Observation Preparation Tool (OPT)

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Twelfth Synthesis Imaging Workshop

2010 June 8-15

NRAO

Associated Universities, Inc.

New Mexico Tech
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Introduction

General intro

Reminder about calibration

Designing a schedule

The schedules for the Synthesis Imaging Workshop data sets

- 3C391 C-band continuum polarization mozaic
- IRC10216 Ka-band dual spectral line image cube
- Screen shots of using the Observation Preparation web application
- Source catalog tool: SCT *(telescope pointing directions)*
- Resource catalog tool: RCT *(hardware selection and setup)*
- Observation preparation tool: OPT
  - Build a sequence of *"scans"*:
    - Source + resource + obs. mode + time interval + intent

OPT demo?

Live "demo" usually results in chaos..

If needed, a live demonstration is possible in the discussion groups

Purpose of this talk is to show the "working" of the OPT

not why certain choices were made

not whether this is the most optimum way

all these depend on goal and details of observation

maybe there is time for this during discussion groups

New software for a new instrument

VLA era: Observe and Jobserve scheduling tool

New correlator is much more flexible – need for new tool

Web based with central data base, code, but *also* disadvantages!

Learning curve for *everyone* and not everything included yet

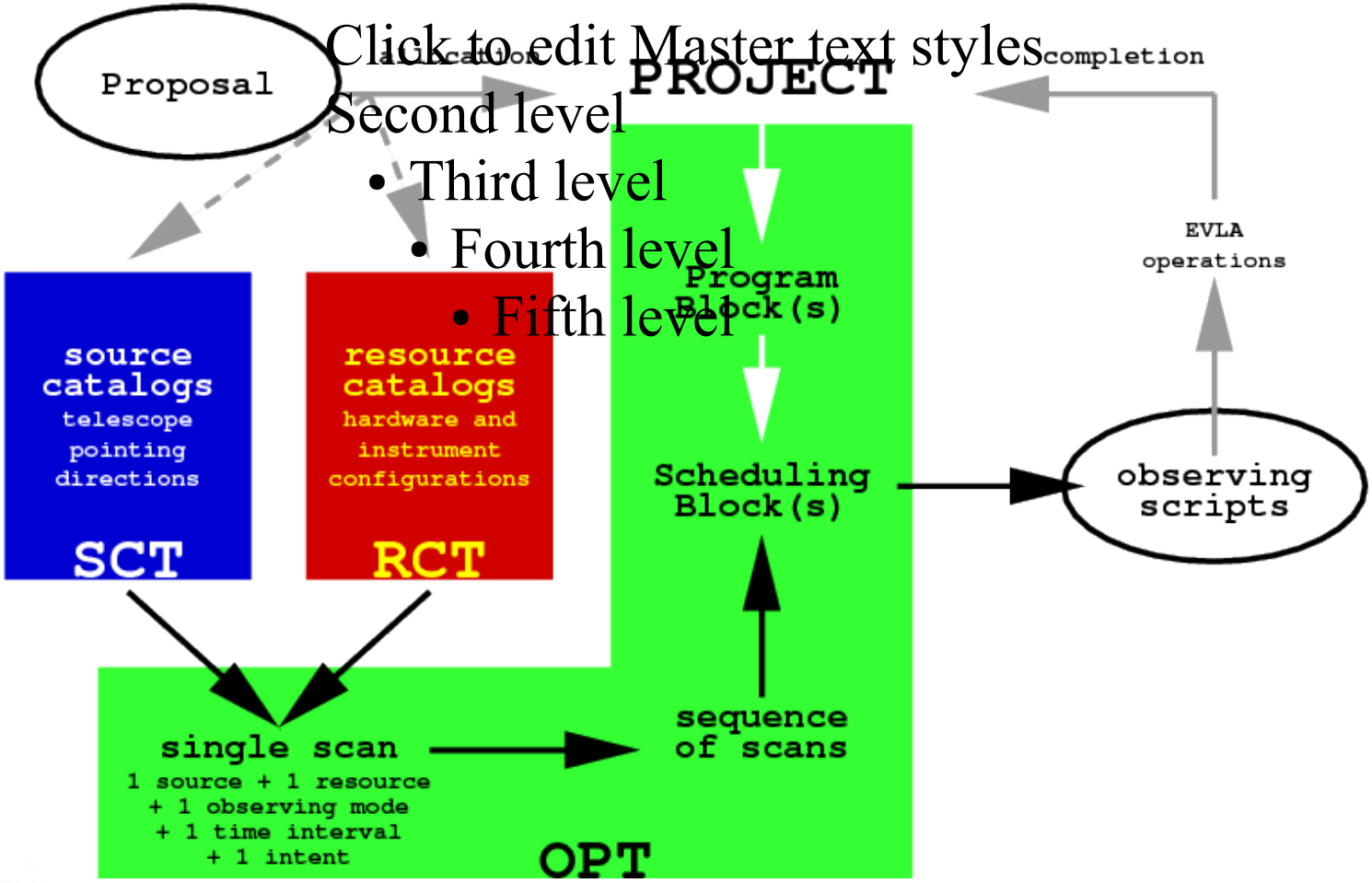
Goal: computer readable observing schedule (SB) with constraints

Some can be chosen (e.g. wind conditions, LST start range)

Some cannot (e.g. scientific priority, allocated observing time)

Some transferred from proposal (check!)

Flow diagram



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Example project “tree”

Click to edit Master text styles
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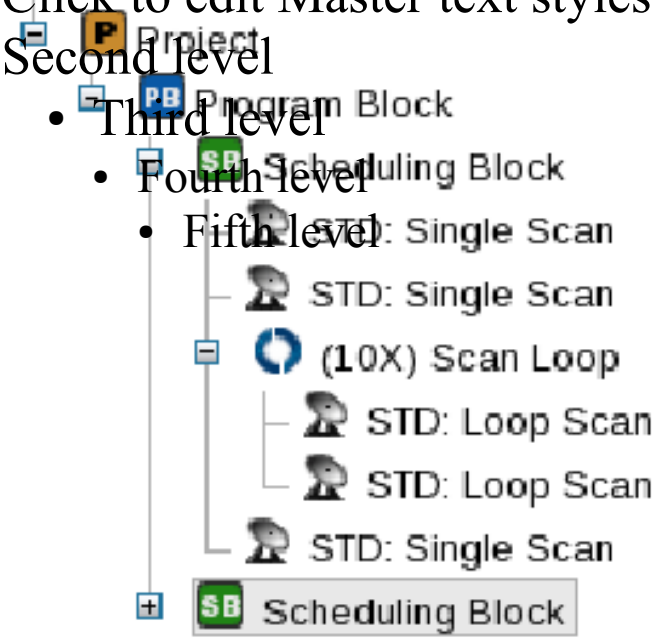
    - Fourth level
      - Fifth level



Project has Program Blocks (PB)

PB has ***Scheduling Blocks*** (SB)

Is “observing run” script

Sequence of scans and/or (loops of) loops of scans

Includes calibration !

Reminder about calibration

Instrument is not prefect (instrumental response, variation with time, etc.)

Atmosphere is not constant (includes troposphere, ionosphere)

Want to do the science, meaning obtain correct measurements

Such as: flux density/variability, position/astrometry/motion, structure/morphology, frequency/spectrum, polarization, other…

Observe calibrators: *answers are known*

Prefer bright, nearby, point source in phase center….

Determine and apply corrections for the right answer on the target!

Reminder about calibration

Observe calibrators: *answers are known*

- Bright: determined solution not noisy for *calibration goal*
- Nearby: target and calibrator are seen through *same atmosphere*, solutions for about the *same time* and for *similar effects* (pointing)
- Point source: *amplitude* is constant and *independent of baseline*
- at Phase center: *phase* is constant and *zero*

Apart from the target sources, the observing schedule should contain all calibrations needed to achieve the scientific goals

Note: proper calibration may take more time than observing the target

Good to know amount of overhead before submitting proposal

Designing a schedule

Designing a schedule: determine which/what

Sources to observe, and for how long (with each setup)

Setups ("resources") to use

- Receivers, (baseband/subband) signals, correlator

Calibrations to perform

- Extra sources/resources? (e.g. pointing)

Strategies and tactics to apply (short, long, less quality acceptable?)

Optimization and constraints to choose (slew, wrap, weather..)

Everything is part of a trade-off and depends on the science goals

Demonstration of how to **make** a *scheduling block* (SB) with the OPT

The schedules for the 12th SIW data sets: include necessary calibration

3C391 C-band polarization

Gain (ampl./phase) calibration

- Variations in instrument as well as in atmosphere

Absolute flux calibration

Bandpass and delay calibration

Antenna pointing calibration

Polarization angle calibration

Polarization leakage (D-term) calibration

Ignore other calibrations (?)

IRC10216 Ka-band line

Gain (ampl./phase) calibration

- Variations in instrument as well as in atmosphere

Absolute flux calibration

Bandpass and delay calibration

Antenna pointing calibration

Polarization angle calibration

Polarization leakage (D-term) calibration

Ignore other calibrations (?)

Designing the 3C391 observing run

7 field mozaic, 7 sources with roughly equal time on source

Enough signal to be able to use self-calibration

Could use default C band continuum (OSRO1) setup *(but didn't)*

Flux: **3C286**, can also be used for EVPA calibration *(answer: –66°)*

Bandpass: **3C84**

Unpolarized nearby point source: **J1822–0938** (gain, pol.z leakage)

C band (i.e. about 5 GHz) thus cycle every ~30 minutes

Do not break into small observing runs (polarization angle)

Spread sources over hour angle for best *(u,v)*-coverage

Set up sequence and loop several times

Spread polarization leakage calibrator: include in loop

Designing the IRC10216 observing run

Single target line source, use Doppler setting for frequency (dynamic time)

Setup tuned to (2) Ka band frequencies with 125 kHz spectral resolution

Flux: **3C286** and bandpass: **3C273**

Unpolarized nearby point source: **J0954+1743** (gain, pol.z leakage)

Ka band (i.e. about 35 GHz) thus cycle every ~5 minutes

NOT strong enough for pointing scans: use a different pointing source

Strong (in C or X band) nearby source **J1008+0730** (pointing!)

Pointing every time Az/El changes over ~15°

Do not break into small observing runs (short already)

Calibrator-target sequence with short cycle time: fast-switching

Set up sequence and loop several times to accumulate on source time

How to start the OPT

Register at

https://my.nrao.edu

Registration/login/webaddress also good for

Proposal submission for EVLA, GBT, VLBA (HSA)

(preparing EVLA observations)

Proprietary data retrieval (archive.nrao.edu)

Obtaining user help (help.nrao.edu)

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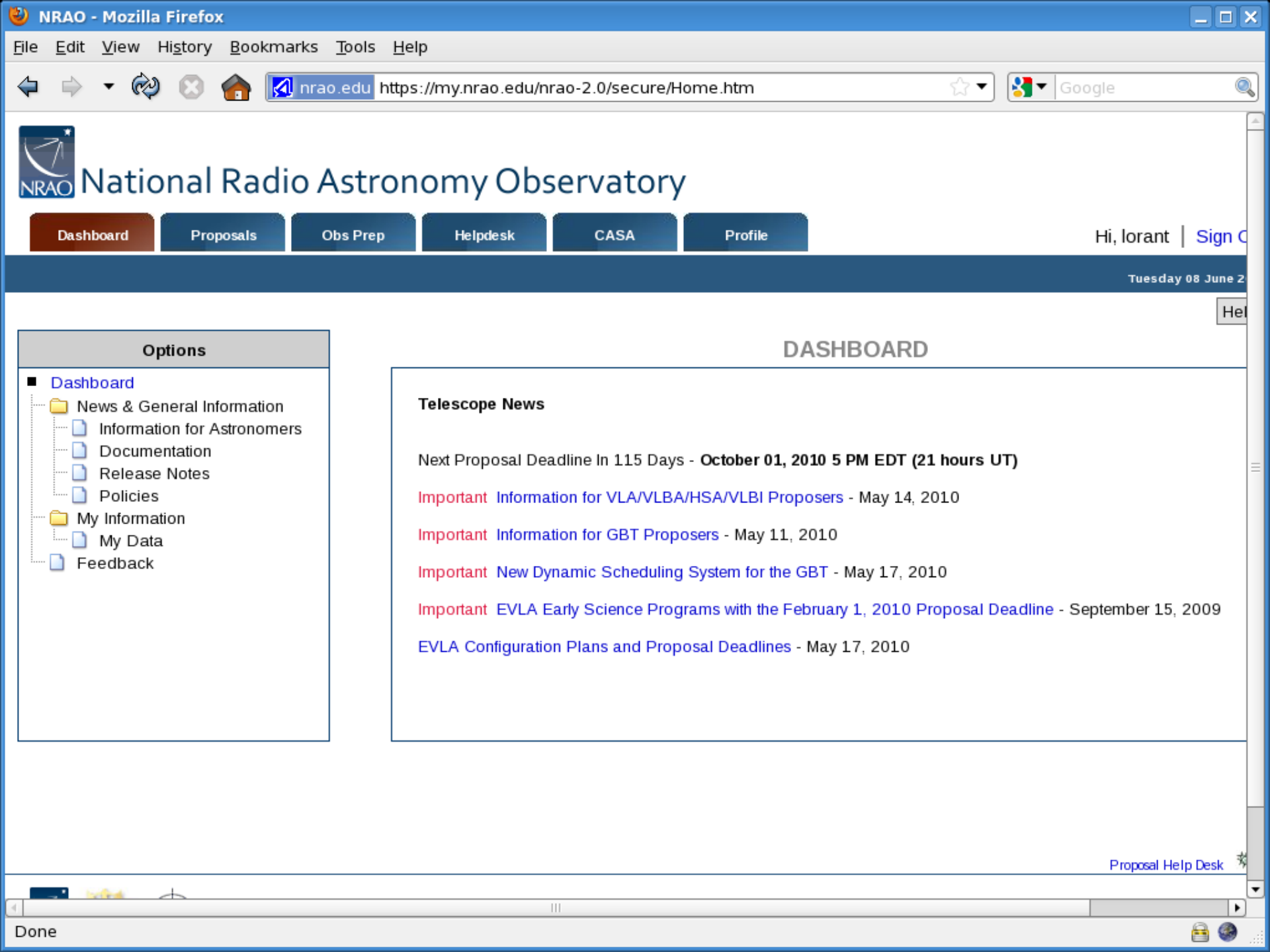
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Important Information for VLA/VLBA/HSA/VLBI Proposers - May 14, 2010
Important Information for GBT Proposers - May 11, 2010
Important New Dynamic Scheduling System for the GBT - May 17, 2010
Important EVLA Early Science Programs with the February 1, 2010 Proposal Deadline - September 15, 2009
EVLA Configuration Plans and Proposal Deadlines - May 17, 2010
Proposal Help Desk
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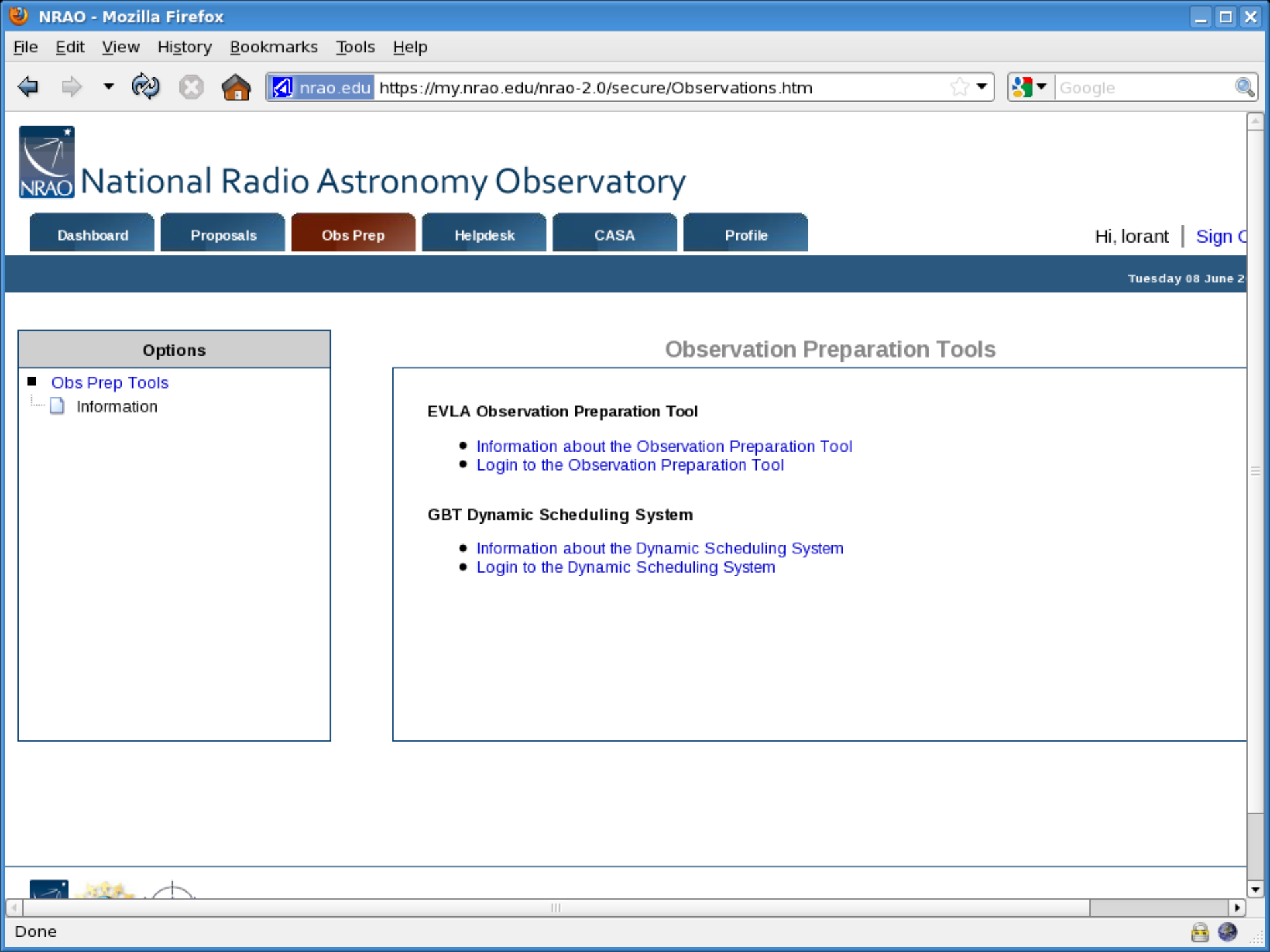
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EVLA Observation Preparation Tool (OPT)

for EVLA Open Shared Risk Observations with the WIDAR correlator

This page is meant to give additional information on the Observation Preparation Tool (OPT) to allow for temporary deviations from the information in the OPT manual. It is mainly intended to provide information for scheduling proposals approved for EVLA time during the Open Shared Risk Observing (OSRO) program (starting 2010 February/March) and any other scheduling with the OPT.

Last modified on 2010 Apr 01

NOTE: This is new, web based software! **Do not wait till the last moment with making schedules using the OPT.** Temporary server outages, some fixed delays in logistics or potential other problems may prevent you from submitting a schedule at the last moment, so plan to finish well (i.e. days) before your scheduled observations.

Current temporary restrictions for OSRO can be found here

Documentation	OPT manual (pdf)	The manual, a guide and your companion to the web interface.
OPT web login	e2e.nrao.edu/opt	The current place to go ***after*** reading the documentation *and this page* completely.
Helpdesk	science.nrao.edu/evla/helpdesk	For further Observation Preparation questions

- The OPT is needed to properly tune the new receivers and WIDAR correlator of the EVLA; this cannot be done with the VLA scheduling software (i.e., JObserve or observe). The OPT is the only scheduling software available for EVLA/WIDAR observations.
  For the moment you will be using a temporary release of the OPT to set up OSRO with WIDAR .

- We recommend using FireFox on a Linux machine for best tested performance. However, Internet Explorer 7, Safari and Chrome should work as well (but have not been extensively tested). Do not use browsers that do not handle java script (such as Konqueror on Red Hat systems).

- We **strongly recommend** to exercise patience when using the tool (do not click with the mouse while the interface is busy).

- We are continuously updating the manual, perhaps also with your feedback (please send feedback to the NRAO Helpdesk).

- For help with the tool other than can be found in the documentation please use the NRAO Helpdesk

- Occasionally we will have to update the software, which makes the web interface unavailable. Please be patient and try again a bit later, or let us know your constraints or concerns in advance and do not wait till the last moment with scheduling.

Detailed instructions for starting your scheduling with the OPT

- Please read the documentation first. It should get you the general idea of scheduling with the OPT. However, be aware that we still occasionally update the tool. These changes may not make it to the manual as quickly; we will add these changes to the manual as soon as possible.
- Please read the page on current observing restrictions and please keep them in mind to during your scheduling.
- Point your browser to e2e.nrao.edu/opt. Use your **my.nrao.edu** login and password to enter the tool; the OPT can be also found under the Obs Prep tab at the top when logged in to **my.nrao.edu**.
  Please be patient when using the tool. As it is a web application, sometimes connecting to the NRAO data base takes longer than you would want it to last. In particular, please do not click ahead, but wait for operations to finish. Also try to avoid using the browser "back" button to backtrack to a previous page; all pages have a link to get you back (usually on the top of the page or in the left hand side column).
- After you have logged in to the OPT web application, you should be in the OPT (navigate to the OPT if

- After you have logged in to the OPT web application, you should be in the OPT (navigate to the OPT if needed - see the documentation on how to do that).
  - Proceed with your scheduling as outlined in the documentation, with these important notes:
    -> We hope to have been able to transfer your source and resource catalogs from the PST properly. However, it is possible that some errors have occurred, that your project has been approved for a different resource, or that your source positions are not as accurate as you want them to be. Please check all data transferred from the PST carefully before proceeding and realizing that you may have to redo all your work! If you think there is something wrong please let us know through the NRAO Helpdesk
    -> Note that for dynamically scheduled files scan based Doppler tracking at the moment is not supported. However, we have recently implemented Doppler *setting* that may be used instead to set a fixed frequency for the whole Scheduling Block. Consult Appendix A of the OPT manual for your options or here on how to use it.
    -> Remember that observing at Ka-band has two hardware restrictions. First, IF pair AC cannot be used to observe frequencies below the lower edge of 32.24 GHz (in practice thus a center frequency of 32240 MHz plus half the bandwidth in MHz used); use IF pair BD instead. Second, the AC and BD IF pairs can only be separated up to within about 10.5 GHz, where thus only IF pair BD can be tuned below 32.24 GHz. The OPT should issue warnings or errors for these occasions, but be aware of this just in case it does not. For more information read section 2.2.4 in the documentation.
    -> Maybe not so obvious, but "fast-switching" is now done using "scan loops" (see sections 4.3.3 and 4.3.4 in the documentation).
    -> A point that is not well documented yet is how to create a scan after a "scan loop". There are three possibilities:
    0) Select the Scheduling Block title (top, next to the green SB icon). Then a newly created scan will be attached to the end of the scan list, below the loop.
    1) When created as usual, in a sequence of scans without reselecting a different item, this scan will end up in the scan loop. Use the "left-arrow" of the icon menu at the top of the left hand side column to move the scan outside the loop and it will end up above the loop it just came out of.
    2) Create the scan before the loop (i.e., select the scan above the loop before creating a new scan). For either of the last two cases (1 and 2) now use the "down-arrow" of the icon menu to move the scan below the loop and proceed as usual.
  - **Doppler setting** is a new feature and has not made it into the documentation yet. However it is simple to set up a resource that invokes Doppler setting. Using Doppler setting will calculate the sky frequency at the start of the observation from the specifications in the Doppler setting table in the resource. To use Doppler setting, select the "rest" frequency button in the resource (as opposed to "sky"), which enables the table below it. In that table specify for which position and velocity (etc) the frequency calculation needs to be performed and use this resource in your scans in the OPT.
- If you need further help, or would like to give us suggestions and feedback, please use the NRAO Helpdesk.

Good luck with your observations!

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Early Science
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News for Proposers and Observers
EVLA Observation Preparation Tool (OPT)
Current OSRO Restrictions
Known Issues
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Band-specific
Special Topics

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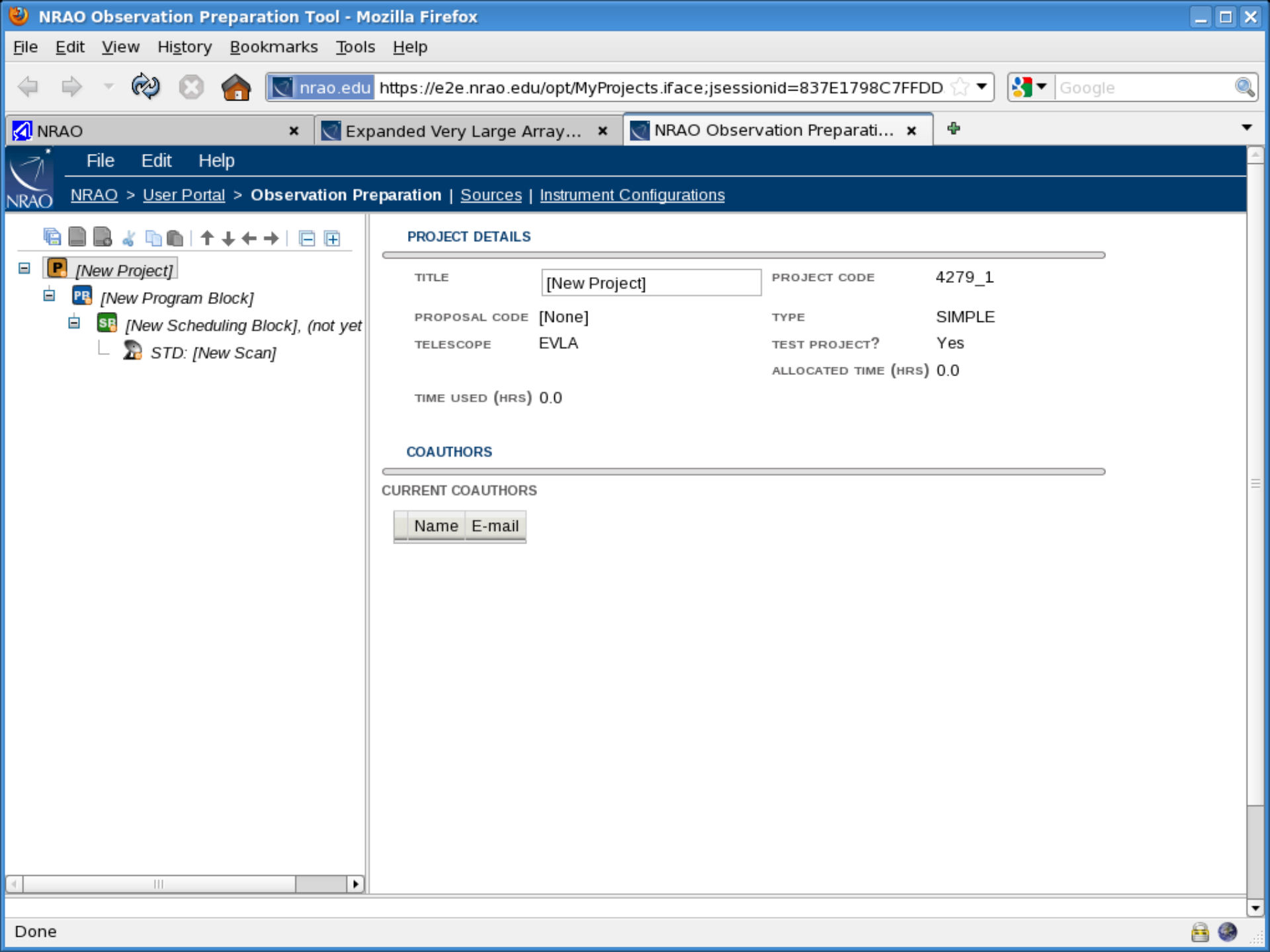
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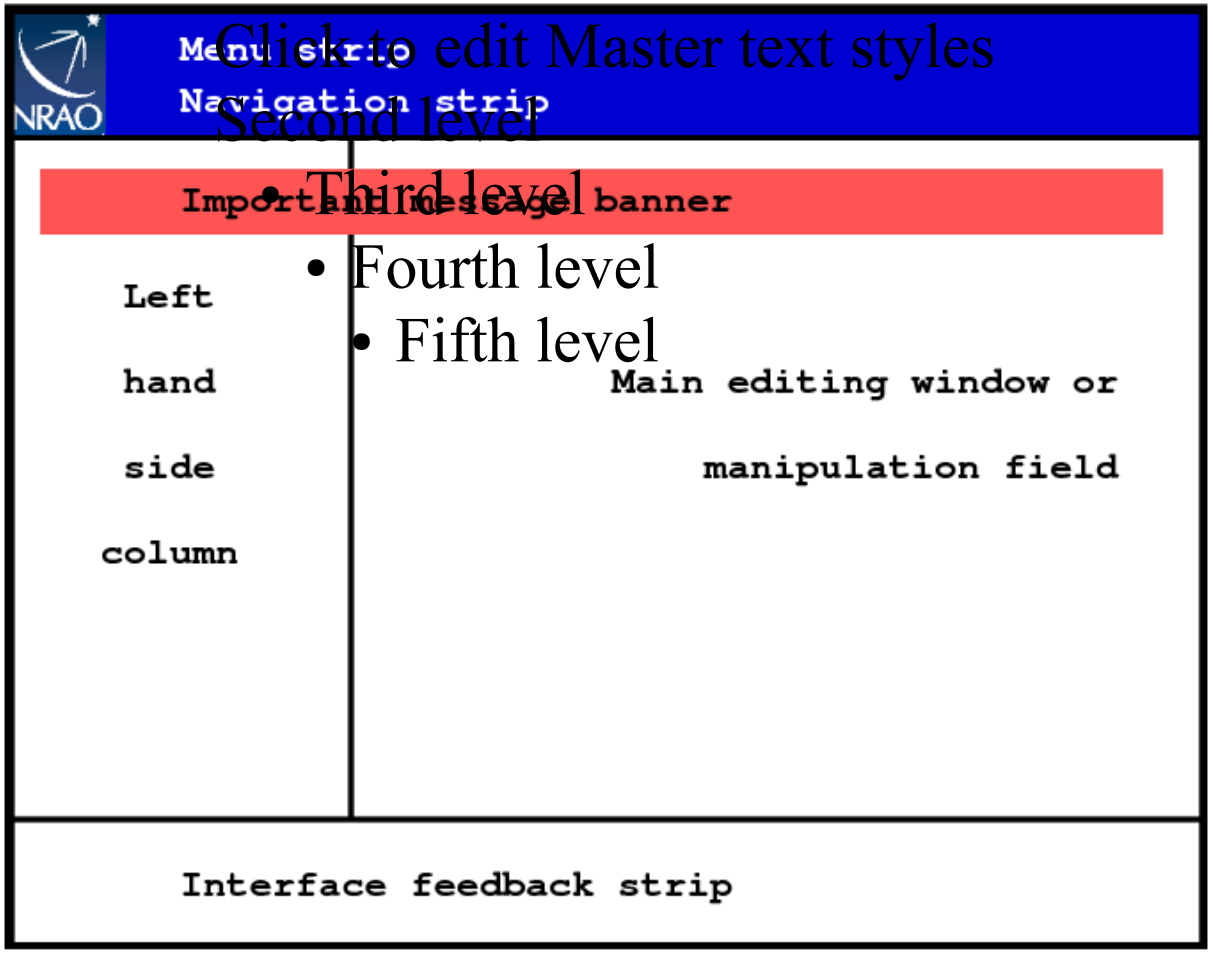
Layout of the OPT



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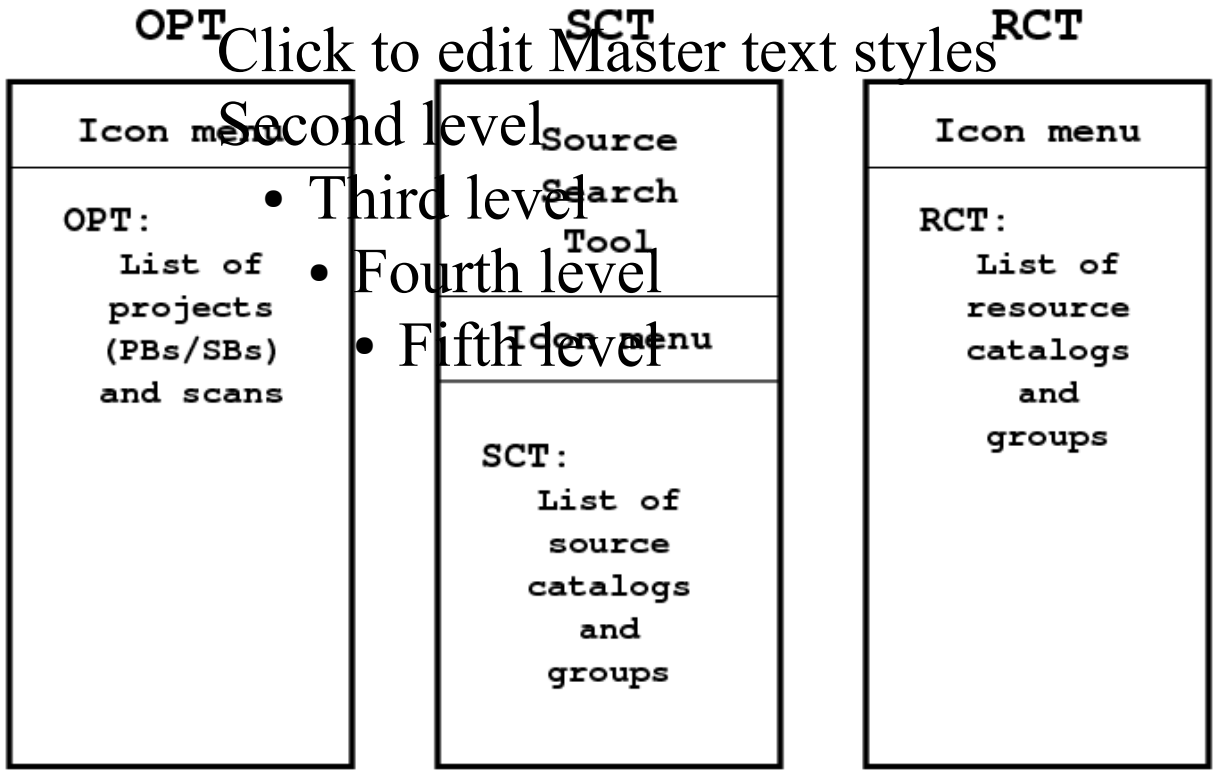

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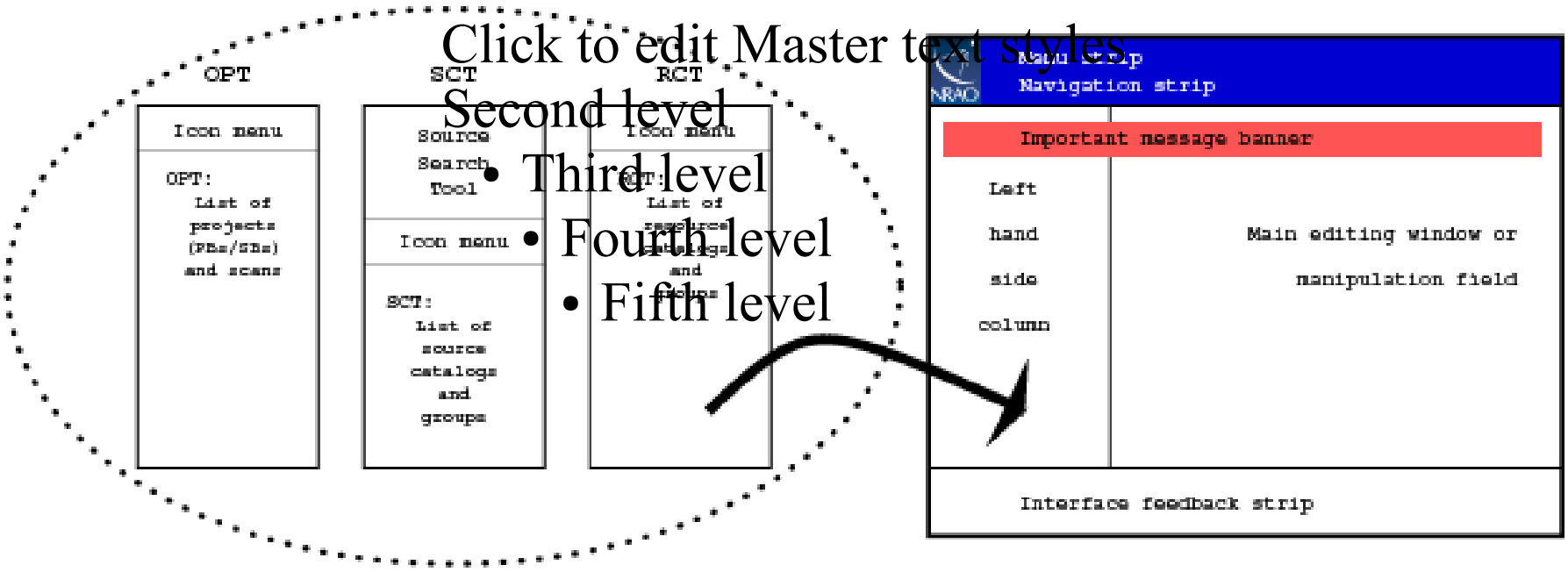

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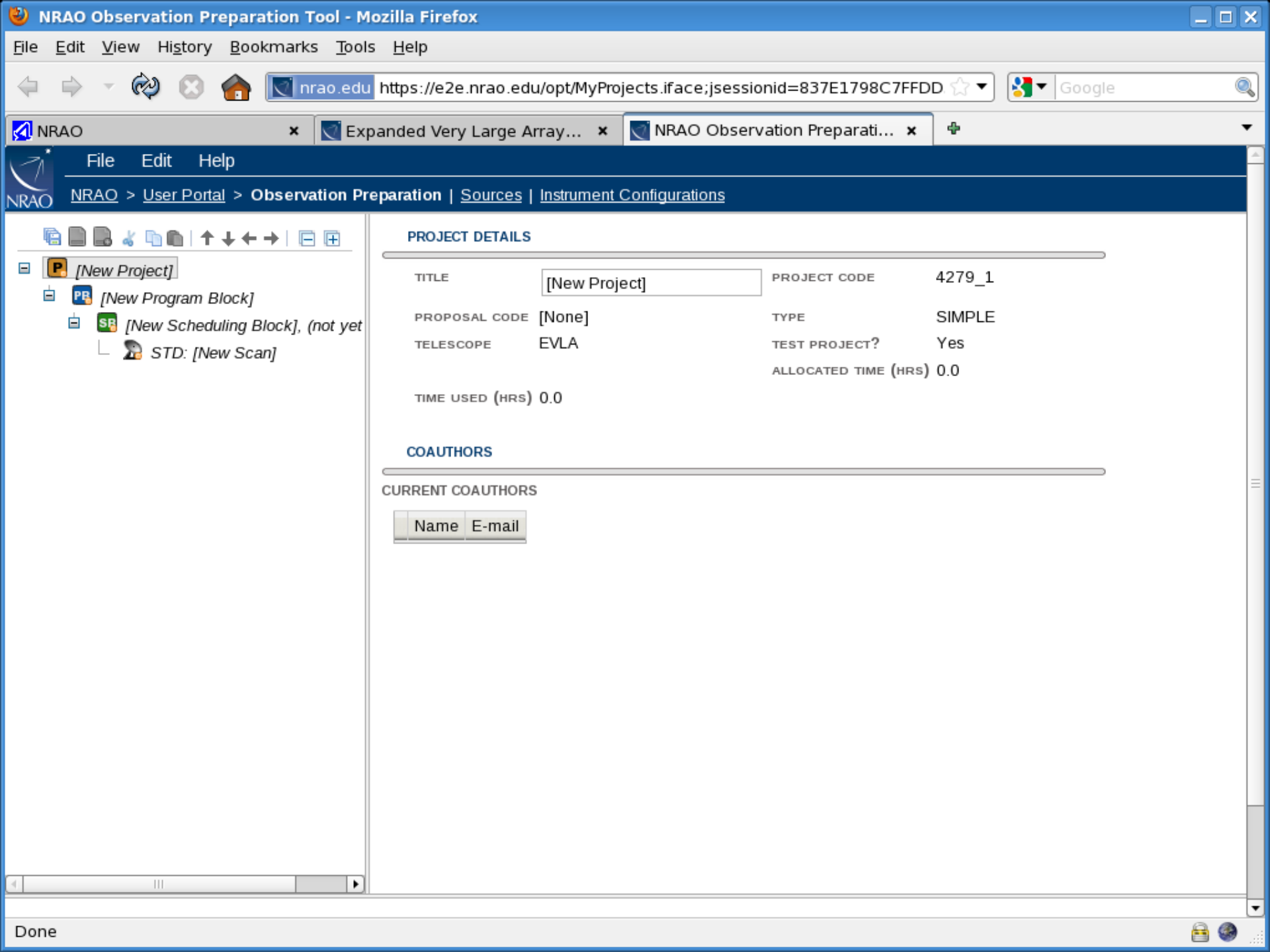
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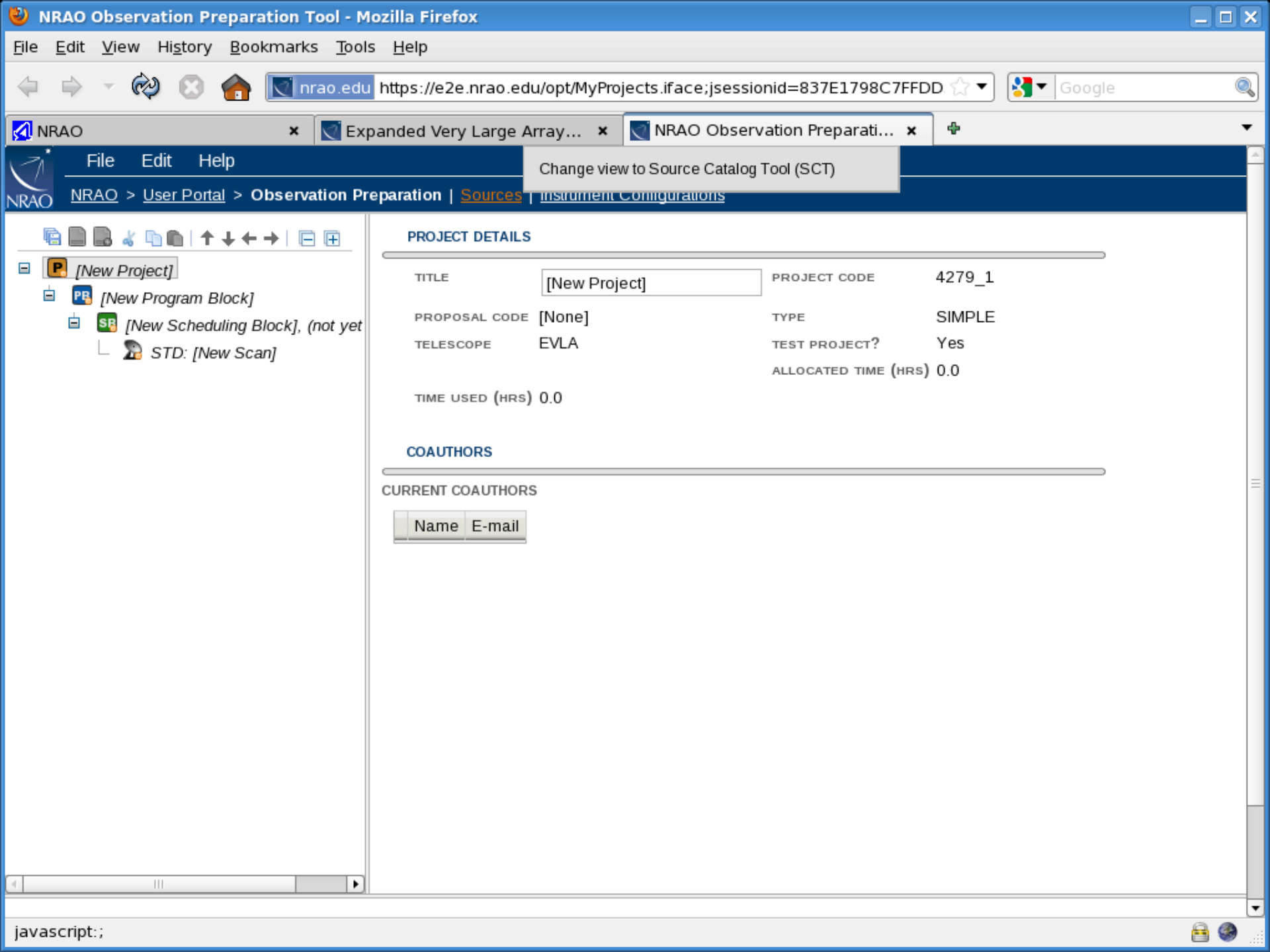
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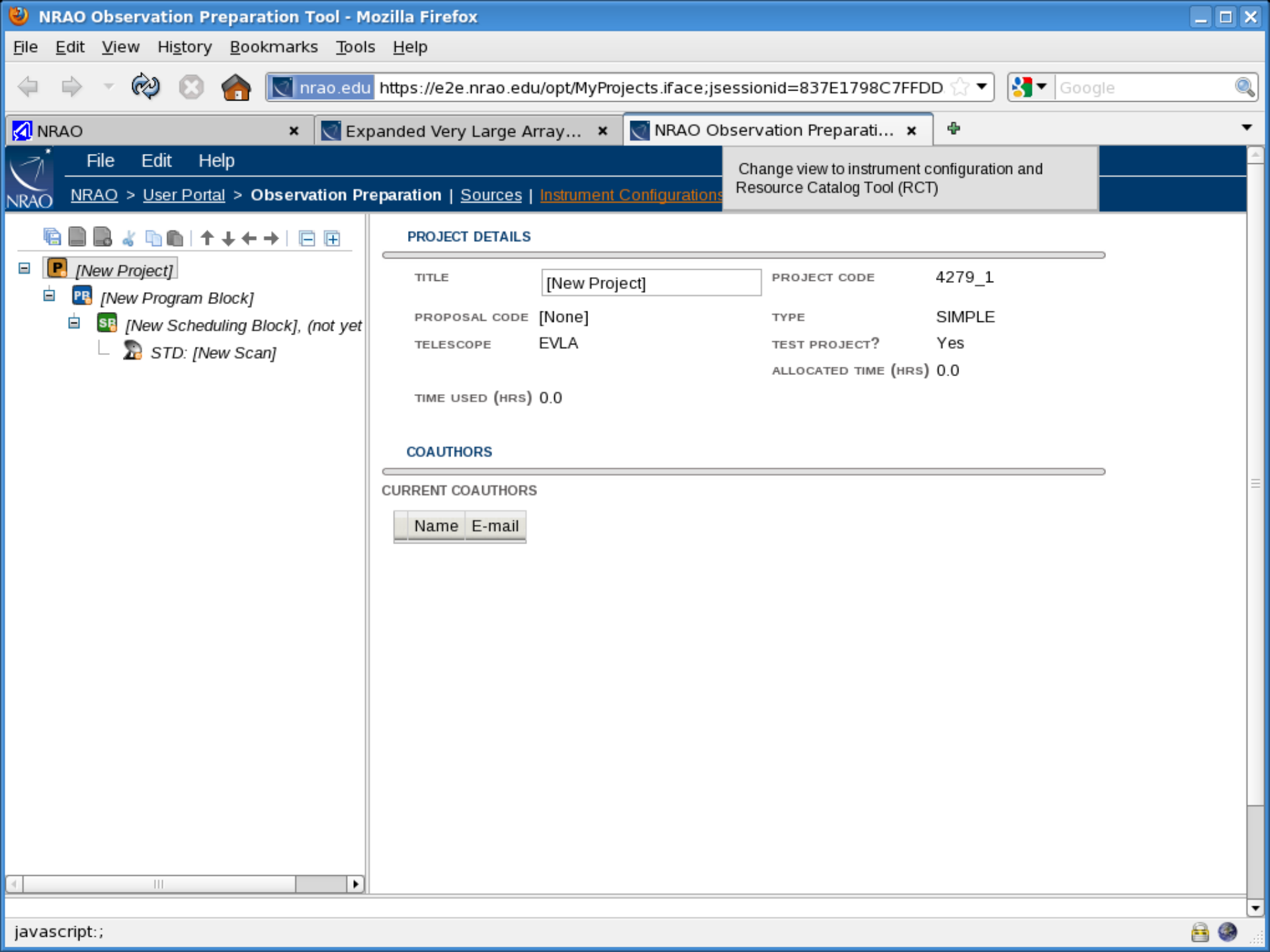
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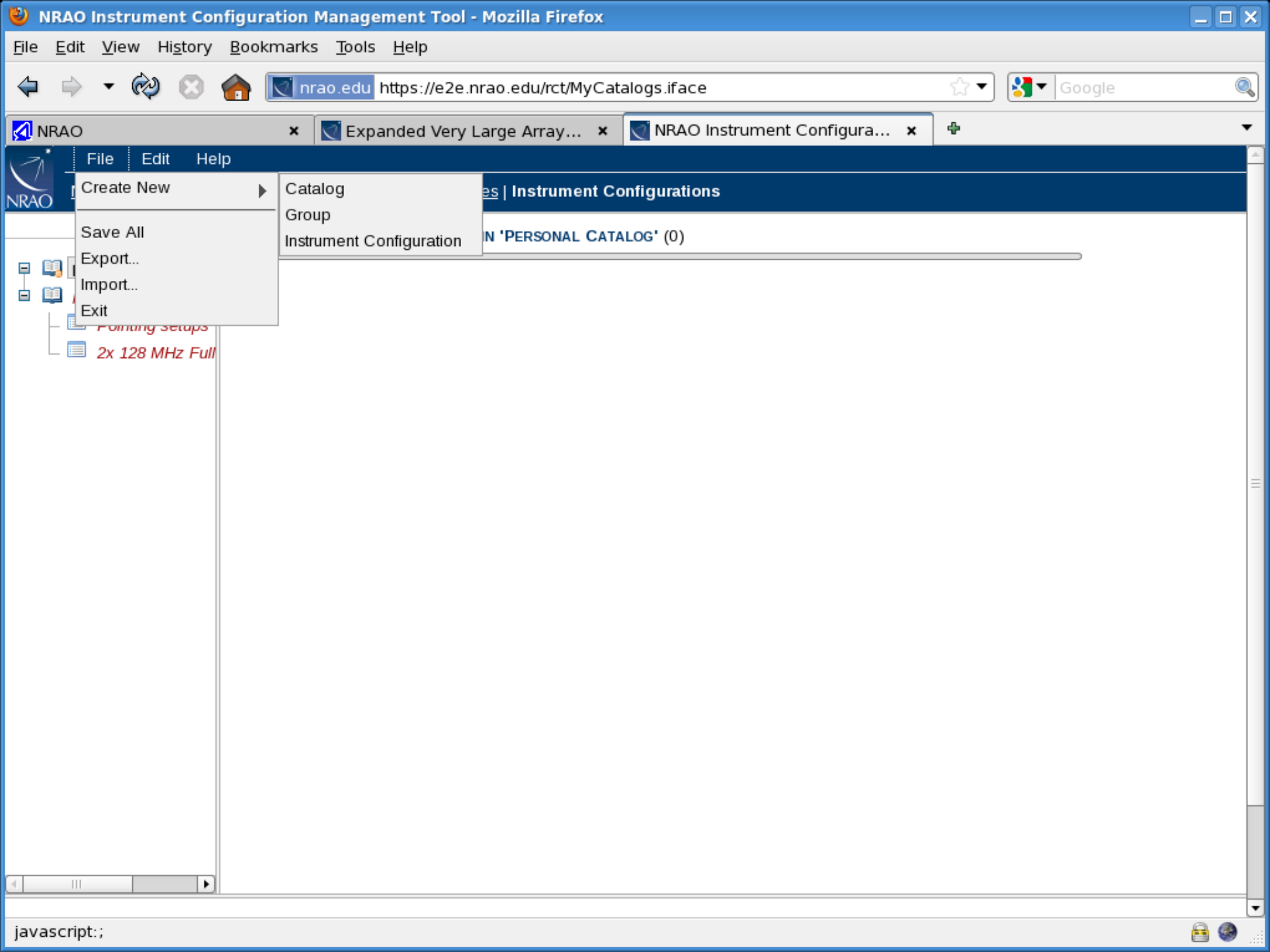
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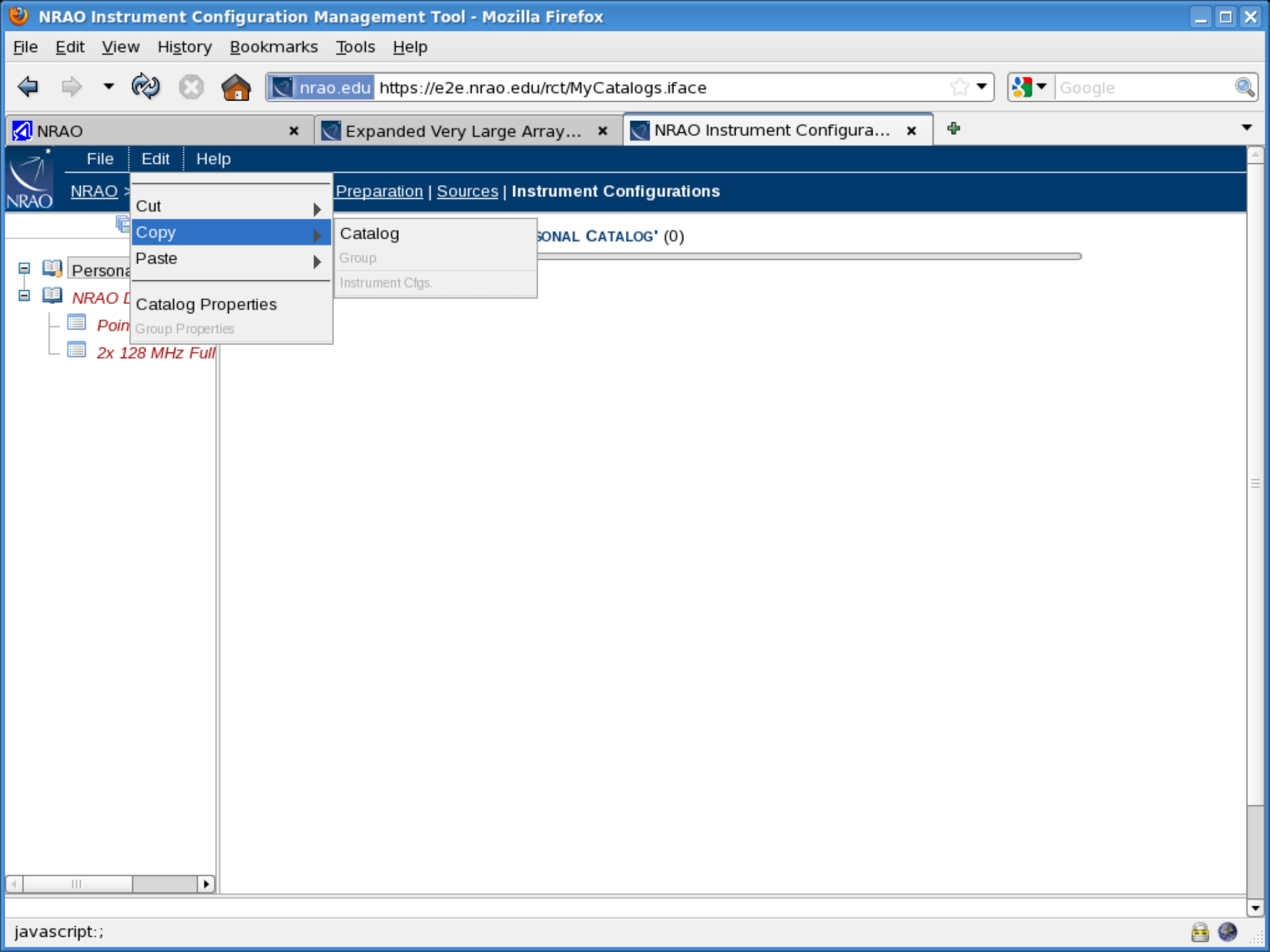
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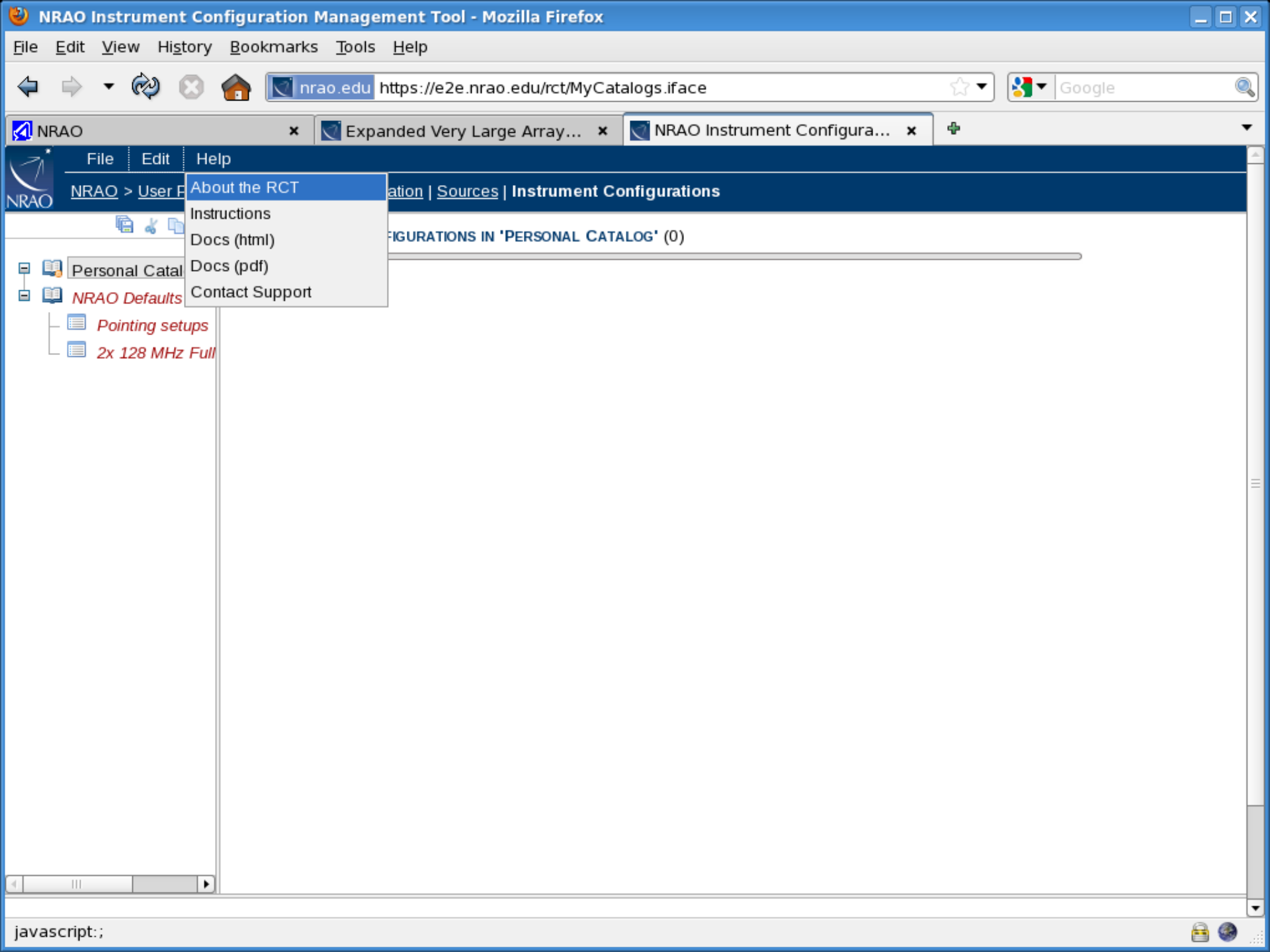
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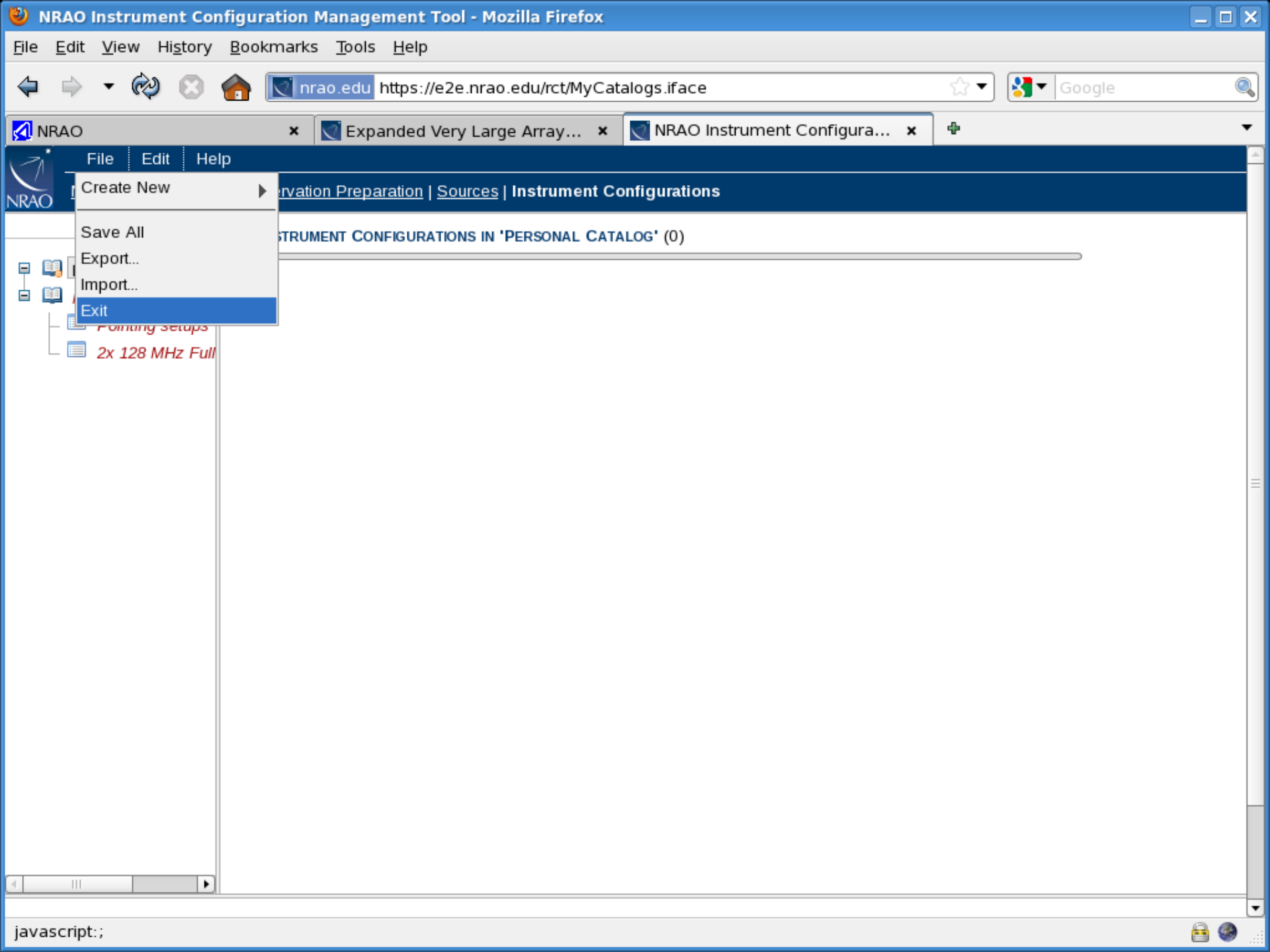
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Creating source catalogs using the SCT

