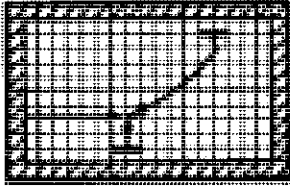


CONDITIONS:
HOVER WITH WIND



HEADWIND INFLUENCE ON TORQUE REQUIRED FOR HOVERING

MODEL	TWO ENGINES	ENGINE
CH/HH-3E		T58-GE-5

DATE: 15 APRIL 1971
DATA BASIS: ESTIMATED

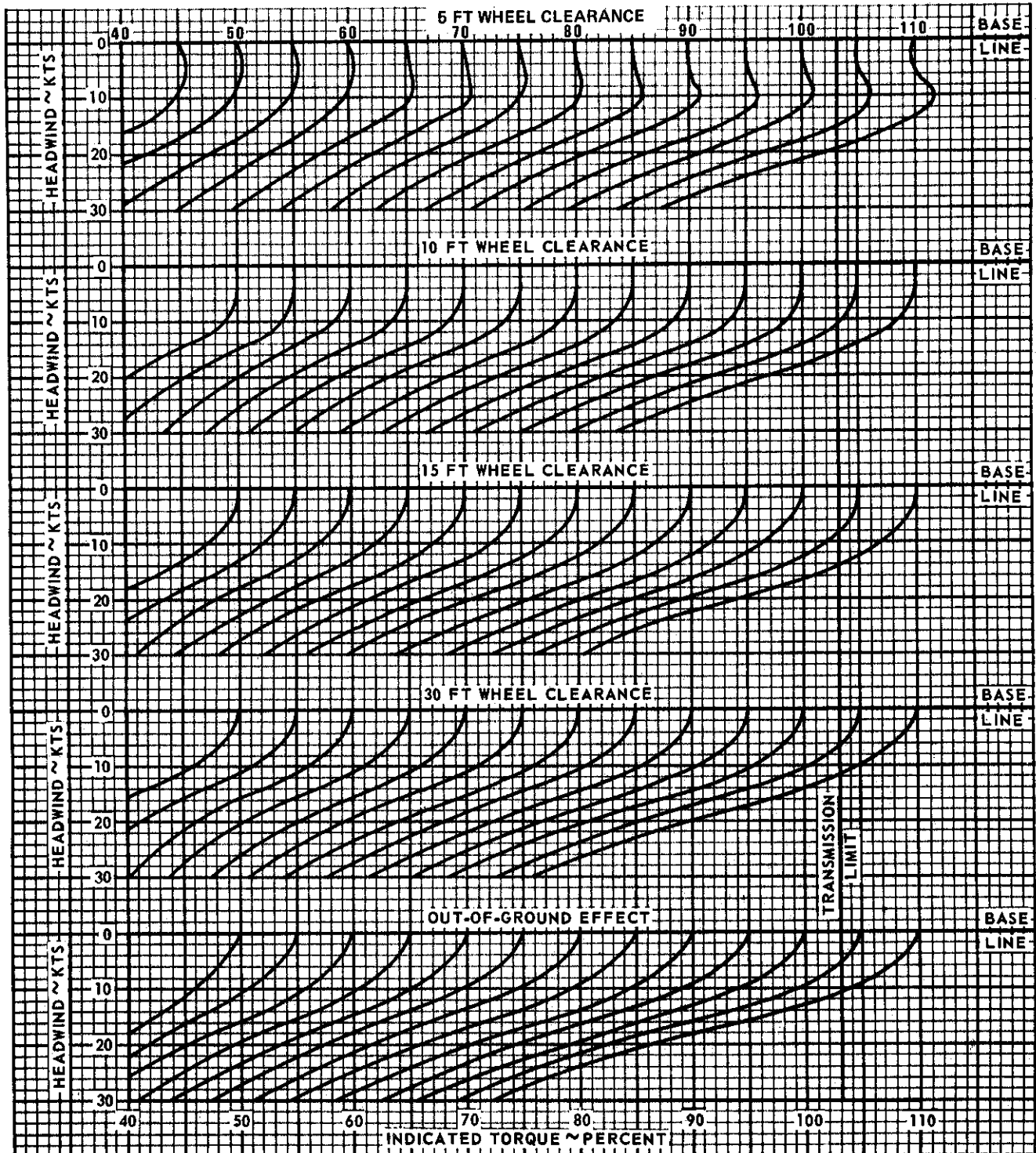


Figure A-11. Headwind Influence on Torque Required to Hover

HEIGHT VELOCITY DIAGRAM

ONE ENGINE FAILURE

MODEL

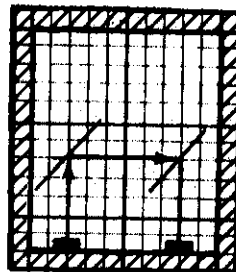
ENGINE

CH/HH-3E

T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS:
 4000 FT. PRESS. ALT.
 17,000 AND 19,500 LB
 GROSS WEIGHT
 22.5°C OAT
 103% N_r
 CG = 267.0

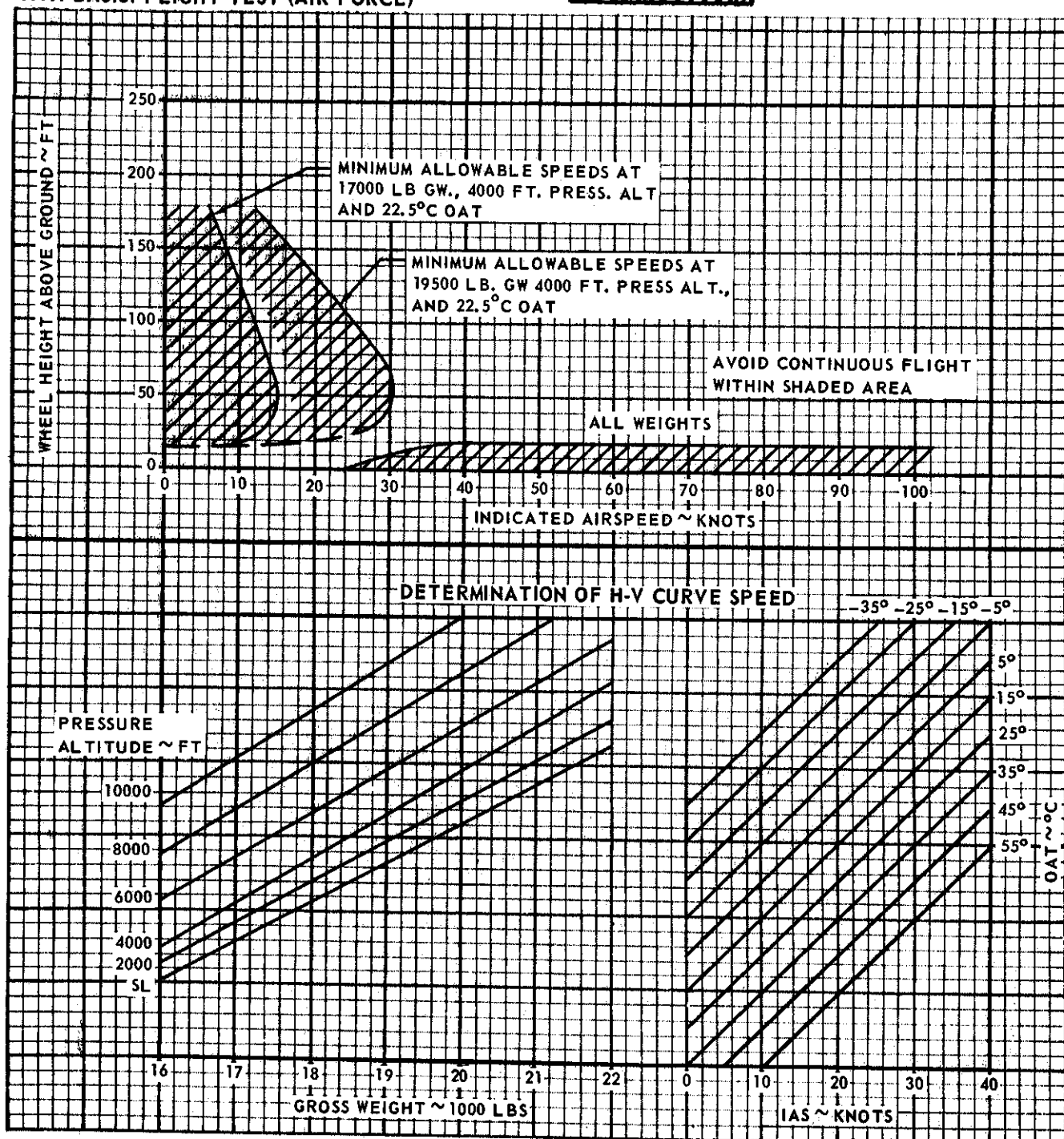


Figure A-12. Height Velocity Diagram - One-Engine Failure

CONDITIONS:
ALL WEIGHTS

DATE: 15 APRIL 1964
DATA BASIS: FLIGHT TEST
(CONTRACTOR)

HEIGHT VELOCITY DIAGRAM

TWO ENGINE FAILURE

MODEL:
CH/HH-3E

ENGINE:
T58-GE-5

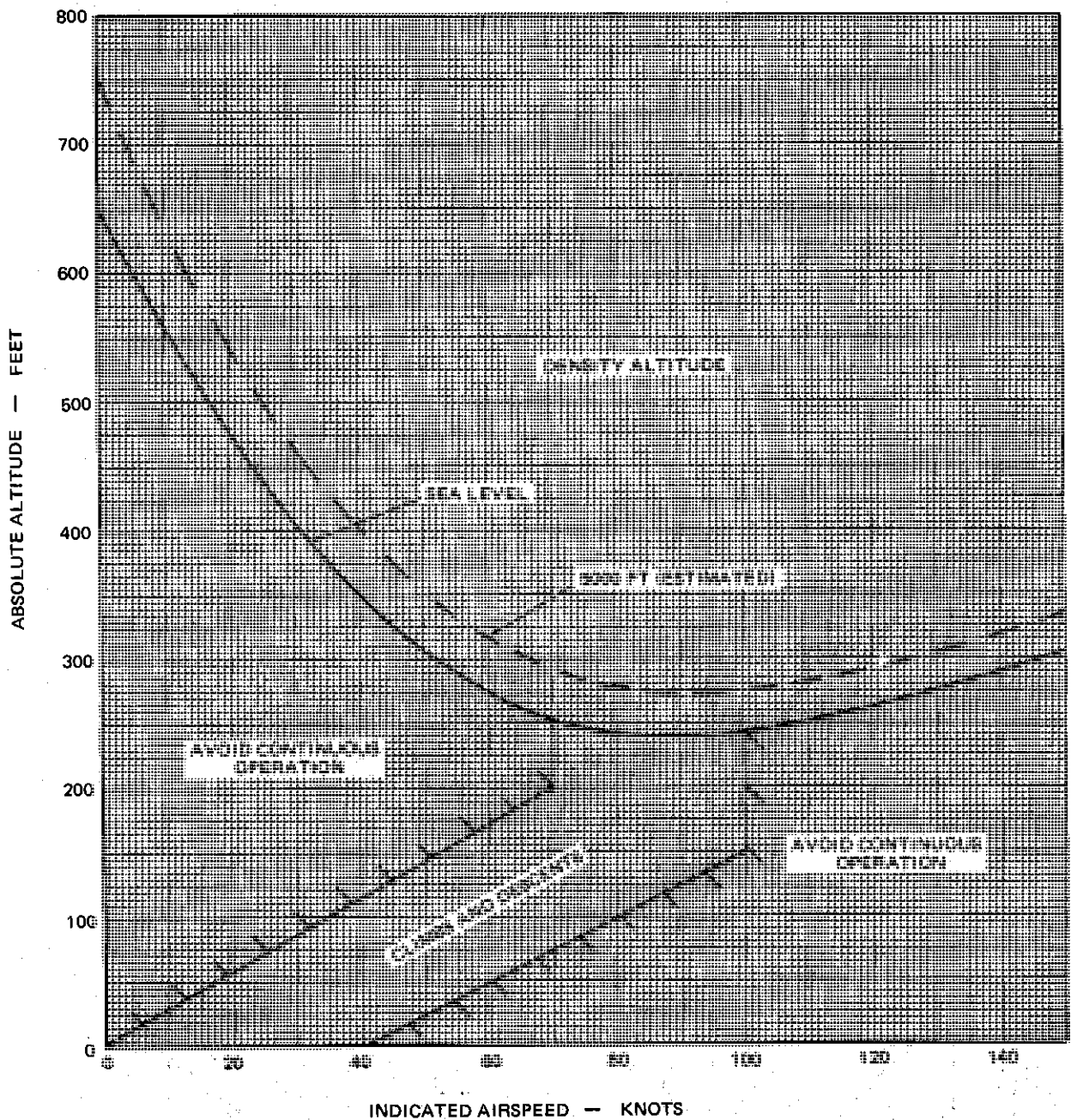
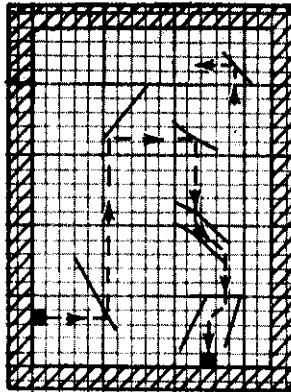


Figure A-13. Height Velocity Diagram - Two Engine Failure

CONDITIONS:
 FOD SHIELD ON OR OFF
 MAXIMUM POWER
 TECHNIQUE: LEVEL
 ACCELERATION FROM
 A 3 FT WHEEL HEIGHT
 103% N_r



DISTANCE TO CLEAR 50 FOOT OBSTACLE - LEVEL ACCELERATION TAKEOFF

TWO ENGINES

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

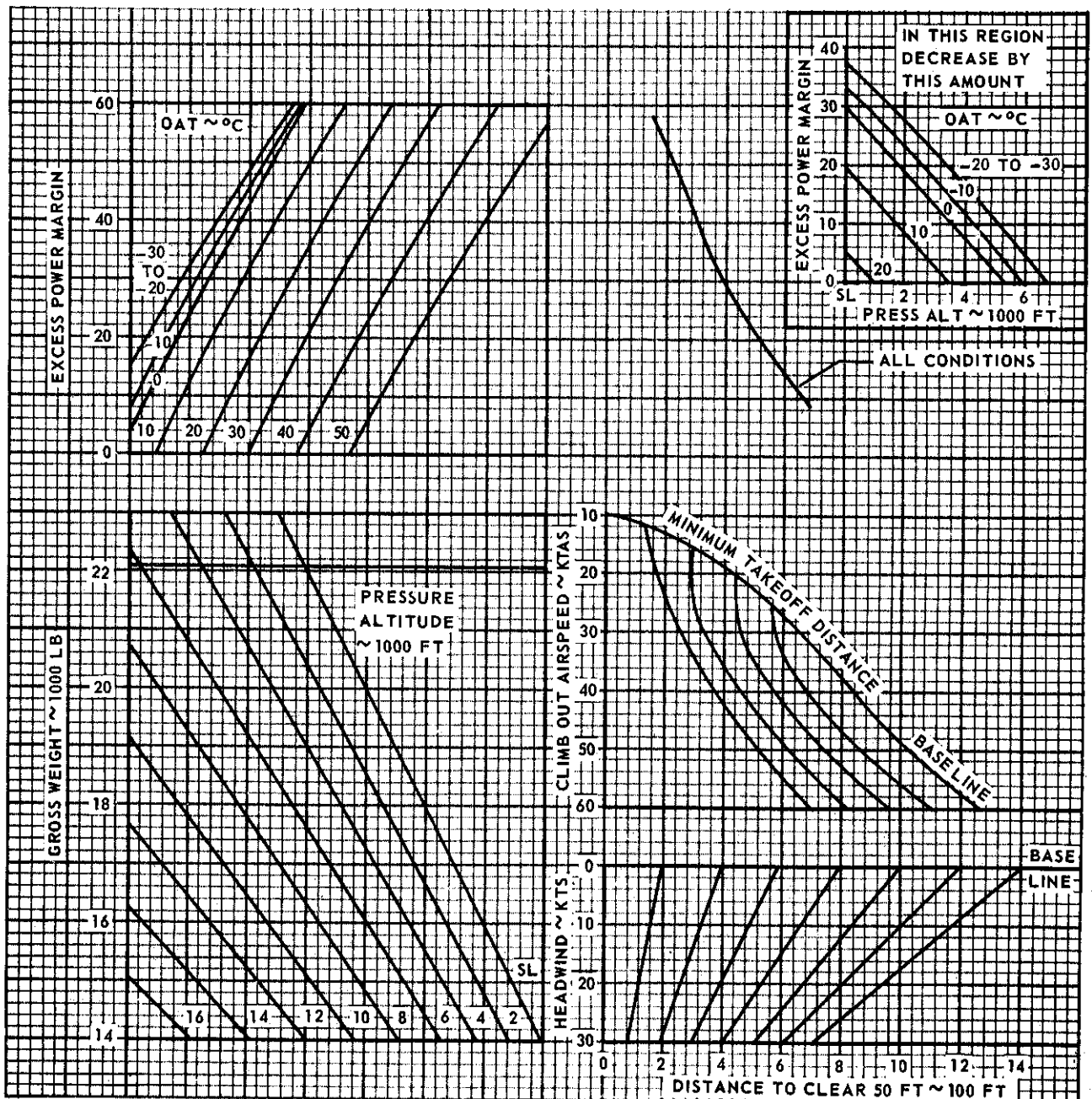


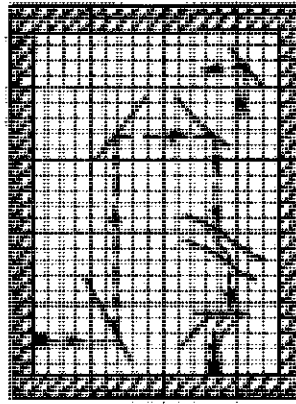
Figure A-14. Distance to Clear 50-Foot Obstacle - Level Acceleration Takeoff - Two Eng

DISTANCE TO CLEAR 50 FOOT OBSTACLE - CLIMB AND ACCELERATION TAKEOFF

TWO ENGINES

**MODEL
CH/HH-3E**

**ENGINE
T58-GE-5**



CONDITIONS:
FOD SHIELD ON OR OFF
MAXIMUM POWER
TECHNIQUE: CLIMB
AND ACCELERATE
FROM A 3 FT
WHEEL HEIGHT
103% N_r

DATE: 15 APRIL 1971
DATA BASIS: FLIGHT TEST (AIR FORCE)

