Democratic Socialist Republic of Sri Lanka

Civil Aviation Authority of Sri Lanka

Directive

(Issued under Sec. 121, Civil Aviation Act No. 14 of 2010)

Title: Service Difficulty Reporting System

Reference No.: CA-Directive-2018-AW-007 S.N. : SLCAD-014 Date: 1st March 2018

Pursuant to Section 121 of the Civil Aviation Act No.14 of 2010, Director General of Civil Aviation shall have the power to issue, such directive for the purpose of giving effect to stated provisions of the Civil Aviation Act, any regulations or rules made thereunder including the Articles of the Convention on International Civil Aviation which are specified in the Schedule to the CA Act.

Accordingly, I, undersigned being the Director General of Civil Aviation do hereby issue the Directives as mentioned in the Attachment hereto (Ref: CA-Directive-2018-AW-007-Att-01), for the purpose of giving effect to the provisions in the aforementioned Act and Standards & Procedures described in DOC 9760(Part III, Chap. 09, 9.8) under Article 37 of the Convention and Implementing Standards Part M, which are specified in the Attachment.

This Directive shall be applicable to all Aircraft Operators Approved by the Director General of Civil Aviation of Sri Lanka.

This Directive shall come into force with immediate effect and remain in force unless revoked and it will supersede the requirement in Aviation Safety Notice (ASN) 14.

Attention is also drawn to sec. 103 of the Act, which states inter alia that failure to comply with Directive, issued by DGCA is an offence.

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Chief Executive Officer

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Enclosure: Attachment No. : CA-Directive-2018-AW-007-Att-01

Directive

Service Difficulty Reporting System

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Chapter 1 Overview of the SDR System

(1) The following information is provided to identify the background information concerning Service Difficulty Reporting requirements. This Aviation Safety Notice indicates the importance attached to the understanding of the principles of the Service Difficulty Reporting system.

(2) For the purpose of this IS, the following definition applies:

"Reportable Service Difficulty" - Any defect, malfunction or failure of an aeronautical product affecting, or that if not corrected is likely to affect, the safety of the aircraft, its occupants or any other person.

This definition is very broad due to the complexity of modern aircraft and the many factors that could affect their safe operation. When considering the reportability of a particular defect, malfunction or failure, the reporter shall apply the overriding criterion of "... affecting safety" The following points shall also be borne in mind:

(a) Deliberate simulation of failure conditions for training, system test or test purposes need not be reported, but any defect, malfunction or failure arising from such action may be reportable; and

(b) A particular defect or failure could introduce an element of danger and require a report for one type of aircraft, whereas on another type it would not.

Information Note:
This IS provides a list of examples of defects, malfunctions and failures that would, in all probability, require a report to be submitted. This list shall not be considered as complete.

(3) The establishment of the SDR system is not intended to replace the various normal "control" systems which are the responsibilities of operators, flight crew, maintenance organizations and other personnel. On the contrary, it is intended to complement and enhance the normal day-to-day procedures and controls, which ensure that, required standards of safety are achieved and maintained.

(4) The purpose of the SDR system is to collect, analyze, record and disseminate data concerning those defects and malfunctions which have resulted in, or are likely to result in a safety hazard to an aircraft or its occupants. It is intended to use the reported information to support the regulatory activities required to improve the level of flight safety.

To this end the CAASL will:

(a) Assess each report for airworthiness safety implications, both in itself and in relation to previous similar reports;

(b) Use the data collected on a national basis to establish trends that would not be apparent to individual operators;

(c) Issue specific advice or instructions to particular sections of the aviation community;

(d) Take action in the form of:

(i) Regulations;

(ii) Issuance of Airworthiness Directives which introduce mandatory modifications and inspections;

(iii) Directives which result in amendments to maintenance schedules, maintenance instructions and maintenance manuals; and

(iv) Issue of airworthiness and safety information in whatever form that is appropriate.

(e) Request foreign aviation authorities and organizations to take any necessary remedial and Preventive action in relation to the reported deficiencies.

(5) It is fundamental to the purpose of the SDR system that the substance of reports shall be disseminated where necessary in the interest of flight safety. However, keeping in mind its responsibilities in this regard, CAASL commits itself to not disclosing the name of the person or organization submitting a report, or of a person cited in the report, unless required to do so by law.

