

AVIATION

## London-N. Y. in 3 Hours Via Supersonic Transport

► AN AIRPLANE ENGINE of the future will combine supersonic speed and power with an ability to make almost vertical take-offs, Dr. S. G. Hooker, technical director, Bristol Siddeley Engines, Ltd., told the British Association for the Advancement of Science in Aberdeen, Scotland.

The new Pegasus engine has already been flight-tested and is expected to be utilized in Hawker P.1154 aircraft which combines vertical take-off and landing with high subsonic speeds at sea level, and high supersonic speeds at altitude.

Dr. Hooker expects that manned aircraft for passenger transport as well as for defense "may look like science fiction today, but will become a reality of tomorrow." He foresees that the 2,000 miles per hour and 100,000 feet already achieved are only a beginning.

With the use of the ramjet, which is the only possible air-blending propulsion unit at higher speeds, Dr. Hooker reports that studies have shown that at 4,000 knots (4,580 miles per hour) a range of 4,000 miles is possible with a normal payload of 20,000 pounds and an aircraft weight of approximately 300,000 pounds.

Before such performance is achieved, however, the present jet airlines such as the American Boeing 707 and Douglas DC 8 will be superseded before the end of this decade by a transport that will travel at Mach number 2.2, more than twice as fast as the speed of sound.

With such a supersonic transport plane, called the Concord, which is under development by the joint effort of France and Great Britain, the time of the journey from London to New York would be approximately three hours, compared with the present five to seven hours of the operating jet airlines.

Speed of Mach 2.2 is also chosen because at this velocity the temperature rise of the structure, due to the high forward speed of the machine, still allows aluminum and conventional rubbers and plastics to be used in the construction.

• Science News Letter, 84:175 Sept. 14, 1963

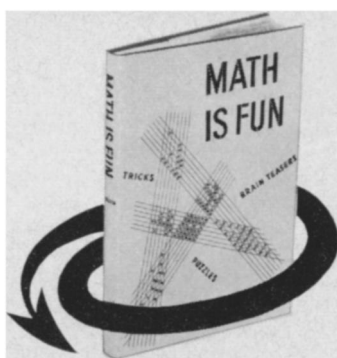
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