

Effect of Air Traffic Associated with Milford Aerodrome on Visitors to Fiordland National Park: Summer 2007/08

NOVEMBER 2008

SOUTHLAND CONSERVANCY



Department of Conservation
Te Papa Atawhai

Effect of Air Traffic Associated with Milford Aerodrome on Visitors to Fiordland National Park: Summer 2007/08

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Cover photograph - DOC

ISBN 978-0-478-14516-8 (Hardcopy)

ISBN 978-0-478-14517-5 (Web PDF)

Published by

Department of Conservation

Southland Conservancy

P O Box 743

Invercargill

November 2008

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Executive summary

This report outlines the results of a series of surveys carried out to assess the effects of aircraft overflights on visitors to Fiordland National Park. The surveys were undertaken to fulfil the monitoring requirements of section 5.5.2 of the Fiordland National Park Management Plan and to provide information for aircraft operators to assist them in managing the effects of their activities.

In this second year of monitoring a total of 1282 visitors representing a spectrum of visitors from short stop travellers to remoteness seekers, were surveyed at five sites within Fiordland National Park. The sites were the Milford Track, Hollyford Track, Gertrude Valley, Homer Hut and the Lake Marian Track (where day visitors and short stop travellers were surveyed separately). Surveys were carried out by Department of Conservation staff during December 2007 and January and March 2008.

On the Milford Track the percentage of respondents who were annoyed by seeing or hearing helicopters between Dumpling Hut and Sandfly Point increased from 22.4% in 2006/07 to 27% in 2007/08. Annoyance with helicopters between Mintaro and Dumpling Huts also remained above the 25% threshold and increased slightly from 25.4% to 26.5%. Levels of annoyance on the Milford Track still remained well below the levels reported in surveys carried out prior to 2007.

Very high levels of annoyance (in excess of 35%) were recorded at Homer Hut, Gertrude Valley and on the Hollyford Track with both types of aircraft and this indicates that the visitor experience at these sites is likely to be compromised. Differences in the levels of annoyance at these sites between 2007/08 and the previous season were not statistically significant. Information on climbing locations collected from visitors at Homer Hut in 2006/07 and 2007/08 may be useful in assisting operators to choose alternative flight paths and reducing the effects of their activities in the Darran Mountains and is included in this report.

The effect of DOC management flights was considered but discounted as a major contributor to the level of annoyance. During December, January and March there were an estimated 93 helicopter operations carried out for management purposes within public conservation land in Fiordland north of the Milford Track. This compares to 3449 landings at Milford Aerodrome during the same period.

The report recommends that no further quota of landings be issued for Milford Aerodrome until impacts on the Milford flight path are within acceptable limits. It recommends that the Department continue with the implementation of the Fiordland National Park Management Plan with respect to aircraft and in particular limit the numbers of landings in the vicinity of Gertrude Valley, the Hollyford Valley and Lake Quill. It also provides a number of recommendations for future monitoring.

Introduction

This report outlines the results of a second season of monitoring carried out to assess the effects of aircraft on visitors to sites on the Milford Aerodrome flight path.

Monitoring carried out in early 2007 (Harbrow 2007) found that levels of annoyance with planes had exceeded the 25% annoyance threshold outlined in the Fiordland National Park Management Plan (DOC 2007) at Gertrude Valley, the Hollyford Track, Homer Hut and the Milford Sound Foreshore. Annoyance with helicopters exceeded the threshold at the same four sites and also on the Mintaro Hut to Dumpling Hut section of the Milford Track (Harbrow 2007).

TABLE 1: RESULTS FROM THE 2006/07 MONITORING PROGRAMME (HARBROW 2007)

Site	# Respondents	% annoyed with planes	% annoyed with helicopters	Maximum margin of error ¹
Gertrude Valley	199	30.2%	36.7%	±6.9%
Hollyford Track	153	28.1%	30.1%	±7.9%
Homer Hut	59	69.5%	67.8%	±12.8%
Key Summit	463	14.0%	14.7%	±4.6%
Milford Foreshore	671	26.8%	28.0%	±3.8%
Milford Track	389			±5.0%
Glade Wharf to Mintaro Hut		15.4%	23.4%	
Mintaro Hut to Dumpling Hut		19.5%	25.4%	
Dumpling Hut to Sandfly Point		17.2%	22.4%	

¹ The margin of error refers to the potential error arising from sampling when making inferences about a larger population e.g. everyone who walks the Milford Track during the Great Walks season. The margin of error does not account for non-sampling errors e.g. errors due to some survey respondents not completing questionnaires. Error figures should be viewed alongside other information such as response rates, the methodology and the survey instrument used. The figure given is a maximum margin of error and may be conservative. It has been calculated using the formula $(0.98 / \sqrt{\text{sample size}}) * 100$ and gives the maximum size for the 95% confidence interval for a simple random sample. However the sampling procedures used were more complex and so the margin of error figures are to be regarded as indicative.

The results of the 2006/07 monitoring programme are summarised in Table 1 above.

Information about monitoring carried out prior to the 2006/07 season and further background information can be found in the 2006/07 monitoring report entitled “Effect of air traffic associated with Milford Aerodrome on visitors to Fiordland National Park” (Harbrow 2007).

Although the Fiordland National Park Management Plan became operative on 21st June 2007 the new provisions (See DOC 2007 p285-294) and concession allocation process relating to Milford Aerodrome was delayed by court action. The Minister of Conservation has since called for concession applications which closed on 16 June 2008. In September 2008, at the conclusion of a competitive allocation process, the Department announced that twenty three operators would be granted concessions to land at Milford Aerodrome. A number of applicants have applied to have the decisions relating to their application reconsidered. Once these reconsiderations have been carried out the concession applications will proceed to a public hearing.

Monitoring of effects has carried on in the meantime and the results from the 2007/08 season are discussed below.

a larger group and additional forms were left. At Homer Hut forms and prepaid envelopes were left for visitors who were returning to the hut later in the day. These forms were typically left with the visitor's gear and the hut warden or other visitors were asked to make respondents aware of the surveys on their return.

The questionnaire design and distribution closely followed the methodology used in the 2006/07 season (Harbrow 2007) and the questions relating to aircraft remained unchanged. The survey covered a slightly different time period from the previous year's monitoring starting a month earlier and finishing two weeks earlier. The Fiordland Integrated Coastal Management Planning (FICOMP) survey was being carried out at Milford Sound / Piopiotahi during February by the Department and Environment Southland and, to avoid visitors being overburdened by multiple surveys, no surveying of aircraft effects was carried out during this month at any of the five sites. Instead, additional survey days were included in late January and early March.

