

# PREDICTING THE OPERATIONS: SUNSPOTS AND HUMIDITY

Sep 3 2002

Edited Oct 08 2002

Edited Nov 08 2002

Edited Oct 29 2003

(Recommend printing in landscape mode)

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**SANTA FE REPORT : INDEX ON 112702 AT 0900 IS 44**

**Model correlation is statistically significant at 98% level as of 11/08/02**

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## **Additional Notes Oct 29 2003:**

**Please note that this article was authored on Sep 3 2002. The additional factor of *vertical column aerosol density*, most easily measured by star magnitude visibility, appears also to be significant in the prediction of the onset of the aerosol operations in a particular region.**

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Research over an extended period of time indicates that there is likely a strong relationship between the appearance of the aerosol operations in a given locale and time and the interaction of the following primary variables: sunspot activity, relative humidity, change in relative humidity and the relative cloud cover. The inclusion of the solar activity within this current examination may be a significant avenue of research that establishes a series of ties with earlier discussions related to ionospheric, electromagnetic and defense projects, applications of HAARP (High Frequency Active Auroral Research Program) and plasma physics that also appear on this site. Current studies on planetary physics and celestial considerations may demonstrate further relationships to the aerosol operations in the future.

This current work expands upon earlier presentations that have been made in the spring of 2001 related primarily to the relative humidity issue. These papers are available at [The Aerosol Reports : United States; A Model Under Development](#) and [The Aerosol Report](#). This earlier work focused upon the consideration of relative humidity values across the nation in conjunction with observed aerosol operations. The result of that earlier work indicated a close link between increased relative humidity levels that were scaled according to local conditions and the likelihood of concurrent aerosol operations. Other researchers and considerable anecdotal information have also added to that body of correlations that now exist.

Since that time, increased attention has been given to the drought crisis that has emerged over the last three to four years, and further links from a scientific standpoint have been made to the aerosol operations with these events. Readers may wish to refer to the following paper [Drought Inducement](#) as well as an audio interview with Mr. Jeff Rense (June 4, 2002) on this same topic. Readers may also wish to become familiar with the the refuting arguments that I have made against any so-called "global warming mitigation" aerosol theories (e.g., Edward Teller) that have been proffered by certain well-publicized journalists and broadcasters. Analysis indicates that the introduced aerosols will aggravate the so-called "global warming" problem rather than lessen it. My concerns on the drought issue and the potential crisis that is likely to affect food production and water availability now and in the future have only been amplified since those presentations were made. It appears to me that it will be difficult, if not impossible, for the drought to subside and crops to improve as long as the aerosol operations continue unchecked without public outcry and action.

Local atmospheric electricity and magnetometer observations have also been added to the data set as of Sep 21 2002 and Oct 07 2002 respectively. These observations are a part of current research that expands upon that presented within this page, and they will be explained further at a later time.

This paper will again be divided into two sections. The latter half will outline the more technical aspects of the study, whereas the general findings are presented above.

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#### Further Discussion:

An empirical model has now been developed of the following form:

$$I = c * [(\log(SS+1) / 2.5)^4 * (\log(RH_{\text{mean}}+1) / 2)^2 * ((\text{deltaRH} + \text{deltaRH}_{\text{max}}) / (2 * \text{deltaRH}_{\text{max}})) * \cos(\%CC * (\text{pi} / 200))] + 10$$

where

SS = daily sunspot number

$RH_{\text{mean}}$  = average of relative humidity in per cent at ground location( $RH_{\text{gnd}}$ ) for the site of interest and the relative humidity in percent at commercial flight elevation( $RH_{\text{el}}$ ) (250mb).

deltaRH = the change in average relative humidity in per cent from the previous day for the site of interest

deltaRH<sub>max</sub> = the absolute value of the maximum change in average relative humidity in per cent from the previous day for the site of interest over the time interval that the model is to be used.



