

# Sidereal Times



Next AAAP Meeting

February 10, 8 P.M.

Place:

PRINCETON UNIVERSITY

Jadwin Hall  
Rm A07

*The A.A.A.P.*

*Presents* **SATURN!**

with

**William B. Russow**

**GEOPHYSICAL FLUID DYNAMICS**

**&**

**PLANETARY ASTRONOMER**

Dinner: THE FOOLISH FOX 6PM

INFORMAL MEETING 7:30

ROCKY HILL RTE 206

JADWIN

THE AMATEUR ASTRONOMERS ASSOCIATION OF PRINCETON

P.O. BOX 2017  
PRINCETON, N.J. 08540



# Bright Prospects for Comet West in March

25



Comet West 1975n is still beyond the orbit of Mars and two months from its perihelion passage early Feb. 25, 1976 UT, but already is generating excitement among professional and amateur astronomers. Because it was discovered so far in advance of perihelion (West reported his finding Nov. 5) professionals have ample time to ready their observing plans and book time on the world's large telescopes, while

amateur sky-watchers can anticipate a moderately bright comet in early March morning skies, perhaps even of first magnitude at the month's opening.

The early discovery of 1975n is reminiscent of the great comet Kohoutek 1973 XII, which was discovered by a professional astronomer, also by accident in a large Schmidt telescope.



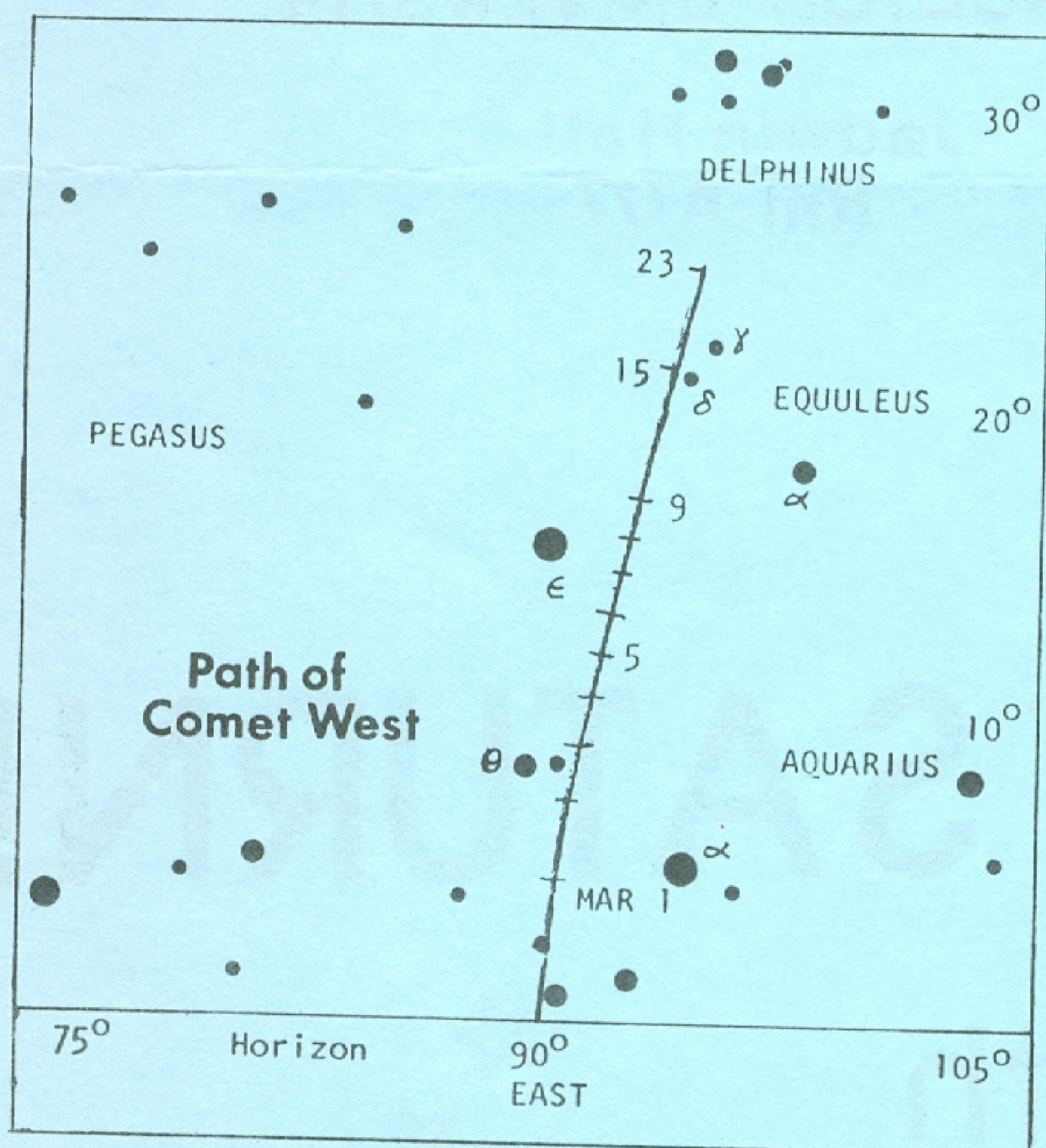
## WEST ...