An additional change was made whereby instead of two surveyors each spending an entire day at either the Hollyford road end or Gertrude Valley, a single surveyor spent the morning at the Hollyford road end and began surveying at Gertrude Valley between 1 and 1:30 pm.

Survey days were not chosen randomly as this was difficult given the requirement to survey at a number of sites along the Milford Road in an efficient and cost effective manner. The survey days were evenly distributed between the 3 months of the survey (December, January, and March) and care was taken to survey the correct proportion of weekdays and weekends. This was done to reduce potential sources of bias caused by variation in patterns of visitor use within the summer season and between weekends and weekdays.

Information on levels of aircraft activity during the survey period was obtained from Ministry of Transport records for Milford Aerodrome. Information on the number of management flights undertaken by DOC during the period was also collected.

Results

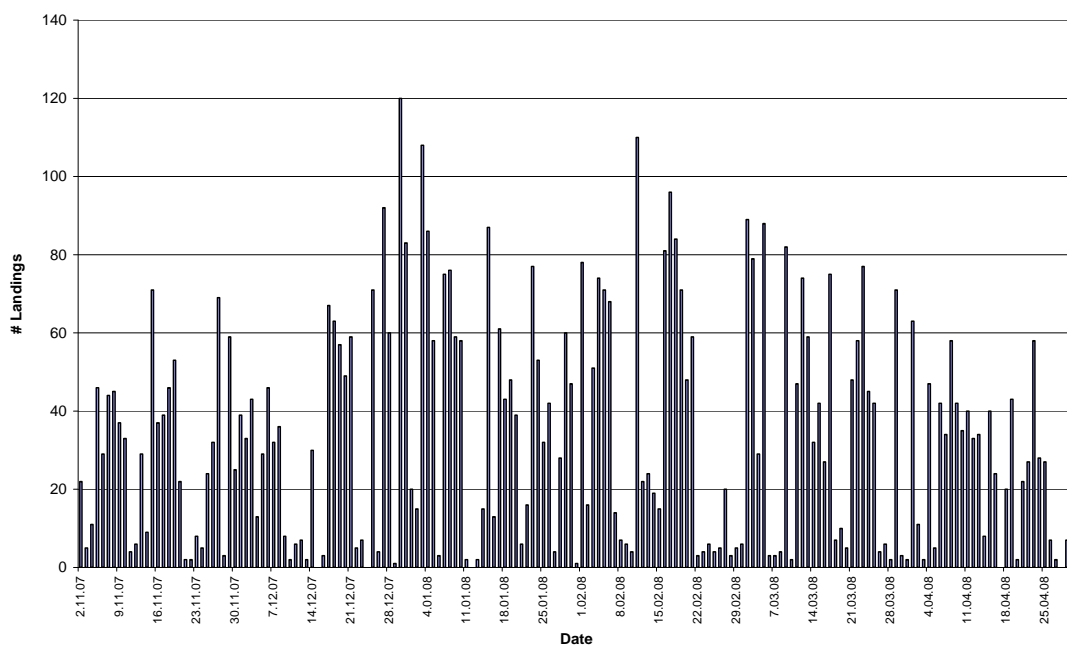
AIRCRAFT ACTIVITY

Information on the number of landings at Milford Aerodrome was obtained from the Ministry of Transport. Landings that occurred at Milford Sound / Piopiotahi between 8 am and 4 pm each day were recorded by control tower staff while landings that occurred outside of these hours were reported by the aircraft operators themselves.

Data for the period from November 2007 to April 2008 shows that there was an average of 33.7 landings each day but, the number of landings on any given day was extremely variable. Six or fewer landings were recorded on 25% of the days during the six month period including five days with no recorded landings. The maximum number of landings recorded was 120 on December 30th and there were two further days with more than 100 landings.

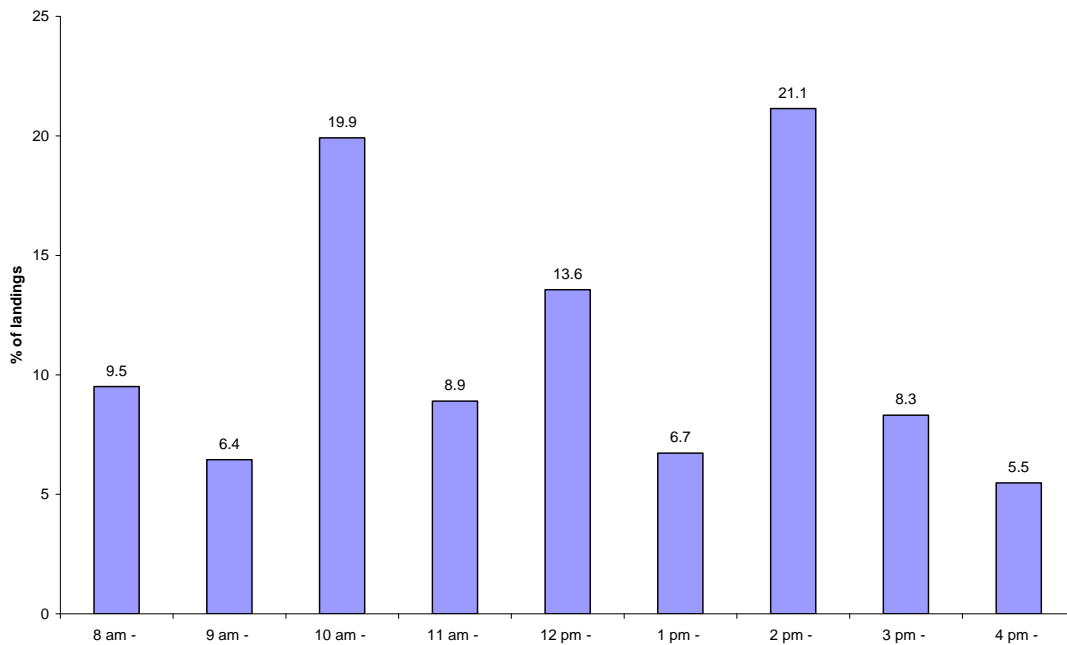
The variation in the daily number of landings is illustrated in Figure 1 below. These figures can be doubled to give the number of aircraft movements at the aerodrome and the number of individual over flights over Fiordland National Park that were related to activity at Milford Aerodrome. Over the six month period 68% of landings were made by fixed wing aircraft and 32% by helicopters.

