



**Note: Include pages two and three of this form with your response to DOC.
Do not include page one.**

A. Permission Application Number and Name of Applicant

66696-AIR Hokitika Airport Limited

B. Name of Proposed Activity and Location(s)

Construction and use of a heliport facility at Fox Glacier, South Westland

C. Submitter Information-

Full Name (also list organisational name if submitting on behalf of a business, community group, etc.):

James Patrick Scott

Address for Service (Postal Address):

[Redacted]

Post Code:

[Redacted]

Telephone:

[Redacted]

Email Address:

[Redacted]

Note: Communication from DOC will be via e-mail unless alternate contact is requested below.

I wish to be contacted alternately by:

D. Statement of Support/Opposition

I (circle one) Support / Neutral / Oppose this Application.

E. Hearing Request

I (circle one) Do Do Not wish to be heard in support of this submission at a hearing.

F. Submission

The specific parts of the application that this submission relates to are:

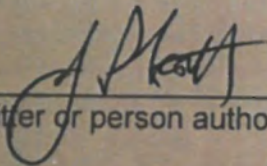
Heliport at Fox Glacier.
Flight paths over main Road
Road access of main Road

My submission is [include the reasons for your views]:

There is 2 other helipads on private land next to this property so this one is not needed
Flight paths over main road coming from glazed will distract traffic
more traffic at Fox Bridge will cause accidents as very dangerous now
no consultation with other operators as to flight paths and location
alot of native bush would have to be cleared to get safe flight paths in and out

What outcomes would you like to address with your submission? [give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought]:

G. Your Signature



Signature of submitter or person authorised to sign on behalf of submitter

Printed name of submitter or person authorised to sign on behalf of submitter

27-7-18

Date

Please complete this form and send to chtaylor@doc.govt.nz. You may also mail your submission to: Director-General, c/o Department of Conservation, Private Bag 701, Hokitika 7842, Attn: Chari Taylor.

30 July 2018

Director-General
Department of Conservation
Private Bag 701
Hokitika 7842

Attention: Chari Taylor, Statutory Support Officer

By email: chtaylor@doc.govt.nz

SUBMISSION: Concession Application by HAL - Proposed Construction of Fox Glacier Heliport

Totally Tourism Ltd (hereinafter "TTL") provides the following submission in relation to the Concession application by Hokitika Airport Ltd (hereinafter "HAL") to construct a heliport at Fox Glacier and operate it from Department of Conservation (hereinafter "DOC") land immediately adjacent to land belonging to TTL. The deadline for submissions is noted as 1 July 2018.

TTL has a substantial operational footprint at both Fox Glacier and Franz Josef Glacier due to its ownership of both The Helicopter Line Ltd and Glacier Helicopters Ltd and is the largest aircraft operator in the region.

For the purposes of clarity and disclosure, TTL has a project underway to build a commercial heliport on land immediately northwest and adjoining the proposed site.

TTL objects to HAL's proposed construction and cites the following in support of our position:

Safety and Lack of Contact or Consultation with Other Nearby Proposed Heliport Operators

The TTL consented heliport (on land adjacent to that proposed by HAL) includes flight paths approved by CAA as part of the Part 157 Conditional Determination issued to TTL.

My understanding is that HAL have also received a Part 157 Conditional Determination, which includes a condition stating:

- 1. Hokitika Airport Ltd is to develop a Memorandum of Understanding (MOU) between all adjacent Heliport proposals in the immediate vicinity of the Fox River Bridge to coordinate aviation activities with a Safety Management strategy. The MOU must be submitted to the Mount Cook and Westland National Parks User Group for acceptance and be included in the Operations Handbook. The updated Operations Handbook is also to be provided to CAA for comment prior to the commencement of air operations;*

No discussions have been held by HAL with TTL nor, as far as we are aware, with other helicopter/heliport operators to determine safe flight paths and helicopter operations.

Congested Site

The proposed heliport is to be located on land immediately south east of the consented TTL heliport. Location of two heliports so close together will give rise to safety matters. For example, the intended outbound flight path of HAL's proceeds directly overhead the location of TTL's proposed heliport and the intended inbound flight path of TTL's proceeds directly overhead the location of HAL's heliport.

HAL's proposal provides for four helipads only and purports to be a facility from which multiple helicopter companies can operate. Managing multiple operations flight movements will be more difficult. This issue would normally be considered by the user group and we are unaware of any communication with the group on this matter. Clearly, this proposal is ineffective from the outset given TTL operates from 5 pads in the Fox Valley Township area already.

