

Drone Regulation

in South Africa

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GENERAL FRAMEWORK

Basic rules and regulators

What basic rules govern the operation of remotely piloted aircraft and unmanned aircraft (drones) in your jurisdiction? Which regulatory bodies are charged with enforcing these rules?

Part 101 of the Civil Aviation Regulations of 2011 governs the operation of remotely piloted aircraft (RPA) and unmanned aircraft (drones) in South Africa or remotely piloted aircraft systems (RPAS). There are also a number of ancillary documents issued in pursuance of the Regulations including the Directives of the director of Civil Aviation Authority, Aeronautical Information Circulars and Technical Guidance Materials, which are also applicable. The Regulations are to be read together with Civil Aviation Technical Standard 101.

The South African Civil Aviation Authority is the enforcing body.

A model aircraft, solely used for recreational or sport purposes is excluded from the scope of RPAS regulated under Part 101 and is governed by the South African Model Aircraft Association.

Law stated - 17 February 2021

What are the penalties for non-compliance with the laws and regulations governing drones?

Any person who contravenes or commits an offence under the Civil Aviation Act or the Regulations will be liable on conviction to a fine or to imprisonment for a period not exceeding 10 years or to both such fine and imprisonment. The director of Civil Aviation may also impose an administrative penalty on any person for any failure to comply with the Civil Aviation Act.

Law stated - 17 February 2021

Classification

Is there any distinction between public and private drones, as well as between leisure use and commercial use?

Yes, Part 101 distinguishes between RPAS that are operated for commercial, corporate, non-profit and private operations.

For private operations, RPAS may only be used where there is no commercial outcome, interest or gain and only in instances where the pilot observes all statutory requirements relating to liability, privacy and any other laws enforceable by any authorities.

Law stated - 17 February 2021

Is there a weight-based classification system for drones resulting in the application of different rules?

RPAs are classed according to line-of-sight, energy (kJ), height (feet) and MTOM (kg) in accordance with SA- CATS 101.

Weight classes are Class 1A, 1B, 1C and 2A, being respectively $m < 1.5$; $m < 7$; $m < 20$; $m < 20$.

Private RPA are specifically restricted to operations within Class 1A or Class 1B, to a height of 400 feet above ground and may only be conducted in a restricted visual line of sight, whereas, commercial, corporate and non-profit RPA

operations are subject to various restrictions depending on the RPAS use, type and scope of operation.

Law stated - 17 February 2021

Is there any distinction between completely autonomous drones and remotely piloted drones?

The distinction is made in Part 101, which does not apply to autonomous unmanned aircraft and their operations or other types of aircraft that cannot be managed on a real-time basis during flight, nor to model and toy aircraft.

Law stated - 17 February 2021

DESIGN AND MANUFACTURE

Regulation

Do specific rules regulate the design and manufacture of drones in your jurisdiction?

Other than the requirement for an identification plate and the nationality and registration marks that must be affixed to the remotely piloted aircraft (RPA), the only design issue required is that it be fitted with a mode C or S transponder capable of displaying the unique squawk code issued to it, unless otherwise exempted by the director; and be fitted with an altimeter, capable of displaying to the operator of remotely piloted aircraft systems (RPAS) the RPA's altitude above ground level, corrected for ambient pressure (QNH); and be fitted with a functioning strobe light or lights, installed in such a way that they are visible from both below and above the RPA; at all azimuth angles, and in the case of an aeroplane, be fitted with functional navigation lights.

Law stated - 15 February 2021

Manufacturing authorisation

Must drone manufacturers obtain any licences or other authorisation to carry out their business? Are manufacturers subject to any other specific rules?

Other than the requirement for an RPAS operating manual from the manufacturer to accompany the application for approval of the safety system, there are no known requirements for the manufacturer.

Law stated - 15 February 2021

Product liability

Do general product liability rules (or other specific liability rules) apply to the manufacture of drones?

Product liability claims are based on the law of contract, delict or statutory provisions that set out liability for defective products. The common law rules of negligence liability would be applicable to the product liability of manufacturers and, in certain instances, the provisions of the Consumer Protection Act would apply to a manufacturer of drones, although the Act does not apply to a transaction where the consumer is a juristic person whose asset value or annual turnover at the time of the transaction equals or exceeds the threshold value of 2 million rand.

