15 ANOS desde 2011 PVF Tech Atelier



PRACTICAL GUIDE · LAW · GOOD PRACTICE · CONTACTS

DRONES IN MADEIRA

Fly safely, within the law and with respect for the islands

by **Paulo Vasconcelos Freitas**

PVF Tech Atelier 15th anniversary edition · 2011–2026

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Credits

TITLE
Drones in Madeira — A practical guide to good practice, the law and useful contacts

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This information reflects the legislation and official sources consulted in October 2026. Rules change: this guide does not replace the legal texts or the competent authorities. If in doubt, ask whoever decides.

FOREWORD

Ten years looking at the islands from above

In 2016, when I started flying drones, the question I heard most was always the same: *"but is that legal?"* Some people swore you needed a "pilot's certificate", that drones could be seized at any moment, or that the remote controls transmitted above the permitted power. I did what I still recommend to everyone: I asked the people who know.

I wrote to ANAC (the Portuguese Civil Aviation Authority), the National Aeronautical Authority (AAN), ANACOM, the Ports of Madeira, the Portuguese Model Aircraft Federation and several insurers. They all replied — quickly and clearly. That work became the article *"Demystifying Drones (once and for all...)"*, published in July 2016 in the Diário de Notícias.

At the time there was no specific drone legislation in Portugal. Permission to capture aerial images was based on a 1960 ordinance and the request went by post. Ten years later we have European rules, operator registration, online training, compulsory insurance and geographical zones. Almost everything has changed — except the essential: common sense is still the first flight instrument.

Since then, drones have become part of my work and of my wish to share knowledge. With Fnac Madeira we created the Drone Workshop, which ran for three editions. I have taken the subject to schools, to my classes at the Funchal Senior University and to television. I have also written several articles on the subject in my columns for DN Madeira and JM Madeira. I have demonstrated equipment to Civil Protection, taken part in search and rescue operations and in cliff inspections — situations where a drone reaches in minutes places that would take a ground team hours, and risks. I have also spoken about maritime uses of drones, monitoring the coast and plastics in the ocean, together with MARE.



Funchal, 2016 — the photograph that accompanied the article "Demystifying Drones".

The drone also travels with me. I have flown in many parts of the world, and every destination has taught me that rules, permissions and flying culture change from one border to the next. Before taking off away from home, the first task is always the same: study the local rules.

But my particular passion lies in the archipelagos of Madeira and the Azores. From Porto Santo to Corvo, by way of Faial and Pico, these are islands where terrain, wind and sea demand twice the preparation — and reward it with images you cannot get anywhere else.

This guide is part of the **15th anniversary celebrations of PVF Tech Atelier** (2011–2026). Fifteen years of repairing, configuring and explaining technology, in Funchal and in Horta, have taught me that the best repair is the one that never needs to happen. A well-prepared drone and a well-informed pilot avoid accidents, fines and disappointments — and protect the people below.

I wrote it for PVF's customers and friends, for those who have just received their first drone and for those who have been flying for years but want to check the rules. Its focus is firmly on the Autonomous Region of Madeira. It does not replace the law or the official authorities, but I hope it makes a good co-pilot.

Happy flying — and fly smart!

Paulo Vasconcelos Freitas

Founder of PVF Tech Atelier



A conversation about drones at Fnac Madeira.



The first Drone Workshop at Fnac Madeira (2018).



Drone Workshop 2.0 (2019).



Drone Workshop 3.0 at Fnac Madeira.

PVF ARCHIVE

The islands from above

The archipelagos of Madeira and the Azores: different islands, the same demands.



Faial (Azores): Horta, Monte da Guia and, across the channel, Pico mountain.



Vila Franca do Campo islet, São Miguel (Azores).



Sete Cidades lake, São Miguel (Azores).



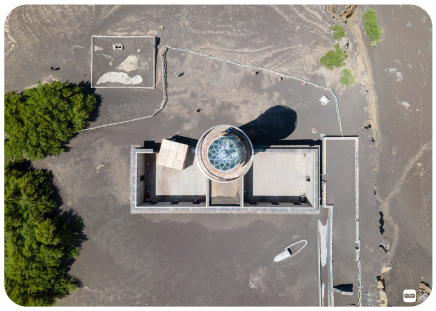
The Caldeirão crater on Corvo island (Azores).



Angra do Heroísmo, Terceira (Azores), with the Cabras islets in the distance.



Porto Santo: the islets off the south coast and, beyond, the beach and the island's peaks.



Capelinhos lighthouse, Faial (Azores): a vertical view over the ash of the 1957–58 eruption.

And in the Azores?

The European and national rules are the same. What changes are the authorities and the sensitive sites: protected areas fall under the Regional Directorate for the Environment (DRA); around Horta airport there are areas with limits of up to 80 m; and the Lajes control zone, on Terceira, is under military jurisdiction — permission from the AAN.

TIMELINE

Ten years of drones — in the law and at PVF

From a legal vacuum to a complete European framework. In blue, legislative milestones; in purple, PVF's journey with drones.

2016 — **ANAC Regulation No. 1093/2016**
First national drone rules: heights, aerodromes and prohibited places.

2016 — **Article "Demystifying Drones"**
Contacts with ANAC, AAN, ANACOM, the Ports of Madeira and insurers.

2018 — **Decree-Law No. 58/2018**
Creates registration and compulsory third-party liability insurance.

2018 — **First Drone Workshop at Fnac Madeira**
And an ANAC permit to fly over a gathering of people in Funchal.

2019 — **e-AAN platform**
Requests to capture aerial images move online.

2019 — **Drone Workshop 2.0**
Piloting, video formats and the law in force.

2021 — **European rules in force**
Regulation (EU) 2019/947: open, specific and certified categories. Compulsory insurance above 900 g (Ordinance No. 2/2021).

2021 — **Decree-Law No. 87/2021**
Penalties regime and the basis for new geographical zones.

2024 — **End of the European transition**
Drones without a class label fly only in A1 (under 250 g) or A3.

2024 — **Drones at sea**
Talk on coastal monitoring and plastics in the ocean, with MARE.

2026 — **PVF Tech Atelier turns 15**
This guide, an anniversary edition for customers and friends.

