Advisory Circular
AC 12 - 1

Notification of Accidents and Incidents — Issue 3

15 January 2018

GENERAL

Civil Aviation Safety Authority Advisory Circulars (AC) contains information about standards, practices and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices or procedures are found to be acceptable, they will be added to the appropriate Advisory Circular.

PURPOSE

This Advisory Circular provides methods, acceptable to the Director, for showing compliance with the notification of occurrences requirements of both Section 60 of the Civil Aviation Act 2000 (as amended) and Subpart B of Civil Aviation Rule Part 12 and explanatory material to assist in showing compliance.

RELATED CAR

This AC relates specifically to Civil Aviation Rule Part 12.

CHANGE NOTICE

The previous issue of this AC, dater 1 July 2002 is hereby cancelled.

Table of Contents

Aviation safety monitoring

1. Processing of accident and incident information and publication of information

The Authority is tasked with monitoring civil aviation safety to determine the level of safety and security of the civil aviation system.

The Authority will process and record of accident and incident notification and details. The Authority is responsible for—

(1) Receiving all accident and incident notification and details;

(2) For those accidents and incidents required to be notified to the Accident Investigation Commission, notifying the details to them without delay:

(3) Evaluating of all notification and detail to identify those considered to warrant direct CASA follow- up action;

(4) Recording of all accident and incident in a computer database as required by Chapter 8 of ICAO's Annex 13; the CASA has chosen to use a system known as Aviation Quality Database (AQD) to meet this obligation;

(5) Continuously monitoring all incoming data for significant aspects and trends, using previously stored data when appropriate and alerting the appropriate CASA section and the aviation industry when necessary:

(6) Co-ordinating and monitoring the progress of the follow-up on open occurrences:

(7) Disseminating the basic information, or a summary of the information contained in the submissions:

(8) Carrying out searches of the stored data in response to requests from within the Authority or appropriate sections of the aviation industry and preparing reports arising from such searches:

(9) Receiving such operational statistical data as is necessary for appropriate analysis to be able to be carried out;

(10) As far as may be found useful, providing statistics and conducting analyses of the occurrence data in order to establish trends and to determine when corrective action is desirable:

(11) Drawing attention to the lessons learnt from searches and analysis of the data through appropriate publications.

2. The objectives of occurrence notification and submission of details

The objectives of Part 12 and the Authority is:

(1) To ensure that knowledge of these occurrences is disseminated for the education of other persons and organisations: and

(2) To enable an assessment be made of the safety implications of each occurrence, both in itself and in relation to previous similar occurrences, so that the CASA or those concerned may take or initiate any necessary corrective action: and

(3) To meet the ICAO obligation under occurrence investigation requirements of Annex 13.

The overall objective of the Authority is to use the notified and detailed information to improve the level of flight safety, not to attribute liability or blame.

3. Use of information

In considering all notified and detailed occurrences, including those notified by its personnel, the Authority will:

(1) evaluate each occurrence;

(2) decide which occurrences require investigation by CASA to discharge their functions and responsibilities;

(3) make such checks as it considers necessary to ensure that aviation organisations are taking the necessary remedial and preventive action about notified and detailed occurrences;

(4) assess and analyse the information notified, or detailed, to detect safety problems that may not be apparent to individual reporters;

(5) make available the results of studies of the data provided to those who will use them for the benefit of aviation safety; and

(6) where appropriate, issue specific advice or instructions to particular sections of the industry.

4. Persons required to submit notification and details

Section 60 of the Civil Aviation Act 2000 specifies that—

(1) The pilot-in-command of any aircraft that is involved in an accident shall notify the accident to the Authority as soon as practicable.

(1A) every person who—

Operates, maintains, or services, or does any other act in respect of any aircraft, aeronautical product, or aviation related service; and

is involved in an incident,—

Shall, where required to do so under rules made under this Act, notify the incident to the Authority.

5. Accidents to be notified and detailed

The definition of an accident is contained in the Act, and reproduced below. Reporters should refer to this definition when deciding whether an occurrence is an accident. If in doubt report it anyway

Accident: 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

(1) *a person is fatally or seriously injured 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

(2) 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, wheels, 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

(3) the aircraft is missing or is completely inaccessible.

Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3.— The type of unmanned aircraft system to be investigated is addressed in Annex 13 paragraph 5.1.

Note 4.— Guidance for the determination of aircraft damage can be found in Annex 13 Attachment G.

Every accident that falls within the definition is required to be notified to the Authority as soon as practicable, followed by details within 72 hours of the accident.

6 Incidents to be notified and detailed

In deciding whether to submit a notification and details of an incident, it must be an incident defined in the Act as being –

Incident *any occurrence, other than an accident, that is associated with the operation of an aircraft and affects or could affect the safety of operation:*

It is important that reporters keep firmly in mind the concept of an incident when deciding whether to submit information. If in doubt, submit the information anyway.

