## Smoke evacuation, McDonnell Douglas MD-82, April 1, 2000

Micro-summary: Cabin smoke caused by ingestion of exhaust fumes from a nearby ground power cart resulted in the evacuation of passengers from this McDonnell Douglas MD-82.

Event Date: 2000-04-01 at 2000 PST

Investigative Body: National Transportation Safety Board (NTSB), USA

Investigative Body's Web Site: http://www.ntsb.gov/

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National Transportation Safety Board NTSB ID: SEA00IA062 Aircraft Registration Number: N934AS FACTUAL REPORT Occurrence Date: 04/01/2000 Most Critical Injury: None **AVIATION** Occurrence Type: Incident Investigated By: NTSB Location/Time Nearest City/Place State Zip Code Local Time Time Zone PST SEATTLE WA 98188 2000 Distance From Landing Facility: 0 Direction From Airport: Airport Proximity: On Airport Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft McDonnell Douglas MD-82 Airplane Sightseeing Flight: No Air Medical Transport Flight: No

## Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On April 1, 2000, approximately 2000 Pacific standard time, a McDonnell Douglas MD-82, N934AS, registered to Wilmington Trust Company, operated by Alaska Airlines, Inc., and crewed by two airline transport pilots (captain and first officer) and three cabin attendants, was undamaged during an emergency evacuation at gate C-9 at the Seattle-Tacoma International Airport, Seattle, Washington. Visual meteorological night conditions existed and an IFR flight plan had been filed. None of the 140 passengers or crew aboard were injured during their egress and there was no fire. The flight, operating as flight 660, destined for Las Vegas, Nevada, was scheduled to depart at 1953, and was to have been operated under 14CFR121 as a regularly scheduled, domestic passenger flight. The aircraft was parked at gate C-9 with the jet ramp still connected to exit L-1 at the time of the event.

The Captain's irregularity report stated that "Gnd pwr failed, cabin being ventilated with gnd tie thru rt pack. APU inop. Cabin filled with smoke, passengers deplaned fwd entry. Due to no power, aft flt attendant deployed left aft slide."

One of the three flight attendants was stationed aft near row 24 and reported that the boarding of the aircraft was almost complete when the cabin lights went out and the (emergency) track lights illuminated. The flight attendant remarked to the passengers that "our ground power must have disconnected..." and shortly thereafter one passenger stated "I smell burning, don't you?" and another passenger remarked "I smell it also."

The flight attendant then attempted to contact the cockpit via the interphone without success. She stated that "by this time smoke was coming into the cabin..." and she began to urge the passengers to exit the aircraft.

The flight attendant stated that passengers were beginning to panic and were not moving up the center aisle. She then returned to the interphone (located near the galley area at exit L-2, refer to DIAGRAM I) and again attempted to contact the cockpit without success. After unsuccessfully trying to communicate via the aircraft public address system, the flight attendant chose to open exit L-2 and activate the emergency escape slide.

Upon opening the door she realized the emergency escape slide had not been armed whereupon she re-closed the door, armed the slide, and re-opened the door resulting in the slide deploying (Note: emergency escape slides are not normally armed until after the aircraft leaves the gate as a ground safety procedure).

A nearby passenger then indicated that passengers were moving up the aisle. The flight attendant began to urge everyone forward up the center aisle towards exit L-1, rather than utilizing the escape slide, so as to minimize injuries during egress. All passengers and crew left the aircraft via exit L-1 and the emergency escape slide was unused.

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Narrative (Continued)

The aircraft was subsequently checked and released for the flight to Las Vegas with the same cockpit crew and a new cabin crew. A maintenance examination disclosed no evidence of any aircraft related cause for the smoke. Additionally, maintenance personnel reported that the external air conditioning unit's intake pulled exhaust from the nearby electrical ground power cart and this air/exhaust mixture was then ducted into the aircraft cabin.