SUMMARY

The essentials on one page

If you only have time to read one page, make it this one. It covers leisure drones in the open category — the category of almost every drone sold in shops.

1 

Register as an operator

Compulsory if the drone weighs 250 g or more, or has a camera (toys excepted). Free, at uas.anac.pt.

2 

Take the A1/A3 training

ANAC online course and exam (rp.anac.pt). Required from 250 g.

3 

Insurance above 900 g

Third-party liability is compulsory. Below that, it is still a good idea.

4 

Permission to film

Capturing aerial images requires AAN permission, requested in advance on the e-AAN platform.

5 

Check the zones

Before every flight, check the geographical zones at uas.anac.pt/explore or in the Voa na Boa app.

6 

120 m maximum

Measured from the closest point of the surface.

7 

Always in sight

Direct visual contact with the drone — binoculars and screens do not count.

8 

Never over crowds

This includes events, busy beaches and processions.

9 

Respect privacy

Images of people and property are personal data. Think before you record and publish.

10 

If in doubt, don't fly

And ask: the official authorities do reply, and quickly.

EUROPEAN FRAMEWORK

Categories and classes

Since 2021, Portugal has applied the European rules. What determines the rules is the risk of the operation — not whether it is for leisure or work.

Open

Low risk. No prior ANAC authorisation, provided the rules are followed. Up to 25 kg, up to 120 m and always in sight.

Specific

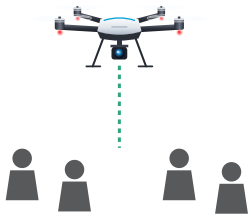
Medium risk: flights outside the open category (for example higher, or closer to people). Requires a declaration or ANAC authorisation.

Certified

High risk, with rules close to crewed aviation: carrying people or dangerous goods.

The three subcategories of the open category

A1 — Over people
C0 · C1 · < 250 g



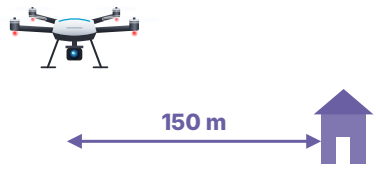
May fly over individual people
never over crowds

A2 — Close to people
C2 · A2 certificate



30 m from uninvolved people
5 m in low-speed mode

A3 — Far from people
C2 · C3 · C4 · up to 25 kg



Far from people and from
residential, commercial and leisure areas

The class label

Class	Maximum mass	Where it may fly	Minimum training
C0	< 250 g	A1 (and A3)	Read the manual
C1	< 900 g	A1 (and A3)	A1/A3
C2	< 4 kg	A2 (and A3)	A1/A3 + A2 certificate
C3 · C4	< 25 kg	A3	A1/A3
No class	< 250 g / up to 25 kg	A1 / A3	Manual / A1/A3

Classes C5 and C6 are for standard scenarios in the specific category. Drones without a class label bought before 2024 may still fly: under 250 g in A1; above that, only in A3.

BEFORE YOUR FIRST FLIGHT

Registration, training and insurance

Three steps you deal with once (and renew periodically). They belong to the pilot, not just the drone.

1

Operator registration — ANAC

- Compulsory for drones of **250 g or more**, or with a **camera or sensor** able to capture personal data (toys excepted).
- Done at **uas.anac.pt**; residents in Portugal authenticate with the **Chave Móvel Digital**. Registration is free.
- You receive an operator number (format **PRT-...**) to stick on the drone and enter into the remote identification system.
- Already registered in another EU country? That number is valid in Portugal. Visitors from outside the EU register in the first EU country where they fly — in the Autonomous Region of Madeira, with ANAC.

2

Remote pilot training — ANAC

- **A1/A3**: online course and exam at **rp.anac.pt**; pass mark 75 %. Required from 250 g (class C1 and above).
- **A2**: in addition to A1/A3, practical self-training and an in-person theory exam at ANAC.
- Certificates are valid for **5 years**. Minimum age: **16**, with exceptions for toys and flights under the direct supervision of a qualified pilot.
- C0 drones or drones under 250 g: just read and follow the manufacturer's manual.

3

Third-party liability insurance

- Compulsory for drones with a **maximum operating mass above 900 g** (Decree-Law No. 58/2018 and Ordinance No. 2/2021).
- Check that the policy covers the type of use (leisure or professional) and flying outside Portugal.
- Below 900 g it is not compulsory, but a 249 g drone can still break a window or frighten a horse.

PVF tip

Keep your operator number, pilot certificate, insurance policy and the day's permits in a dedicated folder on your phone. If you are checked, showing everything in 30 seconds makes all the difference.

CAPTURING IMAGES

Permission from the National Aeronautical Authority

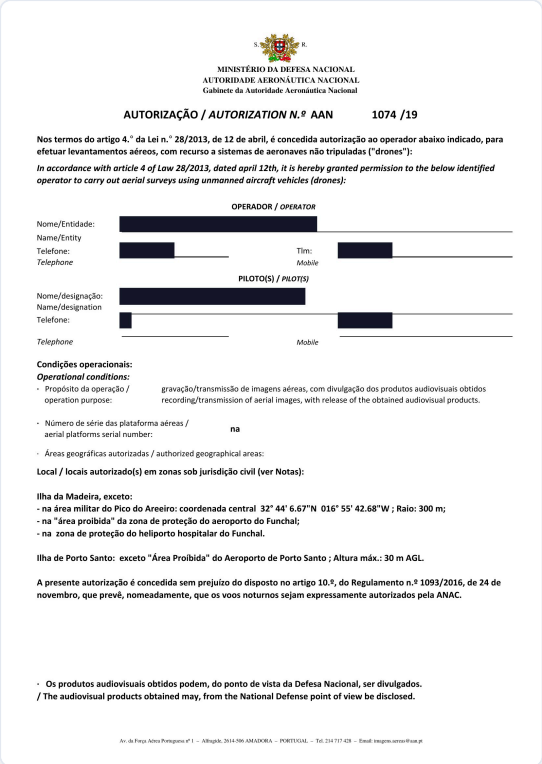
This is the rule that surprises people most: in Portugal, aerial surveys — including photos and video taken with a drone — require AAN permission, whether or not you publish the images.

