

1990: DC9 Detroit

■ Operational context

- 2 scheduled pax flights
- Daylight
- Bad visibility
 - ➔ ATIS: 1200 m
 - ➔ 400 m at the time of the accident
- DC-9 was cleared to taxi

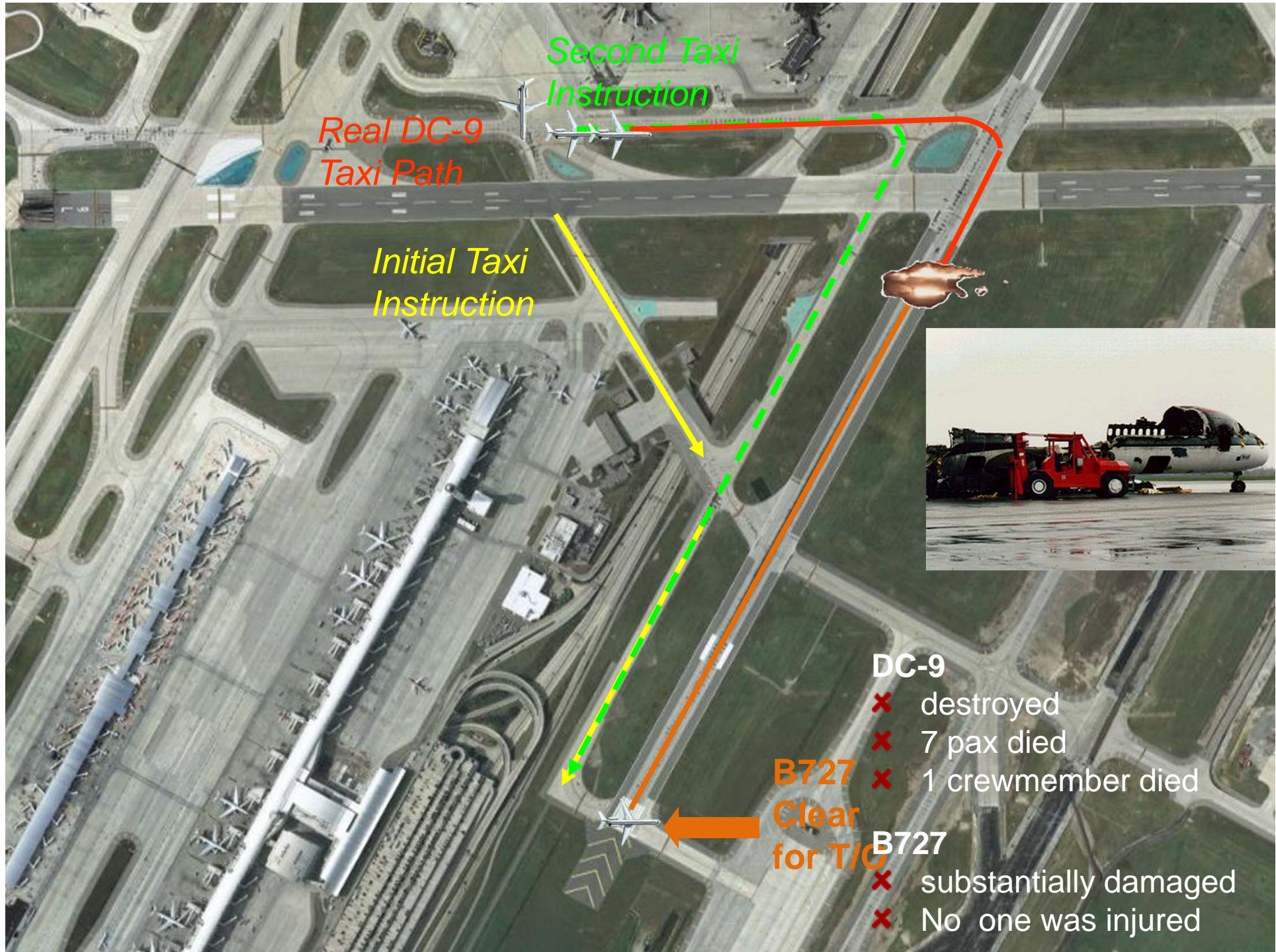
■ Situational context

- Highly experienced captain back from 6 years layoff
- FO is a former B52 Commander and instructor
 - ➔ But states some lies about his Air Force experiences and rank
 - ➔ He was on evaluation by the captain
- Company just merged with another airline
 - ➔ New procedures...

1990: DC9 Detroit (con'd)

■ Taxi context

- From the start of taxi, FO **dominate** the decision-making process in the cockpit
- Both crew got lost since the beginning
 - ✗ But FO never mentioned about
- Captain waited **6** mn to issue his first command to FO (who did not comply!)
- 1 mn later, Captain issued a second order (which did not received a response)
- **8** mn after taxi start, Captain inform ATC they are lost
- 9 minutes later (7 seconds before collision), Captain states that it seems they are on RWY 21C...



Second Taxi Instruction

Real DC-9 Taxi Path

Initial Taxi Instruction

DC-9

- ✗ destroyed
- ✗ 7 pax died
- ✗ 1 crewmember died

B727
Clear
for T/O

B727

- ✗ substantially damaged
- ✗ No one was injured

1990: DC9 Detroit (end)

■ Causes (NTSB)

- Failure to stop taxiing
- Failure to alert Ground control of their positional uncertainty in a timely manner
- Lack of proper CRM
- Including **virtual reversal** of roles by the DC-9 pilots
- Contributing factors:
 - × Many deficiencies in ATC services provided by airport
 - × Deficiencies in airport surface markings
 - × Failure of FAA surveillance to detect or correct any of these deficiencies;
 - × Failure of Northwest airlines to provide adequate CRM
 - × Failure of DC9 crew to properly execute the PAX evacuation.