

PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA

NOMOR : KP 468 TAHUN 2014

TENTANG

PETUNJUK TEKNIS OPERASIONAL
PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 39 – 01
(*STAFF INSTRUCTION CASR 39 – 01*) TENTANG
PENERBITAN PERINTAH KELAIKAN UDARA
(*ISSUANCE OF AIRWORTHINESS DIRECTIVE*)

DENGAN RAHMAT TUHAN YANG MAHA ESA

DIREKTUR JENDERAL PERHUBUNGAN UDARA,

- Menimbang :
- a. bahwa dalam Peraturan Menteri Perhubungan Nomor KM 2 Tahun 2006 tentang Peraturan Keselamatan Penerbangan Sipil (*Civil Aviation Safety Regulations*) Part 39 Revision 1 Perintah Kelaikan Udara (*Airworthiness Directive*) telah diatur ketentuan mengenai perintah kelaikan udara (*airworthiness directive*) yang diterbitkan oleh Direktorat Jenderal Perhubungan Udara;
 - b. bahwa Keputusan Direktur Jenderal Perhubungan Udara nomor SKEP/157/VII/1997 tentang Petunjuk Pelaksanaan (*Staff Instruction No. 39-01*) Tata Cara Pembuatan Dan Penerbitan Perintah Kelaikan Udara sebagai peraturan pelaksana ketentuan sebagaimana dimaksud pada huruf a dianggap sudah tidak sesuai lagi dengan kebutuhan dunia penerbangan saat ini;
 - c. bahwa untuk melaksanakan hal sebagaimana dimaksud pada huruf a, perlu ditetapkan Peraturan Direktur Jenderal Perhubungan Udara tentang Petunjuk Teknis Operasional Peraturan Keselamatan Penerbangan Sipil Bagian 39 – 01 (*Staff Instruction CASR 39 – 01*) Tentang Penerbitan Perintah Kelaikan Udara (*Issuance Of Airworthiness Directive*);

Mengingat . . .

- Mengingat :
1. Undang-Undang Nomor 1 Tahun 2009 tentang Penerbangan (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 1, Tambahan Lembaran Negara Republik Indonesia Nomor 4956;
 2. Peraturan Presiden Nomor 47 Tahun 2009 tentang Pembentukan dan Organisasi Kementerian Negara Republik Indonesia sebagaimana telah diubah terakhir dengan Peraturan Presiden Nomor 13 Tahun 2014;
 3. Peraturan Presiden Nomor 24 Tahun 2010 tentang Kedudukan, Tugas dan Fungsi Kementerian Negara Serta Susunan Organisasi, Tugas, dan Fungsi Eselon 1 Kementerian Negara sebagaimana telah diubah terakhir dengan Peraturan Presiden Nomor 14 Tahun 2014;
 4. Peraturan Menteri Perhubungan Nomor KM 2 Tahun 2006 tentang Peraturan Keselamatan Penerbangan Sipil (*Civil Aviation Safety Regulations*) Part 39 Revision 1 Perintah Kelaikan Udara (*Airworthiness Directive*);
 5. Peraturan Menteri Perhubungan Nomor KM 60 Tahun 2010 tentang Organisasi dan Tata Kerja Kementerian Perhubungan sebagaimana telah diubah terakhir Peraturan Menteri Perhubungan Nomor PM 68 Tahun 2013;

M E M U T U S K A N

- Menetapkan :
- PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA TENTANG PETUNJUK TEKNIS OPERASIONAL PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 39 – 01 (*STAFF INSTRUCTION CASR 39 – 01*) TENTANG PENERBITAN PERINTAH KELAIKAN UDARA (*ISSUANCE OF AIRWORTHINESS DIRECTIVE*).

Pasal 1

Memberlakukan Petunjuk Teknis Operasional Peraturan Keselamatan Penerbangan Sipil Bagian 39 - 01 (*Staff Instruction Casr 39 - 01*) Tentang Penerbitan Perintah Kelaikan Udara (*Issuance Of Airworthiness Directive*) sebagaimana tercantum dalam Lampiran yang merupakan bagian tak terpisahkan dari Peraturan ini.

Pasal 2

Direktur Kelaikan Udara dan Pengoperasian Pesawat Udara mengawasi pelaksanaan Peraturan ini.

Pasal 3

Pada saat Peraturan ini mulai berlaku, Keputusan Direktur Jenderal Perhubungan Udara nomor SKEP/157/VII/1997 tentang Petunjuk Pelaksanaan (*Staff Instruction No. 39-01*) Tata Cara Pembuatan Dan Penerbitan Perintah Kelaikan Udara, dicabut dan dinyatakan tidak berlaku.

