



BUNDESWEHR GEOINFORMATION CENTER - BGIC

DEPARTMENT V (6) BIOLOGY / ECOLOGY



GERMAN MILITARY AIRBASES

LTC Dr. Kurth
Chief



BUNDESWEHR

OUTLINE



- BGIS _mission – organization - approach

- BGIC Dep Biology & Ecology

- Flora-fauna species & habitats at aerodromes

- Aircraft – hazardous bird and other animal species

- Aircraft – wildlife strike prevention practices

- Toolkit for more animal friendly methods

- Potentials for flora and fauna species strike prevention



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BGIS _MISSION – ORGANIZATION - APPROACH

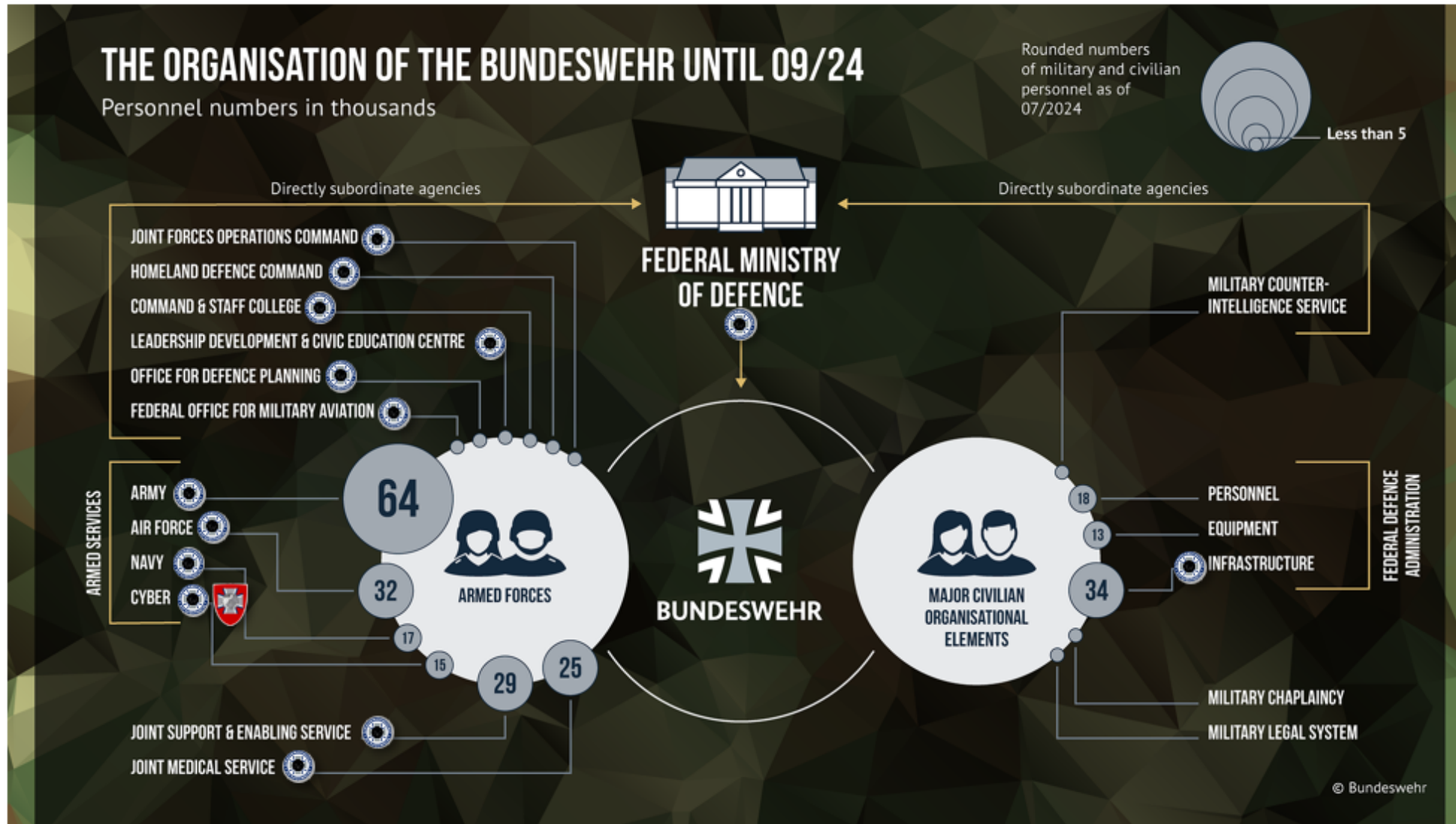
The Mission of the Bundeswehr Geoinformation-Service is the GeoInfo-Support for the Armed Forces.

