



**NTSB** National Transportation Safety Board

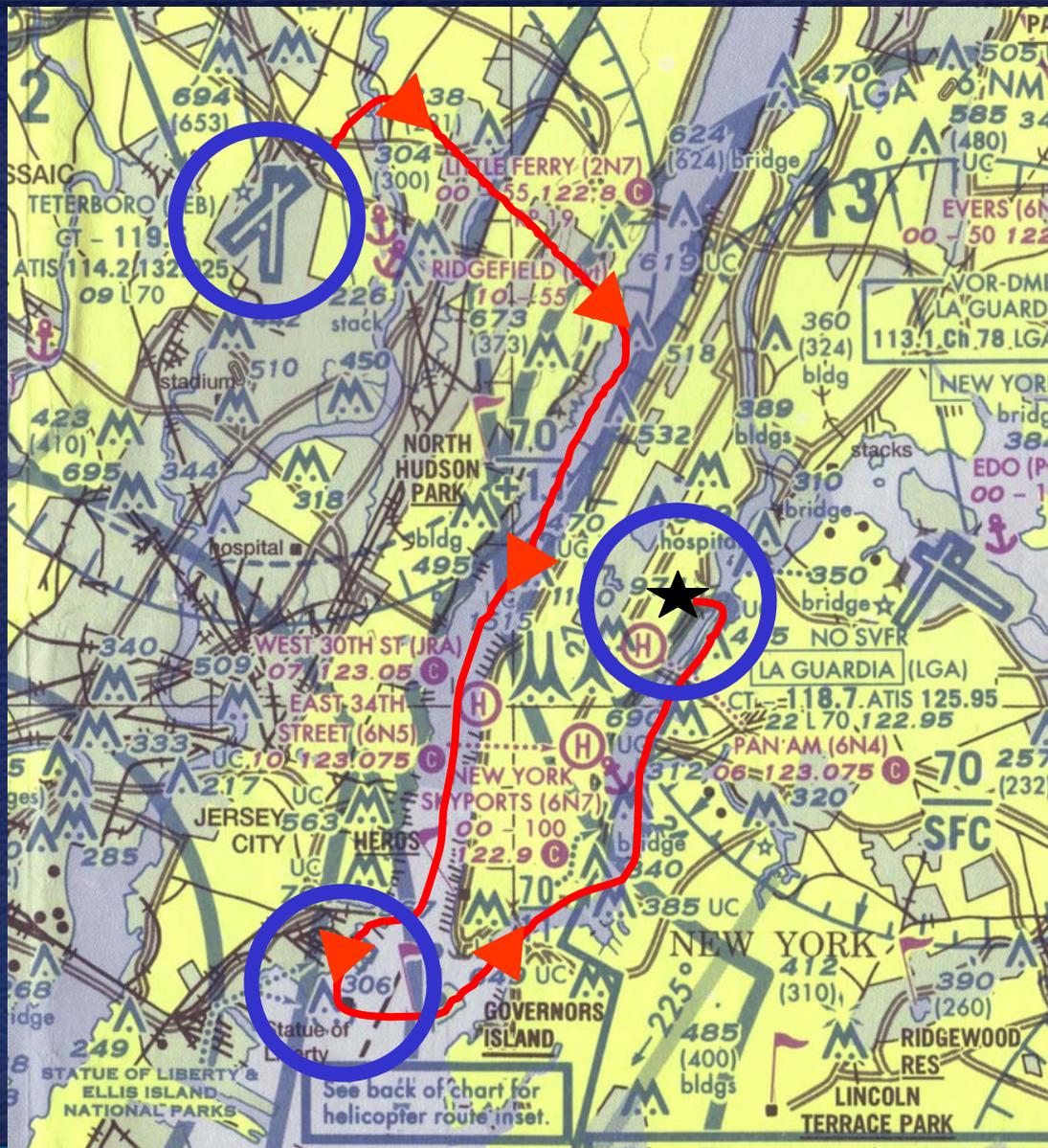
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*Office of Aviation Safety*

**Crash During Turn  
Maneuver  
Cirrus SR20  
Manhattan, New York**

Investigator-in-Charge  
Presentation

# Flight Track



# Impact Site



# Ground Wreckage Site



NTSB



# Personnel Information

- Pilot/Owner
  - Private pilot
  - Purchased airplane on June 9, 2006
  - 87.8 hours of flight time
  - 12.5 hours in Cirrus aircraft
  - 13.7 hours flown in the last 90 days
  - 0 hours flown in the last 30 days

