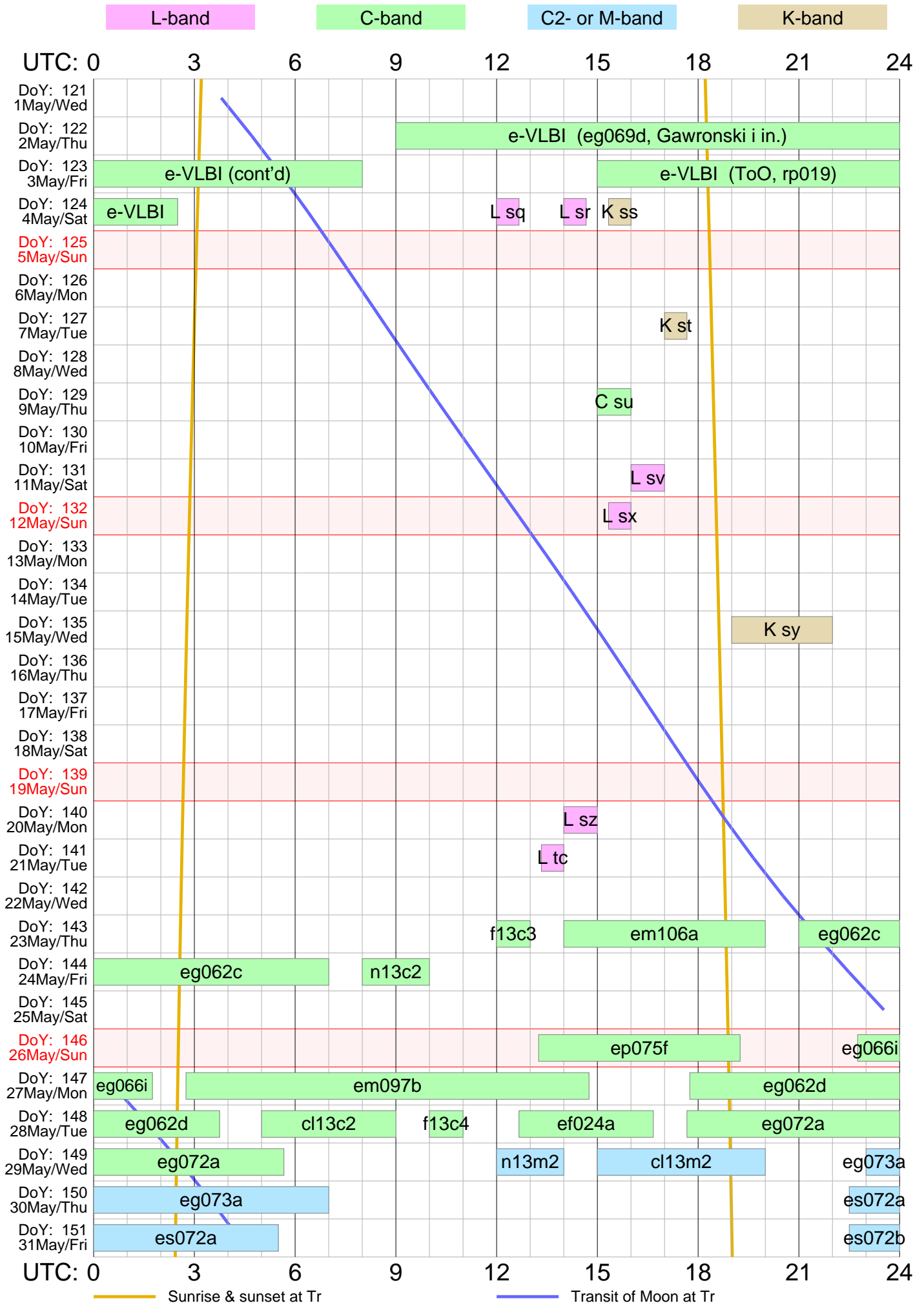


# Tr VLBI schedule for May 2013



# EVN & RadioAstron Experiments

## May 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	D	M/WD	UT_Start	UT_Stop	
				h m	h m	
eg069d	C	2-3.05		9 00/Czw	13 00/Pia	e-VLBI
(tu beda dwa skrypty dla Field Systemu: eg069d i eg069dtr)						
rp019	C	3-4.05		15 00/Pia	2 30/Sob	e-VLBI (To0)
(ten wydruk jest na samym koncu zbioru!)						
re03sq	L	4.05/Sob		12 00	12 40	
re03sr	L	4.05/Sob		14 00	14 40	
re03ss	K	4.05/Sob		15 20	16 00	
re03st	K	7.05/Wto		17 00	17 40	
re03su	C	9.05/Czw		15 00	16 00	
re03sv	L	11.05/Sob		16 00	17 00	
re03sx	L	12.05/Nie		15 20	16 00	
re03sy	K	15.05/Sro		19 00	22 00	
re03sz	L	20.05/Pon		14 00	15 00	
re03tc	L	21.05/Wto		13 20	14 00	
-----Sesja 2/2013-----						
f13c3	C	23.05/Czw		12 00	13 00	
em106a	C	23.05/Czw		14 00	20 00	
eg062c	C	23-24.05		21 00	7 00	
n13c2	C	24.05/Pia		8 00	10 00	
ep075f	C	26.05/Nie		13 15	19 15	
eg066i	C	26-27.05		22 45	1 45	
em097b	C	27.05/Pon		2 45	14 45	
eg062d	C	27-28.05		17 45	3 45	
cl13c2	C	28.05/Wto		5 00	9 00	
f13c4	C	28.05/Wto		10 00	11 00	
ef024a	C	28.05/Wto		12 40	16 40	
eg072a	C	28-29.05		17 40	5 40	
n13m2	M	29.05/Sro		12 00	14 00	
cl13m2	M	29.05/Sro		15 00	20 00	
eg073a	M	29-30.05		23 00	7 00	
es072a	M	30-31.05		22 30	5 30	
es072b	M	31.05-1.06		22 30	5 30	

# EVN e-VLBI Session, 2/3 May 2013

**UWAGA:** Ten eksperyment, zasadniczo e-VLBI, ma dwa skrypty: **eg069d** i **eg069dtr**. Pierwszy bedzie **eg069d** i ten, oprócz e-VLBI, bedzie zapisywal takze na dyskach. Trzeba zamontowac dwa packi:

NTO-0005 - do banku A  
 TR+00046 - do banku B

Obie czesci/wersje pracuja z normalnie uruchomionym **opt/jivemark5a** Po mniej niz 2 godzinach zapisu, pack A zapelni sie (jest na nim juz ok. 1.3 TB danych) i zapis powinien przerzucic sie na bank B (ta operacja jest m.in. przedmiotem testu).

Po ok. 2.5 godzinie eksperyment **eg069d** zostanie przerwany i nalezy uruchomic ten drugi skrypt (**eg069dtr**), czyli normalny e-VLBI, bez zapisu na disk-packi (z wylaczonymi lub wyjetymi packami).

EVN e-VLBI Session 13e05                      02 - 03 May 2013  
 =====

Test start:        UT 0900  02 May (Day 122)  
 Nominal start:    UT 1300  02 May (Day 122)  
 Nominal stop:     UT 1300  03 May (Day 123)

\*\*\*\*\*  
 \* SCHEDULE \*    Version 3.0    19 April 2013  
 \*\*\*\*\*

CODE	BAND	POL.	Mb/s	TELESCOPES	DAY	UT-START	UT-STOP
Test	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys Sh Hh[Ar]	122	0900(02/05)-1300(02/05)	
EG069D	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys -- -- --	122	1320(02/05)-1620(02/05)	BG CMI
EG063D	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys Sh Hh --	122	1620(02/05)-2020(02/05)	
EG069D	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys -- -- --	122	2120(02/05)-0020(03/05)	Am Her
EG063D	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys -- -- Ar	123	0100(03/05)-0300(03/05)	
RSL02	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys Sh Hh --	123	0300(03/05)-0500(03/05)	
RSG05	6cm	L+R	1024*	Jb2 Wb14 Eb On25 Mc Nt Tr Ys Sh -- --	123	0600(03/05)-0800(03/05)	

Comments:

- 
- 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)

- No MERLIN outstations (e.g. Cm) available this session

\*\*\*\*\*  
 \* PROJECT INFORMATION \*  
 \*\*\*\*\*

CODE	INVESTIGATOR	PROJECT	RA/DEC	Hrs	UT RANGE	PRIORITY/EMAIL CONTACT
EG069D	Gawronski	parallaxes, CV	0731/+09	3.0	1320-1620	3 motylek@astro.uni.torun.pl
EG063D	Giroletti	HST-1	1230/+12	4.0	1620-2020	3 giroletti@ira.inaf.it
EG069D	Gawronski	parallaxes, CV	1816/+49	3.0	2120-0020	3 motylek@astro.uni.torun.pl
EG063D	Giroletti	HST-1	1230/+12	4.0	0100-0300	3 giroletti@ira.inaf.it
RSL02	Lobanov	AE Aqr cals.	2040/+00	2.0	0300-0500	- alobanov@mpifr-bonn.mpg.de
RSL05	Gitti	BCG of RBS 797	0947/+76	2.0	0600-0800	- myriam.gitti@oabo.inaf.it

Possible trigger proposals

ET029	Tudose	binary trans.	various	12.0	0000-2400	2 tudose@astron.nl
EM102	Miller-Jones	SS Cygni	2142/+43	6.0	0021-1321	1 james.miller-jones@curtin.edu.au

**eg069dtr**

E-EVN RUN: EG069D, EG063D, RSL03, RSG05

PI: *M. Gawronski; M. Giroletti; A. Lobanov; M. Gitti*

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

#####  
UWAGA, UWAGA: Ten eksperyment, zasadniczo e-VLBI, ma dwa skrypty: eg069d i eg069dtr.  
Pierwszy bedzie eg069d i ten, oprócz e-VLBI, bedzie zapisywal takze na dyskach.  
Trzeba zamontowac dwa packi:

NT0-0005 - do banku A  
TR+00046 - do banku B

Obie czesci/wersje pracuja z normalnie uruchomionym opt/jivemark5a  
Po mniej niz 2 godzinach zapisu, pack A zapelni sie (jest na nim juz ok. 1.3 TB danych)  
i zapis powinien przerzucic sie na bank B (ta operacja jest m.in. przedmiotem testu).

Po ok. 2.5 godzinie eksperyment eg069d zostanie przerwany i nalezy uruchomic ten drugi  
skrypt (eg069dtr), czyli normalny e-VLBI, bez zapisu na disk-packi (z wylaczonymi lub  
wyjetymi packami).

#####

Schedule for TORUM (Code Tr ) Page 2

e-EVN run: EG069D, EG063D, RSL03, RSG05

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 2 May 2013 Day 122 ---										
Next scan frequencies: 4942.49 4942.49 4942.49 4942.49 4974.49 4974.49 4974.49 4974.49										
5006.49 5006.49 5006.49 5006.49 5038.49 5038.49 5038.49 5038.49										
Next BBC frequencies: 742.49 742.49 742.49 742.49 774.49 774.49 774.49 774.49										
806.49 806.49 806.49 806.49 838.49 838.49 838.49 838.49										
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										
09 00 00	0234+285	00 56 01	59.3	132.0	-1.7	-30.6	0	0	09 00 00	
09 15 00	---	01 11 03	60.9	137.8	-1.5	-27.4	900	116	09 00 01	
09 15 40	0234+285	01 11 44	61.0	138.0	-1.4	-27.3	33	116	09 15 40	
09 30 00	---	01 26 06	62.3	144.0	-1.2	-23.7	860	227	09 15 41	
09 30 40	0234+285	01 26 46	62.4	144.3	-1.2	-23.6	33	227	09 30 40	
09 45 00	---	01 41 08	63.6	150.8	-1.0	-19.6	860	338	09 30 41	
09 45 40	0234+285	01 41 48	63.6	151.1	-0.9	-19.4	33	338	09 45 40	
10 00 00	---	01 56 11	64.5	158.0	-0.7	-14.9	860	449	09 45 41	
10 03 00	0528+134	01 59 11	32.5	112.7	-3.5	-34.7	46	449	10 03 00	
10 15 00	---	02 11 13	34.2	115.6	-3.3	-33.8	720	542	10 03 01	
10 15 40	0528+134	02 11 53	34.3	115.8	-3.3	-33.8	34	542	10 15 40	
10 30 00	---	02 26 16	36.2	119.4	-3.1	-32.6	860	653	10 15 41	
10 30 40	0528+134	02 26 56	36.3	119.5	-3.1	-32.5	34	653	10 30 40	
10 45 00	---	02 41 18	38.1	123.3	-2.8	-31.1	860	764	10 30 41	

Schedule for TORUN (Code Tr )

Page 3

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---

10 45 40	0528+134	02 41 58	38.2	123.4	-2.8	-31.0	34	764	10 45 40
11 00 00	---	02 56 21	39.9	127.3	-2.6	-29.4	860	875	10 45 41
11 03 00	J2212+2355	02 59 21	29.9	270.9	4.8	41.1	-123	875	11 03 00
11 15 00	=2209+236	03 11 23	28.0	273.3	5.0	41.0	597	968	11 03 01
11 15 40	J2212+2355	03 12 03	27.9	273.4	5.0	41.0	34	968	11 15 40
11 30 00	=2209+236	03 26 26	25.8	276.2	5.2	40.8	860	1079	11 15 41

```
#####
===== Tu mniej wiecej zacznie sie skrypt bez zapisu na dyski =====
#####
```

11 33 00	3C454.3	03 29 26	25.6	262.9	4.6	38.4	137	1079	11 33 00
11 45 00	---	03 41 28	23.8	265.4	4.8	38.6	720	1172	11 33 01
11 45 40	3C454.3	03 42 08	23.7	265.5	4.8	38.6	34	1172	11 45 40
12 00 00	---	03 56 31	21.6	268.5	5.0	38.7	860	1282	11 45 41
12 03 00	J0750+1231	03 59 31	28.9	108.9	-3.9	-35.6	-153	1282	12 03 00
12 15 00	=0748+126	04 11 33	30.6	111.7	-3.7	-34.9	567	1375	12 03 01
12 15 40	J0750+1231	04 12 13	30.7	111.8	-3.7	-34.8	34	1375	12 15 40
12 30 00	=0748+126	04 26 35	32.7	115.2	-3.4	-33.8	860	1486	12 15 41
12 30 40	J0750+1231	04 27 16	32.8	115.4	-3.4	-33.8	34	1486	12 30 40
12 45 00	=0748+126	04 41 38	34.7	118.9	-3.2	-32.6	860	1597	12 30 41
12 45 40	J0750+1231	04 42 18	34.8	119.1	-3.2	-32.5	34	1597	12 45 40
13 00 00	=0748+126	04 56 40	36.6	122.8	-2.9	-31.1	860	1708	12 45 41
13 02 00	OJ287	04 58 41	34.3	102.5	-3.9	-38.6	64	1708	13 02 00
13 10 00	---	05 06 42	35.4	104.3	-3.8	-38.3	480	1770	13 02 01
13 13 00	J0726+0636	05 09 43	35.7	136.3	-2.3	-24.7	102	1770	13 13 00
13 20 00	=0723+067	05 16 44	36.4	138.2	-2.2	-23.7	420	1824	13 13 01
13 20 00	J0726+0636	05 16 44	36.4	138.2	-2.2	-23.7	-5	1824	No stop
13 21 00	=0723+067	05 17 44	36.5	138.5	-2.2	-23.6	55	1832	13 20 01
13 21 00	J0728+0940	05 17 44	39.2	136.4	-2.2	-24.8	-24	1832	No stop
13 24 30	---	05 21 14	39.5	137.5	-2.1	-24.3	186	1859	13 21 01
13 25 05	J0726+0636	05 21 50	36.9	139.7	-2.1	-23.0	11	1859	13 25 05
13 26 05	=0723+067	05 22 50	37.0	140.0	-2.1	-22.9	60	1867	13 25 06
13 26 05	BGCM1	05 22 50	39.6	136.8	-2.2	-24.6	-24	1867	No stop
13 29 35	---	05 26 20	39.9	137.9	-2.1	-24.1	186	1894	13 26 06

Schedule for TORUN (Code Tr )

Page 4

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
13 29 35	J0726+0636	05 26 20	37.4	141.0	-2.0		-22.4	-23	1894	No stop
13 31 05	=0723+067	05 27 51	37.5	141.4	-2.0		-22.1	67	1906	13 29 36
13 31 05	BGCMI	05 27 51	40.1	138.3	-2.1		-23.9	-24	1906	No stop
13 34 35	---	05 31 21	40.4	139.3	-2.0		-23.4	186	1933	13 31 06
13 35 10	J0726+0636	05 31 56	37.9	142.6	-1.9		-21.5	11	1933	13 35 10
13 36 10	=0723+067	05 32 56	38.0	142.9	-1.9		-21.4	60	1941	13 35 11
13 36 10	BGCMI	05 32 56	40.6	139.8	-2.0		-23.2	-24	1941	No stop
13 39 40	---	05 36 27	40.9	140.9	-1.9		-22.6	186	1968	13 36 11
13 39 40	J0726+0636	05 36 27	38.3	143.9	-1.8		-20.8	-24	1968	No stop
13 41 10	=0723+067	05 37 57	38.4	144.4	-1.8		-20.6	66	1979	13 39 41
13 41 10	BGCMI	05 37 57	41.1	141.3	-1.9		-22.4	-24	1979	No stop
13 44 40	---	05 41 28	41.4	142.4	-1.8		-21.8	186	2006	13 41 11
13 44 40	J0726+0636	05 41 28	38.7	145.4	-1.8		-20.1	-24	2006	No stop
13 46 10	=0723+067	05 42 58	38.9	145.9	-1.7		-19.8	66	2018	13 44 41
13 46 10	J0728+0940	05 42 58	41.6	144.0	-1.8		-21.0	-24	2018	No stop
13 49 40	---	05 46 29	41.9	145.1	-1.7		-20.4	186	2045	13 46 11
13 50 15	J0726+0636	05 47 04	39.2	147.1	-1.7		-19.2	11	2045	13 50 15
13 51 15	=0723+067	05 48 04	39.3	147.4	-1.7		-19.0	60	2053	13 50 16
13 51 15	BGCMI	05 48 04	42.0	144.4	-1.7		-20.8	-24	2053	No stop
13 54 45	---	05 51 34	42.3	145.5	-1.7		-20.2	186	2080	13 51 16
13 54 45	J0726+0636	05 51 34	39.6	148.5	-1.6		-18.4	-24	2080	No stop
13 56 15	=0723+067	05 53 05	39.7	148.9	-1.6		-18.2	66	2091	13 54 46
13 56 15	BGCMI	05 53 05	42.4	146.0	-1.7		-19.9	-24	2091	No stop
13 59 45	---	05 56 35	42.7	147.1	-1.6		-19.3	186	2119	13 56 16
14 00 20	J0726+0636	05 57 10	40.0	150.2	-1.5		-17.5	11	2119	14 00 20
14 01 20	=0723+067	05 58 10	40.1	150.5	-1.5		-17.3	60	2126	14 00 21
14 01 20	BGCMI	05 58 10	42.8	147.6	-1.6		-19.1	-24	2126	No stop
14 04 50	---	06 01 41	43.1	148.7	-1.5		-18.5	186	2153	14 01 21
14 04 50	J0726+0636	06 01 41	40.3	151.6	-1.4		-16.7	-24	2153	No stop
14 06 20	=0723+067	06 03 11	40.4	152.1	-1.4		-16.4	66	2165	14 04 51
14 06 20	BGCMI	06 03 11	43.2	149.2	-1.5		-18.2	-25	2165	No stop
14 09 50	---	06 06 42	43.5	150.3	-1.4		-17.6	185	2192	14 06 21
14 09 50	J0726+0636	06 06 42	40.7	153.2	-1.3		-15.8	-24	2192	No stop
14 11 20	=0723+067	06 08 12	40.8	153.6	-1.3		-15.6	66	2204	14 09 51

Schedule for TORUN (Code Tr )

