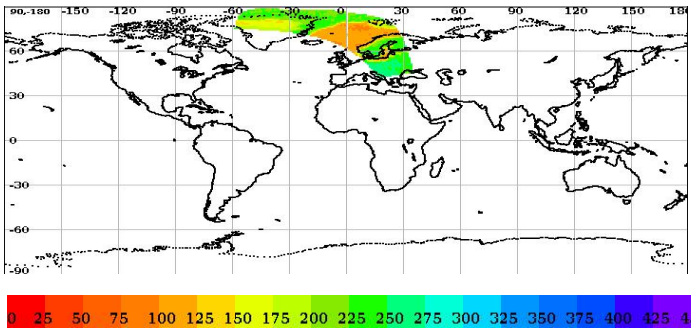
Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

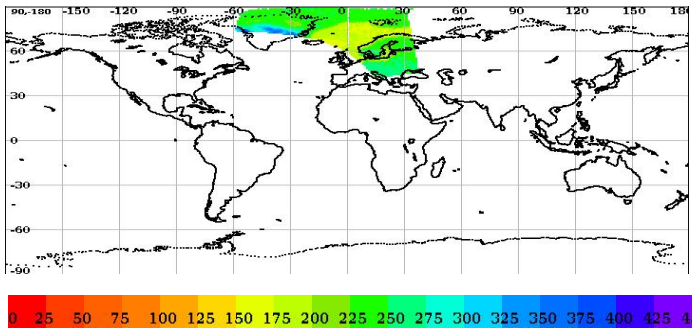
Satellite	Sensor	Start Orbit	End Orbit
SCATSAT-1	Scatterometer	12303	12304
WV Cells Along	**WV Cells Across**	**EquatorCrossDate**	**Production Date**
198	72	01-01-1970	23-01-2019
Direction	**WVC Size(km)**	**Processor Version**	
SN	25	v1.1.3	

Brightness Temprature

Inner Beam (HH)

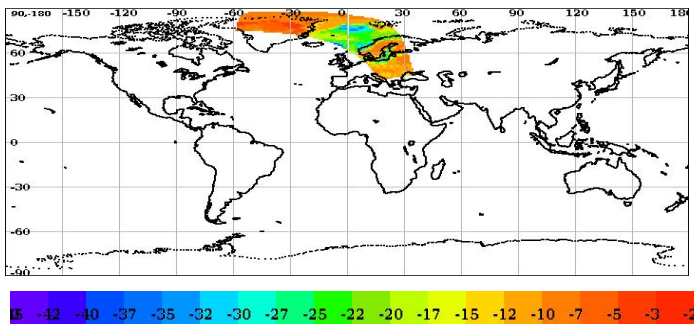


Outer Beam (VV)

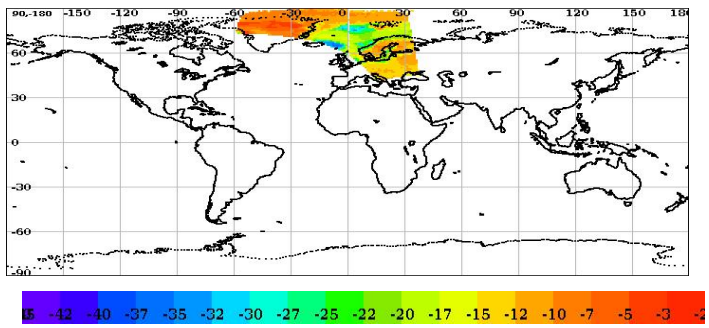


Sigma0(dB)

Inner Beam (HH)



Outer Beam (VV)



Invariant Site Sigma-0 Statistics for Ascending/Descending, Fore/Aft in HH/VV beams

