

in Korea are hanging together better than the Russian jet.

The problem is wrapped up in what NACA scientists call "pitch-up." This is a force that can jerk control of the zooming jet fighter out of the hands of the pilot as his plane climbs sharply. It usually causes the plane to nose upward at an even sharper angle. The wings become severely overloaded and fail. The plane plunges to its destruction.

Swept-back wings of supersonic planes are particularly vulnerable to the vicious pitch-up condition. Both Soviet and American designers are scratching their heads over the problem.

"Fences" are put on the wings to combat pitch-up; the fences are merely thin bands of metal that divide the wing into sections. They minimize the danger of pitch-up, but do not cut it out completely. NACA scientists are searching for better designs and more "gadgets" like the fences that eventually may relegate this problem to aviation history.

A scale model of the world's fastest airplane, the Douglas D-558-2 Skyrocket, mounted for wind tunnel tests in the supersonic pressure tunnel at Langley Aeronautical Laboratory, is shown on the cover of this week's SCIENCE NEWS LETTER.

Supersonic speeds within the ability of the Skyrocket, which has flown 1,238 miles per hour at high altitude, can be duplicated in this wind tunnel. Seen through an open window, the test section of this wind tunnel is almost four and one-half feet square, and is one of the three largest supersonic wind tunnels in the United States.

To carry on its research program, Langley Laboratory has 20 wind tunnels of various sizes, three of which are for studies in the transonic range. The largest has a test section 16 feet in diameter, thus can accommodate relatively large models with extensive instrumentation.

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MEDICINE

Six Man-Like Women Restored to Femininity

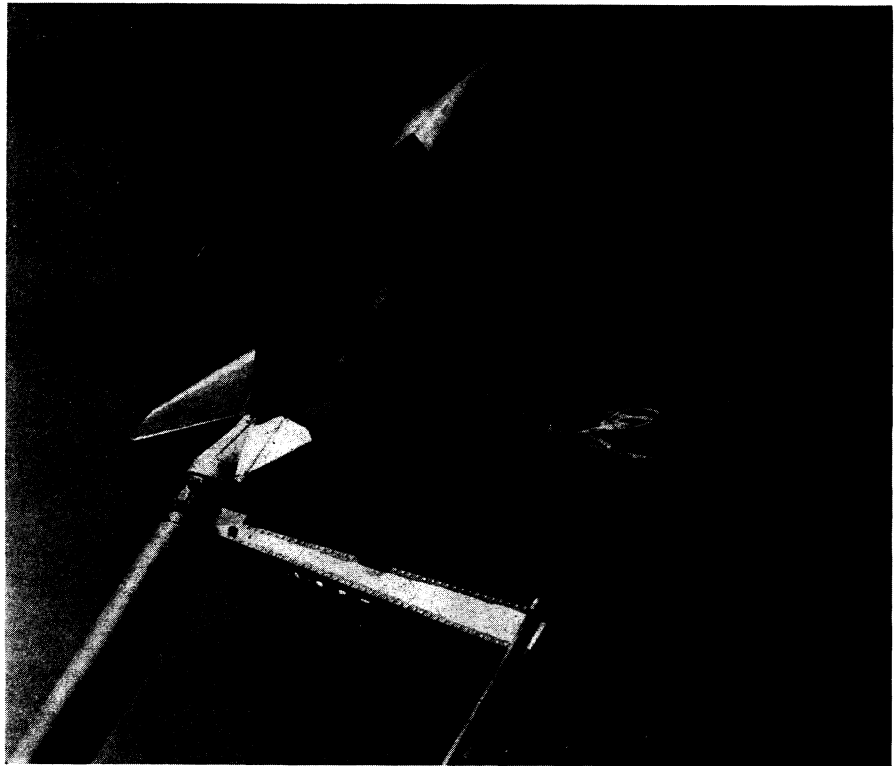
► SIX WOMEN who became manlike have been changed back to women again through a simple operation.

Physicians of the Tulane University Medical School, New Orleans, pointed out that in the ovaries of women there exist a few cells like those seen in the male testes. In a few cases, later in life, these cells grow into tumors which actually produce the male sex hormone in large amounts.

But, in six women treated at Tulane, production of this male sex hormone gave them beards, growth of hair on most of the rest of the body, development of male-like muscles of the arms and legs and deepening of the voices.

These tumors were removed. After the operation, the men-women became women again, Dr. William H. Sternberg of Tulane reported.

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LAUNCHING MODEL—This dynamic scale model of a new jet fighter, the Navy's F4D Skyray, was fired into the sky for a supersonic test flight to investigate drag, stability and control.

PSYCHIATRY

Analyze "Mind Washing"

Acceptance of parents' dictates in childhood conditions persons to surrender to superior power, thus possibly accounting for success of propaganda under pressure.

► ANY POW's who accepted Communist propaganda as a result of Soviet "mind washing" techniques were men who, as children, gave up the struggle to be themselves and abandoned themselves to the dictates of father or mother.

Having once been conditioned to surrender, psychologically, to a superior power, they were predisposed to do it again.

This interpretation of why, or on whom, Red "mind washing" succeeds was given by Dr. James Clark Moloney of Birmingham, Mich., at the meeting of the American Psychoanalytic Association in Los Angeles.

Soviet success in extorting "confessions" such as those of Cardinal Mindszenty and Robert Vogeler is based on the same psychological factors.

An interview with Mr. Vogeler, made in October, 1952, by a trained social worker acting for Dr. Moloney, confirmed Dr. Moloney's belief about the basis of the communist interrogation methods.

That Army psychiatrists will be able to unwash or rewash the minds of these

men was suggested, though not stated, in Dr. Moloney's report. Presumably this could be done by methods psychoanalysts use in obtaining "positive transference" in their patients.

The social worker who interviewed Mr. Vogeler for Dr. Moloney noted that he "seemed to relate himself easily and directly toward another person and that he displayed considerable relaxation. She detected no lingering nervousness which might have carried over from his traumatic (injurious) experience," Dr. Moloney reported.

"The interview with Robert Vogeler," Dr. Moloney stated, "presents clear evidence of the type of superego structure with which we are concerned."

(The superego is that part of the mind which acts as a monitor, or as some consider it, as the conscience, over thoughts and actions and to some extent feelings.)

"Several points should be emphasized," Dr. Moloney said. "First, Vogeler's father was German, a nationality group which puts great store by authoritarianism, espe-