

The Flight Dispatcher role

Privileged & Confidential



Personal Introduction

First, a little about me. The requisite “Who is this guy” stuff:

- My name is Alan Pechman
- I am a career airline employee (1990-2025) having worked for
 - ❖ Continental Airlines (later United Airlines) from 1990-2014 (retired),
 - ❖ Southwest Airlines 2014-2022, and
 - ❖ American Airlines 2022-present
- I’ve been a FAA licensed dispatcher since 1992
- My current role is Senior Manager, International Dispatch at American
- I am responsible for policies and procedures, team coaching, and also oversee the dispatch safety team
- I am also a Flightkeys SME

What is a Flight Dispatcher?

“What do you do for a living?”

“I’m a Flight Dispatcher”

“Oh, you work in the tower?”

“No that’s ATC.”

Polite nod.

“ATC makes sure airplanes don’t hit each other. Dispatchers make sure the crew has a flight plan with their route, payload, and fuel load.”

Polite nod.

Aircraft Dispatcher



What my friends think I do



What my mom thinks I do



What society thinks I do



What pilots think I do



What I think I do



What I Actually do

No, really, what is a Flight Dispatcher?

FAA-Licensed Aircraft Dispatcher

- **Joint Responsibility:** Shares legal authority with the Captain for safety and operational control of every flight.
- **Pre-Flight:** Plans routes, analyzes weather, fuel, aircraft performance, and alternate airports; ensures compliance with FAA regulations.
- **In-Flight:** Monitors progress in real time, updates crews on weather/airspace changes, coordinates diversions or reroutes as needed.
- **Decision-Making:** Has equal authority to delay, cancel, or divert a flight in the interest of safety.
- **Mission Control:** Integrates meteorology, air traffic, and operational requirements for safe, efficient airline operations.

Pilots fly the aircraft. Dispatchers make sure it's safe, legal, and ready to fly—every time!



Joint Responsibility

The Pilot in Command (PIC) and Aircraft Dispatcher (for domestic and flag operations): These two individuals are jointly responsible for the preflight planning, delay, and dispatch release of a flight, adhering to regulations and operational specifications.

