

METEOROLOGY

No Weather "Cold War"

➤ SO far as the weather is concerned, the U.S.S.R. is exchanging information with the United States in a most cordial and effective manner, a check-up at the U. S. Weather Bureau reveals. The two nations are able to talk about each other's weather four times a day and the American forecasters are getting all the information they need to help predict general U. S. weather of next week and view world weather almost from hour to hour.

The interchange is by radio and there are no complaints about one nation jamming the other's radio transmissions of weather information. The facts about the weather are in prearranged international code, arranged through one of the few international organizations, besides the United Nations, to which the Soviets still adhere, the International Meteorological Organization.

Actually on a good day when radio reception is satisfactory, the U. S. forecasters have more weather observations from Soviet points than they have from the United States. This is because the U.S.S.R. covers more area.

Most useful to us are the observations from eastern Russia and Siberia because weather travels from west to east in the northern hemisphere and storms that originate there often come to Canada and the United States.

From 500 ground stations in the U.S.S.R. full reports are received every six hours when the radio conditions are good. This may drop to 200 on a day of bad radio reception. These 500 synoptic reports, as they are called, give temperature, pressure,

wind direction and velocity, humidity, whether it is clear, cloudy, rainy, etc., visibility, pressure changes, which are all standard data. Comparatively, such reports are received from 400 U. S. stations.

We also know what the weather is in the air over a large number of Soviet points. From 65 to 70 Soviet localities pilot balloon observations, called "pibals" for short, are received four times daily. These give wind direction and velocity usually up to 25,000 to 30,000 feet on clear days, and occasionally to 50,000 feet. The number of U. S. Weather Bureau stations making pibal observations is about 150.

Radiosonde flights, which consist of miniature radio sending instruments carried aloft by balloons, provide temperature, pressure and humidity data up to 50,000 feet altitudes from 35 Soviet points each weather radio transmission. The coverage of the U. S. A. by such rayobs or rawin sondes, as they are also called, requires more than 50 such observations.

The Russian weather messages are usually copied at present in Tokyo and Germany, although they could be received directly in the United States if that seemed advisable, instead of having them relayed from overseas. Both American and Soviet weather messages are included in the international weather transmissions that anyone can pick up and decode and use. Most of the larger nations contribute to the world weather forecasting by issuing such information by regular radio transmissions.

Science News Letter, October 22, 1949

GENERAL SCIENCE

Strong Military Defense

➤ OVERLOOKED in the excitement of the Soviet atomic explosion is a strengthening of the military arm of the United States that promises to have far-reaching effects.

The Research and Development Board of the Department of Defense has been given more authority and responsibility. It can now see that what it believes should be done in weapon development is actually carried out. It has been moved from the situation of being advisory and getting results by knocking military heads together to one of being able to order things done.

Despite the effectiveness of the predecessor organization of World War II, the famous OSRD, the Office of Scientific Research and Development, headed by Dr. Vannevar Bush, the complaint of the key scientists in that organization was that it took too long to get the new discoveries and developments of the scientists into actual operation.

This was not a real criticism of the military men, for in general they realized the need of new methods to counter and surpass the enemy's technology. But it was necessary to go through another layer or echelon of command to get things moving that took precious and sometimes deadly time.

Now Dr. Karl T. Compton, chairman of the RDB, who was one of the Bush group, heads an organization that has the burden and opportunity of decision as well as development. In the new RDB set-up, there is now either an undersecretary or an assistant secretary of the Army, Navy and Air Force, as well as high-ranking officers. Thus there is a fusion of civilian and military command to help put scientific brainpower to work.

Just what the RDB is doing is largely secret. But experts come and go within the far-flung program. We can now expect that the direction of the search for

better offense and defense will be shifted more rapidly than ever before, even if we can not hear about such changes.

For science, there is almost a feeling of active war in the air, with scientists saying less than ever they have since V-J day and fewer and fewer publications appearing in certain fields of development.

Science News Letter, October 22, 1949

On This Week's Cover

Greater stockpiles of blood, for use in event of an atomic war or other national disaster, may come through new methods being developed for the National Blood Program of the American Red Cross. On the cover Drs. John G. Gibson of Harvard Medical School and Charles P. Emerson of Boston University are shown inspecting a new silicone-coated blood collecting bottle in which the separation of red cells from plasma is speedily accomplished through the use of a blood substance, fibrinogen. (See SNL, April 30, p. 275 and May 14, pp. 314, 315.)

Science News Letter, October 22, 1949

PSYCHOLOGY

Answer to "Who Are You?" Varies with Age and Sex

➤ ASK a person "who are you?" and you'll get a wide variety of answers. Give those answers to a psychologist and he may find them psychologically significant.

So say Dr. James F. T. Bugental and Seymour Zelen, psychologists at the University of California at Los Angeles, who have asked this question of several hundred students, church members, white collar workers and laborers.

Those tested were asked to write three responses to the question. An analysis revealed that more than 18% considered themselves to be, first of all, a name such as "Joe" or "Bill." Slightly less than 18% replied with their occupational status, that is, student, riveter. The same percentage fell into the sex category, such as "I am a boy, a girl, a woman, a male."

One female very conscious of her femininity replied, "a female, a coed, a sister." Others identified themselves as a "unique person," "getting a kick out of life," "some joker."

Group patterns were evident in the over-all analysis. For example, older men seemed to favor occupational status, whereas, mature women favored family status. Younger subjects responded more often with sex identification and the youngest females seemed to favor social status.

Science News Letter, October 22, 1949

Mexican tortillas, pancakes made of corn meal, have higher nutritive value if made of a mixture containing one-tenth sesame meal.