

Draft Minutes AGATA Management Board

11th April 2011, GSI 9:30 to 17:00 C26-unten (1.014)

Present:

A. Boston
G. Duchêne
E. Farnea also LNL local project manager
A. Gadea
A. Korichi
P. J. Nolan (on behalf of the ASC chairperson)
P. Reiter
J. Simpson
H-J. Wollersheim GSI local project manager

1. Apologies for absence

J. Nyberg

2. **Minutes of the last meeting**, February 17th, IKP Cologne , The draft minutes Agata/AMBMin/Feb11/04D were accepted as a correct record of the meeting.
Action AG to distribute as Agata/AMBMin/Feb11/Final

3. Matters arising from the last meeting and actions outstanding from last phone conference

Action PJN to investigate common account issue.
Ongoing. See Report of the Resource Manager

Action: All check availability of funds for 2 ATCA crates
H.-J. W. To check if it can be covered by the GSI installation costs.

Action: A.G., E,F, Attempt to allocate enough GTS mezzanines and AGAVA cards to deliver a small test tree to GSI.

Ongoing, not easy to get it done before June.

Checked that 3 AGAVA cards belonging to IFJ-PAN Cracow are available at LNL. Last version of AGAVA card firmware is being uploaded

After the installation of the ATC5 electronics only one working GTS mezzanine is available. Two possible solutions, to get the GANIL GTS mezzanines delivered to GSI, but only possible in summer because developments are ongoing. To wait for the deliveries of the new mezzanines, this will be as well early summer.

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Action: AMB Next occasion discuss if the task of the AGATA data base should continue with the orientation of AGATA inventory and we needed task and leader.

Done. Included in next VC agenda

Actions: P.R. to prepare a list of outstanding problems and to send to P.J.Nolan. It will be used to prepare a letter to Canberra.

Done.

Action E.F. to keep the CSNSM group informed on the program for commissioning and experiments.

Done

Actions: A.G. investigate the possibility to acquire new network switches requested with switch-off capabilities. To be discussed in the Face-to Face meeting

Discussion done, presently there are no funds available during 2011 for items not essential for the GSI installation

Action: JS to ask J.Strachan to estimate the full cost of the mechanics.
Done and included in the Project Definition

Action: All to produce a plan for moving and installation of the AGATA array at GSI. A clear schedule should be produced as soon as possible.

Actions requested by the ASC

Action: E.F. to clear up the issues with the DSS at GSI, AGATA has an integral Detector Support System and this system is to be used during the GSI Campaign.

Ongoing

Action: P.R. to investigate an order of Double Cluster end-cap mechanics from GSI.

Ongoing Check

Action: E.F. (J.S.) Mechanics W.G. to submit a scheme of filling the array with Double and Triple Clusters. To check if Double Clusters can be used as well in peripheral positions of the array.

Ongoing

Action: ALL to remove from the running costs tables the following items:

-Costs associated with scanning laboratories, the only costs accepted as operation costs are associated with the CAT laboratories.

-“User” costs from the host laboratory table, isotopes and Complementary detectors costs are not to be included.

-“Host Laboratory local costs”, as repairing or purchasing of vacuum pumps or gauges, controllers.

-In general all costs not included explicitly in the MoU

Action: G.D,A.G. to prepare realistic operation costs for the ASC within the mentioned rules. Revision of the funds sharing between partner countries to be proposed.

Ongoing

Action: G.D., All to work on the purchasing schedule to complete the Early Phase 1 installation. Delay to 2012 all non-urgent investments.

Ongoing

4. ASC report

Outcome ASC meeting 21st -22nd March Madrid

- New chairperson of the ASC is Bo Cederwall and the Vice-Chairperson Ayse Ataç
- General agreement on the AMB membership
- The AGATA Double Cluster (A2C) concept approved by the ASC. Commitment to check the possibility to use the A2C in the external part of the array for the GANIL/SPIRAL2 campaign.
- The possibility to prepare an NUPNET AGATA proposal was discussed and P.Nolan volunteered to get it going.
- Discussed the necessity to get the GANIL/SPIRAL2 Local Project Manager Nominated
- Running costs issues discussed, since there are not enough funds, it was agree to exclude “user costs” from the running costs and to accept only the MoU items.

- Tapes for data archiving are accepted as running costs since the ultimate owner of the data is the AGATA collaboration.
- Discussion on a model to distribute the running costs among the collaboration partners done.

