



Advisory Circular

Subject: Division IX – Service Difficulty Reporting

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1.0 INTRODUCTION

- (1) This Advisory Circular (AC) is provided for information and guidance purposes. It may describe an example of an acceptable means, but not the only means, of demonstrating conformity with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

1.1 Purpose

- (1) The purpose of this document is to provide guidance on of Part V Subpart 21 of the Canadian Aviation Regulations (CARs). It is used in conjunction with staff instruction (SI) 521-009.

1.2 Applicability

- (1) This document applies to Transport Canada Civil Aviation (TCCA) personnel, delegates, and the aviation industry.

1.3 Description of Changes

- (1) Not applicable.

2.0 REFERENCES AND REQUIREMENTS

2.1 Reference Documents

- (1) It is intended that the following reference materials be used in conjunction with this document:
 - (a) *Canadian Transportation Accident Investigation and Safety Board Act (1989, c.3)*;
 - (b) *Part V Subpart 21 of the Canadian Aviation Regulations (CARs) – Approval of the Type Design or a Change to the Type Design of an Aeronautical Product*;
 - (c) *Subpart 101 of the CARs – Interpretation*;
 - (d) *Annex 8 to the Convention on International Civil Aviation*;
 - (e) *Staff Instruction (SI) 521-009 – Division IX – Service Difficulty Reporting*;
 - (f) *FAA Advisory Circular (AC) 25.571-1C – Damage Tolerance and Fatigue Evaluation of Structure*;
 - (g) *Transport Canada Publication, TP 14134, 2011-09 – Service Difficulty Report, Logic Chart*;
 - (h) *Transport Canada form number 24-0038 Version 0712-02 - Service Difficulty Report*.
- (2) Please note that for the purpose of this document, unless otherwise specified, all sections referenced apply to this Subpart 521 of the CARs.

2.2 Cancelled Documents

- (1) As of the effective date of this document, the following document is cancelled:
 - (a) *Advisory Circular 591-001, Issue 01, 2004-12-01 - Service Difficulty Reporting Program*.
- (2) By default, it is understood that the publication of a new issue of a document automatically renders any earlier issues of the same document null and void.

2.3 Definitions

- (1) The following definitions are used in this document:
 - (a) **Approved Manual:** includes a Maintenance Control Manual (MCM), Maintenance Policy Manual (MPM), Quality Control Manual (QCM) or similar TCCA approved or accepted manual for the purpose of this AC.

- (b) **JASC:** Joint Aircraft System/Component (JASC) Code Table – A modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the FAA's Regulatory Support Division (AFS-600). Over the years, the JASC code format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also adopted these new standards. <http://www.gainsafety.com/gain/jaschelp.html>.
- (c) **Level One Corrosion:** Corrosion damage occurring between successive inspections that is local and can be reworked/blended out within allowable limits as defined by the manufacturer.
- (d) **Level Two Corrosion:** Corrosion damage occurring between successive inspections that requires rework/blend out which exceeds allowable limits as defined by the manufacturer requiring repair or partial/complete replacement of a structural significant element.
- (e) **Level Three Corrosion:** Corrosion damage found during initial or subsequent inspections that is determined (normally by operator) to be of significant enough nature to be an airworthiness concern requiring immediate attention.
- (f) **Primary Structure:** Structure that carries flight, ground or pressure loads.
- (g) **PSE:** Principal Structural Element – an element that contributes significantly to the carrying of flight, ground, or pressurization loads, and whose integrity is essential in maintaining the overall structural integrity of the airplane (FAA AC 25.571-1C).
- (h) **Reportable Service Difficulty:** A service difficulty that affects or that, if not corrected, is likely to affect the safety of an aircraft, its occupants or any other person (Section 101.01 of the CAR). For the purpose of this document this means a reportable defect, malfunction or failure, which is to be reported under Section 521.353 of the CARs.
- (i) **Service Difficulty:** Failure or malfunction of, or defect in, an aeronautical product.
- (j) **SUP — Suspected Unapproved Part** - "Unapproved part means any part installed or intended for installation in a type certified aeronautical product, that was not manufactured or certified in accordance with the applicable regulations of the state of production, or that is improperly marked or documented in such a manner as to mislead with regard to the origin, identity, or condition of the part." Standard 571.13 of the CARs.

