Northstar update 25-6-2014

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Netherlands Institute for Radio Astronomy

- Northstar July 2014

  Cycle 3 / long-term proposals

  envelope sheets / ddt

- Background for changes:

  - improved summary for technical assessment/feasibility
  - improved Observation setup
  - NS output xml as intermediate step for setting up the instrument
  - bug fixing

Thanks!

Mansura Habiba

Northstar update 25-6-2014

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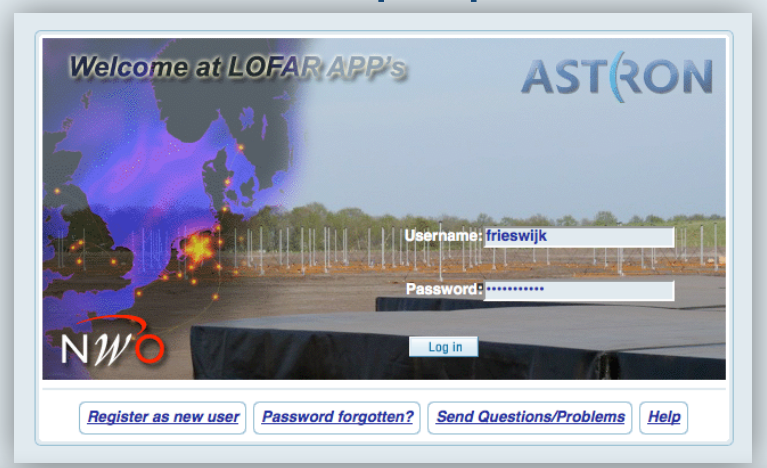
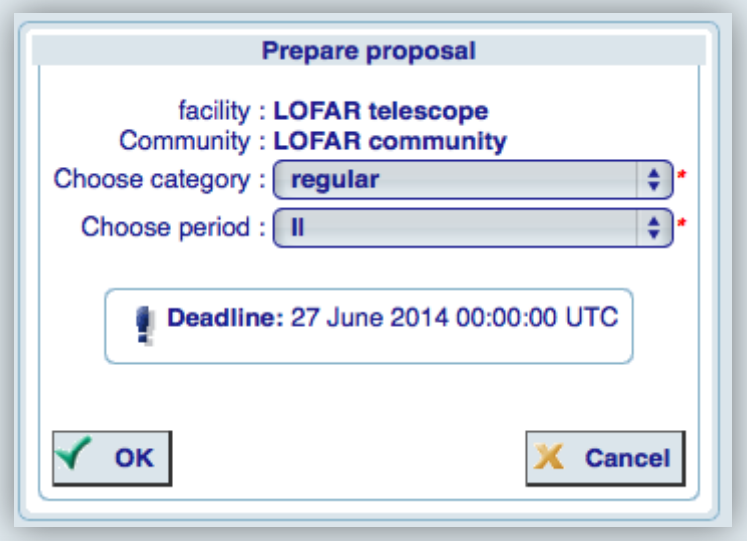
lofar.astron.nl/proposal





Show reviewed proposals : ○ Yes ◉ No

Proj_ID	PI	Title	Community	Category	Status	Options
			LOFAR telescope Proposals			
	Frieswijk	Test Jan 21 2014	LOFAR community	regular	in preparation	Edit Copy Delete Submit View
	Frieswijk	fcs	LOFAR community	regular	in preparation	Edit Copy Delete Submit View
	Frieswijk	Test 2014-01-08	LOFAR community	regular	in preparation	Edit Copy Delete Submit View
	Frieswijk		LOFAR community	regular	in preparation	Edit Delete Submit View
	Oonk	Copy of LOFAR Galactic Radi...	LOFAR community	regular	in preparation	Edit View
LRA12A001	Frieswijk	Just a test from science su...	LOFAR community	reserved_access	in preparation	Edit Delete Submit View

