

MODEL: C-123K  
**CLIMB AT METO POWER AT 140 KNOTS IAS**  
 DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (2), J85-GE-17 (2)

PROPELLERS: 43E60-607

WITH JET THRUST

DROP TANKS ON

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

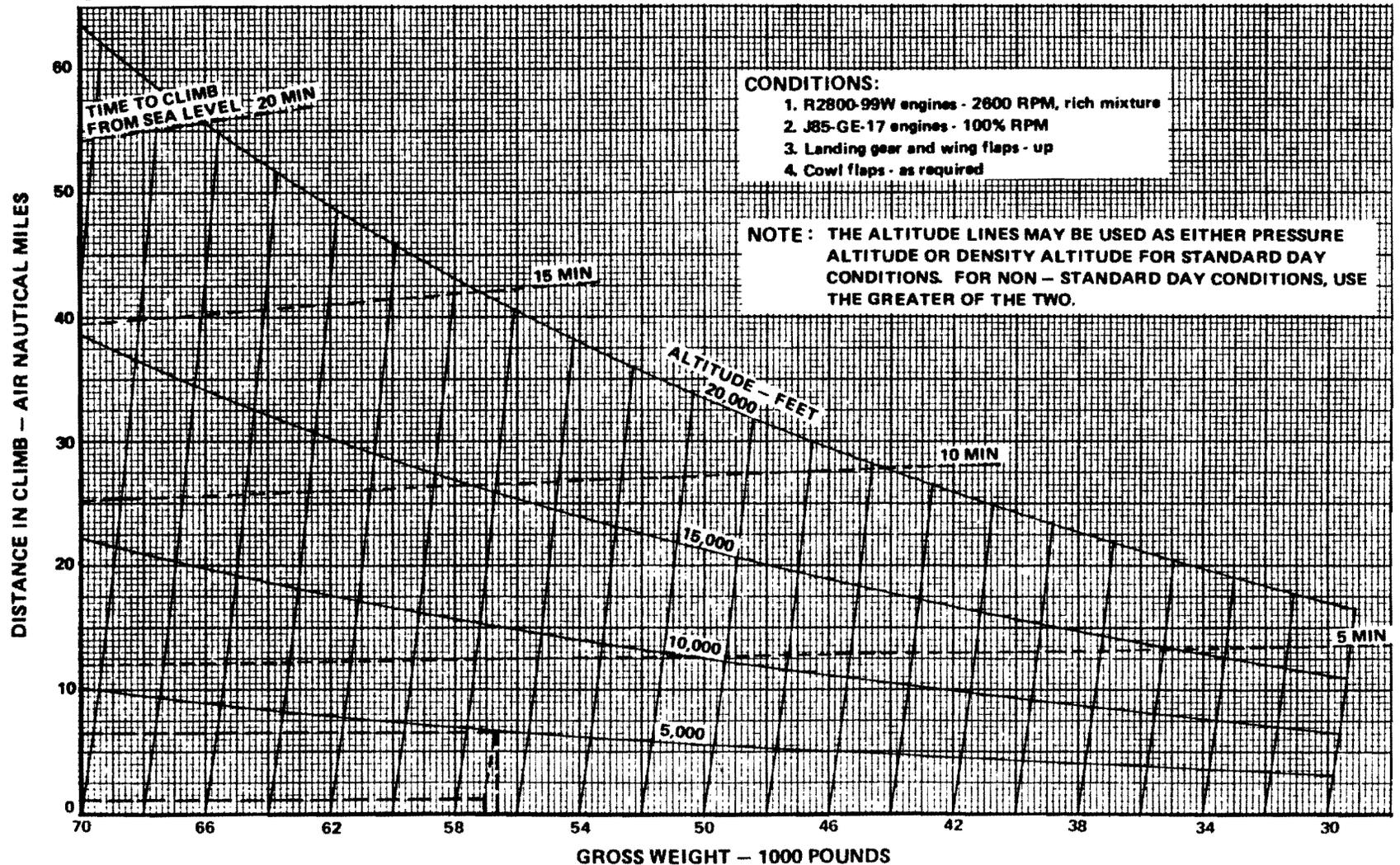


Figure A4-1.

MODEL: C-123K  
**CLIMB AT METO POWER AT 140 KNOTS IAS**  
 DISTANCE, FUEL USED, TIME AND CRUISE CEILING  
 ENGINES: R2800-99W (2), J85-GE-17 (2)  
 PROPELLERS: 43E60-607  
 WITH JET THRUST  
 DROP TANKS OFF

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

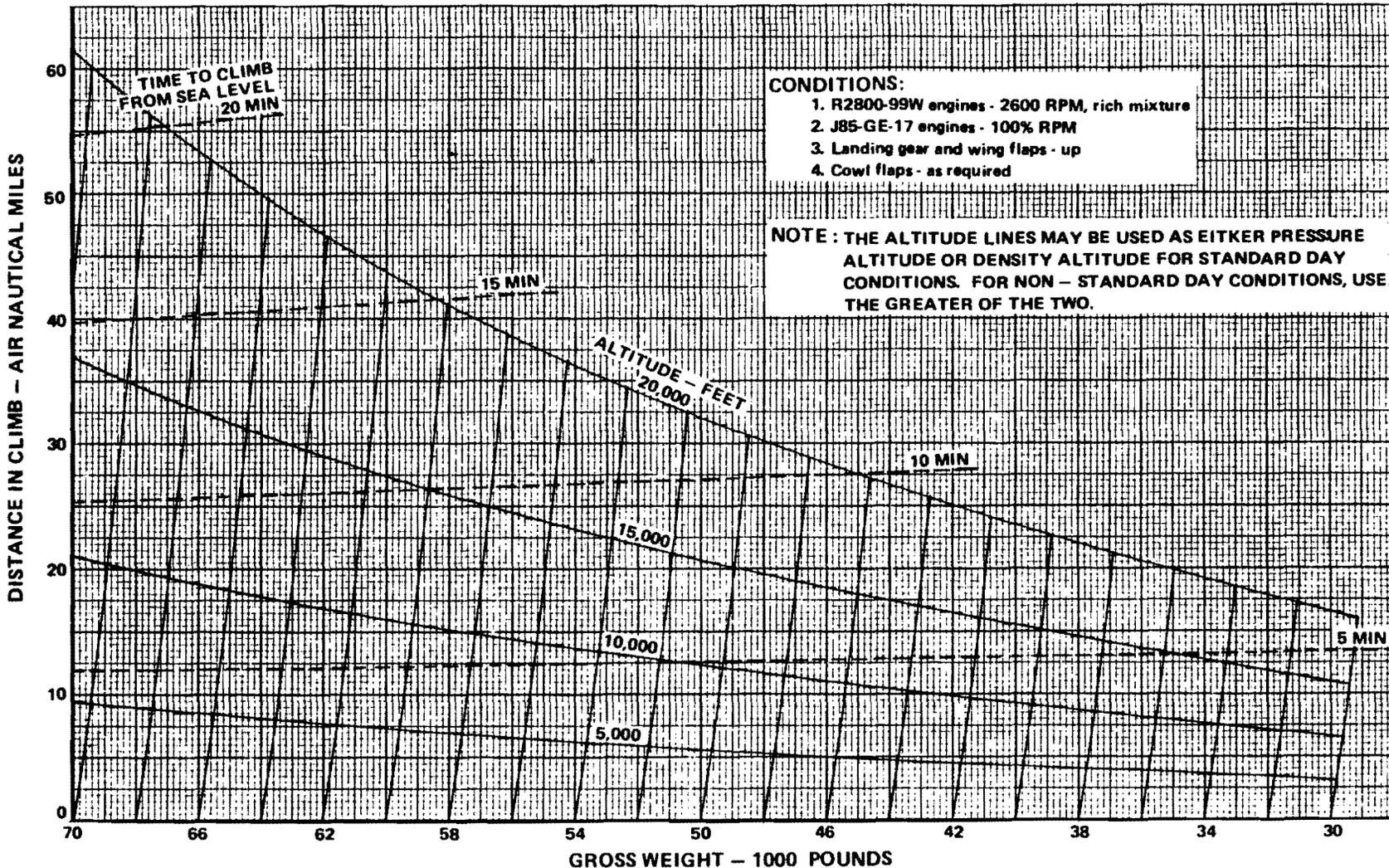


Figure A4-2.

