

Boeing Business Jet

Impressive capabilities allow it to weather recession in relative calm

By Fred George

With a 117.4 foot wingspan, 110.3 feet overall length, and a tail four stories high, it's hard to miss a BBJ sitting on an FBO ramp. It's too large to be towed into most general aviation hangars. This is one very high-profile business jet.

Officially designated the Boeing 737-700IGW, it's also one with impressive capabilities. Typically equipped, a BBJ can fly 19 passengers and four crewmembers more than 6,000 nm while cruising at 0.80 Mach. The 79-foot-long cabin has 807 square feet of floor area and a 5,390-cubic-foot volume that provides ample room for a forward crew area with galley, lavatory and genuine rest accommodations, three-to-four center cabin seating zones with a second lavatory, and an aft stateroom with a third lavatory.

The Boeing Business Jet was the brainchild of Phil Condit, then chairman and CEO of Boeing, and Jack Welch, then head of GE. Condit and Welch proposed a special increased gross weight [IGW] version of the -700 that would be fitted with as many as ten auxiliary belly fuel tanks, thereby increasing its range to 6,000-plus miles. This flying fuel farm would have a 171,000-pound MTOW, which was 16,500 pounds heavier than a regular -700. To carry extra heft, the -700IGW's center fuselage structure was beefed up, was fitted with the -800's wing and landing gear and reinforcing was added to the forward and aft fuselage tube sections.

The ten-tank configuration, however, left insufficient payload with full tanks and no under-floor baggage space. That's about when Joe Clark and Aviation Partners forged a deal with Boeing to fit BBJ with API winglets. The two companies formed a joint-venture, Aviation Partners Boeing, to develop the modification. The result was that BBJs fitted with API winglets could fly 5.5-percent farther on the same fuel load. That eliminated the need for the tenth aux tank, increased fuel efficiency and improved tanks-full payload.

Most operators were more interested in plush cabins than ultimate range



performance, so BBJs typically were fitted with five to eight tanks. Current production BBJs can carry 71,737 pounds of fuel, enabling them to fly a 4,100-pound payload 6,077 nm with full-tanks.

BBJ has plenty going for it. It has surprisingly peppy performance. It needs less than 6,000 feet of runway when departing at MTOW and only 4,000 feet of pavement for a 1,000 nm trip. It's easy to fly and has quite docile OEL handling characteristics, even with 27,300 pounds of thrust per wing-mounted engine. With more than 6,000 Model 737s in service around the world, factory product support is unsurpassed and there's usually a Boeing-trained technician on whatever airport you may land or at nearby an office. Most spare parts are considerably less expensive than purpose-built business aircraft bits and pieces because of high procurement rates. Excepting the BBJ's 800 gph fuel thirst, operating costs are as low, or even lower, than those of smaller long-range airplanes because it's built as a for-profit, high-utilization airliner.

What's not to like about BBJ? Its fuel burn is 30- to 40-percent higher than a Gulfstream or Global. It has a 41,000-foot maximum operating altitude and it redlines at 0.82 Mach, so it cruises at 0.80 Mach, which is 10- to 20-knots slower than a typical purpose-built, long-range, large-cabin business jet. It cruises with a two- to three-degree nose-up attitude, so the floor of the cabin feels much higher in front than

in the back. BBJ has a very visible ramp presence at a time when the use of business aircraft is frowned upon by many folks in Washington and the media.

On balance though, the 100-plus BBJs built since 1999 are holding their values relatively well. Prices are depressed 10 percent to 20 percent because of the down economy, but many early production airplanes still are selling for far more than their prices when new. In today's market, used BBJs go for as much as \$50- to \$65-million, so they've proven to be more resistant to the downturn than many other business airplanes.

That's good news for sellers, but buyers have many other choices of long-range business jets. There's a glut of very clean, low-time Gulfstream V/550 and Global Express/XRS airplanes on the market and they're being offered at fire-sale prices. While their cabins are much smaller, these aircraft can fly a dozen passengers farther, faster and higher than the BBJ. Their fuel burns are considerably lower, so direct operating costs are more economical, in spite of their typically needing more maintenance attention and requiring many higher priced parts.

"The good thing about the BBJ is that it's an airliner. And the bad thing about the BBJ is that's an airliner," a former BBJ salesman once told us. However, it's a very special, capable and limited production airplane and that's why it's holding its value fairly well in challenging times. ■