

PEIPING MAY ORBIT SATELLITE BY 1962

U. S. Intelligence Data Note Increasing Indications of Active Space Program

BY JOHN W. FINNEY

WASHINGTON, Jan. 10—A Government intelligence report contends that Communist China will be able to launch an earth satellite in two years.

The estimate is based on increasing indications, obtained from intelligence sources, that China is intent on entering the space race and has an active program to do so.

There is information, for example, indicating that a satellite launching site is under construction in northwest China.

There are also indications, according to informed sources, that the Soviet Union is giving technical assistance and may even provide rockets for launching satellites.

The intelligence estimate has served to emphasize the concern of many scientists and officials that the United States, in its preoccupation with the space challenge presented by the Soviet Union, is overlooking Red China and other nations.

Effect on World Feared

Among these scientists and officials there is a fear that if Red China should succeed in launching a satellite, the psychological impact on unprepared world opinion could be as devastating as the Soviet achievement in launching the first earth satellite more than two years ago.

Following the propaganda explosion of the Soviet Union, Red China could be expected to launch its satellite as proof of the technological power of the Communist system. Among Asian nations, Red China could pose as the technological giant of Western powers.

Further indication of the existence of an active space program in Red China is seen in

the presence in that country of Dr. Hsue-shen Tsien, who is regarded as one of the world's leading rocket experts.

After having been detained for five years, he was deported from the United States in 1955 by the Immigration and Naturalization Service on the ground that he had been a member of the Communist party before entering the United States.

The Chinese-born scientist joined the faculty of the California Institute of Technology in 1936. He was eventually promoted to the leading research post of Goddard Professor of Jet Propulsion. He also taught at the Massachusetts Institute of Technology. During World War II, he was a member of the Air Corps Scientific Advisory Board.

Dr. Homer J. Stewart, who worked with Dr. Tsien at Cal Tech and is now director of program planning and evaluation for the National Aeronautics and Space Administration, described the Chinese scientist as "a very capable man."

Dr. Stewart noted that Dr. Tsien had done some of the early research on supersonic dynamics and had engaged in some of the early rocket work in this country.

The role being played by Dr. Tsien in Red China is uncertain. American scientists have heard indirectly through Russian scientists that he is engaged in a rocket program. He was reported to have visited the Soviet Union with many other Chinese scientists.

Soviet Aid Discussed

American scientists differ in estimating how dependent Red China is on the Soviet Union for technological assistance in its space program.

Some scientists feel that without Soviet assistance and rocket launchers Communist China could not mount a space-satellite program for some time. Evidence that such Soviet assistance is being provided is seen in a protocol signed a year ago providing for cooperative Chinese-Soviet research in science and technology.

Since then there have been sporadic reports that the Soviet Union is supplying Red China



ROCKET EXPERT: Dr. Hsue-shen Tsien, now in Communist China. He once taught at the California Institute of Technology.

with ballistic missiles and cooperating in a plan to launch an earth satellite.

Other scientists feel that in predicting a Red Chinese space effort on Soviet assistance the United States is in danger of being snared by the same trap it fell into before 1957 in dismissing the technological capability of the Soviet Union.

Three Prerequisites

These scientists feel that any nation can become a space power as long as it has three ingredients: a will to become one, brains and some technological capability to produce rockets.

The will is seen in the obvious prestige benefits that would flow to Red China if it launched a satellite. For brains, Red China can call on such experts

as Dr. Tsien. And China has the necessary production capability, it is argued, as evidenced by its production of about three jet fighters a day and approximately three helicopters a month.

As one rocket engineer pointed out, the automatic pilots and gyroscopic mechanisms that go into jet planes differ little from the guidance devices used in rockets.

Development and production of the powerful rocket engines needed to place a satellite into orbit is no easy technological task. But if Red China set out on this task several years ago, she could, in the opinion of some leading rocket scientists, be in a position, without any outside help, to launch a satellite in the immediate years ahead.