent to [ssalto@cls.fr](mailto:ssalto@cls.fr) on a regular basis.

**FPA-DIM-070**



Two months of IGDR represent 11,760 GBytes and two months of WWV represent 1,68 GBytes.

**FPA-DIM-080**

Six cycles of GDR represent 40 GBytes.

**FPA-DIM-090**

5 years of Doris data represent less than 1.5 GBytes (1 Mbytes per day).

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## 2.2 CONFIGURATION OF THE FILE SERVER OF THE F-PAC

### 2.2.1 CONFIGURATION OF SYSTEM, USERS AND DIRECTORIES

The file system dedicated to the File Server is a file system of 4 TBytes size. The name of the directory on which the file system is mounted is **/data\_ftp**.

Two UNIX users groups are defined : "writers" and "readers".

Two users accounts are allowed to write into the directories : SSALTO Data Server SD and the ftp\_adm account (used for maintenance purposes)



SSALTO Data Server SD login name is **sd** . It belongs to the 2 UNIX groups "writers" and "readers". The SD is able to create directories under the directory structure presented in the document (see below). This will allow for example to automatically generate a directory named **/data\_ftp/sd/gdr/cycle\_015** were the users will found all GDR level2 products on cycle 15.

The users allowed to read on these directories can connect from any hosts. The registered login names are provided by ESA and managed by ESA. CNES open, modify or close user account according to ESA requests coming eohelp by email.

They belong to the UNIX group "readers". For these users, the home directory must be **/data\_ftp/sd**.

### 2.3 OPERATIONAL PROCESSES TO UPDATE THE CONFIGURATION

The registered login names are provided by ESA and managed by ESA. CNES open, modify or close user account according to ESA requests coming eohelp by email.

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### 3. TECHNICAL SPECIFICATIONS OF THE MEDIA DISSEMINATION

#### 3.1 MEDIA DISSEMINATION: FUNCTIONAL DESCRIPTION

The systematic generation and delivery of the Envisat RA2 GDR and SGDR data on DVD has been discontinued at F-PAC. The data is accessible to users on-line from the F-PAC dissemination server. On request from EOHELP, the F-PAC media dissemination system must send to users the products generated by the F-PAC off-line (ie RA2\_GDR, RA2\_MWS). For the Doris orbit files and Doris level 1B files, the USF and AVISO catalogues will fill the service. For all altimeter level 2 products generated by the verification chain (non official PDS products), the service will be filled also by the AVISO catalogue.

The requirements for this server are the following:

##### FPA-SYS-010

The GDD component manages the media generation activity for the radar altimeter PDS products. Media generated shall be inline with "Envisat1 Media Naming Scheme" document (PO-TN-CSF-GS-0549).

##### FPA-SYS-015

The AVISO or GDD component manages the media generation activity for the Doris orbit files, the Doris level1B products and the added value products generated by the verification chain.

##### FPA-SYS-020

The SEM (*Service d'Echange de Media*) is in charge of the media master generation. Depending on the number of copies necessary an external company might be used for media duplication.

##### FPA-SYS-030

During the operational phase, only RA2\_GDR and RA2\_MWS products are circulated on media on request since cycle 91.

##### FPA-SYS-035

During the operational phase, any user may access to

- the AVISO catalogue (<http://www-aviso.cnes.fr/>) to order Doris products or any radar altimeter verification product.
- An TBD ESA catalogue to order RA2 or Doris products.

##### FPA-SYS-040

During the verification phase, all RA2 level2 products might be circulated on media.



##### FPA-SYS-050

The radar altimeter user list is provided by ESA.

##### FPA-SYS-060

Both CD-ROM and DVD-ROM will be generated depending on user choice



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**FPA-SYS-070**

All RA2\_GDR products must be validated before media generation. A validation report is issued for all GDR cycle. This report has to be included to the media.

**FPA-SYS-080**

The AVISO user service ([aviso@cls.fr](mailto:aviso@cls.fr)) is in charge of the packaging and user interface regarding the media. Any question related to the products themselves will be sent to ESA help desk.

