When Birds and Planes Collide
Recently flight U.S. Airways A 1547 Airbus 320 experienced an emergency landing in the Hudson river that was successful due to the mastery of the pilot and the crew. Situations like that one occur more frequently with different outputs. The Federal Aviation Agency (F.A.A.) is gathering data about the aircraft accidents to improve the flight safety, for that reason several professionals are asked to gather data and to analyze data related to such successes.

PRESENT VISUAL MATERIAL ABOUT THE U.S. AIRWAYS FLIGHT 1547 EMERGENCY LANDING IN A POWER POINT PRESENTATION. ( 5min)

As a potential and near graduate from Miami-Dade College you are asked to analyze the following real data about birds and airplane collisions to present your viewpoints.

Airplane collisions with birds more than quadrupled from 1990 to 2007. Incidents occur more often in late summer-fall month and involve no damage; of all collisions 85% are with commercial aircraft. Does it appear that flights be birds’ domain intrusive? Assume you are assigned to report the airplane-birds’ collisions to both P.E.T.A. and F.A.A. simultaneously when answering the following questions.

1. About the last 17 year trend of collisions of airplane with birds in Fig 1,

    a) Compute the average rate of change of the number of collisions with respect to the years from 1997 to 2001

    b) Explain, using a quantitative reason, what is the period that appears to be more intense in terms of the increase of collisions between airplanes and birds 1990-97; 1997-2002 or 2002-07?
2) About the monthly distribution of the collisions shown in fig 2,

a) List the months with the greatest incidence of the number of collisions in the year

b) Report one biological reason that may serve as an argument to justify such greatest incidence of collision already listed

c) Report one social reason that may serve as an argument to justify such greatest incidence you already listed

d) List the greatest decay in the incidence of collisions across the calendar year
3) According to the display in Fig 3,

a) Report your personal opinion about the data gathered in reference to the occurrence of certain airplane damages from collisions with birds.

b) Explain quantitatively, what is the highest ratio between two categories of collisions

c) Evaluate the pilot’s professional ethics sense from your social perspective

d) In your personal opinion, how do you evaluate the evolution of the velocity and effectiveness of an emergency response from the New York Emergency Management Agency?

This assessment can be evaluated using LO2 on the MDC Learning Outcomes Rubric: http://www.mdc.edu/learningoutcomes/documents/Rubrics.pdf