

TECHNICAL AIRWORTHINESS AUTHORITY ADVISORY (TAA ADVISORY)	
TAA Advisory Number	2014-02e-v3
Title	Technical Airworthiness Clearance Requirements for Class 1 UAS – Type Design and Aeronautical Product
Effective Date	June 2014 (Revised January 2025)
References	TAM Part 2
OPI / Telephone	DTAES 3-5
RDIMS #	2182D-1027-812-6 Vol 1 AEPM # 1378741 (English) AEPM # 1464817 (français)

1. Purpose

- 1.1 This Technical Airworthiness Authority (TAA) Advisory provides guidance pertaining to the standards governing the Department of National Defence (DND)/Canadian Armed Forces (CAF) Airworthiness Program requirements (reference 3.2.a) for Technical Airworthiness Clearance (TAC) of Class 1 (Micro, Mini, and Small) Uncrewed Aircraft Systems (UAS), which will be operated either:
- a. in restricted airspace (Class F, Article 5.1 of the *Aeronautics Act*);
 - b. from Royal Canadian Navy ships in international waters under Due Regard operating rules; and/or
 - c. in Theatres of Operation in a Restricted Operating Zone (ROZ).
- 1.2 Application of this advisory leads to the issuance of a Restricted Type Certificate (RTC).
- 1.3 For In-Service Support TAC requirements, refer to *TAA Advisory 2013-05 – Continuing Airworthiness Requirements for Uncrewed Aircraft Systems* (reference 3.2.b).

NOTE

Within this TAA Advisory, the terms “crewed” and “uncrewed” are used, instead of the previously used “manned” and “unmanned” in referring to Crewed and Uncrewed Aircraft Systems, respectively. Until amended, certain authoritative documents may still use the terms “manned” and “unmanned”.

2. Applicability

- 2.1 This TAA Advisory applies to Class 1 UAS that will be placed on the DND Military Aircraft Register. It is applicable to organizations seeking a Class 1 UAS RTC and TAC to conduct the types of operations defined in paragraph 1.1.

NOTE

The TAA may consider requests to use this process for Class 2 UAS, provided they are operated in accordance with paragraph 1.1. These requests are to be submitted in writing to the Director – Technical Airworthiness and Engineering Support (DTAES) 3 before initiating the TAC process.

- 2.1.1 DND-registered Class 1 UAS to be operated beyond the scope of para 1.1 will require full type certification and TAC, in accordance with the Technical Airworthiness Manual (TAM) Part 2, Chapter 3 (reference 3.2.c).
- 2.1.2 UAS that are approved and operated under the Open Category (reference 3.2.j), or which meet the definition of “sub-micro”, do not require an airworthiness clearance and are exempt from TAC requirements.

3. Related Material

3.1 Definitions

- a. Safety Case. A structured argument, supported by evidence, intended to justify that a system is acceptably safe for a specific application in a specific operating environment. In the context of this advisory, an Airworthiness Impact Assessment (AWIA) may be used to meet this requirement.
- b. Restricted Operating Zone (ROZ). An airspace of defined dimensions, designated by the airspace control authority, in response to a specific operational situation or requirements within which the operation of one or more airspace users is restricted.
- c. UAS Control Station (UCS). A facility or device from which the Uncrewed Aircraft (UA) is controlled and/or monitored during all phases of flight. The UCS may sometimes also be referred to as the Ground Control Station. The UA and the UCS form part of the Uncrewed Aircraft System.
- d. Uncrewed Aircraft System (UAS). The set of individual elements consisting of the UA, the UCS and any other UAS elements necessary to enable flight, such as a command and control data link, communication system, and take-off and landing element. There may be multiple UA, UCS, or take-off and landing elements within a UAS.
- e. Open Category. UAS greater than 250 grams up to and including 25 kg. This category does not require an Airworthiness Clearance nor Release to Service (RTS), when operated within the conditions defined at reference 3.2.j, and identified as such in the applicable L1 command acceptance letter.

NOTE

Some of the definitions provided in section 3.1, also defined in the Technical Airworthiness Manual (TAM), are not meant to repeat the TAM Glossary definitions, but rather to provide additional details for a better understanding of these terms in the context of this advisory.

