58D

OPERATIONS MANUAL

TAC Flight

ONLY FOR MICROSOFT FLIGHT SIMULATOR

1. Table of contents

2. Aircraft introduction

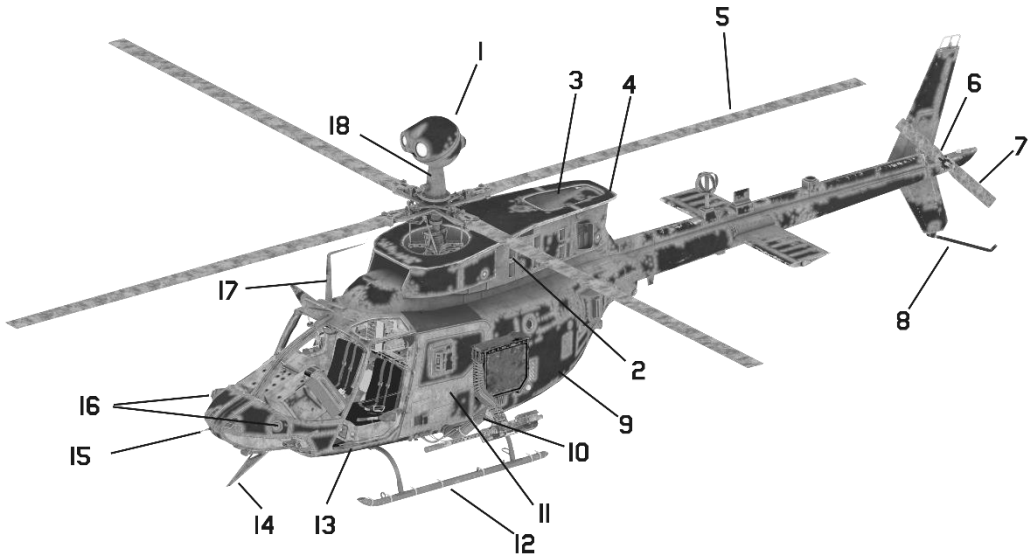
Welcome to the TacFlight 58D. This manual will guide you through the operation of the aircraft, and ensure that you enjoy flying the airplane.

The 58D is a light, single-engine reconnaissance and observation helicopter designed for versatility in various mission profiles. Recognized for its distinctive mast-mounted sight (MMS) above the rotor, it provides enhanced surveillance capabilities with day, night, and limited adverse-weather vision.

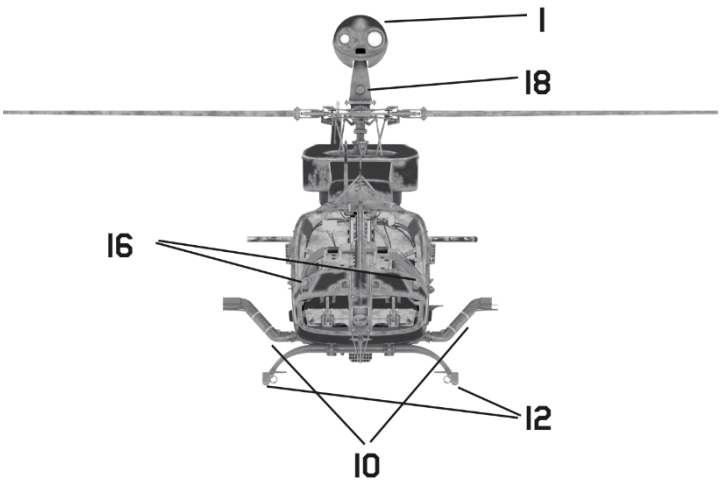
The aircraft is powered by a turbine engine, which provides a strong power-to-weight ratio, allowing for agile performance in low-altitude operations and confined areas. The cockpit layout is designed for situational awareness, with multi-function displays for navigation, targeting, and systems status, enabling single-pilot operations with optimized workload management.

Armament options include a range of modular configurations for light attack and defensive roles, often outfitted with a combination of rockets, machine guns, or missiles as mission parameters dictate. The 58D′ s compact design and versatility make it ideal for close support, reconnaissance, and security operations in various terrain types, enhancing both its survivability and effectiveness in tactical scenarios.

3. Aircraft diagram



1	Mast-Mounted Sight (MMS)	**10**	Universal weapons pylon (UWP)
2	Engine Inlet	**11**	Avionics compartment access doors
3	Engine Exhaust	**12**	Landing gear
4	Oil cooler fan exhaust	**13**	Crew door
5	Main rotor blade	**14**	Wire cutter
6	Tail rotor gearbox	**15**	Pitot tube
7	Tail rotor blades	**16**	Radar warning antenna
8	Tail skid	**17**	Secondary FM antenna
9	Aft electrical compartment	**18**	Turret cooling fan screen



4. Installation

Installation of this aircraft follows standard MSFS addon installation route and is as follows:

- **Download and Extract Files**
    - After downloading the aircraft folder, locate the ZIP file in your "Downloads" folder (or the location you saved it to) named **tacflight-58d.zip**.
    - Extract the contents of the ZIP file. The extracted folder should contain the main aircraft folder with all necessary files (model, textures, and configuration).
- Navigate to your MSFS2020 **Community folder**
- **Copy Aircraft Folder "tacflight-58d" into Community Folder**
- Ensure that the aircraft folder structure remains intact (e.g., Community\AircraftName)

Launch MSFS2020

- Start **Microsoft Flight Simulator 2020**
- Go to the **World Map** and select **Aircraft**
- The 58D should appear in your aircraft selection list, ready for use

5. MSFS 2024 Compatibility

This aircraft can also be used as MS2024 helicopter as legacy addon. It is automatically converted to MS2024 format when put into correct folder. Features such as external walkaround with inspection are not simulated.

To Enter the cockpit of the 58D when starting on the ground, press **SHIFT + C**

MSFS2024 Installation:

Extract all files into Community folder located:

Steam

```
C:\Users[Your Username]\AppData\Roaming\Microsoft Flight Simulator 2024\Packages\Community
```

MS Store

```
C:\Users[Your Username]\AppData\Local\Packages\Microsoft.Limitless_8wekyb3d8bbwe\LocalCache\Packages\Community
```

Launch MSFS2024

- Start Microsoft Flight Simulator 2024
- 58D should appear in aircraft selection in Free Flight

6. General performance table

Performance Metric	Value
Max Speed	125 knots (approx. 144 mph)
Cruise Speed	90-100 knots (approx. 103-115 mph)
Service Ceiling	15,000 feet
Hover Ceiling (Out of Ground Effect)	6,000 feet
Hover Ceiling (In Ground Effect)	10,000 feet
Rate of Climb	1,350 feet per minute
Range	345 nautical miles
Endurance	2.5-3 hours
Fuel Capacity	112 gallons (approx. 425 liters)
Max Gross Weight	5,500 pounds
Empty Weight	3,750 pounds
Engine Type	Rolls-Royce 250-C30R/3 Turboshaft
Power Output	650 shaft horsepower (shp)
Max Speed	125 knots (approx. 144 mph)

7. Panel and instrument layout

In this section we discuss overall cockpit layout with each panel and instrument position available in 58D cockpit. Please refer to this section if needed.

Main Instrument Panel

Main instrument panel located in front of pilots consists of multiple instruments, all of which will be usable during each stage of flight. 58D main console integrates both essential standby instruments for basic flight monitoring and advanced Multi-Function Displays (MFDs) for comprehensive navigation and mission planning.

1	Multifunction display (MFD)	**10**	Multiparameter display (MPD)
2	Chronometer (Clock)	**11**	MFD Auxiliary control panel (Copilot)
3	Common Missile Warning System - CMWS	**12**	MFD Auxiliary control panel (Pilot)
4	Remote frequency indicator (RFD)	**13**	Radar warning receiver
5	RPM vertical scale instrument	**14**	Standby magnetic compass
6	TGT/TRQ dual indicator	**15**	MMS control panel
7	Standby airspeed indicator	**16**	Copilot COMM control panel
8	Standby attitude indicator	**17**	Multifunction keyboard (MFK)
9	Standby altimeter	**18**	SCAS Control Panel

Overhead Panel

Overhead Panel consists of switches to e used to control base systems of the aircraft like electrical, fuel or lighting.

1	Battery switch	**12**	Right Defog Blower switch
2	Battery switch (unused)	**13**	Left Defog Blower switch
3	DC Generator switch	**14**	Windshield deice heater switch
4	AC Generator switch	**15**	Pitot heater switch
5	Essential Bus switch	**16**	Anti-collision lights switch
6	ENG OIL switch (unused)	**17**	Navigation lights
7	ENG Anti Ice switch	**18**	Navigation lights colour (unused)
8	Fuel Boost Pump switch	**19**	Cabin flood lights knob
9	Cargo Hook switch	**20**	Main instrument panel back lighting knob
10	IR Jammer switch	**21**	Overhead panel back lighting knob
11	COMPT Blower switch	**22**	Fuel cut-off lever

Central pedestal and collective

Below main console resides Multifunction keyboard. Its purpose is overall interaction with either MFD. Mission planning, navigation data, minimum or maximum altitude, all data that can be changed in aircraft's computer can be input via MFK.
Collective head also includes a set of switches, however for MSFS usage only starter and search light is simulated.

Important:

Throttle can be assigned to SET HELICOPTER THROTTLE AXIS.

