



Division of Physics, Sx

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Mr. W.A. Cumming

The following summarizes the main points we discussed on 17 April regarding the possible formation of an Astrophysics and Space Science Institute (or Branch) within NRC.

Scope of the Institute

It is suggested that the Institute initially be made up of the Astrophysics Branch of REED, the Spectroscopy Section, the Larger Molecules Section and the Cosmic Ray Section of the Physics Division. Recently a meeting was held between Drs. Redhead, Haney, Herzberg, Douglas, Locke and McDiarmid and the idea of an Institute in this area received enthusiastic support by all of the above people.

Reasons for Forming the Institute

1. The groups involved have a number of common interests which could best be served if they were brought together into a single structure such as an Institute. Under favorable conditions the resulting increased interaction between scientists would almost certainly pay off scientifically. At present there is considerable expertise in the different groups. In some areas they hold a leading position in the field in Canada and are in a competitive position internationally so that an appropriate base exists on which to build.
2. At present the individual groups suffer from a certain lack of visibility. If they were grouped together into a single integrated unit the whole activity would become both more significant and more visible. This would benefit the activity and would also be good for NRC in that a better and more significant program would result.
3. NRC has already large commitments to operate facilities in this area (e.g. radio telescopes, optical telescopes, rocket launch facilities, neutron monitor network). If NRC's new role is to emphasise the performance rather than the promotion of research then it would be consistent to put a more coordinated, and possibly increased, effort into the use of these facilities.

Minimum Requirements for an Institute

If the Institute is to be successful scientifically, that is, more successful than the sum of the present individual groups, then at least two requirements will probably have to

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be met. First, a top rank scientist, in the Distinguished Scientist category, is required to provide the scientific focus for the Institute. Hopefully the top scientist would not need to be deeply involved in administration. Initially, Dr. Herzberg might fill this role and eventually he could be instrumental in attracting another scientist of this calibre. Secondly, all of the Institute should be located in one place to allow, in fact to promote, interaction among the scientists. The least expensive of several possibilities would be to locate the Institute in the Sussex Drive Building. If some rearranging was done within the Physics Division, which is desirable for other reasons, then the space occupied at present by the Physics Division in Sussex Drive would be almost sufficient to accommodate the Institute. The main difficulty with this arrangement would be the problem of supplying sufficient shop services at Sussex Drive and this is being looked into further.

Formation of the Institute

Very little thought has been given to the question of how to set up such an Institute. It has been suggested that it could, at least initially, be a branch of the two Divisions concerned. While there would probably be some difficulties with such an arrangement it nevertheless would likely be workable.

J.L. Locke
I.B. McDiarmid

JLL,IBM:sh