The flight-control system will allow aggressive manoeuvring, including bank angles up to 120°

well as an optional centreline hose drum unit (HDU) in the rear fuselage on the main cargo deck.

Refuelling fuel is routed from the cargo tanks and larger wing and fuselage storage tanks to the HDU and pod dispensers through a separate system from the engine fuel feed. This latter takes its immediate supply from the two outermost of the three wing tanks. Inner engine feed fuel comes from the centre of the three wing tanks located midspan between ribs 12 and 17, while fuel for the outer engine comes from the outboard feed tank running out from ribs 17 to 22.

Outboard even further is a surge tank running from ribs 23 to 25 containing the pump and non-return valves of the scavenge system. The overall capacity has been boosted by the recent decision to droop the wings by a further 2° by increasing anhedral to 4°.

Fuel and hydraulics

A series of optically based sensor probes are planned for each tank cell to provide accurate data on contents regardless of intertank valve operation, all of which will be digitally displayed on the flightdeck. The aircraft will also be provisioned for an optional OBIGGS (onboard inert gas generator) fuel-tank inerting system that will use bleed air direct from the engine rather than have the additional weight and complexity of a dedicated compressor. The air will be forced through separation modules to release nitrogen, which will then be pumped into the fuel tanks as they empty.

High-pressure engine-driven air is also the main source for the pneumatic system that provides air conditioning, ice protection for the engine intakes and wing, and pressurisation of the cabin and several onboard systems. Two computers will control the system, each having duplicated circuitry to control the four engine bleed systems. The two computers are also cross-linked to transfer and monitor functions in the case of a failure. Pressure relief devices are plumbed into the ducting of the system in areas where ruptures could be dangerous, and a leak protection system provides warning of any ambient overheating.

One area where the example of the A380 is not followed quite so closely is the hydraulic system that operates at a maximum pressure of 207bar (3,000lb/in^2) compared with the 345bar of its bigger

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