1	Multifunction keyboard
2	Force trim switch
3	HYD Sys switch
4	SCAS: Pitch Roll switch
5	SCAS: Yaw switch
6	SCAS: Power switch
7	Master Arm switch
8	ICS switch
9	Pilot COMM Panel
10	CMWS Arm/Safe switch
11	CMWS Bypass switch (unused)
12	Starter switch
13	Search light switch

8. Operation

8.1. Procedures

Exterior check

1	Weapons systems	**Safe**
2	Laser ARM switch	**Off**
3	Locking devices, tiedowns	**As Required**
4	Main rotor blades	**Check**
5	Ignition key lock switch	**On (Currently Unused)**
6	Crew door	**As Required**
7	Landing gear	**Check**
8	Avionics compartment	**Check**
9	Fuel	**Check, Cap Secure**
10	Hydraulic servos, flight controls, transmission	**Check**
11	Engine compartment	**Check**
12	Fuselage state	**Check**
13	Tailboom rotor, gearbox	**Check**
14	Engine exhaust	**Check**
15	Anticollision light	**Check**
16	Main rotor system	**Check**
17	MMS	**Check**

Before starting engine

1	Seat belt, harness	**Fasten And Check**
2	Overhead panel equipment and switches	**Check**
3	Instrument panel instruments and switches	**Check And Set**
4	Flight controls and switches	**Check And Set**
5	BATT 2 switch	**Set Batt 2**
6	Caution, warning, and advisory messages and audio	**Check and clear with REC/ACK**
7	Standby altimeter	**Set To Field Elevation**
8	MPD	**Test And Set**

Engine start

1	Rotor blades	**Clear And Untied**
2	START switch (collective)	**Press**
3	BATT voltage	**Check for minimum of 21 Volts**
4	TGT	**Check 150C Or Less**
5	Throttle	**Advance Slowly**
6	TGT	**Check within limits**
7	ENG oil pressure	**Check**
8	Rotor blades	**Turning at 25% Ng**
9	NG	**Check stabilised at 65%**

After Engine Start

1	DC GEN switch	**DC GEN**
2	AC GEN switch	**AC GEN**
3	ESNTL BUS switch	**RUN**
4	RADALT	**Check**
5	Standby flight instruments	**Check and set**
6	Avionics	**Configure**
7	Navigation systems	**Configure as required**

Before take-off

1	Avionics	**As required**
2	NR	**100%**
3	Systems	**Check**
4	Copilot cyclic	**Engaged as required**

Before landing

1	LASER OFF switch	**As required**
2	MMS	**Stowed**
3	Landing light	**As required**
4	IR Jammer switch	**As required**

Engine shutdown

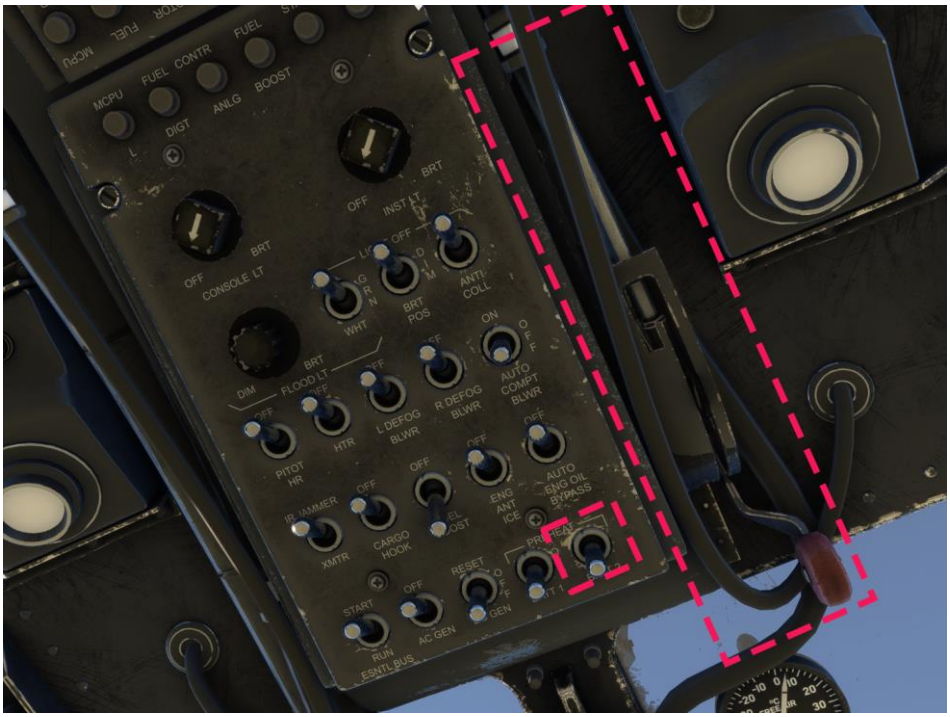
1	Flight controls	**Neutral position**
2	FORCE TRIM switch	**FORCE TRIM**
3	MMS	**Stow, Off**
4	Throttle	**Reduce to idle**
5	BATT2 switch	**Check**
6	AC GEN switch	**Off**
7	FUEL BOOST switch	**Off**
8	SCAS PWR	**Off**
9	Throttle	**Closed and monitor TGT**
10	Overhead switches	**Off (except BATT)**
11	Circuit breakers	**Off**
12	BATT2 and light switches	**When main rotor stops turning - Off**

8.2. Simplified startup procedure

This chapter illustrates simplified start-up procedure to get helicopter in air as fast as possible;

Before engine start

- Fuel cutoff Lever – Forward
- BATT2 Switch - Off



- Flight controls – Move freely and in neutral position
- Throttle – minimum setting

Continue on next page…

Engine start

- Toggle BATT2 switch (1)
    - After few seconds MFDs will be powered and Caution Alarm will sound
    - **To dismiss caution and silence the alarm press REC/ACK switch to bottom position**
- Toggle ESNTL BUS to START (4)
- Verify BATT Voltage is above 21V (Voltage visible on MPD above MFK)
- Toggle Fuel Boost Switch (5) to FUEL BOOST
- Press Starter Switch (10) located on **collective**

- Advance throttle (11)
- Monitor TGT to stay within limits
- Toggle DC GEN switch to DC GEN (2)
- Toggle AC GEN switch to DC GEN (3)
- Toggle SCAS PWR to ON (8)
- Toggle FORCE TRIM to (9)
- Open throttle to full (11)
- Toggle PITOT HEAT to ON (6) - if needed

9. Avionics

The **58D** Multi-Function Displays (MFDs) are advanced digital screens that provide the pilot with comprehensive situational awareness and mission-critical information. These MFDs integrate GPS, navigation data, and flight parameters, offering real-time displays of aircraft position, route planning, and system status. They also support tactical functions, such as target identification, sensor feeds (e.g., infrared or optical), and terrain mapping. The MFDs streamline mission execution, enabling dynamic adjustments in flight and enhancing operational efficiency in combat and reconnaissance scenarios.

58D has two MFD screens for pilot and co-pilot respectively. Interaction with any of them is done via buttons surrounding each of displays or using MFK -> most of the tasks such as navigating the pages of MFDs is done using surrounding buttons, however any data input is accomplished with multi-function keyboard.

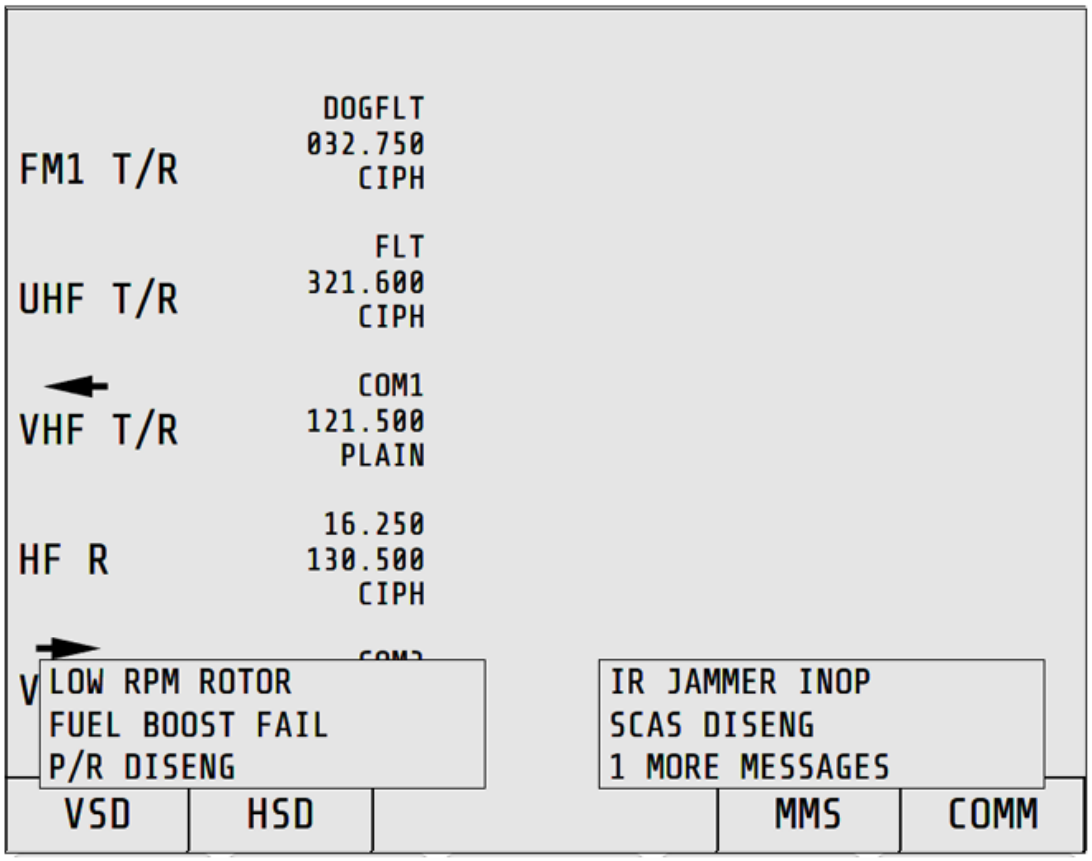
Important:
MFK can be used to input data only to one MFD at a time. When selected particular option on MFD to be used as source, rectangular cursor will appear, indicating that this MFD is considered as target for data provided by MFK.

9.1. General information

Warnings

The MFDs on the 58D helicopter feature a shared warning and caution overlay. At the bottom of the display, two dedicated boxes are positioned to show warnings and caution indicators. These boxes provide real-time alerts, providing pilot information about current issues or warnings with various systems on the aircraft. In MSFS caution and warning system is modelled to semi-realistic level, excluding complex states of engine or FADEC.

When particular warning is triggered (or multiple for example during startup), warning alarm will be triggered and boxed mentioned earlier will appear. To silence the alarm and acknowledge these warnings toggle **REC/ACK** (located on MFK) switch to bottom position once. This will also cycle warnings displayed on the MFD or hide those boxes if no more pages is visible. To show caution/warning boxes again, toggle **REC/ACK** to upwards position.



