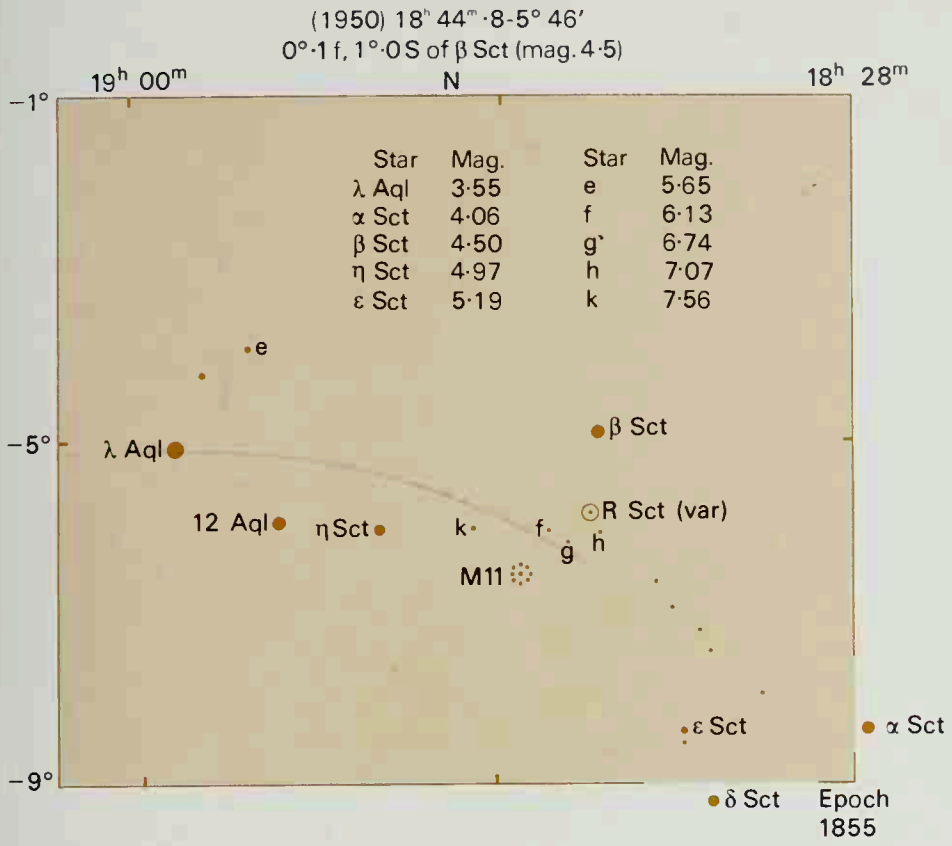
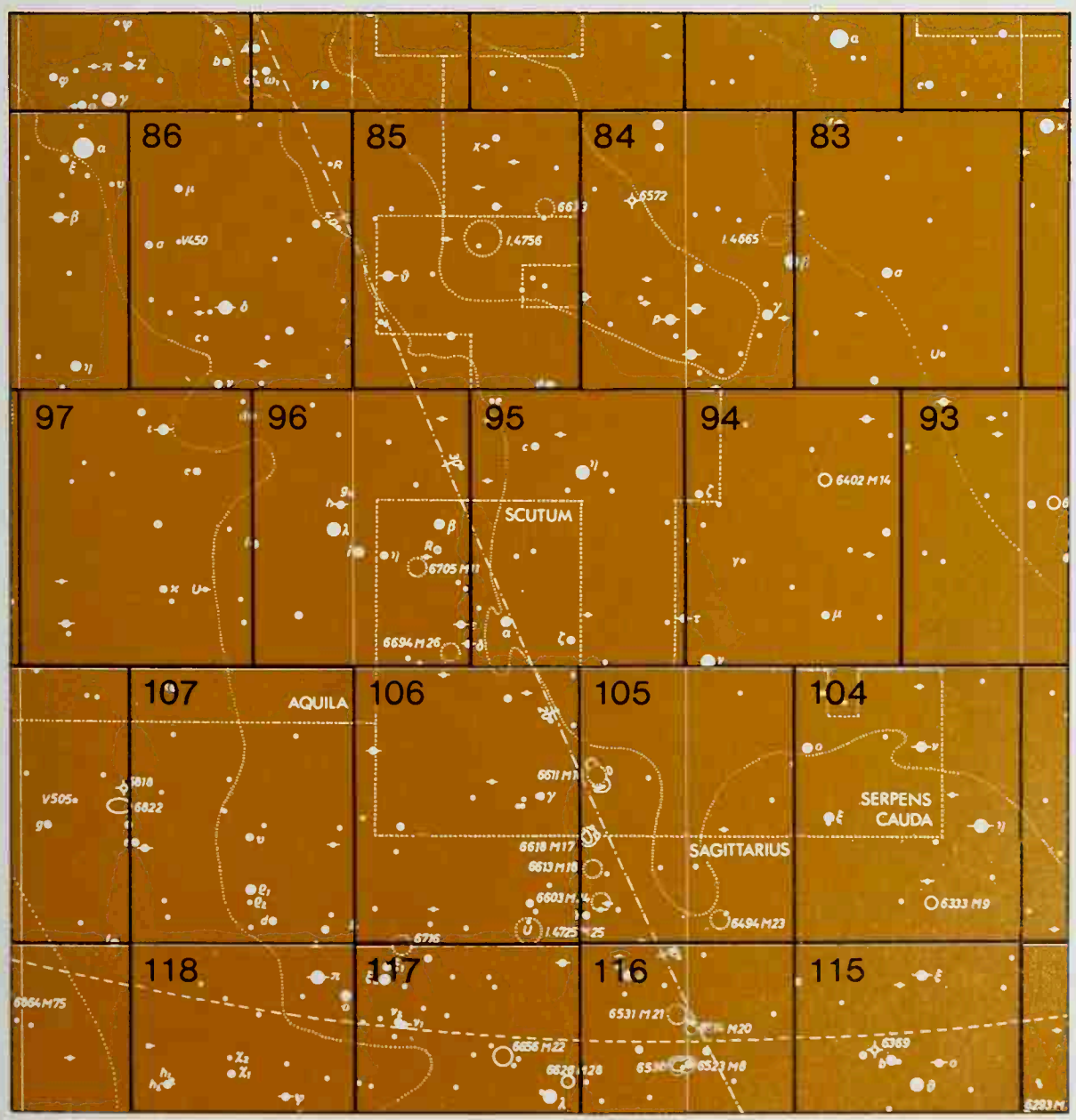


