

Hi-tech ... or safety?

The crash of a new Airbus A320 at a French air show this week should remind us that in the highly competitive airline business, profitability is getting too much attention and safety too little.

Air Canada, which is expected to replace its aging but still sturdy fleet of excellent Boeing 727s with the European A320, will want some fast answers on what caused the crash.

Was it due to the pilot error, the most likely reason, or to the new computer-driven control system, called fly-by-wire in aerospeak, that replaces conventional cables and hydraulic systems with electronics?

Just about everyone except the hapless pilot of the crashed A320 is hoping that the cause was human error.

If it was the fly-by-wire system, this would be very bad news indeed for the civilian and military aircraft industry which is fast converting to the new system.

Old fogey air travellers like me are not yet comfortable with the notion of fly-by-wire or the thought that I might one day be on some Third-World airliner whose keep-it-flying computer system had just been adjusted by a mechanic with a bone through his nose.

Other questions of basic airline safety need serious attention. First, how few engines are enough for safe flying?

An entire new generation of short to medium ranged transports is now entering service. Aircraft like the Airbus A300/A310/A320 series, stretched DC-9's and 737s, and Boeing 757s and 767s. Airlines claim that two engines provide ample margin of safety, even for extended-range flights over oceans.

Air Canada, for example, is using the twin-engined 767 for the North Atlantic run.

But U.S. Air Force studies show the safest aircraft are ones with four engines, followed by those with three. Two-engined jets are the least secure.

When a new aircraft was needed to replace the President's Air Force One, even a three engined

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plane was rejected as insufficiently reliable.

The public, however, is stuffed into two-engine aircraft and sent across great expanses of water.

Just this month, a two-engined 737 of a Central American airline ran into hail near New Orleans and lost both engines. Miraculously, it managed to glide to a landing. A three-engined Boeing 727 would have had a statistically better chance of maintaining power than the 737.

Next is the debate over manning. Many airlines are saving money by dispensing with the traditional third crew member, the flight engineer and going to a two-man cockpit. New electronic systems perform the work of the engineer. Not so, say airline unions.

They are are right.

Most air accidents involving pilot error are caused by distractions. For example, a buzzer goes off or a warning light flashes, causing both pilot and co-pilot to "eyes down" on their instruments — while the aircraft runs into a mountain or another plane.

As near collisions rapidly increase, it's essential to have a third crew member 'head up' looking out of the windscreen. You may not need the flight engineer — until something goes wrong.

Third, the scandalously neglected matter of crashworthiness. Passenger aircraft are fragile aluminum tubes filled with people, baggage and explosive kerosene.

Safety critics have long urged that aircraft be designed so that they can withstand some degree of impact without catastrophic failure.

This means more solid frames, stronger seats and seat moorings, bulkheads and better-designed fuel tanks. Less explosive fuels are available but they are not used because of higher costs and lower thrust.

Aircraft interiors and seats are still being made of materials that produce highly toxic smoke when burned. And aircraft simply do not have enough emergency exits.

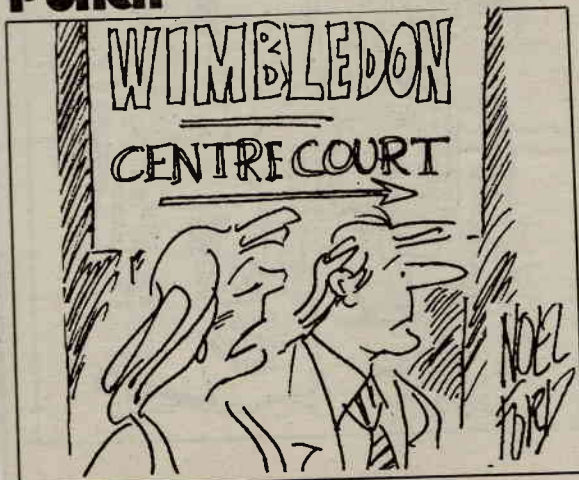
Air travel is pretty safe but it can be made a lot safer. Unfortunately, the severe competitive pressures on the airlines caused by deregulation and the enormous surge in passenger traffic is diverting attention away from safety improvements. So great is the demand for new airliners that manufacturing quality is suffering.

Boeing, the world's finest aircraft maker, has recently run into major quality control problems caused by overtime and work overload.

McDonnell Douglas' ill-fated DC-10 ran into fatal problems in large part because of rushing to beat rival Lockheed's L-1011.

Haste makes crashes. The public should demand that air safety get far more attention and be ready to pay the cost in higher air fares.

Punch



"At least tennis keeps the hooligan element where it belongs — on the court."