

# Transporter hanger - AOS







ACA Correlator  
under test at Mitaka

OSF Oct 2007



OSF Oct 2007







Antenna contractor accommodation 2007

Contractor areas: mid-Oct 2007

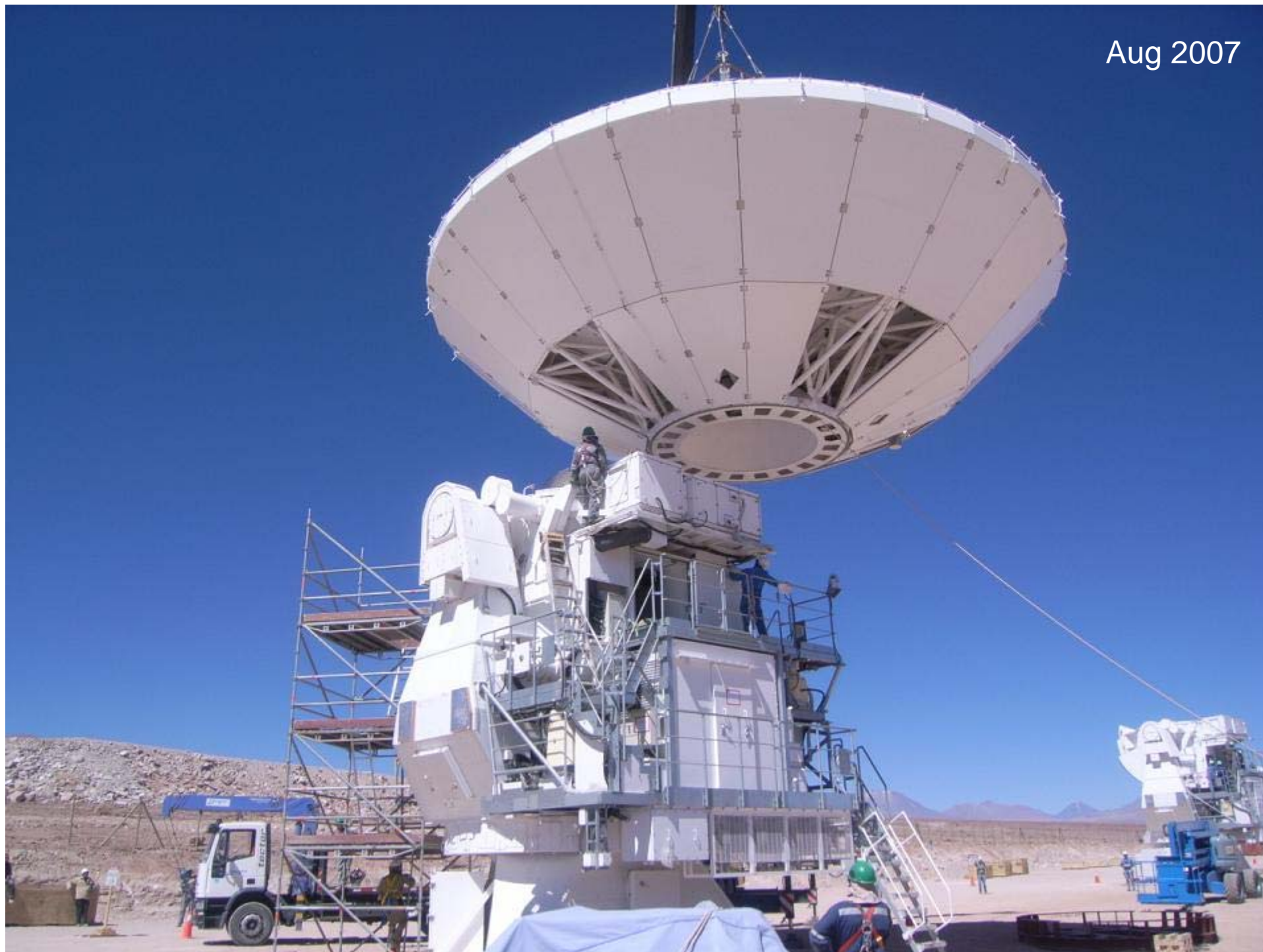




July 2007



Aug 2007



MELCO #1-3 : early Sept 2007



Oct 2007



Nov 2007

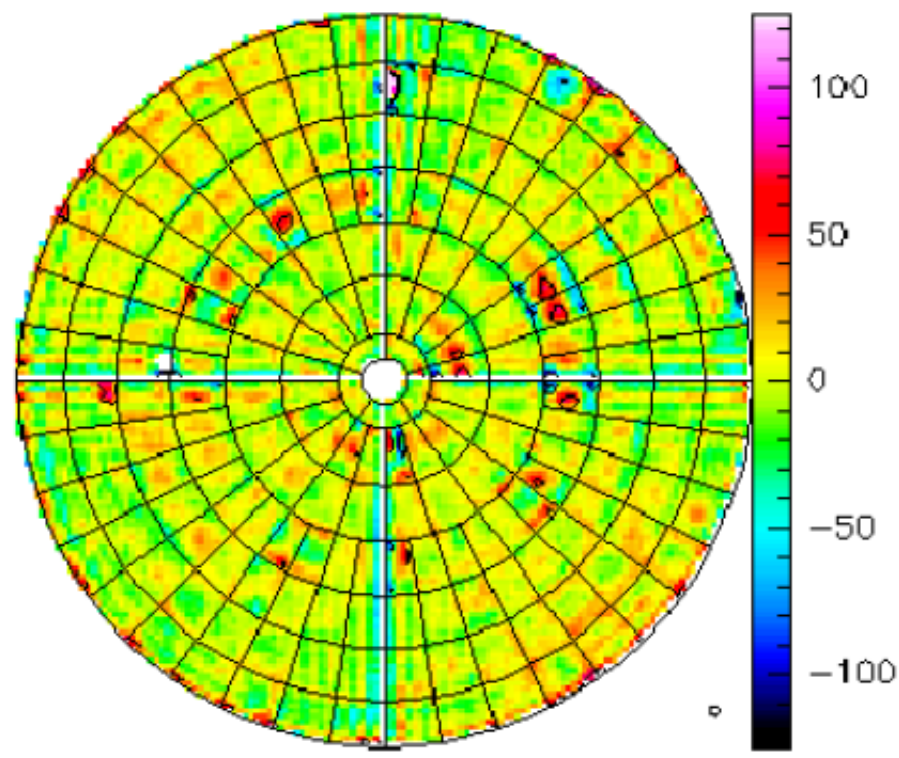
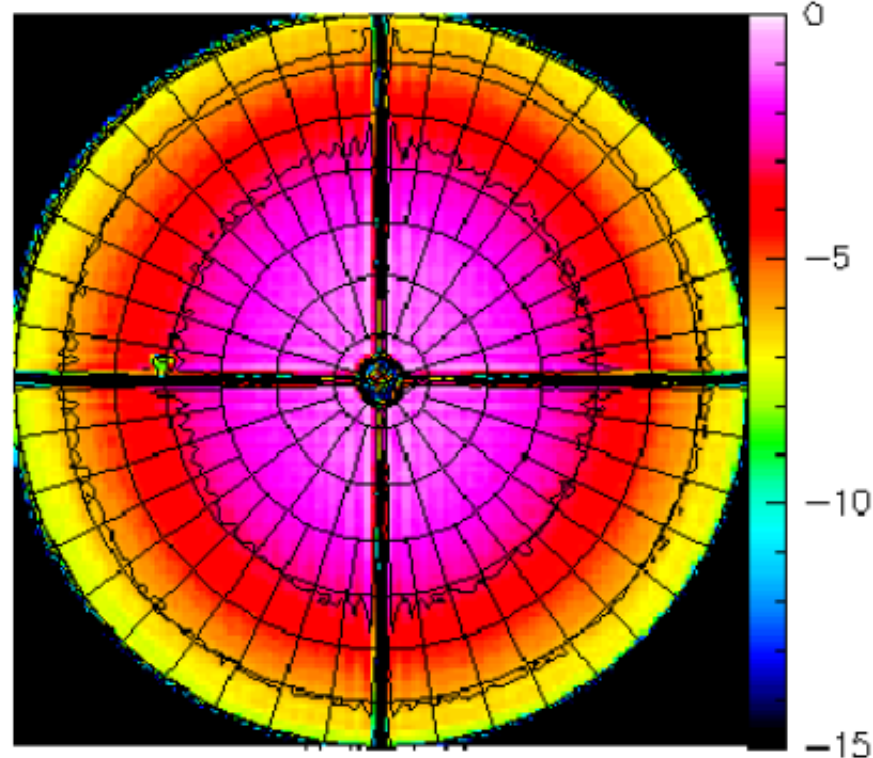
ASAC Telecon

12

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uid X2a Xd6a X1 - uid X2a Xd6a X1
RF: Uncal. LIC - 03-NOV-2007 05:37:31 - guest@oper01 - ACA01 - ALMA/MELCO 12-m Antenna
Am: Rel.(B)
Ph: Rel.(B) NAOJ SEF Area MELCO12M scans 2 to 216 (03-NOV-2007) Elev: 7.22
rms Pha. Edge taper = 14.14x 12.69 dB - offset X= -0.06 Y= 0.10 m
12 0.00 Focus offsets (X,Y,Z) = 0.88 -1.44 0.41 mm; Astigmatism = -0.01 mm
Phase rms (unweighted)= 0.078 (weighted)= 0.078 radians
Surface rms (unweighted)= 17.85 - (weighted)= 17.92 μm
ηA(104.020 GHz) = 0.867; ηA(230.0 GHz) = 0.847; ηA(345.0 GHz) = 0.818
S/T(104.020 GHz)= 28.143 Jy/K; S/T(230GHz)= 28.798 Jy/K; S/T(345 GHz)= 29.816 Jy/K
ηI= 0.872 -ηS= 0.785 -ηP(104.020 GHz)= 0.994 -ηP(230 GHz)= 0.971 -ηP(345 GHz)= 0.938
Rms/ring: 16.0 20.9 14.3 23.3 14.3 16.3 17.7
Amplitude (front view) Normal errors (front view)
-15.000 to 0.000 by 3.000 -125.000 to 125.000 by 50.000

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Vertex #1: Sep 2007



Vertex area: mid-Oct 2007





Yesterday...