3.2 Regulatory References

- a. A-GA-005-000/AG-001 – *Department of National Defence/Canadian Armed Forces (DND/CAF) Airworthiness Program*
- b. TAA Advisory 2013-05 – *Continuing Airworthiness Requirements for Uncrewed Aircraft Systems*
- c. C-05-005-001/AG-001 – *Technical Airworthiness Manual (TAM)*
- d. TAA Advisory 2011-02 – *Specific Purpose Flight Permits Issued by the TAA (DTAES 3)*
- e. North Atlantic Treaty Organization (NATO) STANAG 4670 ATP-3.3.8.1 – *Guidance for the Training of Unmanned Aircraft Systems (UAS) Operators* (also available internally, within DND, at AEPM RDIMS #2382564)
- f. B-GA-104-000/FP-001 – *Operational Airworthiness Manual*
- g. TAA Advisory 2017-01 – *Acquisition Contract Requirements for Obtaining Technical Airworthiness Clearance*
- h. TAA Advisory 2016-04 – *Recognition of Airworthiness Authorities*
- i. TAA Advisory 2013-16 – *Aircraft Registration and Marking*
- j. 1600-4 (SSO OA) Interim Uncrewed Aircraft Systems Open Category Flight Rules, dated 14 April 2022 (to be superseded by B-GA-100-001/AA-000 Book 3 – Uncrewed Aircraft Systems Operations)
- k. AF9000 Procedure EMT01.003 – *Airworthiness Risk Management Process* of the Business Management System Manual of AEPM Processes (MAP) of DND's Division of Aerospace Equipment Program Management (AEPM)

4. Discussion

4.1 General

- 4.1.1 The DND/CAF Airworthiness Program (reference 3.2.a) defines UAS as aeronautical products and, as such, they are subject to regulation under the DND/CAF Airworthiness Program. The TAA technical airworthiness rules and standards applicable to all aeronautical products are contained in the TAM (reference 3.2.c). This TAA Advisory provides detailed guidance on how to apply the airworthiness requirements of the TAM, related to type design and aeronautical product, to Class 1 UAS operating in accordance with paragraph 1.1.
- 4.1.2 This TAA Advisory uses the UAS Classification System described in the NATO STANAG 4670 ATP 3.3.8.1 – *Guidance for the Training of Unmanned Aircraft Systems (UAS) Operators* (reference 3.2.e), as follows:
- Class 1 (Less than 150 Kg MTOW) – This includes UAS classified as Micro, Mini and Small
 - Class 2 (150 to 600 Kg MTOW)
 - Class 3 (More than 600 Kg MTOW)

NOTES

1. *The DND/CAF have established a separate UAS Categorization System that includes four (4) categories: Certified, Specific, Open and Sub-Micro. These DND/CAF UAS categories can be aligned with, and cross-referenced against, the NATO UAS Classification System as follows:*

DND/CAF Category	Certified (greater than 250 g)	Specific (250 g to 600 Kg)	Open (250 g to 25 Kg)	Sub-Micro (less than 250 g)
<i>NATO Classification</i>	<i>All UAS classes</i>	<i>Class 2 / Class 1</i>	<i>Class 1</i>	<i>None</i>
<i>Operating Intent</i>	<i>Unrestricted; All classes of airspace; Requires full type certification and TAC.</i>	<i>Specific scenario with restrictions; Cannot meet Open Category conditions.</i>	<i>As per conditions at reference 3.2.j</i>	<i>Below 400 ft AGL</i>

2. *Class 1 UAS operating under a RTC issued in accordance with this TAA Advisory overlap between the 'Specific' and 'Certified' categories.*

- 4.1.3 TAC objectives for a Class 1 UAS will be achieved through the following elements:

- Restricted Type Certificate (Para 4.5).
- Aeronautical Product (Para 4.6).
- Continuing Airworthiness (reference 3.2.b).

