- CS-1 status
- LBA modification for rain
- Results rain, lightning, sun?

23 May 2007 M.J. Norden

# CS-1 status

- HBA antenna field site preparation (CS-10)
  - Single dipoles are placed on 5 arms
  - Today all 6 tiles will be placed (1.6° field)
- All 48 LBA dipoles checked on CS-10
  F-connector 4N torque
- Signal pad Ant 15-x on CS-16 missing
  - Cable was damaged and replaced

#### HBA tile placement



# Defective cable CS-16



## Antenna 5 (RCU 0,1)

- plastic pipe around tension cord
- plastic pipe around EDPM spring



#### Antenna 6 (RCU 8,9) - plastic pipe only around tension cord



# Antenna 7 (RCU 16,17)

#### - plastic sleeve only around tension cord

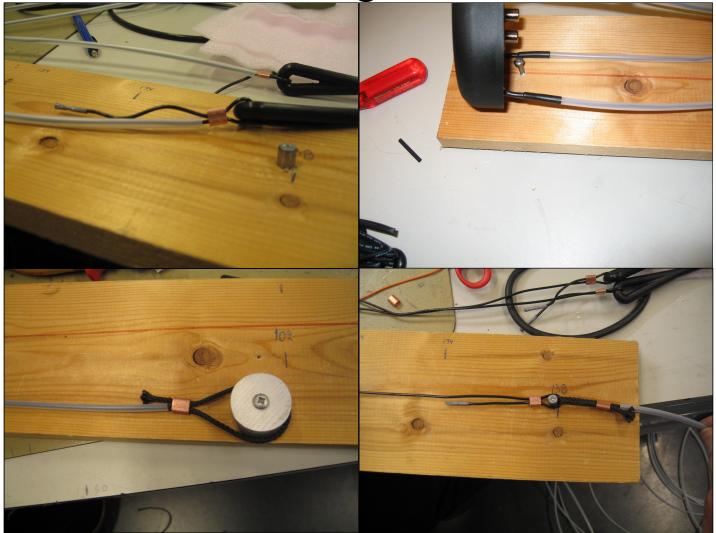


## Antenna 8 (RCU 24,25)

- plastic sleeves around dipole wires



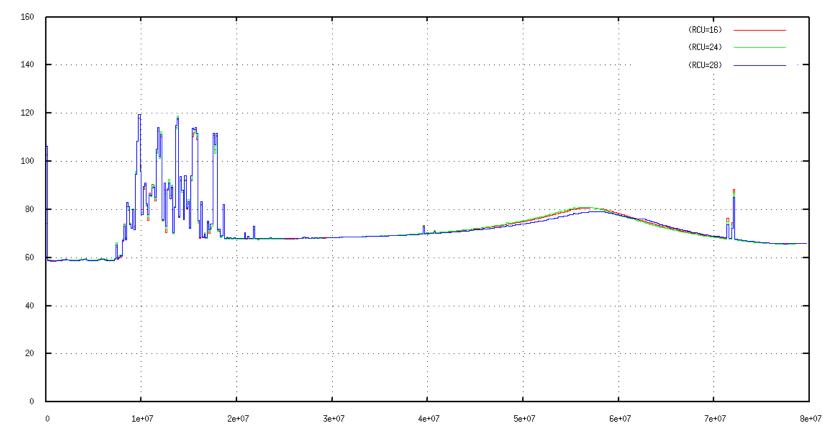
## Mounting details



## First results

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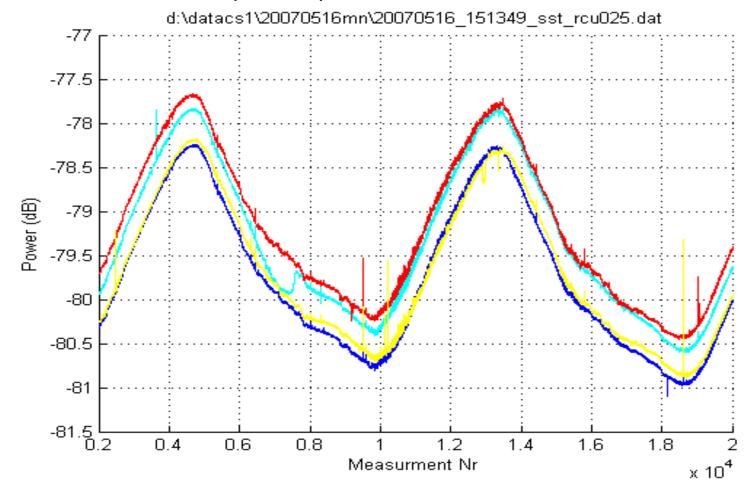
- RCU=16, Ant 7, sleeve around tension cord
- RCU=24, Ant 8, sleeve around dipole lower resonance
- RCU=28, normal antenna (lower gain and 63MHz problem)



