

lodges. These particles, some so small they cannot be seen by the naked eye, appear to be remnants of the fuel of the small nuclear reactor known to have been the satellite's source of power.

#### Levels of radiation

The radiation levels of recovered debris varied widely. The field from one small fragment was 200 roentgens per hour near contact when found — a level sufficient to kill someone in continued contact with it for a few hours. Other tiny particulate sources measured only a few thousandths or millionths of a roentgen per hour.

Most of the later search was spent on the recovery of the tiny particles since, although minute, they were considered potentially dangerous if accidentally



News of the North

*Natives are checked for contamination. All cases proved negative.*

inhaled or ingested. Once the radioactivity levels were recorded, the Department of National Health and Welfare estimated that if a particle were ingested it would, in the normal time taken to pass through the body, present no greater radiation than would a medical X-ray examination of the gastric area.

Externally, it appeared that danger from the particles was low or non-existent in the normal course of events, but that there might be some risk to people if, for example, a particle were lodged in clothing, offering prolonged close contact.

In view of all risk considerations, it was agreed to search all frequented areas and to remove all detected particles. A start was made in the towns in the Northwest Territories during winter, and then

during the summer very detailed surveys of streets, yards, schools, playgrounds, water reservoirs, etc., were made in the expanded area of northern Saskatchewan and Alberta as well. Fishing camps, roads and railroad beds were also investigated.

Localities visited in the Northwest Territories included Hay River, Pine Point, Fort Resolution, Snowdrift, Reliance, and Fort Smith, in all of which a significant number of particles were found, and Fort Providence and Enterprise where nothing was detected.

In Saskatchewan, Camsell Portage and Fond-du-Lac were searched without turning up anything. In Alberta, nothing

was discovered at Embarras Portage, but a few minute particles were found and removed from Fort Chipewyan, Hay Camp and Fitzgerald.

Particles fell far and wide over the area south of Great Slave Lake. Indeed, several uranium prospecting parties turned up particles during their detailed studies in the bush, and this was one of the reasons for extending the search area in the summer phase. Prospectors were advised that if any particles were found, they should be marked, authorities notified, and the location avoided.

Much of the country in the search area is underlain by rock with high natural

#### Peaceful uses of outer space discussed at the United Nations

"...Mr. Chairman, I would like now to refer to the Report of the Committee on the Peaceful Uses of Outer Space, which is before this Committee. From our point of view, the twenty-first session of the Committee was most productive. As members are aware, Canada raised the question of the use of nuclear power sources in outer space in the United Nations at the February meeting of the Scientific and Technical Sub-Committee, which took place shortly after the nuclear-powered satellite *Cosmos 954* fell on Canadian territory, scattering debris, some of which was radioactive, over a wide area of the Canadian North. Our purpose in raising the issue at that time, and later in the Legal Sub-Committee, was to draw attention to the international implications of the incident as a matter of concern to all countries, and to propose measures for the development of an international regime of safety standards to govern the use of nuclear power sources in outer space. To this end, we have made a number of proposals.

"We are pleased to note that many of these proposals gained widespread support in the Outer Space Committee and that at its twenty-first session Committee members agreed to establish a Working Group of Experts under the Scientific and Technical Sub-Committee to consider "technical aspects and safety measures relating to the use of nuclear power sources in outer space". In view of the consensus obtained in the Outer Space Committee, we hope that this body will approve this decision so that the Working Group of Experts could meet next February, during the sixteenth session of the Scientific and Technical Sub-Committee. The report of the Outer Space Committee also contains a request that launching states notify states concerned in the event that a space object with nuclear power sources on board is malfunctioning with a risk of re-entry.

"Mr. Chairman, we consider that these consensus recommendations of the Outer Space Committee represent a recognition by the UN of an important international issue and that they provide for a program of constructive action which will benefit all countries. We strongly support these recommendations and hope that all member states will join in this co-operative effort to minimize the risk of harm to mankind and the environment from the use of nuclear power sources in outer space....

"In conclusion, Mr. Chairman, I should like to state that my delegation will be very pleased to co-sponsor the omnibus resolution on the Peaceful Uses of Outer Space which is to be introduced in this Committee by my distinguished colleague from the delegation of Austria. In the words of this draft resolution, we are very conscious of "the common interest of mankind in furthering the exploration and use of outer space for peaceful purposes and in continuing efforts to extend to all states the benefits derived therefrom". It is our belief, Mr. Chairman, that with the clear guidance provided by this resolution, progress will be made during the next year and in this collective effort I pledge Canada's full support and co-operation...."

*(From a statement to the Special Political Committee of the thirty-third session of the United Nations General Assembly by Maurice Dupras of Canada.)*