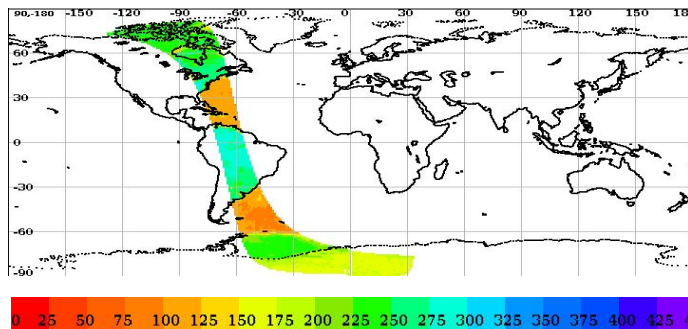


# Scatsat-1 Scatterometer Level-2A Data Quality Evaluation Report

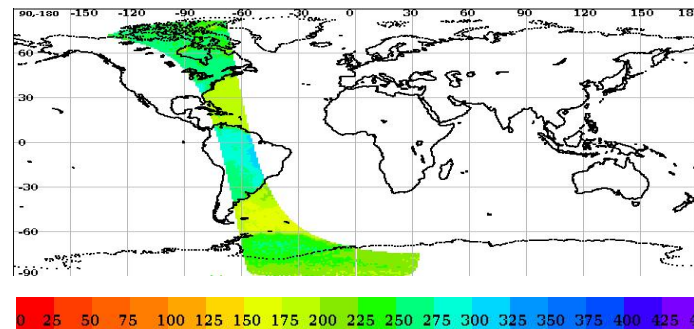
| Satellite      | Sensor          | Start Orbit       | End Orbit       |
|----------------|-----------------|-------------------|-----------------|
| SCATSAT-1      | Scatterometer   | 8711              | 8712            |
| WV Cells Along | WV Cells Across | EquatorCrossDate  | Production Date |
| 773            | 72              | 20-05-2018        | 20-05-2018      |
| Direction      | WVC Size(km)    | Processor Version |                 |
| SN             | 25              | v1.1.3            |                 |

## Brightness Temperature

Inner Beam (HH)

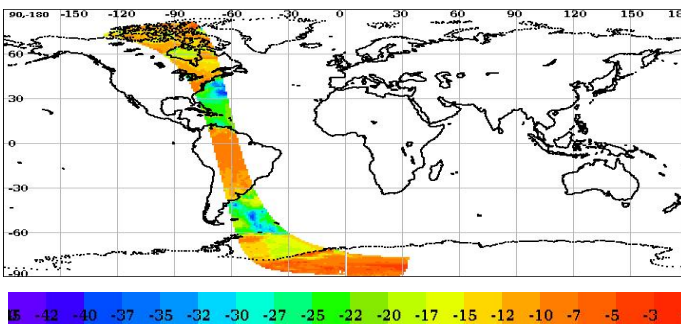


Outer Beam (VV)

