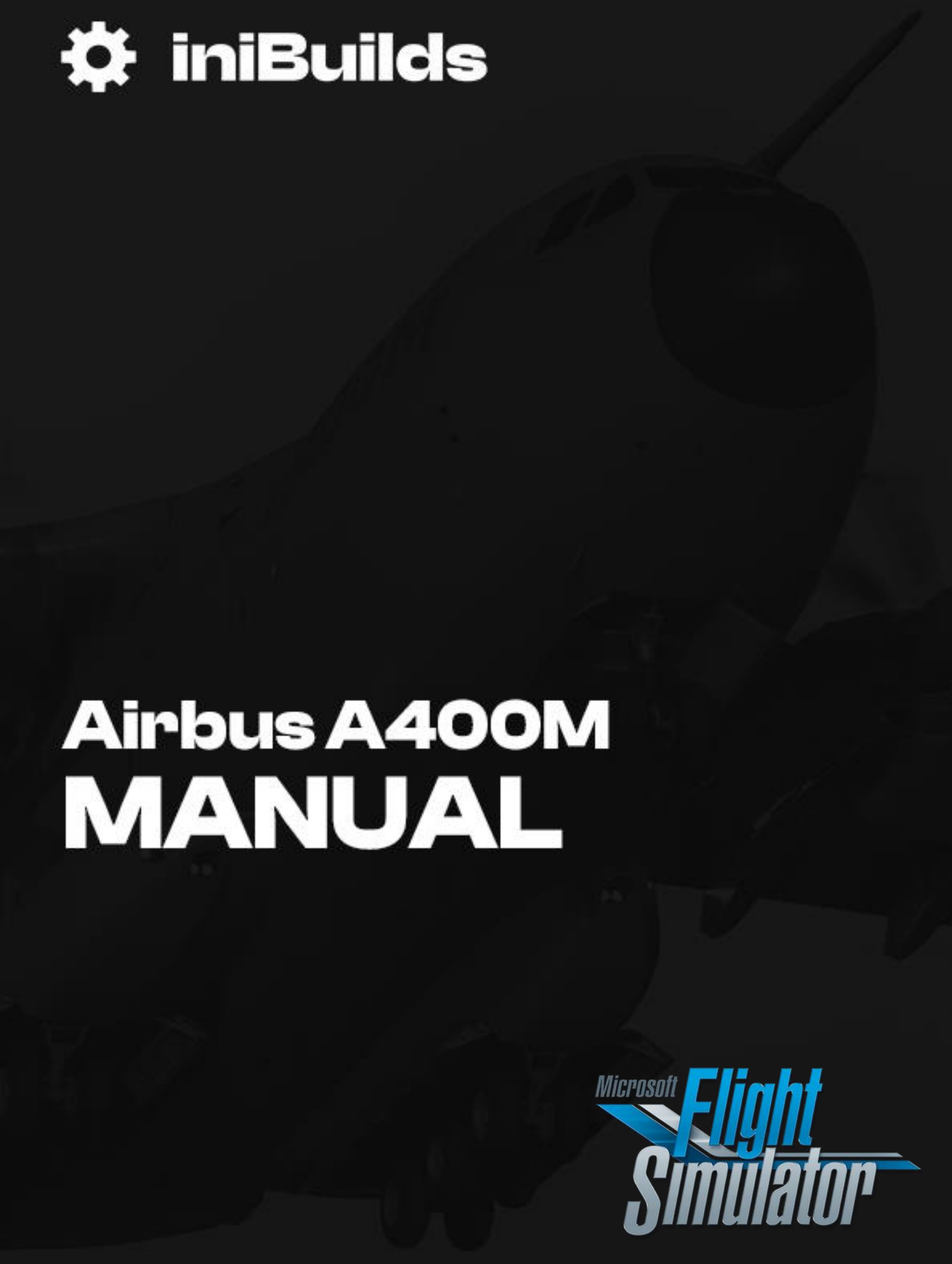
iniBuilds

Airbus A400M
MANUAL



Microsoft Flight Simulator

Preface

FOR SIMULATION USE ONLY - DESIGNED FOR SINGLE-PILOT OPERATIONS

This guide is designed to help provide a straightforward set of instructions to aid in operating the Airbus A400M Atlas aircraft.

PHOTOSENSITIVE SEIZURE WARNING

A very small percentage of people may experience a seizure when exposed to certain visual images, including flashing lights or patterns that may appear in video games. Even people who have no history of seizures or epilepsy may have an undiagnosed condition that can cause these "photosensitive epileptic seizures" while playing video games.

Immediately stop playing and consult a doctor if you experience any symptoms.

These seizures may have a variety of symptoms, including light-headedness, altered vision, eye or face twitching, jerking, or shaking of arms or legs, disorientation, confusion, or momentary loss of awareness. Seizures may also cause loss of consciousness or convulsions that can lead to injury from falling down or striking nearby objects.

Parents should watch for or ask their children about the above symptoms. Children and teenagers are more likely than adults to experience these seizures.

You may reduce risk of photosensitive epileptic seizures by taking the following precautions:

- Play in a well-lit room.
- Do not play if you are drowsy or fatigued.