MODEL: C-123K  
**CLIMB AT METO POWER AT 130 KNOTS IAS**

DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (2)

PROPELLERS: 43E60-607

WITHOUT JET THRUST

DROP TANKS ON

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

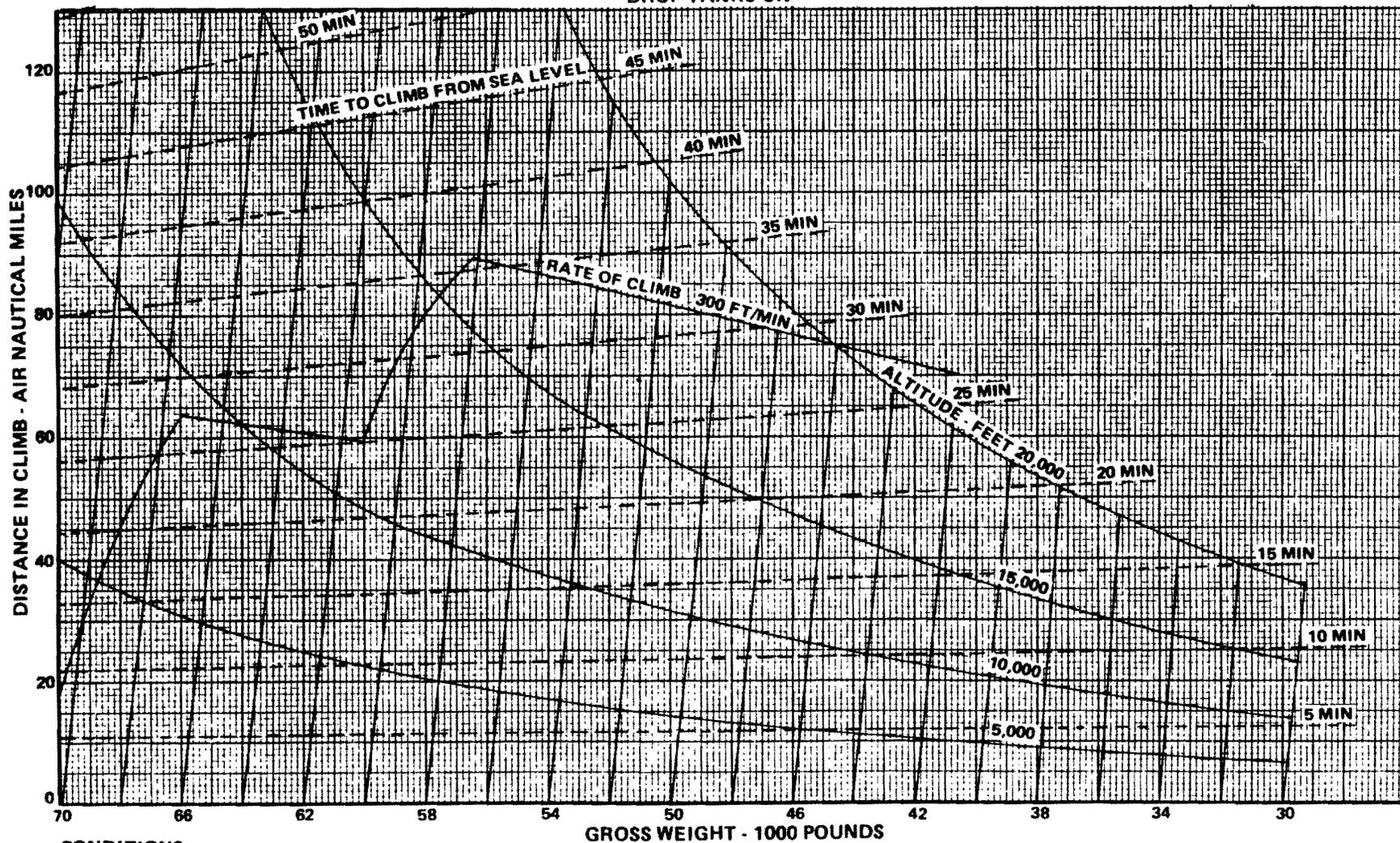


Figure A4-3.

**CONDITIONS:**

1. R2800-99W engines - 2600 RPM, rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Cowl flaps - as required

**NOTE:** THE ALTITUDE LINES MAY BE USED AS EITHER PRESSURE ALTITUDE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

MODEL: C-123K  
**CLIMB AT METO POWER AT 130 KNOTS IAS**  
 DISTANCE, FUEL USED, TIME AND CRUISE CEILING

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: MANUFACTURERS DATA

ENGINES: R2800-99W (2)  
 PROPELLERS: 43E60-607  
 WITHOUT JET THRUST  
 DROP TANKS OFF

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

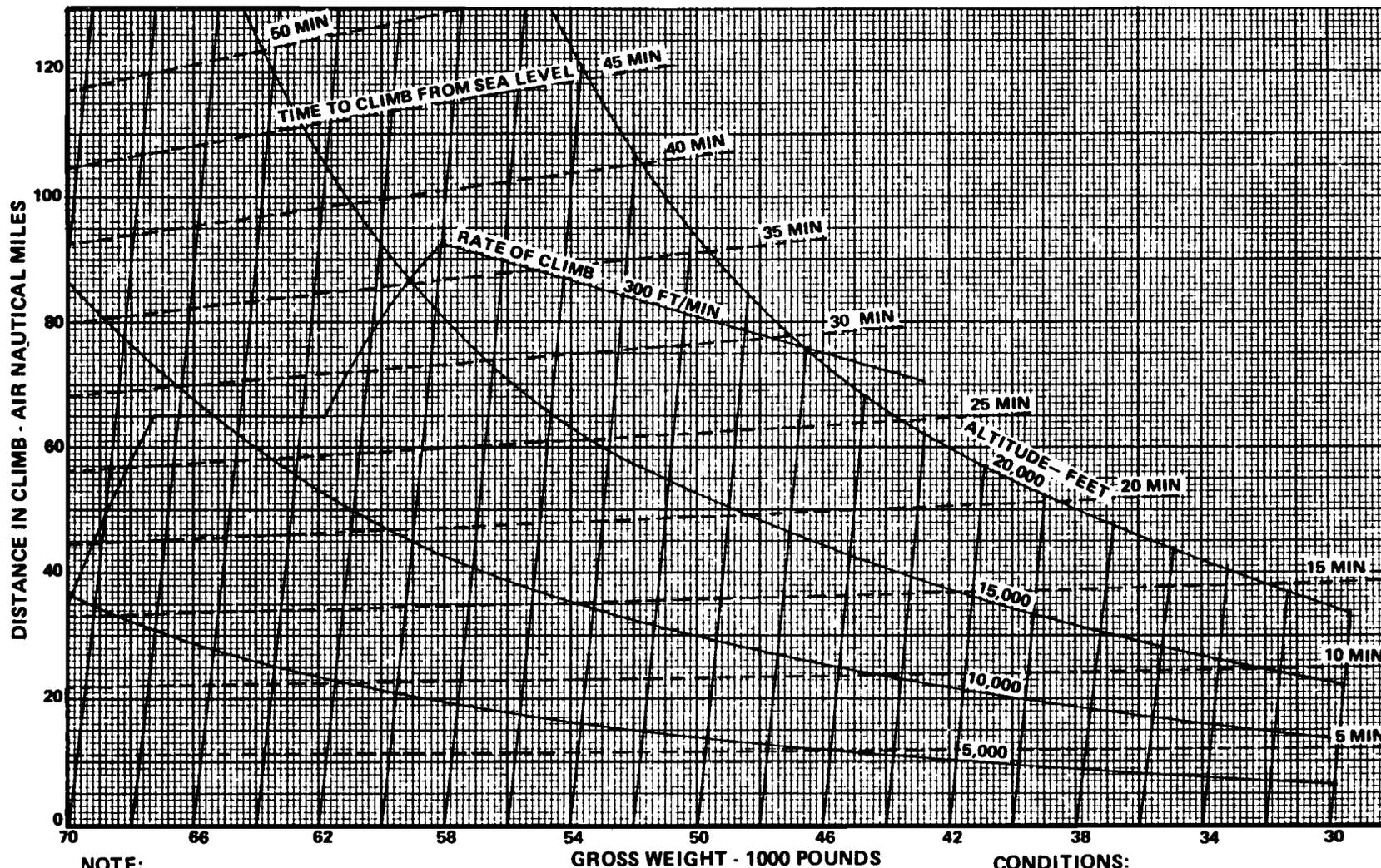


Figure A4-4.

