CAA 2023-2025 Work Together Stay Apart (WTSA) Campaign Evaluation

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Executive summary

At controlled aerodromes there is active management of aircraft movements and centralized communication that is structured and controlled through air traffic control. In contrast, at unattended aerodromes, where there is no air traffic service (or the air traffic service is off watch), pilots are responsible for the safety of themselves and others, through radio communication, adherence to published procedures, and vigilant see-and-avoid practices to prevent mid-air collisions or other such occurrences. New Zealand currently has at least 161 unattended aerodromes, 17 controlled aerodromes, and 2 with a flight information services tower.

In absolute terms, reports of accidents and near-misses appear to be disproportionately higher at NZ's unattended aerodromes. Since 2008, there have been 3 fatal mid-air collisions at unattended aerodromes, resulting in 7 deaths, and, in the period 2016–2023, 431 events that resulted in a near collision, avoiding action being taken, or where the pilot has felt that the other aircraft was uncomfortably close. In 2022, 14 critical near collision events were reported. In contrast, there have been no mid-air collisions at controlled aerodromes. Accordingly, CAA NZ have identified unattended aerodromes as a significant safety risk.

CAA NZ's Work Together Stay Apart Campaign (WTSA) was an industry-wide safety campaign to reduce the likelihood of mid-air accidents and the number of near collision and air proximity events within the circuit at NZ's 161 unattended aerodromes, beginning June 2023 and concluding February 2025. The campaign was educative and used social media, workshops, roadshows, and print materials, such as *Vector* magazine, to raise awareness of the risks of using unattended aerodromes and how these may be reduced/mitigated.

During the campaign, more than 3,500 attendees participated in 84 educational seminars hosted by CAA NZ across 31 locations nationwide. Seminars focused on promoting best practice and strengthening collaboration among operators. Key messages focused upon the importance of good airmanship; clear, concise, consistent, and correct radio calls; lookouts; working together to manage areas of shared risk; and knowing the relevant rules.

The evaluation of the WTSA campaign reported here was undertaken by Massey University School of Aviation. The evaluation used survey methodology to determine the characteristics of users of NZ's unattended aerodromes, the extent and how they engaged with the WTSA campaign, perceived changes following the campaign that might reasonably be relevant to safety, perceived usefulness of the campaign, how [for pilots] flight preparation is undertaken when using unattended aerodromes, and knowledge of procedures relevant to the safe use of unattended aerodromes. All returned surveys were anonymous, and any responses were designed to be untraceable to any individuals; in the few instances where information was provided that could compromise the anonymity of any individual, identifying information was redacted. The research protocol underwent a process of ethical review and was determined to be of low-risk; it was therefore recorded on Massey University's register of low-risk research.

Holders of pilot's licenses were invited by CAA NZ to complete the online survey, designed, and hosted by Massey University's School of Aviation. CAA NZ also sent invitations to participate to microlight pilots, via the Sport Aviation Corporation and the Recreational Aircraft Association of New Zealand, and to other stakeholders of unattended aerodromes, such as managers,

engineers and committee members. An invitation to compete the survey, along with a link to the survey was also provided on CAA NZ's Facebook page. A follow-up invitation was sent/ posted approximately 3-weeks after the first invitation. Data was collected during the 6-week period 5.3.2025 to 16.4.2025.

Overall, 634 users of NZ's unattended aerodromes interacted with the survey. Approximately half the respondents provided answers to most of the questions that were relevant.

Of 252 respondents who reported their age, 58% were at least 55yrs of age, and 87% of participants were male. 566 respondents' relationships with unattended aerodromes involved 'flying' (89%), with the remainder holding managerial, administrative, or technical positions. Of those who provided information, 351 reported holding a flying licence (e.g., ATPL, PPL(A), Microlight), while 18 reported they did not hold a licence of any sort. The most common ratings held were night and multi engine instrument. Mean flying years was 24, and the most used type of aircraft was aeroplane, followed by microlight then helicopter.

Of the 481 respondents who provided answers, 409 (85%) reported engaging with the campaign at least 'a little', while 72 [15%] reported they did 'not engage at all'. This level of engagement appears to compare favourably to the 60% of workers 'engaging' by making changes to improve safety having seen Maritime NZ's and NZ Federations of Commercial Fishermen's safety campaign, Safe Crews Fish More (maritimenz.govt.nz). There were no significant differences in the extent to which respondents reported having engaged with the campaign by gender, age, hours flown or number of years they had flown. However, it was observed that microlight pilots reported having engaged significantly more than helicopter pilots, and CFIs flight instructors and managers having engaged more than those with relationships such as student pilot (which as a group evidenced the lowest level of engagement with the campaign).

The means of dissemination by which campaign information most captured respondents' interest and attention was Vector magazine (51%), followed by organised events (43%), and then web content (36%). Of the 480 respondents who provided information, 437 (91%) perceived the campaign to have been communicated to users at least 'a little' effectively.

Of those who provided information, 131 (28%) noticed changes in behaviour since the campaign had launched; all except one of whom observed that at least some changes were positive. Of those, 76% perceived unattended aerodromes had become at least 'a little' safer since the campaign launched, while 86% believed the WTSA campaign had been at least 'a little' successful. Microlight pilots were most likely to perceive unattended aerodromes as having become safer since the WTSA campaign began. Engagement with the WTSA was related to perceived effectiveness of the campaign, encouraging others to engage, observing positive changes since the WTSA began, and perceiving the campaign as successful.

There was a strong effect regarding perceptions of airmanship, whereby significantly more than half of respondents assessed their airmanship as better than average (generally, only around half of a sample will be either better or worse than average). There was also evidence of a group effect whereby respondents displayed perceived invulnerability about their personal risk of conducting manoeuvres in contradiction of published procedures at unattended aerodromes. There was a weak positive correlation between engagement with the WTSA and thoroughness of flight preparation.

Among those who confirmed that they flew into unattended aerodromes, no respondent scored the maximum possible score of 5 on the 19 knowledge items (corrected for up to 3 items not being answered), with the maximum score being 4.42 and the median score 3.74. Knowledge of procedures and risks at unattended aerodromes was not significantly related to degree of engagement with the WTSA campaign. Flight instructors (including CFI's) scored significantly higher on 'knowledge', while student pilots scored lower (although not significantly so). There were no differences in knowledge between the two largest categories of aircraft type (aeroplane vs microlight), although holders of aerobatic, night, and MEI ratings scored significantly higher on knowledge likely to be relevant to operating safely.

As a group, respondents overestimated the risk of mid-air collision at unattended aerodromes. Unattended aerodromes were correctly perceived as riskier to use than controlled aerodromes overall.

Overall, the WTSA campaign appears to have been well received by most stakeholders of unattended aerodromes. For example, the campaign was perceived to be successful, at least to some degree, by most respondents, and the rate of stakeholder engagement with the campaign was favourable (85%), especially when compared to the level of engagement (60%) with a safety campaign by Maritime NZ. As might be expected, a small percentage of respondents (≈11%) reported that they did not engage 'at all' with the campaign; these respondents also tended to view the campaign as' less successful' and 'less useful' than did those who engaged at least 'a little'. Similarly, there were a small number of respondents whose responses appeared less open to the possibility that flying is a life-long learning experience or that interventions such as the WTSA might be of value. A small number of respondents also appeared to express opinions suggesting feelings of marginalisation, dissatisfaction with the status quo or regulations pertaining to the use of unattended aerodromes or were otherwise negatively oriented. Despite the relatively small number of respondents expressing negative opinions, overall, there was a good degree of engagement and perceptions that the campaign was likely to have improved safety at unattended aerodromes.

Contents

1. Introduction: The WTSA campaign

At controlled aerodromes there is active management of aircraft movements and centralized communication that is structured and controlled through air traffic control. In contrast, at unattended aerodromes there is no air traffic service (or the air traffic service is off watch) and pilots are responsible for the safety of themselves and others, through radio communication, adherence to published procedures, and vigilant see-and-avoid practices to prevent mid-air collisions or other such occurrences. New Zealand currently has at least 161 unattended aerodromes (CAA safety campaign wraps up, 2025), 17 controlled aerodromes, and 2 aerodromes where there is a flight information services tower (Air traffic management, 2025).

Since 2008, there have been 3 fatal mid-air collisions at unattended aerodromes, resulting in 7 deaths: Paraparaumu in 2008; Feilding in 2010; and Masterton in 2019. Between 2016 and this survey being initiated, there have been 431 events at unattended aerodromes reported through CA005 forms, due to a situation between two aircraft that resulted in a near collision, avoiding action being taken, or where the pilot has felt that the other aircraft was uncomfortably close. In 2022, there were 14 critical near collision events reported, where any remaining barriers were likely to be ineffective at preventing a mid-air collision from occurring.

CAA NZ's Work Together Stay Apart Campaign (WTSA) was an industry-wide safety campaign to reduce the likelihood of mid-air accidents and the number of near collision and air proximity events within the circuit at NZ's unattended aerodromes.

According to Aviation.govt.co.nz., "The [WTSA] safety campaign is the first of its kind at this scale. Operating alongside business-as-usual safety education, inspections and industry guidance, the campaign is a coordinated set of activities targeted at increasing shared understanding of standardised procedures among pilots, improving aerodrome management and safety, and collaborating with operators to promote best practice".

Safety campaigns have proven useful in areas such as: pedestrian safety (Zhang et al., 2013); patient safety (Schwappach et al., 2013); parental knowledge of childhood and adolescence safety (Temsah et al., 2022), cycle helmet use (Chinnock, 2005) increasing compliance with safety standards on primary school playground equipment (Withaneachi & Meehan, 1998); helmet use on motorcycles (Akbari et al., 2021), adult road/driver safety (Faus et al., 2023), drinking and driving campaign on knowledge, attitudes, and Behaviour (Negi et al., 2020), and anti-smoking (Sims et al., 2014). However, no published studies of aviation safety campaigns were identified.

For safety campaigns to be effective, stakeholders must engage with them (Mazlan, 2020); "…community engagement appeared to be important to the success of campaigns, but few studies reported or measured this" (Bailey & Wundersitz, 2019, p.13). Similarly, "…campaign messages are more likely to be effective if they appear in media vehicles with which people are highly engaged" (Paek et al., 2013). When evaluating a safety campaign, it therefore makes sense first to assess the extent to which stakeholders have engaged with it.

The survey reported here therefore sought information to assist CAA NZ in assessing the characteristics of users of NZ's unattended aerodromes, how they engaged with the campaign, whether engagement interacted with stakeholder characteristics (e.g., experience or level of licence), perceived attitudinal, behavioural, and cultural outcomes of the campaign, flight preparation, risk perception, and knowledge of procedures relevant to safety at unattended aerodromes, and whether the campaign was generally perceived as successful.

2. Method

2.1. Participants

During the 6-week period 5.3.2025 to 16.4.2025, 634 respondents engaged to varying extents with the survey.

2.2. Materials

The means of evaluating the campaign were a blend of process and impact evaluation using survey methodology. The survey was designed by Massey University's School of Aviation, in collaboration with members of CAA NZ. It comprised up to 119 individual questions and sought to measure participant demographics (e.g., age, gender, licence type), self-reported relationship between engagement with the WTSA campaign, behaviours, attitudes, and knowledge of procedures relevant to safely operating in the vicinity of NZ's unattended aerodromes, flight preparation, and risk perception.

The survey was pilot tested by 28 independent participants who were based either at CAA NZ or at Massey University School of Aviation. A few small improvements to wording and methodology were subsequently implemented.

Each of the questions in the survey are described in the results section of this report (in addition to the descriptive statistics for the answers). In some places, the wording of questions has been simplified where so doing is less verbose and the intent remains clear. In other places, the question is reproduced verbatim.

2.3. Procedure

An invitation to participate in the evaluation was sent by CAA New Zealand using the following channels: holders of New Zealand pilots' licences were contacted using email; non-flying stakeholders of New Zealand's unattended aerodromes (e.g., managers, committee members, engineers) who might reasonably be expected to be able to offer insight into the operations of such aerodromes were recruited via relevant social media; and microlight and glider pilots who were contacted via their association. Participation was anonymous and no data was collected (e.g., location, exact age, IP address) that might identify individual respondents. Responses identifying any person by name were redacted. All other comments are reported verbatim.

The Qualtrics platform was used to host the survey and all statistical analyses were undertaken using IBM SPSS V26.

Data was collected during the period 12pm 5 Mar 2025 to 5pm 16 Apr 2025, with a follow-up reminder to participate sent to potential participants approximately 2-weeks before the close of the survey.

Prior to implementation, the study protocol was evaluated by a process of peer review and was judged to be of 'low-risk'. The protocol was therefore entered onto a register of low-risk research at Massey University.

3. Results

Results are grouped by overall topic (e.g., demographics, degree of engagement, etc), following which results are reported for each of the items presented in the survey, using either the original wording of the item presented in the survey, or an abbreviated version where so doing aids brevity.

3.1. Respondent demographics.

The survey had 634 respondents who participated to varying extents with the survey. Reported percentages may not total 100 due to rounding, or the possibility that, for some questions, participants could provide more than one answer to some questions.

Age band

252 participants reported their age band: <18yr (n = 1), 18-24yr (n = 14), 25-34 (n = 30), 35-44 (n = 35), 45-54 (n = 26), 55-64 (n = 63), 65-74 (n = 66), >75 (n = 17). Approximately 60% of participants did not report this information.

The modal age band was 65-74 and the median age band was 55-64. The bar chart (Figure 1) shows data was negatively skewed, with the majority (58%) of respondents who reported their age being 55yrs or older.

Figure 1. Bar chart of respondents' reported age bands.
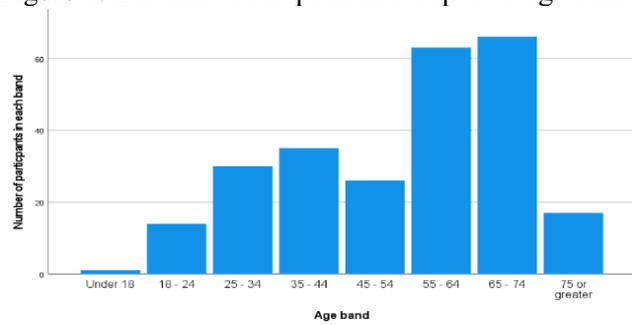
Gender

Male (n = 220), Female (n = 26), Prefer-not-to-say (n = 5), Other (n = 1) (See Figure 2). Of respondents who reported gender, 87% reported being male.

Figure 2. Bar chart of respondents' reported gender.

Relationship to NZ's Unattended aerodromes

Numbers by response options are shown in Table 1.

Table 1. Relationship to NZ's Unattended aerodromes.
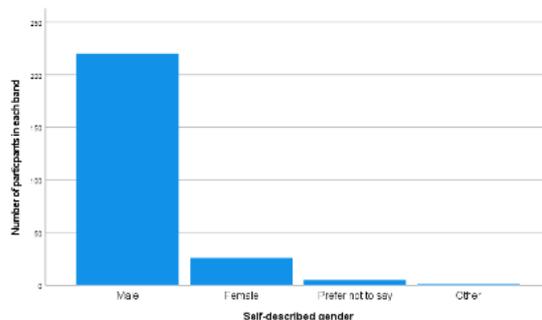
Role	n	%
Pilot who flies to and/or from unattended aerodromes	468	74
Student pilot who flies to and/or from unattended aerodromes	65	10
Flight instructor based at an unattended aerodrome	107	17
Chief pilot at an unattended aerodrome	16	3
CFI at an unattended aerodrome	38	6
Manager of an unattended aerodrome	23	4
Safety officer at an unattended aerodrome	27	4
Engineer/technician at an unattended aerodrome	19	3
Aircraft owner at an unattended aerodrome	153	24
Committee member at an unattended aerodrome	51	8
No involvement with any of New Zealand's unattended aerodromes	12	2
Other*	21	3

* Aviation Consultant, Aviation website, CAA inspector, CFI based at controlled aerodrome that uses an unattended aerodrome, Chief pilot who's aircraft fly to and from unattended aerodromes, Drone Pilot, Flight Training Programme Admin, Hangar owner on unattended aerodrome, Head of Training at Canterbury Aero Club and IAANZ, Noise abatement committee, own airstrip, RAANZ instructor (*n* = 2), Retired PPL, Safety Manager for an organisation that uses unattended aerodromes, Skydiving operator, UA operator at or close to unattended aerodrome, rent and work from a building at Ardmore, Work for a fuel company that has sites at unmanned airfields.

Note: percentages may not add up to 100, as respondents may report more than one relationship.

Relationships/Roles that are renumerated

Participants were asked to report which of the following roles were renumerated (as opposed to unpaid), with the option to state any roles not listed. Table 2 shows responses, with the modal response being 'flight instructor'

Table 2. Numbers of renumerated roles.

Role (for which there is remuneration)	n	%
Flight instructor based at an unattended aerodrome	80	13
Chief pilot at an unattended aerodrome	19	3
CFI at an unattended aerodrome	32	5
Manager of an unattended aerodrome	19	3
Safety officer at an unattended aerodrome	19	3
Engineer/technician at an unattended aerodrome	15	2
Committee member at an unattended aerodrome	12	1
Other*	37[1]	6

*Other includes: Aeromedical Pilot, Ag pilot, Air Ambulance Pilot, Airline Pilot, Aviation Consultant, Aviation Website, CAA Inspector, CEO of Charter Co, CFI at a controlled aerodrome that flies and operates students etc at an uncontrolled aerodrome, Chief Pilot, Club Member, Commercial Pilot, Commercial pilot operating to/from, Display Director, Flight Training Programme Admin, Frequent flying visits to unattended airfields, Frequents unattended aerodrome & Safety Manager, Line pilot, Line Pilot, Line pilot flying in and out of unattended aerodromes, Line pilot operating in/out of unattended aerodromes, Member of Safety Committee, No payment, Parachute drop pilot ag multiple unattended aerodromes, Part 121 PIC, Pilot, Private pilot, Service provider, Skydive pilot at unattended aerodrome, Survey Pilot frequenting unattended aerodromes, UAV operator working within the aerodrome airspace, Unpaid microlight instructor, Voluntary instructor for those who ask for help, Volunteer Role, Volunteer SAR Pilot.

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[1] One response was that the participant is 'not paid'.

Do you hold a pilot licence(s) or are you learning to fly? (Please select all that apply).

Participants reported the following licences as indicated in Table 3

Table 3. Respondents' licence category.

Licence type*	n	%
I do not hold a pilot licence and am not learning to fly	18	3
PPL(A)	144	22.7%
PPL(H)	13	2.1%
CPL(A)	114	18.0%
CPL(H)	17	2.7%
ATPL	48	7.6%
Microlight Certificate	87	13.7%
Qualified Glider Pilot Certificate	23	3.6%
Currently a student pilot (pre-PPL)	16	2.5%
Other category of licence**	22	3.5%

*Categories are not mutually exclusive: respondents may choose more than one licence type.
**Other categories of licence held included: ATCO (n = 2), ATO microlight, B and D Cat instructor, B category instructor (n = 2), CPL(B), currently studying for CPL(H) licence and IFR rating, Engineer, have had a PPL (n = 3), Held an ATPL for most of my working life, INSTRUCTOR ATO, Instructor rating, Lifetime RC model aircraft user. Am a qualified mechanical engineer, member of SAA, building a amateur build aircraft, Maintenance Controller / CEO Part 135 AOC holder, Overseas LAPL, Part102 (UAV operation), RAANZ Senior Instructor, Senior Instructor & ATO, Skydiving operator.

Is at least one licence current? (i.e., valid BFR or equivalent).

Yes = 333 (97%), no = 15 (3%)

Is your medical current?

Yes = 348 (96%), no = 15 (24%)

What type of medical do you currently or last hold?

The most common type of medical reported was Class 1. See Table 4.

Table 4. Type of medical.

	n	%
Class 1	159	46%
Class 2	60	17%
DL9	130	37%

Approximately how long (in years) since you were last current? (i.e., valid BFR or equivalent)

Mean = 7.86, median 2.5, mode = 20, range 0 – 20. Note two responses ('n/a' and 'years' were excluded). See Table 5

Table 5. Time since current.

Years	n	%
0	1	0.2%
.3	1	0.2%
1	2	0.4%
2	2	0.4%
3	1	0.2%
12	1	0.2%
13	1	0.2%
20	3	0.6%

Approximately how long (in years) since your medical was last current?

Mean = 6.57, median = 3, mode = 3, range 0 – 20. See Table 6.

Table 6. Time since medical current.

	n	%
0	1	0.2%
.1	1	0.2%
1	1	0.2%
3	2	0.8%
7	1	0.2%
12	1	0.2%
13	1	0.2%
20	1	0.2%

Do you intend to regain your currency?

n = 8 respondents indicated yes, n = 7 indicated no

Do you intend to regain your medical?

n = 8 respondents indicated yes

Ratings held

The most common rating held is *night*, followed by *instructor*, then *MEI*.
See Table 7

Table 7. Ratings held.