Create new proposal

Applicants

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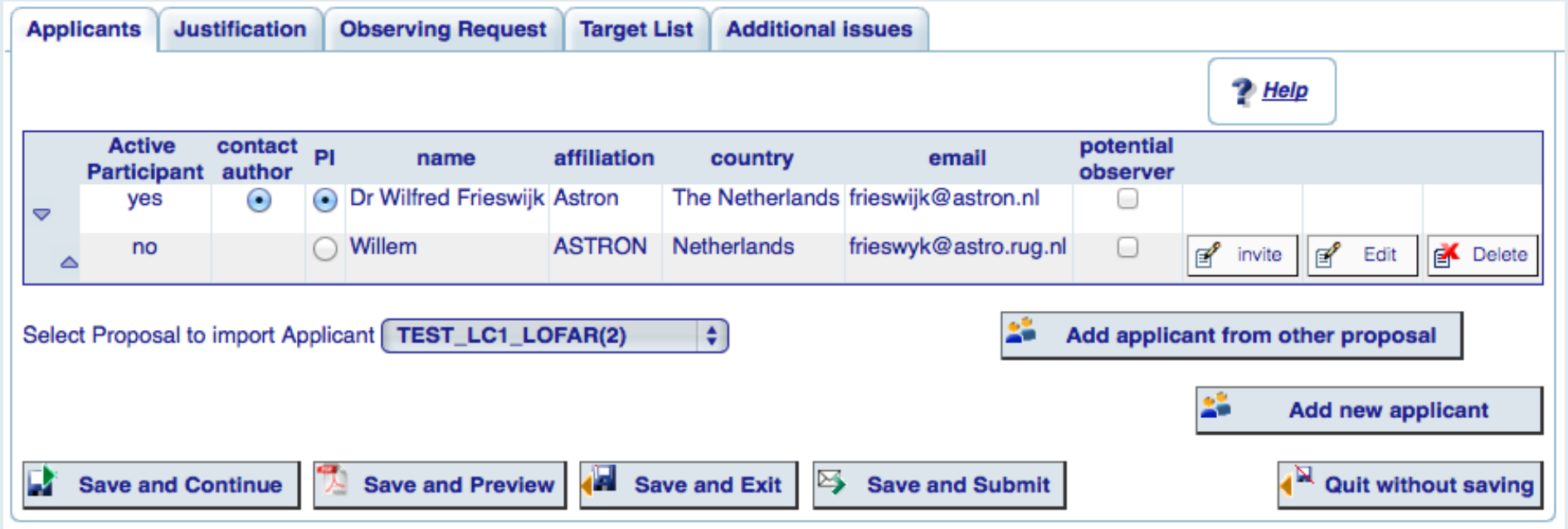
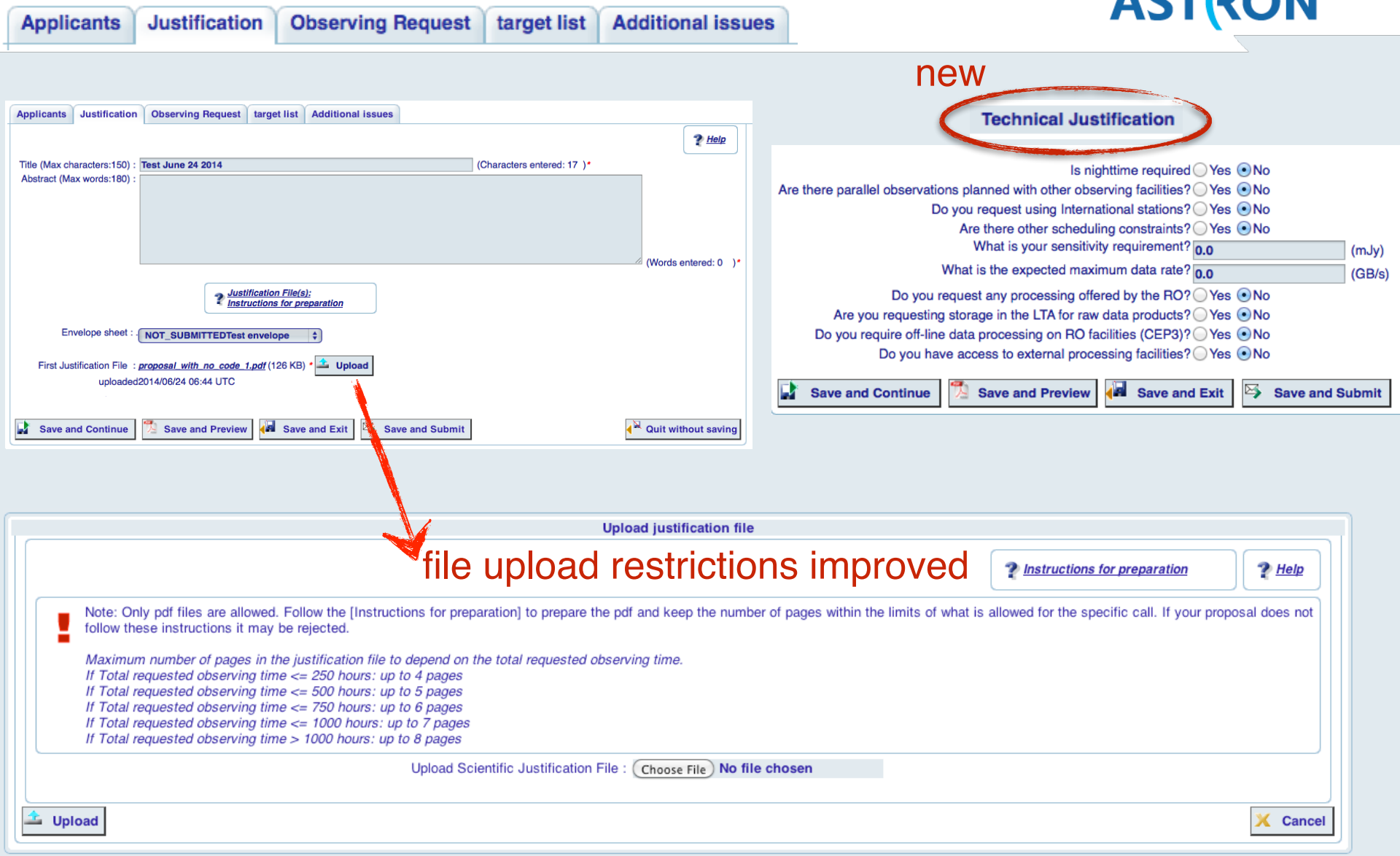
Adding applicants



