Balloon Aviation Association of New Zealand Incorporated

BAANZ Operations Manual – Frequently Asked Questions

BAANZ Ops Manual - Frequently Asked Questions

BAANZ members chose a direction some years ago and that decision gave birth to the BAANZ Operations and Training Manuals.

The BAANZ Operation Manual will achieve a specific task. By BAANZ implementing the Ops Manual, BAANZ will draw a line in the sand – which all New Zealand Balloonists will educate and operate above.

All Pilots will achieve a minimum level of knowledge to add to their flying experience so they may make 'educated' decisions – 'prior, during and after flight.' The result will be 'compliance' with the New Zealand Civil Aviation Rules, and a lift in safety across the membership.

While it could be said all of this may not stop an occurrence of some sort, what education will do is give the best opportunity for good decisions to be made prior to an event, so that in many cases - by being educated, prevention of occurrences will occur because of good decision making. It is the intuition born from education that will keep us safer.

By implementing this minimum standard BAANZ is assuring the 'Public, fellow Pilots, Fiesta Management, Sponsors, other key stakeholders, the CAA and MBIE (Worksafe)' - that BAANZ and its members are on a path of improvement for the future.

As BAANZ President, I kindly ask all members to grab this opportunity with both hands and 'hang on' for the ride. We 'all' have something to learn – no matter what our experience - and even better – perhaps we all have something to share.

Soft winds and gentle landings.

Scotty Cursons

BAANZ President 2018

2.1 General Rules

2.1.1   *No Balloon shall be operated for Hire and Reward unless by a current CAR Part 115 Aviation Adventure Organisation approved by the NZCAA.*

2.1.2   *No Hot Air Balloon shall be operated within controlled airspace except as authorised by the appropriate Air Traffic Control (ATC) Unit and in accordance with such conditions as may be specified within CAR Part 91.*

2.1.3   *Any Accident as defined in CAR Rules Part 1 and Part 12 involving a Hot Air Balloon shall be reported (as soon as practicable) in the first instance to the NZCAA as per CAR 12.51 and to the BAANZ President.*

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2.1.5   ***It is recommended*** *that any Accident, Incident or Occurrence reporting is carried out with the assistance of the BAANZ President or Delegate. If any reporting is carried independently of the BAANZ President or delegate, then BAANZ President shall be informed of the occurrence as soon as practible after the occurrence has been reported to the NZCAA.*

In the circumstance of and Accident or a serious Incident, there is no doubt there will be significant stress. It is important not to rush. The facts must be factual and correct. While it is 'mandated' that the CAA will be informed immediately (with details to follow later) it is recommended that the BAANZ President is contacted to assist with the preparation of a statement and report to get the details in a format conducive for the CAA to action.
BAANZ acknowledges that reporting may seem daunting and stressful however it must occur. It is not the BAANZ President's aim to filter reports – only to assist the process for the benefit of the member.

Also consider, if the Media have taken a whiff of your Occurrence then they will be hounding you for details. By increasing the size of your team you can have someone representing you in these stressful times with clear facts.

See relevant BAANZ Memo for guidance for carrying out Occurrence reporting.

The purpose of a Flight must have every intention to ascend to above 500ftAGL (1000ftAGL over urban areas).

2.4 Pilot Training

2.4.1   BAANZ will ensure that there is access for all Financial members of BAANZ to BAANZ Pilot Training Manuals, and BAANZ Balloon Instructors.

2.4.2   New Zealand based Ballooning Clubs shall ensure that training given under their jurisdiction conforms to the contents of the BAANZ Training Manual.

2.4.3   It shall be the responsibility of BAANZ to ensure that BAANZ Instructors maintain a uniform high standard of training. BAANZ Training will be driven by the Balloon Check Pilots through Instructors. Biennial refreshers will be required to ensure Compliance with the Training Manual and its updates.

2.4.4   No affiliated Club or group may carry out Hot Air Balloon training or Instruction unless such training or instruction is at all times under the supervision of a BAANZ Instructor.

BAANZ Pilot Training will be driven by the Check Pilots through the Instructors by following the Training Manual. In this way, the Training plan will be driven from a common approach by the Check Pilots.
Every two years Instructors will require refresher training to keep everyone 'singing from the same song sheet.' Thus, BAANZ will have a common approach to training nation-wide.