0727	1000	323	58	NA	58	11	Clear	0	0.52	101	Blitz. Extraordinary activity reported in TX, NM, CO.. Normal range of model exceeded.			
0821	2200	209	26	31	28	NA	Clear	0	NA	NA	NA.. Start of modeling; eliminate from scoring of model.			
0822	0900	238	16	21	18	-10	Clear	0	0.12	31	Light ops			
0823	0900	205	38	40	39	21	Clear	0	0.37	75	Heavy ops			
0824	0800	207	43	57	50	11	Clear	0	0.36	72	Heavy ops			
0825	0830	199	23	15	19	-31	Clear	0	0.02	14	No ops directly observed; unusual transformations of aerosol "clouds" in PM; observations insufficient and indeterminate; eliminate from scoring of model.			
0826	0900	136	16	57	36	17	Clear	0	0.24	52	No ops, Jemez Mtn. fire in PM			
0827	0900	105	14	17	15	-21	Clear	0	0.03	15	No ops			
0827	2400	133	46	NA	46	31	Mostly Clear	25	0.29	61	Moist air arrival in PM; heavy ops in PM			
0828	0900	133	63	36	49	3	Partly Cloudy	50	0.14	34	Light to med ops			
0829	0900	87	93	40	66	17	Partly Cloudy	50	0.16	38	Much moisture in sky; light to med ops			
0830	0900	146	72	19	45	-21	Clear	0	0.08	24	Light ops to none			
0831	0900	150	43	45	44	-1	Clear	0	0.19	43	None in Santa Fe(SF) region w/ clear skies; Heavy local ops on east horizon approx 200 miles easterly; aerosol cloud bank on east horizon			
0901	0900	153	51	32	41	-3	Partly Cloudy	50	0.12	31	Light to Med ops east of SF in AM; none in PM. Increasing cumulus clouds. Humidity decreases in PM.			
0902	0900	187	52	28	40	-1	Mostly Cloudy	75	0.08	24	Mostly cloudy skies; No ops visible within clear patches.			
0903	0900	227	68	32	50	10	Mostly Cloudy	75	0.14	34	Mostly Cloudy skies. No ops visible within clear patches.			
0904	1000	266	49	17	33	-17	Clear	0	0.14	34	No ops			
0905	1000	215	34	21	27	-6	Clear	0	0.16	38	No ops			
0906	0800	225	46	59	52	25	Clear	0	0.51	99	Very heavy ops in western sky and ABQ; progressive activities and dispersals over Santa Fe; numerous reports of heavy ops at several locations in U.S.A.			
0907	0900	189	44	33	38	-14	Partly Cloudy	50	0.09	26	Light to no ops. Increasing cloudiness throughout day. Another storm system destroyed.			
0908	0900	180	54	29	42	4	Mostly Clear	25	0.23	50	No ops			
0909	0830	221	75	51	63	21	Mostly Cloudy	75	0.19	44	Light to no ops visible w/in clear patches of sky. Increasing cloudiness through day.			
0910	0900	194	88	33	60	-3	Rain	100	0.00	10	Rain. No vertical visibility. Exclude from scoring.			
0911	0900	226	98	36	67	7	Rain	100	0.00	10	Rain. No vertical visibility. Exclude from scoring.			
0912	0800	213	90	38	64	-3	Mostly Cloudy	75	0.11	29	No ops within clear patches.			