3.0 BACKGROUND

- (1) With the implementation of Subpart 521 of the CARs new documents have been created to support the regulations. All Staff Instructions (SIs), Advisory Circulars (ACs), Policy Letters (PLs) etc. that supported the previous subparts of the CAR and chapters of the Airworthiness Manual have been reviewed and the relevant material revamped and included in the 521 series ACs and SIs. This AC is organized to mirror the sections and subsections of Division IX of Subpart 521 of the CARs so that they can be read in conjunction with Subpart 521 of the CAR. E.g. if you are looking for more information on Subsections 521.401 – *Form and Submission*, the information can be found in section 4.0 of this document, with title Section 521.401 – *Form and Submission*.
- (2) Please note that not all sections and subsections of subpart 521 of the CAR are represented in this document. Only the parts that have specific acceptable means of compliance are included.
- (3) The TCCA Web-based Service Difficulty Reporting System (WSDRS) was developed as a result of requests from the aviation industry in Canada for a web based, fast, convenient and confidential Service Difficulty Reporting (SDR) system. Because of experience gained over the years, TCCA has been able to develop new regulatory requirements and improved methodology for SDR. TCCA is now more informed in our ability to develop corrective action based on reported

service difficulties of an aeronautical product, component, equipment or part. The service difficulty information is now forwarded to the responsible design approval document holders. The criteria for reporting these service difficulties are covered in this AC, however these criteria are not exhaustive.

- (4) Suspected Unapproved Parts – With introduction of Subpart 521 of the CARs, the reporting of suspected unapproved parts (SUPs) is no longer a regulatory obligation. Notification of SUPs to TCCA may still be made through use of the WSDRS application. When reports are submitted, the Continuing Airworthiness Division of National Aircraft Certification (NAC) will forward the information to the Standards Branch, Technical Programs division for further action.

4.0 SECTION 521.401 - FORM AND SUBMISSION

4.1 Reporting Requirements

- (1) The following outlines service difficulty reporting system requirements to ensure compliance with Division IX of Subpart 521 of the CARs.
- (2) The Continuing Airworthiness Division of NAC approves the system that is in place to identify and submit reportable service difficulties.
- (3) Service difficulty reporting system requirements to be included in the approved manuals of all certificate holders who are required to report service difficulties must include:
 - (a) The proposed system of reporting difficulties has clearly documented procedures that company employees are to follow;
 - (b) The company's organization shall identify a person responsible for reporting service difficulties and a contact point for responding to queries from the Principal Maintenance Inspector (PMI), a NAC Technical Inspector or design approval document holder;
 - (c) The proposed system of reporting difficulties includes a provision for the selection of reportable service difficulties when gathering the data required as per Division IX of Subpart 521 of the CARs; and
 - (d) The manner in which the reports will be submitted to TCCA (electronically via the WSDRS or regular mail);
- (4) The Reporting Format shall:
 - (a) Include the form #24-0038 published by TCCA entitled Service Difficulty Report; or a reporting format that provides all the information required by Division IX of Subpart 521 of the CARs. See section 4.3 of this document "Submitting a Service Difficulty Report" for a detailed explanation of the SDR form and reporting elements;
 - (b) Be reviewed, approved and included in the approved manuals;
 - (i) Refer to the method used to report SDRs to TCCA in the approved manuals.
- (5) Guide for SDR Procedures in Approved Manuals

An approved manual shall include the following information regarding SDR procedures:

 - (a) A description of the procedure used to comply with the SDR requirements as per Division IX of Subpart 521 of the CARs including a timeframe for submitting an SDR;
 - (b) The position or department within the organization responsible for the submission of reports;
 - (c) A description of the reporting format. If using the Service Difficulty Report Form published by TCCA, give instructions on how to complete the form. (See 4.3 "Submitting a Service Difficulty Report" below).

- (d) If using WSDRS, indicate this as the only means of reporting and provide instruction to the submitter on how this type of reporting is accomplished within the organization.
 - (e) If the reporting procedure is functioning under a company maintenance reliability system, the linkage and the procedure for extracting the reportable service difficulties from the database must be included;
 - (f) Guidance on the types of service difficulties that constitute reportable service difficulties (See paragraph 4.2((6)(5)) of this document).
- (6) For organizations wishing to use custom made SDR formats; the process shall outline how these SDRs are going to be submitted to the Continuing Airworthiness Division of NAC. This process is approved by NAC.

