

Revision 1

8 March 2023

Airworthiness Certificates—Special Category— Light Sport Aircraft

General

Civil Aviation Authority advisory circulars (ACs) contain information about standards, practices, and procedures that the Director has found to be an **acceptable means of compliance** with the associated rule.

Consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate AC.

Purpose

This AC provides an acceptable means of compliance for an applicant for the issue of an airworthiness certificate Special Category - Light Sport Aircraft (LSA) under Civil Aviation Rule Part 21 Subpart H paragraph 21.201, including type acceptance of the first example, and some continuing airworthiness aspects for operators. It also details the equivalent standards acceptable to the Director under § rule 21.201(a)(11)(i) and provides guidance for a New Zealand designer or manufacturer of an LSA, a light sport aircraft.

Related Rules

This AC relates specifically to rule paragraph 21.201 and Civil Aviation Rule Parts 43 and 91.

Change Notice

This is the initial issue of this AC.

Revision 1 updates Appendix 2 – *New Zealand LSA Type Acceptances Completed*, adjusts the layout in line with the current standard for ACs, updates a form reference in the maintenance and inspection section, adds a version history and makes other minor stylistic changes.

Version History

History Log

Revision No.	Effective Date	Summary of Changes
AC21-12, Rev 0	2 March 2021	Initial issue
AC21-12, Rev 1	8 March 2023	<p>Updates Appendix 2 – <i>New Zealand LSA Type Acceptances Completed</i></p> <p>Adjusts the layout in line with the current standard for ACs</p> <p>Updates a form reference in the maintenance and inspection section</p> <p>Adds a version history</p> <p>Makes other stylistic changes</p>

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Introduction

~~CAR~~ Part 21 covers the certification of products, including the issue of airworthiness certificates under Subpart H. Non type-certificated aircraft may be issued with a Special Category airworthiness certificate in accordance with ~~rule paragraph~~ §21.201.

The rule contains a number of sub-categories of Special Category, one of which is ~~an Light Sport Aircraft (LSA)~~. ~~An LSA~~ A light sport aircraft is not type-certificated in the traditional way under the supervision of a National Aviation Authority (NAA), but instead is certified by the manufacturer to comply with a set of industry consensus standards. These standards have been developed and published by the ASTM F37 committee. Membership of this committee is open to representatives of all sections of the LSA industry, including ~~NAA's National Airworthiness Authorities~~, aircraft designers and manufacturers, user groups and any other interested parties. For more information on ASTM F37 and the associated standards, see *Appendix 1 - Light Sport Aircraft (LSA) Consensus Standards*.

LSA ~~aircraft~~ produced in New Zealand may be designed and declared compliant to the ASTM standards for design but must be manufactured under a Part 148 Aircraft Manufacturing Organisation certificate. Where Part 148 conflicts with the ASTM F37 standards relating to production, the rule takes precedence.

A Part 146 Aircraft Design Organisation certificate is not required, as a Type Certificate for the LSA design is not required.

There are two types of Special Category airworthiness certificates that can be issued for ~~aircraft~~ LSA manufactured under the rules:

1. A Special Category-LSA airworthiness certificate (~~§rule~~ 21.201) may be issued to LSA ~~aircraft~~ manufactured, assembled and test flown by the manufacturer and issued with a Statement of Compliance with the applicable consensus standards.
2. A Special Category-amateur-built airworthiness certificate (~~§rule~~ 21.197) may be issued to aircraft manufactured under the LSA standards but sold as a kit and assembled and test flown by the purchaser.

This AC only addresses the certification of production LSA under ~~§ paragraph~~ ~~rule~~ 21.201. Details/guidance for the issue of airworthiness certificates for LSA that have been assembled by the owner is found in ~~AC~~ AC21-4, *Special Category – Amateur-Built Airworthiness Certificates*, covering ~~amateur-built aircraft~~.