FIGURE 2: DAILY NUMBER OF LANDINGS AT MILFORD AERODROME



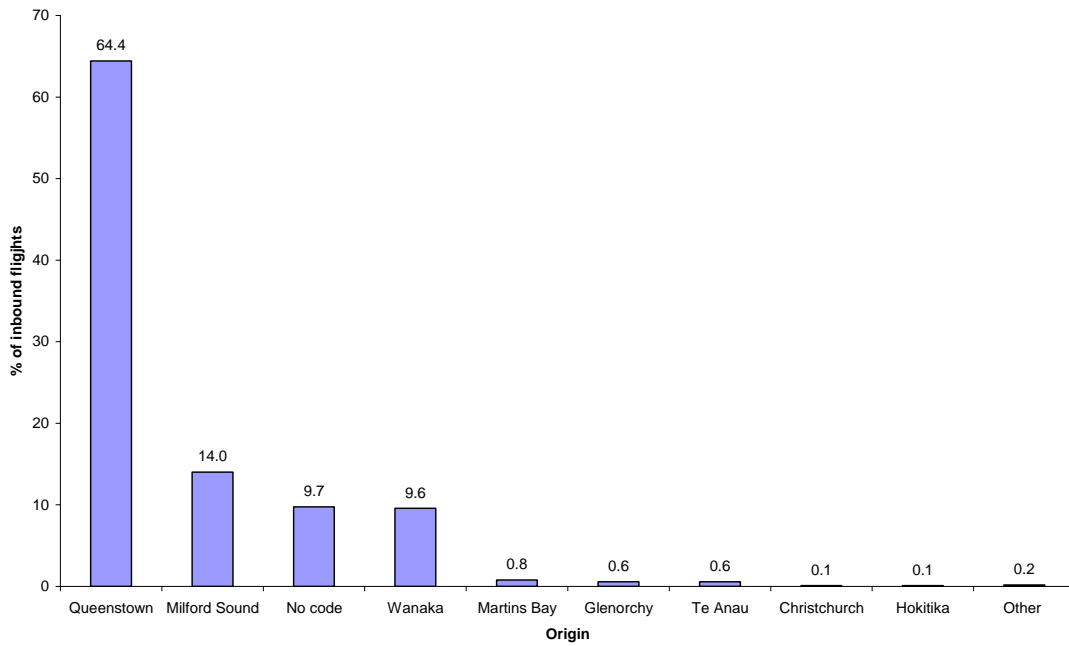
Landings at Milford Aerodrome were not distributed evenly throughout the day (Figure 2). Twenty one percent of landings were made between the hours of 2 and 3 pm and 20% between 10 and 11 am. The busiest hourly period recorded was between 10 and 11 am on December 31st when 26 aircraft landed at an average rate of approximately one landing every two minutes. Other peaks in activity are known to occur with aircraft departing from Milford Sound / Piopiotahi. Historically these have occurred between 3 and 4 pm and to a lesser extent between 1 and 2 pm.

FIGURE 3: HOURLY DISTRIBUTION OF LANDINGS AT MILFORD AERODROME



Almost two thirds of aircraft arriving at Milford Aerodrome originated in Queenstown (Figure 3), 14% of landings were from flights that originated from Milford Aerodrome itself and 10% came from Wanaka. A further 10% were flights with no code, most likely indicating helicopters that were not returning from an official aerodrome. These flights along with those that originated at Milford Aerodrome are likely to include scenic helicopter flights that landed within the national park and activity associated with park management, servicing of guided walk facilities and the fishing industry.

FIGURE 4: ORIGIN OF FLIGHTS LANDING AT MILFORD AERODROME



The potential impact of the Department’s own management flights was assessed by examining records of aircraft use by Southland Conservancy and noting any operations that occurred in Fiordland north of the Milford Track; within the national park, in adjacent areas of public conservation land (such as Big Bay) or which operated out of Milford Aerodrome. The information shows that there were an estimated 93 helicopter operations in the area during the three months that the surveys were being carried out. In most cases a flight operation represented a single flight to a destination and a return flight back to the aircraft’s base. Some operations include a second flight to pick up staff later in the day. Flights undertaken to resupply great walk huts are an exception. Huts are resupplied three times per season typically during October/November, February and April / May and these operations require multiple flights (H Angus pers. comm.). According to Ministry of Transport records there were a total of 3449 landings at Milford Aerodrome during the same period which suggests that, even allowing for multiple flights, DOC operations make up only a fraction of total aircraft overflights in Fiordland.

SURVEY RESPONSES

A total of 1282 visitors were surveyed across the five sites (Table 2) with response rates for visitors aged 16 years and over ranging from 48% to 95%. Postal returns were a significant contributor to overall responses rates at most sites and especially for the Hollyford Track

where almost three quarters of questionnaires were returned by post.

TABLE 2: SURVEY CHARACTERISTICS

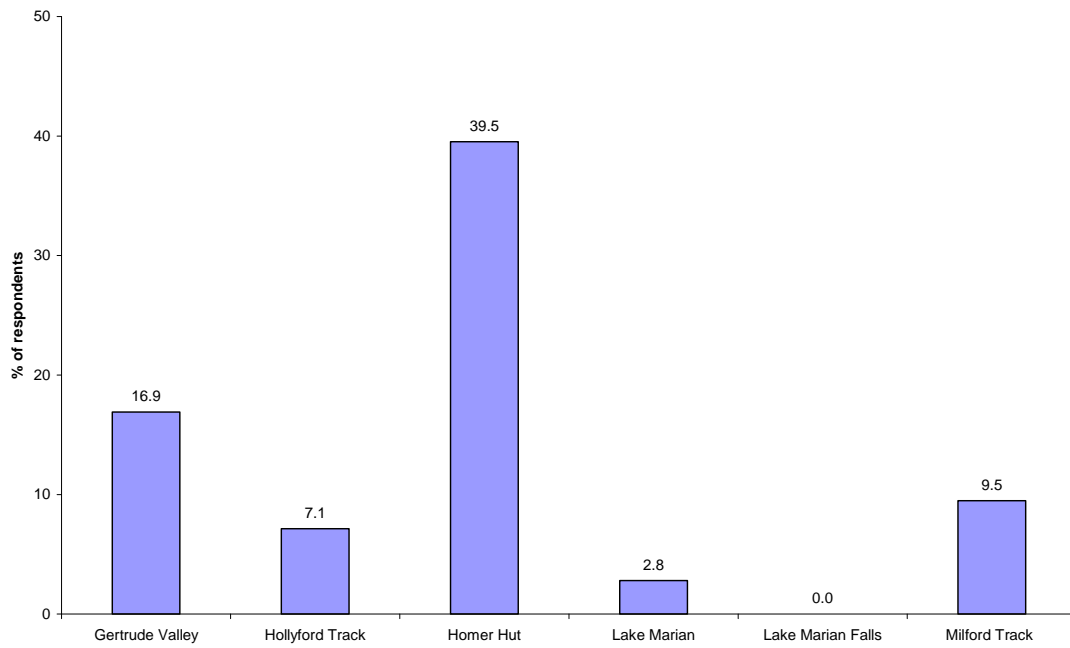
Site	# Respondents	Response Rate	% Postal returns	# Survey days	Maximum margin of error
Gertrude Valley	142	71.1%	35.9%	19	±8.2%
Hollyford Track	70	48.3%	75.4%	23	±11.8%
Homer Hut	43	59.7%	48.8%	23	±14.9%
Lake Marian (Day visitors)	178	77.4%	16.9%	16	±7.3%
Lake Marian (Short walk to falls)	438	82.5%	2.1%	16	±4.7%
Milford Track	411	94.9%	1.2%	12	±4.8%

The surveys carried out at Homer Hut and the Hollyford Track attracted a low number of responses and in the case of the Hollyford, a low overall response rate. They may be less representative of visitors than surveys carried out at the other sites.

