

**Subject:** [allemploy] FYI: 18 Nov-2 Dec 2008 BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO  
**From:** Al Wootten <awootten@nrao.edu>  
**Date:** 12/15/2008, 4:43 PM  
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BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO  
18 November 2008 - 2 December 2008

\*\*\*\*\* THIS FORTNIGHT\*\*\*\*\*

NRAO has announced a formal agreement enabling Taiwanese astronomers to participate in the North American component of the international ALMA partnership, alongside American and Canadian astronomers. Taiwan's efforts will be led by the Academia Sinica Institute of Astronomy and Astrophysics (ASIAA). - John Stoke, NRAO

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Past issues of this Calendar may be viewed at

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

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General Happenings

Photos of activity may be found at NRAO eNews:

<http://www.nrao.edu/news/newsletters/>

or at <http://www.almaobservatory.org/>

Sky: Jupiter is low in the West, Venus shining brightly above it. Over on the other side of the sky, the constellation Orion shines after sunset. Its most striking feature is the three stars of the hunter's belt, nearly vertical as they rise. A little higher up are the Pleiades, a fuzzy cluster usually resolved into six brighter stars by sharp-eyed observers. the nearly full moon crosses the Pleiades late on 10 Dec for North American skywatchers.

SCO (Santiago Central Office): A meeting with the architect for the new building was held and modifications to the design were discussed. A computing review was held in Santiago.

AOS (Array Ops Site, 16570ft altitude): Twenty eight foundations have received concrete now. Rock anchor drilling has begun for foundations in the area of the ACA. Provisional acceptance Site (PAS) was successful on 3 Nov. APEX reports low levels of precipitable water measured during most nights.

OSF (Ops Support Facility, 9600ft altitude): Elements of the eighth Vertex antenna arrived at the site on 27 November. On 20 November, the assembled Vertex antenna No 4 was moved to a parking pad (No 5) above the OSF Technical Facilities. Pad N°7 in Vertex SEF has started construction. Acceptance for Melco antenna No 2 is scheduled for 17-18 December. That will be followed in Feb 2009 by acceptance for Vertex No 1, undergoing final pointing tests now. Construction of the AEM work area has progressed; inspection will occur 12 Dec. The first elements of the first AEM production antenna will leave Europe in December. Elements of the second Front End, an engineering model, will be delivered from the East Asian Front End Integration Center (EA FEIC) shortly. Various groups have begun activities in the OSF Technical Facility Building. Claudio Cabrera joined the ALMA project as head of the EU Site IPT; Jorg Eschwey continues as deputy for a period.

AOC: The new Back End storage building at the SOC in Socorro is primarily complete.

ATF: Useful software tests continue toward shutdown on Dec 20.

NTC (NRAO Technology Center): Holography system number two is readied for shipping to the OSF, along with ancillary parts. The NTC will outfit Front End No 2 from the EA FEIC and verify performance of elements, then ship to the OSF for reassembly into the Front End and Provisional Acceptance onSite (PAS) testing. Assembly of the third quadrant of the 64 antenna correlator continued.

NAASC: Several joint activities with U. Virginia were held. Brogan presented ALMA talks at U. Va., U. B. C., U. Victoria and U. Washington. F. Lovas visiting.

A calendar of NAASC events may be found at:

<http://www.cv.nrao.edu/naasc/calendar/calendar.php>

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DAILY CALENDAR (Times EDT/EST ) see

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

\*\*\*\*\* UPCOMING EVENTS \*\*\*\*\*

- Dec 9-11 ALMA Annual External Incremental Review OSF
- Dec 17-18 Acceptance procedures for Melco No. 2 antenna
- Dec 18 ALMA Board Telecon
- Jan 5-8 AAS Meeting, Long Beach, Ca and  
NA Radio Science Meeting, Boulder, Co

\*\*\*\*\* TECHNICAL NEWS \*\*\*\*\*

ALMA Memo 582 Simulating Atmospheric Phase Errors, Phase Correction and the Impact on ALMA Science

Authors: B. Nikolic, J. S. Richer, R. E. Hills

Abstract: We present a framework for modelling atmospheric phase errors and their correction by both the fast-switching and water vapour radiometric techniques. Notable features are simulating three dimensional turbulent volumes instead of flat phase screens, considering three representative configurations of ALMA and parametrisation in terms of phase fluctuations on a 300\,m baseline, allowing referencing to the site-testing interferometer data. We use this framework to simulate relative point source sensitivity and effective resolution for a range of atmospheric conditions, with and without phase correction. We also consider the effect of phase fluctuation on short 'snapshot' observations, where the variance and correlation of atmospheric phase fluctuations between the antennas becomes important.

View a pdf version of ALMA Memo #582 at:

<http://www.alma.nrao.edu/memos/html-memos/alma582/memo582.pdf>

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

Several ALMA positions are available at NRAO. Example:

The National Radio Astronomy Observatory invites applications for an ALMA Postdoctoral Fellow position with the Commissioning team in Chile. When completed in 2012, ALMA will be the most powerful (sub)millimeter interferometer ever constructed, and will transform our understanding of topics ranging from the formation of nearby protoplanetary disks to the earliest epochs of galaxy formation. This position is assigned to the ALMA project with operational duties in Chile. The position is funded by a grant from the National Science Foundation through the ALMA Construction Project and as an international staff position will exist during the construction period through 2011. There may be possibilities to transfer to the observatory science operations team during or after construction.

Details for all positions may be viewed at:

<http://members.aas.org/JobReg/JobDetailPage.cfm?JobID=25062>

or

[http://www.nrao.edu/administration/personnel\\_office/careers.shtml#CV4917\\_ALMA\\_POSTDOC](http://www.nrao.edu/administration/personnel_office/careers.shtml#CV4917_ALMA_POSTDOC)

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There will be an NRAO Town Hall meeting at the 213th AAS meeting in Long Beach, Ca on the evening of 7th January. Please visit us at the NRAO booth.  
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The US National Radioscience Meeting (USNC/URSI) meets in Boulder on 5-8 Jan 2009. Among the Commission J topics is a session on ALMA Technology, Science and Status.

See: <http://www.astro.caltech.edu/USNC-URSI-J/> for abstracts of this and other sessions.

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

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Allemploy mailing list

[Allemploy@listmgr.cv.nrao.edu](mailto:Allemploy@listmgr.cv.nrao.edu)

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