

# THE BUNCEFIELD FIRE: A BENCHMARK FOR INFRASOUND ANALYSIS IN EUROPE

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A large explosion occurred at the Buncefield oil refinery in Hemel Hempstead, 40 km north of London, on December 11, 2005 at 06:03 UTC. At this event approximately 15 million gallons of fuel blew up and created flames up to 200 m. The effects were felt by many people up to a distance of 60 km. The explosion generated also strong infrasound signals which were recorded all over central Europe.

This presentation gives an overview on the detected signals and their characteristics. In detail, recordings are considered from stations near Flers (France), Uppsala (Sweden), Garlstedt and Bischofsreut (Germany). The peculiarity of this event with respect to the acoustic wave propagation in the atmosphere is evident since it was expected to be recorded at all European infrasound stations east of the source. Moreover, this event is a benchmark for analyzing the capability of automatic signal processing, phase labeling, propagation modeling using different wind and temperature models, and acoustic event location.