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| FACTUAL REPORT                             |                    | Occu                      | irrence Date: | 04/01/2000        |             |                  |                  |          |               |         |       |                    |  |
|--|--------------------|---------------------------|---------------|-------------------|-------------|------------------|------------------|----------|---------------|---------|-------|--------------------|--|
| AVIATION                                   |                    | Occurrence Type: Incident |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Landing Facility/Approach Inform           | ation              |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Airport Name                               |                    |                           | Airport ID:   | Airport Eleva     | tion        | Runway Used Runw |                  |          | ay Lengt      | th      | Runv  | vay Width          |  |
| SEATTLE-TACOMA INTNL                       |                    |                           | SEA           | 429 Ft.           | MSL         | 0                |                  |          |               |         |       |                    |  |
| Runway Surface Type:                       |                    |                           |               | -                 |             |                  |                  |          |               |         |       |                    |  |
| Runway Surface Condition:                  |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Type Instrument Approach:                  |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| VFR Approach/Landing:                      |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Aircraft Information                       |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Aircraft Manufacturer                      |                    |                           | Model         | /Series           |             |                  |                  |          | Serial        | Number  |       |                    |  |
| McDonnell Douglas                          |                    |                           | MD-8          | 32                |             |                  |                  |          | 4923          | 5       | 5     |                    |  |
| Airworthiness Certificate(s): Transport    |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Landing Gear Type: Retractable - Tric      | ycle               |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Homebuilt Aircraft? No Num                 | ber of Seats:      | ı                         |               |                   |             |                  |                  | er of En | of Engines: 2 |         |       |                    |  |
| Engine Type:<br>Turbo Fan                  |                    |                           | Engine Ma     | inufacturer:      |             |                  | Model/Se<br>JT8D | ries:    |               |         |       | d Power:<br>00 LBS |  |
| - Aircraft Inspection Information          |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Type of Last Inspection                    |                    |                           | Date of Las   | t Inspection      | Tin         | me Sir           | nce Last Insp    | ection   |               | Airfran | ne To | tal Time           |  |
| Unknown                                    |                    |                           |               |                   |             |                  |                  | Н        | ours          |         |       | Hours              |  |
| - Emergency Locator Transmitter (ELT)      | Information        |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| ELT Installed?                             | ELT Operate        | ed?                       |               |                   | ELT Ai      | ided ir          | Locating Ac      | cident S | Site?         |         |       |                    |  |
| Owner/Operator Information                 |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Registered Aircraft Owner                  |                    |                           | Street A      | Address<br>RODNE  | Y SQUA      | ARF N            | JORTH            |          |               |         |       |                    |  |
| WILMINGTON TRUST COMPANY                   |                    |                           | City          | NODINE            |             |                  |                  |          |               | Stat    | е     | Zip Code           |  |
|  |                    |                           | WILMINGTON    |                   |             |                  |                  |          |               | DE      |       | 19890              |  |
| Operator of Aircraft                       |                    |                           | Street A      | ddress<br>BOX 689 | 200         |                  |                  |          |               |         |       |                    |  |
| ALASKA AIRLINES, INC.                      |                    |                           | City          | DOX 003           | ,00         |                  |                  |          |               | Stat    | е     | Zip Code           |  |
| ALAGINA AIILLINEO, IINO.                   |                    |                           |               | SEATTLE           |             |                  |                  |          |               | WA      |       | 98168              |  |
| Operator Does Business As:                 |                    |                           |               |                   |             | Op               | erator Desig     | nator Co | ode: AS       | AA      |       |                    |  |
| - Type of U.S. Certificate(s) Held:        |                    |                           |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Air Carrier Operating Certificate(s): Flag | Carrier/Dom        | nestic                    |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Operating Certificate:                     |                    |                           |               | Operator C        | Certificate | e:               |                  |          |               |         |       |                    |  |
| Regulation Flight Conducted Under: Pa      | <br>rt 121: Air Ca | rrier                     |               |                   |             |                  |                  |          |               |         |       |                    |  |
| Type of Flight Operation Conducted: Sc     | heduled; Don       | nestic;                   | ; Passenge    | r Only            |             |                  |                  |          |               |         |       |                    |  |
|  |                    | FACTI                     | UAL REPO      | RT - AVIATI       | ON          |                  |                  |          |               |         |       | Page 2             |  |
|  |                    |                           |               | ,                 | •           |                  |                  |          |               |         |       | -                  |  |

