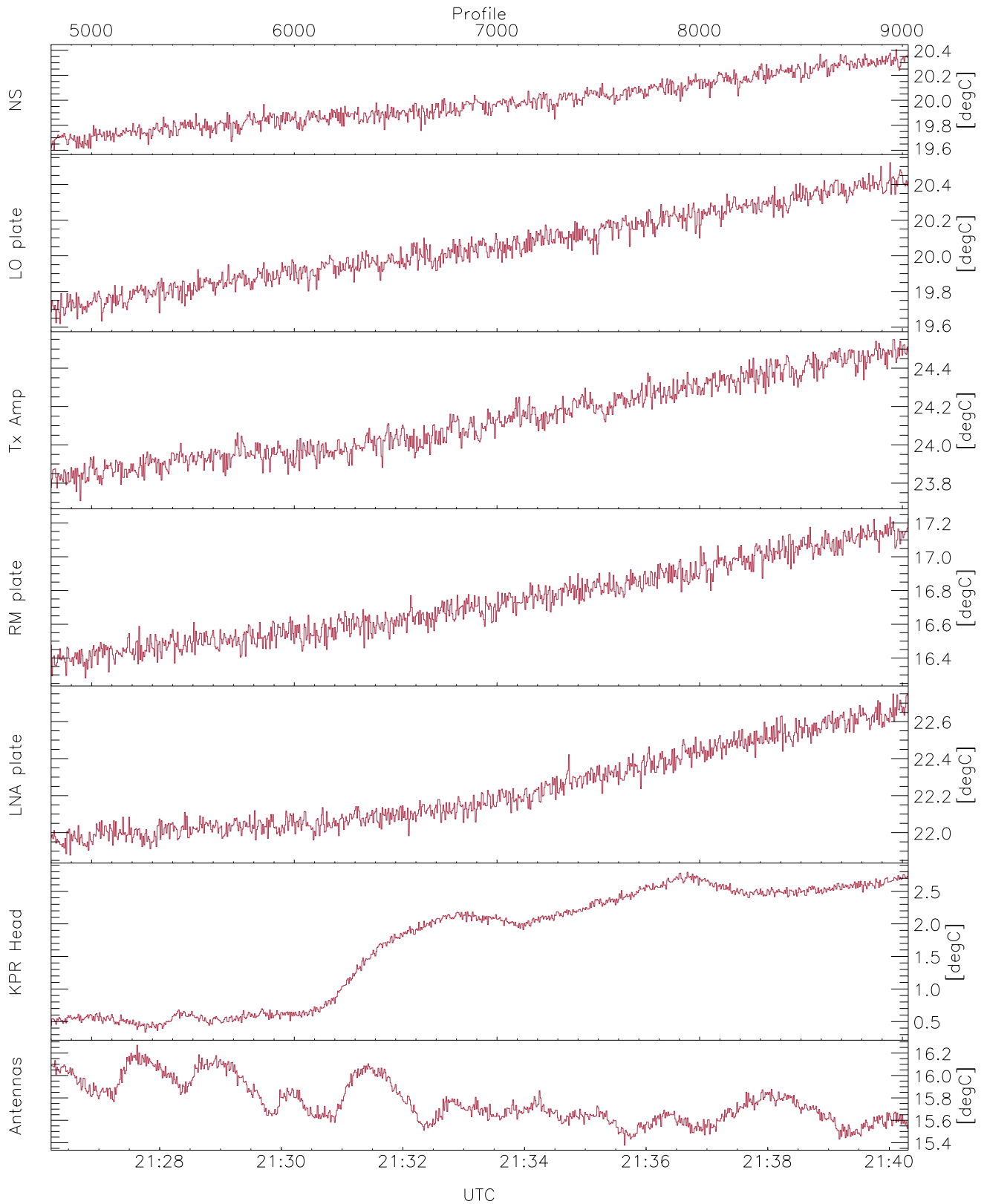


KPR SPP; Ant(s): UP, DOWN; Radiometer: OFF
 UTC: 21:10:13-21:40:19, TimeCor: 0.00s, Dur: 845.80s
 TimeInt(min,max,mn,std): 190.8,209.2,200.0,0.4 ms; PPS: 5.0
 NumRec(r/t): 4230/9030, 4800-9029/21:26:13-21:40:19
 AcqTime(req,actual): 200.0,200.0 ms, Data Rate: 187.6 KB/s
 Pulse: 247 ns, Chirp: 2.47 us, DRxIF: 5.0 MHz
 PRF: 20.0 KHz, avrgPulses: 2000, avrgPP: 1000
 NyquistVel: 42.1 m/s, RangeRes:30.0 m
 Pulse Range(min,max): 120, 6506 m, Gates: 427
 Chirp Range(min,max): 536, 6487 m, Gates: 398
 RangeGateSampling: 15.0 m, Aspect: 0.8

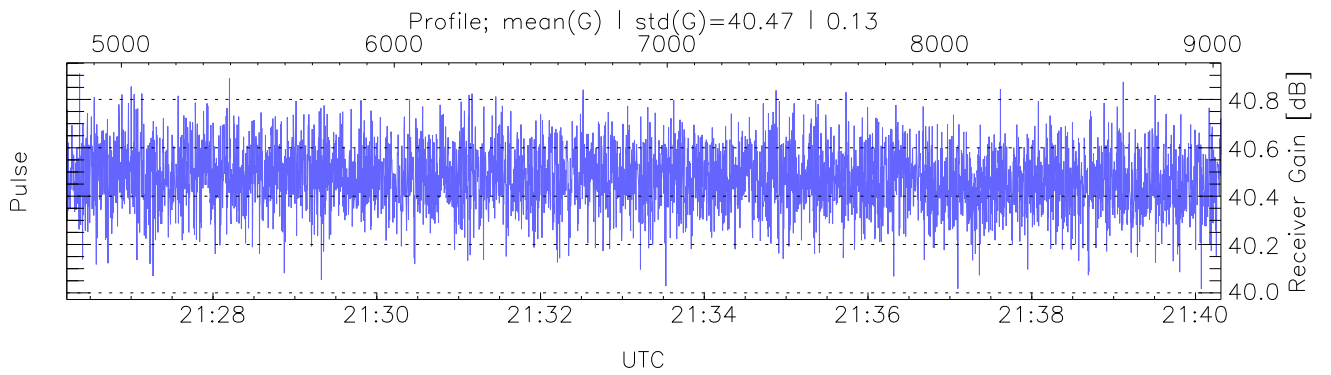
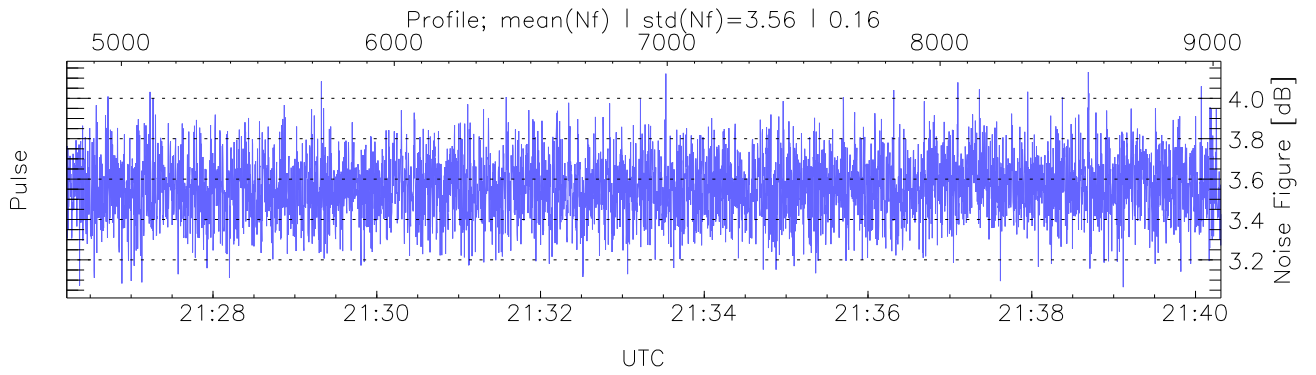
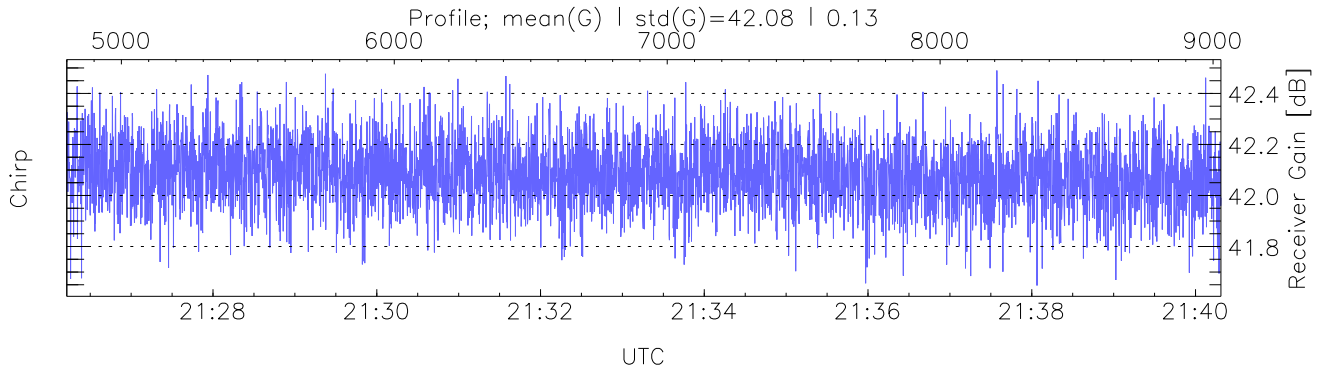
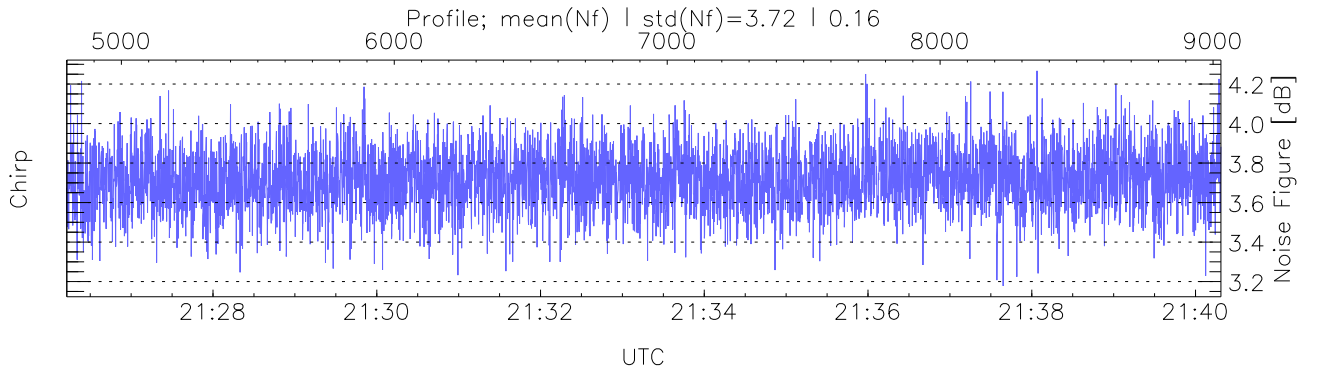


KPR SPP Temperatures, Power Supplies, PLO lock:

