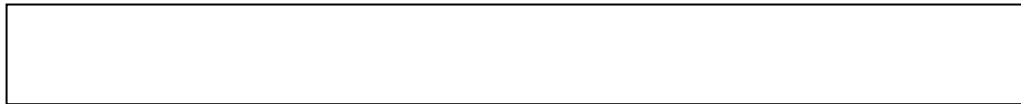
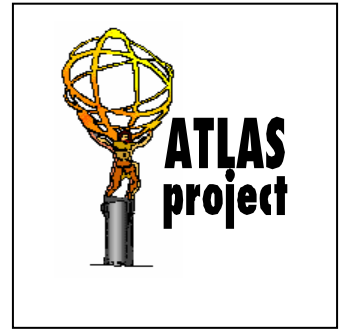


CERN-RRB-2006-018

ATLAS Resources Review Board, April 25, 2006



2005 – 2007 ATLAS Baseline and Cost to Completion Budgets



CERN-RRB-2006-018

ATLAS Resources Review Board, April 25, 2006

For RRB approval




Part 1

Closing Report for 2005 ATLAS Baseline and Cost to Completion Budgets

Introduction

The ATLAS management kindly invites the RRB to approve the final baseline and cost to completion payments for 2005.

The RRB approved the year 2005 baseline budget for construction activities in October 2004, amounting to 30.6 MCHF in commitments and 54.4 MCHF in payments (CERN-RRB-2004-122). The proposed budget levels for cost to completion (CtC), composing of C&I (Commissioning and Integration) and CC-B (Construction Completion Category-B), were also endorsed by the RRB at 8.9 MCHF and 4.8 MCHF in total, respectively. The budget planning and reporting for the cost to completion payments is in line with the Completion Plan (CERN-RRB-2002-114 rev.). Updates were provided in April 2005 (CERN-RRB-2005-018) and in October 2005 (CERN-RRB-2005-100).

BASELINE BUDGET
REPORT ELEMENTS
 Activity Description
 Budget Evolution
 Table References

1. Baseline and CC-A Budget for 2005

The initial budget estimates for 2005 were updated in April and October 2005. Final baseline and CC-A budget figures in 2005 amounted to 29.4 MCHF for commitments and 43.0 MCHF for payments, the latter being some 20% below the approved budget.

The main changes in 2005 were as follows:

- Payments originally planned for ID module construction (Pixels, SCT, TRT) incurred only in 2005, resulting in an increase of 0.6 MCHF w.r.t the planning status in October 2004;
 - Production of the LAr electronics (High-Voltage and Low-Voltage systems) was slower than planned due to encountered quality problems in the fabrication process. As a result, payments of about 1. MCHF are shifted to 2006 w.r.t. plans;
 - TDAQ Level-1 and High Level Trigger electronics production was slower than planned shifting payments to 2006 by about 1.4 MCHF;
 - Encountered delays in the BT and detector installation and related testing programmes - and therefore in the related technical support at Point 1 - have had an impact on the spending profile in several magnet and infrastructure
-

related work packages in Point 1. As part of continuous efforts to avoid cashflow problems, several contract payments as well as charging by various CERN technical services were delayed as much as possible. The difference between original planning and final payments was about 8.1 MCHF.




Table 1 shows the 2005 ATLAS baseline budget evolution, CC-A is also included for the Common Projects.

Table 1. Evolution of the 2005 ATLAS Baseline and CC-A Budget (MCHF)

Budget Evolution	Sub-systems		Common Projects		Total (MCHF)	
	Comm.	Paym.	Comm.	Paym.	Comm.	Paym.
2005 Budget (Oct '04)	19.1	22.7	11.5	31.7	30.6	54.4
2005 Update (April '05)	27.4	34.6	19.1	40.6	46.5	75.2
2005 Actual	18.9	19.4	10.5	23.6	29.4	43.0

Details by system/sub-detector and Funding Agencies are presented in **Tables 2 to 4**.

A summary of all CORE expenses since 1995 until the end of 2005 is presented in **Table 5**, excluding costs to completion. Details about the present status of contributions made to the Common Projects by Funding Agencies can be found in document CERN-RRB-2006-028.

C & I B U D G E T	
R E P O R T E L E M E N T S	
	Activity Description
	Payment Report
	Table References

2. Commissioning and Integration (C&I) for 2005

The concept of C&I was introduced in October 2001 (ATLAS RRB-D 2001-121). C&I activities comprise tasks before the construction phase is completed, taking place (mostly) outside the ATLAS Pit. The C&I costs stem from the ATLAS strategy of decentralizing assembly and integration tasks in existing facilities at CERN, initially chosen to minimize surface building costs at Point 1, and from the use of technical services now charged to the Collaboration. The C&I cost estimates amount to 21 MCHF in total (including hired institute manpower) following a scrutiny process launched by the RRB Chairperson (CERN-RRB-2002-047). C&I does not include test-beam activities which are part of the Maintenance and Operation (M&O) framework (CERN-RRB-2002-149).

In its October 2004 meeting, the RRB accepted the proposed C&I budget of 8.9 MCHF for payments (CERN-RRB-2004-122) it being understood that Funding Agencies were not obliged but encouraged on a best effort basis to contribute their calculated share of these costs as shown in Table 10 of that document. Moreover, it was understood that ATLAS can make well documented cash displacements from its baseline resources (such as deferred money due to staging) to match any eventual gap between the incurred payments and actual income.

As reported in the 2005 RRBs, the C&I budget plan was adjusted to the construction schedule and available funding (including deferral and advanced contributions).

Resulting from these adjustments, the final payments for 2005 were recorded at 9.1 MCHF with remaining commitments worth 1.6 MCHF, shifted to 2006. The share of in-kind contributions included amounted to 705 kCHF.

The overall negative cash balance (-4.0 MCHF) was compensated by positive carry-over from the previous year. The global budget balance is given in Table 17.

For the common items (Category-A) which are under the responsibility of the Technical Coordination (TCn), the main cost was associated with the operation of cranes in Buildings 185, 180, 191 and at Point 1 and commissioning services at Point 1. In total, these costs amounted to 6.7 MCHF. It should be noted that this figure includes 5.2 MCHF worth of infrastructure support provided by CERN to Point 1 since 2002, such as cranes, support structures, engineering support and technical services. The payments for these items were delayed until 2005 in agreement with CERN, as part of managing the overall cash flow position.

For system-specific items (Category-B), the main activities continued equipping the SR-1 building at Point 1 for the Inner Detector and the installation tasks of the LAr calorimeter and one cryostat in the ATLAS cavern. In the Tile Calorimeter, commissioning work started in the cavern. For the Muons, test area preparation

work in BB5 continued at a steady pace and the integration work for the gas system proceeded as planned. These activities resulted in payments of 2.4 MCHF.

The main cost drivers were replacement of electronics and pool rentals (0.6 MCHF), the use of gases and coolants (0.6 MCHF) as well as standard store items such as cables, connectors, switches etc. (0.4 MCHF). The engineering support and other technical manpower amounted to 0.7 MCHF. Some 68 FTEs were made available by participating institutes as part of their construction commitments.

More details of the payment breakdown per system are shown in **Table 6** and contributions made for 2005 by Funding Agency, including both cash and in-kind contributions, are shown in **Table 7**. The table also shows for reference the calculated amount of the 2005 share of the original, full C&I costs of 21 MCHF to which not all Funding Agencies have yet committed.