Visitor comments

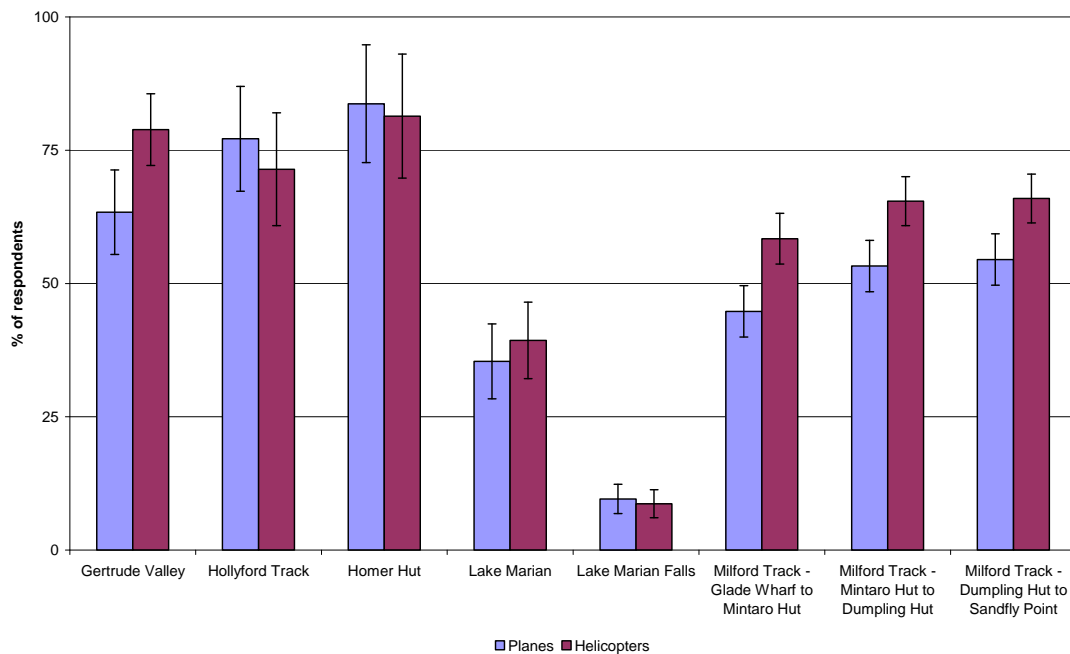
Before being asked to answer specific questions relating to aircraft and other potential sources of annoyance, respondents were asked to state the aspect of their visit that they liked the least. Aircraft were mentioned by respondents at all survey locations with the exception of short stop travellers at the Lake Marian Falls car park (Figure 4). 40% of respondents surveyed at Homer Hut felt that aircraft was the aspect of their visit that they liked the least. Aircraft was also the issue of most concern for 17% of respondents surveyed at Gertrude Valley and 10% of respondents who walked the Milford Track. Non response rates for this question ranged from 9% at Homer Hut to 34% for short stop travellers at the Lake Marian car park. Non response rates were generally lower for overnight visitors than day visitors.

FIGURE 5: PERCENTAGE OF RESPONDENTS WHO INDICATED THAT AIRCRAFT WAS THE ASPECT OF THEIR VISIT THAT THEY LIKED THE LEAST



Annoyance with aircraft

FIGURE 6: PERCENTAGE OF RESPONDENTS WHO NOTICED AIRCRAFT²



Respondents were asked to indicate on a four point scale the degree to which they were annoyed by the activities of other park users.

² Error bars on this and subsequent graphs represent +/- one standard error.

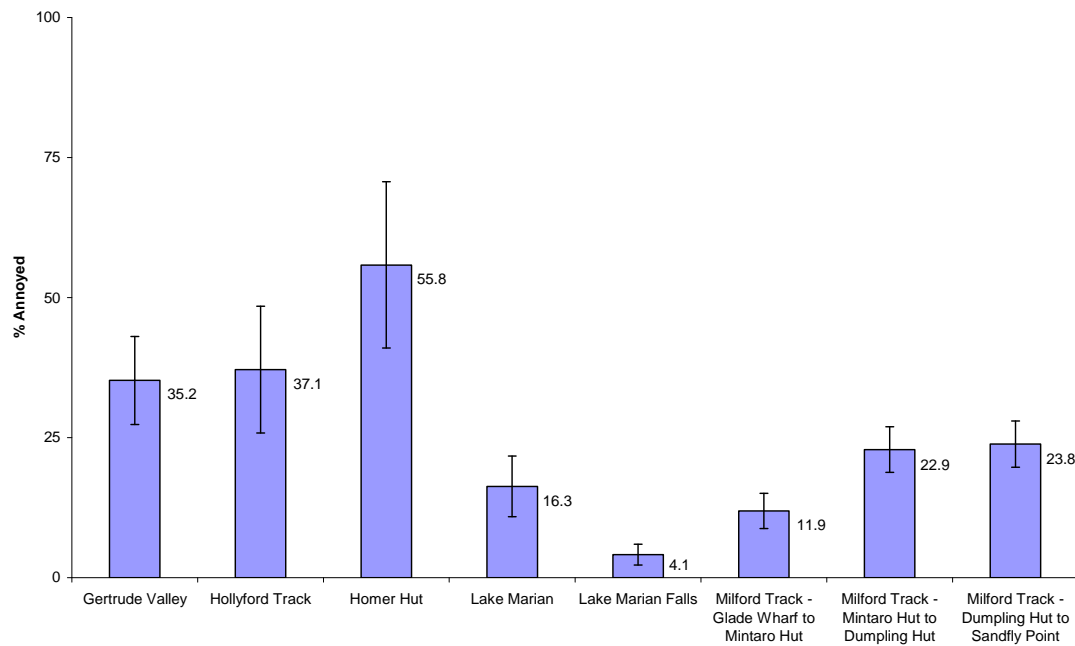
Each survey assessed the effect of hearing or seeing planes and hearing or seeing helicopters along with up to five other activities that were relevant to the site (e.g. motorised boats, day visitors, commercial / guided groups).

