

AERONAUTICAL CIRCULAR CIVIL AVIATION AUTHORITY – MACAO, CHINA

SUBJECT:

Rules Concerning Aeronautical Accidents and Incidents

EFFECTIVE DATE:

12 October 2020

CANCELLATION:

This AC supersedes AC No. AC/GEN/002R04.

GENERAL:

The President of Civil Aviation Authority (AACM), in exercise of his power under article 35 of the Statutes of Civil Aviation Authority approved by the Decree-Law 10/91/M and paragraph 89 of the Air Navigation Regulation of Macao (ANRM), establishes this Aeronautical Circular (AC).

Law no. 2/2013 defines the requirements and basic principles of accident and incident investigation. The purpose of this AC is to further define the rules and provide guidance information for reporting, investigation, preservation of evidence and disclosure of information related to aircraft accidents and/or incidents.

1 Definitions

1.1 **Accident** means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- (a) A person is fatally or seriously injured, or as a result of being in the aircraft, or direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

- (b) The aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories) to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheel, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- (c) The aircraft is missing or is completely inaccessible when the official search has been terminated.

Note 1: An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 2: Guidance for the determination of aircraft damage can be found in Appendix 1.

- 1.2 **Contributing factors** means actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability.
- 1.3 **Fatal injury** means an injury resulting in death within thirty (30) days of the date of the accident.
- 1.4 **Incident** means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.
- 1.5 **Investigation** means a process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and/or contributing factors and, when appropriate, the making of safety recommendations.
- 1.6 **Serious incident** means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of a aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons has disembarked, or in the case of a unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it becomes to rest at the end of the flight and the primary propulsion system is shut down.

Note 1: The difference between an accident and a serious incident lies only in the result.

Note 2: Examples of serious incidents can be found in Appendix 2.

- 1.7 **Serious injury** means an injury which is sustained by a person in an accident and which:

- (a) requires hospitalization for more than forty-eight (48) hours, commencing within seven (7) days from the date the injury was received; or
- (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- (c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- (d) involves injury to any internal organ; or
- (e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- (f) involves verified exposure to infectious substances or injurious radiation.

2 Applicability

- 2.1 This AC is applicable to civil aircraft accidents or incidents occurred in Macao Special Administrative Region (SAR) or within the air space under Macao SAR jurisdiction.
- 2.2 This AC is also applicable to accidents or incidents occurred outside of Macao SAR involving a civil aircraft registered in Macao SAR or operated by an operator incorporated in Macao SAR or that is a Macao SAR resident.

3 Mandatory Notification of Accident and Serious Incident

- 3.1 Notification of accidents and serious incidents occurred in Macao SAR or within the air space under Macao SAR jurisdiction, regardless the nationality and registration marks of the involved aircraft, shall be submitted to the AACM by the quickest means of communication available. If possible, for accidents the notification shall be submitted within six (6) hours after the occurrence and, for serious incidents the notification shall be submitted within twelve (12) hours after the occurrence.
- 3.2 Notification of accidents or serious incidents, involving an aircraft registered in Macao SAR or operated by a Macao SAR operator occurred outside Macao SAR, shall be submitted to AACM by the quickest means of communication available and if possible within twelve (12) hours after the occurrence.
- 3.3 The mandatory notification of accident and serious incident shall be submitted by the following entities:
 - Pilot in command of the involved aircraft;
 - Operator or owner of the involved aircraft;
 - Director of the airport/heliport in Macao SAR where the accident or serious occurred;
 - Air Traffic Controller or air traffic service provider in Macao SAR.

3.4 Both verbal and written notification shall be forwarded with a minimum of delay and by the most suitable and quickest means available such as telephone, facsimile, e-mail, or AFTN to the AACM.

Telephone : AACM Office (853) 2851 1213
Emergency Hotline (853) 6232 2999

Fax : (853) 2833 8089

E-mail : aacm@aacm.gov.mo

AFTN : VMMCYAYI

Address : The President of
Civil Aviation Authority
Alameda Dr. Carlos D'Assumpção, 336-342,
Centro Comercial Cheng Feng, 18º andar,
Macau

3.5 Form AACM-APIG-01 (see Appendix 3) can be used to submit the written notification. This form is available for download from the AACM website www.aacm.gov.mo. Written notification submitted by other means is also acceptable provided it includes the information specified in Form AACM-APIG-01.

3.6 The notification shall be in plain language and contain as much of the required information as is readily available, but its dispatch shall not be delayed due to the lack of complete information.

3.7 Reporting of occurrence other than those mentioned in 3.1 and 3.2 shall follow the Mandatory Occurrence Reporting (MOR) Scheme set forth in Aeronautical Circular No. AC/GEN/003.

4 Report by Flight Crew

4.1 Flight crew involved in an accident or serious incident shall prepare a written report using Form AACM-APIG-02 (see Appendix 4), detailing the occurrence and include all the factual information, conditions and circumstances relevant to the accident or serious incident. If the flight crew is not able to prepare such report, the operator or the owner of the aircraft shall prepare such report.

4.2 The aforementioned report shall be submitted to AACM within seventy two (72) hours of the accident or serious incident.

4.3 In the case that a member of the flight crew is not physically or mentally fit to prepare the report, the report should be prepared when his/her physical or mental condition allow.

4.4 Form AACM-APIG-02 is available for download from the AACM website www.aacm.gov.mo.

5 Report by Air Traffic Service Provider

- 5.1 For all accident and serious incident occurred in Macao SAR or within the air space under Macao SAR jurisdiction, the air traffic service provider is responsible for preparing a report containing the information and documentation as specified in Appendix 5.
- 5.2 Such report shall be submitted to investigator-in-charge (IIC) appointed by the President of AACM as per paragraph 6.3 below as soon as possible but within seven (7) calendar days of the accident or serious incident. Should correction to the report become necessary, amendment should be submitted to the IIC as soon as possible but within three (3) calendar days. A memorandum from the accountable manager of the air traffic service provider shall accompany any change(s) with a complete explanation of the change.

6 Investigation

- 6.1 The AACM is responsible for investigation to accident, serious incident or incident to be investigated as prescribed in paragraph 2.1 and 2.2.
- 6.2 The sole objective of the investigation of an accident and incident shall be the prevention of accident and incident. It is not the purpose of this activity to apportion blame or liability.
- 6.3 An investigator-in-charge (IIC) shall be appointed by the President of AACM with the purpose of conducting the investigation in accordance with ICAO standards and recommended practices and the applicable laws and regulations. The IIC shall have independent investigating authority and unhampered access to the wreckage and unrestricted control over it to ensure that a detailed examination can be made without delay by the authorised personnel participating in the investigation.

Note: Privileges and access right of the IIC are defined in article 11 and article 13 of Law no. 2/2013.
- 6.4 The AACM may also delegate the whole or any part of the investigation to the State of Registry or the State of the Operator or other State or Region.

7 Retention of Data from Flight Recorder

- 7.1 Following an accident or serious incident, the flight recorders, such as but not limited to the Cockpit Voice Recorder (CVR), the Flight Data Recorder (FDR), and the Airborne Image Recorder System (AIR), if located, must be secured. Power to recorders must be off and remain off until the recorder is removed to prevent erasure of recorded information. The recovery and handling of flight recorders will be assigned only to qualified personnel by the IIC. Upon the IIC's request, the AACM shall arrange for the readout of the flight recorders.