Approach Path

HAL's proposal states an approach path of 190° magnetic which means that the approach will be from the north and heading almost due south towards Mount Fox. The approach path will require pilots to fly west along the Fox River valley, turn north close to the hill and fly towards the township, then turn through nearly 180° in order to land at the HAL site.

AC139-8 requires that where an approach or departure path is curved, it must not turn until 100 feet above the inner edge elevation for the Obstacle Limitation Surface. At a gradient free slope of 1:8, this equates to a horizontal distance of 800ft or 244m. From that point the flight path can curve at a radius not less than 270m. TTL has prepared and encloses a map of the likely approach path for the HAL proposal.

Senior pilots of TTL's subsidiaries have reviewed the approach path as shown on the attached map. In their view the approach is unnecessarily dangerous, requiring approaching helicopters to fly low and slow over forest with the only possible emergency landing site being the Haast Highway - assuming it is free of traffic and can actually be reached.

We have also enclosed a longitudinal section through the OLS for the indicated approach path. This longitudinal section shows that there is a considerable stretch of trees that penetrate the OLS and will need to be cleared.



Ownership by Airport Corporation

There is a demonstrated tendency for airport companies to underinvest in aerodrome and heliport facilities and maximise returns through landing fee pricing and volume of landings.

HAL's application to CAA clearly indicates an underinvested, low quality, minimum cost approach as is evident in the example of the type of shelter they intend to construct for users as submitted in the Concession application (refer inserted image below from HAL Resource Consent application included in their Concession application).

APPENDIX 7

Shelters



Further, once constructed, it will be in HAL's interests to permit increased usage leading to increased revenues. This will, however, lead to increased congestion and therefore elevated risks to safety.

HAL has demonstrated a clear willingness to put operating revenue generation ahead of risks to safety as evidenced in its approach to adding helipads to Glacier Country Heliport in Franz Josef despite the heliport already being considered "full". This process proved farcical and causes TTL to be uncomfortable in respect of HAL's potential future management of a Fox heliport as a result.

Primary Operator in the area

TTL and Franz and Fox Heliservices (FFHS) are the primary operators in the Westland National Park incorporating both Franz Josef and Fox Glaciers and their respective townships and surrounds. Bulk of use for any facility will clearly be that of TTL and FFHS, and neither company is supportive of HAL's proposed construction.

Opportunity for Facilities of a Higher Standard

An operator-developed heliport capable of facilitating the operational requirements of other companies is, in TTL's opinion, a superior outcome.

As an aircraft operator, TTL:

- Will invest an appropriate amount of financial resource to establish quality facilities;
- Seeks to future-proof its operational capabilities in the area;
- Can expertly establish, safe, robust operating procedures in consultation with all users based on its operational experience and knowledge;
- Has a vested interest in ensuring safe operations on which its future will depend;
- Has no reliance on landing fee generation as a source of income.

Superior Site THL/GH

TTL has identified a superior site and superior offering for its proposed heliport. It is:

- Further from the valley mouth, and approximately three times larger in size, than HAL's;
- Further from SH6 meaning aircraft will be higher over SH6 on approach to TTL's proposed site than those on approach to HAL's proposed site which increases safety margins;
- Suitable for up to 15 helipads with the potential that multiple companies will be able to operate from TTL's proposed site via commercial agreements. As such, there should be no need for heliport facilities in addition to that proposed by TTL and FFHS.
- Able to support a straight in approach path with multiple vegetation-free areas available in times of emergency.
- Supported by an Obstacle Limitation Surface survey confirming no penetrations.

Investment in Planning Work to Date

TTL has made significant progress to date in terms of planning work for its intended site, including:

- Successfully attaining Resource Consent;
- Securing Affected Party Approval from all persons deemed affected by the resource consent application;
- Discussion and agreement with neighbouring helicopter operator (who is also developing a new heliport) regarding flight paths and helicopter operational safety
- Quality professional depiction of intended site layout clearly indicating access roads, car parking, coach parking, helipad operational zone and fuel storage;
- A Helicopter Noise Management Plan;
- An Assessment of Environmental Noise Effects;
- Petroleum Fuel Storage plans compliant with Westland District Council's requirements;
- Soil Disturbance and Land-Use Change Investigation;
- Ecological Assessment of Proposed Earthworks Vegetation Clearance;
- Completion of an Obstacle Limitation Surface survey confirming no penetrations;
- Receipt of Part 157 Conditional Determination;
- Architecturally designed, purpose built aviation facility including hangar, apron, fuel and maintenance facilities, customer service lounge, conference facilities, café, safety briefing areas

