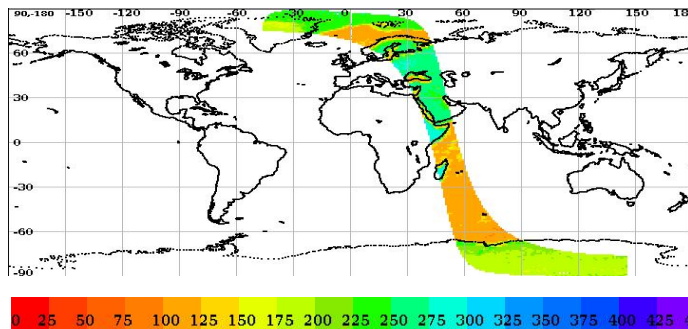


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

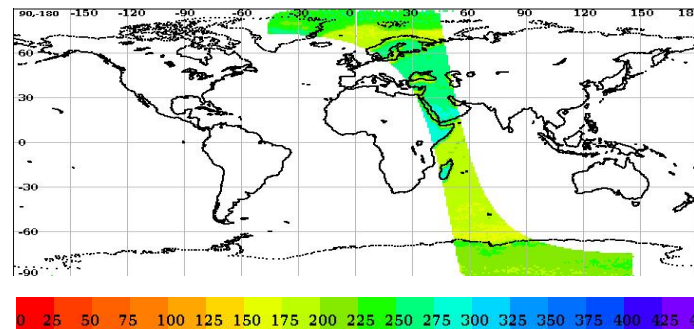
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 17131 | 17132 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 812 | 72 | 21-12-2019 | 21-12-2019 |
| Direction | WVC Size(km) | Processor Version | |
| SN | 25 | v1.1.3 | |

Brightness Temperature

Inner Beam (HH)

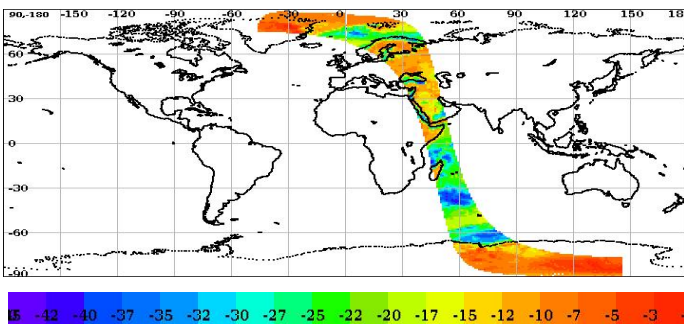


Outer Beam (VV)

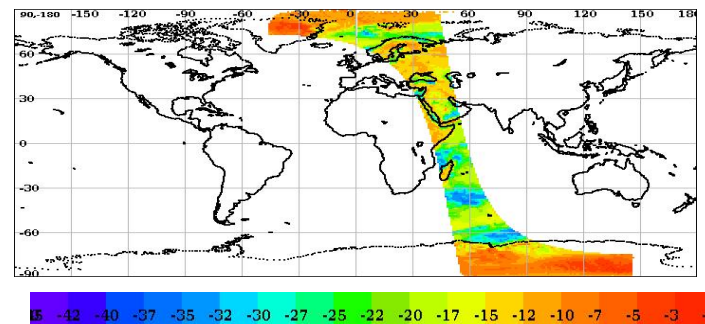


Sigma0(dB)

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 |
|-------------|------------|------------|-------|------|---------|------------|------------|-------------|------------|--------|--------|---------|--------|
| ANT_1 | -75.00 | 121.00 | Inner | ASC | Aft | -9.38 | -3.58 | -6.98 | 1.28 | 160.76 | 217.90 | 190.60 | 13.10 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Aft | -11.31 | -5.91 | -8.26 | 1.27 | 175.84 | 240.05 | 212.92 | 16.02 |
| ANT_1 | -75.00 | 121.00 | Inner | ASC | Fore | -9.03 | -5.44 | -7.00 | 0.88 | 167.56 | 219.38 | 194.17 | 11.31 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Fore | -10.40 | -6.02 | -8.53 | 1.63 | 193.19 | 210.57 | 205.67 | 7.22 |
| GreenLand_2 | 77.50 | -41.50 | Inner | ASC | Fore | -6.25 | -3.59 | -4.76 | 0.76 | 153.93 | 218.48 | 178.37 | 18.35 |
| GreenLand_2 | 77.50 | -41.50 | Outer | ASC | Fore | -6.04 | -2.90 | -4.72 | 0.81 | 210.73 | 275.05 | 244.12 | 18.02 |
| GreenLand_1 | 74.69 | -42.50 | Outer | ASC | Fore | -11.72 | -6.28 | -8.62 | 1.31 | 214.34 | 295.77 | 260.03 | 19.40 |

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 | 23.30 | 5.95 | 0.00 | 26.81 | 7.09 | 0.00 | 150.59 | 2.26 | 0.00 | 61.09 | 3.36 |

| 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 | 48.60 | 2.07 | 0.00 | 42.56 | 2.72 | 0.00 | 37.97 | 0.07 | 0.00 | 34.07 | 0.11 |
| | Outer (VV) | 0.00 | 41.28 | 2.22 | 0.00 | 40.49 | 2.87 | 0.00 | 31.35 | 0.22 | 0.00 | 33.78 | 0.23 |
| Sigma0(dB) | Inner (HH) | 0.00 | 46.95 | 2.13 | 0.00 | 42.56 | 2.60 | 0.00 | 38.47 | 0.08 | 0.00 | 32.90 | 0.08 |
| | Outer (VV) | 0.00 | 42.44 | 2.20 | 0.00 | 41.06 | 2.72 | 0.00 | 32.54 | 0.23 | 0.00 | 32.87 | 0.17 |

| 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

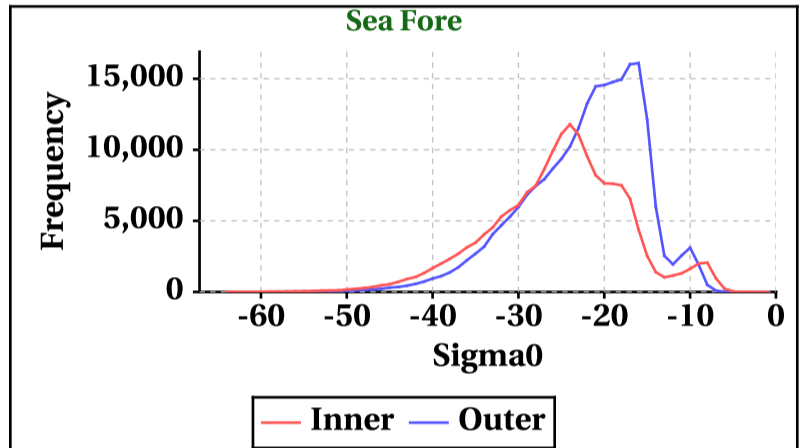
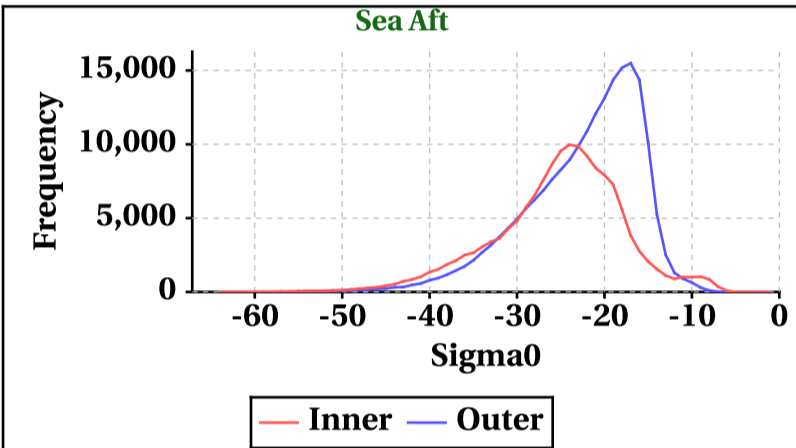
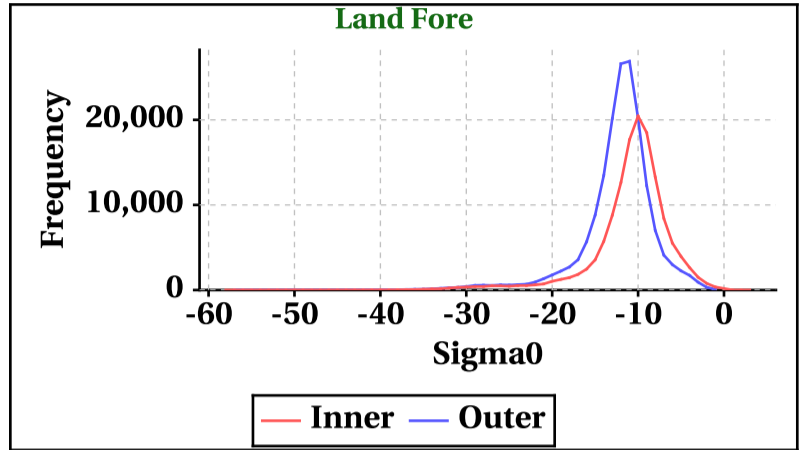
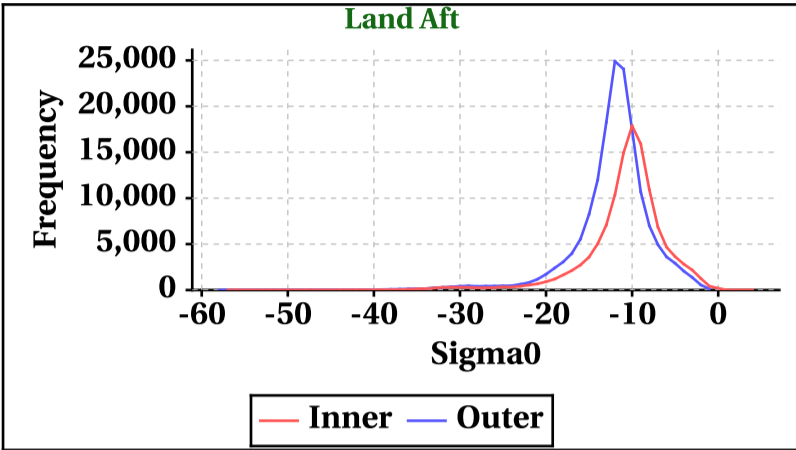
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -57 | -58 | -64 | -64 |
| Max | 4 | 3 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -58 | -57 | -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 | 355 | 368 | 298 | 300 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 354 | 345 | 306 | 309 |

