1
00:00:00,000 --> 00:00:06,000
Weather directly affects airline safety, air system capacity and traffic efficiency.

2
00:00:06,001 --> 00:00:12,001
Sixty five percent of air traffic system delays are caused by weather.

3
00:00:12,002 --> 00:00:16,002
To keep flight safe, comfortable, and as on-time as possible,

4
00:00:16,003 --> 00:00:21,303
NASA research has developed a weather information communications system

5
00:00:21,304 --> 00:00:25,304
that reaches both aircraft personnel and air traffic controllers

6
00:00:25,305 --> 00:00:30,305
to help them make critical flight path and traffic decisions.

7
00:00:30,306 --> 00:00:34,306
NASA's testing program outfitted a commuter aircraft

8
00:00:34,307 --> 00:00:36,307
with an on-board weather reporting instrument.

9
00:00:36,308 --> 00:00:41,308
This instrument allowed aircraft flying below 25,000 feet,

10
00:00:41,309 --> 00:00:44,309
the atmospheric level where most severe weather develops,

11
00:00:44,310 --> 00:00:47,310
to sense and report weather conditions

12
00:00:47,311 --> 00:00:50,311
with precise location, time, and altitude data.

13
00:00:50,312 --> 00:00:54,312

The observations were sent by satellite to a data center.

14
00:00:54,313 --> 00:01:01,313
A robust data link enabled the information process between ground and air.

15
00:01:01,314 --> 00:01:04,314
The test results were impressive and verified that

16
00:01:04,315 --> 00:01:08,315
more weather eyes in the sky would greatly improve the quality

17
00:01:08,316 --> 00:01:13,316
of decision making by pilots and ground-based air traffic controllers.

18
00:01:13,317 --> 00:01:17,317
The weather-in-the-sky data includes temperature,

19
00:01:17,318 --> 00:01:22,318
wind speed and direction, humidity, icing, and turbulence information.

20
00:01:22,319 --> 00:01:27,319
This data can be transmitted to all properly equipped aircraft.

21
00:01:27,320 --> 00:01:33,320
Using data from this system, air traffic controllers have the information