4.2 Statement of Operating Intent

- 4.2.1 The Statement of Operating Intent (SOI) describes the operating intent of the user organization and, therefore, helps define the scope of the type certification process. The SOI is prepared by the requirements organization (Directorate Air/Land/Naval/Special Requirements) during project initiation and it is refined once a bidder has been selected. The SOI, along with the Statement of Requirements, is provided to bidders as part of the Request for Proposal process. The SOI, along with the Statement of Support Intent (see reference 3.2.b), are key reference documents in the TAC Plan and TAC Report. Requirements for an SOI can be found in Part 2, Chapter 1, Section 2, Annex A of the TAM (reference 3.2.c) and in Chapter 3, Paragraph 312 of the Operational Airworthiness Manual (reference 3.2.f).

4.3 TAC Plan

- 4.3.1 The TAC Plan describes how the Applicant (typically the Project Management Office (PMO)) intends to meet the requirements for TAC, as defined in the TAM (reference 3.2.c). The format of the TAC Plan is similar to the TAC Report (paragraph 4.7.2). An example TAC Plan is provided internally, within DND, at AEPM RDIMS #2054186 (DTAES 3-5 may provide a copy on request). A draft TAC Plan should be submitted to DTAES 3 before the release of the RFP, to ensure that the timeline for TAC is achievable. The TAC Plan will be refined once the successful bidder is selected.
- 4.3.2 DTAES may require that a TAC Planning Board be convened prior to TAC Plan approval. The Board may be held either before the release of the RFP, or shortly after contract award. The intent of the Board is for the Applicants to present their plan to achieve TAC to DTAES, DTAES 3 and DTAES 4. Therefore, to identify the actions required prior to RFP issuance, it is important for the Applicant to contact DTAES 3-5 early in the project definition phase.

4.4 RFP and Bid Evaluation

- 4.4.1 The TAA recommends that DTAES 3 and 4 staff review the draft RFP, in particular the Statement of Work (SOW) and Requirement Specification (RS), to ensure that the appropriate technical airworthiness requirements have been adequately captured. Sample airworthiness SOW and RS clauses are included in TAA Advisory 2017-01 (reference 3.2.g). While the referenced advisory has been developed for crewed aircraft, there are several clauses appropriate to UAS. DTAES 3-5 can provide assistance in the selection/development of appropriate contract clauses for type certification and aeronautical product requirements. DTAES 4-5 should be consulted regarding the development of appropriate In-Service Support clauses.
- 4.4.2 DTAES staff are available to participate in the bid evaluation team, to review bids for compliance with airworthiness requirements.

4.5 Type Certification – RTC

- 4.5.1. A RTC includes operational restrictions and limitations. A RTC will be issued by the TAA when it has been clearly determined that the UAS design is acceptably safe to operate within its defined roles, environment and limitations. The RTC process defined herein satisfies the TAM requirement for type certification, which is the first element of the TAC. The RTC process relies on the development of an AWIA that will be built upon the following elements:
- a. The baseline UAS design has been previously authorized for operation by a civil or military airworthiness authority (CAA or MAA, respectively) recognized by the TAA. A list of recognized airworthiness authorities is documented in TAA Advisory 2016-04 (reference 3.2.h). There may be a requirement for the TAA to conduct the process of recognition of another airworthiness authority, as detailed in reference 3.2.h. This requirement should be identified in the TAC Plan;

NOTE

Developmental Test and Evaluation (DT&E), Engineering Test and Evaluation (ET&E) or Operational Test and Evaluation (OT&E) do not constitute acceptable previously authorized operational or in-service use of the UAS for the purpose of developing an AWIA.

- b. The UAS has been developed through processes that are mature, appropriate, and have been consistently applied;
 - c. Hazards have been appropriately addressed when considering systematic design influences, such as system integration, software, human factors engineering, electromagnetic environmental effects, and environment; and
 - d. The residual risk associated with identified UAS hazards has been defined in the AWIA.
- 4.5.2 The RTC will be issued by the TAA upon successful completion of the activities described in paras 4.5.3 to 4.5.5 and upon receipt of the draft Restricted Type Certificate Data Sheet (RTCDS), para 4.5.6.

