



Title: QSUI FY2017	Author: Thisdell/ADs	Date: 02/07/2017
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National Radio Astronomy Observatory

Quarterly Status Update I FY2017

October – December 2016

PREPARED BY	ORGANIZATION	DATE
Thisdell/ADs	Director's Office	02/07/2017

APPROVALS (Name and Signature)	ORGANIZATION
Nicole Thisdell	NRAO
Tony Beasley	NRAO
Dave Curren	AUI

NRAO Quarterly Status Update
(QSUI FY2017)
October - December 2016

Q1 Performance Assessment

POP Section	POP Milestone	Milestone	Completion Date	Cost	Schedule	Scope
2.6		Atacama Large Millimeter/submillimeter Array (ALMA)				
		Operations				
	2	The NAASC will provide AODs in support of telescope operations in Chile	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	3	The NAASC will continue to provide diagnostic support for troubleshooting issues and problems found during array operations	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	5	The NAASC will review all the Phase 2 Scheduling Blocks submitted by PIs for ALMA Cycle 4	12/31/2016			
			3/31/2017			
	6	The NAASC will participate in CPM6	12/31/2016			
	9	NAASC staff will assist in the testing of the Cycle 4 CASA release	12/31/2016			
	12	SWST supporting calibration and imaging heuristic development	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	13	Assembling the Cycle 5 Release 1 (C5R1) requirements	12/31/2016			
			3/31/2017			
	14	Providing support for running the Cycle 4 Pipeline on PI data	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	16	NAASC staff will take a leading role in testing the Cycle 5 ALMA Archive access	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	17	Data services team will deliver on average between 20 – 25 datasets per week	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	20	NAASC staff will take a lead role in the preparation of the Cycle 5 Call for Proposals and user documentation including all updates and edits to the ALMA science portal	12/31/2016			
			3/31/2017			
	21	NAASC staff will act as CSs and liaisons to the NA ALMA PI observing programs	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	22	NAASC staff will initiate the ALMA Ambassadors program and train the scientific community to run outreach events	12/31/2016			
			3/31/2017			
	24	The NAASC will continue to host data reduction visitors over the FY with the goal of hosting a minimum of 12 visits	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Developments				
	27	FY2017 (Cycle 5) Call for Project Proposals (CfPP)	12/31/2016			
		NRAO-Chile Office				
	33	Implementation and monitoring of the 2015 local staff collective contract	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	35	Periodic interaction with local staff on payroll matters	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	36	Team building workshops focused on vision, mission, objectives and performance metrics	12/31/2016			
			3/31/2017			
	37	Oversight of environmental issues	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	38	Sister Cities: evaluation of July-September 2016 cultural exchange	12/31/2016			
	40	NINE: analysis of Chilean groups involved in STEM, underrepresented groups and opportunities for targeting	12/31/2016			
3.5		Very Large Array				
		VLA Science Operations				
	I	Define VLA general and shared risk capabilities to be offered for semester 2017B	12/31/2016			
		VLA Development				
	18	Establish ngVLA Project Office	12/31/2016			
	19	Initiate ngVLA Community Studies program	12/31/2016			
		VLA Antenna Maintenance				
	27	Perform preventive maintenance on each of two transporters prior to array reconfiguration to D	12/31/2016			
		VLA Site Infrastructure Maintenance				

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	32	Perform preventive maintenance on the next configuration VLA antenna transformers prior to array reconfiguration to D	12/31/2016			
		VLA Observing Capability Enhancements				
	49	Define software requirements for enabling pulsar phase binning to be set up using standard tools	12/31/2016			
	50	Define best practices for using online frequency averaging	12/31/2016			
4.3		Central Development Laboratory				
		Repair, Maintenance, Production, Support				
			12/31/2016			
	2	Build and test twelve (12) Band 1 amplifiers	3/31/2017			
			6/30/2017			
			9/30/2017			
		Research and Development				
	5	Produce Final Report for NRAO-led ALMA Correlator Study	12/31/2016			
	7	Submittal of ALMA Dev. Proposal to upgrade the existing ALMA correlator	12/31/2016			
	10	Use IRD source modules to probe-test V-band, I/Q mixer chip	12/31/2016			
	17	Development of the Cosmic Twilight Polarimeter	12/31/2016	NCE approved, end 4/30/2017		
5.5		Science Support and Research				
		Telescope Time Allocation				
	5	TAC meeting for semester 2017A	12/31/2016			
	7	Update SVW tools requirements for TAC support 2017A	12/31/2016			
		Science Users Support				
	15	NM Symposium	12/31/2016			
	16	CASAguides	12/31/2016			
	23	Student observing support selection	12/31/2016			
		SSR Services				
	27	Bibliometrix applications development	12/31/2016			
		Scientific Staff Support				
	30	Scistaff performance review	12/31/2016			
6.4		Data Management & Software				
		Scientific Information Services				
	6	External computing service provider engagement	12/31/2016			
	7	Disaster recovery for Lustre storage	12/31/2016			
		VLA System Software				
	19	Implement in OPT	12/31/2016			
		Software Development				
	20	Archive/RPI Release 2.5	12/31/2016			
	22	CASA Release 4.7	12/31/2016			
	24	ASIAA ACDC formed	12/31/2016			
	25	CASA-Pipeline 4.7	12/31/2016			
	27	Implement PST updates for Semester 2017B Call for Proposals	12/31/2016			
	31	Implement OPT updates for Semester 2017A VLA Observing	12/31/2016			
	35	CI testing plan released	12/31/2016			
7.4		Program Management Department				
		New Mexico Operations				
	1	NM Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	2	NM PM/SE Learning Opportunities	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	3	NM Proposal Development Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	4	NM PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Long Baseline Observatory				
	5	LBO Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	6	LBO Document Repository	12/31/2016			
	7	LBO Input to PMD SOPs	12/31/2016			