Sources may have been transferred from the proposal information

If so, check the source positions, velocity definitions, ..

Can define your own sources (telescope pointing directions)

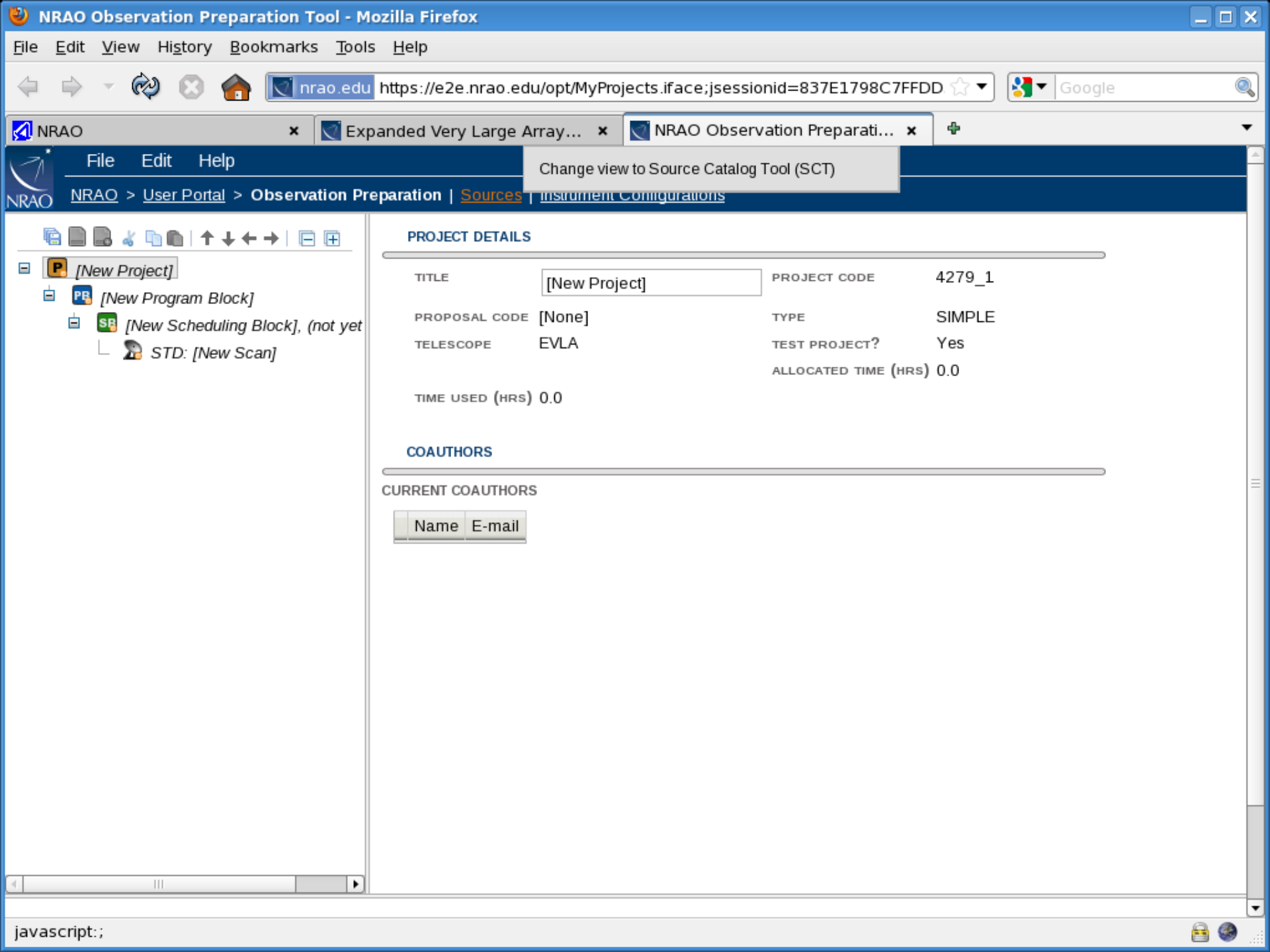
Can use sources predefined in (VLA) "calibrator" source list

Not every (calibrator) source in this list is useful for calibration in every observation; check its properties before using for calibration!

Some (calibrator) sources make great target sources…

Useful to combine all sources to be used in an SB(/PB) in its own "group"

Make sure all sources are defined before creating the scan list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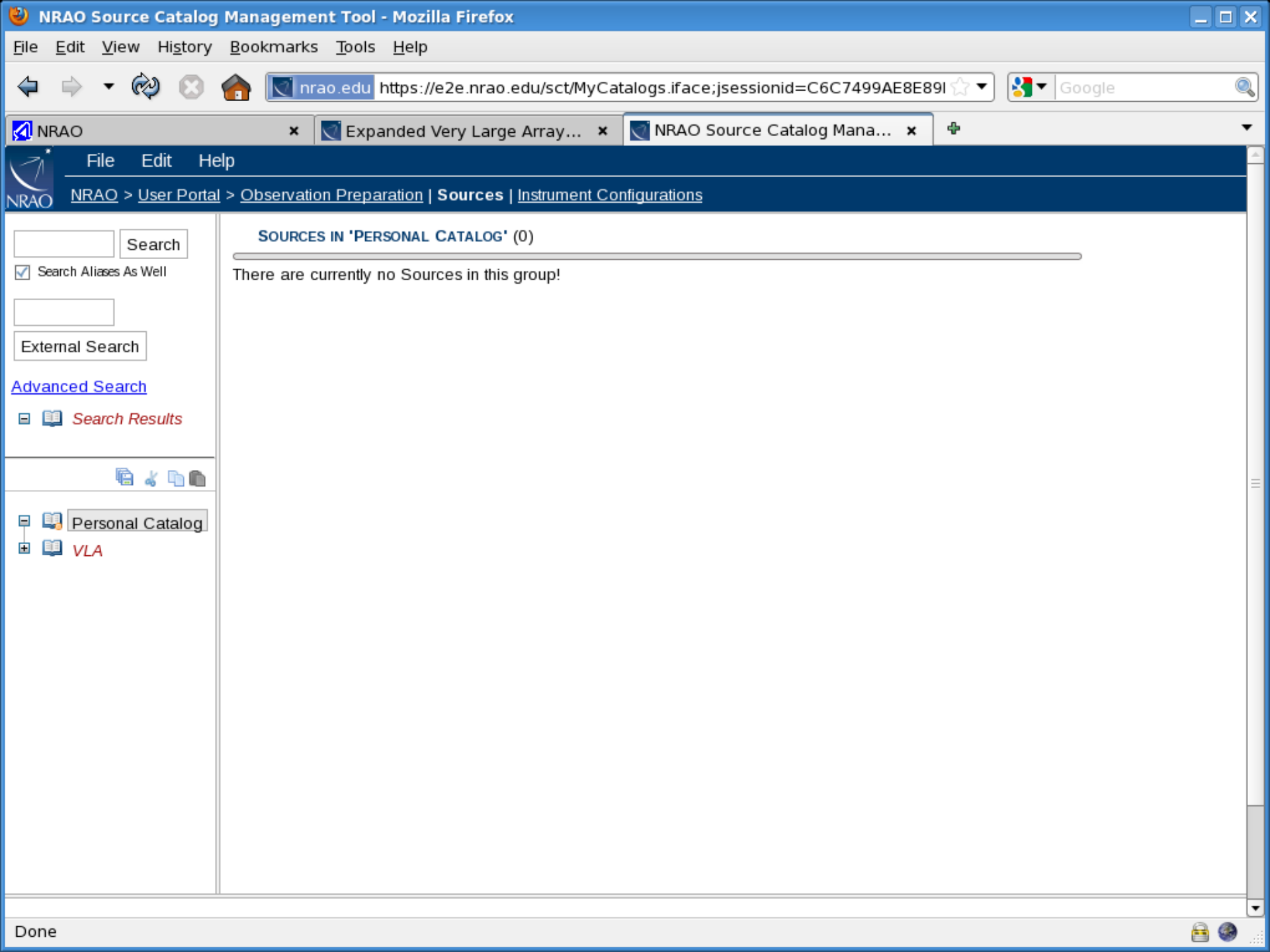
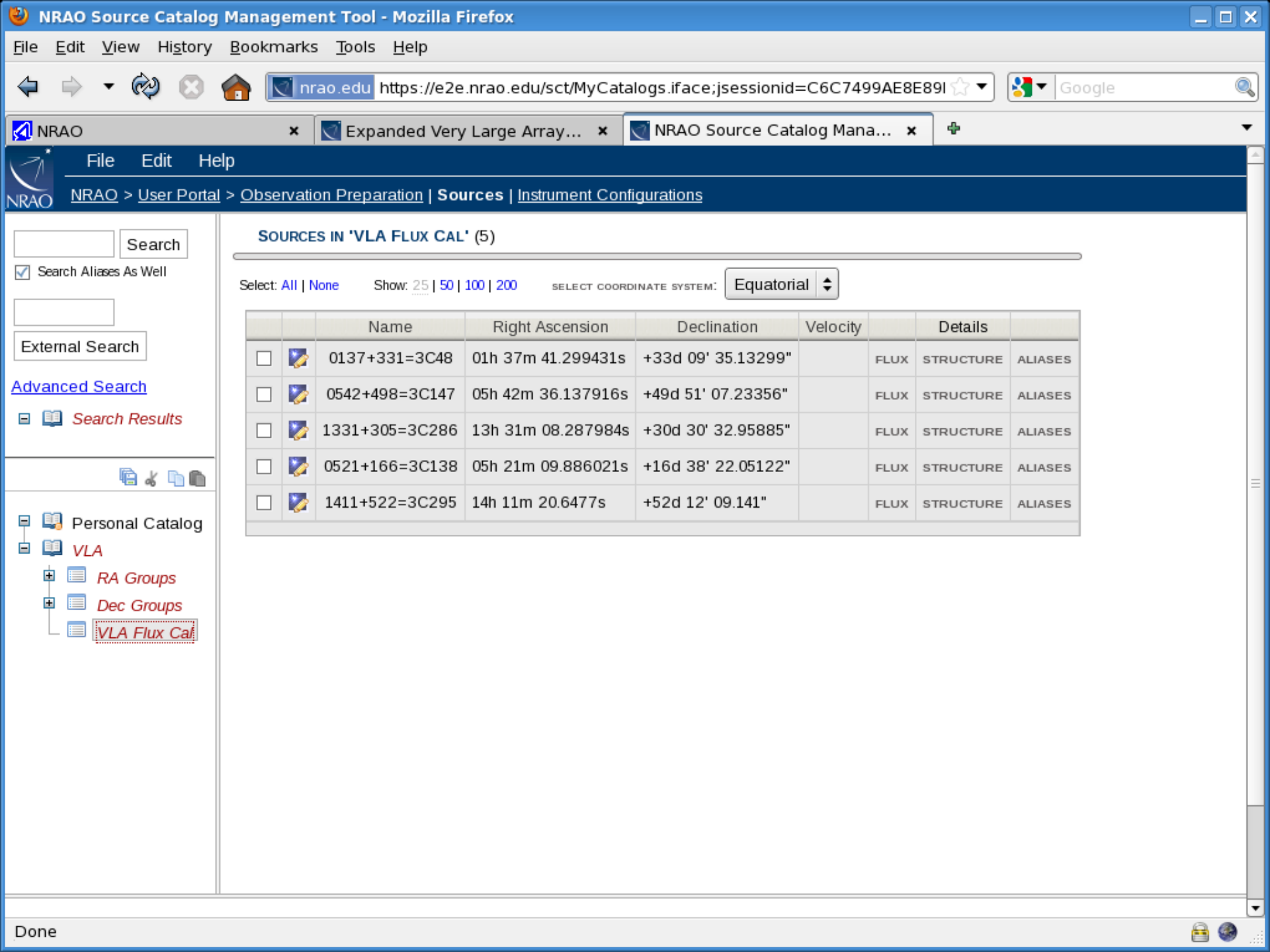
NRAO Observation Preparati...
File Edit Help
Change view to Source Catalog Tool (SCT)
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
[New Project]
[New Program Block]
[New Scheduling Block], (not yet
STD: [New Scan]
PROJECT DETAILS
TITLE
[New Project]
PROJECT CODE
4279_1
PROPOSAL CODE
[None]
TYPE
SIMPLE
TELESCOPE
EVLA
TEST PROJECT?
Yes
ALLOCATED TIME (HRS)
0.0
TIME USED (HRS)
0.0
COAUTHORS
CURRENT COAUTHORS
Name
E-mail
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
External Search
Advanced Search
Search Results
Personal Catalog
VLA
SOURCES IN 'PERSONAL CATALOG' (0)
There are currently no Sources in this group!
Done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Expanded Very Large Array...
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File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
External Search
Advanced Search
Search Results
Personal Catalog
VLA
RA Groups
Dec Groups
VLA Flux Cal
SOURCES IN 'VLA FLUX CAL' (5)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM: Equatorial
Name
Right Ascension
Declination
Velocity
Details
0137+331=3C48 01h 37m 41.299431s +33d 09' 35.13299" FLUX STRUCTURE ALIASES
0542+498=3C147 05h 42m 36.137916s +49d 51' 07.23356" FLUX STRUCTURE ALIASES
1331+305=3C286 13h 31m 08.287984s +30d 30' 32.95885" FLUX STRUCTURE ALIASES
0521+166=3C138 05h 21m 09.886021s +16d 38' 22.05122" FLUX STRUCTURE ALIASES
1411+522=3C295 14h 11m 20.6477s +52d 12' 09.141" FLUX STRUCTURE ALIASES
Done

Search

Search Aliases As Well

External Search

Advanced Search

Search Results

Personal Catalog

VLA

RA Groups

RA 00

RA 01

RA 02

RA 03

RA 04

RA 05

RA 06

RA 07

RA 08

RA 09

SOURCES IN 'RA 05' (70)

Select: All | None Show: 25 | 50 | 100 | 200 SELECT COORDINATE SYSTEM: Equatorial

1 2 3

	Name	Right Ascension	Declination	Velocity		Details	
	J0501-0159	05h 01m 12.809888s	-01d 59' 14.2562"		FLUX	STRUCTURE	ALIASES
	J0501+1356	05h 01m 45.27084s	+13d 56' 07.22063"		FLUX	STRUCTURE	ALIASES
	J0502+0609	05h 02m 15.445934s	+06d 09' 07.4943"		FLUX	STRUCTURE	ALIASES
	J0502+1338	05h 02m 33.21951s	+13d 38' 10.9587"		FLUX	STRUCTURE	ALIASES
	J0502+4139	05h 02m 37.9877s	+41d 39' 19.337"		FLUX	STRUCTURE	ALIASES
	J0502+2516	05h 02m 58.5826s	+25d 16' 24.242"		FLUX	STRUCTURE	ALIASES
	J0503+0203	05h 03m 21.197177s	+02d 03' 04.67638"		FLUX	STRUCTURE	ALIASES
	J0503+4424	05h 03m 50.2143s	+44d 24' 39.499"		FLUX	STRUCTURE	ALIASES
	J0505+0459	05h 05m 23.184723s	+04d 59' 42.72448"		FLUX	STRUCTURE	ALIASES
	J0507+4645	05h 07m 23.658s	+46d 45' 42.349"		FLUX	STRUCTURE	ALIASES
	J0508+8432	05h 08m 42.363503s	+84d 32' 04.54402"		FLUX	STRUCTURE	ALIASES
	J0509+3528	05h 09m 05.8451s	+35d 28' 17.289"		FLUX	STRUCTURE	ALIASES
	J0509+0541	05h 09m 25.964466s	+05d 41' 35.33353"		FLUX	STRUCTURE	ALIASES
	J0509+1011	05h 09m 27.457077s	+10d 11' 44.60016"		FLUX	STRUCTURE	ALIASES

Search

Search Aliases As Well

External Search

Advanced Search

Search Results

Personal Catalog

VLA

RA Groups

RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
RA 08
RA 09

SOURCES IN 'RA 05' (70)

Select: All | None Show: 25 | 50 | 100 | 200 SELECT COORDINATE SYSTEM: Equatorial

1 2 3

		Name	Right Ascension	Declination	Velocity		Details	
☐		J0518+2054	05h 18m 03.824489s	+20d 54' 52.49715"		FLUX	STRUCTURE	ALIASES
☐		J0518+3306	05h 18m 05.1438s	+33d 06' 13.369"		FLUX	STRUCTURE	ALIASES
☐		J0518+4730	05h 18m 12.0899s	+47d 30' 55.536"		FLUX	STRUCTURE	ALIASES
☐		J0519+0848	05h 19m 10.8113s	+08d 48' 56.717"		FLUX	STRUCTURE	ALIASES
☐		J0519+2744	05h 19m 33.0246s	+27d 44' 04.267"		FLUX	STRUCTURE	ALIASES
☐		J0520+4528	05h 20m 47.52s	+45d 28' 34.952"		FLUX	STRUCTURE	ALIASES
☐		J0521+1638	05h 21m 09.886021s	+16d 38' 22.05122"		FLUX	STRUCTURE	ALIASES
☐		J0521-2047	05h 21m 38.895s	-20d 47' 39.388"		FLUX	STRUCTURE	ALIASES
☐		J0521+2112	05h 21m 45.965828s	+21d 12' 51.45136"		FLUX	STRUCTURE	ALIASES
☐		J0522+0113	05h 22m 17.467439s	+01d 13' 31.1863"		FLUX	STRUCTURE	ALIASES
☐		J0522-3627	05h 22m 57.984651s	-36d 27' 30.85092"		FLUX	STRUCTURE	ALIASES
☐		J0524+7034	05h 24m 13.4334s	+70d 34' 52.919"		FLUX	STRUCTURE	ALIASES
☐		J0527+0331	05h 27m 32.705431s	+03d 31' 31.51665"		FLUX	STRUCTURE	ALIASES
☐		J0530-2503	05h 30m 07.962795s	-25d 03' 29.89959"		FLUX	STRUCTURE	ALIASES

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NRAO | Expanded Very Large Array... | NRAO Source Catalog Mana...

File Edit Help

NRAO > User Portal > Observation Preparation | **Sources** | Instrument Configurations

Search

Search Aliases As Well

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VLA

RA Groups

RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
RA 08
RA 09

SOURCES IN 'RA 05' (70)

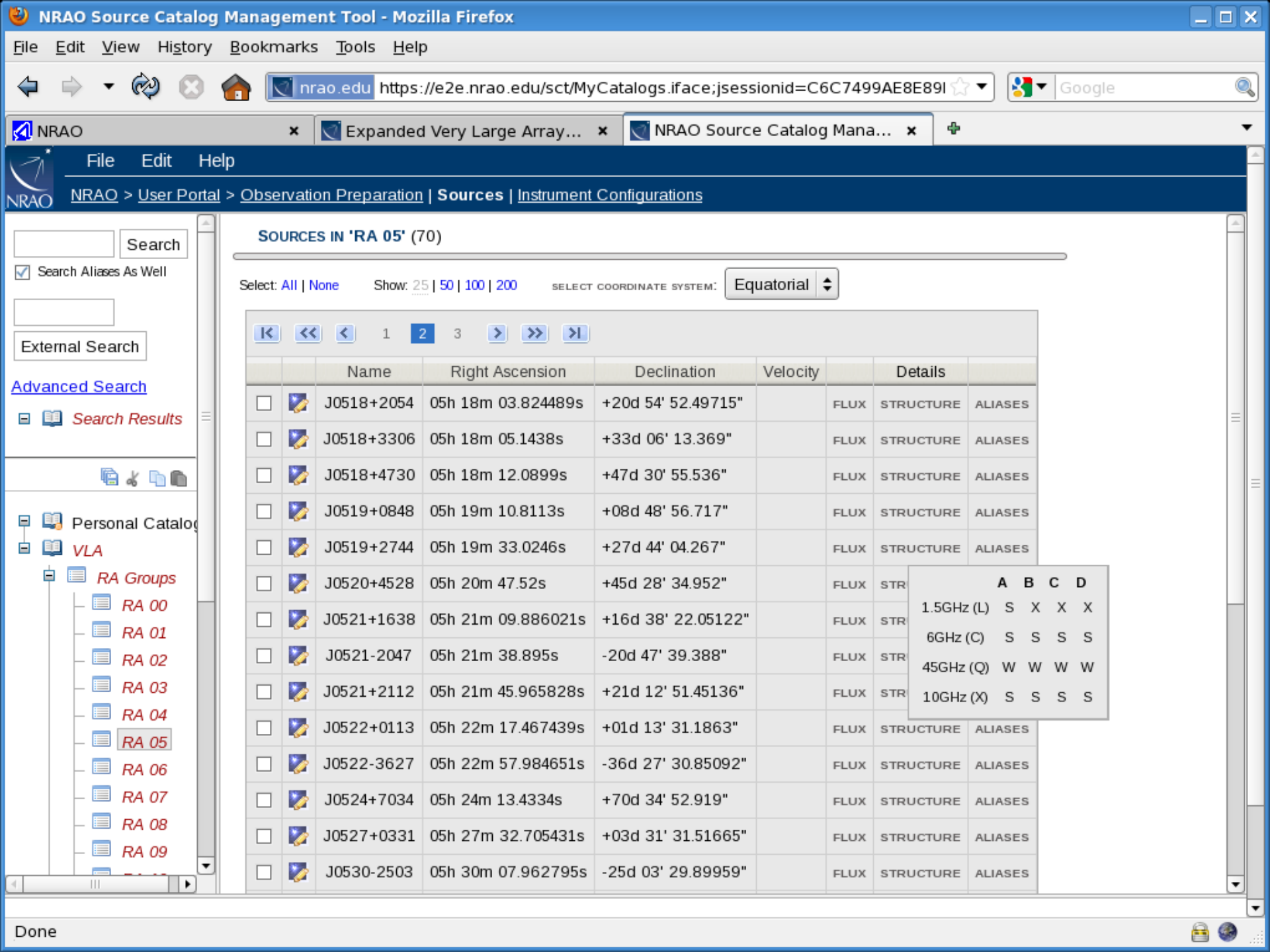
Select: All | None Show: 25 | 50 | 100 | 200 SELECT COORDINATE SYSTEM: Equatorial

1 2 3

	Name	Right Ascension	Declination	Velocity		Details	
	J0518+2054	05h 18m 03.824489s	+20d 54' 52.49715"		FLUX	STRUCTURE	ALIASES
	J0518+3306	05h 18m 05.1438s	+33d 06' 13.369"		FLUX	STRUCTURE	ALIASES
	J0518+4730	05h 18m 12.0899s	+47d 30' 55.536"		FLUX	STRUCTURE	ALIASES
	J0519+0848	05h 19m 10.8113s	+08d 48' 56.717"		FLUX	STRUCTURE	ALIASES
	J0519+2744	05h 19m 33.0246s	+27d 44' 04.267"		FLUX	STRUCTURE	ALIASES
	J0520+4528	05h 20m 47.52s	+45d 28' 34.952"		FLUX		
	J0521+1638	05h 21m 09.886021s	+16d 38' 22.05122"		FLUX		
	J0521-2047	05h 21m 38.895s	-20d 47' 39.388"		FLUX		
	J0521+2112	05h 21m 45.965828s	+21d 12' 51.45136"		FLUX		
	J0522+0113	05h 22m 17.467439s	+01d 13' 31.1863"		FLUX	STRUCTURE	ALIASES
	J0522-3627	05h 22m 57.984651s	-36d 27' 30.85092"		FLUX	STRUCTURE	ALIASES
	J0524+7034	05h 24m 13.4334s	+70d 34' 52.919"		FLUX	STRUCTURE	ALIASES
	J0527+0331	05h 27m 32.705431s	+03d 31' 31.51665"		FLUX	STRUCTURE	ALIASES
	J0530-2503	05h 30m 07.962795s	-25d 03' 29.89959"		FLUX	STRUCTURE	ALIASES

Frequency	Brightness
X (8GHz)	0.4Jy
Q (45GHz)	0.2Jy
C (6GHz)	0.44Jy
L (2GHz)	0.68Jy

Done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NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
External Search
Advanced Search
Search Results
Personal Catalog
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
RA 08
RA 09
SOURCES IN 'RA 05' (70)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM: Equatorial
1 2 3
Name
Right Ascension
Declination
Velocity
Details
J0518+2054 05h 18m 03.824489s +20d 54' 52.49715"
J0518+3306 05h 18m 05.1438s +33d 06' 13.369"
J0518+4730 05h 18m 12.0899s +47d 30' 55.536"
J0519+0848 05h 19m 10.8113s +08d 48' 56.717"
J0519+2744 05h 19m 33.0246s +27d 44' 04.267"
J0520+4528 05h 20m 47.52s +45d 28' 34.952"
J0521+1638 05h 21m 09.886021s +16d 38' 22.05122"
J0521-2047 05h 21m 38.895s -20d 47' 39.388"
J0521+2112 05h 21m 45.965828s +21d 12' 51.45136"
J0522+0113 05h 22m 17.467439s +01d 13' 31.1863"
J0522-3627 05h 22m 57.984651s -36d 27' 30.85092"
J0524+7034 05h 24m 13.4334s +70d 34' 52.919"
J0527+0331 05h 27m 32.705431s +03d 31' 31.51665"
J0530-2503 05h 30m 07.962795s -25d 03' 29.89959"
FLUX STRUCTURE ALIASES
A B C D
1.5GHz (L) S X X X
6GHz (C) S S S S
45GHz (Q) W W W W
10GHz (X) S S S S
Done

NRAO Source Catalog Management Tool - Mozilla Firefox
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Google
NRAO
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NRAO Source Catalog Mana...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
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Search Results
Personal Catalog
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
RA 08
RA 09
SOURCES IN 'RA 05' (70)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM: Equatorial
1 2 3
Name | Right Ascension | Declination | Velocity | Details
J0518+2054 | 05h 18m 03.824489s | +20d 54' 52.49715" | FLUX | STRUCTURE | ALIASES
J0518+3306 | 05h 18m 05.1438s | +33d 06' 13.369" | FLUX | STRUCTURE | ALIASES
J0518+4730 | 05h 18m 12.0899s | +47d 30' 55.536" | FLUX | STRUCTURE | ALIASES
J0519+0848 | 05h 19m 10.8113s | +08d 48' 56.717" | FLUX | STRUCTURE | ALIASES
J0519+2744 | 05h 19m 33.0246s | +27d 44' 04.267" | FLUX | STRUCTURE | ALIASES
J0520+4528 | 05h 20m 47.52s | +45d 28' 34.952" | FLUX | STRUCTURE | ALIASES
J0521+1638 | 05h 21m 09.886021s | +16d 38' 22.05122" | FLUX | STRUCTURE | ALIASES
J0521-2047 | 05h 21m 38.895s | -20d 47' 39.388" | FLUX | STRUCTURE | AL
J0521+2112 | 05h 21m 45.965828s | +21d 12' 51.45136" | FLUX | STRUCTURE | AL
J0522+0113 | 05h 22m 17.467439s | +01d 13' 31.1863" | FLUX | STRUCTURE | ALIASES
J0522-3627 | 05h 22m 57.984651s | -36d 27' 30.85092" | FLUX | STRUCTURE | ALIASES
J0524+7034 | 05h 24m 13.4334s | +70d 34' 52.919" | FLUX | STRUCTURE | ALIASES
J0527+0331 | 05h 27m 32.705431s | +03d 31' 31.51665" | FLUX | STRUCTURE | ALIASES
J0530-2503 | 05h 30m 07.962795s | -25d 03' 29.89959" | FLUX | STRUCTURE | ALIASES
J0522+0113
0522+012
B0519+0110
0519+011
Done

3c286 Search

Search Aliases As Well

External Search

Advanced Search

Search Results

Personal Catalog

VLA

RA Groups

RA 00

RA 01

RA 02

RA 03

RA 04

RA 05

RA 06

RA 07

RA 08

RA 09

SOURCES IN 'VLA' (1865)

Select: All | None Show: 25 | 50 | 100 | 200 SELECT COORDINATE SYSTEM: Equatorial

1 2 3 4 5 6 7 8 9 10

		Name	Right Ascension	Declination	Velocity		Details	
☐		J0001+1914	00h 01m 08.621563s	+19d 14' 33.80186"		FLUX	STRUCTURE	ALIASES
☐		J0003-1727	00h 03m 21.9969s	-17d 27' 11.781"		FLUX	STRUCTURE	ALIASES
☐		J0004+4615	00h 04m 16.127651s	+46d 15' 17.97001"		FLUX	STRUCTURE	ALIASES
☐		J0004+2019	00h 04m 35.7576s	+20d 19' 42.249"		FLUX	STRUCTURE	ALIASES
☐		J0005+5428	00h 05m 04.363531s	+54d 28' 24.92623"		FLUX	STRUCTURE	ALIASES
☐		J0005+3820	00h 05m 57.175409s	+38d 20' 15.14857"		FLUX	STRUCTURE	ALIASES
☐		J0006-0623	00h 06m 13.892894s	-06d 23' 35.3353"		FLUX	STRUCTURE	ALIASES
☐		J0006-0004	00h 06m 22.6338s	-00d 04' 24.086"		FLUX	STRUCTURE	ALIASES
☐		J0006+2422	00h 06m 48.789395s	+24d 22' 36.39249"		FLUX	STRUCTURE	ALIASES
☐		J0008+1144	00h 08m 00.8394s	+11d 44' 00.784"		FLUX	STRUCTURE	ALIASES
☐		J0008+6837	00h 08m 33.471549s	+68d 37' 22.04504"		FLUX	STRUCTURE	ALIASES
☐		J0009+0628	00h 09m 03.9327s	+06d 28' 21.238"		FLUX	STRUCTURE	ALIASES
☐		J0009+4001	00h 09m 04.173595s	+40d 01' 46.70474"		FLUX	STRUCTURE	ALIASES
☐		J0010+2047	00h 10m 28.7425s	+20d 47' 49.713"		FLUX	STRUCTURE	ALIASES

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Google

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File Edit Help

NRAO > User Portal > Observation Preparation | **Sources** | Instrument Configurations

Search

Select a catalog to search

Search Aliases As Well

External Search

Advanced Search

- Search Results
  - 1. Search Res

- Personal Catalog
- VLA
  - RA Groups
    - RA 00
    - RA 01
    - RA 02
    - RA 03
    - RA 04
    - RA 05
    - RA 06

SOURCE SEARCH Show Advanced

3c286 Search

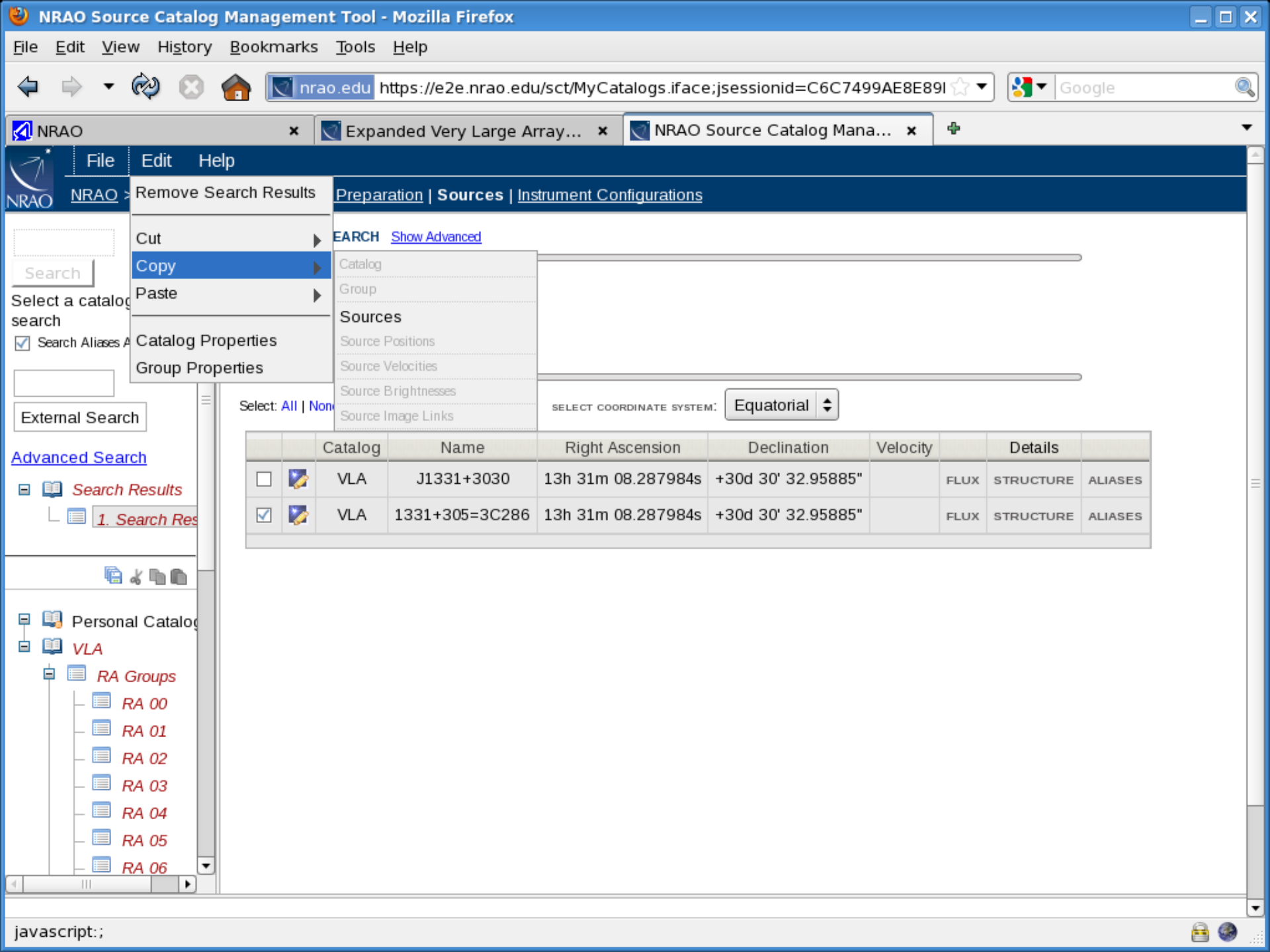
Search Aliases As Well

SOURCES IN '1. SEARCH RESULTS' (2)

Select: All | None Show: 25 | 50 | 100 | 200 SELECT COORDINATE SYSTEM: Equatorial

		Catalog	Name	Right Ascension	Declination	Velocity		Details	
☐		VLA	J1331+3030	13h 31m 08.287984s	+30d 30' 32.95885"		FLUX	STRUCTURE	ALIASES
☐		VLA	1331+305=3C286	13h 31m 08.287984s	+30d 30' 32.95885"		FLUX	STRUCTURE	ALIASES

Done


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
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NRAO Source Catalog Mana...
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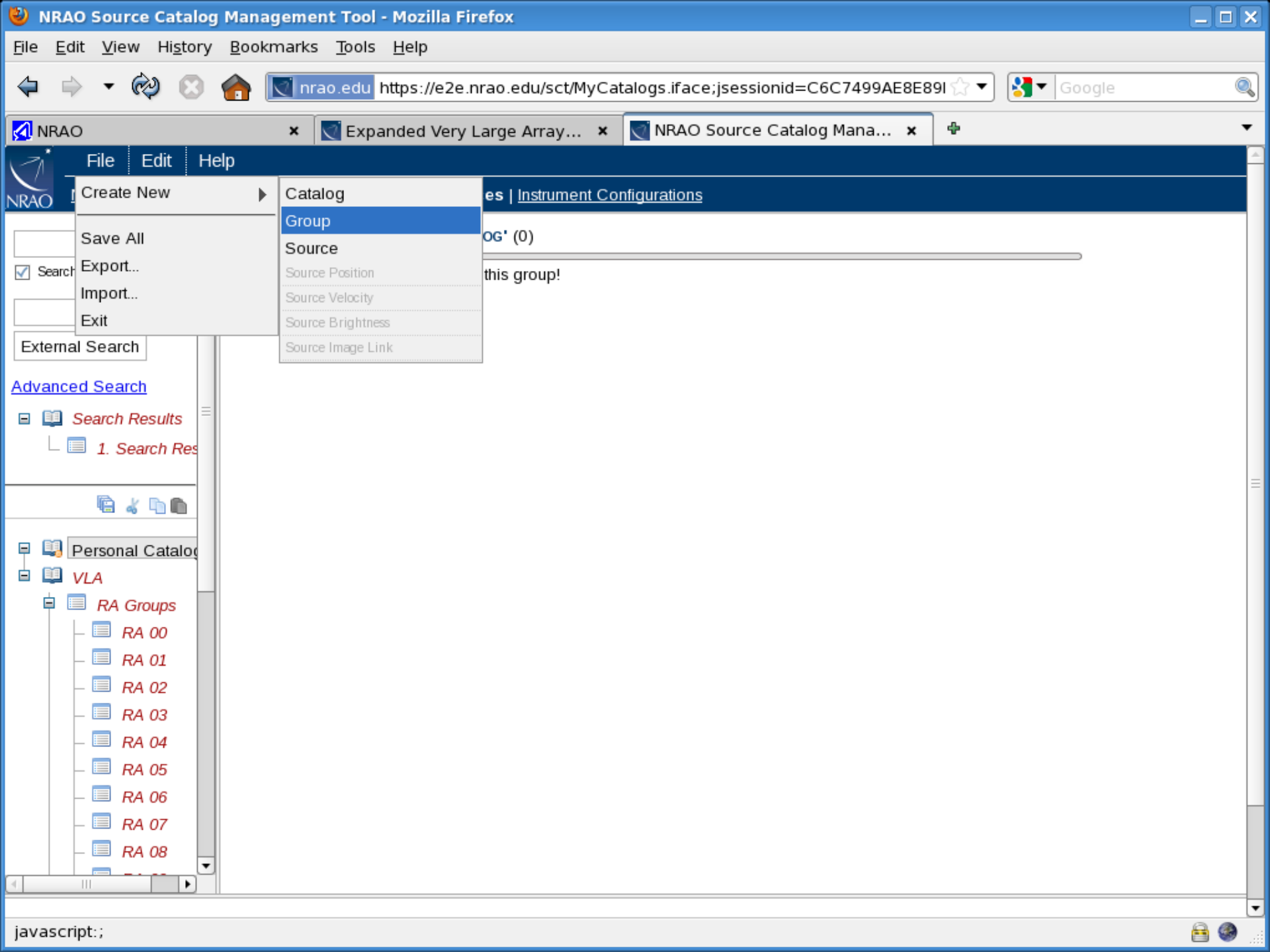
Catalog Properties
Group Properties
Preparation | Sources | Instrument Configurations
EARCH Show Advanced
Catalog
Group
Sources
Source Positions
Source Velocities
Source Brightnesses
Source Image Links
Search
Select a catalog
search
Search Aliases
External Search
Advanced Search
Search Results
1. Search Res
Select: All | Non
SELECT COORDINATE SYSTEM: Equatorial
Catalog Name Right Ascension Declination Velocity Details
VLA J1331+3030 13h 31m 08.287984s +30d 30' 32.95885" FLUX STRUCTURE ALIASES
VLA 1331+305=3C286 13h 31m 08.287984s +30d 30' 32.95885" FLUX STRUCTURE ALIASES
Personal Catalog
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
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Group
Source
Source Position
Source Velocity
Source Brightness
Source Image Link
es | Instrument Configurations
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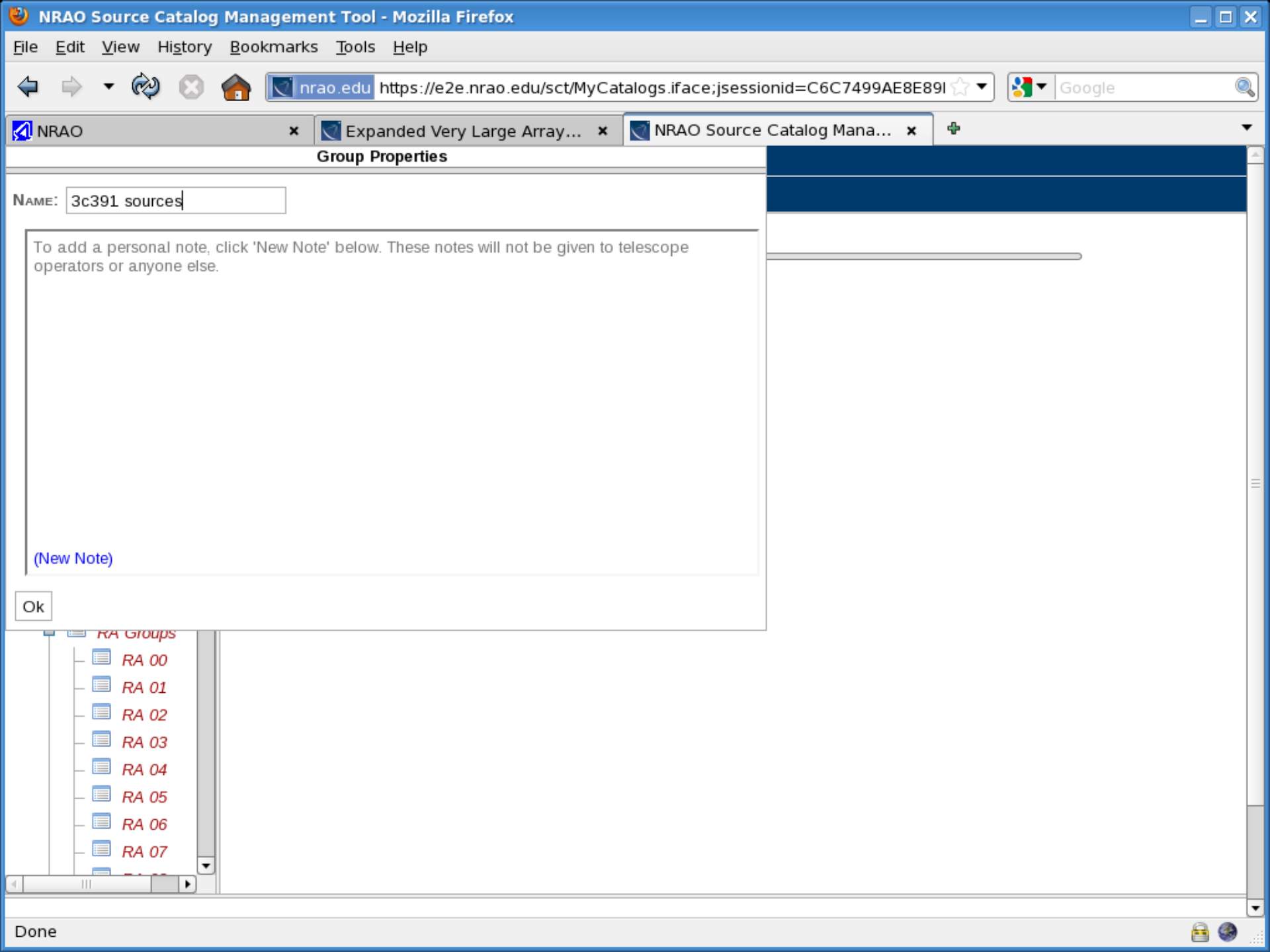
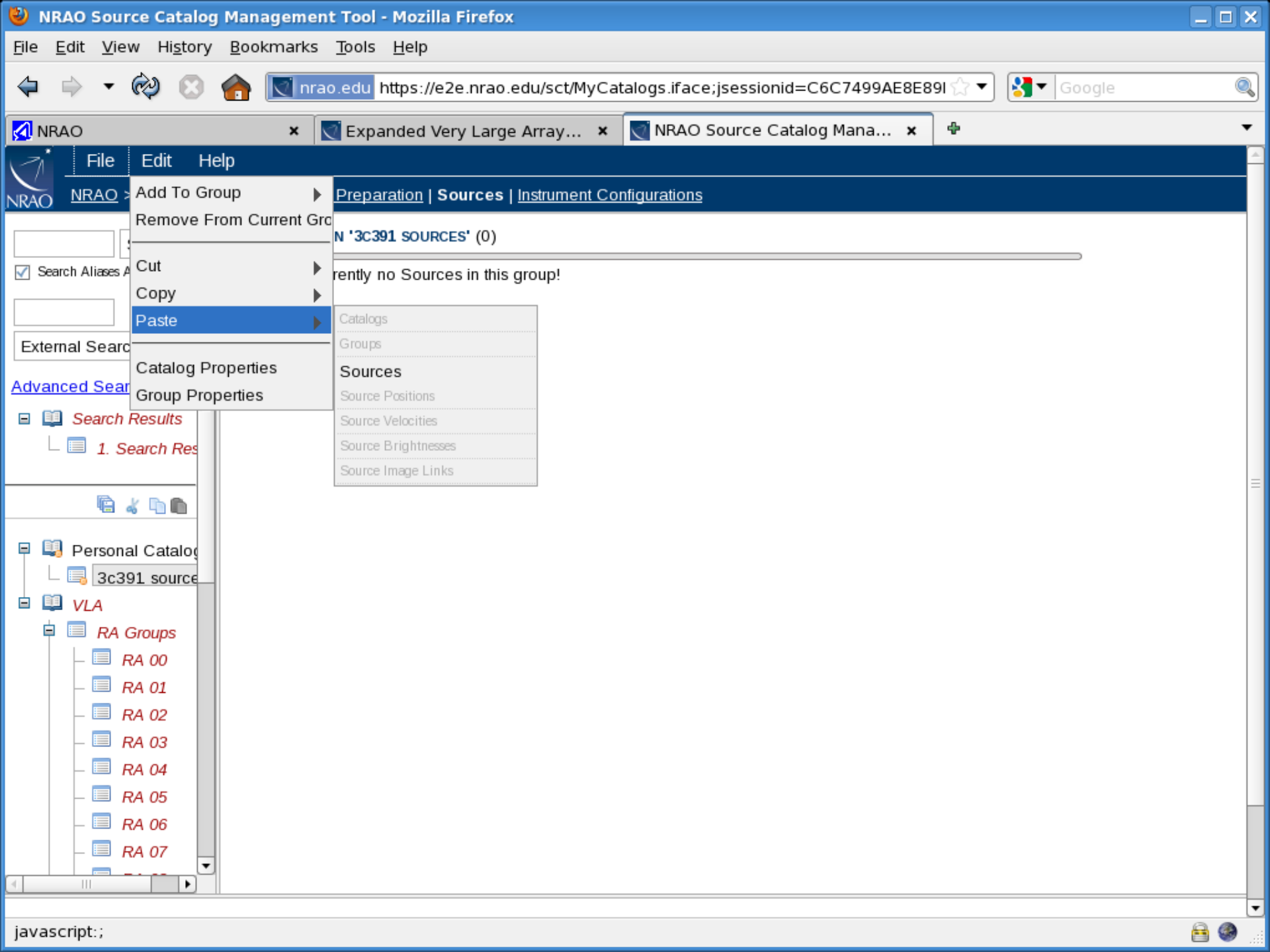
External Search
Advanced Search
Search Results
1. Search Res
Personal Catalog
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
RA 08
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
Group Properties
Name: 3c391 sources
To add a personal note, click 'New Note' below. These notes will not be given to telescope operators or anyone else.
(New Note)
Ok
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
Done