Site Name	Center Lat	Center Lon	Beam	Node	ScanDir	Sigma0 Min	Sigma0 Max	Sigma0 Mean	Sigma0 Std	BT Min	BT Max	BT Mean	BT Std
GreenLand_2	77.50	-41.50	Inner	ASC	Fore	-8.33	-3.94	-5.94	1.34	142.43	183.59	162.61	11.89
GreenLand_2	77.50	-41.50	Outer	ASC	Fore	-6.75	-4.21	-5.17	0.80	238.75	327.12	290.76	24.42
GreenLand_1	74.69	-42.50	Inner	ASC	Aft	-11.21	-7.45	-9.12	0.93	144.11	211.16	184.15	13.85
GreenLand_1	74.69	-42.50	Outer	ASC	Aft	-12.84	-12.84	-12.84	0.00	299.63	299.63	299.63	0.00
GreenLand_1	74.69	-42.50	Inner	ASC	Fore	-11.47	-6.99	-9.23	1.06	150.13	227.17	188.58	16.10
GreenLand_1	74.69	-42.50	Outer	ASC	Fore	-12.38	-7.03	-9.22	1.16	259.60	431.39	342.88	34.74

Level-2A Cell-wise Deviations*

Static Parameter Statistics (variations over the cell grid) for the Inner and Outer Beam												
Parameter	Inner Beam (HH)						Outer Beam (VV)					
	Aft			Fore			Aft			Fore		
	Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)
Kpa	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00
Kpb	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.09	0.00
Kpc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inc. Angle(deg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta Azi.Angle(deg)	0.00	20.32	6.88	0.00	227.70	8.71	0.00	11.54	2.45	0.00	53.14	5.39

Category wise Dynamic Parameter Statistics (Variations over the Cell grid)													
Parameter	Beam	Sea Aft			Sea Fore			Land Aft			Land Fore		
		Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)	Min Rng	Max Rng	Bad Occ. (%)
SNR(dB)	Inner (HH)	0.00	38.58	0.79	0.00	36.25	1.16	0.00	34.30	0.15	0.00	31.13	0.16
	Outer (VV)	0.00	33.71	1.19	0.00	35.00	1.48	0.00	28.21	0.03	0.00	23.50	0.14
Sigma0(dB)	Inner (HH)	0.00	37.00	0.77	0.00	33.53	0.97	0.00	35.25	0.15	0.00	32.17	0.12
	Outer (VV)	0.00	33.67	1.11	0.00	32.71	1.18	0.00	26.02	0.03	0.00	25.48	0.07

Parameter Specifications with in a cell

Parameter	Kpa	Kpb	Kpc	Inci (deg)	SNR (dB)	Delta Azi. (deg)	Sigma0 (dB)
Range	1.0	1.0	1.0	3.0	20.0	10.0	20.0

Normal Deviation Alarming High

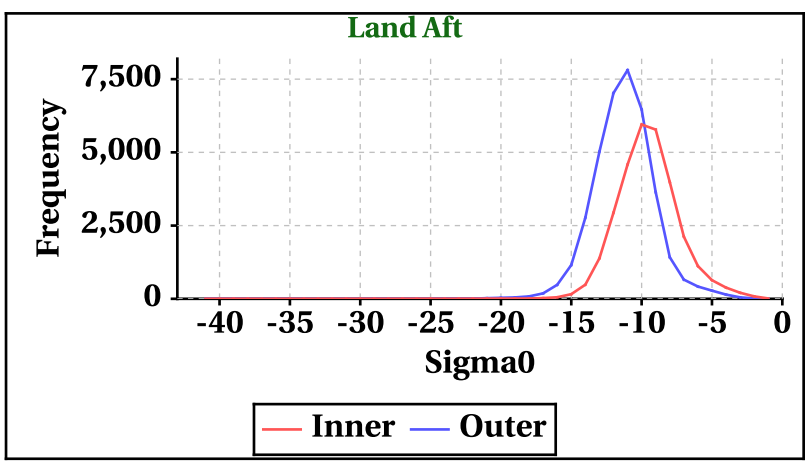
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

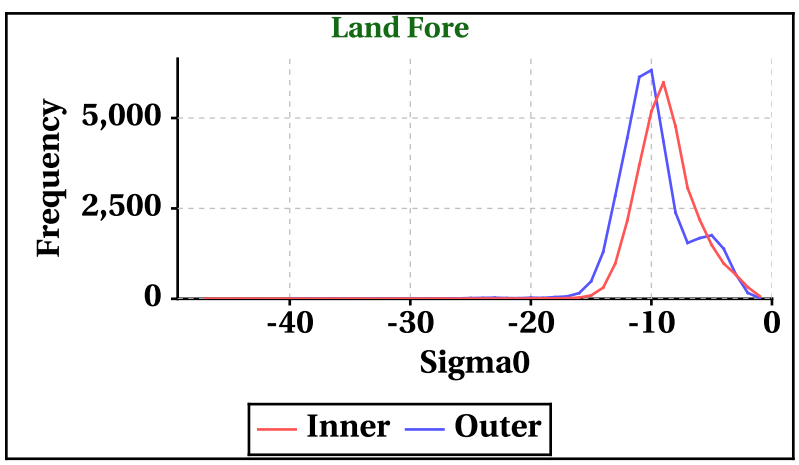
Dynamic Range (Data Histograms)

