

Test of

## Boeing B727 Captain

Produced by Captain Sim

The Boeing B727 is a three engine, mid size, narrow body jet airliner built by Boeing Commercial Airplanes since the early 1960's. It was intended for short to medium range flights and can carry 149-189 passengers in a range of 2,400 to 2,770 nmi.

The B727 features 3 Pratt & Whitney JT8D engines and shares the design of the upper fuselage cross-section and cockpit from the B707 quad jet airliner. The aircraft has been sold to various airline companies around the world but primarily for forwarding agencies as FedEx etc. The last B727 was completed back in 1984, but some are still in service.

### Specs:

- **Produced by** *Boeing Commercial Airlines*
- **First Flight** *February 9<sup>th</sup> 1963*
- **Introduction** *February 1<sup>st</sup> 1964*
- **Role** *Narrow-Body jet airliner*
- **Status** *In service but out of production*
- **Built** *1,832*
- **Unit Costs** *22 million (1982)*
- **Primary Users**
  - *FedEx Express*
  - *Cargojet Airways*
  - *Capital Cargo Intl Airlines*
  - *Kelowna Flightcraft Air Charter*



I received this add-on directly from Captain Sim and the download went perfectly. No issues at all and even though this was a huge file, then the download didn't take more than a couple of minutes. The internet connection to/from the Captain Sim server is really good.

Also the installation went without any issues. I just applied the installation wizard and that was more or less all I had to do. The wizard is very user friendly and all you actually needs to do is to active the

wizard and paste your code. Easy and quick like all the other installations I have tried from Captain Sim.

After the installation I opened FSX to verify if the installation had been successful. I filtered to the folder of Captain Sim add-ons and here the B727 was very nicely installed with individual pictures corresponding to the right aircrafts. A total of 10 liveries was included in the base pack which I think is a number that are better than average.

First I started with an outside view-around to get a complete view of the entire aircraft. The model made here by Captain Sim is very well made with a lot of details and animations. The Aircraft is picture perfect in my opinion and just to verify, I found a lot of pictures from real B727's and compared them to the model. They proved me right – The model is extremely similar to the real B727s.

The model is covered by high quality textures and there are animations as various control surfaces, gears + suspension, spoilers, flaps, wheels turning, doors, reverse thruster and many more. They are all very realistic made and fits the model perfectly.



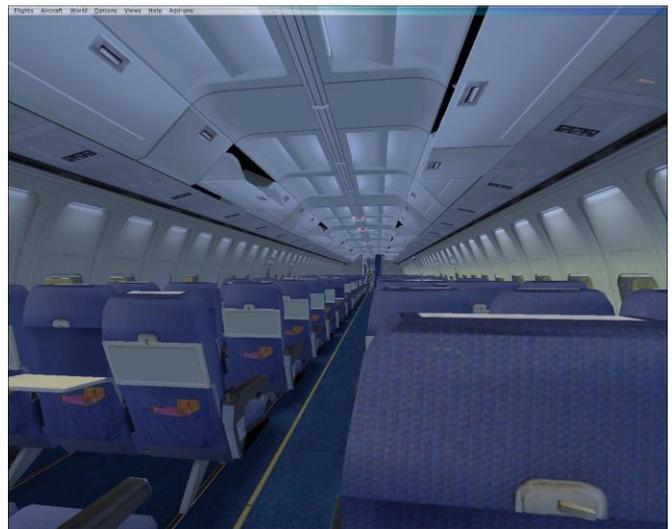
After checking out the B727 from the outside I went inside. Here I started at the very beautiful virtual cabin that is included in this aircraft. This cabin is of the same quality as the B707 and is very well made with good texture quality and various animations as e.g. the internal doors and exits. When you view the virtual cabin you do get a feeling of really being inside an aircraft and that I like very much.

The virtual cabin was a lot of fun checking out, but I continued to the cockpit and found a superb well made virtual cockpit. It resembles the B707 cockpit which it also should, but with differences like of course the throttle etc (B727 only has 3 engines compared to the four engine B707).