4.5.3 Safety Case or Airworthiness Impact Assessment (AWIA). The AWIA shall be prepared by the Applicant and shall contain the following:

- a. System Overview:
 - (1) Brief system development history,
 - (2) An operational history, which must clearly demonstrate the total number of accumulated hours of service in support of operations, identifying the types of operations, and
 - (3) Reliability summary, which must include:
 - (a) Air vehicle loss rate due to technical cause factors, with cause factors identified, and embodied Original Equipment Manufacturer (OEM) solutions, if any, to prevent further occurrence, and
 - (b) A synopsis of technical airworthiness issues and resolution;
- b. System Design:
 - (1) A list of the specifications/standards applicable to the system design,
 - (2) A structural block diagram for all main systems and subsystems, with accompanying theory of operation. As a minimum, the following main systems must be described:
 - (a) Structure,
 - (b) Propulsion,
 - (c) Auto-pilot,
 - (d) Electrical,
 - (e) Command and Control (C2) links,
 - (f) UCS,
 - (g) Emergency Operation such as lost link, GPS failure, auto-pilot failure, and
 - (h) Flight Termination System;
 - (3) Component software descriptions;
- c. Functional Hazard Assessment (FHA) and System Safety Assessment (SSA), or equivalents;
- d. Previous Flight Clearances: If available, the Applicant shall provide details of all existing/previous flight clearances including the following:
 - (1) The name of the Airworthiness Authority granting the flight clearance;
 - (2) A listing of all applicable standards, including any special conditions developed as a result of new or novel design features; and
 - (3) A listing of all operating restrictions and limitations.
- e. UAS Established Safety Record:
 - (1) The Applicant shall provide a Safety Record identifying the number of technical-cause “uncontrolled flight” events per flight hour over a set period of time. For this purpose, the term “uncontrolled flight” is defined as the loss of Uncrewed Aircraft (UA) control and/or manoeuvrability, resulting in flight outside of pre-planned or contingency flight profiles/areas and/or uncontrolled crash due to one, or a combination of, failure conditions. As a minimum, the following must be included in the established safety record:
 - (a) Data and reference to the sources of information that substantiate the AWIA. These data must be available to the TAA if requested, and must be from systems used in a configuration and operating profiles that are representative of the proposed system covering a period of no less than two years. The data must be from in-service use, not from DT&E, ET&E or OT&E.

- (b) In-service data to demonstrate how the system has evolved to reduce the failure rate as design maturity has been acquired (if applicable). Of particular interest are failures (or crashes or loss of control) associated with the engine, flight controls (i.e., servos), GPS failures requiring reversion to dead reckoning, and UCS failures (i.e., software crash).
- f. Risk:
 - (1) The Applicant will identify all potential UAS hazards;
 - (2) For all identified hazards, the proposed mitigation (technical limitations, operating restrictions, maintenance actions, etc.) will also be identified; and
 - (3) The Applicant will have to identify the residual risk for each hazard that cannot be mitigated to an acceptable level of safety (ALOS). For definitions and tables identifying hazard severity, hazard probability and risk, refer to *EMT01.003 – Airworthiness Risk Management Process* (reference 3.2.k).

NOTE

An AWIA may also be referred to as a Safety Case. Regardless of the document's title, it must contain the information listed above.

- 4.5.4 TAA On-Site Reviews. In order to determine that the proposed UAS design is acceptably safe to operate within its defined roles, environment and limitations, the TAA staff may require access to the body of evidence related to the OEM design and fleet in-service history. The process used by the TAA staff to validate the AWIA will be through a review of documents, which will have been delivered to Canada, and through TAA on-site reviews, performed at the OEM facility (or other contractor facility, if required).
- 4.5.4.1 The Applicant shall establish provisions with the UAS OEM to allow TAA specialists full access to the OEM's:
 - a. technical specialists;
 - b. engineering, technical and certification data, if applicable;
 - c. facilities, including office space to conduct meetings and interviews;
 - d. records and reports supporting the Quality and Configuration Management Systems;
 - e. organizational processes, procedures and instructions related to the design, development and tests; and
 - f. Operators' Handbook(s) and Checklists.
- 4.5.5 UAS Flight Manual. The Applicant shall provide to the TAA, for approval, a UAS Flight Manual that contains the information necessary for safe operation as related to the design, operating or handling characteristics. The UAS Flight Manual should be submitted for TAA review as early in the type certification process as possible to permit early identification and resolution of any potential issue for the later stages.
- 4.5.5.1 The Flight Manual must comply with the following:
 - a. Comply with the applicable requirements of the TAM Part 2, Chapter 7, Section 2, Standard 2.7.2.S1 and Annex A (Flight Manual (FM) Technical Airworthiness Data (TAWD) Content);
 - b. Reflect the actual UAS capabilities;
 - c. Contain data and procedures sufficient to allow a trained operator to safely operate the UAS. The data shall include, as a minimum:
 - (1) UA and UCS performance characteristics and system description. This shall describe the performance to be expected from the aircraft (operating ranges, service ceiling, airspeeds, endurance, etc.), and descriptions of the components associated with the aircraft and ground support equipment. Some examples of these components are the airframe, propulsion system, electrical system, flight control system, avionics, data links and communications, navigation

