Greetings...Welcome Back to Bird Strike Buzz!

The dust is still settling from our meeting in Atlanta and, based on the survey results, it was an outstanding success! From presentations on methods and techniques to the panel discussions that tackled some contentious issues and our premier night sessions, the conference was well received. Those of us on the committee found it encouraging to witness the interaction of the participants and their enthusiasm for the event. I would like to personally thank all the attendees. If you did not attend, please join us next September when we hold our North American conference in Montreal with our Canadian colleagues. I would also like to extend my thanks to the committee staff and our dear friends at AAAE for their help in making this one of the best Bird Strike meetings to date! Proceedings of the conference are available at: [Password BIRDSTRIKE2014].

I am looking forward to my new role as Chair and I want to thank one of the best friends BSC USA has had to date – Past-chair, John Ostrom. In Atlanta, I mentioned that the new committee, and especially the succession of officers and restructuring of the steering committee, represent a vision that we helped John to realize. I am anxious to work with our new Chair-elect, Sarah Brammell, Vice-chair, John Weller, and the committee as a whole to secure this new future. After a little rest we can re-engage Mr. Ostrom and get him back on the field. Onward and upward!

So where are we headed this year? At the conclusion of the meeting in Atlanta, I challenged the committee to think about some basic goals and issues to focus on through 2015. Defining how wildlife risk is assessed and defined in the US came through loud and clear. This topic and similar topics are timely for our group as we continue to refine our national approach. Other emerging issues include the designation of critical habitat on or very near airports. The committee is actively examining this issue and developing formal comments. However, I and the committee look forward to hearing from you on topics yet to be defined. Let us know how we can best serve you and address these and other issues.

I see my role this upcoming year as an active leader and a careful steward of our committee. Our committee has changed and will continue to evolve, but only with your continued involvement. To those of you that are officially part of the group – let’s go! For those that have yet to engage – we need you and your involvement! Only together are we the Bird Strike Committee USA!

Michael J. Begier
Chair, Bird Strike Committee USA

Past and present Chairs: Michael Begier and John Ostrom

In this issue:

Welcome Back 1
Record Number of Strikes Reported 2
Feather Identification Workshop 3
Feather Lab by the Numbers 3
Helicopters are Vulnerable too 4
Strike Reporting Excellence 5
WHAs Performed at Four Overseas Joint-Use Facilities 6
A Final Note 7
Bird Strike Buzz – News from Bird Strike Committee USA

Record Number of Strikes Reported to FAA in 2013: Is This Good or Bad?

Richard Dolbeer, Science Adviser, USDA, Wildlife Services


The report documents that the number of strikes annually reported to the FAA has increased more than 6 fold from 1,851 in 1990 to a record 11,315 in 2013. Many news reporters have asked questions about this increase, such as: Is the problem getting worse in spite of all the wildlife mitigation efforts being implemented at airports? Are the mitigation approaches being used at airports inappropriate and ineffective? Are our mitigation approaches exacerbating the problem? What is going on?

Actually, things are not as bad as they sound. In fact, things are improving! The statistics on total strikes, when combined with statistics on strikes that cause damage to aircraft, indicate that significant progress is being made to mitigate risk. Although the number of reported strikes has steadily increased, it is crucial to note that the overall number of reported strikes causing damage has actually declined since 2000. Whereas the number of reported strikes increased 81 percent from 6,008 in 2000 to 11,315 in 2013, the number of damaging strikes declined 21 percent from 764 to 601 during the same period.

This decline in damaging strikes primarily has occurred in the commercial aviation sector using Part 139 certificated airports. While the number and rate (per 100,000 movements) of all strikes with commercial aircraft has increased 51 and 81 percent, respectively, from 2000 to 2013, the number and rate of damaging strikes has declined 37 and 24 percent, respectively. The damaging strike rate for commercial aircraft in 2013 (0.98/100,000 movements) was the lowest recorded since 1996. In addition, the number of high-speed (>80 knots) aborted take-offs by commercial aircraft after striking wildlife has declined from a high of 39 in 2000 to 19 in 2013 which also indicates progress.

What all this means is that Part 139 airports are generally doing a much better job today than they were 10 or 20 years ago in reporting all strikes, and most of these strikes are with small birds that cause no damage. Mitigation efforts to keep the larger, more hazardous species of wildlife (e.g., geese, deer, raptors and large wading birds) away from airports are showing positive results. The decline in damaging strikes and aborted take-offs is even more impressive when one considers that the populations of most species of large birds have increased during the past 20 years.