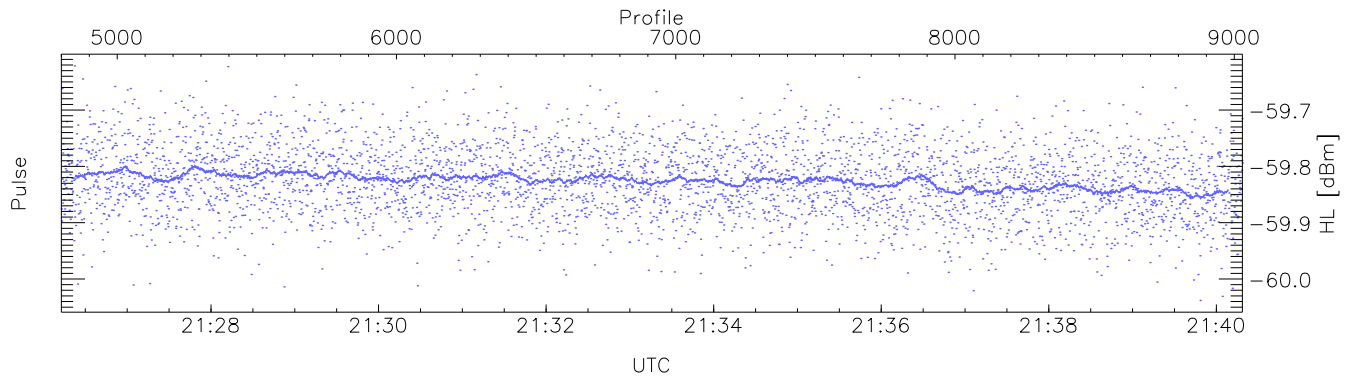
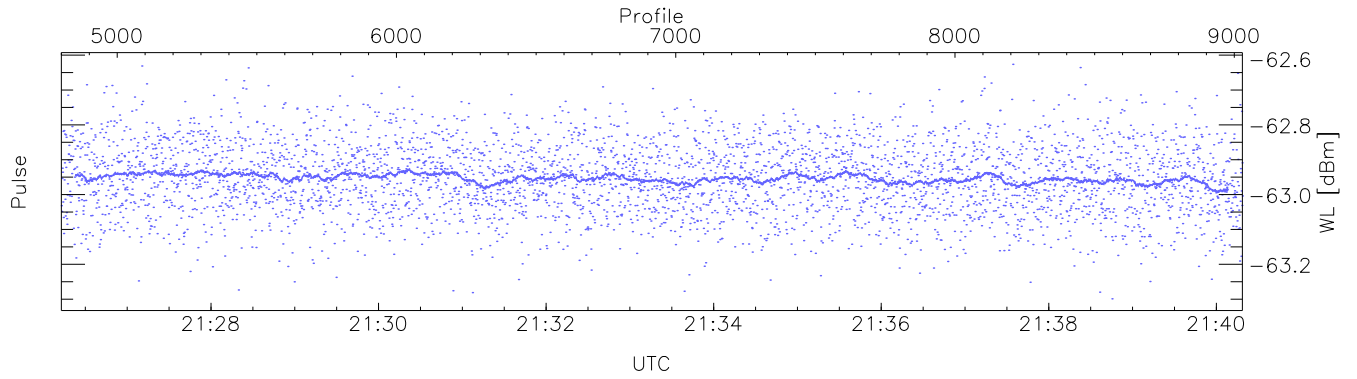
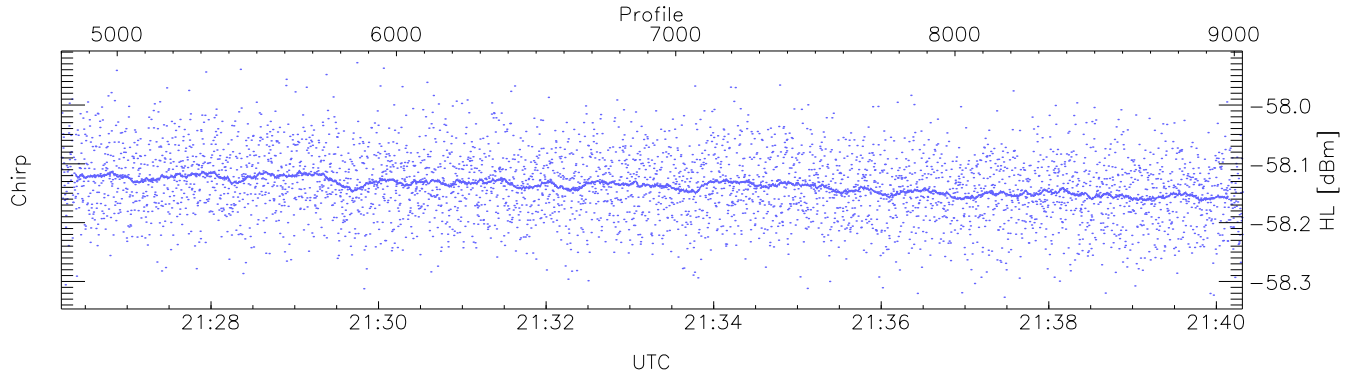
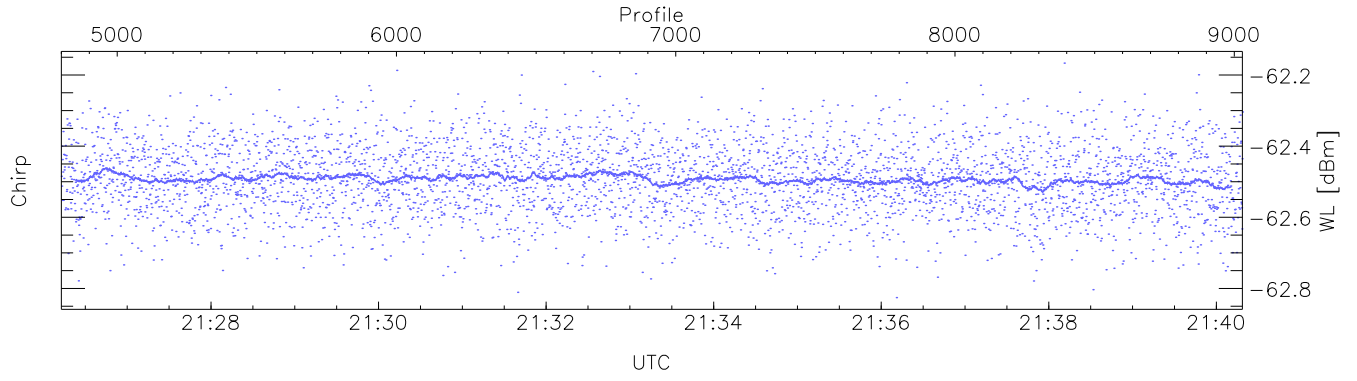
| | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|------|
| temperature: | NS, | LO, | Tx, | RM, | LNA, | Head, | Ant |
| mintempC: | 19.6, | 19.6, | 23.7, | 16.3, | 21.9, | 0.3, | 15.4 |
| maxtempC: | 20.4, | 20.5, | 24.5, | 17.2, | 22.7, | 2.8, | 16.3 |
| meantempC: | 20.0, | 20.1, | 24.1, | 16.7, | 22.2, | 1.7, | 15.8 |

| | | | | |
|----------|--------|--------|-------|-------|
| PwrSply: | 28, | 12, | 8, | 5 VDC |
| minVDC: | 25.79, | 11.68, | 7.87, | 5.22 |
| maxVDC: | 27.88, | 11.73, | 7.90, | 5.23 |
| meanVDC: | 26.99, | 11.71, | 7.88, | 5.22 |

PLO(3.84,15.84 GHz) unlocked: None

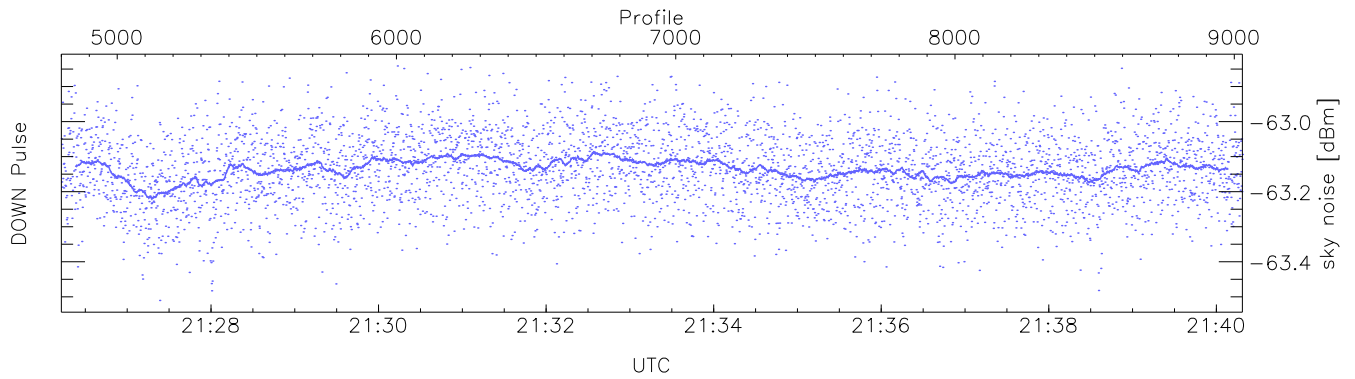
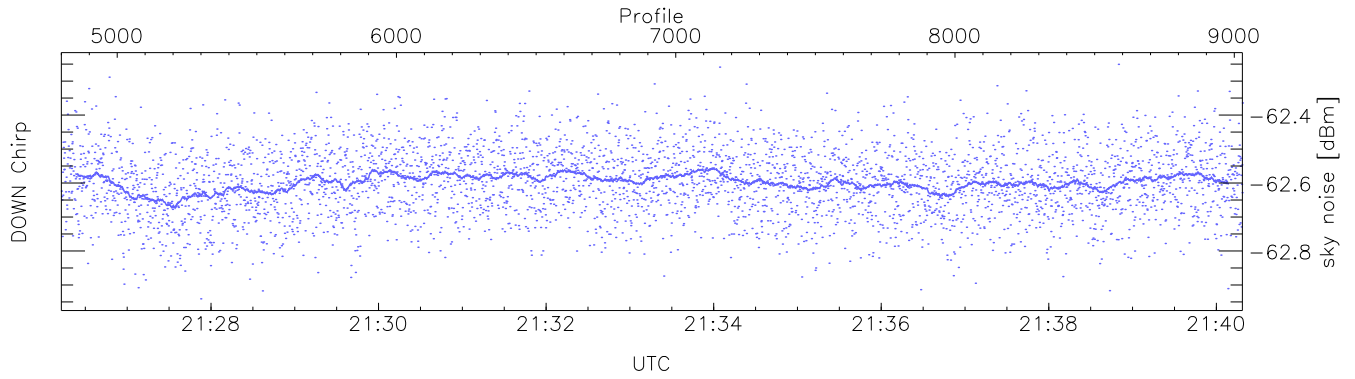
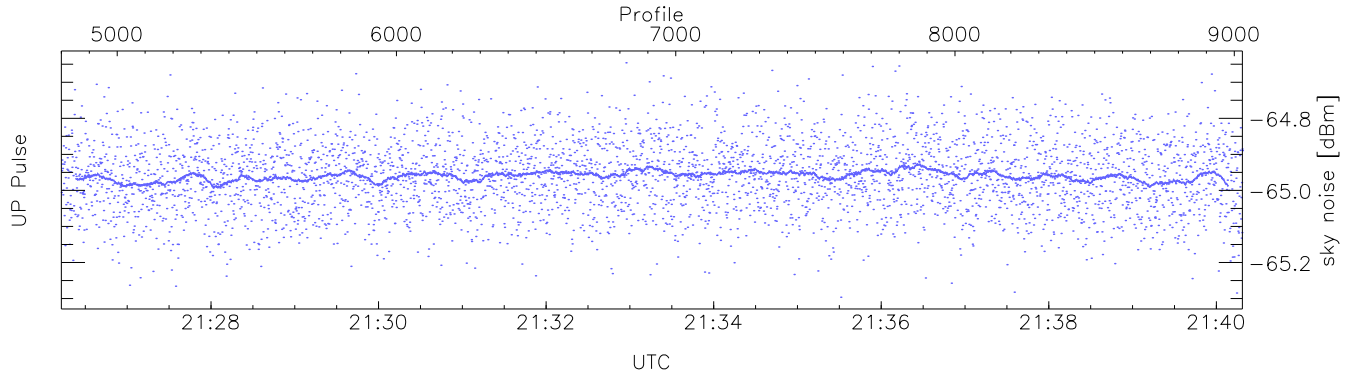
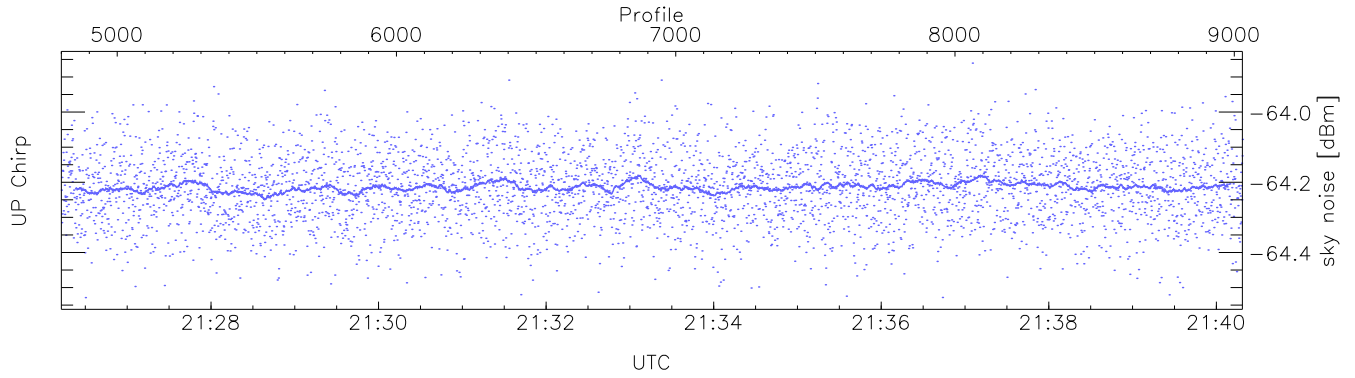