Multifunction Keyboard interaction

This helicopter feature in-cockpit keyboard, which is used to input data into aircraft's computer through each of available MFDs. Located in the center pedestal can be used by both pilot and co-pilot, but only while inputting one variable into one MFD.

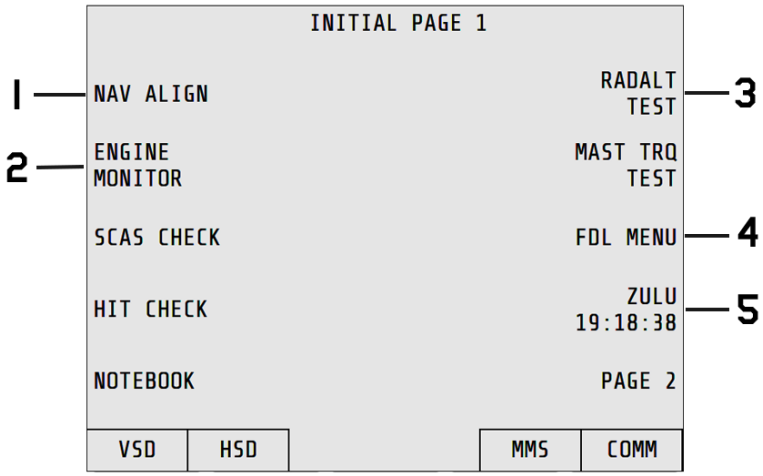
Example usage (input minimum altitude for radar altimeter):

- On either MFD, navigate to VSD by pressing the bezel button
- Click on bezel button next to "HI" label
    - This label will change to cursor icon, represented as filled rectangle
    - Input data using MFK, pressed characters will appear on MFD next to the cursor
    - When ready, press ENTER button on MFK
    - Earlier mentioned label will change to "HI" with value you have inputted using MFK
- Done! Important notes:
    - When input has started on one MFD, another one cannot be started from second MFD
    - To remove character press CLR
    - Some fields are validated, if input value is incorrect, label with input data and cursor will flash few times.
- To cancel input, press bezel button which started the input process again

9.2. Initial page (INIT)

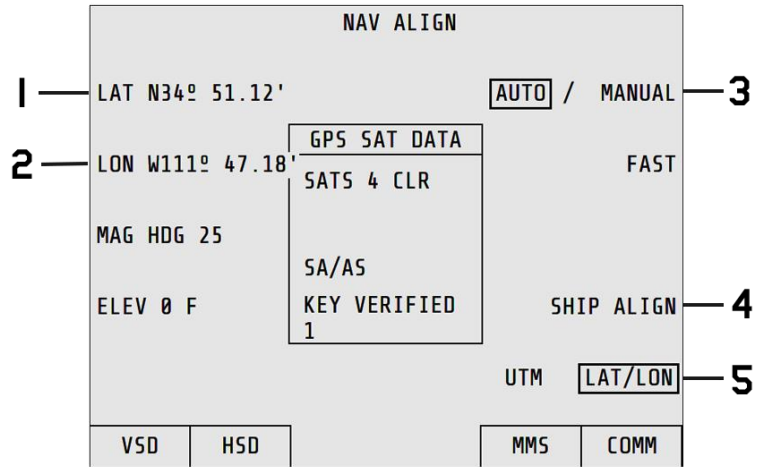
Initial page is loaded as first after providing power to MFDs. It can be opened using central bottom bezel button on MFD display or using dedicated switch on panel below (pilot side).

INIT page presents pilot with options regarding current configuration of the aircraft.



1	Activates NAV ALIGN sub-page
2	Activates ENGINE MONITOR sub-page
3	Starts radar altimeter test during which digital readout of radar altitude will gradually increase to maximum and decrease to minimum level
4	Activates FDL MENU page
5	Activates CLOCK PAGE

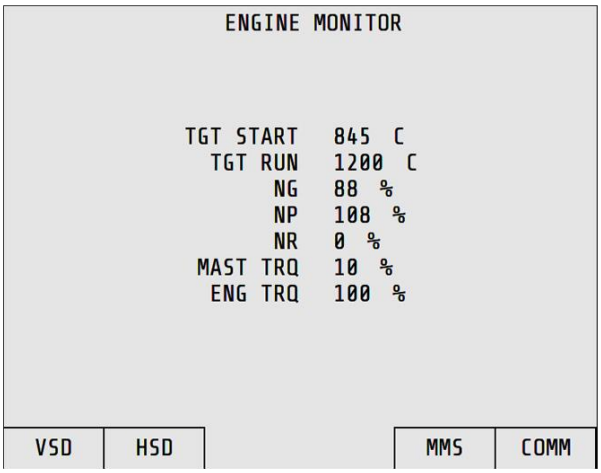
NAV ALIGN sub-page



1	Shows current position in MGRS or LAT/LON format (LAT part)
2	Shows current position in LAT/LON format (LON part)
3	Toggles between AUTO or MANUAL navigation alignment
4	SHIP ALIGN – currently unused
5	Toggles between UTM or LAT/LON format of presented position

ENGINE MONITOR sub-page

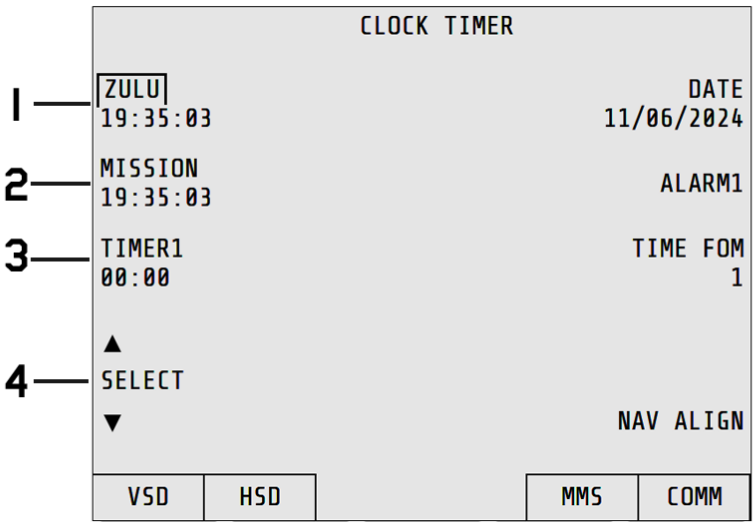
Displays basic parameters of engine.



CLOCK sub-page

Clock page displays current date and time data and gives option of manual adjustments. Digital timer can also be started from this page, which will also be visible on INIT page.

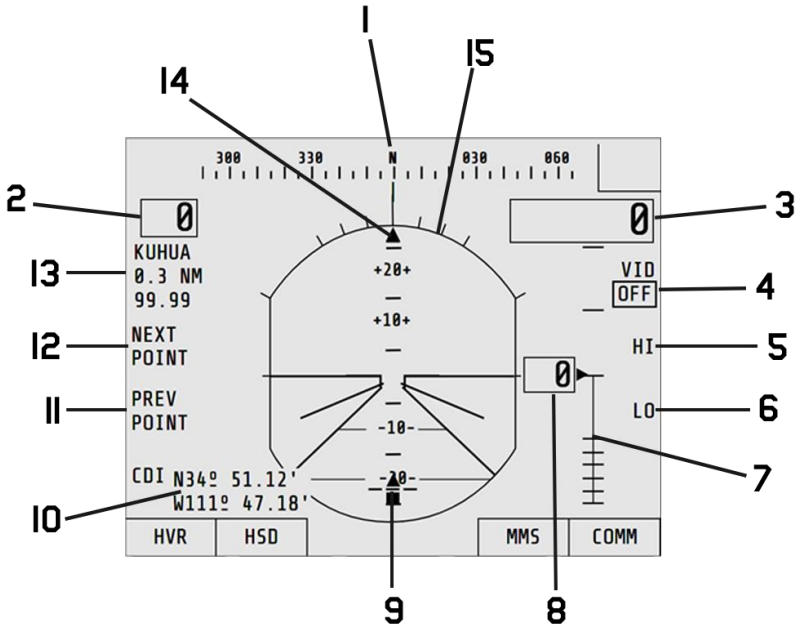
Using SELECT function, either ZULU, MISSION or TIMER value can be selected, and then presented on INIT PAGE.



1	Displays ZULU time. If selected, bracket will appear
2	Displays MISSION time, If selected, bracket will appear
3	TIMER1 time. If selected, bracket will appear. Can be edited with MFK
4	Bezel buttons next to arrows of SELECT function can be used to select time presented on INIT. After clicking either, bracket over selected time source will move up or down

9.3. Vertical Situation Display (VSD)

The **Vertical Situation Display (VSD)** in the OH-58D Kiowa Warrior is a critical component of the cockpit's situational awareness system. It presents a vertical profile of the aircraft's current flight path, terrain, and obstacles, displayed in a clear, vertical layout. The VSD integrates data from the helicopter's navigation and sensor systems, offering real-time information on altitude, terrain clearance, and relative positions of nearby obstacles.