If you or any of your relatives have a history of seizures or epilepsy, consult a doctor before playing video games.

Copyright

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About the Airbus A400M Atlas

The A400M Atlas is a four-engine military multi-role transport aircraft manufactured by European aerospace defence consortium Airbus Defense and Space. The maiden flight of the Atlas took place on December 11, 2009 and it was introduced in 2013 after a development period that spanned decades. Based on decades of research and development, and using state-of-the-art avionics, flight controls, power systems, and materials, the A400M Atlas is one of the most advanced military transport aircraft flying today.

The program that would yield the A400M began in 1982 as a combined project consisting of aerospace companies from four countries: Lockheed of the United States, British Aerospace of the United Kingdom, Aérospatiale of France, and Messerschmitt-Bölkow-Blohm of Germany. The consortium sought to create a successor transport aircraft to the venerable Lockheed C-130 Hercules and the Transall C-160, both relatively small military transport aircraft that functioned primarily for tactical logistical support.

After numerous changes in both system outlook and partners, the design that ultimately emerged was one that would not replace the C-130, but fill a niche gap in lift capability between it and the much larger C-17 Globemaster III heavy strategic airlifter.

While the latest iteration of the C-130, the C-130J, has a maximum payload of 47,000 pounds and a range of 2,647 miles, the A400M can lift up to 81,600 pounds and has a range of 2,100 miles—and can be refuelled in-flight for extended range, which only certain variants of the C-130J can perform. Despite its much heavier lift ability than the C-130, the A400M can operate out of austere and short airfields, a capability for which the Hercules line of aircraft has become renowned.

The Atlas is today operated by the militaries of a number of countries, including the United Kingdom, Germany, Spain, France, and Turkey. 118 have been delivered, and the airframe remains in production. Militaries that operate the Atlas use it for both tactical support as well as longer range strategic logistical lift missions.

The A400M Atlas measures 148 feet in length, stands 48 feet, 3 inches tall, and has a wingspan of 139 feet, 1 inch. It features advanced composite construction, state-of-the-art avionics and flight controls, a swept main wing, and a T-tail empennage with a swept horizontal stabiliser. It is powered by four wing-mounted Europrop TP400-D6 turboprop engines that each deliver 11,000 horsepower. Each engine drives an 8-bladed Ratier-Figeac propeller that can be fully feathered and has reverse thrust capability.

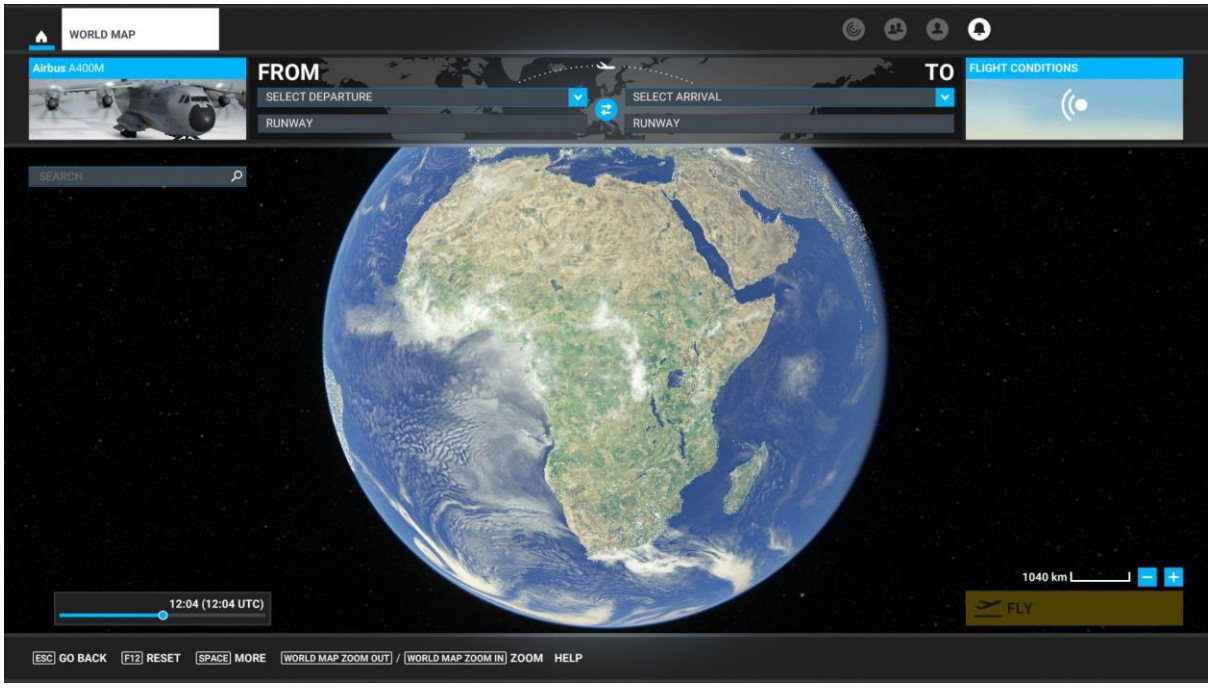
The A400M is piloted by 3 and can carry up to 116 passengers with full combat loads or 66 stretchers with 25 medical personnel. The hold of the Atlas can accommodate a wide variety of cargo, from ground combat vehicles to the CH-47 Chinook helicopter, or a combination of cargo types. The aircraft can also be configured to refuel other aircraft in-flight.

