



KWIKFLIGHT

**HUNTER
MANUAL**

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 KwikFlight Hunter. It has been produced to loosely simulate an attack helicopter used by various air forces across the globe. Modifications have been made to various procedures to make them more manageable in-game.

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.

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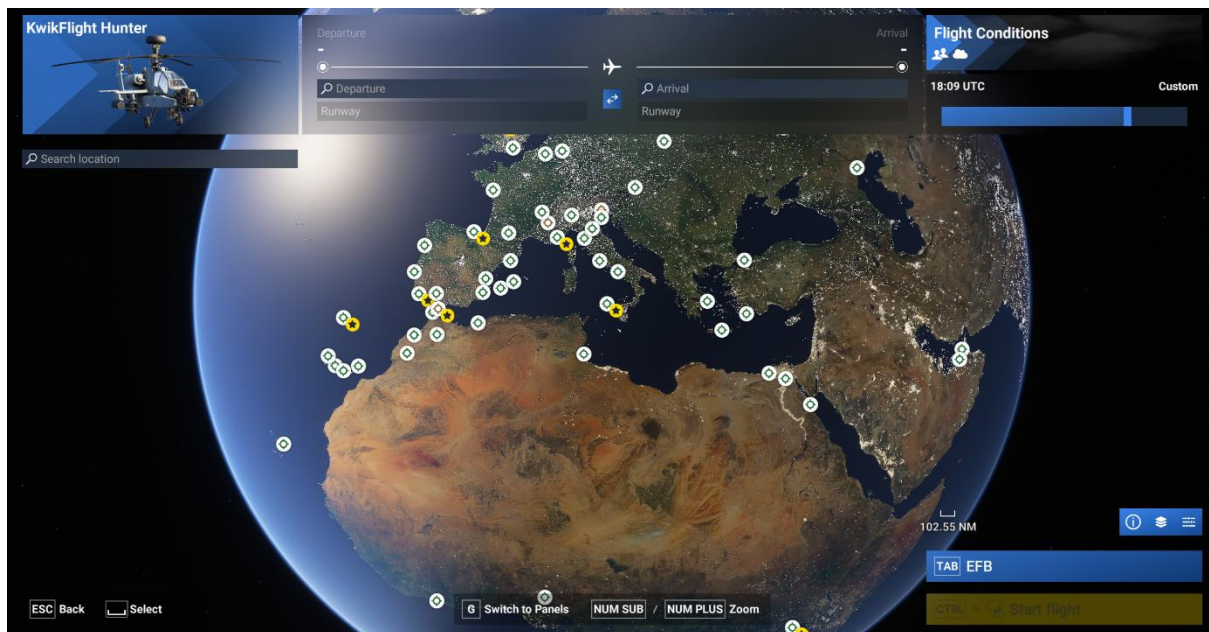
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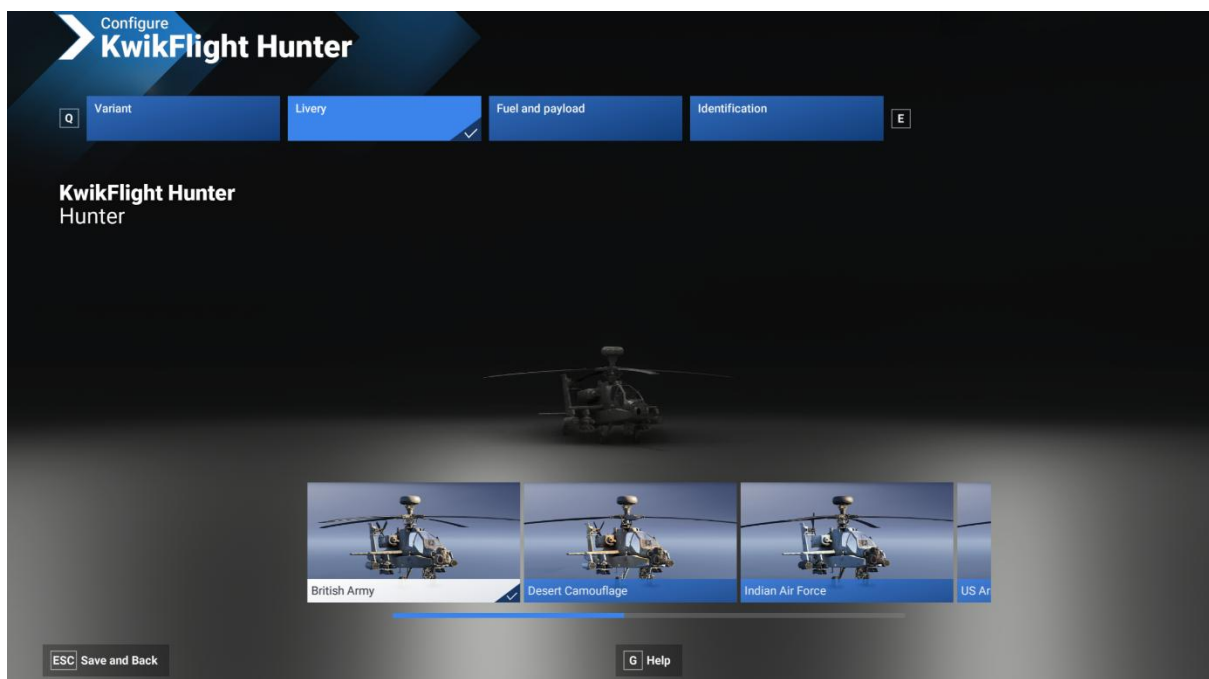
Aircraft Selection and Liveries

To fly the **KwikFlight Hunter**, 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 **KwikFlight Hunter** or type in the search bar "Hunter" and the aircraft will show.



Once you have selected the Hunter, click on Liveries to select any of the various designs available.



Cockpit Familiarization

The KwikFlight Hunter utilises a variety of screens to display flight critical information to the pilot, from the Enhanced Up-Front Display, to the two MFDs as well as the Keyboard unit to interact with these displays.



