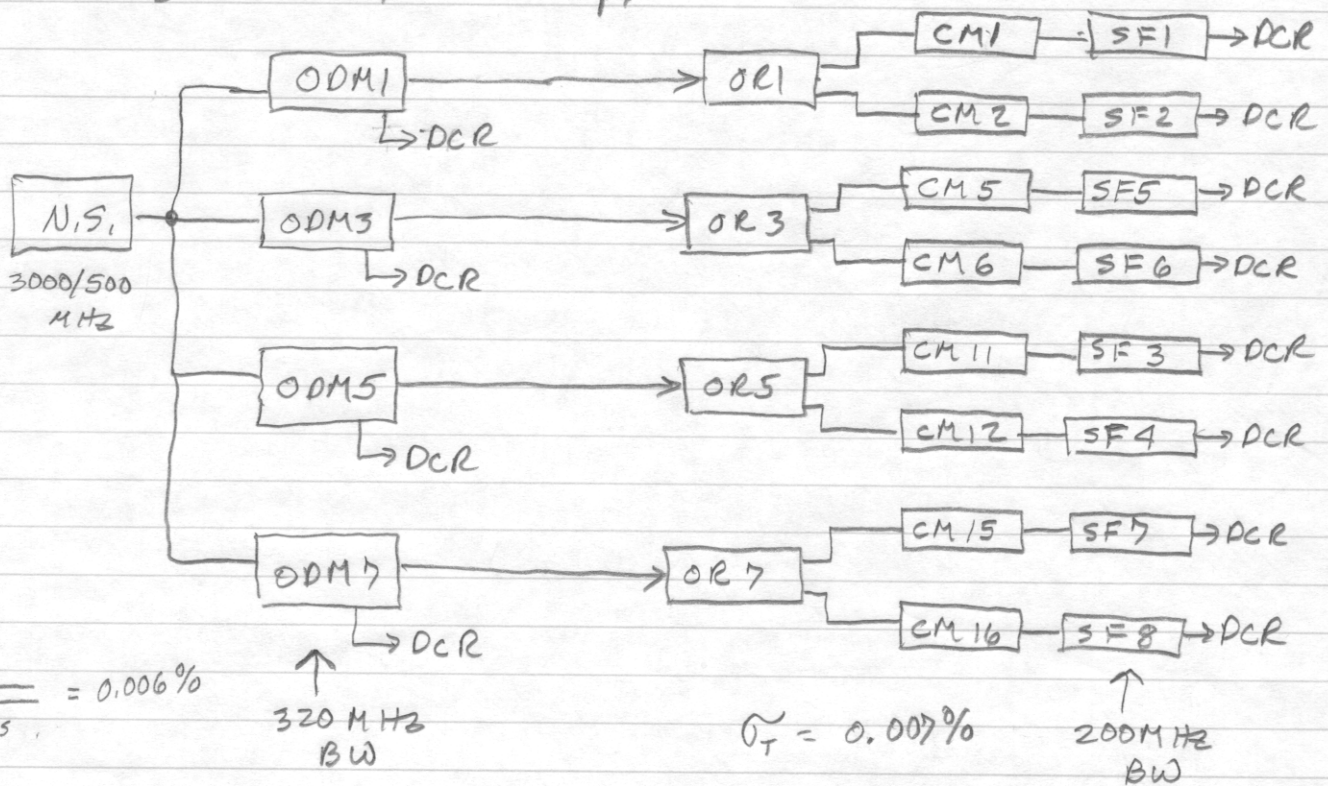


11/14/02

IF System TP stability tests ran 11/13/02. Had initial problems with the ScanCoordinator and with gbtms filler that took about 1 hr to resolve.

Readable data in Project TRDN11-13-02B.

Scans 40-67 Setup:



Scans 68-87 setup identical except ODM/OR 2, 4, 6, 8 were substituted. Same CM and SF modules were used.

Scans 40-67 Time 19:42:59 to 20:41:43

68-87

20:48:40 to 21:30:36

11/14/02 cont

This arrangement allows one to some extent to deduce instability contributions by various components of the system, by comparing data at various points.

The DCR was configured to run 2 minute scans, in TPWCal mode, with 1 sec integrations.

Plots of the data are attached.

Discussion:

- 1) The noise source drifted about 1% during the first 40 minutes of the test. IT had been turned ON 2 3/4 hours earlier.
- 2) The difference in slopes for TP from ODM 1, 7 and 3, 5 is a concern. Is something compressed? Need to measure linearity.
- 3) ODM 4 and 8 show stability significantly worse than the others. Need to pull these back to the lab for evaluation.
- 4) All the IF links show a 8 minute periodic fluctuation with amplitude about 0.3% p-p. This appears to be correlated across all the SF outputs, and could be in the fiber links, Converter Rack, or Analog Filter Rack. The Rx Room temperature was quite stable during the test.