**NOTE:**

THE ALTITUDE LINES MAY BE USED AS EITHER PRESSURE ALTITUDE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

**CONDITIONS:**

1. R2800-99W engines - 2600 RPM, rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Cowl flaps - as required

MODEL: UC-123K  
**CLIMB AT METO POWER AT 140 KIAS**

DISTANCE, FUEL USED AND TIME  
 ENGINES: R2800-99W (2), J85-GE-17 (2)  
 PROPELLERS: 43E60-607  
 WITH JET THRUST

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

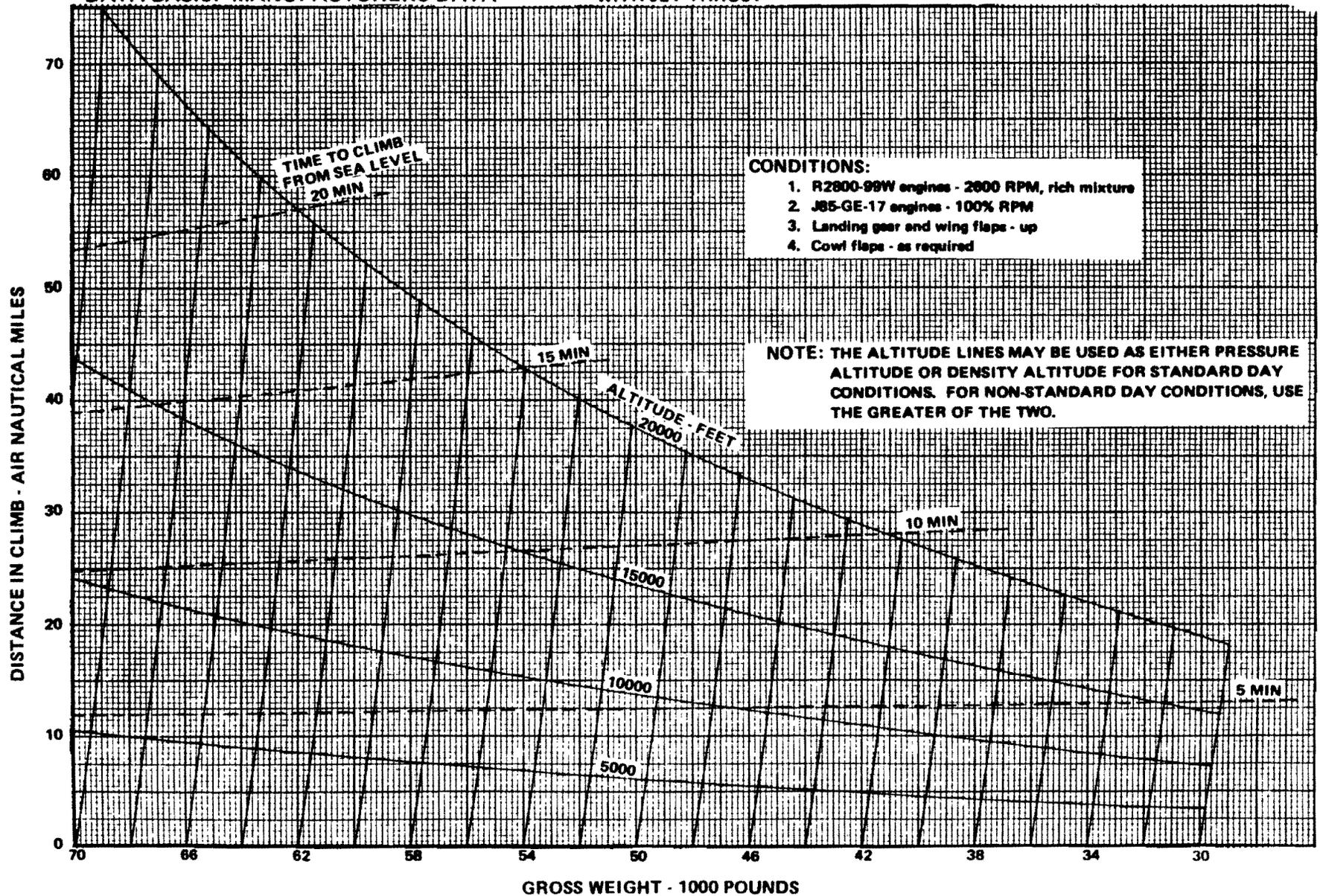


Figure A4-5.

Change 10

A4-9

MODEL: UC-123K

### CLIMB AT METO POWER AT 130 KIAS DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (2)  
PROPELLERS: 43E60-607  
WITHOUT JET THRUST

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL

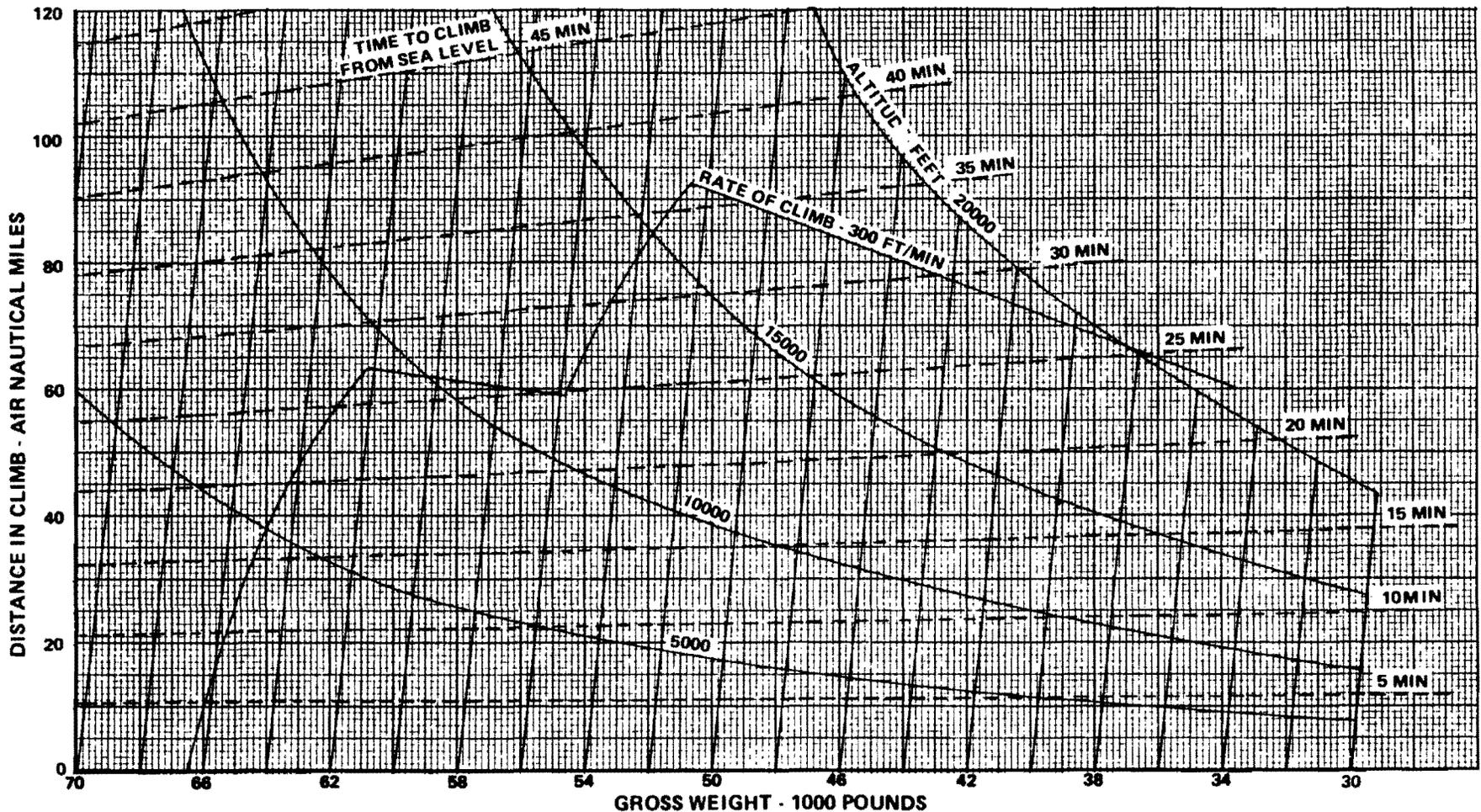


Figure A4-6.