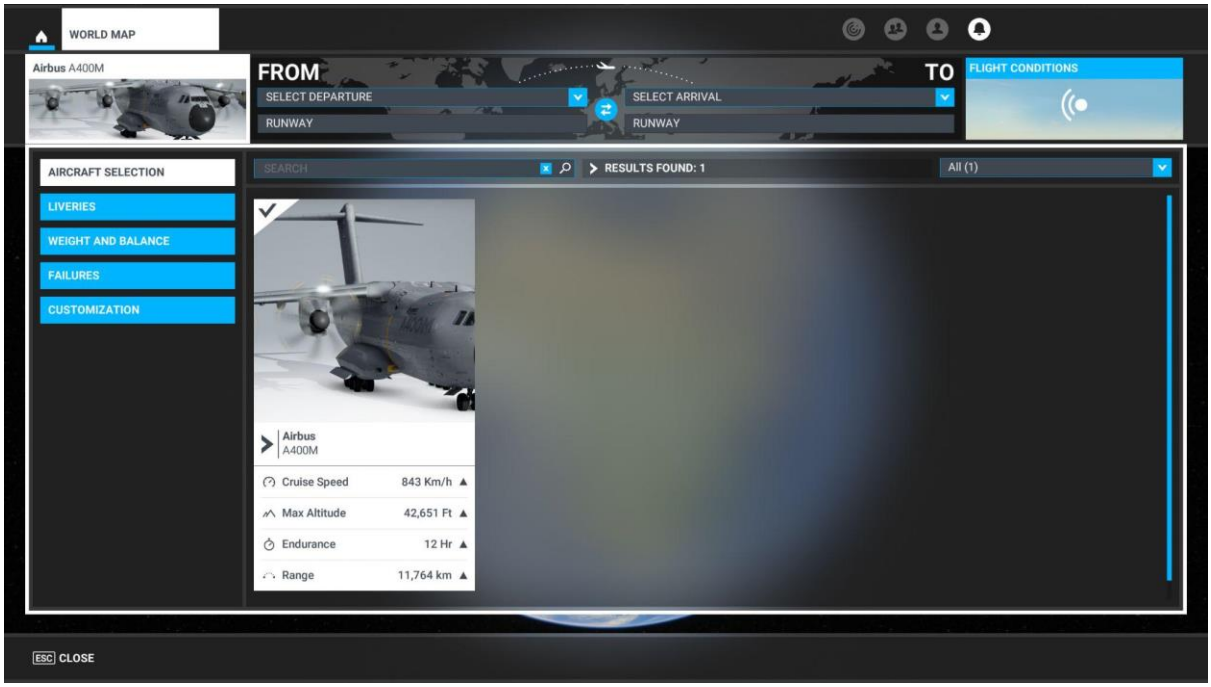
The Atlas cruises at 460 miles per hour, has a top speed of 485 mph, and has a service ceiling of 35,000 feet above sea level.

Aircraft Selection and Liveries

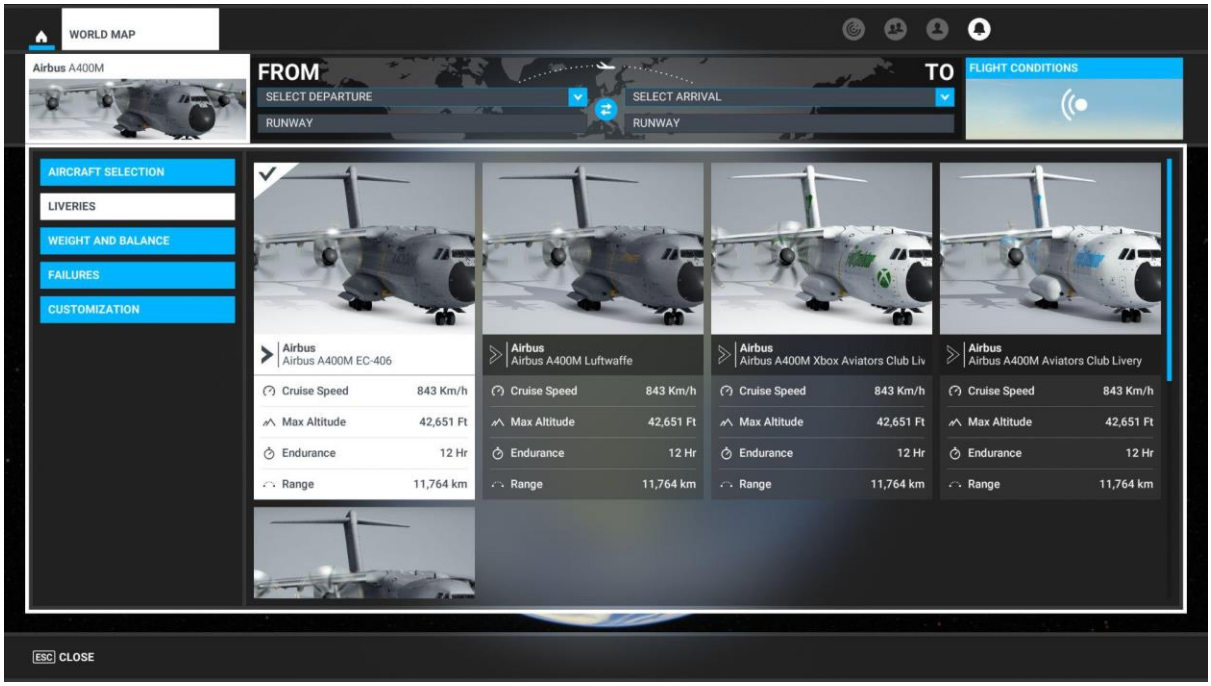
To fly the A400M, you will need to select it from the Aircraft Selection menu.
Click on WORLD MAP in the Main Menu and click the AIRCRAFT SELECTION icon on the top left.

