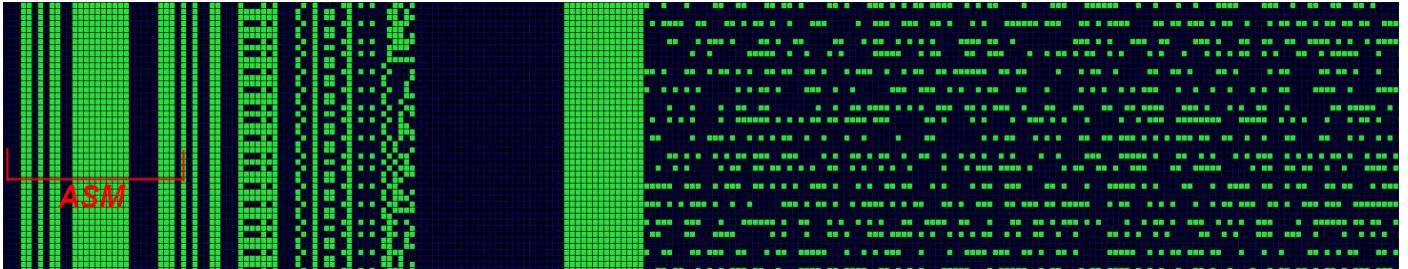


Decoding CADU FY3A/3B satellites.

After the Viterbi decoding and derandomization we have CADU in period 8192 bits.

All according to the document (see page 7):

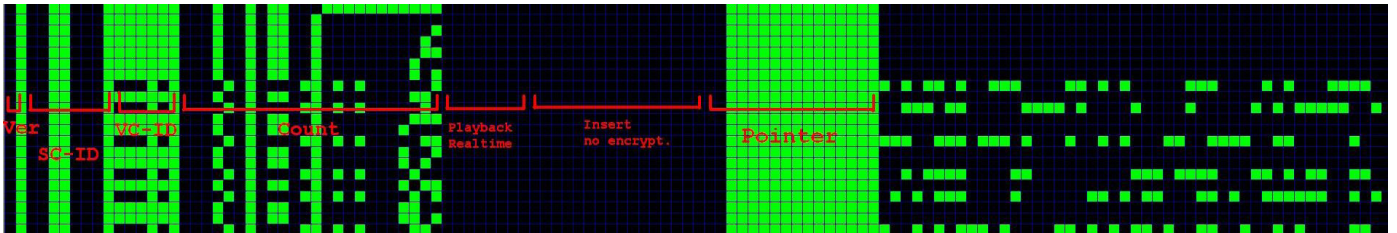
http://mdkenny.customer.netspace.net.au/FY3_HRPT.pdf



Cut of synchronization markers and get CVCDU in period 8160 bits.

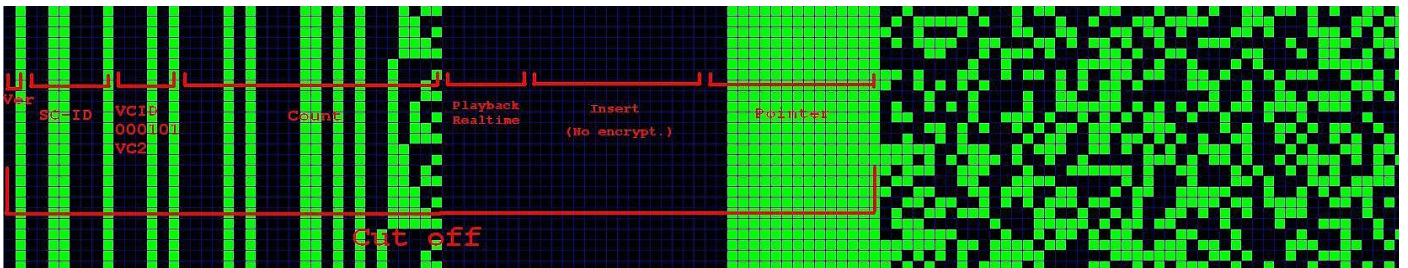
The next step - error correction Reed-Solomon code with parameters (255,223) $i = 4$.

After this procedure, we have a frame on the period 7136 bits.



Next - select a virtual channel. For VIRR (day) instrument is VC2, ie VCID=000101 (bin) or 5 (dec):

