

BIRDS AND AIRCRAFT RESEARCH NAMIBIA PROJECT (BARN-P)

Morgan Hauptfleisch (PhD candidate)

University of the Free-State; Southern African Institute for Environmental Assessment

In collaboration with the Namibia Airports Company (NAC) and the National Museum of Namibia

Special points of interest:

- A Research project is underway to develop a predictive model for aircraft-wildlife collisions at Hosea Kutako and Eros Airports;
- Reporting of birdstrikes / wildlife collisions and near misses is crucial to understanding the problem;
- Be on the look-out for vultures around HKIA, and Guinea-fowl at Eros.

Get to know birds that may be a hazard to aircraft.

In every newsletter I will place pictures of bird species that may pose a risk to aircraft safety at the airports. This issue its the Helmeted Guinea Fowl (*Numida meleagris*):



Why this newsletter?

In August 2009 the Namibia Airports Company (NAC) gave me permission to conduct scientific research into the problem of aircraft-wildlife collisions at Hosea Kutako International Airport and Eros Airport.

In 2007 I (through the Southern African Institute for Environmental Assessment) helped develop a Wildlife Management Programme for the eight NAC airports in response to their request for a more proactive approach to preventing collisions between wildlife (particularly birds) and aircraft. During this time I was startled by the global lack of research into predicting the risk of collisions between aircraft and wildlife and dealing with the problem from an ecological perspective. Being an ecological and wildlife scientist I developed a keen interest in researching this aspect of the problem.

The research project I started is titled - **A predictive spatial model to assess aircraft wildlife collisions at selected Namibian airports.**

The research is expected to continue for at least the next two years. As with any scientific study, data collected will be scrutinized and conclusions will be drawn to benefit the aviation industry in Namibia. This may be a lengthy process so in the mean time **this quarterly newsletter** will provide observations and information from the study that may help the airports in making the Namibian skies safer.

The newsletter further serves to engage interested and affected individuals and organizations in the problem of aircraft-wildlife collisions. Anybody interested in contributing to the research or wishing to obtain more information is invited to contact me.



Morgan L Hauptfleisch
P.O. Box 6322
Ausspannplatz, Windhoek

081 124 1365 (cel)
061 220 579 (tel)
061 259 183 (fax)

mogan.hauptfleisch@saiea.com

Details of research at Hosea Kutako and Eros Airports

Title: A predictive spatial model to assess aircraft-wildlife collisions at selected Namibian airports.

This study will aim to:

- Create an holistic Wildlife Avoidance Model (WAM) using key southern African bird and mammal risk species

and a sound understanding of ecosystem functioning;

- Predict the risk of aircraft-wildlife collisions at two Namibian airports for identified bird and mammal risk species;
- Develop a toolkit for

southern African airports that would systematically address the risk of aircraft-wildlife collisions through pragmatic measures.



The gas cannon currently used to disperse birds at Hosea Kutako and Eros.

Details of research (continued)

The research is being conducted through five themes. These are:

1. **Detailed literature investigation** - this has been largely completed by searching international academic and industry publications for similar research, methods used, the extent of the problem globally and establishing a clear understanding of the problem and how to approach it under Namibian conditions;
2. **Assessing the ecosystems at and around the airports**, trying to identify the particular risk species for collisions. This step also involves looking at the history of aircraft-wildlife collisions at Hosea Kutako and Eros;
3. **Identifying particular hazards that increase the risk of collisions** at the airports and assessing the risk of wildlife and particularly bird species;
4. **Development of a spatial model** with which to assess and monitor the risk of aircraft-wildlife collisions, as well as predict changes in the risk with changing environmental and land-use conditions;
5. **Developing a practical toolkit** which can be used by southern African airports to reduce the risk of aircraft-wildlife collisions.

"thanks"

Many thanks to the following persons for assistance in the start-up phase of this research:

Norman Pule, Anton Theart, Toska Sem, Gerhard Coetzee, Oscar Hamutenya, Jason Kweyo, (and many other friendly NAC staff), Richard Alexander, Seth Eiseb, Dr. Peter Tarr, Dr. Nico Avenant, Dr. Chris Brown, Dr. John Mendelsohn, Prof. Mairland Seaman.

Vultures at Hosea Kutako

Some initial observations and discussions with airport personnel identified an almost constant occurrence of white-backed vultures (*Gyps africanus*) near Hosea Kutako. I flew over the area early morning (with permission) in June and found 22 vultures perched on tall camelthorn and sweet thorn trees along the Seeis riverbed in the vicinity of Hosea Kutako. The suspicion was that the vultures were nesting in the trees, but as it was very early in the

breeding cycle of these vultures it could not be confirmed.

In October I conducted a foot survey of the riverbed, starting at the farm Oupembamewa east of the airport and ending at the farm Ondekaremba to the west of the airport. A total of 16 vulture nests were found and marked, and 4 vulture chicks and one vulture egg were observed. As can be seen on the map to the right, many of the nests

(yellow dots below) are very close to the airport. Whether all the nests were active this season could not be determined. More on this in a later newsletter.



Initial bird surveys

I started with bird surveys at Hosea Kutako in September and have already identified 46 different bird species. Some of the more common occupants are Northern Black Korhaan, Lilac-Breasted Roller, Pale Chanting Goshawk and Black Crow. Once I have completed a large enough data set of observations, I can start identifying risk species and study their habits around the airports.

Below is a Pale Chanting Goshawk perched on the fence at runway 26



Black kites and red-footed falcons (below) flocking over the Hosea Kutako apron. They were attracted by insects which were drawn by the floodlights at the apron.