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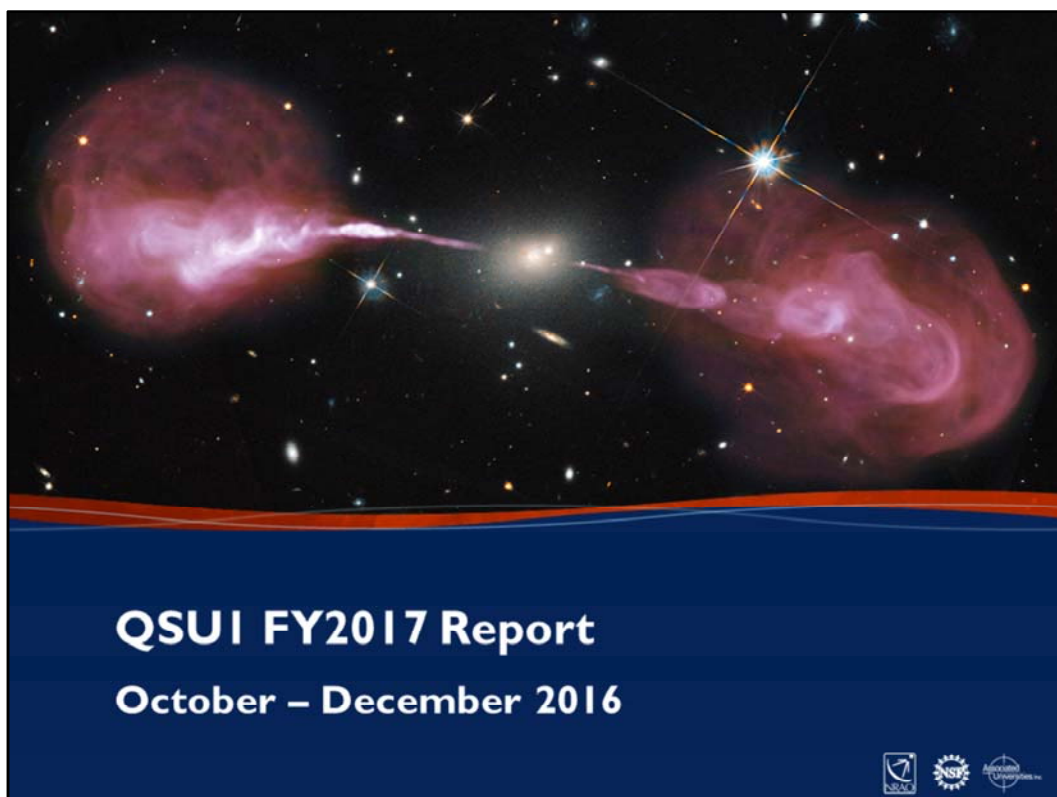
Q1 Performance Assessment

POP Section	POP Milestone	Milestone	Completion Date	Cost	Schedule	Scope
	10	LBO PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		CDL/ALMA				
	11	CDL Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	12	CDL PM/SE Learning Opportunities	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	13	CDL Proposal Development Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	14	CDL PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Green Bank Observatory				
	15	GBO Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	16	GBO Input to PMD SOPs	12/31/2016			
	19	GBO Proposal Development Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	21	GBO PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		DMS/CASA				
	22	DMS Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	23	DMS Define CASA Development Processes	12/31/2016			
	24	DMS PM/SE Learning Opportunities	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	27	DMS Proposal Development Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	28	DMS PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Headquarters				
	29	PMHQ Observatory-wide Documentation Support	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	31	PM/SE Training/Workshop	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
	32	PMHQ PM/SE Project Leadership	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
8.5		Education & Public Outreach				
		STEM Education				
	5	Third Dish Installation complete	12/31/2016			
	6	STEM Career Day at Dominion Virginia Electric	12/31/2016		cancelled	
		Multimedia Engagement				
	10	WordPress site Beta tests	12/31/2016			
9.4		Computing & Information Services				
	8	Capacity reporting metrics	12/31/2016			

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Q1 Performance Assessment

POP Section	POP Milestone	Milestone	Completion Date	Cost	Schedule	Scope
10.3		Office of Diversity & Inclusion				
		Diversity Council				
	1	Diversity Council Meeting	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		International Programs				
	7	ODI Chile undergraduate research experience recruitment	12/31/2016			
	9	NINE program expansion	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Diversity & Cultural Awareness				
	11	DCA Program plan developed and implemented	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
11.7		Human Resources				
		Policy				
	1	Provide ongoing updates and develop and disseminate a Workplace Violence Prevention Policy in coordination with ESS	12/31/2016			
		Training & Development				
	2	Develop and communicate Professional Development Central Pool Program	12/31/2016			
		Compensation				
	7	Implement new FLSA regulations	12/31/2016			
	8	Electronic Performance Appraisal Process	12/31/2016			
		Benefits				
	11	Electronic Open Enrollment Process Development	12/31/2016			
		Recruitment				
	13	Applicant Tracking System	12/31/2016			
		Human Resources				
	16	Employee Climate & Engagement Survey	12/31/2016			
	17	JAO Collective Bargaining Planning	12/31/2016			
12.1		Communications				
	1	Complete science meeting exhibit redesign	12/31/2016			
	2	Publish 2017 Research Facilities brochure	12/31/2016			
13.7		Administration				
		Management Information Services				
	3	Purchase Equipment and coordinate installation with CIS	12/31/2016			
		Technology Transfer Office				
	5	Acquire license to Wellspring intellectual property management software	12/31/2016			
14.3		Spectrum Management				
	1	WP 7D Meeting	12/31/2016			
	2	IA, 5B Meeting	12/31/2016			
15.1		Director's Office				
		ALMA				
	1	ALMA Board Meeting	12/31/2016			
			6/30/2017			
	2	ALMA Director's Council	12/31/2016			
			3/31/2017			
			6/30/2017			
			9/30/2017			
		Corporate Meetings				
	3	AUI Board of Trustees meetings	12/31/2016			
			3/31/2017			
			6/30/2017			
	4	AUI Executive Committee meetings	12/31/2016			
			6/30/2017			
			9/30/2017			
		Science Community				
	5	Appoint new Users Committee members	12/31/2016			
		Management Reviews				
	7	NSF Annual Program Review	12/31/2016			
	8	All-Hands presentations	12/31/2016			
			6/30/2017			