A4-10  
Change 10

T. O. 1C123K-1

**CONDITIONS:**

1. R2800-99W engines - 2600 RPM, rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Cowl flaps - as required

**NOTE:**

THE ALTITUDE LINES MAY BE USED AS EITHER PRESSURE ALTITUDE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

MODEL: C-123K  
**CLIMB AT METO POWER AT 130 KNOTS IAS**

DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

WITH JET THRUST

DROP TANKS ON

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

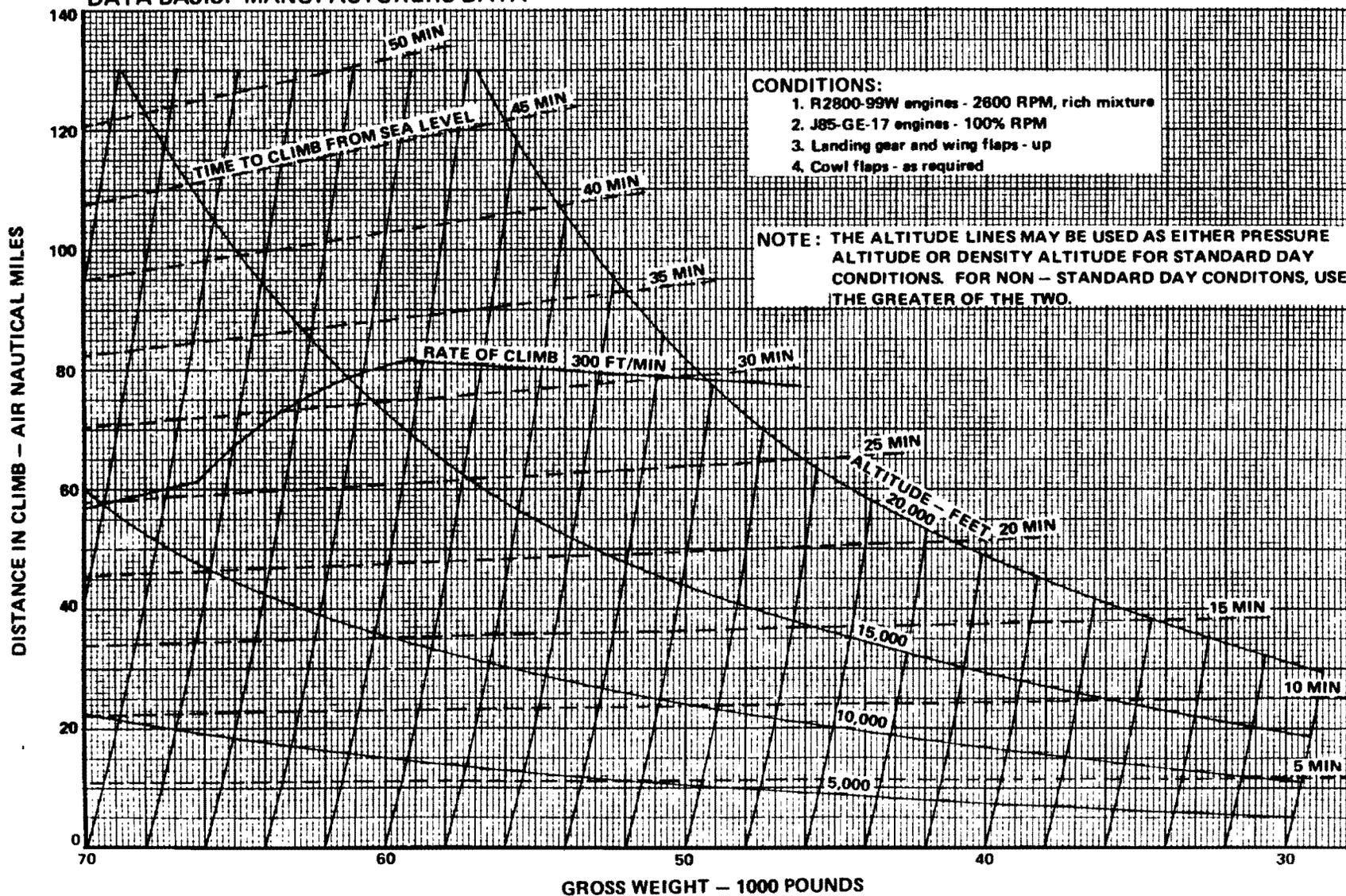


Figure A4-7.

Change 10

A4-11

MODEL: C-123K

### CLIMB AT METO POWER AT 130 KNOTS IAS

DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

WITH JET THRUST

DROP TANKS OFF

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

DISTANCE IN CLIMB IN AIR NAUTICAL MILES

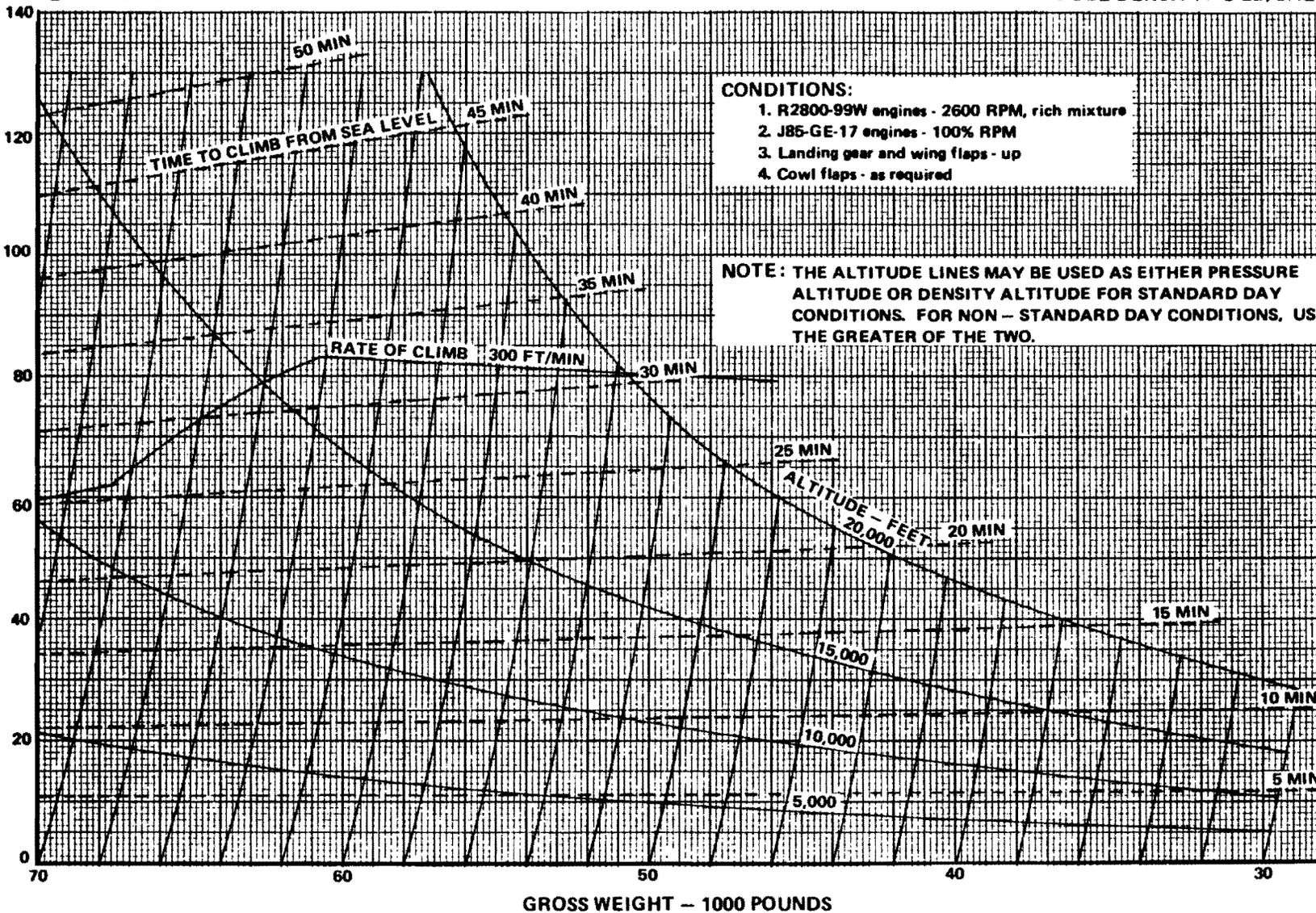


Figure A4-8.

