Among Jets, Only the Concorde Is Really New

By ROBERT LINDSEY

SEATTLE—An anniversary of sorts passed recently without notice, and without much pride, at a low-slung complex of factories along Puget Sound here: it is now more than 15 years since the Boeing Company started development of a new commercial airliner.

When the Concorde supersonic transport landed last week at Kennedy International Airport in New York, its speed, paradoxically, was a reminder of how sluggish the development of new jetliners has become in this country—and, indeed, abroad. The Concorde itself was a project initiated in the early 1960's, and the only new plane being built in Europe is the A-300 "air bus," a short-haul, medium-sized jet produced by an international consortium.

The last new Boeing jetliner was the 747 jumbo jet, which was designed beginning in 1962 and made its maiden flight in February 1969. America's own SST, which Boeing was developing under government contract, was canceled by Congress in 1971. And neither of Boeing's American rivals for the commercial jet business, McDonnell-Douglas and Lockheed, has started a new airliner in almost nine years.

For a number of economic reasons, it is not likely that the situation will change soon. Many aviation experts believe that for the next decade or so, progress in civil aviation will come not by making dramatic breakthroughs in speed and size, but by fine-tuning the basic airplane designs of today—making the jetliners quieter and more efficient, extending their range, reducing fuel consumption.

The few new planes that may come along are likely to be smaller than today's biggest airline flagships, which carry as many as 480 passengers.

Boeing envisages a loose family of planes of varying range, powered by two or three engines, and carrying, on average, about 200 passengers.

"None of our current U.S. jet transports incorporate the latest aerodynamic technology because there hasn't been a new commercial aircraft program for almost nine years, the longest spell in the history of commercial aviation," according to Jack E. Steiner, a vice president of Boeing. "The total aerodynamic improvement available because of research during that period can be as much as about 10 percent."

In the past two weeks, Boeing, which has been vainly trying to interest airlines in ordering a new plane for more than four years, began briefing airline executives on its ideas for a new design.

Some airlines have said they need such a craft—their current fleets are growing older—but the projected high cost and uncertainties about the future have left them in doubt. Development of the new design is expected to cost Boeing between $1 billion and $2 billion, and that cost would necessarily be reflected in air fares.

Without a large number of advance orders, Boeing has been cautious about going ahead with what it calls its "N.A.P."—new airplane programs—although for the record, Boeing executives are predicting a go-ahead for the project after the start of next year. That might mean that the new plane could be flying by 1980 or 1981.

What about the next step? A few Boeing engineers are still making paper studies of a possible American SST. Similarly, Lockheed and McDonnell-Douglas have small teams of advanced design engineers whose main job is to remain alert to any technological breakthroughs that might make it economically feasible to undertake a new SST program.

At research centers in Langley, Va., and Cleveland, the National Aeronautics and Space Administration has 74 researchers examining the problems of developing a supersonic airliner. It is largely a token effort, costing $11.2 million annually. NASA has no funds to actually design an SST, and few people in aviation in this country are optimistic about undertaking one, at least before the late 1980's.

All of the trends perceived today, however, can be changed by the unforeseeable. Projecting the direction of civil aviation has proved difficult over the last two decades, since the first commercial jet, the British-built Comet, flew the Atlantic in 1958.

Few people predicted the boom in mass air travel generated by the speed and efficiency of the jet engine during the 1960's; few anticipated the decline in the air travel growth rate that came in the early 1970's, or the cost crunch on aviation imposed by higher energy prices.

Most aeronautical researchers intrigued by the prospect of reviving an American supersonic transport effort say the best hope, and possibly the only one, lies in ordinary water.

The water in the world's oceans and lakes contains vast amounts of hydrogen—a fuel that could be used to power airplanes as well as supply other energy needs. No one, however, has developed an economic method to split the hydrogen and oxygen in water without requiring more energy to do the job than is yielded in the process.

If plentiful amounts of cheap hydrogen became available, aeronautical researchers say, the United States could leapfrog the supersonic airliner and develop what they call the "hypersonic transport" or HST. Flying at 4,000 miles an hour or even faster, an HST might make the trip from New York to Paris in less than two hours, as against seven hours for a 747 and three and a half hours for the Concorde.

One of the reasons why technological improvements in civil aviation have slowed so sharply recently is that the Pentagon has shifted to a strategic defense based more and more on missiles than bombers, and has been spending less to subsidize research that could lead to development of civil airliners.

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TIELINES TAKEN OUT

Tolls Hit Cape Workers

By GLEN MACNOW
TODAY Staff Writer

Ray Hirschmiller used to call his diabetic wife at home in Titusville every day from work.

But now Hirschmiller, a Boeing employee at the Kennedy Space Center, says he can no longer afford the calls.

Hirschmiller is one of thousands of Titusville and Melbourne residents working at the space center who were hit in the wallet last year when NASA cut its long-distance telephone lines to North and South Brevard. Like other workers, he must now call home long-distance, even though he lives only 12 miles from the space center.

And because he must reverse charges on the company telephones, or make operator-assisted calls on pay telephones, his long-distance rates are even higher.

"I like to constantly check on my wife, because of her diabetic condition," Hirschmiller said. "Until last year, I called home every day on my lunch break. But now I just call on emergencies. I just can't afford to call anymore."

Last year officials at the space center decided to abandon their North and South Brevard telines in an economy move. The savings have amounted to $39,629 a year, according to KSC Public Affairs Director Chuck Hollinshead.

But Titusville and Melbourne area space workers can no longer talk from their offices to their homes free.

"I can't really get mad at the KSC," Hirschmiller said, "Because a lot of money is involved on their part. But I think most people working here would be willing to pay a few dollars extra each month on their phone bills to be allowed to call anywhere in the county."

According to Southern Bell operators, a three-minute, operator-assisted call from the space center to Titusville costs 80 cents. A similar call from KSC to Melbourne costs 90 cents. Any collect call would add a 5 per cent telephone tax to the total.

And a three-minute person-to-person call from the space center to Melbourne costs the caller $2.

"Cutting out our telines was an unavoidable necessity," KSC spokesman Hollinshead said. "But naturally we feel bad for the workers who have to pay for the calls."

Hollinshead said space center officials would not endorse operator-assisted service until they had a chance to look at cost projections, but added "we would support anything good for the morale of workers at the space center."

That morale, according to Management Services, Inc. employee Ken Keith, would be improved by the addition of extended area service.

"I would say that over 90 per cent of the workers here want it," said Keith. "I don't like having to pay money to call home. I think people here should have the same privileges as people in most other counties."

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