That includes:

- The **purchase** of knowledge about environmental factors and evaluation of their impact on the conduct of operations
- The **supply** with up-to-date and quality assured GEOINFORMATION
- The **advise** for the Armed Forces in all fields of geo-scientific special disciplines



BGIS _MISSION – ORGANIZATION - APPROACH



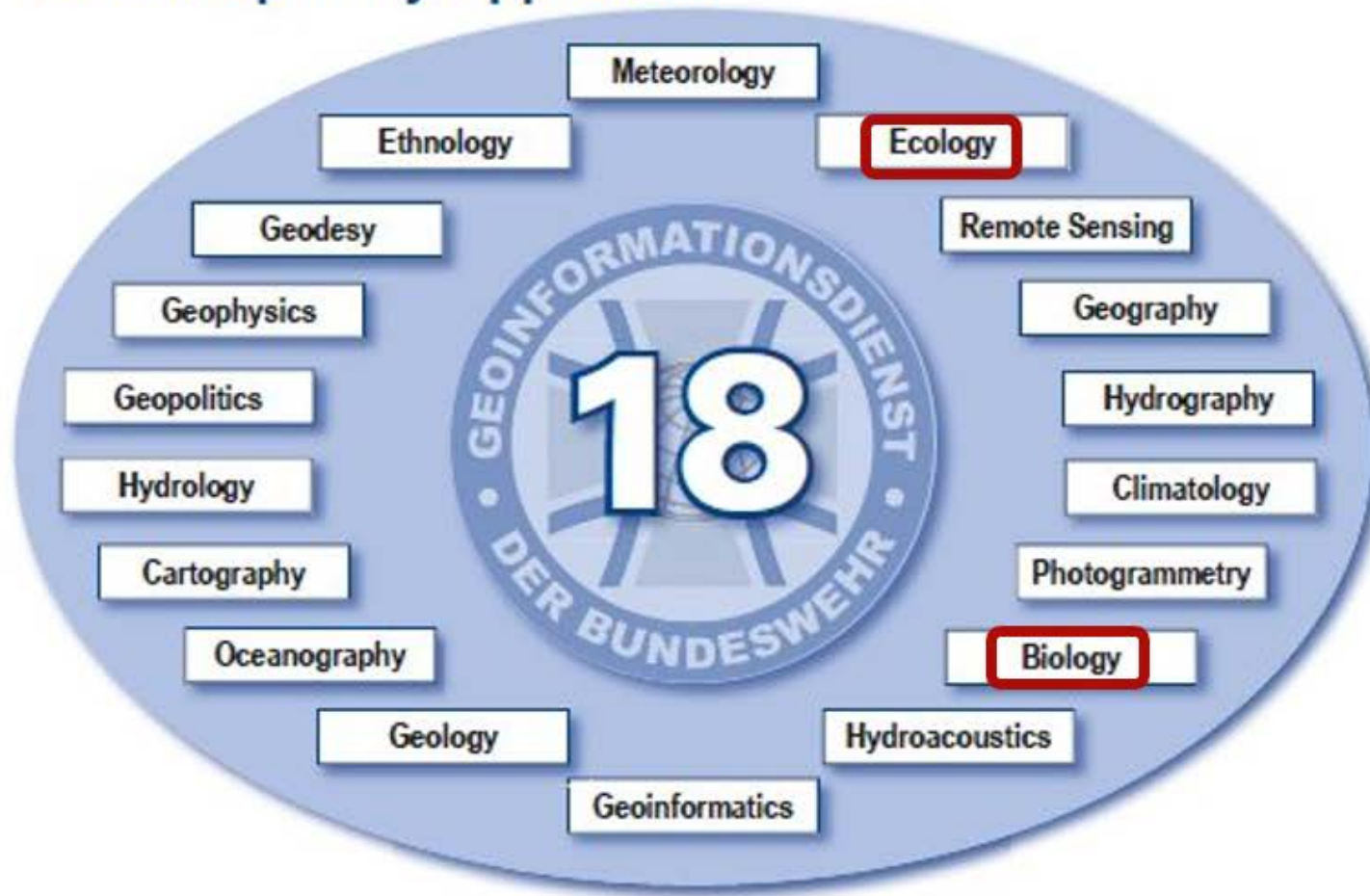
BGIS



BGIC

BGIS _MISSION – ORGANIZATION - APPROACH

Interdisciplinary Approach



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BGIC DEP BIOLOGY & ECOLOGY



13 staff
9 civilian
4 military



chief
LTC Dr. Kurth



**Birdstrike
ground**

0/0/0/0 + 3 Ziv

**birdstrike
air**

0/0/0/0 + 3 Ziv

**incidents
statistics**

0/0/0/0 + 1 Ziv

ecology

0/0/0/0 + 1 Ziv

**bio guidance
military**

1/2/0/0 + 0 Ziv

laboratory

0/0/0/0 + 1 Ziv

wildlife at airfields and the
surrounding area

Preventive

Active



wildlife in airspace

observation and alerting



statistics



BGIC DEP BIOLOGY & ECOLOGY

tasks:

- Biotope management airfields
- BIRDTAM forecast
- Birdstrike risk forecast - BiStriFo
- FSO / BCU training
- Mission briefing
- Ecology measures
- Scientific research
- Field manuals
- Guidelines online



guidance / surveillance

- Airports German Air Force
- Training areas / fields
- NATO- airports GER
- Abroad missions GAF



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FLORA-FAUNA SPECIES & HABITATS AT AERODROMES

FFH-Gebiete in Deutschland

Stand 2019



- FFH-Gebiete
- 12-Seemeilen-Zone inkl. Tiefwasserreede
- Außergrenze der Ausschließlichen Wirtschaftszone

Datenquellen:
Bundesamt für Naturschutz (BfN) 2020
(digitale Abgrenzungen aus den offiziellen Meldeunterlagen der Bundesländer)
Geobasisdaten: © GeoBasis - DE / BKG 2019
Datenlizenz Deutschland - Namensnennung - Version 2.0
(www.govdata.de/dl-de/by-2-0)
EuroGlobalMap: © EuroGeographics



- Flugplätze Meer
- Flugplätze Wasser
- Flugplätze Luftschiff

Delle 12.11.2013

Europäische Vogelschutzgebiete in Deutschland

Stand 2019



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EuroGlobalMap: © EuroGeographics

FLORA-FAUNA SPECIES & HABITATS AT AERODROMES

A1-273/1-4 Flugunfallverhütung – Verhütung von Vogelschlägen im Flugbetrieb der Bundeswehr => A1-273/1-8904 Vermeidung von Wildtierschlägen im Flugbetrieb...

- Grundlegendokument, welches die Aufgabenverteilung der beteiligten Stellen regelt und Berichtspflichten und –fristen aufführt.

C-2033/1 Abwehr von Gefahren für die Sicherheit der militärischen Luftfahrt/Verhütung von Schäden durch Tiere im Flugbetrieb der Bundeswehr

- Regelt jagdliche Maßnahmen auf Flugplätzen der Bundeswehr und Abwehr unmittelbarer Gefahren.



C2-1220/0-0-18 Vogelzugbeobachtung

- Regelt Festlegung von Verfahren, Meldeform und Übermittlung der visuellen und radargestützten Vogelzugbeobachtung

C2-1220/0-0-10 Vogelzugberatung

- Legt die einheitliche Vogelzugberatung im Geoinformationsdienst der Bundeswehr fest.

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AIRCRAFT – HAZARDOUS BIRD AND OTHER ANIMAL SPECIES

Species	Number collisions
Bekassine Common snipe	1
Buchfink Chaffinch	1
Feldlerche Skylark	2
Feldsperling Tree sparrow	1
Goldregenpfeifer Golden Plover	1
Großmöwe Giant Gull	1
Kormoran Cormorant	1
Krähe Crow	1
Mauersegler Common swift	4
Mäusebussard Eur. buzzard	5
Mehlschwalbe House martin	7
Milan Red kite	1
Misteldrossel MistRed kite	1
Mönchsgrasmücke blackcap	1
Möwe Gull	2
Rauchschwalbe Barn swallow	3

Species	Number collisions
Ringeltaube Wood pigeon	1
Rotdrossel redwing	2
Rotkehlchen Eur. robin	1
Rotmilan Red kite	1
Schwarzmilan Black kite	1
Singdrossel Song thrush	1
Sommergoldhähnchen firecrest	1
Steinkauz Little owl	1
Stieglitz Goldfinch	1
Taube Dove	2
Turmfalke Kestrel	2
Uferschwalbe Sand martin	2
Waldschnepfe Woodcock	1
Wiesenpieper Meadow pipit	1
Zwergfledermaus Com. pipistrelle	2
gesamt	53

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AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES



**Birdstrike
ground**
0/0/0/0 + 3 Ziv

Birds at airfields and the
surrounding area

Preventive



Active



- Examination airports / surroundings for habitate reports every 8 years
- Advice for habitate management, intimidation methods (lethal / non-lethal) and legal status for the federal administration office „BAIUD“
- Training / education birdstrike prevention
- Statements for building measures at protected areas
- Statements for derogation measures



AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES

Cultivation of long grass

- Optimum vegetation height: 15 – 20 cm but less than 60 cm



Avoidance of
fruit-bearing shrubs



Wildlife barrier fencing

- Height: approx. 2.4 m
- L-footer style fencing
- Barbed wire, spikes
- Regular checks
- Repair holes
- Close burrowing



AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES

BIOTOPE MANAGEMENT

water bodies at airfields



- Avoidance of open water bodies
- Instead:
 - Steep, straight banks
 - No bays
 - Little fouling
 - Water fragmentation
 - No fishing

AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES



**birdstrike
air**

0/0/0/0 + 3 Ziv

**incidents
statistics**

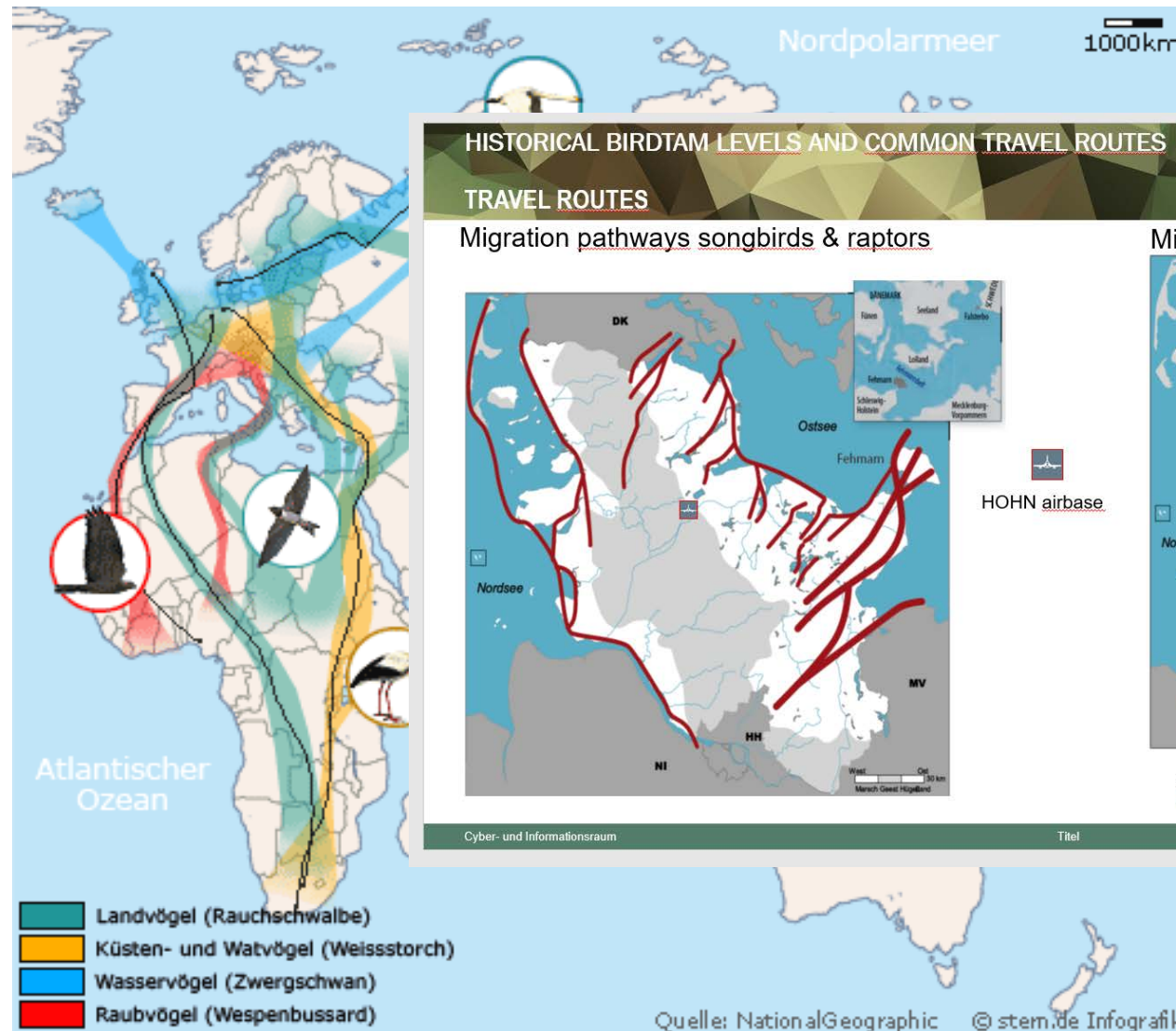
0/0/0/0 + 1 Ziv

wildlife in airspace

Observation and alerting



statistics



AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES

BIRDTAM forecast provided by BGIC

combined overlay radar observation /
sightings airbase

- updated regularly
- valid 2 hours in summer

Up to date BIRDTAM situation:

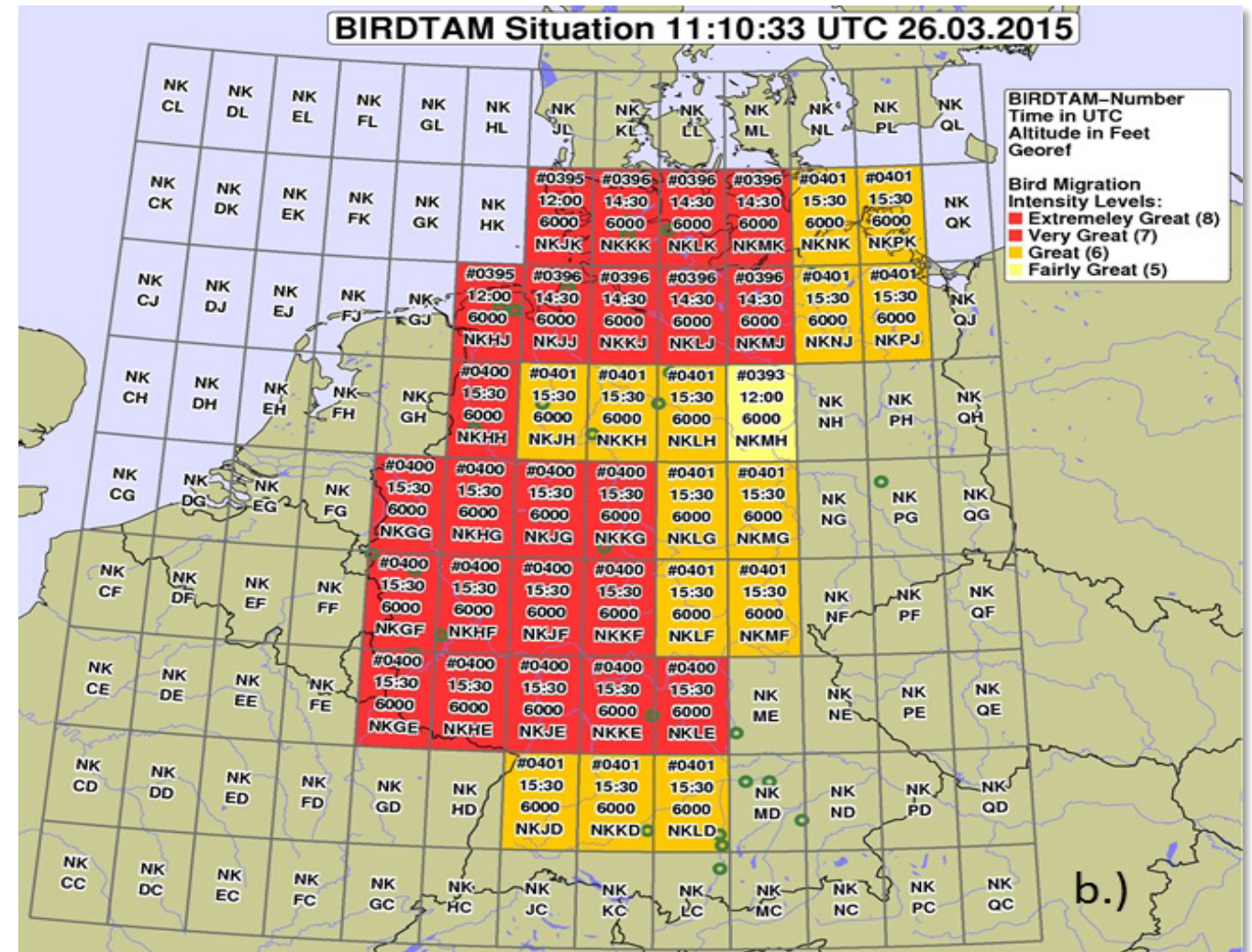
<http://wetter.geoinfo.svc/index.php?id=407>