0913	0830	258	89	24	45	-19	Clear	0	0.27	57	No ops			
0914	0900	246	72	23	47	2	Partly Cloudy	50	0.22	49	No ops. Reports of heavy activities in eastern US.			
0915	0900	256	71	22	46	-1	Clear	0	0.30	62	No ops			
0916	0800	168	86	13	50	4	Clear	0	0.25	54	No ops			
0917	0900	190	67	27	47	-3	Clear	0	0.22	48	No ops			
0918	0900	228	53	38	46	-1	Partly Cloudy	25	0.25	53	No ops. Increasing cloudiness throughout day and heavy rain in PM.			
0919	0900	225	76	2	39	-7	Partly Cloudy	50	0.14	35	Cloudy in AM. Partly cloudy later AM and PM. Light ops in northern horizon at sunset.			
0920	0800	206	74	18	46	7	Clear	0	0.31	64	No ops.			
0921	0900	237	66	14	40	-6	Clear	0	0.22	49	No ops	2300 .480		
0922	0800	217	59	16	37	-3	Mostly Clear	25	0.21	46	No ops. Measurements 1500-1800 taken at Jack's Creek, Elev 9500'	0030 .476 0900 .477 0915 .475 1500 .478 1615 .499 1630 .501 1800 .491 2100 .488		
0923	0800	218	66	18	42	5	Clear	0	0.29	61	No ops	0030 .473 0900 .479 1300 .477 2315 .471		
0924	0900	209	57	31	44	2	Mostly Clear	25	0.25	53	No ops. Cumulus clouds diffused by aerosols.	1000 .479 1300 .476		
0925	0800	240	59	25	42	-2	Mostly Clear	25	0.24	52	No ops. Cumulus clouds diffused by aerosols.	0015 .474 0100 .472 0130 .474 0900 .475 1545 .502 1815 .477		
0926	0800	230	49	31	40	-2	Partly Cloudy	50	0.17	40	No ops. Repeated diffusion of clouds by aerosol base.	0900 .474		
0927	0800	157	56	25	40	0	Clear	0	0.20	44	No ops.	0900 .475 1500 .467 1530 .465 1530 .466 2000 .475		
0928	0800	185	93	19	56	16	Rain	100	0.00	10	Rain. No vertical visibility. Exclude from scoring.	0030 .476 0900 .476		
0929	0900	140	71	19	45	-11	Mostly Cloudy	75	0.05	19	No ops.	0830 .481 0830 .493 0915 .473 0930 .475		
0930	0900	146	62	35	49	4	Clear	0	0.22	49	No ops. Note <a href="#">solar storm index</a> @100+.	0930 .486 0930 .494 1115 .488 1115 .477 1115 .473 1240 .495 1645 .480 1645 .483		
1001	0800	94	77	19	48	-1	Partly Cloudy	50	0.10	27	No ops. Note <a href="#">solar storm index</a> @100+.	0015 .480 0015 .474 1300 .478 1300 .482 1300 .483 1300 .493 1800 .509 1800 .504		
1002	0800	105	66	22	44	-4	Clear	0	0.13	33	No ops. Solar wind storm ceases.	1015 .494 1015 .485 1015 .477		
1003	0800	99	65	20	43	-1	Clear	0	0.13	33	No ops. Solar storm increases again.	0915 .475 0915 .473 0915 .483 1215 .493 1215 .509 1445 .466 1445 .466 1445 .460		
1004	0830	81	46	16	31	-12	Clear	0	0.06	21	No ops.	1000 .475 1000 .476		

1005	0900	98	32	30	31	0	Clear	0	0.11	30	No local observations available. Exclude from scoring. Extreme sinus allergic response in AM after overnight outdoor exposure in San Luus Valley CO. Visibility degradation from aerosols apparent.	1030 .452		
1006	0900	155	35	56	45	15	Clear	0	0.30	62	No local observations available. Exclude from scoring. Reports of heavy ops in Phoenix and Tuscon and SW NM on CTTUSA after hiatus. Msmts. taken at Salida CO, Elev 7000'.	1000 .460 1000 .460 1215 .499 1215 .483 1215 .477		
1007	0900	126	63	18	40	-5	Partly Cloudy	50	0.10	28	No ops. Increasing cloudiness. Heavy aerosol cloud bank to S. and SW. <a href="#">Solar storm index</a> @84.	0930 .460 0930 .458 0930 .459 1245 .463 1245 .458 1500 .459 1500 .453 1500 .457 1915 .466 1915 .468 1915 .460 2000 .483	2400 398	
1008	0830	143	63	61	62	22	Mostly Clear	25	0.34	69	Light to med ops. Heavy aerosol cloud bank over ABQ; in process of extending to Santa Fe. Wind increases. Dissipation of aerosol bank by 1415. Observations @1530 in Espanola NM under clear skies.	1000 .475 1000 .473 1000 .472 1100 .475 1100 .475 1100 .479 1315 .473 1315 .473 1315 .473 1400 .475 1400 .473 1400 .473 1530 .483 1530 .506 1945 .505 1945 .481	0100 405.00 0215 405.25 0830 405.25 0900 406.00 1100 405.50 1200 404.00 1300 403.00 1900 402.00	7.0 0.2 0.0 1.5 -0.2 -1.5 -1.0 -0.2 RMS=2.6 n=8
1009	0800	128	64	23	44	-18	Clear	0	0.08	24	No ops Local hospital employee report of increased respiratory and sinus illness amongst employees.	0830 .474 0830 .476 0830 .475 1330 .472 1330 .478 1330 .474	0800 401.50 0815 402.00 0845 402.25 0930 402.25 2100 397.50	0.0 2.0 0.3 0.0 -.4 RMS=0.9 n=5
1010	0900	226	33	26	29	-15	Clear	0	0.13	32	No ops. Increased reports of heavy ops across other portions of country at CTTUSA. Rapid respiratory illness onset approx 1600.	0930 .473 0930 .475 1015 .479 1015 .489 1015 .474 1350 .495 1350 .502 1350 .469 2115 .474 2115 .472 2115 .478	0900 401.75 2030 401.75	0.4 0.0 RMS=0.3 n=2
1011	0900	244	42	38	40	11	Clear	0	0.36	73	Light ops overhead in AM. Extensive aerosol bank to west increasing throughout day. Winds increase from west. Light to med ops toward PM as haze extends. Significant respiratory illness continues.	0930 .475 1530 .472 1530 .478 1530 .478 1715 .481 1715 .479 1715 .474	0900 402.00 1500 398.75 1700 398.50	0.0 -0.5 -0.1 RMS=0.3 n=3

