NPRM Submission Form

CIVIL AVIATION AUTHORITY OF NEW ZEALAND

NPRM No. **10-02**	Title: **Part 115 Adventure Aviation – Certification and Operations**
Date of your submission: **12 November 2010**	Comment close-off date (as specified in the NPRM): **19 November 2010**

Please return this response sheet to the Docket Clerk by comment close-off date –
by post: CAA, PO Box 31441, Lower Hutt 5040, or by email: docket@caa.govt.nz, or by fax: 0-4 560 9481

Please indicate your acceptance or otherwise of the proposal by ticking [✓] the appropriate box below. Any additional constructive comments, suggested amendments or alternative action will be welcome and may be provided on this response sheet or by separate correspondence.

[ ] *The proposal is **acceptable without change**.*

[ ] *The proposal is **acceptable but would be improved if the following changes were made:***

[✓] *The proposal is **not acceptable but would be acceptable if the following changes were made:** (Please provide explanatory comment and use additional pages if required)*

A flight in a glider is removed from the CAR Part 1 definition of "adventure aviation operation", with consequential amendments to other Parts. Explanatory comment follows in additional pages.

[ ] *The proposal is **not acceptable under any circumstance:** (Explanatory comment must be provided using additional pages if required)*

Individual's details (complete if your submission is on behalf of yourself)		Organisation's details (if your submission is on behalf of the organisation you represent)	
Your name:		Organisation: **Gliding New Zealand Incorporated**	
Client No (if applicable):		Client No (if applicable): **19835**	
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City:		Phone: **(03) 310 3117**	Fax:
Phone:	Fax:	Email: **gnzsecretary@scorch.co.nz**	
Mobile:		Your name: **Max Stevens**	
Email:		Your position: **Executive Officer**	
I would prefer to receive a copy of the Final Rule by: **Post**			

GLIDING NEW ZEALAND INCORPORATED (GNZ)

Response to NPRM 10-02
Part 115 Adventure Aviation – Certification and Operations

1. Executive Summary

In more than 60 years of self-governing operations in New Zealand, there has never been a fatal or serious injury accident involving a trial flight or a paying passenger joy-ride in a glider. Gliding New Zealand (GNZ) considers that the proposal is **not acceptable for gliding**, because it would impose significant additional costs to a very small number of operators without any significant benefits to the public. In fact, the overall effect of the proposal could be negative in terms of safety.

Less than 4% of the approximately 20,000 glider flights per annum would be subject to the Part 115 proposal. In its proposed form, Part 115 would render this small number of commercial passenger flights in gliders non viable.

As the CAA does not currently have enough staff members with sufficient knowledge of gliding operations to effectively monitor such operations, it would need to rely on Gliding New Zealand in many respects. By their very nature, gliding operations are highly oriented towards peer mentoring and monitoring, with highly experienced GNZ-qualified people nearly always present. The CAA can not hope to match this level of active surveillance.

The way forward for commercial gliding is simply the status quo, whereby the CAA relies on GNZ to carry out certification and monitoring functions, some of this under delegation. Many of the proposed Part 115 requirements applicable to gliders are effectively covered already by GNZ formal standards, procedures and accepted practices. The proposed intervention via Part 115 is simply not needed. Part 115, as it applies to gliding, is a "solution looking for a problem".

2. Background

2.1 Currently, all glider flights in New Zealand are conducted under the Part 149 Aviation Recreation certificate held by GNZ. Closely linked with its Part 149 exposition, GNZ has a very comprehensive "Manual of Approved Procedures", together with the associated Advisory Circulars and forms. These provide detailed standards for entry control and monitoring of gliding operations, including commercial activity. These "management system" documents have been developed over many years and are regularly updated in order to continuously improve and move with the times. GNZ (and its predecessor the NZ Gliding Association) has been operating autonomously for more than 60 years. In that time, there has never been a fatal or serious injury accident involving a trial flight or a paying passenger joy-ride in a glider.

2.2 In New Zealand there are approximately 20,000 glider launches annually. Approximately 2,500 (12.5%) are bona fide trial flights. Based on recent data, less than 800 (4%) of the annual launches would be paying passenger joy-rides and thus subject to the Part 115 proposal. Because each glider flight requires a

towing aircraft and at least one ground crew member, the costs associated with the three qualified persons and two aircraft must be born by only one passenger. The financial viability of these flights is therefore marginal at best, and is currently possible only because of the ability to spread the annual fixed costs with associated instructional and recreational gliding operations.