(6) Those persons and organizations bound by Sri Lanka Air Navigation Regulations are required to report the occurrence of defects, malfunctions and failures to The CAASL. These organizations are required to include in their maintenance control manual, quality control manual, or equivalent manual, as applicable, a system for the collection and evaluation of defect, malfunction and failure data including a procedure for the reporting of defects, malfunctions and failures that meet the criteria of a reportable service difficulty.

(7) Various operating rules specify those persons and organizations required to submit service difficulty reports. It is anticipated that operators will submit the majority of reports, because they, in most cases, will discover the defects during the course of normal operations. Items, which have been the subject of a SDR, and are being sent for repair and overhaul, shall be so identified. This may be accomplished by enclosing a copy of the SDR in the item container, annotating the documentation accompanying the item, or by any other convenient means.

Examples of the expected level of reporting are:

(a) The manufacturers of aircraft, engines, components or equipment are not required to report defects in their own products if they know an operator has already reported the defect. Manufacturers shall report any defect, malfunction or failure discovered by them, which they consider to be a reportable service difficulty. Manufacturers shall also report to CAASL any reportable service difficulty reported to them by a foreign operator of their product.

(b) Defects, malfunctions and failures occurring on prototypes during aircraft, engine or appliance development or developmental flight tests are not considered reportable service difficulties.

(c) In relation to the discovery of defects in the course of overhaul or repair work, the primary onus for reporting falls on the overhaul agencies. It is recognized that, especially for components and appliances, it may be difficult for the overhaul agencies to assess whether a defect would affect the

safety of the aircraft as a whole. When parts are overhauled at foreign repair stations the Operator is responsible for reporting any Service Difficulties.

(8) The CAASL Service Difficulty Report form is designed to provide all the data required when properly completed. The information from all reports will be stored in automatic data processing equipment, from which it will be possible to retrieve any selection or combination of selected data for the purpose of flight safety studies. Complete and accurate reports will facilitate both the storage and subsequent analysis of the data.

Chapter 2 Reporting Requirements

(1) For each occurrence of a service difficulty, a Service Difficulty Report (SDR) shall be submitted on a "one SDR form per event" basis:

(2) A SDR shall be submitted to CAASL within 3 working days from the time the service difficulty was first discovered.

(3) Where not all of the required information is available within the time period specified in (2), an interim report can be submitted by telephone, or other expedient means, to the CAASL within that period. Such reports shall be followed by a complete written report within 14 days of the discovery of the occurrence.

Information Notes:

(i) Where an individual submits an interim report by telephone CAASL personnel record the call, pending submission of the complete SDR.

(ii) Where complete information is not available when the initial written report is submitted, a supplementary report may be submitted following availability of all data. This intent can be indicated by entering "Supp-Open" in the "Status" block of the initial written report.

(4) Unless approved in accordance with procedures contained in an organization's approved manual, an interim report must contain at least:

(a) The occurrence date;

(b) The aircraft registration (if applicable);

(c) A description of the defect;

(d) The name of the submitter

(5) Except as provided in subsection (6) below, a SDR will normally be submitted using CAASL SDR form shown in Appendix.

(6) Organizations who wish to use a reporting form other than CAASL form, if granted approval, may do so provided all the information required by these standards is supplied. Approval for the use of such

forms will be granted through the approval of the alternate form within the organization's approved manual

Chapter 3 Examples of Defects Requiring Submission of a SDR

It is not possible to envisage every defect, malfunction, or failure that would constitute a reportable service difficulty. Therefore, to a large degree, it is necessary to depend upon the reporter's knowledge, experience, and good judgment to determine if an occurrence is a reportable service difficulty.

There are a number of defects, malfunctions and failures, which shall they occur, are likely to be reportable. For the guidance of those persons required to report, listed below are some examples of the types of service difficulties, which may be reportable. Although covering a wide range of items, this list must not be considered exhaustive. For ease of reference, the examples are grouped under the following headings:

(1) Aircraft structure,

(2) Power plant,

(3) Systems or Equipment.

(1) Aircraft Structure

(a) Any failure of aircraft primary structure.

(b) Cracks, permanent deformation or corrosion of aircraft primary structure for which a repair scheme is not already provided in the manufacturer's repair manual, or which occur after repair.

(c) Any part of the aircraft becoming detached, in flight or during operation on the ground, that would endanger the aircraft or any person

(2) Powerplant

(a) Loss of thrust/power, shutdown or failure of any engine.

(b) Inability to shut down an engine or to control power, thrust or RPM.

(c) Uncontained failure of engine compressor or turbines.

