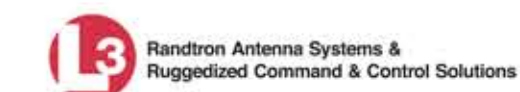


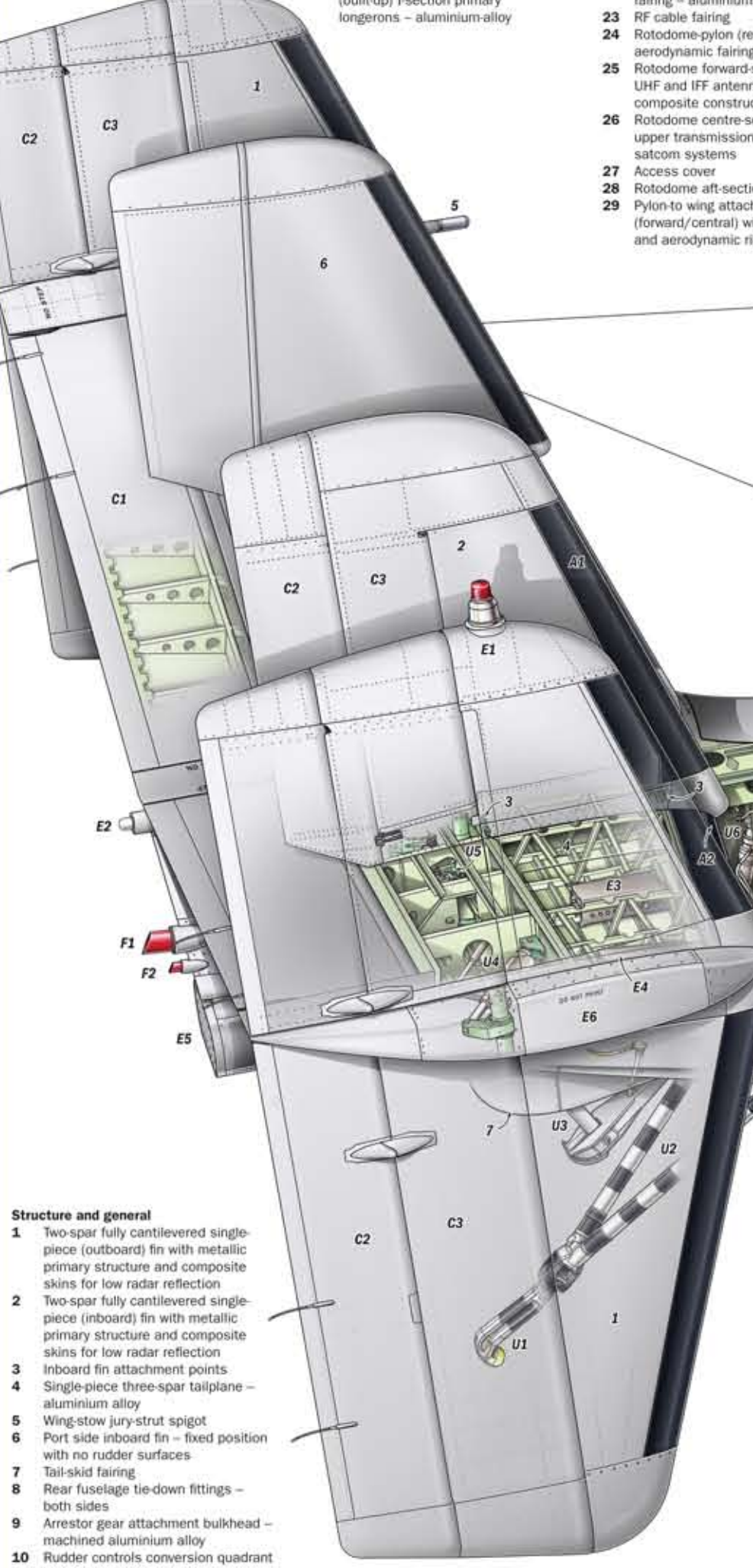
NORTHROP GRUMMAN

E-2D ADVANCED HAWKEYE

AIRBORNE EARLY WARNING COMMAND AND CONTROL



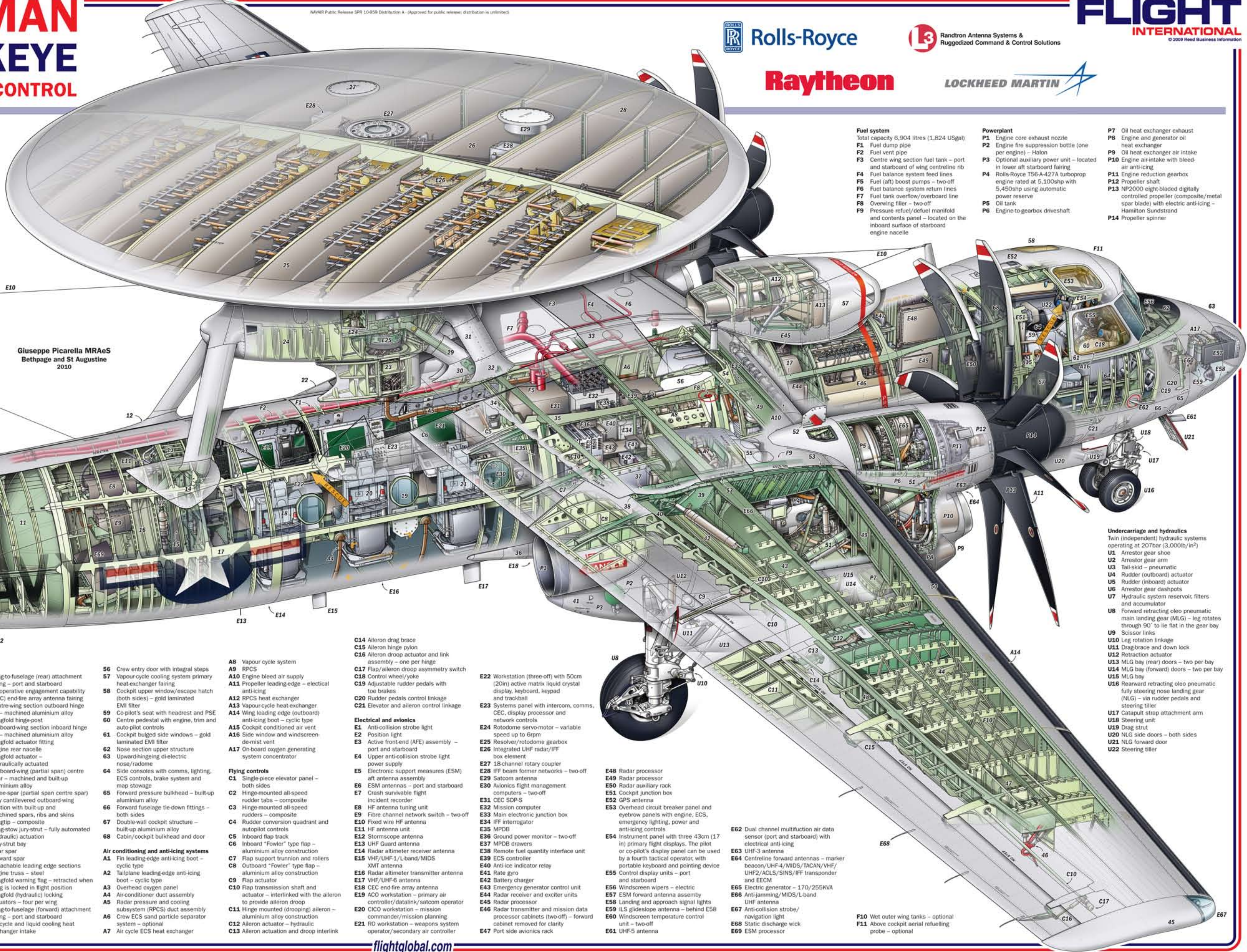
This illustration depicts the baseline E-2D Advanced Hawkeye airborne early warning command and control aircraft - customer specific equipment/optional items are indicated accordingly.