Conclusion

There is no need for provision of a further heliport in this area to be developed on DOC land with extremely limited and arguably sub-standard facilities, so close to the main highway, with such significant safety concerns and with two other heliports currently being developed in better, safer locations, with significantly superior facilities, being operated by respected helicopter operators so close by. We believe this public land could be put to far better use, however, if the proposed Concession were granted, significant safety concerns described above would need to be addressed.

We submit, along with the above, a report provided by an aviation technical expert supporting our concerns.

For and on behalf of Totally Tourism Ltd

Tim Barke
General Manager

30 July 2018

Tim Barke
General Manager
Totally Tourism Ltd
29 Lucas Place
Queenstown

Dear Tim

RE: HAL RESOURCE CONSENT APPLICATION FOR FOUR HELIPADS NEAR FOX GLACIER TOWNSHIP

This letter is prepared in response to your request that I review the application by Hokitika Airport Ltd (HAL) for a Concession to construct a heliport at Fox Glacier and operate it from Department of Conservation land immediately adjacent to land owned by Totally Tourism Ltd (TTL). I focus primarily on issues of aviation safety, but also address other aviation and safety related matters as they arise.

Safety

In addressing section 5 of the RMA, the proposal comments on health and safety (p. 21). A key element of safety that is not mentioned is the safety of approach and departure paths for the helicopters. The application to the Civil Aviation Authority (CAA) indicates an approach from the north, whereas the *Assessment of Noise Effects* indicates an approach from the east. I discuss both of these possible approach paths below. In my view, both possible approach paths give rise to significant safety risks. Given that there are practicable and financially feasible alternatives to this site, it is my view that this site should not be used for a helipad complex.

Departure Flightpath

The departure flight path is shown on the map in Appendix A of the *Assessment of Noise Effects* as proceeding up the Fox River Valley. This directly conflicts with the approach path for the Totally Tourism Ltd heliport, which has already received resource consent and has a conditional approval from CAA.

The departure path is also drawn as having a turning radius much tighter than the minimum 270m radius prescribed by CAA. The conditional determinations issued by CAA clearly indicate that the CAA expects HAL to reach agreement with the neighbouring heliport operators; were such an agreement to be reached it is unlikely that it would include a non-compliant departure flight path.

Approach Paths

The application documents seem to suggest two different approach paths. Each approach path has associated safety risks, but those risks are different for the two paths.

The first approach path is given by HAL's Part 157 application to CAA specified an "arrival track" of approximately 190° magnetic, which means that helicopters on approach must fly from the direction of the township almost due south towards the proposed helipad site. This is confirmed by the map in Figure 5 (Appendix 4). The risks associated with this flight path arise from flying low over trees.



The second approach path is provided by the map in Appendix A of the *Assessment of Noise Effects*. It appears that this approach path is directly over the hills to the east of the proposed site. The risks associated with this flight path arise from the required steep angle of descent.

Low Flight Over Trees with Northern Approach

The CAA requirements regarding approach and departure paths are couched in terms of the "Obstacle Limitation Surface" (OLS) that protects the approach and departure paths from encroachments that would be hazardous to helicopters. The OLS is required to have a slope of 1:8. It must also be straight until it is 100ft above the point at which it touches the ground, which means that it is straight for a horizontal distance of 243.8m. For an approach path of 190° magnetic, the straight section must be on a bearing of 10° magnetic from the helipad, i.e. north towards the township. CAA then requires that the minimum turn radius is 270m. The maximum distance of a point on that turn from the helipad is 243.8m + 270m = 513.8m. A compliant flight path for a 190° magnetic approach therefore extends much further towards the township than shown in either Figure 14 or in the *Assessment of Noise Effects*.

The OLS is required to be clear of all obstacles, including trees. Preliminary investigations indicate that trees will need to be cleared for approximately 175m north of the site, for a minimum width of 75m. Given the propensity of trees to grow, it would be reasonable to clear an area 200m x 100m centred along the approach path, i.e. an area of 2 hectares in addition to the site itself.