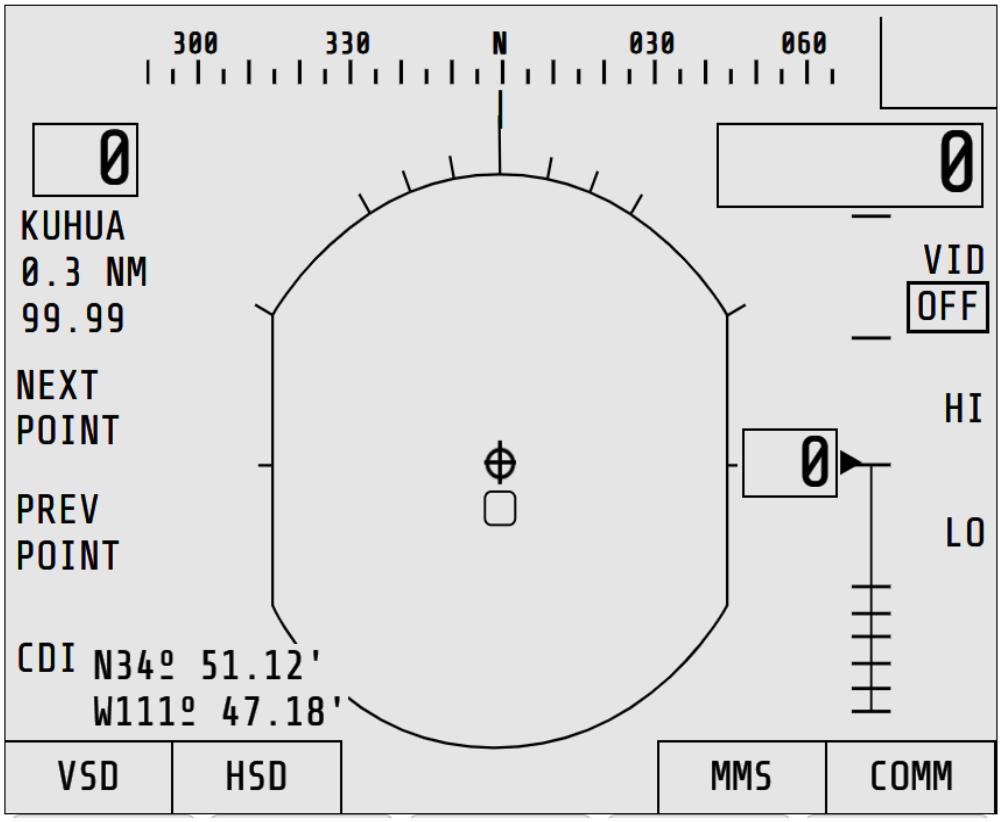


1	Digital compass tape
2	Airspeed indicator (in knots)
3	Barometric altitude
4	VID Switch – if ON displays video overlay from MMS – MMS must be enabled
5	Maximum radar altitude setting. Can be set with MFK
6	Minimum radar altitude setting. Can be set with MFK
7	Radar altimeter scale from 0 to 200 feet
8	Radar altitude value. If value is below LO or higher than HI, appropriate label is displayed
9	Slip indicator
10	Current aircraft position in either Lat/Lon or MGRS format
11	Button to toggle previous waypoint
12	Button to toggle next waypoint
13	Waypoint data: Name, Distance, Estimated time on target
14	Aircraft bank indicator
15	Attitude indicator (artificial horizon) – displays pitch and roll

VSD pitch and roll can be offset using momentary switches located below pilot MFD.

9.4. Hover Mode (HVR)

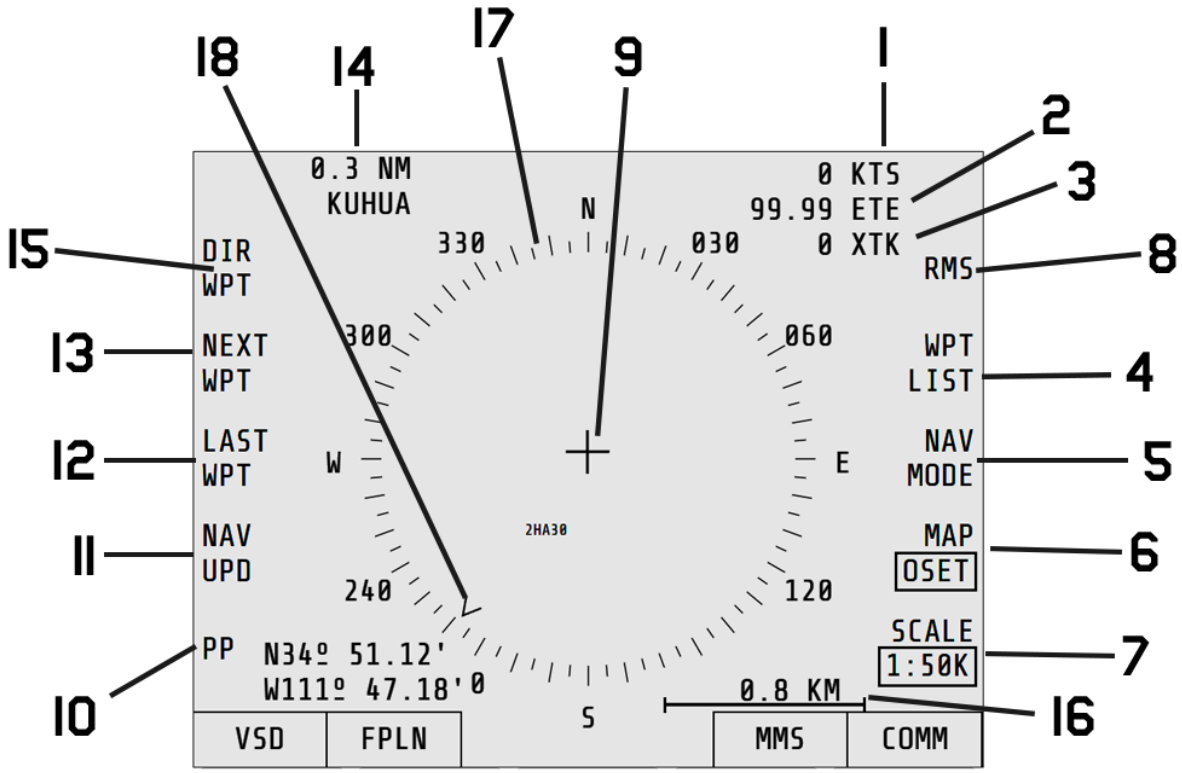
Hover Mode (HVR) is a subpage of VSD. It presents similar information to VSD with only central portion being different. It presents pilot with reference crosspoint, acceleration cue and velocity vector. It gives pilot better representation of helicopter movement, to allow him adjust his inputs during hover.



Circle	Acceleration cue – shows rate of acceleration
Line between circle and plus sign	Velocity vector – shows velocity and direction of aircraft. Full scale to edge is 7 knots.
Plus sign	Reference crosspoint – stationary cross representing helicopter
Rounded box	Position box – represents starting position

9.5. Horizontal Situation Display (HSD)

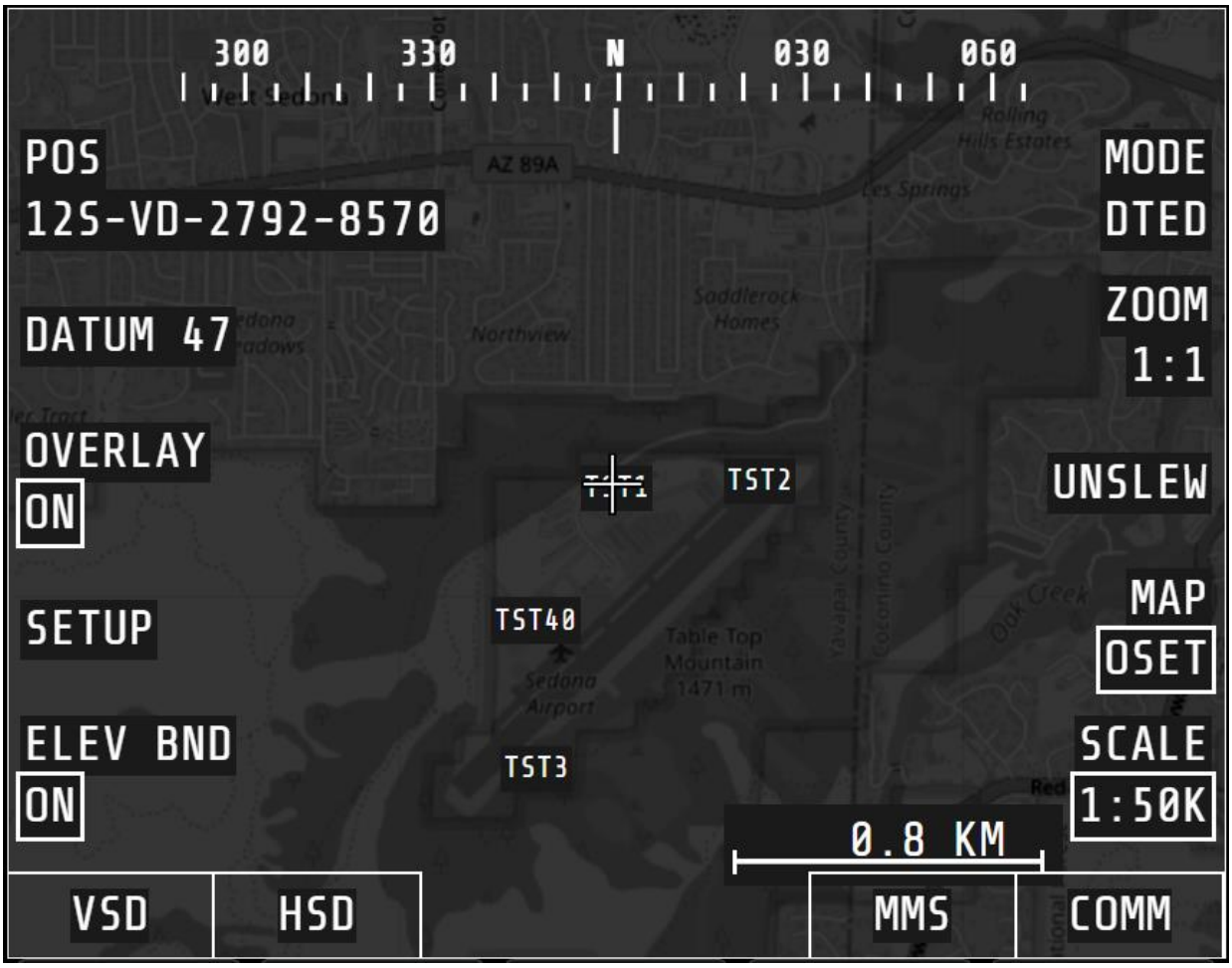
The **Horizontal Situation Display (HSD)** in the 58D serves as an essential tool for situational awareness, providing a comprehensive view of the aircraft's lateral environment. The HSD displays critical information, including the aircraft's current position, navigation waypoints, terrain features, and the locations of potential threats or targets. By integrating data from the helicopter's GPS and onboard sensors, the HSD allows pilots to visualize their flight path relative to obstacles, other aircraft, and mission parameters.