11/14/02

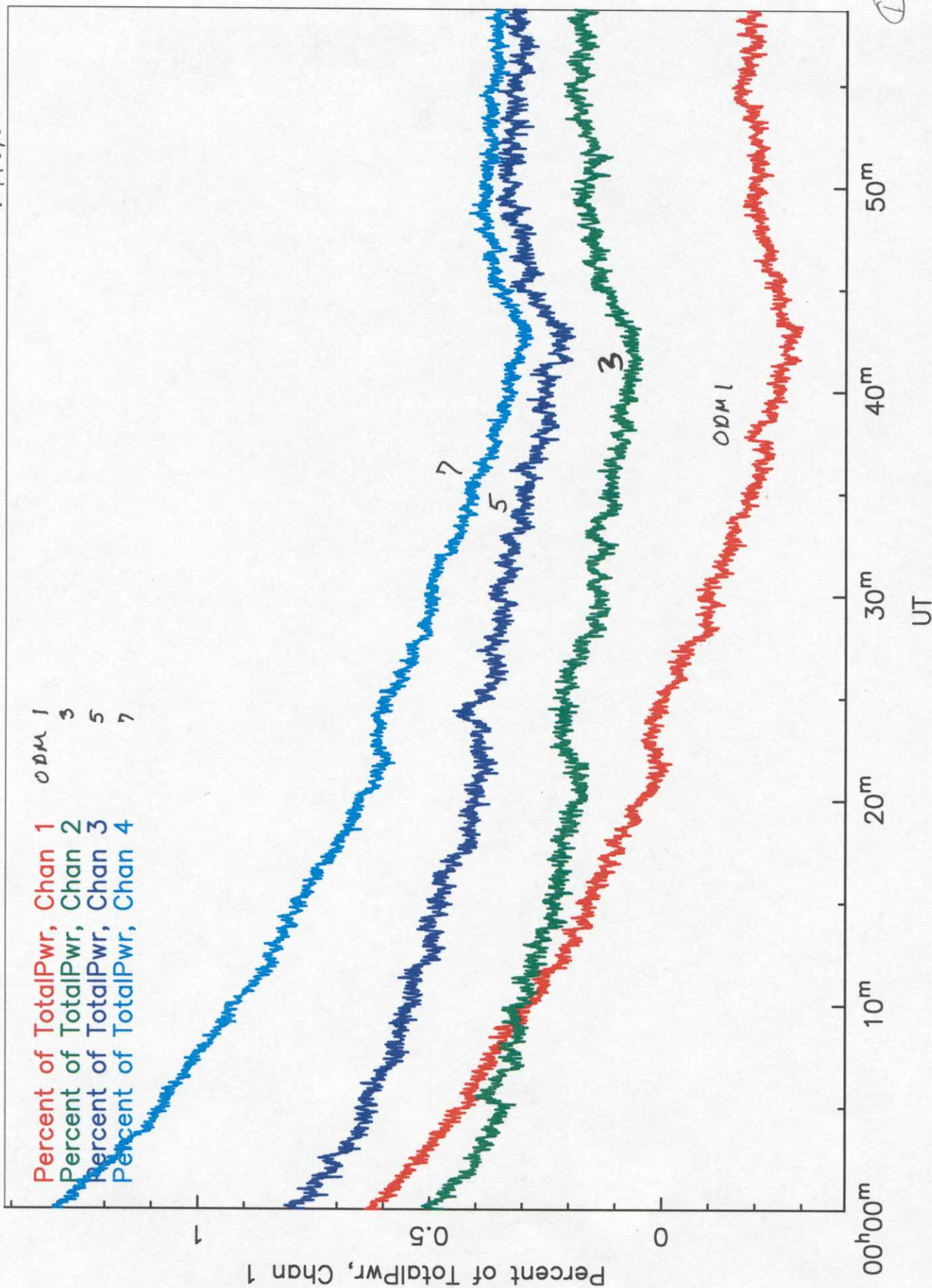
③

- 5) The OR6-SF3/4 and OR8-SF7/8 outputs show quite spiky variations with amplitude about 0.2% p-p. Since the same SF outputs did not show this during the other scan group, I tend to suspect the fiber links.
- 6) The OR6-SF4 data shows some 2% variations. Either there is something intermittent in the CM12-SF4 path, or perhaps a bad CM12 input switch.

#### PLOT INDEX:

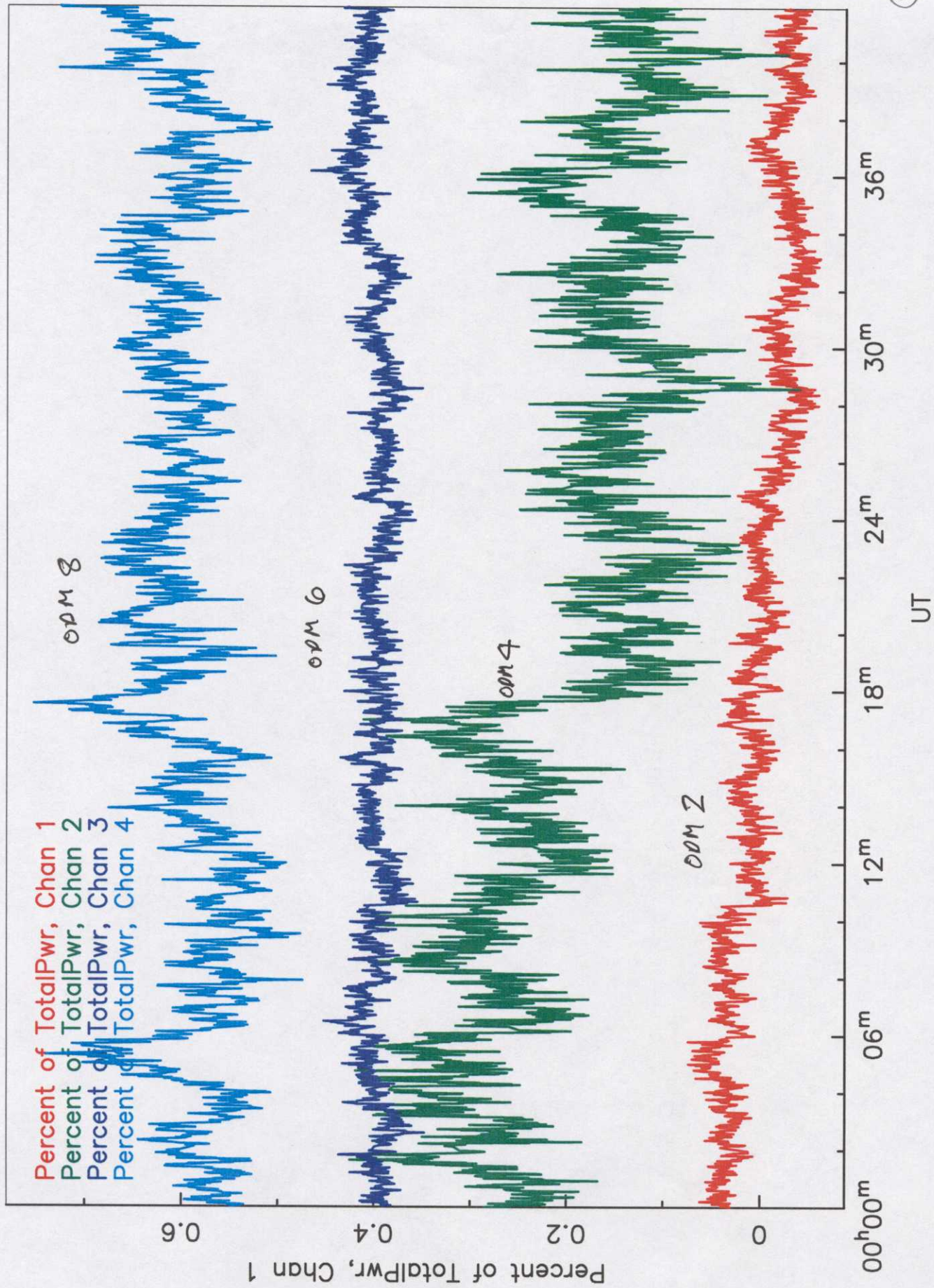
- 1, 2 - ODM outputs for all scans  
3, 4 - One SF output for all ORs & all scans  
5 thru 12 - 20 minutes of output for each ODM and corresponding SF pair.
- 13 - Shows 2% fluctuations in OR6-SF4. Ref 6) item.
- 14 - Receiver Room temperature during the test.