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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Google
NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
File Edit Help
NRAO >
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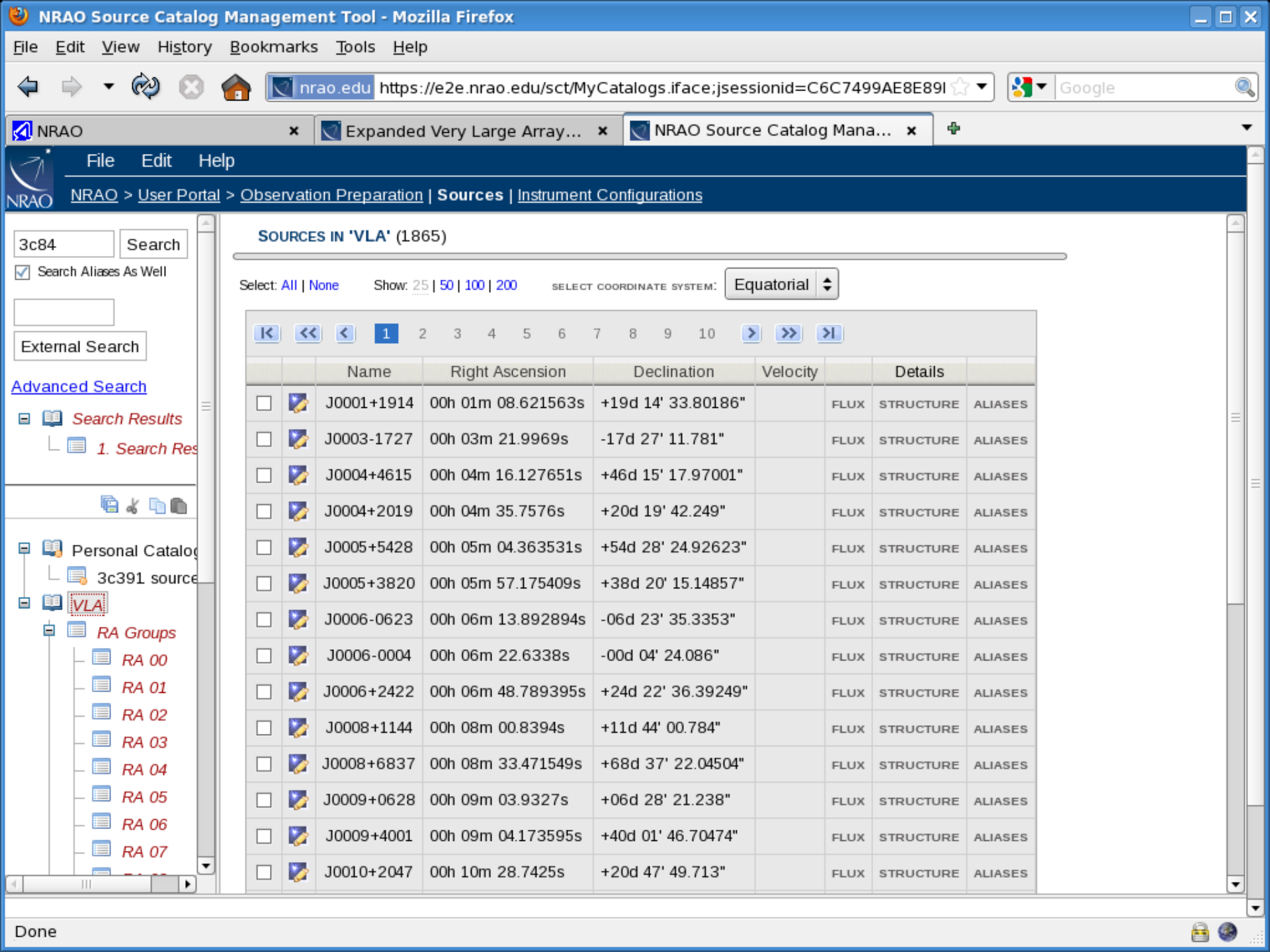
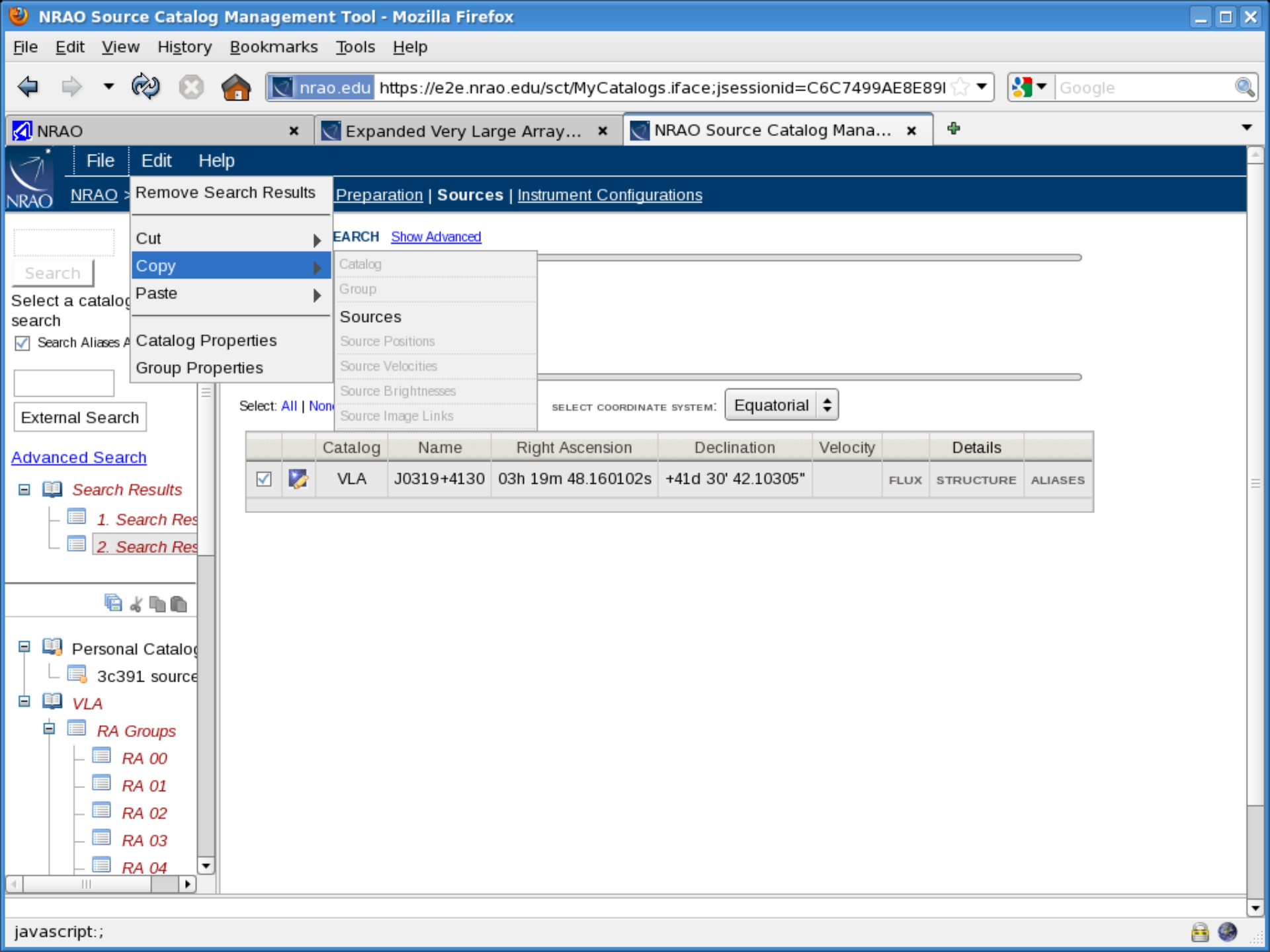
Remove From Current Grc
Cut
Copy
Paste
Catalog Properties
Group Properties
Catalogs
Groups
Sources
Source Positions
Source Velocities
Source Brightnesses
Source Image Links
Preparation | Sources | Instrument Configurations
N '3C391 SOURCES' (0)
rently no Sources in this group!
Search Aliases A
External Searc
Advanced Sear
Search Results
1. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
3c84 Search
Search Aliases As Well
External Search
Advanced Search
Search Results
1. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
RA 07
SOURCES IN 'VLA' (1865)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM: Equatorial
1 2 3 4 5 6 7 8 9 10
Name Right Ascension Declination Velocity Details
J0001+1914 00h 01m 08.621563s +19d 14' 33.80186" FLUX STRUCTURE ALIASES
J0003-1727 00h 03m 21.9969s -17d 27' 11.781" FLUX STRUCTURE ALIASES
J0004+4615 00h 04m 16.127651s +46d 15' 17.97001" FLUX STRUCTURE ALIASES
J0004+2019 00h 04m 35.7576s +20d 19' 42.249" FLUX STRUCTURE ALIASES
J0005+5428 00h 05m 04.363531s +54d 28' 24.92623" FLUX STRUCTURE ALIASES
J0005+3820 00h 05m 57.175409s +38d 20' 15.14857" FLUX STRUCTURE ALIASES
J0006-0623 00h 06m 13.892894s -06d 23' 35.3353" FLUX STRUCTURE ALIASES
J0006-0004 00h 06m 22.6338s -00d 04' 24.086" FLUX STRUCTURE ALIASES
J0006+2422 00h 06m 48.789395s +24d 22' 36.39249" FLUX STRUCTURE ALIASES
J0008+1144 00h 08m 00.8394s +11d 44' 00.784" FLUX STRUCTURE ALIASES
J0008+6837 00h 08m 33.471549s +68d 37' 22.04504" FLUX STRUCTURE ALIASES
J0009+0628 00h 09m 03.9327s +06d 28' 21.238" FLUX STRUCTURE ALIASES
J0009+4001 00h 09m 04.173595s +40d 01' 46.70474" FLUX STRUCTURE ALIASES
J0010+2047 00h 10m 28.7425s +20d 47' 49.713" FLUX STRUCTURE ALIASES
Done


NRAO Source Catalog Management Tool - Mozilla Firefox
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Catalog Properties
Group Properties
Catalog
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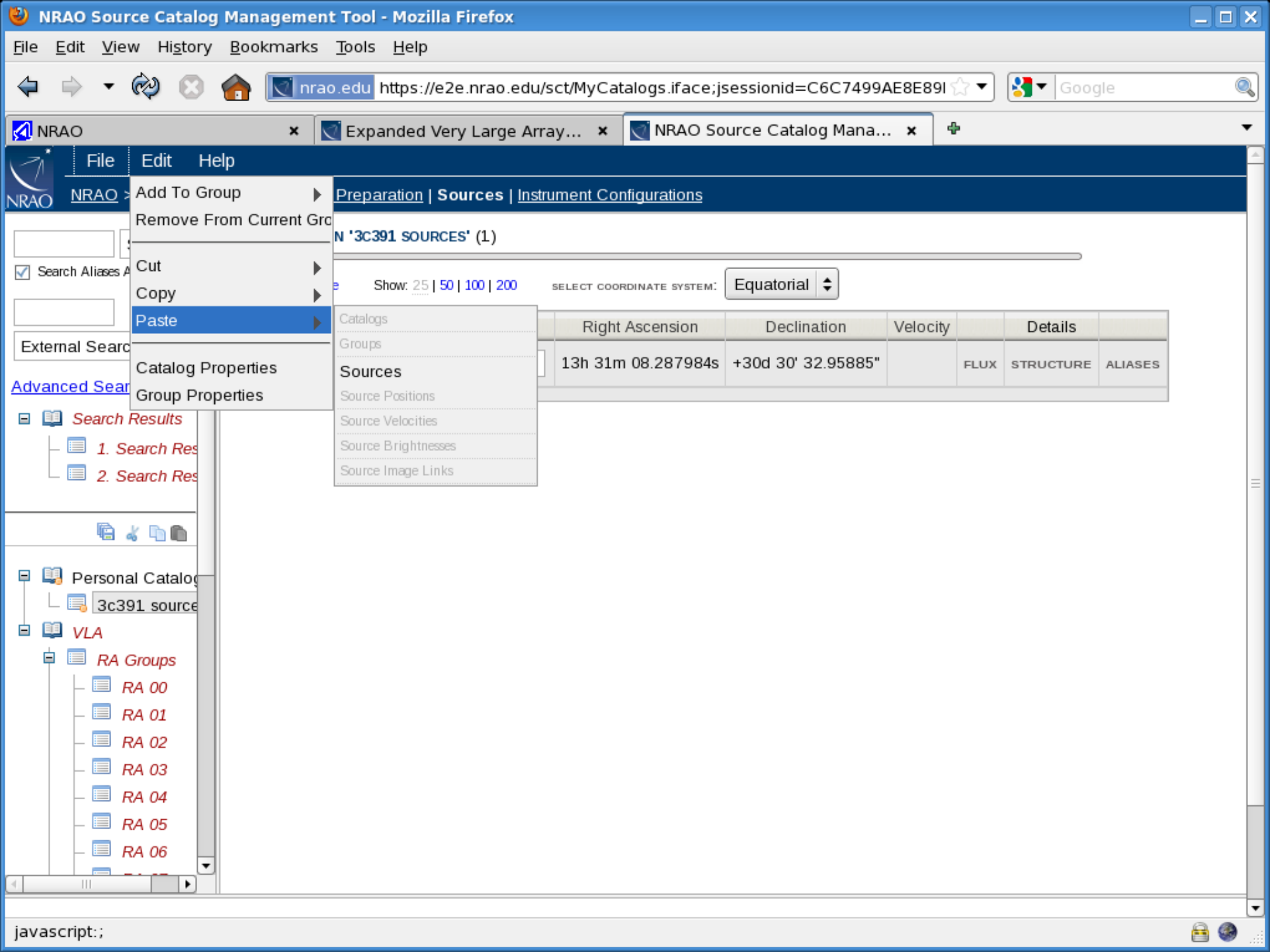
Sources
Source Positions
Source Velocities
Source Brightnesses
Source Image Links
Preparation | Sources | Instrument Configurations
EARCH Show Advanced
Search
Select a catalog
search
Search Aliases A
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
Select: All | Non
SELECT COORDINATE SYSTEM: Equatorial
Catalog Name Right Ascension Declination Velocity Details
VLA J0319+4130 03h 19m 48.160102s +41d 30' 42.10305"
FLUX STRUCTURE ALIASES
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
javascript:;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Catalog Properties
Group Properties
Catalogs
Groups
Sources
Source Positions
Source Velocities
Source Brightnesses
Source Image Links
Preparation | Sources | Instrument Configurations
N '3C391 SOURCES' (1)
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM:
Equatorial
Right Ascension
Declination
Velocity
Details
13h 31m 08.287984s
+30d 30' 32.95885"
FLUX
STRUCTURE
ALIASES
Search Aliases A
External Searc
Advanced Sear
Search Results
1. Search Res
2. Search Res
Personal Catalog
3c391 source
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RA Groups
RA 00
RA 01
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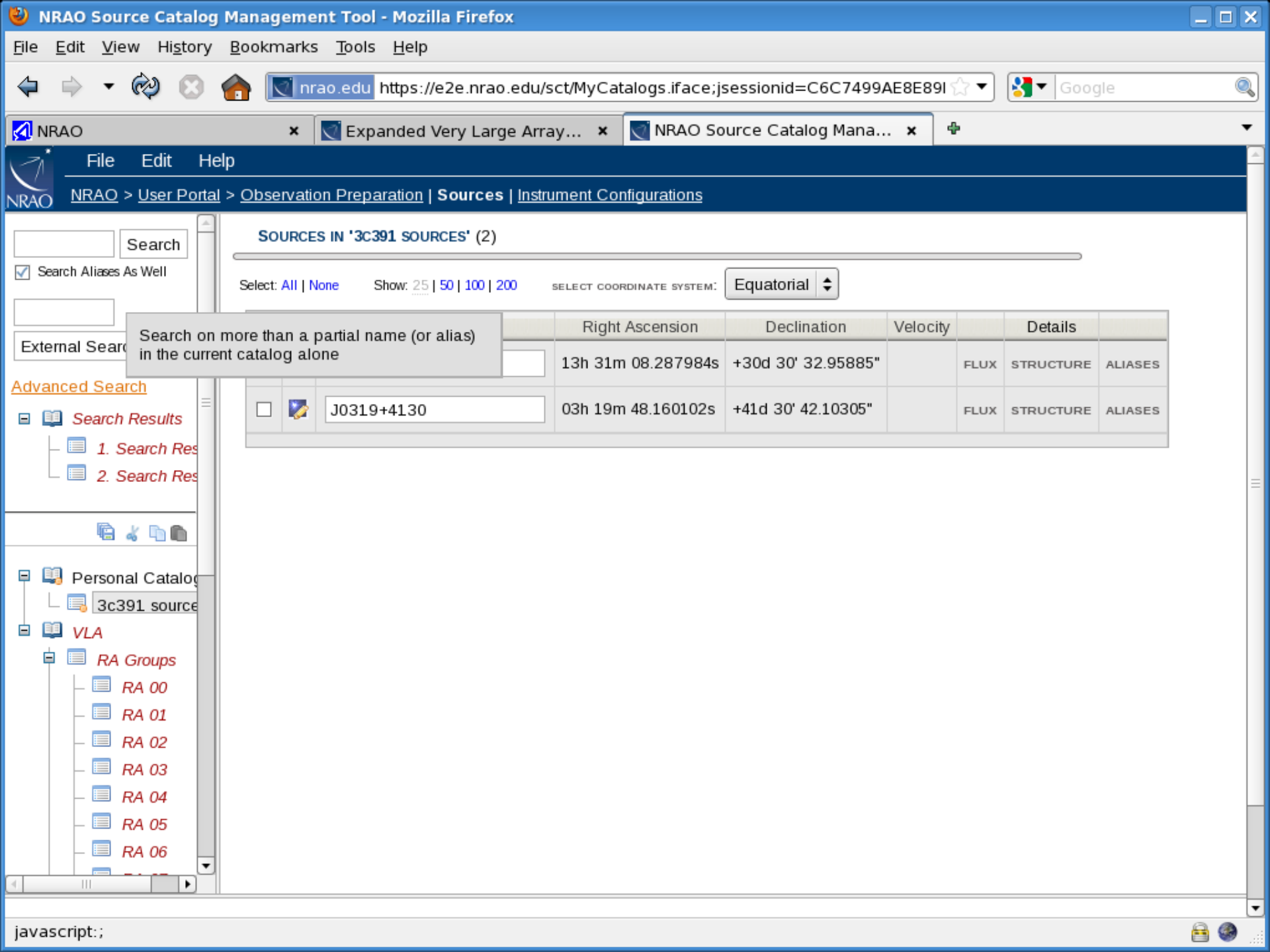
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
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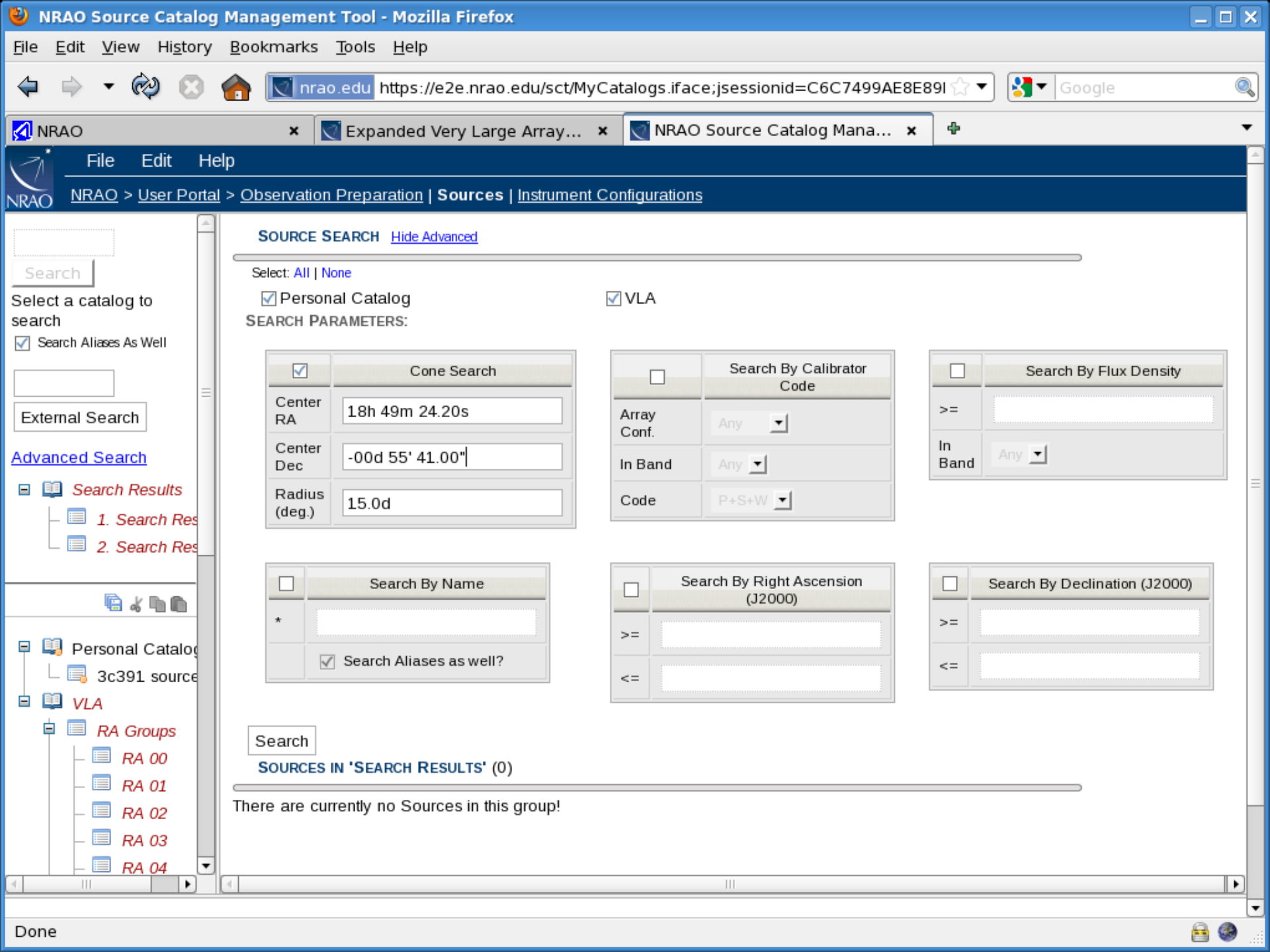
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
External Searc
Search on more than a partial name (or alias) in the current catalog alone
Advanced Search
Search Results
1. Search Res
2. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
RA 06
SOURCES IN '3C391 SOURCES' (2)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM:
Equatorial
Right Ascension
Declination
Velocity
Details
13h 31m 08.287984s
+30d 30' 32.95885"
FLUX
STRUCTURE
ALIASES
J0319+4130
03h 19m 48.160102s
+41d 30' 42.10305"
FLUX
STRUCTURE
ALIASES
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
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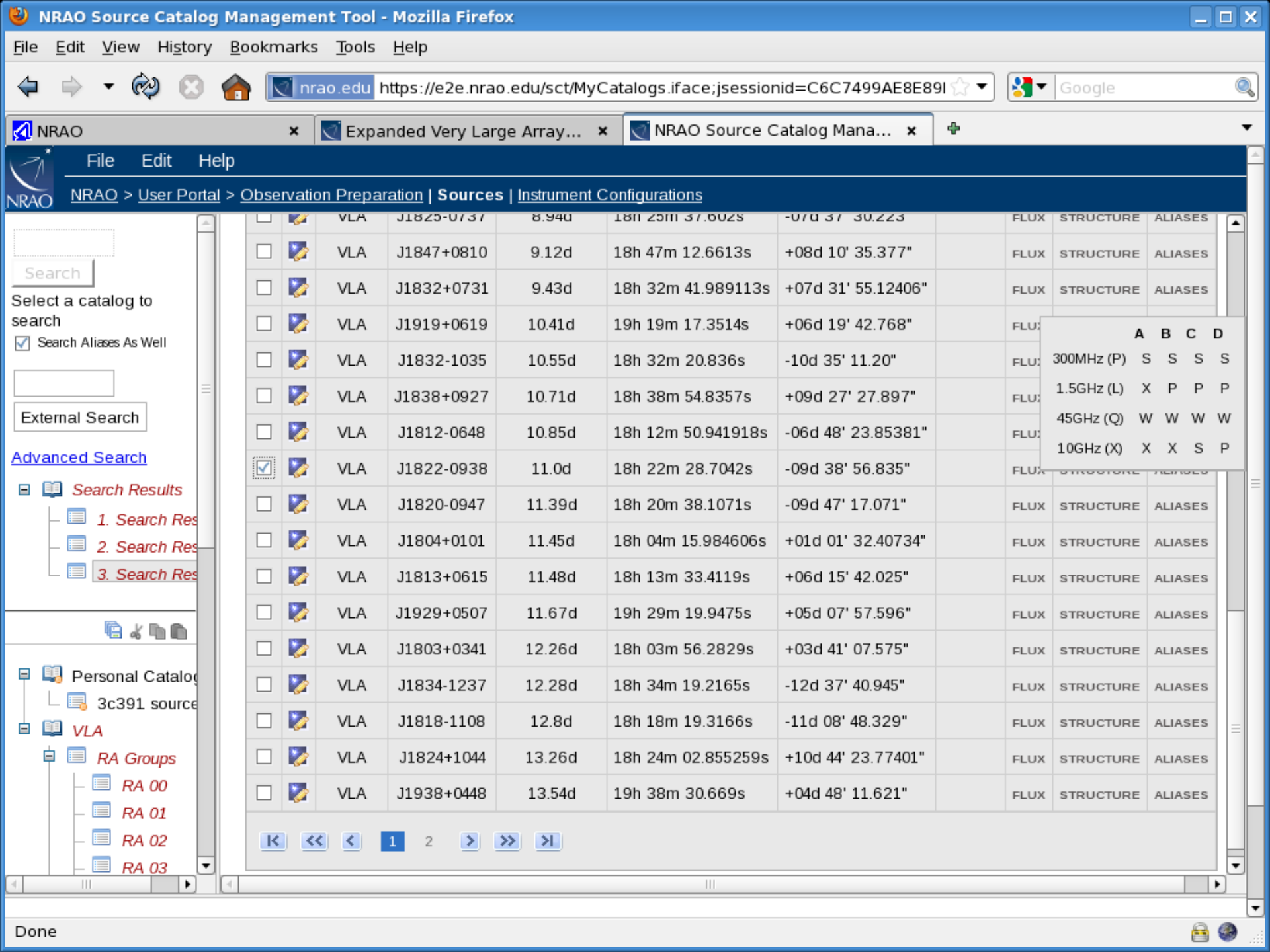
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Select a catalog to search
Search Aliases As Well
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
SOURCE SEARCH Hide Advanced
Select: All | None
Personal Catalog
VLA
SEARCH PARAMETERS:
Cone Search
Center RA
18h 49m 24.20s
Center Dec
-00d 55' 41.00"
Radius (deg.)
15.0d
Search By Calibrator Code
Array Conf.
Any
In Band
Any
Code
P+S+W
Search By Flux Density
>=
In Band
Any
Search By Name
*
Search Aliases as well?
Search By Right Ascension (J2000)
>=
<=
Search By Declination (J2000)
>=
<=
Search
SOURCES IN 'SEARCH RESULTS' (0)
There are currently no Sources in this group!
Done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File Edit View History Bookmarks Tools Help
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Google
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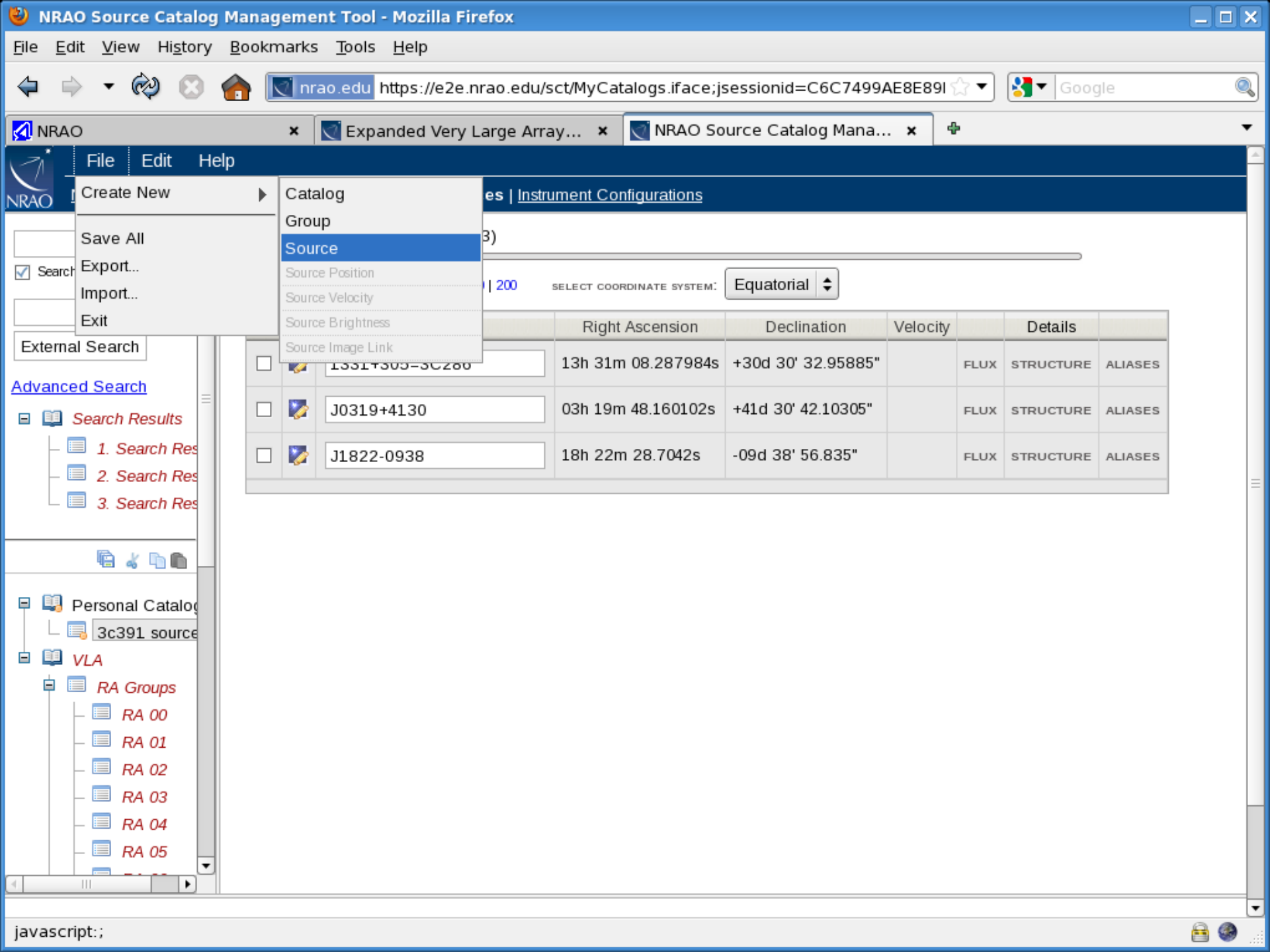
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Select a catalog to search
Search Aliases As Well
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
3. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
VLA J1847+0810 9.12d 18h 47m 12.6613s +08d 10' 35.377" FLUX STRUCTURE ALIASES
VLA J1832+0731 9.43d 18h 32m 41.989113s +07d 31' 55.12406" FLUX STRUCTURE ALIASES
VLA J1919+0619 10.41d 19h 19m 17.3514s +06d 19' 42.768" FLUX STRUCTURE ALIASES
VLA J1832-1035 10.55d 18h 32m 20.836s -10d 35' 11.20" FLUX STRUCTURE ALIASES
VLA J1838+0927 10.71d 18h 38m 54.8357s +09d 27' 27.897" FLUX STRUCTURE ALIASES
VLA J1812-0648 10.85d 18h 12m 50.941918s -06d 48' 23.85381" FLUX STRUCTURE ALIASES
VLA J1822-0938 11.0d 18h 22m 28.7042s -09d 38' 56.835" FLUX STRUCTURE ALIASES
VLA J1820-0947 11.39d 18h 20m 38.1071s -09d 47' 17.071" FLUX STRUCTURE ALIASES
VLA J1804+0101 11.45d 18h 04m 15.984606s +01d 01' 32.40734" FLUX STRUCTURE ALIASES
VLA J1813+0615 11.48d 18h 13m 33.4119s +06d 15' 42.025" FLUX STRUCTURE ALIASES
VLA J1929+0507 11.67d 19h 29m 19.9475s +05d 07' 57.596" FLUX STRUCTURE ALIASES
VLA J1803+0341 12.26d 18h 03m 56.2829s +03d 41' 07.575" FLUX STRUCTURE ALIASES
VLA J1834-1237 12.28d 18h 34m 19.2165s -12d 37' 40.945" FLUX STRUCTURE ALIASES
VLA J1818-1108 12.8d 18h 18m 19.3166s -11d 08' 48.329" FLUX STRUCTURE ALIASES
VLA J1824+1044 13.26d 18h 24m 02.855259s +10d 44' 23.77401" FLUX STRUCTURE ALIASES
VLA J1938+0448 13.54d 19h 38m 30.669s +04d 48' 11.621" FLUX STRUCTURE ALIASES
A B C D
300MHz (P) S S S S
1.5GHz (L) X P P P
45GHz (Q) W W W W
10GHz (X) X X S P
1 2
Done


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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Save All
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Source Brightness
Source Image Link
es | Instrument Configurations
3)
Search
200
SELECT COORDINATE SYSTEM:
Equatorial
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
3. Search Res
Personal Catalo
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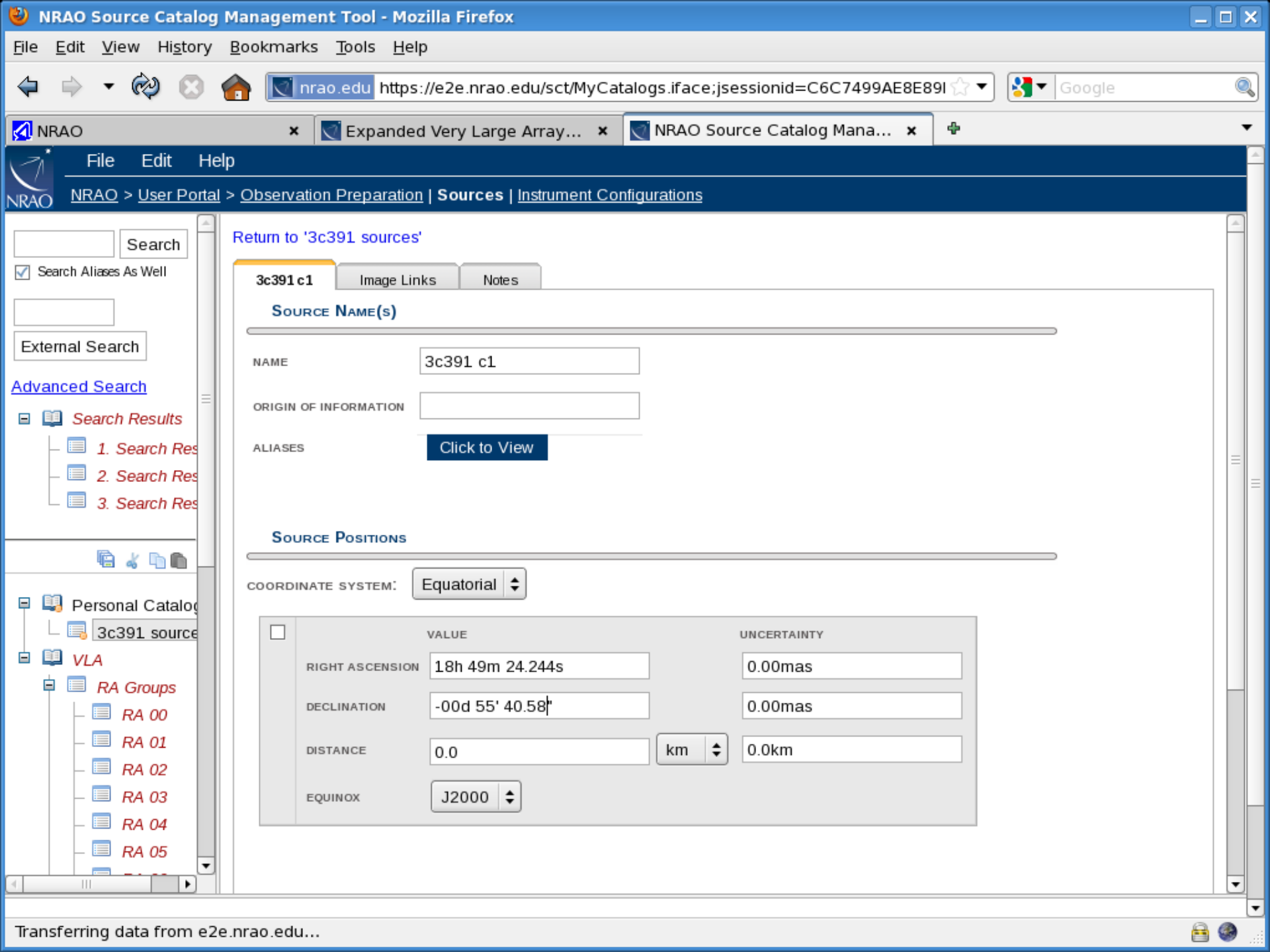
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
Right Ascension
Declination
Velocity
Details
1331+305=3C286
13h 31m 08.287984s
+30d 30' 32.95885"
FLUX STRUCTURE ALIASES
J0319+4130
03h 19m 48.160102s
+41d 30' 42.10305"
FLUX STRUCTURE ALIASES
J1822-0938
18h 22m 28.7042s
-09d 38' 56.835"
FLUX STRUCTURE ALIASES
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
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NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Search Aliases As Well
External Search
Advanced Search
Search Results
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2. Search Res
3. Search Res
Personal Catalog
3c391 source
VLA
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
Return to '3c391 sources'
3c391 c1
Image Links
Notes
Source Name(s)
NAME
3c391 c1
ORIGIN OF INFORMATION
ALIASES
Click to View
Source Positions
COORDINATE SYSTEM:
Equatorial
VALUE
UNCERTAINTY
RIGHT ASCENSION
18h 49m 24.244s
0.00mas
DECLINATION
-00d 55' 40.58"
0.00mas
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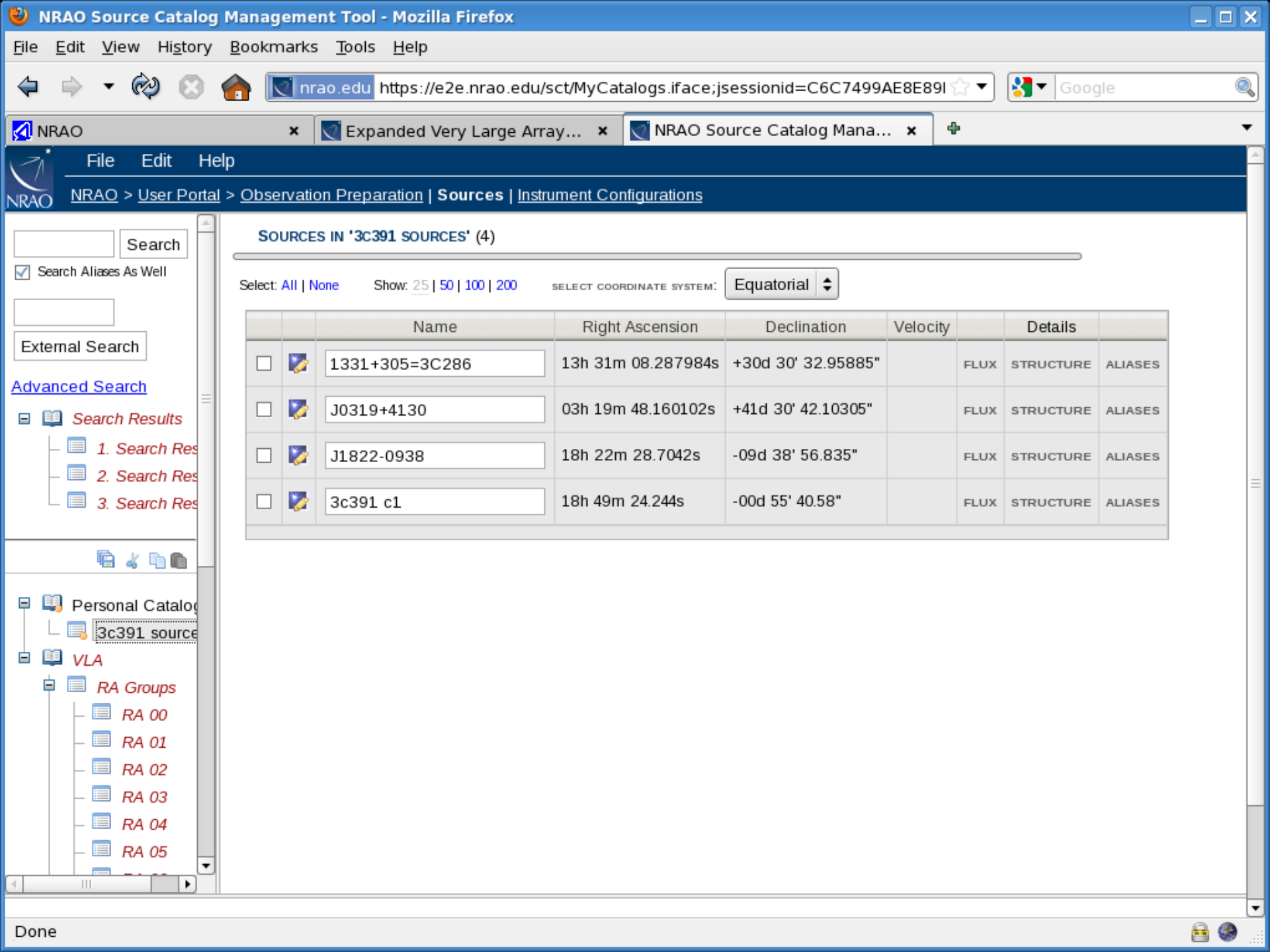
0.0
km
0.0km
EQUINOX
J2000
Transferring data from e2e.nrao.edu...


NRAO Source Catalog Management Tool - Mozilla Firefox
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Search Results
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Personal Catalo
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RA Groups
RA 00
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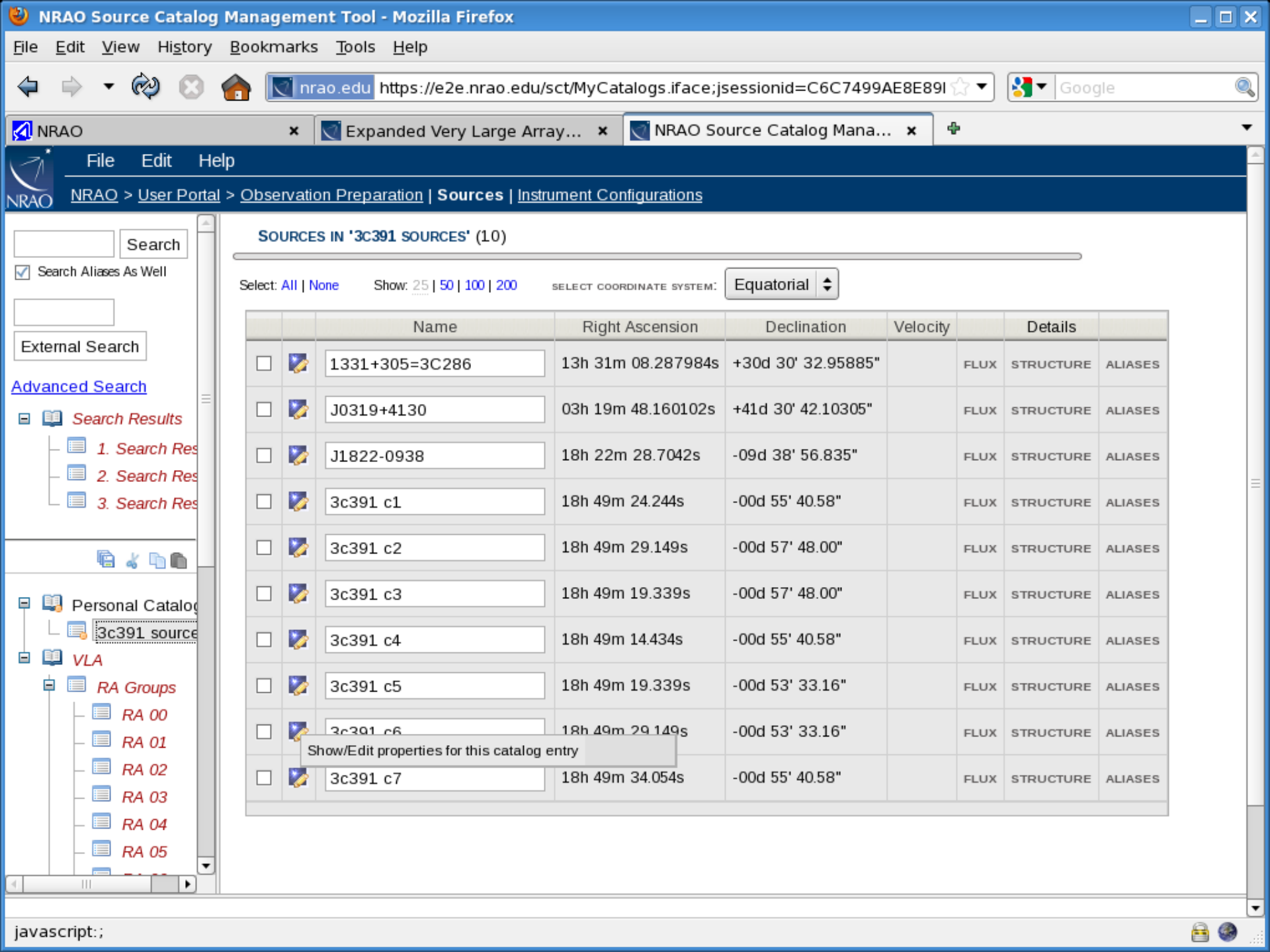
RA 02
RA 03
RA 04
RA 05
SOURCES IN '3C391 SOURCES' (4)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM:
Equatorial
Name
Right Ascension
Declination
Velocity
Details
1331+305=3C286
13h 31m 08.287984s
+30d 30' 32.95885"
FLUX STRUCTURE ALIASES
J0319+4130
03h 19m 48.160102s
+41d 30' 42.10305"
FLUX STRUCTURE ALIASES
J1822-0938
18h 22m 28.7042s
-09d 38' 56.835"
FLUX STRUCTURE ALIASES
3c391 c1
18h 49m 24.244s
-00d 55' 40.58"
FLUX STRUCTURE ALIASES
Done


