

Status of cellular comms

Site	Modem Signal Level in % and dBm	Taped USB-Modem
Playa1	28-30% -93 dBm (Antenna)	
ABC2	64% -78 dBm	yes
Hiland3	64% -78 dBm	
WValley4	61% -80 dBm	yes
ESlope5	75% -74 dBm (Antenna)	
WSlope6	86% -70 dBm (Antenna)	yes
River7	75% -74 dBm	yes

As of noon Nov 14, all 7 stations are set up and reporting.

Cellular comms are excellent at all sites, except for some weirdness at wslope6.

When wslope6 was setup, ChrisG reported that the LEDs on the router and modem indicated that it was having problem establishing a connection. I believe the LEDs looked similar to what he saw with the spare isfs8 system when powering it up in the base trailer. Putting an antenna in the window solved the problem at the trailer.

From <http://www.eol.ucar.edu/deployment/field-deployments/field-projects/pcaps/ISFS/FieldNetwork> the LED on the USB760 modem (a little round LED which is about impossible to see in the sunlight) indicates the following:

USB760 LED	status
solid green	powered but not connected
blinking green	connecting or is connected. What you want to see
solid red	service not found, searching for service
solid orange	error has occurred. Reset the device. If this does not resolve the issue, it must be replaced.

The logs at dyndns.com show that wslope6 (isfs6.dyndns.org) registered 17 times with dyndns.org between Nov 12 11:40 and 12:01 MST. Each registration was for a different IP address. The last address that it registered with was 75.220.246.241, which is what dyndns is still reporting on Nov 14.

dyndns can blacklist a host if it is registering too often. I believe they send an email to the addresses in the account profile, which is currently my address, but I have not received any reports.

Logging into eol-rt-data and doing a tcpdump indicates that station 6 is reporting from 75.220.122.209. This address was not listed in the logs at dyndns.com. One cannot ping or ssh to either of the two addresses: 75.220.122.209 or 75.220.246.241.

Note that we are getting UDP data from this site from address 75.220.122.209 but cannot login.

My guess is that the signal is marginal at this site. One could bring a PC with wifi to get on the network at this site and point a browser at 192.168.0.1. After logging into the router's admin account, under Status->Modem (as I remember) one can see the signal level. Or, if someone has a Verizon 3G phone, we could get an idea of the signal level at this site.

Perhaps one of the little 6" whip antennas would help at this site, if placed as high as possible on the mast. If we still believe the signal is low, we may need a higher gain antenna.

Update on station 6 mystery. Sun Nov 14, 8:40 pm

~maclean/tcpdump.sh on eol-rt-data now indicates that station 6 is now reporting from 69.98.142.231. That IP is now pingable, but ssh fails with a timeout. dyndns.com still has the same IP address, 75.220.246.241, registered on Nov 12 12:01 pm