- | | |
|---------------------------------------|-------------------------|
| 1. Enhanced Up-Front Display (EUFD) | 6. Keyboard Unit |
| 2. Multi-Function Display (MFD) Left | 7. Left Panel |
| 3. Multi-Function Display (MFD) Right | 8. Communications Panel |
| 4. Electronic Standby Instrument | 9. Cyclic |
| 5. Armament Panel | 10. Collective |

Left Panel

The left panel is filled with various useful switches and interactions to aid in proper flight of the KwikFlight Hunter. From the rotor brake, all the way through to the light controls and even the throttle lever.

1. ROTOR BRAKE:

- OFF: No rotor brake applied
- BRK: Automatic rotor brake, is applied if rotor RPM exceeds 120% or engine fuel valves are closed (engines off only if aircraft is on the ground to allow autorotation)
- LOCK: Rotor brake applied regardless aircraft state

2. MSTR IGN:

- OFF: Battery and external power off
- BATT: Battery on
- EXT PWR: External power on if available (check UEFD message)

Note that the engine generators will always power the electrical system if available (engines on above 20%)

3. APU:

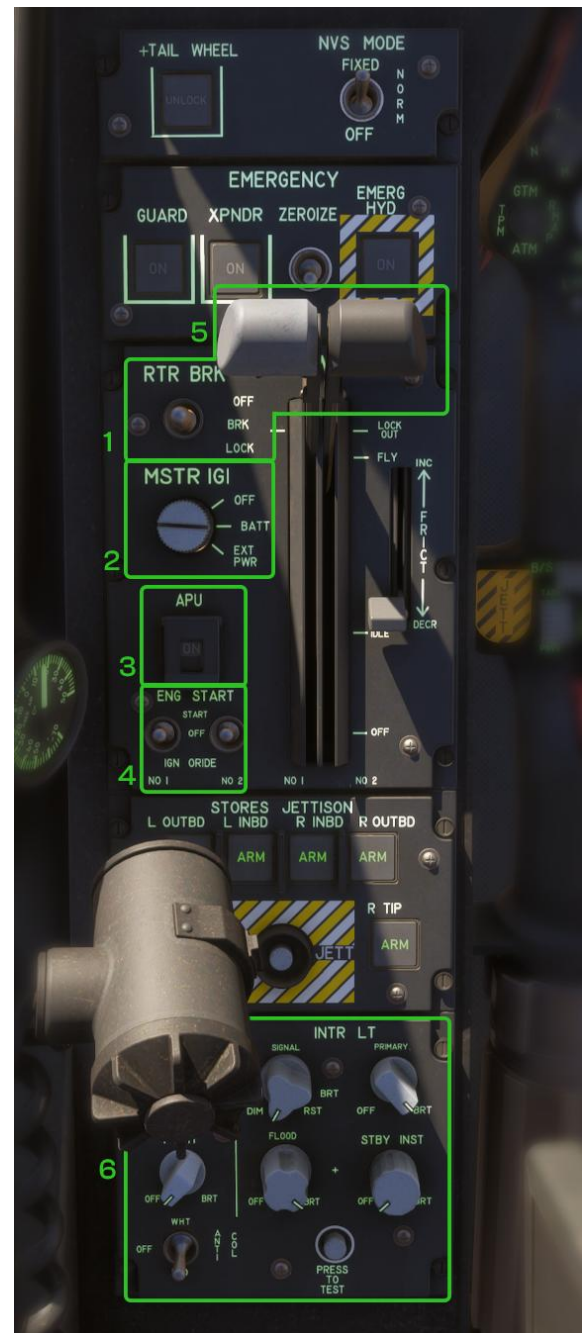
- Use this button to start or turn off the APU. There's a tooltip with the current state of the APU which are OFF, STARTING, SHUTTING DOWN and AVAILABLE
- There are UEFD messages with those states as well

4. ENG START:

- IGN OVRD: This will force the fuel valves to be closed and the starter to be off
- OFF: Starter off
- START: This will open the fuel valves, release the rotor brake (if BRK/AUTO position is set) and start the engines if there is air bleed from the APU
- Note: Engines can only be started if APU is running

5. THROTTLE LEVER:

- Throttle works way different than airplanes as there's a system that controls the **"A:HELICOPTER MASTER THROTTLE POSITION:1"**, Percent value according to the real helicopter manual using a custom Lvar called **"L:THROTTLE_ANIM_1"**
- Positions:
 - o OFF: No power, action to turn engines off to be done
 - o IDLE: Engines with no expected power
 - o FLY: Power tied to collective position



- LOCK OUT: When the lever is moved to this position, the system will enable the MANUAL mode, which will adjust the power according to the lever position between idle and lock out position. This mode will be always activated until you move the throttle lever to IDLE again and set it to FLY
- Considerations:
 - The engine governor will always try to have the engine rotor to the nominal RPMs value, in this case the engines will always try to have maximum torque on ground to have high torque for a quick response, regardless the throttle lever position
 - You are meant to have the throttle lever position at the FLY position to have a "traditional" helicopter throttle control
 - Due sim limitations, both Eng 1 and Eng 2 levers cannot be adjusted independently