2.8 Aviation Events

BAANZ recommends that all Aviation Events are BAANZ sanctioned and are run by BAANZ members with BAANZ Pilots having completed BAANZ theory subjects and BAANZ Balloon Pilot Certificate. This ensures a minimum set standard of competence of Pilots. The application for an Aviation Event will be signed by the BAANZ President and shall employ an experienced BAANZ Pilot Certificate holder who will be listed as the 'responsible person' for all matters regarding the CAA in accordance with CAR Part 91.703.

A template BAANZ Aviation Event form is available in Appendix B.

BAANZ realises that Aviation Events bring their own risks. Running an Aviation Event is a complex task - it is important that sufficient 'oversight' is provided by personnel with proper 'Operational Ballooning' experience. This will ensure safety of the Public, Passengers and Pilots is assured and the risk to the Fiesta Organisers is reduced as much as possible. The interests of the CAA will also be assured.

2.9 Tethering

A Tethered Balloon will, at a minimum,

2.9.1   be operated by a trainee Pilot (a minimum of 16 years of age) having completed a minimum of a Tethering Certificate or is directly supervised by a BAANZ Balloon Pilot Certificate holder, and

2.9.2   Balloon is operated in accordance with the [BAANZ Operations Manual 4.1.4 Tethering Operations Limitations](), and

2.9.3   Applicable Balloon Manufacturer Flight Manual Limitations (most restrictive limitation) to be adhered to.

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Tethering is not as simple a task as it may seem. Balloons are not designed to be restricted by a tether – they are designed to fly. Loadings are increased in various ways, the risk is increased therefore and so is the risk to the Public nearby.
The risk needs to be actively reduced - and only those with the required education and experience should carry out tethering.

Knowing what could occur is the key to being prepared.

3.2 Transitional arrangements - Balloon Pilot Certificates

3.2.1   Existing Balloon pilots, with greater than thirty (30) hours PIC as at (01.10.2018) will have three (3) years to transition to the new Balloon Pilot Certificate format. All existing rights of flight will remain during this period of transition. This transitional time will allow for the examinations to be completed.

3.2.2   A Flight Test is required by all Transitioning Pilots. This Flight Test is to be carried out within the three year period immediately following the implementation date 01.10.2018. Record of such a Flight must be made in the Pilots Logbook. The three year period is to allow all transiting Pilots time to participate in training for BAANZ theory subjects and the large concentration of transiting Pilots to complete the Flight Test in this time.

3.2.3   At time of Implementation of this Manual, current BAANZ Pilots with >30PIC will require a completion of six BAANZ exams and a successful Check flight with a BAANZ Check Pilot to gain full BPC. At the end of the three-year transition period, if a transitioning pilot (above 30hours PIC) has completed their written tests, but not completed their flight test, the pilot shall be 'grounded.' The pilot may regain currency through a flight with an existing BAANZ Balloon Pilot Certificate qualified pilot, for the sole purpose of undertaking the flight test.

3.2.4   Refer to 3.4.1 for new student Pilot Certificate requirements.

3.2.5   A Balloon Instructor Certificate will be available for those that apply with >100hours PIC and having completed an BAANZ Instructor course and having been approved by the Balloon Check Pilot and BAANZ President.

3.2.6   Existing NZCAA Part 61 Flight Examiners will be issued a BAANZ Balloon Check Pilots

Certificate.

This transitional section aims to take the experience of existing Pilots, add education in all subjects in a way that all will understand, test and certify the achievement of a minimum standard. BAANZ subjects are designed to educate in 'relevant' areas specific to Ballooning.
A credit of 30PIC Time 'Pilot In Charge' is over and above the time spent under Dual, Put, PuS and Tethering.
All Pilots will have something to learn irrespective of the existing number of hours and years flying. It would be unfair to pick and choose who might be exempt and who may not.
A Flight test is required by all members by the end of this theory training. For everyone to complete this at the same time will be onerous on our Check Pilots. The BAANZ Committee together with our Check Pilots have come to an agreement that a Check Flight can be carried out at any time during the Transition Period. It must be documented in the Pilots Logbook – and the Check Pilot will complete a record of the flight.