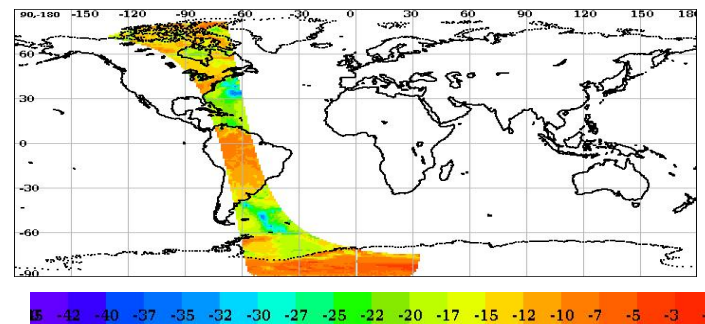


## Sigma0(dB)

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 |
|-----------|------------|------------|-------|------|---------|------------|------------|-------------|------------|--------|--------|---------|--------|
| Amazon_3  | -6.00      | -61.00     | Inner | ASC  | Aft     | -12.13     | -5.56      | -8.68       | 0.92       | 241.15 | 332.58 | 284.95  | 19.06  |
| Amazon_3  | -6.00      | -61.00     | Outer | ASC  | Aft     | -12.18     | -7.11      | -9.69       | 0.77       | 246.42 | 332.54 | 297.11  | 16.19  |
| Amazon_3  | -6.00      | -61.00     | Inner | ASC  | Fore    | -13.82     | -6.25      | -8.49       | 1.10       | 239.90 | 317.31 | 284.12  | 13.88  |
| Amazon_3  | -6.00      | -61.00     | Outer | ASC  | Fore    | -11.95     | -7.18      | -9.68       | 0.88       | 235.55 | 311.00 | 276.30  | 16.28  |
| Amazon_2  | -3.00      | -61.00     | Inner | ASC  | Aft     | -13.82     | -7.08      | -9.12       | 1.28       | 208.09 | 305.66 | 261.36  | 22.72  |
| Amazon_2  | -3.00      | -61.00     | Outer | ASC  | Aft     | -16.74     | -6.97      | -10.33      | 1.49       | 252.89 | 331.62 | 286.20  | 20.27  |
| Amazon_2  | -3.00      | -61.00     | Inner | ASC  | Fore    | -14.59     | -6.30      | -9.38       | 1.75       | 202.57 | 309.50 | 258.59  | 22.73  |
| Amazon_2  | -3.00      | -61.00     | Outer | ASC  | Fore    | -16.27     | -7.84      | -10.80      | 1.68       | 233.14 | 313.70 | 274.80  | 16.06  |
| Amazon_1  | 0.00       | -67.00     | Inner | ASC  | Aft     | -11.15     | -5.36      | -8.28       | 0.99       | 244.86 | 337.81 | 290.26  | 19.19  |
| Amazon_1  | 0.00       | -67.00     | Outer | ASC  | Aft     | -13.29     | -6.61      | -9.11       | 1.13       | 243.00 | 325.06 | 279.45  | 16.55  |
| Amazon_1  | 0.00       | -67.00     | Inner | ASC  | Fore    | -12.40     | -5.69      | -8.03       | 1.15       | 233.74 | 354.44 | 288.18  | 18.59  |
| Amazon_1  | 0.00       | -67.00     | Outer | ASC  | Fore    | -15.29     | -6.35      | -8.99       | 1.03       | 254.49 | 311.90 | 282.11  | 12.99  |

## 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            | 23.08   | 4.72         | 0.00    | 69.42   | 6.08         | 0.00            | 76.44   | 0.96         | 0.00    | 11.65   | 1.52         |

| 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    | 43.39   | 0.55         | 0.00     | 36.37   | 0.75         | 0.00     | 38.60   | 0.30         | 0.00      | 40.43   | 0.26         |
|  | <b>Outer (VV)</b> | 0.00    | 38.27   | 0.56         | 0.00     | 34.54   | 0.84         | 0.00     | 35.32   | 0.12         | 0.00      | 39.42   | 0.18         |
| <b>Sigma0(dB)</b>  | <b>Inner (HH)</b> | 0.00    | 43.22   | 0.54         | 0.00     | 37.93   | 0.69         | 0.00     | 38.79   | 0.29         | 0.00      | 41.38   | 0.24         |
|  | <b>Outer (VV)</b> | 0.00    | 36.80   | 0.50         | 0.00     | 33.35   | 0.62         | 0.00     | 33.99   | 0.11         | 0.00      | 38.38   | 0.16         |