Examples of types of incidents in each Part 12 defined incident considered to meet the criteria for the submission of a notification or details, or both, to the Authority are given in Appendix A.

A notification, or details, or both, should also be submitted on any incident that involves, for example—

- a defective condition or
- an unsatisfactory behavior or
- a procedure

— that did not immediately affect the safety of aircraft operation, but which if allowed to continue uncorrected or which, if repeated in different, but likely circumstances, would affect the safety of aircraft operations.

The difference between a defect and an aircraft incident might create some difficulty to flight crew. The following guidance is provided—

- If an incident is experienced during the operation of an aircraft involving the aircraft systems, the pilot-in-command should initiate the submission of information by providing as much detail as possible. This should include a brief description of events to the contracted maintenance organisation. The maintenance organisation should then submit a notification and/or details of the incident to the Authority.

- Conversely, if the incident is not related to the aircraft systems, components, or structure, the pilot-in-command should submit a notification, or details of the incident, or both, to the Authority.

7 Classification of incidents

The definition of an incident in the Act is all encompassing. For the purpose of data recording by the Authority, Part 12 further **classifies** incidents as follows—

Aircraft incident means any incident, not otherwise classified, associated with the operation of an aircraft:

Aerodrome incident means an incident involving an aircraft operation and—

(1) an obstruction either on the aerodrome operational area or protruding into the aerodrome obstacle limitation surfaces; or

(2) a defective visual aid; or

(3) a defective surface of a manoeuvring area; or

(4) any other defective aerodrome facility:

Airspace incident : means an incident involving deviation from, or shortcomings of, the procedures or rules for—

(1) avoiding collisions between aircraft; or

(2) avoiding collisions between aircraft and other obstacles when an aircraft is being provided with an Air Traffic Service:

Bird incident means an incident where—

(1) there is a collision between an aircraft and one or more birds; or

(2) when one or more birds pass sufficiently close to an aircraft in flight to cause alarm to the pilot:

Dangerous goods incident means an incident associated with and related to the carriage of dangerous goods by air after acceptance by the operator, that—

(1) results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation, or other evidence that the integrity of the packaging has not been maintained; or

(2) is a dangerous goods [item] incorrectly declared, packaged, labelled, marked, or documented:

Defect incident means an incident that involves failure or malfunction of an aircraft or aircraft component, whether found in flight or on the ground:

Facility malfunction incident means an incident that involves an aeronautical telecommunications facility:

Promulgated information incident means an incident that involves significantly incorrect, inadequate, or misleading information promulgated in any aeronautical information publication, map, or chart:

Security incident means an incident that involves unlawful interference:

8 Initial notification of incidents

Rule 12.55 requires an incident that is a serious incident or an immediate hazard to the safety of aircraft operations, or that is an airspace incident, be notified to the Authority as soon as practicable. For this purpose, notification should be submitted by the fastest means possible, such as by telephoning, FAX, email or, where it is available, submission of an eReport into the Authority's AQD system.

The object of occurrence information is to improve the level of flight safety from the lessons learned during subsequent follow-up action on submitted information. Also, in promptly alerting those organisations associated with the operation, servicing, and manufacture of the same type of aircraft, equipment, or facilities, on which information has been submitted, safety is enhanced.

For other than an airspace incident, the Authority is dependent on those responsible for submitting information to exercise their judgement in determining if an incident is an immediate hazard to the safety of aircraft operations.

The information required to be submitted as notification of an incident is listed in Appendix A for each class of incident.

9 Details of incidents

Rule 12.57 requires details of an incident to be submitted to the Authority within 72 hours of the incident. Informants should note that an incident notified to the Authority under 12.55 must be followed up by submission of the details to provide the complete information about the incident. System of transmitting the-information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continued airworthiness of the aircraft is transmitted to the organization responsible for the type design of that aircraft.

Certain organisations required to hold a certificate for the conduct of their aviation activities are, under the applicable Civil Aviation rules, required to establish procedures and systems for the submission of the notification and details of incidents. Such procedures and systems will be promulgated in their own certification exposition.

The Authority encourages the use of industry-company systems with a responsible person within the organisation being nominated to receive all information about incidents. That person will establish which information from individuals, within the organization, meets the criteria for the submission of incident details to the Authority. Correlation of operational and technical aspects, and the provision of any relevant supplementary information, is an important part of such activity. Examples of this correlation are; reporter's assessment, and immediate action to control the problem.

When an employee is a person having a duty to report to the Authority under Part 12, the company should tell the employee that the information has been passed to the Authority. If it does not, the employee should then decide whether to make a submission direct to the Authority.

Individuals are strongly advised, in the interests of safety, to submit details to their employer, except when confidentiality is regarded as essential. However, they may submit details of an incident direct to the Authority in any case.