6. Lights:

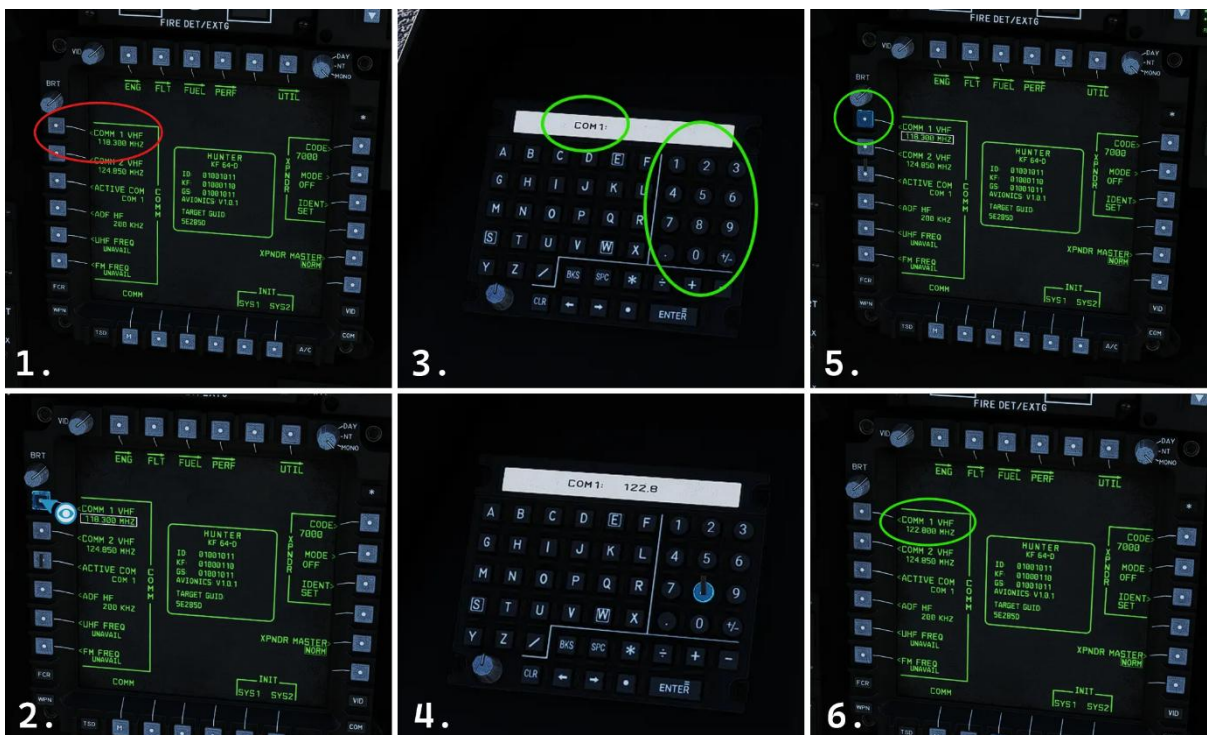
- NAV LIGHTS:
 - BRT: Turn on the NAV lights with a brighter light
 - OFF: Nav lights off
 - DIM: Turn on the NAV lights with a dim light, better for night ops
- ANTI COL:
 - WHT: Turns on a white anti-collision light
 - OFF: Anti-collision lights off
 - RED: Turn on a red anti-collision light
- FLOOD:
 - Adjust FLOOD brightness for the PILOT seat, there's another one next to the GUNNER seat as well
 - Note that the PILOT seat is the one closer to the rotor

Keyboard Interaction

The Hunter is equipped with a keyboard panel used to interact with the **MFD** and **EUFD** information inputs. It is located on the right side of both the captain and first officer seats, and both panels are fully functional.



To input values into the MFD—such as communication frequencies from the COM page or autopilot parameters—you must first press the corresponding softkey for the value you want to edit. Once pressed, the selected value will be highlighted with a white border, and the keyboard panel will become active, displaying the name of the selected parameter. At this point, you can enter the desired value using the numeric keypad. After entering the value, return to the MFD and press the same softkey again to confirm the input. The system will update the parameter and remove the white border to indicate that the value has been successfully set.



1. Identify the required input
2. Press the corresponding softkey
3. Identify the value code and numeric pad
4. Enter the numeric value using the numeric pad
5. Press the same softkey to write the value
6. Check value changed

For both MFD and EUFD inputs, the system checks that the entered values are within the standardized range for the selected parameter. If the value is incomplete or out of range, the message "INVALID INPUT" will be displayed on the keyboard panel screen. For example, COMM frequencies must be between **118.000** and **135.975**.

Additionally, if you initially select a value and then press a different softkey after entering the number, the system will display "**INVALID INPUT**" on the keyboard panel screen.

You can also use the EUFD to change COM, NAV or XPNDR values using the keyboard panel following the next steps:



Press the "**P**" key to enable edit mode. This will display a green square to the left of the selected value, indicating it is ready for editing. Enter the desired value using the numeric keypad. Note that the message code now includes the EUFD suffix. After entry of the desired value, return to the EUFD, verify that the green square is active, and then press the ENTER key (↵). Then verify that the value has been updated.

Notes:

- When the keyboard is activated from the EUFD, entering values into the MFD is not possible. To deactivate the keyboard from the EUFD, ensure the green square is no longer active. If it is, press the "**P**" key again or wait 15 seconds for it to automatically deactivate.
- The EUFD will only automatically deactivate the keyboard after 15 seconds if the input field is empty—that is, no value has been entered.
- Use the RTS button to change the desired input.

Auto Pilot Engage

The autopilot can be engaged via the key bind "**TOGGLE AUTOPILOT MASTER**" we recommend binding this to a button on your joystick or "**CTRL + 1**".



Enhanced Up-Front Display (EUFD)

The 'Enhanced Up-Front Display' (EUFD) functions as both a COM panel as well as a warning system indicator. The top area of the screen is divided into three columns:

- Left column: Basic system warnings or status messages
- Centre column: Critical mission failures
- Right column: Autopilot indications



Every time a new RED message is displayed, the system will trigger the **MASTER WARNING** alert. This can be identified by the illumination of the **MASTER CAUTION** button or by an audible alert, which can be silenced by pressing the button.

Multi-Function Displays (MFD)

The Multi-Function Display (MFD) is your main interface in the Hunter. It gives you control over key systems such as navigation, weapons, and missions. Everything you need to manage the helicopter in combat and regular flight can be done in just a few button presses.