Scroll until you see the A400M or type "A400M" in the search bar, and it will appear.





Click on Liveries to select any of the various designs available for the A400M.


WORLD MAP
Airbus A400M
FROM
SELECT DEPARTURE
RUNWAY
TO
SELECT ARRIVAL
RUNWAY
FLIGHT CONDITIONS
AIRCRAFT SELECTION
LIVERIES
WEIGHT AND BALANCE
FAILURES
CUSTOMIZATION
Airbus
Airbus A400M EC-406
Cruise Speed 843 Km/h
Max Altitude 42,651 Ft
Endurance 12 Hr
Range 11,764 km
Airbus
Airbus A400M Luftwaffe
Cruise Speed 843 Km/h
Max Altitude 42,651 Ft
Endurance 12 Hr
Range 11,764 km
Airbus
Airbus A400M Xbox Aviators Club Liv
Cruise Speed 843 Km/h
Max Altitude 42,651 Ft
Endurance 12 Hr
Range 11,764 km
Airbus
Airbus A400M Aviators Club Livery
Cruise Speed 843 Km/h
Max Altitude 42,651 Ft
Endurance 12 Hr
Range 11,764 km
ESC CLOSE

Cockpit Interaction

Some knobs within the cockpit have interaction where you can push, pull, or scroll them for their functionality.

This functionality will vary depending on your simulator's specific settings under GENERAL OPTIONS > ACCESSIBILITY.

If a control is set to "Lock," left click (and hold the left mouse button) the knob and push the mouse for "push" interaction and pull the mouse for "pull" interaction. Some functions also may have a middle-mouse button "scroll" or "push" and right-mouse click "set" functions.

If it is set to "Legacy," you will see an icon appear to the left, right, above, or below, which you use the middle-mouse wheel to scroll as if a circular arrow, and left click to "set" as if an up or down arrow icon.

On the Xbox, press **A** to interact with the knob and use **A** to "push," **X** to "pull," Right Stick to "scroll," and **B** to finish the control input.

Checklists

While this guide offers comprehensive operational instructions that are functionally complemented by the Quick Reference Card (QRC), iniBuilds has incorporated expedient procedural checklists within the simulator. These can be accessed via the top-of-screen drop-down menu by selecting the Checklist option.

Clicking the blue eye icon to the right of the checklist item will switch your view to the requisite panel where the button/switch/dial/gauge is located. You can use the AUTO COMPLETE option to expediently tick off the item from the checklist.

Airbus A400M Atlas Specifications

Cruise Speed	422 KTAS
Max Altitude	35,000 ft
Range	4,800 NM
Fuel Capacity	63,501 L (16,777 gal)
Length	45.1 m (187 ft 0 in)
Wingspan	42.4 m (139 ft 1 in)

Weight Limits

Airframe Limits

Limitation	KG	Lbs
Maximum Takeoff Weight (MTOW)	137,500	303,135
Maximum Landing Weight	121,500	267,861
Maximum Zero Fuel Weight (MZFW)	109,600	241,626
Operating Empty Weight (OEW / DOW)	89,993	198,401

Payload Limits

Limitation	KG	Lbs
Maximum Fuel Quantity	49,993	110,215
Maximum Payload Weight	19,607	43,226

Maximum Flaps Speeds (VFE)

CONF	Max Speed (IAS)
1	235 KTS
2	220 KTS
3	200 KTS
4	180 KTS
FULL	165 KTS

Electronic Flight Bag (EFB)

There is an Electronic Flight Bag (EFB) located on either side of the cockpit (Captain and First Officer) which is intrinsically linked to the aircraft Flight Management System (FMS). It is also linked to some core simulator functions like opening the doors, requesting ground power, setting default aircraft spawn states, etc. Simply click the Menu buttons at the bottom to navigate the pages.

Home Page – Shows your current flight details as set in the FMS, along with METAR for your departure and arrival airports. There is also a METAR search and SimBrief importing functionality.

OFP Page – Request and show the Simbrief Operational Flight Plan (OFP).
Your Simbrief Pilot ID must be set within the Settings Page for this feature to work.

Ground Page – Controls doors on the aircraft along with requesting external Ground Power, chocks and illumination of the cargo bay.

