

**VOLUME I
PERFORMANCE FLIGHT TESTING**

**APPENDIX D
CHARTS OF INTEREST FOR THE
USAF TEST PILOT SCHOOL**

1962

DTIC QUALITY INSPECTED 4

19970116 070

**USAF TEST PILOT SCHOOL
EDWARDS AFB, CA**

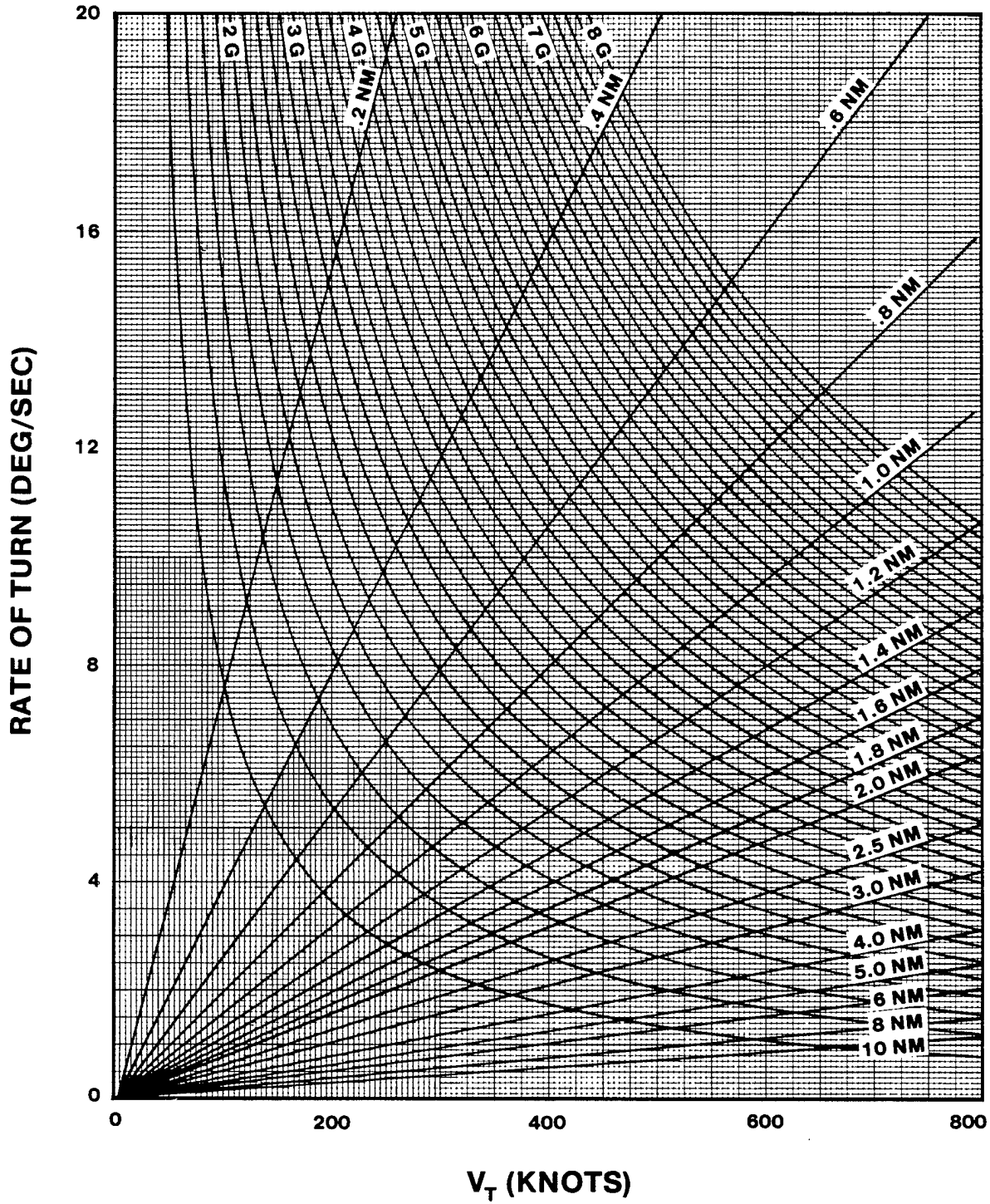
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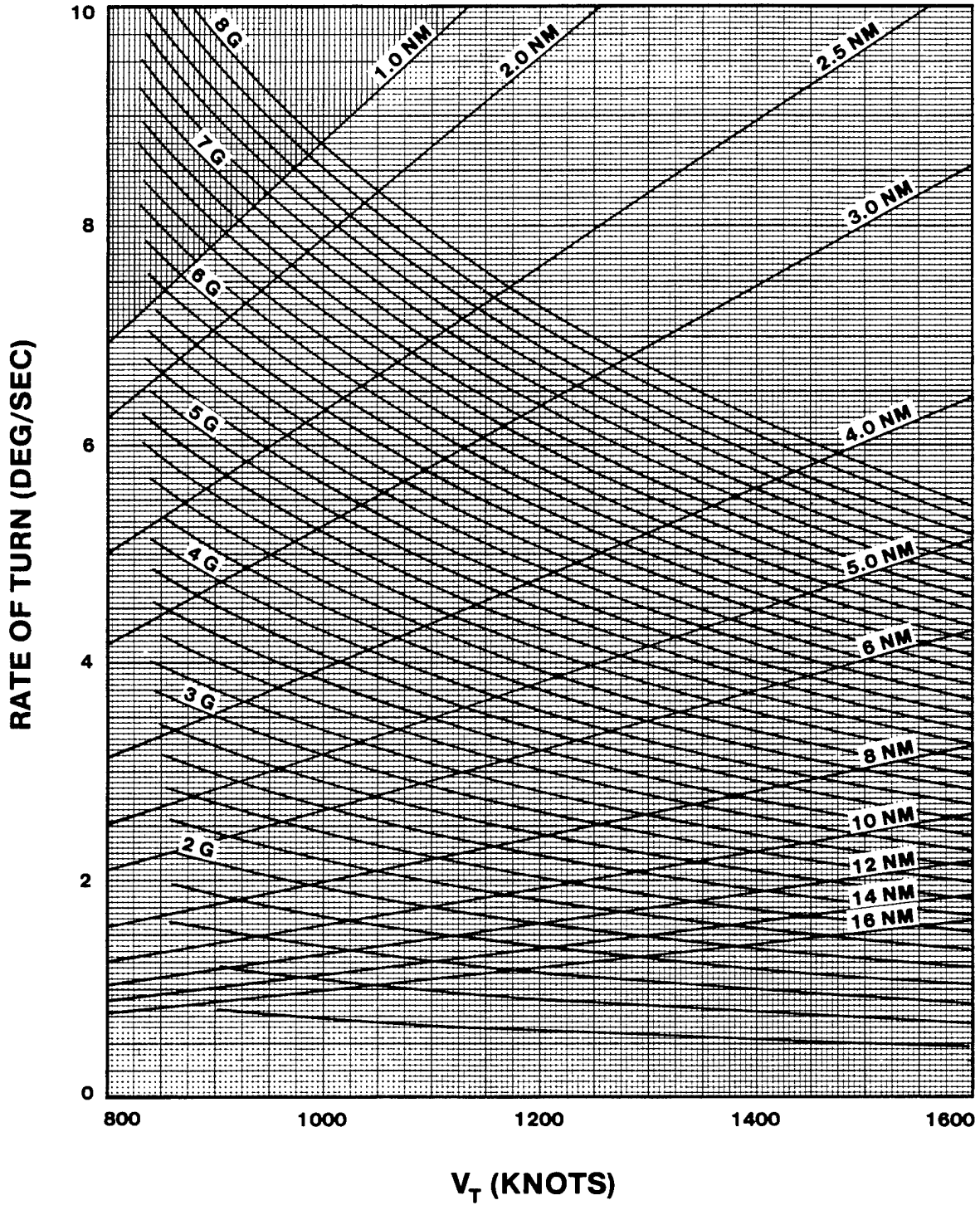
APPENDIX D
CHARTS OF INTEREST FOR THE
USAF TEXT PILOT SCHOOL