NRAO Source Catalog Management Tool - Mozilla Firefox
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Search Aliases As Well
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
3. Search Res
Personal Catalog
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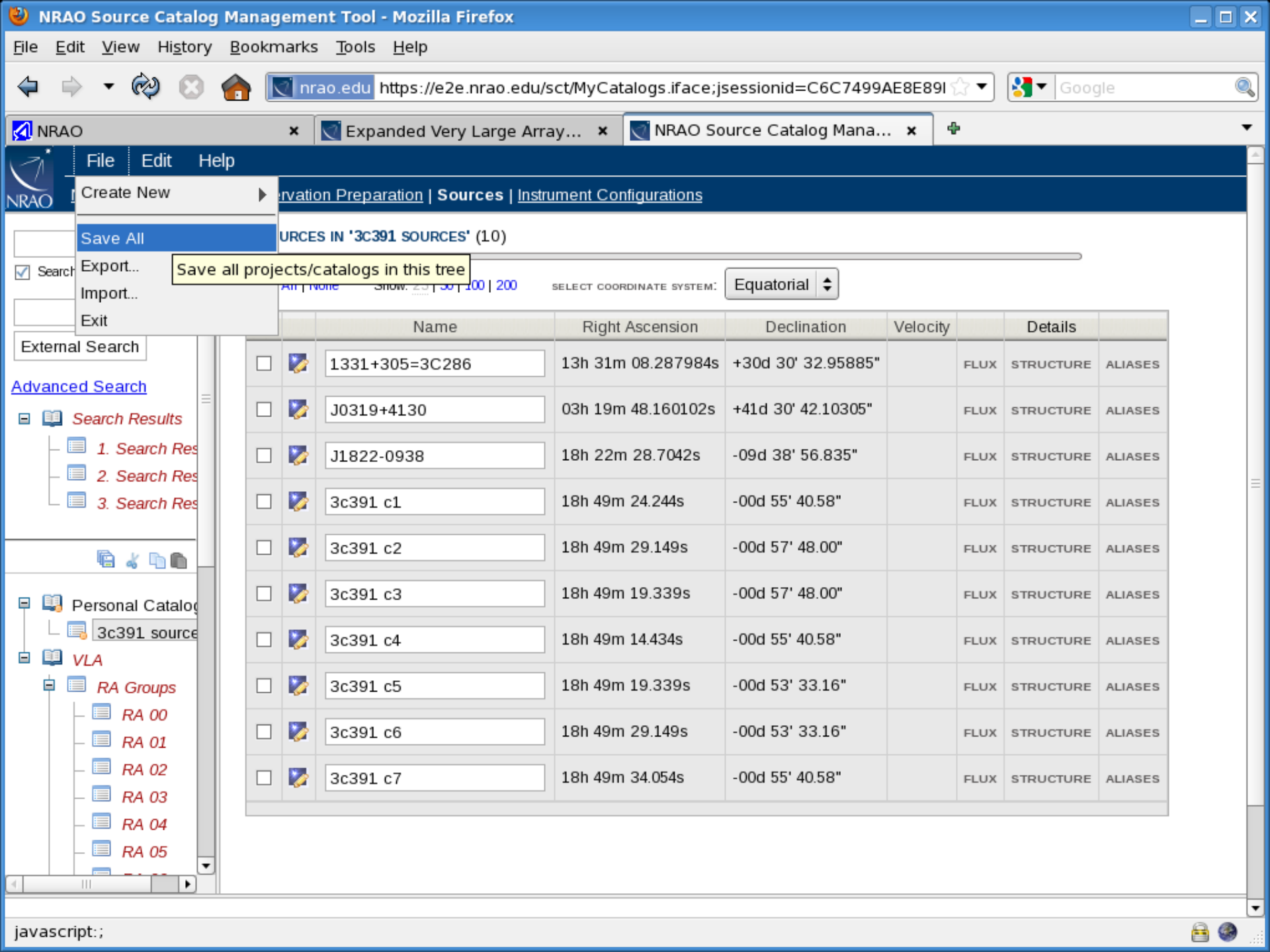
RA Groups
RA 00
RA 01
RA 02
RA 03
RA 04
RA 05
SOURCES IN '3C391 SOURCES' (10)
Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM: Equatorial
Name
Right Ascension
Declination
Velocity
Details
1331+305=3C286
13h 31m 08.287984s
+30d 30' 32.95885"
J0319+4130
03h 19m 48.160102s
+41d 30' 42.10305"
J1822-0938
18h 22m 28.7042s
-09d 38' 56.835"
3c391 c1
18h 49m 24.244s
-00d 55' 40.58"
3c391 c2
18h 49m 29.149s
-00d 57' 48.00"
3c391 c3
18h 49m 19.339s
-00d 57' 48.00"
3c391 c4
18h 49m 14.434s
-00d 55' 40.58"
3c391 c5
18h 49m 19.339s
-00d 53' 33.16"
3c391 c6
18h 49m 29.149s
-00d 53' 33.16"
Show/Edit properties for this catalog entry
3c391 c7
18h 49m 34.054s
-00d 55' 40.58"
FLUX
STRUCTURE
ALIASES
javascript:;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Exit
Save all projects/catalogs in this tree
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URCES IN '3C391 SOURCES' (10)
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RA 05
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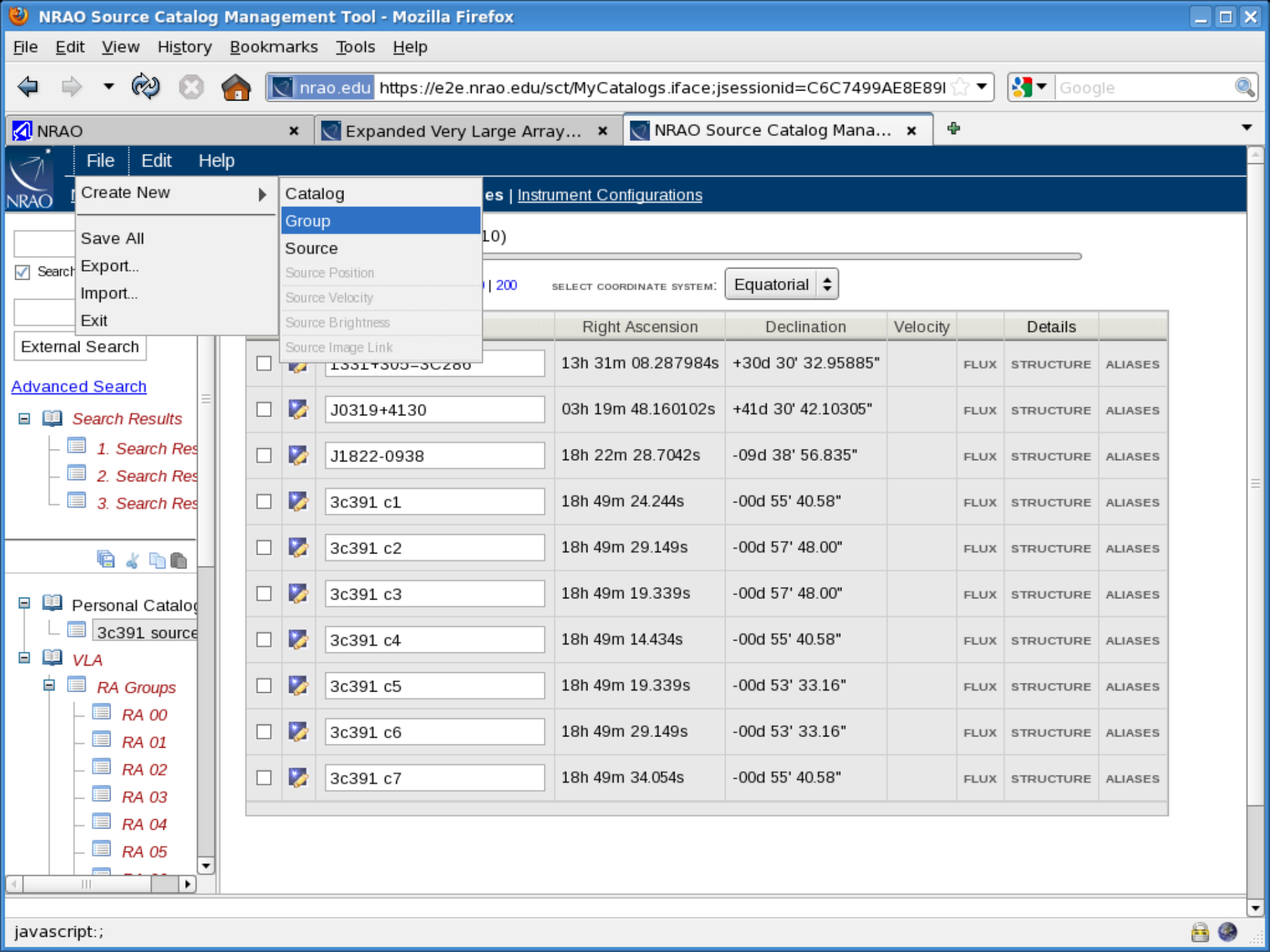
Declination
Velocity
Details
1331+305=3C286
13h 31m 08.287984s
+30d 30' 32.95885"
J0319+4130
03h 19m 48.160102s
+41d 30' 42.10305"
J1822-0938
18h 22m 28.7042s
-09d 38' 56.835"
3c391 c1
18h 49m 24.244s
-00d 55' 40.58"
3c391 c2
18h 49m 29.149s
-00d 57' 48.00"
3c391 c3
18h 49m 19.339s
-00d 57' 48.00"
3c391 c4
18h 49m 14.434s
-00d 55' 40.58"
3c391 c5
18h 49m 19.339s
-00d 53' 33.16"
3c391 c6
18h 49m 29.149s
-00d 53' 33.16"
3c391 c7
18h 49m 34.054s
-00d 55' 40.58"
FLUX
STRUCTURE
ALIASES
javascript:;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SELECT COORDINATE SYSTEM:
Equatorial
Right Ascension
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Velocity
Details
13h 31m 08.287984s +30d 30' 32.95885"
J0319+4130 03h 19m 48.160102s +41d 30' 42.10305"
J1822-0938 18h 22m 28.7042s -09d 38' 56.835"
3c391 c1 18h 49m 24.244s -00d 55' 40.58"
3c391 c2 18h 49m 29.149s -00d 57' 48.00"
3c391 c3 18h 49m 19.339s -00d 57' 48.00"
3c391 c4 18h 49m 14.434s -00d 55' 40.58"
3c391 c5 18h 49m 19.339s -00d 53' 33.16"
3c391 c6 18h 49m 29.149s -00d 53' 33.16"
3c391 c7 18h 49m 34.054s -00d 55' 40.58"
FLUX STRUCTURE ALIASES
External Search
Advanced Search
Search Results
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3. Search Res
Personal Catalo
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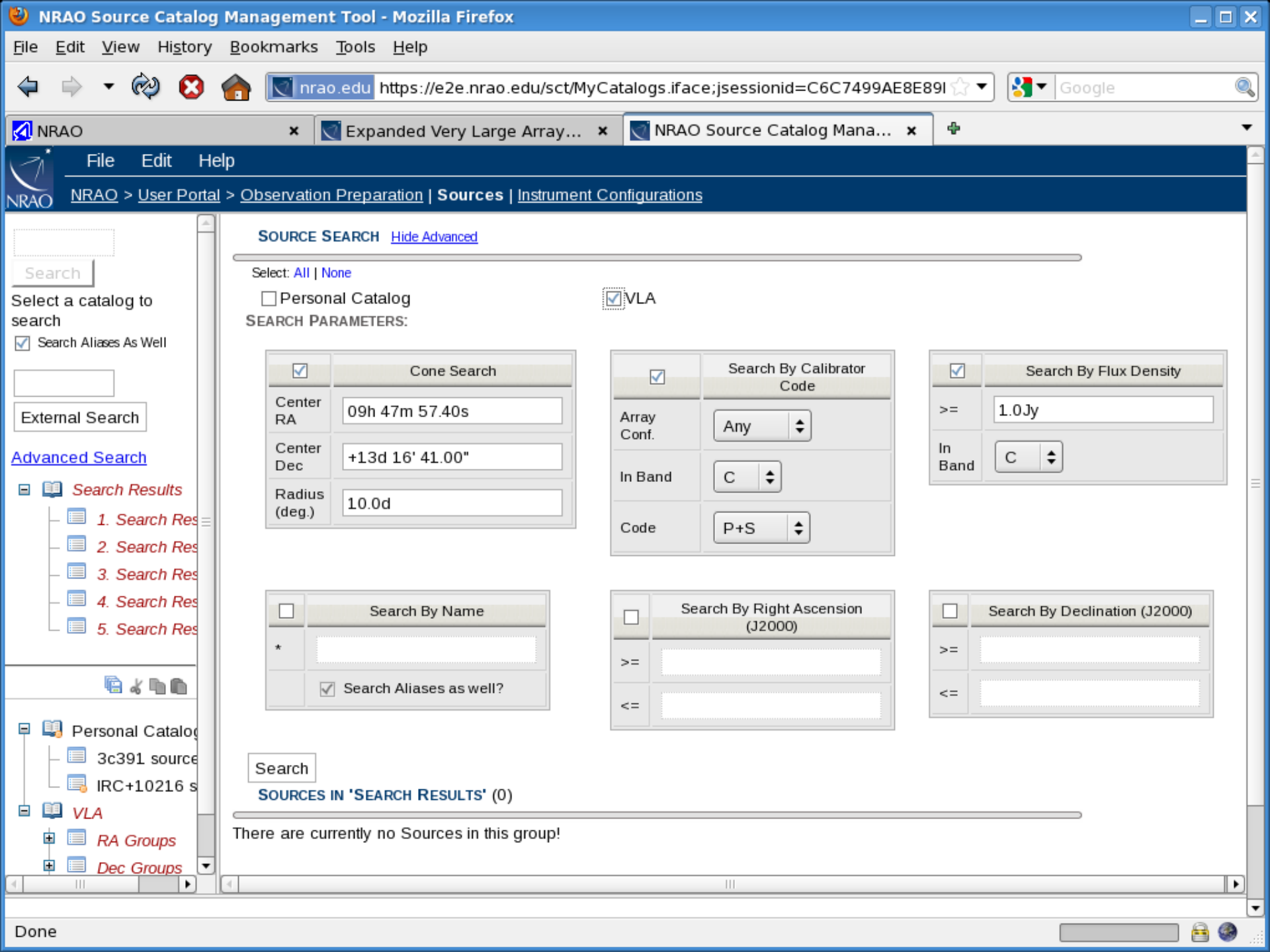
NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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Google
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NRAO Source Catalog Mana...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Search
Select a catalog to search
Search Aliases As Well
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
3. Search Res
4. Search Res
5. Search Res
Personal Catalog
3c391 source
IRC+10216 s
VLA
RA Groups
Dec Groups
SOURCE SEARCH Hide Advanced
Select: All | None
Personal Catalog
VLA
SEARCH PARAMETERS:
Cone Search
Center RA
09h 47m 57.40s
Center Dec
+13d 16' 41.00"
Radius (deg.)
10.0d
Search By Calibrator Code
Array Conf.
Any
In Band
C
Code
P+S
Search By Flux Density
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1.0Jy
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C
Search By Name
*
Search Aliases as well?
Search By Right Ascension (J2000)
>=
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Search By Declination (J2000)
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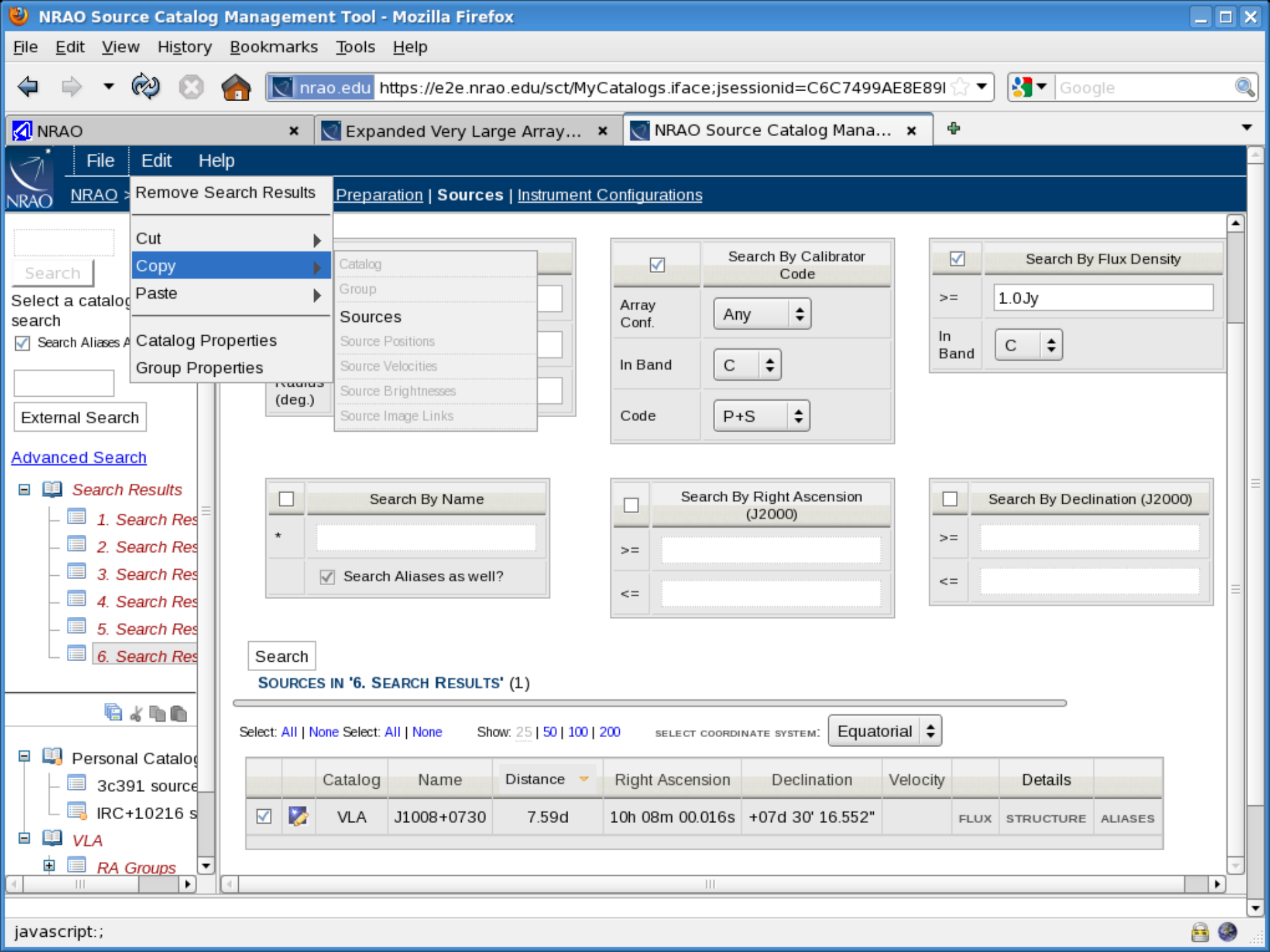
<=
Search
SOURCES IN 'SEARCH RESULTS' (0)
There are currently no Sources in this group!
Done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File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
NRAO
Expanded Very Large Array...
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File Edit Help
NRAO
Preparation | Sources | Instrument Configurations
Remove Search Results
Cut
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Catalog Properties
Group Properties
Catalog
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Source Positions
Source Velocities
Source Brightnesses
Source Image Links
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Select a catalog search
Search Aliases A
External Search
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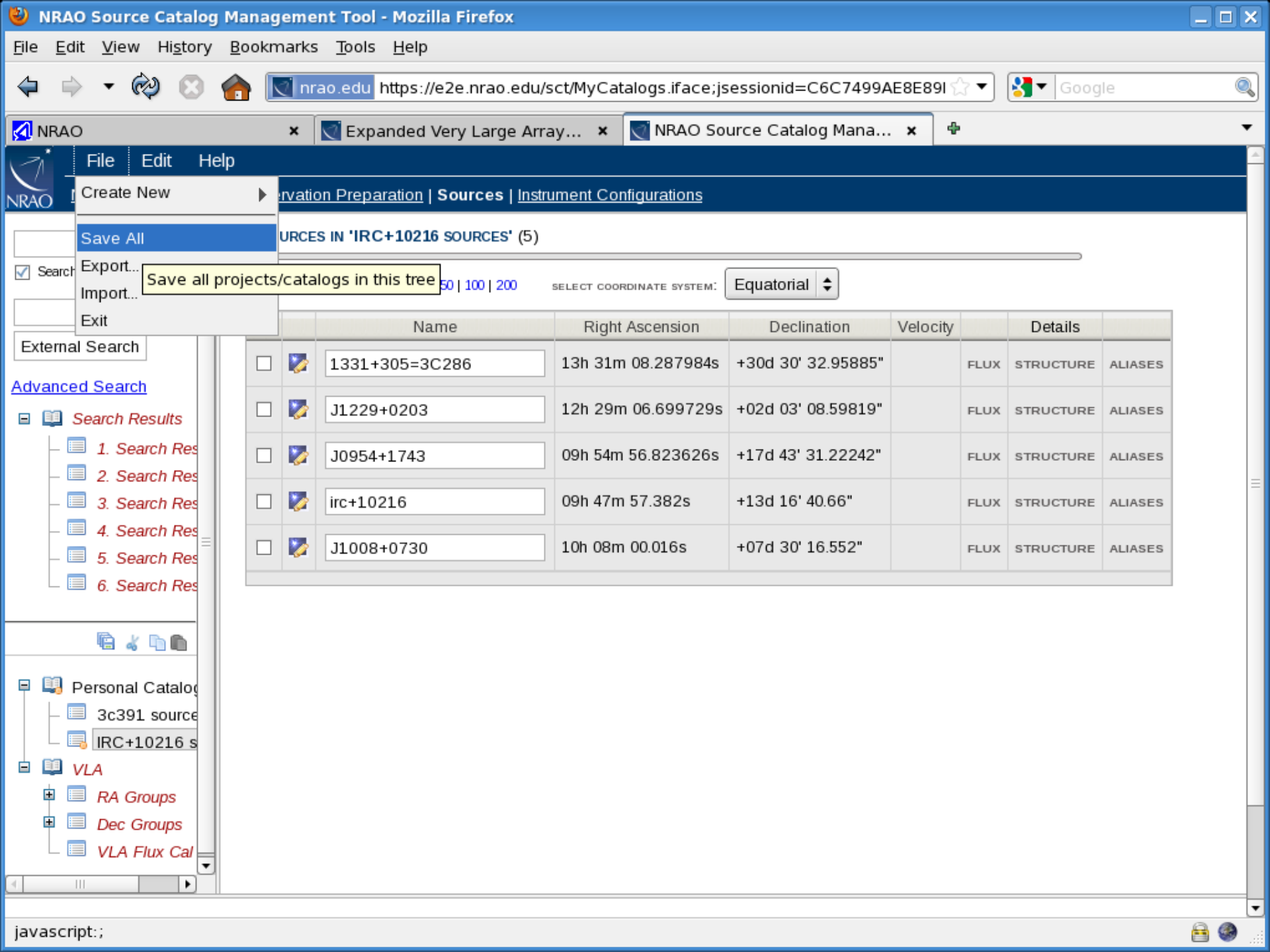
Search Results
1. Search Res
2. Search Res
3. Search Res
4. Search Res
5. Search Res
6. Search Res
Personal Catalog
3c391 source
IRC+10216 s
VLA
RA Groups
(deg.)
Search By Calibrator Code
Array Conf.
Any
In Band
C
Code
P+S
Search By Flux Density
>=
1.0Jy
In Band
C
Search By Name
*
Search Aliases as well?
Search By Right Ascension (J2000)
>=
<=
Search By Declination (J2000)
>=
<=
Search
SOURCES IN '6. SEARCH RESULTS' (1)
Select: All | None Select: All | None
Show: 25 | 50 | 100 | 200
SELECT COORDINATE SYSTEM:
Equatorial
Catalog
Name
Distance
Right Ascension
Declination
Velocity
Details
VLA
J1008+0730
7.59d
10h 08m 00.016s
+07d 30' 16.552"
FLUX
STRUCTURE
ALIASES
javascript:;


NRAO Source Catalog Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/sct/MyCatalogs.iface;jsessionid=C6C7499AE8E89I
Google
NRAO
Expanded Very Large Array...
NRAO Source Catalog Mana...
File Edit Help
Create New
Save All
Export...
Import...
Exit
Save all projects/catalogs in this tree
rvation Preparation | Sources | Instrument Configurations
URCES IN 'IRC+10216 SOURCES' (5)
50 | 100 | 200
SELECT COORDINATE SYSTEM:
Equatorial
Name
Right Ascension
Declination
Velocity
Details
1331+305=3C286
13h 31m 08.287984s
+30d 30' 32.95885"
J1229+0203
12h 29m 06.699729s
+02d 03' 08.59819"
J0954+1743
09h 54m 56.823626s
+17d 43' 31.22242"
irc+10216
09h 47m 57.382s
+13d 16' 40.66"
J1008+0730
10h 08m 00.016s
+07d 30' 16.552"
FLUX
STRUCTURE
ALIASES
External Search
Advanced Search
Search Results
1. Search Res
2. Search Res
3. Search Res
4. Search Res
5. Search Res
6. Search Res
Personal Catalog
3c391 source
IRC+10216 s
VLA
RA Groups
Dec Groups
VLA Flux Cal
javascript:;

Creating resource catalogs in the RCT

Resources may have been transferred from the proposal information

If so, check the frequency setup, bandwidths, integration time, ..

Can define your own resources (hardware/instrument configurations)

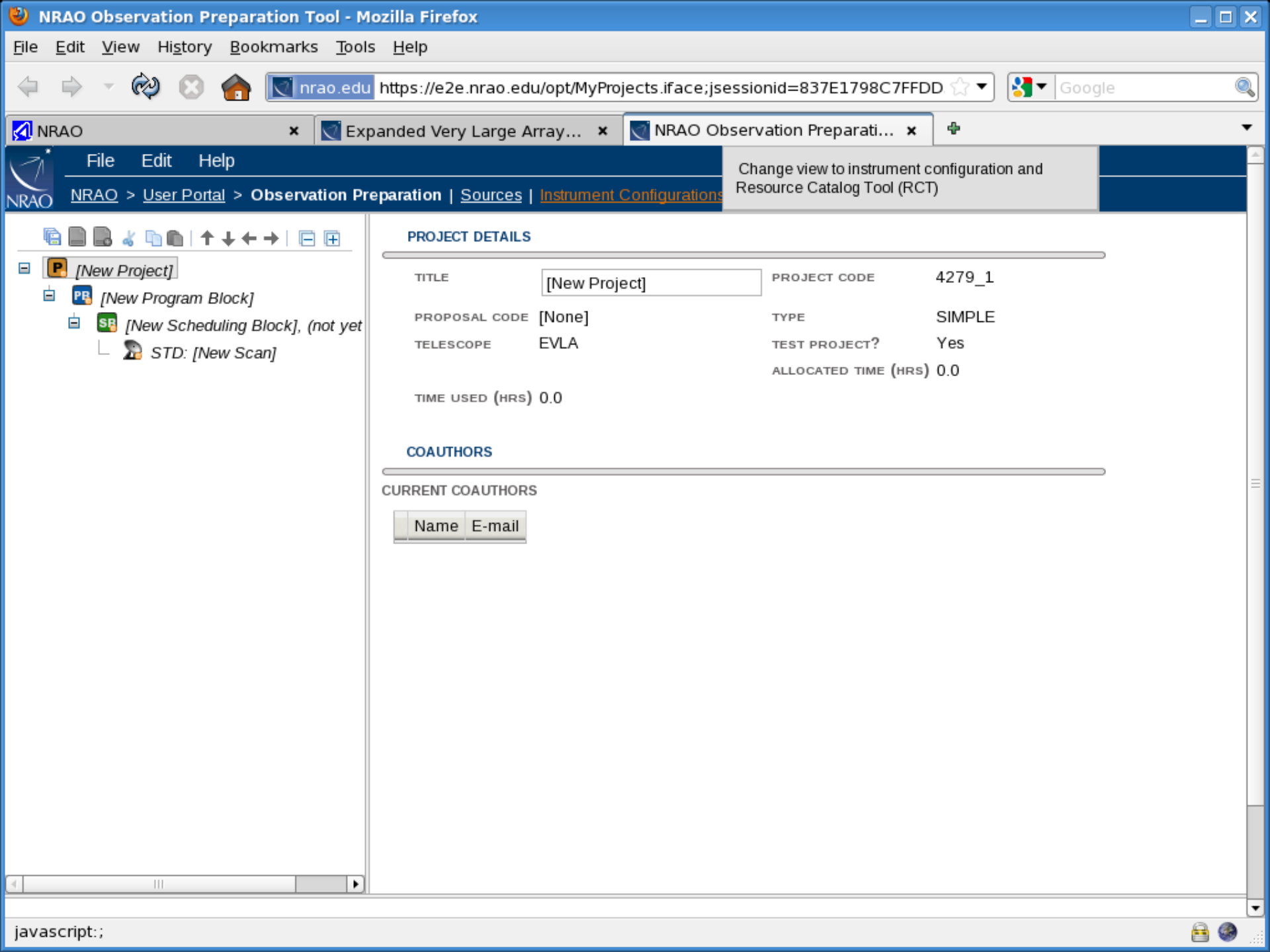
Can use resources predefined in default continuum "OSRO1" resource list

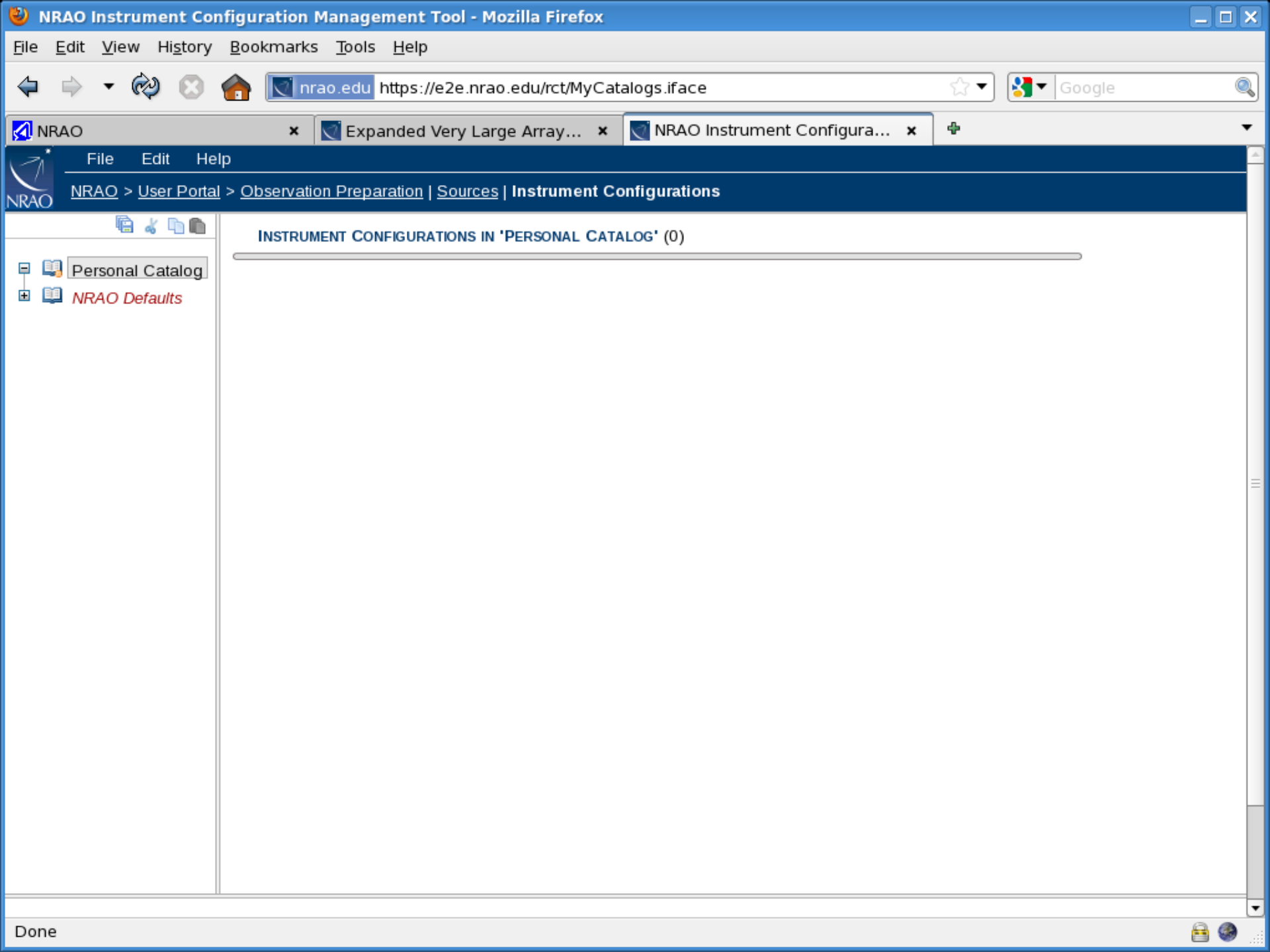
Not every (continuum) resource in this list is useful for every continuum observation; check its properties before using !

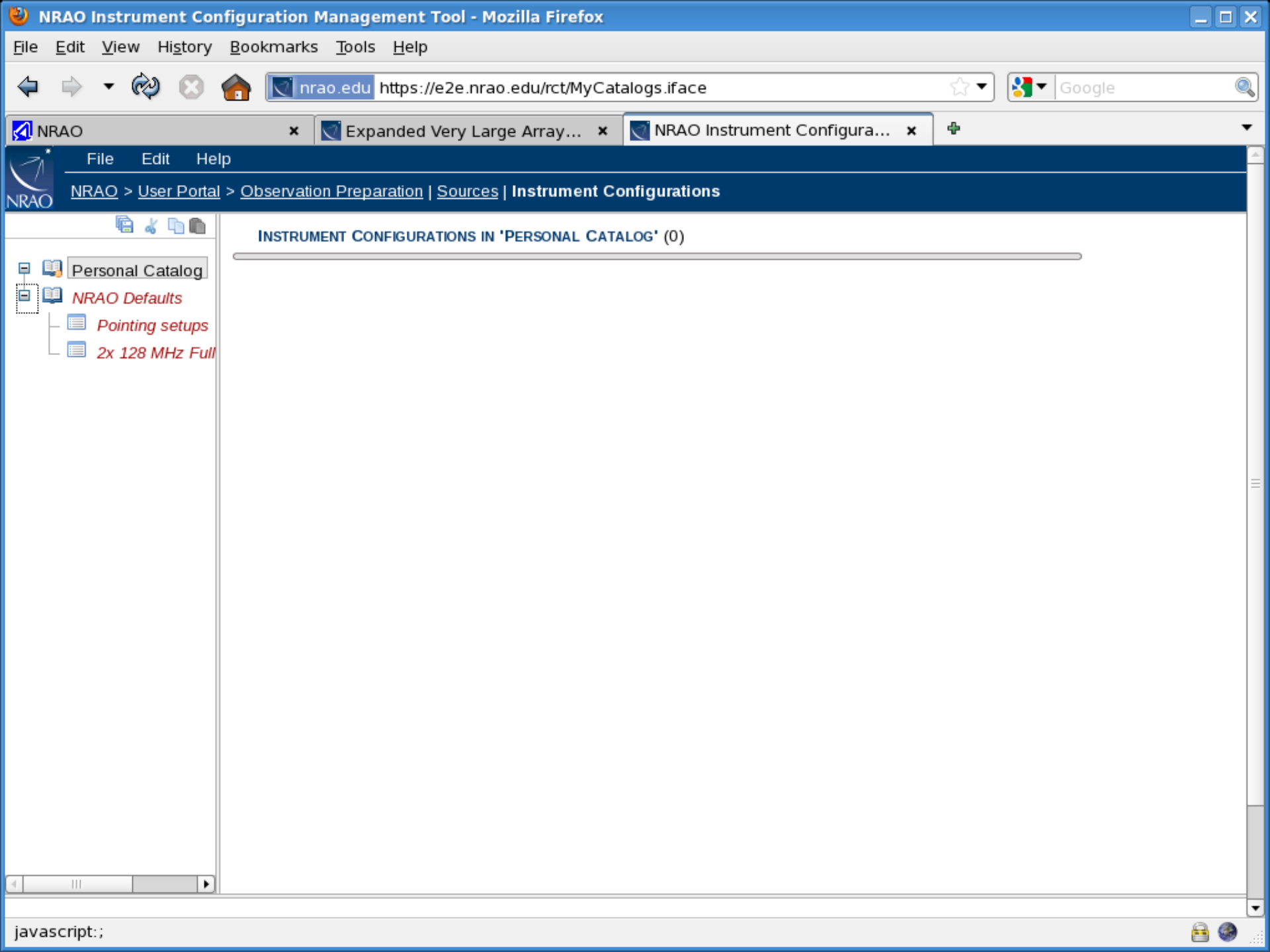
More (default) resources will appear with advances in commissioning

Useful to combine resources to be used in an SB(/PB) in its own "group"

Make sure all resources are defined before creating the scan list


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface;jsessionid=837E1798C7FFDD
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Change view to instrument configuration and Resource Catalog Tool (RCT)
[New Project]
[New Program Block]
[New Scheduling Block], (not yet
STD: [New Scan]
PROJECT DETAILS
TITLE
[New Project]
PROJECT CODE
4279_1
PROPOSAL CODE
[None]
TYPE
SIMPLE
TELESCOPE
EVLA
TEST PROJECT?
Yes
ALLOCATED TIME (HRS)
0.0
TIME USED (HRS)
0.0
COAUTHORS
CURRENT COAUTHORS
Name
E-mail
javascript:;


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
INSTRUMENT CONFIGURATIONS IN 'PERSONAL CATALOG' (0)
Done


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
Pointing setups
2x 128 MHz Full
INSTRUMENT CONFIGURATIONS IN 'PERSONAL CATALOG' (0)
javascript:;

- Personal Catalog
- *NRAO Defaults*
  - *Pointing setups*
  - *2x 128 MHz Full*

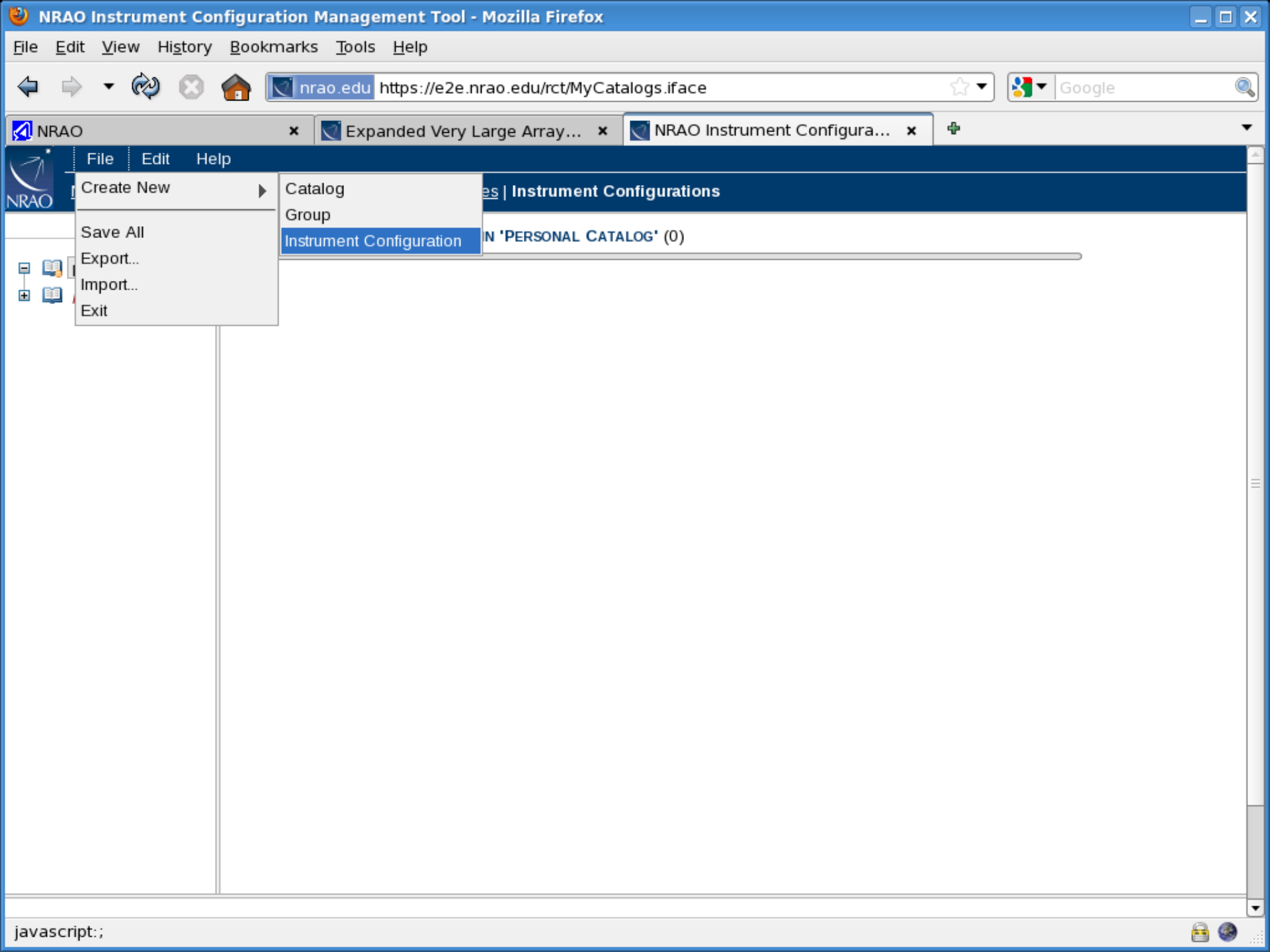
INSTRUMENT CONFIGURATIONS IN '2X 128 MHZ FULL POL (OSRO1)' (10)

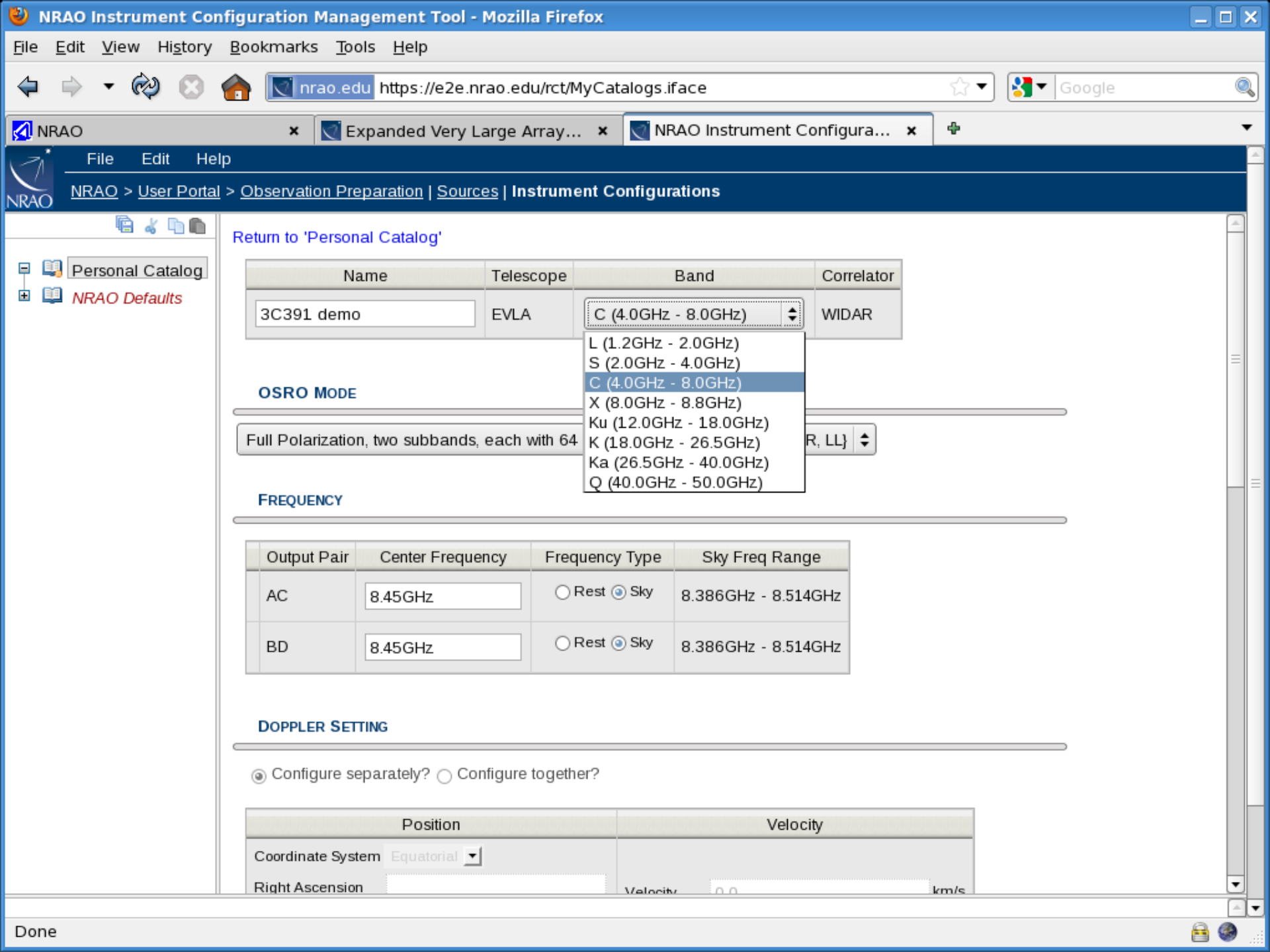
Select: All | None Show: 25 | 50 | 100 | 200

		Name	Band	Back End	T_{int}	AC BW BD BW	AC Freq BD Freq	Comments
☐		L band wide	L	WIDAR	1	128.0MHz 128.0MHz	1348.0MHz 1860.0MHz	NRAO WIDAR OSRO1 23/16 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for wide spread (spectral index/rotation measures) around 1348/1860 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		L band low/high	L	WIDAR	1	128.0MHz 128.0MHz	1452.0MHz 1820.0MHz	NRAO WIDAR OSRO1 23/16 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for RFI free spread (spectral index/rotation measures) around 1452/1820 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		L band low	L	WIDAR	1	128.0MHz 128.0MHz	1328.0MHz 1456.0MHz	NRAO WIDAR OSRO1 22 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for imaging around 1392 MHz
☐		L band high	L	WIDAR	1	128.0MHz 128.0MHz	1732.0MHz 1860.0MHz	NRAO WIDAR OSRO1 17 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for imaging around 1796 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		S band	S	WIDAR	1	128.0MHz 128.0MHz	3084.0MHz 3212.0MHz	NRAO WIDAR OSRO1 default S band continuum and spectro-polarimetry; 256 MHz full polarization. Note that there is only a very limited number of antennas with S band
☐		C band	C	WIDAR	1	128.0MHz 128.0MHz	4896.0MHz 5024.0MHz	NRAO WIDAR OSRO1 default C band continuum and spectro-polarimetry; 256 MHz full polarization
☐		X band	X	WIDAR	1	128.0MHz 128.0MHz	8396.0MHz 8524.0MHz	NRAO WIDAR OSRO1 default X band continuum and spectro-polarimetry; 256 MHz full polarization

Personal Catalog
NRAO Defaults
Pointing setups
2x 128 MHz Full

☐		L band wide	L	WIDAR	1	128.0MHz 128.0MHz	1348.0MHz 1860.0MHz	spectro-polarimetry; 256 MHz full polarization. Best for wide spread (spectral index/rotation measures) around 1348/1860 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		L band low/high	L	WIDAR	1	128.0MHz 128.0MHz	1452.0MHz 1820.0MHz	NRAO WIDAR OSRO1 23/16 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for RFI free spread (spectral index/rotation measures) around 1452/1820 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		L band low	L	WIDAR	1	128.0MHz 128.0MHz	1328.0MHz 1456.0MHz	NRAO WIDAR OSRO1 22 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for imaging around 1392 MHz
☐		L band high	L	WIDAR	1	128.0MHz 128.0MHz	1732.0MHz 1860.0MHz	NRAO WIDAR OSRO1 17 cm L band continuum and spectro-polarimetry; 256 MHz full polarization. Best for imaging around 1796 MHz. Note that not all antennas have the new OMTs in the upper band yet
☐		S band	S	WIDAR	1	128.0MHz 128.0MHz	3084.0MHz 3212.0MHz	NRAO WIDAR OSRO1 default S band continuum and spectro-polarimetry; 256 MHz full polarization. Note that there is only a very limited number of antennas with S band
☐		C band	C	WIDAR	1	128.0MHz 128.0MHz	4896.0MHz 5024.0MHz	NRAO WIDAR OSRO1 default C band continuum and spectro-polarimetry; 256 MHz full polarization
☐		X band	X	WIDAR	1	128.0MHz 128.0MHz	8396.0MHz 8524.0MHz	NRAO WIDAR OSRO1 default X band continuum and spectro-polarimetry; 256 MHz full polarization
☐		K band	K	WIDAR	1	128.0MHz 128.0MHz	22396.0MHz 22524.0MHz	NRAO WIDAR OSRO1 default K band continuum and spectro-polarimetry; 256 MHz full polarization
☐		Ka band	Ka	WIDAR	1	128.0MHz 128.0MHz	33496.0MHz 33624.0MHz	NRAO WIDAR OSRO1 default Ka band continuum and spectro-polarimetry; 256 MHz full polarization
☐		Q band	Q	WIDAR	1	128.0MHz 128.0MHz	43216.0MHz 43344.0MHz	NRAO WIDAR OSRO1 default Q band continuum and spectro-polarimetry; 256 MHz full polarization


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
Create New
Save All
Export...
Import...
Exit
Catalog
Group
Instrument Configuration
es | Instrument Configurations
N 'PERSONAL CATALOG' (0)
javascript:;


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
Return to 'Personal Catalog'
Name
Telescope
Band
Correlator
3C391 demo
EVLA
C (4.0GHz - 8.0GHz)
WIDAR
L (1.2GHz - 2.0GHz)
S (2.0GHz - 4.0GHz)
C (4.0GHz - 8.0GHz)
X (8.0GHz - 8.8GHz)
Ku (12.0GHz - 18.0GHz)
K (18.0GHz - 26.5GHz)
Ka (26.5GHz - 40.0GHz)
Q (40.0GHz - 50.0GHz)
OSRO Mode
Full Polarization, two subbands, each with 64
R, LL}
Frequency
Output Pair
Center Frequency
Frequency Type
Sky Freq Range
AC
8.45GHz
Rest Sky
8.386GHz - 8.514GHz
BD
8.45GHz
Rest Sky
8.386GHz - 8.514GHz
Doppler Setting
Configure separately? Configure together?
Position
Velocity
Coordinate System
Equatorial
Right Ascension
Velocity
km/s
Done

NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
Return to 'Personal Catalog'
Name
Telescope
Band
Correlator
3C391 demo
EVLA
C (4.0GHz - 8.0GHz)
WIDAR
OSRO Mode
Full Polarization, two subbands, each with 64 channels/product in {RR, RL, LR, LL}
Full Polarization, two subbands, each with 64 channels/product in {RR, RL, LR, LL}
Dual Polarization, one subband, with 256 channels/product in {RR, LL}
Frequency
Output Pair
Center Frequency
Frequency Type
Sky Freq Range
AC
8.45GHz
Rest Sky
8.386GHz - 8.514GHz
BD
8.45GHz
Rest Sky
8.386GHz - 8.514GHz
Doppler Setting
Configure separately? Configure together?
Position
Velocity
Coordinate System
Equatorial
Right Ascension
Velocity
km/s
Done

Personal Catalog

NRAO Defaults

Return to 'Personal Catalog'

Name	Telescope	Band	Correlator
3C391 demo	EVLA	C (4.0GHz - 8.0GHz) 3-dB range: 3.8GHz - 8.2GHz	WIDAR

OSRO Mode

Full Polarization, two subbands, each with 64 channels/product in {RR, RL, LR, LL}

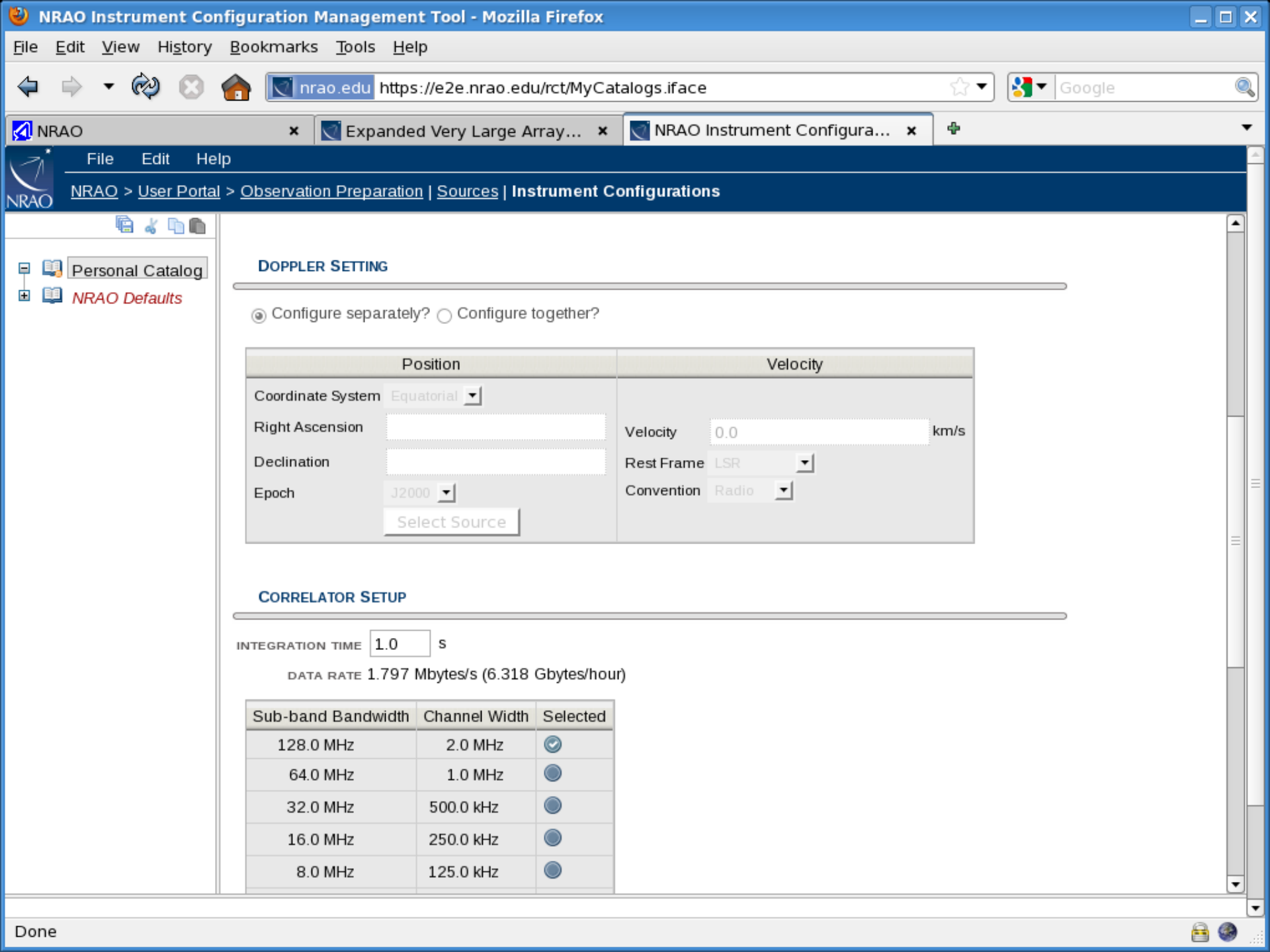
Frequency

Output Pair	Center Frequency	Frequency Type	Sky Freq Range
AC	4.536GHz	Rest / Sky	4.472GHz - 4.6GHz
BD	7.436GHz	Rest / Sky	7.372GHz - 7.5GHz

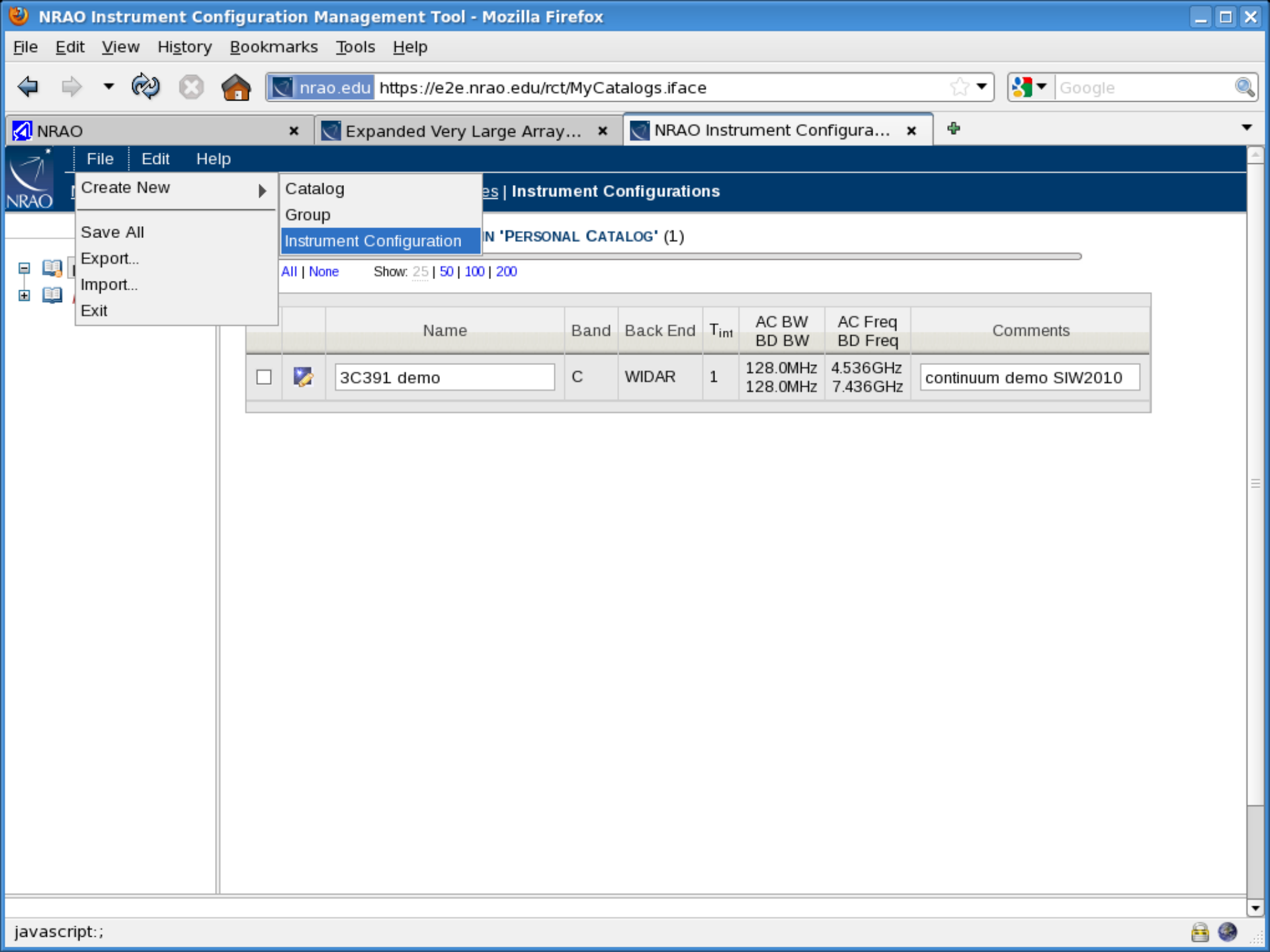
Doppler Setting

Configure separately? Configure together?