CC BUDGET	
REPORT ELEMENTS	
Activity Description	
Payment Report	
Table References	

3. Construction Completion (CC-B) for 2005

The CC-B costs are related to the completion of the ATLAS detector systems. CC-B includes tasks and items missing from the original cost estimates as well as cost increases associated with supply contracts. The breakdown of these costs is given in the document CERN-RRB-2002-114 (Annex).

In October 2004, the RRB accepted the proposed CC-B budget of 4.8 MCHF.

The final CC-B payments in 2005 amounted to 4.2 MCHF and remaining open commitments to 2.2 MCHF, respectively.

The main CC-B activities in 2005 focused around the construction of the Inner Detector facilities in the SR-1 building (tooling, test stations, cabling, related infrastructure) for all sub-systems. In the Tiles, LAr and the Muon systems, major share of the resources were allocated to finishing the production of trigger cables, electronics and power supplies. Due to lower production speeds than expected, given also that a large share of the production is coordinated by CERN technical teams, payments were delayed by ca. 0.6 MCHF in the ID and by 0.7 MCHF in the LAr system w.r.t the original plans. Instead, 0.5 MCHF was advanced in the Muons w.r.t the approved budget (CSM electronics, modules) and 0.2 MCHF in the Tiles (LV power supplies). As a result, the delayed payments will occur in 2006. The share of in-kind contributions amounted to 105 kCHF.

Table 8 summarizes the Category-B payments per system based on the headings used in the LHCC CORE Review in 2001 (CERN/LHCC 2001-027) and in CERN-RRB-2002-026.

Table 9 shows the CC-B income received from the Funding Agencies for 2005 per system. For reference, it also shows the calculated 2003 share per Funding Agency (based on October 2004 update) of the total CC-B cost of 12 MCHF not yet committed to by all Funding Agencies.

The overall negative cash balance (-3.0 MCHF) was compensated by positive carry-over from the previous year.

**Planned CORE and CC-A Contributions to ATLAS Detector Construction
during 2005 by Funding Agency
(Commitments, in kCHF)**

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						0	0
Australia						50	50
Austria						13	13
Azerbaijan						0	0
Belarus						0	0
Brazil						0	0
Canada						2304	2304
China NSFC+MSTC						13	13
Czech Republic						38	38
Denmark					500	13	513
Finland						0	0
France IN2P3	640					75	715
France CEA						13	13
Georgia						0	0
Germany BMBF	1665				1340	113	3118
Germany MPI						100	100
Greece						0	0
Israel					150	38	188
Italy	1390				1475	160	3025
Japan					675	891	1566
Morocco						1	1
Netherlands					355	107	462
Norway						25	25
Poland						25	25
Portugal						13	13
Romania						13	13
Russia				150		175	325
JINR	270					13	283
Serbia						137	137
Slovak Republic						15	15
Slovenia						13	13
Spain						258	258
Sweden					330	107	437
Switzerland		355			100	25	480
Taipei	500	50				18	568
Turkey						25	25
United Kingdom	110				3125	2003	5238
US DOE+NSF	575	2560			690	723	4548
CERN	85				1825	1352	3262

from past Common Fund contributions

1,665

total sub-detector

5,235	2,965	-	150	10,565	10,527	29,442
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Planned CORE and CC-A Contributions to ATLAS Detector
Construction during 2005 by Funding Agency
(Payments, in kCHF)

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						0	0
Australia	555					350	905
Austria						13	13
Azerbaijan						0	0
Belarus						96	96
Brazil						0	0
Canada	100					383	483
China NSFC+MSTC						13	13
Czech Republic	140					38	178
Denmark	590					13	603
Finland						0	0
France IN2P3	225					13	238
France CEA		10				13	23
Georgia						0	0
Germany BMBF	1725				900	113	2738
Germany MPI		60				1475	1535
Greece						0	0
Israel					150	38	188
Italy					1200	160	1360
Japan	30				675	629	1334
Morocco						13	13
Netherlands	140				435	1507	2082
Norway	5					25	30
Poland	165					25	190
Portugal						12	12
Romania						13	13
Russia	370			150		820	1340
JINR	230					13	243
Serbia						137	137
Slovak Republic						15	15
Slovenia						253	253
Spain	60					258	318
Sweden	165				330	782	1277
Switzerland	520	340			100	25	985
Taipei	500	70				558	1128
Turkey						50	50
United Kingdom	455				2655	1533	4643
US DOE+NSF	405	1630			690	4435	7160
CERN	1465				2210	3087	6762

from past Common Fund contributions 6,678

missing contributions to meet planned project payments 0

total sub-detector	7,845	2,110	-	150	9,345	23,576	43,026
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Planned CORE Common Project Contributions
during 2005 by Funding Agency
 (Baseline+CC-A, in kCHF)

Funding Agency	payments				new commitments needed		
	in-kind contrib.	cash contrib.	m.s. contrib.	total contrib.	in-kind contrib.	Common Fund	total contrib.
Armenia	0	0	0.0	0	0	0	0
Australia	0	300	50.0	350	0	50	50
Austria	0	0	12.5	13	0	13	13
Azerbaijan	0	0	0.0	0	0	0	0
Belarus	0	0	95.7	96	0	0	0
Brazil	0	0	0.0	0	0	0	0
Canada	0	295	87.5	383	0	2304	2304
China NSFC+MSTC	0	0	12.5	13	0	13	13
Czech Republic	0	0	37.5	38	0	38	38
Denmark	0	0	12.5	13	0	13	13
Finland	0	0	0.0	0	0	0	0
France IN2P3	0	0	12.5	13	0	75	75
France CEA	0	0	12.5	13	0	13	13
Georgia	0	0	0.0	0	0	0	0
Germany BMBF	0	0	112.5	113	0	113	113
Germany MPI	750	713	12.5	1475	0	100	100
Greece	0	0	0.0	0	0	0	0
Israel	0	0	37.5	38	0	38	38
Italy	0	10	150.0	160	0	160	160
Japan	400	41	187.5	629	100	791	891
Morocco	0	0	13.0	13	0	1	1
Netherlands	1482	0	25.0	1507	82	25	107
Norway	0	0	25.0	25	0	25	25
Poland	0	0	25.0	25	0	25	25
Portugal	0	0	11.5	12	0	13	13
Romania	0	0	12.5	13	0	13	13
Russia	425	0	395.0	820	0	175	175
JINR	0	0	12.5	13	0	13	13
Serbia	0	124	12.5	137	0	137	137
Slovak Republic	0	2	12.5	15	0	15	15
Slovenia	0	240	12.5	253	0	13	13
Spain	0	221	37.5	258	0	258	258
Sweden	0	732	50.0	782	0	107	107
Switzerland	0	0	25.0	25	0	25	25
Taipei	0	545	12.5	558	0	18	18
Turkey	0	0	50.0	50	0	25	25
United Kingdom	0	1371	162.5	1533	0	2003	2003
US DOE+NSF	0	4022	412.5	4435	0	723	723
CERN	935	2139	12.5	3087	0	1352	1352
Common Fund	0	6,678	0	6,678		1,665	1,665
missing contributions to meet planned project payments				0			
total	3,992	17,431	2,153	23,576	182	10,345	10,527