It may seem a statement of the obvious, but it is also important to note that helicopters must both slow down and descend when they are approaching a landing site. Both of these factors increase the level of danger in the event of an engine failure. Forward speed generates additional lift, so low forward speed means that a helicopter will descend faster if it suffers an engine failure. A low height reduces the vertical distance available for the pilot to manoeuvre the helicopter to a suitable forced landing site. A notable feature of the compliant approach path (and even the proposed flight path) is that it is almost entirely over trees. There may be some opportunity to land on the state highway, but that is by no means certain. Flying low and slow over an expansive area of trees creates a significant risk of crashing into those trees if there is an engine failure.

Having stressed the dangers of engine failure, it is appropriate to put that in context. The Civil Aviation Rules require that "unless the helicopter is a performance Class 1 helicopter" (a twin-engine helicopter) "any place used as a heliport or as a place to hover has such approach and take-off paths that an autorotative landing can be conducted without causing a hazard to any persons or property on the surface". Helicopters like the AS-350 (squirrel) and Hughes 500 are single-engine helicopters and therefore are generally unable to comply with this rule in built-up areas. In the present case, the presence of trees means that there are no people or property on the ground, but there is also no place to safely conduct an autorotative landing. A landing would be directly into trees, a scenario that does not have a particularly good outcome.

Steep Approach from the East

An indicative sketch on Figure 14 (Appendix 6) suggests that landing at the proposed site involves a minor diversion from an "existing" flight path to land at the site. It is unclear how much of the Fox Glacier helicopter traffic this flight path accounts for. The perspective of the sketch also hides some significant issues with the proposed approach path. Further information on the approach path is provided by the map in Appendix A of the *Assessment of Noise Effects*. The indicated flight path appears to pass in close proximity to high points with an elevation of approximately 300m above mean sea level (AMSL), located approximately 1km from the location of the proposed helipads.

Civil Aviation Rule 91.311 requires that all aircraft, including helicopters, are operated at a height of at least 500ft (152.4m) above any obstacle that is within a horizontal radius of 150m from the point immediately below the aircraft. The helicopters would be required to descend from approximately 450m AMSL to 170m AMSL (the elevation of the helipads) in what appears to be a maximum horizontal distance of 800m. This equates to an angle of descent of 60 degrees, which is a very steep angle of descent.

Helicopter performance charts have a shaded area colloquially known as the "Deadman's Curve" – if the helicopter is flying in this region and suffers an engine failure then the helicopter will almost certainly suffer significant structural damage, and the occupants are likely to be injured. One part of the Deadman's Curve involves flying low and fast, the other part involves flying high with a low forward speed. A steep approach necessarily involves flying high with a low forward speed and descending through part of the Deadman's Curve.

A steep approach also increases the risk of a helicopter entering what is known as "vortex ring state", in which vortices build up around the helicopter rotor disk, the ability to control the helicopter diminishes, and the rotor disk no longer generates lift. The end result may be an "uncontrolled landing" (i.e. a crash). While this is a relatively rare condition, textbooks recognise an angle of descent of more than 45 degrees as a risk factor for entering vortex ring state. The proposed approach therefore carries an increased risk of entering vortex ring state, and consequently an increased risk for pilots and passengers relative to a shallow approach.

The short, steep approach is both unnecessary and inconsistent with CAA requirements.

Health and Safety at Work Act 2015

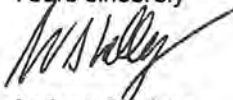
The helipad complex would constitute a place of work in the context of the Health and Safety at Work Act 2015 (HSWA). HAL would manage or control the workplace and therefore would have the duty under s37 of the HSWA to "ensure, so far as is reasonably practicable, that the workplace, the means of entering and exiting the workplace, and anything arising from the workplace are without risks to the health and safety of any person". It is difficult to see how this duty can be complied with given that the means of entering the workplace by helicopter does have risks to the safety of pilots and passengers, and that there are practicable alternatives to this site.

Any helicopters conducting commercial activities are also a workplace, and the operator of such a helicopter also must ensure, so far as is reasonably practicable, the health and safety of workers, passengers, and "other persons". A safety-conscious operator, acting in compliance with their obligations under the HSWA, would be remiss to use this site given practicable alternatives nearby.

Conclusion

I trust that this letter adequately conveys my concerns regarding the proposal by Hokitika Airport Ltd. If you have any questions please do not hesitate to contact me.

Yours sincerely



Andrew Shelley

Director

Aviation Safety Management Systems Ltd



This form is to be used to provide submissions concerning publicly notified applications for leases, licences, permits, or easements under section Sections 17SC and 49 of the Conservation Act 1987.

