

AERONAUTICS

Plane Similarities

Aircraft designers in both Russia and the United States, working with about the same background information, are likely to have come up with similar designs.

► **SIMILARITIES BETWEEN** the Russian MIG-15 and the latest U. S. planes do not necessarily mean that top secrets have been smuggled behind the Iron Curtain from the U. S.

A recent report links a National Advisory Committee for Aeronautics scientist with the Rosenberg spy ring. The scientist, 34-year-old William Perl, was tried and convicted of perjuring himself in connection with the Rosenberg investigation.

Perl subsequently was denied \$20,000 bail after U. S. attorneys informed Judge Sylvester J. Ryan that the FBI had evidence linking the aeronautical scientist with Julius Rosenberg.

Perl, who worked for the NACA at its Cleveland, Ohio, laboratories, was in a position to supply information "which could fill out a bigger picture of a whole field of information," said Dr. Hugh L. Dryden, NACA director.

But another NACA spokesman said this was not an accusation. Thousands of military and civilian personnel have access to secret information in this country that could help Russia.

The similarities of the Russian-made MIG-15 and America's planes could, however, have resulted from independent research.

The apparent similarities are these: the high positioning of the tail with respect to the wings, and the swept-back tail elements.

The NACA spokesman pointed out that positioning the tail high above the wing of the plane was being developed almost simultaneously in Germany and by the NACA during World War II. It was an "obvious" answer to a severe buffeting problem associated with high-speed planes.

At the close of the war, teams of U. S. and Russian aeronautical experts, working separately, questioned top German aircraft designers to learn what the Germans had been working on. It was during some of these sessions that American experts learned of the German Tanke-138, which somewhat resembles the F-86 Sabrejet now fighting in Korea.

In 1944, the Ta-138 took top prize in an interceptor design competition sponsored by Hitler to get Germany a better interceptor plane. The plane had a top design speed in excess of 600 miles an hour—a speed that nudges the sonic barrier.

Russian and American aircraft designers working with nearly the same background information thus quite likely could have produced planes of similar design characteristics in principle.

The NACA spokesman said he knew of no case in which secret research information had leaked from the aeronautical research

organization to Russia. Although the NACA regularly publishes "Technical Notes," concise, scientific reports on experiments, none of these contain classified data.

Science News Letter, July 25, 1953

MARINE BIOLOGY

Summertime Oysters Plagued With Parasite

► **THE OLD-TIMERS** had a point about "cold water" months being the best months for oysters, research at the Virginia Fisheries Laboratory, Gloucester Point, indicates.

Dr. J. D. Andrews, oyster biologist at the Laboratory, reports that about 80% of oyster deaths studied that occurred from July to October were closely associated with the presence of a microscopic fungus parasite on the oysters. During winter months, the parasite was less frequently found, and practically disappeared from February to May.

The old saying that oysters are only good

to eat during months with the letter "r" in their names—September to April—was based mostly on spoilage from lack of refrigeration, not on diseased oysters, however.

Oyster spawning during warm months may detract from their flavor or eye appeal. But with proper refrigeration, healthy oysters are generally safe to eat the year 'round.

Science News Letter, July 25, 1953

PHYSICS

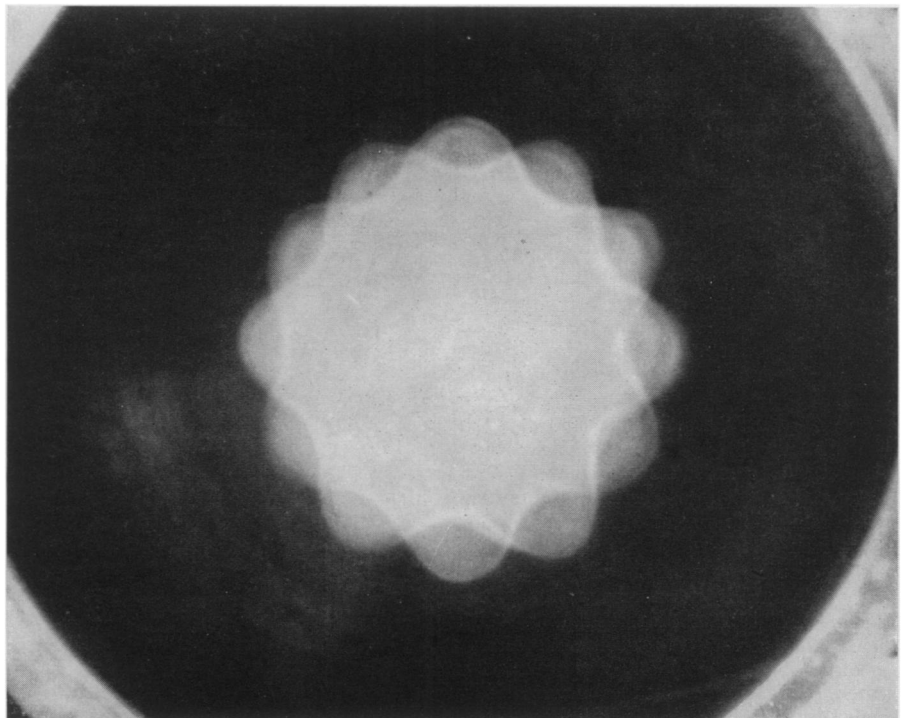
Drops on Hot Stove Dance for Portraits

► **DROPS OF** water that dance upon a hot stove top have been posed for their portraits by high speed photography and an array of beautiful symmetrical patterns captured.

Norman J. Holter and Wilford R. Glasscock of the Holter Research Foundation, Helena, Mont., noticed the behavior of liquid drops, which float and vibrate on a film of their own vapor and evaporate slowly. Long known as the Leidenfrost effect and familiar to our grandmothers as they worked around an old-fashioned kitchen stove, the new observations were made to add knowledge of wave and vibration effects.

Various patterns and effects were obtained by use of high shutter speeds that froze the motion or low speeds that recorded one or more complete cycles of the dancing vibration.

Science News Letter, July 25, 1953



EVAPORATING DROP—The basically hexagonal pattern of a drop of water evaporating on a hot surface was obtained using a high shutter speed on the camera. The water had been treated with a detergent.