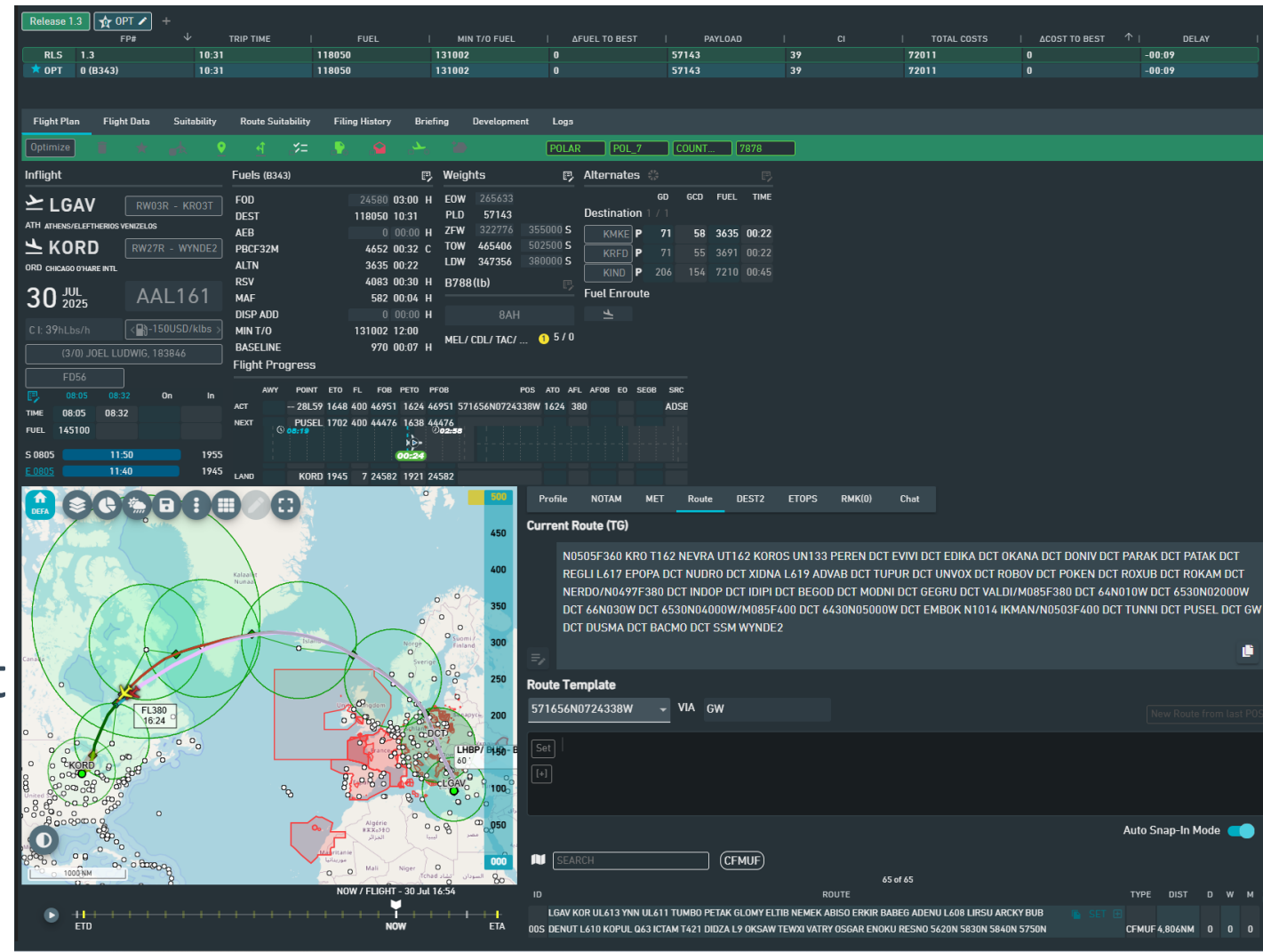
- Every flight release requires both signatures.
- Either can delay, cancel, or divert if safety demands it.



Pre-Flight

Dispatchers plan and prepare every flight before the aircraft moves:

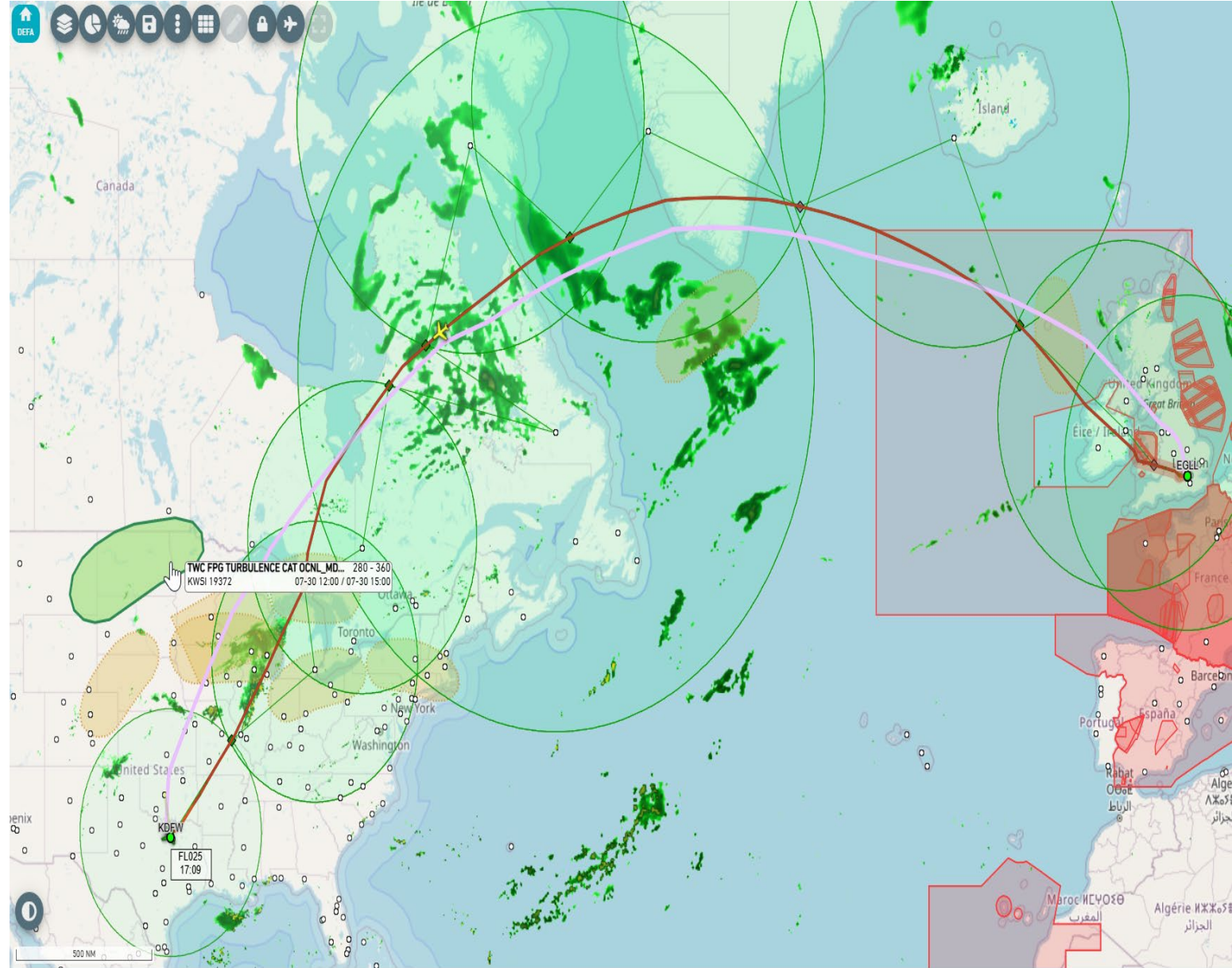
- Analyze weather patterns, winds aloft, turbulence forecasts.
- Determine fuel requirements, payload limits, and alternates.
- Select the safest, most efficient route in compliance with FAA rules.



In-Flight

Once airborne, the dispatcher is like a captain on the ground:

- Track the aircraft in real time using satellite and radar data.
- Provide weather, NOTAM, and ATC updates.
- Recommend reroutes or diversions to avoid hazards.



Decision Making

Dispatchers operate with equal operational authority as the Captain:

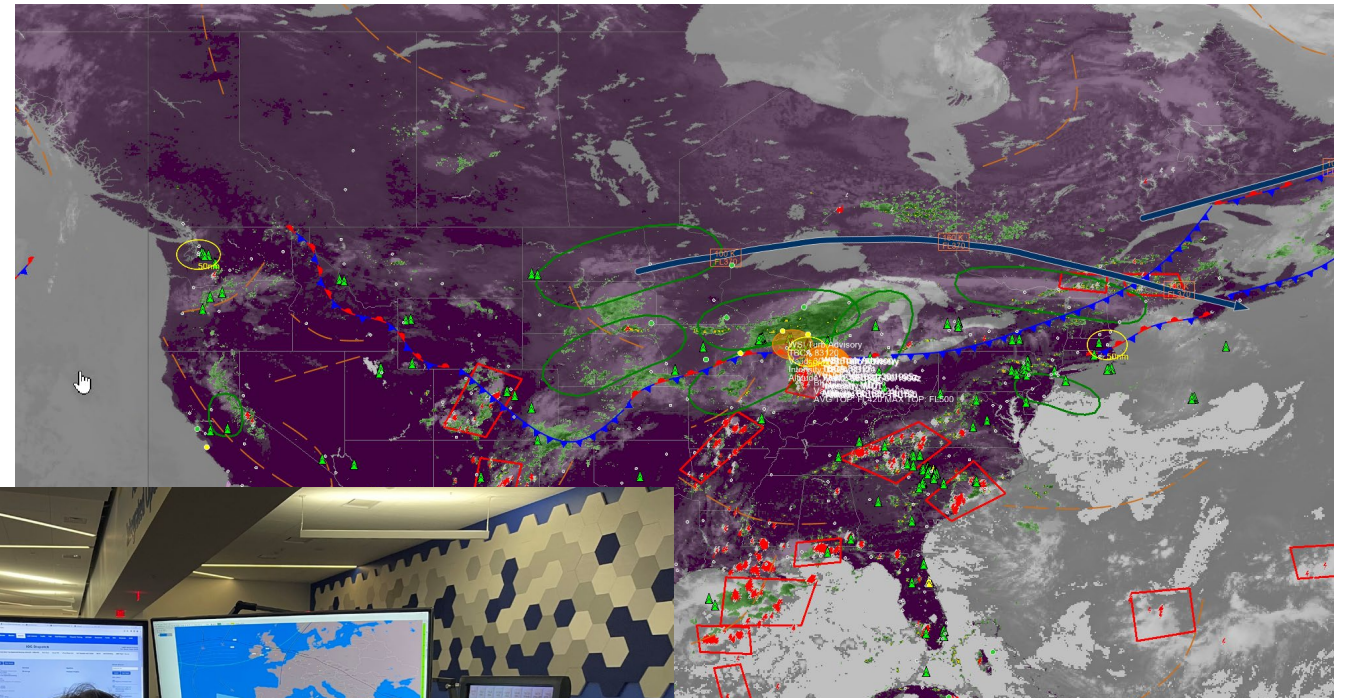
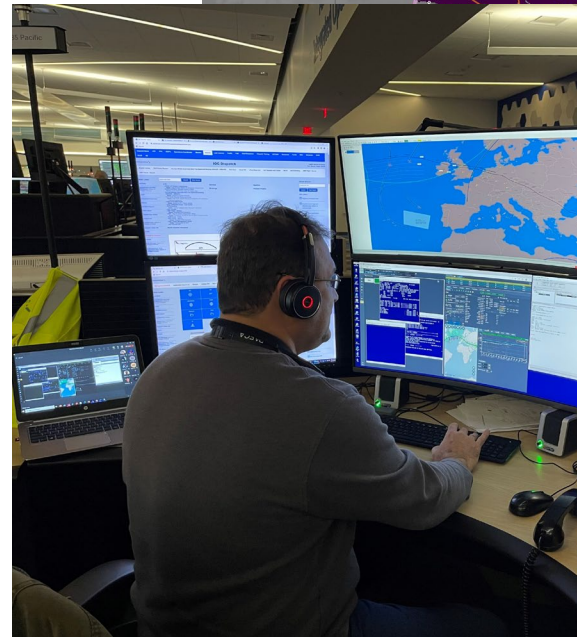
- Safety decisions are collaborative and binding.
- Legal authority to stop a flight at any point if conditions deteriorate.
- Acts in the best interest of passengers, crew, and aircraft.



Mission Control

Other dispatcher duties:

- Integrates meteorology, ATC constraints, and operational limits.
- Manages multiple flights across continents simultaneously.
- Keeps every flight safe, legal, and on time from gate to gate.



ATCSCC
OIS
SYSTEM

7/15/2019

OIS Main Menu
■ [NAS Status](#)
■ [Flt Check](#)
■ [GPS Status](#)
■ [Int'l Status](#)
■ [East Directory](#)
■ [West Directory](#)
■ [Airport Layout](#)
■ [Severe WX](#)
■ [OPS Plans](#)
■ [National Playbook](#)
■ [Tier Info](#)
■ [Current Restrictions](#)

NATIONAL AIRSPACE SYSTEM STATUS

(Note: This page will refresh every 5 minutes. Last updated Mon, 15 Jul 2019 17:15:17 UTC. Provided by the FAA's Air Traffic Control System Command Center.)