How to apply

1. Register on the **e-AAN** platform (via www.aan.pt) and send the signed declaration of honour.
2. Enter the details of the drone, pilot and insurance, and draw your operating areas (circle, polygon or route).
3. Submit the request at least **10 days in advance**. Only these are guaranteed a reply before the flight.
4. Each permit covers one area and can last up to **60 days**. Registration and permits are free.

Good to know

- It applies to any drone with a camera, including in FPV mode.
- In military airspace, permission is always required, even without capturing images.
- AAN permission does not replace others: protected areas, the maritime public domain, heritage sites and data protection.
- Contact: **imagens.aereas@aan.pt**



MINISTÉRIO DA DEFESA NACIONAL
AUTORIDADE AERONÁUTICA NACIONAL
Gabinete da Autoridade Aeronáutica Nacional

AUTORIZAÇÃO / *AUTORIZATION N.º* AAN 1074 /19

Nos termos do artigo 4.º da Lei n.º 28/2013, de 12 de abril, é concedida autorização ao operador abaixo indicado, para efetuar levantamentos aéreos, com recurso a sistemas de aeronaves não tripuladas ("drones"):

In accordance with article 4 of Law 28/2013, dated april 12th, it is hereby granted permission to the below identified operator to carry out aerial surveys using unmanned aircraft vehicles (drones):

OPERADOR / *OPERATOR*

Nome/Entidade:
Name/Entity
Telefone: Tlm:
Telephone *Mobile*

PILOTO(S) / *PILOT(S)*

Nome/designação:
Name/designation
Telefone:
Telephone *Mobile*

Condições operacionais:
Operational conditions:
- Propósito da operação / operation purpose: gravação/transmissão de imagens aéreas, com divulgação dos produtos audiovisuais obtidos recording/transmission of aerial images, with release of the obtained audiovisual products.
- Número de série das plataforma aéreas / aerial platforms serial number: na
- Áreas geográficas autorizadas / authorized geographical areas:

Local / locais autorizado(s) em zonas sob jurisdição civil (ver Notas):

Ilha da Madeira, exceto:
- na área militar do Pico do Areeiro: coordenada central 32° 44' 6.67"N 016° 55' 42.68"W ; Raio: 300 m;
- na "área proibida" da zona de proteção do aeroporto do Funchal;
- na zona de proteção do heliporto hospitalar do Funchal.

Ilha de Porto Santo: exceto "Área Proibida" do Aeroporto de Porto Santo ; Altura máx.: 30 m AGL.

A presente autorização é concedida sem prejuízo do disposto no artigo 10.º, do Regulamento n.º 1093/2016, de 24 de novembro, que prevê, nomeadamente, que os voos noturnos sejam expressamente autorizados pela ANAC.

- **Os produtos audiovisuais obtidos podem, do ponto de vista da Defesa Nacional, ser divulgados.**
/ The audiovisual products obtained may, from the National Defense point of view be disclosed.

Av. da Força Aérea Portuguesa nº 1 – Alfragide, 2614-506 AMADORA – PORTUGAL – Tel. 214 717 428 – Email: imagens.aereas@aan.pt

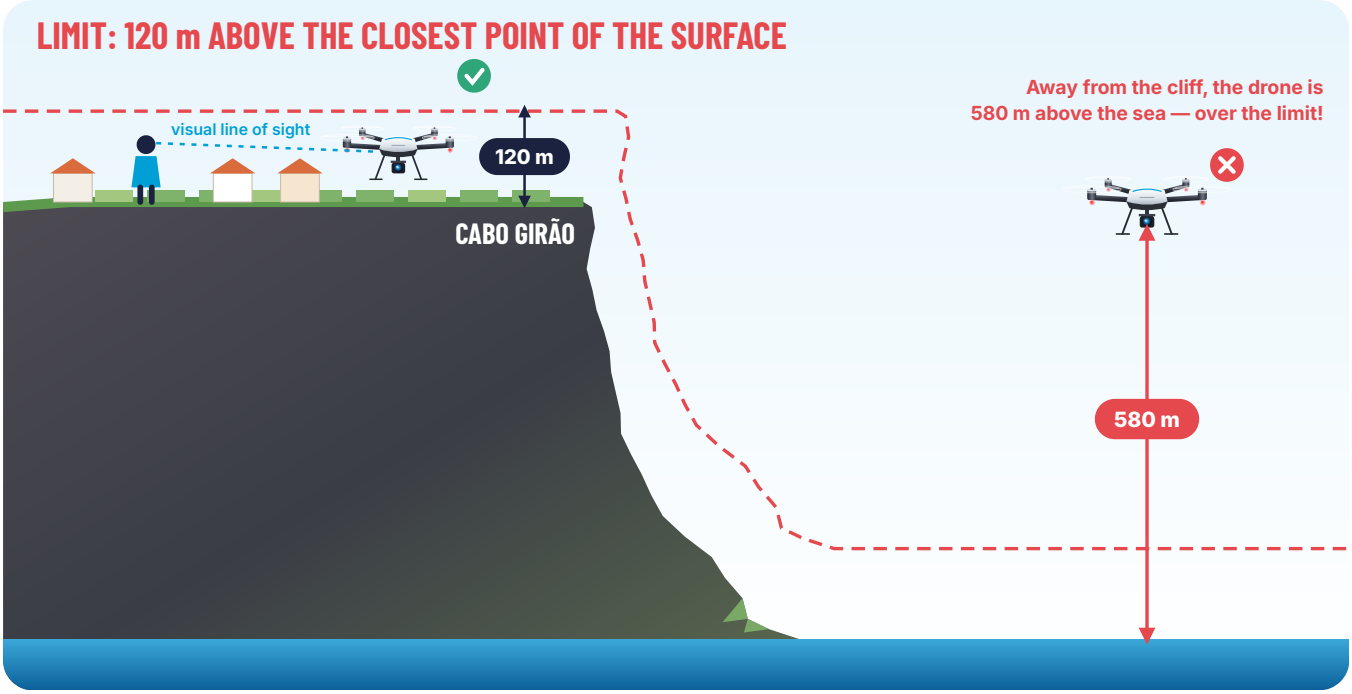
A real example: AAN authorisation No. 1074/19 for the island of Madeira and Porto Santo. Personal data removed.

