

TRAINING THE NAVIGATOR



AN UNKNOWN AIRFIELD



**BEECHCRAFT MODEL 18
WITH ASTRODOME**





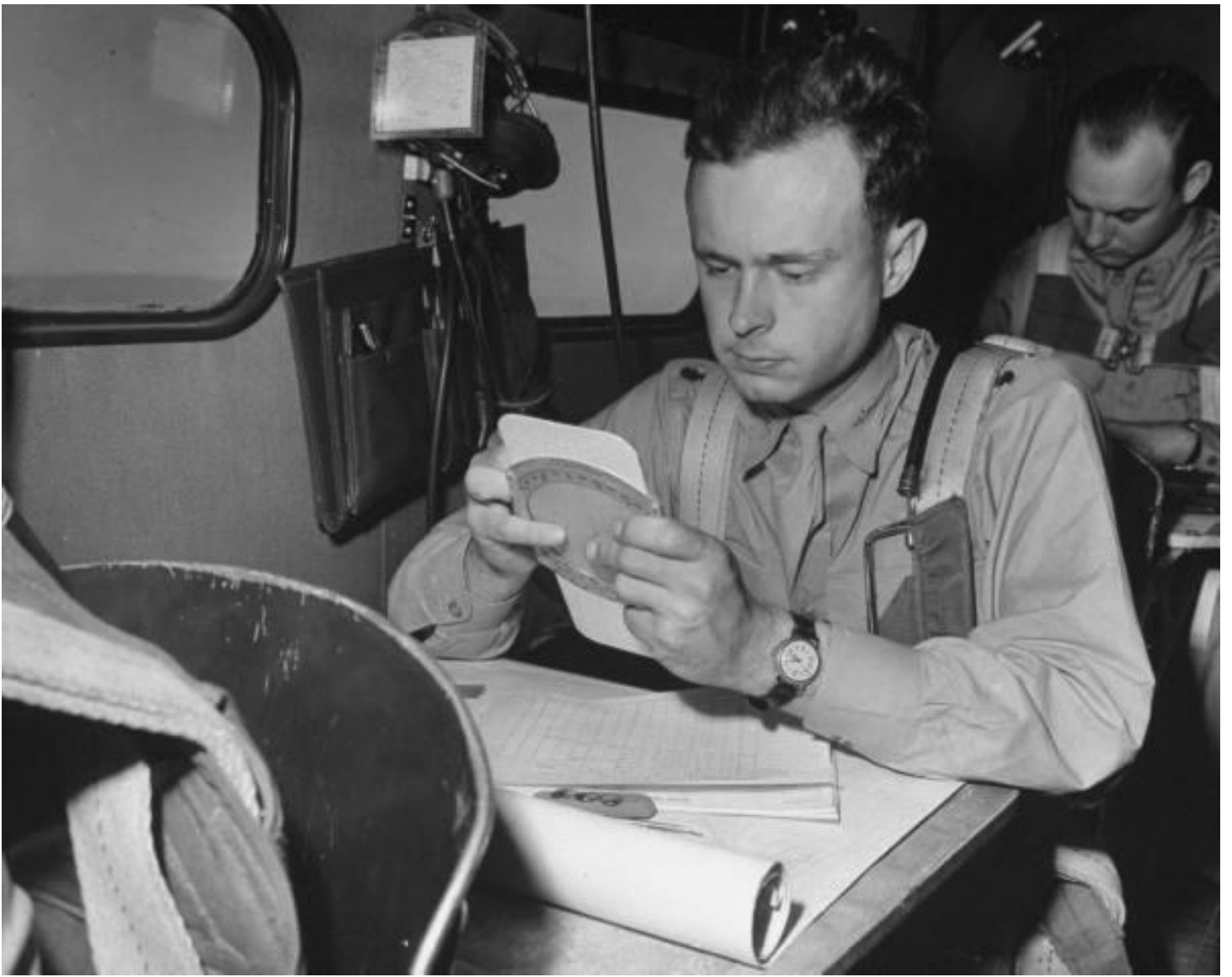