1	Current airspeed
2	Estimated time on target for selected waypoint
3	Crosstrack distance
4	Navigates to WPT LIST page
5	Mode switch - unused
6	Chooses between displaying HSD in OFFSET or CENTER mode
7	Changes scale of HSD
8	Navigates to RMS page
9	Represents aircraft position
10	Show/hide present position visible next to it
11	Nav update - unused
12	Toggles last waypoint
13	Toggles next waypoint
14	Displays current waypoint distance and name
15	Allows input of DIRECT waypoint
16	Shows current scale
17	HSD compass
18	Active waypoint direction

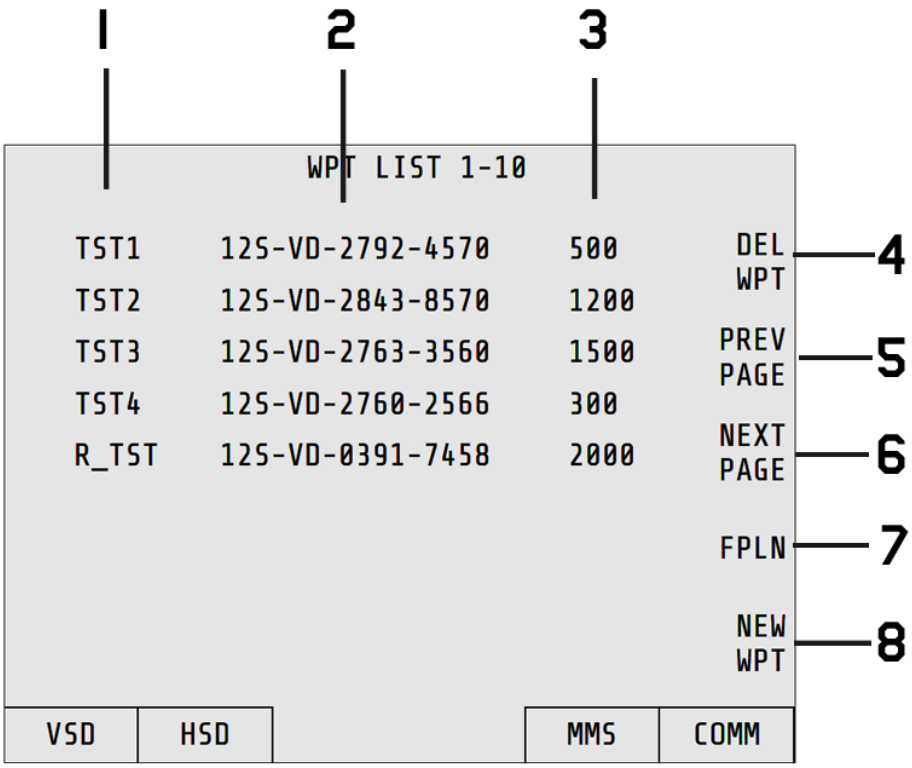
9.6. Rotorcraft Mapping System (RMS)

RMS is a subpage of HSD and has similar functionalities as HSD. It can display moving map overlay together with data from HSD (waypoints and current position). Similar to HSD, RMS can be displayed in CENTER or OFFSET mode.



9.7. Waypoint list (WPT LIST)

Waypoints in 58D can be inserted directly in-cockpit using Multifunction keyboard. These waypoints are later used in Flight Plan page.
WPT LIST displays all waypoints stored in aircraft computer and can be modified at any time.
Waypoints can also be inserted using Pilot Book (see Pilot Book section).

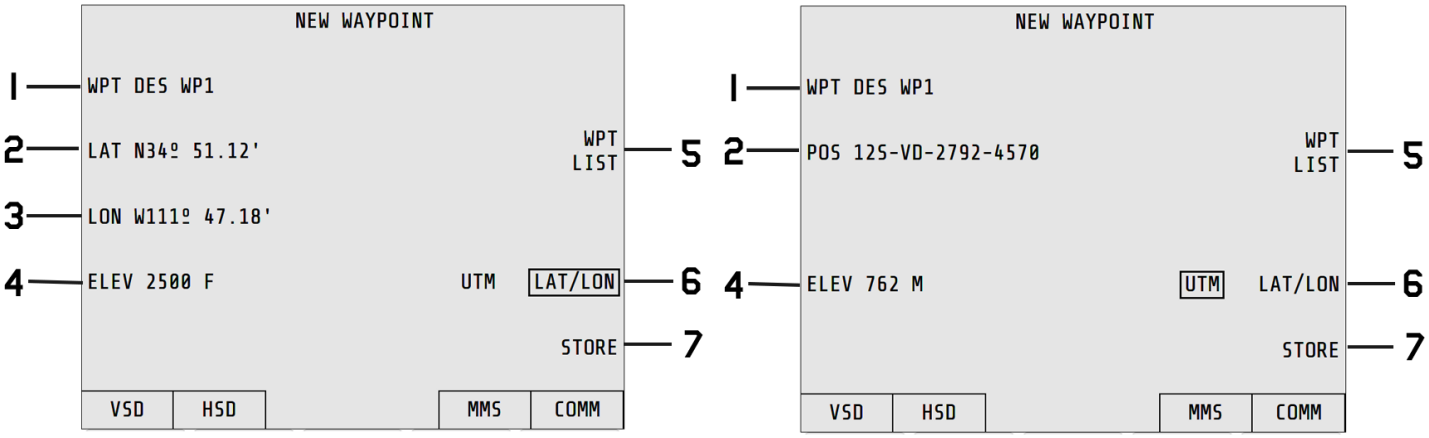


1	Waypoint name
2	Waypoint position in either lat/lon or MGRS format
3	Waypoint elevation in meters or feet
4	Activates deletion of waypoint – input waypoint name with **MFK and hit ENTER**
5	Cycles to previous page
6	Cycles to next page
7	Navigates to flight plan
8	Navigates to new waypoint page

Important:
In MSFS all waypoints created using in-game flight planning tool before the flight are stored in 58D computer. These waypoints will be visible on Waypoints Page.

9.8. New waypoint (NEW WPT)

New waypoint page allows inserting waypoints into aircraft's computer.



1	Waypoint name input
2	Waypoint position 1 input
3	Waypoint position 2 input
4	Waypoint elevation input
5	Navigate to waypoint list
6	Toggle between UTM (MGRS) or LAT/LON data input
7	Save new waypoint

To create new waypoint:

- Open this page (New waypoint)
- Input desired data into appropriate slots: name (1), position (2 and 3), elevation (4)
- Save waypoint using Store button (7)

Each input works the same way:

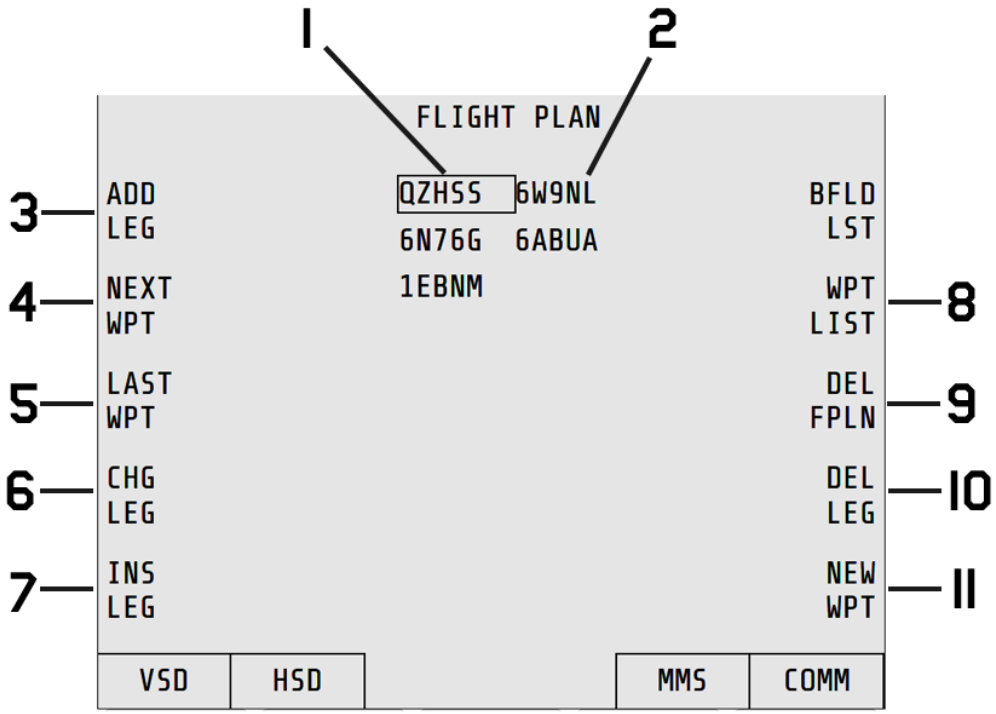
- Click Button on MFD next to option
- Input data using Multifunction Keyboard
- Hit ENTER on Multifunction Keyboard

Button 6 toggles between UTM or LAT/LON.

- If UTM is selected, desired waypoint position needs to be filled with MFK after pressing button 2 from diagram above in MGRS format
    - e.g. 12SVD27924570
- If LAT/LON is selected, desired waypoint position needs to be filled for both button 2 and button 3 from diagram above in lat/lon format:
    - e.g. N348534

9.9. Flight plan (FPLN)

Flight plan page is used to insert or modify flight plan based on waypoints defined in Waypoints Page. Flight plan can be also build using Pilot Book (see Pilot Book section). Each waypoint defined in flight plan will later appear on HSD and RMS pages.