4.2 Reportable Service Difficulties

- (1) The establishment of the SDR system is not intended to replace the various regulatory obligations related to in-service failures, which are the responsibility of operators, flight crew, manufacturers, maintenance organizations and personnel. On the contrary, it is intended to complement existing regulatory requirements. Although not inclusive, the guidelines contained herein provide information for those required to report SDRs pursuant to Division IX of Subpart 521 of the CARs.
- (2) The definition for a “Reportable Service Difficulty” is very broad due to the complexity and the many factors that could affect the safe operation of aircraft. Service difficulty and reportable service difficulty are defined in Part I of the CARs. Individuals should consider the effect on safety when deciding to report a particular service difficulty. Submitters must use the criteria for a “reportable service difficulty” to determine what is required to be submitted to TCCA.
- (3) It is not possible to envisage every occurrence that would constitute a reportable service difficulty. Therefore, to a large degree, it is necessary to depend upon the organization’s knowledge, experience, and good judgement to determine if an occurrence constitutes a reportable service difficulty.
- (4) TCCA has produced an “SDR Logic Chart” - TP 14134 to assist in the determination of reportable service difficulties. It should be used in conjunction with the requirements of the regulation and this AC.
- (5) The SDR Logic Chart is used as a quick reference aid to determine if a service difficulty is reportable. It is not to be used to justify not reporting an occurrence. The SDR Logic Chart can be found on the web at URL www.tc.gc.ca/wsdrs , and is available from regional Transport Canada Centres.(TCCs)
- (6) There are a number of service difficulties that are likely reportable. Listed below are some examples of the types of service difficulties that may be reportable. For ease of reference, the examples are grouped under specific headings. Although the list covers a wide range of items, it is not to be considered exhaustive.
 - (a) Aircraft Structure
 - (i) Any failure, corrosion or other service difficulty of an aircraft principal structural element as defined within the aircraft manuals or the failure of any item addressed within a supplemental inspection document or similar mandatory document;
 - (ii) Cracks, permanent deformation, level 2 or level 3 corrosion or other failure of aircraft primary structure for which a repair scheme is not already provided in the manufacturer’s repair manual, or which occur after an approved repair;
 - (iii) Any part of the aircraft that becomes detached, in flight or during operation on the ground that would endanger the aircraft or any person.
 - (b) Power Plant

- (i) Loss of thrust/power, shutdown or failure of any engine;
 - (ii) Inability to shutdown an engine or to control power, thrust or revolutions (RPM);
 - (iii) Uncontained failure of engine compressor or turbines.
- (c) Propeller
- (i) Blade cracks not related to foreign object damage;
 - (ii) Level 2/3 corrosion;
 - (iii) Inability to feather or un-feather a propeller.
- (d) Aircraft Systems or Equipment
- (i) Fire or explosion;
 - (ii) Smoke, toxic or noxious fumes in the aircraft;
 - (iii) Leakage of fuel, which results in major loss or is a fire hazard;
 - (iv) Fuel system malfunction having a significant effect on fuel supply and/or distribution;
 - (v) 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);
 - (vi) Uncontained failure of any high speed-rotating component, (e.g. auxiliary power unit, air starters, air cycle machine);
 - (vii) Asymmetry of flaps, slats, spoilers, etc. (e.g. limiting systems that do not function properly), or limitation of movement of more than one of these surfaces;
 - (viii) Limitation of movement, stiffness, poor or delayed response in the operation of flight control systems or their associated control/trim tab and locking systems;
 - (ix) Any service difficulty 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) where the mandated corrective action contained within the document does not adequately address the service difficulty;
 - (x) Defects or deterioration of systems or components found during routine maintenance, overhaul or repair, of a type that is not expected as a result of normal service;
 - (xi) System/component service difficulties identified by routine testing and inspection procedures on the aircraft or in workshops, where there is likelihood that other operators might have similar but undetected service difficulties;
 - (xii) Loss, defect, or malfunction of any emergency equipment or life support system (e.g. oxygen, fire protection);
 - (xiii) Damage to the aircraft and loss or malfunction of any essential service, or engine, as the result of a lightning strike, beyond what would normally be expected;
 - (xiv) Service difficulties of rotors or rotor drive systems (e.g. rotors, transmissions, drive shaft);
 - (xv) Loss or malfunction of any rotorcraft automatic stabilization system;