1012	0900	178	38	56	47	7	Mostly Clear	25	0.26	55	Med to heavy operations in conjunction with aerosol based cloud bank that continues from yesterday. Significant respiratory illness continues. Note www.wunderground.com reports conditions as being continuously clear in spite of rapidly increasing "cloud" bank. Note rapid change in local magnetic field not occurring with HAARP magnetometer readings.	1245 .473 1245 .472 1245 .474 1845 .478 1845 .480 1845 .476	1115 400.00 1230 402.00 1430 400.50 1600 397.00 1845 399.00 2230 400.50	1.6 0.8 -1.4 -2.0 0.4 RMS=1.4 n=5
1013	0900	171	37	30	33	-14	Cloudy	100	0.00	10	Full cloud cover. No vertical visibility. Exclude from scoring. Note changes in local magnetic field not occurring with HAARP magnetometer readings. Sky clears in afternoon. Magnetic field variation decreases as sky clears.	0930 .475 0930 .472 0930 .472 1630 .476	0800 400.00 0830 399.00 0845 401.25 0945 401.25 1145 398.00 1415 399.50 1500 398.50 1630 398.75 2300 400.75	0.0 -2.0 9.0 0.0 -1.6 0.6 -1.3 0.2 0.3 RMS=3.2 n=9
1014	0800	167	65	28	46	13	Mostly Clear (aerosol based)	25	0.28	59	Medium to heavy ops. High level aerosol bank developing. Increasing winds again. HAARP magnetometer shows high activity for a few hours. Limited mag observations. Atmosphere trashed.	0900 .473 0900 .473 0900 .472 1745 .474 1745 .476 1745 .475 1745 .476	0830 402.30 0900 402.80 2245 402.00	0.2 1.0 -0.8 RMS=0.7 n=3
1015	0830	175	42	38	40	-6	Mostly 'Cloudy' (aerosol based)	25	0.06	38	Light to med ops; a continuing operation. Extensive high level 'cloud' cover is primarily aerosol based. Relatively low level mag activity at HAARP. Extensive aerosol bank developed over ABQ carrying through sunset. Emergency broadcast system becomes active (unnannounced; no intro) on AM bands today. Consider heightened alert status. Numerous reports of heavy ops in varied locations across country. Note increased current with bank over ABQ vs Santa Fe.; Santa Fe cleared approx 2 hrs. prior to sunset. Notice sudden increase in current (i) after clearing of sky. Same event in Espanola 100802. HAARP mag remains quiet.	0930 .477 0930 .473 0930 .473 2150 .486 2150 .495 2150 .491	0015 402.30 0830 402.50 0900 403.00 1030 404.00 1115 404.00 1815 403.75 2130 405.00 2300 408.00 2355 409.80	0.2 0.0 1.0 0.6 0.0 -0.0 0.4 2.0 2.0 RMS=1.0 n=9