Rating*	*n*	%
Aerobatic	85	13.4%
Agricultural	7	1.1%
Instructor (Specify A, B, C, D, or E in text box)	138	21.8%
A**	16	
B	49	
C	23	
D	38	
Microlight & RAANZ	6	
Gliding (grade unspecified)	1	
Multi Engine Instrument	125	19.7%
Night	185	29.2%
Single Engine Instrument	95	15.0%

*Categories are not mutually exclusive: respondents may choose more than one rating type.
** Two respondents specified their A cat is gliders

How often do you operate from or to unattended aerodromes?

The mode and median = 4 (most of the time), and the theoretical mean = 3.94.
See Table 8

Table 8. Frequency of unattended aerodrome use.

		n	%
1.	Never	1	0.3%
2.	Sometimes	34	9.4%
3.	About half the time	45	12.5%
4.	Most of the time	188	52.1%
5.	Always	93	25.8%

Percentage of your flying that is recreational? (Student pilots select 100%.)

Of *n* = 305 participants who reported flying to and from unattended aerodromes, the mean percentage of their flying that was recreational was 72.6% (*SD* = 39)

Approximately how many years have you been flying?
Of *n* = 345 who answered this question, the mean years was 24.27 (*SD* 17.32), range 1 – 75, median = 2. See Figure 3.
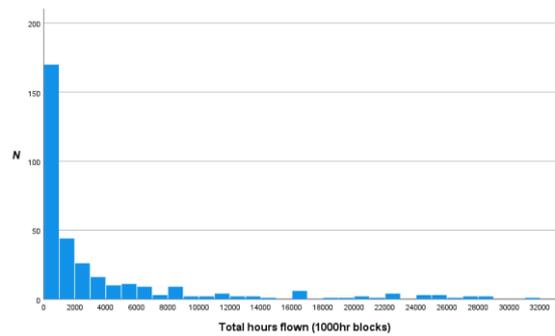
Figure 3. Distribution of years flying.
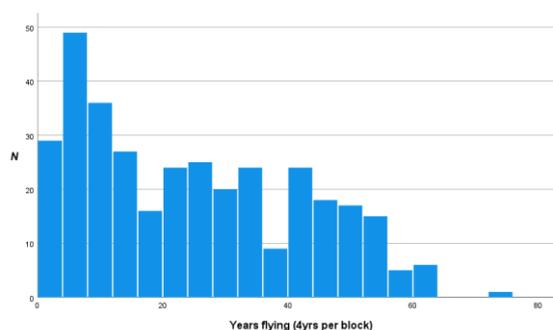
Approximately how many flying hours have you logged in total?

Of *n* = 338 participants who answered this question, mean flight hours were 3680 (*SD* = 6222), median = 965, range 4-31350. See Figure 4.

Figure 4. Total flight hours logged.

Approximately how many hours have you logged in the last 2 years?

Of *n* = 341 participants who answered this question, the mean flight hours over the last 2 years were 262 (*SD* = 317), median = 130, range 0 – 1600

Figure 5. Flight hours logged last 2 years.
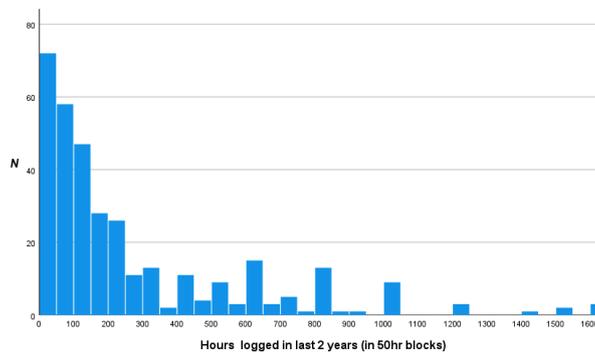
Which type of aircraft do you fly most often?

The modal response was Aeroplane. See Table 9

Table 9. Type(s) of aircraft flown.

Category	*n*	%
Aeroplane	255	73.1
Balloon	1	.3
Glider	10	2.9
Gyroplane	4	1.1
Helicopter	19	5.4
Microlight	55	15.8
UAV	1	1.4

Of your most recent 10 flights, how many ventured further than 25Nm from your departure aerodrome?

n = 329 participants answered this question. The mean number of flights venturing more than 25NM from departure aerodrome was 6.09 (*SD* = 3.10), median = 6. See Figure 6 for distribution of responses.

Figure 6. Flights >25Nm from aerodrome.
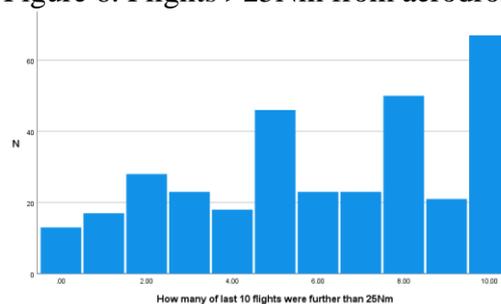
Are you involved in the safety, management, day-to-day running, or governance of an unattended aerodrome?

n = 286 no, *n* = 79 yes

Section summary

Most respondents who reported their age and gender were male and in the age bands 55-74. The most reported licence type was PPL(A) and the most frequently used aircraft was an aeroplane. The most reported 'relationship' with unattended aerodromes was pilot, student pilot, or flight instructor. Participants reported that more than half of the flights they undertook ventured more than 25km from the departing aerodrome.

3.2.   Engagement with CAA's WTSA: Self and others

Which of the following sources of information about the WTSA campaign have captured your attention and interest?

Participants' responses by source of information are shown in Table 10.

Table 10. Sources of information.

Source of information	n	%
Web/Internet content	227	36
Social Media	108	17
Seminars/events/roadshows	273	43
Print products	103	16
Vector Articles	321	51
Other*	29	5

* The response 'other' included: "Hangar flying" discussions with other pilots, Aero Club Newsletter, BFR instructor told me about it, CAA emails x 2, Carlton's talks, Club notices (Auckland Aero Club), Common sense, (redacted), Email x 5, Flying New Zealand email, I read and listened, I was in one!, Incident reporting after TCAS events in uncontrolled airspace, Instructor Seminar, Involved with CAA in the formative stages of this campaign - With active involvement in content, Learn-to-fly, Wanaka, None, None of the above, Referred to by other person, seminar video, The flags used, The signatory statement on our wall and in house school meetings to deliver the message, We produced banners, Word of mouth.

Awareness of CAA's WTSA campaign?

There were 5 single-choice response options, ranging from 1 = 'Not at all' to 5 = 'A great deal'. There were n = 483 responses to this question. The responses are shown in Table 11. Modal and Median responses = 3 and theoretical mean response = 3.41.

Table 11. *A priori* awareness of the WTSA campaign.

Response	n	%
1. Not at all	42	8.7
2. A little	75	15.5
3. A moderate amount	127	26.3
4. A lot	123	25.5
5. A great deal	116	24

How effectively has CAA NZ's WTSA campaign been communicated to unattended aerodrome users?

(Response options, for this and the next 4 questions, were as above). n = 480 responses are shown in Table 12. Modal response = 4, Median response = 3, and theoretical mean response = 3.17.

Table 12. How effective was the WTSA campaign communicated?

Response option	n	%
1. Not at all	43	9
2. A little	74	15.4
3. A moderate amount	161	33.5
4. A lot	164	34.2
5. A great deal	38	7.9

To what extent have you engaged with the WTSA campaign? (i.e., how much has the campaign captured your attention and interests).

Response options as above. *N* = 481 responses are shown in Table 13. Modal response = 2, Median response = 3, and theoretical mean response = 2.94.

Table 13. Extent of engagement with WTSA campaign.

Response option	*n*	%
1. Not at all	72	15
2. A little	118	24.5
3. A moderate amount	116	24.1
4. A lot	116	24.1
5. A great deal	59	12.3

To what extent do you think that other users of unattended aerodromes have engaged with the WTSA campaign?

There were *n* = 460 responses to this question. See Table 14. The modal and median responses were 3 and theoretical mean response was 2.64.

Table 14. Engagement of others with WTSA campaign.

Response	*n*	%
1. Not at all	27	5.9
2. A little	163	35.4
3. A moderate amount	221	48
4. A lot	48	10.4
5. A great deal	1	.2

To what extent have you encouraged others to engage with the WTSA campaign?

The response options were the same as the previous question. There were 475 responses to this question. See Table 15. The modal response = 1, the median response = 2 and the theoretical mean response was 2.47.

Table 15. Encouraging others to engage.

Response option	*n*	%
Not at all	158	33.3
A little	108	22.7
A moderate amount	87	18.3
A lot	73	15.4
A great deal	49	10.3

Section Summary

N = 366 (57%) of respondents were at least moderately aware of the WTSA campaign, and *N* = 363 (57%) believed the campaign was at least moderately well communicated. The majority (64%) of respondents reported personally having engaged at least 'a little amount' with the campaign and perceiving others to have engaged at a slightly (.3pt) lower level. More than half of participants who answered, reported that they have encouraged others to engage with the campaign at least 'a little', although, perhaps expectedly, they were less likely to have observed others encouraging engagement with the campaign.

3.3. Perceived changes following, or associated with, CAA's WTSA campaign

Have you noticed changes in the behaviour of users of unattended aerodromes since the WTSA campaign was launched?
Yes = 131 (28%), No = 342 (72%)

If the answer above was yes, participants (n = 125) then reported the extent to which observed changes were positive or negative. There were 5 response options, measured on an ordinal scale, ranging from 1 = 'All negative' to 5 = 'All positive'. The responses are shown in Table 16. The modal and median responses = 4, and the theoretical mean response was 3.93.

Table 16. Behavioural changes.

Response option	n	%[2]
All negative	0	0
Mostly negative	1	1
Some positive, some negative	27	22
Mostly positive	77	62
All positive	20	16

Nature of perceived changes of n = 125 participants above.
Answers included: A lot more overhead joins, adhering to standard procedures, better radio calls/comms, better circuit etiquette, greater attention to lookout. A full list of all 115 comments is attached in Appendix A

Have you noticed changes in the attitudes of users of unattended aerodromes since the WTSA campaign launched?
Yes = 132 (21%), No = 329 (52%), no response = 173 (27%)

If the answer above was yes, participants (n = 126) then reported the extent to which observed changes were positive or negative. There were 5 response options, measured on an ordinal scale, ranging from 1 = 'All negative' to 5 = 'All positive'. The responses are shown in Table 17. The modal and median responses = 4, and the theoretical mean response was 3.87.

Table 17. Attitudinal changes.

	n	%[3]
All negative	0	0
Mostly negative	3	2
Some positive, some negative	25	20
Mostly positive	84	67
All positive	14	11

---

[2] % of n = 125 participants who responded yes and answered this question.

The 126 respondents above were then asked what kinds of changes they had noticed
Answers included: "Better disciplined comms", "better radio comms", "greater discussion on traffic patterns and separation", and "I hope a better understanding of the potential hazards". A full list of all 86 answers is attached in Appendix B

Have you noticed any changes in the culture of users at unattended aerodromes since the WTSA campaign launched?
No = 309 (49%), Yes = 134 (21%), Missing 191 (30%)

If the answer above was yes, participants (*n* = 117) then reported the extent to which observed changes were positive or negative.
There were 5 response options, measured on an ordinal scale, ranging from 1 = 'All negative' to 5 = 'All positive'. The responses are shown in Table 18. The modal and median responses = 4, and the theoretical mean response was 3.87.

Table 18. Culture changes.

Response	*n*	%[3]
All negative	0	0
Mostly negative	1	1
Some positive, some negative	35	30
Mostly positive	64	51
All positive	17	15

The 117 respondents above were then asked what the kinds of changes they had noticed in the culture of unattended aerodromes.
Answers (verbatim) included: "Pilots more willing to comply with the Rules and procedures", "That some follow the new way, but a lot still prefer to do the older style". A full list of all 86 answers is attached in Appendix C.

To what extent have you noticed unattended aerodrome users talking about issues related to safety since the WTSA campaign launched?
There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Not at all' to 5 = 'A great deal' (the same options are used in the following four questions). The responses are shown in Table 19. The modal and median responses = 2, and the theoretical mean response was 2.17.

Table 19. Noticed conversations about safety.

Response options	*n*	%
Not at all	107	25.5
A little	172	41.1
A moderate amount	107	25.5
A lot	29	6.9
A great deal	4	1

---

[3] % of n = 134 participants who responded yes and answered this question.

Have you noticed an increase in users talking about issues related to safety since the WTSA campaign launched?

The responses are shown in Table 20. The modal and median responses = 2, and the theoretical mean response was 2.02.

Table 20. Changes in level of talk about safety.

	n	%
Not at all	138	33
A little	163	39
A moderate amount	92	22
A lot	22	5.3
A great deal	3	0.7

Have you heard unattended aerodrome users ask for further information regarding safety since the WTSA campaign launched?

The responses are shown in Table 21. The modal and median responses = 1, and the theoretical mean response was 1.5.

Table 21. Requesting further information.

	n	%
Not at all	246	64.9
A little	89	23.5
A moderate amount	31	8.2
A lot	12	3.2
A great deal	1	.3

Do you think unattended aerodromes have become safer places to operate since the WTSA campaign launched?

The responses are shown in Table 22. The modal and median responses = 2, and the theoretical mean response was 2.18.

Table 22. Have unattended aerodromes become safer since WTSA campaign.

	n	%
Not at all	90	23.7
A little	170	44.9
A moderate amount	86	22.7
A lot	28	7.4
A great deal	5	1.3

Do you think the WTSA campaign has been successful?

The responses are shown in Table 23. The modal and median responses = 2, and the theoretical mean response was 2.52.

Table 23. Has the WTSA campaign been successful?

	n	%
Not at all	54	14.2
A little	150	39.6
A moderate amount	112	29.6
A lot	49	12.9
A great deal	14	3.7

The 379 respondents above were then asked, 'Why did you give the previous answer Q27?'

N = 303 Answers (verbatim) included: "You have the vast majority of pilots in NZ knowing that they have been told to all do circuits 'properly' - So that's a least a partial success based on what I imagine were the goals of WTSA.", "I feel safer rejoining the airfield vicinity. Radio calls are 'sharper' and more precise", "We still have pilots doing non-standard joins", and "Not heard of it or heard other pilots discuss it". A full list of all 314 answers is attached in Appendix D.

What aspects of the WTSA campaign could be improved?

N = 198 Answers (verbatim) included: "I think the campaign itself SHOULD have been effective. Not sure why these things are still happening.", "I think it has been circulated well."," I think it's great but just needs to keep being spread particularly to private operators."," None really – it was a good campaign", "attendees at seminars are already careful—need to get the outliers involved", "One of the seminars in particular was very accusatory against those who attended. I felt like the bad boy, when the bad boy was the one who did NOT attend the seminar", and "engage with those that won't normally engage". A full list of all 197 answers is attached in Appendix E.

What should the WTSA campaign have included, but didn't?

n = 125 Answers (verbatim) included: "A full list of all 125 answers is attached in Appendix F

There were a wide and disparate range of comments, including "we need to get serial offenders into these presentations", and "how to persuade all pilots to engage"

Were there any parts of the WTSA campaign that you think were not of value?

A full list of all 72 answers is attached in Appendix G. However, of these 27 stated there were no parts that were of no value, 3 expressed they were not sure if no parts were not of value, 4 did not know, and 2 did not know because they were not aware of the campaign. The remaining 36 responses included: "All of it was ineffective", "Basically all of it", "The chance of mid-air collisions at NZ unattended aerodromes has not been affected by the campaign", and "Didn't see it".

In the qualitative comments, several respondents mentioned "plane talking/radio use"

Briefly, why were these parts not of value?

There were 62 responses to this question, and all may be read (verbatim) in Appendix H. Of note is that 17 responded no and 3 not sure. Of the remaining 42 responses, included: "Felt like the CAANZ needed something to do – other internal problems should have been handled first", "the campaign itself was good and necessary", "Nothing specific to help avoid incidents. Just saying, it's up to you to look out the window. Good luck".

Section Summary

N = 131 (28%) of respondents reported observing changes in *behaviour* since the WTSA was launched, whereas *N* = 342 (72%) reported no observed changes. Of those observing changes, 78% were *mostly* or *all* positive. *N* = 132 (29%) of respondents reported observing changes in in *attitudes* since the WTSA was launched, whereas N = 329 (71%) reported no observed changes. Of those observing changes, 78% were *mostly* or *all* positive. *N* = 134 (30%) of respondents reported observing changes in in *culture* since the WTSA was launched, whereas N = 309 (70%) reported no observed changes. Of those observing changes, 69% were *mostly* or *all* positive.

At unattended aerodromes*, N* = 280 (67%) of respondents had observed at least a little increase in conversations about safety, *N* = 289 (76%) of respondents believed that they had become at least a little safer, and *N* = 325 (86%) of respondents believed the WTSA campaign had been at least a little successful.

3.4.   Perceived Usefulness of the WTSA campaign

Which parts of the WTSA campaign were of most use?

Where 0 = not at all useful, and 100 = extremely useful, respondents reported:

Road Show/seminars/events
Mean score = 56.6, (*SD* = 40.09), median = 70, range = 0 – 100

Social Media
Mean score = 43.78, (*SD* = 30.24), median = 50, range = 0 – 100

Vector magazine
Mean score = 62.37, (*SD* = 27.24), median = 70, range = 0 – 100

How useful did you find the WTSA campaign overall?

There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Not at all' to 5 = 'A great deal'. The responses are shown in Table 24. The same response options are used in the following 5 questions. The modal and median responses = 3, and the theoretical mean response was 3.04, SD = 1.16.

Table 24. Usefulness of the campaign.

	n	*%*
1. Not at all	35	9.7
2. A little	87	24.2
3. A moderate amount	110	30.6
4. A lot	84	23.4
5. A great deal	43	12

How interesting was the WTSA campaign?

The responses are shown in Table 25. The modal and median responses = 3, and the theoretical mean response was 3.11, SD = 1.14.

Table 25. How interesting was the campaign?

Response	*n*	%
Not at all	34	9.5
A little	73	20.3
A moderate amount	115	32
A lot	95	26.5
A great deal	42	11.7

How informative was the WTSA campaign?

The responses are shown in Table 26. The modal and median responses = 3, and the theoretical mean response was 3.19 (SD = 1.10).

Table. 26. How informative was the campaign?

	n	*%*
Not at all	24	6.7
A little	71	19.9
A moderate amount	116	32.6
A lot	102	28.7
A great deal	43	12.1

How much did your knowledge about unattended aerodromes increase as a result of the WTSA campaign?

The responses are shown in Table 27. The modal and median responses = 2, and the theoretical mean response was 2.23, SD = .93.

Table 27. Did your knowledge increase?

	n	%
Not at all	81	22.7
A little	149	41.7
A moderate amount	95	26.6
A lot	27	7.6
A great deal	5	1.4

Will you feel more positive about using unattended aerodromes in the future, as a result of the WTSA campaign?

The responses are shown in Table 28. The modal and median responses = 2, and the theoretical mean response was 2.38, SD = 1.17.

Table 28. Positivity about using unattended aerodromes.

	n	%
Not at all	96	27
A little	114	32
A moderate amount	81	22.8
A lot	46	12.9
A great deal	19	5.3

Do you believe your behaviour at unattended aerodromes will be safer in the future, as a result of the WTSA campaign?

The responses are shown in Table 29. The modal and median responses = 2, and the theoretical mean response was 2.53, SD = 1.21.

Table 29. Post WTSA, will unattended aerodromes be safer?

	n	%
Not at all	76	22.1
A little	111	32.3
A moderate amount	84	24.4
A lot	44	12.8
A great deal	29	8.4

Section Summary

Respondents found material was communicated best in *Vector*, then by *road shows* and then *social media*. Of those who answered, 324 (90%) found the campaign to be of at least 'a little' use, 325 (91%) found it to be at least a little interesting, 332 (93%) found it at least a little informative, 276 (77%) found that their knowledge increased a least 'a little', (73%) reported feeling at least 'a little' more positive about using unattended aerodromes, and, finally, 268 (78%) reported that their own behaviours at unattended aerodromes would be at least 'a little' safer.

3.5. Flight preparation

Do you fly into unattended aerodromes? If yes, you will now be asked 8 questions about your flight preparation.

Of those who answered this question, *n* = 189 (30%) answered 'yes', and *N* = 110 (17%) answered 'no'.

Note: The remaining sections of this report focus only upon those respondents who answered 'yes' to this question. (Although an earlier question did ask essentially the same question, this latter one was deemed to be a better reflection of whether respondents fly into or from unattended aerodromes. The earlier question indicated a larger number of respondents whose relationship was that they are pilots who fly into or from unattended aerodromes. The findings for the larger sample who noted that they were pilots who fly into or from unattended aerodromes were in similar proportions to the findings presented here for the smaller number of respondents.)