Note: *Some LSA may also meet the definition of, and may be registered in, the Microlight category. However, once this option is selected, the aircraft cannot be subsequently issued a Special Category-LSA airworthiness certificate. This is because the standards and regulatory systems under Part 103 for pilot licensing, operations and maintenance differ, and continued compliance with ASTM standards can no longer be determined with certainty.*

Abbreviations and Definitions

The following abbreviations and definitions are used in this document:

- AD – Airworthiness Directive
- AFM – Aircraft Flight Manual
- AMM – Aircraft Maintenance Manual

- ASTM – **ASTM International** (formerly known as the American Society of Testing and Materials)
- **CAS – Calibrated Airspeed**
- COS – Continued Operational Safety
- CS-LSA – Certification Specifications-Light Sport Aircraft
- **ELT – Emergency Locator Transmitter**
- **FAA – Federal Aviation Administration**
- **FAR – Federal Aviation Regulations**
- ICA – Instructions for Continued Airworthiness
- IPC – Illustrated Parts Catalogue
- LSA – Light Sport Aircraft
- ~~NAA – National Airworthiness Authority~~
- NAA – National Aviation **(or Airworthiness)** Authority
- NOA – FAA Notice of Availability
- POH – Pilot Operating Handbook
- ~~TC – Type Certificate~~

What is a Light Sport Aircraft (LSA)?

An LSA is defined under ~~CAA~~ Part 1 as an aircraft, other than a helicopter, that complies with the following criteria:

1. a maximum take-off weight of 600 kg or less, or 650 kg for an operation on water, or if the aircraft is lighter-than-air, a maximum gross weight of 600 kg or less
2. if powered, a single, non-turbine engine driving a propeller
3. a maximum stall speed of 45 knots
4. if a glider, a maximum never exceed speed of 135 knots
5. if applicable, an unpressurised cabin, and
6. a maximum seating capacity of 2 two seats including the pilot seat.

Note that the New Zealand definition differs from the FAA definition which has additional criteria, including:

1. a maximum airspeed in level flight with maximum continuous power (VH) of not more than 120 knots CAS under standard atmospheric conditions at sea level
2. a fixed or ground-adjustable propeller if a powered aircraft other than a powered glider
3. a fixed-pitch, semi-rigid, teetering, two-blade rotor system, if a gyroplane, and
4. a fixed landing gear, except for an aircraft intended for operation on water or a glider.

The CAA definition is based on acceptance of ASTM F37 standards, including any allowable features, without any additional limitations. For example, where those standards provide for an airborne-adjustable (variable-pitch) propeller to be optional, this feature is accepted in New Zealand. Compliance with the ASTM F37 standards and definitions means the manufacturer is able to can issue a Statement of Compliance. ASTM standards are not specified in the New Zealand Civil Aviation Rules but are referenced in this AC as an acceptable equivalent standard under § rule 21.201(a)(11)(i).

The classes of aircraft that may satisfy the criteria for an LSA are:

1. fixed wing aircraft
2. powered parachutes
3. weight shift aircraft
4. gliders
5. balloons
6. airships, and
7. gyroplanes.

LSA Type Acceptance

As previously mentioned, the airworthiness of an LSA aircraft is dependent on manufacturer declaration of compliance with ASTM standards. Because no type certificate is required there is

consequently no need for involvement by the NAA in which the aircraft is designed or manufactured. There are also variations amongst foreign NAAs on implementation of the LSA rules.

Due to this, the CAA considers it is necessary to carry out some verification of this self-certification. This LSA acceptance process will apply to all first-of-type LSA aircraft imported into New Zealand. It does not involve a full review of all technical reports but is a risk-based audit approach to confirm that the reports have been produced and the correct showing of compliance with the applicable ASTM standards has been carried out. Any new or novel technologies and introduction of capabilities into the New Zealand LSA system (e.g. electric propulsion) will be assessed as part of this process.

Note: EASA issues type certificates to LSA aircraft because European Commission rules dictate that a type certificate is required to be able to issue an airworthiness certificate to any aircraft. European aircraft may still be imported into New Zealand and accepted in the LSA category, based on manufacturer declaration of compliance with ASTM standards and/or EASA CS-LSA. If an LSA aircraft has an EASA type certificate then no further assessment of manufacturer compliance with ASTM consensus standards will be required, because this will have already been done by EASA. The LSA Acceptance process will be simplified to the supply of the EASA TC/TCDS and the required aircraft operating data, plus compliance verification of any new or unusual features as noted above.

The LSA Acceptance process will involve requesting copies of some manufacturer's certification data, so the CAA can verify that the aircraft was constructed, tested and shown to comply with ASTM consensus standards for LSA aircraft. This information should be provided directly to the CAA by the aircraft manufacturer. The following technical data would typically be requested:

1. A copy of the Aircraft Flight Manual (AFM/POH)
2. A copy of the AMM Aircraft (and engine and propeller if they are also new to NZ) Maintenance Manual (and engine and propeller maintenance manuals if they are also new to NZ), and IPC if available
3. Copies of any Instructions for Continuing Airworthiness (ICA) information (e.g. Service Bulletin, Mandatory Design Change, etc.) issued to date.