11/13/02



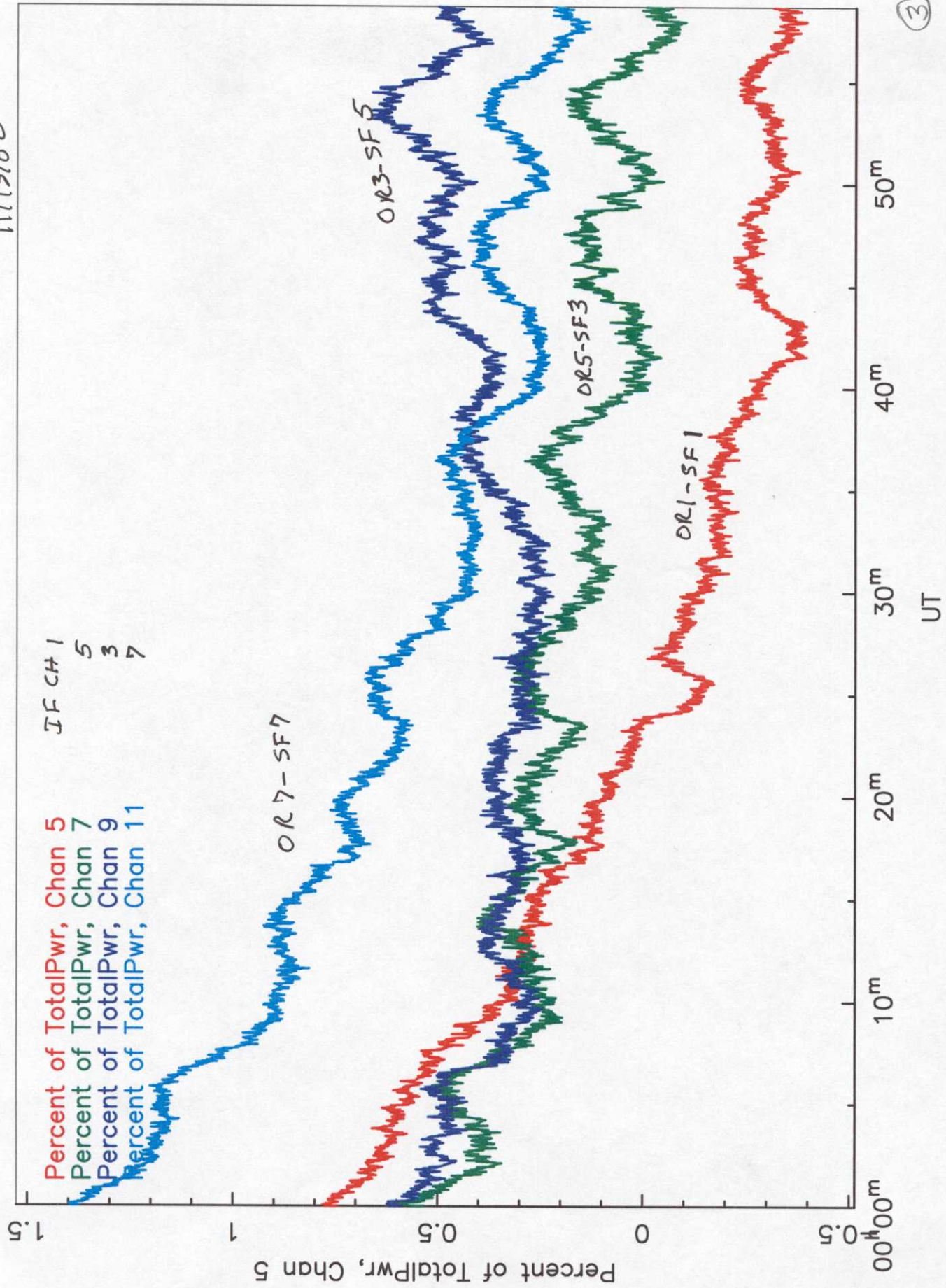
(1)



