



## **NOTES:**

### **INSPECTION AND AUDIT FUNCTIONS**

CAA inspection and audit functions confirm for CAA that an Operator is operating in compliance with regulatory requirements and RPAS Operations Manual (ROM). The ROM might hold additional standards which the Operator has agreed to uphold.

There will be times when it is not possible or necessary to review or examine 100% of a company's operation. This is when sampling principles apply.

Inspection and audit checklists have been developed to provide a systematic approach to the inspection of an Operator's various specialty areas. The checklists are designed to identify specific items within each specialty area and to make reference to applicable regulatory requirements. Where an Operator fails to comply with these requirements, they will be considered to be in non-compliance and will be required to undertake corrective action.

### **AUDIT PLANNING**

The following should be considered when scheduling an audit:

- The feasibility of the audit dates and time-periods with consideration given to availability of inspectors and the operator.
- The allocation of time for pre-audit activities.
- Team member travel requirements.
- The compiling of the required documentation.
- The contents of the Operator's ops manual and file should be studied for background knowledge and to detect any shortcomings and anomalies.

### **PRE-AUDIT MEETING**

A pre-audit team meeting is important as it informs team members of the expectations of the team leader. It also provides an opportunity for team members to clear up any questions and gain clarity on their specific roles.

### **ENTRY MEETING**

An entry meeting must be held. It is important in that it establishes communications between the Operator's- and CAA's audit team. (See appendix for an agenda).

### **AUDIT FINDINGS**

Audit findings are the foundation of the audit report so it is important that they be completed in accordance with the requirements. An audit finding needs to be recorded on an Audit Finding Report form on which the Operator signs for agreement with the finding.

### **PARALLEL FINDINGS**

Should a shortcoming from the CAA or the need for a correction in procedure or regulation be found, submit a parallel finding on the prescribed form to the line manager.

### **CLOSING MEETING**

The closing meeting is conducted to ensure that the Operator's senior management have been fully debriefed on the results of the audit. Agreement is also reached on the submission of a corrective action plan by the Operator

**OPERATIONS**

**\*\* “Demonstrated” refers to the demonstration conducted in order to obtain approval for operations categorized as limitations. Mark “N/A” for audits/inspections not involving a demonstration.**

<b>Regulatory Ref</b>	<b>REQUIREMENTS</b>	<b>N/A</b>	<b>Satisfactor y</b>	<b>Not Satisfactor y</b>	<b>Note No.</b>
<b>CAR 101.05.24</b>	<b>FIRST AID KIT</b>				
	Contents as per CATS91.04.13				
	At the RPS and within 300m of the take-off and landing points				
	Periodic checks completed by the owner/operator				
	Readily accessible to all crew members involved in the operation				
<b>CAR 101.05.25</b>	<b>FIRE EXTINGUISHER</b>				
	At the RPS and within 300m of the take-off and landing points				
	RPS – fire extinguisher suitable for use with electronic equipment/power generating equipment				
	Fire extinguisher serviceable?				
<b>CAR 101.02.3</b>	<b>EQUIPMENT</b>				
	RPA equipped with an altimetry system, displaying to the operator on the RPS the altitude and height of the RPA AGL.				
<b>CAR 101.05.10</b>	<b>REQUIREMENTS FOR ALL OPERATIONS (to be on site)</b>				
	Valid RPL				
	Copy of the ROC and Ops Spec				
	Certificate of registration for each RPA				
	Copy of the RLA				
	Copy of approved ROM				
	Valid 3 <sup>rd</sup> Part Liability Insurance				
	User manual for the RPA and RPS				
	Land Owners Permission				
	CAMU FUA if required				
CA 101-20 if required					

**OPERATIONS**

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<b>Regulatory Ref</b>	<b>REQUIREMENTS</b>	<b>N/A</b>	<b>Satisfactor y</b>	<b>Not Satisfactor y</b>	<b>Note No.</b>
<b>101.05.17</b>	<b>PRE-FLIGHT PREPARATION</b>				
	Roles and duties of each crew member defined in writing (as per ROM, Field operations manual, crew briefing sheet or other documentation)				
	Consideration of NOTAMS / AIPS / AICS				
	Preparation and weather briefing				
	Airspace Map				
	Briefing regarding various airspaces				
	Restrictions / parameters of these airspaces				
	Risk Assessment				
	Consideration of Compass orientation				
	Consideration of manned air traffic nearby airfields and notification				
	Description of the boundaries and limits of operational area				
	Surrounding land, fields obstructions				
	Location of roads relative to the demonstration				
	Selection of landing/take-off area/direction				
	Placement of safety cones				
	Potential intrusion of people and animals considered				
	Knowledge of height / altitude AMSL				
	Consideration of prevailing wind and weather forecast				
	Use of Anemometer				
System's status inspected before flight					
Alternative landing area					
<b>CAR 101.05</b>	<b>VLOS/ OPERATIONS</b>				
	Procedures in ROM				
	Demonstrated **				
	Lost C2 Link Demonstrated				
	Auto Pilot Programming (if equipped)				
<b>CAR 101.04.4(2)</b>	<b>E-VLOS OPERATIONS</b>				
	Observer training included in the ROM				
	Demonstrated**				
	Confirmation of initial VHF communications with Observer				
	Confirmation of Observer position for EVLOS				
	Auto Pilot Programming (if equipped)				

