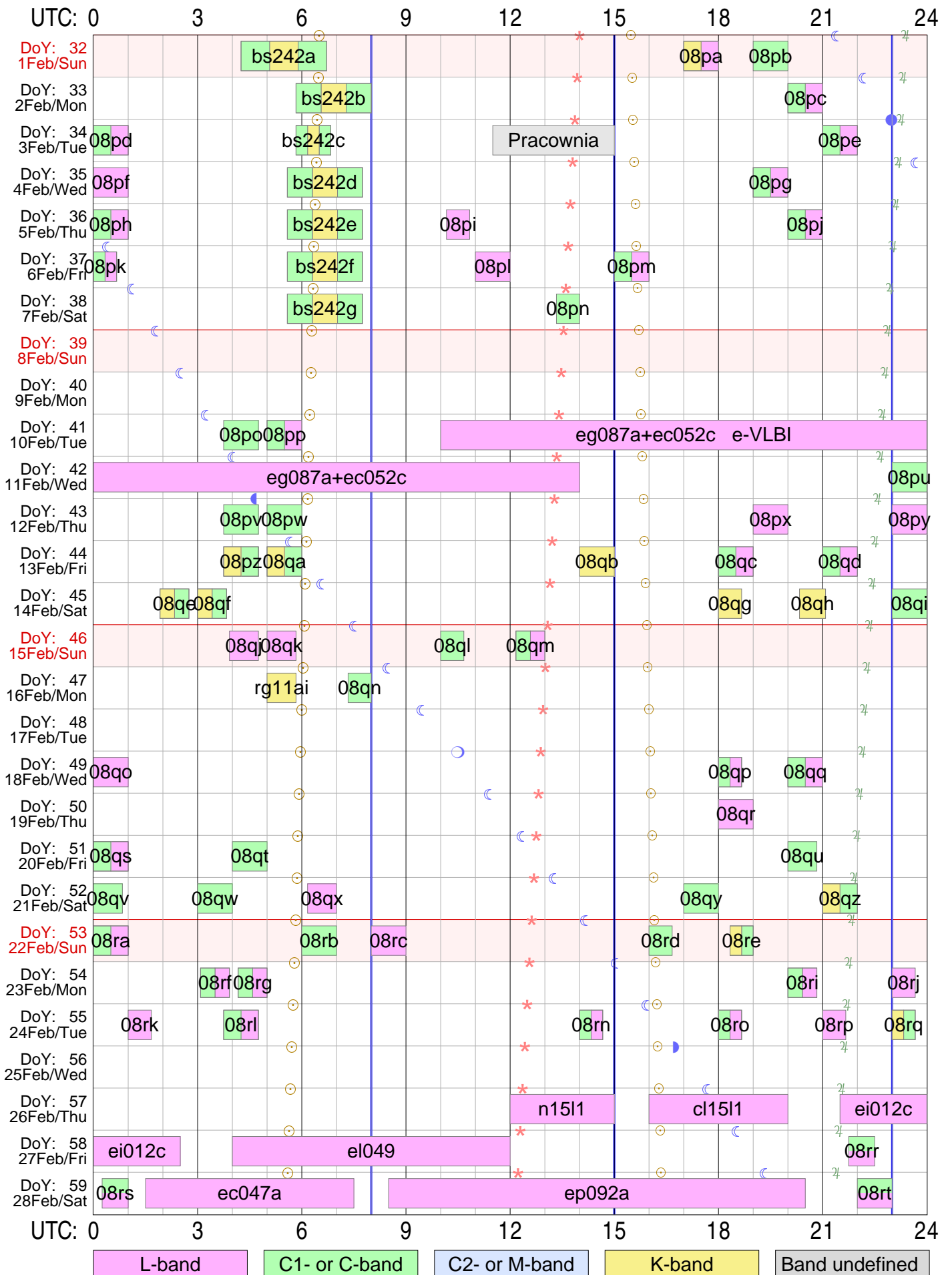


Tr VLBI plan for Feb 2015



Sky events at Tr: ☉ Sunrise & sunset ☾☽ Transit of Moon ♃ Transit of Jupiter ★ Transit of Aries (0h ST)

Vertical lines in blue mark operator shift times at Tr

Total observing time: 139.5 hours in 81 experiments scheduled

Initial characters 'rk' are omitted from RA experiment names!