5. Reports from Working Groups and status of the LNL Campaign

a. Detector module and characterisation

Meetings

- Detector working group phone conf. at 6. April
- Meeting AGATA detector group PR, JE with Canberra BP, MOL at Lingolsheim, 20. April

Overview AGATA detectors

| | | | |
|------|-------|-----------|----------------------------------|
| A001 | 73952 | ATC4 | Legnaro - ATC4 |
| A002 | 74030 | ATC3 | Legnaro - ATC3 |
| A003 | 74009 | ATC2 | Legnaro - ATC2 |
| A004 | 74095 | ATC5 | IKP - ATC5 |
| A005 | 73949 | IKP | Neutron damaged, needs annealing |
| A006 | 74096 | ATC1 | Legnaro - ATC1 |
| A007 | 74108 | Canberra | Repair |
| A008 | 74108 | IKP | ok |
| A009 | 74209 | Saclay | CAT ongoing at CEA |
| | | | |
| B001 | 74034 | ATC1 | Legnaro - ATC1 |
| B002 | 73979 | ATC4 | Legnaro - ATC4 |
| B003 | 74026 | ATC2 | Legnaro - ATC2 |
| B004 | 74010 | Canberra | repair |
| B005 | 74065 | ATC3 | Legnaro - ATC3 |
| B006 | 74076 | Canberra | repair |
| B007 | 74208 | IKP | to be returned to canberra |
| B009 | 74207 | Liverpool | IKP – ATC5 |
| | | | |
| C001 | 73899 | ATC3 | Legnaro - ATC3 |
| C002 | 73951 | ATC4 | Legnaro - ATC4 |
| C003 | 74013 | ATC1 | Legnaro - ATC1 |
| C004 | 74036 | IKP | Returned, CAT pending |
| C005 | 74033 | ATC2 | Legnaro - ATC2 |
| C006 | 74115 | ATC5 | to be returned to canberra |
| C007 | 74164 | IKP | IKP - ATC5 |

Note B008 is missing!

Latest delivery by Canberra since AMB meeting in February :

- C004 (repaired): 29.3.11 turkish detector was sent back 21.12.07

Available detector types

A-type (9 deliveries):

- five detectors mounted in ATC1-5
- A008 detector tested and within specs
- A007 broken at Canberra
- A005 needs annealing
- A009 CAT ongoing

B-type (8 deliveries)

- five detectors mounted in ATC1-5, one out of specs
- three broken, B004, B006 at Canberra, B007 at IKP

C-type (7 deliveries)

- five detectors mounted in ATC1-5, C007 failed in ATC5, then annealed, slightly out of specs, poor crystal quality
- C006 failed in ATC5 at IKP, has to go to Canberra for repair
- C004 CAT pending

Customer acceptance tests

Detector A009: CAT ongoing at CEA

Detector C004: pending at IKP

Status of AGATA triple detectors

ATC1 @ Legnaro

Detectors: A006, B001, C003

- Detector in demonstrator frame
- Status: all core and segment signals ok.

ATC2 @ Legnaro

Detectors: A003, B003, C005

- Detector in demonstrator frame
- Status: all core and segment signals ok.

ATC3 @ Legnaro

Detectors: A002, B005, C001

- Detector in demonstrator frame
- Status: all core and segment signals ok.

ATC4 @ Legnaro

Detectors: A001, B002, C002

- Detector in demonstrator frame
- Status: two detectors full operational, one detector at reduced high voltage

ATC5 @ IKP

Detectors: A004, B009, C007

- B009 mounted
- C007 is ok, had a leakage current problem, working after baking for 12 hours
- Ongoing test, started 8. April

ATC6:

Hardware (cryostat and preamplifiers) delivered and electronic tested at IKP

ATC7:

Hardware (cryostat and preamplifiers) delivered and electronic tested at IKP

ATC8:

Hardware (cryostat, Dewar, no preamplifiers) at CTT

Update Canberra by B. Pirard on future detector deliveries, 8. April 2011

Current status in AGATA detector production:

- C008: will be in final measurement during next week, and could be delivered starting Friday 15th.
- B008 and A007: will be in final measurement right after Easter, and could be delivered by end of April.
- one B + one C: currently in validation, could be ready for delivery in early May.

With respect to previous months, we significantly improved our yield in terms of microphonics. We are now able to have 4 detectors per month in final stage of the manufacturing.