Page 5

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
14 11 20	J0728+0940	06 08 12	43.6	152.0	-1.3		-16.6	-25	2204	No stop
14 14 50	---	06 11 43	43.8	153.1	-1.3		-16.0	185	2231	14 11 21
14 15 25	J0726+0636	06 12 18	41.0	154.9	-1.3		-14.8	11	2231	14 15 25
14 16 25	=0723+067	06 13 18	41.1	155.3	-1.2		-14.7	60	2239	14 15 26
14 16 25	BGCM1	06 13 18	44.0	152.5	-1.3		-16.4	-25	2239	No stop
14 19 55	---	06 16 49	44.2	153.6	-1.3		-15.7	185	2266	14 16 26
14 19 55	J0726+0636	06 16 49	41.3	156.4	-1.2		-14.0	-25	2266	No stop
14 21 25	=0723+067	06 18 19	41.4	156.9	-1.2		-13.7	65	2277	14 19 56
14 21 25	BGCM1	06 18 19	44.3	154.1	-1.2		-15.4	-25	2277	No stop
14 24 55	---	06 21 49	44.5	155.3	-1.2		-14.8	185	2304	14 21 26
14 25 30	J0726+0636	06 22 24	41.6	158.2	-1.1		-13.0	10	2304	14 25 30
14 26 30	=0723+067	06 23 25	41.7	158.5	-1.1		-12.8	60	2312	14 25 31
14 26 30	BGCM1	06 23 25	44.6	155.8	-1.1		-14.5	-25	2312	No stop
14 30 00	---	06 26 55	44.9	157.0	-1.1		-13.8	185	2339	14 26 31
14 30 00	J0726+0636	06 26 55	41.9	159.7	-1.0		-12.1	-25	2339	No stop
14 31 30	=0723+067	06 28 25	42.0	160.1	-1.0		-11.8	65	2351	14 30 01
14 31 30	BGCM1	06 28 25	44.9	157.5	-1.1		-13.5	-25	2351	No stop
14 35 00	---	06 31 56	45.1	158.7	-1.0		-12.8	185	2378	14 31 31
14 35 00	J0726+0636	06 31 56	42.1	161.3	-0.9		-11.2	-25	2378	No stop
14 36 30	=0723+067	06 33 26	42.2	161.8	-0.9		-10.9	65	2390	14 35 01
14 36 30	J0728+0940	06 33 26	45.1	160.4	-0.9		-11.8	-25	2390	No stop
14 40 00	---	06 36 57	45.3	161.6	-0.9		-11.1	185	2417	14 36 31
14 40 35	J0726+0636	06 37 32	42.4	163.1	-0.8		-10.1	10	2417	14 40 35
14 41 35	=0723+067	06 38 32	42.4	163.5	-0.8		-9.9	60	2424	14 40 36
14 41 35	BGCM1	06 38 32	45.5	161.0	-0.9		-11.5	-25	2424	No stop
14 45 05	---	06 42 03	45.6	162.2	-0.8		-10.8	185	2451	14 41 36
14 45 05	J0726+0636	06 42 03	42.6	164.6	-0.8		-9.2	-25	2451	No stop
14 46 35	=0723+067	06 43 33	42.6	165.1	-0.7		-8.9	65	2463	14 45 06
14 46 35	BGCM1	06 43 33	45.7	162.7	-0.8		-10.4	-25	2463	No stop
14 50 05	---	06 47 04	45.9	163.9	-0.8		-9.7	185	2490	14 46 36
14 50 40	J0726+0636	06 47 39	42.8	166.5	-0.7		-8.1	10	2490	14 50 40
14 51 40	=0723+067	06 48 39	42.8	166.9	-0.6		-7.9	60	2498	14 50 41
14 51 40	BGCM1	06 48 39	45.9	164.5	-0.7		-9.4	-26	2498	No stop
14 55 10	---	06 52 09	46.1	165.7	-0.7		-8.7	184	2525	14 51 41

Schedule for TORUN (Code Tr )

Page 6

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
14 55 10	J0726+0636	06 52 09	42.9	168.0	-0.6		-7.2	-26	2525	No stop
14 56 40	=0723+067	06 53 40	43.0	168.5	-0.6		-6.9	64	2537	14 55 11
14 56 40	BGCMI	06 53 40	46.1	166.2	-0.6		-8.3	-26	2537	No stop
15 00 10	---	06 57 10	46.2	167.5	-0.6		-7.6	184	2564	14 56 41
15 00 10	J0726+0636	06 57 10	43.1	169.7	-0.5		-6.2	-26	2564	No stop
15 01 40	=0723+067	06 58 40	43.1	170.2	-0.5		-5.9	64	2575	15 00 11
15 01 40	J0728+0940	06 58 40	46.1	169.2	-0.5		-6.6	-25	2575	No stop
15 05 10	---	07 02 11	46.2	170.4	-0.4		-5.8	185	2602	15 01 41
15 05 45	J0726+0636	07 02 46	43.2	171.6	-0.4		-5.1	10	2602	15 05 45
15 06 45	=0723+067	07 03 46	43.2	172.0	-0.4		-4.9	60	2610	15 05 46
15 06 45	BGCMI	07 03 46	46.4	169.8	-0.5		-6.2	-26	2610	No stop
15 10 15	---	07 07 17	46.5	171.1	-0.4		-5.4	184	2637	15 06 46
15 10 15	J0726+0636	07 07 17	43.3	173.2	-0.3		-4.1	-26	2637	No stop
15 11 45	=0723+067	07 08 47	43.3	173.7	-0.3		-3.8	64	2649	15 10 16
15 11 45	BGCMI	07 08 47	46.6	171.6	-0.4		-5.1	-26	2649	No stop
15 15 15	---	07 12 18	46.6	172.8	-0.3		-4.4	184	2676	15 11 46
15 15 50	J0726+0636	07 12 53	43.4	175.1	-0.2		-3.0	9	2676	15 15 50
15 16 50	=0723+067	07 13 53	43.4	175.4	-0.2		-2.8	60	2684	15 15 51
15 16 50	BGCMI	07 13 53	46.7	173.4	-0.3		-4.0	-26	2684	No stop
15 20 20	---	07 17 23	46.7	174.7	-0.2		-3.2	184	2711	15 16 51
15 20 20	J0726+0636	07 17 23	43.4	176.6	-0.2		-2.1	-26	2711	No stop
15 21 50	=0723+067	07 18 54	43.5	177.1	-0.1		-1.7	64	2722	15 20 21
15 21 50	BGCMI	07 18 54	46.7	175.2	-0.2		-2.9	-26	2722	No stop
15 25 20	---	07 22 24	46.8	176.5	-0.2		-2.2	184	2749	15 21 51
15 25 20	J0726+0636	07 22 24	43.5	178.3	-0.1		-1.0	-26	2749	No stop
15 26 50	=0723+067	07 23 55	43.5	178.8	-0.1		-0.7	64	2761	15 25 21
15 26 50	J0728+0940	07 23 55	46.5	178.2	-0.1		-1.1	-25	2761	No stop
15 30 20	---	07 27 25	46.5	179.4	-0.0		-0.3	185	2788	15 26 51
15 30 55	J0726+0636	07 28 00	43.5	180.2	0.0		0.1	10	2788	15 30 55
15 31 55	=0723+067	07 29 00	43.5	180.6	0.0		0.3	60	2796	15 30 56
15 31 55	BGCMI	07 29 00	46.8	178.8	-0.1		-0.7	-26	2796	No stop
15 35 25	---	07 32 31	46.8	180.1	0.0		0.1	184	2823	15 31 56
15 35 25	J0726+0636	07 32 31	43.5	181.8	0.1		1.1	-26	2823	No stop
15 36 55	=0723+067	07 34 01	43.5	182.3	0.1		1.4	64	2835	15 35 26



Schedule for TORUN (Code Tr )

Page 7

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
15 36 55	BGCM1	07 34 01	46.8	180.6	0.0		0.4	-26	2835	No stop
15 40 25	---	07 37 32	46.8	181.9	0.1		1.2	184	2862	15 36 56
15 41 00	J0726+0636	07 38 07	43.4	183.7	0.2		2.2	8	2862	15 41 00
15 42 00	=0723+067	07 39 07	43.4	184.0	0.2		2.4	60	2869	15 41 01
15 42 00	BGCM1	07 39 07	46.8	182.5	0.1		1.5	-27	2869	No stop
15 45 30	---	07 42 38	46.8	183.7	0.2		2.3	183	2897	15 42 01
15 45 30	J0726+0636	07 42 38	43.4	185.2	0.3		3.2	-27	2897	No stop
15 47 00	=0723+067	07 44 08	43.4	185.7	0.3		3.5	63	2908	15 45 31
15 47 00	BGCM1	07 44 08	46.7	184.3	0.2		2.6	-27	2908	No stop
15 50 30	---	07 47 38	46.7	185.5	0.3		3.4	183	2935	15 47 01
15 50 30	J0726+0636	07 47 38	43.3	186.9	0.3		4.2	-27	2935	No stop
15 52 00	=0723+067	07 49 09	43.3	187.5	0.4		4.5	63	2947	15 50 31
15 52 00	J0728+0940	07 49 09	46.4	187.2	0.3		4.4	-25	2947	No stop
15 55 30	---	07 52 39	46.3	188.5	0.4		5.1	185	2974	15 52 01
15 56 05	J0726+0636	07 53 14	43.2	188.8	0.4		5.3	10	2974	15 56 05
15 57 05	=0723+067	07 54 15	43.2	189.2	0.4		5.5	60	2982	15 56 06
15 57 05	BGCM1	07 54 15	46.6	187.9	0.4		4.8	-27	2982	No stop
16 00 35	---	07 57 45	46.5	189.2	0.4		5.6	183	3009	15 57 06
16 00 35	J0726+0636	07 57 45	43.1	190.4	0.5		6.2	-27	3009	No stop
16 02 05	=0723+067	07 59 15	43.0	190.9	0.5		6.6	63	3020	16 00 36
16 02 05	BGCM1	07 59 15	46.5	189.7	0.5		5.9	-27	3020	No stop
16 05 35	---	08 02 46	46.4	190.9	0.5		6.6	183	3048	16 02 06
16 06 10	J0726+0636	08 03 21	42.9	192.3	0.6		7.4	8	3048	16 06 10
16 07 10	=0723+067	08 04 21	42.9	192.6	0.6		7.6	60	3055	16 06 11
----- fringe finder -----										
16 12 40	J1310+3220	08 09 52	33.8	79.7	-5.0		-44.3	89	3055	16 12 40
16 18 40	=1308+326	08 15 53	34.6	80.8	-4.9		-44.5	360	3102	16 12 41
16 20 40	M87	08 17 53	25.7	104.2	-4.2		-36.6	59	3102	16 20 40
16 33 40	---	08 30 56	27.6	107.1	-4.0		-36.0	780	3202	16 20 41

Schedule for TORUN (Code Tr )

Page 8

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
16 34 20	M87	08 31 36	27.6	107.3	-4.0		-35.9	34	3202	16 34 20
16 48 40	---	08 45 58	29.7	110.5	-3.8		-35.1	860	3313	16 34 21
16 49 20	M87	08 46 38	29.8	110.7	-3.7		-35.1	34	3313	16 49 20
17 03 40	---	09 01 00	31.8	114.0	-3.5		-34.2	860	3424	16 49 21
17 04 20	M87	09 01 41	31.9	114.2	-3.5		-34.1	34	3424	17 04 20
17 18 40	---	09 16 03	33.8	117.7	-3.3		-33.0	860	3535	17 04 21
17 19 20	M87	09 16 43	33.9	117.8	-3.2		-32.9	34	3535	17 19 20
17 33 40	---	09 31 05	35.8	121.4	-3.0		-31.6	860	3646	17 19 21
17 34 20	M87	09 31 45	35.9	121.6	-3.0		-31.6	34	3646	17 34 20
17 48 40	---	09 46 08	37.7	125.4	-2.8		-30.1	860	3757	17 34 21
17 49 20	M87	09 46 48	37.7	125.6	-2.7		-30.0	34	3757	17 49 20
18 03 40	---	10 01 10	39.5	129.5	-2.5		-28.3	860	3868	17 49 21
18 04 20	M87	10 01 50	39.5	129.7	-2.5		-28.2	34	3868	18 04 20
18 18 40	---	10 16 13	41.1	133.8	-2.3		-26.4	860	3979	18 04 21
18 19 20	M87	10 16 53	41.2	134.0	-2.2		-26.3	34	3979	18 19 20
18 33 40	---	10 31 15	42.7	138.2	-2.0		-24.2	860	4090	18 19 21
18 34 20	M87	10 31 55	42.8	138.4	-2.0		-24.1	34	4090	18 34 20
18 48 40	---	10 46 18	44.1	142.9	-1.8		-21.8	860	4201	18 34 21
18 49 20	M87	10 46 58	44.2	143.1	-1.7		-21.7	34	4201	18 49 20
19 03 40	---	11 01 20	45.4	147.7	-1.5		-19.2	860	4312	18 49 21
19 04 20	M87	11 02 00	45.5	148.0	-1.5		-19.0	34	4312	19 04 20
19 18 40	---	11 16 23	46.5	152.8	-1.3		-16.3	860	4423	19 04 21
19 19 20	M87	11 17 03	46.6	153.0	-1.2		-16.2	34	4423	19 19 20
19 33 40	---	11 31 25	47.5	158.0	-1.0		-13.3	860	4534	19 19 21
19 34 20	M87	11 32 05	47.5	158.2	-1.0		-13.2	34	4534	19 34 20
19 48 40	---	11 46 28	48.2	163.3	-0.8		-10.1	860	4645	19 34 21
19 49 20	M87	11 47 08	48.3	163.6	-0.7		-10.0	34	4645	19 49 20
20 03 40	---	12 01 30	48.8	168.8	-0.5		-6.8	860	4756	19 49 21
20 04 20	M87	12 02 10	48.8	169.1	-0.5		-6.7	34	4756	20 04 20
20 18 40	---	12 16 32	49.1	174.4	-0.2		-3.4	860	4867	20 04 21

Schedule for TORUN (Code Tr )

Page 9

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
20 21 40	OQ208	12 19 33	58.3	130.5	-1.8		-31.3	76	4867	20 21 40
20 33 40	---	12 31 35	59.6	134.9	-1.6		-28.9	720	4960	20 21 41
20 34 20	OQ208	12 32 15	59.7	135.2	-1.6		-28.8	33	4960	20 34 20
20 48 40	---	12 46 37	61.1	140.9	-1.4		-25.5	860	5071	20 34 21
20 51 40	3C345	12 49 38	48.9	84.5	-3.9		-51.1	52	5071	20 51 40
21 03 40	---	13 01 40	50.7	86.8	-3.7		-51.3	720	5164	20 51 41
21 04 20	3C345	13 02 20	50.8	86.9	-3.7		-51.3	34	5164	21 04 20
21 13 40	---	13 11 42	52.2	88.7	-3.5		-51.4	560	5236	21 04 21
----- fringe finder -----										
21 15 40	J1800+3848	13 13 42	40.3	76.2	-4.8		-48.4	61	5236	21 15 40
21 20 40	=1758+388	13 18 43	41.1	77.1	-4.7		-48.7	300	5274	21 15 41
----- fringe finder -----										
21 21 20	J1800+3848	13 19 23	41.2	77.2	-4.7		-48.7	34	5274	21 21 20
21 26 40	=1758+388	13 24 44	42.0	78.1	-4.6		-48.9	320	5316	21 21 21
21 27 50	J1818+5017	13 25 54	46.5	62.8	-4.9		-56.7	24	5316	21 27 50
21 29 20	=1817+502	13 27 24	46.7	63.0	-4.9		-56.9	90	5327	21 27 51
21 29 20	J1809+5007	13 27 24	47.9	64.4	-4.7		-57.6	-18	5327	No stop
21 32 50	---	13 30 55	48.4	64.8	-4.6		-57.9	192	5354	21 29 21
21 33 20	J1818+5017	13 31 25	47.3	63.5	-4.8		-57.2	13	5354	21 33 20
21 34 20	=1817+502	13 32 25	47.4	63.6	-4.8		-57.3	60	5362	21 33 21
21 34 20	AMHER	13 32 25	47.5	64.4	-4.7		-57.2	-13	5362	No stop
21 37 50	---	13 35 55	48.0	64.9	-4.7		-57.5	197	5389	21 34 21
21 37 50	J1818+5017	13 35 55	47.9	64.1	-4.7		-57.7	-13	5389	No stop
21 39 20	=1817+502	13 37 26	48.1	64.2	-4.7		-57.8	77	5401	21 37 51
21 39 20	AMHER	13 37 26	48.2	65.1	-4.7		-57.7	-13	5401	No stop
21 42 50	---	13 40 56	48.6	65.5	-4.6		-58.0	197	5428	21 39 21
21 43 20	J1818+5017	13 41 26	48.6	64.8	-4.6		-58.2	17	5428	21 43 20
21 44 20	=1817+502	13 42 27	48.8	64.9	-4.6		-58.3	60	5436	21 43 21
21 44 20	AMHER	13 42 27	48.9	65.7	-4.6		-58.1	-13	5436	No stop
21 47 50	---	13 45 57	49.3	66.2	-4.5		-58.5	197	5463	21 44 21

Schedule for TORUN (Code Tr )

Page 10

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
21 47 50	J1818+5017	13 45 57	49.2	65.3	-4.5		-58.7	-13	5463	No stop
21 49 20	=1817+502	13 47 27	49.4	65.5	-4.5		-58.8	77	5474	21 47 51
21 49 20	AMHER	13 47 27	49.5	66.4	-4.5		-58.6	-13	5474	No stop
21 52 50	---	13 50 58	50.0	66.8	-4.4		-58.9	197	5502	21 49 21
21 52 50	J1818+5017	13 50 58	49.9	66.0	-4.5		-59.1	-13	5502	No stop
21 54 20	=1817+502	13 52 28	50.1	66.2	-4.4		-59.3	77	5513	21 52 51
21 54 20	J1809+5007	13 52 28	51.3	67.6	-4.3		-60.0	-18	5513	No stop
21 57 50	---	13 55 59	51.8	68.0	-4.2		-60.3	192	5540	21 54 21
21 58 20	J1818+5017	13 56 29	50.7	66.7	-4.4		-59.7	13	5540	21 58 20
21 59 20	=1817+502	13 57 29	50.8	66.8	-4.4		-59.8	60	5548	21 58 21
21 59 20	AMHER	13 57 29	50.9	67.7	-4.3		-59.5	-13	5548	No stop
22 02 50	---	14 01 00	51.4	68.1	-4.3		-59.8	197	5575	21 59 21
22 02 50	J1818+5017	14 01 00	51.3	67.2	-4.3		-60.1	-13	5575	No stop
22 04 20	=1817+502	14 02 30	51.5	67.4	-4.3		-60.2	77	5587	22 02 51
22 04 20	AMHER	14 02 30	51.6	68.3	-4.2		-60.0	-13	5587	No stop
22 07 50	---	14 06 00	52.1	68.8	-4.2		-60.3	197	5614	22 04 21
22 08 20	J1818+5017	14 06 30	52.1	68.0	-4.2		-60.6	17	5614	22 08 20
22 09 20	=1817+502	14 07 31	52.2	68.1	-4.2		-60.7	60	5622	22 08 21
22 09 20	AMHER	14 07 31	52.3	69.0	-4.2		-60.4	-14	5622	No stop
22 12 50	---	14 11 01	52.8	69.4	-4.1		-60.7	196	5649	22 09 21
22 12 50	J1818+5017	14 11 01	52.7	68.5	-4.1		-61.0	-13	5649	No stop
22 14 20	=1817+502	14 12 31	52.9	68.7	-4.1		-61.1	77	5660	22 12 51
22 14 20	AMHER	14 12 31	53.0	69.6	-4.1		-60.9	-14	5660	No stop
22 17 50	---	14 16 02	53.5	70.1	-4.0		-61.2	196	5687	22 14 21
22 17 50	J1818+5017	14 16 02	53.4	69.2	-4.0		-61.5	-13	5687	No stop
22 19 20	=1817+502	14 17 32	53.6	69.4	-4.0		-61.6	77	5699	22 17 51
22 19 20	J1809+5007	14 17 32	54.8	70.8	-3.9		-62.2	-18	5699	No stop
22 22 50	---	14 21 03	55.3	71.3	-3.8		-62.5	192	5726	22 19 21
22 23 20	J1818+5017	14 21 33	54.2	69.9	-4.0		-61.9	12	5726	22 23 20
22 24 20	=1817+502	14 22 33	54.3	70.0	-3.9		-62.0	60	5734	22 23 21

Schedule for TORUN (Code Tr )

