

Tr RadioAstron Schedule for Apr 2013

W nazwach eksperymentow RA zamiast re* jest L_*, C_* lub K_*, zaleznie od pasma

0 3 6 9 12 15 18 21 24

Day 94 4.04/Czw						C/K_03qg	K_03qh	K_03qi
Day 95 5.04/Pia					L_03qj	C/K_03qk	L_03ql	K_03qm
Day 96 6.04/Sob					L_03qn	K/L_03qo	K_03qp	L_03qq
Day 99 9.04/Wto				te108f	(C-band)			
Day 102 12.04/Pia				C te108	K_03qw			
Day 103 13.04/Sob					L_03qx	L_03qy	L_03qz	K_03ra
Day 104 14.04/Nie					K_03rb	K_03rc	K_03rd	
Day 105 15.04/Pon					K_03re	K_03rf	K_03rg	
Day 106 16.04/Wto				el043a				e-VLBI
Day 107 17.04/Sro	el043a (c.d.)			e-VLBI	K_03rj	K_03rk		
Day 111 21.04/Nie							K_03rl	L_03rm
Day 112 22.04/Pon						K_03rn	K_03ro	
Day 113 23.04/Wto					K_03rp	K_03rq	K_03rr	
Day 114 24.04/Sro					K_03rs	K_03rt		
Day 115 25.04/Czw					K_03ru	K_03rv		
Day 116 26.04/Pia					K_03rw	L_03rx		
Day 119 29.04/Pon							C/K_03rz	
Day 120 30.04/Wto					L_03sa	L_03sb		

0 3 6 9 12 15 18 21 24

RadioAstron Experiments, April 2013

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

ftp://webinet.asc.rssi.ru

Przykład dla log files: cd GRT_log_files/2013_01/2013_01_10_raes03jj

Przykład dla sched files: cd schedule/grtsched/RAES/re03jj

Name	Band	DoY	D	M/WD	UT_Start		UT_Stop	
					h	m	h	m
re03qg	C,K	94	4	04/Czw	15	00	16	30
re03qh	K	94	4	04/Czw	18	00	19	30
re03qi	K	94	4	04/Czw	21	00	21	40
re03qj	L	95	5	04/Pia	13	00	13	40
re03qk	C,K	95	5	04/Pia	15	00	16	30
re03ql	K	95	5	04/Pia	18	00	19	30
re03qm	K	95	5	04/Pia	21	00	21	40
re03qn	L	96	6	04/Sob	12	00	12	40
re03qo	K,L	96	6	04/Sob	14	00	15	30
re03qp	K	96	6	04/Sob	17	00	18	00
re03qq	L	96	6	04/Sob	19	20	20	00
te108f	C	99	9	04/Wto	7	00/8:00	19	00/10:00 Test format.
te108	C	102	12	04/Pia	7	00	12	00 Dante demo
re03qw	K	102	12	04/Pia	10	20	11	00
re03qx	L	103	13	04/Sob	12	20	13	00
re03qy	L	103	13	04/Sob	15	00	15	40
re03qz	L	103	13	04/Sob	17	00	18	10
re03ra	K	103	13	04/Sob	20	20	21	30
re03rb	K	104	14	04/Nie	14	20	15	00
re03rc	K	104	14	04/Nie	16	00	17	30
re03rd	K	104	14	04/Nie	19	00	19	40
re03re	K	105	15	04/Pon	14	20	15	00
re03rf	K	105	15	04/Pon	16	00	17	00
re03rg	K	105	15	04/Pon	18	20	19	00
el043a	L	106	16	04/Wto-Sro	9	00	13	00 e-VLBI
re03rj	K	107	17	04/Sro	14	00	14	40
re03rk	K	107	17	04/Sro	17	00	17	40
re03rl	K	111	21	04/Nie	19	00	19	40
re03rm	L	111	21	04/Nie	20	20	21	00
re03rn	K	112	22	04/Pon	16	00	16	40
re03ro	K	112	22	04/Pon	17	20	18	00
re03rp	K	113	23	04/Wto	14	00	15	30
re03rq	K	113	23	04/Wto	17	00	17	40
re03rr	K	113	23	04/Wto	18	20	19	00
re03rs	K	114	24	04/Sro	14	00	15	30
re03rt	K	114	24	04/Sro	17	00	17	40
re03ru	K	115	25	04/Czw	14	00	15	00
re03rv	K	115	25	04/Czw	16	20	17	00
re03rw	K	116	26	04/Pia	14	00	14	40
re03rx	L	116	26	04/Pia	15	20	16	00
re03rz	C,K	119	29	04/Pon	17	00	18	30
re03sa	L	120	30	04/Wto	14	00	15	30
re03sb	L	120	30	04/Wto	17	00	18	30

re03qgtr

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: C/K-band, dual-pol

Notes: C/K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 L0 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

--- Thu 4 Apr 2013 Day 94 ---

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

Next scan frequencies: 4836.00 4836.00 4836.00 4836.00
Next BBC frequencies: 636.00 636.00 636.00 636.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

15 00 00	0738+313	05 06 37	54.5	112.5	-2.6		-40.4	0	0	15 00 00
15 09 30	---	05 16 08	55.8	115.2	-2.4		-39.4	570	18	15 00 01
15 10 00	0738+313	05 16 38	55.9	115.4	-2.4		-39.4	24	18	15 10 00
15 19 30	---	05 26 10	57.1	118.2	-2.3		-38.2	570	36	15 10 01
15 20 00	0738+313	05 26 40	57.2	118.4	-2.3		-38.1	24	36	15 20 00
15 29 30	---	05 36 11	58.4	121.4	-2.1		-36.8	570	55	15 20 01
15 30 00	0738+313	05 36 42	58.5	121.6	-2.1		-36.7	24	55	15 30 00
15 40 00	---	05 46 43	59.8	125.0	-1.9		-35.1	600	74	15 30 01

----- K-band VLBI scans -----

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

15 50 00	0738+313	05 56 45	61.0	128.6	-1.8		-33.3	592	74	15 50 00
15 59 30	---	06 06 16	62.1	132.2	-1.6		-31.3	570	92	15 50 01
16 00 00	0738+313	06 06 46	62.1	132.4	-1.6		-31.2	24	92	16 00 00
16 09 30	---	06 16 18	63.1	136.2	-1.4		-29.1	570	110	16 00 01
16 10 00	0738+313	06 16 48	63.2	136.4	-1.4		-28.9	23	110	16 10 00
16 19 30	---	06 26 20	64.1	140.5	-1.3		-26.5	570	129	16 10 01
16 20 00	0738+313	06 26 50	64.2	140.7	-1.3		-26.4	23	129	16 20 00
16 30 00	---	06 36 51	65.1	145.2	-1.1		-23.6	600	148	16 20 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

Matching groups in /home/kirx/sched/catalogs/freq.dat:
tr6cm E-mail Borkowski 23Apr03 (CR 1May03)

Setup group:	1	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=	4200.00	4200.00	4200.00	4200.00
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:	3	Setup file default.	Used pcal sets:	1
LO sum=	4836.00	4836.00	4836.00	4836.00
BBC fr=	636.00	636.00	636.00	636.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	3			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

=====
Setup file: ra1cm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	8	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:  9  Setup file default.  Used pcal sets:  1
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:  9

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0741+3112	07 38 00.178559	* 07 41 10.703308	07 42 02.292066	0.18
* 0738+313	31 19 02.05925	* 31 12 00.22924	31 10 01.87745	1.24

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0738+313	96.8

Barry Clark estimates from predictions by Ketan Desai of IPM scattering sizes that the Sun will cause amplitude reductions on the longest VLBA baselines at a solar distance of $60 \text{deg } F^{-0.6}$ where F is in GHz.

For common VLBI bands, this is:

327 MHz	117. deg
610 MHz	81. deg
1.6 GHz	45. deg
2.3 GHz	36. deg
5.0 GHz	23. deg
8.4 GHz	17. deg
15.0 GHz	12. deg
22.0 GHz	9. deg
43.0 GHz	6. deg

re03qhtr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Thu 4 Apr 2013 Day 94 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00						
Next BBC frequencies:	736.00	736.00	736.00	736.00						
Next scan bandwidths:	16.00	16.00	16.00	16.00						
18 00 00	0748+126	08 07 06	49.3 185.8	0.3		3.6	0	0	18 00 00	
18 09 30	---	08 16 38	49.1 189.3	0.4		5.7	570	18	18 00 01	
18 10 00	0748+126	08 17 08	49.1 189.5	0.4		5.8	24	18	18 10 00	
18 19 30	---	08 26 39	48.8 193.0	0.6		8.0	570	36	18 10 01	
18 20 00	0748+126	08 27 09	48.8 193.2	0.6		8.1	24	36	18 20 00	
18 29 30	---	08 36 41	48.4 196.7	0.8		10.2	570	55	18 20 01	
18 30 00	0748+126	08 37 11	48.4 196.9	0.8		10.3	24	55	18 30 00	
18 39 30	---	08 46 43	47.9 200.3	0.9		12.3	570	73	18 30 01	
18 40 00	0748+126	08 47 13	47.9 200.5	0.9		12.4	24	73	18 40 00	
18 49 30	---	08 56 44	47.4 203.8	1.1		14.4	570	91	18 40 01	
18 50 00	0748+126	08 57 14	47.3 204.0	1.1		14.5	24	91	18 50 00	
18 59 30	---	09 06 46	46.7 207.3	1.3		16.4	570	109	18 50 01	
19 00 00	0748+126	09 07 16	46.7 207.5	1.3		16.5	24	109	19 00 00	
19 09 30	---	09 16 48	46.0 210.7	1.4		18.3	570	128	19 00 01	
19 10 00	0748+126	09 17 18	45.9 210.8	1.4		18.4	24	128	19 10 00	
19 19 30	---	09 26 49	45.2 214.0	1.6		20.1	570	146	19 10 01	
19 20 00	0748+126	09 27 19	45.1 214.1	1.6		20.2	24	146	19 20 00	
19 30 00	---	09 37 21	44.3 217.4	1.8		21.9	600	165	19 20 01	

SETUP FILE INFORMATION:

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

==== Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	3	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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 37.381013	0.10
* 0748+126	12 38 45.47744	* 12 31 04.82812	12 28 49.81260	0.10

Source	Sun distance (deg)
0748+126	102.2

re03qitr

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PI: Yuri Kovalev

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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.

Table with columns: Start UT, Source, Start / Stop, Early, Disk, TPStart. Sub-headers: Stop UT, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, SYNC.

--- Thu 4 Apr 2013 Day 94 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

Main observation schedule table with columns: Start UT, Source, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, TPStart, SYNC.

SETUP FILE INFORMATION:

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

=====
 Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
 This might be ok because the catalog is not complete.
 But be very careful to be sure that the setup is correct.

Setup group:	3	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:	2	Setup file default.	Used pcal sets:	1
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:	2			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
 barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.407651	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.62686	0.10

Source	Sun distance (deg)
0727-115	99.7

re03qjtr

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
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Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 L0 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
-----
```

--- Fri 5 Apr 2013 Day 95 ---

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
Next BBC frequencies: 632.00 632.00 632.00 632.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

```
13 00 00 0851+202    03 10 13 18.1 80.4 -5.8    -39.1    0    0    13 00 00
13 09 30 ---          03 19 45 19.5 82.3 -5.6    -39.3   570   18   13 00 01

13 10 00 0851+202    03 20 15 19.6 82.4 -5.6    -39.3   24   18   13 10 00
13 19 30 ---          03 29 47 21.0 84.2 -5.4    -39.5   570   36   13 10 01

13 20 00 0851+202    03 30 17 21.1 84.3 -5.4    -39.5   24   36   13 20 00
13 29 30 ---          03 39 48 22.5 86.2 -5.3    -39.6   570   55   13 20 01

13 30 00 0851+202    03 40 18 22.6 86.3 -5.3    -39.6   24   55   13 30 00
13 40 00 ---          03 50 20 24.1 88.2 -5.1    -39.7   600   74   13 30 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

```
Setup group:      3            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= 2300.00 2300.00 2300.00 2300.00
Net SB=      L      L      U      U
IF SB =      L      L      L      L
Pol.  =      RCP     LCP     RCP     LCP
BBC   =      1      2      1      2
BBC SB=      U      U      L      L
IF    =      C      A      C      A
```

The following frequency sets based on these setups were used.

```
Frequency Set: 3 Setup file default. Used pcal sets: 1
LO sum= 1668.00 1668.00 1668.00 1668.00
BBC fr= 632.00 632.00 632.00 632.00
Bandwd= 16.00 16.00 16.00 16.00
Matching frequency sets: 3
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set: 1 PCAL = 1MHZ
PCALXB1= S1 S3 S1 S3 S1 S2 S3 S4
PCALXB2= S2 S4 S2 S4 M1 M2 M3 M4
PCALFR1= 1000 1000 13000 13000 0 0 0 0
PCALFR2= 1000 1000 13000 13000 0 0 0 0
```

Track assignments are:

```
track1= 2, 18, 3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.727128	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 17.51099	0.10

```
Source            Sun distance (deg)
0851+202            114.7
```

re03qktr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: C K band, dual-pol

Notes: C K band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Fri 5 Apr 2013 Day 95 ---

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

Next scan frequencies: 4836.00 4836.00 4836.00 4836.00
Next BBC frequencies: 636.00 636.00 636.00 636.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

15 00 00	0738+313	05 10 33	55.0	113.6	-2.5	-40.0	0	0	15 00 00
15 09 30	---	05 20 05	56.3	116.4	-2.4	-39.0	570	18	15 00 01
15 10 00	0738+313	05 20 35	56.4	116.5	-2.4	-38.9	24	18	15 10 00
15 19 30	---	05 30 06	57.7	119.5	-2.2	-37.7	570	36	15 10 01
15 20 00	0738+313	05 30 36	57.7	119.6	-2.2	-37.6	24	36	15 20 00
15 29 30	---	05 40 08	58.9	122.7	-2.0	-36.2	570	55	15 20 01
15 30 00	0738+313	05 40 38	59.0	122.9	-2.0	-36.1	24	55	15 30 00
15 40 00	---	05 50 40	60.2	126.4	-1.9	-34.4	600	74	15 30 01

----- K-band VLBI scans -----

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

15 50 00	0738+313	06 00 41	61.4	130.0	-1.7	-32.5	592	74	15 50 00
15 59 30	---	06 10 13	62.5	133.7	-1.5	-30.5	570	92	15 50 01
16 00 00	0738+313	06 10 43	62.5	133.9	-1.5	-30.4	24	92	16 00 00
16 09 30	---	06 20 15	63.5	137.9	-1.4	-28.1	570	110	16 00 01
16 10 00	0738+313	06 20 45	63.6	138.1	-1.4	-28.0	23	110	16 10 00
16 19 30	---	06 30 16	64.5	142.2	-1.2	-25.5	570	129	16 10 01
16 20 00	0738+313	06 30 46	64.6	142.5	-1.2	-25.3	23	129	16 20 00
16 30 00	---	06 40 48	65.4	147.1	-1.0	-22.4	600	148	16 20 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

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr6cm E-mail Borkowski 23Apr03 (CR 1May03)

Setup group:	2	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=	4200.00	4200.00	4200.00	4200.00
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:	4	Setup file default.	Used pcal sets:	1
LO sum=	4836.00	4836.00	4836.00	4836.00
BBC fr=	636.00	636.00	636.00	636.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

=====
Setup file: ra1cm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	7	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:  8  Setup file default.  Used pcal sets:  1
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:  8

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0741+3112	07 38 00.178559	* 07 41 10.703308	07 42 02.272748	0.18
* 0738+313	31 19 02.05925	* 31 12 00.22924	31 10 01.95199	1.24

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0738+313	95.8

Barry Clark estimates from predictions by Ketan Desai of IPM scattering sizes that the Sun will cause amplitude reductions on the longest VLBA baselines at a solar distance of $60 \text{deg } F^{-0.6}$ where F is in GHz.

For common VLBI bands, this is:

327 MHz	117. deg
610 MHz	81. deg
1.6 GHz	45. deg
2.3 GHz	36. deg
5.0 GHz	23. deg
8.4 GHz	17. deg
15.0 GHz	12. deg
22.0 GHz	9. deg
43.0 GHz	6. deg

re03qltr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Fri 5 Apr 2013 Day 95 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

Table with 11 columns: Start UT, Stop UT, Source, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, SYNC. It contains a series of observation rows for 0748+126, showing start and stop times and various parameters.

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	4	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:	3	Setup file default.	Used pcal sets:	1
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:	3			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 37.363675	0.10
* 0748+126	12 38 45.47744	* 12 31 04.82812	12 28 49.87268	0.10

Source	Sun distance (deg)
0748+126	101.2

re03qmtr

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Fri 5 Apr 2013 Day 95 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

21 00 00	0727-115	11 11 32	10.0	234.7	3.7	30.0	0	0	21 00 00
21 09 30	---	11 21 04	8.8	236.7	3.8	30.8	570	18	21 00 01
21 10 00	0727-115	11 21 34	8.8	236.8	3.8	30.9	24	18	21 10 00
21 19 30	---	11 31 05	7.5	238.8	4.0	31.7	570	36	21 10 01
21 20 00	0727-115	11 31 36	7.5	238.9	4.0	31.7	24	36	21 20 00
21 29 30	---	11 41 07	6.2	240.9	4.2	32.4	570	55	21 20 01
21 30 00	0727-115	11 41 37	6.2	241.0	4.2	32.4	24	55	21 30 00
21 40 00	---	11 51 39	4.8	243.1	4.3	33.2	600	74	21 30 01

SETUP FILE INFORMATION:

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

==== Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group: 5 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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.388414	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.59077	0.10

Source	Sun distance (deg)
0727-115	98.9

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Sat 6 Apr 2013 Day 96 ---

----- L-band VLBI scans -----

```
Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
Next BBC frequencies:  632.00  632.00  632.00  632.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

```
12 00 00 0851+202    02 14 00   9.9 69.7 -6.7   -36.8    0    0 12 00 00
12 09 30 ---          02 23 32  11.3 71.5 -6.5   -37.3  570   18 12 00 01

12 10 00 0851+202    02 24 02  11.3 71.6 -6.5   -37.3   24   18 12 10 00
12 19 30 ---          02 33 33  12.7 73.4 -6.4   -37.8  570   36 12 10 01

12 20 00 0851+202    02 34 03  12.8 73.5 -6.4   -37.8   24   36 12 20 00
12 29 30 ---          02 43 35  14.2 75.3 -6.2   -38.2  570   55 12 20 01

12 30 00 0851+202    02 44 05  14.2 75.4 -6.2   -38.2   24   55 12 30 00
12 40 00 ---          02 54 07  15.7 77.4 -6.0   -38.6  600   74 12 30 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

Setup group:	1	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	2	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	2			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.709912	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 17.60221	0.10

Source	Sun distance (deg)
0851+202	113.8

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
 Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K L band, dual-pol

Notes: K L band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 L0 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
-----
```

--- Sat 6 Apr 2013 Day 96 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
 Next BBC frequencies: 736.00 736.00 736.00 736.00
 Next scan bandwidths: 16.00 16.00 16.00 16.00

```
14 00 00 0738+313    04 14 20 46.9 99.4 -3.5    -43.8    0       0    14 00 00
14 09 30 ---        04 23 51 48.4 101.6 -3.3    -43.4    570    18    14 00 01

14 10 00 0738+313    04 24 21 48.4 101.7 -3.3    -43.4    24    18    14 10 00
14 19 30 ---        04 33 53 49.8 103.9 -3.1    -42.9    570    36    14 10 01

14 20 00 0738+313    04 34 23 49.9 104.1 -3.1    -42.9    24    36    14 20 00
14 29 30 ---        04 43 55 51.3 106.4 -3.0    -42.3    570    55    14 20 01

14 30 00 0738+313    04 44 25 51.3 106.6 -3.0    -42.3    24    55    14 30 00
14 40 00 ---        04 54 26 52.8 109.2 -2.8    -41.5    600    74    14 30 01
```

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
 Next BBC frequencies: 632.00 632.00 632.00 632.00

```
14 50 00 0738+313    05 04 28 54.2 111.9 -2.6    -40.6    593    74    14 50 00
14 59 30 ---        05 14 00 55.5 114.6 -2.5    -39.7    570    92    14 50 01

15 00 00 0738+313    05 14 30 55.6 114.7 -2.5    -39.6    24    92    15 00 00
15 09 30 ---        05 24 01 56.9 117.6 -2.3    -38.5    570    110    15 00 01

15 10 00 0738+313    05 24 31 56.9 117.7 -2.3    -38.4    24    110    15 10 00
15 19 30 ---        05 34 03 58.2 120.7 -2.1    -37.1    570    129    15 10 01

15 20 00 0738+313    05 34 33 58.2 120.9 -2.1    -37.0    24    129    15 20 00
15 30 00 ---        05 44 35 59.5 124.2 -2.0    -35.5    600    148    15 20 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ra1cm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	5	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:	6	Setup file default.	Used pcal sets:	1
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:	6			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:
tr18cm E-mail Borkowski 12Mar98, preferred alternative

Setup group:	7	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

```

Frequency Set:  9  Setup file default.  Used pcal sets:  1
LO sum=    1668.00  1668.00  1668.00  1668.00
BBC fr=     632.00   632.00   632.00   632.00
Bandwd=     16.00   16.00   16.00   16.00
Matching frequency sets:  9

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

```

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

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0741+3112	07 38 00.178559	* 07 41 10.703308	07 42 02.250747	0.18
* 0738+313	31 19 02.05925	* 31 12 00.22924	31 10 02.02459	1.24

SOURCE SCAN SUMMARY FOR SOURCES LISTED ABOVE

Scan hours are for recording scans only.

Baseline hours are only counted for scans above horizon at both ends.

Source	Setup file	Frequency sets (duplicates not shown)	Observing hours	
			Scan	Baseline
0738+313	ra6cm2.set	1 2 3 4	1.283	4.492
	ra1cm2.set	5 6	0.642	0.642
	ra18cm2.set	7 8 9	0.642	1.925

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0738+313	94.9

Barry Clark estimates from predictions by Ketan Desai of IPM scattering sizes that the Sun will cause amplitude reductions on the longest VLBA baselines at a solar distance of $60 \text{ deg } F^{-0.6}$ where F is in GHz.

For common VLBI bands, this is:

327 MHz	117. deg
610 MHz	81. deg
1.6 GHz	45. deg
2.3 GHz	36. deg
5.0 GHz	23. deg
8.4 GHz	17. deg
15.0 GHz	12. deg
22.0 GHz	9. deg
43.0 GHz	6. deg

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Sat 6 Apr 2013 Day 96 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

17 00 00 0727-115 07 14 49 25.1 175.6 -0.3 -2.7 0 0 17 00 00
17 09 30 --- 07 24 21 25.2 178.2 -0.1 -1.1 570 18 17 00 01

17 10 00 0727-115 07 24 51 25.2 178.3 -0.1 -1.0 24 18 17 10 00
17 19 30 --- 07 34 23 25.2 180.9 0.1 0.6 570 36 17 10 01

17 20 00 0727-115 07 34 53 25.2 181.1 0.1 0.7 24 36 17 20 00
17 29 30 --- 07 44 24 25.1 183.6 0.2 2.2 570 55 17 20 01

17 30 00 0727-115 07 44 54 25.1 183.8 0.2 2.3 24 55 17 30 00
17 39 30 --- 07 54 26 25.0 186.3 0.4 3.9 570 73 17 30 01

17 40 00 0727-115 07 54 56 25.0 186.5 0.4 4.0 24 73 17 40 00
17 49 30 --- 08 04 28 24.8 189.0 0.6 5.5 570 91 17 40 01

17 50 00 0727-115 08 04 58 24.8 189.2 0.6 5.6 24 91 17 50 00
18 00 00 --- 08 14 59 24.5 191.9 0.7 7.2 600 110 17 50 01
```


SETUP FILE INFORMATION:

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

==== Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	4	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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.370461	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.55855	0.10

Source	Sun distance (deg)
0727-115	98.2

re03qqtr

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Sat 6 Apr 2013 Day 96 ---

----- L-band VLBI scans -----

Next scan frequencies:	1668.00	1668.00	1668.00	1668.00						
Next BBC frequencies:	632.00	632.00	632.00	632.00						
Next scan bandwidths:	16.00	16.00	16.00	16.00						
19 20 00	0955+476	09 35 12	83.1	143.9	-0.4	-31.5	0	0	19 20 00	
19 29 30	---	09 44 44	83.8	156.6	-0.2	-20.6	570	18	19 20 01	
19 30 00	0955+476	09 45 14	83.8	157.4	-0.2	-19.9	21	18	19 30 00	
19 39 30	---	09 54 46	84.2	172.5	-0.1	-6.6	570	36	19 30 01	
19 40 00	0955+476	09 55 16	84.2	173.4	-0.1	-5.9	21	36	19 40 00	
19 49 30	---	10 04 47	84.2	189.4	0.1	8.3	570	55	19 40 01	
19 50 00	0955+476	10 05 17	84.2	190.2	0.1	9.0	21	55	19 50 00	
20 00 00	---	10 15 19	83.7	205.7	0.3	22.6	600	74	19 50 01	

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

Setup group:	3	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	4	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0958+4725	09 55 08.528429	* 09 58 19.671644	09 59 12.044847	0.15
* 0955+476	47 39 28.28168	* 47 25 07.84237	47 21 16.21820	0.10

Source	Sun distance (deg)
0955+476	112.4

te108fr

FORMATTER TEST PRIOR TO DANTE DEMO
PI: *JIVE*

Address: JIVE Oude Hoogeveensedijk 4 Dwingeloo Netherlands
Phone: +31 521 596 536 EMAIL: zparagi@jive.nl
Fax: +31 521 596 539 Phone during observation: +31 521 596 530

Observing mode: realtime e-vlbi

Schedule for TORUN (Code Tr) Page 2

formatter test prior to DANTE demo

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

--- Tue 9 Apr 2013 Day 99 ---										
Next scan frequencies: 4966.49 4966.49 4966.49 4966.49 4982.49 4982.49 4982.49 4982.49										
4998.49 4998.49 4998.49 4998.49 5014.49 5014.49 5014.49 5014.49										
Next BBC frequencies: 766.49 766.49 766.49 766.49 782.49 782.49 782.49 782.49										
798.49 798.49 798.49 798.49 814.49 814.49 814.49 814.49										
Next scan bandwidths: 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00										
8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00										

07 00 00	0039+230	21 25 01	42.5	108.9	-3.3		-38.2	0	0	07 00 00
07 15 00	---	21 40 03	44.6	112.7	-3.0		-37.1	900	58	07 00 01
07 15 40	0039+230	21 40 43	44.7	112.8	-3.0		-37.1	34	58	07 15 40
07 30 00	---	21 55 05	46.7	116.6	-2.8		-35.8	860	114	07 15 41
07 32 00	0234+285	21 57 06	34.2	86.2	-4.7		-43.2	44	114	07 32 00
07 45 00	---	22 10 08	36.2	88.7	-4.5		-43.3	780	164	07 32 01
07 45 40	0234+285	22 10 48	36.3	88.9	-4.5		-43.3	34	164	07 45 40
08 00 00	---	22 25 10	38.4	91.8	-4.2		-43.3	860	219	07 45 41
08 00 40	0234+285	22 25 50	38.5	91.9	-4.2		-43.3	34	219	08 00 40
08 15 00	---	22 40 13	40.7	94.9	-4.0		-43.1	860	275	08 00 41
08 15 40	0234+285	22 40 53	40.8	95.0	-4.0		-43.1	34	275	08 15 40
08 30 00	---	22 55 15	42.9	98.1	-3.7		-42.7	860	330	08 15 41
08 30 40	0234+285	22 55 55	43.0	98.3	-3.7		-42.7	34	330	08 30 40
08 45 00	---	23 10 18	45.2	101.5	-3.5		-42.2	860	386	08 30 41
08 45 40	0234+285	23 10 58	45.3	101.6	-3.5		-42.2	34	386	08 45 40
09 00 00	---	23 25 20	47.4	105.0	-3.2		-41.5	860	441	08 45 41
09 00 40	0234+285	23 26 00	47.5	105.2	-3.2		-41.4	34	441	09 00 40
09 15 00	---	23 40 23	49.5	108.8	-3.0		-40.5	860	497	09 00 41
09 15 40	0234+285	23 41 03	49.6	109.0	-3.0		-40.4	34	497	09 15 40
09 30 00	---	23 55 25	51.6	112.8	-2.7		-39.2	860	552	09 15 41

Schedule for TORUN (Code Tr)

