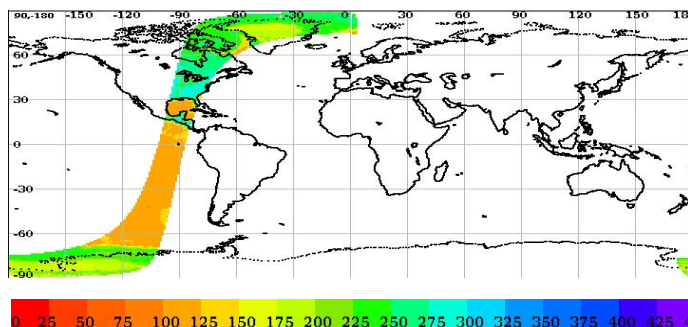


# Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

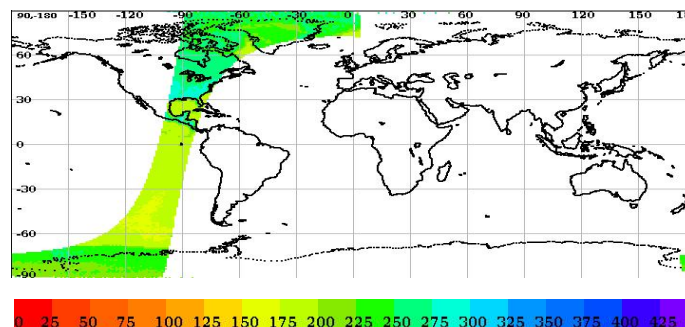
| Satellite      | Sensor          | Start Orbit       | End Orbit       |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1      | Scatterometer   | 19044             | 19045           |
| WV Cells Along | WV Cells Across | EquatorCrossDate  | Production Date |
| 812            | 72              | 01-05-2020        | 01-05-2020      |
| Direction      | WVC Size(km)    | Processor Version |                 |
| NS             | 25              | v1.1.4            |                 |

## Brightness Temperature

Inner Beam (HH)

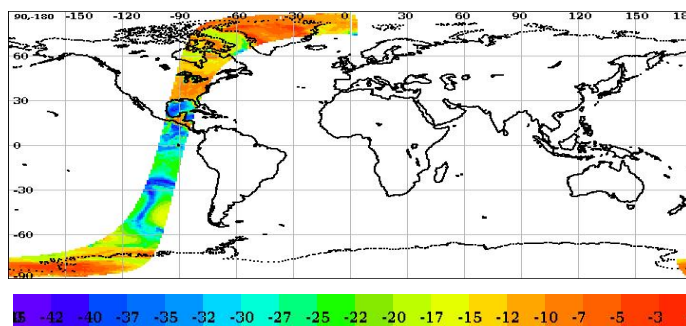


Outer Beam (VV)