Actual Cumulative Expenses for ATLAS Detector Construction
from 1999 to EoY 2005 by Funding Agency (baseline, kCHF)
Situation as of January 1st, 2006

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	muon cham.	trigger /DAQ	total contrib.	Common Projects				total
							in-kind contrib.	cash contrib.	m.s. contrib.	total contrib.	
Armenia			95			95			101	100.5	196
Australia	1390					1390	250	300	200	750.0	2140
Austria							200		100	300.0	300
Azerbaijan									100	100.0	100
Belarus									192	192.4	192
Brazil			85			85			75	75.0	160
Canada	100	8590				8690	3360	510	700	4570.0	13260
China NSFC+MSTC*		370		765		1135			100	100.0	1235
Czech Republic	465		500			965	315		300	615.0	1580
Denmark	695					695	200	1100	100	1400.0	2095
Finland									100	100.0	100
France IN2P3	1715	18630	2110			22455	11795	5805	600	18200.0	40655
France CEA*		5715		2175		7890	5120	1280	100	6500.0	14390
Georgia									53	52.6	53
Germany BMBF	7070	3158		2980	3865	17073	13315	7	900	14222.1	31295
Germany MPI	1690	1722		865		4277	2075	1125	100	3300.0	7577
Greece			90	985		1075	260		225	485.0	1560
Israel				2565	335	2900	1000	300	300	1600.0	4500
Italy	4610	4245	1375	10885	3885	25000	18600		1200	19800.0	44800
Japan	6585			6805	3025	16415	11800	100	1500	13400.0	29815
Morocco		210				210			38	37.5	248
Netherlands	1530			3005	485	5020	6700		200	6900.0	11920
Norway	2325					2325	1150	300	200	1650.0	3975
Poland	405					405	140	60	200	400.0	805
Portugal			1005			1005	799	88	100	986.5	1992
Romania			300			300	120	30	100	250.0	550
Russia*	2790	3630	811	2250		9481	3855	600	713	5167.5	14649
JINR	935	1315	1099	1760		5109	1800		100	1900.0	7009
Serbia											
Slovak Republic		290	45			335	50	50	100	200.0	535
Slovenia	840					840		600	100	700.0	1540
Spain	1210	2340	1970			5520	4300		300	4600.0	10120
Sweden	3075	1530	895		410	5910	1240	2982	400	4622.1	10532
Switzerland	4955	890			100	5945	8400	276	200	8875.5	14821
Taipei*	1000	700				1700		1104	100	1204.0	2904
Turkey									200	200.0	200
United Kingdom	13170				2805	15975	2852	9516	1300	13668.0	29643
US DOE+NSF	11640	14880	3560	8770	850	39700	13600	14822	3301	31722.6	71423
CERN*	9010	8610	3000	1500	2985	25105	7860	19438	100	27398.0	52503

from Common Fund

6678

total sub-detector	77205	76825	16940	45310	18745	235025	121156	67070	14796	203022	438047
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ATLAS C+I (A) and (B) Payments in 2005 (kCHF)

Item & Cost Driver (by RRB/LHCC SG Headings)	Cat. A								Cat. B	Item & Cost Driver (by RRB/LHCC SG Headings)	
	C&I	Pixel	SCT	TRT	IDGen	LAr	TileC	Muon	C&I		
Detector related costs Design and engineering tasks	557			25	241	127	18	140	551	Mechanics & Gas & Cooling & Cryogenics Gases (LAr, Tiles, Muons)	
Secretariat							8	230	361	599	Standard electronics FE electronics (LAr)
Communications					59			6		65	Detector controls small components
On-line computing				7	27	30	25			89	Areas SR-building operation (ID)
Test beams, facilities							5	3	5	13	Communications GSM phones
Laboratory operations Infrastructure at Point 1 (cranes, access support structures, tech. services)	5,190				105	57	60	135		357	Store items Store materials (metal sheet, cables, connectors, components)
General services Heavy transport, crane operations Technical expertise	949									0	Sub-detector spares
TOTAL	6,696	0	0	32	432	227	342	641	1,674	(Excluding hired manpower for Category B)	
Hired manpower at CERN (in kCHF)	incl. above			71	188	80	215	100		654	
Hired institute manpower (in kCHF)							38			38	
Institute manpower (in FTE)	0			5	2	26	5	30		68	
TOTAL C&I FOR A	6,696	0	0	103	620	307	595	741	2,366	TOTAL C&I FOR B	

Notes:

1. Category A is charged to the entire Collaboration, B to the respective systems based on CORE.

C+I Contributions (cash and in-kind)
for ATLAS in 2005 by Funding Agency (Categories A and B, in kCHF)

Funding Agency	Cat. A items	Category B item contributions						Total Cat. B	Total A+B	Total Calc.+	
		Pixel	SCT	TRT	IDGen	LA	TileC				Muon
Armenia							0	0	6		
Australia							0	0	31		
Austria	4						0	4	5		
Azerbaijan							0	0	2		
Belarus							0	0	3		
Brazil							0	0	5		
Canada	336						0	336	185		
China NSFC+MSTC	5			3			3	8	13		
Czech Republic			2		17		19	19	36		
Denmark							0	0	48		
France IN2P3	11		37	95	106		238	249	552		
France CEA							0	0	170		
Georgia							0	0	2		
Germany BMBF	454			16		38	54	508	366		
Germany MPI	54		25	11		8	44	98	96		
Greece							0	0	22		
Israel							0	0	62		
Italy	205		40	18	8	124	190	395	567		
Japan	288		151			209	360	648	370		
Morocco							0	0	3		
Netherlands	82		13			30	43	125	159		
Norway	22		20				20	42	51		
Poland							0	0	14		
Portugal	38				60		60	98	58		
Romania	15				11		11	26	18		
Russia	398				28	37	65	463	321		
JINR				62			62	62	120		
Serbia											
Slovak Republic							0	0	6		
Slovenia							0	0	19		
Spain	53		11		82		93	146	188		
Sweden	57						0	57	188		
Switzerland							0	0	198		
Taipei	16		8	7			15	31	37		
Turkey							0	0	3		
United Kingdom	250		116				116	366	372		
US DOE + NSF							0	0	1170		
CERN	972		124	84	79	120	15	422	1394	887	
total contributions	3,260	0	0	124	507	291	432	461	1,815	5,075	6,357
other income*									0	0	
total payments	6,696			103	620	307	595	741	2,366	9,062	
balance										(3,987)	

Notes:

*Funds available either in baseline or by using deferral funds or contribution advancements

+Calculated annual share of C&I total of 21 MCHF (not yet committed to by all FAs)

Cost sharing based on CORE contributions

ATLAS CC-B Payments in 2005 (kCHF)

Pixel	SCT	TRT	IDGen	LAr	TileC	Muon	Cat. B	Item & Cost Driver (by LHCC CORE Headings)
							CC	
34		135	47	502			718	Non-CORE Infrastructure Storage, test areas, modifications, repairs
356	225	140	231		643		1,595	Additional CORE Tooling, test-stations, detector equipment
9			387			1,498	1,894	Non-covered CORE Detector equipment
399	225	275	665	502	643	1,498	4,207	Total