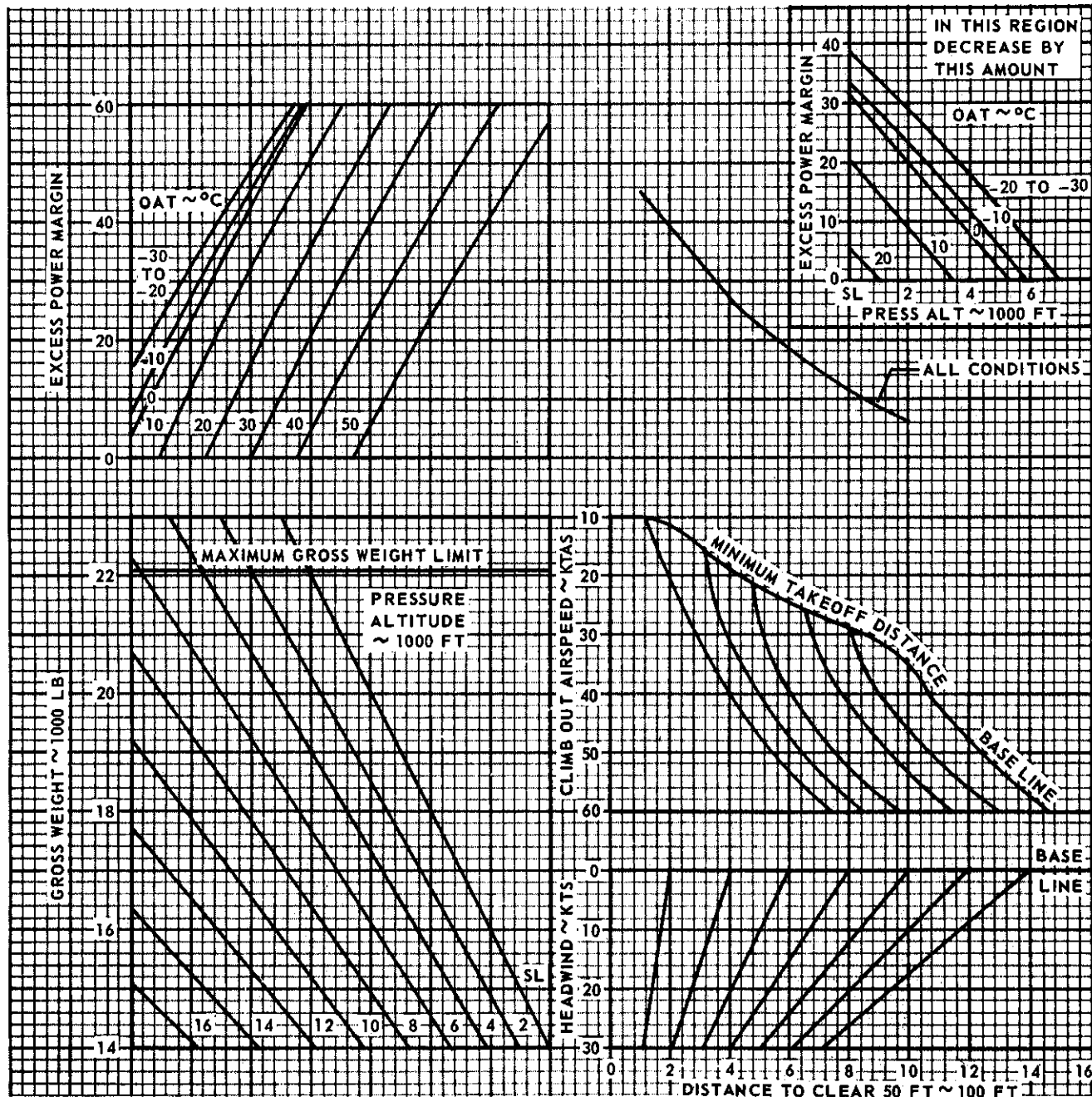
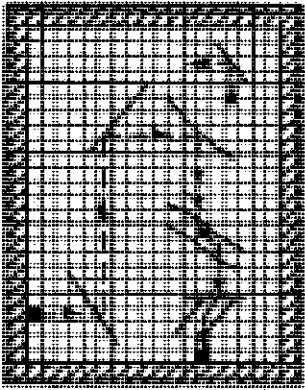


Figure A-15. Distance to Clear 50-Foot Obstacle - Climb and Acceleration Takeoff - Two Engines

CONDITIONS:
FOD SHIELD ON OR OFF
MAXIMUM POWER
TECHNIQUE: LEVEL
ACCELERATION FROM
A 15 FT WHEEL HEIGHT
103% N₁



**DISTANCE TO CLEAR 50
FOOT OBSTACLE - SLING
LOAD TAKEOFF**

TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971
DATA BASIS: FLIGHT TEST (AIR FORCE)

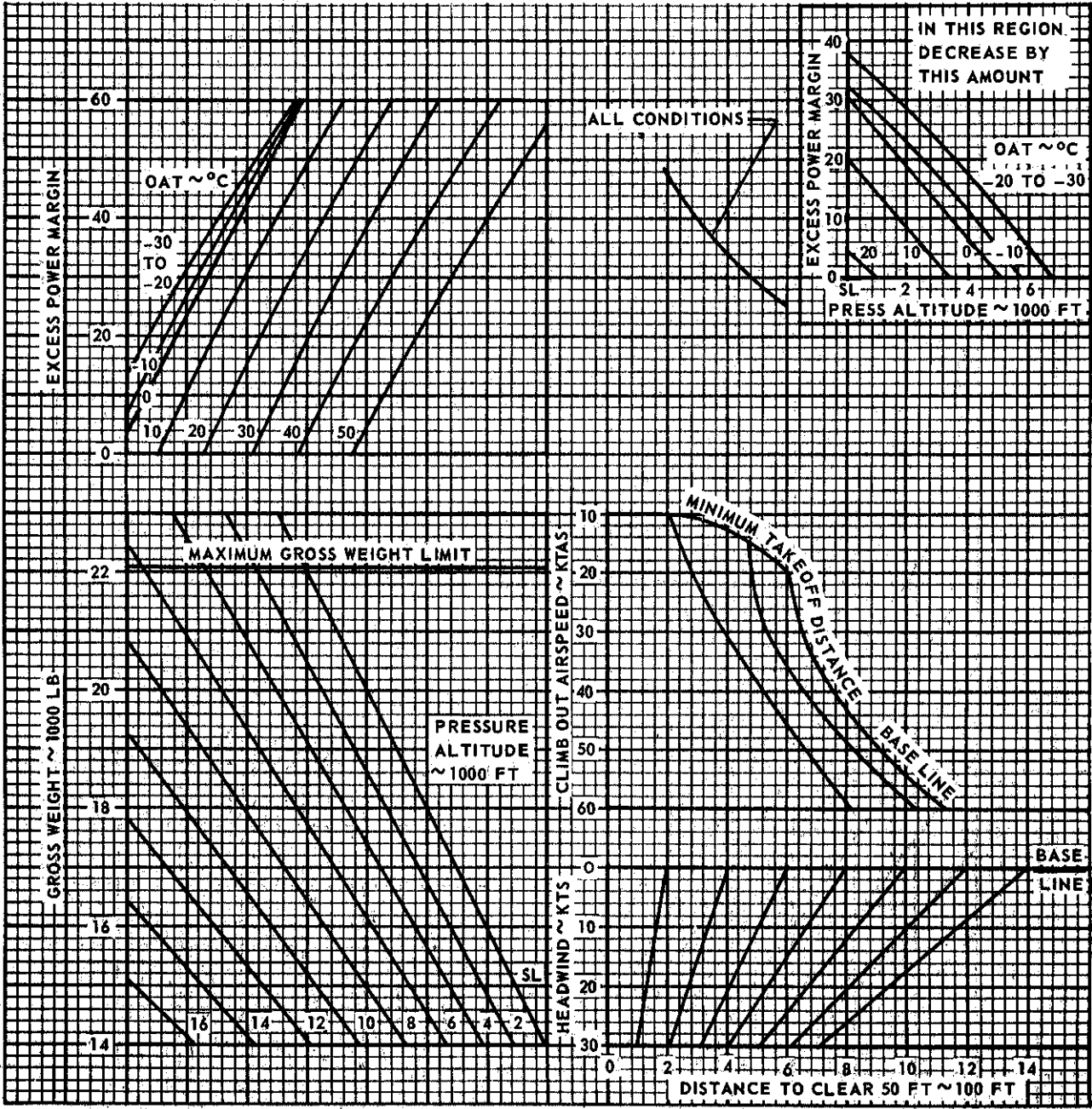


Figure A-16. Distance to Clear 50-Foot Obstacle - Sling Load Takeoff - Two Engines

DISTANCE TO CLEAR 50 FOOT OBSTACLE - WATER TAKEOFF

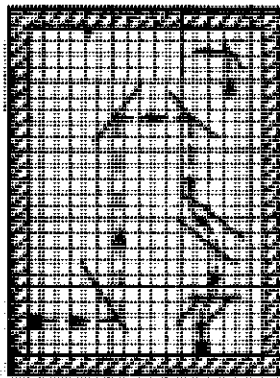
TWO ENGINES

**MODEL
CH/HH-3E**

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS:
FOD SHIELD ON OR OFF
MAXIMUM POWER
TECHNIQUE: LEVEL
ACCELERATION
FROM WATER
103% N.

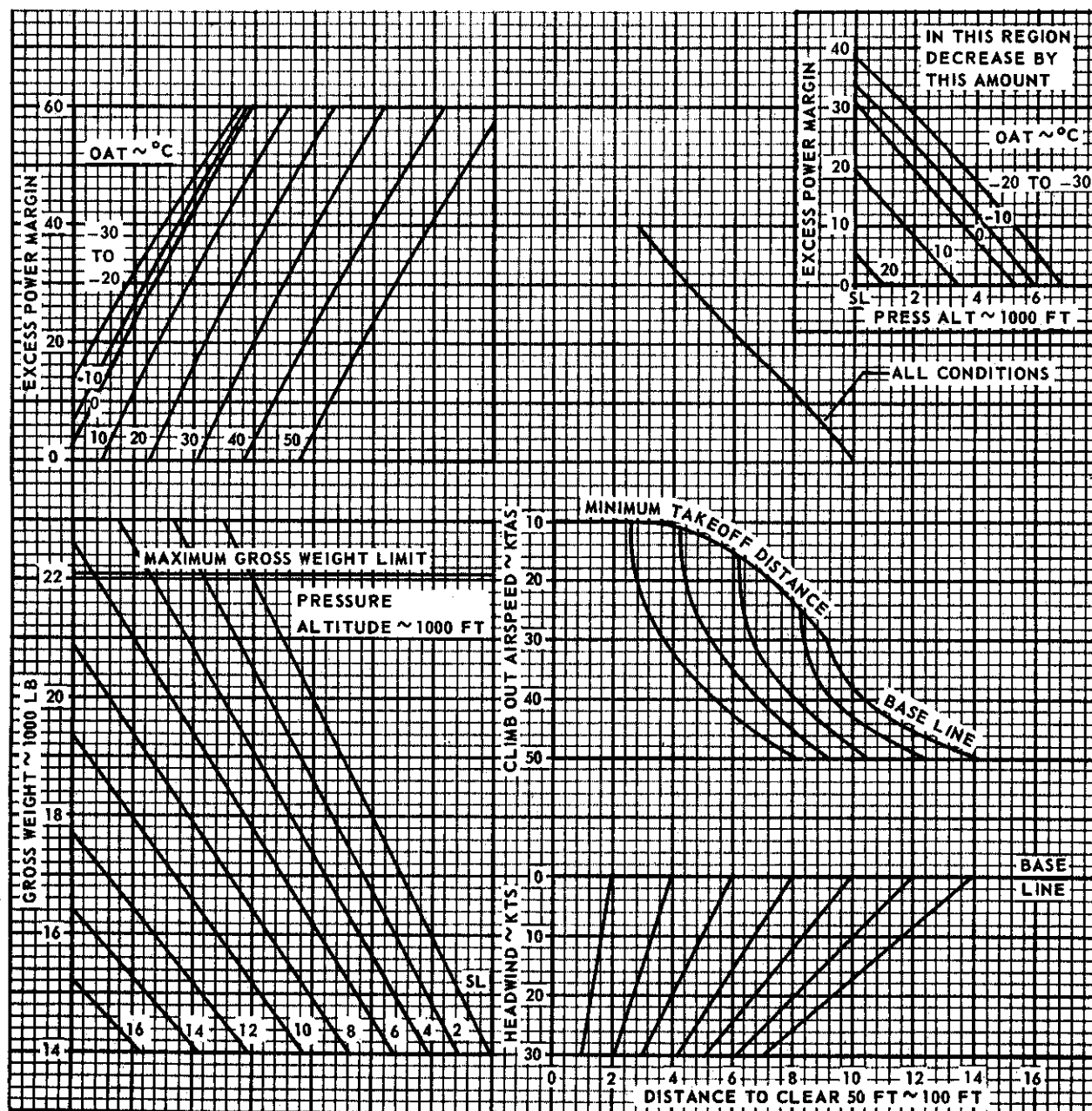
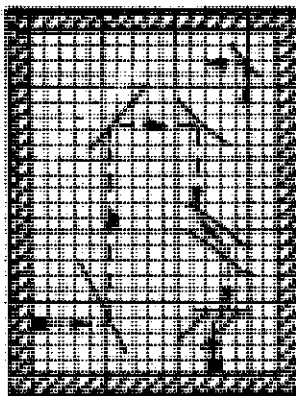


