SPOL CALIBRATION HISTORY

						Without Noise Correction							
	Freq	Tx Pwr		Testpulse		NOISE PWR (CPLR)		Ant Gain		Sys Gain		Ant Gain	
	MHz	Cplg Factor		Cplg Factor		(dBM) @ 804 kHz		Solar		Solar		Source	
DATE		HOR	VER	HOR	VER	HOR	VER	Hor	Ver	Hor	Ver	Hor	Ver
1994	2809											44.80	44.40
09-Apr-96	2813					-115.70	-115.40						
27-Dec-96	2745					-116.00	-115.50						
18-Apr-96	2809	56.40	56.40	-36.00	-35.60	-115.20	-115.40						
22-Oct-97	2809	56.30	56.40	-35.90	-35.70								
17-Nov-97	2809											46.00	45.60
12-Feb-98	2809					-115.20	-114.80						
20-Feb-98	2809							46.20	46.70	45.71	45.93		
12-Mar-98	2809							46.60	46.70	46.11	45.93		
19-Mar-98	2809											45.00	44.80
26-Mar-98	2809							45.80	45.90	45.31	45.13		
22-Apr-98	2809											45.70	44.30
22-Apr-98	2809							45.40	46.00	44.91	45.23		
29-Apr-98	2809					-115.10	-114.80						
29-Apr-98	2809							45.60	45.60	45.11	44.83		
01-May-98	2809							46.00	45.90	45.51	45.13		
11-May-98	2809									45.61	45.43	46.10	46.20
14-May-98	2809							45.90	45.70	45.41	44.93		
18-Jul-98	2809	56.70	57.32	-35.90	-35.60	-115.20	-114.50	46.03	45.05	45.51	45.30		
19-Jul-98	2809							46.12	46.14	45.60	45.39		
20-Jul-98	2809							46.10	46.02	45.58	45.27		
11-Aug-98	2809							46.12	46.14	45.60	45.39		
25-Sept-98	2809							46.05	46.12	45.53	45.37		
12-Jan-99	2809	56.80	57.10	-35.90	-35.55	-115.20	-114.50	45.90	46.03	45.38	45.28		
19-Jan-99	2809							46.09	46.14	45.57	45.39		
27-Jan-99	2809							45.93	46.05	45.41	45.30		
02-Feb-99	2809							45.89	46.08	45.37	45.33		
07-Sep-99	2786	57.00	57.30	-35.88	-35.32	-115.20	-115.00	46.11	46.18	44.88	45.22		
10-Sep-99	2786							46.27	46.43	45.04	45.47		
10-Sep-99	2786							46.23	46.33	45.00	45.37		
21-Sep-99	2786							46.10	46.22	44.87	45.26		
21-Sep-99	2786							45.86	45.96	44.63	45.00		
12-Oct-99	2786							46.02	46.02	44.79	45.06		
14-Oct-99	2786							46.19	46.19	44.96	45.23		
02-Nov-99	2786							45.83	45.63	44.60	44.67		
07-Nov-99	2786							45.88	44.58	44.65	43.62		
13-May-00	2809	56.80	57.15	-35.85	-35.55	-115.20	-115.00	45.67	45.19	44.82	44.44		
24-May-00	2809							46.03	45.66	45.18	44.91		
27-May-00	2809							45.34	45.04	44.49	44.29		
11-Jun-00	2809							46.02	45.66	45.17	44.91		
16-Jun-00	2809							45.83	45.46	44.98	44.71		
18-Nov-00	2809	56.80	57.15	-35.85	-35.55	-115.30	-115.20	46.09	45.78	45.02	44.69		
06-Jan-01	2809							45.92	45.62	44.85	44.53		
11-Jan-01	2809							46.22	45.88	45.15	44.79		
15-Jan-01	2809							45.93	45.67	44.86	44.58		
15-Jan-01	2809	56.80	57.15	-35.85	-35.55	-115.90	-115.70	45.54	45.30	44.87	44.59		
22-Jan-01	2809							45.69	45.47	45.02	44.76		
31-Jan-01	2809							45.67	45.40	45.00	44.69		
02-Feb-01	2809							45.72	45.45	45.05	44.74		
08-Nov-01	2809	56.80	57.15	-36.10	-35.65	-115.30	-115.40	46.14	45.73	45.11	44.81		
03-Dec-01	2809	56.80	57.15	-36.10	-35.65	-115.80	-115.50	45.27	45.15	44.61	44.33		
05-Dec-01	2809							45.37	45.36	44.71	44.54		
07-Dec-01	2809							45.35	45.34	44.69	44.52		
25-May-02	2809	56.8	57.15	-36.1	-35.65	-115.8	-115.5	45.44	45.59	44.78	44.77		

