32GbpsEVN telecon, 24-01-2019, 13.00 CET

present:

Dwingeloo: Bob Eldering, Bob Campbell, Paul Boven, Mark Kettenis, Harro Verkouter, Aard Keimpema, Arpad Szomoru

telecon: Michael Lindqvist, Simon Casey, Jun Yang, Roger Hammargren, Walter Alef, Uwe Bach, Pablo de Vicente, Javier Gonzalez Garcia

Could not connect due to wrong telephone number: Rongbing Zhao

Agenda:

- status of Torun and Metsahovi
- feeds, receivers, observing bands, what is available
- DBBC3 debugging/familiarization:
    - 1, 2 Gbps real time (all stations)
    - 4 Gbps real time (On, Ef, Ys)
- cornerturning or not? Remember the Harrobox
- readiness of stations to move on to higher data rates
- availability of stations
- frequency of test observations
- time line
    - observations
    - telecons
- old-fashioned telecon or zoom? Any problems in China with zoom?
- AOB

- status of Tr and Mh: AS has been told by Yuha Kallunki that they have no access to the geo DBBC3. Tr may receive one in the summer of 2019

WA: should invite Yurii Pidopryhora to telecon next time. Action AS: invite Yurii

- feeds etc:

On: could do 4GHz dual pol at 22 GHz, but need to move DBBC3. Alternatively, use one of the twin telescopes, at C band, 4-8 GHz.

Ys: the 40m could do 2.5 GHz max at 22 GHz, dual pol. On the VGOS antenna 3 - 14 GHz.

Ef: 4 - 8 GHz, dual linear pol
    4 GHz at K and Q band, after Easter will have new receiver 12 - 18 GHz

T6: according to JY, 4 - 8 GHz

ML: C band most interesting scientifically.

HV: any issues with LO tuning? None apparently

Decision that 4 - 8 GHz is a good starting point.

ML needs to talk to Rudiger about availability of twin telescopes and DBBC3: action ML

- DBBC3 etc:

WA: we really need Sven involved, for technical input on DBBC3 capabilities. Action AS: invite Sven to next telecon

JGG: done some experimenting with DBBC3: one pol per data stream, on separate fibers. Then used the Harrobox to mix the streams into one, resulting in cornerturned data on the flexbuff.

MK: probably many small data stream are preferable, certainly from the point of view of the correlator.

JGG: talked to Sven, understood that cornerturning has not been implemented yet, but possibly could be.

WA: in Granada presentation: with DDC 16 times 128 MHz. In the near future.

General consensus that this would probably be preferable for operations, however for testing nearly anything will do.

- readiness of stations etc:

Overall, no show stoppers, once we reach 32 Gbps each station will need 2 FlexBuffs or Mark6, but this is not a problem

- availability of stations;

On: Rudiger needs to be asked (existing action)

Ef: UB needs to talk to scheduler. What is more, DBBC3 is used for development and is in lab. Action UB: find out of availability of Ef + DBBC3 throughout year

Ys: VGOS antenna should be available outside of 2-weekly observations. Action PdV: provide schedule

- frequency of observations: quite dependent on availability

- time line observations and telecons:

AS: need to decide on setting fixed dates or deciding on dates based on results. Fixed dates probably best. Telecons will need to be frequent, before every observation, at least in the beginning.

- zoom: everybody in favor. Availability in China unclear. Astron has 4 zoom rooms available (it seems). AS to set up zoom for next telecon.

PB: used zoom with Chinese colleagues in SKA-related telecons. Should be ok

- AOB:

HV: what about FS? WA: Helge Rottmann and Sven (what is his last name?) have written a script for this. There should be some support from FS, but what version of FS? What version of DBBC3 is supported? Action HV: talk to Ed Himwich.

HV: what about scheduling? Idem, HV talk to Ed. MK: in the early test phase we can get along with cobbling schedules together.

AS: after receiving info on availability, within one week, will set up second telecon, this time including Sven and Yurii.