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**Unmanned
Aircraft Systems
(UAS)**



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Compiled by: Aubrey Sepataka

Flight Operations Inspector

*(Commercial Pilot ME IR, UAS Pilot, UAS
Maintenance Technician)*

What are the different types of UAS?

- Multi-rotor,
- Fixed-wing,
- Single-rotor
- Fixed-wing hybrid VTOL.

Multi-rotor



Fixed-wing



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Fixed-wing hybrid VTOL



Single-rotor



- Due to UAS' growing popularity and increasing use in commercial and civilian applications, many countries have implemented regulations for their safe operation.
- These regulations may include requirements for registration, licensing, and pilot training, as well as restrictions on where and how UAS can be flown.
- In South Africa, UAS are regulated by the SACAA



Why do UAS users need to comply?

- UAS/Drones share airspace with manned aircraft, making safety a top priority.
- UAS compliance ensures that drone operations are conducted in a manner that minimizes risks and prevents potential accidents.
- It promotes a safe environment for all airspace users.
- This is achieved by ensuring that the UAS being flown is airworthy, and the pilot operating it is medically fit.



Why do UAS users need to comply?

- UAS/Drones have different coloured lights which serve relevant purposes. It is therefore a requirement as per SACARs Part 67 that the pilot can see and discern the different colours.

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Why do UAS users need to comply?

Public Safety and Privacy:

- Complying with regulations protects the privacy of individuals and prevents unauthorized data collection or surveillance.
- It reassures the public that drones are being used responsibly and ethically.



Why do UAS users need to comply?

Avoiding Legal Consequences:

- Failure to comply with regulations can lead to legal consequences, including fines and penalties.
- Compliant operations help drone operators avoid legal issues and maintain a positive reputation.



Why do UAS users need to comply?

Professional Credibility:

- Compliance enhances the credibility of drone operators and businesses.
- It demonstrates a commitment to safety and professionalism, which can lead to more opportunities and trust from clients.



UAS operations are classified as follows;

- Commercial Operations
- Corporate Operations
- Non-Profit Operations
- Private Operations



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A UAS Operating Certificate (UASOC) is required for:

- Commercial
- Corporate
- Non-Profit operations

- This means that any organisations or persons operating under one of these categories, must comply with the SACARs Part 67, 71 and 101.

What are Private Operations?

For an individual's personal and private purposes where there is no commercial outcome, interest or gain;

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Private Operations

DO NOT fly:

1. Near manned aircraft
2. Within 10km of an aerodrome (airport, helipad, airfield)
3. Do not fly any UAS weighing more than 7 kg
4. In controlled, restricted or prohibited
5. Adjacent to or above a nuclear power plant, prison, police station, crime scene, court of law, national key point or strategic installation



Private Operations

6. Do not fly

50m or closer from:

- i. Any person or group of persons (like sport fields, road races, stadiums, schools, social events, etc.)
- ii. Public road
- iii. Any property without permission from property owner
- iv. Do not release dispense, drop, deliver or deploy any object or substance from a UA
- v. Only fly UA in clear weather conditions



Private Operations

DO NOT:

7. Take off or land on public roads
8. Take off or land without landowner's permission



Private Operations



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Private Operations



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Commercial/Corporate Operations

1. Third party insurance compulsory (minimum cover R500 000)
2. Risk assessment done for every operation
3. Pilot is trained/licensed and understands airspaces, regulations, compliance & obtains relevant permissions where necessary, resulting in safer operations and the reduction of incidents that may lead to injury and/or damage of property.



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Questions?





Thank you