8 Preservation of Evidence

- 8.1 Following an accident, serious incident or incident to be investigated, all reasonable measures must be taken to protect the evidence and to maintain safe custody of the

- aircraft and its contents for such a period as may be necessary for the purpose of the investigation.
- 8.2 During the rescue operation, wreckage may only be handled or removed in order to:
- Remove injured or locked up persons or human remains;
 - Protect wreckage from further damage;
 - Protect person from injuries.
- 8.3 After the rescue operation, any handling or removal of wreckage must be authorised by the IIC. A complete record by means of photograph, film or video recording of the wreckage and accident or incident site must be conducted before removal is authorised by the IIC.
- 8.4 Any disturbance to the wreckage should be recorded. Objects removed should be marked and numbered. A stake should be placed in the original position of the object removed. The original positions of survivors, human remains and portions of moved wreckage must be recorded carefully.
- 8.5 The IIC shall take all necessary measures in order to protect the accident or incident site.
- 8.6 The owner or operator of an aircraft involved in the accident or serious incident must keep all records and reports pertaining to the aircraft and crew, including all internal documents and memoranda concerning the accident or serious incident, until the IIC allows its destruction.
- 8.7 Any entities in possession of evidence or information relevant to the investigation shall preserve relevant information and provide such information to the IIC upon request. All relevant organisations such as maintenance, air traffic control, communication, meteorology, aeronautical information, fuel and ticketing, etc, must seal and secure all relevant documentation, data, tools, equipment, facilities, communication record, voice recording, radar recording, etc., concerning the aircraft involved in the accident or serious incident.

9 Disclosure of Information

- 9.1 Entities involved in the investigation of an accident or incident, wherever it occurred, shall not make the following records available for purposes other than accident or incident investigation:
- (a) cockpit voice recordings and airborne image recordings and any transcripts from such recordings; and
 - (b) records in the custody or control of the entities involved in the investigation of an accident or incident being:
 - 1) all statements taken from persons by the investigation team in the course of their investigation;

- 2) all communications between persons having been involved in the operation of the aircraft;
 - 3) medical or private information regarding persons involved in the accident or incident;
 - 4) recordings and transcriptions of recordings from air traffic control units;
 - 5) analysis of and opinions expressed about information, including flight recorder information;
 - 6) the draft final report of an accident or incident investigation.
- 9.2 The records listed in 9.1 shall be included in the final report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.
- 9.3 The final report must not contain any personal information in regard to persons involved in the accident or incident. The AACM, any person or entity shall not disclose to the public the names of persons involved in the accident or incident under any circumstances.
- 9.4 Requests for records in the custody or control of the AACM are directed to the original source of the information.
- 9.5 All the audio content of cockpit voice recordings as well as image and audio content of airborne image recordings shall not be disclosed.
- 9.6 The AACM, any person or entity shall not disclose a draft final report of an accident or incident investigation issued by AACM or received from other States to the public.

10 Removal and Disposal of Aircraft or its Wreckage

- 10.1 After released by the IIC, removal and disposal of the aircraft, its content or wreckage is the responsibility of the operator or owner of the aircraft, and it shall be carried out under the condition specified by the AACM.
- 10.2 If the Macao SAR Government needs to bear the cost for removal and disposal of the aircraft, its content or wreckage because the operator or owner refuses to do so, the operator or owner must reimburse the Macao SAR Government for the associated cost within ninety (90) days upon receipt of relevant notification.

- END -

Guidance for the Determination of Aircraft Damage

1. If an engine separates from an aircraft, the event is categorized as an accident even if damage is confined to the engine.
2. A loss of engine cowls (fan or core) or reverser components which does not result in further damage to the aircraft is not considered an accident.
3. Occurrences where compressor or turbine blades or other engine internal components are ejected through the engine tail pipe are not considered an accident.
4. A collapsed or missing radome is not considered an accident unless there is related substantial damage in other structures or systems.
5. Missing flap, slat and other lift augmenting devices, winglets, etc., that are permitted for dispatch under the configuration deviation list (CDL) are not considered to be an accident.
6. Retraction of a landing gear leg, or wheels-up landing, resulting in skin abrasion only. If the aircraft can be safely dispatched after minor repairs, or patching, and subsequently undergoes more extensive work to effect a permanent repair, then the occurrence would not be classified as an accident.
7. If the structural damage is such that the aircraft depressurizes, or cannot be pressurized, the occurrence is categorized as an accident.
8. The removal of components for inspection following an occurrence, such as the precautionary removal of an undercarriage leg following a low-speed runway excursion, while involving considerable work, is not considered an accident unless significant damage is found.
9. Occurrences that involve an emergency evacuation are not counted as an accident unless someone receives serious injuries or the aircraft has otherwise sustained significant damage.

Note 1: Regarding aircraft damage which adversely affects the structural strength, performance or flight characteristics, the aircraft may have landed safely, but cannot be safely dispatched on a further sector without repair.

Note 2: If the aircraft can be safely dispatched after minor repairs and subsequently undergoes more extensive work to effect a permanent repair, then the occurrence would not be classified as an accident. Likewise, if the aircraft can be dispatched under the CDL with the affected component removed, missing or inoperative, the repair would not be considered as a major repair and consequently the occurrence would not be considered an accident.

Note 3: The cost of repairs, or estimated loss, such as provided by insurance companies may provide an indication of the damage sustained but should not be used as the sole guide as to whether the damage is sufficient to count the occurrence as an accident. Likewise, an aircraft may be considered a "hull loss" because it is uneconomic to repair, without it having incurred sufficient damage to be classified as an accident.

List of Examples of Serious Incidents

There may be a high probability of an accident if there are few or no safety defences remaining to prevent the incident from progressing to an accident. To determine this, an event risk-based analysis that takes into account the most credible scenario had the incident escalated and the effectiveness of the remaining defences between the incident and the potential accident can be performed as follows:

- a) consider whether there is a credible scenario¹ by which this incident could have escalated into an accident; and
- b) assess the remaining defences² between the incident and the potential accident as:
 - effective, if several defences remained and needed to coincidentally fail; or
 - limited, if few or no defences remained, or when the accident was only avoided due to providence.

Consider both the number and robustness of the remaining defences between the incident and the potential accident. Ignore defences that already failed, and consider only those which worked and any subsequent defences still in place.

The combination of these two assessments helps in determining which incidents are serious incidents:

		b) Remaining defences between the incident and the potential accident	
		Effective	Limited
a) Most credible scenario	Accident	Incident	Serious Incident
	No accident	Incident	

The incidents listed are examples of incidents that may be serious incidents. However, the list is not exhaustive and, depending on the context, items on the list may not be classified as serious incidents if effective defences remained between the incident and the credible scenario.

1. Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
2. Collisions not classified as accidents.

¹ The most credible scenario refers to the realistic assessment of injury and/or damage resulting from the potential accident.

² Defences include crew, their training and procedures, ATC, alerts (within and outside the aircraft), aircraft systems, and redundancies, structural design of the aircraft and aerodrome infrastructure.