Figure A-17. Distance to Clear 50-Foot Obstacle - Water Takeoff - Two Engines

CONDITIONS:
FOD SHIELD ON OR OFF
MAXIMUM POWER
TECHNIQUE: ROLLING
103% N,



DISTANCE TO CLEAR 50 FOOT OBSTACLE - ROLLING TAKEOFF

TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

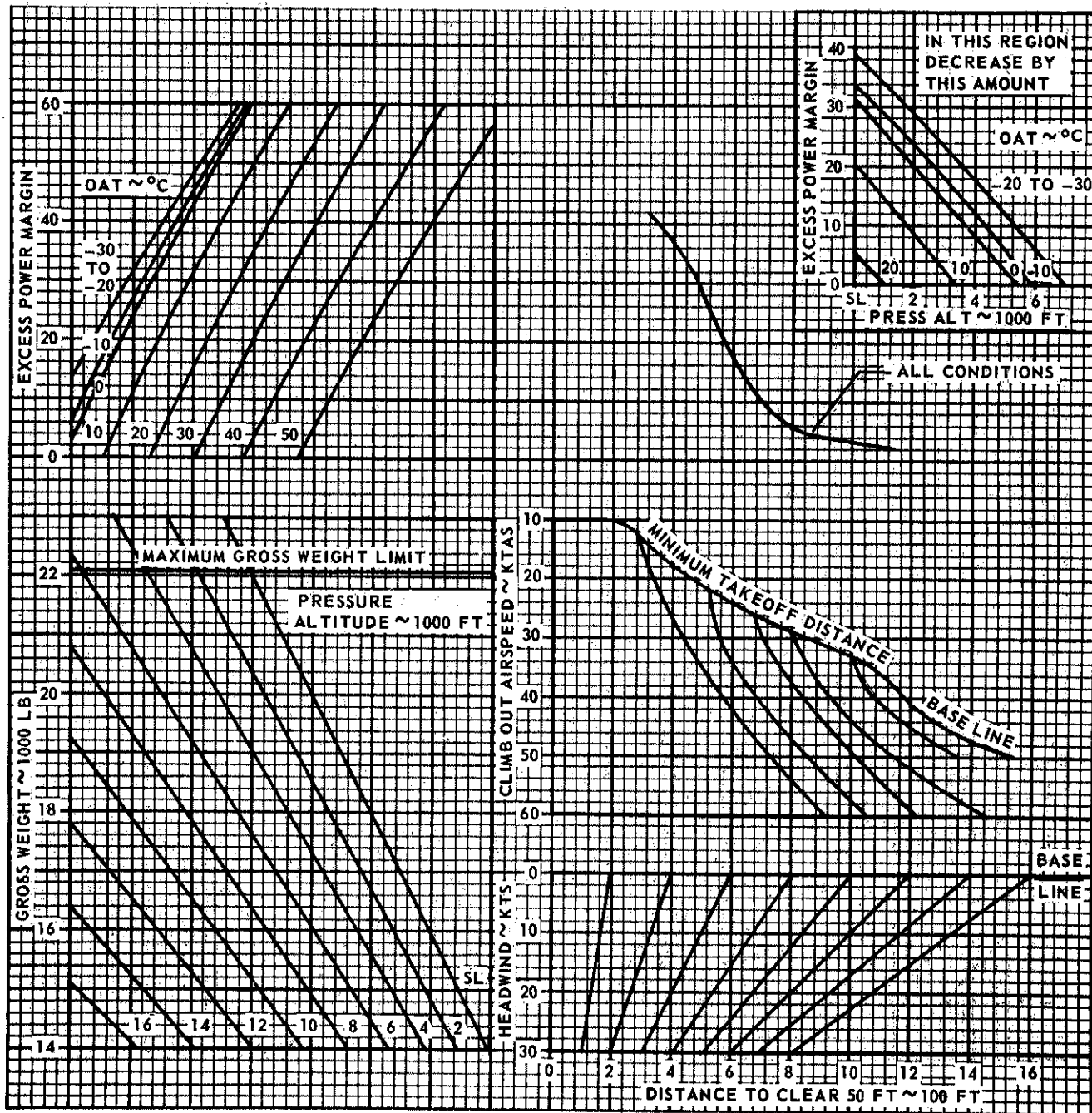


Figure A-18. Distance to Clear 50-Foot Obstacle - Rolling Takeoff - Two Engines

DISTANCE TO CLEAR 50 FOOT OBSTACLE - ROLLING TAKEOFF

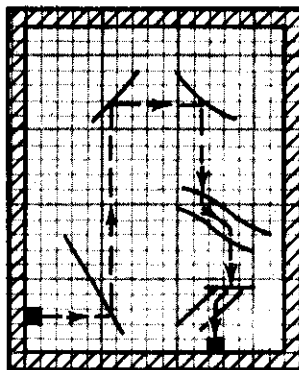
ONE ENGINE

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS:
FOD SHIELD ON OR OFF
MAXIMUM POWER
TECHNIQUE: ROLLING
103% N_r

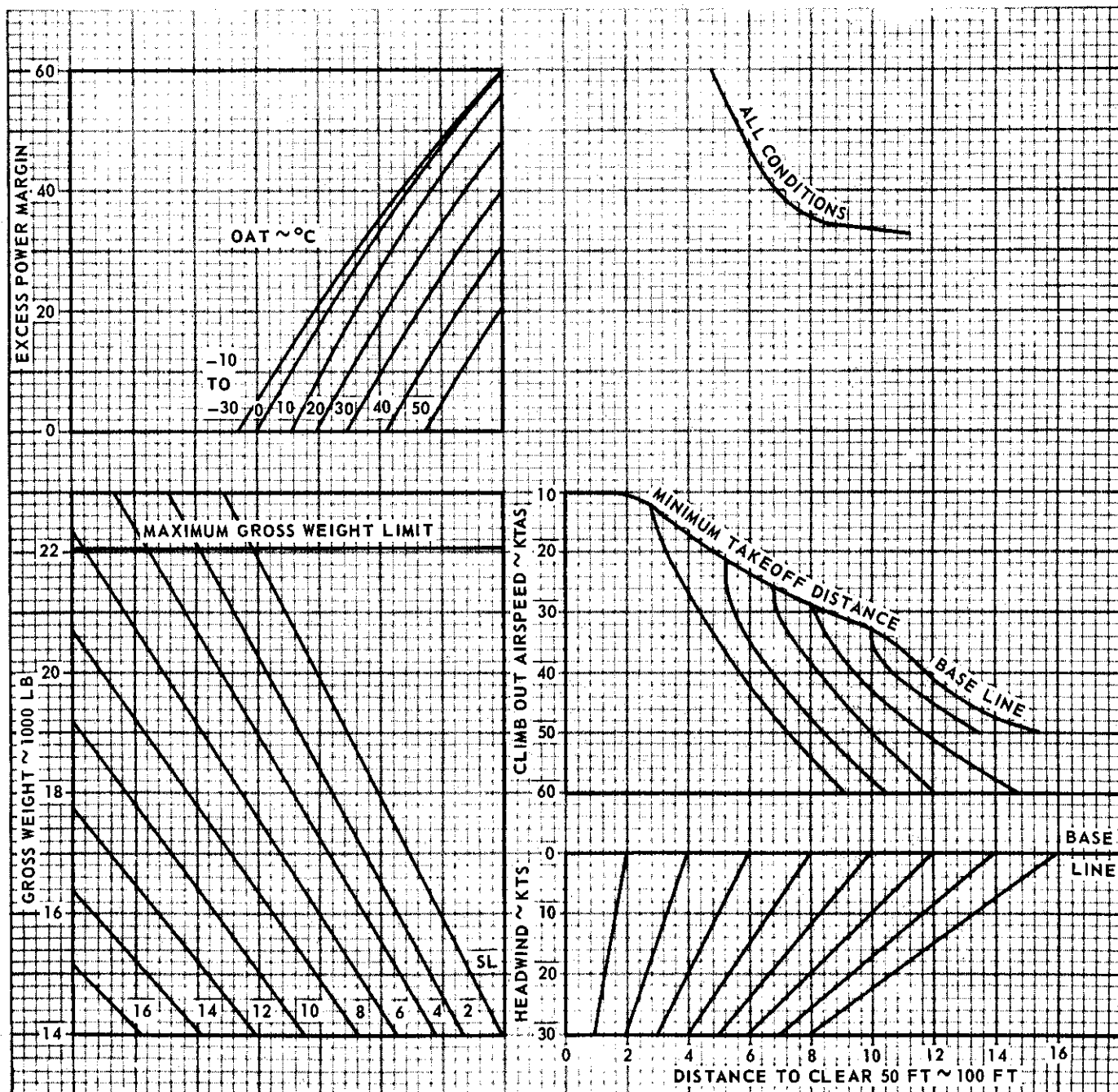


Figure A-19. Distance to Clear 50-Foot Obstacle - Rolling Takeoff - One Engine

CLIMB

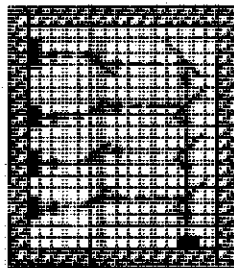
TWO ENGINES

WARM DAY

MODEL
CH/MH-3EENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS
103% N₁
MILITARY POWER
WARMUP AND TAKEOFF
FUEL NOT INCLUDED
ZERO WIND
FOD SHIELD ON OR OFF

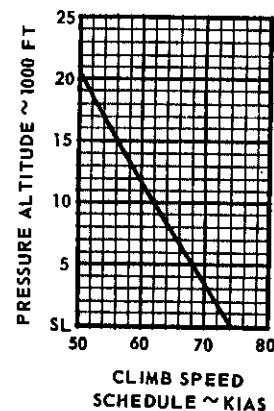
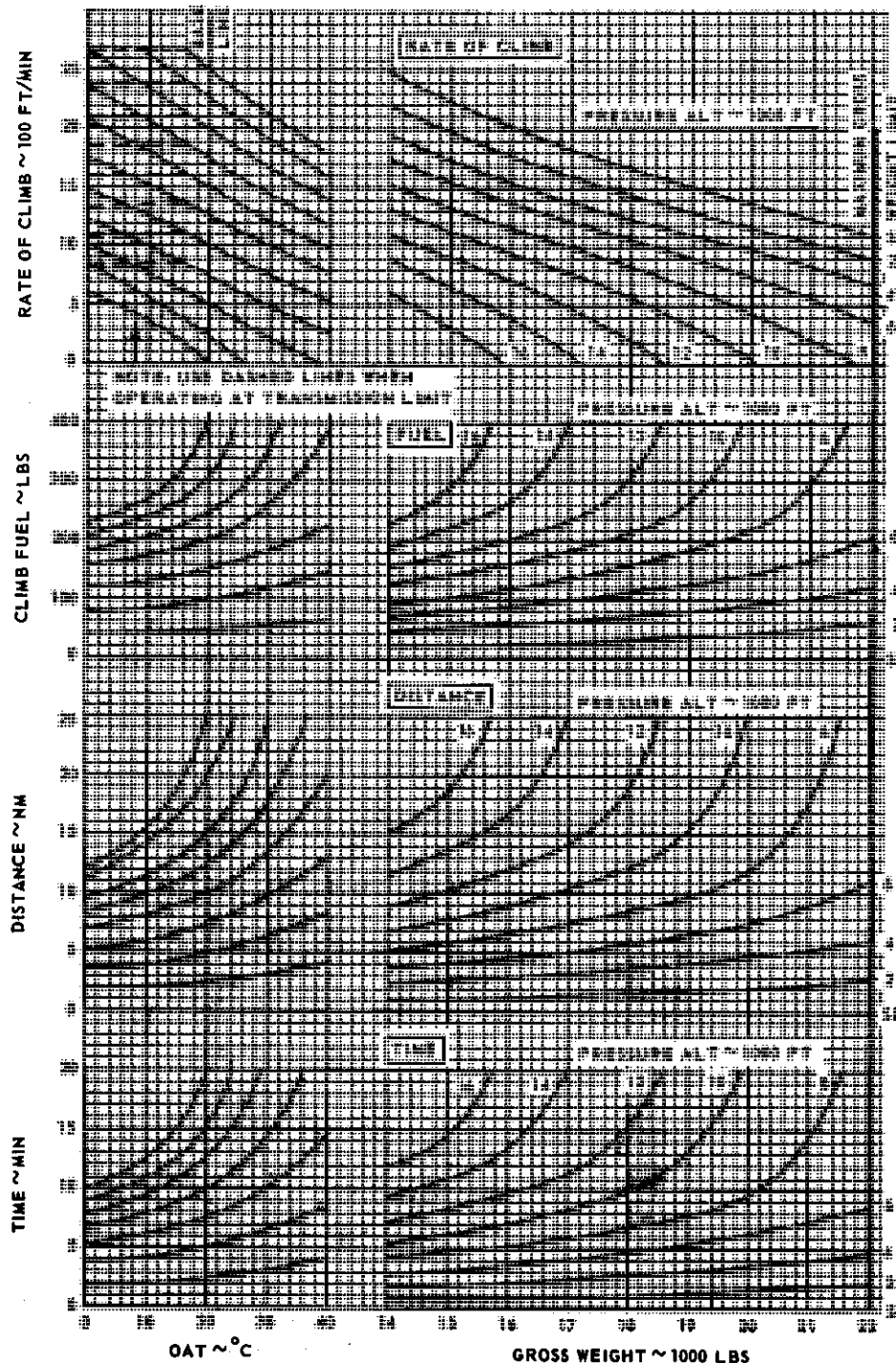
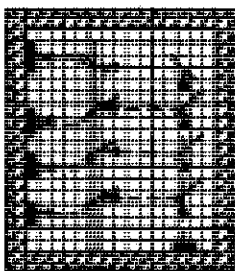


Figure A-20. Climb - Military Power (0°C to 40°C OAT) - Two Engines

CONDITIONS:
 103% N_P
 MILITARY POWER
 WARMUP AND TAKEOFF
 FUEL NOT INCLUDED
 ZERO WIND
 FOD SHIELD ON OR OFF

**CLIMB**

TWO ENGINES
 COLD DAY

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

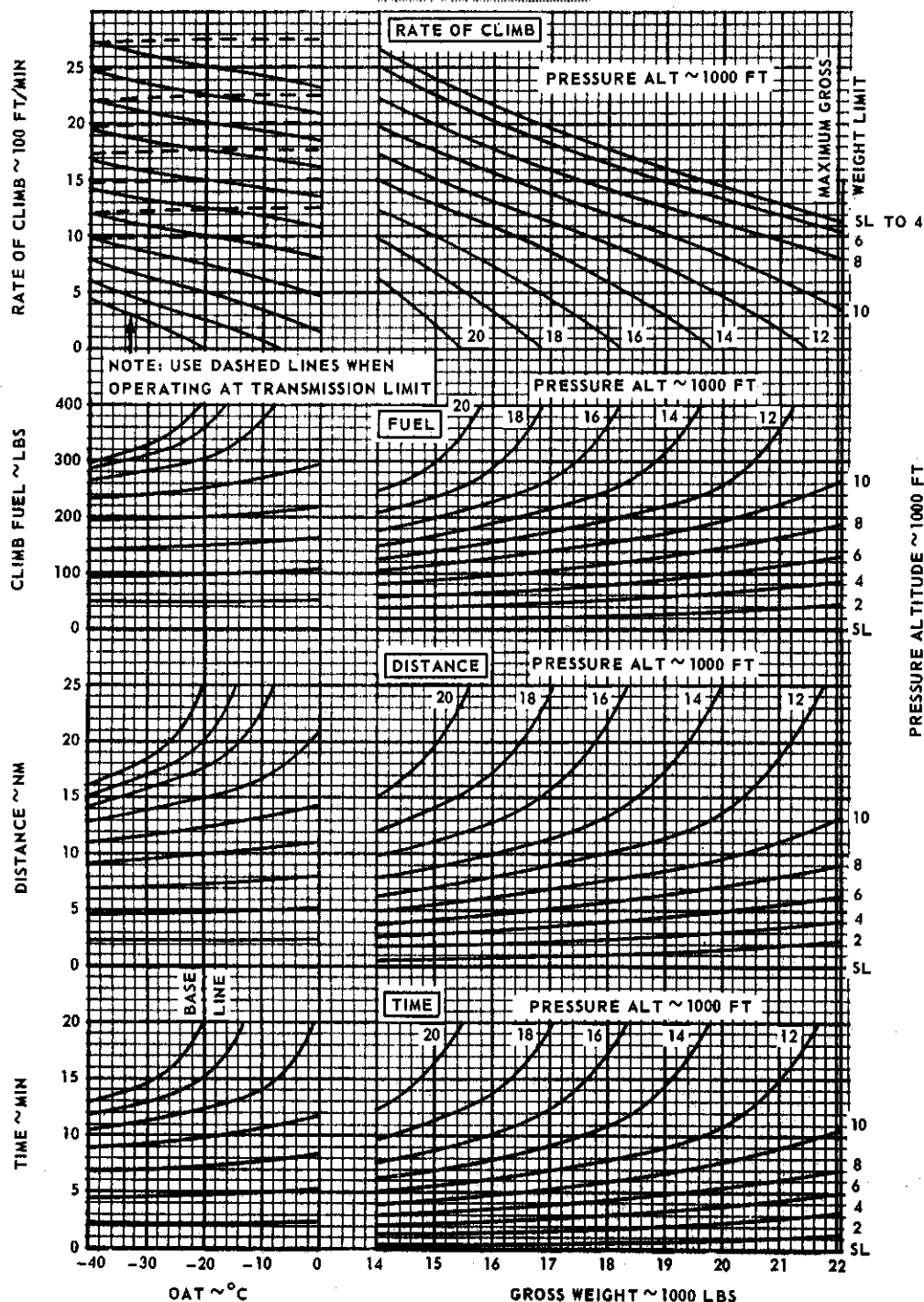


Figure A-21. Climb - Military Power (-40°C to 0°C OAT) - Two Engines

CLIMB

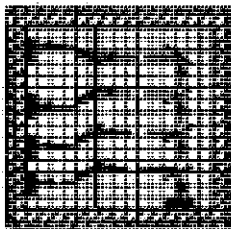
ONE ENGINE

WARM DAY

MODEL
CH/HH-3EENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS:
103% N_1
MILITARY POWER
WARMUP AND TAKEOFF
FUEL NOT INCLUDED
ZERO WIND
FOD SHIELD ON OR OFF

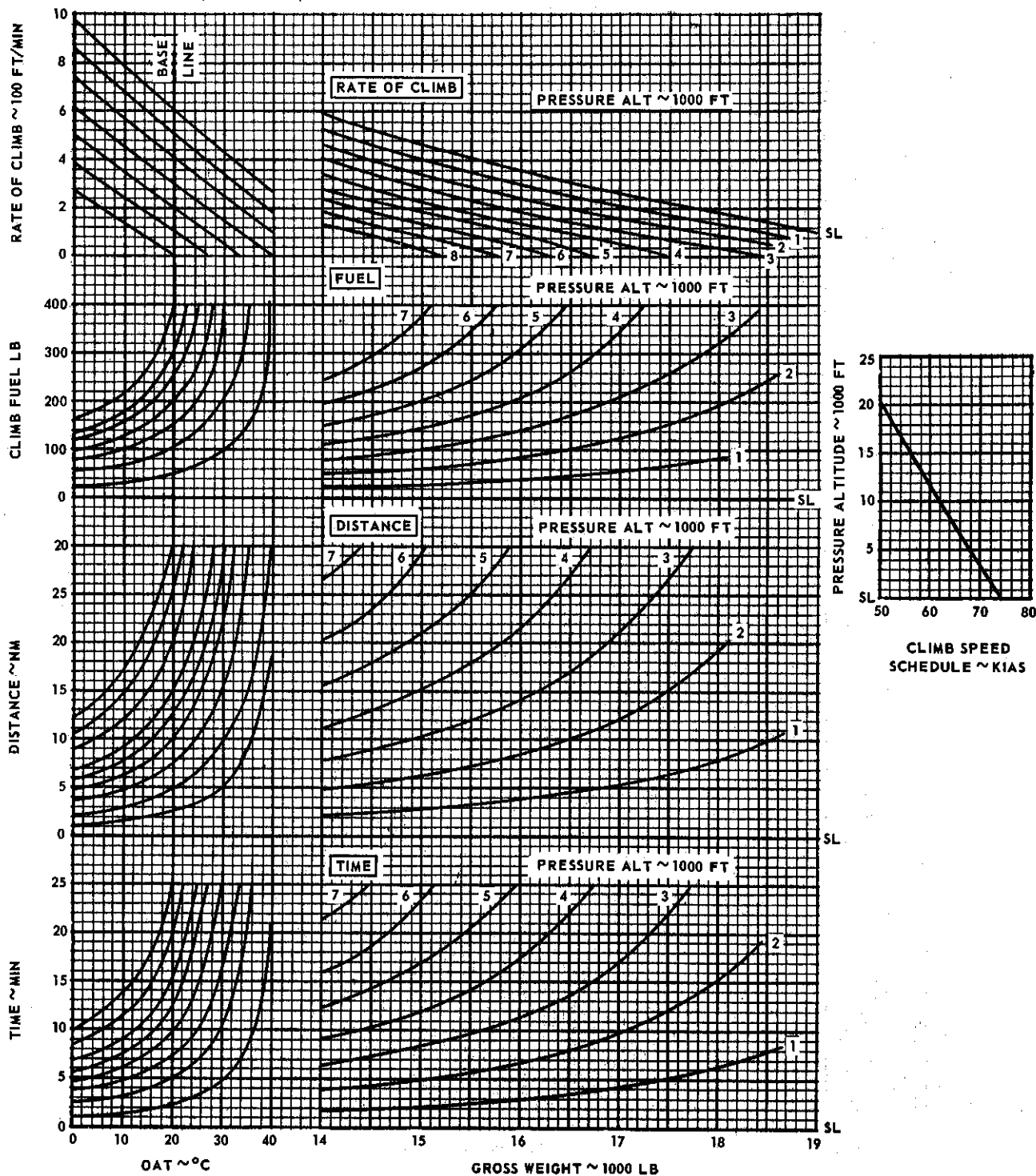
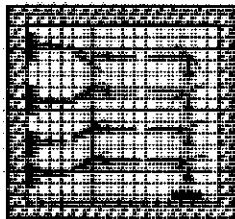


Figure A-22. Climb - Military Power (0°C to 40°C OAT) - One Engine

CONDITIONS:
 103% N_1
 MILITARY POWER
 WARMUP AND TAKEOFF
 FUEL NOT INCLUDED
 ZERO WIND
 FOD SHIELD ON OR OFF



CLIMB
 ONE ENGINE
 COLD DAY

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971
 DATA BASIS: FLIGHT TEST (AIR FORCE)

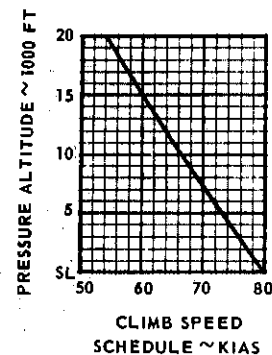
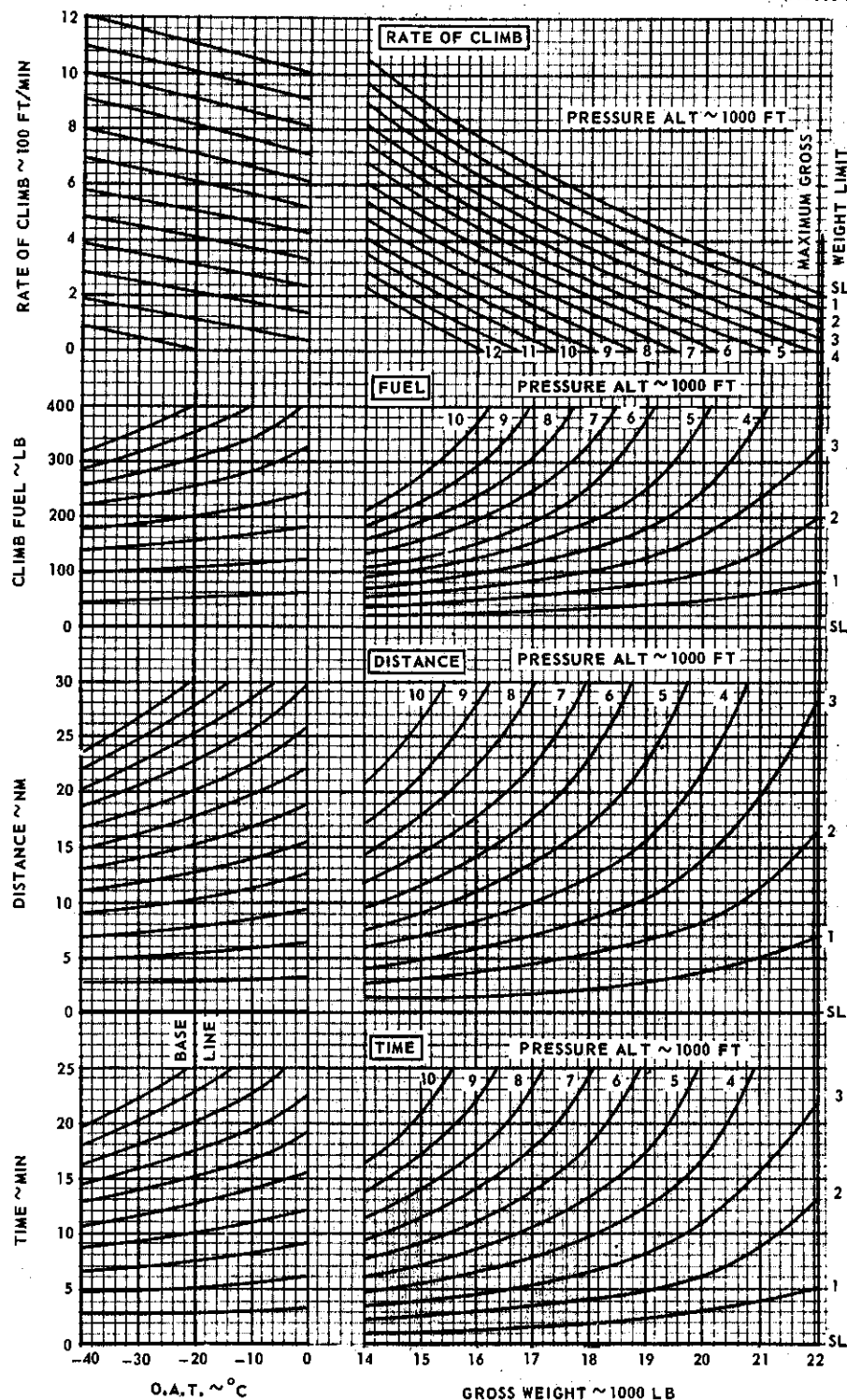
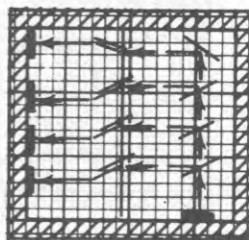


