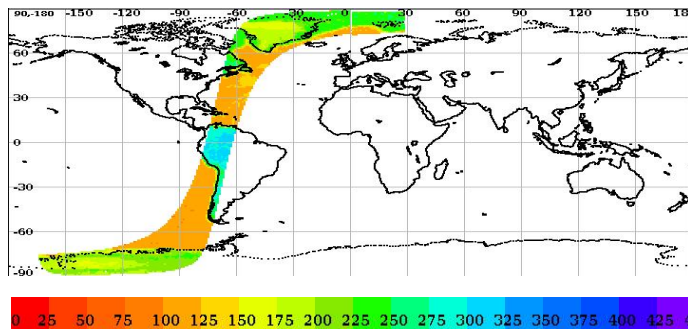


Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

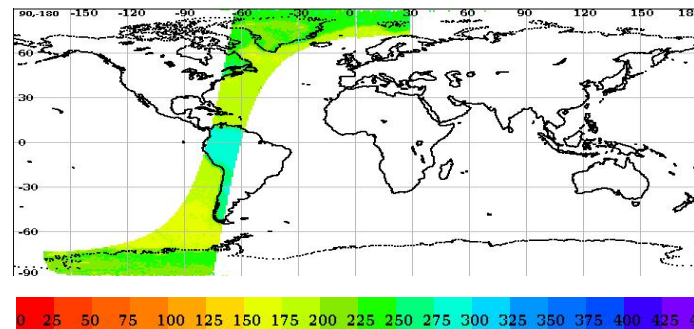
| Satellite | Sensor | Start Orbit | End Orbit |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1 | Scatterometer | 18260 | 18261 |
| WV Cells Along | WV Cells Across | EquatorCrossDate | Production Date |
| 812 | 72 | 08-03-2020 | 08-03-2020 |
| Direction | WVC Size(km) | Processor Version | |
| NS | 25 | v1.1.4 | |

Brightness Temperature

Inner Beam (HH)

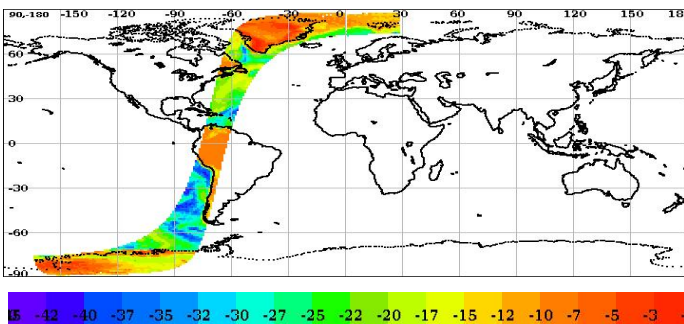


Outer Beam (VV)

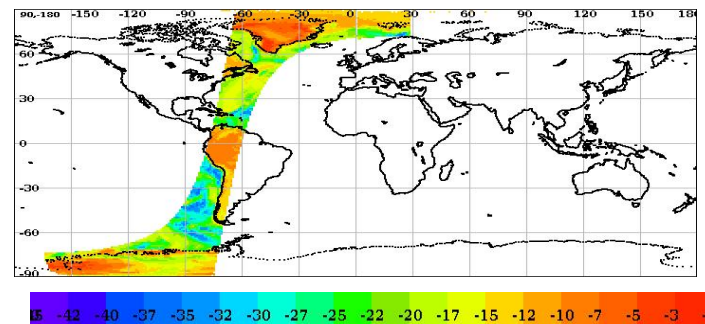


Sigma0(dB)