Strona zostawiona celowo pusta

RadioAstron & EVN Experiments

February 2015

Użytkownik i hasło ftp dla logów i schedulów RA: grt K0&th%

ftp://webinet.asc.rssi.ru

Przykład dla log files: cd GRT_log_files/2014_09/2014_09_01_raks08ak

Przykład dla sched files: cd schedule/grtsched/RAKS/rk08ak

| DoY | D | M | WD | UT_Start | UT_Stop | Experiment | Band | Correlator |
|-----|----|----|-----|----------|---------|---------------|------|------------|
| | | | | h m | h m | name | | |
| 32 | 1 | 02 | Nie | 4 15 | 6 43 | bs242a | C<>K | Bonn |
| 32 | 1 | 02 | Nie | 17 00 | 18 00 | rk08pa | K>L | |
| 32 | 1 | 02 | Nie | 19 00 | 20 00 | rk08pb | C | |
| 33 | 2 | 02 | Pon | 5 50 | 8 00 | bs242b | C<>K | Bonn |
| 33 | 2 | 02 | Pon | 20 00 | 21 00 | rk08pc | C>L | |
| 34 | 3 | 02 | Wto | 0 00 | 1 00 | rk08pd | C>L | |
| 34 | 3 | 02 | Wto | 5 50 | 6 50 | bs242c | C<>K | Bonn |
| 34 | 3 | 02 | Wto | 21 00 | 22 00 | rk08pe | C>L | |
| 35 | 4 | 02 | Sro | 0 00 | 1 00 | rk08pf | L | |
| 35 | 4 | 02 | Sro | 5 35 | 7 45 | bs242d | C<>K | Bonn |
| 35 | 4 | 02 | Sro | 19 00 | 20 00 | rk08pg | C>L | |
| 36 | 5 | 02 | Czw | 0 00 | 1 00 | rk08ph | C>L | |
| 36 | 5 | 02 | Czw | 5 35 | 7 45 | bs242e | C<>K | Bonn |
| 36 | 5 | 02 | Czw | 10 10 | 10 50 | rk08pi | L | |
| 36 | 5 | 02 | Czw | 20 00 | 21 00 | rk08pj | C>L | |
| 37 | 6 | 02 | Pia | 0 00 | 0 40 | rk08pk | C>L | |
| 37 | 6 | 02 | Pia | 5 35 | 7 45 | bs242f | C<>K | Bonn |
| 37 | 6 | 02 | Pia | 11 00 | 12 00 | rk08pl | L | |
| 37 | 6 | 02 | Pia | 15 00 | 16 00 | rk08pm | C>L | |
| 38 | 7 | 02 | Sob | 5 35 | 7 45 | bs242g | C<>K | |
| 38 | 7 | 02 | Sob | 13 20 | 14 00 | rk08pn | C | |
| 41 | 10 | 02 | Wto | 3 45 | 4 45 | rk08po | C | |
| 41 | 10 | 02 | Wto | 5 00 | 6 00 | rk08pp | C>L | |
| 41 | 10 | 02 | Wto | 10 00 | 114 0 | eg087a+ec052c | L | e-VLBI |
| 42 | 11 | 02 | Sro | 23 00 | 24 00 | rk08pu | C | |
| 43 | 12 | 02 | Czw | 3 45 | 4 45 | rk08pv | C | |
| 43 | 12 | 02 | Czw | 5 00 | 6 00 | rk08pw | C | |
| 43 | 12 | 02 | Czw | 19 00 | 20 00 | rk08px | L | |
| 43 | 12 | 02 | Czw | 23 00 | 24 00 | rk08py | L | |
| 44 | 13 | 02 | Pia | 3 45 | 4 45 | rk08pz | K>C | |
| 44 | 13 | 02 | Pia | 5 00 | 6 00 | rk08qa | K>C | |
| 44 | 13 | 02 | Pia | 14 00 | 15 00 | rk08qb | K | |
| 44 | 13 | 02 | Pia | 18 00 | 19 00 | rk08qc | C>L | |
| 44 | 13 | 02 | Pia | 21 00 | 22 00 | rk08qd | C>L | |
| 45 | 14 | 02 | Sob | 1 55 | 2 45 | rk08qe | K>C | |
| 45 | 14 | 02 | Sob | 3 00 | 3 50 | rk08qf | K>C | |
| 45 | 14 | 02 | Sob | 18 00 | 18 40 | rk08qg | K | |
| 45 | 14 | 02 | Sob | 20 20 | 21 05 | rk08qh | K | |
| 45 | 14 | 02 | Sob | 23 00 | 24 00 | rk08qi | C | |
| 46 | 15 | 02 | Nie | 3 55 | 4 45 | rk08qj | L | |