The virtual cockpit is filled with high quality textures, lots and lots of animations like various controls, buttons and other systems, great depth and a very cool finish. The cockpit appears to be old and used, which for me is perfect. The B727 is an old and used aircraft so that just adds to even more realism. I

find the cockpit to be very realistic and just to verify I found several pictures on the internet and compared them to this virtual cockpit. The precision that Captain Sim has done in regards to placing everything correctly is quite stunning and the quality of the goggles are very good.

The sound set used for this aircraft is quite well made. It resembles the real unique sound of the B727 perfectly. I tested it both internally and externally and also from the tower, and the sound set was excellent no matter which view I chose. The sound is clear and clean and can be used both with stereo and 7.1 surround sound. I find the sound set very authentic and did compare it to sound clips that I found on the internet. Very well made indeed.



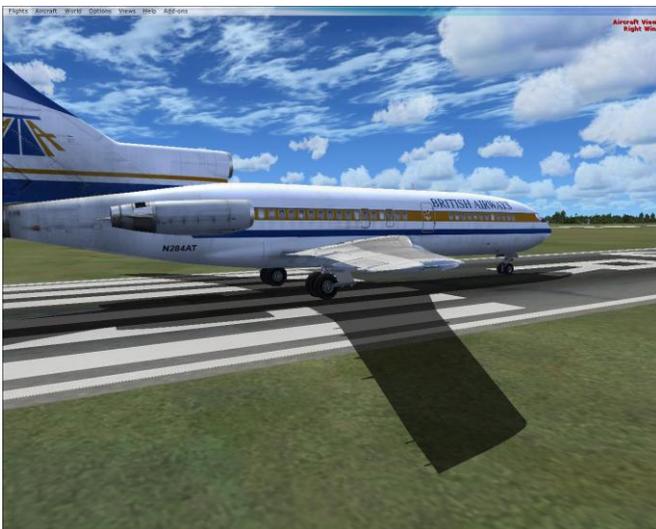
I tested this aircraft on two flights – the first flight was to check the ground handling, take-off, in flight and landings with this aircraft and also to get used to it. The second test flight was more to test the aircraft's flight characteristics during foul weather, and to do the second test flight I had to get used to the aircraft by flying the first test flight.

To handle this old and heavy aircraft on the ground was actually not that difficult. It handles like most other heavy jets and even though the 3 engines are all placed at the tail section you don't feel that when taxiing. The engines are not that efficient so you do need to add quite a lot of throttle to get the aircraft rolling.

The B727 are quick on the steering (nose wheel) and is very steady going down the taxiway. The brakes are very efficient, so if you need to stop urgently, then you are able to do that.