Justification: Scientific (+tech) pdf, envelope sheet and technical justification



Is nighttime required (•) Yes ( ) No

Elaborate (Max words:60) :

nighttime requirement

(Words entered: 0)*

Are there parallel observations planned with other observing facilities? (•) Yes ( ) No

Elaborate

parallel observations

(Words entered: 0)*

Do you request using International stations? (•) Yes ( ) No

Are they essential/critical for the observations? (•) Yes ( ) No

Elaborate

international stations

(Words entered: 0)*

Are there other scheduling constraints? (•) Yes ( ) No

Elaborate

Explain why the International stations are essential for the science proposed.

other constraints

(Words entered: 0)*

What is your sensitivity requirement? 10.0 (mJy)

What is the expected maximum data rate? 10.0 (GB/s)

sensitivity & data rate

Do you request any processing offered by the RO? (•) Yes ( ) No

Do you request the "default" imaging pipeline offered by the RO? ( ) Yes (•) No

Are you requesting storage in the LTA for raw data products? (•) Yes ( ) No

RO pipelines/imaging

Elaborate

raw data to LTA

(Words entered: 0)*

Do you require off-line data processing on RO facilities (CEP3)? (•) Yes ( ) No

Elaborate

off-line processing (CEP3)

(Words entered: 0)*

Do you have access to external processing facilities? (•) Yes ( ) No

Elaborate

external processing

(Words entered: 0)*

Save and Continue | Save and Preview | Save and Exit | Save and Submit | Quit without saving

Observing requests:
telescope/pipeline configurations

step 1

Applicants | Justification | Observing Request | target list | Additional issues

Id	Targets	Runs	Telescope	Mode	Exposure (Hours)	BF Data (TB)	Store Raw Data	UV Data (TB)	Store UV Data	TBB Data (TB)	Total LTA Storage (TB)	
A	0 targets	0 runs	LOFAR		0	0.0	NO	0.0	NO	0.0	0.0	Edit Copy Delete

Specify a new observation

step 1a

Id	Targets	Telescope	Mode	av time	av freq	demixing	Total LTA Storage (TB)	P/O Ratio	Total Processing Time (Hours)	
A	0 targets	LOFAR	Pre processing only			N	0.00			Edit Copy Delete

Specify a new Pipeline :

step 1b

You must specify targets/observation setup here.

LOFAR

Time specified for targets (in hours):
Total 0

Hours requested this period (incl. cal. and o/heads) :
Total

Minimum useful time (hours):
Total Minimum useful time must be less than or equal to requested hour.

Storage specified: 0.00 TB
Long term LTA storage requested in terabytes (10^12 bytes):
Total