<http://dbmeeting.sci.gsfc.nasa.gov/files/ZhuPoster.pdf>

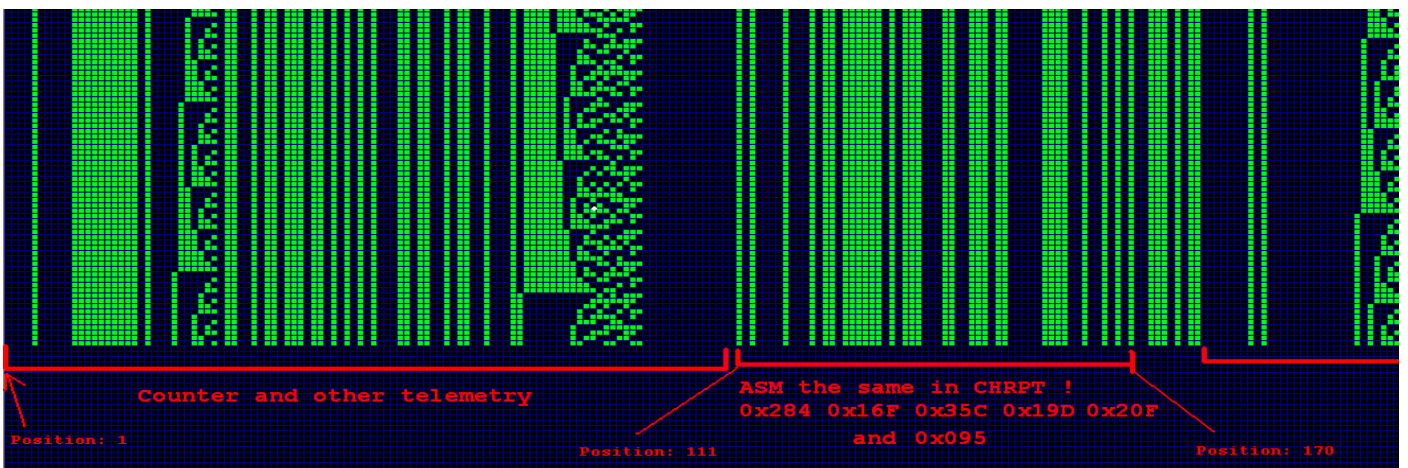


Important! For HRPT and MPT FY3x data - does not exist concept of M-PDU header.

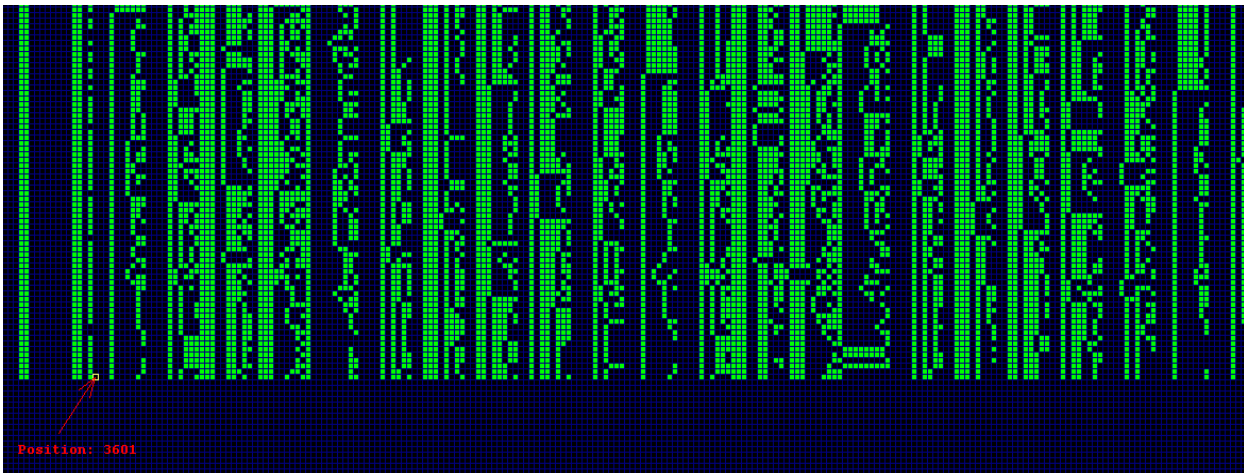
Next, cut off - Version, SC-ID, VCID, Count, Playback/Realtime, Insert and Pointer (see image above).

As a result, we obtained data only for VIRR radiometer. Re-synchronize them to the period 208400 bits.

We can easily found ASM (see image). The markers are the same as for CHRPT !!!



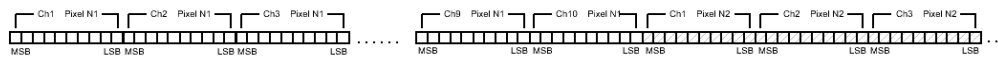
Goto position 3601 from the beginning frame. This start point for radiometer channel data.



Radiometer VIRR contain 10 channel:

- 1 0.58 - 0.68 nm
- 2 0.84 - 0.89 nm
- 3 3.55 - 3.95 nm
- 4 10.3 - 11.3 nm
- 5 11.5 - 12.5 nm
- 6 1.58 - 1.64 nm
- 7 0.43 - 0.48 nm
- 8 0.48 - 0.53 nm
- 9 0.53 - 0.58 nm
- 10 1.325 - 1.395 nm

Each pixel 10-bit. Order bits:



The width of the image 2048 pixel. In fact, the same as the CHRPT. This is a great relief.

Thank for your attention!