NATIONAL PROGRAMS									
PROGRAM NAME	START	END	SCOPE	REASON	AVG	AAR	PR	ADVZY	DA

GROUND STOPS					
ARPT	UPDATE	POE	SCOPE	REASON	ADVZY
HOU	1800	MED	1stTier	WEATHER / THUNDERSTORMS	045
IAH	1800	MED	1stTier	WEATHER / THUNDERSTORMS	044

DELAY INFO					AIRPORT CLOSURES			
ARPT	AD	DD	TIME	REASON	ARPT	TIME	REASON	REOPEN
HOU		+15	1600	WX:Thunderstorms				
IAH		+15	1654	WX:Thunderstorms				
LAX		+15	1648	TM Initiatives:MIT:VOL				

DEICING		Runway/Equipment Info	
ARPT	DATE/TIME	This is not a complete list of Runway/Equipment Status. Please consult the current NOTAMs for complete information.	
		Facility	Description

MISCELLANEOUS	
NEXT PLANNING WEBINAR 1715Z	

American Airlines Contrail Trial

January - May 2025

Privileged & Confidential



Introduction

American Airlines, in partnership with Breakthrough Energy, Google, and Flightkeys, became the first U.S.-based airline to conduct an end-to-end Contrail Trial at scale:

- The trial was conducted from January to May 2025
- Initial results indicated the trial was successful
- There were challenges to get to the starting line to even consider conducting the trial



Trial Stakeholders

American Airlines stakeholders were Operations Leaders in our Integrated Operations Center (IOC), Flight Department, Operations Engineering, Sustainability Team, and others.

The key to a successful trial lied primarily with the stakeholders who would execute the trial: pilots and flight dispatchers.

Both parties were essential to the trial.



Logistics for a trial

American's Contrail Trial would focus on its European operation, primarily it's flights from the United States to Europe.

An essential element to the trial was making the mechanics of conducting the trial as seamless and efficient as possible.

Workload for a dispatcher can be high. A pilot's responsibilities focus solely on their individual flight; a dispatcher must focus on many flights.

Maintaining operational control of each flight and conducting it as safely and efficiently as possible is job #1 – always.

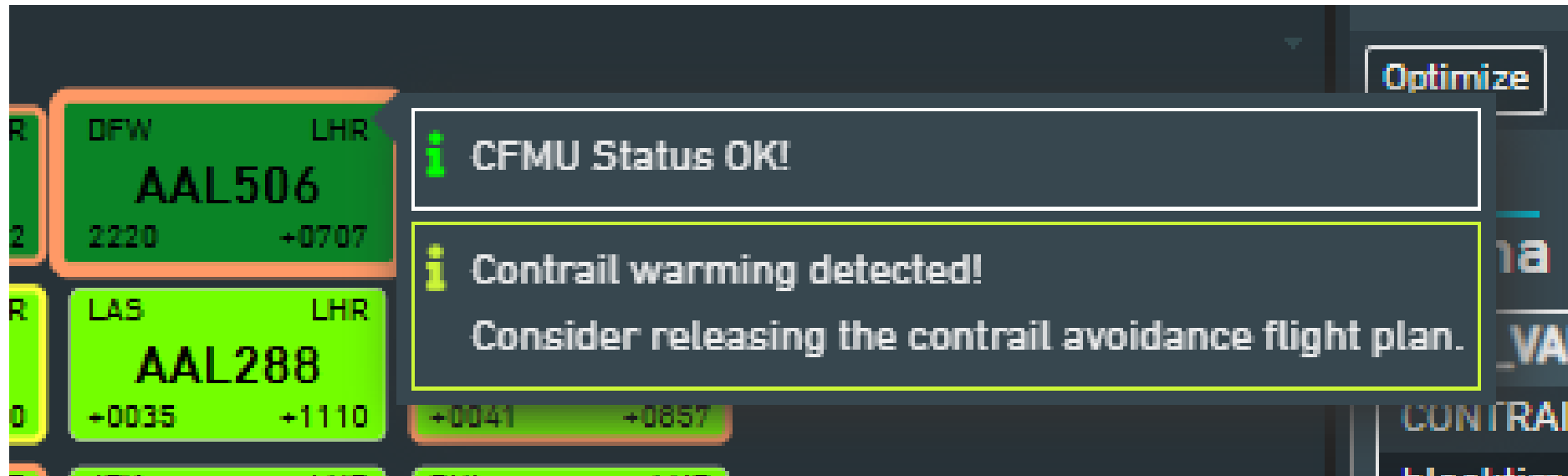
The challenge was requesting dispatch participation without adding to their workload while maintaining the balance between safety and efficiency.