AEM first BUS slice



AEM Cabin





## The ALMA Antenna Transporter

ESO Press Photo 45b/07 (5 October 2007)

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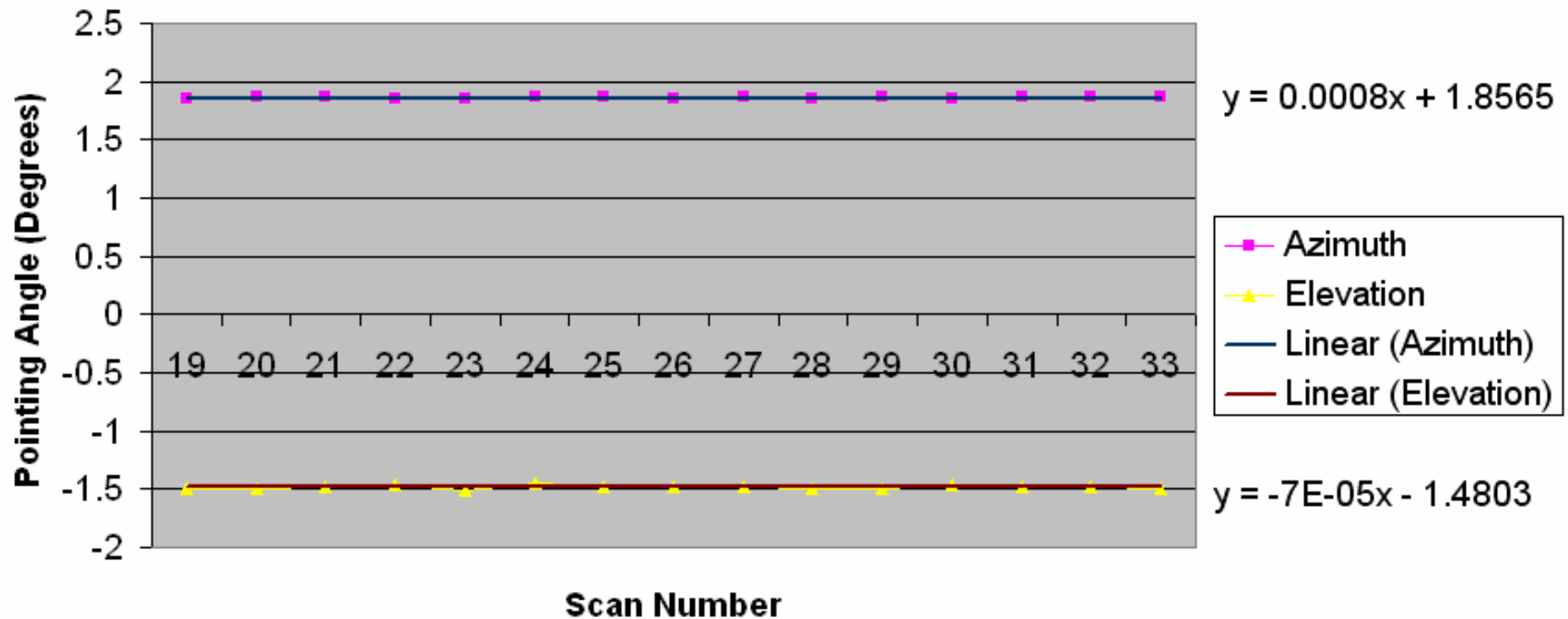




**NRAO Special Fiber Stretcher  
Assembly**  
**Model: FSA-101-NRAO-5MM**

## Beam Center Coordinates, Band 6 Scans 19-33, Tilt Angle Zero Degrees

Began: 11-02-07, 4:00 PM  
Ended: 11-03-07, 4:00 PM  
Azimuth (Average): 1.8627 degrees  
Elevation (Average): -1.4808 degrees

