



Advisory Circular

Subject: Operation and Maintenance of Aircraft Performing Activities Relating to Defence

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1.0 Introduction

- (1) This Advisory Circular (AC) is provided for information and guidance purposes. It describes an example of an acceptable means, but not the only means, of demonstrating compliance 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 familiarize aircraft operators, approved maintenance organizations, delegates and Transport Canada Civil Aviation staff with the Memorandum of Understanding (MOU) between the Department of National Defence / Canadian Armed Forces (DND/CAF) and Transport Canada Civil Aviation (TCCA).

1.2 Applicability

This document applies to Canadian aircraft operators, approved maintenance organizations, delegates, and TCCA personnel when performing or contemplating the performance of aviation-related work for the Department of National Defence / Canadian Armed Forces.

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) *Aeronautics Act* (R.S.C., 1985, c. A-2)
 - (b) Part I Subpart I of the Canadian Aviation Regulations (CARs) – Interpretation
 - (c) Part IV Subpart 6 of the CARs – Flight Training Units
 - (d) Part V Subpart 21 of the CARs – Approval of the Type Design or a Change to the Type Design of an Aeronautical Product
 - (e) Part V Subpart 71 of the CARs – Aircraft Maintenance Requirements
 - (f) Part VII of the CARs – Commercial Air Services
 - (g) Memorandum of understanding between the Department of National Defence and the Canadian Armed Forces and Transport Canada (as represented by Transport Canada Civil Aviation) concerning the responsibilities for Canadian Civil Registered Aircraft performing activities relating to defence for the Department of National Defence and the Canadian Armed Forces

2.2 Cancelled documents

- (1) The following document is cancelled:
 - (a) The “Memorandum of Understanding between the Department of National Defence, and Transport Canada Civil Aviation concerning the Technical and Operational Airworthiness Oversight of Civilian Operators Conducting Military Missions for the Department of

National Defence and Civil Registered Aircraft Operated by the Department of National Defence" dated June 21, 2012.

- (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 and abbreviations

- (1) The following **definitions** are used in this document:
- (a) **Activity relating to defence.** An activity, service or situation that has a connection to the national defence of Canada, and consequently a connection to the CAF.
 - (b) **Airfield** DND/CAF equivalent to TCCA aerodrome.
 - (c) **Canadian civil registered aircraft.** An aircraft that is on the Canadian Civil Aircraft Register and is operated in accordance with an air operator certificate issued by TCCA.
 - (d) **Configuration.** The set of installed or attached equipment, appliances or accessories, related to or required for a specific intended use or mission; usually readily changed or reversible. The functional and physical characteristics of hardware, firmware and software or a combination thereof as set forth in technical documentation and achieved in an aeronautical product.
- (2) The following **abbreviations** are used in this document:
- (a) **CARs** *Canadian Aviation Regulations*
 - (b) **AMO** Approved Maintenance Organization
 - (c) **DND/CAF** Department of National Defence and/or the Canadian Armed Forces
 - (d) **MCA** Military Capability Authorization
 - (e) **TAO** Temporary Authority to Operate
 - (f) **TA/TO** Task Authorization/Tasking Order
 - (g) **TCCA** Transport Canada Civil Aviation

3.0 Background

- (1) The Canadian *Aeronautics Act* (the Act) applies to both the Minister of National Defence and Minister of Transport. The Act makes the Minister of National Defence responsible for any matter relating to defence ("Activities Relating to Defence") and the Minister of Transport responsible for all other aeronautical matters, including activities related to civil aviation.
- (2) There is a "Memorandum of Understanding (MOU) between the Department of National Defence and the Canadian Armed Forces (DND/CAF) and Transport Canada (as represented by Transport Canada Civil Aviation (TCCA)) concerning the responsibilities for Canadian Civil Registered Aircraft performing activities relating to defence for the Department of National Defence and the Canadian Armed Forces."
- (3) An Activity relating to defence is an activity, service or situation that has a connection to the national defence of Canada, and consequently a connection to the CAF.
- (4) When a Canadian civil registered aircraft is engaged in activities relating to civil aviation, TCCA is the responsible authority and the CARs are the applicable regulations. When a Canadian civil registered aircraft is conducting Activities Relating to Defence, DND/CAF is the responsible authority and DND/CAF Technical Airworthiness, Operational Airworthiness and Investigative

Airworthiness Manuals apply.

