Facilities
Chairman - Darrell Baldwin

NASA		
1:15	LeRC Facilities	Darrell Baldwin
1:30	Plum Brook Facility Overview (LeRC-PB)	Robert Kozar
2:00	NEP Facilities (LeRC)	Bob Vetrone
DOE		
2:15	LANL Studies (LANL)	Mike Hynes
2:45	Break	
3:00	INEL Studies (INEL)	Thomas Hill
DOD		
3:15	Air Force Facility (Sandia)	Dave Beck
3:30	Effluent Treatment System (Sandia)	Larry Shipers
TOUR		
3:45	Logistics (LeRC-PB)	Henry Pfanner
4:00	Tours B-2 High Temperature Facility Space Power Facility	
6:00	Adjourn	

Nuclear Propulsion Facility Requirements

Nuclear Facilities

Thermal Propulsion	Electric Propulsion
Fuel Development	Fuel Development
Reactor Development	Reactor Development
Materials Radiation Testing	Materials Radiation Testing
Integrated System Testing	Integrated System Testing

Non-Nuclear Facilities

Nozzle Development	Power Conversion System Development
Turbopump Development	PMAD System Development
Propellant Tank Development	Thruster System Development
Control System Development	Control System Development
Valve and Mechanism Testing	Valve and Mechanism Testing
Material Compatability Testing	Material Compatability Testing
System Structural Testing	System Structural Testing
Cold Flow Verification Testing	Integrated System

NASA LEWIS CANDIDATE FACILITIES

CLEVELAND

ELECTRIC PROPULSION LABORATORY (TANK 5)
ELECTRIC PROPULSION LABORATORY (TANK 6)
ROCKET ENGINE TEST FACILITY
MATERIALS AND STRUCTURES LABORATORY
ZERO GRAVITY FACILITY
HYDROGEN ENVIRONMENT MATERIALS LABORATORY
HOT HYDROGEN TEST BED
SIMULATION AND CONTROL FACILITY

PLUM BROOK STATION

SPACECRAFT PROPULSION RESEARCH FACILITY
HIGH TEMPERATURE FACILITY
SPACE POWER FACILITY
CRYOGENIC PROPELLANT TANK RESEARCH FACILITY
ROCKET DYNAMICS AND CONTROL FACILITY
PLUM BROOK REACTOR FACILITY

INTERAGENCY FACILITY PANEL (NASA, DOE, DOD)

- DURING FY91, THE FACILITY PANEL IDENTIFIED APPROXIMATELY 220 EXISTING GOVERNMENT, UNIVERSITY, AND INDUSTRY FACILITIES WHICH COULD BE MADE AVAILABLE TO SUPPORT NTP AND NEP RESEARCH AND DEVELOPMENT PROGRAMS (REF: NASA TM - 105710)

- WITH APPROPRIATE UPGRADES AND MODIFICATIONS, AND DEPENDING ON THE PROPULSION CONCEPTS SELECTED, VIRTUALLY ALL DEVELOPMENT AND TEST WORK CAN BE ACCOMPLISHED IN EXISTING FACILITIES

- SINCE MOST OF THESE CANDIDATE FACILITIES WERE DESIGNED AND OPERATED UNDER SAFETY AND ENVIRONMENTAL REGULATIONS THAT ARE NOW OBSOLETE, MANY WILL REQUIRE MAJOR RENOVATIONS AND / OR ADDITIONS IN ORDER TO COMPLY WITH CURRENT REGULATIONS

- LEAD TIMES FOR PARTICULAR FACILITIES WILL VARY IN THE RANGE OF 2-4 YEARS FOR NON-NUCLEAR FACILITIES AND FROM 4-8 YEARS FOR NUCLEAR FACILITIES. ESTIMATED CONSTRUCTION COSTS RANGE FROM $400M TO $800M DEPENDING ON SELECTED PROPULSION SYSTEM CONCEPTS AND ASSOCIATED TEST OPTIONS