KPR SPP Receiver Gain and Noise Figure



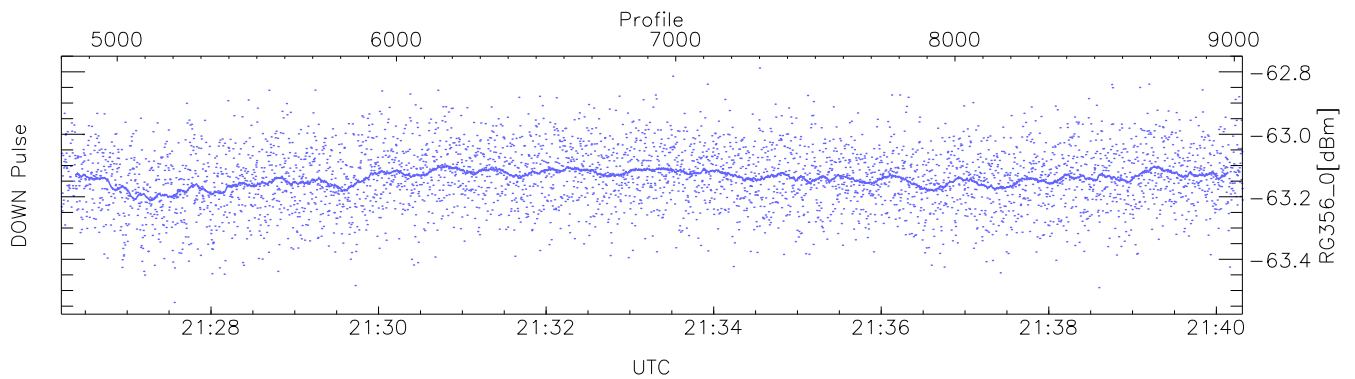
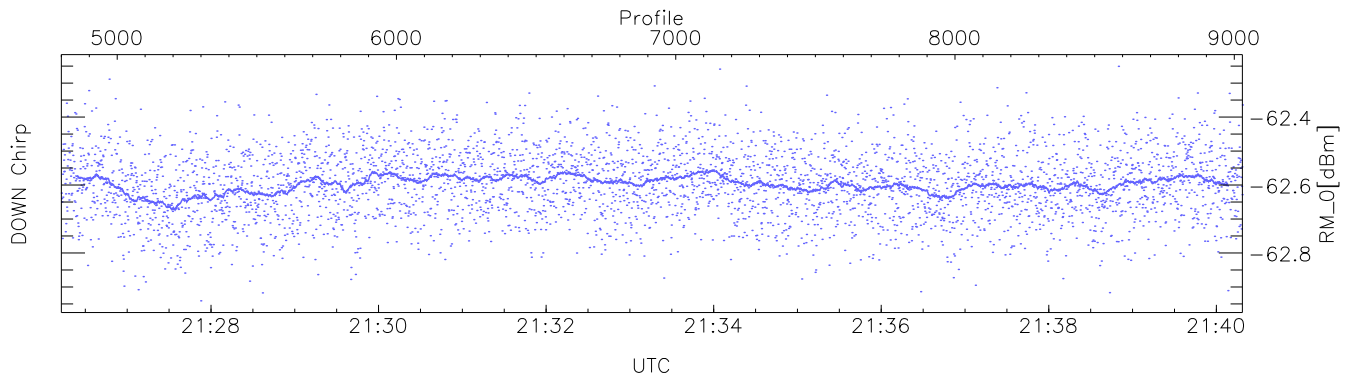
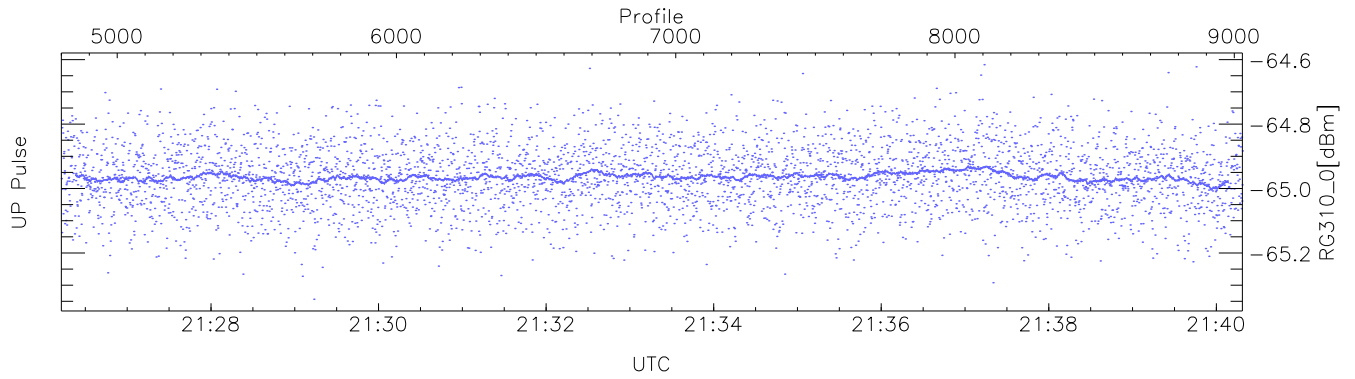
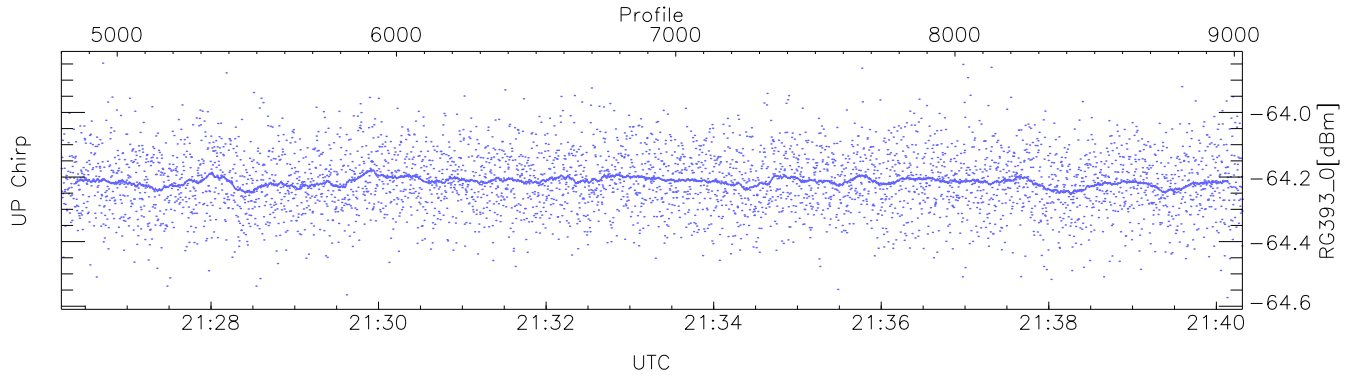
KPR SPP Receiver Noise Source Warm and Hot Measurements

| | Min | Max | Mean | Median | StDev |
|-----------------|--------|--------|--------|--------|--------|
| Chirp(WL [dBm]) | -62.83 | -62.17 | -62.49 | -62.49 | -79.06 |
| Chirp(HL [dBm]) | -58.33 | -57.93 | -58.14 | -58.14 | -76.76 |
| Pulse(WL [dBm]) | -63.30 | -62.63 | -62.95 | -62.95 | -79.37 |
| Pulse(HL [dBm]) | -60.04 | -59.62 | -59.83 | -59.83 | -78.40 |



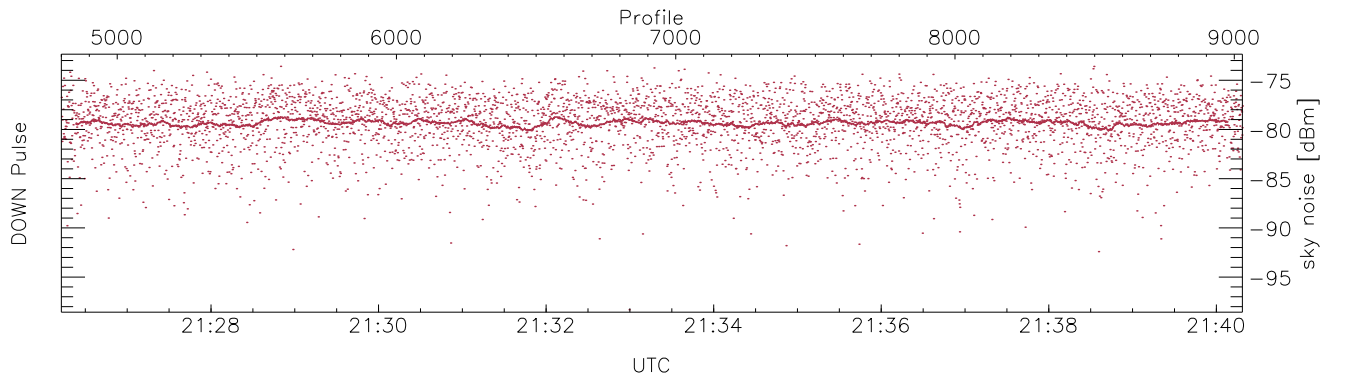
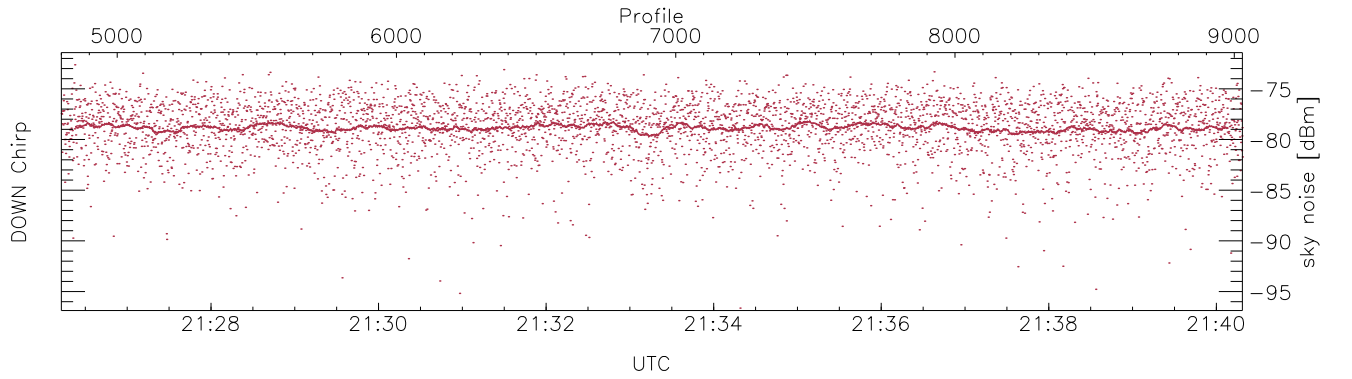
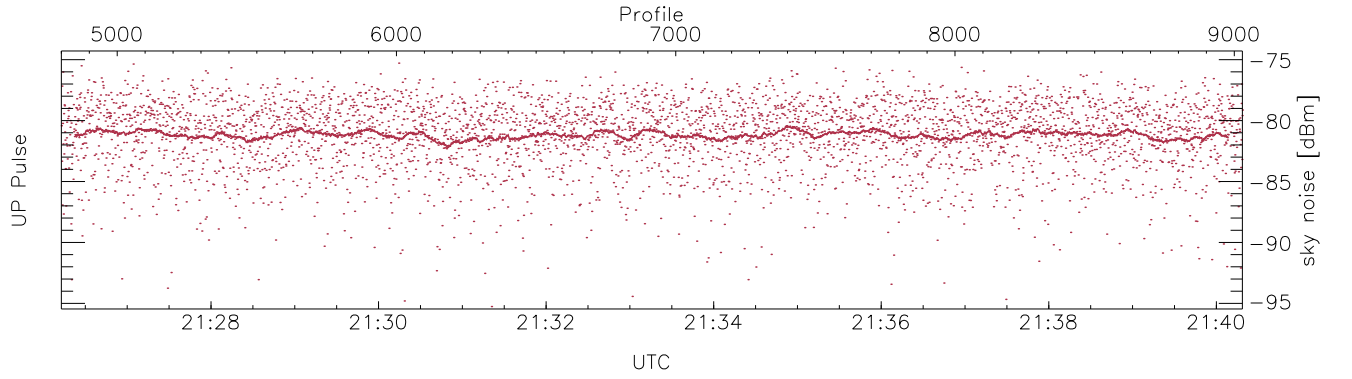
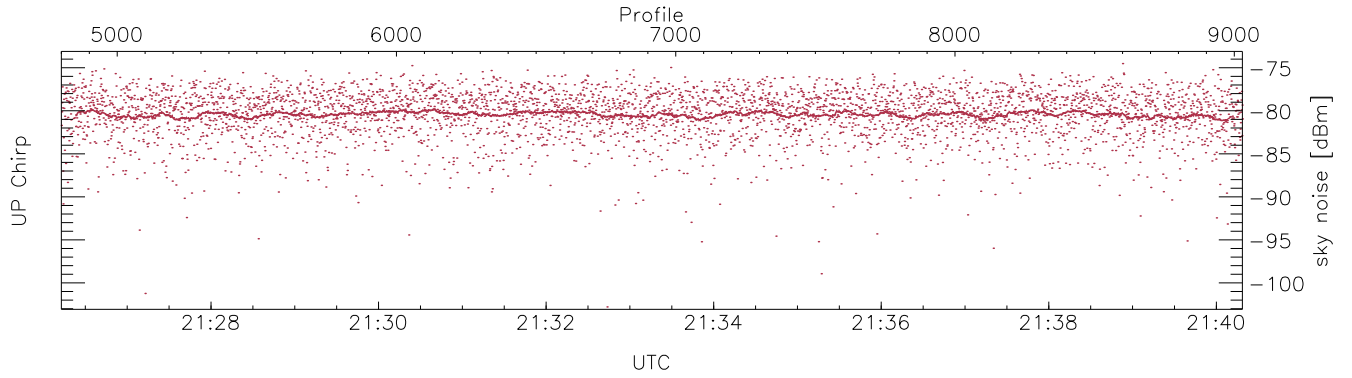
KPR SPP Last range gate power measurements: assumed RM(sky) noise

| | Min | Max | Mean | Median | StDev |
|-----------------|--------|--------|--------|--------|--------|
| UP Chirp(dBm) | -64.53 | -63.86 | -64.21 | -64.21 | -80.66 |
| UP Pulse(dBm) | -65.30 | -64.65 | -64.96 | -64.96 | -81.49 |
| DOWN Chirp(dBm) | -62.94 | -62.25 | -62.60 | -62.60 | -79.07 |
| DOWN Pulse(dBm) | -63.51 | -62.84 | -63.14 | -63.14 | -79.48 |