Pasal 4

Peraturan ini mulai berlaku pada tanggal ditetapkan.

Ditetapkan di : Jakarta
Pada tanggal : 10 September 2014

DIREKTUR JENDERAL PERHUBUNGAN UDARA
Pelaksana Tugas

ttd.

SANTOSO EDDY WIBOWO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM DAN HUMAS,


ISRAFULHAYAT
Pembina (IV/a)

NIP.19680619 199403 1 002

LAMPIRAN
PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA
NOMOR : KP 468 TAHUN 2014
TENTANG
PETUNJUK PELAKSANAAN PERATURAN KESELAMATAN
PENERBANGAN SIPIL BAGIAN 39 - 01 (*STAFF INSTRUCTION
CASR 39 - 01*) TENTANG PENERBITAN PERINTAH KELAIKAN
UDARA (*ISSUANCE OF AIRWORTHINESS DIRECTIVE*)

Staff Instruction

SI 39-01
ISSUANCE OF AIRWORTHINESS DIRECTIVES

Revision : -
Date : 10 September 2014

**REPUBLIC OF INDONESIA – MINISTRY OF TRANSPORTATION
DIRECTORATE GENERAL OF CIVIL AVIATION
JAKARTA – INDONESIA**

FOREWORD

1. **PURPOSE:** This Staff Instruction prescribes responsibilities, policies, and procedures to be used by the Directorate General of Civil Aviation (DGCA) for airworthiness staff to process and issue of airworthiness directives within the Directorate of Airworthiness and Aircraft Operation (DAAO). This Staff Instruction may be made available to the public so that they may better understand the authority and responsibility of the DAAO.
2. **REFERENCES:** This Staff Instruction should be used in accordance with CASR Part 39.
3. **REVISION:** Revision of this Staff Instruction will be approved by the Director General of Civil Aviation.
4. **CANCELLATION:** Staff Instruction 39-01, "Issuance of Airworthiness Directives", that has been stipulated by Director General of Civil Aviation Decree number SKEP/157/VII/1997 dated 10 July 1997, is cancelled.
5. **TRAINING:** It is the responsibility of Director of DAAO to ensure that this Staff Instruction 39-01 is part of annual DAAO's training program.

DIREKTUR JENDERAL PERHUBUNGAN UDARA
Pelaksana Tugas

ttd.

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CHAPTER I GENERAL

1.1 Applicability

This staff instruction describes the issuance of airworthiness directives with respect to Indonesian designed, Indonesian registered aircraft, aircraft engine, propellers and appliances fitted to those aircraft.

1.2 Airworthiness Directives

Airworthiness directives (ADs) are the means the DGCA uses to notify owners, operators, other Foreign Civil Airworthiness Authority (FCAA) and other interested persons of unsafe conditions, and for prescribing the corrective actions and conditions under which the product may continue to be operated.

1.3 Unsafe Conditions

An unsafe condition will exist when:

- a. Evidence is found during the evaluation of failures, malfunctions, defects, service difficulties or further analysis or test, that the design does not comply with the applicable airworthiness requirements and this non compliance reduces the safety level required for that product,
- b. Evidence is found during the evaluation of failures, malfunctions, defects, service difficulties or further analysis or test, that the design although complying with the airworthiness requirements exhibits characteristics that reduce the safety level required for that product.

1.4 Categories of AD

Airworthiness directives are divided into two categories:

- a. Emergency AD: Is issued when an unsafe condition exists that required an immediate action by an owner or operator.
- b. Standard AD: Other than emergency AD.

CHAPTER II

PROCEDURE FOR ISSUING AIRWORTHINESS DIRECTIVES

2.1 Responsibilities

1. The Sub Directorate Engineering of DAAO is the office of primary responsibility to the Director of Airworthiness and Aircraft Operation for the issuance of airworthiness directives.
2. The project manager (P.M.) with the support of the Certification Team for a product is responsible for administering and processing the technical matters required for the issuance of an airworthiness directive.
3. The Head of the Sub Directorate Engineering is responsible for finalizing and releasing the airworthiness directive.
4. The Director of Airworthiness and Aircraft Operation is responsible for approving the airworthiness directive.

2.2 Policy.

When an unsafe condition is discovered, the issuance of an airworthiness directive to correct that unsafe condition becomes the highest priority within DGCA.