Page 11

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
22 24 20	AMHER	14 22 33	54.4	70.9	-3.9		-61.7	-14	5734	No stop
22 27 50	---	14 26 04	54.9	71.4	-3.8		-62.0	196	5761	22 24 21
22 27 50	J1818+5017	14 26 04	54.8	70.5	-3.9		-62.3	-14	5761	No stop
22 29 20	=1817+502	14 27 34	55.0	70.6	-3.9		-62.5	76	5773	22 27 51
22 29 20	AMHER	14 27 34	55.2	71.6	-3.8		-62.1	-14	5773	No stop
22 32 50	---	14 31 05	55.7	72.1	-3.8		-62.4	196	5800	22 29 21
22 33 20	J1818+5017	14 31 35	55.6	71.2	-3.8		-62.8	16	5800	22 33 20
22 34 20	=1817+502	14 32 35	55.7	71.3	-3.8		-62.9	60	5807	22 33 21
22 34 20	AMHER	14 32 35	55.9	72.3	-3.7		-62.5	-14	5807	No stop
22 37 50	---	14 36 05	56.4	72.7	-3.7		-62.8	196	5834	22 34 21
22 37 50	J1818+5017	14 36 05	56.2	71.7	-3.7		-63.2	-14	5834	No stop
22 39 20	=1817+502	14 37 36	56.5	71.9	-3.7		-63.3	76	5846	22 37 51
22 39 20	AMHER	14 37 36	56.6	72.9	-3.6		-63.0	-14	5846	No stop
22 42 50	---	14 41 06	57.1	73.4	-3.6		-63.2	196	5873	22 39 21
22 42 50	J1818+5017	14 41 06	57.0	72.4	-3.6		-63.6	-14	5873	No stop
22 44 20	=1817+502	14 42 36	57.2	72.6	-3.6		-63.8	76	5885	22 42 51
22 44 20	J1809+5007	14 42 36	58.4	74.1	-3.5		-64.3	-18	5885	No stop
22 47 50	---	14 46 07	58.9	74.6	-3.4		-64.5	192	5912	22 44 21
22 48 20	J1818+5017	14 46 37	57.7	73.1	-3.5		-64.1	12	5912	22 48 20
22 49 20	=1817+502	14 47 37	57.9	73.3	-3.5		-64.2	60	5920	22 48 21
22 49 20	AMHER	14 47 37	58.0	74.3	-3.5		-63.7	-14	5920	No stop
22 52 50	---	14 51 08	58.5	74.7	-3.4		-64.0	196	5947	22 49 21
22 52 50	J1818+5017	14 51 08	58.4	73.7	-3.5		-64.4	-14	5947	No stop
22 54 20	=1817+502	14 52 38	58.6	73.9	-3.4		-64.6	76	5958	22 52 51
22 54 20	AMHER	14 52 38	58.8	74.9	-3.4		-64.1	-14	5958	No stop
22 57 50	---	14 56 09	59.3	75.4	-3.3		-64.4	196	5985	22 54 21
22 58 20	J1818+5017	14 56 39	59.2	74.4	-3.4		-64.9	16	5985	22 58 20
22 59 20	=1817+502	14 57 39	59.3	74.6	-3.4		-65.0	60	5993	22 58 21
22 59 20	AMHER	14 57 39	59.5	75.6	-3.3		-64.5	-14	5993	No stop
23 02 50	---	15 01 09	60.0	76.1	-3.3		-64.7	196	6020	22 59 21

Schedule for TORUN (Code Tr )

Page 12

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
23 02 50	J1818+5017	15 01 09	59.8	75.0	-3.3		-65.2	-14	6020	No stop
23 04 20	=1817+502	15 02 40	60.1	75.2	-3.3		-65.4	76	6032	23 02 51
23 04 20	AMHER	15 02 40	60.2	76.3	-3.2		-64.9	-14	6032	No stop
23 07 50	---	15 06 10	60.7	76.8	-3.2		-65.1	196	6059	23 04 21
23 07 50	J1818+5017	15 06 10	60.6	75.7	-3.2		-65.6	-14	6059	No stop
23 09 20	=1817+502	15 07 41	60.8	75.9	-3.2		-65.7	76	6071	23 07 51
23 09 20	J1809+5007	15 07 41	62.1	77.5	-3.0		-66.1	-18	6071	No stop
23 12 50	---	15 11 11	62.6	78.0	-3.0		-66.4	192	6098	23 09 21
23 13 20	J1818+5017	15 11 41	61.4	76.5	-3.1		-66.0	12	6098	23 13 20
23 14 20	=1817+502	15 12 41	61.5	76.6	-3.1		-66.1	60	6105	23 13 21
23 14 20	AMHER	15 12 41	61.7	77.7	-3.1		-65.6	-15	6105	No stop
23 17 50	---	15 16 12	62.2	78.2	-3.0		-65.8	195	6133	23 14 21
23 17 50	J1818+5017	15 16 12	62.0	77.1	-3.0		-66.4	-14	6133	No stop
23 19 20	=1817+502	15 17 42	62.3	77.3	-3.0		-66.5	76	6144	23 17 51
23 19 20	AMHER	15 17 42	62.4	78.4	-3.0		-65.9	-15	6144	No stop
23 22 50	---	15 21 13	62.9	78.9	-2.9		-66.1	195	6171	23 19 21
23 23 20	J1818+5017	15 21 43	62.8	77.8	-3.0		-66.7	15	6171	23 23 20
23 24 20	=1817+502	15 22 43	63.0	78.0	-2.9		-66.8	60	6179	23 23 21
23 24 20	AMHER	15 22 43	63.2	79.1	-2.9		-66.2	-15	6179	No stop
23 27 50	---	15 26 14	63.7	79.6	-2.8		-66.4	195	6206	23 24 21
23 27 50	J1818+5017	15 26 14	63.5	78.4	-2.9		-67.1	-15	6206	No stop
23 29 20	=1817+502	15 27 44	63.7	78.7	-2.9		-67.2	75	6218	23 27 51
23 29 20	AMHER	15 27 44	63.9	79.9	-2.8		-66.5	-15	6218	No stop
23 32 50	---	15 31 14	64.4	80.4	-2.8		-66.7	195	6245	23 29 21
23 32 50	J1818+5017	15 31 14	64.2	79.2	-2.8		-67.4	-15	6245	No stop
23 34 20	=1817+502	15 32 45	64.5	79.4	-2.8		-67.5	75	6256	23 32 51
23 34 20	J1809+5007	15 32 45	65.8	81.1	-2.6		-67.7	-18	6256	No stop
23 37 50	---	15 36 15	66.3	81.6	-2.6		-67.9	192	6283	23 34 21
23 38 20	J1818+5017	15 36 45	65.1	79.9	-2.7		-67.7	12	6283	23 38 20
23 39 20	=1817+502	15 37 45	65.2	80.1	-2.7		-67.8	60	6291	23 38 21

Schedule for TORUN (Code Tr )

Page 13

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 2 May 2013 Day 122 ---										
23 39 20	AMHER	15 37 45	65.4	81.4	-2.6		-67.1	-15	6291	No stop
23 42 50	---	15 41 16	65.9	81.9	-2.6		-67.3	195	6318	23 39 21
23 42 50	J1818+5017	15 41 16	65.7	80.6	-2.6		-68.0	-15	6318	No stop
23 44 20	=1817+502	15 42 46	66.0	80.8	-2.6		-68.1	75	6330	23 42 51
23 44 20	AMHER	15 42 46	66.1	82.1	-2.6		-67.4	-15	6330	No stop
23 47 50	---	15 46 17	66.7	82.7	-2.5		-67.5	195	6357	23 44 21
23 48 20	J1818+5017	15 46 47	66.5	81.4	-2.5		-68.3	15	6357	23 48 20
23 49 20	=1817+502	15 47 47	66.7	81.5	-2.5		-68.4	60	6365	23 48 21
23 49 20	AMHER	15 47 47	66.9	82.9	-2.5		-67.6	-15	6365	No stop
23 52 50	---	15 51 18	67.4	83.4	-2.4		-67.8	195	6392	23 49 21
23 52 50	J1818+5017	15 51 18	67.2	82.1	-2.5		-68.6	-15	6392	No stop
23 54 20	=1817+502	15 52 48	67.4	82.3	-2.4		-68.7	75	6403	23 52 51
23 54 20	AMHER	15 52 48	67.6	83.7	-2.4		-67.8	-16	6403	No stop
23 57 50	---	15 56 18	68.2	84.2	-2.3		-68.0	194	6431	23 54 21
23 57 50	J1818+5017	15 56 18	68.0	82.8	-2.4		-68.8	-16	6431	No stop
23 59 20	=1817+502	15 57 49	68.2	83.1	-2.4		-68.9	74	6442	23 57 51
--- Start: Thu 2 May 2013 Day 122 -- Stop: Fri 3 May 2013 Day 123 ---										
23 59 20	J1809+5007	15 57 49	69.5	85.0	-2.2		-68.9	-18	6442	No stop
00 02 50	---	16 01 19	70.0	85.6	-2.1		-69.0	192	6469	23 59 21
00 03 20	J1818+5017	16 01 49	68.8	83.7	-2.3		-69.1	12	6469	00 03 20
00 04 20	=1817+502	16 02 50	68.9	83.9	-2.3		-69.1	60	6477	00 03 21
00 04 20	AMHER	16 02 50	69.1	85.3	-2.2		-68.2	-16	6477	No stop
00 07 50	---	16 06 20	69.6	85.9	-2.2		-68.3	194	6504	00 04 21
00 07 50	J1818+5017	16 06 20	69.5	84.4	-2.2		-69.3	-16	6504	No stop
00 09 20	=1817+502	16 07 50	69.7	84.7	-2.2		-69.4	74	6516	00 07 51
00 09 20	AMHER	16 07 50	69.9	86.2	-2.1		-68.4	-16	6516	No stop
00 12 50	---	16 11 21	70.4	86.8	-2.1		-68.5	194	6543	00 09 21
00 13 20	J1818+5017	16 11 51	70.3	85.3	-2.1		-69.5	14	6543	00 13 20
00 14 50	=1817+502	16 13 21	70.5	85.6	-2.1		-69.6	90	6554	00 13 21

Schedule for TORUN (Code Tr )

Page 14

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
00 14 50	J1809+5007	16 13 21	71.8	87.7	-1.9		-69.4	-18	6554	No stop
00 18 20	---	16 16 52	72.4	88.3	-1.9		-69.4	192	6582	00 14 51
00 18 20	J1818+5017	16 16 52	71.0	86.2	-2.0		-69.7	-18	6582	No stop
00 20 00	=1817+502	16 18 32	71.3	86.4	-2.0		-69.7	82	6594	00 18 21
00 23 00	OQ208	16 21 33	55.2	238.2	2.2		35.4	-140	6594	00 23 00
00 28 00	---	16 26 33	54.5	239.7	2.3		36.1	160	6633	00 23 01
00 28 40	OQ208	16 27 14	54.4	239.9	2.3		36.2	34	6633	00 28 40
00 43 00	---	16 41 36	52.5	244.2	2.6		37.9	860	6744	00 28 41
00 43 40	OQ208	16 42 16	52.4	244.4	2.6		38.0	34	6744	00 43 40
00 58 00	---	16 56 38	50.5	248.3	2.8		39.4	860	6855	00 43 41
01 01 00	M87	16 59 39	23.5	258.9	4.5		37.1	66	6855	01 01 00
01 13 00	---	17 11 41	21.8	261.4	4.7		37.4	720	6948	01 01 01
01 13 40	M87	17 12 21	21.7	261.6	4.7		37.4	34	6948	01 13 40
01 28 00	---	17 26 43	19.5	264.5	4.9		37.7	860	7059	01 13 41
01 28 40	M87	17 27 23	19.4	264.7	4.9		37.7	34	7059	01 28 40
01 43 00	---	17 41 46	17.3	267.6	5.2		37.9	860	7170	01 28 41
01 43 40	M87	17 42 26	17.2	267.7	5.2		37.9	34	7170	01 43 40
01 58 00	---	17 56 48	15.0	270.6	5.4		37.9	860	7281	01 43 41
01 58 40	M87	17 57 28	14.9	270.7	5.4		37.9	34	7281	01 58 40
02 13 00	---	18 11 51	12.8	273.6	5.7		37.8	860	7392	01 58 41
02 13 40	M87	18 12 31	12.7	273.7	5.7		37.8	34	7392	02 13 40
02 28 00	---	18 26 53	10.5	276.6	5.9		37.6	860	7503	02 13 41
02 28 40	M87	18 27 33	10.4	276.7	5.9		37.6	34	7503	02 28 40
02 43 00	---	18 41 56	8.3	279.5	6.2		37.3	860	7614	02 28 41
02 43 40	M87	18 42 36	8.2	279.6	6.2		37.3	34	7614	02 43 40
02 58 00	---	18 56 58	6.1	282.5	6.4		36.9	860	7725	02 43 41
02 58 00	3C454.3	18 56 58	31.1	105.1	-4.0		-37.1	-367	7725	No stop
03 08 00	---	19 07 00	32.6	107.4	-3.8		-36.6	233	7802	02 58 01
03 08 20	3C454.3	19 07 20	32.6	107.4	-3.8		-36.6	14	7802	03 08 20
03 11 00	---	19 10 00	33.0	108.1	-3.7		-36.5	160	7823	03 08 21



Schedule for TORUN (Code Tr )

Page 15

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
03 13 20	J2047-0236	19 12 21	30.9	151.9	-1.6		-16.5	38	7823	03 13 20
03 15 20	=2044-027	19 14 21	31.0	152.5	-1.6		-16.1	120	7838	03 13 21
03 16 00	J2043+0040	19 15 01	34.5	152.7	-1.5		-16.0	13	7838	03 16 00
03 17 20	---	19 16 21	34.6	153.1	-1.5		-15.8	80	7849	03 16 01
03 17 50	J2040+0016	19 16 51	34.4	154.3	-1.4		-15.1	16	7849	03 17 50
03 19 20	---	19 18 22	34.5	154.7	-1.4		-14.9	90	7860	03 17 51
03 19 50	J2040-0105	19 18 52	33.2	155.2	-1.4		-14.6	12	7860	03 19 50
03 21 20	---	19 20 22	33.3	155.7	-1.3		-14.3	90	7872	03 19 51
03 21 50	J2037-0113	19 20 52	33.4	156.7	-1.3		-13.8	16	7872	03 21 50
03 23 20	---	19 22 22	33.5	157.1	-1.3		-13.5	90	7883	03 21 51
03 23 50	J2037+0010	19 22 52	34.9	156.9	-1.3		-13.6	11	7883	03 23 50
03 25 20	---	19 24 23	35.0	157.4	-1.2		-13.4	90	7895	03 23 51
03 25 50	J2043+0040	19 24 53	35.1	155.6	-1.3		-14.4	13	7895	03 25 50
03 27 20	---	19 26 23	35.2	156.0	-1.3		-14.1	90	7907	03 25 51
03 27 50	J2040+0016	19 26 53	35.0	157.2	-1.2		-13.4	16	7907	03 27 50
03 29 20	---	19 28 23	35.1	157.7	-1.2		-13.2	90	7918	03 27 51
03 29 50	J2040-0105	19 28 53	33.8	158.1	-1.2		-12.9	12	7918	03 29 50
03 31 20	---	19 30 24	33.9	158.6	-1.2		-12.7	90	7930	03 29 51
03 31 50	J2037-0113	19 30 54	33.9	159.6	-1.1		-12.1	16	7930	03 31 50
03 33 20	---	19 32 24	34.0	160.1	-1.1		-11.8	90	7941	03 31 51
03 33 50	J2037+0010	19 32 54	35.4	159.9	-1.1		-11.9	11	7941	03 33 50
03 35 20	---	19 34 24	35.5	160.4	-1.1		-11.6	90	7953	03 33 51
03 35 50	J2043+0040	19 34 54	35.7	158.6	-1.2		-12.7	13	7953	03 35 50
03 37 20	---	19 36 25	35.8	159.0	-1.1		-12.4	90	7965	03 35 51
03 37 50	J2040+0016	19 36 55	35.6	160.2	-1.1		-11.7	16	7965	03 37 50
03 39 20	---	19 38 25	35.7	160.7	-1.0		-11.5	90	7976	03 37 51
03 39 50	J2040-0105	19 38 55	34.3	161.1	-1.0		-11.2	12	7976	03 39 50
03 41 20	---	19 40 25	34.4	161.6	-1.0		-11.0	90	7988	03 39 51
03 41 50	J2037-0113	19 40 55	34.4	162.6	-1.0		-10.4	16	7988	03 41 50
03 43 20	---	19 42 26	34.5	163.0	-0.9		-10.1	90	7999	03 41 51

Schedule for TORUN (Code Tr )

Page 16

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
03 43 50	J2037+0010	19 42 56	35.9	162.9	-0.9		-10.1	11	7999	03 43 50
03 45 20	---	19 44 26	36.0	163.4	-0.9		-9.9	90	8011	03 43 51
03 45 50	J2043+0040	19 44 56	36.2	161.6	-1.0		-10.9	13	8011	03 45 50
03 47 20	---	19 46 26	36.3	162.1	-1.0		-10.7	90	8023	03 45 51
03 47 50	J2040+0016	19 46 56	36.1	163.3	-0.9		-10.0	16	8023	03 47 50
03 49 20	---	19 48 27	36.1	163.7	-0.9		-9.7	90	8034	03 47 51
03 49 50	J2040-0105	19 48 57	34.8	164.1	-0.9		-9.5	12	8034	03 49 50
03 51 20	---	19 50 27	34.8	164.6	-0.8		-9.2	90	8046	03 49 51
03 51 50	J2037-0113	19 50 57	34.8	165.6	-0.8		-8.6	16	8046	03 51 50
03 53 20	---	19 52 27	34.9	166.0	-0.8		-8.3	90	8058	03 51 51
03 53 50	J2037+0010	19 52 57	36.3	166.0	-0.7		-8.4	11	8058	03 53 50
03 55 20	---	19 54 28	36.4	166.5	-0.7		-8.1	90	8069	03 53 51
03 56 00	J2047-0236	19 55 08	33.3	164.2	-0.9		-9.4	14	8069	03 56 00
03 56 40	=2044-027	19 55 48	33.3	164.4	-0.9		-9.3	40	8074	03 56 01
03 57 20	J2043+0040	19 56 28	36.7	165.1	-0.8		-8.9	13	8074	03 57 20
03 58 00	---	19 57 08	36.7	165.3	-0.8		-8.7	40	8079	03 57 21
03 58 40	J2047-0236	19 57 48	33.4	165.0	-0.8		-9.0	13	8079	03 58 40
03 59 20	=2044-027	19 58 28	33.4	165.2	-0.8		-8.9	40	8085	03 58 41
04 00 00	J2040+0016	19 59 08	36.5	167.0	-0.7		-7.8	14	8085	04 00 00
04 00 40	---	19 59 48	36.5	167.2	-0.7		-7.6	40	8090	04 00 01
04 01 20	J2047-0236	20 00 28	33.5	165.8	-0.8		-8.5	15	8090	04 01 20
04 02 00	=2044-027	20 01 09	33.5	166.0	-0.8		-8.4	40	8095	04 01 21
04 02 30	J2040-0105	20 01 39	35.2	167.9	-0.7		-7.2	10	8095	04 02 30
04 03 10	---	20 02 19	35.3	168.1	-0.6		-7.1	40	8100	04 02 31
04 03 40	J2047-0236	20 02 49	33.6	166.5	-0.8		-8.1	10	8100	04 03 40
04 04 20	=2044-027	20 03 29	33.6	166.7	-0.7		-8.0	40	8105	04 03 41
04 05 00	J2037-0113	20 04 09	35.3	169.6	-0.6		-6.2	20	8105	04 05 00
04 05 40	---	20 04 49	35.3	169.8	-0.6		-6.1	40	8110	04 05 01
04 06 20	J2047-0236	20 05 29	33.6	167.3	-0.7		-7.6	20	8110	04 06 20
04 07 00	=2044-027	20 06 09	33.7	167.4	-0.7		-7.5	40	8116	04 06 21

Schedule for TORUN (Code Tr )

