Status of electronics weight savings, 23 April 2004

Subsystem	Savings (kg)	Proposed/studied by	Status
Brackets on the main radiator	50	CGS/R.Becker/Y.Wang	approved
Extras on the main radiator	10	CGS	approved
RICH–ECAL radiator	20	G.Castellini/CGS	approved
Crate mechanics	5	M.Capell/CGS	approved
USCM in xDR crates	20	G.Castellini/G.Ambrosi/V.Koutsenko	approved
HV Bricks	14	G.Castellini/G.Ambrosi/D.Casadei	approved
R-crate modifications	6	G.Laurenti/J.Marin	approved
Backplane thickness	2	H.Chang/A.Kounine	approved
U-crate modifications	3	G.Schwering/M.Capell/A.Kounine	approved
E-crate modifications	-3	ECAL group	approved
Reintroducing end walls	-10		
More cabling + support	-20		
Total	95		

April 2004: TCS – 311kg; Electronics – 460 kg; Positive margin – 5 kg.

Modifications to the weight budget breakdown, 23.07.2004

1. RICH RDR and JINF nodes become part of RICH detector (M.Capell and G.Laurenti both agree):
   - 5.0 kg removed from the Electronics weight budget
   - 5.0 kg added to the RICH weight budget

2. Request to increase TOF weight budget (G.Laurenti made detailed presentation at July 2004 TIM):
   - 14.0 kg to be added to the TOF weight budget;
   - 14.0 kg to be taken from somewhere (Contingency?).

Modifications to the weight budget breakdown, 17.12.2004

1. Thermal blankets moved from STS HW to TCS (T.Martin and M.Molina both agree):
   - 16.0 kg removed from the STS HW weight budget
   - 16.0 kg added to the TCS weight budget
2. RICH structural elements moved from TCS to RICH (G.Laurenti and M.Molina both agree):
   - 10.5 kg removed from the TCS weight budget;
   - 10.5 kg added to the RICH weight budget.
3. Some structural elements moved from TCS to Electronics (M.Capell and M.Molina both agree):
   - 68.5 kg removed from the TCS weight budget;
   - 68.5 kg added to the Electronics weight budget.

AMS02 Weight Budget Status

Subsystem	Rev 43 (kg)	New Budget (kg)	Measurements
ACC (with structure to VC)	53	53	30%
Tracker (w/structure to VC & Laser System)	198.5	198.5	50%
TOF (with upper&lower support structures)	238	238+14	70%
TRD (with support structure)	328	328	60%
TRD gas system (with housing and brackets)	117	117	70%
RICH (with mounting brackets to lower USS)	184	199.5	60%
ECAL (with mounting brackets to lower USS)	638	638	80%
Cryomagnetic system	2357	2357	70%
Electronics	460	523.5	40%
TCS	311	248	20%
Contingency	96.5	96.5-14	–
STS integration HW	1468	1452	45%
ISS integration HW	268	268	100%
Total	6717	6717	60%

Subdetector weight breakdown

- 53 kg – ACC total:
- 30 kg – scintillators
- ??

- 198.5 kg – Tracker total:
- 70 kg – cables
- 20 kg – ladders
- ??

- 328 kg – TRD total:
- ?? kg – octagon
- ?? kg – honeycomb
- ?? kg – radiator andd straws

- 117 kg – TRD gas total:
- ?? kg – S and C boxes
- ?? kg – manifolds
- ?? kg – gas

- 515.5 kg – Electronics total:
- 200 kg – T-cartes

Subdetector weight breakdown

- ?? kg
- ?? kg – PDS is the biggest uncertainty
- 638 kg – ECAL total:
- 489 kg – pancake
- ??
- 1453 kg – STS HW total:
- 720 kg – vacuum case (parts measured)
- 722 kg – USS (not made yet)
- 10 kg – brackets, fi xtures...
- 268 kg – ISS HW total:
- 102 kg – interfaces (PAS/UMA)
- 59 kg – grapple fi xtures
- 46 kg – shields
- 25 kg – EVA connector
- 16 kg –
- 11 kg –
- 7 kg –