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

Los Alamos Scientific Laboratory at Los Alamos, New Mexico. At Livermore the nuclear propulsion work is headed by Haydon Gordon and Theodore Merkle, and at Los Alamos by Raemer Schreiber.

■ The Power Reactor Development Company of Detroit has agreed to an Atomic Energy Commission hearing on whether or not its permit to build an atomic power plant at Monroe, Mich., should be suspended because of public hazard [*Science* **124,** 358 (24 Aug. 1956); **124,** 577 (28 Sept. 1956)].

■ For all cases where birth is delayed beyond 42 weeks, the prenatal mortality approaches 4 percent, according to Arne Lindell, of the Department of Women's Diseases, Karolinska Sjukhuset, Stockholm, in a paper presented at the ninth Congress of the Scandinavian Association of Obstetrics and Gynecology that took place recently in Oslo, Norway. Lindell based the finding on a study of more than 46,000 deliveries during the period 1943–52 inclusive. Most deaths among postmature infants occur during labor, and the most common cause of death is birth trauma, chiefly cerebral hemorrhage.

■ The ancient Russian city of Pskov, the foundation of which goes back some 1800 years, is being restored by Soviet archeologists and architects, according to the Soviet news agency Tass. The city fortress has 39 towers and walls that measure more than 5 miles in circumference.

■ Within the single decade following World War II, the child population of the United States increased by more than a third, reaching a record total of 55⅔ million at ages under 18 years in 1955. This 10-year gain of more than 14 million is without precedent in our history.

■ The Atomic Energy Commission has issued a license to the Naval Research Laboratory in Washington, D.C., to operate a "pool" type atomic reactor for use in research. This reactor, the first to be licensed in Washington, is similar in design to one that has been in operation for several years at Oak Ridge National Laboratory.

■ The National School of Health in Madrid, Spain, is setting up a new tissue-culture and virus laboratory for the Spanish Government. Herbert R. Morgan, chairman of the bacteriology department and director of the Rochester Health Bureau Laboratories, University of Rochester Medical School, has gone abroad to assist in the establishment of the new laboratory.

■ The United States has announced that it will make a special contribution of $1.5 million to the Pan American Sanitary Bureau for expanded assistance in 1957 in the malaria eradication campaign. This contribution is in addition to the regular annual quota payments of the United States and other member governments to the PASB budget.

■ The outlook in poliomyelitis, both immediate and long range, appears favorable, according to the statisticians of the Metropolitan Life Insurance Company. Through the first 8 months of 1956 reported cases of the disease are 45 percent fewer than in the comparable period of last year.

Scientists in the News

H. GODWIN, author of *The History of the British Flora,* recently delivered this year's Woodward lectures at Yale University.

HERMAN I. SCHLESINGER, emeritus professor of chemistry at the University of Chicago, has been awarded the Alfred Stock memorial prize by the Society of German Chemists (Gesellschaft Deutcher Chemikur). He addressed the society at a meeting in Hamburg, Germany, on 21 Sept. Schlesinger, still active in research at the university, received the award for his work on the boron compounds, a field first explored by Stock, a German chemist, beginning in 1912. Schlesinger received his bachelor's and doctor's degrees from the University of Chicago, and he was a member of its faculty for 41 years until his retirement in 1948.

Mrs. ROBERT E. SHELBY, wife of the vice president and chief engineer of the National Broadcasting Company who died last December, was presented with the David Sarnoff gold medal that was awarded posthumously to her husband during the recent meeting of the Society of Motion Picture and Television Engineers.

FRANK E. E. GERMANN, who retired last year as professor of chemistry at the University of Colorado, has resigned as executive secretary-treasurer of the AAAS Southwestern and Rocky Mountain Division. He has accepted an appointment as physical chemist with the National Bureau of Standards in Boulder, Colo.

W. G. WADEY, formerly assistant professor of physics at Yale University, has accepted an appointment as professor of physics at Southern Illinois University, Carbondale.

JOHN W. KEMBLE, who since 1936 has been serving with the Army Medical Corps, and who during some of this time has been lecturer in neuroanatomy at George Washington University School of Medicine (Washington, D.C.), has been named professor of neurology at the Medical College of Georgia.

At the same institution, ARTHUR J. GATZ, former associate professor at Loyola University School of Medicine (Chicago), has been appointed associate professor of microscopic anatomy.

Foreign participants in the American Cancer Society's annual scientific session, which this year will take place 29–30 Oct. at the Park Sheraton Hotel in New York, include GUY F. MARRIAN of the University of Edinburgh, Edinburgh, Scotland; O. MÜHLBOCK of the Netherlands Cancer Institute, Amsterdam, Netherlands; RIGOBERTO IGLESIAS of the Institute of Experimental Medicine of the National Health Service, Santiago, Chile; SIR STANFORD CADE of Westminster Medical School, London, England; ROLF LUFT of the Karolinska Institut, Stockholm, Sweden; H. L. KOTTMEIER of the Radiumhemmet, Stockholm, Sweden; and ALFRED GLUCKSMANN of the Strangeways Research Laboratory, Cambridge, England.

A. M. LANE of the Atomic Energy Research Establishment, Harwell, England, is presenting a series of eight talks on the nuclear shell-model at Oak Ridge National Laboratory during the month of October.

The late GLADYS A. REICHARD, professor of anthropology who taught at Barnard College for 33 years, has been honored by the college with the publication of a booklet of tributes. Founder of the first anthropology department in a woman's undergraduate college, Dr. Reichard was an authority on the Navaho Indian. An analysis of Dr. Reichard's "Commitment to field work," by Margaret Mead, associate curator of ethnology at the American Museum of Natural History and a AAAS board member, is included in the publication, which may be obtained from the public relations office at Barnard.

V. PRELOG of the Technische Hochschule, Zurich, Switzerland, will discuss "Newer developments in the chemistry of medium-sized ring compounds," on 15 Oct. at Wayne University. This is the second in the series of eight weekly "Frontiers in Chemistry" lectures. The final lecture will be delivered on 3 Dec. by R. CRIEGEE of the Institut für Organische Chemie der Technischen Hochschule, Karlsruhe, Austria.