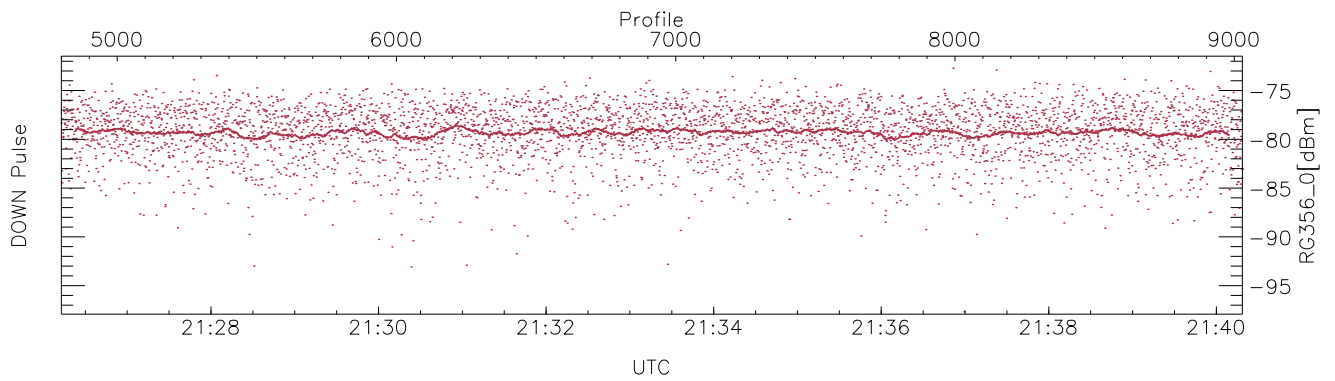
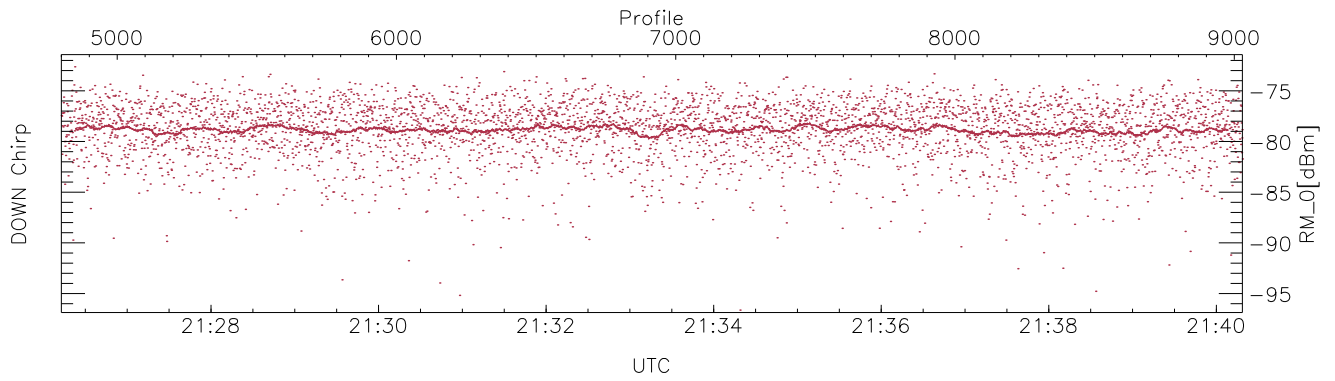
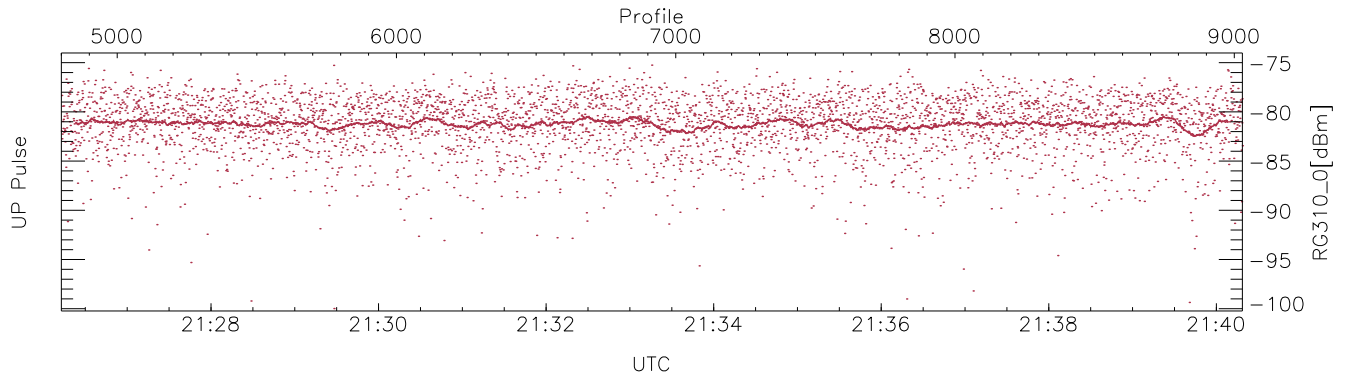
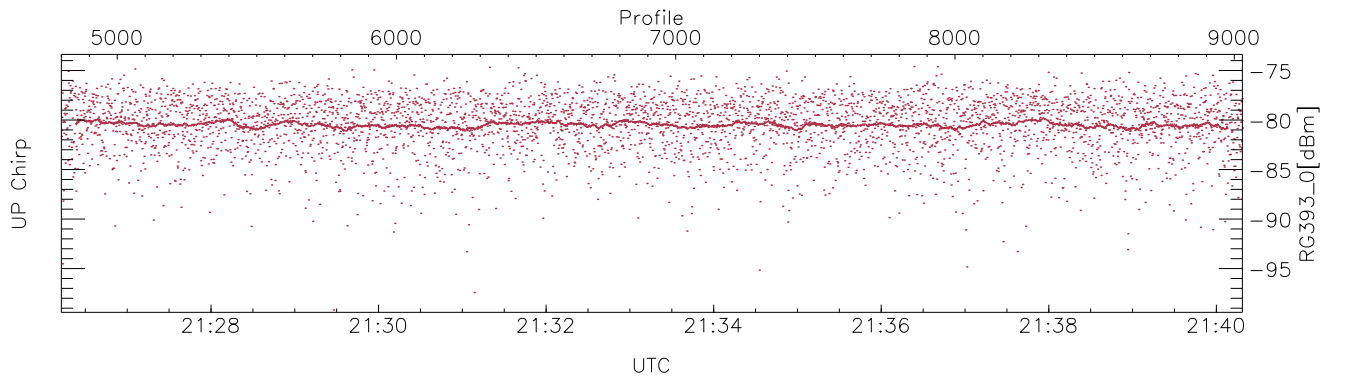
KPR SPP "Best" noise power measurements (dBm):

| | Min | Max | Mean | Median | StDev |
|----------------|--------|--------|--------|--------|--------|
| UP_C_RG393_0 | -64.57 | -63.85 | -64.21 | -64.22 | -80.62 |
| UP_P_RG310_0 | -65.34 | -64.62 | -64.96 | -64.96 | -81.42 |
| DOWN_C_RM_0 | -62.94 | -62.25 | -62.60 | -62.60 | -79.07 |
| DOWN_P_RG356_0 | -63.54 | -62.79 | -63.14 | -63.14 | -79.45 |



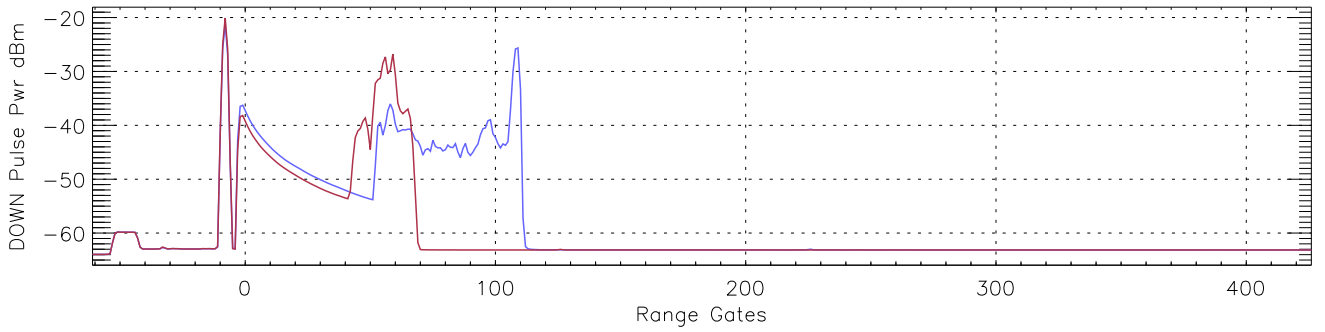
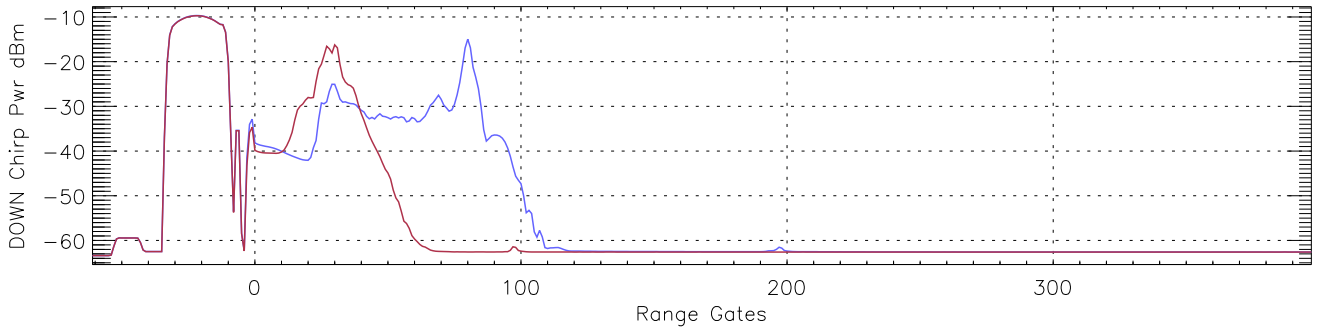
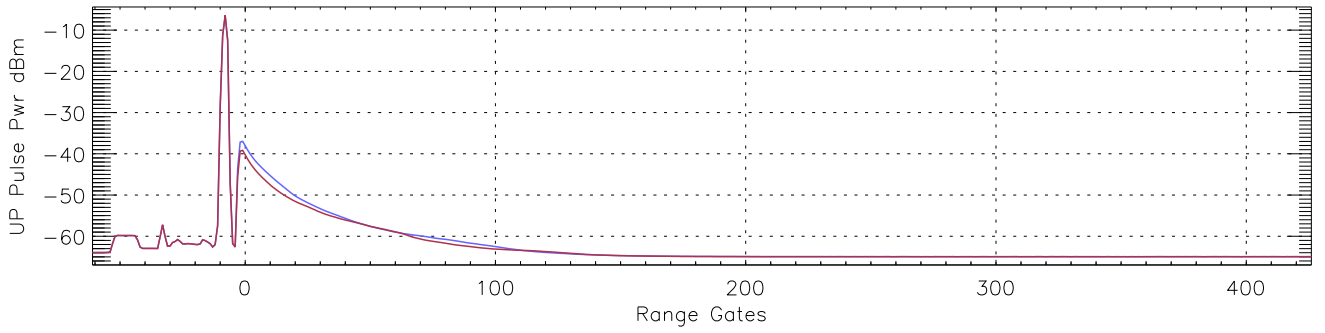
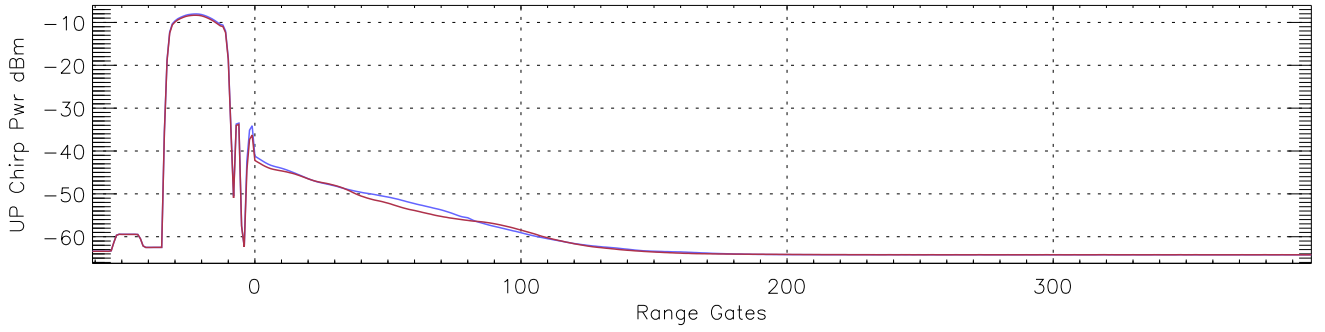
KPR SPP Last range gate PPMAG: assumed RM(sky) noise