A manufacturer, maintenance organisation, overhaul organisation, or repair organisation, of aircraft, components, or equipment, is not expected to submit information about an incident to the Authority if the aircraft operator has already done so. The Authority expects operators to advise manufacturers, and the like, of incidents that have been notified and detailed to the Authority. A manufacturer, and the like, must submit details of an incident which they consider are required to be submitted if they know or believe that the operator concerned has not done so.

Where a repair or maintenance organisation, and the like, is in doubt if an incident should be reported, such as the discovery of a defect in a piece of equipment which cannot be associated with a particular aircraft, or a type of aircraft, they should submit a report in order to ensure that the requirements of CAR Part 12 are met.

Any person or organisation specified in Part 12 must submit details about any incident, of which they have knowledge, even though this may not be first hand, unless they have good reason to believe that details of the incident have already been, or will be, submitted by someone else.

10 Confidential information

If a reporter wishes to submit a confidential notification or incident details under 12.61, the submission to CASA should be clearly annotated CONFIDENTIAL.

An incident as defined in the Act is all encompassing and informants may make a confidential submission on any safety related concern.

On receipt of a confidential submission, the Authority will remove any information that might reveal the identity of the informant before processing the information in the data system.

Persons making a confidential submission must accept that it might inhibit effective investigation. However, the Authority would rather have a confidential submission than have no submission.

11 The details of incident form and the e Report forms

The individual, or the organisation concerned, is responsible for obtaining copies of the CA005 detail form. The CA005 is a 'one form for all occasions' form that has fields that are not always relevant depending on the type of report being submitted.Organisations may wish to use an incident detail form designed to meet their own requirements or communication system. In such cases the format should, as far as possible, follow the general format of the CA005 detail form in order to facilitate data capture. Organisations must consult with the Authority when proposing an alternative system to ensure that it is acceptable to the Authority.

Notification using the Authority's eReporting capability is faster, simpler and allows easier processing of the required information – it is the preferred method of notification. The reporter has the ability to select the type of incident being notified and an appropriate form is provided which meets the requirements listed in Appendix A; in many cases the individual data item can be selected by using drop-down menus rather than typing in the field box.

12 Channels of communication

Accident notification. Means of accident notification to the Authority is by telephone. Fax , email or by eReporting. The latter requires Internet access – go to the Authority's website at http://casapng.gov.pg/, go to the eReporting tab, sign in with the username and password provided by CASA's AQD Administrator, select the type of report that you wish to submit, fill out the details and then press the 'Submit'button.

Notification of incident. The quickest way for flight crew to give notification of an airspace incident, facility malfunction incident or bird incident, is by radio to the appropriate air traffic service (ATS) unit. This action will ensure that rapid notification is passed to the Authority. It will also allow the ATS provider to ensure that all records pertaining to the incident are retained should a consequential investigation be required to determine the likely cause of the incident and formulate corrective actions to mitigate the risk of a repeat. This action will also enable the air traffic service unit to initiate a timely corrective action should it be required.

Notification should also be given to the appropriate ATS unit as soon as practicable after the flight for:

(1) confirming the initial notification of an incident; or

(2) making the initial notification of an incident if it was not possible to do so by radio.

- The means of notification direct to the CASA is by telephone, Fax, email or eReport.

Accident and incident details. The occurrence detail form CA005 should be sent to CASA by one of the methods below – phone, hand delivery, fax, email or eReport - unless the CASA has agreed to a notification being submitted some other way.

Contacts Details for the CASA.

The following are the contact details for the various methods of notifying the Authority –

Telephone: 325 7320 ext 524 or 302 7524 during working hours

24/7 phone 7361 2713 to be used outside normal working hours

Delivered by hand CASA PNG HQ, Morea Tobo Road, 6 Mile, Port Moresby, NCD during working hours

Facimile: 325-1938 during working hours

Email: aqdreports@casapng.gov.pg during working hours

eReports these Reports go directly into the CASA AQD system and are quarantined until reviewed and accepted – may be used at any time with a user name and password provided by CASA and accessed by a link from the CASA website.

APPENDIX A - INCIDENTS THAT HAVE TO BE NOTIFIED OR REPORTED

1 Introduction

The definition of an accident is reasonably precise but this is not so with regard to incidents which are required to be notified or detailed to the Authority. CAR Part 12 classifies incidents for data recording by the Authority into the AQD database.

Part 12 requires notification of serious incidents to the Authority. ICAO provides a list of examples of serious incidents at Attachment C to Annex 13.

Serious incident. An incident involving circumstances indicating that there was a high probability of an accident and 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.

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

The important consideration of the definition of serious incident is in the Note that gives an indication of how the definition should be interpreted.

