

Integrated Project Schedule Science Milestones

Row	Activity ID	Activity Desc.	Driven by:	IPF Finish	IPR Finish	Diff	2010			2011				2012				2013				2014				2015				2016		
							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
1	1_09 ALMA Science Schedule																															
2	1.09.9.6.22.22	Start of CSV - Includes Phase Closure with three antennas at AOS.	Ready to Commission in Array Ant 3 AOS Infrast. Const. - Phase I Complete (Stations A096/109/136) 1st Quadrant Correlator at AOS - AIV Receive (PAS complete, pending minor AIs) Deliver Central LO Article 1 Racks to AOS-TB [CLOA1] includes 8 LLC's & 8 SAS modules - AIV Receive	22Jan2010	15Nov2009	0	CSV - Includes Phase Closure with three antennas at AOS.																									
3	1.09.9.6.214	Demonstration of Phase Correction with WVR's.	WVR 3 - AIV Lab Check-In WVR 2 - AIV Lab Check-In WVR 1 - AIV Lab Check-In	30Jul2010	31May2010	27d	▲ Demonstration of Phase Correction with WVR's.																									
4	1.09.9.6.212	Aperture Synthesis Image with Six or more antennas	Ready to Commission in Array Ant 6	25Aug2010	14Jul2010	-19d	▲ Aperture Synthesis Image with Six or more antennas																									
5	1.09.9.6.215	Observatory Readiness Review		31Oct2010	22Oct2010	-9d	▲ Observatory Readiness Review																									
6	1.09.9.6.218	Release of first Science Verification data	Ready to Commission in Array Ant 8	07Nov2010	22Nov2010	15d	▲ Release of first Science Verification data																									
7	1.09.9.6.70	First Call for Proposals	Observatory Readiness Review	29Nov2010	21Nov2010	7d	▲ First Call for Proposals																									
8	1.09.9.6.210	Solicitation of Ideas for Science Verification Targets		05Jan2011	22May2010	-227d	▲ Solicitation of Ideas for Science Verification Targets																									
9	1.09.9.6.222	Proposal due date	First Call for Proposals	28Jan2011	04Feb2011	7d	▲ Proposal due date																									
10	1.09.9.6.224	Astronomical Signal with an ACA 7m Antenna at OSF	ACA 7m Antenna 1 - Delivery to OSF	17Mar2011	17Mar2011	0	▲ Astronomical Signal with an ACA 7m Antenna at OSF																									
11	1.09.9.6.220	First sub-millimetre wavelength synthesis image	Aperture Synthesis Image with Six or more antennas	23Mar2011	04Mar2011	-19d	▲ First sub-millimetre wavelength synthesis image																									
12	1.09.9.6.226	Release of First Public Images	Start of CSV - Includes Phase Closure with three antennas at AOS.	17May2011	17May2011	0	▲ Release of First Public Images																									
13	1.09.9.6.228	Polarization Images	Start of CSV - Includes Phase Closure with three antennas at AOS.	16Jul2011	30Sep2010	0	▲ Polarization Images																									
14	1.09.9.6.230	Phase closure with 3 ACA 7m antennas	ACA 7m Antenna 3 - Delivery to OSF	13Aug2011	13Aug2011	0	▲ Phase closure with 3 ACA 7m antennas																									
15	1.09.9.6.80	Early Science - Start	Ready to Commission in Array Ant 16	19Aug2011	21Jul2011	-16d	▲ Early Science - Start																									
16	1.09.9.6.232	Aperture synthesis image with Six or more 7m antennas	ACA 7m Antenna 6 - Delivery to OSF	09Jan2012	09Jan2012	0	▲ Aperture synthesis image with Six or more 7m antennas																									
17	1.09.9.6.238	First image at a frequency higher than 850 GHZ	Band 10 Cartridge #6 Del	07Apr2012	07Apr2012	0	▲ First image at a frequency higher than 850 GHZ																									
18	1.09.9.6.234	Maps combining 12-m and ACA antennas	Aperture synthesis image with Six or more 7m antennas	08Apr2012	08Apr2012	0	▲ Maps combining 12-m and ACA antennas																									
19	1.09.9.6.236	Maps combining zero-spacing with 12-m and ACA	Maps combining 12-m and ACA antennas	07Jun2012	07Jun2012	0	▲ Maps combining zero-spacing with 12-m and ACA																									
20	1.09.9.6.216	Continuum Total Power Image using a 12m antenna with a nutating subreflector	Nutator (1 of 5) - AIV Check-In	21Jun2012	15Nov2010	-136d	▲ Continuum Total Power Image using a 12m antenna with a nutating subreflector																									
21	1.09.9.6.240	High resolution images using baselines of ~4km	Maps combining 12-m and ACA antennas	06Aug2012	06Aug2012	0	▲ High resolution images using baselines of ~4km																									
22	1.09.9.6.242	"Extreme" resolution images with the longest baselines	High resolution images using baselines of ~4km	05Oct2012	05Oct2012	0	▲ "Extreme" resolution images with the longest baselines																									
23	1.09.9.6.84	Inauguration	Commissioning 41-50 Antenna Array	24Jan2013	31Aug2012	-10d	▲ Inauguration																									
24	1.09.9.6.88	66 antennas in service	Ready to Commission in Array Ant 66 Final Science Verification Array Complete Finish Transition of ALMA to Operations & Full Science Operations (66)	14Aug2013	31Mar2013	-26d	▲ 66 antennas in service																									