

Managing Wildlife Hazards at Western Pacific Airports

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Presentation outline

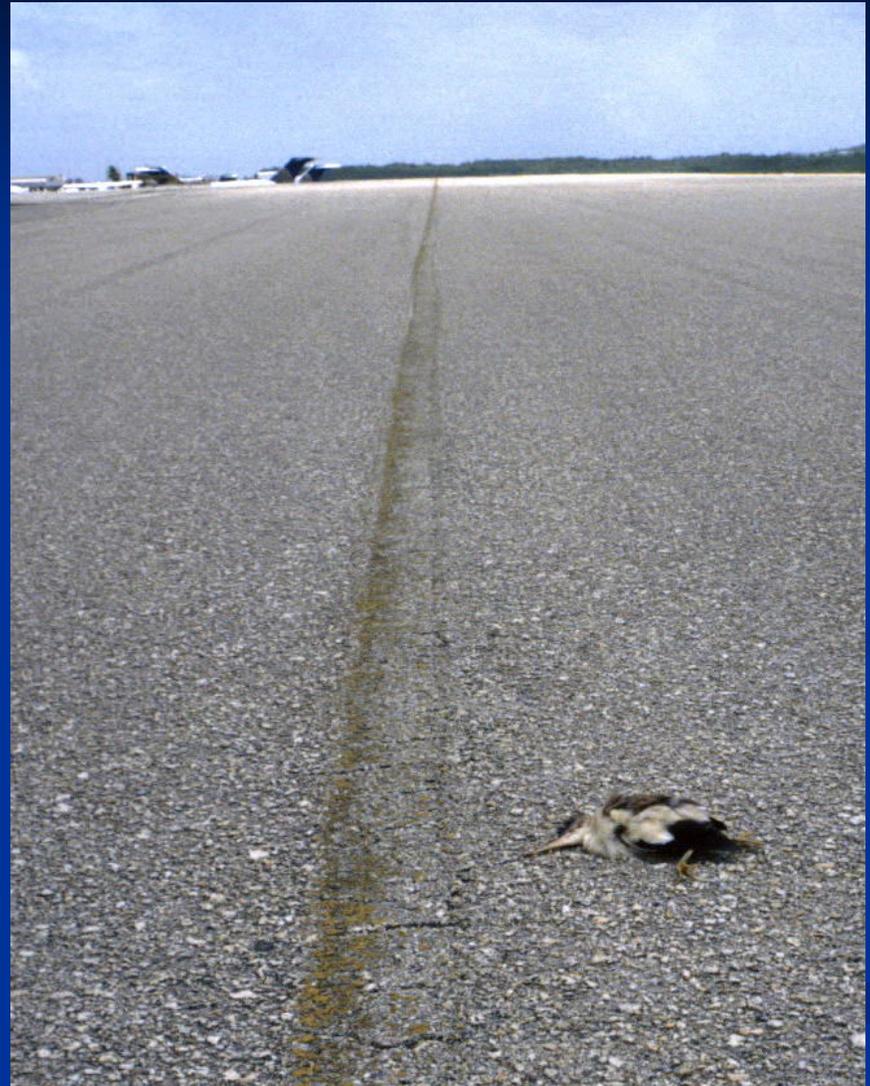
- Overview of wildlife and aviation
- Legal requirements (Assessment)
- Management actions



USDA, Wildlife Services provides federal expertise in managing human/wildlife conflicts through direct control, technical assistance, and research and development

MOU between FAA and USDA establishes a cooperative relationship for resolving wildlife hazards to civil aviation to benefit human safety

**MOST
WILDLIFE
STRIKES DO
NOT RESULT
IN AIRCRAFT
DAMAGE**





**Wildlife strikes cost U.S. civil aviation
over \$100 million annually**

A quick physics lesson...

Force
equals
mass times acceleration
($F = M \times A$)

Think of birds as “feathered FOD”

The FAA requires all airfields handling commercial aircraft with 9 or more passenger seats to address wildlife hazards if a real or potential wildlife problem is present

(Title 14, Code of Federal Regulations, Part 139)

Compliance with FAR Part 139.337 requires certificated airports to conduct a Wildlife Hazard Assessment (WHA) when any of the following events occur on or near an airport:

- 1) An air carrier aircraft experiences multiple wildlife strikes;
- 2) An air carrier aircraft experiences a damaging collision with wildlife,
- 3) An air carrier aircraft experiences an engine ingestion of wildlife, or;
- 4) Wildlife of a size or in numbers capable of causing an event described above is known to have access to any flight pattern or movement area.

Most island airports have relatively simple wildlife problems

- Small land masses
- Distant from continental land masses
- Limited species diversity
- Do not have large migratory waterfowl or gulls

However, every airport is different and management must be specific to each individual environment!

Wildlife threats to aviation safety vary seasonally and locally



Shorebirds



Dogs, etc.