| 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

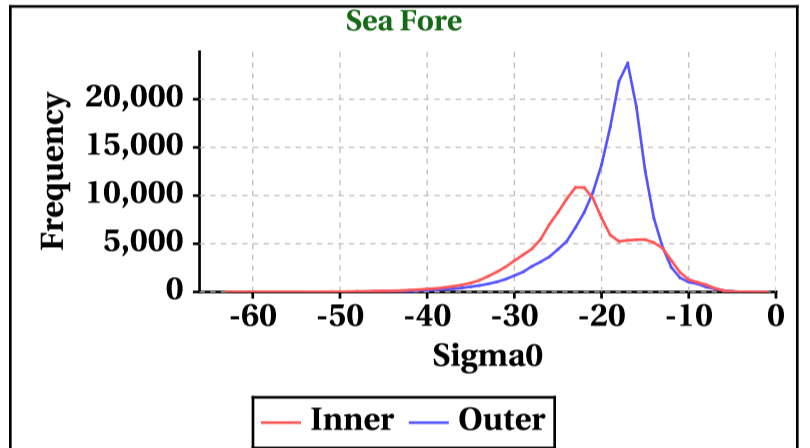
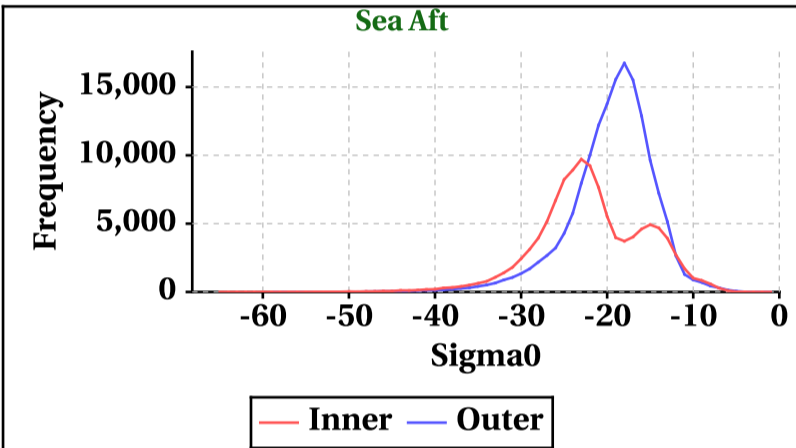
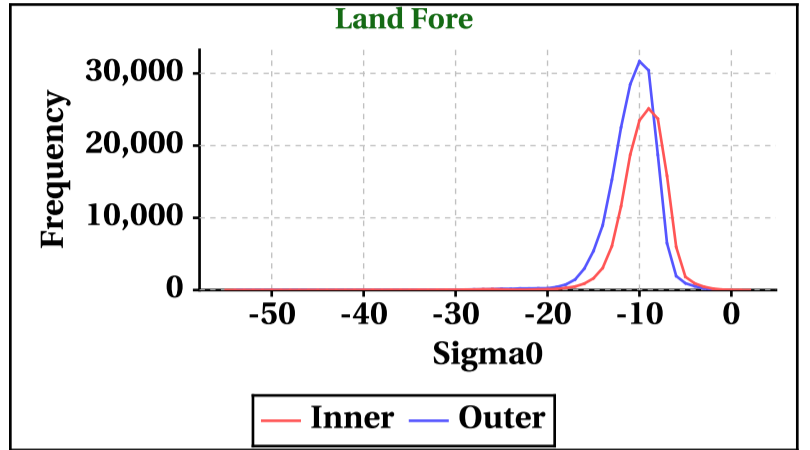
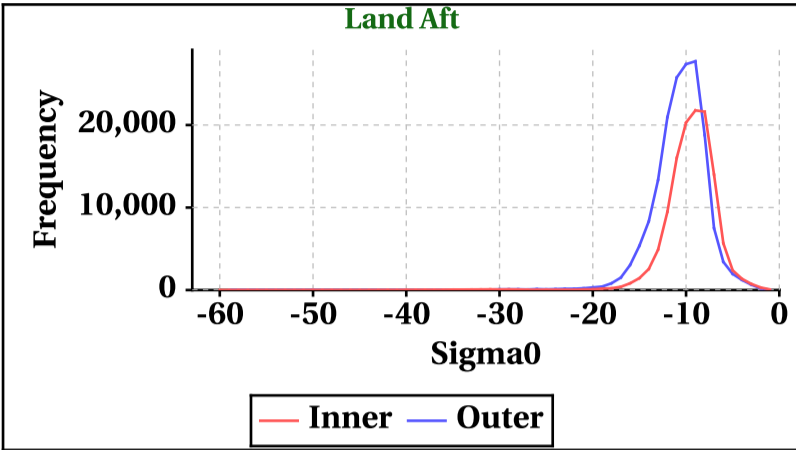
\* Note: Deviations within a Cell for a category is observed and flagged if out of range specifications

# Dynamic Range (Data Histograms)

## Sigma0(db)

| Inner Beam (HH) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -60      | -55       | -65     | -63      |
| Max             | -1       | 2         | -1      | -1       |

| Outer Beam (VV) |          |           |         |          |
|-----------------|----------|-----------|---------|----------|
|                 | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min             | -59      | -54       | -59     | -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            | 362      | 354       | 312     | 305      |

| Outer Beam(VV) |          |           |         |          |
|----------------|----------|-----------|---------|----------|
|                | Land Aft | Land Fore | Sea Aft | Sea Fore |
| Min            | 1        | 1         | 1       | 1        |
| Max            | 415      | 360       | 342     | 327      |