	Observer procedures during lost C2 Link				
	Lost C2 Link Demonstration				
<b>OPERATIONS</b>					
<b>** "Demonstrated" refers to the demonstration conducted in order to obtain approval for operations categorized as limitations. Mark "N/A" for audits/inspections not involving a demonstration.</b>					
Regulatory Ref	REQUIREMENTS	N/A	Satisfactor y	Not Satisfactor y	Note No.
<b>CAR 101.05.11</b>	<b>B-VLOS OPERATIONS</b>				
	Procedures in ROM				
	RPA operated using command inputs only				
	Requirements of CATS101.02.2 met				
	Ability to remain clear from obstacles and any other hazards and take appropriate action for collision avoidance. Normal and lost C2 link unless: i) Area is void of other air traffic ii) Operation occurs in specifically delimited/segregated airspace (FUA) Any other mitigation is in place to avoid other aircraft, obstacles or hazards (FPV, notification of manned operators, risk assessment, safety case, tracking device, radar, sense & avoid)				
	NOTAM filed				
	FUA CAMU permission				
	C2 performance requirements are acceptable (distance)				
	** Demonstrated: i) Flight tasks through control inputs only ii) Command RPA to follow a predetermined course or group of way points iii) Remote pilot can interrupt the set course and can fly an alternate course or land to avoid other traffic iv) Display of exact position of the RPA to the pilot, in real-time on a moving map – enable radio calls and report RPA position v) Reactions in the event of receiving an alert for conflict with high ground or obstacles vi) Air-band to transmit beyond furthest distance of RPA				
	Lost C2 Link Demonstration				
RPL BVLOS endorsement					

**OPERATIONS**

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Regulatory Ref	REQUIREMENTS	N/A	Satisfactory	Not Satisfactory	Note No.
<b>CARS/CATS 101.05.3</b>	<b>CONTROLLED AIRSPACE OPERATIONS</b>				
	Procedures in ROM				
	** Demonstrated				
	Fitted with a mode C or S transponder OR Exempted by the relevant ATSU/CAMU – FUA application & approval				
	Fitted with an altimeter (RPA's altitude AGL on QNH)				
	Fitted with strobe light(s)				
	Communication with ATSU via air-band radio or Mobile				
	LOP - Detailed response and reaction procedure with the ATSU in the event of an emergency: aborting the RPA activity, loss of control, loss of communication				
<b>CATS 101.05.12</b>	<b>NIGHT OPERATIONS</b>				
	Procedures in ROM				
	In the case of Night VLOS/EVLOS meet the requirements for BVLOS operations below 400ft				
	Correct Lights installed as per CATS 101.05.12				
	VLOS/EVLOS/BVLOS night ** Demonstrated				

<b>OPERATIONS</b>					
<i>** "Demonstrated" refers to the demonstration conducted in order to obtain approval for operations categorized as limitations. Mark "N/A" for audits/inspections not involving a demonstration.</i>					
Regulatory Ref	REQUIREMENTS	N/A	Satisfactory	Not Satisfactory	Note No.
<b>CAR 101.05.16</b>	<b>RADIO COMMUNICATION</b>				
	Functioning air-band radio (not required for R-VLOS)				
	Radio calls: RPA registration, altitude, location and intended operation of the RPA				
	Valid ICASA Radio License for air-band radios				
	Use of Standard Aviation Radio Phraseology				
<b>CAR 101.05.23</b>	<b>POWER RESERVES</b>				
	Power reserve of 10% assured				
	Documented in ROM				
<b>CAR 101.05.20</b>	<b>RIGHT OF WAY</b>				
	Demonstrated Satisfactorily?				
<b>CAR 101.06.2</b>	<b>MAINTENANCE (for operations of Class 3 or higher RPAS)</b>				
	Is maintenance conducted by the holder of a valid RMT authorization?				
	Does the RMT maintain a personal logbook as per CATS101.06.4				
<b>CAR 101.06.4</b>	<b>SECURITY</b>				
	Is RPAS storage secure, protecting RPAS from unlawful interference?				
	Is the RPAS stored and prepared for flight in a manner that prevents and detects tampering and ensures the integrity of the system				
	Is there a designated security co-ordinator?				





**CONCLUSIONS: FINDINGS AND OBSERVATIONS**

**LEVEL 1 FINDING**

(Constitutes non-compliance which necessitate the exercising of immediate discretionary enforcement action/powers vested in the inspectors, authorized officers and/or authorized persons in the interest of safeguarding aviation safety)

**LEVEL 2 FINDING**

(Constitutes non-compliance requiring the client to develop action plans with time frames and coupled with a follow-up inspection to verify rectification of the non-compliance)

**LEVEL 3 FINDING**

(Constitutes non-compliance which is left to the client to rectify and which will not necessitate a follow-up inspection but which can be followed up at the next inspection. The client is required to notify the CAA when the rectification has been effected within an agreed timeframe.)







## APPENDIX A

### Entry meeting agenda

- 1 Thank the operator for their attendance, co-operation and use of their facilities.
- 2 Introduce the team.
- 3 Allow Operator senior representative to introduce their representatives.
- 4 Explain the purpose of the inspection/audit.
- 5 Emphasise confidentiality of the inspection/audit.
- 6 Define the objective and scope of the audit: to establish the correct implementation of procedures set out in the **ops manual** and other relevant regulations. Point out, however, that international best practice and good common sense cannot always be covered by legislation and the checklist may, therefore, in the interests of flight safety, contain a few items of this nature.
- 7 Explain the methodology and that there will be times when it is not possible or necessary to review or examine 100% of a company's operation. This is when sampling principles apply.
- 8 Explain non-compliance and the associated gradings.
- 9 State when team and team/operator liaison meetings will take place.
- 10 Confirm logistical arrangements e.g. available office space, time for meals, etc.
- 11 Verify that all operator staff members are aware of the audit/inspection taking place.
- 12 Explain the purpose of the closing meeting and confirm the detail and time if possible.
- 13 Allow time for the operator to ask questions.
- 14 Allocate inspectors to various departments if need be.