

GMES

ESRIN/Contract no. XXXXXXXXX



# PRODUCT ACCEPTANCE REPORT

V1

1<sup>st</sup> August 2005



## Terrafirma PRODUCT ACCEPTANCE REPORT

Town Name:	
Country:	
Product type:	
Date received:	
Name of Organisation:	
Author and date of compilation:	
Email:	

Depending on the product you received (a summary of product types is listed below), please complete the relevant report below. All H1 recipients are to complete the last two forms on product validation inputs and product ordering and delivery. The product acceptance report ensures that the correct product data layers received from the Value Added Company conform to the data layer standards as described in *S5: Service Portfolio Specification*.

1. H1: InSAR measurements only (updated routinely every three years).
  - H1a: Conventional differential InSAR
  - H1b: Stacked differential InSAR
  - H1c: PSI Analysis
2. U1: Update product (one-off, user-specified update of existing H1).
  - U1 is as H1 in format
3. M1: Monitoring product (user-specified, regular updates of H1).
  - M1 is as U1 in format.
4. H2 : Causal product (interpreted by GS/CE).
  - H2a: Interpretation report providing reasons for observed phenomena
  - H2b: H2a plus 3D visualisation
5. H3 : Modelled product (project-based product by GS/CE).
  - H3a: correlation of quantitative auxiliary data with ground motion measurements or modelling of the ground motion phenomena
  - H3b: 3D perspective views or other alternative displays of H3a dataset



**H1A PRODUCT DATA LAYERS**

Protocol	Standard	√ / X (Conform/Non-conform)	Comments e.g. tests applied, reason for non-conforming
<i>3 – Product data layers</i>			
<i>3.1 – SAR Amplitude image</i>			
3.1.1 – Projection	Unprojected Lat/Lon		
3.1.2 – Data type	8-bit unsigned		
3.1.3 – Format	GeoTIFF		
3.1.4 – Georeference information	Integral GeoTIFF tags, Arc Info World file (.tfw) and text file of corner co-ordinates (.txg)		
3.1.5 – Colour table applied	Greyscale		
3.1.6 – Contrast stretch applied	Linear 1-99%		
3.1.7 – Null value	255		
<i>3.2 – Fourier filtered differential interferogram</i>			
3.2.1 – Projection	Unprojected Lat/Lon		
3.2.2 – Data type	8-bit unsigned		
3.2.3 – Format	GeoTIFF		
3.2.4 – Georeference information	Integral GeoTIFF tags, Arc Info World file (.tfw) and text file of corner co-ordinates (.txg)		

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3.2.5 – Colour table applied	Greyscale		
3.2.6 – Contrast stretch applied	None		
3.2.7 – Phase value range	1-100		
3.2.8 – Null value	255		
3.3 – Ground displacement map			
3.3.1 – Projection	Unprojected Lat/Lon		
3.3.2 – Data type	32-bit float		
3.3.3 – Byte order	L-H (Little Endian, Intel)		
3.3.4 – Format	Simple array		
3.3.5 – Contrast stretch applied	None		
3.3.6 – Georeference information	Arc Info World file (.tfw), text file of corner co-ordinates (.txg) and ERMapper (.ers)		
3.3.7 – Null value	-9999		
3.4 - Null Mask Object - Null areas in the data are indicated using a Null Mask layer			
3.4.1 – Projection	Unprojected Lat/Lon		
3.4.2 – Data Type	8-bit		
3.4.3 – Format	Simple array		
3.4.4 – Colour table applied	N/a		



3.4.5 – Contrast stretch applied	none		
3.4.6 – Mask	255 = Valid pixel, 0= Null pixel		
3.4.7 – Georeference information	Arc Info World file (.tfw), text file of corner co-ordinates (.txg) and ERMapper (.ers)		
3.5 – Processing summary report			
<i>Report includes:</i>			
3.5.1 – Process Date			
3.5.2 – Software used			
3.5.3 – Version			
3.5.4 – Analysis type			
3.5.5 – Number of scenes used			
3.5.7 – Scale			
3.5.8 – Georeference (X,Y) accuracy	Value=		
3.5.9 – Reference data used for georeference			
3.5.10 – H1a Dates used for interferogram			
3.5.13 – H1a Observations			
3.5.14 – H1a Uncompensated atmospheric			
3.5.15 – general comment on the product			

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**H1B PRODUCT DATA LAYERS**

Protocol	Standard	√ / X (Conform/Non-conform)	Comments e.g. tests applied, reason for non-conforming
<i>3 – Product data layers</i>			
<i>3.1 – Reference SAR amplitude image</i>			
3.1.1 – Projection	Unprojected Lat/Lon		
3.1.2 – Data type	8-bit unsigned		
3.1.3 – Format	GeoTIFF		
3.1.4 – Georeference information	Integral GeoTIFF tags, Arc Info World file (.tfw) and text file of corner co-ordinates (.txg)		
3.1.5 – Colour table applied	Greyscale		
3.1.6 – Contrast stretch applied	Linear 1-99%		
3.1.7 – Null value	255		
<i>3.2 – Fourier-filtered stacked interferogram</i>			
3.2.1 – Projection	Unprojected Lat/Lon		
3.2.2 – Data type	8-bit unsigned		
3.2.3 – Format	GeoTIFF		
3.2.4 – Georeference information	Integral GeoTIFF tags, Arc Info World file (.tfw) and text file of corner co-ordinates (.txg)		

