

Evaluation of Natural Resources Canada RADARSAT-1 Normalised Radar Backscatter (NRB) Synthetic Aperture Radar (SAR) product. [NRB] self-assessment submitted by Natural Resources Canada (SAR (NRB) PFS v1.3.1) for CEOS-ARD Compliance.

Summary Self-Assessment Table

1	CEOS-ARD product	General Metadata	Threshold	Goal
1.1	[ALL]	Traceability	Not required	Not Assessed
1.2	[ALL]	Metadata Machine Readability	YES	Not Assessed
1.3	[ALL]	Product Type	YES	Not Assessed
1.4	[ALL]	Document Identifier	YES	Not Assessed
1.5	[ALL]	Data Collection Time	YES	Not Assessed
1.6		Source Data Attributes		
1.6.1	[ALL]	Source Data Access	YES	Not Assessed
1.6.2	[ALL]	Instrument	YES	Not Assessed
1.6.3	[ALL]	Source Data Acquisition Time	YES	Not Assessed
1.6.4	[ALL]	Source Data Acquisition Parameters	YES	Not Assessed
1.6.5	[ALL]	Source Data Orbit Information	YES	Not Assessed
1.6.6	[ALL]	Source Data Processing Parameters	YES	Not Assessed
1.6.7	[ALL]	Source Data Image Attributes	YES	Not Assessed
1.6.8	[NRB] {POL} {ORB} {GSLC} {InSAR}	Sensor Calibration	Not required	Not Assessed
1.6.9	[ALL]	Performance Indicators	YES	Not Assessed
1.6.10	[ALL]	Source Data Polarimetric Calibration Matrices	Not required	Not Assessed
1.6.11	[NRB] {POL} {ORB} {GSLC} {InSAR}	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	YES	Not Assessed
1.7.2	[ALL]	Auxiliary Data	YES	Not Assessed
1.7.3	[ALL]	Product Sample Spacing	YES	Not Assessed
1.7.4	[NRB] {CB} {POL} {ORB} {InSAR}	Product Equivalent Number of Looks	Not required	Not Assessed
1.7.5	[ALL]	Product Resolution	YES	Not Assessed
1.7.6	[NRB] {CB} {POL} {ORB}	Product Filtering	YES	Not Assessed
1.7.7	[ALL]	Product Bounding Box	YES	Not Assessed

1.7.8	[ALL]	Product Geographical Extent	YES	Not Assessed
1.7.9	[ALL]	Product Image Size	YES	Not Assessed
1.7.10	[ALL]	Product Pixel Coordinate Convention	YES	Not Assessed
1.7.11	[ALL]	Product Coordinate Reference System	YES	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 Modeling	Not Product Relevant	Not Relevant
1.7.24	{CB}	CB Processing	Not Product Relevant	Not Relevant
2	CEOS-ARD product	Per-Pixel Metadata	Threshold	Goal
2.1	[ALL]	Metadata Machine Readability	YES	Not Assessed
2.2	[ALL]	Data Mask Image	YES	Not Assessed
2.3	[NRB] {POL} {ORB} {GSLC} {InSAR}	Scattering Area Image	YES	Not Assessed
2.4	[NRB] {POL} {ORB} {GSLC}	Local Incident Angle Image	YES	Not Assessed

2.5	[NRB] {POL} {ORB} {GSLC} {InSAR}	Ellipsoidal Incident Angle Image	Not required	Not Assessed
2.6	[ALL]	Noise Power Image	Not required	Not Assessed
2.7	[NRB] {POL} {GSLC} {InSAR}	Gamma-to-Sigma Ratio Image	YES	Not Assessed
2.8	[NRB] {CB} {POL} {ORB} {GSLC}	Acquisition ID Image	Not required	Not Assessed
2.9	[NRB] {CB} {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
2.21	[CB]	Contributing Observations Image	Not Product Relevant	Not Relevant
2.22	[CB]	Composite Quality Map Image	Not Product Relevant	Not Relevant
3	CEOS-ARD product	Radiometrically Corrected Measurements	Threshold	Goal
3.1	[ALL]	Backscatter Measurements	YES	Not Assessed
3.2	[ALL]	Scaling Conversion	YES	Not Assessed

3.3	[ALL]	Noise Removal	YES	Not Assessed
3.4	[NRB] {CB} {POL} {GSLC} {InSAR}	Radiometric Terrain Correction Algorithms	YES	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 Residues 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
4	CEOS-ARD product	Geometric Corrections	Threshold	Goal
4.1	[ALL]	Geometric Correction Algorithms	YES	Not Assessed
4.2	[ALL]	Digital Elevation Model	YES	Not Assessed
4.3	[ALL]	Geometric Accuracy	YES	Not Assessed
4.4	[ALL]	Geometric Refined Accuracy	Not required	Not Assessed
4.5	[ALL]	Gridding Convention	YES	Not Assessed

CEOS-ARD Evaluation Outcome: (SAR PFS v1.3.1)

Product type:	Normalised Radar Backscatter (NRB)
Threshold level:	Compliance verified at Threshold level against SAR PFS v1.3.1.
Goal level:	No Assessment.