<u>PAGE NUMBER</u>	<u>TITLE</u>
D-1 - D-2	Rate of Turn vs V_{True}
D-3	Ram Pressure Ratio vs Mach
D-4	Delta Rate of Climb Factor for Turbojets ($.70 < n_r < 1.0$)
D-5 - D-6	Test Rate of Climb Acceleration Correction
D-7	A-37B Drag Polar
D-8	A-37B Thrust Curve
D-9	T-38A Drag Polar
D-10	T-38A Thrust Curve without Afterburn
D-11	T-38A Thrust Curve with Afterburn
D-12	RF-4C Drag Polar
D-13	T-38A Position Error Chart (Flight Test Nose Boom)
D-14	RF-4C Position Error Chart (Compensated Nose Boom)

RATE OF TURN VS V_{TRUE}



RATE OF TURN VS V_{TRUE}

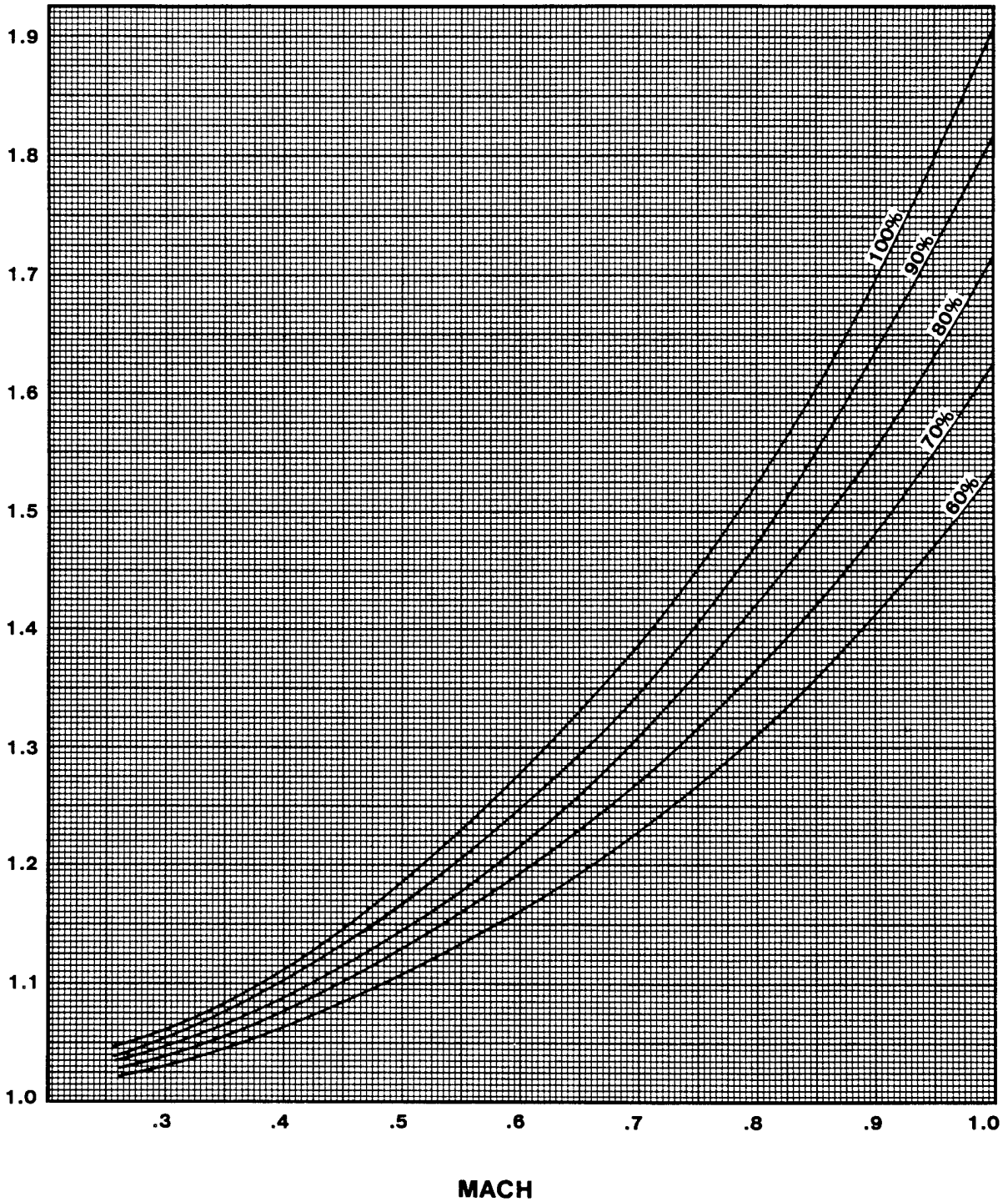


RAM PRESSURE RATIO VS MACH

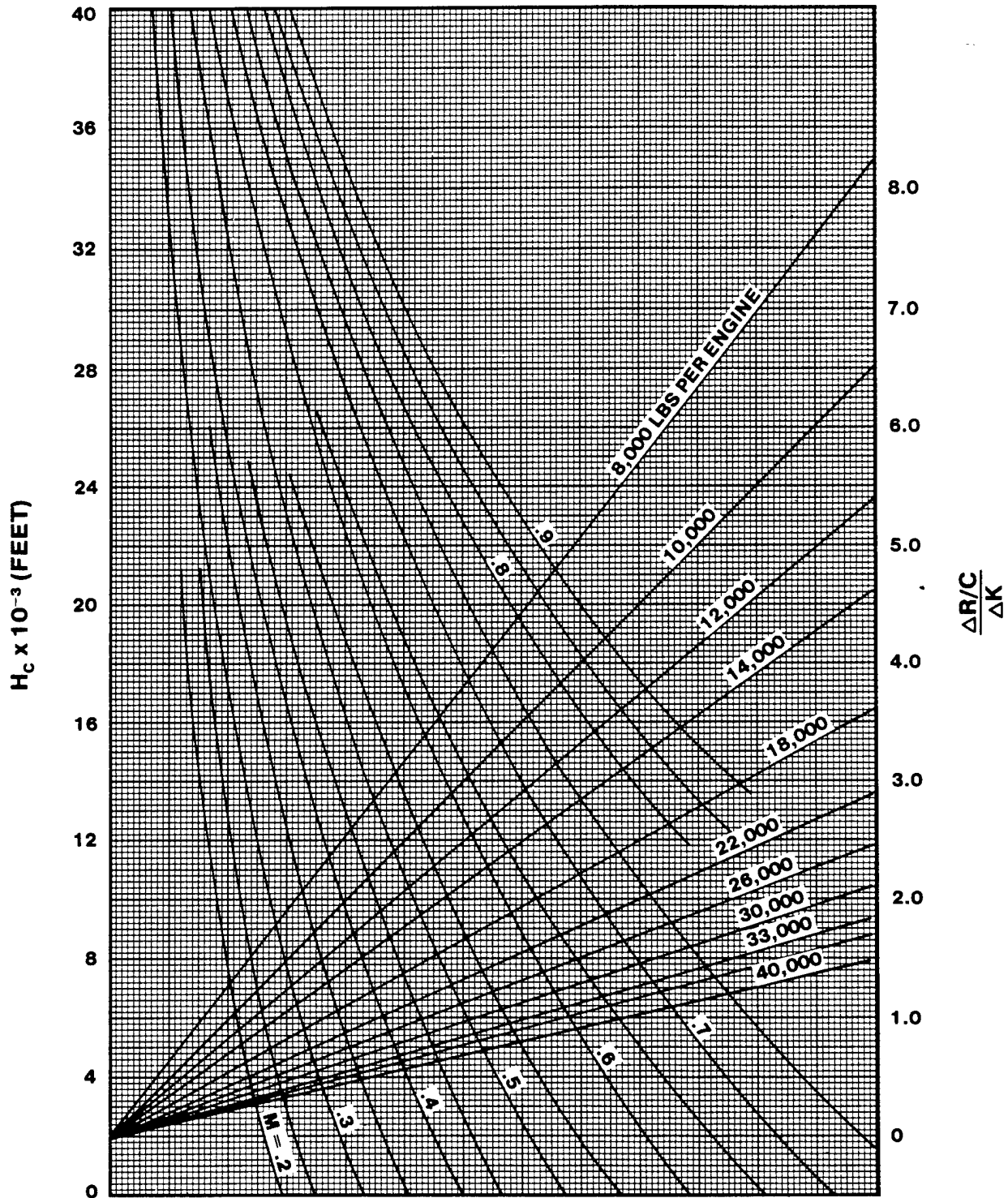
$$P_o/P_a = [1 + 0.2(M)^2]^{3.5}$$

$$\% \text{ RAM} = \frac{P_{o\text{ACT}} - P_a}{P_{o\text{THEO}} - P_a}$$

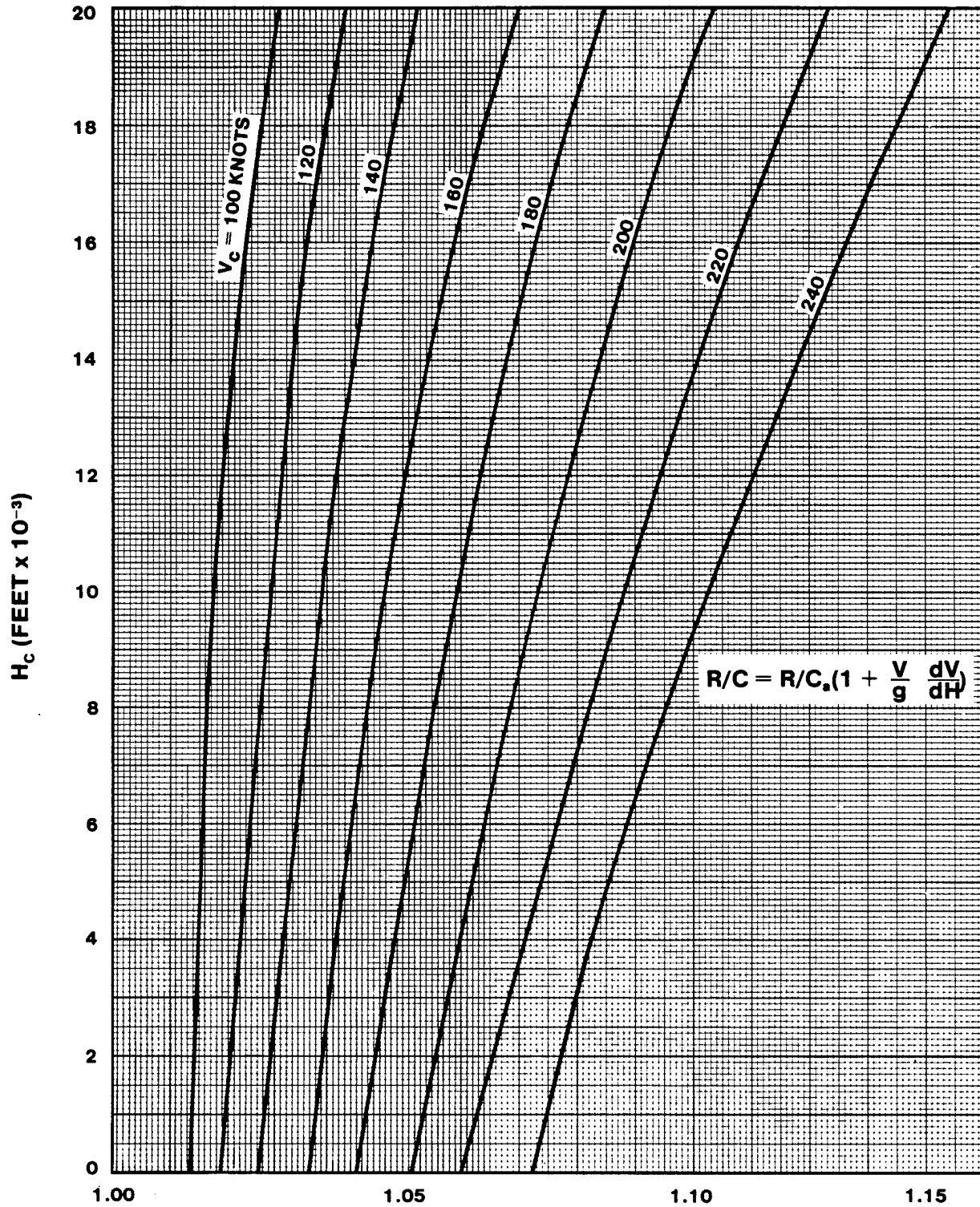
$$P_{\text{RAM}}/P_{\text{AMB}} = P_t/P_s - P_o/P_a$$