POP MILESTONE # 3.5.18

NM VLA Operations

Establish ngVLA Project Office

Cost

Schedule

Scope

<div>COST:</div> <table> <tr> <td>Labor Actuals</td> <td>Expected</td> </tr> <tr> <td>\$ NA</td> <td>\$</td> </tr> <tr> <td>Material Actuals</td> <td>Expected</td> </tr> <tr> <td>\$ NA</td> <td>\$</td> </tr> <tr> <td>Travel Actuals</td> <td>Expected</td> </tr> <tr> <td>\$ NA</td> <td>\$</td> </tr> </table>			Labor Actuals	Expected	\$ NA	\$	Material Actuals	Expected	\$ NA	\$	Travel Actuals	Expected	\$ NA	\$	<div>SCOPE:</div> <p>No change. Recruit an ngVLA project scientist, project lead, science advisory council, and technical advisory council.</p>		
Labor Actuals	Expected																
\$ NA	\$																
Material Actuals	Expected																
\$ NA	\$																
Travel Actuals	Expected																
\$ NA	\$																
<div>SCHEDULE:</div> <table> <tr> <th>Milestone</th> <th>Schedule</th> <th>Target</th> </tr> <tr> <td>I Establish ngVLA project office</td> <td>12/31/16</td> <td>2/28/17</td> </tr> </table>			Milestone	Schedule	Target	I Establish ngVLA project office	12/31/16	2/28/17	<div>RISK & MITIGATION:</div> <table> <tr> <th>Risk</th> <th>Mitigation</th> </tr> <tr> <td>I Delays in establishing the project office compress the schedule for developing the ngVLA proposal to the 2020 Decadal Survey.</td> <td>I Expedite establishing the project office by defining roles and responsibilities. Refine the scope of what is to be delivered to DS2020.</td> </tr> </table>			Risk	Mitigation	I Delays in establishing the project office compress the schedule for developing the ngVLA proposal to the 2020 Decadal Survey.	I Expedite establishing the project office by defining roles and responsibilities. Refine the scope of what is to be delivered to DS2020.		
Milestone	Schedule	Target															
I Establish ngVLA project office	12/31/16	2/28/17															
Risk	Mitigation																
I Delays in establishing the project office compress the schedule for developing the ngVLA proposal to the 2020 Decadal Survey.	I Expedite establishing the project office by defining roles and responsibilities. Refine the scope of what is to be delivered to DS2020.																

2

QSUI FY2017

The ngVLA project scientist (Eric Murphy) and the science advisory council (SAC) were recruited. The SAC charge was written, co-chairs (Bolatto and Isella) were elected, and periodic meetings to define science use cases and develop science requirements are underway. Nominations for members of the technical advisory council (TAC) have been received, and membership is expected to be announced in early February. The TAC charge has been written. A roles and responsibilities analysis is underway to properly define the remaining roles within the project office, including that of project lead.

COST: No change

SCOPE: No change

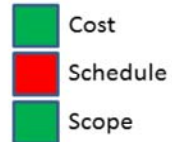
SCHEDULE: We anticipate the TAC membership will be announced in early February 2017. The recruitment of remaining project staff is now scheduled for completion by February 28.

RISK & MITIGATION: Delays in establishing the project office compress the schedule for developing the ngVLA proposal to the 2020 Decadal Survey. The risk is being mitigated by expediting the establishment of the project office and refining the scope of what is to be delivered to DS2020.

POP MILESTONE # 4.3.5

Central Development Laboratory

Project Final Report Complete – ALMA-D Correlator Study



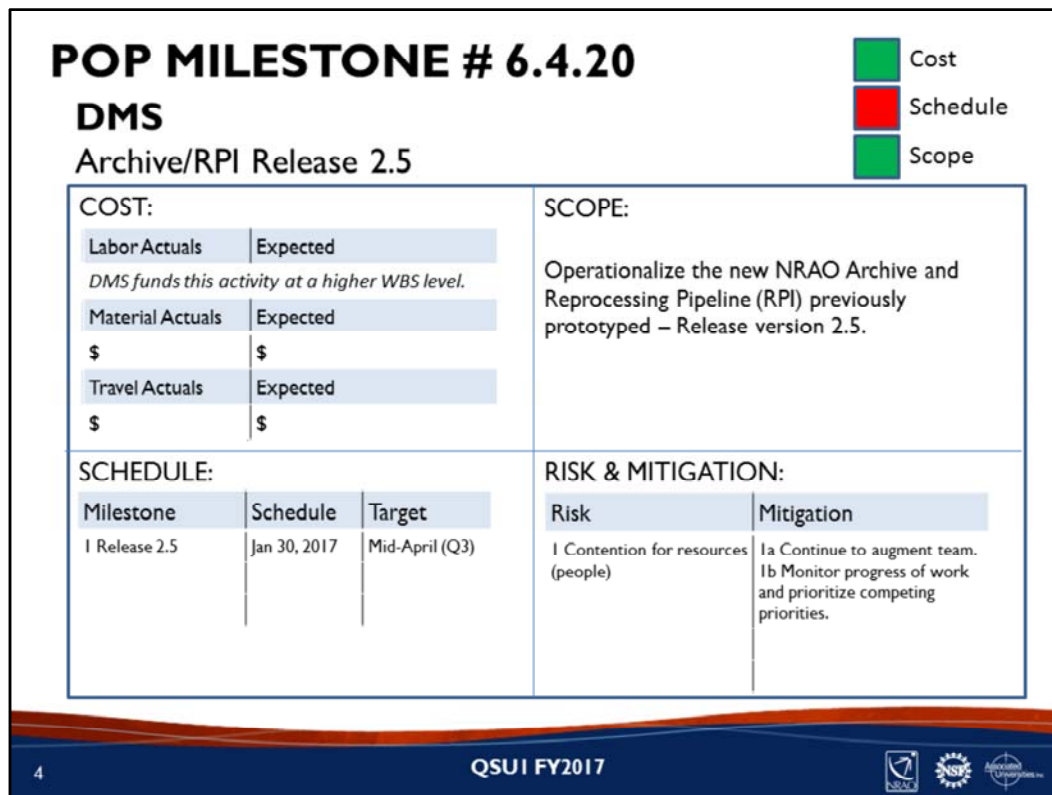
COST:			SCOPE:	
Labor Actuals	Expected		No change. Complete final report for NRAO-led ALMA Cycle 4 Correlator Study Project.	
Material Actuals	Expected			
Travel Actuals	Expected			
SCHEDULE:			RISK & MITIGATION:	
Milestone	Schedule	Target	Risk	Mitigation
I Produce Final Report	12/31/2016	2/28/2017		

COST: No change

SCOPE: No change

SCHEDULE: Funding became available only in February of 2016. This was slated as a one-year project and will therefore end in February 2017, at which time the final report will be submitted on time. No issues are foreseen with concluding this study/meeting the milestone.

