

Gliding New Zealand Incorporated STRATEGIC PLAN 2015 - 2020



***DELIVERING HIGH QUALITY GLIDING
OPPORTUNITIES TO MORE PEOPLE***



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FOREWORD

New Zealand is acknowledged internationally as providing some of the best soaring conditions in the World. Over many years, New Zealand glider pilots have proved themselves with success in World Championships and many World Records for both speed and distance flights.

There is a strong volunteer ethic within the sport that enables Gliding New Zealand and its constituent clubs to continue to operate on minimal budgets. Members enjoy a strong sense of camaraderie and the international badge and awards system provides challenges and incentives for pilots at all levels of experience. The sport has embraced technology and uses modern gliders with advanced aerodynamics and state-of-the-art communication and navigation devices. It also preserves its connections with its beginnings, through a vintage glider movement.



Currently, our 750 flying members in 24 affiliated clubs throughout NZ collectively enjoy about 14,000 glider flights per year, with about 14% of flights being by young people aged 13-18. We do another 2,000+ trial flights per year introducing general members of the public to the sport.

However, a number of serious challenges face our sport. While our public profile has increased in recent years and new members continue to join, retention is relatively poor so adult membership is in slow decline. This is characterised by a turnover of around 15-20% pa and an average time in the sport of less than 10 years. We therefore need to focus on gaining a better understanding of our changing market demographic and finding ways to improve retention through a better participant experience in order to reverse the slow decline.

Also, it has to be said that gliding is also a male-dominated sport, like the rest of aviation, with a disproportionately low representation of female members.

To survive, we must continue to address these challenges. That is the purpose of this document.



Karen Morgan
Gliding NZ President
July 2015

1. INTRODUCTION

This Strategic Plan is intended to guide the development of the sport of gliding in New Zealand over the next five years. It sets a general path, outlining objectives and strategies to achieve those objectives.

Because management of our sport is almost entirely voluntary, the time frames envisaged are challenging. We must tailor our progress to some extent to suit the available funds, but more importantly the time, energy and personal finances of our volunteers.

This document is intended to provide a clear direction for development. It is not highly prescriptive, and can be amended at any time.

2. ABOUT GLIDING

2.1 *Gliding is both a recreation and a sport*

Modern gliding is all about the joy of flying an engine-less aircraft, successfully using the enormous natural energy of the atmosphere to soar higher, further, faster or for longer.



Today's gliders, or sailplanes as they are often called, are highly engineered works of art. Constructed of space-age composite materials using modern ergonomic, safety and aerodynamic design principles, these beautiful aircraft can fly both fast and far. From 1 kilometer above ground, without encountering lift, they can fly up to 60 kilometers before reaching the ground. Typically they have maximum speeds of around 250 km/h.

New Zealand is one of the best soaring locations in the world. Powerful north-west winds and strong sun have enabled numerous world records with flights made in excess of 2000 km and with speeds averaging up to 230 km/h over shorter courses. Of course, not all flights are particularly high or fast. Whether one is seeking to break records or simply out for an afternoon cruise, flying gliders is always challenging and FUN.

Glider pilots learn to find the hidden pathways of energy in the atmosphere in the form of thermals, ridge-lift and lee waves created by the interaction of the sun, the wind and the terrain. In the right soaring conditions, flights of many hundreds of km can be achieved. Altitudes of over 20,000 feet are very common, requiring the use of supplemental oxygen for the pilot.



Gliding is not difficult to learn. Training is provided by qualified instructors/coaches. Gliding clubs throughout New Zealand provide their instructing services free of charge. In addition, there is one commercial affiliate that charges for its services.



Going solo for the first time can be just the beginning of a lifetime of learning about soaring. Post-solo, the pilot is supervised and guided so as to make progress in a safe, structured way. During this early period of their flying they will

gradually gain experience in more challenging conditions. They will be expected to display higher levels of flying skill as their knowledge of rules of the air, weather, navigation, principles of flight and human factors are expanded.

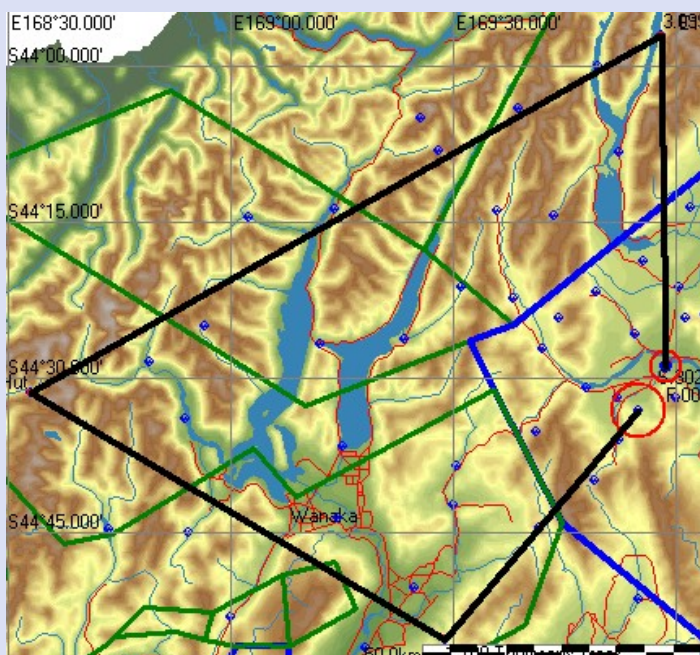
Training is syllabus and check-list driven, starting with the 'A Certificate' syllabus which leads participants to their first solo flight; then the 'B Certificate' which introduces more advanced exercises and soaring techniques; then the 'QGP Certificate' which is the gliding equivalent of a Private Pilot Licence. There is also an advanced training syllabus for progression to the highest levels of skill.