| | | | | | | | | | | |
|----|-----|--------|-----|----|----|------|----|--------|-----|--------------|
| 46 | 15 | 02 | Nie | 5 | 00 | 5 | 50 | rk08qk | L | |
| 46 | 15 | 02 | Nie | 10 | 00 | 10 | 40 | rk08ql | C | |
| 46 | 15 | 02 | Nie | 12 | 10 | 13 | 00 | rk08qm | C>L | |
| 47 | 16 | 02 | Pon | 5 | 00 | 5 | 50 | rg11ai | K | |
| 47 | 16 | 02 | Pon | 7 | 20 | 8 | 00 | rk08qn | C | |
| 49 | 18 | 02 | Sro | 0 | 00 | 1 | 00 | rk08qo | L | |
| 49 | 18 | 02 | Sro | 18 | 00 | 18 | 40 | rk08qp | C>L | |
| 49 | 18 | 02 | Sro | 20 | 00 | 21 | 00 | rk08qq | C>L | |
| 50 | 19 | 02 | Czw | 18 | 00 | 19 | 00 | rk08qr | L | |
| 51 | 20 | 02 | Pia | 0 | 00 | 1 | 00 | rk08qs | C>L | |
| 51 | 20 | 02 | Pia | 4 | 00 | 5 | 00 | rk08qt | C | |
| 51 | 20 | 02 | Pia | 20 | 00 | 20 | 50 | rk08qu | C | |
| 52 | 21 | 02 | Sob | 0 | 00 | 0 | 50 | rk08qv | C | |
| 52 | 21 | 02 | Sob | 3 | 00 | 4 | 00 | rk08qw | C | |
| 52 | 21 | 02 | Sob | 6 | 10 | 7 | 00 | rk08qx | L | |
| 52 | 21 | 02 | Sob | 17 | 00 | 18 | 00 | rk08qy | C | |
| 52 | 21 | 02 | Sob | 21 | 00 | 22 | 00 | rk08qz | K>C | |
| 53 | 22 | 02 | Nie | 0 | 00 | 1 | 00 | rk08ra | C>L | |
| 53 | 22 | 02 | Nie | 6 | 00 | 7 | 00 | rk08rb | C | |
| 53 | 22 | 02 | Nie | 8 | 00 | 9 | 00 | rk08rc | L | |
| 53 | 22 | 02 | Nie | 16 | 00 | 16 | 40 | rk08rd | C | |
| 53 | 22 | 02 | Nie | 18 | 20 | 19 | 00 | rk08re | K>C | |
| 54 | 23 | 02 | Pon | 3 | 05 | 3 | 55 | rk08rf | C>L | |
| 54 | 23 | 02 | Pon | 4 | 10 | 5 | 00 | rk08rg | C>L | |
| 54 | 23 | 02 | Pon | 20 | 00 | 20 | 50 | rk08ri | C>L | |
| 54 | 23 | 02 | Pon | 23 | 00 | 23 | 40 | rk08rj | L | |
| 55 | 24 | 02 | Wto | 1 | 00 | 1 | 40 | rk08rk | L | |
| 55 | 24 | 02 | Wto | 3 | 45 | 4 | 45 | rk08rl | C>L | |
| 55 | 24 | 02 | Wto | 14 | 00 | 14 | 40 | rk08rn | C>L | |
| 55 | 24 | 02 | Wto | 18 | 00 | 18 | 40 | rk08ro | C>L | |
| 55 | 24 | 02 | Wto | 21 | 00 | 21 | 40 | rk08rp | L | |
| 55 | 24 | 02 | Wto | 23 | 00 | 23 | 40 | rk08rq | K>C | |
| 57 | 26. | 02/Czw | | 12 | 00 | 15 | 00 | n15l1 | L | |
| 57 | 26. | 02/Czw | | 16 | 00 | 20 | 00 | cl15l1 | L | (bezdyskowy) |
| 57 | 26. | 02/Czw | | 21 | 30 | 24+2 | 30 | ei012c | L | |
| 58 | 27. | 02/Pia | | 4 | 00 | 12 | 00 | el049 | L | |
| 58 | 27 | 02 | Pia | 21 | 45 | 22 | 30 | rk08rr | CL | |
| 59 | 28 | 02 | Sob | 0 | 15 | 1 | 00 | rk08rs | CL | |
| 59 | 28. | 02/Sob | | 1 | 30 | 7 | 30 | ec047a | L | |
| 59 | 28. | 02/Sob | | 8 | 30 | 20 | 30 | ep092a | L | |
| 59 | 28 | 02 | Sob | 22 | 00 | 23 | 00 | rk08rt | CL | |

