

Docket No. SA-532

Exhibit No. 16 B

National Transportation Safety Board

Washington, DC

Wildlife Factors Group Chairman Factual Report

**Attachment 1
(10 pages)**

| Monday, January 19, 2009 | | | | | | | | | | |
|--|---|----------------------------|--------------------------|--------------------------|--------------|--------------------------|---------------|--------------|---------------|--|
| 1000 to 1130 | | | | | | | | | | |
| Location: FBI Evidence Recovery Warehouse | | | | | | | | | | |
| Collectors: Candace Kolander, Mark George, Mike Begler, Allen Gosser | | | | | | | | | | |
| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments |
| 1 | Left wing #5 slat, sarge | Canada Goose?; Pigeon/Dove | unsuccessful | <i>Branta canadensis</i> | unsuccessful | Columbiformes | Columbiformes | no feather | no feather | DNA results = weak 95.6%; feather microstructure is Columbiformes (pigeon/dove). Columbiformes (Pigeon) is probably an old, unreported birdstrike. |
| 2 | Left wing #5 slat, feather? | Duck (Anas species) | unsuccessful | unsuccessful | unsuccessful | Anatidae | no feather | no feather | no feather | Feather microstructure in slide 1 contained a very good sample of duck down. This is probably an old, unreported birdstrike. |
| 3 | Left wing #5 slat, sarge | no identification | unsuccessful | unsuccessful | unsuccessful | no feather | 0 | 0 | no feather | No feather and no DNA in sample |
| 4 | Left wing #5 slat, piece of tissue with hair? | no identification | unsuccessful | 0 | 0 | no feather | 0 | 0 | no feather | |
| 5 female | Left wing flap track cover (canoe) | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | DNA results = 99.6% |
| 6 | aircraft skin (engine?), feather? | no identification | unsuccessful | 0 | 0 | pennaceous feather | 0 | 0 | no feather | Pennaceous feather fragment only, not diagnostic for identification purposes |

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|--|--|---------------------|--------------------------|--------------|--------------|--------------------------|----------------------|--------------|---------------|--|---|
| 7 | Engine skin, feather and possible snarge smear | no identification | Aras sp. | unsuccessful | unsuccessful | unsuccessful | plumulaceous feather | 0 | 0 | no feather | Inconsistent results for positive identification. Feather microstructure is possibly waterfowl but not diagnostic for identification conformation with DNA. |
| Notes: inspected hatch doors with nothing found. Also inspected many miscellaneous | | | | | | | | | | | |
| Monday, January 19, 2009 | | | | | | | | | | | |
| 1300 to 1545 | | | | | | | | | | | |
| Location: Aircraft at Weeks Recovery | | | | | | | | | | | |
| Collectors: Candace Kolander, Mark George, Mike Begler, Allen Gosser | | | | | | | | | | | |
| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments | |
| 8 male | Engine #2, blade 24, inboard on the mid span shroud, snarge | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | Three different DNA primers yielded same result. DNA = 100% | |
| 9 (no sex) | Engine #2, blade 26, inboard on the mid span shroud, feather particles | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | Two different DNA primers yielded same result, DNA = 100% | |
| 10 | Engine #2, blade 27, inboard on the mid span shroud, feather particles | no identification | 0 | 0 | 0 | no feather | 0 | 0 | no feather | Insufficient material in sample for DNA analysis | |
| 11 | Engine #2, blade 4, smear | no identification | unsuccessful | 0 | 0 | pennaceous feather | 0 | 0 | no feather | Pennaceous feather fragment only, not diagnostic for identification purposes | |

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|---|--|---------------------|--------------------------|--------------------------|--------------------------|---------------|--------------------------|---------------|---------------|------------|--------------------------|---|
| 12 male | Engine #2, blade 3, possible small feather | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | 0 | no feather | Two different DNA primers yielded same result, DNA=100% |
| 13 | on director strip, mussel fragments? | no identification | unsuccessful | unsuccessful | unsuccessful | unsuccessful | no feather | no feather | no feather | no feather | no feather | No feather and no DNA in sample; three unsuccessful attempts. |
| 14 female | Left wing, middle flap track, intact feather | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | <i>Branta canadensis</i> | 0 | 0 | 0 | <i>Branta canadensis</i> | Whole feather in sample; DNA = 100% |
| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments | | |
| 15 | Just aft of radome on left underbelly, snarge with feather particles | no identification | unsuccessful | unsuccessful | unsuccessful | no feather | no feather | 0 | no feather | 0 | no feather | No feather and no DNA in sample; three unsuccessful attempts. |
| 16 | inside radome, mollusc fragments: do not analyze | no identification | unsuccessful | unsuccessful | unsuccessful | 0 | 0 | 0 | no feather | 0 | no feather | No feather and no DNA in sample; three unsuccessful attempts. |
| 17 | underside of radome exterior, snarge | Passeriformes | unsuccessful | unsuccessful | unsuccessful | Passeriformes | Passeriformes | Passeriformes | no feather | 0 | no feather | Passeriformes (songbird). No DNA obtained from three separate sampling attempts. All three microscopic slides have passerine barbules. Most probably an old, unreported birdstrike. |
| Tuesday, January 20, 2009 | | | | | | | | | | | | |
| 0900 to 1415 | | | | | | | | | | | | |
| Location: Aircraft at Weeks Recovery | | | | | | | | | | | | |
| Collectors: Evelyn Martinez, Mark George, Mike Begier, Allen Gosser | | | | | | | | | | | | |

| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments |
|---|---|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|--------------|--------------------------|--|
| | Left wing, middle flap track, intact feather, meat sample, feather fragments | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | Whole feather in sample; DNA = 100% |
| 18 female | part of left wing middle flap track with feather fragments | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | feather fragments | DNA=100% |
| Thursday, January 29, 2009 - Engine #1. Samples collected By R. Dolbeer | | | | | | | | | | |
| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments |
| | (Dolbeer 1/6) bypass OGV platform, outer flowpath 3 o'clock ALF (whole feather) | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | Whole feathers in sample; DNA = 100% |
| 20 (no sex) | (Dolbeer 2/6) wedged between OGV platforms outer flowpath 3 o'clock (feather fragments) | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | Whole feathers in sample; DNA = 100% |
| 21 (no sex) | (Dolbeer 3/6) OGV outer flow 3 o'clock ALF (feather fragments) | Canada Goose | unsuccessful | unsuccessful | unsuccessful | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | Whole feathers in sample; No DNA three attempts. |
| 22 | | Canada Goose | unsuccessful | unsuccessful | unsuccessful | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | |

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|---|--|------------------------|------------------------------|------------------------------|--------------|------------------------------|--------------|--------------|------------------|---|
| 23 female | (Dolbeer 4/6) OGV outer flow 3 oclock (feather fragments) | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | DNA = 100% |
| 24 female | (Dolbeer 5/6) 3 o'clock ALF under FAP at OGV L.E. outer flowpath (bone and feather frag.) | Canada Goose | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | DNA = 100% |
| 25 | (Dolbeer 6/6) fan blade flowpath (mollusk shells) | Duck (Anas species) | <i>Anas sp.</i> | unsuccessful | unsuccessful | no feather | 0 | 0 | no feather | Mollusk shells in sample, no feather found. Anas species identification possible from river bottom contamination in bivalve. |
| Tuesday - Thursday 3-5 February 2009, Engines #1 and #2. Sampled by Richard Dolbeer | | | | | | | | | | |
| Bag | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments |
| 26 female | Eng #1 11:30 OGV Vane platform | Canada Goose | unsuccessful | unsuccessful | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | possible bone in sample |
| 27 female | Eng #1 8:30 OGV Vane platform | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | Whole feather | DNA = 100% |
| 28 | Eng #1 7:30 OGV area platform | Canada Goose | unsuccessful | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | |
| 29 female | Eng #1 03:00 OGV area | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | <i>Branta canadensis</i> | 0 | 0 | no feather | DNA = 100% |

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|----|--------|---|-------------------|--------------------------|---|---|---|---|--------------------------|--------------------------|---|-------------------|--|
| 49 | male | Eng.#1 LP stage 4 rotor blade 15 | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | 0 | no feather | no feather | 0 | no feather | DNA = 100% |
| 50 | | Eng.#1 LP stage 5 rotor blade 9 | no identification | unsuccessful | 0 | 0 | 0 | 0 | no feather | no feather | 0 | no feather | no feather found in sample; fiber, not feather found in sample |
| 51 | female | Eng.#1 LP stage 4 fan blade at 1200 | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | <i>Branta canadensis</i> | 0 | no feather | DNA = 100% |
| 52 | female | Eng.#1 Booster inlet outer diameter of booster shroud at 0400, point of core damage | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | no feather | DNA = 100% |
| 53 | female | Eng.#1 IVG fairing 0200 | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | feather fragments | DNA = 100% |
| 54 | female | Eng.#1 fan frame forward flange booster snap OD 0200 | Canada Goose | <i>Branta canadensis</i> | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | no feather | DNA = 100% |
| 55 | | Eng.#2 03:30 under OGV platform | Canada Goose | unsuccessful | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | feather fragments | small piece of feather |
| 56 | | Eng.#2 04:30 OGV platform | Canada Goose | | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | feather fragments | |
| 57 | | Eng.#2 04:00 AFT acoustic panel | Canada Goose | | 0 | 0 | 0 | 0 | <i>Branta canadensis</i> | | 0 | feather fragments | |

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|------------|--|----------------------------|--------------|--------------|-------------|---------------------|---------------------|---------------------|----------------------|-----------------|---|---|---|---|---|---|---|-------------------|-----------------------------------|
| 58 | Eng #2 0:500-0530 OGV platform | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 59 | Eng #2 06:00 under OGV platform | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | large sample of feather fragments |
| 60 | Eng #2 0:700 OGV | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 61 | Eng #2 08:00-08:30 OGV Platform | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 62 | Eng #2 OGV platform 11:00 | Canada Goose | unsuccessful | | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 63 | Eng #2 11:00 under OGV platform | Canada Goose | unsuccessful | | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 64 | Eng #2 Sample from mud | no identification | unsuccessful | | 0 | | | 0 | no feather | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | no feather | no feather found in mud sample |
| Bag | | | | | | | | | | | | | | | | | | | |
| | Location | Bird Identification | DNA 1 | DNA 2 | DNA3 | Microscope 1 | Microscope 2 | Microscope 3 | Whole feather | Comments | | | | | | | | | |
| 65 | Eng #2 base of cowling around OGV platform 06:00 | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 66 | Eng #2 Booster IGV 04:00 inlet guard | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |
| 67 | Eng #2 04:00 booster vare IGV | Canada Goose | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | feather fragments | |