Notes to Submitter:

Please download and complete this form, scan and send to chtaylor@doc.govt.nz. You may also mail your submission to: Director-General, c/o Department of Conservation, Private Bag 701, Hokitika 7842
Attn: Chari Taylor, Statutory Support Officer

Closing Date: The closing date and time for serving submissions to the Director-General on this matter is **Wednesday 1 August 2018**.

Privacy: Please note that submissions are public. Your name and submission will be included in papers that are available to the media and the public. Your submission will only be used for the purpose of the notified permissions application process. Once submitted, submitters' information is subject to the Official Information Act 1982 and may be released under that Act. If you wish to keep any part of your submission confidential, you need to state this in writing when making your submission. Under the Privacy Act 1993, you may request the right of access to, and correction of, personal information provided in this submission.

Do not send page one of this document with your submission. If you require additional space for providing your submission, please attach extra pages as needed and label according to the relevant section.



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66696-AIR Hokitika Airport Limited

B. Name of Proposed Activity and Location(s)

Construction and use of a heliport facility at Fox Glacier, South Westland

C. Submitter Information-

Full Name (also list organisational name if submitting on behalf of a business, community group, etc.):

Gavin

Molloy

Post Code: _____

_____ Email Address:

Note: Communication from DOC will be via e-mail unless alternate contact is requested below.

I wish to be contacted alternately by: _____

D. Statement of Support/Opposition

I (circle one)/ **Oppose** this Application.

E. Hearing Request

I (circle one): **Do** wish to be heard in support of this submission at a hearing.

F. Submission

The specific parts of the application that this submission relates to are:

This application is defecient in that it does not outline the current situation regarding helicopter landing facilities at

Fox Glacier and the need for an additional heliport in the vicinity of Fox Glacier.

The flight paths in to this location seem to be very dangerous descending over the highway to the north and high vegetation immediately prior to landing. The departing paths are over the rugged Fox River and surrounding vegetation.

The highway access appears totally inadequate with minimal site distances and conflicting Fox Glacier Road access. There is no mention of signage required.

The visual distraction of helicopters coming and going from this facility to motorists will be very significant.

Does the DOC want to exemplify Glacier Valley noise when it can avoid additional noise at the Glacier Road entrance – that would be very foolish I believe.

The unnecessary loss of a considerable amount of native bush is required. There is no mention made in the application of where that material will end up.

If this concession is granted then where will the important green dump site will be relocated to or will this facility be lost to the Fox Glacier community.

This application is simply an attempt to obtain some cheap DOC land for Hokitika Airport Limiteds commercial gain in the hope it might attract some customers to use it.

The application fails to mention who will use it.

I am very disapointed that there is no DOC reports or information on this consulation process for the submitter to comment on DOCs position and information as well.

My submission is [include the reasons for your views]:

What outcomes would you like to address with your submission? [give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought]:

This proposed heliport is not needed at Fox Glacier and I request the application be declined in its entirety.

I wish to elaborate on the above points at the hearing.

G. Your Signature

Gavin L Molloy
Signature of submitter or person authorised to sign on behalf of submitter

Printed name of submitter or person authorised to sign on behalf of submitter

29 / 7 / 18
Date

Please complete this form and send to chtaylor@doc.govt.nz. You may also mail your submission to:
Director-General, c/o Department of Conservation, Private Bag 701, Hokitika 7842, Attn: Chari Taylor.



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Full Name (also list organisational name if submitting on behalf of a business, community group, etc.):
Alpine Guides Fox Glacier Ltd – Rob Jewell

[Redacted]

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I wish to be contacted alternately by: _____

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I (circle one) **Support** / Neutral / Oppose this Application.

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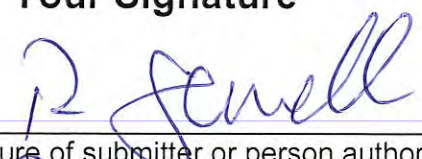
The application in general.

My submission is [include the reasons for your views]:

We support the application as the current helicopter noise effect should be significantly reduced for the local community as the site chosen is located a greater distance away from the main township.

What outcomes would you like to address with your submission? [give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought]:

G. Your Signature



Signature of submitter or person authorised to sign on behalf of submitter

Rob Jewell

Printed name of submitter or person authorised to sign on behalf of submitter

1st August 2018

Date

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