Payload Page – This page allows you to set the fuel and load on the aircraft and apply it to the aircraft.

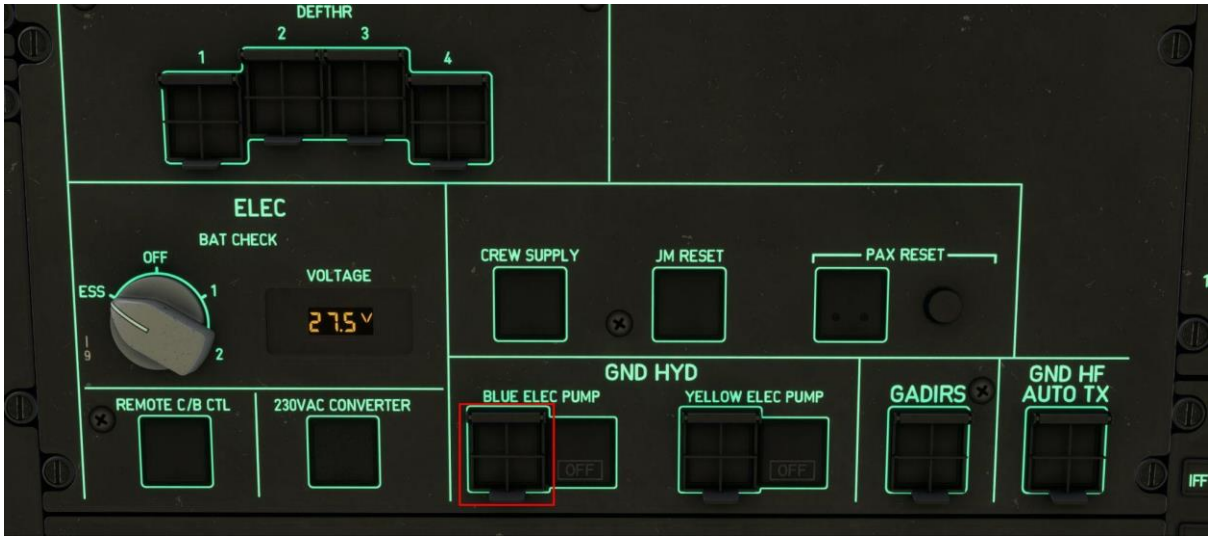
Panel State Page – This page allows you to select the state of the aircraft, shortcutting certain procedures.

Options Page

Main Cargo Door Operation

Hydraulic pressure in the Blue Hydraulic System is required in order to open and close the Main Cargo Door. If the pressure is insufficient you will receive the following error when trying to operate the door:

In order to pressurise the Blue Hydraulic System you must look at the aft area of the overhead panel.



Open the guard of the Blue Electric Pump push button and turn it on.

The door will now operate.

Once the door is open (or closed), turn the Blue Hydraulic Electric pump off by lifting the guard and pressing the ON push button.

Cockpit Layout

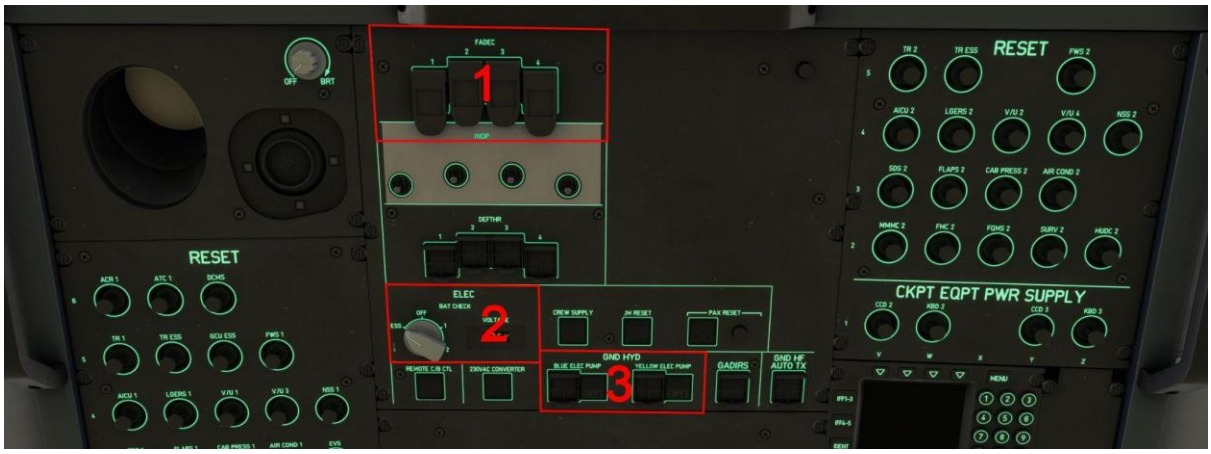
Main Panel

1. CPT HUD
2. Landing System (LS)
3. EFIS control panel
4. CPT Master Warning / Caution lights
5. Baro ref selector
6. Radio Management Panel
7. Flight Control Unit (FCU)
8. PFD & ND Brightness knobs
9. CPT Primary Flight Display (PFD) / Navigation Display (ND)
10. Integrated Standby Instrument System (ISIS)
11. Landing Gear position indicator
12. Engine and Warning Display (E/WD)
13. System/Status Display (SD)
14. CPT MFD
15. FO MFD
16. Landing Gear Lever
17. Ground Spoiler & Auto Brake panel
18. E/WD, SD, CAPT MFD & FO MFD Brightness knobs

