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North American
ALMA Science
Center



Development Upgrades of the Atacama Large Millimeter/submillimeter Array (ALMA)

Project Plan Template

Prepared by	Organization	Date
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W. Randolph	NA ALMA Dev. Program	

Change Record

Version	Date	Reason
0.0	03 June 2013	Initial Release

Delete this entire page from your submitted Project Proposal.



North American
ALMA Science
Center



Development Upgrades of the Atacama Large Millimeter/submillimeter Array (ALMA)

PROJECT PLAN

*Insert **TITLE** here*

PRINCIPAL INVESTIGATOR:

INSTITUTION:

ADDRESS:

PI CONTACT INFORMATION:

Telephone Number

Email address

ABSTRACT

Present a one page (or less) description of the work scope and objectives of the proposed Project.

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1.0 SCIENCE CASE

Present the scientific rationale for the proposed Project and the significance for ALMA.

2.0 PROJECT DELIVERABLES

Describe the products that will be delivered at the conclusion of the proposed Project.

2.1 Hardware:

2.2 Software:

2.3 Services:

2.4 Documents:

- Monthly “4-square” Progress Reports
- Specifications
- Hardware design documentation
- Software design documentation
- Interface Control Documents (ICDs)
- Technical manuals and procedures
- Quality Assurance procedures
- Safety procedures
- Final Report
- Outcomes Report

3.0 INTERFACES TO ALMA

Note the ALMA hardware and/or software control interfaces that may be affected if the proposed design or control scheme is implemented.

4.0 SITE LOCATION IMPACT STATEMENT (if applicable)

Describe any new facilities, significant modifications to existing facilities, or use of NRAO facilities that are required. Also indicate when these facilities and/or modification are required.

5.0 PERIOD OF PERFORMANCE

*Define the anticipated period of performance (**twenty-four maximum**).*

6.0 STAFFING

Estimate the level of effort (unit of measure = Full Time Equivalent) to be deployed by the Offerer until completion of the proposed Project. Identify essential (key) personnel required to ensure success. If two, or more, persons of equivalent labor grade are capable of performing any given task, leave the corresponding Key Personnel cell blank and note the FTE level of effort only.

6.1 Offerer’s Staffing:

Complete Table 1.0, below.

Table 1.0; Offerer’s Labor Estimate.

Title	Key Personnel (leave blank if inapplicable)	FTE	Duration (Months)
Principal Investigator			
Scientific Lead			
Engineering Lead			
Science			
Engineering			
Management			
Other			
TOTAL FTEs		0.00	

6.2 External Staffing:

Complete Table 2.0, below.

Table 2.0; External Staffing and Contact Information.

Title	Name	Institution	Email	Telephone
Co-Investigator				
Vendor point of contact				
Customer tech. point of contact				

7.0 COST BREAKDOWN

The total Award Pool for the FY2014 Call for Development Project Proposals is \$4.3M. The total Award Pool amount (\$4.3M) will fund all NA ALMA Partnership Project Proposals. **The maximum cost allowance for an individual Project Proposal is \$1.5M.**

7.1 Offerer’s Cost:

Complete Table 3.0, below. Work Breakdown Structure (WBS) Number should correspond to Level 1 tasks/activities in the Project schedule. Insert additional rows as required.

Table 3.0; Offerer’s Cost Breakdown.

WBS No.	Task Description	Labor (\$)	Materials & Services (\$)	Travel (\$)
1.0				
2.0				
3.0				
4.0				
5.0				
6.0				
7.0				
8.0				
9.0				
10.0				
n.0				
SubTotals (\$)		0.00	0.00	0.00
		TOTAL COST (\$)		0.00

7.2 Collaborating Institution / Subcontractor Cost:

Complete Table 4.0, below. Insert additional rows as required. Note the value of any In-Kind Contributions.

Table 4.0; Collaborating Institution / Subcontractor Cost.

Collaborating Institution / Subcontractor	USD (\$)	In-Kind Contribution Value in USD (\$)
TOTAL COST (\$)	0.00	
TOTAL VALUE of IN-KIND CONTRIBUTIONS (\$)		0.00

7.3 Total Cost:

Complete Table 5.0, below.

Table 5.0; Total Project Cost.

<i>Project Participants</i>	<i>USD (\$)</i>
Offerer’s Total Cost (Table 3.0)	
Collaborating Institution / Contractor Total Cost (Table 4.0)	
Expected contribution from the NA ALMA Development Program	
Total Cost of Project (\$)	0.00

7.4 Total Value:

Complete Table 6.0, below.

Table 6.0; Total Project Value.

