

1962: April 14th: 7 PM. for Eta Chi Hi-Y (at Y.M.)

Comets and Women Astronomers

Comets have been getting more attention from astronomers since the space age came in 5 years ago.

The reason is that a number of comets come in closer to the sun than Venus is, and then circle out towards the earth, on passed Mars and close to Jupiter.

If we start travelling to Venus or Mars, we'll want to know where these comets are so as that we won't bump into them. Also we'll want to avoid going through their tails or any dust or debris they may have left behind.

I can envisage the day when an accident will occur to a spaceship, and the finding of the investigating board will be that the ship went off course and got some comet dust in its fuel tank .

There is a new comet in the sky at present (which I will be looking at this evening if its fine).

From the numerous observations of comets in the past two hundred years, astronomers have built up a theory as to their nature.

~~To understand~~ The nature of a comet is, perhaps, best understood by considering its state when it is far out in space.

Out where Jupiter is, the temperature is 216 degrees Below zero Fahrenheit. it looks like a small planet, it has no tail, it has
When a comet is out there, ~~its surface is frozen, it has~~ a crust of ice all over its surface. ~~The crust of the comet~~ This ice is not frozen water.

It is mainly frozen methane, ammonia, cyanogen, carbon dioxide; there is also a little frozen water. The ice is rough, and it is dirty. It is dirty from meteoric dust picked up by the comet when ~~the comet~~ its surface was liquid .

As a comet comes in from outer space, and approaches the sun, it starts to feel the heat of the sun. Its crust of ice melts and turns to liquid, then with more heat, the liquid ~~turns to gas~~ vapourizes: it becomes gas. By the time a comet is close enough to us to be detected with the naked eye, it already has ^{an envelope} ~~a halo~~ of gas around it, - it looks like a fuzzy star, or a star out of focus. That is how we recognize a comet. ^{if} ~~As~~ it comes closer to the sun, than once and a half the earth's distance from the sun (-as most comets do-) it starts to develop a tail. The closer it gets to the sun, the longer the tail gets.

The spectrum of a comet's tail shows it to be composed chiefly of ions, with some dust intermingled. Seemingly, the tail does not form until the molecules of gas dissociate, under X-ray bombardment from the sun, into atoms and ions. The tail is driven back, partly by heat, partly by solar-wind pressure and partly by a force from dissociation.

A Comet which has been followed steadily since its discovery in 1942 is
Comet Oterma

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Miss Roemer

Wilson Comet

Miss Raas

Belgian cdelgation

Miss Roman