What an authorisation says (2019 example)

- **Island of Madeira:** authorised, except for the military area of Pico do Arieiro (300 m radius), the prohibited area of the airport and the protection zone of the Funchal hospital heliport.
- **Porto Santo:** authorised, except for the prohibited area of the airport, with a maximum height of 30 m above ground.
- Capturing images within 100 m of sensitive installations (military, police, prisons) is prohibited unless those bodies authorise it.
- Night flights still require express authorisation from ANAC.

IN THE AIR

Flight rules: height and line of sight



120 metres — from where?

The **120 m** limit is measured from the closest point of the Earth's surface. On an island of cliffs this matters: as you fly off Cabo Girão over the sea, the reference is no longer the viewpoint but the water, 580 m below. Fly along the slope, not away from it.

The only exception: within 50 m of an artificial obstacle more than 105 m tall, you may climb up to 15 m above it, at the request of whoever is responsible for the obstacle.

Always in sight

In the open category you always fly in **visual line of sight** (VLOS): the pilot sees the drone with the naked eye, without binoculars. The screen does not count. An observer can help, but cannot replace the pilot.

In the Autonomous Region of Madeira, fog and low cloud can appear within minutes — if the drone flies into a cloud, you have lost visual contact. Descend and come back.

Also prohibited in the open category

Carrying dangerous goods, dropping objects and flying over gatherings of people.

RESTRICTIONS

Where you cannot fly

In Portugal, until the new geographical zones are published, the restrictions of ANAC Regulation No. 1093/2016 remain in force. Always check them at uas.anac.pt/explore or in the Voa na Boa app.

Airports and aerodromes

Flying is prohibited next to runways and approach paths; around them there are areas limited to 30 m and 60 m. Civil aerodromes and heliports: the director's permission within 2.5 km.

Emergency heliports

Within 1 km of hospital, civil protection or security force heliports, you may not fly in the open category.

Military sites and airspace

Danger, restricted, reserved or prohibited areas and military installations require AAN permission.

Sensitive sites

Sovereign bodies, embassies, consulates, security forces, police operations and prisons — only with permission from those bodies.

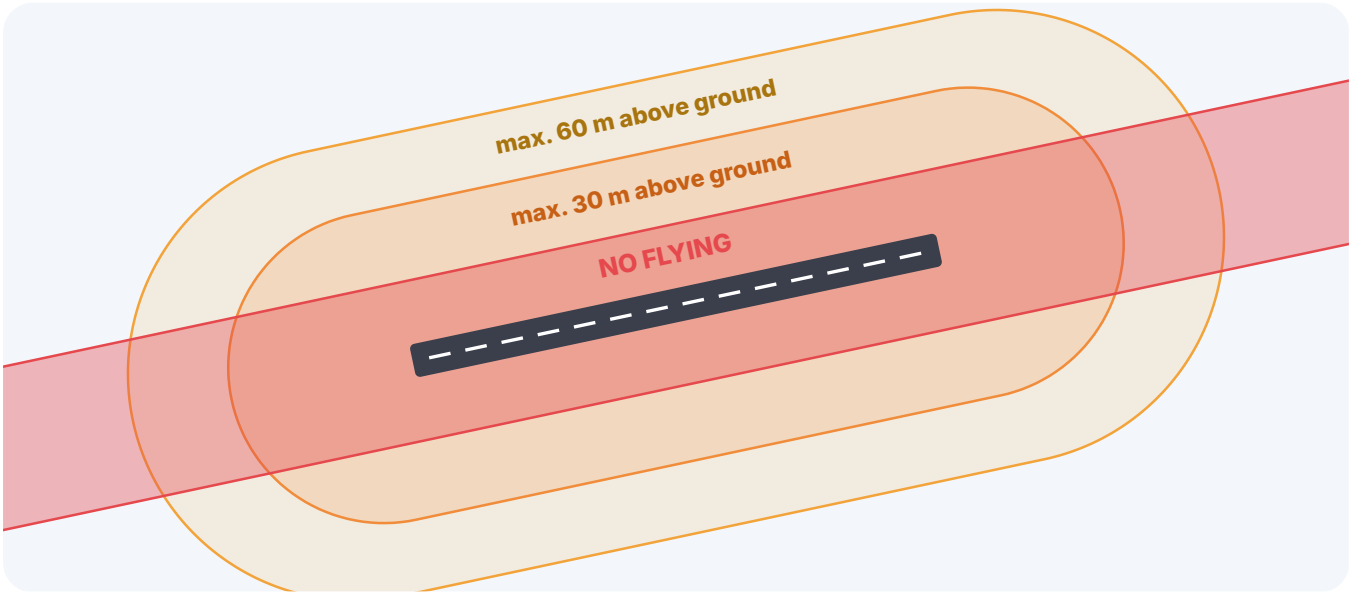
Gatherings of people

Festivals, village fairs, processions, concerts, busy beaches and viewpoints. Never overhead.

Emergency zones

Wherever rescue operations are under way (fires, accidents, rescues), unless the incident commander allows it.

What the areas around an international airport look like



Illustrative diagram. The real shapes follow the runways and approach paths. In these areas, the drone must show the pilot its height.

MAP

Autonomous Region of Madeira: where to take extra care

An overview of the zones that matter most when deciding to fly in the archipelago. It is an illustration — it does not replace the official map of geographical zones.



Airports prohibited corridor and restricted area

Madeira Natural Park approximate area, about ⅔ of the island

1. Air Force radar — Pico do Arieiro
2. Hospital heliport in Funchal (1 km radius)
3. Port of Funchal (APRAM)
4. Port of Caniçal (APRAM)
5. Port of Porto Santo (APRAM)
6. Garajau Partial Nature Reserve
7. Rocha do Navio Nature Reserve
8. Ponta de São Lourenço (Natura 2000)
9. Cabo Girão Protected Area
10. Ponta do Pargo Protected Area
11. Desertas Islands Nature Reserve
12. Savage Islands Nature Reserve

AUTONOMOUS REGION OF MADEIRA

Airspace, ports and sea

Two international airports

Madeira Cristiano Ronaldo Airport, in Santa Cruz, is surrounded by a prohibited zone and areas limited to 30 m and 60 m. Much of Santa Cruz and Machico lies inside these areas or very close to them.

