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Plane Wild

Photo: *Bar-tailed godwit/kuaka © Corine Bliek | CC: Flickr*

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Hawkes Bay—water, water everywhere

Hawke's Bay Airport, located on the east coast of New Zealand's North Island, has a very un-Australian abundance of water. The airport is surrounded by water on three sides: estuaries to the south and west, and the sea of Hawke Bay to the east. The airport is on land which was the Ahuriri Lagoon, before the area was raised above sea level by the massive 1931 Napier earthquake. Two airlines fly into Hawke's Bay: Air New Zealand, and a smaller carrier, Sounds Air. Over the past three years, the airport's traffic is up by 50 per cent.

Plane Wild caught up with airport operations manager, Gareth Mentzer, to find out how the airport is managing their wildlife hazard challenges. Mentzer says the airport's wildlife management approach has changed dramatically over the past few years. Being ringed by sea, wetlands and reserves makes the airport a challenging location for wildlife management.

This is even more so when you consider that the area is home to protected species such as the black-billed gull and bar-tailed godwit, the kuaka, which migrates from New Zealand to Alaska, and is an iconic cultural bird to Maori.

Photo: The protected black-billed gull © Edin Whitehead

'In the past,' Mentzer says, 'we would manage our wildlife by scaring it or shooting it.' However, a continuing high rate of birdstrike led the airport to engage Avisure, and taking steps to adopt a more analytical approach. 'A lot of the things they talked about were not rocket science—"have a plan, and document what you've done",' he says. However, a big change was gathering data to identify and understand the airport's risk species. 'We do a wildlife survey every Monday, comprising four checks during the day of seven points on the airport. We then use that data to inform our treatment options, rather than relying on anecdotal evidence, like before.'

This approach has brought positive results. Spur wing plovers used to be a risk species at Hawke's Bay, but now with data-driven, tailored pasture management, they are not seeing the numbers anymore.

'We know a hotspot is the touchdown at the end of 16R-34L, because there are two water sources almost directly opposite.' The airport monitors this area as part of their weekly survey, and know that the birds move from one water source to the other, but they are hampered by the fact that the land belongs to the Department of Conservation. Mentzer says 'we don't want concrete everywhere': a solution would be to work with the stakeholders to remove that wetland and put a bigger, better one somewhere else that doesn't harm the airport.

A growing hazard for the airport is Canada geese, brought into New Zealand as a game bird, and now the airport's biggest risk species. There is a major breeding ground about 80–100 km away, between Hawke's Bay and Gisborne. Mentzer says the airport has engaged a wildlife expert to prepare a report on the geese, in an effort to develop an effective management strategy. When you consider that Canada geese are, Mentzer says, 'incredibly intelligent birds, and that a two-month old juvenile weighs five kilograms', successful management poses quite a challenge.

Photo: Hawke's Bay Airport © Phillip Capper | CC: Flickr

Not only have the weekly surveys generated new data, and analysis of that data, but they have also brought greater conversations about wildlife, prompting the airport recently to employ an airside safety officer. Mentzer says conversations with fellow airports are invaluable. 'We listen and learn what works elsewhere, and then modify it for our unique circumstances. For example, we have just added another tool in our management suite—gull effigies—an idea which came out of Ohakea, the NZ Air Force base.'

Did you know?

