Duncan, John C. Galactic nebulae photographed in red light.

Diffuse nebulae in the regions of Orion, Sagittarius, and Cygnus were photographed by the author in 1948 with the 18-inch Schmidt camera on Palomar Mountain and the 60-inch and 100-inch reflectors on Mount Wilson, using rapid red-sensitive emulsions and filters which confined the light employed to a band within about 200 angstroms of $H\alpha$. At the Ottawa meeting eighteen of these photographs are presented in the form of lantern slides; also, for comparison, a few photographs made earlier in blue light.

In Orion, faint nebulosity fills the region south of the Belt and including the Sword, and exhibits remarkable and beautiful forms. Shown in great detail are the great Orion nebula, M 42-43; the region of the dark Horsehead, Barnard 33; and the nebula east of ζ Orionis, NGC 2024. South of σ Orionis is a nearly straight edge, 20 or more light-years long, which divides a brighter and a fainter nebulous field (Plate I).

In Sagittarius, faint extensions are shown around M 8. Farther north, similar extensions appear around M 17, M 16, and an uncatalogued nebula in Serpens.

More than 100 square degrees of the sky, extending from η Cygni on the south beyond Deneb and NGC 7000 to ω Cygni on the north, is filled with faint nebulosity, the brightest part of which is the nebulous region around γ Cygni, discovered by Barnard. The small curved nebula NGC 6888 is particularly strong in red light; likewise an uncatalogued S-shaped nebula situated about halfway between γ and σ Cygni.

A remarkable feature of some nebulae, strongly revealed on red photographs, is a dark core from either side of which extend plumes or brushes of luminous nebulosity. This appearance is shown in the space between M 42 and M 43 Orionis, in NGC 2024, in the brightest nebula near γ Cygni, and in NGC 6334 Scorpii, a nebula photographed by the author and reported to the American Astronomical Society in 1940.

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Edmondson, Frank K. The minor planet program at the Goethe Link Observatory.

The minor planet program at the Goethe Link Observatory was started on January 6, 1949. Up to the present time (June 15) 169 plates have been taken.

The object of the program is to recover objects on the critical list that are specifically assigned to us by Dr. Herget. Probably our most significant re-discovery so far is (1192) Prisma, which had not been observed since 1931. The residual from the ephemeris was $+13^m.7$ and $-44'$ on February 18th.

We have also picked up (1362) Griqua, in excellent agreement with a special ephemeris computed by Dr. Brouwer. (1452) 1938 DZ₁, which had not been observed since its discovery in 1938, was recently picked up with a residual of $-10^m.8$ and $+1^\circ 53'$.

A new object, 1949 DA, was found on plates taken on February 18th in an attempt to find (1273) Helma. Seventeen asteroids were found on a single plate, taken on April 3rd for the purpose of getting an accurate position of (459) Signe for Dr. Herget. Probably 15 of these objects are new.

The instrument used on this program is a 10-inch Cooke triplet loaned to us by the University of Cincinnati. The mounting was made by Fecker, and the guide telescope is provided with a micrometer which we use to guide on the expected motion of the asteroid. A 30-minute exposure on a 103a-O plate shows star No. 33 of the polar sequence as easily visible ($m_{pg} = 17.1$) and star No. 36 as barely visible ($m_{pg} = 17.8$). Hence, 18th magnitude asteroids should be detectable on hour exposures made with this instrument.

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Elvey, C. T. and Don Williams. Recent spectroscopic observations of the aurora, night sky and twilight.

Spectroscopic observations of the aurora, night sky and twilight are being made as part of a program to investigate the physics of the upper atmosphere. A prism spectrograph is used and has an $F/0.7$ camera giving linear dispersions from 150Å/mm at 4000Å to 1080Å/mm at 7000Å. Observations have been made at College, Alaska, and in the vicinity of the Naval Ordnance Test Station at China Lake, California. This is a preliminary report on the observations and final studies will be published as soon as the measurements and analyses are made.

Visual inspections of the material indicate: