Royal Netherlands Air Force

BIRD STRIKE PREVENTION, HOW TO PROCEED?

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1962

Rolling stones were formed

Marilyn Monroe died

Pres. Kennedy: "by the end of this decade we have a man on the moon".

First record of Bob Dylan

Royal Nethe

1962

In november a Viscount hit 2 Swans between Baltimore and Washington and crashed: 17 fatalities

It was 50 years (half a century) ago that in 1912 Cal Rogers died after he crashed due to a bird strike

Was the year that -now 50 years (half a century) ago- the National Research Council of Canada asked M.S. (Mike) Kuhring to form and chair the *Associate Committee on Bird Hazards to Aircraft*

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Associate Committee on Bird Hazards to Aircraft

Chaired by
M.S. (Mike) Kuhring 1962 – 1973
V.E.F. (Vic) Solman 1973 - 1976

In 1969 sponsored
World Conference on Bird Hazards to Aircraft

In 1976 initiated
The Book "Bird Hazards to Aircraft" by Hans Blokpoel

In 13 years produced
numerous minutes of Meetings + bulletins
+75 Fieldnotes

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75 Fieldnotes ≈ IBSC Forum "avant la lettre"

In the belief that rapid exchange of information is of the utmost importance to a solution of the bird problem, the Associate Committee on Aircraft Engine Bird Strikes has decided to release rough field notes as soon as they are produced, rather than to wait until these data would normally appear in formal reports.

These field notes are produced for information and will not usually receive the editorial care usually given to formal reports.

It is hoped that other groups will contribute similar notes on an exchange basis.

H. S. Kuhring,
Chairman,
Associate Committee on Aircraft
Engine Bird Strikes

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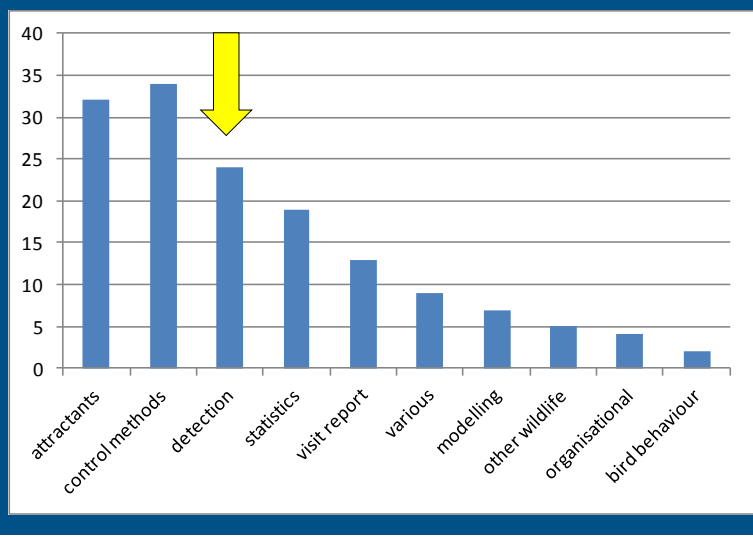
75 Fieldnotes, allocation of keywords



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75 Fieldnotes

All fieldnotes are scanned, available and **still current**

The incomplete set in the RNLAF archive could be completed thanks to the help of:

- Hans Blokpoel
- Richard Dolbeer
- Diana Dwyer
- Betsy Poggiali
- John Richardson
- Gary Searing
- John Seubert

Suggestion: to be published on the IBSC Website

Other initiatives in these roaring sixties

1965 UK Bird Impact Research & Development Committee

1966 First Meeting of Bird Strike Committee Europe (now IBSC)

Vic Solman, febr. 1973

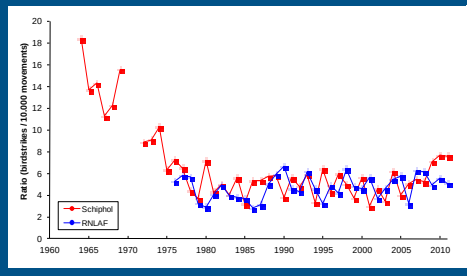
"the rate has been brought down to between 4,5 and 5 strikes per 10,000 movements".

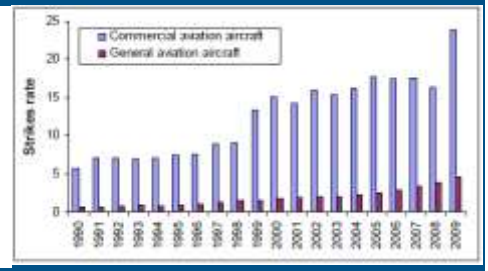
Vic Solman, febr. 1973

"the rate has been brought down to between 4,5 and 5 strikes per 10,000 movements".

"In spite of the successes of the Committee there is no room for complacency. Earlier work was based on available knowledge. It is now essential to expand our knowledge by research, so that we may continue to reduce this dangerous aviation hazard".

Traditional Bird Strike Prevention has been successful. But .....