Position	Velocity
Coordinate System: Equatorial	


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
DOPPLER SETTING
Configure separately? Configure together?
Position
Coordinate System Equatorial
Right Ascension
Declination
Epoch J2000
Select Source
Velocity
Velocity 0.0 km/s
Rest Frame LSR
Convention Radio
CORRELATOR SETUP
INTEGRATION TIME 1.0 s
DATA RATE 1.797 Mbytes/s (6.318 Gbytes/hour)
Sub-band Bandwidth
Channel Width
Selected
128.0 MHz 2.0 MHz
64.0 MHz 1.0 MHz
32.0 MHz 500.0 kHz
16.0 MHz 250.0 kHz
8.0 MHz 125.0 kHz
Done

NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
Personal Catalog
NRAO Defaults
INSTRUMENT CONFIGURATIONS IN 'PERSONAL CATALOG' (1)
Select: All | None Show: 25 | 50 | 100 | 200
Name
Band
Back End
T_{int}
AC BW
BD BW
AC Freq
BD Freq
Comments
3C391 demo
C
WIDAR
1
128.0MHz
128.0MHz
4.536GHz
7.436GHz
continuum demo SIW2010
Done


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
Create New
Save All
Export...
Import...
Exit
Catalog
Group
Instrument Configuration
Instrument Configurations
'PERSONAL CATALOG' (1)
All | None Show: 25 | 50 | 100 | 200
Name
Band
Back End
T_{int}
AC BW
BD BW
AC Freq
BD Freq
Comments
3C391 demo
C
WIDAR
1
128.0MHz
128.0MHz
4.536GHz
7.436GHz
continuum demo SIW2010
javascript:;

Personal Catalog

NRAO Defaults

Return to 'Personal Catalog'

Name	Telescope	Band	Correlator
IRC demo	EVLA	Ka (26.5GHz - 40.0GHz) 1-dB range: 26.0GHz - 40.0GHz 3-dB range: 25.0GHz - 41.0GHz	WIDAR

OSRO Mode

Full Polarization, two subbands, each with 64 channels/product in {RR, RL, LR, LL}

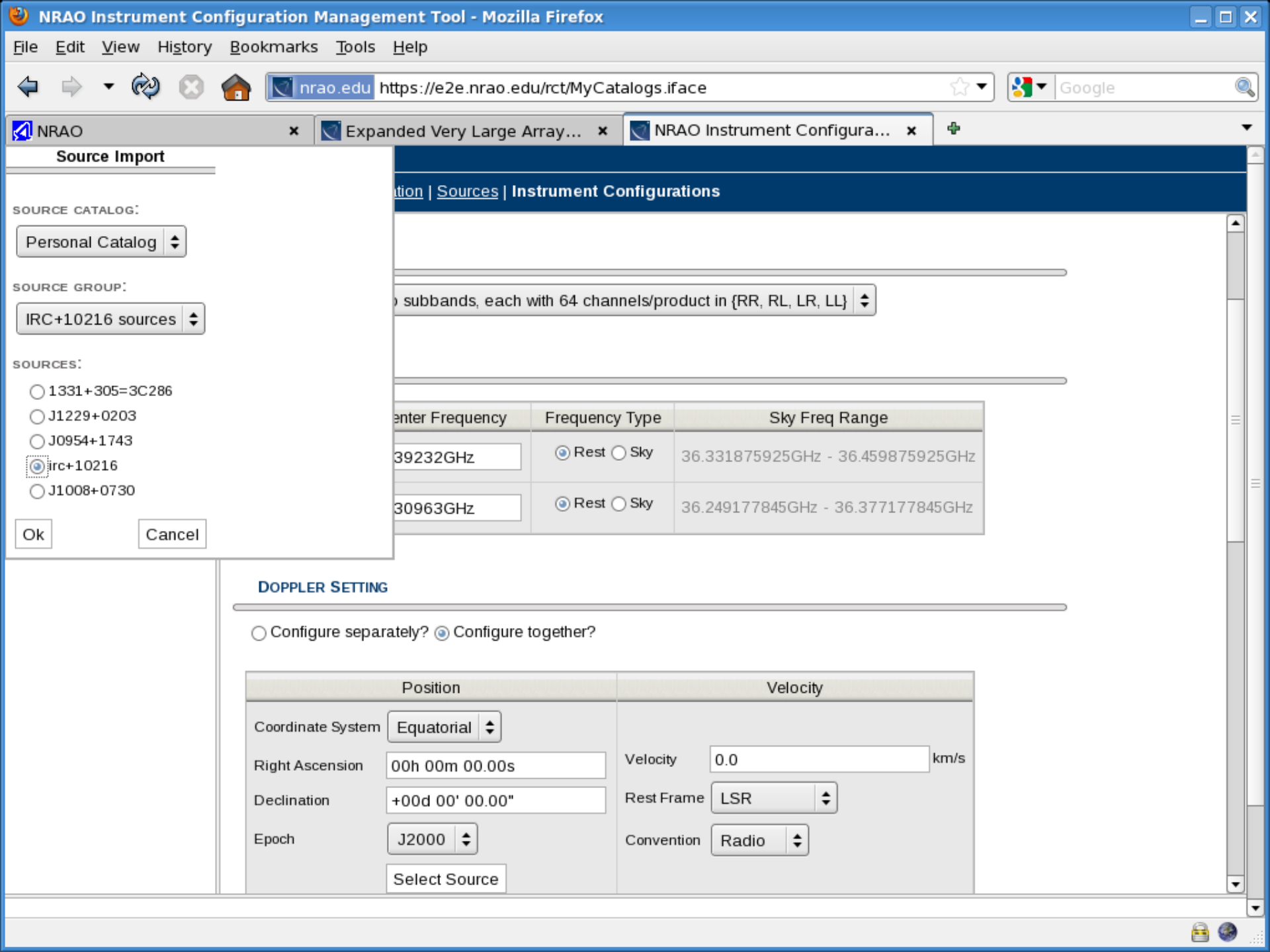
Frequency

Output Pair	Center Frequency	Frequency Type	Sky Freq Range
AC	36.39232GHz	Rest / Sky	36.331863336GHz - 36.459863336GHz
BD	36.30963GHz	Rest / Sky	36.249165285GHz - 36.377165285GHz

Doppler Setting

Configure separately? / Configure together?

Output Pair	Position	Velocity


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
IRC+10216 sources
SOURCES:
1331+305=3C286
J1229+0203
J0954+1743
irc+10216
J1008+0730
Ok
Cancel
tion | Sources | Instrument Configurations
subbands, each with 64 channels/product in {RR, RL, LR, LL}
enter Frequency
Frequency Type
Sky Freq Range
39232GHz
Rest Sky
36.331875925GHz - 36.459875925GHz
30963GHz
Rest Sky
36.249177845GHz - 36.377177845GHz
DOPPLER SETTING
Configure separately? Configure together?
Position
Velocity
Coordinate System
Equatorial
Right Ascension
00h 00m 00.00s
Declination
+00d 00' 00.00"
Epoch
J2000
Select Source
Velocity
0.0
km/s
Rest Frame
LSR
Convention
Radio

NRAO Instrument Configuration Management Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface

NRAO | Expanded Very Large Array... | NRAO Instrument Configura...

File Edit Help

NRAO > User Portal > Observation Preparation | Sources | **Instrument Configurations**

- Personal Catalog
- *NRAO Defaults*

DOPPLER SETTING

○ Configure separately? ◉ Configure together?

Position		Velocity	
Coordinate System	Equatorial		
Right Ascension	09h 47m 57.382s	Velocity	-26.0 km/s
Declination	+13d 16' 40.66"	Rest Frame	LSR
Epoch	J2000	Convention	Radio
	Select Source		

CORRELATOR SETUP

INTEGRATION TIME 1.0 s

DATA RATE 1.797 Mbytes/s (6.318 Gbytes/hour)

Sub-band Bandwidth	Channel Width	Selected
128.0 MHz	2.0 MHz	◉
64.0 MHz	1.0 MHz	○
32.0 MHz	500.0 kHz	○

Personal Catalog
NRAO Defaults

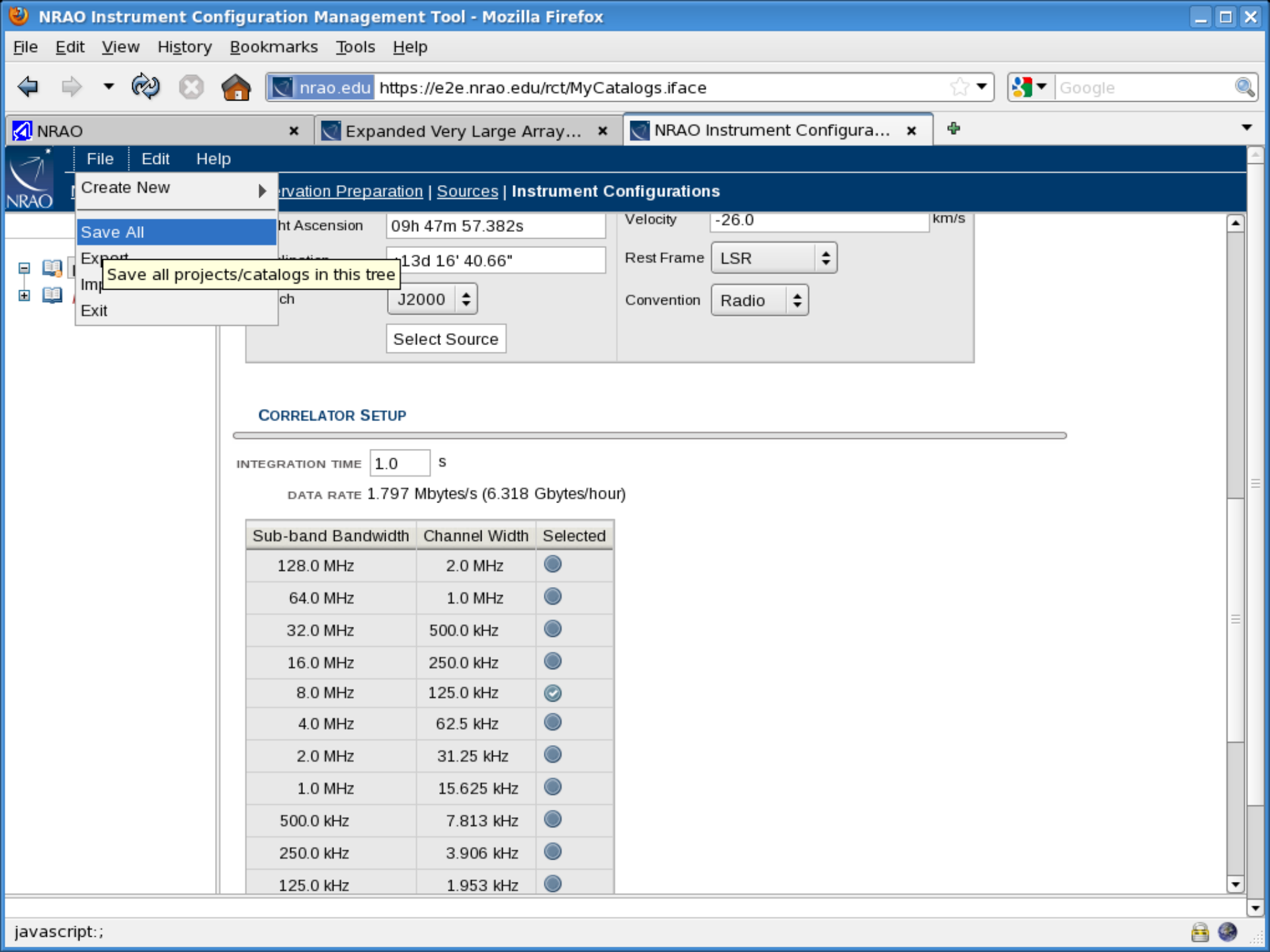
INTEGRATION TIME 1.0 s

DATA RATE 1.797 Mbytes/s (6.318 Gbytes/hour)

Sub-band Bandwidth	Channel Width	Selected
128.0 MHz	2.0 MHz	
64.0 MHz	1.0 MHz	
32.0 MHz	500.0 kHz	
16.0 MHz	250.0 kHz	
8.0 MHz	125.0 kHz	✓
4.0 MHz	62.5 kHz	
2.0 MHz	31.25 kHz	
1.0 MHz	15.625 kHz	
500.0 kHz	7.813 kHz	
250.0 kHz	3.906 kHz	
125.0 kHz	1.953 kHz	
62.5 kHz	977.0 Hz	
31.25 kHz	488.0 Hz	

[1] This is the native channel width, before any smoothing takes place.

COMMENTS


NRAO Instrument Configuration Management Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/rct/MyCatalogs.iface
Google
NRAO
Expanded Very Large Array...
NRAO Instrument Configura...
File Edit Help
Create New
Save All
Export
Import
Exit
Save all projects/catalogs in this tree
Observation Preparation | Sources | Instrument Configurations
ht Ascension
09h 47m 57.382s
13d 16' 40.66"
J2000
Select Source
Velocity
-26.0
km/s
Rest Frame
LSR
Convention
Radio
CORRELATOR SETUP
INTEGRATION TIME
1.0
s
DATA RATE 1.797 Mbytes/s (6.318 Gbytes/hour)
Sub-band Bandwidth
Channel Width
Selected
128.0 MHz 2.0 MHz
64.0 MHz 1.0 MHz
32.0 MHz 500.0 kHz
16.0 MHz 250.0 kHz
8.0 MHz 125.0 kHz
4.0 MHz 62.5 kHz
2.0 MHz 31.25 kHz
1.0 MHz 15.625 kHz
500.0 kHz 7.813 kHz
250.0 kHz 3.906 kHz
125.0 kHz 1.953 kHz
javascript:;

Building Scheduling Blocks (SBs)

All sources to be used are defined

Transferred from the proposal semi-automatically (i.e. check!)

Found in existing catalogs

Created new

All sources to be used are conveniently grouped

More user friendly if there are many, or from different catalogs

All resources to be used are defined – see above

All resources to be used are conveniently grouped – see above

The project Program Blocks are present

Proposal information and read-only details already entered

- PI and Co-Is, type, array config., time allocated, (priority,) …, (…)

Personal Catalog

NRAO Defaults

INSTRUMENT CONFIGURATIONS IN 'PERSONAL CATALOG' (2)

Select: All | None Show: 25 | 50 | 100 | 200

		Name	Band	Back End	T_{int}	AC BW BD BW	AC Freq BD Freq	Comments
☐		3C391 demo	C	WIDAR	1	128.0MHz 128.0MHz	4.536GHz 7.436GHz	continuum demo SIW2010
☐		IRC demo	Ka	WIDAR	1	8.0MHz 8.0MHz	36.39232GHz 36.30963GHz	

Designing the 3C391 observing run

7 field mozaic, 7 sources with roughly equal time on source

Enough signal to be able to use self-calibration

Could use default C band continuum (OSRO1) setup *(but didn't)*

Flux: **3C286**, can also be used for EVPA calibration *(answer: –66°)*

Bandpass: **3C84**

Unpolarized nearby point source: **J1822–0938** (gain, pol.z leakage)

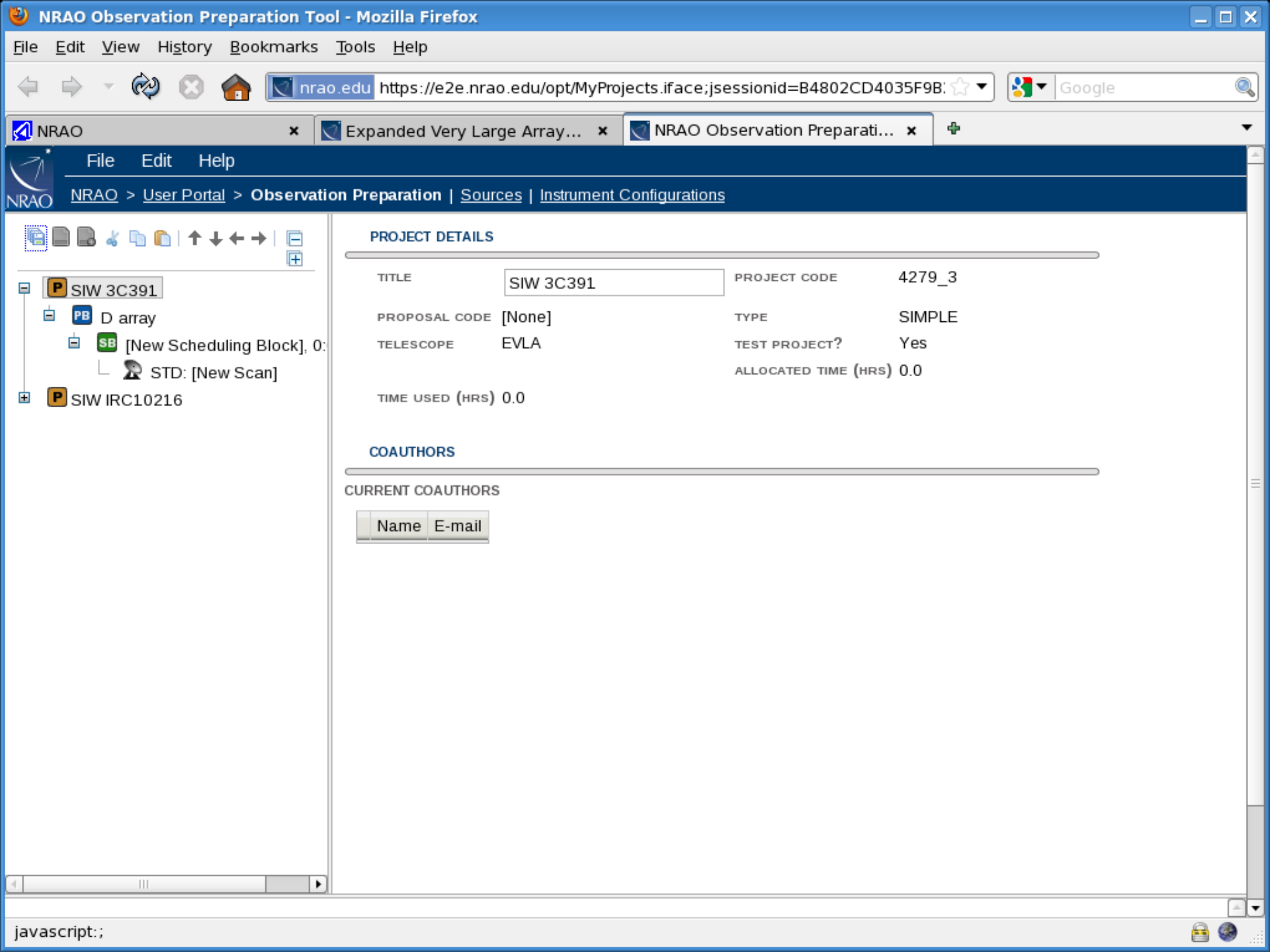
C band (i.e. about 5 GHz) thus cycle every ~30 minutes

Do not break into small observing runs (polarization angle)

Spread sources over hour angle for best *(u,v)*-coverage

Set up sequence and loop several times

Spread polarization leakage calibrator: include in loop


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface;jsessionid=B4802CD4035F9B:
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
[New Scheduling Block], 0:
STD: [New Scan]
SIW IRC10216
PROJECT DETAILS
TITLE
SIW 3C391
PROJECT CODE
4279_3
PROPOSAL CODE
[None]
TYPE
SIMPLE
TELESCOPE
EVLA
TEST PROJECT?
Yes
ALLOCATED TIME (HRS)
0.0
TIME USED (HRS)
0.0
COAUTHORS
CURRENT COAUTHORS
Name
E-mail
javascript:;

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

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NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

NRAO > User Portal > **Observation Preparation** | Sources | Instrument Configurations

- SIW 3C391
  - D array
    - 3c391 mozaic, 0:00:00
- SIW IRC10216

Scheduling Block Details | Scheduling Block Summary | Validation and Submission | Bulk Scan Edit

SCHEDULING BLOCK DETAILS

GENERATED ID 1502219

NAME 3c391 mozaic

STATUS Not Submitted

COUNT 1

COMPLETED 0

TOTAL TIME 0:00:00

TIME PER EXECUTION 0:00:00

SCHEDULE TYPE Dynamic

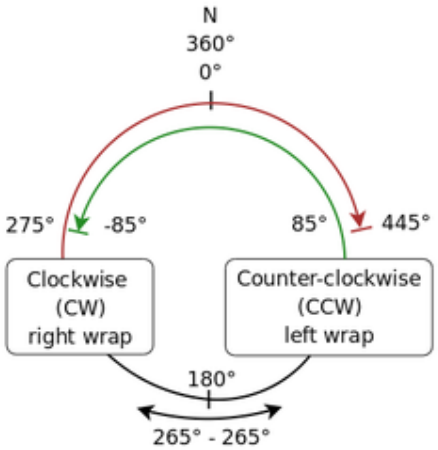
LST START RANGE 14 : 30 – 15 : 00

NO CONSTRAINT:

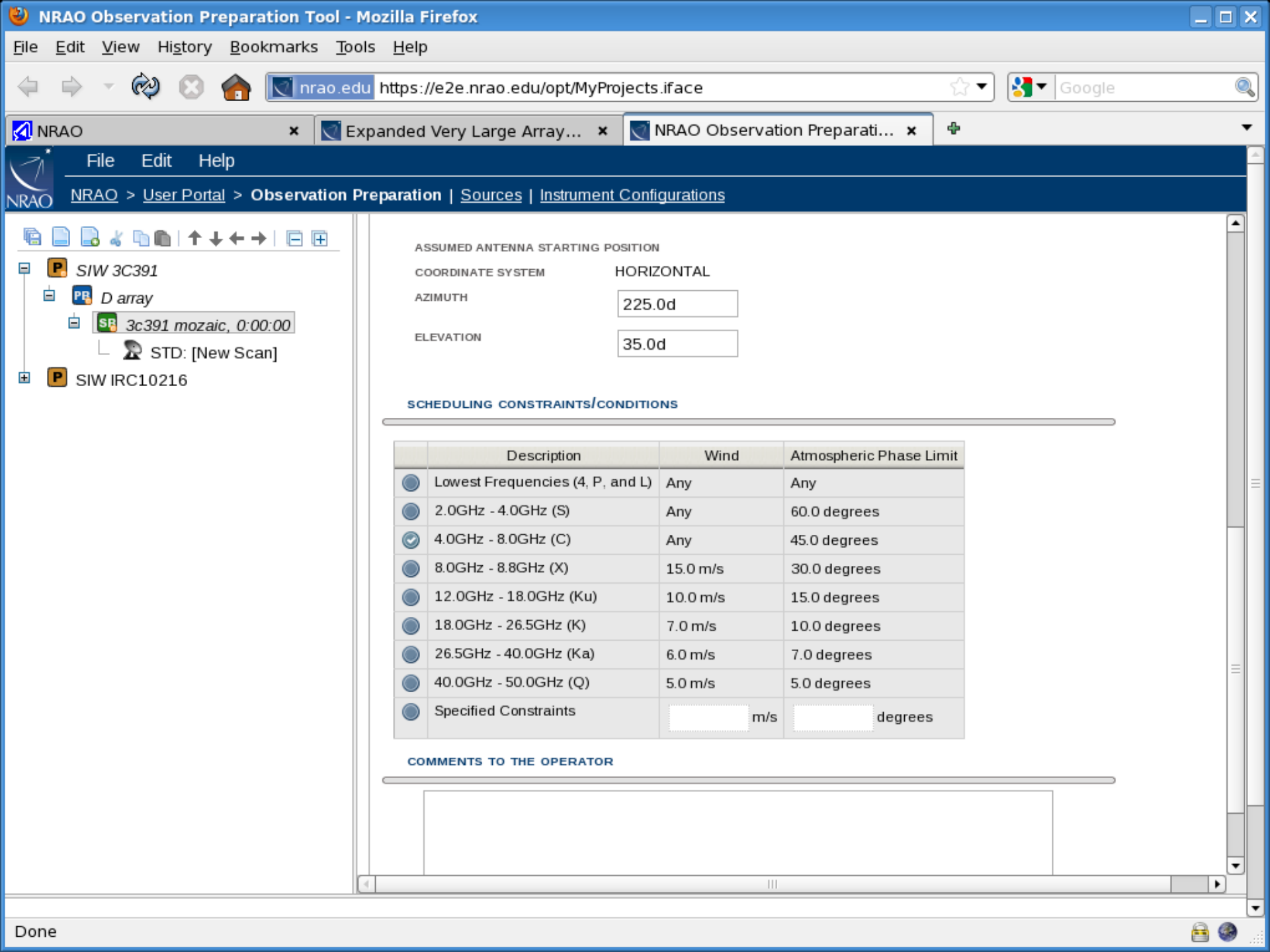
START AFTER DATE (OPTIONAL) yyyy - MM - dd

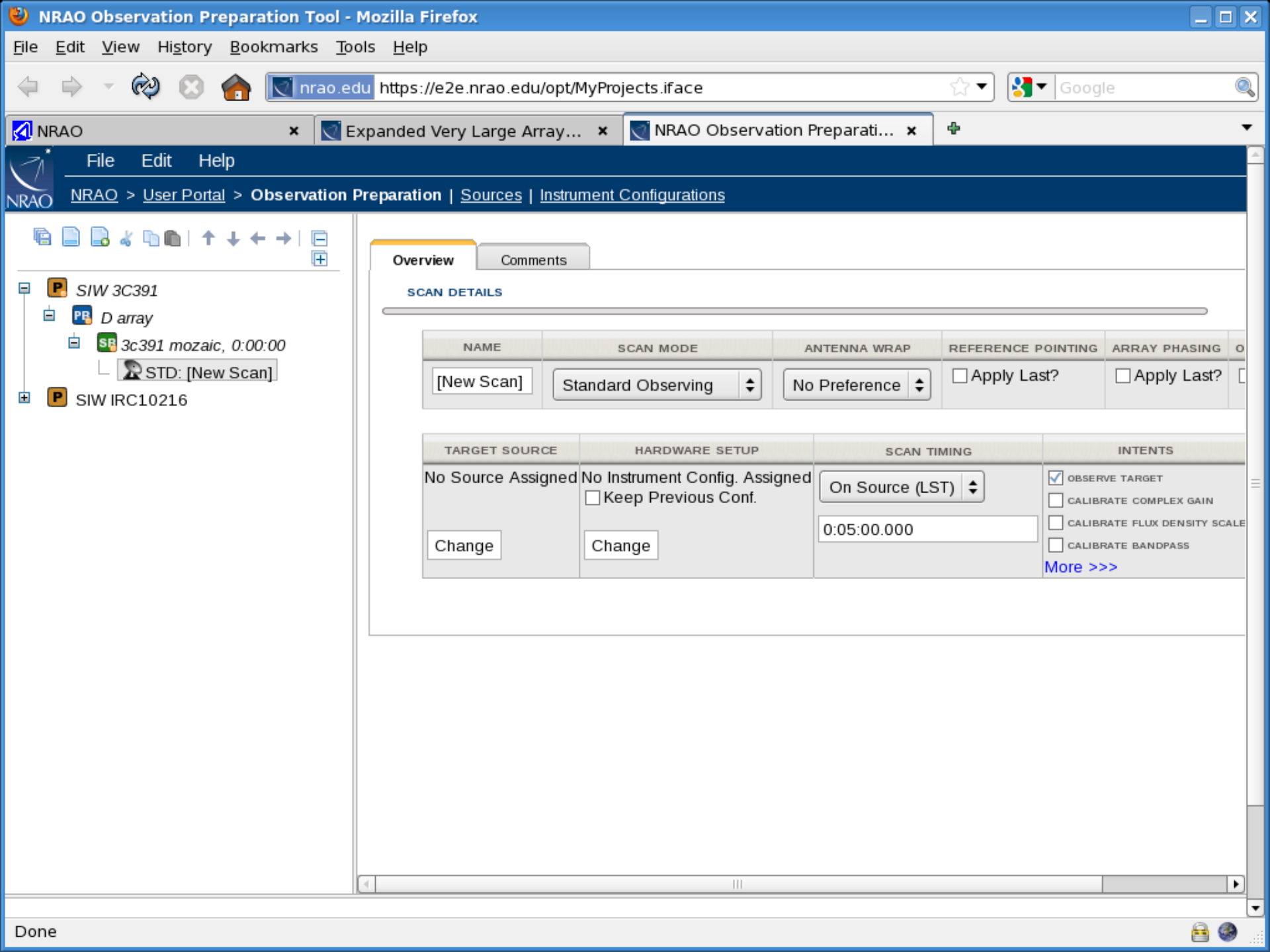
SHADOWING LIMIT (MAX) 0.0 m

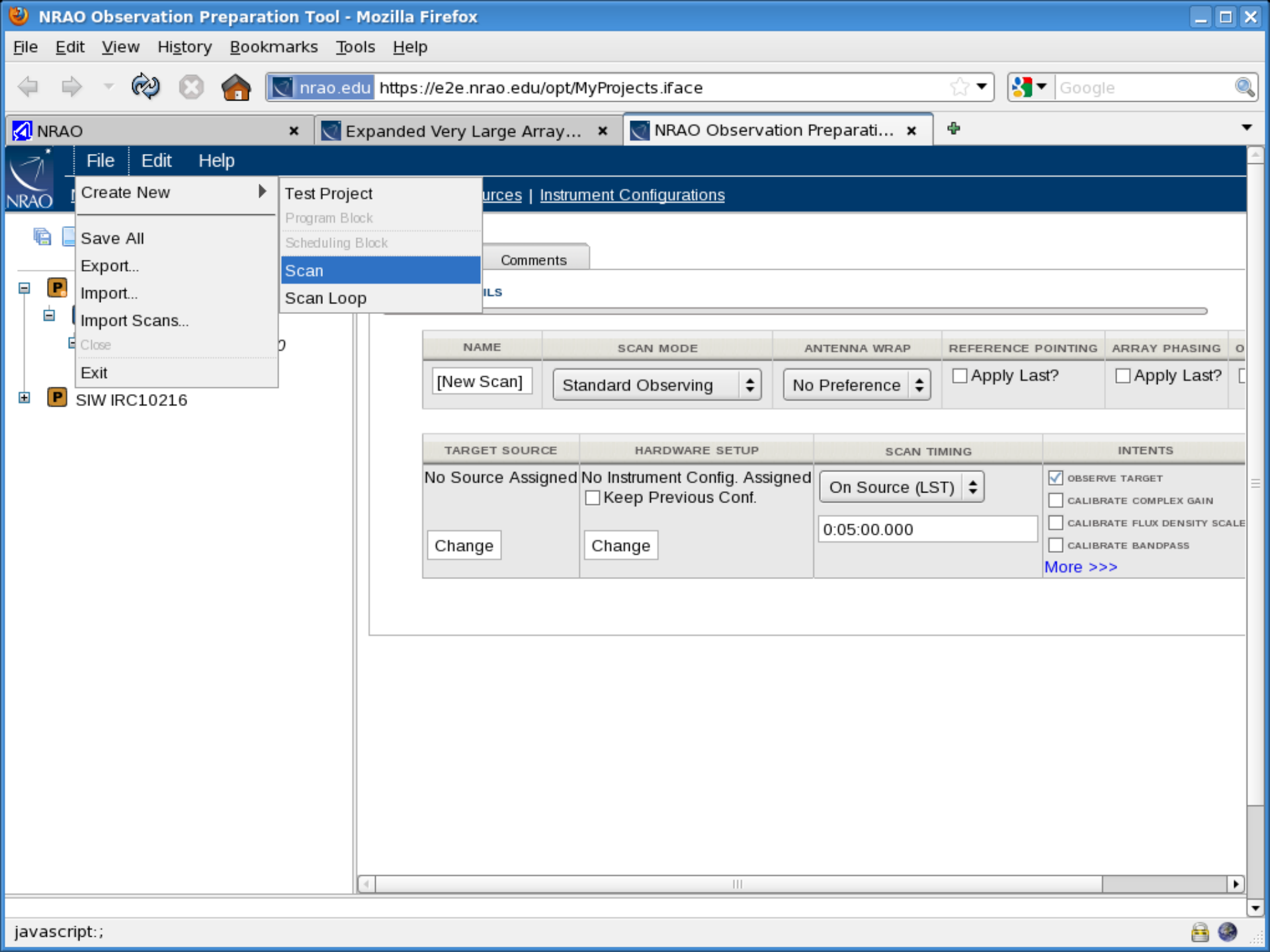
IN CONFIGURATION D



Done


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
SIW IRC10216
ASSUMED ANTENNA STARTING POSITION
COORDINATE SYSTEM HORIZONTAL
AZIMUTH 225.0d
ELEVATION 35.0d
SCHEDULING CONSTRAINTS/CONDITIONS
Description Wind Atmospheric Phase Limit
Lowest Frequencies (4, P, and L) Any Any
2.0GHz - 4.0GHz (S) Any 60.0 degrees
4.0GHz - 8.0GHz (C) Any 45.0 degrees
8.0GHz - 8.8GHz (X) 15.0 m/s 30.0 degrees
12.0GHz - 18.0GHz (Ku) 10.0 m/s 15.0 degrees
18.0GHz - 26.5GHz (K) 7.0 m/s 10.0 degrees
26.5GHz - 40.0GHz (Ka) 6.0 m/s 7.0 degrees
40.0GHz - 50.0GHz (Q) 5.0 m/s 5.0 degrees
Specified Constraints m/s degrees
COMMENTS TO THE OPERATOR
Done


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
No Source Assigned
No Instrument Config. Assigned
Keep Previous Conf.
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Change
Change
More >>>
Done


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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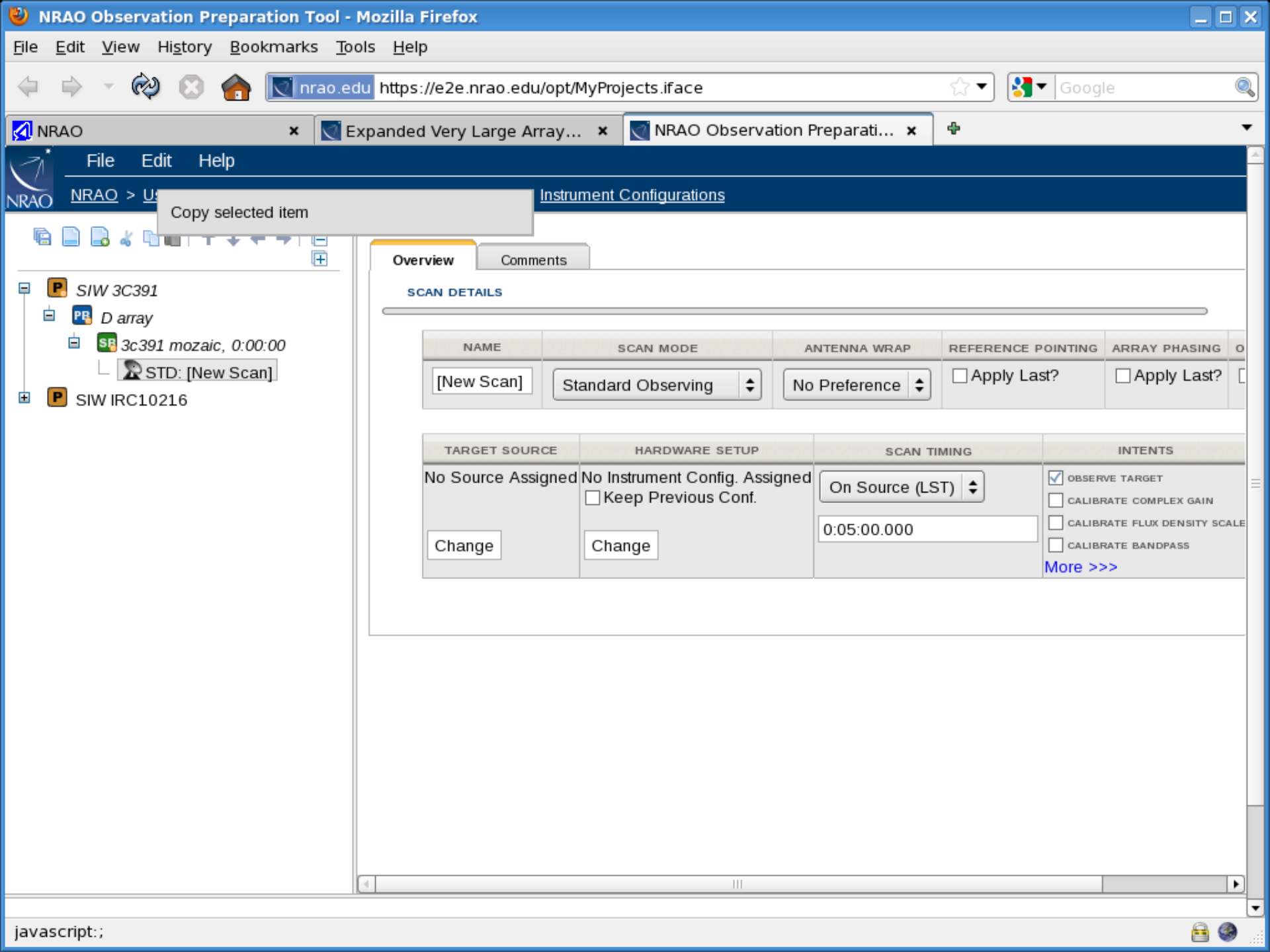
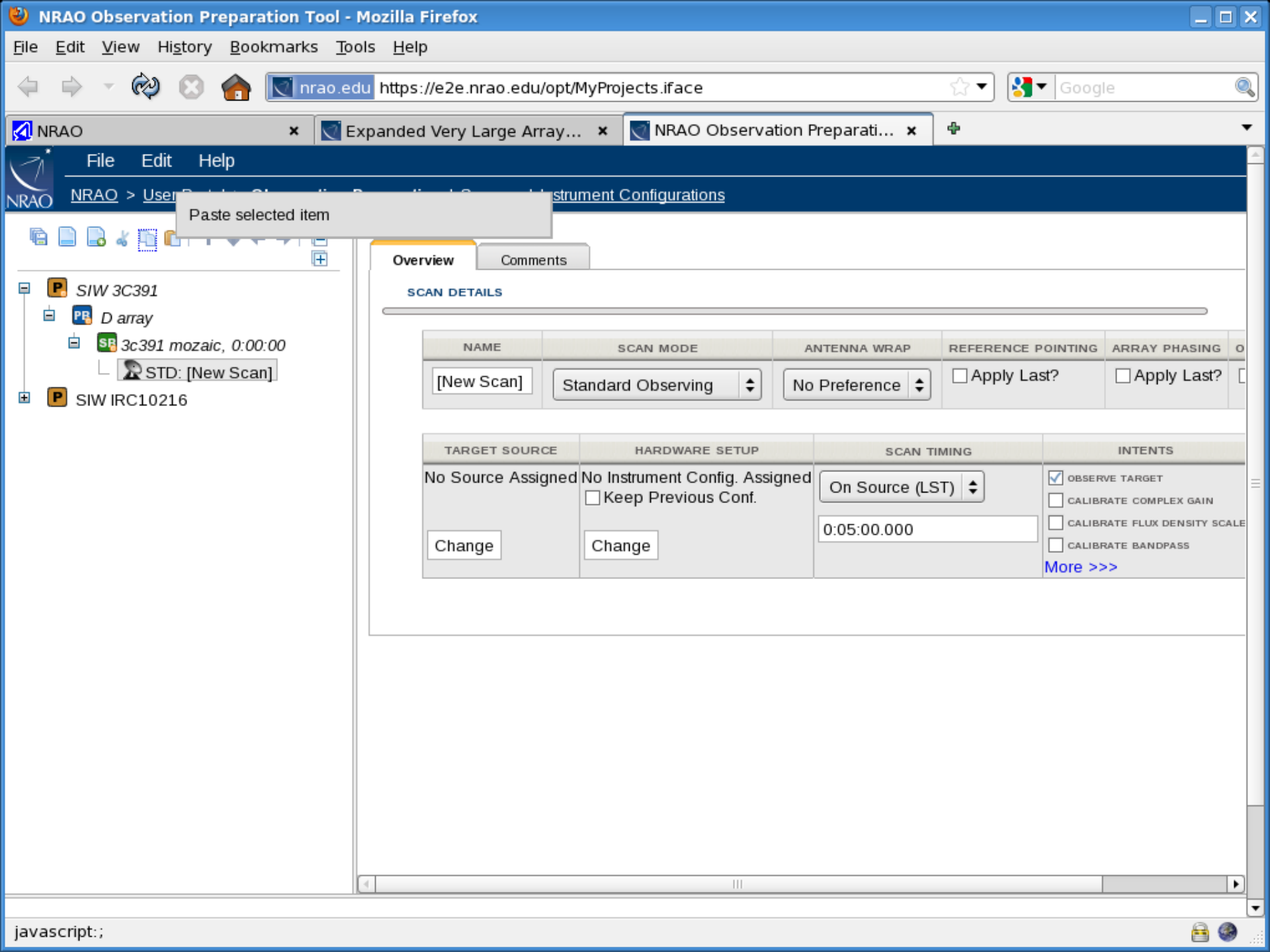
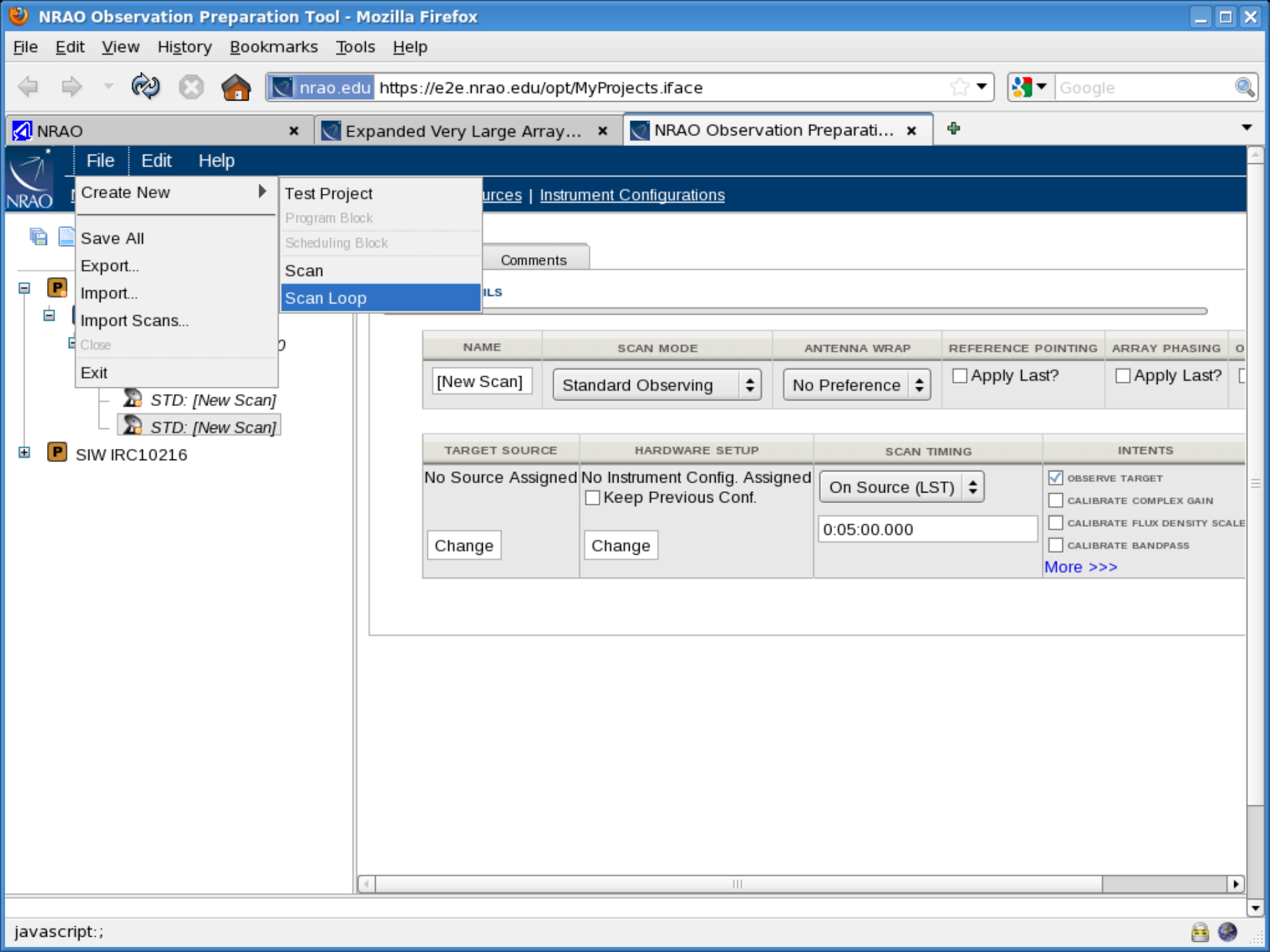
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Create New
Save All
Export...
Import...
Import Scans...
Close
Exit
Test Project
Program Block
Scheduling Block
Scan
Scan Loop
Instrument Configurations
Comments
SIW IRC10216
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
No Source Assigned
No Instrument Config. Assigned
Keep Previous Conf.
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Change
Change
More >>>
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > US
Instrument Configurations
Copy selected item
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
No Source Assigned
No Instrument Config. Assigned
Keep Previous Conf.
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Change
Change
More >>>
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User
strument Configurations
Paste selected item
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
No Source Assigned
No Instrument Config. Assigned
Keep Previous Conf.
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Change
Change
More >>>
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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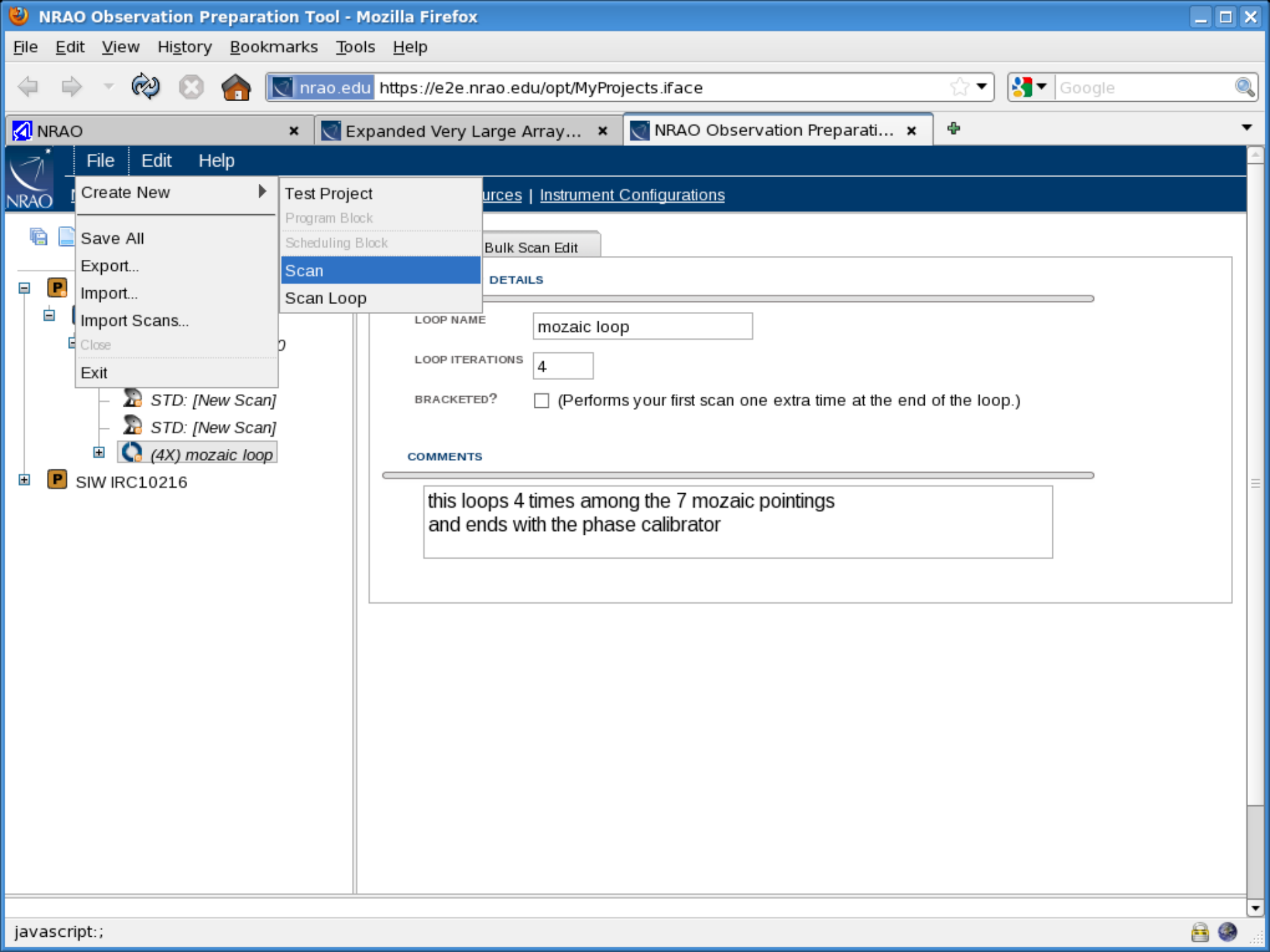
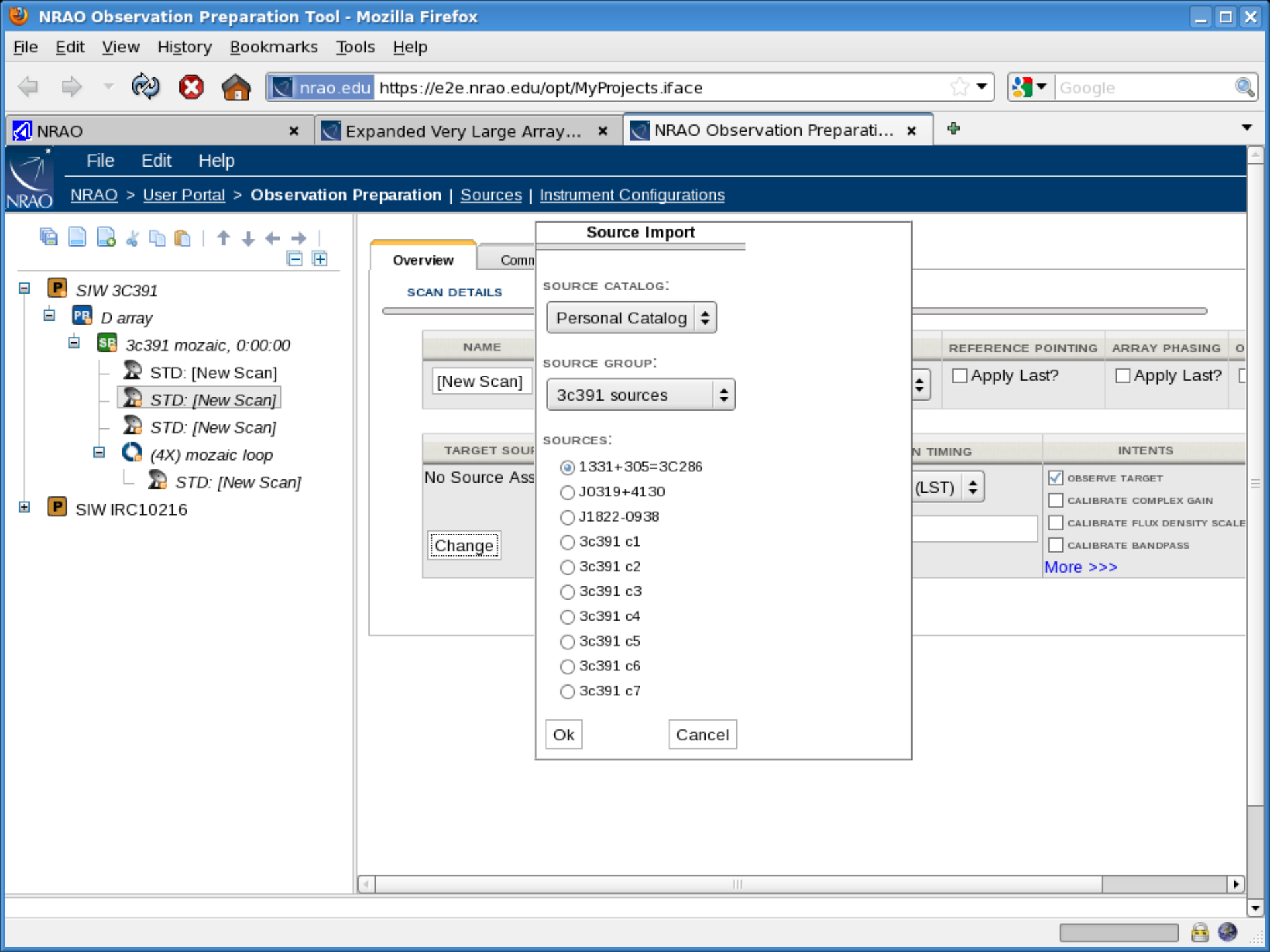
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Create New
Save All
Export...
Import...
Import Scans...
Close
Exit
Test Project
Program Block
Scheduling Block
Scan
Scan Loop
Instrument Configurations
Comments
STD: [New Scan]
STD: [New Scan]
SIW IRC10216
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
No Source Assigned
No Instrument Config. Assigned
Keep Previous Conf.
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Change
Change
More >>>
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Create New
Save All
Export...
Import...
Import Scans...
Close
Exit
Test Project
Program Block
Scheduling Block
Scan
Scan Loop
urces | Instrument Configurations
Bulk Scan Edit
DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
4
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
STD: [New Scan]
STD: [New Scan]
(4X) mozaic loop
SIW IRC10216
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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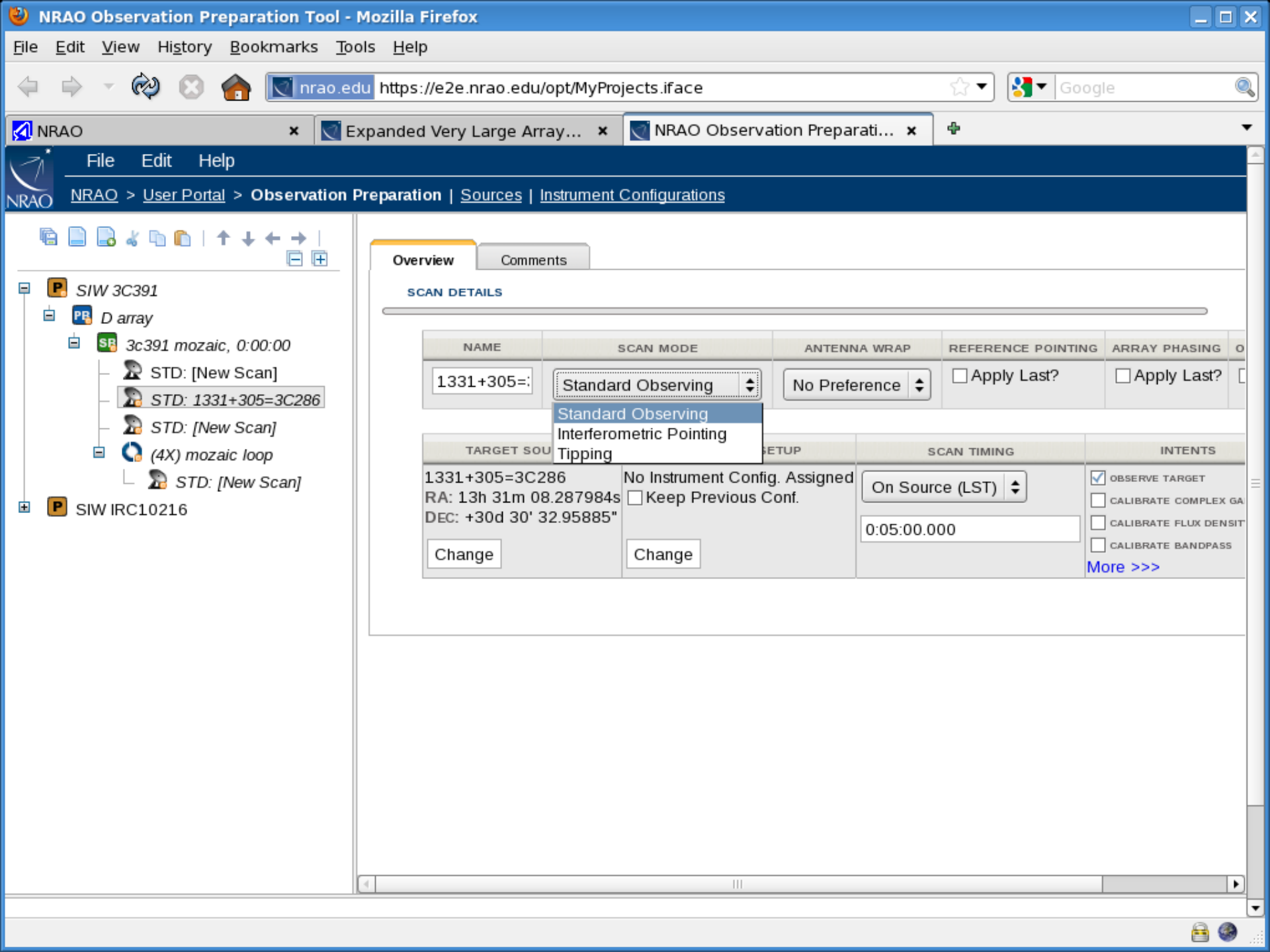
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: [New Scan]
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comn
SCAN DETAILS
NAME
[New Scan]
TARGET SOUR
No Source Ass
Change
REFERENCE POINTING
Apply Last?
ARRAY PHASING
Apply Last?
N TIMING
(LST)
INTENTS
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
3c391 sources
SOURCES:
1331+305=3C286
J0319+4130
J1822-0938
3c391 c1
3c391 c2
3c391 c3
3c391 c4
3c391 c5
3c391 c6
3c391 c7
Ok
Cancel