Respondents could indicate that they either did not notice the activity, noticed the activity but were not annoyed, were annoyed a little or that they were annoyed a lot by the activity in question.

In addition to assessing the level of annoyance, this question provided information on the percentage of respondents who noticed aircraft during their visit. Most respondents surveyed at Gertrude Valley, the Hollyford Track (where 11% of respondents had themselves travelled by aircraft) and Homer Hut had noticed aircraft during their visit (Figure 5). With the exception of fixed wing aircraft between Glade Wharf and Mintaro Hut, this was also the case on the Milford Track. Relatively fewer respondents surveyed at the Lake Marian car park noticed aircraft. Fewer than 10% of respondents who had completed the Lake Marian Falls short walk noticed them and this rose to just under 40% for respondents who had completed the longer walk to the lake itself.

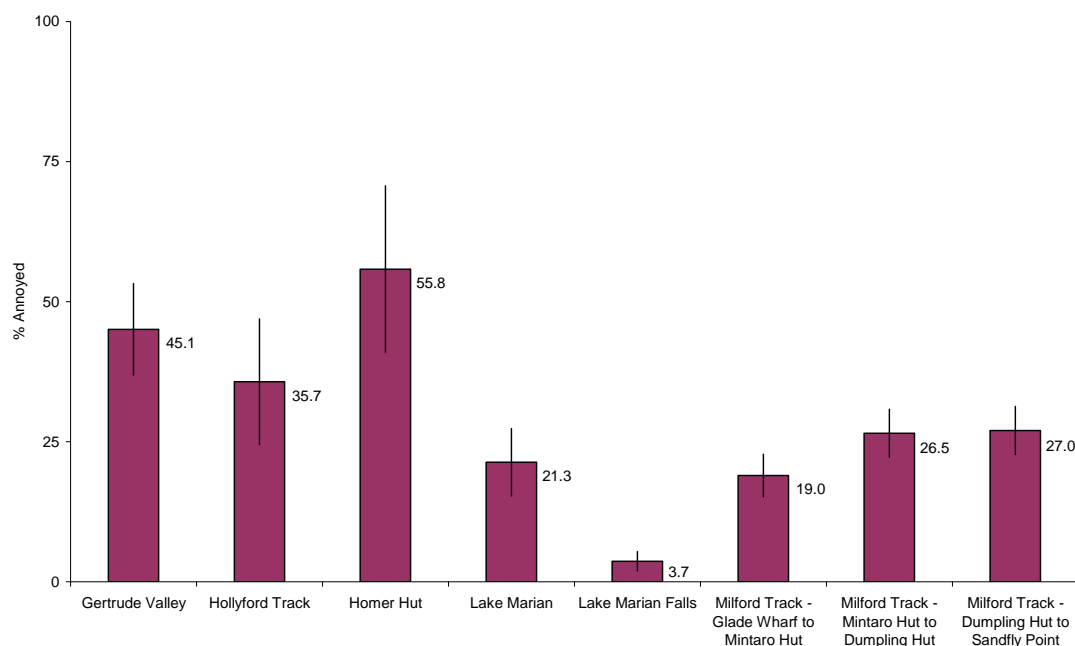
Overall, annoyance with fixed wing aircraft exceeded the 25% threshold outlined in the Fiordland National Park Management Plan (DOC 2007) at 3 sites; Gertrude Valley, Homer Hut and the Hollyford Track (Figure 6). Helicopters exceeded the threshold at the same three sites along with the Mintaro Hut to Dumpling Hut and Dumpling Hut to Sandfly Point sections of the Milford Track (Figure 7). Non response rates for this question ranged from 2- 11%.

FIGURE 7: ANNOYANCE WITH FIXED WING AIRCRAFT



Aircraft were the most significant source of annoyance (among the options presented) at all sites except for the short walk to Lake Marian Falls where the presence of large groups annoyed 5% of respondents compared to 4% for both planes and helicopters. Levels of annoyance exceeded 40% for both types of aircraft at Homer Hut and for helicopters at Gertrude Valley. Motorised boats were an additional source of annoyance on the Hollyford Track (26% of respondents) but helicopters (36%) and fixed wing aircraft (37%) had a much greater effect on the visitor experience.

FIGURE 8: ANNOYANCE WITH HELICOPTERS



Importance-performance analysis

Importance-performance analysis showed that although respondents attached a high degree of importance to natural peace and quiet at the survey sites, for respondents at Homer Hut the experience failed to measure up. Overall 19% of respondents at Homer Hut stated that they had been unable to experience natural peace and quiet compared to 6% at Gertrude Valley and on the Milford Track, 3% on the Hollyford Track and 2% at Lake Marian. To reduce the burden and length of the survey for respondents who were only undertaking a 15-20 minute walk, this question was not included in the survey for the Lake Marian Falls track. Non response rates for this question were very low ranging from 0 - 4%.

Areas accessed by respondents at Homer Hut

Respondents at Homer Hut were asked to indicate on a map the areas that they had visited during their trip (see page 35). This information was collected to assist aircraft operators in choosing flight paths through the Darran Mountains that were less likely to affect climbers and other users of the area. Responses have been combined with data from the 2006/07 survey in Table 3 below.

TABLE 3: LOCATIONS USED BY RESPONDENTS AT HOMER HUT 2006/07 & 2007/08 (N = 102)

Area	% of respondents
Gertrude Saddle	71%
Homer Saddle	36%
Milford Township	23%
Adelaide	17%
Chasm	10%
Babylon	10%
McPherson	10%
Mitre Peak	10%
Marion	9%
Grave-Talbot / McPherson	6%

Most respondents used the area around Gertrude Valley while a significant number used the Homer Saddle area. This is unsurprising as these are the climbing areas closest to Homer Hut. Other areas mentioned include Milford Sound (although this does not necessarily indicate that respondents were climbing in the vicinity), the Lake Adelaide basin and the Chasm and Babylon Crags (which are located off the Milford Road on the descent into Milford Sound / Piopiotahi). These results are discussed in the next section.

Discussion

The results for the 2007/08 monitoring programme are compared with results from the previous season in Tables 4 and 5 below.

On the Milford Track there were a number of changes in the levels of annoyance with aircraft that were statistically significant. Annoyance with helicopters on the last day of the track increased from 22.4% in 2006/07 to 27.0% in 2007/08 (χ^2 (2, n = 756) = 6.912, $p < .05$). This is of concern because the level of annoyance now exceeds the 25% management threshold. Annoyance with fixed wing aircraft on this section of the track also increased substantially from 17.2% to 23.8% (χ^2 (2, n = 754) = 6.603, $p < .05$).