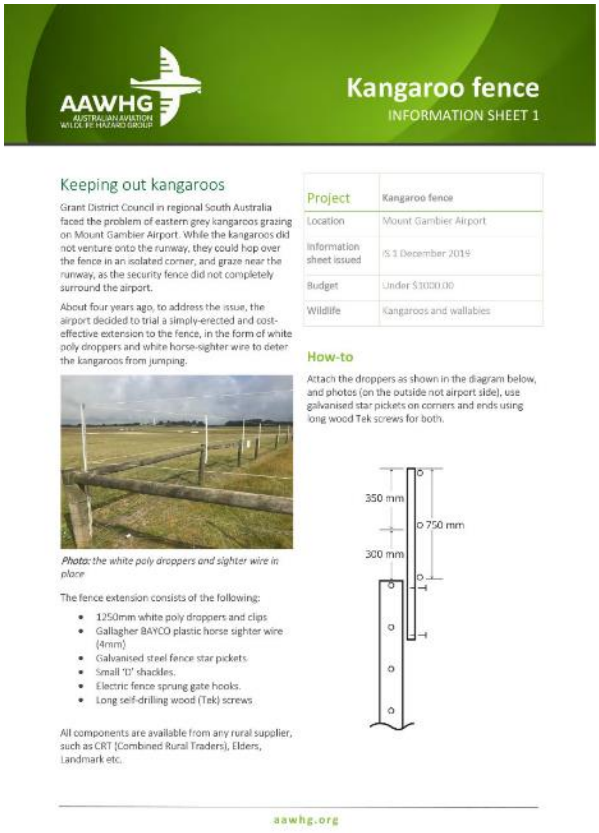
Flying foxes, one of the most commonly struck wildlife species in Australia, travel in communal flocks up to 50km a night to feed. They have a slow, stable flight generally under 500 feet AGL, taking semi-predictable flight paths.

New information sheets

Tips and tricks from industry, for industry

The AAWHG has just added a new resource to the website—information sheets—designed to share wildlife management innovations through industry.

The first wildlife management tip, in what AAWHG hopes will be a series of many, was submitted by Ian Fritsch, the airport manager for the Grant District Council in South Australia. The council faced the problem of eastern grey kangaroos grazing on Mt Gambier Airport.


AAWHG
AUSTRALIAN AVIATION WILDLIFE HAZARD GROUP

Kangaroo fence
INFORMATION SHEET 1

Keeping out kangaroos

Grant District Council in regional South Australia faced the problem of eastern grey kangaroos grazing on Mount Gambier Airport. While the kangaroos did not venture onto the runway, they could hop over the fence in an isolated corner, and graze near the runway, as the security fence did not completely surround the airport.

About four years ago, to address the issue, the airport decided to trial a simply-erected and cost-effective extension to the fence, in the form of white poly droppers and white horse-sighter wire to deter the kangaroos from jumping.

Project	Kangaroo fence
Location	Mount Gambier Airport
Information sheet issued	1 December 2019
Budget	Under $1000.00
Wildlife	Kangaroos and wallabies

How-to

Attach the droppers as shown in the diagram below, and photos (on the outside not airport side), use galvanised star pickets on corners and ends using long wood Tek screws for both.

Photo: the white poly droppers and sighter wire in place

350 mm
750 mm
300 mm

The fence extension consists of the following:

- 1250mm white poly droppers and clips
- Gallagher BAYCO plastic horse sighter wire (4mm)
- Galvanised steel fence star pickets
- Small 'D' shackles.
- Electric fence sprung gate hooks.
- Long self-drilling wood (Tek) screws

All components are available from any rural supplier, such as CRT (Combined Rural Traders), Elders, Landmark etc.

aawhg.org

***Photo:** The new information sheet format. The photograph on the first page shows Mt Gambier airport's fence, and the white dropper extension to deter kangaroos – supplied*

They devised a simply installed, cost-effective and highly successful extension to their existing fence to deter kangaroos from hopping over it.

We're sure there are lots of other airports who are devising similar practical solutions to their wildlife management issues. And … that they will not be the only airport to have the issue. If your organisation has developed an innovative solution to a wildlife management issue, we would love to hear about it, so we can share it via our web resources page. Email info@aawhg.org with the details, and any photographs, and we can create an information sheet to post on the website, as well as highlighting it in a forthcoming issue of *Plane Wild*.