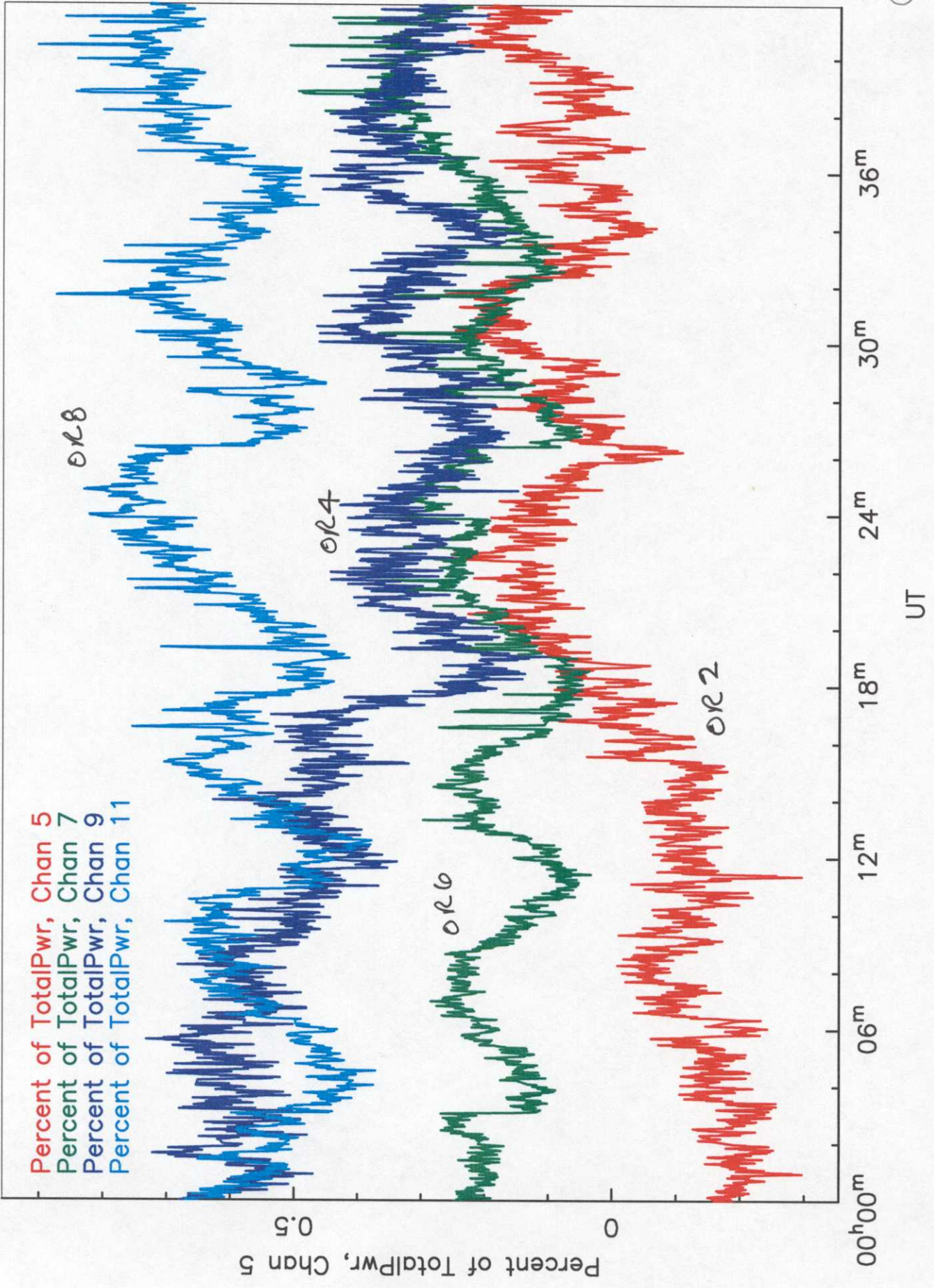




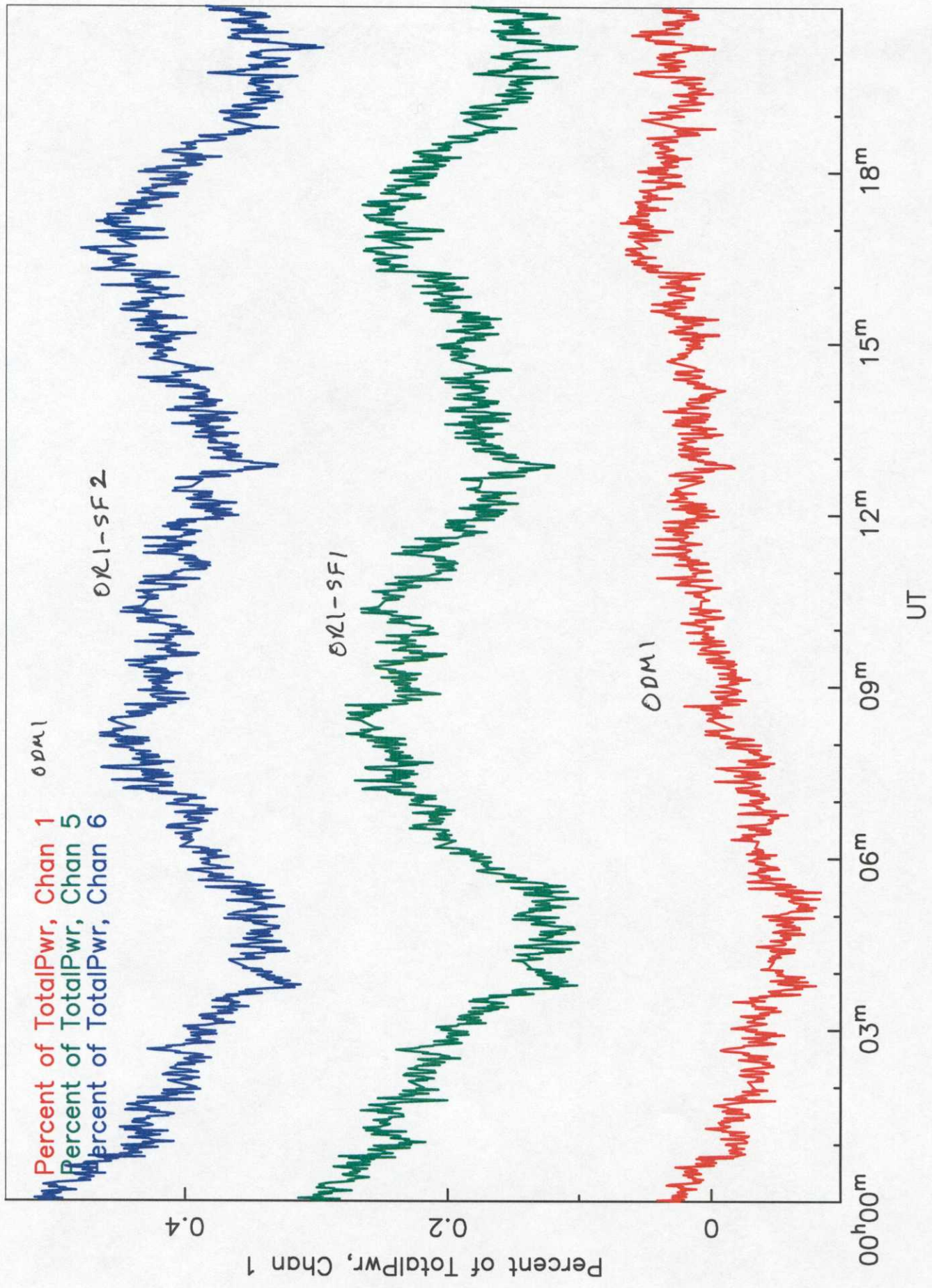
11/13/02



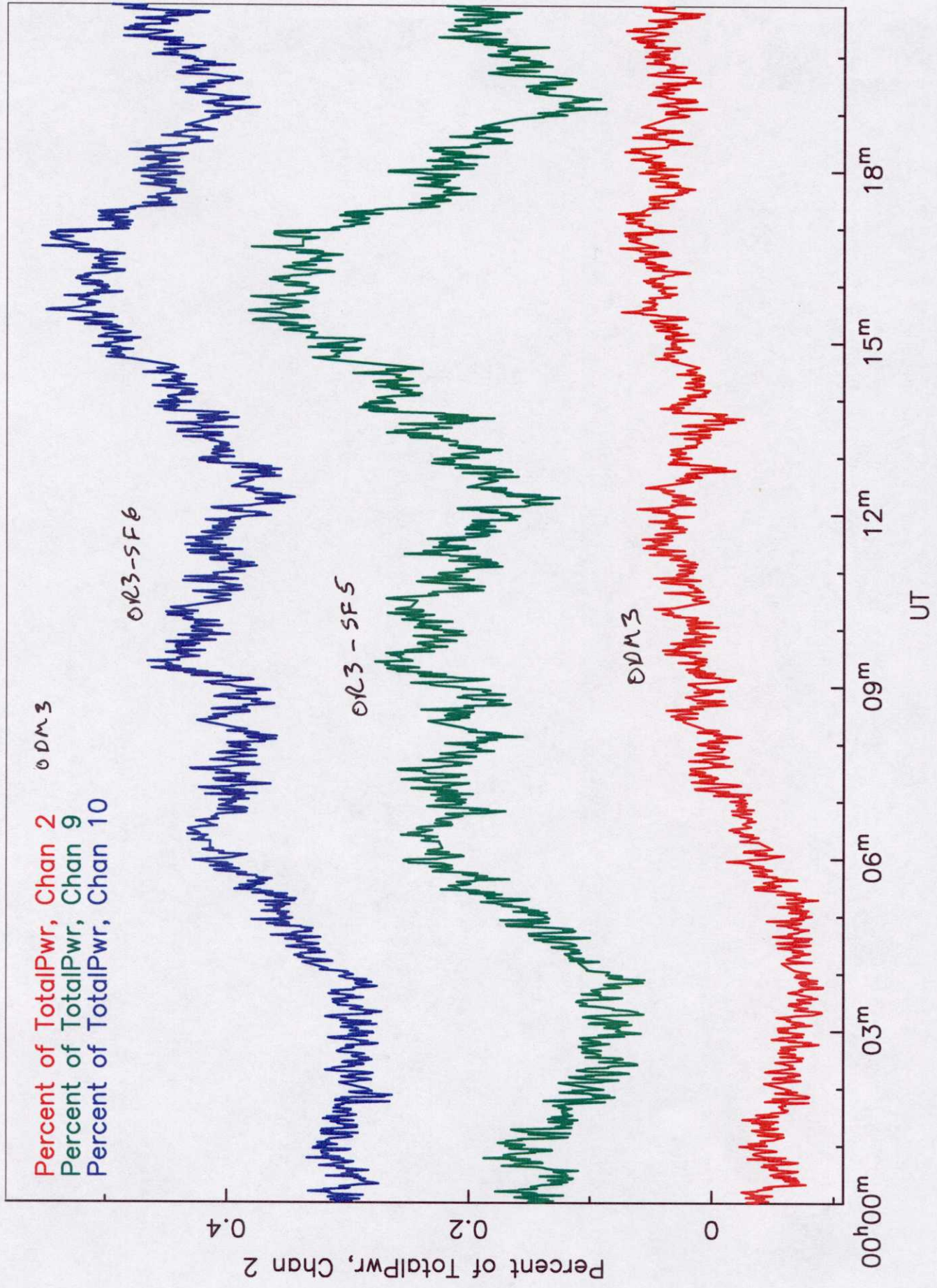




