

Subject: [allemploy] FYI: 25 Sept 2006 BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO
From: "Alwyn Wootten" <awootten@nrao.edu>
Date: 9/30/2006, 1:49 PM
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BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO
25 September 2006 - 9 October 2006

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

Two GBT instruments which have substantial synergies with ALMA were tested this week.

* First light was achieved on Saturn with the GBT at 3mm using the Penn Array Receiver, a 64-pixel continuum imaging system for the 3mm band. The project is a collaboration of the University of Pennsylvania, NASA-Goddard Space Flight Center and the NRAO.

* The 'z-machine' Zpectrometer was tested on the Ka band receiver with enouraging results. The project is a collaboration with the University of Maryland.

Past issues of this Calendar may be viewed at

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

See also the JAO ALMA Calendar overview at:

http://www.alma.cl/alma_project

General Happenings

Sky: With Venus and Mars lost in the solar glare, Jupiter fading in the southwest and Saturn rising in the east before and during dawn, the skies lack bright planets now.

Santiago: A decision was made for the permanent ALMA offices to be built on the ESO grounds.

AOS (Array Ops Site, 16570ft altitude): Completion of design and engineering of the changed AOS antenna station layout, interconnecting road system and power and Fiber Optic distribution, by M3 Engineering; interaction with M. Holdaway for extended configuration definition.

OSF (Ops Support Facility, 9600ft altitude): Holography tower and AIV building construction are under way. VVMO started excavation works at the OSF and has scheduled to complete those by mid-October. VxRSI Site Erection Facility construction contract signing planned for week of September 25. The ALMA contractors' camp capacity is exhausted. Currently there are approximately 166 persons working at the site of which approximately 140 uses the ALMA and Contractor's lodging facilities.

NAASC: Antenna: Invar cone completed precision machining; Yoke is completed including stress relief and will be transported for precision machining week of 25Sept; Support cone completed and in process of final machining. Nutator bidder selected.

Operations: A face-to-face meeting of the Operations Group was held in Arcetri. An ASAC face to face meeting was held in Florence. DRSP2.0 is in the final week before submissions close.

NTC: Sep 27 Provisional Acceptance In-house (PAI) of the first B6 (1.3mm) cartridge. A Band 6 cartridge was installed in Cryostat #2 for cold load calibration checks. The PAI of Band 9 (.45mm) Cartridge #1 will be held 2006-10-17/18 at SRON.

Paper on the 'ALMA Correlator' has been accepted for publication in Astronomy & Astrophysics (Section on Instruments). A kickoff meeting with ESO on Production Tunable Filter Bank (TFB) cards at Observatoire de

Bordeaux was held on 21th September.

SMA: The prototype WVRs will be removed from the SMA and shipped back to EU in Oct. 2006. Interface testing to the computing sub-system and some lab testing on the cold load will be performed there.

HIA: Provisional Acceptance In-house for the first delivered B3 (3mm) cartridge (serial #2) was held at HIA on Sep 21

AOC: As scheduled pre-production run of 100 AMBSI-1s are available. A modest effort to test ALMA's dynamic scheduler in simulation has started. Napier will chair the Vertex antenna P2DR; document and RID review is underway.

ATF: The currently proposed move date of ALMA prototype system from the AOC lab to the AEC antenna is now Oct 16 and the currently proposed move date for the proto-correlator and central LO is now Oct 23. The Alcatel prototype antenna cannot be moved to the maintenance stow position, zenith, until a replacement power supply for the ACU computer arrives. The power supply has been shipped. The holography system #1 was received at the ATF. The transmitter was then installed on the tower at the ATF; the receiver will be installed on the Vertex antenna shortly. Computing and AVI groups started initial verification and installation of the hardware and software. Preliminary holography testing at the ATF is scheduled for the week of Sep 25. Temporary antenna racks have been removed from the Vertex antenna in preparation for installation of prototype racks; prototype racks will be installed after holography tests have been completed.