If you do not have access to the website you can also find
the latest BIRDTAM here:

<https://www.notams.faa.gov/common/birdtam.html>

or

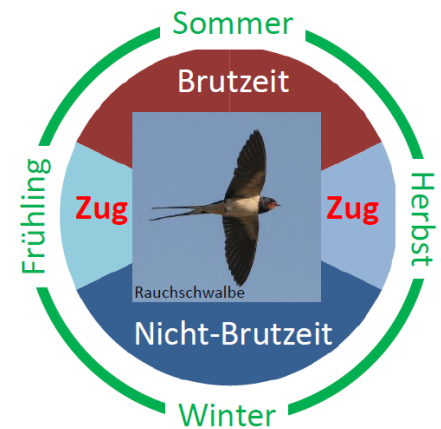
<https://www.davvl.de/unsere-leistungen/birdtam>



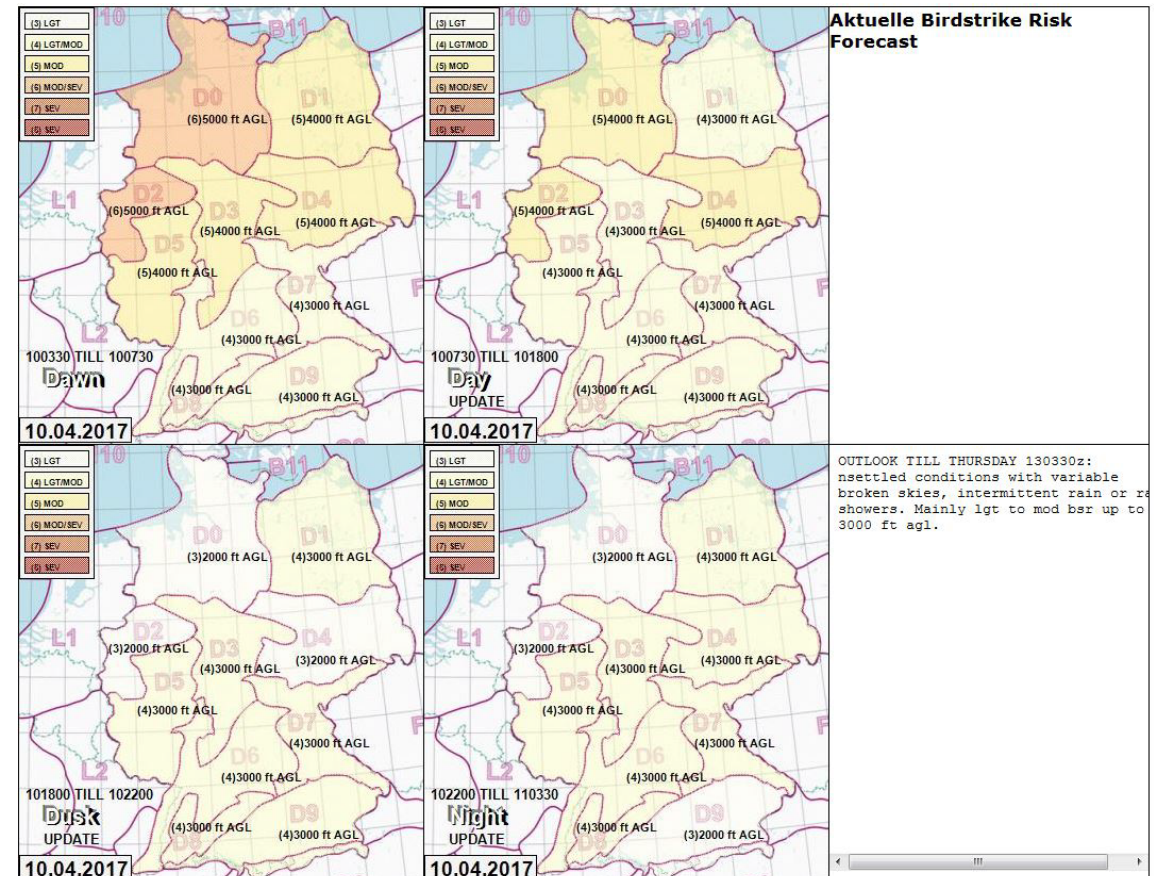
AIRCRAFT – WILDLIFE STRIKE PREVENTION PRACTICES

BirdSTRike Risk Forecast => BISTRIFO

season → weather forecast → bird migration



- wind-force
- wind-direction
- rainfall
- temperature
- etc.