Page 17

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
04 07 40	J2037+0010	20 06 50	36.7	170.3	-0.5		-5.8	15	8116	04 07 40
04 08 20	---	20 07 30	36.8	170.5	-0.5		-5.7	40	8121	04 07 41
04 09 00	J2047-0236	20 08 10	33.7	168.0	-0.7		-7.2	15	8121	04 09 00
04 09 40	=2044-027	20 08 50	33.7	168.2	-0.7		-7.0	40	8126	04 09 01
04 10 20	J2043+0040	20 09 30	37.1	169.2	-0.6		-6.5	13	8126	04 10 20
04 11 00	---	20 10 10	37.2	169.4	-0.6		-6.4	40	8131	04 10 21
04 11 40	J2047-0236	20 10 50	33.8	168.8	-0.6		-6.7	14	8131	04 11 40
04 12 20	=2044-027	20 11 30	33.8	169.0	-0.6		-6.6	40	8136	04 11 41
04 13 00	J2040+0016	20 12 10	36.9	171.0	-0.5		-5.4	15	8136	04 13 00
04 13 40	---	20 12 51	36.9	171.2	-0.5		-5.2	40	8141	04 13 01
04 14 20	J2047-0236	20 13 31	33.9	169.6	-0.6		-6.2	15	8141	04 14 20
04 15 00	=2044-027	20 14 11	33.9	169.8	-0.6		-6.1	40	8147	04 14 21
04 15 30	J2040-0105	20 14 41	35.6	171.9	-0.4		-4.8	10	8147	04 15 30
04 16 10	---	20 15 21	35.6	172.1	-0.4		-4.7	40	8152	04 15 31
04 16 40	J2047-0236	20 15 51	33.9	170.3	-0.5		-5.8	10	8152	04 16 40
04 17 20	=2044-027	20 16 31	34.0	170.5	-0.5		-5.7	40	8157	04 16 41
04 18 00	J2037-0113	20 17 11	35.6	173.6	-0.3		-3.9	20	8157	04 18 00
04 18 40	---	20 17 51	35.6	173.8	-0.3		-3.7	40	8162	04 18 01
04 19 20	J2047-0236	20 18 31	34.0	171.1	-0.5		-5.3	20	8162	04 19 20
04 20 00	=2044-027	20 19 12	34.0	171.3	-0.5		-5.2	40	8167	04 19 21
04 20 40	J2037+0010	20 19 52	37.0	174.3	-0.3		-3.4	15	8167	04 20 40
04 21 20	---	20 20 32	37.0	174.6	-0.3		-3.3	40	8172	04 20 41
04 22 00	J2047-0236	20 21 12	34.1	171.9	-0.4		-4.8	15	8172	04 22 00
04 22 40	=2044-027	20 21 52	34.1	172.1	-0.4		-4.7	40	8178	04 22 01
04 23 20	J2043+0040	20 22 32	37.4	173.3	-0.4		-4.0	14	8178	04 23 20
04 24 00	---	20 23 12	37.5	173.5	-0.3		-3.9	40	8183	04 23 21
04 24 40	J2047-0236	20 23 52	34.1	172.8	-0.4		-4.3	14	8183	04 24 40
04 25 20	=2044-027	20 24 32	34.1	173.0	-0.4		-4.2	40	8188	04 24 41
04 26 00	J2040+0016	20 25 13	37.1	175.1	-0.3		-2.9	15	8188	04 26 00
04 26 40	---	20 25 53	37.1	175.3	-0.2		-2.8	40	8193	04 26 01

Schedule for TORUN (Code Tr )

Page 18

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
04 27 20	J2047-0236	20 26 33	34.2	173.6	-0.4		-3.9	15	8193	04 27 20
04 28 00	=2044-027	20 27 13	34.2	173.8	-0.3		-3.7	40	8198	04 27 21
04 28 30	J2040-0105	20 27 43	35.8	175.9	-0.2		-2.5	10	8198	04 28 30
04 29 10	---	20 28 23	35.8	176.1	-0.2		-2.3	40	8203	04 28 31
04 29 40	J2047-0236	20 28 53	34.2	174.3	-0.3		-3.4	10	8203	04 29 40
04 30 20	=2044-027	20 29 33	34.2	174.5	-0.3		-3.3	40	8209	04 29 41
04 31 00	J2037-0113	20 30 13	35.7	177.6	-0.1		-1.5	20	8209	04 31 00
04 31 40	---	20 30 53	35.7	177.8	-0.1		-1.3	40	8214	04 31 01
04 32 20	J2047-0236	20 31 34	34.2	175.1	-0.3		-3.0	20	8214	04 32 20
04 33 00	=2044-027	20 32 14	34.3	175.3	-0.3		-2.8	40	8219	04 32 21
04 33 40	J2037+0010	20 32 54	37.1	178.4	-0.1		-0.9	15	8219	04 33 40
04 34 20	---	20 33 34	37.1	178.6	-0.1		-0.8	40	8224	04 33 41
04 35 00	J2047-0236	20 34 14	34.3	175.9	-0.2		-2.5	15	8224	04 35 00
04 35 40	=2044-027	20 34 54	34.3	176.1	-0.2		-2.4	40	8229	04 35 01
04 36 20	J2043+0040	20 35 34	37.6	177.4	-0.1		-1.6	14	8229	04 36 20
04 37 00	---	20 36 14	37.6	177.6	-0.1		-1.5	40	8234	04 36 21
04 37 40	J2047-0236	20 36 54	34.3	176.7	-0.2		-2.0	14	8234	04 37 40
04 38 20	=2044-027	20 37 35	34.3	176.9	-0.2		-1.9	40	8239	04 37 41
04 39 00	J2040+0016	20 38 15	37.2	179.2	-0.0		-0.5	15	8239	04 39 00
04 39 40	---	20 38 55	37.2	179.4	-0.0		-0.4	40	8245	04 39 01
04 40 20	J2047-0236	20 39 35	34.3	177.5	-0.1		-1.5	15	8245	04 40 20
04 41 00	=2044-027	20 40 15	34.3	177.7	-0.1		-1.4	40	8250	04 40 21
04 41 30	J2040-0105	20 40 45	35.9	179.9	-0.0		-0.0	11	8250	04 41 30
04 42 10	---	20 41 25	35.9	180.1	0.0		0.1	40	8255	04 41 31
04 42 40	J2047-0236	20 41 55	34.3	178.2	-0.1		-1.1	11	8255	04 42 40
04 43 20	=2044-027	20 42 35	34.3	178.4	-0.1		-1.0	40	8260	04 42 41
04 44 00	J2037-0113	20 43 15	35.7	181.6	0.1		1.0	19	8260	04 44 00
04 44 40	---	20 43 56	35.7	181.8	0.1		1.1	40	8265	04 44 01
04 45 20	J2047-0236	20 44 36	34.3	179.0	-0.1		-0.6	20	8265	04 45 20
04 46 00	=2044-027	20 45 16	34.3	179.2	-0.0		-0.5	40	8270	04 45 21

Schedule for TORUN (Code Tr )

Page 19

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
04 46 40	J2037+0010	20 45 56	37.1	182.5	0.1		1.5	16	8270	04 46 40
04 47 20	---	20 46 36	37.1	182.7	0.1		1.6	40	8276	04 46 41
04 48 00	J2047-0236	20 47 16	34.3	179.8	-0.0		-0.1	16	8276	04 48 00
04 48 40	=2044-027	20 47 56	34.3	180.0	0.0		0.0	40	8281	04 48 01
04 49 20	J2043+0040	20 48 36	37.6	181.5	0.1		0.9	14	8281	04 49 20
04 50 00	---	20 49 16	37.6	181.7	0.1		1.0	40	8286	04 49 21
04 50 40	J2047-0236	20 49 57	34.3	180.6	0.0		0.4	14	8286	04 50 40
04 51 20	=2044-027	20 50 37	34.3	180.8	0.0		0.5	40	8291	04 50 41
04 52 00	J2040+0016	20 51 17	37.2	183.3	0.2		2.0	15	8291	04 52 00
04 52 40	---	20 51 57	37.2	183.5	0.2		2.1	40	8296	04 52 01
04 53 20	J2047-0236	20 52 37	34.3	181.4	0.1		0.9	15	8296	04 53 20
04 54 00	=2044-027	20 53 17	34.3	181.6	0.1		1.0	40	8301	04 53 21
04 54 30	J2040-0105	20 53 47	35.8	184.0	0.2		2.4	11	8301	04 54 30
04 55 10	---	20 54 27	35.8	184.2	0.2		2.5	40	8307	04 54 31
04 55 40	J2047-0236	20 54 57	34.3	182.1	0.1		1.3	11	8307	04 55 40
04 56 20	=2044-027	20 55 38	34.3	182.3	0.1		1.4	40	8312	04 55 41
04 57 00	J2037-0113	20 56 18	35.6	185.6	0.3		3.4	19	8312	04 57 00
04 57 40	---	20 56 58	35.6	185.8	0.3		3.5	40	8317	04 57 01
04 58 20	J2047-0236	20 57 38	34.3	182.9	0.2		1.8	20	8317	04 58 20
04 59 00	=2044-027	20 58 18	34.3	183.2	0.2		1.9	40	8322	04 58 21
04 59 40	J2037+0010	20 58 58	37.0	186.6	0.4		4.0	16	8322	04 59 40
05 00 20	---	20 59 38	36.9	186.8	0.4		4.1	40	8327	04 59 41
05 01 00	J2047-0236	21 00 18	34.3	183.8	0.2		2.3	16	8327	05 01 00
05 01 40	=2044-027	21 00 58	34.3	184.0	0.2		2.4	40	8332	05 01 01
05 02 20	J2043+0040	21 01 39	37.5	185.6	0.3		3.3	14	8332	05 02 20
05 03 00	---	21 02 19	37.5	185.8	0.3		3.5	40	8338	05 02 21
05 03 40	J2047-0236	21 02 59	34.3	184.6	0.3		2.7	14	8338	05 03 40
05 04 20	=2044-027	21 03 39	34.3	184.8	0.3		2.9	40	8343	05 03 41
05 05 00	J2040+0016	21 04 19	37.0	187.4	0.4		4.4	16	8343	05 05 00
05 05 40	---	21 04 59	37.0	187.6	0.4		4.5	40	8348	05 05 01

Schedule for TORUN (Code Tr )

Page 20

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
05 06 20	J2047-0236	21 05 39	34.2	185.4	0.3		3.2	16	8348	05 06 20
05 07 00	=2044-027	21 06 19	34.2	185.6	0.3		3.3	40	8353	05 06 21
05 07 30	J2040-0105	21 06 49	35.6	188.0	0.4		4.8	11	8353	05 07 30
05 08 10	---	21 07 29	35.6	188.2	0.4		4.9	40	8358	05 07 31
05 08 40	J2047-0236	21 08 00	34.2	186.1	0.3		3.6	11	8358	05 08 40
05 09 20	=2044-027	21 08 40	34.2	186.3	0.3		3.8	40	8363	05 08 41
05 10 00	J2037-0113	21 09 20	35.3	189.6	0.5		5.7	19	8363	05 10 00
05 10 40	---	21 10 00	35.3	189.8	0.5		5.9	40	8369	05 10 01
05 11 20	J2047-0236	21 10 40	34.1	186.9	0.4		4.1	19	8369	05 11 20
05 12 00	=2044-027	21 11 20	34.1	187.1	0.4		4.3	40	8374	05 11 21
05 12 40	J2037+0010	21 12 00	36.7	190.6	0.6		6.4	17	8374	05 12 40
05 13 20	---	21 12 40	36.6	190.9	0.6		6.5	40	8379	05 12 41
05 19 20	0133+476	21 18 41	49.9	70.3	-4.3		-57.5	103	8379	05 19 20
05 30 00	---	21 29 23	51.4	71.8	-4.1		-58.3	640	8461	05 19 21
05 31 00	J0954+7435	21 30 23	37.7	-2.2	11.6		4.9	-103	8461	05 31 00
05 45 00	=0950+748	21 44 26	37.6	-1.0	11.8		2.2	737	8570	05 31 01
05 45 40	J0954+7435	21 45 06	37.6	-0.9	11.8		2.1	35	8570	05 45 40
05 48 00	=0950+748	21 47 26	37.6	-0.7	11.9		1.6	140	8588	05 45 41
05 48 30	RBS797	21 47 56	39.4	-0.0	12.0		0.1	10	8588	05 48 30
05 52 30	---	21 51 57	39.4	0.3-11.9			-0.7	240	8619	05 48 31
05 53 00	J0954+7435	21 52 27	37.6	-0.3	11.9		0.7	10	8619	05 53 00
05 54 00	=0950+748	21 53 27	37.6	-0.2	12.0		0.5	60	8627	05 53 01
05 54 30	RBS797	21 53 57	39.4	0.4-11.9			-1.0	10	8627	05 54 30
05 58 30	---	21 57 58	39.4	0.7-11.8			-1.8	240	8658	05 54 31
05 59 00	J0954+7435	21 58 28	37.6	0.2-12.0			-0.5	10	8658	05 59 00
06 00 00	=0950+748	21 59 28	37.6	0.3-11.9			-0.6	60	8665	05 59 01
06 00 30	RBS797	21 59 58	39.4	0.9-11.8			-2.2	10	8665	06 00 30
06 04 30	---	22 03 59	39.4	1.2-11.7			-3.0	240	8696	06 00 31
06 05 00	J0954+7435	22 04 29	37.6	0.7-11.9			-1.6	9	8696	06 05 00
06 06 00	=0950+748	22 05 29	37.6	0.8-11.8			-1.8	60	8704	06 05 01

Schedule for TORUN (Code Tr )

Page 21

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
06 06 30	J094729+7643	22 05 59	39.8	1.3-11.7			-3.3	8	8704	06 06 30
06 09 30	---	22 09 00	39.8	1.5-11.7			-3.9	180	8727	06 06 31
06 10 10	J0954+7435	22 09 40	37.7	1.1-11.8			-2.6	18	8727	06 10 10
06 11 10	=0950+748	22 10 40	37.7	1.2-11.8			-2.8	60	8735	06 10 11
06 11 40	J093501+7545	22 11 10	38.9	2.7-11.4			-6.7	12	8735	06 11 40
06 14 40	---	22 14 10	38.9	3.0-11.4			-7.3	180	8758	06 11 41
06 15 20	J0954+7435	22 14 51	37.7	1.6-11.7			-3.6	22	8758	06 15 20
06 16 20	=0950+748	22 15 51	37.7	1.7-11.7			-3.8	60	8766	06 15 21
06 16 50	J094045+7648	22 16 21	40.0	2.5-11.4			-6.7	8	8766	06 16 50
06 19 50	---	22 19 21	40.0	2.8-11.4			-7.3	180	8789	06 16 51
06 20 30	J0954+7435	22 20 01	37.7	2.0-11.6			-4.5	18	8789	06 20 30
06 21 30	=0950+748	22 21 02	37.7	2.1-11.6			-4.7	60	8797	06 20 31
06 22 00	J095143+7529	22 21 32	38.6	2.3-11.5			-5.5	14	8797	06 22 00
06 25 00	---	22 24 32	38.6	2.5-11.5			-6.0	180	8820	06 22 01
06 25 40	J0954+7435	22 25 12	37.7	2.5-11.5			-5.5	24	8820	06 25 40
06 26 40	=0950+748	22 26 12	37.7	2.5-11.5			-5.7	60	8828	06 25 41
06 27 10	RBS797	22 26 42	39.6	2.9-11.4			-7.4	9	8828	06 27 10
06 31 10	---	22 30 43	39.6	3.2-11.3			-8.2	240	8859	06 27 11
06 31 40	J0954+7435	22 31 13	37.8	3.0-11.4			-6.7	9	8859	06 31 40
06 32 40	=0950+748	22 32 13	37.8	3.0-11.4			-6.9	60	8867	06 31 41
06 33 10	RBS797	22 32 43	39.6	3.4-11.3			-8.6	9	8867	06 33 10
06 37 10	---	22 36 44	39.7	3.7-11.2			-9.4	240	8898	06 33 11
06 37 40	J0954+7435	22 37 14	37.8	3.5-11.3			-7.8	9	8898	06 37 40
06 38 40	=0950+748	22 38 14	37.8	3.5-11.3			-8.0	60	8905	06 37 41
06 39 10	RBS797	22 38 44	39.7	3.8-11.2			-9.8	9	8905	06 39 10
06 43 10	---	22 42 45	39.7	4.1-11.1			-10.5	240	8936	06 39 11
06 43 40	J0954+7435	22 43 15	37.9	4.0-11.2			-9.0	9	8936	06 43 40
06 44 40	=0950+748	22 44 15	37.9	4.0-11.2			-9.1	60	8944	06 43 41
06 45 10	J094729+7643	22 44 45	40.1	4.2-11.1			-10.9	8	8944	06 45 10
06 48 10	---	22 47 46	40.1	4.4-11.0			-11.5	180	8967	06 45 11

Schedule for TORUM (Code Tr )

Page 22

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
06 48 50	J0954+7435	22 48 26	37.9	4.4-11.1			-9.9	18	8967	06 48 50
06 49 50	=0950+748	22 49 26	37.9	4.5-11.1			-10.1	60	8975	06 48 51
06 50 20	J093501+7545	22 49 56	39.4	5.8-10.8			-14.2	11	8975	06 50 20
06 53 20	---	22 52 57	39.4	6.0-10.7			-14.8	180	8998	06 50 21
06 54 00	J0954+7435	22 53 37	38.0	4.8-11.0			-10.9	21	8998	06 54 00
06 55 00	=0950+748	22 54 37	38.0	4.9-11.0			-11.1	60	9006	06 54 01
06 55 30	J094045+7648	22 55 07	40.4	5.4-10.8			-14.3	7	9006	06 55 30
06 58 30	---	22 58 08	40.4	5.6-10.7			-14.9	180	9029	06 55 31
06 59 10	J0954+7435	22 58 48	38.1	5.3-11.0			-11.9	17	9029	06 59 10
07 00 10	=0950+748	22 59 48	38.1	5.3-10.9			-12.1	60	9037	06 59 11
07 00 40	J095143+7529	23 00 18	39.0	5.4-10.9			-12.9	14	9037	07 00 40
07 03 40	---	23 03 18	39.1	5.6-10.8			-13.5	180	9060	07 00 41
07 04 20	J0954+7435	23 03 59	38.1	5.7-10.9			-12.9	24	9060	07 04 20
07 05 20	=0950+748	23 04 59	38.2	5.8-10.9			-13.1	60	9068	07 04 21
07 05 50	RBS797	23 05 29	40.0	5.8-10.7			-15.0	9	9068	07 05 50
07 09 50	---	23 09 29	40.1	6.1-10.7			-15.7	240	9099	07 05 51
07 10 20	J0954+7435	23 10 00	38.2	6.2-10.8			-14.0	9	9099	07 10 20
07 11 20	=0950+748	23 11 00	38.2	6.3-10.8			-14.2	60	9107	07 10 21
07 11 50	RBS797	23 11 30	40.1	6.3-10.6			-16.1	9	9107	07 11 50
07 15 50	---	23 15 30	40.2	6.6-10.6			-16.9	240	9137	07 11 51
07 16 20	J0954+7435	23 16 01	38.3	6.7-10.7			-15.2	9	9137	07 16 20
07 17 20	=0950+748	23 17 01	38.4	6.8-10.7			-15.4	60	9145	07 16 21
07 17 50	RBS797	23 17 31	40.2	6.7-10.5			-17.3	9	9145	07 17 50
07 21 50	---	23 21 31	40.3	7.0-10.5			-18.1	240	9176	07 17 51
07 22 20	J0954+7435	23 22 02	38.4	7.2-10.6			-16.3	9	9176	07 22 20
07 23 20	=0950+748	23 23 02	38.5	7.2-10.6			-16.5	60	9184	07 22 21
07 23 50	J094729+7643	23 23 32	40.6	7.0-10.4			-18.5	8	9184	07 23 50
07 26 50	---	23 26 32	40.7	7.2-10.4			-19.1	180	9207	07 23 51
07 27 30	J0954+7435	23 27 12	38.5	7.6-10.5			-17.3	18	9207	07 27 30
07 28 30	=0950+748	23 28 13	38.6	7.7-10.5			-17.5	60	9215	07 27 31



Schedule for TORUM (Code Tr )

Page 23

e-EVN run: EG069D, EG063D, RSL03, RSG05

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
07 29 00	J093501+7545	23 28 43	40.1	8.7-10.1			-21.7	11	9215	07 29 00
07 32 00	---	23 31 43	40.2	9.0-10.1			-22.3	180	9238	07 29 01
07 32 40	J0954+7435	23 32 23	38.6	8.0-10.4			-18.3	21	9238	07 32 40
07 33 40	=0950+748	23 33 23	38.7	8.1-10.4			-18.5	60	9246	07 32 41
07 34 10	J094045+7648	23 33 53	41.1	8.2-10.1			-21.9	7	9246	07 34 10
07 37 10	---	23 36 54	41.1	8.4-10.1			-22.5	180	9269	07 34 11
07 37 50	J0954+7435	23 37 34	38.8	8.4-10.3			-19.3	17	9269	07 37 50
07 38 50	=0950+748	23 38 34	38.8	8.5-10.3			-19.5	60	9277	07 37 51
07 39 20	J095143+7529	23 39 04	39.7	8.4-10.2			-20.4	14	9277	07 39 20
07 42 20	---	23 42 05	39.8	8.6-10.2			-21.0	180	9300	07 39 21
07 43 00	J0954+7435	23 42 45	38.9	8.8-10.2			-20.3	24	9300	07 43 00
07 44 00	=0950+748	23 43 45	38.9	8.9-10.2			-20.5	60	9308	07 43 01
07 44 30	RBS797	23 44 15	40.7	8.7-10.1			-22.5	9	9308	07 44 30
07 48 30	---	23 48 16	40.8	9.0-10.0			-23.3	240	9339	07 44 31
07 49 00	J0954+7435	23 48 46	39.0	9.3-10.1			-21.4	9	9339	07 49 00
07 50 00	=0950+748	23 49 46	39.0	9.4-10.1			-21.6	60	9347	07 49 01
07 50 30	RBS797	23 50 16	40.9	9.1-10.0			-23.7	9	9347	07 50 30
07 54 30	---	23 54 17	41.0	9.4 -9.9			-24.5	240	9377	07 50 31
07 55 00	J0954+7435	23 54 47	39.2	9.8-10.0			-22.6	9	9377	07 55 00
08 00 00	=0950+748	23 59 48	39.3	10.2 -9.9			-23.5	300	9416	07 55 01