Airworthiness directives issued for products designed in Indonesia will be sent to all registered owners and to the Foreign Civil Airworthiness Authority (FCAA) which have the aircraft or product on its registry.

Unless valid reasons exist to the contrary, all foreign ADs issued by the State of Design and applicable to Indonesian registered products (aircraft, aircraft engines, propellers, and appliances) will be made mandatory by issuing a DGCA airworthiness directive (AD) without further technical investigation. However DGCA may add additional information by communicating with the State of Design or the State of Manufacture regarding continuing airworthiness information due to local operation. The compliance time may be reconsidered, taking into account domestic concerns. If an AD is not issued, the justification must be endorsed by Director of Airworthiness and Aircraft Operation and the originating Airworthiness Authority will be advised without delay.

2.3 Evaluation of Unsafe Condition

An unsafe condition will exist on an aircraft, aircraft engine, propeller, part, or appliance when, for example:

1. Aircraft

- structural deficiency preventing the airframe from sustaining ultimate loads or the required residual strength loads.
- structural deficiency reducing the fatigue life of the airframe
- structural deficiency affecting the rigidity of the airframe to such an extent that the flutter margin is no longer available
- structural deficiency which may lead to the loss of a part in flight, which may present a danger to persons on the ground or which may hit vital parts of the aircraft.
- failure or deficiency which results in permanent and latent reduction in the approved performance.
- failure or deficiency which results in multiple thrust loss or reduction
- failure or deficiency in the emergency equipment.
- failure or deficiency in a system which may create a fire hazard.
- deficiency in the fire protection equipment.
- failure or deficiency in devices protecting against specific risk, such as an uncontained engine failure, lightning and HIRF, which may lead to hazardous or catastrophic consequences
- deficiency in stand-by-emergency equipment or system (RAT, electrical power supply, etc.).
- failure or deficiency in a warning system.
- deficiencies in a system, equipment, or part which may directly (without combination of failures) lead to hazardous or catastrophic consequences.
- the reliability in service of equipment is lower than predicted by the System Safety Assessment, such that the safety objectives for hazardous or catastrophic failure conditions are no longer fulfilled.
- failure which results in an unacceptable concentration of toxic products in the cabin or crew compartment.

2. Engine

- non-containment of a significant amount of high energy debris.
- an unacceptable concentration of toxic products being generated in the air supplied to the passenger or crew compartments.
- failure which results in significant thrust in the opposite direction than intended by the pilot,
- an inability to shut the engine down.

3. Propeller

- failure which results in a blade separation.
- failure in the propeller gear box attachment which results in separation of the propeller assembly.
- failure which results in un-commanded pitch change or thrust reverser activation

4. Parts and appliances

It is usually difficult to determine whether an unsafe condition may exist at the equipment level since the consequences the aircraft level of an equipment failure depends on its installation.

However there are cases where the equipment fails to perform its intended function that can be considered unsafe independently of the installation in the aircraft.

- failure of equipment giving primary piloting parameters (attitude, speed, altitude).
- failure of equipment involved in fire protection (fire detectors, fire extinguishers).
- failure of or deficiency in equipment designed for the protection of occupants during a crash, in evacuation or during an emergency.
- failure of radio-navigation equipment (ILS, VOR, DME, ADF).
- failure of flight recorders (CVR, FDR).
- failure of warning system.
- failure of or deficiency in the survival equipment (including locating equipment such as ELT or underwater locating

devices).

- deficiencies in the NU leading to uncontained rotating pans or fire.

This list is not exhaustive and other unsafe conditions may exist.

Maintenance or crew errors will have to be considered seriously in the assessment concerning the unsafe conditions by addressing the following concerns:

- fool proof characteristics of the design
- complexity of the system and associated training.
- unique characteristics of a design feature differing from standard design practices.
- clarity and accuracy of service bulletins, manuals and procedures.

2.4 Procedure – Preparation of ADs where Indonesia is the State of design.

1. Identification of an unsafe condition

Under the direction of the project manager (PM) in charge of the product, the engineer responsible for a particular aircraft system or structure (i.e., structures on the C212, mechanical system on the CN-235, Airplane Flight Manual on the CN-235, etc.) will monitor the service difficulties, as well as the service bulletins and determine if an airworthiness directive is necessary. The following additional factors must be considered:

- a. Compliance with CASR part 39
 - Does an unsafe condition exist?
 - Are other products of the same type design affected?
- b. Other factors
 - Is the cause of the condition known?
 - Is supporting documentation for the unsafe condition available?
 - Can the AD be accomplished, and will it correct the condition?
 - Is the compliance time realistic?
 - Are parts and materials available?
 - Are referenced documents available?
 - Are the inspection procedures complete?
 - Is grounding of aircraft necessary?

