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LEONID METEORS 2008

P. Jenniskens, SETI Institute, reports that M. Maslov (Novosibirsk, Russia) predicted an encounter with the 16-revolution-old (1466 A.D.) dust trail of comet 55P/Tempel-Tuttle, expecting an outburst of Leonid meteors with a peak rate of ZHR = 130 meteors/hr on Nov. 17d00h22m UT (solar longitude 234.900 deg, equinox 2000.0); the theoretical radiant position was calculated to be located at R.A. = 153.5 deg, Decl. = +22.1 deg. Also, J. Vaubaillon (California Institute of Technology) calculated that the trail would be unusually dense and peak at ZHR > 100 meteors/hr at Nov. 17d01h32m UT (solar longitude 234.949 deg). The old age of the trail made these predictions uncertain. Despite bright moonlight, visual and video observers now report that they detected higher-than-usual Leonid rates during this time period. S. Halatzi (Kiryat Ono, Israel) reported a peak rate of roughly ZHR = 120 meteors/hr around Nov. 17d01h30m UT. P. Ocana (Madrid, Spain) reports high video rates from 1h30m UT onward at Perseid levels (ZHR about 70-90 meteors/hr). K. Miskotte (Ermelo, The Netherlands) deduced ZHR = 50-80 meteors/hr from visual observations in an almost-clear period spanning 0h44m-2h00m UT. K. Antier (Valensole Plate, France) noticed flurries of Leonids in the period 1h28m-1h38m UT. J. M. Trigo-Rodriguez (Spanish Meteor and Fireball Network) reports -- from video observations -- a peak of ZHR = 60 ± 5 meteors/hr at solar longitude 234.95 deg, accompanied by bright fireballs from an apparent radiant at R.A. = 153 deg, Decl. = +21 deg, and a population index of 1.7 ± 0.3 (N = 150). The visual observations collected by the International Meteor Organization show a peak rate of ZHR = 70 meteors/hr at solar longitude 234.982 ± 0.006 and a duration of FWHM = 0.10 ± 0.02 deg in solar longitude.

R. Arlt and J. Rendtel, International Meteor Organization, report that several visual observers noticed enhanced activity from the Leonid meteor shower on Nov. 17, with a likely maximum between 1h00m and 1h30m UT. Estimates of the equaivalent Zenithal Hourly Rate (ZHR) range are as follows: 70 meteors/hr by K. Miskotte, Ermelo, The Netherlands; 70 by R. Haver, Frasso Sabino, Italy; about 120 by S. Halatzi in Israel; about 150 by F. Zschage, Kiel, Germany; and 200 by J. Rendtel, Marquardt, Germany.

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