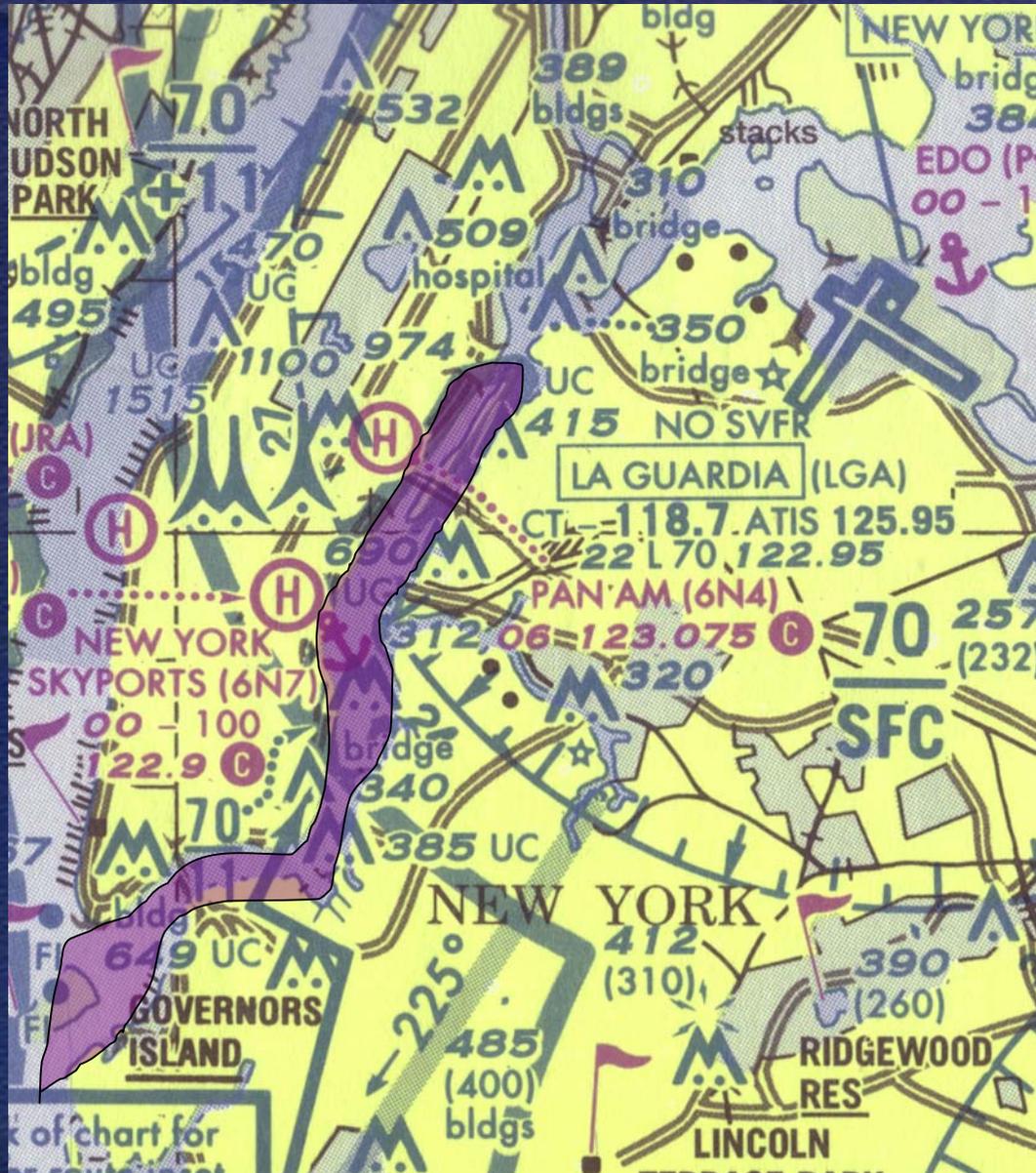
# Personnel Information (cont.)