Figure A-23. Climb - Military Power (-40°C to 0°C OAT) - One Engine

CLIMBTWO ENGINES
WARM DAYMODEL
CH/HH-3EENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

**CONDITIONS:**

103% N_r
 MAXIMUM CONTINUOUS POWER
 WARMUP AND TAKEOFF
 FUEL NOT INCLUDED
 ZERO WIND
 FOD SHIELD ON OR OFF
 TRANSMISSION LIMIT IS
 30 MIN AT 103% Q

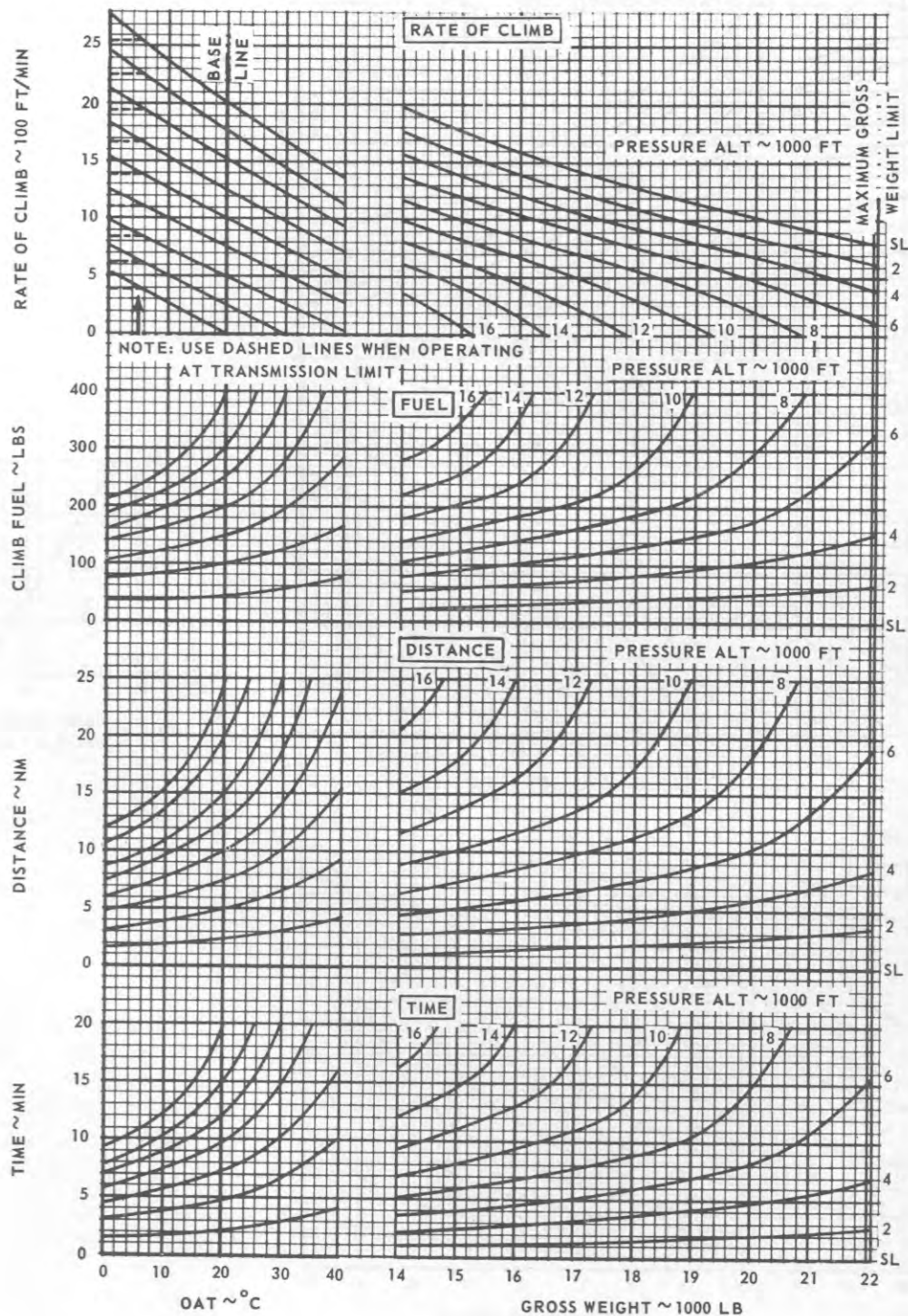
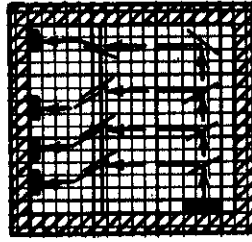


Figure A-24. Climb - Maximum Continuous Power (0°C to 40°C OAT) - Two Engines

CONDITIONS

103% N_1
 MAXIMUM CONTINUOUS POWER
 WARMUP AND TAKEOFF
 FUEL NOT INCLUDED
 ZERO WIND
 FOD SHIELD ON OR OFF
 TRANSMISSION LIMIT IS
 30 MIN AT 103% Q

**CLIMB**

TWO ENGINES
 COLD DAY

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

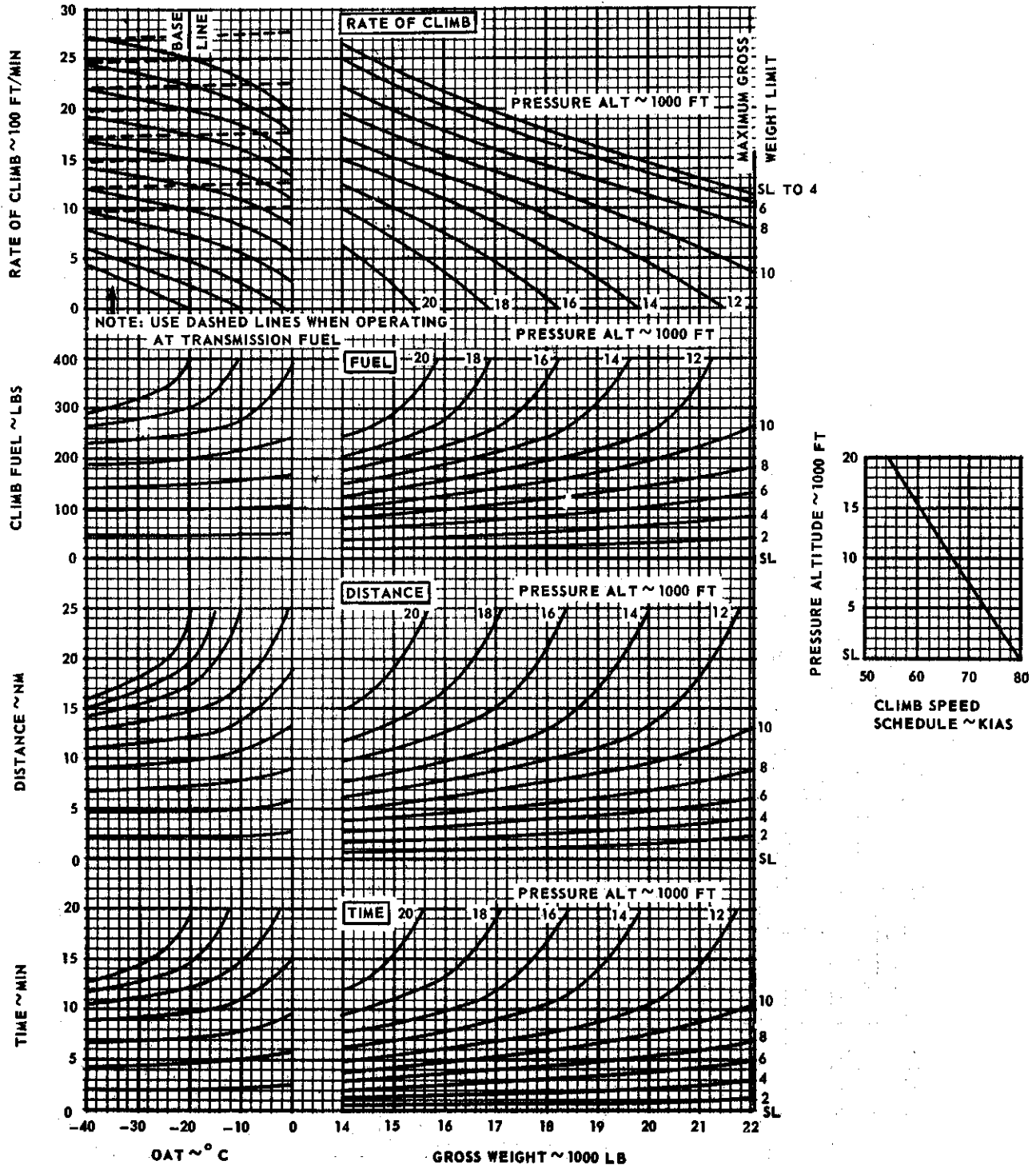
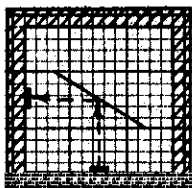


Figure A-25. Climb - Maximum Continuous Power (-40°C to 0°C OAT) - Two Engines

SERVICE CEILING

MODEL TWO ENGINES
CH/HH-3E ENGINE
T58-GE-5



CONDITIONS:
MAXIMUM CONTINUOUS POWER
103% N_r
BEST CLIMB SPEED
FOD SHIELD ON OR OFF
100 FT/MIN RATE OF CLIMB

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

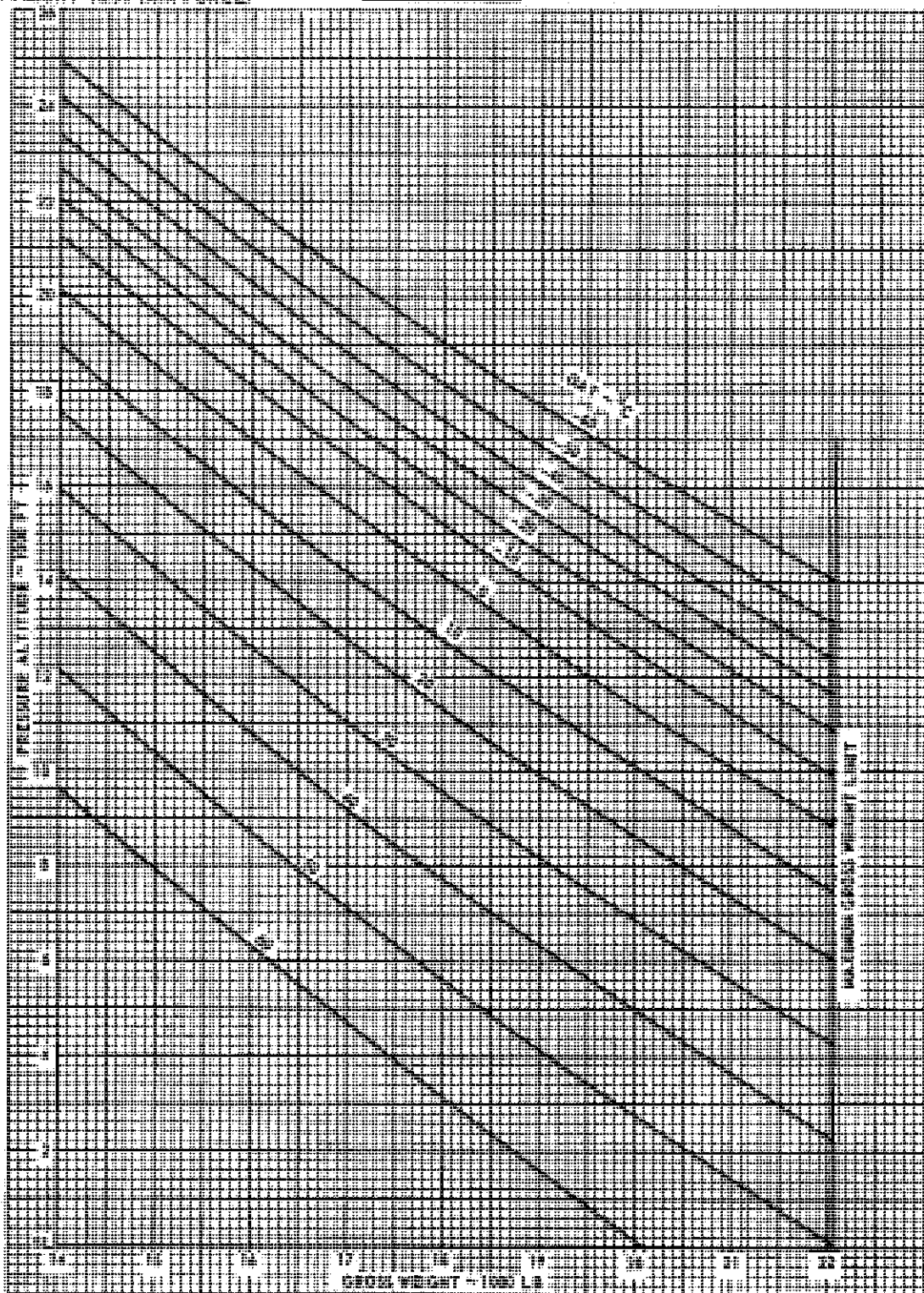
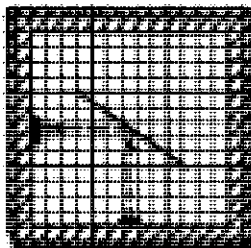


Figure A-26. Service Ceiling - Maximum Continuous Power - Two Engines

CONDITIONS:
 MILITARY POWER
 103% N_r
 BEST CLIMB SPEED
 FOD SHIELD ON OR OFF
 100 FT/MIN RATE OF CLIMB



SERVICE CEILING

ONE ENGINE

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

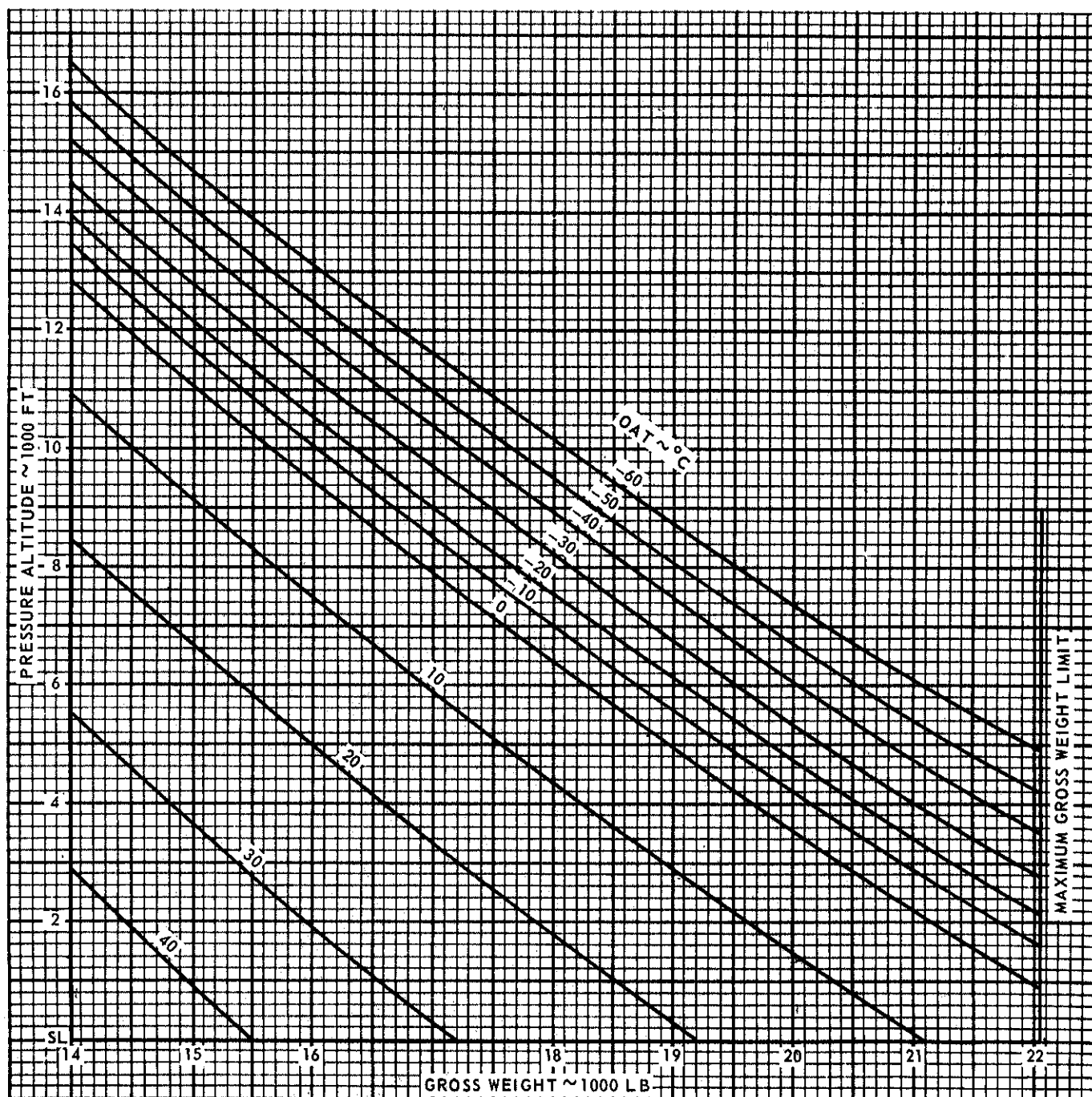


Figure A-27. Service Ceiling - Military Power - One Engine

CRUISE

OAT BETWEEN 20°C AND 40°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 2 NOVEMBER 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