Page 3

formatter test prior to DANTE demo

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
--- Tue 9 Apr 2013 Day 99 ---										
09 30 40	0234+285	23 56 05	51.7	113.0	-2.7		-39.1	34	552	09 30 40
09 45 00	---	00 10 28	53.7	117.0	-2.5		-37.6	860	608	09 30 41
09 45 40	0234+285	00 11 08	53.8	117.2	-2.5		-37.6	34	608	09 45 40
10 00 00	---	00 25 30	55.6	121.6	-2.2		-35.7	860	663	09 45 41
10 00 40	0234+285	00 26 10	55.7	121.8	-2.2		-35.6	34	663	10 00 40
10 15 00	---	00 40 33	57.5	126.5	-2.0		-33.4	860	719	10 00 41
10 15 40	0234+285	00 41 13	57.6	126.7	-2.0		-33.3	34	719	10 15 40
10 30 00	---	00 55 35	59.3	131.8	-1.7		-30.7	860	774	10 15 41
10 30 40	0234+285	00 56 15	59.3	132.1	-1.7		-30.6	34	774	10 30 40
10 45 00	---	01 10 37	60.9	137.6	-1.5		-27.5	860	830	10 30 41
10 45 40	0234+285	01 11 18	60.9	137.9	-1.5		-27.4	33	830	10 45 40
11 00 00	---	01 25 40	62.3	143.8	-1.2		-23.9	860	885	10 45 41
11 00 40	0234+285	01 26 20	62.4	144.1	-1.2		-23.7	33	885	11 00 40
11 15 00	---	01 40 42	63.5	150.6	-1.0		-19.7	860	941	11 00 41
11 15 40	0234+285	01 41 23	63.6	150.9	-1.0		-19.5	33	941	11 15 40
11 30 00	---	01 55 45	64.5	157.7	-0.7		-15.1	860	996	11 15 41
11 33 00	DA193	01 58 45	48.3	83.8	-4.0		-51.0	17	996	11 33 00
11 45 00	---	02 10 47	50.1	86.0	-3.8		-51.2	720	1043	11 33 01
11 45 40	DA193	02 11 27	50.2	86.1	-3.7		-51.3	34	1043	11 45 40
12 00 00	---	02 25 50	52.4	88.9	-3.5		-51.4	860	1098	11 45 41
12 00 40	DA193	02 26 30	52.5	89.0	-3.5		-51.4	34	1098	12 00 40
12 15 00	---	02 40 52	54.6	91.9	-3.3		-51.4	860	1153	12 00 41
12 15 40	DA193	02 41 32	54.7	92.1	-3.2		-51.4	34	1153	12 15 40
12 30 00	---	02 55 55	56.9	95.1	-3.0		-51.1	860	1209	12 15 41
12 30 40	DA193	02 56 35	57.0	95.3	-3.0		-51.1	34	1209	12 30 40
12 45 00	---	03 10 57	59.1	98.6	-2.8		-50.6	860	1264	12 30 41
12 45 40	DA193	03 11 37	59.2	98.7	-2.7		-50.6	34	1264	12 45 40
13 00 00	---	03 26 00	61.3	102.3	-2.5		-49.8	860	1320	12 45 41
13 00 40	DA193	03 26 40	61.4	102.5	-2.5		-49.8	34	1320	13 00 40
13 15 00	---	03 41 02	63.5	106.4	-2.3		-48.6	860	1375	13 00 41
13 15 40	DA193	03 41 42	63.6	106.5	-2.2		-48.5	34	1375	13 15 40
13 30 00	---	03 56 05	65.7	110.9	-2.0		-46.9	860	1431	13 15 41

Schedule for TORUN (Code Tr)

Page 4

formatter test prior to DANTE demo

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
--- Tue 9 Apr 2013 Day 99 ---										
13 30 40	DA193	03 56 45	65.7	111.1	-2.0		-46.8	34	1431	13 30 40
13 45 00	---	04 11 07	67.7	116.0	-1.8		-44.7	860	1486	13 30 41
13 45 40	DA193	04 11 47	67.8	116.2	-1.7		-44.5	34	1486	13 45 40
14 00 00	---	04 26 10	69.7	121.8	-1.5		-41.6	860	1542	13 45 41
14 00 40	DA193	04 26 50	69.8	122.1	-1.5		-41.5	33	1542	14 00 40
14 15 00	---	04 41 12	71.6	128.5	-1.3		-37.7	860	1597	14 00 41
14 15 40	DA193	04 41 52	71.6	128.8	-1.2		-37.5	33	1597	14 15 40
14 30 00	---	04 56 14	73.2	136.3	-1.0		-32.7	860	1653	14 15 41
14 30 40	DA193	04 56 55	73.3	136.7	-1.0		-32.4	33	1653	14 30 40
14 45 00	---	05 11 17	74.7	145.4	-0.8		-26.4	860	1708	14 30 41
14 45 40	DA193	05 11 57	74.7	145.8	-0.7		-26.1	33	1708	14 45 40
15 00 00	---	05 26 19	75.8	155.8	-0.5		-18.7	860	1764	14 45 41
15 00 40	DA193	05 26 59	75.8	156.3	-0.5		-18.3	33	1764	15 00 40
15 15 00	---	05 41 22	76.5	167.5	-0.3		-9.7	860	1819	15 00 41
15 15 40	DA193	05 42 02	76.5	168.1	-0.2		-9.3	32	1819	15 15 40
15 30 00	---	05 56 24	76.7	180.0	0.0		0.0	860	1875	15 15 41
15 33 00	4C39.25	05 59 25	52.1	90.4	-3.5		-50.6	-14	1875	15 33 00
15 45 00	---	06 11 27	54.0	92.8	-3.3		-50.5	706	1921	15 33 01
15 45 40	4C39.25	06 12 07	54.1	93.0	-3.3		-50.5	34	1921	15 45 40
16 00 00	---	06 26 29	56.2	96.1	-3.0		-50.2	860	1977	15 45 41
16 00 40	4C39.25	06 27 09	56.3	96.2	-3.0		-50.2	34	1977	16 00 40
16 15 00	---	06 41 32	58.4	99.6	-2.8		-49.6	860	2032	16 00 41
16 15 40	4C39.25	06 42 12	58.5	99.7	-2.8		-49.6	34	2032	16 15 40
16 30 00	---	06 56 34	60.7	103.4	-2.5		-48.7	860	2088	16 15 41
16 30 40	4C39.25	06 57 14	60.8	103.5	-2.5		-48.7	34	2088	16 30 40
16 45 00	---	07 11 37	62.8	107.5	-2.3		-47.5	860	2143	16 30 41
16 45 40	4C39.25	07 12 17	62.9	107.7	-2.3		-47.4	34	2143	16 45 40
17 00 00	---	07 26 39	65.0	112.0	-2.0		-45.7	860	2199	16 45 41
17 00 40	4C39.25	07 27 19	65.0	112.3	-2.0		-45.6	34	2199	17 00 40
17 15 00	---	07 41 42	67.0	117.2	-1.8		-43.4	860	2254	17 00 41
17 15 40	4C39.25	07 42 22	67.1	117.4	-1.8		-43.3	34	2254	17 15 40
17 30 00	---	07 56 44	69.0	123.0	-1.5		-40.4	860	2310	17 15 41

Schedule for TORUN (Code Tr) Page 5

formatter test prior to DANTE demo

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
-----
```

--- Tue 9 Apr 2013 Day 99 ---

17 30 40	4C39.25	07 57 24	69.0	123.2	-1.5	-40.2	33	2310	17 30 40
17 45 00	---	08 11 46	70.8	129.6	-1.3	-36.5	860	2365	17 30 41
17 45 40	4C39.25	08 12 27	70.9	129.9	-1.3	-36.3	33	2365	17 45 40
18 00 00	---	08 26 49	72.4	137.3	-1.0	-31.6	860	2420	17 45 41
18 00 40	4C39.25	08 27 29	72.5	137.7	-1.0	-31.3	33	2420	18 00 40
18 15 00	---	08 41 51	73.8	146.2	-0.8	-25.5	860	2476	18 00 41
18 15 40	4C39.25	08 42 32	73.9	146.6	-0.8	-25.2	33	2476	18 15 40
18 30 00	---	08 56 54	74.9	156.2	-0.5	-18.1	860	2531	18 15 41
18 30 40	4C39.25	08 57 34	75.0	156.7	-0.5	-17.8	33	2531	18 30 40
18 45 00	---	09 11 56	75.6	167.4	-0.3	-9.7	860	2587	18 30 41
18 45 40	4C39.25	09 12 36	75.6	167.9	-0.3	-9.3	32	2587	18 45 40
19 00 00	---	09 26 59	75.9	179.3	0.0	-0.6	860	2642	18 45 41

SETUP FILE INFORMATION:

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

==== Setup file: 512Mbps

Matching groups in /aps3/sched10.2/catalogs/freq.dat:

tr6cm E-mail Borkowski 23Apr03 (CR 1May03)

```
Setup group: 6          Station: TORUN          Total bit rate: 512
Format: MKIV1:2        Bits per sample: 2      Sample rate: 16.000
Number of channels: 16 DBE type:          Speedup factor: 1.00
```

Disk used to record data.

1st LO=	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00
	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00	4200.00
Net SB=	L	L	U	U	L	L	U	U	U
	L	L	U	U	L	L	U	U	U
Pol. =	RCP	LCP	RCP	LCP	RCP	LCP	RCP	LCP	LCP
	RCP	LCP	RCP	LCP	RCP	LCP	RCP	LCP	LCP
BBC =	1	2	1	2	3	4	3	4	4
	5	6	5	6	7	8	7	8	8
BBC SB=	L	L	U	U	L	L	U	U	U
	L	L	U	U	L	L	U	U	U
IF =	C	A	C	A	C	A	C	A	A
	C	A	C	A	C	A	C	A	A

The following frequency sets based on these setups were used.

```

Frequency Set: 7 Setup file default. Used pcal sets: 1
LO sum= 4966.49 4966.49 4966.49 4966.49 4982.49 4982.49 4982.49 4982.49
        4998.49 4998.49 4998.49 4998.49 5014.49 5014.49 5014.49 5014.49
BBC fr= 766.49 766.49 766.49 766.49 782.49 782.49 782.49 782.49
        798.49 798.49 798.49 798.49 814.49 814.49 814.49 814.49
Bandwd= 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00
        8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00
Matching frequency sets: 7

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set: 1 PCAL = OFF
PCALXB1= S1 S2 S3 S4 S5 S6 S7 S8
PCALXB2= M1 M2 M3 M4 M5 M6 M7 M8
PCALFR1= 0 0 0 0 0 0 0 0
PCALFR2= 0 0 0 0 0 0 0 0

```

Track assignments are:

```

track1= 2, 10, 18, 26, 3, 11, 19, 27, 66, 74, 82, 90, 67, 75, 83, 91
barrel=roll_off

```

SOURCES USED IN RECORDING SCANS -- formatter test prior to DANTE demo
 Catalog positions marked with *.
 Precession of date coordinates is based on stop time of first scan.
 Names used in schedule marked with *.
 Short names used in VLA and SNAP files marked with +.
 Observation date used in B1950/J2000 coordinate conversion (PRECDATE): 1979.900
 No adjustments are made for rates (DRA, DDEC).
 Scan hours are for recording scans only.
 Baseline hours are only counted for scans above horizon at both ends.

Source	Source position (RA/Dec) (B1950)	Source position (RA/Dec) (J2000)	(Date)	Error (mas)
J0042+2320	00 39 25.715326	* 00 42 04.545170	00 42 46.342288	0.11
* 0039+230	23 03 34.83914	* 23 20 01.06192	23 24 17.97497	0.11
J0237+2848	02 34 55.589591	* 02 37 52.405678	02 38 39.097120	0.11
* 0234+285	28 35 11.40773	* 28 48 08.98998	28 51 30.54623	0.10
J0555+3948	05 52 01.407174	* 05 55 30.805616	05 56 26.831278	0.13
* DA193	39 48 21.94578	* 39 48 49.16493	39 48 53.74138	0.10
J0927+3902	09 23 55.319217	* 09 27 03.013938	09 27 54.227777	0.13
* 4C39.25	39 15 23.56637	* 39 02 20.85177	38 58 48.49452	0.10

The solar corona can cause unstable phases for sources too close to the Sun.
 SCHED provides warnings at individual scans for distances less than 10 degrees.
 The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0039+230	17.3
0234+285	29.1
DA193	70.3
4C39.25	110.0

te108tr

DANTE DEMO

PI: JIVE

Address: JIVE Oude Hoogeveensedijk 4 Dwingeloo Netherlands
EMAIL: zparagi@jive.nl Phone during observation: +31 521 596 530

Observing mode: realtime e-vlbi

Schedule for TORUN (Code Tr) Page 2
DANTE demo

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

--- Fri 12 Apr 2013 Day 102 ---

Table with columns: Start UT, Source, Start / Stop (LST, EL, AZ, HA, UP), Early (ParA, Dwell), Disk (GBytes), TPStart (SYNC). Rows include scan frequencies, BBC frequencies, scan bandwidths, and observation logs for various times and sources.

Schedule for TORUN (Code Tr)

Page 3

DANTE demo

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
-----
```

--- Fri 12 Apr 2013 Day 102 ---

```
09 45 40 0234+285      00 22 57  55.3 120.8 -2.3    -36.1   34    608  09 45 40
10 00 00 ---          00 37 20  57.1 125.4 -2.0    -34.0   860    663  09 45 41
```

```
##### Tu trzeba przerwac i zaczac re03qwtr (pasma K) #####
##### i byc moze ponownie wystartowac po 11:UT #####
```

```
10 45 40 0234+285      01 23 07  62.1 142.8 -1.3    -24.5   33    830  10 45 40
11 00 00 ---          01 37 30  63.3 149.1 -1.0    -20.6   860    885  10 45 41

11 02 00 0528+134      01 39 30  29.7 108.2 -3.9    -35.9  -20    885  11 02 00
11 15 00 ---          01 52 32  31.6 111.2 -3.7    -35.2   760    935  11 02 01

11 15 40 0528+134      01 53 12  31.7 111.3 -3.6    -35.1   34    935  11 15 40
11 30 00 ---          02 07 35  33.7 114.7 -3.4    -34.1   860    991  11 15 41

11 30 40 0528+134      02 08 15  33.8 114.9 -3.4    -34.1   34    991  11 30 40
11 45 00 ---          02 22 37  35.7 118.5 -3.2    -32.9   860   1046  11 30 41

11 45 40 0528+134      02 23 17  35.8 118.6 -3.1    -32.8   34   1046  11 45 40
12 00 00 ---          02 37 39  37.6 122.3 -2.9    -31.5   860   1102  11 45 41
```

SETUP FILE INFORMATION:

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

==== Setup file: 512Mbps

```
Setup group: 6          Station: TORUN          Total bit rate: 512
Format: MKIV1:2        Bits per sample: 2      Sample rate: 16.000
Number of channels: 16 DBE type:          Speedup factor: 1.00
```

Disk used to record data.

```
1st LO=  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00
         4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00  4200.00
Net SB=   L        L        U        U        L        L        U        U
         L        L        U        U        L        L        U        U
Pol.  =   RCP      LCP      RCP      LCP      RCP      LCP      RCP      LCP
         RCP      LCP      RCP      LCP      RCP      LCP      RCP      LCP
BBC    =     1        2        1        2        3        4        3        4
         5        6        5        6        7        8        7        8
BBC SB=   L        L        U        U        L        L        U        U
         L        L        U        U        L        L        U        U
IF     =     C        A        C        A        C        A        C        A
         C        A        C        A        C        A        C        A
```

The following frequency sets based on these setups were used.

```

Frequency Set: 7 Setup file default. Used pcal sets: 1
LO sum= 4966.49 4966.49 4966.49 4966.49 4982.49 4982.49 4982.49 4982.49
        4998.49 4998.49 4998.49 4998.49 5014.49 5014.49 5014.49 5014.49
BBC fr= 766.49 766.49 766.49 766.49 782.49 782.49 782.49 782.49
        798.49 798.49 798.49 798.49 814.49 814.49 814.49 814.49
Bandwd= 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00
        8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00
Matching frequency sets: 7

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set: 1 PCAL = OFF
PCALXB1= S1 S2 S3 S4 S5 S6 S7 S8
PCALXB2= M1 M2 M3 M4 M5 M6 M7 M8
PCALFR1= 0 0 0 0 0 0 0 0
PCALFR2= 0 0 0 0 0 0 0 0

```

Track assignments are:

```

track1= 2, 10, 18, 26, 3, 11, 19, 27, 66, 74, 82, 90, 67, 75, 83, 91
barrel=roll_off

```

SOURCES USED IN RECORDING SCANS --

DANTE demo

Catalog positions marked with *.

Precession of date coordinates is based on stop time of first scan.

Names used in schedule marked with *.

Short names used in VLA and SNAP files marked with +.

Observation date used in B1950/J2000 coordinate conversion (PRECDATE): 1979.900

No adjustments are made for rates (DRA, DDEC).

Scan hours are for recording scans only.

Baseline hours are only counted for scans above horizon at both ends.

Source	Source position (RA/Dec)		(Date)	Error (mas)
	(B1950)	(J2000)		
J0042+2320	00 39 25.715326	* 00 42 04.545170	00 42 46.366477	0.11
* 0039+230	23 03 34.83914	* 23 20 01.06192	23 24 17.72698	0.11
J0237+2848	02 34 55.589591	* 02 37 52.405678	02 38 39.083458	0.11
* 0234+285	28 35 11.40773	* 28 48 08.98998	28 51 30.15494	0.10

The solar corona can cause unstable phases for sources too close to the Sun.

SCHED provides warnings at individual scans for distances less than 10 degrees.

The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0039+230	17.6
0234+285	26.7

Barry Clark estimates from predictions by Ketan Desai of IPM scattering sizes that the Sun will cause amplitude reductions on the longest VLBA baselines at a solar distance of $60 \text{ deg } F^{-0.6}$ where F is in GHz.

For common VLBI bands, this is:

327 MHz	117. deg
610 MHz	81. deg
1.6 GHz	45. deg
2.3 GHz	36. deg
5.0 GHz	23. deg
8.4 GHz	17. deg
15.0 GHz	12. deg

re03qwtr

RADIOASTRON AGN FRINGE SURVEY
PI: Yuri Kovalev

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Fri 12 Apr 2013 Day 102 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

10 20 00	1751+288	00 57 23	14.0	-60.4	7.1		36.6	0	0	10 20 00
10 29 30	---	01 06 55	12.8	-58.6	7.2		35.8	570	18	10 20 01
10 30 00	1751+288	01 07 25	12.7	-58.5	7.2		35.8	24	18	10 30 00
10 39 30	---	01 16 56	11.5	-56.8	7.4		35.0	570	36	10 30 01
10 40 00	1751+288	01 17 26	11.4	-56.7	7.4		34.9	24	36	10 40 00
10 49 30	---	01 26 58	10.3	-55.0	7.5		34.1	570	55	10 40 01
10 50 00	1751+288	01 27 28	10.2	-54.9	7.6		34.1	24	55	10 50 00
11 00 00	---	01 37 30	9.0	-53.0	7.7		33.2	600	74	10 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	4	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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	Source position (RA/Dec) (J2000)	(Date)	Error (mas)
J1753+2848	17 51 45.401875	* 17 53 42.473647	17 54 14.722355	0.12
* 1751+288	28 48 36.64948	* 28 48 04.93876	28 47 48.61473	0.10

Source	Sun distance (deg)
1751+288	104.9

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Sat 13 Apr 2013 Day 103 ---

----- L-band VLBI scans -----

```
Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
Next BBC frequencies:  632.00  632.00  632.00  632.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

```
12 20 00 0851+202    03 01 39 16.8 78.8 -5.9   -38.8    0    0 12 20 00
12 29 30 ---        03 11 11 18.2 80.6 -5.7   -39.1  570   18 12 20 01

12 30 00 0851+202    03 11 41 18.3 80.7 -5.7   -39.1   24   18 12 30 00
12 39 30 ---        03 21 13 19.7 82.5 -5.6   -39.3  570   36 12 30 01

12 40 00 0851+202    03 21 43 19.8 82.6 -5.6   -39.3   24   36 12 40 00
12 49 30 ---        03 31 14 21.2 84.5 -5.4   -39.5  570   55 12 40 01

12 50 00 0851+202    03 31 44 21.3 84.6 -5.4   -39.5   24   55 12 50 00
13 00 00 ---        03 41 46 22.8 86.5 -5.2   -39.6  600   74 12 50 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

```
Setup group:      2      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= 2300.00 2300.00 2300.00 2300.00
Net SB=      L      L      U      U
IF SB =      L      L      L      L
Pol.  =      RCP     LCP     RCP     LCP
BBC   =      1      2      1      2
BBC SB=      U      U      L      L
IF    =      C      A      C      A
```

The following frequency sets based on these setups were used.

```
Frequency Set: 3 Setup file default. Used pcal sets: 1
LO sum= 1668.00 1668.00 1668.00 1668.00
BBC fr= 632.00 632.00 632.00 632.00
Bandwd= 16.00 16.00 16.00 16.00
Matching frequency sets: 3
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set: 1 PCAL = 1MHZ
PCALXB1= S1 S3 S1 S3 S1 S2 S3 S4
PCALXB2= S2 S4 S2 S4 M1 M2 M3 M4
PCALFR1= 1000 1000 13000 13000 0 0 0 0
PCALFR2= 1000 1000 13000 13000 0 0 0 0
```

Track assignments are:

```
track1= 2, 18, 3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.568544	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 18.02989	0.10

```
Source      Sun distance (deg)
0851+202    106.9
```

re03qytr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: C/L-band, dual-pol

Notes: C/L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Sat 13 Apr 2013 Day 103 ---

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
Next BBC frequencies: 632.00 632.00 632.00 632.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

Table with 11 columns: Start UT, Stop UT, Source, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, SYNC. It contains observation data for source 0955+476 on April 13, 2013.

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

```
Setup group:   4            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= 2300.00 2300.00 2300.00 2300.00
Net SB=        L        L        U        U
IF SB =        L        L        L        L
Pol. =        RCP        LCP        RCP        LCP
BBC =        1        2        1        2
BBC SB=        U        U        L        L
IF =        C        A        C        A
```

The following frequency sets based on these setups were used.

```
Frequency Set: 5 Setup file default. Used pcal sets: 1
LO sum= 1668.00 1668.00 1668.00 1668.00
BBC fr= 632.00 632.00 632.00 632.00
Bandwd= 16.00 16.00 16.00 16.00
Matching frequency sets: 5
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set: 1 PCAL = 1MHZ
PCALXB1= S1 S3 S1 S3 S1 S2 S3 S4
PCALXB2= S2 S4 S2 S4 M1 M2 M3 M4
PCALFR1= 1000 1000 13000 13000 0 0 0 0
PCALFR2= 1000 1000 13000 13000 0 0 0 0
```

Track assignments are:

```
track1= 2, 18, 3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	Source position (RA/Dec) (J2000)	(Date)	Error (mas)
J0958+4725	09 55 08.528429	* 09 58 19.671644	09 59 11.875103	0.15
* 0955+476	47 39 28.28168	* 47 25 07.84237	47 21 17.36565	0.10

```
Source            Sun distance (deg)
0955+476            106.9
```

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Sat 13 Apr 2013 Day 103 ---

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
Next BBC frequencies: 632.00 632.00 632.00 632.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

```
17 00 00 0727-115    07 42 25 25.1 183.1 0.2      1.9    0      0 17 00 00
17 09 30 ---        07 51 57 25.0 185.7 0.3      3.5  570    18 17 00 01

17 10 00 0727-115    07 52 27 25.0 185.8 0.4      3.6   24    18 17 10 00
17 19 30 ---        08 01 58 24.8 188.4 0.5      5.1  570    36 17 10 01

17 20 00 0727-115    08 02 29 24.8 188.5 0.5      5.2   24    36 17 20 00
17 29 30 ---        08 12 00 24.6 191.1 0.7      6.8  570    55 17 20 01

17 30 00 0727-115    08 12 30 24.6 191.2 0.7      6.8   24    55 17 30 00
17 39 30 ---        08 22 02 24.3 193.7 0.9      8.4  570    73 17 30 01

17 40 00 0727-115    08 22 32 24.2 193.9 0.9      8.5   24    73 17 40 00
17 49 30 ---        08 32 03 23.9 196.4 1.0     10.0  570    91 17 40 01

17 50 00 0727-115    08 32 34 23.9 196.5 1.0     10.0   24    91 17 50 00
17 59 30 ---        08 42 05 23.4 199.0 1.2     11.5  570   109 17 50 01

18 00 00 0727-115    08 42 35 23.4 199.2 1.2     11.6   24   109 18 00 00
18 10 00 ---        08 52 37 22.9 201.8 1.4     13.1  600   129 18 00 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr18cm E-mail Borkowski 12Mar98, preferred alternative

Setup group:	4	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	3	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	3			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.223286	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.53095	0.10

Source	Sun distance (deg)
0727-115	92.4

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Sat 13 Apr 2013 Day 103 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00
Next BBC frequencies:	736.00	736.00	736.00	736.00
Next scan bandwidths:	16.00	16.00	16.00	16.00

20 20 00	0748+126	11 02 58	34.5	241.4	3.2		32.7	0	0	20 20 00
20 29 30	---	11 12 30	33.2	243.8	3.3		33.5	570	18	20 20 01
20 30 00	0748+126	11 13 00	33.2	243.9	3.4		33.5	24	18	20 30 00
20 39 30	---	11 22 31	31.9	246.2	3.5		34.2	570	36	20 30 01
20 40 00	0748+126	11 23 01	31.8	246.3	3.5		34.3	24	36	20 40 00
20 49 30	---	11 32 33	30.5	248.5	3.7		34.9	570	55	20 40 01
20 50 00	0748+126	11 33 03	30.4	248.6	3.7		34.9	24	55	20 50 00
20 59 30	---	11 42 35	29.1	250.8	3.8		35.5	570	73	20 50 01
21 00 00	0748+126	11 43 05	29.0	250.9	3.9		35.5	24	73	21 00 00
21 09 30	---	11 52 36	27.6	253.1	4.0		36.0	570	91	21 00 01
21 10 00	0748+126	11 53 06	27.6	253.2	4.0		36.1	24	91	21 10 00
21 19 30	---	12 02 38	26.2	255.3	4.2		36.5	570	109	21 10 01
21 20 00	0748+126	12 03 08	26.1	255.4	4.2		36.5	24	109	21 20 00
21 30 00	---	12 13 10	24.6	257.6	4.4		36.9	600	129	21 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	6	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:	6	Setup file default.	Used pcal sets:	1
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:	6			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 37.196327	0.10
* 0748+126	12 38 45.47744	* 12 31 04.82812	12 28 50.07449	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0748+126	93.4

re03rbtr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 14 Apr 2013 Day 104 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

Table with 11 columns: Start UT, Stop UT, Source, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, SYNC. It lists observation times and parameters for source 0727-115.

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	6	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:	8	Setup file default.	Used pcal sets:	1
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:	8			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.209900	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.53375	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0727-115	91.7

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
 Phone: +7-495-3332167 EMAIL: yk@asc.rssi.ru
 Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 14 Apr 2013 Day 104 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00						
Next BBC frequencies:	736.00	736.00	736.00	736.00						
Next scan bandwidths:	16.00	16.00	16.00	16.00						
16 00 00	0748+126	06 46 12	47.3	156.1	-1.1		-14.4	0	0	16 00 00
16 09 30	---	06 55 44	47.9	159.4	-0.9		-12.5	570	18	16 00 01
16 10 00	0748+126	06 56 14	47.9	159.6	-0.9		-12.4	24	18	16 10 00
16 19 30	---	07 05 45	48.4	163.0	-0.8		-10.4	570	36	16 10 01
16 20 00	0748+126	07 06 15	48.4	163.2	-0.8		-10.2	24	36	16 20 00
16 29 30	---	07 15 47	48.8	166.7	-0.6		-8.2	570	55	16 20 01
16 30 00	0748+126	07 16 17	48.8	166.8	-0.6		-8.0	24	55	16 30 00
16 39 30	---	07 25 48	49.1	170.4	-0.4		-5.9	570	73	16 30 01
16 40 00	0748+126	07 26 19	49.1	170.5	-0.4		-5.8	24	73	16 40 00
16 49 30	---	07 35 50	49.3	174.1	-0.3		-3.6	570	91	16 40 01
16 50 00	0748+126	07 36 20	49.3	174.3	-0.3		-3.5	24	91	16 50 00
16 59 30	---	07 45 52	49.4	177.8	-0.1		-1.3	570	109	16 50 01
17 00 00	0748+126	07 46 22	49.4	178.0	-0.1		-1.2	24	109	17 00 00
17 09 30	---	07 55 53	49.4	181.6	0.1		1.0	570	128	17 00 01
17 10 00	0748+126	07 56 23	49.4	181.8	0.1		1.1	24	128	17 10 00
17 19 30	---	08 05 55	49.3	185.4	0.2		3.3	570	146	17 10 01
17 20 00	0748+126	08 06 25	49.3	185.5	0.2		3.4	24	146	17 20 00
17 30 00	---	08 16 27	49.1	189.3	0.4		5.7	600	165	17 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	6	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:	6	Setup file default.	Used pcal sets:	1
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:	6			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 37.184978	0.10
* 0748+126	12 38 45.47744	* 12 31 04.82812	12 28 50.07521	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0748+126	92.6

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 14 Apr 2013 Day 104 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00
Next BBC frequencies:	736.00	736.00	736.00	736.00
Next scan bandwidths:	16.00	16.00	16.00	16.00

19 00 00	0851+202	09 46 42	55.5	201.5	0.9	13.6	0	0	19 00 00
19 09 30	---	09 56 13	55.0	205.3	1.0	15.9	570	18	19 00 01
19 10 00	0851+202	09 56 43	54.9	205.5	1.0	16.0	24	18	19 10 00
19 19 30	---	10 06 15	54.3	209.2	1.2	18.2	570	36	19 10 01
19 20 00	0851+202	10 06 45	54.2	209.4	1.2	18.3	24	36	19 20 00
19 29 30	---	10 16 16	53.5	213.0	1.3	20.4	570	55	19 20 01
19 30 00	0851+202	10 16 46	53.4	213.2	1.4	20.5	24	55	19 30 00
19 40 00	---	10 26 48	52.6	216.8	1.5	22.5	600	74	19 30 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	6	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:	5	Setup file default.	Used pcal sets:	1
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:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.551259	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 18.06509	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0851+202	105.7

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Mon 15 Apr 2013 Day 105 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

```
14 20 00 0727-115    05 09 52 18.5 143.4 -2.4   -21.4    0    0 14 20 00
14 29 30 ---        05 19 24 19.3 145.7 -2.2   -20.2   570   18 14 20 01

14 30 00 0727-115    05 19 54 19.4 145.8 -2.2   -20.2   24   18 14 30 00
14 39 30 ---        05 29 25 20.2 148.2 -2.0   -18.9   570   36 14 30 01

14 40 00 0727-115    05 29 55 20.2 148.3 -2.0   -18.8   24   36 14 40 00
14 49 30 ---        05 39 27 20.9 150.6 -1.9   -17.5   570   55 14 40 01

14 50 00 0727-115    05 39 57 21.0 150.8 -1.9   -17.4   24   55 14 50 00
15 00 00 ---        05 49 59 21.7 153.3 -1.7   -16.0   600   74 14 50 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	5	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:	5	Setup file default.	Used pcal sets:	1
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:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0730-1141	07 27 58.097814	* 07 30 19.112474	07 30 57.195573	0.10
* 0727-115	-11 34 52.58107	*-11 41 12.60063	-11 43 13.52500	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0727-115	90.9

