

# ASCAT DAILY Report

**Metop-A**

**OPE**

**DAY 2020\_207**

**20200725000000 - 20200725235959**

## DATA STATISTICS

BASED ON ORBITS (#14)

71422 71423 71424 71425 71426 71427 71428 71429 71430 71431 71432 71433 71434  
71435 71436

DB STATISTICS : OPE M02\_20200725

|     |     |       |      |       |       |
|-----|-----|-------|------|-------|-------|
| SMO | 479 | 2.94  | .96  | 1.34  | 6.32  |
| SMR | 476 | 7.00  | 1.71 | 3.62  | 12.55 |
| SZF | 461 | 1.68  | 2.95 | .39   | 41.79 |
| xxx | 478 | 35.37 | 6.38 | 22.24 | 63.56 |

INGATE (STORE) STATISTICS : OPE M02\_20200725

|        |                                       |                                   |
|--------|---------------------------------------|-----------------------------------|
| xxx_1A | /fbf/tcdras/store/gsl/ASCA_xxx_1A_M02 | -- number of files (xxx_1A) : 479 |
| SZO_1B | /fbf/tcdras/store/gsl/ASCA_SZO_1B_M02 | -- number of files (SZO_1B) : 479 |
| SZR_1B | /fbf/tcdras/store/gsl/ASCA_SZR_1B_M02 | -- number of files (SZR_1B) : 479 |
| SZF_1B | /fbf/tcdras/store/gsl/ASCA_SZF_1B_M02 | -- number of files (SZF_1B) : 479 |
| SMO_02 | /fbf/tcdras/store/gsl/ASCA_SMO_02_M02 | -- number of files (SMO_02) : 479 |
| SMR_02 | /fbf/tcdras/store/gsl/ASCA_SMR_02_M02 | -- number of files (SMR_02) : 479 |

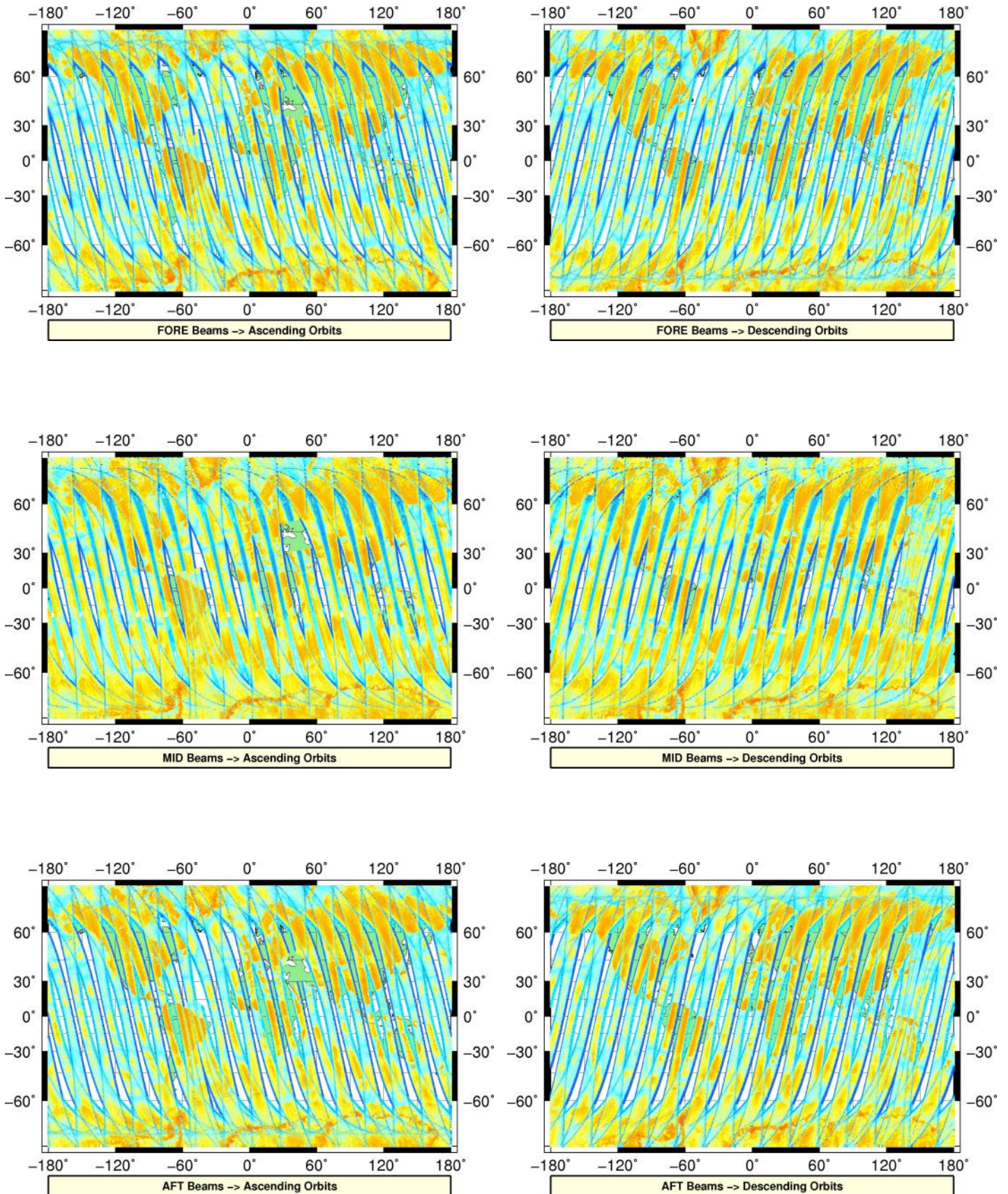
# Overview

## Configuration and SPHR content

| Parameter                | Value   |
|--------------------------|---|
| SENSING START-STOP       | 20200725000000 - 20200725235959                               |
| ORBIT START-STOP         | -   |
| SATELLITE                | M02   |
| SW - DPU Version         | 3.9 (57)  |
| SW - ICU Version         | 2.03 (35)   |
| PARAM - Drive Level ID   | 0 (Nominal drive level as defined in the active DPU Data Set) |
| PARAM - DPU Data Set ID  | 4   |
| PARAM - Revision ID      | 0   |
| INST - Table Set ID      | 0 (no calibration, nominal table set used)                    |
| INST - Redundancy Config | 127   |
|                          | nominal ICU   |
|                          | nominal DPU   |
|                          | nominal RFU   |
|                          | nominal HPA   |
|                          | nominal SFE   |
|                          | nominal SFE LNA   |
|                          | nominal signal path (from HPA_B)                              |
| N_L1A_MDR                | 606657  |
| N_L1A_MDR_B0             | 101114  |
| N_L1A_MDR_B1             | 101114  |
| N_L1A_MDR_B2             | 101114  |
| N_L1A_MDR_B3             | 101105  |
| N_L1A_MDR_B4             | 101105  |
| N_L1A_MDR_B5             | 101105  |
| N_GAPS                   | 24  |
| TOTAL_GAPS_SIZE          | 8403656   |
| N_HKTM_PACKETS_RECEIVED  | 16093   |
| N_F_NOISE                | 0   |
| N_F_PG                   | 0   |
| N_V_PG                   | 0   |
| N_F_FILTER               | 0   |
| N_V_FILTER               | 0   |
| N_F_PGP                  | 0   |
| N_F_NP                   | 0   |
| N_F_ORBIT                | 0   |
| N_F_ATTITUDE             | 0   |
| N_F_OMEGA                | 0   |
| N_F_MAN                  | 0   |
| N_F_OSV                  | 0   |
| N_F_E_TEL_PRES           | 0   |
| N_F_E_TEL_IR             | 0   |
| N_F_CE                   | 0   |
| N_V_CE                   | 0   |
| N_F_OA                   | 0   |
| N_F_TEL                  | 0   |
| N_F_REF                  | 0   |
| N_F_SA                   | 1054715   |
| N_F_LAND                 | 48307332  |
| N_F_GEO                  | 3260123   |
| N_F_SIGN                 | 0   |
| N_L1B_MDR                | 0   |
| N_EMPTY_S0_TRIP          | 0   |
| N_L1B_MDR_F              | 0   |
| N_EMPTY_S0_TRIP_F        | 0   |
| N_L1B_MDR_M              | 0   |