THE BEEHCRAFT WAS A FLYING CLASSROOM



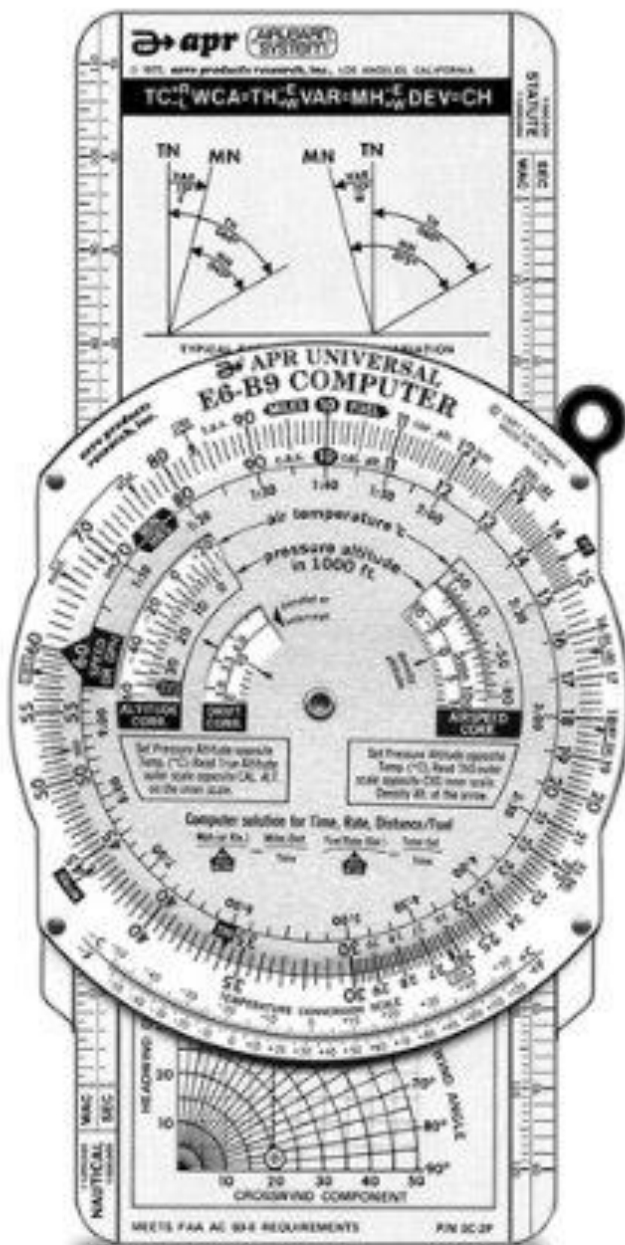
**CHECKING ALTIMETER, AIRSPEED, AND
GYRO COMPASS**