***Photo:** Mt Gambier airport's fence, showing the white dropper extension to deter kangaroos – supplied*

***Photo:** Mt Gambier airport's fence, showing the sprung gate hooks to allow easy access through the gate – supplied*

Integrated wildlife hazard management—the Royal New Zealand Air Force journey

By Jill Brix, Principal Aviation Consultant, Avisure

***Photo:** Shelley Jones, Airfield Environmental Officer, RNZAF base Auckland - supplied*

Maintaining operational readiness and airfield capability is critical for the Royal New Zealand Air Force (RNZAF), who operate a small, but heavily committed aircraft fleet. Wildlife hazards are of particular concern as any conflict between aircraft and wildlife can result in serious damage, injury to aircrew, and other operational consequences.

Certain land use activity close to aerodromes can contribute significantly to wildlife strike risk. RNZAF Base Auckland (AKL) (Whenuapai aerodrome) used to be surrounded by farms and natural areas, but the urban environment is now encroaching, bringing with it wildlife attractants. RNZAF Base Ohakea (Ohakea aerodrome) is surrounded by farms, including maize, dairy and deer farms, and piggeries, as well the Rangitikei River. These land uses make the area attractive to wildlife, which may fly through aircraft airspace.

RNZAF have always understood the importance of an integrated approach to reduce wildlife strike risk. Ohakea aerodrome's first bird management plan, developed by Dr. Peter Harper, an ornithological consultant, in 2010, established the culture of taking a multi-faceted approach to wildlife hazard management, including off-airport management. Then base commander, Group Captain D.J. Hunt, and the commanding officer operations squadron, Squadron Leader Ivan Green, said 'managing bird strike is a commitment to maintaining the safest operation we can, not only for military personnel, but for the surrounding community, as well as protecting wildlife. We do this through an integrated wildlife hazard management program. To maintain the capability of our airfields and protect our aircraft that use them we must protect the terminal airspace surrounding them.'

***Photo:** Jim Cook, Airfield Environmental Officer, RNZAF base Ohakea - supplied*

Key to the implementation of integrated wildlife management programs was the creation, at both bases, of airfield environmental officer (AEO) positions in 2014 (Shelley Jones and Jim Cook), and airfield managers in 2016 (David Bacon and Paul Smillie). Their influence has improved drainage, managed grasslands (via soil nutrition, selective herbicide use and mowing) fertility, and evaluated building design to identify possible wildlife attractants. So far, this work has helped lower the frequency of wildlife strikes.

RNZAF are members of the New Zealand Airports Association Wildlife Hazard Group and the Australian Aviation Wildlife Hazard Group (AAWHG). It was at the 2016 AAWHG Forum when Whenuapai AEO, Deborah Gush, connected with Avisure, wildlife hazard management experts, to see how they could take RNZAF to the next level. Since then, Avisure and RNZAF, supported by Defence Estate and Infrastructure (Environmental Services), have completed the following:

March 2017	Wildlife hazard management training to airfield management, rescue fire service, PAE staff (who maintain the airfields grasslands and infrastructure) and Defence Estate and Infrastructure
June 2017	RNZAF AKL wildlife hazard assessment and compliance audit, and *RNZAF Base Auckland Land Use Planning for Wildlife Hazards* report, which assessed and reviewed potential off-base wildlife hazards in the vicinity of the AKL base
2017/2018	RNZAF Base Auckland Wildlife Hazard Management Plan that included procedures and species action plans
May 2018	Expert evidence as part of Auckland Council's Plan Change 5 (Whenuapai Plan Change), which relates to proposed new development adjacent to RNZAF AKL
2019	*RNZAF Base Ohakea Wildlife Hazard Management Plan* update
2020	Refresher and advanced training at RNZAF AKL

Beyond work with Avisure, RNZAF implements an impressive program including:

- Base standing orders on wildlife management
- Awareness campaigns, including inductions for international exercise participants
- Firearm safety templates
- The use of a variety of dispersal tools, including dogs (the only NZ operator to do so)
- Airfield Grass Management Plan
- Flood modelling to understand the ephemeral water bodies that attract wildlife
- Building designs to reduce bird attractiveness
- Upgraded fence lines and drainage
- Developed strong relationships with landowners within 15km radius of the Ohakea aerodrome to help manage wildlife attractants which contribute to the strike risk.
- They have also shared their learning. Rebecca Davies, Defence Estate and Infrastructure's Senior Statutory Planner presented at the 2018 AAWHG Forum held in Cairns, Australia on the work done for the Plan Change 5 (Whenuapai Plan Change).