Note: Because the NAA is not involved in the certification of the aircraft, traditional ADs Airworthiness Directives are not usually issued for LSA aircraft. The manufacturer is responsible for continuing airworthiness support.

4. A copy of the Compliance Checklist (Rules compliance matrix) against the applicable ASTM F37 standards, particularly F2245.
5. A written agreement from the manufacturer to supply amendments to the operating manuals (AFM, AMM and IPC plus any ICA) to CAA at no cost. (There is a CAA Form 2171 for this purpose. <http://www.caa.govt.nz/Forms/2171.pdf>) The accompanying Form 2171, Agreement to supply manufacturer's data, can be downloaded from the CAA website at: [Forms | aviation.govt.nz](http://www.caa.govt.nz/Forms/2171.pdf)
6. Copies of any LSA airworthiness certificates issued to the aircraft type by another country, particularly by the State-of-Design or the FAA/EASA
7. Copies of any type certificates, design approvals or type acceptance documentation issued to the aircraft type by any other countries, and

8. Copies of representative technical substantiation reports, e.g. a structural static load test report, wing analysis report, flight test report, etc., as requested by the CAA.

It is also useful to have general descriptive data or a detailed specification, particularly that which correctly identifies the manufacturer and official model designation and shows the standard and optional equipment available on the aircraft.

The CAA reserves the right, at the applicant's expense, to visit the manufacturer's facilities for the purpose of providing to give CAA assurance that the manufacturer has complied with the ASTM consensus standards during the manufacturing process, and to facilitate the compliance verification and introduction of new and novel technologies and capabilities into the New Zealand aviation system.

Note: This review of an LSA manufacturer is similar to the Special Light-Sport Aircraft Audit Program carried out by the FAA.

The LSA Acceptance process will be initiated when an application is received for an airworthiness certificate for any first-of-type LSA model, or may be carried out on request by the aircraft manufacturer or New Zealand agent prior to before the actual import of an aircraft. It must be completed before a special category-LSA airworthiness certificate can be issued. There is no specific application form, so applicants should email CAA at airworthiness@caa.govt.nz. A request for Type Acceptance of an LSA aircraft can be made by letter.

Issue of a Special Category-LSA Airworthiness Certificate

The issue of a Special Category-LSA airworthiness certificate is carried out in accordance with the provisions of ~~CAR Part~~ rule 21.201, *Special Category LSA certification requirements*. The following guidance material (~~GM~~) outlines is provided for what is required: under each sub-paragraph:

GM Rule 21.201(a)(1) Purpose: The purpose the aircraft is to be used for must be stated. ~~(There is a section on the airworthiness certificate application form 24021/06. for this.)~~ This is important because it enables the CAA to assess the suitability of the aircraft for the purpose and whether any additional conditions or limitations need to be specified on the airworthiness certificate.

GM Rule 21.201(a)(2) Sufficient data to identify the aircraft: This could be by photographs, a three-view drawing, or a copy of a detailed specification or pilot's manual. This is the opportunity for the CAA to identify if the aircraft is a first-of-type. If this is not done at an early stage, the issue of the airworthiness certificate could be delayed by the LSA Acceptance process.

GM Rule 21.201(a)(3) Information: The CAA will advise if any additional information is required on an aircraft type specific basis.

GM Rule 21.201(a)(4) Manuals: As stated above, a full set of operating manuals will be required for a first-of-type LSA aircraft.

GM Rule 21.201(a)(5) Evidence that the aircraft conforms with any design change necessary for safe operation: This may be a modification required to enable the aircraft to comply with a rule requirement CAR, e.g. Installation of an ELT, or safety bulletins the manufacturer may have issued subsequent to the aircraft date of manufacture.

GM Rule 21.201(a)(6) Evidence of Registration: The aircraft must be registered.

GM Rule 21.201(a)(7) Identification: The aircraft (and engine and propeller if applicable) must have some form of identification, such as a dataplate, as specified in Part 21 Subpart Q.

