



Alpha Magnetic Spectrometer  
NASA / DOE

# Alpha Magnetic Spectrometer Configuration Control Board (CCB) Minutes



National Aeronautics and  
Space Administration

August 4, 2004  
Building 1, Room 920L  
2:00 – 4:00 pm

## Attendees

CCB members and other attendees are listed in Attachment 1.

## General Discussion Items:

- CR Process – Nancy Munoz/NASA-JSC/EA
  - ❑ Noted that agenda, presentations, and correct documents not sent to or available for the AMS Project Team prior to meeting.
  - ❑ New Action Item (04-065) – Donna Cox/LMSO & Trent Martin/LMSO: create a static CCB distribution list denoting who is a mandatory CR evaluator
  - ❑ CR-AMS-04-001 (AMS-02 Configuration Management Plan – Revision A) and CR-AMS-04-002 (AMS-02 Project Plan – Revision B) were deferred to the next CCB meeting currently scheduled for August 18, 2004
  - ❑ New Action Item(04-066) – Donna Cox/LMSO: send email to AMS Project Team once the agenda & presentations are posted; include instructions on where to find CCB information.
  - ❑ To present a CR at the CCB, all organizations involved must be in agreement about changes made – should take place prior to the CCB; the CCB not to be used to go over CR and documents on a line-by-line basis.
- CCB Scheduled Time – Mike Capell/AMS
  - ❑ Mike Capell pointed out that current scheduled time is not European friendly
  - ❑ If a significant European presence is needed for any discussion, a special meeting at a European friendly time will be scheduled with a subset of the CCB present, otherwise Bill Hungerford will represent the AMS Collaboration at the CCB/Tag-up meetings at the currently scheduled time
- AMS Website – Steve Porter/NASA-JSC/EA
  - ❑ Need to work out issues with website – provide access to team outside of NASA domain (green server) and gain write access to AMS-02 files on the JSC production web server



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## Agenda Item 1: MRB Authority – Mike Fohey/LMSO

- ❑ Return to print needs to be added to the Type II Changes
- ❑ At first sign of suspect non-conformance, a PR/DR needs to be submitted; need to verify that those who might need to complete a PR/DR have been given authorization
- ❑ Steve Porter wants a closed loop system within the collaboration with regards to safety issues
- ❑ New Action Item (04-067) – Mike Fohey/LMSO: Create an letter to address the following questions for Trent Martin and Steve Porter to sign; Bill Hungerford will present letter to the collaboration
  - How does the AMS Collaboration conduct nonconformance reporting and tracking?
  - Who in the Collaboration has the overall responsibility for approving dispositions to nonconformance issues?
  - What level of Discrepancy Reporting and Tracking by the Collaboration will allow the CCB adequate insight into nonconformance issues with the experiment hardware?
  - What process will the Collaboration use to bring nonconformance issues that result in a Type I Change (issues that affect either Safety or Experiment Interfaces to the PIH) to the CCB for review and approval?
  - What configuration identification (labeling) requirements will the Collaboration impose on all controlled hardware, software and firmware?

## Agenda Item 2: Close Out Photos – Chris Tutt/LMSO

- ❑ The MVP needs to state how the close out photos will be arranged; A file systems needs to be created; It should contain the photo, brief description, and any other data that is pertinent to the photo/hardware
- ❑ Photos to be added to the AMS-02 website and filed similar to the AMS WBS
- ❑ New Action Item (04-068) – Bill Hungerford/AMS: Define detector steps for the MVP



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- ❑ New Action Item (04-069) – Leland Hill/LMSO: to coordinate closeout photo tasks
  - Need to verify we get closeout photos before hardware is closed up
  - New Action Item (04-070) – Bob Miley/NT: to dredge up crew photo requirements from OZ and crew office
  - Need update the pre-flight imagery plan
  - New Action Item (04-071) – Leland Hill/LMSO: needs to the talk to Steve Porter about safety requirements for closeout photos of safety critical items

## Agenda Item 3: Risk Management – Chris Tutt/LMSO

- ❑ Steve Porter is scheduled to talk to the center director next week, wants the Risk Management System online.
- ❑ New Action Item (04-072) – Chris Tutt/LMSO: to get the Risk Management System updated based on newly approved guidelines by next week.
- ❑ Basis of likelihood rank needs to be defined in the risk mitigation explanation – what criteria you based the likelihood rank on
- ❑ New Action Item (04-073) – Mike Capell/AMS: Steve Porter needs numbers for turn on, nominal operations, worst case cold case, and survival as soon as possible for the PIA due out October 2004
- ❑ Steve Porter wants single likelihood – use fault tolerance and design for minimum risk to assign likelihood; documentation needs to incorporate definitions of fault tolerance and design for minimum risk
- ❑ New Action Item (04-074) – Chris Tutt/LMSO: create schedule consequence based on management reserve; level 5 would be missed launch, levels 1-4 would be defined based on at least a 10% management reserve with respect to schedule three years out
- ❑ New Action Item (04-075) – Chris Tutt/LMSO: use option 1 for mission success consequence



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- ❑ [New Action Item \(04-076\) – Bill Hungerford/AMS](#): needs to get Professor Ting's approval of mission success consequences before they can be posted
- ❑ [New Action Item \(04-077\) – Chris Tutt/LMSO](#): remove quality consequence from risk matrix; should be used as part of risk mitigation

