

Results of Radio Meteor Scatter observations for the Perseids 1998

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English Summary

Radio Observations by Forward-scattering using VHF frequencies at 72.11 MHz are given for the "new" peak of the 1998 Perseids.

Because of the unfavourable antenna geometry for the "traditional" peak in 1998, only the "new" peak was observed. Since my observations started in 1994, only the peak of long-duration reflections (more than 1 second, which indicates the visually bright Perseid) shifted to later longitudes. That peak shifted gradually from about solar longitude 139°.65 in 1995, to 139°.67 in 1996, 139°.69 in 1997 and 139°.72 in 1998.

The nodal peak visual observed in 1993 and by visual and by radio in 1994 around solar longitude 139°.50 has probably a different origin and is probably not directly related to the peak observed since 1995. However, in 1997 the "nodal" peak around solar longitude 139°.50 and the second peak around solar longitude 139°.63 were still present, both of weaker activity than in previous years.

Perseid prospects for 1999

Because there is no indication for a great shift to later longitudes, maximum of the visual bright Perseids is expected on August 12 around 21h 15m UT ($139°.73 \pm 0°.02$).

(All Solar Longitudes refer to Equinox 2000.0)

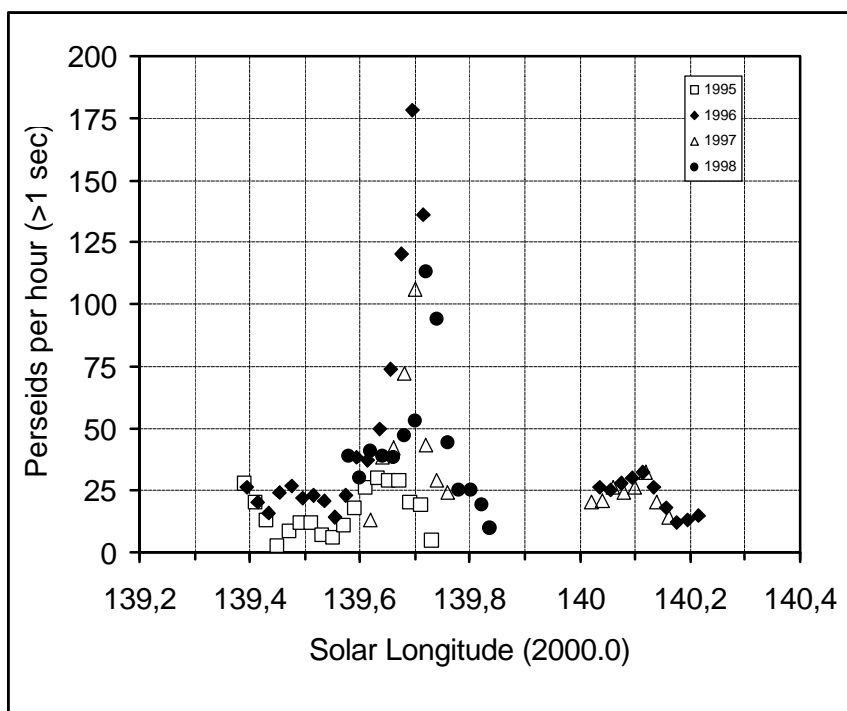


Figure 1

Hourly Perseid radio rates of only long-duration reflections of more than 1 second of the "new" peak on August 12, 1998 (dots), only corrected for dead-time and sporadics. Also the results of 1995 (squares) and the results of the "new" and "traditional" peak for 1996 (diamonds) and 1997 (triangles) are given.