There was a slight increase in annoyance with helicopters on day three of the track from 25.4% to 26.5%. This occurred despite a large decrease in the number of respondents who noticed helicopters from 77.4% to 65.5% (χ^2 (2, n = 751) = 10.662, $p < .01$).

Annoyance with helicopters decreased from 23.4% to 19.0% on the Glade Wharf to Mintaro Hut section of the track (χ^2 (2, n = 752) = 6.443, $p < .05$) and the percentage of respondents who noticed helicopters decreased from 70.7% to 58.4%.

The overall findings for the Milford Track still represent a good result despite the increase in annoyance on the final section, as much higher levels of annoyance have been recorded in previous surveys (TRC 2000, Herlihy 1999, Cessford 1998).

Aside from the changes on the Milford Track, the results for 2007/08 were generally similar to what was recorded in 2006/07. Annoyance with both planes and helicopters remained well above the 25% threshold at Homer Hut, Gertrude Valley and on the Hollyford Track and this remains a concern for the Department. Higher levels of annoyance were recorded at Gertrude Valley and the Hollyford Track in 2007/08 while annoyance decreased at Homer Hut. These results were not statistically significant but were consistent across both types of aircraft. The large change at Homer Hut may have been because respondents in 2007/08 would not have been aware of the survey prior to their visit. In 2006/07 an article was published in the New Zealand climber magazine at the beginning of summer

outlining the survey programme and this may have increased awareness of the aircraft noise issue.

The Lake Marian Track was monitored for the first time in 2007/08. The level of annoyance remained within acceptable levels for both day visitors and short stop travellers for both types of aircraft.

TABLE 4: COMPARISON OF RESULTS FOR PLANES

Site	2006/07	2007/08	Change
Gertrude Valley	30.2	35.2%	+5.0
Hollyford Track	28.1%	37.1%	+9.0
Homer Hut	69.5%	55.8%	-13.7
Milford Track:			
Glade - Mintaro	15.4%	11.9%	-3.5
Mintaro - Dumpling	19.5%	22.8%	+3.3
Dumpling - Sandfly	17.2%	23.8%	+6.6

TABLE 5: COMPARISON OF RESULTS FOR HELICOPTERS

Site	2006/07	2007/08	Change
Gertrude Valley	36.7%	45.1%	+8.4
Hollyford Track	30.1%	35.7%	+5.6
Homer Hut	67.8%	55.8%	-12.0
Milford Track:			
Glade - Mintaro	23.4%	19.0%	-4.4
Mintaro - Dumpling	25.4%	26.5%	+1.1
Dumpling - Sandfly	22.4%	27.0%	+4.6

It is important not to read too much into the differences between the two seasons of monitoring. Differences in levels of annoyance are likely to occur from year to year due to a number of factors such as weather and in some cases small sample size. These differences will occur in addition to any that result from changes made by aircraft operators. Long term trends will be more important than year to year variation in terms of assessing how effective the new Fiordland National Park Management Plan provisions and the resulting concession process for Milford Aerodrome have been in enhancing the visitor experience in Fiordland.

Across all of the sites surveyed, Helicopters again caused the same or greater levels annoyance to respondents despite making up only a third of flights landing at Milford Aerodrome. Some survey sites are exposed to helicopter flights that are not associated with Milford Aerodrome and these may have also contributed to the level of annoyance. These flights include DOC management flights (discussed further below), management flights undertaken by

guided walk operators, aircraft accessing Lake Quill near the Milford Track and helicopters landing near the Homer Tunnel and passing low over the Gertrude Valley Track. The sound of helicopters may also be more noticeable and / or more annoying than the sound of fixed wing aircraft. Because of the presence of helicopter flights accessing other locations within the park, it is important that management of aircraft is not restricted to managing the impacts of flights travelling into and out of Milford Sound / Piopiotahi. Other plan provisions relating to the management of flights in the wider North Fiordland Air Activity Zone should be enacted as soon as practicable to compliment the management of landings at Milford Aerodrome.

The 2006/07 survey on the Milford Track covered a period of heavy use of helicopters by management associated with gravelling of the descent from the McKinnon Pass and the resupply of huts. Although this level of activity was a relatively isolated occurrence it highlighted the need for the Department to be aware of the potential effects of its own management flights on visitors. Management operations can require aircraft to operate for extended periods at relatively low altitude around tracks and huts and this has the potential to cause more annoyance than flights passing quickly overhead at a higher altitude. There is no evidence, however, that respondents experienced any prolonged exposure to management flights during the 2007/08 survey. An analysis of the Department's use of aircraft in Fiordland over the survey period suggests that management flights were insignificant compared to the daily traffic into and out of Milford Aerodrome.

Some changes to the surveys could be made for the 2008/09 season. Although the current survey meets the Department's management needs, guided overnight walkers could be included. This would be especially useful on the Milford Track where they make up approximately 50% of the overnight users of the track. On the Hollyford Track, surveying could be carried out in huts in addition to surveying carried out at the road end or surveys could be handed out to walkers entering the track rather than only to those completing their walk. This would increase the overall sample size and would increase the chance of surveying the small number of visitors who fly out of Martins Bay who make up approximately 5% of overnight users of the track (Squires & Harbrow 2008). Further information on levels of daily aircraft activity should be collected to allow dose response analysis at sites where this is achievable.

Significant changes to the surveys, and particularly to questions relating to aircraft should be avoided as changes can reduce the usefulness of long term data sets and the validity of comparisons between years.

The assistance of Heather Mitchell, Ben Tanasichuk and Carolyn Squires in administering and analysing these surveys is gratefully acknowledged.

Recommendations

1. No further quota of landings should be issued for Milford Aerodrome until impacts on the Milford flight path are within acceptable limits.
2. The Department should continue with the implementation of the Fiordland National Park Management Plan 2007 with regard to aircraft landings in general. In particular it should limit the number of landings in the vicinity of Gertrude Valley, the Hollyford Valley and at Lake Quill and aim to reduce the number in the long term until the level of annoyance with aircraft activity falls within acceptable limits.
3. The Department should collect information on levels of aircraft activity and further develop the survey methodology to allow for a dose-response analysis at sites where this is achievable.
4. Future surveys on the Milford Track should include guided as well as independent walkers.
5. Due to the high level of annoyance with aircraft and indications that the level of annoyance may have increased compared to the previous season, in the short term, monitoring should be carried out annually on the Milford Track, at Gertrude Valley and on the Hollyford Track.
6. Monitoring in 2008/09 should include the Routeburn Track.

