British European Airways became the first operator for the Hawker Siddeley Trident with a 24-airplane order. The advanced tri-jet first flew on January 9, 1962. (BAE Systems)

future. It was a smaller airplane than the popular four-engine intercontinental jetliners of the time, and was quite a technologically advanced aircraft as well. Although the Trident may not have been a success when compared to other first-generation jetliners that preceded it, this airplane indeed served as a harbinger of things to come.

The Trident story is fraught with frustration, for had the original 1958 design concept been frozen and heralded into production, such legendary airliners as the Boeing 727 might never have reached production. How can we make such a bold assumption? Simply stated, this aircraft was originally to be a short- to medium-range airliner powered by three Rolls-Royce RB.141 Medway "by-pass" turbojets producing 14,000 pounds of thrust each. The original Trident would have weighed between 130,000 and 150,000 pounds at take-off and carried 110 passengers over routes of up to 1,500 miles in length. (These were the approximate specifications of the Boeing 727, only five years before that aircraft entered service!)

As happens in modern industrialized societies, an insidious combination of politics and corporate wrangling can combine to put a stranglehold on progress, and the Trident succumbed to just this type of industrial "perfect storm." Originating manufacturer de Havilland was caught in the maelstrom of British aerospace consolidation, orchestrating a merger with Fairey and Hunting to form a new company called Airco. Combined with this series of events was the insistence of launch customer BEA on having the new tri-jet be reduced in size, weight, and capacity to become a 107,000-pound, 80-passenger jetliner. BEA then ordered 24.

This pivotal change was enacted to make the airplane more suitable for the specific needs of BEA at the expense of overall world market appeal, and Britain's airliner industry never recovered from this stumble. Many months of critical timing and market advantage were squandered as design changes were contemplated and then adapted. The Airco merger became moot when de Havilland became a component of the Hawker Siddeley Group. Now powered by three 10,400-pound-thrust Rolls-Royce RB.163 Spey by-pass turbojets, the smaller Trident I finally flew for the first time on January 9, 1962, and slowly reached production and operational status by the end of 1963.

As the world's first airliner to be certified for "zero-zero" autoland operations (precursor to today's full Category III landing capability), the Trident distinguished itself as an airplane that represented the future of commercial aviation. Although larger stretched models were subsequently produced and were ultimately successful within the small market niche, the Trident was quickly relegated to the back pages of airliner prominence. As with many other British transports, the diminutive tri-jet from Hatfield was soon outdone by stronger competitors from the United States, which once again emerged victorious in world markets.

WELCOME ABOARD THE CONVAIR 990

By Mike Machat

The differences in this airplane become apparent even before you enter the cabin, for the door is shaped unlike any other in the world. Vertically straight on the left side, but tapered-in on the right, this windowless device is a marvel to behold.

Walking down the aisle to your seat, you notice the coach cabin's five-across seating configuration. As with the Convair 880, it's two on one side and three on the other—a configuration that won't be seen in other jetliners until the Douglas DC-9 enters service in 1965. Taking your seat just aft of the wing you look out the window and can't help but notice the 990's sleek and curvaceous "speed pods" mounted on the wing's inboard trailing edge. With the engines now started and whining in unison, the ground tug pushes your airplane back from the gate, and then the magic of this machine becomes readily apparent.

The somewhat firm ride while taxiing is more reminiscent of Convair's B-58 Hustler supersonic bomber. Like driving a Ferrari in second gear, you can't help but sense the potential performance of this airplane. Taking the runway, the captain pushes the thrust levers to their stops and nearly 65,000 pounds of thrust from four General Electric turbofans sends you bounding down the concrete in what feels more like a takeoff in a jet fighter. You notice the look of surprise on the faces of your fellow passengers as the 990 rotates smartly and climbs at a somewhat steeper angle than that "straight-pipe" 707 you flew on last time.

With flaps and slats retracted, the 990 now climbs swiftly to its cruising altitude. Soon the wind noise from the outside air rushing by your window at more than nine-tenths the speed of sound tells you that you're indeed flying aboard the fastest jetliner in the skies.

The 990 was the only commercial jetliner to utilize anti-shock bodies on the trailing edges of its ultra-thin wings. Added to take a continuous airflow over the upper wing surface, they lessened or delayed the shockwave that increased drag at speeds above Mach .80. The pods served as additional fuel tanks in all but the aft sections and also contained discharge nozzles for fuel jettisoning. (Jon Proctor Collection)