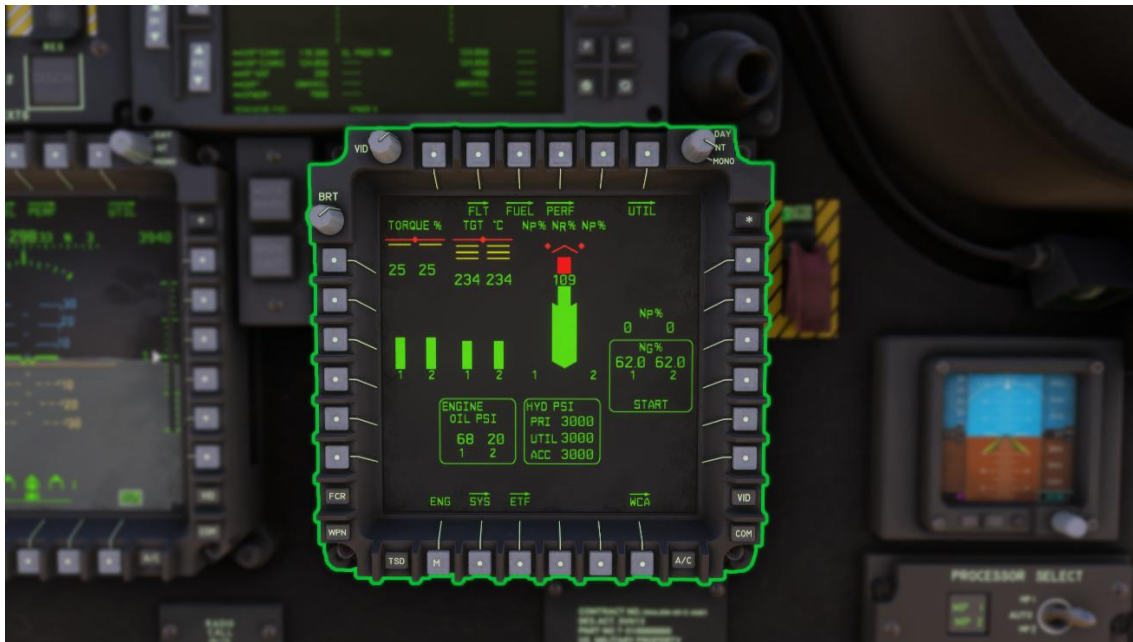


Each MFD screen can show different pages depending on what you need. You'll find buttons along the edges of the screen to switch between pages. We'll go through the most important ones below.

A/C Menu

At the bottom right of either MFD, is the **A/C** button, pressing this will allow access to various system subpages. There are five subpages in total – **ENG**, **FLT**, **FUEL**, **PERF** [inop] and **UTIL**.

Engines (ENG) PAGE



The **ENG** sub-page displays several indicators from the engine and hydraulic systems. The most important readings are **Torque**, **NG**, and **NR**.

During engine start, **Torque** and **NG** should increase from 0% to about 40% to initiate combustion. After that, they should continue to rise, reaching approximately 75% and 100%, respectively.

NR represents the main rotor RPM as a percentage, and it should typically be around 110%. The Hunter is designed to deliver excellent performance in all areas, and torque response is no exception. The engine systems will always aim to maintain the highest possible rotor RPM. If the rotor RPM drops below 75%, you should immediately begin looking for a safe place to land.

There is no dedicated electrical system page, so keep in mind that the engine-driven generators become available once engine RPM reaches 50% or higher—one generator per engine. A message will appear on the EUFD screen indicating **GEN AVAILABLE** or **GEN UNAVAILABLE**, depending on the generator status.



Flight (FLT) PAGE



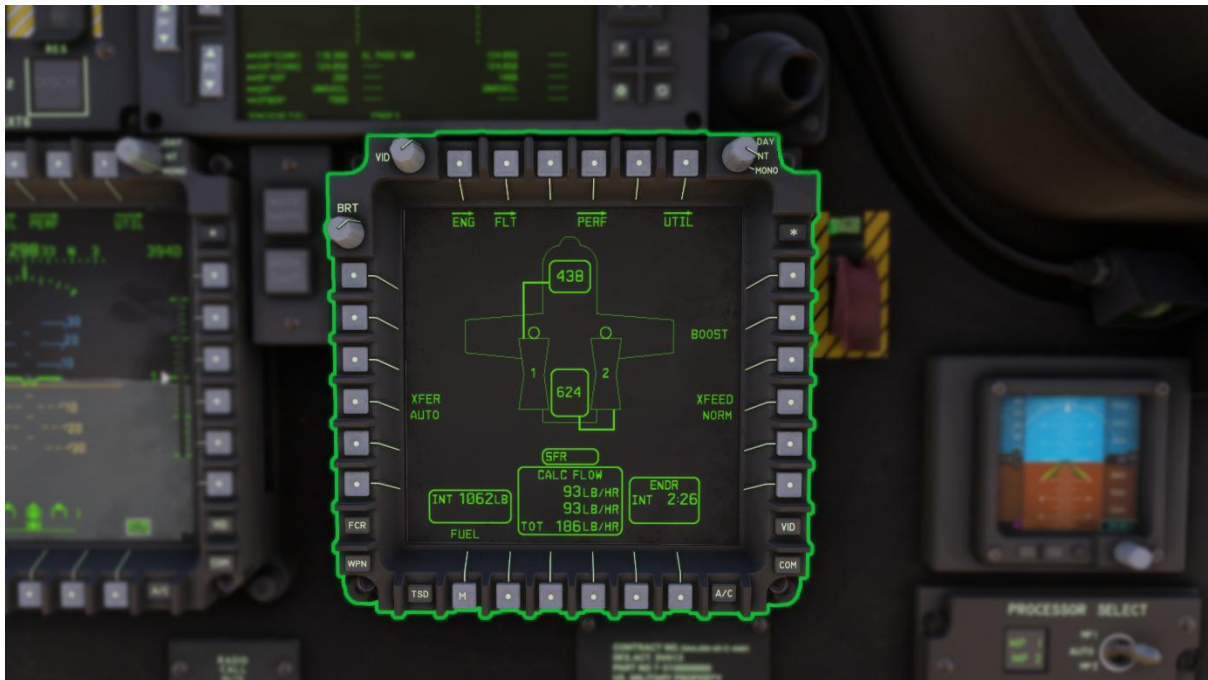
- | | |
|-------------------------------------|---|
| 1. Current Heading | 6. Vertical Speed / Rate of Climb Indicator |
| 2. Heading Tape | 7. True Airspeed |
| 3. Torque and Temperature indicator | 8. G-load |
| 4. Barometric Altitude | 9. Target Cue / Diamond |
| 5. Radar Altitude | 10. Target Information Window |

The **FLT** page displays the basic flight instruments as well as information relating to your target if you currently have an active mission. Additionally, it provides a quick view of data from the **ENG** page, which includes **Torque** and **Temperature** readings, this quick view displays the higher value between engine 1 and engine 2.

Target data is shown via the Target Cue which points in the direction of present target, turning into a Target Diamond when target is straight ahead. The Target Information Window at the bottom left corner displays additional information such as Target Number, Distance to Target, Time to Target and present ground speed (covered in detail later in this manual).

The Hunter's FLT page also features **Synthetic Vision (SVS)**, which can be toggled using the bottom-right **SVS** softkey.

