

NASA-Langley Research Center	SUBSONIC WIND TUNNELS		COMPARABLE FACILITIES
	TEST SECTION SIZE: 30 x 60 x 56 ft	SPEED RANGE: 0.03 - 0.11 (Mach No.) (38 - 132 ft/sec)	
DATE BUILT/UPGRADED: 1930/1973/1984	TEMP. RANGE: Ambient		
30 x 60-Ft Wind Tunnel	REPLACEMENT COST: \$19M	REYNOLDS NO: (Per ft × 10 ⁻⁶) 0 - 1	
	OPERATIONAL STATUS: 2 shifts per day (backlog)	DYNAMIC PRES: (lb/ft ²) 0 - 30	
		STAGNATION PRES: (psia) Atmospheric	
	Closed circuit, double return, continuous flow, open throat Model size: Span - 40-ft, weight - 15 000 lb		

TESTING CAPABILITIES: Equipped for free-flight model test, the tunnel has shielded struts for the 6-component scale balance used for large-scale model tests. There are a variety of smaller model mounts for use with small models having internal balances. Auxiliary equipment consists of 1000- and 500-hp dc motors for power supply to models, as well as 2 lb/sec at 500 psi and 15 lb/sec at 300 psi compressed-air supplies. The facility will accommodate models with a wing span of up to 40 ft and weight of 15 000 lb. This facility is powered by two 4-bladed, 35.5-ft diameter fans, each driven by a 4000-hp electric motor.

wooden propp - each unique (size) impossible to replace (dying art form)
DATA ACQUISITION: Sixty-five channels of information of data can be recorded on the data acquisition system and reduced off-site.

CURRENT PROGRAMS: Main research is directed at the study of the low-speed aerodynamics, static and dynamic stability and control, and associated flow characteristics of military and general aviation and commuter aircraft configurations.

PLANNED IMPROVEMENTS: Fiscal Year 1984 - Modifications to 30 x 60-ft tunnel and data acquisition system. Estimated cost is \$4.4M. Completion of modifications is scheduled for 1986.

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Test model 1/5 scale to evaluate performance & improve efficiency of tunnel.