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TOOLKIT FOR MORE ANIMAL FRIENDLY METHODS

Building

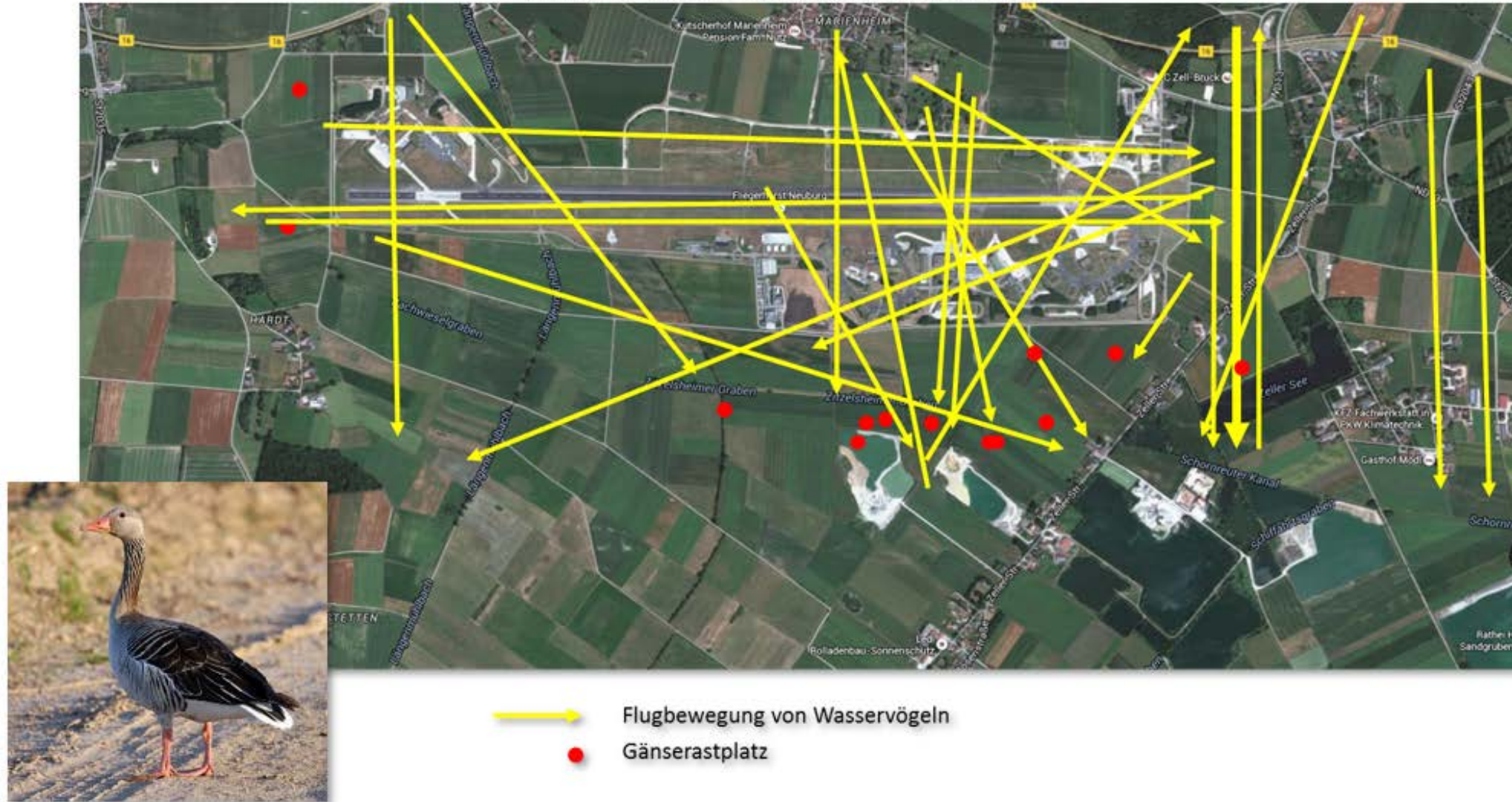


Measures:

- “Bird-proof” design

TOOLKIT FOR MORE ANIMAL FRIENDLY METHODS

AIRFIELD SURROUNDINGS



TOOLKIT FOR MORE ANIMAL FRIENDLY METHODS

Airfield surroundings as habitats for water birds => monitoring

- Feeding habitat
- Breeding places
- Resting places



TOOLKIT FOR MORE ANIMAL FRIENDLY METHODS

Goose numbers are increasing throughout Germany.

