Comet Unidentified Features – Hendrix comments

comets\_unids\_description.txt

The (new) file (comets\_unids\_description.txt) is basically the same as the existing collection\_description.txt, is it not? So I'm not clear on the utility of including both files.

Also, these files include a couple of typos (e.g. under "parameters" the first lines has an unnecessary period at the end) and treat "data" as a singular (maybe this is only a pet peeve of mine, but I think it is also generally accepted that it is correct to use e.g. "these data are...").

In general, the file does a poor job of explaining the datasets. How were these lists of unidentified features derived? It is very unclear why there are two formats (“one for data the other for observation Information”), and how they are related. Even after looking at the data files, this is unclear!

I think that this problem can be addressed as simply as adding some text to the collection\_description.txt along the lines of: “This archive documents the unidentified emissions in published comet spectra. These archived datasets, while being formatted uniformly for PDS4, contain varying levels of information and detail, based on the level of information and detail given in the reference paper. The user is advised to refer to the reference paper for more information.”

“Entries that could not be found” – where? In the original papers referenced? This could be clarified by, as suggested above, more clearly explaining how these data files were put together.

Files in emissions folder

Examined Swift-Tuttle and Hyakutake as examples.

Swift-Tuttle evidently had only one observation; so there was just one table, not one for data and one for observation. It seems unnecessary to fill in the exposure time or UT or geometry columns, when they repeat for all wavelengths. Perhaps for observations with only one dataset, the obs time and exposure time and geometry could be included in the label.

Hyakutake had several observations/datasets; most (not all) have data and observation tables. Again, the relationship between these two files is unclear, particularly because the observation tables tend to indicate that observations were made at several different times – to which of these times do the unidentified emissions in the data file correspond?

This problem can be solved by adding text in the label file such as: “This dataset includes observations from several different times (documented in the observation file). The unidentified emissions (in the data file) are not derived from one specific observation time.