

A nighttime photograph of a cityscape. In the foreground, a river reflects the lights of a traditional Chinese bridge with multiple arches and ornate structures. The bridge is illuminated with warm yellow lights. In the background, modern high-rise buildings are visible against a dark blue sky. The overall scene is a blend of traditional architecture and modern urban development.

Honeywell

EFFICIENCY TAKES FLIGHT

How Honeywell Helped Sichuan Airlines
Streamline Their Operations

Case Study

FMS WIND SERVICE

At present, the FMS Wind has been successfully deployed and tested at Sichuan Airlines, and has been put in operation since October 2020.

FAST FACTS

\$295

Total savings per flight

117^{TON}

Reduction of fuel consumption

8.6^{TON}

Reduction of carbon emission

SOLUTION

The Project PlanEnter Flight Management System Datalink Service: FMS Wind Service Based on Honeywell experience, with the help of FMS Wind, Airlines could save up to:

COST SAVING			
Cruise	FUEL SAVINGS PER FLIGHT	203 KG	\$142
	FLIGHT TIME REDUCTION	3 MINUTES	\$108
	TOTAL SAVINGS PER FLIGHT	\$250	
Descent	FUEL SAVINGS PER FLIGHT	13 KG	\$9
	FLIGHT TIME REDUCTION	1 MINUTE	\$36
	TOTAL SAVINGS PER FLIGHT	\$45	
TOTAL SAVINGS PER FLIGHT		\$295	

CUSTOMER

NAME

Sichuan Airlines

FLEET:

A330, A350

HEADQUARTERS:

Chengdu, Sichuan Province

INDUSTRY:

Air Transportation

WEBSITE:

<https://www.sichuanair.com/>

WHY FMS WIND

The service enables pilots stay connected to air traffic control wherever they are and get wind and temperature data, reducing their workload.

The service optimizes the wind and temperature data and the upload, helping Sichuan Airlines reduce flight time, fuel consumption and carbon footprint.

According to Sichuan Airlines, during the FMS Wind testing period (July – September 2020), altogether 585 flights used the wind and temperature data upload module and achieved great results: 117 ton reduction of fuel consumption, 368.6 ton reduction of carbon emission.

With FMS Wind deployed at Sichuan Airlines' Data Center, high efficiency data process has been achieved with reduced latency, which helps improve operating efficiency.

Honeywell local team provides technical supports and consultancy services, making it possible to carry out quick deployment and system testing.

OUTCOME

With FMS Wind deployed at Sichuan Airlines' Data Center, pilots no longer need to manually input flight plans or wind and temperature data. The service also makes life easier for operators as they could upload flight plans, ad hoc flight plans (including international cargo or chartered flights) as well as wind and temperature data and send over to flight crews.

Flight Plan: Analyze and upload waypoints from flight plans that are not updated to airborne database, for example, NAIP, points with the same name, etc.

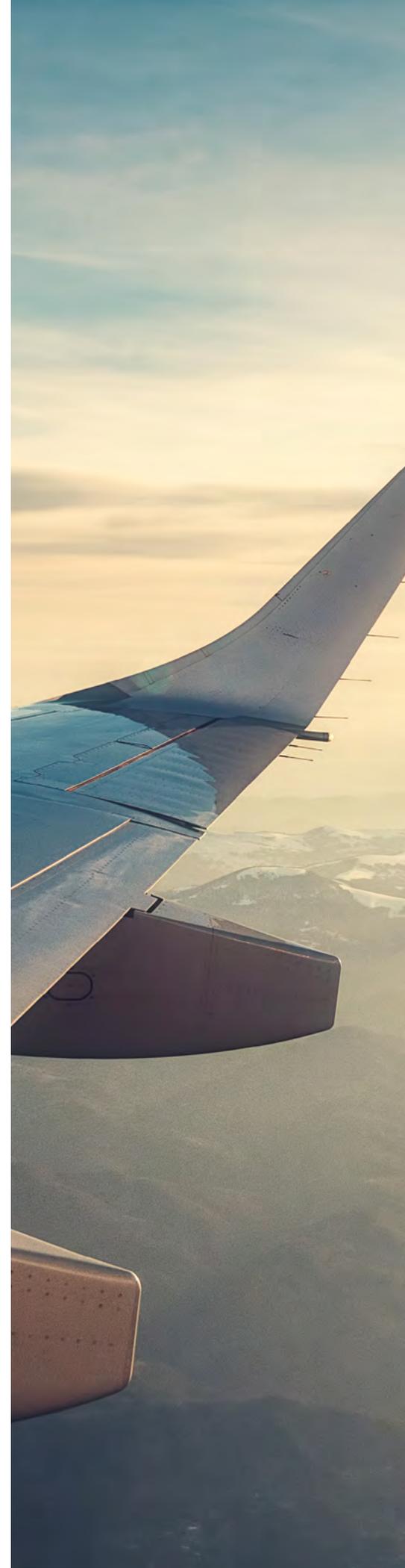
Wind and Temperature Data: FMS Wind optimizes and uploads wind and temperature data of four flight levels according to altitude and weather patterns, as well as sends such data to airborne flight management system automatically for pilots.

Upload the latest wind and temperature data during climbing, cruise and descending after the flight crew get onboard

After take-off, if there are changes of cruising altitude or airway changes, pilots could get updated wind and temperature data from air traffic control

The system could also upload wind and temperature data for alternate

FMS Wind Service could be customized for different aircrafts or fleets. Tailored services are also provided to meet customers' requirements.



Honeywell Process Solutions

1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Skimped Hill Lane
Bracknell, Berkshire, England

RG12 1EB UK Building #1, 555 Huanke Road
Zhangjiang Hi-Tech Industrial Park Pudong
New Area, Shanghai 201203

www.honeywellprocess.com

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