

# Minutes and Actions of Site Qualification Task Force

## Phone Conference – 10<sup>th</sup> of March 2005

*Present:* (A. Andreazza), G. Darbo, M. Garcia-Sciveres, (M. Gilchriese), (J. Grosse-Knetter), P. Gerlach, D. Giugni, F. Huegging, E. Vigeolas, (M. Zdrazil).

### ***Status of Module Loading.***

To monitor the status of loading in the 4 sites a little questionnaire have been circulated a few days before the phone conference. The questions are:

1. List of loaded stave/sectors.
2. List of staves/sectors that have been surveyed.
3. List of staves/sectors that passed LOAD/thermal cycles/STAVE qualification.
4. List of staves/sectors with spreadsheets and survey raw data in the Raw PDB.
5. Mini milestones: plans for the starting load dates and qualification completed for next 3 stave or 6 sectors. It will be monitored in the next SQTF meetings.
6. What is missing for the full chain of load/test set-up.
7. No. of modules ready for loading.

The responses from:

- Jean Claude (CPPM): [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/CPPM\\_Jean-Claude.rtf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/CPPM_Jean-Claude.rtf)
- Giovanni (Genova): [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/05-03-10\\_GD\\_GenovaSite.pdf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/05-03-10_GD_GenovaSite.pdf)
- Peter (Wuppertal): [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/Wtal\\_Peter.rtf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/Wtal_Peter.rtf)
- Marian (LBL): [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/LBL\\_Marian.rtf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/LBL_Marian.rtf)

are summarized here.

### ***CPPM.***

Summary of CPPM stave production:

1. Loaded: 4031 (pre-prod), 4015, 4025, 4035
2. Surveyed: 4031, 4015, 4025, (4035 will be done 11/3)
3. Tested: 4031, 4015, 4025
4. Summary tables: 4031, 4015, 4025
5. Mini Milestone:
  - Stave 4091 with B-layer ranked modules starts loading 10/3. LOAD tests and survey will be finished before the end of next week.
  - Stave for system tests: not started yet, because of lack of modules. It will be loaded, next week, after stave 4091 upon availability of modules. Survey should

be made whereas LOAD/STAVE tests may be made in Genova where it will be used.

- Third milestone stave will be initiated as soon as the previous two staves will be loaded and modules will be available)
6. Items missing to complete the loading/test set-ups: 1 SURF board, few spare T0 cables
  7. Module available for loading as on 08/03/2005:
    - B-layer type ready to be load: 13
    - Five modules already at CPPM for the system test stave. The module task force assigned in total 14 modules for this staves (of which one is at CERN). Assembly labs must send them to CPPM if they haven't done yet.
    - Module for the third milestone stave:
      - Ready to load: 7
      - Under characterization: 5
      - Shipped from Genova, to be characterized: 5

Eric claims that he has difficulties to load modules with not visible sensor marks. He asked to preferable receive modules with all 4 marks not covered by glue (from Genova).

### ***Genova***

Summary of Genova stave production:

1. Loaded: 4004 (pre-prod), 4028, 4024, 4048, 4038, 4016 (completed 11/3)
2. Surveyed: 4004, 4028, 4024 (to be repeated), 4048, 4038,
3. Tested: 4004, 4028, 4024, 4048, 4038 (STAVE test to be completed)
4. Summary tables: 4004, 4028, (the other waiting for Multi Module Analysis)
5. Mini Milestone:
  - The next 3 staves will be loaded starting from Monday 14/3 and will be finished by Friday 8/4
  - The qualification test takes one week and is interleaved with loading. The 3 staves will be fully tested by 15/4.
6. What is missing? the heidenhain linear encoder to be used in the loading robot was found to have two regions with large error (~100  $\mu$ m over 6 cm). It is now dismantled and waiting for further test.
7. Module available for loading as on 08/03/2005: 22 modules are qualified for loading.

### ***Wuppertal***

Summary of Wuppertal stave production:

1. Loaded: 4018 (pre-prod), 4027, 4029 (to be finished)
2. Surveyed: 4018, 4027
3. Tested: 4018, 4027, (partially qualified, only LOAD test passed)
4. Summary tables: 4018, 4027 (not completed yet)
5. Mini Milestone:
  - Stave # 4 from 16/3 to 1/4.
  - Stave # 5 will be completed by 9/4
  - Stave # 6 will be completed by 15/4.
6. What is missing?: two SURF cards to have a 4 SURF system.
7. Module available for loading:

- 28 modules receive tested, cut, and bow measured. This includes the ones for/already on the 4029.
- 22 modules are awaiting their receive test.
- 3 modules tested but to be sent back for repair.