Law stated - 15 February 2021

REGISTRATION AND IDENTIFICATION

Registration

Must drones be registered in a specific national registry? If so, who is entitled to register drones and what requirements and restrictions apply? Is the registry organised as an operator registry or an owner registry?

The registry is organised as both an owner registry in respect of registration of a remotely piloted aircraft (RPA) and as an operator registry in respect of the holder of an RPAS operators certificate (ROC).

RPAs are registered under the SA Civil Aviation Authority register and owners are issued with a certificate of registration by the director of Civil Aviation and are deemed to have South African nationality.

Law stated - 15 February 2021

Identification

Are drones identified through a marking system similar to that used for manned aircraft?

All RPAs are issued with a registration mark that must be affixed to it, together with an identification plate (engraved, stamped or etched) with its nationality and registration marks.

The South African nationality marks are the capital letters ZS, ZT and ZU.

Law stated - 15 February 2021

CERTIFICATION AND LICENSING

Basic requirements and procedures

What certificates or licences are required to operate drones and what procedures apply?

In the case of commercial, corporate and non-profit operations, the following documents are required: an RPAS letter of approval (RLA) issued by the director; a certificate of registration for each RPAS; a RPAS operating certificate; and in the case of commercial operations, an air services licence.

The procedure to obtain the relevant licences is by way of an application to the director of Civil Aviation together with the payment of a fee. The application must be accompanied by (1) a copy of the certificate of registration of each RPA to be operated; (2) a copy of the RLA for each device to be operated; and (3) for an initial issue, an original operations manual containing the information required to demonstrate how the operator would ensure compliance with the regulations and safety standards; and a maintenance programme in accordance with the manufacturer's instructions, whether through action or inspection.

The holder of an RPAS operator's certificate (ROC) must also conduct background checks on all personnel employed to handle, deploy or store RPAS.

Law stated - 15 February 2021

Taxes and fees

Are certification and licensing procedures subject to any taxes or fees?

The fee payable for the issuance of a RPAS operating certificate is 4,210 rand and for each additional aircraft in the ROC, 840 rand.

For the registration of a remotely piloted aircraft a fee of 800 rand is payable and for aviation personnel standards, a fee of 700 rand is payable for the issuing of a remote pilot licence (RPL).

Law stated - 15 February 2021

Eligibility

Who may apply for certifications and licences? Do any restrictions apply?

The operator of an RPAS must be the holder of a valid ROC, including the operations specifications attached to it. RPAS must be operated by duly qualified and licensed pilots who can be any person over the age of 18 who has the relevant medical certificate and has completed a theoretical examination as well as skills tests and flight training from a training facility authorised by the Civil Aviation Authority.

Save for the above, there are no restrictions on the applicants as regards nationality of ownership, although in the case of commercial operations a domestic air service licence from the Air Service Licensing Council must be obtained and will be issued where:

- the applicant is a natural person, a resident of the Republic; or
- if the applicant is not a natural person:

Law stated - 15 February 2021

Remote pilot licences

Must remote pilots obtain any certifications or licences to operate drones? If so, do the relevant procedures differ based on the type of drone or operation?

Pilots must be in possession of an RPL issued in the relevant category except when undergoing a skill test or receiving flight instruction.

To qualify for an RPL applicants must:

- not be less than 18 years of age;
- hold at least a valid Class IV medical certificate for BVLOS operations or operations involving RPAS classified as Class 3 or higher; or for all other classes or types of operation, submit a self-declared medical assessment report provided that an applicant who cannot meet the requirements of the medical assessment must submit a Class 4 medical certificate; and
- hold at least a restricted certificate of proficiency in radiotelephony (aeronautical); and where required, have completed the flight training and have passed the theoretical knowledge examination; and, finally, have passed a skills test.

Law stated - 15 February 2021

Foreign operators

Are foreign operators authorised to fly drones in your jurisdiction? If so, what requirements and restrictions apply?

Foreign operators that wish to conduct commercial operations must also apply for and hold a domestic air services licence issued under the terms of the Air Services Licensing Act.