- c. Interim Action.
Can interim operating limitations or conditions be used to allow continued operation of the aircraft if a potential grounding situation exists?
- d. Type of Action.
Does flight safety, dictate the need for immediate action (emergency AD)?
- e. Effective Date. Will the effective date chosen allow sufficient time of distribution before the AD becomes effective?

2. Corrective Action.

Whenever the failure, malfunction, defect or service difficulty results from a type design or manufacturing deficiency, the Type Certificate (TC) or the approval holder will:

- a. Define corrective action (design change, limitation, inspection, etc..)
- b. Propose classification (mandatory/recommended)
- c. Propose compliance time

3. Preparation of draft airworthiness directive.

Under the direction of the project manager (PM), the engineer responsible for the particular system or structure affected by the failure, malfunction or difficulty will prepare the draft airworthiness directive defining the aircraft affected by the unsafe condition, the corrective action and proposed effective date. Under the control of the PM, the engineer will work with the manufacture to ensure that appropriate corrective action has been prepared.

PM will review the draft of AD and submit it to get Director's approval through Head of Sub Directorate of Engineering.

4. Airworthiness Directive Working File.

A working AD file must be established by the Sub Directorate of Engineering, which will contain all relevant information provided by the PM, including:

- a. copies of relevant correspondence,
- b. copies of pertinent service bulletins,
- c. records of any significant spoken communication,
- d. all drafts of the AD.

The file will be organized in chronological order to enable quick access to any particular piece of information. This file contains supporting documentation for the AD and is intended to be primary reference if information is required regarding the AD at a later date.

2.5 Procedure – Preparation of ADs where Indonesia is not the State of Design

1. Receiving Foreign ADs.

The Foreign ADs will be managed by an administration officer in the Sub Directorate of Engineering, who will receive from post and stamp the date of received on each AD or download the applicable ADs from official website of Foreign Civil Aviation Authority and distribute to the related PMs after record it in the log book. The PM, with the appropriate engineer from the Certification Team will review it and prepare the draft of DGCA's AD.

2. Preparing AD due to local circumstances

When there is additional information due to local operation of the products and suspected as unsafe condition, DAAO will make a communication with the State of Design or the State of Manufacture regarding continuing airworthiness of the products. Furthermore, DGCA Indonesia will issue the DGCA's AD based on the result of communication with the State of Design or the State of Manufacture, operator/owner report and DGCA's review.

The PM, with the appropriate engineer from the Certification Team will review it and prepare the draft of DGCA's AD.

2.6 Filing and Distribution Procedures for all ADs

1. Notification of Airworthiness Directives

After signature, to notify the AD, DGCA will upload the ADs to DGCA's website where all owners, operators or foreign civil aviation authority can access the ADs. The products owners and operators must actively check the ADs in DGCA's website.

2. Filing

All ADs issued will be filed in chronological order and considered as living file. This file will be keep by Sub Directorate of Engineering.

3. Airworthiness Directives Summary

The summary of all ADs issued will be published annually in "Indonesia Airworthiness Directive." The information in the summary will consist of AD number, date of issued, applicability, subject, and reference.

2.7 Variation to the Compliance Requirements

When an application for a variation (concession) to the compliance requirements (alternate means of compliance (AMOC) or compliance time adjustment) is made, the project manager (PM) with the support of the appropriate specialist on the Certification Team will evaluate the substantiations provided by the applicant.

For a variation to a foreign AD, the applicant is obliged to show the technical justification to propose the DGCA approval.

Based on the results of this evaluation the project manager will recommend (or not) granting the variation and will prepare a draft letter to the applicant. The draft letter will be submitted to the Deputy Director for Engineering on behalf of the Director of Airworthiness and Aircraft Operation for approval.

2.8 Changes to Previously Issued ADs

When a previously issued AD is changed, it is issued as a correction, a revision, or a supersedure, depending on the nature of the material being changed.

1. Correction

The simplest form of an AD change is a correction of non significant material. i.e., the change has no effect on compliance with the AD. A correction AD does not get a new AD number. The corrected AD is issued with the non significant changes.

2. Superseding ADs

With a few notable exceptions, a significant change to an AD should be issued as a supersedure. Significant changes and corrections are those made to any instruction or reference that affects the substance of the AD, and may include part numbers, service bulletin and manual references, compliance time, expanded

applicability, methods of compliance, corrective action, inspection requirements, and effective dates.

