

COMETH THE COMET

by

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All the predictions are that Halley's comet in 1986 will not be the heavenly spectacle that it was in 1910. On that occasion the earth was near the comet when the comet was at its closest to the sun, so that it was brilliant and its tail stretched nearly half way across the sky. This time round, the comet, sun and earth will not be in such good relative positions, and who knows, the dirty iceberg nucleus of the comet may develop a crusty skin of dust and stony material that will cut down on the evaporation necessary to form a large and bright coma and tail? So it could be a relative fizzer in 1986. Relative fizzer as an astronomical spectacle, perhaps, but not so as a scientifically observed object. The fleet of five spacecraft (one European, two Soviet and two Japanese) headed for encounters with Halley's comet in march 1986 will ensure that it will be the best observed comet ever. Scientists will gain valuable new information on the structure of the nucleus, the composition of the coma and tail including neutral atoms, ionised atoms and dust and the interaction of the comet with the electromagnetic radiation of the sun and the solar wind. The solar wind is the atmosphere of the sun which expands intospace at supersonic speeds and is responsible for 'blowing' the atmosphere and dust from the comet into a tail (or tails).

However you will not learn much about the modern aspects of cometary physics from the three books I am about to mention, although the first and last have useful modicum of information about the spacecraft encounter. This is not to say the books do not serve useful purposes. Indeed they do, each in a different way.

'A Comet Called Halley' by Ian Ridpath and Terence Murtagh (CUP 1985) is a bright, well written 48 page book with over 40 colour illustrations covering snippets of comet lore, Halley himself, Halley's comet in art, a description of comets, the mission to Halley's comet and charts of the path of Halley's comet through the stars. General readers will be able to join in good social conversations on the subject after reading it. At \$9.95 in paperback, that is a small price to pay for participation in conversations on such an 'in' topic.

A more scholarly, but less attractively produced book of 100 or so pages with black and white illustrations, is David and Carol Allen's book 'Halley - The once-in-a-lifetime comet' (Unwin Paperbacks, Sydney 1985, also \$9.95 - how do they arrive at such curious prices?) has a similar kind of coverage to that of the first mentioned book. It has some diagrams showing the position of the comet against the star background for each of the months January to April 1986. It is expected the comet will be visible to the naked eye in March and April 1986. References for extra reading given at the back of this book add to its value.

If astronomy is your hobby then the book 'Observing Halley's Comet - The complete guide to the comet from southern latitudes 1985-1986' (Unwin Paperbacks, Sydney, \$8.95) is a 'must', with contributions from G. Dawes, D. Gooden, N. Loveday, R. Milne, D. Reidy, M. Suchting and K. Wallace. After a bit of history on Halley's comet the book gives charts showing the position of the comet in the sky, a brief description of the scientific programme of the spacecrafts going to the comet, hints for observing, recording and astronomical photography, description of suitable films for photographing the comet, a comprehensive ephemeris, and detailed star charts with the path of the comet on them, together with a glossary of useful technical terms.

All these authors have done a good service and their books should find different niches in the market that the comet has generated. All three of the books should be in school libraries.

Let's hope Halley's comet puts on a good show this time because after all it is the brightest of the 600 or so comets out there, and not many of us can expect to be here for its next coming in 2062!

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