

## **Locations for Xenon Background/Medical Isotope Investigations**

Medical isotope production facilities constitute a serious challenge to the interpretation of xenon isotopic information collected by the International Monitoring System (IMS) and analyzed by the International Data Centre (IDC). The monitoring community has grown to understand much about the size, temporal character, and isotopic composition of medical isotope xenon from several well-known production facilities. However, much of the world background of xenon, particularly near new or expanded medical isotope facilities, remains unknown. To facilitate a science-based method of choosing an experiment location, a series of atmospheric transport calculations have been done to determine what regions have less coverage from the partially-complete xenon network and which locations of these may have interesting, medical xenon background.

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