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 | DSC | Aft | -6.77 | -3.90 | -5.31 | 0.99 | 150.74 | 193.03 | 168.34 | 13.94 |
| GreenLand_2 | 77.50 | -41.50 | Outer | DSC | Aft | -6.54 | -4.08 | -5.22 | 0.65 | 208.49 | 241.82 | 218.74 | 11.01 |
| GreenLand_2 | 77.50 | -41.50 | Inner | DSC | Fore | -7.12 | -4.20 | -5.61 | 0.79 | 145.57 | 194.87 | 172.73 | 14.10 |
| GreenLand_2 | 77.50 | -41.50 | Outer | DSC | Fore | -9.25 | -3.73 | -5.20 | 1.19 | 196.66 | 240.17 | 223.37 | 10.91 |
| GreenLand_3 | 71.55 | -42.45 | Inner | DSC | Aft | -11.88 | -7.49 | -9.25 | 0.97 | 164.12 | 214.23 | 184.26 | 13.33 |
| GreenLand_3 | 71.55 | -42.45 | Outer | DSC | Aft | -12.60 | -9.41 | -11.01 | 0.75 | 199.04 | 249.32 | 225.09 | 12.14 |
| GreenLand_3 | 71.55 | -42.45 | Inner | DSC | Fore | -11.57 | -8.15 | -9.48 | 0.87 | 144.95 | 222.39 | 188.35 | 19.30 |
| GreenLand_3 | 71.55 | -42.45 | Outer | DSC | Fore | -12.35 | -9.65 | -11.10 | 0.75 | 205.57 | 257.10 | 225.34 | 12.92 |
| GreenLand_1 | 74.69 | -42.50 | Inner | DSC | Aft | -10.30 | -7.40 | -8.85 | 0.83 | 144.41 | 204.15 | 180.62 | 20.43 |
| GreenLand_1 | 74.69 | -42.50 | Outer | DSC | Aft | -10.55 | -7.03 | -8.92 | 0.85 | 195.58 | 252.10 | 229.30 | 13.97 |
| GreenLand_1 | 74.69 | -42.50 | Inner | DSC | Fore | -12.08 | -6.00 | -8.98 | 1.19 | 156.06 | 203.59 | 182.39 | 12.13 |
| GreenLand_1 | 74.69 | -42.50 | Outer | DSC | Fore | -10.84 | -6.09 | -9.03 | 1.04 | 209.09 | 267.92 | 234.91 | 15.51 |
| Amazon_2 | -3.00 | -61.00 | Outer | DSC | Aft | -12.39 | -8.29 | -9.90 | 0.80 | 249.10 | 325.28 | 284.58 | 12.74 |
| Amazon_2 | -3.00 | -61.00 | Outer | DSC | Fore | -11.70 | -7.52 | -9.67 | 0.81 | 251.86 | 311.96 | 285.59 | 13.37 |
| Amazon_1 | 0.00 | -67.00 | Inner | DSC | Aft | -10.42 | -5.31 | -7.94 | 0.92 | 264.84 | 333.00 | 303.40 | 14.76 |
| Amazon_1 | 0.00 | -67.00 | Outer | DSC | Aft | -13.10 | -6.78 | -9.01 | 0.93 | 267.60 | 320.95 | 292.96 | 12.94 |
| Amazon_1 | 0.00 | -67.00 | Inner | DSC | Fore | -10.36 | -4.45 | -7.71 | 1.05 | 263.03 | 351.33 | 298.83 | 15.85 |
| Amazon_1 | 0.00 | -67.00 | Outer | DSC | Fore | -11.71 | -5.48 | -8.80 | 0.92 | 252.35 | 319.14 | 285.36 | 14.69 |

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 | 141.56 | 6.43 | 0.00 | 24.72 | 7.59 | 0.00 | 199.43 | 2.39 | 0.00 | 59.63 | 3.50 |

| 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 | 49.10 | 1.54 | 0.00 | 39.34 | 2.35 | 0.00 | 32.03 | 0.05 | 0.00 | 30.45 | 0.04 |
| | Outer (VV) | 0.00 | 35.47 | 1.75 | 0.00 | 39.27 | 2.46 | 0.00 | 22.71 | 0.01 | 0.00 | 28.99 | 0.10 |
| Sigma0(dB) | Inner (HH) | 0.00 | 49.22 | 1.53 | 0.00 | 40.41 | 2.19 | 0.00 | 34.16 | 0.05 | 0.00 | 27.51 | 0.05 |
| | Outer (VV) | 0.00 | 35.11 | 1.69 | 0.00 | 40.57 | 2.22 | 0.00 | 23.35 | 0.01 | 0.00 | 25.50 | 0.07 |