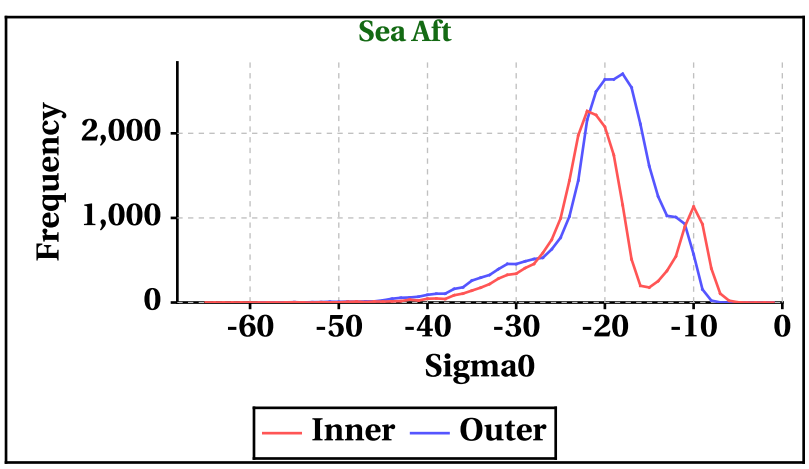
Sigma0(db)

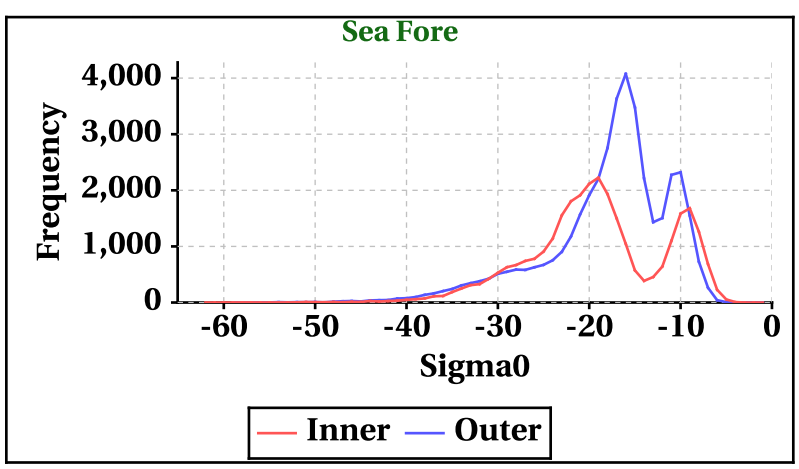
Inner Beam (HH)	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-41	-47	-65	-62
Max	-1	-1	-1	-1

Outer Beam (VV)	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-41	-40	-59	-59
Max	-1	-1	-1	-1