DAILY CALENDAR (Times EDT) see <https://wikio.nrao.edu/bin/view/ALMA/AlmaCalendar>

Mon 25 Sep - Patriot's Day, US
Sheng-Yuan Liu, Taiwan Project Scientist, visiting NAASC
Tue 26 Sep
10:30 AM-11:30 AM: JAO IPT Telecon
Wed 27 Sep
All Day: Band 6 Provisional Acceptance In-House, NTC
All Day: VxRSI PPDR, Essen, Germany
Thu 28 Sep
All Day: VxRSI PPDR, Essen, Germany
Fri 29 Sep
All Day: ANASAC Meeting, Charlottesville
1:30 pm: Astrochemistry Seminar, U. Va.: Rick Suenram, Brooks Pate and Kevin Lehmann "Laboratory Spectroscopy at U. Va."
All Day: VxRSI PPDR, Essen, Germany
Sat 30 Sep - First quarter moon
All Day: ANASAC meeting, Charlottesville
Sun 1 Oct
Mon 2 Oct
Tue 3 Oct - Holiday Germany -- Day of German Unity
10:30 AM-11:30 AM: JAO IPT Telecon
Wed 4 Oct
Thu 5 Oct
Fri 6 Oct
Sat 7 Oct
Sun 8 Oct
Mon 9 Oct

All Day: WVR Workshop, Wettzell, Germany

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

Sept 27-29		Vertex RSI PPDRReview	Essen
Sept 29-30	all day	ANASAC face-to-face	CV
Oct 8 - 11	all day	WVR Workshop	Wettzell, Bavaria

Oct 16 Move of PSI to ATF
November 8-10 all day ALMA Board Meeting Madrid
Nov 13-17 all day Science with ALMA: a new era for Astrophysics Madrid
***** TECHNICAL NEWS *****

ALMA Memo #557: Thermal Deformation of Shaped Carbon Fiber-Aluminum Core Sandwiched Structures
by Jingquan Cheng Date:2006-09-14
Thermal deformations of T-shaped, L-shaped and channel shaped structures are discussed. The work shows that the deformation could become significant for precision instruments if the width of the top plate is more than 1 m. It also shows that using CFRP beams or tubes to connect the top and the bottom skins of the top sandwiched plate is not a helpful practice. The resultant deformation will be worse than that of the bottom surface of the top plate.

View a pdf version of ALMA Memo #557.
<http://www.alma.nrao.edu/memos/html-memos/alma557/memo557.pdf>

ALMA Memo #558: Thermal Deformation of Shaped Carbon Fiber-Aluminium Core Sandwiched Structures(II)
Jingquan Cheng 2006-08-14

Thermal deformation of T-shaped, L-shaped and channel shaped structures are discussed in the previous report. The work here shows that the computer analysis with smaller element size is consistent with the prediction. It also shows that over-constraint usually produces larger thermal deformation.

View a pdf version of ALMA Memo #558.
<http://www.alma.nrao.edu/memos/html-memos/alma558/memo558.pdf>

ALMA Memo #559: Thermal Deformation of Shaped Carbon Fiber-Aluminium Core Sandwiched Structures(III)
Jingquan Cheng 2006-09-14

Thermal deformation of an L-shaped structures is discussed in detail. Two different approximations have been made in estimating the angular change of the structure. The first order approximation formulae give upper and lower limits of the angular change, while the second order approximation gives a better estimate. The computer analysis also shows that the deformation is support condition dependent.

View a pdf version of ALMA Memo #559.
<http://www.alma.nrao.edu/memos/html-memos/alma559/memo559.pdf>
*****ALSO OF INTEREST*****

ALMA PROJECT SCIENTIST
The ALMA Project Scientist is responsible for ensuring that ALMA is constructed and commissioned in such a manner as to meet the scientific requirements of the ALMA Agreement. As a Key Staff Member of the JAO, the Project Scientist will contribute to decision making, overall policy development and strategic planning. The Project Scientist reports directly to the ALMA Director and interacts closely with the Project Manager and Project Engineer.