This integrated approach not only highlights RNZAF's commitment to reduce their wildlife strike risk, but also shows them as one of the leaders in this field.

Did you know?

The galah is the most commonly struck (identified*) bird species in Australia.

According to Australian Transport Safety Bureau data from 2008–2017, there were 801 bird strikes involving galahs, with the top six strike locations being Canberra, Wagga Wagga, Parafield, Dubbo, Adelaide and Perth.

***Photo:** Galah © Mark Rayner | courtesy BirdLife Australia*

Although they only weigh an average 330 grams, they form large, noisy flocks, with what BirdLife Australia calls 'bouncing aerobatic flight', which can be quite erratic and unpredictable. Consequently, over one third (37 per cent) of strikes involve multiple galahs, and approximately six per cent lead to aircraft damage.

**Sadly, the highest birdstrike figure in the ATSB data, 6476, relates to that elusive species: 'unknown', and is a powerful reason why industry should report strikes—we can't manage what we don't know.*

AAWHG forum 2020

Save the date! 16–17 September

Mark these dates in your calendar to ensure you don't miss out on what promises to be a stimulating and valuable forum in 2020.

AAWHG holds a major industry event each year: the biennial forum and in the alternate year, an industry workshop. Following this year's highly successful workshop held in Sydney, the executive committee is busy starting to plan for the 2020 forum.

The forum will be held from 16–17 September 2020, in Adelaide, kindly hosted by Adelaide and Parafield airports.

***Photo:** South Australia's stunning Flinders Ranges © Jacqui Barker, Cazneaux Tree Flinders Ranges* **| CC** *Wikimedia*

The proposed theme for the forum is 'Research and innovation'—there will be a call for papers early in the new year. If your organisation has implemented some innovative wildlife management strategies, we invite you to submit your paper proposal for consideration.

We are hoping for a truly international attendance, and already have expressions of interest from our colleagues across the Tasman, as well as wildlife hazard management practitioners in Singapore and the United States.

International visitors will enjoy not only a stimulating forum program, but can discover the best of what spring in the state of South Australia has to offer; wine from the state's famous wine-growing regions, the regional cuisine with its German pioneer influence, not to mention stunning scenery, such as Kangaroo Island and the Flinders Ranges as in the photograph above.

Follow the forum updates in *Plane Wild*, and on the website: aawhg.org

Call for suppliers

Advertise your services on the new look, more accessible www.aawhg.org

The AAWHG has a refreshed and updated website, which was launched in mid-August. The website has been designed to work effectively across various platforms, regardless of whether you're accessing it via your desktop, laptop, tablet or smartphone.

We are now offering suppliers to the industry the opportunity to advertise on the website, for a nominal annual fee.

Suppliers have the option of advertising their company and services in the supplier listing, at a cost of A$50 for a full calendar year's listing.

If you wish your advertising to be more prominent, the other option is booking space on the carousel—the sliding images on the home page. Carousel advertising space is limited and costs A$150 per month. This option would be ideal if you have a special event coming up, or a product launch, for example.

These costs include graphic design—if you provide the text and your company logo, we can do the rest.

If you are interested in taking up this offer, please email info@aawhg.org

AAWHG panel presentation at AAA conference 2019

Executive members Brian Greeves, John Pizzino, Jackson Ring, Chris Fox and Jill Brix waved the AAWHG flag at the recent Australian Airports Association Conference. Jill facilitated a panel session on the 'hot topics of wildlife hazard management'. John highlighted the effect on Virgin of the increasing strike rate; Brian reiterated the need for pilot training; Jackson showcased grass management at Brisbane Airport; and Chris advised Perth Airport's Australian plague locust management strategies, the main food source for their risk species—the kestrel.

***Photo:** L to R–Chris, Brian, Jackson, John and Jill*