Before flying, do you check your destination aerodrome plate in the AIP?

There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Never' to 5 = 'Always'. An additional option provided for this question was 'Not if I am familiar with the destination aerodrome'. The responses (*n* = 185) are shown in Table 30. The modal and median responses = 5, and the theoretical mean response was 4.84, *SD* = 0.83.

Table 30. Do you check destination plates?

	n	%
Never	2	1.1
Sometimes	3	1.6
About half the time	4	2.2
Most of the time	30	16.2
Always	120	64.9
Not if I am familiar with the destination aerodrome	26	14.1
no response	4	2.1%

Before flying, do you check potential diversion/alternate aerodrome plate in the AIP?

There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Never' to 5 = 'Always'. The responses (*n* = 184) are shown in Table 31. The modal responses = 5, median = 4, and the theoretical mean response was 3.81, *SD* = 1.29.

Table 31. Do you check diversion/alternate plates?

	n	%
Never	9	4.8%
Sometimes	35	18.5%
About half the time	15	7.9%
Most of the time	48	25.4%
Always	77	40.7%
no response	5	2.6%

How much does your familiarity with the destination aerodrome impact whether you check the AIP?

There were 3 response options, measured on an ordinal scale, ranging from 1 = 'Not at all' to 3 = 'Most of the time'. The responses (*n* = 185) are shown in Table 32. The modal responses = 3, median = 2, and the theoretical mean response was 2.01, *SD* = 0.90.

Table 32. Does familiarity affect checking AIP?

	n	%
Not at all	74	39.2%
About half the time	36	19%
Most of the time	75	39.7%
no response	4	2.1%

Before flying, do you check NOTAMs for all relevant areas?

There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Never' to 5 = 'Always'. The responses (*n* = 185) are shown in Table 33. The modal and median responses = 5, and the theoretical mean response was 4.64, *SD* = 0.72.

Table 33. Do you check NOTAMS?

	n	%
Never	1	0.5%
Sometimes	5	2.6%
About half the time	5	2.6%
Most of the time	37	19.6%
Always	137	72.5%
no response	4	2.1%

How much does your familiarity with the destination aerodrome impact whether you check NOTAMS?

There were 3 response options, measured on an ordinal scale, ranging from 1 = 'Not at all' to 3 = 'Most of the time'. The responses (*n* = 185) are shown in Table 34. The modal and median responses = 1, and the theoretical mean response was 1.49, *SD* = 0.80.

Table 34 Does familiarity affect whether you check NOTAMS?

	n	%
Not at all	131	69.4%
About half the time	18	9.5%
Most of the time	36	19%
no response	4	2.1%

Before flying, do you check AIP Supplements?

There were 5 response options, measured on an ordinal scale, ranging from 1 = 'Never' to 5 = 'Always'. The responses (*n* = 185) are shown in Table 35. The modal response = 2, the median responses = 4, and the theoretical mean response was 3.24, *SD* = 1.41.

Table 35. Do you check AIP supplements?

	n	%
Never	24	12.7%
Sometimes	48	25.4%
About half the time	20	10.6%
Most of the time	46	24.3%
Always	47	24.9%
no response	4	2.1%

Overall flight preparation.

The total score of the 6 previous items assessing flight preparation (relating to scores in Tables 5.1 to 5.4 and 5.6 to 5.7) provides an indicator of flight preparation thoroughness, with higher total scores indicating more thorough flight preparation and vice versa. Possible scores therefore ranged from 6 to 30.

The range of scores was 6 to 26, mean = 20.02 (SD = 3.10), median = 20, mode = 22, n = 184).

How do you check the weather before flight? (Tick all that you normally perform.)

The modal method was to use PreFLight, n = 253. See Table 36 for other responses.

Table 36. How do you check weather before flight.

Method	n	
	Yes	No
Look out the window	128	61
Rely on my instructor or fellow pilot for advice	25	164
TV or Radio	46	143
PreFlight (www.gopreflight)	147	42
IFIS Airways website	74	115
Windy.com	124	65
MetVUW.com	94	95
Webcams	114	75
Other	39	150

In 'other', 14 people stated MetService

Thinking about your most recent flight, how long before the flight did you last check the weather?

Participants could choose one of 8 responses that indicated a particular timeframe, or that they did not check the weather. No participant responded that they did not check the weather, and the modal and median response was within one hour of take-off. Participants responses by timeframe are shown in Table 37.

Table 37. How long before flight do you check weather?

	n	%
Within 30 minutes of take-off	41	21.7%
Within 1 hour of take-off	71	37.6%
1-2hrs	40	21.2%
2-4hrs	22	11.6%
4-6hrs	2	1.1%
6-12hrs	4	2.1%
12-24hrs	2	1.1%
More than 24hrs	4	2.1%
no response	3	1.6%

Section Summary

Of those who responded, N = 120 (64%) reported always checking their destination plate in the AIP, N = 77 (41%) reported always checking their diversion/alternate aerodrome plate in the AIP, N = 137 (73%) reported always checking NOTAMS, and N = 47 (25%) reported always checking AIP supplements.

3.6.   Risk perception

In this section, participants were asked to estimate the quality of their pre-flight planning and overall airmanship as a percentage, where 50% = average. As a group, if the estimated values are significant greater (or lower) than the value defined as average (50%), this enables it to be determined if there is evidence of invulnerability (scores significantly > 50%) or vulnerability (scores significantly < 50%).

Compared to other pilots of similar experience and background, how thorough would you say is your overall pre-flight planning?
Of n = 183 responses, the mean score was 74.95 (SD = 16.62), Median = 78, Mode = 50

How do you currently rate your airmanship at controlled aerodromes?
Of n = 173, the mean score was 75.24 (SD = 21.31), Median = 80, Mode = 100

How do you currently rate your airmanship at unattended aerodromes?
Of n = 183, the mean score was 82.79 (SD = 13.59), Median = 84, Mode = 90

Compared to other aviators like you, how would you rate your airmanship at controlled aerodromes?
Of n = 174, the mean score was 72.14 (SD = 20.04), Median = 75, Mode = 50, range = 0-100

Compared to other aviators like you, how would you rate your airmanship at unattended aerodromes?
Of n = 180, the mean score was 76.89 (SD = 17.17), Median = 80, Mode = 100, range = 40 - 100

In the future, will you try to improve your airmanship at controlled aerodromes?
Of n = 142, the mean score was 89.47 (SD = 21.63), Median = 100, Mode = 100, range = 0-100

In the future, will you try to improve your airmanship at unattended aerodromes?
Of n = 151, the mean score was 91.19 (SD = 18.77), Median = 100, Mode = 100, range = 0-100

Section Summary
As a group (it is generally not possible to draw inferences about individuals), there was evidence of perceived invulnerability in respondents' answers to the 7 items in this section. (Perceived invulnerability is the belief that one is less susceptible to negative outcomes than others – it can make the negative events one believes one is less susceptible to more likely to happen because individuals who feel invulnerable may be more likely to engage in risky behaviours and make poor decisions due to an underestimation of potential dangers.)

3.7. Knowledge relevant to safe use of unattended aerodromes

The following 24 items assessed respondents' factual knowledge of procedures at NZ's unattended aerodromes, or whether their beliefs would logically be consistent with safety. The correct answer(s) or the most accurate perception of correctness is highlighted in grey. The first 19 items were answered using a 5-point scale, where 0 = 'I'm certain this is false, 2 = I'm somewhat certain this is false, 3 = I'm uncertain this is true or false, 4 = I'm somewhat certain this is true, and 5 = I'm certain this is true. For example, regarding factual knowledge, 'fixed wing aircraft must conform to the circuit' is an established procedure and should therefore the 'most' correct answer should be 'I'm certain this is true'. Similarly, regarding beliefs consistent with safety, when asked to indicate the veracity of the statement, 'When joining and unattended aerodrome, I may fail to spot other aircraft', logically the 'most' correct answer is 'I'm certain this is true'. Respondent's answers to each of the 24 items may be inspected below. As an overall measure of knowledge and attitudes consistent with safe operations at unattended aerodromes, the mean response value of the first 19 items was calculated to provide an indication of both attitudes and knowledge. In this calculation, it should be noted that the items summarised in Tables 42, 46, 52, 54, and 55 were reverse scored, as the 'correct' statement regarding each item was 'I'm certain this is false'. The remaining 5 items were of a different format, whereby respondents either selected one or more correct answers or a value they believed to be correct. Responses summarised in Tables 40, 50, 54, 55, and 56 relate to beliefs rather than factual knowledge.

When joining an unattended aerodrome, fixed wing aircraft must conform to the established circuit.
For this question, there are 5 mutually exclusive response options, ranging from 1 = I'm certain this is false to 5 = I'm certain this is true. The theoretical mean score was 4.56, *SD* = 0.99, Median = 5, Mode = 5, range 1 – 5. See Table 38.

Table 38. Fixed wing aircraft must conform to the circuit.

	n	%
I'm certain this is false	7	3.7%
I'm somewhat certain this is false	4	2.1%
I'm uncertain whether this is true or false	3	1.6%
I'm somewhat certain this is true	22	11.6%
I'm certain this is true	120	63.5%
no response	33	17.5%

Helicopters may approach the airfield to land without joining the circuit.
The theoretical mean score was 3.64, *SD* = 1.50, Median = 4, Mode = 5, range 1 – 5. See Table 39.

Table 39. Helicopters may land without joining the circuit.

	n	%
I'm certain this is false	25	13.2%
I'm somewhat certain this is false	12	6.3%
I'm uncertain whether this is true or false	23	12.2%
I'm somewhat certain this is true	27	14.3%
I'm certain this is true	67	35.4%
no response	35	18.5%

When joining an unattended aerodrome, I may fail to spot other aircraft.

The theoretical mean score was 4.10, *SD* = 1.27, Median = 5, Mode = 5, range 1 – 5. See Table 40.

Table 40. I could fail to spot other aircraft when joining an unattended aerodrome.

	n	%
I'm certain this is false	12	6.3%
I'm somewhat certain this is false	11	5.8%
I'm uncertain whether this is true or false	12	6.3%
I'm somewhat certain this is true	35	18.5%
I'm certain this is true	85	45%
no response	34	18%

Aircraft performing agricultural operations may turn in any direction when joining or departing an unattended aerodrome.

The theoretical mean score was 3.12, *SD* = 1.64, Median = 3, Mode = 5, range 1 – 5. See Table 41.

Table 41. Agricultural aircraft may turn in any direction when joining or departing an unattended aerodrome.

	n	%
I'm certain this is false	43	22.8%
I'm somewhat certain this is false	19	10.1%
I'm uncertain whether this is true or false	20	10.6%
I'm somewhat certain this is true	23	12.2%
I'm certain this is true	50	26.5%
no response	34	18%

After taking-off on an easterly runway heading, from an unattended aerodrome with a left-hand circuit, if there is no other traffic you may turn right (South) as soon as you have climbed to 500 ft.

The theoretical mean score was 1.88, *SD* = 1.39, Median = 1, Mode = 1, range 1 - 5 . See Table 42.

Table 42. You may turn right after climbing to 500ft

	n	%
I'm certain this is false	98	51.9%
I'm somewhat certain this is false	22	11.6%
I'm uncertain whether this is true or false	6	3.2%
I'm somewhat certain this is true	13	6.9%
I'm certain this is true	16	8.5%
No response	34	18%

If you are approaching an airfield to do a standard overhead rejoin and you are aware a high-performance aircraft is about to take-off and depart, you should avoid crossing the threshold at 1000 feet.

The theoretical mean score was 2.84, *SD* = 1.66, Median = 3, Mode = 1, range 1 - 5. See Table 43.

Table 43. Avoid crossing the threshold at 1000ft if a high performance aircraft is taking off.

	n	%
I'm certain this is false	52	27.5%
I'm somewhat certain this is false	24	12.7%
I'm uncertain whether this is true or false	15	7.9%
I'm somewhat certain this is true	20	10.6%
I'm certain this is true	42	22.2%
no response	36	19%

Just prior to take-off, if you have a radio fitted, you should broadcast your call-sign, runway, and intentions after take-off.

The theoretical mean score was 4.76, *SD* = 0.85, Median = 5, Mode = 5, range 1 - 5. See Table 44.

Table 44. Broadcasting information prior to take-off.

	n	%
I'm certain this is false	6	3.2%
I'm somewhat certain this is false	1	0.5%
I'm uncertain whether this is true or false	2	1.1%
I'm somewhat certain this is true	5	2.6%
I'm certain this is true	139	73.5%
no response	36	19%

If you operate an aircraft at an unattended aerodrome you must read, understand, and abide by the AIP limitations and operational conditions.

The theoretical mean score was 4.97, *SD* = 0.18, Median = 5, Mode = 5, range 4 – 5. See Table 45.

Table 45. You must read, understand, and abide by the AIP limitations and operational conditions.

	n	%
I'm somewhat certain this is true	5	2.6%
I'm certain this is true	148	78.3%
no response	36	19%

If you are descending in the circuit, catching up on the aircraft in front, you may overtake with care.

The theoretical mean score was 1.48, *SD* = 1.0, Median = 1, Mode = 1, range 1 – 5. See Table 46.

Table 46. When descending, you may overtake with care.

	n	%
I'm certain this is false	114	60.3%
I'm somewhat certain this is false	23	12.2%
I'm uncertain whether this is true or false	6	3.2%
I'm somewhat certain this is true	5	2.6%
I'm certain this is true	6	3.2%
no response	35	18.5%

Even if you have right of way, you should alter your heading and speed to avoid conflict.

The theoretical mean score was 4.62, *SD* = 1.09, Median = 5, Mode = 5, range 1 – 5. See Table 47.

Table 47. You should avoid conflict, even with right of way.

	n	%
I'm certain this is false	11	5.8%
I'm somewhat certain this is false	2	1.1%
I'm somewhat certain this is true	8	4.2%
I'm certain this is true	131	69.3%
no response	37	19.6%

Legally, if you are converging with another aircraft at approximately the same height, the aircraft on the left must give way.
The theoretical mean score was 3.57, *SD* = 1.62, Median = 4, Mode = 5, range 1 – 5. See Table 48.

Table 48. When converging, the aircraft on the left gives way.

	n	%
I'm certain this is false	32	16.9%
I'm somewhat certain this is false	12	6.3%
I'm uncertain whether this is true or false	16	8.5%
I'm somewhat certain this is true	19	10.1%
I'm certain this is true	71	37.6%
no response	39	20.6%

If you are in an aircraft in flight or on the ground, you must give way to aircraft landing or on final approach
The theoretical mean score was 4.95, *SD* = 0.29, Median = 5, Mode = 5, range 1 – 5. See Table 49.

Table 49. In flight or on the ground, you must give way to aircraft landing or on final approach.

	n	%
I'm uncertain whether this is true or false	1	0.5%
I'm somewhat certain this is true	5	2.6%
I'm certain this is true	148	78.3%
no response	35	18.5%

When you are joining an unattended aerodrome, other pilots could fail to spot all aircraft.
The theoretical mean score was 4.82, *SD* = 0.62, Median = 5, Mode = 5, range 1 – 5. See Table 50.

Table 50. Might other pilots fail to spot aircraft?

	n	%
I'm certain this is false	3	1.6%
I'm uncertain whether this is true or false	0	0%
I'm somewhat certain this is true	15	3.7%
I'm certain this is true	136	72%
no response	35	18.5%

When landing, you must give way to aircraft at lower altitudes
The theoretical mean score was 4.25, *SD* = 1.17, Median = 5, Mode = 5, range 1 – 5. See Table 51.

Table 51. Pilots must give way to lower aircraft.

	n	%
I'm certain this is false	8	4.2%
I'm somewhat certain this is false	7	3.7%
I'm uncertain whether this is true or false	19	10.1%
I'm somewhat certain this is true	22	11.6%
I'm certain this is true	94	49.7%
no response	39	20.6%

At an unattended aerodrome, it is acceptable for you to descend rapidly to be able to land before a lower aircraft.

The theoretical mean score was 1.29, *SD* = 0.73, Median = 1, Mode = 1, range 1 – 5. See Table 52.

Table 52. it is acceptable to descend rapidly to land before a lower aircraft.

	n	%
I'm certain this is false	124	65.6%
I'm somewhat certain this is false	18	9.5%
I'm uncertain whether this is true or false	7	3.7%
I'm somewhat certain this is true	0	0%
I'm certain this is true	3	1.6%
no response	37	19.6%

I comply with AIP rules and Noise Abatement Procedures at unattended aerodromes.

The theoretical mean score was 4.77, *SD* = 0.48, Median = 5, Mode = 5, range 3 – 5. See Table 53.

Table 53. I comply with AIP rules and Noise Abatement procedures.

	n	%
I'm uncertain whether this is true or false	4	2.1%
I'm somewhat certain this is true	27	14.3%
I'm certain this is true	122	64.6%
no response	36	19%

Correctly conducting a Standard Overhead Rejoin will guarantee you keep above the circuit traffic.

The theoretical mean score was 1.9, *SD* = 1.40, Median = 1, Mode = 1, range 1 – 5. See Table 54.

Table 54. Correctly conducting a Standard Overhead Rejoin will guarantee you keep above the circuit traffic.

	n	%
I'm certain this is false	70	37%
I'm somewhat certain this is false	34	18%
I'm uncertain whether this is true or false	19	10.1%
I'm somewhat certain this is true	20	10.6%
I'm certain this is true	10	5.3%
no response	36	19%

At unattended aerodromes, other pilots will correctly conduct a Standard Overhead Rejoin.

The theoretical mean score was 3.87, *SD* = 1.30, Median = 4, Mode = 5, range 3 – 5. See Table 55.

Table 55. At unattended aerodromes, other pilots will correctly conduct a Standard Overhead Rejoin.

	n	%
I'm certain this is false	1	.5%
I'm somewhat certain this is false	4	2.1%
I'm uncertain whether this is true or false	3	1.6%
I'm somewhat certain this is true	20	10.6%
I'm certain this is true	125	66.1%
no response	36	19%

How much do you agree with the statement that, 'Standardisation of procedures improves safety'.
The theoretical mean score was 4.73, *SD* = 0.69, Median = 5, Mode = 5, range 1 – 5. See Table 56.

Table 56. Standardisation of procedures improves safety.

	n	%
I'm certain this is false	1	.5%
I'm somewhat certain this is false	4	2.1%
I'm uncertain whether this is true or false	3	1.6%
I'm somewhat certain this is true	20	10.6%
I'm certain this is true	125	66.1%
no response	36	19%

Mean score of the previous 19 items

The mean of the previous 19 items was taken as an indicator of factual knowledge and beliefs consistent with safe operations at unattended aerodromes, whereby the higher the mean score, the higher was the respondent's knowledge of procedures at unattended aerodromes associated with safe operations. The pro-rata mean was calculated, where up to 3 of the 19 items were not answered.

Figure 7. Distribution of knowledge certainty scores.
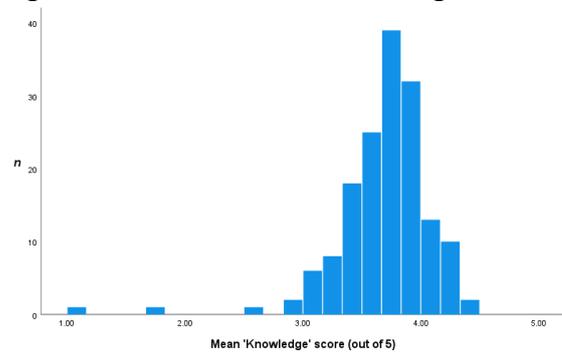
Across all 19 items, the lowest total score was 1.00 and the highest mean score was 4.42; the median overall score was 3.74 (*SD* = 0.34). The range of possible scores was 1 to 5, with lower scores being less consistent with safe operations at unattended aerodromes

When you land at an unattended aerodrome with a left-hand circuit, are any of the following ways of joining the circuit illegal? (Select any/all that apply).
There are four possible responses to this question, of which participants can select as many as they wish: overhead, downwind leg, final leg, right base: The single correct answer to this question is right base. *N* = 107 participants selected right base, although, of these, 12 also selected at least one other response (none of which are illegal). See Table 57.

Table 57. Illegal methods to join the circuit

	n	%*
Overhead	23	12.2%
Downwind leg	24	12.7%
Final leg	29	15.3%
Right base	107	56.6%

* Percentage of sample identifying the response

When departing an unattended aerodrome, which of the following suggest you can turn in a direction counter to that of the circuit? (You may select one or more answers).
See Table 58.

Table 58. When can you turn in a direction counter to that of the circuit?

Response	*n*	%
You are 2 NM or 1500 ft clear of the circuit	138	73%
You are the only user	18	9.5%
Visibility is unlimited	11	5.8%
There are no radio broadcasts	8	4.2

When operating in a 'Mandatory Broadcast Zone", what must you do? (Tick any/all that apply)
See Table 59.