- Pilot-Rated Passenger
  - Commercial pilot
  - Flight Instructor
  - Most flights conducted in California
  - 861 hours of flight time
  - Unknown hours in Cirrus aircraft
  - 81 hours flown in the last 90 days
  - 35 hours flown in the last 30 days

# Airspace

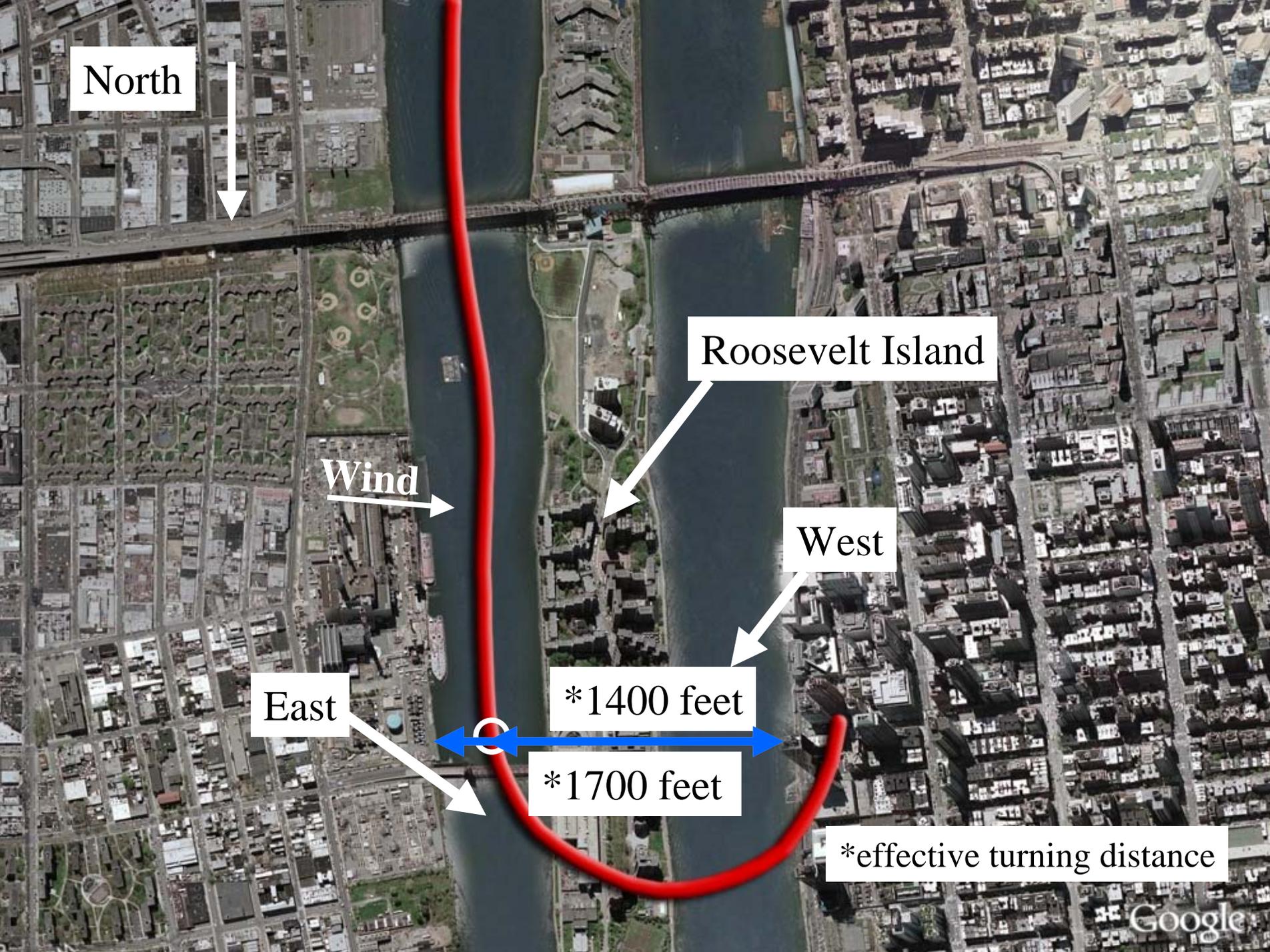
- High-density air traffic in area
- Class B airspace
  - Near 3 busy airports
  - 2<sup>nd</sup> most restrictive designation
- Exclusion areas
  - Hudson River
  - East River
  - Visual flight rules

# East River Class B Exclusion



# Recommendation Package

- Submitted concurrently with brief
- Propose that the FAA initiate rulemaking to make the prohibition in the NOTAM permanent.