4,207	TOTAL CC FOR B
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Notes

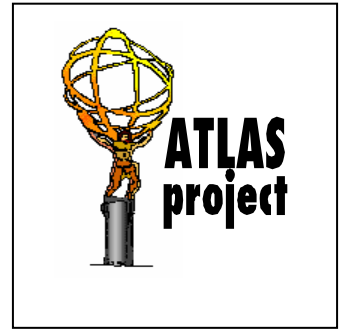
Category B is system-specific and based on CORE sharing
 Payments 2005 CC Category A are included in Table 3

**CC-B Contributions (cash and in-kind)
for ATLAS in 2005 by Funding Agency
(in kCHF)**

Funding Agency	Category B item contributions					Total Cat. B	Total Calc.+		
	Pixel	SCT	TRT	IDGen	LAr			TileC	Muon
Armenia						0	1		
Australia						0	2		
Austria						0	0		
Azerbaijan						0	0		
Belarus						0	0		
Brazil						0	1		
Canada						0	77		
China NSFC+MSTC			2		4	6	8		
Czech Republic	1					1	6		
Denmark						0	6		
France IN2P3	30		105	235		370	206		
France CEA						0	87		
Georgia						0	0		
Germany BMBF						0	139		
Germany MPI	1	1				2	33		
Greece						0	16		
Israel						0	41		
Italy	80		5	35	7	140	267		
Japan	58	23				319	400		
Morocco						0	2		
Netherlands	1	1				39	41		
Norway	2	2				4	3		
Poland						0	2		
Portugal					73	73	6		
Romania					16	16	2		
Russia						0	112		
JINR		1				1	43		
Serbia						0			
Slovak Republic						0	3		
Slovenia						0	1		
Spain	1				12	13	35		
Sweden						0	33		
Switzerland						0	18		
Taipei	7			5		12	14		
Turkey						0	0		
United Kingdom	10	11				21	20		
US DOE + NSF						0	397		
CERN			22			22	171		
total contributions	118	73	1	43	169	343	502	1,249	1,919
other income*								0	
total payments	399	225	275	665	502	643	1498	4,207	
balance								(2,958)	

Notes:

*Funds available either in baseline or by using deferral funds or contribution advancements
+Calculated annual share of CC Category B of total 12 MCHF (not yet committed to by all FAs);
cost sharing based on CORE contributions.



CERN-RRB-2006-018

ATLAS Resources Review Board, April 25, 2006

For RRB to take note




Part 2

Update on the Planned 2006 ATLAS Baseline and Cost to Completion Budgets

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to take note of the updated, planned baseline and cost to completion payments for 2006.

In October 2005, the RRB approved the year 2006 ATLAS baseline and cost to completion budgets (CERN-RRB-2005-100). The baseline and CC-A commitments were planned at 14.9 MCHF and payments 28.5 MCHF, respectively. Based on the same document, the RRB also accepted the proposed budget levels for C&I (Commissioning and Integration) and CC-B (Construction Completion) at 3.5 MCHF and 3.3 MCHF, respectively. The present budget planning and reporting for the cost to completion payments is in line with the Completion Plan (CERN-RRB-2002-114 rev.).

<hr/> BASELINE BUDGET	1. Baseline and CC-A Budget Update for 2006
REPORT ELEMENTS	The updated planned 2006 baseline commitments are estimated at 24.6 MCHF and payments at 44.4 MCHF, respectively. This represents a 55% increase w.r.t the original budget, within the approved budget envelope. The changes are driven by the following factors:
 Summary Update	
 Budget Evolution	
 Table References	

- Delays generated by technical problems in the BT and detector installation have shifted payments from 2005 to 2006;
- Delayed payments in detector-related electronics, trigger cables and TDAQ equipment;
- Payments, in particular for technical services rendered by CERN, have been pushed to the last possible moment as part of the global cash flow management (see Table 17).

Table 10 shows the 2006 ATLAS baseline budget evolution.

Table 10. Evolution of the 2006 ATLAS Baseline Budget (MCHF)

Budget Evolution	Sub-systems		Common Projects		Total (MCHF)	
	Comm.	Paym.	Comm.	Paym.	Comm.	Paym.
2006 Budget (Oct '05)	10.0	10.8	4.9	17.7	14.9	28.5
2006 Update (April '06)	12.9	16.2	11.7	28.2	24.6	44.4

Details by system/sub-detector and Funding Agencies are presented in **Tables 11 to 13**. It should be noted that for some Funding Agencies, the contributions exceed the original CORE values. The final contributions will be aligned with the CORE values in 2007 for 2006 and any differences will be recorded separately.

It should be noted that the Common Projects income (21 MCHF) is what ATLAS is requesting from the Funding Agencies, including also funds not received as part of the approved 2005 budget. The major due contributions to the baseline are: Russia and JINR (5.2 MCHF), Greece (1.5 MCHF), Canada (1.5 MCHF), United States (1.0 MCHF) and China (0.3 MCHF).

2. Commissioning and Integration (C&I)

In its October 2005 meeting, the RRB accepted the proposed C&I budget of 3.5 MCHF for payments in 2006 (CERN-RRB-2005-100), it being understood that Funding Agencies were not obliged to contribute their calculated share of these costs as shown in Table 12 of that document but that pledged (Category-1) contributions would be made available as soon as possible. The updated C&I budget estimate for 2006, its final year, amounts to 3.3 MCHF.

Table 14 shows the expected contributions for 2006 for each Funding Agency and system (Categories A and B, both based on CORE sharing). These contributions are part of the present, committed amount of 21 MCHF to C&I and they amount to 2.1 MCHF for Category-A and 1.6 MCHF for Category-B.

CC BUDGET	
REPORT ELEMENTS	
Summary Update	
Payment Plan	
Table References	

3. Construction Completion (CC-B)

In October 2005 the RRB accepted the proposed CC-B budget of 3.3 MCHF for payments (CERN-RRB-2004-100) under the same conditions as for the C&I budget (see Section 2). The updated CC-B budget estimate for 2006 is 4.6 MCHF, absorbing large contractual commitments made in 2005.

Table 15 shows the expected CC-B contributions for 2006 for each Funding Agency and system. These contributions are part of the present, committed amount of 11 MCHF to CC-B and they amount to 1.8 MCHF.

A negative budget balance (-2.8 MCHF) is observed. Unless requested contributions for the 2005 baseline budget (Common Fund) or request deferral contributions become available, new commitments will be delayed to compensate for the deficit.

Table 15 also shows for reference the calculated amount of the 2006 share of the full CC-B costs of 12 MCHF to which not yet all Funding Agencies have committed to.

Although the issue of budget balance is globally addressed in Table 17, it is worth noticing that the deferral scheme endorsed by the RRB in 2002 has not so far been successful in avoiding the projected budget deficit.

The deferral scheme was approved by the RRB in 2002 as part of the Completion Plan (CERN-RRB-2004-114 rev.) to financially bridge the gap between the planned Cost to Completion (CtC) payments (68 MCHF) and pledged contributions (initially, 47 MCHF). This is achieved by staging certain baseline detector components, mostly TDAQ processors, thus redirecting originally committed baseline CORE MoU funds towards completing the initial detector. The staged items will then be restored centrally by the ATLAS management once the received CtC contributions reach 68 MCHF.

It should be emphasized that even if the 68 MCHF would be today fully pledged, the staged items still need to be restored. This means that those Funding Agencies which had committed to the staged items as part of their initial CORE MoU obligations are expected to fulfill their original financial commitments as soon as possible, irrespective of the status of the CtC income.