<i>Category</i>	<i>USD (\$)</i>
Total Cost of Project (Table 5.0)	
Total Value of In-Kind Contributions (Table 4.0)	
Total Value of Project (\$)	0.00

8.0 SCHEDULE

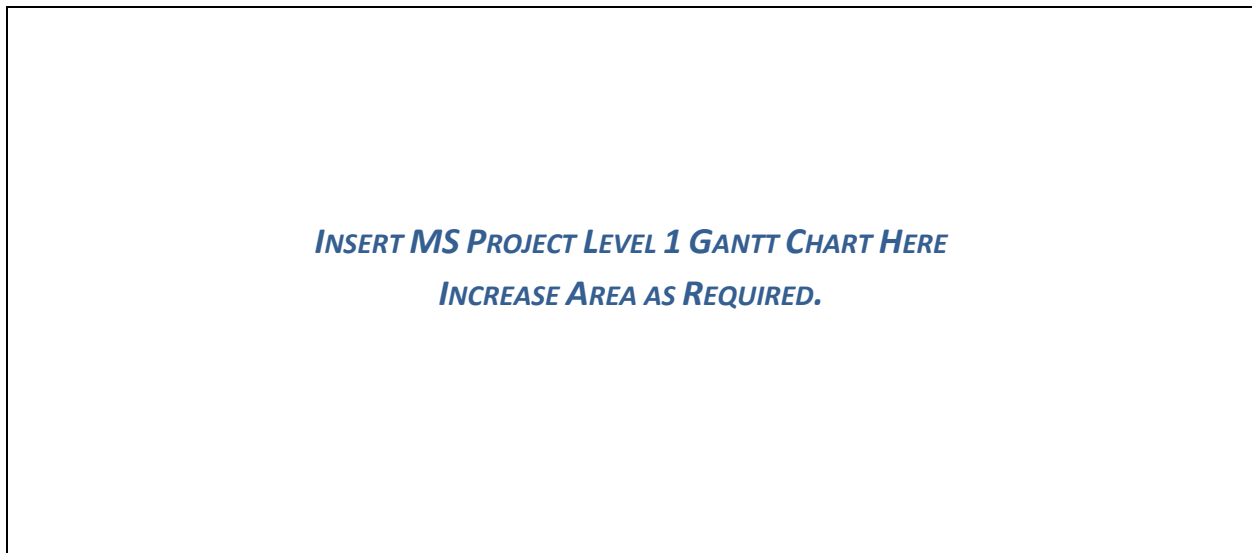


Figure 1.0; Project Schedule.

9.0 PROJECT MANAGEMENT

9.1 Systems/Configuration Control

9.1.1 Systems Requirement and Specification Control

Development engineering and design activities will be conducted in accord with established ALMA Systems Engineering policies, practices and procedures.

9.1.2 Documentation Control

All shared documents will be dated and bear a revision level number.

9.1.3 Product & Quality Assurance Control

Development engineering and design activities will be conducted in accord with established ALMA PA/QA policies, practices and procedures. A unique Product Assurance Plan is unnecessary.

9.2 Performance to Schedule

The Principal Investigator has primary responsibility for schedule development and performance to schedule. The NA ALMA Development Program office will provide support to the PI in establishment of a revision-controlled Project schedule and monthly preparation of performance to schedule status. In the event of a schedule variance, the PI and the NA ALMA Development Program Manager will assess the impact and develop the appropriate recovery action(s).

9.3 Performance to Budget

The Principal Investigator has primary responsibility for intra-project budget allocation and cost performance. The NA ALMA Development Program office will provide support to the PI in establishment of cost accounts, budget load, and the preparation of a revision-controlled, monthly Budget Status Report. In the event of a cost variance, the PI and the NA ALMA Development Program Manager will assess the impact and develop the appropriate recovery action(s).

9.4 Measures of Success

Describe the measures of success (performance metrics and outcomes) for this Project. Describe the process that will be used to address experiment prioritization, evaluate experimental results, and to modify the approach/redirect experiments.

9.5 Risk Management

Identify the primary areas of uncertainty (risk) foreseen at the outset of the Project. Estimate the probability of occurrence and associated cost impact of each identified risk. Also, briefly note the means by which each primary risk may be mitigated or retired altogether.

Table 7.0; Project Risk Assessment.

No.	Primary Risk(s)	Prob. (%)	Impact (\$)	Mitigation
1				
2				
3				
Total Cost Impact (\$)			0.00	

9.6 Communication Plan and Progress Reporting

A monthly, “Four-square” progress report will be prepared by the Principal Investigator in accord with Observatory Program Management practices and procedures. Informal reviews will be conducted by the NA ALMA Development Program Manager upon the completion of Level I milestones.

10.0 PROJECT CLOSEOUT

Upon conclusion of this Project, the NA ALMA Development Program Office will coordinate the orderly closeout of activities; or, the transition of activities to implementation. At a minimum, this will include the following:

- verification of compliance with established procurement policies and procedures;
- verification of Purchase Order final payments;
- cost and schedule variance analysis;
- preparation of a Final Report;
- preparation of a Project Outcomes Report; and
- archiving of Project records.

APPENDIX A - REFERENCE DOCUMENTS

APPENDIX B – CURRICULUM VITAE OF KEY PERSONNEL