

Green Bank Proposal Handling Tool



- 1 Atacama Large Millimeter/submillimeter Array
- ▣ Karl G. Jansky Very Large Array
- ▣ Robert C. Byrd Green Bank Telescope
- ▣ Very Long Baseline Array



GB PHT

- Does all the “local telescope” work between proposal submission (PST) and the “NRAO” PHT (TAC meeting display tool)
- Developed in 6 months with 2 software engineers
- Used successfully since 11B semester

GB PHT

Tools ▾ Transfer ▾ Reports ▾

15A Enter Title... Select Authors... Testing Clear Filters Create Proposal Edit Proposal(s) Delete Proposal Import Proposal

PCODE	Title	Proposal Type	Obs. Types	PI	Sci. Categories	SRP Score	Requested Hrs	Allocated Hrs	Grades	Sponsor	Joint Proposal
GBT15A-430	The Green Bank Ammonia Survey...	Large	O,S	Friesen, Rachel	SFM		242.3	244			false
GBT15A-434	GPS/GNSS Spectral Characteriza...	Regular	P	Akos, Dennis	ETP		24	0			false
GBT15A-436	Continued Deep mapping of the e...	Regular	O,S	Pisano, D.J.	EGS		10	0	W	WVU	false

GBT15A-430 Select a receiver... Select a category... Clear Filters Create Session Edit Session(s) Delete Session Duplicate Session

PCODE	Name	Grade	Type	Obs. Type	Requested	Repeats	Separation	Rcvrs	Backends	Interval	Constraint?	Comments?	Min LST	Max LST	EI Min
GBT15A-430	GBT15A-430 - 01		HF2	spectral line	3.6	14	day	KFPA	Vegas	0	false	false	22:08:49.4	09:01:50.6	25:00:00.0
GBT15A-430	GBT15A-430 - 02		HF2	spectral line	3.6	10	day	KFPA	Vegas	0	false	false	14:14:27.8	18:45:32.2	20:00:00.0
GBT15A-430	GBT15A-430 - 03		HF2	spectral line	3.6	6	day	KFPA	Vegas	0	false	false	01:59:12.6	09:30:47.4	25:00:00.0

Edit Proposal

Requested (Hrs): 242.3

Allocated (Hrs): 244

Grades:

Title: The Green Bank Ammonia Survey (GAS)

Observing Types: OTF Mapping, Spectroscopy

Science Categories: Star Formation

Spectral Line Info: NH3(1,1)(2,2), HC5N, HC7N, C2S, DC5N

Abstract: We request Large Proposal status for the Green Bank Ammonia Survey (GAS), an ambitious legacy survey for the GBT, to map emission from the 23 GHz NH3 inversion transitions toward all the northern Gould Belt star forming regions with $Av > 5$. Within

Billed (Hrs):

Remaining (Hrs):

Save Cancel Sources Authors

TAC Tool

GBT15A-430 Allocate

TAC Comments to PI:

TAC Comments (internal):

Save Cancel

Dash Board (Analysis)

Session Editing

- Allows session editing not permitted in PST
 - Avoids resource and source group issues
- Creation of new sessions
 - Poor RA, Dec source groupings
 - Multiple semesters
- Remove/add sources
 - Source conflict
 - Requested additional sources
- Correction of resources
- Correction of session type (fixed, windowed, elective, open)
- Correction of session weather conditions (poor, good, excellent)



LST Range

- Calculate LST range
 - Average RA and DEC of all sources in session
 - Observer requested
 - Elevation limit

GB PHT

Tools ▾ Transfer ▾ Reports ▾

Session Sources

GBT15A-430 ▾ GBT15A-430 - 01 ▾ Remove Sources Average RA/Dec

Proposal	Target Name	Coord. Sys	RA	Dec	RA Range	Dec Range	Velocity Un	Velocity Re	Convention	Ref. Frame	Allow
GBT15A-430	Perseus cloud	Equato...	03:35:20.0	31:30:00.0	00:15:00.0	01:30:00.0	Velocity	10	Radio	LSRK	un