Flying achievements are recognised by an international series of awards, known as 'badges'. There are criteria for distance travelled, height gained and duration. These awards are set and administered by the Fédération Aéronautique Internationale (FAI), based in Lausanne, Switzerland, which is the governing body for all sport aviation activities around the World.



Pilots who have reached an acceptable level of competence can enter contests where flying skill, decision-making ability, and understanding of

weather conditions and processes must all be used to achieve success. New Zealand annually holds National Championships and three Regional championships. There are also a number of more informal local events.



The basis of competition is average speed over predetermined courses that are set on a daily basis having regard to the weather conditions. Courses generally range from about 200 to 400 km in length and typically take two to four hours to complete. Average cross-country speeds of 120 km/h are not unusual, and highly skilled pilots may exceed 160 km/h in particularly good weather conditions.

A handicap system based on glider performance helps ensure that allocation of points is based as completely as possible on pilot skills alone. Contests are strictly amateur in nature, and no material rewards (other than possession of trophies until the next contest) are provided.

There is also a decentralised form of competition, called the Online Contest (OLC). This enables rapid and easy registration of GPS records of cross-country soaring flights in order to provide a comparison of current performances across the various clubs. The OLC serves as a motivation for cross-country flights and enhances the visibility of gliding as a competitive sport.



2.2 Youth participation in gliding

About 15% of Gliding NZ members are aged 25 or under. Youth Glide NZ is an incorporated organisation targeting young people aged between 13 and 25 years and is an Associate Member of Gliding NZ.



Gliding NZ encourages youth participation in gliding in the belief that, although young people will often have to leave the sport because of evolving career and family priorities, good gliding experiences will lead them to return later in life when their time and disposable income allows. We also believe that teaching youth to fly develops their self-confidence, self-discipline, sense of responsibility, motivation and raises self-esteem.



For NCEA students, attainment of the OGP Certificate earns NZQA credits at level 4. Gliding is a great learning pathway for both personal growth and an eventual career in aviation - which several youth members have done. For more information on Youth Glide NZ see Appendix 3.

2.3 More about gliding in New Zealand

See Appendix 2 for information about:

- The structure and safety regulation of gliding operations in New Zealand
- Gliding New Zealand Incorporated (Gliding NZ) and its funding.

3. WHERE WE ARE NOW

3.1 *Strengths and weaknesses*

There are many aspects of gliding in New Zealand that are recognised as being strengths. These include:

- New Zealand provides excellent gliding conditions.
- New Zealand has a mature and experienced base of pilots.
- Gliding NZ provides administration and training support for its members and enjoys a high degree of self-governance.
- Gliding NZ is guided by a board with a variety of professional and business experience.
- Self-motivated volunteers form the backbone of the sport administration.
- International badge and award systems are available to recognise and reward achievement.
- Gliding is an easily accessible form of aviation.
- Camaraderie is a key part of the sport.
- Gliding is easy to “brand”.
- Gliding NZ has a user friendly and professionally maintained web site.
- Gliding NZ has a high quality official magazine, published four times per year.



There are also many things about gliding or surrounding gliding that are weaknesses or create specific threats to the sport:

- “Solo” flight is end of the “journey” at many clubs.
- There is often a poor balance between trial flights and training flights for members.
- Trial flights are generally not fulfilling for instructors.

- Student pilots often have to contend with multiple instructors for their training and standards tend to be variable.
- Our standard flight instruction tools are now outdated.
- Visitors new to gliding need to be better welcomed at some clubs.
- Volunteers are usually under both time and money time pressure.
- Gliding requires significant investment in assets.
- The needs of “club” pilots sometimes conflict with the needs of “competition” pilots.
- Gliding is an individual male dominated sport.
- Compliance costs and time pressures arising from governmental processes are tending to increase.
- Increasing controlled airspace constraints threaten the viability of the sport in some geographic areas.

3.2 Overseas Research

In 2012 the European Gliding Union published the results of their extensive research into the reasons behind declining membership in the sport. The basic conclusion was that gliding in general has more of a retention problem than a recruitment problem.

The root of this retention problem was identified as poor teaching of cross-country soaring skills - in other words, although the clubs were good at teaching the mechanical skills of “how” to fly gliders, they were not very good at teaching “why” we fly gliders. It was found that the most active, highest contributing and longest serving members were generally active cross-country pilots. For most pilots, cross-country flying is where the rewards, motivation and sense of achievement in the sport come from.

The fact that the majority of pilots do not successfully make the transition to cross-country flying is the most significant driver of the observed high drop-out rate in the first few years of membership. Therefore, reducing this drop-out rate represents a big opportunity to improve membership.

3.3 The NZ statistics

The retention problem described above is evident in the NZ statistics that follow. Charts indicating trends in membership and activity are presented in Appendix 1.

Some key facts:

Membership

- The number of adult flying members has declined 24% over the past 10 years, which is 2.6% annually on a compound average basis. This is in line with World trends.
- Over the last 5 years we have gained an average of 130 new or returning members per annum, but lost slightly more than that.

