

## Revised ALMA Chart of Accounts

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Starting 2002 October 1st, the ALMA project at NRAO has a new Chart of Accounts. This change was necessitated by NRAO's adoption of a new Chart of Accounts. After October 1st, please use only the new account numbers, and do not use the old J series of accounts. The revised Chart of Accounts provides significant benefits and improvements in access, reporting, and budgeting.

### Brief Instructions:

An ALMA account number consists of three parts, specified with the following syntax:

**(Business Unit).(Object Class).(Subsidiary)**

**Business Unit** is one of the major NRAO activities; for all ALMA accounts the business unit is the same: **701**.

**Object Class** is the type of expenditure, and should be specified on all procurements and travel. There are ~60-70 Object Classes, but for most purposes the simplified version attached is all you will need. Money is budgeted into 3 of the Object Classes (people, places, or things), and is spent from one of the other 41. A list of the official Object Classes is attached.

**Subsidiary** is the actual ALMA Work Element number, with a one-to-one correspondence between the 4-digit Subsidiary Number and a 4-digit ALMA Work Element Number. A list of the official ALMA Work Elements (Subsidiaries) is attached, with their funding status for 2003.

*Example:*

The North American Project orders a new computer. The account number to charge would be **701.1616.0100**

(**701** is the ALMA business unit, 1616 is Computer hardware, and 0100 is the ALMA Work Element for the North American Project Office).

*Example:*

Brian Glendenning travels to Germany. The account number would be

**701.1690.2640**

(**701**=ALMA; **1690**=Travel-Foreign; **2640**=Computing Subsystem Management)

## NRAO ALMA Accounts: 2002sep27

NRAO ALMA accounts are specified as **701.0000.SSSS**, where **0000** is selected from a list of "Objects" (i.e., types of expenditures) and **SSSS** is the "Subsidiary" number, equal to one of the ALMA Work Element Numbers listed below