GM Rule 21.201(a)(8) Evidence that a flight evaluation has been completed: The flight evaluation statement made in the manufacturer's Statement of Conformity document and a copy of the production flight test report for the particular aircraft will satisfy this requirement.

GM Rule 21.201(a)(9) Approved Maintenance Programme: See further details below, under Section 7, **the section *Maintenance and Inspection***.

GM Rule 21.201(a)(10) Evidence that every applicable airworthiness directive has been complied with: This part can be satisfied by the presentation of the aircraft logbooks with the applicable AD schedules certified, at the time the aircraft is inspected for the issue of the airworthiness certificate. Under the ASTM system the LSA manufacturer is responsible for issuing safety directives for critical safety of flight issues. Compliance with these is mandatory for an LSA aircraft. LSA are also subject to applicable **rules in** Part 39 *Airworthiness Directives*, unless specifically exempt. Thus, if an aeronautical product that is installed on an LSA is subject to a New Zealand AD, it is the responsibility of the operator to ensure compliance with that AD.

GM Rule 21.201(a)(11) Evidence of eligibility for imported aircraft:

- (i) Basic eligibility of the aircraft type for an LSA airworthiness certificate will be determined under the LSA Type Acceptance process. (Compliance with ASTM F37 standards for LSA aircraft is accepted by the CAA as being equivalent to eligibility for a light sport airworthiness certificate under FAR 21.190.)
- (ii) Each individual aircraft must have been issued with a Statement of Compliance by the manufacturer certifying compliance with the applicable ASTM design standards.

Note 1: *The CAA publishes Form 24021/14 Light sport aircraft's Statement of Compliance for use by LSA aircraft manufacturers exporting aircraft to New Zealand. It can be downloaded from the CAA website at: [Forms | aviation.govt.nz](http://www.caa.govt.nz/Forms/24021-14.pdf) <http://www.caa.govt.nz/Forms/24021-14.pdf>*

Note 2: *If an aircraft type has been imported or manufactured as a microlight but subsequently the manufacturer certifies the type as an LSA, an existing aircraft on the register will not be permitted to convert to the LSA category. This is because the existing aircraft was not manufactured and certified under the required ASTM standards, and this cannot be done retrospectively.*

GM Rule 21.201(a)(12): Evidence of eligibility for a NZ-manufactured aircraft: **Applicants need to provide:**

- (i) ~~The CAA will be able to confirm~~ **Evidence** that a manufacturer's Part 148 certificate is valid.
- (ii) A copy of the manufacturer's Statement of Compliance on CAA Form 24021/14.

GM Rule 21.201(a)(13) Placard: Use the ~~There is~~ specific wording for the passenger warning in this rule **21.205**. The wording is used for all special category aircraft and therefore needs to be amended to specify the subcategory LSA.

Note: *For a foreign manufactured LSA the wording of ASTM F2245 Section 9 is acceptable as an alternative.*

Operating Limitations

Aircraft issued with a special category-LSA airworthiness certificate are subject to the operating limitations specified in ~~CAR Part~~ **rule** 91.105.

The Special Category-LSA airworthiness certificate also has several conditions unique to the LSA category which and relate to the effect of non-compliance with ASTM requirements. The standard wording is as follows:

This airworthiness certificate shall remain in force provided:

- a) *Only modifications and repairs approved by the manufacturer are incorporated on the aircraft.*
- b) *The aircraft complies with all safety directives issued by the manufacturer.*
- c) *The aircraft has been maintained in accordance with the approved maintenance programme.*
- d) *The continuing airworthiness functions are performed by the manufacturer.*
- e) *This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided in Annex 8 to the Convention on International Civil Aviation. This aircraft may not be operated over any other country without the permission of that country.*

In the interests of aviation safety, the Director may include additional operating limitations on an aircraft airworthiness certificate. This may occur if the Director considers that other requirements by the manufacturer were inappropriate or did not address a safety critical issue. The operator is required to comply with the additional operating limitations to maintain the validity of the special category-LSA airworthiness certificate.

