

Minutes of the Plan meet of 7th December 2011 (follow-up of some pending topics from different areas) :

1. Documentation on Plan website : to follow-up with groups who have not yet put up the documents. YG to get a response from electrical, mechanical etc.

2. FE & OF related :

2.1 Cone-dipole feed : (i) quick update on status of installation of mesh based version of the feed (GSS/APK) : sleeve work by this week; FE : filters ready, LNAs ready, QH ready, integration & testing on Mon; put on S2 by next Wed (ii) note to control room re LO setting for modified antennas (YG/APK/RBS) -- APK to make first version and send to RBS and YG for making a final note for control room, users and inclusion in next GTAC cycle announcement.

2.2 Scaled cone-dipole feed for 500-1000 MHz : design input given to w'shop with formal requisition; dipole design by next week.

2.3 WiPLD related update : any fresh updates from vendor? (GSS) -- waiting for reply.

2.4 Update on new common box : status update on progress with mixed amplifier design and getting more free samples from vendor (ANR/APK) -- Sirenza units tested gives 33-34 dB gain, but cut off below 150 MHz; will integrate and test next week; aim to put on W04 by next week or the week after (depending on logistics). Getting more free samples of ECG008 -- will know results by today afternoon.

2.5 Better vendors for mass production : SSK + HSK; Any news from TIFR (SKG) -- exploratory attempts at both H'bad and Mumbai campuses ongoing, will take about 3 weeks to materialise; take up after 4 weeks.

2.6 Environmental chamber : updates? can we close the matter? (ANR/SSK) -- vendor has completed integration and is testing, inspection visit dates may get finalised by next Monday.

2.7 Status update on loop connection related works for Pune-GMRT OF link : to discuss matter reported by SSK 2 weeks ago (MoM of 23 Nov meet) -- deferred to a later date.

3. RFI related matters : NOTHING NEW THIS WEEK (meeting between RFI, electrical and YG is still pending !)

4. Operations :

4.1 Palm size units : delivery status check.

4.2 Miltec indent and order : quick check on latest status (RBS) -- email update from RBS that folder with quotes received and put up to purchase for clearing the order.

4.3 Detailed requirements of each group for new MCM : follow-up : is the basic specs document available (RBS)? Do we need a review about the requirements and realisation details? -- email update from RBS that (i) basic specs from all groups are available (ii) since new MCM will take high level commands, we need a list of such high level commands from each group, alongwith the 32 bit details and (iii) need details about # of monitoring channels, range of valid values and alert msg to be generated. Can follow-up in next week's meeting.

5. Back-ends :

5.1 Note from BAK re LO scheme for upgraded system -- ver1.0 available : has been circulated and will be taken up for discussion next week (14th Dec). (BAK)

5.2 Update on analog back-end ripple problem (NDS/BAK)

5.3 Updates from further tests with PoCo and GPU corr (SCC/SHR) -- initial tests

with modified src coordinates showed improvement for PoCo (but not for the GPU corr); no follow-up tests have been done after that. To discuss more in detail next week.

5.4 Python related matters : discussion with YW (SCC) -- C-Python as an option; discussion with YW still pending.

5.5 Updates on testing of packetised desing (SCC/BAK) -- sudden, random phase jumps had been seen in the data; analysis of H5 file now possible which shows possibility of time-stamp jumps between different X-engines; this needs to be followed up in more detail and report back next week, after that phase jump problem can be sorted out.

5.6 ADC characterisation : some work has been done which implies that -18 dBm may be the optimal input level into the iADC (7 bits over +/- 3 sigma). SCC/KDB/SHR to produce a technical note on this.

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Minutes of Plan meet of 14th December 2011 (follow-up of some pending topics from different areas) :

1. Documentation on Plan website : to follow-up with groups who have not yet put up the documents. YG to get a response from electrical, mechanical etc. -- no further follow-up yet !

2. FE & OF related :

2.0 Problems with repair of existing 610 feeds : what have we learnt -- earlier experience was with 610 only feed (cf 235-610 dual feed); not clear what may be happening with dual feeds; GSS to look into the problem for better understanding and report back; meanwhile, stop repair on remaining two feeds in workshop.