AWE # ("Subsidiary")	ALMA Work Element Name	NRAO Responsible	2003 Budget
1	0100 North American Project Office	Rafal	TBD
2	3060 North American Education and Public Outreach	Rafal	TBD
3	0160 Joint ALMA Office	Vanden Bout	TBD
4	3100 Chilean Education and Public Outreach	Vanden Bout	TBD
5	0200 Site Construction Management	Radford	TBD
6	0210 Site Infrastructure	Radford	TBD
7	0220 Array Site	Radford	TBD
8	0260 Array/OSF Access Roads	Radford	0
9	0280 Array/OSF Communication Links	Radford	0
10	0320 Antenna Management Phase 2	Kingsley	TBD
11	0053 Antenna Prototype Support	Kingsley	0
12	0360 North Am. Post Acceptance Evaluation	Kingsley	TBD
13	0380 Euro Post Acceptance Evaluation	Kingsley	TBD
14	0440 Final Design Mods & Documentation; Prepare Bid Package	Kingsley	TBD
15	0450 Production Antenna Contracting and Support	Kingsley	TBD
16	0480 Final Foundation Designs	Kingsley	0
17	0500 Production Antennas North Am.	Kingsley	0
18	0560 Production Antenna Acceptance at OSF	Kingsley	0
19	0580 Production Antenna Nutator	Kingsley	TBD
20	0620 Front End Subsystem Management	Cunningham	TBD
21	0054 Front End ATF Support	Perfetto	TBD
22	0640 Front End Subsystem Engineering	Cunningham	TBD
23	0780 Prototype frontend development	Perfetto	TBD
24	0782 Design and development of the front-end cartridge support electronics	Perfetto	TBD
25	1660 Front-end chassis (Production)	Tan	0
26	0800 Front end DC bias electronics (PRODUCTION)	Perfetto	TBD
27	0820 Front end IF selector switch (PRODUCTION)	Perfetto	TBD
28	0840 Front end monitor and control electronics (PRODUCTION)	Perfetto	TBD
29	0940 Subreflector Calibration System - control s/w and h/w	Cunningham	TBD
30	0960 Subreflector Calibration System - hardware at subreflector	Cunningham	TBD
31	0623 Band 3 Management	Cunningham	TBD
32	1003 Band 3 Prototype Cartridge	Cunningham	TBD
33	1063 Band 3 Test Set LO and Sideband Source	Cunningham	TBD
34	1123 Band 3 Mixer Test Set	Cunningham	TBD
35	1233 Band 3 SIS Mixer Prototype	Cunningham	TBD
36	1243 Band 3 SIS Mixers	Cunningham	TBD
37	1273 Band 3 Amplifier test set	Cunningham	TBD
38	1283 Band 3 Cooled IF amplifiers	Cunningham	TBD
39	1313 Band 3 Cartridge Test Set	Cunningham	0
40	1323 Band 3 Cartridge Assembly (Production)	Cunningham	0
41	1333 Band 3 Cartridge Testing (Production)	Cunningham	0
42	1403 Band 3 SIS Devices (Production)	Cunningham	TBD
43	0626 Band 6 Management	Cunningham	TBD
44	1006 Band 6 Prototype Cartridges	Cunningham	TBD
45	1066 Band 6 Test Set LO and Sideband Source	Webber	TBD
46	1126 Band 6 Mixer Test Set	Webber	TBD
47	1236 Band 6 SIS Mixer Prototype	Webber	TBD
48	1246 Band 6 SIS Mixers	Webber	TBD
49	1286 Band 6 Cooled IF amplifiers	Webber	TBD
50	1316 Band 6 Cartridge Test Set	Webber	0
51	1326 Band 6 Cartridge Assembly (Production)	Cunningham	0
52	1336 Band 6 Cartridge Testing (Production)	Webber	0
53	1406 Band 6 SIS Devices (Production)	Webber	TBD
54	1253 Band 3 OMT Development & Production	Perfetto	TBD
55	1256 Band 6 OMT Development	Perfetto	TBD
56	1260 Band 6 OMT Production	Perfetto	TBD
57	1580 Frontend integration centre test set #1	Perfetto	TBD
58	1620 Frontend integration centre #1 setup and operation	Perfetto	TBD
59	1680 Front End Service and Exchange Vehicle	Cunningham	0
60	1720 LO driver continued development section	Webber	TBD
61	1740 Cold multiplier continued development section	Webber	TBD
62	1760 LO Multiplier Drivers fabrication and test	Webber	0
63	1800 Cold multiplier fabrication and test equipment	Webber	TBD
64	1100 Pre-prototype and prototype local-oscillator chains	Webber	TBD