2.3 Part 115 in its proposed form would render commercial passenger flights in gliders non viable. The way forward for commercial gliding is simply the status quo – the CAA's proposed intervention via Part 115 is not needed. In effect, the CAA should continue to rely on GNZ to carry out certification and monitoring functions. This would be entirely consistent with the CAA's declared intention to utilise "industry experience as much as is practicable" (reference page 16 of NPRM 10-02).

3. Effect of the Part 115 proposal

3.1 The effect of the proposal on GNZ and the sport of gliding would likely be negative. A division between recreational and commercial operations would develop over time, weakening GNZ's autonomy and viability through a reduction in subscription revenue.

3.2 The effect of the proposal on GNZ's commercial members would be manifold, and very probably negative in terms of safety, as follows:

- Advanced instructional flights for qualified glider pilots and simple passenger rides, which are currently operated seamlessly in terms of plant and personnel, would become disjointed on the field because of the differing requirements introduced by Part 115.
- The informed, flexible and responsive GNZ approach to "system" problems would be lost.
- The peer mentoring and monitoring by highly experienced GNZ-qualified people, nearly always present on the field, would be lost.
- The ability to utilise very experienced professional instructors from overseas on a short term basis, would be compromised. At present, GNZ facilitates the use of such people on the basis of an assessment of their home qualifications and experience. Under Part 115, this flexibility would be lost and qualification costs would escalate markedly. (In this context, it should be noted that it is very difficult to find sufficient suitably qualified gliding instructors in a position to work throughout the season – the job of glider instructor is therefore on the Immediate Skills Shortage List administered by the Department of Labour.)
- The increased costs imposed by the proposed Part 115 regime would be highly likely to render the already marginal business non viable.

4. Detailed comment on specific Part 115 proposed rules

4.1 In the context of overall risk to the public, it should be recognised that gliders are type-certificated aircraft designed to detailed airworthiness standards, and are maintained as such; whereas microlight aircraft, hang gliders, paragliders

and tandem parachutes are not. This amounts to a "double standard" in airworthiness terms.

4.2 This "double standard" also permeates the proposed operational rules, which are quite unbalanced for gliders in comparison to those for other classes of aircraft. For example, for hang gliders, paragliders and tandem parachutes, the proposal envisages commercial certificates/ratings being issued by the respective Part 149 organisations. Not so for gliding.

4.3 It appears that the mere existence of a CPL(G) in the current CAA rules has led the Part 115 rule drafters to automatically opt for that requirement for gliders. Yet the NZ CPL(G) is an anomaly in international terms – no other country has it. Nor does ICAO in its Standards & Recommended Practices.

4.4 CAR 104(a)(4) requires the pilot of a glider to comply with the operational standards and procedures of a gliding organisation. The pilots of a gliding organisation certificated under Part 115 would therefore have to comply with the relevant parts of the GNZ Manual of Approved Procedures as well the standards imposed by Part 115. This would be likely to create confusion in terms of standards and accountability.

Comments on specific rule proposals follow:

4.5 115.201(a)(2), operation conducted within an approved radius from the point of departure. By their very nature, gliding operations are physically limited by the prevailing meteorological conditions, so this proposed requirement is not necessary in practice.

4.6 115.207(1)(ii) fire extinguisher. Gliders do not carry fuel, smoking is prohibited, and electrical circuits are protected, so fires are extremely unlikely to occur in their cockpits. Also, space is at a premium in glider cockpits, making installation and activation of a fire extinguisher highly problematic. This proposed requirement is therefore both unnecessary and impractical.

4.7 115.207(1)(iii) axe readily accessible to the crew. The normal means of egress from a glider is via the opening of a relatively thin Perspex canopy which also has an emergency jettisoning capability. Also, space is at a premium in glider cockpits, making installation and physical swinging of an axe somewhat problematic. This proposed requirement is therefore both unnecessary and impractical.

4.8 115.215 manipulation of controls. This proposed requirement does not allow a passenger to experience manipulation of the glider controls. Some passengers view the opportunity for limited manipulation of the glider controls to be a highly desirable part of the experience. Provided the pilot-in-command holds a current GNZ instructor rating, and an appropriate pre-flight briefing is provided, there is no intrinsic reason why a passenger should not be allowed to manipulate the glider controls.