RADIO ASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Mon 15 Apr 2013 Day 105 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
 Next BBC frequencies: 736.00 736.00 736.00 736.00
 Next scan bandwidths: 16.00 16.00 16.00 16.00

16 00 00	0748+126	06 50 09	47.6	157.4	-1.0	-13.6	0	0	16 00 00
16 09 30	---	06 59 40	48.1	160.8	-0.9	-11.7	570	18	16 00 01
16 10 00	0748+126	07 00 10	48.1	161.0	-0.9	-11.5	24	18	16 10 00
16 19 30	---	07 09 42	48.5	164.4	-0.7	-9.5	570	36	16 10 01
16 20 00	0748+126	07 10 12	48.6	164.6	-0.7	-9.4	24	36	16 20 00
16 29 30	---	07 19 43	48.9	168.1	-0.5	-7.3	570	55	16 20 01
16 30 00	0748+126	07 20 13	48.9	168.3	-0.5	-7.2	24	55	16 30 00
16 39 30	---	07 29 45	49.2	171.8	-0.4	-5.0	570	73	16 30 01
16 40 00	0748+126	07 30 15	49.2	172.0	-0.4	-4.9	24	73	16 40 00
16 49 30	---	07 39 47	49.3	175.6	-0.2	-2.7	570	91	16 40 01
16 50 00	0748+126	07 40 17	49.3	175.8	-0.2	-2.6	24	91	16 50 00
17 00 00	---	07 50 18	49.4	179.5	-0.0	-0.3	600	110	16 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	4	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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 37.172006	0.10
* 0748+126	12 38 45.47744	* 12 31 04.82812	12 28 50.08480	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0748+126	91.6

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Mon 15 Apr 2013 Day 105 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

```
18 20 00 0834-201    09 10 32 16.2 188.1 0.6      5.2   0      0 18 20 00
18 29 30 ---          09 20 03 16.0 190.4 0.7      6.7  570     18 18 20 01

18 30 00 0834-201    09 20 33 16.0 190.6 0.7      6.7   24     18 18 30 00
18 39 30 ---          09 30 05 15.7 192.9 0.9      8.2  570     36 18 30 01

18 40 00 0834-201    09 30 35 15.7 193.0 0.9      8.3   24     36 18 40 00
18 49 30 ---          09 40 06 15.3 195.3 1.0      9.7  570     55 18 40 01

18 50 00 0834-201    09 40 36 15.3 195.4 1.1      9.8   24     55 18 50 00
19 00 00 ---          09 50 38 14.9 197.8 1.2     11.3  600     74 18 50 01
```


SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	5	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:	5	Setup file default.	Used pcal sets:	1
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:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 16.015919	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.91234	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0834-201	107.7

el043atr

E-EVN RUN EL043A (LICO), RSP08B (PEREZ-TORRES), EG070A (GABANYI)
PI: *Rocco Lico, Miguel Perez-Torres, Krisztina Gabanyi*

Address: JIVE Postbus 2 7990 AA Dwingeloo The Netherlands
Phone: +31 (0)521 596 536 EMAIL: zparagi@jive.nl
Phone during observation: +31 (0)521 596 500

EVN e-VLBI Session 13e04 16-17 April 2013
=====

Test start: UT 0900 16 Apr (Day 106)
Nominal start: UT 1300 16 Apr (Day 106)
Nominal stop: UT 1300 17 Apr (Day 107)

* SCHEDULE *

CODE	BAND	POL.	Mb/s	TELESCOPES	START		
					DAY	UT-START	UT-STOP
=====	=====	=====	=====	=====	=====	=====	=====
Test	18cm	L+R	1024*	Jb1 Wb14 Eb 0n25 Mc Tr Sh Hh	106	0900(16/04)-1300(16/04)	
EL043A	18cm	L+R	1024*	Jb1 Wb14 Eb 0n25 Mc Tr Sh --	106	1300(16/04)-1630(16/04)	
RSP08B	18cm	L+R	1024*	Jb1 Wb14 Eb 0n25 Mc Tr Sh Hh	106	1630(16/04)-1830(16/04)	
EG070A	18cm	L+R	1024*	Jb1 Wb14 Eb 0n25 Mc Tr Sh Hh	106	1830(16/04)-2230(16/04)	
EL043A	18cm	L+R	1024*	Jb1 Wb14 Eb 0n25 Mc Tr Sh --	106	2230(16/04)-1300(17/04)	

Comments:

- 1) Where possible, stations will run at the maximum available bit-rate of 1024 Mbps.
Current restrictions are:
 Sh possibly limited to 256 Mbps
 Ar limited to 256 Mbps (increases to 512 Mbps for UT 0400-1000)
- 2) No MERLIN outstations (e.g. Cm) available this session
- 3) Noto not available at 18cm this session.

* PROJECT INFORMATION *

CODE	INVESTIGATOR	PROJECT	RA/DEC	Hrs	POSSIBLE		
					UT RANGE	PRIORITY	EMAIL CONTACT
=====	=====	=====	=====	=====	=====	=====	=====
EL043A	Lico	hard gamma-ray sources	dec > 30	18.0	0000-2400	2	rocco.lico@unibo.it
RSP08B	Perez-Torres	NGC3341	1042/+05	2.0	1630-1830	-	torres@iaa.es
EG070A	Gabanyi	NGC5515	1412/+39	4.0	1830-2230	3	gabanyi@konkoly.hu

=====> Possible trigger proposal at 6cm <=====

EM102 Miller-Jones SS Cygni 2142/+43 6.0 0315-1615 1 james.miller-jones@curtin.edu.au
=====

Schedule for TORUN (Code Tr)

Page 2

e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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

--- Tue 16 Apr 2013 Day 106 ---

Next scan frequencies:	1616.49	1616.49	1616.49	1616.49	1648.49	1648.49	1648.49	1648.49	1648.49
	1680.49	1680.49	1680.49	1680.49	1712.49	1712.49	1712.49	1712.49	1712.49
Next BBC frequencies:	683.51	683.51	683.51	683.51	651.51	651.51	651.51	651.51	651.51
	619.51	619.51	619.51	619.51	587.51	587.51	587.51	587.51	587.51
Next scan bandwidths:	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00

09 00 00	0234+285	23 52 56	51.3	112.1	-2.8		-39.4	0	0	08 59 55
09 14 20	---	00 07 18	53.3	116.1	-2.5		-38.0	860	112	08 59 56
09 15 00	0234+285	00 07 59	53.3	116.3	-2.5		-37.9	34	112	09 14 55
09 29 20	---	00 22 21	55.2	120.6	-2.3		-36.2	860	223	09 14 56
09 30 00	0234+285	00 23 01	55.3	120.8	-2.3		-36.1	34	223	09 29 55
09 44 20	---	00 37 23	57.1	125.5	-2.0		-34.0	860	335	09 29 56
09 45 00	0234+285	00 38 04	57.2	125.7	-2.0		-33.8	34	335	09 44 55
09 59 20	---	00 52 26	58.9	130.7	-1.8		-31.3	860	446	09 44 56
10 00 00	0234+285	00 53 06	59.0	130.9	-1.8		-31.2	34	446	09 59 55
10 14 20	---	01 07 28	60.5	136.4	-1.5		-28.2	860	558	09 59 56
10 15 00	0234+285	01 08 08	60.6	136.6	-1.5		-28.1	33	558	10 14 55
10 29 20	---	01 22 31	62.0	142.5	-1.3		-24.7	860	670	10 14 56
10 30 00	0234+285	01 23 11	62.1	142.8	-1.3		-24.5	33	670	10 29 55
10 44 20	---	01 37 33	63.3	149.1	-1.0		-20.6	860	781	10 29 56
10 45 00	0234+285	01 38 13	63.3	149.4	-1.0		-20.4	33	781	10 44 55
10 59 20	---	01 52 36	64.3	156.2	-0.8		-16.1	860	893	10 44 56
11 01 20	0528+134	01 54 36	31.9	111.7	-3.6		-35.0	-15	893	11 01 15
11 14 20	---	02 07 38	33.7	114.8	-3.4		-34.1	765	994	11 01 16
11 15 00	0528+134	02 08 18	33.8	114.9	-3.4		-34.1	34	994	11 14 55
11 29 20	---	02 22 41	35.7	118.5	-3.2		-32.9	860	1106	11 14 56
11 30 00	0528+134	02 23 21	35.8	118.6	-3.1		-32.8	34	1106	11 29 55
11 44 20	---	02 37 43	37.6	122.3	-2.9		-31.5	860	1217	11 29 56
11 45 00	0528+134	02 38 23	37.7	122.5	-2.9		-31.4	34	1217	11 44 55
11 59 20	---	02 52 46	39.5	126.3	-2.6		-29.8	860	1329	11 44 56
12 00 00	0528+134	02 53 26	39.6	126.5	-2.6		-29.8	34	1329	11 59 55
12 14 20	---	03 07 48	41.3	130.5	-2.4		-28.0	860	1441	11 59 56

Schedule for TORUN (Code Tr)

Page 3

e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
12 15 00	0528+134	03 08 28	41.4	130.7	-2.4		-27.9	34	1441	12 14 55
12 29 20	---	03 22 50	42.9	134.9	-2.1		-25.9	860	1552	12 14 56
12 30 00	0528+134	03 23 31	43.0	135.1	-2.1		-25.8	34	1552	12 29 55
12 44 20	---	03 37 53	44.5	139.5	-1.9		-23.6	860	1664	12 29 56
12 46 50	J0559+3749	03 40 23	61.6	108.3	-2.3		-46.2	72	1664	12 46 45
12 57 20	=0555+378	03 50 55	63.1	111.5	-2.2		-45.0	630	1746	12 46 46
12 59 50	J0559+3749	03 53 26	63.4	112.3	-2.1		-44.7	143	1746	12 59 45
13 01 20	=0555+378	03 54 56	63.6	112.7	-2.1		-44.5	90	1758	12 59 46
13 03 50	J0601.0+3838	03 57 26	64.3	111.6	-2.1		-45.6	133	1758	13 03 45
13 08 00	---	04 01 37	64.8	112.9	-2.0		-45.1	250	1791	13 03 46
13 08 30	J0559+3749	04 02 07	64.6	115.1	-2.0		-43.5	12	1791	13 08 25
13 09 30	=0555+378	04 03 07	64.7	115.4	-1.9		-43.4	60	1799	13 08 26
13 09 30	J0601.0+3838	04 03 07	65.1	113.4	-2.0		-44.9	-17	1799	No stop
13 13 40	---	04 07 18	65.6	114.8	-1.9		-44.3	233	1831	13 09 31
13 16 10	J0559+3749	04 09 48	65.6	117.7	-1.8		-42.3	132	1831	13 16 05
13 17 40	=0555+378	04 11 18	65.8	118.2	-1.8		-42.0	90	1844	13 16 06
13 20 10	J0601.0+3838	04 13 49	66.5	117.1	-1.8		-43.2	132	1844	13 20 05
13 24 20	---	04 18 00	67.1	118.6	-1.7		-42.5	250	1877	13 20 06
13 24 50	J0559+3749	04 18 30	66.8	120.9	-1.7		-40.7	12	1877	13 24 45
13 25 50	=0555+378	04 19 30	66.9	121.3	-1.7		-40.5	60	1885	13 24 46
13 25 50	J0601.0+3838	04 19 30	67.3	119.1	-1.7		-42.2	-18	1885	No stop
13 30 00	---	04 23 40	67.8	120.7	-1.6		-41.4	232	1917	13 25 51
13 30 00	J0559+3749	04 23 40	67.4	122.9	-1.6		-39.7	-18	1917	No stop
13 31 10	=0555+378	04 24 51	67.6	123.4	-1.6		-39.4	52	1926	13 30 01
13 32 10	J0709+3737	04 25 51	57.9	102.1	-2.7		-47.8	2	1926	13 32 05
13 33 40	=0705+377	04 27 21	58.1	102.4	-2.7		-47.7	90	1939	13 32 06
13 33 40	J0706.5+3744	04 27 21	58.5	103.0	-2.7		-47.7	-13	1939	No stop
13 37 50	---	04 31 32	59.1	104.0	-2.6		-47.4	237	1971	13 33 41
13 38 20	J0709+3737	04 32 02	58.8	103.6	-2.6		-47.4	17	1971	13 38 15
13 39 20	=0705+377	04 33 02	58.9	103.9	-2.6		-47.4	60	1979	13 38 16

Schedule for TORUN (Code Tr)

Page 4

e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
13 39 20	J0706.5+3744	04 33 02	59.4	104.4	-2.6		-47.3	-13	1979	No stop
13 43 30	---	04 37 13	60.0	105.5	-2.5		-47.0	237	2011	13 39 21
13 43 30	J0709+3737	04 37 13	59.5	105.0	-2.5		-47.1	-13	2011	No stop
13 44 40	=0705+377	04 38 23	59.7	105.3	-2.5		-47.0	57	2021	13 43 31
13 44 40	J0706.5+3744	04 38 23	60.1	105.9	-2.5		-46.9	-13	2021	No stop
13 48 50	---	04 42 34	60.7	107.0	-2.4		-46.6	237	2053	13 44 41
13 49 20	J0709+3737	04 43 04	60.4	106.6	-2.5		-46.6	17	2053	13 49 15
13 50 20	=0705+377	04 44 04	60.5	106.9	-2.4		-46.5	60	2061	13 49 16
13 50 20	J0706.5+3744	04 44 04	61.0	107.4	-2.4		-46.4	-13	2061	No stop
13 54 30	---	04 48 14	61.6	108.6	-2.3		-46.0	237	2093	13 50 21
13 54 30	J0709+3737	04 48 14	61.1	108.0	-2.4		-46.1	-13	2093	No stop
13 55 40	=0705+377	04 49 25	61.3	108.4	-2.3		-46.0	57	2102	13 54 31
13 57 10	J0650+6001	04 50 55	72.2	55.2	-2.0		-99.4	-31	2102	13 57 05
13 58 40	=0646+600	04 52 25	72.4	55.1	-2.0		-99.8	59	2115	13 57 06
13 58 40	J0644.2+6036	04 52 25	73.0	52.6	-1.9		-103.5	-19	2115	No stop
14 02 50	---	04 56 36	73.4	52.1	-1.8		-104.8	231	2147	13 58 41
14 03 20	J0650+6001	04 57 06	72.9	54.7	-1.9		-101.2	10	2147	14 03 15
14 04 20	=0646+600	04 58 06	73.1	54.7	-1.9		-101.5	60	2155	14 03 16
14 04 20	J0644.2+6036	04 58 06	73.6	52.0	-1.8		-105.3	-20	2155	No stop
14 08 30	---	05 02 17	74.1	51.5	-1.7		-106.7	230	2188	14 04 21
14 08 30	J0650+6001	05 02 17	73.6	54.3	-1.8		-102.7	-20	2188	No stop
14 09 40	=0646+600	05 03 27	73.7	54.2	-1.8		-103.1	50	2197	14 08 31
14 09 40	J0644.2+6036	05 03 27	74.3	51.3	-1.7		-107.1	-20	2197	No stop
14 13 50	---	05 07 38	74.7	50.7	-1.6		-108.6	230	2229	14 09 41
14 14 20	J0650+6001	05 08 08	74.3	53.7	-1.7		-104.6	10	2229	14 14 15
14 15 20	=0646+600	05 09 08	74.4	53.5	-1.7		-104.9	60	2237	14 14 16
14 15 20	J0644.2+6036	05 09 08	74.9	50.5	-1.6		-109.1	-21	2237	No stop
14 19 30	---	05 13 19	75.4	49.8	-1.5		-110.7	229	2270	14 15 21
14 19 30	J0650+6001	05 13 19	74.9	53.0	-1.6		-106.3	-21	2270	No stop
14 20 40	=0646+600	05 14 29	75.0	52.8	-1.6		-106.7	49	2279	14 19 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
14 23 10	J0750+8241	05 16 59	58.5	8.9	-2.6		-133.5	47	2279	14 23 05
14 24 40	=0740+828	05 18 29	58.5	8.8	-2.6		-133.9	90	2291	14 23 06
14 24 40	J0745.2+8511	05 18 29	56.8	5.4	-2.5		-137.4	-21	2291	No stop
14 28 50	---	05 22 40	56.8	5.3	-2.5		-138.5	229	2323	14 24 41
14 29 20	J0750+8241	05 23 10	58.6	8.6	-2.5		-135.2	9	2323	14 29 15
14 30 20	=0740+828	05 24 10	58.6	8.6	-2.5		-135.5	60	2331	14 29 16
14 30 20	J0745.2+8511	05 24 10	56.9	5.3	-2.4		-138.9	-21	2331	No stop
14 34 30	---	05 28 21	56.9	5.2	-2.4		-140.1	229	2364	14 30 21
14 34 30	J0750+8241	05 28 21	58.7	8.4	-2.4		-136.7	-21	2364	No stop
14 35 40	=0740+828	05 29 31	58.8	8.3	-2.4		-137.0	49	2373	14 34 31
14 35 40	J0745.2+8511	05 29 31	56.9	5.1	-2.4		-140.4	-21	2373	No stop
14 39 50	---	05 33 42	57.0	5.0	-2.3		-141.5	229	2405	14 35 41
14 40 20	J0750+8241	05 34 12	58.9	8.1	-2.3		-138.4	9	2405	14 40 15
14 41 20	=0740+828	05 35 12	58.9	8.1	-2.3		-138.7	60	2413	14 40 16
14 41 20	J0745.2+8511	05 35 12	57.0	5.0	-2.3		-142.0	-21	2413	No stop
14 45 30	---	05 39 23	57.1	4.8	-2.2		-143.1	229	2446	14 41 21
14 45 30	J0750+8241	05 39 23	59.0	7.9	-2.2		-139.9	-21	2446	No stop
14 46 40	=0740+828	05 40 33	59.0	7.8	-2.2		-140.2	49	2455	14 45 31
14 47 10	J0749+7420	05 41 03	65.1	20.2	-2.2		-130.1	-10	2455	14 47 05
14 48 40	=0743+744	05 42 33	65.1	20.0	-2.1		-130.6	80	2467	14 47 06
14 48 40	J0745.2+7439	05 42 33	65.3	19.0	-2.1		-132.7	-14	2467	No stop
14 52 50	---	05 46 44	65.5	18.6	-2.0		-134.1	236	2499	14 48 41
14 53 20	J0749+7420	05 47 14	65.4	19.5	-2.1		-132.2	16	2499	14 53 15
14 54 20	=0743+744	05 48 14	65.4	19.4	-2.0		-132.5	60	2508	14 53 16
14 54 20	J0745.2+7439	05 48 14	65.5	18.4	-2.0		-134.7	-14	2508	No stop
14 58 30	---	05 52 25	65.7	17.9	-1.9		-136.1	236	2540	14 54 21
14 58 30	J0749+7420	05 52 25	65.6	18.9	-2.0		-133.9	-14	2540	No stop
14 59 40	=0743+744	05 53 35	65.7	18.8	-2.0		-134.3	56	2549	14 58 31
14 59 40	J0745.2+7439	05 53 35	65.8	17.8	-1.9		-136.5	-14	2549	No stop
15 03 50	---	05 57 46	66.0	17.3	-1.8		-138.0	236	2581	14 59 41

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
15 04 20	J0749+7420	05 58 16	65.9	18.2	-1.9		-136.0	16	2581	15 04 15
15 05 20	=0743+744	05 59 16	66.0	18.1	-1.9		-136.3	60	2590	15 04 16
15 05 20	J0745.2+7439	05 59 16	66.0	17.1	-1.8		-138.5	-14	2590	No stop
15 09 30	---	06 03 27	66.2	16.6	-1.7		-140.0	236	2622	15 05 21
15 09 30	J0749+7420	06 03 27	66.2	17.6	-1.8		-137.8	-14	2622	No stop
15 10 40	=0743+744	06 04 37	66.2	17.5	-1.8		-138.2	56	2631	15 09 31
15 13 10	J0905+4850	06 07 07	61.9	80.5	-3.0		-64.0	9	2631	15 13 05
15 14 40	=0902+490	06 08 38	62.1	80.7	-3.0		-64.1	90	2643	15 13 06
15 14 40	J0850.0+484A	06 08 38	64.4	83.0	-2.7		-64.8	-22	2643	No stop
15 18 50	---	06 12 48	65.0	83.7	-2.6		-65.0	228	2675	15 14 41
15 19 20	J0905+4850	06 13 18	62.8	81.4	-2.9		-64.3	8	2675	15 19 15
15 20 20	=0902+490	06 14 19	63.0	81.6	-2.9		-64.4	60	2684	15 19 16
15 20 20	J0850.0+484B	06 14 19	65.3	83.9	-2.6		-65.2	-23	2684	No stop
15 24 30	---	06 18 29	65.9	84.6	-2.5		-65.3	227	2716	15 20 21
15 24 30	J0905+4850	06 18 29	63.6	82.2	-2.8		-64.6	-22	2716	No stop
15 25 40	=0902+490	06 19 39	63.8	82.4	-2.8		-64.6	48	2725	15 24 31
15 25 40	J0850.0+484A	06 19 39	66.0	84.8	-2.5		-65.3	-22	2725	No stop
15 29 50	---	06 23 50	66.6	85.5	-2.5		-65.4	228	2757	15 25 41
15 30 20	J0905+4850	06 24 20	64.5	83.2	-2.7		-64.8	8	2757	15 30 15
15 31 20	=0902+490	06 25 20	64.6	83.3	-2.7		-64.9	60	2766	15 30 16
15 31 20	J0850.0+484B	06 25 20	67.0	85.8	-2.4		-65.6	-23	2766	No stop
15 35 30	---	06 29 31	67.6	86.5	-2.4		-65.7	227	2798	15 31 21
15 35 30	J0905+4850	06 29 31	65.2	84.0	-2.6		-65.0	-22	2798	No stop
15 36 40	=0902+490	06 30 41	65.4	84.2	-2.6		-65.1	48	2807	15 35 31
15 36 40	J0850.0+484A	06 30 41	67.7	86.7	-2.3		-65.6	-23	2807	No stop
15 40 50	---	06 34 52	68.3	87.5	-2.3		-65.7	227	2839	15 36 41
15 41 20	J0905+4850	06 35 22	66.1	85.0	-2.5		-65.2	8	2839	15 41 15
15 42 20	=0902+490	06 36 22	66.3	85.2	-2.5		-65.3	60	2848	15 41 16
15 42 20	J0850.0+484B	06 36 22	68.6	87.7	-2.2		-65.8	-23	2848	No stop
15 46 30	---	06 40 33	69.2	88.5	-2.2		-65.9	227	2880	15 42 21

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
15 46 30	J0905+4850	06 40 33	66.9	85.9	-2.4		-65.4	-23	2880	No stop
15 47 40	=0902+490	06 41 43	67.1	86.1	-2.4		-65.4	47	2889	15 46 31
15 49 40	J1022+3041	06 43 43	44.8	97.3	-3.7		-43.8	22	2889	15 49 35
15 51 10	=1019+309	06 45 14	45.0	97.6	-3.6		-43.8	90	2901	15 49 36
15 51 10	J1023.6+2959	06 45 14	44.3	98.0	-3.7		-43.3	-15	2901	No stop
15 55 20	---	06 49 24	44.9	98.9	-3.6		-43.2	235	2933	15 51 11
15 55 50	J1022+3041	06 49 54	45.7	98.6	-3.6		-43.6	15	2933	15 55 45
15 56 50	=1019+309	06 50 55	45.9	98.9	-3.5		-43.6	60	2942	15 55 46
15 56 50	J1023.6+2959	06 50 55	45.1	99.3	-3.6		-43.1	-15	2942	No stop
16 01 00	---	06 55 05	45.7	100.2	-3.5		-43.0	235	2974	15 56 51
16 01 00	J1022+3041	06 55 05	46.5	99.8	-3.5		-43.4	-15	2974	No stop
16 02 10	=1019+309	06 56 15	46.6	100.1	-3.5		-43.4	55	2983	16 01 01
16 02 10	J1023.6+2959	06 56 15	45.9	100.5	-3.5		-42.9	-15	2983	No stop
16 06 20	---	07 00 26	46.5	101.4	-3.4		-42.8	235	3015	16 02 11
16 06 50	J1022+3041	07 00 56	47.3	101.2	-3.4		-43.2	15	3015	16 06 45
16 07 50	=1019+309	07 01 56	47.5	101.4	-3.4		-43.2	60	3024	16 06 46
16 07 50	J1023.6+2959	07 01 56	46.8	101.8	-3.4		-42.7	-15	3024	No stop
16 12 00	---	07 06 07	47.4	102.8	-3.3		-42.5	235	3056	16 07 51
16 12 00	J1022+3041	07 06 07	48.1	102.4	-3.3		-43.0	-15	3056	No stop
16 13 10	=1019+309	07 07 17	48.3	102.6	-3.3		-42.9	55	3065	16 12 01
16 13 40	J1101+3904	07 07 47	48.3	85.3	-3.9		-50.4	-20	3065	16 13 35
16 15 10	=1058+393	07 09 18	48.5	85.6	-3.9		-50.4	70	3077	16 13 36
16 15 10	J1100.6+4018	07 09 18	49.4	84.3	-3.9		-51.5	-16	3077	No stop
16 19 20	---	07 13 28	50.1	85.1	-3.8		-51.6	234	3109	16 15 11
16 19 50	J1101+3904	07 13 58	49.2	86.5	-3.8		-50.5	14	3109	16 19 45
16 20 50	=1058+393	07 14 59	49.3	86.7	-3.8		-50.5	60	3118	16 19 46
16 20 50	J1100.6+4018	07 14 59	50.3	85.4	-3.8		-51.6	-16	3118	No stop
16 25 05	---	07 19 14	50.9	86.2	-3.7		-51.7	239	3151	16 20 51
16 25 05	J1101+3904	07 19 14	50.0	87.5	-3.7		-50.5	-16	3151	No stop
16 26 15	=1058+393	07 20 24	50.2	87.7	-3.7		-50.5	54	3160	16 25 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
16 30 00	J1038+0512	07 24 10	27.7	122.1	-3.3		-30.7	126	3160	16 29 55
16 35 00	---	07 29 11	28.4	123.3	-3.2		-30.2	300	3199	16 29 56
16 35 00	NGC3341	07 29 11	27.7	122.5	-3.2		-30.5	-14	3199	No stop
16 39 30	---	07 33 42	28.3	123.6	-3.2		-30.1	256	3234	16 35 01
16 40 10	J1038+0512	07 34 22	29.0	124.6	-3.1		-29.8	26	3234	16 40 05
16 40 40	---	07 34 52	29.1	124.7	-3.1		-29.7	30	3239	16 40 06
16 40 40	NGC3341	07 34 52	28.5	123.9	-3.1		-30.0	-14	3239	No stop
16 44 40	---	07 38 52	29.0	124.9	-3.1		-29.6	226	3269	16 40 41
16 44 40	J1038+0512	07 38 52	29.6	125.7	-3.0		-29.3	-14	3269	No stop
16 45 40	---	07 39 53	29.7	126.0	-3.0		-29.2	46	3277	16 44 41
16 45 40	NGC3341	07 39 53	29.1	125.1	-3.1		-29.5	-14	3277	No stop
16 49 40	---	07 43 53	29.6	126.1	-3.0		-29.1	226	3308	16 45 41
16 50 20	J1038+0512	07 44 33	30.2	127.2	-2.9		-28.7	26	3308	16 50 15
16 50 50	---	07 45 03	30.3	127.3	-2.9		-28.7	30	3313	16 50 16
16 50 50	NGC3341	07 45 03	29.7	126.4	-3.0		-29.0	-14	3313	No stop
16 54 50	---	07 49 04	30.2	127.4	-2.9		-28.6	226	3344	16 50 51
16 54 50	J1038+0512	07 49 04	30.8	128.3	-2.8		-28.2	-14	3344	No stop
16 55 50	---	07 50 04	30.9	128.6	-2.8		-28.1	46	3351	16 54 51
16 55 50	NGC3341	07 50 04	30.3	127.7	-2.9		-28.5	-14	3351	No stop
17 00 20	---	07 54 35	30.8	128.8	-2.8		-28.0	256	3386	16 55 51
17 01 00	J1038+0512	07 55 15	31.5	129.9	-2.7		-27.6	26	3386	17 00 55
17 01 30	---	07 55 45	31.6	130.0	-2.7		-27.5	30	3391	17 00 56
17 01 30	NGC3341	07 55 45	31.0	129.1	-2.8		-27.9	-14	3391	No stop
17 05 30	---	07 59 46	31.4	130.2	-2.7		-27.4	226	3422	17 01 31
17 05 30	J1038+0512	07 59 46	32.0	131.1	-2.7		-27.0	-14	3422	No stop
17 06 30	---	08 00 46	32.1	131.3	-2.6		-26.9	46	3429	17 05 31
17 06 30	NGC3341	08 00 46	31.6	130.4	-2.7		-27.3	-14	3429	No stop
17 10 30	---	08 04 47	32.0	131.5	-2.6		-26.8	226	3460	17 06 31
17 11 10	J1038+0512	08 05 27	32.7	132.6	-2.6		-26.4	26	3460	17 11 05
17 11 40	---	08 05 57	32.7	132.7	-2.6		-26.3	30	3465	17 11 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
17 11 40	NGC3341	08 05 57	32.1	131.8	-2.6		-26.7	-14	3465	No stop
17 15 40	---	08 09 58	32.6	132.8	-2.6		-26.2	226	3496	17 11 41
17 15 40	J1038+0512	08 09 58	33.1	133.8	-2.5		-25.8	-14	3496	No stop
17 16 40	---	08 10 58	33.3	134.0	-2.5		-25.7	46	3504	17 15 41
17 16 40	NGC3341	08 10 58	32.7	133.1	-2.5		-26.1	-13	3504	No stop
17 21 10	---	08 15 28	33.2	134.3	-2.5		-25.5	257	3538	17 16 41
17 21 50	J1038+0512	08 16 09	33.8	135.4	-2.4		-25.0	26	3538	17 21 45
17 22 20	---	08 16 39	33.9	135.6	-2.4		-25.0	30	3543	17 21 46
17 22 20	NGC3341	08 16 39	33.3	134.6	-2.4		-25.4	-13	3543	No stop
17 26 20	---	08 20 39	33.7	135.7	-2.4		-24.9	227	3574	17 22 21
17 26 20	J1038+0512	08 20 39	34.3	136.7	-2.3		-24.4	-14	3574	No stop
17 27 20	---	08 21 39	34.4	136.9	-2.3		-24.3	46	3582	17 26 21
17 27 20	NGC3341	08 21 39	33.8	136.0	-2.4		-24.8	-13	3582	No stop
17 31 20	---	08 25 40	34.3	137.1	-2.3		-24.2	227	3613	17 27 21
17 32 00	J1038+0512	08 26 20	34.9	138.2	-2.2		-23.7	26	3613	17 31 55
17 32 30	---	08 26 50	34.9	138.4	-2.2		-23.6	30	3617	17 31 56
17 32 30	NGC3341	08 26 50	34.4	137.4	-2.3		-24.1	-14	3617	No stop
17 36 30	---	08 30 51	34.8	138.5	-2.2		-23.5	226	3648	17 32 31
17 36 30	J1038+0512	08 30 51	35.3	139.5	-2.1		-23.1	-14	3648	No stop
17 37 30	---	08 31 51	35.4	139.8	-2.1		-22.9	46	3656	17 36 31
17 37 30	NGC3341	08 31 51	34.9	138.8	-2.2		-23.4	-14	3656	No stop
17 42 00	---	08 36 22	35.3	140.1	-2.1		-22.8	256	3691	17 37 31
17 42 40	J1038+0512	08 37 02	35.9	141.2	-2.0		-22.2	26	3691	17 42 35
17 43 10	---	08 37 32	35.9	141.4	-2.0		-22.1	30	3695	17 42 36
17 43 10	NGC3341	08 37 32	35.4	140.4	-2.1		-22.6	-14	3695	No stop
17 47 10	---	08 41 33	35.8	141.5	-2.0		-22.0	226	3726	17 43 11
17 47 10	J1038+0512	08 41 33	36.3	142.5	-2.0		-21.5	-14	3726	No stop
17 48 10	---	08 42 33	36.4	142.8	-1.9		-21.4	46	3734	17 47 11
17 48 10	NGC3341	08 42 33	35.9	141.8	-2.0		-21.9	-14	3734	No stop
17 52 10	---	08 46 34	36.3	143.0	-1.9		-21.3	226	3765	17 48 11

