



NTSB National Transportation Safety Board

Office of Aviation Safety

Southwest Airlines Flight 1248

Midway Airport
Chicago, Illinois
December 8, 2005

Accident Overview

- Time: 1914 cst
- Boeing 737-7H4
- Southwest Flight 1248
- Overran Runway 31 Center
- 1 fatality, several minor injuries

Weather and Runway Conditions

- Steady snowfall
- 25 degrees F
- 200 foot ceiling
- 8-9 kt tailwind
- Runway plowed 27 minutes prior
- Worst runway friction reported = poor

One Mile



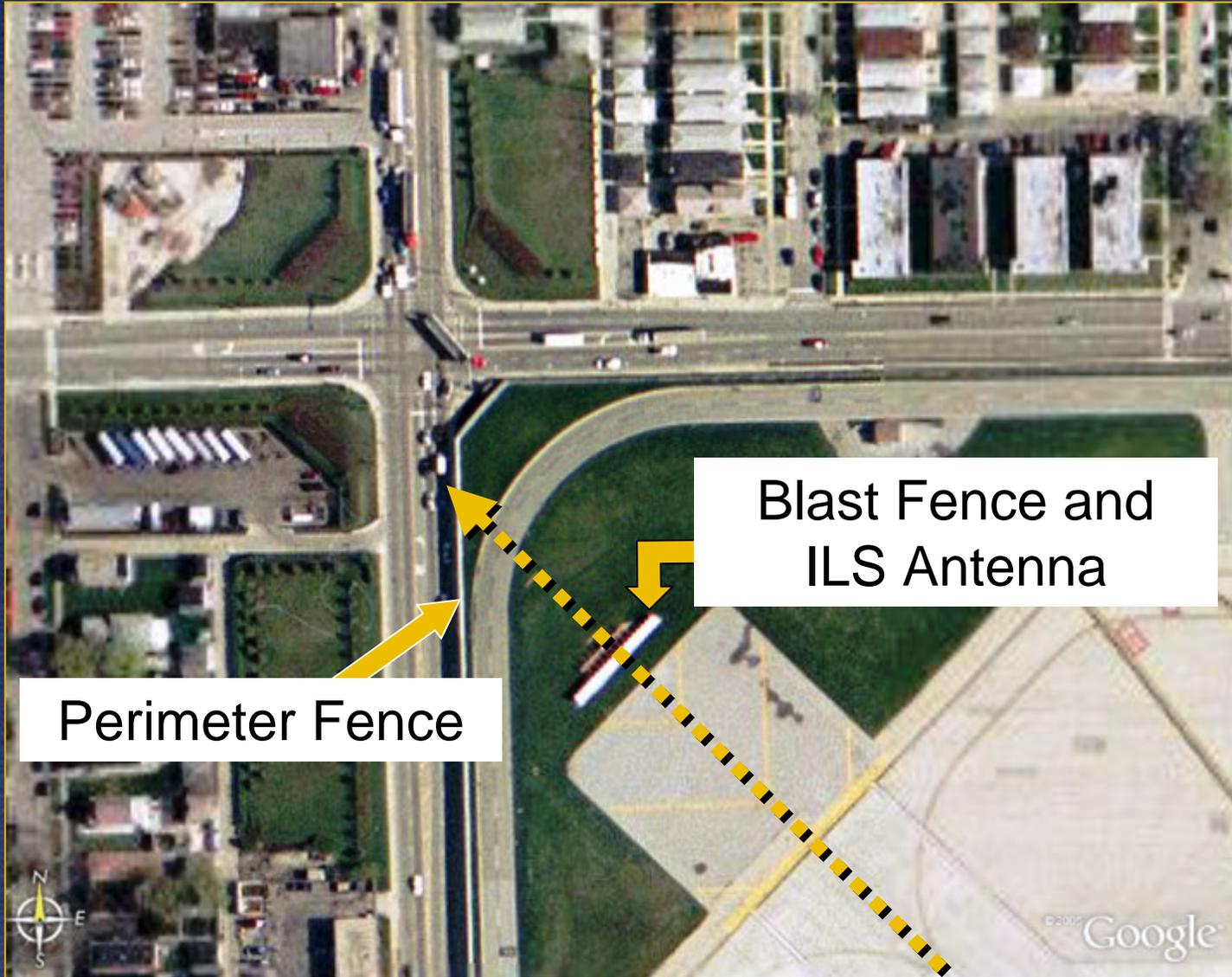
One Mile



Approx Touchdown Point



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Perimeter Fence

Blast Fence and ILS Antenna