Proposal Sources

GBT15A-430 ▾ Create Sources Edit Source(s) Delete Sources Bulk Import

Proposal	Target Name	Coord. Ep	Coord. Sy	RA	Dec	RA Range	Dec Rang	Velocity U	Velocity R	Conventio	Ref. Fram	Allow
GBT15A-430	Serpens cloud	J2000	Equat...	18:30:...	-01:00:...	00:02:...	00:20:...	Velocity	7	Radio	LSRK	unkn
GBT15A-430	Cepheus cloud	J2000	Equat...	21:00:...	68:00:...	00:01:...	00:15:...	Velocity	-2	Radio	LSRK	unkn
GBT15A-430	CrA cloud	J2000	Equat...	19:02:...	-36:57:...	00:00:...	00:05:...	Velocity	5	Radio	LSRK	unkn
GBT15A-430	Taurus cloud	J2000	Equat...	11:26:...	-15:00:...	00:15:...	02:00:...	Velocity	5	Radio	LSRK	unkn
GBT15A-430	Pipe nebula	J2000	Equat...	17:11:...	27:30:...	00:01:...	00:10:...	Velocity	4	Radio	LSRK	unkn
GBT15A-430	IC5146 cloud	J2000	Equat...	21:50:...	47:30:...	00:05:...	00:30:...	Velocity	4	Radio	LSRK	unkn
GBT15A-430	Orion AS cloud	J2000	Equat...	05:42:...	-08:00:...	00:02:...	00:30:...	Velocity	6	Radio	LSRK	unkn
GBT15A-430	Orion AC cloud	J2000	Equat...	05:39:...	-07:20:...	00:03:...	00:40:...	Velocity	8	Radio	LSRK	unkn
GBT15A-430	Orion AN cloud	J2000	Equat...	05:35:...	-05:40:...	00:02:...	00:50:...	Velocity	12	Radio	LSRK	unkn
GBT15A-430	Orion B cloud	J2000	Equat...	05:45:...	-01:00:...	00:05:...	01:00:...	Velocity	8	Radio	LSRK	unkn
GBT15A-430	Ophiuchus clo...	J2000	Equat...	16:30:...	-24:00:...	00:10:...	00:45:...	Velocity	2.5	Radio	LSRK	unkn

Edit Session

Calculate LSTs Gen. Periods

Name: GBT15A-430 - 01 **Grade:** ▾ **Period (Hrs):** ▾ **RA (Hrs):** 03:35:20.0

PCODE: GBT15A-430 **Requested Time (Hrs):** 3.6 **Allocated Time (Hrs):** 3.75 **Dec (Deg):** 31:30:00.0

Semester: 15A **Repeats:** 14 **Allocated Repeats:** 5 **Min. LST (Hrs):** 22:08:49.4

Session Type: Open - High Freq 2 **Requested Total (Hrs):** 50.4 **Allocated Total (Hrs):** 18.75 **Max. LST (Hrs):** 09:01:50.6

Observing Type: spectral line **Center LST (Hrs):** 03:35:20.0

Weather Type: Excellent

Session Details

Horizon Limit (Deg): 25:00:00.0 **LST Exclusion (Hrs):** ▾

LST Width (Hrs): 10:53:01.2 **LST Inclusion (Hrs):** ▾

Solar Avoidance (Deg): ▾

Save Close Sources Periods

Authors Save Cancel

Monitoring

- Windowed (monitoring) and Fixed Date parameters
 - Interval
 - separation
 - Window size
 - Start date/time
 - Inner and outer loop

GB PHT

Tools ▾ Transfer ▾ Reports ▾

15A	Enter Title...	
PCODE	Title	
GBT15A-3E0	Complex Chemical Evolu	
GBT15A-3E3	Observations of Nitrogen I	
GBT15A-3E4	CO in Low Surface Bright	
GBT15A-3E5	Radio Timing of New SGR	
GBT15A-3E7	Select a receive	
PCODE	Name	Grade
GBT15A-3E7	GBT15A-3E7 - 01	
GBT15A-3E7	GBT15A-3E7 - 02	
GBT15A-3E7	GBT15A-3E7 - 03	