3. Controlled flight into terrain only marginally avoided.
4. Aborted take-offs on a closed or engaged runway, on a taxiway³ or unassigned runway.
5. Take-offs from a closed or engaged runway, from a taxiway³ or unassigned runway.
6. Landings or attempted landings on a closed or engaged runway, on a taxiway³, unassigned runway or unintended landing location such as roadways.
7. Retraction of a landing gear leg or wheels-up landing not classified as an accident.
8. Dragging during landing of a wing tip, an engine pod or any other part of the aircraft, when not classified as an accident.
9. Gross failures to achieve predicted performance during take-off or initial climb.
10. Fires and/or smoke in the cockpit, in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents.
11. Events requiring the emergency use of oxygen by the flight crew.
12. Aircraft structural failures or engine disintegrations, including uncontained turbine engine failures, not classified as an accident.
13. Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
14. Flight crew incapacitation in flight.
 - a) For single pilot operations (including remote pilot);
 - b) For multi-pilot operations for which flight safety was compromised because of significant increase in workload for the remaining crew.
15. Fuel quantity level or distribution situations requiring the declaration of an emergency by the pilot, such as insufficient fuel, fuel exhaustion, fuel starvation, or inability to use all usable fuel on board.
16. Runway incursions in which a collision is narrowly avoided.
17. Take-off or landing incidents. Incidents such as under-shooting, overrunning or running off the side of runways.
18. System failures (including loss of power or thrust), weather phenomena, operations outside the approved flight envelope or other occurrences which caused or could have caused difficulties controlling the aircraft.
19. Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.
20. The unintentional or, as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.

³ Excluding authorized operations by helicopters.

澳門特別行政區 REGIÃO ADMINISTRATIVA ESPECIAL DE MACAU  民航局 AUTORIDADE DE AVIAÇÃO CIVIL CIVIL AVIATION AUTHORITY		NOTIFICATION OF ACCIDENT / SERIOUS INCIDENT													
1. Information about the accident / serious incident															
a) The identifying abbreviation	<input type="checkbox"/> ACCID (accident) <input type="checkbox"/> SINCID (serious incident)														
b) Manufacturer, model, nationality and registration marks, and serial number of the aircraft	Manufacturer: Model: Serial number: Nationality: Registration Mark:														
c) Name of owner, operator and hirer, if any, of the aircraft	Name of owner: Name of operator:														
d) Qualification of the pilots															
e) Nationality of crew and passengers															
f) Date and time (local time or UTC) of the accident or serious incident	Date (dd/mm/yy): Time: <input type="checkbox"/> Local Time <input type="checkbox"/> UTC														
g) Last point of departure and point of intended landing of the aircraft	Last point of departure: Point of intended landing:														
h) Position of the aircraft with reference to some easily defined geographical point and latitude and longitude	Latitude: Longitude: Elevation: Reference to geographical point:														
i) Number of crew and passengers: aboard, killed and seriously injured; others: killed and seriously injured	<table border="1"> <thead> <tr> <th>Crew</th> <th>Passengers</th> <th>Others <small>(For example, people on ground)</small></th> </tr> </thead> <tbody> <tr> <td>Total aboard:</td> <td>Total aboard:</td> <td></td> </tr> <tr> <td>Killed:</td> <td>Killed:</td> <td>Killed:</td> </tr> <tr> <td>Serious injured:</td> <td>Serious injured:</td> <td>Serious injured:</td> </tr> </tbody> </table>	Crew	Passengers	Others <small>(For example, people on ground)</small>	Total aboard:	Total aboard:		Killed:	Killed:	Killed:	Serious injured:	Serious injured:	Serious injured:		
Crew	Passengers	Others <small>(For example, people on ground)</small>													
Total aboard:	Total aboard:														
Killed:	Killed:	Killed:													
Serious injured:	Serious injured:	Serious injured:													
j) Description of the accident and the extent of damage to the aircraft so far as it is known															
k) Actions taken by local authorities															
l) Physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site															
m) Presence and description of dangerous goods on board the aircraft															
2. Identification of the reporter															
This notification is submitted by:															
<input type="checkbox"/> Pilot in command of the involving aircraft <input type="checkbox"/> Director of the airport / heliport in which the accident or serious incident occurred <input type="checkbox"/> Operator of the involving aircraft <input type="checkbox"/> Air Traffic Controller or air traffic service provider in Macao SAR															
Signature: Date Signed (dd/mm/yy):															
Name (Block Capitals): Position:															
Company:															
Form AACM-APIG-01 Issue 2															



FLIGHT CREW REPORT OF ACCIDENT / SERIOUS INCIDENT

1. Basic Information	
1.1. Date (dd/mm/yy):	1.2. Local time of occurrence:
1.3. Location:	
(a) City/place name (or direction & distance from known place):	
(b) Province/State:	
(c) Country:	
(d) Latitude (dd:mm:ss N/S):	
(e) Longitude (dd:mm:ss EW):	
1.4. Phase of operation (tick applicable)	
<input type="checkbox"/> Standing	<input type="checkbox"/> Takeoff (incl. initial climb)
<input type="checkbox"/> Taxi	<input type="checkbox"/> Climb
<input type="checkbox"/> Decent	<input type="checkbox"/> Landing
<input type="checkbox"/> Cruise	<input type="checkbox"/> Maneuvering
<input type="checkbox"/> Approach	<input type="checkbox"/> Hover
<input type="checkbox"/> Other	<input type="checkbox"/> Unknown
1.5. Collision with other aircraft (tick applicable)	
<input type="checkbox"/> Midair	<input type="checkbox"/> On ground
<input type="checkbox"/> None	
1.6. Altitude of in-flight occurrence: ft MSL (mean sea level)	
2. Aircraft Information	
2.1. Aircraft registration:	2.2. Aircraft manufacturer:
2.3. Aircraft type/model:	2.4. Aircraft serial number:
2.5. Certificate of Registration No.:	2.6. CoR valid until (dd/mm/yy):
2.7. Certificate of Airworthiness No.:	2.8. CoA valid until (dd/mm/yy):
2.9. Classification of the aircraft (tick applicable)	
<input type="checkbox"/> Aeroplane (Landplane)	<input type="checkbox"/> Aeroplane (Seaplane)
<input type="checkbox"/> Helicopter (Seaplane)	<input type="checkbox"/> Helicopter (Amphibian)
<input type="checkbox"/> Aeroplane (Amphibian)	<input type="checkbox"/> Helicopter (Landplane)
<input type="checkbox"/> Other (please specify):	
2.10. Category of the Certificate of Airworthiness (tick applicable)	
<input type="checkbox"/> Commercial air transport category (Passenger)	<input type="checkbox"/> Commercial air transport category (Cargo)
<input type="checkbox"/> Aerial work category	<input type="checkbox"/> Private category
<input type="checkbox"/> Special category	<input type="checkbox"/> Other (please specify):
2.11. Number of seats	
(a) Flight crew:	(b) Cabin crew:
(c) Passengers:	
2.12. Maximum certificated take-off mass: lbs / kg (circle unit of measurement used)	
2.13. Maximum certificated landing mass: lbs / kg (circle unit of measurement used)	
2.14. Weight at the time of accident/incident: lbs / kg (circle unit of measurement used)	
2.15. Location of center of gravity at time of accident/incident (tick applicable)	
<input type="checkbox"/> inches from nose / datum (circle applicable)	<input type="checkbox"/> percent mean aerodynamic cord (% MAC)
2.16. Landing gear (tick applicable)	
<input type="checkbox"/> Retractable	<input type="checkbox"/> Tricycle
<input type="checkbox"/> Emergency Float	<input type="checkbox"/> Tailwheel
<input type="checkbox"/> Ski	<input type="checkbox"/> Ski/wheel
<input type="checkbox"/> Amphibian	<input type="checkbox"/> High skid
<input type="checkbox"/> Hull	<input type="checkbox"/> Unknown
<input type="checkbox"/> Float	<input type="checkbox"/> Skid



