

Evaluation of Geoscience Australia's (GA) Sentinel-1 Normalised Radar Backscatter (NRB) product. [NRB] self-assessment submitted by GA (SAR (NRB) PFS v1.2) for CEOS-ARD Compliance

Summary Self-Assessment Table

			Threshold	Goal
1	CEOS-ARD product	General Metadata		
1.1	[ALL]	Traceability	Not Required	Not Assessed
1.2	[ALL]	Metadata Machine Readability	Verified	Not Assessed
1.3	[ALL]	Product Type	Verified	Not Assessed
1.4	[ALL]	Document Identifier	Verified	Not Assessed
1.5	[ALL]	Data Collection Time	Verified	Not Assessed
1.6		Source Data Attributes		
1.6.1	[ALL]	Source Data Access	Verified	Not Assessed
1.6.2	[ALL]	Instrument	Verified	Not Assessed
1.6.3	[ALL]	Source Data Acquisition Time	Verified	Not Assessed
1.6.4	[ALL]	Source Data Acquisition Parameters	Verified	Not Assessed
1.6.5	[ALL]	Source Data Orbit Information	Verified	Not Assessed
1.6.6	[ALL]	Source Data Processing Parameters	Verified	Not Assessed
1.6.7	[ALL]	Source Data Image Attributes	Verified	Not Assessed
1.6.8	[ALL]	Sensor Calibration	Not Required	Not Assessed
1.6.9	[ALL]	Performance Indicators	Verified	Not Assessed
1.6.10	[ALL]	Source Data Polarimetric Calibration Matrices	Not Required	Not Assessed
1.6.11	[ALL]	Mean Faraday Rotation Angle	Not Required	Not Assessed
1.6.12	[ALL]	Ionosphere indicator	Not Required	Not Assessed

1.7		CEOS-ARD Product Attributes		
1.7.1	[ALL]	Product Data Access	Verified	Not Assessed
1.7.2	[ALL]	Auxiliary Data	Verified	Not Assessed
1.7.3	[ALL]	Product Sample Spacing	Verified	Not Assessed
1.7.4	[NRB] [POL] [ORB]	Product Equivalent Number of Looks	Verified	Not Assessed
1.7.5	[ALL]	Product Resolution	Verified	Not Assessed
1.7.6	[NRB] [POL] [ORB]	Product Filtering	Verified	Not Assessed
1.7.7	[ALL]	Product Bounding Box	Verified	Not Assessed
1.7.8	[ALL]	Product Geographical Extent	Verified	Not Assessed
1.7.9	[ALL]	Product Image Size	Verified	Not Assessed
1.7.10	[ALL]	Product Pixel Coordinate Convention	Verified	Not Assessed
1.7.11	[ALL]	Product Coordinate Reference System	Verified	Not Assessed
1.7.12	[ORB]	Look Direction Polynomials	Not Product Relevant	Not Relevant
1.7.13	[GSLC] [InSAR]	Radar Unit Look Vector	Not Product Relevant	Not Relevant
1.7.14	[GSLC]	Slant Range Sensor to Surface	Not Product Relevant	Not Relevant
1.7.15	[NRB] [POL] [GSLC]	Reference Orbit	Not Required	Not Assessed
1.7.16	[InSAR]	InSAR Pair	Not Product Relevant	Not Relevant
1.7.17	[InSAR]	InSAR Pair Co registration	Not Product Relevant	Not Relevant
1.7.18	[InSAR]	Coherence	Not Product Relevant	Not Relevant