| | Min | Max | Mean | Median | StDev |
|-----------------|---------|--------|--------|--------|--------|
| UP Chirp(dBm) | -102.79 | -74.51 | -79.72 | -79.95 | -82.58 |
| UP Pulse(dBm) | -95.26 | -75.29 | -80.46 | -80.74 | -83.26 |
| DOWN Chirp(dBm) | -96.63 | -72.63 | -78.14 | -78.41 | -80.98 |
| DOWN Pulse(dBm) | -98.32 | -73.59 | -78.64 | -78.88 | -81.47 |

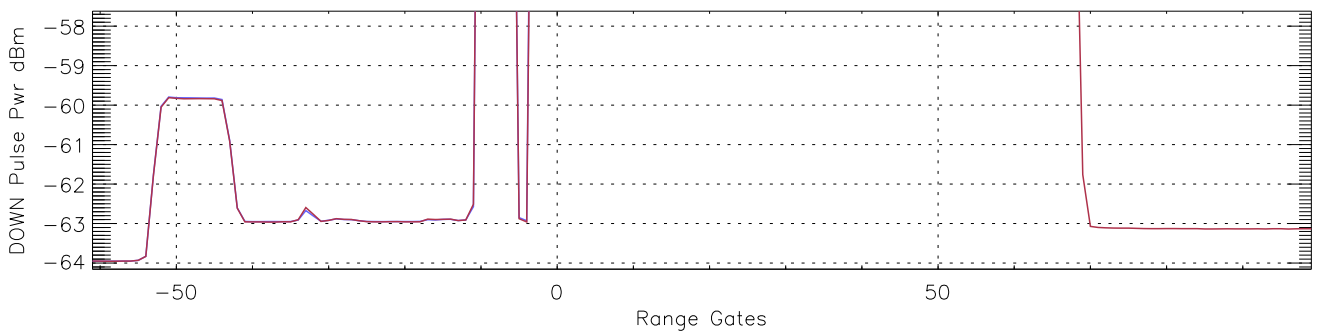
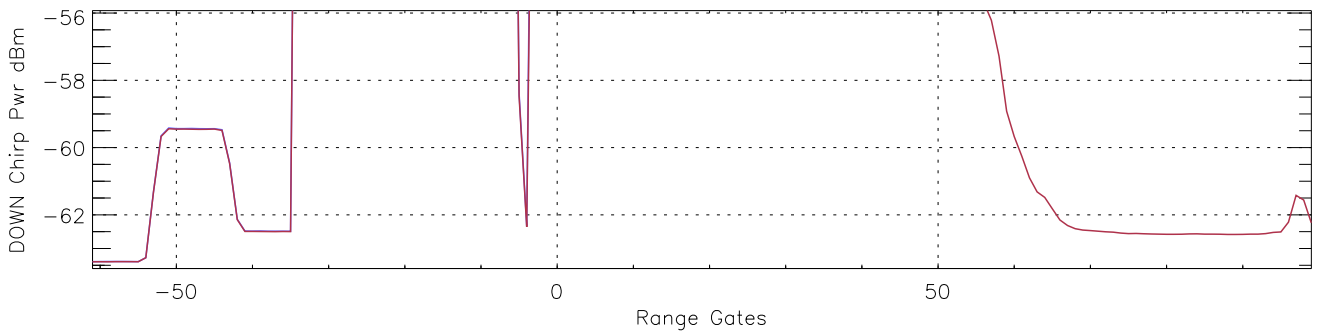
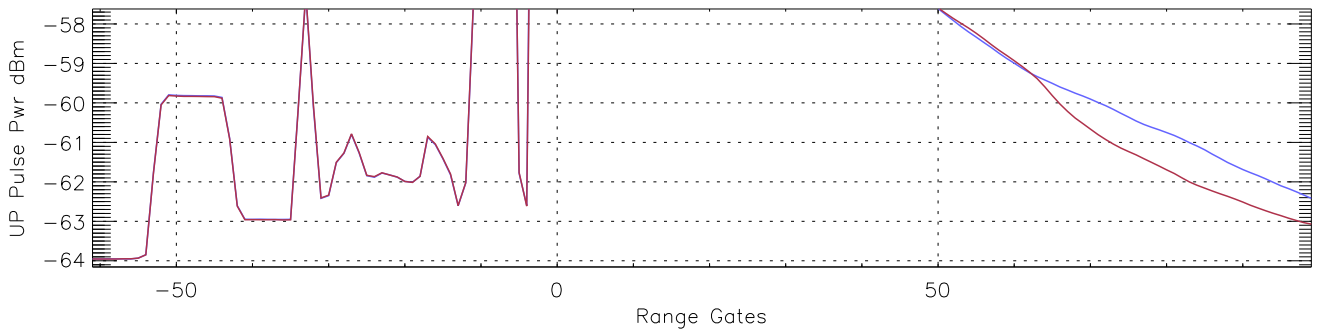
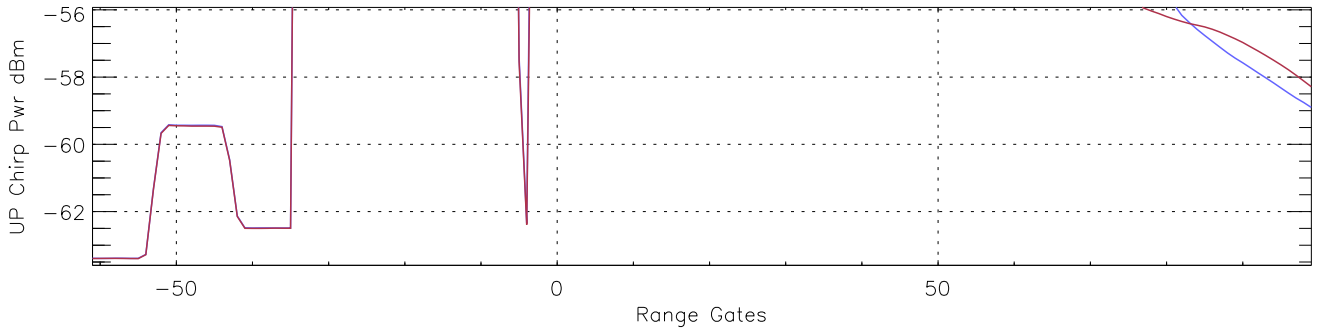


KPR SPP "Best" PPMAG noise (dBm):

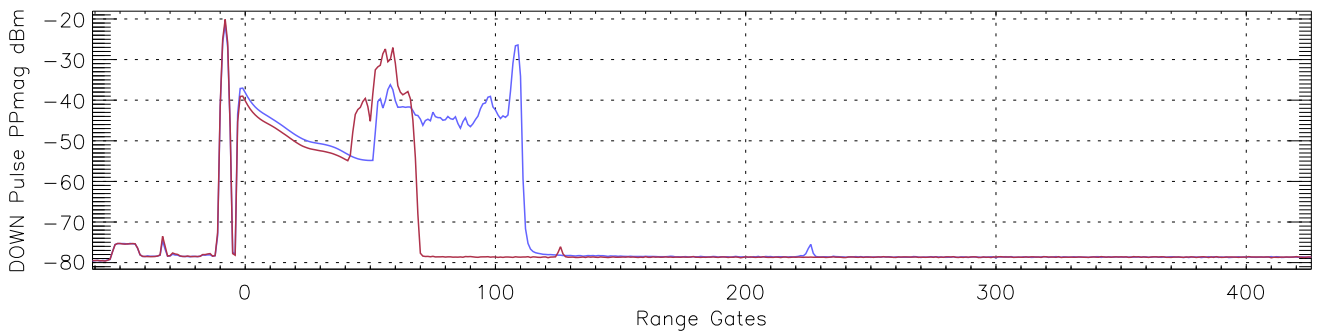
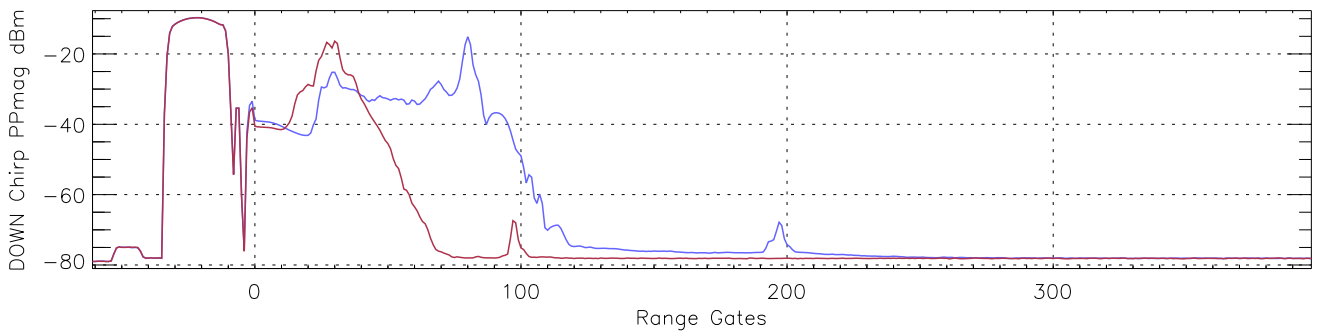
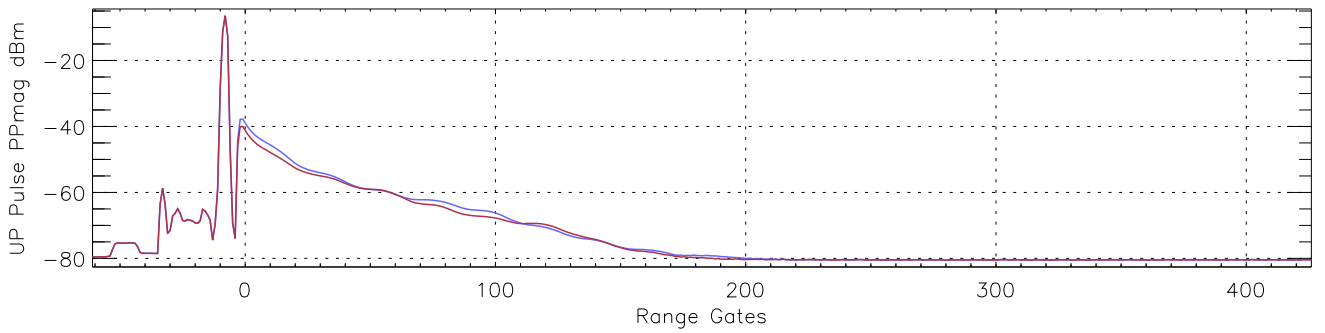
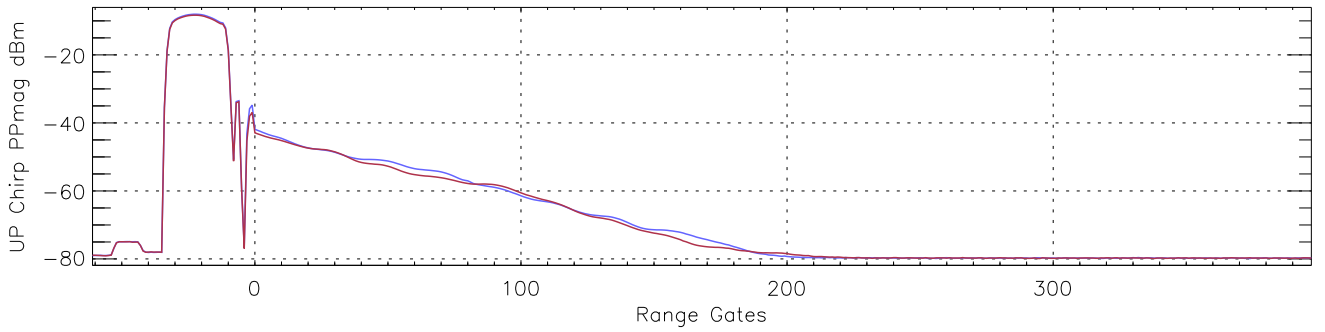
| | Min | Max | Mean | Median | StDev |
|----------------|--------|--------|--------|--------|--------|
| UP_C_RG393_0 | -99.18 | -74.60 | -79.76 | -80.03 | -82.53 |
| UP_P_RG310_0 | -99.98 | -75.25 | -80.49 | -80.77 | -83.20 |
| DOWN_C_RM_0 | -96.63 | -72.63 | -78.14 | -78.41 | -80.98 |
| DOWN_P_RG356_0 | -97.67 | -72.73 | -78.61 | -78.92 | -81.37 |