**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

2. Aircraft Information

2.17. Type of maintenance program *(tick applicable)*

Annual Conditional

Manufacturer's inspection program Other approved inspection program

Continuous airworthiness Other *(please specify)*:

2.18. Last inspection

(a) Date of last inspection *(dd/mm/yy)*:

(b) Inspection type *(tick applicable)*

100 hours Annual Conditional inspection Other approved inspection program

Continuous airworthiness Unknown Other *(please specify)*:

2.19. Airframe total time: hours

Airframe total time was measured at *(tick applicable)*: Last inspection Time of accident/incident

2.20. IFR equipped *(tick applicable)*

Yes No Unknown

2.21. Stall warning system installed *(tick applicable)*

Yes No Unknown

2.22. Type of fire extinguishing system *(tick applicable)*

None Other *(please specify)*:

2.23. Emergency locator transmitter (ELT)

(a) ELT installed? *(tick applicable)* Yes No *(no need to answer (b) to (i) below)*

(b) Manufacturer: (c) Model/series:

(d) Part number: (e) Serial number:

(f) Battery type: (g) Battery expiry date *(dd/mm/yy)*:

(h) ELT activated? *(tick applicable)* Yes No

(i) ELT aided in locating accident/incident? *(tick applicable)* Yes No

2.24. Engine Type

Turbo jet Turbo fan Turbo prop Turboshaft

Reciprocating Unknown Other *(please specify)*:

2.25. Reciprocating fuel system type

Carburetor Fuel injected

2.26. Propeller

Fixed pitch Controlled pitch

(a) Manufacturer: (b) Model:

2.27. Engine

	Manufacturer	Type/Model	Serial Number	Engine rated power measured as <i>(tick applicable)</i>	Date of manufacturer <i>(dd/mm/yy)</i>	Total hour	Total cycle	Hour since overhaul	Cycle since overhaul
				<input type="checkbox"/> Horsepower <input type="checkbox"/> lbs of thrust					
(1)									
(2)									
(3)									
(4)									

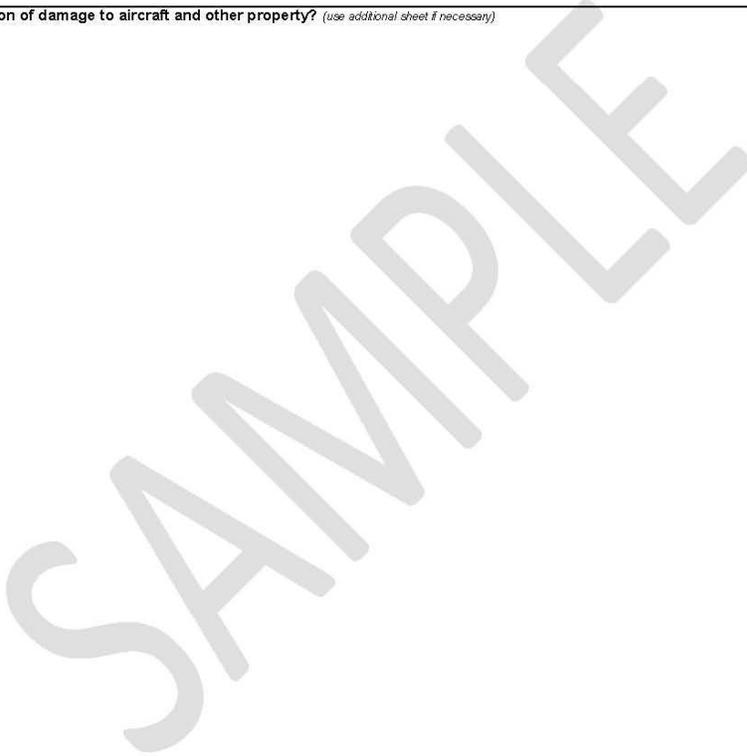


**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

2. Aircraft Information							
2.28. Auxiliary power unit (APU)							
Manufacturer	Type / Model	Serial Number	Date of manufacturer (dd/mm/yy)	Total hour	Total cycle	Hour since overhaul	Cycle since overhaul

3. Owner/Operator Information			
3.1. Registered owner of aircraft			
(a) Fractional ownership aircraft? (tick applicable)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
(b) Name:			
(c) Address:			
(d) Telephone:	(e) Fax:		
3.2. Operator of aircraft			
(a) Same as registered owner? (tick applicable)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
(b) Name:			
(c) Address:			
(d) Telephone:	(e) Fax:		
(f) Air Operator Certificate No.:	(g) AOC valid until (dd/mm/yy):		
3.3. Type of Operator (tick applicable)			
<input type="checkbox"/> Airline	<input type="checkbox"/> Charter	<input type="checkbox"/> Corporate	<input type="checkbox"/> Private
<input type="checkbox"/> Fixed base	<input type="checkbox"/> Aero club	<input type="checkbox"/> Aerial Work	<input type="checkbox"/> Aerial Agriculture
<input type="checkbox"/> A/C Manufacturer	<input type="checkbox"/> Government	<input type="checkbox"/> Flying School	<input type="checkbox"/> Police
<input type="checkbox"/> Other (please specify):			
3.4. Type of Operation			
3.4.1. <input type="checkbox"/> Air Transport (tick applicable)			
<input type="checkbox"/> International	<input type="checkbox"/> Domestic	<input type="checkbox"/> Passenger	<input type="checkbox"/> Cargo
<input type="checkbox"/> Scheduled	<input type="checkbox"/> Non-scheduled	<input type="checkbox"/> Charter	<input type="checkbox"/> Ferry
<input type="checkbox"/> Training	<input type="checkbox"/> High capacity	<input type="checkbox"/> Low capacity	<input type="checkbox"/> Other
3.4.2. <input type="checkbox"/> General Aviation (tick applicable)			
(a) Instructional			
<input type="checkbox"/> Check	<input type="checkbox"/> Dual	<input type="checkbox"/> Solo	<input type="checkbox"/> ICUS
<input type="checkbox"/> Other Training (please specify):			
(b) Non Commercial			
<input type="checkbox"/> Business	<input type="checkbox"/> Corporate / executive	<input type="checkbox"/> Pleasure / travel	<input type="checkbox"/> Practice
<input type="checkbox"/> Aerial Agriculture	<input type="checkbox"/> Aerial survey, etc	<input type="checkbox"/> Aerial / ambulance	<input type="checkbox"/> Police
<input type="checkbox"/> AACM	<input type="checkbox"/> Other (please specify):		
(c) Commercial			
<input type="checkbox"/> Coastal surveillance	<input type="checkbox"/> Fish spotting	<input type="checkbox"/> Construction work	<input type="checkbox"/> Photo/survey
<input type="checkbox"/> Aerial advertising	<input type="checkbox"/> Aerial mapping	<input type="checkbox"/> Aerial agriculture - other	<input type="checkbox"/> Powerline / pipeline patrol
<input type="checkbox"/> Unknown	<input type="checkbox"/> Other (please specify):		