**FPA-DIM-110**

During the CalVal phase, the level2 products are circulated on a weekly basis.

**FPA-DIM-120**

During the operational phase, the RA2\_GDR\_2P data are circulated on a cycle basis.

**FPA-DIM-130**

During the operational phase, the RA2\_MWS\_2P data are circulated on a cycle basis. Those products will be compressed (zip) on media.

**FPA-DIM-140**



One cycle of GDR represents 7 GBytes.

**FPA-DIM-150**

One cycle of MWS represents 35 GBytes. After compression, volume size is about 15 GBytes

### **3.2 OPERATIONAL PROCESSES TO UPDATE THE CONFIGURATION**

For any request, ESA will sent a mail to [ssalto@cls.fr](mailto:ssalto@cls.fr) F-PAC project manager.



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### 3.3 SERIGRAPHY

Taking into account ESA requests and CNES internal constraints (F-Pac is using a generic CNES system for all media dissemination, this allowing to reduce largely cost of operations), the following serigraphy was agreed between both parties



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CD layout



DVD layout

**FPA-SER-010**

This serigraphy shall be used for any CD/DVD media generated by F-PAC

**FPA-SER-020**

The following information is printed on CD/DVD : media volume name and CNES Volume Serial Number (VSN)

**FPA-SER-030**

The following information is printed on leaflet 1<sup>st</sup> page: media volume name and Media Creation Date

**FPA-SER-035**

The following information is printed on leaflet 4<sup>th</sup> page: media content (first product name + last product name). This allow to have access to :

Product ID (and so to the Product Name)

Start Time and Stop time



Orbit N Range

Cycle number

Rel Orbit Range

**FPA-SER-040**

The following information is printed on box side: media volume name

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**FPA-SER-050**

Media volume name is defined as follow : FPA\_GDR\_<ccc>\_P\_<nn>\_<mm> where

FPA is the processing center



GDR is the product type

ccc is the cycle number (very useful information for RA2 users)

P is the consolidation flag of the products



nn is the delivery number inside the cycle (nominaly = 01)

mm is the CD number inside the delivery (from 01 to 10 for a complete GDR cycle)



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## ANNEXE A : PRODUCT SHEET



<b>FILE NAME</b>	RA2_IGD_2POF-PStDay_StTime_DurACyc_RelOr_AbsOr_Count.N1 le : RA2_IGD_2POF-P20020828_125825_00003017A009_00024_02004_0036.N1
<b>Applicable document</b>	Envisat-1 Product specifications  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 14  ENVISAT Product Handbook : <a href="http://envisat.esa.int/dataproducts">http://envisat.esa.int/dataproducts</a>
<b>Product description</b>	Level 2 products combining altimeter and radiometer data under the ground track. Those products are generated with the Doris Preliminary Orbit (DOR_POR). They are split into half orbits (pole to pole).
<b>Product type</b>	Binary
<b>Delay</b>	Generated in 2 to 5 working days after data sensing on a daily basis
<b>Volume</b>	7 Mbytes per file
<b>Dissemination</b>	Available on the F-Pac ftp server (no purge applied)
<b>Reading tools</b>	Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a>

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<b>FILE NAME</b>	RA2_GDR_2POF- PStDay_StTime_DurACyc_RelOr_AbsOr_Count.N1  le : RA2_GDR_2POF-P20020828_125825_00003017A009_00024_02004_0036.N1
<b>Applicable document</b>	Envisat-1 Product specifications  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 14  ENVISAT Product Handbook : <a href="http://envisat.esa.int/dataproducts">http://envisat.esa.int/dataproducts</a>
<b>Product description</b>	Level 2 products combining altimeter and radiometer data under the ground track. Those products are generated with the Doris Precise Orbit (DOR_VOR). They are split into half orbits (pole to pole).
<b>Product type</b>	Binary
<b>Delay</b>	Generated 50 days after the end of the cycle on a cycle basis. Those products are widely validated before dissemination of the full cycle
<b>Volume</b>	7 Mbytes per file
<b>Dissemination</b>	Available on the F-Pac ftp server (no purge applied)  Sent on media on a cycle basis
<b>Reading tools</b>	Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a>



