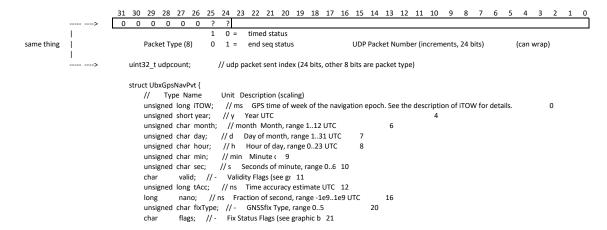
ADC SAMPLE PACKET (1472 Bytes)

31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 0 0 0 0 0 0 0 0 UDP Packet Number (increments, 24 bits) packet types: Packet Type (8) 0 ADC Samples packet (can wrap) 1 End of Samples Status packet 2 Timed Status packet keep-alive 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 Unique ID assigned to this detector (18) ADC Buffer Number (8) Seconds (6) (can wrap) 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 1 Pulse-per-Second Internal Timer snapshot value (32) (Timer approx 108MHz, reloads at 4000000000) 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 DMA Complete timer snapshot of 728 ADC samples taken (Timer approx 108MHz, reloads at 4000000000)

Status Packet (140 Bytes)



728 Words of 16 bits

spare (4)

ADC Sample (12 bits used)

```
unsigned char numSV 23
                                          lon; // deg Longitude (1e 24
                                  long
                                          lat; // deg Latitude (1e-7)
                                  long
                                          height; // mm Height above Ellipsoid
                                                                                                32
                                          hMSL; // mm Height above mean sea level
                                                                                                        36
                                  unsigned long hAcc; // mm Horizontal Accuracy Estimate
                                                                                                           40
                                  unsigned long vAcc; // mm Vertical Accuracy Estimate
                                                                                                    44
                                          velN; // mm/s NED north velocity
                                          velE; // mm/s NED east velocity
                                                                                           52
                                  long
                                  long
                                          velD: // mm/s NED down velocity
                                                                                            56
                                          gSpeed; // mm/s Ground Speed (2-D)
                                          heading; // deg Heading of motion 2-D (1 64
                                  unsigned long sAcc; // mm/s Speed Accuracy Estimate 68
                                  unsigned long headingAcc; // deg Heading Accui 72
                                  unsigned short pDOP; // - Position DOP (0.01)
                                  short reserved2; // - Reserved
                                                                                                    78
                                  unsigned long reserved3; // - Reserved
                                                                                                    80
                                  } NavPvt:
                              31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
   same thing
                                             not used (14)
                                                                                               Unique ID assigned to this detector (18)
                              uint32 t uid;
                                                     // only 18 bits used
                              31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
    same thing
                                                     ADC number of buffers sent in last capture sequence before status packet
                              uint32_t adcpktssent;
                                                            // Number of ADC pks sent in this trigger event
                                                                                        16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
                                                                                                               adc trigger offset (above the noise)
                                                  adctrigoff : uint16_t;
                                                  adcnoise : uint16_t;
                                                                                        16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
                                                                                                              adc current noise level
                                                     uint32 t sysuptime;
                                                                            // number of seconds system up from boot uptime
                                                     uint32 t netuptime;
                                                                            // number of seconds network up
                                                     uint32_t gpsuptime;
                                                                            // number of seconds gps locked
                                                     uint32_t reserved1;
                                                                            // spare
                                                     uint32 t reserved2;
                                                                            // spare
                                                     uint32 t reserved3;
                                                                            // spare
                                                     uint32 t reserved4;
                                                                            // spare
                                                     uint32_t reserved5;
                                                                            // spare
                              Any new fields to be added here ......
end sentinal marker (keep at the end)
                                                     uint32_t telltale1;
                                                                            // end of packet marker
                                                                                                       0xFEEDCODE
```

unsigned char reserved1; //- 22