

Submission to Auckland City Council
from
The Tamaki Model Aircraft Club Inc.



This submission is in support of the Tamaki Model Aircraft Club's plans to move their existing flying field on the Point England Reserve to a more suitable location.

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Part One: Text

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Proposal to Move Existing Flying Field on Point England Reserve

This submission is made on behalf of the Tamaki Model Aircraft Club Incorporated and is in support of the club's intention to move our existing fenced runway and flying field to a more suitable position. The new position lies within the designated flying area approved by Resource Consent "ENV-2006-AKL-000804 O'Halloran v Auckland City Council" issued by the Environment Court on 15th day of September 2006.

Reasons for the Proposed Move and the Benefits

The primary reason behind the plan to move the flying field is to reduce the impact of our operations and hence the nuisance factor for our neighbours in the nearby residential properties.

This will be achieved by moving our flying area further away and downwind from the residences and positioning our pilot area in between the flying area and the houses.

There are other incidental benefits and a summary of the current problems and proposed benefits are set out below.

- Almost ¼ of the north end of the current field lies within 175m of the nearest residential property.
- The South end of the current field is less than 90m from the adjacent Sports Field No-Fly zone.
- Orientation of current runway directs pilots straight towards both the residential and the sports field No-Fly zones on both takeoff and landing approach. To avoid these areas an unorthodox circuit must be flown.
- The existing field does not comply with the required 20m separation between the aircraft pits and the flight line.
- The proposed field will increase our operating safety by providing a much greater buffer between the typical flight path and the housing and playing fields.
- The proposed field will place pilots between the flying area and the residential properties further reducing the likelihood of future infringements of No-Fly zones.

Reasons for the Proposed Move and the Benefits cont...

- The position of the new pilot box in relation to the flying area will have pilots facing southwest. The sun will always be behind the pilots, further enhancing safety.
- The proposed field and runway will direct aircraft movements along the longest axis of our designated flying area, well away from the no-fly zones.
- The proposed flying area is in a predominantly down-wind position from the residential areas which will reduce sound nuisance.
- The proposed runway will be very closely aligned with Auckland's prevailing winds and the runway at Auckland International Airport improving the ease and safety of take-offs and landings.
- The proposed position is on a large, slightly raised plateau. This position will reduce the visual impact of the clubs activities when viewed from the surrounding areas.
- The car parking area the Auckland City Council was planning to construct beside the implement shed will not be required. This would free the funds for possible use elsewhere on the project.

Section 1 The Field

Definition of “The Circuit” (See Figure 1)

Full size light aircraft follow a very definite flight path when flying around an airport or airfield. This flight path is called a “Circuit” and model aircraft pilots usually adopt a similar pattern. We briefly define the circuit here to help non-pilots understand later references to typical flight paths and to explain how we can predict the approximate flying area for a given runway.

The following is a definition from RAANZ Recreational Aircraft Association of New Zealand.

“The circuit is a rectangular path flown by aircraft around an airfield or runway.

With all traffic adopting the circuit pattern it is very much easier to sequence aircraft for takeoff and landing because one can observe another aircraft in the circuit and predict its subsequent likely actions.

The actual physical dimensions of the circuit may vary between pilots, machines and airfield, but there is a uniformity of traffic flow. Thus, a number of aircraft can operate in an orderly and safe manner.”

Position of the Existing Flying Field (See Figure 2)

The position of the existing flying field is less than ideal.

The northern end of the field is well within the 175m No-Fly zone from the nearby residential properties. When taking off to the north pilots must immediately turn right to avoid the no-fly zone. Landing from the north is also compromised, as pilots cannot make a straight approach to the runway without impinging into the no-fly zone.

From the southern end of the runway it is only 90m to the sports field boundary. While this end is less of a problem than the northern end it can still be difficult to judge the distance to the sports field, especially for less experienced pilots.

The proximity of both No-Fly zones forces pilots to fly an unorthodox circuit pattern. This has led to transgressions into the No-Fly zones and complaints from our neighbours.

Improved Safety (See Figure 3)

The proposed new field will increase operational safety by providing a much greater buffer between our typical flight path and the nearby residential properties and the sports field.

Prevention of Incursions into No Fly Zones (See Figure 3)

The location of the proposed flying field and the orientation of the runway will result in a typical flight path much further away from the residential properties than where we are flying now.

By positioning our pilot box between the flying area and the No-Fly zones to the northeast, pilots would have to fly behind themselves to enter the Residential No-Fly zone.

The orientation of the new runway will direct traffic movements along the longest axis of our designated flying area.

The distances between the pilot's position and the No-Fly zones at the ends of the marked flying area are much greater than previously.