1016	0845	165	55	48	51	11	Partly 'Cloudy' (aerosol based)	25	0.28	59	'Cloud' base is completely artificial. A major operation continues-heavy ops. Ops continued throughout previous night visible by moonlight. Low level persistent cough returns; symptoms again consistent with mycoplasma. Reports at CTTUSA of heavy ops across US and Canada continue. CME on sun Oct 14; magnetic filament collapse on Sun Oct 15. Stable I with aerosol bank.	0900 .473 0900 .473 0900 .473 1750 .473 1750 .473	0900 409.60 1645 408.00 1800 408.00 2230 407.60	0.0 -0.2 0.0 -.1 RMS=0.1
1017	0830	182	51	25	38	-13	Partly Cloudy(significant aerosol influence remains)	50	0.10	27	No ops in AM hours. Effects from major operation over past 5-6 days easily visible. 'Cloud' base is a mix of cumulus, stratus and aerosol base. Stable I readings remain. Increasing clouds through day. Ops visible near sundown with increased clouds; another storm system degraded or destroyed. ELF meter during day indicates highly stable mag field; measurements concur.	0830 .475 0830 .476 0830 .475	0800 407.25 1930 407.75	0.0 0.0 RMS=0.0 n=2
1018	0900	215	80	26	53	15	Cloudy(significant aerosol influence)	100	0.00	10	No vertical visibility in AM..Exclude from scoring. I and B stable. Mix of cumulus and aerosol base in PM; mostly cloudy.	0900 .473 0900 .473 0900 .475 2145 .476 2145 .471 2145 .474 2145 .472	0900 407.20 1030 406.75 1100 406.50 1145 406.75 1300 407.50 1445 407.25 1645 407.00 2215 407.00	0.0 -0.3 -0.5 0.3 0.6 -0.1 0.1 0.0 RMS=0.3 n=8
1019	0900	200	73	33	53	0	Mostly Clear	25	0.25	54	No ops. Sky clears.	LF (Low Frequency) Data Monitoring Begins	0900 410.00 2000 406.90 2230 406.75	0.3 -0.3 0.0 RMS=0.2 n=3
1020	0830	156	74	33	53	0	Clear	0	0.23	50	No ops. HAARP mag. quiet also.		0830 406.50 2000 406.50	0.0 0.0 RMS=0.0 n=2
1021	0900	179	54	29	42	-11	Mostly Clear.	25	0.14	34	No ops. Significant aerosol influence upon 'clouds'. HAARP mag remains quiet. Significant sunspot group has developed, #162. Mag spike at sunset - LF meter correlates.		0015 407.50 0200 407.50 0900 408.00 1115 407.60 1400 407.50 1800 407.00 1845 406.25 2000 406.25 2400 406.00	0.2 0.0 0.1 -0.2 -0.0 -0.1 -1.0 0.0 -0.1 RMS=0.4 n=9
1022	0815	NA (179 used)	62	32	47	5	Mostly Clear	25	0.25	53	No ops. Med.		0800 406.25 1945 406.00	0.0 0.0 RMS=0.0 n=2
1023	0815	132	83	26	54	7	Partly Cloudy	50	0.17	40	No ops. Thunder in AM, no rain. Note <a href="#">solar storm index @100+</a> . Rain in PM; dynamic extended lightning storm in ABQ. LF meter shows reversal with arrival of rain.		0815 405.90 1000 408.20 1300 408.40 1930 405.30	0.0 1.3 0.1 -0.5 RMS=0.7 n=4



