ANAFI USA USER GUIDE V6.10.0



Designed for the U.S. Army. Made for enterprise.

We are Parrot. Welcome to the team

With ANAFI USA, you have chosen the finest, quietest, and most portable aerial EO/IR system, you can use everywhere on the go, anytime.

We strongly recommend you read the following information and instructions thoroughly before you take ANAFI USA to the air, to make the most of your first 32-minute flight.

ANAFI USA requires the **FreeFlight 6 USA** app to fly, and to make sure your drone and controller are fully up to date with the latest features.

As you discover the world of possibilities that ANAFI USA opens to you, you will fully understand the importance of mission planning in your workflow.

Have a great read, and many productive hours flying ANAFI USA.

Using this guide

- This guide is specific to two drone configurations:
 - ANAFI USA coupled with the Parrot Skycontroller 3, or
 - ANAFI USA coupled with the Parrot Skycontroller 4.
 - Freeflight 6 USA flight application.
- **Read entirely at least once.** It answers most questions that most users encounter when they use ANAFI USA.
- Keep it for reference and stay alert for updates. Updates are advertised on all Parrot websites and social media. These updates are mandatory and must be systematically performed prior to any flight to ensure maximum performance and safety.
- **The Table of contents, on page 7, is active.** Click a title to access the corresponding section.
- **This online user guide has no index.** Use **[ctrl]-F** (Windows) or **[command]-F** (Mac) to browse all occurrences of any keyword (*flight, preferences, gimbal, Android, iOS, Flir, Boson*[®], *photo, EV, ISO,* and so on).

ANAFI USA documentation

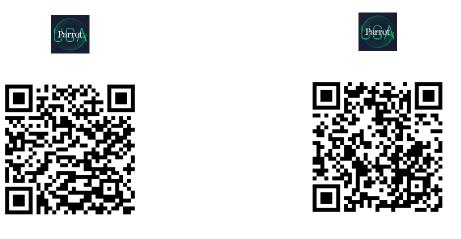
This user guide completes the documentation of ANAFI USA, which also consists of:

- ANAFI USA Flight Safety Guide, available online <u>www.parrot.com</u>;
- ANAFI USA and FreeFlight 6 USA release notes, available online <u>www.parrot.com</u>;
- ANAFI USA repair and maintenance tutorials available on Parrot's YouTube account.

Prerequisites

Refer to the enclosed Super Quick Start Guide (SQSG) if you need illustrated guidance to get these quick prerequisites out of the way.

- 1. Wake up your ANAFI USA's smart battery. Charge the battery using one of the enclosed USB-A to USB-C cables and the enclosed charger. The battery's LEDs start flashing indicating that the battery is awake. Let it charge while you read. Parrot recommends you always run a full charge of your smart battery before flying ANAFI USA.
- Download FreeFlight 6 USA on your iOS or Android smartphone. ANAFI USA requires FreeFlight 6 USA to fly. The app will enable you to update your Parrot Skycontroller and ANAFI USA when you power them on for the first time.



Android FreeFlight 6 USA QR code

iOS FreeFlight 6 USA QR code

When you have downloaded and installed **FreeFlight 6 USA**, turn your **Parrot Skycontroller** on (if you have a **Parrot Skycontroller 3**: unfold the central arm; if you have a **Parrot Skycontroller 4**: press the ON/OFF button).

Use your device's USB cable to connect it to **Parrot Skycontroller** USB port, and install it on the device holder, as shown in the enclosed SQSG.

A prompt appears on your screen, which invites you to allow communication between your device and the controller.

Tap **Allow** (iOS), or **OK** (Android): **FreeFlight 6 USA** runs. After your device displays the app's splash screen, you get to **FreeFlight 6 USA** homepage.

If the prompt does not appear on your screen when you connect your device to your **Parrot** *Skycontroller*, launch *FreeFlight 6 USA* manually.

3. Tap the green **FLY** box on the homepage of **FreeFlight 6 USA** to launch the initial updates. **FreeFlight 6 USA** automatically updates the **Parrot Skycontroller** first, and ANAFI USA second.

 Parrot Skycontroller update: tap the green CONTINUE box to proceed. FreeFlight 6 USA displays an animation and a progress circle on a screen labelled Preparing your controller. When the update is finished, the screen displays Your controller is ready. Tap CONTINUE to access the update of ANAFI USA (screenshots below are Android).



- 5. **ANAFI USA update:** tap the green **CONTINUE** box to proceed. **FreeFlight 6 USA** displays an animation and a progress circle on a screen labelled "Preparing your drone". When the update is finished, the screen displays **Your drone is ready**. Tap **CONTINUE** box to return to the **FreeFlight 6 USA** homepage.
- 6. All systems are ready for flight.

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Foreword

About ANAFI USA

ANAFI USA was designed and optimized to fly as is. Parrot generally advises that you do not mount or attach any add-on or accessory to the drone (feet extensions, buoys, etc.). In addition to the extra weight they impose on the drone and its motors, they can also magnetically disturb ANAFI USA and impair its communications.

Important: The maximum take-off mass (MTOM) of ANAFI USA is 644 g / 1.4 lb. If you decide to equip your drone with an accessory, it can drastically reduce its autonomy.

Warning: Do not alter the center of gravity of the drone.

Wi-Fi

Switch off your device's Wi-Fi connection when flying ANAFI USA with both the **Parrot Skycontroller** and your phone or tablet. In this configuration, the drone and the controller communicate through ANAFI USA's Wi-Fi network and activating your device's Wi-Fi results in interference.

Your device's Wi-Fi must only be activated, and connected to ANAFI USA's Wi-Fi network, when you want to fly the drone using your device as the sole controller.

GPS

ANAFI USA does not need a satellite – GPS, Glonass, Galileo – synchronization (or fix) to take off. It can therefore be piloted indoors and through cluttered areas, stabilized by its onboard sensors.

However, automated and assisted flight modes require both ANAFI USA and the **FreeFlight 6 USA** device (preferably associated with the **Parrot Skycontroller**) synchronization to geocoordinate satellites. The **Parrot Skycontroller** alone has no geo-positioning capacity.

For this reason, Parrot recommends ANAFI USA pilots to always set up, start, and finish their automated and assisted flights from wide open areas, such as a sports field.

4K video formats

4K video formats are professional grade media which may not be read natively by slower computers.

Furthermore, for software reasons, the stream broadcast by the **Skycontroller** is better defined in the 1080p video mode than in 4K (or any photo mode), especially when using zoom. For this reason, Parrot recommends favoring default video settings (1080p, 30 fps) for direct observation.

4K video recording should be reserved for post-mission data exploitation.

The smart battery

One smart battery comes preinstalled on the ANAFI USA. If you remove the battery, you must reinstall it in the same orientation. Ensure that you do not install the battery upside down as it could expose the battery and the drone to irreparable electrical damage.



Important: The LEDs and power button face up in the correct orientation

Note: ANAFI USA's battery enters **Wintering** mode when not in use for ten consecutive days. You must wake the battery up and charge it completely before you fly ANAFI USA for the first time.

HDMI

The Parrot Skycontroller 4 is equipped with a micro-HDMI port, which enables you to stream **ANAFI USA** images to a screen or to HDMI goggles. Parrot recommends using a certified micro-HDMI to HDMI cable (not included in the box) to connect external pieces of equipment to the Skycontroller 4. Uncertified cables may impair the ecosystem's Wi-Fi performance.

The packaging of certified HDMI cables displays the following logo:



Auto-RTH (return home)

If the battery charge level becomes low, ANAFI USA attempts to return to its most recent take-off point, at a minimal height over this take-off point. The default minimal height is 30 meters, but you can configure this height to between 20 and 30 meters through **FreeFlight 6 USA.**

Important: This feature requires synchronization to GPS, Glonass, or Galileo satelites.

Refer to the *"Coordinates and advanced RTH settings"* and *"PREFERENCES – Safety – Advanced RTH settings"* section of this guide for further information on RTH.

Devices

On this page and the following, the word "*device*" refers to the smartphone or tablet, either iOS or Android-based, on which **FreeFlight 6 USA** is installed.

User guide screenshots

For clarity and brevity, some screenshots in this guide, illustrating functions common to all the drones of the series, have been taken from earlier ANAFI series user guides.

However, all screenshots associated with specific ANAFI USA functions have been updated.

About My.Parrot accounts

Parrot strongly recommends that you use your My.Parrot account (or create one if ANAFI USA is your first Parrot drone) to allow Parrot to store your ANAFI USA flight data. Sharing your data, even anonymously, benefits the community, as it enables us to improve our products.

It also directly benefits all identifiable users in case they need to contact Parrot support teams.

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Disclaimer

Using ANAFI USA carries no particular health requirement.

HOWEVER:

- 1. ANAFI USA IS NOT A TOY and should not be used or handled by a person under the age of 18 years.
- 2. BEFORE USING ANAFI USA:
 - (A) CAREFULLY READ the user manual and all information and documentation available on www.parrot.com. Documentation is subject to change and may be updated at any time and without prior notice (hereinafter referred to as "Parrot Documentation"). SPECIAL ATTENTION must be given to the paragraphs marked: Warning.
 - (B) Ensure that the complete drone ecosystem is up to date. Parrot regularly releases firmware updates for:
 - FreeFlight 6 USA
 - ANAFI USA
 - Smart Battery
 - Skycontroller 3, and Skycontroller 4

Updates add new features, and improve stability, and performance of the complete system. Updates are mandatory and must be systematically performed prior to any flight to ensure maximum performance and safety. Flying with a non-up-to-date system may impact warranty rights and jeopardize safety requirements.

- (C) ENSURE YOU ARE AWARE OF THE REGULATIONS APPLICABLE TO THE USE OF DRONES AND THEIR ACCESSORIES (hereinafter referred to as "Applicable Regulations");
- (D) REMEMBER that ANAFI USA may expose others and yourself to EQUIPMENT DAMAGE, PERSONAL INJURY, OR BOTH, which could result in serious harm or death.
- 3. All Parrot drones must always be used with genuine Parrot smart batteries. Nongenuine batteries are forbidden, and their use will void the warranty, and impact safety requirements.
- 4. All Parrot drone systems include charger(s). These are the only recommended chargers to use to charge your Parrot drones Smart Battery and Skycontroller 3 and Skycontroller 4. Other generic USB chargers may be used provided that they are certified according to the country of use and have the applicable rating/specification. Performance and warranty are only guaranteed when using a genuine charger included in the Parrot drone system. Parrot takes no responsibility (warranty or safety) for third party USB chargers being used with a Parrot system.

- 5. Videos and photos promoted and advertised by Parrot Drones SAS and its affiliates have been made by and with experienced professionals and drone pilots. IN CASE OF DOUBT RELATING TO THE USE OF YOUR ANAFI USA DRONE AND ITS ACCESSORIES, ALWAYS REFER TO THE MOST RECENT VERSION OF THE PARROT DOCUMENTATION.
- 6. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, PARROT DRONES SAS, ITS SUBSIDIARIES, AND THEIR RESPECTIVE DISTRIBUTORS AND RETAILERS SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING FROM, OR IN CONNECTION WITH THE NON-COMPLIANCE OF PARROT WITH THE DOCUMENTATION OR THE APPLICABLE REGULATIONS BY YOURSELF OR ANY PERSON USING YOUR ANAFI USA.

Technical specifications

DRONE

- Mass: 500 g (1.1 lb)
- Maximum take-off mass (MTOM): 644 g (1.4 lb)
- Maximum transmission range: 4 km (2.5 mi) with the enclosed Parrot Skycontroller
- Maximum flight time: 32 minutes
- Maximum horizontal speed: 14.7 m/s (32.9 mph)
- Maximum ascent speed: 4 m/s (8.9 mph)
- Maximum descent speed: 3 m/s (6.7 mph)
- Maximum wind resistance: 14.7 m/s (32.9mph)
- Maximum propeller speed: 11,000 rpm
- Sound power level at 1m (3.3 ft): 84 dB
- Service ceiling: 5.000 m above MSL (Mean Sea Level)
- Optional geocaging
- Operating temperature: -36°C (-32.8°F) to +50°C (122°F)
- No take-off temperature limitation if battery temperature is maintained between +5°C (+41°F) and +70°C (+158°F)
- IP53: rain and dust resistant
- No NFZ (no-fly zone) limitation
- Takes off from / lands in the hand of the operator
- Manage your data privately between drone and device OR share anonymous data on secured European servers

DIMENSIONS

- Size folded: 252 x 104 x 84 mm (9.9 x 4.1 x 3.3")
- Size unfolded: 282 x 373 x 82 mm (11.1 x 14.7 x
- 3.2")

SENSORS

- Satellite navigation: GPS, GLONASS & GALILEO
- Barometer and magnetometer
- Vertical camera and ultra-sonar
- 2 x 6-axis IMU
- 2 x 3-axis accelerometers
- 2 x 3-axis gyroscopes

EO IMAGE CHAIN

- 2 Sensors: 1/2.4"
- Digital zoom: 32x
- Electronic shutter speed: 1 s to 1/10000 s
- ISO range: 100-3200
- Video resolution: 4k/FHD/HD
- Video format: MP4 (H264)
- Photo resolution: Wide: 21 MP (84° FOV); Rectilinear: up to 16 MP (up to 75.5° FOV)
- Photo formats: JPEG, DNG (Digital NeGative RAW)

IR IMAGE CHAIN

Sensor: FLIR BOSON

- 320x256 resolution
- -40°C (-40°F) to +150°C (+302°F) temperature range
- Thermal sensitivity: <60 mK
- Measured IR wavelength range: 7.5 to 13 micrometers
- Photo format: JPEG
- Video format: MP4 (H264)
- Video recording resolution: 1280x720, 9 fps

IMAGE STABILIZATION

- 3-camera IR/EO stabilized gimbal:
- Hybrid: 3-axis
- Mechanical: 2-axis roll / pitch
- Electronics (EIS): 3-axis yaw / roll / pitch
- Controllable gimbal tilt range: -90° to +90°

FAST-CHARGING SMART BATTERY

- Type: High density LiPo (3 x 4.4 V cells)
- Capacity: 3400 mAh
- Battery life: 32 minutes
- Charging port: USB-C
- Charges in 2h with an USB-PD (Power Delivery) charger

 not included in the pack
- Charges in 3h20 with the provided charger
- Mass: 195 g (0.4 lb)
- Voltage: 11.55 V
- Max charging power: 30 W

PARROT SKYCONTROLLER 3

- Folded size: 94 x 152 x 72 mm (3.7 x 6.0 x 2.8")
- Unfolded size: 153 x 152 x 116 mm (6.0 x 6.0 x
- 4.6")
- Mass: 283 g (0.6 lb)
- Transmission system: Wi-Fi 802.11a/b/g/n (Wi-Fi beacon)
- Operating frequencies: 2.4 GHz, UNII-1 & UNII-3
- Direct video stream resolution: 720p
- Battery capacity: 2500 mAh 3.6 V
- Battery life: 2h30 (Android) / 5h30 (iOS)
- Compatible mobile devices: screen size up to 10"
- USB ports: USB-C (charge), USB-A (connection)

PARROT SKYCONTROLLER 4

- Size without terminal: 238 x 147 x 55 mm (9.4 x 5.8 x 2.2")
- Maximum size: 315 x 147 x 55 mm (12.4 x 5.8 x 2.2")
- Mass: 610 g (1.3 lb)
- Transmission system: Wi-Fi 802.11a/b/ g/n (Wi-Fi beacon)
- Operating frequencies: 2.4 GHz, UNII-1 & UNII-3
- Direct video stream resolution: 720p
- Battery capacity: 3,350 mAh 7.2 V
- Battery life: Charges 3 h 45 for up to 6 h use (varies according to device used and state of charge)





ANAFI USA

- Compatible mobile devices: screen size up to 8"
- 2xUSB-C (charging and connecting) ports
- Micro-HDMI port
- Dust resistant (IP5X)



Package contents

Your ANAFI USA package contains:

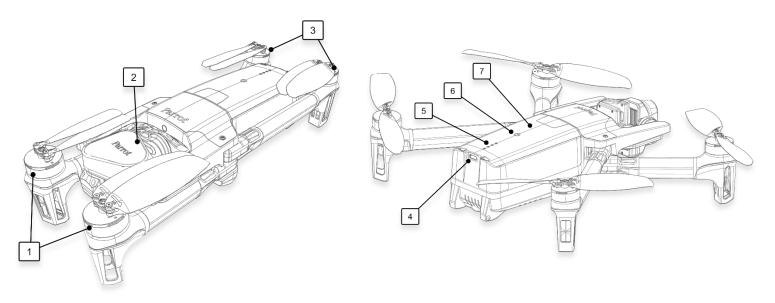
- 1 ANAFI USA drone
- 3 smart batteries (2 + 1 preinstalled on ANAFI USA)
- 1 Skycontroller 3, or 1 Skycontroller 4
- 1 multi-port fast USB charger
- 1 additional set of propeller blades
- 4 USB-A/USB-C cables
- 1 USB-C/USB-C cable (for Skycontroller 4 packs only)
- 1 hard case



Picture is for illustration purposes only: device not included.