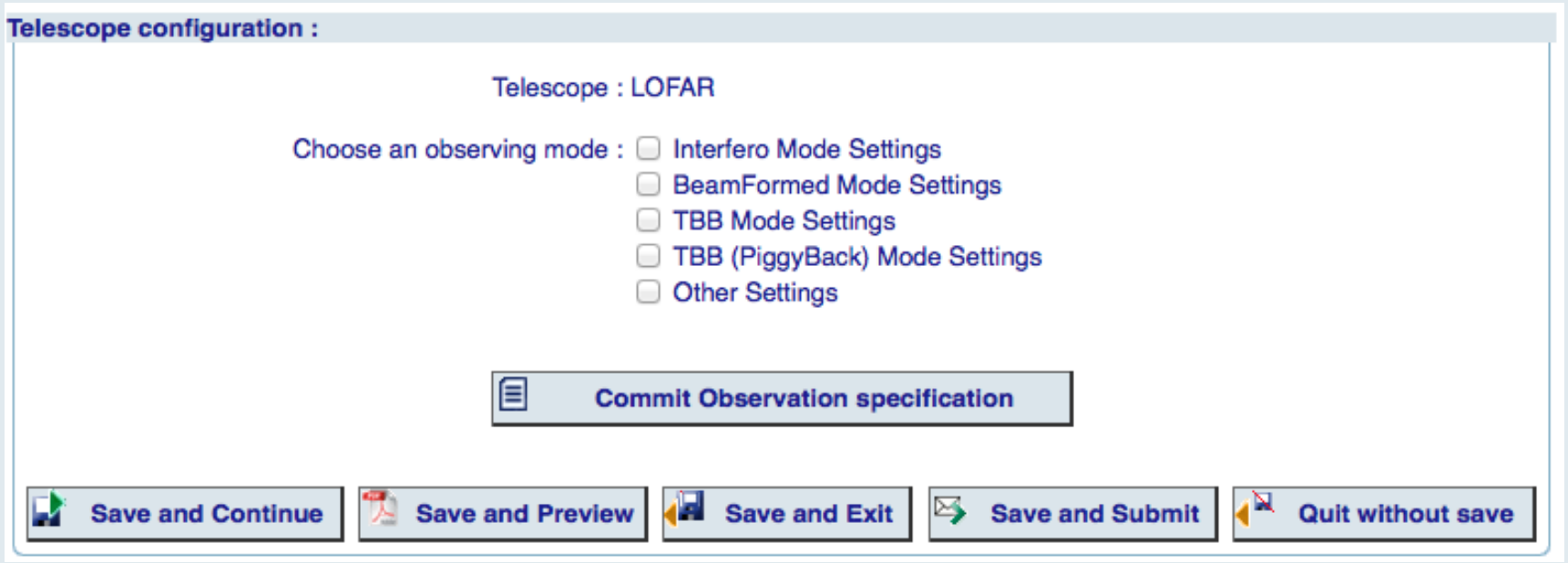
Other scheduling details :

Save and Continue | Save and Preview | Save and Exit | Save and Submit | Quit without save

Observing requests:
telescope configurations

step 1a

Applicants | Justification | Observing Request | target list | Additional issues



Observing reques
telescope configura

step 1a

Applicants | Justification | Observing Request | t

Telescope configuration :

Tele

Choose an observing

Save and Continue | Save and

Telescope configuration :

Telescope : LOFAR

Choose an observing mode :
- [x] Interfero Mode Settings
- [x] BeamFormed Mode Settings
- [x] TBB Mode Settings
- [ ] TBB (PiggyBack) Mode Settings
- [x] Other Settings

Common Settings

Choose stations : Core (24) *
Choose clock : 200 MHz *
Choose antenna : HBA Dual (48) *
Choose filter : 110-190 MHz *

BeamFormed Mode Settings

Coherent stokes : (•) Yes ( ) No
Incoherent stokes : ( ) Yes (•) No
Fly's eye : ( ) Yes (•) No
Raw voltage : (•) Yes ( ) No
Polarizations (CS/FE) : I
Coherent tied array beams : 1 *
Coherent Channels per subband : ( ) 1 ( ) 16 ( ) 32 (•) 64 ( ) 128 ( ) 256 ( ) 512 *
Coherent Stokes integration steps : 128 *
tied array rings : 3
Keep raw observation data : (•) Yes ( ) No

Interfero Mode Settings

Integration time: (seconds) : 1 *
Keep correlated visibilities data : (•) Yes ( ) No
Required noise level (Jy) : 1

TBB Mode Settings

Trigger Length (sec) : 0.0010 *
Trigger Length must be between 0.001 to 5 sec
Trigger Rate (per hour) : 1 *
Trigger Source : LORA particle detector