## SETUP FILE INFORMATION:

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

=====  
 Setup file: sess213.C1024

Matching groups in /aps3/opt/share/sched\_10.2/catalogs/freq.dat:  
 tr6cm                   E-mail Borkowski 23Apr03 (CR 1May03)

Setup group:    3                   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=	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=	4942.49	4942.49	4942.49	4942.49	4974.49	4974.49	4974.49	4974.49
	5006.49	5006.49	5006.49	5006.49	5038.49	5038.49	5038.49	5038.49
BBC fr=	742.49	742.49	742.49	742.49	774.49	774.49	774.49	774.49
	806.49	806.49	806.49	806.49	838.49	838.49	838.49	838.49
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:  7

The following pulse cal sets were used with this setup:

Pulse cal detection set:  1   PCAL = 1MHZ

PCALXB1=	S1	S3	S5	S7	S9	S11	S13	S15
PCALXB2=	S2	S4	S6	S8	S10	S12	S14	S16
PCALFR1=	490	510	490	510	490	510	490	510
PCALFR2=	490	510	490	510	490	510	490	510

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: EG069D, EG063D, RSL03, RSG05

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)		
* BGCM1	07 28 44.393791 10 02 47.00949	* 07 31 29.010000 * 09 56 23.10000	07 32 13.167049 09 54 28.43621	0.00 0.00
* J0728+0940	07 25 31.670403 09 46 21.55972	* 07 28 16.045300 * 09 40 10.66800	07 29 00.122942 09 38 19.39025	0.00 0.00
* AMHER	18 14 58.431105 49 50 56.91227	* 18 16 13.192800 * 49 52 05.11200	18 16 34.781695 49 52 15.36276	0.00 0.00
* J1809+5007	18 08 01.170607 50 06 50.37595	* 18 09 15.070500 * 50 07 28.18700	18 09 36.466074 50 07 30.46230	0.00 0.00
* J2040-0105	20 37 41.322049 -01 16 38.51433	* 20 40 16.173000 *-01 05 57.75000	20 40 58.234697 -01 03 03.37472	0.00 0.00
* J2040+0016	20 37 33.396636 00 06 06.06842	* 20 40 07.011000 * 00 16 46.35000	20 40 48.746420 00 19 40.11993	0.00 0.00
* J2037-0113	20 34 49.128217 -01 23 41.44905	* 20 37 24.098000 *-01 13 10.38000	20 38 06.207569 -01 10 18.52879	0.00 0.00
* J2043+0040	20 40 41.767129 00 29 46.96884	* 20 43 15.032000 * 00 40 37.74000	20 43 56.657323 00 43 34.14700	0.00 0.00
* J2037+0010	20 34 39.770977 00 00 28.17069	* 20 37 13.470000 * 00 10 58.67000	20 37 55.244174 00 13 49.88443	0.00 0.00
* J094729+7643	09 42 16.598429 76 57 48.12832	* 09 47 29.260000 * 76 43 55.40000	09 48 52.555505 76 40 20.80734	0.00 0.00
* J093501+7545	09 29 48.875612 75 58 47.73548	* 09 35 01.880000 * 75 45 26.50000	09 36 25.199157 75 42 00.03649	0.00 0.00
* J094045+7648	09 35 25.043950 77 02 09.15828	* 09 40 45.660000 * 76 48 33.30000	09 42 10.953456 76 45 03.11943	0.00 0.00
* J095143+7529	09 46 49.496076 75 43 55.95447	* 09 51 43.850000 * 75 29 52.70000	09 53 02.477768 75 26 15.21988	0.00 0.00
* RBS797	09 42 04.064047 76 37 05.87934	* 09 47 12.760000 * 76 23 13.74000	09 48 35.039324 76 19 39.26737	0.00 0.00
J0136+4751	01 33 55.103060	* 01 36 58.594805	01 37 47.186279	0.15
* 0133+476	47 36 12.85363	* 47 51 29.10002	47 55 25.48819	0.10
J0237+2848	02 34 55.589591	* 02 37 52.405678	02 38 39.192554	0.11
* 0234+285	28 35 11.40773	* 28 48 08.98998	28 51 28.72868	0.10
J0530+1331	05 28 06.759218	* 05 30 56.416749	05 31 41.456936	0.10
* 0528+134	13 29 42.28877	* 13 31 55.14944	13 32 19.90754	0.10

* J0726+0636	07 23 55.351353	* 07 26 36.364102	07 27 19.536527	0.42
0723+067	06 42 47.10265	* 06 36 42.85176	06 34 52.38821	0.80
* J0750+1231	07 48 05.060493	* 07 50 52.045731	07 51 36.924803	0.10
0748+126	12 38 45.47744	* 12 31 04.82812	12 28 50.57344	0.10
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.286491	0.11
* 0J287	20 17 58.41733	* 20 06 30.64078	20 03 18.88923	0.10
* J0954+7435	09 50 04.561123	* 09 54 47.442227	09 56 03.137566	4.94
0950+748	74 50 07.76577	* 74 35 57.14561	74 32 17.62020	0.94
* M87	12 28 17.569280	* 12 30 49.423382	12 31 31.596906	0.10
3C274	12 40 01.74884	* 12 23 28.04366	12 18 55.92926	0.10
* J1310+3220	13 08 07.560132	* 13 10 28.663851	13 11 08.033555	0.12
1308+326	32 36 40.23870	* 32 20 43.78277	32 16 25.98140	0.10
J1407+2827	14 04 45.615156	* 14 07 00.394414	14 07 38.197708	0.24
* 0Q208	28 41 29.23519	* 28 27 14.69022	28 23 23.43798	0.34
J1642+3948	16 41 17.606228	* 16 42 58.809965	16 43 27.658798	0.77
* 3C345	39 54 10.81496	* 39 48 36.99402	39 47 03.07828	0.52
* J1800+3848	17 58 44.703952	* 18 00 24.765361	18 00 53.055761	0.13
1758+388	38 48 32.47341	* 38 48 30.69739	38 48 24.08694	0.10
* J1818+5017	18 17 16.882413	* 18 18 30.519237	18 18 51.803137	0.37
1817+502	50 16 01.52436	* 50 17 19.74367	50 17 32.56412	0.35
* J2047-0236	20 44 34.222160	* 20 47 10.366577	20 47 52.730356	1.14
2044-027	-02 47 25.79546	*-02 36 22.14654	-02 33 21.19615	2.36
* J2212+2355	22 09 45.687916	* 22 12 05.966311	22 12 43.741130	0.11
2209+236	23 40 49.85179	* 23 55 40.54373	23 59 32.88216	0.10
J2253+1608	22 51 29.519738	* 22 53 57.747937	22 54 37.430449	0.68
* 3C454.3	15 52 54.34810	* 16 08 53.56093	16 13 05.62675	0.72

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)				
BGCM1	71.0	J093501+7545	78.3	J0954+7435	79.8
J0728+0940	70.3	J094045+7648	78.3	M87	137.6
AMHER	99.2	J095143+7529	79.3	J1310+3220	127.5
J1809+5007	99.9	RBS797	78.8	0Q208	135.3
J2040-0105	90.2	0133+476	34.8	3C345	117.6
J2040+0016	89.9	0234+285	13.2	J1800+3848	108.2
J2037-0113	90.9	0528+134	41.4	J1818+5017	98.6
J2043+0040	89.0	J0726+0636	70.6	J2047-0236	88.9
J2037+0010	90.6	J0750+1231	75.1	J2212+2355	63.0
J094729+7643	78.7	0J287	88.1	3C454.3	54.1

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:

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

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUM (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 4 May 2013 Day 124 ---

----- 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 0906+015    04 04 24   9.2 100.2 -5.1   -36.2    0    0 12 00 00
12 09 30 ---          04 13 55  10.6 102.1 -4.9   -36.0   570   18 12 00 01

12 10 00 0906+015    04 14 25  10.7 102.3 -4.9   -35.9   24   18 12 10 00
12 19 30 ---          04 23 57  12.1 104.2 -4.8   -35.6   570   36 12 10 01

12 20 00 0906+015    04 24 27  12.1 104.3 -4.8   -35.6   24   36 12 20 00
12 29 30 ---          04 33 59  13.5 106.3 -4.6   -35.2   570   55 12 20 01

12 30 00 0906+015    04 34 29  13.6 106.4 -4.6   -35.2   24   55 12 30 00
12 40 00 ---          04 44 30  15.0 108.5 -4.4   -34.7   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:    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)
J0909+0121	09 06 35.181593	* 09 09 10.091599	09 09 52.145691	0.11
* 0906+015	01 33 48.12922	* 01 21 35.61774	01 18 05.83778	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	95.1

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: L-band, dual-pol

Notes: L-band, Radioastron-compatible frequency setup

Schedule for TORUM (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 4 May 2013 Day 124 ---

----- 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 1036+054    06 04 43 16.8 104.2 -4.6   -35.8    0    0  14 00 00
14 09 30 ---          06 14 15 18.2 106.3 -4.4   -35.4   570   18  14 00 01

14 10 00 1036+054    06 14 45 18.2 106.4 -4.4   -35.3    24   18  14 10 00
14 19 30 ---          06 24 17 19.6 108.4 -4.3   -34.9   570   36  14 10 01

14 20 00 1036+054    06 24 47 19.7 108.5 -4.2   -34.9    24   36  14 20 00
14 29 30 ---          06 34 18 21.0 110.6 -4.1   -34.4   570   55  14 20 01

14 30 00 1036+054    06 34 48 21.1 110.7 -4.1   -34.3    24   55  14 30 00
14 40 00 ---          06 44 50 22.5 113.0 -3.9   -33.7   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: 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)		(Date)	Error (mas)
	(B1950)	(J2000)		
J1038+0512	10 36 10.827228	* 10 38 46.779881	10 39 29.580042	0.12
* 1036+054	05 28 06.89952	* 05 12 29.08645	05 08 07.43858	0.17

## 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)
1036+054	115.2



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 TORUM (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 4 May 2013 Day 124 ---

----- 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						
15 20 00	0834-201	07 24 57	14.9	162.5	-1.2		-11.1	0	0	15 20 00
15 29 30	---	07 34 28	15.3	164.7	-1.0		-9.7	570	18	15 20 01
15 30 00	0834-201	07 34 58	15.3	164.9	-1.0		-9.6	24	18	15 30 00
15 39 30	---	07 44 30	15.7	167.2	-0.9		-8.2	570	36	15 30 01
15 40 00	0834-201	07 45 00	15.7	167.3	-0.9		-8.1	24	36	15 40 00
15 49 30	---	07 54 31	16.0	169.6	-0.7		-6.7	570	55	15 40 01
15 50 00	0834-201	07 55 01	16.0	169.7	-0.7		-6.6	24	55	15 50 00
16 00 00	---	08 05 03	16.2	172.1	-0.5		-5.0	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: 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:   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)		(Date)	Error (mas)
	(B1950)	(J2000)		
J0836-2016	08 34 24.601685	* 08 36 39.215245	08 37 15.692613	0.11
* 0834-201	-20 06 30.40854	*-20 16 59.50423	-20 20 08.57403	0.11

## EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.  
SCHD 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    93.2
```

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 TORUM (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 7 May 2013 Day 127 ---

----- 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	1642+690	09 17 03	41.9	26.8	-7.4	-48.7	0	0	17 00 00	
17 09 30	---	09 26 34	42.5	27.5	-7.3	-50.5	570	18	17 00 01	
17 10 00	1642+690	09 27 04	42.6	27.6	-7.3	-50.5	24	18	17 10 00	
17 19 30	---	09 36 36	43.3	28.3	-7.1	-52.3	570	36	17 10 01	
17 20 00	1642+690	09 37 06	43.3	28.3	-7.1	-52.4	24	36	17 20 00	
17 29 30	---	09 46 37	44.0	29.0	-6.9	-54.1	570	55	17 20 01	
17 30 00	1642+690	09 47 08	44.0	29.1	-6.9	-54.2	24	55	17 30 00	
17 40 00	---	09 57 09	44.7	29.8	-6.7	-56.0	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: 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:   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= 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)	Source position (RA/Dec) (J2000)	(Date)	Error (mas)
J1642+6856	16 42 18.064877	* 16 42 07.848507	16 42 08.209213	0.28
* 1642+690	69 02 13.21709	* 68 56 39.75637	68 55 06.26520	0.10

## EFFECT OF SOLAR CORONA

The solar corona can cause unstable phases for sources too close to the Sun.  
SCHD 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)
1642+690    92.1
```



## 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: 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

## POSITIONS OF SOURCES USED IN RECORDING SCANS

Source	Source position (RA/Dec)			Error (mas)
	(B1950)	(J2000)	(Date)	
J0958+3224	09 55 25.405780	* 09 58 20.949637	09 59 08.520223	0.12
* 0955+326	32 38 23.03241	* 32 24 02.20946	32 20 09.86592	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+326	91.2

re03svtr

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 TORUM (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 11 May 2013 Day 131 ---

----- 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						
16 00 00	0919-260	08 32 39	9.8	168.8	-0.8		-7.5	0	0	16 00 00
16 09 30	---	08 42 11	10.1	170.9	-0.7		-6.1	570	18	16 00 01
16 10 00	0919-260	08 42 41	10.1	171.0	-0.7		-6.0	24	18	16 10 00
16 19 30	---	08 52 12	10.3	173.2	-0.5		-4.6	570	36	16 10 01
16 20 00	0919-260	08 52 42	10.3	173.3	-0.5		-4.5	24	36	16 20 00
16 29 30	---	09 02 14	10.4	175.5	-0.3		-3.0	570	55	16 20 01
16 30 00	0919-260	09 02 44	10.4	175.6	-0.3		-3.0	24	55	16 30 00
16 39 30	---	09 12 15	10.5	177.8	-0.2		-1.5	570	73	16 30 01
16 40 00	0919-260	09 12 46	10.5	177.9	-0.2		-1.4	24	73	16 40 00
16 49 30	---	09 22 17	10.5	180.0	0.0		0.0	570	91	16 40 01
16 50 00	0919-260	09 22 47	10.5	180.2	0.0		0.1	24	91	16 50 00
17 00 00	---	09 32 49	10.5	182.4	0.2		1.6	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: 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:  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)			Error (mas)
	(B1950)	(J2000)	(Date)	
J0921-2618	09 19 16.702133	* 09 21 29.353855	09 22 05.517072	0.55
* 0919-260	-26 05 54.56401	*-26 18 43.38618	-26 22 30.78871	0.92

