RASFX Correlator Processing Result

D.Zhuravov[1], A.Melnikov[1], S.Kurdubov[1], I.Surkis[1], V.Ken[1], V.Mishin[1],
V.Shantyr[1], N.Mishina[1], Y.Kurdubova[1]
1 – IAA RAS, Saint-Petersburg, Russia

Since November, 2015 RASFX correlator has been processing sessions of observations with RT-13M antennas of Badary and Zelenchukskaya observatories in S/X, S/X/Ka, X/Ka bands. Roughly 900 sessions has been completed. Percentage ratios of different bands are shown in diagram 1.

All sessions proceeded by correlator are single-based, has a bandwidth 512 MHz and 2-bit sampling.

Following frequency setting has been used:

- 1 S-channel with right and left polarizations+ 2 X-channels with right polarization
- 1 S-channel + 1 X-channel with right polarization;
- 1 S-channel + 3 X-channels with right polarization;
- 1 S-channel + 1 Ka-channel with right polarization;
- 1 S-channel with right and left polarizations+ 3 X-channels with right polarization;
- 1 S-channel +1 X-channel + 1 Ka-channel with right polarization;
- 1 S-channel + 3 X-channels with right polarization and 1 S-channel + 3 X-channels with left polarization.

Diagram 2 shows observation intensity per month.

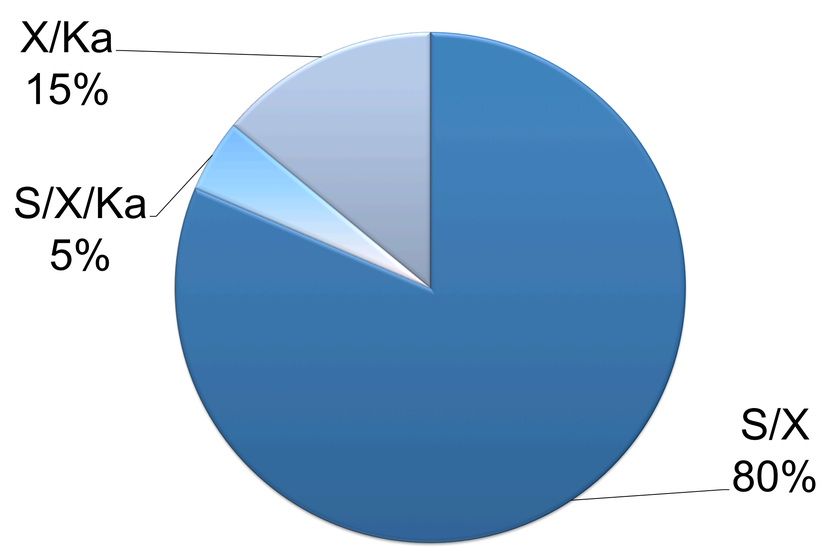

Diagram 1. Percentage ratios of bands

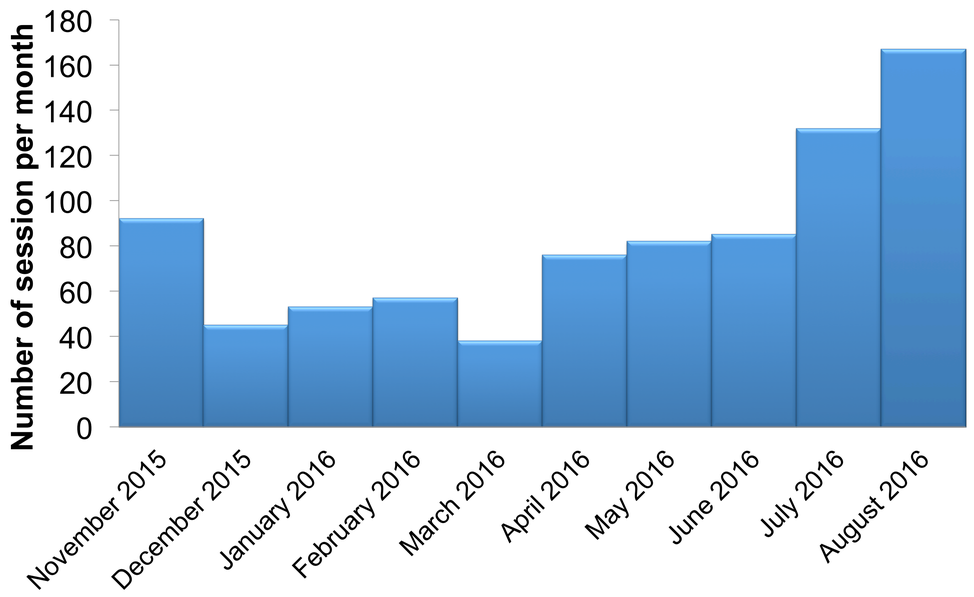

Diagram 2. Number of sessions per month

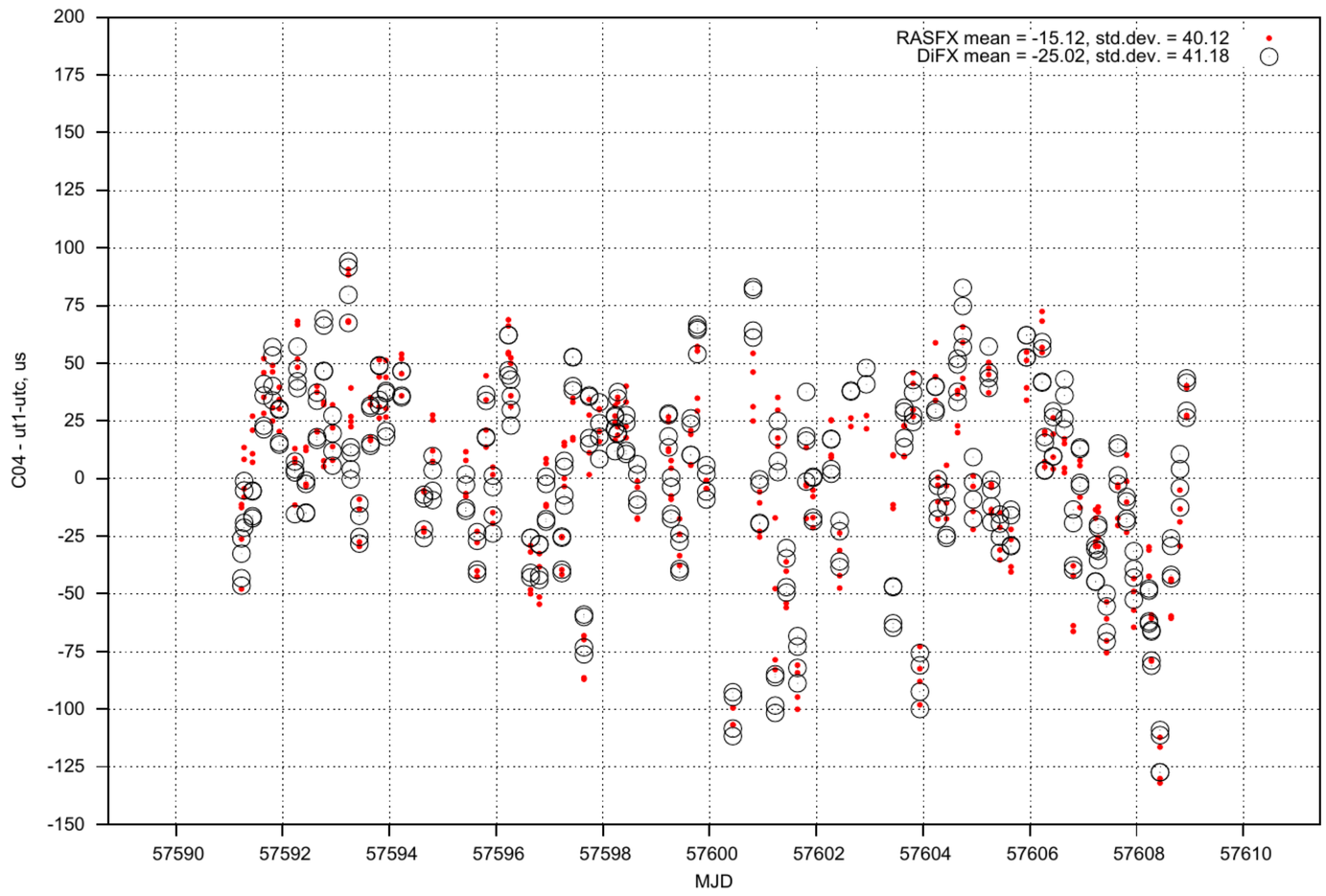

Fig 3. Comparison between DiFX and RASFX correlators