The incidents listed are typical examples of incidents that are likely to be serious incidents. The list is not exhaustive and serves only as guidance to the definition of a serious incident as follows–

(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) controlled flight into terrain only marginally avoided.

(3) aborted take-off on a closed or engaged runway.

(4) take-off from a closed or engaged runway with marginal separation from obstacles.

(5) landing or attempted landings on a closed or engaged runway.

(6) gross failures to achieve predicted performance during take-off or climb.

(7) fires and smoke in the passenger compartment, in cargo compartments, or engine fires, even though the fires were extinguished by the use of extinguishing agents.

(8) events requiring the emergency use of oxygen by the flight crew.

(9) aircraft structural failures or engine disintegrations not classified as an accident.

(10) multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.

(11) flight crew incapacitation in flight.

(12) fuel quantity requiring the declaration of an emergency by the pilot.

(13) take-off or landing incidents such as undershooting, overrunning, or running off the edges of runways.

(14) system failures, weather phenomena, operations outside the approved envelope or other occurrences which could have caused difficulties controlling the aircraft.

(15) failures of more than one system, in a redundant system mandatory for flight guidance and navigation.

Guidance of those required to report. Listed below are examples of other types of incidents, by each class of incident, that are considered to meet the criteria for the submission of a notification and details. Although covering a wide range of items, this list is not exhaustive.

We suggested that you may like to rearrange these incident groups, in your manuals, to suit your own methods.

2 Airspace incidents

Impairment of any member of an air traffic service unit when, as a consequence, an aircraft was, or could have been, exposed to hazard.

Air traffic control services incidents—

(1) Provision of incorrect altimeter setting:

(2) Failure or inadequacy of prescribed let-down procedures:

(3) Misidentification of aircraft by a radar operator:

(4) Incorrect transmission, receipt or interpretation of significant messages:

(5) Less separation between aircraft than that prescribed for the situation:

(6) Unauthorised infringement of any form of designated airspace.

Flight crew interpretation of information and instructions incidents—

(1) Incorrect setting of an SSR code:

(2) Incorrect setting of an altimeter sub-scale:

(3) Flight at a level, or on a route, different from that allocated:

(4) Incorrect receipt, or interpretation, of significant radiotelephone messages.

Traffic alert and collision avoidance system (TCAS) resolution alert.

3 Defect Incidents

Damage to aircraft structure incidents. Any damage to aircraft structure which has not been reported as an accident should be reported

This refers to damage found, in flight or on the ground, resulting from in-service deterioration, such as cracks, corrosion, permanent deformation, and the like.

Substantial damage which occurs between the time any person boards an aircraft with the intention of flight and such time as all persons have disembarked, and the engine, or any propellers or rotors, come to rest, **is to be notified and reported as an accident.**

(1) Damage to any primary structure, or any damage to secondary structure, that consequently hazarded or could have hazarded the aircraft, unless it is minor accidental damage readily evident and notified to the aircraft operator at the time it occurred:

(2) Damage or deterioration found as a result of a special inspection or check. For example an Airworthiness Directive:

(3) Separation from the aircraft, in flight, of any part of the aircraft:

(4) Significant defects or damage found as a result of a heavy landing, or a turbulence, check:

(5) Significant deterioration, defects, or damage found during routine maintenance, being of a nature or type not normally expected to arise from normal service operation.

Aircraft systems incidents

(1) Any failure, significant malfunction, or deterioration of any items, or systems, or equipment, found as a result of a special mandatory inspection or check. For example, manufacturer's alerts, Service Bulletins, Airworthiness Directives, and the like:

(2) Significant defects, deterioration, or damage, to system components, found during routine maintenance or repair, of a nature or type not normally expected to arise from normal service operation.

(3) System or component failures, or significant malfunctions, identified by routine testing and inspection procedures, either on the aircraft or in the workshops. For example, defects causing, or likely to cause, failure of an actuating system for flaps, spoilers, drag devices, landing gear, brakes, and the like.

(4) Failure, or malfunction, of any item, not normally considered as reportable, where the circumstances of the failure, or its association with other failures, introduces an element of hazard. For example, furnishings and equipment, water systems, and items included in an allowable deficiency or minimum equipment list.

In-service defect incidents—

(1) Failure or malfunction of engines

(2) Loss or shutdown of any engine.

(3) Inability to shut down an engine, or to control power, thrust or RPM, by use of normal procedures:

(4) Significant overspeed or runaway of engines, propellers, rotors, APU, or other high speed components:

(5) Uncontained failure of any high speed rotating components. For example, APU, air starters, ACM, ATM, and the like:

(6) Failure or malfunction of aircraft systems and equipment

(7) Any loss or significant malfunction of one main system, sub-system, or set of equipment. For example, hydraulic power, flight control system, electrical power, air systems, ice protection, communication systems, navigation systems and instruments, warning systems and devices, brake systems, wheels or tyres, or both, on each landing gear) when—

(i) it occurs at a critical phase or time, For example, V_1:

(ii) exceptional circumstances exist or unforeseen consequences arise. For example, uncontained failure, fire, and the like:

(iii) relevant back-up systems, sub-systems, or equipment do not perform satisfactorily.