# L1A Product

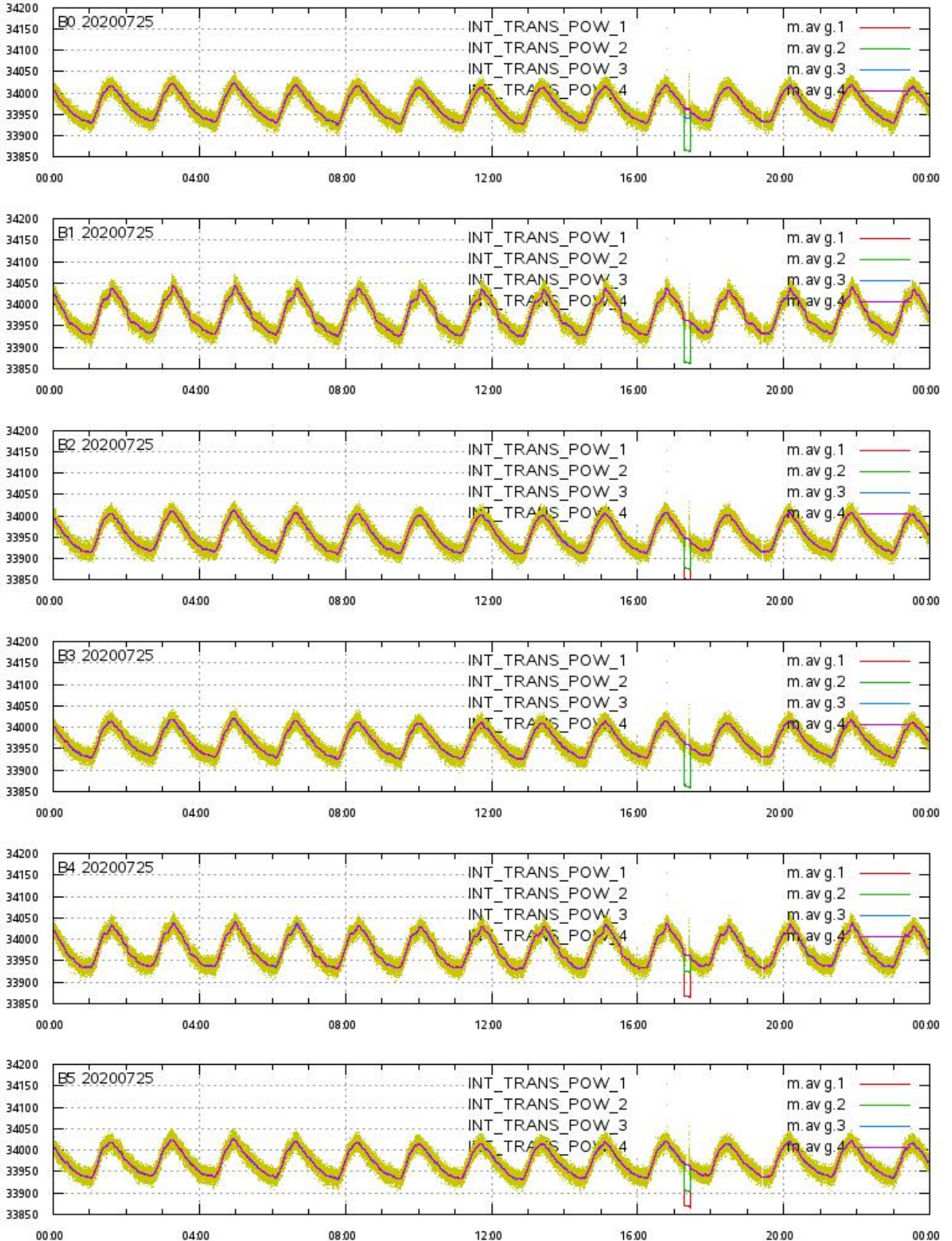
## Echo Data Coverage maps





# L1A Product

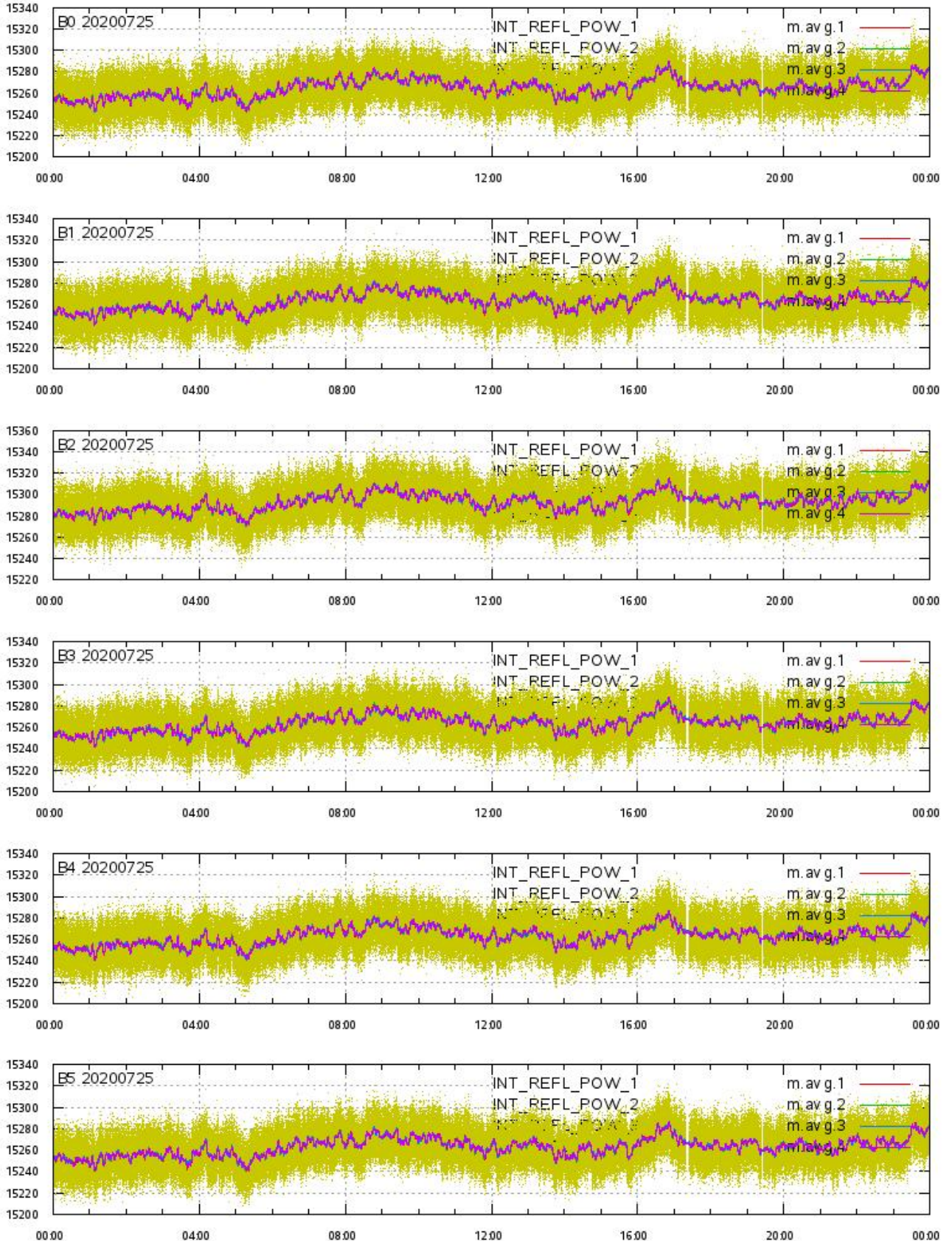
## Integrated Transmitted Powers 1-4 per beam 0-5 vs. UTC\_LOCALISATION





# L1A Product

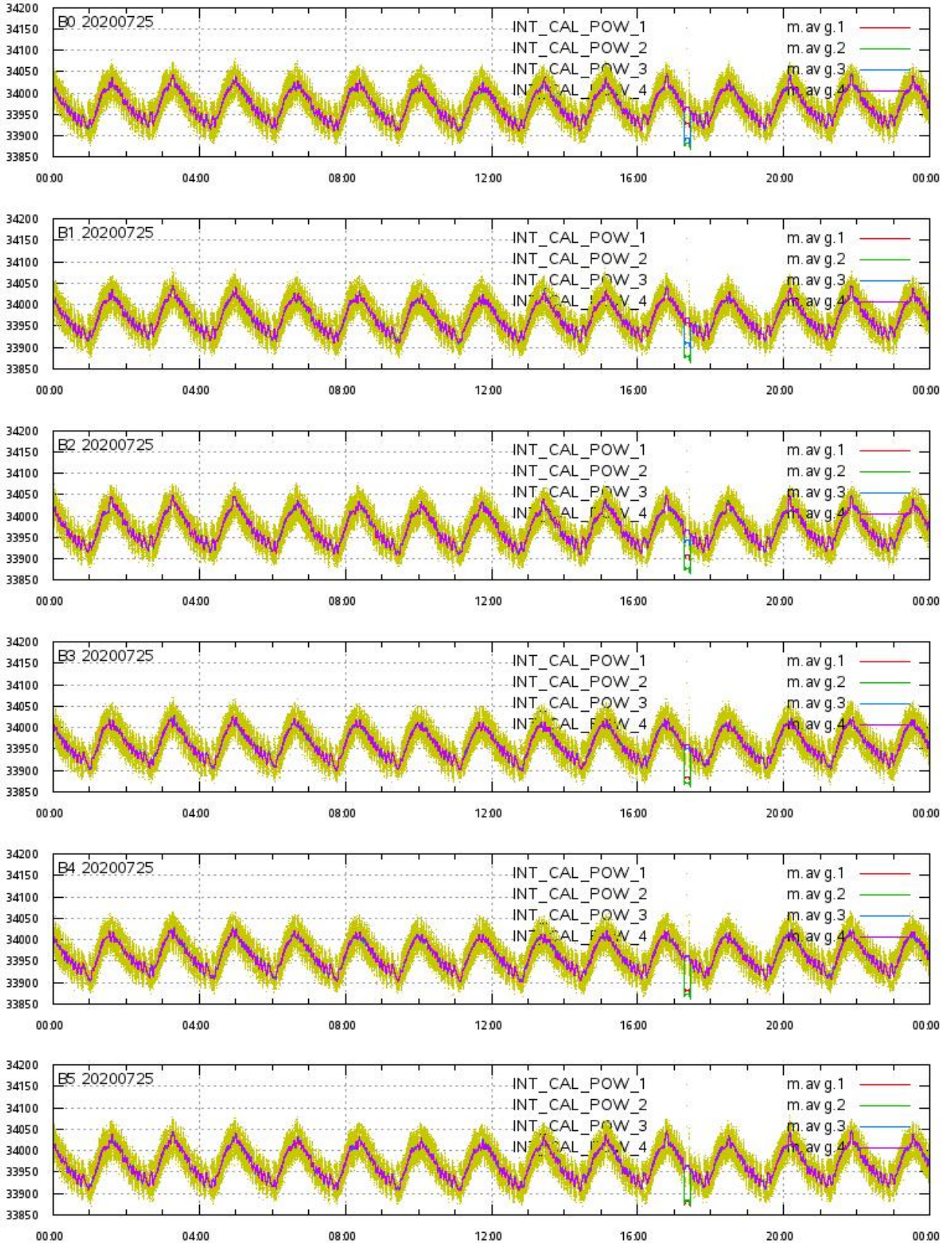
## Integrated Reflected Powers 1-4 per beam 0-5 vs. UTC\_LOCALISATION





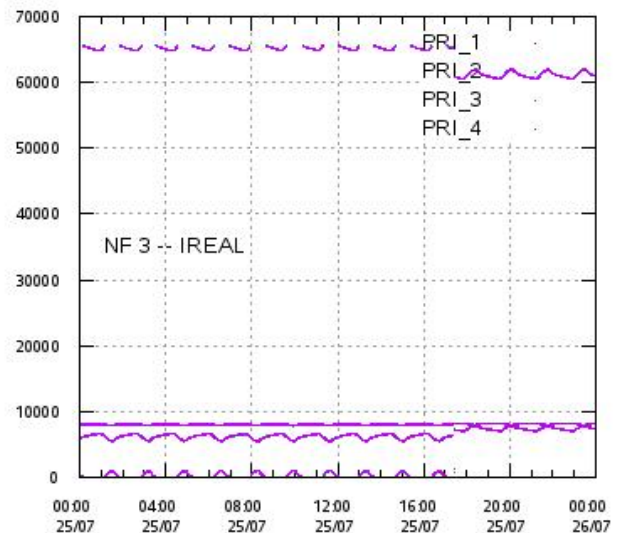
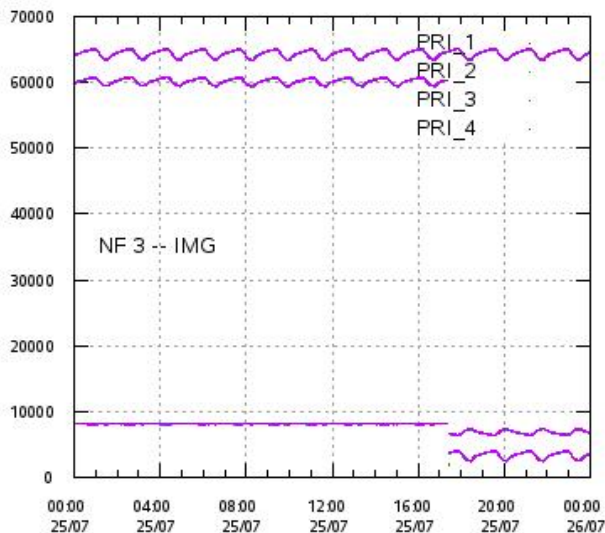
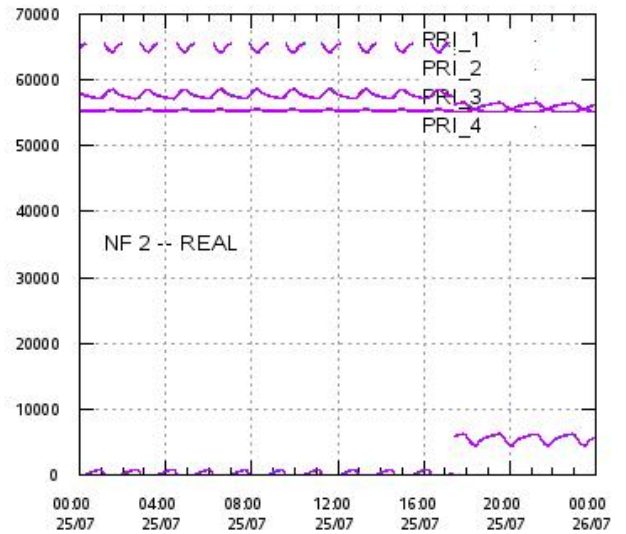
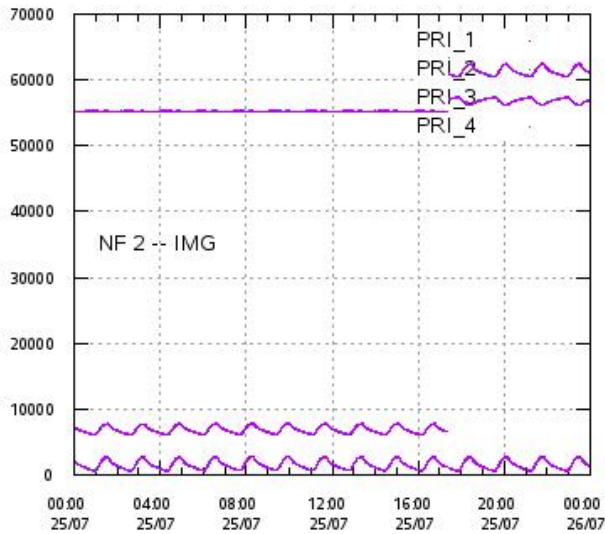
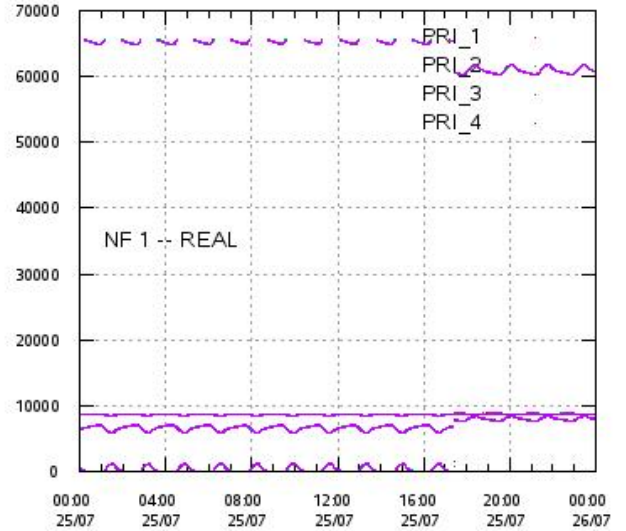
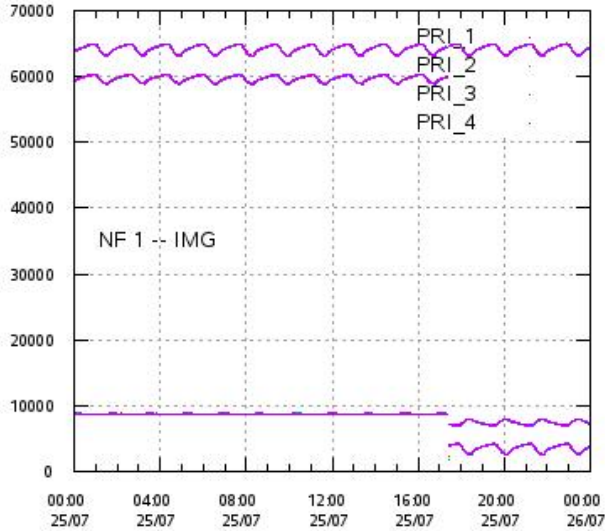
# L1A Product