Table 59. When in a MBZ, what must you do?

Response	n	%
Broadcast on entry	140	74.1
Broadcast on joining the circuit	127	67.2
Broadcast before entering a runway for take-off	132	69.8
Broadcast at the specified intervals	140	74.1
Maintain a listening watch	139	73.5
Activate landing and/or anti-collision lights (if fitted)	118	62.4

At an uncontrolled aerodrome, when under VFR, in daylight hours, what is the ceiling minima (in feet)?

N = 130, Mean response = 852.31, SD = 472.70, Range = 300 – 3000, Median = 600, Mode = 600.

At an uncontrolled aerodrome, when under VFR, in daylight hours, what is the flight visibility minima (in metres)?

N = 127, Mean response = 2567.72, SD = 1644.32, Range = 100 – 5000, Median = 1500, Mode = 1500.

Section Summary

Overall, participants had a reasonably good degree of confidence as to whether each of the 17 statements about procedures at unattended aerodromes was correct; that is, the average degree of knowledge relevant to operating safely at unattended aerodromes appeared reasonably good.

However, there were 2 exceptions. First, close to as many respondents who thought the statement regarding whether agricultural aircraft may turn in any direction when joining or departing an unattended aerodrome was true (40%) believed the statement was false (48%), which it was not. This might mean, for those latter respondents, the legal manoeuvres of an agricultural aircraft may be unexpected. Second, the statement 'if you are approaching an airfield to do a standard-overhead-rejoin and you are aware a high-performance aircraft is about to take off and depart, you should avoid crossing the threshold at 1000 feet', which is true, was believed to be false by 46%, whereas only 42% correctly believed it to be true.

3.8.   Pre-flight checks (reliability)

The information sought in this section was essentially to confirm the reliability of earlier responses about pre-flight planning.

Before your last flight, did you carry out pre-flight preparation?
Yes = 150 (79.4%), no = 1 (.5%), missing = 38 (20%)

Before your last flight, did you check the destination AIPs?
Yes = 116 (61.4%), no = 29 (15.3%), missing = 44 (23.3%)

Before your last flight, did you check alternate/diversion AIPs?
Yes = 187 (46%), no = 58 (30.7%), missing = 44 (23.3 %)

Before your last flight, did you check NOTAMs for all relevant areas?
Yes = 137 (72.5%), no = 8 (4.1%), missing = 44 (23.3 %)

Before your last flight, did you check AIP supplements?
Yes = 78 (41.3%), no = 67 (35.4%), missing = 44 (23.3 %)

On your last flight, how did you check the weather?

The modal method was to use PreFlight, and the least chosen method was to ask an instructor or peer. See Table 60 for all responses.

Table 60. On your last flight, how did you check the weather?

Response	n	%
Look out the window	83	54.5
Relied on instructor/fellow pilot for advice	15	7.9
Check TV or Radio	19	10.1
PreFlight (www.gopreflight website)	110	58.2
IFIS Airways website	52	27.5
Windy.com	80	42.3
MetVUW.com	47	24.9
Webcams	56	29.6
Other	25	14.3

25 'other' responses are included in Appendix i

Before your last flight, how recent was your weather information (in hours)?
Mean time (in hours) = 1.89, *SD* = 2.48, median = 1, mode = 1, range 0 – 24hrs, *n* = 141

Section Summary

In this reliability check of attitudes and behaviour regarding pre-flight planning, answers appear to be largely consistent with those in section 2.3.5

3.9. Knowledge of extent of risks of using unattended aerodrome

Since 2016, how many 'events', 'occurrences' or 'incidents' do you estimate have been reported at or in the vicinity of NZ's unattended aerodromes?

Some responses were excluded where the answer was too vague to be used. (e.g., Thousands). A response stating .5M was also excluded due to it being a significant outlier/or typographical error.

N = 97, Mean = 1875, SD = 3653, Median = 600, mode = 500, range = 10 – 25000

Since 2008, how many mid-air collisions have occurred in the vicinity of a NZ unattended aerodrome?

N = 97, Mean = 3.80, SD = 1.36, Median = 3, Mode = 3 range = 1-10. Note: 18 outlying responses were removed from analysis (those greater than 3x the correct answer of 3)

Compared to operating at a controlled aerodrome, what do you personally think is the level of risk of operating at an unattended aerodrome?

n = 145, where 0 = much lower, 50 = the same, and 100 = much higher, Mean 75.77, SD = 20.62, range 0-100.

Compared to other aviators like you what is your chance of conducting manoeuvres in contradiction of published procedures?

N = 125, where 0 = much lower, 50 = the same, and 100 = much higher, Mean 26.45, SD = 21.83

Section Summary

Data analysis suggests that most respondents hold realistic ideas of the extent of the risks of unattended aerodromes.

IT also appears that users of unattended aerodromes perceive unattended aerodromes to be inherently of higher risk than controlled aerodromes.

Respondents overall appear to believe their chance of conducting manoeuvres in contradiction of published procedures to be far less than that of pilots like them – suggesting the existence of perceptions of invulnerability.

3.10. Statistical tests, by section

Tests associated with Section 3.1: Demographics

➢ Of the respondents who reported their age band (*N* = 252), there were differences in the likelihood (%) a pilot would fly into and/or from unattended aerodromes by age band. The odds for each reported age band are shown in Table 61 (the single respondent <18 is not reported). Similar differences were observed by those who reported gender (male vs female only: other forms of identification were not included due to low numbers). The odds for male and female are shown in Table 62.

➢

Table 61. Likelihood of using unattended aerodromes by reported age band.

Age band	Flies to and/or from unattended aerodromes		Likelihood (%) of using unattended aerodromes
	No	Yes	
18 - 24	5	9	64%
25 - 34	6	24	80%
35 - 44	3	32	91%
45 - 54	8	18	69%
55 - 64	6	57	90%
65 - 74	8	58	88%
>75	1	16	94%
Total	37	214	85%

Table 62. Likelihood of using unattended aerodromes by gender (male/female).

Gender	Flies to and/or from unattended aerodromes		Likelihood (%) of using unattended aerodromes
	No	Yes	
Male	31	189	86%
Female	5	21	81%
Total	36	210	85%

Tests associated with Section 3.2: Engagement with and awareness of the campaign

➢ There was no evidence that respondents who were 'not at all aware' of the WTSA campaign had flown different hours overall than those who were at least 'a little' aware of the campaign, had flown different hours in the last two years, or had been flying for different numbers of years.

➢ Differences were identified in level of engagement with the WTSA programme according to the type of aircraft primarily flown, whereby microlight pilots engaged significantly more (*M* = 3.33) with the programme than did helicopter pilots (*M* = 2.46). No other types of aircraft reached statistical significance.

➢ There was no statistically significant evidence (evidence) that age group was correlated with the extent to which participants reported having engaged with the WTSA campaign (WTSA).

➢ There was no evidence that engagement with the WTSA differed by gender (only Male or female were explored, due to low numbers of 'other' or 'prefer not to say' responses).

➢ There was evidence that self-reported engagement with WTSA varied with some 'relationships' to NZ's unattended aerodromes: respondents whose relationship was *Flight Instructor, CFI, Manager, or Other* reported engaging more with the campaign (the highest level of engagement was reported by *CFI's).* The lowest level of engagement with the campaign was reported by Student pilots, then chief pilots, followed by safety officers. See table 63.

Table 63. Extent of self-report engagement with campaign, by relationship with unattended aerodromes. (Relationship with grey highlight are above the weighted mean level of engagement, and vice versa.)

Relationship with unattended aerodromes	*n**	Mean self-report engagement with WTSA	*SD*
Pilot	377	2.95	1.24
Student pilot	42	2.40	1.25
Flight instructor	98	3.53	1.23
Chief pilot	14	2.86	1.35
CFI	37	4.11	.97
Manager	21	3.67	1.11
Safety officer	23	3.22	1.24
Engineer/technician	16	2.75	1.24
Aircraft owner	135	2.95	1.29
Committee member	44	3.11	1.35
Weighted overall mean	807**	3.08	

* *N* may be less than that reported earlier, as not all respondents provided information on engagement AND relationship.
** Respondents could report more than one 'relationship'

➢ The extent to which respondents personally reported engaging with the WTSA, was moderately to strongly related to the extent to which they thought others engaged with the WTSA, strongly related to the extent to which they encouraged others to engage with the WTSA, and moderately to strongly related to the extent to which had heard others encouraging people to engage with the WTSA.

➢ There was evidence that engagement with WTSA varied according to the source of information respondents reported captured their attention: respondents whose

attention was captured by *Web/Internet content, social media, Seminars/Events/Roadshows, print products, Vector articles* reported engaging more with the campaign. By far, the highest level of engagement (a very large effect size) was reported by those whose engagement was captured by *seminars/events/and roadshows.*

➢ Respondents who reported that they noticed changes in the behaviour of users of unattended aerodromes since the WTSA campaign was launched perceived others as having engaged more strongly with the WTSA, were more likely to have encouraged others to engage with the WTSA, and were more likely to have heard others encourage people to engage with the WTSA.

➢ The extent to which respondents personally reported engaging with the WTSA was moderately correlated to the extent to which they: noticed unattended aerodrome users talking about issues related to safety since the WTSA campaign launched; noticed an increase in users talking about issues related to safety since the WTSA campaign launched; heard unattended aerodrome users ask for further information regarding safety since the WTSA campaign launched; thought that unattended aerodromes have become safer places to operate since the WTSA campaign launched; and thought that the WTSA campaign had been successful.

➢ Of the 72 respondents who reported they did not engage at all with the campaign, 24 (46%) found it to have been 'not at all' successful (and a further 23 [44%] found it to have been 'a little' successful. The same respondents perceived the campaign as far less successful than did respondents who engaged at least 'a little'.

➢ There was evidence that engagement with WTSA varied with ratings held: respondents who held an instructor rating or a single engine instrument rating reported engaging more with the campaign. The highest level of engagement (a medium effect size) was reported those holding instructor ratings.

➢ There was no evidence whatsoever that engagement with the WTSA was related to how often unattended aerodromes were used.

➢ There was a small but significant negative relationship between engagement with the WTSA and percentage of flying that is recreational, whereby those with a greater percentage of recreational flying engaged less with the WTSA. A similar relationship remains when student pilots are removed, although it no longer quite achieves statistical significance.

➢ There was a small but significant positive relationship between engagement with the WTSA and number of years flying, but not with either total flight hours logged, flight hours logged in the past 2 years, or the percentage of the last 10 flights that had ventured more than 25Nm from departing airfield.

- There was a moderate to strong positive relationship between engagement with the WTSA and the extent to which respondents reported that the campaign was *useful, interesting,* and *informative*.

- There was a moderate positive relationship between engagement with the WTSA and the extent to which respondents reported that the *campaign increased their knowledge, they will feel more positive about using unattended aerodromes in the future*, and they *believe behaviours at unattended aerodromes will be safer in the future*.

- There was no evidence of a relationship between hours flown in the last two years and engagement with the campaign.

- There was no evidence those who 'did not engage at all' with the campaign had logged less hours in total, or flew less in the last two years, than those who engaged 'at least a little' with the campaign.

- There was no evidence of a difference in the extent to which respondents engaged with the WTSA campaign, by whether or not they flew to or from unattended aerodromes.

- There were significant positive relationships between the extent to which respondents reported they had engaged with the campaign and their knowledge and beliefs relevant to operating safety at unattended aerodromes.

Tests associated with section 3.3: Perceived changes following, or associated with, CAA's WTSA campaign (Descriptive information)

- Significantly fewer respondents (28%) perceived behavioral, attitudinal, or cultural changes amongst users of unattended aerodromes following or associated with the WTSA campaign. The rate did not vary significantly between the three categories, although there were very strong positive correlations in the extent to which respondents perceived behavioral, attitudinal, or cultural changes.

- There was a large effect, whereby respondents who reported that they noticed changes in the behaviour of users of unattended aerodromes since the WTSA campaign was launched were engaged significantly more strongly with the WTSA themselves (than those who reported no changes); however, there was no evidence of a correlation between degree of engagement and nature of any changes observed.

- There was a large effect, whereby respondents who reported that they noticed changes in the attitudes of users of unattended aerodromes since the WTSA campaign was launched were engaged significantly more strongly with the WTSA themselves (than those who reported no changes); however, there was no evidence of a correlation between degree of engagement and nature of any changes observed.

- There was a medium effect, whereby respondents who reported that they noticed changes in the culture of users of unattended aerodromes since the WTSA campaign was launched were engaged significantly more strongly with the WTSA themselves (than those who reported no changes); there was a moderate positive correlation between degree of engagement and positivity of any changes observed.

- Differences were identified in the extent to which unattended aerodromes were perceived to have become safer places since the WTRSA launched, according to the type of aircraft primarily flown, whereby microlight pilots scored significantly higher (M = 2.53) than did aeroplane pilots (M = 2.14). Interestingly, helicopter pilots scored lower still (M = 1.95), but this difference was not statistically significant due to the lower number of helicopter pilots answering this question.

Tests associated with section 3.4: Perceptions of the WTSA campaign

- When asked which sources of campaign information they found of most use, participants reported that the vector magazine was significantly more useful than social media; differences between vector and road shows, and road shows and social media did not achieve statistical significance.
- Respondents who perceived the WTSA campaign was at least 'a little' useful were significantly more engaged with the campaign (a large effect size).
- Respondents who perceived the WTSA campaign was at least 'a little' interesting were significantly more engaged with the campaign (a very large effect size).
- Respondents who perceived the WTSA campaign was at least 'a little' informative were significantly more engaged with the campaign (a very large effect size).
- Respondents who perceived that their knowledge about unattended aerodromes increased at least 'a little' following the WTSA campaign were significantly more engaged with the campaign (a large effect size).
- Respondents who felt at least 'a little' more positive about using unattended aerodromes in the future following the WTSA campaign were significantly more engaged with the campaign (a large effect size).
- Respondents who perceived that their behaviour while using unattended aerodromes improved at least 'a little' following the WTSA campaign were significantly more engaged with the campaign (a moderate effect size).
- Differences were identified in the extent to which the WTSA campaign was perceived as successful overall, according to the type of aircraft primarily flown, whereby microlight pilots perceived the campaign to have been significantly more successful (M = 2.58) with the programme than did helicopter pilots (M = 1.68). No other types of aircraft reached statistical significance.
- There were significant positive correlations between perceived engagement with the WTSA campaign and the extent to which respondents found the campaign useful,

interesting, informative, and helped increase knowledge about safely using unattended aerodromes, and feelings of about using them.

Tests associated with section 3.5: Flight preparation

The following statistical tests apply only to the (n = 189) participants who explicitly reported flying to unattended aerodromes.

Participants were asked a series of questions about how often they carry out a series of tasks related to flight preparation (Before flying, do you check your destination aerodrome plate in the AIP; Before flying, do you check potential diversion/alternate aerodrome plate in the AIP; How much does your familiarity with the destination aerodrome impact whether you check the AIP; Before flying, do you check NOTAMs for all relevant areas; How much does your familiarity with the destination aerodrome impact whether you check NOTAMS; Before flying, do you check AIP Supplements). There were 5 response options, ranging from 1 = 'Never' to 5 = 'Always'. A total score was calculated for all 6 items, where higher scores were assumed to indicate more thorough flight preparation and vice versa.

➢ There was a weak positive correlation between engagement with the WTSA and thoroughness of flight preparation; that is, those who engaged more were more likely to undertake more thorough flight preparation.

➢ There was no evidence of a correlation between engagement with the WTSA and time between last check of weather and flying.

Tests associated with section 3.6: Perceptions of quality of airmanship and possible invulnerability (at unattended and controlled aerodromes).

Item 6.1 explored perceptions of the quality of pre-flight planning overall. Where 50% = average, there was a very large group effect indicating the belief that their own overall pre-flight planning was significantly better than average. While it is never possible to draw conclusions about individuals, if a group of participants report they are better (or worse than average), this is taken to indicate the presence of perceived invulnerability (or unrealistic optimism) in a group.

Items 6.2 to 6.5 explored personal airmanship quality and that of others. This was achieved by, for example, asking participants to rate their own airmanship, where 50% = average, and then how they believed that rating compared to other similar aviators.

➢ There was a very large group effect indicating perceptions of invulnerability for each of the 4 items (6.2 to 6.5) exploring the possibility of perceived invulnerability regarding airmanship quality, both at unattended and controlled aerodromes. That is, as a group, participants unrealistically optimistic about their airmanship at both controlled and uncontrolled aerodromes, both individually and compared to others. Participants were significantly more optimistic about personal airmanship at uncontrolled aerodromes

than at controlled aerodromes, and significantly more optimistic about their airmanship, compared to similar others, uncontrolled airdromes than at controlled aerodromes.

➤ Items 6.6 and 6.7 explored participants self-reported intentions to improve their airmanship at both all attended and controlled aerodromes. As a group, there was very large effect whereby participants will try to improve their airmanship at both unattended and controlled aerodromes in the future – there was no evidence of a significant difference between the size of the effect between unattended and controlled aerodromes.

➤ There was no evidence of differences in perceived invulnerability associated with whether participants were not at all engaged with the WTSA campaign or were at least a little engaged.

➤ There was a significant positive correlation between respondents' degree of engagement with the campaign and their intention to improve their airmanship at unattended aerodromes.

Tests associated with section 3.7: knowledge related to safe operations at unattended aerodromes.

The correlation between 'level of engagement with the WTSA campaign', and the mean score of the 19 items measuring knowledge relevant to safe operations at unattended aerodromes, was not statistically significant. (The following tests apply only to the n = 189 who earlier answered that they fly into or from unattended aerodromes.)

➤ There was no evidence that degree of engagement led to different levels of knowledge as level of engagement was not significantly related to overall knowledge scores.
➤ There was no compelling evidence that any individual 'knowledge' question was related to degree of engagement (or that the answers of those who were not at all engaged differed significantly from those who were at least a little engaged).
➤ Engagement with the WTSA campaign was positively correlated with perceived effectiveness of WTSA communications, encouraging others to engage with the WTSA, observing positive changes in the culture, and perceiving the WTSA campaign as successful
➤ Respondents who reported they did not engage with the WTSA programme at all, were very highly significantly less likely to view the campaign as a success.
➤ Knowledge was only correlated with awareness of the WTSA and encouraging others to engage with the WTSA (a matrix of the above correlations and others may be found in Appendix J
➤ Some 'relationships' respondents had with NZ's unattended aerodromes were related to higher overall knowledge scores: Flight instructors and CFIs (both medium to large effect size). Student pilots had less knowledge than the mean of all respondents (medium to large effect size, although this did not achieve statistical significance).

- There was no evidence of a difference in knowledge related to safe operating at unattended aerodrome by type of aircraft primarily flown.
- Holders of an ATPL had significantly higher knowledge (the 19 items that were summed) than non-ATPL holders, as did those whose category of license was other
- There was no difference in knowledge scores between airplane and microlight pilots (other categories had to few cases to analyses)
- Holders of aerobatic, MEI, or night ratings also scored significantly higher on knowledge (aerobatic = medium effect size, the other two = small effect size)

Tests associated with section 3.8: Pre-flight checks (assessing reliability of previous responses)

Items 8.1 to 8.7 were used primarily to assess reliability of earlier responses, although here they referred explicitly to 'the last flight' participants conducted. As such, the responses given were compared to the similarly worded ones in section 5.

- There was a weak but significant negative correlation between checking of destination AIP on last flight and 'checking destination AIP.

- There was a moderate significant positive correlation between checking potential diversion/alternate aerodrome plate in the AIP on last flight and 'checking potential diversion/alternate aerodrome plate in the AIP' generally.

- There was a weak but significant positive correlation between checking NOTAMs for all relevant areas on last flight and 'checking NOTAMs for all relevant areas generally.

- There was a weak but significant positive correlation between checking AIP supplements for the last flight and 'checking AIP supplements generally.

- There was a moderate significant positive correlation between Thinking about how long how long before the flight did you last check the weather and the second time the similar question was asked.

Tests associated with section 3.9. Knowledge of extent of risks of using unattended aerodrome

- Participants were asked to estimate how many 'events', 'occurrences' or 'incidents' have been reported at or in the vicinity of NZ's unattended aerodromes. The correct answer, at the time of the survey, was 431. Participants significantly overestimated the number, although it is possible that they were estimating the total number, rather than those that had been reported (it is reasonable to assume the total will be greater than the number reported) Mean = 1733 (*SD* = 3265), although both the median (500) and the modal score (500) were more realistic.

➢ Participants were asked to estimate how many mid-air collisions have occurred in the vicinity of a NZ unattended aerodrome. After the removal of outlying data (estimate was > 3x the actual number, *n* = 60), the estimated mean = 4.32 (SD = 2.26), which was a significant overestimate, although the modal response of 3 was correct.