Schedule for TORUN (Code Tr)

Page 10

e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
17 52 50	J1038+0512	08 47 14	36.8	144.2	-1.9		-20.7	26	3765	17 52 45
17 53 20	---	08 47 44	36.9	144.3	-1.9		-20.6	30	3769	17 52 46
17 53 20	NGC3341	08 47 44	36.4	143.3	-1.9		-21.1	-14	3769	No stop
17 57 20	---	08 51 44	36.7	144.5	-1.9		-20.5	226	3800	17 53 21
17 57 20	J1038+0512	08 51 44	37.2	145.5	-1.8		-20.0	-14	3800	No stop
17 58 20	---	08 52 45	37.3	145.8	-1.8		-19.8	46	3808	17 57 21
17 58 20	NGC3341	08 52 45	36.8	144.8	-1.8		-20.4	-14	3808	No stop
18 02 50	---	08 57 15	37.2	146.1	-1.8		-19.7	256	3843	17 58 21
18 03 30	J1038+0512	08 57 55	37.7	147.3	-1.7		-19.0	26	3843	18 03 25
18 04 00	---	08 58 25	37.8	147.5	-1.7		-18.9	30	3847	18 03 26
18 04 00	NGC3341	08 58 25	37.3	146.4	-1.7		-19.5	-14	3847	No stop
18 08 00	---	09 02 26	37.6	147.6	-1.7		-18.8	226	3878	18 04 01
18 08 00	J1038+0512	09 02 26	38.1	148.7	-1.6		-18.3	-14	3878	No stop
18 09 00	---	09 03 26	38.2	149.0	-1.6		-18.1	46	3886	18 08 01
18 09 00	NGC3341	09 03 26	37.7	147.9	-1.7		-18.7	-14	3886	No stop
18 13 00	---	09 07 27	38.0	149.1	-1.6		-18.0	226	3917	18 09 01
18 13 40	J1038+0512	09 08 07	38.5	150.4	-1.5		-17.3	26	3917	18 13 35
18 14 10	---	09 08 37	38.6	150.5	-1.5		-17.3	30	3922	18 13 36
18 14 10	NGC3341	09 08 37	38.1	149.5	-1.6		-17.8	-14	3922	No stop
18 18 10	---	09 12 38	38.4	150.7	-1.5		-17.2	226	3953	18 14 11
18 18 10	J1038+0512	09 12 38	38.8	151.8	-1.4		-16.6	-15	3953	No stop
18 19 10	---	09 13 38	38.9	152.1	-1.4		-16.4	45	3960	18 18 11
18 19 50	J1038+0512	09 14 18	39.0	152.3	-1.4		-16.3	34	3960	18 19 45
18 20 20	---	09 14 48	39.0	152.4	-1.4		-16.2	30	3965	18 19 46
18 20 20	NGC3341	09 14 48	38.6	151.3	-1.5		-16.8	-14	3965	No stop
18 24 20	---	09 18 49	38.9	152.6	-1.4		-16.1	226	3996	18 20 21
18 25 00	J1038+0512	09 19 29	39.3	153.9	-1.3		-15.4	25	3996	18 24 55
18 30 00	---	09 24 30	39.6	155.4	-1.3		-14.5	300	4035	18 24 56
18 35 00	J1419+3821	09 29 31	39.5	76.1	-4.8		-48.0	126	4035	18 34 55
18 40 00	=1417+385	09 34 31	40.2	76.9	-4.8		-48.2	300	4075	18 34 56

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
18 40 00	NGC5515	09 34 31	41.9	77.2	-4.6		-49.1	-20	4075	No stop
18 43 30	---	09 38 02	42.4	77.8	-4.6		-49.3	190	4102	18 40 01
18 43 30	J1419+3821	09 38 02	40.7	77.5	-4.7		-48.3	-20	4102	No stop
18 45 00	=1417+385	09 39 32	40.9	77.8	-4.7		-48.4	70	4113	18 43 31
18 45 00	NGC5515	09 39 32	42.6	78.1	-4.6		-49.3	-20	4113	No stop
18 48 30	---	09 43 03	43.1	78.7	-4.5		-49.5	190	4140	18 45 01
18 49 10	J1419+3821	09 43 43	41.5	78.5	-4.6		-48.6	20	4140	18 49 05
18 50 10	=1417+385	09 44 43	41.7	78.7	-4.6		-48.6	60	4149	18 49 06
18 50 10	NGC5515	09 44 43	43.4	79.0	-4.5		-49.6	-20	4149	No stop
18 53 40	---	09 48 14	43.9	79.6	-4.4		-49.7	190	4176	18 50 11
18 53 40	J1419+3821	09 48 14	42.2	79.3	-4.5		-48.8	-20	4176	No stop
18 55 10	=1417+385	09 49 44	42.4	79.6	-4.5		-48.8	70	4187	18 53 41
18 55 10	NGC5515	09 49 44	44.1	79.8	-4.4		-49.7	-20	4187	No stop
18 58 40	---	09 53 14	44.6	80.4	-4.3		-49.9	190	4215	18 55 11
18 59 20	J1419+3821	09 53 55	43.1	80.3	-4.4		-49.0	20	4215	18 59 15
19 00 20	=1417+385	09 54 55	43.2	80.5	-4.4		-49.0	60	4223	18 59 16
19 00 20	NGC5515	09 54 55	44.9	80.7	-4.3		-49.9	-20	4223	No stop
19 03 50	---	09 58 25	45.4	81.4	-4.2		-50.0	190	4250	19 00 21
19 03 50	J1419+3821	09 58 25	43.7	81.1	-4.4		-49.1	-20	4250	No stop
19 05 20	=1417+385	09 59 56	43.9	81.4	-4.3		-49.2	70	4262	19 03 51
19 05 20	NGC5515	09 59 56	45.6	81.6	-4.2		-50.1	-20	4262	No stop
19 08 50	---	10 03 26	46.1	82.3	-4.2		-50.2	190	4289	19 05 21
19 09 30	J1419+3821	10 04 06	44.6	82.1	-4.3		-49.3	20	4289	19 09 25
19 10 30	=1417+385	10 05 06	44.7	82.3	-4.3		-49.3	60	4297	19 09 26
19 10 30	NGC5515	10 05 06	46.4	82.6	-4.1		-50.2	-20	4297	No stop
19 14 00	---	10 08 37	46.9	83.2	-4.1		-50.3	190	4324	19 10 31
19 14 00	J1419+3821	10 08 37	45.2	82.9	-4.2		-49.4	-20	4324	No stop
19 15 30	=1417+385	10 10 07	45.5	83.2	-4.2		-49.4	70	4336	19 14 01
19 15 30	NGC5515	10 10 07	47.1	83.5	-4.1		-50.4	-20	4336	No stop
19 19 00	---	10 13 38	47.7	84.1	-4.0		-50.5	190	4363	19 15 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
19 19 40	J1419+3821	10 14 18	46.1	84.0	-4.1		-49.5	20	4363	19 19 35
19 20 40	=1417+385	10 15 18	46.2	84.2	-4.1		-49.6	60	4371	19 19 36
19 20 40	NGC5515	10 15 18	47.9	84.4	-4.0		-50.5	-20	4371	No stop
19 24 10	---	10 18 49	48.4	85.0	-3.9		-50.6	190	4398	19 20 41
19 24 10	J1419+3821	10 18 49	46.8	84.8	-4.0		-49.6	-20	4398	No stop
19 25 40	=1417+385	10 20 19	47.0	85.1	-4.0		-49.7	70	4410	19 24 11
19 25 40	NGC5515	10 20 19	48.7	85.3	-3.9		-50.6	-20	4410	No stop
19 29 10	---	10 23 49	49.2	86.0	-3.8		-50.7	190	4437	19 25 41
19 29 50	J1419+3821	10 24 30	47.6	85.9	-3.9		-49.7	20	4437	19 29 45
19 30 50	=1417+385	10 25 30	47.8	86.1	-3.9		-49.8	60	4446	19 29 46
19 31 30	J1419+3821	10 26 10	47.9	86.2	-3.9		-49.8	34	4446	19 31 25
19 35 50	=1417+385	10 30 31	48.5	87.0	-3.8		-49.8	260	4480	19 31 26
19 35 50	NGC5515	10 30 31	50.2	87.3	-3.7		-50.8	-20	4480	No stop
19 39 20	---	10 34 01	50.7	87.9	-3.7		-50.8	190	4507	19 35 51
19 39 20	J1419+3821	10 34 01	49.0	87.7	-3.8		-49.9	-20	4507	No stop
19 40 50	=1417+385	10 35 31	49.3	88.0	-3.7		-49.9	70	4518	19 39 21
19 40 50	NGC5515	10 35 31	50.9	88.2	-3.6		-50.8	-20	4518	No stop
19 44 20	---	10 39 02	51.5	88.9	-3.6		-50.8	190	4546	19 40 51
19 45 00	J1419+3821	10 39 42	49.9	88.8	-3.7		-49.9	20	4546	19 44 55
19 46 00	=1417+385	10 40 42	50.0	89.0	-3.7		-49.9	60	4554	19 44 56
19 46 00	NGC5515	10 40 42	51.7	89.2	-3.5		-50.8	-20	4554	No stop
19 49 30	---	10 44 13	52.2	89.9	-3.5		-50.8	190	4581	19 46 01
19 49 30	J1419+3821	10 44 13	50.6	89.7	-3.6		-49.9	-20	4581	No stop
19 51 00	=1417+385	10 45 43	50.8	90.0	-3.6		-49.9	70	4593	19 49 31
19 51 00	NGC5515	10 45 43	52.5	90.2	-3.5		-50.8	-20	4593	No stop
19 54 30	---	10 49 14	53.0	90.9	-3.4		-50.8	190	4620	19 51 01
19 55 10	J1419+3821	10 49 54	51.4	90.8	-3.5		-49.9	20	4620	19 55 05
19 56 10	=1417+385	10 50 54	51.6	91.0	-3.5		-49.9	60	4628	19 55 06
19 56 10	NGC5515	10 50 54	53.2	91.3	-3.4		-50.8	-20	4628	No stop
19 59 40	---	10 54 24	53.8	92.0	-3.3		-50.8	190	4655	19 56 11

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
19 59 40	J1419+3821	10 54 24	52.1	91.7	-3.4		-49.9	-20	4655	No stop
20 01 10	=1417+385	10 55 55	52.3	92.0	-3.4		-49.9	70	4667	19 59 41
20 01 10	NGC5515	10 55 55	54.0	92.3	-3.3		-50.8	-20	4667	No stop
20 04 40	---	10 59 25	54.5	93.0	-3.2		-50.7	190	4694	20 01 11
20 05 20	J1419+3821	11 00 05	52.9	92.9	-3.3		-49.8	20	4694	20 05 15
20 06 20	=1417+385	11 01 06	53.1	93.1	-3.3		-49.8	60	4702	20 05 16
20 06 20	NGC5515	11 01 06	54.8	93.4	-3.2		-50.7	-20	4702	No stop
20 09 50	---	11 04 36	55.3	94.2	-3.1		-50.7	190	4729	20 06 21
20 09 50	J1419+3821	11 04 36	53.6	93.9	-3.3		-49.8	-20	4729	No stop
20 11 20	=1417+385	11 06 06	53.8	94.2	-3.2		-49.7	70	4741	20 09 51
20 11 20	NGC5515	11 06 06	55.5	94.5	-3.1		-50.6	-20	4741	No stop
20 14 50	---	11 09 37	56.0	95.2	-3.1		-50.5	190	4768	20 11 21
20 15 30	J1419+3821	11 10 17	54.5	95.1	-3.2		-49.7	20	4768	20 15 25
20 16 30	=1417+385	11 11 17	54.6	95.3	-3.2		-49.6	60	4776	20 15 26
20 16 30	NGC5515	11 11 17	56.3	95.6	-3.0		-50.5	-20	4776	No stop
20 20 00	---	11 14 48	56.8	96.4	-3.0		-50.4	190	4804	20 16 31
20 20 00	J1419+3821	11 14 48	55.1	96.1	-3.1		-49.5	-20	4804	No stop
20 21 30	=1417+385	11 16 18	55.4	96.4	-3.1		-49.5	70	4815	20 20 01
20 21 30	NGC5515	11 16 18	57.0	96.7	-2.9		-50.4	-20	4815	No stop
20 25 00	---	11 19 49	57.6	97.5	-2.9		-50.2	190	4842	20 21 31
20 25 40	J1419+3821	11 20 29	56.0	97.4	-3.0		-49.4	20	4842	20 25 35
20 26 40	=1417+385	11 21 29	56.1	97.6	-3.0		-49.3	60	4851	20 25 36
20 26 40	NGC5515	11 21 29	57.8	97.9	-2.9		-50.2	-20	4851	No stop
20 30 10	---	11 24 59	58.3	98.8	-2.8		-50.0	190	4878	20 26 41
20 30 10	J1419+3821	11 24 59	56.7	98.4	-2.9		-49.2	-20	4878	No stop
20 31 40	=1417+385	11 26 30	56.9	98.8	-2.9		-49.1	70	4889	20 30 11
20 31 40	NGC5515	11 26 30	58.6	99.1	-2.8		-50.0	-20	4889	No stop
20 35 10	---	11 30 00	59.1	100.0	-2.7		-49.8	190	4916	20 31 41
20 35 50	J1419+3821	11 30 40	57.5	99.8	-2.8		-48.9	20	4916	20 35 45
20 36 50	=1417+385	11 31 41	57.7	100.0	-2.8		-48.9	60	4925	20 35 46

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
20 36 50	NGC5515	11 31 41	59.3	100.4	-2.7		-49.7	-20	4925	No stop
20 40 20	---	11 35 11	59.8	101.2	-2.6		-49.5	190	4952	20 36 51
20 40 20	J1419+3821	11 35 11	58.2	100.9	-2.8		-48.7	-20	4952	No stop
20 41 50	=1417+385	11 36 41	58.4	101.2	-2.7		-48.6	70	4964	20 40 21
20 41 50	NGC5515	11 36 41	60.1	101.6	-2.6		-49.4	-20	4964	No stop
20 45 20	---	11 40 12	60.6	102.5	-2.6		-49.2	190	4991	20 41 51
20 46 00	J1419+3821	11 40 52	59.0	102.3	-2.7		-48.4	20	4991	20 45 55
20 47 00	=1417+385	11 41 52	59.2	102.5	-2.6		-48.3	60	4999	20 45 56
20 47 00	NGC5515	11 41 52	60.8	102.9	-2.5		-49.1	-20	4999	No stop
20 50 30	---	11 45 23	61.3	103.9	-2.5		-48.8	190	5026	20 47 01
20 50 30	J1419+3821	11 45 23	59.7	103.4	-2.6		-48.1	-20	5026	No stop
20 52 00	=1417+385	11 46 53	59.9	103.8	-2.6		-48.0	70	5038	20 50 31
20 52 00	NGC5515	11 46 53	61.6	104.3	-2.4		-48.7	-20	5038	No stop
20 55 30	---	11 50 24	62.1	105.2	-2.4		-48.4	190	5065	20 52 01
20 56 10	J1419+3821	11 51 04	60.5	104.9	-2.5		-47.7	20	5065	20 56 05
20 57 10	=1417+385	11 52 04	60.6	105.2	-2.5		-47.6	60	5073	20 56 06
20 57 10	NGC5515	11 52 04	62.3	105.7	-2.4		-48.3	-20	5073	No stop
21 00 40	---	11 55 34	62.8	106.7	-2.3		-48.0	190	5100	20 57 11
21 00 40	J1419+3821	11 55 34	61.2	106.2	-2.4		-47.3	-20	5100	No stop
21 02 10	=1417+385	11 57 05	61.4	106.6	-2.4		-47.2	70	5112	21 00 41
21 02 10	NGC5515	11 57 05	63.0	107.1	-2.3		-47.8	-20	5112	No stop
21 05 40	---	12 00 35	63.5	108.1	-2.2		-47.5	190	5139	21 02 11
21 06 20	J1419+3821	12 01 15	62.0	107.8	-2.3		-46.8	20	5139	21 06 15
21 07 20	=1417+385	12 02 16	62.1	108.0	-2.3		-46.7	60	5147	21 06 16
21 07 20	NGC5515	12 02 16	63.8	108.6	-2.2		-47.3	-20	5147	No stop
21 10 50	---	12 05 46	64.3	109.7	-2.1		-46.9	190	5175	21 07 21
21 10 50	J1419+3821	12 05 46	62.6	109.1	-2.2		-46.3	-20	5175	No stop
21 12 20	=1417+385	12 07 16	62.8	109.5	-2.2		-46.2	70	5186	21 10 51
21 12 20	NGC5515	12 07 16	64.5	110.1	-2.1		-46.7	-20	5186	No stop
21 15 50	---	12 10 47	65.0	111.2	-2.0		-46.3	190	5213	21 12 21

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
21 16 30	J1419+3821	12 11 27	63.4	110.8	-2.1		-45.7	20	5213	21 16 25
21 17 30	=1417+385	12 12 27	63.6	111.1	-2.1		-45.6	60	5222	21 16 26
21 17 30	NGC5515	12 12 27	65.2	111.7	-2.0		-46.1	-20	5222	No stop
21 21 00	---	12 15 58	65.7	112.9	-2.0		-45.6	190	5249	21 17 31
21 21 00	J1419+3821	12 15 58	64.0	112.2	-2.1		-45.1	-20	5249	No stop
21 22 30	=1417+385	12 17 28	64.3	112.6	-2.0		-44.9	70	5260	21 21 01
21 22 30	NGC5515	12 17 28	65.9	113.4	-1.9		-45.4	-20	5260	No stop
21 26 00	---	12 20 59	66.4	114.6	-1.9		-44.8	190	5287	21 22 31
21 26 40	J1419+3821	12 21 39	64.8	114.0	-2.0		-44.3	20	5287	21 26 35
21 27 40	=1417+385	12 22 39	65.0	114.3	-2.0		-44.2	60	5296	21 26 36
21 27 40	NGC5515	12 22 39	66.6	115.1	-1.8		-44.6	-20	5296	No stop
21 31 10	---	12 26 10	67.1	116.4	-1.8		-44.0	190	5323	21 27 41
21 31 10	J1419+3821	12 26 10	65.4	115.5	-1.9		-43.7	-20	5323	No stop
21 32 40	=1417+385	12 27 40	65.6	116.0	-1.9		-43.4	70	5335	21 31 11
21 32 40	NGC5515	12 27 40	67.3	116.9	-1.8		-43.7	-20	5335	No stop
21 36 10	---	12 31 10	67.8	118.2	-1.7		-43.1	190	5362	21 32 41
21 36 50	J1419+3821	12 31 50	66.2	117.5	-1.8		-42.7	20	5362	21 36 45
21 37 50	=1417+385	12 32 51	66.3	117.9	-1.8		-42.6	60	5370	21 36 46
21 37 50	NGC5515	12 32 51	68.0	118.8	-1.7		-42.8	-20	5370	No stop
21 41 20	---	12 36 21	68.4	120.2	-1.6		-42.1	190	5397	21 37 51
21 41 20	J1419+3821	12 36 21	66.8	119.1	-1.7		-41.9	-20	5397	No stop
21 42 50	=1417+385	12 37 51	67.0	119.7	-1.7		-41.7	70	5409	21 41 21
21 42 50	NGC5515	12 37 51	68.6	120.8	-1.6		-41.8	-20	5409	No stop
21 46 20	---	12 41 22	69.1	122.2	-1.5		-41.0	190	5436	21 42 51
21 47 00	J1419+3821	12 42 02	67.5	121.3	-1.6		-40.8	20	5436	21 46 55
21 48 00	=1417+385	12 43 02	67.7	121.7	-1.6		-40.6	60	5444	21 46 56
21 48 00	NGC5515	12 43 02	69.3	122.9	-1.5		-40.6	-20	5444	No stop
21 51 30	---	12 46 33	69.7	124.4	-1.4		-39.8	190	5471	21 48 01
21 51 30	J1419+3821	12 46 33	68.1	123.1	-1.6		-39.9	-20	5471	No stop
21 53 00	=1417+385	12 48 03	68.3	123.7	-1.5		-39.5	70	5483	21 51 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
21 53 00	NGC5515	12 48 03	69.9	125.0	-1.4		-39.4	-20	5483	No stop
21 56 30	---	12 51 34	70.3	126.6	-1.4		-38.5	190	5510	21 53 01
21 57 10	J1419+3821	12 52 14	68.8	125.4	-1.5		-38.6	20	5510	21 57 05
21 58 10	=1417+385	12 53 14	68.9	125.9	-1.5		-38.3	60	5518	21 57 06
21 58 10	NGC5515	12 53 14	70.5	127.3	-1.3		-38.1	-20	5518	No stop
22 01 40	---	12 56 45	71.0	129.0	-1.3		-37.1	190	5545	21 58 11
22 01 40	J1419+3821	12 56 45	69.4	127.4	-1.4		-37.4	-19	5545	No stop
22 03 10	=1417+385	12 58 15	69.5	128.1	-1.4		-37.0	71	5557	22 01 41
22 03 10	NGC5515	12 58 15	71.1	129.7	-1.2		-36.6	-20	5557	No stop
22 06 40	---	13 01 45	71.5	131.4	-1.2		-35.6	190	5584	22 03 11
22 07 20	J1419+3821	13 02 25	70.0	130.0	-1.3		-35.9	21	5584	22 07 15
22 08 20	=1417+385	13 03 26	70.1	130.4	-1.3		-35.6	60	5593	22 07 16
22 08 20	NGC5515	13 03 26	71.7	132.2	-1.2		-35.0	-20	5593	No stop
22 11 50	---	13 06 56	72.1	134.0	-1.1		-33.9	190	5620	22 08 21
22 11 50	J1419+3821	13 06 56	70.5	132.1	-1.2		-34.6	-19	5620	No stop
22 13 20	=1417+385	13 08 26	70.7	132.9	-1.2		-34.1	71	5631	22 11 51
22 13 20	NGC5515	13 08 26	72.3	134.8	-1.1		-33.4	-20	5631	No stop
22 16 50	---	13 11 57	72.6	136.7	-1.0		-32.1	190	5658	22 13 21
22 17 30	J1419+3821	13 12 37	71.2	134.9	-1.1		-32.8	21	5658	22 17 25
22 18 30	=1417+385	13 13 37	71.3	135.5	-1.1		-32.5	60	5667	22 17 26
22 18 30	NGC5515	13 13 37	72.8	137.7	-1.0		-31.5	-19	5667	No stop
22 22 00	---	13 17 08	73.2	139.7	-0.9		-30.1	191	5694	22 18 31
22 22 00	J1419+3821	13 17 08	71.6	137.3	-1.1		-31.3	-19	5694	No stop
22 23 30	=1417+385	13 18 38	71.8	138.1	-1.0		-30.7	71	5705	22 22 01
22 23 30	NGC5515	13 18 38	73.3	140.5	-0.9		-29.5	-19	5705	No stop
22 27 00	---	13 22 09	73.6	142.6	-0.9		-28.1	191	5733	22 23 31
22 27 40	J1419+3821	13 22 49	72.2	140.4	-1.0		-29.2	21	5733	22 27 35
22 28 40	=1417+385	13 23 49	72.3	141.0	-0.9		-28.8	60	5741	22 27 36
22 33 40	J1128+5925	13 28 50	72.4	302.7	2.0		97.6	-38	5741	22 33 35
22 38 40	=1125+596	13 33 51	71.8	302.4	2.1		96.3	262	5780	22 33 36

