

calculating the difference in magnitude between two stars. Several settings, requiring only a minute or two, and made by both dimming the variable until it matches the comparison star and brightening the variable until it matches, would provide an average reading that could be more accurate than 0.1 magnitude.

Classical forms of visual photometers are fairly complicated devices, and Houston outlines their defects in his article. The design I am suggesting avoids the defects of traditional designs and permits an observer with an 8-inch reflector to put together a visual photometer of up to 3-inch aperture, with one moving part, for a few dollars. Estimating the equality of two star images is easier than estimating the brightness interval between a variable and two comparison stars, and only simple arithmetic is needed to reduce the results.

While PEP is the last word in accuracy, I can think of many observing programs that are impractical by direct visual estimates but that would be very practical with a visual photometer having a repeatable accuracy of better than 0.1 magnitude. Perhaps our observers should learn to trot before trying to sprint.

Yours truly,

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#### OCCULTATION INFORMATION

To The Editor,

The Chairman of the AAVSO Occultation Committee has recently announced the Council's termination of that committee's activity (see Minutes of the meeting). I would like to give a bit of background and let members of the AAVSO know where they can obtain occultation information in the future.

For years the Occultation Committee of the AAVSO played an important role as the main organization coordinating occultation work in North America. Recently, other organizations and individuals, with the help of electronic computers, have been able to greatly improve occultation prediction services and analyses of occultation observations. For the best possible service, AAVSO members interested in occultations are now encouraged to contact those specializing in occultation work. Procedures and addresses for obtaining occultation information are given below.

Occultation predictions for 15 North American "standard" stations for stars brighter than mag. 7.5 (6.5 during waning phases), including maps showing the approximate location of graze paths, are given in the OCCULTATION SUPPLEMENT, available free from the Director, Nautical Almanac Office, U. S. Naval Observatory, Washington, DC 20390 (U.S. residents should enclose a long self-addressed envelope with postage for two ounces, now 24¢). Approximate local predictions using the data in the OCCULTATION SUPPLEMENT are available free from Nicholas M. Esposito, 735 Bryant Ave., Roslyn Harbor, NY 11576; send him the latitude and longitude of your observing site and a long self-addressed (stamped, if in the U.S.A.) envelope. Detailed accurate predictions for any location in the world, including stars down to about 9.5 magnitude, are available free from Mr. Peter Espenschied, U.S. Naval Observatory, Washington, DC 20390. Due to computer time and staff limitations, these lengthy USNO predictions are only available to those with high-speed photoelectric recording equipment or to visual observers who plan to time at least 60 occultations per year. Accurate geodetic coordinates of the observing site, obtainable by carefully measuring large-scale topographic maps, must be supplied. Reports of observations of ordinary occultations should be sent to H. M. Nautical Almanac Office, Royal Greenwich Observatory, Herstmonceux Castle, Hailsham, Sussex BN27 1RP, England, where reductions are computed and sent to observers for verification of the data.

Special occultation events, including occultations by planets and minor planets, lunar occultations of planets, double stars discovered during occultations, occultations of numerous faint stars during lunar eclipses and passages in front of open clusters; and results, including lists of recently-observed grazes, total occultation tallies, and abstracts of recent professional and important amateur publications, are described in OCCULTATION NEWSLETTER, available for \$1 per issue or \$4 per year from the International Occultation Timing Association (I.O.T.A.), 4032 N. Ashland Ave., Chicago, IL 60613; airmail delivery to other countries costs extra. Detailed predictions for grazing occultations are available from IOTA for \$1.50 apiece. For \$7/year (\$9/year for airmail for observers outside North America), you can join IOTA. Benefits of IOTA membership include a subscription to OCCULTATION NEWSLETTER, detailed predictions of grazes for all stars down to about mag. 8.5 which occur within a desired distance of your station, and special IOTA publications about observing grazes and other topics in preparation. European observers can receive full IOTA benefits by joining the European Section by sending DM 10.-- to Hans J. Bode, 3000 Hannover, Barthold-Knaust-Str. 6, German Federal Republic. A Spanish translation of OCCULTATION NEWSLETTER is available from Guillermo Mallén, Goya 64-11, Col. Mixcoac, Mexico 19, D.F., Mexico.

Yours truly,

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