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A Decade of Change for the Israeli Air Force

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2011 BIRD STRIKE NORTH AMERICA CONFERENCE

PROGRAM BY DAY | THURSDAY, SEPTEMBER 15, 2011

Session 10:

Case Studies

8:30 AM – 10:30 AM

Moderator: Pierre Molina

Oakes South Room

Risk Species In 12 ASA Mexican Airports Under Tropical, Arid, Semideciduous And Urban Conditions.

8:30 AM

Arturo Ortiz

Mexico is one of the largest and diverse countries in America due to its privileged geography and geological history. It has a variety of climates which are translated in different types of flora fauna habitats. As population growth trends towards airports, species have been pushed into the confinement of the native vegetation protected by airport boundaries; therefore the responsibility for species conservation, in particular, local endemics, enters in conflict when such flora and fauna need to be control within airports. Several airports in Mexico are surrounded by urban development, restraining native fauna within airport limits, some of which are protected by law. Fauna control measures need to be authorized by environmental authorities, which is not always obtained. Tropical, arid and semi deciduous vegetation environments are the predominant types in Mexico, therefore our risk fauna differs from that registered on temperate countries. Also, the nearby presence of humans and alteration of natural habitats in surrounding area has led into the incursion of exotic and domestic fauna within airports, which in our experience constitutes the highest risk for airport operation. Control and management measures need to be designed under these three premises. In this paper we make a comparison of native and urban induced risk species in 12 Mexican airports, with more temperate environments risk species reported for Canada and the U.S. We make emphasis in specific control measures that had to be taken under consideration within the management plans of these airports.

A Decade of Change for the Israeli Air Force

9:00 AM

Nicholas B. Carter

Over the past decade, the Israeli Air Force has undergone a dramatic transformation in its approach to birdstrike prevention in its implementation of comprehensive wildlife control programs for all of its major airbases. The results have been dramatic. Damage from strikes has gone from yearly costs of millions of dollars to less than \$10,000/yr. Birdstrikes have been reduced by more than 90 percent, from an average of 15.84 birdstrikes per month per base to less than one per month. All this has occurred in the presence of more than 500 million birds that migrate each year from eastern Europe and western Asia to Africa, and back again in the spring. The IAF has managed this feat through the development of a national strike database and mandatory reporting, renovation of its airbase environments, development of a national network of radar observation posts, and implementation of comprehensive harassment programs implemented by professional biologists. The IAF has also eliminated agricultural initiatives and undergone large-scale modifications in airfield maintenance practices,

despite significant economic and political costs. This presentation will address the problems confronted by the IAF over the past ten years in birdstrike prevention and the innovative approach taken to resolve these issues.

From Beginning To End: How A Comprehensive Wildlife Management Plan Prior To Airport Construction Can Successfully Reduce The Risk Of Bird Strikes

9:30 AM

Melody Henderson

When construction of Houston Executive Airport was initially proposed, it was said by some that it could become "North America's most dangerous airport". Nested within the Katy Prairie (an area of well over ten thousand acres of unique wildlife habitat) and located directly along one of the North American migratory flyways, all signs appeared to point to the potential for heavy avian/aircraft conflict. Upon mandate by the FAA, Houston Executive Airport adopted a comprehensive wildlife management plan whose development and implementation coincided with construction of the airport. Since 2006, Houston Executive Airport has continued to focus on long-term wildlife management in an effort to reduce the probability of bird and wildlife strike collisions. The wildlife management team's active involvement from prior to the airport's groundbreaking and continued through the present has led to enormous strides in reducing overall avian abundance on the property, despite the yearly presence of tremendous numbers of migratory waterfowl and other birds. As a result of the wildlife management team's early involvement, beginning during the airport's construction, key habitat alterations and other areas of concern were immediately identified and addressed. Improved drainage, agricultural practice shifts, grass height management, and active harassment were just some of the methods used to make the area less suitable for wildlife, months before the first plane ever left the airport. The airport has experienced an average of less than one birdstrike per year, a tremendous achievement considering its location in the heart of one of North America's most heavily concentrated bird populations.