## 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)
0919-260    99.5
```



re03sxt

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 TORUM (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 12 May 2013 Day 132 ---

----- 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	0919-260	07 56 29	8.4	160.7	-1.4		-12.8	0	0	15 20 00
15 29 30	---	08 06 01	8.8	162.8	-1.3		-11.4	570	18	15 20 01
15 30 00	0919-260	08 06 31	8.8	162.9	-1.3		-11.3	24	18	15 30 00
15 39 30	---	08 16 02	9.2	165.0	-1.1		-10.0	570	36	15 30 01
15 40 00	0919-260	08 16 32	9.3	165.2	-1.1		-9.9	24	36	15 40 00
15 49 30	---	08 26 04	9.6	167.3	-0.9		-8.5	570	55	15 40 01
15 50 00	0919-260	08 26 34	9.6	167.4	-0.9		-8.4	24	55	15 50 00
16 00 00	---	08 36 36	9.9	169.7	-0.8		-6.9	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

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)			Error (mas)
	(B1950)	(J2000)	(Date)	
J0921-2618	09 19 16.702133	* 09 21 29.353855	09 22 05.504172	0.55
* 0919-260	-26 05 54.56401	*-26 18 43.38618	-26 22 30.77789	0.92
J0921-26	/home/kirx/sched/catalogs/sources.vlba			
	GSFC 2011B astro solution 11000 Observations			

## 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)
0919-260	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

Notes: K-band, Radioastron-compatible frequency setup

Schedule for TORUM (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 15 May 2013 Day 135 ---

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

Table with columns: Start UT, Stop UT, Source, LST, EL, AZ, HA, UP, ParA, Early Dwell, Disk GBytes, TPStart SYNC. It lists scan frequencies, BBC frequencies, and bandwidths, followed by a detailed log of scan times and parameters.

Schedule for TORUN (Code Tr )

Page 3

RadioAstron AGN fringe survey

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 15 May 2013  Day 135 ---

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

20 50 00 1957+405    13 39 13 28.8 59.4 -6.3    -43.0  24    201  20 50 00
20 59 30 ---          13 48 44 30.0 60.9 -6.2    -43.8  570   219  20 50 01

21 00 00 1957+405    13 49 14 30.1 60.9 -6.2    -43.9  24    219  21 00 00
21 09 30 ---          13 58 46 31.3 62.4 -6.0    -44.7  570   237  21 00 01

21 10 00 1957+405    13 59 16 31.4 62.5 -6.0    -44.7  24    237  21 10 00
21 19 30 ---          14 08 48 32.7 64.0 -5.9    -45.5  570   255  21 10 01

21 20 00 1957+405    14 09 18 32.7 64.1 -5.8    -45.5  24    255  21 20 00
21 29 30 ---          14 18 49 34.0 65.6 -5.7    -46.2  570   274  21 20 01

21 30 00 1957+405    14 19 19 34.1 65.7 -5.7    -46.3  24    274  21 30 00
21 39 30 ---          14 28 51 35.4 67.2 -5.5    -47.0  570   292  21 30 01

21 40 00 1957+405    14 29 21 35.5 67.3 -5.5    -47.0  24    292  21 40 00
21 49 30 ---          14 38 53 36.8 68.8 -5.4    -47.7  570   310  21 40 01

21 50 00 1957+405    14 39 23 36.9 68.9 -5.3    -47.7  24    310  21 50 00
22 00 00 ---          14 49 24 38.3 70.5 -5.2    -48.4  600   329  21 50 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:  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)
* 1957+405	19 57 44.453094	* 19 59 28.368821	19 59 57.592041	167.68
CYG-A	40 35 46.31273	* 40 44 02.04732	40 46 08.66401	120.15

#### 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)
1957+405	93.7

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
22.0 GHz	9. deg
43.0 GHz	6. deg

**re03sztr**

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 TORUM        (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 20 May 2013    Day 140 ---

----- 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	1023+131	07 07 48	33.8	116.5	-3.3		-33.4	0	0	14 00 00	
14 09 30	---	07 17 20	35.1	118.9	-3.2		-32.6	570	18	14 00 01	
14 10 00	1023+131	07 17 50	35.1	119.0	-3.1		-32.6	24	18	14 10 00	
14 19 30	---	07 27 21	36.4	121.4	-3.0		-31.7	570	36	14 10 01	
14 20 00	1023+131	07 27 52	36.4	121.5	-3.0		-31.7	24	36	14 20 00	
14 29 30	---	07 37 23	37.6	124.0	-2.8		-30.7	570	55	14 20 01	
14 30 00	1023+131	07 37 53	37.7	124.2	-2.8		-30.6	24	55	14 30 00	
14 39 30	---	07 47 25	38.8	126.7	-2.7		-29.6	570	73	14 30 01	
14 40 00	1023+131	07 47 55	38.9	126.9	-2.6		-29.5	24	73	14 40 00	
14 49 30	---	07 57 26	40.0	129.5	-2.5		-28.4	570	91	14 40 01	
14 50 00	1023+131	07 57 56	40.1	129.6	-2.5		-28.3	24	91	14 50 00	
15 00 00	---	08 07 58	41.2	132.5	-2.3		-27.0	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: 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: 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)		(Date)	Error (mas)
	(B1950)	(J2000)		
J1025+1253	10 23 16.285230	* 10 25 56.285371	10 26 39.828093	0.11
* 1023+131	13 09 05.49473	* 12 53 49.02185	12 49 36.47003	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)
1023+131	93.9

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 TORUM (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 21 May 2013 Day 141 ---

----- 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 20 00	1036+054	06 31 38	20.7	110.0	-4.1		-34.5	0	0	13 20 00
13 29 30	---	06 41 10	22.0	112.1	-4.0		-33.9	570	18	13 20 01
13 30 00	1036+054	06 41 40	22.1	112.3	-4.0		-33.9	24	18	13 30 00
13 39 30	---	06 51 11	23.4	114.4	-3.8		-33.3	570	36	13 30 01
13 40 00	1036+054	06 51 42	23.4	114.5	-3.8		-33.3	24	36	13 40 00
13 49 30	---	07 01 13	24.7	116.7	-3.6		-32.6	570	55	13 40 01
13 50 00	1036+054	07 01 43	24.8	116.8	-3.6		-32.6	24	55	13 50 00
14 00 00	---	07 11 45	26.1	119.1	-3.5		-31.8	600	74	13 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)		(Date)	Error (mas)
	(B1950)	(J2000)		
J1038+0512	10 36 10.827228	* 10 38 46.779881	10 39 29.348858	0.12
* 1036+054	05 28 06.89952	* 05 12 29.08645	05 08 08.57227	0.17

## 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)
1036+054	98.8

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  
 e-EVN ToO run: GRB130427A

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 3 May 2013 Day 123 ---										
Next scan frequencies: 4942.49 4942.49 4942.49 4942.49 4974.49 4974.49 4974.49 4974.49										
5006.49 5006.49 5006.49 5006.49 5038.49 5038.49 5038.49 5038.49										
Next BBC frequencies: 742.49 742.49 742.49 742.49 774.49 774.49 774.49 774.49										
806.49 806.49 806.49 806.49 838.49 838.49 838.49 838.49										
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										
15 00 00	OJ287	07 00 57	50.3	135.2	-1.9	-26.8	0	0	15 00 00	
15 15 00	---	07 15 59	51.8	140.2	-1.7	-24.1	900	116	15 00 01	
15 15 40	OJ287	07 16 39	51.9	140.5	-1.6	-24.0	34	116	15 15 40	
15 30 00	---	07 31 02	53.2	145.6	-1.4	-21.2	860	227	15 15 41	
15 33 00	J1125+2610	07 34 02	39.5	98.6	-3.9	-41.4	70	227	15 33 00	
15 45 00	=1123+264	07 46 04	41.3	101.2	-3.7	-41.0	720	320	15 33 01	
15 46 00	J1134+2901	07 47 04	42.3	97.0	-3.8	-42.9	36	320	15 46 00	
15 51 00	=1131+292	07 52 05	43.1	98.1	-3.7	-42.8	300	359	15 46 01	
15 51 00	GRB130427A	07 52 05	42.4	99.7	-3.7	-41.9	-16	359	No stop	
15 54 30	---	07 55 36	42.9	100.5	-3.6	-41.8	194	386	15 51 01	
15 54 30	J1134+2901	07 55 36	43.6	98.9	-3.7	-42.7	-16	386	No stop	
15 56 00	=1131+292	07 57 06	43.8	99.3	-3.6	-42.6	74	397	15 54 31	
15 56 00	GRB130427A	07 57 06	43.1	100.9	-3.6	-41.7	-16	397	No stop	
15 59 30	---	08 00 36	43.6	101.7	-3.5	-41.6	194	424	15 56 01	
16 00 10	J1134+2901	08 01 17	44.4	100.2	-3.6	-42.5	24	424	16 00 10	
16 01 10	=1131+292	08 02 17	44.6	100.4	-3.5	-42.4	60	432	16 00 11	
16 01 10	GRB130427A	08 02 17	43.9	102.0	-3.5	-41.5	-17	432	No stop	
16 04 40	---	08 05 47	44.4	102.9	-3.5	-41.4	193	459	16 01 11	
16 04 40	J1134+2901	08 05 47	45.1	101.2	-3.5	-42.3	-16	459	No stop	
16 06 10	=1131+292	08 07 18	45.3	101.6	-3.5	-42.2	74	471	16 04 41	
16 06 10	GRB130427A	08 07 18	44.6	103.2	-3.4	-41.3	-17	471	No stop	
16 09 40	---	08 10 48	45.1	104.0	-3.4	-41.1	193	498	16 06 11	

Schedule for TORUN (Code Tr )

Page 3

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
16 10 20	J1134+2901	08 11 28	45.9	102.5	-3.4		-42.1	24	498	16 10 20
16 11 20	=1131+292	08 12 28	46.1	102.8	-3.4		-42.0	60	506	16 10 21
16 11 20	J1125+2610	08 12 28	45.1	107.4	-3.2		-39.6	-24	506	No stop
16 12 50	=1123+264	08 13 59	45.4	107.8	-3.2		-39.5	66	517	16 11 21
16 12 50	J1138+2524	08 13 59	43.0	105.5	-3.4		-39.8	-22	517	No stop
16 14 20	=1135+256	08 15 29	43.2	105.9	-3.4		-39.7	68	529	16 12 51
16 14 20	J1134+2901	08 15 29	46.5	103.5	-3.3		-41.9	-26	529	No stop
16 15 50	=1131+292	08 16 59	46.7	103.8	-3.3		-41.8	64	541	16 14 21
16 15 50	GRB130427A	08 16 59	46.0	105.5	-3.3		-40.8	-17	541	No stop
16 19 20	---	08 20 30	46.5	106.4	-3.2		-40.6	193	568	16 15 51
16 19 20	J1134+2901	08 20 30	47.3	104.7	-3.2		-41.6	-16	568	No stop
16 20 50	=1131+292	08 22 00	47.5	105.0	-3.2		-41.5	74	579	16 19 21
16 20 50	GRB130427A	08 22 00	46.7	106.7	-3.2		-40.5	-17	579	No stop
16 24 20	---	08 25 31	47.2	107.6	-3.1		-40.2	193	606	16 20 51
16 25 00	J1134+2901	08 26 11	48.1	106.1	-3.1		-41.3	23	606	16 25 00
16 26 00	=1131+292	08 27 11	48.2	106.3	-3.1		-41.2	60	614	16 25 01
16 26 00	GRB130427A	08 27 11	47.5	108.0	-3.1		-40.1	-17	614	No stop
16 29 30	---	08 30 41	48.0	108.9	-3.0		-39.9	193	641	16 26 01
16 29 30	J1134+2901	08 30 41	48.7	107.2	-3.1		-41.0	-17	641	No stop
16 31 00	=1131+292	08 32 12	48.9	107.6	-3.0		-40.9	73	653	16 29 31
16 31 00	GRB130427A	08 32 12	48.2	109.3	-3.0		-39.8	-17	653	No stop
16 34 30	---	08 35 42	48.7	110.2	-3.0		-39.5	193	680	16 31 01
16 35 10	J1134+2901	08 36 22	49.5	108.6	-3.0		-40.6	23	680	16 35 10
16 36 10	=1131+292	08 37 22	49.7	108.9	-3.0		-40.5	60	688	16 35 11
16 36 10	GRB130427A	08 37 22	48.9	110.6	-2.9		-39.4	-17	688	No stop
16 39 40	---	08 40 53	49.4	111.5	-2.9		-39.1	193	715	16 36 11
16 39 40	J1134+2901	08 40 53	50.2	109.8	-2.9		-40.2	-17	715	No stop
16 41 10	=1131+292	08 42 23	50.4	110.2	-2.9		-40.1	73	726	16 39 41
16 41 10	GRB130427A	08 42 23	49.6	111.9	-2.8		-39.0	-17	726	No stop
16 44 40	---	08 45 54	50.1	112.9	-2.8		-38.6	193	754	16 41 11
16 45 20	J1134+2901	08 46 34	51.0	111.3	-2.8		-39.7	23	754	16 45 20
16 46 20	=1131+292	08 47 34	51.1	111.6	-2.8		-39.7	60	761	16 45 21
16 46 20	GRB130427A	08 47 34	50.3	113.3	-2.8		-38.5	-17	761	No stop
16 49 50	---	08 51 05	50.8	114.3	-2.7		-38.2	193	788	16 46 21
16 49 50	J1134+2901	08 51 05	51.6	112.5	-2.7		-39.3	-17	788	No stop
16 51 20	=1131+292	08 52 35	51.8	112.9	-2.7		-39.2	73	800	16 49 51

Schedule for TORUN (Code Tr )

Page 4

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
16 51 20	GRB130427A	08 52 35	51.0	114.7	-2.7		-38.0	-17	800	No stop
16 54 50	---	08 56 06	51.5	115.7	-2.6		-37.6	193	827	16 51 21
16 55 30	J1134+2901	08 56 46	52.4	114.1	-2.6		-38.8	23	827	16 55 30
16 56 30	=1131+292	08 57 46	52.5	114.4	-2.6		-38.7	60	835	16 55 31
16 56 30	J1125+2610	08 57 46	51.4	119.5	-2.5		-35.6	-26	835	No stop
16 58 00	=1123+264	08 59 16	51.6	120.0	-2.5		-35.4	64	846	16 56 31
16 58 00	J1138+2524	08 59 16	49.3	117.2	-2.7		-36.2	-22	846	No stop
16 59 30	=1135+256	09 00 46	49.5	117.6	-2.6		-36.1	68	858	16 58 01
16 59 30	J1134+2901	09 00 46	52.9	115.2	-2.6		-38.4	-27	858	No stop
17 01 00	=1131+292	09 02 17	53.1	115.6	-2.5		-38.2	63	870	16 59 31
17 01 00	J113314	09 02 17	52.4	117.1	-2.5		-37.2	-16	870	No stop
17 04 30	---	09 05 47	52.8	118.1	-2.5		-36.8	194	897	17 01 01
17 04 30	J1134+2901	09 05 47	53.6	116.6	-2.5		-37.8	-16	897	No stop
17 06 00	=1131+292	09 07 17	53.8	117.1	-2.5		-37.7	74	908	17 04 31
17 06 00	J113333	09 07 17	52.8	118.7	-2.4		-36.4	-17	908	No stop
17 09 30	---	09 10 48	53.2	119.8	-2.4		-36.0	193	935	17 06 01
17 10 10	J1134+2901	09 11 28	54.4	118.3	-2.4		-37.2	23	935	17 10 10
17 11 10	=1131+292	09 12 28	54.5	118.6	-2.4		-37.0	60	943	17 10 11
17 11 10	J113314	09 12 28	53.7	120.1	-2.4		-36.0	-16	943	No stop
17 14 40	---	09 15 59	54.2	121.2	-2.3		-35.5	194	970	17 11 11
17 14 40	J1134+2901	09 15 59	55.0	119.7	-2.3		-36.6	-16	970	No stop
17 16 10	=1131+292	09 17 29	55.2	120.1	-2.3		-36.4	74	982	17 14 41
17 16 10	J113333	09 17 29	54.1	121.8	-2.3		-35.1	-17	982	No stop
17 19 40	---	09 21 00	54.5	122.9	-2.2		-34.6	193	1009	17 16 11
17 19 40	J1134+2901	09 21 00	55.6	121.2	-2.2		-35.9	-17	1009	No stop
17 21 10	=1131+292	09 22 30	55.8	121.7	-2.2		-35.7	73	1021	17 19 41
17 21 10	J113314	09 22 30	55.0	123.2	-2.2		-34.6	-16	1021	No stop
17 24 40	---	09 26 00	55.4	124.3	-2.1		-34.1	194	1048	17 21 11
17 25 20	J1134+2901	09 26 41	56.3	123.0	-2.1		-35.1	24	1048	17 25 20
17 26 20	=1131+292	09 27 41	56.5	123.4	-2.1		-35.0	60	1055	17 25 21
17 26 20	J113333	09 27 41	55.4	125.0	-2.1		-33.7	-17	1055	No stop
17 29 50	---	09 31 11	55.8	126.2	-2.1		-33.1	193	1083	17 26 21
17 29 50	J1134+2901	09 31 11	56.9	124.5	-2.1		-34.4	-17	1083	No stop
17 31 20	=1131+292	09 32 42	57.1	125.0	-2.0		-34.2	73	1094	17 29 51
17 33 20	3C286	09 34 42	42.0	93.7	-4.0		-44.0	42	1094	17 33 20
17 43 20	---	09 44 44	43.5	95.8	-3.8		-43.9	600	1172	17 33 21

Schedule for TORUN (Code Tr )

Page 5

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
17 45 20	J1134+2901	09 46 44	58.8	129.9	-1.8		-31.8	37	1172	17 45 20
17 50 20	=1131+292	09 51 45	59.3	131.7	-1.7		-30.8	300	1210	17 45 21
17 50 20	GRB130427A	09 51 45	58.4	133.6	-1.7		-29.4	-18	1210	No stop
17 53 50	---	09 55 15	58.7	134.9	-1.6		-28.7	192	1237	17 50 21
17 53 50	J1134+2901	09 55 15	59.7	133.0	-1.7		-30.1	-17	1237	No stop
17 55 20	=1131+292	09 56 45	59.9	133.6	-1.6		-29.8	73	1249	17 53 51
17 55 20	GRB130427A	09 56 45	58.9	135.5	-1.6		-28.4	-18	1249	No stop
17 58 50	---	10 00 16	59.3	136.8	-1.6		-27.6	192	1276	17 55 21
17 59 30	J1134+2901	10 00 56	60.3	135.2	-1.6		-28.9	23	1276	17 59 30
18 00 30	=1131+292	10 01 56	60.4	135.6	-1.6		-28.7	60	1284	17 59 31
18 00 30	J1134+2901	10 01 56	60.4	135.6	-1.6		-28.7	-5	1284	No stop
18 03 30	=1131+292	10 04 57	60.7	136.7	-1.5		-28.1	175	1307	18 00 31
18 03 30	GRB130427A	10 04 57	59.7	138.6	-1.5		-26.6	-18	1307	No stop
18 07 00	---	10 08 27	60.1	140.0	-1.4		-25.8	192	1334	18 03 31
18 07 00	J1134+2901	10 08 27	61.1	138.1	-1.4		-27.3	-17	1334	No stop
18 08 30	=1131+292	10 09 58	61.3	138.7	-1.4		-26.9	73	1346	18 07 01
18 08 30	GRB130427A	10 09 58	60.2	140.6	-1.4		-25.5	-18	1346	No stop
18 12 00	---	10 13 28	60.6	142.0	-1.3		-24.6	192	1373	18 08 31
18 12 40	J1134+2901	10 14 08	61.7	140.5	-1.3		-25.9	23	1373	18 12 40
18 13 40	=1131+292	10 15 09	61.8	140.9	-1.3		-25.7	60	1381	18 12 41
18 13 40	GRB130427A	10 15 09	60.7	142.7	-1.3		-24.2	-17	1381	No stop
18 17 10	---	10 18 39	61.0	144.2	-1.2		-23.4	193	1408	18 13 41
18 17 10	J1134+2901	10 18 39	62.1	142.3	-1.3		-24.8	-17	1408	No stop
18 18 40	=1131+292	10 20 09	62.2	143.0	-1.2		-24.4	73	1419	18 17 11
18 18 40	GRB130427A	10 20 09	61.2	144.8	-1.2		-23.0	-17	1419	No stop
18 22 10	---	10 23 40	61.5	146.3	-1.2		-22.1	193	1446	18 18 41
18 22 50	J1134+2901	10 24 20	62.6	144.8	-1.2		-23.3	23	1446	18 22 50
18 23 50	=1131+292	10 25 20	62.7	145.2	-1.2		-23.0	60	1454	18 22 51
