

potential down-side resulting from the lack in engine commonality," says Stuart Mann, product marketing director of the A320 family.

According to Airbus chief engineer single aisle family Wolfgang Engler, the PW6000-powered A318 equipped with the definitive version of the engine will have around 2% higher fuel consumption than the CFM56-version – but its 6% lower maintenance costs ensures direct operating cost is below that of any of its competitors, including the CFM56 version.

Two-class layout

The 4.5 fuselage frame reduction over the A319 – 1.5 frames forward of the wing, and three aft – reduced the A318's overall length to 31.45m (103ft 2in). This enables to 107 passengers to be accommodated in a standard two-class layout, or 129 in a high-density configuration – similar to the rival Boeing 717 and 737-500/600.

"To compensate for the shorter moment-arm, the surface area of the vertical stabiliser is increased through the incorporation of a 0.7m [28in] extension of the fin tip," says Engler. This provides greater stability and control at low speeds, and enhances the A318's field length capability. "We have also reinforced the nose gear to

compensate for the higher loads," he adds.

The A319's 34.1m-span wing is unchanged, with the single-slotted flaps and leading-edge slats retained. "With A318 production not expected to exceed four per month, we made no structural changes to the wing or fuselage to reduce weight as it would have been too costly from an industrial perspective," says Engler.

Airbus has introduced new production techniques with the A318 at its plants in Einswaden and St Nazaire. These will reap benefits in the longer term. "We have replaced riveting with laser-welding on parts of the lower fuselage shell – this will reduce production costs and help maintenance as the structure is much cleaner," says Engler, adding that the engine pylon and interfaces are identical to the current aircraft, with an adopter plate bolted to the existing pylon for the PW6000 installation.

The belly cargo doors are each one frame narrower to ensure that the nacelle and wing-trailing edge clearances are maintained during ground handling. Six maximum take-off weight options are offered on the aircraft from the baseline 59t up to 68t – the latter providing a maximum range with 107 passengers of 6,013km (3,250nm) with CFM56 engines (see table).

Airbus Deutschland was designated to

AIRBUS A318 ORDERBOOK

| | Orders | Engine selection |
|-------------------|------------|------------------|
| Air China | 8 | PW6000 |
| Air France | 15 | CFM56 |
| America West | 15 | PW6000 |
| British Airways | 6 | PW6000 |
| CIT Aerospace | 4 | N/A |
| EgyptAir | 5 | PW6000 |
| Frontier Airlines | 5 | CFM56 |
| GECAS | 30 | CFM56 |
| ILFC | 20 | CFM56 |
| Total | 108 | |

Note: N/A - not announced

undertake final assembly at its Hamburg Finkenwerder plant alongside the A319 and A321. Assembly of the first example, powered by the PW6000, began last August, and this aircraft flew on 14 January.

Delays

By then, it was clear the PW6000 was not going to meet its performance guarantees, so Airbus decided to delay the programme for that version of the A318. "We didn't want an aircraft that couldn't perform as advertised out of the box," says Mann. "P&W remains steadfastly behind its performance predictions," he adds.

This has resulted in the PW6000-powered A318's in-service target being

The PW6000-powered A318 was the first to fly, but the CFM56 version will lead the programme

