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## Minutes of the Plan meeting held on 13-Jul-2011

List of topics for Plan meet of 13th July 2011 (follow-up of some pending topics from different areas, including mechanical, electrical, civil):

1. Documentation on Plan website: check for new updates from groups, including back-ends, servo, mechanical, electrical and civil.

[Some documents from the Back-end group are now available on the website; the RFI & Servo group are yet to make their documents available; the documents related to Plan funded activities carried out by the Mechanical, Electrical & Civil groups should also be put on the website;]

- 2. FE & OF related:
- 2.1 Cone-dipole feed:
- (i) beam shape plots from NK/JNC
- (ii) improved antenna base dump program (Hanumanth Rao)

[The observed frequency dependence (4 values) of the HPBW is not monotonic, which is unusual, the measurements may need to be repeated; Similar measurements from a different antenna could be used to check if the programmes are bug-free.

The data from modified 327 MHz feed has also shown some 'funny' behaviour; better understanding is required; ]

2.2 CSIRO feed status (ANR/JNC)

[No update reported]

2.3 Update on W04 broadband link -- verification of full chain (till CEB) for proper level and band shapes (FE/OF/BE groups)

[No member from OF group present; hence no update available]

2.4 Update on study / report on cross-dipole noise radiation scheme -- reminder for short update document from APK.

[Software simulations have recently been taken up; update expected in next ~ 2 weeks]

- 3. RFI:
- 3.1 Air Force RFI : follow-up on pending matters : records and documentation; follow-up letter / visit to AF station (PAR/SSK)

[No member from RFI group present; hence no update available]

- 4. Back-ends (BAK):
- 4.1 Reminder: note from BAK on proposed scheme for LO in new analog system
- 4.2 Update on pocket correlator fringe setting problems

4.3 Update on packeized correlator testing with corr\_package

[Not much have happened; tests with PoCo are in progress]

- 5. Mechanical (HSK):
- 5.1 Update on purchase of tensionometer
- 5.2 Update on joystick and potientometer problem
- 5.3 Update on final version of steel theodolite mount
- 5.4 Update on tendering for new CP
- 5.5 Update on gear box spares and new units
- 5.6 Any other matter

[2x Tensionometers from UK have been shipped & expected within 15 days (2 x Rs 2 Lakhs);

No update on joystick / potientometer;

Drawings finalized for steel theodolite mount; to be fabricated by 30-Jul-2011;

HLP tendering process has got stuck; SKG to follow up with admin;

Inputs about gear box spares, expected from Rexroth (Germany)

by 15-Jul-2011; Gear box order to Magtorq has gone & Innotran order is about to go;

Problem faced with installing CSIRO feed using CP was mentioned (oil leakage due to overloading - need discussion involving all relevant members;]

- 6. Electrical & Civil (RVS):
- 6.1 Update on slimline AC units in antennas
- 6.2 Update on CSQ fence work
- 6.3 Update on Visitor Centre work

[x10 units of Slimline AC have been indented;

the CSQ fence work should get over within ~ 1 week;

Visitor Centre: internal meeting among relevant members required, which has been planned soon;

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List of topics for Plan meet of 20th July 2011 (follow-up of some pending matters from FE,OF,RFI,Ops & BE):

- 1. Documentation on Plan website: need updates from mechanical, civil, electrical, servo etc.
- 2. FE & OF related:
- 2.1 Cone-dipole feed: (i) follow-up on beam shape results from JNC (ii) update on improved antenna base dump program (Hanumanth Rao) (iii) status of new wideband FE box with modified filter
- 2.2 CSIRO feed status (ANR/JNC) : pending from last meeting
- 2.3 Update on W04 broadband link -- verification of full chain (till CEB) for proper level and band shapes (FE/OF/BE groups): pending from last meeting
- 2.4 Discussion on modified common box design for the GMRT upgrade
- 2.5 Status of order for new lasers
- 3. RFI:
- 3.1 Air Force RFI : follow-up on pending matters : records and documentation; follow-up letter / visit to AF station (PAR/SSK)
- 3.2 Follow-up on letter to BSNL re mobile phone towers
- 4. Operations:
- 4.1 Follow-up action on RFI friendly PC on antenna base: various options from Kontron, Miltec, Advantec
- 4.2 Update on new MCM card and RFI testing of the same
- 5. Back-ends (BAK):
- 5.1 Reminder: note from BAK on proposed scheme for LO in new analog system
- 5.2 Update on pocket correlator fringe setting problems
- 5.3 Update on packeized correlator testing with corr\_package
- 5.4 Update on status of SFP converter circuit design with MTE

