

Subject: [allemploy] 2005 Sept 12 - BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO
From: Al Wootten <awootten@nrao.edu>
Date: 9/19/2005, 2:52 PM
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BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO
Sept 12, 2005 - Sept 25, 2005

***** THIS FORTNIGHT*****

We were greatly saddened to learn of the death of Roberto Rivera in an automobile accident near San Pedro on September 1. Roberto came to ALMA in 2001 and had worked with the site characterization team, along with many colleagues investigating the Chajnantor site, impressing many of us and our colleagues with his drive, his talent and dedication and his conviviality. We will all miss him dearly and send our heartfelt condolences to his family and friends.

The ALMA budget was rebaselined and materials sent to the ALMA Board by the JAO on schedule on 2005 September 8. The ALMA Board and its committees now enter an intense period of review of the materials. The rebaselined budget will be the subject of a cost review 13-16 October to be held in Garmisch, Germany before a panel of twenty external reviewers chaired by Steve Beckwith and Thijs de Graauw.

The ESO Committee of Council has called for an extraordinary meeting of the full Council 29-30 September to consider the rebaselined budget.

For a variety of personal and professional reasons, David Silva has decided to leave ESO and join the Thirty Meter Telescope (TMT) project in Pasadena. Dave did an exemplary job with his work on the ALMA Operations Plan.

Over one hundred participants celebrated the contributions Jack Welch has made to radio astronomy at a meeting: REVEALING THE MOLECULAR UNIVERSE -- ONE TELESCOPE IS NEVER ENOUGH held 9-10 Sept 2005, Berkeley, Ca. Jack has made many contributions to ALMA also. and, we expect, has many more to make with more time to ponder them.

At the meeting, Paul Ho announced that ASIAA has entered the ALMA project through the signing of an agreement with ALMA-Japan. Welcome to Taiwan, the sixteenth nation represented in ALMA.

Past issues of this Calendar may be viewed at
<http://www.cv.nrao.edu/~awootten/mmailcal/ALMACalendars.html>

See also the JAO ALMA Calendar overview at:

http://www.alma.cl/alma_project

General Happenings

Santiago: Wootten arrives for his turno duty as JAO Project Scientist the last week of September. The ASAC will meet 1-2 October in Santiago.

OSF: OSF Bid analysis is under way. Contracting of the Work is scheduled to be in December 2005. Rough Work on final road is in progress at km 37. Currently there are approximately 82 persons working at the site

AOS: Construction on foundation and shell imminent. Completion of drawings for finish work progressing. Bidding package assembled at end of September. Security services began 2005-Sep-1.

ATF: Rewire of Alcatel ATF antenna racks delayed.

AOC: Delivery of updated power supplies, IFPs, and LO Reference and Timing modules for P-SI (Prototype-System Integration) scheduled for September. Delivery of LLC modules also scheduled for September. Delivery of prototype cable wraps scheduled for October.

IF Testing continued; broadband noise, 4-12 GHz, generated in the pseudo-FrontEnd was used to derive digitizer statistics in the formatter card; two digitizers will be shipped to UoB for upgrade Sept 7. 3. Holography system being shipped back to Charlottesville for refurbishment.

NTC: Testing of cryostat #3 has been completed at RAL (UK).

Band 3 (3mm) cartridge (@HIA): The prototype cartridge is awaiting one more LNA before further RF testing. Cartridge #2 is assembled and optical alignment is being measured.

Band 6 (1mm) cartridge: Ongoing tests of cartridge #2 show that we are meeting the gain stability specification at one LO setting. Cartridge #3 assembly is complete and it awaits testing.

Band 7 (.8 mm) cartridge (@IRAM): Testing of cartridge #1 continued. LO noise tests are ongoing.

Band 9 (.65 mm) cartridge (@SRON): Various parts have been contracted out for the pre-production run.

Water Vapour Radiometer (WVR): Interface details for mounting the prototype WVRs on the SMA are being sorted out.