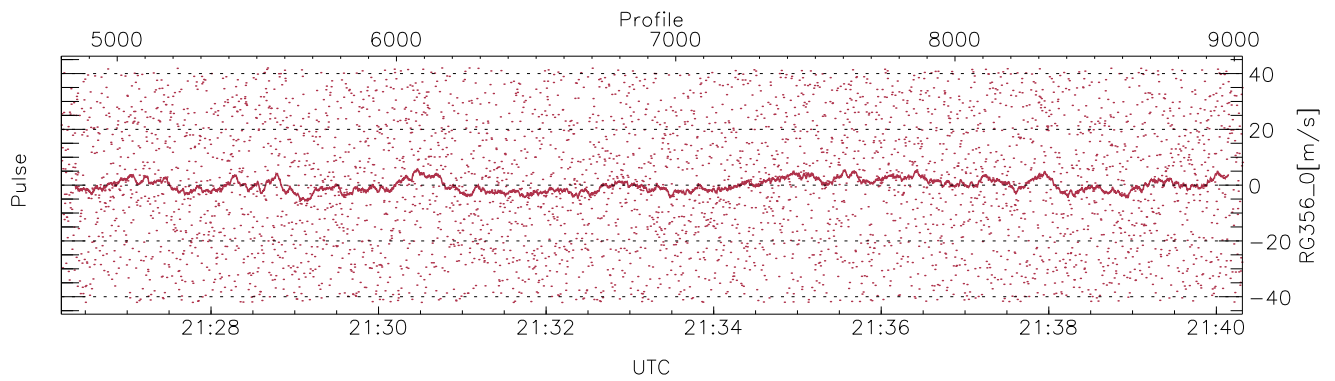
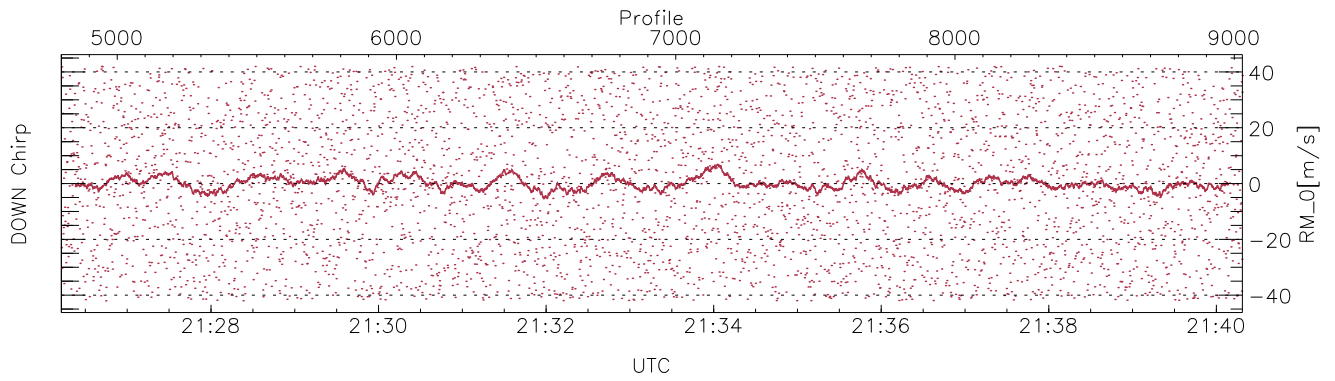
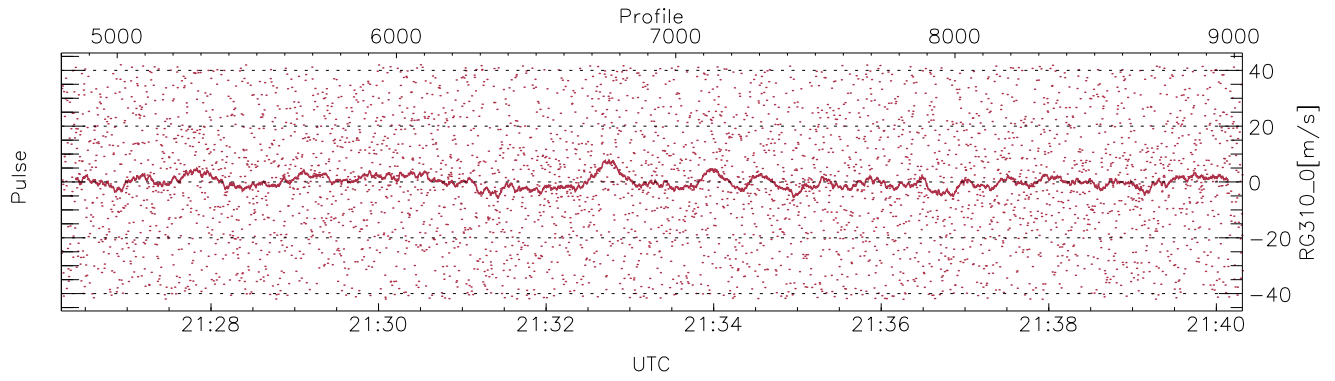
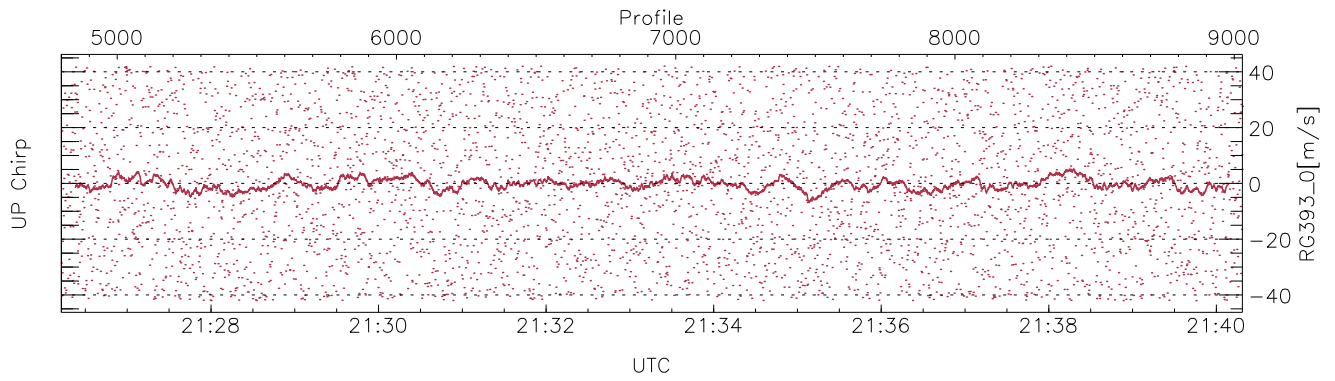
KPR SPP Averaged Received power for all recorded gates
blue: 212613-213315, 2116 profiles averaged
red: 213315-214019, 2115 profiles averaged



KPR SPP Averaged Power for neg. gates & up to 100 gates
blue: 212613-213315, 2116 profiles averaged
red: 213315-214019, 2115 profiles averaged

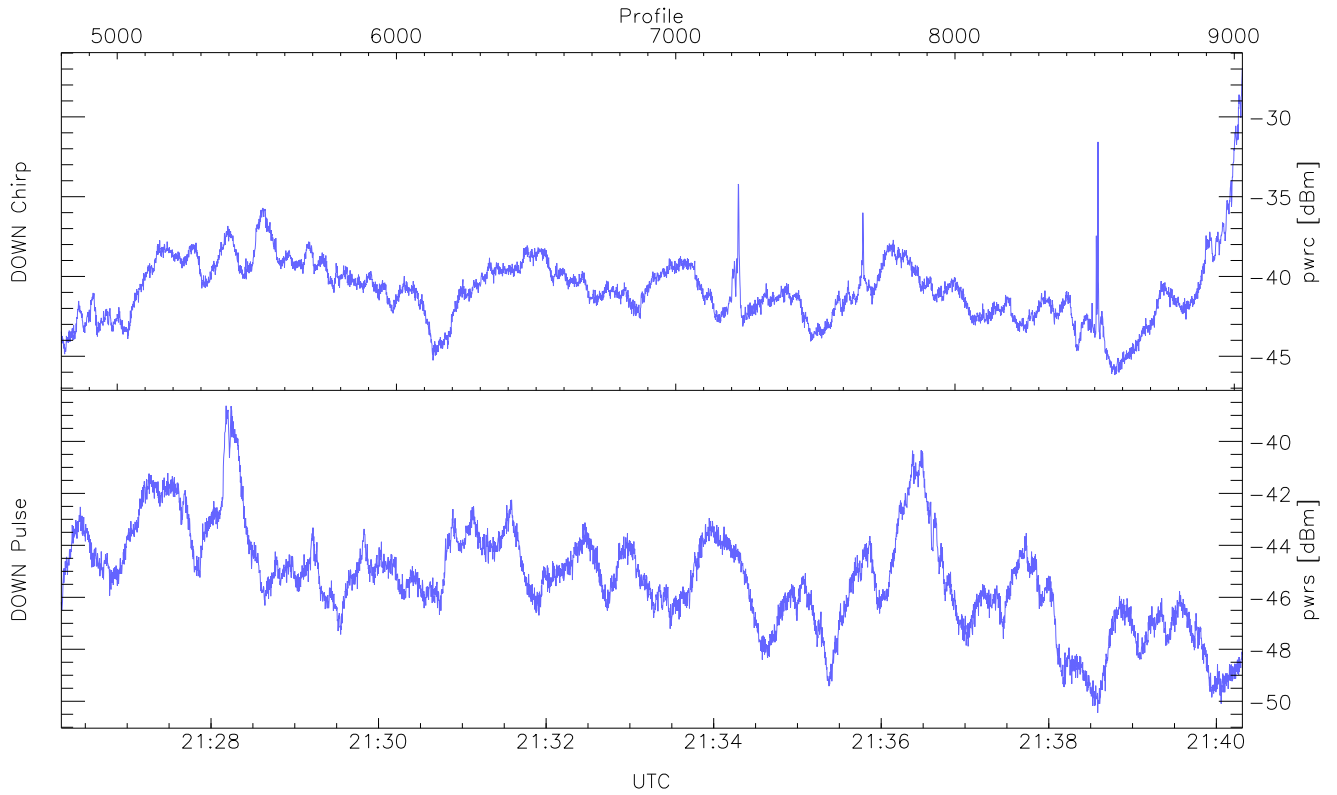
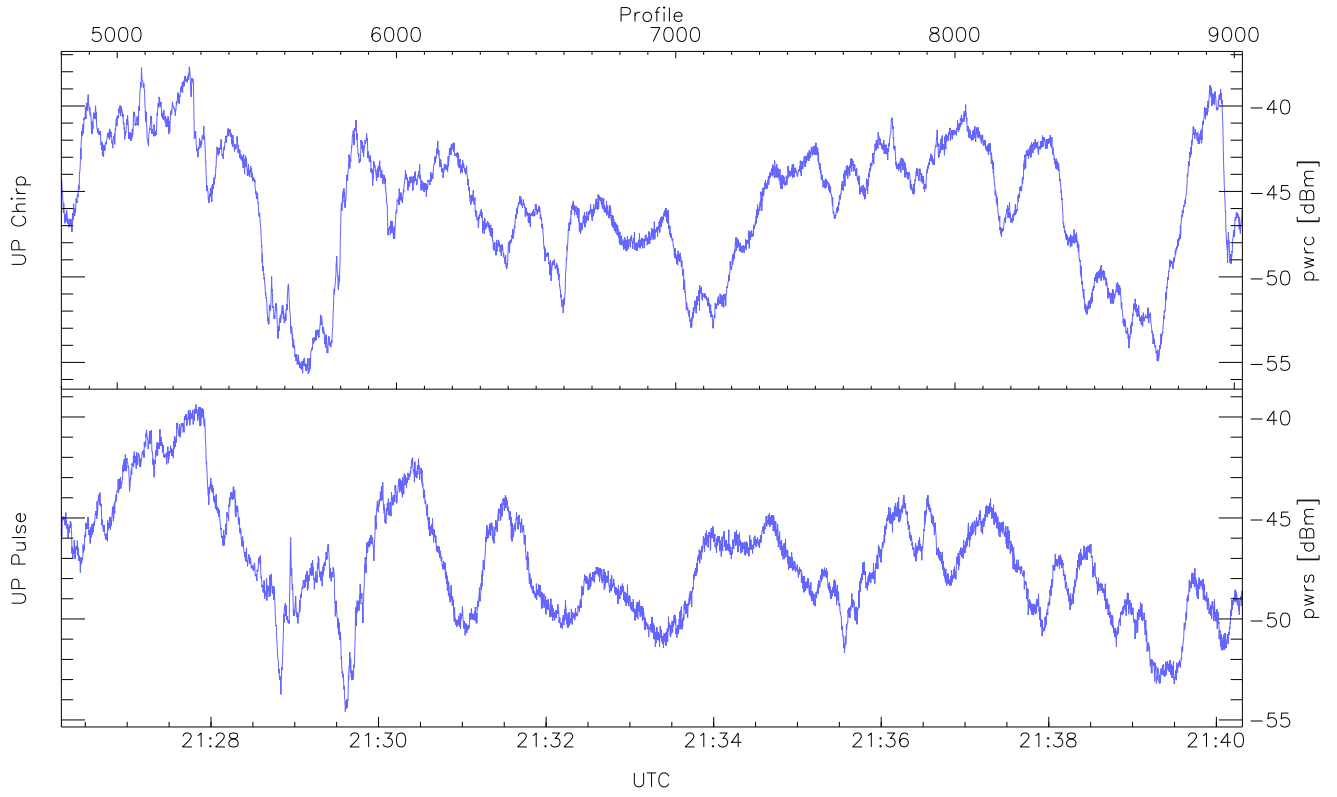


