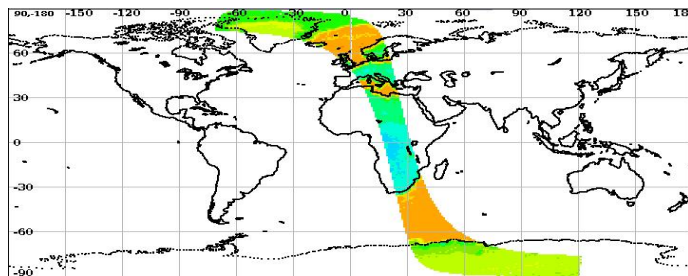


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

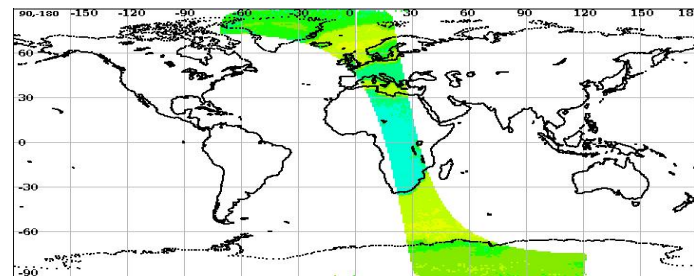
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 17074 | 17075 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 812 | 72 | 17-12-2019 | 17-12-2019 |
| Direction | WVC Size(km) | Processor Version | |
| SN | 25 | v1.1.3 | |

Brightness Temperature

Inner Beam (HH)

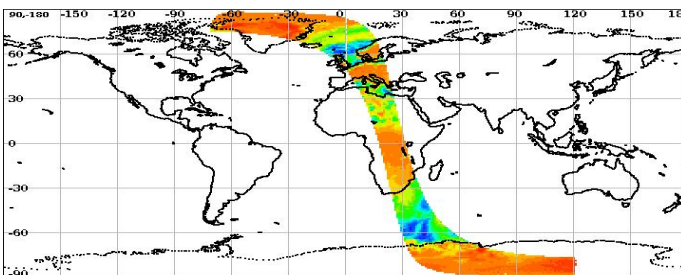


Outer Beam (VV)

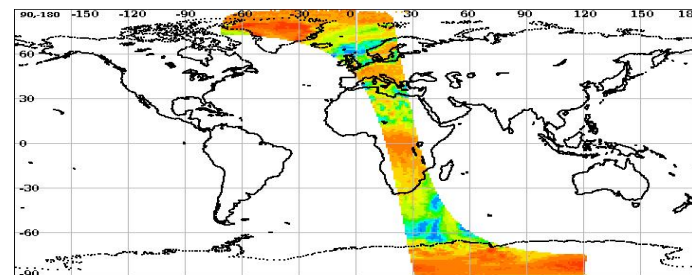


Sigma0(dB)