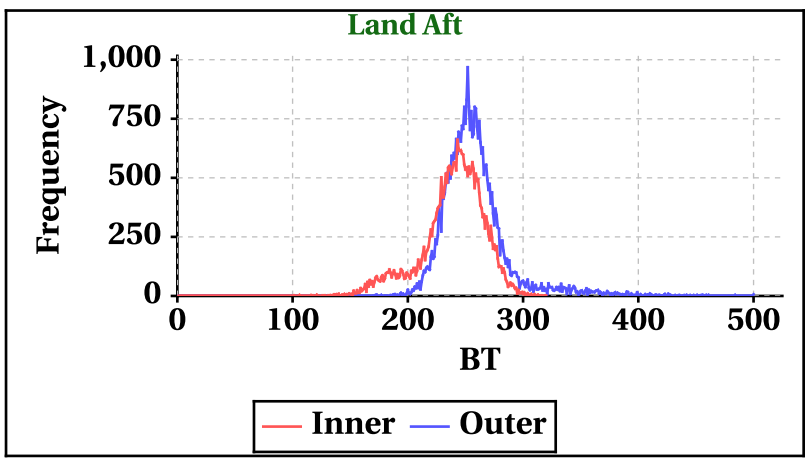
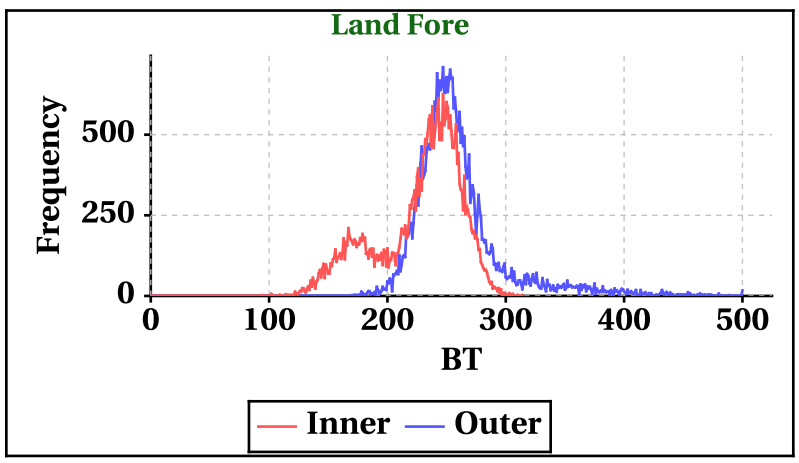
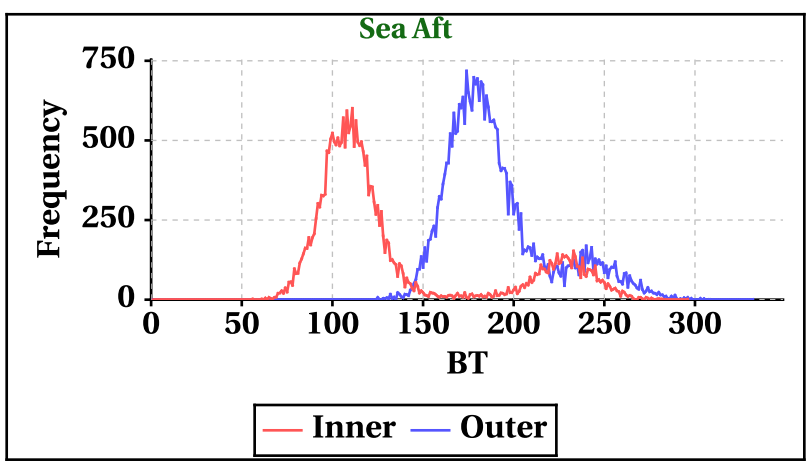
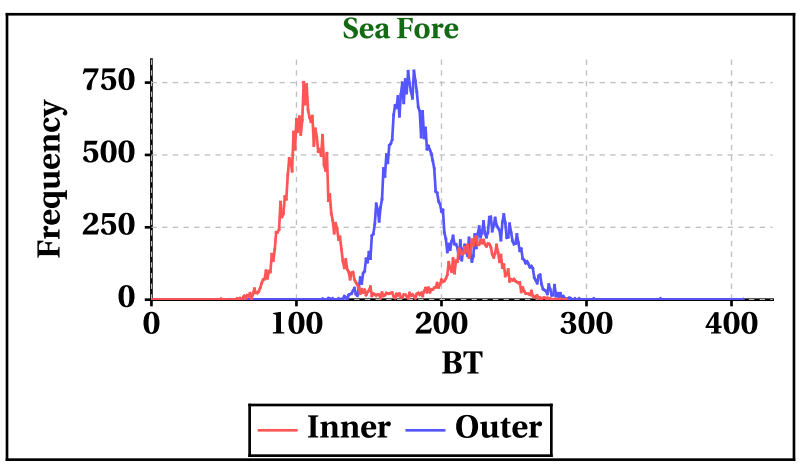








Brightness Temperature(K)

Inner Beam(HH)	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	1	1	1	1
Max	320	314	296	286

Outer Beam(VV)	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	1	1	1	1
Max	500	500	332	408