Law stated - 15 February 2021

Certificate of airworthiness

Is a certificate of airworthiness required to operate drones? If so, what procedures apply?

No certificate of airworthiness is required, but the RPAS must be compliant with the manufacturer's instructions for equipment maintenance through actions or inspections, and the owner must submit a maintenance programme for the RPAS to the director of Civil Aviation for approval.

Law stated - 15 February 2021

OPERATIONS AND MAINTENANCE

One drone, one pilot

Does the 'one drone, one pilot' rule apply in your jurisdiction?

The one drone, one pilot rule applies in South Africa in that operators must register and be issued with an RPAS operator's certificate (ROC) for each remotely piloted aircraft (RPA) to be operated, although a remote pilot licence (RPL) is issued to an applicant in the relevant category and not for a specific RPA.

Law stated - 15 February 2021

Maintenance

Do specific rules regulate the maintenance of drones?

An RMT authorisation will only be issued to a person not less than 18 years of age; who is a South African citizen or in possession of a valid permanent residence permit or valid temporary work permit with a letter of employment and has successfully completed appropriate training, and demonstrates the ability to perform maintenance functions where no training for the particular RPA is offered or available.

The person responsible for maintenance of RPAS must maintain a personal logbook recording all the work carried out on an RPAS and its components.

Law stated - 15 February 2021

Basic operational rules and restrictions

What rules and restrictions apply to flights performed in 'visual line of sight' (VLOS) and 'beyond visual line of sight' (BVLOS)? Is there a distinction in this regard?

Visual line of sight

Private RPAS operators are restricted to operating RPAS with a maximum take-off weight of 7kg, can only fly in daylight and clear weather conditions and can only operate in restricted VLOS, meaning an operation within 500 metres of the remote pilot and below the height of the highest obstacle within 300 metres of the RPAS, in which the remote pilot maintains unaided visual contact with the RPAS to manage the flight and meet separation and collision avoidance responsibilities.

Beyond visual line of sight

An RPA may not be operated beyond VLOS unless by the holder of a ROC and as approved in the operations manual.

BVLOS operation may be approved subject to the operator meeting the requirements prescribed in Document SA-CATS 101.

Approved BVLOS operations may only be conducted in VMC, below 400ft above surface level, unless otherwise approved.

The principal restrictions applicable to the private operation of RPAs are that an RPA cannot be operated above 121.92 metres above the ground, within a 10km radius of any aerodrome, within 50 metres of any person, property structure and building or public road, or within controlled, restricted or prohibited airspace, unless approved by the authority.

RPAs, save in certain circumstances, must be equipped with an altimetry system or equivalent, that is capable of displaying to the operator on the RPAS, the altitude and height of the RPA above ground level.

An RPA that is not equipped with an altimetry system or equivalent may only be operated under restricted VLOS.

Weather conditions

An RPAS may not be operated in weather conditions that do not allow unobstructed visual contact to be maintained with the RPA by other airspace users and by the operator unless in BVLOS or night operations approved by the director in the operations manual.

Law stated - 15 February 2021

What rules and restrictions apply to critical and non-critical operations? Is there a distinction in this regard?

An RPA may not be operated at night except in restricted VLOS operation, or by the holder of an ROC, and the holder of an ROC intending to operate an RPA at night, shall, as a minimum have each RPA approved under their ROC for night operations subject to compliance with the requirements prescribed in Document SA-CATS 101.

An RPA may not be operated at night in controlled airspace in visual meteorological conditions in an aerodrome traffic zone and controlled airspace below 121.92 metres and subject to compliance with the further conditions prescribed in Document SA-CATS 101.

Law stated - 15 February 2021

Transport operations

Is air transport via drone (eg, cargo and mail) regulated in your jurisdiction? If so, what requirements, limitations and restrictions apply?

The regulations do not currently cater for transport operations by drones; however, to operate commercially, the definition of an air service in the domestic Air Services Licensing Act – as any service operated by means of an aircraft for reward – could arguably bring cargo and mail transport operations into the fold of the Act and consequently the need for a Class III licence.

