

Test of

## Boeing C-17A GlobeMaster III

Produced by Area-51 Simulations

The C-17A GlobeMaster III is a four-engine, high winged heavy military cargo aircraft built by Boeing (former McDonnell Douglas). This aircraft is the newest heavy transport aircraft in the US Air Force and has been in active service since 1993. The idea with the C-17 was that it should have a capability to transport large amounts of cargo as e.g. material, personal or other cargo. Furthermore it also had to have the capability of landing on smaller and simple airfields and also be able to drop of cargo from the air just as the baby brother the C-130 Hercules

The crew is a three person's crew and the loading capacity is 170,900 lb (app. 75 ton). The cargo could be either material as tanks or other vehicles or troops – e.g. 102 parachuting troops. A very special feature that the C-17 has is the special built engines that are able to open up their sides to provide backward thrust. This can help the C-17 to come to a complete stop after touchdown in maximum 9 seconds. The pilot can also activate this feature and hereby making the C-17 taxi backwards with up to 20 mph (30 km/t) if necessary.

### Specs:

- **Produced by** Boeing (McDonnell Douglas)
- **First flight** 15<sup>th</sup> of September 1991
- **Introduction** 14<sup>th</sup> of July 1993
- **Role** Strategic/Tactic Transport Aircraft
- **Status** In production and service
- **Built** +232 (June 2011)
- **Unit cost** US\$ 218 million (2007)
- **Primary users**
  - US Air Force (USAF)
  - Royal Air Force (RAF)
  - Royal Australian Air Force (RAAF)
  - Royal Canadian Air Force (RCAF)



I received this add-on directly from Area-51 Simulations, and the download from their server went perfectly and without any problems. The connection is good and the download was finished within just a few minutes – easy, quick and professional.

The installation did also go as planned. I just applied the installation wizard and the rest was done automatically, so again easy, quick and professional. The installation wizard is very user friendly and all you actually have to do is activate it and accept the questions asked. Perhaps change the directory that the wizard is going to install to, but otherwise it will do the rest automatically.

After the installation was completed I of course opened FSX to verify if everything was installed correctly, and of course it was. I found the C-17 together with other add-ons that I have from Area-51 Simulations and I also found additional liveries in the FSX library, which I liked very much.

I started with an external view-around to check out the external model and to see how many details and animations Area-51 Simulations had included in this model. What I found was a really well made model covered with high quality textures, multiple animations, precision detailing and a great finish with perfect clean lines and edges that forms this very beautiful military aircraft.

The lighting is okay and the model features animations such as landing gear, suspension, wheels turning, nose wheel steering, spoilers, doors, ramp, reverse thrusters, control surfaces, flaps and many others. The accuracy of the details is very well made and this model, compared to real life pictures, is very close to the real thing.



As an addition the C-17 has also an animation of paratroopers when in flight. This also contributes to an added realism and creates an improved atmosphere when e.g. flying a mission where you have to deliver paratroopers over a hostile territory. Very nice detail.

After my view around the external part of this aircraft I went inside. Here I found both a virtual cockpit and a 2D cockpit. Both cockpits are quite well made and look very realistic. The 2D cockpit is a photo-real cockpit and consists of multiple animated buttons and switches together with various working systems and sub-cockpits.

The virtual cockpit is created with an eye for the detail and features a complete virtual cockpit including working systems and multiple animations. Not all buttons and switches are animated, but in general there are a well amount of animations as gauges and controls etc included. The lighting is good and the cockpit is filled with details that all are placed very accurate and made very well.

The textures used are of good quality and the depth is superb. The finish is great and the virtual cockpit has clean and clear edges all around. I specifically like the details of the control stick – The C-17 is actually not flown by using a yoke as most aircrafts that size, but the C-17 is equipped with a stick as you normally see in military aircrafts. The stick looks a bit crude and rough in real life, and this is perfectly made in this add-on and I like this detail very much.



The sound set included in this add-on is good. It resembles the real life sound of the C-17 quite well both heard from the inside and outside of the aircraft and improves the realism of the aircraft. I tested the sound set in both stereo and 7.1 surround sound and found absolutely no issues with either setting. It works just as well in 7.1 surround sound as in stereo.

I have previously tested a C-17 so I was used to the flight dynamics of this aircraft. It did not take me much time to get used to the aircraft and it resembles the flight characteristics that I previously had tested. I would say that it handles very much like a B767 but with much improved engines providing a lot more thrust than a normal jet airliner. This is just what it feels like, but that could also be due to that the C-17 is not as big as the B767.