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1. Documentation on Plan website: check for new updates from groups, including back-ends, servo, mechanical, electrical and civil.

[Some documents from the Back-end group are now available on the website; the RFI & Servo group are yet to make their documents available; the documents related to Plan funded activities carried out by the Mechanical, Electrical & Civil groups should also be put on the website;]

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[The observed frequency dependence (4 values) of the HPBW is not monotonic, which is unusual, the measurements may need to be repeated; Similar measurements from a different antenna could be used to check if the programmes are bug-free.

The data from modified 327 MHz feed has also shown some 'funny' behaviour; better understanding is required; ]

2.2 CSIRO feed status (ANR/JNC)

[No update reported]

Later email update from Anil Raut:

The CSIRO Feed-1 with front end is installed on C11 on 6th July. The deflection on CRAB was as expected (better than 6.5 dB at 610) for both the polarization channels. However we could not install the second feed on W01 because of the weather conditions and cherrypicker hydrualic leakage problem.

2.3 Update on W04 broadband link -- verification of full chain (till CEB) for proper level and band shapes (FE/OF/BE groups)

[No member from OF group present; hence no update available]

2.4 Update on study / report on cross-dipole noise radiation scheme -- reminder for short update document from APK.

[Software simulations have recently been taken up; update expected in next ~ 2 weeks]

- 3. RFI:
- 3.1 Air Force RFI : follow-up on pending matters : records and documentation; follow-up letter / visit to AF station (PAR/SSK)

[No member from RFI group present; hence no update available]

- 4. Back-ends (BAK):
- 4.1 Reminder: note from BAK on proposed scheme for LO in new analog system
- 4.2 Update on pocket correlator fringe setting problems
- 4.3 Update on packeized correlator testing with corr\_package

[Not much have happened; tests with PoCo are in progress]

- 5. Mechanical (HSK):
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- 5.3 Update on final version of steel theodolite mount
- 5.4 Update on tendering for new CP
- 5.5 Update on gear box spares and new units
- 5.6 Any other matter
- [2x Tensionometers from UK have been shipped & expected within 15 days (2 x Rs 2 Lakhs);

No update on joystick / potientometer;

Drawings finalized for steel theodolite mount; to be fabricated by 30-Jul-2011;

HLP tendering process has got stuck; SKG to follow up with admin;

Inputs about gear box spares, expected from Rexroth (Germany) by 15-Jul-2011; Gear box order to Magtorq has gone & Innotran order is about to go;

Problem faced with installing CSIRO feed using CP was mentioned (oil leakage due to overloading - need discussion involving all relevant members;]

- 6. Electrical & Civil (RVS):
- 6.1 Update on slimline AC units in antennas
- 6.2 Update on CSQ fence work
- 6.3 Update on Visitor Centre work

[x10 units of Slimline AC have been indented; the CSQ fence work should get over within ~ 1 week; Visitor Centre: internal meeting among relevant members required, which has been planned soon;

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List of topics for Plan meet of 6th July 2011 (follow-up of some pending topics from different areas, including mechanical):