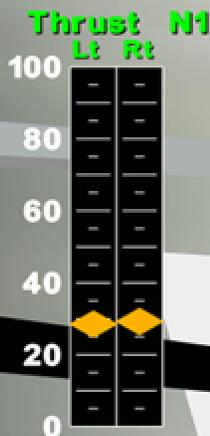
Flight 1248 Animation

Brake Press

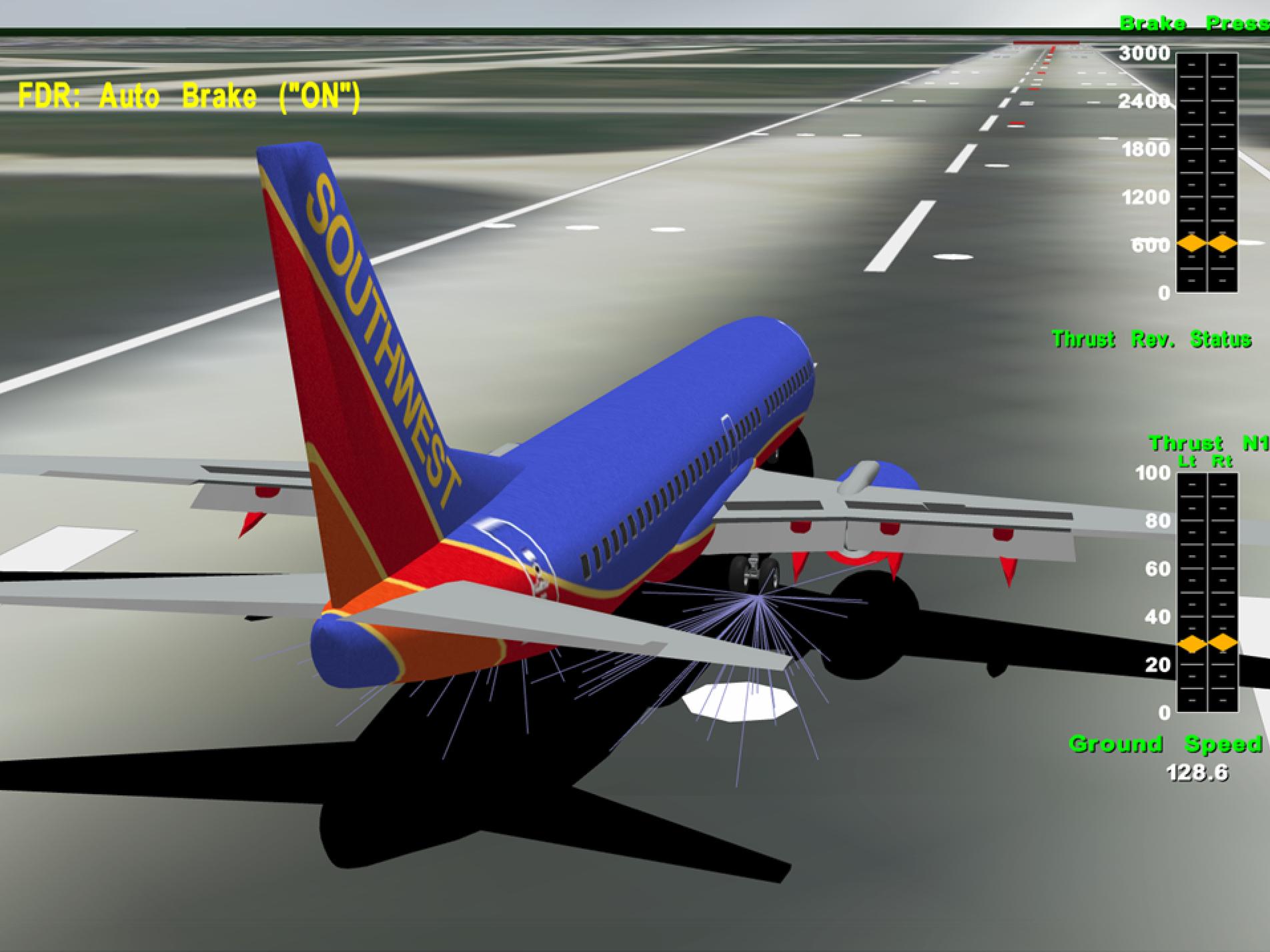


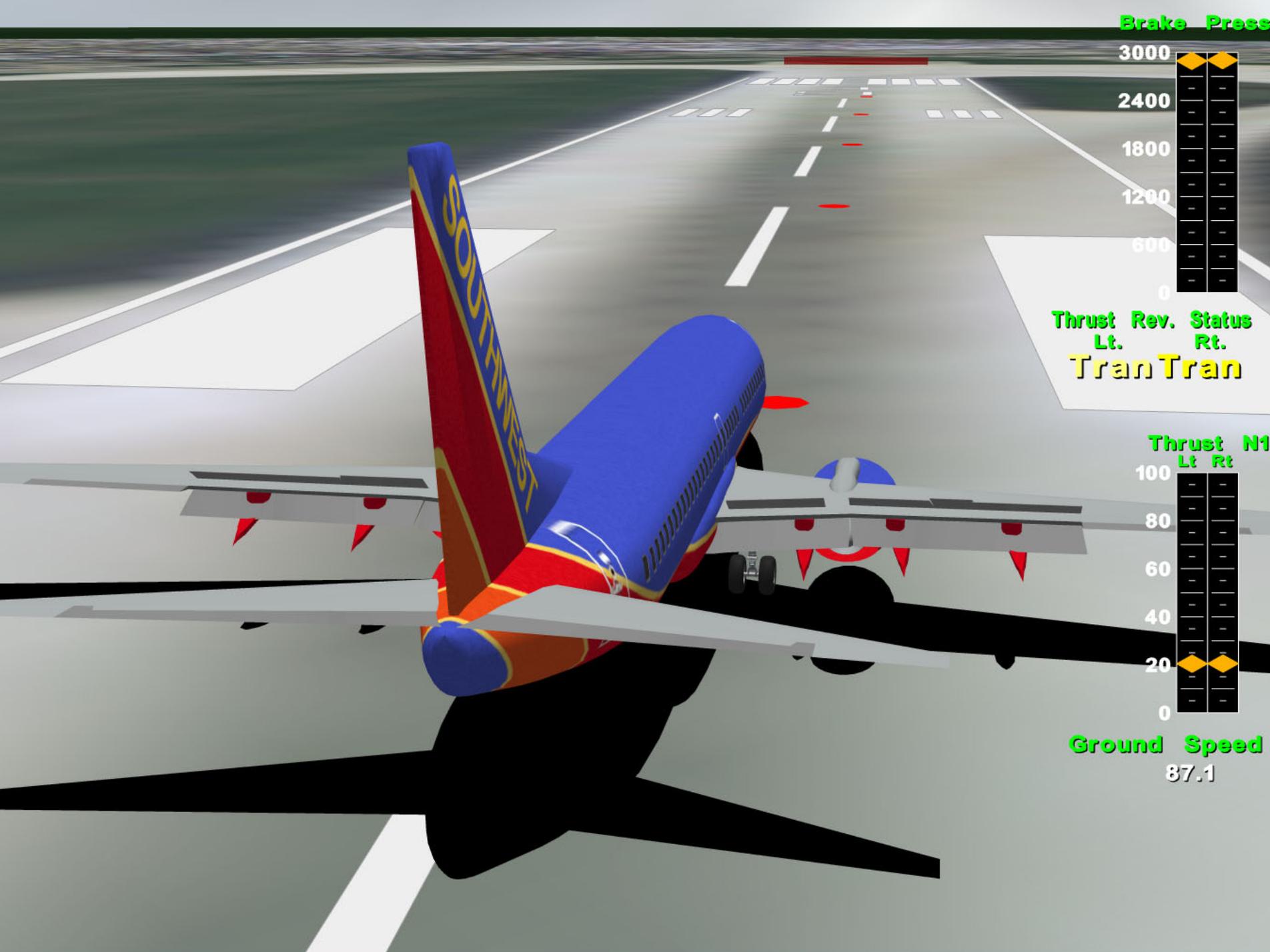
FDR: Auto Brake ("ON")

Thrust Rev. Status



Ground Speed
128.6





Brake Press



Thrust Rev. Status
Lt. Rt.
TranTran

Thrust N1
Lt Rt



Ground Speed
87.1

[Play animation](#)