Porto Santo Airport shares facilities with the Air Force (Manoeuvre Aerodrome No. 3). On a small island with the airport in the middle, almost any flight is close to its areas — always check before taking off.

The Pico do Arieiro radar

The white "ball" on Pico do Arieiro is Air Force Radar Station No. 4, in operation since 2013 at about 1,800 m. It is a military installation: do not fly over it or film it up close without AAN permission.

Heliports

The Funchal hospital heliport and the sites used by the emergency and firefighting helicopter require a 1 km radius without open-category flights. If you hear a helicopter, land immediately.

Ports

The ports of Funchal, Caniçal and Porto Santo are managed by **APRAM**. Flying over port areas requires prior permission; with ISPS-code ships or naval vessels alongside, it may be refused.

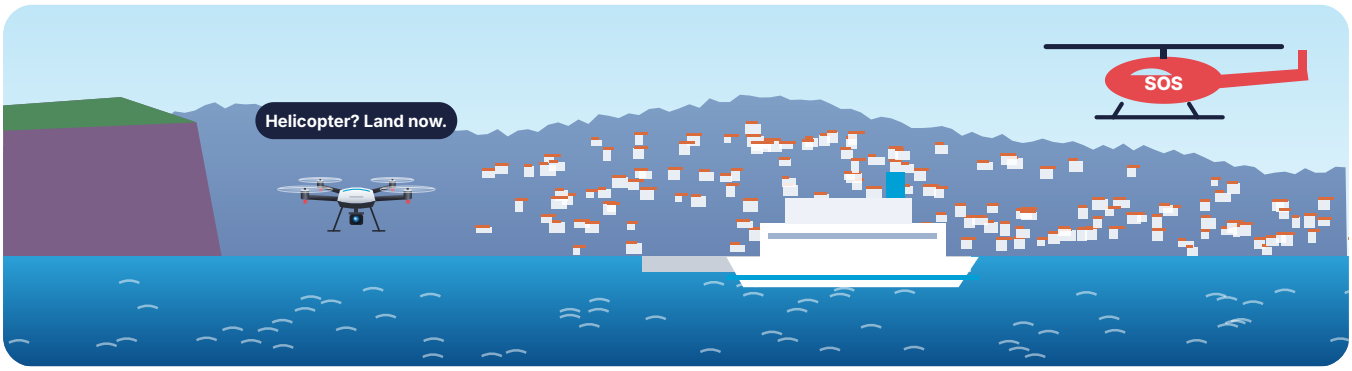
Coast and sea

The maritime public domain — beaches, cliffs, marinas, the coastal strip — is the responsibility of the **National Maritime Authority**, through the harbour master's offices (capitanias) of Funchal and Porto Santo. The Maritime Police enforce it.

Real case · August 2026

A drone video filmed next to the Madeira airport runway and shared on social media led ANAC, the PSP police, the AAN and the airport operator ANA to look into the flight. The author claimed the manufacturer's app showed no restrictions.

The lesson: the manufacturer's geofencing helps, but it does not replace the official zones. The pilot is always responsible.



AUTONOMOUS REGION OF MADEIRA

Nature and protected areas

About two thirds of the island of Madeira is Natural Park. In the Autonomous Region, protected areas are the responsibility of the IFCN — not the mainland's ICNF.

Who authorises

Flights and filming in the parks, reserves and protected areas of the Autonomous Region of Madeira need an opinion or permission from the **Institute of Forests and Nature Conservation (IFCN, IP-RAM)**. Apply in advance and explain the place, date and purpose.

- **Madeira Natural Park**, including the Laurisilva forest, a UNESCO World Heritage Site since 1999, and the central mountain massif.
- **Nature reserves** of the Desertas Islands, the Savage Islands, Garajau (marine) and Rocha do Navio.
- **Protected areas** of Cabo Girão and Ponta do Pargo, and the Porto Santo marine protected areas network.
- **Natura 2000** sites, such as Ponta de São Lourenço.

In the Desertas, Savage Islands and Garajau reserves, low-level overflight is restricted. In practice, a drone may only fly there with express permission.

Wildlife that deserves distance

Zino's petrel (freira-da-madeira)

One of the rarest seabirds in Europe. It nests only on the cliffs of the central massif, near Pico do Arieiro.

Monk seal (lobo-marinho)

The Mediterranean monk seal has one of its last refuges in the Desertas.

Shearwaters and birds of prey

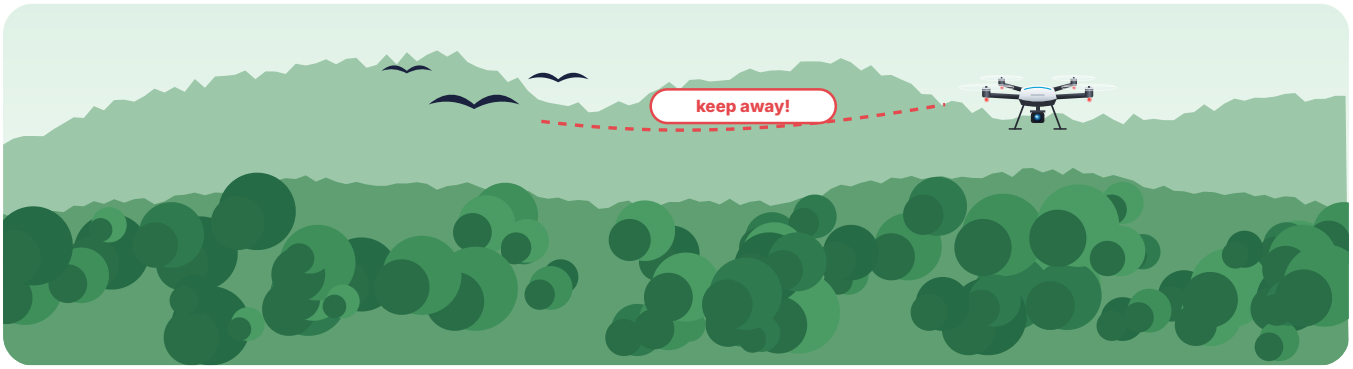
The buzzard and the kestrel defend their territory and may attack a drone.

Whales and dolphins

The drone's noise and shadow disturb them. Keep your height and move away.

