

Comets in 1981

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Five new comets, two of them of short period, were discovered in 1981, and a comet close to the Sun was detected in satellite coronagraphic data from 1979. Seven periodic comets were recovered, and observations were also reported of 13 of the comets of 1980, two of the comets of 1979 and three of the 'annual' comets. As in 1980, a commendable number of sophisticated physical observations were made, but the lack of adequate astrometric coverage was severe. Since these physical observations are sometimes of very faint periodic comets, there is developing a tendency to attempt them before an astrometric recovery has been made. Since even the best predictions are in error to some extent (three of the 1981 recoveries were comets making their critical second appearance and two were making their third), this can lead to rather inconclusive results.

P/Schwassmann-Wachmann 1 was photographed by R.E. McCrosky and C.-Y. Shao with the 1.5-m reflector at the Harvard College Observatory's Agassiz station at mag 17 on January 6. It was still faint on February 1, when a condensation of mag 18–19 was evident in the coma. By the 5th a spectacular outburst had occurred, an observation by W. Hartmann, D. Cruikshank and J. Degewij at the Infrared Telescope Facility in Hawaii giving a V magnitude (10.8-arcsec aperture) of 13.5. The comet had faded by 0.5 mag two nights later, at which time spectroscopic observations by A.L. Cochran, W.D. Cochran and E.S. Barker at the McDonald Observatory showed no CO^+ emission, although such emission had been present a month earlier. Exposures by A. Mrkos and Z. Vávrová with the 0.6-m Maksutov telescope at Kleť on February 28 indicated a coma magnitude of 16.5, and comparable observations were made with both the Kleť and Agassiz telescopes at the end of March. Another outburst occurred in the latter part of April, the first notification of it being by J.-C. Merlin (Le Creusot, France), who found the comet visually at mag 10.3 (0.26-m reflector) on the 22nd. Another spectacular photograph of the comet was obtained with the Agassiz reflector a few hours later. Visual estimates by G. Keitch (Wrighton, Avon, 0.30-m reflector) gave mag 11.2 on April 23 and 25, 11.8 on April 27 and 11.5 on May 4. According to J. Bortle (Stormville, NY) the comet was still bright enough to be detected visually with a 0.32-m reflector on May 24.

P/Encke, at perihelion in 1980 December, does not seem to have been observed in 1981.

P/Gunn was under observation in January and February by McCrosky and Gibson, the former estimating the comet at mag 18.5 on January 6.