Testing of the comprehensive test software for the Tunable Filter Bankd (TFB) card installed in the correlator continued. Initial spectra produced from digital test signal generators look reasonable and are being evaluated. Except for TFB cards, the hardware installed in the first quadrant is 98.5% complete.

Green Bank: NRAO Green Bank have agreed to build the DC Bias modules, and a kick-off meeting has been scheduled.

NAASC: The Computing IPT subsystem leaders and Science Software Requirements team will be meeting in CV 16-21 Nov.

With J. Mangum as Chair, the amplitude calibration review was held in Grenoble, with the result that a dual-temperature load is recommended, and detailed design work will begin shortly.

Antenna Meetings in Kilgore and Mexia, Texas.

DAILY CALENDAR (Times EDT) see

<https://wikio.nrao.edu/bin/view/ALMA/AlmaCalendar>

Mon Sep 12

11:00 AM-12:00 PM: ASAC telecon

Tue Sep 13

10:30 AM-11:30 PM: JAO/IPT telecon

1:00 PM-2:00 PM: ANASAC telecon

2:00 PM-3:00 PM: NA ALMA Board telecaucus

4:00 PM-5:00 PM: NAScienceIPT teleconference (open to all interested parties) (434)296-7082

Wed Sep 14

10:00 AM-11:00 AM: Extraordinary ASAC telecon

11:00 AM-12:00 PM: SSR telecon

11:30 AM-12:30 PM: Change Control Board

3:00 PM-4:00 PM: NRAO Algorithms Working Group Meeting - Pipelines

Thu Sep 15

11:00 AM-2:00 PM: ALMA Board telecon

2:30 PM-3:30 PM: NAASC Telecon

Fri Sep 16

Sat Sep 17

Sun Sep 18

Mon Sep 19

Tue Sep 20

10:30 AM-11:30 PM: JAO/IPT telecon

Wed Sep 21
10:30 AM-11:30 PM: ScienceIPT teleconference
Thu Sep 22
Fri Sep 23
Sun Sep 24
Sat Sep 25

***** UPCOMING EVENTS *****

ALMA Calendar--<https://wikio.nrao.edu/bin/view/ALMA/AlmaCalendar>

- * Sep 14 -- ESAC Meeting, Garching
- * Sep 15 -- European ALMA Board, Garching
- * Sep 16 -- ESO Committee of Council, Brussels
- * Sep 29-30 -- ESO Council (Extraordinary Meeting)
- * Oct 1-2 -- ASAC Meeting, Santiago
- * Oct 5 -- ESO Finance Committee (Extraordinary Meeting)
- * Oct 6 -- Rolling Stones come to Scott Stadium, Charlottesville
- * Oct 13-16 -- ALMA Cost Review, Munich
- * Nov 1-2 -- ALMA Board, Santiago
- * Nov 8-9 -- ACA 12m Mfg Readiness Review Osaka
- * Nov 8-9 -- ESO Finance Committee
- * Nov 10-11 -- ACA System Review, Tokyo
- * Nov 20-21 -- SSR meeting, Charlottesville
- * Nov 30 - Dec 1 -- U. S. National Science Board meeting
- * Dec 7-8 -- ESO Council Regular Meeting
- * Jan 4-7 -- URSI/NA, Boulder Several sessions of ALMA interest
<http://cires.colorado.edu/ursi/>
- * Jan 12-14 -- ALMA Zmachines workshop <http://zmachines.net>

***** TECHNICAL NEWS *****

ALMA Memo No. 535 Simulation Series of a Phase Calibration Scheme with Water Vapor Radiometers for the Atacama Compact Array
by Yoshiharu Asaki (ISAS) Masao Saito (NAOJ), Ryohei Kawabe (NAOJ), Koh-ichiro Morita (NAOJ), Youichi Tamura (Univ. of Tokyo/NAOJ), and Baltasar Vila-Vilaro (NAOJ)

Abbreviated Abstract:

We have carried out a series of simulations of a phase calibration scheme for the Atacama Compact Array (ACA) using water vapor radiometers (WVRs). In the proposed scheme the WVRs devoted to measurements of tropospheric water vapor content are attached to the 12-m antennas. The excess path length (EPL) due to the tropospheric water vapor variations aloft is fitted to a simple two-dimensional slope using WVR measurements... Interferometric phase fluctuations for each baseline due to the turbulent water vapor are obtained from differences of inferred line-of-sight EPL and subtracted from the interferometric phases for the correction. >From the simulations we found that, for WVRs with no measurement errors, the proposed calibration scheme shows an excellent performance for all tropospheric conditions... When WVR measurement errors are added, although the RMS phases are still improved in unstable tropospheric conditions (50-percentile conditions), the proposed calibration scheme may not be needed in good conditions (25-percentile conditions). We found that, if the performance of the WVR achieves the expected level (a factor of about three better than the current ALMA WVR specification), the proposed scheme is quite promising for the ACA....

A pdf copy of this memo is on [edm.alma.cl](http://www.alma.nrao.edu/memos/html-memos/alma535/memo535.pdf) and will eventually appear at:
<http://www.alma.nrao.edu/memos/html-memos/alma535/memo535.pdf>

ALMA Memo No. 535: WR-10 Waveguide Vacuum Feedthrough for the ALMA Band-6 Cartridge.
Authors: G. A. Ediss, N. Horner, F. Johnson, D. Koller, A. R. Kerr (NRAO)

Abstract:

This report describes the WR-10 waveguide vacuum feedthrough used in

the local oscillator train of the ALMA Band 6 receivers. The vacuum window is a short section of epoxy-filled waveguide. A second identical window spaced $\lambda/4$ from the first matches the feedthrough over the desired band (73.7-88.3 GHz). The electrical characteristics and leak rates of the epoxy-filled windows are compared with those of the simpler but less satisfactory Mylar window.

A pdf copy of this memo is on edm.alma.cl and will eventually appear at:

<http://www.alma.nrao.edu/memos/html-memos/alma536/memo536.pdf>

*****ALSO OF INTEREST*****

A second call for APEX science Verification proposals was issued by ESO for ESO users.

-----ALMA Postdocs-----

2006 Postdoc Position at the North American ALMA Science Center/ALMA Construction

The National Radio Astronomy Observatory expects to invite applications for a NRAO Postdoctoral appointment at the North American ALMA Science Center in Charlottesville, Va. These positions provide 50% time for independent research, with the remaining 50% assigned to project and operational duties at the sites.

The position is funded by a grant from the National Science Foundation through the ALMA Construction Project.

2005 Postdoc Position in the ALMA-Japan Project Office, NAOJ

Applications are invited for a Post-doctoral position in radio astronomy at the ALMA-J Project Office of NAOJ (National Astronomical Observatory of Japan) in Tokyo, Japan. The fellowship will last for two and half years (Oct. 1, 2005 to Mar. 31, 2008). The fellowship will be renewed at the beginning of each Japanese fiscal year after evaluation of candidate performance.

2006 ALMA Postdoc Positions at ESO

For the first time this year, four dedicated ALMA/ESO fellowships will be offered (two in Garching and two in Santiago) in addition to the several regular fellowships offered at both places. Please see:

<http://eso.org/gen-fac/adm/pers/vacant/fellows2005-6.html>

Please send information for upcoming calendars by Friday evening of the preceding biweekly period to Jennifer Neighbours or Al Wootten via e-mail (jneighbo@nrao.edu or awootten@nrao.edu).

The calendar will be issued between late Friday and sometime on Monday by e-mail to all NRAO scientific staff members and anyone else interested. A specific mailing list, alma-info, has been created for anyone wishing to receive it.

Past issues are available at

<http://www.cv.nrao.edu/~awootten/mmailcal/ALMACalendars.html>

Allemploy mailing list

Allemploy@listmgr.cv.nrao.edu

<http://listmgr.cv.nrao.edu/mailman/listinfo/allemplay>