Seavey measured
FL1
East Lake
CASES. New Preselectors.
Diode power meters now used
horn at Mesa
Mitch determined bandwidth = 804 khz 4/23/98
Flux based on Penticton data @2800mhz or Palehua @2695 and
~ 1 foot of wet snow on ground.
1840Z & 2130Z. Jon says he has ~ 1/4 dB better peak than previ
measurements.
Best ever. Using Mitch's Range Averaging.
Jon measures from processor.
Solar power measures 0.2 dB more (both) with noise correction.
Solar power 0.2 dB more Hor, 0.1 dB more Ver with noise correct
Eldorado Mountain
Loaner TR tube(unknown loss) in Hor channel.
1st cal in Florida for PRECIP98
2nd cal in Florida for PRECIP98
3rd cal in Florida for PRECIP98
4th cal in Florida for PRECIP98
5th cal in Florida for PRECIP98
1st cal in Brazil. Used Penticton flux values, Noise cal from Floric
2nd cal in Brazil. Done in morning at 1250GMT
3rd cal in Brazil. Done in morning at 1330GMT
4th cal in Brazil. Done in morning at 1240GMT
1st cal in Italy. Done at 0730GMT, Noise cal from Italy 9/7/99. Us interpolation for flux value.
Cal done in morning at 0900GMT. Az error+0.2, El error +0.7
Cal done in afternoonat 1400GMT. Az error +0.1, El error -0.8
Cal done in morning at 1040GMT. Az error+0.3, El error +0.5
Cal done in afternoonat 1430GMT. Az error -0.2, El error -0.5
First cal done after feed replacement. Taken at 1240GMT
Second cal with new feed. Taken at 1243GMT
Taken at 0900GMT. Some heavy cloud in area. AZ -0.2, El +0.9
Last cal in Italy, done at 11:30GMT. Az error +0.1, El error -0.1
1st cal for STEPS. May have noise correction
2nd cal for STEPS.
1st cal for IMPROVE, new noise cal values from 15 Nov. 2000
Using noise cal from 15 Nov 2000
Using noise cal from 15 Jan 2001
Last cal for IMPROVE done at 2200GMT, AZ 205.5, EL 24.0, 0 of
1st cal for IMPROVE2 plus coupler and noise calibrations with ne
1st cal with CHILL rotary joint, new noise calibrations done 12/3/0
Hor. W/G loss = 0.66dB, Vert W/G loss = 0.43dB
Last cal for IMPROVE2 done at 1748GMT, AZ 148.9, EL 16.7, 0
IHOP cal done with rebuilt rotary joint, but old noise cal temperatu

DATE	Freq MHz	Tx Pwr Cplg Factor HOR	Tx Pwr Cplg Factor VER	Testpulse Cplg Factor HOR	NOISE PWR (CPLR) (dBM) @ 804 kHz VER	NOISE PWR (CPLR) (dBM) @ 804 kHz HOR	NOISE PWR (CPLR) (dBM) @ 804 kHz VER	Ant Gain Solar Hor	Ant Gain Solar Ver	Sys Gain Solar Hor	Sys Gain Solar Ver	Ant Gain Source Hor	Ant Gain Source Ver	
31-May-02	2809							45.23	45.39	44.57	44.57			Solar cal using old noise cal
13-Jun-02	2809					-115.8	-115.4							Noise cal with rebuilt rotary joint
18-Jun-02	2809							45.18	45.2	44.55	44.51			Solar cal using noise cal done on June 13th.
22-Jun-02	2809							45.34	45.37	44.712	44.68			
12-Feb-04	2809	56.95	57.15	-35.85	-35.5	-115.8	-115.5	46.42	46.61	45.78	45.75			First cal for WISP04. Used noise cal done 02/02/04. New rotary