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
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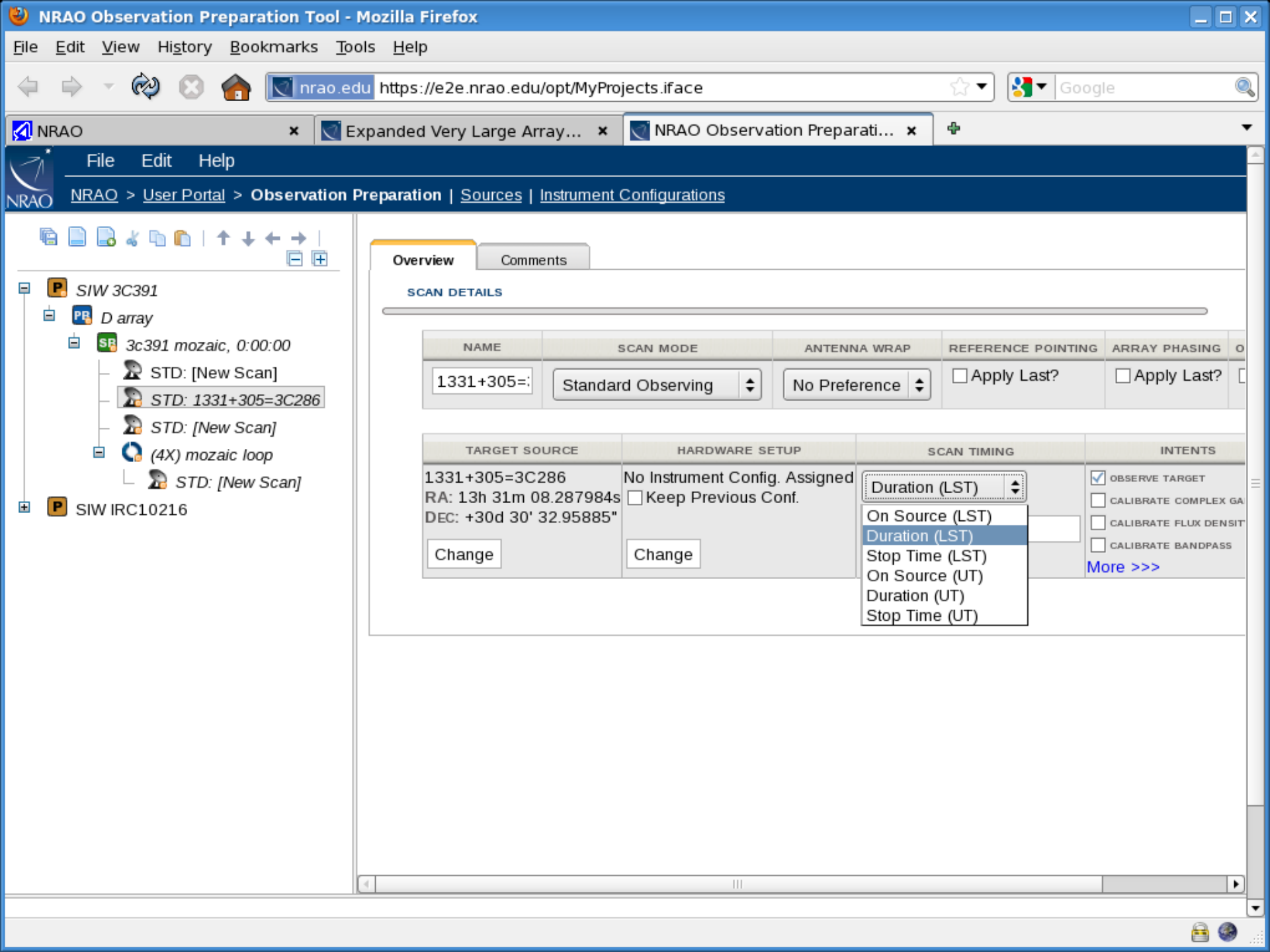
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
1331+305=:
Standard Observing
No Preference
Apply Last?
Apply Last?
Standard Observing
Interferometric Pointing
Tipping
TARGET SOU
SETUP
SCAN TIMING
INTENTS
1331+305=3C286
RA: 13h 31m 08.287984s
DEC: +30d 30' 32.95885"
Change
No Instrument Config. Assigned
Keep Previous Conf.
Change
On Source (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GA
CALIBRATE FLUX DENSIT
CALIBRATE BANDPASS
More >>>


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
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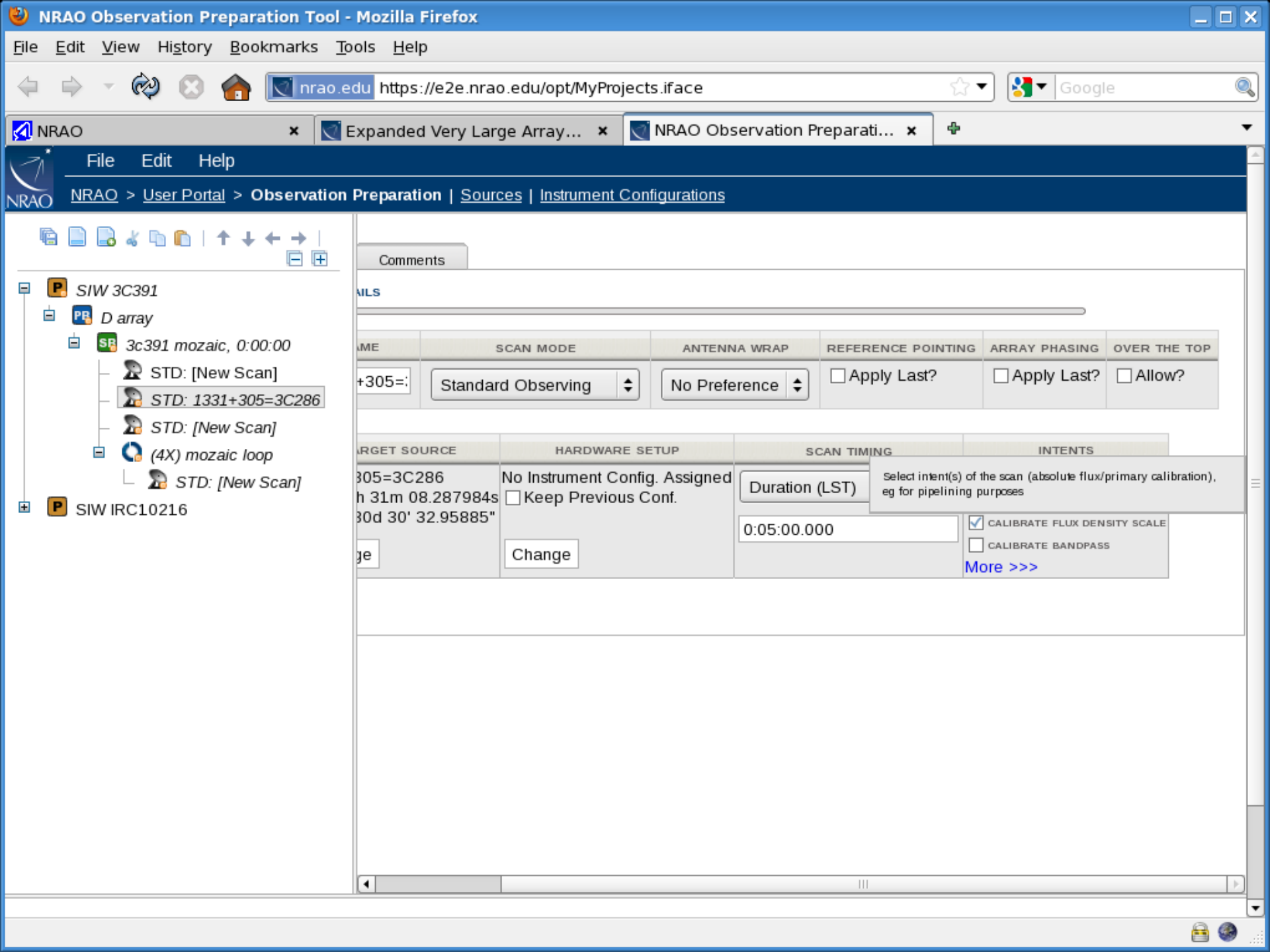
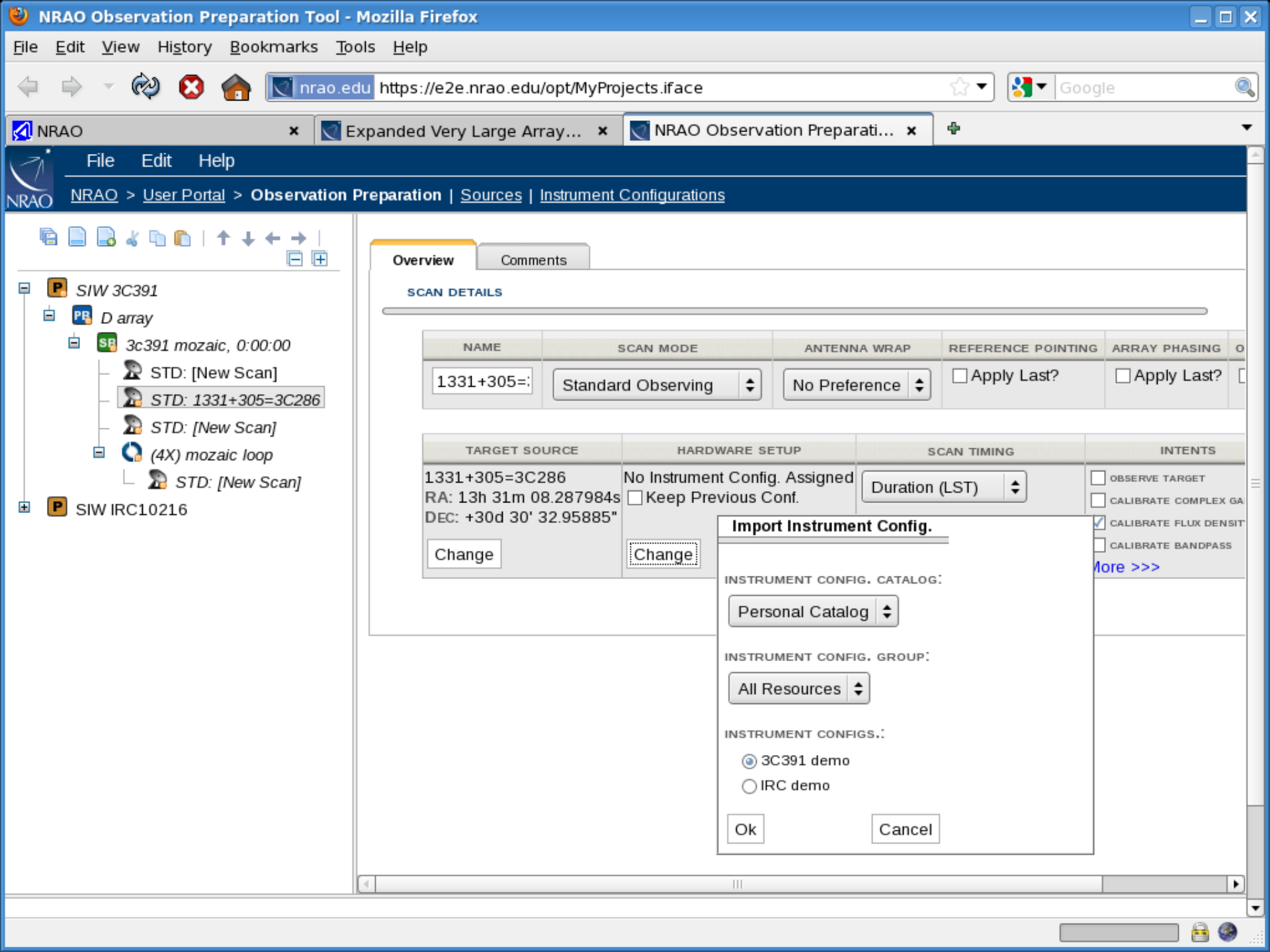
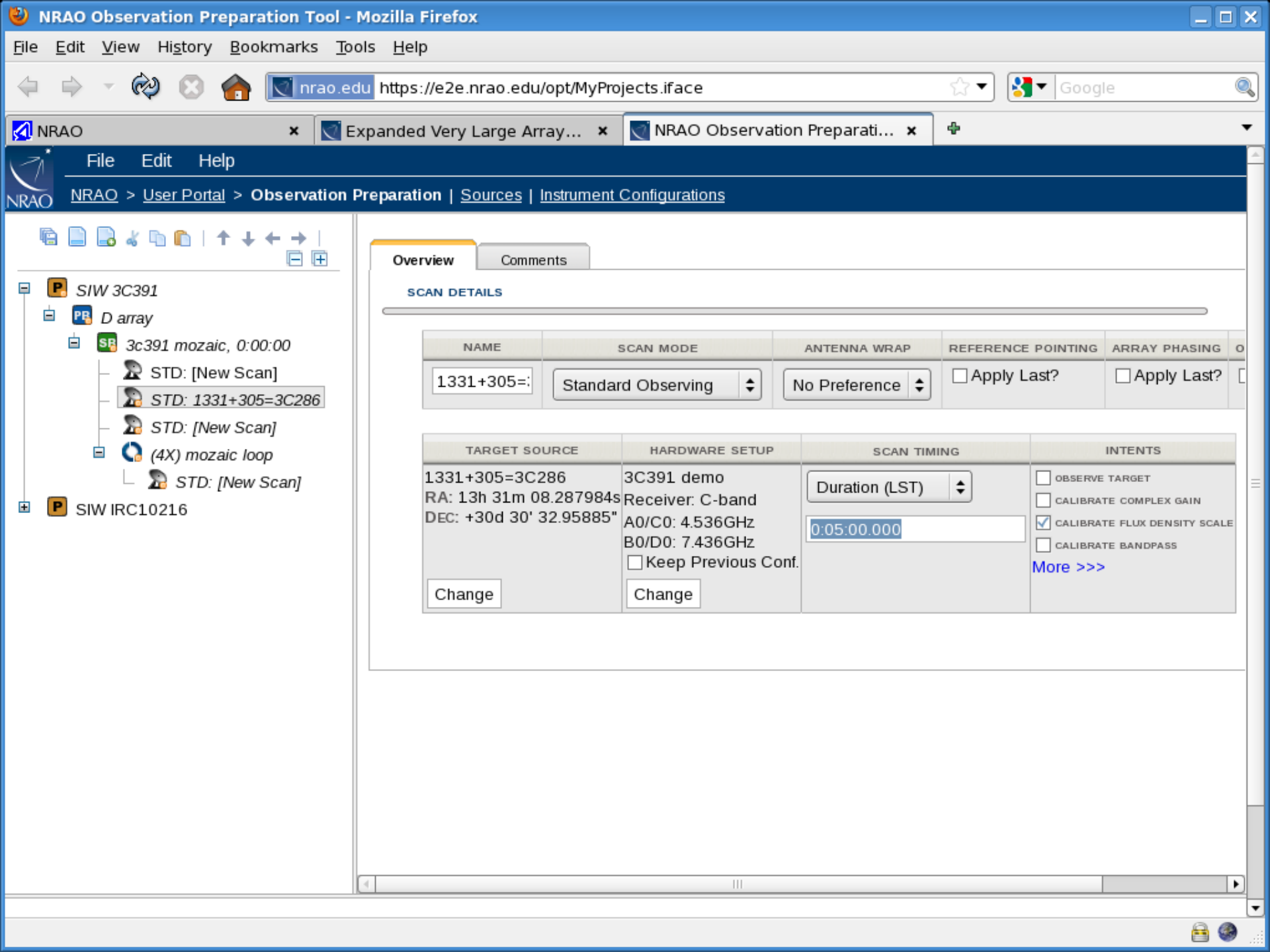
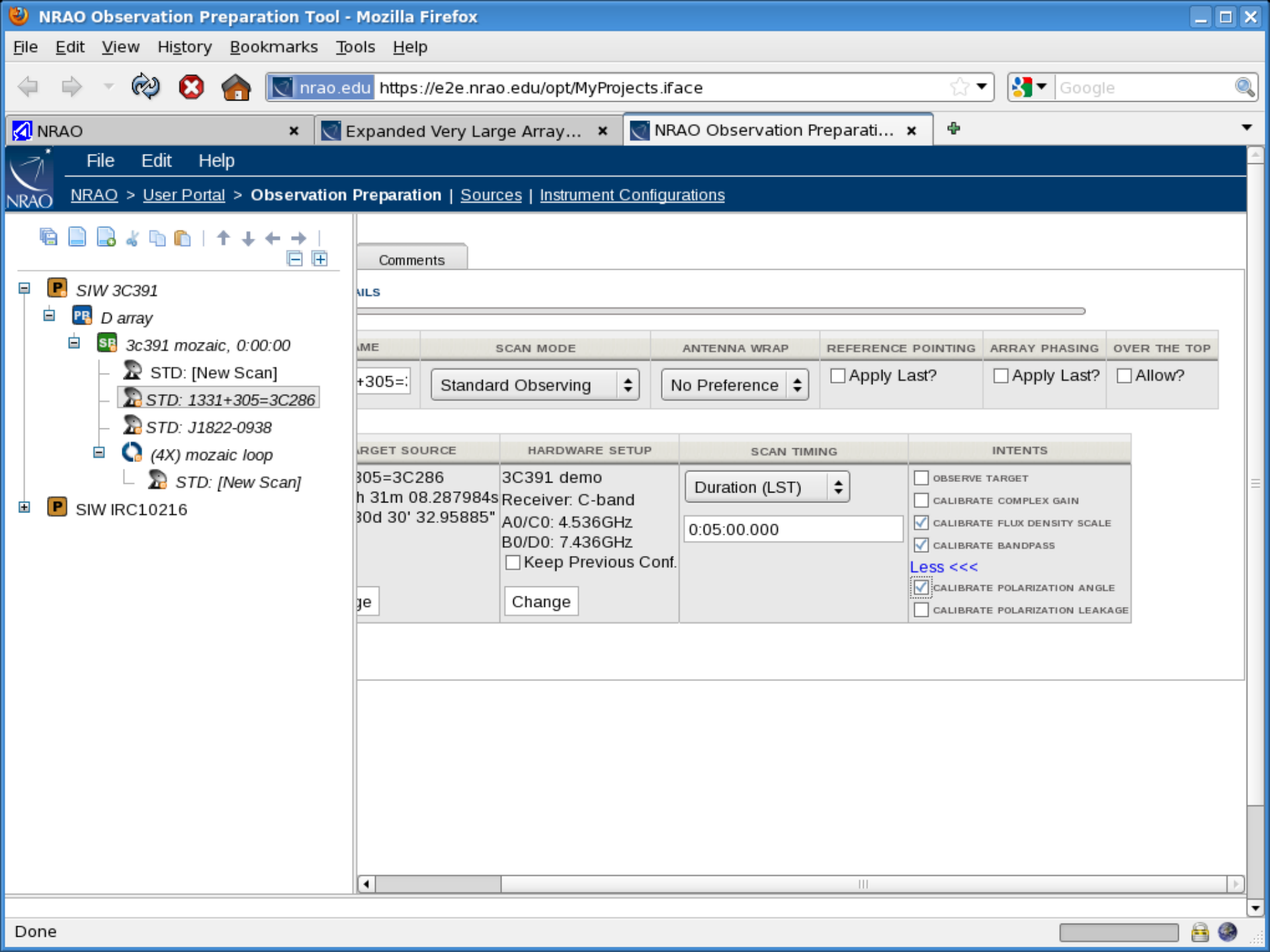
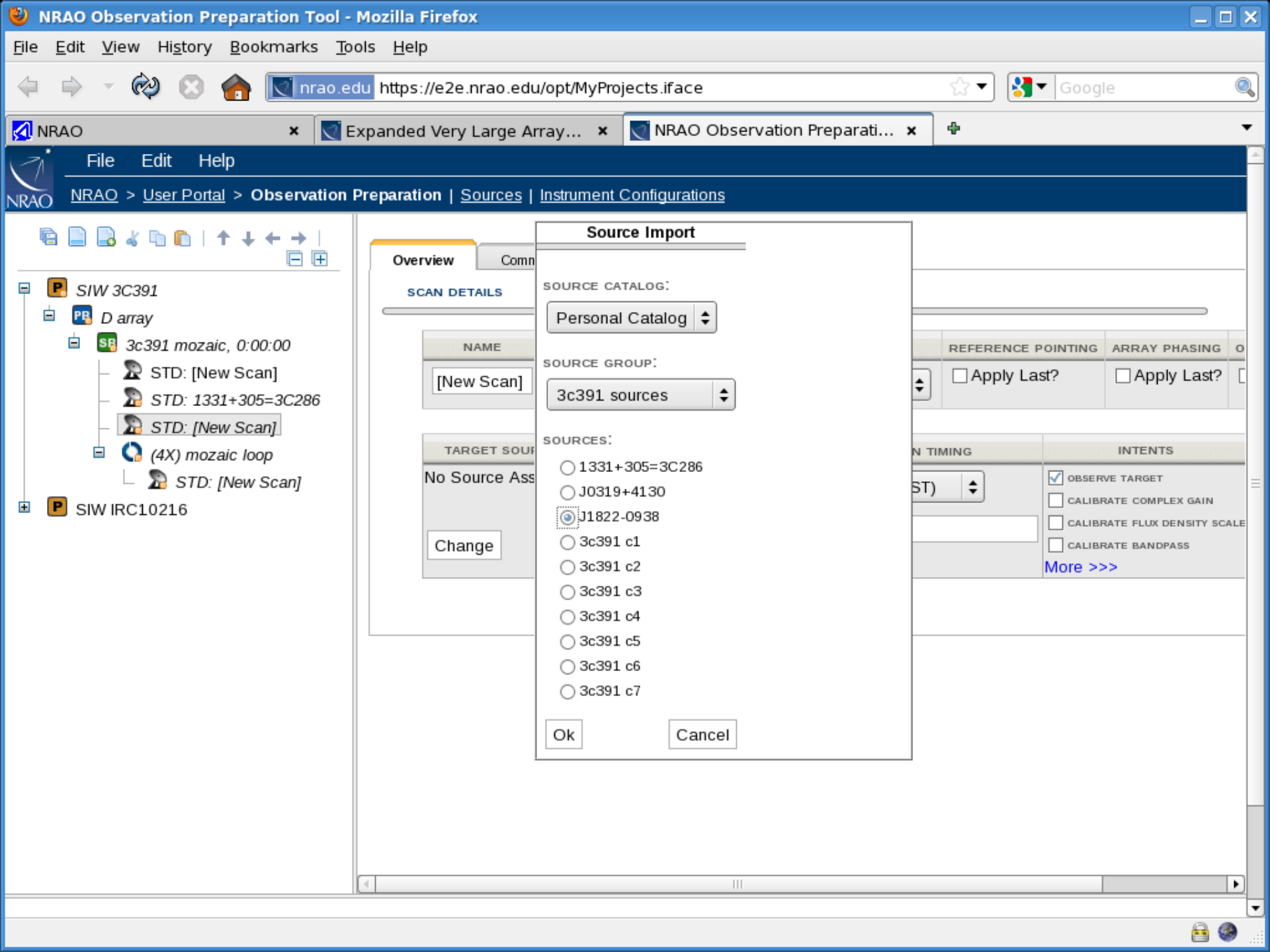
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
1331+305=:
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
1331+305=3C286
RA: 13h 31m 08.287984s
DEC: +30d 30' 32.95885"
Change
No Instrument Config. Assigned
Keep Previous Conf.
Change
Duration (LST)
On Source (LST)
Duration (LST)
Stop Time (LST)
On Source (UT)
Duration (UT)
Stop Time (UT)
OBSERVE TARGET
CALIBRATE COMPLEX GA
CALIBRATE FLUX DENSIT
CALIBRATE BANDPASS
More >>>

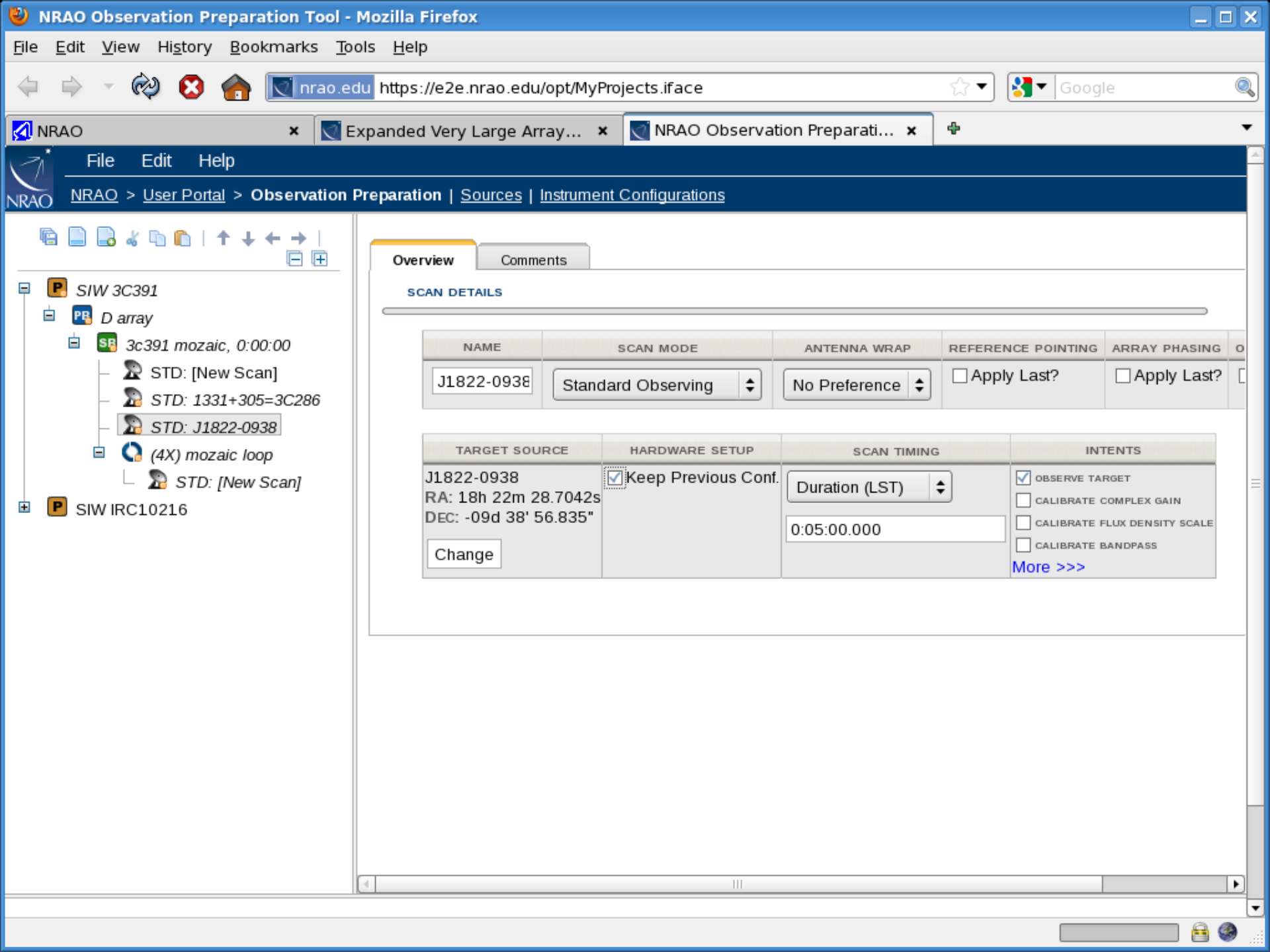

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Comments
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
HARDWARE SETUP
SCAN TIMING
INTENTS
No Instrument Config. Assigned
Keep Previous Conf.
Change
Duration (LST)
0:05:00.000
Select intent(s) of the scan (absolute flux/primary calibration), eg for pipelining purposes
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>

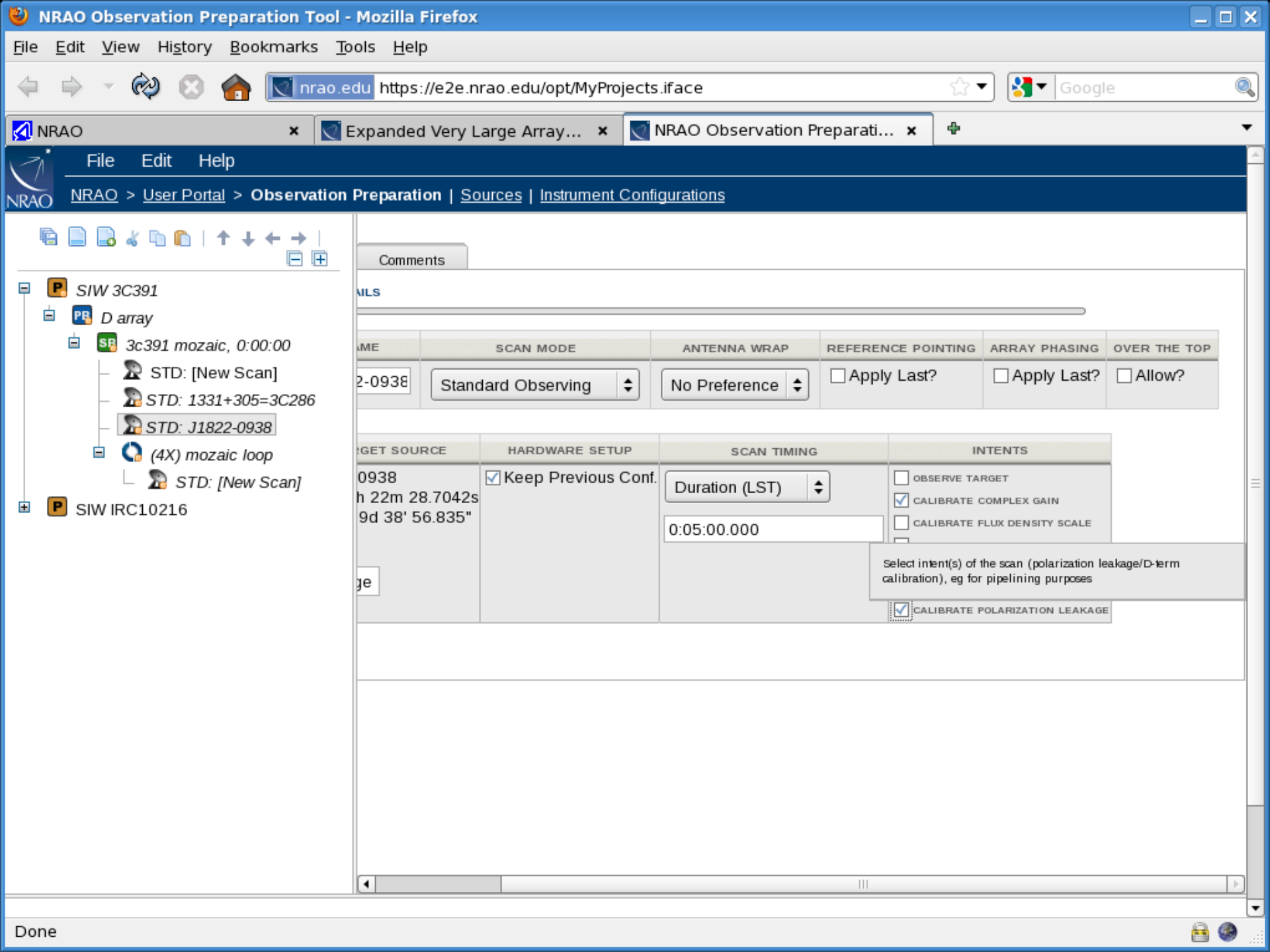

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
1331+305=:
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
1331+305=3C286
RA: 13h 31m 08.287984s
DEC: +30d 30' 32.95885"
Change
No Instrument Config. Assigned
Keep Previous Conf.
Change
Duration (LST)
OBSERVE TARGET
CALIBRATE COMPLEX GA
CALIBRATE FLUX DENSIT
CALIBRATE BANDPASS
More >>>
Import Instrument Config.
INSTRUMENT CONFIG. CATALOG:
Personal Catalog
INSTRUMENT CONFIG. GROUP:
All Resources
INSTRUMENT CONFIGS.:
3C391 demo
IRC demo
Ok
Cancel

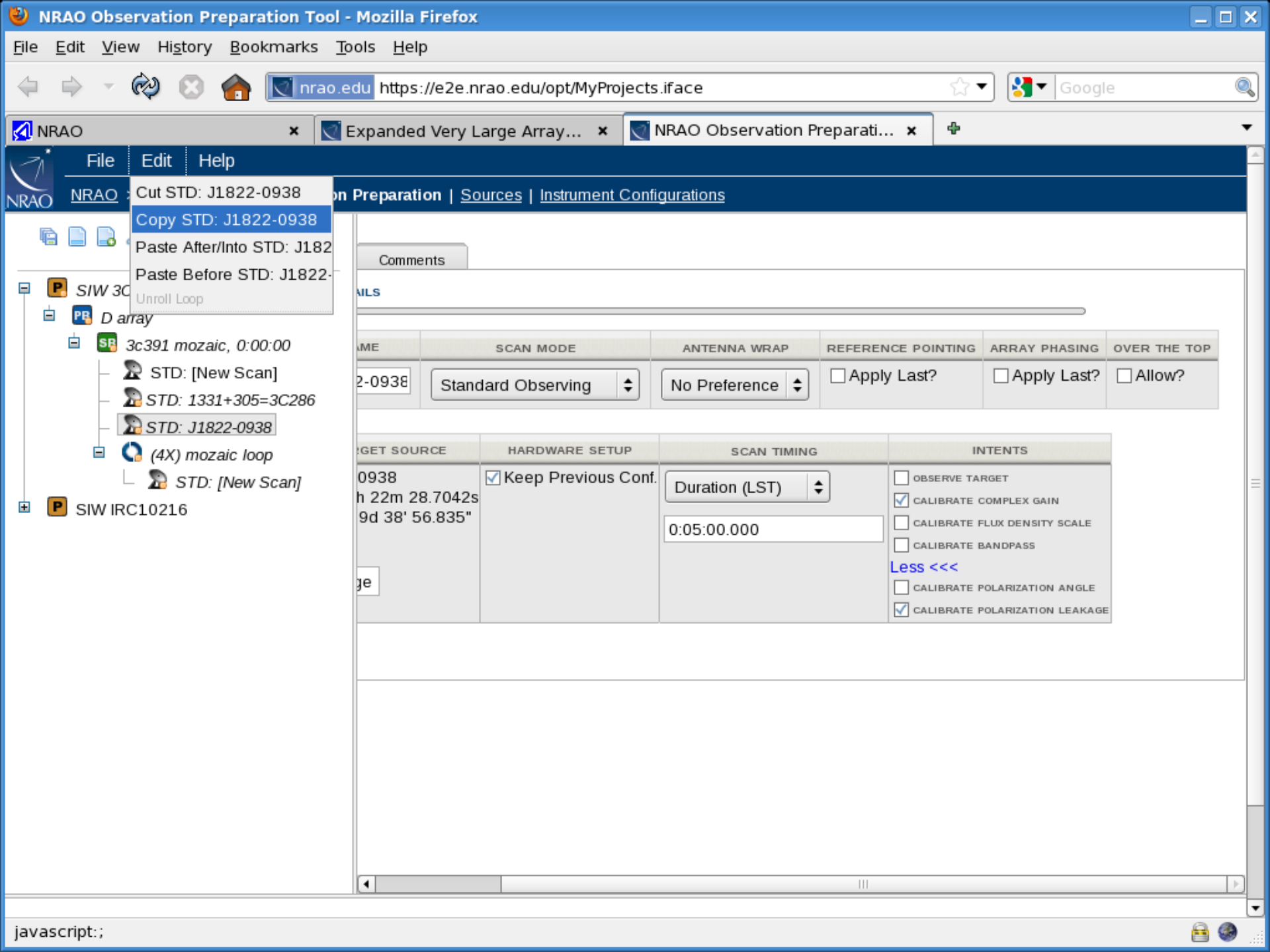

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
1331+305=:
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
1331+305=3C286
RA: 13h 31m 08.287984s
DEC: +30d 30' 32.95885"
Change
3C391 demo
Receiver: C-band
A0/C0: 4.536GHz
B0/D0: 7.436GHz
Keep Previous Conf.
Change
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>

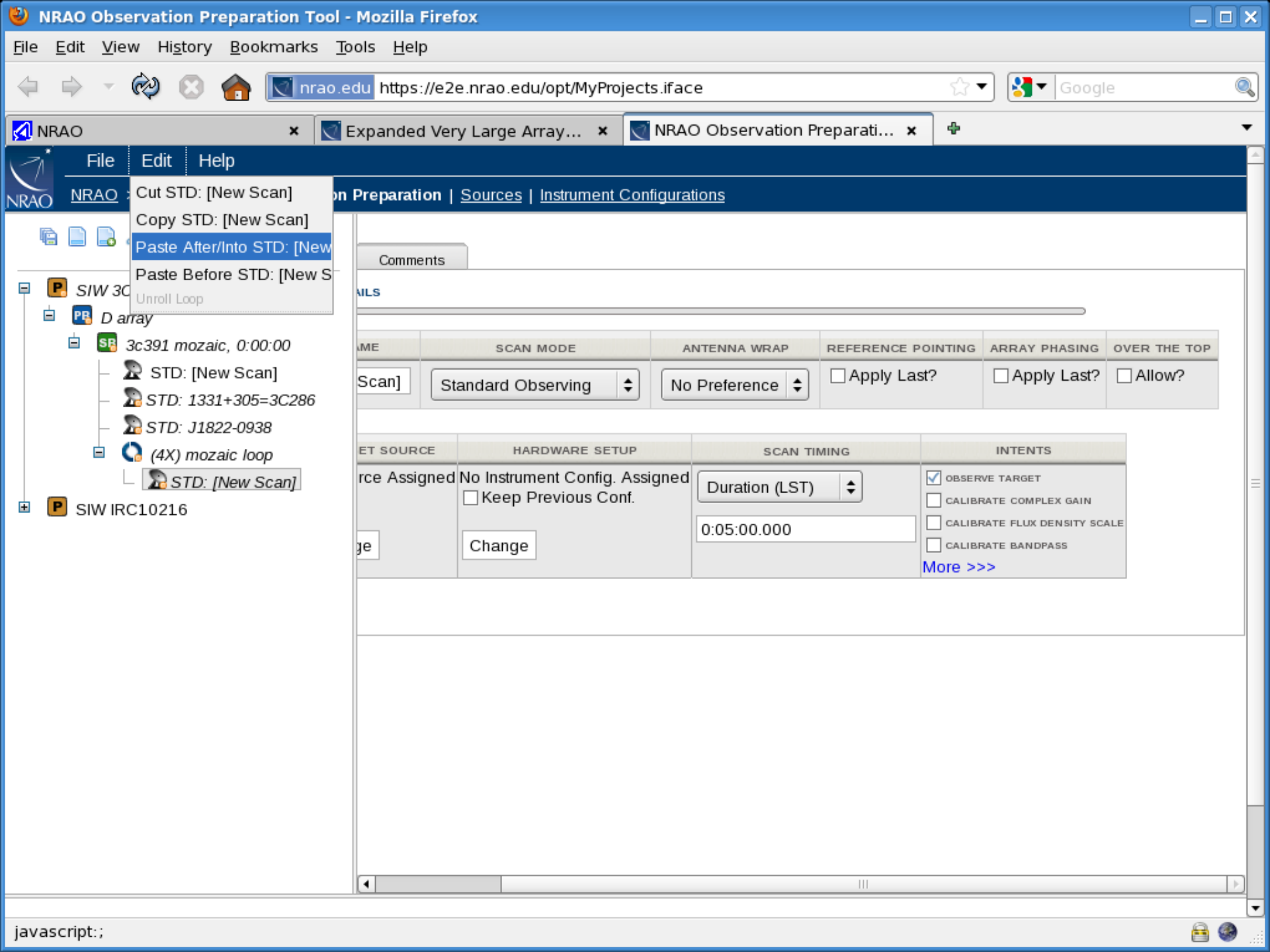

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Comments
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
HARDWARE SETUP
SCAN TIMING
INTENTS
3C391 demo
Receiver: C-band
A0/C0: 4.536GHz
B0/D0: 7.436GHz
Keep Previous Conf.
Change
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Less <<<
CALIBRATE POLARIZATION ANGLE
CALIBRATE POLARIZATION LEAKAGE
Done

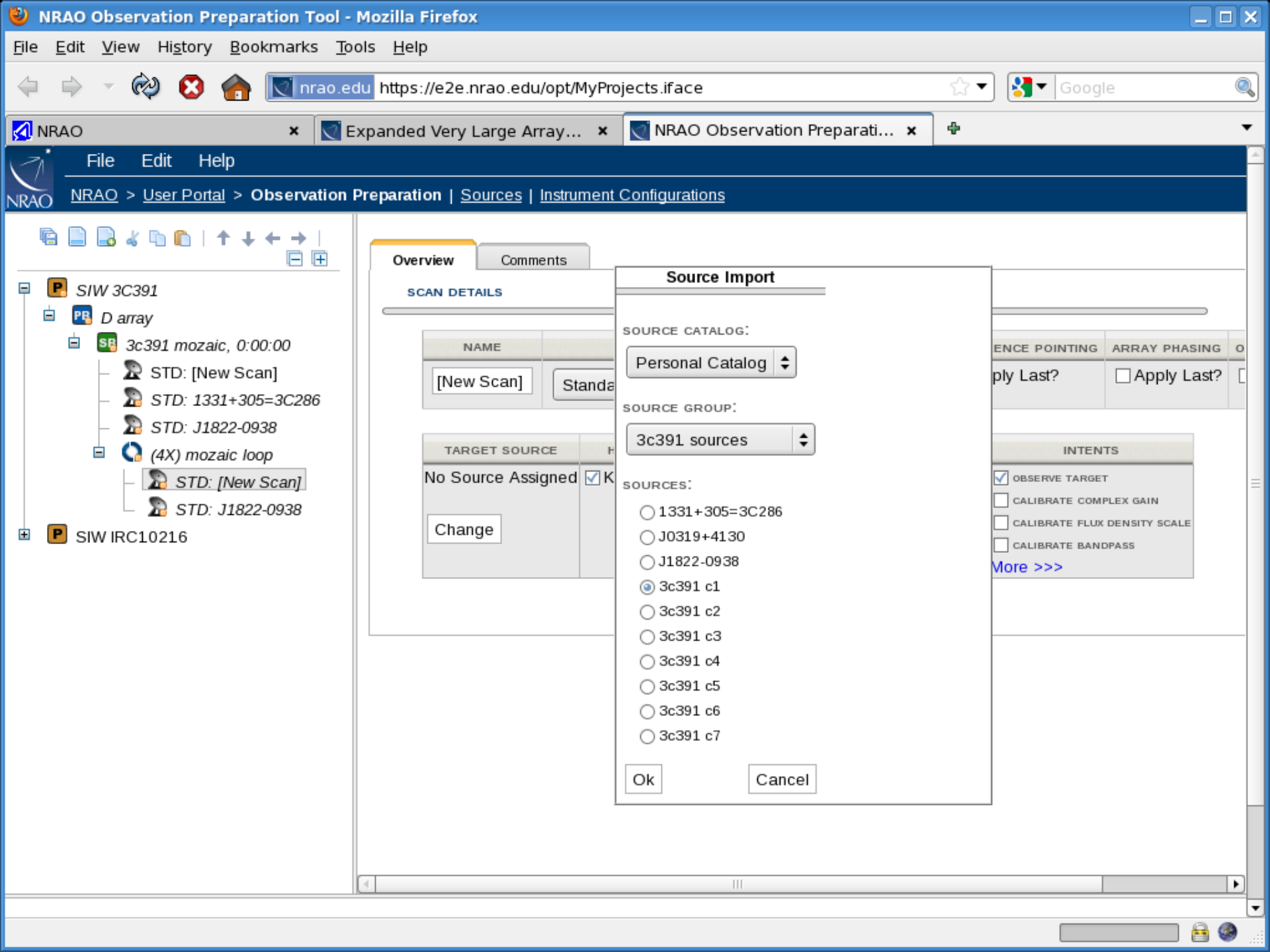

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: [New Scan]
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
SCAN DETAILS
NAME
[New Scan]
REFERENCE POINTING
ARRAY PHASING
Apply Last?
Apply Last?
TARGET SOUR
No Source Ass
Change
INTENTS
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
3c391 sources
SOURCES:
1331+305=3C286
J0319+4130
J1822-0938
3c391 c1
3c391 c2
3c391 c3
3c391 c4
3c391 c5
3c391 c6
3c391 c7
Ok
Cancel

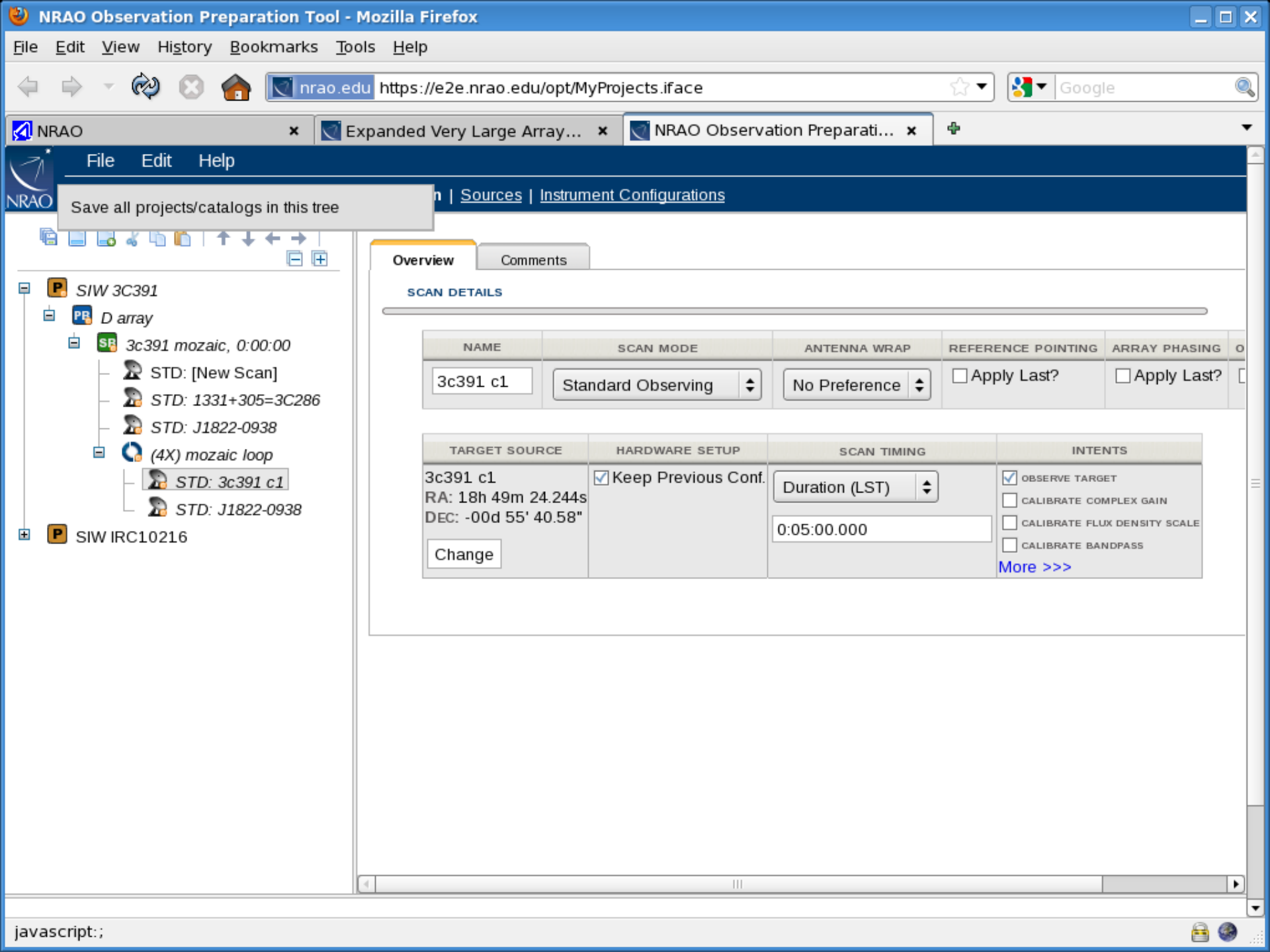

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
J1822-0938
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
J1822-0938
RA: 18h 22m 28.7042s
DEC: -09d 38' 56.835"
Change
Keep Previous Conf.
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>