Once all the subjects are completed along with the Check Flight then a BAANZ Balloon Pilot Certificate will be issued.

3.4 Balloon Pilot Certificate

3.4.1 Requirements for Issue

An applicant for a Balloon Pilot Certificate must:

3.4.1.1   Be a current Financial Member of BAANZ, and

3.4.1.2   Have a valid Medical Declaration form issued, and

3.4.1.3   Have passed BAANZ Balloon Pilot exams, and

> *3.4.1.3.1   Balloon Meteorology, and*

> *3.4.1.3.2   Balloon Systems, and*

> *3.4.1.3.3   Balloon Navigation, and*

> *3.4.1.3.4   Balloon Human Factors, and*

> *3.4.1.3.5   Balloon Air Law, and*

> *3.4.1.3.6   Balloon Flight Radio Telephone Operator, and*

3.4.1.4   Have completed a Balloon Tether Certificate, and

3.4.1.5   Have passed NZCAA Fit and Proper test (where required by the NZCAA), and

3.4.1.6   Be a minimum of 16 years of age, and

3.4.1.7   Have completed at least 4 hours of flights under instruction and supervision of current Balloon Instructor Certificate holder, remainder under Supervision (PuS) of current BPC holder (minimum), and

3.4.1.8   Prior to undertaking a flight test the trainee shall have completed a minimum of 16 hours flight experience within the previous 24 months, and

3.4.1.9   Be flight tested by a BAANZ Check Pilot Certificate holder (or Delegate) to demonstrate their general knowledge and ability to perform competently those normal and emergency flight manoeuvres and procedures applicable to a Balloon flight. The syllabus for the flight test is set out under the Balloon Pilot Flight Test in the BAANZ Training Manual, and

3.4.1.10 The Application for a Balloon Pilot Certificate shall be made on the Balloon Pilot Certificate application form and be signed by both the Instructor and Check Pilot.

3.4.1.11 NZCAA Part 61 (ICAO Type) Commercial Pilot Licence (Balloons) exceed requirements of the BAANZ Balloon Pilot Certificate.

3.4.3 Currency requirements

Balloon Pilot Certificate holder will remain current if in the previous 12 months the Balloon Pilot:

3.4.3.1   has no less than 3 Inflations + 3 deflations + 3 hours of flight have occurred, and

3.4.3.2   continues to hold a valid Medical Declaration, and

3.4.3.3   Fit and Proper Person (where required by the NZCAA) requirements remain met.

To regain currency a Balloon Pilot Certificate holder will be required to carry out – a flight greater than 30 minutes duration undertaking basic tasks listed in the BAANZ re-currency Flight Task Sheet during either a

- *'Solo flight', or*

- *A flight with a current BAANZ BPC holder.*

To remain current a Pilot will have to carry-out a minimum of;
3 inflations, 3 deflations and 3 hours of flight in the previous 12 months.
The intention is for this to occur over a minimum of three flights. It is not to occur all within one paddock.

To regain currency after it has expired a Pilot will have to do either a Solo flight or a Flight with a Current BAANZ Balloon Pilot carrying out the basic tasks of on a re-currency task sheet.

3.5 Balloon Instructor Certificate

3.5.1 Requirements for Issue

An applicant for a Balloon Instructor Certificate must:

3.5.1.1   Hold a minimum of a current BAANZ Balloon Pilot Certificate or CAANZ CPL(B), and

3.5.1.2   Have completed no less than 100 hours PIC Balloon, and

3.5.1.3   Have completed a BAANZ Instructor Course within previous 2 years, and

3.5.1.3   Have completed an approved NZCAA Instructor Skills Seminar or having equivalent experience acceptable to the President, and

3.5.1.4   The application for a Balloon Flight Instructor Certificate shall be made using the Balloon Pilot Certificate Application Form and be approved by both the BAANZ PRES and Balloon Check Pilot.

Instructors will complete a BAANZ Instructor course every two years to ensure that Instructors are all singing from the same song sheet, to discuss issues, techniques and ensure commonality.