systems, payload, autopilot, mission planning tools, imagery processing system, landing system, etc.,

- (2) Limitations of all system components (UA, UCS, C2 Links, etc.) that should detail such information as altitude restrictions, weather limitations/restrictions, launch and recovery, environmental limitations and Electro-Magnetic Interference (EMI) restrictions,
 - (3) Critical and non-critical emergency procedures should be clearly detailed so as to be readily accessible for immediate use. These should describe the immediate actions to be taken and remedial procedures to be followed in the event of failures in various aircraft systems. In addition to detailing regular aircraft systems emergency procedures (engine failures, electrical problems, etc.), a detailed description of loss of C2 link procedures and rules of safety must be provided. This shall describe what actions the crew must take to regain/improve connectivity, and what procedures the aircraft will follow on the determination of a loss of C2 link with the UCS,
 - (4) Operating procedures for the UAS airborne and ground systems. This shall include all normal procedures for the entire range of UA operations to include any initial setup/checkout of the system components, and all pre-flight/in-flight/post flight operating procedures and checks. Additionally, any warnings and cautions regarding the systems operation should be provided and clearly depicted,
 - (5) All Technical Airworthiness Data (TAWD), suitably identified as such in the flight manual,
 - (6) The condition and minimum equipment for the system to maintain conformity to meet specification and flight authorization. This is sometimes referred to as a Minimum Equipment List;
- d. Properly identify, cross-reference and present the system of units used, to prevent any misunderstanding;
 - e. Provide a description of how TAWD is identified;
 - f. Include a Table of Contents and a list of effective pages;
 - g. Display the page number, the revision number and/or change date and number marked on each page; and
 - h. Include an appendix containing a Configuration Deviation List (CDL) that is compliant with TAM Part 2, Chapter 7, Section 2, Standard 2.7.2.S1 and Annex A.

4.5.6 Restricted Type Certificate Data Sheet (RTCDS). Upon successful completion of the activities detailed in paragraphs 4.5.1 to 4.5.4, the Applicant shall provide a completed RTCDS (see template at Annex A) to the TAA for approval.

4.5.6.1 The RTCDS must contain the information below, as a minimum:

NOTE

Where the information is contained within other documents (e.g., Certificate of Registration, approved fuels, etc.), a reference to the other document is acceptable.

- a. Model and type designation;
- b. Engine model and type;
- c. Propeller model and type;
- d. Eligible serial numbers;
- e. Approved configurations (including software loads);
- f. SOI reference;
- g. Design information, including:

- (1) all applicable design or airworthiness standards, including any special conditions as a result of a new or novel design feature, and
- (2) any equivalent safety items;
- h. Design operating limitations, including:
 - (1) fuel (military and civil specification),
 - (2) oil (military and civil specification),
 - (3) airspeed limits,
 - (4) maximum weights (taxi, maximum take-off weight (MTOW), landing, zero fuel),
 - (5) centre of gravity limits, datum and levelling means,
 - (6) minimum crew,
 - (7) fuel capacity,
 - (8) maximum operating altitude,
 - (9) outside air temperature limits,
 - (10) placards;
- i. Maintenance requirements:
 - (1) a listing of all life-limited components,
 - (2) Certification Maintenance Requirements, that is, those maintenance requirements that are mandatory inspection tasks, which are designed to detect latent failures that would result in a hazardous or catastrophic event, if occurring in combination with one or more other specific events, and
 - (3) structural integrity/damage tolerance inspections;
- j. Approved Publications:
 - (1) Instructions for Continued Airworthiness (ICA), and
 - (2) Flight manual and/or operating instructions.