CONDITIONS:

103% N_T

ZERO WIND

FOD SHIELD ON OR OFF

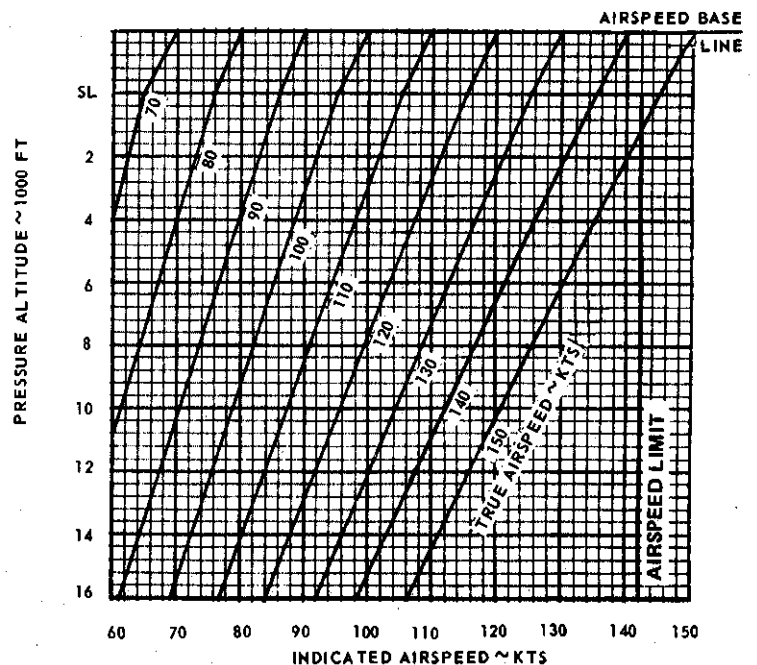
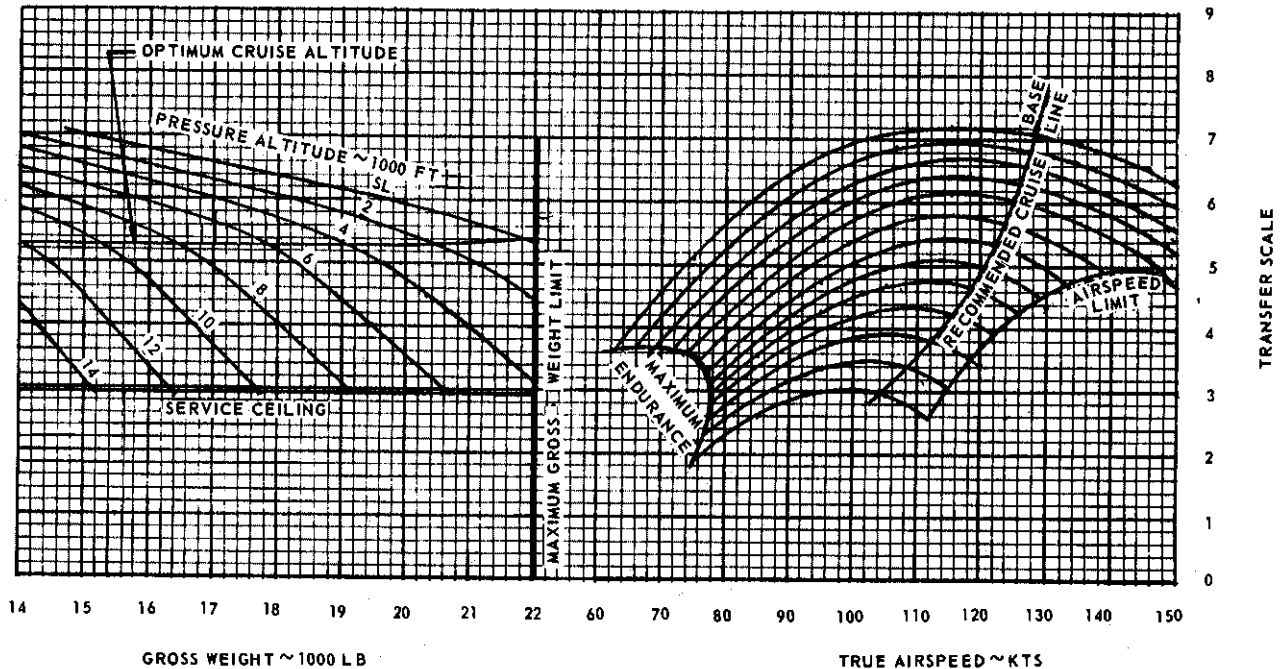
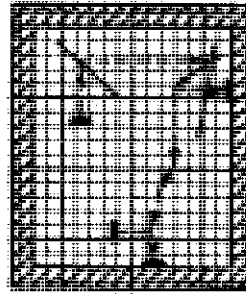
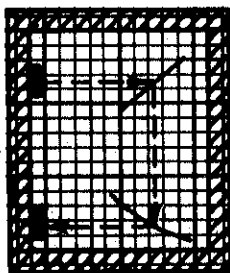


Figure A-28. Cruise (20°C to 40°C OAT) - Two Engines (Sheet 1 of 2)

CONDITIONS:
103% N_f
ZERO WIND
FOD SHIELD ON OR OFF



CRUISE

OAT BETWEEN 20°C AND 40°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

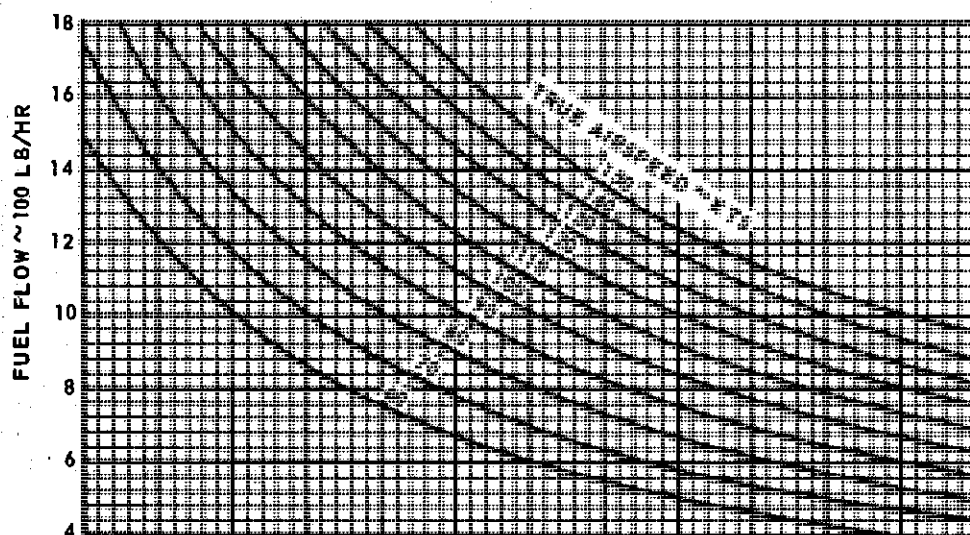
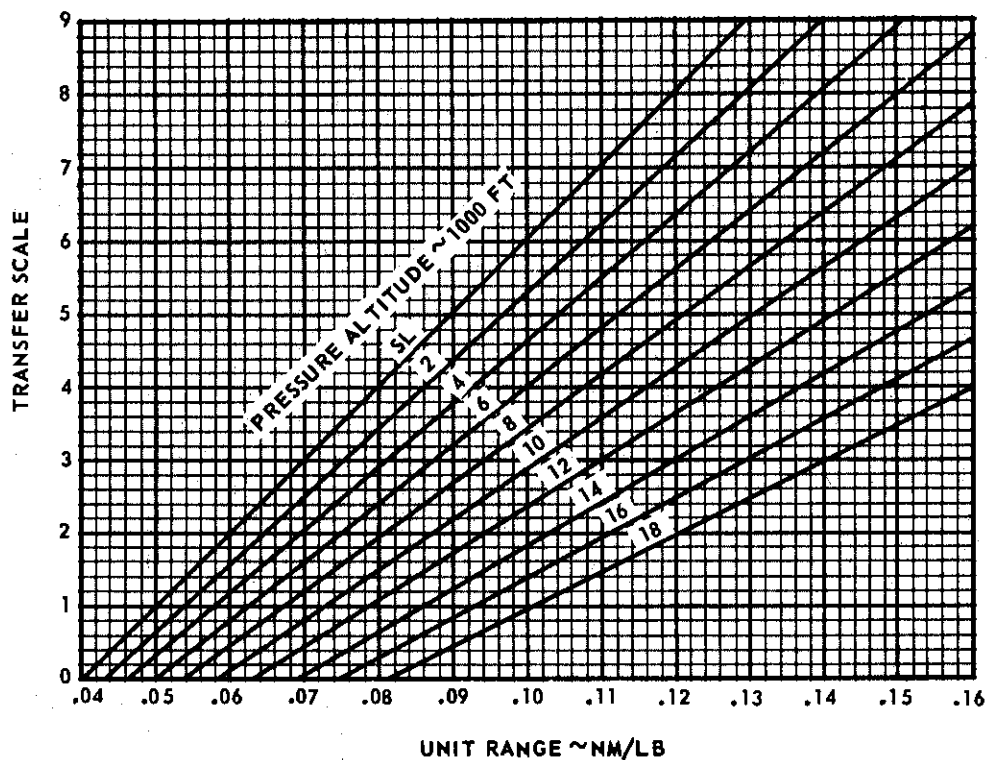


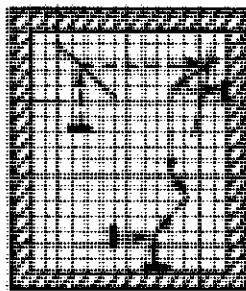
Figure A-28. Cruise (20°C to 40°C OAT) - Two Engines (Sheet 2 of 2)

CRUISE

OAT BETWEEN 0°C AND 20°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5



CONDITIONS:
103% N₁
ZERO WIND
FOD SHIELD ON OR OFF

DATE: 2 NOVEMBER 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

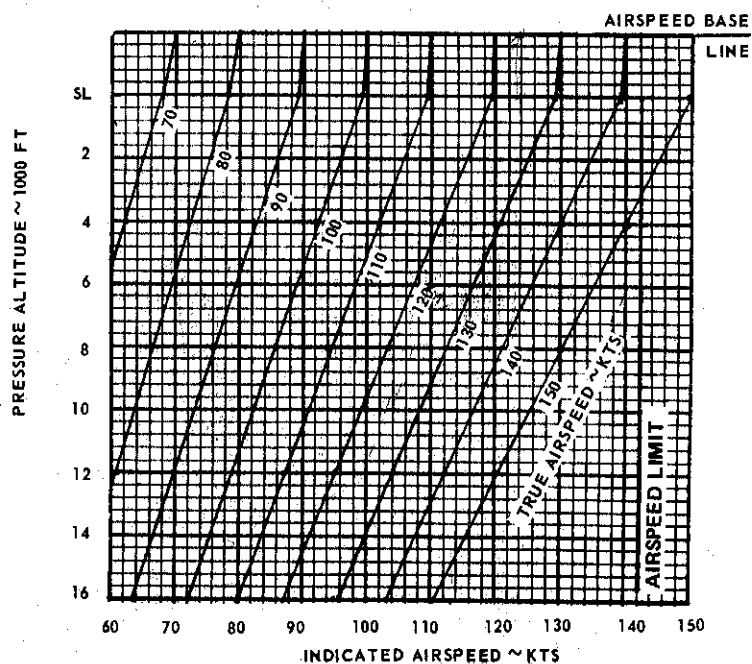
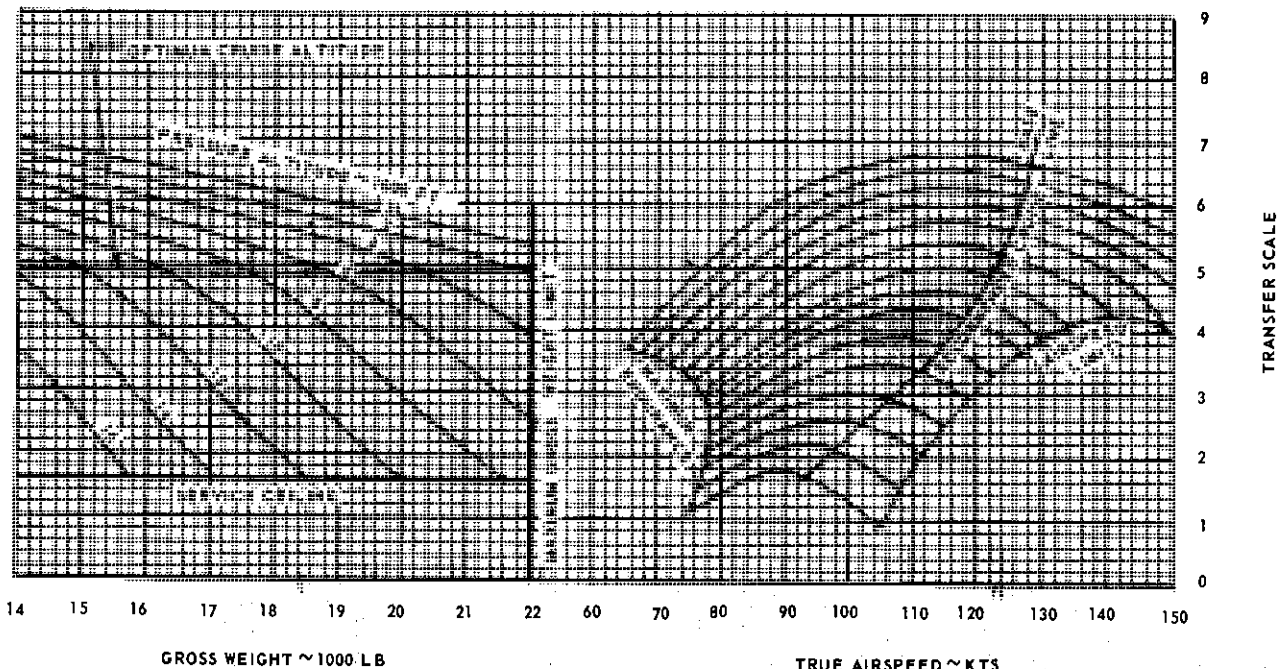
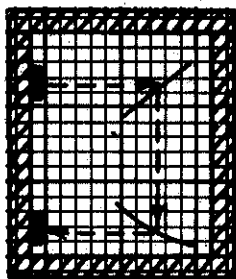


Figure A-29. Cruise (0°C to 20°C OAT) - Two Engines (Sheet 1 of 2)

CONDITIONS:

103% N_r
 ZERO WIND
 FOD SHIELD ON OR OFF

**CRUISE**

OAT BETWEEN 0°C AND 20°C
 TWO ENGINES

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

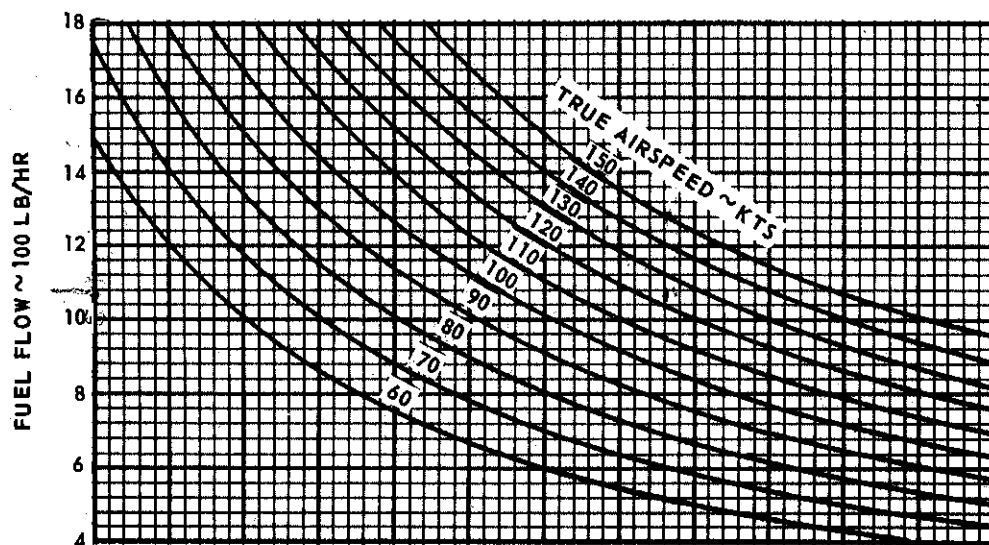
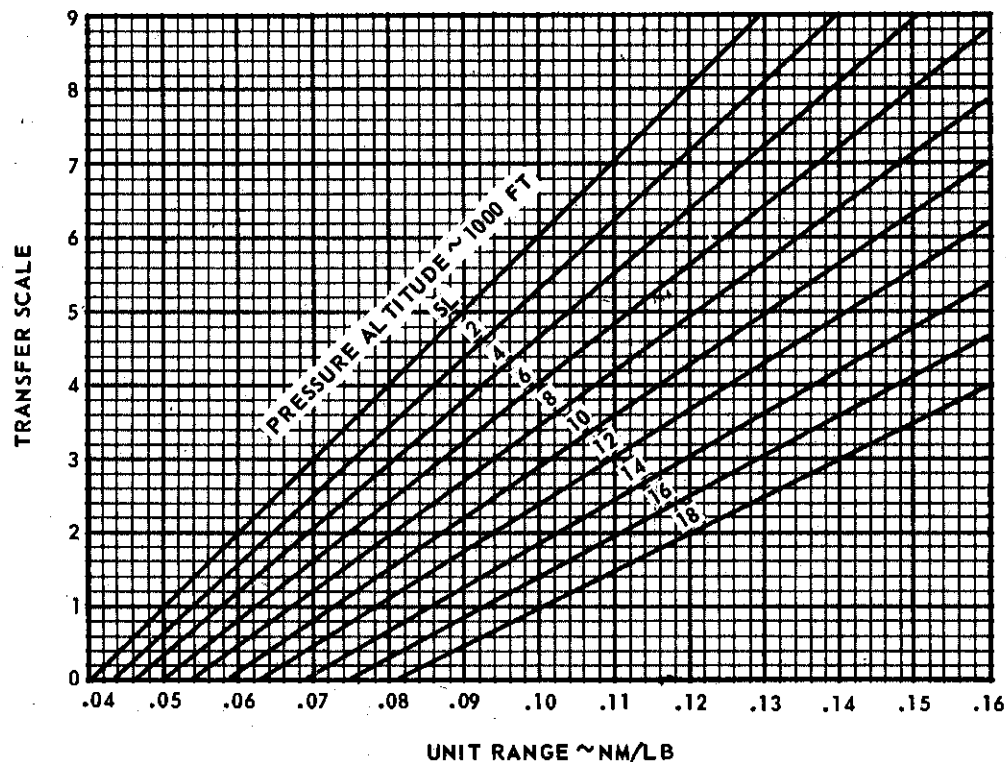