## Integrated Calibration Powers 1-4 per beam 0-5 vs. UTC\_LOCALISATION



# L1A Product

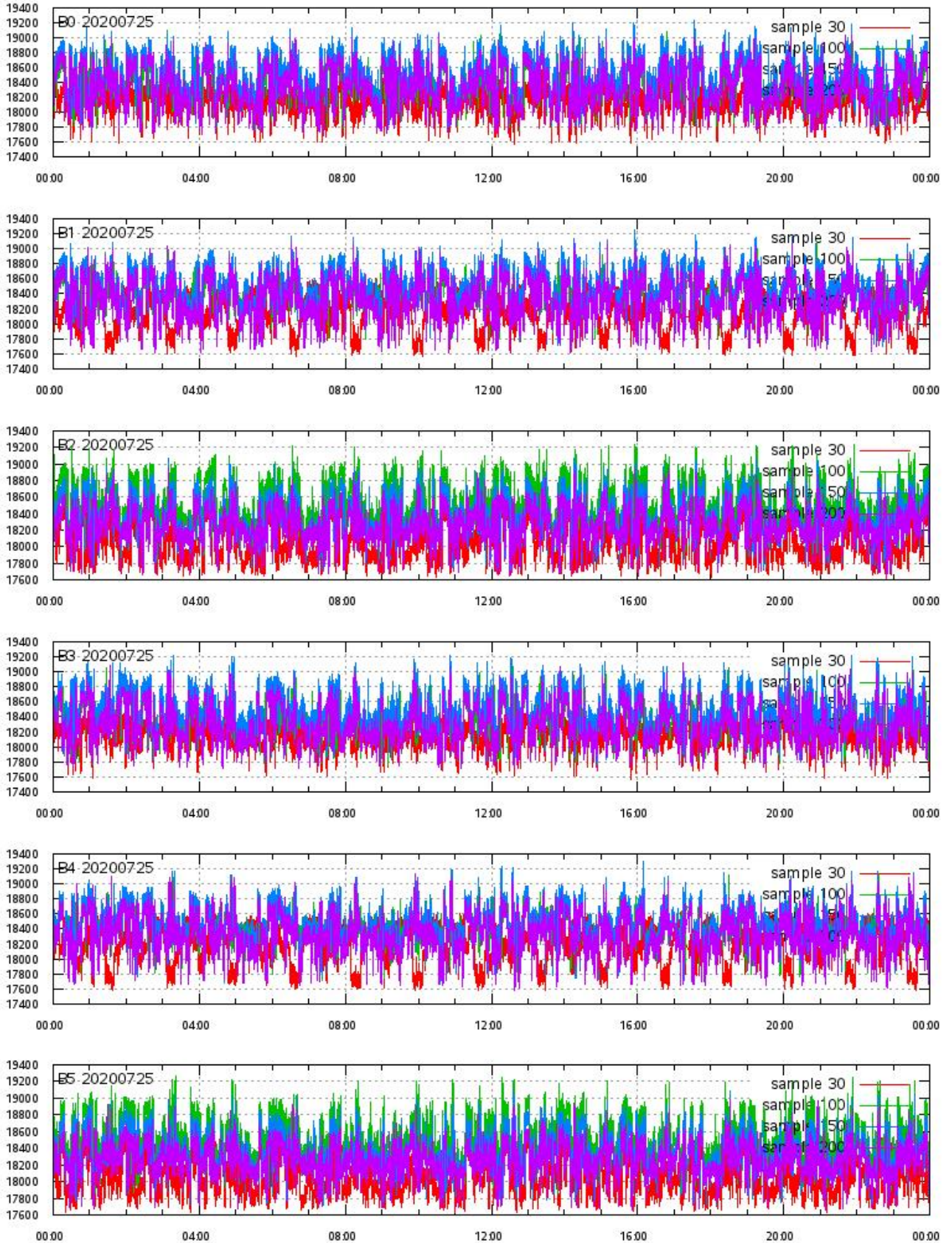
## Calibration Powers vs. UTC\_LOCALISATION





# L1A Product

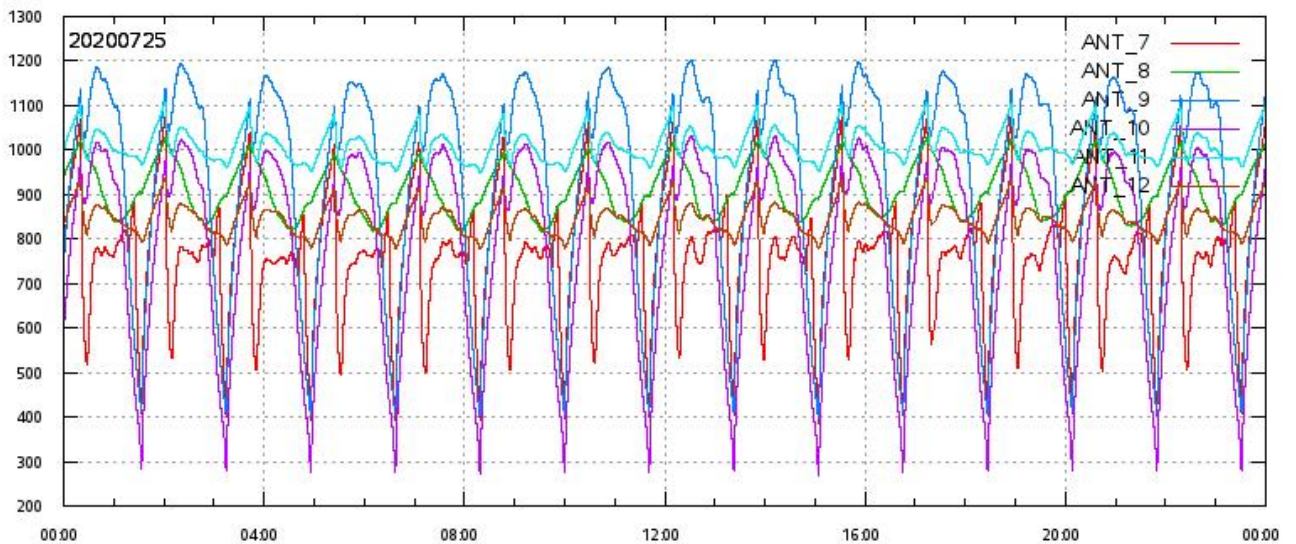
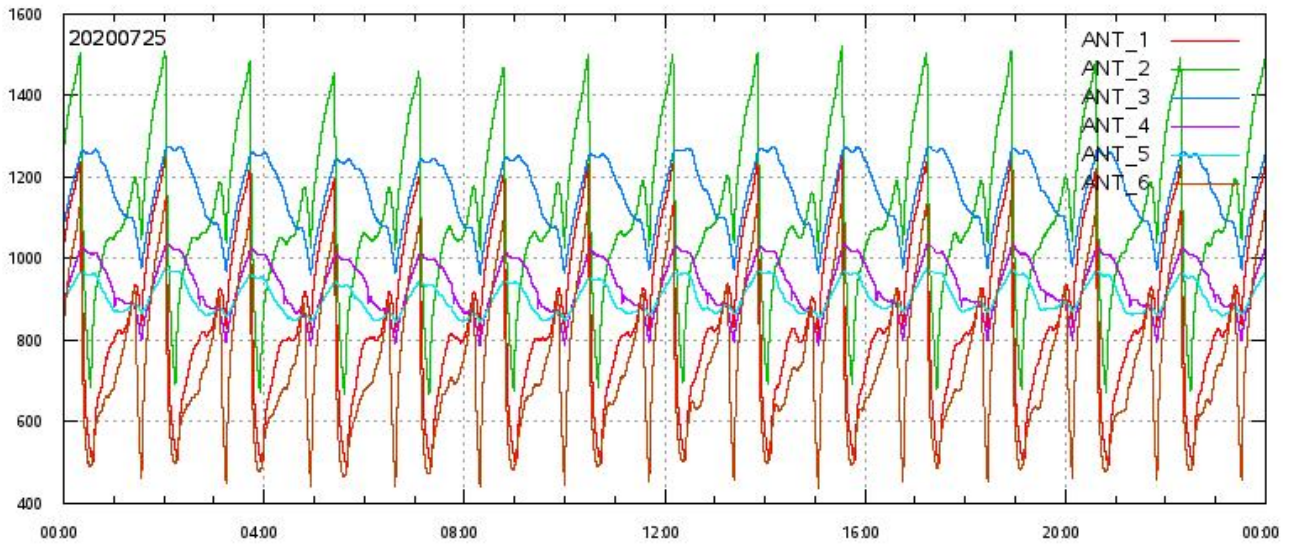
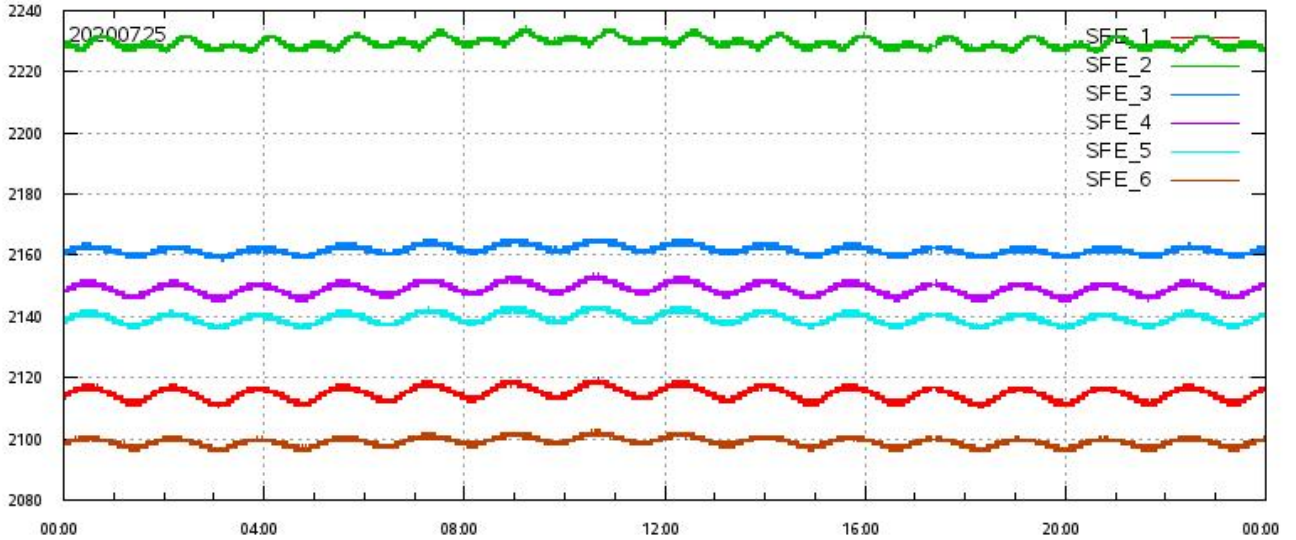
ECHO DATA (raw) for samples 30, 100, 150 and 200 vs. UTC\_LOCALISATION





# L1A Product

SFE & ANT Temperatures (raw) vs. UTC\_LOCALISATION

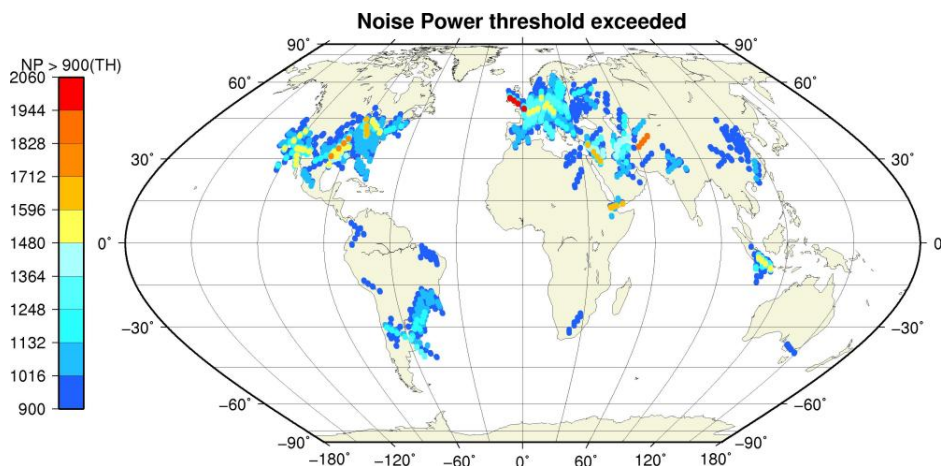
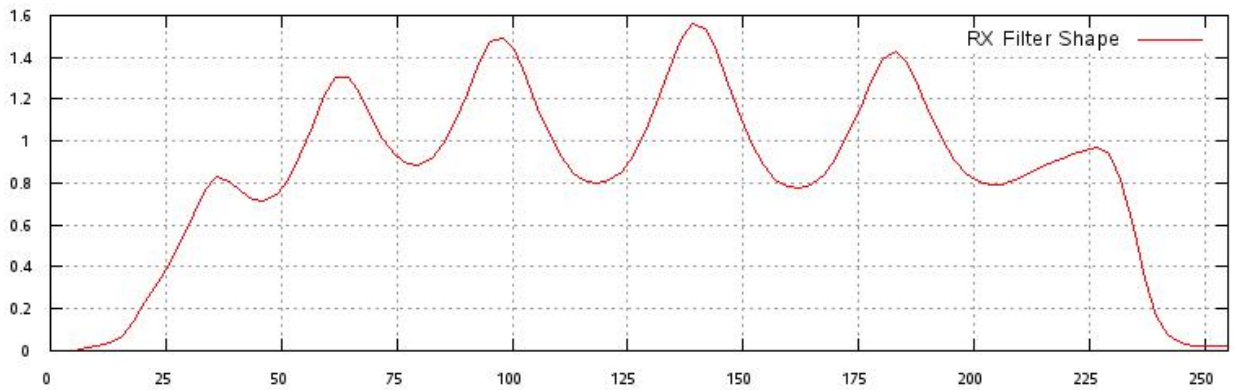
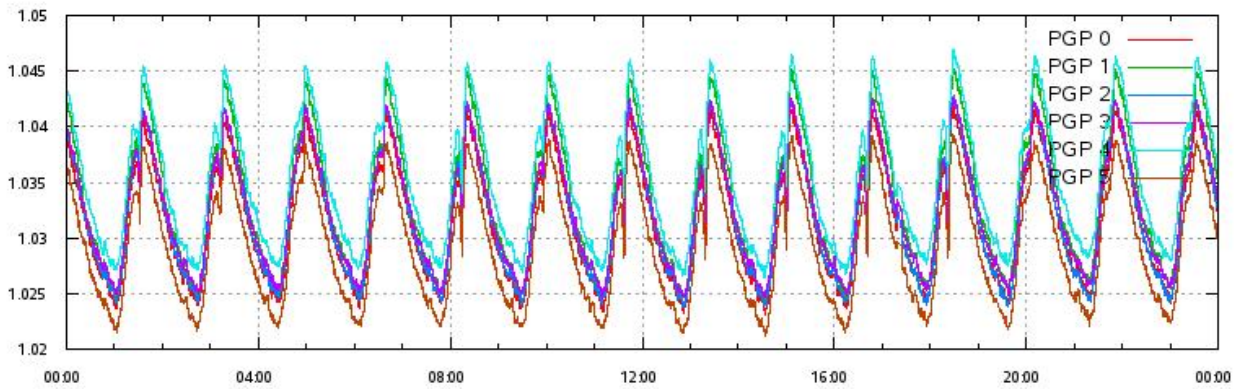
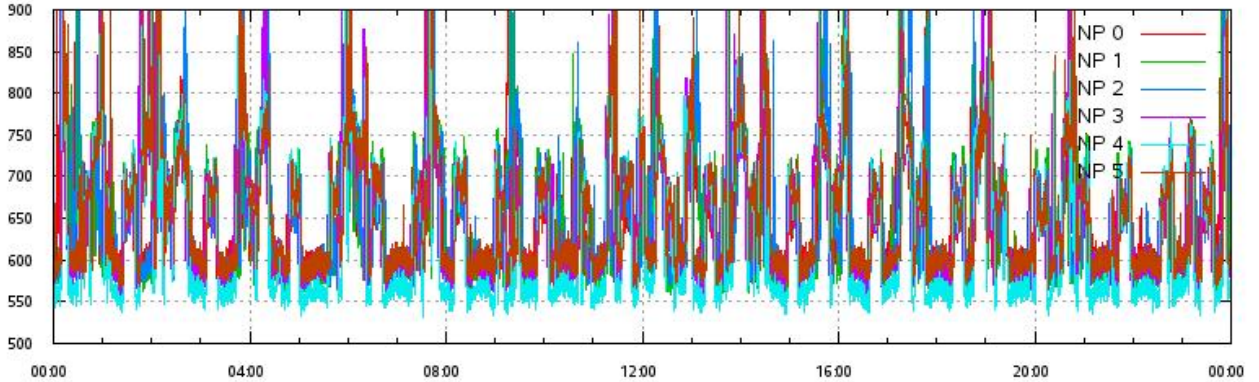