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
22 38 40	J1130.4+5814	13 33 51	72.3	298.4	2.0		93.1	-23	5780	No stop
22 43 10	---	13 38 21	71.7	298.4	2.1		92.1	247	5815	22 38 41
22 43 40	J1128+5925	13 38 51	71.1	302.2	2.2		95.0	7	5815	22 43 35
22 44 40	=1125+596	13 39 52	71.0	302.2	2.2		94.8	60	5824	22 43 36
22 44 40	J1130.4+5814	13 39 52	71.5	298.3	2.1		91.7	-23	5824	No stop
22 49 10	---	13 44 22	70.9	298.3	2.2		90.7	247	5858	22 44 41
22 49 10	J1128+5925	13 44 22	70.4	302.1	2.3		93.7	-22	5858	No stop
22 50 20	=1125+596	13 45 33	70.3	302.1	2.3		93.4	48	5867	22 49 11
22 50 20	J1130.4+5814	13 45 33	70.7	298.3	2.2		90.5	-22	5867	No stop
22 54 50	---	13 50 03	70.1	298.3	2.3		89.5	248	5902	22 50 21
22 55 20	J1128+5925	13 50 33	69.6	302.0	2.4		92.2	8	5902	22 55 15
22 56 20	=1125+596	13 51 33	69.5	301.9	2.4		92.0	60	5911	22 55 16
22 56 20	J1130.4+5814	13 51 33	69.9	298.3	2.3		89.2	-22	5911	No stop
23 00 50	---	13 56 04	69.3	298.3	2.4		88.3	248	5945	22 56 21
23 00 50	J1128+5925	13 56 04	68.9	301.9	2.5		91.0	-22	5945	No stop
23 02 00	=1125+596	13 57 14	68.8	301.9	2.5		90.7	48	5954	23 00 51
23 03 00	J1143+6633	13 58 15	68.9	322.3	2.2		113.0	4	5954	23 02 55
23 04 30	=1140+668	13 59 45	68.8	322.1	2.3		112.5	90	5967	23 02 56
23 04 30	J1135.7+6736	13 59 45	67.7	324.0	2.4		112.4	-17	5967	No stop
23 09 00	---	14 04 16	67.3	323.6	2.5		111.0	253	6002	23 04 31
23 09 30	J1143+6633	14 04 46	68.3	321.6	2.3		110.9	13	6002	23 09 25
23 10 30	=1140+668	14 05 46	68.2	321.5	2.4		110.6	60	6010	23 09 26
23 10 30	J1135.7+6736	14 05 46	67.1	323.5	2.5		110.5	-17	6010	No stop
23 15 00	---	14 10 17	66.7	323.1	2.6		109.2	253	6045	23 10 31
23 15 00	J1143+6633	14 10 17	67.8	321.1	2.4		109.1	-18	6045	No stop
23 16 10	=1140+668	14 11 27	67.7	321.0	2.4		108.8	52	6054	23 15 01
23 16 10	J1135.7+6736	14 11 27	66.6	323.0	2.6		108.8	-17	6054	No stop
23 20 40	---	14 15 57	66.2	322.7	2.7		107.5	253	6089	23 16 11
23 21 10	J1143+6633	14 16 28	67.2	320.6	2.5		107.3	12	6089	23 21 05
23 22 10	=1140+668	14 17 28	67.1	320.5	2.5		107.0	60	6097	23 21 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Tue 16 Apr 2013 Day 106 ---										
23 22 10	J1135.7+6736	14 17 28	66.1	322.5	2.7		107.0	-18	6097	No stop
23 26 40	---	14 21 58	65.7	322.2	2.8		105.7	252	6132	23 22 11
23 26 40	J1143+6633	14 21 58	66.7	320.2	2.6		105.6	-18	6132	No stop
23 27 50	=1140+668	14 23 09	66.6	320.1	2.6		105.3	52	6141	23 26 41
23 31 50	J1242+3751	14 27 09	66.5	239.8	1.7		41.1	64	6141	23 31 45
23 33 20	=1240+381	14 28 40	66.3	240.4	1.8		41.3	90	6153	23 31 46
23 33 20	J1249.7+3706	14 28 40	66.6	236.6	1.6		38.9	-22	6153	No stop
23 37 50	---	14 33 10	66.0	238.3	1.7		39.8	248	6188	23 33 21
23 38 20	J1242+3751	14 33 40	65.6	242.2	1.8		42.2	8	6188	23 38 15
23 39 20	=1240+381	14 34 41	65.5	242.6	1.9		42.4	60	6196	23 38 16
23 39 20	J1249.7+3706	14 34 41	65.8	238.9	1.7		40.1	-22	6196	No stop
23 43 50	---	14 39 11	65.2	240.6	1.8		40.9	248	6231	23 39 21
23 43 50	J1242+3751	14 39 11	64.9	244.1	1.9		43.1	-22	6231	No stop
23 45 00	=1240+381	14 40 21	64.7	244.5	1.9		43.3	48	6240	23 43 51
23 45 00	J1249.7+3706	14 40 21	65.1	241.0	1.8		41.1	-22	6240	No stop
23 49 30	---	14 44 52	64.5	242.6	1.9		41.9	248	6275	23 45 01
23 50 00	J1242+3751	14 45 22	64.0	246.2	2.0		44.0	8	6275	23 49 55
23 51 00	=1240+381	14 46 22	63.9	246.5	2.0		44.2	60	6283	23 49 56
23 51 00	J1249.7+3706	14 46 22	64.3	243.1	1.9		42.1	-21	6283	No stop
23 55 30	---	14 50 53	63.7	244.6	2.0		42.8	249	6318	23 51 01
23 55 30	J1242+3751	14 50 53	63.3	247.9	2.1		44.8	-22	6318	No stop
23 56 40	=1240+381	14 52 03	63.1	248.3	2.1		44.9	48	6327	23 55 31
23 57 40	J1315+2840	14 53 04	59.7	225.7	1.6		29.3	0	6327	23 57 35
23 59 10	=1312+289	14 54 34	59.5	226.3	1.6		29.6	90	6340	23 57 36
--- Start: Tue 16 Apr 2013 Day 106 -- Stop: Wed 17 Apr 2013 Day 107 ---										
23 59 10	J1322.9+2942	14 54 34	61.3	224.3	1.5		28.8	-20	6340	No stop
00 03 40	---	14 59 05	60.8	226.0	1.6		29.8	250	6374	23 59 11
00 04 10	J1315+2840	14 59 35	59.0	228.1	1.7		30.6	10	6374	00 04 05
00 05 10	=1312+289	15 00 35	58.9	228.5	1.7		30.8	60	6383	00 04 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
00 05 10	J1322.9+2942	15 00 35	60.6	226.6	1.6		30.1	-20	6383	No stop
00 09 40	---	15 05 06	60.1	228.3	1.7		31.1	250	6418	00 05 11
00 09 40	J1315+2840	15 05 06	58.4	230.1	1.8		31.7	-20	6418	No stop
00 10 50	=1312+289	15 06 16	58.2	230.6	1.8		31.9	50	6427	00 09 41
00 10 50	J1322.9+2942	15 06 16	60.0	228.8	1.7		31.3	-20	6427	No stop
00 15 20	---	15 10 46	59.5	230.4	1.8		32.2	250	6462	00 10 51
00 15 50	J1315+2840	15 11 17	57.6	232.3	1.9		32.8	10	6462	00 15 45
00 16 50	=1312+289	15 12 17	57.5	232.6	1.9		32.9	60	6470	00 15 46
00 16 50	J1322.9+2942	15 12 17	59.3	230.9	1.8		32.4	-20	6470	No stop
00 21 20	---	15 16 47	58.8	232.5	1.9		33.3	250	6505	00 16 51
00 21 20	J1315+2840	15 16 47	57.0	234.2	2.0		33.7	-21	6505	No stop
00 22 30	=1312+289	15 17 58	56.8	234.6	2.0		33.9	49	6514	00 21 21
00 27 30	J1223+8040	15 22 58	59.2	347.0	3.0		124.5	60	6514	00 27 25
00 29 00	=1221+809	15 24 29	59.1	347.0	3.0		124.1	90	6526	00 27 26
00 29 00	J1223.3+7953	15 24 29	59.6	345.7	3.0		123.1	-15	6526	No stop
00 33 30	---	15 28 59	59.4	345.5	3.1		121.8	255	6561	00 29 01
00 34 00	J1223+8040	15 29 30	58.9	346.8	3.1		122.7	15	6561	00 33 55
00 35 00	=1221+809	15 30 30	58.9	346.7	3.1		122.4	60	6569	00 33 56
00 35 00	J1223.3+7953	15 30 30	59.3	345.4	3.1		121.4	-15	6569	No stop
00 39 30	---	15 35 00	59.2	345.2	3.2		120.1	255	6604	00 35 01
00 39 30	J1223+8040	15 35 00	58.8	346.5	3.2		121.1	-15	6604	No stop
00 40 40	=1221+809	15 36 11	58.7	346.5	3.2		120.8	55	6613	00 39 31
00 40 40	J1223.3+7953	15 36 11	59.1	345.2	3.2		119.8	-15	6613	No stop
00 45 10	---	15 40 41	58.9	345.0	3.3		118.5	255	6648	00 40 41
00 45 40	J1223+8040	15 41 11	58.5	346.3	3.3		119.4	15	6648	00 45 35
00 46 40	=1221+809	15 42 12	58.5	346.2	3.3		119.1	60	6656	00 45 36
00 46 40	J1223.3+7953	15 42 12	58.9	344.9	3.3		118.1	-15	6656	No stop
00 51 10	---	15 46 42	58.7	344.8	3.4		116.8	255	6691	00 46 41
00 51 10	J1223+8040	15 46 42	58.3	346.1	3.4		117.9	-15	6691	No stop
00 52 20	=1221+809	15 47 53	58.3	346.0	3.4		117.5	55	6700	00 51 11

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
00 53 20	J1406+7828	15 48 53	63.1	348.9	1.7		145.0	28	6700	00 53 15
00 54 50	=1406+787	15 50 23	63.1	348.8	1.7		144.5	90	6712	00 53 16
00 54 50	J1419.0+7730	15 50 23	64.2	349.0	1.5		147.8	-17	6712	No stop
00 59 20	---	15 54 54	64.1	348.5	1.6		146.3	253	6747	00 54 51
00 59 50	J1406+7828	15 55 24	63.0	348.3	1.8		142.9	13	6747	00 59 45
01 00 50	=1406+787	15 56 24	62.9	348.3	1.8		142.5	60	6756	00 59 46
01 00 50	J1419.0+7730	15 56 24	64.0	348.3	1.6		145.8	-17	6756	No stop
01 05 20	---	16 00 55	63.9	347.9	1.7		144.3	253	6791	01 00 51
01 05 20	J1406+7828	16 00 55	62.8	347.9	1.9		141.1	-17	6791	No stop
01 06 30	=1406+787	16 02 05	62.7	347.8	1.9		140.7	53	6800	01 05 21
01 06 30	J1419.0+7730	16 02 05	63.9	347.8	1.7		143.9	-17	6800	No stop
01 11 00	---	16 06 36	63.7	347.3	1.8		142.4	253	6834	01 06 31
01 11 30	J1406+7828	16 07 06	62.6	347.3	2.0		139.1	13	6834	01 11 25
01 12 30	=1406+787	16 08 06	62.6	347.3	2.0		138.8	60	6843	01 11 26
01 12 30	J1419.0+7730	16 08 06	63.7	347.2	1.8		141.9	-17	6843	No stop
01 17 00	---	16 12 37	63.5	346.7	1.9		140.4	253	6878	01 12 31
01 17 00	J1406+7828	16 12 37	62.4	346.9	2.1		137.4	-17	6878	No stop
01 18 10	=1406+787	16 13 47	62.4	346.8	2.1		137.0	53	6887	01 17 01
01 19 10	J1556+7420	16 14 47	68.7	356.5	0.3		172.2	22	6887	01 19 05
01 20 40	=1556+744	16 16 17	68.7	356.2	0.3		171.6	90	6899	01 19 06
01 20 40	J1619.8+7540	16 16 17	67.5	360.4	-0.0		-179.0	-23	6899	No stop
01 25 10	---	16 20 48	67.5	359.7	0.0		179.3	247	6934	01 20 41
01 25 40	J1556+7420	16 21 18	68.6	355.3	0.4		169.5	6	6934	01 25 35
01 26 40	=1556+744	16 22 18	68.6	355.1	0.4		169.1	60	6942	01 25 36
01 26 40	J1619.8+7540	16 22 18	67.5	359.4	0.1		178.7	-24	6942	No stop
01 31 10	---	16 26 49	67.5	358.7	0.1		176.9	246	6977	01 26 41
01 31 10	J1556+7420	16 26 49	68.6	354.3	0.5		167.2	-24	6977	No stop
01 32 20	=1556+744	16 27 59	68.5	354.1	0.5		166.8	46	6986	01 31 11
01 32 20	J1619.8+7540	16 27 59	67.5	358.5	0.2		176.4	-24	6986	No stop
01 36 50	---	16 32 30	67.5	357.8	0.2		174.7	246	7021	01 32 21

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
01 37 20	J1556+7420	16 33 00	68.5	353.2	0.6		164.7	6	7021	01 37 15
01 38 20	=1556+744	16 34 00	68.4	353.0	0.6		164.3	60	7029	01 37 16
01 38 20	J1619.8+7540	16 34 00	67.4	357.6	0.3		174.1	-24	7029	No stop
01 42 50	---	16 38 31	67.4	356.8	0.3		172.3	246	7064	01 38 21
01 42 50	J1556+7420	16 38 31	68.3	352.2	0.7		162.5	-24	7064	No stop
01 44 00	=1556+744	16 39 41	68.3	352.0	0.7		162.0	46	7073	01 42 51
01 46 30	J1639+5357	16 42 11	89.1	338.9	0.0		158.5	58	7073	01 46 25
01 48 00	=1638+540	16 43 42	89.0	327.1	0.1		146.4	90	7085	01 46 26
01 48 00	J1631.0+5224	16 43 42	87.9	249.4	0.2		66.9	-163	7085	No stop
01 52 30	---	16 48 12	87.3	255.3	0.3		71.9	107	7120	01 48 01
01 54 00	J1631.0+5224	16 49 43	87.1	256.7	0.3		73.0	81	7120	01 54 00
01 58 30	---	16 54 13	86.4	260.0	0.4		75.4	270	7155	01 54 01
01 59 40	J1631.0+5224	16 55 24	86.2	260.7	0.4		75.8	63	7155	01 59 40
02 04 10	---	16 59 54	85.6	262.9	0.5		77.2	270	7190	01 59 41
02 04 40	J1639+5357	17 00 24	86.9	287.5	0.3		103.4	-34	7190	02 04 35
02 05 40	=1638+540	17 01 25	86.7	286.9	0.4		102.6	26	7198	02 04 36
02 05 40	J1631.0+5224	17 01 25	85.3	263.6	0.5		77.5	-61	7198	No stop
02 10 10	---	17 05 55	84.7	265.2	0.6		78.3	209	7233	02 05 41
02 10 10	J1639+5357	17 05 55	86.1	284.9	0.4		99.7	-54	7233	No stop
02 11 20	=1638+540	17 07 06	85.9	284.5	0.5		99.0	16	7242	02 10 11
02 15 50	J1841.1+2914	17 11 36	60.9	136.4	-1.5		-28.3	-41	7242	02 15 50
02 20 20	---	17 16 07	61.4	138.2	-1.4		-27.3	229	7277	02 15 51
02 20 50	J1848+3219	17 16 37	63.4	132.2	-1.5		-31.7	3	7277	02 20 45
02 21 50	=1846+322	17 17 37	63.6	132.6	-1.5		-31.5	60	7285	02 20 46
02 21 50	J1841.1+2914	17 17 37	61.6	138.8	-1.4		-26.9	-28	7285	No stop
02 26 20	---	17 22 08	62.0	140.7	-1.3		-25.9	242	7320	02 21 51
02 26 20	J1848+3219	17 22 08	64.0	134.5	-1.4		-30.5	-27	7320	No stop
02 27 30	=1846+322	17 23 18	64.2	135.0	-1.4		-30.2	43	7329	02 26 21
02 27 30	J1841.1+2914	17 23 18	62.1	141.2	-1.3		-25.6	-28	7329	No stop
02 32 00	---	17 27 49	62.5	143.1	-1.2		-24.4	242	7364	02 27 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
02 32 30	J1848+3219	17 28 19	64.7	137.1	-1.3		-28.9	3	7364	02 32 25
02 33 30	=1846+322	17 29 19	64.8	137.5	-1.3		-28.7	60	7372	02 32 26
02 33 30	J1841.1+2914	17 29 19	62.7	143.7	-1.2		-24.0	-28	7372	No stop
02 38 00	---	17 33 50	63.0	145.7	-1.1		-22.8	242	7407	02 33 31
02 38 00	J1848+3219	17 33 50	65.2	139.5	-1.3		-27.5	-27	7407	No stop
02 39 10	=1846+322	17 35 00	65.4	140.1	-1.2		-27.1	43	7416	02 38 01
02 39 10	J1841.8+3219	17 35 00	66.0	143.1	-1.1		-25.3	-21	7416	No stop
02 43 40	---	17 39 31	66.4	145.2	-1.0		-23.9	249	7451	02 39 11
02 44 10	J1848+3219	17 40 01	65.8	142.4	-1.1		-25.7	10	7451	02 44 05
02 45 10	=1846+322	17 41 01	65.9	142.8	-1.1		-25.4	60	7460	02 44 06
02 45 10	J1841.8+3219	17 41 01	66.5	146.0	-1.0		-23.4	-21	7460	No stop
02 49 40	---	17 45 32	66.9	148.2	-0.9		-22.0	249	7494	02 45 11
02 49 40	J1848+3219	17 45 32	66.3	145.0	-1.1		-24.1	-21	7494	No stop
02 50 50	=1846+322	17 46 42	66.4	145.5	-1.0		-23.7	49	7503	02 49 41
02 50 50	J1841.8+3219	17 46 42	66.9	148.8	-0.9		-21.6	-21	7503	No stop
02 55 20	---	17 51 13	67.3	151.1	-0.9		-20.1	249	7538	02 50 51
02 55 50	J1848+3219	17 51 43	66.8	148.0	-1.0		-22.1	9	7538	02 55 45
02 56 50	=1846+322	17 52 43	66.9	148.5	-0.9		-21.8	60	7547	02 55 46
02 56 50	J1841.8+3219	17 52 43	67.4	151.8	-0.8		-19.6	-22	7547	No stop
03 01 20	---	17 57 14	67.7	154.2	-0.8		-18.0	248	7581	02 56 51
03 01 20	J1848+3219	17 57 14	67.3	150.8	-0.9		-20.3	-21	7581	No stop
03 02 30	=1846+322	17 58 24	67.3	151.4	-0.8		-19.9	49	7591	03 01 21
03 06 00	J1927+6117	18 01 55	75.9	46.0	-1.4		-115.9	-16	7591	03 05 55
03 07 30	=1926+611	18 03 25	76.0	45.7	-1.4		-116.5	74	7603	03 05 56
03 07 30	J1926.9+6153	18 03 25	75.8	43.2	-1.4		-119.0	-19	7603	No stop
03 12 00	---	18 07 55	76.3	42.1	-1.3		-121.1	251	7638	03 07 31
03 12 30	J1927+6117	18 08 26	76.6	44.5	-1.3		-118.8	11	7638	03 12 25
03 13 30	=1926+611	18 09 26	76.7	44.2	-1.3		-119.2	60	7646	03 12 26
03 13 30	J1926.9+6153	18 09 26	76.4	41.8	-1.3		-121.8	-19	7646	No stop
03 18 00	---	18 13 56	76.9	40.5	-1.2		-124.0	251	7681	03 13 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
03 18 00	J1927+6117	18 13 56	77.1	43.0	-1.2		-121.4	-19	7681	No stop
03 19 10	=1926+611	18 15 07	77.3	42.7	-1.2		-122.0	51	7690	03 18 01
03 19 10	J1926.9+6153	18 15 07	77.0	40.2	-1.2		-124.6	-19	7690	No stop
03 23 40	---	18 19 37	77.4	38.8	-1.1		-127.0	251	7725	03 19 11
03 24 10	J1927+6117	18 20 07	77.8	41.2	-1.1		-124.6	11	7725	03 24 05
03 25 10	=1926+611	18 21 08	77.9	40.8	-1.1		-125.1	60	7733	03 24 06
03 25 10	J1926.9+6153	18 21 08	77.6	38.3	-1.1		-127.8	-20	7733	No stop
03 29 40	---	18 25 38	78.0	36.7	-1.0		-130.3	250	7768	03 25 11
03 29 40	J1927+6117	18 25 38	78.3	39.3	-1.0		-127.6	-19	7768	No stop
03 30 50	=1926+611	18 26 49	78.4	38.9	-1.0		-128.3	51	7777	03 29 41
03 31 20	J2006+6424	18 27 19	73.1	38.3	-1.7		-120.3	-4	7777	03 31 15
03 32 50	=2005+642	18 28 49	73.2	38.1	-1.6		-120.9	86	7789	03 31 16
03 32 50	J2002.6+6303	18 28 49	74.2	41.6	-1.6		-118.2	-22	7789	No stop
03 37 20	---	18 33 20	74.7	40.7	-1.5		-120.1	248	7824	03 32 51
03 37 50	J2006+6424	18 33 50	73.7	37.1	-1.5		-123.0	8	7824	03 37 45
03 38 50	=2005+642	18 34 50	73.7	36.8	-1.5		-123.4	60	7832	03 37 46
03 38 50	J2002.6+6303	18 34 50	74.8	40.4	-1.5		-120.8	-22	7832	No stop
03 43 20	---	18 39 21	75.2	39.3	-1.4		-122.8	248	7867	03 38 51
03 43 20	J2006+6424	18 39 21	74.1	35.9	-1.5		-125.4	-22	7867	No stop
03 44 30	=2005+642	18 40 31	74.2	35.6	-1.4		-125.9	48	7876	03 43 21
03 44 30	J2002.6+6303	18 40 31	75.3	39.0	-1.4		-123.3	-21	7876	No stop
03 49 00	---	18 45 02	75.8	37.9	-1.3		-125.5	249	7911	03 44 31
03 49 30	J2006+6424	18 45 32	74.7	34.4	-1.3		-128.2	8	7911	03 49 25
03 50 30	=2005+642	18 46 32	74.8	34.1	-1.3		-128.7	60	7920	03 49 26
03 50 30	J2002.6+6303	18 46 32	75.9	37.5	-1.3		-126.2	-21	7920	No stop
03 55 00	---	18 51 03	76.3	36.2	-1.2		-128.5	249	7954	03 50 31
03 55 00	J2006+6424	18 51 03	75.1	32.9	-1.3		-130.8	-21	7954	No stop
03 56 10	=2005+642	18 52 13	75.2	32.6	-1.2		-131.4	49	7963	03 55 01
03 59 40	J1945+7055	18 55 43	71.3	12.7	-0.8		-156.1	157	7963	03 59 35
04 01 10	=1946+708	18 57 14	71.3	12.4	-0.8		-156.7	90	7976	03 59 36

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
04 01 10	J2004.7+7003	18 57 14	71.3	17.9	-1.1		-147.1	-26	7976	No stop
04 05 40	---	19 01 44	71.5	16.9	-1.0		-149.1	244	8010	04 01 11
04 06 10	J1945+7055	19 02 14	71.5	11.2	-0.7		-159.1	4	8010	04 06 05
04 07 10	=1946+708	19 03 15	71.5	11.0	-0.7		-159.5	60	8019	04 06 06
04 07 10	J2004.7+7003	19 03 15	71.6	16.6	-1.0		-149.8	-26	8019	No stop
04 11 40	---	19 07 45	71.8	15.5	-0.9		-151.8	244	8054	04 07 11
04 11 40	J1945+7055	19 07 45	71.6	9.9	-0.6		-161.6	-26	8054	No stop
04 12 50	=1946+708	19 08 55	71.7	9.6	-0.6		-162.2	44	8063	04 11 41
04 12 50	J2004.7+7003	19 08 55	71.8	15.2	-0.9		-152.4	-26	8063	No stop
04 17 20	---	19 13 26	72.0	14.1	-0.9		-154.5	244	8098	04 12 51
04 17 50	J1945+7055	19 13 56	71.8	8.3	-0.5		-164.6	4	8098	04 17 45
04 18 50	=1946+708	19 14 56	71.8	8.1	-0.5		-165.0	60	8106	04 17 46
04 18 50	J2004.7+7003	19 14 56	72.0	13.7	-0.8		-155.2	-26	8106	No stop
04 23 20	---	19 19 27	72.2	12.6	-0.8		-157.4	244	8141	04 18 51
04 23 20	J1945+7055	19 19 27	71.9	6.9	-0.4		-167.2	-27	8141	No stop
04 24 30	=1946+708	19 20 37	71.9	6.6	-0.4		-167.7	43	8150	04 23 21
04 27 00	J2255+4202	19 23 08	53.4	85.4	-3.6		-53.8	-23	8150	04 26 55
04 28 30	=2253+417	19 24 38	53.6	85.7	-3.5		-53.8	67	8162	04 26 56
04 28 30	J2247.7+4412	19 24 38	56.0	84.0	-3.4		-56.5	-23	8162	No stop
04 33 00	---	19 29 09	56.7	84.8	-3.3		-56.7	247	8197	04 28 31
04 33 30	J2255+4202	19 29 39	54.4	86.6	-3.4		-53.9	7	8197	04 33 25
04 34 30	=2253+417	19 30 39	54.5	86.8	-3.4		-53.9	60	8205	04 33 26
04 34 30	J2247.7+4412	19 30 39	56.9	85.0	-3.3		-56.7	-23	8205	No stop
04 39 00	---	19 35 10	57.6	85.9	-3.2		-56.8	247	8240	04 34 31
04 39 00	J2255+4202	19 35 10	55.2	87.6	-3.4		-54.0	-23	8240	No stop
04 40 10	=2253+417	19 36 20	55.4	87.9	-3.3		-54.0	47	8249	04 39 01
04 40 10	J2247.7+4412	19 36 20	57.8	86.1	-3.2		-56.8	-23	8249	No stop
04 44 40	---	19 40 51	58.4	86.9	-3.1		-56.9	247	8284	04 40 11
04 45 10	J2255+4202	19 41 21	56.1	88.8	-3.2		-54.0	7	8284	04 45 05
04 46 10	=2253+417	19 42 21	56.3	89.0	-3.2		-54.0	60	8292	04 45 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
04 46 10	J2247.7+4412	19 42 21	58.7	87.2	-3.1		-56.9	-23	8292	No stop
04 50 40	---	19 46 52	59.3	88.0	-3.0		-57.0	247	8327	04 46 11
04 50 40	J2255+4202	19 46 52	56.9	89.9	-3.2		-54.0	-23	8327	No stop
04 51 50	=2253+417	19 48 02	57.1	90.2	-3.1		-54.0	47	8336	04 50 41
04 52 50	J2137+3455	19 49 02	63.6	122.3	-1.8		-38.3	-19	8336	04 52 45
04 54 20	=2135+347	19 50 32	63.8	122.9	-1.8		-38.0	71	8349	04 52 46
04 54 20	J2127.8+3614	19 50 32	66.0	124.8	-1.6		-37.7	-23	8349	No stop
04 58 50	---	19 55 03	66.6	126.6	-1.6		-36.7	247	8383	04 54 21
04 59 20	J2137+3455	19 55 33	64.4	124.7	-1.7		-37.0	8	8383	04 59 15
05 00 20	=2135+347	19 56 33	64.5	125.1	-1.7		-36.8	60	8392	04 59 16
05 00 20	J2127.8+3614	19 56 33	66.8	127.2	-1.5		-36.4	-22	8392	No stop
05 04 50	---	20 01 04	67.3	129.1	-1.5		-35.3	248	8427	05 00 21
05 04 50	J2137+3455	20 01 04	65.1	126.8	-1.6		-35.9	-22	8427	No stop
05 06 00	=2135+347	20 02 14	65.2	127.3	-1.6		-35.7	48	8436	05 04 51
05 06 00	J2127.8+3614	20 02 14	67.4	129.6	-1.4		-35.0	-22	8436	No stop
05 10 30	---	20 06 45	68.0	131.6	-1.4		-33.9	248	8470	05 06 01
05 11 00	J2137+3455	20 07 15	65.8	129.3	-1.5		-34.5	8	8470	05 10 55
05 12 00	=2135+347	20 08 15	65.9	129.8	-1.5		-34.3	60	8479	05 10 56
05 12 00	J2127.8+3614	20 08 15	68.1	132.2	-1.3		-33.5	-22	8479	No stop
05 16 30	---	20 12 46	68.6	134.3	-1.3		-32.2	248	8514	05 12 01
05 16 30	J2137+3455	20 12 46	66.4	131.7	-1.4		-33.2	-22	8514	No stop
05 17 40	=2135+347	20 13 56	66.6	132.2	-1.4		-32.9	48	8523	05 16 31
05 19 10	J2333+3901	20 15 26	53.8	92.3	-3.3		-50.6	-5	8523	05 19 05
05 20 40	=2330+387	20 16 57	54.0	92.6	-3.3		-50.6	85	8535	05 19 06
05 20 40	J2329.1+3754	20 16 57	53.8	94.9	-3.2		-49.4	-19	8535	No stop
05 25 10	---	20 21 27	54.5	95.9	-3.1		-49.3	251	8570	05 20 41
05 25 40	J2333+3901	20 21 57	54.7	93.7	-3.2		-50.5	12	8570	05 25 35
05 26 40	=2330+387	20 22 58	54.9	93.9	-3.2		-50.5	60	8578	05 25 36
05 26 40	J2329.1+3754	20 22 58	54.7	96.2	-3.1		-49.2	-19	8578	No stop
05 31 10	---	20 27 28	55.4	97.2	-3.0		-49.1	251	8613	05 26 41

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
05 31 10	J2333+3901	20 27 28	55.6	94.9	-3.1		-50.4	-19	8613	No stop
05 32 20	=2330+387	20 28 39	55.7	95.1	-3.1		-50.4	51	8622	05 31 11
05 32 20	J2329.1+3754	20 28 39	55.6	97.5	-3.0		-49.0	-19	8622	No stop
05 36 50	---	20 33 09	56.3	98.5	-2.9		-48.9	251	8657	05 32 21
05 37 20	J2333+3901	20 33 39	56.5	96.3	-3.0		-50.3	11	8657	05 37 15
05 38 20	=2330+387	20 34 40	56.6	96.5	-3.0		-50.2	60	8665	05 37 16
05 38 20	J2329.1+3754	20 34 40	56.5	98.9	-2.9		-48.8	-19	8665	No stop
05 42 50	---	20 39 10	57.1	100.0	-2.8		-48.6	251	8700	05 38 21
05 42 50	J2333+3901	20 39 10	57.3	97.5	-2.9		-50.1	-19	8700	No stop
05 44 00	=2330+387	20 40 20	57.5	97.8	-2.9		-50.0	51	8709	05 42 51
05 44 30	J0004+4615	20 40 51	57.1	80.8	-3.4		-59.1	-19	8709	05 44 25
05 46 00	=0001+459	20 42 21	57.3	81.0	-3.4		-59.2	71	8721	05 44 26
05 46 00	J0007.7+4709	20 42 21	57.2	79.0	-3.4		-60.3	-18	8721	No stop
05 50 30	---	20 46 52	57.9	79.7	-3.4		-60.5	252	8756	05 46 01
05 51 00	J0004+4615	20 47 22	58.0	81.9	-3.3		-59.4	12	8756	05 50 55
05 52 00	=0001+459	20 48 22	58.2	82.0	-3.3		-59.5	60	8765	05 50 56
05 52 00	J0007.7+4709	20 48 22	58.1	79.9	-3.3		-60.6	-18	8765	No stop
05 56 30	---	20 52 53	58.8	80.6	-3.3		-60.8	252	8799	05 52 01
05 56 30	J0004+4615	20 52 53	58.8	82.8	-3.2		-59.6	-18	8799	No stop
05 57 40	=0001+459	20 54 03	59.0	83.0	-3.2		-59.7	52	8808	05 56 31
05 57 40	J0007.7+4709	20 54 03	59.0	80.8	-3.2		-60.9	-18	8808	No stop
06 02 10	---	20 58 33	59.6	81.6	-3.2		-61.1	252	8843	05 57 41
06 02 40	J0004+4615	20 59 04	59.8	83.8	-3.1		-59.8	12	8843	06 02 35
06 03 40	=0001+459	21 00 04	59.9	84.0	-3.1		-59.9	60	8852	06 02 36
06 03 40	J0007.7+4709	21 00 04	59.9	81.8	-3.1		-61.1	-18	8852	No stop
06 08 10	---	21 04 34	60.5	82.5	-3.1		-61.3	252	8887	06 03 41
06 08 10	J0004+4615	21 04 34	60.6	84.8	-3.0		-60.0	-19	8887	No stop
06 09 20	=0001+459	21 05 45	60.8	85.0	-3.0		-60.0	51	8896	06 08 11
06 09 50	J0049+5128	21 06 15	56.6	69.5	-3.7		-64.8	-16	8896	06 09 45
06 11 20	=0046+511	21 07 45	56.8	69.7	-3.7		-64.9	74	8908	06 09 46

