

Registered Owner and Operator:	British Mediterranean Airways Limited
Aircraft Type:	Airbus A-320-231
Manufacturer's Serial No:	0480
Registration:	G-MEDA
Location of incident:	On approach to Runway 25L, Addis Ababa Airport, Ethiopia Latitude: 09° 05'N Longitude: 038° 53'E
Date and Time of incident;	31 March 2003 at 2338 hrs All times in this report are UTC

Synopsis

The United Kingdom air Accidents Investigation Branch (AAIB) was notified of this incident by the Flight Safety Manager of British Mediterranean Airways. The AAIB then notified the Ethiopian Accident Investigation Authority.

A British Mediterranean Airbus A-320 aircraft, registration G-MEDA operating as flight number LAJ 6711 on a flight from Alexandria (Bourg-el-Arab), Egypt, to Addis Ababa, Ethiopia, carried out two approaches using the Addis Ababa VHF Omni-Directional Radio Range beacon (ADS VOR) and associated Distance Measuring Equipment (DME). On the second approach the aircraft crossed over a ridge of high ground in Instrument Meteorological Conditions (IMC) and came within 56 ft of terrain at a location 5 nm to the northeast of the airport. As the aircraft crossed the ridge the crew, alerted a few seconds earlier by a radio altimeter (RA) height callout, carried out a go-around; at the same time the Enhanced Ground Proximity Warning System (EGPWS) generated a 'TOO LOW TERRAIN' aural alert.

The investigation determined that the antenna of the ADS VOR had suffered water ingress and was not functioning correctly. The correct maintenance procedures for the ADS VOR/DME and its associated monitoring equipment were not followed.

The aircraft received erroneous information from the ADS VOR which was fed to the flight deck VOR display, the Flight Management System (FMS), the navigation displays and the EGPWS computer with its associated Terrain Awareness Display (TAD). A single common position source error thus adversely affected all these apparently independent navigation/situational awareness systems.

The existing certification standards for the aircraft navigation systems were met but were not sufficient to protect against this problem.