➢ Participants were asked to estimate the level of risk of operating at an unattended aerodrome compared to operating at a controlled aerodrome, where 50% was perceived as the exact same and lower or higher scores as less or more, respectively. The mean estimate of 75.77 (SD = 20.36) indicates that uncontrolled aerodromes are perceived as being a significantly greater risk than controlled aerodromes. (Mode and Median = 80).

➢ Participants were asked, 'Compared to other aviators like you what is your chance of conducting manoeuvres in contradiction of published procedures', where 50% was perceived as the exact same and lower or higher scores as evidence of perceived invulnerability or perceived pessimism, respectively. As a group, participants displayed significant levels of invulnerability, mean = 27.88 (SD 23.42), median = 20. However, it was noted that the modal score was 50, which indicated a realistic appraisal of chance.

4. Discussion

The aim of the WTSA campaign was to improve knowledge, behaviours and attitudes, and thus the overall culture, of users of unattended aerodromes through a process of education. Unless stakeholders engage with a campaign such as this, the chance of it being successful will be low (Mazlan, 2000). The purpose of this survey was to explore the extent to which stakeholders were aware of the WTSA campaign and engaged with it, the extent to which engagement was related to other variables of interest, and respondents' perceptions of the campaign, and whether the campaign was perceived to have been useful and successful.

Most respondents reported having been aware of the WTSA programme before receiving their invitation to particate in this survey. However, a small proportion of respondents (7%) were unaware of the WTSA campaign prior to being invited to complete the survey; unsurprisingly, those who were unaware of the campaign reported they did not engage at all. There was no indication that the pilots who were unaware of the WTSA flew less hours than those who were at least a little aware of the campaign.

Of those who answered the question about their degree of engagement (N = 481), 409 (83%) reported having engaged at least a 'a little' with the campaign. This level of engagement appears to compare favourably to the 60% of workers 'engaging' by making changes to improve safety having seen Maritime NZ's and NZ Federations of Commercial Fishermen's safety campaign, Safe Crews Fish More (maritimenz.govt.nz), especially given that 7% of respondents were unaware of the WTSA campaign.

Neither age band nor gender were related to level of self-reported engagement or the extent to which the campaign was viewed as successful. However, the type of relationship respondents had with NZ's unattended aerodromes was related to self-reported engagement with the campaign: CFI's, managers, FI's, safety officers and committee members all reported engagement levels above the mean of all respondents (which equated to 'a moderate amount'). Only CFI's reported levels of engagement greater than 'a lot', while student pilots were least engaged, reporting a mean level between 'a little' and a moderate amount'. Moreover, some 'relationships' respondents had with NZ's unattended aerodromes were related to higher overall knowledge scores: Flight instructors, CFIs (both medium to large effect size), Managers (large effect size) all scored higher than the mean of all respondents. However, Student pilots had significantly less knowledge than the mean of all respondents (medium effect size). These latter two findings should not be surprising.

The campaign medium with which respondents engaged most appeared to be seminars/events/ and roadshows. While these may be the highest cost medium for CAA to provide, there may be value in canvassing stakeholders to see if more such events might be well received, both in main centres and the provinces (some qualitative comments alluded to this possibility).

There were positive associations between self-reported engagement with the WTSA campaign and: the extent to which respondents reported seeing engagement in the wider population of stakeholders; the extent to which respondents reported the WTSA campaign was a success; the extent to which respondents reported that the campaign increased their knowledge; positivity about using unattended aerodromes in the future, and their behaviours at unattended aerodromes will be safer in the future. Moreover, respondents who engaged more with the campaign reported more thoroughness of flight preparation. There was no evidence of differences in perceived invulnerability associated with whether participants were not at all

engaged or at least a little engaged with the WTSA campaign. Overall, engagement was associated with some better outcomes – importantly, though, this does not necessarily mean the relationship is a causal one due to the correlational nature of the data collected. That said, it has been reported that "…community engagement appeared to be important to the success of campaigns…" (Bailey & Wundersitz, 2019, p.13) and "…campaign messages are more likely to be effective if they appear in media vehicles with which people are highly engaged" (Paek et al., 2013).

Of the respondents who provided information, 86% believed the campaign had been at least 'a little' successful (17% reported it was successful at least 'a lot'), 78% believed that unattended aerodromes had become safer since the WTSA campaign, 91% believed it had been at least a little useful, 93% believed it had been at least a little interesting, and 93% believed it had been at least a little informative. As a group, respondents who reported having noticed attitudinal, behavioral, and cultural differences after the campaign began reported having been significantly more engaged with the WTSA campaign.

Similarly, of those who answered the questions, 80% believed that their knowledge of how to use unattended aerodromes had improved at least 'a little', 75% felt at least 'a little' more positive about using unattended aerodromes in the future, and 80% believed that their behaviour at unattended aerodromes will be safer in the future.

The current study largely focused on exploring stakeholder perceptions and current levels of knowledge. However, stakeholder perceptions alone cannot provide definitive evidence that a campaign has been effective. For this it would be necessary to explore variables such as knowledge related to the safe use of unattended aerodromes and the rate of accidents and incidents before and after the campaign. Nevertheless, the evaluation reported here is a necessary first step prior to evaluating effectiveness per se, as without engagement, changes in knowledge, behaviour, attitudes, and culture related to using unattended aerodromes may be unlikely to change due to a campaign. Currently, data to investigate rates of accidents and incidents is not readily available. In its absence the findings of the current study can provide a degree of support for the use of safety campaigns such as this.

In isolation, self-reports from stakeholders who responded to the survey suggested there were many positive aspects of the campaign, and that most respondents believed it to have been 'at least a little successful'. However, there were aspects of the campaign that maybe open for improvement. For example, a small number of respondents reported being unaware of the campaign, while others were not informed of local seminars/road shows, or they were not close enough to easily attend. There were also, a small number of respondents who reported not engaging at all with the campaign – while stakeholders cannot be made to engage, it may be possible to explore ways to increase engagement. Although it is not possible to explicitly test the campaign effectiveness, as rates of incidents/accidents/occurrences are not possible to calculate, the current evaluation of stakeholder perceptions of the campaign may serve to offer a proxy of its effectiveness.

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6. Appendices

Note: The qualitative feedback/comments in Appendices A–I is reported verbatim.

6.1.   Appendix A.

This appendix lists the 115 comments provided by participants who answered the question "What were the changes in behaviour at unattended aerodromes that you perceived following, or associated with, CAA's WTSA campaign."

- Awareness of other users and an appreciation of aircraft performance
- A greater tendency to file or report on what may be considered to be poor behaviour. Often not the case and often misunderstanding of the rules and procedures by he observer
- A lot more overhead joins
- A lot more predictable flying. Less airborne conflicts, better communication, better consideration of other aircrafts type of flying
- a standard joining procedure for locally based pilots
- adhering to standard procedures
- At wanaka the uniform flow of traffic has been much better from the better understanding of different traffic types and speeds mostly between the helicopters and planes that both use Wanaka all the time and are often sharing the circuit.
- Behaviour as regards to overhead joining procedures by pilots unfamiliar with the unattended aerodrome.
- Better adherence to standards.
- Better and more clear radio calls.
- Better and more correct COMMs calls, and better observance of the standard procedure
- Better and more courteous behaviour by pilots
- Better circuit etiquette
- Better comm's by aircraft moving for an unattended aerodrome. Increased use of overhead join procedures.

- Better communication and awareness of traffic
- Better compliance with rules around overhead joining and circuit procedures
- better joining
- Better joining procedures
- Better lookout / listen out
- better OHJ better calls
- Better overhead joining
- Better planning of circuit entry, respecting others' right of way, holding to await better entry times. Also unfortunately some who take the more cautious approach as their chance to 'push in' and unfortunately some who will never change their ways
- Better position reporting and calls when in the circuit
- Better preparation for overhead rejoins
- Better quality of radio calls, better standard of overhead join
- Better quality position reports and more cautious overhead join
- Better radio calls
- Better radio calls, more adherence to standard joining procedures
- Better situational awareness
- Better standard operating procedures from those who were already good. No change from those who needed to change the most.
- better visual checking, better radio use
- Bettet use of radio and circuit.
- CFI's are briefing pilots on it more often.
- conformity to standard procedure/practice
- Consideration for different types of operations
- Consistancy in following procedures
- correct joining procedures
- correct RH circuit join
- Discussion on sohj and radio comms
- Discussion on the right hand joining procedure.
- discussions around the overhead rejoin and the new version on the poster
- Emphasis on lookout. Clarification/messaging on overhead rejoins.
- General Confusion regarding the 'Standard Overhead Rejoin' Proceedure
- generally more standarised things happening in the circuit.
- Greater attention to lookout.
- Greater awareness
- Greater awareness of other users, more adherence to correct procedures
- I live under the downwind of the circuit and observe a lot of arrivals and departures. Fixed wing aircraft generally follow the proceduers. Rotorcraft has shown some improvement in following procedures but generally do not follow the published procedures. Microlight rotorcraft seems to fly around the field randomly with no rhyme or reason.
- I've noticed an increased amount of radio calls from traffic advising transit nearby our gliding site (winch) - very important
- Improved clarity from a/c approaching the circuit at 500. More precise circuit calls following the approved format.
- Improved lookout and doacing
- Incorrect attempts and confusion at the rh pattern rejoin.
- Increased communication
- Indians speaking slower english

- Joining procedures.
- Less non standard things occurring
- Marginally better situational awareness
- Mentioning WTSA when observing aerodrome operations - i.e. "that was or wasn't a very WTSA join, etc"; joining aircraft appear to operate a fair amount more standardised than they once did and a general sense of caution seems to exist rather than a 'get her in there' approach.
- more accountability, reporting of incidents, frequent engagement in WTSA campaigns
- more aware of circuit risks, rules, other traffic by aerodrome users
- More aware of different aircraft ie(gliders or helicopters) however situational awareness needs to be improved specially in the circuit region.
- More awareness and communication from district councils in charge of the aerodormes
- More awareness, more consistent approach
- More consistency in procedure, and a reduction in random gibberish on the radio
- More disciplined approach to joining procedures
- More effort in performing sohrj.
- More idea about joining
- More irresponsible behaviour in the air
- More likely to call out unsafe aims ship where it is likely to cause conflict (eg reporting to CFI if non standard arrivals or airmanship on local field)
- More overhead rejoins better coms
- More pilots are aware of actual rules; A fair number of people are pushing back on rules as "this is over the top and doesn't apply to us"
- More radio calls and situational awareness of other pilots operating at unattended aerodromes
- More reporting and a decreased tolerance for aircraft separation.
- More reporting regarding loss of separation in the unattended circuit.
- More SOHJ
- More standard overhead joins
- More standard overhead joins and general standardised circuit etiquette
- More standard rejoins.
- More talk around the issues raised because of seminar attendance
- more thought about joining rules
- More useful radio calls
- Most people aware of joining as expected and keeping it standard
- Mostly people conducting more overhead rejoins
- Much better comms
- Number of overhead joins, whether safe or not, attempted has increased.
- OHRJ. Communication better
- Older pilots who were resistant to using standard procedures seem t have come around to the current rules and standards more than they did 5-0 yrs ago.
- Overhead rejoin procedure, more use of the radio for position reports
- Overhead rejoin procedures being followed with clear and concise radio calls
- people are more aware of following standard procedure/practice - less likely to do non-standard activity when vacating, joining or operating in the circuit
- People talking to each other about it.
- People try to do the new right hand overhead procedure but a lot of the time do it incorrectly. Some people don't even try while others (mostly academy's) are following the new procedure

- Pilots are more likely to discuss inadverant mistakes

- Positively, there is discussion about how to join. There is confusion about the reversal procedure (joining left hand for a righthand circuit). Some people are saying they are avoiding the standard overhead rejoin because they don't understand it, rather joining via finals, base or downwind. At one airfield with a user group they are trying to establish a standard way that locals join and stop joining via long finals. IFR traffic effectively joins long finals. I believe that tools in the tool kit to use and remain predictable is important. Trying to stop local joining in an accepted way may mean that locals may not be vigilant for itinerant aircraft joining in that manner. Local standards have to be executed with caution.
- Radio calls appear to be getting better
- Radio calls have improved
- Radio discipline
- rejoins
- Remaining clear of AD (e.g. orbiting 2nm radius) when unsure of traffic conditons. Students who attended seminar were more conscious of need to sight all other AD before joining (even for overheads)
- shorter circuit comms, more standard joins
- Situational awareness.
- SOHJs are more consistent,
- Some have changed for the better. Those that know all already haven't.
- Some have seemed confused as to whether to make lots of radio calls or very few. Joining circuit seems to be hotly debated still, and some stick to their way of joining.
- Some understand what CAA are trying to achieve others do not
- Standard overhead join is seen more often
- Standardisation around the circuit
- Stronger awareness of the safety risk
- They are aware and are communicating more, they refer to the campaign and it has been a great topic of discussion lately
- They seem to think about situational awareness in advance
- This could be just a result of general culture change at hood aerodrome with operators being forth coming with communication and plans of extensive NORDO activity or just showing common curtesy to one another but there is a great deal more free flowing radio comms if there is uncertainty about another aircrafts plans. This is excellent for all involved as free flowing coms = free flowing traffic.
- Those that attended are more aware but an audience of older private owners have been missed and are slipping through at BFR
- Use of the overhead rejoin procedure seems to have improved as well adherance to circuit directions. However, it is disappointing to see that there are still pilots out there who do not follow the published circuit procedures for aerodromes.
- Using the correct procedure for the SORJ
- Very good safety standards always

6.2. Appendix B.

This appendix lists the 86 comments provided by participants who answered the question "What were the changes in attitudes that you perceived following, or associated with, CAA's WTSA campaign."

- A bit more thinking ahead,
- A collective attitude that we all must work together,
- A degree of improvement in courtesy and traffic flow adaption,
- A more cautious/defensive pilotage approach to sharing the airspace from many, Some remain "too experienced to learn",
- a more organized deliberate approach,
- A slight more effort on radio work and sighting other aircraft,
- a willingness to learn,
- Adherance to published circuit procedures,
- Aircraft performing an orbit in circuit while early down wind when another aircraft jointed base, no loss of separation but decreased tolerance for aircraft separation,
- an awareness there may be nordo aircraft joining,
- Better comms,
- More willingness to give way and help out another operator,
- As mentioned regarding the last question,
- As per precious answer,
- Awareness, communication is better,
- Better disciplined comms,
- Better radio comms,
- Caring for other pilots,
- Caring thoughtful pilots like and accept it. Idiots never change no matter what guidance and intentionally challenge/ignore recommendations to improve.
- Confusion around S/O/H/R/J procedures and Very negative experiences with the PP AFIS,
- Consideration for others,
- Discussion is positive,
- Establishing local standards may be advantageous or detrimental,
- Every one tries to do there best,
- Everybody seems pretty curteous and cooperative,
- Not everybody has ads-b out on,
- Generally positive but some do not trust the regulator,
- Greater discussion on traffic patterns and separation,
- I hope a better understanding of the potential hazards,
- I think folk are acknowledging how potentially dangerous the joining process can be and that consistent practices mean safety for all,
- Increased position reports and more courtesy to other users of unattended aerodromes,
- Increased situational awareness,
- Just being more aware,

- Keeping lookup. Not to rely on cockpit digital aid,
- Less "I'll do what I want" attitude, more thinking about others,
- Lookout listen out, local knowledge,
- Mainly awareness for other types of ops or aircraft,
- Marginal improvement in situational awareness and better radio comm's.,
- More aware and considerate of discussing circuit safety,
- More care and attention paid,
- More communication when flying.,
- More discussion and more tolerance,
- More overhead rejoins better comms,
- More overhead rejoins,.
- More patience,
- More pilots are aware of actual rules;
- A fair number of people are pushing back on rules as "this is over the top and doesn't apply to us",
- More SOHJ,
- More understanding and respect for the standard procedures.
- Far less occurrances of people makining up their own rules:- eg...joining via a right base for a left hand circuit pattern etc.,
- More willing to discuss potential problems or conflicts,
- More willing to work with and interact with other users,
- most people are trying to engage and allow themselves to be educated,
- formerly, people have been very resistant to any change or deviation from their normal practice,
- Mostly a better understanding.
- Most what to be good, but some will never follow the rules,
- no changes to some of the "older" generation.
- Others are trying to do the "right thing"'
- None,
- Not caring as much,
- People are more aware of what they should be doing,
- people are talking about things more (or I am noticing it more),
- People being more considerate and aware of different people in the circuit,
- Airlines don't seem to have taken much notice of the campaign and haven't changed their behaviours,
- people have been a bit more forgiving of each other and less quick to jump in and "have a go at someone" for messing up a traffic patern or making a incorrect call for whatever reason, have noticed everyone has been a bit more spaced out and accomidating for each others aircrafts,
- Pilots are more likely to engage in conversation about unattended areodrome operating proceedures and airspace procedures,
- Pilots trying harder to fit in with other pilots,
- Pilots who regularly use the unattended aerodrome feel safer in the circuit through those being unfamiliar with the aerodrome better at following joining procedures.,
- Possibly more attention to identifying the correct circuit direction.,
- Radio and circuit discipline,
- Radio broadcast.,

- Situation awareness improvements,
- Situational awareness, reading NOTAMs!!
- Awareness of standard procedures,
- slight more tolerance,
- Softening of attitudes about doing what the regulator says.
- Previously we have had older pilots at our aerodrome argue against the standard as "it's not what I was taught". Very frustrating when you trying to educate new pilots on the standard but the people, they look up to don't follow the rules or keep themselves updated,
- some back to old habits,
- Some change to comply with the intent of WTSA, some express disagreement,
- Talk about Seminars, talk about circuit rules, behaviour, and safety culture,
- That the overhead join was a thing, but now with a right hand circuit, its confusing, sloppy, dangerous in some locations and inefficient
- That when challenged over an incorrect join there is material to back up the challenge,
- The good are still flying well. The not so good have not changed behaviours or attitudes,
- The positive changes include consistent predictable flying, The negative are from older pilots who don't like change, and dont understand that their approach which is now inconsistent, creates unsafe circumstances,
- Willingness to join correctly,
- WTSA opened the door to have a discussion about a range of topics, so this was a good start, so most pilots were open to that, This allowed me to change attitudes and behaviours, but took several conversations

6.3. Appendix C

This appendix lists the 86 comments provided by participants who answered the question "What were the changes in culture that you perceived following, or associated with, CAA's WTSA campaign."

