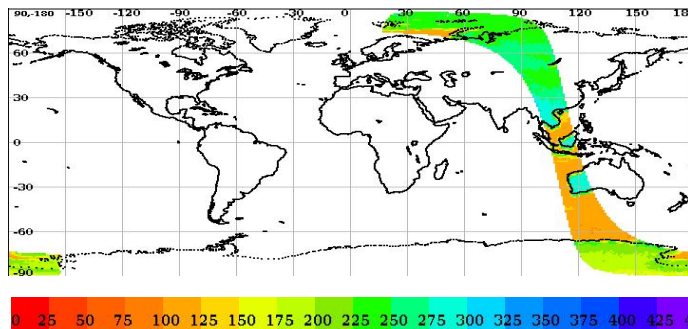


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

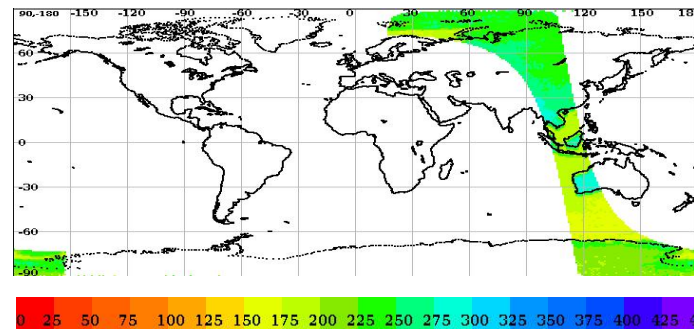
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 17230 | 17231 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 812 | 72 | 28-12-2019 | 28-12-2019 |
| Direction | WVC Size(km) | Processor Version | |
| SN | 25 | v1.1.3 | |

Brightness Temperature

Inner Beam (HH)

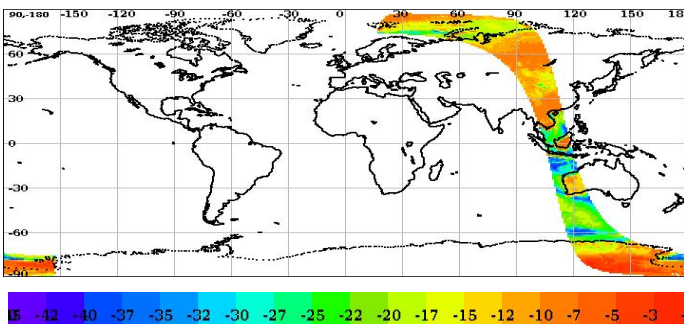


Outer Beam (VV)

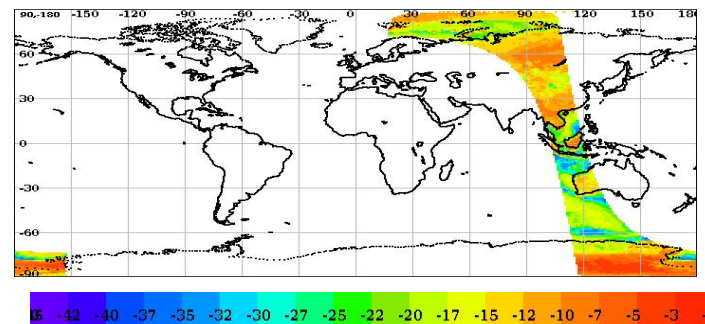


Sigma0(dB)

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 | Outer | ASC | Aft | -10.31 | -6.01 | -8.38 | 1.10 | 186.20 | 242.26 | 211.78 | 16.34 |
| ANT_1 | -75.00 | 121.00 | Outer | ASC | Fore | -12.78 | -6.62 | -8.80 | 1.34 | 160.37 | 237.92 | 204.70 | 16.12 |
| Australia | -23.00 | 118.00 | Inner | ASC | Aft | -12.66 | -7.38 | -9.60 | 1.15 | 251.47 | 305.20 | 280.20 | 13.99 |
| Australia | -23.00 | 118.00 | Outer | ASC | Aft | -13.92 | -9.52 | -11.23 | 0.94 | 239.04 | 308.51 | 273.36 | 15.94 |
| Australia | -23.00 | 118.00 | Inner | ASC | Fore | -15.61 | -6.32 | -9.40 | 1.41 | 240.77 | 339.71 | 283.43 | 20.67 |
| Australia | -23.00 | 118.00 | Outer | ASC | Fore | -13.88 | -7.54 | -10.75 | 1.15 | 227.23 | 317.17 | 281.41 | 22.41 |

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 | 6.00 | 0.00 | 26.59 | 7.39 | 0.00 | 176.20 | 2.39 | 0.00 | 272.30 | 3.59 |

| 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 | 45.57 | 2.47 | 0.00 | 45.01 | 2.58 | 0.00 | 23.82 | 0.03 | 0.00 | 33.16 | 0.03 |
| | Outer (VV) | 0.00 | 38.06 | 2.23 | 0.00 | 42.48 | 2.55 | 0.00 | 26.89 | 0.03 | 0.00 | 26.02 | 0.06 |
| Sigma0(dB) | Inner (HH) | 0.00 | 45.30 | 2.46 | 0.00 | 46.23 | 2.47 | 0.00 | 23.76 | 0.02 | 0.00 | 32.09 | 0.02 |
| | Outer (VV) | 0.00 | 42.25 | 2.27 | 0.00 | 40.00 | 2.38 | 0.00 | 25.85 | 0.03 | 0.00 | 24.79 | 0.02 |