RISK & MITIGATION: N/A



COST: DMS funds this activity at a higher WBS level. Costs are not tracked for this milestone.

SCOPE: Operationalize the new NRAO Archive and RPI previously prototyped – Release version 2.5.

SCHEDULE: The 2.5 release, which is functionally equivalent to the current archive but with a greatly improved interface, better performance, and inclusion of ALMA data, is planned for release in 2017. The schedule has slipped from the previously published dates due to the discovery during testing of the need to re-design the metadata database to handle particular use cases and the need to address competing priorities, such as functionality needed in the archive for VLASS. Also, we have been unable to fill the two additional staffing positions due to lack of suitable candidates. The team is engaged in a planning process in order to determine realistic delivery dates for this work and its other commitments.

RISK & MITIGATION: The primary risk is to the schedule due to other priorities in scope for the team. The AAT/RPI work was scheduled to ramp down on an earlier timescale, and since it hasn't, this puts pressure on other delivery commitments, such as the PST revision and redesign work. Two new positions have been filled in the last six months to help provide capacity, and two additional are planned. We will continue to monitor and prioritize work across the team. Rafael Hiriart has been proceeding with the initial development of the PST as an additional resource to allow the team to continue their focus on the archive.

POP MILESTONE # 7.4.7

Program Management Department

LBO Input to PMD SOPs

Cost
 Schedule
 Scope

COST: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; padding: 2px;">Labor Actuals</td> <td style="width: 30%; padding: 2px;">Expected</td> <td style="width: 40%;"></td> </tr> <tr> <td style="padding: 2px;">\$ NA</td> <td style="padding: 2px;">\$</td> <td></td> </tr> <tr> <td style="padding: 2px;">Material Actuals</td> <td style="padding: 2px;">Expected</td> <td></td> </tr> <tr> <td style="padding: 2px;">\$ NA</td> <td style="padding: 2px;">\$</td> <td></td> </tr> <tr> <td style="padding: 2px;">Travel Actuals</td> <td style="padding: 2px;">Expected</td> <td></td> </tr> <tr> <td style="padding: 2px;">\$ NA</td> <td style="padding: 2px;">\$</td> <td></td> </tr> </table>			Labor Actuals	Expected		\$ NA	\$		Material Actuals	Expected		\$ NA	\$		Travel Actuals	Expected		\$ NA	\$		SCOPE: <p>No change. The purpose of receiving LBO input to PMD Standard Operating Procedures is to ensure that LBO organizational differences are captured.</p>		
Labor Actuals	Expected																						
\$ NA	\$																						
Material Actuals	Expected																						
\$ NA	\$																						
Travel Actuals	Expected																						
\$ NA	\$																						
SCHEDULE: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%; padding: 2px;">Milestone</th> <th style="width: 30%; padding: 2px;">Schedule</th> <th style="width: 40%; padding: 2px;">Target</th> </tr> <tr> <td style="padding: 2px;">1 LBO inputs to SOPs</td> <td style="padding: 2px;">12/31/2016</td> <td style="padding: 2px;">02/15/17</td> </tr> </table>			Milestone	Schedule	Target	1 LBO inputs to SOPs	12/31/2016	02/15/17	RISK & MITIGATION: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; padding: 2px;">Risk</th> <th style="width: 50%; padding: 2px;">Mitigation</th> </tr> <tr> <td style="padding: 2px;">1 Change Control Board (CCB) does not approve PMD LBO SOP changes.</td> <td style="padding: 2px;">Requested changes from the CCB will be incorporated into the SOPs and resubmitted to the CCB.</td> </tr> </table>			Risk	Mitigation	1 Change Control Board (CCB) does not approve PMD LBO SOP changes.	Requested changes from the CCB will be incorporated into the SOPs and resubmitted to the CCB.								
Milestone	Schedule	Target																					
1 LBO inputs to SOPs	12/31/2016	02/15/17																					
Risk	Mitigation																						
1 Change Control Board (CCB) does not approve PMD LBO SOP changes.	Requested changes from the CCB will be incorporated into the SOPs and resubmitted to the CCB.																						

5
QSUI FY2017

Slight organizational structural differences between NRAO and LBO require that additional Standard Operation Procedure (SOP) manuals be created.

COST: No cost implications.

SCOPE: No change in scope.

SCHEDULE: Changes to documentation were completed by end of Q1. The changes have been reviewed and approved by the NRAO Change Control Board on 01/26/17. The documents are now awaiting final approval before internal publishing in the LBO Document Repository.

RISK & MITIGATION: Low risk. If additional changes are requested, the documents will be updated and reviewed at a subsequent CCB meeting.

POP MILESTONE # 7.4.3I

Program Management Department

PM/SE Training/Workshop at HQ



COST: <table border="1"> <tr> <td>Labor Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Material Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Travel Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </table>		Labor Actuals	Expected	\$	\$	Material Actuals	Expected	\$	\$	Travel Actuals	Expected	\$	\$	SCOPE: <p>No change. A workshop was held on moving proposals to projects, using the VLA Visitor Center as an example.</p>
Labor Actuals	Expected													
\$	\$													
Material Actuals	Expected													
\$	\$													
Travel Actuals	Expected													
\$	\$													
SCHEDULE: <table border="1"> <tr> <th>Milestone</th> <th>Schedule</th> <th>Target</th> </tr> <tr> <td>1 Complete workshop session.</td> <td>Dec 31, 2016</td> <td>Jan10, 2017</td> </tr> </table>		Milestone	Schedule	Target	1 Complete workshop session.	Dec 31, 2016	Jan10, 2017	RISK & MITIGATION: <table border="1"> <tr> <th>Risk</th> <th>Mitigation</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Risk	Mitigation				
Milestone	Schedule	Target												
1 Complete workshop session.	Dec 31, 2016	Jan10, 2017												
Risk	Mitigation													

COST: No cost implications.