- again thinking about the rules
- As above.
- As mentioned in the previous questions.
- Better pilot communication with others.
- Better situational awareness and more accurate position reporting
- circuit discipline and respect for other users
- Communication and awareness.
- Culture has been the most difficult aspect to change. I have an older membership and the main current I am running against is I have been doing it this way for years with no issues so why do I need to change
- Discussing 'pause points', reporting possible conflicts even remote possibility of an incident.
- discussions
- education of non compliant pilots
- From what ive seen its been a much more individual change, groups themselves dont seem to have led that, but where most members of a group have worked to improve those groups should be establishing a stronger safety culture over time if the message keeps being reinforced
- Greater attention to lookout.
- Higher adoption of the SOHJ
- Improved attitudes to safety and joining.
- Increased awareness of using correct procedures and the safety reasons for doing so.
- less of the "me first" attitude
- Less punitive, more willing to work together to understand each other's operational requirements
- more aware of other aircraft types, needs and communication to them
- More aware of what the rules are
- More communication between aircraft to build situation awareness
- More discussion about the correct way to conduct a SOHJ.
- More willingness to sequence for arrival in a practical way however some pilots/students appear to have taken the attitude that they have right-of-way as they are doing a training course even to telling other aircraft to alter course so as to avoid them.
- Most pilots are trying to do the right thing, however, I observed THREE different types of O/H/R/J in one afternoon at an unattended airfield!!!!
- Need to communicate properly
- None

- not able to speak about this
- People actively taliking about he rules...this can only be a good thing.
- People are talking about safety at Aerodromes (unattended or controlled), people are more willing to engage in conversation and normalize safety
- people are talking about the risks at certain "problem" fields more (or I am noticing it more)
- Pilots are more open to discussions around operating proceedures.
- Pilots more willing to comply with the Rules and procedures
- Safety awareness
- Situational awareness
- Some people say they are going to keep doing what they have always done, some say they will avoid the overhead join. More discussion.
- Some show a greater awareness of others and their positions.
- Sometimes more awareness on traffic
- Still a strong culture by some operators to carry on as they always have.
- Still getting dangerous pilots joining at the aerodrome non standard and inconsiderately and some pilots with a get home as fast as I can attitude. Would also say that there is still lots of pilots joining an aerdrome not using right of way rules and not accounting for others
- That some follow the new way, but a lot still prefer to do the older style
- Through a better understanding of joining procedures, pilots using unattended aerodromes appear to have more situational awareness in the circuit and around the aerodrome.
- Wanting to do the right thing
- We are the biggest user of our airfield with an active reporting system so we record those who don't comply and our students are all deputies to the campaign
- Working together more, more open to helping people if they're not following the rules

6.4. Appendix D

This appendix lists the 303 comments provided to expand upon the extent to which participants perceived the campaign to have been successful

- I havn't observed any major changes in behavior (prior to WTSA I considered a relatively safe and compliant operating environment here) but people are talking about it.
- We still have problems of Catel on the runways of Uncut grass
- [Redacted] is trespassed from an unattended Aerodrome yet he's the face of the campaign?!!! It was doomed to fail given his lack of credibility
- Actively flew for 50+ years since then not not renewed medical but retained my interest in GA
- aerodromes I generally use already had safety conscious users
- All information is useful
- ALl that was covered seemed to beb what everyone already is taught / knowns. Only the YouTube piece seemed to explain well the neeeds of differing types of aerodrome user.
- Although there has been improvement there will always be a few who wont adopt good airmanship and assume right of way in all their flying.
- An increase in talk around the aeroclub
- Any activity and education that gives pilots pause for thought and consideration of how midair conflicts risk can be reduced is a good thing. For me, it's reinforced the importance of operating predictably at an unattended aerodrome.
- Any attention to safety is useful.
- Any campaign on most aerodrome users is a good thing
- Any campaign targetting safety is worthwhile. Getting pilots to take heed is the issue.
- Any improvement and discussion must make people think more at unattended aerdromes
- Any increased awareness is a positive.
- Any positive result for better airmanship and safety around unattended aerodromes is a great result
- Any publicity raises the safety profile.. although adherence to the rules is normal
- arrivals from outside flying schools get lost
- As a committee member on an airfield with many clubs and disciplines, I see an arrogant defiance of a few of the old - those with controlling interests that are trying to sway the younger.
- As a DHC8 pilot, I haven't been in personal contact with general aviation unattended aerodrome users much. I haven't heard observed much change amongst fellow DHC8 pilots, however I think WTSA is an excellent concept and pilots should embrace it.
- As a long time member of a club operating out of an unattended aerodrome, I would love more talks and awareness brought to safety as I have encountered several disturbing occurrences and near misses. People just don't care enough, I think talking about it should be mandatory
- As an Instructor I continually push clear concise and reliable radio traffic and lookout however I have not noticed any increase in Pilots or students interest
- As I write this a visiting aircraft has just landed on the taxiway. I think this kind of education needs to be ongoing.
- At the very least being aware of potential problems and a better understanding of how to avoid those problems occurring.I

- Awareness
- Because I feel that unattended behaviour at the aerodromes I use was already pretty good.
- Because I have never heard of this program therefore cannon really answer, however it most likely had at least a little impact.
- Because I have noticed more attentions seems to have been paid to aspects of WTSA.
- Because I think generally etiquette is appaling. NZAR (unicom but often unattended) remains a disaster. Despite vol 4 being clear re: joining/vacating, a huge number of pilots do whatever they want. It is always the students/"foreign accents" that get the blame, but in my anecdotal experience, it is the good buggers and regulars who run amok.
- Because I would have said "I don't know" but that isn't an option so you get me guessing.
- Because I've found since the launch of WTSA that private operators of their own aircraft seem to just not really follow it very well.
- Because it has brought the issue up and that must make people think about it, even a little.
- Because it has made more people aware of aviation safety, which us always a success.
- because it only needs to change a few pilot attitudes around compliance to be a success
- Because it provided predictablity.
- Because it was a comprehensive campaign, I have not "physical" noticed as I have not done much flying to uncontrolled aerodromes.
- Because it was a pissing competition ,ie look at me
- Because pilots are still operating by old habits and assumptions when in the circuit.
- because some pilots do not listen.
- Because the awareness campaign has struck a chord in most pilots that I know
- Because the name of the campaign did not even mention what it was about.It didn't even mention the goal AVOID MIDAIR COLLISIONS
- Because ther is a small change in behaviour
- Because there was no option for "I don't know"
- Because those not complying with the rules generally don't engage in safety campaigns
- because we are still seeing pilots (mainly students from out of area) not understanding the Aerodrome plate and doing right hand circuits when they are left.
- Been very focused on Flight Schools and not other users
- Better approach by pilots using correct procedures and clearer comms in the air
- Better awearness by a good majority of the user group of pilots
- Bureaucrats with useless ideas, that do not reflect reality.
- CAA engagement with industry has allowed opportunity for more open and honest dialogue, great training material has been created for participants
- carlton is in denial about unattended aerodromes. He is denying to himself that he has invented a new method of joining overhead.
- Continue the campaign
- Creation of awareness
- Definitely more communication and some safer instances of use, but there are still aerodrome users who are doing non-standard practises, as well as refraining from communicating with aerodrome users
- Despite only a slight shift in observable actions from my own two eyes, the WTSA campaign shifted the momentum of people's thoughts in the correct direction. I've noticed a lot more people thinking either

consciously or subconsciously about how their actions affect others and how they can standardise their actions. Though hardly mentioned now, there was enough verbal mentioning of WTSA associated with some decisions/comments that I know it caused the change.

- Didn't sufficiently address the integration of IFR airline traffic with VFR traffic.
- Difficult to change some people, they just dont want to know
- Difficult to quantify whether any behavioural changes have been as a direct result of the campaign.
- Don't see a lot of people when I'm at my aircraft at the Aerodrome
- Encouraged discussion but still a lot of confusion and people stuck in their (old) ways
- Encouraging discussion on pilot behaviours and actions at unattended aerodrome has promoted safety and potentially reduced incidents (or future incidents)
- Even though the WTSA campaign was held at various locations, like at Ardmore. The attendance rates could have involved more Pilots. The CAA can hold these campaigns as much as they like. But we need more Pilots, especially those whom fly out of NZAR to attend. The attitudes of the individual(s)are the key aspects that need to be addressed. WTSA needs to be blended into PPL & CPL flight training, I also suggest that the principles of WTSA in its entirety become a BFR requirement. We are still encountering Pilots who are conducting non-standard joins, abysmal radio calls and general lack of situational awareness.
- Everyone is saturated with sermonising from all sides
- focussed educational campaign
- for a long time now pilots at unattended aerodromes all act professionally and safely has been my observation
- For students and new pilots
- Getting it in our face/environment
- Getting more people talking, and thinking about it
- Good present culture and procedures already
- Good presentation which encouraged discussion within the airport
- Great campaign to show the correct procedures, but person's or operators still seem to be completing actions in their previous way as they believe it is a safer way to operate.
- Hard thing to quantify, those who chose not too generally dont participate in overall aerodrome safety
- Hard to judge. Statistics will tell.
- Hard to quantify, but any increase in awareness is goid
- Has started a much need discussion, a long way to go
- Have not heard of it so how could I ?
- Have a lack of knowledge on situation
- have no opinion
- Haven't heard much about it
- Haven't noticed a lot of change in the few unattended aerodromes I've flown to recently.
- Haven't been in or out of uncontrolled Aerodrome lately to notice
- Havent heard of it but guessing other pilots and aerodrome users have and are acting accordingly
- Having the roadshow, was a fantastic way for people to stop and think about the safest way to operate at an unattended aerodrome. It needs to be treated with extreme caution, and actively talking about it with the CAA was a great idea
- Helicopters still operate as they please and disregard arrival/departure procedures.

- Helped a bit with radio calls
- Hope
- I already consider the pilots I interact with at unattended aerodromes to be very safety conscious, and I don't think the WTSA programme changed that in any significant way. The cowboys were never going to engage with the programme and so I can't see that it had any real impact. I think the collective view is that a lot of money was spent to tell already aware and thoughtful pilots things that they already 'live and breathe' every time they fly anyway.
- I am a professional pilot but use unattended aerodromes only in a private capacity. I operate from a FIS aerodrome in a private aircraft so I don't "mix and mingle" with other GA pilots
- I am aware of only modest uptake.
- I am aware of the campaign but it is hard to spot changes in users attitudes. I generally operate in to and out of uncontrolled aerodromes, with relatively scarce opportunity to speak with other aerodrome users. I generally find the users of uncontrolled airspace to be competent and work through issues together on frequency. It is hard to spot meaningful difference as a result of the campaign.
- I am based at NZAR, there has been a noticeable difference in local private pilots
- I am based flying to and from aerodromes that are not on mainland New Zealand. Also I have not heard anyone talk about the campaign to me personally.
- I am more aware of the issues
- I continue to see incidents or actions at unattended aerodromes that relate to poor understanding of procedures, poor airmanship or commercial imperatives over enhanced safety and GAP.
- I do not know of any evidence
- I do not think the campaign got the highest level of attention from many GA pilots
- I don't know what it is or what it promoted
- I don't think it got to those who it needed to reach, lots of people who think it didnt apply to them.
- I don't see any improvements
- I feel safer rejoining the airfield vicinity. Radio calls are 'sharper' and more precise.
- I feel the campaign has been generally well received, particularly by users who were already consciously motivated to promote safety.
- I find that joining aircraft are generally unpredictable
- I have been flying for along time, I was told how to do overhead rejoin many years ago, this new way takes alot of thinking, which way to turn, if you have got a right hand circuit.
- I have no idea if it is better, the CFI talk it up in newsletter but until there is an incident or not we won't know .
- I have no Idea who WTSA are and what they do, But you guys must have done something so I said "A little"
- I have not noticed any behavoiral change
- I have not really notoced much change in my aerodrome as we have very specific joining procedures and very few nonstandard operations. I have noticed a small change in communications at some aerdromes that i have visited.
- I have noticed a change in attitude around uncontrolled Aerodromes over the last 5 years. There is definitely a more careless approach towards separation.
- I have noticed no difference out in the wild beyond briefing rooms
- I have noticed some improvement in procedures

- I have noticed very little change from users
- I have seen no objective data before/after intervention which is properly controlled.
- I haven't noticed any change I could attribute to the campaign.
- I haven't notice much if any difference after the campaign.
- I haven't really about it from anyone outside of the CAA
- I just think it has created debate. If anything, it's stated the obvious that we have aircraft of different types, speeds, and there's no way to fully standardise things, e.g gliders in the circuit and Cirrus' calling finals some many miles away. Yes, we can do our best, good look out and communication still rule. The campaign brought up conversation which is great. But not sure if it helped a terrific amount.
- I like the approach of WTSA but I haven't heard it meantioned that much around people.
- I operate from one of the busiest flight training locations in NZ. I used to avoid the overhead join as there used to be conflicts almost every time the procedure was used. Now, since the new procedure, conflicts overhead are rare and when they do occur it is due to an incorrect procedure being flown. Circuit conflicts seem less common too, pilots are more willing to talk to each other to avoid conflicts in a common sense way, and it appears like less conflict situations develop to the point of needing resolution as everyone is operating more standard.
- I personally haven't been aware of the WTSA campaign outside of a singular poster.
- I run a UNICOM service and observe traffic at a unattended Aerodrome daily, plus my safety data indicates it hasn't been effective at educating pilots
- I think awareness has been raised overall but I haven't observed too much change as yet.
- I think it has made people more aware.
- I think it was a solid campaign, I'm just not in regular contact with others at unattended ADs, and so haven't discussed it much.
- I think pilots who generally engage have done but those who don't engage normally haven't.
- I think that the awork done has been helpful for pilots
- I think the campaign and reason for it will be ongoing at every level of aviation
- I think the SOHJ reset has been very valuable and useful, amd other subsequent eras roadshows useful but not necessarily reaching or connecting with all aviatiors
- i think there has been a little improvement
- I thinkthe campaign has been reasonably successful but there is disconnect between aero club/ flight school operators and organisations that fly high performance aircraft in to unattended aerodromes
- I was never made aware of the campaign
- I'm not out every day at an unattended aerodrome so not entirely sure but I think its defiantly helped
- I'm unsure if the message has got out to the masses and the pilots that are not main stream
- I've heard it discussed and also joining parameters discussed in more details.
- Idk
- If it isnt broke, dont fix it. Yes there were mid-airs in the circuit and its a constant issue, however communication and general situational awareness is a higher priority. In a lot of countries, an arriving aircraft will state how theyll join and an eta. That provides pilots with SA to build the picture for how itll look. It might be a challange for training aerodromes but theyre fairly few and far between. CAA has had this big push with ADSB, thats great! But there hasnt been the same push for EFBs and traffic awareness systems. A new ADSB in transponder that can notify the PIC of traffic isnt crazily expensive now. Theres been a lot of money spent on this campaign but theyre bringing in a system which could be just as good

as one ADSB in transponder. Therell be the old dogs who dont like adsb, dont like radios, dont like overhead joins, but if theyre visible on an EFB, then anyone else can see them

- If people are talking about it, then they are thinking about it
- Im aware more , so I can past this information on.
- Im not sure i am at the airdrone often enough to have notice much difference sorry.
- Improved lookout and radio reports.
- Increase in shit airmanship usually by commercial operators like island aviation
- Increased awareness of the importance of complying with proceedures particularly at "quiet" aerodromes
- Information is a bit complex for easily digestible online messages, and many people just don't recognise that the issues affect them (ie, they don't see their actions as a problem).
- Insufficient information or occurrences directly related to this campaign
- It brought everyone on the same page regarding joining circuits.
- It certainly highlighted how things should be done (best practise etc), But not sure we can measure if there is a change in behavouir
- it created some discussion.
- it definity made the circuits a safe area for everyone. what i seen from within the orginisation i'm doing my flight training was a notion of it doesn't apply to me as I was the only heli pilot from my group out of a possible 13ish, where as all of the fixed wing instructors showed up. so there is still a mind set within some pilots that prevented them from getting them involded with the campaign
- It ensures everyone is on the same page
- It gave me food for thought and to evaluate my practices
- It gave us instructors some good tools with the videos to help set the standard
- It gets people talking about local issues.
- It has been a starting point for me to have further conversations about operating safely at an unattended aerodrome.
- It has been promulgated more by the Aero Club
- It has built awareness
- It has certainly created a refreshed emphasis for us as instructors to make sure we are teaching unattended procedures correctly. However I don't see any improvement from those outside of the training side of the industry.
- It has certainly improved my awareness
- it has created awareness for those who choose to engage with it
- It has engaged thought about practices
- It has made safety more of a focal point when flying at unattended aerodromes
- It is a subject that is not talked about a lot unless the participant has had an occurrence which makes them think about it.
- it is always important to raise awareness but most pilots have a high safety awareness
- It is what it is.
- It only takes one aircraft who does not know the changes to put all others at risk
- It prompted discussion about the issues raised in the campaign
- It shows the CAA are trying to communicate with the aerodrome users
- it was discussed that there wasnt a huge amount of user engagement

- It will have been useful for people who engaged, but based on the turn out at my local seminar, the engagement was only a fraction of the community and likely missed the users who needed it most
- It's always on the mind of airstrip users anyway.
- It's good to raise visibility of these things once in a while. It's a catch slogan too.
- It's hard to tell for me, I mostly fly from NZPW, and rarely around NZMS. I have the impression that people are a bit more active on the radio, but that is all I can say.
- It's highlighted there is an issue around uncontrolled airfields
- It's made no impact in the pilots I see flying
- It's started the conversation and a culture driven on a focus of safety
- Ive had more incidents in the last 8 months than ever before.
- Just from what I read in CAA and Aero club publications (I am not an active pilot but maintain a keen interest in Aviation issues generally
- Just my observation
- just seen change
- Largely little change in pilots behaviour
- Made some people think a bit more. However many of us in certain jobs, just continue to get the job at hand completed. We dont all sit around and analyze and discuss campaign effectiveness.
- Mainly because you don't have an answer of 'not applicable' - I have no idea how it has gone over with power pilots, but it has had only a minor effect on glider pilots
- Mainly helicopter traffic don't seem to identify with fixed wing aircraft being at an airport. Predominantly they do what ever they want and see many close calls with aircraft in pattern.
- Making users aware of existing problems and giving solutions increases safety
- Many people make the effort to take on new information but some simply don't bother.
- Many pilots don't even bother to read published material or look at websites
- Many pilots just don't seem to care
- More awareness but some behaviours persist, and some contradiction in the overhead join procedure. New method I perceive to be higher risk if all turns overhead are not in the same direction as the circuit it becomes less predictable.
- more info and discussion always clarifies things
- more people know what is expected. Locals are more prepared to inform itinerant pilots of what they are doing wrong.
- More pilots are aware of other aircraft movements in circuits now and assist in mitigation by taking action to deconflict rather that continuing even if they have right of way.
- Most commercial operators are resistant to improvements in behavior because delays cost money and generally speaking the CAA are not well respected by these types of operators..
- Most pilots are now more aware of the risks and how to minimize them.
- must be a plus, if people attended
- My observations are that most pilots were doing the right things anyway
- My opinion is it's a statistically insignificant risk
- Need to be more focused on specific areas of increased danger and come up with specific procedures to reduce dangers. It was too gen
- Never heard of it
- No change

- No change in culture
- No changes were necessary or observed
- No pilot has any excuse for not being alert and careful at unattended aerodromesd
- Not all participants have been to a seminar or watched the video. However, some have made choices about checking long finals when on base.
- Not convinced those who present biggest risk will take the message on board
- Not heard of it or heard other pilots discuss it
- Not hearing a lot of discussions re it
- Not sure that many pilots engaged with the process.
- Nothing can be 100% successful because if it were it would have and should have been done before. WTSA has been moderately successful because it has managed to get pilot community talking/thinking/and analysing safety issues
- Often those who go to seminars are already pretty safety minded
- old habits are hard to change
- Old habits die hard, could do with a follow up after a period of time
- One session a year is not adequate
- only at the air field sundays
- other people would of heard of it
- Other than attendance at seminar havent heard anyone talking about the initiative
- Ots all grist to the mill.
- Overall awareness has been made more forefront in peoples minds
- People (the ones I notice) are behaving just as badly now as they ever did and none are doing even the basics - check AIP plate, NOTAMs
- People are more aware of the dangers of joining unattended aerodromes
- People are talking more about it.
- People attend seminars, read articles and talk, but this does not necessarily translate into behavioral or attitude changes.
- People forget
- People not using radio pr using other tail numbers also just come i jowever the feel esp 180/185 pilots
- Pilots continue to fly through our MBZ without making any radio calls.
- Pilots mostly are trying to improve their visibility and more procedurally aware. But I have observed pilot behaviours not changing inspite of being at one of the meetings.
- Pilots still do not give accurate and clear radio calls- too fast and not clear. Many overseas students speak too fast and are hard to understand
- Pilots take the advice on board and or their knowledge is refreshed albeit almost all are already on their game.
- Plenty of attendance at the seminar I attended
- Real safety initiatives which would make a real difference are blocked by CAA. So any efforts are tinkering around the edges.
- RT used to be the wildwest. It is much better now. Timing suggests WTSA played a role
- Same issues aviating at our unattended aerodrome, "standard" procedures as set out by CAA causing issues and there is a reluctance to do anything non standard to correct issues.
- Seems to be more prcise location reports on radio chatter

- Seems to have rolled out in the larger areas but not as well in the small towns
- Seminars brought together different factions
- Simply by the number of people who went to the same seminar that I attended
- Simply to reset the standard which was lost prior to even myself flying
- so many at our Airfield do not attend the local presentation
- Some good stuff. But some effective some not. Its a throw as much out as you can without actually looking at what's effective. But good to have the campain putting it on peoples minds
- Some information has been delivered effectivly, where as other areas has caused confusion and/or encouraged rotary users to fly more un predictable.
- some of the answers are hard to answer, haven't been around other users to talk about it, and some clarification needed
- Some users dont seem to be interested in changing long held behavior
- some was condenscending which put people off - particularly the radio one
- Still continued pilot occurrences as previously
- Still haven't heard about it
- Still negative occurrences happening
- Still plenty of pilots believing in the big sky principal for collision avoidance.
- Still some discusdion about overhead rejoin review
- Still there there are a number of users who dint belong to flight clubs who are not aware and don't change behaviours
- Stuck on the dark ages. Very Negative attitude to TCAS I believe is a major assistance in traffic avoidance. Overhead joins I believe are not as safe as FAA downwind join. Total lack of understanding of being aware of higher performance or/and commercial traffic being in a circuit and bolstering the view that a C152 in a circuit should stay put and take no cognisance of that traffic and adjust pattern and behavior so that all are accommodated safely. It does not work if the Aerodrome has a very varied traffic mix.
- Students more aware
- talk around the lunch table
- The aerodrome users who are most in need of education from the WTSA campaign have been the ones with little or no involvement with the campaign. The CAA has failed to target specific and recurring problems that are well known throughout industry (certificated organisations), the WTSA campaign has been beneficial to align flight training organisations, however 119 and 115 organisations seem to have not been impacted at all (or very little) by this campaign, and the issues that brought this campaign to life still very much exist.
- The campaign has been controversial and confusing particularly relating to the procedures for the overhead join right hand circuit. The CAA have indicated and have an understanding on this problem but have not responded in clarifying issues. They admitted that NZAIP amendments were necessary but did not carry them out.
- The campaign was targeted at all pilots and focused on understanding eachothers perspective and working together
- The campaign was well intended,however, I fear the UNINTENDED CONSEQUENCES. I believe another MID AIR ACCIDENT due to confusion

- The campain seemed to reach a great deal of pilots but seemed to also miss a lot of pilots that needed it. For example 'weekend worriors' that may have done their training many years ago but havent had any further training for a long time except BFRs. BFRs tent to take place at a known airport. But the radio skills shown at a known airport doesnt always tranfer well to unknown airfeilds.
- The Cessna 180_185 group and AOPA have been active in the stay apart space
- The choir is already on song and behaving appropriately. The small group that behave poorly do not appear to have changed.
- The content and context of the WTSA is awesome, there are still people out there doing stupid stuff because they are either unwilling to change or don't think there is anything wrong, doing what theyvé always done
- The coverage of unattended airfield users has been insufficient
- The information didn't get to the right people. Those who fail to buy in to the campaign are likely the ones most in need of receiving the messaging. Some of the content released was not specific enough
- The instructor was a ver arrogant person. You can't talk down to your attendees
- The meetings had a lot of attendees. I believe most of us want to see positive change regarding safety
- The mix of GA and Microlights is always of a concern
- The old story: Those to whom it applies perhaps mostly weren't interested
- the people I talked to were already following the guidelines
- The people interested have engaged. The not interested people did not engage and did not change their attitude.
- The pilots reached by the campaign were not the problem. CPL and PPL fixed wing users operate exemplary. Microlight and rotor wing operations are more random and unpredictable. The most pressing problem is aircraft flying with no ADS-B out, and Rotor wing aircraft flying not monitoring or comunicating on frequency and NORDO operations in vintage aircraft.
- The pilots that always were diligent and followed the rules still do. The issue is the group of pilots who think they know better and still don't follow the rules. The human factors
- The questions are a bit ambiguous I am an operator based at a controlled aerodrome however we fly in and out of uncontrolled aerodromes and on that basis we are not exposed to the on site feedback at those uncontrolled aerodromes so the questions aren't so relevant to us
- The roadshow was great, but atleast once a week we have pilots make sub par decisions towards their arrivals and joins
- The scope was not broad enough
- The WSTA campaign is delivered at a point in time. This has no effect on future students or older pilots who commonly are difficult to reach
- The WTSA campaign gave awareness to the operators and actors. Since then, the NOTAM procedure have changed for UAV operators and involves the aerodrome director now
- Their first roadshow (plane talking) was disastrous. I saw all users lose any buy into it from there
- There are still pilots who did not attend the seminars or have not taken notice of the campaign
- There are still those out there that need educating
- There are still those who continue to do long final straight in approaches even though the AIP for NZAR does not recommend it.
- There are those that are safety conscious and those that don't give a monkey's. the ones that don't give a monkey's will continue with their bad habits until they are forced to face their bad habits.