Fuel(FUEL) PAGE



The FUEL page displays all information related to the fuel system, including the amount of fuel in each tank (FWD and AFT), total fuel, fuel flow per engine, total fuel flow, estimated time remaining based on nominal fuel flow and transfer and cross-feed settings.

Transfer fuel

The transfer sub-menu allows you to control how the fuel is been distributed along the aircraft tanks using transfer pumps and valves.

The fuel transfer system supports four modes: FWD, AFT, OFF, and AUTO. In FWD mode, fuel is transferred from the AFT tank to the FWD tank, while AFT mode transfers fuel in the opposite direction. OFF disables all fuel pumps and closes the transfer valves. In AUTO mode, the system will automatically level fuel between tanks under specific conditions.

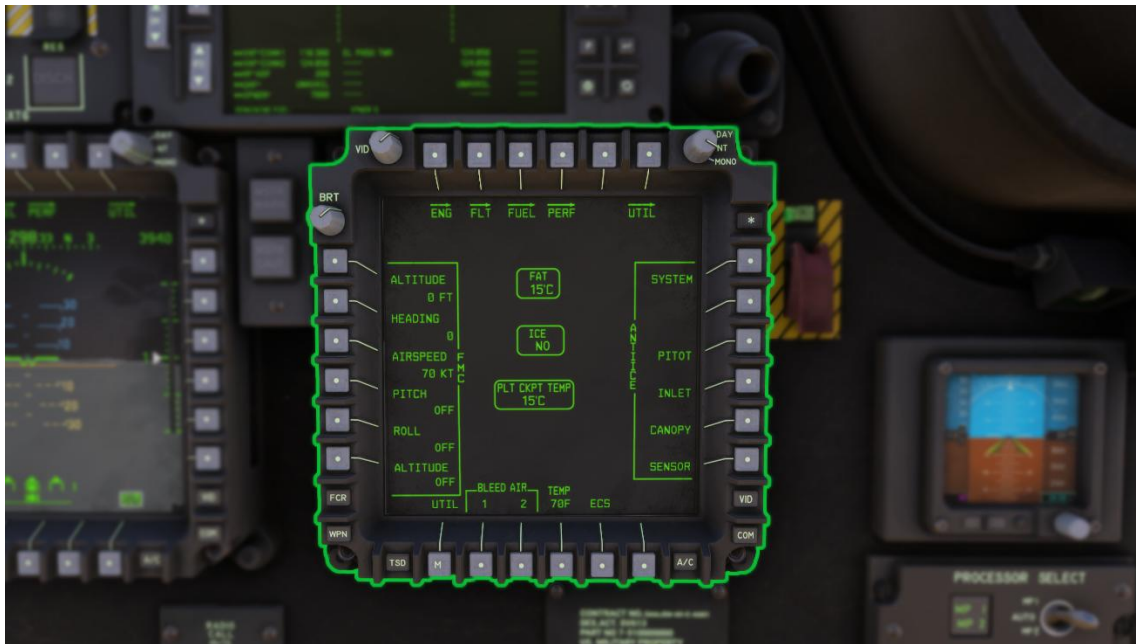
To AUTO level to the AFT tank, the following must be met: both engines running, APU or engine bleed air available, AFT fuel below 814 lb, and FWD fuel above 280 lb. If FWD fuel is above 500 lb, it must be at least 100 lb more than the AFT level; if below 500 lb, the difference required is 50 lb. The same logic applies for AUTO levelling to the FWD tank, with roles reversed.

Note: If any transfer mode is activated, the dotted line will move in the direction of the fuel flow.

Cross-feed fuel

The Cross-feed system manages how fuel tanks supply the engines, offering three modes: FWD, NORM, and AFT. By default, NORM mode is used engine 1 (left) is fed by the FWD tank, and engine 2 (right) by the AFT tank, which is the intended configuration. In FWD mode, both engines are fed from the FWD tank, while in AFT mode, both are supplied by the AFT tank. The system is not designed to cross-feed engine 1 from AFT and engine 2 from FWD. When a cross-feed mode is selected, white lines appear on the fuel page, and the system reconfigures over approximately 3 seconds.

Utilities (UTILS) PAGE



The **UTILS** page gives access to the FMS and autopilot settings, including key flight modes. On the left side, the first three options are for setting altitude, heading, and airspeed, which you can adjust using the left-hand keyboard panel.

Below those are the flight mode selectors, which activate automatically when the autopilot is engaged, based on the aircraft's current state:

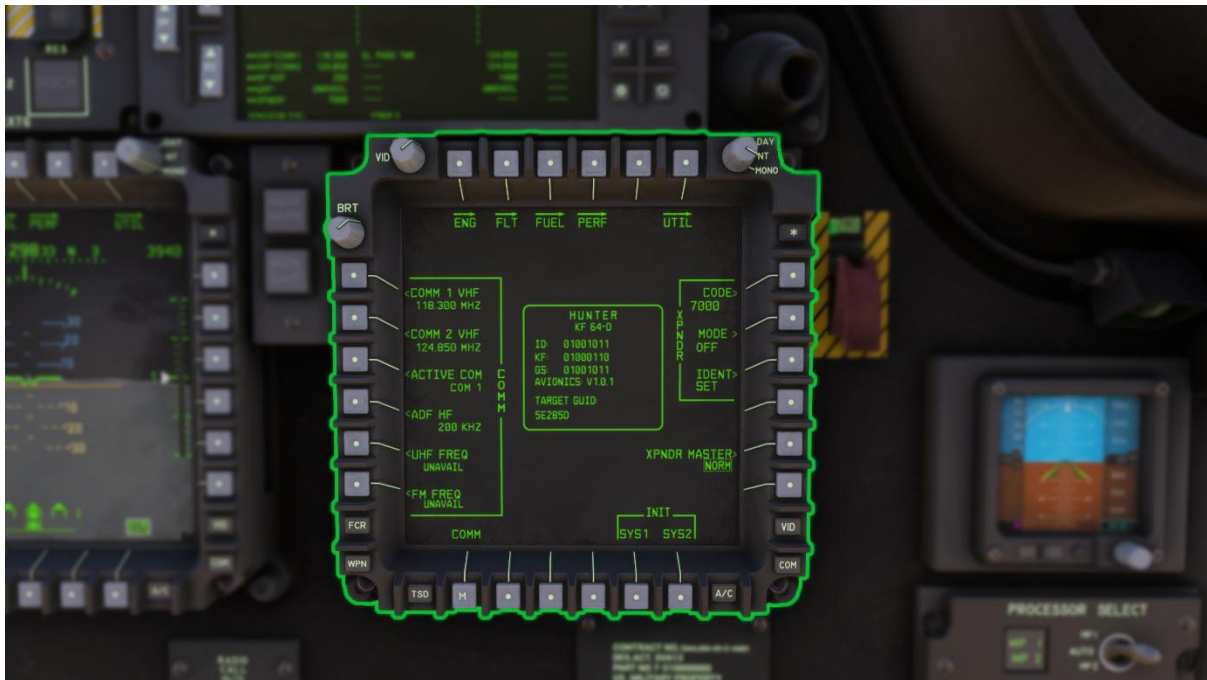
- Pitch mode:
 - Above 40 knots: Speed Hold (SPD HOLD) keeps your airspeed steady.
 - Below 40 knots: Pitch Hold (HOLD) maintains the current pitch angle.
- Bank mode:
 - Within $\pm 5^\circ$: Heading Hold (HDG HOLD) keeps your heading.
 - Beyond $\pm 5^\circ$: Bank Hold (HOLD) maintains your bank angle.
- Altitude mode:
 - Always turns on with autopilot (can be disabled manually).
 - Altitude Hold (HOLD) keeps your current altitude.
 - Vertical Speed (V/S) mode is basic and only loosely holds zero ft/min. Use Altitude Hold for precision.