Razem 81 eksperymentow (139.5 godz.; dyski i eVLBI)

Plik pdf tego dokumentu jest dostepny w sieci pod adresem:

<http://cosmo.astro.umk.pl/foswiki/pub/Main/KazB/VLBI2015Feb.pdf>

bs242atr

CORE STRUCTURE IN 3C273 AND 3C279 AT ULTRA-HIGH RESOLUTION

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Observing mode: C/K and K/K bands

Schedule for TORUN (Code Tr) Page 2
Core structure in 3C273 and 3C279 at ultra-high resolution with RadioAstr
UP: D => Below limits; H => Below horizon mask; W => still slewing at end; blank => Up.
Early: Seconds between end of slew and start. Dwell: On source seconds.
Disk: GBytes recorded to this point.
TPStart: Recording start time. Frequencies are LO sum (band edge).
SYNC: Time correlator is expected to sync up.

Start UT Source Start / Stop Early Disk TPStart
Stop UT LST EL AZ HA UP ParA Dwell GBytes SYNC

--- Sun 1 Feb 2015 Day 32 ---

----- C-band VLBI scan -----

Next scan frequencies: 4836.00 4836.00 4836.00 4836.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|----|----------|
| 04 15 00 | 1226+023 | 14 13 30 | 34.6 | 212.0 | 1.7 | 18.6 | 0 | 0 | 04 15 00 |
| 04 24 00 | --- | 14 22 31 | 33.8 | 214.6 | 1.9 | 19.9 | 540 | 17 | 04 15 01 |

----- C-band VLBI scan -----

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|----|----------|
| 04 35 00 | 1226+023 | 14 33 33 | 32.8 | 217.7 | 2.1 | 21.5 | 653 | 17 | 04 35 00 |
| 04 44 00 | --- | 14 42 34 | 32.0 | 220.1 | 2.2 | 22.8 | 540 | 35 | 04 35 01 |

----- Space Segment 01: C-band VLBI scan -----

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|----|----------|
| 04 45 00 | 1226+023 | 14 43 35 | 31.9 | 220.4 | 2.2 | 22.9 | 54 | 35 | 04 45 00 |
| 05 00 00 | --- | 14 58 37 | 30.4 | 224.4 | 2.5 | 24.9 | 900 | 63 | 04 45 01 |

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|----|----------|
| 05 01 00 | 1226+023 | 14 59 37 | 30.3 | 224.7 | 2.5 | 25.0 | 54 | 63 | 05 01 00 |
| 05 14 30 | --- | 15 13 09 | 28.8 | 228.2 | 2.7 | 26.6 | 810 | 89 | 05 01 01 |