Maintenance and Inspection

CAR Part Rule 91.605 requires that all aircraft issued with a Special Category airworthiness certificate must have a maintenance programme approved under CAR Part rule 91.607, and this includes LSA. The operator of an LSA should base the programme on the manufacturer's service data. A template is provided on the CAA website to assist applicants with the development of a programme. It can be downloaded from the CAA website at [Forms | aviation.govt.nz](http://www.caa.govt.nz/forms/aviation.govt.nz) by searching under maintenance programme template (http://www.caa.govt.nz/GA/maint_prog_tmpl.doc)

When presenting the programme for approval an application should be made on CAA form 24091/02 found at <http://www.caa.govt.nz/Forms/24091-02.pdf> and provide all the relevant data. 24091-02P, Part 91 application for approval or amendment of a maintenance programme (private operator or non-hire or reward aircraft) which can be downloaded from the CAA website at the [Forms | aviation.govt.nz](http://www.caa.govt.nz/forms/aviation.govt.nz). If the applicant is going to reformat the manufacturer's schedules, then a comparison matrix should be provided to show that all the elements of the manufacturer's schedules are included. Where the applicant wishes to vary the manufacturer's schedules, then a letter from the manufacturer giving approval to do so must be included with the application.

Continued Operational Safety Monitoring of LSA Light Sport Aircraft

The manufacturer is responsible for the continuing airworthiness of their aircraft design in accordance with the ASTM consensus standard for continued operational safety monitoring of LSA. This requires the manufacturer to evaluate all significant defects and correct any unsafe condition that may exist in the remaining fleet. To achieve this, the manufacturer needs to receive reports from the operator and should provide a method for the operator to report any service difficulty/defect or safety of flight issue. It is the responsibility of the registered operator to notify the manufacturer of any such safety-of-flight issue or significant service difficulty upon discovery.

Note: In addition to the responsibilities identified above, the operator of an LSA is still required to comply with the reporting requirements of CAR Part 12, Accidents, Incidents and Statistics.

The manufacturer may decide that a corrective action is required to correct an unsafe condition. In such a circumstance, the manufacturer will issue a notice to all the known registered operators of the affected aircraft. It is therefore very important, and is a requirement of the ASTM standard, that all registered operators of LSA provide the manufacturer with current contact information. In most cases this service will be provided through the local agent for the aircraft type.

A corrective action can have different levels of status. The ASTM consensus standard currently specifies the following titles depending on level:

- **SAFETY ALERT:** for notifications that require immediate action.
- **SERVICE BULLETIN:** for notifications that do not require immediate action but do recommend future action.
- **NOTIFICATION:** for notifications that do not necessarily recommend future action but are primarily for promulgation of continued airworthiness information.

When an operator receives a corrective action in the form of one of the above, the operator is required to comply with the requirements of the action. The operator may apply to the manufacturer for a variation or exemption against the action provided suitable safety justification is included in the application. The manufacturer may assess the application and if the safety justification satisfactorily addresses the safety issue, the manufacturer can approve an alternative means of compliance or grant an exemption against the action. However, if the manufacturer does not approve an application, the registered operator is required to comply with the requirements of the action.

Modifications

Because the manufacturer is responsible for the continuing airworthiness of their LSA, the ASTM F37 standards require the manufacturer to approve all modifications to their aircraft. (The reason is so that they can control the configuration of each aircraft and thus ensure continued compliance with ASTM F37 standards.) This is different to other categories of aircraft where the Director or a person authorised under Part 146 can approve modifications without notifying the manufacturer.

This also means that Acceptable Technical Data as defined in CAR Part 21 Appendix D does NOT apply to LSA aircraft. Examples of this include AC AC43-14, **Standard Design Changes – Acceptable Technical Data**, for the installation of standard design changes, and FAA AC AC43.13-1B for repairs, which are not applicable to LSA aircraft unless authorised by the aircraft manufacturer in writing.

The owner of an LSA aircraft should be aware that unapproved modification of the aircraft will result in the Special Category LSA airworthiness certificate no longer being valid and may result in the aircraft being re-categorised as a Special Category-amateur-built aircraft.

Design and Manufacture of an LSA Aircraft in New Zealand

The manufacturer of an aircraft intended for the issue of a special category-LSA airworthiness certificate must manufacture the aircraft to the design requirements and quality system of the applicable consensus standard. The NAA is not required to be involved, other than in the issue of the airworthiness certificate. A list of ASTM consensus standards, ~~valid at the time this AC was published~~, can be found in Appendix 1 to this AC.