- Over the last 5 years the ratio of new members to previous ones returning after some time out is about 3 to 1.
- The annual turnover is around 15-20% of members.
- The average time in the sport of those leaving is less than 10 years.
- Almost 50% of adults leaving the sport in the last 5 years did so within the first 4 years of participation.
- 15% of members are aged 25 years or under.
- 7% of youth members carry on gliding after they turn 19, when subsidies stop.
- The average age of all members is now 52 and rising.
- As present about 75% of our 340 registered gliders are single-seat. The other 25% are two-seaters, with about 2/3 of those being basic training gliders and 1/3 high performance machines.

Activity

- Total annual launches were about 16,000 in 2014, which is a drop of 24% over the last ten years and closely matches the decline in membership over the same period.
- Subsidised youth flights (for those aged under 19) currently make up about 12% of all flights, which has increased from the 5% of 10 years ago.

4. WHAT WE NEED TO DO

4.1 *Our Mission Statement*

“Delivering high quality gliding opportunities to more people.”

4.2 *Objectives*

Two core objectives flow from this Mission Statement:

- Improve the quality of the gliding experience.
- Grow participation in the sport.

These objectives are compatible with Sport New Zealand’s Strategic Outcomes, which are:

- More school-aged children in sport and recreation.
- More New Zealanders involved in sport and recreation.

4.3 *Strategies*

Several broad strategies to achieve these objectives have emerged from planning workshops over recent years:

- Enhance promotional efforts.
- Promote and support Youth Glide (refer para graph 2.2 & Appendix 3).
- Provide a more modern/structured suite of standard training materials.

- Develop a system for coaching pilots into cross-country flying.
- Facilitate the running of concentrated basic and cross-country training courses.
- Encourage 7-day operations at gliding sites that are close to population centres and at prime soaring locations.
- Strive to reduce the impact of controlled airspace on gliding.
- Support NZ participation in World Gliding Championships.
- Encourage clubs to think and plan strategically, like a business.

4.4 What we will do over the next four years - *Recruit, Retain, Regain*

We have four initiative areas spanning the next five years in support of some of the above broad strategies. Through these initiatives, we aim to *recruit* more new members, *retain* current members and *regain* more previous members, so as to achieve a 5 to 10% cumulative gain in flying membership by 30 June 2020.

The four initiative areas follow:

Initiative area 1 - reduce the barriers to developing cross-country skills

- Introduce a system to coach new post-solo pilots through three phases of becoming a competent and regular cross-country pilot (Novice, through Intermediate, to Advanced).
- Revamp the competition scene to allow meaningful participation by the above three levels of cross-country pilot.
- Promote a culture of cross-country flying via participation in the Online Contest (OLC) at both national and inter-club levels.

Initiative area 2 - provide better tools for flight instruction

- Update the Gliding NZ Instructors' Handbook.
- Rewrite the study manual for ab initio and pre-QGP pilots.
- Revise the training syllabus check-lists and associated guidance material to provide a less cumbersome path to progress.
- Produce training modules incorporating videos and graphics designed for students to watch online then answer questions so they arrive at the field pre-briefed to a consistent standard.

Initiative area 3 - identify a target market for recruitment

- Develop a representative profile of existing members, with a view to focusing our marketing activities on those who may already be predisposed to glider flying.
- Develop a best-practice guide for attracting trial-flight participants and matching their experience to expectations.

Initiative area 4 - youth soaring participation and development

- Continue to subsidise youth participation by reduced affiliation fees for those under the age of 19 years.

- Encourage enhancement of youth gliding skills through youth soaring development camps (YSDC) for those up to the age of 25.

5. KEY PERFORMANCE INDICATORS 2016-2020

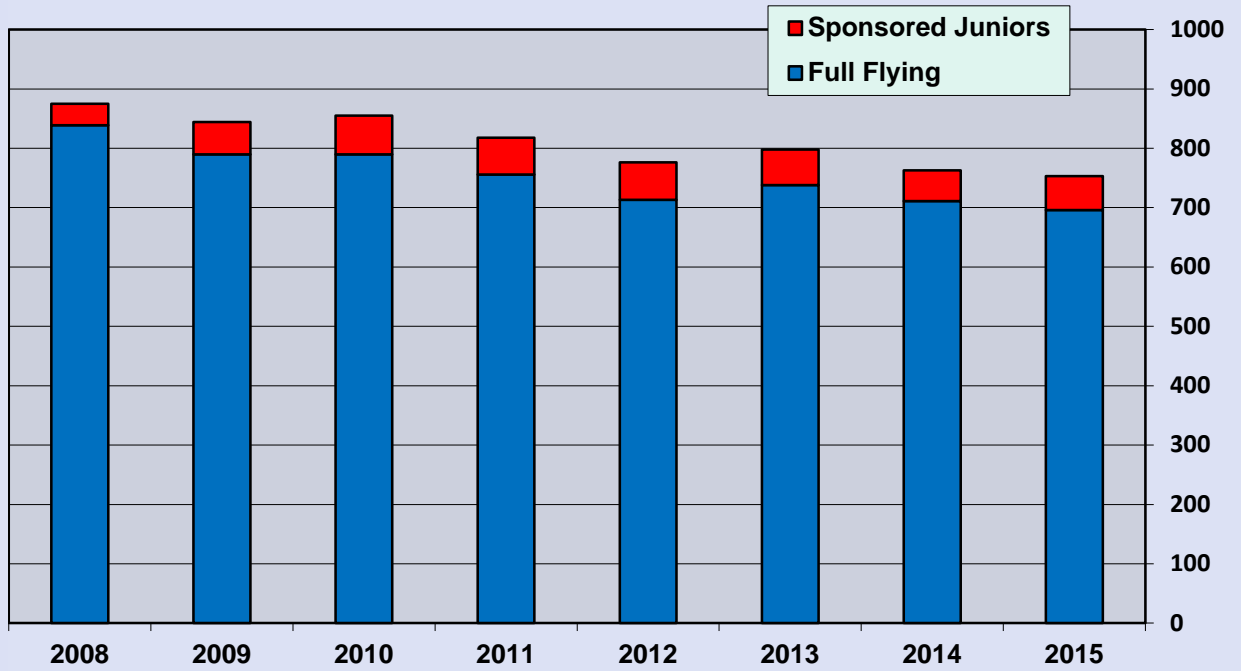
Subject to adequate funding, our KPIs in relation to the above four key Initiative areas for the 2016-2020 years are:

2016-2017	2017-2018	2018-2019	2019-2020
Initiative 1			
<ul style="list-style-type: none"> ▪ Appoint 5 cross-country coaches ▪ Decrease resignations from post-solo cohort by 2.5% ▪ Increase OLC km 	<ul style="list-style-type: none"> ▪ Appoint 5 cross-country coaches ▪ Decrease resignations from post-solo cohort by 2.5% ▪ Increase OLC km 	<ul style="list-style-type: none"> ▪ Appoint 5 cross-country coaches ▪ Decrease resignations from post-solo cohort by 2.5% ▪ Increase OLC km 	<ul style="list-style-type: none"> ▪ Appoint 5 cross-country coaches ▪ Decrease resignations from post-solo cohort by 2.5% ▪ Increase OLC km
Initiative 2			
<ul style="list-style-type: none"> ▪ Produce a set of online learning modules with videos for the A Certificate 	<ul style="list-style-type: none"> ▪ Produce a set of online learning modules with videos for the B Certificate ▪ Decrease resignations from the pre-QGP cohort by 2.5% 	<ul style="list-style-type: none"> ▪ Produce a set of online learning modules with videos for the QGP Certificate ▪ Decrease resignations from the pre-QGP cohort by 2.5% 	<ul style="list-style-type: none"> ▪ Decrease resignations from the pre-QGP cohort by 2.5%
Initiative 3			
<ul style="list-style-type: none"> ▪ Questionnaire to members ▪ Begin visits to clubs re their visitor and trial flight programs. ▪ Develop Best Practice Manual 	<ul style="list-style-type: none"> ▪ Continue visits to clubs to monitor results and revise activities accordingly ▪ 5% increase in new/returning members 	<ul style="list-style-type: none"> ▪ Continue visits to clubs to monitor results and revise activities accordingly ▪ 5% increase in new/returning members 	<ul style="list-style-type: none"> ▪ Continue visits to clubs to monitor results and revise activities accordingly ▪ 5% increase in new/returning members
Initiative 4			
<ul style="list-style-type: none"> ▪ Grant \$500 for each FAI Badge leg and/or QGP certificate awarded to YSDC participants ▪ Target 10 awards 	<ul style="list-style-type: none"> ▪ Grant \$500 for each FAI Badge leg and/or QGP certificate awarded to YSDC participants ▪ Target 12 awards 	<ul style="list-style-type: none"> ▪ Grant \$500 for each FAI Badge leg and/or QGP certificate awarded to YSDC participants ▪ Target 14 awards 	<ul style="list-style-type: none"> ▪ Grant \$500 for each FAI Badge leg and/or QGP certificate awarded to YSDC participants ▪ Target 16 awards

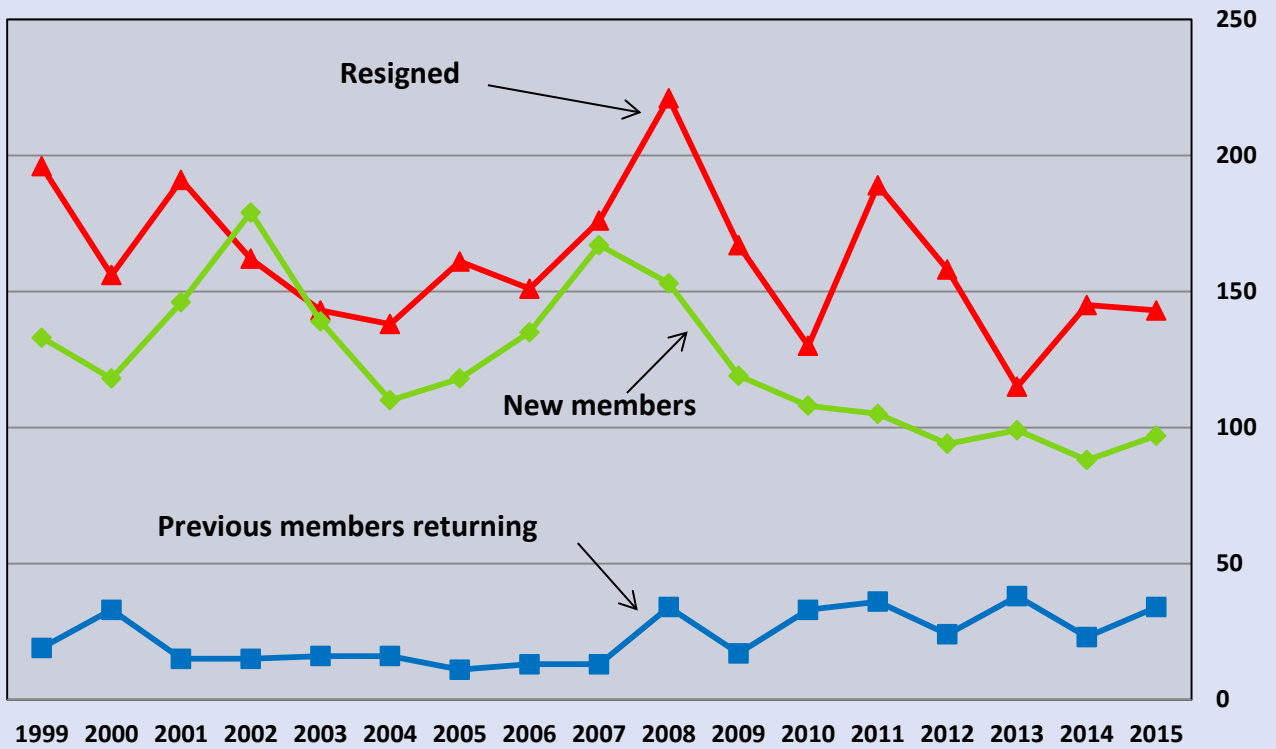
OLC = Online Contest QGP = Qualified Glider Pilot YSDC = Youth Soaring Development Camp