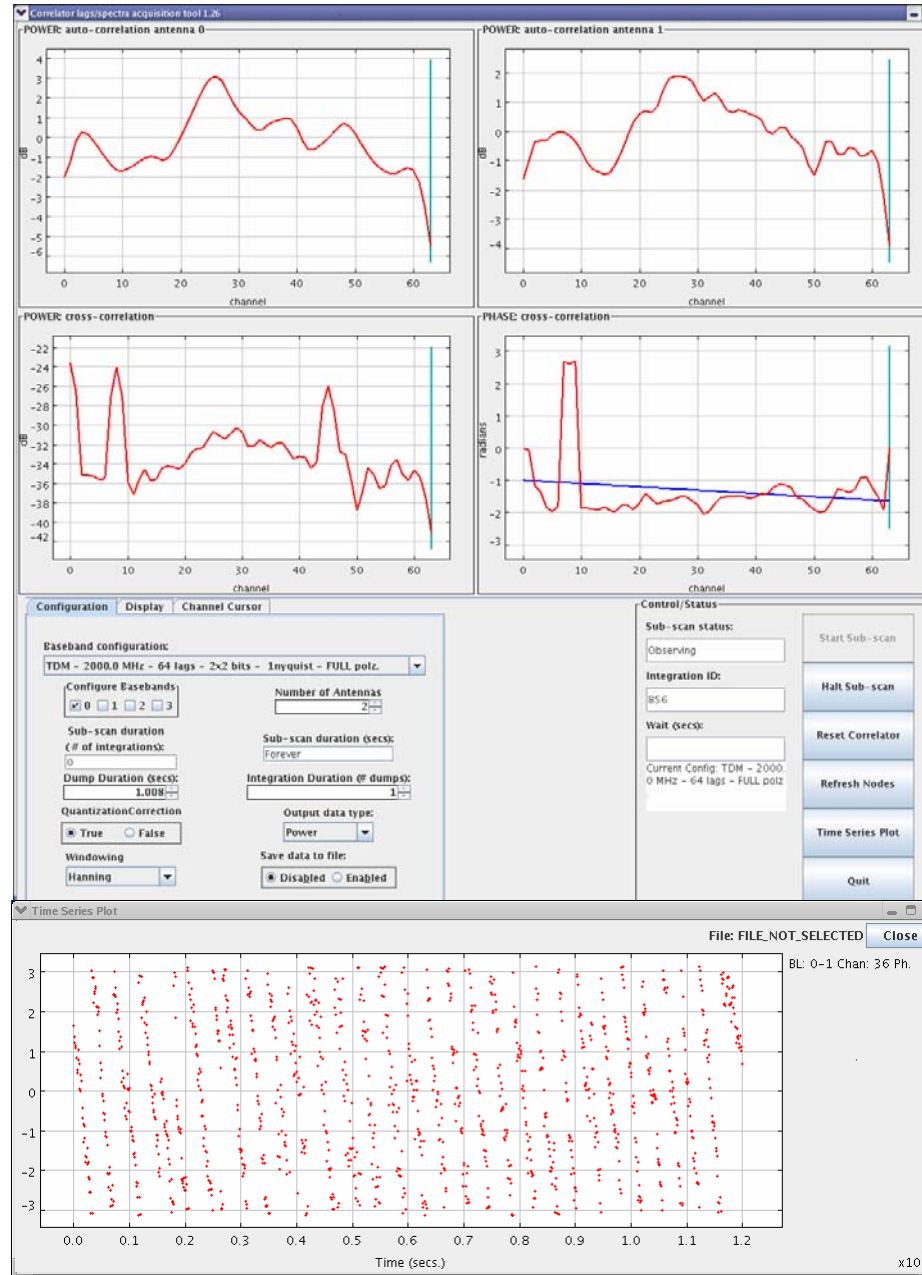


Variance (Az):	0.0199	deg
Variance (El):	0.0769	deg
Std Dev (EL):	0.0169	deg



# “Dynamic” Fringes

At the ATF





2005			2006			2007			2008			2009			2010			2011			2012			2013			2014			2015			2016			2017		
2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	

