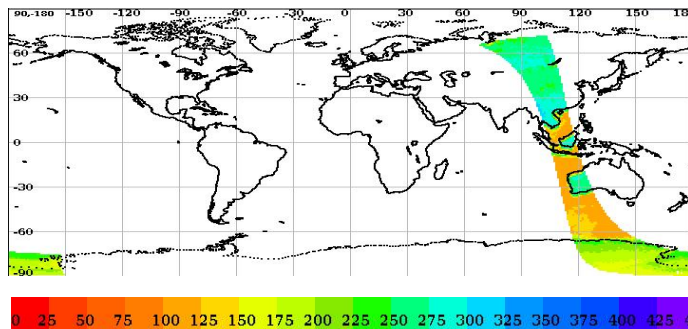


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

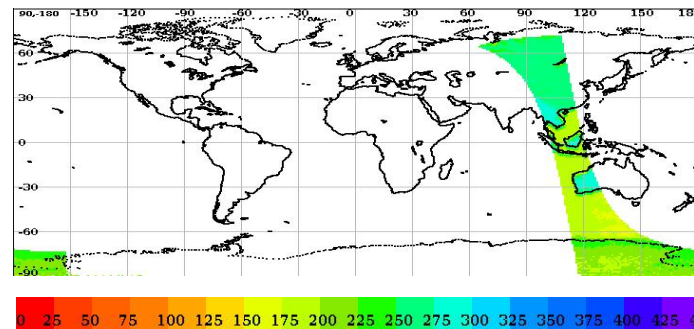
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 16186 | 16187 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 733 | 72 | 17-10-2019 | 17-10-2019 |
| Direction | WVC Size(km) | Processor Version | |
| SN | 25 | v1.1.3 | |

Brightness Temperature

Inner Beam (HH)

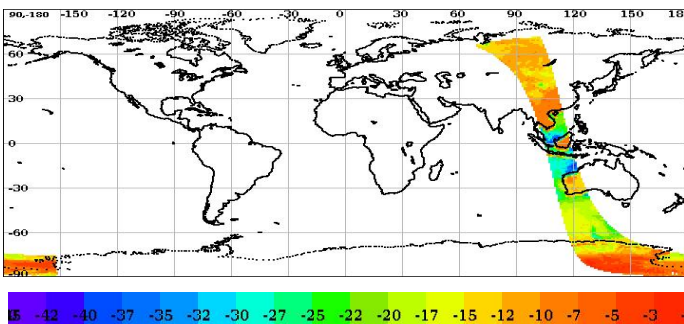


Outer Beam (VV)

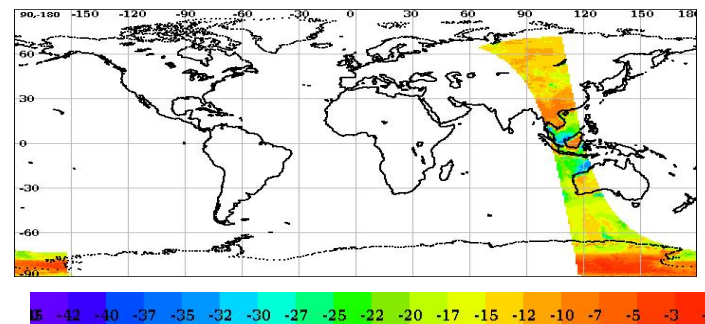


Sigma0(dB)

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 | Outer | ASC | Aft | -10.19 | -6.20 | -8.08 | 0.87 | 171.75 | 226.40 | 204.08 | 14.36 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Fore | -11.57 | -5.36 | -8.06 | 1.16 | 176.92 | 231.15 | 205.61 | 13.98 |
| Australia | -23.00 | 118.00 | Inner | ASC | Aft | -12.10 | -6.69 | -8.95 | 1.16 | 240.10 | 312.90 | 280.32 | 15.41 |
| Australia | -23.00 | 118.00 | Outer | ASC | Aft | -13.33 | -7.34 | -10.52 | 1.09 | 233.99 | 299.57 | 269.89 | 14.81 |
| Australia | -23.00 | 118.00 | Inner | ASC | Fore | -12.53 | -5.70 | -8.74 | 1.09 | 243.38 | 310.26 | 283.84 | 15.68 |
| Australia | -23.00 | 118.00 | Outer | ASC | Fore | -13.31 | -7.20 | -10.24 | 1.15 | 237.75 | 308.26 | 275.83 | 17.55 |

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 | 22.11 | 6.26 | 0.00 | 24.27 | 7.57 | 0.00 | 144.79 | 2.61 | 0.00 | 12.98 | 3.48 |

| 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 | 40.84 | 1.96 | 0.00 | 43.26 | 2.79 | 0.00 | 39.99 | 0.05 | 0.00 | 25.38 | 0.02 |
| | Outer (VV) | 0.00 | 45.09 | 1.58 | 0.00 | 43.48 | 2.38 | 0.00 | 40.32 | 0.10 | 0.00 | 36.25 | 0.12 |
| Sigma0(dB) | Inner (HH) | 0.00 | 42.03 | 1.91 | 0.00 | 44.35 | 2.64 | 0.00 | 39.07 | 0.05 | 0.00 | 22.33 | 0.01 |
| | Outer (VV) | 0.00 | 45.36 | 1.55 | 0.00 | 42.32 | 1.98 | 0.00 | 42.09 | 0.10 | 0.00 | 34.00 | 0.09 |