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Now we'd like you to tell us about your experiences on the track

8. How long was your visit to the Gertrude Valley? (Tick one box)

Less than 1 hour

1-2 hours

3-5 hours

More than 5 hours

9. What have you liked the **most** about your visit to the Gertrude Valley?

10. What have you liked the **least** about your visit to the Gertrude Valley?

11. How much do you agree or disagree that...?	Strongly disagree Strongly agree						
a) I was able to experience natural peace and quiet	1	2	3	4	5	6	7
b) I was able to enjoy nature and scenery	1	2	3	4	5	6	7
c) I was able to experience solitude	1	2	3	4	5	6	7
d) I was able to relax and reduce stress	1	2	3	4	5	6	7
d) I was able to enjoy the experience with friends and family	1	2	3	4	5	6	7

12. How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial/ guided groups				
• Meeting large groups				

13. Did you feel crowded at all at during your visit to the Gertrude Valley?
(circle one number)

1	2	3	4	5	6	7	8	9
Not at all Crowded		Slightly Crowded			Moderately Crowded			Extremely Crowded

14. Apart from your own group, how many other visitors would it be okay to see in one hour on this walk before it reduced the enjoyment of your visit?

Please circle one number

0	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47	48	49	50	More than 50

Or

Please choose one statement

I don't know	<input type="checkbox"/>	Meeting other visitors would not affect my visit	<input type="checkbox"/>
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15. Any final comments about your visit today?

Thank you for your time!

If you have any feedback about this survey please contact Michael Harbrow, Southland Conservancy, Department of Conservation, PO Box 743, Invercargill. Ph. 03-211-2400. Email: mharbrow@doc.govt.nz

Now we'd like you to tell us about your experiences on the track

9. What have you liked the **most** about your visit to the Hollyford Track?

10. What have you liked the **least** about your visit to the Hollyford Track?

11. How much do you agree or disagree that...?	Strongly disagree							Strongly agree
a) I was able to experience natural peace and quiet	1	2	3	4	5	6	7	
b) I was able to enjoy nature and scenery	1	2	3	4	5	6	7	
c) I was able to experience solitude	1	2	3	4	5	6	7	
d) I was able to relax and reduce stress.	1	2	3	4	5	6	7	
e) I was able to enjoy the experience with friends & family	1	2	3	4	5	6	7	

12. a) How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Noticed this and it annoyed me a little	Noticed this and it annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing motorised boats				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				
• Meeting large groups				

b) Please tell us more

13. Did you feel crowded at all during your visit to the Hollyford Track?

a) On the track

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

b) In the huts

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

c) If you felt crowded, where did this happen?

14. a) Did you travel by jet boat during your visit to the Hollyford Track?

Yes No

b) Did you travel by aircraft during your visit to the Hollyford Track?

Yes No

15. Where did you **stay the night** on the Hollyford Track? (Indicate number of nights)

	Number of nights		Number of nights
1. Hidden Falls Hut		6. Martins Bay Hut	
2. Alabaster Hut		7. Pyke Lodge	
3. McKerrow Island Hut		8. Martins Bay Lodge	
4. Demon Trail Hut		9. Olivine hut	
5. Hokuri Hut		10. Big Bay Hut	

16. a) Did you camp during your visit to the Hollyford Track?

Yes No

b) Where did you camp? _____

17a. What did you think about the services and facilities provided on the Hollyford Track?
(circle one number on **each line**)

	Very poor							Excellent	Did not use/ see
• Huts	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Hut wardens	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Maps and brochures	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Signs and information panels	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Toilets	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Tracks	1	2	3	4	5	6	7	<input type="checkbox"/>	

17b. If you circled **1, 2 or 3**, for anything above, please tell us why...

Thank you for your time!

*If you have any feedback about this survey please contact Michael Harbrow,
Southland Conservancy, Department of Conservation, PO Box 743,
Invercargill. Ph. 03-211-2400. Email: mharbrow@doc.govt.nz*

8. What were you looking for during your visit to the Darran Mountains?
(circle one number on each line)

How important was?	Not at all important						Very important
a) Natural peace and quiet	1	2	3	4	5	6	7
b) Nature and scenery	1	2	3	4	5	6	7
c) Solitude	1	2	3	4	5	6	7
d) Rest and relaxation	1	2	3	4	5	6	7
e) Spending time with friends & family	1	2	3	4	5	6	7

Now we'd like you to tell us about your experiences during your visit

9. a) How many nights have you stayed at Homer Hut during this visit? ____
b) How many nights have you camped or bivved during this visit? ____

10. What have you liked the **most** about your visit to the Darran Mountains?

11. What have you liked the **least** about your visit to the Darran Mountains?

12. How much do you agree or disagree that...?	Strongly disagree						Strongly agree
a) I was able to experience natural peace and quiet	1	2	3	4	5	6	7
b) I was able to enjoy nature and scenery	1	2	3	4	5	6	7
c) I was able to experience solitude	1	2	3	4	5	6	7
d) I was able to relax and reduce stress.	1	2	3	4	5	6	7
e) I was able to enjoy the experience with friends & family	1	2	3	4	5	6	7

13 a) How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial/ guided groups				
• Meeting large groups				