APPENDIX 1 *Statistical Trends*

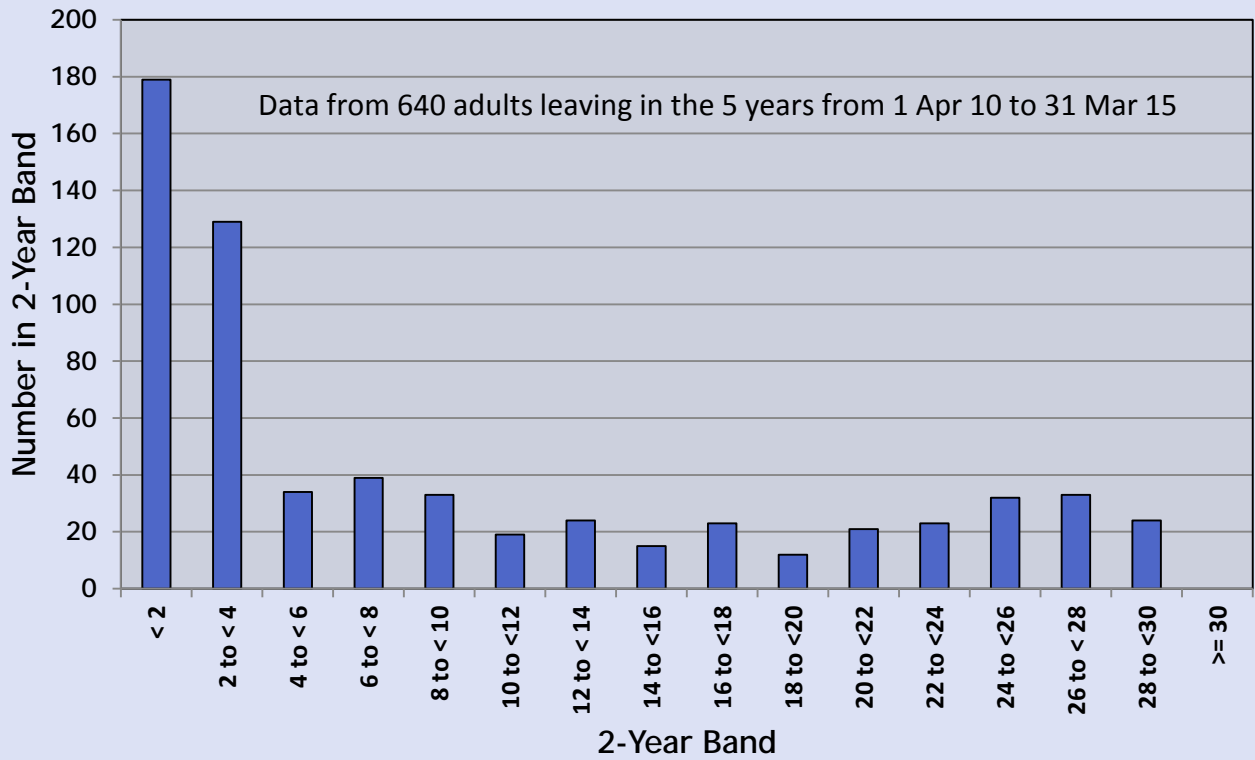
Number of Members



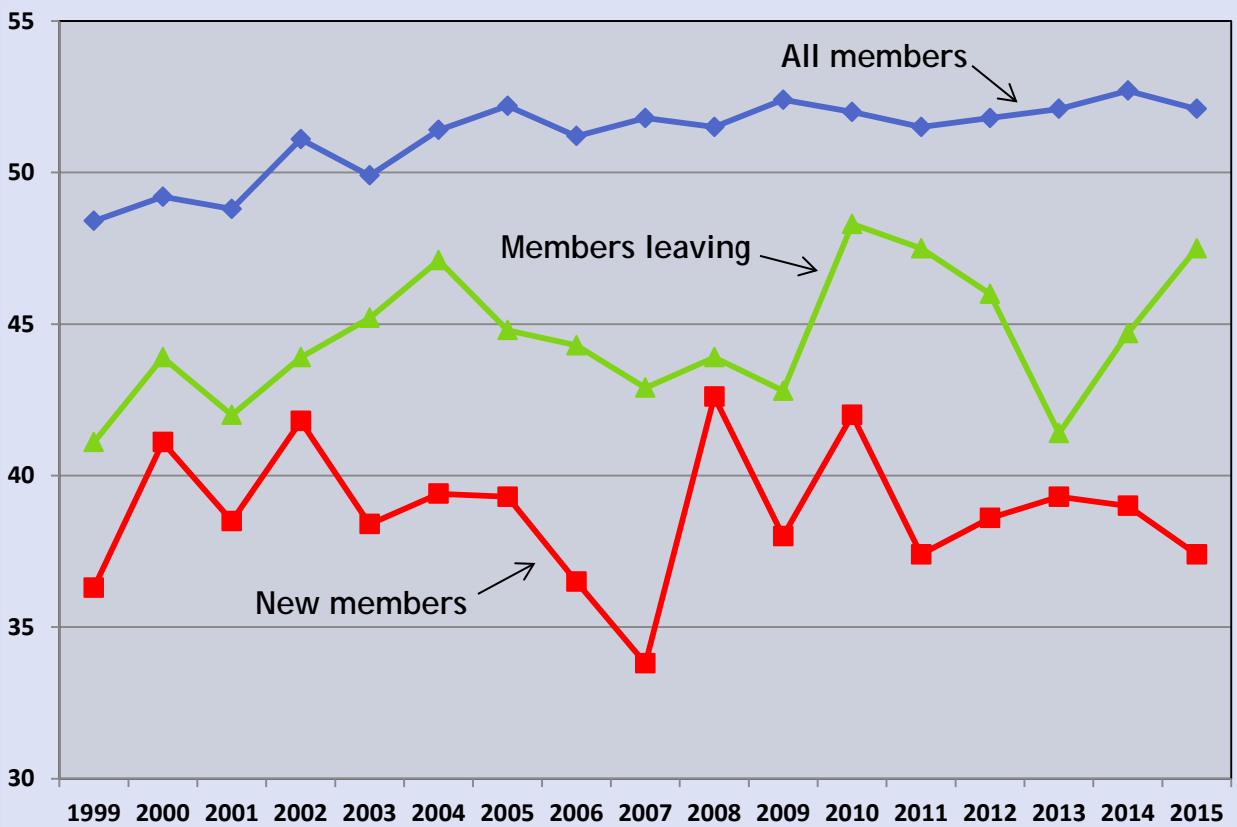
Joiners & Leavers



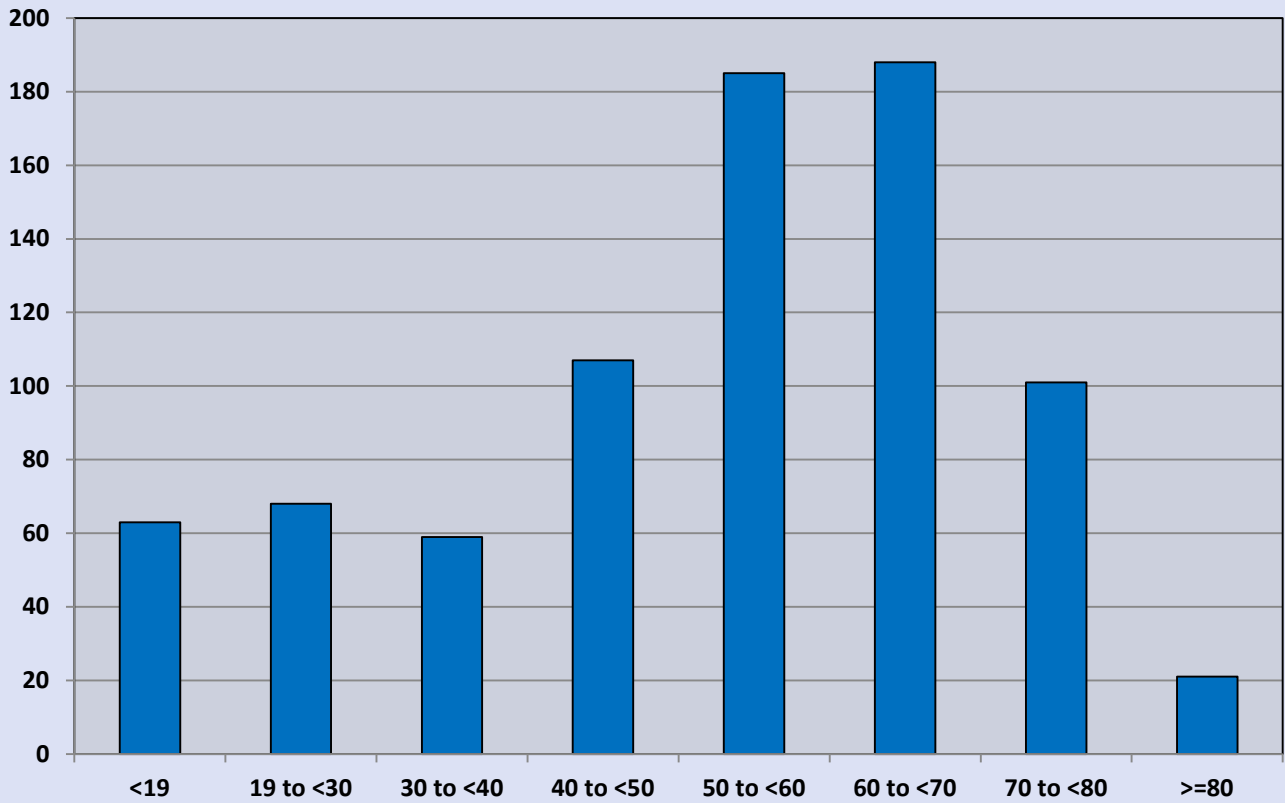
Time in Sport When Leaving



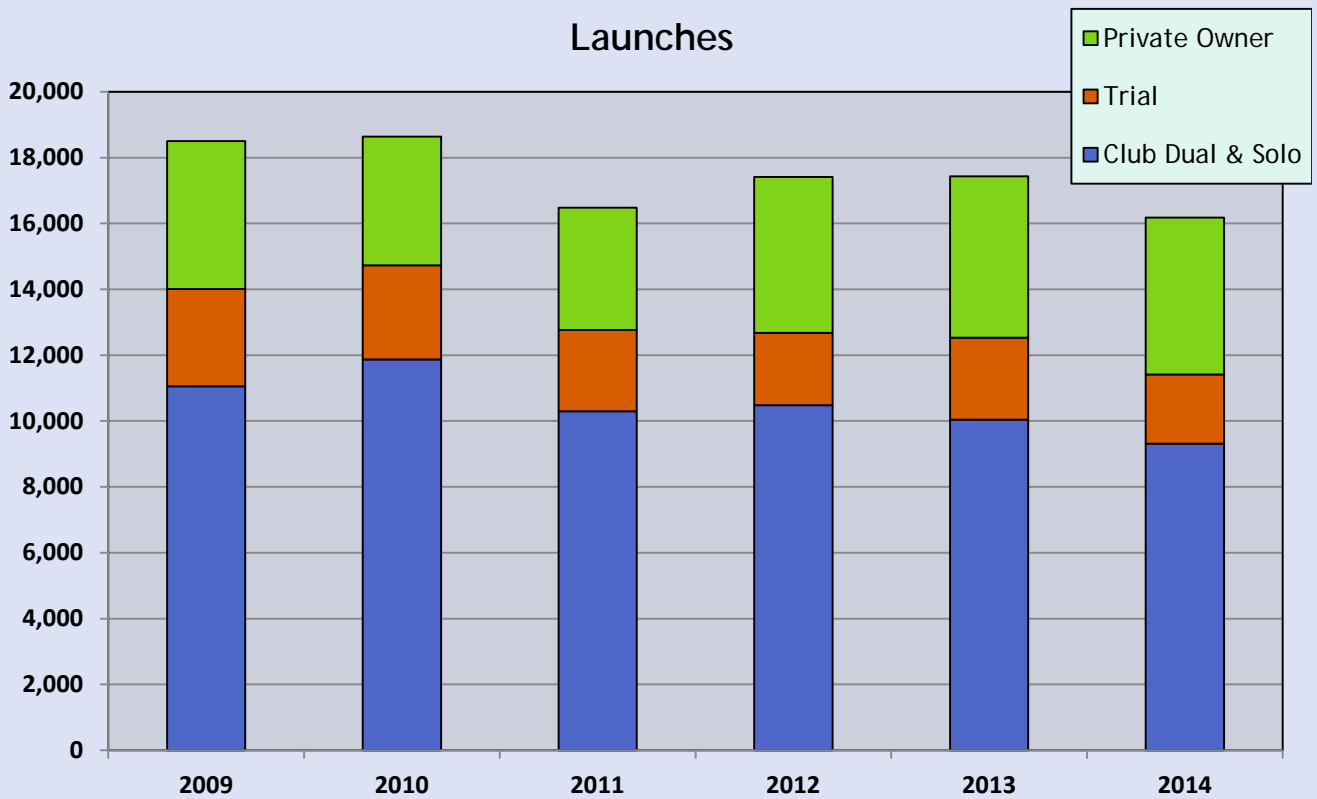
Average Age



Member Age Distribution 2015



Launches



APPENDIX 2 *More about gliding in New Zealand*

1. The Gliding Clubs

More than any other aviation pursuit in New Zealand, gliding is a group activity. In a practical sense, no gliding operation can function without a team environment. Even a single flight requires more than one person, to remove the glider from its hangar or to help assemble it, to position it in preparation for launch, to drive the winch or fly the tow-plane, and to direct and assist with the launch. It is not uncommon for gliders to land somewhere other than the home airfield, in which case a crew is needed to retrieve both the glider and the pilot.

There are 23 gliding clubs and one commercial gliding operation in New Zealand, located close to the large urban centres of Auckland, Wellington and Christchurch, and also in rural centres from the Far North to Otago.

The clubs are self-funding incorporated societies. Income comes from membership fees and from fees charged to members for use of club equipment (e.g. hire of gliders, launch fees). Capital improvements are usually funded by sale of existing assets, loans, community grants, raffles, working bees, etc.

Training is provided to club members free of charge by all clubs - fees are only charged for the use of equipment, which is usually at the same rate regardless of whether it is used privately or for instructional purposes. Few clubs have paid employees, and where these do exist, they are invariably part-time.

After a long gestation period, commercial gliding activities have developed a market niche at Omarama in the Mackenzie Basin. They complement the club structure, providing specialised mountain flying courses for both New Zealand and visiting foreign pilots.

