

## Joint Press Release

# *The CONTRAIL Project Joins Boeing ecoDemonstrator787*

Japan Airlines  
National Institute for Environmental Studies (NIES), Japan  
Meteorological Research Institute (MRI), Japan  
JAMCO  
JAL Foundation  
The Boeing Company

**TOKYO, November 27, 2014:** CONTRAIL (Comprehensive Observation Network for Trace gases by Airliners) Project joins ecoDemonstrator 787 conducted by The Boeing Company.

### **【Boeing ecoDemonstrator 787】**

Boeing ecoDemonstrator 787 began flight testing more than 25 new technologies aimed at improving aviation's environmental performance through every phase of flight. The Boeing ecoDemonstrator Program accelerates the testing, refinement and use of new technologies and methods that can improve efficiency and reduce noise and emissions.

CONTRAIL project, known internationally as long term atmospheric observation effort using JAL's commercial airplanes, joins the ecoDemonstrator 787 flight by installing several kinds of atmospheric observation equipment including newly developing Multi-species Measuring Equipment (MME).

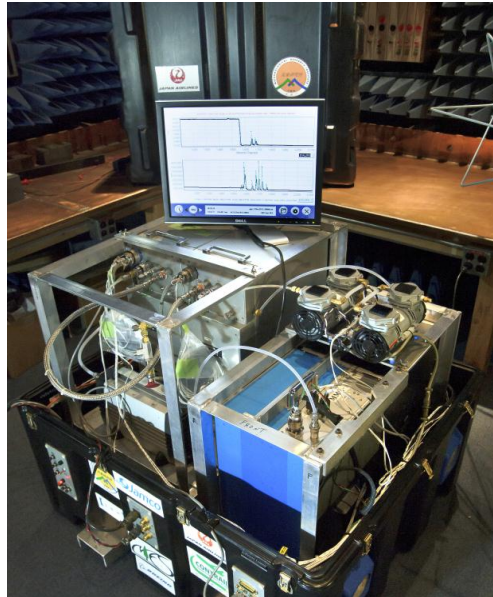


### **【Atmospheric Observation Equipment on ecoDemonstrator787】**

Three kinds of equipment are installed on ecoDemonstrator 787.

1. CME (Continuous CO<sub>2</sub> Measuring Equipment)  
Measuring outside air CO<sub>2</sub> continuously during all phases of flight.
2. ASE (Automatic Air Sampling Equipment)  
Flask air sampling at twelve preset points during a flight. Sampled airs are analyzed for several kinds of greenhouse gases at Lab in NIES and MRI.
3. MME (Multimode Measuring Equipment)  
Newly developed continuous measuring equipment for not only CO<sub>2</sub> but also Methane (CH<sub>4</sub>).

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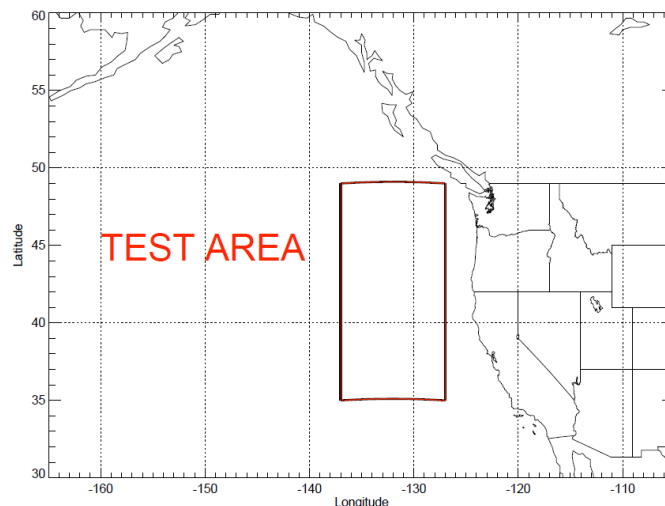
**Combined equipments in a module**

**【Observation Flight】**

During many of ecoDemonstrator787 flights, CME and MME are continuously operated and gather atmospheric information. Some data are submitted to the ground through aircraft data link system on a real-time base.

ASE will conduct the air sampling during one dedicated flight planned during ecoDemonstrator787 tests for Meteorological activities.

The flight will conduct in the U.S. West Coast area around Washington, Oregon and California.



**Air sampling test area in US west coast**

**【About Contrail Project】**

CONTRAIL project is a partnership between Japan airlines, Japan’s National institute for Environmental Studies (NIES), Japan’s Meteorological Research Institute (MRI), JAL Foundation and JAMCO. The project has been going on in Japan since 1993. Most of the atmospheric data has been gathered from Japan Airline’s commercial airplanes, which were fitted with sensors and gathered greenhouse gas information while flying throughout the world.

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Gathered valuable information is provided to researchers who are studying global greenhouse gas circulation mechanism. The project will continue to contribute to the global effort toward climate change studies.

In 2013, CONTRAIL Team received Outstanding Performance Award/the Prize of Minister of the Environment from the Hitachi Environment Foundation and Nikkan Kogyo Shimbun, Ltd. and also received the Asian Environment Award from the Mainichi Newspapers and the Chosun Ilbo.

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#### <References>

Boeing Release:

<http://boeing.mediaroom.com/2014-11-17-Boeing-ecoDemonstrator-787-Tests-Innovations-for-More-Efficient-Air-Travel>

NIES CONTRAIL Homepage: <http://www.cger.nies.go.jp/contrail/>

JAL CONTRAIL Homepage: <http://www.jal.com/ja/csr/environment/social/detail01.html>

JAL Foundation CONTRAIL: [http://www.jal-foundation.or.jp/shintaikikansokue/contrail\\_index.htm](http://www.jal-foundation.or.jp/shintaikikansokue/contrail_index.htm)

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