MODE 123K

### CLIMB AT METO POWER AT 130 KIAS DISTANCE, FUEL USED, TIME AND CRUISE CEILING

ENGINES: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

WITH JET THRUST

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: MANUFACTURERS DATA

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

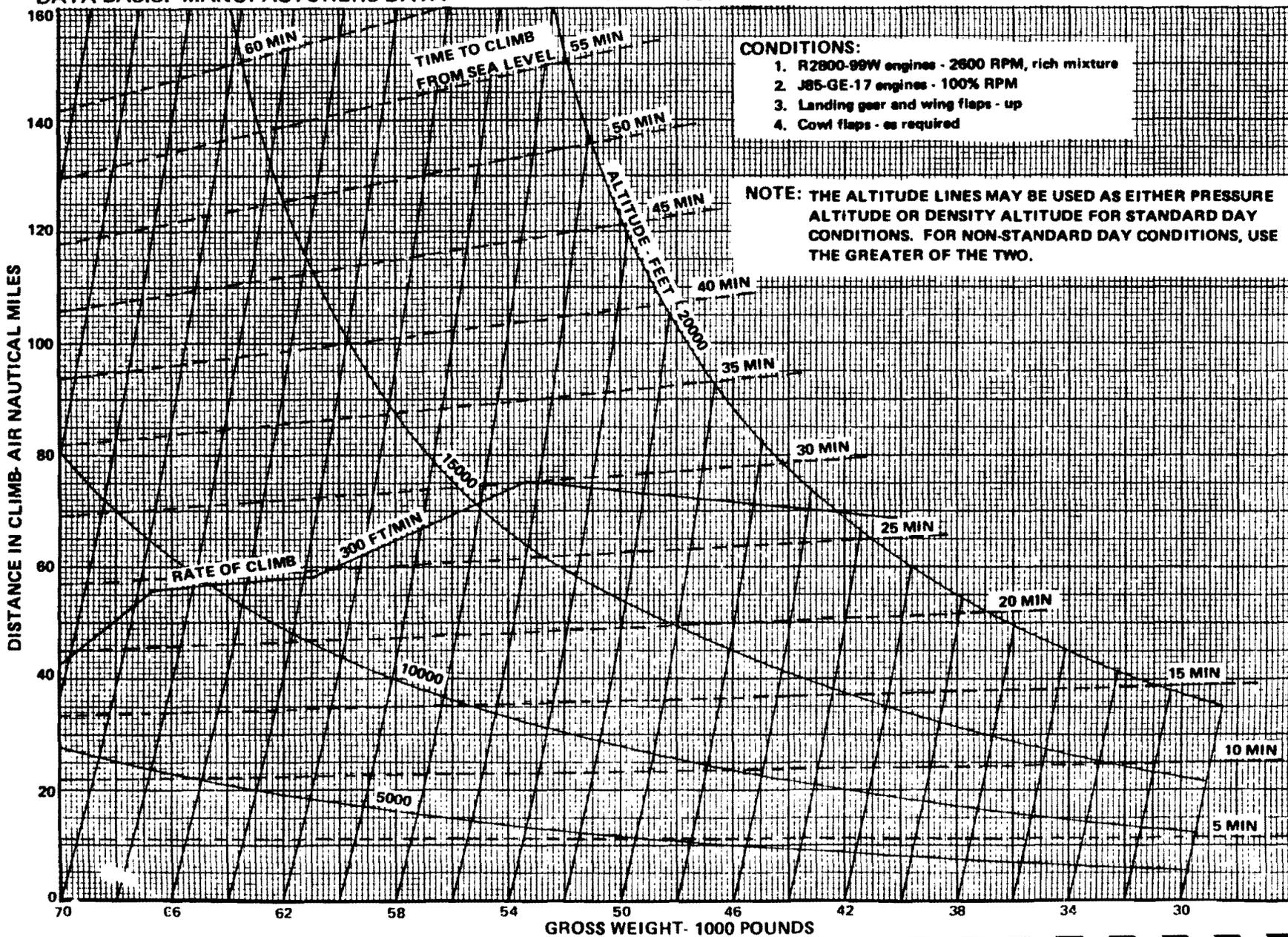


Figure A4-9.

Change 10

A4-13

T. O. 10-123K-1

MODEL: C-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1), J85-GE-17 (2)

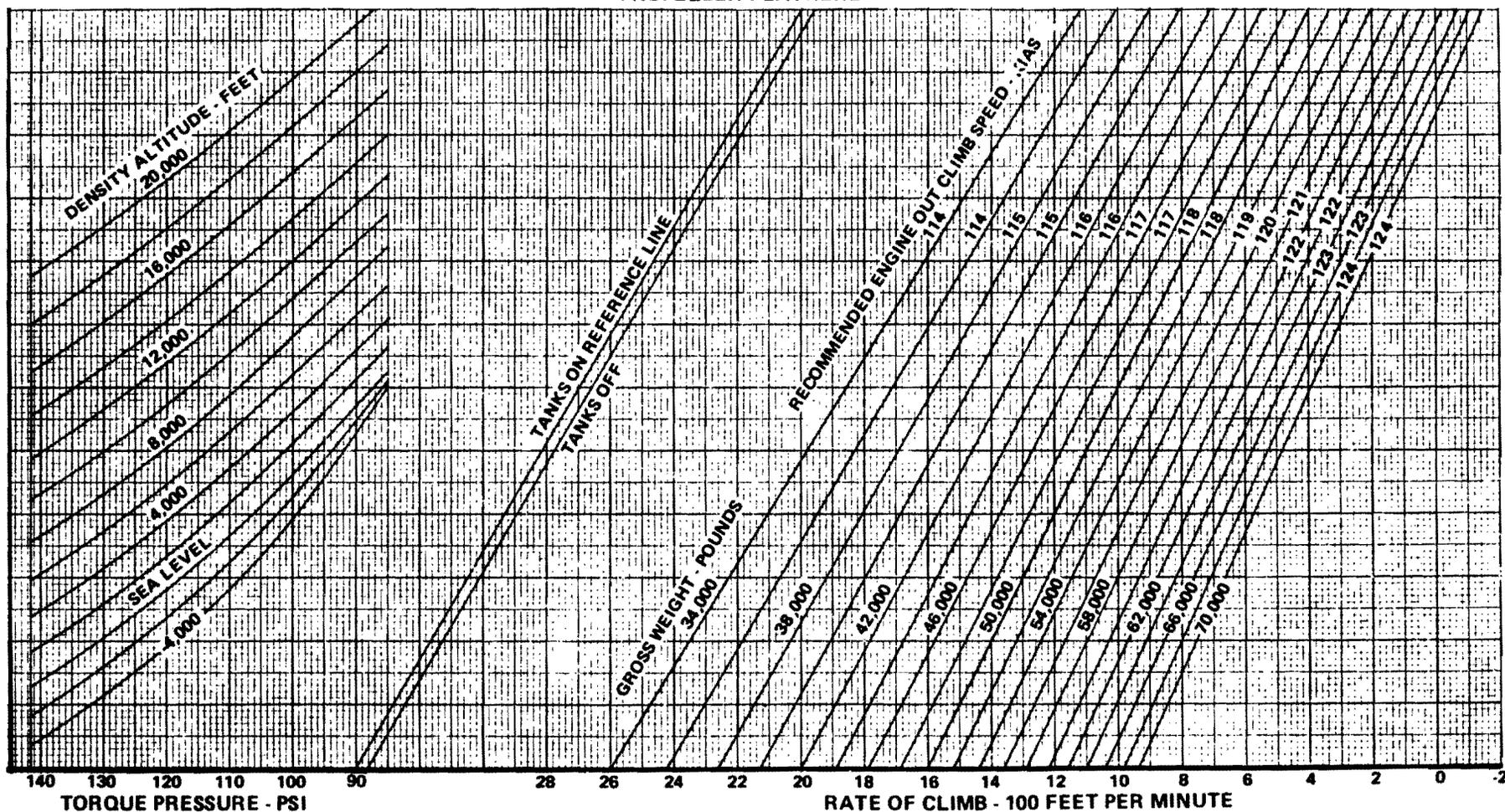
PROPELLERS: 43E60-607

MAXIMUM POWER  
 WITH JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST



**CONDITIONS:**

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

**NOTE:**

FOR RECIPROCATING ENGINE OPERATING AT OTHER THAN 2800 RPM, SEE ENGINE-OUT RATE-OF-CLIMB TEXT, THIS SECTION.

MODEL: C-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 MAXIMUM POWER  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

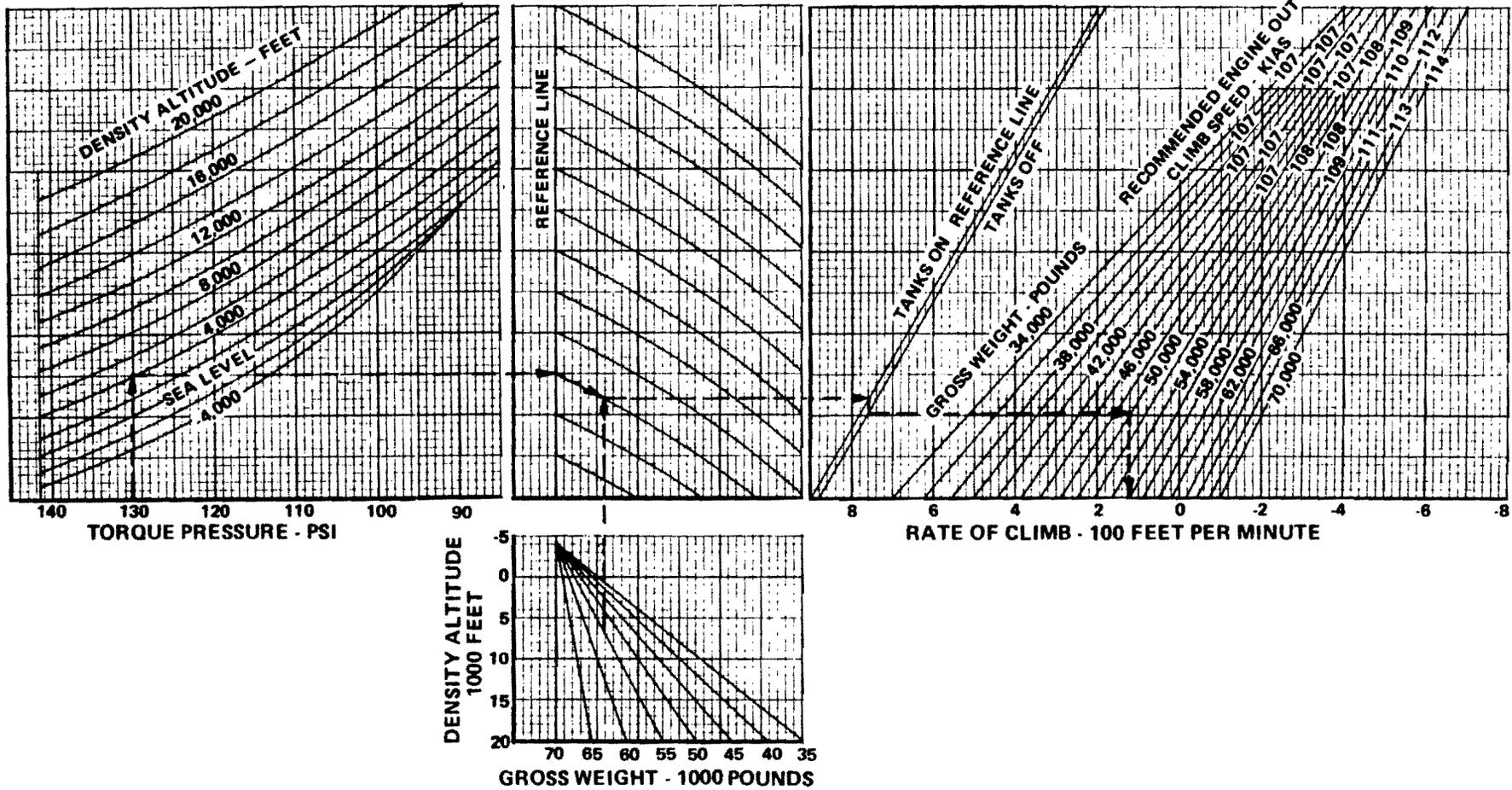


Figure A4-11.