Figure A-29. Cruise (0°C to 20°C OAT) - Two Engines (Sheet 2 of 2)

CRUISE

OAT BETWEEN -20°C AND 0°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

CONDITIONS:
103% N_r
ZERO WIND
FOD SHIELD ON OR OFF

DATE: 2 NOVEMBER 1971
DATA BASIS: FLIGHT TEST (AIR FORCE)

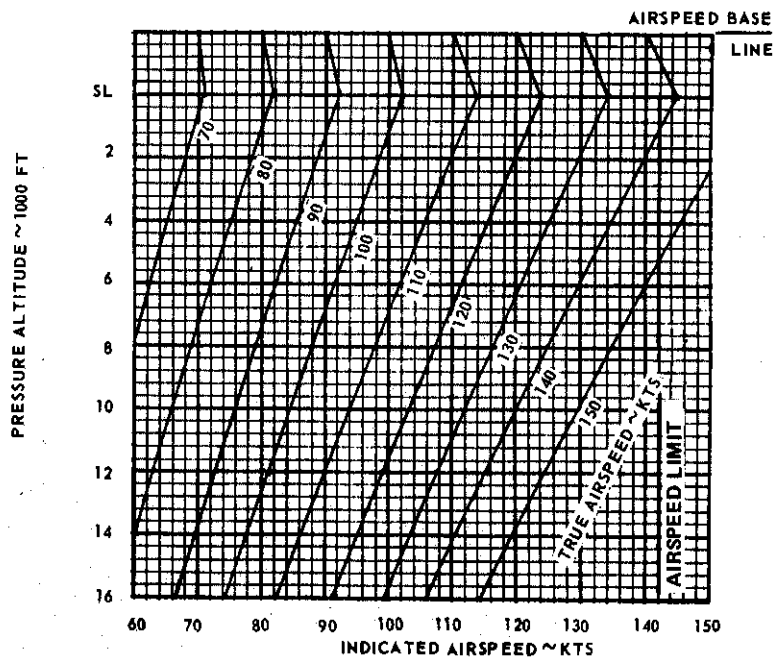
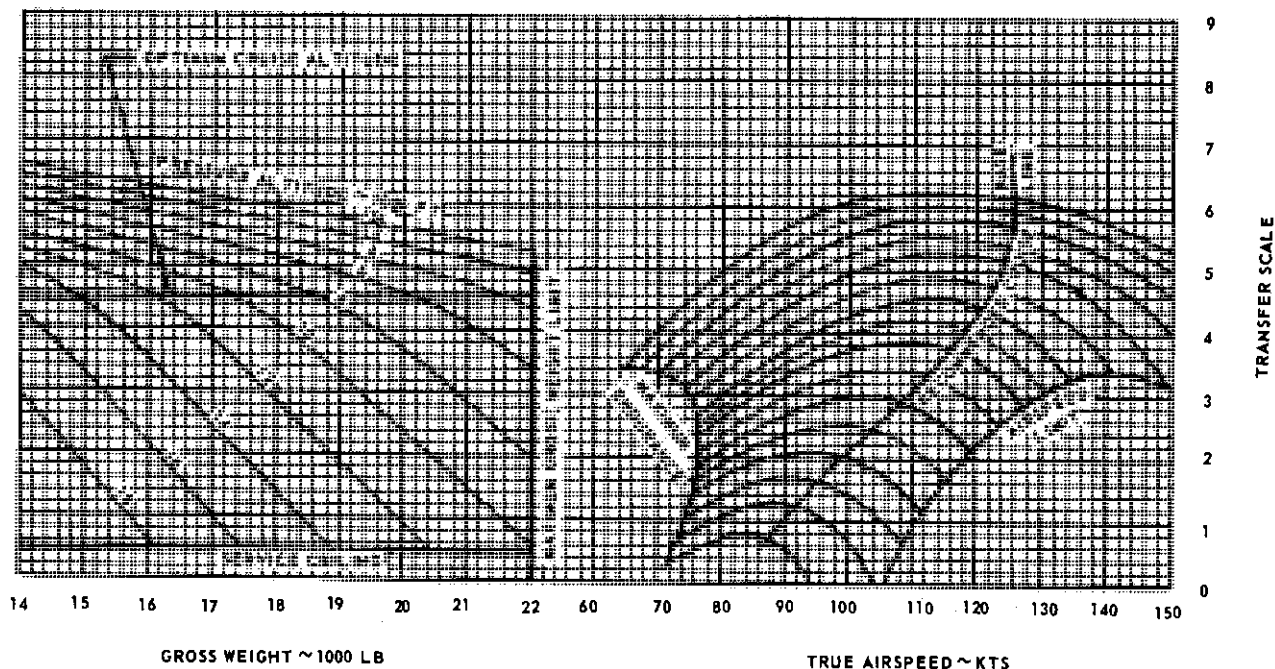
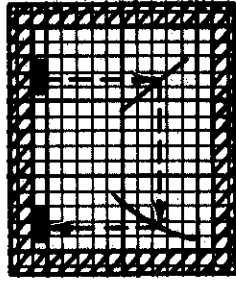


Figure A-30. Cruise (-20°C to 0°C OAT) - Two Engines (Sheet 1 of 2)

CONDITIONS:
103% N_T
ZERO WIND
FOD SHIELD ON OR OFF



CRUISE

OAT BETWEEN -20°C AND 0°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

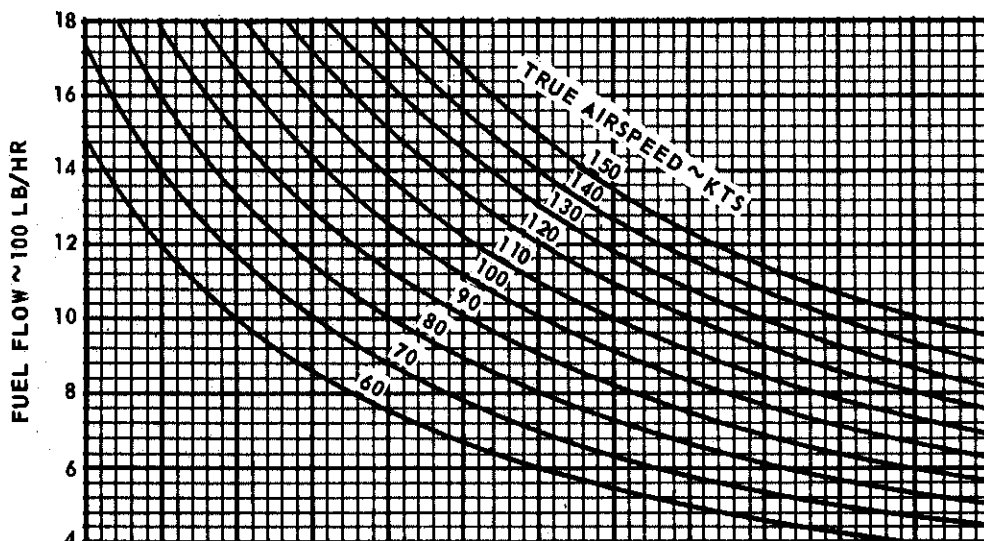
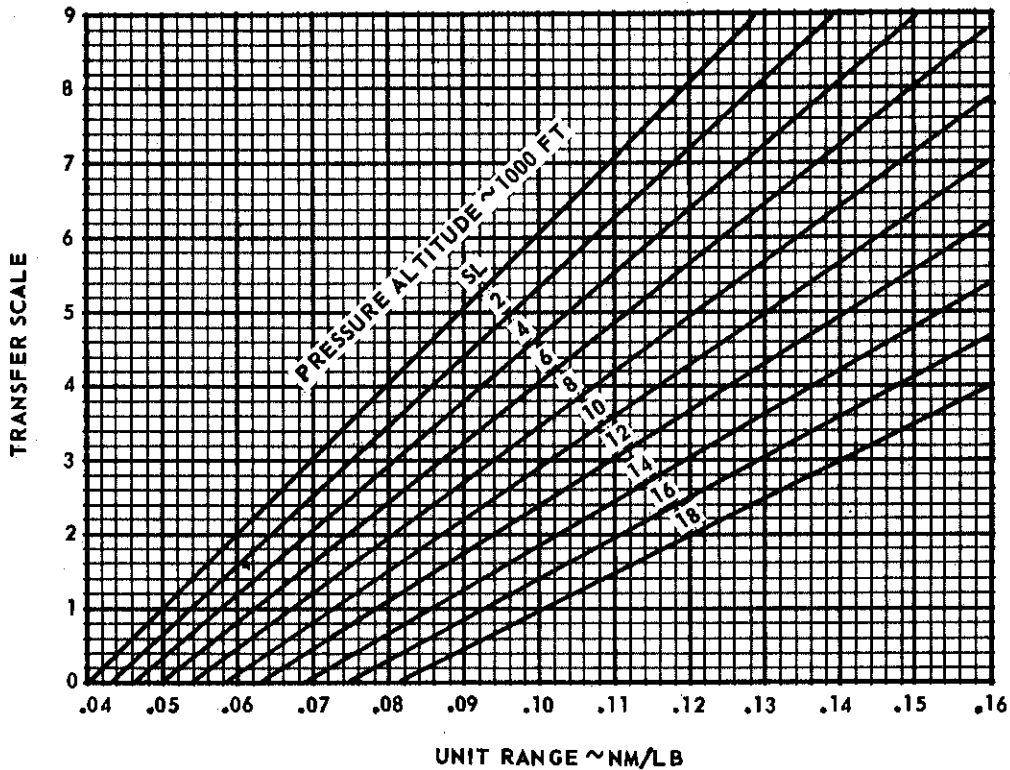


Figure A-30. Cruise (-20°C to 0°C OAT) - Two Engines (Sheet 2 of 2)

CRUISEOAT BETWEEN -40°C AND -20°C
TWO ENGINESMODEL
CH/HH-3EENGINE
T58-GE-5

DATE: 2 NOVEMBER 1971

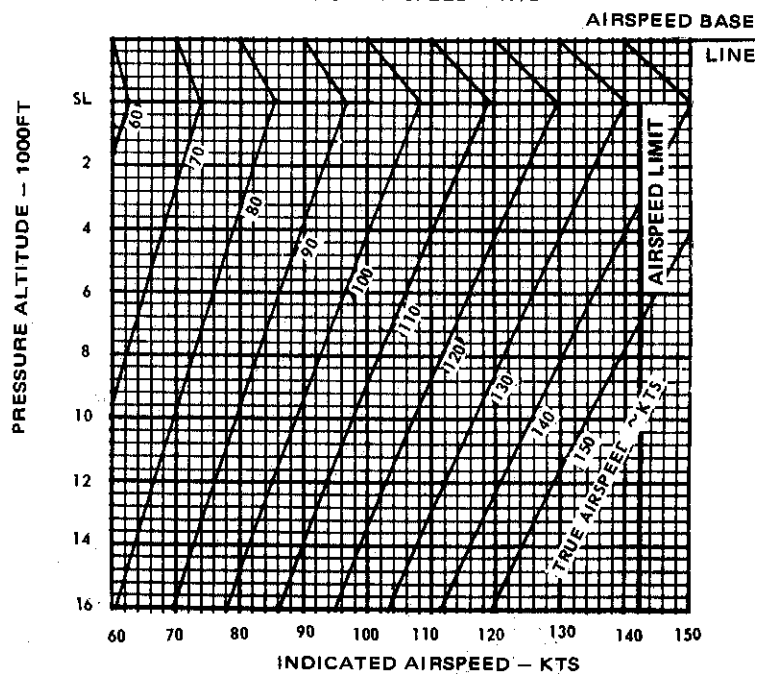
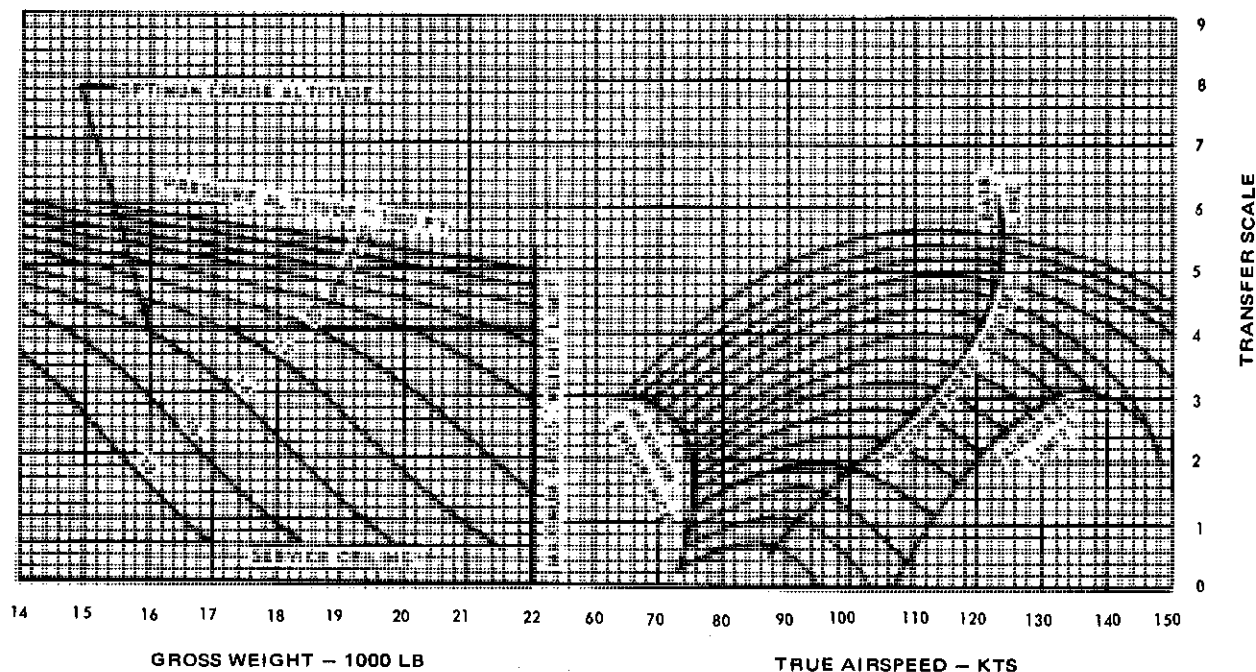
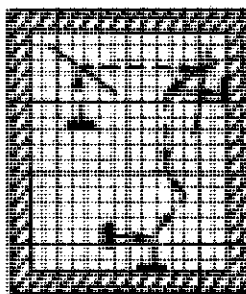
DATA BASIS: FLIGHT TEST (AIR FORCE)

CONDITIONS:

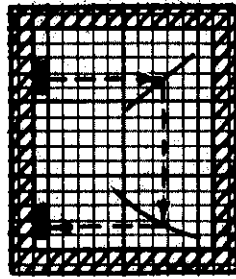
103% N_1

ZERO WIND

FOD SHIELD ON OR OFF

Figure A-31. Cruise (-40°C to -20°C OAT) - Two Engines (Sheet 1 of 2)

CONDITIONS:
103% N_r
ZERO WIND
FOD SHIELD ON OR OFF



CRUISE

OAT BETWEEN -40°C AND -20°C
TWO ENGINES

MODEL
CH/HH-3E

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

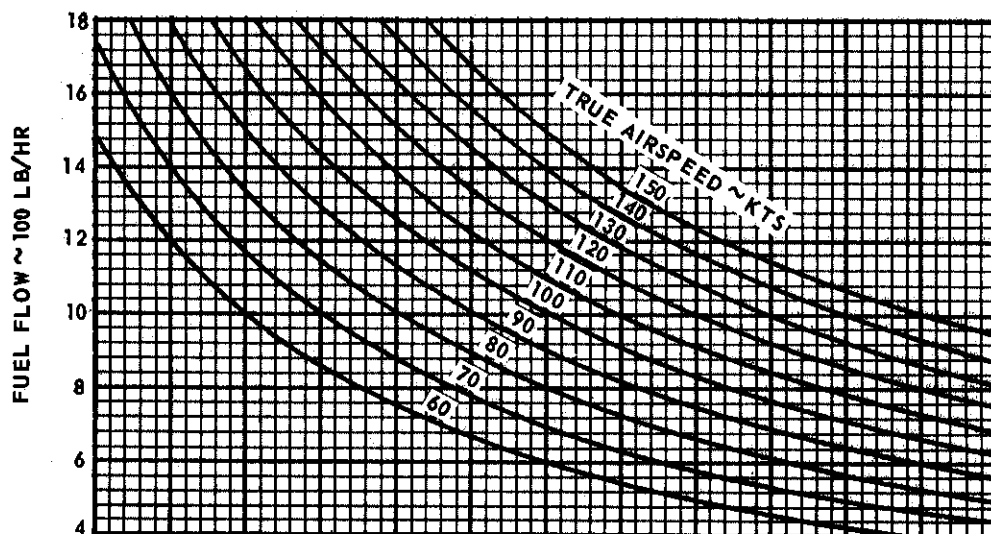
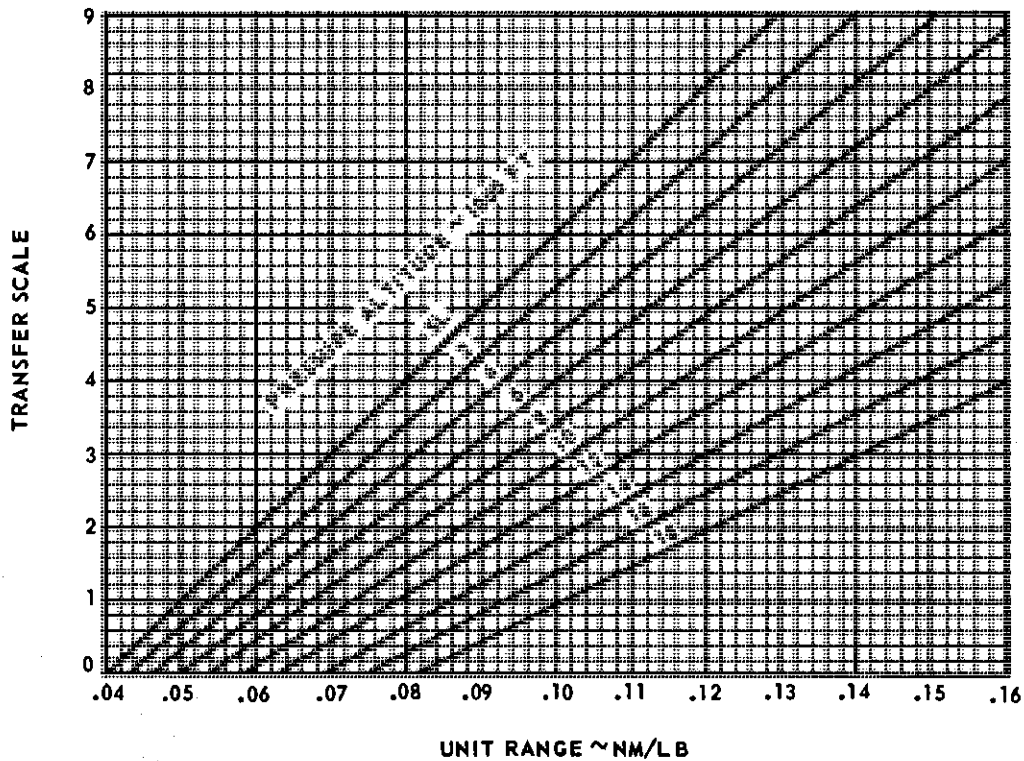
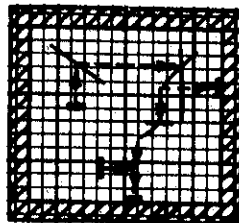


