WING TIPS

Issued in the interest of the personnel of the Lewis Flight Propulsion Laboratory, NACA

Vol. VIII *Cleveland, Ohio, July 21, 1950* *No. 14*

Lab Workers Compete In Jr.NAR

Jim Gibbs, Henry Plohr, and Bill Mickelsen, three engineers from the research divisions, were among those on hand to represent the Lab at the Junior National Air Races held July 8 and 9 at Strauss Airport.

Bill Mickelsen, a member of the American Wakefield team for this year, won a third in the ½ A gas powered event and a fifth in cabin rubber. Gibbs and Plohr flew in various events, but failed to place.

Very much in evidence at the contest, in addition to Timers Joe Sikosky, Bill Miller, Herman Greissing, and Jerry Pesman, was Sylvia Lanzo, 14-year-old daughter of Chester Lanzo who works in the Instrument Research Section.

Lanzo is credited with some of the most important developments in the field of model aeronautics during the last 20 years, and was the two-time winner of the coveted Al Williams trophy, considered tops in the field. For the past three years, Chet has been instructing and advising his daughter in the techniques of model building and flying.

At this time it looks at though Sylvia is following fast in her father's footsteps. In addition

(Continued on Page 3)

Ames Show Unveils Free-Flight Tunnel

The 1950 biennial inspection of the NACA's Ames Aeronautical Laboratory at Moffett Field, Calif. was held on July 10 and 11. Attending were approximately 200 high-ranking officers and officials of the military services, industry and government.

Mr. Abe Silverstein and Mr. Eugene Manganiello, Chief and Assistant Chief of Research, respectively, were sent to represent this Laboratory.

Conducted similarly to Lewis inspections, the agenda included a 10-stop tour during which the guests viewed demonstrations and heard talks on current problems and progress.

While all three laboratories of the NACA are engaged in solving the problems of high-speed flight, the research program at Ames is concentrated on the aerodynamics in transonic and supersonic flight.

In the brochure issued to guests and the press the accent on still higher speeds is indicated:

"A new label - "hypersonic" has come into use to describe speeds more than five times the speed of sound, and facilities are becoming available that permit detailed studies to be made of some of problems encountered at such speeds."

The finale of the inspection was the showing of the Supersonic Free-Flight Tunnel. This tunnel, nicknamed the "shooting gallery", is one of the newest tools for studying aerodynamic problems at high speeds.

Models are fired from guns into the face of a moving air stream. In studies of the characteristics of missile shapes, the tunnel has been operated at 8 times the the speed of sound.

These speeds are attained by firing the models at high velocities into an air stream moving in the opposite direction at two or three times the speed of sound. Lauching velocities are changed by varying the powder charges in the guns. Test barrels of a number of different sizes are available from .22 caliber to 3-inch.

Another new research tool at Ames is the 10-by-14 Inch Supersonic Wind Tunnel. It is of closed-throat, nonreturn, continuous flow design, and is capable of producing the wide range of of air stream Mach numbers from 2.75 to more than 7. This is roughly equivalent to sea level air speeds from 2000 to 5000 mph.