Lower Overhead Panel

1. APU Fire Panel
2. GADIRS Switches
3. Flight Control Panel
4. Anti-ice Panel
5. CAPT Windscreen Wiper
6. Interior Lighting Panel
7. Engine Fire Panel
8. Hydraulic Panel
9. Fuel Control Panel
10. Electrical Control Panel
11. FADEC Ground Control
12. Air Conditioning Panel
13. Engine Start Selector
14. APU Master Switch and Start Push Buttons
15. Manual Engine Start Panel
16. Signs Panel
17. Flight Control Panel
18. Cabin Pressurization Panel
19. Smoke/Ventilation Panel
20. FO Windscreen Wiper

Upper Overhead Panel



1. FADEC Ground Control
2. Battery Check Selector
3. Hydraulic Ground Control

Centre Pedestal

1. CPT MFD Keyboard and Cursor Cursor Unit (KCCU)
2. Main and Pedestal Panel Flood and Integral Lighting
3. Cargo Door & Ramp operation switch
4. Parking Brake

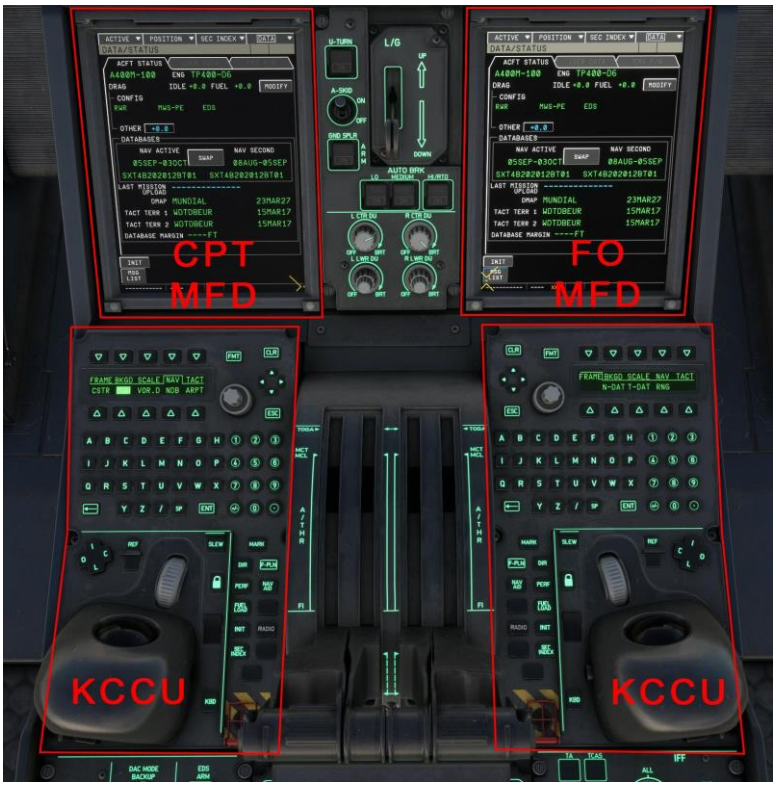
ECAM Control Panel

5. Thrust Levers
6. Engine masters and Engine Power Rating panel
7. ECAM Control Panel
8. Weather Radar and Surveillance Panel
9. Trim Panel
10. FO MFD Keyboard and Cursor Cursor Unit (KCCU)
11. TCAS Control Panel
12. TAWS Control Panel
13. Flaps Lever

Aircraft Systems

Multi Function Display (MFD) & Keyboard Cursor and Control Unit (KCCU)

The Flight Management Guidance and Envelope System (FMGES) provides predictions of flight time, mileage, speed, economy profiles, and altitude. It reduces cockpit workload, improves efficiency, and eliminates many routine operations generally performed by the flight crew.
The pilots use the two MFDs to enter or modify data required by the FMGES via the KCCUs.