Trial mechanics for dispatchers

- Dispatchers received a detailed bulletin with information on the trial and instructions on January 13th (two days before the trial)
- For the selected city pairs, dispatchers were provided a “contrail route” that they were be able to select, provided the route is safe and efficient. We asked that dispatchers consider this route, using all the normal factors they would when creating a flight plan (for instance, weather, fuel burn, arrival time)
- We did NOT ask dispatchers to assess the climate impact of the flight plan
- Participation in the trial was voluntary and at the discretion of the dispatcher

Trial mechanics for dispatchers

- Flights with contrail opportunity were automatically labeled in Flightkeys with both text and an atomic tangerine border on the affected flight:



Trial mechanics for pilots

- Widebody pilots received a Crew Check-In (CCI) message on January 13th with information on the test
- A flight plan designated for the demonstration was clearly marked for pilots in the remarks section and any candidate city pair had a Company issued Notice to Airmen (NOTAM)
- Keeping safety top of mind, we asked captains to review these flight plans and accept them as released by dispatch when appropriate. However, participation was voluntary
- Pilots were asked to provide feedback after the flight, regardless of whether they chose to fly the contrail avoidance flight plan
- American pilots and Allied Pilots Association (APA) leaders, who were involved in the test planning process, stood ready to answer pilot questions during the trial

Fuel burn implications

- Preliminary studies suggested that additional fuel burn from avoiding contrails would remain minimal. However, slight additional fuel burn from participating in the trial was anticipated
- This trial was an important step in verifying fuel burn implications of contrails avoidance in a real-world setting
- For the first two weeks, we asked that both pilots and dispatchers use their judgment in determining whether the fuel burn penalty of a contrail avoidance flight was too high. After that, American may have set guardrails for the fuel burn penalty (if necessary) so as to maximize the number of flights included within a reasonable cost threshold
- We designed the trial with the goal of keeping fuel costs minimal

What happens after a flight?

- Researchers at Google and Breakthrough received XMLs for all tagged city pairs through Flightkeys. Both received the XMLs immediately after the dispatcher created the flight plan (provided the city pair was included in the trial)
- Together, they determined if the flight flew the contrail avoidance flight plan (with the help of American)
- If the flight did fly the contrail avoidance plan, researchers validated that contrails were avoided using satellite imagery. Though the results were not final until after in-depth validation, American was provided a weekly interim update during the trial
- We did collect feedback from pilots and dispatchers working flights included in the trial

What determined a successful test?

- We were seeking to understand the feasibility of adding contrail avoidance into the flight planning process
- We hoped to reach 200 contrail avoidance flights and demonstrate that we've seen a significant reduction in contrails using the avoidance flight plans generated through Flightkeys
- Even if we had failed to reach 200 flights, we would still consider the test a success if we concluded the trial with a better understanding of the following:
 - What factors (weather, congestion, etc.) make avoiding contrails difficult—or impossible
 - What additional tools will be needed to implement contrail avoidance at scale
 - Fuel burn implications of avoiding contrails

Why it mattered

- No U.S. airline had ever participated in a test where contrail avoidance was an automated part of the flight planning process
- That meant our test was the **most ambitious and innovative trial** in our industry
- Our trial involved both line pilots and dispatchers, allowing us to get a clear sense of what avoiding contrails could look like in normal operations at scale. No other airline had come close to doing this
- The results will help researchers better understand contrail avoidance and help us prepare for upcoming regulation that will require contrail monitoring

American Airlines
You are why we fly™