- (xvi) Deliberate simulation of failure conditions for training, system test or test purposes need not be reported, but any service difficulty arising from such action shall be reported;
- (xvii) Any other service difficulty that, in the opinion of the reporter, constitutes a reportable service difficulty:
 - (A) Service difficulties 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).
 - (B) Service difficulties occurring on prototypes during aircraft, engine or appliance development or developmental flight-test where the service difficulty is likely to exist on in-service products.
 - (C) Any service difficulty discovered during the manufacturing process where the situation is likely to exist on aircraft in service, i.e. incorrect assembly.
- (7) The overall objective of the SDR program is to use the reported information to improve the level of aviation safety and not to assign fault or apportion blame. It is fundamental to the purpose of the SDR program that the substance of reports be disseminated when necessary in the interest of aviation safety.
- (8) The TCCA enterprise manager/PMI is responsible for the oversight of SDR compliance. When organizations that are required by regulation to report service difficulties do not submit an SDR where a reportable service difficulty is identified, enforcement action is to be pursued.
- (9) An SDR shall be submitted to TCCA by the design approval document holder for any reportable service difficulty reported directly to the design approval document holder by domestic or foreign operators of their product (See Section 6.0(1) of this AC for exceptions for domestic operators).
- (10) Service difficulties occurring directly as a result of human factors are not reportable to the SDR program unless the Instructions for Continued Airworthiness (ICA) for the product are determined to be the source of the error. An organization's Safety Management System or other management system employed by the company should address these occurrences.
- (11) Service difficulties found during routine maintenance are reportable to the SDR program under the following (but not limited to) circumstances:
 - a) When the service difficulty is beyond what is normally encountered or expected in service (for example a main wheel tire that is worn due to service life is not a reportable SDR defect, however a tire that prematurely fails due to ply separation is);
 - b) When ICA have not been adequately developed to prevent an in-service failure; and
 - c) When specifically requested by TCCA. These requests may be found in a Civil Aviation Safety Alert (formerly known as Service Difficulty Advisory or Service Difficulty Alert), Airworthiness Directive or similar document.
- (12) Service difficulties that may be deferred using a Minimum Equipment List (MEL) permitting aircraft dispatch with the affected system inoperative are not normally reportable to the SDR program, unless the deferral of the said system is in question.

4.3 Submitting a Service Difficulty Report to Transport Canada Civil Aviation

- (1) SDRs are submitted to TCCA in one of two available methods. One method is electronically using the WSDRS and the other is paper using the form published by TCCA, entitled Service Difficulty Report. (For the purpose of this AC, "form" refers to either the electronic or paper form as applicable). Appendix A shows instructions on how to fill out an SDR.

- (2) The defective part(s) should be retained by the SDR reporting individual or organization for 21 days after the submission of an SDR in order to allow TCCA to determine if the defective part(s) is(are) required to assist in the possible further investigation of the service difficulty. If TCCA does not request the parts within 21 days, the SDR reporting individual or organization may dispose of the parts as they choose. Parts should not be sent to TCCA until instructed to do so.
- (3) In order to obtain access to your organization's private WSDRS account, a request must be submitted to sdrs@tc.gc.ca along with the name of the person within the organization responsible for continued airworthiness and the following information: Company Name, Department, City, Country, Postal Code, Phone Number, E-mail.
- (4) Once submitted, SDRs are accessible for viewing, printing, comment or download by the design approval document holder from their private WSDRS account accessible at www.tc.gc.ca/wsdrs.

