



Chemical Explosion Database

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A database containing information on chemical explosions, recorded and located by the International Data Center (IDC) of the CTBTO, should be established in the IDC prior to entry into force of the CTBT. Nearly all of the large chemical explosions occur in connection with mining activity. As a first step towards the establishment of this database, a survey of presumed mining areas where sufficiently large explosions are conducted has been done. This is dominated by the large coal mining areas like the Powder River (U.S.), Kuznetsk (Russia), Bowen (Australia) and Ekibastuz (Kazakhstan) basins. There are also several other smaller mining areas, in e.g. Scandinavia, Poland, Kazakhstan and Australia, with large enough explosions for detection. Events in the Reviewed Event Bulletin (REB) of the IDC that are located in or close to these mining areas, and which therefore are candidates for inclusion in the database, have been investigated. Comparison with a database of infrasound events has been done as many mining blasts generate strong infrasound signals and therefore also are included in the infrasound database. Currently there are 66 such REB events in 18 mining areas in the infrasound database.

On a yearly basis several hundreds of events in mining areas have been recorded and included in the REB. Establishment of the database of chemical explosions requires confirmation and ground truth information from the States Parties regarding these events. For an explosion reported in the REB, the appropriate authority in whose country the explosion occurred is encouraged, on a voluntary basis, to seek out information on the explosion and communicate this information to the IDC.