

# Double Star Program Introduction

## Double Star Observing Program Coordinator:

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## Introduction:



Welcome to the Astronomical League's Double Star

Program. The purpose of the Double Star Program is to introduce observers to 100 of the finest double and multiple stars in the heavens. You don't need a large, expensive apochromatic refractor to view the objects on this list since a small refractor, Newtonian reflector, or Schmidt-Cassegrain will do just fine. All objects on this list were originally observed with a three-inch refractor using between 75X and 150X. Again, this program is meant to allow you to enjoy a different aspect of our wonderful hobby, and not to test your equipment.

Double star observing can be very forgiving. You don't need the darkest skies, the clearest skies, or even a moonless night to observe many of these objects. Some can be observed from your backyard under moderate light pollution; some can be observed under less than transparent skies, and some can even be observed with the moon up. However, as usual in astronomy, the best results can be obtained under optimum conditions. The point is, always try for the best conditions, but if you don't have them, don't worry about it. You can still enjoy this program.

## Rules and Regulations:

To qualify for the AL's Double Star Certificate and pin, you need only be a member of the Astronomical League, either through an affiliated club, as a Member-at-Large, or as an International Member-at Large, and observe the 100 selected objects on the included list. Any telescope may be used, but one with an objective 60mm in diameter or larger is recommended. It is preferred that the stars be found by star hopping and not by Go-To or Push-To methods, although I will not insist on this if the rest of the observations are well done. Too often I find the recording by those who use Go-To's is hurried and unclear.

I also encourage you to look at the stars with varying powers as some of these doubles are very close and require substantial power to get a clean separation of the stars. (Gamma Virginis, for instance, is currently separated by a bit more than an arc second now opening from about 0.3 arc seconds around 2007. It may require more power and not everyone will be able to split it. Just do the best you can and report what you see.)

To record your observations, you may use the log sheet provided in the "Observe. . ." booklet or in the Double Star pages at the AL website; or you may use one or your own devising as long as it includes all the required information. If you use your own log sheets, they should include: object, date, time, power(s), seeing and transparency, instrument, and a drawing of the double or multiple system. Yes, I said a drawing of the double star. Now, before you panic, how hard is it to draw two dots in the box provided, with the size of the dot indicating magnitude, and the distance between the dots representing separation? **Please show North and either East or West in your drawing and make sure your depiction of the primary star is clear to a viewer of the sketch.** A part of this exercise is to teach celestial directions so the position angles of the stars will be judged by your denotation of the directions. I have given you a line for a description, but this is optional and not required. I have included this so that if you are inspired by any one double star, you can write your thoughts or feelings down for later reference.

You must be a member of the Astronomical League to receive this certificate.

To receive your Double Star Certificate and pin, simply mail a copy (please don't send originals) of your observations along with your name, address, phone number, and society affiliation, for verification--or ask your society's Awards Coordinator to do so--to me. In the case of the Double Star Award, I prefer to verify the observations myself. I really love to see what other folks have done. It is my greatest reward as an Observing Club Coordinator. However, if mailing the observations seems impractical and there is another member in your club who has already received the Double Star Award, I will accept a recommendation from that person. If your Awards Coordinator has not received the Double Star Award, she or he must submit the observations to me or another Double Star Awardee for verification. I request the following information from each observer at the time of submission: Name (as you want it to appear on the certificate), home address, Zip Code, phone number, club or AL affiliation and the instrument(s) used for the observations. If there are any questions or problems please contact me by mail, phone, or e-mail at the following address:

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Upon verification of your observations, your certificate and pin will be forwarded either to you or your society's Awards Coordinator, whomever you choose.