Other Settings

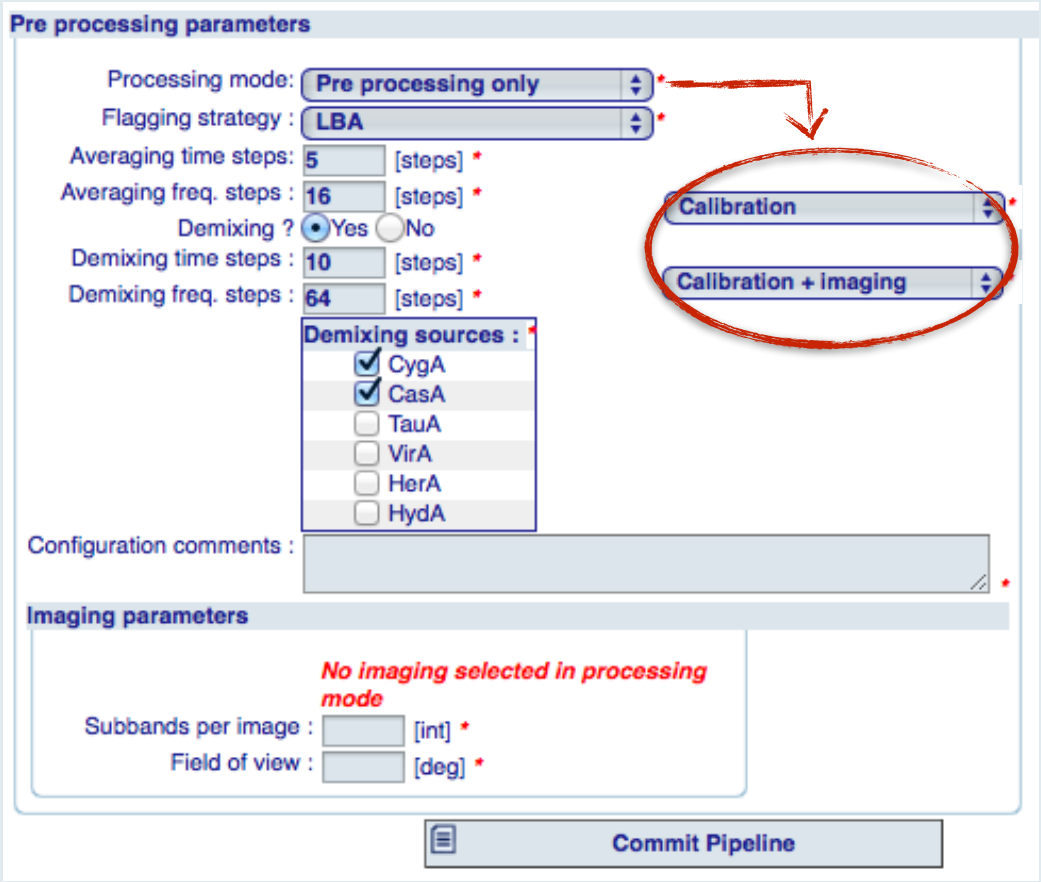
Configuration comments : Any comments you may have... *

