

=====

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

=====

Company: X2nsat

Site Name, State: Petaluma, CA

Call Sign:

Latitude (NAD83) 38 16 27.2 N

Longitude (NAD83) 122 39 48.5 W

Elevation AMSL (ft/m) 36.00 10.97

Receive Frequency Range (MHz) 3700.00 4200.00

Transmit Frequency Range (MHz) 5925.00 6425.00

Range of Satellite Orbital Long. (deg W) 72 139

Range of Azimuths from North (deg) 116.91 205.32

Antenna Centerline (ft/m) 9.84 3.00

Antenna Elevation Angles (deg) 21.79 42.49

-----

Equipment Parameters		3.95 GHz	6.17 GHz
-----			
Antenna Gain, Main Beam	(dbI)	43.80	46.60
15 DB Half Beamwidth	(deg)	2.44	3.80
Antennas	Receive: ANDREW ES45T-T (4.5 METER)		
	Transmit: ANDREW ES45T-R (4.5 METER)		
Max Transmitter Power	(dbW/4KHz)		-15.50
Max EIRP Main Beam	(dbW/4KHz)		31.10
Modulation / Emission Designator	Digital	11M3G7D 3M10G7D 2M50G7D	1M20G7D

-----

Coordination Parameters		3.95 GHz	6.17 GHz
-----			
Max Greater Circle Distances	(km)	255.63	130.64
Max Rain Scatter Distances	(km)	275.86	100.00
Max Interference Power Long Term	(dbW)	-140.60	-151.80
Max Interference Power Short Term	(dbW)	-118.40	-130.80
Rain Zone / Radio Zone		3	A







MICRONET COMMUNICATIONS, INC.  
01-04-2012

File: M1129002

page 5

```
=====
Discrimination Angle      Transmission Loss      -      3.95 GHz RECEIVE
=====
```

Company: X2nsat

Site Name, State: Petaluma, CA

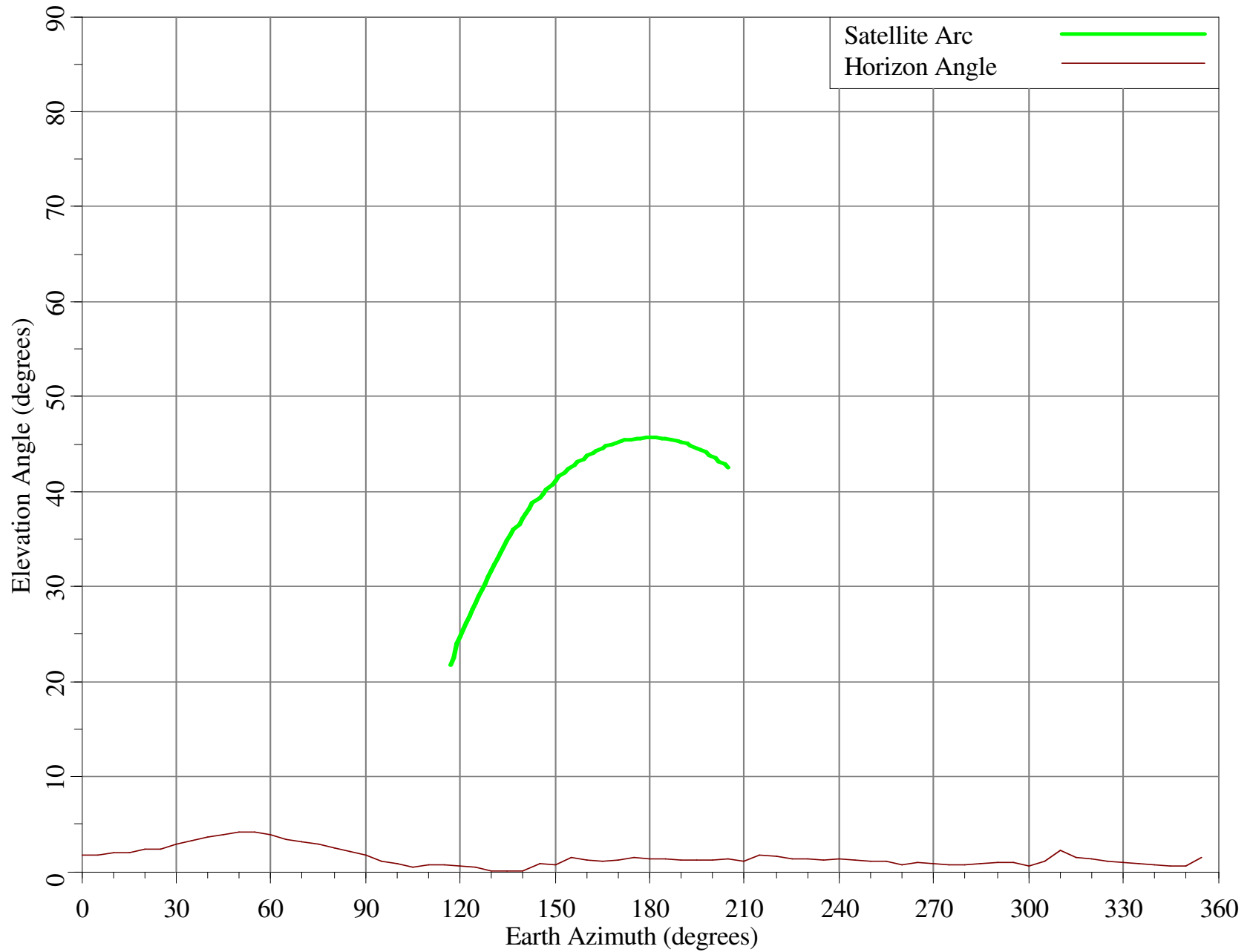
Call Sign:

Latitude (NAD83) 38 16 27.2 N Longitude (NAD83) 122 39 48.5 W

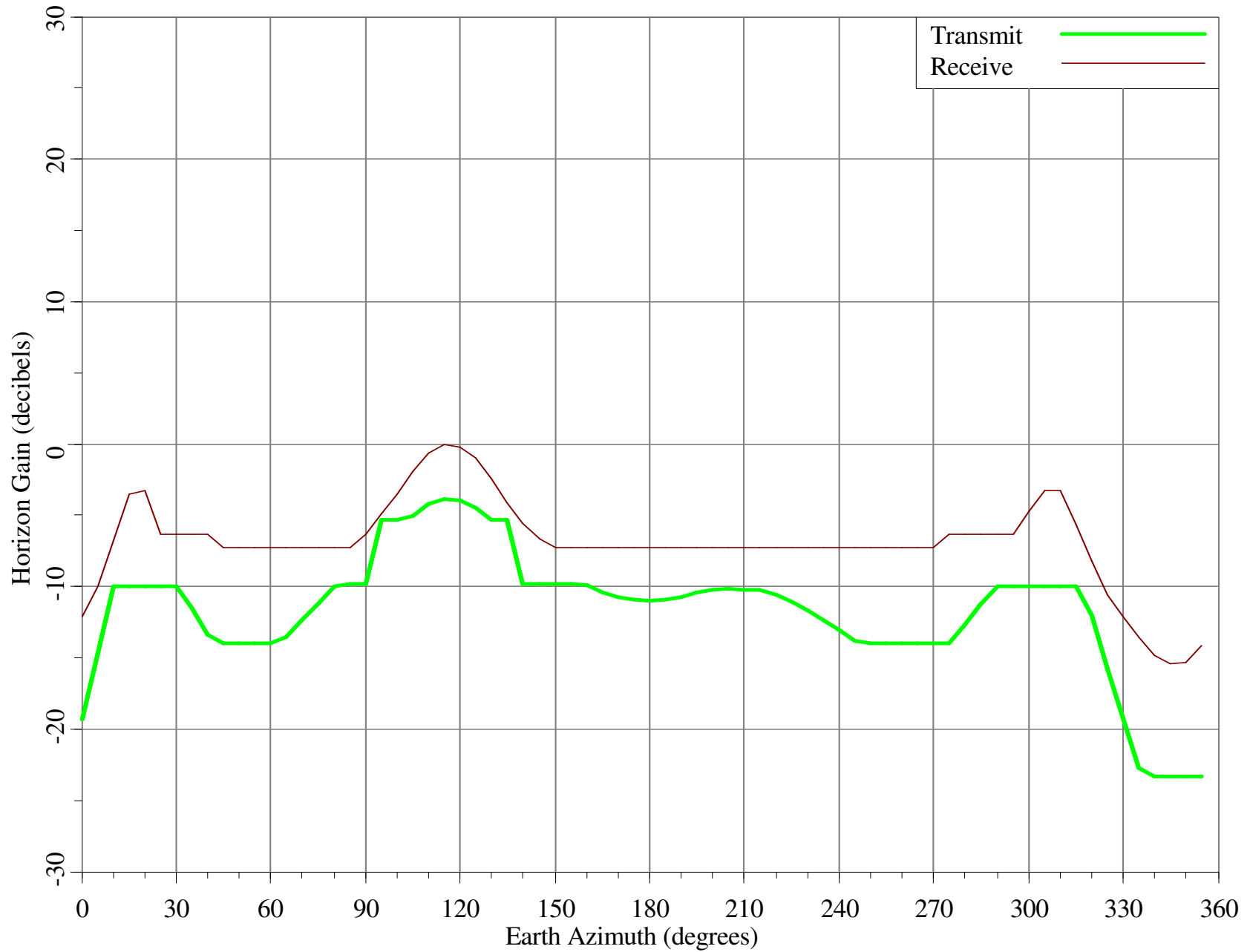
North Azimuth (deg)	Minimum Discrimination Angle (deg)	Trans Loss (db)	North Azimuth (deg)	Minimum Discrimination Angle (deg)	Trans Loss (db)
0	114.148	184.96	180	44.333	185.79
5	109.569	184.96	185	44.094	185.85
10	104.932	184.96	190	43.440	186.01
15	100.291	184.96	195	42.275	186.31
20	95.557	184.96	200	41.519	186.50
25	90.885	184.96	205	41.193	186.59
30	86.078	184.96	210	41.570	186.49
35	81.289	184.96	215	41.671	186.46
40	76.531	184.96	220	42.933	186.14
45	71.759	184.96	225	44.712	185.70
50	67.029	184.96	230	46.690	185.23
55	62.441	184.96	235	49.115	184.96
60	57.938	184.96	240	51.544	184.96
65	53.559	184.96	245	54.448	184.96
70	49.162	184.96	250	57.516	184.96
75	44.849	185.67	255	60.662	184.96
80	40.732	186.71	260	64.201	184.96
85	36.735	187.83	265	67.428	184.96
90	32.949	189.01	270	70.989	184.96
95	29.692	190.14	275	74.630	184.96
100	26.669	191.31	280	78.310	184.96
105	24.281	192.33	285	81.861	184.96
110	22.100	193.35	290	85.398	184.96
115	21.150	193.83	295	89.085	184.96
120	21.442	193.68	300	93.045	184.96
125	22.777	193.02	305	96.425	184.96
130	25.187	191.93	310	99.270	184.96
135	28.011	190.78	315	103.321	184.96
140	31.125	189.63	320	106.962	184.96
145	33.564	188.81	325	110.609	184.96
150	36.319	187.96	330	114.074	184.96
155	38.157	187.42	335	117.408	184.96
160	40.493	186.78	340	120.689	184.96
165	42.306	186.30	345	123.783	184.96
170	43.473	186.00	350	123.671	184.96
175	43.992	185.88	355	118.741	184.96