Wading birds



Sea birds

Wildlife Hazard Assessment

- Assess species abundance, diversity, frequency of use over a 12-month period
- Assess wildlife attractants on and around airfield
- Develop recommendations to manage wildlife based upon the assessment



BASIC WILDLIFE NEEDS...

- Food
- Cover
- Water







**Upon completion of the WHA,
the FAA may require the
development of a Wildlife
Hazard Management Plan
(WHMP); developing the plan is
the responsibility of the airport
manager under FAR Part
139.337**

Successful Management Requires An Integrated Approach

- Target efforts on all species that cause risk – Think risk management!
- Utilize control methods that are effective on each species
 - Harassment
 - Habitat management (drainage, turf management, etc.)
 - Lethal control
- Do not allow complacency or inaction



Grass Management

- In general, short grass is better
- Plovers prefer short grass (gives better vision)
 - Likely better than displacing birds into tarmac with tall grass



Grass Management

- Egrets follow mowing activities
 - Enhanced short term attractiveness following cutting
 - Modify mowing schedule to minimize egret use



Legal Requirements for U.S. Airports

- Endangered Species Act (ESA)
- Migratory Bird Treaty Act (MBTA)
- Local, State, and Territorial Laws

Use of federal dollars may require compliance with federal law in non-U.S. locales

REVIEW OF ACTIONS

- Assessment to identify risks
 - Species abundance and use
 - Habitat features that serve as attractants
- Develop management plan specific to airport
- Develop management actions specific to each targeted species
- Implement with vigilance
- Monitor for results and changing risks
- Do not dismiss wildlife presence as no risk

**FAILING TO ADDRESS
WILDLIFE IN THE
AIRPORT ENVIRONMENT
PLACES THE
RESPONSIBILITY OF
AVIATION SAFETY IN THE
“HANDS” OF ANIMALS...**

Contacts for Assistance

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**THANK YOU FOR YOUR
ATTENTION**



QUESTIONS?

Avian Influenza Surveillance in the Western Pacific



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Islands



What is Avian Influenza?

- Avian influenza (AI) is a respiratory viral infection that naturally occurs in wild birds and domestic poultry
- The virus passes through the digestive track and infects new hosts through contaminated food, water or air
- Approximately 144 subtypes of avian influenza exist; most are not dangerous to humans
- Highly pathogenic H5N1 AI is a subtype of AI that currently is circulating in Asia, Africa, and Europe
- Although very difficult to contract, nearly 200 people have died worldwide from H5N1 infections

What should you know about AI?

- Highly pathogenic Avian Influenza is not the same as pandemic flu
- H5N1 has not been found in the United States, its territories, or former trust territories
- The role of migratory birds in the transmission of H5N1 is unknown; most detections have been made in dead birds
- Wild birds may serve as an early warning system for the detection of highly pathogenic H5N1 AI
- AI surveillance in wild birds is a multi-agency effort, involving federal, state, territorial, and non-governmental groups
- A positive H5N1 detection in a wild bird does not signal the start of a pandemic flu outbreak

Potential Routes of Introduction for H5N1



International Commerce

- *Poultry and poultry products*
- *Contaminated materials*
- *Smuggling*
- *Pet trade*