**CONDITIONS:**

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

**NOTE:**

FOR RECIPROCATING ENGINE OPERATING AT OTHER THAN 2800 RPM, SEE ENGINE-OUT RATE-OF-CLIMB TEXT, THIS SECTION.

MODEL: C-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

METO POWER

WITH JET THRUST

PROPELLER FEATHERED

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

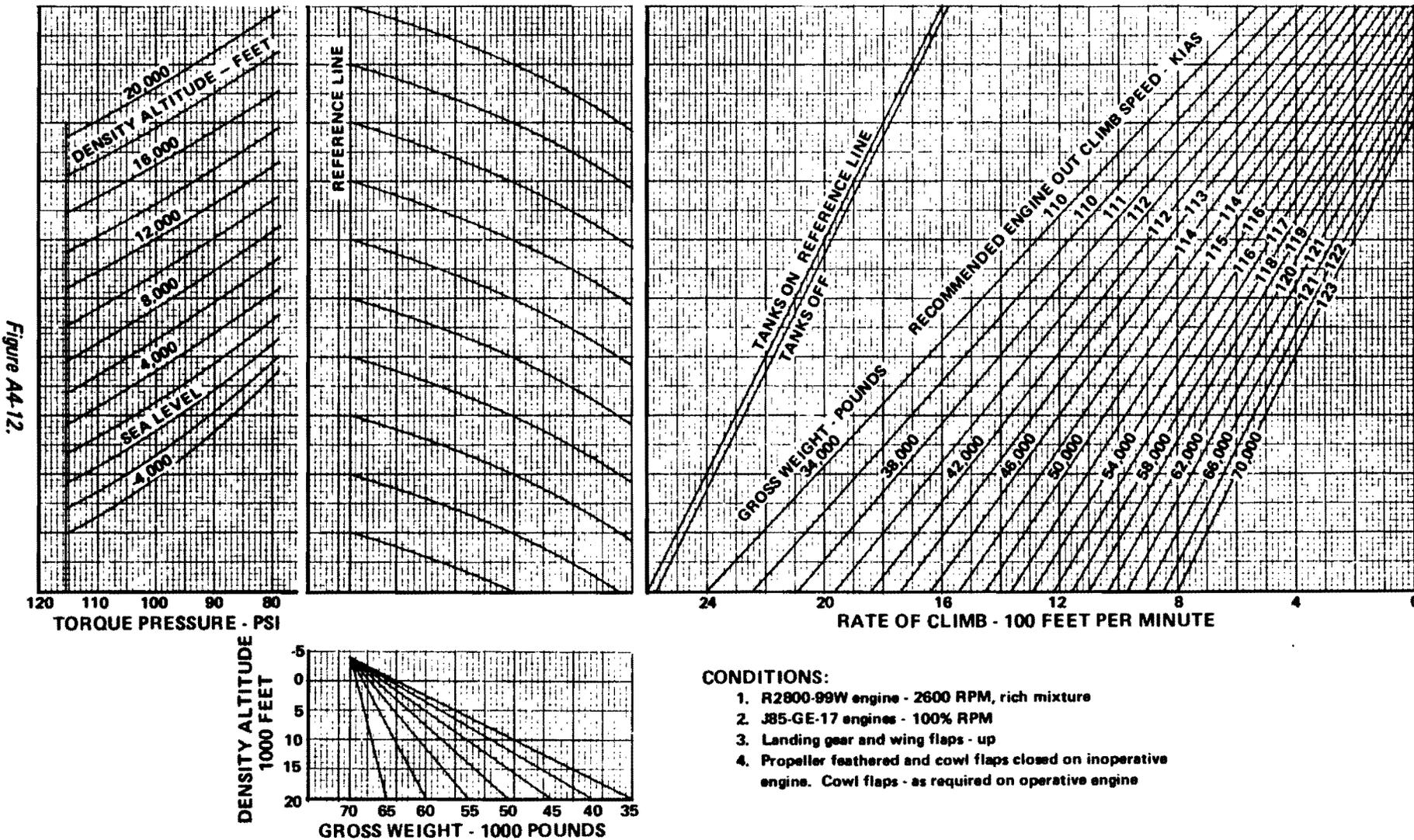
DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: FLIGHT TEST

A4-16

Change 10

T. O. 1C-123K-1



**CONDITIONS:**

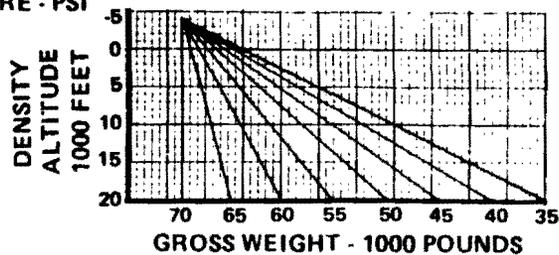
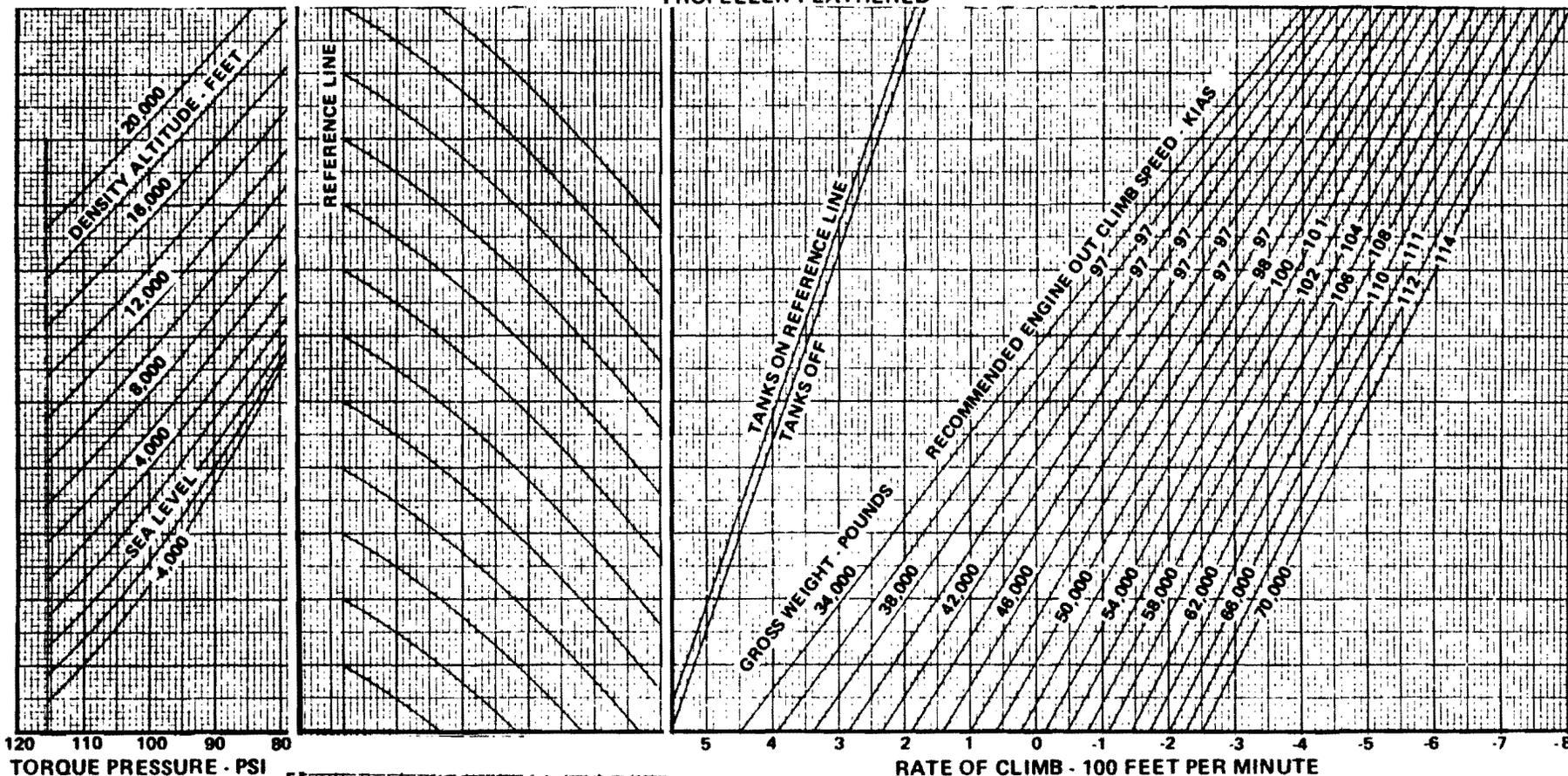
1. R2800-99W engine - 2600 RPM, rich mixture
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

MODEL: C-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 METO POWER  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST



**CONDITIONS:**

1. R2800-99W engine - 2600 RPM, rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

Figure A4-13.