North



Wind



Roosevelt Island



West



East



\*1400 feet

\*1700 feet



\*effective turning distance

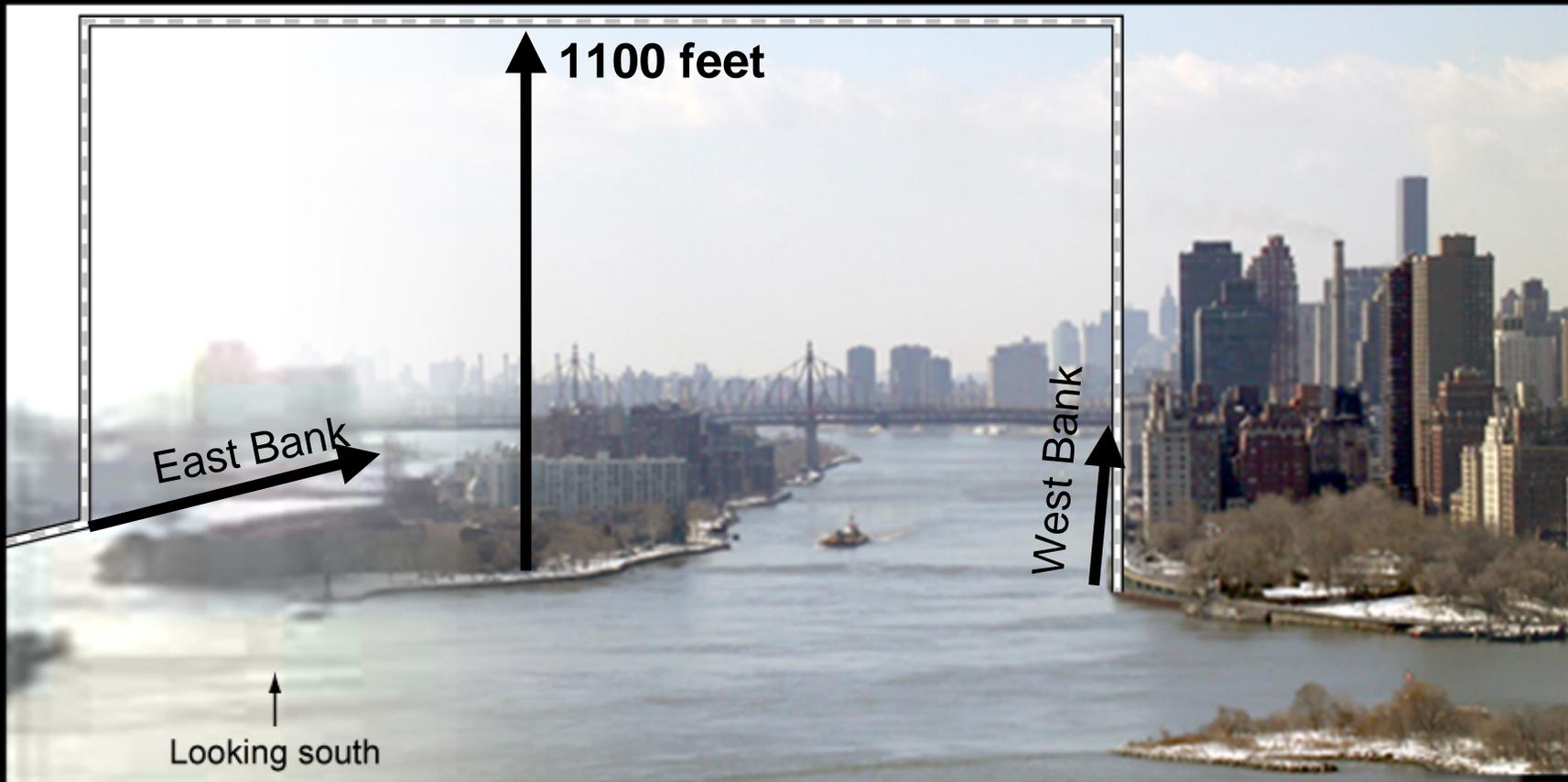


**East Channel**

**Roosevelt Island**

**West Channel**

↑  
Looking south



1100 feet

East Bank

West Bank

Looking south



Start of turn



600 feet



Looking south

Start of turn



Looking south

Building height:  
520 feet

Impact

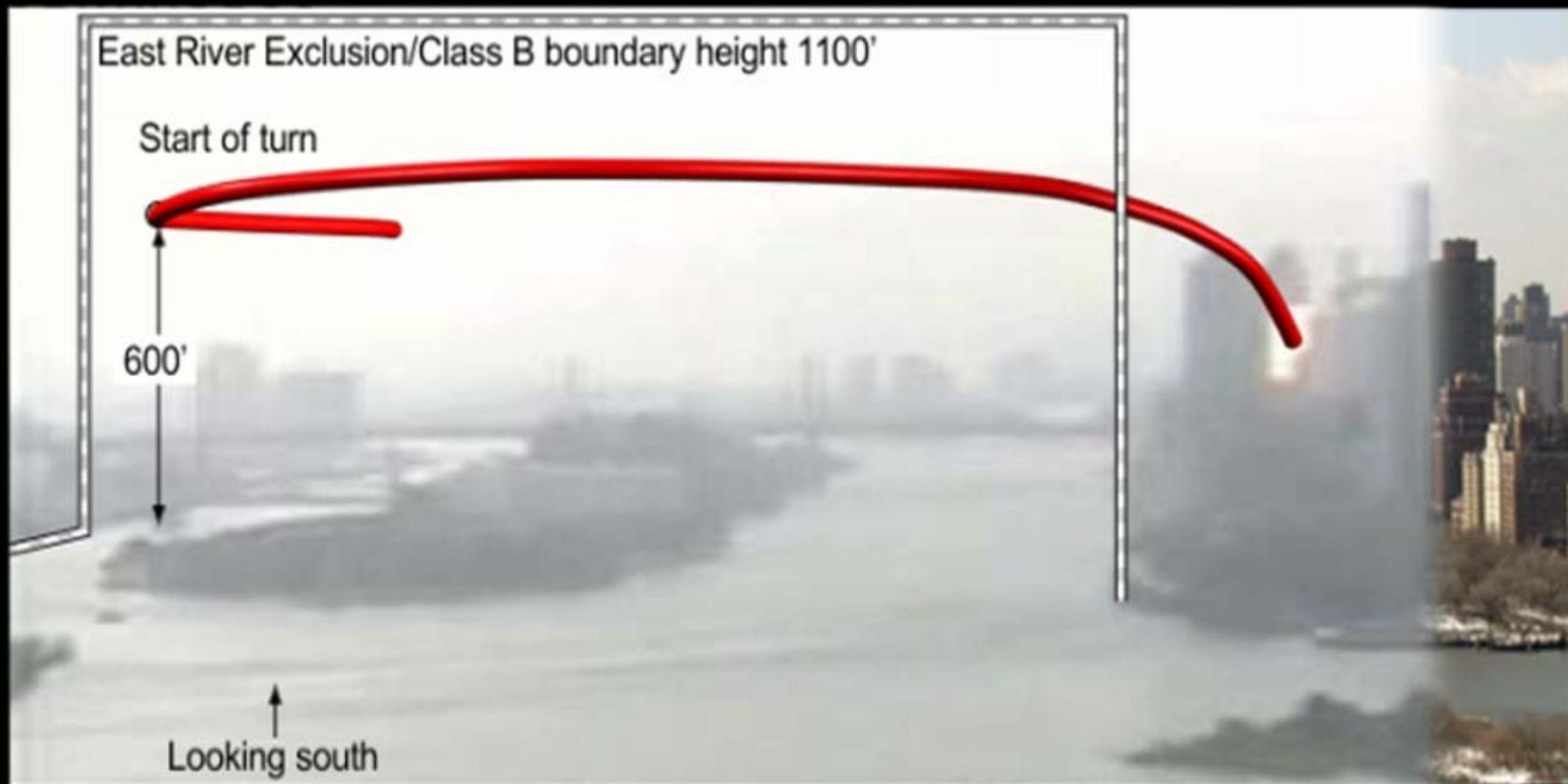


East River Exclusion/Class B boundary height 1100'

Start of turn

600'

Looking south



# Findings

- No system, structural or engine malfunctions
- Engine was producing power
- Pilot/Owner properly certificated to fly airplane
- Pilot-rated passenger also qualified to have flown airplane

# Findings (cont.)

- With the proper planning, judgment and airmanship, the 180-degree turn was possible.
  - The middle of the east channel, the pilots had to use at least 50 degrees of bank throughout the turn.
  - The east bank, the pilots could have used 45 degrees of bank throughout the turn.
  - The west bank, the pilots could have used the easterly wind and used a bank angle of 35 degrees.

# Findings (cont.)

- The pilots could have requested a clearance through the class B airspace.
- If the starting turning altitude was maintained, they would have cleared the buildings.
- Unable to determine:
  - Who was the pilot in control of the accident flight.
  - If flight instruction was being given.
  - Who was manipulating the controls at the time of the accident.

# Parties to the Investigation

- Federal Aviation Administration
- Cirrus Design
- Teledyne Continental Motors
- Hartzell Propellers
- Ballistic Recovery Systems



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