

ASTRONOMY

Fourth Comet of the Year Is Found By Harvard Man

Patrol Plate Exposed on August 8 Reveals Comet Of Tenth Magnitude in Constellation of Aquila

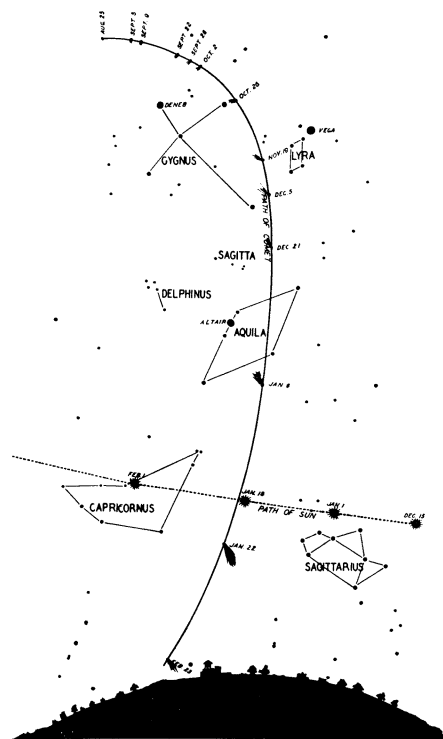
By DR. HARLOW SHAPLEY
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THE FOURTH comet of 1940 was recently discovered by Dr. Fred L. Whipple on a Harvard Observatory patrol plate exposed on August 8. At that time the comet was about the tenth magnitude, in the constellation of Aquila. It was moving rapidly south in the sky at a rate of nearly 2 degrees per day. Images of the comet were found on 16 Harvard plates taken from July 28 to August 10. During the following full-moon period the comet passed into the southern sky out of range of northern observers.

An orbit calculated by Dr. Whipple shows that it is inclined 55 degrees to the plane of the ecliptic and that the comet passed nearest to the sun on October 7, at a distance just greater than one astronomical unit, about 101,000,000 miles.

At the present time the comet is about 12 degrees from the south celestial pole. It will remain in the southern sky at about its discovery brightness for the rest of this year. As it moves north early in 1941 it will probably be too far away and faint for observation from American or European observatories. The period of the comet's revolution about the sun is probably quite long.

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CUNNINGHAM'S COMET NEARS

Though Whipple's comet, described in the accompanying article by Dr. Shapley, will not reach naked eye visibility, the one found a few weeks earlier by Leland S. Cunningham, also of the Harvard College Observatory is expected to do so. (See SNL, Sept. 28) By November it should be visible with field glasses, and soon after Christmas apparent to the naked eye as a tailed object in the western sky after sun set. This diagram, prepared by The Franklin Institute, shows its path, as predicted by Mr. Cunningham.

PUBLIC HEALTH

Fitness for National Defense Stressed By Recreation Experts

Athletic Areas and Playgrounds Should Be Kept Open All Day To Build Health, Patriotism and Morale

ADVOCATING strenuous physical conditioning, not only for young men assigned to defense training camps, but for young Americans everywhere, Prof. C. L. Brownell of Teachers College outlined a six-point universal athletic program for these times. Prof. Brownell presented the outline before the National Recreation Congress.

His six points were:

(1) There will be no total defense until there is an adequate recreation program with emphasis on athletics.

(2) In each community there is needed a coordinating agency responsible for utilizing, popularizing, and elaborating the athletic programs now being conducted by all official, non-official and private organizations.

(3) All athletic areas, such as playgrounds, recreation centers, and athletic fields should be kept open from early morning until late at night.

(4) In congested areas emergency play centers should be established at once in parks and streets.

(5) Programs of instruction should be established and streamlined to provide adequately trained athletic leaders.

(6) The program of athletics should stress activities which result in physical fitness, the desire to cooperate with others, and national morale as a means of instilling personal and civic patriotism for peace as well as for war.

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Should Expand Park Works

THAT the United States should expand, not reduce, its park and recreation programs as a national defense measure is the advice repeatedly stressed at the National Recreation Congress.

Already there have been a few recommendations to abolish or cut the inter-

pretive work of naturalists in some of the national parks, Carl P. Russell of the National Park Service has warned.

Speaking from Canada's war experience, A. T. Whitaker, Commissioner of the Canadian Niagara Parks, declared that even the military cannot make men out of weaklings save at high cost, and it is far more economical to build up physically the young generation by providing outdoor interests and exercises.

"The long-range view should result in greater, not less, provision for parks and recreation," he stated, "if democracy is to stand up against the war machines of totalitarian states with their military development of youth from the most tender ages."

Stressing the importance of raising "a strong generation of sons and daughters to defend our democracy," F. A. Pitkin, executive director of the Pennsylvania State Planning Board, urged a large increase in parks and forests within easy reach of city people.

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