

AEDC User Test Facilities

(Nominal Values)

Hypersonics

	Test Section Size, in.	Total Pressure, psia	Total Temperature, °R	Speed Range	Pressure Altitude, ft	Dynamic Pressure, psf	Reynolds No./ft (x10 ⁶)	Primary Use
Aerodynamic and Propulsion Test Unit (APTU)	32 diam	20 to 160	700 to 1,000	Mach 2.20	Sea Level to 40,000	900 to 7,300	3.15	(1) (2) (3) (4) (5) (6) (8) (9) (10)
	36 diam	20 to 300	700 to 1,200	Mach 2.72	10,000 to 70,000	600 to 9,300	3.16	
		40 to 300	700 to 1,300	Mach 3.50	35,000 to 75,000	650 to 4,800	1.10	
		20 to 240	700 to 1,150	Mach 2.55	Sea Level to 65,000	700 to 8,500	2.17	
	42 diam Free Jet	50 to 300	700 to 1,600	Mach 4.10	55,000 to 80,000	500 to 2,900	1.6	
Hypervelocity Range/Track G	120 diam	---	---	To 24,000 fps	Sea Level to 244,000	---	---	(7)
Hypervelocity Impact Range S1	Target Tank 30 diam	---	---	To 28,000 fps	Sea Level to 244,000	---	---	(7)

Use Legend:

- (1) Rockets
- (2) Ramjets
- (3) Missile Base Heating Models
- (4) Aerodynamic Models
- (5) Aerothermodynamic Models
- (6) Combined Aerodynamic Inlet and Propulsion System Tests
- (7) Impact Studies
- (8) Free-Jet Expansion of Rocket Exhaust Plumes
- (9) Ablative Materials
- (10) Ablative and Erosive Materials