A Category A4 (fixed wing), H1 (multi-rotor) and H2 (helicopter) and type of operations approved for G16 (other: RPAS), as well as any additional G-codes applicable to the intended operation, is required.

Law stated - 15 February 2021

Do any specific provisions governing consumer protection and tracking systems apply with respect to cargo and delivery operations via drone?

Presumably the provisions of the Consumer Protection Act, the privacy laws and the liability regime would apply equally to transport of cargo and delivery operations by drones.

Law stated - 15 February 2021

Insurance requirements

What insurance requirements apply to the operation of drones?

ROC holders must be adequately insured for third-party liability, with a minimum cover of 500,000 rand per RPAS.

Law stated - 15 February 2021

Safety requirements

What safety requirements apply to the operation of drones?

To apply for a ROC where no certification exists from an ICAO contracting state, the holder of a ROC must establish a safety management system commensurate with the size of the organisation or entity and the complexity of its operations accompanied by an RPAS operating manual from the manufacturer.

In addition the safety management system must include a process to identify actual and potential safety hazards and assess the associated risks together with a process to develop and implement remedial action necessary to maintain an acceptable level of safety.

In addition the operator must make provision for continuous and regular assessment of the appropriateness and effectiveness of safety management activities.

Law stated - 15 February 2021

AIRSPACE

Air traffic control

How is air traffic control regulated in your jurisdiction? Which authority provides air traffic control services for drones?

Air traffic control and the operation of air navigation infrastructures, air traffic and air navigation services fall under the auspices of the Air Traffic and Navigation Services Company Limited, a state-owned enterprise.

Law stated - 15 February 2021

Restrictions

Are there any airspace restrictions on the operation of drones?

In addition, private operators are restricted to operating RPAS with a maximum take-off weight of 7kg, and only fly in daylight and clear weather conditions and only operate in restricted visual line of sight (VLOS) (ie, within 500 metres of the remote pilot and below the height of the highest obstacle within 300 metres of the RPAS in which the remote pilot maintains unaided visual contact with the RPAS to manage the flight and meet separation and collision avoidance responsibilities).

Law stated - 15 February 2021

Take-off and landing

Must take-off and landing of drones take place in specific areas or facilities?

Public roads may not be used as a place of landing or take-off of an RPA, except by the holder of a ROC and as approved by the director in the operator's operations manual, and when approved by the relevant local authority.

Law stated - 15 February 2021

LIABILITY AND ACCIDENTS

Cargo liability

Are there any specific rules governing the liability of drones for losses or damage to cargo?

There are no specific rules governing the liability for losses or damage to cargo for remotely piloted aircraft (RPA), although they may not carry dangerous goods as cargo as regulated by Part 92 of the Regulations, except by the holder of an RPAS operator's certificate (ROC) and as approved by the director in the operations manual.

Law stated - 15 February 2021

Third-party liability

Are there any specific rules governing the liability of drones for damage to third parties on the surface or in the air?

Section 8 of the Civil Aviation Act imposes a strict liability regime for material damage or loss caused by an aircraft in flight, taking off or landing, or by any article falling from such aircraft to any person or property on land or water, and accordingly damages may be recovered from the registered owner of the aircraft in respect of such damage or loss without proof of negligence or intention or other cause of action as though damage or loss had been caused by his or her wilful act, neglect or default.

Law stated - 15 February 2021

Accident investigations

How are investigations of air accidents involving drones regulated in your jurisdiction?

All notified accidents and serious incidents are investigated by an investigator-in-charge in terms of the provisions of Part 12 of the Civil Aviation Regulations read together with SA CATS 12.

The purpose of investigation of an accident or incident is to determine, in terms of the provisions of Part 12, the facts of an accident or incident in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents, and not to establish legal liability. Once accident investigations are concluded, a report is compiled in the interest of promoting aviation safety.

Law stated - 15 February 2021

Accident reporting

Is there a mandatory accident and incident reporting system for drone operators in your jurisdiction?

Accidents and incidents involving RPAs must be reported in the event of any injury or death to a person, or damage to property or destruction of the RPA beyond economical repair.

Incidents involving an RPA where loss of control occurred must also be reported to the holder of the ROC by a third party in an accident or incident.