SCOPE: No change in scope.

SCHEDULE: Due by end Q1, 12/31/2016. Has been completed in Q2 on 1/10/2017. By the time the topic and schedule were decided late in the quarter, most of the target audience was scheduled for holiday vacation. The event was scheduled ASAP following the holidays.

RISK & MITIGATION: Low risk.

POP MILESTONE # 8.5.6

EPO

STEM Career Day at Dominion Virginia Electric

COST: <table border="1"> <tr> <td>Labor Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Material Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Travel Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </table>			Labor Actuals	Expected	\$	\$	Material Actuals	Expected	\$	\$	Travel Actuals	Expected	\$	\$	SCOPE: Cancelled. This milestone was cancelled last quarter and was mistakenly carried over to this year POP (new AD's oversight).		
Labor Actuals	Expected																
\$	\$																
Material Actuals	Expected																
\$	\$																
Travel Actuals	Expected																
\$	\$																
SCHEDULE: <table border="1"> <tr> <th>Milestone</th> <th>Schedule</th> <th>Target</th> </tr> <tr> <td>I Career day</td> <td>FY2016</td> <td>none</td> </tr> </table>			Milestone	Schedule	Target	I Career day	FY2016	none	RISK & MITIGATION: <table border="1"> <tr> <th>Risk</th> <th>Mitigation</th> </tr> <tr> <td>I Low risk</td> <td></td> </tr> </table>			Risk	Mitigation	I Low risk			
Milestone	Schedule	Target															
I Career day	FY2016	none															
Risk	Mitigation																
I Low risk																	

COST: No cost implications.

SCOPE: This milestone was cancelled last quarter and was mistakenly carried over to this year POP. No contact for the event can be located, Career and HR were not involved, and there are no notes in the EPO files to indicate when the event is or who coordinates it. No one from Dominion Virginia Electric reached out to us.

SCHEDULE: Milestone cancelled.

RISK & MITIGATION: Low risk

POP MILESTONE # 11.7.1

Human Resources

Provide ongoing updates and develop/disseminate Workplace Violence Prevention Policy in coordination with ESS

Cost




Schedule

Scope

<table> <tr> <td>Labor Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Material Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> <tr> <td>Travel Actuals</td> <td>Expected</td> </tr> <tr> <td>\$</td> <td>\$</td> </tr> </table>	Labor Actuals	Expected	\$	\$	Material Actuals	Expected	\$	\$	Travel Actuals	Expected	\$	\$	<p>SCOPE:</p> <p>No change.</p>					
Labor Actuals	Expected																	
\$	\$																	
Material Actuals	Expected																	
\$	\$																	
Travel Actuals	Expected																	
\$	\$																	
<p>SCHEDULE:</p> <table> <tr> <th>Milestone</th> <th>Schedule</th> <th>Target</th> </tr> <tr> <td>1 Develop/ Disseminate Workplace Violence Prevention Policy</td> <td>12/31/2016</td> <td>3/31/2017</td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> </table>	Milestone	Schedule	Target	1 Develop/ Disseminate Workplace Violence Prevention Policy	12/31/2016	3/31/2017	2			<p>RISK & MITIGATION:</p> <table> <tr> <th>Risk</th> <th>Mitigation</th> </tr> <tr> <td>1 None</td> <td></td> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>3</td> <td></td> </tr> </table>	Risk	Mitigation	1 None		2		3	
Milestone	Schedule	Target																
1 Develop/ Disseminate Workplace Violence Prevention Policy	12/31/2016	3/31/2017																
2																		
Risk	Mitigation																	
1 None																		
2																		
3																		

8

QSUI FY2017

Develop/Disseminate Workplace Violence Prevention Policy in coordination with ESS. Sent to legal counsel for review; to ADs in February. Milestone slipped due to competing priorities.

COST: No change

SCOPE: No change

SCHEDULE: Milestone should be completed in Q2.

RISK & MITIGATION: Low risk

POP MILESTONE # 11.7.13

Human Resources

Applicant Tracking System

Cost




Schedule

Scope

COST:			SCOPE:	
Labor Actuals	Expected		No change	
\$	\$			
Material Actuals	Expected			
\$	\$			
Travel Actuals	Expected			
\$	\$			
SCHEDULE:			RISK & MITIGATION:	
Milestone	Schedule	Target	Risk	Mitigation
1 Applicant Tracking System	12/31/2016	3/31/2017	1 Low risk	1 Continue E-Recruit
2			2	
3			3	

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QSU1 FY2017

Halogen will no longer support the E-Recruit module within the current Halogen system. Halogen purchased a new applicant tracking system - Jobvite. The bid process and contract have been finalized. There are issues with Halogen and NRAO's single sign on interface that has stalled the full implementation. We will continue to use the current E-Recruit module. There has been no disruption in service during this transition. HR is working closely with Halogen's IT Support staff and NRAO IT staff to resolve this implementation.

COST: No change

SCOPE: No change

SCHEDULE: New Applicant Tracking System should be fully implemented by Q2.

RISK & MITIGATION: Low risk. We will continue to utilize current E-Recruit system.

POP MILESTONE # 13.7.3

Administration

Purchase equipment and coordinate installation with CIS



COST:			SCOPE:	
Labor Actuals	Expected		No change. MIS equipment purchase for JDE upgrade from version 9.0 to 9.2.	
\$	\$			
Material Actuals	Expected			
\$	\$			
Travel Actuals	Expected			
\$	\$			
SCHEDULE:			RISK & MITIGATION:	
Milestone	Schedule	Target	Risk	Mitigation
1 Order and Install Equipment	12/31/2016	03/31/2017	1	
2			2	
3			3	

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QSUI FY2017



COST: N/A

SCOPE: N/A

SCHEDULE: The equipment order for JDE Upgrade 9.2 was delayed due to MIS Manager efforts in Q1 for electronic open enrollment and report writing for the new Chart of Accounts. AUI Fiscal has an acting CFO and acting Controller and is behind on reviewing and approving the reports prepared.