AWE # ("Subsidiary")	ALMA Work Element Name	NRAO Responsible	2003 Budget
65	1103 LO Production Band 3	Webber	0
66	1106 LO Production Band 6	Webber	0
67	1107 LO Production Band 7	Webber	0
68	1109 LO Production Band 9	Webber	0
69	3106 LO Production Diode Multipliers Band 6	Webber	0
70	3107 LO Production Diode Multipliers Band 7	Webber	0
71	3109 LO Production Diode Multipliers Band 9	Webber	0
72	3500 BE IPT Management	Sramek	TBD
73	0055 BE Prototype Development and ATF Support	Sramek	0
74	3520 Engineering support - NA	Sramek	TBD
75	3550 IFDC Prototype	Sramek	TBD
76	3560 IFDC Microwave Sections	Sramek	0
77	3570 TP Digitizer, M/C	Sramek	0
78	3580 IFDC Integrate & Test (plus test equipment)	Sramek	0
79	3700 DTS - Prototype NA	Sramek	TBD
80	3730 Formatter / Deformatter / Clock Gen	Sramek	0
81	3790 DTS final modules - Integrate & Test (& test equipment)	Sramek	0
82	3800 Low Freq Distribution - Prototype	Sramek	TBD
83	3810 Photonic LO (Reference) - Prototype	Sramek	TBD
84	0860 Photonic Phase Cal Development	Payne	TBD
85	1700 Photonic LO Development N. Am.	Sramek	TBD
86	3825 LO Frequency Reference Distribution	Sramek	0
87	3830 2nd LO Synthesizer / FTS	Sramek	0
88	3835 Laser Synthesizer RF Reference	Sramek	0
89	3840 Power supplies - BE System	Sramek	0
90	3845 Lab and Test Equipment (Low Freq LO Distribution production)	Sramek	0
91	3850 Laser Synthesizer	Sramek	0
92	3860 Master Laser	Sramek	0
93	3870 Photonic LO Distribution	Sramek	0
94	3880 Line Length Corrector	Sramek	0
95	3890 Phot Ref Rcvr / Photomixer /2 GHz Modulator	Sramek	0
96	3895 Lab & Test Equipment (Photonic LO production)	Sramek	0
97	3900 BE System Production	Sramek	0
98	0900 Photonic Phase Cal Production	Sramek	0
99	3950 Integration in Chile - Support - NA	Sramek	0
100	2420 Baseline Correlator Mgmt/Subsystem Engineering Phase 2	Webber	TBD
101	0056 Correlator Phase 2 Development	Webber	0
102	2440 Baseline Correlator Continued Support	Webber	0
103	2460 Prototype Correlator Production	Webber	TBD
104	2470 Advance component procurement	Webber	TBD
105	2480 First 1/4 correlator	Webber	TBD
106	2500 Second 1/4 correlator	Webber	0
107	2520 Third 1/4 correlator	Webber	0
108	2540 Fourth 1/4 correlator	Webber	0
109	2640 Computer Subsystem Management	Glendenning	TBD
110	0057 Computing Phase 2 transition (NRAO)	Glendenning	0
111	2660 Computing Hardware	Raffi	TBD
112	2680 Science Software Requirements	Lucas	TBD
113	2700 High Level Analysis & Design	Schwarz	TBD
114	2720 Software Engineering	Zamparelli	TBD
115	2740 Common Software	Chiozzi	TBD
116	2760 Control Software	Marson	TBD
117	2780 Correlator Software	Pisano	TBD
118	2800 Pipeline Software	Kemball	TBD
119	2820 Archiving	Wicenec	TBD
120	2840 Scheduling	Glendenning	TBD
121	2880 Off-line Data Processing/Analysis	Kemball	TBD
122	2920 Integration, Test & Support	Glendenning	TBD
123	2940 SE&I Management	Gray	TBD
124	0058 ATF System Engineering Support	Gray	0
125	2960 Phase 2 System Engineering	Gray	TBD
126	2980 Prototype Antenna Evaluation #1	Mangum	TBD
127	2985 Prototype Antenna Evaluation #2	Mangum	TBD
128	3000 Pre Production ALMA System Integration	Gray	0
129	3020 ALMA System Integration	Gray	0
130	3040 Phase 2 Science Support	Wootten	TBD
131	0010 ALMA Personnel (NRAO)	Rafal	TBD
132	0020 ALMA Overhead (NRAO)	Rafal	TBD
133	0030 ALMA Unallocated Funds (NRAO)	Rafal	TBD

## ALMA Project Object Classes

Object classes are the middle part of a complete account number. The 3 objects highlighted in gray are used only for budgeting, while the other 41 are used for expenditures.

1402	<b>Wages and Benefits</b>
1404	Personnel Compensation
1434	Benefits
1500	<b>Fixed Assets, Materials, &amp; Services</b>
1505	Land & Improvements
1510	Buildings
1520	Telescopes (>\$5,000)
1530	Test & Research Equipment (>\$5,000)
1540	Equipment (>\$5,000)
1541	Computer Hardware (>\$5,000)
1550	Vehicles
1604	Office Furniture
1605	Office Supplies
1606	Other Supplies
1607	Memberships & Publications
1608	Employee Morale
1613	Credit Card Clearing Account
1615	Computer Software
1616	Computer Hardware
1617	Computer Supplies
1625	Components/Parts
1626	Tools & Equipment(<\$5,000)
1627	Consumables
1628	Diesel, Gasoline, and Other Fuel
1635	Freight
1636	Postage Expense
1641	Utilities
1642	Communications
1651	Building Rent and Maintenance
1652	Equipment Maintenance
1653	Vehicle Maintenance
1661	Computer Software Maintenance
1662	Computer Hardware Maintenance
1666	Contracts & Services
1667	Consultants
1668	Meetings, Seminars, and Registration Fees
1677	Legal Expenses
1678	Insurances
1679	AUI Management Fee
1684	<b>Travel</b>
1686	Travel – Domestic
1690	Travel – Foreign
1694	Travel – Relocation
1695	Travel – Non-employee