

**North American Meteor Network
2008 Annual Review
Mark Davis**

Overall we had a very productive year. Observer's witnessed some nice displays by several of the major showers and we had another solid year with membership increasing in our network. The final tally for 2008 yielded a total of 45 observers recording 14,034 meteors in 926.84 hours of observing!

Observers submitting reports during 2008 are listed below (in order of number of hours observed):

Observer	# of nights	# of hours	# of meteors
Paul Martsching	50	169.17	1540
Wayne Hally	47	123.97	1160
Salvador Aguirre	39	120.30	1057
Koen Miskotte	28	75.99	2287
Pierre Martin	23	54.40	1311
William Watson	19	50.18	699
Gregg Pasterick	13	37.34	603
Bill Godley	23	32.84	324
Mark Davis	16	27.53	307
Robert Lunsford	8	26.50	412
Robert Hays, Jr.	14	26.17	508
Bruce McCurdy	10	24.85	566
George Gliba	12	22.93	480
Roberto Haver	10	20.45	480
Robin Gray	16	16.52	187
David Swann	8	16.00	80
Javor Kac	6	12.63	273
Richard Taibi	5	11.39	212
Wesley Stone	5	9.03	512
Ken Hodonsky	4	7.29	183
Alan Hilburn	2	5.28	44
Alister Ling	1	4.50	100
Eric Flescher	2	3.67	18
Felix Martinez	1	3.50	45
David Oesper	2	2.51	38
Robert Young	1	2.50	64
Harry Waldron	2	2.25	35
Iepure Albert	1	2.25	48
Daniel Gruen	3	2.09	18
Kristi Wenger	2	2.00	25
Michael Boschat	2	2.00	6
Kim Youmans	1	2.00	90
Stephen Bedingfield	1	1.75	34
Rainer Arlt	1	1.65	85
Pat Branch	1	1.50	1
Richard Kramer	2	1.40	9
Pete Bias	1	1.17	21
Karl Antier	1	1.17	15
Kim Hay	1	1.09	26
Mike Linnolt	1	1.00	75
Doug Love	1	1.00	21

Bill Walbek	1	1.00	12
Tibor Csorgei	1	0.99	12
J.D. Strikis	1	0.83	6
Shy Halatz	1	0.67	5

The North American Meteor Network is truly international as observers sent reports from Canada, France, Germany, Greece, Israel, Italy, Mexico, Netherlands, Romania, Slovakia, Slovenia and the United States.

Observers provided good coverage throughout most of the year. As expected, if it weren't for the Quadrantids and Geminids in January and December, there would be very few observers braving the cold in the northern hemisphere winter period. As in most years, we again saw the increased concentration of observations during the months of July, August, October and November. August and October were our most active months by far, a fact reflected in the number of Perseid and Orionid meteors reported.

The monthly totals, in hours observed and number of nights, are listed below. To the right of the monthly totals is a list of the numbers of meteors observed for selected showers.

Month	Hours	Nights	Shower	# of meteors reported
January	57.46	3	Quadrantids	754
February	9.61	4	Eta Aquarids	131
March	1.60	1	S. Delta Aquarids	730
April	24.76	10	Alpha Capricornids	233
May	73.80	15	Perseids	4,132
June	20.96	8	Kappa Cygnids	86
July	103.25	16	Orionids	1,187
August	279.75	24	Southern Taurids	243
September	46.77	12	Northern Taurids	194
October	153.68	24	Leonids	147
November	106.13	23	Geminids	281
December	49.07	19	Sporadics	4,883

Membership slightly increased this year and currently stands at 680 members worldwide. Lew Gramer continues to maintain the Internet mailing list 'meteorobs'. This list is very active during most of the year and provides discussions covering all topics of meteor observing. Throughout the year, our website was updated several times each month with new information and new observing summaries. During 2008 we were able to add a summary of all meteors reported during the years 2004 to 2007. This summary was developed and is maintained by our newsletter writer Wayne Hally. His first full year writing the newsletter was also completed in 2008 with eleven issues being published during the year. Our outreach efforts continued with the distribution of several different brochures covering various topics related to meteor observing. Cathy Hall designed and authored these brochures, and continues to provide us with annual updated versions. Kevin Kilkenny continued his efforts with our fireball program in 2008. He receives and investigates all of our fireball reports and provides the summaries that are published on our website.

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Monthly Reviews
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January started off with the Quadrantid meteor shower. This year we collected a bit more than 55 hours of reports in which 749 Quadrantids were reported. Pierre Martin observing from New Jersey had the highest rate seeing about 53 in a little more than 1 hour of observing on the morning of January 4.

