**1. Satellite Data budget per day**

*1.1. Determining A and B*

Ref from Pooja:

* Mean time per sat pass: 516s (A)
* Effective time for data collection: 258s (B) (50% of mean time)
* Elevation > 40°

(Next step: Simulate satellite pass by Orbitron 🡪 check how many passes a day that is higher than 40°)

Our case:

*1.2. Determining C*

For C: KITSUNE/MO-1 have 8 receivers, each are controlled by 4 MCUs and each MCU can store upto 10 packets of 32 byte data in one minute. All receivers will receive and send data to MCU but MCU will store 10 packets every one minute.

10 x 32 x 4 = 1280 bytes

(Num of packets that one MCU can store) x (Num of bytes in a packet) x (Num of MCU)

🡪 Cannot use for our case

For our case, we have to:

* Check how many packets of APRS data can the receiver receives and stores in one minute
  + #1: Do it practically
  + #2: Also was in the code to save data every one minute
* Check how much time does it take to transmit one APRS packet
  + Put an identifier in the code to show when the packet transmission starts and ends to know how much time it takes to transmit one packet of data