New Pilot Box to North Eastern Walking Track No-Fly Zone = 240m

New Pilot Box to South Western Sports Field No-Fly Zone = 260m

New Pilot Box to Nearest Walking Track No-Fly Zone = 170m

Old Pilot Box to Residential No-Fly Zone = 50m

Old Pilot box to Sports Field No-Fly Zone = 142m

The No-Fly Zones at the ends of the new flying area are outside the normal flying distance for our models whereas previously both No-Fly Zones were well within normal operating distances. (There is no pleasure in flying a model aircraft at a distance that makes it hard to see!)

Reduced Noise for Neighbours

The proposed new flying area lies generally South East of the nearby residential properties. The prevailing winds in Auckland are South Westerly and North Easterly. (See wind data on figures 7c, 8c and 9c)

The prevailing SW and NE winds will tend to blow the noise from the models away from the residential properties. This combined with the greater distance from the houses will reduce the noise nuisance.

The only wind direction that will blow aircraft noise directly towards the neighbours is a South Easterly. Two years of wind samples from Auckland Regional Council operated weather stations at Musick Point, Penrose and Pakuranga are presented in the graphs. The percentage of South Easterly winds from these sites was 8%, 6% and 12% respectively. Also, wind from a South Easterly direction will be a "crosswind" on our proposed runway so would have to be quite light to permit flying at all.

NZMAA Endorsement

We approached the national body for Model Aircraft Clubs, the New Zealand Model Aircraft Association, with a description of the problems we were having and an outline of our plans to move the flying field. They have confirmed that the planned new field complies with the NZMAA guidelines for flying field layout and have endorsed our plans, see letter attached from NZMAA.

Improved Runway Alignment with Prevailing Winds and Sun

See Figures 7a, 7b, 7c, 8a, 8b, 8c, 9a, 9b and 9c

Further to the noise reduction, above, the new runway will be much more closely aligned with Auckland's prevailing South Westerly and North Easterly winds.

Figure 4 shows a superimposed image of the runway from Auckland International over our proposed runway. The Akl Intl runway has a bearing of 070°T and our new runway is only 18° different at 052°T.

Improved alignment with the common winds will mean easier and safer aircraft take-offs and landings.

The wind data presented in the figures was obtained from the NIWA online database. The readings are for surface wind at three sites reasonably close to the Point England Reserve. The locations of the weather stations are shown in Figure 6.

The data used in all the graphs is a subset of the 3 hourly samples. Samples shown are from 0900hrs, 1200hrs, 1500hrs and 1800hrs daily over a two-year period. These times were chosen as they cover the hours when flying is permitted.

The position of the pilot box in relation to the new flight envelope will ensure that pilots are always facing southwest. Facing this direction means there is little or no chance of the sun affecting a pilot's ability to see their model thus further enhancing safety.

Reduction of Visual Impact

The proposed location is on top of a large slightly dished plateau. The chosen location for the flying field will reduce the visual impact of the club's activities when viewed from surrounding areas.

Section 2 The Vehicle Access

The Existing Access Situation (See Figure 5)

Maximum vehicle usage over the past year

- Sunday 15 vehicles
- Wednesday 10 vehicles
- Friday 8 vehicles (But only permitted during NZ Daylight Saving Time)
- Saturday 15 vehicles
- Tractor used to mow the strip 2

This would equate to an approximate maximum of 50 in 50 out passes per week if the site was used each allocated flying day of every week. The reality is that out of 52 weeks in the year only approximately 30 weeks are flyable and not each day of those flyable weeks is used. Therefore more realistically we see the calculation as $30 \times 100 = 3000$ passes per year as a possible maximum usage.

During the summer months, access is possible across the existing grass track without the need for any metal coverage. The grass has usually recovered before the next use. The field is not used if the weather conditions are not conducive to flying. (Model aircraft flying is an outdoor hobby we participate in for pleasure. If the weather is inclement with significant wind or rain, modellers will stay at home.)

At present the vehicle access utilizes an existing track that extends from the entrance gate to the west, veering 30 degrees to the south and along the fence line, which extends along the northern boundary of the Pt England reserve playing fields. At the point where the fence dissects the perpendicular path to the flying field the track turns at approximately 90 degrees north and links directly with the pit gate of the flying field. There is a fine metal coverage at the gate entrance and leading up to but not reaching the playing field fence line.

There are two drainage points that are sometimes soft but these would be corrected if the existing drains were cleared allowing the run off to reach the intended disbursement points to the north. Some metal fill will be required at these points to ensure reliable access during winter months and to prevent "pugging" from the stock.

The Proposed Access to the New Site (See Figure 5 and Photographs)

The proposed new site would increase the appeal of the Tamaki Model Aircraft Club and allow us to expand our membership. We anticipate that with increased membership and extra use of the field due to its advantages over the old field, that utilisation of the site could increase by up to 50%. This would result in an estimated traffic volume of up to 4500 movements per year.

The access way to the proposed site would use the same route described above, but instead of heading to the existing field would continue along the fence line until just past the water trough. From there it heads almost north and links with the western end of the proposed flying field site. The track then runs parallel to the new field to a point adjacent to the pit area, which is where we would designate a car parking area. This car parking area is in a slight hollow which will effectively hide the vehicles from the playing fields, the entrance road on Elstree Avenue and the adjacent subdivision to the north.