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
06 11 50	J0009.2+5032	21 08 15	62.3	76.6	-3.0		-66.9	-4	8908	06 11 45
06 16 20	---	21 12 46	62.9	77.2	-3.0		-67.3	266	8943	06 11 46
06 16 50	J0049+5128	21 13 16	57.6	70.4	-3.6		-65.4	-4	8943	06 16 45
06 17 50	=0046+511	21 14 16	57.7	70.5	-3.6		-65.5	56	8952	06 16 46
06 17 50	J0009.2+5032	21 14 16	63.2	77.4	-2.9		-67.4	-35	8952	No stop
06 22 20	---	21 18 47	63.8	78.0	-2.9		-67.7	235	8987	06 17 51
06 22 20	J0049+5128	21 18 47	58.4	71.1	-3.5		-66.0	-34	8987	No stop
06 23 30	=0046+511	21 19 57	58.5	71.2	-3.5		-66.1	36	8996	06 22 21
06 24 00	J0009.2+5032	21 20 27	64.1	78.3	-2.8		-67.8	-5	8996	06 23 55
06 28 30	---	21 24 58	64.7	78.9	-2.8		-68.1	265	9031	06 23 56
06 29 00	J0049+5128	21 25 28	59.3	71.9	-3.4		-66.6	-4	9031	06 28 55
06 30 00	=0046+511	21 26 28	59.5	72.0	-3.4		-66.7	56	9039	06 28 56
06 30 00	J0009.2+5032	21 26 28	65.0	79.1	-2.7		-68.2	-35	9039	No stop
06 34 30	---	21 30 59	65.6	79.7	-2.7		-68.5	235	9074	06 30 01
06 34 30	J0049+5128	21 30 59	60.1	72.5	-3.3		-67.1	-34	9074	No stop
06 35 40	=0046+511	21 32 09	60.3	72.7	-3.3		-67.2	36	9083	06 34 31
06 36 10	J0038+4137	21 32 39	57.1	91.1	-3.1		-53.5	-22	9083	06 36 05
06 37 40	=0035+413	21 34 09	57.3	91.4	-3.1		-53.5	68	9096	06 36 06
06 37 40	J0040.3+4049	21 34 09	56.6	92.2	-3.1		-52.6	-15	9096	No stop
06 42 10	---	21 38 40	57.3	93.2	-3.0		-52.5	255	9130	06 37 41
06 42 40	J0038+4137	21 39 10	58.1	92.5	-3.0		-53.5	15	9130	06 42 35
06 43 40	=0035+413	21 40 10	58.2	92.7	-3.0		-53.4	60	9139	06 42 36
06 43 40	J0040.3+4049	21 40 10	57.5	93.5	-3.0		-52.5	-15	9139	No stop
06 48 10	---	21 44 41	58.2	94.5	-2.9		-52.4	255	9174	06 43 41
06 48 10	J0038+4137	21 44 41	58.9	93.7	-2.9		-53.4	-15	9174	No stop
06 49 20	=0035+413	21 45 51	59.1	93.9	-2.9		-53.3	55	9183	06 48 11
06 49 20	J0040.3+4049	21 45 51	58.4	94.7	-2.9		-52.4	-15	9183	No stop
06 53 50	---	21 50 22	59.0	95.7	-2.8		-52.2	255	9217	06 49 21
06 54 20	J0038+4137	21 50 52	59.9	95.0	-2.8		-53.2	15	9217	06 54 15
06 55 20	=0035+413	21 51 52	60.0	95.2	-2.8		-53.2	60	9226	06 54 16

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
06 55 20	J0040.3+4049	21 51 52	59.3	96.1	-2.8		-52.2	-15	9226	No stop
06 59 50	---	21 56 23	59.9	97.1	-2.7		-52.0	255	9261	06 55 21
06 59 50	J0038+4137	21 56 23	60.7	96.3	-2.7		-53.1	-15	9261	No stop
07 01 00	=0035+413	21 57 33	60.8	96.5	-2.7		-53.0	55	9270	06 59 51
07 01 30	J0048+3157	21 58 03	52.9	107.2	-2.9		-42.6	-14	9270	07 01 25
07 03 00	=0046+316	21 59 33	53.1	107.6	-2.8		-42.5	76	9282	07 01 26
07 03 00	J0043.7+3425	21 59 33	55.6	105.9	-2.7		-44.5	-23	9282	No stop
07 07 30	---	22 04 04	56.2	107.1	-2.7		-44.1	247	9317	07 03 01
07 08 00	J0048+3157	22 04 34	53.8	108.9	-2.7		-42.1	7	9317	07 07 55
07 09 00	=0046+316	22 05 34	53.9	109.2	-2.7		-42.0	60	9325	07 07 56
07 09 00	J0043.7+3425	22 05 34	56.5	107.5	-2.6		-44.0	-24	9325	No stop
07 13 30	---	22 10 05	57.1	108.8	-2.6		-43.6	246	9360	07 09 01
07 13 30	J0048+3157	22 10 05	54.6	110.4	-2.7		-41.6	-23	9360	No stop
07 14 40	=0046+316	22 11 15	54.7	110.7	-2.6		-41.5	47	9369	07 13 31
07 14 40	J0043.7+3425	22 11 15	57.3	109.1	-2.6		-43.5	-24	9369	No stop
07 19 10	---	22 15 46	57.9	110.3	-2.5		-43.1	246	9404	07 14 41
07 19 40	J0048+3157	22 16 16	55.4	112.1	-2.6		-41.0	7	9404	07 19 35
07 20 40	=0046+316	22 17 16	55.6	112.4	-2.5		-40.9	60	9412	07 19 36
07 20 40	J0043.7+3425	22 17 16	58.1	110.8	-2.5		-43.0	-24	9412	No stop
07 25 10	---	22 21 47	58.8	112.1	-2.4		-42.5	246	9447	07 20 41
07 25 10	J0048+3157	22 21 47	56.2	113.7	-2.5		-40.4	-23	9447	No stop
07 26 20	=0046+316	22 22 57	56.4	114.0	-2.4		-40.3	47	9456	07 25 11
07 26 50	J0046+3900	22 23 27	61.8	105.1	-2.4		-48.3	-4	9456	07 26 45
07 28 20	=0044+387	22 24 58	62.0	105.6	-2.4		-48.2	86	9468	07 26 46
07 28 20	J0053.9+4030	22 24 58	62.0	101.4	-2.5		-50.7	-23	9468	No stop
07 32 50	---	22 29 28	62.6	102.6	-2.4		-50.4	247	9503	07 28 21
07 33 20	J0046+3900	22 29 58	62.7	107.0	-2.3		-47.7	6	9503	07 33 15
07 34 20	=0044+387	22 30 59	62.9	107.2	-2.3		-47.6	60	9512	07 33 16
07 34 20	J0053.9+4030	22 30 59	62.8	103.0	-2.4		-50.3	-23	9512	No stop
07 38 50	---	22 35 29	63.5	104.2	-2.3		-50.0	247	9547	07 34 21

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
07 38 50	J0046+3900	22 35 29	63.5	108.6	-2.2		-47.2	-24	9547	No stop
07 40 00	=0044+387	22 36 40	63.7	108.9	-2.2		-47.0	46	9556	07 38 51
07 40 00	J0053.9+4030	22 36 40	63.7	104.5	-2.3		-49.9	-24	9556	No stop
07 44 30	---	22 41 10	64.3	105.8	-2.2		-49.5	246	9590	07 40 01
07 45 00	J0046+3900	22 41 40	64.4	110.4	-2.1		-46.5	6	9590	07 44 55
07 46 00	=0044+387	22 42 41	64.5	110.7	-2.1		-46.3	60	9599	07 44 56
07 46 00	J0053.9+4030	22 42 41	64.5	106.2	-2.2		-49.3	-24	9599	No stop
07 50 30	---	22 47 11	65.2	107.5	-2.1		-48.9	246	9634	07 46 01
07 50 30	J0046+3900	22 47 11	65.2	112.2	-2.0		-45.8	-24	9634	No stop
07 51 40	=0044+387	22 48 21	65.3	112.5	-2.0		-45.6	46	9643	07 50 31
07 52 40	J0049+5128	22 49 22	71.6	82.6	-2.0		-73.2	-15	9643	07 52 35
07 54 10	=0046+511	22 50 52	71.8	82.8	-2.0		-73.3	75	9655	07 52 36
07 54 10	J0103.4+5336	22 50 52	70.3	74.8	-2.2		-78.1	-31	9655	No stop
07 58 40	---	22 55 23	70.9	75.2	-2.1		-78.7	239	9690	07 54 11
07 59 10	J0049+5128	22 55 53	72.6	83.6	-1.9		-73.6	-2	9690	07 59 05
08 00 10	=0046+511	22 56 53	72.7	83.7	-1.9		-73.7	58	9698	07 59 06
08 00 10	J0103.4+5336	22 56 53	71.2	75.4	-2.1		-78.9	-32	9698	No stop
08 04 40	---	23 01 24	71.8	75.8	-2.0		-79.4	238	9733	08 00 11
08 04 40	J0049+5128	23 01 24	73.4	84.4	-1.8		-73.9	-32	9733	No stop
08 05 50	=0046+511	23 02 34	73.5	84.5	-1.8		-74.0	38	9742	08 04 41
08 05 50	J0103.4+5336	23 02 34	72.0	75.9	-2.0		-79.5	-32	9742	No stop
08 10 20	---	23 07 05	72.7	76.2	-2.0		-80.1	238	9777	08 05 51
08 10 50	J0049+5128	23 07 35	74.3	85.3	-1.7		-74.2	-3	9777	08 10 45
08 11 50	=0046+511	23 08 35	74.4	85.5	-1.7		-74.3	57	9785	08 10 46
08 11 50	J0103.4+5336	23 08 35	72.9	76.4	-1.9		-80.2	-33	9785	No stop
08 16 20	---	23 13 05	73.5	76.8	-1.9		-80.8	237	9820	08 11 51
08 16 20	J0049+5128	23 13 05	75.1	86.2	-1.6		-74.4	-34	9820	No stop
08 17 30	=0046+511	23 14 16	75.3	86.4	-1.6		-74.5	36	9829	08 16 21
08 18 30	J0112+3522	23 15 16	62.8	118.7	-2.0		-40.3	-20	9829	08 18 25
08 20 00	=0109+351	23 16 46	63.0	119.2	-1.9		-40.0	70	9841	08 18 26

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
08 20 00	J0122.7+3425	23 16 46	60.9	117.0	-2.1		-40.5	-22	9841	No stop
08 24 30	---	23 21 17	61.5	118.5	-2.0		-39.8	248	9876	08 20 01
08 25 00	J0112+3522	23 21 47	63.7	121.0	-1.9		-39.2	8	9876	08 24 55
08 26 00	=0109+351	23 22 47	63.8	121.3	-1.8		-39.0	60	9885	08 24 56
08 26 00	J0122.7+3425	23 22 47	61.7	119.0	-2.0		-39.6	-22	9885	No stop
08 30 30	---	23 27 18	62.3	120.6	-1.9		-38.9	248	9919	08 26 01
08 30 30	J0112+3522	23 27 18	64.4	123.0	-1.8		-38.2	-22	9919	No stop
08 31 40	=0109+351	23 28 28	64.5	123.4	-1.7		-38.0	48	9928	08 30 31
08 31 40	J0122.7+3425	23 28 28	62.5	121.0	-1.9		-38.7	-21	9928	No stop
08 36 10	---	23 32 59	63.1	122.6	-1.8		-37.9	249	9963	08 31 41
08 36 40	J0112+3522	23 33 29	65.2	125.3	-1.7		-37.0	8	9963	08 36 35
08 37 40	=0109+351	23 34 29	65.3	125.7	-1.6		-36.8	60	9972	08 36 36
08 37 40	J0122.7+3425	23 34 29	63.3	123.1	-1.8		-37.6	-21	9972	No stop
08 42 10	---	23 39 00	63.8	124.8	-1.7		-36.8	249	10006	08 37 41
08 42 10	J0112+3522	23 39 00	65.8	127.5	-1.6		-35.8	-22	10006	No stop
08 43 20	=0109+351	23 40 10	66.0	128.0	-1.5		-35.5	48	10016	08 42 11
08 45 50	J0109+6133	23 42 40	75.5	45.3	-1.5		-116.1	-31	10016	08 45 45
08 47 20	=0106+612	23 44 11	75.7	45.0	-1.4		-116.7	59	10028	08 45 46
08 47 20	J0131.3+6121	23 44 11	73.4	49.4	-1.8		-107.8	-24	10028	No stop
08 51 50	---	23 48 41	73.9	48.8	-1.7		-109.4	246	10063	08 47 21
08 52 20	J0109+6133	23 49 11	76.2	43.8	-1.4		-118.9	5	10063	08 52 15
08 53 20	=0106+612	23 50 12	76.3	43.6	-1.3		-119.4	60	10071	08 52 16
08 53 20	J0131.3+6121	23 50 12	74.1	48.5	-1.7		-109.9	-25	10071	No stop
08 57 50	---	23 54 42	74.6	47.8	-1.6		-111.6	245	10106	08 53 21
08 57 50	J0109+6133	23 54 42	76.8	42.4	-1.3		-121.5	-26	10106	No stop
08 59 00	=0106+612	23 55 53	76.9	42.1	-1.2		-122.1	44	10115	08 57 51
08 59 00	J0131.3+6121	23 55 53	74.7	47.6	-1.6		-112.0	-26	10115	No stop
09 03 30	---	00 00 23	75.2	46.8	-1.5		-113.8	244	10150	08 59 01
09 04 00	J0109+6133	00 00 53	77.4	40.6	-1.2		-124.6	3	10150	09 03 55
09 05 00	=0106+612	00 01 53	77.5	40.3	-1.1		-125.1	60	10158	09 03 56

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
09 05 00	J0131.3+6121	00 01 53	75.4	46.5	-1.5		-114.4	-27	10158	No stop
09 09 30	---	00 06 24	75.9	45.6	-1.4		-116.3	243	10193	09 05 01
09 09 30	J0109+6133	00 06 24	77.9	38.8	-1.1		-127.6	-29	10193	No stop
09 10 40	=0106+612	00 07 34	78.0	38.4	-1.1		-128.2	41	10202	09 09 31
09 11 40	J0157+7442	00 08 35	65.7	17.2	-1.8		-137.6	0	10202	09 11 35
09 13 10	=0153+744	00 10 05	65.8	17.0	-1.8		-138.1	90	10214	09 11 36
09 13 10	J0153.1+7515	00 10 05	65.5	15.5	-1.7		-140.5	-16	10214	No stop
09 17 40	---	00 14 36	65.7	15.0	-1.7		-142.1	254	10249	09 13 11
09 18 10	J0157+7442	00 15 06	66.0	16.4	-1.7		-139.9	14	10249	09 18 05
09 19 10	=0153+744	00 16 06	66.0	16.3	-1.7		-140.2	60	10257	09 18 06
09 19 10	J0153.1+7515	00 16 06	65.7	14.8	-1.6		-142.6	-16	10257	No stop
09 23 40	---	00 20 37	65.9	14.3	-1.6		-144.2	254	10292	09 19 11
09 23 40	J0157+7442	00 20 37	66.2	15.7	-1.6		-141.8	-16	10292	No stop
09 24 50	=0153+744	00 21 47	66.3	15.5	-1.6		-142.2	54	10301	09 23 41
09 24 50	J0153.1+7515	00 21 47	66.0	14.1	-1.5		-144.6	-16	10301	No stop
09 29 20	---	00 26 17	66.1	13.5	-1.5		-146.2	254	10336	09 24 51
09 29 50	J0157+7442	00 26 48	66.5	14.9	-1.5		-144.0	14	10336	09 29 45
09 30 50	=0153+744	00 27 48	66.5	14.7	-1.5		-144.4	60	10345	09 29 46
09 30 50	J0153.1+7515	00 27 48	66.2	13.3	-1.4		-146.8	-16	10345	No stop
09 35 20	---	00 32 18	66.3	12.7	-1.4		-148.4	254	10379	09 30 51
09 35 20	J0157+7442	00 32 18	66.7	14.1	-1.4		-146.1	-15	10379	No stop
09 36 30	=0153+744	00 33 29	66.7	14.0	-1.4		-146.5	55	10388	09 35 21
09 39 00	J0303+4716	00 35 59	65.8	88.7	-2.5		-62.3	-15	10388	09 38 55
09 40 30	=0300+470	00 37 29	66.1	89.0	-2.5		-62.3	75	10401	09 38 56
09 40 30	J0307.4+4915	00 37 29	66.3	83.9	-2.5		-66.3	-25	10401	No stop
09 45 00	---	00 42 00	67.0	84.6	-2.4		-66.5	245	10435	09 40 31
09 45 30	J0303+4716	00 42 30	66.8	90.0	-2.4		-62.4	4	10435	09 45 25
09 46 30	=0300+470	00 43 30	67.0	90.2	-2.3		-62.4	60	10444	09 45 26
09 46 30	J0307.4+4915	00 43 30	67.2	84.9	-2.4		-66.5	-26	10444	No stop
09 51 00	---	00 48 01	67.9	85.6	-2.3		-66.7	244	10479	09 46 31

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
09 51 00	J0303+4716	00 48 01	67.6	91.1	-2.3		-62.3	-26	10479	No stop
09 52 10	=0300+470	00 49 11	67.8	91.3	-2.3		-62.3	44	10488	09 51 01
09 52 10	J0307.4+4915	00 49 11	68.1	85.8	-2.3		-66.7	-26	10488	No stop
09 56 40	---	00 53 42	68.8	86.6	-2.2		-66.8	244	10523	09 52 11
09 57 10	J0303+4716	00 54 12	68.6	92.4	-2.2		-62.3	3	10523	09 57 05
09 58 10	=0300+470	00 55 12	68.7	92.6	-2.2		-62.2	60	10531	09 57 06
09 58 10	J0307.4+4915	00 55 12	69.0	86.9	-2.2		-66.9	-26	10531	No stop
10 02 40	---	00 59 43	69.7	87.7	-2.1		-67.0	244	10566	09 58 11
10 02 40	J0303+4716	00 59 43	69.4	93.6	-2.1		-62.1	-27	10566	No stop
10 03 50	=0300+470	01 00 53	69.6	93.9	-2.1		-62.1	43	10575	10 02 41
10 04 50	J0306+6243	01 01 53	71.0	47.1	-2.1		-105.9	-49	10575	10 04 45
10 06 20	=0302+625	01 03 24	71.1	47.0	-2.1		-106.4	41	10587	10 04 46
10 06 20	J0332.1+6307	01 03 24	68.3	47.7	-2.5		-100.1	-25	10587	No stop
10 10 50	---	01 07 54	68.8	47.4	-2.4		-101.3	245	10622	10 06 21
10 11 20	J0306+6243	01 08 24	71.7	46.4	-2.0		-108.0	5	10622	10 11 15
10 12 20	=0302+625	01 09 25	71.8	46.3	-2.0		-108.3	60	10630	10 11 16
10 12 20	J0332.1+6307	01 09 25	68.9	47.4	-2.4		-101.8	-25	10630	No stop
10 16 50	---	01 13 55	69.4	47.0	-2.3		-103.1	245	10665	10 12 21
10 16 50	J0306+6243	01 13 55	72.3	45.8	-1.9		-109.9	-25	10665	No stop
10 18 00	=0302+625	01 15 05	72.4	45.6	-1.9		-110.3	45	10674	10 16 51
10 18 00	J0332.1+6307	01 15 05	69.5	47.0	-2.3		-103.4	-24	10674	No stop
10 22 30	---	01 19 36	70.0	46.6	-2.2		-104.7	246	10709	10 18 01
10 23 00	J0306+6243	01 20 06	72.9	44.9	-1.8		-112.1	5	10709	10 22 55
10 24 00	=0302+625	01 21 06	73.0	44.8	-1.8		-112.4	60	10717	10 22 56
10 24 00	J0332.1+6307	01 21 06	70.2	46.5	-2.2		-105.2	-24	10717	No stop
10 28 30	---	01 25 37	70.7	46.1	-2.1		-106.6	246	10752	10 24 01
10 28 30	J0306+6243	01 25 37	73.5	44.1	-1.7		-114.1	-25	10752	No stop
10 29 40	=0302+625	01 26 47	73.6	43.9	-1.7		-114.5	45	10761	10 28 31
10 30 10	J0449+6332	01 27 17	62.2	47.8	-3.4		-88.0	-27	10761	10 30 05
10 31 40	=0444+634	01 28 48	62.4	47.8	-3.4		-88.3	63	10774	10 30 06

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
10 31 40	J0425.3+6320	01 28 48	65.1	48.2	-3.0		-93.4	-24	10774	No stop
10 36 10	---	01 33 18	65.6	48.1	-2.9		-94.4	246	10808	10 31 41
10 36 40	J0449+6332	01 33 49	63.0	47.9	-3.3		-89.4	6	10808	10 36 35
10 37 40	=0444+634	01 34 49	63.1	47.9	-3.3		-89.6	60	10817	10 36 36
10 37 40	J0425.3+6320	01 34 49	65.8	48.1	-2.9		-94.8	-24	10817	No stop
10 42 10	---	01 39 19	66.3	48.0	-2.8		-95.9	246	10852	10 37 41
10 42 10	J0449+6332	01 39 19	63.6	47.9	-3.2		-90.6	-24	10852	No stop
10 43 20	=0444+634	01 40 30	63.7	47.9	-3.2		-90.9	46	10861	10 42 11
10 43 20	J0425.3+6320	01 40 30	66.4	47.9	-2.8		-96.2	-24	10861	No stop
10 47 50	---	01 45 00	66.9	47.8	-2.7		-97.4	246	10895	10 43 21
10 48 20	J0449+6332	01 45 30	64.3	47.8	-3.1		-92.1	6	10895	10 48 15
10 49 20	=0444+634	01 46 31	64.4	47.8	-3.1		-92.3	60	10904	10 48 16
10 49 20	J0425.3+6320	01 46 31	67.1	47.7	-2.7		-97.7	-24	10904	No stop
10 53 50	---	01 51 01	67.6	47.5	-2.6		-98.9	246	10939	10 49 21
10 53 50	J0449+6332	01 51 01	64.9	47.8	-3.0		-93.3	-24	10939	No stop
10 55 00	=0444+634	01 52 12	65.0	47.7	-3.0		-93.6	46	10948	10 53 51
10 58 30	J0329+2756	01 55 42	59.4	135.7	-1.6		-28.4	19	10948	10 58 25
11 00 00	=0326+27	01 57 12	59.5	136.3	-1.6		-28.0	90	10960	10 58 26
11 00 00	J0333.6+2918	01 57 12	60.3	133.5	-1.6		-30.0	-20	10960	No stop
11 04 30	---	02 01 43	60.8	135.2	-1.5		-29.0	250	10995	11 00 01
11 05 00	J0329+2756	02 02 13	60.0	138.2	-1.5		-26.9	10	10995	11 04 55
11 06 00	=0326+27	02 03 13	60.1	138.6	-1.5		-26.7	60	11003	11 04 56
11 06 00	J0333.6+2918	02 03 13	60.9	135.8	-1.5		-28.7	-20	11003	No stop
11 10 30	---	02 07 44	61.4	137.6	-1.4		-27.7	250	11038	11 06 01
11 10 30	J0329+2756	02 07 44	60.6	140.4	-1.4		-25.7	-20	11038	No stop
11 11 40	=0326+27	02 08 54	60.7	140.9	-1.4		-25.4	50	11047	11 10 31
11 11 40	J0333.6+2918	02 08 54	61.5	138.1	-1.4		-27.4	-20	11047	No stop
11 16 10	---	02 13 25	62.0	139.9	-1.4		-26.3	250	11082	11 11 41
11 16 40	J0329+2756	02 13 55	61.2	143.0	-1.3		-24.2	10	11082	11 16 35
11 17 40	=0326+27	02 14 55	61.2	143.4	-1.3		-23.9	60	11090	11 16 36
11 17 40	J0333.6+2918	02 14 55	62.1	140.6	-1.3		-25.9	-20	11090	No stop
11 22 10	---	02 19 26	62.5	142.5	-1.3		-24.8	250	11125	11 17 41

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
11 22 10	J0329+2756	02 19 26	61.6	145.3	-1.2		-22.8	-20	11125	No stop
11 23 20	=0326+27	02 20 36	61.7	145.8	-1.2		-22.5	50	11134	11 22 11
11 25 20	J0419+5722	02 22 37	72.8	63.7	-2.0		-91.9	-59	11134	11 25 15
11 26 50	=0415+572	02 24 07	73.0	63.7	-1.9		-92.3	31	11146	11 25 16
11 26 50	J0425.4+5601	02 24 07	72.1	68.0	-2.1		-86.7	-24	11146	No stop
11 31 20	---	02 28 38	72.7	68.2	-2.0		-87.5	246	11181	11 26 51
11 31 50	J0419+5722	02 29 08	73.7	63.5	-1.9		-93.4	6	11181	11 31 45
11 32 50	=0415+572	02 30 08	73.8	63.5	-1.8		-93.7	60	11190	11 31 46
11 32 50	J0425.4+5601	02 30 08	72.9	68.2	-2.0		-87.8	-24	11190	No stop
11 37 20	---	02 34 39	73.6	68.2	-1.9		-88.7	246	11224	11 32 51
11 37 20	J0419+5722	02 34 39	74.4	63.3	-1.8		-94.8	-25	11224	No stop
11 38 30	=0415+572	02 35 49	74.6	63.3	-1.7		-95.1	45	11234	11 37 21
11 38 30	J0425.4+5601	02 35 49	73.7	68.3	-1.9		-88.9	-25	11234	No stop
11 43 00	---	02 40 19	74.3	68.3	-1.8		-89.8	245	11268	11 38 31
11 43 30	J0419+5722	02 40 50	75.3	63.0	-1.7		-96.4	5	11268	11 43 25
11 44 30	=0415+572	02 41 50	75.4	63.0	-1.6		-96.7	60	11277	11 43 26
11 44 30	J0425.4+5601	02 41 50	74.6	68.3	-1.8		-90.1	-26	11277	No stop
11 49 00	---	02 46 20	75.2	68.3	-1.7		-91.1	244	11312	11 44 31
11 49 00	J0419+5722	02 46 20	76.0	62.7	-1.6		-97.9	-26	11312	No stop
11 50 10	=0415+572	02 47 31	76.2	62.6	-1.5		-98.2	44	11321	11 49 01
11 50 10	J0432.2+5555	02 47 31	74.5	69.2	-1.8		-89.2	-28	11321	No stop
11 54 40	---	02 52 01	75.1	69.2	-1.7		-90.1	242	11355	11 50 11
11 55 10	J0419+5722	02 52 31	76.8	62.1	-1.5		-99.7	1	11355	11 55 05
11 56 10	=0415+572	02 53 32	77.0	62.0	-1.4		-100.1	60	11364	11 55 06
11 56 10	J0432.2+5555	02 53 32	75.4	69.2	-1.7		-90.4	-29	11364	No stop
12 00 40	---	02 58 02	76.0	69.2	-1.6		-91.4	241	11399	11 56 11
12 00 40	J0419+5722	02 58 02	77.6	61.5	-1.4		-101.5	-30	11399	No stop
12 01 50	=0415+572	02 59 13	77.7	61.4	-1.4		-101.9	40	11408	12 00 41
12 01 50	J0432.2+5555	02 59 13	76.2	69.2	-1.6		-91.6	-31	11408	No stop
12 06 20	---	03 03 43	76.8	69.1	-1.5		-92.6	239	11443	12 01 51
12 06 50	J0419+5722	03 04 13	78.4	60.6	-1.3		-103.7	-2	11443	12 06 45
12 07 50	=0415+572	03 05 14	78.5	60.5	-1.3		-104.0	58	11451	12 06 46

Schedule for TORUN (Code Tr)

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e-EVN run EL043A (Lico), RSP08B (Perez-Torres), EG070A (Gabanyi)

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
--- Wed 17 Apr 2013 Day 107 ---										
12 07 50	J0432.2+5555	03 05 14	77.0	69.0	-1.5		-93.0	-32	11451	No stop
12 12 20	---	03 09 44	77.6	68.9	-1.4		-94.1	238	11486	12 07 51
12 12 20	J0419+5722	03 09 44	79.1	59.7	-1.2		-105.8	-34	11486	No stop
12 13 30	=0415+572	03 10 54	79.2	59.4	-1.2		-106.2	36	11495	12 12 21
12 14 30	J0559+5804	03 11 55	66.1	61.1	-2.8		-83.6	-3	11495	12 14 25
12 16 00	=0554+580	03 13 25	66.3	61.1	-2.8		-83.9	87	11507	12 14 26
12 16 00	J0540.5+5822	03 13 25	68.8	60.7	-2.5		-88.3	-23	11507	No stop
12 20 30	---	03 17 56	69.4	60.7	-2.4		-89.2	247	11542	12 16 01
12 21 00	J0559+5804	03 18 26	67.0	61.3	-2.7		-84.8	7	11542	12 20 55
12 22 00	=0554+580	03 19 26	67.1	61.3	-2.7		-85.0	60	11550	12 20 56
12 22 00	J0540.5+5822	03 19 26	69.6	60.8	-2.4		-89.5	-23	11550	No stop
12 26 30	---	03 23 57	70.2	60.8	-2.3		-90.5	247	11585	12 22 01
12 26 30	J0559+5804	03 23 57	67.7	61.5	-2.6		-85.8	-23	11585	No stop
12 27 40	=0554+580	03 25 07	67.8	61.5	-2.6		-86.1	47	11594	12 26 31
12 27 40	J0540.5+5822	03 25 07	70.3	60.7	-2.3		-90.7	-23	11594	No stop
12 32 10	---	03 29 38	70.9	60.7	-2.2		-91.7	247	11629	12 27 41
12 32 40	J0559+5804	03 30 08	68.5	61.6	-2.5		-87.0	7	11629	12 32 35
12 33 40	=0554+580	03 31 08	68.6	61.6	-2.5		-87.2	60	11637	12 32 36
12 33 40	J0540.5+5822	03 31 08	71.1	60.7	-2.2		-92.1	-23	11637	No stop
12 38 10	---	03 35 39	71.7	60.6	-2.1		-93.1	247	11672	12 33 41
12 38 10	J0559+5804	03 35 39	69.2	61.7	-2.4		-88.1	-23	11672	No stop
12 39 20	=0554+580	03 36 49	69.4	61.7	-2.4		-88.4	47	11681	12 38 11
12 40 20	J0519+7133	03 37 49	68.4	21.9	-1.7		-134.8	-35	11681	12 40 15
12 41 50	=0513+714	03 39 19	68.4	21.7	-1.7		-135.4	55	11693	12 40 16
12 41 50	J0516.4+7351	03 39 19	66.9	17.2	-1.6		-140.2	-24	11693	No stop
12 46 20	---	03 43 50	67.1	16.6	-1.6		-141.9	246	11728	12 41 51
12 46 50	J0519+7133	03 44 20	68.7	20.9	-1.6		-137.3	6	11728	12 46 45
12 47 50	=0513+714	03 45 20	68.8	20.7	-1.6		-137.7	60	11737	12 46 46
12 47 50	J0516.4+7351	03 45 20	67.1	16.4	-1.5		-142.5	-24	11737	No stop
12 52 20	---	03 49 51	67.3	15.7	-1.5		-144.1	246	11772	12 47 51
12 54 20	J0519+7133	03 51 51	69.1	19.7	-1.5		-140.3	97	11772	12 54 15
12 59 20	=0513+714	03 56 52	69.4	18.8	-1.4		-142.3	300	11811	12 54 16

SETUP FILE INFORMATION:

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

=====
 Setup file: sess212.L1024e

Matching groups in /aps3/opt/share/sched_10.2/catalogs/freq.dat:
 tr18cm E-mail Borkowski 12Mar98, preferred alternative

Setup group: 2 Station: TORUN Total bit rate: 1024
 Format: MKIV1:2 Bits per sample: 2 Sample rate: 32.000
 Number of channels: 16 DBE type: Speedup factor: 0.50

Disk used to record data.