Golden rule

If an animal changes its behaviour because of the drone, you are already too close. Climb, move away and don't insist.



PERMISSIONS MAP

Who authorises what

One operation may need more than one permission. A video on a beach next to a nature reserve, for example, may involve the AAN, the harbour master and the IFCN.

Situation	Authority	How
Operator registration and pilot training	**ANAC**	uas.anac.pt · rp.anac.pt
Flights outside the open category (specific category)	**ANAC**	Authorisation or declaration
Aerial photos and video (aerial surveys)	**AAN**	e-AAN platform, 10 days ahead
Military airspace, radar, Porto Santo (AM3)	**AAN**	Coordinates with the Air Force
Near airports and air traffic control	**ANAC / NAV Portugal**	Specific category only
Port areas (Funchal, Caniçal, Porto Santo)	**APRAM**	Prior request
Beaches, cliffs and maritime public domain	**Harbour master (Capitania)**	Funchal or Porto Santo
Parks, reserves and protected areas	**IFCN, IP-RAM**	Opinion / permission
Rescue and emergency zones	**Incident commander**	Civil Protection
Images of people and personal data	**CNPD**	GDPR and image rights
Monuments and listed heritage	**Site manager / Culture**	Request to the owner
Events, private property	**Organiser / owner**	Express permission

What I always say in my sessions

Asking costs nothing. Every authority I have written to since 2016 has replied — and an email stating place, date, drone and purpose clears up most doubts.

CHECKLIST

Before every flight

Pilots use checklists for a reason: memory fails when you are in a hurry. This one fits on your phone.

Documents

- [ ] Operator number on the drone
- [ ] Valid A1/A3 (or A2) certificate
- [ ] Insurance up to date (compulsory above 900 g)
- [ ] AAN permit for the area, if filming
- [ ] Other permissions: IFCN, harbour master, APRAM

Location

- [ ] Geographical zones checked (uas.anac.pt/explore)
- [ ] No airports, heliports or military sites nearby
- [ ] No gatherings of people
- [ ] Flat, clear take-off point away from the public
- [ ] Plan B for an emergency landing

Weather

- [ ] Wind (including gusts) within the drone's limits
- [ ] Fog and low cloud: is there visual contact?
- [ ] IPMA forecast for the area and altitude
- [ ] Temperature: cold reduces battery endurance

Equipment

- [ ] Propellers free of cracks, firmly fitted
- [ ] Batteries charged and not swollen
- [ ] Drone and controller firmware updated (at home)
- [ ] Compass and IMU calibrated, away from metal
- [ ] Return-to-home (RTH) height set for the terrain
- [ ] Memory card with free space

During the flight

Take off and hover for 10 seconds at 2–3 m to check everything responds. Watch the battery and come back with at least 30 % — in the Autonomous Region of Madeira, the wind on the way back is often against you.



An Inspire 2 in flight — the photograph used on the 2018 Drone Workshop poster.

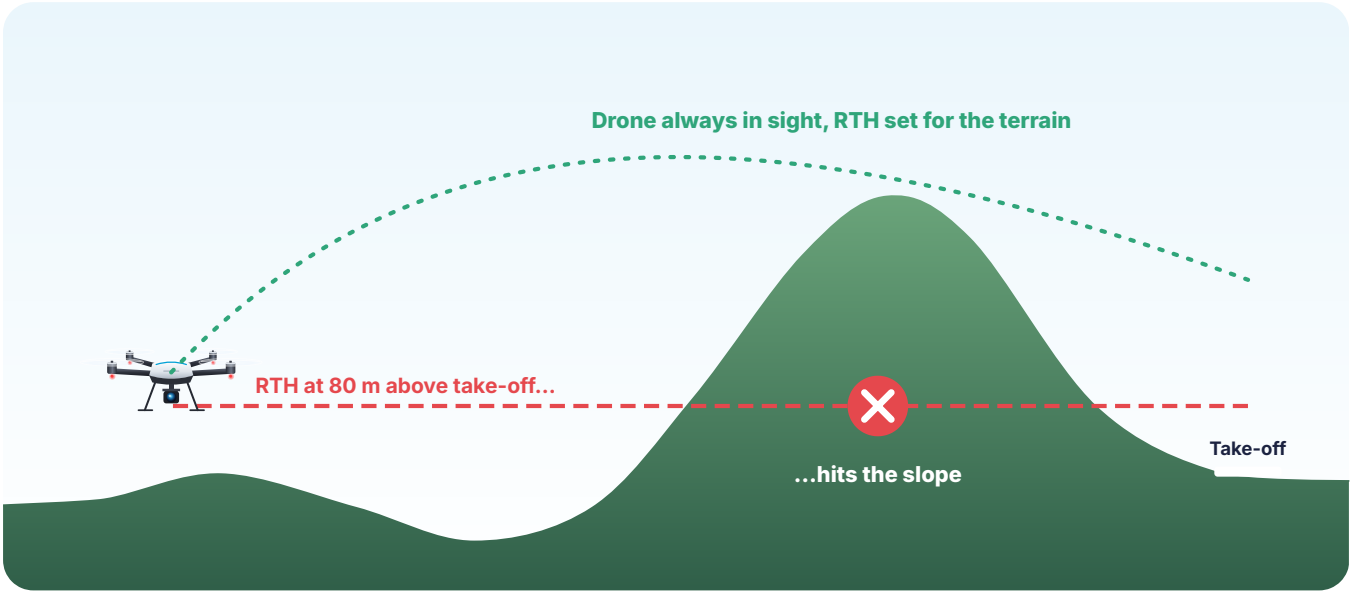


A Phantom 3 Advanced ready for take-off, with the sun low over the sea.

IN PRACTICE

Tips for flying in the Autonomous Region of Madeira

The archipelago is one of the most beautiful places in the world to film — and one of the most demanding places to fly.



Terrain and return-to-home

RTH climbs to a fixed height above the take-off point and returns in a straight line. In a valley, that height may be below the ridge in between. Set RTH for the location — and remember that with a mountain between you and the drone, you have already lost visual contact.

Wind

At Ponta de São Lourenço, on Paul da Serra, on the peaks and on Porto Santo, the wind speeds up over ridges and headlands. Test at low height before flying out. With a tailwind on the way out, the return will be into the wind.

