Instructions for the Whole Disk Form

This form is the most used in the Section. Be sure to fill out the form completely so you get full and proper credit for the observation.

OBSERVER: Put down your full name as you would want it to appear in print.
ADDRESS: Put down your full mailing address so you can be contacted if need be.
TELESCOPE: Enter aperture and units of measure.
TYPE: Enter your telescope optical configuration: sch–cas, refractor, Newt., etc.
FOCAL LENGTH: Put down the telescope focal length in the same units as the aperture.
OBSERVATIONS DIRECT OR PROJECTED (CIRCLE): Circle either direct or projected according to what you use.
EYEPIECE: Enter the eyepiece focal length (preferably in the same units as the aperture).
FILTER(s): List any filters used here. If observations are direct be sure that any eyepiece filters used are accompanied with SUBSTANTIAL filtration of sunlight BEFORE the light enters the telescope.
APERTURE USED: Here we want to know if you used "full" aperture or a stop. Put down any stop diameter used.
OTHER EQUIPMENT: List any other devices used like: micrometers, polarizers etc.
DATE/TIME: Enter the Universal Time (UT) drawing began and ended as follows:
YYYY MM DD HH:MM to HH:MM for example 1993 12 21 14:55–15:12 UT.
SKY
SEEING: Put in the seeing in arc seconds where: <1" is where granulation can clearly and steadily seen, 1–2" granulation can just be seen, 2–3" penumbrae are mottled but individual fibrils cannot be made out, 3–4" no penumbral detail can be seen, 4–5" penumbral/umbral boundary not clear, >5″ penumbrae not distinguishable from umbrae (you should probably not be working!)
CLOUDS: Put in your estimated percentage of cloud cover. This may require a note underneath to describe cloud type. For example, if you are observing through hazy cirrus that covers the whole sky. Your percentage would be 100% and without a note explaining that it is haze or cirrus this would be confusing.
WIND: A simple indication of none (0), light (lt), moderate (mod), and heavy (hvy) will be enough. This may be important when trying to determine if shaking was an observing problem.
ROTATION: Enter the Carrington Rotation Number for the date of observation. This can be found in any good astronomical almanac.
P, B, L: These are the values of the position angle of the solar pole as measured from celestial north, the heliographic latitude of the apparent center of the sun's disk, and the longitude of the central meridian, respectively. They should be as close to the time of observation as possible and can be found in any good astronomical almanac.

GROUPS: Enter the number of sunspot groups seen in the northern hemisphere (N) and southern hemisphere (S) and then their total number.

SPOTS: Enter the number of spots for the northern hemisphere (N) and southern hemisphere (S). Count all umbrae, whether in a group or isolated, whether in a penumbrae or not. A single penumbra can often enclose a dozen spots in a well developed, active sunspot group.

R=10G+S=: Go ahead and figure the total according to the classical formula. You will find that your total will vary from the published totals. This is due to the complex method by which observations of individual observers, with dissimilar observing experience, using different types and apertures of telescopes, at sites of widely varying conditions, are combined. A "personal equation" is applied to each observer by statisticians to equalize observers.

Make your drawing of disk features in the large circle noting the North and either East or West so we can determine whether the image is reverted, inverted or both.

THE MYSTERIOUS SMALLER CIRCLE: This smaller circle is there for the convenience of observers when tallying sunspot counts (with the AAVSO for example). This gives a place where you can note the McIntosh class and number of spots.