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 |
|-------------|------------|------------|-------|------|---------|------------|------------|-------------|------------|--------|--------|---------|--------|
| GreenLand_2 | 77.50 | -41.50 | Inner | ASC | Aft | -5.77 | -3.67 | -4.74 | 0.62 | 152.45 | 212.68 | 181.34 | 20.55 |
| GreenLand_2 | 77.50 | -41.50 | Inner | ASC | Fore | -6.02 | -3.27 | -4.98 | 0.84 | 159.81 | 190.18 | 173.28 | 10.39 |
| GreenLand_2 | 77.50 | -41.50 | Outer | ASC | Fore | -7.11 | -3.20 | -4.81 | 0.98 | 190.55 | 250.92 | 227.94 | 16.06 |
| GreenLand_3 | 71.55 | -42.45 | Outer | ASC | Aft | -13.13 | -9.00 | -10.96 | 0.99 | 212.97 | 269.76 | 238.80 | 14.37 |
| GreenLand_3 | 71.55 | -42.45 | Outer | ASC | Fore | -14.06 | -8.64 | -11.00 | 1.14 | 214.00 | 277.86 | 237.32 | 14.19 |
| GreenLand_1 | 74.69 | -42.50 | Inner | ASC | Aft | -10.90 | -6.16 | -8.75 | 1.18 | 171.63 | 224.11 | 192.28 | 14.67 |
| GreenLand_1 | 74.69 | -42.50 | Outer | ASC | Aft | -12.47 | -6.72 | -9.20 | 1.26 | 212.83 | 265.43 | 241.97 | 15.51 |
| GreenLand_1 | 74.69 | -42.50 | Inner | ASC | Fore | -11.93 | -6.44 | -9.00 | 1.26 | 151.29 | 210.07 | 185.06 | 14.36 |
| GreenLand_1 | 74.69 | -42.50 | Outer | ASC | Fore | -12.42 | -6.08 | -8.69 | 1.23 | 199.12 | 273.01 | 240.57 | 15.07 |
| Sahara | 19.10 | 14.30 | Inner | ASC | Aft | -40.50 | -19.28 | -26.81 | 3.82 | 229.06 | 301.35 | 264.25 | 16.52 |
| Sahara | 19.10 | 14.30 | Outer | ASC | Aft | -38.76 | -19.98 | -26.69 | 3.88 | 258.16 | 324.38 | 288.43 | 17.63 |
| Sahara | 19.10 | 14.30 | Inner | ASC | Fore | -38.18 | -17.53 | -26.39 | 3.54 | 209.55 | 289.64 | 260.00 | 15.32 |
| Sahara | 19.10 | 14.30 | Outer | ASC | Fore | -41.73 | -18.00 | -26.94 | 4.82 | 243.37 | 321.73 | 280.96 | 15.28 |

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 | 23.27 | 5.93 | 0.00 | 47.96 | 6.97 | 0.00 | 168.58 | 2.12 | 0.00 | 74.02 | 3.25 |

| 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 | 39.17 | 1.50 | 0.00 | 45.52 | 2.12 | 0.00 | 40.33 | 0.18 | 0.00 | 39.17 | 0.27 |
| | Outer (VV) | 0.00 | 41.25 | 1.99 | 0.00 | 43.44 | 2.54 | 0.00 | 37.46 | 0.41 | 0.00 | 40.78 | 0.42 |
| Sigma0(dB) | Inner (HH) | 0.00 | 39.05 | 1.50 | 0.00 | 46.07 | 2.04 | 0.00 | 39.11 | 0.17 | 0.00 | 37.67 | 0.22 |
| | Outer (VV) | 0.00 | 40.76 | 1.99 | 0.00 | 41.90 | 2.30 | 0.00 | 37.32 | 0.33 | 0.00 | 40.02 | 0.28 |