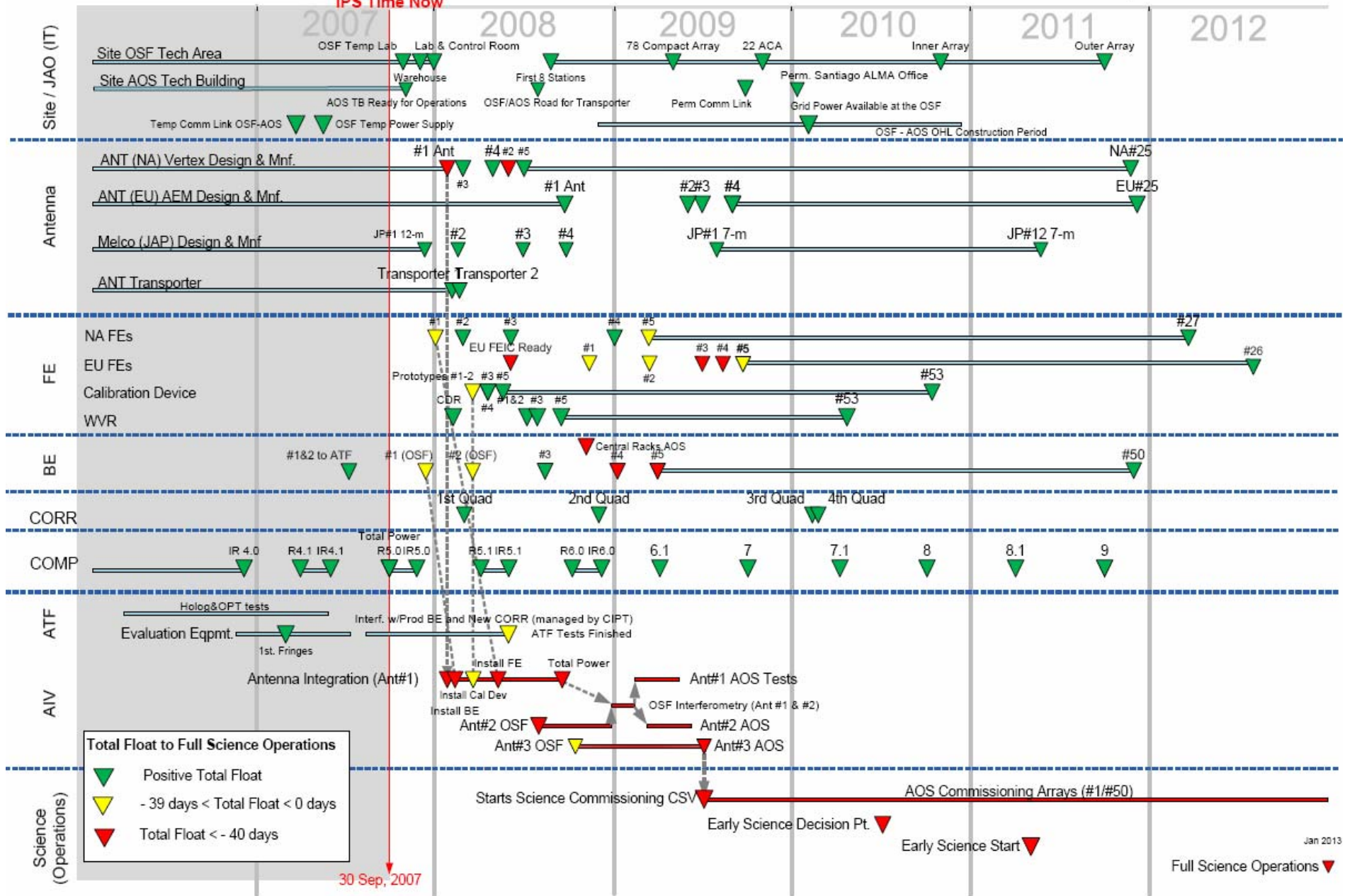
Time Now - 30Sep2007  
 reaking - 06Nov03