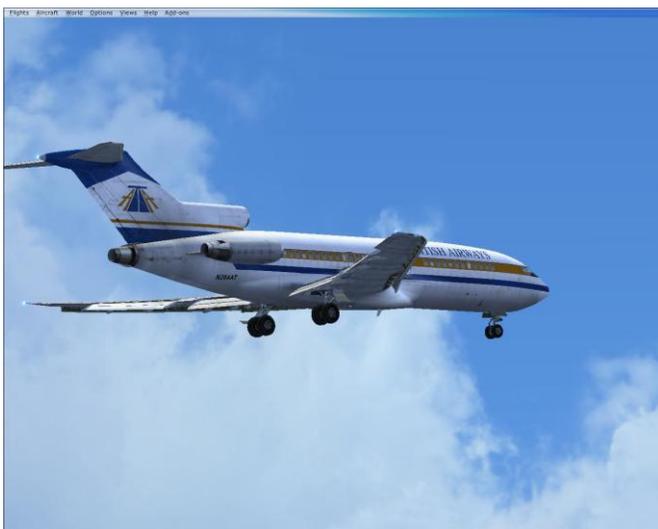
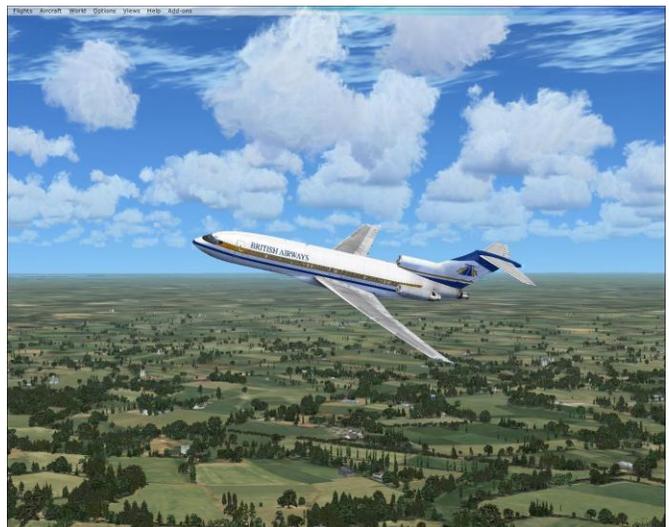
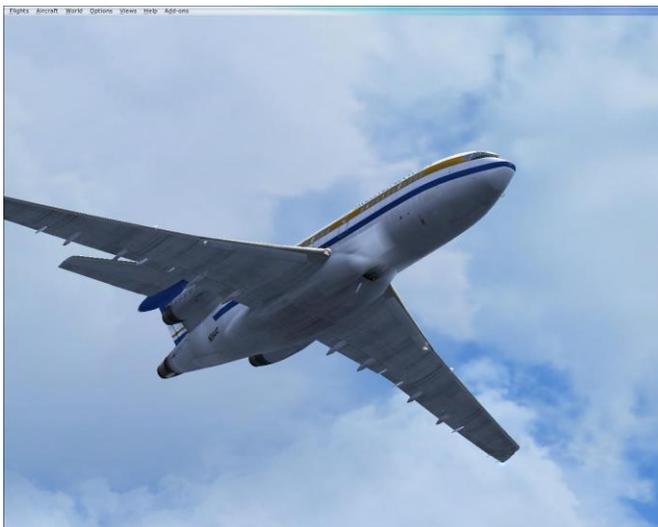
Doing the take-off with the B727 was quite similar to doing the take-off with other elder aircrafts that size. The take-off roll is quite long due to the fact that the engines are not that efficient, but that does not matter because the aircraft is so easy to control going down the runway. I had absolutely no problems keeping the aircraft on the runway, and at V2 I started to raise the nose. A few seconds later I was airborne and started my climb.

Flying this aircraft is easy – I just had to remember that I couldn't climb as fast as I wanted to. The aircraft handles very well and is okay fast on all control surfaces. The view from the cockpit is superb and I very quickly got the feeling of this aircraft. When flying it you don't feel it as being a heavy aircraft – it is actually very elegant and you do feel that this aircraft was built to fly. However I find it a bit unique when doing the take-off. It felt very heavy in the rear so I had to be very careful raising the nose, so that I didn't rotate too fast and hereby smashing the tail into the runway. That of course goes for all types of aircrafts, but somehow this felt a bit different – I could imagine similar with e.g. the DC-10 and the MD-11.



Landing this aircraft was as I expected – I was convinced that it would be much like landing the B707 and yes it was. You sit in a cockpit that is 90% the same as the B707 and the view from the captain's seat is exactly the same as the B707. The B727 has very good flaps and hereby reducing the landing speed – together with that you also have very efficient spoilers and wheel brakes, so you don't have to use all the runway (normally) – this equals to that I had more time to focus on making a nice soft landing with a good proper flare instead of just smashing the wheels in the runway and applying the brakes.

During the final I got the aircraft trimmed perfectly and I had no issues at all. The aircraft is very steady and even though I had applied full flaps, the aircraft was still quite quick on the controls. After touchdown on the main wheels I applied the spoilers and when the nose wheel hit the concrete I applied the reverse thrusters. I didn't apply the wheel brake before my speed was below 80 knots – it was simply not necessary.