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Occurrence Date: 04/01/2000

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|--------------------------------------|--------------------|----------------|-----------------|---------------------------|-------------------------|------------|---|-----------------------------|---------------|------------|------------|---------------|---------------------|
| AVIATION Occurrence Type: Incident   |                    |                |                 |                           | ident                   |            |   |                             |               |            |            |               |                     |
| First Pilot                          | Information        |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Name City                            |                    |                |                 |                           |                         | City       |   |                             |               | Stat       | te         | Date of Birth | Age                 |
| On File On F                         |                    |                |                 |                           |                         |            | ile On File (                           |                             |               |            |            | On File       | 52                  |
| Sex: M                               | Seat Occupied      | : Left         | Prir            | ncipal Profes             | sion: Civilia           | n Pilot    |   |                             | Ce            | ertificate | e Numb     | per: On File  |                     |
| Certificate(                         | s): Airlir         | ne Transpor    | t; Flight Eng   | ineer                     |                         |            |   |                             | •             |            |            |               |                     |
| Airplane Ra                          | ating(s): Mult     | i-engine Lar   | nd; Single-e    | ngine Land                |                         |            |   |                             |               |            |            |               |                     |
| Rotorcraft/0                         | Glider/LTA: None   | e              |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Instrument                           | Rating(s): Airpl   | lane           |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Instructor F                         | Rating(s): None    | е              |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Type Rating                          | g/Endorsement fo   | or Accident/In | cident Aircra   | ft? Yes                   |                         |            | Current                                 | Bien                        | nial Flight I | Review     | v?         |               |                     |
| Medical Ce                           | rt.: Class 1       | Medica         | al Cert. Status | S: Valid Me               | dicalw/ wa              | aivers/lin | າ.                                      |                             | Date of L     | ast Me     | edical E   | xam: 01/2000  |                     |
|                                      |                    |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| - Flight Tim                         |                    |                |                 | Airplane<br>Single Engine | Airplane<br>Mult-Engine | Night      | Actu                                    | Instrument<br>tual Simulate |               |            | Rotorcraft | Glider        | Lighter<br>Than Air |
| Total Time                           |                    | 12090          |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Pilot In Con                         | nmand(PIC)         |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Instructor                           |                    |                |                 |                           |                         |            |   |                             | ļ             | $\perp$    |            |               |                     |
| Last 90 Day                          | ys                 |                |                 |                           |                         |            |   |                             |               | _          |            |               |                     |
| Last 30 Day                          | ys                 |                |                 |                           |                         |            |   |                             |               | _          |            |               |                     |
| Last 24 Ho                           | urs                |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Seatbelt Us                          | sed?               | Shou           | lder Harness    | Used?                     |                         | Т          | Toxicology Performed? Second Pilot? Yes |                             |               |            |            |               |                     |
|                                      |                    |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
|                                      | n/Itinerary        | _              |                 |                           |                         |            |   |                             |               |            |            |               |                     |
|                                      | tht Plan Filed: IF | R              |                 |                           |                         | Т          | _                                       |                             |               | 1          |            | 1             |                     |
| Departure F                          |                    |                |                 |                           |                         |            | State Airport Ider                      |                             |               |            |            | rture Time    | Time Zone           |
| Same as Accident/Incident Location   |                    |                |                 |                           |                         |            |   | SEA                         |               | 0000       |            |               |                     |
| Destination State Airport Identifier |                    |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| LAS VEGAS                            |                    |                |                 |                           |                         | 1          | IV LAS                                  |                             |               |            |            |               |                     |
| Type of Cle                          | earance:           |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Type of Air                          | space:             |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Weather                              | Information        |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Source of I                          | Briefing:          |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
| Method of                            | Briefing:          |                |                 |                           |                         |            |   |                             |               |            |            |               |                     |
|                                      |                    |                |                 | FACTUAI                   | REPORT                  | - AVIA     | ΓΙΟΝ                                    |                             |               |            |            |               | Page 3              |
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AVIATION