The North Shore Marine Transfer Station – A Case Study

10:00 AM

James E. Hall and Ken Paskar

The extremely controversial North Shore Marine Transfer Station is currently under construction approximately 2200 feet from the approach end and directly under the approach and departure path of La Guardia Airport's runways 13/31. The Port Authority of New York and New Jersey (PANYNJ) are the operators of LaGuardia Airport under a lease agreement with the City of New York who own the airport. Despite the fact that construction of the transfer station is within the Runway Protection Zone and is not an enclosed facility, construction of the transfer station continues under the exception for fully enclosed transfer stations. FAA Advisory Circular 150/5200-33b 2-2(d). This case study will explore how the construction of the North Shore Marine Transfer Station, a bird magnate, continues to be constructed contradicting the law and the FAA's own mission and policies and how the FAA and the USDA relied upon a controversial 2 month study (panel report) in

A Decade of Change for the Israeli Air Force



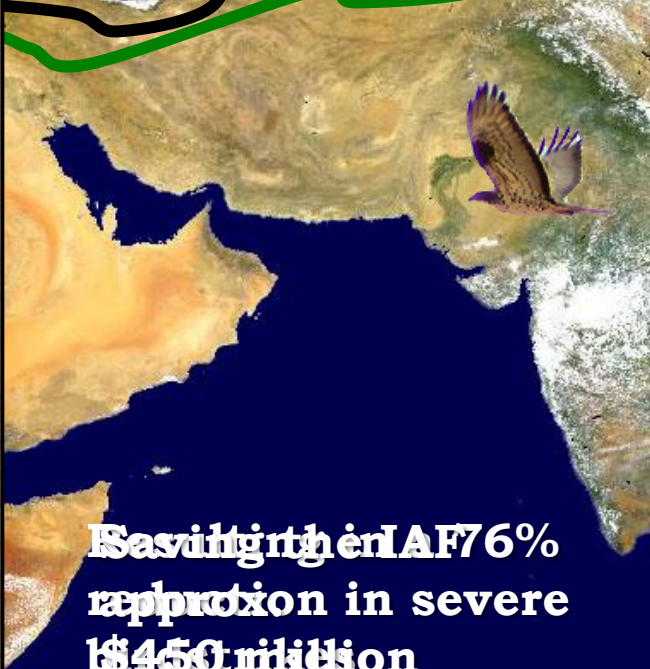
Dr. Nicholas Carter
Birdstrike Control Program
IBSC, CARSAMPAF

IAF fighter aircraft forbidden to fly below 3000 feet AGL during migration

Developed by Dr. Yossi Leshem

Primary "BPZ"s Migratory (Bird Plague Zones) Flyways

ISRAEL



Esavilgrth enIAF76% rpproxtion in severe l\$450 mkltkon





\$10.3 million / year damages





March 2000

**500 million birds cross
Israel's narrow airspace
twice every year**







Premiere Air Force



3224













A Decade of Changes

A photograph of a man in a purple shirt and dark pants standing on a paved road in a desert landscape, looking through binoculars. A black and white dog is sitting on the ground next to him. To the right, a white Toyota SUV is parked with its driver-side door open. The background shows a vast, flat desert with low hills under a hazy, golden sky. The text "Active Management Program" is overlaid in large, white, bold letters across the center of the image.

Active Management Program

A fighter jet, possibly an F-16, is parked on a runway. The aircraft is painted in a camouflage pattern of tan, grey, and blue. It is viewed from a low angle, with the nose pointing towards the left. In the foreground, there are blurred stalks of grain, likely wheat or corn, which are out of focus. The background shows a line of green trees under a clear blue sky. The overall scene suggests a juxtaposition of military technology and agriculture.

