



# Under Embargo: April 15 at 10 a.m. Eastern Time/ 7 a.m. Pacific Time

# **ANAFI THERMAL:**

# The ultra-compact and lightweight thermal drone solution dedicated to all professionals!

With thermal and 4K cameras, Parrot's unique new drone is built for several professional applications

EMBARGO: April 15, 2019—**Parrot**, the leading European drone group, has unveiled **ANAFI Thermal**: An all-inone drone-based thermography solution (*drone + sensor + software*) with proven reliability and outstanding performance.

**ANAFI Thermal** uses the lightweight, simple-to-use, and highly advanced **ANAFI** drone platform, which has evolved for professional usage. In addition to its built-in **4K HDR** camera, **ANAFI Thermal** integrates a **FLIR**<sup>®</sup> thermal sensor. With the ability to reveal the invisible in an instant, the **FLIR**<sup>®</sup> sensor is a benchmark feature in the professional drone sector. **ANAFI Thermal** collects relevant and previously inaccessible data with complete security, improving the return on investment, efficiency and productivity for professionals in multiple industries.

With **ANAFI Thermal**, professionals can view live **thermal** and **RGB images** (4K HDR) of surfaces, structures or at-risk areas as the drone flies over or under them. The drone's unique imaging capabilities allow professionals to take immediate action or analyze recorded photos and videos in unprecedented detail.

With this unparalleled solution in the UAV market, **Parrot** is reinforcing its commitment to professionals. **ANAFI Thermal** is designed to profoundly revolutionize the way many industries and trades operate, offering professionals a complete solution that adapts perfectly to their requirements and needs:

- Experts in civil security and rescue services
- Building and public works professionals
- Energy producers and transporters
- Organizations for the preservation of the environment and animal species

ANAFI Thermal Available May 2019

## ANAFI Thermal: Two high-precision cameras film the invisible and the visible



The Paris-based engineers at **Parrot** used the **ANAFI** drone platform to develop **ANAFI** Thermal. The result of thousands of hours of testing and development, the platform offers exceptional features, performance and unique software maturity.

**ANAFI Thermal's** gimbal features **two embedded miniaturized cameras** (thermal and RGB 4K), stabilized on three axes for sharp videos and clear pictures in any flight conditions:

- A FLIR® radiometric thermal-imaging camera with

a 160x120 resolution and a temperature range of 14°F to 752°F reveals the invisible and provides live temperature readings. Directly from the **FreeFlight 6 app**, the pilot can instantly identify areas of heat loss in hot and cold spots and isolate subjects.

- <u>A 4K HDR camera with 21MP Sony sensor</u> is an essential tool for detailed visual inspection of surfaces and buildings. It provides high-resolution images and videos to help inspect the state of a structure and captures precise images of a search area, among other applications.

Extend ANAFI Thermal capabilities with the <u>Pix4DModel</u> app. Captured data is used to build a 3D image of buildings and scenes, enabling professionals to perform 3D inspections and measure dimensions after the flight.

Images of the visible and the invisible can be merged directly within **the FreeFlight 6 app**. Each element of the environment

appears in high precision, with visual representations of thermal leaks and temperature differences superimposed on the image.

**ANAFI Thermal**'s gimbal is a unique feature for a drone of this category, with the ability to **tilt vertically 90° upward or downward.** This gives professionals ground-breaking capabilities to inspect beneath structures in zenith view or roofs and flat surfaces in nadir view.

Thanks to the **3X digital zoom**, the pilot can examine hard-to-reach elements and the details of a scene in 4K or with thermal imaging without taking any risks.

#### ANAFI Thermal: Who is it for and how is it used?

**ANAFI Thermal** is a complete solution that perfectly adapts to the needs of **building industry professionals** (roofers, insulation and thermal inspection specialists), **major public works and construction groups**, **installers of solar panels**, **energy suppliers and transporters**, **civil security services** and **rescue services** such as firefighters. Lightweight and ultracompact, it is always ready to travel by hand, in a backpack or in the car trunk.

For **building professionals, ANAFI Thermal** can be used to assess thermal losses of a façade or a roof. The drone offers costcontrol benefits and removes the need for equipment such as ladders and scaffolding.

For **civil security services**, **ANAFI Thermal** enables remote and post-intervention applications, including monitoring hot points and helping teams decide whether to retain personnel and equipment on-site. 4K imagery and thermal rendering can speed up and ease the process of conducting searches in rugged areas without endangering the search teams.

For **energy suppliers and transporters, ANAFI Thermal** can identify power failures on high-voltage cables within minutes or even isolate a defective solar panel.

For **organizations for the protection of the environment and wildelife, ANAFI Thermal** provides discreet and quiet operation, which minimizes potential stress to animals. The drone makes it possible to observe, identify and count species while the pilot remains at a distance – potentially even protecting animals from poachers through remote monitoring.



<sup>2 -</sup> Always check local legislation with the DGAC before flying.