To be eligible for a Special Category-LSA airworthiness certificate a New Zealand aircraft must have been produced by a Part 148 Manufacturing Organisation certificate. This will ensure the manufacturer has the procedures, processes and documentation to support the manufacture of **LSA light sport aircraft**, as well as appropriate facility, equipment and personnel. A manufacturing

organisation certificated under Part 148 must have a safety management system, comprising procedures, document control, configuration control, and internal audit systems, including recording of findings, rectification actions and follow up to test the appropriateness of the corrective actions. For information on obtaining a Part 148 MO certificate see CAA AC148-1, [Aircraft Manufacturing Organisations](#).

For development of an LSA aircraft in New Zealand the manufacturer may need to produce and flight test a prototype. In that case CAA will need to be involved with the issue of the Special Category Experimental airworthiness certificate for the purpose of research and development. To be assured that an LSA prototype aircraft has an acceptable level of safety for flight testing, CAA will need to assess the design process that has preceded the flight testing. For that reason, the manufacturer is recommended to involve the CAA from the start of the project, so the CAA has the opportunity to witness any major tests and advise of any particular requirements to be met (e.g. ground or structural testing prior to issuance of an experimental airworthiness certificate).

Prior to the [Before issuing](#) issue of the first Special Category-LSA airworthiness certificate to a New Zealand-manufactured aircraft the CAA will audit to ensure that compliance with ASTM standards has been shown. (Again, this is similar to the FAA Special Light-Sport Aircraft Audit Program.) Some countries, such as the USA, require an imported aircraft to be eligible for the issue of an airworthiness certificate in the State of Manufacture, and will seek evidence that one has been issued.

Note: ~~It should be noted that~~ [Other](#) NAAs may have different requirements for LSA. For example, the FAA definition for LSA has a different stall speed (V_{SO}) and never exceed speed (V_{NE}) and only accepts ASTM standards. ~~Prior to~~ [Before](#) designing and manufacturing aircraft for the overseas market, a manufacturer should consider the applicable NAA requirements for LSA certification and operation in that particular country. Because there is no Type Certificate for an LSA aircraft the CAA does not issue Export Certificates of Airworthiness.

An LSA aircraft can be also supplied in kit form. However New Zealand does not have the equivalent of the FAA Light Sport-Kit Category, [so](#) and a kit-built LSA aircraft is only eligible for a Special Category amateur-built airworthiness certificate. However, these aircraft will not have to comply with the 51% rule as required for other homebuilt kit aircraft, [as outlined in AC21-4](#).

Note: To indicate that the aircraft is kit-built, the model number should have a different prefix or suffix to the production aircraft model number.

A kit-built LSA is manufactured to the same applicable LSA standards as the production aircraft of the same make and model, except the standards relating to production testing are not required. Instead of complying with the production aircraft test standards, the manufacturer needs to identify the assembly instructions for the aircraft meeting the applicable LSA standard for kit assembly.

The manufacturer will need to provide to the owner of the aircraft a statement of compliance indicating that the aircraft kit complies with the applicable LSA standards for a kit aircraft when assembled in accordance with the instructions. The manufacturer will also need to provide information that shows a special category-LSA airworthiness certificate (or NAA equivalent) has been issued for a production aircraft of the same make and model, and all the usual documentation specified under the ASTM standards.

The manufacturer is not responsible for the assembly and acceptance testing of a kit-built aircraft. This responsibility lies with the owner as it is considered an amateur-built aircraft.

Appendix 1 - ~~Light Sport Aircraft (LSA)~~ Consensus Standards

General

This Appendix lists the ASTM consensus standards applicable to ~~LSA~~ Light Sport Aircraft which were current as ~~of~~ ~~at~~ March 2020.

These standards have been developed by the ASTM F37 Committee. This Committee addresses issues related to design, performance, quality acceptance tests, and safety monitoring for ~~light sport aircraft~~ (LSA). LSA includes the two categories of aircraft created by the *Certification of Aircraft and Airmen for the Operation of Light Sport Aircraft NPRM*, published by the FAA:

- (1) special light-sport aircraft (used for personal flight and flight training), or
- (2) rental and experimental light-sport kit aircraft (any level of kit from ~~0%~~ zero to 95% ~~percent~~ prebuilt).

The ASTM F37 Committee meets twice a year, usually in ~~March~~ May and October, with typically around 65 or so members attending two to three days of technical meetings. The Committee, with a membership of approximately 200, currently has control of over 24 standards published in the Annual Book of ASTM Standards, Volume 15.09.