### Agenda Item 4: Master Verification Plan – Mike Fohey/LMSO

- ❑ [New Action item \(04-078\) – Bob Miley/NT](#): to provide copy of the Station MVP to Mike Fohey
- ❑ MVP call given requirement and provides planning for that requirement
- ❑ Make sure the MVP meets WI-EA-023 requirements
- ❑ MVP must address all 3 levels (all NASA hardware, safety, and experiment mission success); level 3 can be kept a separate appendix
- ❑ Ask collaboration for details/reports/schedules/etc for detectors that shows that it fits, that it works, and fits into the overall project; LM and NASA will have insight into CoFR
- ❑ [New Action Item \(04-079\) – Mike Fohey/LMSO](#): get with Bill Hungerford to discuss ideas for framework, processing and typing of level 3 appendix
- ❑ The November 2004 date for the MVP will be honored for level 1 & 2 with the framework for level 3; Bill Hungerford will take framework to collaboration input

### Closing – Steve Porter/NASA-JSC/EA

- ❑ AMS Tag-up meeting on August 11, 2004 at 2:00pm (CDT) will be a financial meeting
- ❑ The next CCB is scheduled from August 18, 2004 at 2:00pm (CDT)
- ❑ [New Action Item \(04-080\) – Donna Cox/LMSO](#): send action item list to Steve Porter
- ❑ [New Action Item \(04-081\) – Donna Cox/LMSO](#): after receiving Steve Porter's inputs to Action Items, send to AMS Project Team and post to website.



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- ❑ New Action Item (04-082) – Donna Cox/LMSO: create an AMS calendar to be posted on the website and available from the main page
- ❑ Steve Porter reminded the group of the Rebaselining Celebration scheduled for August 11, 2004 starting at 5:00pm at Boondoggle's
- ❑ These action items have been added to the Open Action Items Matrix (Attachment 2).

Meeting adjourned by Steve Porter

CCB Chairman Approval: \_\_\_\_\_

A handwritten signature in black ink, appearing to read "Steve Porter", written over a horizontal line.

Date: \_\_\_\_\_

10/7/04



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## Attachment 1

## CCB Sign-in Sheet



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## Attachment 2

### Open Action Items Matrix

### AMS Open Action Items

Number	Date Assigned	Action	Actionee	Due Date	Outcome	Date Completed
04-004	07/15/04	Work with hardware providers in ISS and STS to transfer H/W to AMS	Bob Miley		LM needs to put together an email list and delivery location	
04-005	07/15/04	AMS data needs to be added to PAO pitch	Steve Porter Mike Fohey			
04-006	07/15/04	CAWG/PICB documentation needs to be retrieved from the station website and posted on the AMS website (get with Bob Miley)	Donna Cox			
04-007	07/15/04	Submit waiver for payload envelope and robotics clearance through AMS CCB and then through PICB	Bob Miley		No action	
04-008	07/15/04	CEIT? Shuttle guys to look at the payload so there are no problems with installation/integration – put on schedule	Paul Nemeth			
04-010	07/15/04	Will clarify the BFS GPC time tagged command in PIA per Steve Porter	JJ Conwell			
04-011	07/15/04	To present detailed MIP/ICD plan to CCB – must include interim dates	JJ Conwell MOD/OZ		MIP Kickoff Meeting scheduled on August 25, 2004	
04-012	07/15/04	Present logic train of control for ACOP and AMS to CCB (per Steve Porter)	Paul Nemeth			
04-018	07/15/04	Define the plan for the assuring quality and reliability for the NASA provided Payload Integration Hardware (PIH) as well as the plan for providing insight into the quality and reliability of the AMS Experiment.	Dave Kaplan	09/07/04	Memorandum in work; process is ongoing	
04-019	07/15/04	Let Steve Porter know if there is a maximum number of redlines to a drawing	Dave Elmore			
04-020	07/15/04	Formal documentation utilizing IRMA; need to explain closed-loop system, provide status at CCB, disposition concerns to get to CoFR, need to keep any concerns from getting lost in the process	Chris Tutt		Included in the AMS Project Plan, but may be updated after the CCB on 08/04/04	
04-026	07/15/04	How to go about determining how to solve the magnetic field problem; PAS; programmatic waiver?	Bob Miley		Draft waiver to complete S3 outboard empty or have items that magnetically susceptible	

### AMS Open Action Items

Number	Date Assigned	Action	Actionee	Due Date	Outcome	Date Completed
04-028	07/15/04	Check for open consensus report concerning Quech.	Trent Martin Bob Miley Paul Nemeth			
04-031	07/15/04	Discuss having data available at KSC and support there for flight controllers; MOD requests safety data at JSC	Steve Porter Jack Keifenheim			
04-032	07/15/04	Level of detail for the contingency return planning needs to be discussed	MOD/OZ			
04-033	07/15/04	Further discuss AMS website; does Steve want password protection to the external website; any other concerns about having green and amber sites?	Steve Porter Trent Martin Donna Cox			
04-036	07/15/04	Need to discuss criteria for risks; revise costs?	Steve Porter Chris Tutt			
04-037	07/15/04	Risk 1113: have ready by September 2007, mitigates the problem	Steve Porter Dave Elmore			
04-038	07/15/04	Verification tracking log to be controlled by AMS Project Team; track full closure of items; Steve wants application to track each item – open paper management software; must be configuration controlled	Steve Porter Trent Martin Nancy Munoz		Working on getting OPMT or similar system	
04-040	07/15/04	Who will be the owner of the risk? Needs an owner to update risk in IRMA and update the initiator	Chris Tutt			
04-041	08/04/04	Work with SWG to define requirements for TCS insert pullout tests	Chris Tutt			
04-042	08/04/04	Develop plan for certification of CO <sup>2</sup> condenser in TCS	Craig Clark			