

Overview of the amateur radio mission

The data structure of the AX.25 communication protocol used for the FM packet uplink is shown in Fig.1.

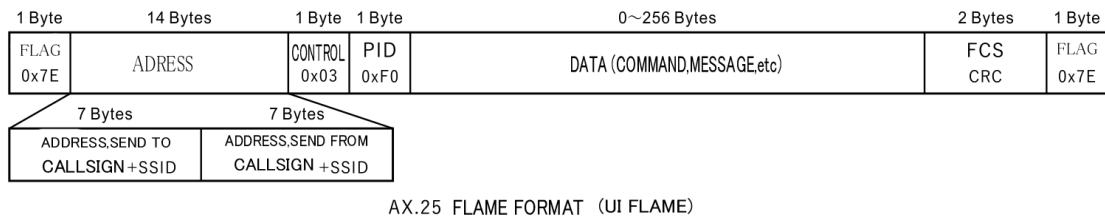


Fig.1

LignoSat will extract the call signs of the amateur radio stations from the transmission source address part (call sign + SSID), and send back their call signs by using the CW downlink. If the above-mentioned communication succeeds, we will issue certificates of communication to the amateurs. When LignoSat receives multiple uplink signals at the same time, all of the call signs will be downlinked together in consideration of the efficiency of the downlink. This CW-only downlink form will contribute to the spread of the CW communication around the world because we will give opportunities of the CW communication to the radio amateurs who do not use CW normally. This amateur radio mission is explained in Fig.2.

In addition to the call signs, LignoSat will also extract messages (QTH, QRA, etc.) from the uplinked information and temporarily store them in its memory storage. We will collect the data by means of the FM packet downlink at regular intervals and introduce them on our website. This method of the FM packet downlink is explained in Fig.3.

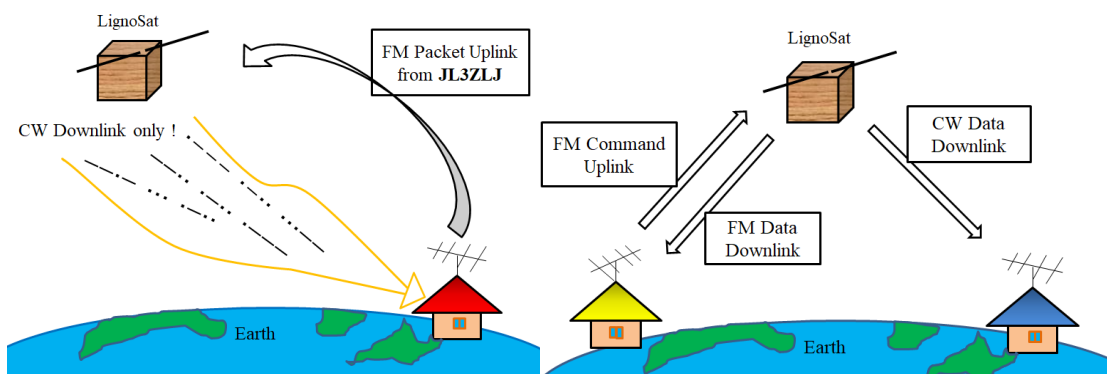


Fig.2 Image of CW Downlink

Fig.3 Image of FM Packet Downlink