

# Minutes and Actions of Site Qualification Task Force (SQTF)

Phone Conference – 22<sup>nd</sup> of June 2006

*Present:* A. Andreazza, G. Darbo, K. Einsweiler, D. Giugni, C. Glitza, V. Kostyukhin, G. Lenzen, K. Reeves, A. Rozanov, E. Vigeolas.

## *Agenda*

1. Bare staves: repaired (Genova) and new (IVW)
2. Loaded staves, available bare staves, available modules (planning of loading completion).
3. Specific issues from Stave active labs (GE/MA/WU/BO)
4. Joule test vs. heater / module thermal performance
5. Update on Integration Issues:
  - Type0 cables
  - Next week activity at CERN
6. Loaded stave ranking and qualification for half-shell use
7. SQTF agenda at the ID Week

### ***1. Bare staves: repaired (Genova) and new (IVW).***

The stave repair in Genova is stopped due to missing pipes. Pipes have been blocked by customs on the way back to Marseilles from EB. It is hope to be matter of one or two days for arriving. Measuring and sand blasting in Marseilles, cleaning at CERN and finally parylene coating at Comelec. It is estimated to have then in Genova and IVW by 10/7.

A batch of 10 IVW staves is under survey at CERN, it will go to Comelec (23/6) and then to Genova for Joule test (30/7). The staves will be distributed for loading the 11/7.

### ***2. Loaded staves, available bare staves, available modules (planning of loading completion).***

Giovanni presented few transparencies (see:

[http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-06-22\\_aux/06-06-22\\_GD\\_SQTF.pdf](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-06-22_aux/06-06-22_GD_SQTF.pdf)) with information on loading status, available parts for loading and plans for the remaining of the loading production. A total of 53 staves with new pipe

have been loaded since beginning of January (GE=21, MA=22, WU=10). The goal is 86: this is a number that provides enough staves for having only a single stave for each L2 bi-stave with pipe inserted. A total of 33 staves must be still loaded for fulfil the needs. The loading rate in the 5 months, since loading was restarted, is of 2.8 staves/week. Assuming to keep the same rate, the loading production needs still 3 months. Unfortunately this will span the summer holiday period, and we should consider a two weeks of slow down or

stop of work. It seems reasonable to complete the loading by end of September or beginning of October, unless there will be other delays in the availability of bare staves. This correspond a 3 months delay from the schedule made last December where 4 staves/week was hoped. Impact of this delay is not evaluated due to change in the overall schedule given by type\_0 cables troubles.

To verify the availability of modules for the needed 33 staves, an enquiry in the labs and in the PDB have been done in the last days. The best estimate of the available number of modules in the 3 loading sites is (measured in staves to be assembled):

- GE: 2.1 (L1/L2) + 5.9 (BL) = 8 Staves
- MA: 1.4 (L1/L2) + 6.9 (BL) = 8.3 Staves
- WU: 1.2 (L1/L2) + 8.9 (BL) = 10.1 Staves
- Assembly sites (BO/DO/SI) = 3.6 (L1/L2) + 2.2 (BL) + ~6.5 (Unranked) = 12.3 Staves
- Total = 38.7 Staves

In conclusion the number of modules is enough (if lost are kept low) for the required 33 staves with a (very) few spares.

The number of bare stave is the following:

- Available at loading sites: 9 (GE = 3, MA = 3, WU = 2 + 1 to repair)
- IVW new staves: 10 (will be probably distributed to sites the 7/7)
- Rep. last pipe-batch staves: 16 (sub-batches: end July to mid Aug)
- IVW last pipe-batch staves: 11 (no precise estimate made)

### ***3. Specific issues from Stave active labs (GE/MA/WU/BO).***

Genova foresees a stop in loading activities of about 3 weeks in August due to unavailability of some involved persons (Vadim/Svetlana). Marseilles foresee an interruption of 2 weeks for summer holidays. Also Wuppertal will have some slowdown/interruption not well quantified yet. No information from Bonn.

