

The First BBJ

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I was standing there looking at this rich looking 737-700 sitting on the private ramp at Las Vegas McCarran airport and I was pretty pleased. It was the first Boeing Business Jet. Everyone called it a “BBJ”. The plane had just arrived from Seattle with me, the maintenance crew and some engineering people for display at the annual National Business Aircraft Association (NBAA) convention. Guys at the flight test dept always talked about it being a highlight of your career if you



737-700 BBJ sitting on the ramp at Las Vegas McCarran the first night

got to go to an airshow with a new plane and this highlight had me on top of the world.

This wasn't a big airshow like Paris, Farnborough or Dubai but still, this was my first one and I felt lucky and proud of the plane and my crew.

Maintenance and Engineering people always accompanied a test plane on the remote trips even if it was a show but this

was my first time taking a new Boeing plane to an airshow as the manufacturing manager. It was cool, the plane was special and airport ramp workers came out of nowhere to see the plane and talk to us.

The NBAA show was set to start in a few days and hosted an annual display of single engine piston aircraft, turboprops, business jets of all sizes and rotorcraft. Boeing was going all out to show their new biggest VIP jet.

Little did I know what a big deal the BBJ was going to be. Two years prior, according to Boeing lore, Jack Welch, then head of GE complained to Phil Condit, his Boeing counterpart, that existing business jets lacked the living room comfort and ultra-long-range capability to adequately serve globetrotting dealmakers.

Condit assigned Borge Boeskov, a top commercial sales executive, to find a solution. Boeskov suggested pairing a 737-700 fuselage with the 737-800's beefier wing and landing gear to accommodate the extra fuel. Furthermore, impressed by a drag reduction feature pitched by Aviation Partners Inc ([API](#)), Boeskov recommended adding the tall blended winglets that made the aircraft distinctive and helped up its range to more than 6000 miles. Subsequently Boeing partnered with API and the winglets sprouted throughout the 737 fleet.

Being assigned the first BBJ meant that I was charged with managing a crew of seven mechanics, electricians and an avionics tech. We were all in this project together, working with our engineering counterparts for the duration of the program and a successful outcome. The crew and I met up with the pieces and parts of the BBJ in the [Renton factory](#) as it was being assembled mid-summer 1998.

Instrumentation engineering had designed a small data system to evaluate the changes and as the plane worked its way through final assembly, we assisted them in getting the data system wired, up and running.

There were a few hundred feet of orange instrumentation wiring to install as the factory workers assembled the plane and it allowed us a chance to get to know its insides as it was built. Test manufacturing and engineering all worked out of a small trailer parked outside the factory.



First BBJ in the Renton Factory with initial crew.
We're installing test instrumentation.



Instrumentation crew posing behind one of the consoles

Engineering people in one half and test manufacturing and some bean counters in the other half. As soon as it rolled out on July 26, 1998, I realized that this was a really big deal. Immediately there was pressure to get the plane off from Renton preflight and over to Seattle and into test. Our project pilot, Mike Hewitt began bringing

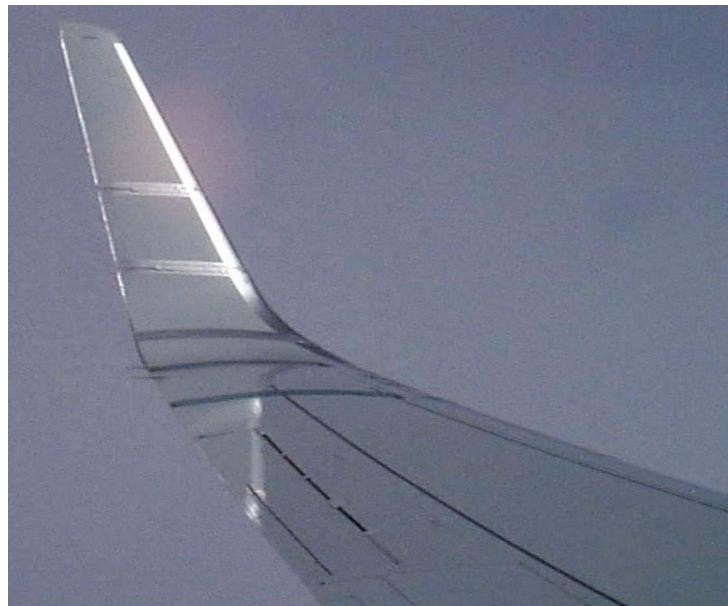
doughnuts to the small trailer next to the plane and making overtures that if we could bring the schedule forward just a few days, he could make a presentation somewhere back east that would be very much in his/our favor. Boeing had broken off a whole new company to run the [BBJ business](#) and was taking orders from a company called NetJets with a shared ownership scheme and was courting wealthy individuals as well as heads of state and others.

I'd never worked with Mike but he had a reputation among the flightline crews as being hard to get along with and was prone to tantrums. We were surprised and wondered what was behind his easy nice guy style, especially on a Saturday morning. It turned out fine. I was honest and up-front in my dealings with him and he was honest with me.

I was learning that the relationship between the pilot and the maintenance manager could be delicate, an unspoken agreement that I would give him an airworthy plane to fly, and he would bring it back without breaking anything. Once the 737-700 BBJ flew to Seattle flight test, the maintenance guys and I took over the daily care and "feeding" of the plane as directed by test operations. It was exciting to be a part of this new team. We'd be testing and validating the new wing/body configuration as well as the aerodynamic performance of the API winglets. The first flight was Sept 4, 1998 and as soon as we landed in Seattle, API

showed up with a pair of flight-ready winglets and we began to test-fit them. The API guys were ex-Boeing aero engineers who apparently had suggested this winglet modification and had been poo-pooed by management and rebuffed for their creative ideas.