1st LO=	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00
	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U	L	L	U	U	
	L	L	U	U	L	L	U	U	
Pol. =	RCP	LCP	RCP	LCP	RCP	LCP	RCP	LCP	
	RCP	LCP	RCP	LCP	RCP	LCP	RCP	LCP	
BBC =	1	2	1	2	3	4	3	4	
	5	6	5	6	7	8	7	8	
BBC SB=	U	U	L	L	U	U	L	L	
	U	U	L	L	U	U	L	L	
IF =	C	A	C	A	C	A	C	A	
	C	A	C	A	C	A	C	A	

The following frequency sets based on these setups were used.

Frequency Set: 5 Setup file default. Used pcal sets: 1

LO sum=	1616.49	1616.49	1616.49	1616.49	1648.49	1648.49	1648.49	1648.49
	1680.49	1680.49	1680.49	1680.49	1712.49	1712.49	1712.49	1712.49
BBC fr=	683.51	683.51	683.51	683.51	651.51	651.51	651.51	651.51
	619.51	619.51	619.51	619.51	587.51	587.51	587.51	587.51
Bandwd=	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00

Matching frequency sets: 5

The following pulse cal sets were used with this setup:

Pulse cal detection set: 1 PCAL = OFF

PCALXB1=	S1	S2	S3	S4	S5	S6	S7	S8
PCALXB2=	M1	M2	M3	M4	M5	M6	M7	M8
PCALFR1=	0	0	0	0	0	0	0	0
PCALFR2=	0	0	0	0	0	0	0	0

Track assignments are:

track1= 2, 10, 18, 26, 3, 11, 19, 27, 66, 74, 82, 90, 67, 75, 83, 91
 barrel=roll_off

SOURCES USED IN RECORDING SCANS -- e-EVN run ELO43A (Lico),
RSP08B (Perez-Torres), EG070A (Gabanyi)

Catalog positions marked with *.

Precession of date coordinates is based on stop time of first scan.

Names used in schedule marked with *.

Short names used in VLA and SNAP files marked with +.

Observation date used in B1950/J2000 coordinate conversion (PRECDATE): 1979.900

No adjustments are made for rates (DRA, DDEC).

Scan hours are for recording scans only.

Baseline hours are only counted for scans above horizon at both ends.

Source	Source position (RA/Dec)		(Date)	Error (mas)
	(B1950)	(J2000)		
* J0007.7+4709	00 05 09.427570 46 54 49.49263	* 00 07 45.220000 * 47 11 31.00000	00 08 26.249484 47 15 50.78766	0.00 0.00
* J0009.2+5032	00 06 45.918815 50 13 47.63081	* 00 09 22.530000 * 50 30 28.90000	00 10 03.730868 50 34 48.67251	0.00 0.00
* J0040.3+4049	00 37 30.036899 40 33 37.84225	* 00 40 13.500000 * 40 50 05.40000	00 40 56.590829 40 54 22.02743	0.00 0.00
* J0043.7+3425	00 41 06.697406 34 10 01.48852	* 00 43 48.860000 * 34 26 26.30000	00 44 31.628760 34 30 42.22426	0.00 0.00
* J0053.9+4030	00 50 45.206979 40 11 05.39082	* 00 53 31.760000 * 40 27 21.50000	00 54 15.666020 40 31 35.26116	0.00 0.00
* J0103.4+5336	01 00 28.219691 53 21 06.61607	* 01 03 26.080000 * 53 37 12.10000	01 04 12.850469 53 41 23.78372	0.00 0.00
* J0122.7+3425	01 19 49.227928 34 10 31.62865	* 01 22 38.810000 * 34 26 11.30000	01 23 23.534433 34 30 15.48593	0.00 0.00
* J0131.3+6121	01 27 47.140042 61 05 06.51599	* 01 31 07.160000 * 61 20 33.00000	01 31 59.665748 61 24 35.66810	0.00 0.00
* J0153.1+7515	01 48 36.147121 75 02 57.34569	* 01 53 07.260000 * 75 17 44.20000	01 54 18.031660 75 21 38.30714	0.00 0.00
* J0307.4+4915	03 03 57.325668 49 03 39.72754	* 03 07 27.060000 * 49 15 10.30000	03 08 22.493385 49 18 11.05328	0.00 0.00
* J0332.1+6307	03 27 35.855589 62 58 03.57409	* 03 31 53.760000 * 63 08 14.30000	03 33 01.866491 63 10 56.39916	0.00 0.00
* J0333.6+2918	03 30 45.434256 29 06 29.60269	* 03 33 49.020000 * 29 16 31.60000	03 34 37.607719 29 19 05.66887	0.00 0.00
* J0425.3+6320	04 20 50.019331 63 13 14.65671	* 04 25 24.770000 * 63 20 05.60000	04 26 37.519850 63 21 55.75703	0.00 0.00
* J0425.4+5601	04 22 00.071172 55 56 52.28668	* 04 26 04.310000 * 56 03 39.60000	04 27 09.057670 56 05 27.56964	0.00 0.00
* J0432.2+5555	04 27 57.974011 55 42 20.85107	* 04 32 02.390000 * 55 48 44.20000	04 33 07.206633 55 50 25.85095	0.00 0.00
* J0516.4+7351	05 10 11.858009 73 47 46.37055	* 05 16 31.120000 * 73 51 08.80000	05 18 11.540146 73 52 05.55716	0.00 0.00

* J0540.5+5822	05 36 08.214910 58 22 04.90249	* 05 40 29.970000 * 58 23 39.50000	05 41 39.616772 58 24 05.90531	0.00 0.00
* J0601.0+3838	05 57 35.752458 38 38 25.85501	* 06 01 02.900000 * 38 38 28.80000	06 01 58.214111 38 38 26.01644	0.00 0.00
* J0644.2+6036	06 40 05.024947 60 41 53.87210	* 06 44 35.640000 * 60 38 49.80000	06 45 47.898811 60 38 03.27963	0.00 0.00
* J0706.5+3744	07 03 08.202419 37 49 16.38074	* 07 06 31.670000 * 37 44 36.70000	07 07 26.283985 37 43 18.61886	0.00 0.00
* J0745.2+7439	07 37 52.000448 74 41 05.42124	* 07 44 05.450000 * 74 33 58.10000	07 45 44.998868 74 32 09.40942	0.00 0.00
* J0745.2+8511	07 32 31.296633 85 19 11.34823	* 07 47 15.440000 * 85 12 08.20000	07 51 05.641483 85 10 17.02430	0.00 0.00
* J0850.0+484A	08 46 56.175266 49 03 13.35081	* 08 50 26.790000 * 48 52 00.70000	08 51 23.790172 48 49 01.42312	0.00 0.00
* J0850.0+484B	08 46 29.627398 49 06 09.82139	* 08 50 00.440000 * 48 54 58.60000	08 50 57.490582 48 51 59.71956	0.00 0.00
* J1023.6+2959	10 21 04.848309 30 13 13.03197	* 10 23 54.578000 * 29 58 00.40000	10 24 41.113827 29 53 51.25025	0.00 0.00
* J1100.6+4018	10 57 32.334330 40 35 34.23985	* 11 00 21.086000 * 40 19 27.68000	11 01 07.522090 40 15 06.74858	0.00 0.00
* J1130.4+5814	11 28 30.780169 58 25 31.70731	* 11 31 18.685000 * 58 08 58.49000	11 32 05.227134 58 04 33.99378	0.00 0.00
* J1135.7+6736	11 33 00.366860 67 53 59.79273	* 11 35 52.300000 * 67 37 24.20000	11 36 40.274266 67 33 00.80863	0.00 0.00
* J1223.3+7953	12 22 02.554575 80 10 05.74727	* 12 23 58.220000 * 79 53 29.00000	12 24 33.692080 79 49 05.55304	0.00 0.00
* J1249.7+3706	12 47 23.693294 37 24 07.46503	* 12 49 46.763000 * 37 07 48.00000	12 50 26.655131 37 03 21.70003	0.00 0.00
* J1322.9+2942	13 20 42.209785 29 57 12.02926	* 13 23 02.587000 * 29 41 33.36000	13 23 41.775805 29 37 16.76224	0.00 0.00
* J1419.0+7730	14 20 03.239527 77 48 24.52101	* 14 19 41.540000 * 77 34 43.60000	14 19 40.676105 77 31 00.64693	0.00 0.00
* J1619.8+7540	16 20 37.276882 75 44 57.42748	* 16 19 13.770000 * 75 37 53.80000	16 18 55.042897 75 35 50.52004	0.00 0.00
* J1631.0+5224	16 29 29.526855 52 28 01.63698	* 16 30 43.118000 * 52 21 38.73000	16 31 04.442456 52 19 47.15255	0.00 0.00
* J1841.1+2914	18 39 23.419311 29 08 32.87641	* 18 41 20.500000 * 29 11 28.50000	18 41 52.639000 29 12 07.94575	0.00 0.00
* J1841.8+3219	18 39 54.921052 32 15 40.89067	* 18 41 47.170000 * 32 18 38.60000	18 42 18.018478 32 19 17.89440	0.00 0.00
* J1926.9+6153	19 26 12.254955 61 48 32.04563	* 19 26 49.950000 * 61 54 41.40000	19 27 00.619740 61 56 07.05924	0.00 0.00

* J2002.6+6303	20 02 03.865191 62 54 00.72973	* 20 02 44.960000 * 63 02 30.80000	20 02 56.222648 63 04 34.03683	0.00 0.00
* J2004.7+7003	20 04 45.160273 69 57 38.04438	* 20 04 41.670000 * 70 06 16.80000	20 04 40.819202 70 08 21.78964	0.00 0.00
* J2127.8+3614	21 25 39.476105 35 59 58.96132	* 21 27 43.040000 * 36 13 05.00000	21 28 16.059726 36 16 26.11373	0.00 0.00
* J2247.7+4412	22 45 39.647248 43 57 25.77331	* 22 47 53.100000 * 44 13 17.00000	22 48 28.394637 44 17 22.02937	0.00 0.00
* J2329.1+3754	23 26 47.675066 37 37 42.68579	* 23 29 14.250000 * 37 54 14.90000	23 29 52.973939 37 58 31.92719	0.00 0.00
* NGC3341	10 39 55.677608 05 18 21.08947	* 10 42 31.470000 * 05 02 37.63000	10 43 14.440477 04 58 13.65302	0.00 0.00
* J1038+0512	10 36 10.827228 05 28 06.89952	* 10 38 46.779881 * 05 12 29.08645	10 39 29.776824 05 08 06.57682	0.00 0.00
* NGC5515	14 10 34.187205 39 32 38.09955	* 14 12 38.125999 * 39 18 36.92002	14 13 12.996481 39 14 46.44831	0.00 0.00
* J0004+4615 0001+459	00 01 41.453143 45 58 36.14513	* 00 04 16.127645 * 46 15 17.97009	00 04 56.875142 46 19 37.77735	0.32 0.40
* J0038+4137 0035+413	00 35 41.568818 41 20 37.14185	* 00 38 24.843586 * 41 37 06.00024	00 39 07.880801 41 41 22.95427	0.14 0.10
* J0046+3900 0044+387	00 44 03.207240 38 44 24.82656	* 00 46 47.578261 * 39 00 47.14813	00 47 30.915610 39 05 02.45190	0.32 0.41
* J0048+3157 0046+316	00 46 04.857321 31 41 04.49522	* 00 48 47.141479 * 31 57 25.08473	00 49 29.943117 32 01 39.92963	0.12 0.11
* J0049+5128 0046+511	00 46 46.793395 51 11 53.89626	* 00 49 37.991192 * 51 28 13.69240	00 50 23.026237 51 32 28.73004	0.31 0.33
* J0109+6133 0106+612	01 06 36.621965 61 17 32.64077	* 01 09 46.344482 * 61 33 30.45526	01 10 36.085973 61 37 40.84240	0.49 0.11
* J0112+3522 0109+351	01 09 24.829677 35 06 24.83572	* 01 12 12.944405 * 35 22 19.33643	01 12 57.278379 35 26 27.42406	0.20 0.25
* J0157+7442 0153+744	01 53 04.337075 74 28 05.62184	* 01 57 34.964939 * 74 42 43.22948	01 58 45.673240 74 46 34.96399	0.44 0.11
J0237+2848 * 0234+285	02 34 55.589591 28 35 11.40773	* 02 37 52.405678 * 28 48 08.98998	02 38 39.098377 28 51 29.79926	0.11 0.10
* J0303+4716 0300+470	03 00 10.111206 47 04 33.67711	* 03 03 35.242224 * 47 16 16.27545	03 04 29.458954 47 19 19.86254	0.15 0.10
* J0306+6243 0302+625	03 02 35.870310 62 31 28.17733	* 03 06 42.659550 * 62 43 02.02422	03 07 47.750532 62 46 05.56776	0.22 0.10
* J0329+2756 0326+27	03 26 56.060051 27 46 00.16321	* 03 29 57.669424 * 27 56 15.49941	03 30 45.721368 27 58 52.88973	0.14 0.14

* J0419+5722	04 15 11.815352	* 04 19 19.413042	04 20 25.016793	1.51
0415+572	57 15 45.79418	* 57 22 59.98623	57 24 55.22511	0.95
* J0449+6332	04 44 42.365041	* 04 49 23.310569	04 50 37.787643	0.25
0444+634	63 26 55.93301	* 63 32 09.43404	63 33 34.16932	0.11
* J0519+7133	05 13 38.805237	* 05 19 28.883815	05 21 01.647311	15.50
0513+714	71 29 55.04200	* 71 33 03.72798	71 33 56.77748	5.69
J0530+1331	05 28 06.759218	* 05 30 56.416749	05 31 41.609051	0.10
* 0528+134	13 29 42.28877	* 13 31 55.14944	13 32 19.71896	0.10
* J0559+3749	05 55 34.839456	* 05 59 00.452149	05 59 55.351063	0.28
0555+378	37 49 43.70788	* 37 49 55.51955	37 49 54.85436	0.39
* J0559+5804	05 54 52.489191	* 05 59 13.394228	06 00 22.895927	1.29
0554+580	58 03 50.58880	* 58 04 03.44708	58 04 08.28015	0.68
* J0650+6001	06 46 04.112026	* 06 50 31.254394	06 51 42.625711	0.70
0646+600	60 05 14.15417	* 60 01 44.55540	60 00 51.16428	0.41
* J0709+3737	07 05 46.121204	* 07 09 09.222558	07 10 03.751010	0.33
0705+377	37 42 43.87982	* 37 37 53.18165	37 36 32.13744	0.43
* J0749+7420	07 43 14.670010	* 07 49 22.456659	07 51 00.552343	0.91
0743+744	74 28 09.87092	* 74 20 41.59192	74 18 47.35746	0.40
* J0750+8241	07 40 33.159795	* 07 50 57.755469	07 53 42.243521	1.40
0740+828	82 49 24.20606	* 82 41 58.03180	82 40 03.17982	0.29
* J0905+4850	09 02 00.374076	* 09 05 27.463924	09 06 23.602751	0.24
0902+490	49 02 49.85929	* 48 50 49.96476	48 47 38.03871	0.23
* J1022+3041	10 19 39.881206	* 10 22 30.298422	10 23 17.011554	0.40
1019+309	30 56 15.18385	* 30 41 05.11662	30 36 56.85662	0.57
* J1101+3904	10 58 42.233279	* 11 01 30.069594	11 02 16.261598	0.28
1058+393	39 20 40.51748	* 39 04 32.63350	39 00 11.02466	0.33
* J1128+5925	11 25 23.181639	* 11 28 13.340664	11 29 00.497660	0.23
1125+596	59 41 46.14380	* 59 25 14.79849	59 20 51.14224	0.13
* J1143+6633	11 40 55.894581	* 11 43 41.603086	11 44 27.920098	1.39
1140+668	66 50 10.06386	* 66 33 31.22908	66 29 06.53473	0.87
* J1223+8040	12 21 47.621958	* 12 23 40.493758	12 24 15.568065	0.63
1221+809	80 56 41.20609	* 80 40 04.34045	80 35 40.98542	0.10
* J1242+3751	12 40 27.034308	* 12 42 51.369071	12 43 31.590022	0.13
1240+381	38 07 25.41729	* 37 51 00.02520	37 46 32.34122	0.11
* J1315+2840	13 12 51.389838	* 13 15 13.491498	13 15 53.130995	0.21
1312+289	28 56 43.76849	* 28 40 53.66920	28 36 33.95321	0.32
* J1406+7828	14 06 56.652678	* 14 06 36.566952	14 06 36.502955	2.40
1406+787	78 42 22.78149	* 78 28 10.40616	78 24 19.84688	0.33
* J1419+3821	14 17 43.055733	* 14 19 46.613762	14 20 21.371975	0.13
1417+385	38 35 32.28529	* 38 21 48.47497	38 18 02.47641	0.10
* J1556+7420	15 56 54.817472	* 15 56 02.990449	15 55 52.663306	5.28
1556+744	74 29 32.25170	* 74 20 58.13664	74 18 31.90920	3.68

* J1639+5357	16 38 32.365285	* 16 39 39.842938	16 39 59.528815	1.32
1638+540	54 03 33.39670	* 53 57 47.11905	53 56 04.98504	1.15
* J1848+3219	18 46 29.612036	* 18 48 22.088579	18 48 52.963797	0.12
1846+322	32 15 36.66028	* 32 19 02.60368	32 19 49.41740	0.10
* J1927+6117	19 26 49.662223	* 19 27 30.442613	19 27 41.933370	0.44
1926+611	61 11 20.88806	* 61 17 32.87924	61 18 59.30362	0.27
* J1945+7055	19 46 12.022778	* 19 45 53.519933	19 45 48.850126	3.49
1946+708	70 48 21.46789	* 70 55 48.73216	70 57 34.41003	1.23
* J2006+6424	20 05 42.453454	* 20 06 17.694564	20 06 27.338681	0.33
2005+642	64 16 01.88885	* 64 24 45.41789	64 26 52.15687	0.14
* J2137+3455	21 35 37.514190	* 21 37 44.102864	21 38 17.890130	1.36
2135+347	34 42 09.71678	* 34 55 42.09482	34 59 10.52720	4.38
* J2255+4202	22 53 19.843691	* 22 55 36.707843	22 56 12.906714	0.14
2253+417	41 46 51.26596	* 42 02 52.53258	42 07 00.53976	0.11
* J2333+3901	23 30 35.367308	* 23 33 02.533414	23 33 41.399874	0.33
2330+387	38 44 37.66686	* 39 01 12.04936	39 05 29.62507	0.44

The solar corona can cause unstable phases for sources too close to the Sun.
 SCHED provides warnings at individual scans for distances less than 10 degrees.
 The distance from the Sun to each source in this schedule is:

Source	Sun dist.	Source	Sun dist.	Source	Sun dist.
	(deg)				
J0007.7+4709	41.7	J1249.7+3706	131.1	J0449+6332	62.7
J0009.2+5032	44.2	J1322.9+2942	139.7	J0519+7133	69.5
J0040.3+4049	33.2	J1419.0+7730	91.9	0528+134	56.5
J0043.7+3425	27.3	J1619.8+7540	90.7	J0559+3749	63.8
J0053.9+4030	31.8	J1631.0+5224	107.4	J0559+5804	68.0
J0103.4+5336	43.9	J1841.1+2914	97.4	J0650+6001	74.9
J0122.7+3425	24.4	J1841.8+3219	96.5	J0709+3737	77.6
J0131.3+6121	51.0	J1926.9+6153	82.4	J0749+7420	80.6
J0153.1+7515	64.9	J2002.6+6303	78.2	J0750+8241	80.1
J0307.4+4915	42.9	J2004.7+7003	78.1	J0905+4850	95.8
J0332.1+6307	56.4	J2127.8+3614	62.2	J1022+3041	117.3
J0333.6+2918	32.6	J2247.7+4412	50.1	J1101+3904	118.3
J0425.3+6320	60.5	J2329.1+3754	40.2	J1128+5925	105.4
J0425.4+5601	55.9	NGC3341	133.2	J1143+6633	100.2
J0432.2+5555	56.4	J1038+0512	132.3	J1223+8040	88.5
J0516.4+7351	70.5	NGC5515	129.7	J1242+3751	130.0
J0540.5+5822	65.8	J0004+4615	41.2	J1315+2840	140.5
J0601.0+3838	64.3	J0038+4137	34.0	J1406+7828	91.1
J0644.2+6036	74.2	J0046+3900	31.0	J1419+3821	130.4
J0706.5+3744	77.1	J0048+3157	24.6	J1556+7420	92.7
J0745.2+7439	80.3	J0049+5128	42.4	J1639+5357	105.3
J0745.2+8511	79.8	J0109+6133	51.5	J1848+3219	95.1
J0850.0+484A	93.5	J0112+3522	25.8	J1927+6117	82.4
J0850.0+484B	93.4	J0157+7442	64.4	J1945+7055	79.7
J1023.6+2959	118.0	0234+285	22.9	J2006+6424	77.8
J1100.6+4018	117.3	J0303+4716	40.9	J2137+3455	60.0
J1130.4+5814	106.6	J0306+6243	54.6	J2255+4202	47.8
J1135.7+6736	98.9	J0329+2756	31.2	J2333+3901	40.2
J1223.3+7953	89.2	J0419+5722	56.0		

re03rjtr

RADIOASTRON AGN FRINGE SURVEY

PI: Yuri Kovalev

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Wed 17 Apr 2013 Day 107 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

Table with columns for Start UT, Source, LST, EL, AZ, HA, UP, ParA, Dwell, GBytes, TPStart, SYNC. Contains scan schedule data for 0906+015 source.

SETUP FILE INFORMATION:

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

==== Setup file: ralcm2.set

```
Setup group:      3          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:  5  Setup file default.  Used pcal sets:  1
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:  5
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0909+0121	09 06 35.181593	* 09 09 10.091599	09 09 52.393587	0.11
* 0906+015	01 33 48.12922	* 01 21 35.61774	01 18 05.22045	0.14

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```
Source      Sun distance (deg)
0906+015    111.1
```


SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```

Setup group:      4          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:  4  Setup file default.  Used pcal sets:  1
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:  4

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.986409	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.94208	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0834-201    106.2

```

re03rltr

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 21 Apr 2013 Day 111 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00	22236.00					
Next BBC frequencies:	736.00	736.00	736.00	736.00	736.00					
Next scan bandwidths:	16.00	16.00	16.00	16.00	16.00					
19 00 00	0851+202	10 14 17	53.6	212.2	1.3		19.9	0	0	19 00 00
19 09 30	---	10 23 49	52.8	215.7	1.5		21.9	570	18	19 00 01
19 10 00	0851+202	10 24 19	52.8	215.9	1.5		22.0	24	18	19 10 00
19 19 30	---	10 33 51	51.9	219.3	1.6		23.9	570	36	19 10 01
19 20 00	0851+202	10 34 21	51.9	219.5	1.6		24.0	24	36	19 20 00
19 29 30	---	10 43 52	50.9	222.7	1.8		25.7	570	55	19 20 01
19 30 00	0851+202	10 44 22	50.9	222.9	1.8		25.8	24	55	19 30 00
19 40 00	---	10 54 24	49.8	226.2	2.0		27.5	600	74	19 30 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```

Setup group:      5          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:  4  Setup file default.  Used pcal sets:  1
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:  4

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.444156	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 18.51630	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0851+202    98.8

```


RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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 21 Apr 2013 Day 111 ---

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
 Next BBC frequencies: 632.00 632.00 632.00 632.00
 Next scan bandwidths: 16.00 16.00 16.00 16.00

20 20 00	0955+476	11 34 31	73.8	258.9	1.6	60.4	0	0	20 20 00
20 29 30	---	11 44 02	72.4	261.6	1.7	61.3	570	18	20 20 01
20 30 00	0955+476	11 44 32	72.3	261.7	1.8	61.3	24	18	20 30 00
20 39 30	---	11 54 04	70.9	264.1	1.9	61.9	570	36	20 30 01
20 40 00	0955+476	11 54 34	70.8	264.3	1.9	61.9	24	36	20 40 00
20 49 30	---	12 04 05	69.4	266.5	2.1	62.2	570	55	20 40 01
20 50 00	0955+476	12 04 36	69.3	266.6	2.1	62.2	24	55	20 50 00
21 00 00	---	12 14 37	67.8	268.8	2.3	62.4	600	74	20 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

```
Setup group:      6          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=  2300.00  2300.00  2300.00  2300.00
Net SB=      L      L      U      U
IF SB =      L      L      L      L
Pol.  =      RCP     LCP     RCP     LCP
BBC   =      1      2      1      2
BBC SB=      U      U      L      L
IF    =      C      A      C      A
```

The following frequency sets based on these setups were used.

```
Frequency Set:  6  Setup file default.  Used pcal sets:  1
LO sum=  1668.00  1668.00  1668.00  1668.00
BBC fr=   632.00   632.00   632.00   632.00
Bandwd=   16.00   16.00   16.00   16.00
Matching frequency sets:  6
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0958+4725	09 55 08.528429	* 09 58 19.671644	09 59 11.715788	0.15
* 0955+476	47 39 28.28168	* 47 25 07.84237	47 21 18.51233	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
 SCHED provides warnings at individual scans for distances less than 10 degrees.
 The distance from the Sun to each source in this schedule is:

```
Source      Sun distance (deg)
0955+476    100.2
```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Mon 22 Apr 2013 Day 112 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00
Next BBC frequencies:	736.00	736.00	736.00	736.00
Next scan bandwidths:	16.00	16.00	16.00	16.00

16 00 00	0834-201	07 17 44	14.6	160.8	-1.3		-12.2	0	0	16 00 00
16 09 30	---	07 27 16	15.0	163.0	-1.2		-10.8	570	18	16 00 01
16 10 00	0834-201	07 27 46	15.0	163.1	-1.2		-10.7	24	18	16 10 00
16 19 30	---	07 37 18	15.4	165.4	-1.0		-9.3	570	36	16 10 01
16 20 00	0834-201	07 37 48	15.4	165.5	-1.0		-9.2	24	36	16 20 00
16 29 30	---	07 47 19	15.8	167.8	-0.8		-7.8	570	55	16 20 01
16 30 00	0834-201	07 47 49	15.8	168.0	-0.8		-7.7	24	55	16 30 00
16 40 00	---	07 57 51	16.1	170.4	-0.7		-6.1	600	74	16 30 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

Setup group:	4	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:	3	Setup file default.	Used pcal sets:	1
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:	3			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.887434	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.80016	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0834-201	102.4

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Mon 22 Apr 2013 Day 112 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
 Next BBC frequencies: 736.00 736.00 736.00 736.00
 Next scan bandwidths: 16.00 16.00 16.00 16.00

17 20 00	0851+202	08 37 58	56.8	172.4	-0.3		-4.8	0	0	17 20 00
17 29 30	---	08 47 29	56.9	176.5	-0.1		-2.2	570	18	17 20 01
17 30 00	0851+202	08 47 59	56.9	176.7	-0.1		-2.1	23	18	17 30 00
17 39 30	---	08 57 31	57.0	180.8	0.0		0.5	570	36	17 30 01
17 40 00	0851+202	08 58 01	57.0	181.0	0.0		0.7	23	36	17 40 00
17 49 30	---	09 07 32	56.9	185.1	0.2		3.3	570	55	17 40 01
17 50 00	0851+202	09 08 03	56.9	185.4	0.2		3.4	23	55	17 50 00
18 00 00	---	09 18 04	56.7	189.6	0.4		6.1	600	74	17 50 01

SETUP FILE INFORMATION:

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

==== Setup file: ralcm2.set

```

Setup group:      3          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:  2  Setup file default.  Used pcal sets:  1
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:  2

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

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)		
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.423205	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 18.59450	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0851+202    97.9

```

RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia

Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Tue 23 Apr 2013 Day 113 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

14 00 00	0805-077	05 21 21	19.4	135.5	-2.8		-25.2	0	0	14 00 00
14 09 30	---	05 30 53	20.4	137.7	-2.6		-24.1	570	18	14 00 01
14 10 00	0805-077	05 31 23	20.5	137.9	-2.6		-24.0	24	18	14 10 00
14 19 30	---	05 40 54	21.4	140.2	-2.5		-22.8	570	36	14 10 01
14 20 00	0805-077	05 41 25	21.5	140.3	-2.5		-22.8	24	36	14 20 00
14 29 30	---	05 50 56	22.4	142.7	-2.3		-21.6	570	55	14 20 01
14 30 00	0805-077	05 51 26	22.4	142.8	-2.3		-21.5	24	55	14 30 00
14 39 30	---	06 00 58	23.2	145.2	-2.1		-20.3	570	73	14 30 01
14 40 00	0805-077	06 01 28	23.3	145.3	-2.1		-20.2	24	73	14 40 00
14 49 30	---	06 10 59	24.1	147.7	-2.0		-18.9	570	91	14 40 01
14 50 00	0805-077	06 11 29	24.1	147.9	-2.0		-18.8	24	91	14 50 00
14 59 30	---	06 21 01	24.8	150.3	-1.8		-17.5	570	109	14 50 01
15 00 00	0805-077	06 21 31	24.9	150.5	-1.8		-17.4	24	109	15 00 00
15 09 30	---	06 31 03	25.6	152.9	-1.6		-16.0	570	128	15 00 01
15 10 00	0805-077	06 31 33	25.6	153.1	-1.6		-15.9	24	128	15 10 00
15 19 30	---	06 41 04	26.2	155.6	-1.5		-14.5	570	146	15 10 01
15 20 00	0805-077	06 41 34	26.2	155.7	-1.5		-14.4	24	146	15 20 00
15 30 00	---	06 51 36	26.8	158.4	-1.3		-12.9	600	165	15 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```
Setup group:    5          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:  4  Setup file default.  Used pcal sets:  1
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:  4
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0808-0751	08 05 49.552832	* 08 08 15.536033	08 08 55.026685	0.11
* 0805-077	-07 42 22.40697	*-07 51 09.88655	-07 53 48.65599	0.13

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```
Source      Sun distance (deg)
0805-077    92.6
```