Change 10

A4-17

MODEL: C-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

MAXIMUM POWER

WITH JET THRUST

PROPELLER WINDMILLING

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: FLIGHT TEST

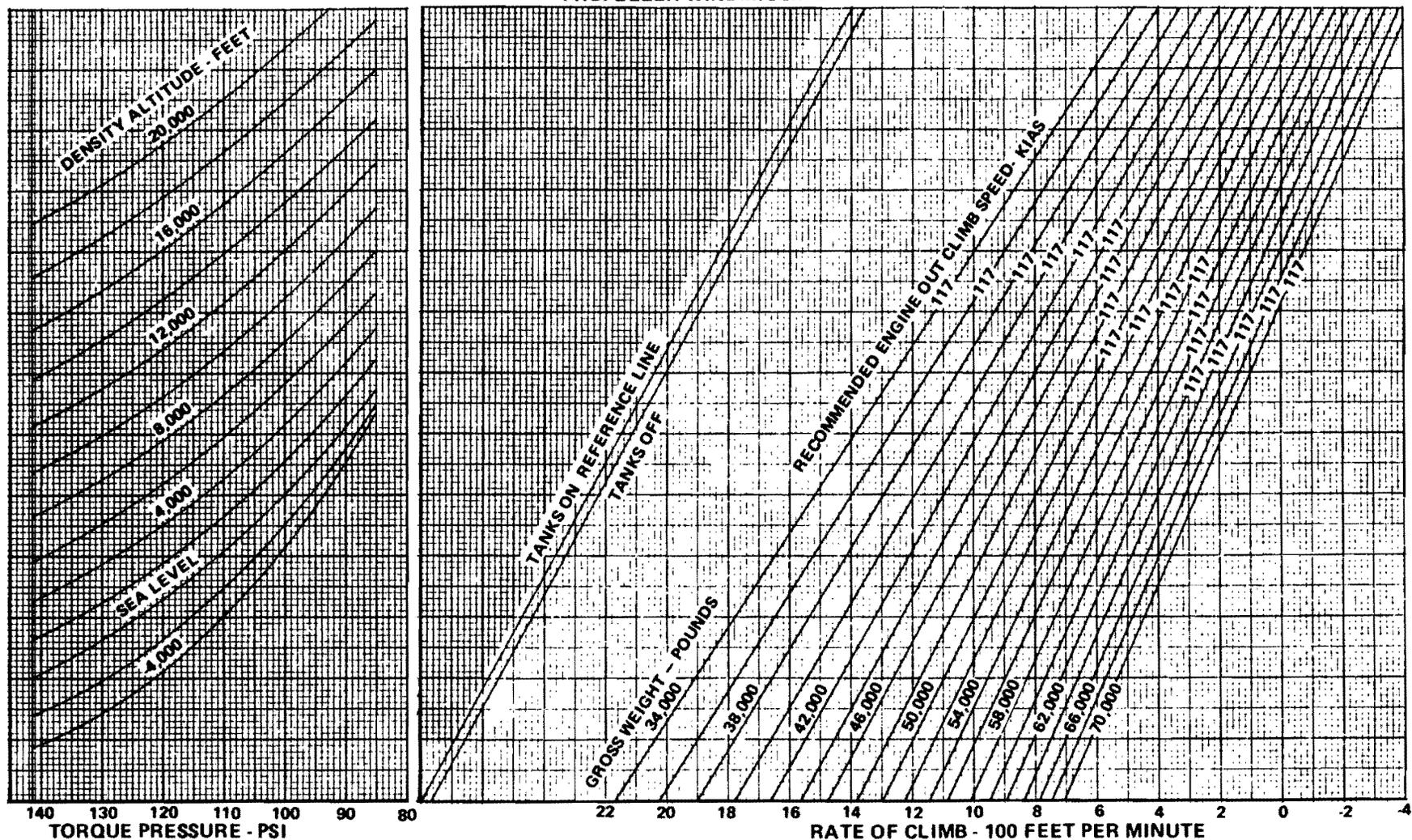


Figure A4-14.

**CONDITIONS:**

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engines - 100% RPM

3. Landing gear and wing flaps - up
4. Propeller windmilling and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

**NOTE:**

FOR RECIPROCATING ENGINE OPERATING AT OTHER THAN 2800 RPM, SEE ENGINE-OUT RATE-OF-CLIMB TEXT, THIS SECTION.

MODEL: C-123K  
**RECIPROCATING AND JET ENGINE OUT SAME SIDE  
 RATE OF CLIMB**

ENGINE: R2800-99W (1), J85-GE-17 (1)  
 PROPELLERS: 43E60-607  
 MAXIMUM POWER  
 WITH JET THRUST  
 PROPELLER FEATHERED

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

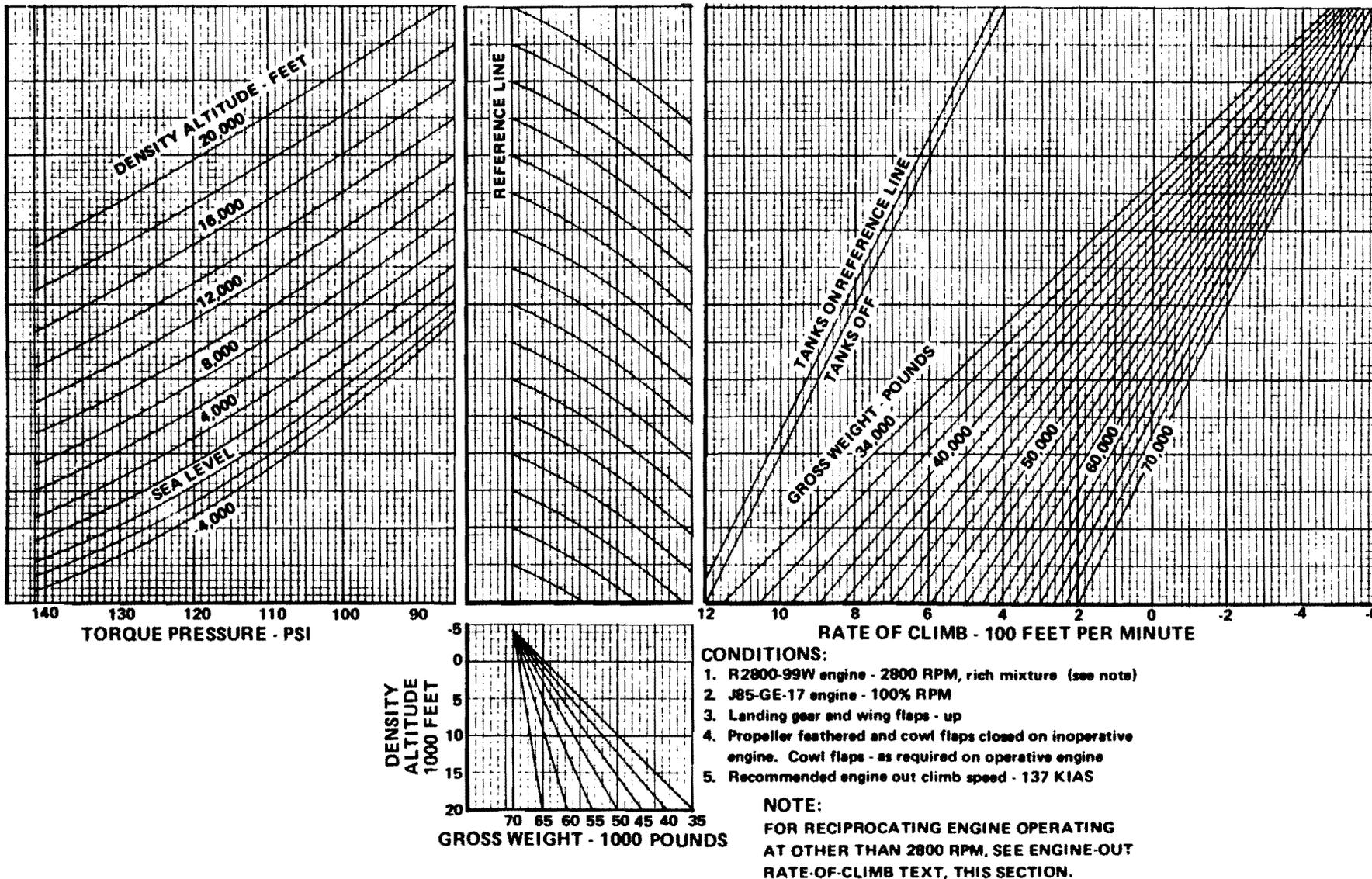


Figure A4-15.