3.6 Balloon Check Pilot Certificate

3.6.1 Requirements for Issue

An applicant for a Balloon Pilot Check Pilot Approval must:

3.6.1.1   Hold a Balloon Instructor Certificate, and
3.6.1.2   Have performed a minimum of 50 hours Flight Instructing time, and
3.6.1.3   Have a minimum of 200hours PIC, and
3.6.1.4   Have valid NZCAA CAR 61 Commercial Pilot Licence (Balloon) approval.

BAANZ Check Pilots lead the training plan and ensure that all Balloon Pilots meet those requirements in both the BAANZ Ops Manual and BAANZ Training Manual.

3.9 Medical Fitness

For any application for the issue or renewal of a BAANZ Certificate the Balloon Pilot must present to the Balloon Instructor one of the following documents as evidence of a medical examination:

3.9.1   A current Medical Declaration certified by a General Practitioner or

3.9.2   A current CAA Part 67 pilot medical certificate or

3.9.3   For Foreign Pilot Certificate/Licence holders seeking temporary certification (less than 6 months) the medical certificate acceptable to the organisation that issued their certificate or licence.

A Medical Declaration is a declaration of a Pilots health, signed by a General Practitioner. If a Pilots Medical status changes in any way then the Pilot should assess their ability to fly and seek advice from their GP and ultimately be signed back to health when applicable.

3.12 Balloon Check Flight

Before the applicant for a Balloon Pilot Certificate is approved a Balloon Check Flight must be carried out by a current BAANZ Balloon Check Pilot Certificate holder (or Delegate) with all aspects of the BAANZ Balloon Pilot Certificate Check Flight satisfactorily completed. When complete and signed off by the BAANZ Balloon Check Pilot, the check flight form will be forwarded to the BAANZ President for BAANZ Pilot Certificate Issue.

BAANZ has Check Pilots who are also qualified CAR Part 61 NZCAA Approved Flight Examiners.
Also, under the oversight and guidance of the BAANZ Check Pilots, Commercial Pilots with an 'Operational Competency Assessment Approval' will be able to carry out Flight Test.

3.13 Flight Experience

Flight experience is defined as:

Time spent within the BAANZ system as a

3.13.1   (PuT) Student pilot under instruction by Balloon Pilot Certificate holder, or

3.13.2   (PuT) Student pilot under instruction by Balloon Instructor, or

3.13.3   (PuS) Pilot under Supervision by current Balloon Pilot Certificate Holder with current applicable endorsement, or

3.13.4   (PIC) flying solo, or

3.13.5   (PIC) Time spent as a Certificated pilot flying as Pilot in Command, or

3.13.6   (P2) Time spent as additional operating (Dual) crew during flight.

Pilots must correctly annotate their flight data into their logbook under the correct classification. The best way to do this is carry this activity out as soon as possible after a flight – such as when returning to base and doing it over the first cup of tea/coffee. Discipline/habit is key to doing this.

3.15 BAANZ Balloon Inspection and Maintenance Approval

BAANZ recommends that to maintain Balloons in New Zealand the minimum qualifications for an accredited BAANZ Balloon Inspection and Maintenance Approval are:

3.15.1   An NZCAA Licenced Aircraft Maintenance Engineer with Lighter than Air Category, with a minimum of one Balloon Manufacturer Maintenance Course Certificate, or

3.15.2   A NZCAA Maintenance Approval Holder, with a minimum of one Balloon Manufacturer Maintenance Course Certificate.

The BAANZ Balloon Inspection and Maintenance Approval is for LAME's who have carried out a Balloon Manufacturers Maintenance course. They therefore have spent the time learning what Balloons are about, their mode of flight, their equipment, operation, are familiar with the Instructions for Continued Airworthiness, procedures and techniques and can be relied upon to know the 'ins and outs' of an Aerostat.
In the past, there have been LAME's who have certified Balloon off with no knowledge of Aerostat requirements.
BAANZ will recommend those with the qualifications and experience to ensure your aircraft is maintained correctly.

4 Operations

4.1 Private and Commercial Operations

4.1.1   Private Balloon Operations will be conducted in accordance with CAR Part 91.

4.1.2   Commercial Balloon Operations will be conducted in accordance with CAR Part 91, and CAR Part 115.

4.1.3   All Balloons will be operated in accordance with the applicable Balloon Manufacturer Flight Manual or NZCAA approved Pilots Operating Handbook (Operations and Limitations Special Category - Amateur Built).