 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRECISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 23/30</p>
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<b>FILE NAME</b>	<p>RA2_MWS_2POF- PStDay_StTime_DurACyc_RelOr_AbsOr_Count.N1</p> <p>le : RA2_MWS_2POF-P20020828_125825_00003017A009_00024_02004_0036.N1</p>
<b>Applicable document</b>	<p>Envisat-1 Product specifications</p> <p>PO-RS-MDA-GS-2009 Volume 5</p> <p>PO-RS-MDA-GS-2009 Volume 14</p> <p>ENVISAT Product Handbook : <a href="http://envisat.esa.int/dataproducts">http://envisat.esa.int/dataproducts</a></p>
<b>Product description</b>	<p>Level 2 products combining altimeter and radiometer data under the ground track and waveforms. Those products are generated with the Doris Precise Orbit (DOR_VOR). They are split into half orbits (pole to pole).</p>
<b>Product type</b>	<p>Binary</p>
<b>Delay</b>	<p>Generated 50 days after the end of the cycle on a cycle basis. Those products are widely validated before dissemination of the full cycle. They contain the waveforms information to allow users to perform their own retracking algorithms.</p>
<b>Volume</b>	<p>35 Mbytes per file</p>
<b>Dissemination</b>	<p>Available on the F-Pac ftp server upon request only for a small set of passes</p> <p>Sent on media on a cycle basis</p>
<b>Reading tools</b>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>



 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRÉCISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 24/30</p>
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<b>FILE NAME</b>	RA2_WWV_2POF- PStDay_StTime_DurACyc_RelOr_AbsOr_Count.N1  le : RA2_WWV_2POF-P20020828_125825_00003017A009_00024_02004_0036.N1
<b>Applicable document</b>	Envisat-1 Product specifications  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 14  ENVISAT Product Handbook : <a href="http://envisat.esa.int/dataproducts">http://envisat.esa.int/dataproducts</a>
<b>Product description</b>	Level 2 products combining altimeter and radiometer data under the ground track. Those products are generated with the Doris Preliminary Orbit (DOR_POR). They are split into half orbits (pole to pole). They contain only the ocean1 retraking information.
<b>Product type</b>	Binary
<b>Delay</b>	Generated in 3 to 5 working days after data sensing on a daily basis
<b>Volume</b>	1 Mbytes per file
<b>Dissemination</b>	Available on the F-Pac ftp server (no purge applied)
<b>Reading tools</b>	Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a>





 <p>CNES CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRÉCISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : 10 February 2012 Page : 25/30</p>
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<p><b>FILE NAME</b></p>	<p>DOR_POR_AXVF- PProcessingDay_ProcessingTime_StDay_StTime_EndDay_EndTime le : DOR_POR_AXVF-P20030416_013100_20030308_215528_20030310_002328</p>
<p><b>Applicable document</b></p>	<p>Envisat-1 Product specifications  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 16  ENVISAT Product Handbook : <u>none</u></p>
<p><b>Product description</b></p>	<p>Doris Preliminary orbit computed in Near Real Time using only Doris data. Each file covers one day with a time span of 1 minute.</p>
<p><b>Product type</b></p>	<p>Ascii</p>
<p><b>Delay</b></p>	<p>Generated in 3 to 5 working days after data sensing on a daily basis</p>
<p><b>Volume</b></p>	<p>200 kBytes per file</p>
<p><b>Dissemination</b></p>	<p>Available on the F-Pac ftp server (no purge applied)</p>
<p><b>Reading tools</b></p>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>

