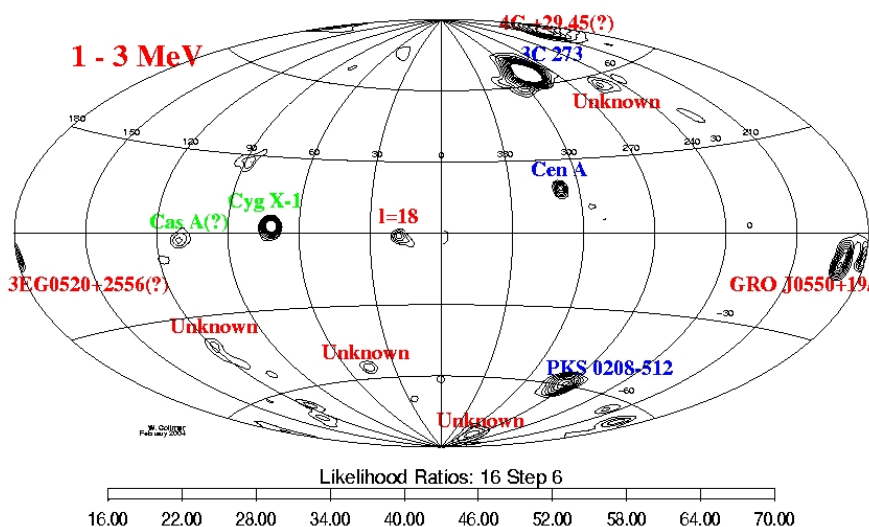
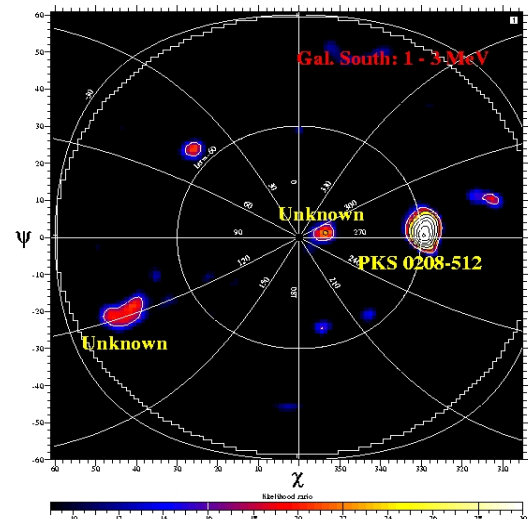
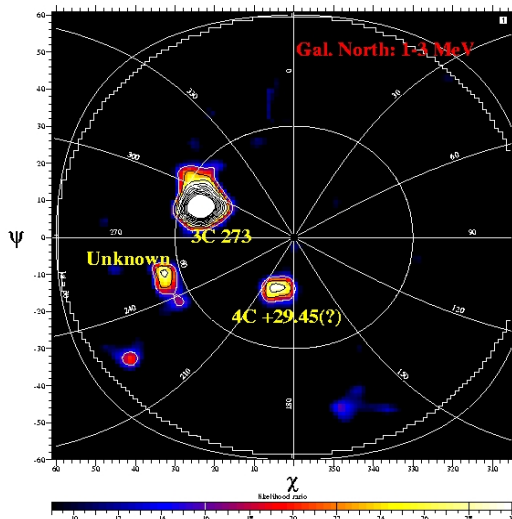




The 1. COMPTEL source catalog (Schönfelder et al. 2000), covering the first 4-5 years of the 9-year mission, lists 32 steady sources. We are currently working towards the 2. and final COMPTEL source catalog. At the current stage of the analyses, we expect this final catalog to contain at least 45 MeV point sources.

The COMPTEL experiment aboard CGRO pioneered the MeV sky (0.75 – 30 MeV) between 1991 and 2000. To finalize the data analyse, we re-analysed consistently all COMPTEL data from the beginning to the end of the mission by carrying out all-sky point source analyses in different energy bands for different time periods (sum of all data as well as subintervals). The goal of the analyses is to derive 1) a consistent survey on MeV sources, and 2) the variability behavior for the brighter MeV sources. These results will be summarized in the 2. COMPTEL source catalog.

Up to now, we found evidence for about 15 new source detections. The majority are spatially coincident with EGRET γ -ray sources (identified as well as unidentified ones), whose MeV emission is probably detected. The rest are unknown MeV sources, for which no identification has been proposed yet. Some new sources are visible in the example maps below.



Left: COMPTEL *all-mission all-sky point source map* in galactic coordinates (1–3 MeV). The map shows, apart from the Crab (removed for display reasons), the strongest MeV sources on average. The upper two maps are from the same data, however centered on the galactic north (left) and south (right) poles. Some new MeV source candidates are visible, e.g. the blazar 4C 29.45 and 3EG 0520+2556, an identified and an unidentified EGRET source. The most significant of several yet unknown source features are labeled.