Lufft

OPERATIONAL SAFETY
WHATEVER THE WEATHER

case studies

Meteorology Division of OTT HydroMet

WEATHER- AND RUNWAY MONITORING SYSTEMS

Lufft sensors from the WS-product family are in operation on airports worldwide for real time weather observations. Moreover, the active and passive road-/runway sensors (IRS21-UMB, IRS31-UMB and the ARS31-UMB) as well as the CHM 15k Ceilometer are in use on the runways for measurement of water film height or road surface temperature and freezing temperature, for example.

An overview of our references:

Airport Frankfurt/Hahn
Airport Düsseldorf, Germany
Airport Paderborn, Germany
Airport Turin, Italy
Several airports in Belgium - Belgocontrol, Belgium

LUFFT SENSOR SUPPORTS AIRCRAFT DE-ICING SCHIPHOL AIRPORT (AMSTERDAM, NL)

Runway sensor MARWIS was tested as a tool to predict the formation of ice on airplane wings. Result: wing temperature changes relatively quickly, by up to 3°C within 20 minutes. Furthermore, wing temperature is determined by factors other than weather. For example, fuel present from a previous flight may lead to fuel-induced icing. Because the model anticipates both the type of precipitation and the timing, responses to weather conditions can be improved. That gives the airport enough time to ensure that sufficient manpower and materials are available to de-ice the aircraft.

LUFFT CEILOMETERS IN INDIA TO STUDY CLOUD PROFILING

Lufft CHM 15k is deployed at the Indira Gandhi International Airport, New Delhi and at the Indian Institute of Tropical Meteorology Observatory in Solapur. The first one was initially used for the cloud interference study due to ‘smog’ that occurred because of stubble burning in the fields of Punjab. And for airport-related cloud profiling. The second CHM is used for the ‘cloud-seeding’ project ‘CAIPEEX’, which stands for ‘Cloud Aerosol Interaction and Precipitation Enhancement Experiment’.

VENTUS-X FIELD TEST IN NORWAY

the Norwegian airport systems integrator Avinor has tested VENTUS-X model with an enhanced heating power. Two of the sensors have run in the field, installed at the top of Kjølen mountain, close to Tromsø Airport and at the top of Rustadfjell mountain, near Bardufoss Airport. Both locations are very windy and experience numerous snow showers in winter.

“The new sensors are much improved and stability is now as good as our users could wish,” says Avinor system manager Sander Bjørn Hansen.

MOBILE SENSOR MARWIS AT AIRPORTS IN ITALY

The mobile weather sensor MARWIS is successfully in operation on several airports in Italy, like the airport in Bergamo, Venice, Trieste and others. “The MARWIS from Lufft is a very useful tool to get all necessary runway weather data in real time, e.g. the thickness of the contaminant, the contaminant type and the surface temperature”, confirms Rota Fabio, Mechanical Plant Maintenance Manager at Airport Bergamo. He is a customer of the Italian Lufft partner INTERCOM.

MARWIS MOBILE SENSOR MAKES TAHITI AIRPORT SAFER

Faa’a Airport in Tahiti. is located directly on the coast 5 km southwest of the capital of French Polynesia. It has only one runway with a length of 3,420 m. Between December and February Tahiti is in a rainy season, during which there can be increased water films on the pavements. MARWIS is responsible for detecting water film heights that can lead to aquaplaning.


Insights for Experts
More project information? Contact us!
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