## Level 1 TPs Sep 30<sup>th</sup> 2007

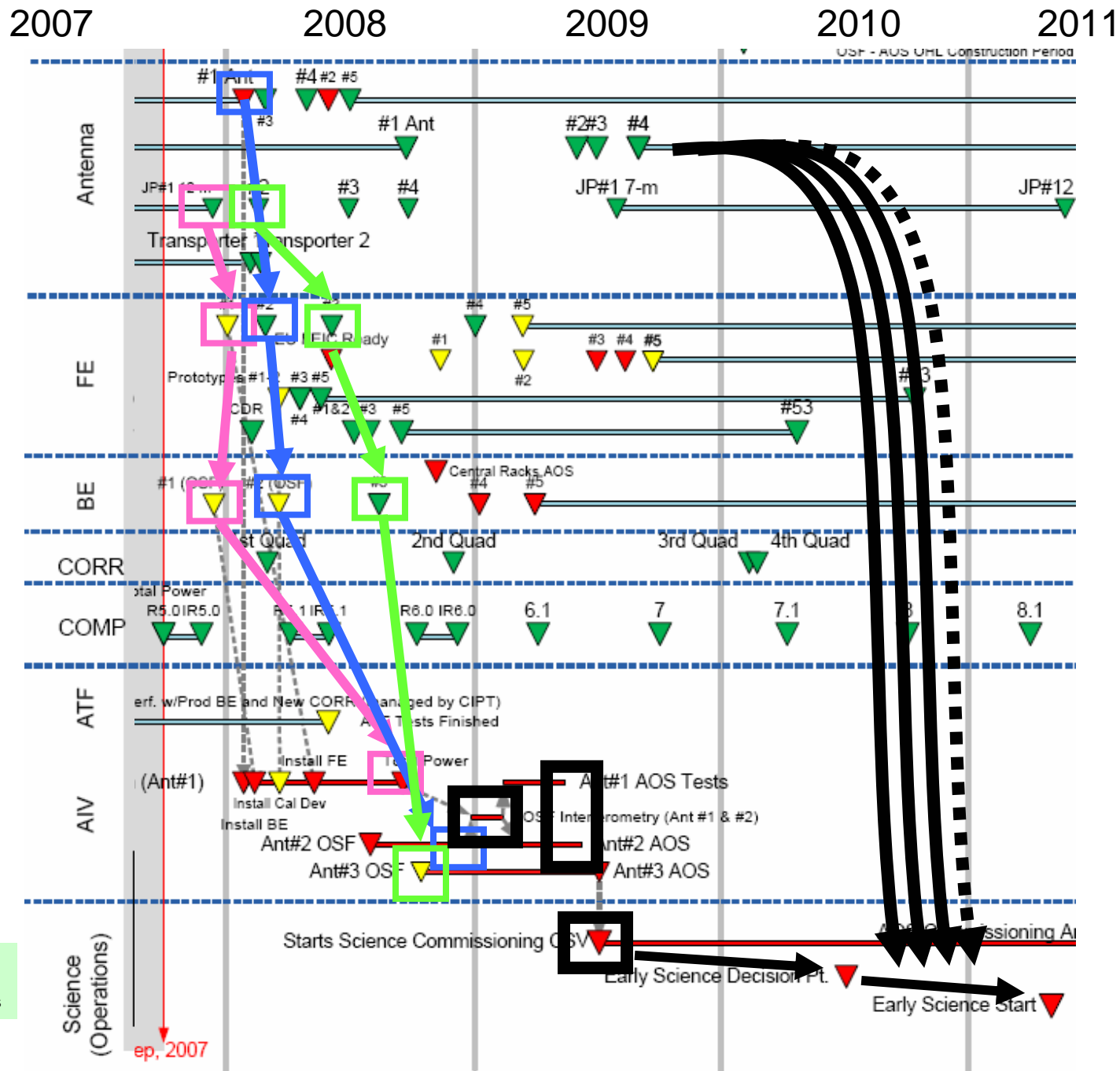


# ALMA General Overview – Forecast Dates as of 30 Sep 2007

IPS Time Now



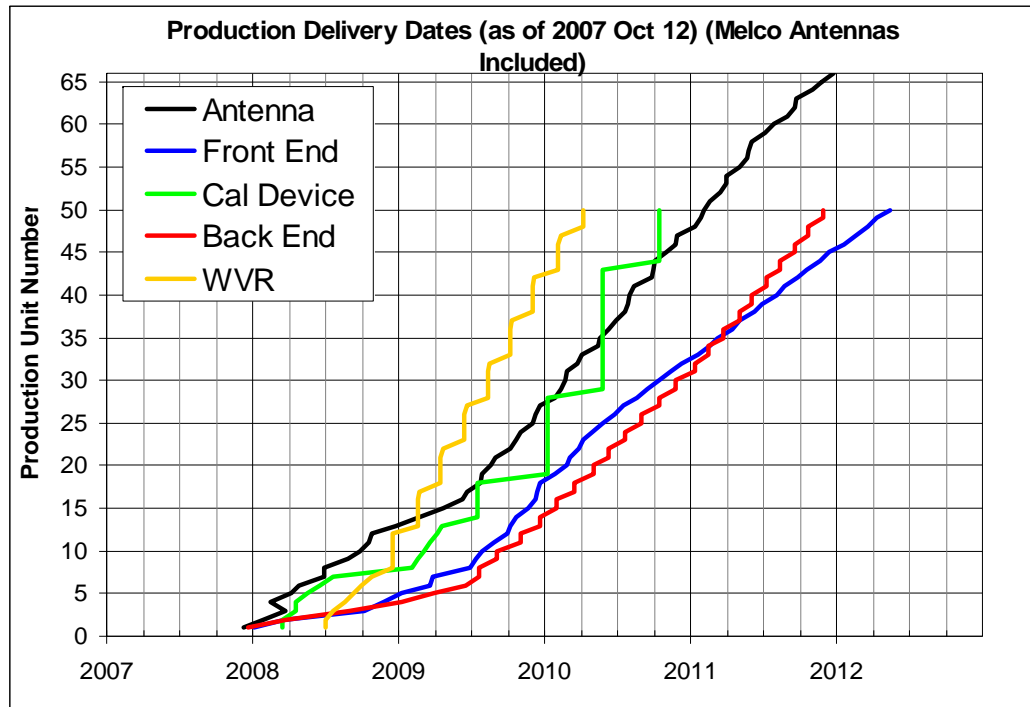
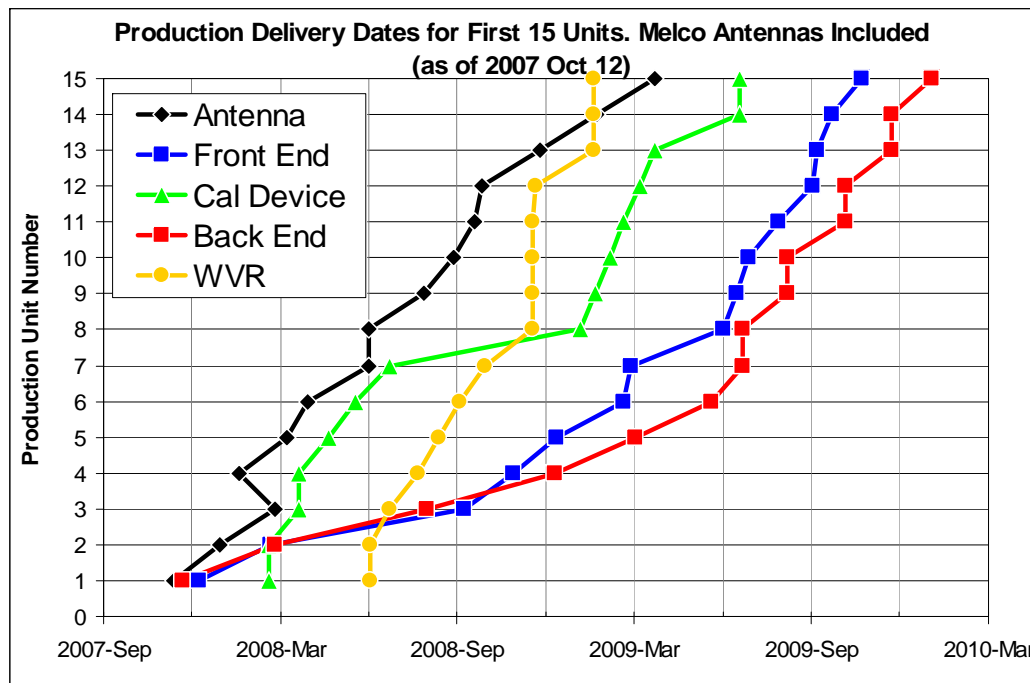