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|-----|----------|
| 05 26 00 | 1226+023 | 15 24 41 | 27.5 | 231.1 | 2.9 | 27.9 | 683 | 89 | 05 26 00 |
| 05 35 00 | --- | 15 33 43 | 26.4 | 233.3 | 3.1 | 28.8 | 540 | 107 | 05 26 01 |

----- K-band VLBI scan -----

| | | | | | | | | | |
|----------|----------|----------|------|-------|-----|------|-----|-----|----------|
| 05 35 30 | 1226+023 | 15 34 13 | 26.3 | 233.4 | 3.1 | 28.9 | 24 | 107 | 05 35 30 |
| 05 39 30 | --- | 15 38 13 | 25.9 | 234.4 | 3.1 | 29.3 | 240 | 114 | 05 35 31 |

Schedule for TORUN (Code Tr)

Page 3

Core structure in 3C273 and 3C279 at ultra-high resolution with RadioAstr

UP: D => Below limits; H => Below horizon mask; W => still slewing at end; blank => Up.

Early: Seconds between end of slew and start. Dwell: On source seconds.

Disk: GBytes recorded to this point.

TPStart: Recording start time. Frequencies are LO sum (band edge).

SYNC: Time correlator is expected to sync up.

| Start UT | Source | Start / Stop | | | | | Early | Disk | TPStart | |
|----------|--------|--------------|----|----|----|----|-------|-------|---------|------|
| Stop UT | | LST | EL | AZ | HA | UP | ParA | Dwell | GBytes | SYNC |

--- Sun 1 Feb 2015 Day 32 ---

----- Space Segment 02: K/K-band VLBI scans -----

| | | | | | | | | | | |
|----------|----------|----------|------|-------|-----|--|------|-----|-----|----------|
| 05 45 00 | 1253-055 | 15 43 44 | 21.4 | 225.3 | 2.8 | | 25.4 | 294 | 114 | 05 45 00 |
| 05 54 00 | --- | 15 52 46 | 20.4 | 227.4 | 2.9 | | 26.4 | 540 | 132 | 05 45 01 |

----- Space Segment 02: C-band VLBI scan -----

Next scan frequencies: 4836.00 4836.00 4836.00 4836.00

Next BBC frequencies: 736.00 736.00 736.00 736.00

| | | | | | | | | | | |
|----------|----------|----------|------|-------|-----|--|------|-----|-----|----------|
| 06 05 30 | 1253-055 | 16 04 18 | 19.1 | 230.1 | 3.1 | | 27.6 | 683 | 132 | 06 05 30 |
| 06 20 00 | --- | 16 18 50 | 17.4 | 233.5 | 3.4 | | 29.0 | 870 | 159 | 06 05 31 |

| | | | | | | | | | | |
|----------|----------|----------|------|-------|-----|--|------|-----|-----|----------|
| 06 20 30 | 1253-055 | 16 19 20 | 17.3 | 233.6 | 3.4 | | 29.1 | 24 | 159 | 06 20 30 |
| 06 30 00 | --- | 16 28 52 | 16.1 | 235.8 | 3.5 | | 29.9 | 570 | 178 | 06 20 31 |

| | | | | | | | | | | |
|----------|----------|----------|------|-------|-----|--|------|-----|-----|----------|
| 06 31 30 | 1253-055 | 16 30 22 | 15.9 | 236.1 | 3.6 | | 30.1 | 84 | 178 | 06 31 30 |
| 06 40 00 | --- | 16 38 53 | 14.9 | 238.0 | 3.7 | | 30.8 | 510 | 194 | 06 31 31 |

----- C-band VLBI scans -----

| | | | | | | | | | | |
|----------|----------|----------|------|-------|-----|--|------|----|-----|----------|
| 06 41 00 | 1253-055 | 16 39 54 | 14.7 | 238.2 | 3.7 | | 30.9 | 54 | 194 | 06 41 00 |
| 06 42 30 | --- | 16 41 24 | 14.6 | 238.5 | 3.7 | | 31.0 | 90 | 197 | 06 41 01 |

SETUP FILE INFORMATION:

NOTE: If DOPPLER, FREQ, or BW were used, see the individual scans for the final BBC settings.