Please see:
http://www.nrao.edu/administration/personnel_office/careers.shtml#CL0005

CARMA (Combined Array for Research in Millimeter-wave Astronomy)
FIRST CALL FOR PROPOSALS
Deadline: 14 October 2006

Proposals for observations using CARMA at 3 mm in the C and D

configurations (beam sizes 1.8 and 4 arcseconds respectively) during the period 1 January to 30 June 2007 are due on 14 October 2006. CARMA is the merger of the Owens Valley Radio Observatory millimeter array and the Berkeley-Illinois-Maryland Association array, and comprises 15 antennas on a 2200m elevation site, Cedar Flat, in the Inyo Mountains of California.

CARMA is operated by the Universities of California (Berkeley), Illinois, and Maryland, and the California Institute of Technology, under a cooperative agreement with the University Radio Observatory program of the National Science Foundation. Approximately 30% of the observing time will be awarded to PIs outside the partner universities.

Proposals should be submitted using the electronic form at <http://carma.astro.uiuc.edu/proposals/> before 17:00 CDT 14 October, 2006. Detailed information, including sensitivities and proposal submission instructions, may be found at the CARMA website, <http://www.mmarray.org>. Questions may also be addressed to Dr. Douglas Bock (dbock@mmarray.org).

There will in the future be twice yearly calls for 1 and 3 mm in all antenna configurations.

Jansky Fellowship

The National Radio Astronomy Observatory (NRAO) announces the 2007 postdoctoral Jansky Fellowship program that provides outstanding opportunities for research in astronomy. The Jansky Fellows formulate and carry out investigations either independently or in collaboration with others within the wide framework of interests of the Observatory. Prior radio experience is not required and multi-wavelength projects leading to a synergy with NRAO instruments are encouraged. The NRAO also encourages applications from candidates with interest in radio astronomy instrumentation, computation, and theory.

Please see:

http://www.nrao.edu/administration/directors_office/jansky-postdocs.shtml

Research Associate position in Department of Physics University of Cambridge
Radiometric Phase Correction for ALMA
Closing date: 30 September 2006
Limit of tenure: 31 December 2010

The Astrophysics Group of the Department of Physics, University of Cambridge, invites applications for a postdoctoral research associate to work on radiometric phase correction techniques, algorithms and software development for ALMA, the Atacama Large Millimetre Array. The Group conducts a broad programme of astrophysics research involving instrumentation, observation, theory and modelling. This post is funded by the European Union Framework 6 programme and ESO to further the group's leading role in the development of phase correction techniques for ALMA. The work will involve analysis of existing test data from our 183GHz radiometers, development of novel algorithms for optimal phase correction, and implementation of these algorithms within the ALMA software system. In addition, the postholder may assist with the specification and commissioning of the ALMA meteorological instruments required to support the radiometer system.

The appointment will be on the Research Associate scale (currently £23,457 - £30,607 per annum) at a level determined by skills and experience. Expenses for travel associated with the project are

provided. The position is available immediately, and we hope the successful applicant will be able to start in the very near future.

Further information may be obtained from: Mrs Karen Scrivener, Astrophysics Group, Cavendish Laboratory, J J Thomson Avenue, Cambridge CB3 0HE, tel: (01223) 337294 (karen@mrao.cam.ac.uk). Informal enquiries may be made to Dr John Richer (jsr@mrao.cam.ac.uk). Applications should contain a full CV and list of publications, together with the names and contact details of two referees, a brief summary of research interests, and a completed copy of the PD18 Cover Sheet (parts I and III only), available from <http://www.admin.cam.ac.uk/offices/personnel/forms/pd18/>

The University is committed to equality of opportunity.

Asian Radio Astronomy Winter School January 22-26, 2007
National Astronomical Observatory of Japan (NAOJ), Mitaka, Tokyo, Japan
Registration is open for the Asian Radio Astronomy Winter School.
Please visit the on-line registration page on our web site
(<http://vsop.mtk.nao.ac.jp/RAWS2007/>), and fill out all items in the registration form. The deadline for registration ***with financial support*** is October 6, 2006.

The final deadline for registration is November 3, 2006.

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/mmaimcal/ALMCalendars.html>

Allemploy mailing list

Allemploy@listmgr.cv.nrao.edu

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