Brake Press

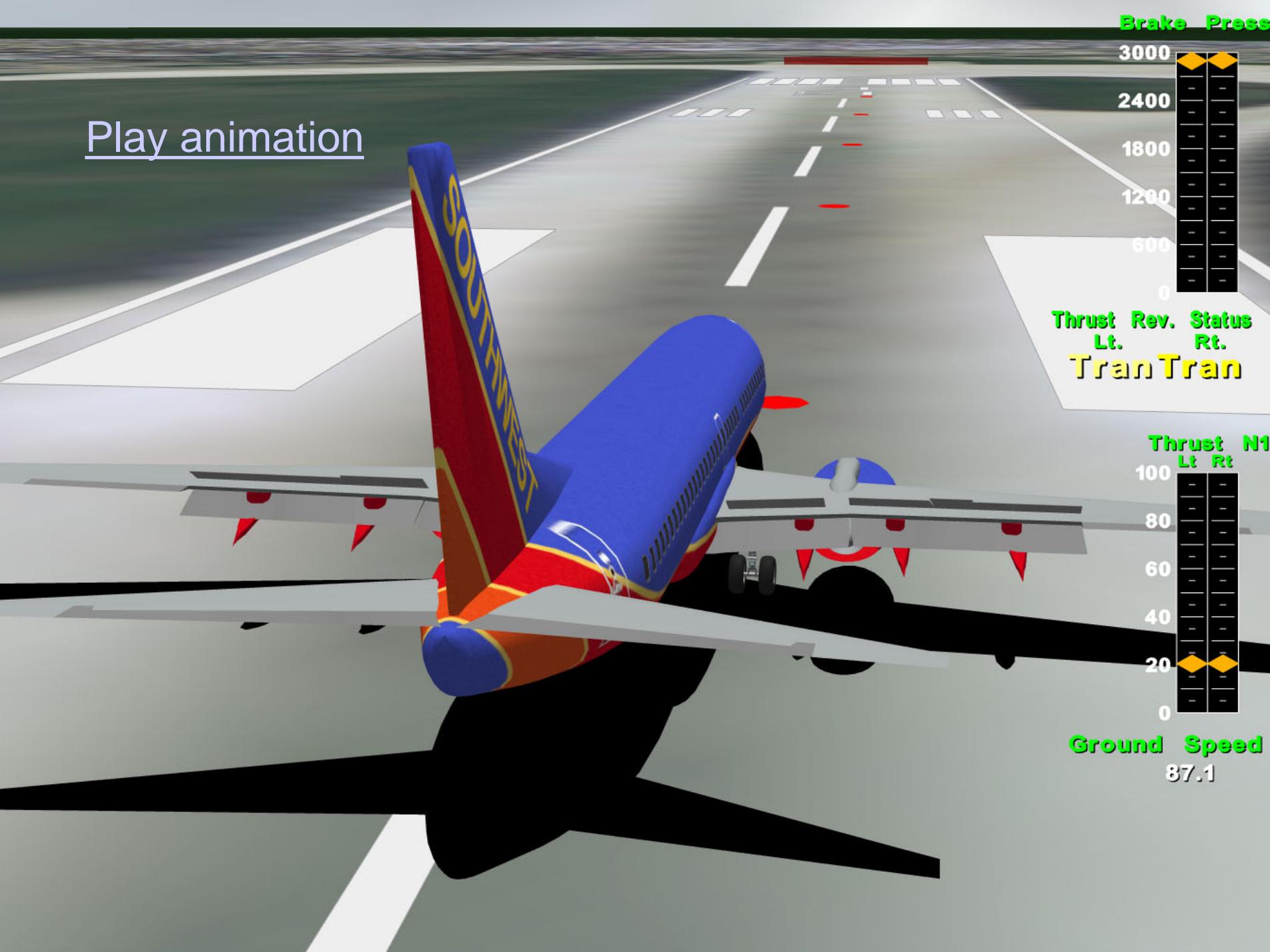


Thrust Rev. Status
Lt. Rt.
Tran Tran

Thrust N1
Lt Rt



Ground Speed
87.1









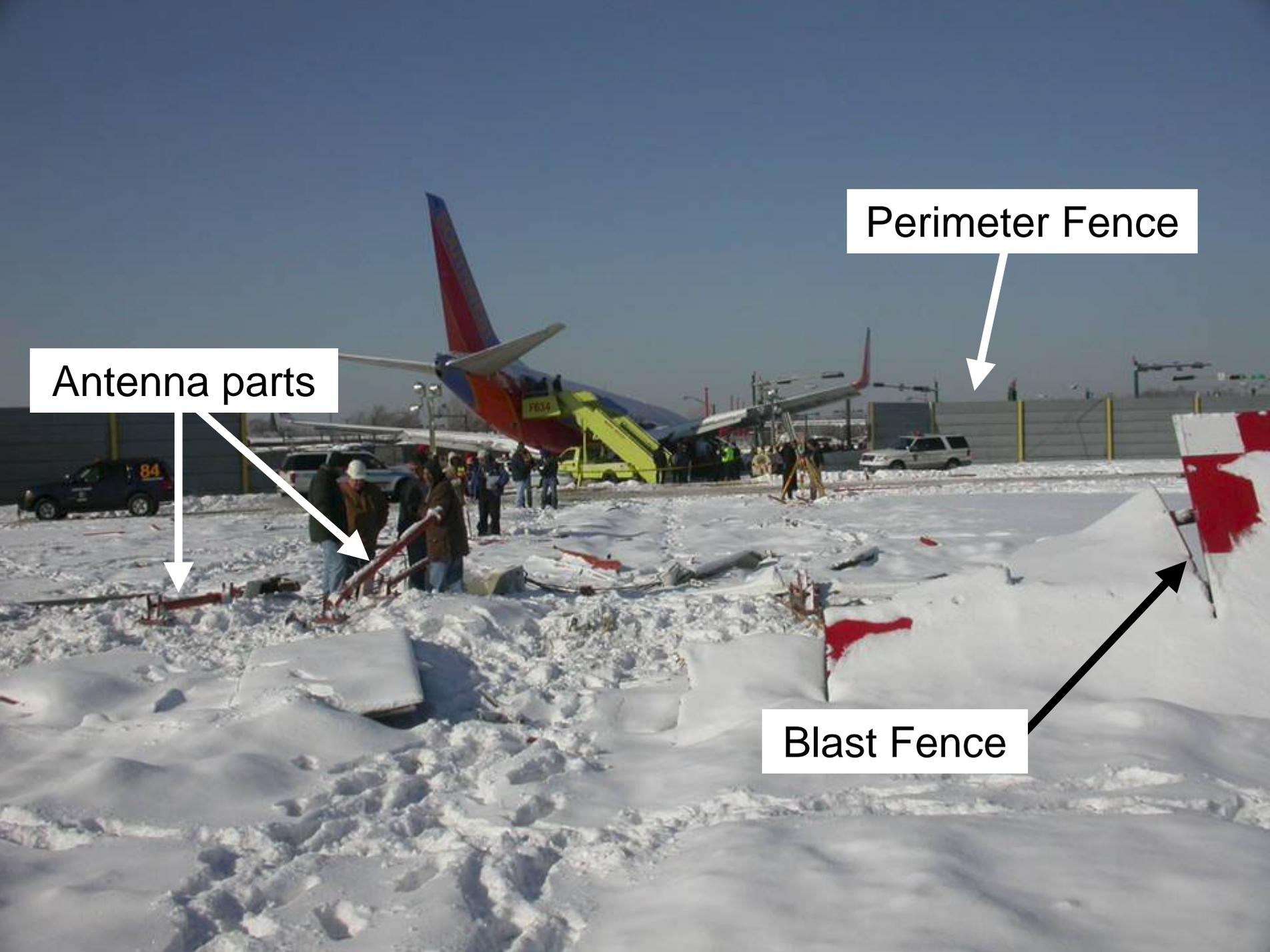


W 55TH ST
5500 S

F634

NO
TURN
ON RED

Chicago Police Dept.



Antenna parts



Perimeter Fence



Blast Fence



OPC Landing Calculations

- Used “Fair” runway friction in onboard performance computer
 - Calculated 560 feet remaining after landing
 - Poor friction would have calculated 30 feet remaining
- Thrust reverser credit
- Autobrakes

Crew Landing Actions

- Captain overrode autobrakes
- Captain had difficulty deploying TRs
- F/O deployed TRs 18 seconds after touchdown
- Airplane departed pavement 7 seconds later

Systems Investigation

- Flap system
- Spoiler system
- Brake system
- Anti-skid system
- Thrust reverser actuation components

Main Issues

- Accuracy of runway friction measurements and estimates
- Adequacy of runway safety areas
- Aircraft landing performance

Runway Friction Measurement

- State-of-the-art
- Joint NASA/FAA/Transport Canada work
- Measuring equipment limitations
- Alternate solutions
- MDW procedures
- Pilots' role

Runway Safety Areas (RSAs)

- FAA Runway Safety Area Program
- FAA policy on RSA upgrades
- EMAS development at MDW
- Description of EMAS

Aircraft Landing Performance

- Dispatch and operational landing data
- Provisions for landing safety margin
- FAA Safe Landing Distance Task Force
- Onboard Performance Computer use
- Thrust reverser use



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