2.1 Cone-dipole feed : (i) quick update on status of installation of mesh based version of the feed (GSS/ANR/APK) -- feed + dipole ready and tested in lab; only waiting for better mechanical assly; FE box ready and tested; may be possible to go up tomorrow.

(ii) note to control room re LO setting for modified wide-band antennas : first version to be made ready by APK (APK/RBS/YG) -- still pending; RBS to remind.

2.2 Scaled cone-dipole feed for 500-1000 MHz : latest update -- cone design given to workshop; dipole design getting done and may go for fabrication by Monday.

2.3 WiPLD related update : any fresh updates from vendor? (GSS) -- waiting for reply from vendor (FE to send email update).

2.4 Update on new common box : getting unit with Sirenza ready and tested -- work to be scheduled after S02 feed work; may go up on W04 by middle of next week; update on getting more free samples from vendor (ANR/APK) -- free samples not possible; looking to option for talking with senior person of Triquent.

2.5 Environmental chamber : updates? can we close the matter? (ANR/SSK) -- no response from vendor; to try formal landline number.

2.6 Status update on loop connection related works for Pune-GMRT OF link : to discuss matter reported by SSK 2 weeks ago (MoM of 23 Nov meet) -- email update from SSK : agreement with BSNL for AMC till 2013 signed; now ready for testing with new optical amplifiers at Rajgurunagar and NCRA, by end of this week; update can be provided next week.

3. RFI related matters : NOTHING NEW THIS WEEK (meeting between RFI, electrical and YG is still pending !)

4. Operations :

4.1 Palm size units : delivery status check -- email update from SSK : 2 units have been received; both units work in linux, but only one found working in windows, needs follow-up with vendor; RFI testing being planned.

4.2 Miltec indent and order : check if order placed or not (also what are the final specs?) (RBS) -- to do one round of check to see if present specs conform to final requirements and also if sample piece can come for testing, and then decide about clearing the order; RBS and SSK to coordinate.

4.3 MCM card : some last few changes to accommodate SPI port (needed by analog back-end); then to finalise the PCB; to aim for finishing within next couple of weeks.

4.4 Detailed requirements of each group for new MCM : follow-up from last week's response by RBS -- can we have both (i) high level commands and (ii) low level commands for actually setting the bits? agreed to provide this facility; additionally, RBS to prepare template for required high level commands and

circulate to all groups.

5. Back-ends :

5.1 Note from BAK re LO scheme for upgraded system to be discussed in detail :

Main issues for LO scheme : to use separate, independent synth for each ant (both pols) for most general case of different LO for each antenna (using FSW units, with cut-off of 600-1700 MHz, step size of 0.5 MHz); but will also allow for single source to go to each antenna (will be from a commercial sig gen) from 10 kHz to 2 GHz. Switch between these two should have enough isolation (40 dB at present)

Q : is there any need for separate LOs for each poln of each antenna? To check for the possibility of more generic switch arrangement to allow for such a flexibility. A bit more thought may be needed for the choice of BPFs. To take up for finalisation one month from now, after circulation of an updated document by BAK.

5.2 Update on analog back-end ripple problem (NDS/BAK) -- now down to 1 dB from 3 dB; seems to be problem also about thickness of PCB, new set being made by vendor.

5.3 Updates from further tests with PoCo & GPU corr, from last week (SCC/SHR/BAK) -- no further new results, some tests are ongoing, new results expected.

5.4 Python related matters : discussion with YW (SCC) -- no update.

5.5 Updates on testing of packetised desing, from last week (SCC/BAK) -- no new updates.

5.6 Update on SFP+ adaptor board with MTE : current status and plans (KDB/BAK) -- board tested with all 4 ports transmit & receive 10 Gbe; not working for xaui mode (may need to modify the casper block?); temp related test not yet done; problem of connector coming off -- fixed for now, but needs to be understood; need better mounting arrangement. Need a meeting with MTE to discuss the way forward.

5.7 EoR switch : full software mode released or not? -- 3 way switch being put in so that all 3 modes (manual normal, manual EoR, full remote) and will be tested soon, and SOP will be released.

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Minutes of the Plan meet of 21st December 2011 (follow-up of some pending topics from different areas) :

1. Documentation on Plan website : to follow-up with groups who have not yet put up the documents. YG has sent a reminder to electrical, mechanical etc. : waiting for a response from them...