# L1A Product

Noise Power & Power Gain Product per beam 0-5 vs. UTC\_LOCALISATION

RX Filter Shape average over sample number

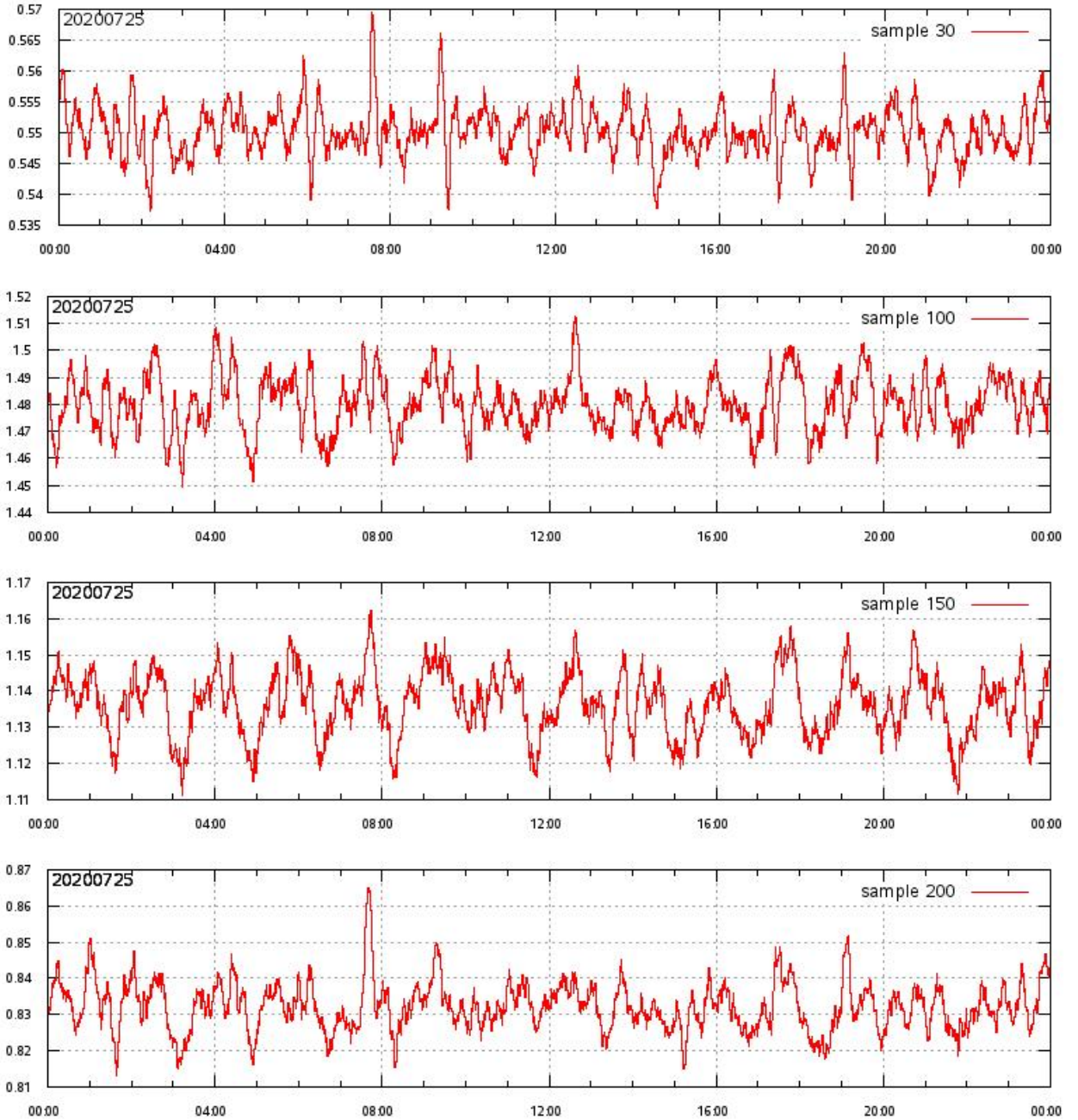
Noise Power threshold exceeded (TH=900) on map





# L1A Product

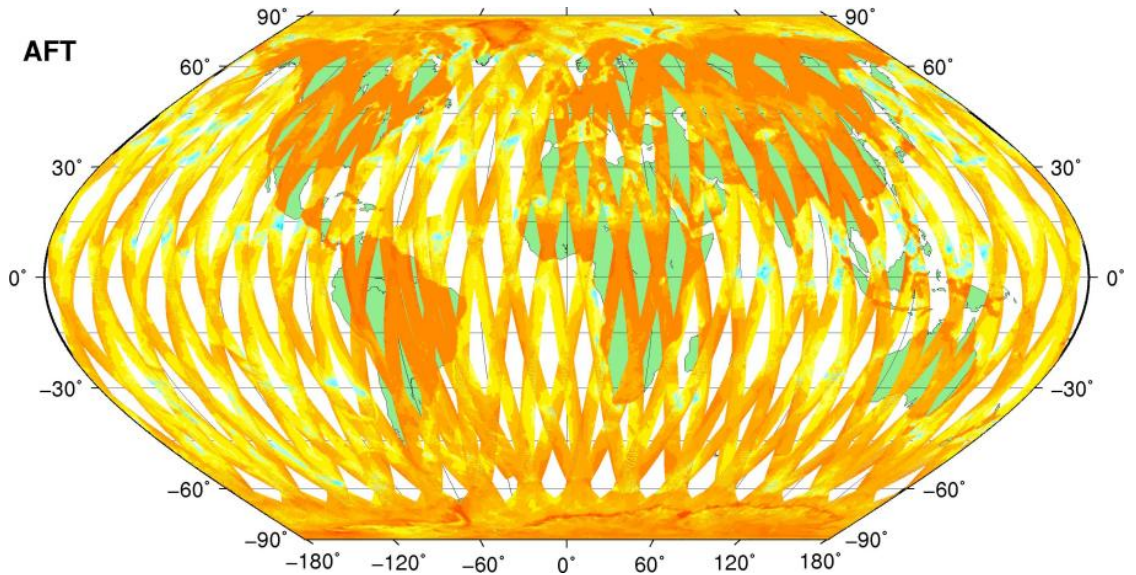
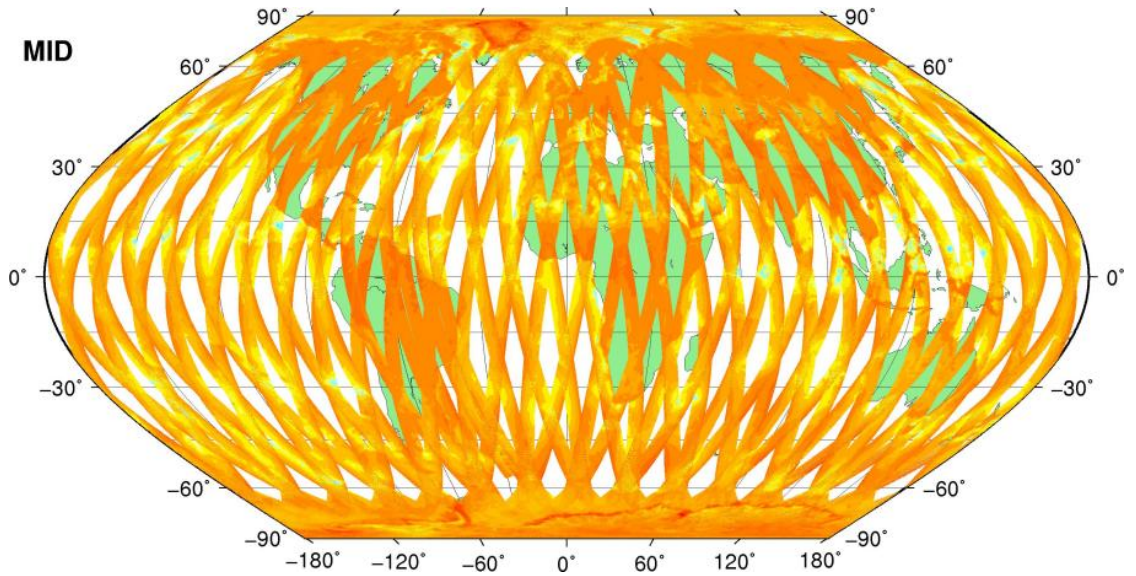
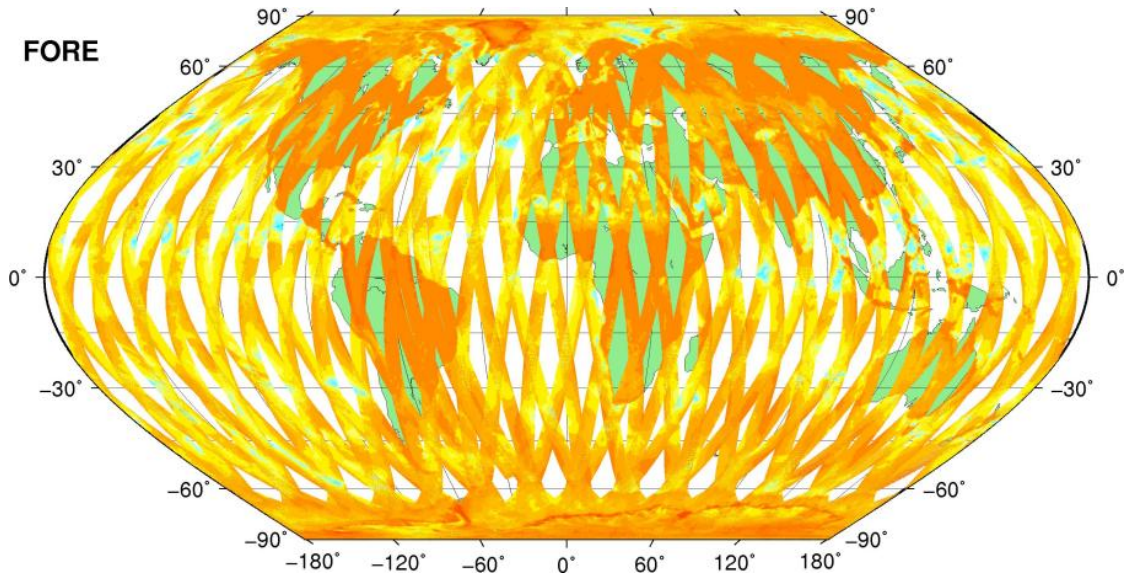
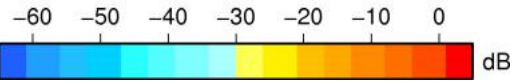
RX filter shape in detail for sample 30,100,150, 200 & max vs. UTC\_LOCALISATION