A superseding AD is prepared following all of the requirements of a new AD.

Where appropriate, credit should be given for work accomplished under the superseded AD. When restating old compliance dates, be careful to limit them to the previous requirements only. When applicability is increased, old compliance dates should not be used. On the other hand, it is also important to make sure that provisions of the previous AD that are intended to remain in effect are not omitted inadvertently. A careful "side-by-side" comparison of the previous AD and the new AD draft is essential.

A superseding AD gets a new AD number, the previous AD is deleted from the system.

3. Revised ADs

Generally, revisions are used to issue necessary changes in material that is non significant in nature. If the new AD imposes new requirements, it must be issued as a supersedure, even if it otherwise meets the criteria described below.

An AD may be revised, if the change is relieving in nature, such as the addition of an optional terminating action. While this would normally be viewed as a significant change requiring a supersedure, the reasons for requiring a supersedure do not apply.

An AD may be revised if the applicability is reduced. Because this is a type of relieving AD, it is not critical to record a new number. In addition, AD's may be revised to correct significant errors that cause compliance to be impossible. For example, an AD that requires the installation of a nonexistent part (no such part number) is impossible to comply with.

Revised AD's must retain their original paragraph designations because maintenance record entries that refer to specific paragraphs will be incorrect if the information is moved or replaced. A change in the designation of a paragraph that contains a significant requirement requires the issuance of a superseding AD.

The revised AD retains its AD number with the addition of the revision number (YY-MM-NNN[Rx]), e g. 02-06-012 R1.

4. AD Cancellation

Airworthiness directives that are no longer valid should be removed from the system. Cancellation may be an appropriate action if the information the AD was based on is found to be in error. Keep the following in mind when removing an AD:

- a. Check whether the AD being canceled mentions or affects another AD
- b. Be sure that the removal of the AD will not leave an unsafe condition unresolved.
- c. The fact that an AD has been complied with by all owners/operators does not make the AD (change in type design) unnecessary. Therefore an AD must never be canceled or removed based on the representation manufacturer that all affected aircraft are in compliance with the AD.

CHAPTER III AD DOCUMENT FORMAT, TEXT AND STYLE

3.1 Drafting

The most important concept in drafting an airworthiness directive is to say exactly what is meant, and say it clearly, concisely and accurately. Start out by making sure that the terms used are consistent with the definitions of these terms in the Civil Aviation Safety Regulations (CASR). Give instructions in logical order. Use short sentences. Use technical terms when they are necessary, but do not complicate simple instructions by overusing them. Do not repeat instructions for emphasis. Have someone else unfamiliar with the subject matter read the draft to see whether the message is getting across clearly.

3.2 AD Text Identification

Within the text of an AD, each separate instruction, paragraph, and subparagraph must be designated using letters and number, as shown below. Such designations facilitate reference to individual instruction both for compliance record, keeping and revision purposes. Designation is not necessary if the text of the AD comprises only one brief paragraph. The following text designations must be used:

Level 1: (a), (b), (c), etc.
 Level 2: (1), (2), (3), etc.
 Level 3: (i), (ii), (iii), etc.
 Level 4: (A), (B), (C), etc.

3.3 Active Voice

Write regulations using the active voice. Airworthiness directives should "speak" to the person doing the work, telling them what is to be accomplished. In general, the strongest writing uses verbs, and the strongest verbs are those in active voice. Avoid using passive voice. Examples:

Do not use the passive:

"The attach bolts shall be inspected every..."
 "The seals are to be replaced with..."

Use the active:

"Inspect the attach bolts every..."
 "Replace the seals with..."

3.4 Word Selection

1. Consistency.

Use the same word each time to refer to the same item or action. Do not use synonymous terms for the sake of variety; such use only leads to unnecessary confusion. Conversely, never use the same term to refer to two different things.

2. Specificity.

Use specific terms -- do not use "aircraft" (unless it is in the name of something) when a more specific term, such as "airplane," "gyroplane," or "helicopter," is more accurate

3. Positive Slant.

When the same idea can be expressed positively or negatively, express in positively. Example:

Do not use the negative:

"Does not apply to airplanes with modification..."

Use the positive:

"Applies to all airplanes that have not been modified..."

4. Precision.

Use adjectives that are precise. Terms such as "excessive," "adequate," and "sufficient" are unenforceable because they call for value judgments. Instead, define how excessive wear can be measured or what is included in an adequate inspection. Do not use terms such as "prevent," "correct," "preclude," "ensure," "will," or "could" unless they are properly qualified. As an example, do not say that the modification "will prevent engine stall" when what is meant is that the modification "will prevent engine stall caused by ice ingestion." The modification may not prevent engine stall caused by other problems, and imprecise wording may imply that it does.