F37 has 7 technical subcommittees that maintain jurisdiction over these standards. For more information on ASTM and the F37 committee, see www.astm.org.

CAANZ is a member of the F37 committee and has the opportunity to comment on the standards as they are developed or revised.

The focus of the Committee is the development of technical publications for LSA, including:

- (1) Minimum safety, performance, and flight proficiency requirements.
- (2) Quality assurance - to install manufacturing controls that will assure aircraft conform to design criteria.
- (3) Completed aircraft production acceptance tests and procedures assuring completed aircraft meet reported performance as demonstrated in the prototype aircraft. This includes limits such as: empty weight and centre of gravity, performance specifications, controllability and manoeuvrability trim, stability, stall speed and handling characteristics, engine cooling and operating characteristics, propeller limits, systems functions, and folding or removable lifting surfaces.
- (4) A baseline plan for continued airworthiness systems, including methods for monitoring and maintaining continued operational safety, and processes for identifying, reporting, and remedying safety-of-flight issues. Stakeholders engaged in this standards initiative include manufactures of LSA (airplanes, gliders, powered parachutes, weight shift-controlled aircraft, gyroplanes, etc.), instructors, recreational pilots, parts manufacturers, and the regulatory community. (Any interested party can become a member of the committee and participate in ballots to revise the committee standards.)

Cross-cutting/General Standards (F37.60 Subcommittee):

- F2316-12(2014) Standard Specification for Airframe Emergency Parachutes
- F2339-19 Standard Practice for Design and Manufacture of Reciprocating Spark Ignition Engines for LSA

- F2483-18e1 Standard Practice for Maintenance and the Development of Maintenance Manuals for LSA
- F2506-13 Standard Specification for Design and Testing of Light Sport Aircraft Propellers
- F2538-07a(2019) Standard Practice for Design and Manufacture of Reciprocating Compression Ignition Engines for LSA
- F2563-16 Standard Practice for Kit Assembly Instructions of Aircraft Intended Primarily for Recreation
- F2839-11(2016) Standard Practice for Compliance Audits to ASTM Standards on LSA
- F2930-16e1 Standard Guide for Compliance with Light Sport Aircraft Standards
- F2972-15 Standard Specification for Light Sport Aircraft Manufacturer's Quality Assurance System
- F3198-18 Standard Specification for Light Sport Aircraft Manufacturer's Continued Operational Safety (COS) Program
- F3205-17 Standard Practice for Independent Audit Program for Light Aircraft Manufacturers

Powered-Parachute (F37.30 Subcommittee):

- F2241-14 Standard Specification for Continued Airworthiness System for Powered Parachute
- F2242-05(2018) Standard Specification Production Acceptance Testing System for Powered Parachute Aircraft
- F2243-11(2018) Standard Specification for Required Product Information to be Provided with Powered Parachute Aircraft
- F2244-14 Standard Specification for Design and Performance Requirements for Powered Parachute Aircraft
- F2426-13(2018)e1 Standard Guide on Wing Interface Documentation for Powered Parachute Aircraft

Airplane (F37.20 Subcommittee):

- F2245-18 Standard Specification for Design and Performance of a Light Sport Airplane
- F2745-15 Standard Specification for Required Product Information to be Provided with an Airplane
- F2746-14 Standard Specification for Pilot's Operating Handbook (POH) for Light Sport Airplane
- F2840-14 Standard Practice for Design and Manufacture of Electric Propulsion Units for Light Sport Aircraft
- F3035-13 Standard Practice for Production Acceptance in the Manufacture of a Fixed Wing LSA

(Withdrawn 2019 - F2295-10 Standard Practice for Continued Operational Safety Monitoring of an LSA)

Glider (F37.10 Subcommittee):

- F2564-14 Standard Specification for Design and Performance of a Light Sport Glider

Weight-Shift Control Aircraft (F37.40 Subcommittee):

- F2317/F2317M-16a Standard Specification for Design of Weight-Shift-Control Aircraft

- F2425-05a(2018) Standard Specification for Continued Airworthiness System for Weight-Shift-Control Aircraft
- F2447-05(2018) Standard Practice for Production Acceptance Test Procedures for Weight-Shift-Control Aircraft
- F2457-05(2018) Standard Specification for Required Product Information to be Provided with Weight-Shift-Control Aircraft
- F3199-16a Standard Guide for Wing Interface Documentation for Weight Shift Control Aircraft