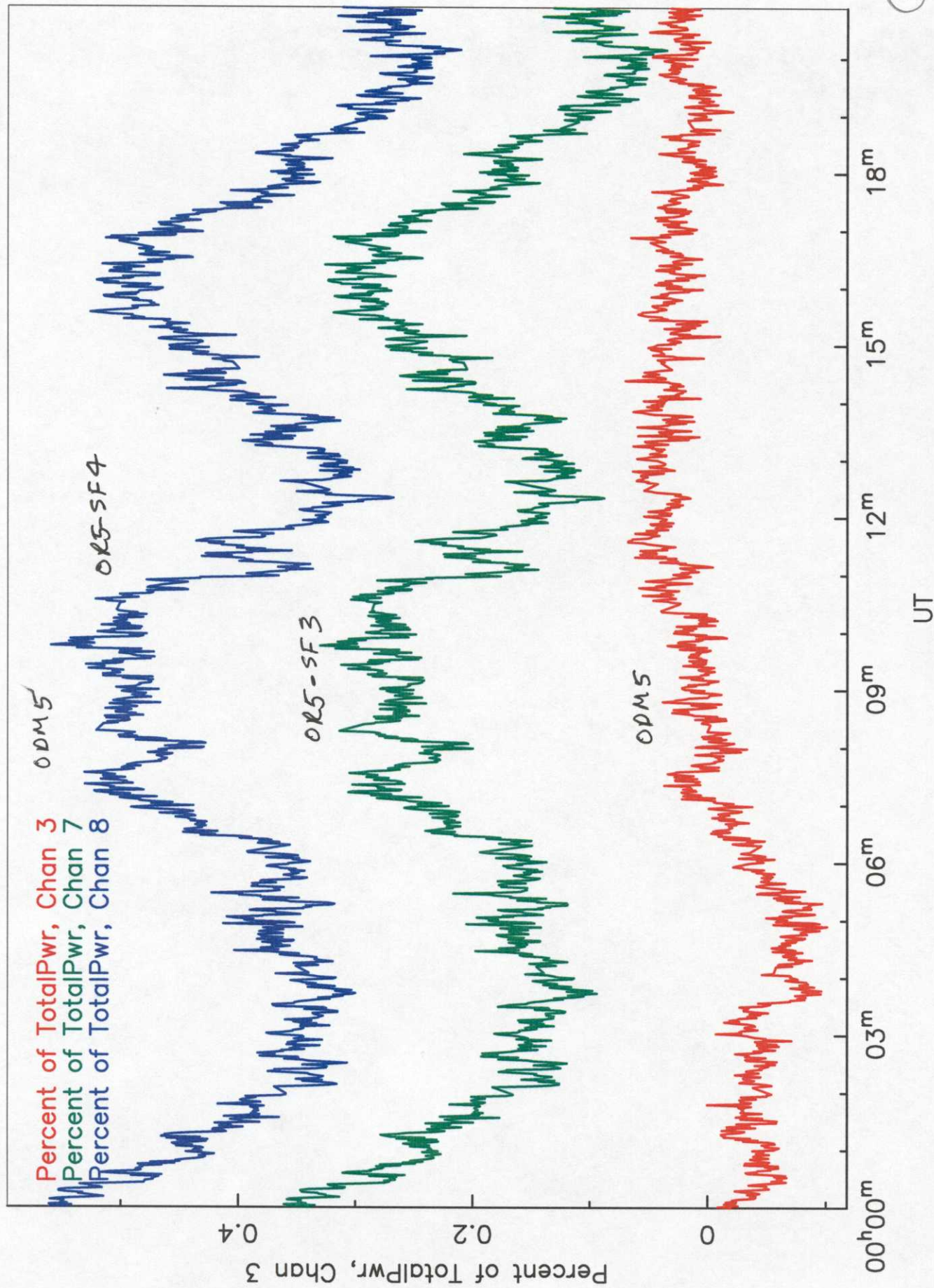




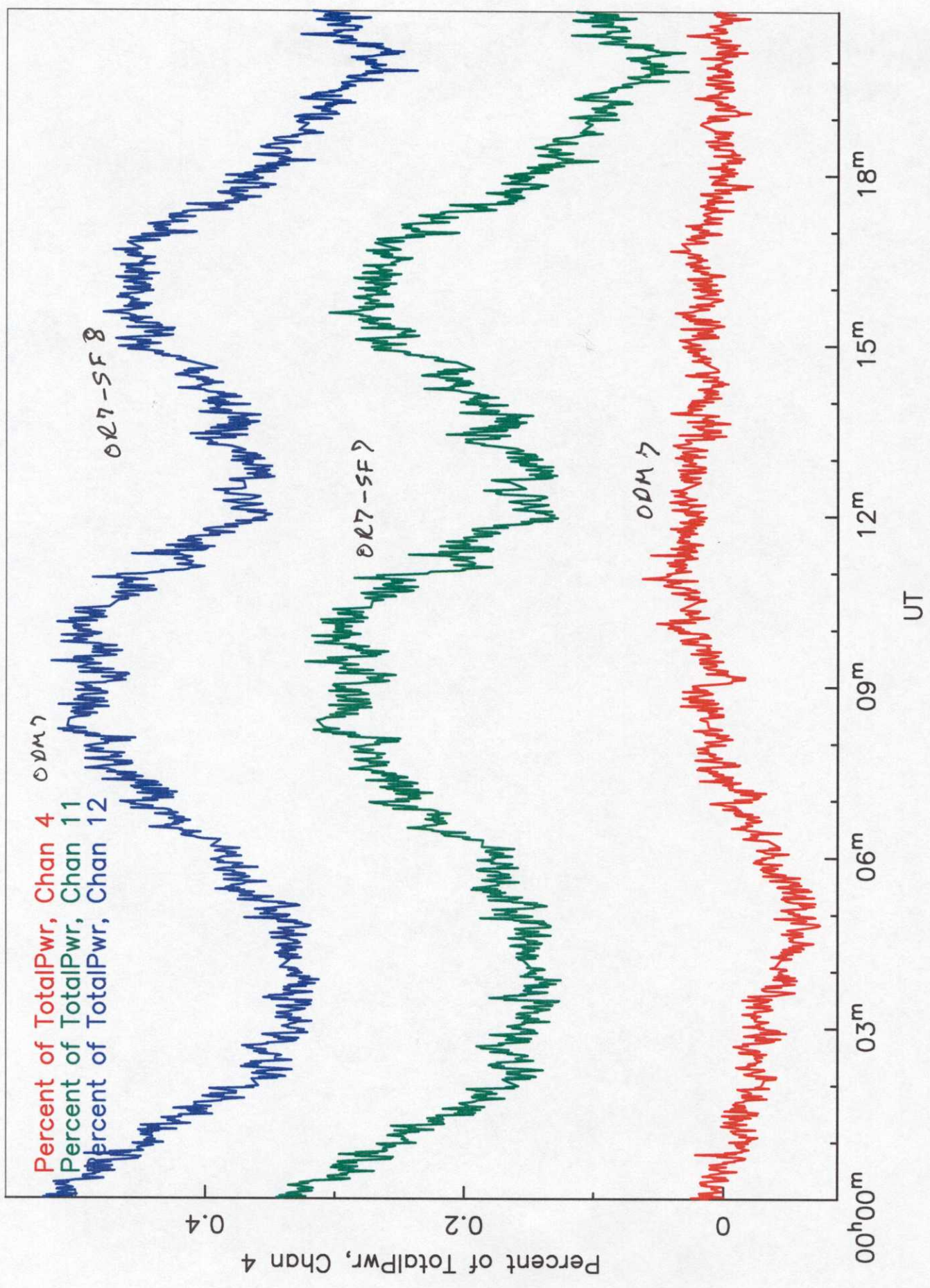




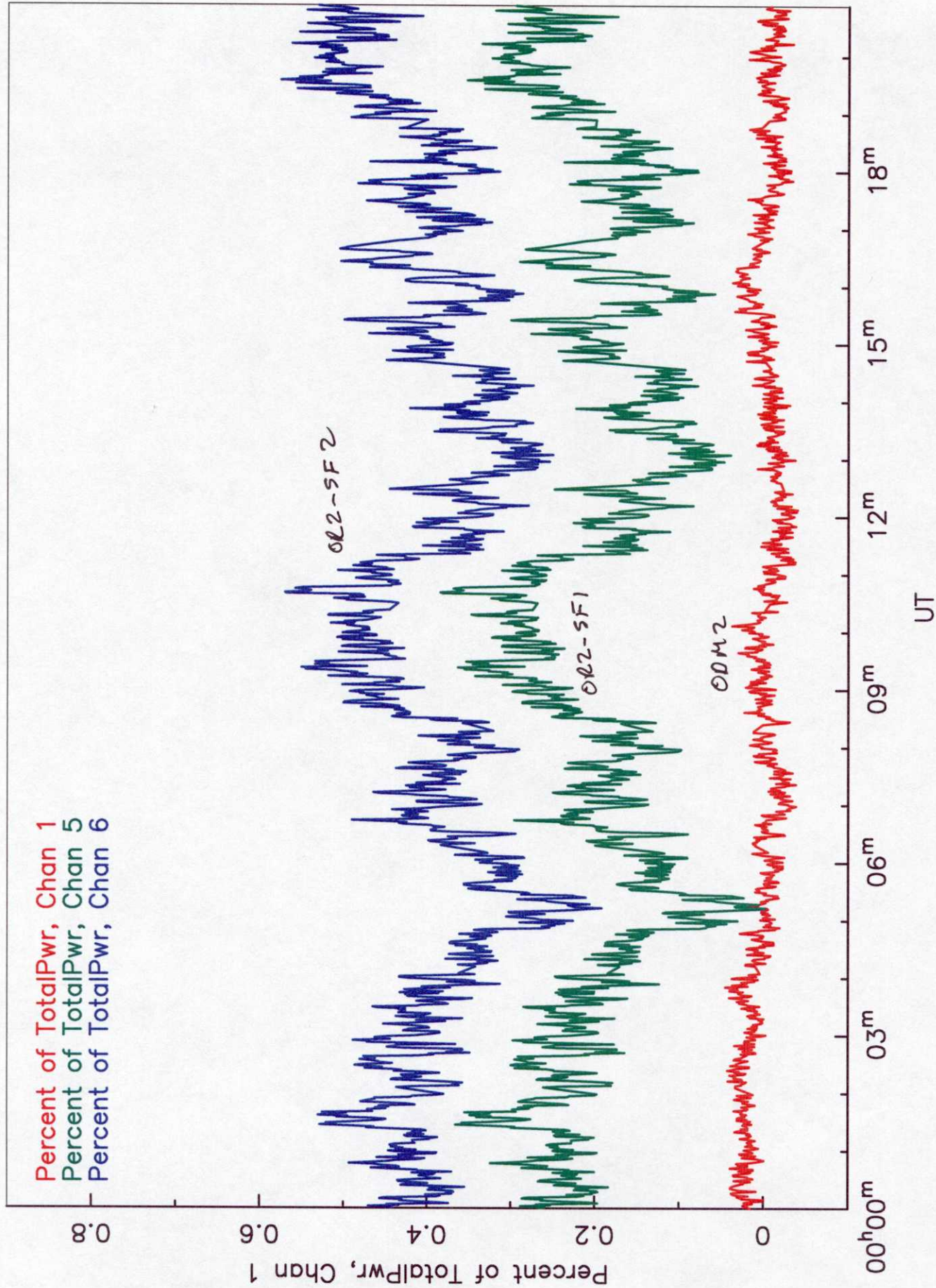