Commit Observation specification

Observing requests:
pipeline configurations

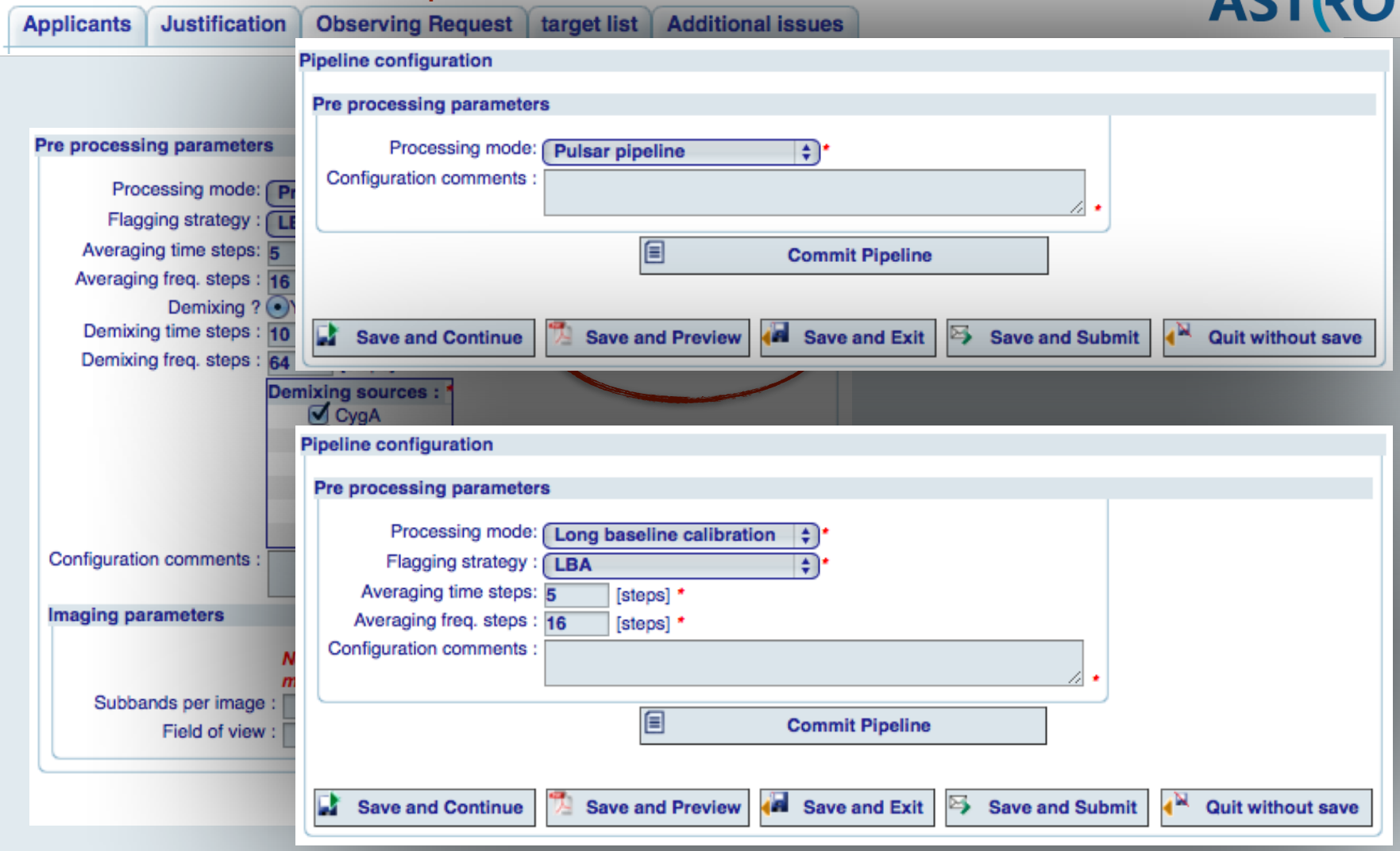
step 1b

Applicants | Justification | Observing Request | target list | Additional issues



Observing requests:
pipeline configurations

step 1b



Target list:
manual or upload

step 2

Applicants | Justification | Observing Request | target list | Additional issues

Targets :

Run#	Field	RA	Dec	Epoch	Time(Hours)	Subbands	Calibr.	Obs.	Pipe.	Comments			
1	3C196	08:13:36.07	+48:13:02.6	J2000	100	12..499		A	A	split in 10-12hr blocks	Edit	Copy	Delete
2	3C196	14:11:20.60	+52:12:09.0	J2000	0.17	55..420		B	B	flux cal	Edit	Copy	Delete
3	DF001	17:10:00.00	+60:50:00.0	J2000	6	55..420		B	C	target beam	Edit	Copy	Delete
	3C343	16:34:33.81	+62:45:36.0	J2000		55..77,401..420		B	B	cal beam	Edit	Copy	Delete
4	3C48	01:37:41.30	+33:09:35.1	J2000	0.17	55..420		B	B	flux cal	Edit	Copy	Delete
5	3C147	05:42:36.26	+49:51:07.1	J2000	1	52..467	Y	C	D	Calibrator Run#5-6	Edit	Copy	Delete
6	DC156	05:32:32.00	+52:50:00.1	J2000	6	52..467		C	E	Target Run#5-6	Edit	Copy	Delete
7	Fr479	06:03:00.00	+52:00:00.0	J2000	14	156..316		D	F	Target beam	Edit	Copy	Delete
	Fr480	07:08:00.00	+44:00:00.0	J2000		156..316		D	F	Target beam	Edit	Copy	Delete
	3C196	08:13:36.07	+48:13:02.6	J2000		156..316	Y	D	F	Calibrator beam	Edit	Copy	Delete
8	P0123	01:02:03.00	+82:00:00.0	J2000	1	256..300		E	G	Beamformed	Edit	Copy	Delete
9	empty	00:00:00.00	+00:00:00.0	J2000	1,500	55		F	H	TBB piggyback	Edit	Copy	Delete

New Target :

Calibration beam? : ○ Yes ◉ No

Field name : * Get RA & Dec from Simbad NB: proposers should check coordinates

RightAscension : hh:mm[:ss.ss] *

Declination : [+|-]dd:mm[:ss.s] *

Epoch : J2000

Flux density (Jy) : Reference frequency (MHz) :

Spectral index α (S(ν) - ν $^{-\alpha}$):

Subband list : *

NB: Put Frequency and Bandwidth and get SubbandList calculated,Otherwise put SubbandList manually. For Example: 2-315,15-115 etc. The maximum number of subbands per run is 488

Central frequency : Bandwidth :

Run# : 1

Exposure time in minutes : *

Select observation :