(8) Significant asymmetry of flaps, slats, spoilers, and the like:

(9) Limitations of movement, stiffness, or poor or delayed response, in the operation of the primary flight control systems, or their associated tab and lock systems:

(10) Loss, or malfunction, of any rotorcraft auto stabiliser mode:

(11) Inability to achieve the intended aircraft configuration for any flight phase:

(12) Malfunction of any indication systems when the possibility of significantly misleading indication to the crew results:

(13) Operation of any primary warning system associated with aircraft systems or equipment when—

(i) it is clearly evident to the crew that the indication is false; or

(ii) the indication is confirmed as false after landing.

For example, fire or smoke warning, door warning, and the like.

(14) Operation of any other primary warning system associated with manoeuvring of the aircraft when—

(i) it is clearly evident to the crew that the indication is false; or

(ii) the indication is confirmed as false after landing.

For example, stall warning (stick shake), stall protection (stick push), over-speed warning, and the like.

(15) Reversion to manual control of powered primary controls, other than for training or test purposes:

(16) Failure of ice-protection equipment, or build up of ice on the aircraft beyond the capability of the ice-protection system:

(17) Critical AC, or DC, power system, or electrical component failure:

(18) Loss of cabin pressurisation:

(19) Contamination of the cabin, cockpit, or baggage compartment:

(20) For twin engine aircraft approved for extended range operations (EROPS)–

defects that occur in flight which would not permit dispatch of the aircraft on an EROPS flight under the conditions of the minimum equipment list (MEL), whether or not an EROPS flight is being flown:

(21) For helicopters–

defects causing, or likely to cause, failure of rotors, or rotor drive systems.

4 Facility Malfunction incident

Total failure, or significant malfunction, of any aeronautical navigation or communication facility.

5 Aircraft incident

Substantial damage which occurs between the time any person boards an aircraft with the intention of flight and such time as all persons have disembarked, and the engine, or any propellers or rotors, come to rest, **is to be notified and reported as an accident.**

Injury to a person—

Any significant injury to any person, which directly results from the operation of the aircraft or its equipment but which is not considered to be an accident:

Impairment of the capacity of a crew member to undertake the function to which their licence or responsibilities relate—

(1) Impairment of any flight crew member, including any occurrence prior to departure if it is considered that it could have resulted in incapacitation during flight:

(2) Impairment of any flight attendant, that renders the person incapable of performing essential emergency duties.

The use of any procedure taken for the purpose of overcoming an emergency:

(1) The use of emergency equipment, or prescribed emergency procedures, in order to deal with a situation, whether in flight or on the ground:

(2) The use of any non-standard procedure, adopted by the flight crew, to deal with an emergency:

(3) The declaration of an emergency:

(4) An emergency forced, or precautionary, landing:

(5) Failure of any emergency equipment, or procedures, to perform satisfactorily including when being used for training.

Encountering wake turbulence during approach to land, or on climb after take-off:

Failure or malfunction of engines—

(1) Loss, shutdown, or significant malfunction, of any engine when–

(i) standard operating procedures, drills, and such like, are not satisfactorily accomplished; or

(ii) a hazardous situation arises, or might have arisen, from the decisions or actions of the crew subsequent to the malfunction or failure.

(2) Failure or malfunction of aircraft systems and equipment:

(3) Any loss or significant malfunction of one main system, sub-system, or set of equipment when—

(i) standard operating procedures, drills, and the like, are not satisfactorily accomplished; or

(ii) a hazardous situation arises, or might have arisen, from the decisions or actions of the crew subsequent to the malfunction or failure.

For example, hydraulic power, flight control systems, electrical power, air systems, ice protection, communication systems, navigation systems and instruments, warning systems and devices, brake systems, or wheels or tyres on each landing gear.

Incidents affecting all aircraft—

(1) Fire or explosion:

(2) Smoke, or toxic or noxious fumes, in the aircraft:

(3) Leakage of fuel that results in a major loss, significant fire hazard, or significant contamination:

(4) Malfunction of the fuel jettisoning system that results in inadvertent loss of a significant quantity of fuel, significant fire hazard, possibly hazardous contamination of aircraft equipment, or inability to jettison:

(5) Fuel system malfunctions having a significant effect on the fuel supply and distribution:

(6) Leakage of hydraulic fluids, oil, or other fluid, which results in a significant fire hazard, or possibly, hazardous contamination:

(7) Inability to re-light, or re-start, a serviceable engine:

(8) Operation of any primary warning system associated with aircraft systems or equipment. For example, fire or smoke warning, door warning, and the like.

