FLIGHT rmernationol, 13 Mdy r*78 1463

Opposite, left to right, the 767-200, 777-200,767-100. Above
General arrangements of the 767-200 and right the 777-200 have in
common a I55ft-span wing, a mainwheel track of 28ft 4in and a fm
height just short of 45ft. Overall length of the 767-200 is 168ft 7in, and
of the 777-200 181 ft 6in. Immediate right The routes which have
shaped and sized the 767 and 777 are Mexico City-Chicago and Denver-
New York (hot-and-high fields); New York-Dallas {"flotation" for to Guardia bearing strength); Barbados-New York (overwater); and New York-San Francisco (transcontinental non-stop)

central drinks shelf measures four rather than eight inches
across.

Cargo One LD3 standard container—not two, as in the BIO—can be fitted in the underfloor hold. Boeing talks about two "LD3A" containers, smaller than LD3, which it expects the airlines to make specially for the 767/777. The so-called LD3A is in fact nearly 18in narrower, and 37ft3 smaller, than the LD3. The 767 belly can take 11 LD3s compared with 14 LD3s in the A300B10. The 767 and 777 will be available with a 136in door and will take the 125inX96in cargo pallets (747 size) as well as the old 707-size 125in X88in pallets.

Engines The 5,000 n.m., 205-passenger 777-200 is being offered with the following choice of powerplant: Pratt & Whitney JT10D-X of 32,0001b; CF6-32V10 of 35,8101b; and RR.211-535 of 33,6501b. Asked whether the JT10D-X could be the favoured engine, (Mason says: "No, it is a new engine, although GE are as committed to it as we are to the 767 and 777."

Boeing says that the 777-200 could be a candidate for the CFM56, which appears to have attractive KC-135 mili-tary applications. A 707 is being fitted with four CFM56s for a 1979 first flight. According to Craig, Boeing has asked CFM for "more zap" for the US market and even for some European missions such as Mediterranean ITs from Scan-dinavia over the Alps.

Operating cost Direct operating cost of the 767-200 is about 1-83 cents/seat-mile compared with 1-98 cents for the 727-200 (assumptions: 1,000 n.m. still-air range and "engine manufacturer's maintenance estimate"). Accord-ing to Boeing's calculations, the 777-100 costs 1-86 cents/

Type A exit
42in*72in

Type 3 exit Type A exit
20inx38in 42in*72in

i auaouaBBHAut«aBaaaaaaaaaa9ayfflS

BiimaaiiMsaaiL ..._
•^E^iaBFBRaaaflaaHHkaflHaHHHHHHaaRHHaHaf 18 first class]

38in pitch

197 passengers
mixed class

179 tourist
34 in pitch

^s aaa^j 9aauuaaa0AaaauumaaaaaaaaaaaaE

" aaaaaaaaaaaara §§§i§9§iii§3aa§9ai i aaafen aaaaaflaa205a passenger aaaaaaaflflflaaaflaaaa s E
S4in pitch all tourist

A • Attendant
G • Galley
L • Lavatory

seat-mile; A300B4 1-89; and the DC-10-lO/L-lOll-l 1-84 cents.

Performance Max take-off weight field length (sea level, 84°F) of the 767-200 is 7,000-8,000ft. Max certificated alti-tude (Mach 0-8, standard day) is 37,000-40,000ft. With one engine out and using maximum continuous thrust, 767-200 1-1%-climb-gradient altitude is between 15,000ft and 18,000ft. Max landing weight field length—assuming a dry, sea-level runway and using auto-spoilers—is less than 5,000ft.
Field length of the 777-200 at max take-off weight is 9,000ft for the CF6-32, 10,500ft for the RB.211 and 11,000ft for the Pratt & Whitney JT10D aircraft. Landing field length at max landing weight is just under 7,000ft, assuming a dry runway at sea level and use of auto-spoilers. Boeing will make a double-slotted-flap wing for the 777 if approach speeds have to be brought down to 767 levels (124kt).
Trip fuel burned by the GE-powered 767-200 is about 12,0001b for a 400 n.m. still-air range on a standard day with "typical international rules and fuel reserves." The Pratt & Whitney aircraft burns three per cent more and the Rolls-Royce version two per cent more. The 727-200 fuel burn is only four per cent less.
The 777-200 fuel burn over a 2,000 n.m. stage on a stan-dard day with FAR fuel reserves is 47,0001b for the JT10D aircraft—three per cent better than the 707-320C. The GE and R-R versions burn seven per cent more. Fuel will account for nearly 22 per cent of the airline industry's total operating expenses in 1980, compared with just over 12 per cent in 1970, according to Boeing's estimates.

Production The two new aircraft will be built at Everett, and 16 new buildings will be added to the great 747 factory north of Seattle between now and January 1982. According to Boeing's "environmental impact statement" filed with the local authorities, the New Airplane Programme (NAP) plus the 747 will account for an Everett output of 200 air-craft annually. Employment will increase by nearly 12,000 over seven years (margin of error = +5 to —50 per cent), all except 230 coming from other Boeing factories. Renton, where the Boeing 707, 727 and 737 are built, is needed for the 757. Boeing Commercial Airplane Division president