Collaboration with Canberra Lingolsheim

Next meeting organized (see above), but problems still unsolved. Found that Canberra was not using the right materials in parts of the capsule.

Delivery of C004 after 2 years and 4 months, back to Canberra on warranty since December 2007.

Saclay test cryostat will be repaired and sent to GSI with a symmetric capsule for the background in-beam test.

ATC6 will be setup as soon as possible, it is important because the commissioning of the cryostat is required to proceed with the final payment, as well as to be used as spare triple cluster replacing ATC4.

Vacuum test on the Liverpool test cryostat has identified two leaks in the feed-throughs.

P.Nolan in the role of ASC chairperson had an interview with a Canberra high level responsible and has transmitted all the complains.

b. Front end processing

The working group did had meetings during this period.

No news yet on the status of the pre-processing production for early phase 1.

The 11 Digitizers for the early phase one are already build and the test is being performed.

The new version of the Dual Core pre-amplifier is at the final stage of the prototyping phase. The company will have it ready in two to three months. This new pre-amplifier version can provide the inhibit logical signal in standard CMOS as well as in LVDS.

The new GTS production is waiting for the components that will be delivered in June, then the mounting of the mezzanines will start. Schedule of the test still to be done.

Four V4 pre/processing carriers have been produced by Padova for GTS test purposes, when the test will be concluded they may become available for the pre-processing electronics pool.

VHDL1 short commissioning scheduled for weeks 15th and 16th. Decided to have only a week of commissioning since the VHDL1 will more likely not be used this year at LNL.

c. Data Flow

Last VC have been done without the participation of the Italian colleagues.

Huge progress on the ADF, a new version is now ready but it requires a complete test in the real system.

A DAQ meeting has been organized at GSI for the 8th of June. Expected an extended discussion on the Narval-MBS integration.

An important disk maintenance has been programmed for 1 week starting on 26th April.

d. Simulations and Commissioning

Simulations:

Marc Labiche plans to have another meeting (VC or face-to-face) to help the spokespersons for the GSI proposals with simulations.

Commissioning:

The beam time of the test run with one AGATA capsule at GSI is 10-14 May (prel.). The main aim is to check the background in the forward direction, which is important for the positioning of the double cluster detectors. The experiment is a "parasitic of a parasitic" run (Plunger test). I understood from Cesar (email last week) that the Cologne group is doing their very best to get the AGATA capsule ready on time for the test run.

e. Status at Legnaro

The group is running experiments at the AGATA setup since three weeks, therefore, not much time for maintenance. Five experiment on schedule, the test of the backing vs counting rate (done), exp from Smith, Wheldon and Montanari. Early May experiment of Giaz to be run.

ATC4 with temperature issues specially if mounted in the lower part of the array. One capsule is running at low voltage.

Additional delay expected with the start of the LINAC.

Proposal to delegate on E.F. the decisions regarding the use of the maintenance ENSAR funds.

Note: The proposal accepted by the AMB

Action A.G. to contact the ENSAR responsible at LNL and arrange the formal aspects

f. Infrastructure

Visit of several W.G. members (P. Jones, N.Karkour, etc) to GSI is being organized.

A phone conference on the mechanics for the GSI setup on 17th March, several aspects, as the reaction chamber, the Plunger reaction chamber, the grounding of the setup, the storage and the equipment installed in the S4 area, were discussed.

LV AXIS: five already installed at LNL and two mainframes without the voltage modules available as well.

Discussed the possibility to transfer the new deliveries of AXIS crates directly to GSI.

g. Ancillary detectors and ancillary detector integration

Nothing to report except the problems mentioned to get an AGAVA setup at GSI for integration test purposes.

PRISMA + TRACE commissioning went smoothly.

h. Data Analysis and Tracking

PSA

Organized meeting on 2nd of March.

Work Ongoing:

- Updated version of ADL available, easier to install and easier to generate the basis.
- Comparison between scanning tables now possible
- Necessity of coincidence data from the scanning tables

- The group will concentrate on the JASS and ADL basis
- Measured scanning table data of a planar (SmartPet) detector and the AGATA B009 capsule together to investigate imaging properties. The performance tested with scattering in the planar detector.
- Ongoing the study of the Clustering problem.
- There are more calculated basis available, much more than few months ago. Presently the crosstalk corrections are included in all the bases.

6. Resource Manager Report

Extensive discussion on the possible common financial platform.