==== Setup file: ra6cm2.set

| | | | | | |
|---------------------|---------|------------------|-------|-----------------|--------|
| Setup group: | 11 | Station: | TORUN | Total bit rate: | 256 |
| Format: | MKIV1:4 | Bits per sample: | 2 | Sample rate: | 32.000 |
| Number of channels: | 4 | DBE type: | | Speedup factor: | 1.00 |

Disk used to record data.

| | | | | |
|---------|---------|---------|---------|---------|
| 1st LO= | 4100.00 | 4100.00 | 4100.00 | 4100.00 |
| Net SB= | L | L | U | U |
| IF SB = | U | U | U | U |
| Pol. = | RCP | LCP | RCP | LCP |
| BBC = | 1 | 2 | 1 | 2 |
| BBC SB= | L | L | U | U |
| IF = | C | A | C | A |

The following frequency sets based on these setups were used.

```

Frequency Set:  2  Setup file default.  Used with PCAL = 1MHz
LO sum=   4836.00  4836.00  4836.00  4836.00
BBC fr=    736.00   736.00   736.00   736.00
Bandwd=    16.00   16.00   16.00   16.00
Matching frequency sets:  2

```

```

Track assignments are:
track1=  2, 18,  3, 19
barrel=roll_off

```

=====
Setup file: ra1cm2.set

Matching groups in ./bs242_freq.dat:

tr1cm Values from Bob Campbell by email (23-04-2013)

```

Setup group:  22      Station: TORUN      Total bit rate:  256
Format: MKIV1:4      Bits per sample: 2      Sample rate: 32.000
Number of channels:  4  DBE type:          Speedup factor:  1.00

```

Disk used to record data.

```

1st LO=  21500.00  21500.00  21500.00  21500.00
Net SB=      L      L      U      U
IF SB =      U      U      U      U
Pol.  =      RCP      LCP      RCP      LCP
BBC   =      1      2      1      2
BBC SB=      L      L      U      U
IF    =      C      A      C      A

```

The following frequency sets based on these setups were used.

```

Frequency Set:  16  Setup file default.  Used with PCAL = 1MHz
LO sum=   22236.00  22236.00  22236.00  22236.00
BBC fr=    736.00   736.00   736.00   736.00
Bandwd=    16.00   16.00   16.00   16.00
Matching frequency sets:  16

```

```

Track assignments are:
track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

| Source | Source position (RA/Dec) | | (Date) | Error (mas) |
|------------|--------------------------|-------------------|-----------------|----------------|
| | (B1950) | (J2000) | | |
| J1246-0730 | 12 43 28.787939 | * 12 46 04.232101 | 12 46 52.197448 | 0.10 |
| * 1243-072 | -07 14 23.49353 | *-07 30 46.57479 | -07 35 46.07454 | 0.11 |
| 0538+498 | 05 38 43.517523 | * 05 42 36.137900 | 05 43 48.430817 | 0.00 |
| * 3C147 | 49 49 42.83712 | * 49 51 07.23375 | 49 51 27.33900 | 0.00 |
| * 1226+023 | 12 26 33.245835 | * 12 29 06.699731 | 12 29 54.011837 | 0.00 |
| J1229+0203 | 02 19 43.30547 | * 02 03 08.59797 | 01 58 01.72640 | 0.00 |
| * 1253-055 | 12 53 35.831289 | * 12 56 11.166557 | 12 56 59.022039 | 0.00 |
| J1256-0547 | -05 31 07.99603 | *-05 47 21.52489 | -05 52 18.14563 | 0.00 |

Contents

| | |
|--|---|
| Graphical Plan of Experiments in January 2015..... | 1 |
| Experiment Listing | 3 |
| <code>bs242atr</code> – Core structure in 3C273 and 3C279 at ultra-high resolution | 5 |