

M&O Budget Request for ATLAS in 2003

The ATLAS Management, supported by the ATLAS Executive and Collaboration Boards, invites RRB to approve the draft Maintenance and Operation (M&O) budget for ATLAS activities in 2003, charged to the Collaboration (excluding Category C) which is also recommended by the RRB Scrutiny group (SG):

M&O (Payments 3.3 MCHF)

In 2003, M&O (A) activities include magnet operations, related technical coordination tasks and TDAQ support for system testing. The planned payments amount to 2.5 MCHF.

The testing of the BT coils continues in Building 180, relying on the on-going cryogenics operation and other general infrastructure support. The magnet components as well as LAr barrel and end cap cryostats need to be moved in Building 180 and 191 using heavy handling equipment. These activities are in preparation of the beginning of the installation work which is scheduled to start in the ATLAS pit at the end of the year. The basic operation of the seven cranes in the ATLAS Experimental Area is also a new baseline activity which starts in 2003.

The M&O (B) activities in 2003 are very similar to those of 2002, driven by system test beam operations in the North Area and East Hall for calibrating detector modules performance in beams. The planned payments amount to 0.9 MCHF. The cost drivers are electronics pool rentals as well as testing and qualification of delivered components and produced modules.

Following special arrangements for spares made in the LAr system, a similar provision for future commitments up to 2.0 MCHF is proposed for critical spares in the ID (TRT, SCT) and the Tile Calorimeter systems due to availability and affordable cost. In case these options are executed before 2005, they will appear as payments only after 2005 unless instructed otherwise by the Funding Agencies.

More details for both M&O (A) and (B) planned payments in 2003 are provided in Table 1. The cost items are in accordance with the cost tables scrutinized by the RRB Scrutiny Group.

The proposed sharing per Funding Agency, not including energy adjustments, is provided in Table 2. The sharing of M&O Category A items is based on the number of qualified authors (PhD physicists and engineers with equivalent degree as stipulated in the M&O MoU). The sharing for Category B is all based on CORE contributions in the systems concerned.

The present planning assumes that the initial detector is ready for low luminosity physics in 2007, in line with the new machine construction schedule.

ATLAS M&O (A) and (B) Budget Estimates for 2003 (kCHF)

Item & Cost Driver (by RRB SG Headings)	Category A	Category B	Item & Cost Driver (by RRB SG Headings)
	M&O	M&O	
Detector related costs Cooling systems, power supplies	240	95	Mechanics & Gas & Cooling & Cryogenics Gases (ID, Tiles, Muons)
Secretariat 0.6 FTE charged to ATLAS Publications, consumables	110	340	Standard electronics Electronics pool rentals for test-beams
Communications GSM phones Computer network connections	10	25	Detector controls DCS replacements for ID for test beams
On-line computing TDAQ system management Software licences	75	250	Areas Test-beam activities (ID)
Test beams Magnet Cryo Op. in B180 TDAQ electronics	580	0	Communications
Laboratory operations Assembly areas, workshops TDAQ electronics	80	10	Store items
General services Electricity Cooling & ventilation Survey Outreach	1,385	0	Sub-detector spares (Critical spares dealt with separately)
TOTAL	2,480	720	(Excluding hired manpower for Category B)
Hired manpower at CERN (in kCHF)	incl. above	145	
Institute manpower (in FTE)	0	5	
TOTAL M&O FOR A	2,480	865	TOTAL M&O FOR B

Notes:

1. Category A is charged to the entire Collaboration, B to the respective systems. Category C is charged to CERN as the Host Laboratory. Category C is not included in the figures above.

Table 1

Proposed Sharing of M-O Payments for ATLAS in 2003 by Funding Agency (kCHF)

10/3/2002

Funding Agency	Category A items		Category B items budgeted						Budget Total	
	Invoiced*	Budgeted	Pixel	SCT	TRT	IDGen	LAr	TileC		Muon
Armenia	4	4	0	0	0	0	0	1	0	4
Australia	13	13	0	2	0	0	0	0	0	15
Austria	9	11	0	0	0	0	0	0	0	11
Azerbaijan	13	13	0	0	0	0	0	0	0	13
Belarus	15	15	0	0	0	0	0	0	0	15
Brazil	13	13	0	0	0	0	0	1	0	14
Canada	74	76	0	0	0	0	13	0	0	89
China NSFC+MSTC	27	27	0	0	0	0	0	0	2	29
Czech Republic	37	48	3	0	0	0	0	3	0	54
Denmark	12	15	0	0	8	0	0	0	0	23
Finland	0	0	0	0	0	0	0	0	0	0
France IN2P3	103	133	27	0	0	0	28	13	0	201
France CEA	29	38	0	0	0	0	9	0	13	59
Georgia	13	13	0	0	0	0	0	0	0	13
Germany BMBF	122	158	58	4	0	0	5	0	15	239
Germany MPI	38	49	0	2	0	0	3	0	5	59
Greece	41	53	0	0	0	0	0	0	6	59
Israel	31	32	0	0	0	0	0	0	15	47
Italy	208	268	64	0	0	0	6	8	54	399
Japan	114	116	0	8	0	0	0	0	39	163
Morocco	15	15	0	0	0	0	0	0	0	16
Netherlands	24	30	0	1	0	0	0	0	18	49
Norway	12	15	0	2	0	0	0	0	0	17
Poland	22	23	0	0	2	0	0	0	0	25
Portugal	13	17	0	0	0	0	0	6	0	23
Romania	19	19	0	0	0	0	0	2	0	21
Russia	101	120	0	0	25	0	7	7	16	175
JINR	74	74	0	0	2	0	1	5	10	93
Slovak Republic	10	13	0	0	0	0	0	0	0	14
Slovenia	11	11	0	1	0	0	0	0	0	12
Spain	55	55	0	1	0	0	4	12	0	72
Sweden	28	36	0	2	14	0	2	6	0	59
Switzerland	21	27	0	5	0	0	2	0	0	34
Taipei	15	15	6	1	0	0	1	0	0	23
Turkey	11	11	0	0	0	0	0	0	0	11
United Kingdom	155	200	0	14	0	0	0	0	0	213
US DOE + NSF	434	441	42	6	32	0	26	23	51	620
CERN	261	260	0	2	58	0	13	19	9	360
total	2,200	2,480	200	50	140	0	120	105	250	3,345
									865	

Notes:

*Invoiced to FAs; includes energy cost adjustments

Category C costs are not included

Updated list of qualified authors (September 30, 2002) used for Category A

Category B is based on CORE contributions

Table 2