

Title (en)
PRIMARY AND SECONDARY RADAR AERIAL

Publication
EP 0025739 B1 19840111 (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.

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 (examination)
"Radar Handbook" Skolnik McGraw Hill 1970 p. 38-9 à 38-11

Cited by
US5761605A; US5483663A; FR2773271A1; EP0367656A1; FR2638531A1; US5036336A; EP0057538A3; US4468670A; US6730310B2; US6208834B1; US7853197B2; WO2018060070A1

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