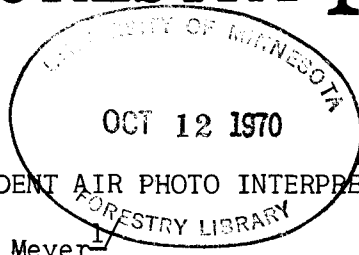


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MINNESOTA FORESTRY NOTES



No. 166
October 15, 1965

A PARALLAX WEDGE FOR STUDENT AIR PHOTO INTERPRETERS

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Aerial photographic interpretation research points increasingly toward the possibility of greater practical utility of parallax height measurements in applications of aerial photos to natural resource management. As a consequence, students of photo interpretation should receive at least a basic knowledge of how parallax measurements are taken and calculated.

Unfortunately, most instructors encounter certain standard handicaps in attempting to provide such training:

1. Large classes of students rule out the use of parallax bar instruments because of prohibitive costs.
2. Although available parallax wedges are relatively inexpensive, but still comparable in accuracy to parallax bars (1), many students initially experience great difficulty in "seeing" parallax wedges of the conventional spacing of .002" between graduations.

In an attempt to inexpensively bridge the training gap between the average student and a conventional parallax wedge or parallax bar, a student training wedge was developed several years ago by the University of Minnesota School of Forestry. Classes usually number in excess of 70 students and it had previously been impossible to give parallax measurement practice to classes of this size.

This wedge, illustrated in Figure 1, is an adaptation of the Harvard Parallax Wedge (2), and utilizes larger than ordinary dot sizes and a spacing graduation between dot pairs of .005" rather than the conventional .002". Three years of trial use have been very successful in that all but a few students of the over 200 students trained during the period have been able to use the device in a short time. Students who experienced difficulty were those with major eye defects.

Because of the relatively large interval between floating dots, a training stereogram is required which displays a greater object vertical displacement than one conventionally finds in most forest stands pictured at photo scales of 1/15,840 to 1/20,000.

Actually, any stereoscopic pair of relatively mountainous or hilly photography will suffice for such training. Although desirable, it is not essential that specific ground elevations be known which the student can measure because the purpose of the training at this stage is simply to get the student to "see"

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the floating dots at comparative elevations. After picking several ground locations on the photos at significantly different ground elevations, it is sufficient to use the average of a number of parallax readings of these photo-ground points, as obtained by an experienced and trained interpreter, in order to have an "answer" against which to compare the students' parallax readings in class.

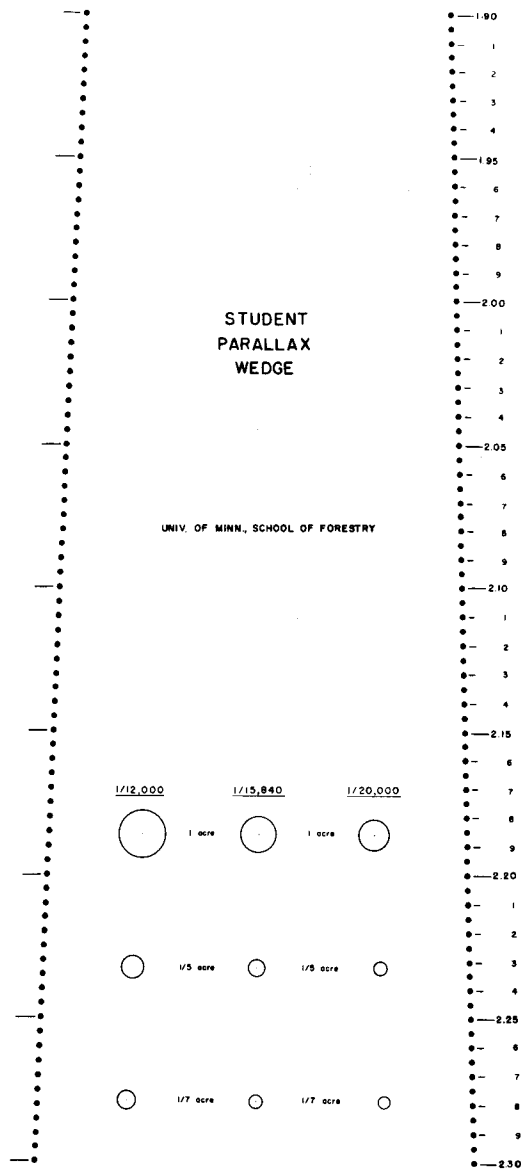


Figure 1. Student Parallax Wedge.

- (1) Moessner, K. W. 1961. Comparative usefulness of three parallax measuring instruments in the measurement and interpretation of forest stands. *Photogrammetric Engineering*, 27 (5): 705-709.
- (2) Spurr, S. H. 1945. Parallax wedge measuring devices. *Photogrammetric Engineering*, 11:85-89.