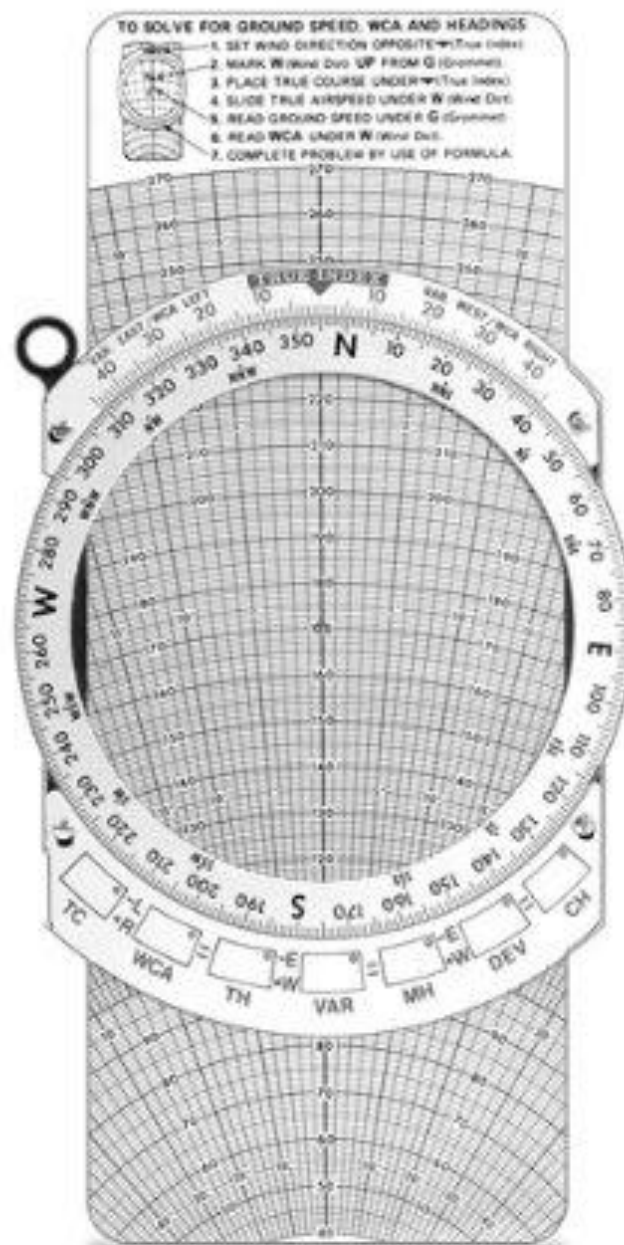
CHECKING THE MAGNETIC COMPASS



**USING TIME-SPEED-DISTANCE
CALCULATOR**



Wind Triangle Information
 Graphic Crosswind Grid
 WAC & Sectional Rulers



Low Speed Slide
 40 to 270 knots or miles
 Graphic Wind Triangle Instructions

THE TIME-SPEED-DISTANCE CALCULATOR



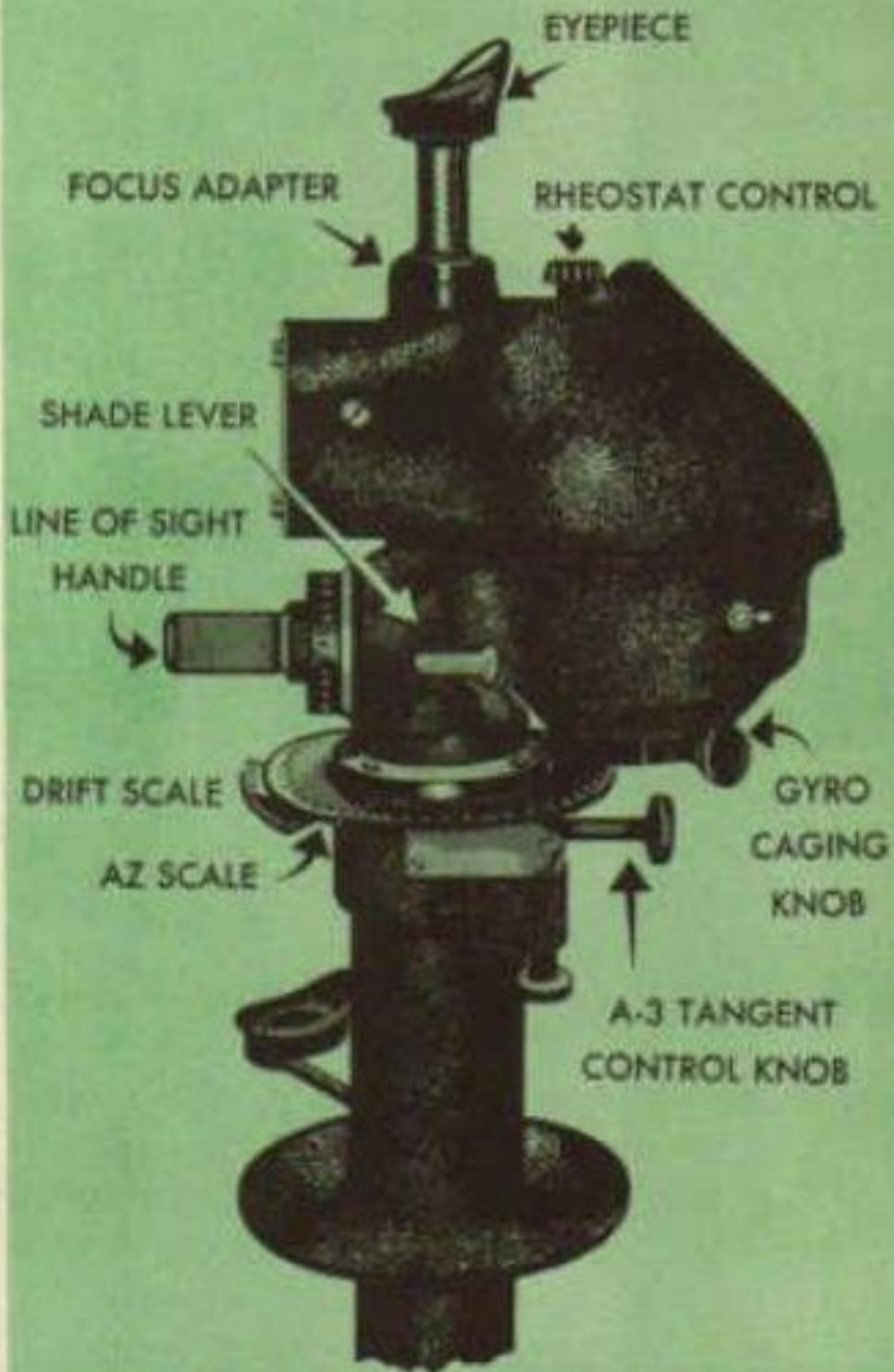
DROPPING SMOKE FLARE TO CHECK DRIFT



THE SMOKE FLARE



**SIGHTING THE SMOKE FLARE WITH
THE DRIFT METER**



B-3 DRIFT METER





SEXTANT PRACTICE



**TAKING A SEXTANT SIGHT THROUGH
THE ASTRODOME**

Driftmeter Check

An emergency driftmeter check can be performed in the air as follows:

1. Fly at approximately right angles to the wind.
2. Read and record the drift correction.
3. Make a 180° turn.