However, this would technically make the experience a flight training operation, such as would be properly conducted under GNZ's Part 149 certificate. Currently, only GNZ has the necessary standards, procedures and experience to issue glider instructor ratings and for their maintenance. Thus,

the exercising of a CPL(G) under Part 115 combined with the exercising of a glider instructor rating under Part 149 would be likely to create confusion in terms of standards and accountability.

4.9 115.311(2)(i) *Part 61* instructor rating required for flight crew member training programme . As glider instructor ratings are not issued under Part 61 (reference Part 19.409 and GNZ's Part 149 exposition), there needs to be similar provisions to those applying to hang gliders, paragliders and tandem parachutes [subparagraphs (ii) & (iii)].

4.10 115.357(3)(i) Part 61 flight examiner rating. Similar to the proposal for hang gliders, paragliders and tandem parachutes [subparagraphs (ii) & (iii)], there should be provision for the holder of (say) a GNZ category A instructor rating or GNZ instructor trainer approval to exercise glider flight examiners privileges under this rule.

4.11 115.455(b)(11) flight record to contain actual passenger weight. There can only be one passenger in a glider. In practice, a declared passenger weight should be perfectly adequate for weight & balance purposes.

4.12 115.607(1) *Part 61 CPL(G)* requirement. The relevant requirement for a hang glider or paraglider (115.659) is a commercial tandem pilot rating *issued by a hang gliding organisation*. And the relevant requirement for a tandem parachute (115.577) is a commercial parachutist certificate *issued by a parachute organisation.* As a gliding organisation (certificated under Part 149), GNZ should therefore be authorised to issue a commercial pilot rating and the Part 61 CPL(G) provisions should be revoked.

The CPL(G) requirement implies a Part 67 Class 1 medical requirement for the pilot-in-command, the same as for airline operations where a single pilot may be carrying up to *14 passengers* (125.511). Gliders can carry only *one passenger*, so this requirement is clearly disproportionate in terms of limiting pilot incapacitation risk to the public. The medical standard should be Class 2, as proposed in the case of a hang glider or paraglider (115.659), tandem parachute (115.577), and the ICAO Annex 1 standard for the Glider Pilot licence. (The ICAO standard does not specify a CPL for commercial operation of a glider.)

4.13 115.607(3)(i) 200 hours flight time experience as PIC *exercising the privileges of a commercial pilot.* This requirement is both impractical to achieve and largely irrelevant in a gliding context. It is noted that no such experience is proposed for a hang glider or paraglider (115.659), or a tandem parachute (115.577). Similarly, for microlight aircraft, the proposed experience requirement is merely 200 hours flight time experience as PIC of an *aircraft* (115.809).

4.14 115.609(5) pilot of the tow aircraft requires a *CPL*. The vast majority of glider tow pilots are PPL holders, many of them very experienced and skilful but of an age where having to maintain a Class 1 medical standard would be unduly burdensome.

Glider pilots are routinely trained to cope safely with launch failures at relatively low level brought about by events such as a broken tow-rope. Once

above an altitude of about 500 ft AGL (typically less than 1 minute after takeoff), loss of the tow is largely immaterial because the glider pilot has the inherent ability to return safely to the takeoff aerodrome. Therefore, in absolute terms there is a low level of exposure to risk associated with failure of the tow. Historically, there have been no fatalities or serious-injuries in accidents involving gliders in New Zealand where tow pilot incapacitation has been a factor. The proposed tow pilot CPL requirement is not necessary.

Further, it is noted that it is proposed to permit a hang glider to be towed by a Class 2 microlight aircraft piloted by the holder of an *advanced microlight pilot certificate* (115.665) with its associated medical standard that is below Class 2. To require a Part 115 glider tow pilot to have a CPL with its Class 1 medical therefore does not make sense. In the context of overall risk, it must be remembered that the same number of people are involved (pilots of two aircraft plus one passenger) and that gliders are type-certificated aircraft whereas microlights and hang gliders are not (reference paragraph 4.1 above).

4.15 115.611 winch launching prohibited. This proposed requirement defies logic. With modern glider winches, and standard procedures honed over decades of operation, winching is no less safe than aero-towing using aircraft fitted with 1940s-technology piston engines. GNZ requires winch drivers to be trained to a prescribed syllabus and specifically approved for that role.