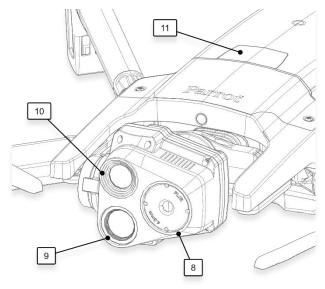
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Presentation of ANAFI USA



Ready to store or carry, with gimbal cover

Ready to fly



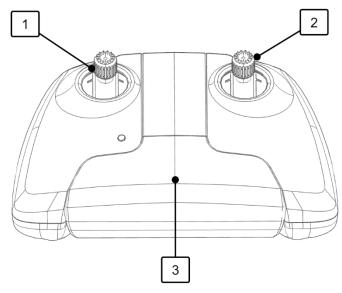
180° tilt gimbal

- 1. Front foldable arms and propellers
- 3. Rear foldable arms and propellers
- 5. Charge level LED indicators
- 7. Smart battery
- 9. 21 MP telephoto camera
- 11. Battery extraction button

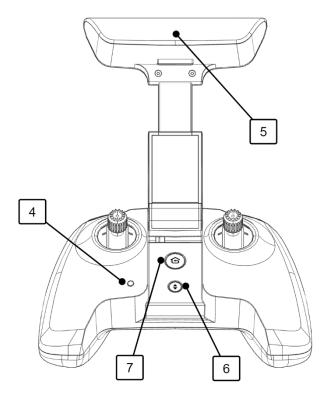
- 2. Gimbal protective cover
- 4. USB-C charging port
- 6. **Ö Power** button
- 8. Thermographic camera
- 10. 21 MP wide angle camera



Presentation of Parrot Skycontroller 3

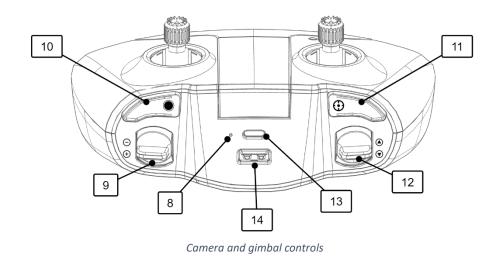


Wi-Fi antenna folded, ready to store or carry



Antenna unfolded, ready to pilot

- 1. Left joystick
- 3. Power on foldable arm and device holder
- 5. Wi-Fi antenna
- 7. 🔓 RTH (Return to Home) button
- 2. Right joystick
- 4. LED status indicator
- 6. **Take-off/Land** button



- 8. Charging LED
- 10. Shutter (take photo, start/stop filming)
- 12. Tilt trigger. Down; tilts down. Up; tilts up
- 9. **Zoom** trigger. Down; zoom in. Up; zoom out 11. **Optics reset**. Returns to no tilt, 1x zoom
- 13. USB C charging port

14. USB – A device port

LED status indicator color codes

When the **Parrot Skycontroller 3** is powered on, its LED status indicator gives you an instant visual indication:

- Flashing green:
- Alternating light blue and dark blue:
- Flashing light blue:
- Steady dark blue:
- Alternating purple and dark blue:
- Steady red:
- Steady green:

Skycontroller 3 update in progress connecting to ANAFI USA no drone configured or wrong WPA Key connected to ANAFI USA; autonomous flight in progress; Charging Charged

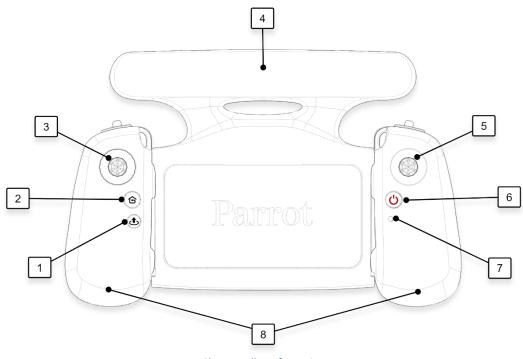
Pairing ANAFI USA to a Parrot Skycontroller 3

Follow this procedure to pair a drone and a controller for the first time, and to restore the lost pairing between a drone and a controller.

- 1. Verify that a compatible microSD card is inserted into ANAFI USA.
- 2. Power ANAFI USA on.
- 3. Open the Parrot Skycontroller 3 to power it on.
- 4. Connect the drone and the controller with a USB cable (USB-A connection to the controller, USB-C connection to the drone).
- 5. The LED of the **Parrot Skycontroller 3** briefly flashes green to indicate it acknowledges ANAFI USA.
- Wait for synchronization between Parrot Skycontroller 3 and ANAFI USA (steady dark blue LED on the controller): Verify that the left trigger of the Parrot Skycontroller 3 activates the drone's gimbal to ensure the synchronization is complete.
- 7. Disconnect the controller from the drone.







Skycontroller 4 front view

- 1. **Take-off/Land** button
- 3. Left detachable joystick
- 5. Right detachable joystick
- 7. Status indicator LED

- 2. 🔁 RTH (Return to Home)
- 4. Wi-Fi antenna
- 6. **Ö Power** button
- 8. Sliding handles

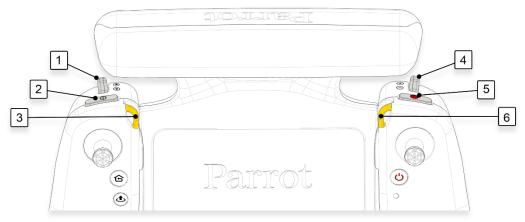
LED status indicator color codes

When the **Parrot Skycontroller 4** is powered on, its LED status indicator gives you an instant visual indication:

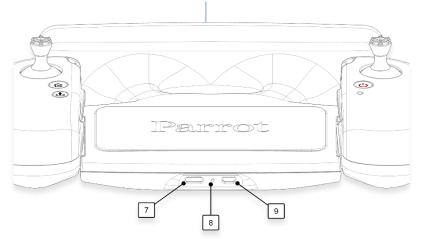
- flashing green:
- alternating light blue and dark blue:
- flashing light blue:
- steady dark blue:
- alternating purple and dark blue:
- alternating red and any other color:

Skycontroller 4 update in progress

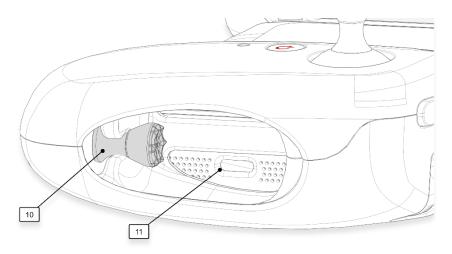
connecting to ANAFI USA no drone configured or wrong WPA Key; connected to ANAFI USA RTH in progress low battery alert (ANAFI USA, **Skycontroller 4**, or both) or RTH alert



Top view showing camera and gimbal controls



Bottom view showing ports



Right side with spare joystick

- 1. Gimbal tilt trigger
- 3. Left neck strap loop
- 5. Media recording
- 7. USB C charging port
- 9. Micro HDMI port
- 11. USB C device connection port
- 2. Optics reset
- 4. Zoom trigger
- 6. Right neck strap loop
- 8. Charging status LED
- 10. Right spare joystick storage (1 of 2)



Pairing ANAFI USA to a Parrot Skycontroller 4

Follow this procedure to pair a drone and a controller for the first time, and to restore the lost pairing between a drone and a controller.

- 1. Verify that a compatible microSD card is inserted into ANAFI USA.
- 2. Press **⁽¹⁾** Power on ANAFI USA.
- 3. Press **⁽¹⁾** Power on the Parrot Skycontroller 4.
- 4. Connect the drone and the controller with a USB cable (USB-C connection to the USB-C port inside the right handle of the controller, USB-C connection to the drone).
- 5. The LED of the **Parrot Skycontroller 4** repeatedly flashes green to indicate it acknowledges ANAFI USA, and to establish pairing protocols.
- 6. Wait for synchronization between **Parrot Skycontroller 4** and ANAFI USA. The controller shows a steady dark blue LED.
- 7. Verify that the left trigger of the **Parrot Skycontroller 4** activates the drone's gimbal to ensure the synchronization is complete.
- 8. Disconnect the controller from the drone.

HDMI video sharing

Use a micro-HDMI to HDMI cable to connect the Skycontroller 4 to an external screen (or VR goggles). The screen displays ANAFI USA's video stream.

Note: External screens only display the drone's video stream, and none of the additional information provided by FreeFlight 6 USA. Operators can watch the drone's view on an external screen, while they navigate FreeFlight 6 USA menus (settings or dashboard) on the device associated to the Skycontroller 4.

Parrot recommends using a certified micro-HDMI to HDMI cable (not included in the box) to connect external pieces of equipment to the Skycontroller 4. Uncertified cables may impair the ecosystem's Wi-Fi performance.

Pre-flight checklist

Transport & handling

- Always transport ANAFI USA in its hard case, safely positioned, with the gimbal's protection cover on.
- Always transport the Parrot Skycontroller safely in the relevant location in the hard case.
- Protect the battery from temperature extremes, both low and high. Try to keep the battery as close as possible to ambient temperatures.
- Always handle the ANAFI USA with care. Do not apply pressure to the drone and generally avoid touching the sensitive camera and gimbal.
- Always keep the hard case with the drone and battery in dry places.

Equipment

• Ensure that you have downloaded the latest version of **FreeFlight 6 USA**, and that both your **Parrot Skycontroller** and your ANAFI USA have been updated with the latest versions of firmware.

Important: Updates are mandatory and must be performed systematically prior to any flight to ensure maximum performance and safety.

- Ensure that you have the correct USB cable to connect your **Parrot Skycontroller** and your device.
- Ensure that you insert a microSD card with enough free memory space into the drone.
- Ensure that you unfold all four foldable arms of the drone.
- Ensure that the propellers are clean, intact, and unobstructed.
- Ensure that both ANAFI USA's and **Parrot Skycontroller's** batteries are fully charged.
- Ensure that you always use genuine Parrot smart batteries. Non-genuine batteries are forbidden, and their use will void the warranty and impact safety requirements.
- Ensure that the drone's battery is securely installed on the drone's body.
- Ensure that the drone's gimbal protective cover is removed.
- Ensure that the drone's lenses are clean. If the lenses require cleaning, clean them before you press ⁽¹⁾ Power on the drone. Hold the gimbal between two fingers so that you do not apply pressure to the mechanism. Gently wipe the lenses with a microfiber cloth.

Regulations

- Ensure that drone use is permitted where you intend to fly.
- Check for potential restrictions regarding the use of Wi-Fi frequencies in the area where you intend to fly.

Flight conditions

- Verify that the flying zone is safe and clear.
- Do not fly ANAFI USA over urban areas, or over restricted airspaces such as airports, train stations, power plants, national reserves, etc.
- Check the weather. Do not fly ANAFI USA in the fog, or in wind exceeding 15 m/s

(33 mph).

• Due to the operating mode of its vertical camera and ultrasonic sensor, Parrot recommends you do not fly ANAFI USA over water, or other reflective surfaces, such as mirrors, glass, etc.

ANAFI USA has been designed to assist first responders and has no inbuilt no-fly zone limitations and can fly in the rain.

Warning: You must not use ANAFI USA at night unless special authorization has been granted. Always deploy ANAFI USA responsibly.

Getting started

- Charge the battery using the enclosed USB-A to USB-C cable and a USB-A power adapter. Charging times depend on the supply capacity of the adapter. Refer to the *"Battery charging"* section of this guide for additional information. Parrot recommends you always run a full charge of your smart battery before flying ANAFI USA.
- 2. If you want to use the controller and enjoy the full ANAFI USA experience, charge **Parrot Skycontroller**.
- 3. Ensure that your flying zone is safe and clear.
- 4. To start the drone, place it on a flat horizontal surface and press **O** Power.
- 5. If you use Parrot Skycontroller 3:
 - A. Unfold the central part of the controller to power it on.
 - B. Wait for the steady dark blue light.
 - C. Connect your device to the controller using a USB-A cable.
- 6. If you use **Parrot Skycontroller 4**:
 - A. Press **⁽¹⁾** Power for 3 seconds to power it on.
 - B. Wait for the steady dark blue light.
 - C. Connect your device to the controller using a USB-C cable.

Note: Parrot recommends you always fly ANAFI USA with **Parrot Skycontroller 3**, or **Skycontroller 4**, and a device, for the best flight experience.

- 7. If you decide not to use Skycontroller:
 - Connect your device to the Wi-Fi network of ANAFI USA, using the Wi-Fi settings card located inside the drone's carrying case - SSID format: ANAFI USA-xxxxx.
 - b. FreeFlight 6 USA connects to ANAFI USA.
- 8. Update, Calibrate and Take-off
 - a. Systematically check for FreeFlight 6 USA, **Parrot Skycontroller**, and ANAFI USA software updates.
 - b. Calibrate your ANAFI USA, your **Parrot Skycontroller**, or both, if required. Follow the instructions on your device's screen.
 - c. Verify that your flying zone is still safe and clear, and that no person or animal has approached or is approaching ANAFI USA.
 - d. Stay at least 2 m (6 ft) from the drone, press **Take-off/land** to start the flight operation.

Taking off

Ground take-off

Position ANAFI USA on a flat, even, and clear surface.

Press \bigcirc **Power** on ANAFI USA, move at least 2 m (6 ft) away from ANAFI USA and check that the surroundings of the drone are clear.

Press **Take-off/Land** on your **Parrot Skycontroller**, or tap the green **TAKE-OFF** box, on the screen of your device.

ANAFI USA takes off and stabilizes at 1 m (3 ft) from the ground, waiting for commands from the pilot.

Hand launch

Warning: Be especially careful with the hand launch feature. It requires complete focus. Do not allow yourself to become distracted and stay aware of your surroundings.

When you first open **FreeFlight 6 USA**, a hand launch tutorial reminds you of the following procedure. You can activate hand launch from this tutorial page.

You can also activate the hand launch option from the *"Interface"* menu of **FreeFlight 6 USA** *"PREFERENCES"* (refer to the *"PREFERENCES – Interface"* section of this guide for further information).

Press **O Power** to power on ANAFI USA and position the drone on your flat, open hand. On the screen of your device, the green **TAKE-OFF** box is replaced by a blue **HAND LAUNCH** box.



ANAFI USA: Android "Hand Launch" Screen

Press **Take-off/land** on your **Parrot Skycontroller** or tap the blue **HAND LAUNCH** box on the screen of your device. The drone's blades start to rotate slowly, and the screen displays a hand-launch animation.

Wait until the propellers' rotation speed stabilizes, then briefly and rapidly lift ANAFI USA up and forward with your open hand. ANAFI USA becomes airborne. It stabilizes and waits for commands from the pilot.

Caution: In environments with sand, use hand launch, instead of ground take-off to prevent sand from penetrating the motors.

Deployment from a moving vehicle

Points of attention for the deployment of the drone from a moving vehicle

- Whenever possible, mobilize two operators for the deployment of the drone from a moving vehicle.
- If only one operator is available, favor the **Take-off from a moving vehicle** procedure.
- If required by **FreeFlight 6 USA** and whenever possible, carry out the magnetometer calibration of the drone far away from any metallic mass.
- When preparing a deployment from a ship or an armored vehicle, always keep your powered-on drone in your hand, away from the floor of the ship or the roof of the vehicle.
- The GPS fix is not mandatory to deploy the drone from a moving vehicle, but it is always recommended.
- In the unlikely situation where the drone becomes disoriented after a launch or a take-off from a moving vehicle (uncontrolled rotation), quickly and firmly take back the commands of the drone in rotation and elevation (left joystick laterally and upward in default mode) to retrieve flight control.

Hand launch from a moving vehicle

Parrot recommends mobilizing two operators for this procedure: one operator launches the drone while another operator controls the drone with both joysticks of the **Skycontroller**.

Warning: Be especially careful when hand launching ANAFI USA from a moving vehicle. It requires complete focus. Do not allow yourself to become distracted and stay aware of your surroundings.

Activate the hand launch option from the "*Interface*" menu of **FreeFlight 6 USA**'s "*PREFERENCES*" (for further details, refer to the "*PREFERENCES* – *Interface*" section of this guide).

Press \bigcirc **Power** to power on ANAFI USA and position the drone in the palm of the operator's hand. On the screen, the green **TAKE OFF** box has been replaced by a blue **HAND LAUNCH** box.

Important: Stabilize the speed and direction of the vehicle as much as possible. The maximum vehicle speed for this feature is 30 km/h in a straight line. Do not operate this feature in wind or downwind.

Press **Take-Off/Land** on the **Parrot Skycontroller** or activate the launch directly from the blue **HAND LAUNCH** box on the screen. Motors and propellers start to rotate slowly, and an animation on screen confirms the activation of a hand launch.

When the propellers' speed has stabilized:

- 1. Briefly and rapidly lift ANAFI USA upward with your open hand, and toward a direction free of all obstacles.
- 2. Immediately push the left joystick of the **Skycontroller** (elevation) upward (default control mode) to give altitude to the drone's altitude.
- 3. If possible, monitor the behavior of the hovering drone for 10 to 30 seconds before beginning the mission, to confirm the convergence of all sensors' estimates.

Standard take-off from a moving vehicle

Warning: Be especially careful when performing a standard take-off from a moving vehicle. It requires complete focus. Do not allow yourself to become distracted and stay aware of your surroundings.