4.6 UAS Aeronautical Product

- 4.6.1 The TAM requires that each UAS be manufactured in conformance with the approved type design, and that each UA be registered on the DND Military Aircraft Register and be identified with an appropriate marking/paint scheme. As explained at paragraph 4.6.5, a Certificate of Airworthiness (CofA) will not be issued for a Class 1 UA operating under a RTC.
- 4.6.2 Registration. The TAA, through DTAES 3-5-3, will maintain the aircraft registration for each individual UA on the DND Military Aircraft Register. The Applicant is to submit requests for type designation (CUXXX) and registration in accordance with the guidance provided in TAA Advisory 2013-16 (reference 3.2.i). In the case of Class 1 UAS, one registration request is sufficient for all UAs; however, the Applicant will need to list all UA serial numbers on the request form. On receipt of the registration request, DTAES 3-5-3 will place each aircraft on the DND Military Aircraft Register. Only one Certificate of Registration per fleet will be issued for Class 1 UAS (reference 3.2.i). It is the responsibility of the Weapon System Management organization, as the Type Certificate Holder, to inform the DTAES 3 OPI for the fleet, who will liaise with DTAES 3-5-3, of any new serial numbers to be added to the registration, or any that requires removal due to loss of the UA. The Certificate of Registration will be updated as required, in the case of serial number additions or deletions.

NOTE

Reference 3.2.i provides guidance regarding the submission of the type designation request, as well as the process for the designation of the common name (e.g., Raven). The type designation and common name are required on the aircraft registration request form.

- 4.6.3 Markings. The Applicant must submit for approval UA Identification Marking Drawings in accordance with reference 3.2.i. Prior to the delivery of the aircraft to Canada, the OEM (or other contractor) shall install appropriate identification markings on each UA in accordance with the drawings approved by Canada.
- 4.6.4 Certificate of Conformance. The Applicant must submit a Certificate of Conformance (CofC) for each UAS and for each individual UA. The CofC may be in the OEM/Contractor's format, and must include the following:
- positive identification of the item by type, class, style, grade, model, part number, description, nomenclature and/or serial number, as applicable;
 - identification of the applicable approved type design;
 - the following certification or similarly worded statement:
"I certify that the aeronautical product described herein conforms to the specified approved type design and is in a condition for safe operation."
 - identification of both the approval authority and the organization;
 - a statement that the UA has been flight checked; and
 - for each UA engine, a statement that the engine has been subjected to a final operational check by the OEM/Contractor.
- 4.6.4.1 The CofC must be approved by an appropriately authorized representative of the OEM, such as an authorized Quality Assurance representative.
- 4.6.5 Certificate of Airworthiness. The TAA will not issue Certificates of Airworthiness (CofA) for UAS operating under a RTC. Instead, a complete listing of serial numbers for air vehicles and ground control stations shall be recorded on the RTCDS, in accordance with paragraph 4.5.6.1.d, which is an acceptable alternative to the CofA in accordance with TAM Part 5, Chapter 7, paragraph 5.7.2.S2.2 (reference 3.2.b).
- 4.7 Technical Airworthiness Clearance**
- 4.7.1 The following are required in order for the TAA to grant a TAC for the UAS:
- a RTCDS;
 - TAA-approved UA Identification Markings Drawings;
 - Certificates of Conformance (CofC) for each UAS; and
 - completion of the requirements of TAA Advisory 2013-05 – *Continuing Airworthiness Requirements for Uncrewed Aircraft Systems* (reference 3.2.b).
- 4.7.2 The TAC Report will be prepared by the TAA staff and it will include the following information:
- Executive Summary, briefly outlining the scope of the TAC and the results;
 - Description of the UAS, including a summary of the SOI;
 - a summary of the certification strategy, including the certification team composition;
 - a summary of the AWIA, including assumptions, constraints and issues;
 - a listing of the operational envelope, limitations and restrictions;
 - reference to all DTAES specialist technical notes supporting the TAC program;
 - reference to the RTC and RTCDS;
 - identification of the TAA-approved flight manual and/or UAS operating instructions;
 - identification of the approved type designation and all assigned UA registration numbers;
 - a reference to the document containing the approved Instructions for Continued Airworthiness (ICAs);

