

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS

Number 3588

Konkoly Observatory
Budapest
16 April 1991

HU ISSN 0374 - 0676

VARIABLE STARS IN THE IRAS POINT SOURCE CATALOGUE

The five-volume Point Source Catalogue of infrared sources resulting from the work of the Joint IRAS Science Working Group (see Beichman *et al* 1988) contains excellent infrared photometric data and quite accurate positions for over 245,000 astronomical objects. This extremely valuable catalogue is accompanied in many cases by "associations" or possible identifications of the included objects, based almost entirely on positional coincidence. As would be expected, numerous named and suspected variables are contained in the catalogue. The purpose of this note is simply to point out that not all of these variables are so identified. This is not surprising, as it was never intended. There are at least three reasons for the lack of identification of many variables. (1) Many catalogues besides the GCVS and the 1982 New Catalogue of Suspected Variable Stars were used to establish the associations, and only a single association is cited. Many of the brighter variables, thus, are identified only by reference to such catalogues as the Smithsonian Astrophysical Observatory, the Dearborn Red Star, or the Caltech Two-Micron Survey catalogues. (2) The version of the GCVS used included only those named variables so designated by the year 1970, and thus the variables in later naming lists are not noted. And (3) the tabulated positions of many variables are quite inaccurate, and positional associations are often uncertain or impossible.

The extent to which the Point Source Catalogue does not identify named variables is difficult to estimate. In Scorpius it appears that about 20% of them are not so designated, while in the more northerly constellations such as Aries or Boötes the fraction is much larger. It is thus apparent that researchers seeking infrared photometric data for variable stars should check the catalogue positions directly instead of relying on the associations given, which are still useful, of course, for other purposes.

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Reference:

Beichman, C. A., Neugebauer, G., Habing, M. J., Clegg, P. E., and Chester, T. J. 1988, *Infrared Astronomical Satellite (IRAS) Catalogs and Atlases* (Washington: NASA Ref. Publ. 1190).