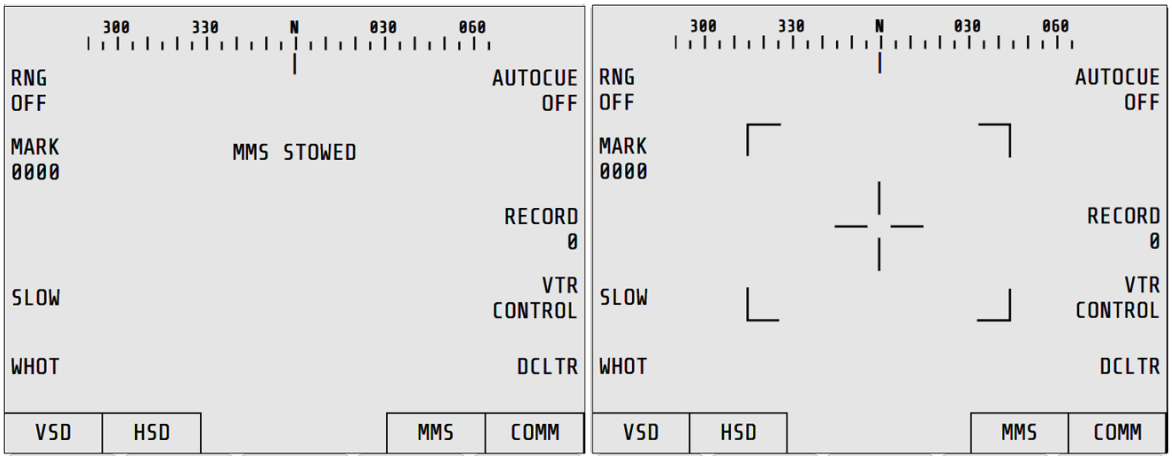
1	Active waypoint bracket
2	Flight plan waypoints
3	Moves bracket to the end of the flight plan
4	Moves bracket to next waypoint in flight plan
5	Moves bracket to previous waypoint in flight plan
6	Activates input for currently bracketed waypoint – **input desired waypoint with MFK and hit ENTER**
7	Activates input for inserting leg after bracketed waypoint – **input desired waypoint with MFK and hit ENTER**
8	Navigates to Waypoint List page
9	Unused
10	Delete currently bracketed waypoint from flight plan
11	Navigates to New Waypoint page

Important:
In MSFS all waypoints created using in-game flight planning tool before the flight are stored in 58D computer. This flight plan is by default used as flight plan of the aircraft and all those waypoints are stored in Waypoints page and in Flight Plan page.

9.10. MMS

Mast-Mounted Sight (MMS) is a specialized sensor system mounted atop the rotor mast. It integrates a thermal imager, low-light TV camera, and laser rangefinder/designator, allowing the crew to perform reconnaissance, target acquisition, and laser-guided targeting while remaining concealed behind cover. This elevated position enhances situational awareness and target visibility in various light and weather conditions, essential for low-altitude tactical missions.

MMS page in MSFS variant of 58D provided limited use due to technical limitations of MSFS. It has been realized using in-game synthetic vision mechanism with greyscale filter applied to simulate FLIR. Because of that, camera is fixed in forward position and can't be controlled like real one.



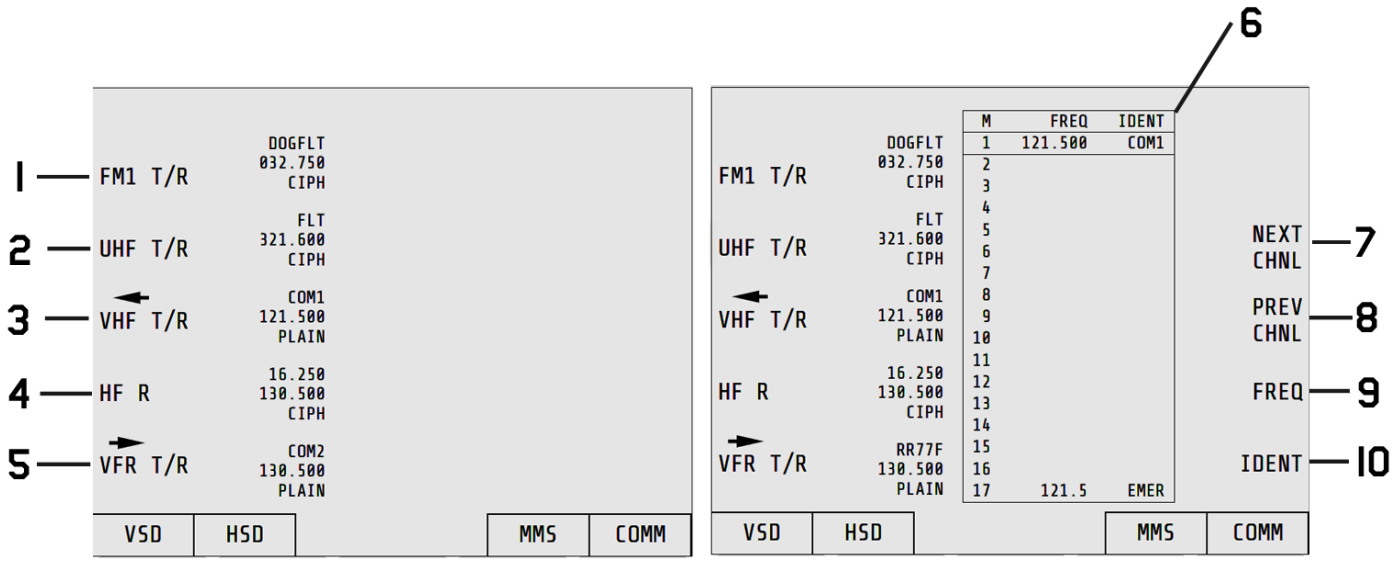
This page can be presented in two states, initial when MMS is disabled and active.

To toggle MMS sight on rotate **MMS control knob to FWD position.**

- MMS control knob is located on MMS control panel on the left side of main instrument console

9.11. Communication page (COMM)

The COMM page is designed to input and display all radio frequencies along with their identifiers. While dedicated switches on the collective provide quick access to select radios and channels, this page also serves that function.



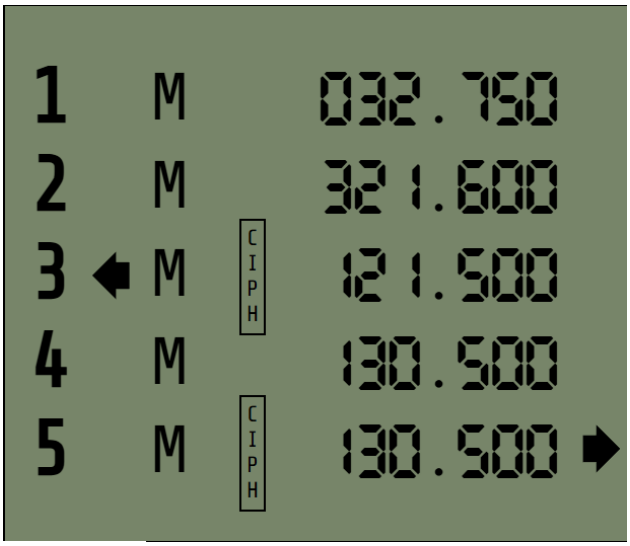
1	FM1 radio
2	UHF T/R radio
3	VHF T/R radio – serves purpose of simulator **COM1**
4	HF R radio
5	VFR T/R radio – serves purpose of simulator **COM2**
6	Radio channel box. Each channel has Frequency and Identification label
7	Increments position of bracket in radio channel box
8	Decrements position of bracket in radio channel box
9	Activates input for frequency of selected channel – use MFK
10	Activates input for identification of selected channel – use MFK

While 58D has 5 radios, for purpose of simulation for MSFS only two of them are implemented (VHR T/R and VFR T/R) and serve role of COM1 and COM2.

For each radio, there can be up to 17 stored channels which can be inserted/modified at any time. To change current channel or alter them activate one of the radios by pressing bezel buttons on the left of display. After selecting radio, radio box will appear with saved channels.
To make any changes to any of the channels use buttons on the right and input data using MFK.

9.12. Remote frequency display (RFD)

RFD is a radio panel located in upper center area of main instrument console (see layout section). Unit serves as frequency display for active radios. It can display data of 5 radios (including COM1 and COM2 simulated in MSFS marked with arrows)



Any input that has been made on COMM page on MFD will be reflected on this instrument.

10. Pilot Book

The **Pilot Book** tool for the **58D Helicopter** is an essential cockpit utility designed to streamline mission customization, loadout selection, navigation data management, and operational checklists. It provides an intuitive interface for pilots to tailor key aspects of their flight and optimize mission efficiency. Here's a breakdown of its core functions:

1. Visual Customization

- The **Pilot Book** allows pilots to customize the visual configuration of the helicopter external and cockpit look.

2. Loadout Selection

- Pilots can **select and configure loadouts** directly through the tool, choosing from a variety of weapons..

3. Navigation Data Management

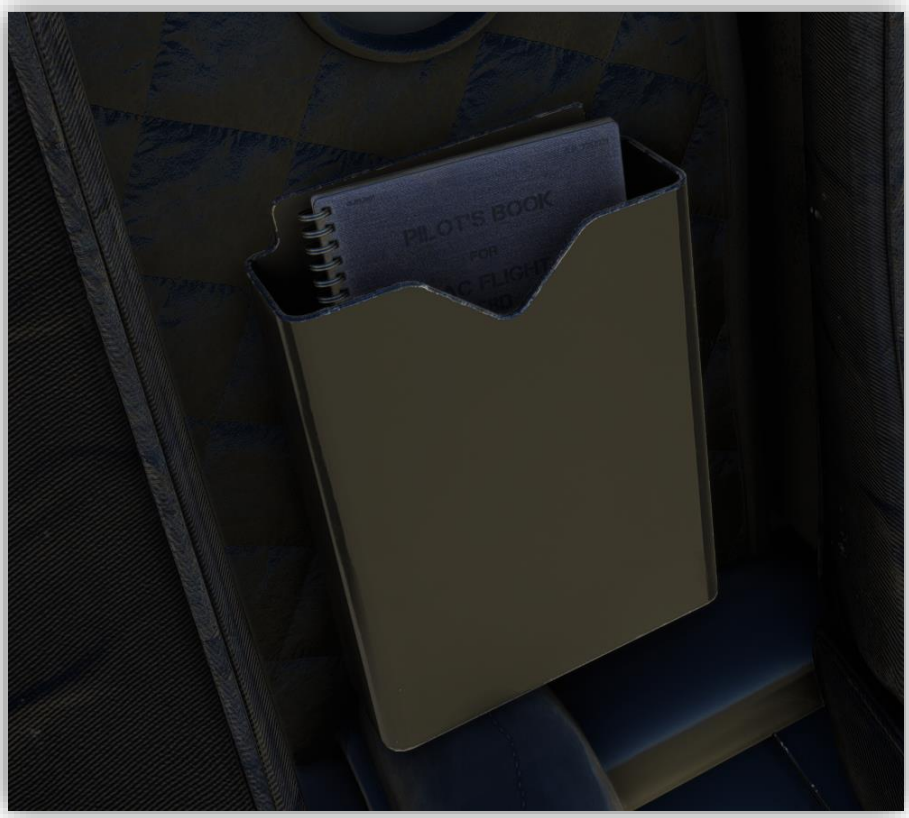
- The **Pilot Book** allows managing critical data in-game but without using cockpit instruments. Pilots can input and modify flight plans, set waypoints, and store destination data. It enables seamless adjustment of routes mid-mission, as well as integration with external interactable map source.