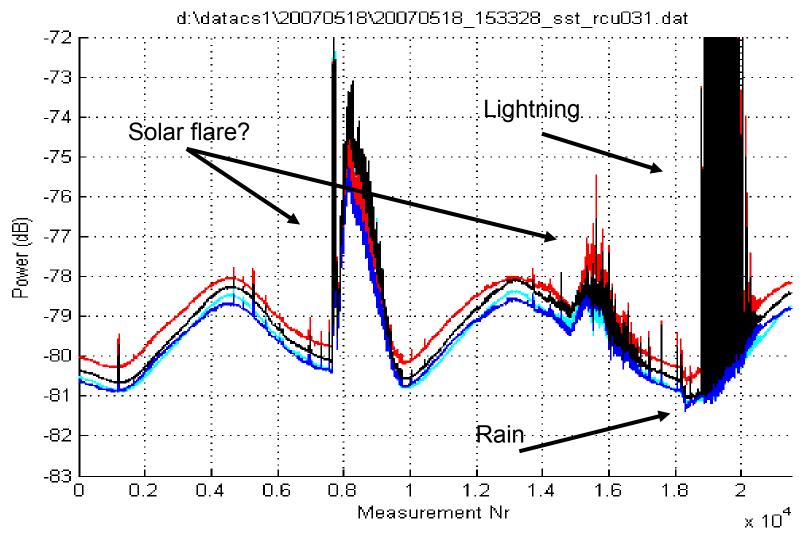
1178872936 - Fri, 11 May 2007 08:42:16 +0000

Two dry days F=59MHz

- Cyan : Ant5Y(rcu1) plastic pipe around tension cord & spring
- Blue : Ant6Y(rcu9) plastic pipe around tension cord
- Red : Ant7Y(rcu17) plastic sleeve around tension cord
- Yellow: Ant8Y(rcu25) plastic sleeve around dipole wires

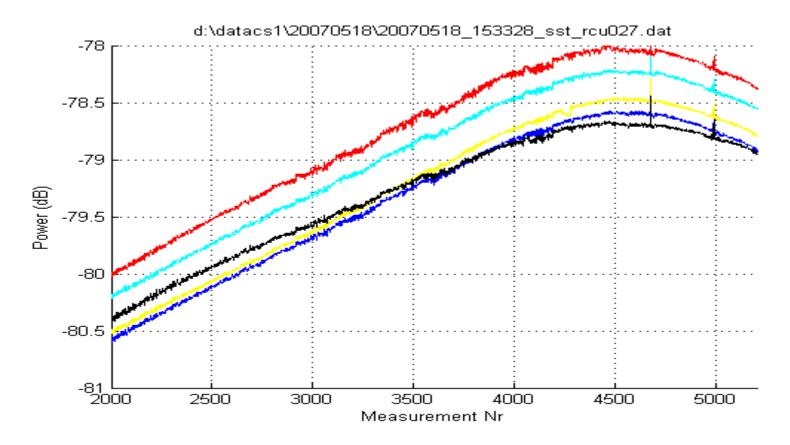


#### CS1 measurement (59MHz, 10 sec int) - from 18 May 15:33 UTC unit 21 may 04:33 UTC

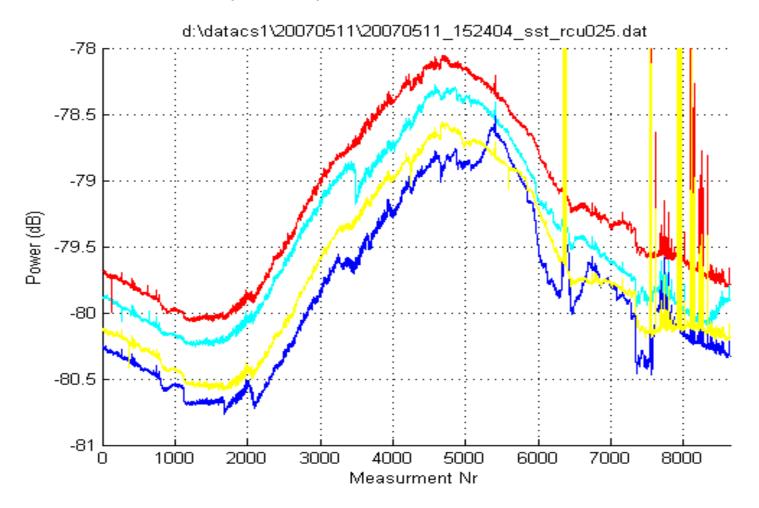


Very light rainfall between 3400 ... 4000 (F=59MHz)

- Cyan : Ant5Y(rcu1) plastic pipe around tension cord & spring
- Blue : Ant6Y(rcu9) plastic pipe around tension cord
- Red : Ant7Y(rcu17) plastic sleeve around tension cord
- Yellow: Ant8Y(rcu25) plastic sleeve around dipole wires
- Black : Ant (rcu27) reference antenna (original)



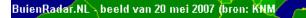
- Cyan : Ant5Y(rcu1) plastic pipe around tension cord & spring
- Blue : Ant6Y(rcu9) plastic pipe around tension cord
- Red : Ant7Y(rcu17) plastic sleeve around tension cord
- Yellow: Ant8Y(rcu25) plastic sleeve around dipole wires



## Lightning strokes above CS-1 (20 May 2007)

• O 🖬

**ENM**D



02:00

22:00

11

BuienRadar.NL beeld van 21 mei 2007 (bron: KNMI)

#### Lightning strokes above CS-1 (59MHz) - 18800 20 may 21:33 local time - 20328 21 may 02:00 local time d:\datacs1\20070518\20070518\_153328\_sst\_rcu027.dat -50 -55 -60 -65 <sup>o</sup>ower (dB) -70 -75 -80 -85 1.86 1.88 1.9 1.92 1.94 1.96 1.98 2 2.02 2.04 2.06 Measurement Nr x 10<sup>4</sup>

#### Lightning strokes above CS-1 (59MHz) - 19268..271 20 may 23:05 local time (only 4 times 10 seconds integration time)