Any occurrence arising from the control of an aircraft, in flight, by its flight crew—

(1) Abandoned take-off resulting from, or producing, a hazardous, or potentially hazardous, situation. For example, at speeds close to, or over, V_1:

(2) Go-around resulting from, or producing, a hazardous or potentially hazardous situation:

(3) Heavy landing– a landing deemed to require a heavy landing check:

(4) Turbulence encounter– an encounter deemed to require a turbulence check.

(5) Lightning strike:

(6) Unintentional significant deviation from intended track, or altitude, caused by procedural

systems, equipment defect, or human factor:

(7) Descent below decision height, or minimum descent height, in instrument landing conditions:

(8) Unintentional contact with the ground, including touching down before the runway threshold:

(9) Over-running the ends, or edges, of the runway:

(10) Serious loss of braking action:

(11) Approaching to, or landing on, a wrong runway or aerodrome:

(12) Significant loss of control from any cause:

(13) Occurrence of stall, or a stick push operation, other than for training or test purposes:

(14) Significant inadvertent reduction in airspeed:

(15) Contact, or near contact requiring avoiding action, with suspended wires or cables:

(16) GPWS warning when–

(i) the aircraft comes into closer proximity to the ground than had been planned or anticipated:

(ii) the warning is experienced in IMC, or at night, and is established as having been triggered by a high rate of descent (Mode 1):

(iii) the warning results from failure to select landing gear, or flap, by the appropriate point on approach (Mode 4):

(iv) any difficulty or hazard arises, or might have arisen, as a result of crew response to the warning. For example, possibly reduced separation from other traffic. This could include warning of any Mode, or Type, that is genuine, nuisance, or false:

(17) GPWS alert when any difficulty or hazard arises, or might have arisen, as a result of crew response to the alert:

(18) Operation of any other primary warning system associated with manoeuvring of the aircraft. For example, stall warning (stick shake), stall protection (stick push), over speed warning, and similar:

(19) Inadvertent incorrect operation of any controls which resulted in, or could have resulted in, a significant hazard:

(20) An incident, or hazard, which arises as a consequence of any deliberate simulation of failure conditions for training, system checks, or test purposes:

(21) In-flight fuel quantity critically low, or exhausted.

Occurrence arising from the loading or carriage of passengers, cargo, or fuel—

(1) Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance, or structural strength.

(2) Loading of contaminated, or incorrect type of, fuel or other essential fluids.

(3) Incorrect loading of passengers, baggage, or cargo, likely to have a significant effect on aircraft weight and balance.

(4) Inadequate securing of cargo containers or substantial items of cargo.

(5) Incorrect stowage of baggage or cargo likely in any way to hazard the aircraft, its equipment or occupants, or to impede emergency evacuation.

(6) Significant contamination of aircraft structure, systems, or equipment arising from the carriage of baggage or cargo.

Additional rotorcraft related incidents—

(1) Loss of power margin in flight, when it results in contact with ground, or water, or other object:

(2) Rotor overspeed in flight, in excess of the component change limits:

(3) Mast bumping in flight:

(4) Power settling, or settling with power, when it results in surface contact, or in a rate of descent in excess of 1000 feet per minute.

(5) Main or tail rotor strike resulting in damage to the rotor.

(6) Ground resonance requiring corrective action by the pilot.

6 Security incident

(1) Unlawful seizure of an aircraft:

(2) An attempted unlawful seizure of an aircraft:

(3) Violence against a person on board an aircraft in flight if that act is likely to, or has the potential to, endanger the safety of that aircraft:

(4) Destroying an aircraft in service, or causing damage to such an aircraft, that renders it incapable of flight, or which is likely to endanger its safety in flight:

(5) Placing, or causing to be placed, or attempting to place, on an aircraft in service, by any means whatsoever, a device or substance which is likely—

(i) to destroy that aircraft; or

(ii) to cause damage to it that renders it incapable of flight; or

(iii) to cause damage to it that is likely to endanger its safety in flight:

(6) Destroying, or damaging, an aeronautical telecommunication facility, or interfering with its operation:

(7) Unlawfully and intentionally using any device, substance, or weapon, at an aerodrome to—

(i) use violence against a person which causes, or is likely to cause serious injury or death; or

(ii) destroy, or seriously damage, an aerodrome facility, or an aircraft on the aerodrome:

(8) Attempted break-in to a parked aircraft:

(9) Any other unlawful act which affects or could affect the immediate safety of aircraft operations:

(10) Attempt, with lawful authority, to take on board or carry on board an aircraft a firearm that is, however—

(i) loaded; or

(ii) in an unsafe condition; or

(iii) stowed in a place that is accessible to any person not authorised to have possession of it:

(11) Unlawful and intentional attempts to take on board an aircraft—

(i) any firearm; or

(ii) any ammunition; or

(iii) any explosive substance or device, or any other injurious substance or device of any kind whatsoever, which could be used to endanger the safety of the aircraft or of persons on board the aircraft; or

(iv) any other dangerous or offensive weapon, or any dangerous instrument of any kind whatsoever.

