General rules for ATS (non NASA TPS form)

1.1 How to fill out the form ATS-1225.doc

The form heading is based upon a simplified NASA TPS document. TPS stands for Task Performance Sheet. It is the acronym NASA uses for this type of document. ATP stands for AMS Task Sheet, to differentiate it from the "official" NASA TPS. Most of the NASA tracking information has been removed. Please fill in the form completely.

1. Project Code - SA-AMS (always).

2. JPIC Code - AMS (always).

3. Type. Most will be Type A and Permanent. The physical modification of a piece of equipment / software / etc. If it is a test fit or the piece of equipment is to be removed at the end of the TPS (the equipment is unchanged) then it isType A and Temporary. Most flight, Pre integration and STA assembly will be permanent since the TPS will close with the equipment attached. It is Type B if it is a test or equipment operation.

4. ATS #. Each detector group should serialize the TPSs they write. Each TPS must have a distinct traceable number. No revisions wil be allowed unless noted on the TPS as part of the number . ie. TRD070210-1, ECAL070224-1-R1 (different than ECAL070224-1-R2)

FORMAT:	GROUPDATE-SEQUENCE-REV
GROUP:	ECAL, TRD, ELEC, TWG,TTCS…
DATE Written:	YYMMDD
SEQUENCE:	Group assigned number (unique)
REV:	Omit if no revision

6. MOD Sheets. If the ATS requires revision after it has been approved by QA, a MOD sheet must be attached to document the requested changes to the ATS. This MOD sheet and the original ATS must both be reviewed by NASA QA (or DV). On the original ATS, put a hand written note on the steps that were replaced stating "See M-(X)". These skipped steps do not get initials. The completion initials, and verification initials, go on the Mod. Remember to sign the Mod at the bottom. Hand write a note on the Original ATS, in block 6 "M-(X)", where (X) =1,2,3…. If there were other Mods done these would be "M-2", M-3"...

1. Mod the ATS (see above)
2. Pass it by NASA QA for approval (before performing the work)
3. Do it.
4. Submit ATS and Mod with TPS for closure.

10. Part Name. The name of the item being worked on.

11. Sub Detector Name. Your group, even if not a subdetector.

12. Serial/ Lot #. If the part you are working on is serialized, note here.

14. Applicable Documents. Any document, drawing, process you reference or that is required to do this work, that is not included in the body of the ATS.

16. ATS Title. Short clear description of the work performed.

24. Originator. Person who wrote the ATS.

26. Project Engineer. Person who supervises the technician performing the work.

27. Quality Engineer. CERN or Collaboration Quality Representative).

28-31. Blank Signatory Spots. Anyone else in your chain of command who feels they should authorize work.

1.2 Requirements for ATS process text (body of ATS-1225.doc)

1. An ATS must be followed as written, unless authorized by a Mod sheet and QA approval. Proper care needs to be taken to ensure it is written clearly, succinctly, and with forethought to accommodate potential process issues.

2. All ATS (non NASA and NASA TPS) require 5 working days at NASA to review and QA before work can be done. This must be sent via email to JS project engineers. Please coordinate with JS prior to completion of ATS. The process to maintain traceability and review of all non-NASA ATS is:

3. A NASA TPS will be issued that will reference the non NASA ATS as an external document. This allows a fixed work order structure to document multiple groups and processes simultaneously. This means that non NASA ATS must be coordinated with a NASA TPS to open and close it. The structure of this external reference in the NASA TPS is as follows.

    1. Sub Procedure Start. Record the date the following procedure is opened _____. Review the procedure with onsite personnel to ensure MIP/DV compliance.
    2. Work to be performed per ATS# _____.
    3. Sub Procedure Closure. Record the date the above procedure is completed _____.

4. Add applicable work safety, personnel protection, and equipment protection notes to the beginning of the document. Also add reinforcing notes prior to the step.

5. Add a brief description of the work to be performed, 1 short paragraph.

6. The ATS should cover a specific process or task.

7. The ATS should not be open ended. It should have specific closure criteria. i.e. Close this ATS when the USS is installed in the RAS. NOT: Close this ATS when the VC arrives.

8. The ATS should not last longer than a week or two. It becomes too long to track properly and the QA process becomes unmanageable. Break the ATS into multiple ATS.

9. Provide sufficient pictures / drawings either in the body of the ATS or as references to clearly document the work. If external references are used, the document must be provided with the ATS for QA review.

10. Each numbered step in the ATS should clearly describe one specific task in the process.

11. Conditional statements may be used. i.e. If the battery is dead then do XXX else skip this section. These can be used for optional work as well. i.e. If the second unit is available, perform these steps. If not, proceed to next section.

12. All hardware should have part numbers and required quantities. When the part is used the part number should be called out, Lot numbers as well and serial numbers if assigned. It is good form to include a parts list at the front of the ATS.

13. Requirements to torque on an AMS02 fasteners.

14. All fasteners that are mounted to any AMS-02 Structure shall be final torqued to 1 percent accuracy using a calibrated torque wrench (AMS supplied Digital Torque Wrench) unless otherwise cleared by NASA/JS project engineers to do so.

15. Prior to using any torque wrench it shall verified by the acting NASA QA (or Designated Verifier) that the calibration sticker is up to date.

16. All Torque wrenches ,digital or manual, shall be verified against an approved verifier tool once per shift? on the day of and prior to it's use.

17. All processes requiring the verification of torques, be it on a TPS, ATS, a DR, or per a work order that references a drawing shall document the following:

    The M# of the torque wrench. Calibration sticker identifier = M#
    The Part Number of the wrench
    The Cal Due Date.
    The run-in torque if applicable. (running torque)
    The final torque.

18. All documents, procedures, ATS, TPSs, drawings, or other controlling paper, that have been provided by a third party (other than ESCG or NASA) with the intention of interfacing flight or GSE hardware shall be fully reviewed for the above noted rules by cognizant ESCG/NASA project engineers prior to formally releasing the hardware for the specific task.