Migratory birds



The National Interagency Strategic AI Plan

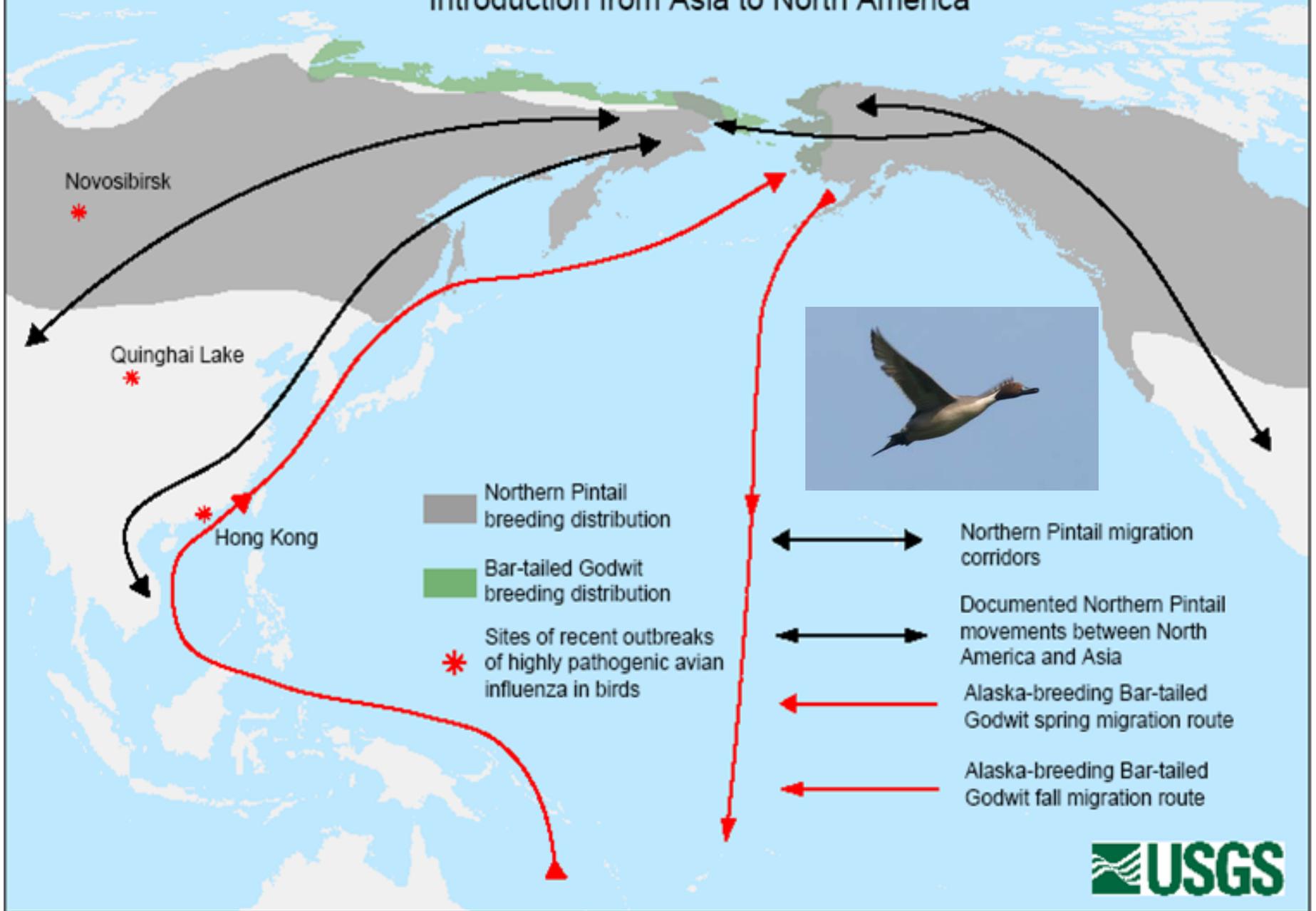
- Part of the U. S. President's National Strategy for Pandemic Influenza
- Partnership among federal, state, territorial agencies
- Created a unified national system for early detection of highly pathogenic H5N1 AI in wild birds and serves as a guide for regional and state surveillance plans.

What are the Plan's goals?

- 1) Conduct surveillance for early detection by collecting live bird and environmental samples
- 2) Focus upon sampling in the Pacific flyway and Pacific Islands
- 3) Target birds that migrate between Asia and North America



Potential Pathways of Avian Influenza Introduction from Asia to North America



Surveillance Strategies in the Western Pacific

1. *Investigate mortality in wild birds*
2. *Survey live wild birds*
3. *Sample the environment*
4. *Monitor domestic poultry*



Why are airports important?

- Congregation points for migratory birds
 - Focused location for surveillance efforts
- Likely entry point for human-mediated movement of H5N1
- Proximity to Asia (H5N1 hotspots) and direct transportation coming from outbreak areas



Current activities in the Pacific

- *Hawaii, Guam, and CNMI*
 - Live bird and environmental sampling, incidental mortality surveillance
- *Palau and Samoa*
 - Environmental sampling and mortality surveillance
- Domestic poultry surveillance and response is handled by local governments

2006-2007 Results to Date

- Collected over 100,000 samples nationally
- Collected over 1500 live bird and environmental samples in Hawaii, Guam, and the Northern Marianas
- No detections of high path H5N1
- Low path detections in several states on the eastern U.S. coast

Safe Bird Handling Procedures

- Relevant for bird-strikes, other mortality events, and confiscation
 - Exercise basic hygiene practices
 - Use Personal Protective Equipment, including safety glasses and latex/nitrile gloves
 - Do not eat, smoke, or touch fingers to any part of face prior to clean up
 - Wash hands thoroughly



Program Gaps in western Pacific

- Currently no organized wild bird surveillance efforts in Yap, Kosrae, Pohnpei, Majuro, Chuuk, or Western Samoa
- Domestic and feral poultry surveillance and testing capabilities are limited and handled locally
- Status of funding for the coming migratory season is uncertain

Future Directions

- Reduced effort on live bird monitoring and increased monitoring for mortality events
- Federal assistance with testing suspect domestic poultry
- Potential expansion of regional surveillance efforts



How can you help?

- Interagency collaboration is critical for effective detection and response.
 - Awareness!
 - Know your partners at the Federal, State/Territorial, and local levels
 - Response planning and preparation
- AI is a rapidly evolving issue involving wildlife, agriculture and public health.
 - Stay informed
 - www.avianflu.gov