RISK & MITIGATION: These items do not have long lead order times, and should be in place for the software load in Q3.

POP MILESTONE # 15.1.8

Director's Office

All-Hands Presentations



COST:			SCOPE:	
Labor Actuals	Expected		No change	
\$	\$			
Material Actuals	Expected			
\$	\$			
Travel Actuals	Expected			
\$	\$			
SCHEDULE:			RISK & MITIGATION:	
Milestone	Schedule	Target	Risk	Mitigation
1 All-Hands Presentations	12/31/2016	03/16/2017	1	
2			2	
3			3	

COST: N/A

SCOPE: N/A

SCHEDULE: The Charlottesville All-hands presentation is scheduled for January 26, and the Socorro/VLA/VLBA is scheduled for March 16.

RISK & MITIGATION: N/A



Overall Comments

- Benefits @37% vs. 36% budget. Favorable result for this time of year.
- Does not include carryforward from CSA-1 and CSA-2 (Q2).

CSA-V

	FY17 POP Budget	FY17 Rev. Budget	FY17 YTD Expenses	YTD % Rev Budget
NSF	32,000	32,000	8,000	25.0%
Other	0	0	50	0.0%
Total CSA-V Revenues	32,000	32,000	8,050	25.2%
Telescope Ops	10,672	10,672	2,027	19.0%
Development	3,276	3,276	693	21.2%
Science Ops	6,026	6,026	1,055	17.5%
Admin Services	9,179	9,179	1,711	18.6%
Director's Office	1,987	1,987	365	18.4%
Education & Public Outreach	644	644	84	13.0%
FY17, Total	31,784	31,784	5,935	18.7%
FY17 CSA-V Net	216	216	2,115	

- VLA Infrastructure project on track.
- Tight budgets in NM Ops and CDL due to unrealized external funding. Monitoring closely.

CSA-A

	FY17 POP Budget	FY17 Rev. Budget	FY17 YTD Expenses	YTD % Rev Budget
NSF	43,250	42,227	10,813	25.61%
Carryforward	12,385	12,385	12,385	100.00%
Canadian Contribution	1,528	1,528	-	0.00%
Other	345	668	-	0.00%
Total CSA-A Revenues	57,508	56,808	23,198	0.00%
Telescope Ops	22,431	25,856	4,985	18.60%
Development	5,313	12,406	287	2.30%
Science Ops	7,756	8,401	1,307	15.60%
Admin Services	6,819	7,045	1,701	24.10%
Director's Office	2,406	2,406	622	25.90%
Education & Public Outreach	694	694	118	17.00%
FY17, Total	45,419	56,808	9,020	15.60%
FY17 CSA-A Net	12,089	0	14,178	

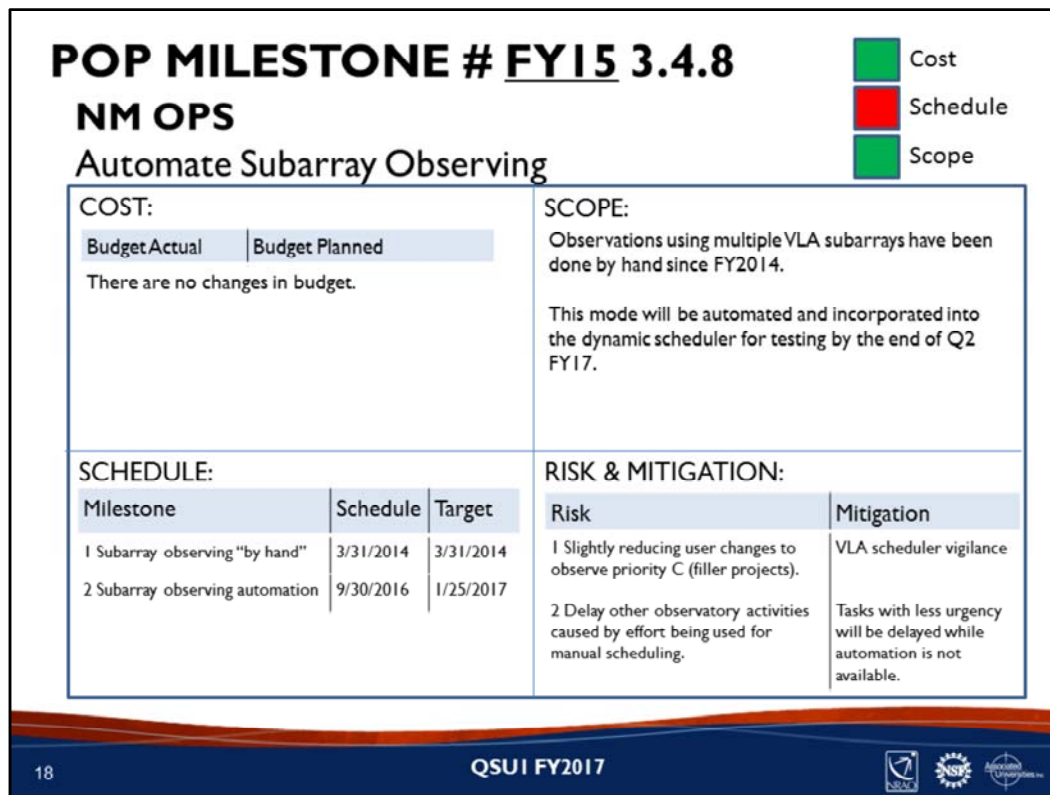
- Includes Q1 NSF funding adjustments (less \$700K for JAO and reclass of \$323K to ASIAA line).
- Multicancha funding/budget will show in Q2.