There is still much work to be done to mitigate the risk of damaging strikes, both in the airport environment and in the approach/departure corridors away from airports. But it is reassuring to know that the integrated Wildlife Hazard Management Plans being implemented at airports throughout the USA by airport biologists and operations personnel are making a real difference in protecting human lives and the aircraft in which they fly.
SIT REP Feather: Feather Identification Workshop at Bird Strike Committee Meeting 2014
IDENTIFYING BIRD REMAINS – YESTERDAY, TODAY AND TOMORROW
by Carla Dove, Feather Identification Lab

The Bird Strike Committee USA hosted its first evening workshops at its 2014 meeting in Atlanta, and one of the workshops involved presentations and hands-on demonstrations from the Smithsonian Institution’s Feather Identification Laboratory.

Carla Dove, Marcy Heacker, Faridah Dahlan and Jim Whatton provided brief updates on identification techniques, DNA barcoding, statistical summaries and the future of bird identifications. The Feather Identification Lab has been assisting the military and FAA on the identification of bird remains since the 1960’s when a Lockheed Electra crashed into Boston Harbor as a result of European Starlings.

Although the methods used to identify bird remains have been enhanced over the past 50 years, many of the techniques developed by Roxie Laybourne, pioneer of the microscopic study of feathers, are still used for bird strike identifications. This workshop aimed to weave the techniques developed in the past with new molecular methods of today and presented thoughts on the future of “Airport Bio-Blitzing.” Futuristic molecular technology may provide easy hand-held “DNA machines” to help identify everything from a bird that hits an aircraft to the species of insects that was in the bird’s stomach at the time of the strike (see adjacent photo).

Over 70 conference members attended this workshop. Feather Lab staff discussed proper sample collection methods of specimen preparation and storage, and provided a demonstration of DNA gel processing. The BSC plans to conduct more workshops in the future. If you would like to participate, let a BSC committee member know that you’re interested!

A link to the presentations can be found at: http://events.aaae.org/sites/140804/presentations.cfm?e=auth (Password BIRDSTRIKE2014).

LATEST FROM THE LAB ... FEATHERS BY THE NUMBERS
Stats and Snippets from the Smithsonian Birdstrike Identification Program by Marcy Heacker, Feather Identification Lab

In Fiscal Year 2013, the Smithsonian Lab identified 7,939 samples: 58% for the US Air Force, 33% for the FAA and 9% for the US Navy. The busiest time of the year for the Lab corresponds with fall migration in September and October which can average almost 950 cases a month.

The Lab routinely identifies remains from certain bird species or “usual suspects”. These usual suspects include: Horned lark (Eremophila alpestris), Mourning dove (Zenaida macroura) and swallows (family Hirundinidae). The most common sparrow identified is the Savannah Sparrow (Passerculus sandwichensis). The list of most damaging bird species identified includes repeat offenders such as the Canada goose (Branta canadensis), Red-tailed hawk (Buteo jamaicensis) and gulls (Larus spp.).

A surprising 6% of the Lab’s identifications are bats. More than 20 bat species have been identified, with the most common being the Mexican/Brazilian Free-tailed Bat (Tadarida brasiliensis). Many times the Lab has identified bat and bird remains in the same case, suggesting these very different animals can overlap in their feeding and movements.

Visit your organizations wildlife strike/BASH website, or contact us using the information below to obtain more information on the Smithsonian Institution Feather ID Lab:
• Civil aviation – go to: http://wildlife.faa.gov
HELCOPTERS ARE VULNERABLE TOO

by Phyllis Miller and Jenny Mastantuono (USDA, APHIS, Wildlife Services)

Many people believe that helicopters do not strike birds because they are not restricted to straight-line flight like fixed-wing aircraft and can maneuver around birds more easily. This is simply not true. From 1990-2013, 1,560 civil helicopter/wildlife strike events were recorded in the FAA National Wildlife Strike Database. In 2013, 265 wildlife strikes were recorded that involved helicopters, 18 of which caused substantial damage. Eleven of those reported repair and other costs totaling $429,662 and 5,523 hours in aircraft down time. One damaging strike with a black vulture (25 inches in length, estimated 4.4 pounds) caused an estimated $175,000 in damage and the aircraft was out of service for 139 days. Even strikes with smaller birds can be a problem. In 2012, a strike with a yellow-billed cuckoo (12 inches in length, estimated 2.3 ounces) caused an aircraft to be out of service for five hours with a cost of $40,000.

To add some perspective to those damaging strikes, there were 215 other wildlife strikes reported in 2013 that involved helicopters, but no damage was reported. In one case, evasive maneuvers were performed to avoid striking an unknown bird. Some species involved in these strikes included Canada geese, turkey vultures, ducks, frigatebirds, and various song birds, as well as some bats.