**LBL**

Summary of LBL sector production:

1. List of loaded sectors: 9006 - 9021
2. List of disk sectors tested: 9006 - 9021
3. List of disk sectors with a survey made: 9006 - 9021
4. List of disk sectors with spreadsheets and survey raw data in the Raw PDB: 9006 - 9021
5. Mini-milestone: 6 disk sectors (9022 - 9027) to be assembled & tested by mid April 2005. Currently, roughly 1.5 sectors/week can be assembled. There are no problems, no delays. It means that on March 22, 2005 we should have assembled 3 more disk sectors (9022, xx23 and xx24). No later than mid April 6 disk sectors should be assembled and fully tested, with all the data in the PDB.
6. What is missing?: We are fine, nothing is missing.
7. No. of modules ready for loading: 15

The two following plots summarize the production status for staves and sectors.

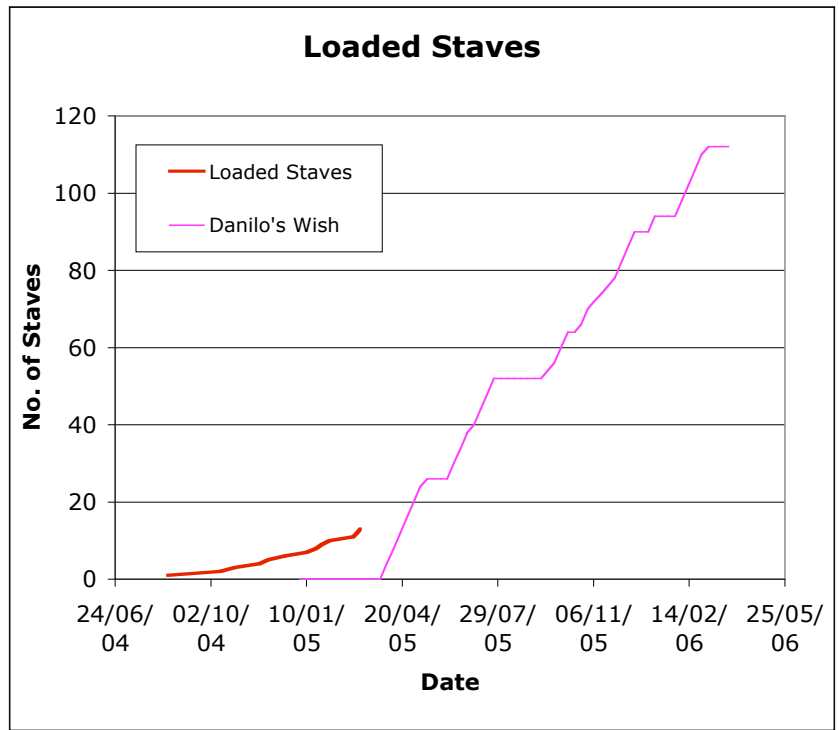


Fig.1 Loaded staves in the 3 production sites. The dates are that of the first module loaded for each stave. See also: [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/StavesAndSectors-0503.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/StavesAndSectors-0503.xls).



[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/SectorTestingAtLBL.pdf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/SectorTestingAtLBL.pdf)

The document will be posted on EDMS and referenced as ATL-ID-QA-0025 and it will be asked for its formal approval. This document follows the presentation at the ID week on the initial sector production and no critical points have been found. It is reminded here that all the sites must provide a similar document after 10 sectors or 5 staves of the initial production.

### ***Staffe (Sector) Ranking.***

Attilio reported on the status of the staffe ranking for b-layer. PDB variables needed for ranking are already implemented in the PDB. Joern should release a version of his module analysis ready for upload of test results and additional survey flags in the PDB in a few days. After that Attilio will play with java application made for ranking of the loaded staves. Staffe ranking should be available before Easter if qualification results will be uploaded in the PDB. The list of the ranked modules available as at 8/3/05 is in:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/ModForStaves\\_050308.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/ModForStaves_050308.xls).

### ***Survey results for staves.***

Vadim presented (see: [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/ReadMe.ppt](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/ReadMe.ppt)) the status of his program for the extraction of the module parameters from the staffe survey measurements. He has written a program in Piton that process the raw survey data and calculates a table with X, Y, Z, angles and bow for each of the modules. The input raw data must follow a simple syntax as in the example:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/RawSurveyData\\_4038.txt](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/RawSurveyData_4038.txt)

The results are generated in the form of a table as:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_05-03-10\\_aux/SurveyRes.py](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_05-03-10_aux/SurveyRes.py)

All the 3 sites must qualify the staves using the Vadim's program. Vadim offered his help to write Piton scripts to format the raw survey data in the way the program understand them.

A new template of the summary spreadsheet for the staffe will be prepared by Giovanni to import directly the survey results in the excel file.

### ***Multi Module Analysis output format and update of spreadsheet templates.***

The output format for the qualification test of staves and sectors has been discussed and agreed between Joern and Giovanni. Joern will implement it in the next release of the Multi Module Analysis and Giovanni will prepare a new template for the excel summary file for staves. LBL (Marian?) will do the same for sectors.

*Next Meeting: Thursday 24<sup>th</sup> of March.*