

ASTRONOMY

Heavenly Fireworks Flash

Century's most brilliant meteor shower was seen by many observers on Oct. 9. Some counted as many as 100 falling stars a minute.

► THE GREATEST and most brilliant meteor shower of the century occurred on Oct. 9, probably excelling even the 1933 shower caused by the same Giacobini-Zinner comet.

Reports to Science Service from far-flung points indicate some meteors so bright that they outshone Sirius, the most brilliant star in the heavens. Some would have cast shadows had there been no moon, concludes Prof. C. C. Wylie of the University of Iowa.

Astronomers in parts of the east had to take to airplanes in order to get above obscuring clouds. Observers on the Pacific Coast reported a spectacular display, undimmed by moonlight interference in its early stages. Army weathermen report the display was seen in Germany.

A hundred meteors a minute flashed across the sky for stargazers at Berkeley, Calif., reports Dr. Leland E. Cunningham of the University of California's Student's Observatory. From Norman, Okla., Dr. Balfour S. Whitney of the University of Oklahoma states that one observer counted 2,850 "falling stars" during one hour. At Madison, Wis., several observers reporting to Dr. C. M. Huffer of Washburn Observatory counted 1,500 in an hour. Two or three meteors a second flew over observers in Eugene, Ore., Prof. J. H. Pruett of the University of Oregon states.

Within an hour and a quarter 3,003 "shooting stars" had been counted by Walter S. Houston of Cincinnati, Ohio, member of the American Meteor Society. At the height of the shower he counted 510 meteors within five minutes.

During one five-minute period, 23 meteors shone through cirrus clouds at Lawrence, Kans., to be seen by Prof. N. W. Storer of the University of Kansas. Breaks in the clouds permitted observers within five minutes to count 117 meteors, most of them as bright as the brightest stars visible. Within five minutes Dr. Ralph B. Baldwin of Grand Rapids, Mich., counted 57 meteors, although the sky there was only one-third clear.

High in a Coast Guard plane, Harvard astronomers during one minute counted through the clouds 23 meteors,

including three brighter than Sirius.

Astronomers are particularly pleased with the fact that the shower came at the predicted hour, reaching its maximum around 9:40 EST. The height of the shower seems to have been shorter-lived than the display in 1933, when the earth earlier plowed through cosmic dust left by the faint comet.

At the time of the shower, the earth was within 135,000 miles of the path taken by the Giacobini-Zinner comet, as compared with 500,000 miles during the recent historic shower. The comet had sped by this heavenly intersection just eight days previously.

In one hour, more meteors were seen than in a normal lifetime.

By the time darkness had fallen over the Americas 13 years ago, the shower of "shooting stars" was barely detectable. Reports reaching Science Service through the Army Air Forces' Air Weather Service show that a meteor shower, though probably not as brilliant as the one here, was visible in Europe. In Zug Spitze, Germany, 105 meteors were seen during a ten-minute interval.

At Goose Bay, Newfoundland, 33 were counted during one ten-minute interval, and 11 at another. Observers in the tropics, however, were less fortunate. Only a few were seen during the evening by sky-searchers in British Guiana and Trinidad.

Clouds Block Shower

Although clouds cheated star lovers throughout a large part of the United States of a chance to see the display of "shooting stars," meteors flashing across the sky every minute or two were "seen" by means of radar.

Radio engineers at the Bureau of Standards' ionospheric station at Sterling, Va., used a war-time radar set to detect the passing of these bullets from space. The Army Signal Corps' laboratory at Belmar, N. J., recorded the "falling stars" by radar. Meteors streaking across the heavens were counted on the radarscope at Harvard's Oak Ridge station.

This is the first time a meteor shower has been observed by means of radar. Echoes from meteors 80 to 100 miles

above the earth, just like echoes from the moon, appear as "pips" on the scope screen.

During the height of the shower, meteors registered themselves on the radar screen every minute or two. It was not the meteor itself, but its tail of winged particles that registered on the scope. Twelve were "pipped" in an eight-minute period. And yet the radar beam, which was fixed instead of revolving, encompassed only about three percent of the sky, which will give some idea of the height of the storm.

Science News Letter, October 19, 1946

MEDICINE

Bacteriologist Receives Gorgas Medal for Service

► BRIGADIER GENERAL Raymond A. Kelsner received the 1946 Gorgas Medal, sponsored by Wyeth Incorporated of Philadelphia, and awarded by the Association of Military Surgeons of the United States for outstanding work in preventive medicine for the armed forces. During World War II General Kelsner served as director of the Veterinary Division of the Surgeon General's Office of the U. S. Army and did prominent work in eradicating rinderpest, a cattle disease, in the Philippine Islands, enabling the Filipinos to have their own domestic milk supply. General Kelsner is now dean of the College of Veterinary Medicine and professor of bacteriology at the University of Pennsylvania.

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BACTERIOLOGIST — Brigadier General Raymond A. Kelsner, recipient of the Gorgas Medal.