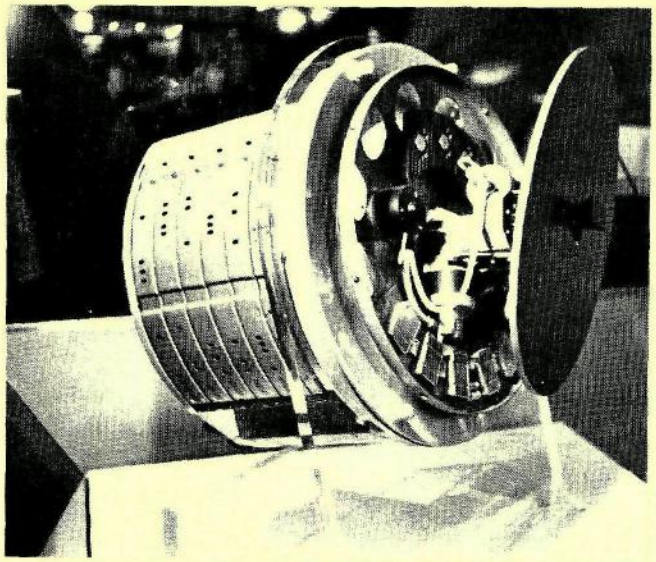
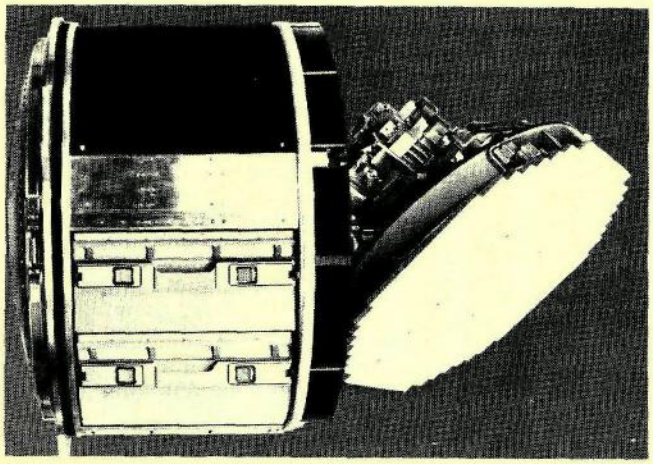


This engineering mock-up of the Thomson-CSF Agave shows its family resemblance to the earlier Cyrano IV. Designed for use on the Super Etendard, Agave has been flight-tested in an under-fuselage pod on a Jaguar

Thomson-CSF/Eléctronique Marcel Dassault A pulse-Doppler radar is being developed for the Mirage 2000. Based on an experimental set, it is expected to have a range of at least 54 n.m.

Operating modes will include air interception at all altitudes, target illumination for the Matra Super 530 radar-homing missile, short-range air combat, and ground and contour mapping. Flight trials are due to begin early next year.

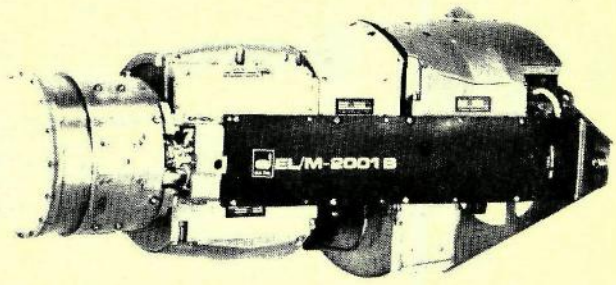


A new Mirage requires a new radar, so Thomson-CSF and Eléctronique Marcel Dassault have teamed up to develop this low-PRF radar for the Mirage 2000. The Mirage 4000 will have a radar with a 36in-diameter antenna

Israel

Elta EL/M-2001B A relatively simple range-only radar for air-to-air and air-to-ground applications, the EL/M-2001B was first announced in the autumn of 1976. It is almost entirely solid-state and consists of six line-replaceable units (LRUs)—transmitter, receiver, power supply, RF exciter, RTU and servo unit—plus beam-directing unit, gearbox, RF head and travelling-wave tube. All ten units fit on to a main chassis.

Target detection is carried out visually, the radar automatically acquiring and tracking any targets visible in the pilot's HUD. If more than one target is visible, the pilot can select the most interesting. Data from the radar are passed to the HUD or to the aircraft weapon-control computer. The manufacturer claims that heavy ground clutter does not affect the radar, allowing very-low-level air combat.



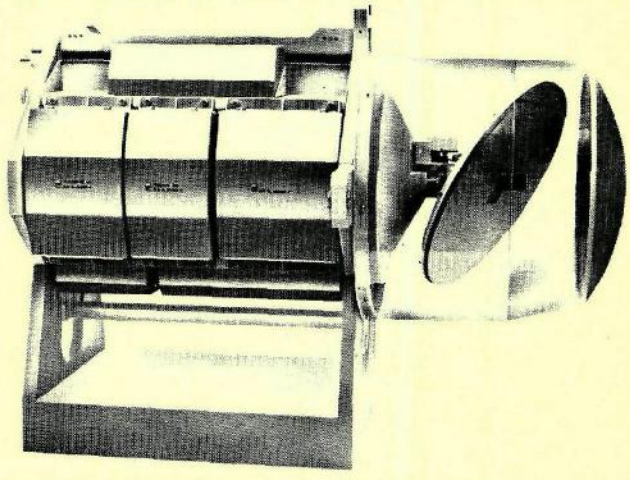
The EL/M-2001 was Israel's first home-produced air-to-air radar. Elta claims to be a world leader in the field of low-level target detection in the face of clutter and countermeasures

Elta EL/M-2021 Less than a year after the range-only EL/M-2001 was declassified, Elta released first details of a more advanced multi-role radar. Built up from about a dozen LRUs, it has a roll and pitch-stabilised inverse-Cassegrain antenna.

The antenna can scan through ±45° in azimuth and ±5° in elevation, changing in close combat to ±10° in azimuth and +60°/−20° in elevation. When tracking, the antenna is free to move through ±70° in azimuth and +80°/−40° in elevation.

Operating modes include air interception, close-in combat, air-to-ground bombing and gunnery, terrain-following and avoidance, and terrain mapping. The radar picture produced on the cockpit head-down display is stabilised, a useful feature when the radar is being used for navigation.

The radar is still under development, and no application has been announced. Elta claims that it is possible to install the unit in new aircraft or retrofitting to existing types. Digital data processing is used in the radar/avionics interface, so adapatation of the set to an existing aircraft and its systems may be a relatively simple job calling for software changes only.



Like the F-16 radar, Israel's EL/M-2021 is made up from a number of LRUs fitted to a basic chassis. The antenna is an inverted Cassegrain similar to that on the Cyrano IV and Agave