- Structure and general**
- Two-spar fully cantilevered single-piece (outboard) fin with metallic primary structure and composite skins for low radar reflection
 - Two-spar fully cantilevered single-piece (inboard) fin with metallic primary structure and composite skins for low radar reflection
 - Inboard fin attachment points
 - Single-piece three-spar tailplane - aluminium alloy
 - Wing-stow jury-strut spigot
 - Port side inboard fin - fixed position with no rudder surfaces
 - Tail-skid fairing
 - Rear fuselage tie-down fittings - both sides
 - Arrestor gear attachment bulkhead - machined aluminium alloy
 - Rudder controls conversion quadrant
 - Pressure bulkhead - built-up aluminium alloy
 - Rotodome-pylon rear support fairing
 - Flying controls (rear cabin) conversion quadrant
 - Pylon leg-to-fuselage (rear) attachment fitting
 - Rear compartment access door

- Rear compartment housing avionics, flying controls and hydraulic systems - lavatory or galley optional
- Semi-monocoque fuselage construction, incorporating six (built-up) I-section primary longerons - aluminium alloy
- Cabin window and blind - three-off
- Combat information centre officer's (CICCO) seat and PSE
- Radar operator's (RO) seat and PSE
- Wing-to-fuselage aerodynamic fairing - aluminium alloy construction
- RF cable fairing
- Rotodome-pylon (revised) aerodynamic fairing
- Rotodome forward section housing UHF and IFF antenna arrays - composite construction
- Rotodome centre-section housing UHF upper transmission line, IFF and satcom systems
- Access cover
- Rotodome aft-section - composite
- Pylon-to-wing attachment legs (forward/central) with I-section beam and aerodynamic ribs

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2010



- Wing-to-fuselage (rear) attachment fitting - port and starboard
- Co-operative engagement capability (CEC) end-fire array antenna fairing rib - machined aluminium alloy
- Wingfold hinge-post
- Outboard-wing section inboard hinge rib - machined aluminium alloy
- Wingfold actuator fitting
- Wingfold actuator
- Wingfold actuator - hydraulically actuated
- Outboard-wing (partial span) centre spar - machined and built-up aluminium alloy
- Three-spar (partial span centre spar) fully cantilevered outboard-wing section with built-up and machined spars, ribs and skins
- Wingtip - composite
- Wing-stow jury-strut - fully automated (hydraulic) actuation
- Jury-strut bay
- Rear spar
- Forward spar
- Detachable leading edge sections
- Engine truss - steel
- Wingfold warning flag - retracted when wing is locked in flight position
- Wingfold (hydraulic) locking actuators - four per wing
- Wing-to-fuselage (forward) attachment fitting - port and starboard
- Cabin upper/forward capping bulkhead

- Air conditioning and anti-icing systems**
- Fin leading-edge anti-icing boot - cyclic type
 - Tailplane leading-edge anti-icing boot - cyclic type
 - Overhead oxygen panel
 - Air-conditioner duct assembly
 - Radar pressure and cooling subsystem (RPCS) duct assembly fitting
 - Crew ECS sand particle separator system - optional
 - Air cycle ECS heat exchanger

- Flying controls**
- Single-piece elevator panel - both sides
 - Hinge-mounted all-speed rudder tabs - composite
 - Hinge-mounted all-speed rudders - composite
 - Rudder conversion quadrant and autopilot controls
 - Inboard flap track
 - Inboard 'Fowler' type flap - aluminium alloy construction
 - Flap support trunnion and rollers
 - Outboard 'Fowler' type flap - aluminium alloy construction
 - Flap actuator
 - Flap transmission shaft and actuator - interlinked with the aileron to provide aileron droop
 - Hinge mounted (drooping) aileron - aluminium alloy construction
 - Aileron actuator - hydraulic
 - Aileron actuator and droop interlink

- Electrical and avionics**
- Anti-collision strobe light
 - Position light
 - Active front-end (AFE) assembly - port and starboard
 - Upper anti-collision strobe light power supply
 - Electronic support measures (ESM) aft antenna assembly
 - ESM antennas - port and starboard
 - Crash survivable flight indicator recorder
 - HF antenna tuning unit
 - Fibre channel network switch - two-off
 - Fixed wire HF antenna
 - HF antenna unit
 - Stormscope antenna
 - UHF Guard antenna
 - Radar altimeter receiver antenna
 - VHF/UHF/L-band/MIDS XMT antenna
 - Radar altimeter transmitter antenna
 - VHF/UHF-G antenna
 - CEC end-fire array antenna
 - ACD workstation - primary air controller/datalink/satcom operator
 - CICCO workstation - mission commander/mission planning
 - RO workstation - weapons system operator/secondary air controller

