

# Cluster Commentaries

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For relocated clusters of events that are to be uploaded to the NEIC's ComCAT database it is necessary to run *mloc* with the command "**ccat**", which accepts an optional (but highly recommended) reference to a text file containing documentation about the cluster and the relocation procedures that were used.

There are no requirements on the content or format of the commentary file, except that it be a plain text file, hard-wrapped at some reasonable line length (72-80 characters), but it is desirable to establish some basic elements that are routinely provided. These are listed below. It is anticipated that *mloc* will be modified in the near future to produce much of the required information automatically when the **ccat** command has been issued.

## Context

The context section of the commentary establishes the reason for which the cluster was formed and analyzed, and possible relationship with other calibrated clusters. For example, some clusters are formed to study a mainshock-aftershock sequence, while others are formed simply to improve geographical coverage of calibrated clusters or take advantage of a particularly good dataset from a local or temporary network.

## Event Selection

This section discusses the approach taken to select events for the cluster.

## Date Range

## Magnitude Range

## Data Source

What was/were the source(s) of arrival time data used in the relocation.

## Velocity Model

Comments concerning the use of a custom crustal model.

## **Calibration Method**

Discussion of the method (direct vs indirect) of calibration and any notable aspects of the calibration process.

## **Focal Depth**

Discussion of issues related to depth constraint, and summary of the distribution of constrained depths.

## **Calibration Level**

Level of calibration of the hypocentroid and summary of epicentral calibration levels of individual events.

## **Futhermore**

Any additional comments or discussion of issues that arose in the analysis.