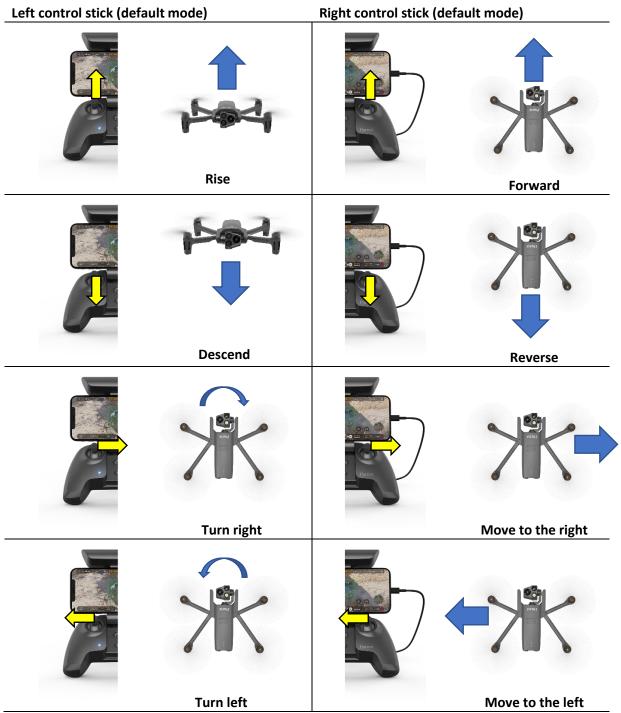
Press ${}^{\bullet}$ **Power** to power on ANAFI USA and position the drone in the palm of your hand.

Important: Stabilize the speed and direction of the vehicle as much as possible. The maximum vehicle speed for this feature is 30 km/h in a straight line. Do not operate this feature in wind or downwind.

- 1. Press ◆ Take-off/Land on Parrot Skycontroller, or activate the take-off directly from the green "TAKE OFF" box of the screen;
- 2. immediately push the left joystick of the **Skycontroller** (elevation) upward (default control mode) to give altitude to the drone;
- 3. if possible, monitor the behavior of the hovering drone for 10 to 30 seconds before beginning the mission, to confirm the convergence of all sensors' estimates.

Deactivate the hand launch option from the "*Interface*" menu of **FreeFlight 6 USA**'s "*PREFERENCES*" (for further details, refer to the "*PREFERENCES* – *Interface*" section of this guide).

Flying



You can modify ANAFI USA's controls through the PREFERENCES menu of **FreeFlight 6 USA**. Refer to the *"PREFERENCES / Controls"* section of this guide for additional information.

As a safeguard measure, ANAFI USA is programmed to instantly cut its motors in case of impact on one of its propeller blades: always control your drone carefully.

Optimal speeds

Refer to the *"PREFERENCES / Presets"* of this guide for additional information about the settings of the flight behavior of the drone. Among these settings, two precise values enable you to optimize either ANAFI USA's flight time, or the distance it can cover on a single battery.

Optimal autonomy (flight time)

At full throttle, a 9° inclination angle (pitch) enables ANAFI USA to maintain a 6 m/s horizontal speed. This speed, maintained on a full flight, guarantees the longest autonomy for the drone.

Optimal elongation (distance)

At full throttle, 22° inclination angle (pitch) enables ANAFI USA, at full throttle, to maintain a 12 m/s horizontal speed. This speed, maintained on a full flight, enables the drone to cover the longest distance, on a single battery.

Wi-Fi link optimization

ANAFI USA's ecosystem is designed to optimize, in real time, the Wi-Fi communications between the **Parrot Skycontroller** and the drone. By default, the ecosystem automatically selects the most efficient Wi-Fi channel available.

In urban environments, 5 GHz Wi-Fi channels typically suffer less interference than 2.4 GHz channels. Refer to the *"PREFERENCES / Network"* section of this guide for additional information on Wi-Fi channel management and allowing automatic switching to 5 GHz channels.

To maintain an optimal Wi-Fi link between the remote control and the drone, remember to keep a clear line of sight between them, and always direct the antennas of the **Parrot Skycontroller** toward ANAFI USA.

Several **FreeFlight 6 USA** alerts enable you to react before a complete loss of Wi-Fi link. If the connection breaks down, ANAFI USA automatically initiates a RTH procedure. By default, the drone flies upward to 30m and starts flying toward its take-off position.

In most cases, this behavior enables a very fast recovery of the Wi-Fi link between the remote control and the drone, and pilots regain full control of the flight.

Refer to the *"Returning home"*, *"Smart RTH"*, *"Coordinates and advances RTH settings"* and *"PREFERENCES – Safety"* sections of this guide for additional information on RTH configuration.

Refer to the following table for FreeFlight 6 USA Wi-Fi statuses and the corresponding icons.

((i	The Wi-Fi link is perfect.
(ţ,	The Wi-Fi link is good.
(((.	The Wi-Fi link is poor.
	The Wi-Fi link is about to lose connection.

Warning: Never fly your drone out of your direct line of sight unless special authorization has been granted.

Returning home

To return ANAFI USA to its take-off position, press \bigcirc **RTH** on your **Parrot Skycontroller**, or tap the \bigcirc **RTH** on your screen.

ANAFI USA rises to 30 meters higher than the take-off point height and returns to hover over its take-off position.

Note: The default setting is 30 meters over the take-off point, but you can configure the height to between 20 and 100 meters through **FreeFlight 6 USA**.

Refer to the *"PREFERENCES – Safety"* section of this guide for further instructions on RTH configuration.

Precise Home Setting

When flight conditions are optimal at take-off, ANAFI USA can set a "precise home" for itself, through its vertical camera. In that case, a pop-up on the screen of **FreeFlight 6 USA** confirms a precise home has been set, and the home icon of the minimap turns green.



Android "Precise Home Set" pop-up

Smart RTH

ANAFI USA features a Smart RTH capability which considers its altitude and distance from its take-off point. The drone computes in real time, the battery power it requires to return home, or to the pilot, or to a custom location (refer to the "*PREFERENCES - Safety - Advanced RTH settings*" of this guide for additional details on this feature).

When the battery charge level becomes low, **FreeFlight 6 USA** alerts you that it will enter Smart RTH mode.

If you feel confident you can return ANAFI USA to its take-off point, or if you wish to land it at a different location, you can cancel the Smart RTH directly from the alert pop-up.

Coordinates and advanced RTH settings

ANAFI USA features a fly-by-coordinates function which allows you to instantly display, reuse and share any coordinates in the surroundings of your drone, or the GPS position of your drone itself. This is especially useful to precisely locate any point of interest or person ANAFI USA has detected.

This section explains how to access coordinates on the **FreeFlight 6 USA** app map, in flight or to prepare a flight. They both follow the same simple procedure.

It then presents the advanced RTH function of the drone, and notably the custom RTH option, which relies on managing coordinates.

Managing coordinates

By default, coordinates are displayed on the **FreeFlight 6 USA** app map. They can be set as:

- latitude and longitude (LATLNG: default value)
- MGRS (Military Grid Reference System: NATO's geocoordinate standard)
- UTM (Universal Transverse Mercator)
- DMS (degree, minute, second of arc)

Refer to the "PREFERENCES – Interface – Coordinates system setting" section of this guide

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for information on selecting a coordinates system.

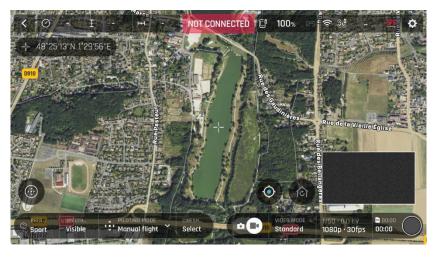
In the following example, the coordinates system is set as DMS. The drone is offline, and the device is connected to local Wi-Fi.



Offline FreeFlight 6 USA interface: tap minimap to open full screen (iOS)

Tap **FLY** from the **FreeFlight 6 USA** homepage.

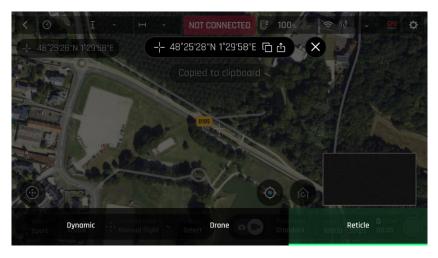
Tap the minimap on the bottom center of the offline interface to access the full screen map.



Reticle (crosshair) at the center of the screen, coordinates top left (iOS)

By default, "Reticle" (crosshair at the center of the screen) coordinates are displayed on the top left of the screen.

Move the map around and zoom in to pinpoint any spot, then tap the coordinates box to activate coordinates options.



Coordinates options, copy activated (iOS)

Tap \square **Copy** to copy coordinates to clipboard – and reuse as custom RTH point, for instance. Note the faint **Copied to clipboard** notification on the latest screen capture. Notification position and format differ from one device operating system to another.

Note the options at the bottom of the screen (tap to select):

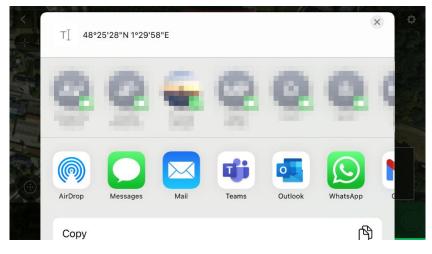
- Reticle (default):
- Drone:

displays center of the map coordinates displays drone coordinates (when online) or its last known position (when offline) on some devices displays drone, POI or WP coordinates (autonomous or

- Dynamic:

assisted flights only*)

*Refer to the "Map based flying modes" section of this guide for further information on autonomous and assisted flights.



Sharing options (iOS)

Tap \square from coordinates options to open your device's sharing options, like on the screenshot.

Tap X to exit coordinate options back to the full screen map.

About advanced RTH settings

Activate advanced RTH settings through the Safety Preferences of **FreeFlight 6 USA** (refer to the *"PREFERENCES – Safety"* section of this guide for further information).

There are two advanced RTH options: Pilot, and Custom.

Important: By activating advanced RTH features, the drone might not be able to reach its destination in case of low battery, if you select return to **Pilot**, or a **Custom** position. Parrot will not be held responsible in the event that the drone lands in a different location.

<		PREFERENCES			
< ♀ Controls				LANDING	
\odot	Hovering altitude	2 m —			
Presets	Advanced RTH settings	NO		YES	\bigcirc
Interface			1		
S afety	Return position	Take-off Caution: if you move too f	Pilot ast, the drone might not t osition in case of low batt	Custom le able to reach your cu ery.	urrent
Camera		RESET ALL SAFETY P	REFERENCES		

Advanced RTH settings activated (iOS)

Pilot RTH

When you select the **Pilot** advanced RTH option, ANAFI USA returns to the GPS position of the **Parrot Skycontroller** at the exact moment an \bigcirc **RTH** button is activated, or to the last known coordinates of the controller, in case it has lost GPS synchronization.

For this reason, we recommend ANAFI USA pilots remain in the same location, after they have activated an 🕒 **RTH** button, when in **Pilot** advanced RTH mode.

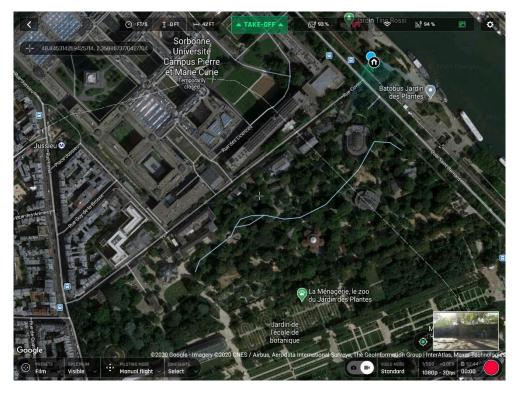
Custom RTH

When you activate the **Custom** advanced RTH option, set up ANAFI USA for a flight and it has a GPS synchronization, the current position of the drone appears in the "Custom point" field by default.

There are two ways to change this custom point.

- Paste the coordinates you copied from the map of **FreeFlight 6 USA** refer to the earlier section of this guide.
- If you set up your drone for a flight, apply the following simple procedure to move the **Home** icon directly on the map of **FreeFlight 6 USA**.

ANAFI USA



Initial home, at flight setup (Android tablet)

The **Home** icon appears close to the drone icon, or exactly over the drone icon if the 1st GPS fix at power up was excellent, like in our example. The blue dot shows the position of the controller which is typically the pilot.

Tap the **Home** icon to activate it, then drag and drop it to your desired RTH point.



Home icon activated, ready to be dragged and dropped (Android tablet)

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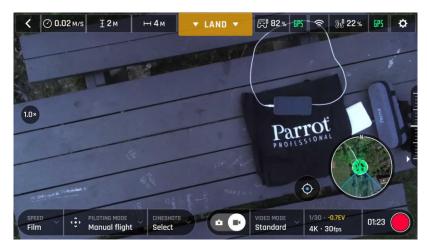
In our example, we set up for a flight at a corner of a park, and planned an RTH over an open area, close to the center of the same park.



Custom RTH point set (Android tablet)

Access Safety Preferences again and note the Custom point coordinates have been updated.

Landing



Setting up for landing, Android

Fly ANAFI USA directly over a flat, even, and clear surface, then press the (*) button, or tap the orange **LAND** box on the screen of your device.



ANAFI USA lands.

Precise Landing, Android

Recovery from a moving vehicle

Warning: Be especially careful when recovering ANAFI USA from a moving vehicle. It requires complete focus. Do not allow yourself to become distracted and stay aware of your surroundings. Always wear a strong glove to recover ANAFI USA

Parrot recommends mobilizing two operators for this procedure: one operator pilots the drone, the second operator recovers ANAFI USA.

Before performing a drone recovery, reduce and stabilize the vehicle's speed as much as possible.

The pilot must present the rear of ANAFI USA on the side of the vehicle where the recovery operator is waiting for it.

To do so, the pilot must synchronize the lateral speed of the drone with that of the vehicle, and the altitude of the drone with that of the hand of the recovery operator.

When the drone is within the recovery operator's reach, open hand, palm facing upward, he grabs the battery of the drone, from the bottom, under the drone's arms, between the thumb and the four other fingers.

Performing a quick wrist motion, the recovery operator turns the drone upside-down. ANAFI USA motors cut instantaneously.

Hand landing

Warning: Be especially careful when performing a hand landing procedure. It requires complete focus. Do not allow yourself to become distracted and stay aware of your surroundings.

Fly ANAFI USA at least 50 cm directly over your open hand then press \clubsuit Take-off/Land or tap the orange LAND box on the screen. ANAFI USA lands on your hand.

Caution: In environments with sand, use hand landing, instead of ground landing to prevent sand from penetrating the motors.

Replacing propeller blades

Propeller blades are instrumental for flight integrity, and they are delicate pieces of equipment. Even minor contacts with external elements, such as walls, tree branches, etc., can damage their structure. Damage is not necessarily visible.

Parrot recommends you immediately replace propeller blades if they sustain such a contact.

Note: ANAFI USA propeller blades can be replaced instantly without tools.

To replace a propeller blade:

- 1. Unfold the arm that supports the blades which require replacement.
- 2. Hold the motor (round rotating part) of the propeller between your left thumb and index finger.
- 3. Unfold the blades and pinch the part which screws onto the motor, between the blades, with your right thumb and index finger.

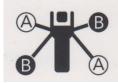
A. blades: unscrew damaged A blades (left front & right back) counterclockwise and screw new ones clockwise.



B. blades: unscrew damaged B blades (left back & right front) clockwise and screw new ones counterclockwise.



Verify that your blades respect the following diagram before setting up ANAFI USA for its next flight.



Smart LiPo Battery

One smart battery comes preinstalled on the ANAFI USA. You can charge the smart battery when installed on ANAFI USA, or when removed from ANAFI USA. If you remove the battery, you must reinstall it in the same orientation. Ensure that you do not install the battery upside down as it can expose the battery and the drone to irreparable electrical damage. Always use genuine Parrot smart batteries. Non-genuine batteries are forbidden, and their use will void the warranty and impact safety requirements.

Important: The LEDs and ${}^{\circlearrowright}$ **Power** button face up in the correct orientation.

Important: Do not apply pressure or touch the drone's gimbal when you handle ANAFI USA.

Note: LiPo batteries gradually lose capacity after 300 charge/discharge cycles.

Battery removal

To remove the smart battery from the drone, unfold the rear arms of ANAFI USA. Set the drone on a flat and even surface and press the push-button which connects the battery to the body of the drone with your thumb. Gently slide your thumb and the battery toward the back of ANAFI USA. When the hook of the push-button is disengaged from the body of the drone, lift the battery away from ANAFI USA.

Battery installation

To install the smart battery on the drone, unfold the rear arms of ANAFI USA. Set the drone on a flat and even surface and position the battery's three hooks into the drone's corresponding slots. Place your middle finger on the Parrot logo of ANAFI USA and your thumb on the back of the smart battery. Squeeze your fingers together until you feel and hear the battery clicking into the body of the drone.

Battery charging

To charge the smart LiPo battery, use the enclosed USB-A to USB-C cable to connect the battery to its enclosed charger. Alternatively, this cable enables you to charge the battery from:

- a tabletop or laptop computer's USB-A port.
- a power bank's USB-A port.

