

ABSTRACT

PHASED ARRAY RADAR ANTENNA HAVING REDUCED SEARCH TIME AND METHOD FOR USE THEREOF

A phased array radar antenna includes at least two antennas (11, 12, 13, 14) adapted for simultaneous operation at different non-mutually interfering frequencies. The phased array radar antenna may be fitted to an aircraft having a fuselage supporting first and second radar side antennas (11, 12) on opposite sides thereof, a nose portion supporting a first radar end antenna (13), and a tail portion supporting a second radar end antenna (14). Respective radomes cover the first and second radar end antennas so as to provide a smooth aerodynamic contour, and a radar control unit (15) is disposed within the fuselage and coupled to the first and second radar side antennas and to the first and second radar end antennas for operating the first or second radar side antenna simultaneously with the first or second radar end antenna at respective first and second different frequencies.

FIG. 1



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