18 23 50	J1125+2610	10 25 20	60.7	151.0	-1.0		-18.9	-27	1454	No stop
18 25 20	=1123+264	10 26 50	60.8	151.7	-1.0		-18.5	63	1466	18 23 51
18 25 20	J1138+2524	10 26 50	59.1	147.1	-1.2		-21.2	-24	1466	No stop
18 26 50	=1135+256	10 28 21	59.3	147.7	-1.2		-20.8	66	1477	18 25 21
18 26 50	J1134+2901	10 28 21	62.9	146.6	-1.1		-22.2	-28	1477	No stop
18 28 20	=1131+292	10 29 51	63.1	147.2	-1.1		-21.8	62	1489	18 26 51
18 28 20	GRB130427A	10 29 51	62.0	149.0	-1.1		-20.4	-17	1489	No stop
18 31 50	---	10 33 21	62.2	150.6	-1.0		-19.4	193	1516	18 28 21

Schedule for TORUN (Code Tr )

Page 6

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
18 31 50	J1134+2901	10 33 21	63.3	148.8	-1.0		-20.8	-17	1516	No stop
18 33 20	=1131+292	10 34 52	63.4	149.5	-1.0		-20.4	73	1528	18 31 51
18 33 20	GRB130427A	10 34 52	62.3	151.3	-1.0		-19.0	-17	1528	No stop
18 36 50	---	10 38 22	62.6	152.8	-0.9		-18.0	193	1555	18 33 21
18 37 30	J1134+2901	10 39 02	63.8	151.4	-0.9		-19.2	23	1555	18 37 30
18 38 30	=1131+292	10 40 03	63.8	151.9	-0.9		-18.9	60	1562	18 37 31
18 38 30	GRB130427A	10 40 03	62.7	153.6	-0.9		-17.5	-17	1562	No stop
18 42 00	---	10 43 33	62.9	155.2	-0.8		-16.5	193	1590	18 38 31
18 42 00	J1134+2901	10 43 33	64.1	153.6	-0.9		-17.8	-17	1590	No stop
18 43 30	=1131+292	10 45 03	64.2	154.3	-0.8		-17.3	73	1601	18 42 01
18 43 30	GRB130427A	10 45 03	63.0	155.9	-0.8		-16.0	-17	1601	No stop
18 47 00	---	10 48 34	63.2	157.6	-0.7		-15.0	193	1628	18 43 31
18 47 40	J1134+2901	10 49 14	64.4	156.3	-0.8		-16.0	22	1628	18 47 40
18 48 40	=1131+292	10 50 14	64.5	156.8	-0.7		-15.7	60	1636	18 47 41
18 48 40	J1125+2610	10 50 14	62.2	162.3	-0.6		-11.7	-26	1636	No stop
18 50 10	=1123+264	10 51 45	62.2	163.0	-0.6		-11.3	64	1648	18 48 41
18 50 10	J1138+2524	10 51 45	60.9	157.8	-0.8		-14.6	-25	1648	No stop
18 51 40	=1135+256	10 53 15	61.0	158.5	-0.8		-14.1	65	1659	18 50 11
18 51 40	J1134+2901	10 53 15	64.7	158.3	-0.7		-14.7	-28	1659	No stop
18 53 10	=1131+292	10 54 45	64.7	159.0	-0.7		-14.2	62	1671	18 51 41
18 54 10	1156+295	10 55 45	63.3	147.3	-1.1		-21.8	21	1671	18 54 10
19 00 10	---	11 01 46	63.8	150.1	-1.0		-20.1	360	1717	18 54 11
19 01 10	J1134+2901	11 02 46	65.1	163.1	-0.5		-11.5	19	1717	19 01 10
19 04 10	=1131+292	11 05 47	65.3	164.6	-0.5		-10.5	180	1741	19 01 11
19 04 10	GRB130427A	11 05 47	64.0	166.0	-0.5		-9.4	-18	1741	No stop
19 07 40	---	11 09 17	64.1	167.7	-0.4		-8.3	192	1768	19 04 11
19 07 40	J1134+2901	11 09 17	65.4	166.4	-0.4		-9.3	-18	1768	No stop
19 09 10	=1131+292	11 10 48	65.4	167.2	-0.4		-8.7	72	1779	19 07 41
19 09 10	GRB130427A	11 10 48	64.2	168.5	-0.4		-7.8	-18	1779	No stop
19 12 40	---	11 14 18	64.3	170.3	-0.3		-6.6	192	1806	19 09 11
19 13 20	J1134+2901	11 14 58	65.6	169.4	-0.3		-7.3	22	1806	19 13 20
19 14 20	=1131+292	11 15 58	65.6	169.9	-0.3		-6.9	60	1814	19 13 21
19 14 20	GRB130427A	11 15 58	64.3	171.1	-0.3		-6.0	-18	1814	No stop
19 17 50	---	11 19 29	64.4	172.9	-0.2		-4.8	192	1841	19 14 21

Schedule for TORUN (Code Tr )

Page 8

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
19 17 50	J1134+2901	11 19 29	65.7	171.8	-0.3		-5.6	-18	1841	No stop
19 19 20	=1131+292	11 20 59	65.7	172.5	-0.2		-5.1	72	1853	19 17 51
19 19 20	GRB130427A	11 20 59	64.4	173.7	-0.2		-4.3	-18	1853	No stop
19 22 50	---	11 24 30	64.5	175.5	-0.1		-3.1	192	1880	19 19 21
19 23 30	J1134+2901	11 25 10	65.8	174.8	-0.2		-3.6	22	1880	19 23 30
19 24 30	=1131+292	11 26 10	65.8	175.3	-0.1		-3.2	60	1888	19 23 31
19 24 30	J1125+2610	11 26 10	63.0	179.8	-0.0		-0.2	-24	1888	No stop
19 26 00	=1123+264	11 27 40	63.0	180.5	0.0		0.3	66	1899	19 24 31
19 26 00	J1138+2524	11 27 40	62.2	174.6	-0.2		-3.6	-26	1899	No stop
19 27 30	=1135+256	11 29 11	62.2	175.4	-0.2		-3.1	64	1911	19 26 01
19 27 30	J1134+2901	11 29 11	65.8	176.9	-0.1		-2.1	-28	1911	No stop
19 29 00	=1131+292	11 30 41	65.8	177.7	-0.1		-1.6	62	1922	19 27 31
19 29 00	GRB130427A	11 30 41	64.5	178.7	-0.0		-0.9	-18	1922	No stop
19 32 30	---	11 34 11	64.5	180.5	0.0		0.3	192	1950	19 29 01
19 32 30	J1134+2901	11 34 11	65.9	179.6	-0.0		-0.3	-18	1950	No stop
19 34 00	=1131+292	11 35 42	65.9	180.4	0.0		0.3	72	1961	19 32 31
19 34 00	GRB130427A	11 35 42	64.5	181.2	0.0		0.8	-18	1961	No stop
19 37 30	---	11 39 12	64.5	183.1	0.1		2.1	192	1988	19 34 01
19 38 10	J1134+2901	11 39 52	65.8	182.6	0.1		1.8	22	1988	19 38 10
19 39 10	=1131+292	11 40 53	65.8	183.2	0.1		2.2	60	1996	19 38 11
19 39 10	GRB130427A	11 40 53	64.5	183.9	0.1		2.7	-18	1996	No stop
19 42 40	---	11 44 23	64.4	185.7	0.2		3.9	192	2023	19 39 11
19 42 40	J1134+2901	11 44 23	65.8	185.0	0.2		3.4	-18	2023	No stop
19 44 10	=1131+292	11 45 53	65.8	185.8	0.2		4.0	72	2035	19 42 41
19 44 10	GRB130427A	11 45 53	64.4	186.5	0.2		4.4	-18	2035	No stop
19 47 40	---	11 49 24	64.4	188.3	0.3		5.6	192	2062	19 44 11
19 48 20	J1134+2901	11 50 04	65.7	188.0	0.3		5.5	22	2062	19 48 20
19 49 20	=1131+292	11 51 04	65.7	188.6	0.3		5.9	60	2070	19 48 21
19 49 20	J1125+2610	11 51 04	62.6	192.0	0.4		8.0	-25	2070	No stop
19 50 50	=1123+264	11 52 34	62.6	192.7	0.4		8.5	65	2081	19 49 21
19 50 50	J1138+2524	11 52 34	62.1	186.7	0.2		4.4	-27	2081	No stop
19 52 20	=1135+256	11 54 05	62.1	187.4	0.3		4.9	63	2093	19 50 51
19 52 20	J1134+2901	11 54 05	65.6	190.2	0.3		7.0	-27	2093	No stop
19 53 50	=1131+292	11 55 35	65.6	191.0	0.3		7.5	63	2104	19 52 21

Schedule for TORUN (Code Tr )

Page 9

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
19 53 50	J113314	11 55 35	64.4	191.1	0.4		7.5	-17	2104	No stop
19 57 20	---	11 59 06	64.3	192.9	0.4		8.7	193	2131	19 53 51
19 57 20	J1134+2901	11 59 06	65.4	192.8	0.4		8.7	-17	2131	No stop
19 58 50	=1131+292	12 00 36	65.4	193.6	0.4		9.3	73	2143	19 57 21
19 58 50	J113333	12 00 36	64.0	193.4	0.4		9.0	-19	2143	No stop
20 02 20	---	12 04 06	63.8	195.1	0.5		10.2	191	2170	19 58 51
20 03 00	J1134+2901	12 04 46	65.2	195.7	0.5		10.7	21	2170	20 03 00
20 04 00	=1131+292	12 05 47	65.2	196.2	0.5		11.1	60	2178	20 03 01
20 04 00	J113314	12 05 47	64.0	196.2	0.5		10.9	-18	2178	No stop
20 07 30	---	12 09 17	63.9	198.0	0.6		12.1	192	2205	20 04 01
20 07 30	J1134+2901	12 09 17	65.0	198.0	0.6		12.3	-17	2205	No stop
20 09 00	=1131+292	12 10 47	65.0	198.8	0.6		12.8	73	2217	20 07 31
20 09 00	J113333	12 10 47	63.5	198.4	0.6		12.3	-19	2217	No stop
20 12 30	---	12 14 18	63.4	200.1	0.7		13.5	191	2244	20 09 01
20 12 30	J1134+2901	12 14 18	64.8	200.5	0.7		13.9	-19	2244	No stop
20 14 00	=1131+292	12 15 48	64.7	201.3	0.7		14.4	71	2255	20 12 31
20 14 00	J113314	12 15 48	63.5	201.1	0.7		14.2	-18	2255	No stop
20 17 30	---	12 19 19	63.4	202.8	0.8		15.3	192	2282	20 14 01
20 18 10	J1134+2901	12 19 59	64.5	203.3	0.8		15.8	23	2282	20 18 10
20 19 10	=1131+292	12 20 59	64.4	203.8	0.8		16.1	60	2290	20 18 11
20 19 10	J113333	12 20 59	63.0	203.3	0.8		15.5	-19	2290	No stop
20 22 40	---	12 24 30	62.8	204.9	0.8		16.6	191	2317	20 19 11
20 22 40	J1134+2901	12 24 30	64.2	205.5	0.8		17.2	-19	2317	No stop
20 24 10	=1131+292	12 26 00	64.1	206.3	0.9		17.7	71	2329	20 22 41
20 24 10	GRB130427A	12 26 00	62.7	206.2	0.9		17.4	-19	2329	No stop
20 27 40	---	12 29 31	62.5	207.8	0.9		18.4	191	2356	20 24 11
20 27 40	J1134+2901	12 29 31	63.9	207.9	0.9		18.7	-18	2356	No stop
20 29 10	=1131+292	12 31 01	63.7	208.6	0.9		19.2	72	2368	20 27 41
20 29 10	GRB130427A	12 31 01	62.4	208.4	1.0		18.8	-19	2368	No stop
20 32 40	---	12 34 31	62.1	210.0	1.0		19.8	191	2395	20 29 11
20 33 20	J1134+2901	12 35 11	63.4	210.6	1.0		20.4	22	2395	20 33 20
20 34 20	=1131+292	12 36 12	63.4	211.0	1.0		20.7	60	2402	20 33 21
20 34 20	GRB130427A	12 36 12	62.0	210.8	1.0		20.3	-19	2402	No stop
20 37 50	---	12 39 42	61.7	212.3	1.1		21.2	191	2430	20 34 21



Schedule for TORUN (Code Tr )

Page 10

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
20 37 50	J1134+2901	12 39 42	63.1	212.6	1.1		21.7	-18	2430	No stop
20 39 20	=1131+292	12 41 12	63.0	213.3	1.1		22.1	72	2441	20 37 51
20 39 20	GRB130427A	12 41 12	61.6	213.0	1.1		21.6	-19	2441	No stop
20 42 50	---	12 44 43	61.3	214.5	1.2		22.6	191	2468	20 39 21
20 43 30	J1134+2901	12 45 23	62.6	215.1	1.2		23.3	22	2468	20 43 30
20 44 30	=1131+292	12 46 23	62.5	215.6	1.2		23.5	60	2476	20 43 31
20 44 30	J1125+2610	12 46 23	59.2	216.7	1.3		23.6	-27	2476	No stop
20 46 00	=1123+264	12 47 54	59.0	217.3	1.4		23.9	63	2488	20 44 31
20 46 00	J1138+2524	12 47 54	59.4	211.8	1.2		20.5	-26	2488	No stop
20 47 30	=1135+256	12 49 24	59.2	212.4	1.2		20.9	64	2499	20 46 01
20 47 30	J1134+2901	12 49 24	62.3	216.9	1.2		24.3	-25	2499	No stop
20 49 00	=1131+292	12 50 54	62.1	217.5	1.3		24.7	65	2511	20 47 31
20 49 00	GRB130427A	12 50 54	60.8	217.1	1.3		24.1	-19	2511	No stop
20 52 30	---	12 54 25	60.4	218.5	1.4		25.0	191	2538	20 49 01
20 52 30	J1134+2901	12 54 25	61.8	219.0	1.3		25.6	-18	2538	No stop
20 54 00	=1131+292	12 55 55	61.6	219.6	1.3		25.9	72	2550	20 52 31
20 54 00	GRB130427A	12 55 55	60.3	219.1	1.4		25.3	-19	2550	No stop
20 57 30	---	12 59 25	60.0	220.5	1.4		26.1	191	2577	20 54 01
20 58 10	J1134+2901	13 00 06	61.2	221.3	1.4		26.9	22	2577	20 58 10
20 59 10	=1131+292	13 01 06	61.1	221.7	1.4		27.2	60	2584	20 58 11
20 59 10	GRB130427A	13 01 06	59.8	221.2	1.5		26.5	-19	2584	No stop
21 02 40	---	13 04 36	59.4	222.6	1.5		27.3	191	2611	20 59 11
21 02 40	J1134+2901	13 04 36	60.8	223.1	1.5		28.0	-18	2611	No stop
21 04 10	=1131+292	13 06 07	60.6	223.7	1.5		28.3	72	2623	21 02 41
21 04 10	GRB130427A	13 06 07	59.3	223.1	1.5		27.6	-18	2623	No stop
21 07 40	---	13 09 37	58.9	224.5	1.6		28.3	192	2650	21 04 11
21 08 20	J1134+2901	13 10 17	60.2	225.3	1.6		29.2	22	2650	21 08 20
21 09 20	=1131+292	13 11 17	60.1	225.7	1.6		29.4	60	2658	21 08 21
21 09 20	J1125+2610	13 11 17	56.7	226.2	1.7		28.8	-27	2658	No stop
21 10 50	=1123+264	13 12 48	56.5	226.7	1.8		29.1	63	2670	21 09 21
21 10 50	J1138+2524	13 12 48	57.1	221.6	1.6		26.2	-25	2670	No stop
21 12 20	=1135+256	13 14 18	57.0	222.2	1.6		26.5	65	2681	21 10 51
21 12 20	J1134+2901	13 14 18	59.8	226.9	1.7		30.0	-25	2681	No stop
21 13 50	=1131+292	13 15 48	59.6	227.4	1.7		30.4	65	2693	21 12 21

Schedule for TORUN (Code Tr )

Page 11

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---

----- Effelsberg pointing -----

21 15 50	3C286	13 17 48	67.2	172.2	-0.2	-5.4	-5	2693	21 15 50
21 30 50	---	13 32 51	67.3	180.6	0.0	0.4	895	2809	21 15 51
21 33 50	J1134+2901	13 35 51	57.3	234.5	2.0	34.0	58	2809	21 33 50
21 36 50	=1131+292	13 38 52	56.9	235.5	2.1	34.4	180	2832	21 33 51
21 36 50	GRB130427A	13 38 52	55.6	234.7	2.1	33.6	-18	2832	No stop
21 40 20	---	13 42 22	55.1	235.9	2.2	34.1	192	2859	21 36 51
21 40 20	J1134+2901	13 42 22	56.4	236.7	2.1	35.0	-18	2859	No stop
21 41 50	=1131+292	13 43 53	56.3	237.2	2.1	35.2	72	2871	21 40 21
21 41 50	GRB130427A	13 43 53	55.0	236.4	2.2	34.3	-18	2871	No stop
21 45 20	---	13 47 23	54.5	237.5	2.2	34.8	192	2898	21 41 51
21 46 00	J1134+2901	13 48 03	55.7	238.5	2.2	35.8	22	2898	21 46 00
21 47 00	=1131+292	13 49 04	55.6	238.8	2.2	35.9	60	2906	21 46 01
21 47 00	GRB130427A	13 49 04	54.3	238.0	2.3	35.1	-18	2906	No stop
21 50 30	---	13 52 34	53.9	239.1	2.3	35.5	192	2933	21 47 01
21 50 30	J1134+2901	13 52 34	55.1	239.9	2.3	36.4	-18	2933	No stop
21 52 00	=1131+292	13 54 04	54.9	240.4	2.3	36.6	72	2944	21 50 31
21 52 00	GRB130427A	13 54 04	53.7	239.5	2.3	35.7	-18	2944	No stop
21 55 30	---	13 57 35	53.2	240.6	2.4	36.2	192	2971	21 52 01
21 56 10	J1134+2901	13 58 15	54.4	241.6	2.4	37.1	22	2971	21 56 10
21 57 10	=1131+292	13 59 15	54.3	241.9	2.4	37.3	60	2979	21 56 11
21 57 10	J1125+2610	13 59 15	50.9	241.6	2.5	36.0	-27	2979	No stop
21 58 40	=1123+264	14 00 45	50.7	242.0	2.6	36.2	63	2991	21 57 11
21 58 40	J1138+2524	14 00 45	51.6	237.7	2.4	34.2	-23	2991	No stop
22 00 10	=1135+256	14 02 16	51.4	238.2	2.4	34.4	67	3002	21 58 41
22 00 10	J1134+2901	14 02 16	53.9	242.8	2.5	37.6	-24	3002	No stop
22 01 40	=1131+292	14 03 46	53.7	243.2	2.5	37.8	66	3014	22 00 11
22 01 40	GRB130427A	14 03 46	52.4	242.4	2.5	36.9	-18	3014	No stop
22 05 10	---	14 07 17	51.9	243.4	2.6	37.3	192	3041	22 01 41

Schedule for TORUN (Code Tr )

Page 12

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
22 05 10	J1134+2901	14 07 17	53.2	244.3	2.5		38.2	-18	3041	No stop
22 06 40	=1131+292	14 08 47	53.0	244.7	2.6		38.3	72	3053	22 05 11
22 06 40	GRB130427A	14 08 47	51.7	243.8	2.6		37.5	-18	3053	No stop
22 10 10	---	14 12 17	51.2	244.8	2.7		37.8	192	3080	22 06 41
22 10 50	J1134+2901	14 12 57	52.4	245.9	2.6		38.8	22	3080	22 10 50
22 11 50	=1131+292	14 13 58	52.3	246.2	2.6		38.9	60	3088	22 10 51
22 11 50	GRB130427A	14 13 58	51.0	245.3	2.7		38.0	-18	3088	No stop
22 15 20	---	14 17 28	50.5	246.3	2.7		38.3	192	3115	22 11 51
22 15 20	J1134+2901	14 17 28	51.8	247.1	2.7		39.2	-18	3115	No stop
22 16 50	=1131+292	14 18 58	51.6	247.5	2.7		39.4	72	3126	22 15 21
22 16 50	GRB130427A	14 18 58	50.3	246.7	2.8		38.5	-18	3126	No stop
22 20 20	---	14 22 29	49.8	247.6	2.8		38.8	192	3153	22 16 51
22 21 00	J1134+2901	14 23 09	51.0	248.7	2.8		39.7	22	3153	22 21 00
22 22 00	=1131+292	14 24 09	50.9	248.9	2.8		39.8	60	3161	22 21 01
22 22 00	J1125+2610	14 24 09	47.5	248.4	3.0		38.4	-27	3161	No stop
22 23 30	=1123+264	14 25 40	47.3	248.8	3.0		38.6	63	3173	22 22 01
22 23 30	J1138+2524	14 25 40	48.3	244.8	2.8		37.0	-23	3173	No stop
22 25 00	=1135+256	14 27 10	48.1	245.3	2.8		37.1	67	3184	22 23 31
22 25 00	J1134+2901	14 27 10	50.4	249.7	2.9		40.1	-24	3184	No stop
22 26 30	=1131+292	14 28 40	50.2	250.1	2.9		40.2	66	3196	22 25 01
22 26 30	J113314	14 28 40	49.2	249.2	2.9		39.4	-17	3196	No stop
22 30 00	---	14 32 11	48.7	250.2	3.0		39.7	193	3223	22 26 31
22 30 00	J1134+2901	14 32 11	49.7	251.0	3.0		40.5	-16	3223	No stop
22 31 30	=1131+292	14 33 41	49.5	251.4	3.0		40.6	74	3235	22 30 01
22 31 30	J113333	14 33 41	48.3	250.2	3.0		39.6	-18	3235	No stop
22 35 00	---	14 37 11	47.8	251.1	3.0		39.8	192	3262	22 31 31
22 35 40	J1134+2901	14 37 52	48.9	252.5	3.0		40.9	23	3262	22 35 40
22 36 40	=1131+292	14 38 52	48.8	252.7	3.1		40.9	60	3269	22 35 41
22 36 40	J113314	14 38 52	47.8	251.9	3.1		40.2	-17	3269	No stop
22 40 10	---	14 42 22	47.3	252.7	3.1		40.4	193	3297	22 36 41

Schedule for TORUN (Code Tr )

Page 13

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
22 40 10	J1134+2901	14 42 22	48.3	253.6	3.1		41.2	-16	3297	No stop
22 41 40	=1131+292	14 43 53	48.1	254.0	3.1		41.3	74	3308	22 40 11
22 41 40	J113333	14 43 53	46.9	252.8	3.2		40.3	-18	3308	No stop
22 45 10	---	14 47 23	46.4	253.6	3.2		40.5	192	3335	22 41 41
22 45 10	J1134+2901	14 47 23	47.6	254.8	3.2		41.5	-17	3335	No stop
22 46 40	=1131+292	14 48 53	47.3	255.2	3.2		41.6	73	3347	22 45 11
22 46 40	J113314	14 48 53	46.3	254.3	3.2		40.8	-17	3347	No stop
22 50 10	---	14 52 24	45.8	255.2	3.3		41.0	193	3374	22 46 41
22 50 50	J1134+2901	14 53 04	46.7	256.2	3.3		41.8	24	3374	22 50 50
22 51 50	=1131+292	14 54 04	46.6	256.4	3.3		41.8	60	3382	22 50 51
22 51 50	J113333	14 54 04	45.4	255.2	3.3		40.9	-18	3382	No stop