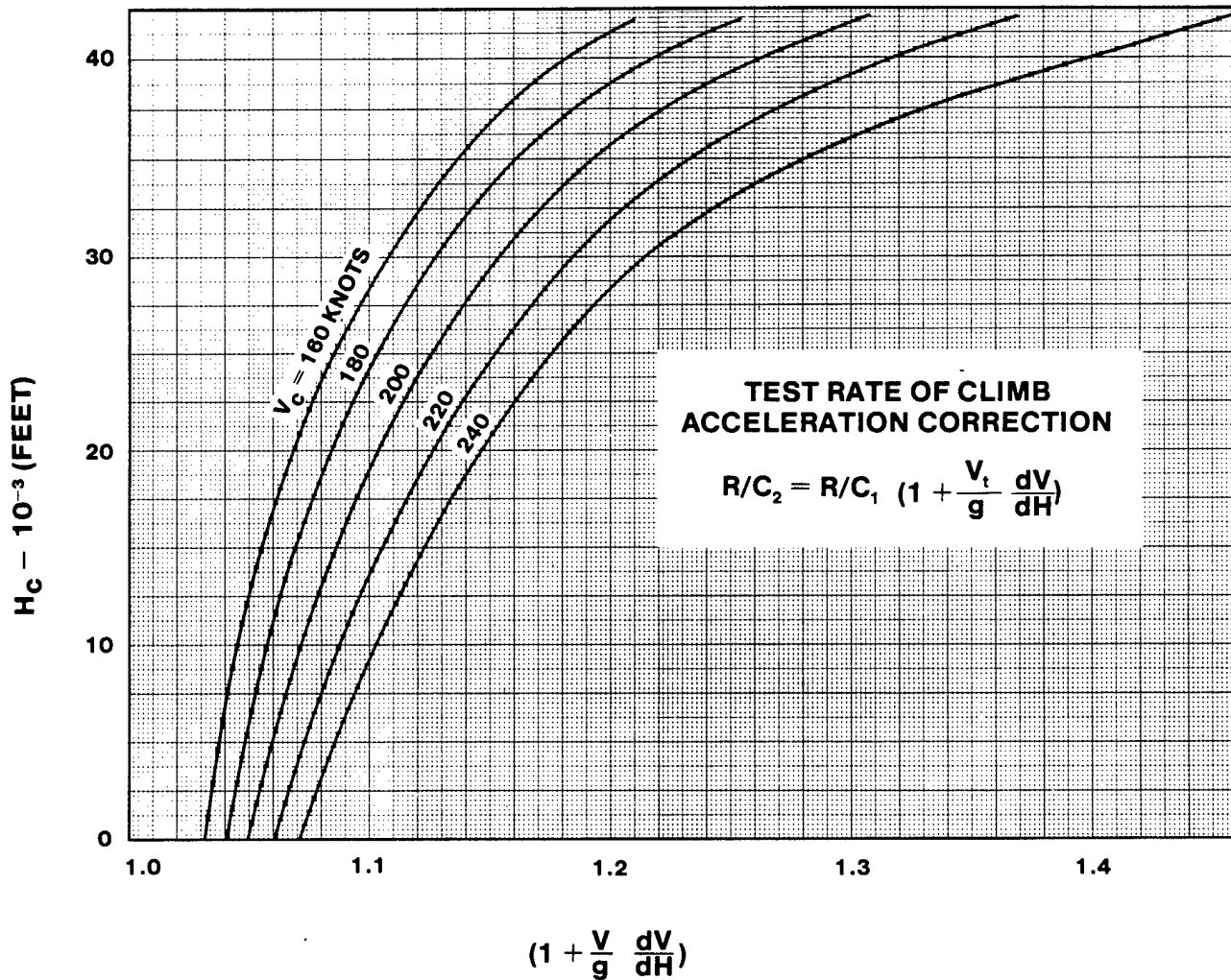
DELTA RATE OF CLIMB FACTOR FOR ALL TURBO-JET ENGINES WITH RAM EFFICIENCIES OF .70 TO 1.0



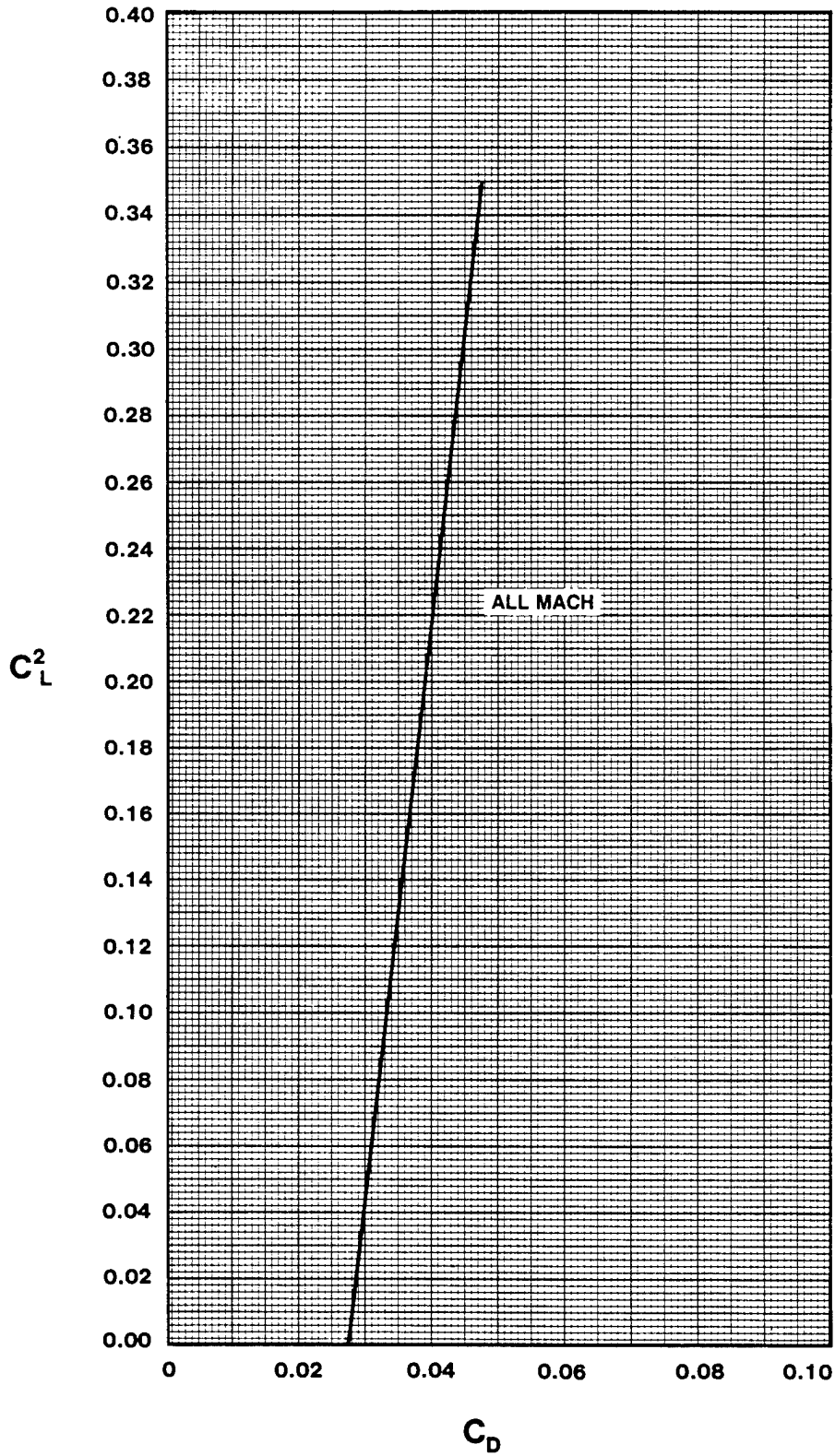
TEST RATE OF CLIMB ACCELERATION CORRECTION



