

A large, detailed image of a Douglas B-66 Destroyer bomber aircraft in flight, viewed from a low angle. The aircraft is white with a blue and white star insignia on the nose. It is flying over a green, hilly landscape with some small buildings visible in the distance. The image is slightly faded to allow the text to be read clearly.

Douglas B-66 Destroyer

USER MANUAL

Introduction

Based on the U.S. Navy's Douglas A3D Skywarrior, the B-66 Destroyer was SAC's light bomber, and was to replace the piston-powered B-26 Invader. An RB-66 photo-reconnaissance version was ordered simultaneously. It was first envisaged that the conversion from a carrier-based aircraft to a land-based one would be straightforward, but the transition was lengthier than anticipated. Most changes stemmed from the USAF's stipulation that the aircraft be suitable for low-level operations. The first production RB-66B finally flew in early 1955. Deliveries began in 1956, and 145 were produced. They were used as the primary night reconnaissance aircraft of the USAF during that time. 72 of the B-66B bomber version were built concurrently, and 13 B-66B aircraft were adapted as EB-66B ECM aircraft for the Vietnam War. The final B-66 variant took shape as the WB-66D weather reconnaissance aircraft, just 36 being built. The B-66 left service with the USAF in 1973.



Credits

Model, animations, manual – Virtavia

Textures – Frank Safranek

Gauges – Herbert Pralle/Virtavia

Flight Dynamics – Jay McDaniel

Engine Sounds - Virtavia

Support

Should you experience difficulties or require extra information about the Virtavia B-66 Destroyer, please e-mail our technical support on tech.support@virtavia.com



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Exterior Model



Aircraft depicted :

B-66B, circa 1959
RB-66B, circa 1958
EB-66E, circa 1972 (SEA camo)

The exterior model has all the usual aircraft animations such as ailerons (and spoilers), rudder, elevators and undercarriage. The default door command shift-e opens the ventral crew hatch.

Bomb Bay

This is animated using the 2nd Exit command (shift-e, then tap 2). Only the B-66B bomber variant has this animation. The air deflector at the front of the bay also swings down. Two free-fall nuclear bombs are depicted in the bay.

Crew figures

The crew figures can be toggled using Ctrl-W.

Speedbrakes

Activated using the default key press '/'.

Exterior Lighting

Pressing the L key will turn on all lights. You may however wish to turn them on using the appropriate switches in the cockpit, as the L key also turns the on navigation, landing lights and both instrument and red flood lighting in the cockpit, which should ideally be switched separately.

Shift-L will toggle the cockpit lights.

Crtl-L will toggle the landing lights.

Please refer to the cockpit section of this manual for information regarding light switch location.

View Options

There are several different ways of looking at the aircraft, select these alternative views by right-clicking in an empty area and picking the 'Aircraft' menu. It is possible to zoom and pan as normal in these alternative views. Cycle through the available ones by pressing the A key.

Main Panel



NOTE: 2D panel steering yoke can be toggled by just clicking it.

Popup Panels



Autopilot, Electrics, Fuel, Engine, Yoke, GPS (shift-2, 3, 4, 5, 6 & 7).

Reference Information

Virtavia B-66 Destroyer Procedures:

For specifications see the aircraft menu.

- Stalling speed, clean: 130 KIAS at 56,000 lbs.
- Stalling speed, landing: 116 KIAS at 56,000 lbs.

Engine Start

Use Ctrl-E or the autostart switch on the engine control unit (right side of 2D panel) or use the individual starter switches on the pop-up ECU (shift-5).

Takeoff

1. Check fuel status.
2. Set flaps to the up position.
3. Set pitch trim to neutral.
4. Set aileron and rudder trim to neutral.
5. Apply full power smoothly.
6. Rotate at 145 KIAS, liftoff at 165 KIAS.
7. Retract gear after establishing positive rate of climb.

Climb

1. Perform initial climb at 250 KIAS.
2. Above 10,000 feet climb at 300 KIAS until cruise mach (0.76) is reached.
3. Maintain cruise mach as climbing speed using mach hold function.

Cruising

1. Normal cruising speed is 0.76 Mach for all altitudes at normal weights.
2. Optimal cruise at 70,000 lbs. is at 36,000 feet MSL at 0.76 Mach.
3. Set autothrottle to maintain cruising speed.
4. Range at this speed and altitude is 93 nautical miles per 1000 lbs. of fuel.

Descent

1. Descend at 250 KIAS, with speedbrakes extended, at 4,000 fpm. Fuel flow should be 1,500 pph/engine.
2. Idle descents are permissible if fuel conservation is required.
3. En route descents can be made at en route airspeeds, with or without speedbrakes, as required.

Landing

1. Optimal landing weight should be 50,000 lbs or less.
2. Approach the field at about 250 KIAS with plenty of room to slow down.
3. At 200 KIAS, lower the flaps.
4. Extend landing gear when flaps are down at 180 KIAS.
5. On downwind, reduce speed to 135 KIAS with about 13 units angle of attack.
6. Extend speedbrakes on base leg at about 700-800 feet AGL.
7. Final approach should be at 15 degrees AoA.
8. Normal landing speed is 135 KIAS over the fence, touchdown at about 120 KIAS.

Shutdown

1. Apply Parking Brake.
2. Shut down engines using ctrl-shift-F1 or the engine fuel shutoff switches on the pop-up Engine Control Unit (shift-5).
3. Switch off pitot heat, de-ice and any nav or landing/taxi lights.
4. Switch off master battery and avionics (center console in VC).
5. Switch off cabin lights as necessary.