4.0 The Memorandum

- (1) The MOU is posted on the TCCA International Agreements page at https://tc.canada.ca/en/aviation/aircraft-airworthiness/international-agreements-arrangements_.
- (2) The primary objective of the MOU is to establish a mechanism to facilitate the transfer of regulatory responsibilities between the DND/CAF and TCCA to ensure an equivalent and continuous level of aviation safety when Canadian civil registered aircraft are performing Activities Relating to Defence.
- (3) The MOU is not a contracting or procurement document, but air operator certificate holders and AMOs that have contracted their services to the DND/CAF, or propose to, should be aware of its intent and understand the division of regulatory responsibilities between the DND/CAF and TCCA.

5.0 Activity relating to defence

- (1) An activity relating to defence is any activity under which one or more of the examples in the following non-exhaustive list applies:
 - (a) The dominant purpose of the activity is military and for Canada;
 - (b) Canadian military crew (as defined by DND/CAF) will be conducting operations onboard the aircraft during flight;
 - (c) The aircraft will be under the direction of the Canadian military while performing the services;
 - (d) The aircraft requires the installation of Canadian military equipment or Canadian military aeronautical products;
 - (e) The aircraft will be operating within military restricted airspace (i.e. Class F or international equivalent) or in an operational theatre while providing the service;
 - (f) The aircraft will be operated from a Canadian military airfield or ship;
 - (g) The activity being provided for the DND/CAF is not regulated by the Canadian Aviation Regulations (CARs) or would be in non-compliance with CAR requirements; or
 - (h) The aircraft needs to be in a specific configuration, or needs a modification that cannot be approved under civil standards, to attain the capability necessary for the conduct of the activity relating to defence.
- (2) DND/CAF and TCCA may consult with each other to evaluate Activities Relating to Defence not identified in the above list, to determine whether or not a civil registered aircraft should be under the responsibility of the DND/CAF, or of TCCA.
- (3) Routine transport of military passengers or equipment on board a Canadian civil registered aircraft for transport purposes is not considered an activity relating to defence, even when these transport activities require flights from a Canadian military airfield.
- (4) Use by a civil registered aircraft of a nominally military airfield, such as Canadian Forces Station Alert or Canadian Forces Base Goose Bay, as a transit stop or for other purely civilian purposes is not an activity relating to defence, but may require prior permission from the DND/CAF.

- (5) The performance of work for a foreign military is not an Activity relating to defence. A Canadian operator performing work for foreign militaries using a Canadian civil registered aircraft is under the authority of TCCA for the operation and maintenance of the aircraft.

6.0 Military regulatory structure

- (1) An activity relating to defence must be carried out by an organization that has received from DND/CAF a Military Capability Authorization (MCA) and has a Temporary Authority to Operate (TAO) together with a Tasking Authorization /Task Order (TA/TO) issued by DND/CAF.
- (2) A **Military Capability Authorization (MCA)** is a certification by the DND/CAF that a proposed equipment, configuration, design change or capability complies with the DND/CAF airworthiness standards. An MCA applies to a civil air operator conducting defence related services for the DND/CAF and is issued by the military Technical and Operational Authorities (TAA and OAA) to declare that the air operator and the maintenance facility are acceptable and have been appropriately trained, the technical and operational requirements of the airworthiness program have been met, that the civil aircraft is acceptable to DND/CAF for use and that it is safe for operation in flight.