5. Notes.

Information that is explanatory or informational but is 'not mandatory' should not be included in the text paragraphs of an AD. Such information should be placed in a note immediately following the instruction it seeks to enhance. Never place mandatory instructions or acceptable alternatives in notes; note language is not enforceable as part of the AD.

a. Examples of acceptable notes:

"NOTE: The date code stamp is steel-stamped lower side of the flap actuator housing. Disregard ink-stamped numbers."

"NOTE: During the inspection required by paragraph (a), pay particular attention to the area surrounding BS 920."

b. Example of unacceptable note:

"NOTE: The provisions of AD 88-75-23 must be completed before accomplishing any work under this paragraph."

c. If an AD contains more than one note, number them sequentially in the order they appear, i.e., NOTE 1:, NOTE 2:, etc.

3.5 The Contents of an Airworthiness Directive

The following discussion of format should be read in conjunction with Appendix A

1. AD Number. The AD number appears as follows:
YY-MM-NNN[Rx] Where:

YY -is the year of issue of AD;

MM - is the month of issue of AD;

NNN - is the sequence number of AD has been issued within the year and month indicate; and

Rx - is the number of revisions of the AD (if any), R1 for revision 1. R2 for revision 2, etc.

2. Applicability

This section defines what aeronautical products are affected by the AD. The product must be accurately and completely defined by the use of recognizable terms such as the manufacturer, aircraft name, model number, serial number, part number, series, mark, configuration, and in some instances, the phase or type of operation in which the aircraft is engaged. Whenever possible the description should be consistent with that in the Type Certificate or other approval document, domestic or foreign.

3. Date of Issue

This is the date of issuance of the airworthiness directive. The format of the date is (dd mmm yyyy) where: dd is the date, mmm is the three first letters of the month: and yyyy is the year.

4. Reference

This section calls out the documents used as reference of the AD. Typical documents used are foreign ADs, manufacturers' SB, SDR, accident report.

5. Subject/Description

This section provides the reasons why the AD is needed. The section must contain a short objective statement of the condition requiring corrective action, whether it is unsafe condition or a condition of noncompliance. Lengthy descriptions of unsafe conditions create confusion and are not to be used.

The following examples illustrate acceptable formats:

"Several cases of severe corrosion on the wing lower spar caps have occurred due to moisture accumulation. This could result in an in flight failure of the wing structure." or

"There have been thirty-two reported cases where the seals on the aileron hydraulic actuators have burst in operation due to manufacturing flaws in the seal material." or

"Investigation shows that the design of the Ajax design processor does not comply with paragraph KYZ of the basis of the certification CASR part 25. If left uncorrected, excess weight may accumulate and cause loss of control of the aircraft."

6. Compliance.

This section indicates when the procedures specified within the AD must be accomplished. The timing of action required is to be clearly defined by dates, accumulated service hours, elapsed service hour time intervals or operation cycles. Phrases used must be concise and clear to avoid misinterpretation.

The following examples illustrate:

"Compliance is required: (a) initially within 25 flight hours of the effective date of this directive and; (b) subsequently at intervals not to exceed 300 flight hours until; (c) modification XYZ is incorporated."

"Compliance is required before further flight unless already accomplished." This means, in effect, that compliance is required on the effective date of the AD. The phrase "unless already accomplished" is used where appropriate, in instances or one time action so that operators are not obliged to repeat corrective action already done.

Repetitive inspections cannot be referred to as "already accomplished," but the initial action may have been already accomplished. The following examples illustrate acceptable wording:

"Compliance is required initially within X months unless already accomplished within the last Y months; and thereafter at intervals not to exceed Z months." (Note X + Y should equal Z)

"Compliance is required within 30 calendar days or 139 flight hours whichever occurs first."

In some cases it is not practical to briefly define when all the requirements of the AD are to be accomplished. This is usually because the timing is dependent on the results of specified inspections. If the compliance times and the corrective actions are not easily separated, this section should simply read:

"Compliance is required as indicated"

This advises the reader that compliance is usually conditional and can only be determined by reading the text of the AD. At the same time, including the above phrase indicates to the reader that compliance times have not been simply ignored. Consideration for safety will always be the primary factor in establishing compliance time for an AD however the following factors are also very important.

