



GULFSTREAM G650

• *The pinnacle of bizjet aviation* •

by Ferdi de Vos

When the rich and famous mention the “G6” in casual conversation, they’re not discussing the latest mobile device or must-have handbag. No, they’re most likely referring to a plane—a very special private jet that has become one of the most impressive aircraft in the sky today. Why? Because the G6—short for the G650—is the latest ultra-high speed, ultra-long distance flagship, in the Gulfstream business jet arsenal, and is now arguably, the most sought-after status symbol for the bold and beautiful.

DEMAND

Currently, demand for this super-expensive super-jet is sky-high. Gulfstream stated that they received over two hundred orders on the G6’s debut in December 2012, and have, to date, only delivered around forty of the aircraft to customers. With the three year waiting period, those customers who have not secured their orders yet, can only expect to receive their G6s in 2017—an eternity for people who are used to getting what they want, when they want it.

Some of the fabulously wealthy individuals lucky enough to have received their very own G650 include the likes of business tycoon Warren Buffet (do a quick Google search on Buffet and the G650 and you will find more than 437,000 mentions), Fr-supremo Bernie Ecclestone, and “Lord of the Rings” trilogy director, Sir Peter Jackson. Entertainment queen Oprah Winfrey has also indicated that she wouldn’t be averse to finding one in her Christmas stocking!

Corporates are also clamouring for the jet being touted as the “pinnacle of business aviation,” with retail giant Walmart, oil conglomerate ExxonMobil, and shoe manufacturer Nike already having taken delivery, while international resorts mogul Steve Wynn, was apparently one of the first customers to receive the G650 back in 2012.

While the G650 has become a hot topic among wealthy jetsetters, Gulfstream executives are at pains to point out that it’s actually “not a status symbol” for celebrities, as the vast majority of the current two hundred plus orders are from corporations and not individuals.

This may be true, but it doesn’t detract from the fact that demand for the \$65.5 million (R678.3 million) super-jet is exceptionally high, and G650s have been resold—or “flipped,” in business parlance—for up to \$7 million (R72 million) more than the original asking price!

This has led to Gulfstream threatening to cancel warranties if those who’ve ordered the aircraft sell them before they’re delivered.

Customers must also sign a contract including a non-assignability clause (essentially preventing them from on-selling their planes) to dissuade speculation in the marketplace. But what makes the G650 such an impressive and sought-after aircraft?

TECHNOLOGY

Well, considering that it not only flies faster, further, and higher than any other business aircraft in its class, it accomplishes all of this with much greater efficiency.

Carrying up to eight passengers and a crew of four on nonstop legs of up to seven thousand nautical miles (12,964 km) at 0.85 Mach or six thousand nautical miles (11,112 km) at 0.90 Mach, it means Buffet can leave New York in the early afternoon and reach China in time for a delicious dinner of drunken chicken in Shanghai.

For him—and other business moguls—the value of this particular Gulfstream can be calculated in terms of time saved when jetting from continent to continent at close to the speed of sound. Featuring twin Rolls-Royce BR725 engines, the G650 produces fewer emissions, operates more quietly than other business jets, and has a high cruise altitude which allows it to fly above inclement weather and airline traffic.

Considering its size, the G650 also has remarkable versatility, delivering excellent take-off and landing performance with a balanced field length of just 5,858 ft (1,786 m). While this suited most owners and operators, it apparently did not suit Mr Ecclestone...

While “Mr Fr” was, in all likelihood, impressed with the speed and distance of his G6, he was clearly ill-advised on this purchase. According to Bizjet Blogger, he quickly found it could not take off from short runway airports close to his multiple homes, while fully loaded. He promptly sold it to Vichai Srivaddhanaprabha, a Thai businessman and owner of Leicester City Football Club.



The fuel-efficient G650 has also claimed an incredible forty-two speed and distance records since being introduced in March 2008 (while still in development). Some of these records include: circling the globe westbound in forty-one hours and seven minutes, and flying 10,943 kilometres from Honolulu, Hawaii to Singapore's Changi airport in just fourteen hours and six minutes. Recently, it set a new speed record flying between White Plains, New York, and Mumbai, India—a distance of 13,177 kilometres—at an average cruise speed of Mach 0.85.

To date, the G650 fleet has accumulated more than fourteen thousand flight hours and over six thousand six hundred landings.

SIMPLE LUXURY

Winfrey and Jackson will probably appreciate the style and opulence of the G650's cabin, taking into account the particular attention Gulfstream engineers have paid to the passenger environment. It is cavernous, allowing for considerable comfort and space for its passengers and crew. Oprah could choose from twelve select floor plans to configure the G650 to meet her specific requirements—for instance, setting it up with a large stateroom for resting up during the long haul from Chicago to Johannesburg. She probably will also approve of the well-designed interior with its upmarket materials and fittings, beautiful wood veneer, and fine leather seat trim. A one hundred percent fresh-air system allows for much greater oxygen flow throughout the cabin, which automatically makes flying less tiring, and the toilet facilities are simply fantastic, even featuring a floor-to-ceiling closet!