Note: The DND/CAF term for an acceptable maintenance facility is Acceptable Maintenance Organization (AMO), similar to the TCCA term Approved Maintenance Organization (AMO).

- (3) A **Temporary Authority to Operate (TAO)** is a type of flight permit issued by the DND/CAF that authorizes an aircraft on the civil register to perform activities related to defence. It is issued jointly by the military Technical and Operational Authorities. A TAO may be valid for a specific period or for a number of flights up to a maximum duration of twelve months, but may be renewed as required.
- (4) The DND/CAF will copy TCCA on all TAOs issued.
- (5) The TAO may authorize the installation of special equipment or require a modification or a specific configuration performed in accordance with the standards of airworthiness identified by the DND/CAF.
- (6) The TAO may resemble a contract, and it authorizes an aircraft or defined group of aircraft to operate for a certain period of time. During the period covered by the TAO, the aircraft may or may not be performing an activity related to defence on any given flight.
- (7) A flight or series of flights under the TAO that are activities related to defence will be plainly and specifically authorized by issue of a Task Authorization/Tasking Order.
- (8) A **Task Authorization/Tasking Order (TA/TO)** is a formal document, signed by DND/CAF, authorizing the activity relating to Defence. The TA/TO will specify the aircraft type being tasked, the nature of the activity and the exact timeframe the authorization will be valid for. The approved TA/TO format will be specified in the TAO.
- (9) A flight conducted according to or to comply with a TA/TO is an activity related to defence. The issue of the TA/TO is usually but not always accompanied by the issue of a radiotelephony call sign.
- (10) Some TAOs may cover a contract for activities related to defence during an extended period. The aircraft may revert temporarily to the authority of TCCA when between TA/TOs, or when performing work not contracted for under the TAO.

7.0 Interaction and transfer between regulatory structures

- (1) Regulatory responsibility is never shared between TCCA and DND/CAF. For a given flight or maintenance activity, the responsible authority will be either TCCA or DND/CAF.
- (2) The operator must be able to establish the relevant regulatory authority for any given flight.
- (3) The aircraft operator should be able to track, identify and record which operations or flights are regulated by TCCA and which are regulated by DND/CAF, due to being activities related to defence. It may be of benefit to ensure that dispatch and maintenance control procedures can display and record the responsible authority for each flight or maintenance activity. The technical dispatch system required by CAR 706 or 406 may be adaptable for this purpose. When the relevant flight authority and regulatory authority changes, the change should be marked by an entry in the Journey Log, or a similarly transparent method.
- (4) When oversight is being conducted on a DND/CAF contracted certificate holder, the aircraft operator and the TCCA Principal Operations and Maintenance Inspectors must be aware that some of the certificate holder's activities may not be regulated by TCCA. It may be necessary to request that the operator determine by reference to the TAO and the TA/TO which are, and which are not, activities related to defence.
- (5) The aircraft's Canadian civil registration and Certificate of Airworthiness are not cancelled or suspended by the issue of a TAO and TA/TO, they are simply rendered temporarily non-relevant. The Certificate of Airworthiness is not the applicable flight authority while the aircraft is under the responsibility of the DND/CAF, the TA/TO is the flight authority.
- (6) TAO and TA/TO may require and authorize operations that are contrary to the Canadian Aviation Regulations, such as low flight, reduced weather or fuel minima, operation beyond Airworthiness Limitations or Airworthiness Directives, etc.
- (7) The TAO and TA/TO may require and authorize modifications to the aircraft that may not be performed in accordance with the CARs requirements for technical data and in such cases the standards of airworthiness will be identified by the DND/CAF. If a modification to attain Military Capability Authorization requires an airworthiness or maintenance test flight and the necessary flight permit cannot be issued under the CARs, a TAO and TA/TO may be issued by DND/CAF.
- (8) These operations or modifications are not in any way matters of regulatory concern to TCCA while the aircraft is conducting the activities related to defence, but they are of concern when the aircraft is to conduct civil operations under the CARs.
- (9) A modification performed for and approved only by DND/CAF must be removed, or accepted or approved under the CARs before flight under the CARs.
- (10) In consideration of a future return to civil operations solely under the CARs and the regulatory authority of TCCA, and provided that it does not conflict with the authority of the DND/CAF, air operators may find it advantageous to maintain and operate the aircraft in close equivalence with their existing CARs compliant procedures, including technical data approval, configuration control, weight and balance control, defect control, continuous trend monitoring etc.
- (11) The operator should maintain the technical records in the format required by the CARs as they do under their AOC, FTU or AMO TCCA Approvals. In particular, clear records should be kept of all operations outside the civil flight manual or maintenance manual limits; abnormal occurrences or exceedances, Airworthiness Limitations or Airworthiness Directives not complied with, and modifications carried out to perform work under the TAO. Some operators may wish to use their deferred defect program to track these items, in order to facilitate aircraft's re-entry to civilian service.
- (12) When the TAO is no longer in effect and the aircraft returns to the responsibility of the TCCA, it is the operator's responsibility to ensure the aircraft meets the operational and airworthiness requirements of the CARs. If modifications or repairs have been performed the standards of