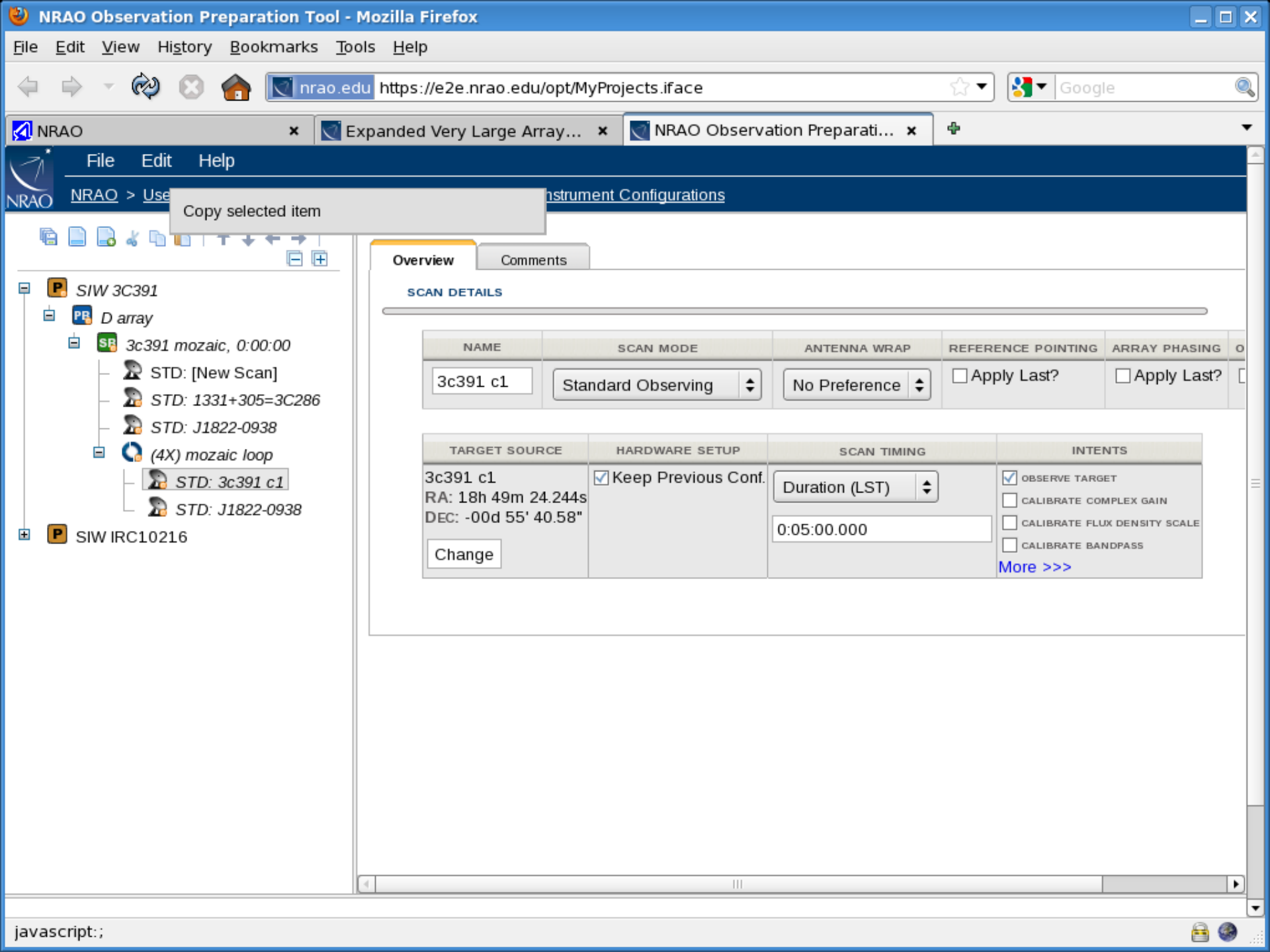

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Comments
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
HARDWARE SETUP
SCAN TIMING
INTENTS
Keep Previous Conf.
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
Select intent(s) of the scan (polarization leakage/D-term calibration), eg for pipelining purposes
CALIBRATE POLARIZATION LEAKAGE
Done

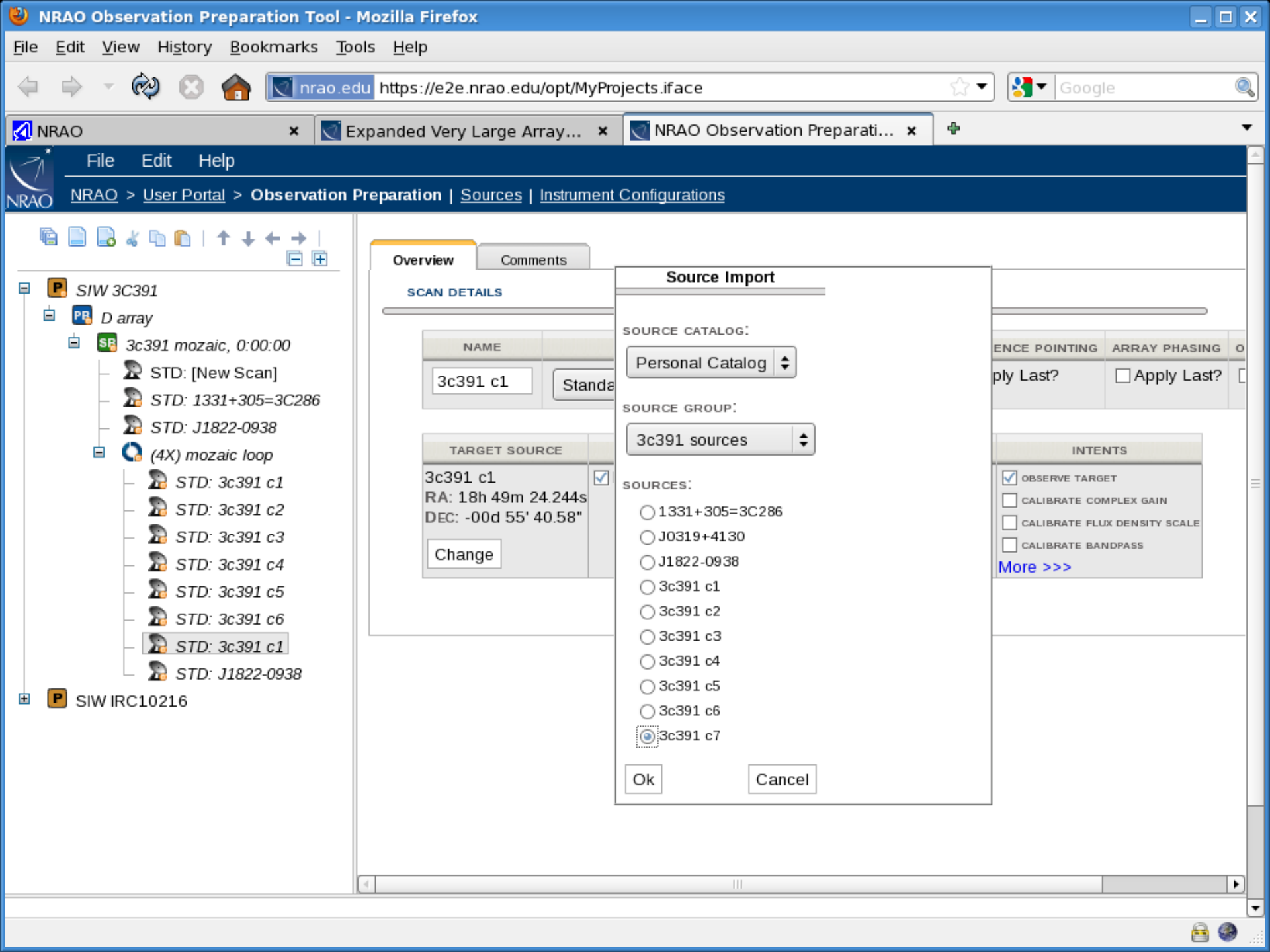

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Cut STD: J1822-0938
Copy STD: J1822-0938
Paste After/Into STD: J182
Paste Before STD: J1822-
Unroll Loop
NRAO
n Preparation | Sources | Instrument Configurations
Comments
SIW 3C
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
HARDWARE SETUP
SCAN TIMING
INTENTS
Keep Previous Conf.
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
Less <<<
CALIBRATE POLARIZATION ANGLE
CALIBRATE POLARIZATION LEAKAGE
javascript:;

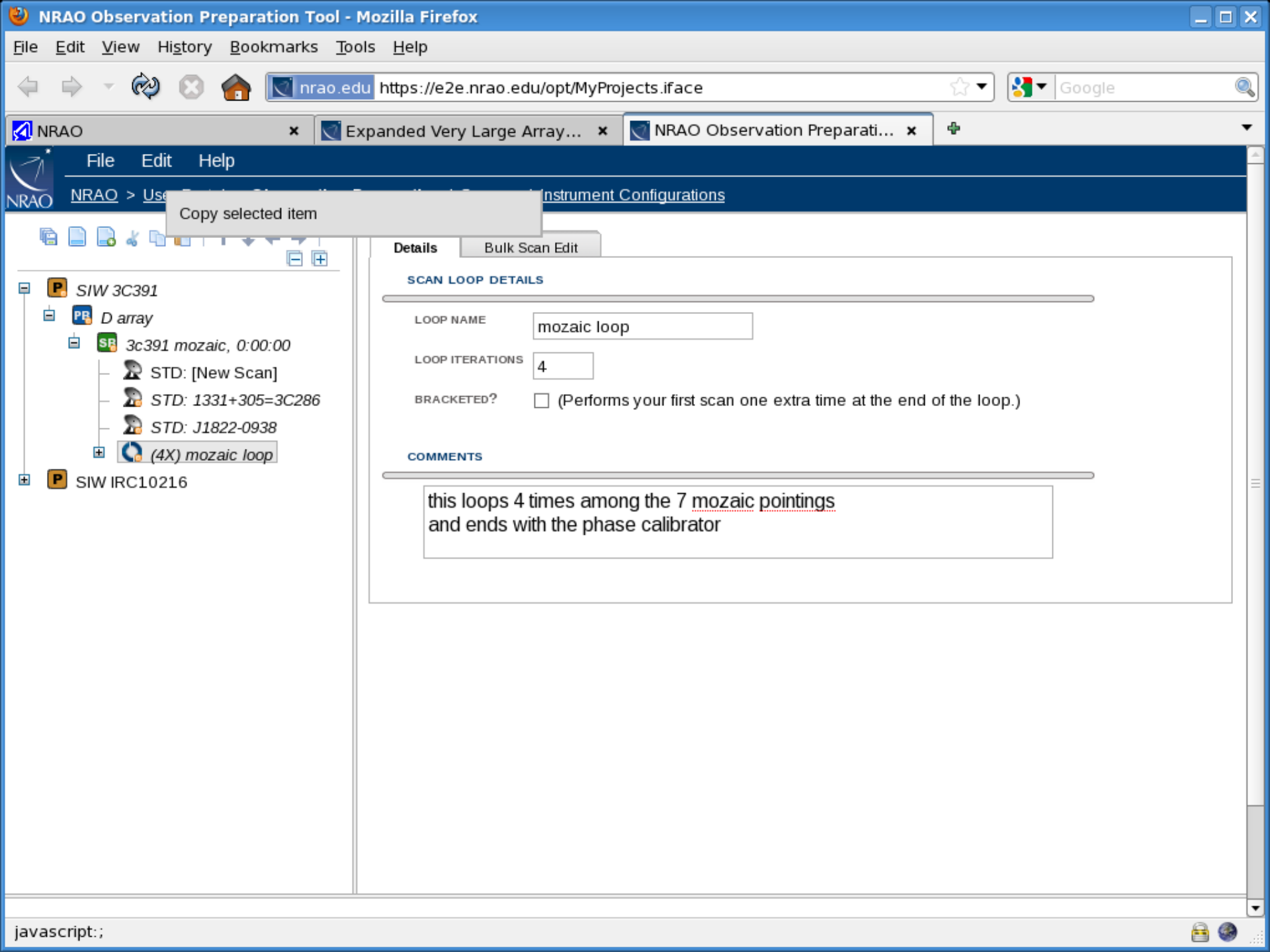

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Cut STD: [New Scan]
Copy STD: [New Scan]
Paste After/Into STD: [New
Paste Before STD: [New S
Unroll Loop
NRAO
Preparation | Sources | Instrument Configurations
SIW 3C
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
SIW IRC10216
Comments
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
HARDWARE SETUP
SCAN TIMING
INTENTS
No Instrument Config. Assigned
Keep Previous Conf.
Change
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
javascript:;

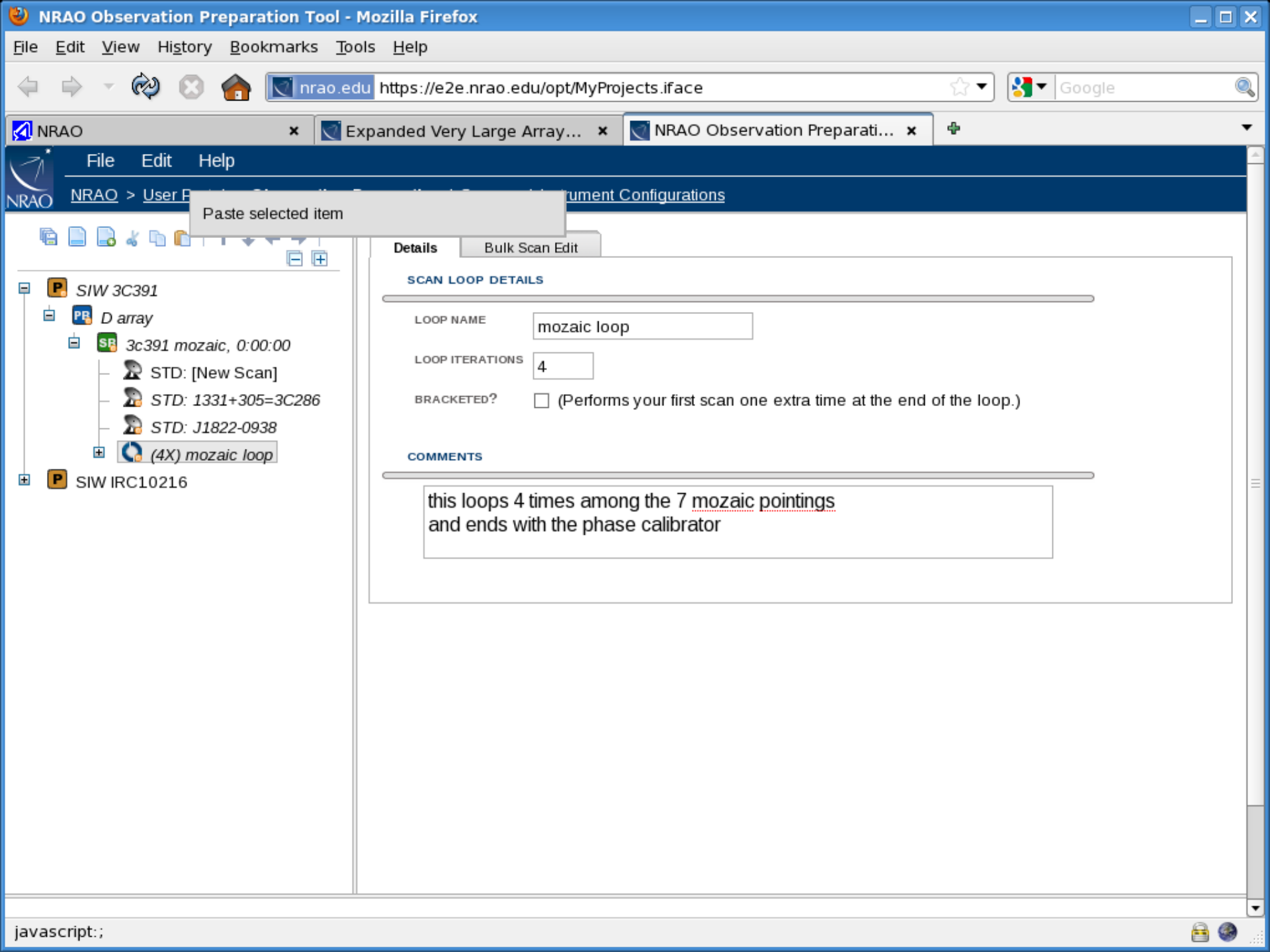

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: [New Scan]
STD: J1822-0938
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
[New Scan]
Standa
TARGET SOURCE
No Source Assigned
Change
ENCE POINTING
ARRAY PHASING
ply Last?
Apply Last?
INTENTS
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
3c391 sources
SOURCES:
1331+305=3C286
J0319+4130
J1822-0938
3c391 c1
3c391 c2
3c391 c3
3c391 c4
3c391 c5
3c391 c6
3c391 c7
Ok
Cancel

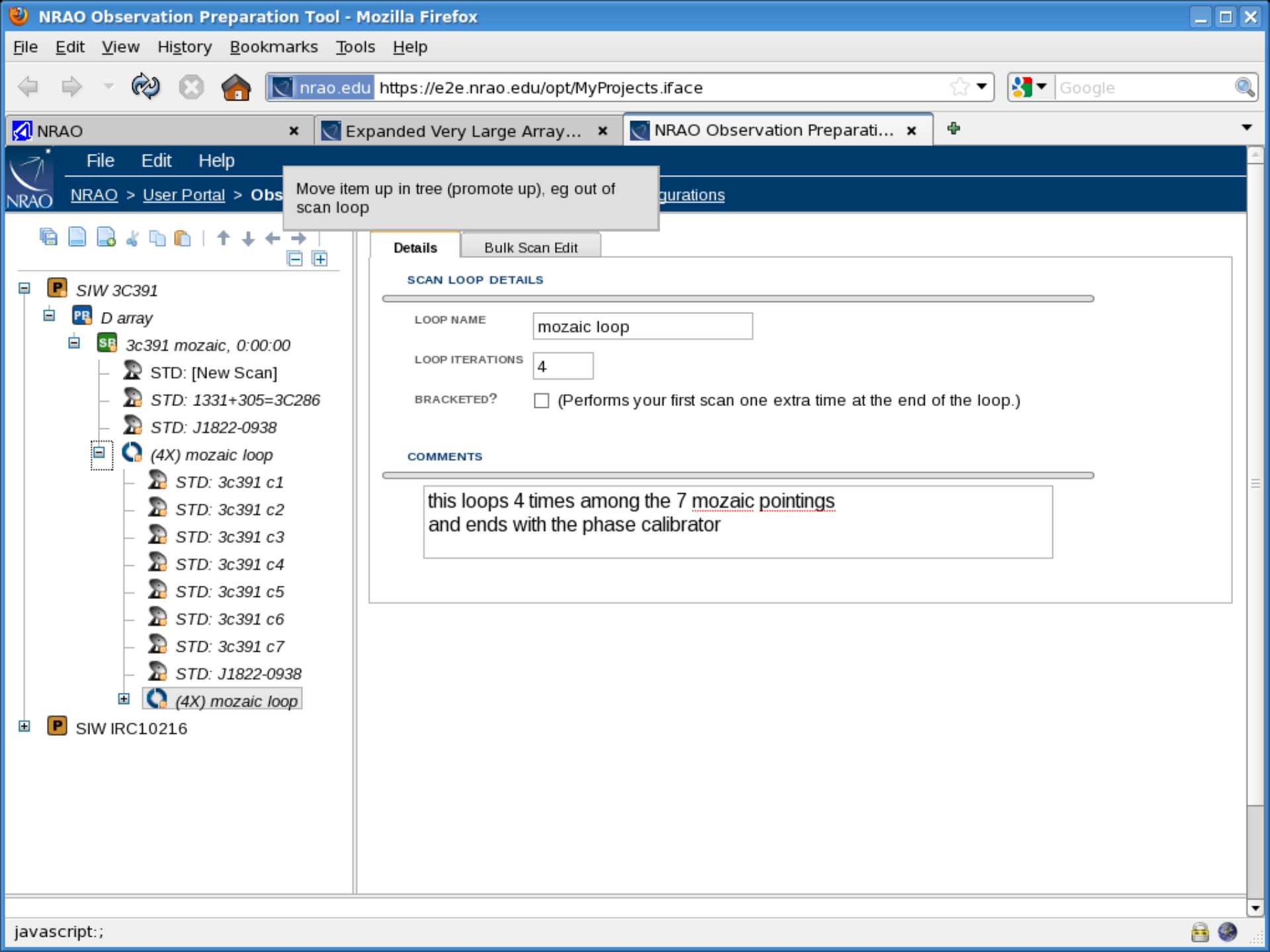

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
Save all projects/catalogs in this tree
Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: 3c391 c1
STD: J1822-0938
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
3c391 c1
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
3c391 c1
RA: 18h 49m 24.244s
DEC: -00d 55' 40.58"
Change
Keep Previous Conf.
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
javascript:;

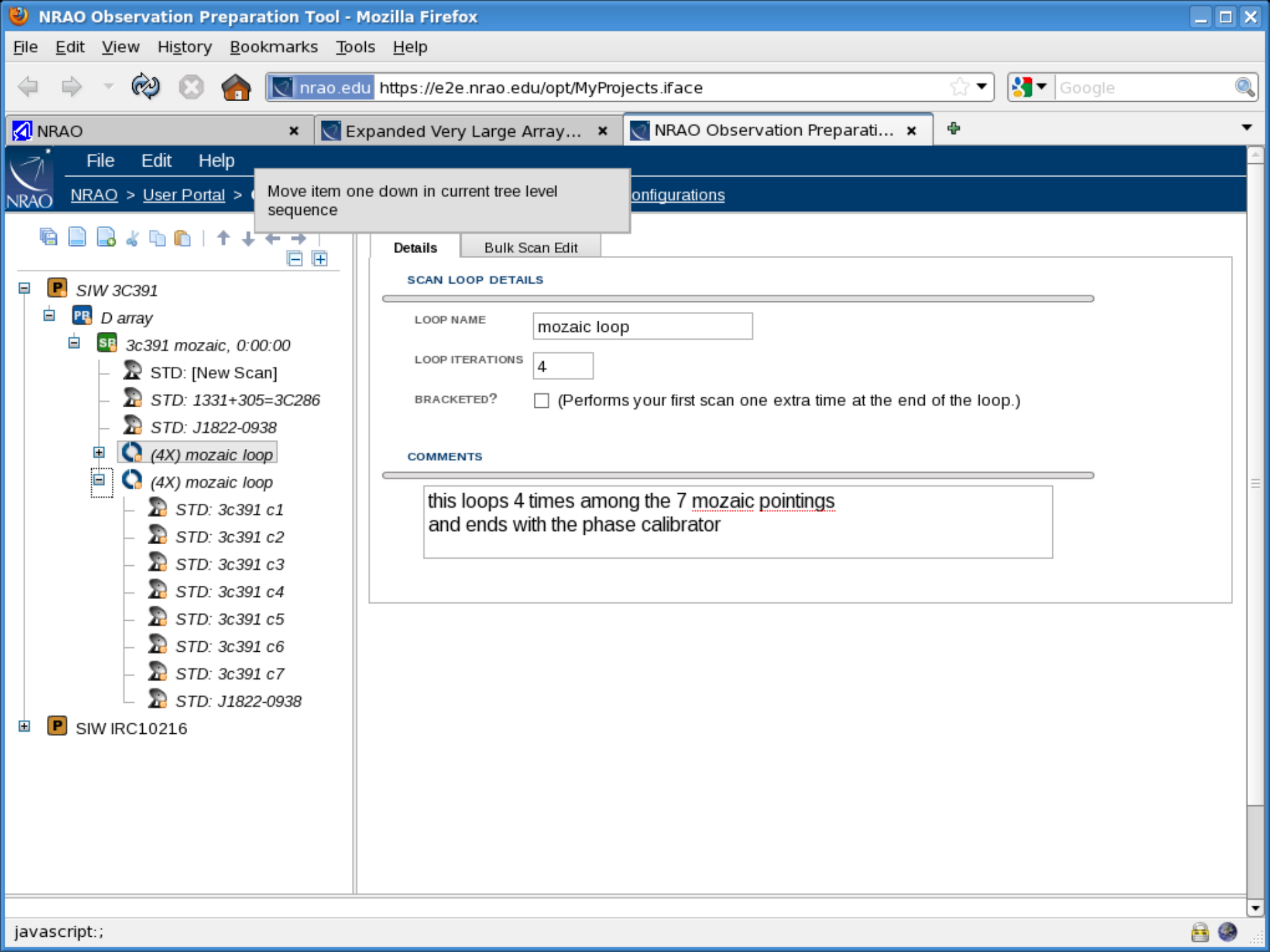

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > Use
nstrument Configurations
Copy selected item
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: 3c391 c1
STD: J1822-0938
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
3c391 c1
Standard Observing
No Preference
Apply Last?
Apply Last?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
3c391 c1
RA: 18h 49m 24.244s
DEC: -00d 55' 40.58"
Change
Keep Previous Conf.
Duration (LST)
0:05:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
javascript:;

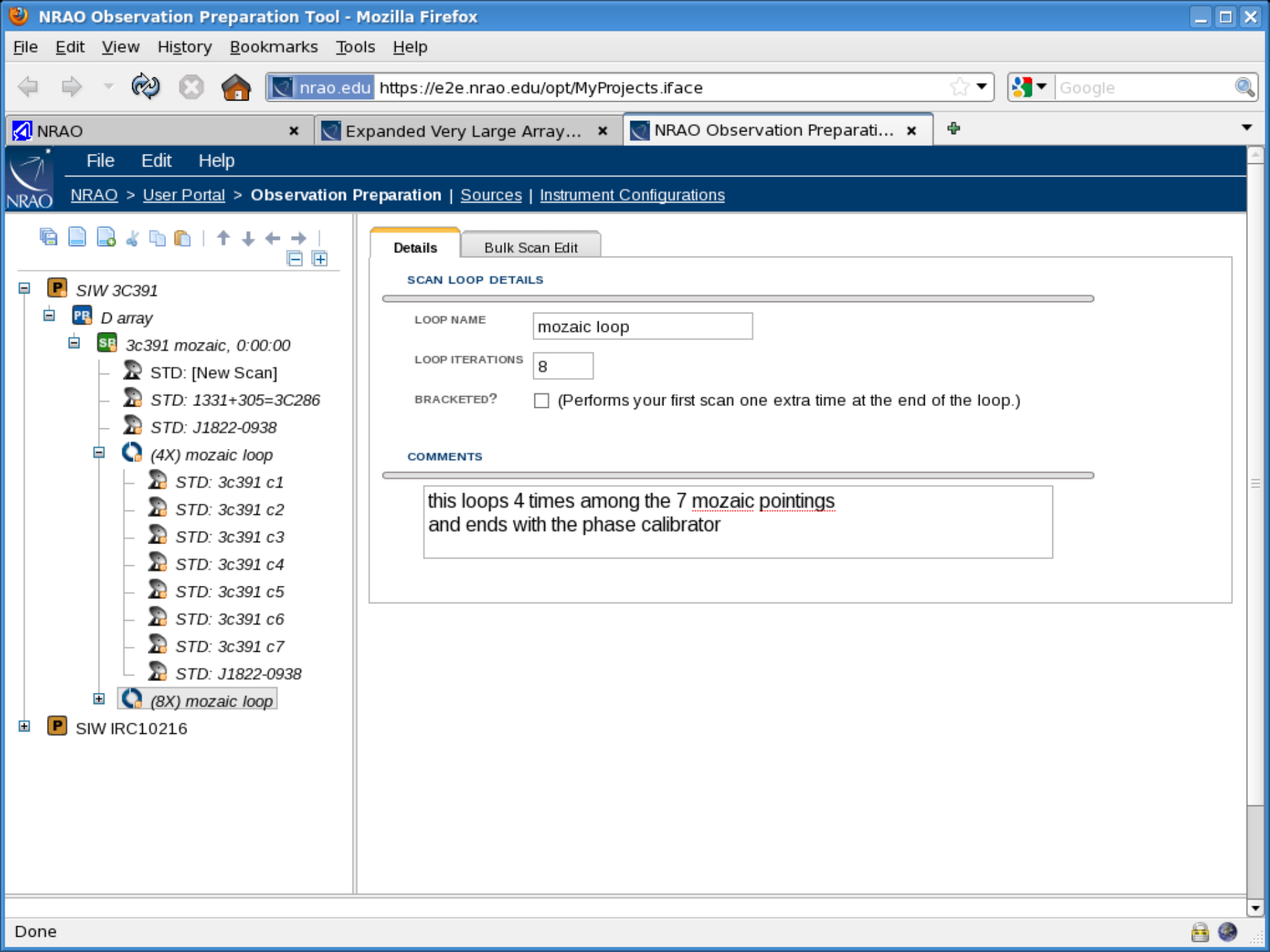

NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: 3c391 c1
STD: 3c391 c2
STD: 3c391 c3
STD: 3c391 c4
STD: 3c391 c5
STD: 3c391 c6
STD: 3c391 c1
STD: J1822-0938
SIW IRC10216
Overview
Comments
SCAN DETAILS
NAME
3c391 c1
Standa
ENCE POINTING
ARRAY PHASING
ply Last?
Apply Last?
TARGET SOURCE
3c391 c1
RA: 18h 49m 24.244s
DEC: -00d 55' 40.58"
Change
INTENTS
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
3c391 sources
SOURCES:
1331+305=3C286
J0319+4130
J1822-0938
3c391 c1
3c391 c2
3c391 c3
3c391 c4
3c391 c5
3c391 c6
3c391 c7
Ok
Cancel


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO
NRAO > Use
Instrument Configurations
Copy selected item
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
SIW IRC10216
Details
Bulk Scan Edit
SCAN LOOP DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
4
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User
ument Configurations
Paste selected item
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
SIW IRC10216
Details
Bulk Scan Edit
SCAN LOOP DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
4
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Obs
gurations
Move item up in tree (promote up), eg out of scan loop
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: 3c391 c1
STD: 3c391 c2
STD: 3c391 c3
STD: 3c391 c4
STD: 3c391 c5
STD: 3c391 c6
STD: 3c391 c7
STD: J1822-0938
(4X) mozaic loop
SIW IRC10216
Details
Bulk Scan Edit
SCAN LOOP DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
4
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal >
onfigurations
Move item one down in current tree level sequence
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
(4X) mozaic loop
STD: 3c391 c1
STD: 3c391 c2
STD: 3c391 c3
STD: 3c391 c4
STD: 3c391 c5
STD: 3c391 c6
STD: 3c391 c7
STD: J1822-0938
SIW IRC10216
Details
Bulk Scan Edit
SCAN LOOP DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
4
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
javascript:;


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic, 0:00:00
STD: [New Scan]
STD: 1331+305=3C286
STD: J1822-0938
(4X) mozaic loop
STD: 3c391 c1
STD: 3c391 c2
STD: 3c391 c3
STD: 3c391 c4
STD: 3c391 c5
STD: 3c391 c6
STD: 3c391 c7
STD: J1822-0938
(8X) mozaic loop
SIW IRC10216
Details
Bulk Scan Edit
SCAN LOOP DETAILS
LOOP NAME
mozaic loop
LOOP ITERATIONS
8
BRACKETED?
(Performs your first scan one extra time at the end of the loop.)
COMMENTS
this loops 4 times among the 7 mozaic pointings
and ends with the phase calibrator
Done

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface

NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

- SIW 3C391
  - D array
    - 3c391 mozaic, 8:00:00
      - STD: dummy
      - STD: 1331+305=3C286
      - STD: 1331+305=3C286
      - STD: J1822-0938
      - (4X) mozaic loop
        - STD: 1331+305=3C286
        - STD: J1822-0938
      - (8X) mozaic loop
        - STD: 3c391 c1
        - STD: 3c391 c2
        - STD: 3c391 c3
        - STD: 3c391 c4
        - STD: 3c391 c5
        - STD: 3c391 c6
        - STD: 3c391 c7
        - STD: J1822-0938
      - STD: J0319+4130
- SIW IRC10216

Scheduling Block Details | Scheduling Block Summary | Validation and Submission | Bulk Scan Edit

SCHEDULING BLOCK DETAILS

GENERATED ID 1502219

NAME 3c391 mozaic

STATUS Not Submitte

COUNT 1

COMPLETED 0

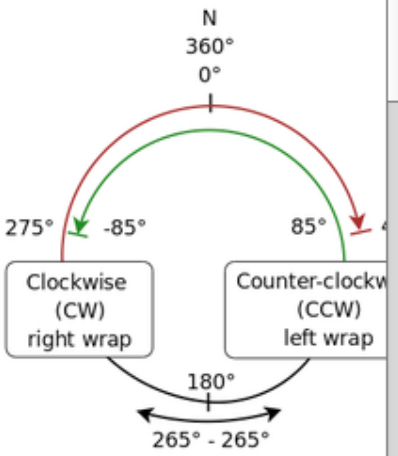
TOTAL TIME 8:00:00

TIME PER EXECUTION 8:00:00

SCHEDULE TYPE Dynamic

LST START RANGE 14 : 30 – 15 : 00

NO CONSTRAINT:



START AFTER DATE (OPTIONAL) yyyy - MM - dd

SHADOWING LIMIT (MAX) 0.0 m

IN CONFIGURATION D

Done

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

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Google

NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

Create New

Save All

Export...

Import...

Import Scans...

Close

Exit

Save all projects/catalogs in this tree

servation Preparation | Sources | Instrument Configurations

C286

STD: 1331+305=3C286

STD: J1822-0938

(4X) mozaic loop

STD: 1331+305=3C286

STD: J1822-0938

(8X) mozaic loop

STD: J0319+4130

SIW IRC10216

Scheduling Block Details | Scheduling Block Summary | Validation and Submission | Bulk Scan Edit

SCHEDULING BLOCK DETAILS

GENERATED ID 1502219

NAME 3c391 mozaic

STATUS Not Submitte

COUNT 1

COMPLETED 0

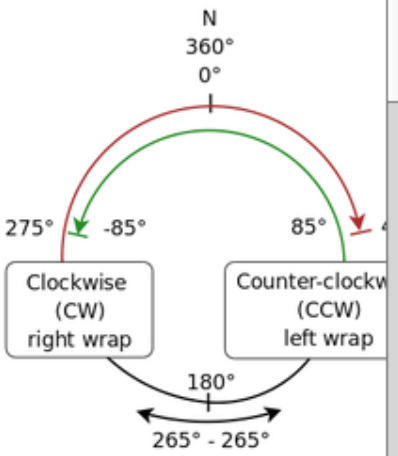
TOTAL TIME 8:00:00

TIME PER EXECUTION 8:00:00

SCHEDULE TYPE Dynamic

LST START RANGE 14 : 30 – 15 : 00

NO CONSTRAINT:



START AFTER DATE (OPTIONAL) yyyy - MM - dd

SHADOWING LIMIT (MAX) 0.0 m

IN CONFIGURATION D

javascript:;

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface

NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

NRAO > User Portal > **Observation Preparation** | Sources | Instrument Configurations

- SIW 3C391
  - D array
    - 3c391 mozai
- SIW IRC10216

Scheduling Block Details | **Scheduling Block Summary** | Validation and Submission | Bulk Scan Edit

OBSERVING PROGRAM

Print as Shown

Expand All Loops and Print

PROJECT CODE: 4279_3

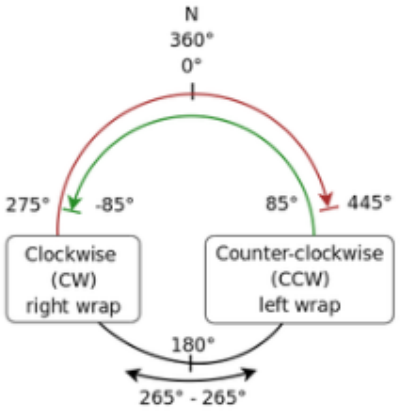
GENERATED ID: 1502219

ASSUMED SCHEDULE START: 62081 14:45:01 LST Update Display UTC times

SCHEDULE STOP: 62081 22:45:00 LST

ASSUMED ANTENNA POSITION
AZIMUTH: 225.0d
ELEVATION: 35.0d

LST START RANGE: 14:30:00.0-15:00:01.0
WIND CONSTRAINTS: 100.0 m/s
API CONSTRAINTS: 45.0 degrees



- Instrument Configuration Summary
- Time On Source Summary
- Schedule Summary

INSTRUMENT CONFIGURATION SUMMARY

	Name	T_{int}	Mode	AC Freq.	AC Rest/Sky	AC BW	AC Ch.	AC Res.	AC Doppler Vel.	AC Doppler Pos.	Data Rate / Sec
		Band	Modifiers	BD Freq.	BD Rest/Sky	BD BW	BD Ch.	BD Res.	BD Doppler Vel.	BD Doppler Pos.	Data Rate / Hour
1	3C391 demo	1s	Full Polarization	4.536GHz	Sky	128MHz	64	2MHz	—	—	1.797 Mbytes/sec
		C		7.436GHz	Sky	128MHz	64	2MHz	—	—	6.318 Gbytes/hour

- Warning: Schedule Summary: There is no time on source for scan 'dummy'.
- Warning: There is an antenna shadowed by 5.662m, which exceeds the maximum of 0.0

https://e2e.nrao.edu/opt/MyProjects.iface#scanTable

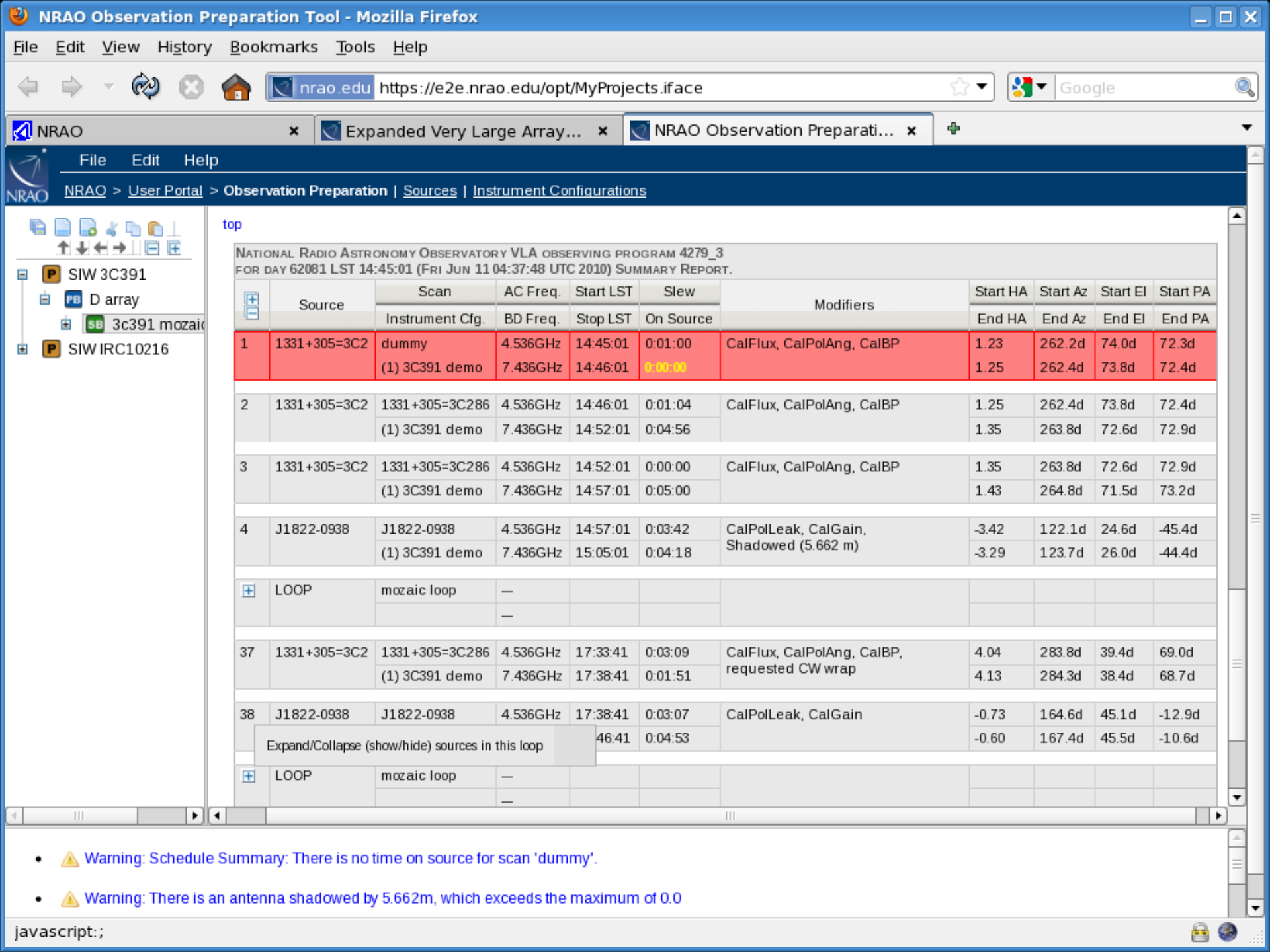
- SIW 3C391
  - D array
    - 3c391 mozaic
- SIW IRC10216

top

TIME ON SOURCE SUMMARY (TIME IN: LST)

Source	Scan	RA	AC Vel.	AC Freq.	Min HA	Min PA	#
Epoch	Instrument Cfg.	Dec	BD Vel.	BD Freq.	Max HA	Max PA	Total Time
1331+305=3C2	dummy	13h 31m 08.28798s	—	4.536GHz	1.23	72.3d	1
J2000	(1) 3C391 demo	+30d 30' 32.9589"	—	7.436GHz	1.25	72.4d	0:00:00
1331+305=3C2	1331+305=3C286	13h 31m 08.28798s	—	4.536GHz	1.25	68.7d	3
J2000	(1) 3C391 demo	+30d 30' 32.9589"	—	7.436GHz	4.13	73.2d	0:11:48
J1822-0938	J1822-0938	18h 22m 28.7042s	—	4.536GHz	-3.42	-45.4d	14
J2000	(1) 3C391 demo	-09d 38' 56.835"	—	7.436GHz	4.23	50.3d	0:24:17
3c391 c1	3c391 c1	18h 49m 24.244s	—	4.536GHz	-3.74	-50.4d	12
J2000	(1) 3C391 demo	-00d 55' 40.58"	—	7.436GHz	3.26	47.7d	0:57:20
3c391 c2	3c391 c2	18h 49m 29.149s	—	4.536GHz	-3.65	-50.0d	12
J2000	(1) 3C391 demo	-00d 57' 48.0"	—	7.436GHz	3.34	48.2d	0:57:15
3c391 c3	3c391 c3	18h 49m 19.339s	—	4.536GHz	-3.57	-49.5d	12
J2000	(1) 3C391 demo	-00d 57' 48.0"	—	7.436GHz	3.43	48.7d	0:57:15
3c391 c4	3c391 c4	18h 49m 14.434s	—	4.536GHz	-3.48	-49.0d	12
J2000	(1) 3C391 demo	-00d 55' 40.58"	—	7.436GHz	3.51	49.2d	0:57:15
3c391 c5	3c391 c5	18h 49m 19.339s	—	4.536GHz	-3.40	-48.6d	12
J2000	(1) 3C391 demo	-00d 53' 33.16"	—	7.436GHz	3.59	49.6d	0:57:15

- Warning: Schedule Summary: There is no time on source for scan 'dummy'.
- Warning: There is an antenna shadowed by 5.662m, which exceeds the maximum of 0.0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Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic
SIW IRC10216
top
NATIONAL RADIO ASTRONOMY OBSERVATORY VLA OBSERVING PROGRAM 4279_3
FOR DAY 62081 LST 14:45:01 (FRI JUN 11 04:37:48 UTC 2010) SUMMARY REPORT.
Source
Scan
AC Freq.
Start LST
Slew
Modifiers
Start HA
Start Az
Start El
Start PA
Instrument Cfg.
BD Freq.
Stop LST
On Source
End HA
End Az
End El
End PA
1 1331+305=3C2 dummy 4.536GHz 14:45:01 0:01:00 CalFlux, CalPolAng, CalBP 1.23 262.2d 74.0d 72.3d
(1) 3C391 demo 7.436GHz 14:46:01 0:00:00 1.25 262.4d 73.8d 72.4d
2 1331+305=3C2 1331+305=3C286 4.536GHz 14:46:01 0:01:04 CalFlux, CalPolAng, CalBP 1.25 262.4d 73.8d 72.4d
(1) 3C391 demo 7.436GHz 14:52:01 0:04:56 1.35 263.8d 72.6d 72.9d
3 1331+305=3C2 1331+305=3C286 4.536GHz 14:52:01 0:00:00 CalFlux, CalPolAng, CalBP 1.35 263.8d 72.6d 72.9d
(1) 3C391 demo 7.436GHz 14:57:01 0:05:00 1.43 264.8d 71.5d 73.2d
4 J1822-0938 J1822-0938 4.536GHz 14:57:01 0:03:42 CalPolLeak, CalGain, Shadowed (5.662 m) -3.42 122.1d 24.6d -45.4d
(1) 3C391 demo 7.436GHz 15:05:01 0:04:18 -3.29 123.7d 26.0d -44.4d
LOOP mozaic loop —
—
37 1331+305=3C2 1331+305=3C286 4.536GHz 17:33:41 0:03:09 CalFlux, CalPolAng, CalBP, requested CW wrap 4.04 283.8d 39.4d 69.0d
(1) 3C391 demo 7.436GHz 17:38:41 0:01:51 4.13 284.3d 38.4d 68.7d
38 J1822-0938 J1822-0938 4.536GHz 17:38:41 0:03:07 CalPolLeak, CalGain -0.73 164.6d 45.1d -12.9d
46:41 0:04:53 -0.60 167.4d 45.5d -10.6d
Expand/Collapse (show/hide) sources in this loop
LOOP mozaic loop —
—
Warning: Schedule Summary: There is no time on source for scan 'dummy'.
Warning: There is an antenna shadowed by 5.662m, which exceeds the maximum of 0.0
javascript:;

	Source	Instrument Cfg.	BD Freq.	Stop LST	Slew On Source	Modifiers	Start HA / End HA	Start Az / End Az	Start El / End El	Start PA / End PA
1	1331+305=3C2	dummy	4.536GHz	14:45:01	0:01:00	CalFlux, CalPolAng, CalBP	1.23	262.2d	74.0d	72.3d
		(1) 3C391 demo	7.436GHz	14:46:01	0:00:00		1.25	262.4d	73.8d	72.4d
2	1331+305=3C2	1331+305=3C286	4.536GHz	14:46:01	0:01:04	CalFlux, CalPolAng, CalBP	1.25	262.4d	73.8d	72.4d
		(1) 3C391 demo	7.436GHz	14:52:01	0:04:56		1.35	263.8d	72.6d	72.9d
3	1331+305=3C2	1331+305=3C286	4.536GHz	14:52:01	0:00:00	CalFlux, CalPolAng, CalBP	1.35	263.8d	72.6d	72.9d
		(1) 3C391 demo	7.436GHz	14:57:01	0:05:00		1.43	264.8d	71.5d	73.2d
4	J1822-0938	J1822-0938	4.536GHz	14:57:01	0:03:42	CalPolLeak, CalGain, Shadowed (5.662 m)	-3.42	122.1d	24.6d	-45.4d
		(1) 3C391 demo	7.436GHz	15:05:01	0:04:18		-3.29	123.7d	26.0d	-44.4d
	LOOP	mozaic loop	—							
			—							
37	1331+305=3C2	1331+305=3C286	4.536GHz	17:33:41	0:03:09	CalFlux, CalPolAng, CalBP, requested CW wrap	4.04	283.8d	39.4d	69.0d
		(1) 3C391 demo	7.436GHz	17:38:41	0:01:51		4.13	284.3d	38.4d	68.7d
38	J1822-0938	J1822-0938	4.536GHz	17:38:41	0:03:07	CalPolLeak, CalGain	-0.73	164.6d	45.1d	-12.9d
		(1) 3C391 demo	7.436GHz	17:46:41	0:04:53		-0.60	167.4d	45.5d	-10.6d
	LOOP	mozaic loop	—							
			—							

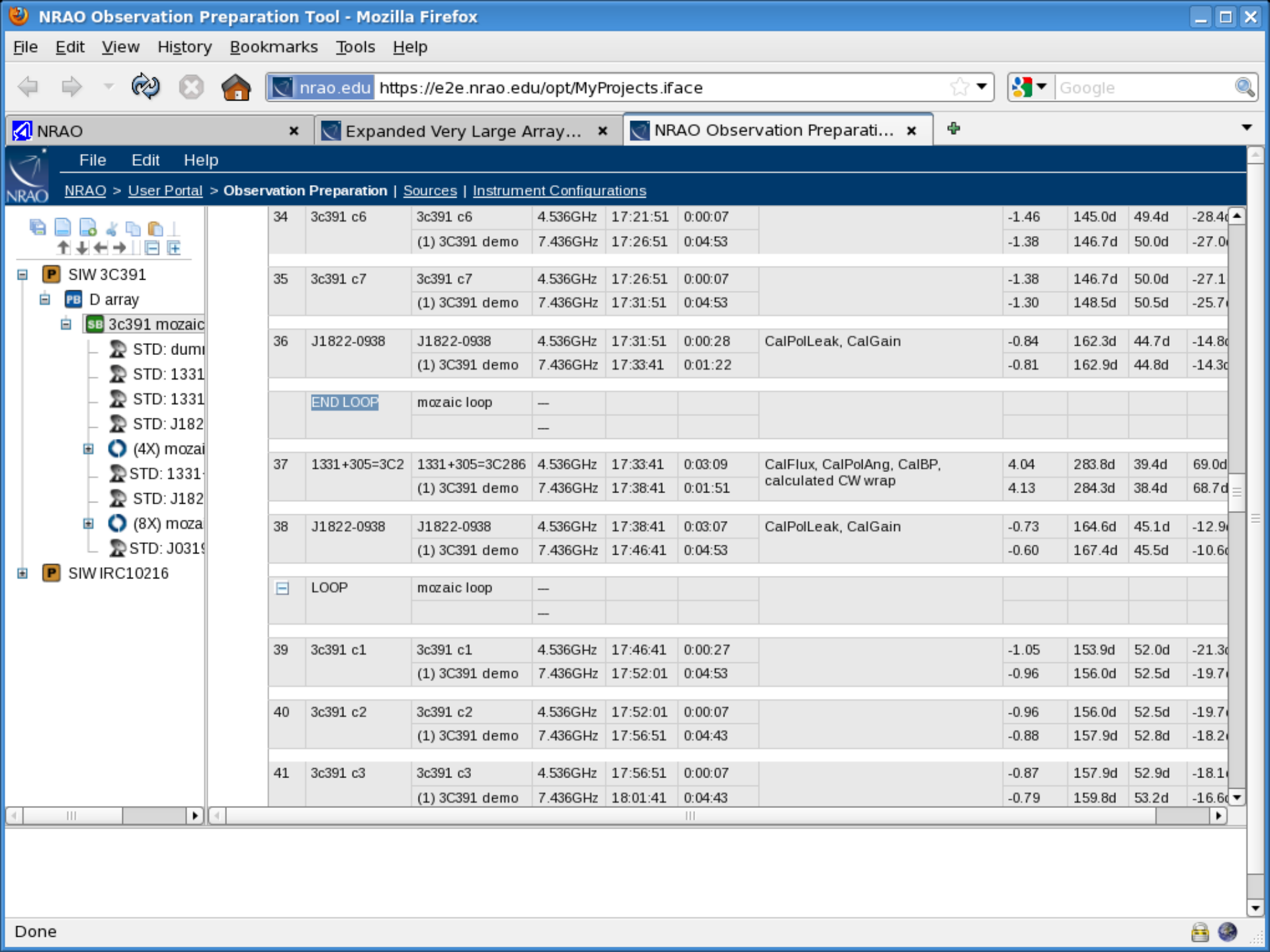
- Warning: Schedule Summary: There is no time on source for scan 'dummy'.
- Warning: There is an antenna shadowed by 5.662m, which exceeds the maximum of 0.0

- SIW 3C391
  - D array
    - 3c391 mozaic
- SIW IRC10216

top

NATIONAL RADIO ASTRONOMY OBSERVATORY VLA OBSERVING PROGRAM 4279_3
FOR DAY 62081 LST 14:45:01 (FRI JUN 11 04:37:48 UTC 2010) SUMMARY REPORT.