4.4 Responsibilities of Reporting to the Transportation Safety Board and Transport Canada Civil Aviation

- (1) TCCA and the Transportation Safety Board (TSB) are two governmental entities that have independent reporting requirements. The Transportation Safety Board Regulation under "Reportable Aviation Accident and Incident" states:

"6.(1) Where a reportable aviation accident or incident takes place, the owner, operator, pilot-in-command, any crew member of the aircraft and, where the accident or incident involves a loss of separation or a risk of collision, any air traffic controller having direct knowledge of the accident or incident shall report to the Board as much of the information listed in subsection (2) as is available, as soon as possible and by the quickest means available."
- (2) Reporting the accident or incident to the TSB does not absolve the owner or operator from submitting an SDR to TCCA as required by Division IX of Subpart 521 of the CARs. Should a service difficulty be determined to be a contributing cause to the accident or incident, or identified as a reportable service difficulty an SDR should be submitted/updated.

5.0 SECTION 521.402 - TIME LIMITS

- (1) The SDR report shall be submitted within 3 working days following the knowledge, discovery or identification of a failure, malfunction or defect causing the possible unsafe condition as required by Section 521.401 of the CARs.
- (2) Where not all of the required information is available within the time period specified in subsection 521.402 (1) of the CARs, an **interim report** can be submitted via the WSDRS application, or other expedient means within that period. Such reports are to be followed by a complete report, as defined in Appendix A of this AC, within 14 days of the discovery of the occurrence.
- (3) This intent can be indicated by entering "Open" at the "submitter status" on the WSDRS application form or "Original-Open" on the Service Difficulty Report form as described under Block 3 of the SDR Form.
- (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 person or organization submitting the report
- (5) Where additional information to supplement a submitted and complete service difficulty report can be made available (e.g. engine tear down reports), this can be indicated by entering the intention details within the WSDRS application form "Supplemental Text" tab. With the Service Difficulty

Report form, under Block 3 (Status) of the SDR form, indicate as “Supplemental Open” and text within Block 10 defining the intention.

6.0 SECTION 521.403 - SERVICE DIFFICULTY REPORT NOT REQUIRED

- (1) The SDR system is based on filing a report **each time** a reportable service difficulty event occurred or is encountered (i.e. one event = one report). If a person submits an SDR for a **recent** service difficulty occurrence or event, that SDR submission will constitute a record for that particular event or occurrence only. There is no need for another person to submit an SDR that duplicates the reporting of the same **recent** event or occurrence. The following examples illustrate what is intended by a “*one event = one report*” on service difficulty reporting:
- (a) Example 1: A person discovers a reportable service difficulty on an aeronautical product and finds that the TCCA SDR database already contains multiple reports of the same service difficulty from previous **separate** events or occurrences. The person must still report their service difficulty.
 - (b) Example 2: An operator discovers a reportable service difficulty on an aircraft and submits an SDR. Subsequently, the same person discovers an identical service difficulty again on the same aircraft or on a different aircraft. In this case, these are considered to be two (2) service difficulties and, therefore two reports will be required.
 - (c) Example 3: An operator finds a deficient part and sends in an SDR. The deficient part is then sent off for repair and a more in-depth analysis. The operator should then inform the repair station that an SDR has already been submitted so that a duplicate SDR is avoided. The repair station then would only supplement the submitted SDR with any updated information.
 - (d) Example 4: An operator experienced a failure on a wheel assembly one day, and then a week later they experienced another failure of the same assembly part number. These will be considered two failures from two occurrences, and two (2) separate SDRs must be submitted.

7.0 CONTACT OFFICE

Suggestions for amendment to this document are invited, and should be submitted via the following e-mail address:

AARTInfoDoc@tc.gc.ca Attn: Chief, Aircraft Certification Standards (AARTC)

[original signed by Jean-François Mathieu for]

Jacqueline Booth
A/Director, Standards
Civil Aviation
Transport Canada

Transport Canada documents or intranet pages mentioned in this document are available upon request.

