

Flight Path Management System of EOLE UAV

Within the PERSEUS project of CNES (French National Space Centre), EOLE is a demonstrator for a reusable unmanned automatic carrier for airborne rocket launchers. EOLE will lift a small scale rocket from an airport up to 4000 m in altitude. A ground pilot controls EOLE for take off and landing manually via radio controls at viewing distance. The guidance and autopilot system is then switched on for autonomous flight including climb, cruise flight, launch and separation maneuver, return flight and initial descent. This paper deals more particularly with the design of the guidance for the flight path management system, which was successfully used in flight tests.