# SZO Product

Sigma0\_TRIP Coverage map

## SIGMA0\_TRIP Coverage



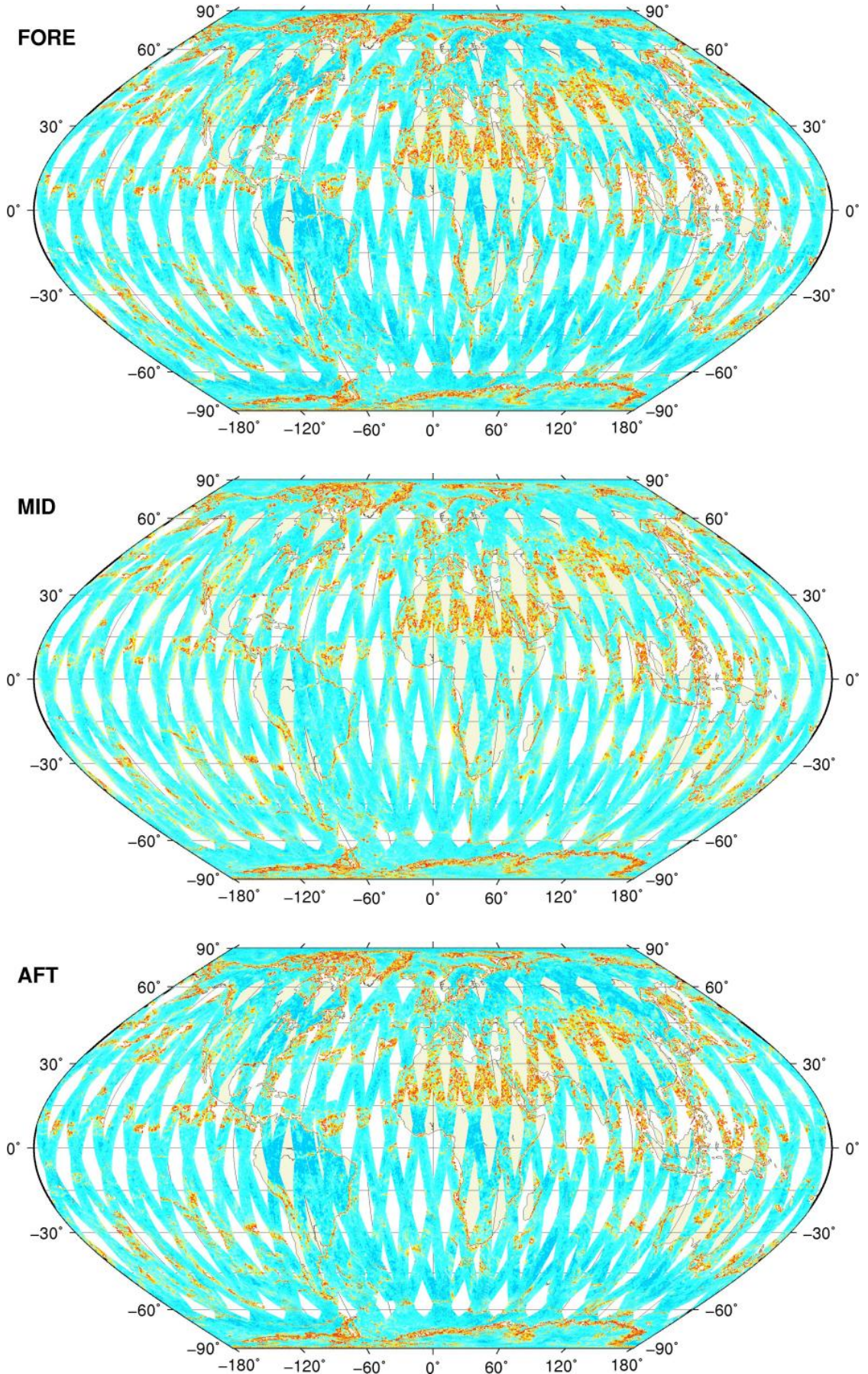


# SZO Product

## Kp Coverage map

### Kp Coverage

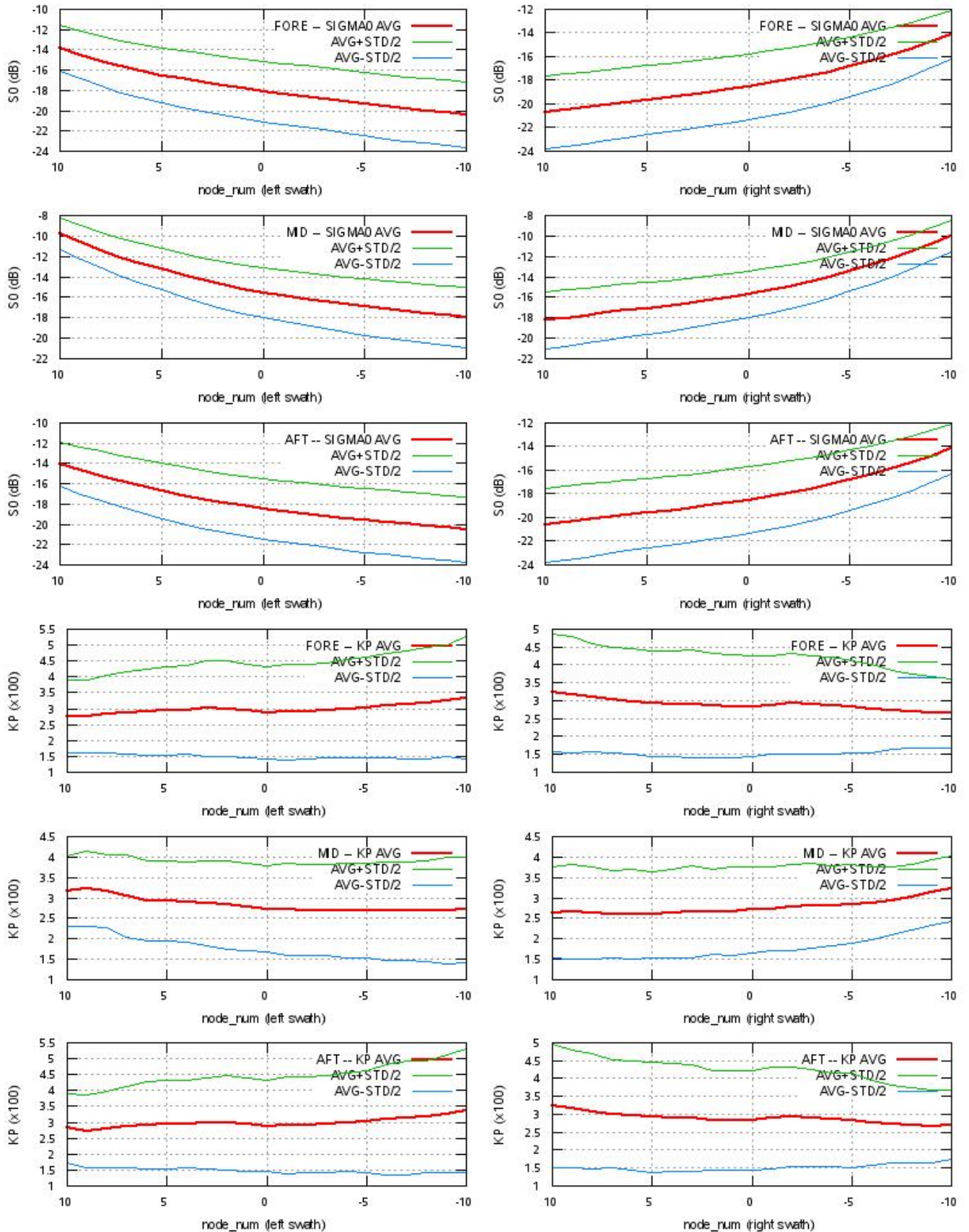
0.00 0.01 0.02 0.03 0.04 0.05 0.06





# SZO Product

## S0 - Kp Statistics





# SZO Product

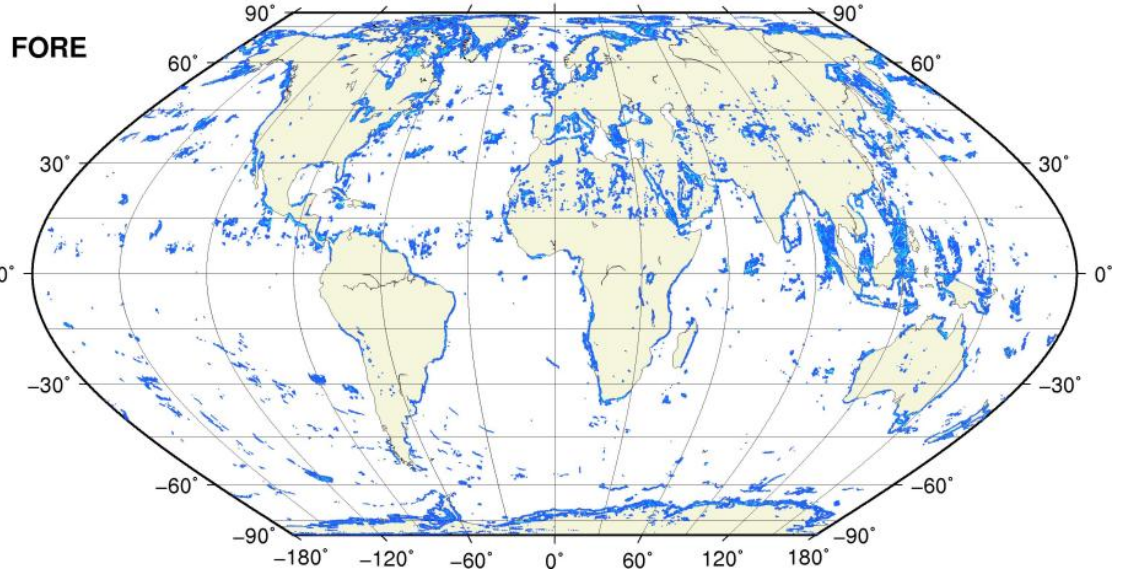
Kp Outliers on map

$0.06 < Kp < 1.0$

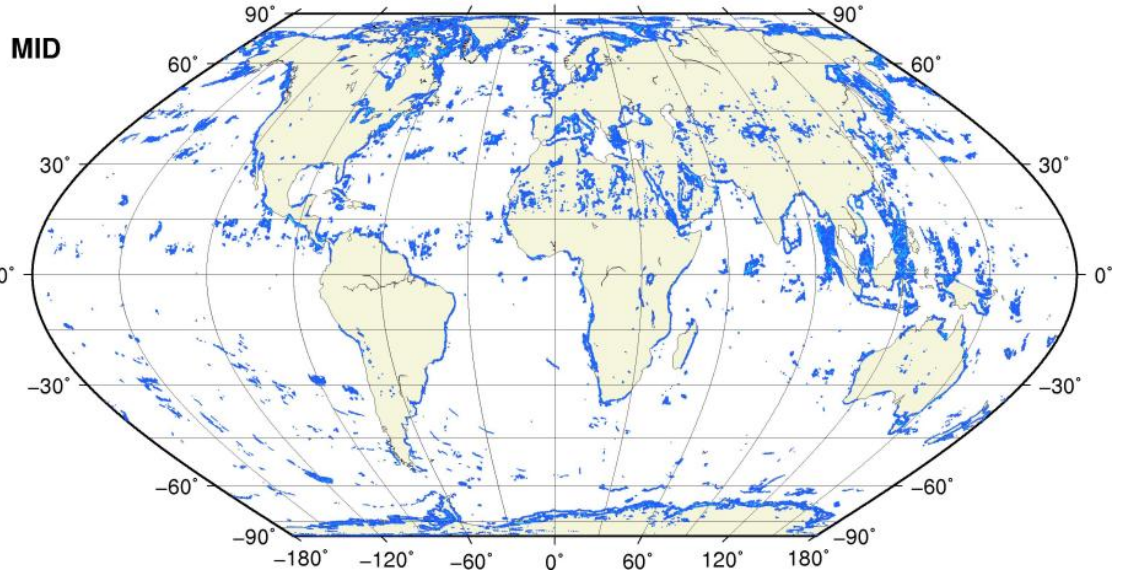
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0