4. Read and record the drift correction on this heading.
5. If the driftmeter is aligned the readings are equal in magnitude but opposite in sign.

If they are not equal, add the recordings mathematically and divide by 2. This gives you the average. Then subtract the average from the larger drift reading, and apply this correction to all further drift readings.

Example

On a heading 90° to the wind you obtain a drift correction of +7°.

On a reciprocal heading you obtain a drift correction of -3°.

$3 + 7 = 10 \div 2 = 5$ (actual drift on each heading).
Apply a -2° correction algebraically to all sub-

sequent drift readings.

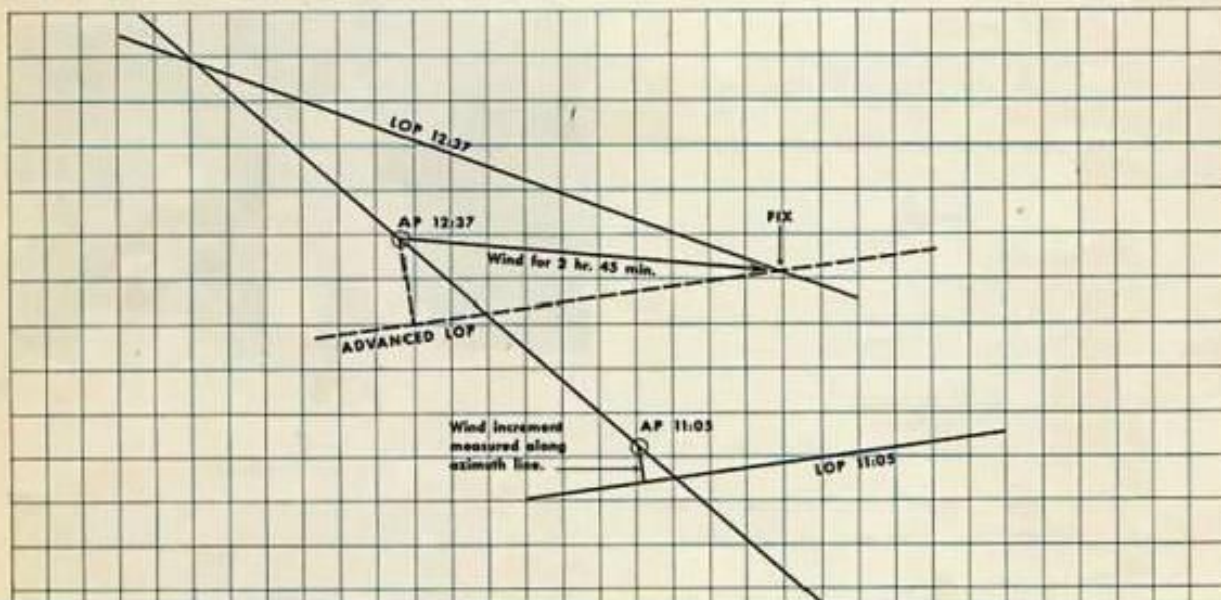
Caution: This procedure is subject to error unless headings flown are close to $\pm 90^\circ$ to wind direction.