| 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 | | | | | | | |

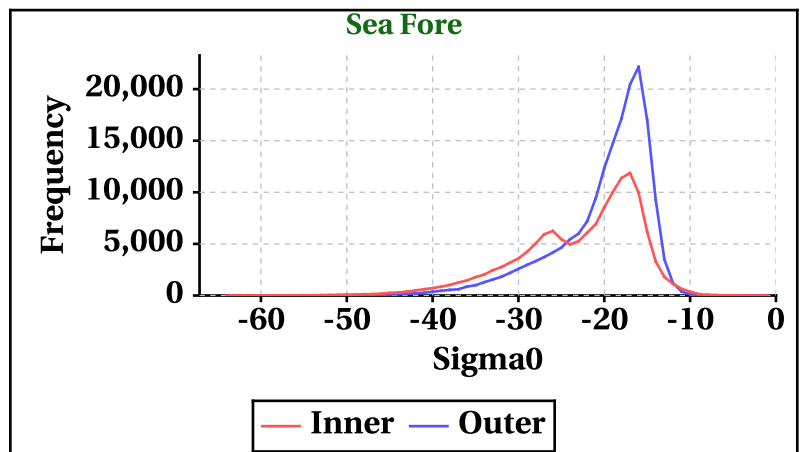
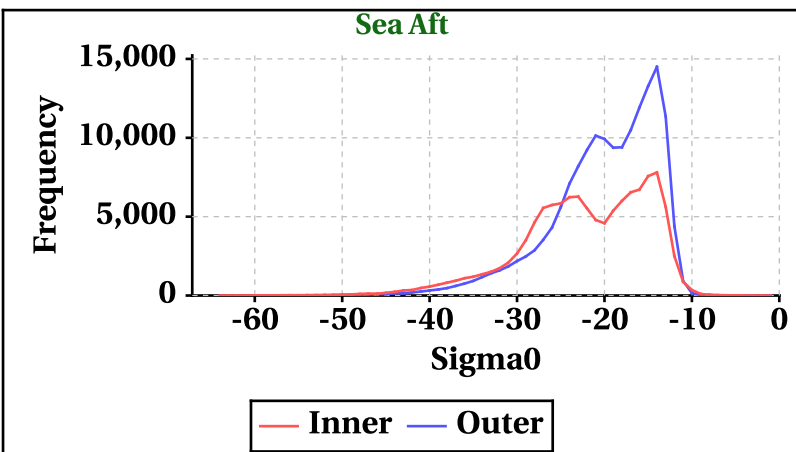
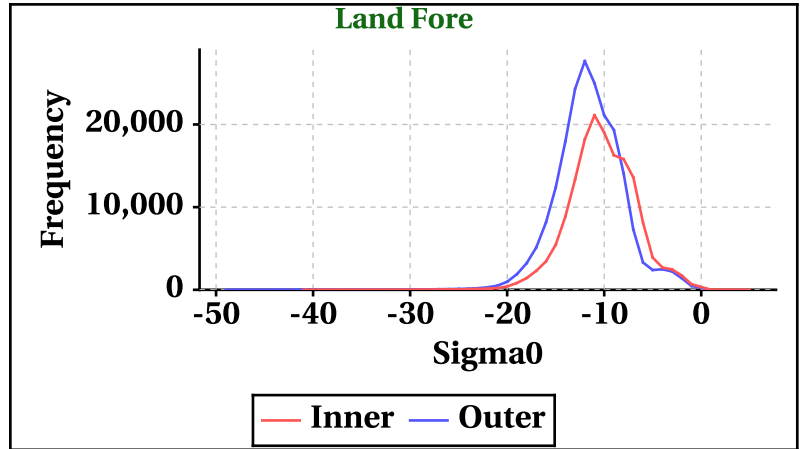
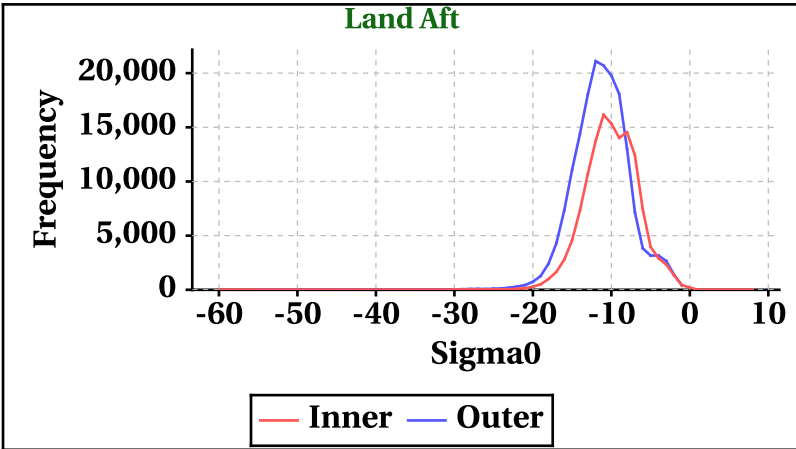
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -60 | -41 | -64 | -64 |
| Max | 8 | 5 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -55 | -49 | -59 | -61 |
| 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 | 367 | 351 | 296 | 298 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 368 | 352 | 303 | 299 |