7 Promulgated information incident

Provision of significantly incorrect, inadequate, or misleading promulgated information in any—

(1) Aeronautical information publication:

(2) Map:

(3) Chart:

(4) Manual:

(5) Meteorological information.

8 Aerodrome incident

(1) Failure or significant malfunction of aerodrome lighting:

(2) Failure or significant malfunction of a visual approach slope indicator system:

(3) Significant deterioration of aerodrome wind indicators, markings, or signs:

(4) Major failure, or significant deterioration, of surfaces in aerodrome manoeuvring areas:

(5) Significant spillage of fuel on aerodrome aprons:

(6) Errors, or inadequacies, in marking of obstructions or hazards on aerodrome manoeuvring areas:

(7) Errors, or inadequacies, in lighting of obstructions or hazards on aerodrome manoeuvring areas or in the vicinity of an aerodrome:

(8) Runways, or taxiways, obstructed by aircraft, vehicles, persons, animals, or foreign objects, resulting in a hazardous or potentially hazardous situation:

(9) Apron blast incidents resulting in significant damage or injury

(10) Collision between a moving aircraft and any other aircraft, vehicle, person, animal, or other ground object:

(11) Aircraft departing from a paved surface which results in, or could have resulted, in a significant hazard.

9.1 Bird incidents

(1) A collision between an aircraft and one or more birds:

(2) One or more birds pass sufficiently close to an aircraft in flight to cause alarm to the pilot.

Dangerous goods incident

(1) Escape of smoke, or flames, from the container or package in which the dangerous goods are contained:

(2) Breakage of the container, or package, in which the dangerous goods are contained:

(3) The escape of dangerous goods from the container or package in which they are contained:

(4) Leakage of fluid, or radiation, from the container or package in which the dangerous goods are contained:

(5) Incorrect labeling or packaging of dangerous goods:

(6) Incorrect loading of dangerous goods in the aircraft.

Other incidents

Any other incident that affects, or if not corrected could affect, the safety of an aircraft, its occupants or any other person, being—

(1) A failure, or malfunction, of ground equipment used for testing or checking aircraft systems and equipment, when the required routine inspection and test procedures did not clearly identify the problem before safe operation of the aircraft could have been affected:

(2) Repetitive events, at an excessive frequency, of a specific type of failure, or malfunction, which in isolation would not be considered to be a reportable incident:

(3) minor loading errors at a particular aerodrome:

(4) GPWS nuisance warning at a particular aerodrome:

In the last three cases it is expected that the reporter will submit a single occurrence report together with the supporting evidence of high frequency, or rate.

(5) Incorrect assembly of parts, or components, of aircraft, or any ground equipment, where the condition has not been found as a result of inspection and test procedures required for that specific purpose.

Appendix B – FILLING IN FORM CA005

1. Introduction

Persons required to provide details of an accident, under 12.53, or of an incident, under 12.57, must do so by filling in form CA005, or an accepted alternative, and submitting it to the Authority within 72 hours.

Under 12.59 Certificate Holders are required to submit investigation reports no later than 90 days after the occurrence. These reports must be submitted using pages 3 and 4 of form CA005, or another means acceptable to the Authority.

Pages 1 and 2 of form CA005, headed Occurrence Report, contain the fields to be filled for occurrence details while pages 3 and 4, headed Investigation Report, contain the fields to be filled for the investigation report.

Any person or organisation who wishes to use other means should make a prior submission to the Authority to establish that their proposed means is acceptable.

Form CA005 is designed to gather detailed information about all accidents and incidents. Some of the information fields on pages 1 and 2 of the form may not be relevant to every incident. When completing the form, relevance is the aspect you should keep in mind and when the information requested is clearly not relevant it may be omitted. On the other hand you might consider that you have relevant information not asked for. In such cases there should sufficient blank spaces for you to provide the information, but if you do run out of space do not be reluctant to use, and attach, another piece of paper.

The individual field headings for all items of data are self explanatory. The form comprises a combination of blank fields, for entry of data, and tick-boxes listing alternatives appropriate to each occurrence.

The blue fields on the top of each page of the form are for CASA use.

Evaluation and processing of the data is simplified if the details are typewritten, if that is not possible fill them in with a black ball point pen in legible writing or block letters.