NTSB ID: SEA00IA062

Occurrence Date: 04/01/2000

Occurrence Type: Incident

|                             | ETYBOR   |            | Occur   | rrence Type | : inclaent  |                                 |                |        |                              |       |     |
|-----------------------------|--|------------|---------|-------------|-------------|---------------------------------|----------------|--------|------------------------------|-------|-----|
| Weather Information         |  |            |         |             |             |                                 |                |        |                              |       |     |
| WOF ID                      | Observation Time   | Time Zone  | WOF Ele | evation     | WOF Di      | WOF Distance From Accident Site |                |        | Direction From Accident Site |       |     |
| SEA                         | 1956   | PDT        | 42      | 9 Ft. MSL   |             |                                 | 0 NM           |        | 0 Deg. Mag.                  |       |     |
| Sky/Lowes                   | et Cloud Condition: Scat   | tered      |         |             | 20          | 0000 Ft. AGL                    | Condition of   | f Ligh | nt: Night/Dark               |       |     |
| Lowest Ce                   | iling: None  |            | (       | ) Ft. AGL   | Visibi      | ility: 10                       | SM             | Altir  | neter:                       | 30.00 | "Hg |
| Temperatu                   | nperature: 11 °C Dew Point: 7 °C Wind Direction: 320 Density Altitude: |            |         |             |             |                                 |                | Ft.    |                              |       |     |
| Wind Spee                   | ed: 3  | Gusts:     |         | Weat        | ther Condti | ions at Accident                | Site: Visual C | ondi   | tions                        |       |     |
| Visibility (R               | RVR): 0 Ft.  | Visibility | (RVV)   | ) SM        | Intensity   | y of Precipitation              | n: Unknown     |        |                              |       |     |
| Restriction                 | Restrictions to Visibility: None                                       |            |         |             |             |                                 |                |        |                              |       |     |
| Type of Precipitation: None |  |            |         |             |             |                                 |                |        |                              |       |     |
| Accident Information        |  |            |         |             |             |                                 |                |        |                              |       |     |
| Aircraft Dar                | Aircraft Damage: None Aircraft Fire: None Aircraft Explosion None      |            |         |             |             |                                 |                |        |                              |       |     |
| Classificati                | on: U.S. Registered/U  | .S. Soil   |         |             |             |                                 |                |        |                              |       |     |
| - Injury Sur                | mmary Matrix   | Fatal      | Serious | Minor       | None        | TOTAL                           |                |        |                              |       |     |
| First Pil                   | lot  |            |         |             | 1           | 1                               |                |        |                              |       |     |
| Second                      | d Pilot  |            |         |             | 1           | 1                               |                |        |                              |       |     |
| Studen                      | t Pilot  |            |         |             |             |                                 |                |        |                              |       |     |
| Flight Ir                   | nstructor  |            |         |             |             |                                 |                |        |                              |       |     |
| Check I                     | Pilot  |            |         |             |             |                                 |                |        |                              |       |     |
| Flight E                    | ngineer  |            |         |             |             |                                 |                |        |                              |       |     |
| Cabin A                     | Attendants   |            |         |             | 3           | 3                               |                |        |                              |       |     |
| Other C                     | Crew   |            |         |             |             |                                 |                |        |                              |       |     |
| Passen                      | gers   |            |         |             | 140         | 140                             |                |        |                              |       |     |
| - TOTAL A                   | ABOARD -   |            |         |             | 145         | 145                             |                |        |                              |       |     |
| Other G                     | Ground   | 0          | 0       | 0           |             | 0                               |                |        |                              |       |     |
| - GRAND                     | TOTAL -  | 0          | 0       | 0           | 145         | 145                             |                |        |                              |       |     |
|                             |  |            |         |             |             |                                 |                |        |                              |       |     |

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| National Transportation Safety Board |
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FACTŲAL REPÕRT AVĮATION

Occurrence Date: 04/01/2000

Occurrence Type: Incident

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Investigator-In-Charge (IIC)

STEVEN A. MCCREARY

Additional Persons Participating in This Accident/Incident Investigation:

OVE S LARSEN FAA FSDO RENTON, WA 98055