**FLIGHT CREW REPORT OF
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6. Damage to Aircraft and Other Property			
6.1. Damage to aircraft <i>(tick applicable)</i>			
<input type="checkbox"/> Destroyed	<input type="checkbox"/> Substantial	<input type="checkbox"/> Minor	<input type="checkbox"/> None
6.2. Aircraft fire? <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> In-flight	<input type="checkbox"/> On-ground	<input type="checkbox"/> Both ground and in-flight
<input type="checkbox"/> Unknown origin			
6.3. Aircraft explosion? <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> In-flight	<input type="checkbox"/> On-ground	<input type="checkbox"/> Both ground and in-flight
<input type="checkbox"/> Unknown origin			
6.4. Description of damage to aircraft and other property? <i>(use additional sheet if necessary)</i>			
			

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7. Airport Information (if the accident/incident occurred on approach, take-off or within 5 km of an airport, complete this section)			
7.1. Airport identifier:			
7.2. Airport name:			
7.3. Distance from airport center: nm / km (circle unit of measurement used)			
7.4. Direction from airport: degrees MAG			
7.5. Airport elevation: ft MSL			
7.6. Proximity to airport (tick applicable)			
<input type="checkbox"/> Off airport/airstrip	<input type="checkbox"/> On airport	<input type="checkbox"/> On airstrip	
7.7. Approach segment (select one)			
<input type="checkbox"/> On instrument approach	<input type="checkbox"/> Landing	<input type="checkbox"/> Base leg	<input type="checkbox"/> Final
<input type="checkbox"/> Cross wind	<input type="checkbox"/> Downwind	<input type="checkbox"/> Low approach	<input type="checkbox"/> Go around
<input type="checkbox"/> Aborted landing (after touchdown)			
7.8. IFR approach (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> ADF/FDB	<input type="checkbox"/> SDF	<input type="checkbox"/> VOR/TVOR
<input type="checkbox"/> VOR/DME	<input type="checkbox"/> TACAN	<input type="checkbox"/> PAR	<input type="checkbox"/> Sidestep
<input type="checkbox"/> ILS	<input type="checkbox"/> Localizer only	<input type="checkbox"/> LOC – back course	<input type="checkbox"/> RNAV
<input type="checkbox"/> MLS	<input type="checkbox"/> LDA	<input type="checkbox"/> ASR	<input type="checkbox"/> Visual
<input type="checkbox"/> Contact	<input type="checkbox"/> Circling	<input type="checkbox"/> Practice	<input type="checkbox"/> GPS
<input type="checkbox"/> Loran	<input type="checkbox"/> Unknown		
7.9. VFR approach (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Traffic pattern	<input type="checkbox"/> Straight-in	<input type="checkbox"/> Valley/terrain following
<input type="checkbox"/> Go around	<input type="checkbox"/> Full stop	<input type="checkbox"/> Stop and go	<input type="checkbox"/> Touch and go
<input type="checkbox"/> Simulated forced landing	<input type="checkbox"/> Forced landing	<input type="checkbox"/> Precautionary landing	<input type="checkbox"/> Unknown
7.10. Runway information			
(a) Runway ID: (L / R / C) (circle applicable)	(b) Length: ft	(c) Width: ft	
7.11. Runway/landing surface (tick applicable)			
<input type="checkbox"/> Asphalt	<input type="checkbox"/> Concrete	<input type="checkbox"/> Dirt	<input type="checkbox"/> Grass/turf
<input type="checkbox"/> Gravel	<input type="checkbox"/> Ice	<input type="checkbox"/> Macadam	<input type="checkbox"/> Metal/wood
<input type="checkbox"/> Snow	<input type="checkbox"/> Water	<input type="checkbox"/> Unknown	
7.12. Condition of runway/landing surface (tick applicable)			
<input type="checkbox"/> Dry	<input type="checkbox"/> Holes	<input type="checkbox"/> Ice covered	<input type="checkbox"/> Rough
<input type="checkbox"/> Rubber deposits	<input type="checkbox"/> Slush covered	<input type="checkbox"/> Snow-compacted	<input type="checkbox"/> Snow-crusted
<input type="checkbox"/> Snow-dry	<input type="checkbox"/> Snow-wet	<input type="checkbox"/> Soft	<input type="checkbox"/> Vegetation
<input type="checkbox"/> Water-calm	<input type="checkbox"/> Water-choppy	<input type="checkbox"/> Water-Glassy	<input type="checkbox"/> Wet
<input type="checkbox"/> Unknown			



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8. Flight Itinerary Information			
8.1. Last departure point			
(a) Airport identifier:	(b) City:	(c) Country:	
8.2. Time of departure			
(a) Local time:	(b) Time zone:		
8.3. Destination			
(a) Airport identifier:	(b) City:	(c) Country:	
8.4. Type of flight plan filed <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> Company VFR	<input type="checkbox"/> Military VFR	<input type="checkbox"/> VFR
<input type="checkbox"/> VFR/IFR	<input type="checkbox"/> Unknown	Activated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
8.5. Type of ATC clearance/service <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> VFR	<input type="checkbox"/> Special VFR	<input type="checkbox"/> IFR
<input type="checkbox"/> Special IFR	<input type="checkbox"/> VFR on top	<input type="checkbox"/> VFR flight following	<input type="checkbox"/> Traffic advisory
<input type="checkbox"/> Cruise	<input type="checkbox"/> Unknown	<input type="checkbox"/> N/A	
8.6. Airspace where accident/incident occurred <i>(tick applicable)</i>			
<input type="checkbox"/> Class A	<input type="checkbox"/> Class B	<input type="checkbox"/> Class C	<input type="checkbox"/> Class D
<input type="checkbox"/> Class E	<input type="checkbox"/> Class G	<input type="checkbox"/> Demo area	<input type="checkbox"/> Warning area
<input type="checkbox"/> Prohibited area	<input type="checkbox"/> Restricted area	<input type="checkbox"/> Military operations area (MOA)	<input type="checkbox"/> Airport advisory area
<input type="checkbox"/> Jet training area	<input type="checkbox"/> Air traffic control area	<input type="checkbox"/> Special	<input type="checkbox"/> Unknown
8.7. Aircraft load description <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> Passenger	<input type="checkbox"/> Cargo	<input type="checkbox"/> Towing glider
<input type="checkbox"/> Towing banner	<input type="checkbox"/> Parachutists	<input type="checkbox"/> Livestock	<input type="checkbox"/> Water
<input type="checkbox"/> Chemical/fertilizer/seeds	<input type="checkbox"/> Unknown		
9. Fuel & Service Information			
9.1. Fuel on board at last takeoff: lbs / kg / gallon <i>(circle unit of measurement used)</i>			
9.2. Aircraft load description <i>(tick applicable)</i>			
<input type="checkbox"/> 80/87	<input type="checkbox"/> 100 low lead	<input type="checkbox"/> 100/130	<input type="checkbox"/> 115/145
<input type="checkbox"/> Jet A	<input type="checkbox"/> Automotive	<input type="checkbox"/> JP-3	<input type="checkbox"/> JP-4
<input type="checkbox"/> JP-5	<input type="checkbox"/> Other <i>(please specify)</i> :		
9.3. Other service, if any, prior to departure			