Page 1 and 2 of the form contains 7 blocks of fields and the following tables provide brief advice against each these blocks:

Table 1. First block on page 1

Data field	Filling advice
Date of occurrence	Use the format *day/month/year*. Make sure you have it right if you use UTC time!
Time	Fill the time box and then tick the appropriate box as Standard time or Co-ordinated universal time (*UTC*).
Location	Plain text in relationship to a city, town, settlement, or the like. An example would be *10 nm south of Goroka.* Avoid using place names that will not easily be recognised by persons from outside the local area.
Aircraft manufacturer and model	You will find this in the aircraft flight manual. Leave it blank if the aircraft has PNG registration markings and the registration block is correctly completed.
Operator	This is the holder of the aircraft certificate of registration or the pilot's employer, usually it is the person that *authorised* the flight.
Client ID	If you know it, fill it, otherwise leave it blank as the CASA data base will generate it.
Remaining boxes	Are only required to be filled in as details of accidents and airspace incidents.

Table 2. Block headed *Operational Details* on page 1

Data field	Filling advice
	This block is for accidents and in-flight incidents when relevant.
Flight No./Call sign	This is usually applicable to an airline operation.
Altitude	Fill the box with numerals then tick the appropriate above ground level (*AGL*) or above sea level (*ASL*) or flight level (*FTL*).
Runway used	Use the two digit runway designator, if relevant.
Departure point	This is usually an aerodrome listed in the AIP but, if not, define it best you can.
Destination point	As for departure point above.
Nearest reporting point (RP)	These are designated RP promulgated in the AIP and associated charts.
Distance and bearing from nearest RP	The first box is distance in nautical miles (nm), and the second box is degrees magnetic to the nearest minute.
The next 4 boxes	Tick the appropriate flight rules being operated, *VFR or IFR,* followed by the flight conditions at the time of the occurrence, *VMC or IMC.*
Nature of flight	The two boxes referring to scheduled or non-scheduled are relevant to air transport operations only, while the boxes referring to domestic, international, and ETOPS could be relevant to any type of operation. The remaining boxes are self explanatory, but note that there is an *other (specify)* box should you not be able to find the type of flight in the detailed boxes.

Table 3. Block headed *Description of Occurrence* on page 1

Data field	Filling advice
Description of occurrence	This is a narrative field for you to fill, in plain English, giving as full a description as possible. See the note under the box to use a separate piece of paper if needed.
Pilot in command's name	Fill in the given names, in full, followed by the surname of the pilot in command, if known to the submitter.

Data field	Filling advice
Licence number	This is the pilot's licence number
Pilot flight hours in last 90 days	If known to the submitter.
Flight hours on type	If known to the submitter. Type means *aircraft type.*
Total flight hours	If known to the submitter.
Last checked	If known to the submitter. Place a tick in the relevant box.
by - name	If known to the submitter. This is the name of the person who conducted the check flight you ticked in the previous box.
Date checked	If known to the submitter. This is the date of the flight check you ticked in the box. above.
Check pilot's ID	If known to the submitter. If you don't know, leave it blank as the CASA database will generate this information.

Table 4. Block headed *Type of Occurrence* on page 2

Data field	Filling advice
Accident/incident	This block provides you with a choice of descriptors for you to tick the relevant field or fields and has another field called *other (specify)* if the descriptors do not fit the circumstances.
Airspace Incident	The first field, Airspace ID - eg AA/TMA/C, is the airspace designation as promulgated in the AIP and associated charts. The remaining fields provide you with a choice of descriptors for you to tick the relevant field or fields and has another field called *other (specify)* if the descriptors do not fit the circumstances.
Facility malfunction	Facility ID, Name, and Facility Type, are promulgated in the AIP and associated charts consisting of a two letter designator, usually named after the aerodrome it serves, and the type such as *NDB, VOR*, and the like. The remaining fields provide you with a choice of descriptors for you to tick the relevant field or fields and has another field called *other (specify)* if the descriptors do not fit the circumstances.
Aerodrome occ.	This block of fields provides you with a choice of descriptors for you to tick the relevant field or fields and has another field called *other (specify)* if the descriptors do not fit the circumstances.
Dangerous goods	This block of fields provides you with a choice of descriptors for you to tick the relevant field or fields and has another field called *other (specify)* if the descriptors do not fit the circumstances. The field labelled mis/nondeclaration means an article or substance classified as a dangerous goods incorrectly declared or not declared at all.
Bird Hazard	The fields are self explanatory, though you may have problems in identifying the species. If this is the case leave the field blank or describe the bird.
Aircraft defect/engineering details	As the title suggests these fields are filled by a maintenance organisation or an LAME. The terminology used in the fields should be familiar to the persons filling out the fields. If you do not know the client ID leave it blank as the CASA data base will generate the ID.
Engineering Description of Incident	This is a narrative, filled out by a maintenance organisation or an LAME.

Table 5. Block headed *Submitter's Details*

Data field	Filling advice
All	These fields are self explanatory but, again, if you do not know your client ID leave it blank as the CASA data base will generate the ID.