RADIOASTRON AGN FRINGE SURVEY
PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Tue 23 Apr 2013 Day 113 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:   16.00   16.00   16.00   16.00
```

```
17 00 00 0834-201    08 21 51 16.5 176.2 -0.3    -2.4    0    0 17 00 00
17 09 30 ---        08 31 22 16.6 178.6 -0.1    -0.9  570  18 17 00 01

17 10 00 0834-201    08 31 52 16.6 178.7 -0.1    -0.8   24  18 17 10 00
17 19 30 ---        08 41 24 16.6 181.0  0.1     0.6  570  36 17 10 01

17 20 00 0834-201    08 41 54 16.6 181.1  0.1     0.7   24  36 17 20 00
17 29 30 ---        08 51 26 16.5 183.5  0.2     2.2  570  55 17 20 01

17 30 00 0834-201    08 51 56 16.5 183.6  0.2     2.3   24  55 17 30 00
17 40 00 ---        09 01 57 16.4 186.0  0.4     3.9  600  74 17 30 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```
Setup group:   5           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:   4   Setup file default.   Used pcal sets:   1
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:  4
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1   PCAL = 1MHZ
PCALXB1=  S1   S3   S1   S3   S1   S2   S3   S4
PCALXB2=  S2   S4   S2   S4   M1   M2   M3   M4
PCALFR1= 1000 1000 13000 13000   0   0   0   0
PCALFR2= 1000 1000 13000 13000   0   0   0   0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.863883	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.77124	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```
Source           Sun distance (deg)
0834-201         101.6
```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
Profsoyuznaya 84/32
117997 Moscow, Russia

Phone: +7-495-3332167
EMAIL: yyk@asc.rssi.ru
Fax: +7-495-3332378
Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Tue 23 Apr 2013 Day 113 ---

----- K-band VLBI scans -----

Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies: 736.00 736.00 736.00 736.00
Next scan bandwidths: 16.00 16.00 16.00 16.00

18 20 00	0906+015	09 42 04	37.8	190.2	0.5		6.1	0	0	18 20 00
18 29 30	---	09 51 36	37.5	193.2	0.7		7.9	570	18	18 20 01
18 30 00	0906+015	09 52 06	37.5	193.3	0.7		8.0	24	18	18 30 00
18 39 30	---	10 01 37	37.1	196.3	0.9		9.7	570	36	18 30 01
18 40 00	0906+015	10 02 07	37.1	196.5	0.9		9.8	24	36	18 40 00
18 49 30	---	10 11 39	36.6	199.4	1.0		11.5	570	55	18 40 01
18 50 00	0906+015	10 12 09	36.6	199.5	1.0		11.6	24	55	18 50 00
19 00 00	---	10 22 11	36.1	202.6	1.2		13.3	600	74	18 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```

Setup group:      8          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:  7  Setup file default.  Used pcal sets:  1
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:  7

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0909+0121	09 06 35.181593	* 09 09 10.091599	09 09 52.285046	0.11
* 0906+015	01 33 48.12922	* 01 21 35.61774	01 18 05.55187	0.14

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0906+015    105.2

```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Wed 24 Apr 2013 Day 114 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

14 00 00	0805-077	05 25 18	19.9	136.4	-2.7	-24.7	0	0	14 00 00
14 09 30	---	05 34 49	20.8	138.7	-2.6	-23.6	570	18	14 00 01
14 10 00	0805-077	05 35 19	20.9	138.8	-2.6	-23.5	24	18	14 10 00
14 19 30	---	05 44 51	21.8	141.2	-2.4	-22.4	570	36	14 10 01
14 20 00	0805-077	05 45 21	21.8	141.3	-2.4	-22.3	24	36	14 20 00
14 29 30	---	05 54 53	22.7	143.6	-2.2	-21.1	570	55	14 20 01
14 30 00	0805-077	05 55 23	22.8	143.8	-2.2	-21.0	24	55	14 30 00
14 39 30	---	06 04 54	23.6	146.2	-2.1	-19.7	570	73	14 30 01
14 40 00	0805-077	06 05 24	23.6	146.3	-2.1	-19.7	24	73	14 40 00
14 49 30	---	06 14 56	24.4	148.7	-1.9	-18.3	570	91	14 40 01
14 50 00	0805-077	06 15 26	24.4	148.9	-1.9	-18.3	24	91	14 50 00
14 59 30	---	06 24 58	25.1	151.4	-1.7	-16.9	570	109	14 50 01
15 00 00	0805-077	06 25 28	25.2	151.5	-1.7	-16.8	24	109	15 00 00
15 09 30	---	06 34 59	25.8	154.0	-1.6	-15.4	570	128	15 00 01
15 10 00	0805-077	06 35 29	25.9	154.1	-1.6	-15.3	24	128	15 10 00
15 19 30	---	06 45 01	26.5	156.7	-1.4	-13.9	570	146	15 10 01
15 20 00	0805-077	06 45 31	26.5	156.8	-1.4	-13.8	24	146	15 20 00
15 30 00	---	06 55 33	27.0	159.5	-1.2	-12.3	600	165	15 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```

Setup group:    5           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:  4  Setup file default.  Used pcal sets:  1
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:  4

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0808-0751	08 05 49.552832	* 08 08 15.536033	08 08 55.005825	0.11
* 0805-077	-07 42 22.40697	*-07 51 09.88655	-07 53 48.62633	0.13

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0805-077    91.7

```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Wed 24 Apr 2013 Day 114 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:  16.00   16.00   16.00   16.00
```

```
17 00 00 0834-201    08 25 47 16.5 177.2 -0.2    -1.8    0        0    17 00 00
17 09 30 ---          08 35 19 16.6 179.5 -0.0    -0.3   570      18    17 00 01

17 10 00 0834-201    08 35 49 16.6 179.6 -0.0    -0.2   24      18    17 10 00
17 19 30 ---          08 45 21 16.5 182.0  0.1     1.3   570      36    17 10 01

17 20 00 0834-201    08 45 51 16.5 182.1  0.1     1.3   24      36    17 20 00
17 29 30 ---          08 55 22 16.5 184.4  0.3     2.8   570      55    17 20 01

17 30 00 0834-201    08 55 52 16.5 184.5  0.3     2.9   24      55    17 30 00
17 40 00 ---          09 05 54 16.3 187.0  0.5     4.5   600      74    17 30 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```
Setup group:      5          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:   4  Setup file default.  Used pcal sets:  1
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:  4
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1   S3   S1   S3   S1   S2   S3   S4
PCALXB2=  S2   S4   S2   S4   M1   M2   M3   M4
PCALFR1= 1000 1000 13000 13000   0   0   0   0
PCALFR2= 1000 1000 13000 13000   0   0   0   0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.842555	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.76047	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```
Source      Sun distance (deg)
0834-201    100.9
```


RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Thu 25 Apr 2013 Day 115 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00
Next BBC frequencies:	736.00	736.00	736.00	736.00
Next scan bandwidths:	16.00	16.00	16.00	16.00

14 00 00	0805-077	05 29 14	20.3	137.3	-2.7	-24.3	0	0	14 00 00
14 09 30	---	05 38 46	21.2	139.7	-2.5	-23.1	570	18	14 00 01
14 10 00	0805-077	05 39 16	21.3	139.8	-2.5	-23.0	24	18	14 10 00
14 19 30	---	05 48 48	22.2	142.1	-2.3	-21.8	570	36	14 10 01
14 20 00	0805-077	05 49 18	22.2	142.3	-2.3	-21.8	24	36	14 20 00
14 29 30	---	05 58 49	23.1	144.6	-2.2	-20.5	570	55	14 20 01
14 30 00	0805-077	05 59 19	23.1	144.8	-2.2	-20.5	24	55	14 30 00
14 39 30	---	06 08 51	23.9	147.2	-2.0	-19.2	570	73	14 30 01
14 40 00	0805-077	06 09 21	23.9	147.3	-2.0	-19.1	24	73	14 40 00
14 49 30	---	06 18 53	24.7	149.8	-1.8	-17.8	570	91	14 40 01
14 50 00	0805-077	06 19 23	24.7	149.9	-1.8	-17.7	24	91	14 50 00
15 00 00	---	06 29 24	25.5	152.5	-1.7	-16.2	600	110	14 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```
Setup group:   5           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:   4   Setup file default.   Used pcal sets:   1
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:  4
```

The following pulse cal sets were used with this setup:

```
Pulse cal detection set:  1   PCAL = 1MHZ
PCALXB1=  S1   S3   S1   S3   S1   S2   S3   S4
PCALXB2=  S2   S4   S2   S4   M1   M2   M3   M4
PCALFR1= 1000 1000 13000 13000   0   0   0   0
PCALFR2= 1000 1000 13000 13000   0   0   0   0
```

Track assignments are:

```
track1=  2, 18,  3, 19
barrel=roll_off
```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0808-0751	08 05 49.552832	* 08 08 15.536033	08 08 54.987323	0.11
* 0805-077	-07 42 22.40697	*-07 51 09.88655	-07 53 48.61647	0.13

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```
Source           Sun distance (deg)
0805-077         90.8
```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Thu 25 Apr 2013 Day 115 ---

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00
Next BBC frequencies:	736.00	736.00	736.00	736.00
Next scan bandwidths:	16.00	16.00	16.00	16.00

16 20 00	0834-201	07 49 37	15.8	168.4	-0.8	-7.4	0	0	16 20 00
16 29 30	---	07 59 09	16.1	170.7	-0.6	-5.9	570	18	16 20 01
16 30 00	0834-201	07 59 39	16.1	170.8	-0.6	-5.9	24	18	16 30 00
16 39 30	---	08 09 11	16.3	173.1	-0.5	-4.4	570	36	16 30 01
16 40 00	0834-201	08 09 41	16.3	173.3	-0.5	-4.3	24	36	16 40 00
16 49 30	---	08 19 12	16.5	175.6	-0.3	-2.8	570	55	16 40 01
16 50 00	0834-201	08 19 42	16.5	175.7	-0.3	-2.7	24	55	16 50 00
17 00 00	---	08 29 44	16.6	178.2	-0.1	-1.2	600	74	16 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

Setup group:	5	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:	4	Setup file default.	Used pcal sets:	1
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:	4			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.824163	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.76837	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0834-201	100.1

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: K-band, dual-pol

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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
-----
```

--- Fri 26 Apr 2013 Day 116 ---

----- K-band VLBI scans -----

```
Next scan frequencies: 22236.00 22236.00 22236.00 22236.00
Next BBC frequencies:   736.00   736.00   736.00   736.00
Next scan bandwidths:   16.00   16.00   16.00   16.00
```

```
14 00 00 0851+202    05 33 11 39.2 110.5 -3.4   -36.8    0    0  14 00 00
14 09 30 ---          05 42 43 40.5 112.8 -3.2   -36.1   570   18  14 00 01

14 10 00 0851+202    05 43 13 40.6 112.9 -3.2   -36.1   24   18  14 10 00
14 19 30 ---          05 52 44 41.9 115.3 -3.0   -35.3   570   36  14 10 01

14 20 00 0851+202    05 53 14 42.0 115.5 -3.0   -35.2   24   36  14 20 00
14 29 30 ---          06 02 46 43.3 118.0 -2.9   -34.4   570   55  14 20 01

14 30 00 0851+202    06 03 16 43.3 118.1 -2.9   -34.3   24   55  14 30 00
14 40 00 ---          06 13 18 44.6 120.8 -2.7   -33.3   600   74  14 30 01
```

SETUP FILE INFORMATION:

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

=====
Setup file: ralcm2.set

```

Setup group:      5           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:  4  Setup file default.  Used pcal sets:  1
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:  4

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set:  1  PCAL = 1MHZ
PCALXB1=  S1  S3  S1  S3  S1  S2  S3  S4
PCALXB2=  S2  S4  S2  S4  M1  M2  M3  M4
PCALFR1= 1000 1000 13000 13000  0  0  0  0
PCALFR2= 1000 1000 13000 13000  0  0  0  0

```

Track assignments are:

```

track1=  2, 18,  3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.344643	0.11
* 0851+202	20 17 58.41733	* 20 06 30.64078	20 03 18.75279	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

```

Source      Sun distance (deg)
0851+202    94.2

```

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Fri 26 Apr 2013 Day 116 ---

----- L-band VLBI scans -----

Next scan frequencies: 1668.00 1668.00 1668.00 1668.00
 Next BBC frequencies: 632.00 632.00 632.00 632.00
 Next scan bandwidths: 16.00 16.00 16.00 16.00

15 20 00	0834-201	06 53 24	13.2	155.1	-1.7		-15.7	0	0	15 20 00
15 29 30	---	07 02 56	13.8	157.3	-1.6		-14.3	570	18	15 20 01
15 30 00	0834-201	07 03 26	13.8	157.4	-1.6		-14.3	24	18	15 30 00
15 39 30	---	07 12 57	14.3	159.6	-1.4		-12.9	570	36	15 30 01
15 40 00	0834-201	07 13 27	14.4	159.8	-1.4		-12.8	24	36	15 40 00
15 49 30	---	07 22 59	14.8	162.0	-1.2		-11.4	570	55	15 40 01
15 50 00	0834-201	07 23 29	14.8	162.1	-1.2		-11.3	24	55	15 50 00
16 00 00	---	07 33 31	15.3	164.5	-1.1		-9.8	600	74	15 50 01

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Setup group:	4	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	5	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.808939	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.79076	0.11

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0834-201	99.4

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia
 Phone: +7-495-3332167 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378 Phone during observation: +7-915-1546281

Observing mode: C/K band, dual-pol

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Mon 29 Apr 2013 Day 119 ---

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

Next scan frequencies:	4836.00	4836.00	4836.00	4836.00						
Next BBC frequencies:	636.00	636.00	636.00	636.00						
Next scan bandwidths:	16.00	16.00	16.00	16.00						
17 00 00	0955+476	08 45 30	76.9	108.6	-1.2		-57.1	0	0	17 00 00
17 09 30	---	08 55 02	78.3	112.9	-1.1		-54.8	570	18	17 00 01
17 10 00	0955+476	08 55 32	78.3	113.1	-1.1		-54.6	23	18	17 10 00
17 19 30	---	09 05 03	79.6	118.2	-0.9		-51.4	570	36	17 10 01
17 20 00	0955+476	09 05 33	79.7	118.5	-0.9		-51.2	23	36	17 20 00
17 29 30	---	09 15 05	80.9	124.8	-0.7		-46.7	570	55	17 20 01
17 30 00	0955+476	09 15 35	81.0	125.2	-0.7		-46.4	23	55	17 30 00
17 40 00	---	09 25 37	82.1	133.6	-0.6		-39.9	600	74	17 30 01

----- K-band VLBI scans -----

Next scan frequencies:	22236.00	22236.00	22236.00	22236.00						
Next BBC frequencies:	736.00	736.00	736.00	736.00						
17 50 00	0955+476	09 35 38	83.1	144.4	-0.4		-31.0	589	74	17 50 00
17 59 30	---	09 45 10	83.8	157.3	-0.2		-20.0	570	92	17 50 01
18 00 00	0955+476	09 45 40	83.9	158.0	-0.2		-19.4	21	92	18 00 00
18 09 30	---	09 55 12	84.2	173.3	-0.1		-6.0	570	110	18 00 01
18 10 00	0955+476	09 55 42	84.2	174.1	-0.1		-5.2	21	110	18 10 00
18 19 30	---	10 05 13	84.2	190.1	0.1		9.0	570	129	18 10 01
18 20 00	0955+476	10 05 43	84.2	190.9	0.1		9.7	21	129	18 20 00
18 30 00	---	10 15 45	83.7	206.4	0.3		23.2	600	148	18 20 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

Matching groups in /home/kirx/sched/catalogs/freq.dat:

tr6cm E-mail Borkowski 23Apr03 (CR 1May03)

Setup group:	3	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=	4200.00	4200.00	4200.00	4200.00
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:	5	Setup file default.	Used pcal sets:	1
LO sum=	4836.00	4836.00	4836.00	4836.00
BBC fr=	636.00	636.00	636.00	636.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ						
PCALXB1=	S1	S3	S1	S3	S1	S2	S3	S4
PCALXB2=	S2	S4	S2	S4	M1	M2	M3	M4
PCALFR1=	1000	1000	13000	13000	0	0	0	0
PCALFR2=	1000	1000	13000	13000	0	0	0	0

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

=====
Setup file: ra1cm2.set

--- WARNING --- This group does not match an entry in the frequency catalog.
This might be ok because the catalog is not complete.
But be very careful to be sure that the setup is correct.

Setup group:	9	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: 10 Setup file default. Used pcal sets: 1
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: 10

```

The following pulse cal sets were used with this setup:

```

Pulse cal detection set: 1 PCAL = 1MHZ
PCALXB1= S1 S3 S1 S3 S1 S2 S3 S4
PCALXB2= S2 S4 S2 S4 M1 M2 M3 M4
PCALFR1= 1000 1000 13000 13000 0 0 0 0
PCALFR2= 1000 1000 13000 13000 0 0 0 0

```

Track assignments are:

```

track1= 2, 18, 3, 19
barrel=roll_off

```

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0958+4725	09 55 08.528429	* 09 58 19.671644	09 59 11.529121	0.15
* 0955+476	47 39 28.28168	* 47 25 07.84237	47 21 19.30274	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun. SCHED provides warnings at individual scans for distances less than 10 degrees. The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0955+476	93.8

Barry Clark estimates from predictions by Ketan Desai of IPM scattering sizes that the Sun will cause amplitude reductions on the longest VLBA baselines at a solar distance of $60 \text{ deg } F^{-0.6}$ where F is in GHz.

For common VLBI bands, this is:

327 MHz	117. deg
610 MHz	81. deg
1.6 GHz	45. deg
2.3 GHz	36. deg
5.0 GHz	23. deg
8.4 GHz	17. deg
15.0 GHz	12. deg
22.0 GHz	9. deg
43.0 GHz	6. deg

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev
 Profsoyuznaya 84/32
 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Tue 30 Apr 2013 Day 120 ---

----- L-band VLBI scans -----

Next scan frequencies:		1668.00	1668.00	1668.00	1668.00					
Next BBC frequencies:		632.00	632.00	632.00	632.00					
Next scan bandwidths:		16.00	16.00	16.00	16.00					
14 00 00	0906+015	05 48 57	23.7	122.9	-3.3		-30.3	0	0	14 00 00
14 09 30	---	05 58 29	24.9	125.2	-3.2		-29.4	570	18	14 00 01
14 10 00	0906+015	05 58 59	25.0	125.3	-3.2		-29.3	24	18	14 10 00
14 19 30	---	06 08 30	26.1	127.6	-3.0		-28.4	570	36	14 10 01
14 20 00	0906+015	06 09 00	26.2	127.8	-3.0		-28.4	24	36	14 20 00
14 29 30	---	06 18 32	27.3	130.1	-2.9		-27.3	570	55	14 20 01
14 30 00	0906+015	06 19 02	27.3	130.2	-2.8		-27.3	24	55	14 30 00
14 39 30	---	06 28 34	28.4	132.6	-2.7		-26.2	570	73	14 30 01
14 40 00	0906+015	06 29 04	28.5	132.8	-2.7		-26.2	24	73	14 40 00
14 49 30	---	06 38 35	29.5	135.2	-2.5		-25.0	570	91	14 40 01
14 50 00	0906+015	06 39 05	29.6	135.4	-2.5		-25.0	24	91	14 50 00
14 59 30	---	06 48 37	30.5	137.9	-2.4		-23.8	570	109	14 50 01
15 00 00	0906+015	06 49 07	30.6	138.0	-2.3		-23.7	24	109	15 00 00
15 09 30	---	06 58 39	31.5	140.6	-2.2		-22.4	570	128	15 00 01
15 10 00	0906+015	06 59 09	31.6	140.7	-2.2		-22.4	24	128	15 10 00
15 19 30	---	07 08 40	32.4	143.3	-2.0		-21.0	570	146	15 10 01
15 20 00	0906+015	07 09 10	32.5	143.4	-2.0		-21.0	24	146	15 20 00
15 30 00	---	07 19 12	33.4	146.2	-1.8		-19.5	600	165	15 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Setup group:	4	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	6	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	6			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0909+0121	09 06 35.181593	* 09 09 10.091599	09 09 52.202901	0.11
* 0906+015	01 33 48.12922	* 01 21 35.61774	01 18 05.58419	0.14

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0906+015	98.8

RADIOASTRON AGN FRINGE SURVEY

PI: *Yuri Kovalev*

Address: ASC Lebedev Profsoyuznaya 84/32 117997 Moscow, Russia

Phone: +7-495-3332167
 EMAIL: yyk@asc.rssi.ru
 Fax: +7-495-3332378
 Phone during observation: +7-915-1546281

Observing mode: L-band, dual-pol

Schedule for TORUN (Code Tr) Page 2

RadioAstron AGN fringe survey

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

--- Tue 30 Apr 2013 Day 120 ---

----- L-band VLBI scans -----

Next scan frequencies:	1668.00	1668.00	1668.00	1668.00						
Next BBC frequencies:	632.00	632.00	632.00	632.00						
Next scan bandwidths:	16.00	16.00	16.00	16.00						
17 00 00	0955+476	08 49 27	77.5	110.3	-1.2		-56.2	0	0	17 00 00
17 09 30	---	08 58 58	78.8	114.8	-1.0		-53.6	570	18	17 00 01
17 10 00	0955+476	08 59 28	78.9	115.1	-1.0		-53.4	23	18	17 10 00
17 19 30	---	09 09 00	80.2	120.6	-0.8		-49.7	570	36	17 10 01
17 20 00	0955+476	09 09 30	80.2	120.9	-0.8		-49.5	23	36	17 20 00
17 29 30	---	09 19 02	81.4	127.8	-0.7		-44.4	570	55	17 20 01
17 30 00	0955+476	09 19 32	81.5	128.2	-0.7		-44.1	23	55	17 30 00
17 39 30	---	09 29 03	82.5	137.0	-0.5		-37.2	570	73	17 30 01
17 40 00	0955+476	09 29 33	82.6	137.5	-0.5		-36.7	22	73	17 40 00
17 49 30	---	09 39 05	83.4	148.8	-0.3		-27.4	570	91	17 40 01
17 50 00	0955+476	09 39 35	83.5	149.4	-0.3		-26.8	21	91	17 50 00
17 59 30	---	09 49 07	84.0	163.3	-0.2		-14.7	570	109	17 50 01
18 00 00	0955+476	09 49 37	84.1	164.1	-0.2		-14.0	21	109	18 00 00
18 09 30	---	09 59 08	84.3	179.9	-0.0		-0.1	570	128	18 00 01
18 10 00	0955+476	09 59 38	84.3	180.8	0.0		0.7	21	128	18 10 00
18 19 30	---	10 09 10	84.0	196.5	0.2		14.6	570	146	18 10 01
18 20 00	0955+476	10 09 40	84.0	197.3	0.2		15.3	21	146	18 20 00
18 30 00	---	10 19 42	83.4	211.7	0.3		27.8	600	165	18 20 01

SETUP FILE INFORMATION:

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

=====
Setup file: ra18cm2.set

Setup group:	3	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=	2300.00	2300.00	2300.00	2300.00
Net SB=	L	L	U	U
IF SB =	L	L	L	L
Pol. =	RCP	LCP	RCP	LCP
BBC =	1	2	1	2
BBC SB=	U	U	L	L
IF =	C	A	C	A

The following frequency sets based on these setups were used.

Frequency Set:	5	Setup file default.	Used pcal sets:	1
LO sum=	1668.00	1668.00	1668.00	1668.00
BBC fr=	632.00	632.00	632.00	632.00
Bandwd=	16.00	16.00	16.00	16.00
Matching frequency sets:	5			

The following pulse cal sets were used with this setup:

Pulse cal detection set:	1	PCAL = 1MHZ
PCALXB1=	S1 S3 S1 S3 S1 S2 S3 S4	
PCALXB2=	S2 S4 S2 S4 M1 M2 M3 M4	
PCALFR1=	1000 1000 13000 13000 0 0 0 0	
PCALFR2=	1000 1000 13000 13000 0 0 0 0	

Track assignments are:

track1= 2, 18, 3, 19
barrel=roll_off

POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec) (B1950)	(J2000)	(Date)	Error (mas)
J0958+4725	09 55 08.528429	* 09 58 19.671644	09 59 11.515424	0.15
* 0955+476	47 39 28.28168	* 47 25 07.84237	47 21 19.37790	0.10

EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.
SCHED provides warnings at individual scans for distances less than 10 degrees.
The distance from the Sun to each source in this schedule is:

Source	Sun distance (deg)
0955+476	93.0

RadioAstron Mission

http://www.asc.rssi.ru/radioastron/description/intro_eng.htm

RadioAstron project is an international collaborative mission to launch a free flying satellite carrying a 10-meter radio telescope in high apogee orbit around the Earth. The aim of the mission is to use the space telescope to conduct interferometer observations in conjunction with the global ground radio telescope network in order to obtain images, coordinates, motions and evolution of angular structure of different radio emitting objects in the Universe with the extraordinary high angular resolution.

The orbit of RadioAstron satellite will have apogee radius in the range up to 350 000 km. The spacecraft's operational lifetime will be no less than five years. Space-ground Very Long Baseline Interferometer (VLBI) measurements with this orbit will provide morphological and coordinate information on galactic and extragalactic radio sources with fringe size up to 8 micro arc second at the shortest wavelength 1.35 cm.

The RadioAstron program, initiated by Astro Space Center (ASC) of Lebedev Physical Institute of Russian Academy of Sciences (RAS) in collaboration with other institutions of RAS and Federal Space Agency (FSA), has expanded into a broad international collaboration: scientists from over 20 countries are constructing the instruments, planning the mission profile, and assuring ground radio telescopes support for RadioAstron. Russia will provide the satellite, most of the on-board hardware, interferometer integration and all kinds of the tests. General designer of satellite and SRT construction is Lavochkin Association (LA) of the RosKosmos.

Several other countries contribute to the on-board scientific payload. The 92-cm receiver is being built in India - National Center for Radio Astrophysics (NCRA) and Russia (Nizhny Novgorod, OAO KB "Gorizont"), the 18-cm receiver in Australia (CSIRO - Commonwealth Scientific and Industrial Research Organization), the 6-cm receiver by Russia, the 1.35-cm receiver by Finland (HUT - Helsinki University of Technology) and upgraded in USA (National Radio Astronomy Observatory- NRAO) and Russia (Moscow Institute of Radioengineering and Electronics - IRE), rubidium on-board frequency standard was built by the European Space Agency (ESA) at Neuchatel observatory in Switzerland. H-maser on-board frequency standard is being developed in Russia (Nizhny Novgorod, ZAO "Vremya-CH"). Russian (ASC) recording system on 6-system HDD and tapes will be able to accept a digital data stream at a maximum data rate of 128 Mbit/s. The correlator will be able to process the data from up to 5 interferometer stations (including the space element) at a maximum data rate of 128 Mbit/s. European Space Agency (ESA) participated in testing of the space radio telescope antenna. On board operating spacecraft system and command communication centers at Bear Lake (near Moscow) and near Ussuriisk (Eastern Russia), and also a tracking station at Pushchino are under preparation.

Main scientific goal of the mission is the study of various astronomical objects with unprecedented angular resolution up to few millionth of an arcsecond. The resolution achieved with RadioAstron will allow us in principle to study the following phenomena and problems:

- central engine of AGN and physical processes near super massive black holes providing an acceleration of cosmic rays — size, velocity and shape of emitting region in the core, spectrum, polarization and variability of emitting components;
- cosmological models, dark matter and dark energy - by studying dependence of above mentioned AGN's parameters with redshift, and by observing gravitational lensing;
- structure and dynamics of star and planets forming regions in our Galaxy and in AGN — by studying maser and Mega maser radio emission;
- neutron (quark?) stars and black holes in our Galaxy, their structure and dynamics — by VLBI and measurements of visibility scintillations, proper motions and parallaxes;
- structure and distribution of interstellar and interplanetary plasma — by fringe visibility scintillations of pulsars;
- building of high accuracy astronomical reference system of coordinates;
- building of high accuracy model of the Earth gravity field.

Tr RadioAstron Schedule for May 2013

Provisional

UTC: 0 3 6 9 12 15 18 21 24

DoY: 121 1.05/Sro					?	RA	?	RA	?	RA	?	RA	?	RA						
DoY: 122 2.05/Czw					e-VLBI		?	RA	?	RA	?	RA	?	RA		EVN				
DoY: 123 3.05/Pia	e-VLBI continued						EVN	?	RA	?	RA	?	RA	?	RA					
DoY: 124 4.05/Sob						?	RA	?	RA	?	RA									
DoY: 127 7.05/Wto														?	RA					
DoY: 129 9.05/Czw														?	RA					
DoY: 131 11.05/Sob														?	RA					
DoY: 132 12.05/Nie														?	RA	?	RA			
DoY: 135 15.05/Sro																	?	RA		
DoY: 140 20.05/Pon																		?	RA	
DoY: 141 21.05/Wto																		?	RA	
DoY: 143 23.05/Czw																			Session 2/2013	EVN
DoY: 144 24.05/Pia	?	RA	?	RA															Session 2/2013 continued	EVN
DoY: 145 25.05/Sob																			Session 2/2013 continued	EVN
DoY: 146 26.05/Nie																			Session 2/2013 continued	EVN
DoY: 147 27.05/Pon																			Session 2/2013 continued	EVN

UTC: 0 3 6 9 12 15 18 21 24

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