KPR SPP Averaged PP magnitude for all recorded gates
blue: 212613-213315, 2116 profiles averaged
red: 213315-214019, 2115 profiles averaged



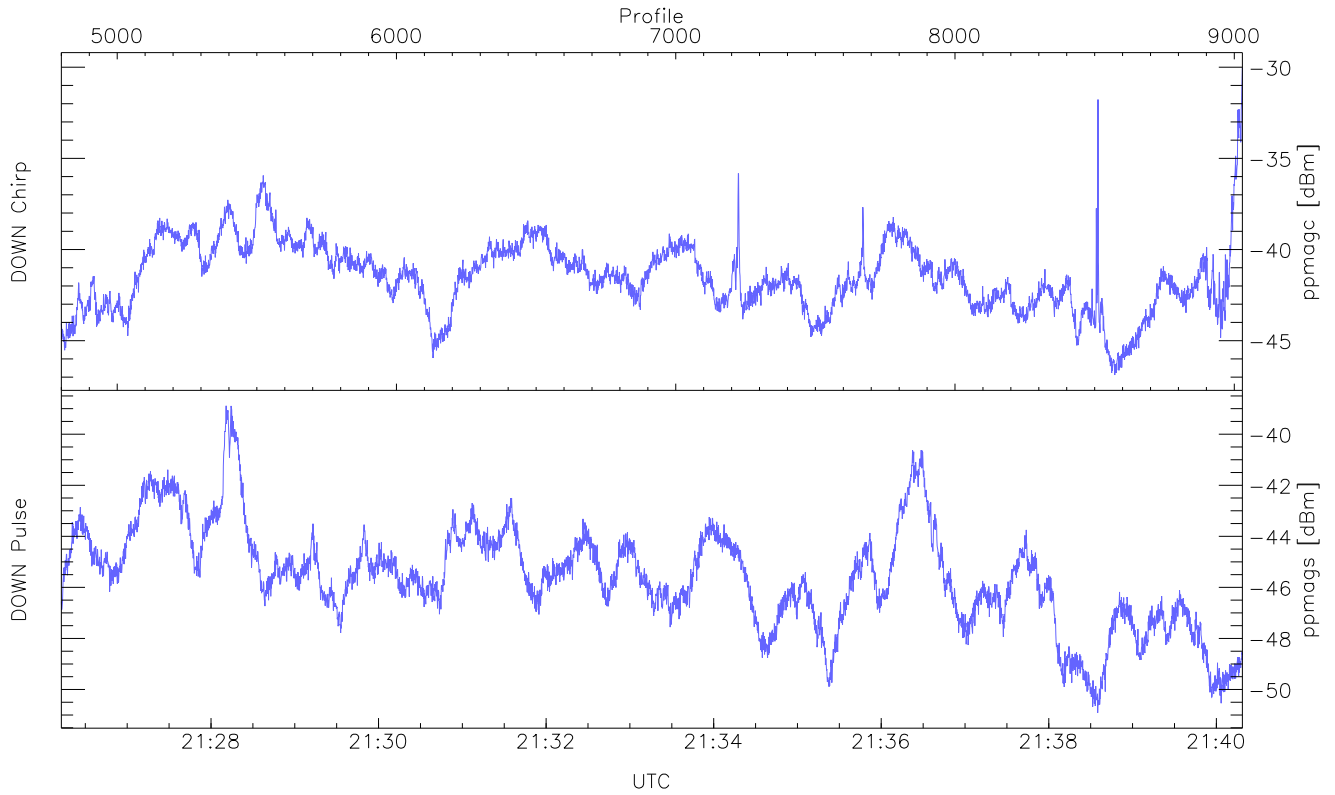
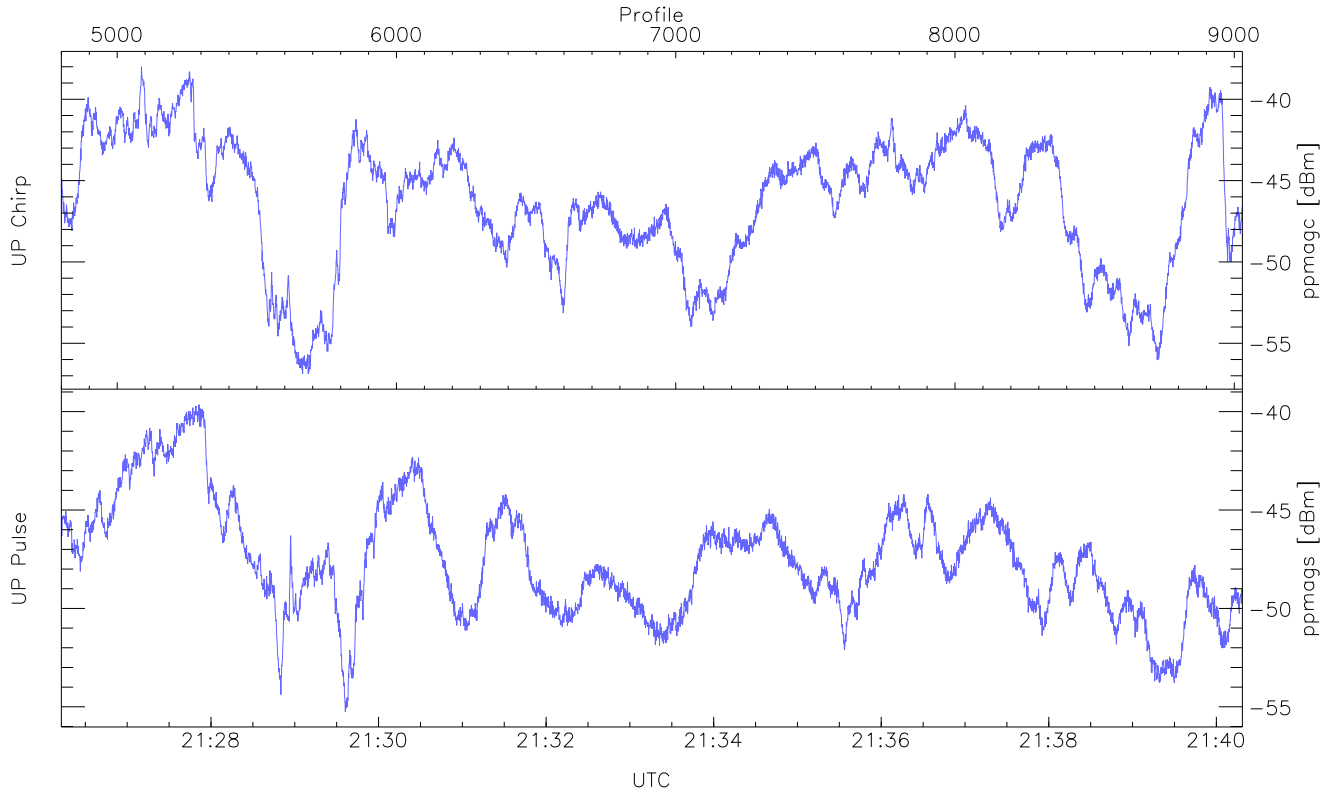
KPR SPP "Best" PPVEL noise (m/s):

| | Min | Max | Mean | Median | StDev |
|----------------|--------|-------|-------|--------|-------|
| UP_C_RG393_0 | -42.04 | 42.04 | -0.36 | -0.44 | 24.35 |
| UP_P_RG310_0 | -42.01 | 42.00 | -0.07 | 0.20 | 22.66 |
| DOWN_C_RM_0 | -42.05 | 42.02 | 0.03 | -0.00 | 24.38 |
| DOWN_P_RG356_0 | -42.05 | 42.01 | -0.07 | -0.14 | 23.37 |