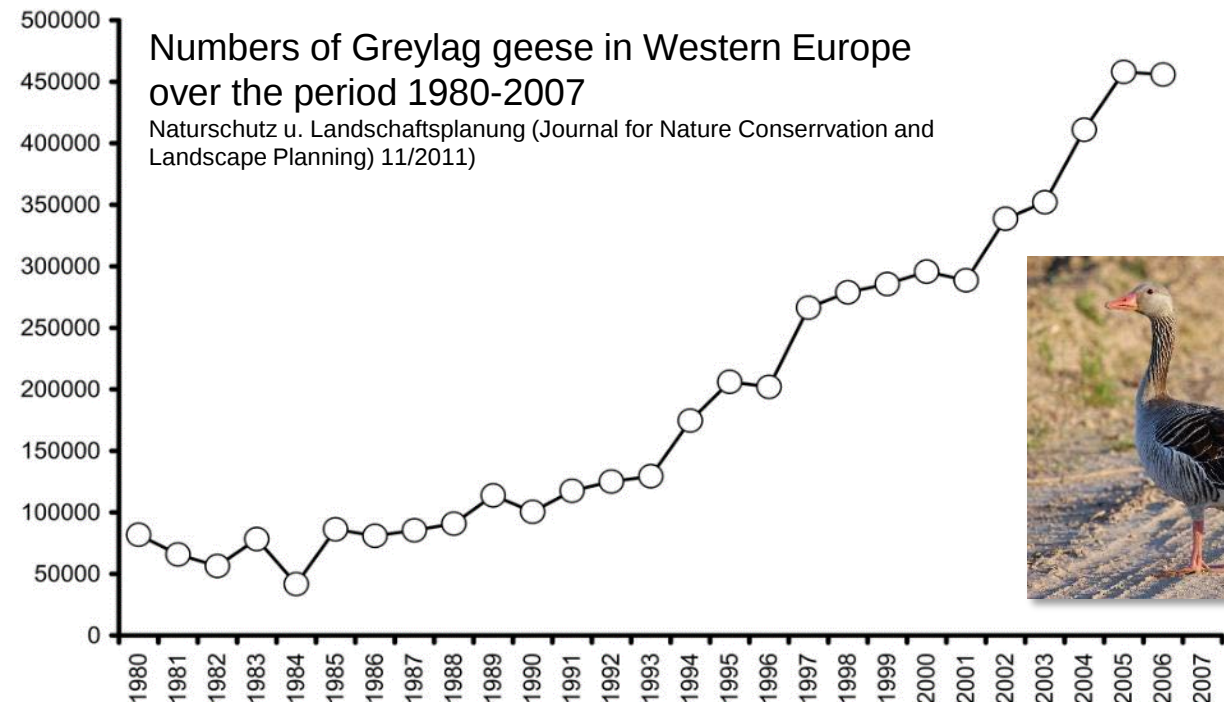
Canada goose
Branta canadensis



Nile goose
Alopochen aegyptiaca



- Significant increase in some indigenous and non-indigenous water bird species.





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POTENTIALS FOR FLORA AND FAUNA SPECIES STRIKE PREVENTION

„CARLOS“

Falklandkarakara
Phalcoboenus australis

- 1 m wingspan
- carrion eater
- Master sergeant
= falconer



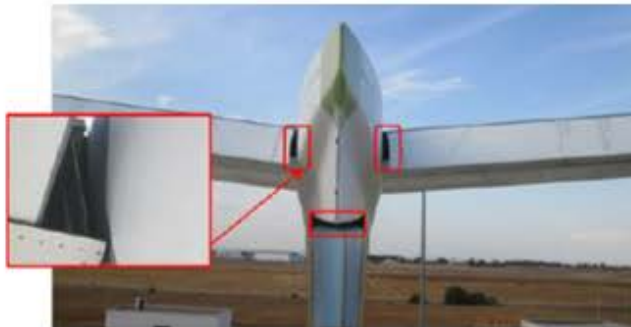
Airlift squadron 62, WUNSTORF



POTENTIALS FOR FLORA AND FAUNA SPECIES STRIKE PREVENTION



Don't fight
the wild -
nest it !



THANK YOU FOR YOUR ATTENTION – QUESTIONS?