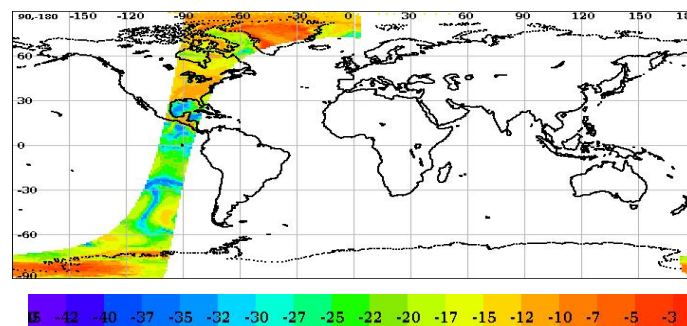


## Sigma0(dB)

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     | -8.73      | -4.84      | -5.92       | 1.11       | 148.43 | 191.58 | 171.13  | 15.29  |
| GreenLand_2 | 77.50      | -41.50     | Outer | DSC  | Aft     | -6.48      | -3.56      | -5.29       | 0.95       | 204.16 | 241.62 | 224.18  | 12.63  |
| GreenLand_2 | 77.50      | -41.50     | Inner | DSC  | Fore    | -8.28      | -4.21      | -5.89       | 1.22       | 148.23 | 203.44 | 173.62  | 14.98  |
| GreenLand_2 | 77.50      | -41.50     | Outer | DSC  | Fore    | -6.65      | -3.70      | -5.22       | 0.98       | 222.29 | 260.96 | 241.25  | 12.27  |
| GreenLand_3 | 71.55      | -42.45     | Inner | DSC  | Aft     | -12.33     | -7.42      | -9.84       | 1.04       | 165.81 | 228.55 | 199.00  | 13.76  |
| GreenLand_3 | 71.55      | -42.45     | Outer | DSC  | Aft     | -13.08     | -7.70      | -11.02      | 1.06       | 197.85 | 273.06 | 228.28  | 15.03  |
| GreenLand_3 | 71.55      | -42.45     | Inner | DSC  | Fore    | -12.10     | -7.28      | -9.48       | 1.01       | 176.92 | 233.73 | 204.43  | 16.09  |
| GreenLand_3 | 71.55      | -42.45     | Outer | DSC  | Fore    | -15.65     | -8.93      | -11.50      | 1.11       | 203.03 | 266.56 | 231.27  | 14.56  |
| GreenLand_1 | 74.69      | -42.50     | Inner | DSC  | Aft     | -11.65     | -8.28      | -9.56       | 0.96       | 164.40 | 220.17 | 187.29  | 18.90  |
| GreenLand_1 | 74.69      | -42.50     | Outer | DSC  | Aft     | -11.12     | -7.65      | -9.26       | 0.86       | 212.62 | 269.34 | 232.77  | 15.70  |
| GreenLand_1 | 74.69      | -42.50     | Inner | DSC  | Fore    | -11.27     | -7.37      | -8.86       | 0.94       | 153.63 | 217.94 | 194.11  | 15.34  |
| GreenLand_1 | 74.69      | -42.50     | Outer | DSC  | Fore    | -10.45     | -6.26      | -8.76       | 1.01       | 218.98 | 285.09 | 249.09  | 15.91  |

## 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            | 262.27  | 5.85         | 0.00    | 24.56   | 7.12         | 0.00            | 355.14  | 2.42         | 0.00    | 51.65   | 3.06         |

| 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    | 51.40   | 1.90         | 0.00     | 39.79   | 2.44         | 0.00     | 49.05   | 0.82         | 0.00      | 43.42   | 0.87         |
|                                                                            | Outer (VV) | 0.00    | 43.71   | 1.93         | 0.00     | 46.26   | 2.46         | 0.00     | 35.97   | 0.29         | 0.00      | 40.50   | 0.46         |
| Sigma0(dB)                                                                 | Inner (HH) | 0.00    | 50.25   | 1.90         | 0.00     | 41.41   | 2.37         | 0.00     | 48.91   | 0.82         | 0.00      | 43.84   | 0.83         |
|                                                                            | Outer (VV) | 0.00    | 42.73   | 1.91         | 0.00     | 41.16   | 2.26         | 0.00     | 32.48   | 0.31         | 0.00      | 41.47   | 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