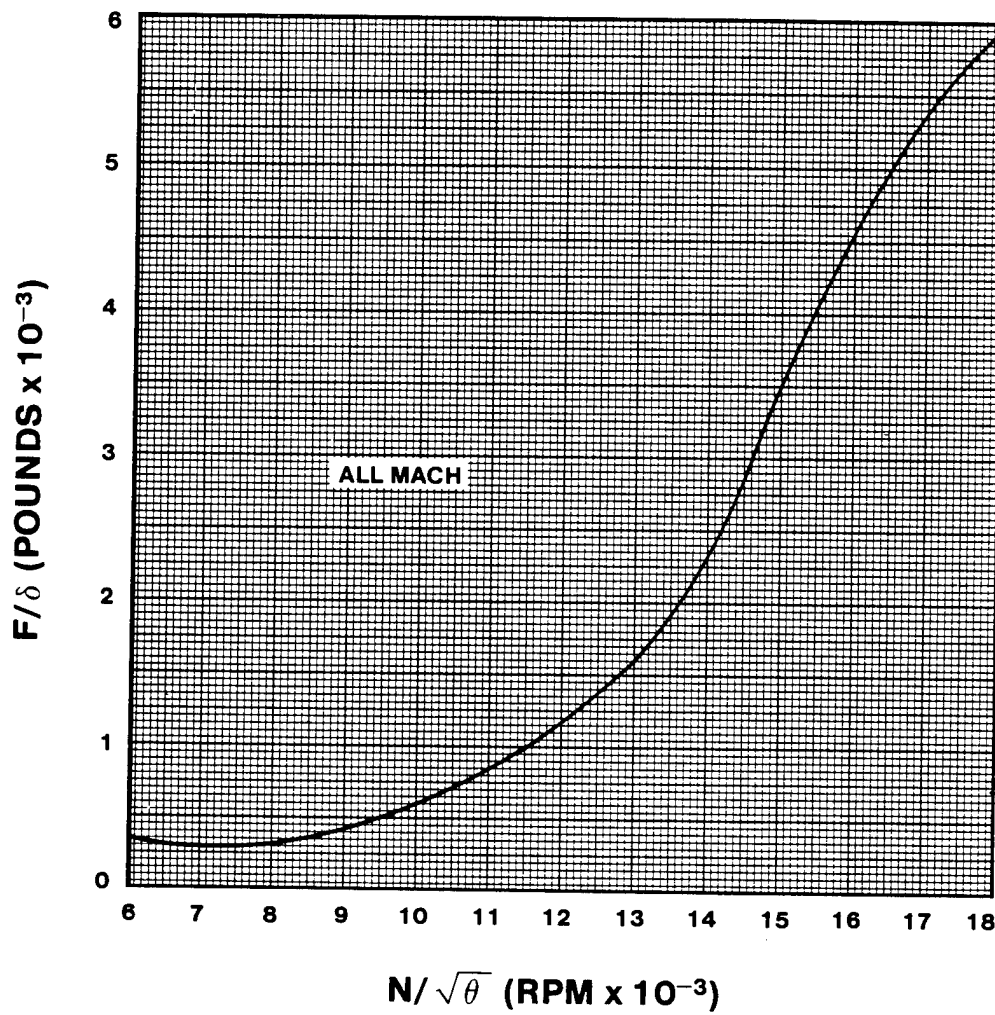
$$(1 + \frac{V}{g} \frac{dV}{dH})$$



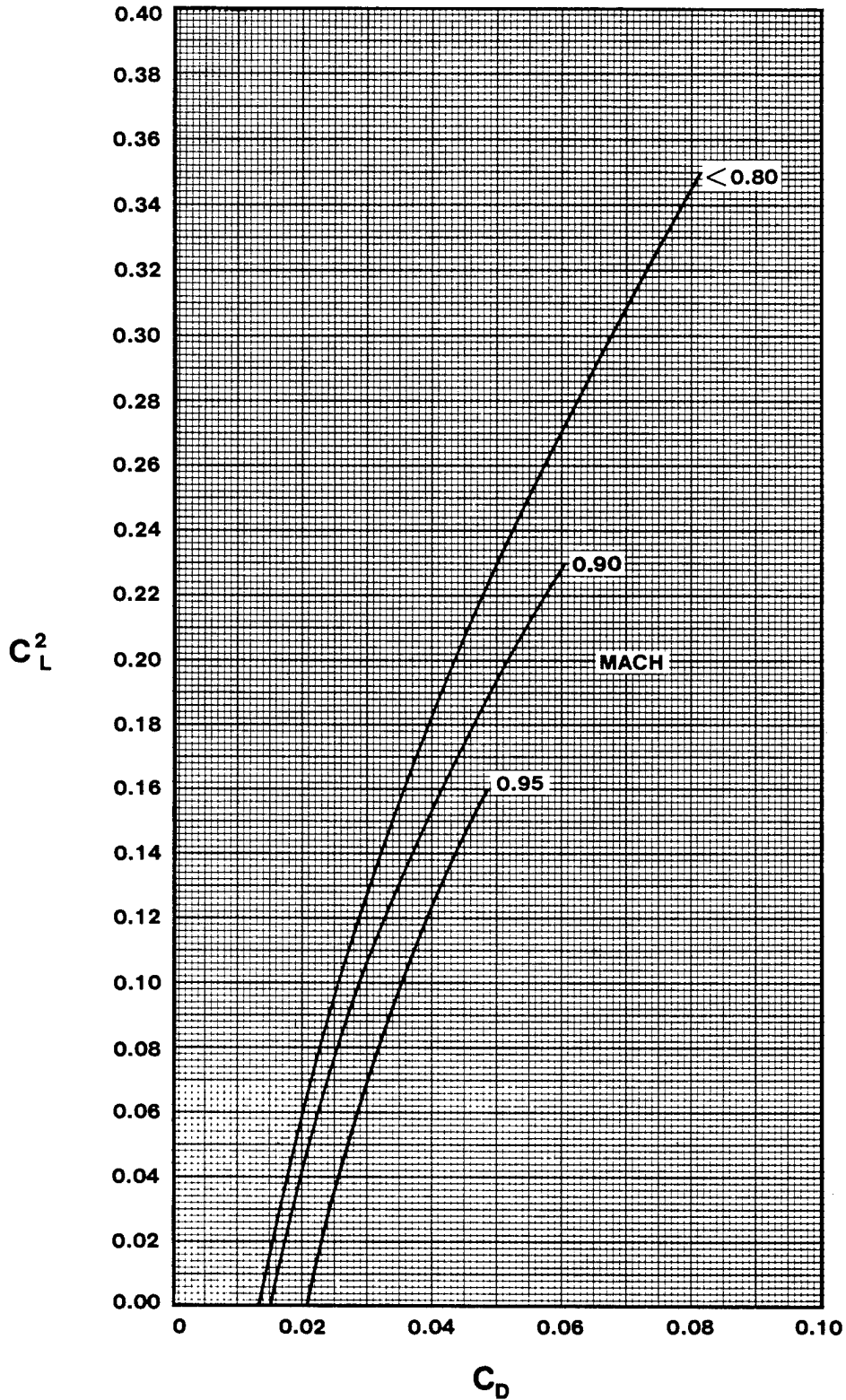
A-37B DRAG POLAR TWO J85-17A ENGINES CRUISE CONFIGURATION