| 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 | | | | | | | |

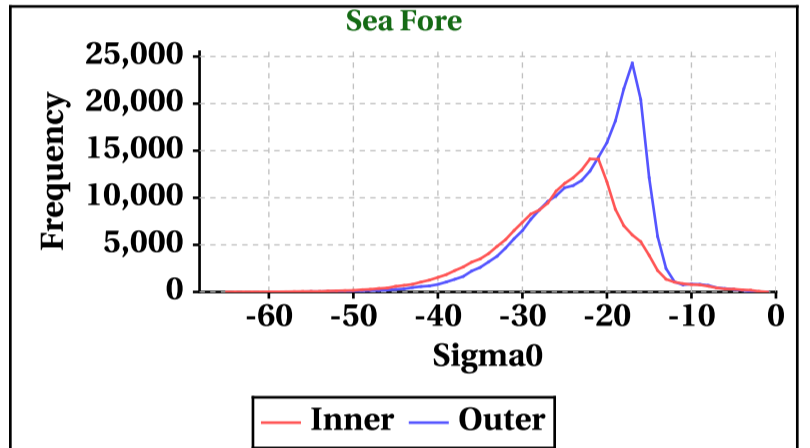
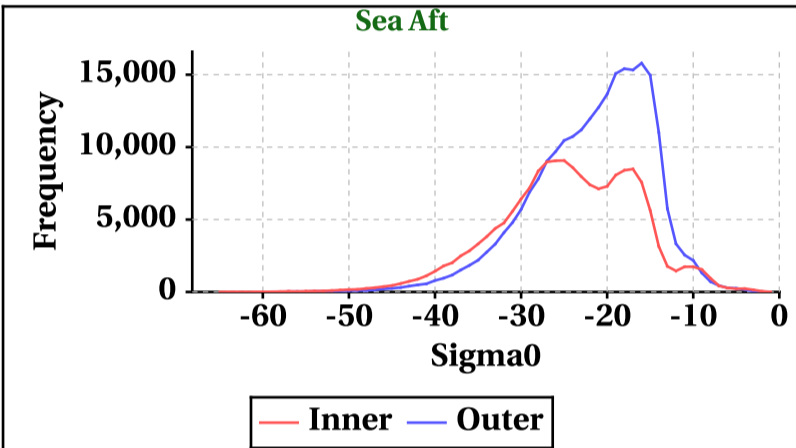
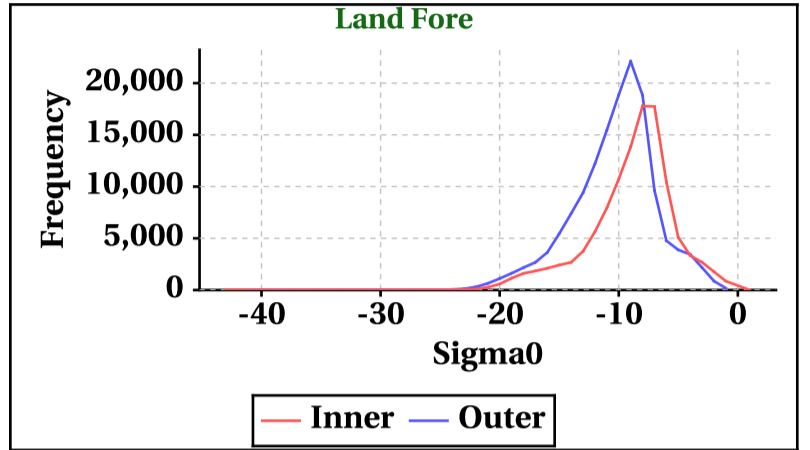
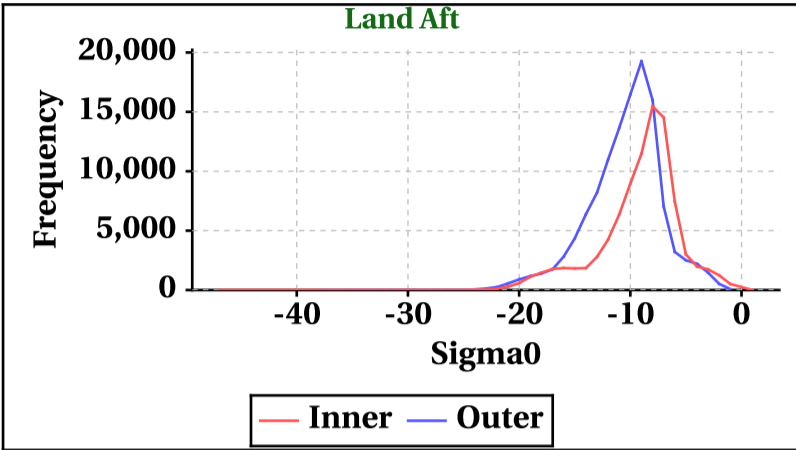
* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -47 | -43 | -65 | -65 |
| Max | 1 | 1 | -1 | -1 |

| Outer Beam (VV) | | | | |
|-----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | -38 | -41 | -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 | 379 | 376 | 308 | 306 |

| Outer Beam(VV) | | | | |
|----------------|----------|-----------|---------|----------|
| | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min | 1 | 1 | 1 | 1 |
| Max | 352 | 348 | 306 | 307 |