4. Checklist

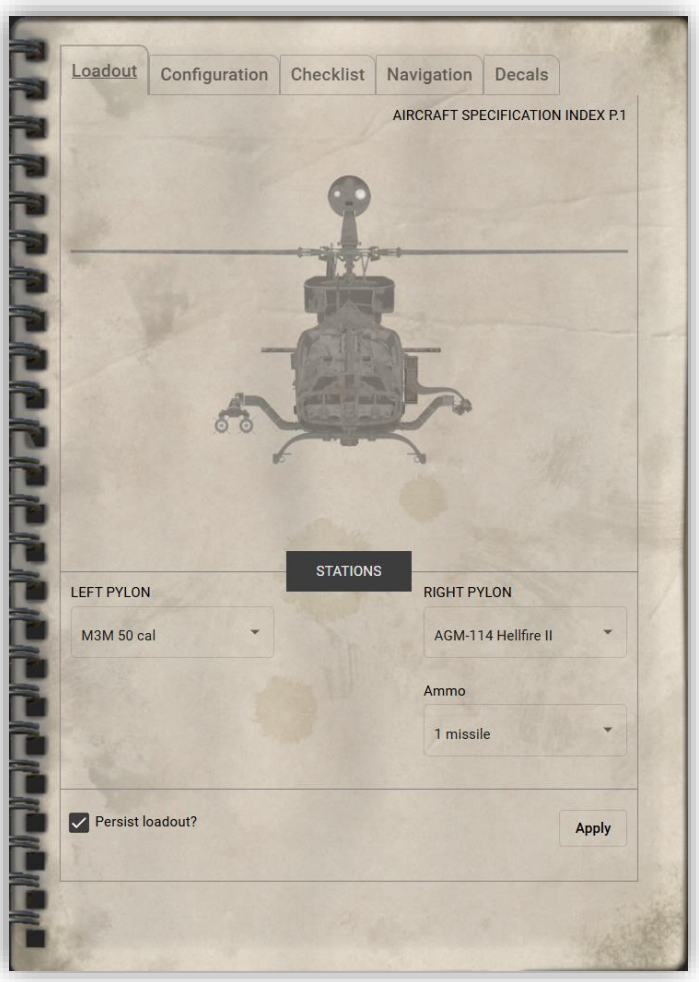
- The **Pilot Book** also provides an accessible digital checklist feature, ensuring pilots can follow standardized pre-flight, in-flight, and post-flight procedures

Usage:

Pilot Book can be opened by clicking on the book object visible in storage area between cockpit seats:



10.1. Loadout page

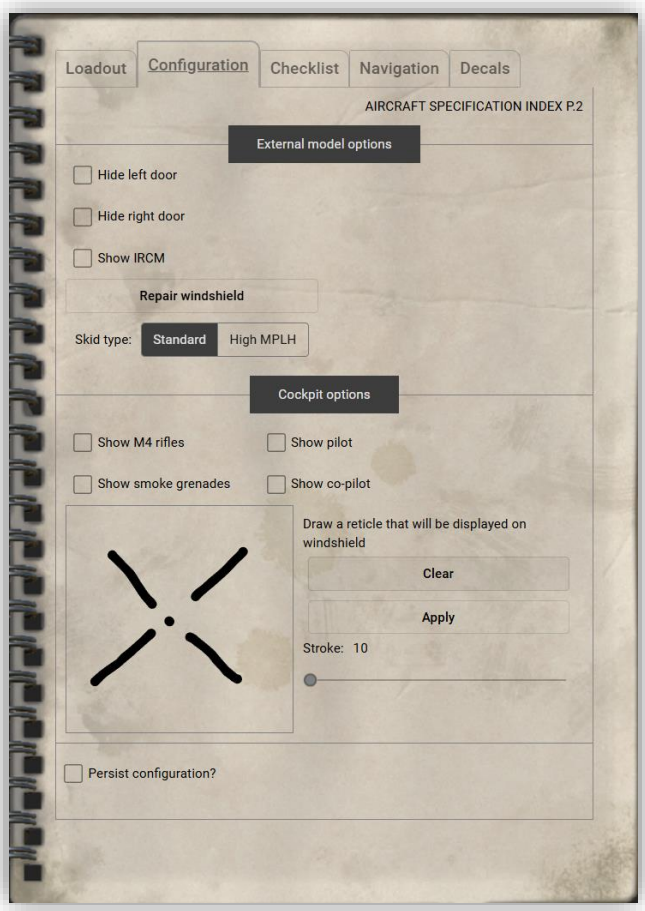


When Pilot Book is opened this is first page that is visible. It allows user to manage aircraft's loadout. 58D scout helicopter has two stations which can be configured with:

- AGM-114 Hellfire II missile rack
- 2.75 inch rocket pod
    - M255A1
    - M151 HE
- Air to air Stinger (ATAS)
- M3M 50cal machine gun (only on left pylon)

Weapons on 58D serve only visual purpose. Projectile count can be selected for each weapon (except M3M) and results in hiding specific missile or rockets from racks/pods.

10.2. Configuration page

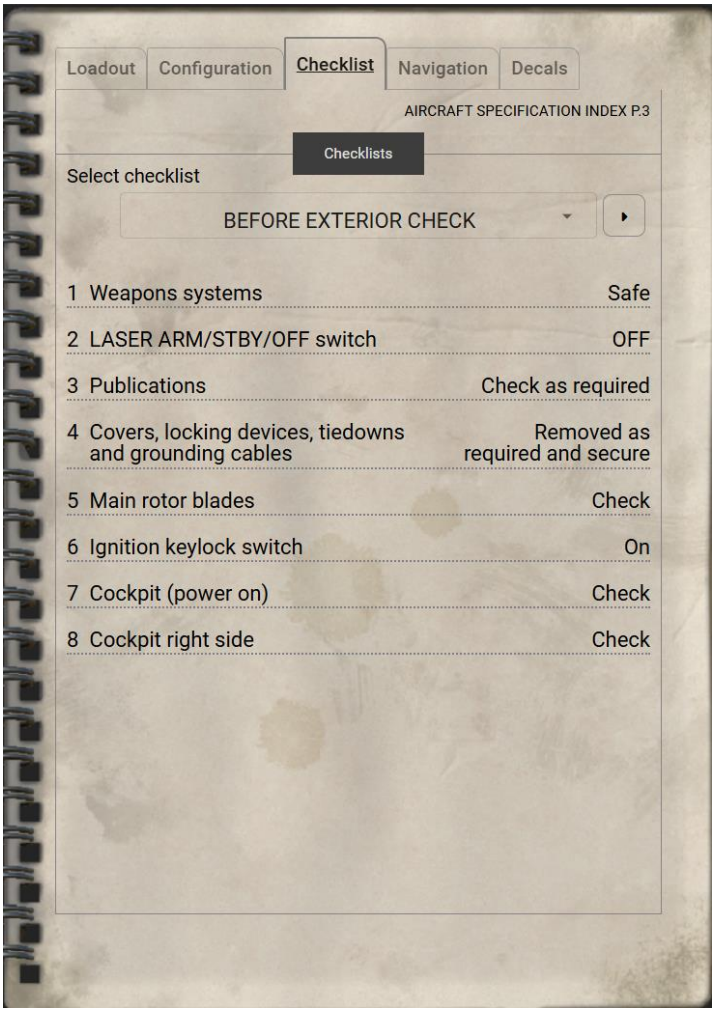


Second page available on Pilot Book is Configuration. It allows user to customize aircraft appearance both externally and in-cockpit.

- First section allows hiding specific elements of external model
  - Both doors can be removed
  - IRCM – AN/ALQ-144 IR jammer located on top of tail, behind engine
  - Skid type model – Standard or high travel for rough terrain
- Cockpit options section allows customizing cockpit appearance
  - M4 and smoke grenades visibility
  - Pilot and Copilot visibility (both are shown in cockpit and external view when enabled)
  - Draw reticle canvas – like real pilots, users can draw reticle that will be displayed on windshield in front of pilot. It serves only visual purpose as weapons are not simulated

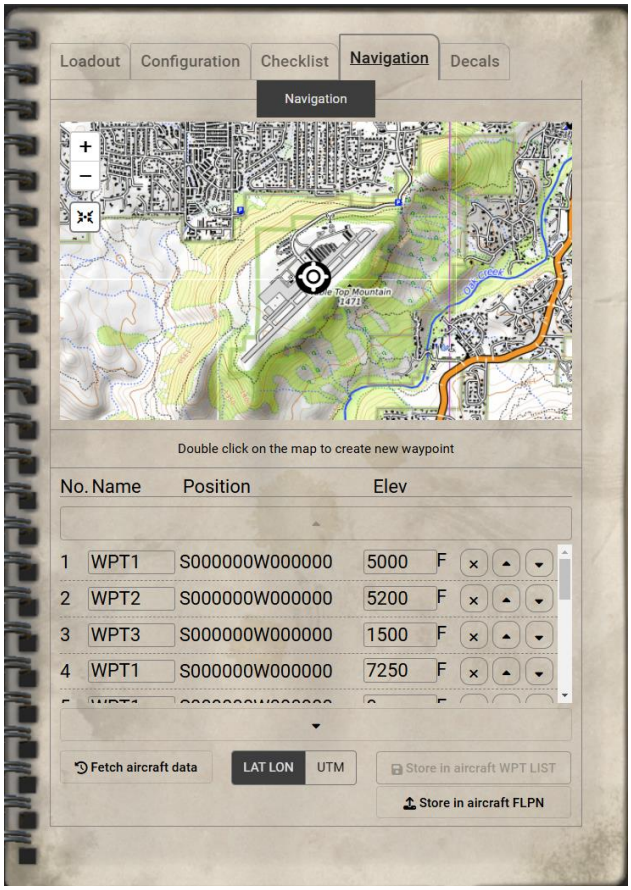
Configuration can be persisted by toggling checkbox at bottom of the page.

