Abstracts

Millimeter Radar Investigation

M.J. Foral. "Millimeter Radar Investigation." 1969 G-MTT International Microwave Symposium Digest of Technical Papers 69.1 (1969 [MWSYM]): 489-493.

In the field of scanning radar the need for high resolution is becoming increasingly important. Several types of monopulse techniques have been tried in order to improve angular resolution but results have been marginal. Higher angular resolution than that produced by the beam size of the system cannot be attained by monopulse methods. The most simple and perhaps the most effective method that can be used to achieve high resolution is through the use of a narrow antenna beam. The antenna beam can be made more narrow by either increasing the antenna size or increasing the radar frequency. In airborne applications the antenna size has reached a practical limit so, in order to improve the resolution, it becomes necessary to increase the radar frequency. For this reason a continuing investigation of the higher radar frequencies is being conducted at the Naval Air Development Center.

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