Table 16 shows the present status and allocation of deferral contributions, as part of the Completion Plan (CERN-RRB-2002-114 rev.). These contributions will be included in the final CORE contribution reporting.

A global view of the pledged (Category-1) contributions per each Funding Agency in C&I and CC (Categories A and B) is shown in the **Annex** of Part 3.

**Planned CORE and CC-A Contributions to ATLAS Detector Construction
during 2006 by Funding Agency
(Commitments, in kCHF)**

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						38.0	38
Australia						25.0	25
Austria					140	13.0	153
Azerbaijan						18.0	18
Belarus						75.0	75
Brazil						38.0	38
Canada						839.0	839
China NSFC+MSTC						353.0	353
Czech Republic					2	38.0	40
Denmark						13.0	13
Finland						0.0	0
France IN2P3						773.0	773
France CEA						13.0	13
Georgia						38.0	38
Germany BMBF		450			200	460.0	1110
Germany MPI		125				57.5	183
Greece						113.0	113
Israel					3	38.0	41
Italy				3865	1935	2381.0	8181
Japan					470	749.5	1220
Morocco						26.0	26
Netherlands					25	25.0	50
Norway						41.0	41
Poland					10	25.0	35
Portugal					115	23.0	138
Romania						13.0	13
Russia				200		868.0	1068
JINR					95	25.0	120
Serbia						13.0	13
Slovak Republic						13.0	13
Slovenia						35.0	35
Spain						38.0	38
Sweden					195	128.0	323
Switzerland		150			845	25.0	1020
Taipei						13.0	13
Turkey						25.0	25
United Kingdom					745	322.0	1067
US DOE+NSF		940			250	4160.0	5350
CERN					2150	12.5	2163
total sub-detector	-	1,665	-	4,065	7,180	11,904	24,814

Planned CORE and CC-A Contributions to ATLAS Detector
Construction during 2006 by Funding Agency
(Payments, in kCHF)

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						38.0	38
Australia						380.0	380
Austria					140	13.0	153
Azerbaijan						18.0	18
Belarus						83.0	83
Brazil						63.0	63
Canada						2869.0	2869
China NSFC+MSTC						353.0	353
Czech Republic	5				2	38.0	45
Denmark	235				175	13.0	423
Finland						0.0	0
France IN2P3	10					773.0	783
France CEA						13.0	13
Georgia						85.0	85
Germany BMBF	35	450			640	460.0	1585
Germany MPI		125				57.5	183
Greece						378.0	378
Israel					3	538.0	541
Italy	25			3865	2210	2381.0	8481
Japan					470	1349.5	1820
Morocco						138.0	138
Netherlands	225				25	25.0	275
Norway						191.0	191
Poland					10	25.0	35
Portugal					115	23.0	138
Romania						13.0	13
Russia				200		3095.0	3295
JINR					95	425.0	520
Serbia						13.0	13
Slovak Republic						13.0	13
Slovenia						35.0	35
Spain						38.0	38
Sweden					195	128.0	323
Switzerland		150			845	25.0	1020
Taipei						128.0	128
Turkey						25.0	25
United Kingdom	150				1265	1657.0	3072
US DOE+NSF	360	940			250	4836.0	6386
CERN	805				2150	12.5	2968

from past Common Fund contributions 0.0

missing contributions to meet planned project payments 7,471

total sub-detector	1,850	1,665	-	4,065	8,590	28,220	44,390
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Planned CORE Common Project Contributions
during 2006 by Funding Agency
 (Baseline+CC-A, in kCHF)

Funding Agency	payments				new commitments needed		
	in-kind contrib.	cash contrib.	m.s. contrib.	total contrib.	in-kind contrib.	Common Fund	total contrib.
Armenia	0	0	38	38	0	38	38
Australia	0	355	25	380	0	25	25
Austria	0	0	13	13	0	13	13
Azerbaijan	0	0	18	18	0	18	18
Belarus	0	0	83	83	0	75	75
Brazil	0	0	63	63	0	38	38
Canada	0	2781	88	2869	0	839	839
China NSFC+MSTC	0	340	13	353	0	353	353
Czech Republic	0	0	38	38	0	38	38
Denmark	0	0	13	13	0	13	13
Finland	0	0	0	0	0	0	0
France IN2P3	0	698	75	773	0	773	773
France CEA	0	0	13	13	0	13	13
Georgia	0	0	85	85	0	38	38
Germany BMBF	0	348	113	460	0	460	460
Germany MPI	0	45	13	58	0	58	58
Greece	0	190	188	378	0	113	113
Israel	0	500	38	538	0	38	38
Italy	0	2231	150	2381	0	2381	2381
Japan	0	1162	188	1350	0	750	750
Morocco	0	50	88	138	0	26	26
Netherlands	0	0	25	25	0	25	25
Norway	0	166	25	191	0	41	41
Poland	0	0	25	25	0	25	25
Portugal	0	0	23	23	0	23	23
Romania	0	0	13	13	0	13	13
Russia	375	2545	175	3095	0	868	868
JINR	0	400	25	425	0	25	25
Serbia	0	0	13	13	0	13	13
Slovak Republic	0	0	13	13	0	13	13
Slovenia	0	23	13	35	0	35	35
Spain	0	0	38	38	0	38	38
Sweden	0	78	50	128	0	128	128
Switzerland	0	0	25	25	0	25	25
Taipei	0	115	13	128	0	13	13
Turkey	0	0	25	25	0	25	25
United Kingdom	0	1495	163	1657	0	322	322
US DOE+NSF	0	4423	413	4836	1500	2660	4160
CERN	0	0	13	13	0	13	13
Common Fund	0	0	0	0			
missing contributions to meet planned project payments				7471			
total	375	17,944	2,430	28,220	1,500	10,404	11,904

**Planned C+I Contributions (cash and in-kind)
for ATLAS in 2006 by Funding Agency (Categories A and B, in kCHF)**

Funding Agency	Cat. A items	Category B item contributions						Total Cat. B	Total A+B	Total Calc.+	
		Pixel	SCT	TRT	IDGen	LA	TileC				Muon
Armenia							0	0	6		
Australia							0	0	31		
Austria							0	0	5		
Azerbaijan							0	0	2		
Belarus							0	0	3		
Brazil							0	0	5		
Canada				155			155	155	185		
China NSFC+MSTC							0	0	13		
Czech Republic							0	0	36		
Denmark							0	0	48		
France IN2P3	740		27	239	106		372	1112	552		
France CEA	245						0	245	170		
Georgia							0	0	2		
Germany BMBF			65	2			67	67	366		
Germany MPI				1			1	1	96		
Greece							0	0	22		
Israel	106						0	106	62		
Italy	246		31	17	72	159	279	525	567		
Japan							0	0	370		
Morocco							0	0	3		
Netherlands							0	0	159		
Norway							0	0	51		
Poland	20		2				2	22	14		
Portugal	6				72		72	78	58		
Romania							0	0	18		
Russia				65	26		91	91	321		
JINR							0	0	120		
Serbia											
Slovak Republic							0	0	6		
Slovenia	36		35				35	71	19		
Spain					10		10	10	188		
Sweden			35	63	24	73	195	195	188		
Switzerland	433		210	25			235	668	198		
Taipei							0	0	37		
Turkey							0	0	3		
United Kingdom	232						0	232	372		
US DOE + NSF							0	0	1170		
CERN							0	0	887		
total contributions	2,064	0	0	37	431	528	359	159	1,514	3,578	6,357
other income*							0	0			
total payments	153			150	1375	378	455	789	3,147	3,300	
balance										278	