1024	0900	149	96	26	61	7	Partly Cloudy	50	0.19	44	No ops. Extreme magnetic disturbance at HAARP mag in PM. <b>Radioonde data not available</b> Exclude from scoring.	0200 406.20 0830 406.10 2315 408.30	0.1 0.0 0.1 RMS=0.1 n=3
1025	0930	149	89	26	57	-4	Mostly Clear	25	0.18	42	No ops overhead in AM.. <b>Radioonde data not available.</b> Extremely heavy ops begin at midday and carry through afternoon. Heavy aerosol bank visible over ABQ in late AM, extends with heavy aerosol ops over Santa Fe throughout day. LF meter depicts significant aberration. Exclude from scoring.	0945 408.10 1415 406.00 2115 405.80	0.0 0.4 0.0 RMS=0.2 n=3
1026	0915	151	71	26	48	-9	Cloudy	100	0.00	10	<b>Radioonde data not available.</b> Exclude from scoring. Frequent heavy rains.	0930 408.10 1215 408.75 1900 407.50 2000 407.75 2300 407.25	0.2 0.2 -0.2 0.3 0.2 RMS=0.2 n=5
1027	0930	143	89	32	61	13	Partly Cloudy	50	0.22	48	No ops. Note <a href="#">solar storm index @58</a> . Solar storm index at 1830 is 100+. Significant magnetic aberration appears on LF meter in afternoon.	0930 408.40 1830 408.75	0.1 0.0 RMS=0.1 n=3
1028	0830	120	96	23	60	-1	Partly Cloudy	50	0.15	36	No ops.	0830 408.30	0.0 RMS=0.0 n=1
1029	0815	143	79	30	54	-6	Mostly Cloudy	75	0.07	22	No ops visible w/in clear patches. LF patterns differ from previous week.	0815 408.10 2330 407.70	0.0 0.0 RMS=0.0 n=2
1030	0830	168	72	29	51	-3	Mostly Clear	25	0.19	44	No ops.	0830 407.80	0.0 RMS=0 n=1
1031	0845	182	79	25	52	1	Clear after fog dissipates in AM.	0	0.26	55	No ops directly overhead in AM. Fog in AM, clearing in AM. Major and extensive aerosol bank develops to W-NW on horizon by mid-morning. Aerosol bank extends toward easterly toward Santa Fe by md-afternoon. LF meter shows repeat concave increase in frequency structure in correspondence with encroaching aerosol bank. Sinus allergic response begins.	0030 407.20 0845 407.00 1330 407.40 1730 407.00	0.0 0.0 0.1 -0.1 RMS=0.1 n=4
1101	0830	134	79	36	57	5	Mostly Cloudy	75	0.09	26	No ops visible within clear section on northern horizon.	0845 407.6 2200 406.0	0.0 0.1 RMS=0.1 n=2
1102	1000	169	81	10	45	-12	Cloudy	100	0.00	10	No vertical visibility. Exclude from scoring.	0915 405.2 2100 402.3 2145 403.0	-0.1 -0.2 0.9 RMS=0.5 n=3

1103	0845	177	47	45	46	1	Mostly Clear	25	0.22	48	No ops in AM overhead.. Heavy aerosol based cloud bank in southern sky. High level aerosol based 'clouds' with wave formations overhead. Magnetic field shows increased activity. <a href="#">Solar storm index</a> @78. Strong increase in LF frequency recorded yesterday PM and night. Artificial aerosol bank extends in coverage throughout day; appearance completely artificial. Report of demarcation line to north at Hooper CO. Aerosol ops begin and visible overhead immediately prior to sunset. Note increased magnetometer activity. LF meter shows much activity and requires repeated recalibration. ELF frequencies detected with developed resonant circuit. Readings found at 2.5Hz (+/- 0.5Hz), 16Hz (+/- 1.0Hz), 21Hz (+/- 1.0Hz) and 31Hz (+/- 1.0Hz). Also 60Hz and 120Hz (2nd harmonic) power grid detected.	0130 405.8 0845 405.3 1045 406.2 1815 404.8 2030 403.0	0.8 -0.1 0.4 -0.2 -0.8 RMS=0.5 n=5
1104	0845	217	100	2	51	5	Snow	100	0.00	10	No vertical visibility. Exclude from scoring. LF meter shows significant rise in frequency throughout previous night. Note magnetometer activity.	0100 402.1 0845 402.2 1000 405.5 2015 406.0	-0.2 0.0 2.6 0.0 RMS=1.3 n=3
1105	0830	166	70	22	46	-5	Clear	0	0.19	43	No ops. LF meter active. HAARP magnetometer active.	0830 405.3 1115 404.8	-0.1 -0.2 RMS=0.2 n=2
1106	0800	175	66	21	43	-3	Clear	0	0.20	46	No ops.	0800 404.1	0.0 RMS=0 n=1
1107	0930	234	77	43	60	17	Clear	0	0.48	94	Extremely heavy ops on northern horizon and in ABQ in AM hours. Direction of ops is E-W. Aerosol bank extends over Santa Fe region through mid-day. Heavy aerosol ops conducted in SF post 1200. Notice increased magnetometer activity.	0030 407.8 0915 404.0 1015 404.3 1515 407.2 1815 407.8	0.2 -0.4 0.3 0.6 0.2 RMS=0.4 n=5
1108	0800	259	43	36	40	-20	Mostly Cloudy	75	0.04	18	No ops visible within clear patches. Storm front negatively impacted w/ aerosol contamination of atmosphere.	0800 407.5 1345 408.3	0.0 0.2 RMS=0.1 n=2