# Horizon Angle & Satellite Arc for Petaluma, CA

## Micronet Communications, Inc.

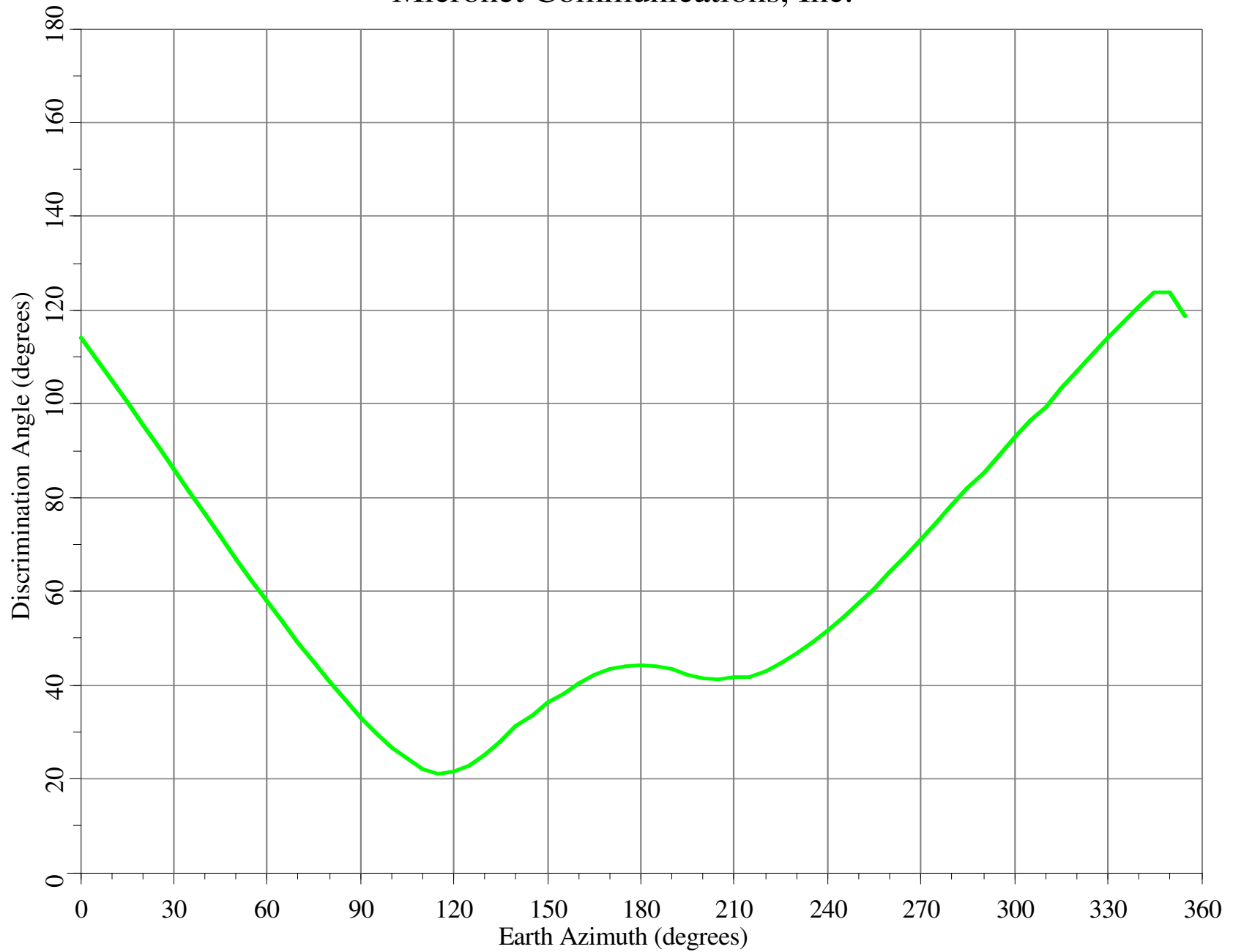


# Horizon Gain for Petaluma, CA Micronet Communications, Inc.



# Minimum Discrimination Angles for Petaluma, CA

## Micronet Communications, Inc.





# Final Contour & Rain Scatter for Petaluma, CA - Transmit



SCALE - 1:10000000 1 inch = 157.8 miles

# Final Contour & Rain Scatter for Petaluma, CA - Receive

SCALE - 1:10000000 1 inch = 157.8 miles