| 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

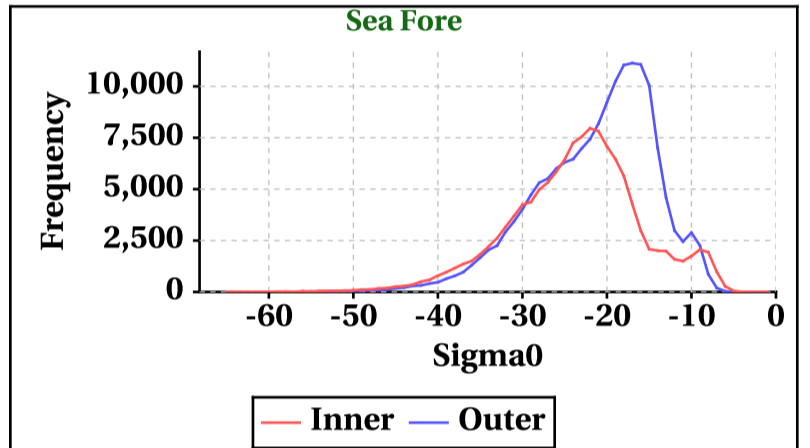
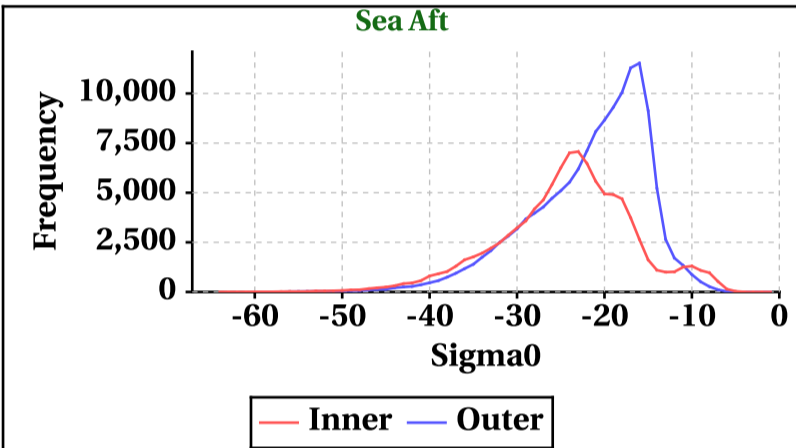
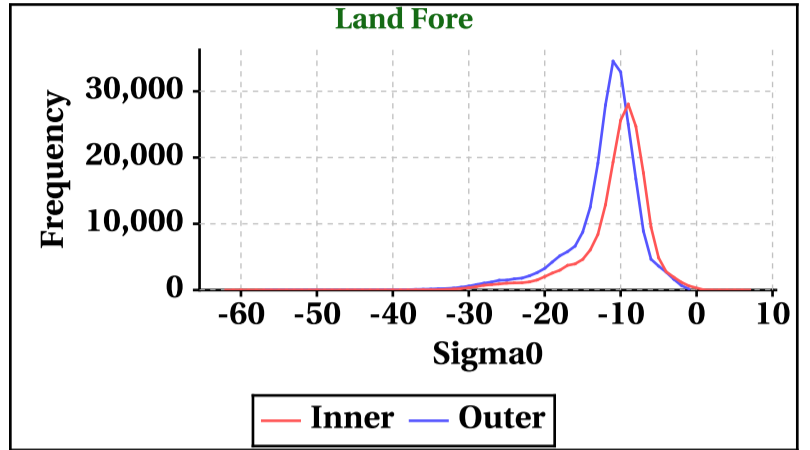
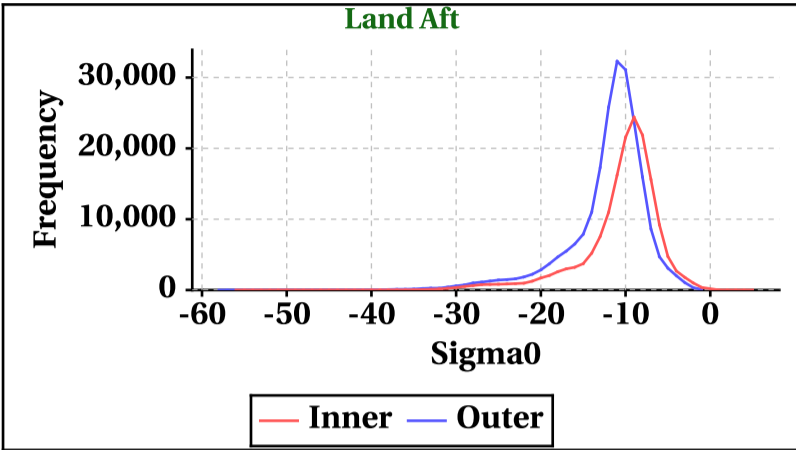
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -56 | -62 | -64 | -65 |
| Max | 5 | 7 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -58 | -57 | -59 | -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 | 372 | 364 | 300 | 294 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 376 | 500 | 309 | 310 |