Indicative full charging times depending on power sources at 20°C are as follows:

 enclosed charger: between 200 and 240 minutes;
 a computer's/ power bank's USB-A port: between 300 and 350 minutes

ANAFI USA's smart battery can also be recharged through a Power Delivery adapter or charger (USB-PD standard), using a USB-C to USB-C cable (not included in the box). In that configuration, full charging time of the battery can be reduced to 115 minutes.

Important: Parrot does not recommend ANAFI USA users to invest in a USB-PD power

bank, as not all of them support USB-C to USB-C charging of ANAFI USA's battery. Due to the nature of the USB-C technology, some USB-PD power banks recharge on ANAFI USA's smart battery, rather than the other way around.

Warning: Other generic USB chargers may be used provided that they are certified according to the country of use, and have the applicable rating/specification. Performance and warranty are only guaranteed when using the genuine charger included in the Parrot drone system.

When ANAFI USA's smart LiPo battery is plugged to a power source and charging, its 4 LEDs indicate in real time the charge level:

- LED 1 flashing: - LED 1 steady, LED 2 flashing: battery is between 25 - 50% charged; - LEDs 1 & 2 steady, LED 3 flashing: battery is between 50 - 75% charged; - LEDs 1, 2 & 3 steady, LED 4 flashing: - battery is plugged, all LEDs are off: battery is full. When your battery is not installed on ANAFI USA, you can check its charge level at any time by pressing its power button:

 1 steady LED lights up: 	battery is between 0 - 25% charged;
 2 steady LEDs light up: 	battery is between 25 - 50% charged;
 3 steady LEDs light up: 	battery is between 50 - 75% charged;
 4 steady LEDs light up: 	battery is between 75 - 100% charged.

When the smart LiPo battery is installed on the drone, and when ANAFI USA is powered on, the number of steady LEDs enables you to estimate your remaining flying time:

- 1 steady LED is lit:
- 2 steady LEDs are lit:
- 3 steady LEDs are lit:
- 4 steady LEDs are lit:

less than 8 minutes flight time remain; 8-16 minutes flight time remain; 16-24 minutes flight time remain; 24-32 minutes flight time remain.

Battery update

ANAFI USA smart batteries can be updated, like the drone itself, its controller and its controlling software FreeFlight 6 USA. When a battery update is available with a FreeFlight 6 **USA** release, a message appears in the app.

Follow the in-app instructions to update your battery.

Warning: Keep your battery plugged into a power supply throughout the software update procedure. Repeat the procedure with all your batteries.

Battery care and safety

ANAFI USA's smart battery features a wintering mode, designed to increase its durability and facilitate its care. Ideally, when not in use for a prolonged period, batteries should be stored half-charged. When not in use for 10 days, ANAFI USA's smart battery discharges

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battery is between 0 - 25% charged; battery is between 75 - 100% charged; itself, if required, to 65% charge, over a 48h period.

After a maximum of 12 days without use, the smart battery enters hibernation with a charge level which never exceeds 65%. If you leave your ANAFI USA battery for 12 days, the power button does not activate the charge level LED indicators. The battery must be charged to exit the wintering mode and start operating as described in the earlier paragraphs. This behavior preserves the battery over time. Parrot recommends you always run a full charge of your smart battery before flying ANAFI USA.

ANAFI USA's smart battery must be handled, transported and stored with care:

- never leave a battery unattended while charging;
- never expose a battery to extreme temperatures, neither hot, nor cold;
- never charge a battery which is still warm from use (wait for at least 20 minutes);
- never use or recharge a damaged or swollen battery;
- always store your battery in a dry, ventilated place, at a temperature close to 20°C;
- always carry your battery in a fire-retardant bag or case (unless it is installed on ANAFI USA: it can then be transported with the drone, inside its carrying case).

Note: ANAFI USA's smart battery can only charge in ambient temperatures between +10°C and +45°C. Flying time is reduced if you use ANAFI USA in temperatures approaching -10°C. The ideal operating temperature of the smart battery is 20°C. Ensuring that the smart battery remains as close as possible to 20°C before starting a flight minimizes the reduction in the smart battery's capacity in cold environments.

If the behavior of your battery is not consistent with the information in this section, and if the battery does not power your ANAFI USA, you must hard reset your battery.

To perform a battery hard reset:

- 1. Plug the battery into a power source with the enclosed cable,
- 2. Press the battery's power button pressed for 15 seconds (regardless of the behavior of the LEDs) and then release the button.

The hard reset is successful if the battery's LEDs flash quickly, one after the other, alternating green and red.

Micro SD card and media management

This section explains how to install a microSD card inside ANAFI USA and how to retrieve your media from the microSD card.

Installing a microSD card

To install a microSD card into its slot, you must remove the battery from the drone. Refer to the *"Battery removal"* section of this guide for details.

When you remove the battery from the body of the drone, you uncover the microSD slot, which is protected by a small metal lock.

Slide the metal lock with a finger toward the back of ANAFI USA to open it, you will feel a slight click. Lift the front part of the lock to open the slot. Position the microSD card into its keyed slot. Ensure that the metal contacts of the card are facing down and set on the contacts of the drone. The shortest side of the microSD card must face toward the back of the drone.

Tilt the metal lock over the microSD card. Press a finger gently on the lock and slide it toward the front of ANAFI USA to close and lock it, you will feel a slight click. A closed lock icon and an arrow, located on the right of the microSD slot, confirm the way you must slide the lock to close it.

Retrieving photos and videos

Use a microSD to SD card adapter to transfer videos and photos you have taken with ANAFI USA to your computer. Slide the microSD card into the adapter and use the adapter how you would use any other SD card. Access your videos and photos through a card reader or the SD card slot of your computer. Copy your videos and photos to the hard drive of your computer to edit, store, and manage your media.

Tip: Parrot recommends you backup your photos and videos, and you empty your microSD card after each flight, to ensure you always have available memory space to capture new still or moving images.

Compatible microSD cards

Refer to Parrot online documentation for an updated list of compatible microSD cards.

Direct media retrieval (drone to computer)

You can also retrieve your media directly from ANAFI USA, without extracting the microSD card.

Use an enclosed USB-A to USB-C cable to connect the drone (USB-C) to a USB-A port of your computer. Press "O" **Power** to power on ANAFI USA.

ANAFI USA mounts as an external drive. Copy your media from the DCIM/100MEDIA directory to your computer's hard drive.

When you finish managing your media, eject ANAFI USA as any other external drive.

Note: When plugged in to a computer and powered on, ANAFI USA's battery discharges itself. You must recharge your smart battery after you retrieve your media, even if the battery was fully charged when you began the procedure.

FreeFlight 6 USA Gallery

Finally, you can manage your media and download them directly from ANAFI USA to your device with the Gallery of **FreeFlight 6 USA**.

The Gallery also lets you:

- preview videos, without downloading them to your device;
- create panoramas (refer to the "Creating panoramas" section of this guide for additional details);
- format a microSD card;
- encrypt a microSD card (refer to the next sections of this guide for additional details).

To access the Gallery from the homepage of **FreeFlight 6 USA**, either tap the **microSD card** box, on the top bar of the interface, or tap the **Gallery** box, at the center of the interface.

If ANAFI USA is powered on and connected to the device (directly or through the **Parrot Skycontroller**, the **FreeFlight 6 USA** Gallery displays the microSD card media, by default.

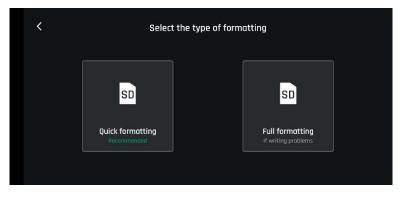
Tap any media to preview it.

Tap any green media download box to transfer the corresponding media to your device.

Access the media you have downloaded to your device by tapping the Local box, at the top of the interface.

MicroSD card formatting

Tap the **Format SD card** button of the SD Card screen of **FreeFlight 6 USA** Gallery to access formatting options. Select one of the following options:



Confirm your selection from the next screen to launch the formatting.

Important: Both options delete all microSD card contents, including flight data.

MicroSD card encryption

Encrypting a MicroSD card implies its formatting and the loss of all data present on the card memory.

Tap the **Encrypt SD card** button of the SD Card screen of **FreeFlight 6 USA** Gallery to access the encryption profile creation page.

<	🔦 Create profile		
By encrypting the SD cc other wa	rd, oll data available on this support will be del y than this installation of FreeFlight 6 will requi	eted. Using this SD card by any ire the password.	
Profile name	ANAFI_USA_test	Note: default's name is the drone's SSID	
Password		GENERATE PASSWORD	
	ENCRYPT SD CARD		

Confirm or type a profile name.

Type your own Password or tap GENERATE PASSWORD.

Tap **ENCRYPT SD CARD** to launch encryption.

The following screen confirms an Encryption profile has been applied to the SD card:

SD CARD LOCAL	
No medias SD card is empty. Fly your drone and shoat great videos and photos.	SD card ① 16.0/16.0 gb free ■ 0 ▲ 0 DNG 0 □ 0 ∑ 0 © 0 □ 0 ■ 0
Next time you visit they'll be stored here.	ERASE ALL FORMAT SD CARD MANAGE ENCRYPTION PROFILE

A MicroSD card encrypted by ANAFI USA is unreadable without the associated Encryption profile.

The Encryption profile is held by the version of **FreeFlight 6 USA**, thus by the device with which the encryption has been carried out.

Consequently, if a drone is destroyed, its MicroSD card can only be decrypted through another ANAFI USA drone paired to a **Skycontroller** associated to the device holding the instance of **FreeFlight 6 USA** with which the encryption was performed.

Introducing FreeFlight 6 USA

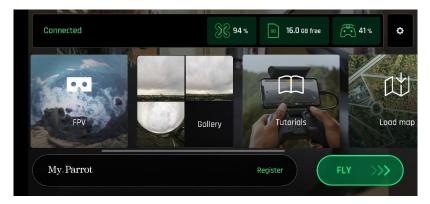
The HUD (heads-up display) interface of **FreeFlight 6 USA** enables you to access all the features of ANAFI USA, from the screen of your device.

This section explores **FreeFlight 6 USA** functions, starting with a presentation of the top and bottom bars of the HUD (iOS and Android).

Access the HUD by tapping FLY on the bottom right of the homepage of FreeFlight 6 USA

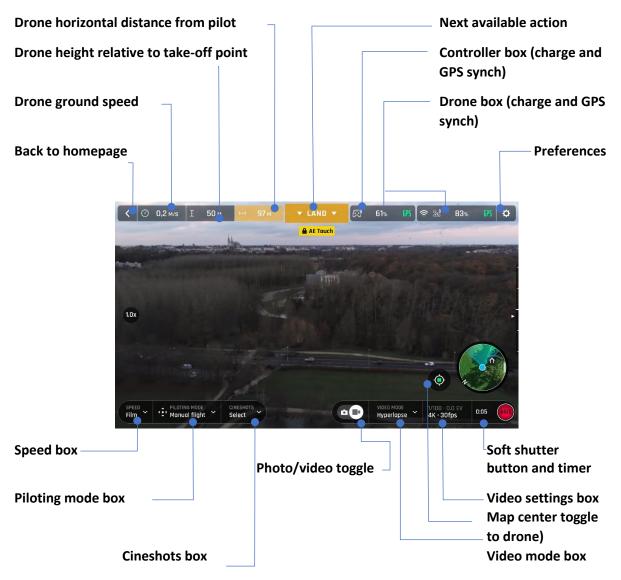


iOS FreeFlight 6 USA homepage



Android FreeFlight 6 USA homepage

Presentation of the iOS HUD (video mode view)



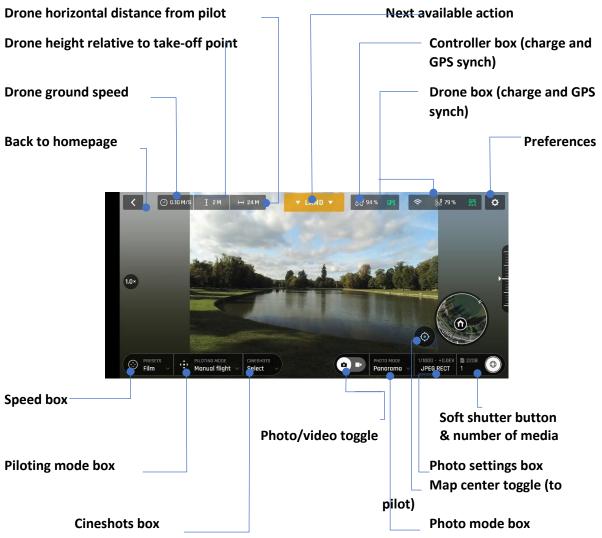
Here is an overview of your drone's current piloting, Cineshots, Dronies, and video modes.

Piloting modes:	Manual flight Cameraman Follow Me Smartdronies FPV	Cineshots:	360° (left & right) Reveal (30 & 60m) Spiral (30 & 60m) Epic (30 & 60m)
	Flight Plan	Smartdronies	s Orbit
	Touch & Fly: Waypoint & POI	&	Parabola
		POI Dronies	Dolly Zoom
Video modes:	Standard		Boomerang
	Cinema		
	Hyperlapse	Follow Me	Orbit
	High-Framerate	Dronies	Parabola
	Slow Motion		Tornado
			Boomerang

The Android HUD of **FreeFlight 6 USA** displays strictly the same information, buttons, toggles, and menus as the iOS HUD, in the same way – despite slight cosmetic differences.

Note: Both GPS icons are green, on both screen captures (iOS and Android screen presentations). This means that the device and ANAFI USA are both synchronized to enough GPS, Glonass and Galileo satellites to optimize the stability of the drone, especially at higher altitudes.

Parrot recommends you always verify that both your **FreeFlight 6 USA** HUD's GPS icons are green (and not red), before you make your ANAFI USA take off.



Presentation of the Android HUD (photo mode view)

ANAFI USA's photo modes include a Single shot mode, a Burst mode, a Bracketing mode, a Timer mode, a Timelapse mode, a GPS Lapse mode and a five-format Panorama mode.

The Android HUD of **FreeFlight 6 USA** displays strictly the same information, buttons, toggles, and menus as the iOS HUD, in the same way – despite slight cosmetic differences.

Note: Both GPS icons are green, on both screen captures (iOS and Android screen presentations). This means that ANAFI USA and the Device are both synchronized to enough GPS, Glonass and Galileo satellites to optimize the stability of the drone, especially at higher altitudes.

Parrot recommends you always verify that both your **FreeFlight 6 USA** HUD's GPS icons are green (and not red), before you make your ANAFI USA take off.

Preferences

Access **FreeFlight 6 USA** preferences through the icon on the extreme right of the top bar of the homepage, or that of the HUD. Preferences enable you to fine-tune ANAFI USA to your hand – to customize it, to fit your piloting and filming styles.

Access Preferences submenus from the boxes on the left of the screen. Tap a box to select it and access its items.

For all items, default values (DV) are marked in bold characters.

Controls

The Controls preferences set the way the Skycontroller behaves. It also enables you to activate the **Hand-launch** option.

Tap an item option to select it.

- Control mode CLASSIC / ARCADE (only available in flight
--

- Inverse joys OFF (white) / ON (green)
- Special **OFF** (white) / ON (green)
- EV Trigger **OFF** (white) / ON (green)
- Hand-launch NO / YES

About EV Trigger

When activated, the EV Trigger enables you to control the EV (exposure value) directly from the zoom (right) trigger of the **Parrot Skycontroller** (refer to the *"PARROT SKYCONTROLLER 3 PRESENTATION"* or the *"PARROT SKYCONTROLLER 4 PRESENTATION"* section of this guide for additional information). With this setting, you can manually modify your EV from -3.0 to +3.0 by increments of 0.3, which automatically impacts the shutter speed ("s" value) of the camera.

Tap **RESET ALL CONTROL PREFERENCES** on the bottom of the page to reset preferences.

Presets

The Preset preferences allow you to adapt the flight behavior of ANAFI USA for each of four modes ("FILM", "SPORT", "CINEMATIC" and "RACING").

Tap an item option to select it.

Global reactivity	1% to 100% (DV: 15% for FILM & CINEMATIC ;
	20% for SPORT; 30 % for RACING)
Horizon	FIXED / DYNAMIC (DV: FIXED for FILM & SPORT ;
	DYNAMIC for CINEMATIC & RACING)
Camera tilt speed	1°/s to 180°/s (DV: 10°/s for FILM & CINEMATIC;
	20°/s for SPORT & RACING)
Banked turn	NO / YES (DV: YES for FILM , CINEMATIC & RACING ;
	NO for SPORT)
Inclination	1°/s to 40°/s (DV: 10°/s for FILM; 20°/s for CINEMATIC;
	25°/s for SPORT & RACING)



Vertical speed	0.1m/s to 4m/s (DV: 1m/s for FILM ; 2m/s for SPORT; 2.5m/s for CINEMATIC ; 3m/s for RACING)
Rotation speed	3°/s to 200°/s (DV: 10°/s for FILM ; 20°/s for SPORT & CINEMATIC ; 40°/s for RACING)

horizon and Banked turn

Refer to in-app information for details about these features.

Note: Global reactivity, Inclination, Vertical speed and **Rotation speed** values have the biggest impact on ANAFI USA's acceleration and general flying behavior. Corresponding sliders turn to orange instead of green to warn users the settings they have selected require extreme care, superior piloting skills, or both, when flying ANAFI USA. Your drone will always remain very responsive, but with extreme settings, it will accelerate much more rapidly.