over wide areas of the sky. A few observers become so proficient that they are able to detect 'intruders' almost anywhere in the heavens. Others, particularly those participating in the organized patrols, may only learn one or two specific areas of the sky.

In a similar manner the photographic patrols divide up the sky into areas, these then being allocated to individual observers for coverage. The photographs are taken by conventional cameras and lenses (typically a single-lens reflex with a lens of 135mm focal length) and are always taken in pairs to enable blemishes etc. to be detected. They are then examined and compared with 'master' images. As speed is of the essence many ingenious methods of doing this have been devised, and any suspect object is reported immediately so that confirmation may be sought from another observer before a worldwide alert is issued. Needless to say, novae are of great interest to all professional astronomers and they are frequently prepared to interrupt their particular project to devote some of their hard-won telescope time to confirmed objects, obtaining spectra or photometric measurements.

Although many variables are discovered by photography, the method is not widely used to follow brightness changes, partly because of the time (and expense) involved, and also because of the problems of the different response of films to that of the human eye – although allowance for this may be made without too much difficulty. However, photography does have the great advantage that several variables may be recorded on one exposure, and frequently nova patrol photographs are used to derive magnitudes of objects in their fields. These can form a useful supplement to visual observations of the same objects.



Variable stars
(This list gives a number of bright, or famous, variables shown on the Star Charts. Comparison star charts are required for proper study, but their variation may still be noted.)

Name		Remarks
R	And	Long-period variable (about 400 days), mags 6 – 15
η	Aur	Eclipsing binary (period 27 years), mags 3·5 – 4·5
ζ	Aur	Eclipsing binary (period 32 months), mags 5·0 – 5·5
γ	Cas	Irregular brightenings when shell of material is shed
ρ	Cas	Irregular fades, mags 4·1 – 6·2
δ	Cep	Prototype of Cepheid variables (period 5·36 days), mags 3·9 – 5·0
μ	Cep	Semiregular, deep red star, mags 3·6 – 5·1
ο	Cet	(Mira) Famous long-period variable (period 330 days, mags 2·0 (on occasions) – 10
R	CrB	Normally mag 6·3, unpredictable fades down to 14 – 15
W	Cyg	Semiregular, mags 6·5 – 8·5, red
χ	Cyg	Long-period variable (period 406 days), extreme range 3·3 – 14·2
ß	Lyr	Prototype subclass of eclipsing variable (period 12·91 days), mags 3·3 – 4·2
ß	Per	Prototype subclass of eclipsing variables (period 2·87 days), mags 2·1 – 3·4
L_2	Pup	Semiregular, mags 2·6 – 6·0
R	Sct	Semiregular, deep and shallow minima frequently alternate, mags 5·3 – 7·9