



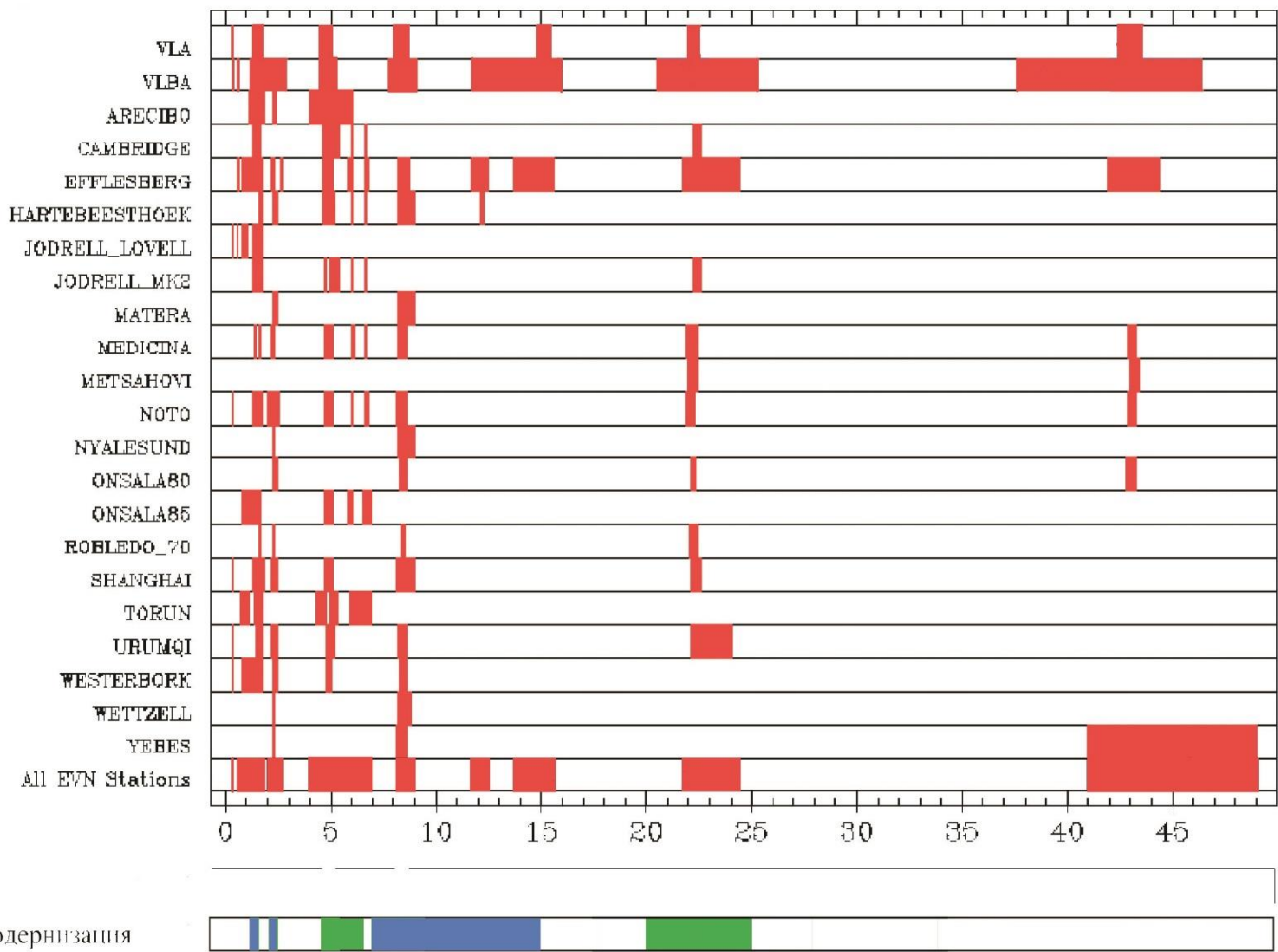
# Current state and modernization perspectives of RT-32 radio telescope



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## Frequencies Covered by EVN Telescopes



Frequency/GHz



## At this moment, following stages already performed on RT-32:

- Research of the parameters of the MARK-4B antenna system in the C-band and the general parameters that are characteristic of all the bands (aiming speed, time accuracy, etc.);
- The technical task for creation of RT-32 as well as design documentation for the C-band radio systems and the antenna control system were developed;
- C-band radio system blocks for RT-32 were designed, manufactured and adjusted;
- The RT-32 antenna control system was development, installed and adjusted;
- Testing of the RT-32 as part of a radio system and antenna control system based on actually received signals from space objects (radio sources) in the C-band.