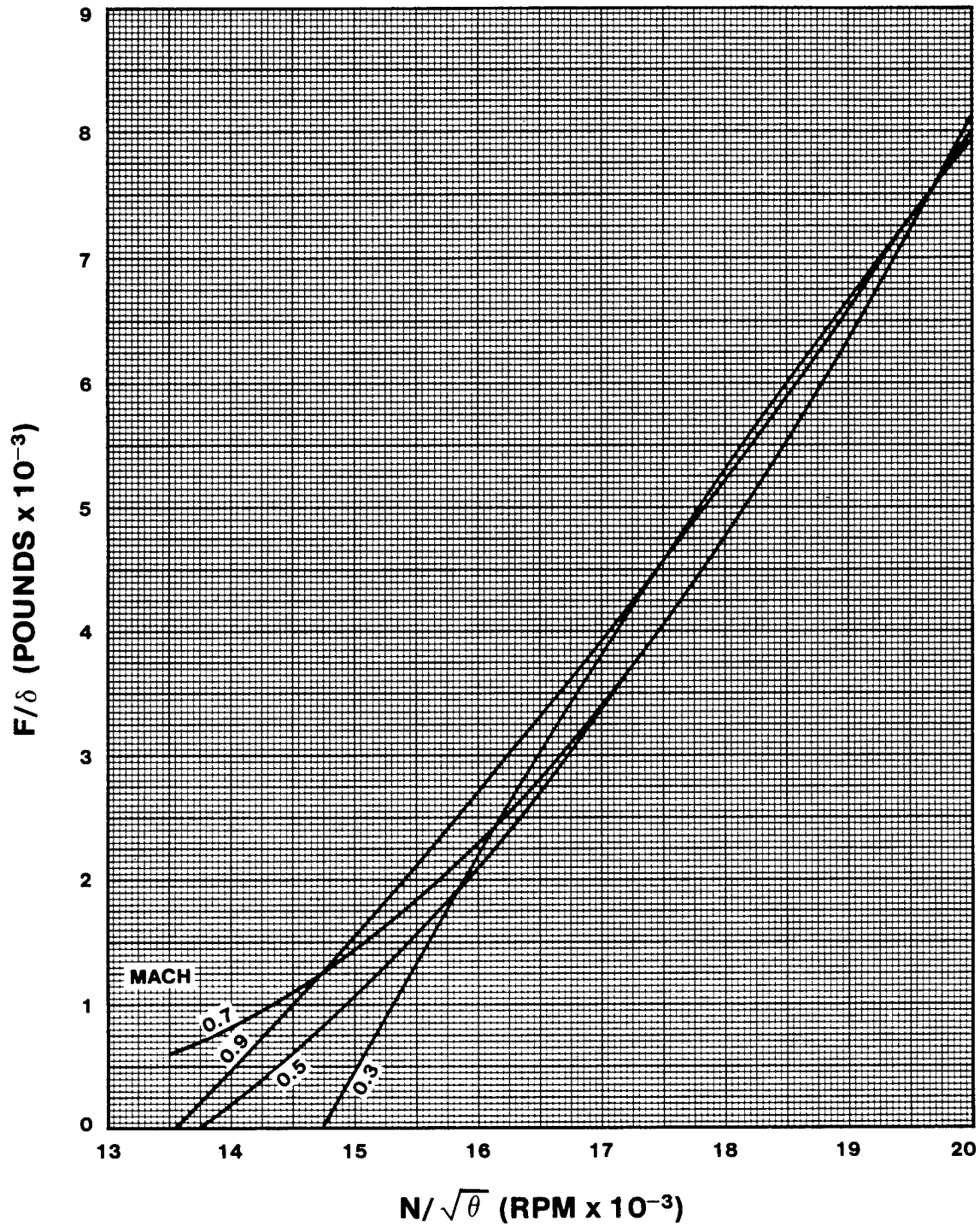
A-37B THRUST CURVE TWO J85-17A ENGINES



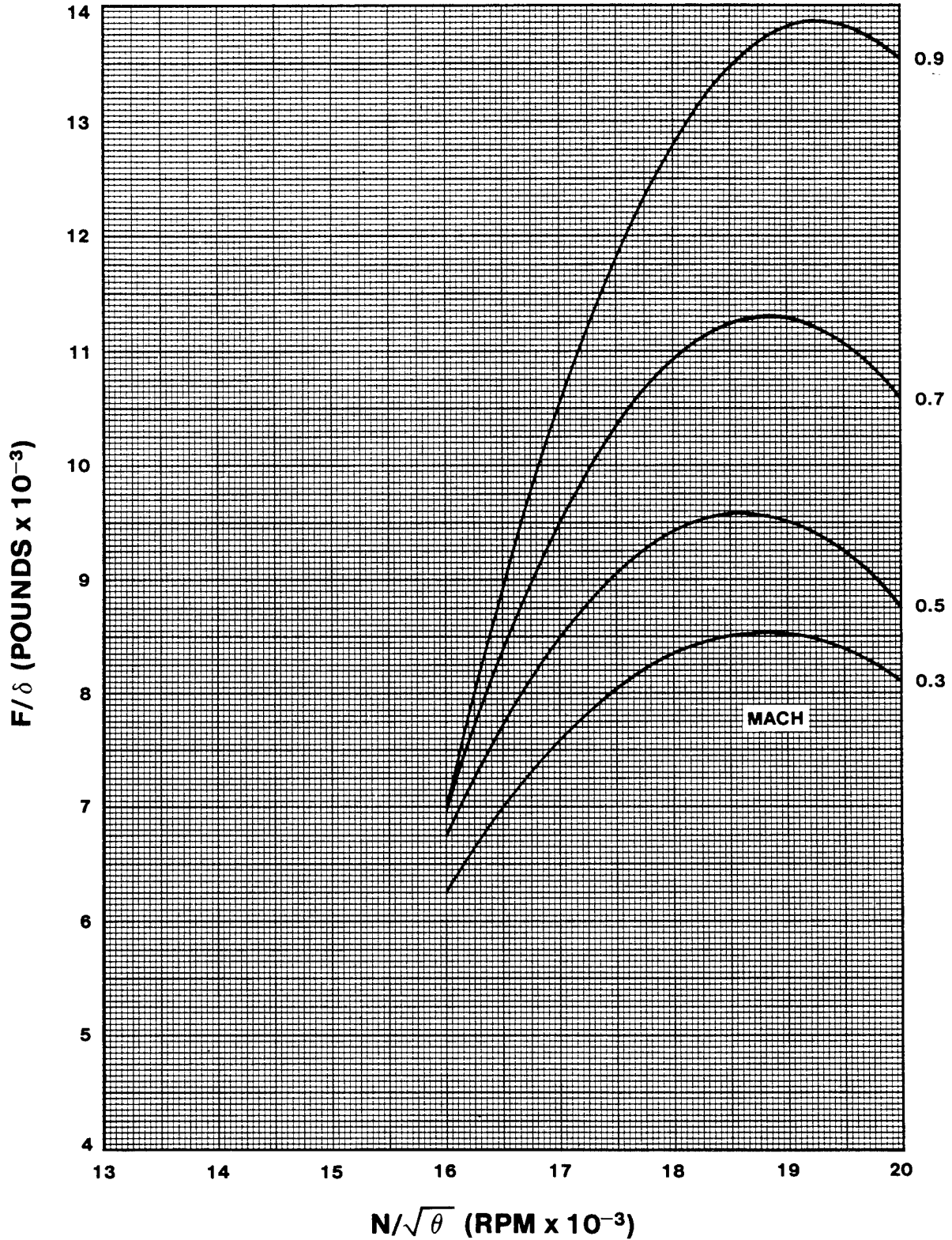
T-38A DRAG POLAR TWO J85-GE-5A ENGINES CRUISE CONFIGURATION



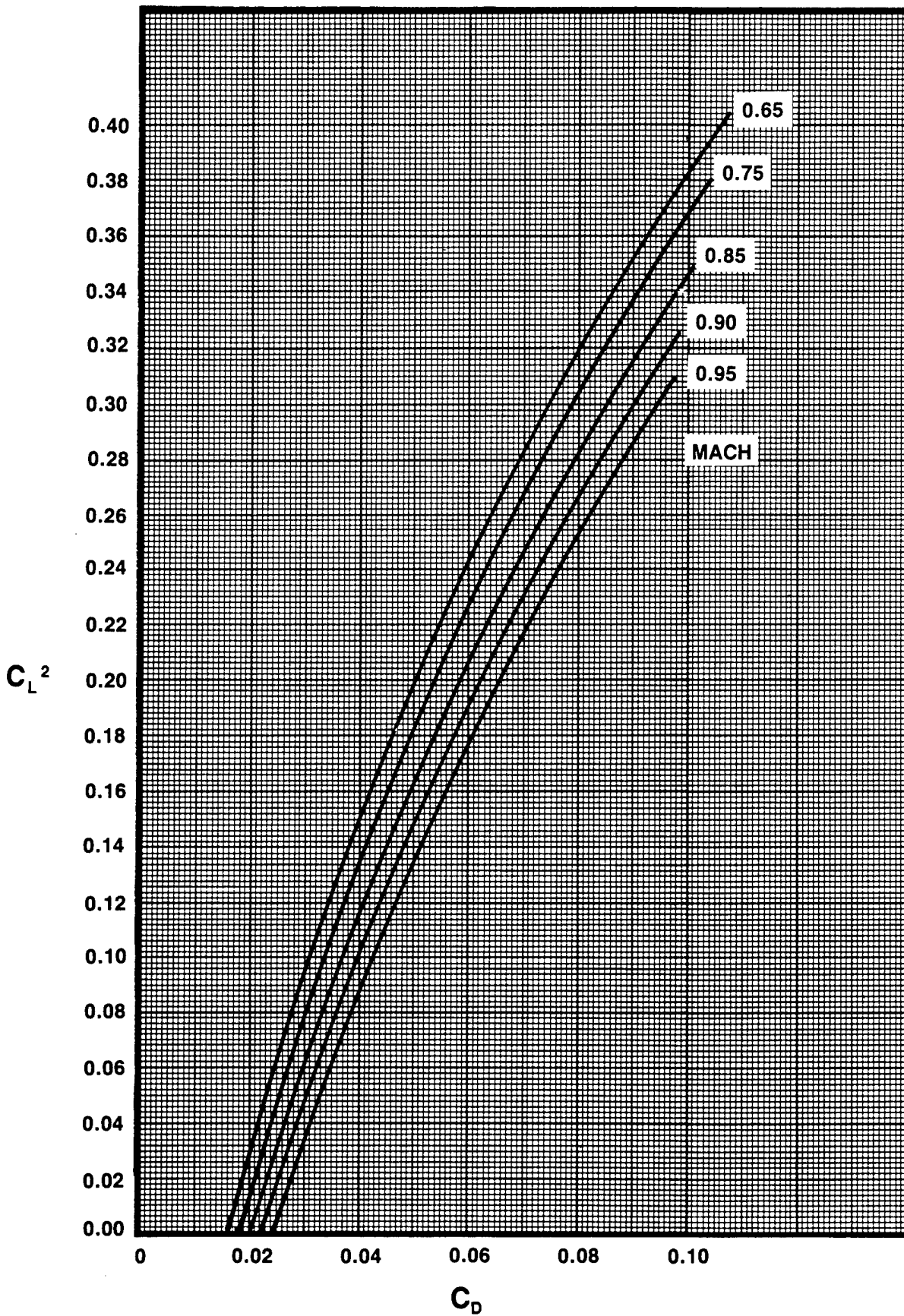
T-38A THRUST CURVE WITHOUT AFTERBURNER TWO J85-GE-5A ENGINES



