Essential Question: 28, 30 April 2021

What happened on 9/11, and how did the country react?

Questions/Key Points

Notes

https://www.britannica.com/event/September-11-attacks https://www.history.com/news/world-trade-center-stairwell-design-9-11

- Background info
 - o Bin Laden thought America was a "paper tiger"
- UA93/Field in PA
 - o https://www.nps.gov/flni/index.htm
 - o https://www.ntsb.gov/about/Documents/UAL93FDR.pdf
 - o https://reports.aviation-safety.net/2001/20010911-2 B752 N591UA.pdf
 - https://www.nps.gov/flni/learn/historyculture/upload/P200056T-Transcript-CVR.pdf
 - https://www.nps.gov/flni/learn/historyculture/upload/Flight-_Path_-Study_UA93.pdf
 - https://www.npr.org/templates/story/story.php?storyId=1962910
 - o Basic info:

■ Intended destination: SFO from EWR

■ Aircraft: B757; N591UA

■ Date: 9/11/2001

Time of departure: 08:47 ESTTime of impact: 10:03 EST

- o The flight departs EWR and climbs to FL350, assigned
- Around 9:29, aircraft descends 600ft and returns to FL350, at which the hijackers are assumed to have taken over
- Aircraft then climbs to FL410 and changes course; max altitude; transponder is turned off
- Passengers find out about the hijacking and try to storm the cockpit. The hijacker is thought to bank sharply to the left and right (30 degree bank angle) to try to throw the passengers off their feet, which doesn't work
 - The passengers don't actually get into the cockpit. The struggle happens outside the door
 - The hijackers decide to crash the plane for fear that the passengers will succeed
- Eventually, the aircraft enters a steep descent and impacts near Shanksville,
 PA at a speed over 450kt
- AA11/North Tower
 - o https://www.ntsb.gov/about/Documents/Flight Path Study AA11.pdf
 - o https://www.npr.org/templates/story/story.php?storyId=1962281
 - o https://aviation-safety.net/database/record.php?id=20010911-0
 - o https://reports.aviation-safety.net/2001/20010911-0 B762 N334AA.pdf
 - o https://www.baltimoresun.com/news/bal-te.terror28jan28-story.html
 - o Basic info:

■ Intended dest.: LAX from BOS

■ Aircraft: B767; N334AA

■ Date: 9/11/2001

■ Time of departure: 07:59 LT (EST)
■ Time of impact: 08:46 LT (EST)

AAL11/AA11 departs KBOS at 8am

Why were the passengers on this flight willing to stand up to the attackers and not on the others?

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PANYNJ was exempt from building to code. If they had followed the requirements for staircases and such, would the outcome have been different?

UA175 was notified about AA11 and its abnormal flight pattern, and there was a chance for this flight to be stopped. Did they not know any better?

- The plane is taken over by 5 hijackers at 8:13, when ZBW/Boston Center loses radio comms. The aircraft levels off at FL290 at 8:16.
- At 8:21, the transponder is switched off; radar shows that the aircraft has climbed to FL340
- The aircraft returns to FL290 at 8:30; at 8:37 it begins a rapid descent at 3200 ft/min
- The aircraft hits North Tower at 8:46.
- AA11 was the first aircraft to be hijacked and the first to hit. People initially thought it was a freak accident
- The aircraft crashes and explodes through floors 93-99. Because of the burning jet fuel and design of the building with all staircases in the center, everyone above these floors is trapped.
 - The staircases were enclosed in drywall, which quickly disintegrated in the flame
- Many people below the point of impact were able to escape, but the stairwells were too narrow, which slowed things down a lot

• UA175/South Tower

- https://aviation-safety.net/database/record.php?id=20010911-1
- o https://reports.aviation-safety.net/2001/20010911-1 B762 N612UA.pdf
- o https://www.npr.org/templates/story/story.php?storyId=1962517
- https://nsarchive2.gwu.edu/NSAEBB/NSAEBB196/doc03.pdf
- o Basic info
 - Intended dest.: LAX from BOS
 - Aircraft: B767; N612UA
 - Date: 9/11/2001
 - Time of departure: 08:14 lt/EST
 - Time of impact: 09:03 lt/EST
- UA175 departs BOS at 8:14, soon after AA11 departs, and immediately after AA11 goes NORDO
- Was also hijacked by 5 terrorists
- o Reaches assigned alt. FL310 around 8:33
- Assumed to be taken over around 8:47 when UA175 changes the squawk code twice
- Impacts South Tower at 9:03 AM, at which people become increasingly suspicious that a coordinated attack is being launched against the US
- Destroys floors 75-85
- Stairwells in South Tower were farther apart. Parts of the 78th floor weren't destroyed because of elevator equipment, and the A stairs were still usable
- Only a few people got down from above the destroyed floors, because people were told to stay in their offices (which is standard fire protocol)

• AA77/Pentagon

- o https://www.npr.org/templates/story/story.php?storyId=1962742
- o https://aviation-safety.net/database/record.php?id=20010911-3
- o https://reports.aviation-safety.net/2001/20010911-3 B752 N644AA.pdf
- o https://nsarchive2.gwu.edu/NSAEBB/NSAEBB196/doc02.pdf
- o Basic info:
 - Intended destination: LAX from IAD
 - Aircraft: B757; N644AA

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■ Date: 9/11/2001

Time of departure: 0810 LTTime of impact: 0938 LT

- AA77 departs Dulles enroute to LAX, climbs to assigned alt. FL350
- Assumed to be taken over at 8:57 when the aircraft deviates from the assigned course
- Turns around toward Washington
- A/P disconnect at 9:07, then reconnected. a/c has descended to FL250 at this point; some erratic altitude changes before leveling off
- o At 9:27, a/p disconnected around 7000 ft until impact
- The aircraft hit the pentagon about 25 minutes after South Tower was hit, and 41 minutes after North Tower was hit. Flight 93 passengers become aware through text messages which leads them to try to regain control.
- National Security changes
 - Patriot act how much personal privacy are we willing to sacrifice in the interest of national security?
 - Increased hostility towards the Middle East, and Islamophobia towards Muslims and Arabs within the US
- Aviation industry impact
 - https://www.icao.int/Newsroom/Pages/2020-passenger-totals-drop-60-percent-as-COVID19-assault-on-international-mobility-continues.aspx
 - To look at the graph, the drop after 9/11 was nothing compared to the COVID drop
 - Compare 9/11 with COVID: with 9/11 and the added security changes, people were more comfortable flying, and returned rather quickly
 - They knew that the likelihood of their flight being hijacked was extremely low
 - Conversely with covid, people understand that the process of traveling is inherently risky based on the guidelines we're given
 - Being on the airplane itself actually isn't that bad given everyone wears a mask, because of the airflow design and filtering
 - The concern is mainly in situations in the airport or other crowded spaces
 - People are starting to return to flying, but might be put off yet again by coronavirus variants
 - Biggest hit to the aviation industry ever, with the exception of COVID
 - Lots of furloughs, people unsure if the industry would ever recover from it, but it did
 - Obv. many security changes; TSA established
 - Goal was to reestablish public trust in air travel
 - Became yet another source of flying phobia

Is national security a justified reason to discriminate or be suspicious of people, solely based on perception?

Although the demand for air travel was severely harmed after 9/11, the industry recovered rather quickly, and it was nothing compared to the hit due to COVID. **Essential Question:** 28, 30 April 2021

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Summary 9/11 was a huge event for the US as a whole, but especially for the aviation industry. The event caused changes in airport security, passenger trust, operations, and regulation in aviation.