Miltech Simulations U-2

# Aircraft Systems

How each U-2S system works in the simulator: power, fuel, engine, oxygen, navigation, autopilot, flight controls, lights, landing gear, warnings, sensors and the EFB.

| 1 Electrical and Avionics Power | 2 Fuel System |
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| Where the Power Comes from<br>Electrical Switches<br>Avionics Power Switches (Right Console)<br>The U-2 electrical system provides and distributes power to the avionics, displays, fuel pumps, flight control systems and lighting. | The Tanks<br>How Fuel Feeds - Automatically<br>Fuel Panel<br>Loading Fuel<br>Monitoring Fuel on the MFD<br>The U-2 fuel system is designed to feed the engine from a single small sump tank in the fuselage, which is kept full automatically from the wing tanks. |
| 3 Engine Start and Cockpit Controls | 4 Cabin, Oxygen and Hypoxia |
| Throttle OFF / IDLE Stop<br>Ground Start<br>Engine Mode Switch - PRI / SEC<br>Airstart - Emergency Start System (ESS)<br>Seat Adjustment<br>The U-2S is started with a pneumatic starting cart, exactly as on the real aircraft: ground crew air spins the Air Turbine Starter, ignition comes on by itself, and the pilot's job is the throttle. | Cabin Pressure and the Canopy Seal<br>Cockpit Temperature<br>Oxygen<br>Hypoxia Simulation<br>The U-2 cockpit is a small pressure vessel at the edge of space. |
| 5 Inertial Navigation System (INS) | 6 Navigation System (INS Steering) |
| The INS Switch<br>INS Modes and Status Letters<br>Ground Alignment, Step by Step<br>In-Flight Alignment (IFA)<br>Accuracy, GPS Updating and Alerts<br>The Inertial Navigation System (INS) is the heart of the U-2S cockpit. | Destination Points and the Turn Radius<br>F/T - From / To (Sequential Steering)<br>Maintaining Track<br>Direct Steer (DS)<br>Overfly (OFLY)<br>The U-2S carries its own INS steering computer. |
| 7 AFCS System (Autopilot) | 8 Angle of Attack (AOA) |
| The AFCS Panel<br>Engaging<br>Modes<br>NAV Mode and the Navigation Source<br>Pitch Trim<br>Miltech Simulations U-2 features a three-axis Automatic Flight Control System (AFCS), designed to alleviate the load on the pilot during the long high-altitude cruise. | What the Number Means<br>PFD AOA Gauge<br>Standby AOA Gauge<br>Glare-Shield Indexer<br>AOA Tones<br>The U-2 is landed by angle of attack, not by airspeed. |
| 9 Speedbrakes and Lift Spoilers | 10 Lights |

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| Cockpit Controls<br>Setting Up Your Controls<br>How to Use Them<br>Things to Know | Exterior Light Switches<br>Key Bindings<br>Cockpit Lights<br>The exterior light switches are on the Lights and Spoiler |

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| Gust Control<br>The U-2 has two separate drag devices, and our rendition models them separately. | panel. |
| **11 Landing Gear, Brakes and Ground Handling** | **12 Warnings and Alerts** |
| Hydraulic System<br>Landing Gear<br>Brakes<br>Steering and Taxiing<br>The U-2 sits on one main gear under the fuselage and a steerable tailwheel, with the pogos holding the wings level on the ground. | Master Caution<br>Alert Levels on the MFD<br>Warning Panel Lamps<br>MFD Alerts<br>The aircraft alerts you in two places: the warning lamp panel in front of you, and - on the U-2S - the alert line at the bottom of every MFD. |
| **13 Sensors** | **14 Electronic Flight Bag (EFB)** |
| The Imaging Sensors Compared<br>Everything the U-2S collects comes from the equipment you fit to it. | Aircraft Tab<br>Ground Tab<br>Flight Plan Tab<br>Charts Tab<br>Food & Drink Tab<br>The U-2 EFB is an app on the standard MSFS tablet: open the tablet and choose U-2 EFB. |

**Related pages:** Overview - Cockpit · Aircraft Displays · Specifications and Limitations

Miltech Simulations U-2. SIMULATION USE ONLY. This documentation describes the simulated aircraft as delivered in the add-on and must not be used for real-world aviation.