To taxi this huge aircraft is not difficult. You can turn it on a nickel and the controls react very quickly. The brakes are very efficient and if you have to stop the aircraft urgently, you can apply the reverse thrusters as well, and you will come to a full stop within just a few seconds. Remember that the reverse thrusters were actually so powerful that when applied they could make the C-17 taxi backwards with up to 20 miles per hour and set the aircraft to a full stop when landing within maximum 9 seconds, and that is when coming in with landing speed and not taxi speed.

Taking-off was as I expected very easy. The aircraft is very steady going down the runway and actually you don't need that much runway before you gain enough speed to rotate and be airborne. The flight characteristics are well made, and the aircraft is quite quick on all control surfaces. The spoilers are extremely effective which enables the aircraft to make a rapid descent if necessary.

The engines are very powerful which influences your climb rate. There is no reason for being worried about your pitch angle, because the aircraft can climb with a very high pitch rate almost all the way to cruise level at app. 30 – 35,000'.



Flying the approach and landing the aircraft is indeed not that difficult – if you are familiar with medium to large jet aircrafts then you will quickly learn to fly and land this aircraft. A really nice thing about the C-17 and landings are that the flaps are very huge and very efficient hereby enabling the

aircraft to have a low IAS (Indicated Air Speed) for landing, and combining this with the reverse thrusters feature you will never have to worry about running off the end of the runway. You will have plenty of time to focus on the landing and flaring to set down the aircraft as smoothly as possible.

To test this aircraft I flew several flights, both as normal ferry flight flying from A to B with cargo but also mission flights where I either dropped off paratroopers or simply just landed at a base near enemy territory. When flying the mission with landing near enemy territory, I used the features of the C-17 as the spoilers and the very powerful engines. When arriving to the base in ALT 35,000' I flew circles with a short diameter just above the airstrip, with full spoilers applied to descent as rapidly as I possibly could. Another way to approach the airstrips were just to fly low and fast and both ways to approach was lots of fun and gave me a really nice experience with this beautiful aircraft.

Overall you have an add-on of very good quality with textures of high quality both external but also internal. You have a great finish and the model is filled with animations and details that are created very well. The sound set fits the model and is also very good both in stereo but also in 7.1 surround sound. As cockpits you get both a 2D and a virtual cockpit and they are both really nicely created and when using the virtual cockpit you can feel and sense the atmosphere that is in a real world C-17 cockpit. Spice this up with a serious and realistic mission sets this aircraft to be among advanced payware.

I rate this Boeing C-17A GlobeMaster III from Area-51 Simulations with a 3/5-star rating and I thank the team at Area-51 Simulations for this very beautiful military aircraft. If you like military aircrafts, then you just have to get this bird.

Rays Aviation



## Variants

### C-17A

Was the original military cargo version

### C-17A"ER"

Is the unofficial name for the C-17A with extended range. This was gained by adding quantity to the center wing tank. This upgrade was not in production until 2001 with Block 13

### C-17B

Is only on the drawing board. The new design contains e.g. double-slotted flaps, an addition to the main wheels, more powerful engines and additional systems to support take-off and landings on shorter airfields

## Specifications

**Crew:** 3 persons (two pilots and one load master)

**Capacity:** 134 troops on palletized seats or 102 troops on standard center line seats or 75t cargo

**Payload:** 170,900 lb (77.519 kg)

**Length:** 174 ft (53m)

**Wingspan:** 169,8 ft (51,75m)

**Height:** 55,1 ft (16,8m)

**Wing area:** 3,800 ft<sup>2</sup> (353 m<sup>2</sup>)

**Empty weight:** 282,500 lb (128.100 kg)

**MTOW:** 585,000 lb (265.350 kg)

**Power plants:** 4 x Pratt & Whitney F117-PW-100 turbofans with 40,440 lbf (180kN) each

**Fuel capacity:** 35,546 US gal ( 134.556L)

## Performance

**Cruise speed:** Mach 0,76 (450 knots, 515 mph, 830 km/t)

**Range:** 2,420 nmi (2,785 mi, 4.482 km)

**Service Ceiling:** 45,000 ft (13.716 m)

**Max wing load:** 150 lb/ft<sup>2</sup> (750 kg/m<sup>2</sup>)

**Minimum thrust:** 0,277

**Take-off at MTOW:** 7600 ft (2.316 m)

**Landing distance:** 3,500 ft (1.060 m)