With the application of metal to some softer areas, the proposed access should work well for the existing traffic volume and the anticipated increased usage. However it would be an advantage to have the entire track clearly defined and this could be achieved with a light coverage of mixed grade metal.

By clearing the existing drains, the boggy areas would drain and firm up.

The fence line running along the northern boundary of the playing field is slightly elevated and has a number of trees growing along it. The trees are located on the playing field side of the fence. The fence consists of a 6 strand stock fence in good condition. The drainage via the slight elevation and also the trees assist in keeping this area relatively firm. The addition of a light metal coverage would enhance its all weather capability.

There is a requirement to provide all weather access to the site and it is our belief that this can be achieved with a minimal enhancement of what already exists. There are some small areas that will require grading and the application of some sort of metal but we are sure a suitable access can be formed utilizing a minimum amount of material and grading. This will minimise the initial visual impact of the access on the landscape and over time should result in a very unobtrusive track similar to the one formed for the Watercare access to the pumping station. See photo 18. This track runs between the entrance gate and the pumping station. It has had metal applied at some time in the past and is now well compacted has proven more than adequate.

A similar standard of track would be perfectly adequate for the likely vehicle movements to and from the flying field, will be quite unobtrusive and very cost effective.

Section 3 Other Considerations

The Car Park on Elstree Ave

The council had proposed to redevelop the existing car park on Elstree Avenue.

This area has proven to be unsuitable to park unattended vehicles for security reasons and is also too far from the existing and proposed flying fields to be practical.

The nature of the hobby requires us to take a certain amount of equipment with us to the flight area as well as the actual aircraft. Carting delicate and sometimes large planes along with flight boxes and other ancillary equipment over the long distance to either field on foot is impractical. Also a number of the older members of the club rely on the ability to access their vehicles for breaks during a flying session, further necessitating having the vehicles close by.

With the proliferation of almost silent electric models, easy access to a pilot's car is required for frequent charging from the vehicle battery.

The council funding that was allocated for the development of the Elstree Ave car park could be put towards the development of the all weather access. We would anticipate that if the minimalist approach proposed above was adopted and recycled material used where possible, that the cost of an adequate access could well be less than that of a tar sealed car-parking area.

Engineering Requirement

One of the conditions of the resource consent is the provision of an all weather access.

At the time the consent was being finalised the local community board was offering to provide the majority of the funds required for this work. Because these funds were supposedly available, the applicants on behalf of the club at the time made no objections when the park engineer proposed a 3m wide fully metalled access with 150mm of base course over geo matting to provide a permanent, country road quality access.

With this funding now unavailable and the club unable to afford the high cost of building such a road, we question the need for anything more than a basic track as described previously and pictured in photo 18.

We welcome the council's input on how to best address this matter.

Possible Win-Win for Council

Although the club understands the requirement for the all weather access to the field, and it will be of benefit to us, the matter is not one of great urgency for us.

Perhaps a slightly relaxed time frame could provide the council with a place to dispose of road tailings from the many road works sites around the area, as and when they become available. This approach would save some transport and disposal costs while providing the material necessary to surface the track.

Our club could coordinate with contractors to implement this.

Conclusion

The Tamaki Model Aircraft Club Committee believe that a move from our current flying area to the area proposed in this submission will have only positive benefits for all interested parties.

The new position of the runway and resulting flying area directs aircraft movements well away from all residential properties and the sports field.

The club will have to rewrite our Operational Guideline for flying at the new site. These new regulations will probably prohibit powered aircraft flying northwest of a line extended out both ends of the northwestern fence of the new flying area. This will make incursion into the residential and Omaru Creek No-Fly zones very unlikely.

The new flying area is much further away from the houses that have been troubled by aircraft flying from the existing field. The increased distance combined with the downwind position of the new flying area will substantially reduce the noise nuisance for these residents.

The benefit to the Auckland City Council should be the cessation of complaints from residents too close to the existing field and flying area. (Not their fault) We believe that our model aircraft operating within the proposed new flight envelope will provide no cause for complaint from reasonable neighbours.

The possible benefits of the move to the club are numerous and include a far superior flying area, better runway alignment with the prevailing winds and a far more versatile flying area which will increase our ability to attract new members while permitting the use of a wider range of aircraft.

Last but by no means least, the move should solve the existing problems and provide a basis for a much better ongoing relationship with both our neighbours and the administrating body.

Thank you.

Footnote

Unused Tennis Courts at 38a Elstree Ave

At a previous meeting with ACC staff, club representatives raised the possibility of applying for permission to run Electric Radio Controlled cars on the unused tennis courts behind our clubrooms at 38a Elstree Ave.

This proposal is still under consideration by the committee and will be dealt with separately.

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Appendix One

A letter from the Secretary of the NZMAA Mr Ken Buckley attached.