[no update]

2. FE & OF related :

2.0 Problems with repair of existing 610 feeds : any further updates from GSS

[The problem was attributed to the difference in fabrication detail (groove on the back-plane). Hence, this changed-member was reverted back to the original type of back-plane. However, even after this change, the spike in the return-loss did not vanish. GSS to explore further & provide update.]

2.1 Cone-dipole feed :

(i) quick update on new feed on S02 and first set of tests by FE group (HRB/GSS/ANR), and plans for testing by NK.

[HR reported that 11.5 dB deflection was measured at the antenna base (327 MHz) & a report will be circulated in next few days. NK will provide update in early Jan-2012.]

(ii) follow-up on checks for dip in 460-470 MHz range (from 23 Nov meeting)

[no update]

(iii) pending updates by HRB on (a) new algorithm for fitting

(b) porting of software for doing the tests at antenna base

[no update]

2.2 note to control room re LO setting for modified wide-band antennas : first version to be made ready by APK+RBS (APK/RBS/YG)

[First draft note has been circulated. Awaiting comments / feedbacks.]

2.3 Scaled cone-dipole feed for 500-1000 MHz : latest update on fabrication of cone and design of dipole (GSS/APK)

[no update]

2.4 Update on new common box : Sirenza based unit was to be ready by this week;

update on getting more free samples of ECG008 (ANR/APK)

[Common box using 'Sirenza' is ready - to be put up on W-04 for tests.
A few (8 pieces) free samples have been sent by the supplier party
from Bangalore.]

2.5 Order for lasers : update on current status of purchase folder (SSK)

[SKG to follow up with Purchase.]

2.6 Environmental chamber : current status (ANR/SSK)

[Very slow response from the supplier. Needs further follow up.]

2.7 Status update on loop connection related works for Pune-GMRT OF link : update
on recent tests and problem of amplifier response for 6 GBe vs 8 GBe capacity.

[Pune-NGN BSNL line has become very lossy : Rx works upto ~ -31 dB &
the current operating point is at -30.5 dB;

A fresh optical amplifier has provided additional 10-15 dB headroom,
but that can support 6 GB (out of 8 GB). This extra headroom allows
use of alternate (longer mileage) routes also.]

3. RFI related matters :

3.1 Updated on mobile towers going to 1800 MHz (SSK) : BSNL at Alkutti (confirmed?);
update on new towers (BSNL+Airtel) coming up near E06 (from 30 Nov meeting)(SSK)

[Southern side work completed. Rest (under the jurisdiction of Nagar),
are being followed up.]

3.2 Update on plans for testing RFI effectiveness of box of mesh on ground (PAR)

[in progress]

3.3 Coordination with servo group on plans for inspection of BLDC racks in
Bangalore (check specs doc provided by Servo and fix dates for visit) (SSK+SS)

[It seems there has not been any communication to the RFI group from Servo
group. Will be looked into by YG/SKG.]

4. Operations :

4.1 Palm size units : update on problem with one unit (PAR)

[Tests successful with Linux, but failed in Windows OS. To be followed
up further.

One suggestion came : can these replace the Miltec PCs ?]

4.2 Miltec indent and order : follow up from last week's meeting (RBS + SSK)

[No quotation in hand.]

4.3 Update on MCM card PCB design : will it be ready by end of Dec 2011? (CPK/RBS)

4.4 Serial port for antenna testing : released to users? 5 hardware units were
to be ordered. (Upgrade/RBS)

5. Back-ends :

5.1 Updates from further tests with PoCo & GPU corr (SCC/SHR/BAK)

[PoCo is tested OK upto longest baseline of C11-W04.

GPU based system shows problem of phase as well as cross-amplitude (lower values). Being pursued.

It was suggested that long duration (~ 24 hours) PoCo data should be stored for further validation.]

5.2 Updates on testing of packetised desing (SCC/BAK)

5.3 EoR switch : status update (BAK); plans for testing (NK)

[All changes and tests have been carried out successfully.

Now a proper SOP needs to be drafted.]

5.4 Technical note on ADC characterisation (reminder from 7 Dec 2011 meeting)
by SCC/KDB/SHR

[no progress]

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