Of course, dinner is no simple affair. Oprah could order sterilised water from the galley, to go with her bottle of Cristal Champagne, as well as a gourmet meal served on the china and crystal flatware that comes standard on the G650.

To ensure complete comfort, the leather-clad seats (even more sumptuous than those found in top luxury vehicles) have built-in footrests, and can swivel and fully recline. Their large armrests hold a variety of controls (one can even monitor the drinking water levels on board), storage space for phones, and Jackson should appreciate the touch-control entertainment system with a state-of-the-art BluRay/DVD/CD player, two large HD LCD monitors, and a stereo speaker system. As a known technology geek, he could even control the cabin entertainment, temperature, and lighting with an app he downloads to his Smart device, which seamlessly integrates into the Gulfstream Cabin Management System.

One of the most frustrating aspects of daytime flights is the limited natural lighting. Gulfstream have attempted to remedy this, by placing much larger windows, what they call 'panoramic windows', into all G650s.

A PILOTS' PLANE

Wanting to ensure that Gulfstream retained their reputation for safety and cutting-edge technology, the Gulfstream 650 enjoys Enhanced Vision System (EVS) II, Heads-Up Display (HUD) II, and Synthetic Vision-Primary Flight Display (SV-PFD). It also features a full three-axis fly-by-wire system. Pilots will appreciate the Planeview II cockpit, now enhanced with four 14-inch (36 cm) adaptive liquid-crystal displays and PlaneBook computer tablets, as well as a fully automatic, three-dimensional scanning weather radar.

This full array of sophisticated, next-generation technology improves situational awareness and safety—all contributing to enhance its image as a “pilots’ airplane” and “ultra-long-range business jet class champion.”

The success of the G650, and the new G380, has positioned Gulfstream as the profit leader within the General Dynamics Corporation. In anticipation of projected sales, Gulfstream has expanded its facilities in the US and Britain through a \$500-million, seven-year plan, to ensure that they are prepared to meet future demand for business aircraft and support services.

Thus, the desirability and increased demand for its top product has contributed greatly to cementing Gulfstream’s position as the undisputed leader in business aviation.

Buffet, feeling that increased time-savings were not enough justification for having a jet, christened his first plane “Indefensible,” but later was heard referring to a business acquaintance’s jet as “Indispensable.” He certainly changed his tune, and, just maybe, this name might be applicable to his G650 in a couple of years... 



— GENERAL CHARACTERISTICS —		— INTERIOR —	
Type:	Ultra-high-speed, ultra-long-range business jet aircraft	Total interior length:	53 ft 7 in/16.33 m
Crew:	2 pilots	Cabin length:	46 ft 10 in/14.27 m
Capacity:	8 passengers	Height:	6 ft 5 in/1.95 m
Powerplant:	2 × Rolls-Royce Deutschland BR725A1-12 turbofan	Width:	8 ft 6 in/2.59 m
Thrust:	16,100 lbf (71.6 kN) each	Cabin volume:	2,138 cu ft/60.51 cu m
— PERFORMANCE —		Baggage volume (Gross):	195 cu ft/5.52 cu m
Maximum speed:	Mach 0.925 (530 kn, 610 mph, 982 km/h) Fast cruise	Cabin pressurization:	10.7 psi (73.8 kPa)
Cruise speed:	Long-range cruise: Mach 0.85 (488 kn, 562 mph, 904 km/h). Normal cruise: Mach 0.90 (516 kn, 595 mph, 956 km/h)	— EXTERIOR —	
Range:	Long-range cruise: 7,000 nautical miles (8,050 mi, 12,960 km). Fast cruise: 6,000 nmi (6,906 mi, 11,112 km)*	Height:	25 ft 8 in/7.82 m
Take-off distance:	(MTOW, SL, ISA): 5,858 ft/1,786 m	Length:	99 ft 9 in/30.40 m
— WEIGHTS —		Overall span:	99 ft 7 in/30.35 m
Basic operating:	54,000 lbs/24,494 kg	Wingspan:	93 ft 8 in/28.55 m
Maximum fuel:	44,200 lbs/20,049 kg	Wing area:	1,283 ft ² (119.2 m ²)
Maximum landing:	83,500 lbs/37,876 kg	Aspect ratio:	7.7
Maximum payload:	6,500 lbs/2,948 kg	Wing loading:	77.7 lb/ft ² (3.72 kPa)
Max payload full fuel:	1,800 lbs/816 kg	Wing sweep:	36 degrees
Maximum ramp:	100,000 lbs/45,360 kg	*Range with 8 passengers, 4 crew, NBAA IFR reserves. Actual range will be affected by ATC routing, operating speed, weather, outfitting options, and other factors.	
Maximum take-off:	99,600 lbs/45,179 kg		
Maximum zero fuel:	60,500 lbs/27,443 kg		