- 1. Documentation on Plan website : no new updates are visible -- follow-up is required from all concerned.
- 2. FE & OF related:
- 2.1 Cone-dipole feed: (i) follow-up on repeat beam shape measurements by JNC
- (ii) update from Hanumanth Rao on testing of antenna base dump program (iii) identify possible date for bringing down FE box and replacing with full BW filter
- 2.2 CSIRO feed: update from 2nd round of testing by JNC; identify possible next slot for putting both feeds?
- 2.3 Update on test range work (GSS)
- 2.4 W04 broadband link: FE group to update about testing and clearing of ripple problem. Follow-up action for testing and clearing power levels for full chain to be decided.
- 3. RFI related:
- 3.1 Follow-up action based on work by Ue-Li Pen's group: (i) to see if clear list of candidate RFI sources identified which can be followed up (PAR/SSK) (ii) to see if the GSB based set-up can be used for further studies (NK)
- 4. Operations:
- 4.1 Quick update on Miltec and Advantec items for testing at NCRA
- 5. Back-ends:
- 5.1 Reminder: note from BAK on proposed scheme for LO in new analog system
- 5.2 Update on pocket correlator fringe setting problems
- 5.3 Update on packeized correlator testing with corr\_package
- 5.4 Update on status of SFP converter circuit design with MTE

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Minutes of the Plan meeting held on 20 Jul 2011

List of topics for Plan meet of 20th July 2011 (follow-up of some pending matters from FE,OF,RFI,Ops & BE):

- 1. Documentation on Plan website: need updates from mechanical, civil, electrical, servo etc. -- not much further progress; to be followed with individuals.
- 2. FE & OF related:
- 2.1 Cone-dipole feed: (i) follow-up on beam shape results from JNC: test results don't look clear and conclusive; JNC to try repeat by tomorrow; to discuss in next week's meeting (ii) update on improved antenna base dump program (Hanumanth Rao) -- work under progress tbc next week; (iii) status of new wideband FE box with modified filter: filters are ready and can be put on existing box when brought down; to try and have 2nd box ready (lower priority)
- 2.2 CSIRO feed status (ANR/JNC): pending from last meeting -- results from one round of testing from JNC -- shows deflections not outside the range seen in earlier tests (though a bit reduced); waiting for 2nd round of results; meanwhile, feed to be brought down today for 235 MHz GTAC observations.
- 2.3 Update on W04 broadband link -- verification of full chain (till CEB) for proper level and band shapes (FE/OF/BE groups): pending from last meeting; confirmed that ripple is there in one ch; power levels are OK; FE to follow-up

and then matter can be taken up for further study.

- 2.4 Discussion on modified common box design for the GMRT upgrade: main change is to replace amplifiers of 2 stages with broadband devices; suitable possible devices have been identified; need to decide and indent for appropriate devices; to look at procurement of sample devices. Also, monitoring devices for temperature and power to be added. TBC after one month.
- 2.5 Status of order for new lasers : on-track -- delivery by end of July

## 3. RFI:

- 3.1 Air Force RFI: follow-up on pending matters: records and documentation; follow-up letter / visit to AF station (PAR/SSK): 325 protected band is clear; 235 band under check; extra noise seen in 325 is not due to AF -- to be followed-up separately.
- 3.2 Follow-up on letter to BSNL re mobile phone towers: based on our letter and coordinates of GMRT antennas, they have changed some sectors on some towers; this is not quite enough and further follow-up is ongoing. To be reviewed after couple of weeks.

## 4. Operations:

- 4.1 Follow-up action on RFI friendly PC on antenna base: various options from Kontron, Miltec, Advantec: based on feedback from first test, modified desktop unit from Miltec will come by end of this week and will be tested on Monday or Tuesday. Also palm-top units from them are worth testing (with and without serial port); unit from Advantec also can come by end of this week for testing. Kontron: not responding about EMI/EMC specs and MOQ for the new unit.
- 4.2 Update on new MCM card and RFI testing of the same : patch card problem temporary solution, basic tests OK; further testing for another week or so (including RFI testing); after that new PCB to be done; relook 2 weeks from now.
- 5. Back-ends (BAK): -- items could not be discussed due to absence of BE persons.
- 5.1 Reminder: note from BAK on proposed scheme for LO in new analog system
- 5.2 Update on pocket correlator fringe setting problems
- 5.3 Update on packeized correlator testing with corr\_package
- 5.4 Update on status of SFP converter circuit design with MTE

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