TWSTFT activities at ROA.

By Juan PALACIO

Since last meeting we have been participating regularly in TWSTFT European sessions. The frequencies for the USA –EU link were out of the bandwidth of our Ku-Station.

From DJM52795 to DJM52812 ROA was out of the sessions. The origin of the outage was a fail on the PLL of the transceiver that did not lock onto the external frequency. After a round trip of the transceiver to the representative company at Madrid, the problem was avoid using the internal frequency source, after it was tuned and adjusted to the nominal 10 MHz.

EQUIPMENT

ROA is equipped with an 'old fashion' SATRE modem. During last meeting at PTB, a discussion was held followed by an offer form the manufacturer to fix the 'one second difference tagging' problem. Also something was said about a special offer to improve these modems or replay them by new ones. Nothing has been mentioned since then.

A new transceiver has been purchased to cover the Extended Ku Band; it is an AnnaSat 4SE model, similar to other used by other colleagues. This transceiver allowed us to be present at USA – EU sessions.

SOFTWARE

As reported during last PTB meeting the software we were using to control the Ku station and the SATRE modem was flexible enough to make the transition from three sessions per week to a daily session without any effort. It happened in this way when we were allowed by Intelsat to perform seven sessions per week.

The flexibility of the software allowed us also to change the set-up easily from the K-Star transceiver to the Anacom one.

NEW SATELLITE

ROA appreciates very much and would publicly recognise and also thanks to Dr. Gerrit de Jong (VSL) the work he did in behalf of the group during the co-ordination for the moving to the new satellite. The results of the measurements and instructions his transmitted to all of us, save us a lot of hard work and effort to make the changes shortly and efficiently.

After the DJM52898 a new calibration of all the station has been carried out. The results are consistent and the only lack is that we do not know the differential delay of the receiving and transmitting part of the new transceiver. We are now missing to have a satellite simulator for this propose and we are concerned on building/getting one, so I make a call to those colleagues in the same situation to find out a solution in a common way.

CALIBRATION

We have received a fund to perform a TWSTFT calibration using a mobile station. The total amount of money at disposal was enough only if some laboratories participate in the calibration trip, as detailed in one of the offering we got; but it is not enough to calibrate ROA-PTB link solely. So, I make a call to the group to co-ordinate the calibration trips to decrease costs.