(Withdrawn 2014 - F2448-04(2009) Standard Practice for Manufacturer Quality Assurance System for Weight-Shift-Control Aircraft)

Gyroplanes (F37.50 Subcommittee):

- F2352-14 Standard Specification for Design and Performance of Light Sport Gyroplane Aircraft
- F2415-14 Standard Practice for Continued Airworthiness System for Light Sport Gyroplane

(Withdrawn 2014 - F2449-09 Standard Specification for Manufacturer Quality Assurance Program for Light Sport Gyroplane Aircraft)

Lighter-than-Air (Balloons) (F37.60 Subcommittee):

- F2354-05b(2013) Standard Specification for Continued Airworthiness System for Lighter-Than-Air LSA
- F2355-14 Standard Specification for Design and Performance Requirements for Lighter-Than-Air LSA
- F2356-05a(2018) Standard Specification for Production Acceptance Testing System for Lighter-Than-Air LSA
- F2427-05a(2018) Standard Specification for Required Product Information to be Provided with Lighter-Than-Air LSA

(Withdrawn 2014 - F2353-05(2013) Standard Specification for Manufacturer Quality Assurance Program for Lighter-Than-Air Light Sport Aircraft)

Terminology (F37.91 Subcommittee):

(Withdrawn 2018 - F2626-12 Standard Terminology for Light Sport Aircraft)

Note: Standards are issued under a fixed designation Fxxxx; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval without change. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

Appendix 2 – New Zealand LSA Type Acceptances Completed

LSA Type Acceptance Register

	AIRCRAFT TYPE:	First of Type Example:	CAA Work Request:	Date Issued:
1	JABIRU 230D	ZK-EFO	10/21HC/2	17.12.2009
2	JABIRU J120-C	ZK-EFG	10/21HC/1	18.12.2009
3	TL-3000 SIRIUS	ZK-SUS	10/21HC/31	18.05.2010
4	TECNAM P92 ECHO CLASSIC de LUXE	ZK-TLS	10/21HC/20	15.11.2010
5	EVEKTOR SPORTSTAR PLUS	ZK-MAC	11/21HA/146	27.04.2011
6	FLIGHT DESIGN CTLS	ZK-FDC	11/21HC/159	16.05.2011
7	CUB CRAFTERS Model CC11-160	ZK-PBC	12/MSCG/30	14.12.2011
8	CESSNA Model 162 SKYCATCHER	ZK-DNA	11/MSCG/154	17.06.2011
9	EVEKTOR HARMONY	ZK-CGM	12/MSCG/39	12.02.2012
10	TECNAM P2008	ZK-KDW	12/MSCG/54	24.02.2012
11	B + F TECHNIK FK9 MARK IV	ZK-RDW	13/21HC/6	27.09.2012
12	BRISTELL LSA	ZK-LMR	13/MSCA/35	06.06.2013
13	JILHAVAN GP ONE SKYLEADER	ZK-WBL	14/ACM/66	19.03.2014
14	TOMARK VIPER SD-4	ZK-EAW	14/ACM/108	19.03.2014
15	TECNAM ASTORE	ZK-AST	15/21HC/2	20.08.2014
16	TL-ULTRALIGHT TL-2000 STING	ZK-MTN	15/ACM/101	14.05.2015
17	AEROPRAKT A22LSA	ZK-LFP	15/ACM/122	06.07.2015
18	VANS RV-12	ZK-LSV	16/ACM/36	19.01.2016
19	AEROPRO EUROFOX	ZK-TUG	16/ACM/103	01.07.2016
20	PIPISTREL ALPHA TRAINER	ZK-JAT	17/ACM/29	07.10.2016
21	PROGRESSIVE AERODYNE SEAREY	ZK-SWM	17/ACM/30	03.02.2017
22	AEROPRAKT A32	ZK-VHC	18/ACM/26	28.11.2017
23	TECNAM P2002 Sierra Mk II	ZK-EVE	18/ACM/56	08.12.2017

	AIRCRAFT TYPE:	First of Type Example:	CAA Work Request:	Date Issued:
24	I.C.P. SAVANNAH S	ZK-VHS	19/ACM/46	06.12.2018
25	PIPISTREL ALPHA ELECTRO 167	ZK-EAL	20/ACM/71	22.1.2020
26	TECNAM P92 Mk II	ZK-RJR	22/ACM/16	27.10.2021