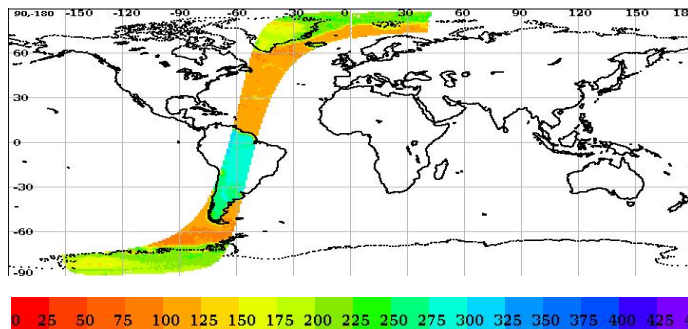


# Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

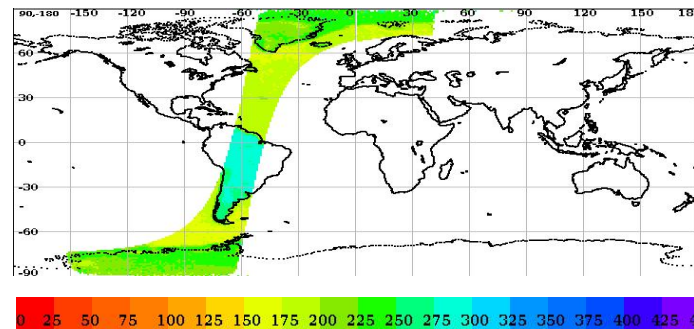
Satellite	Sensor	Start Orbit	End Orbit
SCATSAT-1	Scatterometer	11981	11982
WV Cells Along	WV Cells Across	EquatorCrossDate	Production Date
405	36	31-12-2018	31-12-2018
Direction	WVC Size(km)	Processor Version	
NS	50	v1.1.3	

## Brightness Temperature

Inner Beam (HH)

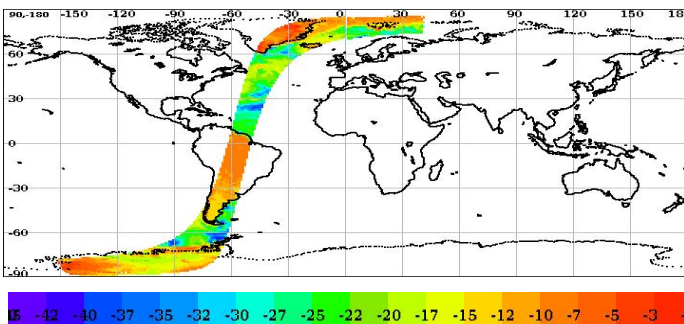


Outer Beam (VV)