- There has been a reasonably good turnout of pilots to the seminars
- There has been an increase in related incidents at my aerodrome, not a decrease.
- There has been some emphasis on WTSA at our local aero club, but many people flying from my usual aerodrome are not club members, and circuit procedures etc do not seem to have improved at all.
- There is definitely an improved awareness regarding other airspace users
- There still seem to be plenty of pilots who are set in their ways and do not want to change as "that's the way I've always done it". It seems that mostly younger pilots are open to adapt to change and align with CAA policy and recommendation.
- There was no talk of Nordo aircraft so people have no appreciation for nordo, people still think it is ok to not do an overhead rejoin as they havent heard any traffic, still seeing people not joining/departing unattended aerodromes correctly.
- There will always be hazards operating at unattended aerodromes so it requires ongoing education and fresh information to keep people intrested
- This email to participate in this survey is the first i have even heard of it
- This has to be the most engaging, relevant campaign that I've seen.
- Those flying into unattended airfields appear to be following protocol closely.
- Those that needed to be at the seminars were not in attendance. Many helicopter operators are the major concern at our unattended aerodrome. None join overhead and many will come straight in; some landing on a different or downwind runway
- Those that truly need the WTSA campaign are unlikely to engage with it. Those that engage already show a pro safety attitude, wheras those that do not are generally the pilots with a poor mindset towards safety and others
- Those who are the biggest concern have an attitude that they would never attend a seminar or safety event, other than to criticise CAA
- Those who needed the campaign the most didn't engage with it, and a lot of operators are still using non standard procedures and poor communication. Many of those who did attend seminars because they were made to don't appear to have taken anything in.
- Through the attendance at the CAA roadshows. The conversations had. The publicity of the campaign.
- To those who attended seminars and students of same
- to those who make the effort to keep up the knowledge currency it was good. For the minority who rely on BFR time to hastily catch up it failed to reach them and most of them are the problem.
- Too many pilots make up their own rules.
- Too soon to judge, and as we recreational pilots fly infrequently the encounters at airfields aren't common
- Training is better than displine
- Unattended aerodromes are safer, but council operators are becoming more risk adverse
- Unless content is kept alive people will mean revert to old habits
- We havent seen any changes in behaviour at problem aerdromes such as NZMA, where gliding tow planes do not conform to circuit directions and safe joining.
- We still have an alarming number of itinerants landing with tail winds, not reading wind socks to determine which runway to use. Many are commercial PPL or older pilots.
- We still have many issues with itinerant student pilots from large flying training organisations making significant errors in their joining procedures and circuits. eg a common theme is RH circuits when ALL cct

at our place are LH. This shouldn't be rocket science and what are their home instructors briefing them before they leave.

- We still have pilots not reading NOTAMs. We still have pilots doing non-standard joins. We still have pilots not reading the AIP before arriving. We still have pilots not reading the AIP before departing. We still have pilots thinking that by saying that they are "joining non-standard" that this makes it ok and acceptable. Our aerodrome data supports that there has been no change in pilot attitudes/procedures.
- Well, I would have ideally chosen between 'not at all' and 'a little' if the option was available. I say this with sincere regret, but the harsh reality of the situation is that the pilots and operators that could have gained most benefit from the campaign simply did not engage with it. At the busy unattended aerodrome we operate, we have not seen any improvement in non-compliance occurrences since the campaing started. And so, it is logical to form the opinion, based on the evidence available, that the campaign has been of limited success.
- What I have experienced
- what?
- Where radio calls are made at unattended Aerodromes needs to change.
- While on short finals of into wind runway a class 2 microlight took off using a reduced length of crossing runway in front of me.
- While theres always room to improve (myself and others), by raising awareness and normalising a safe and planned approach to flying at unattended airfields is taking hold. These things take time to fully establish, and as always a few bad apples will always hide in the crate - it is easy to remember all the issues and forget the many more well managed exchanges of airspace between polits
- Witness to GA aircraft joining procedures particularly itinerant private owners who probably are not aware or ignore to attend WTSA seminars
- wtsa has effectively worked to reset the standard (as appropriate) through different avenues. the safety seminars, GAP booklets, videos etc. This has provided great material for instructors to use with students and/or licenced members when doing BFRs.
- WTSA quite reasonably puts a lot of onus on pilots, but CAA's aversion to network of CFZs results in too many aerodromes remaining on 119.1, with the possibility of confusion about which aerodrome pilots are operating at.
- Yes involving many large businesses who help set the standard from the top which flows down from others to the individual user
- You have the vast majority of pilots in NZ knowing that they have been told to all do circuits "properly". So that's a least a partial success based on what I imagine were the goals of WTSA..

6.5. Appendix E

This appendix lists the 197 comments provided by participants when asked the question "What aspects of the WTSA campaign could be improved?

- I dont understand what WTAS means
- 'Work together' but we were only given 4 hours notice of the seminar happening in our town
- "Crowing Rooster" articles were dangerous and did not give a full brief.
- A CAA representative or person on behalf that keeps people informed locally at the aerodrome
- A different practical solution. EFBs need to talk to each other more. Avplan can see avplan and ozrwys traffic, ozrwys can only see ozrwys. Make them have to be able to see each other. Encourage pilots to use EFBs more. An ipad with a phone as a secondary. Part 135 operations can have this, make it more prevalent in GA. The map book that came out was great, but we're in the 21st century. Gopreflight is brilliant. If everything a pilot needs is on an ipad, thats all theyll use. But make sure they have a redundancy.
- A harder approach. As in, if you dont comply then there should be repercussions
- A total review of the joining procedures for unattended airfields. Look at the FAA system. Look at the joining at circuit height on base or downwind at the 45 degs. It works a treat.
- [Redacted] as the lead for it was a ridiculous choice given his checkered history.
- [Redacted] being the face of the campaign is a joke. He's got zero credibility especially after he caused a security incident that shutdown kapiti airport
- [Redacted] is trespassed from an unattended Aerodrome. The industry is dumbfounded why he'd be hired by the caa and then put as the face of a safety campaign.
- [Redacted] is widely known for his exploits in causing the security incident at kapiti airport. Why he's working at caa or leading a safety campaign is a joke
- [Redacted] not being involved
- [Redacted] was the completely wrong choice to front it. He's trespassed from a unattended Aerodrome for gods sake
- acceptance of documented history
- Acknowledging NORDO operations at many airfields are legitimate and not a hazard
- Actual engagement
- Add examples of incidents and accidents of the type the campaign is trying to prevent.
- Additional sessions around the country. Quarterly would be ideal.
- ADSB IN/OUT broadcast mandatory everywhere.
- Advertisement in advance of seminars
- All good
- All seminars I attended were great
- Allow GA group leaders to conduct their own gathering of like minded members to deliver WTSA culture
- Announcement and spreading information
- Apart from the photo shoot and vector articles I am not aware of any other campaign aspects
- Appeared to be little engagement from committee, aviation school, and Massey at our events
- As above

- As above, point out the actually reason for the campaign.
- As above. Otherwise very good.
- As above. Should have been split into two approaches. Those that have a very similar type of traffic in the circuit and those that are mixed.
- As traffic density increases more energy and effort to operate safely is required.
- At the Roadshow I attended the CAA team pushed local procedures favoured by the local flying college rather than standard procedures. Most local Pilots and Instructors not associated with the college think this is dangerous.
- Attendees at seminars are already careful-need to get the outliers involved
- Better communication of information
- CAA needs to rethink communications, should be one to one, not one to many.
- CAA presenters need to be trained in eduation. Each presentation had presenters stating" those who aren't here are the ones who need to be here" which is an ignorant put down statement adn reflects to me a poor CAA attitude towards their customers.
- CAA should not be responsible for GA aviation
- Clear goals
- Communication and involvement of airfield stake holders i.e flying clubs/business units could always be better
- Communication around it - to be fair, the operator I work for has not made anything too clear about this campaign despite our large presence in uncontrolled aerodromes.
- Communication, letting people know about it
- Con't know much about it
- Cover more about IFR integration and special procedures
- Daytime seminars as well as evening
- development of measures of impact of programme and then reporting on them
- Do not know
- Education is great, but if people aren't taking the right actins - what is next?
- Engage with those who want normally engage
- Engagement by CAA with the GA community was great. The community of pilots have been really positive about CAAs involvement and education and feedback I have had is that they feel like CAA can see them,, and are helping to make them safe, without feeling like it is disciplinary.
- Engagement with pilots and operators who don't engage.
- Engagement with private owners and older overseas working professional pilots who fly heavy jetsexternally to NZ but fly light aircraft domestically
- Ensure it reaches all pilots.
- explanation of different joining circuit positioning for priority
- Extremely disappointed that effacacy of proposed joining at unattended airfield procedure was not researched to ensure that it was still fit for purpose. The much expanded aircraft performance capabilities since the procedure was originally developed makes this current procedure extremely moot. This current circuit joining procedure was developed when the aircraft peformance paramaters were typically those of de Haviland Tiger Moths, Percival Proctors, Austers. Airspeed Oxfords, Avro Ansons and the like. Today's aircraft performance envelope has expanded exponentiially with take-off distances and rates of climb of departing

aircraft on an incipient collision flight path with arriving aircraft. Refer "Airplane Flying Handbook (FAA-H-8083-3C) Chapter 8" which offer an alternative procedure that reflects the FAA oversight over 204,000±.

- focus on engagement
- Get a decent presenter,who's their for aviation not self glory
- get airport operators involved to bring up a safety groups to publish info
- Get out to more airfields to discuss the program / campaign on site to raise relevance and acceptance.
- Hard to say. I think a bigger emphasis on individual attitudes. Attitude, in my view, is the biggest component of competency
- Have some prettier presenters, mark and aaron and Carlton were ok.
- Helicopter circuit joining I dont like
- I do not know
- I don't think it went right down to the level it is needed, especially microlight community
- I feel team did good job and answered questions to high standard but these were pilots who behaved themselves i norma ops
- I missed the presentation in my location and could not find the web based presentation to review it.
- I think engagement between larger organisations that fly high performance aircraftto and from unattended aerodromes would significantly improve WTSA and unattended aerodrome operations
- I think it has been circulated well.
- I think it's great but just needs to keep being spread particularly to private operators.
- I think more engagement with an audience, critiqueing various scenarios around commonly observed practises, presented by the leaders would encourage an involved audience.
- I think the campaign itself SHOULD have been effective. Not sure why these things are still happening.
- I think the campaign needs to be across all airspace not just uncontrolled aerodromes, there are a lot of operators / pilots who are pretty poor at stating their intentions or making calls once outside of controlled airspace
- i think the FB campaign was pretty good
- I think the only change I would make is to have the seminars more engaging rather than as mass a YouTube video viewing. There were certainly aspects which were engaging, but I personally would have liked to have seen more of a training style seminar with scenario based questions to work through in groups etc to embody the idea of working together. The videos were good, but I see them more as a resource rather than the foundation of a campaign.
- Idk
- If possible, identify some unsafe events at an Aerodrome via radar/ADSB data and then with permission from the pilots involved, if they will give it, make a clip of the event. Some years back the UK CAA did exactly that in regards to level busts. It took some time to get the required approvals from those involved. Many wouldn't give approval however they eventually got a few including from foreign companies whom you would have thought would be the first to refuse so the CAA were quite impressed by their co-operation. A lot of work went into what became a relatively short presentation but it was impressive and pilots and operators learnt a lot. In the end it was well worth the time, effort, perseverance and money to put it together and present it.
- Including all users
- Increased engagement with operators at unattended airfields
- Initial comms around the overhead join, this felt awkward and generated, for whatever reason, negative feeling in the industry - probably slowed the performance of WTSA initially

- Instructor training briefs
- It needs to be taken to more than just unattended airfields. We are based at ZQN but the closest presentation was ZWF. We regularly fly there, so it should still be rolled out in CTR.
- It was well delivered and presented, the team did a great job. Getting the message to those who needed to hear it was probably the biggest challenge.
- It's hard to focus attention on regular users of small airfields
- Its the consistency of future messaging that will define the long term effectiveness
- Just focus on workable rules that are clear and are widely applied to different phases of flight
- keep doing more. Regular and often. You'll always miss some on the first sweep, so having follow ups is essential.
- Keep going with it - we all want to go home (and want our friends) alive after a day flying
- Keep it simple
- Keep the message up through Aero Club, Microlite Club, Vector and other media.
- Less tslk more videos
- Let people know
- Loads
- Local procedures were not discussed. Samples of how to join circuits were textbook for a one fit, fits all approach. But some airports have noise abatement and terrain avoidance consideration and no mention made of these.
- Look at specific airports and risk and specific procedures.
- Maintaining good input by the Instructors.
- Make me aware of the WTSA
- Maybe letting people know who you are?
- More active campaigning with local aero clubs/flying groups to promote the sessions and attendance
- More buy-in from flight schools with international students.
- More emphasis on pilots being required to follow the CAR and conduct proper pre-flight preparation/planning!
- More emphasis placed in signing the WTSA commitment. Bizarre that only 230 odd committed to the safety campaign. In my opinion, every pilot should have committed to the campain.
- More exposure at the smaller recreational pilot clubs
- More IFR procedures and separation from others
- more reaching out to schools
- More regular targeted marketing - emails to airport managers etc
- More reminders of the program on social media
- More roadshows
- More room for discussion during sessions.
- More sessions, perhaps virtual options for those who could not attend physical sessions
- More specific in what exactly is expected. For example, radio calls at unattended aerodromes in the plane talking seminars. A guide with exemplar radio calls in and around the circuit would gave been extremely helpful in standardising RTF. The SOHJ content was good but failed to mention in writing what actions should be taken when approaching the aerodrome and in the overhead. The messaging from the team in the campaign (when asked) was to remain in a left hand pattern overhead until descending (for both a left and right hand circuit) but this wasn't promulgated anywhere in writing and goes against what is in the AIP

- More targeted seminars to specific clubs/airfields.
- More videos
- more videos, they were great,
- More work on reaching casual pilots and those not associated with aero clubs. More onus on flight training institutions to implement the campaign themselves.
- N/A
- Na
- NA
- Needed a much simpler creative "hook" and a clearer sense of singular purpose.
- nil
- no
- No
- No it was good. I went to the presentation and found it useful.
- No really
- No, I think the CAA did the well in trying to reach all participants.
- No, I think they've done well.
- No, I thought it was put together well.
- No, I understand CAA wants to standardise procedures.
- No, it was a good campaign
- No, quite useful topics
- No, The information was good.
- No, the problem is with ADS-B not being mandatory in uncontrolled airspace. There is nothing the campaign could have done about that.
- No, your doing well. Good Non threatening interaction
- No! They went out of their way to engage with pilots. In fact it highlighted pilots that were out of touch.
- no.
- No.
- No. I believe it was a good well managed and professional campaign but some people are simply not interested in changing their attitudes.
- NO. I believe the CAA programme and seminars were well structured and delivered to09 the widest audience
- None
- None really - it was a good campaign
- Nope. It was good.
- Not all information is relevant to specific aerodromes. Some cause for confusion has been generated. This is a hard bridge to gap, and can only be clarified with more detailed conversations with instructors.
- Not really, pretty hard to get out to an audience
- Not specifically. It contains good sensible information that needed to be discussed before, and still does. I didn't find anything new or interesting, just a predictable and sensible discourse.
- Not sure
- Not sure at this time
- Nothing comes to mind
- One of the seminars in particular was very accusatory against those who attended. I felt like the bad boy, when the bad boy was the one who did NOT attend the seminar.