**FLIGHT CREW REPORT OF
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10. Evacuation of Aircraft

10.1. Was an emergency evacuation of the aircraft performed? *(tick applicable)*
 Yes No

10.2. Method of exit *(describe how the occupants exited and how many occupants evacuated each location)*

11. Weather Information at the Accident/Incident Site

11.1. Weather observation facility

(a) Facility ID: (b) Observation time (local time):
 (c) Distance from accident site: nm / km *(circle unit of measurement used)*
 (d) Direction from accident site: degrees MAG

11.2. Source of weather information *(tick applicable)*

National weather service Flight service station TV/radio Automated report
 Company Military Commercial weather service Internet
 Unknown Other *(please specify)*:

11.3. Method of briefing *(tick applicable)*

In person Teletype Telephone/Computer Aircraft radio
 TV/radio Unknown Other *(please specify)*:

11.4. Briefing type/completeness *(tick applicable)*

Full Partial / limited by pilot Partial / limited by briefer Abbreviated
 Not pertinent Unknown Other *(please specify)*:

11.5. Light condition *(tick applicable)*

Dawn Day Dusk Night
 Dark night Bright night Not reported

11.6. Visibility: nm / km *(circle unit of measurement used)*

11.7. Sky/lowest cloud condition *(tick applicable)*

Clear Few Partial obscuration Scattered
 Thin broken Thin overcast Unknown

Lowest cloud condition height: feet

11.8. Ceiling *(tick applicable)*

None (clear) Broken Overcast Obscured
 Indefinite Unknown

Ceiling height: feet

11.9. Restriction to visibility *(tick applicable)*

None Blowing dust Blowing sand Blowing snow
 Blowing spray Dust Fog Ground fog
 Haze Ice fog smoke Unknown

**FLIGHT CREW REPORT OF
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11. Weather Information at the Accident/Incident Site			
11.10. Wind direction <i>(tick applicable)</i>			
<input type="checkbox"/> Indicated:	degree MAG	<input type="checkbox"/> Variable	
11.11. Wind direction <i>(tick applicable)</i>			
<input type="checkbox"/> Velocity:	cts	<input type="checkbox"/> Calm	<input type="checkbox"/> Light and variable
11.12. Wind Gust <i>(tick applicable)</i>			
<input type="checkbox"/> Velocity:	cts	<input type="checkbox"/> Gusting	<input type="checkbox"/> No gusting
11.13. Type of turbulence <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> Clear air	<input type="checkbox"/> In clouds	<input type="checkbox"/> Vicinity of thunderstorm
11.14. Severity of turbulence <i>(tick applicable)</i>			
<input type="checkbox"/> Extreme	<input type="checkbox"/> Severe	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate chop
<input type="checkbox"/> Light			
11.15. NOTAMs (D, L and FDC), AIRMETS, SIGMETs, PIREPs in effect at the time of the accident/incident			
11.16. Temperature:		11.17. Altimeter setting:	
°C / °F <i>(circle unit of measurement used)</i>		inHg / MB <i>(circle unit of measurement used)</i>	
11.18. Density altitude:		11.19. Dew point:	
ft / meter <i>(circle unit of measurement used)</i>		°C / °F <i>(circle unit of measurement used)</i>	
11.20. Icing forecast <i>(tick applicable)</i>			
(a) Amount			
<input type="checkbox"/> None	<input type="checkbox"/> Trace	<input type="checkbox"/> Light	<input type="checkbox"/> Moderate
<input type="checkbox"/> Sever			
(b) Type			
<input type="checkbox"/> Rime	<input type="checkbox"/> Clear	<input type="checkbox"/> Mixed	
11.21. Icing actual <i>(tick applicable)</i>			
(a) Amount			
<input type="checkbox"/> None	<input type="checkbox"/> Trace	<input type="checkbox"/> Light	<input type="checkbox"/> Moderate
<input type="checkbox"/> Sever			
(b) Type			
<input type="checkbox"/> Rime	<input type="checkbox"/> Clear	<input type="checkbox"/> Mixed	
11.22. Type of precipitation <i>(tick applicable)</i>			
<input type="checkbox"/> None	<input type="checkbox"/> Rain	<input type="checkbox"/> Snow	<input type="checkbox"/> Hail
<input type="checkbox"/> Rain showers	<input type="checkbox"/> Freezing rain	<input type="checkbox"/> Snow shower	<input type="checkbox"/> Drizzle
<input type="checkbox"/> Ice pellets	<input type="checkbox"/> Snow pellets	<input type="checkbox"/> Snow grains	<input type="checkbox"/> Ice crystals
<input type="checkbox"/> Ice pellets shower	<input type="checkbox"/> Freezing drizzle		
11.23. Intensity of precipitation <i>(tick applicable)</i>			
<input type="checkbox"/> Light	<input type="checkbox"/> Moderate	<input type="checkbox"/> Heavy	

**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

12. Pilot 'A' Information			
12.1. Pilot 'A' Identification			
(a) Name:			
(b) Address:			
(c) Date of last inspection (dd/mm/yy):		(d) Age at time of accident/incident:	
(e) License number:		(f) License expiry date(dd/mm/yy):	
12.2. Pilot 'A' responsibilities at the time of accident/incident (tick applicable)			
<input type="checkbox"/> Pilot	<input type="checkbox"/> Co-pilot	<input type="checkbox"/> Student pilot	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Check pilot	<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Other flight crew	
12.3. Degree of injury (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Serious	<input type="checkbox"/> Fatal
<input type="checkbox"/> Unknown			
12.4. Seat occupied (tick applicable)			
<input type="checkbox"/> Left	<input type="checkbox"/> Right	<input type="checkbox"/> Center	<input type="checkbox"/> Front
<input type="checkbox"/> Rear	<input type="checkbox"/> Single	<input type="checkbox"/> Unknown	
12.5. Seat belt (tick applicable)			
(a) Used	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
(b) Available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
12.6. Shoulder harness (tick applicable)			
(a) Used	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
(b) Available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
12.7. Pilot license(s) (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Private	<input type="checkbox"/> Student	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Recreational	<input type="checkbox"/> Sport	<input type="checkbox"/> Commercial	<input type="checkbox"/> Airline Transport
<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Military	<input type="checkbox"/> Foreign	<input type="checkbox"/> Others (please specify):
12.8. Principle occupation (tick applicable)			
<input type="checkbox"/> Pilot	<input type="checkbox"/> Unknown	<input type="checkbox"/> Other (please specify):	
12.9. Medical check			
(a) Date of last medical check (dd/mm/yy):			
12.10. Medical certificate (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Class 1	<input type="checkbox"/> Class 2	<input type="checkbox"/> Class 3
<input type="checkbox"/> Unknown <input type="checkbox"/> Other (please specify):			
12.11. Medical certificate validity (tick applicable)			
<input type="checkbox"/> Without limitations/waivers			
<input type="checkbox"/> With limitations/waivers (please specify):			
(a) Medical certificate limitations:			
(b) Medical certificate waiver:			
<input type="checkbox"/> Unknown			

**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

12. Pilot 'A' Information

12.12. Last flight review or equivalent
 (a) Date (dd/mm/yy):
 (b) Aircraft manufacturer: (c) Aircraft type/model:

12.13. Aeroplane rating(s) (tick all applicable)
 None Single-engine land Single-engine sea Multi-engine land
 Multiengine sea