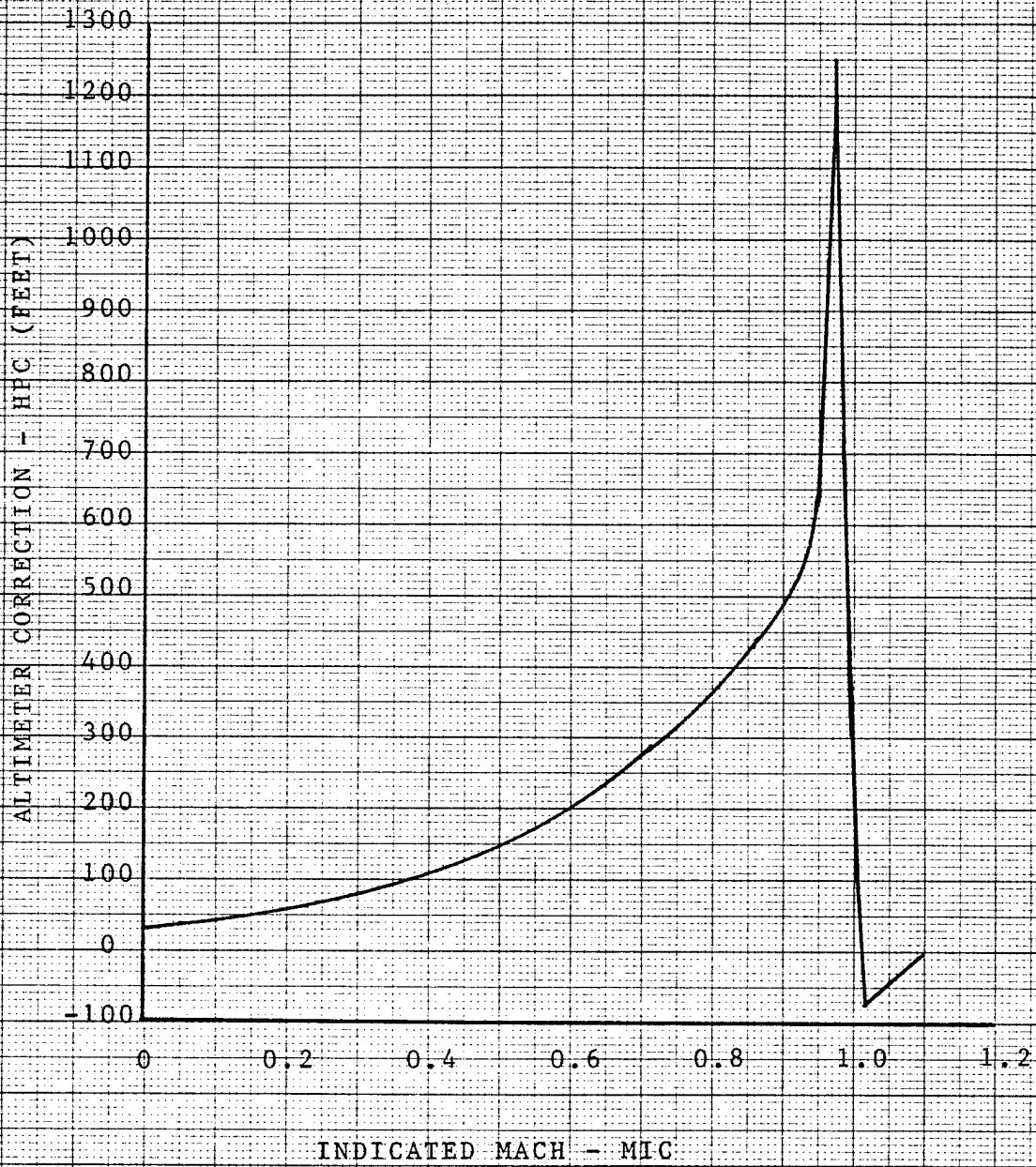
T-38A THRUST CURVE WITH AFTERBURNER TWO J85-GE-5A ENGINES



RF-4C DRAG POLAR PLOT



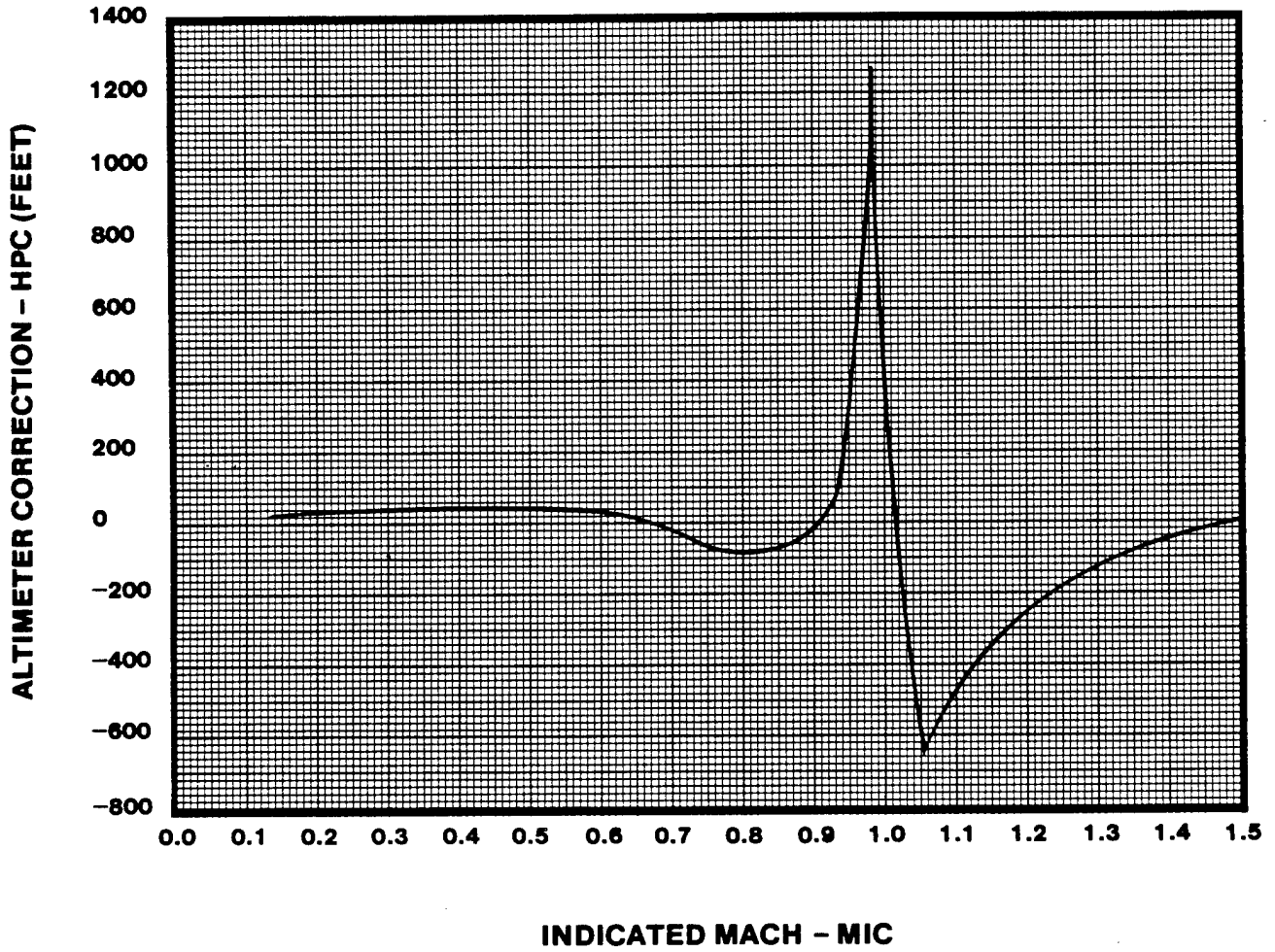
USAF TPS PITOT-STATIC CALIBRATION
T-38A AIRCRAFT
POSITION ERROR CORRECTION
SEA LEVEL
YAPS HEAD PITOT-STATIC SYSTEM



INDICATED MACH - M1C

ALTIMETER POSITION ERROR CORRECTION

**USAF TPS PITOT-STATIC CALIBRATION
RF-4C AIRCRAFT
COCKPIT AND MAGTAPE
STANDARD PITOT-STATIC SYSTEM**



ALTIMETER POSITION ERROR CORRECTION

RF-4C THRUST CURVES
WITHOUT AFTERBURNER
TWO J79-GE-15 ENGINES