- a. Parts availability,
- b. Practicability of performing the work requested (e.g., a monthly visual inspection may be reasonable but a monthly x - ray inspection may not be).

- c. Impact of periodic maintenance required on existing maintenance/overhaul schedules,
- d. Possible adverse effect of excessive maintenance.

7. Accomplishment

This section defines how remedial action is to be accomplished to the aircraft. It is essential that this section contains a clear and concise description of the corrective actions required and it must be clear that the action is being taken to correct the unsafe condition.

a. Accomplishment Options

The following options are provided to assist in identifying appropriate corrective action. The list is not necessarily complete but most ADs incorporate requirements for one or more of the following:

- a one-time inspection;
- additional inspections;
- more sophisticated inspections;
- replacement of components;
- modification of components;
- incorporation of additional hardware;
- more frequent replacement of components;
- operational limitations such as maximum weigh speed;
- changes to Flight Manual procedures;
- changes to maintenance procedures.
-

NOTE: If the compliance section (paragraph six above) does not specify compliance times, they must be included in the accomplishment section.

b. Use of Service Bulletins.

In most cases the AD will refer to a manufacturer's Service Bulletin for detailed inspection and/or repair instructions. Normally, the DGCA's ADs will refer to alert/mandatory Service Bulletin. When Service Bulletins are used as a reference, it is a responsibility of DGCA to assure that their engineering design content is satisfactory and all appropriate respects. Reference Service Bulletins must be accurately defined in the AD text by including the manufacturer's name, the Service Bulletin title, numbers, issue or revision, and date of issue.

In all cases the AD should be drafted in such a manner that the reader gains a reasonable understanding of the required corrective action without the need for reference to the Service Bulletin. For example the text "accomplish visual inspection of the elevator push rod in accordance with Service Bulletin ABC..etc.", is much better than "Accomplish inspection per Service Bulletin ABC..etc."

c. Special Inspections.

Special inspections are often specified in the Corrective Action section of an AD. Simple inspections such as "visual with Strong light and 10 x glass," "dye penetrant," etc., usually required no explanation as to how the inspections are to be done. A possible exception would be where the location to be inspected or if disassembly is to be done, in which case the Illustrated Part Manual may be referenced in the AD.

Where relevant, the minimum qualifications of the personnel performing the inspections must be defined and if necessary, the type of organization in which the inspection is to be accomplished must also be defined.

Example:

"To prevent failure of the aileron hydraulic actuators, accomplish the following:

- 1) Visual inspect for leaks (Part No. XYZ) within 2 flight hours of the effective date of this Directive in accordance with Ajax Service Bulletin, number 873, Revision 1, issued November 19, 1982.
- 2) Replace seals found leaking before further flight.
- 3) Within 500 hours of the effective date of this Directive, X-ray Inspect the aileron hydraulic actuator pistons. This inspection must be accomplished by personnel certified in accordance with specification CASR Part 30 65 and must be accomplished at a facility approved for X-ray inspection of welded pistons.
- 4) Actuators found with defective pistons must be replaced with serviceable parts before further flight."

d. Modifications or Replacements Required by the AD. -

Modification to components, or their replacement, are often referred to or required in the Corrective Action section of an AD, as a means of restoring the aircraft (product) to a safe of airworthy condition.

These modifications/replacements must be clearly identified by names, part numbers, list numbers or other references to avoid ambiguity or misunderstanding. Reference to these components in the AD naturally means that they are approved for the purpose by DGCA.

Other modifications which may be developed after the AD is issued maybe equally effective in relieving the terms of an AD. In every case, the modification must be approved for the purpose by DGCA. Accordingly, the reference to the primary relieving modification will normally also refer to the possible of approved alternatives as follows:

"..... The inspection requirements of this Directive may be discontinued upon incorporation of Ajax Modification XYZ, or other modifications which are approved for the purpose by DGCA."

e. Revision of Flight Manuals and Other Approved Documents.

Revision to approved documents such as the Aircraft Flight Manual may be required. In such cases care must be taken to require changes in a manner which will allow the manufacturer to subsequently revise the document to bring it into compliance with the AD. For example, the Corrective Action section could be worded effectively to read:

"Change the word "AIRSPEED" in the first sentence in Chapter 2 of the Limitations section of the AFM to read "AIRSPEED I.A.S." This may also be accomplished by including a copy of this AD in the AFM on the facing page."

Do not use the following phrase:

"..... This must also be accomplished by including a copy of this AD in the AFM."

The latter is unacceptable because the AD would then form a permanent part of the AFM until the AD is canceled or superseded.