Tap **RESET ALL PRESETS PREFERENCES** on the bottom of the page to reset the corresponding Mode to its default values.

Tap **RESET ALL PRESETS PREFERENCES** in each Mode to revert all Modes to their default values.

Thermal

The **Thermal** preferences deal with specific thermography settings.

Tap an item option, use "<" or ">" and "+" or "-" to change values.

- Color gradient **Fusion** / Rainbow / White Hot / Black Hot
- Thermal post-processing NO / YES
- Thermal sensor calibration AUTO / MANUAL
- Temperature range **DEFAULT** / VERY HIGH TEMPERATURES

Thermal post-processing

NO is recommended for real time operations; **YES** is recommended for post flight analysis operations – refer to in-app information for details.

Thermal Thermal Thermal streaming recording streaming recording	Info: Thermal post-processing	
320x256 px 320x256 px 160x128 px 320x256 px		
Post-processing: OFF Post-processing: ON		
processing editing of the thermal gradient andbut the video recorded will have the samesettings won't be available.320x356 resolution. The thermal settings ca	The resolution of the thermal stream is lower,	

Thermal calibration

AUTO mode is recommended for most users. If you select the **MANUAL** mode, the application will periodically remind you to calibrate your thermal camera, through the dedicated is button of your HUD.

Tap **RESET THERMAL SETTINGS** on the bottom of the page to reset preferences. This button also reinitializes thermal Spot and Absolute scales to default values, as well as visible and thermal images blending.

Interface

Interface preferences set the amount of information which appear on your **FreeFlight 6 USA** HUD.

Show minimap Display GPS position Coordinates system Map type Show framing grid Measurement system FPV Goggles	NEVER / WITH CONTROLLER / ALWAYS YES / NO LATLNG / MGRS / UTM / DMS MAP / SATELLITE / HYBRID NO / 3x3 / 6x6 AUTO / IMPERIAL / METRIC Tap CHANGE to access the following options: Parrot – CockpitGlasses 1/Homido Parrot – CockpitGlasses 2/Merge VR
	•
	Parrot – CockpitGlasses 3/BNext
	Google – DayDream View/Skillkorp VR5
	Homido V2/Zeiss VR One
	Homido Prime

Tap **TEST** to verify the rendering of your selection.

3x3 framing grid

The 3x3 framing grid facilitates building entries, through doors or windows.

Coordinates systems

LATLNG stands for latitude and longitude; the Military Grid Reference System (MGRS) is NATO's geocoordinate standard; UTM stands for Universal Transverse Mercator; DMS (or D°M'S") stands for degree, minute, second (of arc).

Tap **RESET ALL INTERFACE PREFERENCES** on the bottom of the page to reset preferences.

Safety

Through Safety preferences, you can set a safe and clear flying area for ANAFI USA.

Set ANAFI USA's maximum flight altitude with the **Max altitude** slider.

To set a maximum distance from the pilot for your drone, move the **Max distance** slider to the required value.

When the Geocage is activated, ANAFI USA will automatically stop when it reaches the maximum altitude or the maximum distance you select. A red prompt will also appear on your HUD.



Geocage Max altitude Max distance Minimum altitude when using RTH End behavior Hovering altitude Advanced RTH settings NO / YES 1m to 150m (DV: 30m) 10m to 4 km (DV: 300m) 20m to 100m (DV: 30m) HOVERING / LANDING 1m to 10 m (DV: 2m) NO / YES

Note: By activating advanced RTH features, if you select return to **Pilot** or **Custom** position, the drone might not be able to reach its destination in case of low battery. Parrot will not be held responsible in case the drone lands in a different location.

Return position

TAKE-OFF / PILOT / CUSTOM

End behavior and Hovering altitude

Parrot recommends ending RTH sequences by hovering (default value) as it enables the pilot to control the end of the flight. However, for missions at sea, Parrot recommends you modify the hovering altitude over 2m (default value). Up to 2m, at the end of the RTH, the drone will compute its height over the ground, with its ultrasonic sensor. Above 2m, it will compute its height over its take-off point, with its barometer.

For example, if the drone takes off from the deck of a ship, 40m above the sea level, with a hovering altitude set at 2m, at the end of the RTH, the drone will look for the ground and could stop 2m above the surface of the sea.

If it takes off with a hovering altitude set at 3m, it will stop 43m (40 + 3) above the surface of the sea.

Tap **RESET ALL SAFETY PREFERENCES** on the bottom of the page to reset preferences.

Camera

Camera preferences enable you to select camera options, both in photo and video modes.

Camera calibration	Tap CALIBRATE to access Correct horizon, Gimbal
	calibration and Cameras alignment features
Auto record from take-off	NO / YES (video only)
Display overexposure	NO / YES
Anti-flickering	NO / AUTO / 50Hz / 60Hz

Correct horizon

Only resort to the **Correct horizon** and the **Cameras alignment** procedures if you notice your videos and photos are systematically tilted on the same side or if your visible and thermal cameras are misaligned. Refer to the *"Camera calibration"* section of this guide for the detailed procedure.

Overexposure display

When this setting is activated, the HUD of **FreeFlight 6 USA** shows all overexposed areas of the screen as hatched, which enables you to fine-tune your framing, your EV settings, or both.

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Anti-flickering

This setting and the associated technology aim to eliminate the flicker effect which can arise due to some artificial lights. The **AUTO** option should work for most users, but depending on your country, you can try other settings if you feel bothered by a flicker effect on your device's screen, your artificial light videos, or both.

Tap **RESET ALL CAMERA PREFERENCES AND SETTINGS** to reset preferences.

Network

Network preferences let you change your ANAFI USA's Wi-Fi network name, password, and band.

- Broadcast DRI OFF / ON
- Network's name Tap the field to change your ANAFI USA's network name
- Password Tap the field to change your network's password
- Wi-Fi band **AUTO / MANUAL**

Tap **PASSWORD** to define the Wi-Fi key shared by ANAFI USA and the Skycontroller USA. Parrot defines a unique random password for each ANAFI USA and Skycontroller USA package, but Parrot highly recommends you define your own password.

The security of your ecosystem and data depends on the security of this password. Your password be at least 10 characters long, and must use at least 3 types of characters among:

- Uppercase characters,
- Lowercase characters,
- digits,
- special characters.

Direct Remote Identification (DRI)

The DRI system makes your drone locally broadcast information about itself for regulatory compliance (where applicable).

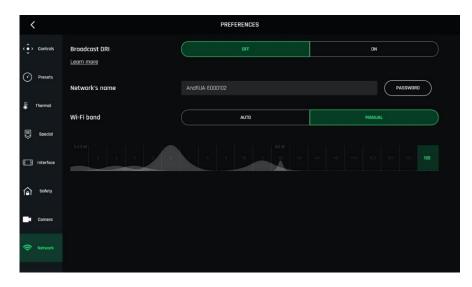
Manual Wi-Fi band setting

Tap the MANUAL tile in Wi-Fi band, then touch a free band to select it.

In urban environments, 5 GHz Wi-Fi channels suffer typically less interference than 2.4 GHz channels. The following table shows the recommended Wi-Fi channels depending on your geographical zone, and environment.

Geographical Zone	Recommended Wi-Fi channels in urban environment	Recommended Wi-Fi channels in non-urban environment
Australia	149 - 165	1 - 11
Canada	149 - 165	1 - 11
Europe	149 - 165	1 - 11
Japan	1 - 11	1 - 11
Singapore	1 - 11	1 - 11
South Africa	1 - 11	1 - 11
South Korea	149 - 165	1 - 11
Taiwan	149 - 165	1 - 11
United Kingdom	149 - 165	1 - 11
Ukraine	149 - 165	1 - 11
United Arab Emirates	149 - 165	1 - 11
United States	149 - 165, (36 - 48 less power)	1 - 11, 149 - 165

To enable the automatic optimization of Wi-Fi communications on the 5 GHz channels, manually select a 5 GHz channel, then revert the Wi-Fi band setting to **AUTO**.



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Videos and Photos

ANAFI USA is equipped with a 3-axis-stabilized gimbal, which delivers sharp motion and still pictures, through two 1/2.4" CMOS 21MP sensors.

The lenses of the cameras include low dispersion aspherical elements, that reduce chromatic aberrations and flare.

Although you can film and take pictures using your device as ANAFI USA's only controller, we recommend you always use the Parrot Skycontroller and your device, for the best controlled, most precise, and safest filming and photos-shooting flights.

Making videos

By default, ANAFI USA and FreeFlight 6 USA are set to start recording a video as soon as ANAFI USA takes off.

However, depending on your filming objectives, ANAFI USA and **FreeFlight 6 USA** offer multiple configurable settings, from full auto to manual professional options.

If required, tap the photo/video toggle in the middle of the bottom bar of the HUD, to circle the film camera (right icon) in white.

There are 2 main filming options accessible from the HUD of FreeFlight 6 USA.

First option:

- 1. Select a **video mode** by tapping the corresponding box of the HUD.
- 2. Tap a video mode to select it and tap the **video mode** box again to confirm your choice.

Second option:

- 1. Select a **video resolution and a framerate** (fps frames per second) value from the corresponding box of the HUD.
- 2. Tap the video settings box to call the individual video resolution and fps boxes.
- 3. Tap the **video resolution box** to access the available video resolutions and tap one to select it.
- 4. Tap the **fps box** to access the available fps values and tap one to select it.
- 5. Tap the video settings box again to close the sub-boxes and confirm your choices.

Available video resolutions and fps values depend on the video mode you select:

Standard:	all-round 4K , 2.7K or 1080p filming, at 24 , 25 or 30fps .
Cinema:	spectacular 4K cinema filming, at 24fps .
Hyperlapse:	time-lapse video with a configurable speed factor (x15, x30,
	x60, x120, x240), in 4K , 2.7K or 1080p , exported at 24 , 25 or
	30fps.
Slow-Motion 1080p	filming at 48 , 50 or 60fps , automatically slowed down by a
	factor of 2 (x0.5) and exported at 24, 25 or 30fps.
Slow-Motion 720p	filming at 96 , 100 or 120fps , automatically slowed down by a
	factor of 4 (x0.25) and exported at 24, 25 or 30fps.
High-Framerate:	1080p filming at 48, 50 or 60fps (ideal for post-processing) and
	720p filming at 96, 100 or 120fps.

In the following screen capture, **Standard video mode** is activated. Available video resolutions are **4K (UHD)**, **2.7K** and **1080p (FHD)**, either in **24**, **25** or **30fps**, which you would find out by tapping **30 fps** on the bottom right of the screen.



iOS Standard video format menu

When you are happy with your settings and your framing, press the hard shutter button on the right of **Parrot Skycontroller** (or tap the soft shutter button of the HUD) to start filming.

The soft shutter button of the HUD animates and displays a cycle between a red square and red circle. The timer starts running.

Press the hard shutter button of the controller (or tap the soft shutter button of the HUD) again to end the recording. The soft shutter button of the HUD comes back to steady red and round. The timer resets.

Taking photos

To access the photo camera of ANAFI USA, tap the **photo/video** toggle in the middle of the bottom bar of the HUD, to circle the photo camera (left icon) in white.

Seven photo modes are available on ANAFI USA: Single shot, Burst, Bracketing, Timelapse, GPS Lapse, and Panorama (5 formats).

ANAFI USA produces three main picture formats:

- rectilinear JPEG (up to 16MP);
- wide 21MP JPEG and DNG (Digital NeGative: Adobe open standard RAW format)
- composite panoramas (JPEG), up to 32MP

Main photography options are accessible from the HUD of FreeFlight 6 USA.

First, select a photo mode by tapping the corresponding box of the HUD.

The options appear on your device. Tap a photo mode to select it and tap the **photo mode** box again to confirm your choice.

When the **Single** mode is selected, the soft shutter button of the HUD appears as a full white circle.

When the **Burst** mode is selected, the soft shutter button of the HUD displays the Burst icon inside a white circle.

Selecting the **Bracketing** mode opens three options: 3 photos (-1 EV, +0.0 EV, +1 EV), 5 photos (-2 EV to +2 EV) and 7 photos (-3 EV to +3 EV). When one of these options has been selected, the soft shutter button of the HUD displays the Bracketing icon inside a white circle.

Selecting the **Timer** mode opens three options: 3 seconds, 5 seconds and 10 seconds. When one of these options has been selected, the soft shutter button of the HUD displays **3 secs**, **5 secs** or **10 secs** inside a white circle, depending on the option which has been chosen.

Selecting the **Panorama** mode opens three options: **Vertical**, **Horizontal** and **360**. When one of these options has been selected, the soft shutter button of the HUD displays the corresponding icon inside a grey (ANAFI USA landed) or white (ANAFI USA flying) circle.

The Panorama mode is the only photography mode which requires the drone to be flying before you can activate the shutter. Refer to the next section, "Generating Panoramas", for additional details about the **Panorama** mode.

Selecting the **Timelapse** mode opens six options: 5 secs, 10 secs, 15 secs, 30 secs, 60 secs, and 120 secs. When one of these options has been selected, the soft shutter button of the HUD displays a Timelapse icon.

Selecting the **GPS Lapse** opens six options: 5m, 10m, 20m, 50m, 100m, and 200m. When one of these options has been selected, the soft shutter button of the HUD displays a GPS Lapse icon.

Second, select a **photo format** from the corresponding box of the HUD.

Tap the **photo settings** box to call the **photo settings** boxes.

Tap the last box on the right of the screen to access the **available photo formats**.



Available photo formats for each photo mode are as follows:

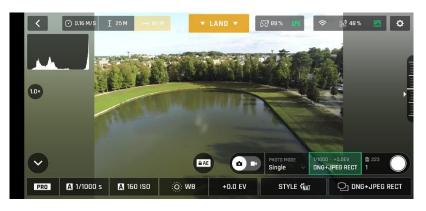
Single	JPEG RECT, JPEG WIDE, DNG+JPEG (RECT or WIDE)
Burst	JPEG RECT, JPEG WIDE
Bracketing	JPEG RECT, JPEG WIDE, DNG+JPEG (RECT or WIDE)
Timer	JPEG RECT, JPEG WIDE, DNG+JPEG (RECT or WIDE)
Panorama	JPEG RECT only
Timelapse:	JPEG RECT, JPEG WIDE, DNG+JPEG (RECT or WIDE)
GPS Lapse:	JPEG RECT, JPEG WIDE, DNG+JPEG (RECT or WIDE)

Tap a format (JPEG RECT, or JPEG WIDE if available, or DNG+JPEG if available) to select it.

Tap the photo settings box again to close the sub-boxes and confirm your choice.



Android photo formats: DNG+JPEG WIDE



Android photo formats: DNG+JPEG RECT

In **Single** mode, the screen flashes white then freezes briefly in black and white to confirm a picture has been taken. The number to the left of the soft shutter button (the number of media on the microSD card) of the HUD is increased by 1.

In **Burst** mode, the screen flashes white then freezes briefly in black and white to confirm 14 pictures have been taken in the span of 1 second. The number to the left of the soft shutter button of the HUD is increased by 14.

In **Bracketing** mode, the screen flashes white then freezes briefly in black and white to confirm 3, 5 or 7 pictures have been taken. The number to the left of the soft shutter button

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of the HUD is increased by 3, 5 or 7, depending on your option choice.

In **Timer** mode, the countdown is displayed (from 3, 5 or 10 seconds) at the center of the HUD, the timer of the soft button also countdowns, then the screen flashes white and freezes briefly in black and white to confirm a picture has been taken. The timer of the soft shutter button resets. The number to the left of the soft shutter button of the HUD is increased by 1.

For additional details on the **Panorama** mode, refer to the next section, "Generating Panoramas".

In **Timelapse** mode, the screen flashes white then freezes briefly in black and white to confirm a picture has been taken. 5 to 120 seconds later, depending on your option choice, the drone takes another photo, and so on until you press the shutter button again to stop the Timelapse. Between each shutter action, a green progress bar, at the bottom of the screen, serves as a countdown. At the end of the Timelapse, the number to the left of the soft shutter button reflects the total number of medias on the microSD card of the drone.

In **GPS Lapse** mode, the screen flashes white then freezes briefly in black and white to confirm a picture has been taken. Control and move ANAFI USA: when the drone reaches any point on a 5 to 200-meter bubble around the initial photo, depending on your option choice, the drone takes another photo, and so on until you press the shutter button again to stop the GPS Lapse. Between each shutter action, a green progress bar, at the bottom of the HUD, lets you estimate the distance the drone must cover before the next shot. At the end of the GPS Lapse, the number to the left of the soft shutter button reflects the total number of medias on the microSD card of the drone.

ANAFI USA photo formats

JPEG RECT:	4:3 aspect ratio, up to 16MP and 75.5° horizontal field of view (HFOV)
JPEG WIDE:	4:3 aspect ratio, 21MP, 84° HFOV – zoom is disabled for this format
DNG+JPEG:	4:3 aspect ratio, 21MP, 84° HFOV – zoom is disabled for this format

Note: The DNG+JPEG option produces at least 2 files (1 DNG, 1 JPEG) for each shutter action. DNG is a useful format for professional photography processing and workflow. RAW formats retain all the information gathered by photography sensors, contrary to JPEG formats, which are compressed and processed renderings of this comprehensive information. As a result, RAW pictures such as ANAFI USA's DNG are heavy files, but they offer the very best postprocessing and retouching possibilities.