12.14. Other aircraft rating(s) (tick all applicable)
 None Airship Free balloon Glider
 Gyroplane Helicopter Powered lift

12.15. Instrument rating(s) (tick all applicable)
 None Aeroplane Helicopter Powered lift

12.16. Instructor rating(s) (tick all applicable)
 None Aeroplane single-engine land Aeroplane multi-engine land Gyroplane
 Powered lift Instrument aeroplane Instrument helicopter Helicopter
 Glider Sport

12.17. Type rating(s) (please specify)

12.18. Student endorsements (please specify)

12.19. Flight time (enter appropriate numbers of hours in each box)

	All aircraft	This type & model	Aeroplane single engine	Aeroplane multi-engine	Night	Instrument		Rotorcraft	Glider	Lighter than air
						Actual	Simulated			
Total time										
Pilot in command (PIC)										
Time as instructor										
This type/model	/	/	/	/				/	/	/
Last 90 days										
Last 30 days										
Last 24 days										

**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

13. Pilot 'B' Information			
13.1. Pilot 'B' identification			
(a) Name:			
(b) Address:			
(c) Date of last inspection (dd/mm/yy):		(d) Age at time of accident/incident:	
(e) License number:		(f) License expiry date(dd/mm/yy):	
13.2. Pilot 'B' responsibilities at the time of accident/incident (tick applicable)			
<input type="checkbox"/> Pilot	<input type="checkbox"/> Co-pilot	<input type="checkbox"/> Student pilot	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Check pilot	<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Other flight crew	
13.3. Degree of injury (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Serious	<input type="checkbox"/> Fatal
<input type="checkbox"/> Unknown			
13.4. Seat occupied (tick applicable)			
<input type="checkbox"/> Left	<input type="checkbox"/> Right	<input type="checkbox"/> Center	<input type="checkbox"/> Front
<input type="checkbox"/> Rear	<input type="checkbox"/> Single	<input type="checkbox"/> Unknown	
13.5. Seat belt (tick applicable)			
(c) Used	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
(d) Available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
13.6. Shoulder harness (tick applicable)			
(c) Used	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
(d) Available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
13.7. Pilot license(s) (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Private	<input type="checkbox"/> Student	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Recreational	<input type="checkbox"/> Sport	<input type="checkbox"/> Commercial	<input type="checkbox"/> Airline Transport
<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Military	<input type="checkbox"/> Foreign	<input type="checkbox"/> Others (please specify):
13.8. Principle occupation (tick applicable)			
<input type="checkbox"/> Pilot	<input type="checkbox"/> Unknown	<input type="checkbox"/> Other (please specify):	
13.9. Medical check			
(b) Date of last medical check (dd/mm/yy):			
13.10. Medical certificate (tick applicable)			
<input type="checkbox"/> None	<input type="checkbox"/> Class 1	<input type="checkbox"/> Class 2	<input type="checkbox"/> Class 3
<input type="checkbox"/> Unknown <input type="checkbox"/> Other (please specify):			
13.11. Medical certificate validity (tick applicable)			
<input type="checkbox"/> Without limitations/waivers			
<input type="checkbox"/> With limitations/waivers (please specify):			
(a) Medical certificate limitations:			
(b) Medical certificate waiver:			
<input type="checkbox"/> Unknown			

**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

13. Pilot 'B' Information										
13.12. Last flight review or equivalent										
(a) Date (dd/mm/yy):										
(b) Aircraft manufacturer: (c) Aircraft type/model:										
13.13. Aeroplane rating(s) (tick all applicable)										
<input type="checkbox"/> None <input type="checkbox"/> Single-engine land <input type="checkbox"/> Single-engine sea <input type="checkbox"/> Multi-engine land <input type="checkbox"/> Multiengine sea										
13.14. Other aircraft rating(s) (tick all applicable)										
<input type="checkbox"/> None <input type="checkbox"/> Airship <input type="checkbox"/> Free balloon <input type="checkbox"/> Glider <input type="checkbox"/> Gyroplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered lift										
13.15. Instrument rating(s) (tick all applicable)										
<input type="checkbox"/> None <input type="checkbox"/> Aeroplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered lift										
13.16. Instructor rating(s) (tick all applicable)										
<input type="checkbox"/> None <input type="checkbox"/> Aeroplane single-engine land <input type="checkbox"/> Aeroplane multi-engine land <input type="checkbox"/> Gyroplane <input type="checkbox"/> Powered lift <input type="checkbox"/> Instrument aeroplane <input type="checkbox"/> Instrument helicopter <input type="checkbox"/> Helicopter <input type="checkbox"/> Glider <input type="checkbox"/> Sport										
13.17. Type rating(s) (please specify)										
13.18. Student endorsements (please specify)										
13.19. Flight time (enter appropriate numbers of hours in each box)										
	All aircraft	This type & model	Aeroplane single engine	Aeroplane multi-engine	Night	Instrument		Rotorcraft	Glider	Lighter than air
						Actual	Simulated			
Total time										
Pilot in command (PIC)										
Time as instructor										
This type/model	/	/	/	/				/	/	/
Last 90 days										
Last 30 days										
Last 24 days										

**FLIGHT CREW REPORT OF
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14. Additional Flight Crew Members <small>(exclusive of cabin attendants, complete the following information, continue on separate sheet if necessary)</small>			
14.1. Pilot identification			
(a) Name:			
(b) Address:			
14.2. Pilot license(s) <small>(tick applicable)</small>			
<input type="checkbox"/> None	<input type="checkbox"/> Private	<input type="checkbox"/> Student	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Recreational	<input type="checkbox"/> Sport	<input type="checkbox"/> Commercial	<input type="checkbox"/> Airline Transport
<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Military	<input type="checkbox"/> Foreign	<input type="checkbox"/> Others <small>(please specify)</small> :
14.3. Type rating/endorsement for aircraft accident/incident aircraft?			
<input type="checkbox"/> Yes		<input type="checkbox"/> No	
14.4. Total flight hours at the time of this accident: hours			
14.5. Degree of injury <small>(tick applicable)</small>			
<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Serious	<input type="checkbox"/> Fatal
<input type="checkbox"/> Unknown			
14.6. Seat occupied <small>(tick applicable)</small>			
<input type="checkbox"/> Left	<input type="checkbox"/> Right	<input type="checkbox"/> Center	<input type="checkbox"/> Front
<input type="checkbox"/> Rear	<input type="checkbox"/> Single	<input type="checkbox"/> Unknown	
14.7. Pilot identification			
(a) Name:			
(b) Address:			
14.8. Pilot license(s) <small>(tick applicable)</small>			
<input type="checkbox"/> None	<input type="checkbox"/> Private	<input type="checkbox"/> Student	<input type="checkbox"/> Flight instructor
<input type="checkbox"/> Recreational	<input type="checkbox"/> Sport	<input type="checkbox"/> Commercial	<input type="checkbox"/> Airline Transport
<input type="checkbox"/> Flight engineer	<input type="checkbox"/> Military	<input type="checkbox"/> Foreign	<input type="checkbox"/> Others <small>(please specify)</small> :
14.9. Type rating/endorsement for aircraft accident/incident aircraft?			
<input type="checkbox"/> Yes		<input type="checkbox"/> No	
14.10. Total flight hours at the time of this accident: hours			
14.11. Degree of injury <small>(tick applicable)</small>			
<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Serious	<input type="checkbox"/> Fatal
<input type="checkbox"/> Unknown			
14.12. Seat occupied <small>(tick applicable)</small>			
<input type="checkbox"/> Left	<input type="checkbox"/> Right	<input type="checkbox"/> Center	<input type="checkbox"/> Front
<input type="checkbox"/> Rear	<input type="checkbox"/> Single	<input type="checkbox"/> Unknown	

**FLIGHT CREW REPORT OF
ACCIDENT / SERIOUS INCIDENT**

15. Passenger(s) / Other Personnel <i>(include cabin attendants, continue on separate sheet if necessary)</i>											
	Seat	Crew	Non-revenue	Revenue	Non-occupant	Other	Fatal	Serious injury	Minor injury	No injury	Unknown
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											
Name:		<input type="checkbox"/>									
Address:											

**FLIGHT CREW REPORT OF
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16. Narrative History of Flight *(please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State time and point of departure, intended destination, and services obtained.