Figure A-31. Cruise (-40°C to -20°C OAT) - Two Engines (Sheet 2 of 2)

CRUISEOAT BETWEEN 20°C AND 40°C
ONE ENGINEMODEL
CH/HH-3EENGINE
T58-GE-5

CONDITIONS:

103% N_r

ZERO WIND

FOD SHIELD ON OR OFF

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

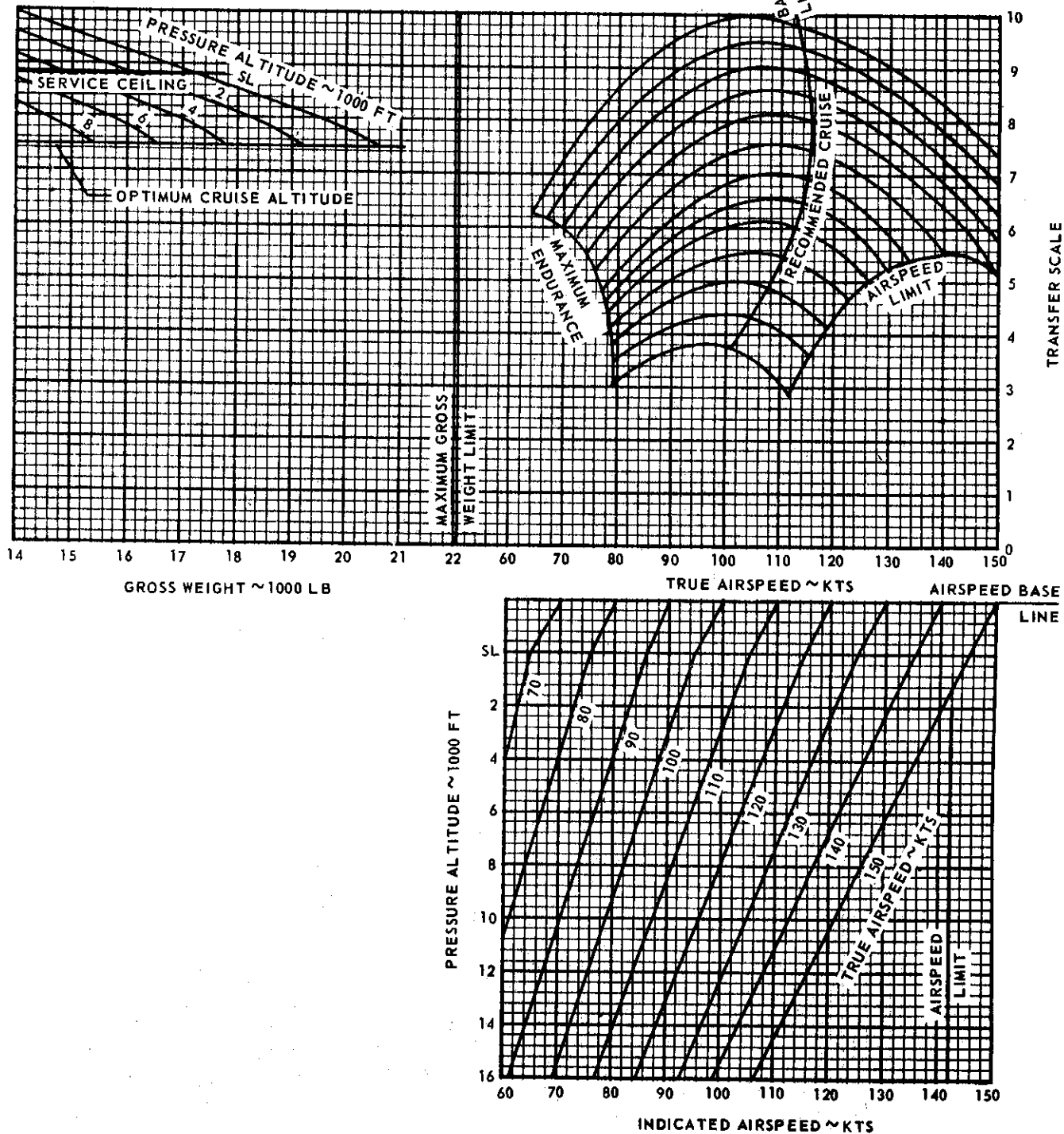
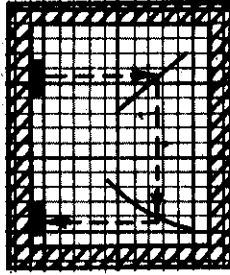


Figure A-32. Cruise (20°C to 40°C OAT) - One Engine (Sheet 1 of 2)

CONDITIONS:
 103% N_f
 ZERO WIND
 FOD SHIELD ON OR OFF



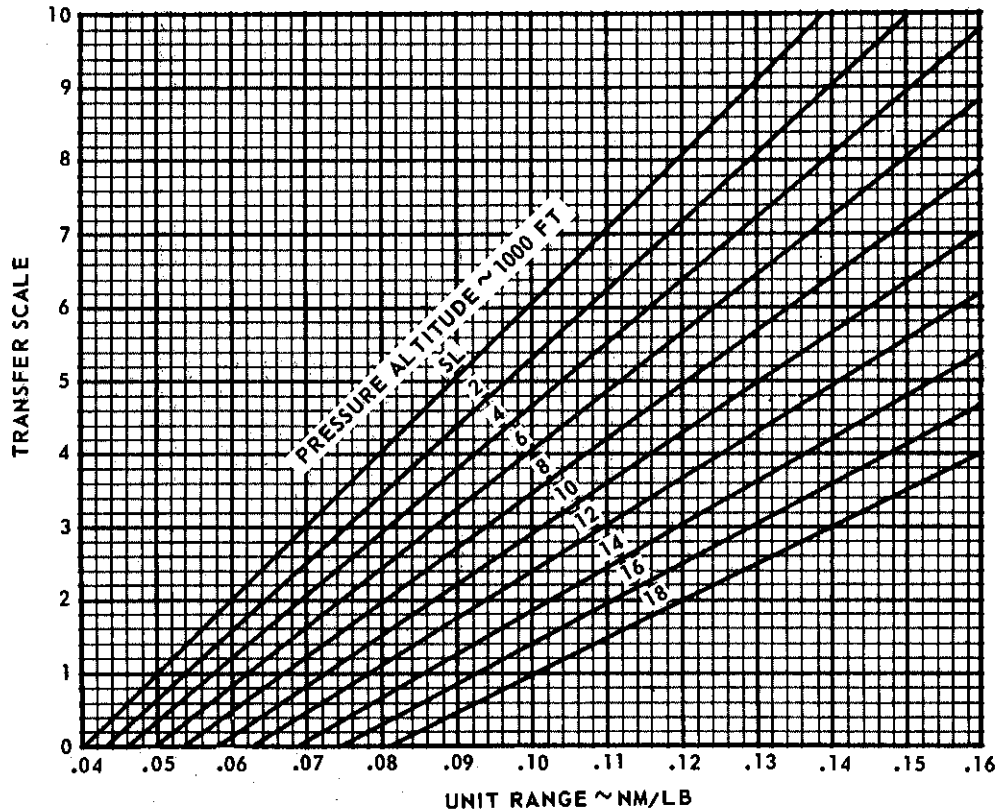
CRUISE

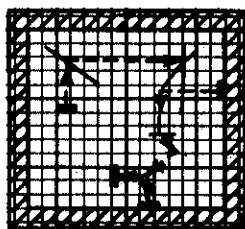
OAT BETWEEN 20°C AND 40°C
 ONE ENGINE

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971
 DATA BASIS: FLIGHT TEST (AIR FORCE)



CRUISEOAT BETWEEN -40° AND 20°C
ONE ENGINEMODEL
CH/HH-3EENGINE
T58-GE-5

CONDITIONS:

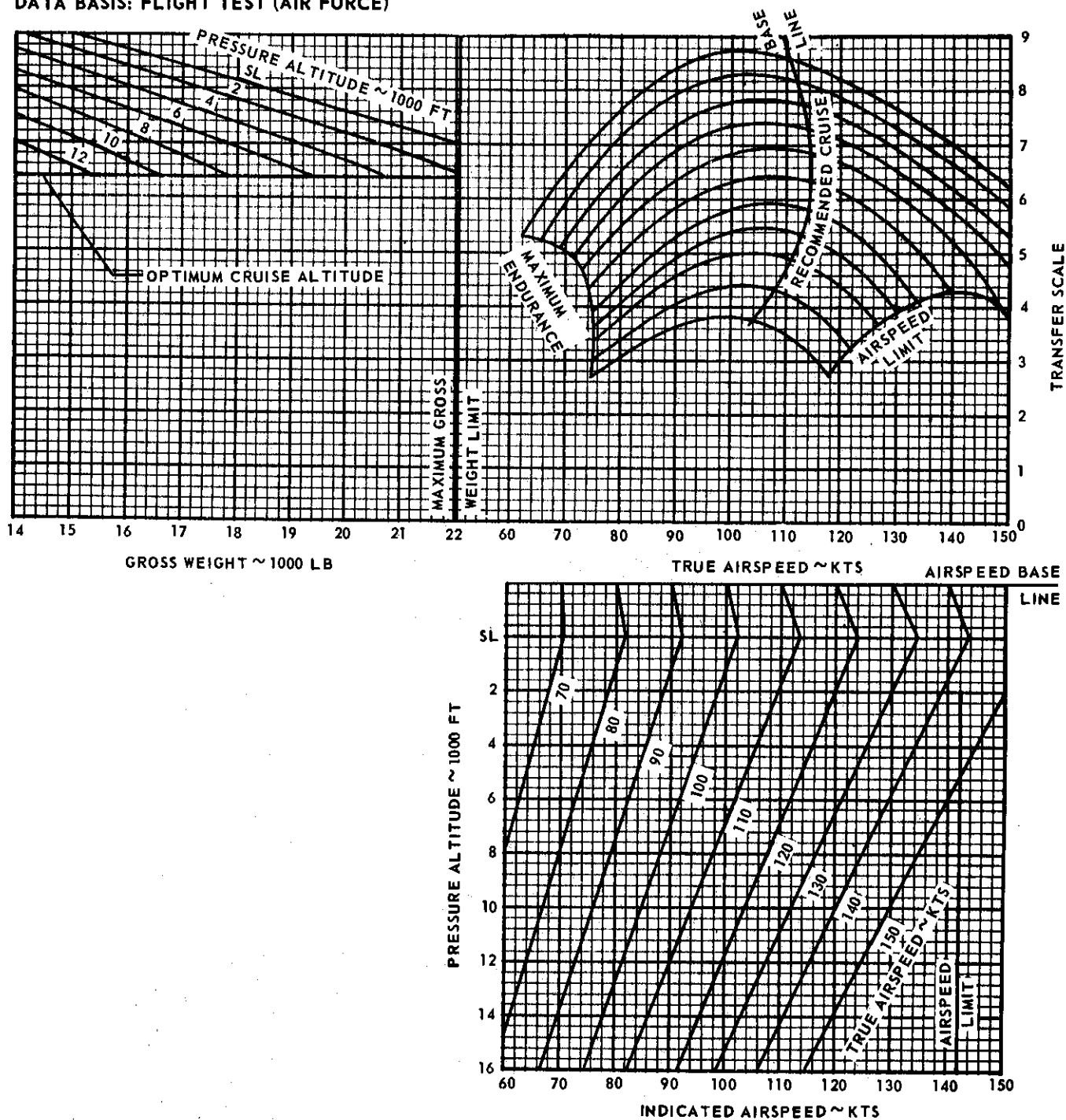
103% N_1

ZERO WIND

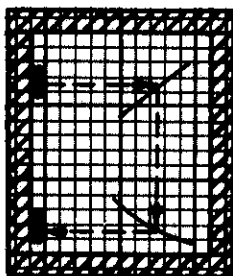
FOD SHIELD ON OR OFF

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

Figure A-33. Cruise (-40°C to 20°C OAT) - One Engine (Sheet 1 of 2)

CONDITIONS:
 103% N_p
 ZERO WIND
 FOD SHIELD ON OR OFF



CRUISE

OAT BETWEEN -40°C AND 20°C
 ONE ENGINE

MODEL
 CH/HH-3E

ENGINE
 T58-GE-5

DATE: 15 APRIL 1971
 DATA BASIS: FLIGHT TEST (AIR FORCE)

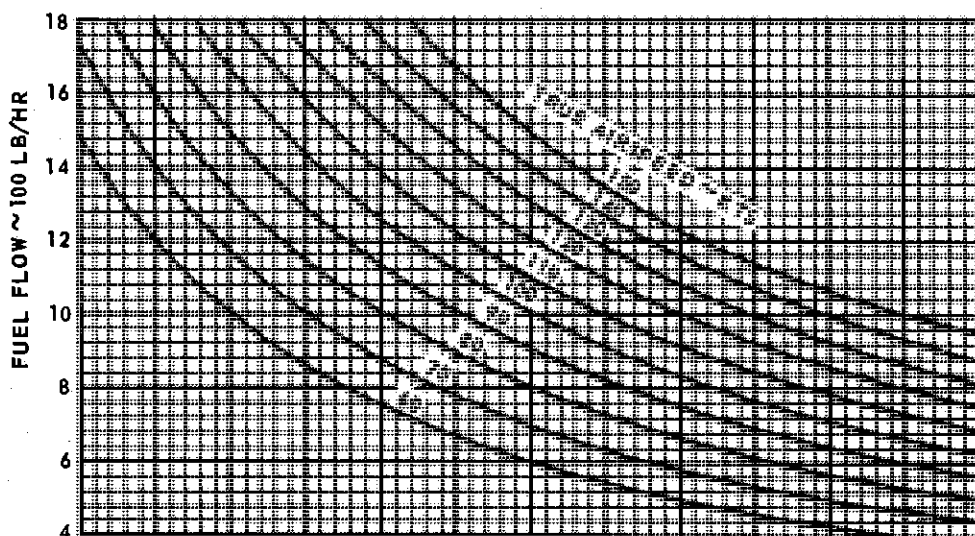
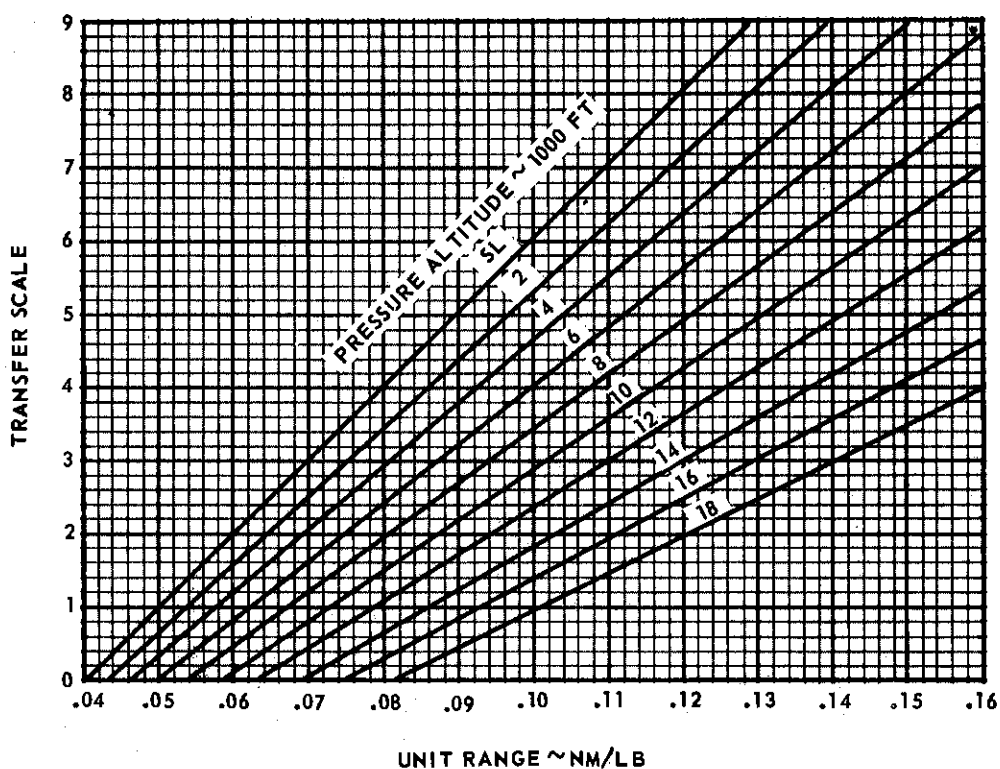


Figure A-33. Cruise (-40°C to 20°C OAT) - One Engine (Sheet 2 of 2)

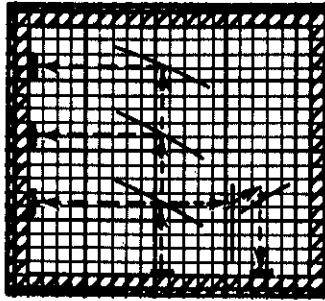
SINGLE ENGINE CAPABILITY

ONE ENGINE

MODEL
CH/HH-3EENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)



CONDITIONS:
70 KIAS
MILITARY POWER
103% Nr
FOD SHIELD
ON OR OFF
LANDING GEAR UP

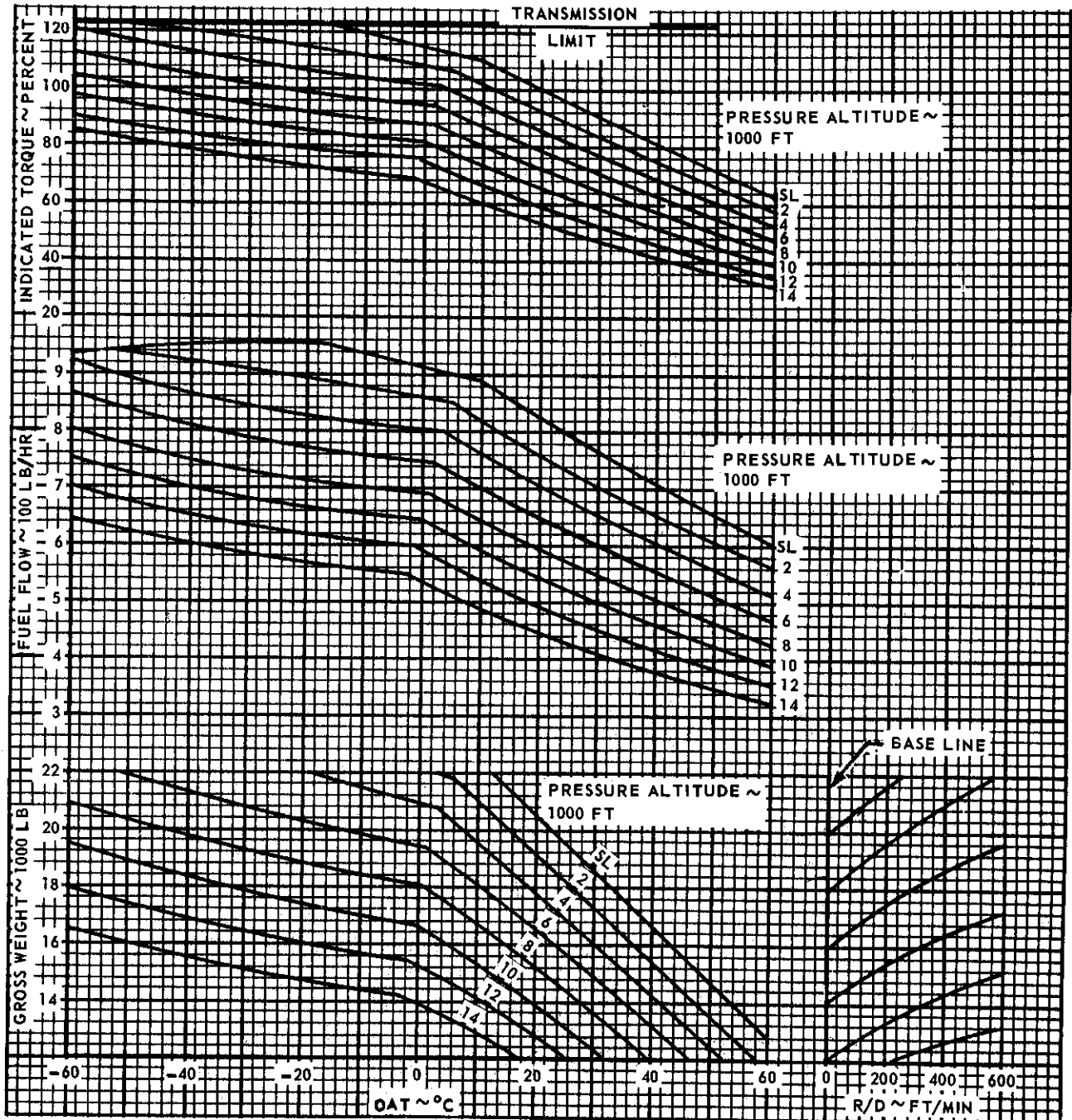
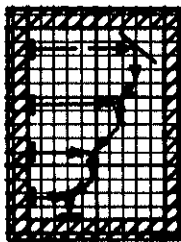


Figure A-34. Single Engine Capability - Military Power - One Engine

Figure A-35 deleted.