Military rotary-wing aircraft are not immune to wildlife strikes either. From 1990 to 2011, four branches of the armed services reported a total of 2,511 wildlife strikes, 362 of which were damaging strikes. Eight of the damaging strikes involved the raptor/vulture guild.*

Although helicopters are able to maneuver more easily than fixed-wing aircraft, they are still vulnerable to wildlife strikes. If you want to learn more, examine data in the FAA National Wildlife Strike Database (http://wildlife.faa.gov/database) or read the referenced papers below.


STRIKE REPORTING EXCELLENCE
by John Weller, FAA

The first annual Sandy Wright/Richard Dolbeer Excellence in Strike Reporting award was presented to Dallas/Fort Worth International Airport and Morristown Municipal Airport during the 2014 BSC meeting in Atlanta, Georgia.

A New Award to Honor our Members

The Strike Reporting Excellence Award was created to honor the incomparable dedication of BSC members Sandy Wright and Richard Dolbeer, as both have been exceptional in the management of the National Wildlife Strike Database (NWSD) since 1995, when FAA first entered into a contract with USDA to oversee the collection, quality control, analysis and summary of strike reports. From its genesis, Sandy has reviewed each and every strike reported and entered it into the database, while Dr. Dolbeer has provided in-depth analysis, conclusions and recommendations based on the results. Both have co-authored every annual strike report with the FAA. Although the award fittingly bears both their names, it would not be unfair to simply call it the “Doing it Wright” award for the tireless oversight and fact checking that Sandy has provided to create an unparalleled strike data collection.

Strike report forms were developed by the FAA after the catastrophic strike between Eastern Air Lines Lockheed Electra Flight 375 and a flock of starlings (October 4, 1960), but the early reports and analyses were sporadic and unreliable. Once the USDA and FAA started analyzing the strike reports in 1995, they determined that the reliable data starting in 1990 represented a valid cut-off date upon which to base future analysis. Since 1990, the number of strikes annually reported has increased more than six fold, from 1,851 strikes recorded in 1990 to a high of 11,315 strikes recorded in 2013. A total of 142,603 strikes has been reported in the National Wildlife Strike Database during the 24-year period from 1990 to 2013.

Honoring the Diligence of Airport Operators

The Sandy Wright / Richard Dolbeer Excellence in Strike Reporting Award recognizes those airports that have implemented a thorough and noteworthy strike reporting program. The number of US airports that report wildlife strikes has increased from 331 in 1990 to a record 649 in 2013. The 649 airports with strikes reported in 2013 were composed of 379 airports certified for passenger service under 14 CFR Part 139 and 270 general aviation (GA) airports. From 1990 to 2013, strikes have been reported from 1,821 US airports.

The goal of the new award is to recognize the top five reporting programs in both the certificated and general aviation (GA) airport categories. The criteria for determining which airports will make the initial cuts are objective and include both the quantity and quality of strike data submitted. In other words, an airport operator will not be considered for the award based solely on the number of strikes reported. Award criteria include, but are not limited to:

- Number of reports filed,
- Completeness of reports,
- Percentage of reports identified to species,
- Percentage of reports filed online,
- Timeliness of report submission,
- Remains collected when available or necessary, and
- Consistency filing reports.

Further evaluation of the finalist strike reporting programs may include:

- Modification of filed reports online when new information is discovered.
- Airport follow-up with airline or engine manufacturer for missing information.
- Airport designation of a staff member to receive notice when strikes are filed for the airport.

It should be noted that the criteria used to determine who wins an award does not include an evaluation of the actual wildlife management program at an airport. Also, even though the award is specifically for the voluntary strike reporting programs in 2013, data from previous years is necessary to determine consistency or improvements in an airport’s strike reporting program.

Recognized Airports for 2014

The determination of a winner for each category was very difficult; each of the finalist airports deserves recognition. The “Top Five” certificated airports identified for the inaugural award were: Dallas-Fort Worth (DFW), Los Angeles (LAX), Portland (PDX), Seattle (SEA) and Denver (DEN). Honorable mentions were identified for Minneapolis-Saint Paul (MSP) and Orlando (MCO). The “Top Five” GA airports honored in 2014 were Morristown Municipal Airport (MMU), Centennial (APA), Van Nuys (VNY), Addison (ADS) and Dupage (DPA). Honorable mention went to Fort Lauderdale Executive Airport (FXE).

And the winners are...

The FAA proudly recognized the Dallas-Fort Worth International Airport and Morristown Municipal Airport as the winners of the 2014 Sandy Wright/Richard Dolbeer Excellence in Strike Reporting Award. The FAA recognized each airport’s commitment to the identification and documentation of wildlife/aircraft strike information. The bar has been set high and these airports, as well as each of the finalists, well deserve the recognition. Congratulations!