Edit Proposal

Primary Contact: 11594 ▾

Friend: ▾

Semester: 15A ▾

Requested (Hrs): 60

Allocated (Hrs): 60

Grades:

Title: Radio Timing of New GBT/Fer

Observing Types: Continuum, Pulsar, High Time

Science Categories: Energetic Transients and Puls

Spectral Line Info:

Abstract: The incredible rate of discover unidentified sources continue the last year, we used the GBT

Calculate LSTs Gen. Periods

Name: GBT15A-3E7 - 02 Grade: Period (Hrs): 3 RA (Hrs): 21:54:21.4

PCODE: Requested Time (Hrs): 3 Allocated Time (Hrs): Dec (Deg): -04:18:18.1

Semester: Repeats: 3 Allocated Repeats: Min. LST (Hrs): 15:30:00.0

Session Type: Requested Total (Hrs): 10 Allocated Total (Hrs): Max. LST (Hrs): 21:00:00.0

Windowed: 30 30 21:00:00.0

Observing Type: pulsar Center LST (Hrs):

Weather Type: Poor

Session Details

Allocation Target Flags Notes Resources Monitoring DSS Session Misc

Inner Loop

Repeats: 10

Separation: day

Interval: 30

Window Size: 7

Start Date: 02/17/2015

Start Time: 12:00

Outer Loop

Outer Repeats:

Outer Separation: day

Outer Interval:

Outer Window Size:

Custom Sequence (always start with 1): 1,31,61,91,121,151,181,271,301,331

Save Close Sources Periods

Proposal

RP Score	Requested Hrs	Allocated Hrs	Grades	Sponsor	Joint Proposal
20	0				false
48	70				false
15	0				false

Session

	Backends	Interval	Constraint?	Comments?	Min LST	Max LST	El Min
GUPPI	0		true	true	14:00:00.0	22:00:00.0	
GUPPI	30		true	true	15:30:00.0	21:00:00.0	
GUPPI	0		true	true	15:30:00.0	21:00:00.0	

TAC Tool

GBT15A-3E7 ▾ Allocate

Tech Review to TAC:

TAC Comments to PI:

TAC Comments (internal):

Save Cancel Sources Authors Save Cancel

Observing Flags

- Solar avoidance
- Flags
 - Night time
 - Thermal, RFI, and Optical
 - Transit
 - Guaranteed

GB PHT

Tools ▾ Transfer ▾ Reports ▾

15A Enter Title... Select Authors... Testing Clear Filters Create Proposal Edit Proposal(s) Delete Proposal Import Proposal

PCODE	Title	Proposal Type
GBT15A-391	Detailed Sunyaev-Zel'dovich Effe...	Regular
GBT15A-396	Searching For Radio Pulsations i...	Regular
GBT15A-402	Magnetic Fields towards High-Lat...	Regular

GBT15A-391		Select a receiver...		Select
PCODE	Name	Grade	Type	Ob
GBT15A-391	GBT15A-391 - 01		HF2	co
GBT15A-391	GBT15A-391 - 02		HF2	co
GBT15A-391	GBT15A-391 - 03		HF2	co

Edit Proposal

Primary Contact: 11607 ▾ **Submit Date:**

Friend: ▾ **Joint Proposal:**

Semester: 15A ▾ **Sponsor:**

Requested (Hrs): 51 **External:**

Allocated (Hrs): 0

Grades: ▾

Title: Detailed Sunyaev-Zel'dovich Effect Imaging of $z > 1$

Observing Types: OTF Mapping, Continuum

Science Categories: High Redshift and Source Surveys

Spectral Line Info: ▾

Edit Session

Calculate LSTs Gen. Periods

Name: GBT15A-391 - 01 **Grade:** ▾ **Period (Hrs):** ▾ **RA (Hrs):** 08:49:16.5

PCODE: GBT15A-391 **Requested Time (Hrs):** 7 **Allocated Time (Hrs):** ▾ **Dec (Deg):** 44:52:52.0

