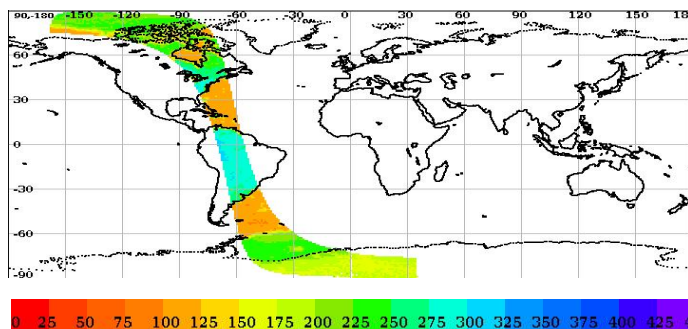


# Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

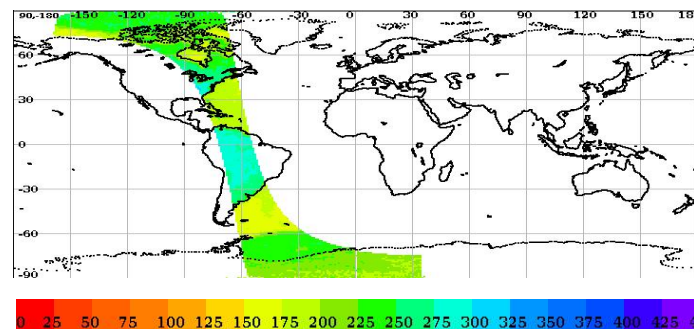
Satellite	Sensor	Start Orbit	End Orbit
SCATSAT-1	Scatterometer	15729	15730
WV Cells Along	WV Cells Across	EquatorCrossDate	Production Date
813	72	16-09-2019	16-09-2019
Direction	WVC Size(km)	Processor Version	
SN	25	v1.1.3	

## Brightness Temperature

Inner Beam (HH)

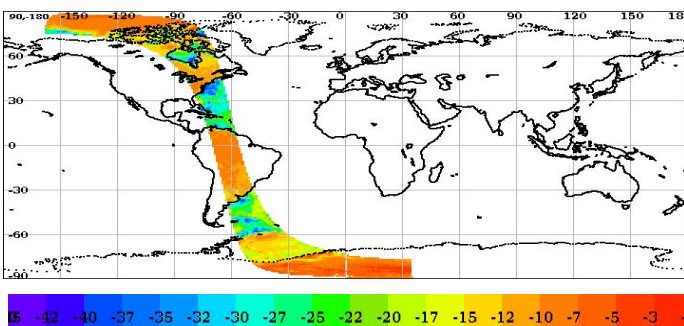


Outer Beam (VV)

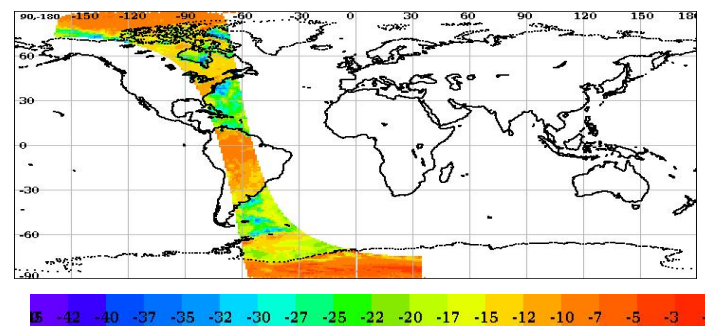


## Sigma0(dB)

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
Amazon_3	-6.00	-61.00	Inner	ASC	Aft	-11.98	-6.79	-8.66	0.97	256.57	330.00	297.60	17.36
Amazon_3	-6.00	-61.00	Outer	ASC	Aft	-12.62	-7.10	-9.50	0.88	250.53	318.01	281.52	14.71
Amazon_3	-6.00	-61.00	Inner	ASC	Fore	-12.16	-6.46	-8.63	1.10	236.40	333.20	293.68	18.94
Amazon_3	-6.00	-61.00	Outer	ASC	Fore	-11.10	-6.96	-9.38	0.92	257.56	309.43	281.80	13.68
Amazon_2	-3.00	-61.00	Inner	ASC	Aft	-13.54	-6.55	-8.91	1.45	212.85	320.72	268.35	25.82
Amazon_2	-3.00	-61.00	Outer	ASC	Aft	-12.84	-7.49	-10.03	1.18	230.31	304.49	265.97	15.67
Amazon_2	-3.00	-61.00	Inner	ASC	Fore	-15.57	-6.20	-9.23	1.73	220.02	315.44	268.96	21.08
Amazon_2	-3.00	-61.00	Outer	ASC	Fore	-15.68	-7.36	-10.10	1.62	222.31	324.30	265.23	17.44
Amazon_1	0.00	-67.00	Inner	ASC	Aft	-10.05	-5.30	-7.85	0.96	272.87	331.35	301.30	13.92
Amazon_1	0.00	-67.00	Outer	ASC	Aft	-12.41	-6.39	-8.70	0.96	247.28	317.71	283.08	16.36
Amazon_1	0.00	-67.00	Inner	ASC	Fore	-11.80	-4.96	-8.01	1.07	264.08	332.32	295.88	17.01
Amazon_1	0.00	-67.00	Outer	ASC	Fore	-12.66	-6.69	-8.91	1.07	247.09	327.93	286.35	16.08