ICC

	FY17 POP Budget	FY17 Rev. Budget	FY17 YTD Expenses	YTD % Rev Budget
NRAO Recoveries	11,931	11,931	2,678	22.4%
External Recoveries	4,501	4,501	945	21.0%
Total ICC Revenues	16,432	16,432	3,623	22.0%
Telescope Ops	103	103	35	34.0%
Development	442	442	86	19.5%
Science Ops	1,850	1,850	406	21.9%
Admin Services	11,897	11,897	2,324	19.5%
Director's Office	2,140	2,140	459	21.4%
FY17, Total	16,432	16,432	3,310	20.1%
FY17 ICC Net	0	0	314	

- Over-recovered by \$314K.
- Timing of salaries, rents.
- Monitoring in case NICRA adjustment needed.





COST: No changes in budget

SCOPE: The VLA can be split up into subarrays. That is, some of the 27 antennas and corresponding baselines can be ordered to do a completely different and independent program than other antennas. Currently, projects requiring multiple subarrays must be handled manually. The goal of this milestone is to enable subarrays to go through the dynamic scheduler.

SCHEDULE: Work on automating subarrays has been slower than planned, mostly because of staffing issues in DMS. However, we now have a tested system which is ready to be put in place. The plan is to push the test software to production on January 25, 2017. The full integration of automated, dynamically scheduled subarray observations is carried as an FY17Q2 milestone (3.5.54).

RISK & MITIGATION:

1. The risk to users of not having subarray observing automated is a slightly reduced chance of observing for priority C (filler) subarray projects. Mitigation is increased VLA scheduler vigilance, to avoid this happening.
2. The impact on the observatory is that effort is used for manual scheduling that could be used on more important (but less urgent) tasks. While we don't have automation we will continue giving priority to manual scheduling.

POP MILESTONE # FY15 3.4.62

NM OPS/ADMIN

Renew VLBA lease for SC and OV

Cost

Schedule

Scope

COST:

Labor Actuals	Expected
No changes	
Material Actuals	Expected
\$42,581 /year	\$2,750 / year
Travel Actuals	Expected
No changes	

SCOPE:

St. Croix, VI site land use lease has been renewed.

Owens Valley, CA site is not renewed yet. NRAO is awaiting lease negotiation outcome by Caltech (we sublease from Caltech).

SCHEDULE:




Milestone	Schedule	Target
1 St. Croix Lease renewed	12/31/14	12/31/14
2 Owens Valley Lease renewed	03/31/15	Unknown

RISK & MITIGATION:

Risk	Mitigation
1 Impact on VLBA operating budget (increase in lease cost)	Adjust VLBA Operating budget, if necessary.
2 Impact on VLBA operations	Avoid by periodic follow up of Caltech negotiation progress.

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QSUI FY2017

COST: St Croix Lease: The lease was signed by all parties, and the increase in the lease cost was reported in previous QSU's. Owens Valley Lease: To date, the cost to NRAO for sub-leasing the OV site has been \$0/year. Future lease costs are subject to the status of Caltech's re-negotiation of the lease with Los Angeles Water and Power.

SCOPE: No changes.

SCHEDULE: Owens Valley Lease: The master lease for the Owens Valley Radio Observatory is an agreement between Caltech and Los Angeles Water and Power (the lease holder). The master lease has been expired for some time, and renegotiating it does not appear to be a priority for LA W&P. NRAO has a sublease agreement for VLBA-OV with Caltech. We will continue to monitor the situation with the master lease, and propose a new milestone for the sublease at the appropriate time.

RISK & MITIGATION:

1. Caltech has leased Owens Valley, CA, for a low yearly fee. The probability of a cost increase is low, but a budget adjustment would be needed if a cost increase occurs.
2. Impacts on other aspects of VLBA Operations are not likely to occur.
3. An interim agreement between Caltech and NRAO regarding the sublease during this interim period has been discussed.

POP MILESTONE # FY16 3.4.17

NM OPS

Replace five antenna pad intersections



COST:			SCOPE:	
Labor Actuals	Expected		The legacy wooden antenna pad intersections are aging and becoming unreliable. The 73 total intersections are to be replaced with a stronger concrete design at a rate of five per year.	
\$0	\$0			
Material Actuals	Expected			
\$16K	\$16K			
Travel Actuals	Expected			
\$0	\$0			
SCHEDULE:			RISK & MITIGATION:	
Milestone	Schedule	Target	Risk	Mitigation
1 Replace five intersections in FY16	9/30/2016 resched to 12/31/2016	Complete in Q1	1 If a key intersection is not replaced, this could lead to a delay in an array reconfiguration.	1 Prioritize the intersection replacements so that the worst ones are repaired first and that intersection replacements do not interfere with array reconfigurations.

COST: No cost implications

SCOPE: Explained on the slide. No change in scope

SCHEDULE: Milestone completed in December 2016 as forecast in FY16 QSUI report.

RISK & MITIGATION: N/A

POP MILESTONE # FY16 3.4.31

NM OPS

Continuous Slew Tipping Scans

Cost

Schedule

Scope

COST:		SCOPE:	
Budget Actual	Budget Planned	<p>For those VLA observations where an estimate of atmospheric opacity is needed a tipping scan can be used to derive this quantity. VVe have implemented old-style "stepped" tipping scans, but they are inefficient, taking longer than needed. "Continuous slew" tipping scans are much faster and so preferred. Scope has been reduced to take out the post-processing part of this milestone.</p>	
There are no changes in budget.			
SCHEDULE:		RISK & MITIGATION:	
Milestone	Schedule	Target	
1 Low-level System implementation	03/31/2016	03/31/2016	1 Users do not have an accurate estimate of opacity.
2 OPT implementation	03/31/2016	01/25/2017	2 Users spend more time on TIP scans than necessary, because they must use the old stepped TIPs.
			1 Use the default seasonal and weather determined opacity. 2 Allow for that extra time in the overheads we recommend.

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QSUI FY2017

COST: No changes.

SCOPE for implementation of "continuous slew" TIP scans on the VLA: This task involves implementation at a low level in the support software, done by scientists in the Science Support Group, and then implementation in both the OPT and model2script by programmers in the DMS department. The implementation is followed by testing and pushing to production. In the original plan, which this POP milestone captured, post-processing software was to be in place (in CASA) for users to analyze the TIP data to derive atmospheric opacity. The scope was more accurately (re)defined in the FY17 POP by splitting the activity between an NM Ops milestone to define data analysis heuristics (FY17Q2 POP milestone 3.5.8) and a DMS milestone to implement TIP scans in the OPT (FY17Q1 POP milestone 6.4.19).