1.7.19	[InSAR]	Interferogram Filtering	Not Product Relevant	Not Relevant
1.7.20	[InSAR]	Phase Unwrapping	Not Product Relevant	Not Relevant
1.7.21	[GSLC] [InSAR]	Atmospheric Phase Correction	Not Product Relevant	Not Relevant
1.7.22	[GSLC] [InSAR]	Ionospheric Phase Correction	Not Product Relevant	Not Relevant
1.7.23	[InSAR]	Displacement Modelling	Not Product Relevant	Not Relevant
			Threshold	Goal
2	CEOS-ARD product	Per-Pixel Metadata		
2.1	[ALL]	Metadata Machine Readability	Verified	Not Assessed
2.2	[ALL]	Data Mask Image	Verified	Not Assessed
2.3	[ALL]	Scattering Area Image	Not Required	Not Assessed
2.4	[NRB] [POL] [ORB] [GSLC]	Local Incident Angle Image	Verified	Not Assessed
2.5	[ALL]	Ellipsoidal Incident Angle Image	Verified	Not Assessed
2.6	[ALL]	Noise Power Image	Not Required	Not Assessed
2.7	[NRB] [POL] [GSLC]	Gamma-to-Sigma Ratio Image	Verified	Not Assessed
2.8	[ALL]	Acquisition ID Image	Not Required	Not Assessed
2.9	[NRB] [POL] [GSLC] [InSAR]	Per-pixel DEM	Not Required	Not Assessed
2.10	[ORB]	Per-pixel Geoid	Not Product Relevant	Not Relevant
2.11	[ORB]	Look Direction Image	Not Product Relevant	Not Relevant

2.12	[GSLC] [InSAR]	Radar Unit Look Vector Grid Image	Not Product Relevant	Not Relevant
2.13	[GSLC] [InSAR]	Slant Range Sensor to Surface Image	Not Product Relevant	Not Relevant
2.14	[GSLC] [InSAR]	InSAR Phase Uncertainty Image	Not Product Relevant	Not Relevant
2.15	[GSLC] [InSAR]	Atmospheric Phase Correction Image	Not Product Relevant	Not Relevant
2.16	[GSLC] [InSAR]	Ionospheric Phase Correction Image	Not Product Relevant	Not Relevant
2.17	[InSAR]	Simulated Topographic Phase	Not Product Relevant	Not Relevant
2.18	[InSAR]	InSAR Perpendicular Baseline	Not Product Relevant	Not Relevant
2.19	[InSAR]	InSAR Parallel Baseline	Not Product Relevant	Not Relevant
2.20	[InSAR]	InSAR Displacement Model Points	Not Product Relevant	Not Relevant
			Threshold	Goal
3	CEOS-ARD product	Radiometrically Corrected Measurements		
3.1	[ALL]	Backscatter Measurements	Verified	Not Assessed
3.2	[ALL]	Scaling Conversion	Verified	Not Assessed
3.3	[ALL]	Noise Removal	Verified	Not Assessed
3.4	[NRB] [POL] [GSLC] [InSAR]	Radiometric Terrain Correction Algorithms	Verified	Not Assessed
3.5	[ALL]	Radiometric Accuracy	Not Required	Not Assessed
3.6	[ORB]	Mean Wind-Normalised Backscatter Measurements	Not Product Relevant	Not Relevant
3.7	[NRB] [POL]	Flattened Phase	Not Required	Not Assessed

3.8	[InSAR]	Coherence Image	Not Product Relevant	Not Relevant
3.9	[InSAR]	Interferogram Image	Not Product Relevant	Not Relevant
3.10	[InSAR]	Unwrapped Interferogram Image	Not Product Relevant	Not Relevant
3.11	[InSAR]	InSAR Displacement Image	Not Product Relevant	Not Relevant
3.12	[InSAR]	InSAR Displacement Residue Image	Not Product Relevant	Not Relevant
3.13	[InSAR]	InSAR Displacement Rate Image	Not Product Relevant	Not Relevant
3.14	[InSAR]	InSAR Displacement Rate Model fit Image	Not Product Relevant	Not Relevant
			Threshold	Goal
4	CEOS-ARD product	Geometric Corrections	Met	
4.1	[ALL]	Geometric Correction Algorithms	Verified	Not Assessed
4.2	[ALL]	Digital Elevation Model	Verified	Not Assessed
4.3	[ALL]	Geometric Accuracy	Verified	Not Assessed
4.4	[ALL]	Geometric Refined Accuracy	Not Required	Not Assessed
4.5	[ALL]	Gridding Convention	Verified	Not Assessed

CEOS-ARD Evaluation Outcome: (SAR PFS v1.2)

Product type:	Normalised Radar Backscatter (NRB)
Threshold level:	Compliance verified at Threshold level against SAR PFS v1.2.
Goal level:	No Assessment.