	Inside Germany				
	2000	2001	2002	2003	2004
Bird strike rate	6.68	6.93	5.78	5.92	6.07
Damage rate	1.60	1.61	1.53	1.29	1.53

Bird and Aviation, Vol. 25 (2005), No.2

REPORT OF THE ASSOCIATE ADMINISTRATOR FOR AIRPORTS
OFFICE OF AIRPORT SAFETY AND STANDARDS
AIRPORT SAFETY & CERTIFICATION
WASHINGTON, DC
May 2011

- **The ratio is still ca. 5**
- **If anything, it is rising!**

HOW TO PROCEED?

Keep Bird Control an ***airport*** problem:

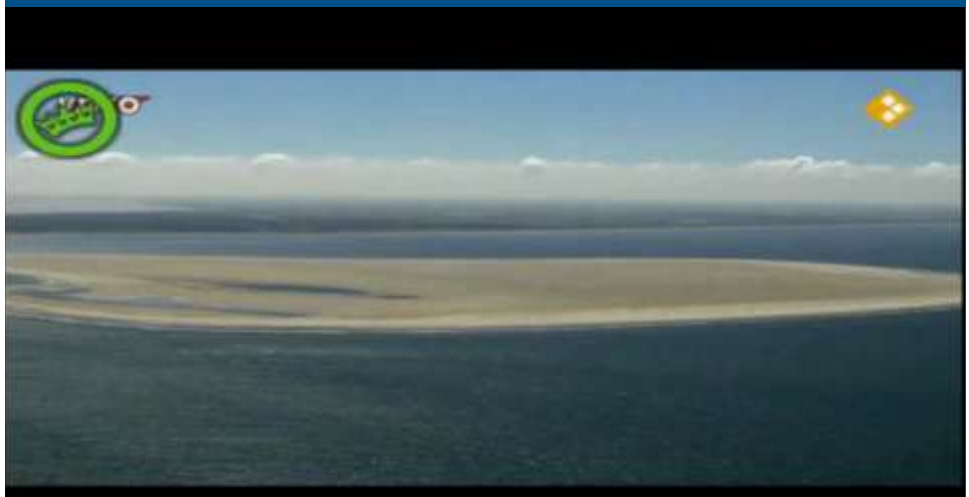
- More active (lethal) bird control?
- New, more rigorous and sophisticated habitat management?
- More extensive and aggressive airport vicinity influences?

OR,
instead of increasing aviations "footprint"

Make Bird Control an ***aviation*** problem, based on **mutual separation**:

- Including all stakeholders
  - Airports + airliners + pilots + ATC + authorities + industry.
- Containing the problem versus countering it
- Explore the potential and CONOPS of new techniques
- Recognising the *extreme mobility* (and pragmatism) of birds

Lesser black backed gull breeding on Texel



covering 332 Km a day up to 75 Km from nest

MUTUAL SEPARATION BASED BIRD CONTROL

Includes traditional bird control
But additionally, separates aircraft from birds

Accepts that:

- Birds are part of the environment, as is weather / geography / geology
- Birds can never completely be "kept out of the way of aviation"
- Aviation has to incorporate bird avoiding strategies

Mutual Separation based Bird Control needs:

•Sensors that timely detect birds flying on collision course

•Techniques that timely discriminate between hazardous and non-hazardous flying birds

•Techniques that distribute the information near real-time to the relevant persons (pilots, Air Traffic Control (ATC), Bird Control Units (BCU))

•Techniques that enable BCU's to make flying birds change their course

•CONOPS that enable pilots to avoid birds (postponing starts!), either via ATC or direct

In addition, Mutual Separation based Bird Control can only be succesful when:

- Pilots are better educated on how to act when facing birds
- Separation skills of ATC are included
- Concepts of Operation are *realistic*
- There is a culture of shared responsibility
- *Stamina*; there are no quick or easy results

But most of all when:

- **There is a will to succeed**
- **There is back-up from stimulating authorities**
- **There are alliances between aviation and naturalists**

Stakeholders view on how to proceed

Kas Beumkes (Dutch Safety Board) will use a recent case to illustrate where the "gaps" are in bird strike prevention.
Dominique Schilderman (Dutch ALPA) will inform us on the role pilots can play in reducing the hazard.
Antal Pekk (Wizzair) presents his views on the role airline companies can play.
Nathalie Papin (Airbus) will update us on the current status of research on on-board equipment to prevent bird strikes.
Jill Holdsworth (Darwin Airport) shares her visions on how airports can improve their share in bird strike prevention.
Pål Ranestad (Avinor) presents the views of ATC concerning their role as separation specialists.
Zsofia Olah (EASA) explores how EASA can help come to a more integrated approach for aviation industry.
Amnon Ginati (ESA) reports about the initiative to explore how space technology can contribute to bird strike prevention in civil aviation.

1962

Was also the year that -now 50 years (half a century) ago, Rachel Carsons book Silent Spring was published. This book started the notion that we do have an impact our planet.

Lets make sure that aviation industry deals with the bird strike problem in a responsible way, minimizing the environmental footprint.

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Acknowledgements

- RNLAF for letting me be here
- Col J.P. Apon for invaluable support
- Hans van Gasteren for permanent help
- Gary Searing for being "sparring partner" and motivating me
- Pål Ranestad for asking me to be todays moderator
- Todays speakers for their positive respons to the invitation

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Understanding birds is not easy!

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