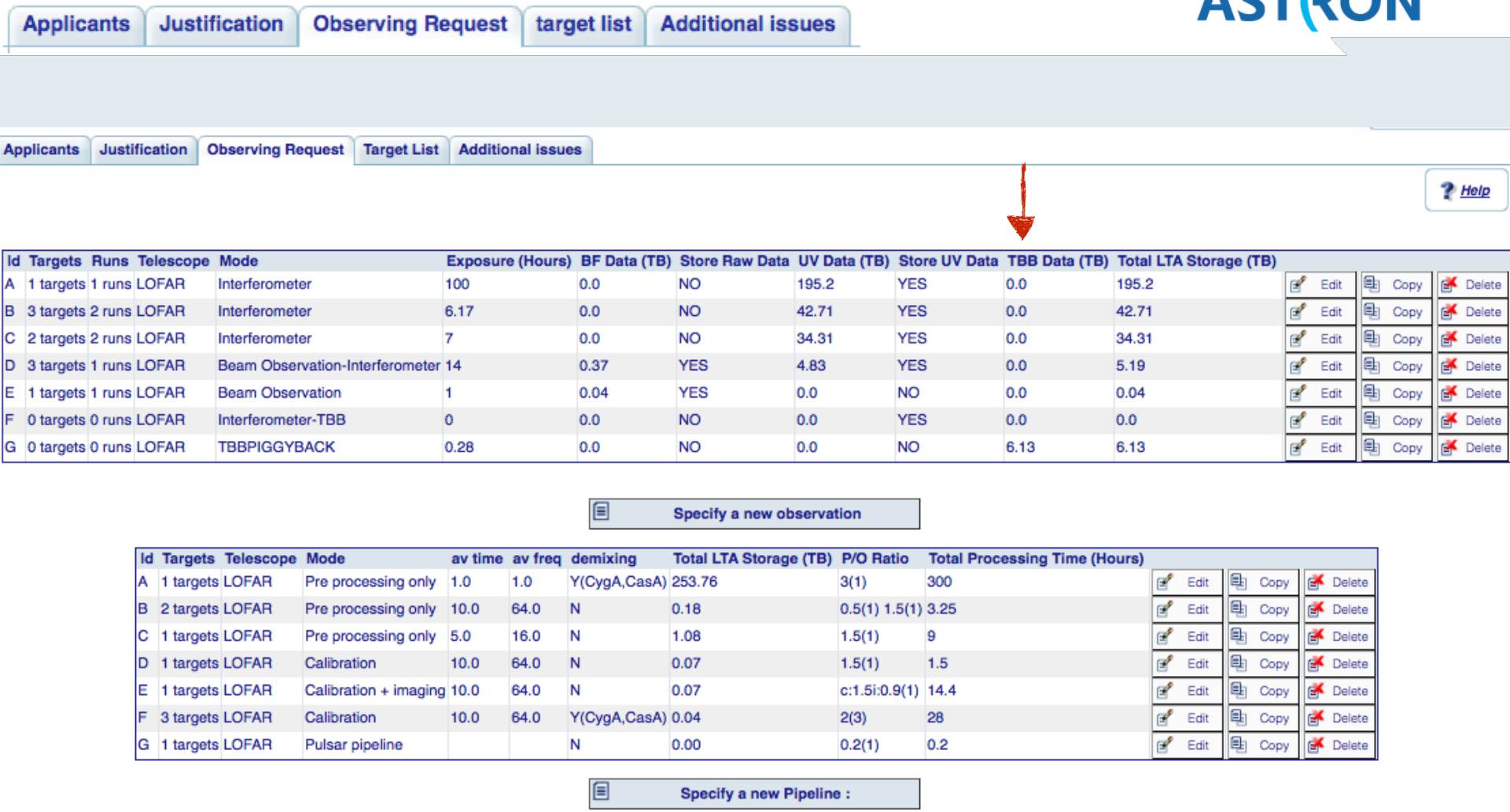
Select processing pipeline :

Comments :

Commit to list of targets | Clear target form | Upload a target list | Delete all targets

target upload (recommended)