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3.2.5 – Colour table applied	Greyscale		
3.2.6 – Contrast stretch applied	None		
3.2.7 – Phase value range	1-100		
3.2.8 – Null value	255		
3.3 – Ground displacement map			
3.3.1 – Projection	Unprojected Lat/Lon		
3.3.2 – Data type	32-bit float		
3.3.3 – Byte order	L-H (Little Endian, Intel)		
3.3.4 – Format	Simple array		
3.3.5 – Contrast stretch applied	None		
3.3.6 – Georeference information	Arc Info World file (.tfw), text file of corner co-ordinates (.txg) and ERMapper (.ers)		
3.3.7 – Null value	-9999		
3.4 – Processing summary report			
<i>Report includes:</i>			
3.4.1 – Process Date			
3.4.6 – Satellite data used			
3.4.7 – Scale			
3.4.8 – Georeference (X,Y) accuracy	Value =		



3.4.9 – Reference data used for georeference			
3.4.10 – H1b Number of scenes in stack			
3.4.11 –Type of stacking carried out			
3.4.12 – Observations			
3.4.13 – Uncompensated atmospherics			
3.4.14 - General comment on the product			

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**H1C PRODUCT DATA LAYERS**

Protocol	Standard	√ / X (Conform/Non-conform)	Comments e.g. tests applied, reason for non-conforming
<i>3 – Product data layers</i>			
3.1 – Reference multi-image reflectivity map (MIR) image			
3.1.1 – Projection	Unprojected Lat/Lon		
3.1.2 – Data type	8-bit unsigned		
3.1.3 – Format	GeoTIFF		
3.1.4 – Georeference information	Integral GeoTIFF tags, Arc Info World file (.tfw) and text file of corner co-ordinates (.txg)		
3.1.5 – Colour table applied	Greyscale		
3.1.6 – Contrast stretch applied	Linear		
3.1.7 – Null value	255		
3.2 – Table of PS average annual displacement rate, include:	dBase IV (.DBF)		
3.2.1 – Code	PS unique identifier. The reference point is coded "REF".		
3.2.2 – Lat	Universal Transverse Mercator or user-specified projection		

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3.2.3 – Lon	Universal Transverse Mercator or user-specified projection		
3.2.5 – Displacement rate	Average annual displacement rate (mm/year)		
3.2.6 – Coherence	Connection coherence (quality indicator)		
3.2.7 – Standard deviation	Standard deviation of average annual displacement rate due to uncompensated atmospheric error (mm/year)		
3.3 – Table of PS time series	dBase IV (.DBF)		
3.3.1 – Code	PS unique identifier. The reference point is coded "REF".		
3.3.2 – Lat	Universal Transverse Mercator or user-specified projection		
3.3.3 – Lon	Universal Transverse Mercator or user-specified projection		
3.3.4 – Displacement rate	Average annual displacement rate (mm/year)		
3.3.5 – Coherence	Connection coherence (quality indicator)		
3.3.6 – Standard deviation	Standard deviation of average annual displacement rate due to uncompensated atmospheric error (mm/year)		
3.3.7 – PS point displacement	Displacement of each PS point relative to master image per scene		
3.4 – Processing summary report <i>Report includes:</i>			
3.4.1 – Georeference (X,Y) accuracy	Value =		
3.4.2 – Reference data used for georeference			



3.4.3 – Date range of analysis			
3.4.4 – Projection system used			
3.4.5 – Reference point location			
3.4.6 – Number of PS identified			
3.4.7 – Area of results			
3.4.8 – comments on the PS density (provided by VAC)			
3.4.9 – PS motion statistics % of points in each mm/year class (Min to -3.5, -3.5 to -1.5, -1.5 to +1.5, +1.5 to +3.5, +3.5 to Max)			
3.4.10 – reference data for accuracy assessment	List:		
3.4.11 – Standard deviation of average annual ground motion			
3.4.12 – Observations	List:		
3.4.13 - Visible tilt or phase trends in motion map			
3.4.14 – Are there any regions not covered by PS results? Location & reason			
3.4.15 – general comment on the product			

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**H1 PRODUCT VALIDATION INPUTS**

Protocol		√ / X (relevant/not relevant)	Correction decision
1 – layer data	Description: Source: Accuracy:		
2 – point data	Description: Source: Accuracy:		

**PRODUCT ORDERING/DELIVERY**

Protocol	Standard	√ / X (Conform/Non-conform)	Comments e.g. tests applied, reason for non-conforming
1 – area of interest	Defined by end user		
2 – period of interest	Determined by ERS archive and processable scenes.		
3 – delivery time			
4- general comments on the ordering/delivery service			

END

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