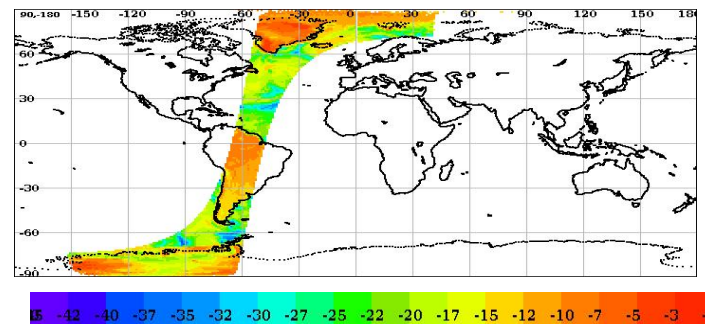


## Sigma0(dB)

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	Outer	DSC	Aft	-8.19	-4.17	-5.81	1.28	189.19	239.47	212.57	17.70
GreenLand_2	77.50	-41.50	Outer	DSC	Fore	-7.53	-3.79	-5.28	0.91	182.89	236.69	215.59	14.20
GreenLand_3	71.55	-42.45	Outer	DSC	Aft	-14.23	-10.33	-12.11	0.80	204.35	255.41	230.63	15.17
GreenLand_3	71.55	-42.45	Outer	DSC	Fore	-14.52	-9.73	-12.44	0.99	201.07	264.38	228.79	17.44
Amazon_3	-6.00	-61.00	Inner	DSC	Aft	-10.81	-6.91	-8.41	0.78	261.78	324.98	297.20	17.35
Amazon_3	-6.00	-61.00	Outer	DSC	Aft	-11.91	-7.31	-9.53	0.89	248.91	328.36	288.08	16.11
Amazon_3	-6.00	-61.00	Inner	DSC	Fore	-10.82	-5.62	-8.36	0.93	253.49	335.20	291.16	18.53
Amazon_3	-6.00	-61.00	Outer	DSC	Fore	-11.94	-6.47	-9.25	0.92	247.29	328.33	284.50	16.22
GreenLand_1	74.69	-42.50	Outer	DSC	Aft	-12.11	-7.75	-9.25	0.99	183.77	251.70	218.08	18.20
GreenLand_1	74.69	-42.50	Outer	DSC	Fore	-12.56	-7.96	-9.57	0.99	192.15	258.04	222.73	15.86
Amazon_2	-3.00	-61.00	Inner	DSC	Aft	-14.90	-6.14	-9.31	1.49	214.22	329.85	276.96	26.38
Amazon_2	-3.00	-61.00	Outer	DSC	Aft	-13.50	-7.79	-10.22	1.30	236.99	332.93	276.31	17.18
Amazon_2	-3.00	-61.00	Inner	DSC	Fore	-12.73	-6.26	-8.97	1.33	221.29	312.37	269.99	18.74
Amazon_2	-3.00	-61.00	Outer	DSC	Fore	-14.84	-7.92	-10.13	1.26	246.62	319.91	280.26	16.23

## 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. (%)
<b>Kpa</b>	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.07	0.00
<b>Kpb</b>	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.09	0.00
<b>Kpc</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Inc. Angle(deg)</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Delta Azi.Angle(deg)</b>	0.00	40.89	10.49	0.00	31.21	15.64	0.00	144.57	13.52	0.00	71.87	15.13

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. (%)
<b>SNR(dB)</b>	<b>Inner (HH)</b>	0.00	44.34	3.05	0.00	54.83	4.72	0.00	28.58	0.05	0.00	36.19	0.16
	<b>Outer (VV)</b>	0.00	39.81	3.34	0.00	44.32	4.89	0.00	36.60	0.07	0.00	28.14	0.23
<b>Sigma0(dB)</b>	<b>Inner (HH)</b>	0.00	44.33	3.02	0.00	52.01	4.32	0.00	29.81	0.05	0.00	33.65	0.11
	<b>Outer (VV)</b>	0.00	40.00	3.02	0.00	42.86	4.05	0.00	37.38	0.05	0.00	25.41	0.13

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
<span style="display: inline-block; width: 15px; height: 15px; background-color: green; margin-right: 5px;"></span> Normal <span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; margin-right: 5px; margin-left: 20px;"></span> Deviation <span style="display: inline-block; width: 15px; height: 15px; background-color: orange; margin-right: 5px; margin-left: 20px;"></span> Alarming <span style="display: inline-block; width: 15px; height: 15px; background-color: red; margin-right: 5px; margin-left: 20px;"></span> High							