SCHEDULE: Stepped tips are already supported in the OPT, and while continuous slew tips are properly supported in the low-level online software, it is not yet possible to set them up in the production OPT. Requirements were written for the necessary changes, and those changes have been made in the OPT and model2script. The changes have not been tested yet, but the plan is to have them tested and pushed to production by January 25, 2017.

RISK & MITIGATION: In the absence of the ability to use tipping scans, users will continue to use the correlations between weather data and opacities derived some years ago for the old VLA, with the associated increase in the uncertainty in the absolute flux density scale. The mitigation of this problem is for users to ensure they observe their flux density calibrator at a similar elevation as their source. Advice for observers is incorporated in the calibration section of the online "Guide to Observing with the VLA."

POP MILESTONE # FY16 14.1.3

Communications

Publish 2015 NRAO Annual Report



COST:

Labor Actuals	Expected
\$	\$
Material Actuals	Expected
\$	\$
Travel Actuals	Expected
\$	\$

SCOPE:

No change

SCHEDULE:

Milestone	Schedule	Target
I Annual Report	9/30/16	3/31/2017

RISK & MITIGATION:

Risk	Mitigation

COST: No change

SCOPE: No change

SCHEDULE: Unanticipated tasks delayed completion of the 2015 Annual Report. The report should be completed by the end of March.

RISK & MITIGATION: N/A



Education and Public Outreach VLA Visitor Center

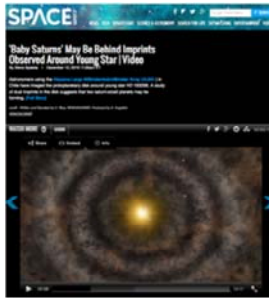


- Total visitors: 5412
 - First Saturday tours: 825
 - October Open House attendance: 528
 - 17 guided tours
 - 15 NRAO staff volunteers
 - Evening star party at NM Tech with 38 in attendance
- School tours
 - 120 students and chaperones from NM schools
- Science tours
 - 53 total attendance in 2 tours
- Special events
 - NM Science Teachers tour: 21 participants
 - Enchanted Skies Star party
 - 59 attended tours, 130 total attended
 - Festival of the Cranes: 71 in attendance for 3 tours, 101 attended night photography classes

Education and Public Outreach

Press

- Eight press releases, four announcements, no tip sheets
- 450 media stories in outlets that include a subscription audience of:
 - 590 million international
 - 420 million US
- A new strategy is being employed to include a video with each press release. Early results show some popular press outlets run only the video. These videos are also integrated into the Milky Way Explorer and announced through social media.



Education and Public Outreach

Social Media

- Twitter followers:
 - NRAO: 10,136
 - ALMA news: 4,836
- Facebook followers: 59,125
- Web hits
 - Total Hits: 112,883
 - Average number of pages viewed per session: 2.1
 - Average time spent on the site: 01:37
 - Bounce rate: 71.9%



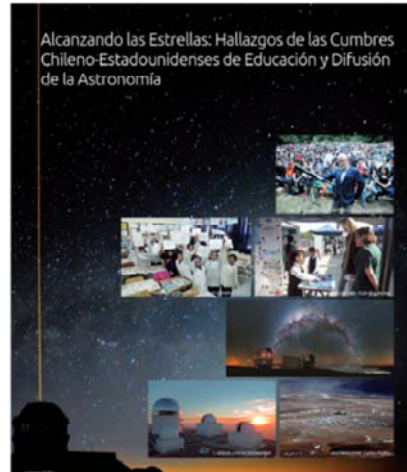
Most visited pages:

1. Visit VLA
2. Homepage
3. What are Radio Telescopes?

Education and Public Outreach

Additional Activities in Chile

- **Sister Cities:** in November-December the high schools in San Pedro de Atacama and Magdalena held two activities,
 - Debriefing the August-September exchange experience
 - Sharing visions of the cosmos in the two communities (influenced by Likan Antai and Navajo cultures respectively)
- November 29th launch of the document “Reaching for the Stars: Findings of the Chile-US Astronomy Education Outreach Summits”
- Three issues of the monthly newsletter went out in Q1 2017 (approx. 500 recipients)



Education and Public Outreach

Additional Multimedia Activities

- In support of the ngVLA science case
 - Created first of four multimedia products to accompany <https://vimeo.com/199064947>
 - Developed lenticular trading card
- ALMA Explorer videos have been translated into Spanish
- 2016 Jansky Lecture promoted, recorded and added to website
- Installed ALMA webcam feed on NRAO website
<https://public.nrao.edu/telescopes/alma/alma-webcam>



Live from ALMA: Interactive Webcam

A live webcam has been placed near the center of the Atacama Large Millimeter/submillimeter Array (ALMA) at the Array Operations Site, 16,500 feet above sea level, on the Chajnantor Plateau.



This is a current, interactive 360 degree image from the ALMA webcam. Click and drag on the image, or use the controls at bottom, to view the scene in 360 degrees.

Education and Public Outreach

And more...

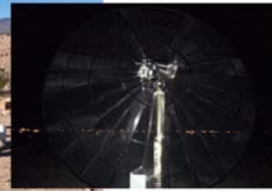
- Successfully updated <https://public.nrao.edu> to reflect the independent status of LBO and GBO with no loss of service.
 - Telescope Menu refers to them as Affiliated Telescopes
 - *In light of NRAO's new cooperative agreement, this page is being hosted here temporarily until it migrates to greenbankobservatory.org. [More information...](#)*
- New EPO AD and OCA AD and staff attended October 25-26 External EPO Advisory Council Review. Waiting for final report.
- Nov. 30: Dave Finley was guest speaker at NM Tech's Technical Communication 101 class.



Education and Public Outreach

3rd Dish Etscorn Interferometer

- The POP milestone of installing a 3rd dish was met in September, 2016.
- Dec 19, 2016 a big wind damaged it, plus one of the refurbished dishes. Loose pieces have been secured in a separate location for safety reasons. Options are being explored for repairing or replacing.





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