APPENDIX A — SERVICE DIFFICULTY REPORT FORM 24-0038**Report Completion:**

The form is completed by providing information in the blocks as indicated. When providing information on the form, all blocks should be filled where possible. Where this is not possible, the relevant information should be provided in separate reports (WSDRS or Service Difficulty Report form). In order for the data to be stored in a retrievable format, information in the following blocks is desired:

- (a) Blocks 1, 2 and 3;
- (b) At least one of blocks 4, 5 or 6;
- (c) Block 7,
- (d) Blocks 8 or 9
- (e) Block 10 and
- (f) Block 11 (for Service Difficulty Report form only)

Service Difficulty Report Form Completion

The Service Difficulty Report form should be completed as follows:

Block 1 – Aircraft Registration

Enter the aircraft nationality and registration marks (WSDRS-enter only last four letters of Canadian registered aircraft)

Block 2 – Date

Enter date the service difficulty was discovered. (Required for WSDRS)

Block 3 – Status: (Service Difficulty Report form only)

- (a) Enter ORIG-CLOSED for an original report that is considered complete;
- (b) Enter ORIG-OPEN for an original interim report to which additional information will be added within 14 days;
- (c) Enter SUPP-OPEN for a supplementary report when further information shall be provided; or
- (d) Enter SUPP-CLOSED for a supplementary report that is complete.

Block 3 – Status: (WSDRS only)

- (a) Select CLOSED for an original report that is considered complete; or
- (b) Select OPEN for an original interim report to which additional information will be added within 14 days.

Block 4 – Aircraft:

Enter the aircraft manufacturer's name; the aircraft model number and serial number.

Block 5 – Power Plant:

If applicable, enter the engine manufacturer’s name, the model number, and the serial number.

Block 6 – Propeller:

If applicable, enter the propeller manufacturer’s name, the model number, and the serial number.

Block 7 – Codes: (A) When Discovered, (B) Nature* and (C) Action Taken* codes; (*required for WSDRS)

Codes provided in the tables below are required to accurately complete blocks 7(A), (B) and (C).

The use of these codes provides simplified data for electronic data processing and simplifies the text requirement of block 10.

- (a) When Discovered Block 7(A): Enter the stage of flight or ground operation of the aircraft when the reported service difficulty occurred or was observed.
- (b) Nature Block 7(B): Enter the code(s) that best describe(s) the nature of the condition resulting from the reported service difficulty. These are entered in whatever order best describes observed conditions resulting from the reported assembly or part malfunction.
- (c) Action Taken Block 7(C); Enter one to four codes that best describe any precautionary procedure(s) carried out by the flight crew, nature of service difficulty and when service difficulty was discovered.

The proper coding of Block 7 requires a minimum of one code to a maximum of three to four codes, as shown in the tables below. More than one code letter can be recorded as necessary, to show all events that were involved in the precautionary procedures. (Example: an engine was shut down, fuel was dumped and an unscheduled landing was made; enter code E, J and A to describe these conditions.)

Block 7A - When Discovered Codes:

AP – APPROACH	GR – GROUND HANDLING	SM – SCHEDULED MAINTENANCE	SV – SERVICING
CI – CORROSION INSPECTION	HO – HOVERING (HELICOPTER)	SO – SPECIAL OPERATIONS/ OTHER	ST – ENGINE START
CL – CLIMB	LD – LANDING	SR – STRUCTURAL INSPECTION	TO – TAKE-OFF
CR – CRUISE	OH – OVERHAUL		TX – TAXI
DE - DESCENT	SI – SPECIAL INSPECTION		UM – UNSCHEDULED MAINTENANCE

Block 7B - Nature Codes :

A – FLAME: (Visible Fire)	G – MULTIPLE FAILURE OF LIKE SYSTEMS
B1 – SMOKE/SPARKS	H1 – ELECTRICAL POWER SOURCE LOSS EXCEEDING 50%: ALTERNATORS, BUS, CIRCUITS
B2 – FUMES/ODOURS	H2 – ELECTRICAL AVIONICS COMP MALFUNCTION (Not JASC* 24)
C – FOREIGN OBJECT IMPACT: BIRD, HAIL, LIGHTNING, GROUND DEBRIS	J1 – TRUE WARNING INDICATION
D1 – IN-FLIGHT SEPARATION/LOSS OF AIRCRAFT PART	J2 – FALSE WARNING INDICATION
D2 – DOOR OPEN IN FLIGHT	J3 – NO WARNING INDICATION
D3 – NOISE OR SOUND (Bang etc)	K – FLUID LOSS – FLUID LOSS: ANY MALFUNCTION RESULTING IN LOSS OF FUEL, OIL, GAS etc.
D4 – VIBRATIONS	L – SYSTEM TEST FAILURE
E1 – ENGINE VIBRATION	M – OVER TEMP NOT FIRE
E2 – ENGINE OVERSPEED/SURGE	O – OTHER (This condition is clarified in the narrative of Block 10)
E3 – ENGINE PARTIAL POWER LOSS	Q – QUALITY CONTROL PROBLEM
E4 – ENGINE CASE PUNCTURED	R – LANDING GEAR COLLAPSE/MALFUNCTION
E5 – TURBINE ENGINE FLAMEOUT	S – OTHER JASC SYSTEMS AFFECTED*
E6 – ENGINE STOPPAGE	U1 – SUBSTANDARD PARTS
E7 – ENGINE CONTROLS AFFECTED	U2 – UNAPPROVED PARTS
E8 – PROPELLER CONTROLS AFFECTED	V – HUMAN FACTORS
F1 – FLIGHT CONTROLS AFFECTED	W – DECOMPRESSION (Uncommanded)
F2 – FLIGHT CONTROLS – UNCOMMANDED MOVEMENT	

