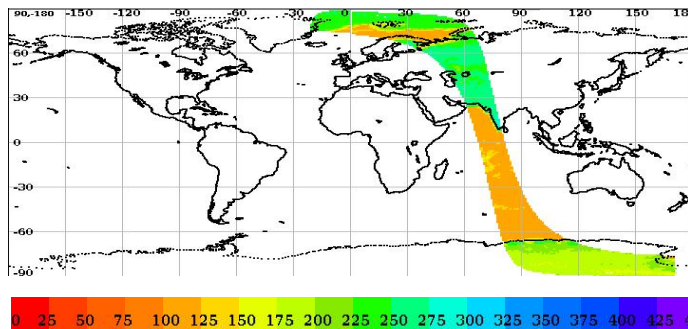


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

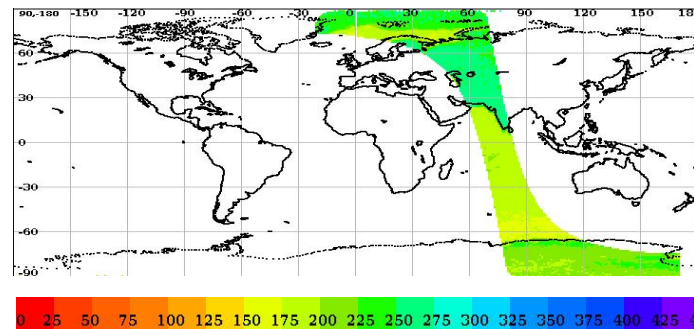
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 17217 | 17218 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 812 | 72 | 27-12-2019 | 27-12-2019 |
| Direction | WVC Size(km) | Processor Version | |
| SN | 25 | v1.1.3 | |

Brightness Temperature

Inner Beam (HH)

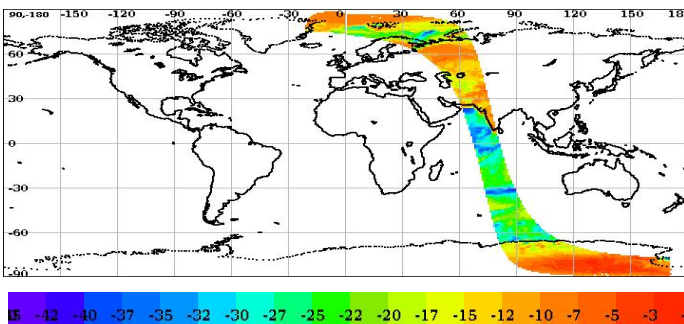


Outer Beam (VV)

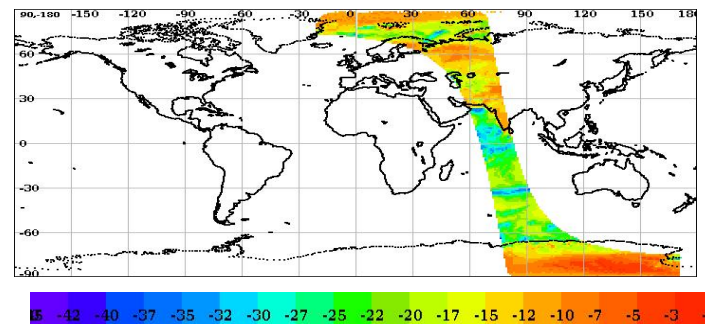


Sigma0(dB)

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 |
|-----------|------------|------------|-------|------|---------|------------|------------|-------------|------------|--------|--------|---------|--------|
| ROK | 23.00 | 73.60 | Inner | ASC | Aft | -12.96 | -7.33 | -10.06 | 1.10 | 245.00 | 301.29 | 271.38 | 13.47 |
| ROK | 23.00 | 73.60 | Outer | ASC | Aft | -14.69 | -8.89 | -11.40 | 1.09 | 231.25 | 301.53 | 268.50 | 14.67 |
| ROK | 23.00 | 73.60 | Inner | ASC | Fore | -15.69 | -7.59 | -10.05 | 1.25 | 221.82 | 308.27 | 269.29 | 16.89 |
| ROK | 23.00 | 73.60 | Outer | ASC | Fore | -14.40 | -8.31 | -11.17 | 1.07 | 217.98 | 303.81 | 270.12 | 16.23 |
| ANT_1 | -75.00 | 121.00 | Inner | ASC | Aft | -9.18 | -5.79 | -7.53 | 1.26 | 176.81 | 217.97 | 194.18 | 10.14 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Aft | -10.74 | -6.15 | -8.59 | 0.95 | 188.99 | 241.19 | 219.34 | 17.43 |
| ANT_1 | -75.00 | 121.00 | Inner | ASC | Fore | -8.87 | -4.56 | -6.88 | 0.96 | 164.52 | 212.35 | 184.06 | 15.44 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Fore | -11.86 | -4.68 | -8.00 | 1.33 | 183.94 | 233.20 | 203.56 | 13.72 |