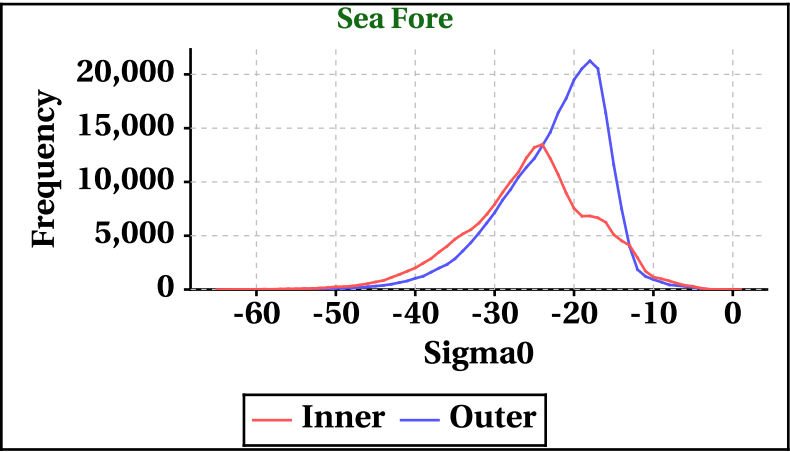
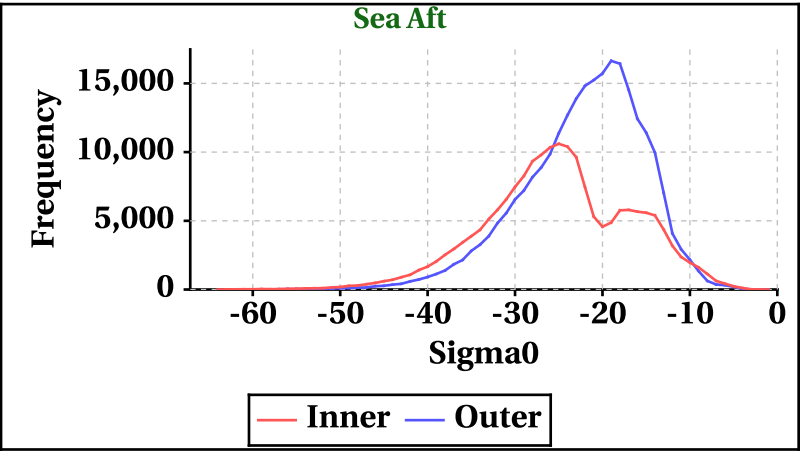
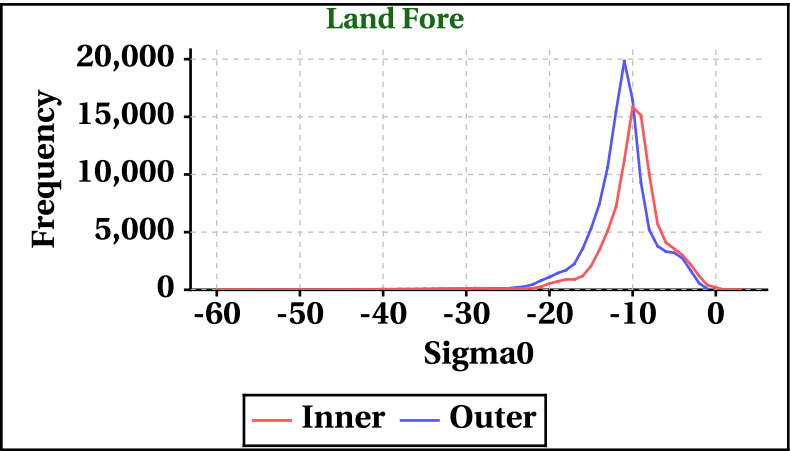
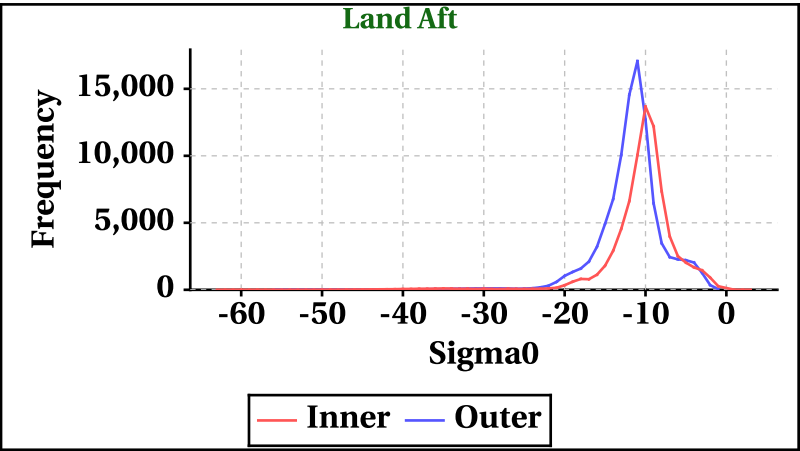
\* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

Dynamic Range (Data Histograms)

Sigma0(db)

| Inner Beam (HH) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -63      | -60       | -64     | -65      |
| Max             | 3        | 3         | -1      | 1        |

| Outer Beam (VV) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -56      | -56       | -60     | -59      |
| 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            | 358      | 349       | 314     | 317      |

| Outer Beam(VV) |          |           |         |          |
|----------------|----------|-----------|---------|----------|
|                | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min            | 1        | 1         | 1       | 1        |
| Max            | 352      | 340       | 315     | 317      |