(d) Inability to feather or un-feather a propeller.

(3) Aircraft Systems or Equipment

(a) Fire or explosion.

(b) Smoke, toxic or noxious fumes in the aircraft.

(c) Leakage of fuel which results in major loss or is a fire hazard.

(d) Fuel system malfunction having a significant effect on fuel supply and/or distribution.

(e) Any loss or malfunction of one or more main system(s), subsystem(s), or set(s) of equipment (e.g., hydraulic power, flight control system [auto flight, auto trim], electrical power, air systems, ice protection, navigation systems and instruments, warning systems and devices, brake systems, etc.).

(f) Uncontained failure of any high speed rotating component, (e.g. auxiliary power unit, air starters, air cycle machine, etc.).

(g) Asymmetry of flaps, slats, spoilers, etc. (i.e., limiting systems do not function properly), or limitation of movement of more than one of these surfaces.

(h) Limitation of movement, stiffness, poor or delayed response in the operation of flight control systems or their associated control/trim tab and locking systems.

(i) Any failure, defect, malfunction or deterioration of any critical item, system, or equipment found as the result of any special mandatory inspection or check (e.g. an airworthiness directive or alert service bulletin).

(j) Defects or deterioration of systems or components found during routine maintenance, overhaul or repair, when of a type not expected as a result of normal service.

(k) System/component defects or malfunctions identified by routine testing and inspection procedures on the aircraft or in workshops, where there is a likelihood that other operators might have similar but undetected defective items.

(l) Loss, defect, or malfunction of any emergency equipment or life support system (e.g. oxygen, fire protection, etc.).

(m) Damage to the aircraft and loss or malfunction of any essential service, or engine, as the result of a lightning strike.

(n) Defects or malfunctions of rotors or rotor drive systems (e.g. rotors, transmissions, drive shaft, etc.).

(o) Loss or malfunction of any rotorcraft automatic stabilization.

As previously stated, the above list shall not be considered comprehensive. Any other defect, failure or malfunction which, in the opinion of a reporter, constitutes a reportable service difficulty shall be reported. These include:

(i) Defects occurring at an excessive frequency which in isolation would not be considered reportable (e.g., a high frequency of spurious warnings for certain systems or high failure rate for a specific component).

(ii) Incorrect assembly of components.

(iii) Use of incorrect oil, hydraulic fluid or other essential fluids.

(iv) Unapproved parts, as detailed in the following section.

Chapter 4 Reporting Unapproved Parts Using the SDR System

(1) Definition

For the purpose of using the SDR system to report unapproved parts, the following definition applies: "Unapproved Part" - Any part, component or material that has not been manufactured in accordance with the approval procedures that may not conform to an approved type design, or may not conform to an established industry specification for standard parts.

(2) Examples of unapproved parts include, but are not limited to:

(a) "Counterfeit", or fraudulently marked parts, components, or materials;

(b) Parts shipped directly to users by a manufacturer, supplier, or distributor who does not hold, or operate under the authority of manufacturer approval for the part (e.g. production overruns); or

(c) Parts that have been maintained or repaired and returned to service by persons or facilities not authorized under appropriate Regulations.

(3) Reporting Procedures

(a) Identification of the commercial source of the suspected unapproved part;

(b) How the suspect part was detected; and

(c) Any other pertinent information that can help in the investigation.

Information Note:

It is advisable for the submitter to include photos and copies of invoices, certificates of conformance, tags, or other release documentation when filing a report of this type.

(4) Disposition of Suspected Unapproved Parts

Investigation of the report and reduction in occurrences of distribution of unapproved parts can be greatly enhanced if suspected parts, together with their documentation, are quarantined until examination by CAASL or agreement on the disposal action.

(5) Investigation Procedures

The CAASL has a mandate to investigate all occurrences and the SDR System is not intended to duplicate or interfere in that process in any way.

(a) The investigation of a reported occurrence will be conducted to the extent necessary to determine if a failure or malfunction of an aeronautical product was involved in the occurrence. In the affirmative, all practical efforts should be made to determine the cause of the service difficulty.

(b) The methods used by the Airworthiness Inspector in the course of his investigation may include verbal as well as written communications, statements taken from the owner/ operator/witnesses, on site visits and laboratory analysis of suspect components.

(c) The Chief of the Airworthiness section should define responsibilities and procedures for the coordination and the investigation of the reported occurrences.