### ***4. Joule test vs. heater / module thermal performance***

Jean Claude was not present (excused) to comment the results of comparison he did on IVW bare staves amongst Joule test, heater measurements and real module loaded on the same staves. The measurement results have been circulated a few days ago by Jean Claude (see: [http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes\\_06-06-22\\_aux/ThermalTest\\_1104013\\_14.xls](http://www.ge.infn.it/ATLAS/SQTF/Minutes/Minutes_06-06-22_aux/ThermalTest_1104013_14.xls)). It was proposed to have a discussion on the results obtained in the SQTF meeting at the ID Week (Jean Claude proposed as speaker, see draft agenda).

### ***5. Update on Integration Issues***

Danilo reported on the QC results for the tested type0 cables. About 400 cables have been tested, 50% have passed the QC and are accepted for use in stave cabling (green). A summary of the tested cables is available on the "provisional CERN RDS" (<http://atlsr1.cern.ch/tdaqfiles/temp/Cabletest.xls>). 54 of the cables that passed the QC have been submitted again for a QC check and one was discarded. The QC is heavily based on visual inspection. The QC is very time consuming and requires spending a lot of time at microscope. About 6 persons would be necessary to complete it in 2 months. The firm in Taiwan that made the present cables can restart production as soon as material will become available, and the production rate would be about 200 cables/week.

The uncabing of already cabled staves has been postponed. The cable QC is draining up the available manpower for cabling activity.

A u-link has been successfully removed. A scratch is present in the fittings, but it is considered not being a risk for leakage. The bi-stave that had the u-link removed had 2 modules malfunctioning on one stave and it was decided to ship to CPPM for replacement. Eric thinks that he can do the operation without completely uncable the stave.

#### ***6. Loaded stave ranking and qualification for half-shell use***

In the last SQTf's were discussed to have the stave ranking summary (see: <http://www.ge.infn.it/ATLAS/SQTf/StaveProduction/LoadedStaveRanking.xls>)

automatically from PDB by a java application. To obtain information like the pipe insertion, MCC reworking, stave destination in the detector, etc. was decided to add them in Mfr. field in the PDB. The java application prepared by Attilio has been tested to work correctly (see example of the results imported in excel:

[http://www.ge.infn.it/ATLAS/SQTf/Minutes/Minutes\\_06-06-22\\_aux/LoadedStaveRanking\\_example.xls](http://www.ge.infn.it/ATLAS/SQTf/Minutes/Minutes_06-06-22_aux/LoadedStaveRanking_example.xls)).

The data to upload in the PDB for the Mfr. of the already loaded staves is under revision and it will be finally upload by the end of the week. Every stave must have the "passed" flag before use in the half shell. Giovanni will be responsible for such flag setting.

The whole procedure of ranking and qualification of staves should be now better defined.

#### ***6. SQTf agenda at the ID Week.***

Giovanni presented a draft of talks/names for the SQTf part of the meeting that will be held on the Tuesday (4/7) of the next ID week. The meeting will share the time with the MTF (Module Task Force) for a total of 4 hours (see ID agenda: <http://agenda.cern.ch/fullAgenda.php?ida=a0625>). We agreed to have about 1h/3h for MTF/SQTf respectively.

##### *Draft Agenda:*

1. Status of stave loading and Planning of the remaining production (Giovanni)
2. Stave Ranking and Qualification (Attilio)
3. Report on the already loaded B-layer staves and actions (Claudia)
4. Thermal Propriety of Staves: Joule test/Heater test/Module NTC (Jean Claude – to be confirmed)
5. Comparison of survey for IVW staves made at CERN and Genova and extrapolation to repaired/old staves. (Vadim)
6. Pipe insertion: status and qualification/ranking (Markus)

One or two talks can be still added if there are proponents: like something on disk/sectors.

*Next SQTf phone conference will be held on Thursday 20<sup>th</sup> of July 2006 at 16:30.  
(in addition to the SQTf at ID Week on Tuesday, 4<sup>th</sup> of July at 9:00)*