Of the approximately 20,000 glider launches per year in New Zealand, data from the last three years shows that about 25% are by winch. As is the case for launches by aero tow, there have been no fatalities or serious injuries involving a trial flight or a paying passenger joy-ride from a winch launch. The fact is that a winch driver error, or a cable or weak link failure will not directly cause an accident if the glider pilot reacts in accordance with the standard procedures. These standard winch launching procedures are an intrinsic component of pilot training which, if followed in the event of a launch failure, will always result in a safe landing back onto the airfield. One of the reasons winch launching is so safe is that launch failures are reasonably common and therefore pilots, who are current, anticipate a failure every time they launch. Last, but not least, the winch launch fuel burn is around 15% of an equivalent aero tow, which is positive for its carbon footprint.

5. Compliance cost

There is currently only one Commercial Member of GNZ providing paying passenger rides in gliders, Southern Soaring of Omarama. The completed Compliance Cost Questionnaire (attached) has been provided by Glide Omarama Ltd, incorporating Southern Soaring.

Compliance Cost Questionnaire

Operator name:	**Glide Omarama Ltd, Incorporating Southern Soaring**
Address:	**P O Box 120, Omarama, Otago.**
Telephone:	**03 438 9555**
Email:	**gwills@glideomarama.com**

Cost

Cost question 1: Other than the estimated CAA hourly fees, what are the estimated total certification costs that your company will incur to gain certification as an adventure aviation operator? (*Please indicate in the box below*)

Estimated total certification costs	**$157,850**

If there is no estimated total cost, is it expected to be (*please tick one box in RH column*)

(a)	Less than $50,000?	
(b)	Between $50,000 and less than $100,000?	
(c)	Between $100,000 and less than $250,000?	
(d)	$250,000 or more?	

If possible for cost question 1, please provide in the box below an approximate or most likely upper dollar limit for the chosen range in (a) or (b) or (c) or (d) above in the box below:

$

If you have other information relevant to cost question 1, please provide this in the space below*:*

The above costing has taken into account each element of the proposed rule requirement, but not including CAA hourly fees.

Cost question 2: Other than the estimated CAA hourly fees, what are the estimated total annual costs that your company will incur to maintain compliance with the proposed rules? (*Please indicate in the box below*)

Estimated total annual compliance costs	**$45,590**

If there is no estimated cost, is it expected to be (*please tick one box in RH column*)

(a)	Less than $50,000?	
(b)	Between $50,000 and less than $100,000?	
(c)	Between $100,000 and less than $250,000?	
(d)	$250,000 or more?	

If possible for this cost question 1, please provide in the box below an approximate or most likely upper dollar limit for the chosen range in (a) or (b) or (c) or (d) above in the box below:

$

If you have other information relevant to cost question 2, please provide this in the space below:

Cost question 3: For operators currently conducting adventure aviation operations, what is the expected change (*increase or decrease*) in annual compliance cost resulting from the proposed rules (*please indicate in one of the two boxes below*):

Estimated total annual compliance cost	**Increase** **$45,590**

or

Estimated total annual compliance cost	Decrease $

If there is no estimated cost, is it expected to be (*please tick applicable box*)

(a) Less than $100,000 per annum?

Increase	$	Decrease	$

or

(b) Between $50,000 and less than $100,000 per annum?

Increase	$	Decrease	$

or

(c) Between $100,000 and less than $250,000 per annum?

Increase	$	Decrease	$

or

(d) $250,000 or more per annum?

Increase	$	Decrease	$

If possible for cost question 3, please provide an approximate or most likely upper dollar limit for the chosen range in (a) or (b) or (c) or (d) above in the box below:

$

If you have other information relevant to cost question 3, please provide this briefly in the space provided below:

Currently, annual training and certification is carried under the GNZ system at the pilot's own expense.

Benefits

Benefit question 1: What are the estimated benefits of the proposed rule changes for your company? **NIL**

If the benefits can be quantified, please indicate their estimated total value in the box below:

$

Otherwise, please outline benefits of the proposed rules for your company in the space provided below:

As explained in the body of our submission, the benefits are likely to be negative. In fact the cost of compliance would make the business non-viable.

Other questions

Question 1: Please indicate in the box below the number of aircraft your company will operate conducting adventure aviation operations:

9

Question 2: Please indicate in the box below the number of flight crew members your company will employ to conduct adventure aviation operations:

12

Question 3: Please indicate in the box below the number of ground crew members your company will employ to support adventure aviation operations:

3

The End

Thank you for your interest in aviation safety.