Once autopilot is active, you can adjust any mode via softkeys or change setpoints with the keyboard. Changing the altitude setpoint causes the aircraft to climb or descend automatically at up to 1,500 ft/min.

Active modes are shown in the third column of the EUFD. Try to engage autopilot while flying straight and level to avoid sudden changes.

Please note: The ANTHCE sub menu is currently INOP.

Communications (COM) PAGE



On this page you will see the communication panel, where you can see and set **COM** and **NAV** frequencies. Frequency input follows the Keyboard Panel Interaction system and allows you to change the active frequencies for COM1, COM2, ADF, and the transponder (XPNDR) code.

The ACTIVE COM option lets you select the current TX/RX source (only one frequency can be active for transmission and reception at a time).

In the XPNDR sub-menu, you can switch between the following modes: OFF, STBY, TEST, ON, and ALT.

The IDENT option activates the transponder ident for 18 seconds and displays a white outline around the label to indicate it's active. Note that IDENT only functions when the transponder is set to TEST, ON, or ALT.

AUTO HOVER

On the stick you will find the auto hover button which will activate the corresponding AP modes and setpoints to hover. Note that you will need to have the AP turned ON before pressing the auto hover button.



If you want to use your keyboard or any external device, you could use the key bind **"TOGGLE WING FOLD"** or Kvar **"K:TOGGLE_WING_FOLD"**

FLARES

On the stick, you will find the **FLARE** button, this will allow you to deploy flares, only once the helicopter is greater than 1000ft AGL. You can press the red **FLARE** button on the left side of the control stick, which will set off an audible effect of flares popping, as well as a visual effect.



The **FLARE** button is bound to the "**TOGGLE SMOKE**" key bind, or Kvar "**K:TOGGLE_SMOKE**"

SMOKE TOGGLE

Helicopters Digital



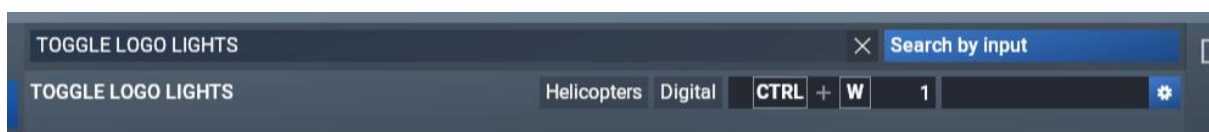
Weapons Page

To access your weapons, press the WPN button at the bottom left of any MFD. This brings up the weapons screen where you can choose between Gun, Missiles, or Rockets.



Before you can fire anything, make sure the weapon is armed. Press the ARM/SAFE button. Once the weapon is armed, you'll see ARM on the weapons page. Now you're ready to shoot.

Firing is triggered using the "[TOGGLE_LOGO_LIGHTS](#)" key bind. You can change this, but make sure it doesn't clash with any other controls. We recommend using CTRL + W.



Gun (GUN)

The gun lets you choose how many bullets to fire at once. Options include 10, 20, 50, 100, or ALL, which fires whatever is left in your ammo.

Each bullet deals 1% damage to a target. For example, 50 bullets will destroy half of a target's health if they all hit. Be smart about how much you shoot — firing too much at once could leave you short later.

Missiles (MSL)

The Hunter carries 8 Hellfire missiles. They are powerful and each one deals 50% damage if it hits.

Select MSL on the weapons page, and when you fire, it will shoot one missile. The missile will only track a target if it was locked first. If there's no lock, it'll just fly off and miss.

Missiles travel at around 1.2 Mach. So if your target is about 1.5 km away, the missile will hit in about 3.5 seconds.

Rockets (RKT)

You also have 36 Hydra rockets — 18 on each side. These travel faster than missiles (around 2.5 Mach) but deal less damage, at 20% per rocket.

Select RKT on the weapons page to arm the rockets. Like missiles, they'll only hit the target if it's locked. Otherwise, they'll miss completely.



Immersive Mission Manager Page

The Hunter features a built-in Mission Manager. It lets you take on combat missions where you hunt and destroy enemy units such as tanks, trucks, and boats. Make use of the weapons listed above to help you on your mission!

Here's how to get started:

To start the mission, go to either MFD screen and make sure you are on the FCR page. If not, press the FCR button on the left side of the selected MFD panel, then press the INIT button, and the Mission Manager prompt will appear, showing the mission initialization status.