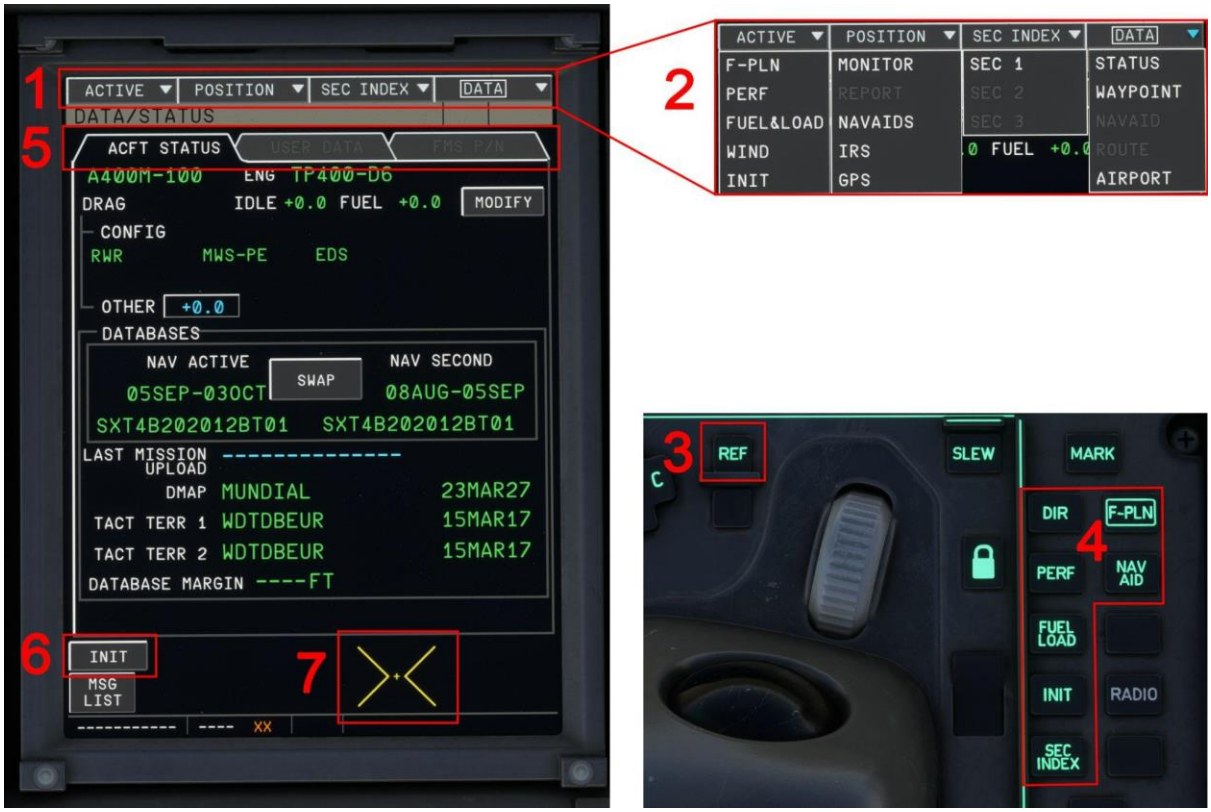


Keyboard Cursor and Control Unit (KCCU)

The KCCU is used to enter and modify data via the keyboard and various buttons (1 to 5). MFD pages can be accessed directly as well by pressing any of the MFD shortcut keys (6 to 13).

1. Keyboard
2. Backspace
3. Enter
4. Clear
5. Escape
6. Ref (Access Aircraft Status page)
7. Direct to page
8. Performance page
9. Fuel prediction page
10. Init page
11. Secondary Index page
12. Flight Plan page
13. Navigation Aids page

Multi Function Display (MFD)



The MFD contains several pages which can be accessed in various ways. At the top of the MFD we have the Menu (1). The main FMS pages can be accessed by selecting an option from the drop down menu (2). The KCCU also has direct access keys to certain pages. Pressing REF (3) will open the ACFT STATUS page while the cluster in (4) opens 7 other pages.

Some pages have multiple pages contained within, these are called "Panels" (5) and can be accessed by present on the relevant header.

Many buttons are present on each page, in this example pressing the INIT button (6) will change to the INIT page.

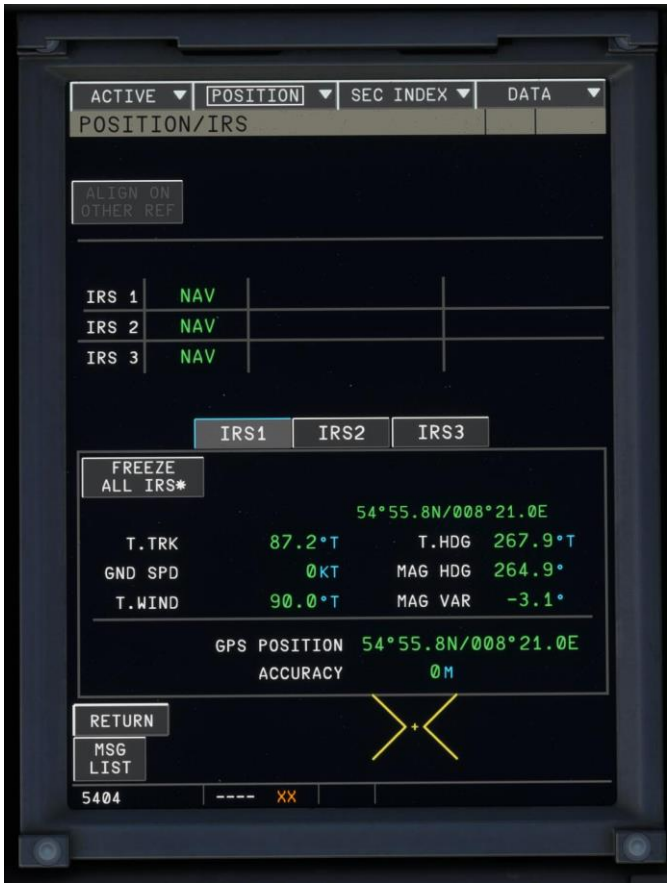
As soon as your mouse is within the MFD screen boundaries the cursor symbol will become active (7). Use your mouse to click on menus, panels, buttons and fields that require information to be inserted.