Semester: 15A **Repeats:** 1 **Allocated Repeats:** 1 **Min. LST (Hrs):** 02:08:51.5

Session Type: Open - High Freq 2 **Requested Total (Hrs):** 7 **Allocated Total (Hrs):** ▾ **Max. LST (Hrs):** 15:29:41.5

Observing Type: continuum **Center LST (Hrs):** 08:49:16.5

Weather Type: Excellent ▾

Session Details

← Allotment Target Flags Notes Resources Monitoring DSS Session Misc →

Thermal Night: ☒ Transit: ☐

RFI Night: ☐ Guaranteed: ☒

Optical Night: ☐

Save

Close

Sources

Periods

Save

Cancel

Sources

Authors

Save

Cancel

Carry Over

- Carry over settings
 - Complete
 - Complete next semester
 - Next semester time
 - Next semester repeats
- Carry over values from DSS
 - Last date observed
 - Hours allocated
 - Hours scheduled
 - Hours billed
 - Hours remaining

GB PHT

Tools ▾ Transfer ▾ Reports ▾

Enter PCode... Enter Title...

PCode	Title
GBT14A-507	Continuing the GBT All-Sky 350-MHz...
GBT14A-509	Leaking Photons V2
GBT14A-510	A Search for Pulsars in UMa II

GBT14A-507 Select a receiver...

PCode	Name	Grade	Type
GBT14A-507	GBT14A-507 - 01	A	LF
GBT14A-507	GBT14A-507 - 02	A	LF
GBT14A-507	GBT14A-507 - 03	A	LF

Edit Proposal

Primary Contact: 9726

Friend: Ransom, Scott

Semester: 14A

Requested (Hrs): 1800

Allocated (Hrs): 1800

Grades: A

Title: Continuing the GBT All-Sky 350-MHz P...

Observing Types: Grid Mapping/Mosaicing, Pulsar, High T...

Science Categories: Energetic Transients and Pulsars

Spectral Line Info:

Edit Session

Calculate LSTs Gen. Periods

Name: GBT14A-507 - 10 Grade: A Period (Hrs): RA (Hrs): 09:00:00.0

PCODE: GBT14A-507 Requested Time (Hrs): 7.5 Allocated Time (Hrs): 25:00:00.0 Dec (Deg): 25:00:00.0

Semester: 15A Repeats: 10 Allocated Repeats: 10 Min. LST (Hrs): 06:00:00.0

Session Type: Open - Low Freq Requested Total (Hrs): 75 Allocated Total (Hrs): 12:00:00.0 Max. LST (Hrs): 12:00:00.0

Observing Type: pulsar Center LST (Hrs): 09:00:00.0

Weather Type: Poor

Session Details

← Allotment Target Flags Notes Resources Monitoring DSS Session Misc →

DSS Session: GBT14A-507 - 10 Next Semester Time (Hrs): 75 Scheduled (Hrs):

Currently Complete?: ☐ Next Semester Repeats: Billed (Hrs):

Next Semester Complete?: ☐ DSS Allotted (Hrs): 75 Remaining (Hrs): 75

Last Date Scheduled:

Save Close Sources Periods

Allocated Hrs	Grades	Sponsor	Joint Proposal
1800	A		false
10	A	WWU	false
5	A	WWU	false

Constraint?	Comments?	Min LST	Max LST	EI Min
true	false	00:00:00.0	06:00:00.0	
true	false	06:00:00.0	12:00:00.0	
true	false	12:00:00.0	18:00:00.0	

Tool

T14A-507 Allocate

an any pulsar survey to more southern declinations. The observing modes and sensitivity estimates are correct and have been well-tested in the previously-run portions of the project. The largest technical issue is of course the data logistics. The data transfer/processing procedures

