

Analysis on the angular jamming effects of electronically controlled corner reflectors towing after a maneuver aircraft

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Abstract

In this letter, the angular jamming effect of electronically controlled corner reflectors after a maneuver aircraft is analyzed. Motion characteristics of the corner reflectors towed by a high-speed aircraft are calculated through the Lagrange theory, and the angle measurement error of the jamming method for the monopulse angle measurement algorithm is analyzed based on the motion states and the electromagnetic states (scattering or penetration) of the corner reflectors. Results show that the measured angle by a monopulse radar seeker can be effectively interfered by this method under complex maneuver motion while the automatic tracking is employed.

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