Creating Panoramas

ANAFI USA panoramas are generated automatically through the **FreeFlight 6 USA** gallery, based on a series of pictures taken by the drone.

The generation of a panorama, regardless of its format, has 3 phases:

- collecting the pictures in flight;
- downloading the pictures from ANAFI USA to your device;
- stitching the pictures together to create the panorama, on your device through the **FreeFlight 6 USA** gallery.

Important: Before shooting a panorama:

- Ensure that you are not flying lower than 10 meters (30ft) over water.
- Ensure that no object or subject is present within a 10-meter (30ft) radius around ANAFI USA.
- ANAFI USA locks the exposure (refer to the "AE Lock" section of this guide for additional information on exposure locking) of the frame you start your panorama with. For this reason, Parrot recommends you always frame the main subject of the intended panorama before pressing the shutter button.
- ANAFI USA cannot proceed with a panorama if the drone battery power is low (capturing a 360 Panorama takes ANAFI USA up to 90 seconds).

To capture a panorama, select the **Panorama** box from the **Photo Mode** menu of the HUD. Then, tap the panorama type you want to select: **Vertical**, **Horizontal** or **360**. The soft shutter button icon reflects your choice, as on the screen capture below.



Panorama formats, Android

When you are happy with your framing, press the hard shutter button on the right of the **Parrot Skycontroller** (or tap the soft shutter button of the HUD) to begin the Panorama capture. ANAFI USA starts taking pictures and the bottom of the HUD displays a progress bar which fills with green as the capture unfolds.

Panorama types capture characteristics:

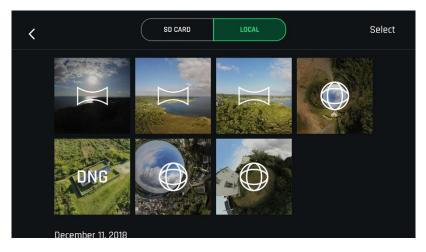
Vertical:	ANAFI USA takes 8 photos in about 18 seconds
Horizontal:	ANAFI USA takes 10 photos in about 20 seconds
360 :	ANAFI USA takes 42 photos in about 90 seconds

To download the Panorama pictures to your device, land ANAFI USA, access the homepage of **FreeFlight 6 USA** and tap the **SD CARD** box or the **Gallery** box to display the media present on your microSD card. Like other media, Panoramas are marked with their distinct icon and a green download box, which shows the size of the corresponding series of pictures.



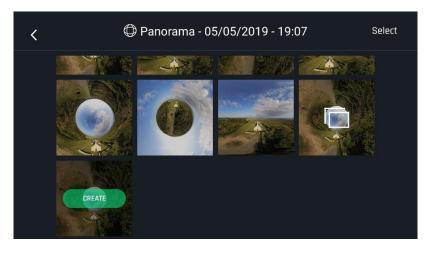
MicroSD card gallery

Tap the green box of the Panorama you want to generate to start downloading the corresponding series of pictures to your device. When the download is complete, **FreeFlight 6 USA** displays a page from where you can delete the downloaded photos. Tap **Yes** to keep the originals on the microSD card. Tap **No** to delete them. **FreeFlight 6 USA** displays the Local (device) gallery, which contains only the media you have downloaded from ANAFI USA's microSD card.



Local (device) gallery

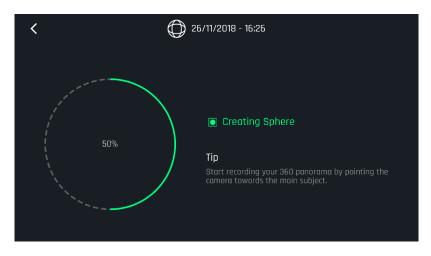
Finally, select the panorama you want to generate from your Local gallery. **FreeFlight 6 USA** displays the following screen:



Android panorama generation page

Tap **CREATE** to generate the panorama (or tap the other icon to access the series of individual pictures.

Depending on the power of your device, **FreeFlight 6 USA** may display one or two resolution options, up to 32 MP. Select the option you want to launch the generation. The time this process takes also depends on your device's power. For the highest quality 360 panorama (32 MP), it can take several minutes.



iOS: generating a Sphere panorama

When the panorama creation is complete, **FreeFlight 6 USA** displays the panorama and gives you the option to delete the original files.

For each **Vertical** or **Horizontal** panorama capture, you will be able to generate one panorama only.

For each **360** capture, you can generate three different preset panoramas (**Sphere**, **Little Planet**, and **Tunnel**) and a potentially infinite number of custom panoramas, through the 360

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editor.

When you create a custom panorama, the direct rendering is a preview only. For each custom panorama you decide to create, **FreeFlight 6 USA** completely reprocesses the data to minimize stitching issues and discrepancies.



An example of custom panorama

Gimbal tilt and zoom controls

Two of ANAFI USA's main assets are its gimbal tilt control capabilities (180°, nadir to zenith), and its 32x zoom. This section presents these features and the way to activate them.

Gimbal tilt control

ANAFI USA's gimbal tilt control is activated through the left trigger of **Parrot Skycontroller**. It is available in all video and photo modes, and in all manual piloting modes.

- To aim the gimbal toward the ground, push the tilt control trigger down.
- To aim the gimbal toward the sky, pull the tilt control trigger up.
- To reset the gimbal tilt to a horizontal position, press the ⁽¹⁾ **Optics reset** button on the left of **Parrot Skycontroller** (this action also resets the zoom factor of the lens to 1x).

Zoom control

ANAFI USA's zoom control is activated through the right trigger of **Parrot Skycontroller**. It is available in all video modes, and in **JPEG RECT** photo mode (with an impact on the final resolution of your pictures). WIDE photo modes imply the use and rendering of all 21MP delivered by ANAFI USA's CMOS sensors: zoom is deactivated in both WIDE photo modes.

- To zoom in on a subject, push the zoom trigger down.
- To zoom out, pull the zoom trigger up.
- Pressing the \bigcirc Optics reset button on the left of Parrot Skycontroller instantly resets the zoom factor of the lens to 1x (this action also resets the gimbal tilt to a horizontal position).

The HUD of **FreeFlight 6 USA** presents precise, decimal-by-decimal zoom information at all times, in the middle of the left side of the screen, as shown on the following screen captures.



x32 zoom

Camera Calibration: Correct horizon (exceptional procedure)

Note: Your ANAFI USA's camera has been factory-calibrated with high precision.

Unlike the calibration of ANAFI USA or that of the **Parrot Skycontroller**, which must be performed periodically, the camera calibration must not be carried out unless it appears necessary, typically, after a crash. If you notice a tilted horizon on all your videos and photos, and if this tilt is always on the same side, access camera calibration to make your horizon perfectly straight again.

This feature is accessible from the ANAFI USA box on the **FreeFlight 6 USA** homepage (or from the ANAFI USA box of the HUD) and from the *"PREFERENCE – Camera"* menu.

Before starting this procedure, you must position ANAFI USA on a flat and perfectly level surface, exactly perpendicular to any pattern containing straight lines you can use as horizon references. A set square can help you check that a line on your floor is perpendicular to your wall, as on the following pictures.



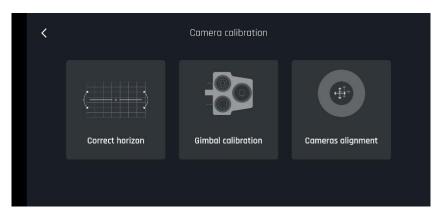
Finding a line perpendicular to the wall



ANAFI USA ready for horizon correction

When ANAFI USA is correctly positioned, perpendicular to its straight horizon reference, press **O Power** to power it on, along with the **Parrot Skycontroller** and your device, as you would for any flight.

Access **Camera calibration** from the ANAFI USA box of the homepage or the HUD of **FreeFlight 6 USA**, or from the "PREFERENCES-Camera" menu.



Select the **Correct horizon** option from the following screen.

ANAFI USA: gimbal/camera calibration (Android)

 Horizon correction Straighten the comera
 Correction 0.0'
 Correction 0.0'

The following screen appears.

Gimbal/camera calibration: before (Android)

Tap **+ plus** or **- minus** until the artificial horizon of ANAFI USA matches the horizon reference facing the drone. Do not worry about vertical lines: as you can see from the screenshots, they do not appear straight or parallel on the gimbal calibration screen.



Gimbal/camera calibration: after (Android)

When you have straightened the tilt of the camera, tap the "<" icon on the top left of the screen to confirm your setting and exit camera calibration.

Camera Calibration: Gimbal calibration

Use this option to perform a gimbal calibration, similar to that which occurs after ANAFI USA is powered on.

Note: FreeFlight 6 USA may require you to carry out this procedure (as it may require you to perform a drone magnetometer calibration) before allowing you to fly ANAFI USA.

Camera Calibration: Cameras alignment (exceptional procedure)

Use this option to align the images of your visible and thermal spectrum cameras.

As the interface advises, due to cameras parallax, use the farthest possible object as your alignment reference, ideally, at least 16.3 m (53.5 ft).



ANAFI USA: Camera alignment, before (Android)

Note: You can activate the zoom (right) trigger to magnify the view of your reference.

Tap + plus or - minus on each axis to align visible and thermal views.



ANAFI USA: Camera alignment, after (Android)

Tap < **back** on the top left of the screen to exit the interface and confirm your settings.

Pro-imaging settings

This section is designed to help you exploit manual settings and develop your filming and photography styles.

The Exposure value (EV) is the only setting accessible in **Auto** mode, from the **Video/Photo settings** box menu of the HUD.

Exposure value (EV)

The EV expresses the general darkness or lightness of a photograph or video. At +0.0 (zero) EV, ANAFI USA automatically adapts the shutter speed and the ISO value to deliver a perfectly balanced photo or video.

Tap the +0.0 EV box to activate the EV slider.

Slide your finger on the screen to the negative values on the left to darken your picture or video. Slide your finger on the screen to the positive values on the right to darken your picture or video.



1.0 EV, iOS



+1.0 EV, iOS

To activate further settings, tap **Auto** on the far left of the Video/Photo settings box. The additional settings boxes are unlocked, they stand out in white, and **Auto** is replaced with **Pro**.

Shutter speed (s)

The **s** value refers to the time that the shutter stays open to capture a still picture. It is called exposure time.

In **Auto** mode, ANAFI USA selects the best shutter speed and ISO value couple, in real time, depending on the scene and available light.

Note: Selecting a shutter speed deactivates the Auto ISO mode.

As ANAFI USA's f/2.4 aperture lenses lets in a lot of light, even compared to most professional SLR lenses, your drone can achieve very fast "s" values (down to 1/10000s) and capture very fast action. It can also be used for slow shots, up to 1 second for the photo mode.

Note: ANAFI USA can shoot pictures and videos when it is not flying. You can hold it in your hand and use it as a stabilized 4K video and photo camera.



Tap the **s** box to open the shutter slider.

Select a value to exit the auto-mode for shutter speed and ISO. This action also deactivates the EV slider.

Set the **s** value you require, then tap the **ISO** box to select an ISO value. The display of the HUD reflects your settings. If you get lost, tap **Auto** either on the **s** or the **ISO** slider to get back to auto exposure and reactivate the EV slider.

ISO value (ISO)

The ISO value refers to the sensitivity of the sensor. It is linked to the shutter speed value. Both sliders activate when you deactivate the **Auto** mode and set a value for one, or the other. The lower the ISO value, the lower the sensitivity of the sensor, and the lower the image noise (digital grain). Therefore, under good lighting conditions, such as sunny daylight outside shots, select low ISO values, for example 100 or 200. The sensitivity of the sensor increases as the ISO value goes up. 3200 ISO can be used to capture low light interior scenes, or exterior shots at dusk or dawn, for example.

By default, in **Auto** mode, ANAFI USA constantly adapts its ISO and shutter speed values to the scene it is filming. However, setting an ISO value for a whole shot or series of shots is advised for professional filming.

Tap the **ISO** box to open the shutter slider.

Select a value to exit the **Auto** mode for **ISO** and shutter speed. This action also deactivates the EV slider.

Set the ISO value you require, then tap the **s** box to select a shutter value. The display of the HUD reflects your settings. If you get lost, tap **Auto** either on the **s** or the **ISO** slider to get back to auto exposure and reactivate the EV slider.

White balance (WB)

White balance deals with the color temperature of the light. Cold lights make the whites look blue. Warm lights make the whites look yellow. By default, in Auto WB mode, ANAFI USA keeps the whites white, at all times: it adapts its WB value in real time.

However, setting a WB value for an entire shot is advised for professional filming. Stable WB facilitates the grading (color treatment) of videos.

Tap the **WB** box to open the white balance options.

Select the **WB** option that is best suited for your shooting conditions, your subject, or both. The display of the HUD reflects your settings and helps you make the best choice.



 Image: Control of the contro

Auto WB, Android



Fluo WB, Android



Sunny WB, Android



Cloudy WB, Android



Shaded WB, Android



WB 2 000 K, Android

WB 10 000 K, Android

HDR

HDR (high dynamic range) can enhance a video or a photo. The HDR option is available for **Standard** video mode **4K**, **2.7K** and **1080p** formats (regardless of framerate values) and **JPEG photos.**

To activate the HDR option, select a **Standard** video mode or a **JPEG** photo format from the relevant boxes of the bottom bar of the HUD. A white and round HDR icon appears on your screen, to the left of the photo/video trigger.

Tap the **HDR** icon. It turns yellow, and a HDR notice appears in black inside a yellow box, under the **next available action** box, at the center of the top bar of the HUD. Press the hard shutter button on your **Parrot Skycontroller** (or tap the soft shutter button of the HUD) to start filming in HDR or to take a HDR photo.



Tap the round HDR icon again to deactivate HDR. The yellow HDR box disappears from the screen.



HDR Off, Android

HDR On, Android

Note: You cannot modify **s, ISO** or **WB** values when the HDR mode is activated. However, you always keep control over your EV value. Activating (or deactivating) HDR stops any ongoing video recording.

NATURAL Style

The **Natural** Style is the default ANAFI USA Style: it respects nature's colors and tones. Activate the **NATURAL** style from the **Style** box of the **Video/Photo** settings menu.

P-LOG Style

P-LOG style is an alternative Style to **NATURAL** style, both in video mode, and photo mode. It makes images a little less contrasted. **P-LOG** style is ideal for videos you want to edit and process using professional grading tools and filters. Activate the **P-LOG** style from the **Style** box of the **Video/Photo** settings menu.

INTENSE Style

Intense style is second alternative Style to **NATURAL** style both in the video mode, and in the photo mode. It makes images more saturated and contrasted. Activate the **INTENSE** style from the **Style** box of the **Video/Photo** settings menu.

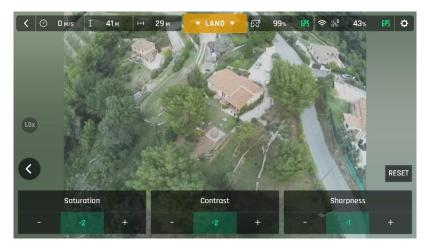
PASTEL Style

Pastel style is third alternative Style to **NATURAL** style both in the video mode, and in the photo mode. It makes images less saturated, but it brings out their warmest tones. Activate the **Pastel** style from the **Style** box of the **Video/Photo** settings menu.

ADJUSTMENT

The **ADJUSTMENT** button, next to the **P-LOG** box, provides three additional settings for your **Normal** style still images and films:

- Saturation: sets the intensity of the colors (from -2 to +2)
- Contrast: sets the degree of difference between lightest and darkest parts of the image (from -2 to +2)
- Sharpness: sets the distinction of detail reproduction (from -1 to +1)



All settings at minimal values (iOS)



All settings at maximal values (iOS)

Tap the **RESET** button, on the right of the screen, to bring all values to 0 (zero).

Tap the < **back**, on the left of the screen, to confirm your settings and exit the **ADJUSTMENT** menu.

Lock AE

In **FreeFlight 6 USA** you can lock the general exposure of a view, to fine-tune the framing of a shot and keep the desired exposure.

To access this function, tap the **Video settings** box (**video** mode) or the **Photo settings** box (**photo** mode) of the HUD.

A **Lock AE** icon appears, to the left of the **HDR** icon (it replaces the **HDR** icon in **DNG+JPEG** photo format, as **HDR** is not available with this setting).

Tap the **Lock AE** icon to lock the exposure value to that of the current view. The icon turns yellow. A yellow **Lock AE** box appears under the **Next available action** box, at the center of the top bar of the HUD.

Move ANAFI USA around or tilt its gimbal to change the frame. The exposure settings remain as they were when you activated the function.



Tap the **Lock AE** icon again to deactivate the exposure lock. The icon turns back to white, and the yellow **Lock AE** box disappears.



Exposure is locked on the sky (Android)

Lock AE Touch

With the Lock AE Touch (or Spot AE) function of FreeFlight 6 USA, you can also lock the exposure of a frame on any detail of any view.

To activate this function, follow the **Lock AE** procedure of the preceding section. When the exposure is locked, touch the part of the frame you want to base your exposure on. A yellow square animates around this spot and the yellow **Lock AE** box is replaced by a yellow **Lock AE Touch** box.