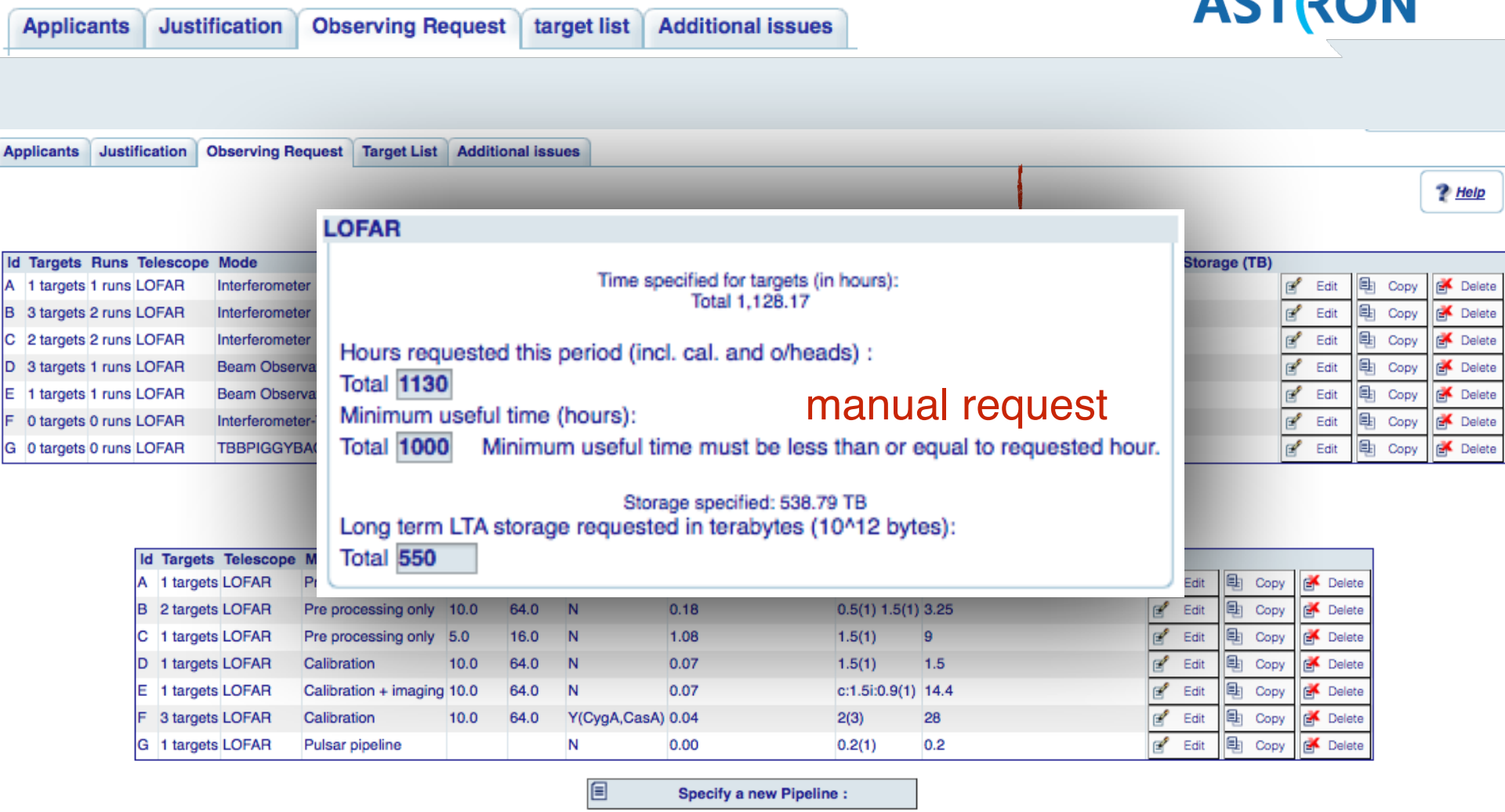
Observing requests:
targets coupled



Id	Targets	Runs	Telescope	Mode	Exposure (Hours)	BF Data (TB)	Store Raw Data	UV Data (TB)	Store UV Data	TBB Data (TB)	Total LTA Storage (TB)			
A	1 targets	1 runs	LOFAR	Interferometer	100	0.0	NO	195.2	YES	0.0	195.2	Edit	Copy	Delete
B	3 targets	2 runs	LOFAR	Interferometer	6.17	0.0	NO	42.71	YES	0.0	42.71	Edit	Copy	Delete
C	2 targets	2 runs	LOFAR	Interferometer	7	0.0	NO	34.31	YES	0.0	34.31	Edit	Copy	Delete
D	3 targets	1 runs	LOFAR	Beam Observation-Interferometer	14	0.37	YES	4.83	YES	0.0	5.19	Edit	Copy	Delete
E	1 targets	1 runs	LOFAR	Beam Observation	1	0.04	YES	0.0	NO	0.0	0.04	Edit	Copy	Delete
F	0 targets	0 runs	LOFAR	Interferometer-TBB	0	0.0	NO	0.0	YES	0.0	0.0	Edit	Copy	Delete
G	0 targets	0 runs	LOFAR	TBBPIGGYBACK	0.28	0.0	NO	0.0	NO	6.13	6.13	Edit	Copy	Delete

Id	Targets	Telescope	Mode	av time	av freq	demixing	Total LTA Storage (TB)	P/O Ratio	Total Processing Time (Hours)			
A	1 targets	LOFAR	Pre processing only	1.0	1.0	Y(CygA,CasA)	253.76	3(1)	300	Edit	Copy	Delete
B	2 targets	LOFAR	Pre processing only	10.0	64.0	N	0.18	0.5(1) 1.5(1)	3.25	Edit	Copy	Delete
C	1 targets	LOFAR	Pre processing only	5.0	16.0	N	1.08	1.5(1)	9	Edit	Copy	Delete
D	1 targets	LOFAR	Calibration	10.0	64.0	N	0.07	1.5(1)	1.5	Edit	Copy	Delete
E	1 targets	LOFAR	Calibration + imaging	10.0	64.0	N	0.07	c:1.5i:0.9(1)	14.4	Edit	Copy	Delete
F	3 targets	LOFAR	Calibration	10.0	64.0	Y(CygA,CasA)	0.04	2(3)	28	Edit	Copy	Delete
G	1 targets	LOFAR	Pulsar pipeline			N	0.00	0.2(1)	0.2	Edit	Copy	Delete

Observing requests:
targets coupled



Additional issues:
student, publications…

Final words

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Deadline for Cycle 3: Sep 10 2014

Northstar for Cycle 3 will be available soon

questions:

- mail: sciencesupport@astron.nl