And the pitfalls of predicting a comet's brightness behavior, so well illustrated in the case of Kohoutek, must apply to West as well. At this time, West appears to have an extrapolated absolute magnitude (as it would be seen 1 AU from the earth and sun) of about 7-7½, as compared to Kohoutek's, which was about 5-6. But like Kohoutek, West has a long way to go to perihelion, and comets brighten so sensitively and drastically on the way in that brightness predictions now for March could easily be off by magnitudes.

The possibility that West will be a great comet cannot be ruled out, if it should brighten by a higher-than-average inverse power law of sun distance, as was the case of the great comet Bennett 1970 II. Its period of glory, however, would be confined mostly to the first week of March, and even then, it would be low in the sky in moderate twilight (see alt-azimuth chart). More likely, 1975n will be a first or second magnitude object the first week of March, probably visible to the naked eye, dropping to third and fourth magnitude in the second week as it rises higher in the eastern predawn skies. If West should brighten by a low inverse power law, then it might be a binocular and telescopic treat, but invisible to the unaided eye. If 1975n's absolute magnitude is taken to be 7.0, and if its brightness varies as the inverse 4th power or its distance from the sun, then its magnitudes on these dates would be: Mar. 1, 0.7; 3, 1.5; 5, 2.3; 7, 2.9; 9, 3.5; 11, 4.1; 15, 4.9; 19, 5.7; 27, 6.8; Apr. 4, 7.7; 12, 8.4.

After closest approach to the sun at a distance of .197 AU (18,300,000 miles), West will probably develop a tail as the frozen gases in the nucleus evaporate and ionize, and as dust is released and "blown" away by the sun. During the first two weeks of March, each degree of observed tail corresponds to about 1½ million miles, so that a 10,000,000 mile long tail in this period would appear to be about 6 2/3° long.

Richard M. West has been working at the European Southern Observatory offices in Geneva, Switzerland. His assistants, O. and G. Pizarro, send him plates from the 100-cm. Schmidt telescope at La Silla in S. America for



Comet West 1975n rising in the eastern predawn sky as seen from lat. 40°N. The ticks represent the comet's position for about dawn on the date indicated for North America. The chart is drawn for 5:56 local time on March 1, which is 38 minutes before sunrise on that date. To convert to local standard time on that date, add or subtract four minutes for each degree, respectively, west or east of your local standard time meridian (longitude 75° for EST, 90° for CST, etc.). For each succeeding date after Mar. 1, subtracting 4 minutes retains the map's configuration.

For practical observing, look for comet West with binoculars very low in the east in the twilight ½ hour before sunrise beginning about Mar. 1. Toward the middle of the month, as it gains altitude, the comet will be visible in darker skies, but will be fainter.

Reprinted from Comet News  
MCDONNELL PLANETARIUM  
ST. LOUIS, MO.

analysis, which accounts for some of the delay in his reporting of discoveries (West 1975n was discovered on a Sept. 24 plate, but was reported on Nov. 5). West is a co-discoverer of comet 1975b, and this year has discovered another possible but unconfirmed comet (IAUC 2872, Nov. 24) as well as an Apollo asteroid now named 1975 TB (IAUC 2889, Dec. 19).