22 55 20	---	14 57 35	44.9	256.1	3.4		41.1	192	3409	22 51 51
22 55 20	J1134+2901	14 57 35	46.1	257.3	3.4		42.0	-17	3409	No stop
22 56 50	=1131+292	14 59 05	45.8	257.6	3.4		42.1	73	3420	22 55 21
22 57 50	1156+295	15 00 05	49.5	251.9	3.0		40.8	32	3420	22 57 50
23 03 50	---	15 06 06	48.7	253.4	3.1		41.2	360	3467	22 57 51
23 04 50	J1134+2901	15 07 06	44.7	259.5	3.5		42.4	31	3467	23 04 50
23 07 50	=1131+292	15 10 07	44.2	260.1	3.6		42.5	180	3490	23 04 51
23 07 50	GRB130427A	15 10 07	43.0	259.3	3.6		41.8	-18	3490	No stop
23 11 20	---	15 13 37	42.5	260.1	3.7		41.9	192	3517	23 07 51
23 11 20	J1134+2901	15 13 37	43.7	260.9	3.6		42.7	-18	3517	No stop
23 12 50	=1131+292	15 15 08	43.5	261.3	3.7		42.7	72	3529	23 11 21
23 12 50	GRB130427A	15 15 08	42.3	260.4	3.7		41.9	-18	3529	No stop
23 16 20	---	15 18 38	41.7	261.2	3.8		42.0	192	3556	23 12 51
23 17 00	J1134+2901	15 19 18	42.9	262.2	3.7		42.8	22	3556	23 17 00
23 18 00	=1131+292	15 20 18	42.7	262.4	3.8		42.9	60	3564	23 17 01
23 18 00	GRB130427A	15 20 18	41.5	261.6	3.8		42.1	-18	3564	No stop
23 21 30	---	15 23 49	41.0	262.3	3.8		42.2	192	3591	23 18 01
23 21 30	J1134+2901	15 23 49	42.2	263.2	3.8		42.9	-18	3591	No stop
23 23 00	=1131+292	15 25 19	42.0	263.5	3.8		43.0	72	3602	23 21 31

Schedule for TORUN (Code Tr )

Page 14

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 3 May 2013 Day 123 ---										
23 23 00	GRB130427A	15 25 19	40.7	262.7	3.9		42.2	-18	3602	No stop
23 26 30	---	15 28 50	40.2	263.4	3.9		42.3	192	3629	23 23 01
23 27 10	J1134+2901	15 29 30	41.3	264.4	3.9		43.1	22	3629	23 27 10
23 28 10	=1131+292	15 30 30	41.2	264.6	3.9		43.1	60	3637	23 27 11
23 28 10	J1125+2610	15 30 30	37.8	263.9	4.1		41.7	-27	3637	No stop
23 29 40	=1123+264	15 32 00	37.6	264.2	4.1		41.7	63	3649	23 28 11
23 29 40	J1138+2524	15 32 00	38.8	260.9	3.9		41.0	-21	3649	No stop
23 31 10	=1135+256	15 33 31	38.6	261.3	3.9		41.0	69	3660	23 29 41
23 31 10	J1134+2901	15 33 31	40.7	265.2	4.0		43.1	-23	3660	No stop
23 32 40	=1131+292	15 35 01	40.5	265.5	4.0		43.2	67	3672	23 31 11
23 32 40	GRB130427A	15 35 01	39.3	264.7	4.0		42.4	-18	3672	No stop
23 36 10	---	15 38 31	38.8	265.5	4.1		42.5	192	3699	23 32 41
23 36 10	J1134+2901	15 38 31	40.0	266.3	4.1		43.2	-18	3699	No stop
23 37 40	=1131+292	15 40 02	39.8	266.6	4.1		43.2	72	3711	23 36 11
23 37 40	GRB130427A	15 40 02	38.5	265.8	4.1		42.5	-18	3711	No stop
23 41 10	---	15 43 32	38.0	266.5	4.2		42.6	192	3738	23 37 41
23 41 50	J1134+2901	15 44 12	39.1	267.5	4.2		43.3	22	3738	23 41 50
23 42 50	=1131+292	15 45 13	39.0	267.7	4.2		43.3	60	3746	23 41 51
23 42 50	GRB130427A	15 45 13	37.8	266.9	4.2		42.6	-18	3746	No stop
23 46 20	---	15 48 43	37.2	267.6	4.3		42.6	192	3773	23 42 51
23 46 20	J1134+2901	15 48 43	38.5	268.4	4.2		43.3	-18	3773	No stop
23 47 50	=1131+292	15 50 13	38.2	268.7	4.3		43.3	72	3784	23 46 21
23 47 50	GRB130427A	15 50 13	37.0	267.9	4.3		42.6	-18	3784	No stop
23 51 20	---	15 53 44	36.5	268.6	4.3		42.7	192	3811	23 47 51
23 52 00	J1134+2901	15 54 24	37.6	269.5	4.3		43.3	22	3811	23 52 00
23 53 00	=1131+292	15 55 24	37.5	269.7	4.3		43.3	60	3819	23 52 01
23 53 00	J1125+2610	15 55 24	34.1	269.0	4.5		42.0	-27	3819	No stop
23 58 00	=1123+264	16 00 25	33.4	270.0	4.6		42.0	273	3858	23 53 01

Schedule for TORUN (Code Tr )

Page 15

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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
--- Start: Fri 3 May 2013 Day 123 -- Stop: Sat 4 May 2013 Day 124 ---										
23 59 30	J1134+2901	16 01 55	36.5	271.0	4.4		43.3	64	3858	23 59 30
00 00 30	=1131+292	16 02 55	36.3	271.2	4.5		43.3	60	3866	23 59 31
00 00 30	GRB130427A	16 02 55	35.1	270.4	4.5		42.7	-18	3866	No stop
00 04 00	---	16 06 26	34.6	271.1	4.6		42.7	192	3893	00 00 31
00 04 00	J1134+2901	16 06 26	35.8	271.9	4.5		43.3	-18	3893	No stop
00 05 30	=1131+292	16 07 56	35.6	272.2	4.5		43.3	72	3904	00 04 01
00 05 30	GRB130427A	16 07 56	34.4	271.4	4.6		42.7	-18	3904	No stop
00 09 00	---	16 11 27	33.8	272.1	4.6		42.6	192	3931	00 05 31
00 09 40	J1134+2901	16 12 07	35.0	273.0	4.6		43.3	22	3931	00 09 40
00 10 40	=1131+292	16 13 07	34.8	273.2	4.6		43.2	60	3939	00 09 41
00 10 40	GRB130427A	16 13 07	33.6	272.5	4.7		42.6	-18	3939	No stop
00 14 10	---	16 16 38	33.1	273.1	4.7		42.6	192	3966	00 10 41
00 14 10	J1134+2901	16 16 38	34.3	273.9	4.7		43.2	-18	3966	No stop
00 15 40	=1131+292	16 18 08	34.0	274.2	4.7		43.2	72	3978	00 14 11
00 15 40	GRB130427A	16 18 08	32.8	273.4	4.7		42.6	-18	3978	No stop
00 19 10	---	16 21 39	32.3	274.1	4.8		42.5	192	4005	00 15 41
00 19 50	J1134+2901	16 22 19	33.4	275.0	4.8		43.1	22	4005	00 19 50
00 20 50	=1131+292	16 23 19	33.3	275.2	4.8		43.1	60	4013	00 19 51
00 20 50	J1125+2610	16 23 19	29.9	274.5	4.9		41.8	-27	4013	No stop
00 22 20	=1123+264	16 24 49	29.7	274.8	5.0		41.8	63	4024	00 20 51
00 22 20	J1138+2524	16 24 49	30.9	271.9	4.8		41.6	-20	4024	No stop
00 23 50	=1135+256	16 26 19	30.7	272.2	4.8		41.6	70	4036	00 22 21
00 23 50	J1134+2901	16 26 19	32.8	275.7	4.9		43.1	-22	4036	No stop
00 25 20	=1131+292	16 27 50	32.6	276.0	4.9		43.0	68	4047	00 23 51
00 25 20	GRB130427A	16 27 50	31.4	275.3	4.9		42.4	-18	4047	No stop
00 28 50	---	16 31 20	30.9	276.0	5.0		42.4	192	4075	00 25 21
00 28 50	J1134+2901	16 31 20	32.1	276.7	4.9		43.0	-18	4075	No stop
00 30 20	=1131+292	16 32 50	31.9	277.0	5.0		42.9	72	4086	00 28 51
00 30 20	GRB130427A	16 32 50	30.6	276.3	5.0		42.4	-18	4086	No stop
00 33 50	---	16 36 21	30.1	276.9	5.1		42.3	192	4113	00 30 21

Schedule for TORUN (Code Tr )

Page 16

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 4 May 2013 Day 124 ---										
00 34 30	J1134+2901	16 37 01	31.2	277.8	5.0		42.8	22	4113	00 34 30
00 35 30	=1131+292	16 38 01	31.1	278.0	5.1		42.8	60	4121	00 34 31
00 35 30	GRB130427A	16 38 01	29.9	277.2	5.1		42.2	-18	4121	No stop
00 39 00	---	16 41 32	29.3	277.9	5.1		42.2	192	4148	00 35 31
00 39 00	J1134+2901	16 41 32	30.6	278.6	5.1		42.7	-18	4148	No stop
00 40 30	=1131+292	16 43 02	30.3	278.9	5.1		42.7	72	4160	00 39 01
00 40 30	GRB130427A	16 43 02	29.1	278.2	5.2		42.1	-18	4160	No stop
00 44 00	---	16 46 33	28.6	278.8	5.2		42.0	192	4187	00 40 31
00 44 40	J1134+2901	16 47 13	29.7	279.7	5.2		42.6	22	4187	00 44 40
00 45 40	=1131+292	16 48 13	29.6	279.9	5.2		42.5	60	4195	00 44 41
00 45 40	J1125+2610	16 48 13	26.2	279.3	5.4		41.3	-27	4195	No stop
00 47 10	=1123+264	16 49 43	26.0	279.5	5.4		41.3	63	4206	00 45 41
00 47 10	J1138+2524	16 49 43	27.2	276.7	5.2		41.3	-20	4206	No stop
00 48 40	=1135+256	16 51 13	27.0	277.0	5.2		41.3	70	4218	00 47 11
00 48 40	J1134+2901	16 51 13	29.1	280.4	5.3		42.4	-22	4218	No stop
00 50 10	=1131+292	16 52 44	28.9	280.7	5.3		42.4	68	4229	00 48 41
00 50 10	J113314	16 52 44	27.9	280.0	5.3		42.0	-17	4229	No stop
00 53 40	---	16 56 14	27.4	280.7	5.4		41.8	193	4256	00 50 11
00 53 40	J1134+2901	16 56 14	28.4	281.3	5.4		42.3	-16	4256	No stop
00 55 10	=1131+292	16 57 44	28.2	281.6	5.4		42.2	74	4268	00 53 41
00 55 10	J113333	16 57 44	27.0	280.7	5.4		41.7	-18	4268	No stop
00 58 40	---	17 01 15	26.5	281.3	5.4		41.6	192	4295	00 55 11
00 59 20	J1134+2901	17 01 55	27.6	282.4	5.4		42.1	23	4295	00 59 20
01 00 20	=1131+292	17 02 55	27.4	282.6	5.5		42.1	60	4303	00 59 21
01 00 20	J113314	17 02 55	26.4	281.9	5.5		41.6	-17	4303	No stop
01 03 50	---	17 06 26	25.9	282.5	5.5		41.5	193	4330	01 00 21
01 03 50	J1134+2901	17 06 26	26.9	283.2	5.5		41.9	-16	4330	No stop
01 05 20	=1131+292	17 07 56	26.7	283.5	5.5		41.9	74	4342	01 03 51
01 05 20	J113333	17 07 56	25.5	282.5	5.6		41.4	-18	4342	No stop
01 08 50	---	17 11 27	25.0	283.2	5.6		41.2	192	4369	01 05 21

Schedule for TORUN (Code Tr )

Page 17

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 4 May 2013 Day 124 ---										
01 08 50	J1134+2901	17 11 27	26.2	284.1	5.6		41.7	-17	4369	No stop
01 10 20	=1131+292	17 12 57	25.9	284.4	5.6		41.7	73	4380	01 08 51
01 10 20	J113314	17 12 57	24.9	283.7	5.6		41.3	-17	4380	No stop
01 13 50	---	17 16 28	24.4	284.4	5.7		41.1	193	4407	01 10 21
01 14 30	J1134+2901	17 17 08	25.3	285.2	5.7		41.5	24	4407	01 14 30
01 15 30	=1131+292	17 18 08	25.2	285.3	5.7		41.4	60	4415	01 14 31
01 15 30	J113333	17 18 08	24.0	284.4	5.7		41.0	-18	4415	No stop
01 19 00	---	17 21 38	23.5	285.1	5.8		40.8	192	4442	01 15 31
01 19 00	J1134+2901	17 21 38	24.7	286.0	5.8		41.3	-17	4442	No stop
01 20 30	=1131+292	17 23 09	24.5	286.2	5.8		41.2	73	4454	01 19 01
01 20 30	GRB130427A	17 23 09	23.2	285.6	5.8		40.8	-18	4454	No stop
01 24 00	---	17 26 39	22.7	286.2	5.9		40.6	192	4481	01 20 31
01 24 00	J1134+2901	17 26 39	24.0	286.9	5.9		41.0	-18	4481	No stop
01 25 30	=1131+292	17 28 09	23.7	287.1	5.9		41.0	72	4493	01 24 01
01 25 30	GRB130427A	17 28 09	22.5	286.5	5.9		40.5	-18	4493	No stop
01 29 00	---	17 31 40	22.0	287.2	6.0		40.4	192	4520	01 25 31
01 29 40	J1134+2901	17 32 20	23.1	287.9	6.0		40.8	22	4520	01 29 40
01 30 40	=1131+292	17 33 20	23.0	288.1	6.0		40.7	60	4527	01 29 41
01 30 40	GRB130427A	17 33 20	21.8	287.5	6.0		40.3	-18	4527	No stop
01 34 10	---	17 36 51	21.3	288.1	6.1		40.1	192	4555	01 30 41
01 34 10	J1134+2901	17 36 51	22.5	288.7	6.0		40.5	-18	4555	No stop
01 35 40	=1131+292	17 38 21	22.3	289.0	6.1		40.5	72	4566	01 34 11
01 35 40	GRB130427A	17 38 21	21.0	288.4	6.1		40.0	-18	4566	No stop
01 39 10	---	17 41 52	20.5	289.0	6.1		39.9	192	4593	01 35 41
01 39 50	J1134+2901	17 42 32	21.7	289.7	6.1		40.2	22	4593	01 39 50
01 40 50	=1131+292	17 43 32	21.6	289.9	6.1		40.2	60	4601	01 39 51
01 40 50	J1125+2610	17 43 32	18.2	289.5	6.3		39.1	-27	4601	No stop
01 42 20	=1123+264	17 45 02	18.0	289.8	6.3		39.0	63	4613	01 40 51
01 42 20	J1138+2524	17 45 02	19.1	287.0	6.1		39.4	-20	4613	No stop
01 43 50	=1135+256	17 46 32	18.9	287.3	6.1		39.4	70	4624	01 42 21
01 43 50	J1134+2901	17 46 32	21.1	290.5	6.2		40.0	-22	4624	No stop
01 45 20	=1131+292	17 48 03	20.9	290.7	6.2		39.9	68	4636	01 43 51



Schedule for TORUN (Code Tr )

Page 18

e-EVN ToO run: GRB130427A

UP: D =&gt; Below limits; H =&gt; Below horizon mask; W =&gt; still slewing at end; blank =&gt; 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 4 May 2013 Day 124 ---										
01 45 20	GRB130427A	17 48 03	19.7	290.1	6.2		39.5	-18	4636	No stop
01 48 50	---	17 51 33	19.2	290.8	6.3		39.3	192	4663	01 45 21
01 48 50	J1134+2901	17 51 33	20.4	291.4	6.3		39.7	-18	4663	No stop
01 50 20	=1131+292	17 53 04	20.2	291.6	6.3		39.6	72	4675	01 48 51
01 50 20	GRB130427A	17 53 04	19.0	291.0	6.3		39.2	-18	4675	No stop
01 53 50	---	17 56 34	18.5	291.7	6.4		39.0	192	4702	01 50 21
01 54 30	J1134+2901	17 57 14	19.6	292.4	6.4		39.4	22	4702	01 54 30
01 55 30	=1131+292	17 58 14	19.5	292.6	6.4		39.3	60	4709	01 54 31
01 55 30	GRB130427A	17 58 14	18.2	292.0	6.4		38.9	-18	4709	No stop
01 59 00	---	18 01 45	17.7	292.6	6.5		38.7	192	4736	01 55 31
01 59 00	J1134+2901	18 01 45	19.0	293.2	6.4		39.1	-18	4736	No stop
02 00 30	=1131+292	18 03 15	18.8	293.5	6.5		39.0	72	4748	01 59 01
02 00 30	GRB130427A	18 03 15	17.5	292.9	6.5		38.6	-18	4748	No stop
02 04 00	---	18 06 46	17.1	293.5	6.6		38.4	192	4775	02 00 31
02 04 40	J1134+2901	18 07 26	18.2	294.2	6.5		38.7	22	4775	02 04 40
02 05 40	=1131+292	18 08 26	18.1	294.4	6.6		38.7	60	4783	02 04 41
02 05 40	J1125+2610	18 08 26	14.7	294.1	6.7		37.6	-27	4783	No stop
02 07 10	=1123+264	18 09 56	14.5	294.3	6.7		37.5	63	4795	02 05 41
02 07 10	J1138+2524	18 09 56	15.6	291.6	6.5		38.1	-20	4795	No stop
02 08 40	=1135+256	18 11 27	15.4	291.9	6.5		38.1	70	4806	02 07 11
02 08 40	J1134+2901	18 11 27	17.7	294.9	6.6		38.5	-22	4806	No stop
02 10 10	=1131+292	18 12 57	17.5	295.2	6.6		38.4	68	4818	02 08 41
02 10 10	GRB130427A	18 12 57	16.2	294.6	6.7		38.0	-18	4818	No stop
02 13 40	---	18 16 27	15.7	295.3	6.7		37.8	192	4845	02 10 11
02 13 40	J1134+2901	18 16 27	17.0	295.8	6.7		38.1	-18	4845	No stop
02 15 10	=1131+292	18 17 58	16.8	296.1	6.7		38.0	72	4856	02 13 41
02 15 10	GRB130427A	18 17 58	15.5	295.6	6.7		37.7	-18	4856	No stop
02 18 40	---	18 21 28	15.1	296.2	6.8		37.5	192	4884	02 15 11
02 19 20	J1134+2901	18 22 08	16.2	296.9	6.8		37.8	22	4884	02 19 20
02 20 20	=1131+292	18 23 08	16.1	297.0	6.8		37.7	60	4891	02 19 21
02 22 20	1156+295	18 25 09	19.4	293.0	6.4		39.3	93	4891	02 22 20
02 27 20	---	18 30 10	18.8	293.9	6.5		39.0	300	4930	02 22 21

## SETUP FILE INFORMATION:

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

=====  
 Setup file: sess213.C1024

Matching groups in /aps3/opt/share/sched\_10.2/catalogs/freq.dat:  
 tr6cm E-mail Borkowski 23Apr03 (CR 1May03)

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=	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: 3 Setup file default. Used pcal sets: 1

LO sum=	4942.49	4942.49	4942.49	4942.49	4974.49	4974.49	4974.49	4974.49
	5006.49	5006.49	5006.49	5006.49	5038.49	5038.49	5038.49	5038.49
BBC fr=	742.49	742.49	742.49	742.49	774.49	774.49	774.49	774.49
	806.49	806.49	806.49	806.49	838.49	838.49	838.49	838.49
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: 3

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 ToO run: GRB130427A

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)		
* GRB130427A	11 29 54.645659 27 58 30.12738	* 11 32 32.820000 * 27 41 56.06000	11 33 16.354672 27 37 27.18620	0.00 0.00
* J113314	11 30 36.314940 28 09 14.27171	* 11 33 14.416000 * 27 52 39.83000	11 33 57.933704 27 48 10.91349	0.00 0.00
* J113333	11 30 55.375122 27 52 06.90135	* 11 33 33.376000 * 27 35 32.29000	11 34 16.869332 27 31 03.24989	0.00 0.00
J0854+2006	08 51 57.250618	* 08 54 48.874930	08 55 35.245268	0.11
* OJ287	20 17 58.41733	* 20 06 30.64078	20 03 19.06749	0.10
* J1125+2610 1123+264	11 23 14.869303 26 26 49.99097	* 11 25 53.711923 * 26 10 19.97857	11 26 37.399699 26 05 51.68152	0.11 0.10
* J1134+2901 1131+292	11 31 36.174936 29 17 56.16694	* 11 34 14.326447 * 29 01 21.20696	11 34 57.858655 28 56 52.48543	0.14 0.14
* J1138+2524 1135+256	11 35 25.393754 25 41 01.93517	* 11 38 02.387904 * 25 24 25.13208	11 38 45.640291 25 19 54.93277	0.19 0.19
J1159+2914	11 56 57.786211	* 11 59 31.833912	12 00 14.382397	0.11
* 1156+295	29 31 25.73868	* 29 14 43.82678	29 10 13.49309	0.10
J1331+3030	13 28 49.657778	* 13 31 08.288070	13 31 47.042996	0.20
* 3C286	30 45 58.64061	* 30 30 32.95925	30 26 23.50341	0.19

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)	Source	Sun distance (deg)
GRB130427A	115.6	J1134+2901	115.1
J113314	115.6	J1138+2524	117.9
J113333	115.8	1156+295	119.1
OJ287	86.2	3C286	129.9
J1125+2610	115.3		

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

# Contents

Visual Time Table of Experiments .....	1
Experiment Listing .....	2
EVN e-VLBI Session, 2/3 May 2013 .....	3
eg069dtr (e-VLBI, see above) .....	4
re03sqtr .....	29
re03srtr .....	31
re03sstr .....	33
re03sttr .....	35
re03sutr .....	37
re03svtr .....	39
re03sxtr .....	41
re03sytr .....	43
re03sztr .....	46
re03tctr .....	48
rp019tr (EVN e-VLBI ToO, 3/4 May 2013) .....	50