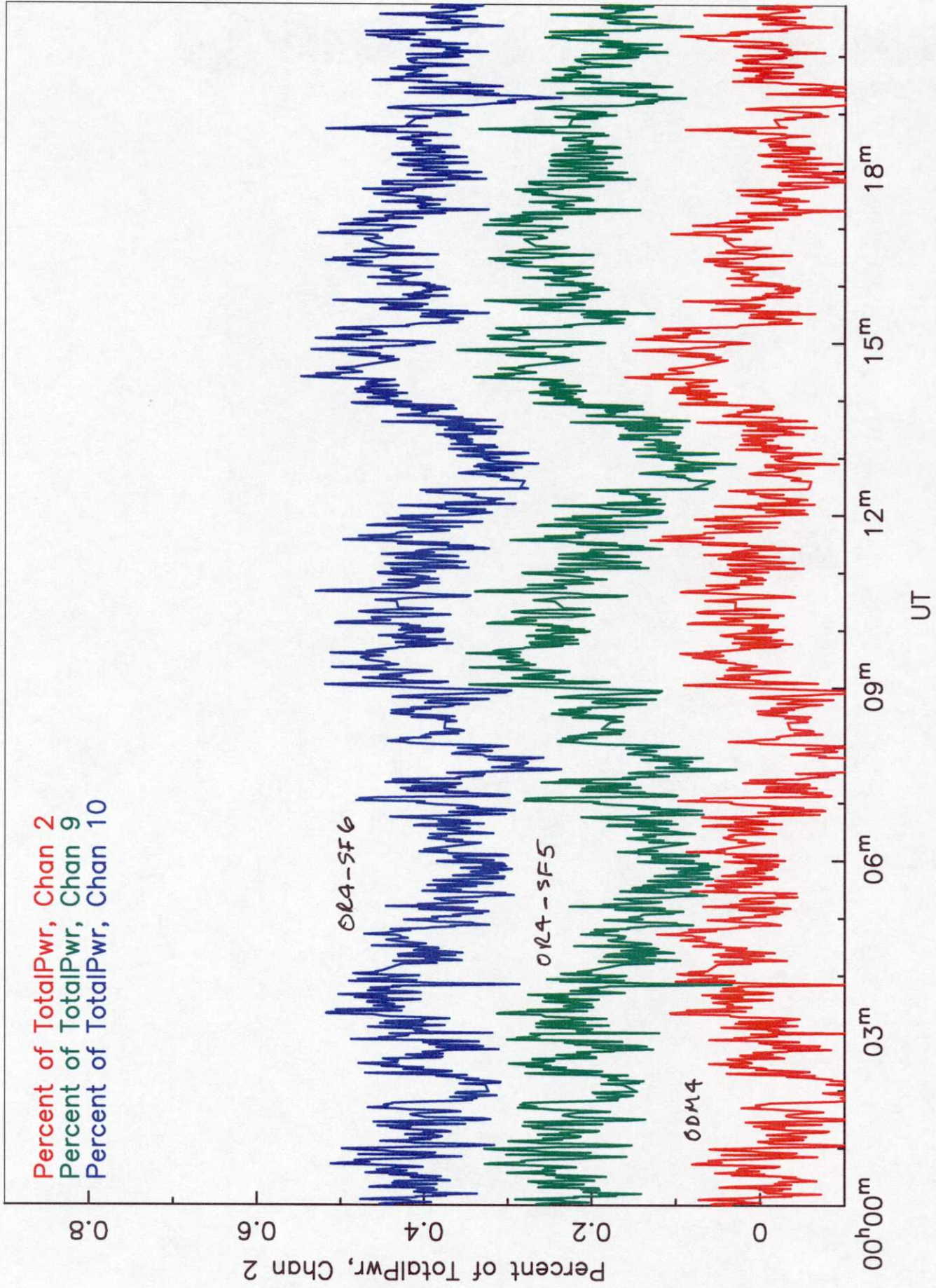




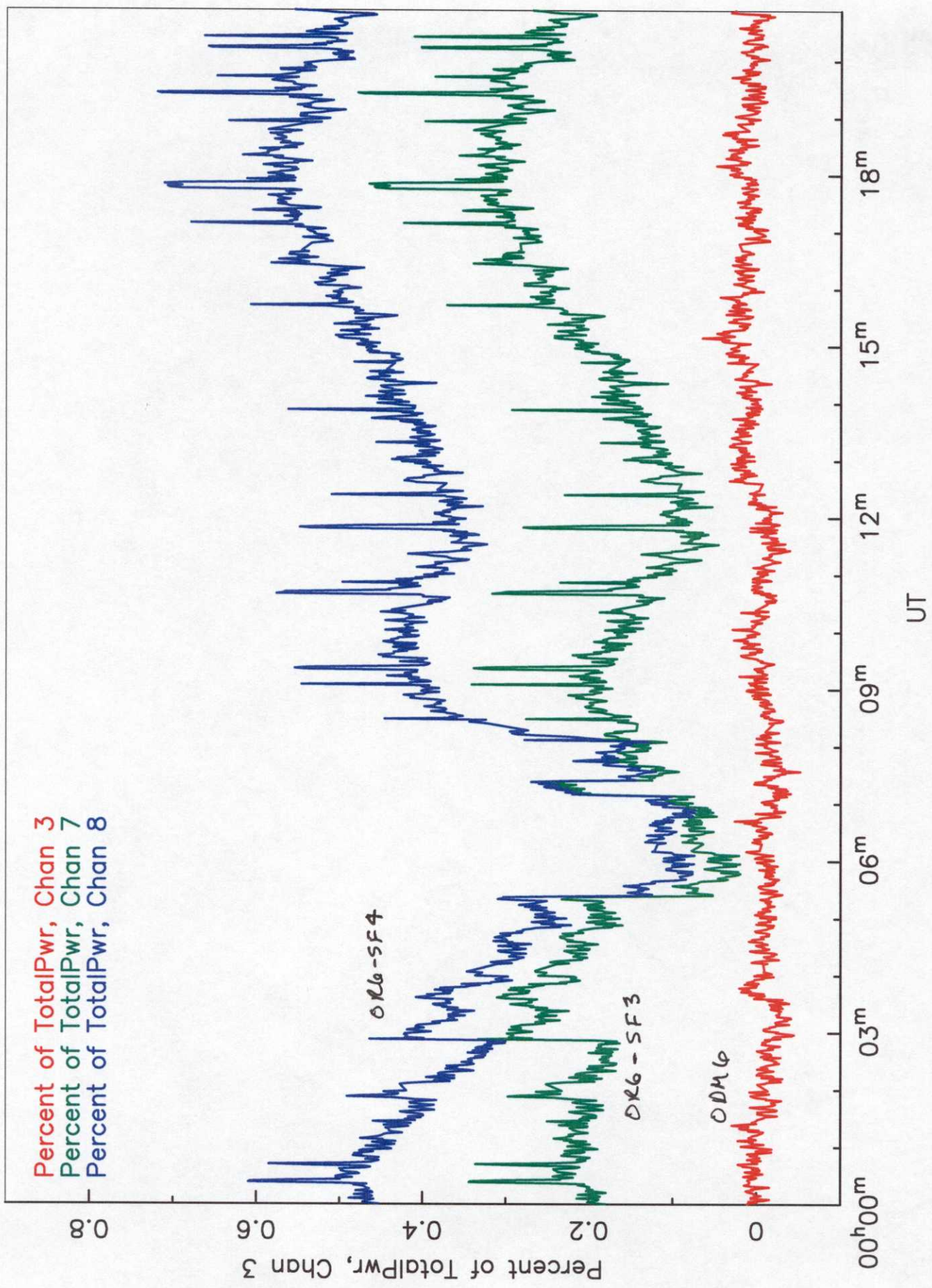