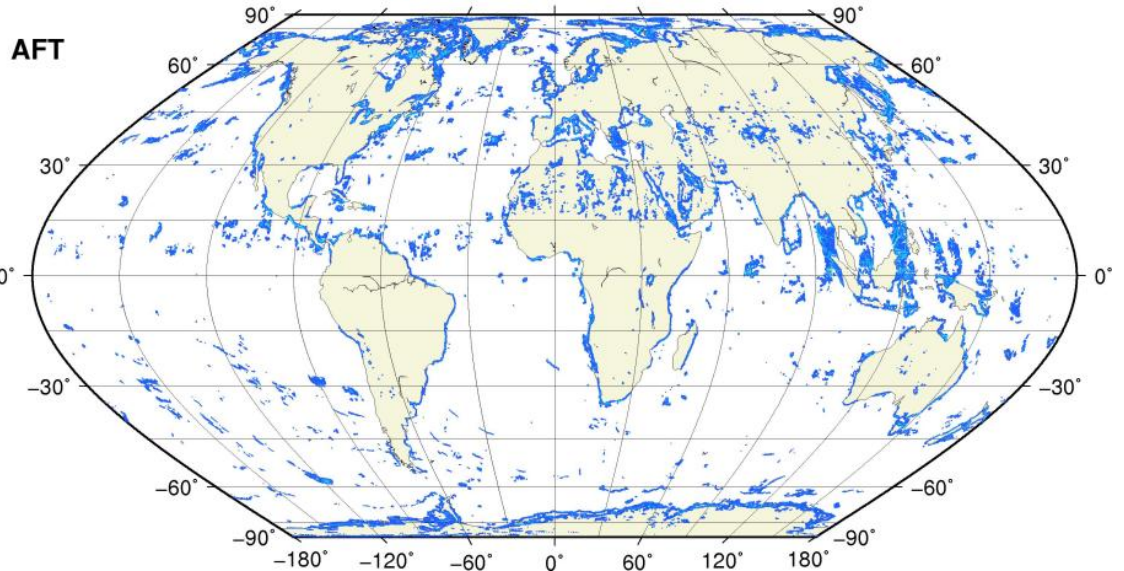
● KP = 1.0 #rec=0



● KP = 1.0 #rec=0



● KP = 1.0 #rec=0

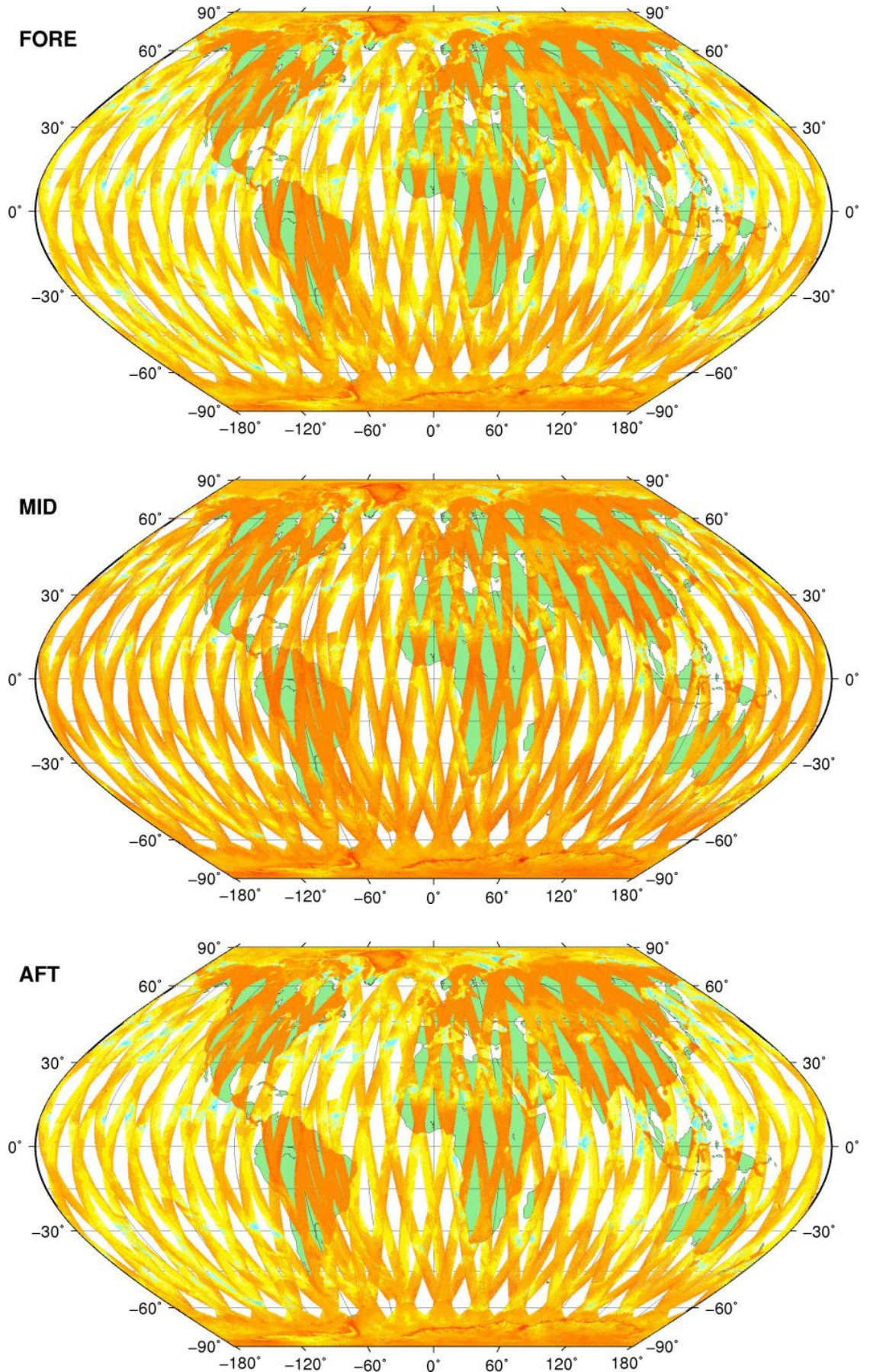




# SZR Product

Sigma0\_TRIP Coverage map

## SIGMA0\_TRIP Coverage

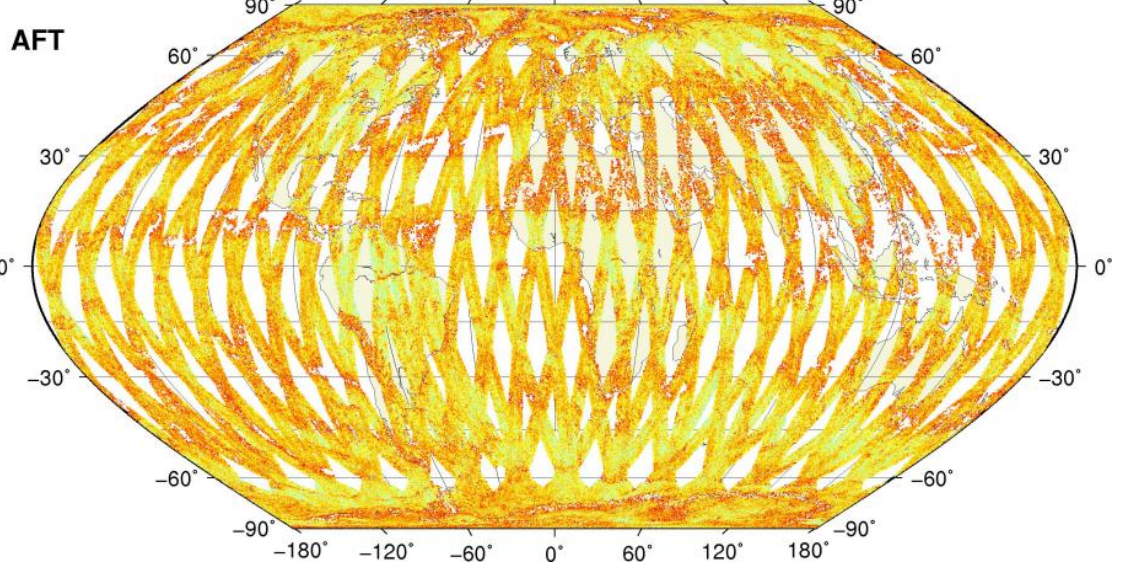
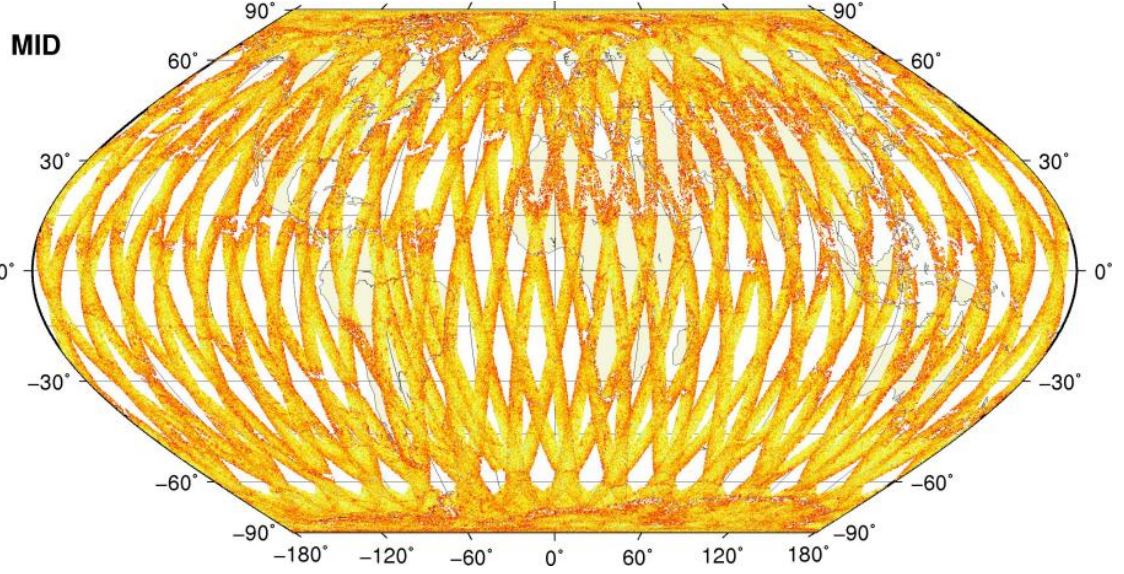
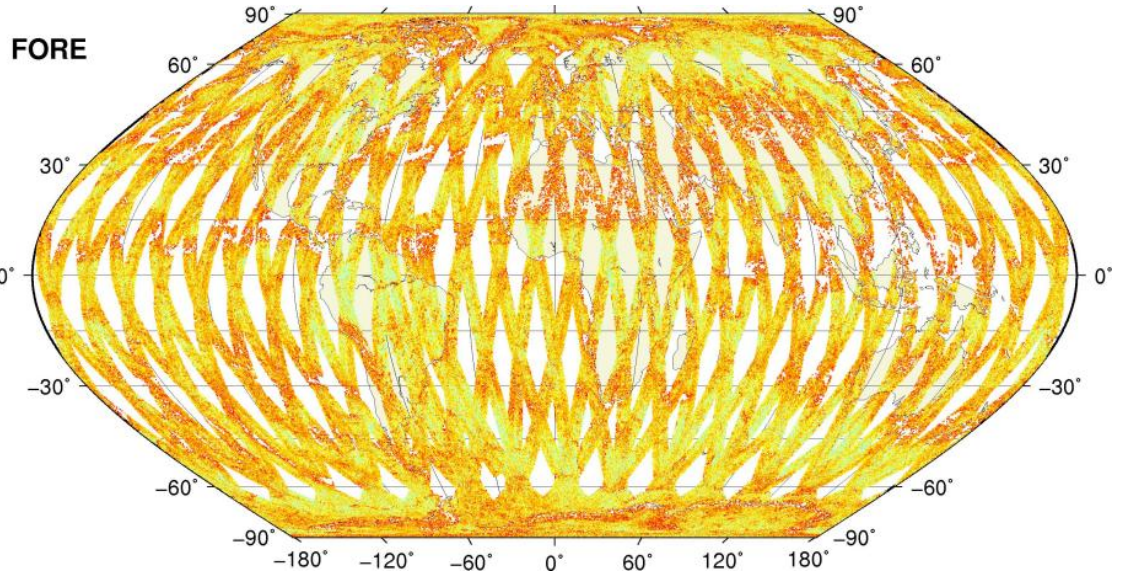




