

G62 Cockpit Module



WIP: This article is a work in progress and is not yet approved for usage in the RP.

The G62 is essentially a highly modifiable fully featured cockpit.

About the G62

The G62 Cockpit Module can be easily upgraded or modified, offering a wide variety of configuration options to pilots: from adding neural control systems to replacing the hand-controls for a more familiar style of input pilots are used to, adding a Lazarus stasis module, even doing a complete operating system exchange for something more pilot-familiar.

Construction & Design Elements

The cockpit is totally isolated from the rest of the unit and features an oxygen cyclers, heating and cooling systems, backup communications, liquid processing systems (for urine) the main computer and interface of the craft. In the event of serious problems, the cockpit can be purged entirely, containing its own backup power-supply (the QNC module). Importantly, it can be entered and egressed both through the top and the bottom, removing the need for a pilot to climb down from the hull.

Pilot's couch

The pilot's chair is designed to accommodate a wide variety of different popular pilot-suits. The couch can also be laid flat into a bed and varied in softness or hardness and temperature depending on preference.

Personal Storage

Behind and beneath the pilot's couch are a set of mesh-bags which are normally concealed in panels. They can be used to fit a wide variety of personal possessions, provisions, a rifle and other equipment, including tools.

Interface Equipment

The G62 features a highly sophisticated cockpit designed to let pilots make the most of the platform both militarily and in the civilian and law-enforcement sectors, though when ordering many of these features are entirely optional.

G62 Display Helmet

By default, the canopy constructed of X. The material is one-way visible by design. While limited in view, the pilot makes use of a specialised helmet which overlays the outer-environment to the full of the pilot's peripheral vision, allowing them to see "through" the plane and even in the third person for better situational awareness. This display knows not only the position of the pilot's head and body but is also aware of exactly what the pilot is looking at - both in the cockpit and out, based on focal ranging detection.

Almost the entire cockpit, including displays and buttons are are gaze-sensitive, meaning if the pilot looks at a given feature and presses on their HOSAS the menu action/proceed or cancel/backup buttons, the menus can be navigated rapidly without having the pilot disengage their hands from maneuvering controls.

G62 HOSAS hand-controls

The pilot themselves make use of a HOSAS (hands on stick and stick) for maneuvering which act as both throttle and stick in a full six dimensions and can be locked to handle more like a traditional throttle and stick either left or right handed at the flick of a switch. The craft itself uses fly-by-wire to ensure it remains balanced and stable, taking in pilot-suggestions and using its own inherently aerodynamically unstable design, body thrusters and other systems to maneuver further and faster than a traditional aeroframe would allow.

These controls can be swapped out with a more traditional layout if the pilot desires without special expertise.

Secondary Controls

Rather than forcing pilots to navigate through a high number of complex menus during operations, OLED-Toggle-switches which change color and displayed text based on status can be used for rapid override and control of the system. The surface of these buttons are touch-sensitive, meaning not only can they be pressed or toggled but also swiped to toggle between multiple states. This offers instant context-free access to the pilot.

Glass Cockpit Elements

Beginning between the pilot's legs sits a T-configuration of multifunction displays, all touch enabled. The bottom middle central console displays core system information, specifically fuel and powerplant status as well as energy management. The left-display offers information on local and friendly munitions. The right display offers information on communications and can display video-feeds and navigate local networks - though these roles are all default and can be swapped.

The large central console which wraps about the pilot's front offers sensor information and

communications information, displaying not only the craft and relative targets but wider information from other units and platforms. This main display is also used during takeoffs, landings and any special operational procedures. Noteworthy is the fact the display is volumetric, meaning it offers a full three dimensional idea of what is happening around the airframe at all times.

Manual Command-Shelf

A brace-shelf can be pulled over the pilot's lap beneath the T-display. It can be used as a table or its lid can be slid back once again, revealing an ergonomic QWERTY keyboard divided in two button clusters with a number of secondary keys and controls. All keys use the same display-button feature as the command-override keys, meaning it can be programmed for a wide variety of languages.

This allows pilots to pass time using the machine as a standard computer to run programs locally or interface with local networks (which can be important during special mission-types), to perform deep-level maintenance checks without any separate command console, establish automated routines and even command other units from a distance.

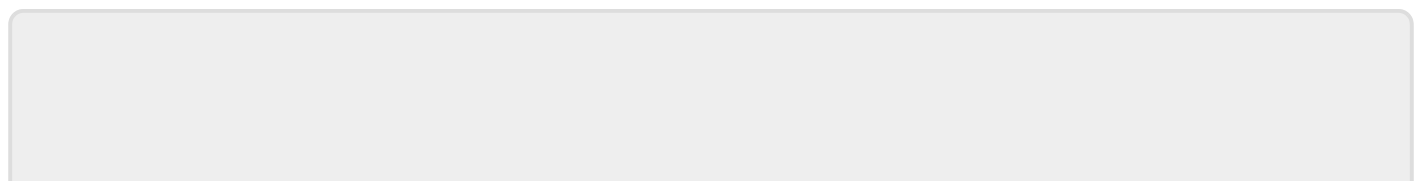
ARIA Vocal-Command Intelligence Parser

The cockpit features a multi-language vocal pickup system which can parse complex or abstract voice-commands into simple operations, asking questions, organizing the HUD display to detail specific information, to scan in specific ways, configure the craft for specific operation and even basic system operation and flight-course navigation. Even over comms, provided voice authorization is available, the craft can be controlled remotely.

Scripting

The system can be scripted either complexly running programs or even running a simple flow-diagram which can be filled with simple commands and over-rides and a library of common operations is included: for example, navigating to a set waypoint then awakening the pilot after landing, destination or complications arise, scanning comms for signals which match specific conditions and even simple dogfighting and evasion or automation of systems (for example turrets, missiles, to auto-fire guns when lined-up, etc) if the pilot needs to focus on other actions.

This can be useful if a fight is going to end badly and can allow a pilot to eject the complete cockpit or just themselves and still continue issuing instructions or even issue instructions remotely. The cockpit can then be recovered if the sortie ends successfully.



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