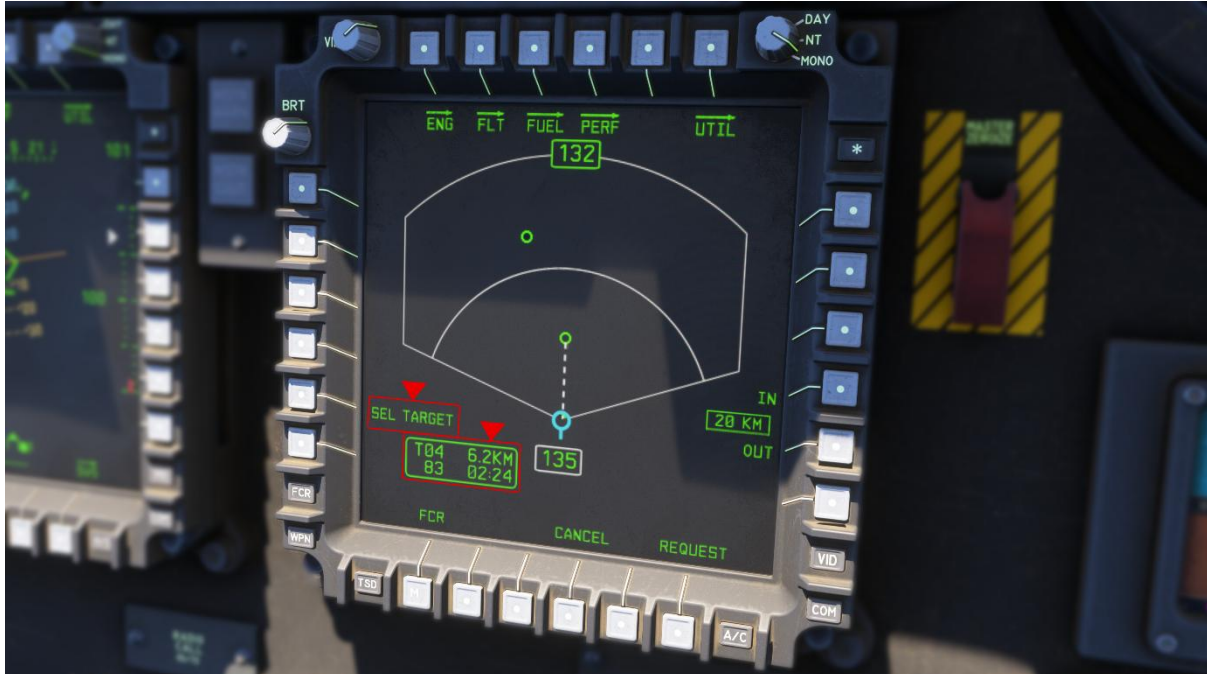


Once the mission starts, a random number of enemy targets, anywhere from 1 through 8 will spawn roughly 25 km away from your current location. They're spaced out roughly 7 km from each other. You can launch missions anywhere, but keep in mind that targets might be hard to spot if you're in an area with lots of trees or vegetation.

At the start of the mission, you should use the FCR and FLT pages on the MFD for guidance as shown in the image below. These tools will enhance your situational awareness and assist in tracking targets via the Diamond Indicator, the TARGETS window, or the FCR map view.



Both the FCR and FLT pages feature a TARGETS window in the bottom-left corner, displaying the next target index (T01 to T08), their distance from you, your ground speed, and the estimated time to reach it at your current speed. If you wish to cycle between the targets, press the softkey next to "SEL TARGET" this will select the next available target and adjust the current track and update the target information window to the relevant data.



The Diamond Indicator will correspond to the target's position within a 3D virtual environment, synchronized with the FCR page and the target's dotted line. This ensures that you can locate the targets in an efficient manner and strike accurately!

You can use the IN and OUT buttons on the right side of the FCR panel to increase or decrease the map range according to how close you are getting to the next target.



As you get closer to the targets, you will see the visual diamond indicator change state, which indicates a couple of things:

Green Blinking Diamond – Target TRACKING, if you fire now, you will waste ammunition with no impact.

Red Diamond – Target LOCKED, time to fire! At this point, any fired weapon will hit the target.

When diamond is red, this means the following conditions are being met to ensure target is locked;

- Distance relative to target is 3KM or less.
- Lateral relative bearing to target is between -20 and 20 degrees.
- Vertical relative pitch to target is between 4 degrees UP and -15 degrees DOWN.

NOTE: If you fly within 1KM of any target, you may receive damage. Be aware that you will hear impact sounds on the airframe, and some systems may fail if you remain too close for too long.

Forward Arming and Refuelling (FARP)

As part of the Immersive Mission Manager, once you have destroyed all your allocated targets, or if you run out of ammunition or have taken too much damage, you can request a remote station to reload/rearm/refuel at any point. On the MFD, there is a button with either of the following (depending on the current situation):

- CANCEL: This will prompt a YES/NO action to cancel the current mission, this will remove the targets from the MFD.
- REQUEST: This will prompt a YES/NO action to start the remote station sub-mission. This will show a window with what needs to be done to complete the submission.

After confirming a reload request, the system will prompt **FIND CLEAR AREA AND LAND**. You'll need to land in a flat, open space. Once on the ground, the aircraft checks for 5 seconds to confirm it is stable. If stable, it will display **AIRCRAFT SECURED – WAITING GROUND TEAM**. At this point, the aircraft's position is sent to the system to check the terrain.

If the terrain is flat, the system replies with **SAFE**, and you'll see **AREA SAFE – RELOAD STARTED** followed by a progress bar: **RELOAD IN PROGRESS: X%**, where X counts from 0 to 100. Once complete, the message changes to **RELOAD COMPLETED – WAIT FOR CLEARANCE**, and then **CLEARED FOR TAKEOFF – MISSION RESUMED**. The mission will continue from the point where the reload was requested.

If the terrain is not flat, it will display **AREA NOT SAFE – TRY ANOTHER PLACE**, followed by **TAKEOFF IMMEDIATELY TO ANOTHER PLACE**. Taking off will return you to the **FIND CLEAR AREA AND LAND** step.

If you press CANCEL RQST or take off during the reload process, the reload sub-mission will be cancelled and the mission will return to its prior state.



- ALERTS: You will be alerted to critical information relating to your mission. These alerts are shown for; **LOW AMMO, NO AMMO, LOW FUEL, NO FUEL & DAMAGE** (Full name and criteria below)
 - o Airframe compromised damage **30%** or greater
 - o Airframe critical damage: Damage **50%** or greater
 - o Total system failure: Damage **80%** or greater

Handling / Flight Model

The Hunter is a helicopter built to reduce pilot workload by offering assisted controls. Throttle is managed automatically and is tied to the collective position, helping to maintain optimal main rotor RPM (as detailed in the "Left Panel" section).