Fog and the "sea of clouds"

Filming above the clouds is tempting, but inside or above them there is no visual contact — and no visibility for others.

Cold in the mountains

At dawn on Pico do Arieiro and Pico Ruivo, batteries lose performance. Keep them warm until you fly.

Signal in valleys

In deep valleys such as Curral das Freiras, the radio link drops quickly behind rocky spurs. Keep line of sight and stay close.

Salt and sea

Sea spray corrodes motors and contacts. After flying on the coast, wipe the drone with a dry cloth. Avoid taking off from pebbles and sand.

Gulls and birds of prey

They attack drones, especially in the nesting season. If a bird approaches, climb and move away.

Compass

Calibrate away from cars, metal balconies and reinforced concrete. On board boats, calibration is unreliable.

BEING CONSIDERATE

Good manners and privacy

The way each pilot flies shapes how people see all pilots. A good flight is rarely news; a bad one is news for weeks.

Privacy and image rights

Images in which people, number plates or the inside of homes can be identified are **personal data**, protected by the GDPR and by image rights. The supervisory authority is the **CNPD**.

- Don’t film gardens, balconies and windows.
- Before publishing, blur faces and number plates that are not the subject.
- For commercial use of images of people, get written consent.
- Keep the camera pointing forward when passing houses. Never hover over anyone.

With the people around you

- Explain what you are doing to anyone who approaches. Most people are curious, not bothered.
- At viewpoints, take off away from visitors and don’t make noise for long in the same spot.
- On levadas and footpaths, give way to walkers and don’t take off in the middle of the trail.
- Pets and livestock are frightened by the buzz.
- If someone asks you not to film, respect that.

At fires and accidents

A curious drone can force a firefighting or rescue helicopter to stop. Stay on the ground.



Navagio, Zakynthos island (Greece), 2018 — PVF archive. The best images come from carefully planned flights.

WORTH TELLING

Did you know?

€0

The price of a permit

Permits cost nothing: registration on the e-AAN platform and permission to capture images are free of charge.

1960

The ordinance that still decides

Permission for aerial photography rests on texts from 1958 and 1960, written for aeroplanes.

10 s

Over people, by permit

In 2018, ANAC authorised one of my flights over a gathering of people in Funchal: no more than 10 seconds over the public and wind up to 5 m/s.

580 m

Cabo Girão

One of the highest cliffs in Europe. A few metres beyond the viewpoint are enough to exceed the 120 m limit.

250 g

The magic threshold

Below this weight, less training. But with a camera, operator registration is still compulsory.

ANACOM

Remote controls are legal

In 2016, ANACOM measurements confirmed that the controllers, at 2.4 and 5 GHz, transmitted within legal limits.

1999

Laurisilva

Madeira's Laurisilva forest has been a UNESCO World Heritage Site since 1999. Flying over it requires IFCN permission.

PRT-

The drone's number plate

The operator number starts with PRT and is also broadcast by the remote identification system, when required.



Autorização n.º 269/RPAS/2018

1. Nos termos dos artigo 11.º do Regulamento n.º 1093/2016, de 24 de novembro, publicado no Diário da República, 2.ª série, n.º 238, de 14 de dezembro, é concedida autorização ao requerente abaixo indicado, para efetuar o tipo de operação *infra* especificada, com recurso a sistemas de aeronaves pilotadas remotamente ("Drones").

2. Identificação do Requerente/Piloto Remoto: [redacted]

3. Tipo de operação autorizada: • Voo sobre concentração de pessoas ao ar livre.

4. Condições técnicas, administrativas e operacionais a cumprir no decurso da operação autorizada:

Local	Coordenada	Raio	Altura	Início	Fim	Período	Tipo
Funchal	32°38'49.11"N 16°54'26.7"W	100m	30m AGL	28abr18	28abr18	1600-1800 LMT	VLOS

AGL – Acima do nível do solo; LMT – Hora Local; VLOS - Operação à linha de vista.

Esta autorização implica o cumprimento das seguintes condições:

— Apenas sobrevoar pessoas durante o tempo máximo de 10 segundos;
— Bateria sempre com mais de 40% de carga, abaixo de 40% o drone deve aterrar;
— A velocidade do vento máxima permitida para operar é de 5m/s;
— O drone deverá ter capacidade de gravação do perfil de voo e disponibilização do mesmo às Autoridades caso seja requerido;
— Em caso de acidente ou incidente, o mesmo deve ser comunicado a esta Autoridade.

Sem prejuízo do disposto na presente autorização, devem ser cumpridas as regras gerais constantes do artigo 3.º do Regulamento n.º 1093/2016, não devendo igualmente ser realizado nenhum voo em áreas sujeitas a restrições ou proibições, em conformidade com o artigo 11.º do mesmo Regulamento.

A presente autorização é válida para os dias de operação e horários anteriormente definidos, não dispensando o cumprimento de outros regimes jurídicos constantes de diplomas legais e regulamentares que sejam eventualmente aplicáveis.

Lisboa, 26 de abril de 2018

O Vice-presidente do Conselho de Administração

Carlos Sequeira Salgado

(Ao abrigo de competência delegada pelo Conselho de Administração da ANAC, através da Deliberação n.º 254/2017, publicada no Diário da República, 2.ª série, n.º 67, de 4 de abril