Exposure is locked on the top of the trees (Android): shutter speed is set at 1/240 s



Exposure is locked on a building on the horizon (Android): shutter speed is set at 1/500 s

Parrot

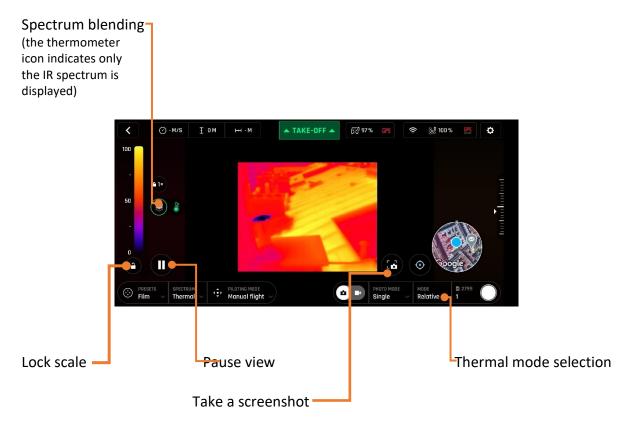
Thermal Imaging

Thermal imaging, or infrared (IR) thermography, is the process of acquiring, measuring and analyzing thermal information from non-contact devices, such as ANAFI USA's FLIR Boson camera.

Thermal imaging devices transform invisible IR radiations, or heat transfers, into colored images the human eye can interpret and analyze.

To access ANAFI USA's thermography mode, either tap the **THERMAL** box on the homepage of **FreeFlight 6 USA** or tap the **SPECTRUM** box on the lower bar of the HUD and select **Thermal**.

Presentation of the Thermal HUD (post-processing)



Note: When post-processing is activated (default value), the **Pause** view and **Lock scale** buttons are available. They disappear when post-processing is deactivated (refer to the *"PREFERENCES – Thermal – Thermal post-processing"* section of this guide for further information on thermal post-processing).

As for the Visible Spectrum, you can record both **Thermal photos** and **videos**. You can choose through the **photo/video** toggle button in the lower bar of the HUD (or among additional settings, as in the Thermal HUD screen capture).

When in Thermal Spectrum, **the choice of photo modes is limited to three options**, each of which delivering 1280x720 rectilinear JPEG thermography images:

- Single shot
- Timelapse (10, 30, 60, 120 or 240 seconds intervals between shots)
- GPS Lapse (5, 10, 20, 50, 100 or 200 meters spherical intervals between shots)

The **Thermal Spectrum** video mode is limited to a single option. ANAFI USA shoots 9 frames per second 1280x720 thermography MP4 (H264) videos.

You can capture screenshots, directly to your **Parrot Skycontroller**, through the dedicated screen button. This feature is available when filming and enables you to extract a still image from a film without stopping the recording.

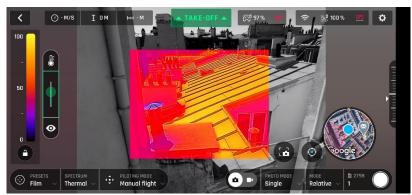
Note: ANAFI USA is a multicamera system (two EO lenses for one visible camera, one thermographic camera). However, photo or video mode selection is independent from the cameras. In other words, for example, switching from Visible Spectrum photo mode calls the last Thermal Spectrum photo mode that was selected; similarly, switching from Thermal Spectrum video mode calls the last Visible Spectrum video mode that was selected.

Relative Thermal mode

The Relative mode is the default thermography mode of ANAFI USA, which is activated upon first access to the Thermal HUD.

The Relative mode provides a quick overview of a scene's temperature range. In this mode, even slight heat differences materialize as strong contrasts.

Its main specificity is that the scale it displays, on the left of the HUD, matches by default the temperature range of the scene ANAFI USA is filming, on a 0 to 100 graduated scale.



Relative

Thermal mode (balanced blending between IR and visible)

However, when the post processing is activated, the lock button enables you to temporarily lock the scale to the temperature range of any scene. This is especially useful if you must reframe your scene to include part of the sky. The sky always appears as a cold element, which disturbs the scale.

Spot Thermal mode

The Spot Thermal mode of ANAFI USA isolates hot or cold.

Use the **inverted arrows button** (under the scale, on the left of the screen) to toggle from hot to cold (or from cold to hot) and slide your finger along the scale to adapt the threshold of the scale to your scene and highlight only the coldest or hottest spots.



Spot Thermal mode: only the hottest elements of the scene are colored.

Note: In Spot Thermal mode, the thresholds you set manually are only reset when you tap the **RESET THERMAL SETTINGS** button in the Thermal Preferences tab.

Thermal analyzer mode

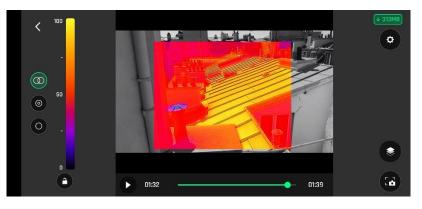
The Thermal analyzer feature of **FreeFlight 6 USA** provides a quick thermal analysis, directly from your device.

This function gives you full control over the on-screen rendering of any thermography video or photo you have taken with ANAFI USA. From the analyzer, you can:

- access Thermal Preferences directly from the preview's Preferences icon, top right;
- navigate inside your thermography videos;
- modify the thermography modes (Relative, hot and cold spots) and their associated thresholds at any point of any video or on any photo;
- modify the blending between Visible and Thermal spectrums;
- save as many screenshots as you want.

However, Thermal analyzer videos cannot be saved or exported by **FreeFlight 6 USA** – even if most devices enable you to record your screen.

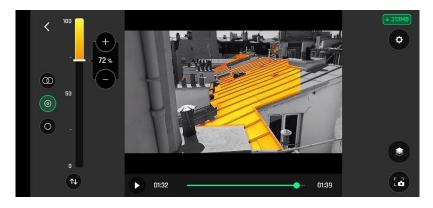
To analyze a thermography media, access your **Local FreeFlight 6 USA Gallery** and open a thermal video preview or a photo.



Thermography video preview, Relative mode (Android)

Tap the green **ANALYZE** box.

The photo displays or the video plays in Analyzer mode. The interface gives you access to most options available for filming.

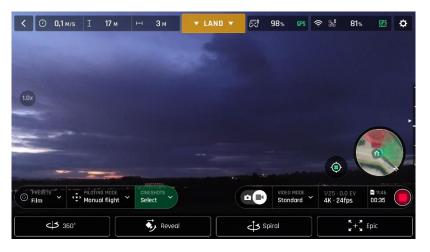


Same image, (hot) Spot mode (Android)



Cineshots (visible spectrum only)

ANAFI USA features a series of automated shots, which enable you to capture scenes professionally.



iOS Cineshots menu

Ensure that you have selected the video settings you require and tap **CINESHOTS** in the bottom bar of the HUD to access Cineshots. Tap a Cineshot to select it. For each, two options appear. ANAFI USA films all your Cineshots automatically if you have free space on your microSD card.

360°

The When **360°** Cineshot is activated, ANAFI USA maintains its position and altitude, and rotates slowly and completely around its axis to capture a full panorama.

Tap **Right** or **Left** to select the direction you want your drone to rotate, and to activate the **360°.** After a countdown on the HUD, ANAFI USA starts its rotation. An animation flashes on your screen, and the **360°** box progressively fills with green as the Cineshot unfolds.

Reveal

When this feature is activated, ANAFI USA tilts its camera toward the ground and starts moving forward in a straight horizontal line. Slowly, over 30 or 60 meters, the camera gimbal tilts up, revealing the scenery in front of ANAFI USA.

Important: Before you activate the Reveal Cineshot, verify that the area in front of ANAFI USA is safe, and clear of obstacles.

Tap **30m** (small-arrow icon) or **60m** (large-arrow icon) to select the range of your Reveal shot, and activate it. After a countdown on the HUD, ANAFI USA tilts its camera down and starts moving forward. An animation flashes on your screen, and the "Reveal" box progressively fills with green as the Cineshot unfolds.

Spiral

When this feature is activated, ANAFI USA tilts its camera to the ground and starts moving up, in a straight vertical line. Slowly, as it climbs to 30 or 60 meters, ANAFI USA carries out a full 360° rotation around its axis, then its camera tilts up progressively, panning over the

scenery along a 180° rotation. ANAFI USA finishes the Spiral Cineshot with a 180° angle, compared to its starting point.

Important: Before you activate the Spiral Cineshot, verify that the area above ANAFI USA is safe, and clear from obstacles. Do not activate the Spiral Cineshot under obstacles, for example trees or bridges.

Tap **30m** (small-arrow icon) or **60m** (large-arrow icon) to select the range of your Spiral shot, and activate it. After a countdown on the HUD, ANAFI USA tilts its camera down and starts moving up and rotating. An animation flashes on your screen, and the "Spiral" box progressively fills with green as the Cineshot unfolds.

Epic

When this feature is activated, ANAFI USA moves away backward in a smooth ascending line, keeping its subject in the center of its frame for 30 or 60 meters. The Epic Cineshot gives the best results when ANAFI USA starts from a position close to its subject.

Important: Before you activate the Epic Cineshot, verify that the area behind ANAFI USA is safe, and clear from obstacles.

Tap **30m** (small-arrow icon) or **60m** (large-arrow icon) to select the range of your Epic shot, and activate it. After a countdown on the HUD, ANAFI USA starts moving backward and upward. An animation flashes on your screen, and the "Epic" box progressively fills with green as the Cineshot unfolds.

Important: Activate and monitor all Cineshots with care. Always check your automated shot flight plan is clear from obstacles and is safe, always retain visual contact with ANAFI USA, and always be ready to reclaim control of your drone.

Note: Any action on any stick of Parrot Skycontroller immediately terminates the current Cineshot.

Piloting modes

Tap the **PILOTING MODE** box in the bottom bar of the HUD of **FreeFlight 6 USA** to access the piloting modes options.

Tap a mode to select it. Each mode is associated with a specific behavior, which this section describes.

Manual flight

The Manual flight mode is ANAFI USA's default mode. It enables you to pilot the drone and fully control its camera tilt and zoom.

When you release the commands in Manual flight mode, ANAFI USA hovers in the same position.

Cameraman

The Cameraman mode enables you to pilot ANAFI USA around an object or a subject and keep them in the center of your frame.

Frame the object or subject you want to film and fly around.

Tap the **PILOTING MODE** box in the bottom bar of the HUD to access the options. Tap **Cameraman** to select this piloting mode.

You must enter a fixed horizon configuration into the Cameraman mode, or the mode does not lock. Draw a rectangle with your finger on your screen, around the object or subject you want ANAFI USA to follow, or double tap the object or subject. When your target is locked, the blue rectangle turns to green and the orange **LAND** box at the center of the top bar of the HUD turns red and displays **STOP**. ANAFI USA's frame centers on your target, inside the green box.

Drag the green box to the area of the frame where you want your target to remain at.

Fly ANAFI USA around your target. The drone keeps your target in the part of the frame you have selected. If you push the right joystick of the **Parrot Skycontroller** to the left, ANAFI USA circles around your target clockwise. If you push the right joystick of the **Parrot Skycontroller** to the right, ANAFI USA circles around your target counterclockwise.

When the Cameraman mode is activated, ANAFI USA manages the gimbal tilt to keep the target in the frame. The left trigger of the **Parrot Skycontroller** is deactivated in this mode. However, you can still control the zoom, with the right trigger.

When you release the commands in the Cameraman mode, ANAFI USA hovers and rotates to keep following the target.

To end the following of your target, tap the red **STOP** box at the center of the top bar of the HUD.

When no target is selected, or when the following of the target has been ended by the pilot, ANAFI USA's behavior is similar to that of the Manual flight mode.

Important: Activate and monitor the Cameraman mode with care. Always check your flight plan and the trajectory of your subject are clear from obstacles and safe, always retain visual contact with ANAFI USA, and always be ready to stop the following (tap the STOP box of your HUD) in case a danger or any sort of unexpected obstacle arises.

Follow Me

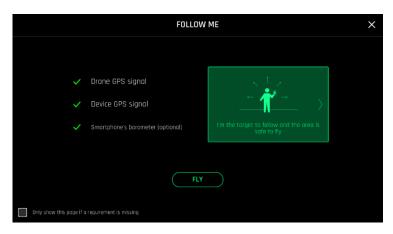
The Follow Me mode enables ANAFI USA pilots to have their drone follow them in action.

Warning: Fly ANAFI USA at least 5 meters (15ft) high and 10 meters (30ft) in front of you, facing you. A red alert at the bottom of the HUD on **FreeFlight 6 USA** informs you if you are too close to ANAFI USA, or if it is flying too low.

Frame yourself.

Tap the **PILOTING MODE** box in the bottom bar of the HUD to access the options. Tap **Follow Me** to select this piloting mode.

Both a drone GPS synchronization and a controller GPS synchronization are imperative to activate this mode. Upon first activation, the following screen appears:



iOS, Follow Me GPS warning

Tick the box on the bottom left on the page if you do not want this warning to appear again when no prerequisite is missing. Tap **FLY** to access the Follow Me mode.

Select one of the three Follow Me options (refer to in-app explanations for details):

- Track
- Lock
- Dynamic

Note: Parrot recommends you only use the Dynamic option in completely open and unobstructed areas.

Draw a rectangle with your finger on your screen, around yourself. When ANAFI USA has a lock on you, the blue rectangle turns to green and the orange **LAND** box at the center of the top bar of the HUD turns red and displays **STOP**.



By default, ANAFI USA keeps you in the center of the frame, but you can drag the green box to the area of the screen you want to remain at. If you push the right joystick of the **Parrot Skycontroller** to the left, ANAFI USA circles around you clockwise. If you push the right joystick of the **Parrot Skycontroller** to the right, ANAFI USA circles around you counterclockwise.

In the **Follow Me** mode, ANAFI USA manages the gimbal tilt to keep you in the center of the frame. Therefore, the left trigger of the **Parrot Skycontroller** is deactivated in this mode. However, you can still control the zoom, with the right trigger.

When you release the commands in the **Follow Me** mode, ANAFI USA keeps following you from a constant distance if you are moving. If you remain in the same position, ANAFI USA stops and stays focused on you.

To have ANAFI USA stop tracking you, tap the red **STOP** box at the center of the top bar of the HUD.

When no target is selected, or when the tracking has been ended by the pilot, ANAFI USA's behavior is similar to that of the Manual flight mode.

The Follow Me mode features a series of exclusive Dronies which can be activated as you move, always keeping you in the center of the frame. For each Dronie, two options are available (they are listed between brackets):

-	Orbit (left or right):	ANAFI USA circles around you in a full 360°.
-	Parabola (10 or 30 m):	ANAFI USA flies in an arc over your head,
		gaining 10 or 30 meters in altitude and turning 180° at its peak.
-	Tornado (10 or 30 m):	ANAFI USA performs a double "Orbit" around you, one up 10 or 30 meters, the other down
		10 or 30 meters, back to its original height.
- -	Boomerang (30 or 60 m):	ANAFI USA flies away from you for 30 or 60 meters, with an ascending angle following that of the starting gimbal tilt, then comes back to its starting point.

To select a Follow Me Dronie, make sure you are in the Follow Me mode and that ANAFI USA is tracking you.

Tap the Select Dronie box in the bottom bar of the HUD.

Tap a Dronie to select it. Tap the option you have chosen to activate the Dronie. After 2 seconds, ANAFI USA starts moving around you. The corresponding Dronie box fills with green as the Dronie unfolds.

Important: Activate and monitor the Follow Me mode and each Dronie with care. Always check your flight plan is clear from obstacles and safe, always retain visual contact with ANAFI USA, and always be ready to stop the following (tap the **STOP** box of your HUD) in case a danger or any sort of unexpected obstacle arises.

Note: To optimize the drone's tracking, always make sure you remain visible by ANAFI USA. Do not let an obstacle obstruct the camera's view and do not hide in the shadows, or ANAFI USA could lose track of you.

Smartdronies

ANAFI USA features four Smartdronies:

The **Orbit**, **Parabola** and **Boomerang** Dronie can be accessed through this menu, refer to the above section for details about the **Boomerang** Dronie. The smartest of ANAFI USA's dronies is the **Dolly Zoom**.

Frame yourself, or a group of people, with ANAFI USA: keep the drone at least 5 meters away, between 1 and 2 meters above the ground.

Warning: Verify that the flight path of your drone is perfectly clear: at least 30 meters behind it, flat and without obstacles.

Tap Smartrdronies from the PILOTING MODE box menu.

Both a drone GPS synchronization and device GPS synchronization are imperative to activate this mode. Upon first activation, the same warning page appears as for the **Follow Me** mode. Tick the box on the bottom left on the page if you do not want this warning to appear again when no prerequisite is missing. Tap **FLY** to access the **Smartdronies** mode.

Tap the **Dolly Zoom** Dronie to open its three options.

How to prepare your map

This chapter describes how to prepare a map for flight. You can save your future flying area map on FreeFlight 6 USA then use it offline in the field. You can use this tool to prepare a satellite view of your next destination. The satellite view displays during the flight even if you do not have an internet connection in the field.

- 1. Ensure that your FreeFlight 6 USA device is connected to the internet
- 2. Tap the Load map tile on the FreeFlight 6 USA home screen.
- 3. A satellite view screen opens. Scroll to the area that you intend to fly over.
- 4. Tap **Prepare the map**.