 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRECISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 26/30</p>
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<b>FILE NAME</b>	<p>DOR_VOR_AXVF- PProcessingDay_ProcessingTime_StDay_StTime_EndDay_EndTime le : DOR_VOR_AXVF-P20030416_013100_20030308_215528_20030310_002328</p>
<b>Applicable document</b>	<p>Envisat-1 Product specifications  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 16  ENVISAT Product Handbook : <u>none</u></p>
<b>Product description</b>	<p>Doris Precise orbit computed off line using Doris and laser data. Each file covers one day with a time span of 1 minute.</p>
<b>Product type</b>	<p>Ascii</p>
<b>Delay</b>	<p>Generated 35 days after data sensing on a weekly basis</p>
<b>Volume</b>	<p>200 kBytes per file</p>
<b>Dissemination</b>	<p>Available on the F-Pac ftp server (no purge applied)</p>
<b>Reading tools</b>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>

 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRÉCISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 27/30</p>
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<p><b>FILE NAME</b></p>	<p>DOR_DOP_1POF- PStDay_StTime_DurACyc_RelOr_AbsOr_Count.N1  le : DOR_DOP_1POF-P20030210_000352_000857402013_00389_04951_0326.N1</p>
<p><b>Applicable document</b></p>	<p>Envisat-1 Product specifications :  PO-RS-MDA-GS-2009 Volume 5  PO-RS-MDA-GS-2009 Volume 9  ENVISAT Product Handbook : <u>none</u></p>
<p><b>Product description</b></p>	<p>Doris Doppler data associated to the Precise orbit. Each file covers one day and includes all Doris measurements available on the period.</p>
<p><b>Product type</b></p>	<p>Binary</p>
<p><b>Delay</b></p>	<p>Generated 35 days after data sensing on a weekly basis</p>
<p><b>Volume</b></p>	<p>500 kBytes per file</p>
<p><b>Dissemination</b></p>	<p>Available on the F-Pac ftp server (no purge applied)</p>
<p><b>Reading tools</b></p>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>

 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRECISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 28/30</p>
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<b>FILE NAME</b>	<p>DOR_INS_AXVF- PprocessingDay_ProcessingTime_StDay_StTime_EndDay_EndTime le : DOR_INS_AXVF-P20030605_115000_20030320_224322_20030325_002142</p>
<b>Applicable document</b>	<p>Envisat-1 Product specifications  FPA-ST-052-EA-10446-ESA Volume 5  FPA-ST-052-EA-10457-ESA Volume 16  ENVISAT Product Handbook : <u>none</u></p>
<b>Product description</b>	<p>Doris instrument characterisation file</p>
<b>Product type</b>	<p>Ascii</p>
<b>Delay</b>	<p>Generated 35 days after data sensing on a weekly basis</p>
<b>Volume</b>	<p>2 kBytes per file</p>
<b>Dissemination</b>	<p>Available on the F-Pac ftp server (no purge applied)</p>
<b>Reading tools</b>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>

 <p><b>cnes</b> CENTRE NATIONAL D'ÉTUDES SPATIALES</p>	 <p>SERVICE ALTIMÉTRIE &amp; LOCALISATION PRÉCISE</p>	<p>Référence : SALP-NT-P-OP-14794-CN Issue : 1.9 Date : <b>10 February 2012</b> Page : 29/30</p>
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<p><b>FILE NAME</b></p>	<p>DOR_CON_AXVF- PprocessingDay_ProcessingTime_StDay_StTime_EndDay_EndTime  le : DOR_CON_AXVF-P20030605_115100_20030320_224322_20030325_002142</p>
<p><b>Applicable document</b></p>	<p>Envisat-1 Product specifications  FPA-ST-052-EA-10446-ESA Volume 5  FPA-ST-052-EA-10457-ESA Volume 16  ENVISAT Product Handbook : <u>none</u></p>
<p><b>Product description</b></p>	<p>Doris instrument configuration file</p>
<p><b>Product type</b></p>	<p>Ascii</p>
<p><b>Delay</b></p>	<p>Generated 35 days after data sensing on a weekly basis</p>
<p><b>Volume</b></p>	<p>20 kBytes per file</p>
<p><b>Dissemination</b></p>	<p>Available on the F-Pac ftp server (no purge applied)</p>
<p><b>Reading tools</b></p>	<p>Enviview and Reading tool package provided by ESA ESOV : <a href="http://envisat.esa.int/services/tools_table.html">http://envisat.esa.int/services/tools_table.html</a></p>

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