

Title (en)
Primary and secondary radar aerial.

Title (de)
Primär- und Sekundär-Radarantenne.

Title (fr)
Aérien pour radar primaire et radar secondaire.

Publication
EP 0025739 A1 19810325 (FR)

Application
EP 80401242 A 19800829

Priority
FR 7922450 A 19790907

Abstract (en)
[origin: US4376937A] A common antenna system for a primary and a secondary radar transceiver, designed for monitoring air traffic, has a primary feeder or source connected to a primary-radar transceiver and terminating in a horn confronting a reflector, this source including two transverse probes connected to a secondary-radar transceiver which also communicates with a pair of ancillary feeders flanking the horn in an azimuthal plane. The horn is also flanked by two dipoles, closer than the ancillary feeders, delivering a difference signal of a monopulse channel to an angular-deviation-measuring receiver to which an incoming sum signal of the same channel is fed from the probes by way of the secondary-radar transceiver. The signals of the monopulse channel are emitted by transponders aboard an aircraft in response to interrogation signals sent out and received back by the probes in a radiation pattern blanked for the most part by control signals transmitted and received by the ancillary feeders, these control signals leaving free an interrogation arc of limited azimuthal extent; the signals of the monopulse channel define a narrower angular-deviation-measuring arc for localizing an aircraft within the interrogation arc.

Abstract (fr)
Aérien combiné pour radar primaire et radar secondaire comportant pour la fonction radar secondaire des moyens d'interrogation et des moyens de contrôle. Pour permettre une discrimination des cibles interrogées en zone proche, une voie monopulse en gisement est formée sur cet aérien, la voie somme (8, 9) étant celle de la voie interrogation et la voie différence étant créée à partir de deux antennes (23, 24) disposées symétriquement par rapport à l'axe de la source primaire (6). Application à toute station de surveillance du trafic aérien.

IPC 1-7
H01Q 25/02; **H01Q 5/00**

IPC 8 full level
H01Q 13/02 (2006.01); **G01S 7/02** (2006.01); **G01S 13/87** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/45** (2015.01); **H01Q 21/28** (2006.01); **H01Q 25/00** (2006.01); **H01Q 25/02** (2006.01)

CPC (source: EP US)
H01Q 5/45 (2015.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **H01Q 25/02** (2013.01 - EP US)

Citation (search report)

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- DE 2411158 B1 19750807
- [A] FR 2243532 A1 19750404 - THOMSON CSF [FR]

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Designated contracting state (EPC)
AT BE CH DE GB IT LI SE

DOCDB simple family (publication)
EP 0025739 A1 19810325; **EP 0025739 B1 19840111**; AT E5836 T1 19840115; DE 3066094 D1 19840216; FR 2465328 A1 19810320; FR 2465328 B1 19831209; JP S5689076 A 19810720; NO 152189 B 19850506; NO 152189 C 19850814; NO 802636 L 19810309; US 4376937 A 19830315

DOCDB simple family (application)
EP 80401242 A 19800829; AT 80401242 T 19800829; DE 3066094 T 19800829; FR 7922450 A 19790907; JP 12248480 A 19800905; NO 802636 A 19800905; US 18306680 A 19800902