SAMPLE

17. Recommendation *(how could this accident/incident have been prevented?)*

Operator/owner safety recommendation

SAMPLE

**FLIGHT CREW REPORT OF
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18. Additional Information *(please type or print in ink)*
Use this space if additional space is needed for any answers.

SAMPLE

19. Declaration and Information of the Reporter

In accordance with article 7 of Law no. 2/2013, the reporter is *(tick applicable)*

<input type="checkbox"/> Pilot in command of the involving aircraft	<input type="checkbox"/> Operator of the involving aircraft
<input type="checkbox"/> Owner of the involving aircraft	<input type="checkbox"/> Others <i>(please specify)</i> :

The reporter hereby declares that the above information is complete and accurate in every respect to the best of his/her knowledge.

Signature of the reporter: Date signed *(dd/mm/yy)*:

Name of the reporter *(Block Capitals)*: Tel no.:

Position: Company:

Guidance for Preparing the Report by Air Traffic Service Provider

1. Content of the Report

1.1. For all accident and serious incident occurred in Macao SAR or within the air space under Macao SAR jurisdiction, the air traffic service provider shall provide a report to the IIC containing the certified copies of the following documentation:

- (a) Daily record of control tower operation;
- (b) Personnel logs;
- (c) Flight progress strips;
- (d) Notice to airmen;
- (e) Flight plan;
- (f) Voice recording;
- (g) Radar data recording;
- (h) Personnel statements of relevant air traffic controller;
- (i) Transcription of ATC voice recording
- (j) Others include any other materials deemed pertinent.

1.2. The accountable manager of the air traffic service provider shall certify all copies of original records included in the report submitted to the IIC. The certification may be accomplished by preparing a certified index listing each document or by certifying each document. In both cases, the following format should be used:

"I hereby certify that the following copies of records are true copies of originals which are on file in the (Name of the Airport / Heliport)."

Signature

Name

Title

Date signed

2. The original records of the documentation specified in paragraph 1.1 above shall be retained in the air traffic service provider's facility files. Original documents (recorded or written) shall not be released from the facility's custody without the permission of the IIC.

3. Voice recording and radar data recording

3.1. Voice recording, including both interphone and radio communications shall cover the data from 5 minutes before the first contact until 5 minutes after the last contact unless otherwise advised by the IIC.

3.2. Radar data including both primary radar data and secondary radar data shall cover the data from 5 minutes before the appearance of the target until 5 minutes after the final blip of the target.

3.3. Particular attention shall be given to the handling of recordings to avoid undue wear or damage and to avoid tampering charges. Generally, the playback of such recordings should be limited to the minimum number of times necessary to make recorded copies and to meet the needs of the accident investigators.

- 3.4. If technically possible, arrangement shall be made to rerecord all pertinent recordings as soon as possible after an accident to protect the original recordings from wear and possible damage.
4. Personnel statement of relevant air traffic controller
 - 4.1. Obtain statement as soon as possible directly from the relevant air traffic controller.
 - 4.2. Ensure that statement includes:
 - the date that the original statement was actually signed.
 - the person's name, occupation, location of employment, and his or her operating initials used on personnel logs and/or position logs.
 - operational equipment configuration; i.e. radar channel, moving target indicator, circular polarization, video map, offset or indicator, runway or approach lights, etc. If a facility has a diagram of the radar display, setting of radar channel, etc., this diagram may be attached to the personnel statement in lieu of a handprinted description. Statements that do not contain equipment criteria should have a single sentence stating such. This will allow for the reader to understand that the omission was not an oversight.
 - 4.3. The personnel statement after signed by the person preparing the statement will constitute the original statement. Editorial changes made after the personnel statement has been signed shall be treated as an amended personnel statement and attached to the original document.
5. Transcription of ATC Voice Recording
 - 5.1. Relevant department of the air traffic service provider shall provide technical assistance to the IIC in preparing the transcription of voice recording, which shall contain all recorded communications concerning the subject aircraft for a period of 5 minutes before initial contact until 5 minutes after the last contact (i.e., partial transcripts) except for aircraft accidents. For aircraft accident, a complete transcription (i.e., all communications recorded at the specific position regardless of source) is needed for the above time period. The transcription shall consist of all voice and/or interphone transmissions during the defined time period (i.e., full transcripts). Each operational position (i.e., ground control, local control, radar, radar associate, etc.) shall be transcribed separately. Do not integrate different operational position into the transcription unless requested by the IIC.
 - 5.2. If possible transcription should be made from a copy of the voice recording, not the original recording, to protect the original from wear and damage. The original recording may be used to check the transcription.
 - 5.3. The transcription will be prepared as follows:
 - 5.3.1. The first page shall contain the following information:
 - (i) Aircraft accident identification
 - (ii) Accident location
 - (iii) Date and time of the accident
 - (iv) For the first line of the body of the memorandum type:

Appendix 5

"This transcript covers the Macao Control Tower (operational position) position for the time period from (UTC date and UTC time) to (UTC date and UTC time)."

- (v) Certification by the person making the transcription is as follows:

"I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject (aircraft accident, near midair collision, etc.) involving (aircraft identification):"

Signature

Name

Title

Date signed

- 5.3.2. The transcription shall be single spaced. Each contact shall be separated by triple spacing. If transmissions of more than one agency/facility (center, tower, aircraft, operations office, etc.) are recorded, each transmission shall be prefaced by the transmitting agency abbreviation. If breaks occur during any contact, indicate by three dashes.
- 5.3.3. Time entries including seconds shall be entered to the left of each transmission. All cardinal minutes shall be indicated unless a transmission extends through the cardinal minute in which case the next cardinal minute shall be indicated.
- 5.3.4. The transcription shall be in lower case and verbatim. Abbreviations and punctuation (commas, periods, etc.) shall not be used. For spoken numbers, spell the numbers out exactly as spoken. If the recording is unintelligible, insert *"unintelligible"* in parentheses in the proper location. When an interpretation of a garbled word or portion of a word is required, the interpretation shall be enclosed by parentheses and preceded by an asterisk. An asterisked footnote following the transcription shall read:
- "This portion of the rerecording is not entirely clear, but this represents the best interpretation possible under the circumstances."*
- 5.3.5. Additional pages should have the *accident date* and *aircraft call sign* or *registration number* in the upper left corner, with *"page (number) of (number)"* two lines below this entry.
- 5.3.6. At the end of the transcript, enter *"End of Transcript"*.