	Source	Scan / Instrument Cfg.	AC Freq. / BD Freq.	Start LST / Stop LST	Slew / On Source	Modifiers	Start HA / End HA	Start Az / End Az	Start El / End El	Start PA / End PA
1	1331+305=3C2	dummy	4.536GHz	14:45:01	0:01:00	CalFlux, CalPolAng, CalBP	1.23	262.2d	74.0d	72.3d
		(1) 3C391 demo	7.436GHz	14:46:01	0:00:00		1.25	262.4d	73.8d	72.4d
2	1331+305=3C2	1331+305=3C286	4.536GHz	14:46:01	0:01:04	CalFlux, CalPolAng, CalBP	1.25	262.4d	73.8d	72.4d
		(1) 3C391 demo	7.436GHz	14:52:01	0:04:56		1.35	263.8d	72.6d	72.9d
3	1331+305=3C2	1331+305=3C286	4.536GHz	14:52:01	0:00:00	CalFlux, CalPolAng, CalBP	1.35	263.8d	72.6d	72.9d
		(1) 3C391 demo	7.436GHz	14:57:01	0:05:00		1.43	264.8d	71.5d	73.2d
4	J1822-0938	J1822-0938	4.536GHz	14:57:01	0:03:42	CalPolLeak, CalGain, Shadowed (5.662 m)	-3.42	122.1d	24.6d	-45.4d
		(1) 3C391 demo	7.436GHz	15:05:01	0:04:18		-3.29	123.7d	26.0d	-44.4d
	LOOP	mozaic loop	—							
			—							
5	3c391 c1	3c391 c1	4.536GHz	15:05:01	0:00:25	Shadowed (5.347 m)	-3.74	111.4d	26.9d	-50.4d
		(1) 3C391 demo	7.436GHz	15:10:21	0:04:55		-3.65	112.4d	28.0d	-50.0d
6	3c391 c2	3c391 c2	4.536GHz	15:10:21	0:00:07	Shadowed (4.647 m)	-3.65	112.4d	27.9d	-50.0d
		(1) 3C391 demo	7.436GHz	15:15:21	0:04:53		-3.57	113.3d	28.9d	-49.5d
7	3c391 c3	3c391 c3	4.536GHz	15:15:21	0:00:07	Shadowed (3.940 m)	-3.57	113.4d	28.9d	-49.5d
		(1) 3C391 demo	7.436GHz	15:20:21	0:04:53		-3.48	114.3d	29.8d	-49.0d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NRAO Observation Preparati...
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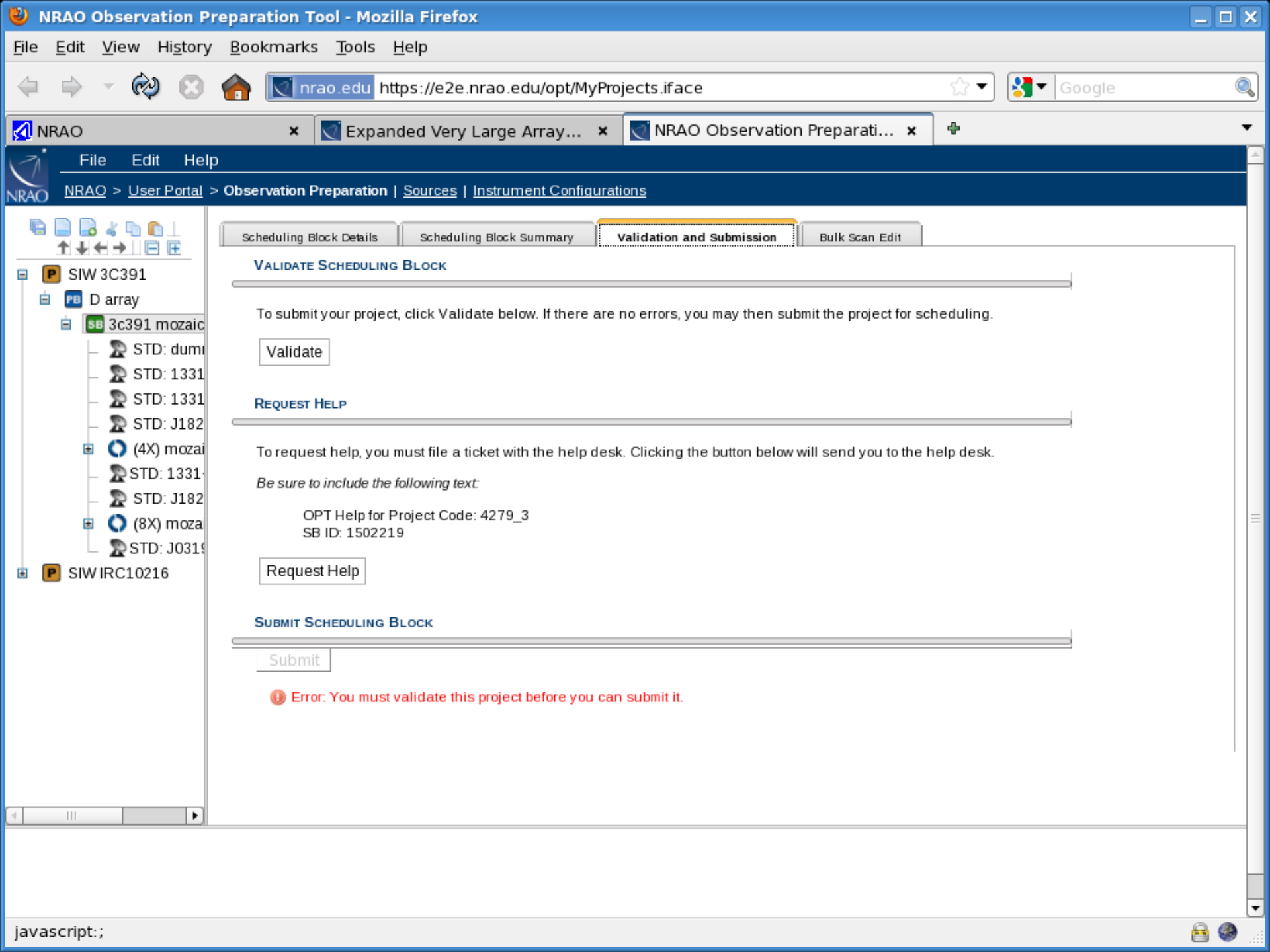
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic
STD: dumi
STD: 1331
STD: 1331
STD: J182
(4X) mozai
STD: 1331
STD: J182
(8X) moza
STD: J031
SIW IRC10216
34 3c391 c6 3c391 c6 4.536GHz 17:21:51 0:00:07 -1.46 145.0d 49.4d -28.4
(1) 3C391 demo 7.436GHz 17:26:51 0:04:53 -1.38 146.7d 50.0d -27.0
35 3c391 c7 3c391 c7 4.536GHz 17:26:51 0:00:07 -1.38 146.7d 50.0d -27.1
(1) 3C391 demo 7.436GHz 17:31:51 0:04:53 -1.30 148.5d 50.5d -25.7
36 J1822-0938 J1822-0938 4.536GHz 17:31:51 0:00:28 CalPolLeak, CalGain -0.84 162.3d 44.7d -14.8
(1) 3C391 demo 7.436GHz 17:33:41 0:01:22 -0.81 162.9d 44.8d -14.3
END LOOP mozaic loop
37 1331+305=3C2 1331+305=3C286 4.536GHz 17:33:41 0:03:09 CalFlux, CalPolAng, CalBP, calculated CW wrap 4.04 283.8d 39.4d 69.0d
(1) 3C391 demo 7.436GHz 17:38:41 0:01:51 4.13 284.3d 38.4d 68.7d
38 J1822-0938 J1822-0938 4.536GHz 17:38:41 0:03:07 CalPolLeak, CalGain -0.73 164.6d 45.1d -12.9
(1) 3C391 demo 7.436GHz 17:46:41 0:04:53 -0.60 167.4d 45.5d -10.6
LOOP mozaic loop
39 3c391 c1 3c391 c1 4.536GHz 17:46:41 0:00:27 -1.05 153.9d 52.0d -21.3
(1) 3C391 demo 7.436GHz 17:52:01 0:04:53 -0.96 156.0d 52.5d -19.7
40 3c391 c2 3c391 c2 4.536GHz 17:52:01 0:00:07 -0.96 156.0d 52.5d -19.7
(1) 3C391 demo 7.436GHz 17:56:51 0:04:43 -0.88 157.9d 52.8d -18.2
41 3c391 c3 3c391 c3 4.536GHz 17:56:51 0:00:07 -0.87 157.9d 52.9d -18.1
(1) 3C391 demo 7.436GHz 18:01:41 0:04:43 -0.79 159.8d 53.2d -16.6
Done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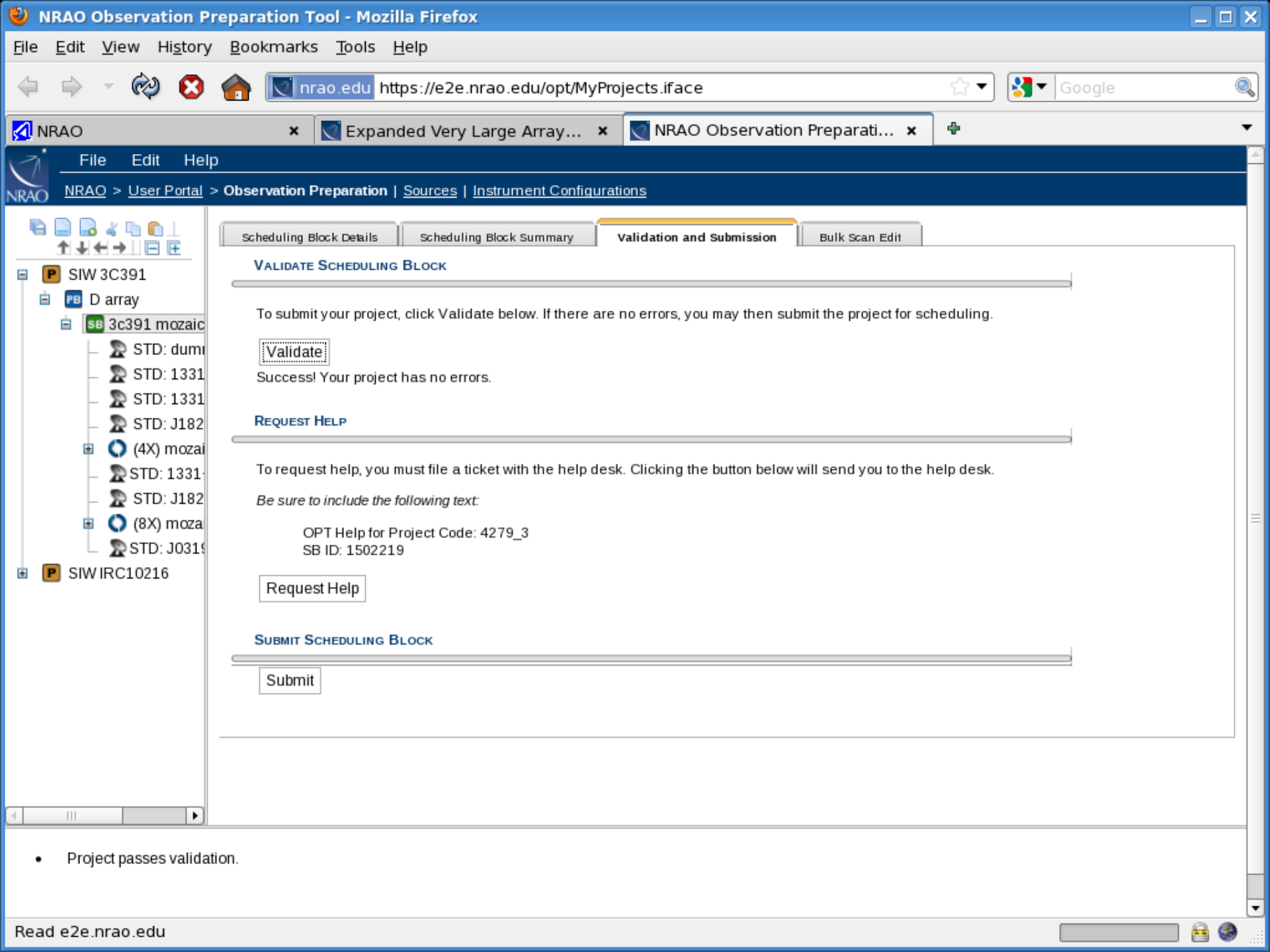
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic
STD: dumi
STD: 1331
STD: 1331
STD: J182
(4X) mozai
STD: 1331
STD: J182
(8X) moza
STD: J031
SIW IRC10216
Scheduling Block Details
Scheduling Block Summary
Validation and Submission
Bulk Scan Edit
VALIDATE SCHEDULING BLOCK
To submit your project, click Validate below. If there are no errors, you may then submit the project for scheduling.
Validate
REQUEST HELP
To request help, you must file a ticket with the help desk. Clicking the button below will send you to the help desk.
Be sure to include the following text:
OPT Help for Project Code: 4279_3
SB ID: 1502219
Request Help
SUBMIT SCHEDULING BLOCK
Submit
Error: You must validate this project before you can submit it.
javascript:;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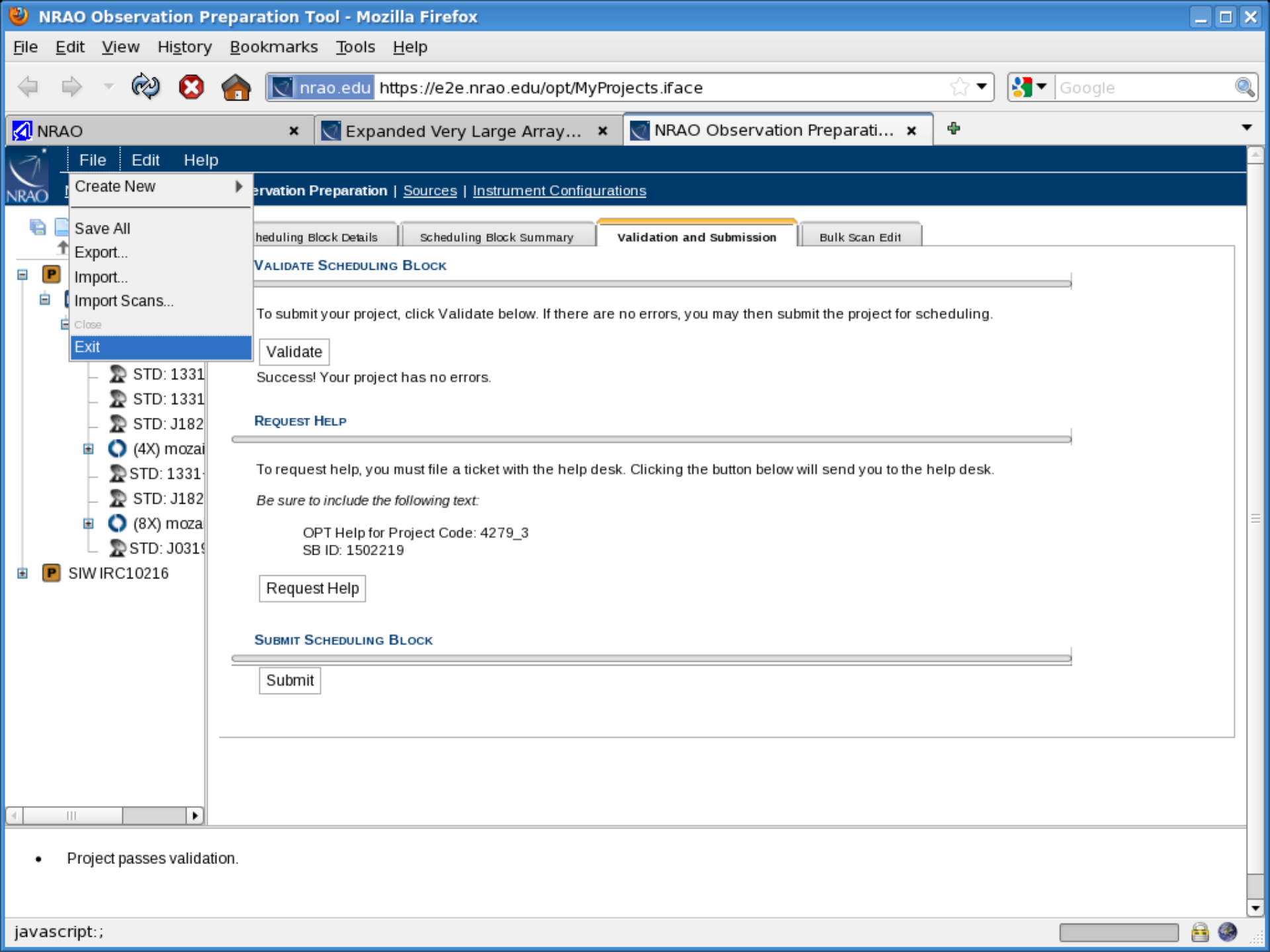
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
D array
3c391 mozaic
STD: dumi
STD: 1331
STD: 1331
STD: J182
(4X) mozai
STD: 1331
STD: J182
(8X) moza
STD: J031
SIW IRC10216
Scheduling Block Details
Scheduling Block Summary
Validation and Submission
Bulk Scan Edit
VALIDATE SCHEDULING BLOCK
To submit your project, click Validate below. If there are no errors, you may then submit the project for scheduling.
Validate
Success! Your project has no errors.
REQUEST HELP
To request help, you must file a ticket with the help desk. Clicking the button below will send you to the help desk.
Be sure to include the following text:
OPT Help for Project Code: 4279_3
SB ID: 1502219
Request Help
SUBMIT SCHEDULING BLOCK
Submit
Project passes validation.
Read e2e.nrao.edu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File Edit Help
Create New
Save All
Export...
Import...
Import Scans...
Close
Exit
ervation Preparation | Sources | Instrument Configurations
heduling Block Details
Scheduling Block Summary
Validation and Submission
Bulk Scan Edit
VALIDATE SCHEDULING BLOCK
To submit your project, click Validate below. If there are no errors, you may then submit the project for scheduling.
Validate
Success! Your project has no errors.
REQUEST HELP
To request help, you must file a ticket with the help desk. Clicking the button below will send you to the help desk.
Be sure to include the following text:
OPT Help for Project Code: 4279_3
SB ID: 1502219
Request Help
SUBMIT SCHEDULING BLOCK
Submit
STD: 1331
STD: 1331
STD: J182
(4X) mozai
STD: 1331
STD: J182
(8X) moza
STD: J031
SIW IRC10216
Project passes validation.
javascript:;

Designing the IRC10216 observing run

Single target line source, use Doppler setting for frequency (dynamic time)

Setup tuned to (2) Ka band frequencies with 125 kHz spectral resolution

Flux: **3C286** and bandpass: **3C273**

Unpolarized nearby point source: **J0954+1743** (gain, pol.z leakage)

Ka band (i.e. about 35 GHz) thus cycle every ~5 minutes

NOT strong enough for pointing scans

Strong (in C or X band) nearby source **J1008+0730** (pointing!)

Pointing every time Az/El changes over ~15°

Do not break into small observing runs (short already)

Calibrator-target sequence with short cycle time: fast-switching

Set up sequence and loop several times to accumulate on source time

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NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

NRAO > User Portal > **Observation Preparation** | Sources | Instrument Configurations

- SIW 3C391
- *SIW IRC10216*
  - *D array*
    - *irc-siw, 0:00:00*

Scheduling Block Details | Scheduling Block Summary | Validation and Submission | Bulk Scan Edit

SCHEDULING BLOCK DETAILS

GENERATED ID 1502224

NAME irc-siw

COUNT 1

TOTAL TIME 0:00:00

SCHEDULE TYPE Dynamic

LST START RANGE 08 : 30 – 10 : 30

NO CONSTRAINT:

START AFTER DATE (OPTIONAL) yyyy - MM - dd

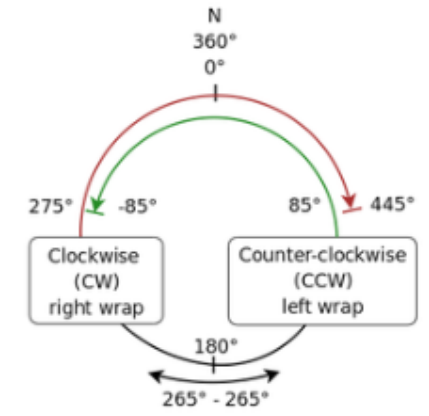
SHADOWING LIMIT (MAX) 0.0 m

IN CONFIGURATION D

STATUS Not Submitted

COMPLETED 0

TIME PER EXECUTION 0:00:00



Done

- SIW 3C391
- *SIW IRC10216*
  - *D array*
    - *irc-siw, 0:00:00*

COORDINATE SYSTEM HORIZONTAL

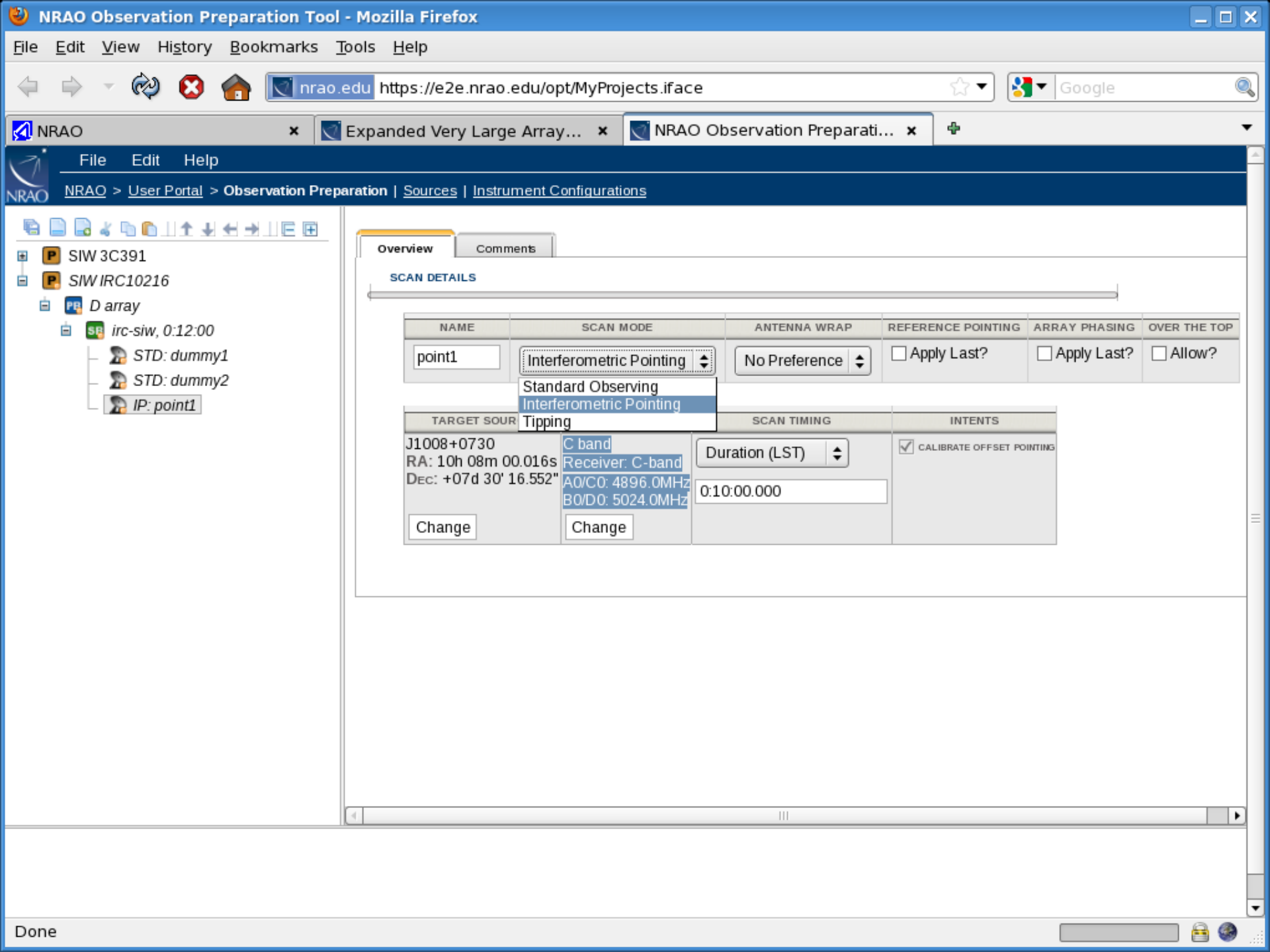
AZIMUTH 225.0d

ELEVATION 35.0d

SCHEDULING CONSTRAINTS/CONDITIONS

	Description	Wind	Atmospheric Phase Limit
○	Lowest Frequencies (4, P, and L)	Any	Any
○	2.0GHz - 4.0GHz (S)	Any	60.0 degrees
○	4.0GHz - 8.0GHz (C)	Any	45.0 degrees
○	8.0GHz - 8.8GHz (X)	15.0 m/s	30.0 degrees
○	12.0GHz - 18.0GHz (Ku)	10.0 m/s	15.0 degrees
○	18.0GHz - 26.5GHz (K)	7.0 m/s	10.0 degrees
✓	26.5GHz - 40.0GHz (Ka)	6.0 m/s	7.0 degrees
○	40.0GHz - 50.0GHz (Q)	5.0 m/s	5.0 degrees
○	Specified Constraints	m/s	degrees

COMMENTS TO THE OPERATOR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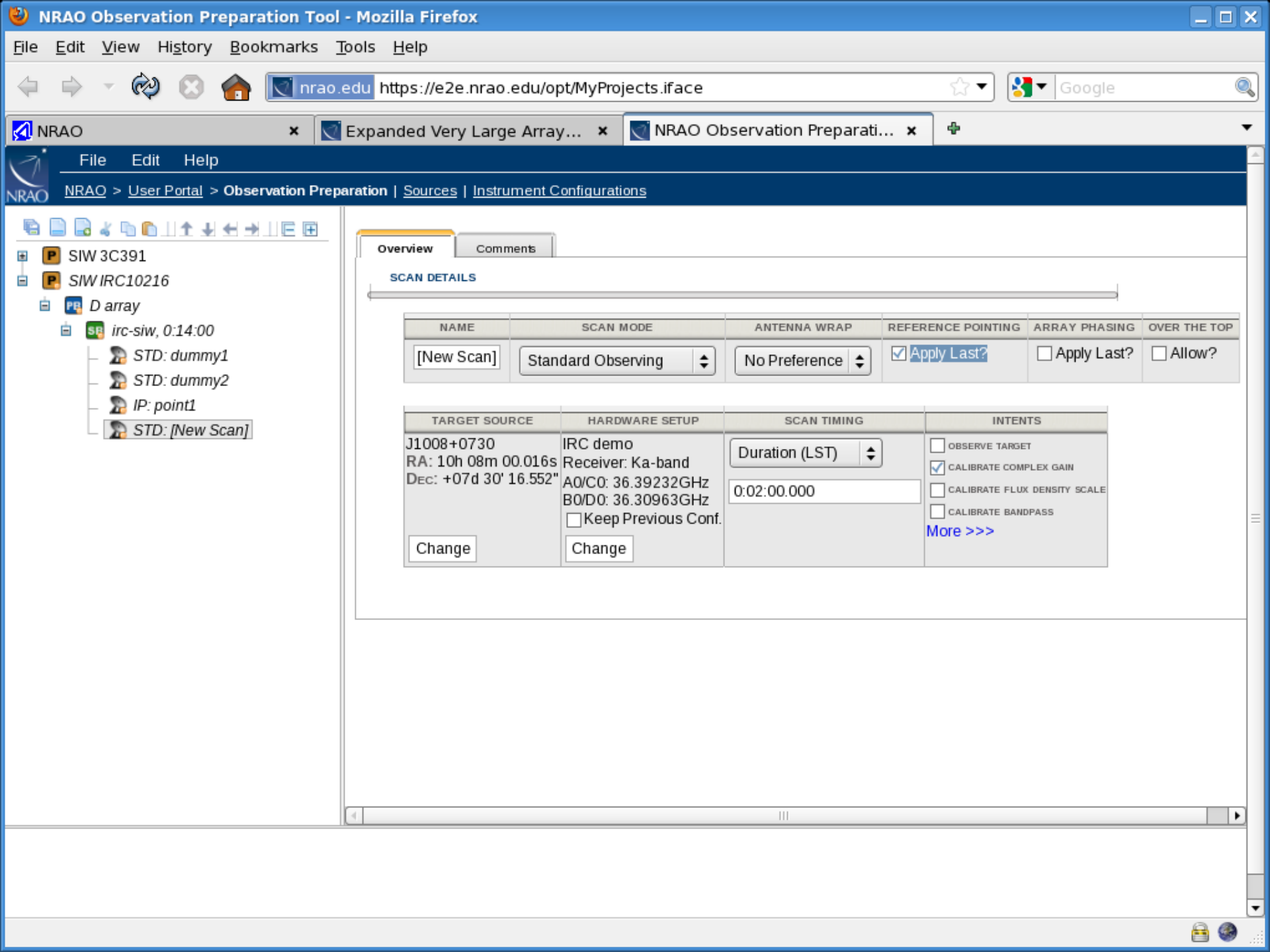
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
SIW IRC10216
D array
irc-siw, 0:12:00
STD: dummy1
STD: dummy2
IP: point1
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
point1
Interferometric Pointing
No Preference
Apply Last?
Apply Last?
Allow?
Standard Observing
Interferometric Pointing
Tipping
TARGET SOUR
SCAN TIMING
INTENTS
J1008+0730
RA: 10h 08m 00.016s
Dec: +07d 30' 16.552"
C band
Receiver: C-band
A0/C0: 4896.0MHz
B0/D0: 5024.0MHz
Duration (LST)
0:10:00.000
CALIBRATE OFFSET POINTING
Change
Change
Done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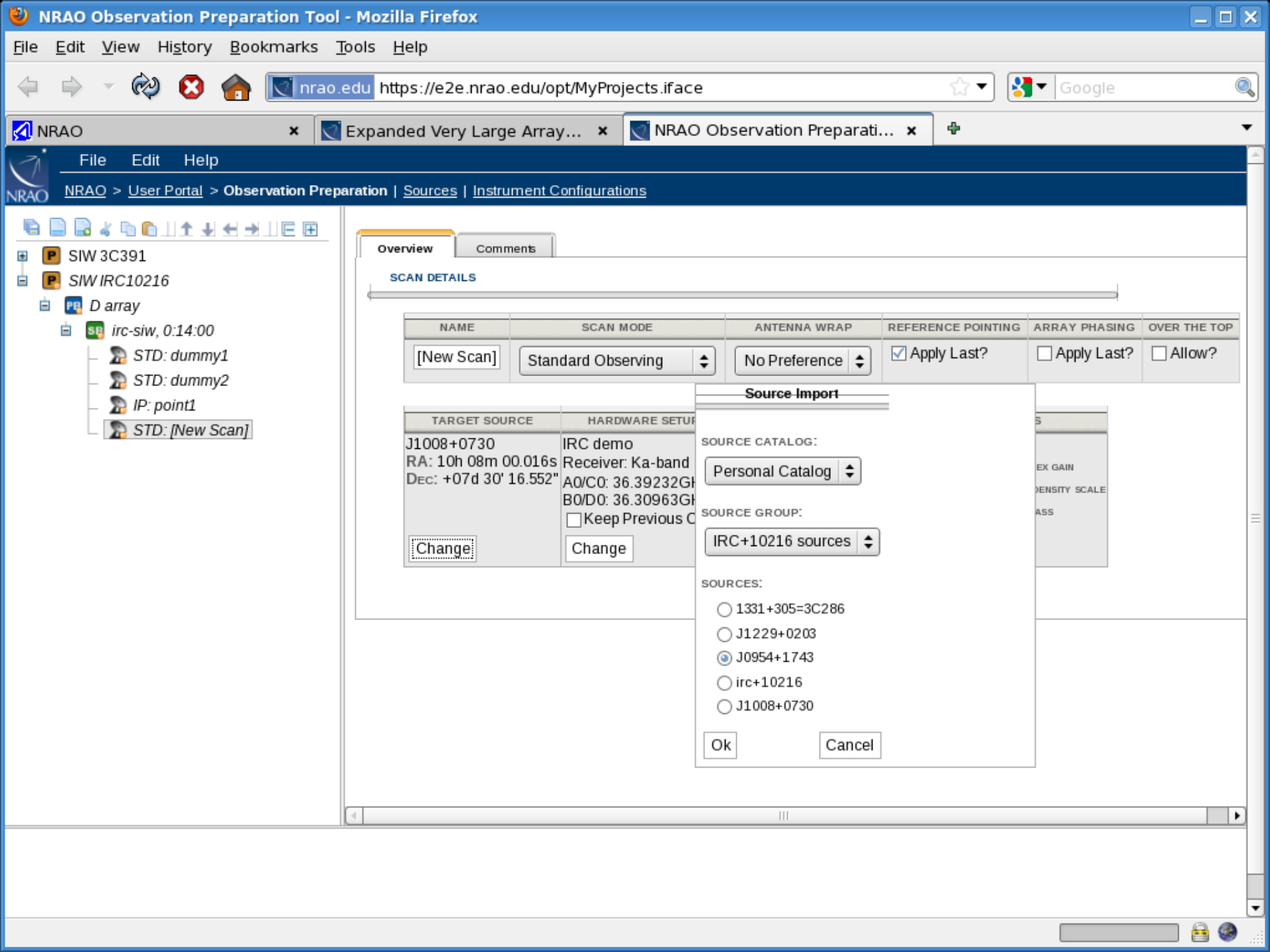
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
SIW IRC10216
D array
irc-siw, 0:14:00
STD: dummy1
STD: dummy2
IP: point1
STD: [New Scan]
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
TARGET SOURCE
HARDWARE SETUP
SCAN TIMING
INTENTS
J1008+0730
RA: 10h 08m 00.016s
Dec: +07d 30' 16.552"
Change
IRC demo
Receiver: Ka-band
A0/C0: 36.39232GHz
B0/D0: 36.30963GHz
Keep Previous Conf.
Change
Duration (LST)
0:02:00.000
OBSERVE TARGET
CALIBRATE COMPLEX GAIN
CALIBRATE FLUX DENSITY SCALE
CALIBRATE BANDPASS
More >>>


NRAO Observation Preparation Tool - Mozilla Firefox
File Edit View History Bookmarks Tools Help
nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface
Google
NRAO
Expanded Very Large Array...
NRAO Observation Preparati...
File Edit Help
NRAO > User Portal > Observation Preparation | Sources | Instrument Configurations
SIW 3C391
SIW IRC10216
D array
irc-siw, 0:14:00
STD: dummy1
STD: dummy2
IP: point1
STD: [New Scan]
Overview
Comments
SCAN DETAILS
NAME
SCAN MODE
ANTENNA WRAP
REFERENCE POINTING
ARRAY PHASING
OVER THE TOP
[New Scan]
Standard Observing
No Preference
Apply Last?
Apply Last?
Allow?
TARGET SOURCE
J1008+0730
RA: 10h 08m 00.016s
Dec: +07d 30' 16.552"
Change
IRC demo
Receiver: Ka-band
A0/C0: 36.39232GH
B0/D0: 36.30963GH
Keep Previous C
Change
Source Import
SOURCE CATALOG:
Personal Catalog
SOURCE GROUP:
IRC+10216 sources
SOURCES:
1331+305=3C286
J1229+0203
J0954+1743
irc+10216
J1008+0730
Ok
Cancel

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface;jsessionid=7638DE55B89A6C

NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

NRAO > User Portal > **Observation Preparation** | Sources | Instrument Configurations

- SIW 3C391
- SIW IRC10216
  - D array
    - irc-siw, 3:00:00
      - STD: dummy1
      - STD: dummy2
      - IP: point1
      - STD: J0954+1743
      - (7X) irc+cal
      - IP: point1
      - STD: J0954+1743
      - (7X) irc+cal
      - IP: point1
      - STD: J0954+1743
      - (7X) irc+cal
        - STD: irc+10216
        - STD: J0954+1743
      - IP: point2
      - STD: J1229+0203
      - IP: point3
      - STD: 1331+305=3C286

Scheduling Block Details | Scheduling Block Summary | Validation and Submission | Bulk Scan Edit

SCHEDULING BLOCK DETAILS

GENERATED ID 1502224

NAME irc-siw

STATUS Not Submitted

COUNT 1

COMPLETED 0

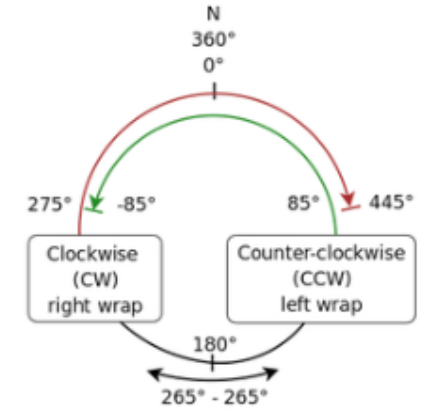
TOTAL TIME 3:00:00

TIME PER EXECUTION 3:00:00

SCHEDULE TYPE Dynamic

LST START RANGE 08 : 30 – 10 : 30

NO CONSTRAINT:



START AFTER DATE (OPTIONAL) yyyy - MM - dd

SHADOWING LIMIT (MAX) 0.0 m

IN CONFIGURATION D

- Saved Project 'SIW IRC10216'

Done

NRAO Observation Preparation Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

nrao.edu https://e2e.nrao.edu/opt/MyProjects.iface;jsessionid=7638DE55B89A6C

Google

NRAO | Expanded Very Large Array... | NRAO Observation Preparati...

File Edit Help

NRAO > User Portal > **Observation Preparation** | Sources | Instrument Configurations

- SIW 3C391
- SIW IRC10216
  - D array
    - irc-siw, 3:00
      - STD: dur
      - STD: dur
      - IP: point1
      - STD: J09
      - (7X) irc+
      - IP: point1
      - STD: J09
      - (7X) irc+
      - IP: point1
      - STD: J09
      - (7X) irc+
        - STD:
        - STD:
      - IP: point2
      - STD: J12
      - IP: point3
      - STD: 133

OBSERVING PROGRAM

Print as Shown

Expand All Loops and Print

PROJECT CODE: 4279_2

GENERATED ID: 1502224

ASSUMED SCHEDULE START: 62081 09:30:00 LST Update Display UTC times

SCHEDULE STOP: 62081 12:30:00 LST

ASSUMED ANTENNA POSITION

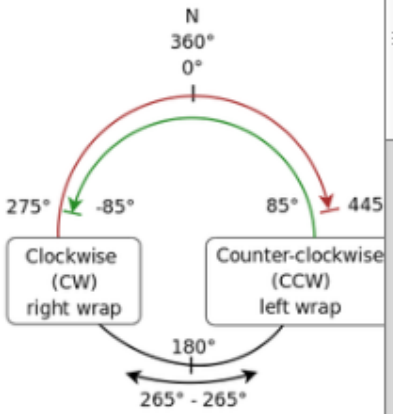
AZIMUTH: 225.0d

ELEVATION: 35.0d

LST START RANGE: 08:30:00.0-10:30:00.0

WIND CONSTRAINTS: 6.0 m/s

API CONSTRAINTS: 7.0 degrees



- Instrument Configuration Summary
- Time On Source Summary
- Schedule Summary

INSTRUMENT CONFIGURATION SUMMARY

	Name	T_{int} / Band	Mode / Modifiers	AC Freq. / BD Freq.	AC Rest/Sky / BD Rest/Sky	AC BW / BD BW	AC Ch. / BD Ch.	AC Res. / BD Res.	AC Doppler Vel. / BD Doppler Vel.	AC Doppler Pos. / BD Doppler Pos.
1	IRC demo	1s	Full Polarization	36.39232GHz	Rest	8MHz	64	125kHz	-26km/s LSRK Radio	+13d 16' 40.66" 09h 47m 57.382s
		Ka		36.30963GHz	Rest	8MHz	64	125kHz	-26km/s LSRK Radio	+13d 16' 40.66" 09h 47m 57.382s
2	C band	1s	Full Polarization	4.896GHz	Sky	128MHz	64	2MHz	—	—
		C		5.024GHz	Sky	128MHz	64	2MHz	—	—

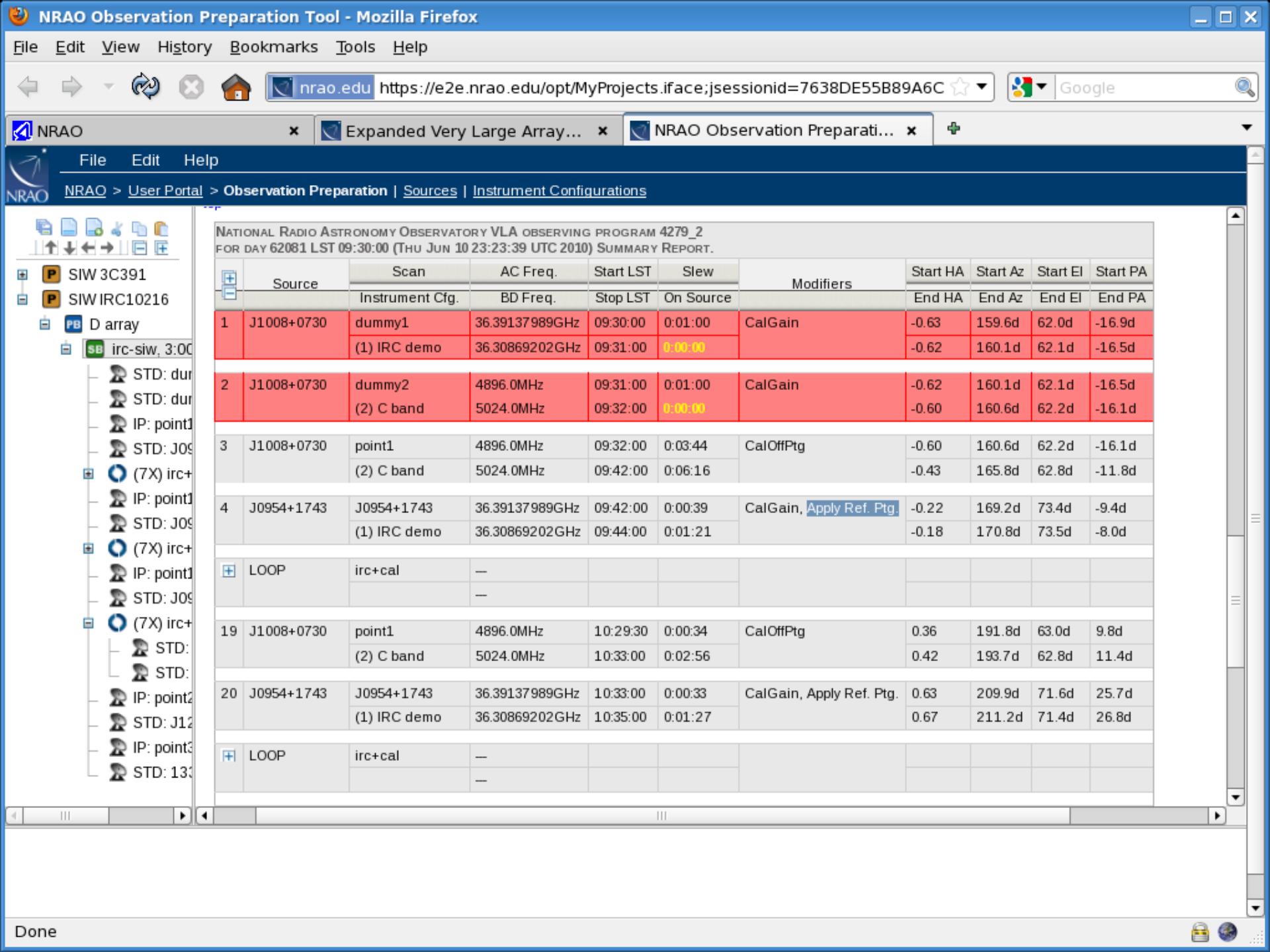
Done

top

- SIW 3C391
- SIW IRC10216
  - D array
    - irc-siw, 3:00
      - STD: dur
      - STD: dur
      - IP: point1
      - STD: J09
      - (7X) irc+
      - IP: point1
      - STD: J09
      - (7X) irc+
      - IP: point1
      - STD: J09
      - (7X) irc+
        - STD:
        - STD:
      - IP: point2
      - STD: J12
      - IP: point3
      - STD: 133

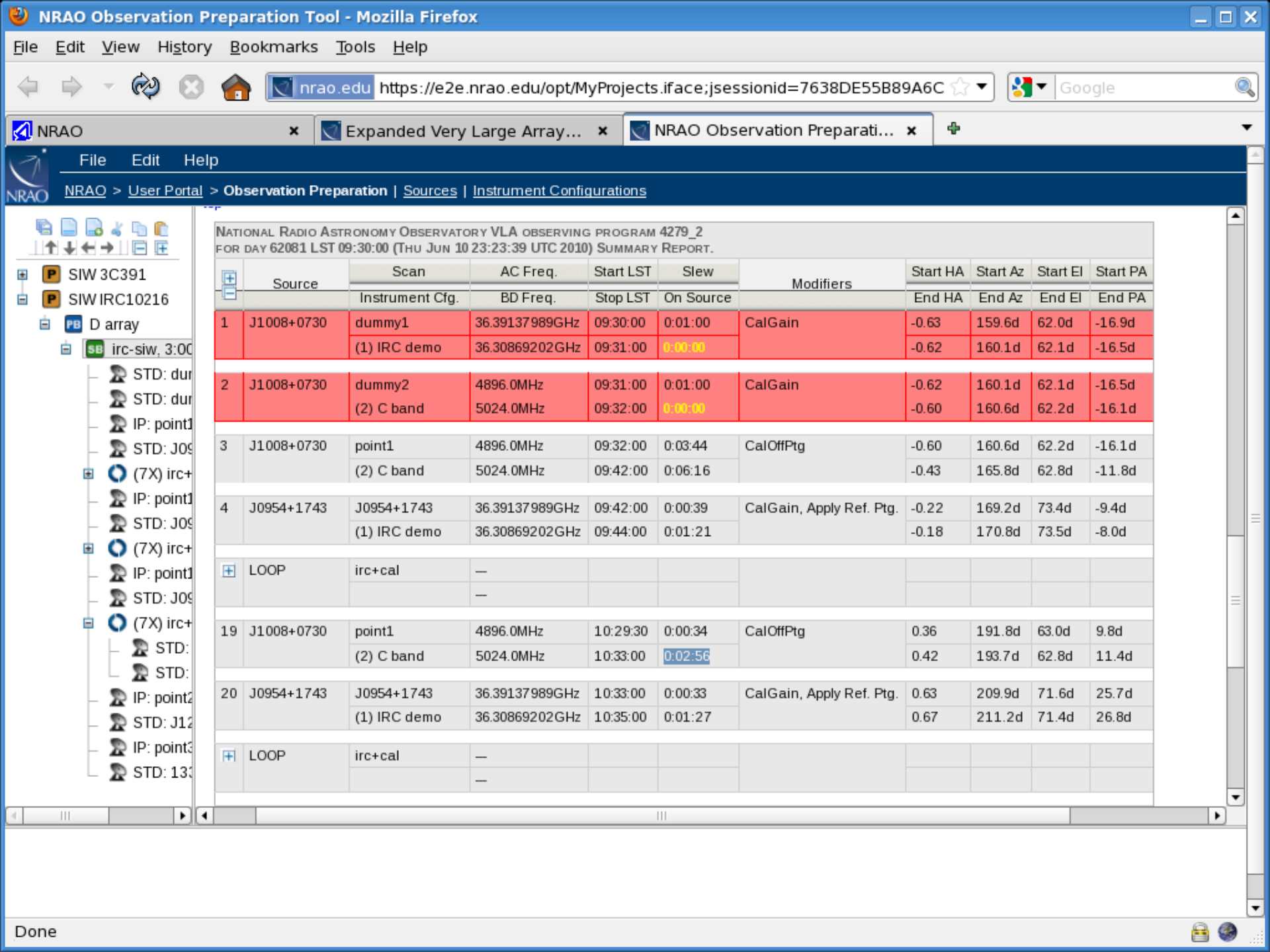
TIME ON SOURCE SUMMARY (TIME IN: LST)

Source	Scan	RA	AC Vel.	AC Freq.	Min HA	Min PA	#
Epoch	Instrument Cfg.	Dec	BD Vel.	BD Freq.	Max HA	Max PA	Total Time
J1008+0730	dummy1	10h 08m 00.016s	-26.0km/s LSR Radio	36.392GHz	-0.63	-16.9d	1
J2000	(1) IRC demo	+07d 30' 16.552"	-26.0km/s LSR Radio	36.310GHz	-0.62	-16.5d	0:00:00
J1008+0730	dummy2	10h 08m 00.016s	—	4896MHz	-0.62	-16.5d	1
J2000	(2) C band	+07d 30' 16.552"	—	5024MHz	-0.60	-16.1d	0:00:00
J1008+0730	point1	10h 08m 00.016s	—	4896MHz	-0.60	-16.1d	3
J2000	(2) C band	+07d 30' 16.552"	—	5024MHz	1.27	30.8d	0:12:07
J0954+1743	J0954+1743	09h 54m 56.82363s	-26.0km/s LSR Radio	36.392GHz	-0.22	-9.4d	24
J2000	(1) IRC demo	+17d 43' 31.2224"	-26.0km/s LSR Radio	36.310GHz	2.28	55.0d	0:28:34
irc+10216	irc+10216	09h 47m 57.382s	-26.0km/s LSR Radio	36.392GHz	-0.07	-2.3d	21
J2000	(1) IRC demo	+13d 16' 40.66"	-26.0km/s LSR Radio	36.310GHz	2.37	50.9d	1:37:51
J1229+0203	point2	12h 29m 06.69973s	—	4896MHz	-0.29	-6.8d	1
J2000	(2) C band	+02d 03' 08.5982"	—	5024MHz	-0.21	-4.9d	0:02:55
J1229+0203	J1229+0203	12h 29m 06.69973s	-26.0km/s LSR Radio	36.392GHz	-0.21	-4.9d	1
J2000	(1) IRC demo	+02d 03' 08.5982"	-26.0km/s LSR Radio	36.310GHz	-0.12	-2.8d	0:05:10
1331+305=3C2	point3	13h 31m 08.28798s	—	4896MHz	-1.15	-71.7d	1
J2000	(2) C band	+30d 30' 32.9589"	—	5024MHz	-1.07	-71.0d	0:02:56



NATIONAL RADIO ASTRONOMY OBSERVATORY VLA OBSERVING PROGRAM 4279_2
FOR DAY 62081 LST 09:30:00 (THU JUN 10 23:23:39 UTC 2010) SUMMARY REPORT.

	Source	Scan / Instrument Cfg.	AC Freq. / BD Freq.	Start LST / Stop LST	Slew / On Source	Modifiers	Start HA / End HA	Start Az / End Az	Start El / End El	Start PA / End PA
1	J1008+0730	dummy1	36.39137989GHz	09:30:00	0:01:00	CalGain	-0.63	159.6d	62.0d	-16.9d
		(1) IRC demo	36.30869202GHz	09:31:00	0:00:00		-0.62	160.1d	62.1d	-16.5d
2	J1008+0730	dummy2	4896.0MHz	09:31:00	0:01:00	CalGain	-0.62	160.1d	62.1d	-16.5d
		(2) C band	5024.0MHz	09:32:00	0:00:00		-0.60	160.6d	62.2d	-16.1d
3	J1008+0730	point1	4896.0MHz	09:32:00	0:03:44	CalOffPtg	-0.60	160.6d	62.2d	-16.1d
		(2) C band	5024.0MHz	09:42:00	0:06:16		-0.43	165.8d	62.8d	-11.8d
4	J0954+1743	J0954+1743	36.39137989GHz	09:42:00	0:00:39	CalGain, Apply Ref. Ptg.	-0.22	169.2d	73.4d	-9.4d
		(1) IRC demo	36.30869202GHz	09:44:00	0:01:21		-0.18	170.8d	73.5d	-8.0d
	LOOP	irc+cal	—							
			—							
19	J1008+0730	point1	4896.0MHz	10:29:30	0:00:34	CalOffPtg	0.36	191.8d	63.0d	9.8d
		(2) C band	5024.0MHz	10:33:00	0:02:56		0.42	193.7d	62.8d	11.4d
20	J0954+1743	J0954+1743	36.39137989GHz	10:33:00	0:00:33	CalGain, Apply Ref. Ptg.	0.63	209.9d	71.6d	25.7d
		(1) IRC demo	36.30869202GHz	10:35:00	0:01:27		0.67	211.2d	71.4d	26.8d
	LOOP	irc+cal	—							
			—							

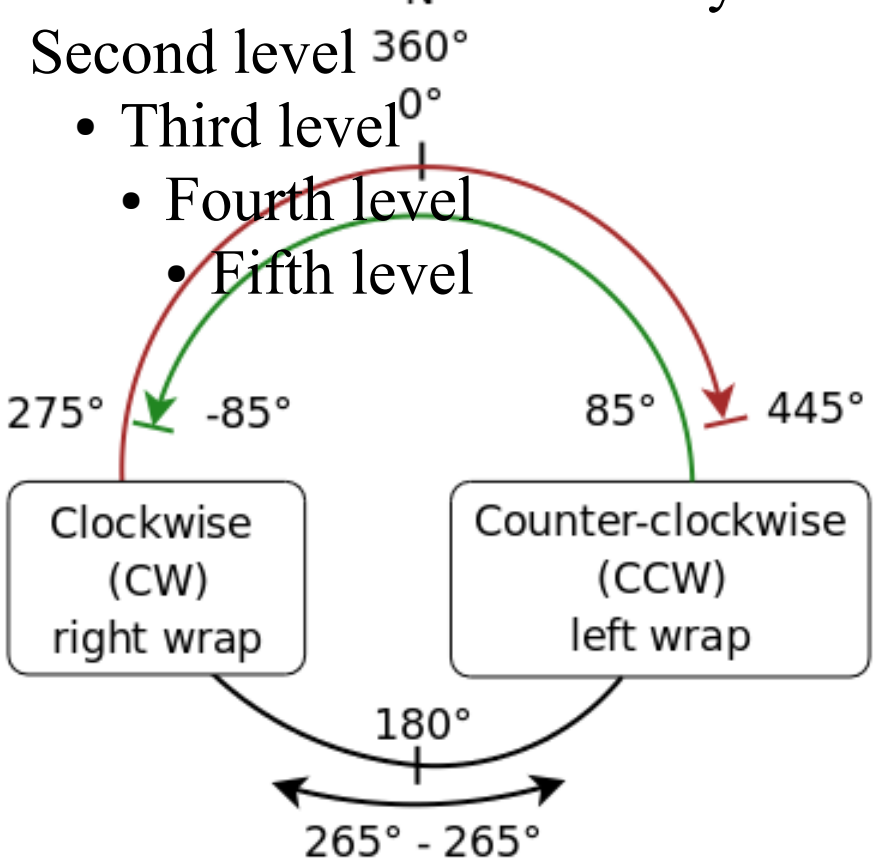


NATIONAL RADIO ASTRONOMY OBSERVATORY VLA OBSERVING PROGRAM 4279_2
FOR DAY 62081 LST 09:30:00 (THU JUN 10 23:23:39 UTC 2010) SUMMARY REPORT.

	Source	Scan / Instrument Cfg.	AC Freq. / BD Freq.	Start LST / Stop LST	Slew / On Source	Modifiers	Start HA / End HA	Start Az / End Az	Start El / End El	Start PA / End PA
1	J1008+0730	dummy1	36.39137989GHz	09:30:00	0:01:00	CalGain	-0.63	159.6d	62.0d	-16.9d
		(1) IRC demo	36.30869202GHz	09:31:00	0:00:00		-0.62	160.1d	62.1d	-16.5d
2	J1008+0730	dummy2	4896.0MHz	09:31:00	0:01:00	CalGain	-0.62	160.1d	62.1d	-16.5d
		(2) C band	5024.0MHz	09:32:00	0:00:00		-0.60	160.6d	62.2d	-16.1d
3	J1008+0730	point1	4896.0MHz	09:32:00	0:03:44	CalOffPtg	-0.60	160.6d	62.2d	-16.1d
		(2) C band	5024.0MHz	09:42:00	0:06:16		-0.43	165.8d	62.8d	-11.8d
4	J0954+1743	J0954+1743	36.39137989GHz	09:42:00	0:00:39	CalGain, Apply Ref. Ptg.	-0.22	169.2d	73.4d	-9.4d
		(1) IRC demo	36.30869202GHz	09:44:00	0:01:21		-0.18	170.8d	73.5d	-8.0d
	LOOP	irc+cal	—							
			—							
19	J1008+0730	point1	4896.0MHz	10:29:30	0:00:34	CalOffPtg	0.36	191.8d	63.0d	9.8d
		(2) C band	5024.0MHz	10:33:00	0:02:56		0.42	193.7d	62.8d	11.4d
20	J0954+1743	J0954+1743	36.39137989GHz	10:33:00	0:00:33	CalGain, Apply Ref. Ptg.	0.63	209.9d	71.6d	25.7d
		(1) IRC demo	36.30869202GHz	10:35:00	0:01:27		0.67	211.2d	71.4d	26.8d
	LOOP	irc+cal	—							
			—							

Antenna wrap diagram

Click to edit Master text styles
Second level
- Third level
  - Fourth level
    - Fifth level



Some other things to mention

DO NOT FORGET TO EXIT THE WEB APPLICATION

Many ways to optimize schedules – use LST start update feature

Bulk edit

Import line-item scheduling block

Exchange XML catalogs with others (or backup)

Submit/cancel and also approve, etc

Web connection can be slow/interrupted/time-out

RCT will change when full WIDAR is available (much more complex!!)

SCT: working on additions and improvements

Documentation still very useful but getting more and more outdated