

Flu-Shot Time Sept. 1 For High-Risk Groups

► PERSONS WHO ARE over 45 years old or who have a chronic disease, should circle Sept. 1 on the calendar as the date for the first flu shot of the season.

Surgeon General William H. Stewart of the Public Health Service predicts relatively little influenza during the 1966-67 season, but there will be enough to make vaccination worth while.

Recommendations of the Surgeon General's advisory committee on immunization practices were reported in the *Morbidity and Mortality Weekly Report* for the week ending July 16.

"It is important that immunization be carried out before influenza occurs in the immediate area since there is a two-week interval before development of antibodies," the committee warns. "Vaccination should begin as soon as practicable after Sept. 1, and ideally should be completed by mid-December."

Variations in flu viruses during the 1965-66 season were not of major significance, and the committee says composition of the 1966-67 vaccine is unchanged from that prepared last year.

ANTHROPOLOGY

Indians and Eskimos Prompt Photography

► A NEW KIND of aerial photography is being developed to scour Hudson Bay for signs of prehistoric Eskimos and Indians.

Evidence of the prehistoric cultures around the Bay has been difficult to find because problems of traveling in the wild, virtually inaccessible areas on the east shore of the Bay have hindered research expeditions.

Dr. Elmer Harp Jr., director of the Dartmouth College Museum and professor of anthropology, hopes to detect signs of early habitation in this region by photographing it from the air.

Pictures of the area, which lies in the Arctic and sub-Arctic zones of Quebec, will be taken using four resolution scales and four types of film—black-and-white, color, infrared and camouflage detection film. Such advanced air techniques have not been used before in archaeology but may open the way for a number of new anthropological and archaeological studies.

Man "inevitably leaves his mark on the landscape," Dr. Harp said. Although his traces may be covered over by time, they are seldom completely obliterated.

During the summer of 1967, an eight-man ground expedition will explore the territory previously photo-

graphed and the results will be evaluated against evidence revealed by the pictures.

Dr. Harp hopes to learn whether the Boreal Archaic Indians from the Great Lakes region traveled northward to the Hudson Bay forests that parallel the coast, where the Dorset Eskimos lived in prehistoric times. Any indications that these two groups had contact with each other would shed new light on the origins of Eskimo culture in the eastern Arctic.

PSYCHOLOGY

Meeting Prisoner Father Helps Children Adjust

► ALLOWING PRISONERS at San Quentin Prison in California to meet with their families in informal monthly therapy sessions has been found to smooth out crucial difficulties before the father's parole.

Greatest benefit in the pilot project accrued to the children, half of whom had never been told their fathers were in prison.

Instead they were given a variety of excuses, such as "out of state" or "in the hospital," all of which led to a feeling of being deserted.

The prison's counseling staff believed that parental dishonesty was producing a "vicious cycle" of deception, rejection, and delinquency.

Rejection by the father is a more important cause of delinquency than imitation of him, said a report by Dr. Harry A. Wilmer of the University of California School of Medicine, San Francisco, Irving Marks of the California Department of Corrections and Edwin Pogue of the Vacaville Medical Facility, Vacaville, Calif.

At the time the year-long project was instituted, San Quentin already had what was called a "community living program."

Minimum security prisoners were allowed to live in a group just outside prison walls.

Group therapy was given with wives joining in once a week.

The project was enlarged to include monthly sessions with entire families.

Discussions were unstructured and dealt with such subjects such as prison living conditions, difficulties wives and children were having, and tendencies toward delinquency in the children.

The overall effect was to help children "replace fears and fantasies with realistic attitudes about prison and their fathers," said the report. Family ties were strengthened, children were happier, and prisoners were enabled to act with more responsibility.

The authors of the report, published in *Mental Hygiene*, July 1966, believe that family treatment, given both before release and during parole, helps prevent relapses on the part of the prisoners and delinquency in their children.

IN SCIENCE

MILITARY SCIENCE

Gun Aimer Could Track Man Four Miles Away

► AN AIMING DEVICE so accurate that it could track an object much smaller than a man four miles away from a severely tossing ship is being developed for the U.S. Navy.

Almost everything about the system is classified, except the fact that it will work in all three directions (up-and-down, side-to-side and near-or-far).

The device will work by continuously measuring the differences in the relative position of two points on a ship resulting from normal pitch, sway and heaving movements. The points will be connected by a single beam of polarized light that will record their angular movement to within a few seconds of arc.

A computer will keep weapons positioned by compensating for the movements of the ship. Chrysler Corporation is designing and building the system.

GEOPHYSICS

Glaciers Are Retreating Russian Survey Finds

► THE MOST ANCIENT ice sheet on the Arctic islands, which took shape at least 100,000 years ago, is now retreating, Soviet glaciologists believe.

A Russian scientific expedition spent two and a half months in the Severnaya Zemlya archipelago, where repeated explorations of the October Revolution Island, biggest in the archipelago, "have confirmed the assumption about the retreat of the glaciers and the considerable contraction of their dimensions." Previous observations at Franz Josef Land, the Ushakov Islands (Kara Sea) and Victoria (Barents Sea) have confirmed the general retreat of the ice sheet.

The expedition also found flotsam of ancient tree trunks dumped into the ocean by Siberian rivers, as well as various specimens of moss that had once been growing in what is now the Arctic.

Buried under ice later, the trees have now been released from "captivity" now as the result of the retreat of the glaciers.

These finds, evidence of the evolution undergone by different glacial periods, will be subjected to a radiocarbon dating test for the purpose of establishing their absolute age, the Soviet Novosti Press Agency said.

MEDICINE

Swallowed Air Causes False Angina Symptoms

► CHEST PAIN is not always caused by a heart attack. Swallowing air can produce pain that simulates the symptoms of true angina pectoris.

