Engine Tests to Certify First Flight

- J-2
- F-1
- SSME
- MA-5A
- RS-68
- RS-2100
- SSME Block II
- J-2S

Rocketdyne
Engines To Certify First Flight

Average Risk Factor

Engines To Certify

F-1
J-2
SSME
RS-68
SSME Block II
J-2S
RS-2100
MA-5A
SSME Reuse

Controller

Powerhead

Valves

Pneumatic Control Assembly

Large Throat Main Combustion Chamber

Nozzle

Lines/Ducts

Low Pressure Fuel Turbopump

Low Pressure Oxidizer Turbopump

High Pressure Oxidizer Turbopump

High Pressure Fuel Turbopump

Equivalent Missions

Over 20 Engines
Over 2000 Tests
Test/Flight Ratio 2:1

55 Mission Design

Rocketdyne
Influence Vectors

Tests

Engines

- Engines
- Engine Control Architecture
- Health Monitoring
- Reduce Variation
- Spare Hardware
- Technology Reach
- Required Life
- Reliability Rating Demonstration

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