



A trace recorded by H. Hatfield, showing the course of a radio flare in two different wavelengths.

details to be recorded, e.g. prominences (called filaments when seen against the disk), plages and sunspots. Flares are also more readily seen than in white light, and should be fully recorded. Detailed structure is best recorded by photography, either in white light or in a narrow spectral band, and whole-disk photographs are a useful record of solar activity. However, once again, when attempting white-light photography, precautions must be taken to ensure that the shutter of the camera – and the observer's eye – are not subjected to the concentrated heat of the primary image.

It has just been mentioned that solar flares may be detected and recorded visually and photographically, but there is also the possibility of making radio observations. Some observers monitor the Sun for activity throughout the day, and every day, using nothing more sophisticated than a fairly

good communications receiver and a small Yagi aerial driven to track the Sun. Such equipment can be connected to a suitable chart recorder to give a permanent trace of the activity, and also arranged to provide an automatic warning when a flare occurs. Any such records can be correlated with those of other observers, and also with subsequent auroral activity. As an extension of this general field many amateurs are now observing and recording the changes in the Earth's magnetic field which occur with solar activity and auroral displays.

Bottom left: These two simple radio aerials (136 and 197 MHz) are mounted so that they are easily driven to follow the sun throughout the day.

A composite drawing from observations made using the equipment shown opposite, which shows the day to day changes in structure of two large sunspot groups that were visible during the first half of June 1969.