Noonday Fix

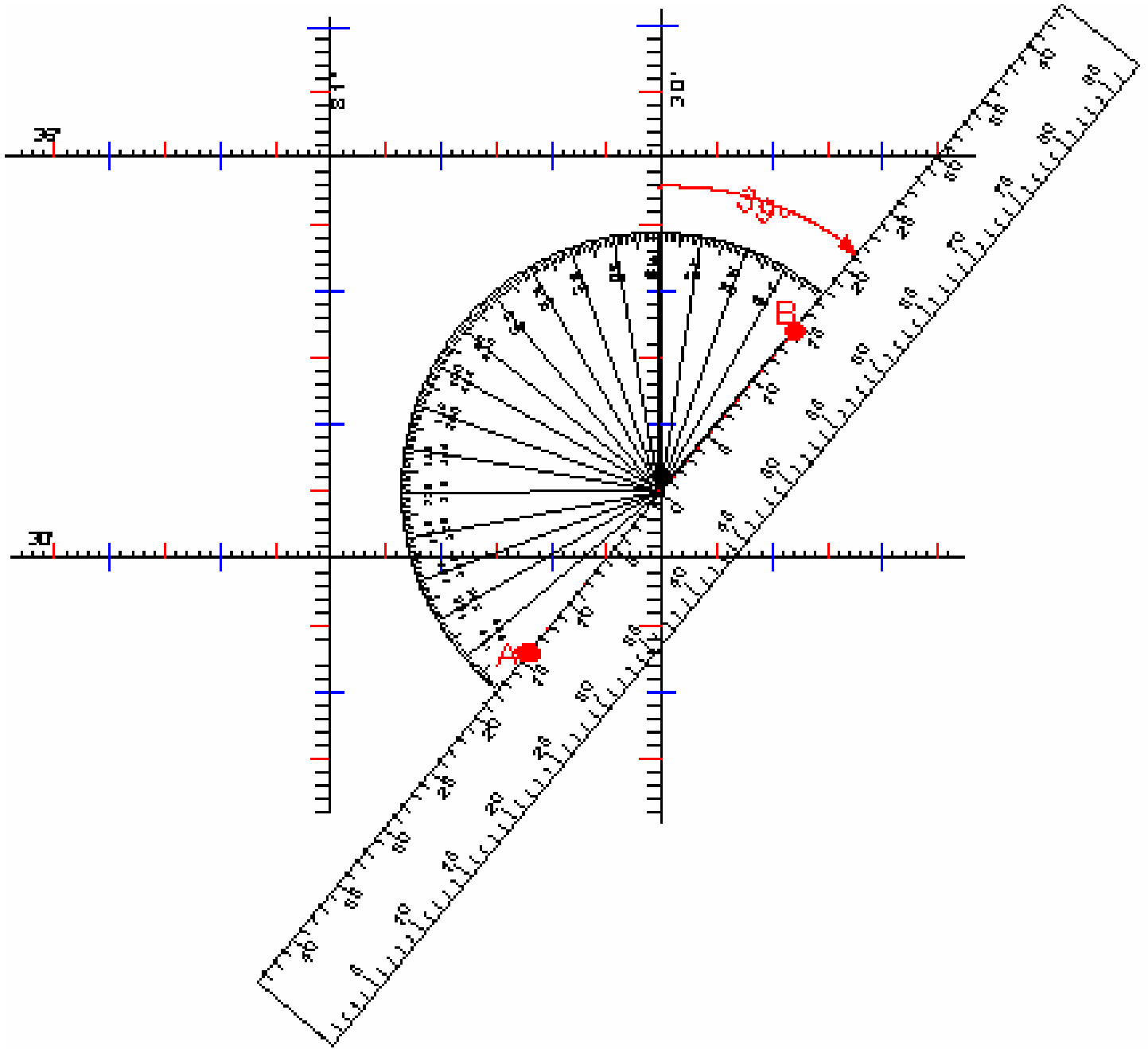
A suggested method by which you can advance sun lines to obtain a fix is described below. This is especially useful when you wish to advance a sun line that was observed before an alteration of course to a specific time after the alteration of course.

1. Measure the effect of the wind along the azimuth of the first LOP from your air plot position.
2. Convert the effect of the wind found by the first LOP to the time of the second LOP.
3. Draw in the azimuth line of the first LOP from air plot at time of second LOP.
4. Measure converted wind effect from air plot of second LOP along this azimuth.
5. Draw in first LOP from this point.
6. Fix is at intersection of LOP's.
7. Measure wind from air plot to fix.