4.1.4   Balloon Tether Operations to be conducted as per applicable Balloon Manufacturer Flight Manual Requirements and within the following limitations (most restrictive limitation to be applied):

> *Windspeed <15knots (<10knots with pax)*
> *Max Weight <75% MCTOW*
> *Elevation <30m*
> *Tether Ropes >4000Kg*
> *<u>**Quick releases are not to be used for tethering**</u>*
> *This requirement is solely to ensure and maintain minimum standards within the BAANZ system and public safety.*

Like all Aircraft, Balloons made by Type Certified Manufactures have rigorous design processes and set limitations. These limitations should not be exceeded. Both Manufacturer support and Insurance can be invalidated as a consequence.
Limitations set by the NZCAA should be followed when operating Amateur built Balloons.
If in doubt – follow the flight manual or NZCAA Limitations.

4.2 Incidents

4.2 Accidents and Incidents

4.2.1   Details of Balloon Accidents/Incidents/Occurrences may be submitted by any BAANZ member, Club, or member of the public.

4.2.2   NZCAA Form 005 will be completed and forwarded to NZCAA immediately after an Accident/Incident via https://occurrences.caa.govt.nz/ProdUI/ or by downloading the form https://www.caa.govt.nz/Forms/CA005_Form.doc and emailing to CA005@caa.govt.nz

4.2.3   Any investigation undertaken into an incident by BAANZ, the BAANZ President will delegate experienced Pilots as the first avenue of investigation and if not already notified, notify the NZCAA if required.

The NZCAA and TAIC have immediate access to Balloons, Components, Parts and all related Documentation involved in any Accident or Incident as required.
In the circumstance of and Accident or a serious Incident, there is no doubt there will be significant stress. It is important not to rush. The facts must be factual and correct. While it is 'mandated' that the CAA will be informed immediately (with details to follow later) it is recommended that the BAANZ President is contacted to assist with the preparation of a statement and report to get the details in a format conducive for the CAA to action. BAANZ acknowledges that reporting may seem daunting and stressful however it must occur. It is not the BAANZ President's aim to filter reports – only to assist the process for the benefit of the member.
Also consider, if the Media have taken a whiff of your Occurrence then they will be hounding you for details. By increasing the size of your team you can have someone representing you in these stressful times with clear facts.

See relevant BAANZ Memo for guidance for carrying out Occurrence reporting.

4.3 Pilot logbooks

4.3.1   The holder of a BAANZ Balloon Pilot certificate must maintain an accurate and up-to-date logbook. The following flight details must be recorded in the pilot's logbook:

4.3.1.1   the pilot's name, contact details, endorsements held, and

4.3.1.2   the date of the flight, and

4.3.1.3   the aircraft registration mark, and

4.3.1.4   the classification of command (PuT, PuS, PIC, P2), and

4.3.1.5   the flight time, and

4.3.1.6   the route of the flight including the place of departure, any intermediate landing, and the place of arrival, and

4.3.1.7   for a training flight, details of the training tasks, tests if applicable, the name of the Balloon Instructor Pilot or Balloon Check Pilot

4.3.1.8   The CAA Pilot's Logbook format or similar is to be used.

4.3.1.9   The logbook is to be retained permanently by the Balloon Pilot Certificate holder.

4.3.10   Every entry in a pilot's logbook must be made within 7 days after the completion of the flight to be recorded.

Pilots must correctly annotate their flight data into their logbook under the correct classification. The best way to do this is carry this activity out as soon as possible after a flight – such as when returning to base and doing it over the first cup of tea. Discipline/habit is key to doing this.

4.4 Maintenance

4.4.1   Balloon maintenance is the responsibility of the aircraft Operator as per CAR 91.602.

4.4.2   It is recommended that all BAANZ accredited LAME's inspecting or maintaining Balloons have a valid BAANZ Inspection and Maintenance Approval.

The state of the Maintenance always falls back on the Operator. If the Operator suspects the Maintainer is not doing something properly then it is the Operators responsibility to ensure that it is corrected in accordance with the CAA Rules and Instructions for Continued Airworthiness.