Facility	Description	Flow	Measure	Calibration	Validate
UT	TGA	N/A	Mass(T) slow heat	Ablation Kinetics	Ablation
EAST	Shock Tube	Hypersonic	Radiometry	Chemistry, Radiation	Aerothermo, radiation
Langley	RV model	M=6,10,cold, laminar	q_s,T_s		Navier-Stokes
Langley RCS	RCS model	M=10,cold, laminar	q_S,P_s		Navier-Stokes
Sandia HWT	Sphere-cone model	M=5,8,14, cold	P_s,ρ_u	Turbulence	Turbulence
Sandia TWT	Turbulent BL w/steady cross-flow	M=0.8,cold	$u(2-D)$	Turbulence	Turbulence
Sandia TWT	Turbulent boundary layer	$M < 3$, cold	P_s, $u(2-D)$	Turbulence	Turbulence
Langley	Legacy Boundary layer experiments	$M < 11$, cold	ρ_u, T	Turbulence	Turbulence
AEDC T9	RV model w/wo roughness	M=6,cold	q_s, T_s	Turbulence	Turbulence, transition
ArcJet	PICA and copper targets	$M < 12$, hot,long	Particle density	Particles	Part. gen/ transport
ArcJet	Ablative material flow	$M < 12$, hot,long	q_s, T_s, σ_s, Recession		All
CUBRC LENS 1	Model w/ blowing / roughness	$M < 25$, hot	P_s, q_s, T_s, σ_s		All except ablation
CUBRC LENS	Model w/ RCS jets	$M < 25$, hot	P_s, q_s, T_s, σ_s		All except ablation
CUBRC LENS X	RV Model	$M < 25$, hot	P_s, q_s, T_s, σ_s		Turbulence, chemistry, radiation
CalTech T5	RV Model	$M < 5$, hot,laminar	q_s, T_s		Chemistry, radiation, transport
Fire II	Apollo-era flight test		q_s, T_s, Radiometry		All
Apollo IV	Apollo lunar exchange flight test		q_s, T_s, Radiometry		All
LEO	CEV Low exchange orbit		q_s, T_s, Radiometry		All
LEX	2m capsule lunar exchange		q_s, T_s, Radiometry		All
Stardust	Comet sample-return mission		TPS condition		All