Dramatic response of such pain to the drug Phazyme, a preparation that disperses gas in the gastrointestinal tract, has been reported by a New Jersey heart specialist.

Only five of 30 patients failed to get quick relief with the drug, Dr. Manuel J. Rowen of St. Elizabeth Hospital, Elizabeth, N.J., said, and those five were shown to be suffering from other more serious conditions.

"Physicians must daily differentiate between life-threatening angina and frightening but benign pseudoangina," Dr. Rowen said. "This critical decision must be made with imperfect instruments, nonspecific chemistry tests and a possibly erratic history in an already prevailing atmosphere of apprehension and fear of death."

Phazyme belongs to a new class of agents described as silicone antifoam chemicals. Simethicone is another name for the drug. Its successful use confirms the diagnosis of pseudoangina as distinguished from angina.

Air swallowing is a very common neurotic mechanism used unconsciously by some persons during periods of emotional stress, Dr. Rowen said in *Medical Times*, August 1966. The patient who is unduly conscious of his heart will invariably interpret the chest pain and shortness of breath caused by gastrointestinal gas distention in terms of heart disease.

Removal of the painful symptoms allays the patient's fears about his heart and thus helps the physician combat the associated anxiety.

GENERAL SCIENCE

European Cars Follow U.S. Power, Size Trends

► AS FEDERAL safety controls are ready to be clamped down on the U.S. auto industry, a Ford Motor Company official reports that the European Continent is having its own size and horsepower races.

Car size is going up with the economy, and horsepower is going up faster than that, said Webster C. McDonald Jr., until recently product planning manager for Ford International and now with Ford Motor Company's Lincoln-Mercury Division.

"The European consumer, like his American counterpart, buys an optional, larger engine with very great gusto, in spite of the resulting extra license fees, higher insurance costs and greater fuel consumption," Mr. McDonald said. As a result, he added, engine sizes will grow faster than dictated by increased car sizes alone.

Europeans are also getting much more accessory-happy than they were a few years ago. Power brakes, power steering, extra trim and automatic transmissions are all being ordered in increased amounts, though they are not up to U.S. levels.

Between 25% and 35% of all Ford cars in Europe are ordered with optional trim, Mr. McDonald said in the *Journal of the Society of Automotive Engineers*, August 1966.

Product cycles—the time between completely new models—"are certain to shorten" from their present European range of from three to 10 years. In the United States, new models are introduced every two to four years.

Another trend responsible for increased size of European cars is the growth of multiple-car families. With two or three cars in the garage, small models can be used for fun or short-hop driving, leaving the big Detroit-style one for general use. Mr. McDonald described the trend as one to a "wider spectrum of product appeal."

BIOLOGY

Some Earthly Organisms Survive Heat of Space

► EARTHLY ORGANISMS aboard the Gemini 9 capsule survived 18 hours in outer space, including about six hours in the destructive radiation of the sun. The longest life previously recorded under the same conditions was three minutes.

Dr. John E. Hotchin, associate director in charge of virology in the New York State Health Department Division of Laboratories and Research, made the preliminary report.

At the same time, Dr. Hotchin said, "no live microorganisms of extraterrestrial origin were caught" in the same space probe.

The experiments are among several on a micrometeorite (space dust) collector that is the primary responsibility of Dudley Observatory, Albany. Physicists and biologists of the State Health Department, the observatory and State University of New York at Albany are working together on the project which is sponsored by a grant from the National Aeronautics and Space Administration. The observatory director, Dr. Curtis L. Hemenway, who is chairman of the astronomy and space science department at the university, has devised several space dust projects.

"There is a small survival of very resistant microorganisms, even after six hours in space exposed to the direct rays of the sun," Dr. Hotchin said.

GENERAL SCIENCE

Five European Nations Form Satellite Team

► A FIVE-NATION European team has been formed to work on the development and manufacture of satellites.

The first contract for which the European Satellite Team (EST) will bid is a \$20 million one for the building of the European Space Research Organization's TD-1 and TD-2 scientific satellites. Bids are due before the end of July.

Four satellites are to be built, two to act as standby in the event anything goes wrong.

TD-2 is to be launched in October 1969, during a period of high solar activity, and TD-1 six months later. Each will carry 17 experiments from universities throughout Europe. American Thor Delta launcher vehicles will put the satellites into space, hence the initials TD.

The team consists of Elliott-Automation, in England, which will head the organization, the Compagnie Francaise Thomas Houston in France, Fokker in the Netherlands, Allmanna Svenska Elektriska AB in Sweden and Fabbrica Italiana Apparecchi Radio in Italy. The General Electric Company has been retained in the U.S. as a consultant.

The Dutch company will be responsible for the structure of the satellites and thermal control; the French company will be in charge of telecommunications; power supply will be provided by the Italians and ground support and computer systems by the Swedish member.

A team of 60 space engineers from the five countries involved has gathered in Surrey, England, to work on the project. They will later split up to work in their own countries.

MEDICINE

Rare Animal Disease Causes Meningitis

► A RARE, elusive bacterial disease named listeriosis can trigger severe meningitis and septicemia in man. A report at a conference in Bilthoven, Holland, offers strong indications that listeriosis has been communicated between pet dogs and their owners.

In each case, Drs. Warren C. Eveland and Joseph V. Baublis of the University of Michigan School of Public Health, Ann Arbor, said, there was very close contact between man and dog. The researchers "surmise that these patients had become infected by the inhalation of infectious dust particles."

In another report at the symposium, the Michigan physicians reviewed studies showing that immunity to certain types of listeriosis can be transmitted from mother to child.