PROPOSAL FOR A DATA CENTRE ON GALACTIC NON-STELLAR OBJECTS

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Bibliographic work was begun in 1969 on Interstellar Matter and Galactic Non-Stellar Objects, mainly those found in regions suspected to be favourable to star formation.

We are contemplating the systematization and automatization of this work, taking advantage of the tools now worked out for stellar data at the Centre de Données Stellaires de Strasbourg.

I. PROPOSALS

1. Centralization of the bibliography

The bibliography might be taken primarily from our file on Interstellar Matter, and might also be collected by asking the authors of extensive studies (Catalogues, Surveys) to send their work directly to the Centre, as soon as it is ready to be submitted for publication.

2. Analysis of data

Each paper, in addition to the objects there described, should be codified with appropriate key-words. The key-words would be chosen by the authors and/or by the analytical working group, in view of subsequent work.

Such key-words might be:
. theoretical model, describing a specified individual object.

C. Jaschek and G. A. Wilkins (eds.), Compilation, Critical Evaluation, and Distribution of Stellar Data. 171-173.

. maps or photographs.
. optical line-intensity ratios.
. kinematic studies (velocity field, lines profiles, kinematic distance).
. continuum radio studies (for instance a new field will be millimeter continuum radio studies).

Subsequent work might be done by separate working groups, from the documentation sorted by the computer, for instance:

. bibliography on a specified object or sample of objects (as is currently done for stars by the Centre de Données Stellaires de Strasbourg).
. study of a specified parameter (or class of parameters) for a sample of objects (for instance, bibliography on infrared emission of H II regions, detection of molecular lines emission in different kinds of galactic non-stellar objects).
. preparation of catalogues with well arranged bibliography of a sample of objects (for instance a catalogue, a study, and a bibliography of a complex H II, H I, molecular cloud region where star formation is going on).

II. PROBLEMS

1. Choice of key-words

We cannot attempt to make an exhaustive codification: it would be too time-consuming at the input and our experience is that it would be totally inefficient at the output.

Instead we devised a limited number of key-words, not too restrictive in their meaning, and most of them connected with current research in France, falling into the following categories:

. kind of information found in the paper (new observation, theoretical model, laboratory physics, review paper).
. kind of instrumentation and wavelength.
. type of objects studied (H II region, dark cloud).
. physical parameters studied (line-intensity ratios, line profile, dust content).

We propose to add a set of more specific key-words (maybe subcategories of the preceding ones), devised in view of well defined subsequent work (paragraph I, 2).

2. Choice of the papers to be collected

The introduction of key-words may allow inclusion of theoretical papers, and not only those devoted to one or several real objects.

3. Cross-identification catalogue for non-stellar objects

A compilation of some synonymies or inclusions may be quickly carried out from existing Catalogues. However, we have to build a more systematic and updated Catalogue, a problem far more complex than for stellar objects or planetary nebulae. As a guiding principle, we possibly should give the priority to two extreme kinds of designations, one very precise for location (to within a few arc seconds), the other indicating into which larger entity (cloud, large H II region) the object can be inserted in its projection on the sky.