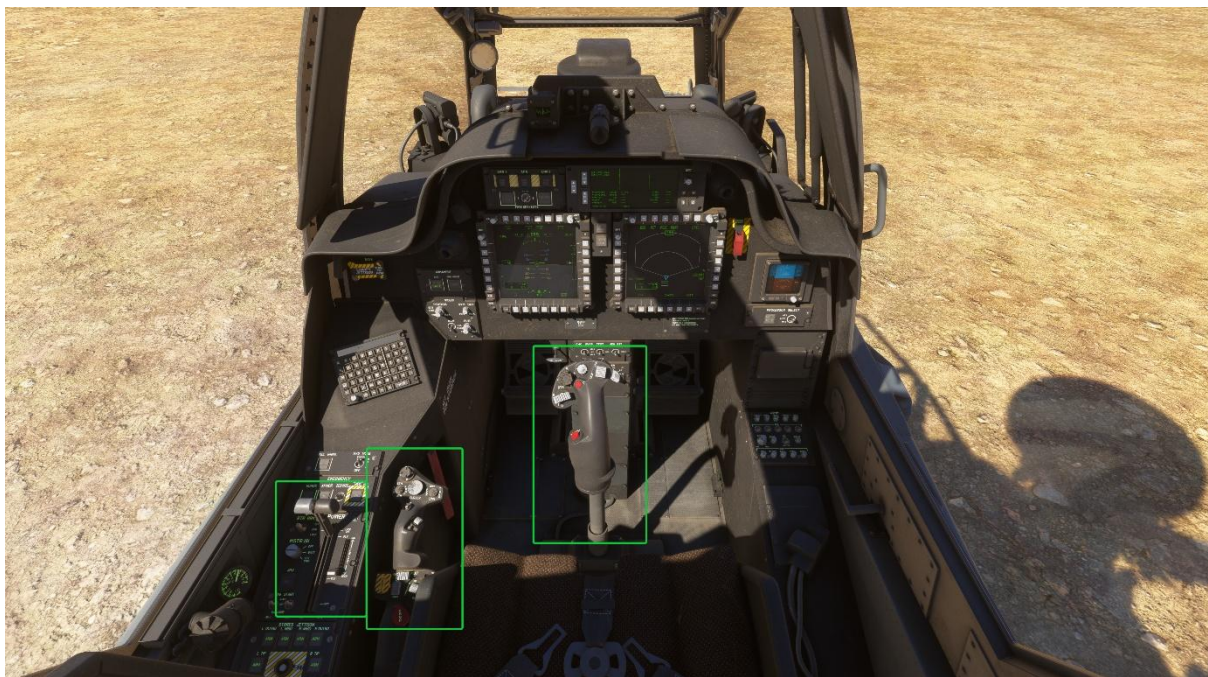
The collective controls the pitch of the main rotor blades and directly affects your altitude. Be aware that sudden or aggressive inputs may cause a brief drop in engine RPM and lift, though the system will recover within a few seconds. For this reason, sharp manoeuvres should only be performed above 2,000 feet AGL to avoid the risk of flying into terrain during this temporary power dip.

The cyclic behaves like a traditional helicopter stick, controlling pitch and bank. However, it's supported by a built-in Stability Augmentation System (SAS). One of its features is Pitch Assist, which activates above 20 knots to smooth out pitch control by adjusting the tail's horizontal stabilizer. This system works much like a fly-by-wire setup and is especially helpful for players using Xbox controllers.

The Hunter's maximum cruise speed is 150 knots, but for better handling and visibility during attack missions, it's best to stay between 80 and 120 knots.

The SAS does not assist with yaw or pedal inputs. If you're new to helicopters or still building confidence, it's a good idea to turn on flying aids in the simulator.

Finally, the aircraft has a powerful vertical stabilizer that improves yaw stability at higher speeds. Once you're above 50 knots, the tail rotor becomes less effective, and rudder input has minimal influence on yaw movement.



END OF MANUAL

QUICK REFERENCE CARD NEXT PAGE

PRELIMINARY

PARKING BRAKEON
DOCUMENTATIONCHECK
SEAT, PEDALS AND HARNESSCHECK
CIRCUIT BREAKERS ALL IN
MSTR IGI BATT
FLOOD AND INTEGER LIGHT AS REQUIRED
MSTR IGI EXT PWR
THROTTLE LEVER OFF (0%)
ENG START SWITCHES OFF
RTR BRK BRK
COLLECTIVE 0% FULL DOWN

BEFORE ENGINE START

ENGINE FIRE TEST TEST 1& TEST 2
ANTICOLLISION AND NAV LIGHTSON
APU START
MSTR IGI BATT
YOKE, RUDDER AND COLLECTIVE FREE MOVEMENT

ENGINE START

MFD 2 ENG PAGE
POWER IDLE DETENT
ENG 1 START SWITCH START
ENG PAGE CHECK ENGINE PARAMETERS CHECK
ENG 1 START SWITCH OFF
ENG 2 START SWITCH START
ENG PAGE CHECK ENGINE PARAMETERS CHECK
ENG 2 START SWITCH OFF
APU OFF

BEFORE TAKEOFF ↴

RETRIEVE MISSION

FOR PAGE PUSH
INIT PUSH
MFD 1 (LEFT) IN FLT PUSH FLT

DOORS CLOSED AND LATCHED
THROTTLE LEVER FLY DETENT
PARKING BRAKE RELEASE
TAKEOFF AREA CLEAR
TAKEOFF RISE COLLECTIVE
LIGHTS AS REQUIRED FOR THE MISSION

CRUISE

NAVIGATE HEADING TO TARGET
LIGHTS STEALTH
SCREENS ARM

BEFORE LANDING

ARMAMENTSAFE
ALTIMETER SET
LIGHTS ON (AS REQUIRED)
LANDING AREA CLEAR

AFTER LANDING

COLLECTIVE FULL DOWN
POWER OFF DETENT
RTR BRK LOCK
ALL ELECTRICAL EQUIPMENT OFF
MSTR IGI OFF
SECURE LOGS, CHOCKS, TIE DOWNS AND COVERS