CSV = 3 ants@AOS  
 ESDP = 16ants-60d  
 ES = ESDP+10mons

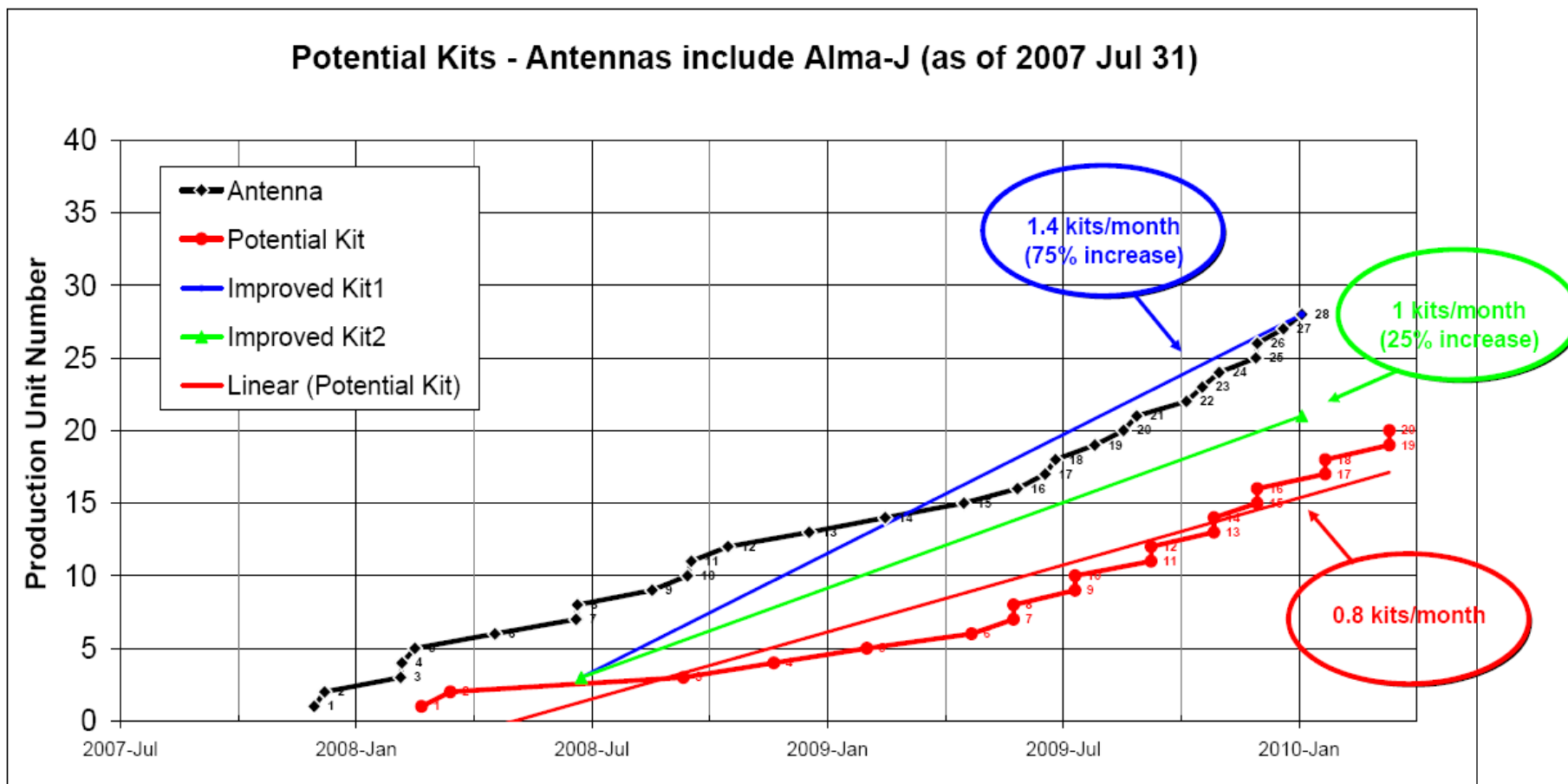


Draft: includes  
ALMA-J





$$\text{Kit} = (\text{FE} + \text{BE} + \text{Cal device})$$



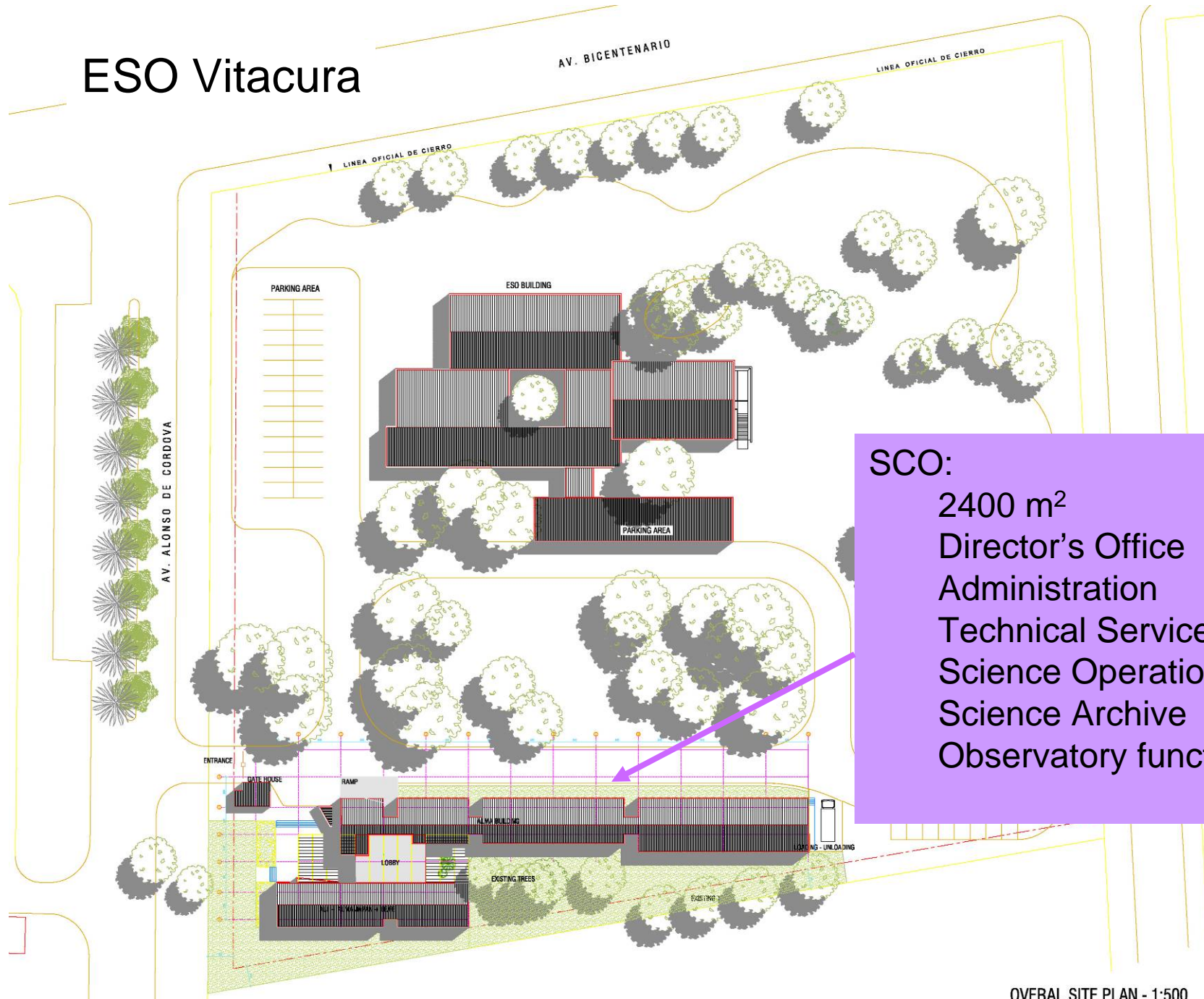


# Santiago Central Offices

- Conceptual design process – completed; contract kickoff held, detailed design work underway
- Minor issues:
  - Location of guardhouse (Vitacura restrictions)
  - ESO site infrastructure (transformer, generator)
  - “Regularization” of ESO facilities – minimize risk
  - Additional parking (ESO) – investigation underway...



# ESO Vitacura



**SCO:**  
2400 m<sup>2</sup>  
Director's Office  
Administration  
Technical Services  
Science Operations  
Science Archive  
Observatory functions



[www.alma.info](http://www.alma.info)

*The Atacama Large Millimeter/submillimeter Array (ALMA), an international astronomy facility, is a partnership among Europe, Japan and North America, in cooperation with the Republic of Chile. ALMA is funded in Europe by the European Organization for Astronomical Research in the Southern Hemisphere, in Japan by the National Institutes of Natural Sciences (NINS) in cooperation with the Academia Sinica in Taiwan and in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC). ALMA construction and operations are led on behalf of Europe by ESO, on behalf of Japan by the National Astronomical Observatory of Japan (NAOJ) and on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI).*