An error in true heading or true airspeed does not cause an error in the fix, but it does cause a wind error.



FROM THE MANUAL

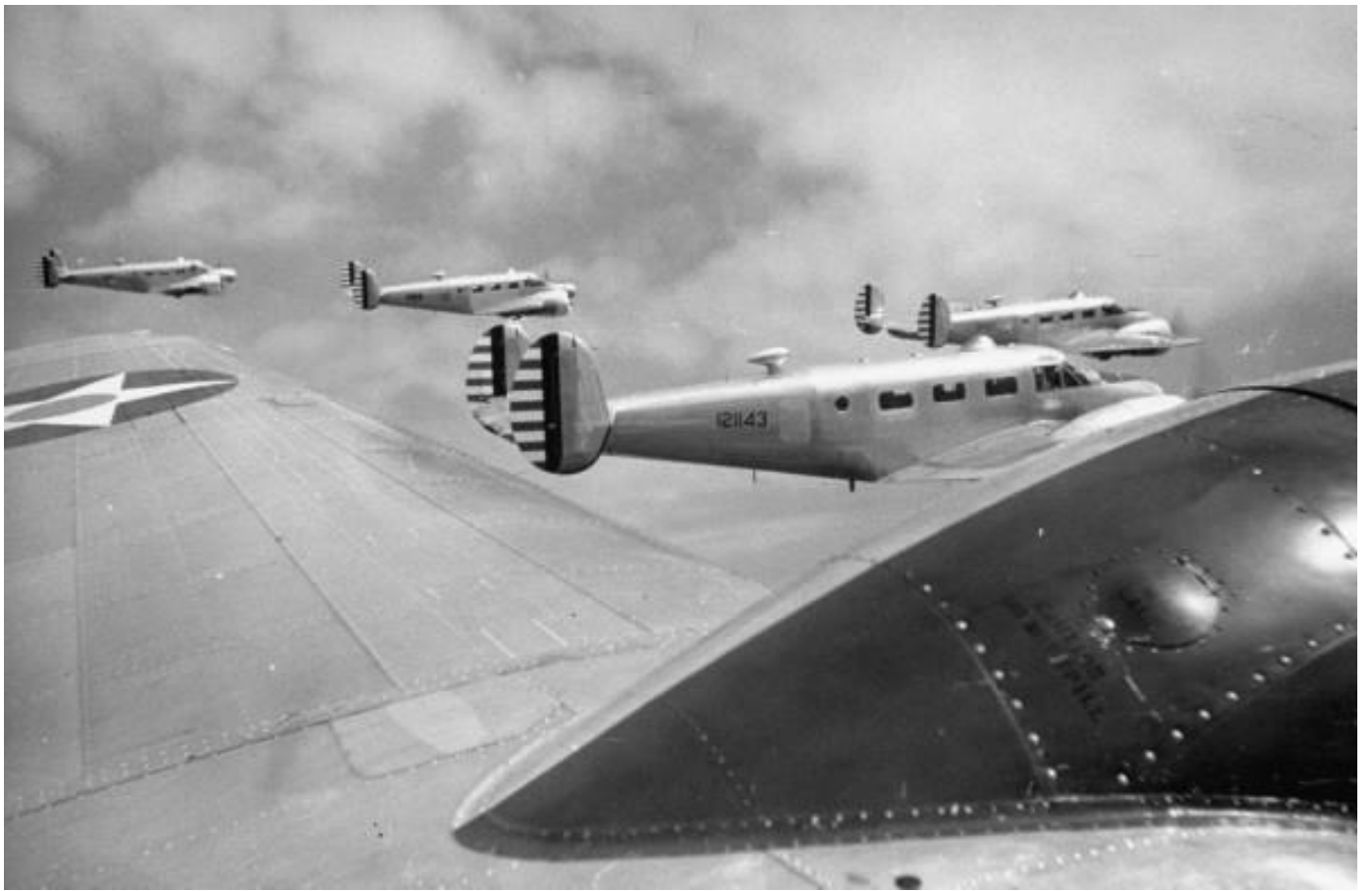


THE PLOTTING PROTRACTOR



NAVIGATOR TO PILOT—TURN RIGHT

15 DEGREES



CLOSE IN—HEADING HOME