10.3. Checklist



This page contains set of procedures that pilots can follow standardized pre-flight, in-flight, and post-flight procedures. Checklist can be selected from dropdown or using arrow buttons.

10.4. Navigation



Navigation pages gives virtual pilot ability to manage aircraft's flight plan and waypoints list **without inputting them manually via in-cockpit MFK.**

Map section:

- interactive map with marked current aircraft position and any inserted waypoint
- map can be dragged with mouse after holding left mouse button
- controls in the top-left corner of the map allow **zooming in, out** and **focusing** on current position
- new waypoints can be inserted by **double clicking** on desired position on the map

Waypoint section:

- all waypoint data visible on map
- waypoint name and elevation can be directly modified in each row
- waypoints can be reordered by **dragging** or using actions in each row

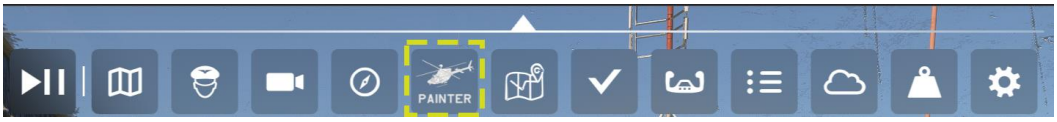
Action section:

- Fetch aircraft data – if waypoints in aircraft computer differ from this page, this button loads them from aircraft
- LAT LON/UTM – toggles position format presented in section above
- Store in aircraft WPT LIST – save defined waypoints in aircraft waypoints storage
- Store in aircraft FPLN - save defined waypoints as aircraft flight plan

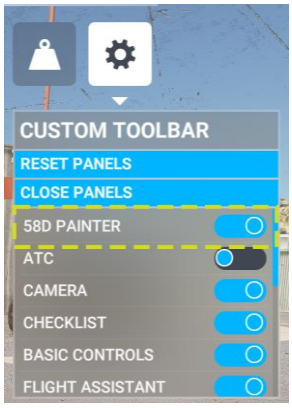
11. 58D Painter Tool

This addon comes with in-game livery painting tool. With it users can design and customise liveries specifically for the TacFlight 58D helicopter in real time.

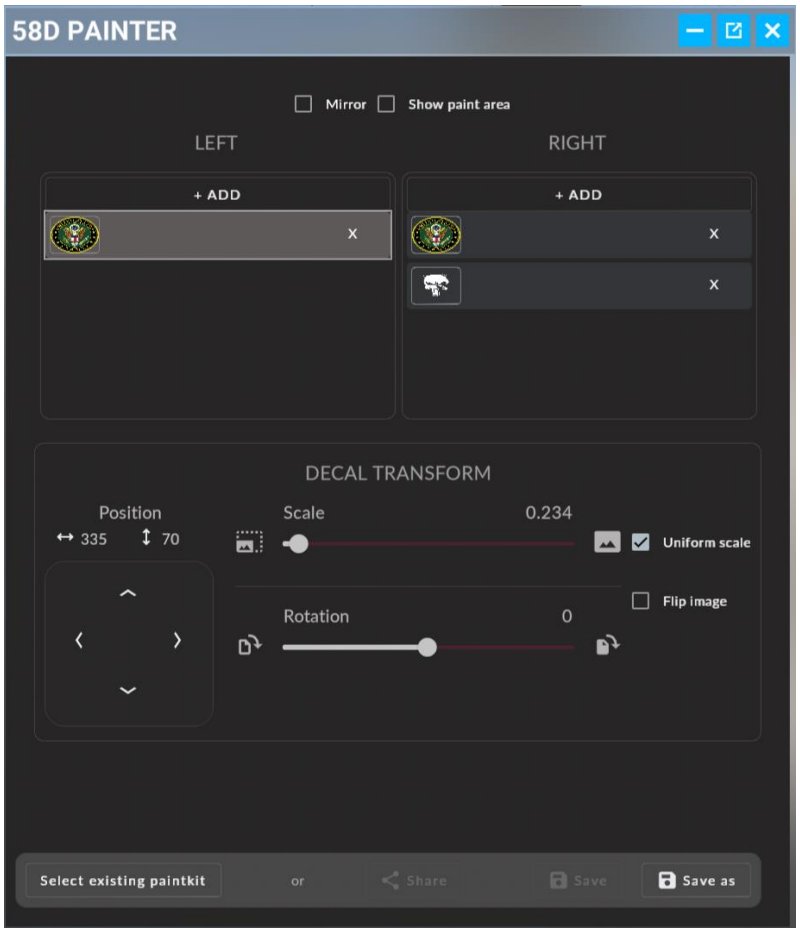
To access it, toggle new menu option in MSFS Toolbar:



Note: If this menu option is not available, make sure it is not disabled in Toolbar settings:



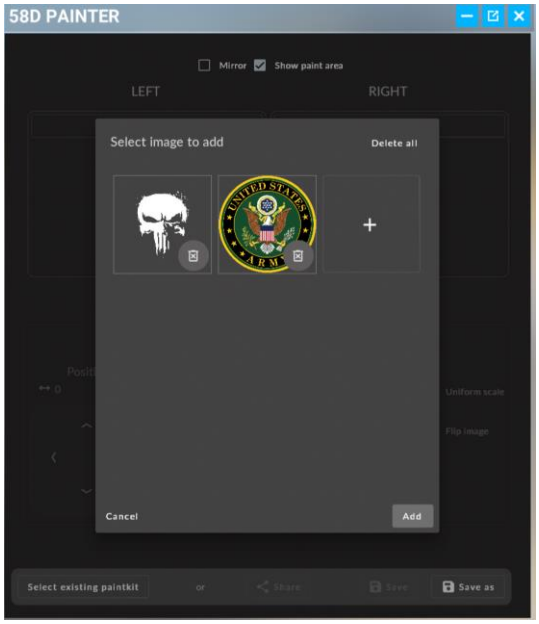
Upon opening the tool, user is presented with following interface:



Going from top to bottom:

- Mirror checkbox – makes both sides of the aircraft synchronized
- Show paint area – displays overlay on aircraft fuselage where emblems can be placed:

- Image layers containers
    - Split to left and right side, these containers hold added textures. Top button in each container opens dialog screen where user can select already used textures or add new one



    - Tool uses textures from the internet, so any image found online can be used as source, as long as URL to this image ends with image format extension
    - Good source for such images are web hostings such as imgur.com
        - Custom images need to be uploaded to such hosting and resulting URL can be used in this tool

- After image is added to any container (which results in adding it on left or right side of aircraft fuselage) it can be freely transformed using handy tool below. To make tool active, select image from either container
- When user has finished creating livery it can be saved using buttons below or shared.
    - User can select saved livery by opening selection dialog with ‘Select existing paintkit`
    - User can share livery by clicking `Share` which opens another dialog
        - With share dialog opened, user needs to select printed JSON text with double click and copy it with CTRL+C
        - Then user can share it on external sources

12. Changelog

- 1.043
  - Fixed FUEL BOOST FAIL caution not removed after Fuel Boost Pump is activated
  - Fixed inverted animation of rotor blades in relation to collective
- 1.042
  - Adjusted Fuel Tank capacity to reflect specification
  - Disabled fuel system workaround for MSFS2024 which currently caused issue with high fuel usage
- 1.041
  - Added marketplace data
  - Missing FuelSystem definitions in Taxi flight state (Fixes MSFS2024 0% fuel at start)
- 1.04
  - Fixes for MSFS2024
  - Fixed Pilot Book being backlit with emissive material
  - Fixed map on Navigation page in Pilot Book
  - Fixed moving map in RMS
  - Fixed starter not engaging turbine, which resulted in broken startup sequence
  - Fixed fuel usage (**Make sure Unlimited Fuel is not enabled in MS Settings**)
  - Minor changes to Fuel System
- 1.031
  - Fixed thousands of feet indicator digital and standby value
  - Removed extra debug panel (visible in VR view)
- 1.03
  - Fixed thousands of feet indicator animation on standby altimeter
  - Added missing NAV light on tail of the aircraft
  - Added US ARMY Desert camo
  - Tweaked lights position and intensity (thanks to Sean K.)
  - Tweaked flight model
  - Added missing sound to Fuel Pump Boost switch
  - **MSFS2024**
    - Fixed interaction with MFD and MFK buttons
    - Fixed screens and Pilot Book being unreadable
    - Known issues:
      - Map is no longer properly rendered both on Pilot Book and RMS page of MFD (Asobo might fix this – under investigation)
      - During engine startup fuel system acts differently (sometimes pump might not enable at all resulting in stuck start-up. Under investigation but current solution is to continue startup with CTRL+E.
- 1.02
  - Exterior model:
    - Adjusted texture for navigation lights (inverted sides)
    - Added native light emissive material to navigation lights when enabled
    - Adjusted direction and intensity of lights
    - Added US Army Livery
  - Cockpit:
    - Fixed Attitude Indicator OFF flag remaining after providing power

    - Pilot Book:
        - Configuration tab: Added more control of pilot visibility (hidden, visible in exterior only or visible in both cockpit and exterior)
        - Added pilot book translation in French and German (language selector on bottom right)
    - 58D Painter:
        - Removed texture from external view for Multiplayer
          Note: Due to how MSFS handles multiplayer variable sharing, 58D Painter is designed as only single player tool. Currently it is not possible to transfer custom data to other clients

- 1.01
    - Reduced rotor blade drop
    - Fixed rotor blade leaning to ground at idle RPM
    - Fixed NEW Waypoint data input in MGRS format to allow correct length
    - Fixed missing throttle keybind relation.
        - Throttle can now be assigned to SET HELICOPTER THROTTLE
    - Added option to show pilot and co-pilot in-cockpit using Pilot Book configuration page
    - Added 58D_Manual.pdf

13. Developer notes

Thank you for purchasing 58D addon! We sincerely appreciate your trust and hope that you enjoy using it.

If you encounter any issues, bugs, or have suggestions for improvement, please don't hesitate to reach out to us. Your feedback helps us improve and serve you better.

Contact Us:

tacflightsim@gmail.com

Thank you once again for being a valued part of our community.

TAC Flight