FAA Wildlife Strike Database link: http://wildlife.faa.gov/
WHAs Performed at Four Overseas Navy Joint-Use Facilities
Matthew W. Klope, Naval Facilities, BASH Program Manager

In April 2013 a US Air National Guard C-5 aircraft took off from Naval Station (NS), Rota, Spain. Upon rotation, a flock of gulls flew up from the infield and across the runway directly in front of the aircraft. Several gulls were ingested into both left engines, which began to fail. The pilot declared an in-flight emergency and the experienced pilot and flight crew were able to return the aircraft to the base safely, but not without damage. Upon landing, the fully loaded and fully fueled aircraft suffered severe landing gear damage resulting in a Class A Mishap.

As a result of this event, the Safety Investigation Board recommended that a Wildlife Hazard Assessment (WHA) be performed to identify management recommendations in an attempt to reduce future wildlife strike events. The Navy’s response in FY14 was to not only perform a joint USAF-USN WHA at NS Rota, but also to perform WHA’s at three other major Navy joint use facilities including Naval Air Station Sigonella, Italy, Naval Support Activity Souda Bay, Crete, and Camp Lemonnier, Djibouti.

The WHAs were conducted in-house using certified Navy wildlife biologists and Navy personnel in order to complete the assessments in a timely manner. The Navy implemented a streamlined approach to conduct simultaneous WHAs at the four overseas facilities. Quarterly surveys were initiated for a one-year period that focused on the areas over and immediately adjacent to the active runways. All wildlife activity is being documented according to standard WHA survey protocols including species, numbers, habitat and behavior. Quarterly reports have been generated based on the survey data, and the recommendations from the reports have been presented to the US Navy and Host Nation at each facility.

A myriad of agreements must be negotiated for every US occupied facility overseas and they are all usually contained in a “Host Nation Agreement.” Any recommendation resulting from the WHA surveys must be agreed upon by the Host Nation. All recommendations including species control work, tree removal, storm water management, grass management, agricultural out lease changes, hunting program changes, wildlife strike reporting, even advisories from the Host Nation control tower must be agreed to by the Host Nation.

This can be a daunting task when the Host Nation has a semi-private hunting club on the airfield or the agricultural out lease program on the airfield is an “under the table” local long-standing agreement with a local farmer. The key is to continually meet with the Host Nation and press the issue of aviation safety for both our aviators and theirs. Identify the recommendations the Host Nation can agree with and execute.

The four WHAs will be completed this fall, and several recommendations identified in the quarterly reports already have been executed at two facilities. Eucalyptus tree (invasive) removal and a watershed study to manage the fresh water ponding are underway at NS Rota, and modifications to an agricultural outlease are underway at NAS Sigonella.

The most significant recommendation implemented to date involves a cooperative effort between the US Navy, US Air Force, and the Spanish Navy at NS Rota. Prior to every aircraft departure, a vehicle inspection is conducted by one of these groups to identify the presence of wildlife—particularly gulls – on the runway, taxiways, parking aprons and grassy infield areas. If birds are observed, the tower is notified and a contracted falconer responds to disperse the birds. This is one of those recommendations that all players could agree to, does not require contracts or programmed funding and is having a huge positive impact for the facility BASH program.
By all accounts, Bird Strike Conference 2014 was a success! Over 300 registrants enjoyed vendor displays, presentations, panel discussions and posters. Kudos and thanks to Hartsfield-Jackson Atlanta International Airport for hosting the conference and for providing a terrific lunch and field trip, as well as hands-on activities after the tour.

New to this year’s agenda were two evening workshops. Both were well attended and much appreciated by the participants—Wildlife Photography Techniques and Bird Remains Identification using feather and DNA analysis (see article on page 3). Proceedings of the conference are available at: http://events.aaae.org/sites/140804/presentations.cfm?e=auth (Password BIRDSTRIKE2014). We will post a link on Facebook https://www.facebook.com/BirdstrikeUSA soon.

Also during this year’s conference, a new BSC leadership was ushered in— and the Golden Goose was welcomed to the BSC flock! BSC looks forward to many more years of tradition, leadership, teamwork and progress.

Be a contributor!
If you have workshop topics or panel discussions you’d like to suggest, send them to the BSC Conference Committee Chair Brian Washburn (Brian.E.Washburn@aphis.usda.gov) or the BSC Chair Mike Begier (Mike.Begier@aphis.usda.gov).

See you in Montreal in 2015!

If you would like to suggest an article for the Bird Strike Buzz, write to Cathy Boyles (cboyles@dfwairport.com). Stand by for more news about our revamped website!