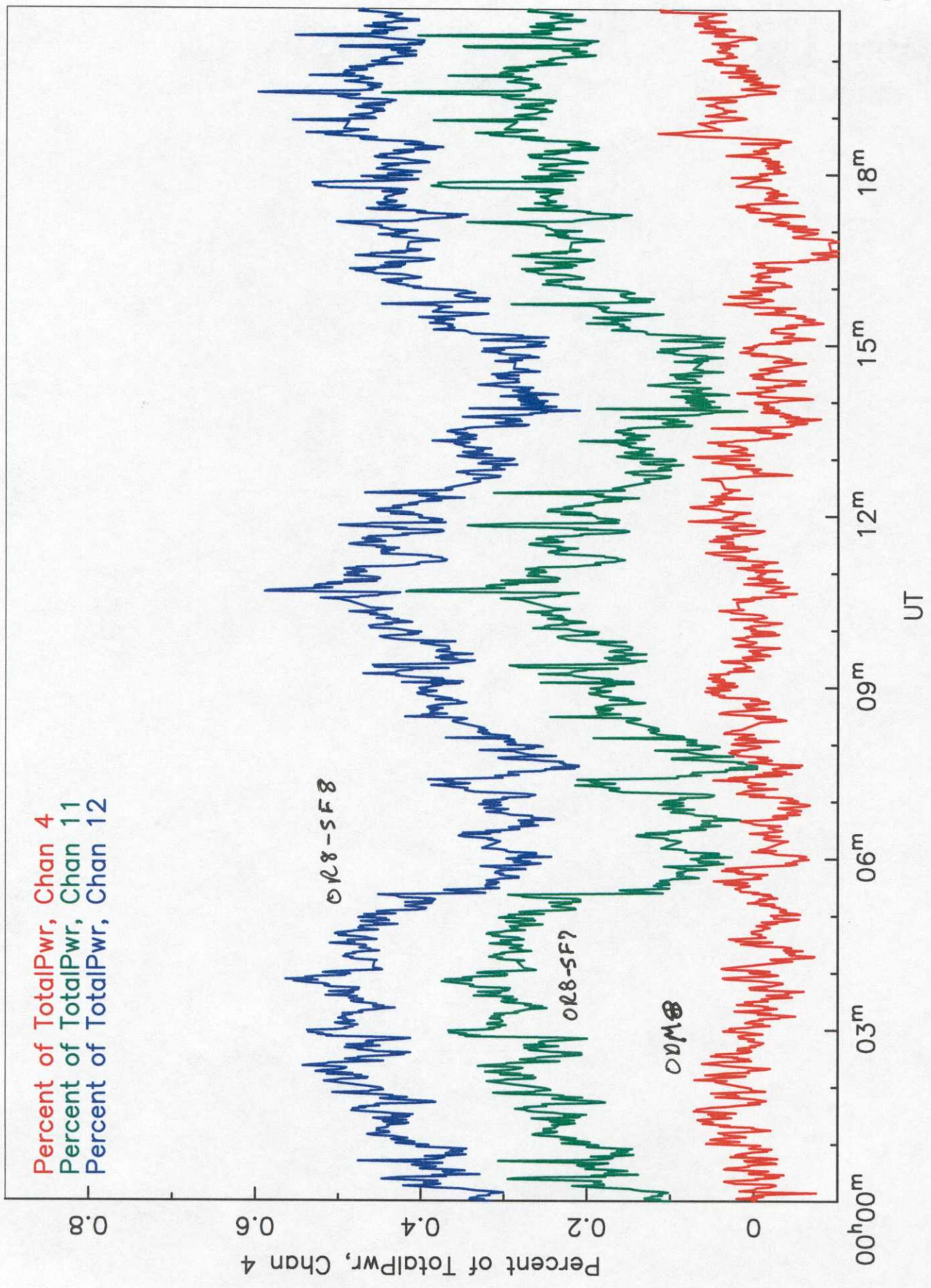




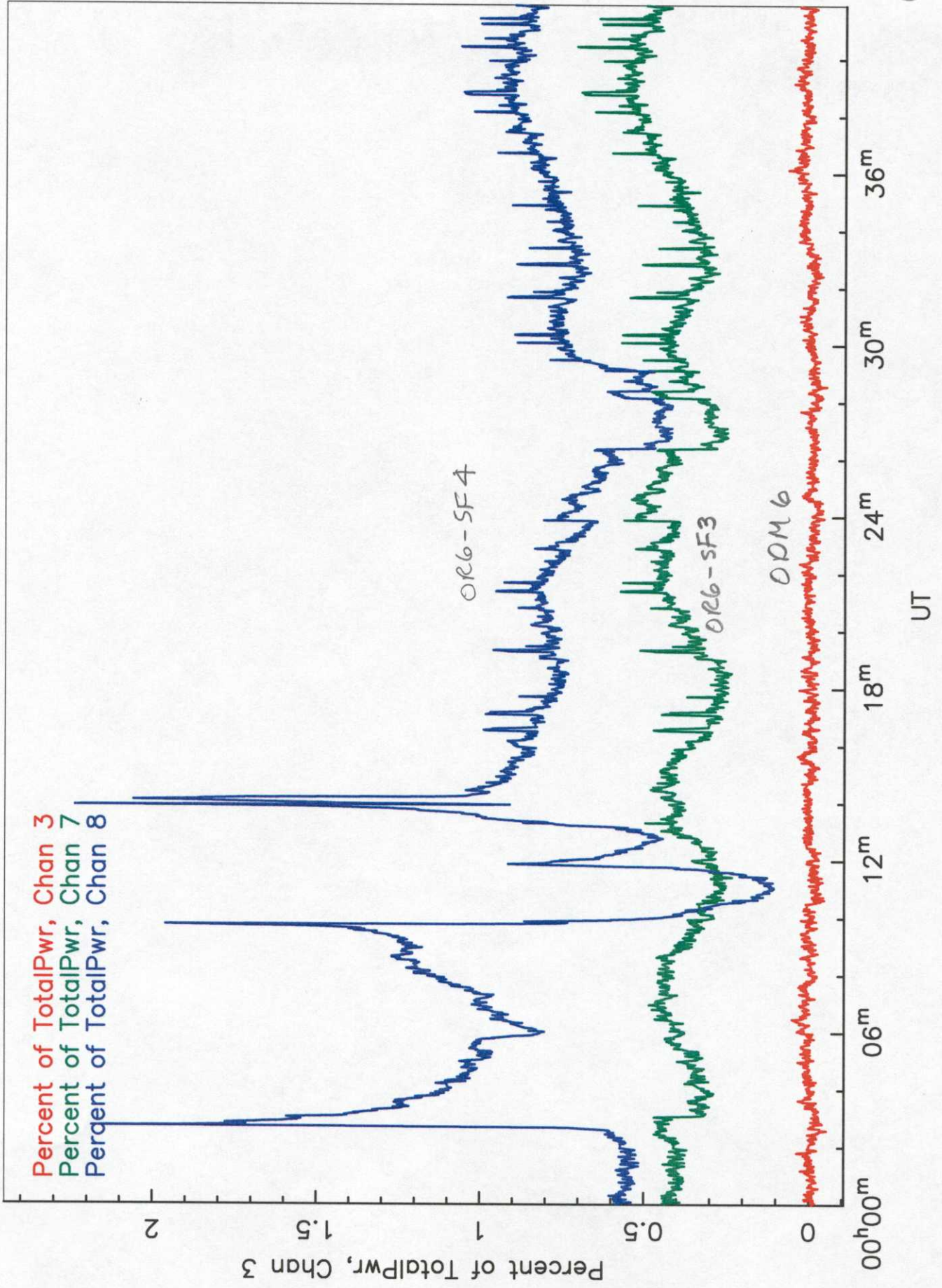






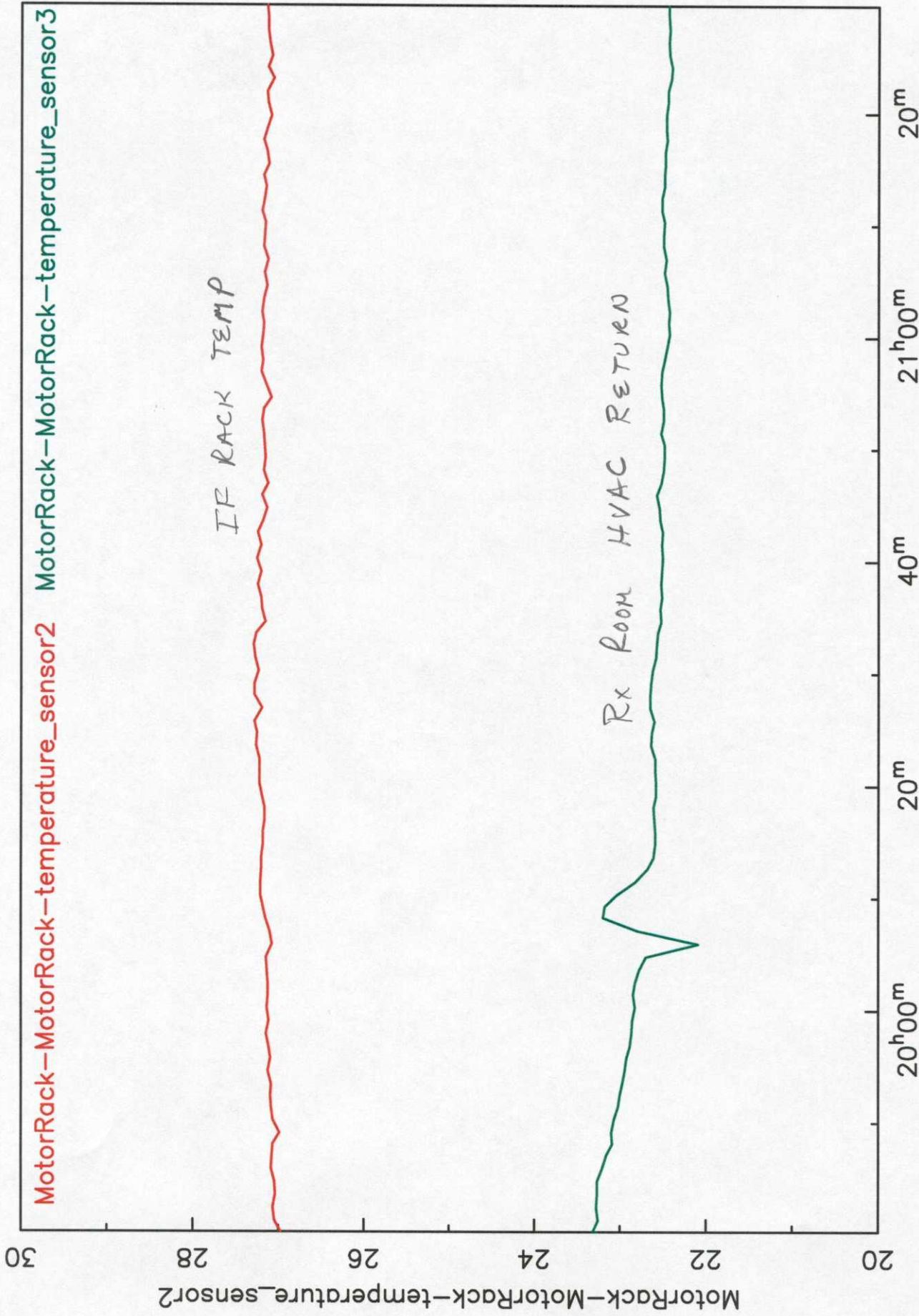








T



MotorRack-temperature\_sensor2 MotorRack-temperature\_sensor3

IR RACK TEMP

Rx Room HVAC RETURN

t0: Wed-13-Nov-2002/19:40:16