CMV

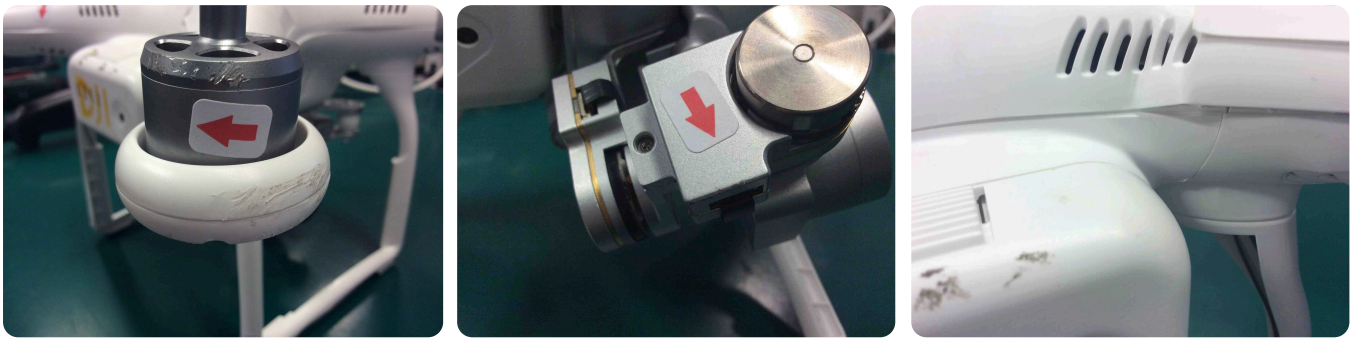
Authorisation No. 269/RPAS/2018

Issued by ANAC for a flight over an outdoor gathering of people in Funchal on 28 April 2018 — with conditions as specific as the minimum battery charge and the maximum wind speed. Personal data removed.

LESSONS FROM THE WORKSHOP

Batteries, maintenance and accidents

Every year PVF sees drones that could have avoided a trip to the workshop. The cause is almost always one of three: battery, propeller or haste.



Typical damage after a fall: motor guard, gimbal and shell. Photographs from the PVF workshop.

Lithium batteries

- Store them at half charge (storage mode) if you won't fly in the next few days.
- Carry them in a fireproof bag, away from keys and coins.
- A swollen battery won't return to normal: don't fly with it and take it for recycling.
- Don't charge straight after a flight while hot, and never leave it charging unattended.
- **By air:** batteries in the cabin only. Up to 100 Wh, generally without approval; from 100 to 160 Wh, with the airline's approval. Always check the carrier's rules.

Maintenance

- Propellers with nicks, cracks or warping are always replaced in pairs.
- Motors: do they spin freely, without sand or noise?
- Update firmware at home, never at the flying site.

After an accident

1. Make it safe: people first. If anyone is injured, call **112**.
2. Disconnect the battery and keep it away from flammable material; if it heats up or smokes, don't touch it.
3. Note the place, time and the app's flight log — useful for insurers and the authorities.
4. Accidents with serious injuries or involving crewed aircraft must be reported to ANAC.
5. Don't fly again before a check: a knocked gimbal or arm may fail on the next flight.

CONTACTS

Useful contacts

Contacts confirmed on the authorities' official websites in October 2026. Opening hours and numbers may change: check before you go.

Authority	Telephone	Email / website
Emergency European emergency number	**112**	
ANAC Portuguese Civil Aviation Authority · registration, training, specific category	**+351 212 842 226**	drones@anac.pt · exames.drones@anac.pt anac.pt · uas.anac.pt
AAN National Aeronautical Authority · permits to capture images		imagens.aereas@aan.pt aan.pt (e-AAN)
IFCN, IP-RAM Institute of Forests and Nature Conservation · protected areas · Quinta Vila Passos, R. Alferes Veiga Pestana 15, Funchal	**+351 291 145 590**	ifcn.madeira.gov.pt
SRPC, IP-RAM Regional Civil Protection Service · Caminho do Pináculo 14, Funchal	**+351 291 700 110**	srpc@madeira.gov.pt procivmadeira.pt
APRAM Ports of Madeira · Gare Marítima, Molhe da Pontinha, Funchal	**+351 291 208 600**	portosdamadeira@apram.pt apram.pt
Port of Caniçal	**+351 291 208 695**	canical@apram.pt
Port of Porto Santo	**+351 291 208 618**	saps@apram.pt
Funchal Harbour Master National Maritime Authority · Av. do Mar e das Comunidades Madeirenses 19	**+351 291 213 110**	capitania.funchal@amn.pt amn.pt
Porto Santo Harbour Master Rua Dr. Nuno Silvestre Teixeira 38-40, Porto Santo	**+351 291 100 242**	capitania.psanto@amn.pt amn.pt
Funchal Maritime Police Local command	**+351 291 104 360**	policiamaritima.funchal@amn.pt
CNPD Portuguese Data Protection Authority · Av. D. Carlos I, 134, Lisbon	**+351 213 928 400**	geral@cnpd.pt cnpd.pt
NAV Portugal Air navigation service provider		nav.pt
PSP Public Security Police, Madeira Regional Command · enforcement · emergencies via 112		psp.pt

FURTHER READING

Legislation and links

European legislation

- **Implementing Regulation (EU) 2019/947** — rules and procedures for operating unmanned aircraft.
- **Delegated Regulation (EU) 2019/945** — drone requirements and class labels C0 to C6.
- **Regulation (EU) 2018/1139** — the basic regulation for European civil aviation (EASA).
- **Regulations (EU) 2021/664, 665 and 666** — U-space airspace.

Portuguese legislation

- **Decree-Law No. 87/2021** — implementation of the European rules, penalties and geographical zones.
- **Decree-Law No. 58/2018** — compulsory insurance and fees (its registration rules were replaced by the European ones).
- **Ordinance No. 2/2021** — insurance cover and minimum amounts.
- **ANAC Regulation No. 1093/2016** — transitional restrictions (aerodromes, heliports, prohibited sites).
- **Decree-Law No. 42071 (1958) and Ordinance No. 17568 (1960)** — permission for aerial surveys (AAN).
- **ANAC Regulation No. 372/2023** — training for standard scenarios.

Useful links

uas.anac.pt	Operator registration
uas.anac.pt/explore	Geographical zones
rp.anac.pt	Pilot training and exams
aan.pt	e-AAN platform
Voa na Boa	ANAC app (iOS and Android)
ifcn.madeira.gov.pt	Protected areas of the Autonomous Region of Madeira
ipma.pt	Weather and warnings
easa.europa.eu	European rules and FAQ

Fines

Breaches of the European rules are aviation offences (minor, serious or very serious) and can lead to certificates being suspended for up to two years. Flying in restricted zones is a very serious offence.

Note

The new geographical zones provided for in Decree-Law No. 87/2021 are awaiting publication by ordinance. Once published, ANAC's map will be updated — check it before every flight.



Tech Atelier

Thank you for flying smart.

Guide by **Paulo Vasconcelos Freitas**
PVF Tech Atelier · Funchal · Horta
pvf.pt

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