Law stated - 15 February 2021

Safety management and risk assessment

Are drone operators required to implement safety management systems and risk assessment procedures within their organisation?

Operators are required to implement a remotely piloted aircraft system (RPAS) safety management system that forms part of the application for the issue of an RPS letter of approval (RLA), which includes the documentation regarding the standard to which the RPAS was designed or equivalent documentation that demonstrates a level of safety acceptable to the director; or documentation demonstrating system safety.

In addition, the operations manual must contain a safety management system and quality assurance programme.

Law stated - 15 February 2021

ANCILLARY CONSIDERATIONS

Import and export control

Do specific import and export control rules apply to drones in your jurisdiction?

There are no specific rules applicable to the importation and exportation of drones, save that no remotely piloted aircraft (RPA) may be sold within the Republic unless the seller has, by way of a packaging label, or in the case of the resale thereof, by way of written notification, notified the buyer of the requirements of the Civil Aviation Regulations.

The importation and sale of RPAs will attract VAT at the effective rate of 15 per cent. The sale of an RPA that is exported should not attract any VAT as the transaction would be zero-rated for the purposes of VAT.

Law stated - 15 February 2021

Data privacy and IP protection

How are personal data privacy and IP protection regulated in your country with specific reference to drone operations?

The Protection of Personal Information Act of 2013 (POPIA) came into effect on 1 July 2020 and has a grace implementation period of 12 months. POPIA protects individuals against the unlawful possessing of their personal information. In this regard, POPIA identifies two parties (natural or juristic persons) that can be held accountable, namely, the 'responsible party' who controls the personal information and the 'operator' that processes the information on behalf of the responsible party. Drones have the ability to collect and process personal information. As such, a drone operator in control of any personal information collected or a body possessing the personal information thereafter would have to ensure that they are POPIA compliant. Non-compliance may result in either a fine (1 million – 10 million rand) or imprisonment (one – 10 years), alternatively, compensation for damages suffered by the data subject.

Protection, to some extent, is further provided under the Consumer Protection Act, the National Credit Act, the Promotion of Access to Information Act, the Electronic Communications and Transactions Act and the Regulation of Interception of Communications and Provision of Communications Related Information Act.

The Constitution of South Africa and the common law continue to provide the right to privacy and impose certain restrictions on the processing and disclosure of personal information.

Law stated - 15 February 2021

UPDATE AND TRENDS

Sector trends and regulatory developments

Which industry sectors have seen the most development in the use of drones in your jurisdiction and which sectors are expected to see further development in future? Have there been any notable recent regulatory developments relating to drones?

The use of remotely piloted aircraft systems (RPAS) across industries such as mining, construction, agriculture, land management, security and law enforcement has increased, as has their use in aerial data acquisition or inspections of an asset.

It is expected that growth areas will include disaster response and management, security surveillance and law enforcement missions, while the film industry, which is sizable, will continue to grow with innovative uses and more

sophisticated equipment.

The regulation of autonomous unmanned aircraft will no doubt come under the spotlight of the authorities, due if to nothing else but pressure from commercial operators.

Law stated - 15 February 2021

Coronavirus

What emergency legislation, relief programmes and other initiatives specific to your practice area has your state implemented to address the pandemic? Have any existing government programs, laws or regulations been amended to address these concerns? What best practices are advisable for clients?

No RPAS operations specific laws or regulations has been passed or amended to address the coronavirus concerns.

The South African National Blood Service launched a drone-based blood delivery system in May 2019, this evidences that our healthcare systems are fully capable of aerial disinfection, medical transport and delivery of essential goods to aid the pandemic, however, the programme has not yet been granted a licence to operate and implementation is inhibited by strict, lengthy and costly licencing procedures.

A strategic partnership between the Drone Council South Africa and the Department of Communications and Digital Technologies was launched in May 2020 to accelerate a national drone growth strategy. Key focus areas are digitalisation as a result of the coronavirus pandemic and the need for cargo drones to connect distant suppliers, consumers and enterprises.

The obvious solution is to expedite the RPAS licence approval process during the time of a national disaster and to provide for emergency regulations to allow for full utilisation of drone technology during such times.

Law stated - 15 February 2021