# ANAFI Thermal: Compact, light, powerful, and ready to be taken anywhere



**Lightweight** (315g/11.1 oz.) and **ultra-compact** with a unique folding design, **ANAFI Thermal** is designed to accompany professionals in any field of work.

For rescue-service workers, civil security and inspection professionals, fast action is critical. With superior portability and power-up speed, **ANAFI Thermal** unfolds and becomes operational in just three seconds.

Despite its ultraportable design, **ANAFI Thermal** offers tremendous power. The drone is able to fly over a scene or travel to a hard-to-reach area at a top speed of **55km/h**. With the ability to withstand wind speeds of up to **50km/h**, **ANAFI Thermal** remains operational even in complex conditions and environments.

With **78 minutes of cumulative flight time**<sup>1</sup> (three batteries lasting 26min each per charge), **ANAFI Thermal** demonstrates unique flight

performance for the market. It covers vast areas, giving professionals the time required for each assignment without unnecessary stress or pressure.

Equipped with a USB-C port for recharging, **ANAFI Thermal**'s batteries can be recharged from any source, including computers, power banks and 12V vehicle systems.

Its **Parrot Skycontroller 3** remote control ensures a powerful, reliable WiFi connection up to **2km**<sup>2</sup>. This means teams can stay at a safe distance from an at-risk or difficult-to-access area while using the drone.

### ANAFI Thermal: Making thermal imaging accessible to everyone

**ANAFI Thermal** flight controls are available via the **FreeFlight 6** app, ensuring they are accessible to everyone and can accompany the user on every assignment. Thanks to its ergonomic interface and intuitive operation, the pilot can easily switch from an **RGB view** to **thermal imaging** – or even **merge the two** to enhance the readability of the image.

Real-time analysis of the scene is facilitated by the app's built-in tools:

- Display the estimated temperature of an image element with a simple tap on the screen;
- Freeze-frame to stay on a specific element for focused analysis.

The operator can observe thermal differences on the screen by selecting one of the **three groups of settings** available:

- **Relative:** This group displays the extent of temperature differences in the image. The scene is visible with a gradient-color scale, showing the range of the coldest temperature in the scene to the hottest.
- **Absolute:** The user can manually choose a temperature range for the color gradient. The user simply needs to set a bracket for the desired temperature values.
- **Spot:** This mode is used to instantly identify thermal anomalies. Only the hottest or coldest spots are isolated.

The captured thermal and RGB images and videos are recorded on the drone's **16GB microSD card**. They can be shared with collaborators, experts and clients in seconds, directly via the app or a computer



Each video can be viewed afterwards on the **FreeFlight 6** app. The settings group can then be modified to isolate a specific element or analyze the temperatures in a scene.

Compatible with the <u>FLIR® Tools</u> software solution, professionals can quickly edit and analyze images -- and very simply produce inspection reports in PDF format.

1 - Flight time can vary depending on flight modes and conditions.

2 - Always check local legislation with the DGAC before flying.

# **ANAFI Thermal: Completely safe flights**

**ANAFI Thermal** benefits from all of **Parrot's** technological expertise, including the renowned ergonomics, ease-of-use, reliability and power of its drones.

To ensure its safety, **ANAFI Thermal** is embedded with multiple sensors and offers a powerful built-in autopilot. The quadricopter demonstrates stability and manoeuvrability with exceptional accuracy.

For perfectly controlled and completely safe flights, the pilot can edit and adapt the parameters of the quadricopter to his or her flight environment<sup>2</sup>:

- Setting the flight altitude
- Marking a flight zone by setting up a geofence
- Creating a flight path with the **FlightPlan** feature. This route can be repeated many times to measure a changing situation or to record the before-and-after of an operation, for example.

- Activating the **'Return Home'** (RTH) function. With one press of the dedicated button, **ANAFI Thermal** automatically returns to its take off point thanks to the precision of its GPS and its 'Precise Home' visual recognition function.

Finally, **ANAFI Thermal**'s smart battery calculates remaining flight time and the distance it needs to cover in order to return to its take off point. If the charge level becomes critical, the pilot receives an alert. Without requiring any user action, **ANAFI Thermal** launches a procedure to return to its take off point.

Media material of the ANAFI Thermal can be viewed here

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For more information visit <u>www.Parrot.com</u> or contact:

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Founded in 1994 by Henri Seydoux, Parrot is today the leading European group in the fast-growing industry of drones. Visionary, at the forefront of innovation, Parrot is a real 'End to End' drone group from hardware and software to services.

Parrot, the world's number 2 of the consumer drone market, designs drones known for their high performance and ease of use.

Parrot is also offering business solutions, covering drones, software and services mainly focusing on 3 major verticals: (i) Agriculture, (ii) 3D Mapping, Surveying and Inspection and (iii) Public safety.

The Parrot Group designs and engineers its products in Europe, mainly in France and Switzerland. It currently employs 600 people worldwide and makes the majority of its sales outside of France. Parrot, headquartered in Paris, is listed on Euronext Paris (FR0004038263 - PARRO).

For more information: <u>www.parrot.com</u>