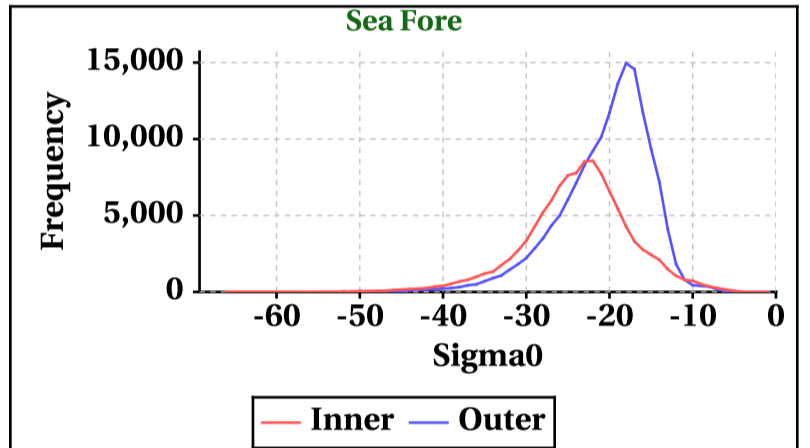
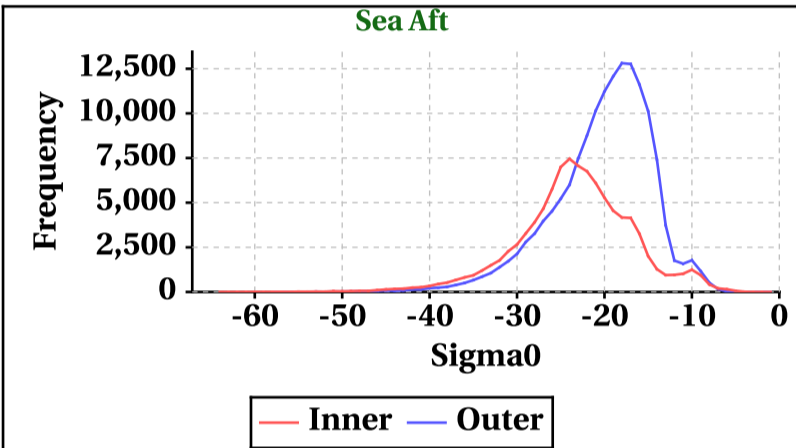
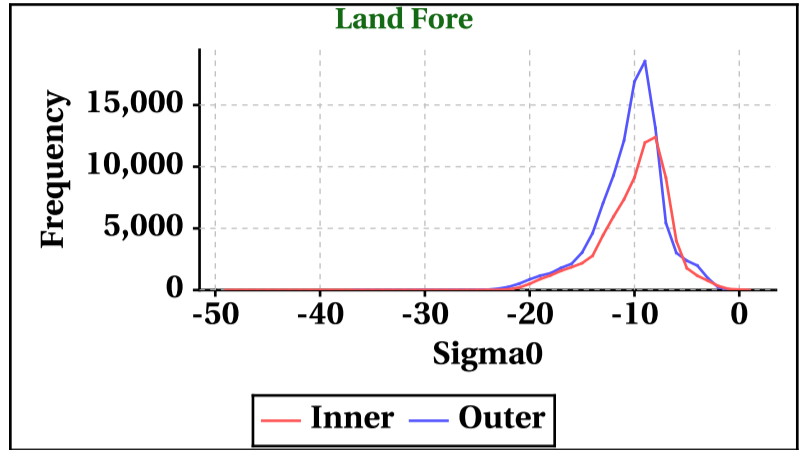
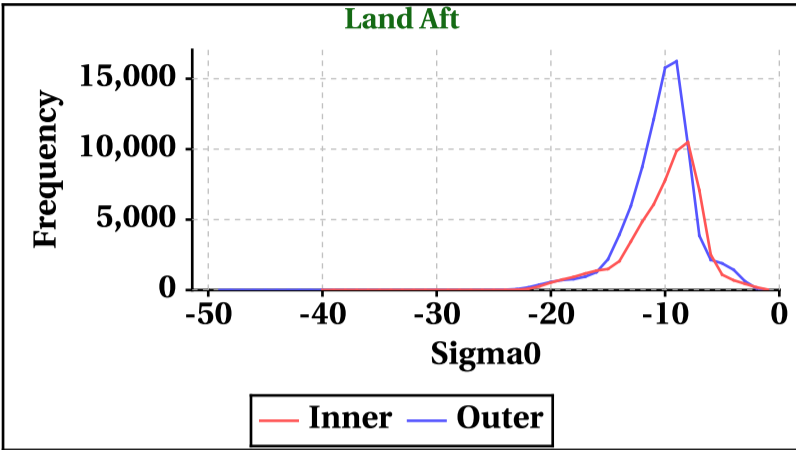
\* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

# Dynamic Range (Data Histograms)

## Sigma0(db)

Inner Beam (HH)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-40	-49	-64	-66
Max	-1	1	-1	-1

Outer Beam (VV)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-49	-37	-58	-60
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	389	377	289	286

Outer Beam(VV)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	1	1	1	1
Max	349	354	305	293