- Workstation (three-off) with 50cm (20in) active matrix liquid crystal display, keyboard, keypad and trackball
- Systems panel with intercom, comms, CEC, display processor and network controls
- Rotodome servo-motor - variable speed up to 6rpm
- Resolver/rotodome gearbox
- Integrated UHF radar/IFF box element
- 18-channel rotary coupler
- IFF beam former networks - two-off
- Satcom antenna
- Radar auxiliary rack
- Cockpit junction box
- GPS antenna
- Overhead circuit breaker panel and eyebrow panels with engine, ECS, emergency lighting, power and anti-icing controls
- Instrument panel with three 43cm (17 in) primary flight displays. The pilot or co-pilot's display panel can be used by a fourth tactical operator, with portable keyboard and pointing device
- Control display units - port and starboard
- Windscreen wipers - electric
- ESM forward antenna assembly
- Landing and approach signal lights
- ILS glide-slope antenna - behind E58
- Windscreen temperature control unit - two-off
- UHF-S antenna

- Radar processor
- Radar processor
- Radar auxiliary rack
- Cockpit junction box
- GPS antenna
- Overhead circuit breaker panel and eyebrow panels with engine, ECS, emergency lighting, power and anti-icing controls
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- Dual channel multifunction air data sensor (port and starboard) with electrical anti-icing
- UHF-S antenna
- Centreline forward antennas - marker beacon/UHF-4/MIDS/TACAN/UHF/UHF2/ACLS/SINS/IFF transponder and EECM
- Electric generator - 170/255KVA
- Anti-jamming/MIDS/L-band UHF antenna
- Anti-collision strobe/navigation light
- Static discharge wick
- ESM processor

- Wet outer wing tanks - optional
- Above cockpit aerial refuelling probe - optional

- Fuel system**
Total capacity 6,904 litres (1,824 USgal)
- Fuel dump pipe
 - Fuel vent pipe
 - Centre wing section fuel tank - port and starboard of wing centreline rib
 - Fuel balance system feed lines
 - Fuel (aft) boost pumps - two-off
 - Fuel balance system return lines
 - Fuel tank overflow/overboard line
 - Overwing filter - two-off
 - Pressure refuel/defuel manifold and contents panel - located on the inboard surface of starboard engine nacelle

- Powerplant**
- Engine core exhaust nozzle
 - Engine fire suppression bottle (one per engine) - Halon
 - Optional auxiliary power unit - located in lower aft starboard fairing
 - Rolls-Royce T56-A-427A turboprop engine rated at 5,100shp with 5,450shp using automatic power reserve
 - Oil tank
 - Engine-to-gearbox driveshaft

- Oil heat exchanger exhaust
- Engine and generator oil heat exchanger
- Oil heat exchanger air intake
- Engine air-intake with bleed-air anti-icing
- Engine reduction gearbox
- Propeller shaft
- NP2000 eight-bladed digitally controlled propeller (composite/metal spar blade) with electric anti-icing - Hamilton Sundstrand
- Propeller spinner

- Undercarriage and hydraulics**
Twin (independent) hydraulic systems operating at 207bar (3,000lb/in²)
- Arrestor gear shoe
 - Arrestor gear arm
 - Tail-skid - pneumatic
 - Rudder (outboard) actuator
 - Rudder (inboard) actuator
 - Arrestor gear dashpots
 - Hydraulic system reservoir, filters and accumulator
 - Forward retracting oleo pneumatic main landing gear (MLG) - leg rotates through 90° to lie flat in the gear bay
 - Scissor links
 - Leg rotation linkage
 - Drag brace and down lock
 - Retraction actuator
 - MLG bay (rear) doors - two per bay
 - MLG bay (forward) doors - two per bay
 - MLG bay
 - Rearward retracting oleo pneumatic fully steering nose landing gear (NLG) - via rudder pedals and steering tiller
 - Catapult strap attachment arm
 - Steering unit
 - Drag strut
 - NLG side doors - both sides
 - NLG forward door
 - Steering tiller

