



1. Active Regions are localized magnetic fields on the Sun. Areas with strong or intense magnetic fields provide energy for solar flares and coronal mass ejections (CMEs), so accurate forecasting of space weather activity requires an accurate picture of these regions.. Active regions are given official numbers (e.g. 2409) by SWPC, and the drawings include the probabilities of C, M, and X class flares for the next 24 hours associated with each active region, along with the proton probability (e.g. 10%, 1% ,1%, 1%).

2. Coronal Holes are single polarity magnetic regions that are the source of high speed solar winds which drive magnetospheric activity. Coronal holes are the most common cause of geomagnetic disturbances. In the past, coronal holes were identified from He I 10830 Angstrom ground-based observations; today they're identified using extreme ultra-violet imagery from spacecraft. The boundaries of coronal holes are shown on the synoptic drawings as lines with tick marks on the coronal hole side of the boundary line. Holes are assigned numbers 0-99.

3. Neutral Lines. Large magnetic field structures of one magnetic polarity have a 'neutral line' at the boundary of the different magnetic polarities of the fields. Neutral lines are associated with flaring in active regions, and filaments/prominences are often associated with the neutral lines on a quiet sun. Neutral lines appear as dashed lines on the synoptic drawings and the forecaster indicates the polarity of the magnetic field on either side of the neutral line with + (positive) or - (negative) signs.

4. Plage makes up most of an Active Region, and appear bright in conjunction with the dark sunspots. Plage has strong but disorganized magnetic fields, unlike the highly organized fields of sunspots. In the synoptic drawings, plage is colored red. It is quite normal to have regions of plage with no sunspots, which do not receive an official number since they are not considered active regions and are unlikely to produce solar flares. Plage regions are the chief source of UV variability from the sun, however.

5. Filaments and Prominences. Quasi-stable regions of high density gas in the low density corona are called filaments. They are indicated by hatched regions and typically found along neutral lines. Prominences are filaments which occur near the limb (edge) and can be seen protruding from the corona. They are colored red on the drawings.