Notes:

*Funds available either in baseline or by using deferral funds or contribution advancements

+Calculated annual share of C&I total of 21 MCHF (not yet committed to by all FAs)

Cost sharing based on CORE contributions

**Planned CC-B Contributions (cash and in-kind)
for ATLAS in 2006 by Funding Agency
(in kCHF)**

3/29/2006

Funding Agency	Category B item contributions						Total Cat. B	Total Calc.+
	Pixel	SCT	TRT	IDGen	LAr	TileC		
Armenia							0	1
Australia							0	2
Austria							0	0
Azerbaijan							0	0
Belarus							0	0
Brazil							0	1
Canada							0	77
China NSFC+MSTC				1		1	2	8
Czech Republic							0	6
Denmark							0	6
France IN2P3	124		31	145			300	206
France CEA							0	87
Georgia							0	0
Germany BMBF				54		9	63	139
Germany MPI				70			70	33
Greece							0	16
Israel							0	41
Italy	80		5	28		140	253	261
Japan							0	121
Morocco				3			3	2
Netherlands						13	13	51
Norway							0	3
Poland							0	2
Portugal					37		37	6
Romania							0	2
Russia				51			51	112
JINR		2		13			15	43
Serbia							0	
Slovak Republic							0	3
Slovenia	19						19	1
Spain							0	35
Sweden	12	38	14	34	37		135	33
Switzerland	41		73	30			144	18
Taipei				4			4	14
Turkey							0	0
United Kingdom							0	20
US DOE + NSF	43	4	23	10	206	149	435	397
CERN				206			206	171
total contributions	247	76	63	133	845	74	312	1,750
other income*								0
total payments	445	574	0	159	1787	827	775	4,567
balance								(2,817)

Notes:

*Funds available either in baseline or by using deferral funds or contribution advancements
 +Calculated annual share of CC Category B of total 12 MCHF (not yet committed to by all FAs);
 cost sharing based on CORE contributions.

**Status of Deferral Contributions (cash and in-kind)
for ATLAS by Funding Agency (in kCHF)
(February 28, 2006)**

3/29/2006

Funding Agency	Contribution		Deferral contribution allocated to						Total alloc.	
	Pixel	TDAQ	Magnets	LArCC	Infrastr.	ID	LAr	TileC		Muon
Armenia										0
Australia										0
Austria										0
Azerbaijan										0
Belarus										0
Brazil										0
Canada										0
China NSFC+MSTC										0
Czech Republic										0
Denmark		500								500
France IN2P3	380		500							380
France CEA										0
Georgia										0
Germany BMBF		105	105							105
Germany MPI										0
Greece										0
Israel										0
Italy										0
Japan		565	565							565
Morocco										0
Netherlands		325	325							325
Norway										0
Poland										0
Portugal		50								0
Romania										0
Russia										0
JINR										0
Serbia										0
Slovak Republic										0
Slovenia										0
Spain										0
Sweden										0
Switzerland										0
Taipei										0
Turkey										0
United Kingdom		1110	1110							1110
US DOE + NSF										0
CERN										0
total contributions	380	2,655	2985	0	0	0	0	0	0	2,985

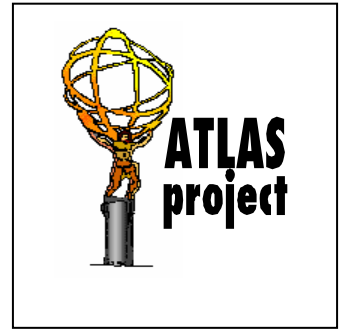
Notes:

Deferral scheme as part of the Cost to Completion Plan (CERN-RRB-2002-114 rev.)

Deferral funds refer to resources allocated to original CORE obligations now staged

Total of approved deferral funding is 13 MCHF for TDAQ and 3 MCHF for Pixels

The deferral contributions will be included in the final CORE baseline payments report



CERN-RRB-2006-018

ATLAS Resources Review Board, April 25, 2006

For RRB to take note

Part 3




Preliminary 2007 ATLAS Baseline and Cost to Completion Budget Estimates

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to take note of the preliminary baseline budget estimates for 2007.

The first budget estimates for the ATLAS detector construction baseline expenses in 2007 amount to 4.9 MCHF in new commitments and payments. There are no planned cost to completion activities in 2007.

The year 2007 represents the final year of payments for the initial detector configuration as described in the Completion Plan (CERN-RRB-2002-114 rev.). In terms of payments, the year is dominated by the remaining high-level TDAQ production in time for data taking in Summer-2007.

<hr/>	1. Preliminary Baseline Budget Estimate for 2007
BASELINE BUDGET	
REPORT ELEMENTS	The preliminary 2007 baseline commitments and payments for the detector systems are estimated at 4.9 MCHF. This assumes that all commitments and payments requested in the 2006 budget update are honoured. There are no planned Common
 Budget summary	Projects (CP) payments left as part of the initial, staged
 Activity Description	detector. However, there are delayed CP contributions amounting to 0.4 MCHF for
 Table References	covering past payments.

The remaining payments are all part of the Trigger-DAQ system where the remaining processors will be installed at Point 1 by early 2007 ready for data taking in Summer-2007. The commitments exceed payments as it is hoped that ATLAS is able to start unstaging TDAQ items later in the year. In case this is not possible, the commitments will be adjusted downwards accordingly.

Table 17 provides an update of the global view of the budget balance evolution presented in the October 2005 RRB (CERN-RRB-2005-100). At that time, a budget deficit of up to 12 MCHF was projected by the end of 2006. The situation is not expected to improve significantly. The present projection is at 10 MCHF. In Table 17 it is assumed that all required deferral contributions will be made before the end of 2007 to bridge the gap between the 68 MCHF needed to complete the initial detector and the pledged contributions so far (63 MCHF).

However, in Table 17 baseline contributions worth ca. 7 MCHF are not expected to be received before the end of 2007. Following recent discussions with the Funding Agencies concerned, it is becoming apparent that obtaining due Common Fund contributions as well as some 3 MCHF of the expected deferral contributions before the end of 2007 could be optimistic. Moreover, the Funding Agencies in questions are not in a position to write firm pledges in order for ATLAS to obtain financial help from CERN. This means that at least 11 MCHF worth of deferral funds are needed from the 12 MCHF staging in the TDAQ and 3 MCHF from the Pixels, in the absence of firm pledges from the Funding Agencies whose baseline contributions are late.

Today, ca. 63 MCHF has been committed by Funding Agencies towards the CtC. It goes without saying that the ATLAS Collaboration is grateful to its Funding Agencies who are making huge efforts to reach their calculated share of the contributions. In particular, ATLAS wishes to express its gratitude to CERN who has committed 5 MCHF over and above its calculated share to help to complete ATLAS. However, such efforts must not be misinterpreted that remaining calculated contributions (CtC, deferrals) from other Funding Agencies are no longer needed.

The ATLAS and CERN Management continue their efforts to secure the due contributions from the Funding Agencies and will report on the situation in the October RRB.