| 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

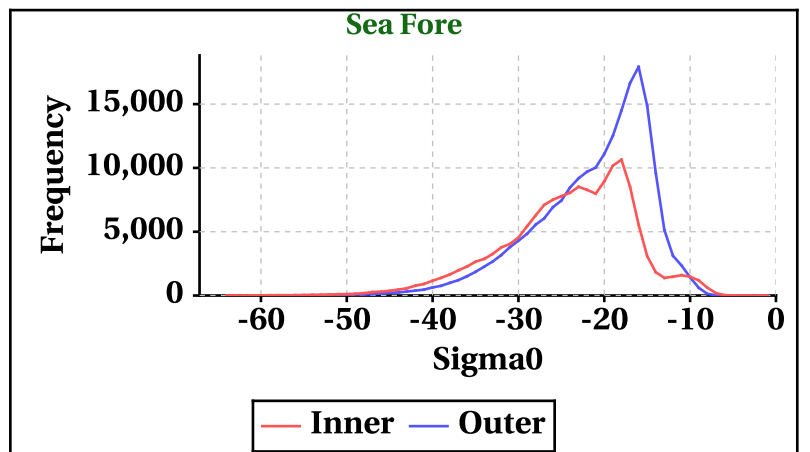
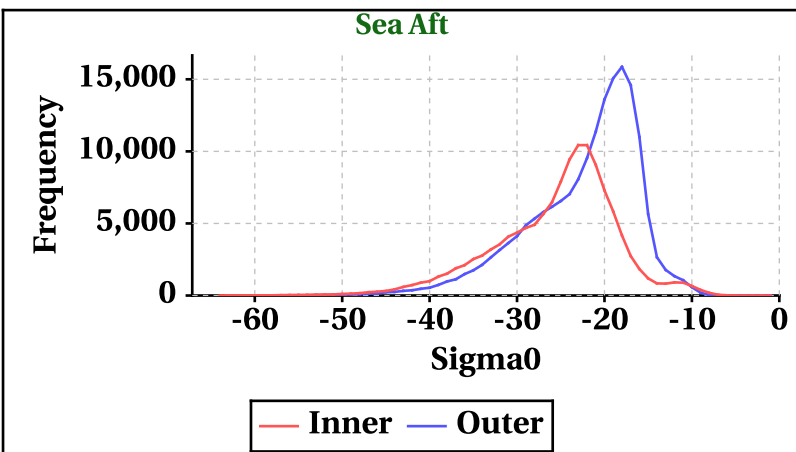
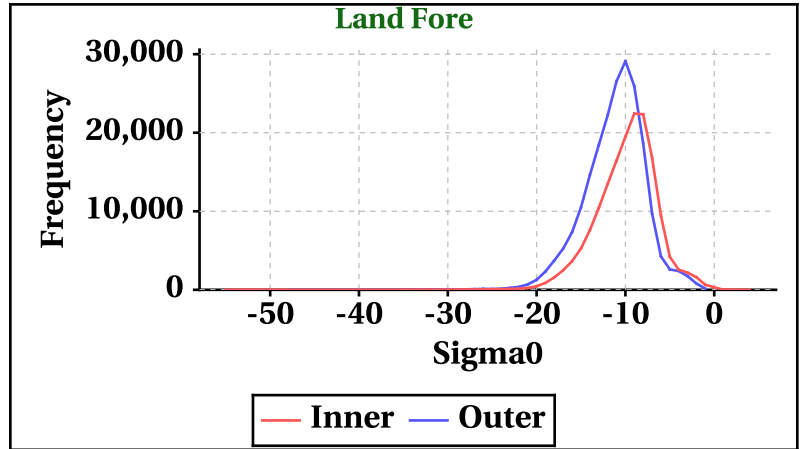
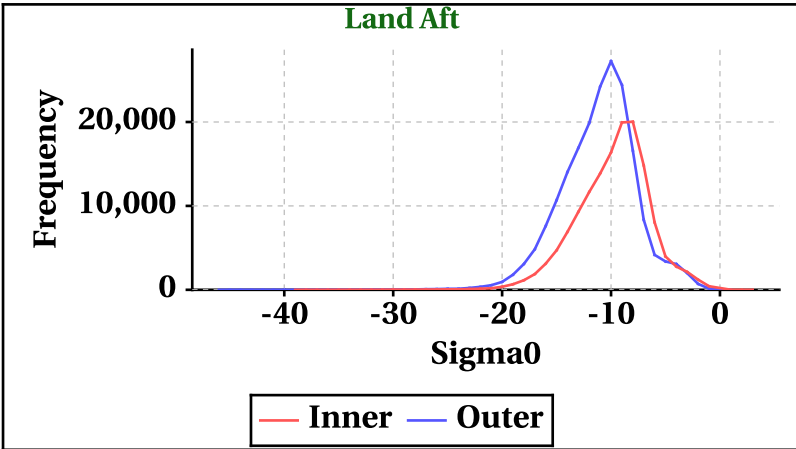
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -39 | -55 | -64 | -64 |
| Max | 3 | 4 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -46 | -48 | -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 | 402 | 351 | 301 | 312 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 411 | 355 | 308 | 306 |

