Interim Director, Paul A. van den Bout
ALMA is a world array
What’s where in ALMA

The array is on a 16,500 ft elevation site, on the Array Operations Site (AOS).
How can I find the ALMA Site?
Most staff are to work at the operations support facility ("OSF") at an elevation of ~9000 ft, on a new road connecting the high site with the San Pedro/Tocanao highway. Astronomers will not normally visit the OSF.

The OSF is about a 45 minute drive from metropolitan San Pedro.
Joint ALMA Observatory

The Joint ALMA Observatory (JAO) headquarters will be in Santiago.

The JAO headquarters is currently in rented space in a new office tower in central Los Condes.

Staff will live in Santiago and work at the OSF on the “turno system”.
The JAO will have user interfaces known as “ARCs” in each of the three partner regions: North America, Europe, & Japan.

The ARC archives are mirror archives of the central archive in Santiago; they all contain the same data, all the data.
Proposals/Observing Files are sent from ARC sites to JAO
Data Flow: array to user
Data Flow is LARGE

During full operation, the estimated flow into archive \( \sim 100 \) Tbytes per year. \((Total\ flow\ to\ date\ into\ the\ HST\ archive\ is\ 20\ Tbytes)\).

Small dataset might be \( \sim 50 \) Gbytes; a large dataset might be \( \sim 1 \) Tbyte.

Dataset includes proposal, u-v data, a reference image with pipeline processing history, calibration data, . . .
Beyond the ARC

Chile Operations & Other ARC

NA ARC

NAASC

Joint ALMA Observatory Budget
NA ARC

Head & Admin. Asst.;
Astronomers – proposal functions;
Astronomers – archive functions;
Engineer/tech – hardware repair;
Programmers – software maint.;
$5,000,000 – development;
M&S, travel, capital; overhead.
NAASC Beyond the NA ARC

Data analysis grants program;
ALMA Fellows;
Pre- doctoral & co- op students;
Astronomers – archive functions;
EPO program;
Systems Admin.;
Business & library services;
Office of Chile Affairs.
European ARC ++

Narrowly defined core functions will be done at ESO – Garching.

Much, especially “hand-holding”, will be outsourced by ESO to national facilities, for example, Jodrell Bank, Dwingeloo, IRAM, Onsala, . . . ., to be paid for by national budgets.
The Japanese ARC will almost certainly be part of the National Astronomical Observatory of Japan and located in Mitaka on the NAOJ grounds.
Canada

Contributing 7% of North American share of the JAO budget;
This includes 7% of the NA ARC, but no contribution to NAASc beyond the ARC;
Could choose to contribute, in part, with personnel, to Chile and to the NA ARC.
Could reasonably expect to get 7% of the Development work.
Key NAASC Science Tasks For First Science (2007)

Inform community of science capabilities, observing modes, available resources, via meetings, workshops, webpages; solicit feedback

Proposal preparation/ user support (proposal call mid- 2006)

Proposal review/ scheduling

Testing data reduction scripts/ cookbooks

Develop calibrator & spectral line databases

Post- observation user support: help users with offline data reduction; re- reduce data; submit bugs

Help software developers develop/ test advanced data processing procedures/ tools.
I WANT YOU
for the N.A.A.S.C.
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