Table 17. Updated evolution of the ATLAS Budget Balance (MCHF)

PAYMENTS	95-01	2002	2003	2004	2005	2006	2007	Total
Baseline + CC(A)	231	71	56	52	43	44	5	504
<i>of which deferrals</i>					-3	-2	-7	-11
C&I (A+B)	0	1	3	4	9	3	0	21
CC (B)		1	1	1	4	5		12
TOTAL	231	73	61	57	54	51	-1	525

INCOME	95-01	2002	2003	2004	2005	2006	2007	Total
Baseline + CC(A)	252	65	55	54	33	27	8	493
C&I (A+B)		1	9	3	4	4		21
CC (B)		2	4	2	1	1		11
TOTAL	252	68	68	59	38	32	8	525

BUDGET BALANCE	21	-5	7	2	-15	-19	10	0
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CUMULATIVE	21	15	23	25	9	-10	0
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Details of the budget estimates for 2007 by system/sub-detector and Funding Agencies are presented in **Tables 18 to 20**. It should be noted that the extended annual member fees end in 2006 and thus no longer appear in Table 20.

The **Annex** provides a global view of the pledged (Category-1) cost to completion funding per Funding Agency as well as the calculated share of the 68 MCHF which is needed to complete the initial ATLAS detector.

**Planned CORE and CC-A Contributions to ATLAS Detector Construction
during 2007 by Funding Agency
(Commitments, in kCHF)**

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						0.0	0
Australia						0.0	0
Austria					160	0.0	160
Azerbaijan						0.0	0
Belarus						0.0	0
Brazil						0.0	0
Canada						0.0	0
China NSFC+MSTC						0.0	0
Czech Republic					40	0.0	40
Denmark						0.0	0
Finland						0.0	0
France IN2P3						0.0	0
France CEA						0.0	0
Georgia						0.0	0
Germany BMBF					45	0.0	45
Germany MPI						0.0	0
Greece						0.0	0
Israel					55	250.0	305
Italy					415	0.0	415
Japan					465	0.0	465
Morocco						0.0	0
Netherlands					15	0.0	15
Norway						40.0	40
Poland					150	0.0	150
Portugal					10	0.0	10
Romania						0.0	0
Russia					5	0.0	5
JINR						0.0	0
Serbia						0.0	0
Slovak Republic						0.0	0
Slovenia						61.0	61
Spain						0.0	0
Sweden						0.0	0
Switzerland					1055	0.0	1055
Taipei						0.0	0
Turkey						0.0	0
United Kingdom					295	0.0	295
US DOE+NSF					675	0.0	675
CERN					1225	0.0	1225
total sub-detector	-	-	-	-	4,610	351	4,961

Planned CORE and CC-A Contributions to ATLAS Detector
Construction during 2007 by Funding Agency
(Payments, in kCHF)

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Projects	total
Armenia						0.0	0
Australia						0.0	0
Austria					160	0.0	160
Azerbaijan						0.0	0
Belarus						0.0	0
Brazil						0.0	0
Canada						0.0	0
China NSFC+MSTC						0.0	0
Czech Republic					40	0.0	40
Denmark					325	0.0	325
Finland						0.0	0
France IN2P3						0.0	0
France CEA						0.0	0
Georgia						0.0	0
Germany BMBF					45	0.0	45
Germany MPI						0.0	0
Greece						0.0	0
Israel					55	250.0	305
Italy					415	0.0	415
Japan					465	0.0	465
Morocco						0.0	0
Netherlands					15	0.0	15
Norway						40.0	40
Poland					150	0.0	150
Portugal					10	0.0	10
Romania						0.0	0
Russia					5	0.0	5
JINR						0.0	0
Serbia						0.0	0
Slovak Republic						0.0	0
Slovenia						61.0	61
Spain						0.0	0
Sweden						0.0	0
Switzerland					1055	0.0	1055
Taipei						0.0	0
Turkey						0.0	0
United Kingdom					295	0.0	295
US DOE+NSF					675	0.0	675
CERN					1225	0.0	1225

from past Common Fund contributions 0.0

missing contributions to meet planned project payments 0.0

total sub-detector	-	-	-	-	4,935	351	5,286
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Planned CORE Common Project Contributions
during 2007 by Funding Agency
 (Baseline+CC-A, in kCHF)

Funding Agency	payments				new commitments needed		
	in-kind contrib.	cash contrib.	m.s. contrib.	total contrib.	in-kind contrib.	Common Fund	total contrib.
Armenia	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	0
Azerbaijan	0	0	0	0	0	0	0
Belarus	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Canada	0	0	0	0	0	0	0
China NSFC+MSTC	0	0	0	0	0	0	0
Czech Republic	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France IN2P3	0	0	0	0	0	0	0
France CEA	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0
Germany BMBF	0	0	0	0	0	0	0
Germany MPI	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Israel	0	250	0	250	0	250	250
Italy	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0
Morocco	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Norway	0	40	0	40	0	40	40
Poland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Romania	0	0	0	0	0	0	0
Russia	0	0	0	0	0	0	0
JINR	0	0	0	0	0	0	0
Serbia	0	0	0	0	0	0	0
Slovak Republic	0	0	0	0	0	0	0
Slovenia	0	61	0	61	0	61	61
Spain	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taipei	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0
US DOE+NSF	0	0	0	0	0	0	0
CERN	0	0	0	0	0	0	0
Common Fund	0	0	0	0			
missing contributions to meet planned project payments				0			
total	-	351	-	351	-	351	351

ACTUAL & PLANNED INCOME FOR ATLAS CONSTRUCTION COMPLETION (kCHF) Annex

Funding Agency	CC (A)							Calc. Total	CC (B)							Calc. Total	Invoice Total	Calc. G.Total	
	2002	2003	2004	2005	2006	2007	Total		2002	2003	2004	2005	2006	2007	Total				
Armenia	0	0	0	0	38	0	38	38	0	0	0	0	0	0	0	0	10	38	48
Australia	0	0	0	50	25	0	75	190	10	14	11	0	0	0	0	35	52	110	242
Austria	0	12	14	13	13	0	52	52	0	0	0	0	0	0	0	0	0	52	52
Azerbaijan	0	0	20	0	18	0	38	38	0	0	0	0	0	0	0	0	0	38	38
Belarus	0	0	0	0	75	0	75	75	0	0	0	0	0	0	0	0	0	75	75
Brazil	0	0	0	0	38	0	38	38	2	0	0	0	0	0	2	9	40	47	
Canada	0	0	87.5	212	839	0	1139	1139	32	177	0	180	0	0	389	389	1527.5	1528	
China NSFC+MSTC	0	25	18	13	13	0	69	69	0	9	13	6	2	0	30	30	99	99	Profile as calculated
Czech Republic	22	98	0	0	0	0	120	113	16	33	26	1	0	0	76	83	196	196	As calculated total, 100k/year 2003-2006
Denmark	0	0	38	0	0	0	38	242	0	0	10	0	0	0	10	49	48	291	
France IN2P3	0	730	520	912.5	772.5	0	2935	2935	569	0	116	370	300	0	1355	1241	4290	4176	
France CEA	0	300	712	13	13	0	1038	1001	21	30	0	0	0	0	51	379	1089	1380	
Georgia	0	0	0	0	38	0	38	38	0	0	0	0	0	0	0	0	38	38	
Germany BMBF	1992	0	0	0	460	0	2452	2452	430	368	0	0	0	0	798	798	3250	3250	
Germany MPI	122	290	0	100	58	0	570	570	61	51	82	2	0	0	196	191	766	761	
Greece	0	0	0	0	113	0	113	121	0	0	0	0	0	0	0	52	113	173	
Israel	0	0	37	38	38	250	363	363	6	128	0	0	0	0	134	134	497	497	
Italy	80	350	80	160	2381	0	3051	3418	14	393	323	267	253	0	1250	1233	4301	4651	
Japan	0	0	1438	229	750	0	2417	2417	0	0	212	400	0	0	612	612	3029	3029	
Morocco	0	0	12	13	13	0	38	38	0	0	0	1	3	0	4	9	42	47	
Netherlands	0	0	25	1107	25	0	1157	1157	22	34	101	41	13	0	211	211	1368	1368	
Norway	0	187	18	25	41	40	311	311	22	33	21	4	0	0	80	80	391	391	Profile (A) changed as in letter RCN 24.9.03
Poland	0	0	25	25	25	0	75	75	3	0	0	0	0	0	3	19	78	94	
Portugal	0	0	15	12	23	0	50	155	0	0	0	73	37	0	110	110	160	265	
Romania	0	15	0	37	0	0	52	52	0	0	17	16	0	0	33	33	85	85	All In-kind
Russia	0	0	0	0	263	0	263	1381	36	12	3	0	51	0	102	614	365	1995	
JINR	0	0	12	0	25	0	37	397	3	76	58	0	15	0	152	263	189	660	
Serbia	0	163	0	137	0	0	300	0	0	0	0	0	0	0	0	300	0	0	
Slovak Republic	0	0	15	15	1	0	31	39	5	0	0	0	0	0	5	14	36	53	
Slovenia	0	0	12	13	35	61	121	121	0	0	0	0	19	12	31	31	152	152	
Spain	0	0	446	258	38	0	742	738	58	54	242	13	0	0	367	367	1109	1105	
Sweden	0	441	213	157	0	0	811	811	45	131	0	0	135	0	311	311	1122	1122	
Switzerland	0	1213	225	12	25	0	1475	1475	21	61	0	0	144	0	226	226	1701	1701	
Taipei	0	134	59	18	13	0	224	224	10	42	27	12	4	0	95	95	319	319	
Turkey	0	0	25	25	25	0	75	75	0	0	0	0	0	0	0	0	75	75	
United Kingdom	0	0	613	433	322	0	1368	2590	137	195	121	21	0	0	474	474	1842	3064	
US DOE + NSF	0	1830	232	723	1056	0	3841	6129	156	914	778	0	435	0	2283	2308	6124	8437	
CERN	978	4523	0	0	0	0	5501	4527	294	949	0	0	0	0	1243	1243	6744	5770	

total 3194 10311 4912 4751 7613 351 31131 35604 1973 3704 2161 1407 1411 12 10668 11670 41798.5 47274

calculated total 9550 11900 9350 4700 100 0 35600 4 2510 2945 4035 1645 535 0 11670 0

% 87 % 91

Actual payments 8415 4490 3690 5940 22535 1126 1007 1044 4207 7384

Income-actual payment -5221 5821 1222 -1190 632 847 2697 1117 -2800 1861

balance cumul. 632 1861

ACTUAL & PLANNED INCOME FOR ATLAS C&I (kCHF)

Funding Agency	C&I (A)						Calc. Total	C&I (B)						Calc. Total	Invoic Total	Calc. G.Total
	2002	2003	2004	2005	2006	Total		2002	2003	2004	2005	2006	Total			
Armenia	0	0	0	0	0	0	5	3	4	0	0	0	7	13	7	18
Australia	0	0	0	0	0	0	56	13	17	0	0	0	30	59	30	115
Austria	0	5	6	4	0	15	15	0	0	0	0	0	0	0	15	15
Azerbaijan	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Belarus	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10
Brazil	0	0	0	0	0	0	4	1	0	0	0	0	1	11	1	15
Canada	0	0	0	336	0	336	336	0	71	0	155	0	226	226	562	562
China NSFC+MSTC	0	7	8	5	0	20	20	0	10	9	3	0	22	22	42	42
Czech Republic	2	9	20	0	0	31	31	14	33	22.7	19.3	0	89	89	120	120
Denmark	0	0	0	0	0	0	71	10	0	0	0	0	10	60	10	131
France IN2P3	0	0	0	11	740	751	865	54	40	146	238	372	850	850	1601	1715
France CEA	0	0	0	0	245	245	295	0	0	0	0	0	0	265	245	560
Georgia	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Germany BMBF	252	0	18	454	0	724	724	253	0	183	16	105	557	557	1281	1281
Germany MPI	0	44	69	54	0	167	167	36	34	45	44	1	160	165	327	332
Greece	0	0	0	0	0	0	36	0	0	0	0	0	0	52	0	88
Israel	0	0	0	0	106	106	107	14	72	50	0	0	136	135	242	242
Italy	0	350	206	205	246	1007	1007	0	418	93	190	279	980	980	1987	1987
Japan	0	0	247	436	0	683	683	0	0	290	360	0	650	650	1333	1333
Morocco	0	0	0	0	0	0	4	0	0	0	0	0	0	6	0	10
Netherlands	0	118	141	82	0	341	341	34	65	83	43	0	225	225	566	566
Norway	0	32	38	22	0	92	92	23	29	26	20	0	98	98	190	190
Poland	0	0	0	0	20	20	20	2	0	0	0	2	4	22	24	42
Portugal	0	0	0	38	6	44	46	3	0	0	60	72	135	135	179	181
Romania	0	0	0	15	0	15	15	0	0	29	11	0	40	40	55	55
Russia	150	320	220	398	0	1088	408	28	122	0	65	91	306	588	1394	996
JINR	0	0	0	0	0	0	117	48	78	144	62	0	332	289	332	406
Serbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovak Republic	0	0	0	0	0	0	11	10	36	0	0	0	46	8	46	19
Slovenia	0	0	0	0	36	36	36	0	0	0	0	35	35	35	71	71
Spain	0	0	163	53	0	216	220	22	55	211	83	10	381	381	597	601
Sweden	0	83	99	57	0	239	239	45	90	0	0	195	330	330	569	569
Switzerland	0	0	0	0	433	433	433	3	0	0	0	235	238	238	671	671
Taipei	0	22	27	16	0	65	65	8	26	12	15	0	61	61	126	126
Turkey	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10
United Kingdom	0	0	250	250	232	732	764	0	269	174	116	0	559	559	1291	1323
US DOE + NSF	0	0	0	0	0	0	1807	51	25	0	0	0	76	2001	76	3808
CERN	111	5485	0	0	80	5676	1428	199	1081	0	0	0	1280	1260	6956	2688

100k/year 2003-2006

Assumes flat funding for C&I A 2004-2006

All in-kind

All in-kind

All in-kind. JINR will commit ca 750 kCHF in C&I B

total	515	6475	1512	2436	2144	13082	10496	874	2575	1518	1500	1397	7864	10410	20946	20906
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calculated total	865	2775	4341	2515	0	10496	0	1405	2770	3375	2825	35	10410
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%	125	%	76
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Actual payments	332	1425	1474	6696	9927	376	1710	1978	2366	6430
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Income-actual payment	183	5050	38	-4260	1011	498	865	-460	-866	37
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balance cumulative

1011

37