Review to

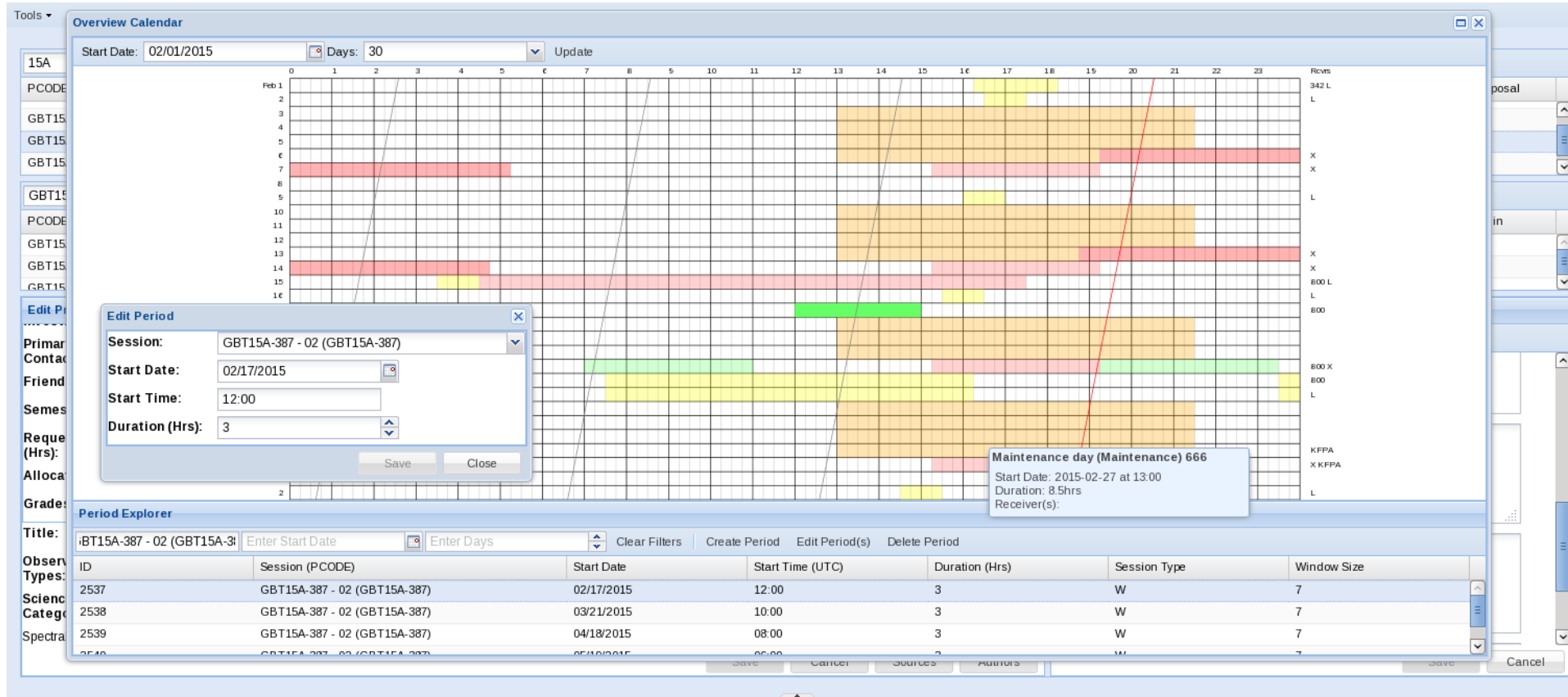
Comments to

Save Cancel

Overview Calendar

- Preliminary semester scheduling
- Needed to know what monitoring and fixed time can be accepted
- Brings in maintenance, shutdown from DSS
- Brings in monitoring and fixed observations from prior semesters from DSS

GB PHT



LST Pressure Plots

- LST pressure plots
 - All, poor, good and excellent weather
 - Total, by project or by session
 - Sponsored viewable or hideable in carry over
 - Hide any category