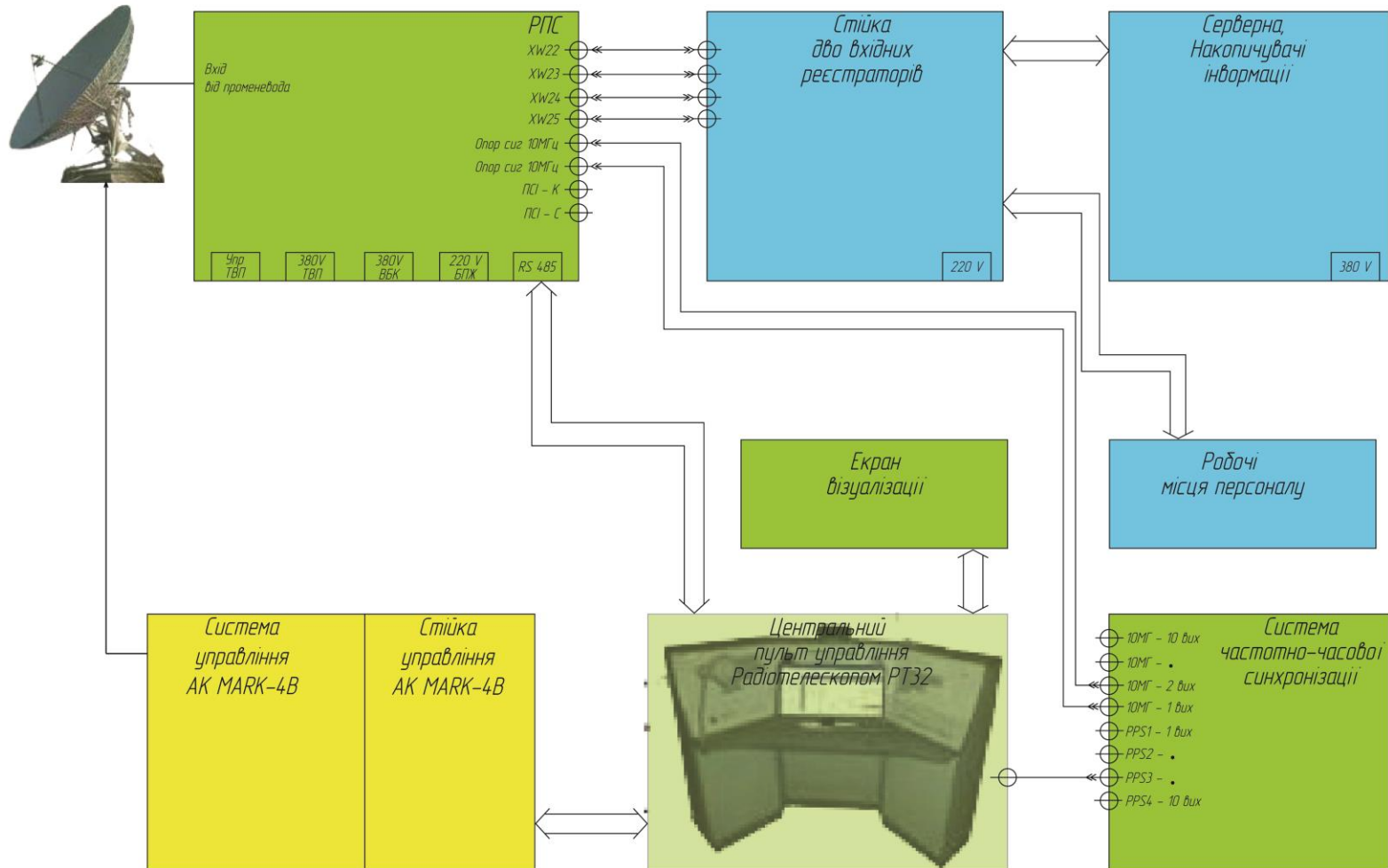


## Till the end of 2019 following stages going to be performed:

- K-band radio system units will be designed, manufactured and commissioned
- A system of frequency-time synchronization will be created;
- S- and X-band radiometric receivers will be manufactured;
- Measurements of the main characteristics of the MARK-4B antenna system in S-, X- and K-bands will be carried out;
- A device for adjusting and changing the ranges will be created;
- Special antenna guidance software will be created;
- New azimuth loop cable laying machine for antenna system will be manufactured and installed;
- A number of mechanical parts of the antenna system will be repaired and restored;
- RT-32 will be tested as part of radio reception systems for real-time received signals from space objects (radio sources) in the C and K bands.



# General structural diagram of the radio telescope «RT-32» with auxiliary systems





**Thank YOU for attention.**