

Title (en)

METHOD AND DEVICE FOR THE REDUCTION OF JAMMING SIGNAL POWER RECEIVED BY THE SIDE LOBES OF A RADAR ANTENNA

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Application

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Priority

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Abstract (en)

[origin: CA1219324A] METHOD AND APPARATUS FOR REDUCING THE POWER OF JAMMING SIGNALS RECEIVED BY RADAR ANTENNA SIDELOBES Secondary lobe cancellation (SLC) is used to reduce the power of jamming signals received by the sidelobes of a main radar antenna. The signal from the radiation pattern of the main antenna is summed with signals from auxiliary radiation patterns. Each auxiliary pattern is chosen to be directional, to have a null or at least a gain minimum in the direction of maximum radiation in the main antenna pattern, to have its phase center close to that of the main antenna pattern, and to have gain minimums in those directions for which the sidelobes of the main antenna pattern are low enough to be insensitive to jamming signals. The various patterns may all be derived from an array antenna, eg. a multibeam antenna, an aplanatic lens antenna, or a chandelier fed antenna.

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