# SZR Product

Kp Coverage map

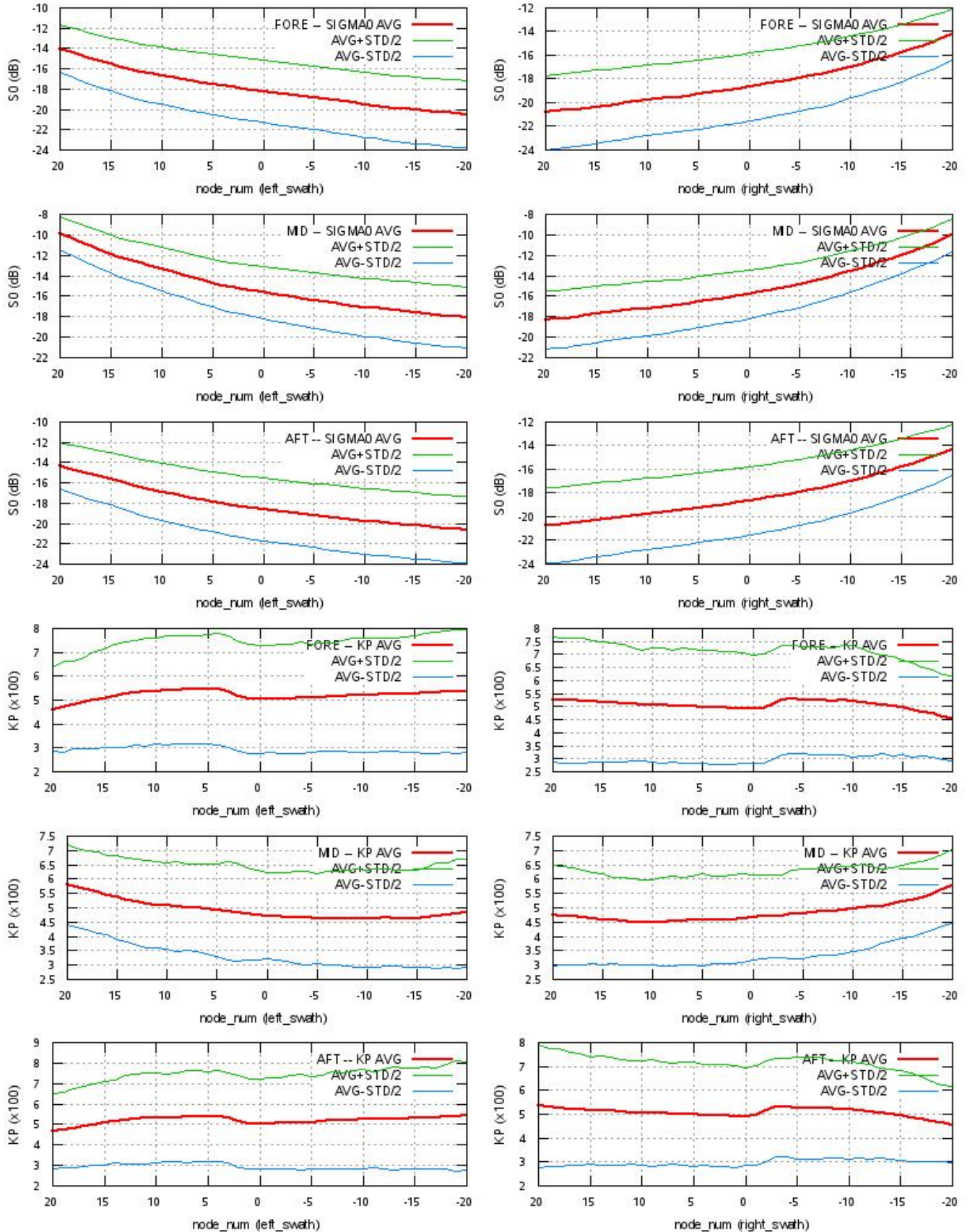
## Kp Coverage





# SZR Product

## S0 - Kp Statistics





# SZR Product

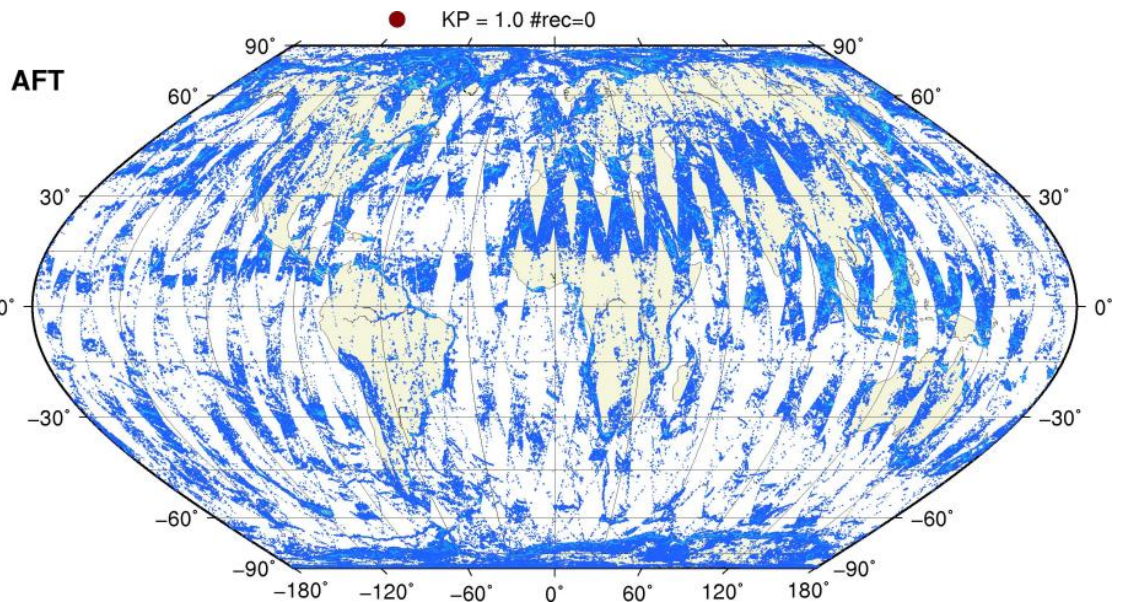
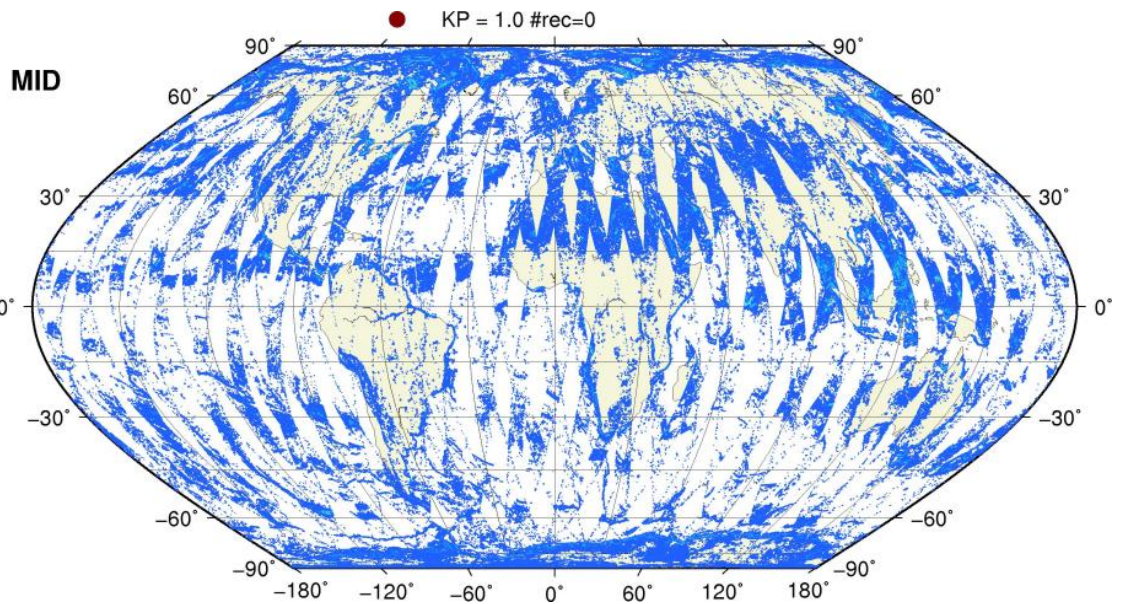
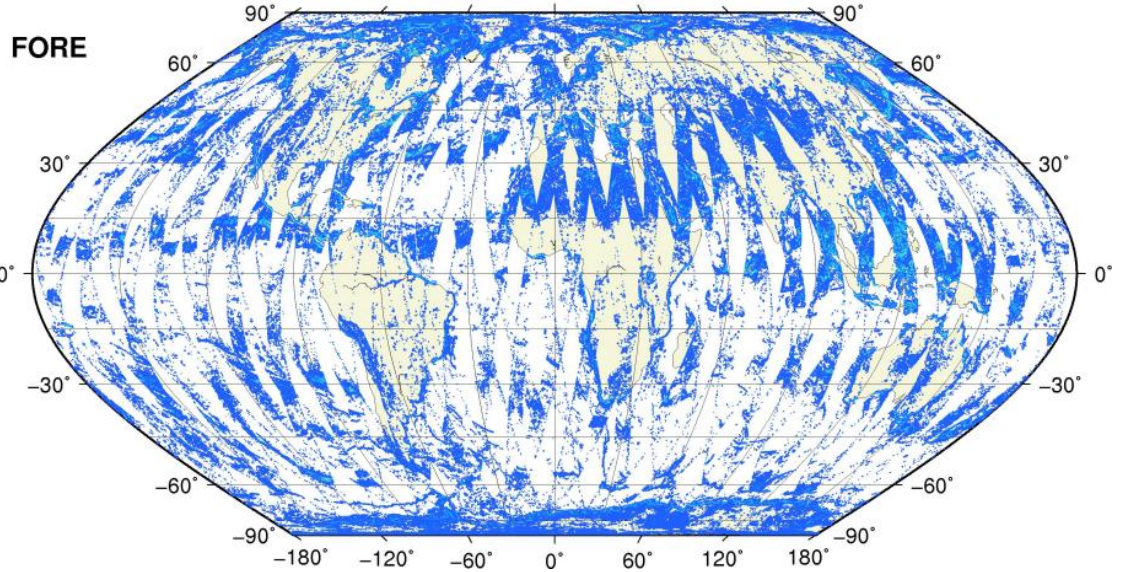
Kp Outliers on map