February was very slow in both numbers of observers and observing hours. Only 3 observers were active, recording 51 meteors in 9.61 hours of observing. Sporadics were the main source of activity accounting for 45 of the meteors. The remainder was reported as antihelions.

As we moved into **March**, things didn't improve. In fact, only 1 observer was active the entire month! My thanks go to George Gliba for making sure we did not have our first ever month in which we had no observations. George was able to record 24 meteors in 1.60 hours of observing.

With poor moon conditions in **April** for the Lyrids, there was not much activity to draw observers outside. Still, the Lyrids accounted for almost a third of all meteors recorded during the month (40 Lyrids out of a total of 137 meteors). The best hourly rates of slightly more than 5 per hour were recorded by Salvador Aguirre, Wayne Hally and William Watson. A handful of early Eta Aquarids were also recorded, the first being on April 27.

But thanks to the Eta Aquarids - a **May** shower - our number of observing hours nearly tripled as compared to April. The Eta Aquarids were expected to peak on May 5, and 10 different observers submitted observations. With new moon conditions, I found it surprising observers did not record more activity. Salvador Aguirre again reported the highest numbers (26 in 3 hours) while the remaining observes were kept to single-digit hourly counts.

Considering the warm weather many of our observers experience during the month of **June**, the number of reports submitted was a little disappointing. Only six observers were active (Salvador Aguirre, George Gliba, Wayne Hally, Roberto Haver, Paul Martsching and William Watson) during a total of 8 mornings. The antihelions produced the most meteors with 14 being recorded, but the June Bootids also made an appearance on 3 of the mornings.

Observers really got going in **July** and **August**. During these two months, a total of 40 mornings had a least one observer out monitoring meteor activity. During July observers reported 103.25 hours of observations. By far, the Southern Delta Aquarids were the most active shower with 559 being reported. Perseids were the next most often reported meteor, with 233 being reported in July. The Perseids (as well as our observers) really got going in August though. Observers reported 3,899 meteors in 279.75 hours of observing! No other shower, or even all other showers combined, came close to what the Perseids produced. Our observations for July and August are too numerous to mention here in this short review, but I encourage readers to visit our website to see a listing of all these observations.

As is normal, **September** activity both in meteors and number of observers declined from the previous months. A respectable 12 mornings had at least one person outside observing, and by the end of the month, a total of 46.77 hours of observations were recorded. No single meteor shower seemed to be the big draw, although the September Perseids (SPE) were by far the most numerous

with 54 being recorded. On the morning of September 9, Paul Martsching saw the largest number of SPEs when he reported 36 over a period of 4.75 hours.

In **October** observers covered 24 different nights with 153.68 hours of observations being reported. That is really impressive! Most of the interest surrounded the Orionids, which were first recorded on October 3 by Paul Martching and which continued to be seen all the way through October 31. During the month 1,187 Orionids were recorded, which was well above the second most active shower - Southern Taurids (92 recorded).

November, long known as the Leonid month, was almost completely free of any Leonids at all. With their 2008 return being interfered with by the moon, only 147 were recorded between November 9 - 28. By coincidence, that is the same number of Southern Taurids recorded during the month as well. In all, 106.13 hours of observations were submitted, covering 23 November mornings.

Finally, **December** arrived with the hopes for some good meteor action from the Ursid and Coma Berenicids radiants. In December, 21 mornings had at least one of our observers outside, while for the month, observers reported a total of 64.55 hours of observations. That was great considering the cold weather some locations experience during this time of year. Despite the favorable moon conditions, the Ursids and Coma Berenicids only produced 35 and 42 meteors respectively. The largest number of meteors (other than sporadics) came from the Geminid radiant. With the poor conditions, only 271 Geminids were recorded during the period of December 3 - 14.

Our appreciation goes to those observers who put in many hours on minor shower observations and to those who logged time under the stars when no meteors were seen at all. This is all valuable information. The following people were the sole observers on one or more specific nights this past year: Salvador Aguirre, Mark Davis, George Gliba, Bill Godley, Robin Gray, Wayne Hally, Roberto Haver, Pierre Martin, Paul Martsching, Bruce McCurdy, Koen Miskotte, William Watson and Kristi Wenger. If it hadn't been for these dedicated observers, there would not have been any coverage on those particular nights.

A special note of recognition goes to Paul Martsching of Iowa who had the highest number of observing hours for 2008 - 169.17 hours! Congratulations on a very successful year Paul!!

The North American Meteor Network remains a strong and important meteor group. It is a growing and evolving network, and your comments or suggestions are always welcome. I would like to thank each and every member for remaining an important part of the amateur meteor observing community, and I look forward to our work in 2009.