The second test flight was more of a challenge. I had set the weather theme on a thunderstorm with wind coming from -45 degrees from headwind blowing at 20 knots gusting to 30 knots. I had set the turbulence on severe and applied rain. This was a scenario which actually was very much fun but also very challenging.

I tried several take-offs and landings and practice do make perfect. After spending about 1½ hours on flying concentrated under these conditions I believe that I mastered it very well. I have all my settings on as real as it gets, and I managed to land the aircraft without any damages every single time.

The flight characteristic for the B727 under these conditions do change which they also should. You need to be extra careful and concentrated and remember to keep a little extra airspeed on the aircraft – here I refer to specifically during low altitude turns to e.g. your final, because when you have these conditions your IAS can vary very much and this could result in a wing stall = spin.

With this Captain Sim product you get a really well made model of high quality. A great virtual cockpit with many details and animation and a sound set that is very authentic and fit the model perfectly. If you are to the old classic airliners then this aircraft is a must – it is very realistic and very beautiful made. I rate this add-on 4/5-stars.

Thanks to Captain Sim for this very beautiful old classic aircraft. You have done a superb job by creating the B727 so realistic.



Rays Aviation



## Variants

- B727-100 Original version that included several sub-version as -00/-22/-23/-30
- B727-100C Convertible passenger cargo version
- B727-100QC Freighter version with roller-bearing floor for palletized galley and seating to allow much faster change over time (30 minutes) The QC stands for **Quick Change**
- B727-100QF A cargo conversion for UPS. QF stands for Quick Freighter. Re-engined with Stage III-compliant Roll-Royce Tay Turbofans
- B727-C-22A A single B727-30 acquired from the FAA
- B727-C-22B 4 B727-35 acquired from National Airways
- B727-200 Stretched version of the B727-100
- B727-200C Convertible passenger cargo version – only 2 were built
- B727-200Adv Features an increased MTOW and cabin improvements
- B727-200F Freighter version of the B727-200
- Super 27 The B727-200 version upgraded with 2 new side engines to be either JT8D-217 or JT8D-219 + addition of hush kits to the center engine. This improved speed by 50 mph. As addition, some were also delivered with winglets to increase fuel efficiency

## Specifications

	727-100 (Passenger)	727-200	727-200 Advanced
Seating capacity	131 tourist class passengers	189 tourist class passengers	
Cargo capacity			
Crew		3 flight crew plus ca. 4 cabin crew	
Total length	133ft 2in (40.6m)	153 ft 2 in (46.69 m)	
Fuselage length			
Fuselage width			
Wingspan		108 ft 0 in (32.92 m)	
Wing area		1,650 sq ft (153 m <sup>2</sup> )	
Tail height		34 ft 0 in (10.36 m)	
<u>Maximum Takeoff Weight (MTOW) *</u>	170,000 lb (77,000 kg)	184,800 lb (83,800 kg)	209,500 lb (95,000 kg)
Operating empty weight	80,602 lb (36,560 kg)	98,400 lb (44,600 kg)	102,900 lb (46,700 kg)
Max. fuel capacity	7,680 USgal (29,100 l)	8,090 USgal (30,600 l)	10,520 USgal (39,800 l)
<u>Take-off distance at MTOW</u>			
Max range (with typical load)		2,433 nmi (4,506 km)	
Max cruise speed		Mach 0.9 (685.1 mph)	
Typical cruise speed		599 mph (521 kn)	
Service ceiling	36,100 ft (11,000 m)	42,000 ft (13,000 m)	42,000 ft (13,000 m)
Rate of climb	2,940 ft/min (14.9 m/s)		
Engines (3x)	Pratt & Whitney JT8D-1 14,000 <u>lbf</u> (62 <u>kN</u> ) thrust each	Pratt & Whitney JT8D-9 14,500 <u>lbf</u> (64 <u>kN</u> ) thrust each	Pratt & Whitney JT8D-17R 17,400 <u>lbf</u> (77 <u>kN</u> ) thrust each