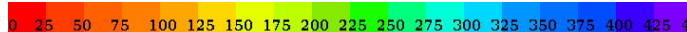
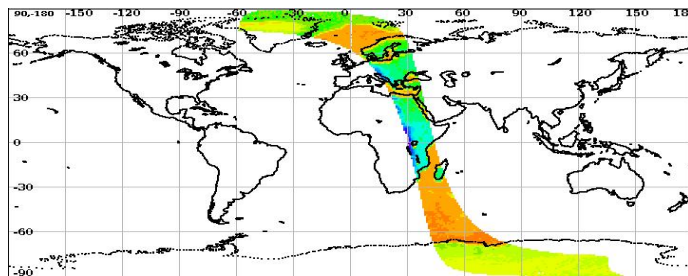


# Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

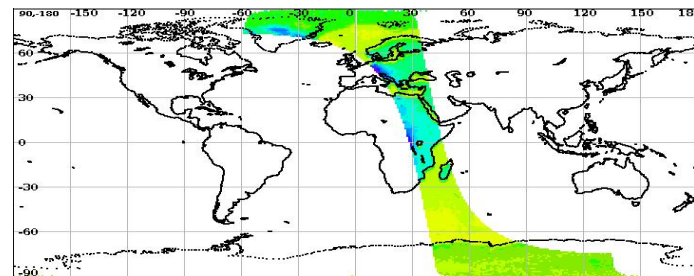
| Satellite      | Sensor          | Start Orbit       | End Orbit       |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1      | Scatterometer   | 12825             | 12826           |
| WV Cells Along | WV Cells Across | EquatorCrossDate  | Production Date |
| 814            | 72              | 27-02-2019        | 27-02-2019      |
| Direction      | WVC Size(km)    | Processor Version |                 |
| SN             | 25              | v1.1.3            |                 |

## Brightness Temperature

Inner Beam (HH)

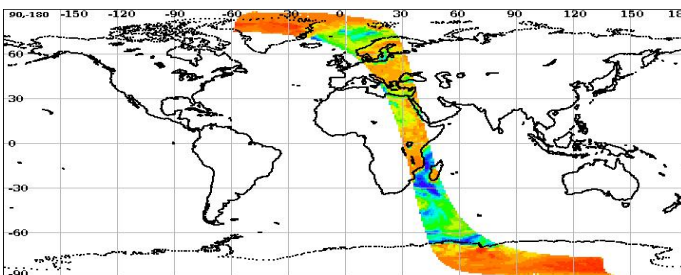


Outer Beam (VV)

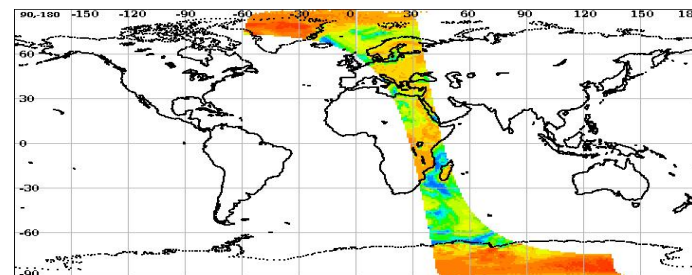


## Sigma0(dB)

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     | Inner | ASC  | Aft     | -8.25      | -5.36      | -7.12       | 0.85       | 157.57 | 192.40 | 171.34  | 9.00   |
| ANT_1       | -75.00     | 121.00     | Outer | ASC  | Aft     | -11.04     | -6.41      | -8.75       | 1.11       | 156.27 | 242.45 | 208.68  | 18.50  |
| ANT_1       | -75.00     | 121.00     | Inner | ASC  | Fore    | -10.74     | -5.93      | -7.71       | 1.35       | 151.58 | 188.88 | 172.27  | 9.40   |
| ANT_1       | -75.00     | 121.00     | Inner | DSC  | Fore    | -5.49      | -5.49      | -5.49       | 0.00       | 187.83 | 187.83 | 187.83  | 0.00   |
| GreenLand_2 | 77.50      | -41.50     | Inner | ASC  | Fore    | -10.40     | -3.26      | -5.94       | 1.44       | 134.26 | 183.52 | 158.55  | 15.61  |
| GreenLand_2 | 77.50      | -41.50     | Outer | ASC  | Fore    | -5.35      | -3.27      | -4.35       | 0.60       | 278.63 | 339.54 | 310.06  | 20.57  |
| GreenLand_1 | 74.69      | -42.50     | Inner | ASC  | Aft     | -10.31     | -7.29      | -8.98       | 0.80       | 162.93 | 212.30 | 182.24  | 12.54  |
| GreenLand_1 | 74.69      | -42.50     | Outer | ASC  | Aft     | -11.73     | -8.31      | -10.06      | 1.09       | 232.62 | 264.15 | 250.64  | 10.50  |
| GreenLand_1 | 74.69      | -42.50     | Inner | ASC  | Fore    | -10.19     | -7.42      | -8.82       | 0.74       | 153.68 | 206.59 | 183.00  | 12.09  |
| GreenLand_1 | 74.69      | -42.50     | Outer | ASC  | Fore    | -12.96     | -6.06      | -9.22       | 1.39       | 277.61 | 401.01 | 344.69  | 33.73  |