A green bar appears which displays the progress of your map preparation.



The map of your future mission is then saved to the FreeFlight 6 USA application memory. The map remains available even when your device is offline.

Map-based flying modes

Flight Plan

Flight Plan enables you to fully prepare and configure your flights and filming sessions. Through an example, this section will teach you the basics of automated flight and shooting management, with ANAFI USA and Flight Plan.

Tap **Flight Plan** from the **PILOTING MODE** box menu. The map of your surroundings opens full screen. If you are not connected to ANAFI USA, the minimized live view is black, as on the screen captures that follow.



iOS Flight Plan

Consider this pointy bit of land, with a lighthouse in the middle.



iOS: new Flight Plan

First, select your initial waypoint, ideally, very close to your intended take-off point. Tap the screen to set it. The green circle represents the waypoint, the white figure the altitude of the drone, and the white arrow the direction of ANAFI USA's camera.



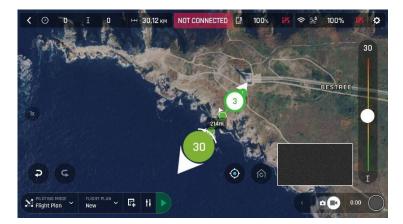
iOS: initial waypoint (WP)

Tap the white arrow and hold it to move it around. In this example, we want ANAFI USA to frame the lighthouse as it starts the flight.



iOS: initial waypoint, with the camera framing the lighthouse

Tap the map to set the second waypoint. The distance between the two waypoints appears on the screen. Use the slider on the right of the screen to set the altitude of the waypoint. In this example, ANAFI USA will climb from 3 to 30 meters between the initial waypoint and the second waypoint.



iOS: second waypoint

Add waypoints to tour the area and end your Flight Plan where you intend to land.





The tip of the peninsula is a **POI**. We want ANAFI USA to focus on it while it flies around it. Tap it and hold your finger on the screen to call choices (**POI/Close**).



iOS: setting a POI

Tap **Point of interest** to add the **POI.** It appears as a blue square diamond. The figure in the center represents the height of the **POI**, which you can modify using the slider on the right of the screen. All waypoints turn white as they can now be selected to be linked to the **POI**.



iOS: open waypoints

Tap waypoints to link them to the **POI**. In this example, we want ANAFI USA to film the tip of the peninsula as it flies around it. We have selected the three waypoints to the left of the peninsula. The arrows of those waypoints have turned toward the **POI** are blue, the last one which was selected has a blue border around the white arrow.



iOS: three waypoints linked to the POI

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Tap the **POI** to confirm your choices. Blue waypoints are linked to the **POI**, which appears as a white square diamond with a blue border. During the entire blue part of the flight, ANAFI USA's camera will stay focused on the tip of the peninsula, enabling you to achieve a flyby shoot. Green waypoints remain independent from the **POI**.



iOS: POI Flight Plan

Tap a green waypoint to edit it. Use the slider on the right of the screen to modify its height; tap and move its white arrow to set the direction of ANAFI USA's camera. For this example, we had the drone point toward the land at most steps of the Flight Plan, and toward the lighthouse at take-off and landing, with a descent from 30 to 3 meters between the last two waypoints.



iOS: POI Flight Plan

Close **FreeFlight 6 USA**, to get to your flying spot, to prepare ANAFI USA, your **Parrot Skycontroller** and your device for the flight.

Tap the **PILOTING MODE** box on the HUD to call the options. Select **Flight Plan**. The last plan you set up appears.

Tap the green arrow on the right of the left bottom bar of the **Flight Plan** interface to begin the **Flight Plan**. ANAFI USA takes off, flies to the first waypoint and starts the **Flight Plan**. At the end of the **Flight Plan**, depending on your settings and depending on your version of **FreeFlight 6 USA**, ANAFI USA lands at, or hovers over, the last waypoint you have set.

In this example ANAFI USA's final waypoint is also its landing spot.

Warning: Activate and monitor every Flight Plan with extreme care: always verify your drone's route is safe, and clear of obstacles. Always maintain visual contact with ANAFI USA, and always be ready to stop the Flight Plan (tap the **STOP** box of your HUD or reclaim commands of the drone) in case of danger or unexpected obstacles.

Touch & Fly: Waypoint

Waypoint is the default **Touch & Fly** mode. It enables you to fly ANAFI USA to any point on the map. Tap **Touch & Fly** from the **PILOTING MODE** box menu. The map of your surroundings opens full screen. The live image captured by ANAFI USA is minimized in the bottom right corner of your screen.

Tap a point on the map to select a destination for ANAFI USA. This point is marked as a white circle with a green border. For each new Waypoint **Touch & Fly** session, **FreeFlight 6 USA** asks you to confirm the first destination of ANAFI USA as on the following screen capture. Tap the green **TAP HERE TO START** box, ANAFI USA flies toward its designated destination. Use the slider on the right of the screen to control the drone's altitude (the green figure inside the circle) when it reaches its destination.



Android Touch & Fly Waypoint: first destination confirmation screen

Important: Activate **Touch & Fly** Waypoint with care. After the initial confirmation, any tap on the map will immediately send ANAFI USA to the corresponding spot. Parrot recommends you set your **FreeFlight 6 USA** filming or photography options before activating the **Touch & Fly** Waypoint mode. If, by mistake, you send ANAFI USA toward a dangerous area, tap the **STOP** box at the center of the top bar of the HUD, or firmly reclaim commands from the **Parrot Skycontroller**.

Touch & Fly: POI

To access the POI **Touch & Fly** option, tap the **Type** box from the lower bar of the HUD, and select **POI**. In **POI** mode, tap a point on the map to create a point of interest, marked as a white square diamond with a blue border, labelled with a **POI** icon. Control the height of the **POI** (the blue figure inside the square diamond) through the slider on the right. This controls the tilt of the gimbal, while you use the **Parrot Skycontroller** to fly around your target. ANAFI USA remains focused on the **POI**.

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Android Touch & Fly: POI

Tap **STOP** from the red box at the center of the top bar of your screen to halt ANAFI USA, or to reset a **POI**.

From the **Smartdronies** box, next to the **Type** box of the lower bar of the HUD, you can also activate **Smartdronies** (Orbit, Parabola, Dolly Zoom, Boomerang) of your **POI**.

Refer to the "Smartdronies" section of this guide for additional information on Smartdronies types.

Appendix 1: Troubleshooting guide

This guide addresses all issues ANAFI USA users may have encountered while using a drone from the ANAFI USA series.

Important: If you encounter any issues with your drone, read the troubleshooting section thoroughly and apply the appropriate procedures relevant to your issue before you contact Parrot customer support.

Troubleshooting procedures

ANAFI USA drone hard reset

Hard resetting ANAFI USA reverts ANAFI USA's most recent firmware to its original state. Parrot recommends the drone hard reset as a first intent procedure for several issues, notably gimbal calibration troubles.

- 1. Verify that a compatible microSD card is inserted into ANAFI USA.
- 2. Power ANAFI USA on (short press on the battery's 🖒 **Power** button).
- 3. Wait for the gimbal to calibrate (or for the gimbal calibration to fail).
- 4. Press and hold the battery's **O Power** button. After 8 seconds the battery's LED lights up in red.
- 5. Release the battery's **⁽¹⁾ Power** button. ANAFI USA powers off briefly then reboots.
- 6. Verify that the contents of ANAFI USA's microSD card: the hard reset procedure has generated a .TXT document named "wifi_security_key" at the root of the microSD card. This document confirms the hard reset procedure is complete and successful.

ANAFI USA's smart battery hard reset

Hard resetting ANAFI USA's battery can correct battery issues. Parrot recommends a battery hard reset whenever the battery's behavior is unexpected.

- 1. Plug your smart battery into a power source.
- 2. Regardless of the battery's behavior, press and hold its power button for 15 seconds.
- 3. Release the **O Power** button. The battery's LEDs run successively in green and red, then flash alternatively in green.
- 4. The battery's hard reset is complete.

Resetting the Skycontroller 3 or Skycontroller 4

Resetting the Skycontroller reverts the controller back to its latest firmware update. It cleans all logs and credentials and restores the original ecosystem's Wi-Fi SSID and password.

To reset the Skycontroller, ensure that it is not connected to any drone, or the drone will initiate a take-off sequence.

Press and hold the controller's **Take-off/Land**, **Optics reset**, and **Media recording** buttons for 15 seconds, then release the 3 buttons.

Note: The LED starts flashing after 10 seconds, but you must hold the buttons for an additional 5 seconds.

The Skycontroller reboots. The reset is successful.

The same procedure can be performed safely, even with a drone connected, through the **Reset** button of the Skycontroller page, in **FreeFlight 6 USA**.

Reboot all systems

Rebooting all systems can solve connectivity issues (black screen, white noise, etc.).

- 1. Press **⁽¹⁾** Power to power off ANAFI USA.
- 2. Close the FreeFlight 6 USA application on your Parrot Skycontroller.
- 3. Reboot your **Parrot Skycontroller**. Press **O Power** to power on ANAFI USA.
- 4. Wait for synchronization between **Parrot Skycontroller** and ANAFI USA: check that the left trigger of the **Parrot Skycontroller** activates the drone's gimbal to ensure the synchronization is complete.

Issues

What do I do if I experience a connectivity issue (black screen, white noise, thermography camera activation failure, frozen or lagging stream)?

- 1. Check that your device's Wi-Fi is disabled: Parrot recommends you set your device in Airplane mode when you fly ANAFI USA, to minimize the risks of communication disturbance.
- 2. Reboot all systems (refer to the relevant procedure in the earlier section of this guide).

What do I do if my ANAFI USA's gimbal does not calibrate?

Hard reset ANAFI USA (refer to the relevant procedure in the earlier section of this guide).

What do I do if my ANAFI USA does not power on?

Ensure that your smart battery is "awake". Plug it into a power source to take it out of wintering mode. Its LED should start flashing to acknowledge that it is charging. Parrot recommends you always fully charge your smart battery before you fly ANAFI USA.

What do I do if my battery shows a strange behavior (flashing LED, red LED, etc.)?

Reset the smart battery (refer to the relevant procedure in the earlier section of this document).

What do I do if I cannot properly read the information displayed by FreeFlight 6 USA?

- 1. Access the settings of your device.
- 2. Find the **Display / Text and display size** (or equivalent) options.
- 3. Turn down the **text size** of your device, its **display size**, or both to let **FreeFlight 6 USA** accommodate all its information on your screen.

What do I do if my **ANAFI USA** is connected to the **Parrot Skycontroller**, but won't take off when I hit the take-off button?

- 1. Connect your device (in airplane mode, or with Wi-Fi turned off) to your **Parrot Skycontroller**.
- 2. The drone or controller boxes of the homepage of **FreeFlight 6 USA** indicate either that:
 - you must update your **Parrot Skycontroller**, your ANAFI USA, or both;

- or you must calibrate your ANAFI USA's gimbal;
- or you must carry out a magnetometer (drone) calibration;
- or you must calibrate your **Parrot Skycontroller**.

What do I do if my ANAFI USA flips over at take-off?

The propeller blades have been improperly installed. Remove all propeller blades and reinstall them properly and carefully, following the instructions enclosed in all ANAFI USA propeller blades packs.

What do I do if my Parrot Skycontroller does not synchronize with my ANAFI USA?

- 1. Check no device is connected on ANAFI USA's Wi-Fi network, with **FreeFlight 6 USA** running.
- 2. Pair your ANAFI USA to your **Parrot Skycontroller** (refer to the relevant procedure in the earlier section of this document).

What do I do if my Parrot Skycontroller does not synchronize with my device?

- 1. Try connecting your **Parrot Skycontroller** and your device with a different cable, to eliminate a potential faulty cable issue.
- 2. When you have eliminated the faulty cable issue, and if you still cannot get the controller and device to synchronize, turn your **Parrot Skycontroller** off.
- 3. Try connecting your device to your ANAFI USA's Wi-Fi network and open **FreeFlight 6 USA**.
- If your device does not connect to ANAFI USA, try uninstalling FreeFlight 6 USA and reinstalling it (WARNING: if you use an iOS terminal, remember to save your FreeFlight 6 USA media on your device or on a computer, as uninstalling FreeFlight 6 USA will delete all your media).
- 5. When your device and ANAFI USA are connected, plug your device to your **Parrot Skycontroller**.
- 6. After less than a minute, the full ecosystem connection (FreeFlight 6 USA on the device, Parrot Skycontroller, ANAFI USA) should be restored.

If the full connection is not restored, contact Parrot Support.

What do I do in the unlikely event my ANAFI USA has sustained a crash?

IMPORTANT: You must change all your propeller blades before attempting another flight. Propeller blades are instrumental for flight integrity and delicate pieces of equipment. Minor crashes may not show visible signs of damage to their structure.

- 1. Set up ANAFI USA for a flight.
- 2. Check the ANAFI USA page of **FreeFlight 6 USA**. Any permanently damaged element (gimbal or motor) appears in red. If an element is damaged, refer to point 8 below.
- 3. If no element is damaged, perform the calibration(s) requested by **FreeFlight 6 USA** (gimbal, magnetometer, or both).
- 4. Fly ANAFI USA, take pictures and videos.

- 5. Check your ANAFI USA pictures and videos to see if your drone's horizon if offset.
- 6. If your horizon is offset, perform the **Correct horizon** procedure (refer to ANAFI USA's User Guide for details) of **FreeFlight 6 USA**'s **Camera** Preferences
- 7. If the **Correct horizon** function cannot straighten your horizon, it means a part of your gimbal is deformed and your drone requires service and a new calibration. Refer to point 8 below.
- 8. **Note**: If the crash damaged a component of ANAFI USA which is essential to a safe flight (such as its vertical camera or its ultrasonic sensor), your drone will not be able to take off and a **FreeFlight 6 USA** alert will tell you to contact your Parrot Support Partner. In this case, you must provide the Parrot Support Partner with:
 - a. the serial number of your ANAFI USA;
 - b. a proof of the purchase (invoice) of your ANAFI USA;
 - c. the full contents of your microSD card "FDR" folder.

Appendix 2: Operational checklist

Useful information

This checklist has been developed with military ANAFI series drone pilots. It provides useful information to every ANAFI USA pilot.

Update & calibration

Device	SYSTEMATICALLY UP TO DATE
FreeFlight 6 USA	SYSTEMATICALLY UP TO DATE
Skycontroller	SYSTEMATICALLY UP TO DATE
ANAFI USA	SYSTEMATICALLY UP TO DATE
Magneto calibration	ОК
Skycontroller calibration	ОК
Gimbal calibration	ОК

Skycontroller & ANAFI USA OFF

Arms	unfolded, locked
Arms mechanical lash	NONE
Lens cap	OFF
Check drone and gimbal	ОК
Check propellers	intact, free
Check Skycontroller	OK, 100 % charged
Check terminal to Skycontroller cable	ОК
ANAFI USA battery	OK, 100% charged
ANAFI USA battery LED	4 x OK
ANAFI USA battery temp	ОК
Device	OK, 100% charged
MicroSD card	Inserted
ANAFI USA battery	3 hooks engaged in drone, locked

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Skycontroller & ANAFI USA ON

Sky	controller	
30,		

Skycontroller	open, ON, flashing light to dark blue LED	
ANAFI USA	ON, gimbal calibration OK	
SC3 / ANAFI USA Wi-Fi connection steady dark blue LED on SC3,		
L trigger moves gimbal:	ОК	
Device	ON, Wi-Fi & Bluetooth OFF	
Device / SC3 link	FreeFlight 6 USA launched,	
Image feed & telemetry:	ОК	
Flight mode selection	MANUAL	
RTH Height	set (20m to 100m)	
Max altitude	set	
Max distance	set	
Geocage	activated if needed	
Image settings	ОК	
Check Stick Mode	Inverted / Special mode	
Map on app	ОК	
Micro SD card	Formatted	
Battery levels	XXX% (report on flight log if ≠ from 100%)	
Global reactivity	set	
Camera tilt speed	set	
Inclination	set	
Vertical speed	set	
Rotation speed	set	

Before take-off

ANAFI USA GPS signal	Red / Orange /Green
Device GPS signal	Red / Green
Flight mode	MANUAL
Weather	ОК
TO Zone	Clear
Drone status	Check
Take-off/Land command	Take-off

After take-off

Precise Home Set Check Stick Mode	Depending on conditions / 10 secs or 10 meters Inverted / Special mode
Flight mode	MANUAL
Check flight commands	ОК
Check gimbal	ОК
Video feed	ОК
Video latency	ОК
Drone status	Check

Before landing

Derore landing	
Flight mode	MANUAL
Weather	ОК
Landing Zone	Clear
Drone status	Check
Take-off/Land command	Land
After landing	
Check engines off	ОК
Drone status	Check
ANAFI USA Battery	OFF
Skycontroller	OFF
Check drone/gimbal/propellers	ОК
Lens cap	ON
ANAFI USA Battery	Disengaged, stored away
Micro SD card	Stored away
ANAFI USA arms	Folded, no mechanical lash
ANAFI USA drone	Stored away
Device	OFF / Stored away
Skycontroller	Stored away
Cables	Stored away
Documents	
Flight & batteries info	Report on flight log

If you have feedback or comments about the v6.10.0.0 of this user guide, please email:

technical.writer@parrot.com

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