1109	0845	252	81	3	42	2	Rain	100		10	No vertical visibility. Exclude from scoring. Note magnetometer activity. High winds. Heavy rains at night HAARP has no unusual activity; exceptionally flat magnetometer. Conflict between local mag and HAARP again.	0845 411.2 1300 408.8 1715 406.1 2130 402.2 2200 401.0 2400 400.2	0.2 -0.6 -0.6 0.9 2.4 0.4 RMS=1.1 n=6
1110							Rain	100	0.00	10	No vertical visibility. Exclude from scoring.		
1111	0830	219	53	33	43	1	Mostly Cloudy	75	0.10	28	No ops visible within clear patches.	0830 408.1	0.2
1112	0900	197	67	25	46	3	Clear	0	0.27	57	No ops in AM. Extremely heavy ops begin at midday in narrow 20 degree band essentially directly overhead. Appears as a target zone. Aerosol bank diffuses overhead in localized region. Extremely heavy ops begin in afternoon and carry through day. Ops visible at night. Emergency broadcast comes on unannounced. Higher threat level implied through this and news accounts. Minimum no. of mag. readings.	0900 407.2 1200 406.8	0.0
1113	0830	155	43	55	49	3	Clear w/exception to heavy ops	0	0.23	50	Extremely heavy ops. Major activity. Minimum no. of mag. readings.	0900 404.0	0.0
1114	0845	182	67	43	55	6	Mostly Cloudy	75	0.11	30	No ops visible. Cloud development significantly degraded by aerosol base. Note low mag reading.	0845 397.6	-0.3
1115	0900	185	89	30	60	5	Clear	0	0.31	64	Direct observations not available. Exclude from scoring.		
1116	0900	185	72	25	49	-11	Clear	0	0.16	39	Direct observations not available. Exclude from scoring. Heavy ops in Durango CO.		
1117	0900	162	46	42	44	-5	Clear	0	0.18	42	Direct observations not available. Exclude from scoring. Heavy ops in Durango CO. Heavy ops in ABQ reported.		
1118	0900	139	36	25	31	-13	Clear	0	0.10	27	No ops. Increased winds.	0930 396.3	
1119	0900	119	43	41	42	11	Clear	0	0.21	47	No ops. Aerosol bank visible on W. horizon in afternoon.	0900 397.5	
1120	0930	105	46	32	39	-3	Clear	0	0.13	32	No ops. <a href="#">Solar storm index @100+</a>	0930 403.9	
1121	0900	108	51	19	35	-4	Clear	0	0.12	31	No ops.	0900 408.7	
1122	0900	143	65	19	42	7	Clear	0	0.22	42	No ops during day. Ops begin at night, visible by moonlight.		
1123	0800	124	57	33	45	3	Minimal natural cloud cover; aerosol banks increasing.	0	0.18	42	Heavy ops apparently conducted at night; heavy aerosol bank over ABQ and extending towards Santa Fe. Med op activity overhead. Note earlier active solar storm index on 1120.	0800 403.2	

1124	0915	126	44	17	30	-14	Clear	0	0.08	24	No ops.		0915 407.3	
1125	0900	120	75	40	58	28	Partly Cloudy; heavy aerosol compent to 'cloud' base	50	0.31	52	Heavy ops in mid-day. Numerous reports of heavy activities across country..			
1126	0915	106	45	27	36	-22	Mostly Clear; aerosol bank on southern horizon.	25	0.05	18	No ops		0915 403.2	
11274	0900	100	63	32	47	11	Clear	0	0.19	44	No ops		0900 403.2	

Readers may see that the model over the interval considered is showing a fairly high level of accuracy in predicting when conditions for aerosol operations are more favorable for this region. It is to be understood that the model is NOT expected to predict the actual occurrence of operations; only the existence of favorable conditions for the operations. **A failure of the model occurs when a low index value is computed but observations of heavy aerosol operations occur overhead.** Failure can not be positively established when a high index is computed and heavy aerosol operations DO NOT occur, as suitable CONDITIONS only are considered within the model. Specific additional environmental and physical factors that produce failure are to be identified at that time; other citizens may wish to contribute to that goal. Additional evaluations over time will demonstrate the success or failure of this model.