## 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. (%) |
| <b>Kpa</b>   | 0.00            | 0.07    | 0.00         | 0.00    | 0.07    | 0.00         | 0.00            | 0.07    | 0.00         | 0.00    | 0.07    | 0.00         |
| <b>Kpb</b>   | 0.00            | 0.09    | 0.00         | 0.00    | 0.09    | 0.00         | 0.00            | 0.09    | 0.00         | 0.00    | 0.09    | 0.00         |
| <b>Kpc</b>   | 0.00            | 0.00    | 0.00         | 0.00    | 0.00    | 0.00         | 0.00            | 0.00    | 0.00         | 0.00    | 0.00    | 0.00         |
| <b>Inc. Angle(deg)</b>   | 0.00            | 0.00    | 0.00         | 0.00    | 0.00    | 0.00         | 0.00            | 0.00    | 0.00         | 0.00    | 0.00    | 0.00         |
| <b>Delta Azi.Angle(deg)</b>  | 0.00            | 24.80   | 7.21         | 0.00    | 25.42   | 8.63         | 0.00            | 182.90  | 4.06         | 0.00    | 273.78  | 5.18         |

| 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. (%) |
| <b>SNR(dB)</b>   | <b>Inner (HH)</b> | 0.00    | 49.74   | 1.96         | 0.00     | 38.96   | 2.51         | 0.00     | 38.73   | 0.32         | 0.00      | 41.47   | 0.37         |
|  | <b>Outer (VV)</b> | 0.00    | 40.56   | 2.21         | 0.00     | 41.96   | 2.49         | 0.00     | 39.08   | 0.38         | 0.00      | 48.64   | 0.42         |
| <b>Sigma0(dB)</b>  | <b>Inner (HH)</b> | 0.00    | 50.58   | 2.01         | 0.00     | 39.97   | 2.33         | 0.00     | 40.99   | 0.33         | 0.00      | 43.71   | 0.34         |
|  | <b>Outer (VV)</b> | 0.00    | 44.22   | 2.12         | 0.00     | 42.20   | 2.29         | 0.00     | 38.69   | 0.36         | 0.00      | 47.82   | 0.35         |

