Douglas begins MD-90 hard sell
McDonnell Douglas's campaign to launch the propfan-powered MD-90 series airliners by mid-year moved into higher gear this month as the company began flying airline executives in its ultra-high-bypass demonstrator. Julian Moxon visited Long Beach to fly in the aircraft and talk to programme officials.

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hasing a 2,000-aircraft market to
replace 727s, 737s, and DC-9s,
McDonnell Douglas is stressing the
"revolutionary fuel-burn advantage" of its
propfan-powered MD-90 series over the Airbus A320 and Boeing 737.
Despite the success of both aircraft, the market to replace 727s still exists, particularly among US domestic airlines, says MDC. Airbus and Boeing's success could work to Douglas's advantage, in fact, as the A320 and 737 are sold out until 1991/92, when the MD-90s become available.

MDC has already identified potential MD-90 launch customers. In the USA these include American, Delta, and Northwest, plus Air Canada, and in Europe Alitalia, SAS, and Swissair. This month Douglas stepped up its MD-90 sales campaign by flying executives from these and other airlines in its propfan-powered MD-80 ultra-high-bypass (UHB) demonstrator.

If these flights prove anything, it is that the engine's unusual configuration is not an issue. Airline executives were mainly interested in the engine's cost and its reliability and maintainability. Passenger acceptance seems certain, although Douglas and GE have still to achieve the promised "completely vibration-free cabin environment". (For Flight's impressions of flying in the MD-80/UHB, see our

February 13 issue, page 3).
Steps being taken to eliminate vibration in production aircraft include the devel-opment of a two-phase engine/pylon insu-lator. This will be designed to provide both a "hard mount" to withstand the punishing low-frequency vibration resulting from the worst-case take-off condition, and a "soft mount" to damp vibration during normal operations. Further vibration damping will result from improving the fidelity of synchrophasing between the contrarotating GE36 rotors.
One MD-90 feature that will appeal to passengers in the rearmost seats is the location of the engine four feet further aft than the MD-80's JT8Ds, which block the view out of the window. The GE36 is also located four feet further outboard so that the propulsor is easily visible to those who look to the rear. The new location also means that the engine will be less of a target for damage from foreign objects kicked up by the main wheels, a problem that has plagued MD-80s.
Interest now centres on the likelihood of McDonnell Douglas winning MD-91 and MD-92 launch orders this summer. The company is marketing the two aircraft—one a direct replacement for the 114-seat MD-87, the other a 165-seat version of the MD-82—on the basis that airlines have yet to replace their ageing

fleets of 110/160-seat aircraft which, MDC says, constitute 65 per cent of today's airliners.
"Half of that fleet is almost 20 years old," says MD-90 programme manager Kim Still, "and by the time the MD-90s go into service will be well over that. It makes no sense economically to keep them in service. We think they are approaching that limit." Still also points to the like-lihood of Stage 2 noise-certificated aircraft being legislated out of service in the USA before long, and is unable to resist pointing out that Stage 2 aircraft "also happen to be the least fuel efficient". The MD-92, he claims, will consume 65 per cent less fuel than a Boeing 727. "That's 8,0001b of fuel on an average trip —a revolutionary fuel-burn advantage," he adds. Compared with the MD^87 and 82, McDonnell Douglas quotes a reduction in trip fuel burn of 37 per cent and 34 per cent respectively for the MD-91 and MD-92. Yet another statistic highlighted by the company gives the MD-92 a 58-4 per cent increased "transport efficiency" (seat-miles per ton of fuel burned) over the Boeing 737-300, and a 27-2 per cent increase over the Airbus A320.

Development of General Electric's
production GE36-C25 unducted fan is
expected to cost well over $1.0 billion, and
the engine is on target for certification in
December 1991, according to GE36

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