Elimination of Agriculture















Removal of Debris

















Airfield Vegetation Management



























Removal of Trees

















Elimination of Standing Water













Ditch Maintenance























“Harassment” Trapping Program





Clearance of Shoulders















Unique Issues





TOYOTA

84-456-271



Off-Base Management















On-Base Education



Public Education



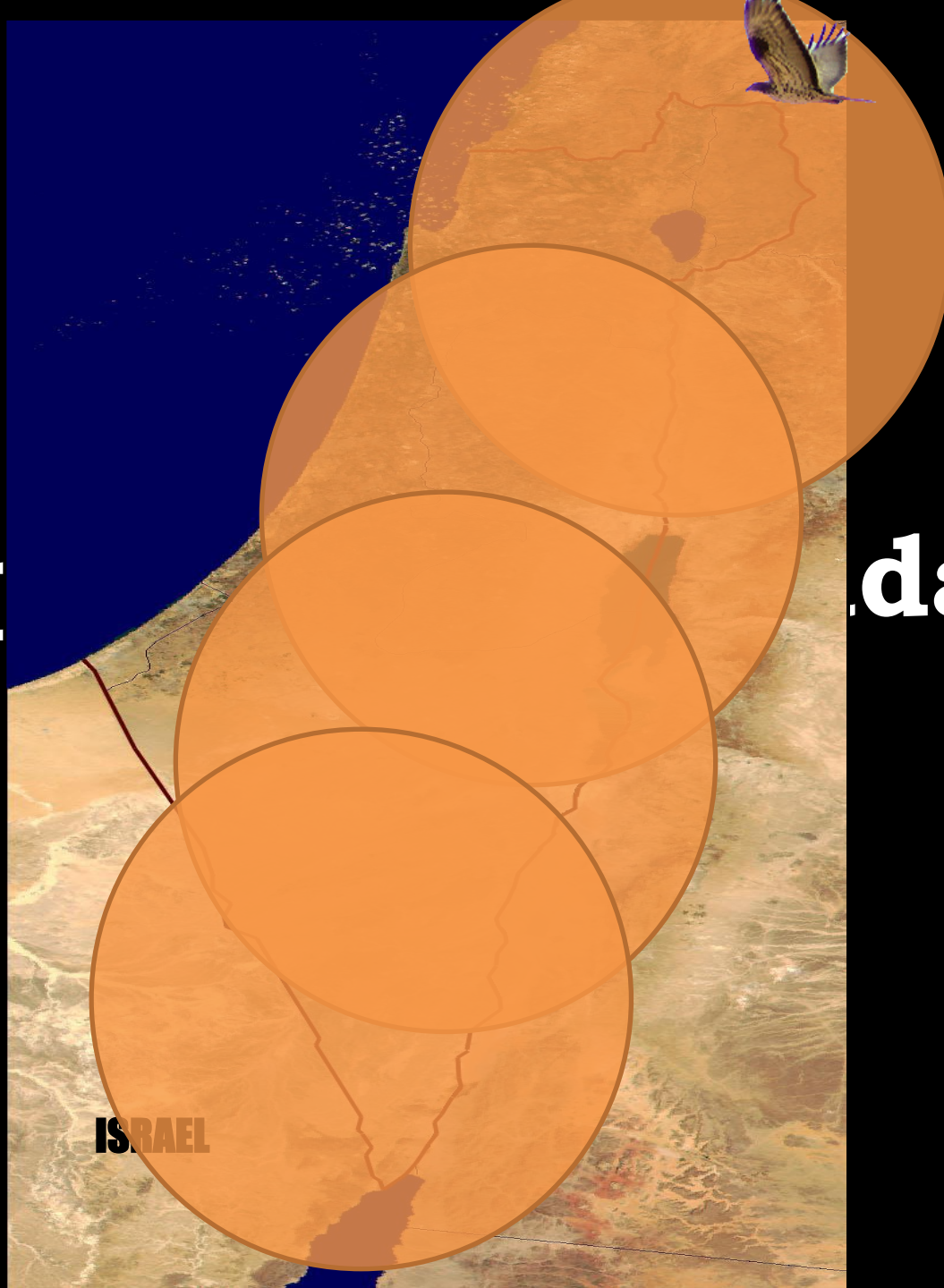
Comprehensive Strike Database



Su

dar

ISRAEL



End Results

**Prior to Initiation of Program =
\$10.2 million / year**

Since:

\$109,000* in Damages over 11 years

(~\$9,100 / year)

End Results

\$50,000 during 2-month contract break



1 11 2005

End Results



94% Reduction in Birdstrikes

15.84 / month / airbase (Year One)

.92 / month / airbase (Year Ten)

A large flock of birds, likely waterfowl, is captured in flight over a dark, plowed field. The birds are scattered across the sky, with a dense concentration in the upper half of the frame. The background shows a line of green trees under a pale sky. The overall scene conveys a sense of a massive bird population.