## 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	172.23	6.16	0.00	44.23	7.70	0.00	192.03	2.73	0.00	237.37	3.88

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	49.61	2.12	0.00	41.89	2.57	0.00	43.85	0.29	0.00	52.31	0.33
	<b>Outer (VV)</b>	0.00	43.16	1.93	0.00	39.29	2.38	0.00	43.93	0.19	0.00	35.85	0.18
<b>Sigma0(dB)</b>	<b>Inner (HH)</b>	0.00	50.77	2.04	0.00	41.92	2.34	0.00	44.02	0.28	0.00	51.81	0.31
	<b>Outer (VV)</b>	0.00	42.54	1.69	0.00	39.57	1.94	0.00	44.37	0.16	0.00	32.42	0.11

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							

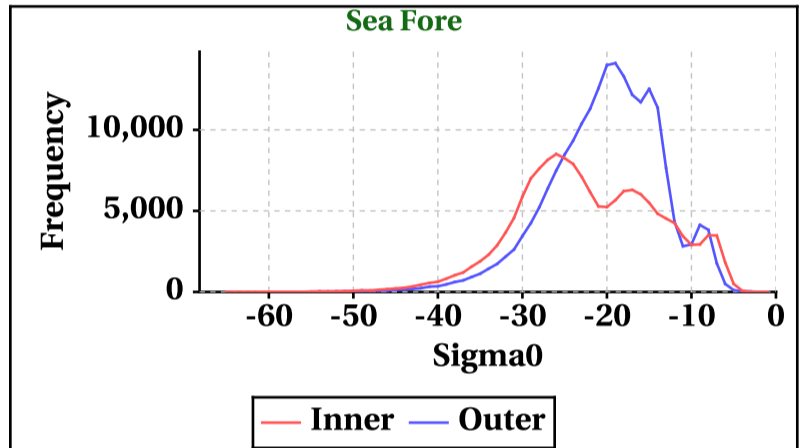
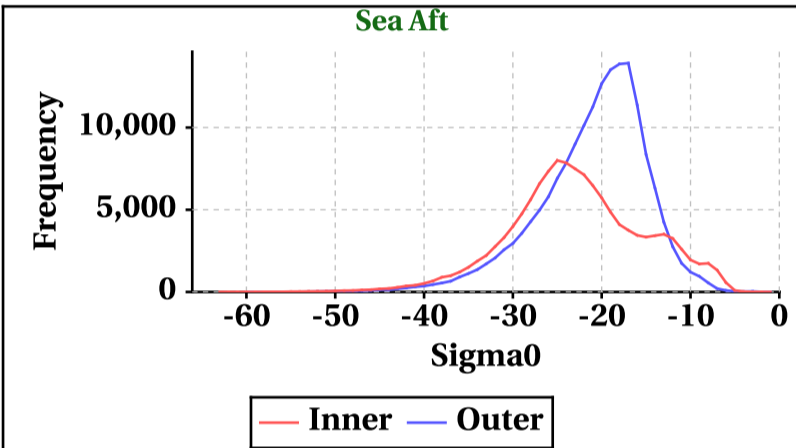
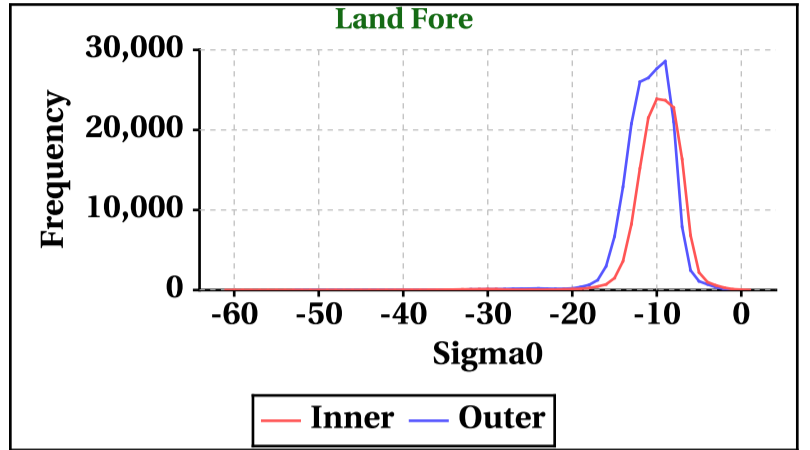
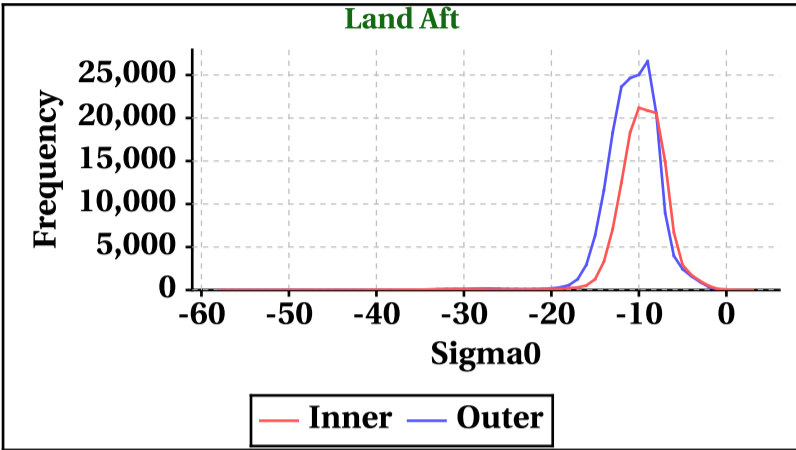
\* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

# Dynamic Range (Data Histograms)

## Sigma0(db)

Inner Beam (HH)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-58	-61	-63	-65
Max	3	1	-1	-1

Outer Beam (VV)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	-58	-53	-60	-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	375	390	291	304

Outer Beam(VV)				
	Land Aft	Land Fore	Sea Aft	Sea Fore
Min	1	1	1	1
Max	382	368	314	311