2. Gliding NZ as the NSO and its Role in Safety Regulation of Gliding

Technical administration of gliding as a sport was established in New Zealand with the formation of the NZ Gliding Association (NZGA) in 1947. At that time the Director of Civil Aviation was instrumental in setting up a Technical Committee, being “an approved body of six persons, recognised by the Director of Civil Aviation as competent to make decisions on matters pertaining to gliding in New Zealand within the scope of Civil Aviation Regulations and Requirements.”

The modern manifestation of this autonomy is CAR Part 149, Aviation Recreation Organisations - Certification, which came into being in 1997. The NZGA was renamed Gliding New Zealand in August 2000. As the National Sporting Organisation (NSO) for gliding in NZ, Gliding NZ holds a certificate under CAR Part 149 that allows it to conduct flying training courses, conduct competency assessments, authorise glider maintenance,

and to administer the associated personnel certification processes for glider pilot certificates, instructor ratings and glider maintenance engineer approvals. To facilitate this, various key people hold delegations from the Director of Civil Aviation.

Gliding NZ has in effect set its own rules and procedures, and monitors and enforces their implementation by its affiliated member clubs and commercial organisations. That this situation has been permitted, and in fact encouraged, by the Civil Aviation Authority over many years, must be seen as an acknowledgement of the professional standards imposed by Gliding NZ.

3. The Structure and Governance of Gliding NZ Incorporated

The primary object of Gliding NZ, as set out in its constitutional rules, is:

"The promotion and encouragement of flight of aircraft for gliding and soaring activities, through the medium of Clubs and other organisations for the benefit and in the interests of the New Zealand public..."

The governing body (Board) of Gliding NZ is the Executive Committee, which consists of the President, the Vice-President, three committee members, the immediate Past President, the Executive Officer and the Treasurer. The Executive Committee meets at regular intervals to deal with routine business. The Executive Officer and the Treasurer are part-time contractors and have no voting rights. A representative of Youth Glide NZ also attends the meetings.

The role of the Executive Committee is to: handle issues of national importance; provide policy and strategic direction; liaise with both Government and non-Government bodies on a national basis; ensure New Zealand is properly represented in the international arena; set, promote, and monitor safe flying and airworthiness practices; and generally to support and promote the sport wherever possible.

The Executive Officer oversees the day-to-day management of Gliding NZ, especially in relation to regulatory issues, general advice to clubs, and secretarial duties.

A number of individual national officers and sub-committees operate more or less autonomously on a voluntary basis. They are appointed by the Executive Committee, and report directly to the President, and to the movement as a whole at the AGM.

The individual national officers and committees are variously responsible for:

- Membership registration
- Airworthiness, including maintenance engineer approvals
- FAI awards & qualified glider pilot certificates

- Flying operations, including instructor and tow pilot ratings
- Marketing & publicity
- Sailplane racing
- Airspace
- Quality assurance
- Web site

An Aviation Medical Advisor provides assistance on medical issues, as required.

4. Funding of Gliding NZ

Gliding NZ has a total annual expenditure of the order of \$110-120,000. About 75% of this is funded by affiliation fees levied on its member clubs. The remainder is funded by grants and sponsorships, the largest of which is from Sport New Zealand. To assist with international competition costs, small grants are also provided to selected pilots from the Gliding NZ Umbrella Trust, which invests the funds from various trusts established by dedicated individuals or as memorials to past competition pilots.

However, this does not fairly represent the costs of carrying out the functions required to manage the sport, as many of the costs incurred both by Executive members and sub-committee members are met by those individuals. Further, many of the costs associated with coaching and cross-country training are met by the individuals involved, and do not therefore appear in the Gliding NZ accounts.

The Operations Officers, who provide flight instructional support to the clubs and routine auditing, are provided with limited funding to assist with their expenses.

Members of the Executive and other committees receive reimbursement for travel and any other significant expenses. The Treasurer, Executive Officer and National Airworthiness Officer are part-time contractors.

5. International Affiliation

Gliding NZ is affiliated to the Fédération Aéronautique Internationale (FAI) through the Royal NZ Aero Club, and is a full member of the FAI Gliding Commission of the FAI (IGC). The IGC is responsible to the FAI for control and management of the sport of gliding internationally. One of the 6 Executive Directors of the FAI is a New Zealander and two other New Zealanders serve on committees of the IGC.



APPENDIX 3



The Youth Glide Model

“Flying combines the fun and excitement which young people crave with the fundamental need for self-discipline which when learned is inevitably carried forward into other aspects of a person's life”.

Mission Statement

Using the sport of gliding to inspire & develop young people's imagination, character and self-determination with the excitement and possibilities of flight as a lifelong adventure sport or a fulfilling career prospect.

Aims & Objectives

- Introduce young minds to the potential of aviation.
- Develop self-confidence / motivation / self-discipline & boost self-esteem.
- Develop more positive teenager relationships with adults.
- Safely introduce youth to an adventure sport.
- Enable youngsters to realise their potential for achievement.
- Encourage women into flying as a sport or as a career.
- Inspire youngsters with technology; bringing mathematics, physics and computing alive.
- Provide young people with an exciting and healthy alternative activity.
- Introduce young people to a possible career in:
 - aeronautical or mechanical engineering
 - aircraft or engine design
 - air traffic control
 - airline piloting
 - adventure aviation
 - glider piloting and engineering.
- To be available to young people regardless of their religion, gender or ethnicity.

