

Abstracts

Error of Doppler RADAR in Target Speed Determination for Traffic Control (Correspondence)

T.K. Ishii. "Error of Doppler RADAR in Target Speed Determination for Traffic Control (Correspondence)." 1965 Transactions on Microwave Theory and Techniques 13.3 (May 1965 [T-MTT]): 389-390.

The purpose of this correspondence is to show the theoretical error of Doppler radar target speed determination for traffic control due to its carrier frequency deviation. Most Doppler radars for traffic police utilize the tuning fork calibration technique immediately before monitoring the target speed. In this way, the audio-frequency part the Doppler radar is accurately calibrated. The police operator does not usually calibrate the carrier frequency before monitoring speed and no such instruction is usually given to the operator. According to the author's experience and the experience of others an error due to the carrier frequency deviation is often asserted in court. Effect of shorttime frequency fluctuation of the carrier frequency of a Doppler radar was investigated by Brady and found to be insignificant.

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