



9119 W. Veterans Dr., Homosassa, FL 34448
Phone: (352) 563-5855 Fax: (352) 563-5927
Website: <http://www.sportsradargun.com> Email: trina@sportsradargun.com

APPLICATION NOTE

TITLE: Positioning the radar gun for optimum performance for reading a Volleyball serve speed.

TO REDUCE OR ELIMINATE THE COSINE EFFECT (IN DOPPLER RADAR THEORY) AND ACHIEVE MAXIMUM ACCURACY, ALIGN THE RADAR UNIT ON A TRI-POD IN THE DIRECT LINE OF TRAVEL OF THE BALL. IF THE BORESIGHT OF THE RADAR UNIT IS NOT IN THE DIRECT LINE OF BALL TRAVEL, THE RECORDED SPEED WILL BE LESS THAN THE ACTUAL BALL SPEED BY THE COSINE OF THE ANGLE BETWEEN THE BORESIGHT OF THE RADAR UNIT AND THE LINE OF TRAVEL OF THE BALL.

MOUNT THE RADAR UNIT ON A STURDY TRI-POD, NO MORE THAN 12 FEET BEHIND THE BASE LINE (FIGURE 1) AND ABOUT 5-6 FEET HIGH (FIGURE 2).
MOVE THE RADAR UNIT FROM RIGHT TO LEFT DEPENDING ON WHICH SIDE OF THE COURT IS BEING SERVED TO.

FIGURE 1 Court view from top

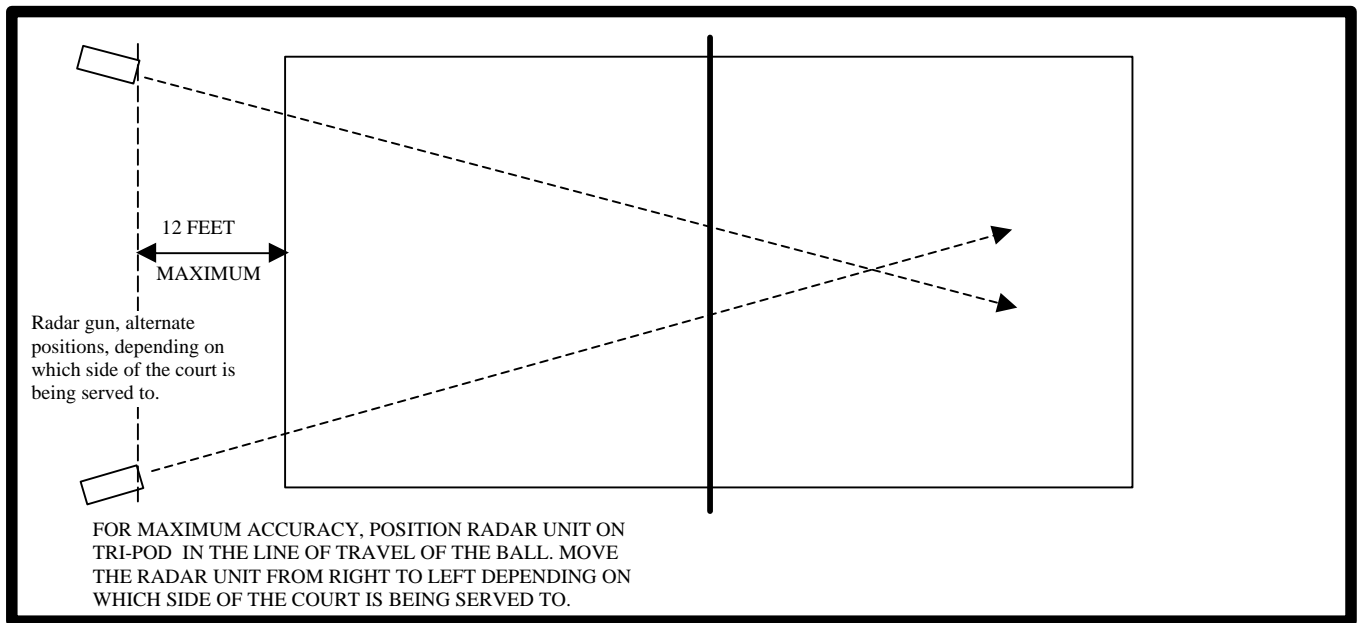


Figure 2 side view of court