$0.06 < Kp < 1.0$

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0



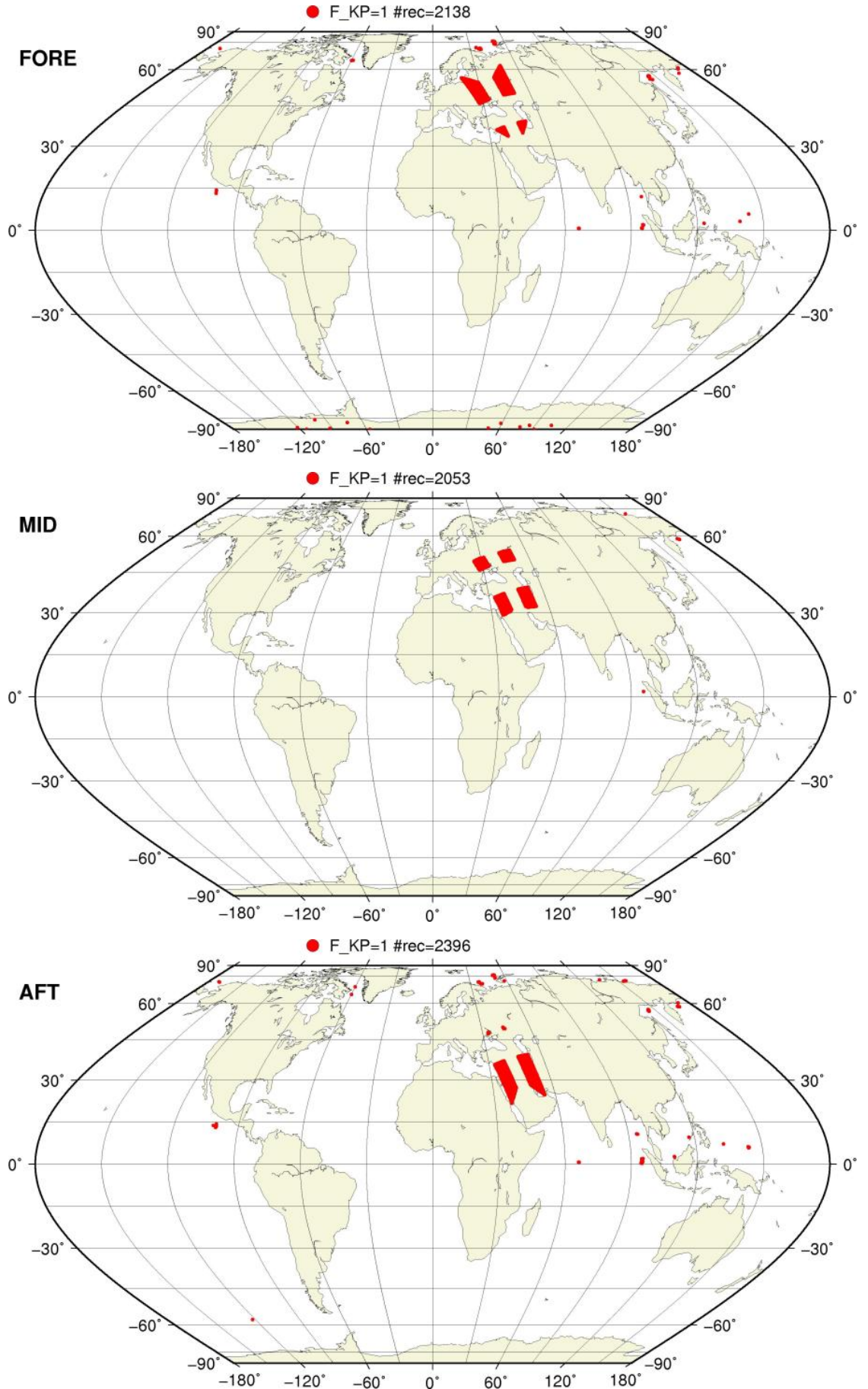
● KP = 1.0 #rec=0





# SZO Flagged Data Coverage

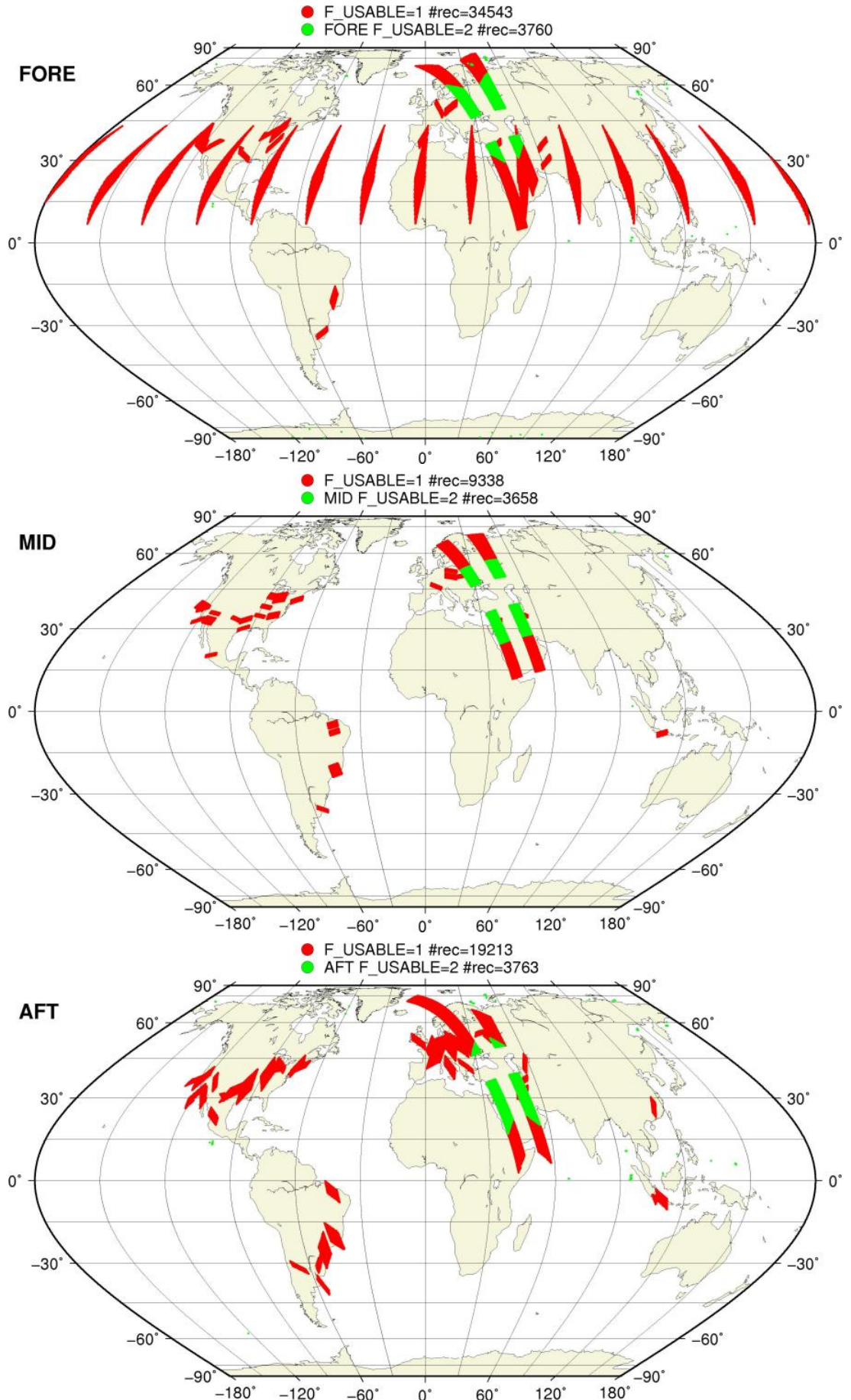
F\_KP = 1 on map





# SZO Flagged Data Coverage

F\_USABLE = 1 or 2 on map



# SZO Flagged Data Coverage

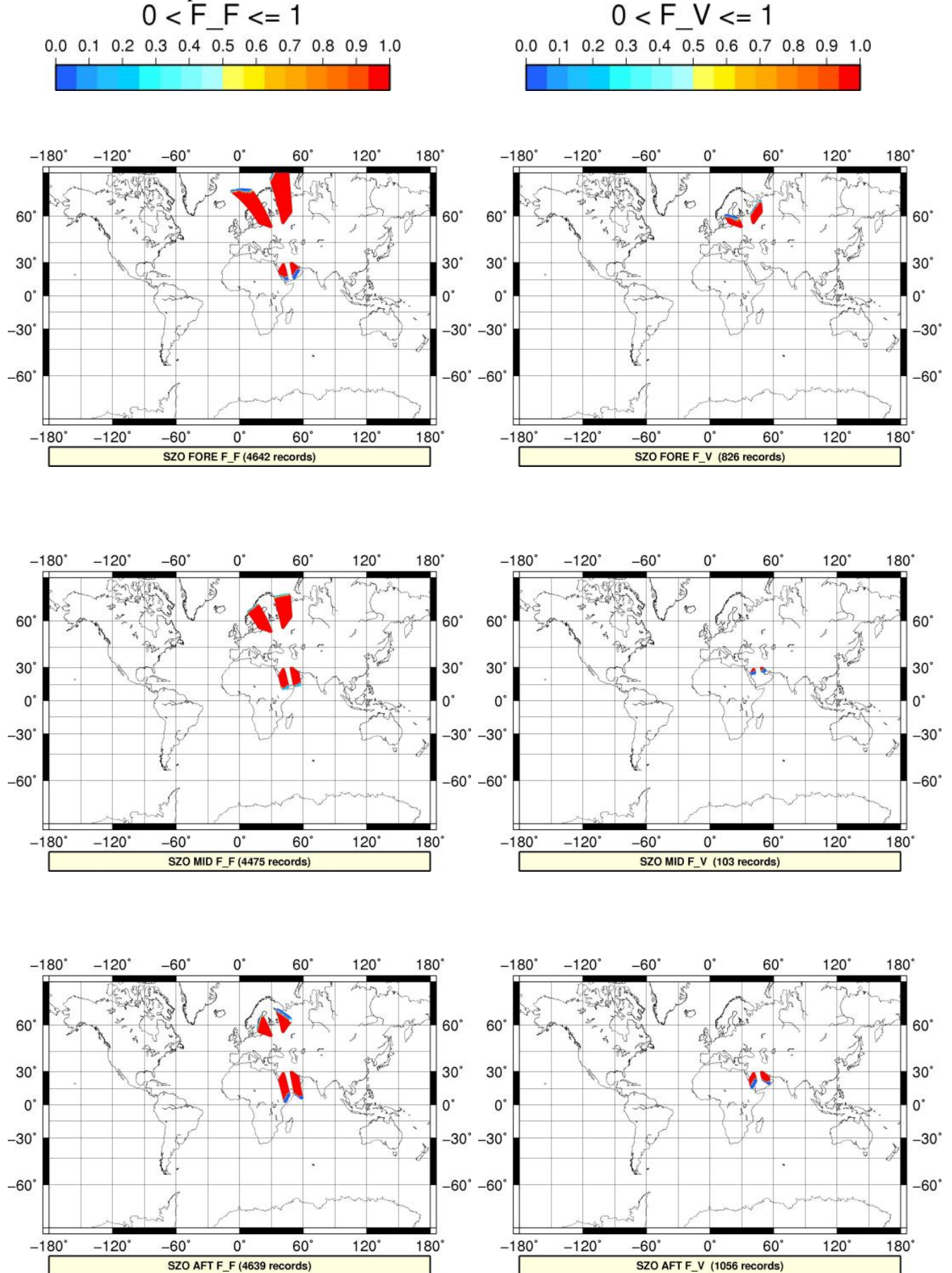
$0 < F_{OA} \leq 1$  on map





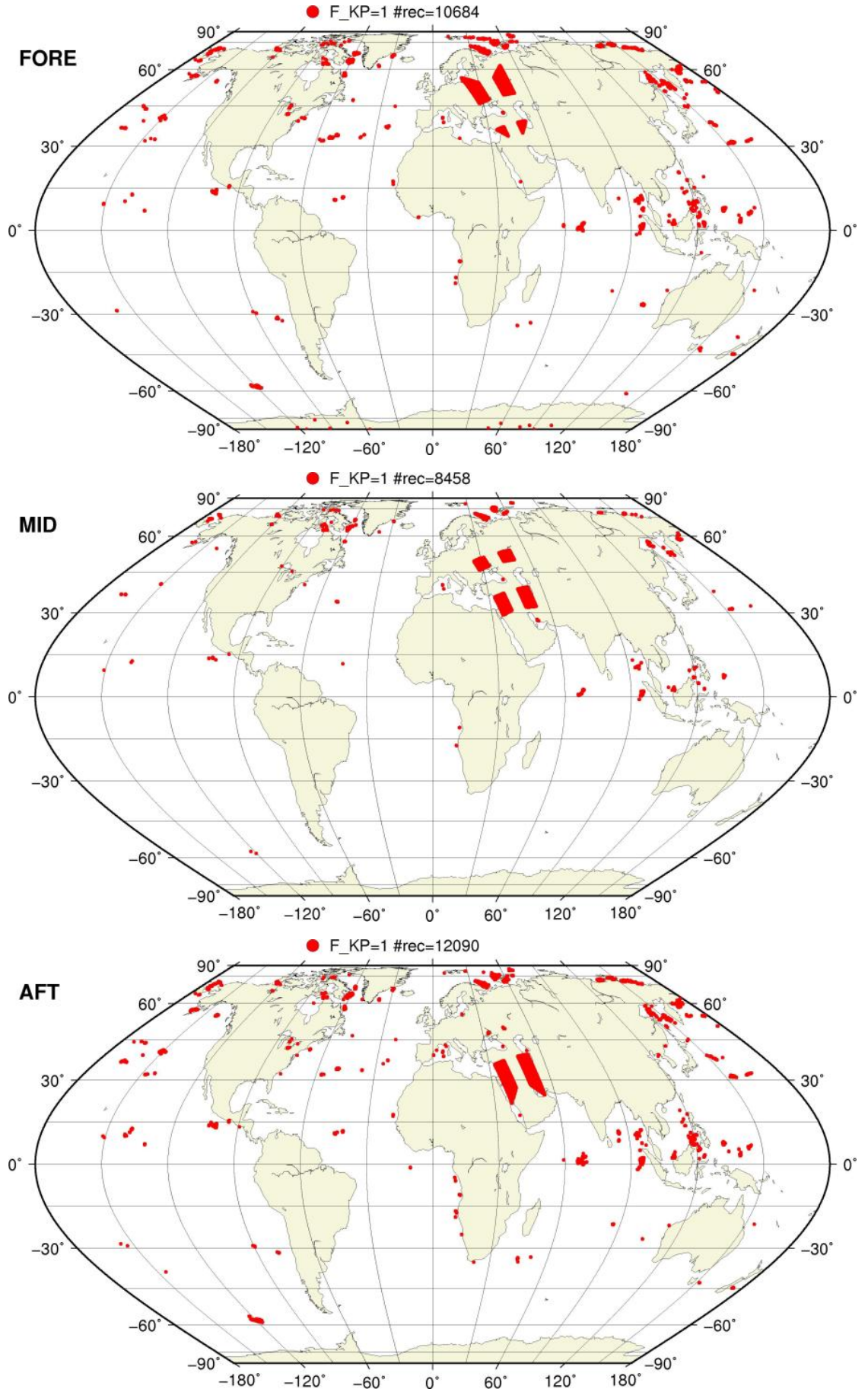
# SZO Flagged Data Coverage

$0 < F_{F/V} \leq 1$  on map



# SZR Flagged Data Coverage

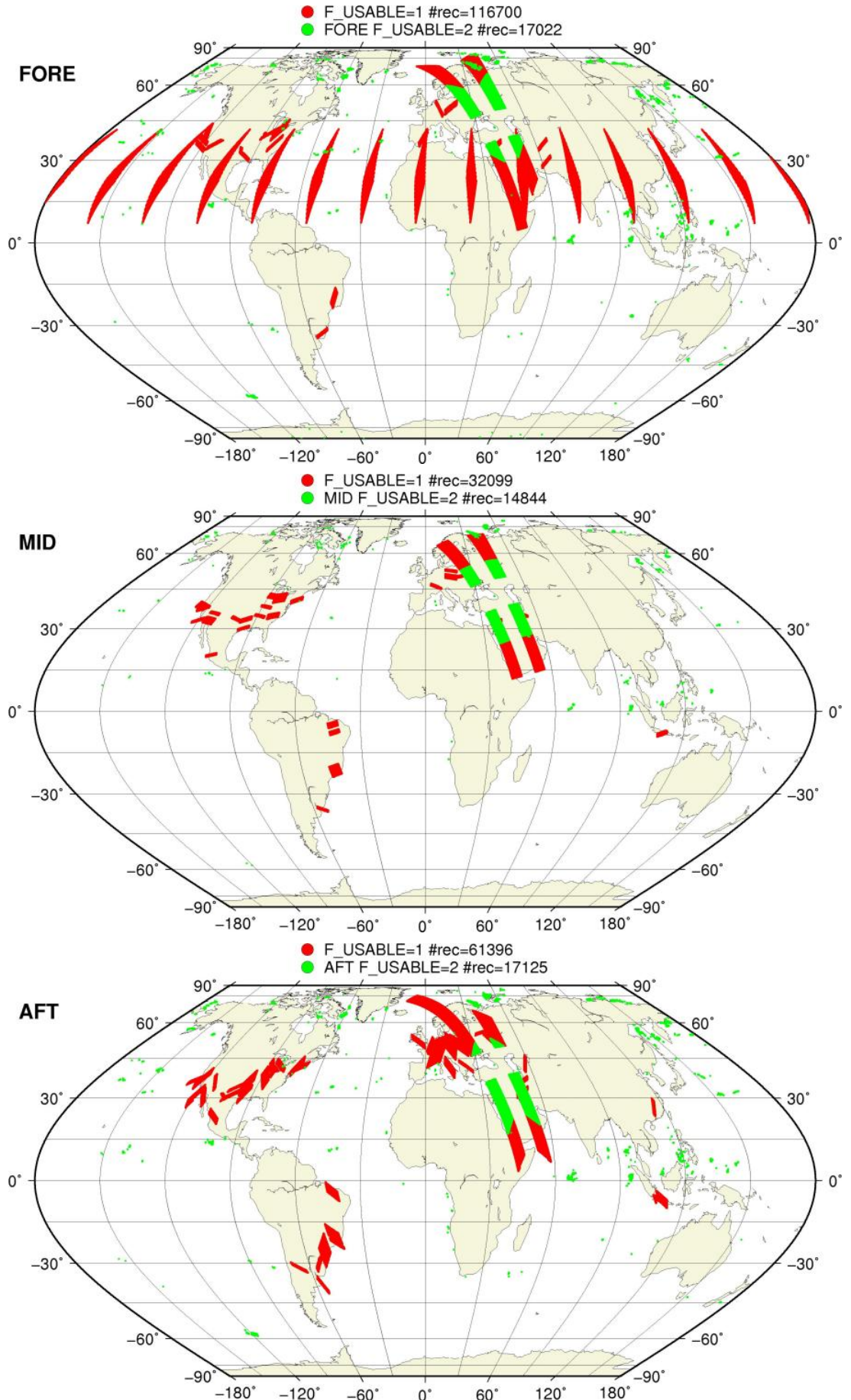
F\_KP = 1 on map





# SZR Flagged Data Coverage

F\_USABLE = 1 or 2 on map



# SZR Flagged Data Coverage

$0 < F_{OA} \leq 1$  on map





# SZR Flagged Data Coverage

$0 < F_{F/V} \leq 1$  on map