airworthiness used to perform the work must meet the requirements of CAR 571, or the aircraft should be returned to the configuration it was in prior to the TAO being issued, to ensure conformity to its approved type design.

- (13) The records of maintenance performed while the aircraft was under a TAO and TA/TO should be reviewed by the operator to ensure that the requirements of the CARs were met in the performance of the work.
- (14) A review of the technical and operational records should be carried out by the operator to ensure the aircraft is in a condition for technical dispatch under the CARs. The review should establish that there are no unaddressed abnormal occurrences or exceedances, that there are no unapproved modifications or repairs or unreleased maintenance, that all Airworthiness Limitations or Airworthiness Directives have been addressed, and that the aircraft can be appropriately maintained according to the relevant approved maintenance schedule.

8.0 Maintenance and modification

- (1) The MOU refers to Canadian civil registered aircraft operating under a TAO and TA/TOs. These aircraft are not military aircraft of Her Majesty in right of Canada. Since the aircraft remain civil registered, operators may choose to continue to comply with the CARs for the purposes of maintenance. The fact that an aircraft is operating under a TAO does not prevent maintenance performance and release in a manner compliant with the CARs.
- (2) The performance of a major modification to enable an activity related to defence and the technical data used should be recorded in the aircraft technical records, even if the data for the modification is not Approved or Specified in accordance with section 571.06 of the CARs.
- (3) A major modification or repair performed to data that is not Approved or Specified cannot be released under the CARs.
- (4) Any permanent, non-reversible modifications, or repairs not performed according to the requirements of the CARs must be shown to be in compliance with the applicable standards of airworthiness, including the requirement for the use of approved or specified technical data, and released under the CARs before the aircraft can return to civil operation. The data can be reviewed and approved after the work has been done, and the installation inspected to verify conformity to the data, prior to making the required maintenance release in accordance with the CARs.
- (5) It may also be possible to remove the modification to the point that the remaining departure from the aircraft type design becomes minor, and can be considered performed and released according to acceptable data.
- (6) Data from DND/CAF engineering sources such as the Directorate of Technical Airworthiness and Engineering Support (DTAES) is acceptable technical data if it is relevant and appropriate.
- (7) For the purposes of obtaining an Aircraft Maintenance Engineer (AME) Licence or additional rating, experience and skill obtained on Canadian civil registered aircraft operating under a TAO and TA/TOs are considered acceptable, provided it otherwise meets the requirements in Chapter 566 of the Airworthiness Manual.

9.0 Information management

- (1) Not applicable

10.0 Document history

- (1) Not applicable

11.0 Contact us

For more information, please contact Jeffrey Phipps,
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We invite suggestions for amendment to this document.

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