| 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

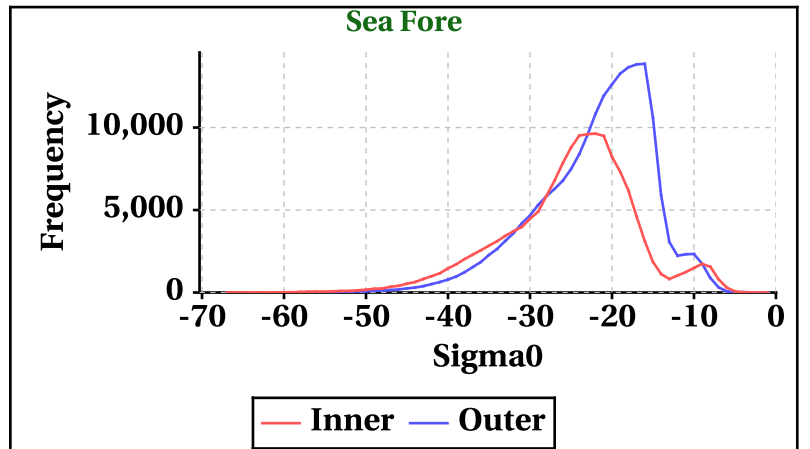
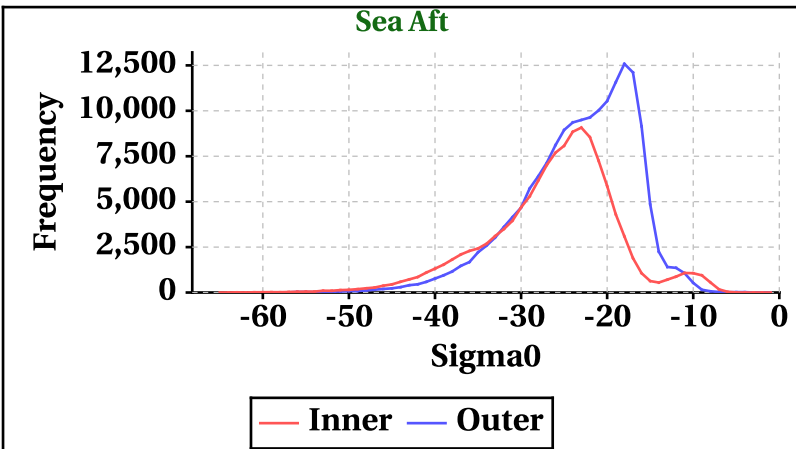
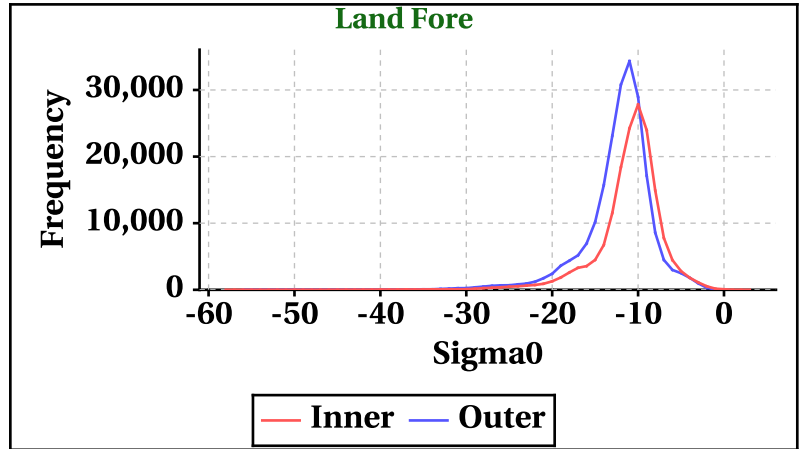
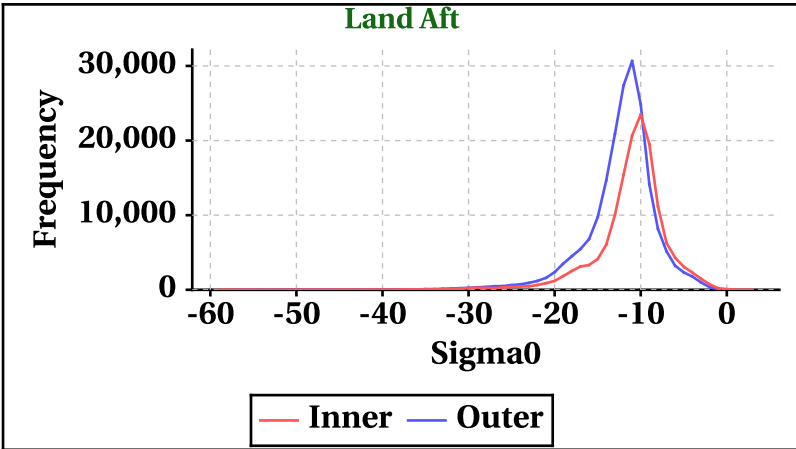
\* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

# Dynamic Range (Data Histograms)

## Sigma0(db)

| Inner Beam (HH) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -59      | -58       | -65     | -67      |
| Max             | 3        | 3         | -1      | -1       |

| Outer Beam (VV) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -57      | -56       | -61     | -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            | 500      | 500       | 413     | 499      |

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