**BLADE STALL**

MODEL

ENGINE

CH/HH-3E

T58-GE-5

DATE: 15 APRIL 1964

DATA BASIS: FLIGHT TEST (CONTRACTOR)

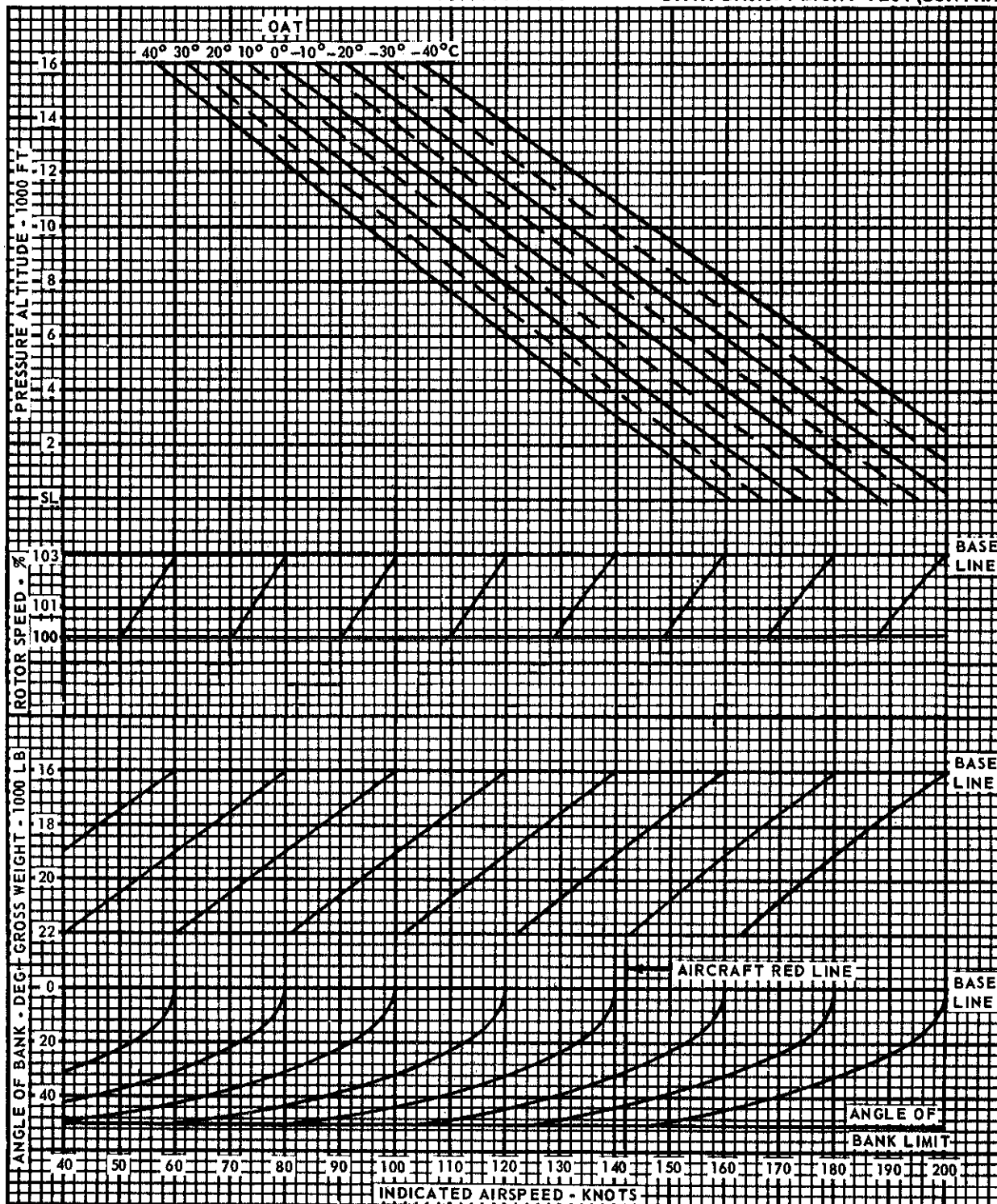
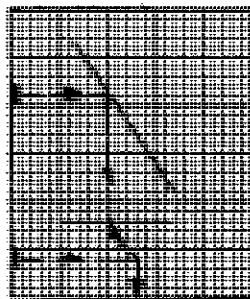


Figure A-36. Blade Stall

CONDITIONS:
UNACCELERATED
LEVEL FLIGHT
TIP MACH = 0.895



BLADE TIP MACH

MODELS
CH-3E & HH-3E

DATE: 27 JUNE 1972
DATA BASIS: FLIGHT TEST
(CONTRACTOR)

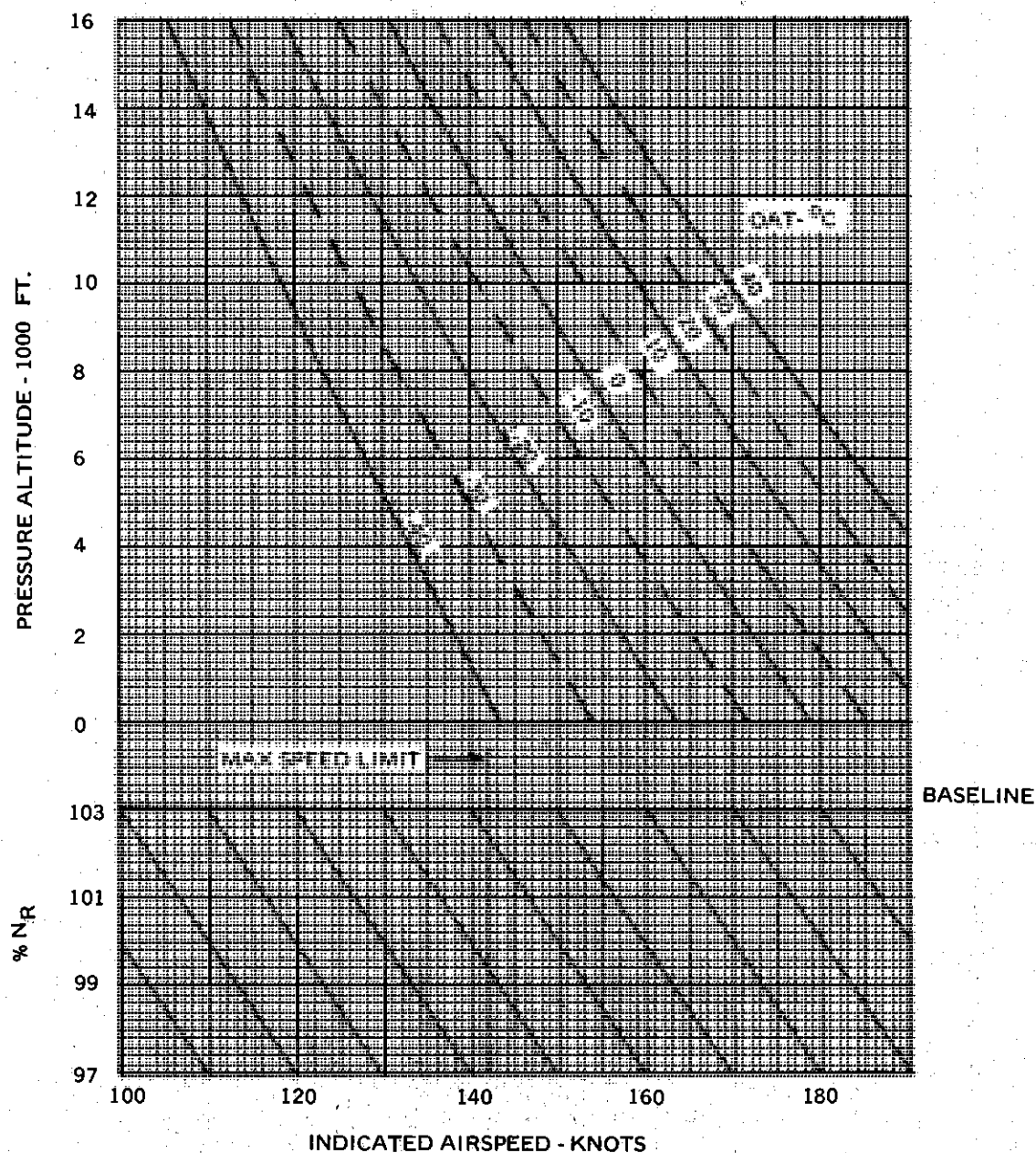


Figure A-37. Maximum Airspeed As Limited By Advancing Blade Tip Mach Number

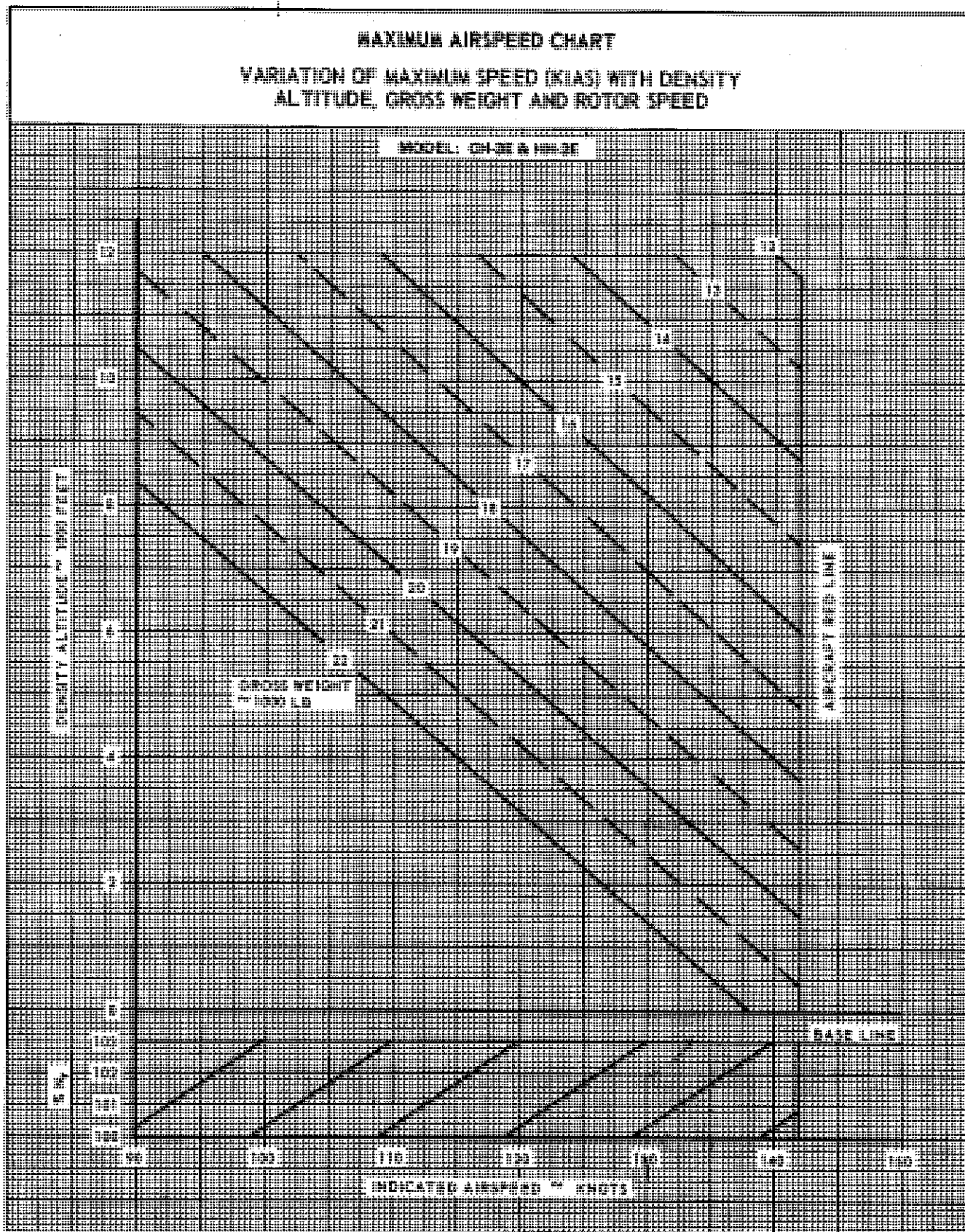


Figure A-38. Maximum Airspeed Chart

IF MAX NG LINE IS INTERCEPTED IN THE SHADED AREA, TOPPING MUST BE ACCOMPLISHED AT SUFFICIENT ALTITUDE TO PREVENT FUEL FLOW LIMITING.

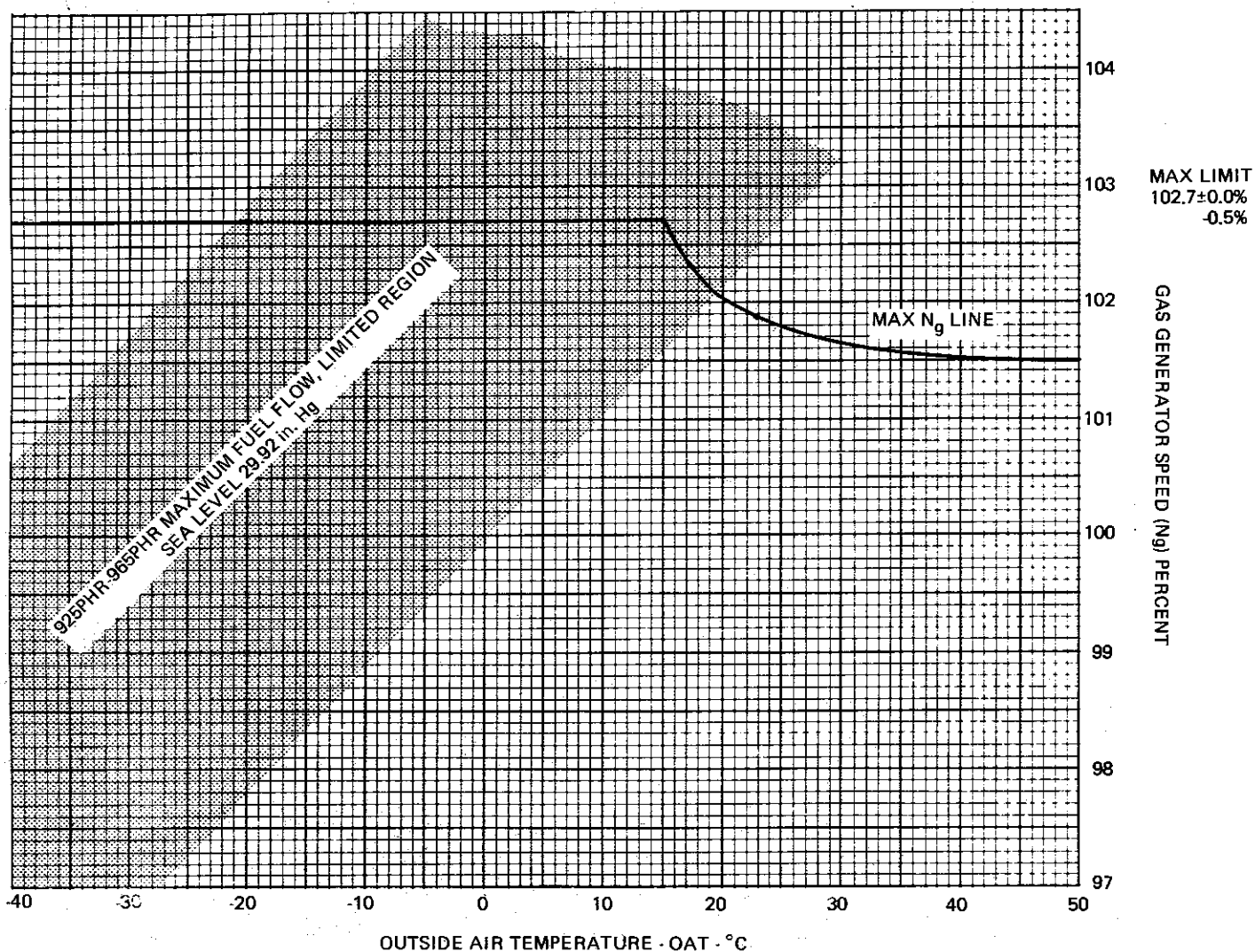
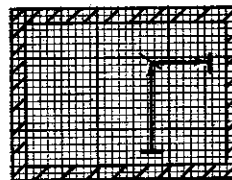


Figure A-39. Topping Chart (T58-GE-5)