- Only saw it in Vector, after the nearest roadshow was over so this was of limited use in my area
- Only to keep reinforcing the message. In person is a great way to have a lasting impact, without ongoing campaigning it'll possibly fade over time and make room for the opposers/"perfect" pilots amongst us to push their dubious ideas unopposed - the opposing voices are often quite loud
- Over use of video material. The older style AvKiwi events were more effective at changing behaviours as they generated better discussion as facilitated learning
- Overhead join as it is explained seems overly complex and involved and may add to risk as the potential flight paths of those joining from various directions can become overlay involved and potentially confusing..
- Overhead joins still confused
- perhaps more at student level
- Practical Solutions
- Pre-rollout planning engagement of providers
- Presenters did a good job, but i felt they could have been better prepared for the difficult questions.
- probadly need closer or more regular briefing at high density use unattended aerodromes.
- Really needs a follow up campaign in 12 months time
- Recorded seminars for those that are unable to make their local one
- Relevant, recent case studies highlighting when the process worked and when it didn't.
- See above and needed to be extended to all uncontrolled airspace.
- See above, on the right hand join procedure.
- Seemed very built around smaller rural aerodromes and felt like it missed some aspects of difficult and busy aerodromes like NZAR and NZWU
- Self interest - better communications to people like me who slip through the flying club / school net
- some invovlement from people at the local fields.
- State the obvious: the human limitation of see-and-avoid has meaningful solutions, and better pilot is not one of them.
- Stats
- Still seeing incorrect overhead rejoin procedures and hearing poor radio communication still seems confusion about overhead join into RH circuit. Clarification required
- Still some confusion on joining for a right hand circuit
- Students are the main users of our aerodrome. A community seminar was set up at night (7:00pm ish) the night before exams so only few students attended. (10-12) Only 1-2 people from the rest of the users attended. Avkiwi used to run at our school, and we would need two sessions, and they would be full. If oyu hold them at schools in school hours you will get 100% attendance and set a good foundation with the new pilots coming through. You can change the culture that way. Hard to change the attitudes of older private owners who don't turn up.
- Talk about Nordo, what it means, limitations etc and the risk of joining straight in etc when their might be nordo around
- Target microlight and recreational pilot community.
- Targeting of 115, 119 organisations and their pilots. Yes many signed the statement of commitment, however if you went through that list you would find very few 115, 119 pilots signed it (the organisation may have, however I have noticed no change from some organisations)
- the CAA will have data showing which fields have the most problems, target these areas more (if you're not already)

- The campaign promoted the right ideas but CAA were only preaching to the converted.
- The fact that when a radio call is made, it is not always recieved. There are multiple reasons for this. A pilot needs to be aware of this.
- The human factors area where emphasis on every one needs to be predicable and follow the rules to make the system work and reduce risk.
- The impact of mixing helicopters and fixed wing aircraft could be more significantly analyzed
- The new overhead join is DANGEROUS and it is not adopted at Ardmore (busiest GA Airport in NZ) so cannot be effective.
- The posters were uninspiring and didn't look like they had been created by someone with knowledge of either aircraft or aerodromes. They would not engage or catch the attention of the type of pilots that the WTSA campaign should have been targeting - because they looked like training aids it was very easy to walk past them. It's the old pilots, who think they know it all and are over-familiar with their aerodrome and who comes and goes etc, that needed to be looking and learning.
- The reversal turn be further promulgated and explained. What happens when two aircraft join and one is aware of the wind and righthand pattern, whilst the other doesn't.
- The right hand circuit joining
- the roadshow was EXCELLENT and have learnt a great deal, and some "wait....what?! moments
- The seminars were good but I observed a bit of a tendency for some the more experienced attendees to show off a bit and the less experienced got less out of it. l
- The seminars were not presented at a venue which could be attended to by some pilots
- There could be more direct observation by the CAA at unattended airfields to see the extent of the challenges and compliance.
- There is still some confusion over which direction to fly in the overhead depending on left or right circuit. A lot of pilots don't realise the direction in the overhead is always to the left and doesn't change until the circuit is joined.
- There was very little of concern that existed. The resource should have been targeted at other safety concerns .
- This may be seen as carear limiting if CAA Staff read my comments
- To a large extent this was preaching to the converted.
- Unattended aerodrome should all have nationwide the same UAV flight online request form on a website that is easy to access
- yes
- Yes , send me an email to let me know it's on
- Yes availabity and promotion of online knowledge
- Yes, active engagement with other groups. It must be targeted to private owners.
- Yes, some technical delivery of the campaign created confusion and was lacking educational skillsets amongst the CAA staff.
- Yes. Microlight aircraft were overtly missing from the headlining.   Also the new way of explaining the overhead rejoin created significant confusion and even when asking the CAA Safety officers, they still couldn't explain it so people could easily understand it.   I my own club, even after the new posters went up and after many attended a CAA seminar, there were still numerous interpretations of what to do, even amongst the instructors.   This leads to people dismissing any new information and just sticking to what they already did.   This aspect was a total failure, in my opinion.

- Yes. Not do it and focus resources on pilot judgement and competence instead.

6.6.   Appendix F

This appendix lists the 125 comments provided by participants when asked the question "What should the WTSA campaign have included, but didn't?"

- Cattel uncut grass   crab holes Broken fenses
- ?
- ? Pilots need to keep growing their attitude towards it.
- A clear reason for audiences to understand that this applies to them (on an individual basis)
- A full review of the radiotelephony manual and P91.
- A greater emphasison reminding people to listen out, not just braodcasting information. The biggest dailing i have found when operating ispilots not hwaring or reacting to other pilots braodcasts.
- A radio guide for unattended aerodromes with example radio calls and update to AC91-9, a clear change to use of 119.1 beyond the vicinity of unattended aerodromes, an update to the AIP for the SOHJ, speciic examples of incidents and problem areas at the unattended aerodromes specific seminars
- acknowledgement that there have been approximately 6 previous, actively dissemenated nethods of joining overhead in the previous 50 years.
- Acknowledging NORDO operations at many airfields are legitimate and not a hazard
- Actual incidents and real examples and procedures and changes to reduce risk
- Actually credible people
- ADSB and the new traffic advisory aids now available.
- airfields Focus on issues and tips at particularly challenging airfields (e.g WKA)
- Airline ops to anattended aerodromes (becoming visual of IFR) what sort of urgency or right of way they posses
- All gd
- All uncontrolled airspace
- Am i safe to fly. Precribed medication also creates nausea etc.no
- An exception to the overhead join. In some places its an absolute joke and just dangerous. Omaka is a perfect example. Dont discourage pilots to do a straight in or base join if they as PIC deem it as safe.
- An industry revamping and look at the ancient procedures that are in the lectures
- As above
- AS above

- As above and maybe some educational material on resources available such as ADSB alternatives and pulse lights for Traffic collision avoidance
- As above. Our airport has rules against helicopters arriving by avoiding the circuit. For noise reasons they must use the runway vectors. This program both at the road show and on Linkin said the opposite is OK
- As above. Overall, I think the correct idea was portrayed - we are supposed to be working together using the standards of the industry as promulgated as a foundation, not that the CAA is telling us how to move and breath.
- Communication outside of the circuit on 119.1 areas and MBZ/CFZ
- Conflict scenarios and resolution
- Cover more about IFR integration and special procedures
- Dealing with conflicts, nordo and older slower aircraft, and issue with newer faster aircraft
- Discussing incidents specific to that aerodrome
- Don't know
- Downwind call needs to include intentions
- Emergency procedures
- Encourage trainers based at controlled airfields to put more emphasis on comms. in uncontrolled airspace.
- Explain the rules, don't just state them.
- Flight in uncontrolled airspace and use of FISCOM
- follow up
- for some reason, the microlight boys at RT were not represented. They need to be reached since it appears they are the most "nonstandard"
- for those who want to hear the message it's good. I suspect there are some who don't care though
- Helicopters joining the circuit the same as a plane.
- how to handle unusual operations, heli auto rotations, banner towing, glider ops.
- How to persuade ALL PILOTS to engage with these projects (we appear to be 'Preaching to the Converted)
- HSWA
- HSWA interaction with caa rules
- I didn't attend as I wasn't given enough notice of the seminar
- I kow focus was airfields, would have been good to talk about class G as well
- I think it focused on the most relevant aspects of operating around uncontrolled aerodromes. Any wider and it would probably reduced its focus.
- I think the WTSA campaign was focused on GA. More effort towards the airline users of uncontrolled airspace would have been valuable. However, I understand that airline pilots are a tough nut to crack for achieving change.
- I'm not sure ALL pilots would have been reached in their coverage eg private owners not affiliated or only loosely affiliated to a flying clubt
- Idk
- If CAA insisted on building up a profile of all users and know what their interests, aircraft and flying types, could sent them relevent emails to their type of flying, both relevent accident information and

investigations as well as 'continuing education' which is lacking. CAA has authority it is not using well tbh, in my opinion.

- If in doubt, leave the circuit and re-assess.
- Importance of reporting to build awareness, not to prosecute.
- It really didn't address the need for local special procedures and tried to apply the same left hand joining procedure to aerodromes where AWIB stated that a right hand RWY was in use. This was not satisfactorily closed out and left a lot of confused pilots potentially causing a worse safety outcome.
- Keep existing overhead join procedure, make people aware of the scientific fact that see and be see is a complete fallacy, the human eye cannot always see conflicting aircraft, scientific fact. See and be seen gives people a false sense of security and results in fatalities and near misses!
- Listed The airfields in NZ that are exceptions to the campaign
- LOL see previous answer
- Lookout supplemented by ADS-B in data, rather than driving round looking at a phone screen for traffic SA ("I've got you on the ADS-B" or "I can't see you on ADS-B you need to turn your xpdr on")
- Lower South Island seminar
- Manahing flight in higher density environments.
- Maybe more email updates - links to downloadable resources
- Maybe talk to some actual pilots, not just the airfield operators
- Microlight aircraft are the greatest users of unatended aerodromes but were lkeft out oof promotional material
- More case studies
- More CFZs and MBZs
- more concise radio calls
- More discussion on local peculiarities
- More of focus on standard radio calls? Importance of using standard reporting points
- More on the role of the aerodrome operator
- More seminars
- More specifics on IFR at unattended and in-depth sessions on the o/head rejoin
- More things targeted at airport managers
- N/A
- NA
- nil
- Nil
- no
- No
- No but campaign unfortunately preaching to the converted
- No idea
- No, I believe that the programme looked into all areas of safety within the programmes targets
- No, I thought it was well covered
- No, it was it fairly comprehensive.
- no, your getting there , keep it coming
- no.
- No.

- Nope
- Nordo
- Not at this stage. Many pilots don't fly that often. Too much presented to them in one setting can be a turn off.
- not really
- Not really - it was a specific, well defined subject
- Not so much have included, but perhaps of been delivered with more emphasis on aerodorme published procedures. I think that a little information can be dangerous to the wrong set of eyes. I fly out of Ardmore in rotorcraft, and the publicity that helicopters can do what they want as long as they do not cause conflict, hasnt been well understood by GA private pilots, when ardmore has clear published procedures for heli arrivals. I know overall the WTSA campaign may have been effective, but your question was worded towards what have I observed.
- Not so much included, but embraced. They should have embraced the microlight community better. Microlights are arguably the biggest users of unattended aerodromes, yet CAA was content to use a main promotional photograph with no microlight in it. I know why one wasn't there, and I know they tried to, but the fact remains it wasn't there and with microlights being one of the main subjects, but left out, really shows the lack of conviction to address the problem. AirNZ and RNZAF were included, but they are at the lower end of users and certainly less needing to be drawn into the programme. This was a serious failure in my view, especially when raised with CAA, they just spouted off lame reasons why one was not in the picture. "A picture is worth a thousand words"
- Not sure
- Not sure at this time
- Not sure, never heard about it
- Nothing comes to mind
- Nothing I can think of.
- Operators
- performance measures
- Perhaps more emphases on the (compulsory) fitting of a modern radio. Also the question of whether ADSB out and in should be mandated in uncontrolled airspace.
- Perhaps on field actual in person sessions with instructors talking through joining scenarios
- Perhaps simple animations
- Pre-rollout training provider/Operators engagement
- recreational pilots (microlights etc)
- Revision of the "Crowing Rooster" articles and radio use expectations.
- RT discipline could be improved. Wake turbulence should have been included. Establishing procedures for fly ins such as AOPA does.
- Says it all above. No apprecation of high performance and commercial traffic needs or realities.
- See above.
- Seminars at thos unattended aerodromes
- students
- Summary sheet from the presentation.
- The health and safety at work acts interface with caa rules

- There is some confusion about the use of FISCOM as compared to 119.1 for communication when a pilot is between aerodromes. All pilots flying in open country need to be on the same frequency.
- There is still a lot of confusion about overhead rejoins especially when more than two aircraft are trying to join at the same time
- There was ZERO mention of airport ground crew and how they fit into the picture
- Total honesty.
- Try reach out a lot more, I haven't heard of this campaign until now.
- Unsure
- Unsure.
- we need to get serial offenders into these presentations but unsure how you do that
- Well maybe not the actual campaign but CAA should consider making busy unattended airfield mandatory ADS-B areas since they promote it as an aid to separation and the government spent a lot of taxpayers' money on grants for install yet they won't allow private airfields to mandate it.
- What people should do if they see something going wrong, in the ground or air. CAA is unwilling to give any guidance on this
- Working with flight schools to help them deliver the content themselves for some ownership over it.
- Yes other variations of acceptable arrivals
- Yes, stopping unnecessary communication on the frequency.

6.7.   Appendix G

This appendix lists the 72 comments provided by participants when asked the question "Were there any parts of the WTSA campaign that you think were not of value?

- Adequate
- All aspects that I saw had some value.
- All good revision.
- All information is of value as we need to keep up with a very dynamic environment
- All of it was ineffective
- All was of value as everything presented was open for discussion.
- As above
- Basically all of it. The chance of midair collisions at NZ unattended aerodromes has not been affected by the campaign.
- Bloody right hand overhead rejoins!! Im still havnt practiced enough!
- Didnt see it
- Don't know
- Don't know as we didn't get one
- Felt like the CAANZ needed something to do - other internal problems should have been handled first.
- For me as a regular user of controlled airspace the plane talking was less useful
- Helicopter circuit rule change
- I do not know
- I don't knoe of the Capain
- Idk
- It has reduced safety by introducing the reversal turn
- It was all of value, just not communicated all that effectively
- Keep a better lookout.
- Most of it.
- Most…because it was living in a dream of yesteryear and refusing to embrace new technology.
- N/A
- NA
- New overhead join and see and be seen - both DANGEROUS
- nil
- Nil
- no
- No
- No - well balanced.
- No idea
- No not a thing.
- No, it was professionally done
- no.
- No.

- Nol
- Not acknowledging NORDO operations at many airfields are legitimate and not a hazard
- Not really
- Not sure
- Not sure, never heard about it
- Not that I remember
- Nothing comes to mind
- Obviously the whole thing
- One video showed incorrect terminology or procedures with editing over.
- Over use of video. Including the non standard FRTO calls.
- Plane talking
- Plane talking. The entire thing really.
- Plenty
- Probably all of value but could have been expanded.
- Purely stating the rules without explanation.
- Radio frequency has not chnaged and 119.0 is still used by X Ctry pilots as default
- Seemed pretty ineffective. Bit like the road to zero campaign.
- Some of us came away with the impression that we were to talk less on the radio, even fly to your destination with virtually no radio calls in transit. Agreed it is good for some people who clutter up radio traffic, but I believe that accurate and regular reporting adds to the situational awareness for fellow flyers.
- The aerodrome specific seminar
- the campaign itself was good and necessary
- the campain was not necessary, all the aviators I encountered in flight followed the rules
- The entire thing
- The first session - plane talking. Trying to completely change radio calls was a pointless task
- The initial focus on the very precise overhead join procedures
- The overhead joining procedure had a turn in the opposite direction, this was in most people opinion dangerous and confusing
- The publicity/ media stunt of signing up to statement of commitment for WTSA
- The right hand circuit, over hesd join. I mean what the hell is that. Left hand is fine and makes sense. Right. Nope
- The second tranche of seminars which highlighted 'exceptions' developed after the first 'something we all must do' messaging.
- The video was OK but it should not be the only tool. Specific diagrams and more discussion on procedures would be useful
- The whole seminar on radio use
- They focused on a stupid general catch phase "head on a swivel " as if no one had thought of looking out the window.
- To be honest I didn't get involved enough to know.
- too much emphasis on overhead rejoins initially, and remaking resources that were already available.
- Unsure
- Videos were quite long

- Was bascially reinforcing the rule and explaining them. most knew anyway, The second seminar video was excellent. Doing that sort of thing once a hear to keep it fresh would keep the WTSA rolling.

6.8. Appendix H

This appendix lists the 62 comments provided by participants when asked the question "Briefly, why were these parts not of value?", in relation to their response in Appendix G

- No Coment as I was not Aware of the campain
- ?
- a lot of pilots dont look outside. over reliance of screens. I dont have one.
- Absolutely nobody brought into their ridiculous views
- As above
- As said above
- Ask the authors. The "Crowing Rooster" principles were contrary to the views portrayed in aviation social media.
- Because they are not in plain language in many cases, so how is stating them without explaining the intent going to prevent more accidents?!
- Bloody dangerous
- condescending -
- Counter-productive.
- DANGEROUS
- Due to lack of involvement from all users
- Eventually got disoriented
- Everything is of value
- I believe it came across as conveying the wrong approach to radio use. I may be wrong in all of this, but I do recall these recall this topic being hotly talked about after the 2nd or 3rd WTSA seminar, and even to this day the odd joke is still mentioned about it "no talking on the radio". In actual fact, I believe nothing has changed in this area, aviators still use the radio as much as they ever did before the seminars.
- I can watch a video at home. If there is a requirement to change behaviours engage more effectively with a facilitated experience that can be tailored to individual groups
- Idk
- If you are flying in NZ you need to comply with the CAA rules thats part of the process. No requirement to sign up to a statement of commitment.

- Ineffective as do not address root cause of midair accidents..
- It comes with basic training to be a pilot.
- It hasn't made the slightest difference. Pilots are still doing non-standard procedures & unaware of rules etc
- It was a waste of time trying to change radio calls for no reason
- It's had no impact
- It's had zero impact, there's still pilots everywhere doing nonstandard stuff, unaware of the rules
- Just a personal resistance to change, and not going out and practicing right hand overhead rejoins.
- Majority of our aerodrome users are long term and set in their ways. needs a different approach tbh.
- Money spent on a problem that dosn't exist
- More could be done to improve safety.
- n/a
- N/a
- N/A
- N/A.
- na
- Na
- NA
- Nil
- no
- No
- No idea
- No pilot or passenger wants to die, so they do their best to avoid it. But the pilot-error problem is no longer up for improvement.
- No theme or change that I could identify
- No.
- Nobody wants to hear from [Redacted] he has no credibility
- None
- None were not of value.
- not applicable
- Not applicable to my thoughts
- Not reaching most unattended airfield users or operators
- Not specific enough about specific issues and problem areas at the aerodrome, was instead a presentation of the statistics rather than practical flying problems
- Not sure
- Not sure, never heard about it
- Nothing specific to help avoid incidents. Just saying, it's up to you to look out the window. Good luck
- Overhead joins and circuit joins are variable and dependent on aircraft performance, an aspect which was covered well in subsequent WTSA seminars
- Repetition
- See above
- Spending money twice instead of once.
- The ancient procedure is out of date

- The video needs to be put in context
- unnecessarily dangerous
- Unsure
- Well structured and delivered to the widest audience target.

6.9. Appendix I

This appendix reports the 25 responses for 'other' means of checking weather.

- AccuWeather for destination and places enroute
- Air NZ Aviobook Flight Planning Software
- All except metvuww
- ATIS
- BOM Satellite, Metservice
- EFB - notams and weather
- FlowX
- flying competition
- Listened to AWIB
- Local knowledge
- Met service
- Met Service App.
- meteoblue.com
- Metjet
- METJET
- Metservice
- MetService
- Metservice website
- MetService.com
- Nnumbers 1 3 4 5 6
- Ozrunways
- Person on ground at destination (qualified loader driver)
- PWS private weather stations in vicinity or at the aerodrome s
- various Apps
- www.metservice.co.nz

6.10. Appendix J

This appendix shows the statistical correlations between 9 variables of interest and the number of participants who provided information for both variables.

		1 Awareness of WTSA	2 Effectiveness of WTSA comms	3 Engagement with WTSA	4 Knowledge	5 Encouraging others to engage	6 Culture changes	7 Attitude changes	8 Behaviour changes
2. Effectiveness of WTSA comms	strength	.680							
	Sig	<.001							
	n	189							
3. Engagement with the WTSA	strength	.734	.604						
	Sig	<.001	<.001						
	n	189	189						
4. Knowledge	strength	.185	.074	.048					
	Sig	.020	.357	.548					
	n	158	158	158					
5. Encouraging others to engage with the WTSA	strength	.586	.418	.623	.199*				
	Sig	<.001	<.001	<.001	.013				
	n	186	186	186	155				
6. Culture changes at unattended aerodromes	strength	.107	.209**	.163*	.107	.238**			
	Sig	.146	.004	.026	.186	.001			
	n	186	186	186	155	183			
7. Attitude changes at unattended aerodromes	strength	-.310	-.353	-.343	.012	-.428	-.476		
	Sig	<.001	<.001	<.001	.886	<.001	<.001		
	n	188	188	188	157	185	185		
8. Behaviour changes at unattended aerodromes	strength	-.253	-.334	-.320	-.058	-.349	-.423	.691	
	Sig	<.001	<.001	<.001	.468	<.001	<.001	<.001	
	n	188	188	188	157	185	185	187	
9. Was the WTSA campaign successful?	strength	.352	.556	.485	-.136	.337	.410	-.469	-.450
	Sig	<.001	<.001	<.001	.090	<.001	<.001	<.001	<.001
	n	186	186	186	156	184	183	185	185

Correlation strength can range from -1 (a perfect negative relationship) to +1 (a perfect positive relationship)

Statistical significance is achieved at ≥ .05; strongly significant at ≥ .01; and very strongly significant at ≥ .001

The full wording of the above variables 1-9 is as follows:

1. Before you began this survey, were you aware of the CAA's WTSA campaign? (higher scores = greater awareness)
2. How effectively do you think that CAA NZ's WTSA campaign has been communicated to unattended aerodrome users? (higher scores = greater effectiveness)
3. To what extent have you engaged with the WTSA campaign? (i.e., how much has the campaign captured your attention and interest) (higher scores = greater engagement)
4. Mean of 19 knowledge items (with up to 2 items missing) (higher scores = greater knowledge)
5. To what extent have you encouraged others to engage with the WTSA campaign? (higher scores = greater encouragement)
6. Have you noticed any changes in the culture of users at unattended aerodromes since the WTSA campaign launched? (higher scores = more improved culture)
7. Have you noticed changes in the attitudes of users of unattended aerodromes since the WTSA campaign launched? (higher scores = more improved attitudes)
8. Have you noticed changes in the behaviour of users of unattended aerodromes since the WTSA campaign was launched? (higher scores = more improved behaviour)
9. Do you think the WTSA campaign has been successful? (higher scores = more successful)