radiation is absent in the flare. It may be that the enhancement of Lyman alpha occurs in the flash phase and the NRL rocket did not reach altitude early enough to detect the flash. It is interesting to note that the normal x-ray spectrum from a quiet sun implies a coronal temperature of about 700,000°K. The flare region that produced the 3-angstrom radiation must have been heated to perhaps 10 million degrees to account for the observed intensity.

These flare studies will be continued through the International Geophysical Year. Approximately 40 flights are planned, either with the Rockoon system or with the ground fired Dan, which is a combination of the Nike booster and the Deacon rocket.

Blood Groups and Disease

A correlation between a person's blood group and the diseases to which he is susceptible was reported by J. A. Fraser Roberts of the London School of Hygiene and Tropical Medicine, at the recent annual meeting of the British Association for the Advancement of Science. Discussing the blood groups A, B, and O, Roberts cited the following three associations, which he said were supported by "overwhelming" evidence:

1) The incidence of duodenal ulcer is now known to be 40 percent higher in persons with group O blood than in those with other types of blood.

2) Gastric ulcer is 25 percent more common among members of the same group, and persons in group A appear to be abnormally susceptible to cancer of the stomach.

3) Persons with O or B blood are more than normally likely to get diabetes and pernicious anemia.

USDA Animal Disease Laboratory Dedicated

The new $10-million research building of the U.S. Department of Agriculture's Plum Island Animal Disease Laboratory was dedicated on 26 Sept. The laboratory, which has been in limited operation since July 1954, is devoted to research on foreign diseases of livestock —particularly foot-and-mouth disease— that are potential threats to the U.S. livestock industry.

Following the public open house and dedication ceremonies there was a scientific symposium for invited specialists concerned with foreign livestock diseases. Among the scientists from abroad who participated were Ian A. Galloway, director of the Research Institute, Pirbright, Surrey, England; Jacob G. van Bekkum, State Veterinary Research Institute, Amsterdam, the Netherlands; Charles A. Mitchell, chief of the Animal Diseases Research Institute of the Canadian Department of Agriculture, Hull, Canada; Georges A. Moosbrugger, director of the Federal Vaccine Institute, Basel, Switzerland; and Erik G. Fogedby, Food and Agriculture Organization of the United Nations, Rome, Italy.

Canadian Industry and the Scientific Manpower Shortage

At Canada's first national conference on engineering, scientific, and technical manpower, about 100 industrial leaders joined to create the Industrial Foundation on Education. The conference, held at St. Andrews, New Brunswick, was sponsored by the A. V. Roe Canada Ltd., an aviation company. Almost $100,000 was pledged to finance the new organization, and the first year's budget of $50,000 was underwritten by the Roe Company.

The aims of the foundation are: (i) to speak for industry in matters of education; (ii) to represent industry in any nation-wide program for training skilled manpower; (iii) to study the role of industry in education in general; and (iv) to engage in research in education in the light of industrial needs.

There have been increasing indications of a shortage in engineers and scientists as Canadian industry expands. Statistics show that Canadian schools are turning out about 1700 engineering graduates a year. One speaker at the conference estimated that Canadian industry requires 3000 a year, and another placed the figure at 6000, pointing out that in recent years Canada has filled many of its industrial engineering positions with immigrants. Approximately 8000 to 9000 professional men and women from abroad are taken into Canadian industry annually.

The creation of the Foundation on Industrial Education was the first action of its kind in Canada instituted by a cross-section of industry. Hitherto, the basic problems of education have been left to educators and to the provincial governments.

Geological Survey Water Resources Division

Reorganization of the Water Resources Division of the Geological Survey has been announced. The revised structure is designed to integrate the program planning and the operations of the division, to decentralize its administration, and to improve facilities for the increasingly important general hydrologic studies. This in turn will permit a more effective utilization of the survey's scientists in basic research on the occurrence and behavior of water and in the interpretation of the basic water data.

The new organization plan for the division provides an assistant chief of division for operations, Raymond L. Nace; an assistant chief of division for program and development, Luna B. Leopold; an administrative officer in the immediate office of the division chief, Frank Barrick, Jr. In addition two field representatives of the division chief, to be known as division hydrologists, have been named: Arthur M. Piper for the Pacific Coast area, with headquarters at the Survey's field center in Menlo Park, Calif.; and George E. Ferguson for the Atlantic Coast area, with his office in Arlington, Va.

Two other division hydrologists for the Rocky Mountain and Mid-Continent areas will be named later. Within the division a new branch has been added, that of general hydrology, headed by Charles C. McDonald. Thus there are now four branches: ground water, surface water, quality of water, and general hydrology.

Soviet Satellite Program

The U.S.S.R. confirmed the existence of its satellite program and made it officially part of the International Geophysical Year at the recent meeting in Barcelona, Spain, of the Comité Spécial de l'Anné Géophysique Internationale. This is the committee of some 50 nations that is coordinating the over-all plans for the IGY. The Soviet statement said only that a satellite program was being prepared, that it had begun quite recently, and that details could not be furnished until later.

News Briefs

■ Supernovae may be the source of cosmic rays, according to a report by Philip Morrison of Cornell University on the findings of two Soviet scientists, Shklovsky and J. L. Ginzburg, and a Dutch astronomer, J. H. Oort. At the recent meeting in Seattle, Wash., of the International Congress on Theoretical Physics, Morrison stated that as result of their work, "the probable origin of cosmic rays has passed from the area of free speculation into one in which direct observation is brought to bear."

■ Research on the propulsion of rockets by nuclear energy is being conducted for the Atomic Energy Commission in two laboratories of the University of California—the Livermore Branch of the Berkeley Radiation Laboratory and the