For similar reasons, careful consideration must be given to:

- introduction of component modifications
- incorporation of additional hardware, or
- inhibiting of a particular system.

These changes may directly or indirectly affect the Aircraft Flight Manual, i.e., they may affect a change in the Normal or Emergency Procedures, or a change in aircraft performance.

8. Effective Date.

The date an Airworthiness directive becomes a mandatory document is stated in the next paragraph and usually reads:

- a. "Effective Date: [dd mmm yyyy]."
- b. For a standard AD, the effective date should be about 2 weeks after signature to allow time for printing and mailing. For an urgent AD, the effective date should not be less than 48 hours to allow for distribution, except for usually pressing circumstances.

9. Notes (if any).

This section gives notes for clarification of the AD. The following are kinds of notes that might use:

- a. Superseding a Previous AD. The paragraph always takes the following form:

"This AD supersedes DGCA AD No. YY-MMM-NNN [RX], date [dd mmm yyyy]."

- b. Reason for Revision. If the AD is a revision of a previous issued AD, this paragraph explains briefly why the revision is necessary.

10. Signature

This AD is signed on behalf of the Director of Airworthiness and Aircraft Operation by the Deputy Director for Engineering in the following format.

"on behalf of the Director of Airworthiness and Aircraft Operation

(Signature)

(Name)

Deputy Director for Engineering

APPENDICES - FORMS OR TEMPLATES

A. Airworthiness Directive Worksheet DAAO FORM 39-01

B. Sample of DGCA Airworthiness Directive DAAO FORM 39-02

	REPUBLIC OF INDONESIA-MINISTRY OF TRANSPORTATION DIRECTORATE GENERAL OF CIVIL AVIATION	DAAO FORM 39-01 PAGE 1 OF 1
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AIRWORTHINESS DIRECTIVE WORKSHEET

DISTRIBUTION	
PM	:
STR	:
PP	:
AE	:
MCS	:
CS	:
PF/SC	:

DATE : ...	REF : ...
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AFFECTED PRODUCT : ...

AFFECTED OPERATOR : ...

DRAFT AD :

AD NUMBER : ...	DATE OF
ISSUE : ...	
SUBJECT/ DESCRIPTIONS :	
...	
REVIEW/ EVALUATION RESULT :	
COMPLIANCE :	
...	
ACCOMPLISHMENT :	
...	
RESUME/ RECOMMENDATION :	
...	
EFFECTIVE DATE : ...	

REVIEW BY :
BY :

CHECKED

	PM	STR	PP	AE	MCS	CS	PF/SC	DEPUTY DIRECTOR FOR ENGINEERING
NAME								SIGN :
SIGN&DATE								DATE :

DAAO FORM 39-01 Rev. 0



Republic of Indonesia - Ministry of Transportation
Directorate General of Civil Aviation

Airworthiness Directive

This Airworthiness Directive (AD) is issued by DGCA in accordance with the requirements of CASR Part 39. ADs affect aviation safety and are regulations which require immediate attention. Part 39 of CASR is amended by adding the following new AD. No Person may operate a product to which an AD applies except in accordance with the requirements of that AD.
NOTE : A ferry flight permit to fly the aircraft to a location where the requirements of this directive can be accomplished, may be granted by application to DGCA. Report and inquiring concerning this AD should be addressed to the DGCA. Alternative means of compliance with this directive may be used only if approved by the Director General.

DAAD FORM 39-02

NUMBER: 14-07-008

DATE OF ISSUE: 14 July 2014

APPLICABILITY:

Bombardier Inc. Model CL-600-2E25 aeroplanes

REFERENCE:

Canadian AD CF-2014-16

SUBJECT/DESCRIPTION:

During a design review, an error was identified which led to the development of a new certification maintenance requirement (CMR) task. Without an effective maintenance task to maintain the aeroplane's inherent level of safety, there is a potential that a dormant failure of the alternate release system of the landing gear could occur. Failure of the landing gear alternate release system could prevent the landing gear from extending in the case of a failure of the normal landing gear extension system. This AD mandates the incorporation of a new maintenance task to ensure operation of the landing gear alternate extension system.

COMPLIANCE:

This AD is required to be performed within the compliance times as indicated in the reference AD, unless already accomplished.

ACCOMPLISHMENT:

This AD shall be accomplished in accordance with the reference AD.

EFFECTIVE DATE: 25 June 2014

NOTE:

On behalf of Director of Airworthiness and Aircraft Operation

(signed)

Deputy Director for Engineering