JUC meeting, Thursday March 28, 2013, Arpad's room

present: Harro, Des, Jonathan, Salvatore, Arpad

previous problems:

BNs not responding after some time. Jonathan: something seems to get stuck in FN, maybe a virtual FIFO. Has log file from Des, now waiting for it to break again, look with signal tap + new logfile. Not fixed yet.

Several virtual stations on one FN: Jonathan has not looked at that yet. Will do so today.

update:

Jonathan: him and Salvatore worked on fractional delay, showed results to Sergei. Used different method to calculate rms, getting close to expected error. Need to talk more to Sergei, find out if this result is good enough/within bounds/need different test?

DIscussion then starts about packing of data in memory and validity bits. Now: 1 VDIF frame/row, 1 validity bit per row. When different frame sizes are packed, cannot have 1 bit per row (might throw away 2 complete rows because of one non-valid frame). Salvatore suggests table with val bits, as places of frames in memory are all known. Takes quite a bit of memory. Run-length encoding would be good, but tricky (packets arriving out of order). First find out if there are enough resources, if so, do not bother with encoding.

Arpad assures Jonathan that this is not high priority right now, need to get data from more than 2 stations into UB, on all FNs.

Problem with missing integrations: Jonathan put in signal tap, and it has not occurred since. Salvatore suggests timing errors in DDR controller. Needs more checking.

Harro: j2ms2 already can deal with more than 4 subbands, more virtual stations.

Normalisation in SFXC: Des did talk to Aard, knows how it is done in SFXC, could be done in j2ms2 for UB correlator, maybe in pycase script. Last probably best, Des will write script. Some uncertainty on how to calculate total power, which is needed for normalisation.