



UPPER AIR OBSERVATIONS

The 2015 Pan American and Parapan American Games will take place this year in Toronto and surrounding areas from July 10-26 and August 7-15, respectively. The Toronto 2015 Games is the largest multi-sport event Canada has ever hosted, involving 7,600 athletes competing in 51 sports (36 Pan Am and 15 Parapan) in 30 different venues located in the Greater Golden Horseshoe Area. Environment Canada is providing state-of-the-art, 24/7 dedicated, venue-specific weather alerting services and environmental emergency support for the Toronto 2015 Games. The TO2015 Games are also a catalyst for enhancing existing weather services through research and demonstration projects that will benefit future generations of Canadians.

What does the technology do?

During the Games, Environment Canada will use its existing emergency Upper Air trailer to release Upper Air balloons equipped with radiosondes. Radiosondes are small instrument packages comprised of a radio transmitter and sensors for pressure, temperature and humidity. Radiosondes record the vertical profiles of the atmosphere, information that is essential to create a global overview of the current and future state of the atmosphere. The data from these radiosondes will provide input for weather prediction.

What's new about the technology?

Environment Canada will release four radiosondes per day from its mobile Upper Air trailer which will

be located at the King City Radar in Vaughan. The radiosondes will be carried aloft by helium filled weather balloons. This trailer will constitute an expansion to the national Upper Air network for the 27-day period of the Games. In addition, this station will provide four daily releases of radiosondes in contrast to the two launches per day at a standard Upper Air monitoring station.

What is the legacy for Canadians?

This data will permit carefully detailed analysis of atmospheric conditions across southern Ontario during the Games. It will then be archived with the larger set of observational data gathered from other sources and will be a key component of this very rich and detailed dataset.



Environment
Canada

Environnement
Canada

Canada

**ENVIRONMENT CANADA'S INVOLVEMENT WITH THE TORONTO 2015 PAN AMERICAN
AND PARAPAN AMERICAN GAMES**

The Games will have served as a catalyst for Environment Canada to modernize the trailer and its communications technologies, which will be of lasting benefit to Canadians. Environment Canada maintains these mobile Upper Air trailers across the country, to be used on an as-required basis particularly during environmental emergencies.