Multi Function Display (MFD) Pages

ACTIVE/INIT

Access the INIT page, here is where you will insert the route you will fly. If you have generated a flight using SimBrief you can press INIT REQUEST* to uplink the flight plan. Information can also be manually entered by displacing the cursor with your mouse to any field, clicking on it and using the KCCU keyboard. NOTE: the KCCU keyboard must be used, do not use your physical keyboard as this will interact with other simulator controls. Some fields are accepted automatically when the correct amount of digits is entered. For example the FROM field, it requires 4 digits for the airport code, once the final digit is pressed the field will be complete. This does not work on fields that can have multiple digits, for example MISSION NBR. Once you have entered the mission number you must press ENT in the KCCU to enter the information. Press ESC If you want to cancel an input you were busy typing in, this will revert to the previous value.
A good way to prepare for your flight is to follow the order of the buttons present in the lower half of this page: IRS > DEPARTURE > NAVAIDS > FUEL & LOAD > T.O PERF.

POSITION/IRS



Check that the IRSs are all aligned and the position is correct. Press RETURN.

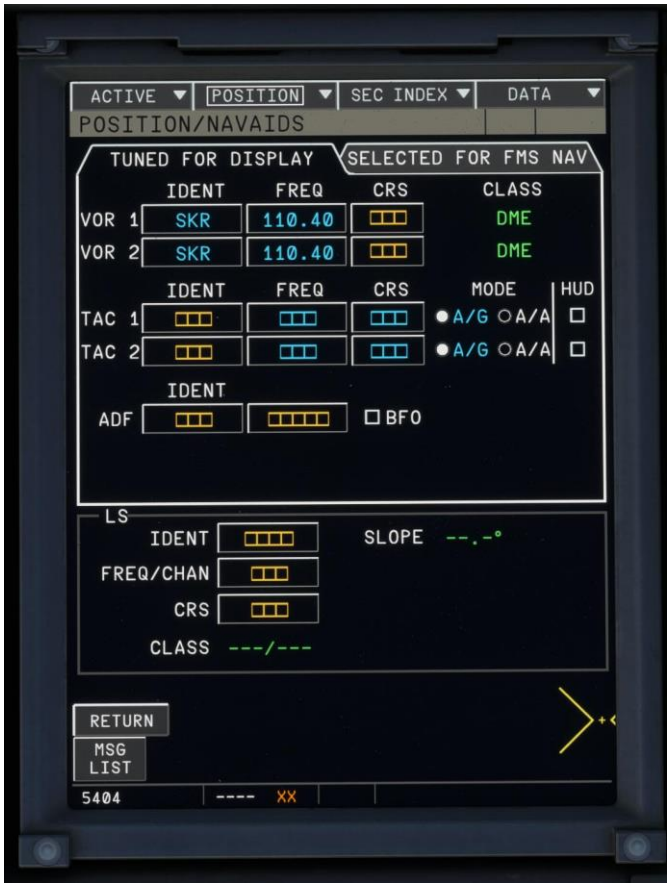
DEPARTURE

Select your departure runway, SID and transition. Press TMPY F-PLN to insert it. This will take you to the F-PLN page.

F-PLN

Click on any waypoint to access a new menu with further options. Here is where you can insert the next waypoint to follow, insert a route via airways, arrival airport runway and procedures, holding, etc. When you are done, press INIT at the bottom left. Then select the NAVAIDS page.

NAVAIDS



Automatically tuned navigation aids are displayed in this page, you can change and tune any beacon that you need. When you are done, press RETURN. Then select the FUEL & LOAD page.

FUEL & LOAD

Insert your ZFW, ZFWCG and BLOCK fuel as displayed in the EFB Fuel & Payload page. When you are done, press PERF in the KCCU to access the performance page.

PERF

Press T.O PERF COMPUTATION* to automatically calculate and insert your take off speeds and trim setting.

Pressing the APPR button will display the Approach page. Here is where you will insert your weather information, applicable minima and be able to see your minimum configuration speeds and approach speed.

The FMGES is now set up for the flight.

Performing a direct-to when in flight

There are two ways for you to insert a Direct-To:

1. Press DIR in the KCCU, this will open up the DIRECT TO page. Select the waypoint from the drop down menu and insert.
2. While on the F-PLN page click on the waypoint you want to fly direct to, this will open up the menu, select FROM P.POS DIR TO* and insert.

Electronic Checklist

The A400M has an Electronic Checklist accessible by pressing the NORM button (1) on the ECAM Control Panel. It will be displayed in the lower half of the E/WD.

Using the Pedestal Joystick (2) you can scroll up or down to select a different checklist or checklist item. When the required item has been highlighted, press the ECAM Check button (3) to access the checklist.

Items that require manual intervention are preceded by a tick box (☐), press the ECAM Check button to proceed to the next item.

Some items can be automatically detected by the aircraft (for example the seat belts). The line will change from blue to green when the switch is detected in the correct position.