b) Please tell us more

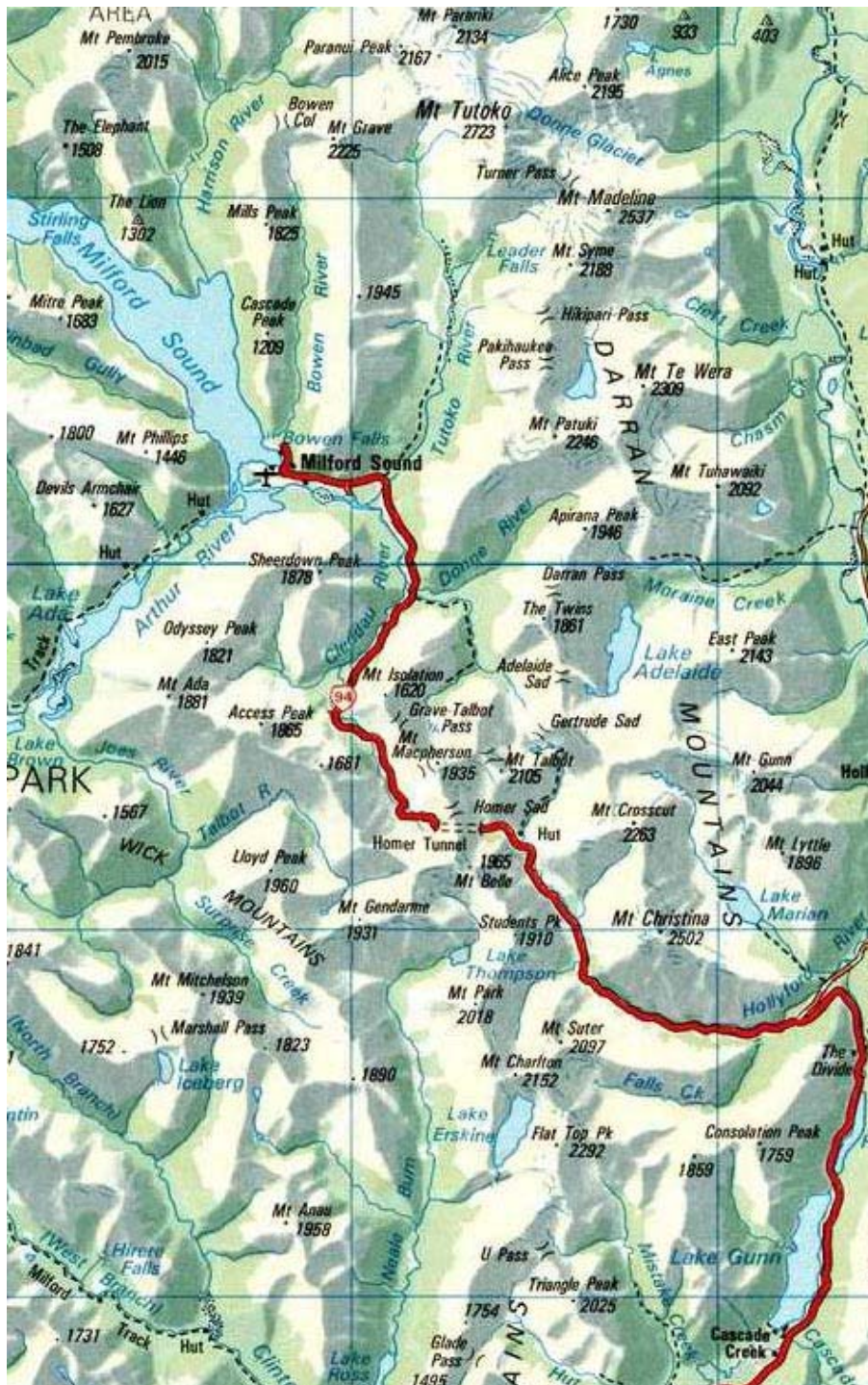
14. a) Did you feel crowded at all during your visit to the Darran Mountains?

(circle one number)

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

b) Please tell us more

15. Please draw lines on this map to show where you went during this visit. If you camped please draw a cross (X) to show where.



Thank you for your time!

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Now we'd like you to tell us about your experiences on the track

8. How long was your visit to the Lake Marian Track? (Tick one box)

Less than 2 hours

2-5 hours

Full day visit

Overnight visit

9. What did you like the **most** about your visit to the Lake Marian Track?

10. What did you like the **least** about your visit to the Lake Marian Track?

11. How much do you agree or disagree that...?	Strongly disagree Strongly agree						
	1	2	3	4	5	6	7
a) I was able to experience natural peace and quiet	1	2	3	4	5	6	7
b) I was able to enjoy nature and scenery	1	2	3	4	5	6	7
c) I was able to experience solitude	1	2	3	4	5	6	7
d) I was able to relax and reduce stress.	1	2	3	4	5	6	7
d) I was able to enjoy the experience with friends and family.	1	2	3	4	5	6	7

12. a) How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial/ guided groups				
• Meeting large groups				

b) Please tell us more

13. a) Did you feel crowded at all during your visit to the Lake Marian Track?

(circle one number)

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded			Extremely Crowded

b) Please tell us more

14. Apart from your own group, how many other visitors would it be okay to see in one hour on the Lake Marian Track before it reduced the enjoyment of your visit?

Please circle one number

0	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47	48	49	50	More than 50

Or

Please choose one statement

I don't know	<input type="checkbox"/>	Meeting other visitors would not affect my visit	<input type="checkbox"/>
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15. Any final comments about your visit today?

Thank you for your time!

If you have any feedback about this survey please contact Michael Harbrow, Southland Conservancy, Department of Conservation, PO Box 743, Invercargill. Ph. 03-211-2400. Email: mharbrow@doc.govt.nz

Now we'd like you to tell us about your experiences on the track

7. What did you like the **most** about your visit to the Lake Marian Track?

8. What did you like the **least** about your visit to the Lake Marian Track?

9. How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial/ guided groups				
• Meeting large groups				

10. a) Did you feel crowded at all during your walk today?
(circle one number)

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded			Extremely Crowded

11. Apart from your own group, how many other visitors would it be okay to see on this walk before it reduced the enjoyment of your visit?

Please circle one number

0	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47	48	49	50	More than 50

Or

Please choose one statement

I don't know	<input type="checkbox"/>	Meeting other visitors would not affect my visit	<input type="checkbox"/>
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12. Any final comments about your visit today?

Thank you for your time!

If you have any feedback about this survey please contact Michael Harbrow, Southland Conservancy, Department of Conservation, PO Box 743, Invercargill. Ph. 03-211-2400. Email: mharbrow@doc.govt.nz

Now we'd like you to tell us about your experiences on the track

9. What have you liked the **most** about your visit to the Milford Track?

10. What have you liked the **least** about your visit to the Milford Track?

11a. What did you think about the services and facilities provided on the Milford Track?
(circle one number on each line)

	Very poor							Excellent	Did not use/ see
• Booking system	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Huts	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Hut wardens	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Maps and brochures	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Shelters	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Signs and information panels	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Toilets	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Tracks	1	2	3	4	5	6	7	<input type="checkbox"/>	

11b. If you circled **1, 2 or 3**, for anything, please tell us why...

12. How much do you <u>agree or disagree</u> that...?	Strongly disagree							Strongly agree
	1	2	3	4	5	6	7	
a) I was able to experience natural peace and quiet	1	2	3	4	5	6	7	
b) I was able to enjoy nature and scenery	1	2	3	4	5	6	7	
c) I was able to experience solitude	1	2	3	4	5	6	7	
d) I was able to relax and reduce stress.	1	2	3	4	5	6	7	
e) I was able to enjoy the experience with friends & family	1	2	3	4	5	6	7	

13. Did you feel crowded at all during your visit to the Milford Track?

(circle one number on each line)

a) On the track

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

b) In the huts

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

c) If you felt crowded, please tell us where this happened

14. How did the activities of other visitors affect your visit? (please answer for each day of your trip).

a) Day 1 and 2 from Glade Wharf to Mintaro Hut

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot.
• Hearing or seeing helicopters.				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				

b) Day 3 from Mintaro Hut over McKinnon Pass to Dumpling Hut.

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting guided/ commercial overnight visitors				

c) Day 4 from Dumpling Hut to Sandfly point.

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing motorised boats				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				

15. Any final comments about your visit today?

Thank you for your time!

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