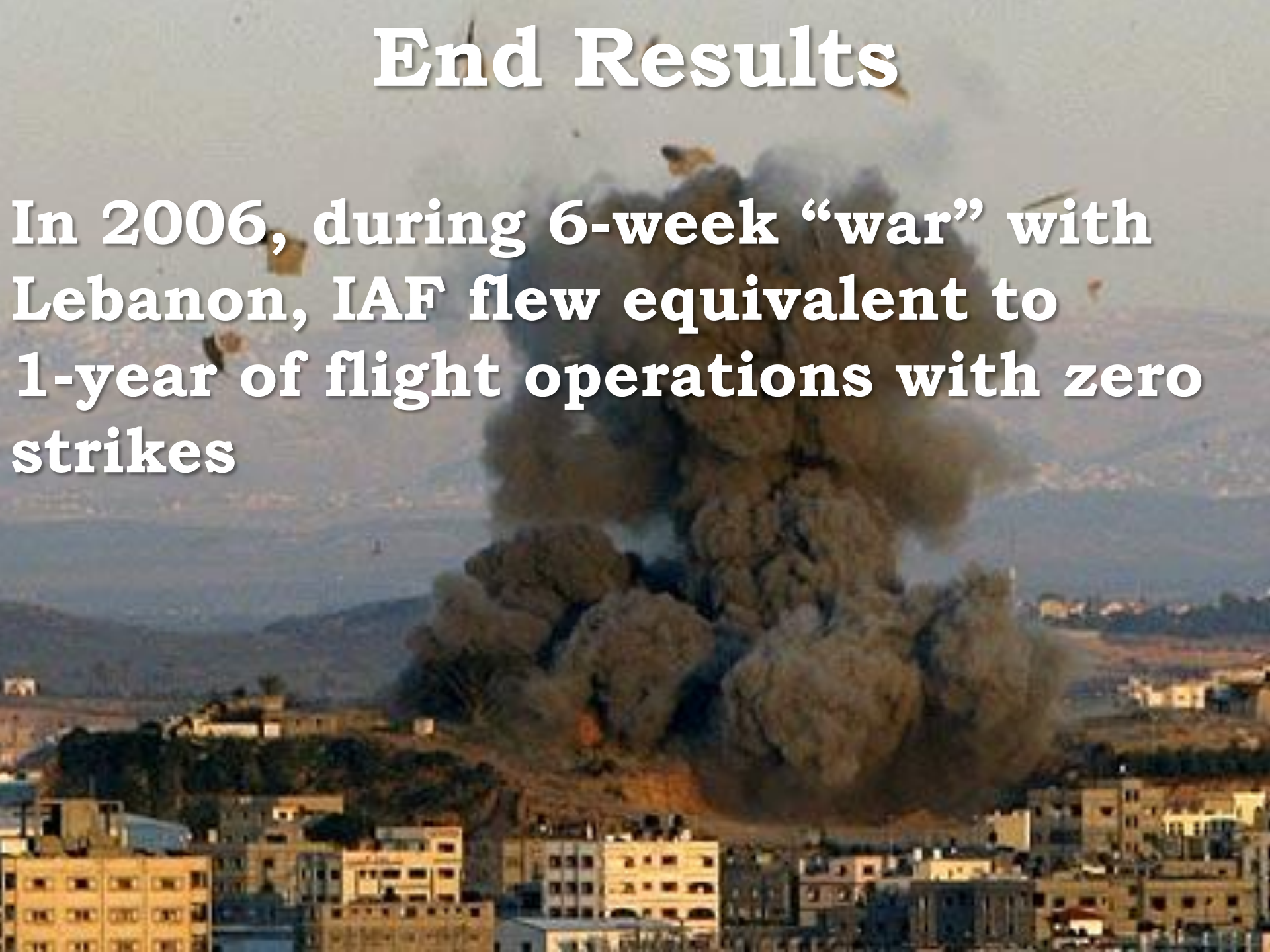
End Results

90% Reduction in Overall Bird Populations on Airbase

98% Reduction in Large Birds (>1 kg) Within 5 Miles of Each Airbase

End Results

In 2006, during 6-week “war” with Lebanon, IAF flew equivalent to 1-year of flight operations with zero strikes



A black and white dog, possibly a Border Collie, stands on a paved road that stretches into the distance. The background features a dramatic sunset with a bright sun partially obscured by large, dark, billowing clouds. The sky is a mix of orange, yellow, and blue. In the far distance, there are silhouettes of hills or mountains. The overall mood is serene and contemplative.

Take Home Message

**It can be done... and it's never too
late to start**

USA/Canada Birdstrike Conference 2011



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