It is of interest to discuss how the consideration of solar activity has come to be incorporated into this model in addition to the previous consideration of relative humidity alone. This brings to attention the events of and surrounding July 27 of this year. Observations of aerosol activity prior to this date, especially during the months of June and the first half of July 2002 appeared to be declining based upon commonly used reporting sources. During the last week of July, this appeared to change as reports suddenly and dramatically increased. On July 27 2002 the following public report was made by Lorie Kramer, a sincere and dedicated activist of Chemtrail Tracking USA:

"BLITZ in SW Houston, Sat Jul 27 2002

This is the absolute WORST spraying I have seen in quite a few months. They are laying it down and have been since early morning. The smear is thicker than I've seen for 2 years. INCREDIBLE. I bought a disposable camera but won't be able to get the film developed until tomorrow or Monday, when I do I'll post it. CREEPS!"

The same intensity of aerosol operations was further confirmed by simultaneous observations in New Mexico and Colorado from equally reliable sources. One must ask, what was unique in an environmental, meteorological or geophysical sense on or around the date of July 27, 2002 that might affect the sudden increase in intensive operations? One factor which deserves close attention is the daily sunspot number, as it ranked upon this date as one of the highest values seen within recent years. The monthly sunspot number in June had declined to 84.5, one of the lowest values of the three previous years. The daily sunspot number on July 27 reached a peak of 323, and remained at an extremely high level for several days before and after this date. This event, combined with humidity studies during the last year and a half, as well as consideration of the ionization properties of barium (see previous research) is unique enough to warrant further evaluation in the model that has been developed above. Observations over time will determine if

the hypothesis of solar energy combined with humidity aspects is justified or not; studies to confirm or refute the model are welcomed by other citizens.

**Scoring the model:**

There are several different methods by which the model above may be evaluated; a favorable result appears to be produced by a variety of tests at this point. The means that will be chosen to evaluate is Spearman's correlation, a non-parametric statistical test which does not require any assumptions about the distribution of the data. Spearman's correlation is dependent upon a ranking system, which is more reasonable in this case to accommodate any subjective qualities of the observational data that is to be used. The following ranking system will be used for the observational data:

- 0-50 None to light ops
- 50-80 Light to medium ops
- 80-100 Medium to heavy ops

The midpoint of these intervals will be used to establish a ranking system. The details of this statistical test will not be explained here; readers may wish to refer to "Practical Statistics" by Russell Langley, Dover, 1970 for further information. **The reader is not expected to follow the mechanics of this test procedure without the use of this reference or its equivalent.**

The test will be completed as follows for the period from 082102 to 110802 and on 072702, with excluded values as noted above. As the tabulation of all data is lengthy, the only the final tabulations and z score computation will be shown:

$$n = 68$$

$$\text{Sum of } D^2 = 28264$$

Ties:

$t_{50} = 1$	10412 ( 1) = 10412.5
$t_9 = 2$	60 (2) = 120
$t_2 = 11$	0.5 (11) = 5.5
$t_3 = 6$	2 (6) = 12
$t_4 = 1$	5 ( 1) = 5
	Sum = 10555

$$D^2 + T = 38819$$

$$(1 / 6) * (n^3 - n) = 54, 740$$

$$38819 / 54740 = .709$$

$$1 - .709 = .291$$

$$Z = 68^{1/2} * (.291) = 2.40$$

**Z is significant at 98% level.**

From the reference above (page 204), the z score for this data set is computed at 2.40. The results of this test are therefore significant at the 98%+ level. This indicates a likely significant correlation between the model data and the observational data. Correlation does not infer causality. The results of this test demonstrate that the model proposed is worthy of continued use.