*THE JOINT AIRCRAFT SYSTEM/COMPONENT (JASC) – SEE DEFINITIONS IN SECTION 2.3 OF THIS DOCUMENT.

Block 7C - Action Taken Codes:

A – UNSCHEDULED LANDING	J – DUMPED FUEL
B – EMERGENCY DESCENT	K – NONE
C – ABORTED TAKE-OFF	L – ABORTED APPROACH
D – RETURN TO BLOCKS	M – EVASIVE ACTION
E – SHUTDOWN ENGINE OR FEATHER PROP	N – ABNORMAL LANDING CONFIGURATION
F – ACTIVATED FIRE EXTINGUISHER	O – OTHER
G – OXYGEN MASK DEPLOYED	P – EMERGENCY LANDING GEAR EXTENSION
H – DEACTIVATED SYSTEM/CIRCUITS	Q – DECLARED EMERGENCY
I – INTENTIONAL DEPRESSURIZATION	R - AUTOROTATION

Block 8 – Assembly

This area identifies the next higher assembly containing the defective part. When, for example, the defective part is burnt wire, the higher assembly shall be the system using the wire, such as VHF communication system; when the defective part is a stringer, the assembly may be the fuselage.

- (a) Name: Enter the technical or common name of the assembly.
- (b) Manufacturer: Enter the name of the assembly manufacturer.
- (c) Model/Part No: Enter the manufacturer’s identification of the assembly.
- (d) Serial Number: Enter the manufacturer’s serial number of the assembly.

Block 9 – Specific Part:

- (a) Part Name: Enter the specific part name, as defined by the manufacturer, causing the problem (e.g. oil seal is the part name, magneto is the part name, magneto is the assembly name)
- (b) Part Number: Enter the manufacturer’s part number
- (c) Part Condition: Enter the word(s) which best describes the part condition. Example: Broken, Chafed, Corroded, etc.
- (d) Part/Defect Location: Location of the defect on the part or of the part in relation to the assembly.
- (e) Cycles Since New: For turbine engine and other components with a life measured in cycles.
- (f) Part TSN: Part total time since new; enter the total service time of the part in whole hours.

- (g) Part TSO: Part total time since overhaul; enter the service time of the part since it was last overhauled, in whole hours.

Block 10 – Problem Description:

The text shall identify and describe the cause of the service difficulty, if known. It should also contain descriptive information concerning the part/component that caused the difficulty, the inspection findings and the corrective action taken to prevent recurrence.

The information entered in this section should enable TCCA to understand the problem. This information assists in the determination of further review and development of corrective action, if warranted. The individual or organization submitting the SDR shall enter data important to the particular problem (e.g. calendar dates, how the problem was found, relevant Airworthiness Directives (AD) or Service Bulletins (SB), cycles, etc.), in addition to that specified in the above paragraph. If the text of the report requires more typing space than the block provides, continue the text on separate sheet(s) of paper and attach them to the form.

Block 11 – Submitter (Service Difficulty Report form only)

Enter name of company or individual, complete mailing address, telephone and facsimile number(s) of company or individual submitting SDR. Check (✓) one box as appropriate that describes the organization or individual.