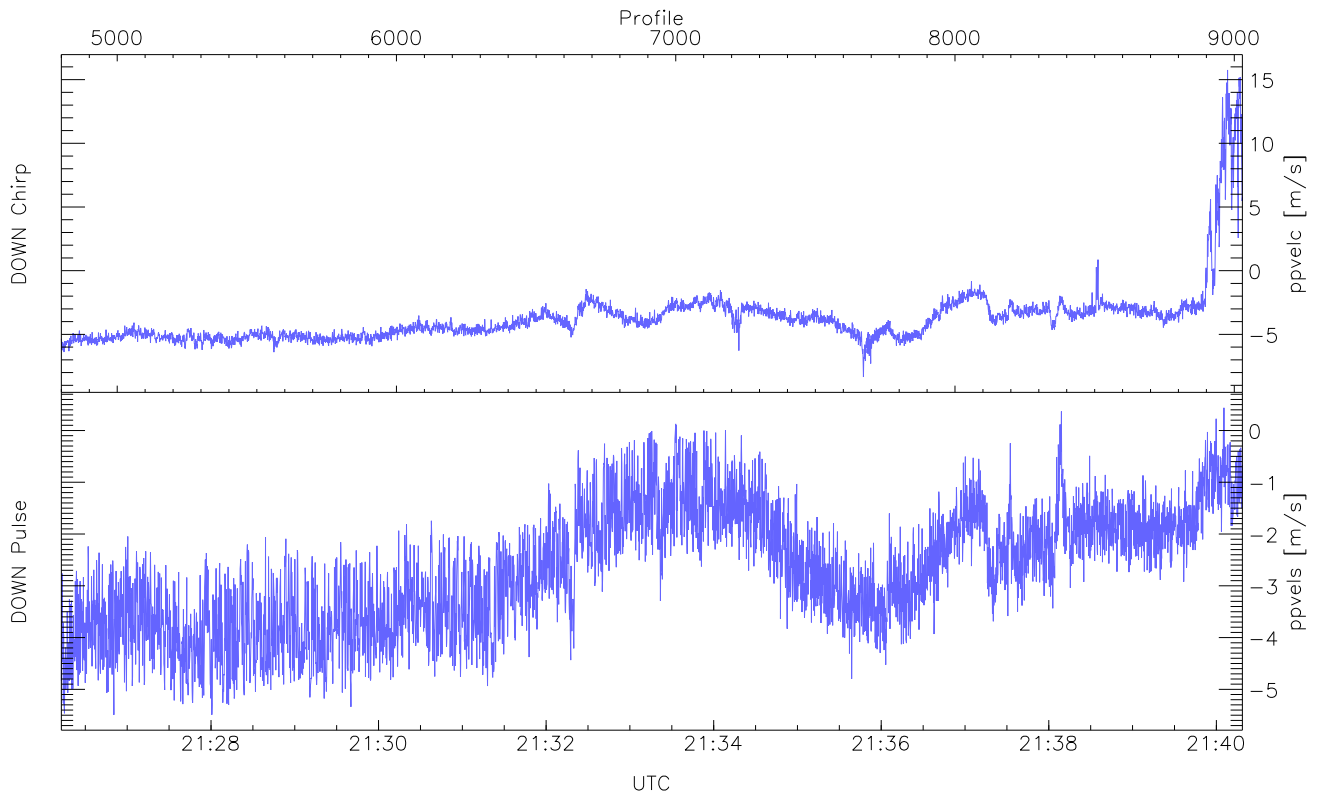
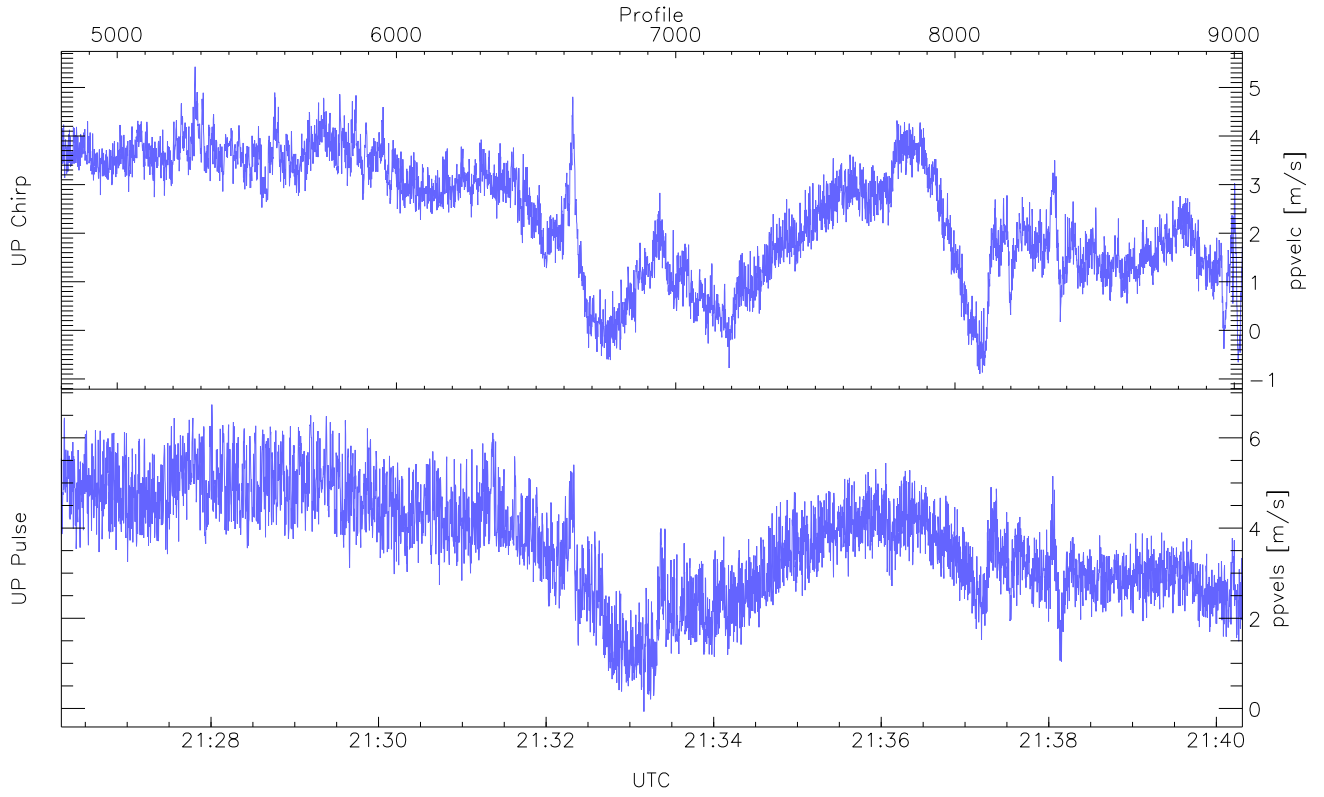
KPR SPP Received Power for Chirp Range gate 10 (686.2 m)
 KPR SPP Received Power for Pulse Range gate 10 (270.7 m)

| | Min | Max | Mean |
|-----------------|--------|--------|--------|
| UP Chirp(dBm) | -55.67 | -37.71 | -44.32 |
| UP Pulse(dBm) | -54.59 | -39.38 | -46.27 |
| DOWN Chirp(dBm) | -46.18 | -26.94 | -40.13 |
| DOWN Pulse(dBm) | -50.44 | -38.63 | -44.82 |



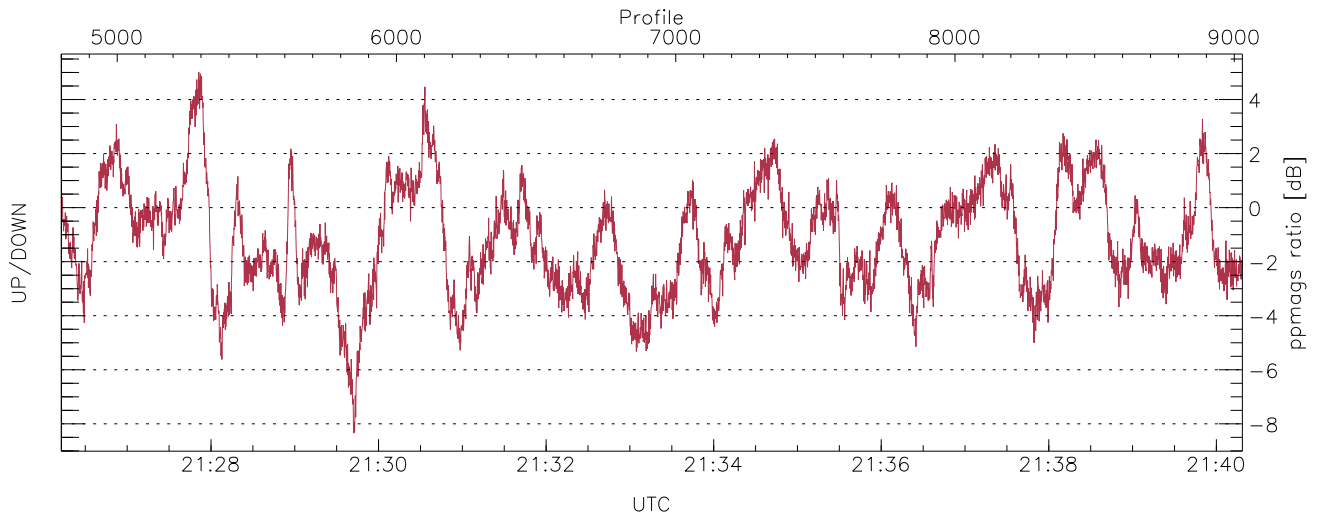
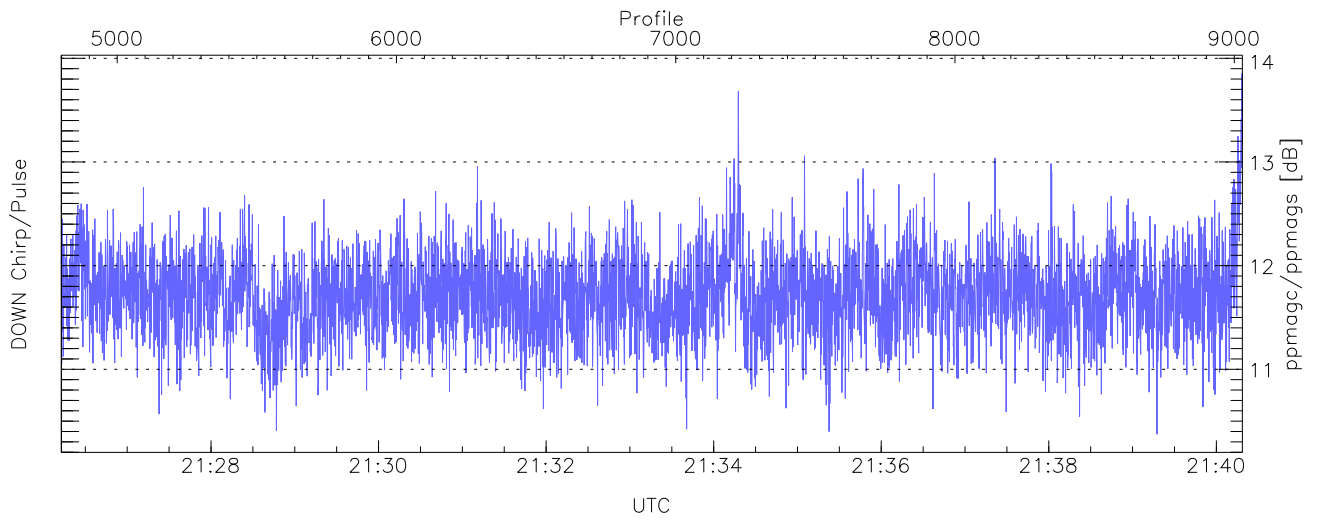
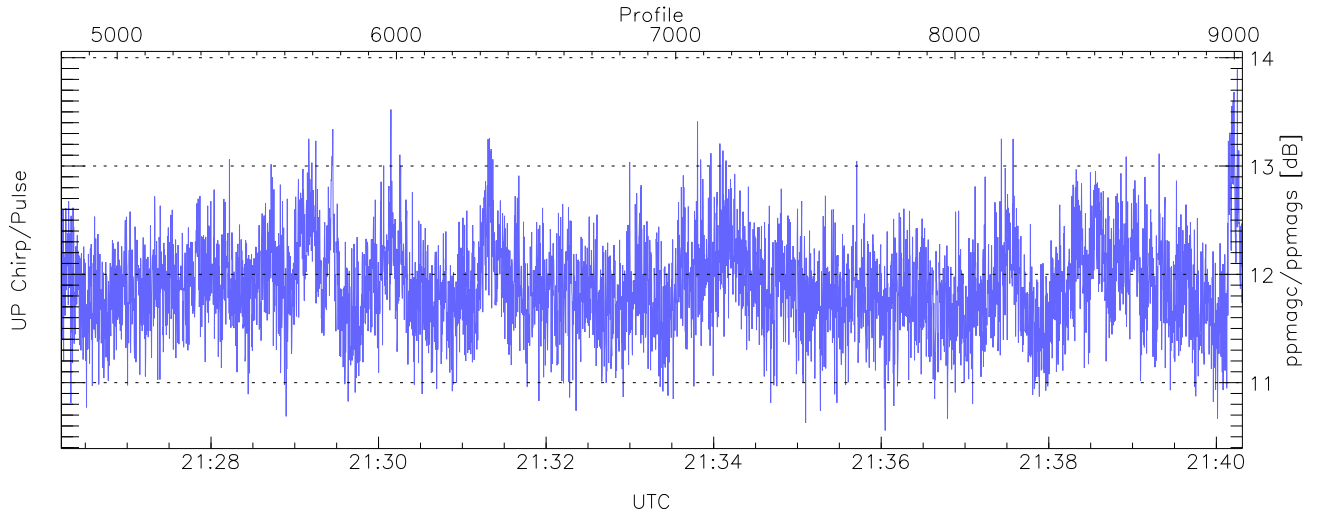
KPR SPP PPMAG for Chirp Range gate 10 (686.2 m)
 KPR SPP PPMAG for Pulse Range gate 10 (270.7 m)

| | Min | Max | Mean |
|-----------------|--------|--------|--------|
| UP Chirp(dBm) | -56.88 | -38.00 | -44.85 |
| UP Pulse(dBm) | -55.24 | -39.64 | -46.59 |
| DOWN Chirp(dBm) | -46.89 | -30.04 | -41.01 |
| DOWN Pulse(dBm) | -50.91 | -38.88 | -45.12 |



KPR SPP PPVEL for Chirp Range gate 10 (686.2 m)
 KPR SPP PPVEL for Pulse Range gate 10 (270.7 m)

| | Min | Max | Mean |
|-----------------|-------|-------|-------|
| UP Chirp(m/s) | -0.90 | 5.43 | 2.36 |
| UP Pulse(m/s) | -0.07 | 6.74 | 3.69 |
| DOWN Chirp(m/s) | -8.35 | 15.76 | -3.74 |
| DOWN Pulse(m/s) | -5.49 | 0.44 | -2.70 |



KPR SPP PPMAG Chirp/Pulse; Range gate: 551.3m /570.5m

| | Min | Max | Mean |
|--------------------------------|-------|-------|-------|
| UP Chirp/Pulse(dBm) | 10.56 | 13.89 | 11.92 |
| DOWN Chirp/Pulse(dBm) | 10.37 | 13.86 | 11.73 |
| UP/DOWN Ratio at Range 135.8 m | | | |
| | Min | Max | Mean |
| UP/DOWN(dB) | -8.34 | 5.02 | -0.75 |