

numbers and species of birds that will be attracted to wetlands of different designs and to objectively determine how their movements might influence the birdstrike risk at nearby airports. Models have been developed that relate the physical characteristics of a wetland to the numbers and species of birds likely to be present. Measurements of the frequency, length and altitude of bird movements have been made and related to the location of other features such as feeding sites or other water bodies. Results are promising, but a greater range of factors needs to be included in the models. Work is currently on going to gather the necessary data.

**(5) FEDEX EXPRESS' APPROACH TO BIRD STRIKE PREVENTION**

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Airlines can help in the prevention of bird strikes. This presentation is an overview of FedEx Express' Bird Strike Prevention Program. FedEx has given a new meaning to bird and wildlife strike reporting by focusing on the type and amount of information Flight Safety receives from the pilots, which is transferred to the FAA's National Wildlife Strike Database. By maintaining specific records and statistics of the bird strikes and their effects on the aircraft, FedEx can share information with the USDA Wildlife Services wildlife biologist at FedEx's biggest hub in Memphis, Tennessee. This enables the biologist and air operations crews to locate nests or roosts of birds on the airfield in order to disperse the indigenous bird population. Flight Safety in turn shares the same information with the governing airports when more than two strikes occur in a month. In addition, FedEx's internal publication of the Straight in Approach communicates information with the FedEx pilots regarding all collected bird strike trends and analysis.

**(6) EUROPEAN STARLINGS AND PASSENGER-LOADING BRIDGES: AN AVIATION INDUSTRY-WIDE PROBLEM**

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The European starling population exceeds 800 million throughout the world with one-third of the population residing in North America. Between 1990 and 2002, starlings represented 1.6% of all known aircraft damaging strikes. Of the 36 species groups, starlings were ranked seventh in causing substantial aircraft damage and ranked sixth in causing minor damage. The potential damage to aircraft and economic loss resulting from bird strikes is real. There is another problem; however, associated with aircraft loading bridges which current designs do not address. Starlings, being cavity nesters, are given an endless number of opportunities for nesting sites within loading bridges. Over time, and specifically during summer months, the odor can be overwhelming for passengers unless the airline or airport makes a conscious effort to clean the loading bridges of nesting material several times a year. It has been documented that humans may be prone to serious respiratory diseases by breathing airborne fungal spores that originate in starling fecal matter - putting passengers and employees at risk. Several products, including chicken wire, porcupine wire, mylar tape and electronic control devices have been used in an attempt to address this problem, but with varying degrees of effectiveness