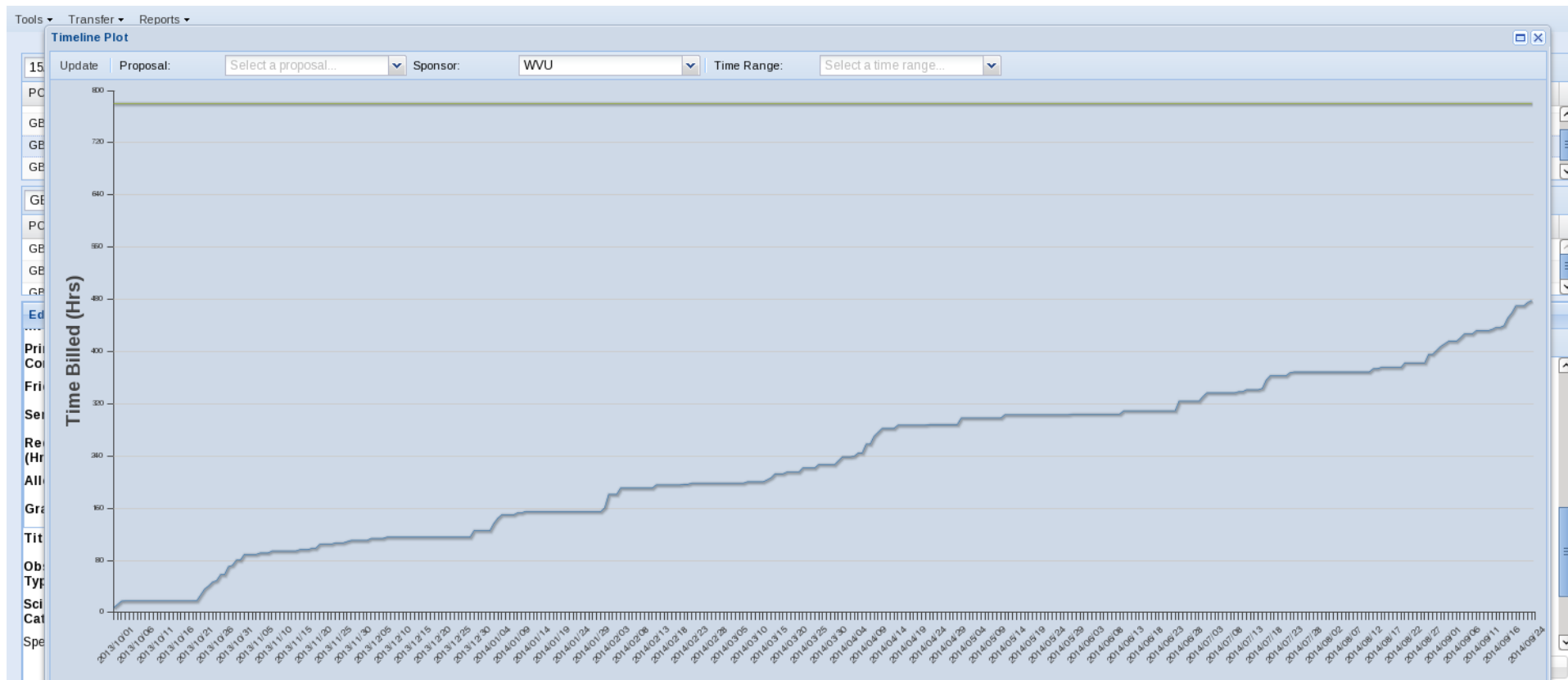
GB PHT



Timeline Plot

- Track schedule sponsored time observing

GB PHT



Reports

- Proposal Summary
- Proposal Worksheet
- Semester Summary
- LST Pressures
- Sponsored Proposals
- Export Proposals
- Source Conflicts
 - No restrictions
 - Same receiver
 - Same receiver within proprietary period

TAC Functions

- Assign priority to each session
- Assign project friend
- NRAO comments
- View SRP comments and Technical Review
- TAC comments to PI
- TAC comments to NRAO

Import/Export

- Import individual proposals or entire semester
- Transfer to DSS
- All information needed by DSS to immediately schedule observations
- Create database entries needed in ASTRID (GBT observing interface)
- Provides fields to “NRAO” PHT for LST plots
- Provides fields to “NRAO” PHT for disposition letters



The National Radio Astronomy Observatory is a facility of the National Science Foundation

1 operated under cooperative agreement by Associated Universities, Inc.

□ www.nrao.edu • science.nrao.edu