Items that have never been in the core contribution to AGATA, such as scanning tables or Ancillary detectors and associated instrumentation, will be excluded from the common platform.

Many open questions, as if the running costs should be included in the common platform.

Few items seem to be easier to include, i.e. Capsules, Electronics and DAQ items.

7. AGATA Early phase 1 project definition:

Updated investments for 2011

The ASC requested to have the cost of returning from the Double Clusters to the Triple Cluster included in the Early phase 1 cost table. Proposed that the AGATA specialist do the change without extra charge.

There are limited funds for 2011 and we have to discuss if the available funds go to the last needed AGATA double cluster or to the infrastructure.

Action G.D. A.G. to discuss the priority of the 2011 investments and to prepare a proposal for the AMB.

In the Early phase 1 project definition is missing the contribution of Germany (IKP Cologne) for the DAQ done in 2009 and corresponding to 4 1U pizza boxes (8000€ to be checked) and 48TB disk array (49134€)

Action P.R. to check the funds invested in DSQ in 2009.

Approximately 22 k€ on few items of the mechanical infrastructure are missing in our list

Final costs for the LINCO and VME carrier are ~500€/unit and ~200€/unit respectively

Action G.D. A.G. to check possible increase of pre-processing costs.

Action AG to check if funds for the last end-cap is available at TU-Darmstadt

8. The NUPNET proposal

The mail to the collaboration will be sent on 12th April.

9. AMB organisation

J.J. Valiente-Dobon proposed as Team leader of the complementary detectors team.

10. The Proposal for the AGATA double Clusters:

(see ASC report)

11. The GSI Phase

Request of GSI group to have the “Working Together” document as soon as possible to be discussed and agreed.

Request of GSI to have the AGAVA + GTS mezzanines as soon as possible.

There is a schedule for the AGATA test prepared by C. Domingo-Pardo and S.Pietri.

Critical issue is the schedule of the installation. The shutdown in 2011 will start from 26 October to 26 November.

The installation in the S4 should be from 26.11.2011 to 31.03.2012. After 31.03.2012 it is possible to continue the installation outside S4 for a period of 1 to 2 months. The access to S4 after 31.03.2012 will be limited.

The General schedule of LNL ends on 20th December 2011. The relevant items for the installation at GSI, and specially the mechanical ones, should be delivered as soon as possible to proceed with the work on S4.

A complete plan of the installation should be prepared by all Working Groups as soon as possible

Action: A.G. to prepare the layout of the installation plan

10. Running costs

New evaluation of the LNL running costs without the user costs

| MOU Items at LNL 2010 | |
|---------------------------------------|-------------|
| Detectors & Infrastructure | |
| LN2 | € 20,000.00 |
| Capsule repair/exchange | |
| Preamplifier exchange | |
| Other repairs | |
| Experimental setup maintenance at LNL | € 4,361.72 |
| HV/LV system, infrastructure | |
| Valve Control Crate upgrade | € 854.57 |
| AXIS material | € 1,852.80 |
| Detector laboratory | |

| | |
|--|--------------------|
| Fittings, PT100, ... | € 3,021.69 |
| Electronics maintenance/repair | |
| Electronics and DAQ LNL maintenance | € 1,152.00 |
| Electronics and DAQ AGATA maintenance | € 6,684.96 |
| DAQ computer upgrade | |
| Other costs (archiving service at CNAF) | |
| Tapes and disks at CNAF | € 26,200.00 |
| Shipping costs | |
| Boxes and packaging material | € 399.60 |
| Shipping costs (LNL User Service) | € 1,076.91 |
| Mechanics | |
| Infrastructure LNL maintenance | € 4,768.80 |
| Total | € 70,373.05 |

11. Discussion on the next (11th) AGATA week

Firm dates for the AGATA week in Darmstadt, from September 6th to 8th 2011.

Action: A.G. to start preparing the layout of the draft programme

12. AGATA Technical Publication,

Task force of volunteers (G. Duchêne, A. Gadea, A. Korichi and J. Simpson) to help J.Nyberg with the preparation of the NIM.

New deadline Friday 15th, new version on Monday 18th.

13. AOB

14. Date and location of next meeting and dates of phone conferences.

Next AMB meeting 9th June at GSI (H.-J. W. to organize)

Phone conferences / Lyon system (GD to organise)

3rd May 2011, 10.00 CET

16th May 2011, 10.00 CET

31st May 2011, 10.00 CET