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 | 6.01 | 0.00 | 26.48 | 7.33 | 0.00 | 168.01 | 2.37 | 0.00 | 61.89 | 3.54 |

| 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 | 37.60 | 1.34 | 0.00 | 49.41 | 2.13 | 0.00 | 33.70 | 0.03 | 0.00 | 30.37 | 0.06 |
| | Outer (VV) | 0.00 | 37.74 | 1.57 | 0.00 | 36.84 | 2.68 | 0.00 | 28.86 | 0.03 | 0.00 | 28.39 | 0.08 |
| Sigma0(dB) | Inner (HH) | 0.00 | 38.22 | 1.30 | 0.00 | 48.64 | 1.85 | 0.00 | 32.79 | 0.03 | 0.00 | 30.48 | 0.04 |
| | Outer (VV) | 0.00 | 38.88 | 1.44 | 0.00 | 36.26 | 2.31 | 0.00 | 27.16 | 0.04 | 0.00 | 29.33 | 0.04 |

| 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

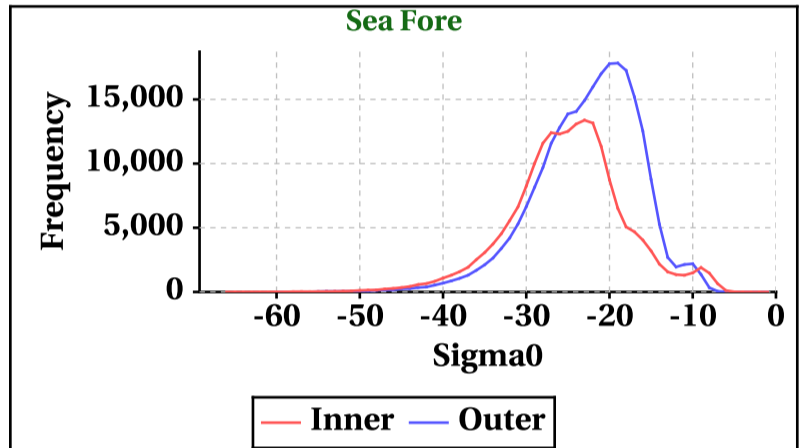
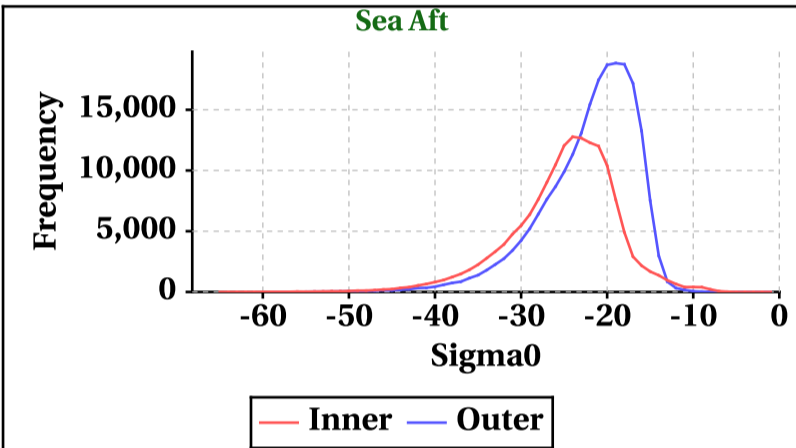
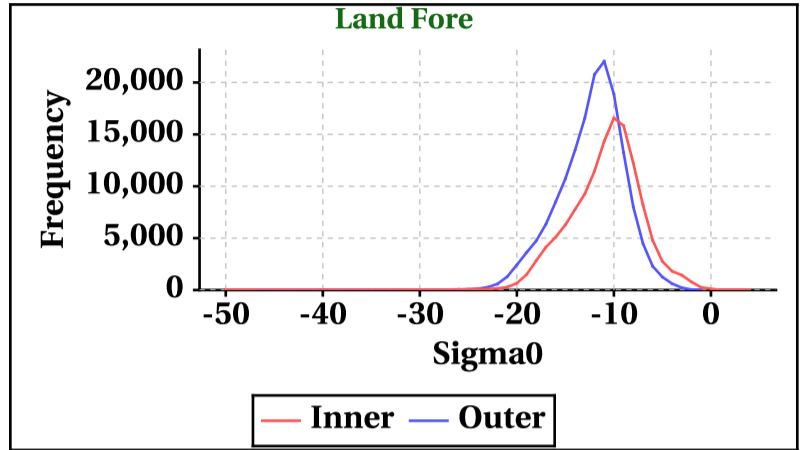
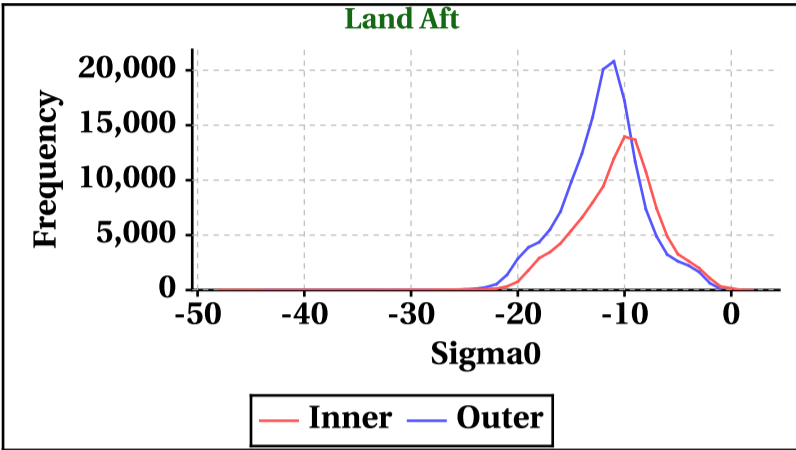
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -48 | -50 | -65 | -66 |
| Max | 2 | 4 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -44 | -47 | -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 | 343 | 384 | 306 | 310 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 338 | 500 | 302 | 317 |

