

## ASTRONOMY

# Iron Curtain Breaks

Presence of two U. S. astronomers, as well as top astronomers from other countries, at dedication of Russian observatory believed to indicate break in Iron Curtain.

► A BREAK in the Soviet's Iron Curtain is seen by Washington observers in the presence of two top U. S. astronomers at the dedication of Pulkovo Observatory, near Leningrad in Russia, and celebration meetings (May 20-June 3).

It is the first time since 1946 that U. S. scientists have been invited to attend such a big scientific show, as far as leading scientists recall. And it is the first important astronomical meeting with foreign visitors to be held in the U.S.S.R. since before World War II.

Statesmen as well as scientists are keeping a careful watch on the ceremonies. Invitations to the functions were extended not only to U. S. astronomers, but also to astronomers from Canada, France, Great Britain, the Netherlands and Sweden.

Holding such a significant and important affair with foreign scientists in attendance would indicate that the Russians want other countries to know of their work and to cooperate with Russian scientists where possible, observers believe.

They interpret this break in the scientific Iron Curtain as a further indication that Russian policy has changed, that the curtain is gradually softening, that Soviet leaders now believe the two major powers can co-exist on one planet.

The International Astronomical Union, an international organization of astronomers, had scheduled a meeting for Leningrad in 1951. Because of difficulties with arrangements, the international meeting was finally held in Rome in 1952, and some Russian astronomers did attend.

The two U. S. astronomers who are taking part in the Pulkovo Observatory dedication and meetings are Dr. Dirk Brouwer, director of Yale University Observatory, and Dr. J. J. Nassau, director of the Warner Swasey Observatory, Case Institute of Technology, Cleveland.

Their travel funds were a grant from the National Science Foundation, the National Academy of Sciences announced. During their two-week stay behind the Iron Curtain, Drs. Brouwer and Nassau will be guests of Dr. A. N. Nesmeyanov, president of the Academy of Sciences of the U.S.S.R.

Pulkovo Observatory was completely destroyed during World War II. It has now been rebuilt, and the elaborate program was planned by the Russian Academy to celebrate its reopening.

The meetings are particularly emphasizing

astrometry and the study of variable stars. Variable stars are a key to the size of the universe, since they offer one means of telling just how far away other galaxies are from our own Milky Way.

Both Drs. Brouwer and Nassau are presenting papers at the meetings.

The Pulkovo Observatory was established in 1839 and has a distinguished history in the determination of precise positions of the brighter stars.

Astronomy is one of the scientific fields in which Russians pride themselves on being leaders, and practically all U. S. astronomers agree that they do very fine work.

Another indication of the break in the Iron Curtain, at least scientifically, is the reported invitation to British physiologists to visit a similar sort of meeting this spring in the U.S.S.R., although no U. S. scientists are known to have been invited. This meeting will also be a big show, officials at the National Academy of Sciences believe, but they do not know the details.

Science News Letter, May 29, 1954

## AERONAUTICS

# Jet Fighters Modified

► THE SPEED has been boosted on the Navy's scrappy little Cougar jet fighter. The plane already could fly faster than 650 miles an hour. The F9F-8's top speed is still secret.

Revisions worked out by the Grumman Aircraft Engineering Corporation not only pack more zip into the needle-nosed craft but also make it more elusive in combat. Furthermore, it now has a flying distance greater than 1,150 miles, the range of its F9F-6 granddaddy.

According to a company official, the new F9F-8 Cougar is more easily controlled at high subsonic, transonic and supersonic speeds. The available force for turning the craft in high-altitude flight has been doubled. To the pilot, this means exceptional maneuverability and a more formidable fighting machine.

The plane was modified by substituting fixed wing slats for the present movable ones. The wings' thickness was cut down, but the total wing area was raised by making the wing 15% wider.

The hydraulic gear formerly needed to operate the wing slats was removed, making room for 60 extra gallons of gasoline. An eight-inch addition to the plane's center section raised its gas-holding capacity another 80 gallons.

Grumman engineers now are "phasing in" the new F9F-8 on their production lines and are "phasing out" the F9F-6 and the F9F-7. The latter is powered by an Allison J33 turbojet. Both the F9F-6 and -8 are driven by Pratt and Whitney J48 engines.

The single-engine Cougar has a swept-wing span of 34.5 feet. It measures 41 feet 7 inches long and weighs 18,000 pounds.

A group of three Cougars flown by Navy pilots recently set a transcontinental speed

record. The fastest plane swished from San Diego to New York in 3 hours, 45 minutes and 30 seconds.

The planes averaged about 650 miles an hour over the 2,438-mile hop, but radar clocked one of the planes at a supersonic 825 miles on hour. Part of this speed was attributed to a strong tail wind.

Science News Letter, May 29, 1954

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