- k. identification of the organization responsible for the control of design changes. A brief description of the process that will be used to manage the certification of design changes must be provided (If the design management process and procedures are referenced in the Engineering Process Manual (EPM), then the EPM needs to be referenced in the TAC Report);
- l. a listing of any residual risks not covered in the AWIA and deemed temporary, including associated Record of Airworthiness Risk Management (RARM) references, as applicable;
- m. Results of the TAA's review of the In-service Support (ISS) Program in accordance with reference 3.2.b, which will address the following:
 - (1) Engineering Support Program,
 - (2) Maintenance Support Program, and
 - (3) Logistics Support Program;
- n. Conclusions and recommendation for TAC.

- 4.7.3 Once the TAC Report has been approved and TAC granted by the TAA, the Applicant must seek the Operational Airworthiness Clearance (OAC) from the Operational Airworthiness Authority, as well as the Investigative Airworthiness Clearance (IAC) from the Airworthiness Investigative Authority. It is the responsibility of the Applicant to liaise with Directorate of Air Readiness staff to arrange for an Airworthiness Clearance and Release-to-Service Board meeting, chaired by Commander RCAF. The Applicant will be required to summarize the TAC, OAC and IAC in an Airworthiness Clearance Report in accordance with reference 3.2.a.

NOTE

Applications and subsequent activities required to achieve TAC, OAC and IAC do not have to be sequential. They can and should be done in parallel as much as practicable.

4.8 Flight Permits

- 4.8.1 As identified in reference 3.2.d, DTAES 3 staff is required to prepare a Specific Purpose Flight Permit (SPFP) Substantiation Report, in conjunction with the Applicant, to ensure that operations can be safely supported prior to the issuance of an Airworthiness Clearance. The level of effort to support this report is often similar to the effort required to complete a TAC Report. Applicants should ensure that sufficient time is allocated in the master schedule for the staffing of the waiver request and completion/approval of the SPFP Substantiation Report, supporting RARMs and the SPFP.



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RESTRICTED TYPE CERTIFICATE **DATA SHEET**

Number:	TAA-###
Issue No:	
Approved Date:	
Issue Date:	

This Data Sheet, which is part of Restricted Type Certificate (RTC) No. TAA-###, prescribes conditions and limitations under which the UAS must be operated.

Type Certificate Holder

- (a) Model and type designation
- (b) Engine(s)
- (c) Propeller(s)
- (d) Serial N°s Eligible
- (e) Approved Configurations
- (f) SOI Reference

Types of Operations:

Approved:

Prohibited:

(g) Design Information

- (1) Applicable Design or Airworthiness Standards
- (2) Equivalent Safety Items

(h) Design Operating Limitations

- (1) Fuel – reference the publication where this information is located.
- (2) Oil – reference the publication where this information is located.
- (3) Airspeed Limits (KIAS)

Maximum Operating Speed:

Maximum Operating Mach No:

Maximum Flap Extension Speed:

	Landing Gear Extended:			
	Manoeuvring Speed:			
	Cross Wind Landing Limit:			
	Turbulent Air Penetration Speed:			
(4) Maximum Weight	Ramp:			
	Takeoff:			
	Landing:			
	Zero Fuel:			
(5) C of G Limits	Datum:			
	Levelling Means:			
(6) Minimum Crew				
(7) Fuel Capacity	<u>Tank</u>	<u>Cap</u>	<u>Usable</u>	<u>Arm</u>
	LH:			
	RH:			
(8) Max Operating Altitude				
(9) Outside Air Temperature Limits				
(10) Placards				
(i) Maintenance Requirements				
(1) listing of all life-limited components				
(2) Certification Maintenance Requirements				
(2) structural integrity / damage tolerance inspections.				
(j) Approved Publications				
(1) Instructions for Continued Airworthiness reference				
(2) Flight Manual and/or Operating Instructions				

- End -