(d) The reports submitted should be consolidated and entered into a common data base

(e) The data thus collected should be analyzed to determine any adverse trends

SDR Format

A specimen copy of the SDR form and instructions for completing the SDR form is attached in Appendix 1.

Appendix 1

INSTRUCTIONS
FOR COMPLETING THE SERVICE DIFFICULTY REPORT

BLOCK		ENTRY
1	**REGISTRATION**	Aircraft Registration
2	**DATE**	Give date problem occurred. DD/MM/YYYY
3	**STATUS**	Indicate status of report. OC - Original Closed (nothing further to report) OO-Original Open (An initial report further report(s) will follow. SO-Supplement Open (Additional information, further report(s) will follow) SC-Supplementary Closed (Additional information, nothing further to report)
MAJOR EQUIPMENT IDENTITY		
4	**AIRCRAFT**	Certify major equipment related problem. Enter manufacturer, model and serial number. If amateur built use plan kit name. Use military model designators when appropriate. Avoid colloquial names and market titles.
5	**POWER PLANT**	
6	**PROPELLER**	
FLIGHT PHASE		
7	**FLIGHT PHASE**	Indicate flight phase when difficulty flight observed.
8	**COMPONENT / APLIANCE (ASSY. THAT INCLUDES PART**	
(A)	**NAME**	Enter name, manufacturer, model or part and serial number of the next higher assembly containing the defective part (e.g. for a defective exhaust valve enter the cylinder identity or for an alternator bearing enter the alternator description). If the manufacturers model number is the same as entered in blocks 4, 5 or 6 enter "same" in MANUFACTURER block.
(B)	**MANUFACTURER**	
(C)	**MODEL / PART NO.**	
(D)	**COMP SERIAL NO.**	
9	**SPECIFIC PART (OF COMPONENT) CAUSING TROUBLE**	
(A)	**NAME**	Use parts description eg. Skin, Rib, Shaft, Pump, Actuator etc.
(B)	**MFR PART NO.**	Part identifier assigned by manufacturer
(C)	**PART CONDITION**	Use specific terms like cracked, bent, burned, corroded, shorted etc. Avoid terms like U/S, repairable, etc.
(D)	**DEFECT LOCATION ON PART**	Use specific terms like LH alternator, Audio, RH outboard range switch.
(E)	**PART CYCLES**	For turbine engines and other components with a cycle life.
(F)	**PART TSN**	Total service time on part in whole hours.
(G)	**PART TSO**	Total service time since overhaul in whole hours.
10	**PROBLEM DESCRIPTION**	
	Whenever possible description conditions subsequent to or leading up to the problem including weather and significant operating conditions. Identify the cause of the malfunction and emergency measure executed in flight. Include compliance or non-compliance with Airworthiness Directives or Service Bulletins. Provide any significant fact you feel may help to reduce or eliminate recurrence.	
11	**PART AVIALABLE**	Check appropriate box to indicate (x) if part available for inspection or test.
12	**ORIGINATOR**	Enter name, designation, address and telephone number.

CAASL-AW-018

CIVIL AVIATION AUTHORITY SRILANKA

FLIGHT SAFETY DIVISION

SERVICE DIFFICULTY REPORT

CONTROL NO:
1. REGISTRATION:
2. DATE:
3. STATUS:
4. FLIGHT PHASE:

MAJOR EQUIPMENT IDENTITY			
	MANUFACTURER	MODEL	SERIAL NO.
5. AIRCRAFT			
6. POWERPLANT			
7. PROPELLER			

Parked	☐	Taxi	☐
T/O	☐	Approach	☐
Climb	☐	Landing	☐
Cruise	☐	Descent	☐

8. COMPONENT / APPLIANCE (ASSY THAT INCLUDES PART)			
(A) NAME	(B) MANUFACTURER	(C) MODEL/P/NO	(D) COMP SERIAL NO

9. SPECIFIC PART (OF COMPONENT) CAUSING DIFFICULTY			
(A) NAME	(B) MANUFACTURER'S PART NO		(C) PART CONDITION
(D) DEFECT LOCATION ON PART	(E)PART CYCLES	(F) PART TSN	(G) PART TSO

10. PROBLEM DESCRIPTION

11. PART AVAILABLE **YES** ☐ **NO** ☐

12. ORIGINATOR

(A) NAME	(B) DESIGNATION	(C) ADDRESS

13. CIVIL AVIATION AUTHORITY OF SRI LANKA