[Joe Clark](#) and Dennis Washington knew they had something that was a game changer. They quit Boeing and founded API in 1991. In creating Aviation Partners, Clark gathered together a unique team of aerospace professionals consisting primarily of retired Boeing and Lockheed engineers and aerodynamicists. In the early days of Aviation Partners, this



Instrumented Winglet with static pressure sensors

core group was known internally as “the dream team”. They had quit Boeing as a group and sprouted a company of their own and now they were working with Boeing again. We worked closely with the API guys getting the new winglets fitted and smiled at their contemptuous and cavalier remarks about Boeing and their ways of doing things.

Soon it was time to get ready to fly the 737 to show at the NBAA convention. The winglets were still being finalized so we removed them and tied them down in the back of the BBJ for the ride to Las Vegas. This inside was bare except for a few seats for the crew and some instrumentation racks. Follow-on BBJs would go to a modification center for a customized fit interior after completion at the Boeing factory. Upon arrival at Las Vegas McCarran Airport, we were directed to park at the local private air terminal run by [Signature Flight Support](#). I saw there were already several dozen bizjets and helicopters on the ramp being set up for display. It was exciting and I caught a feeling of expectation for a fun week. Everyone was given a special logo polo shirt to wear. Nearby we noticed an [unmarked 737](#) with a red stripe and we heard that they took workers to and from [Area 51](#). We saw a gaggle of photographers standing along the fence taking pictures of the passengers as they boarded.

But there was a ton of stuff to do and we had to get the winglets mounted so that the air show attendees thought they were already flying. With a rental car, my leadman, Mike Flohr and I immediately drove to the local Sunbelt equipment company and rented a mobile boom lift and some scissor lifts. Using the remote controls on the base, we used it as a crane (strictly forbidden) to position the winglets and hang them for mounting. It worked out fine, they looked good, and we relaxed a bit.

Our hotel was the [Luxor](#) on the Vegas strip, a pyramid-shaped hotel with an Egyptian theme. That place had such a weird design that I got lost the first few times I went to find my room.



Mounting the winglet at Las Vegas



The Luxor on the Vegas Strip with Area 51 737 in foreground

Finally, I started memorizing random interior landmarks and used that method. But the place was so symmetrical that all the floors looked virtually the same. The Egyptian theme was carried through the whole place, even to the artwork in the rooms.

During a briefing before the first day of the show, the sales guys reminded us not to judge anyone by what they were wearing. Millionaires and wealthy businessmen can all wear scruffy jeans.

I heard Stallone walked through but was away on an errand.

As was the norm, our job during the static display was to be stationed at the front and rear doors greeting visitors and answering questions. One of the modification companies had bought a boneyard 737, removed the wings and mounted it on a semi-truck flatbed and we checked it out.



The Flight Test Operations group in front of the first BBJ at Las Vegas



737 Fuselage on Semi-Trailer with VIP demo interior

The interior of the fuselage had been gutted and been refitted with a stunning VIP interior. It was richly furnished with hand-rubbed mahogany walls and flush-mounted TVs. I couldn't believe the whole rear zone featured a huge bedroom/bathroom combination, complete with a huge tiled shower. There had been some layoffs in the engineering

dept that summer and a pair of friends had decided to hit Las Vegas and came over to say HI to everyone at the plane. We were happy to see them and even

happier when they returned the next day driving a brand-new Mercedes SLX convertible that they had just won.

They were telling one of those stories where they had pooled the last of their money to play the slots to win a car, and they had hit the jackpot. We saw them a couple more times aimlessly driving around with big smiles and later we learned that they'd gone back to the casino and traded the car for the cash equivalent. It was a nice end to the show but sadly I never heard from them again.



Two friends won this Mercedes SLX and later traded it back for cash



BBJ Executive posing at MGM Grand Adventure Theme Park party

On the final night, BBJ rented out the entire MGM Grand Adventures Theme Park for a big “1920’s themed” invitation only party. My biggest memory of that event was the Sky Screamer, a 250-foot-tall [skycoaster](#). I originally said “no way” but later after two glasses of beer said “yes” and got two friends to all go together.

Riders were strapped into harnesses and lifted up a 220-foot "launch tower" where they then pulled a ripcord setting into motion a 100-foot free fall upwards of 70 mph. It was placed over a fake water lagoon and was billed as the world's largest sky coaster. The result was a very tall structure that could be seen from anywhere in the park. At night, it was lit in the same green color as the hotel tower providing an impressive visual. The

park permanently closed in 2002. According to the Las Vegas Sun, the park flopped because it lacked any exciting rides, and suffered from low attendance because of expensive ticket prices. Apparently the park failed to take into consideration that a third of its visitors come from California where theme parks are



Standing in line to be hoisted to the 220 ft "Sky Screamer" Ken, Steve and Dave

ubiquitous and always racing to unveil the latest in thrill rides. All I can say is that the ride was the biggest thrill ride I have ever been on. We screamed all the way down the 170' free fall. An automatic camera took our picture at the bottom. On December 5, 2002, MGM Mirage announced plans to build a luxury condominium and hotel complex on the site of the closed theme park

The next morning we flew back to Seattle and settled into a regimen of test flights and evaluation of the winglets. The plane was eventually sold and we were onto the next program, an IcelandAir 757 with the first SATCOM. The winglets were found to generate a 3% fuel savings and now you see them on every 737 and just about every air transport plane flying.