Change 10

A4-19

- CONDITIONS:**
1. R2800-99W engine - 2800 RPM, rich mixture (see note)
  2. J85-GE-17 engine - 100% RPM
  3. Landing gear and wing flaps - up
  4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
  5. Recommended engine out climb speed - 137 KIAS

**NOTE:**  
 FOR RECIPROCATING ENGINE OPERATING  
 AT OTHER THAN 2800 RPM, SEE ENGINE-OUT  
 RATE-OF-CLIMB TEXT, THIS SECTION.

A4-20  
Change 10

MODEL: C-123K  
**RECIPROCATING AND JET ENGINE OUT SAME SIDE  
RATE OF CLIMB**

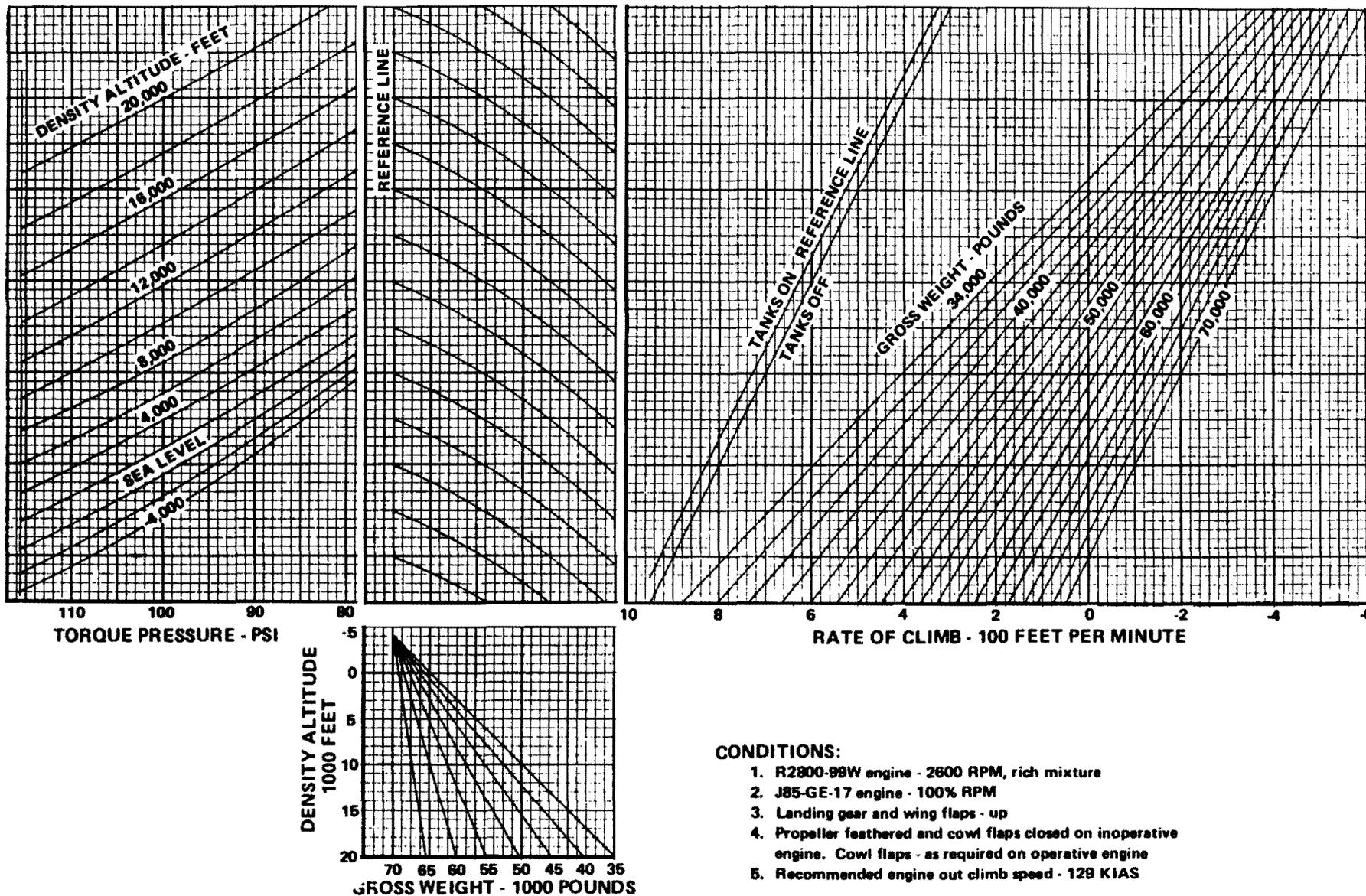
DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (1)  
PROPELLERS: 43E60-607 METO POWER  
WITH JET THRUST PROPELLER FEATHERED

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL

T.O. 1C123K-1

Figure A4-16.



MODEL: UC-123K

### ENGINE OUT RATE OF CLIMB

ENGINE: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

MAXIMUM POWER

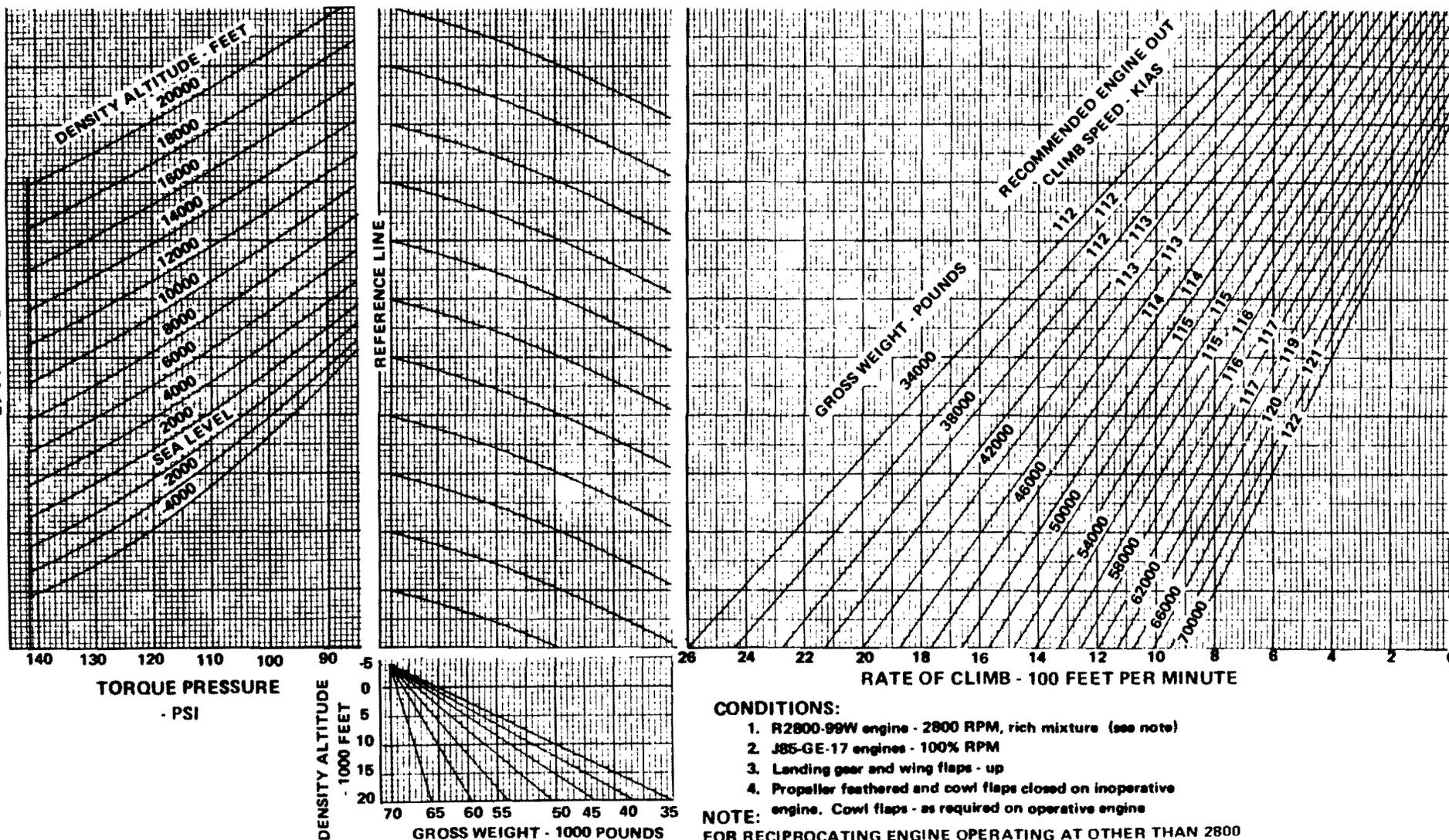
WITH JET THRUST

PROPELLER FEATHERED

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST



#### CONDITIONS:

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

#### NOTE:

FOR RECIPROCATING ENGINE OPERATING AT OTHER THAN 2800 RPM, SEE ENGINE-OUT RATE-OF-CLIMB TEXT, THIS SECTION.

Figure A4-17.

Change 10

A4-21

T. O. 1C-123K-1



MODEL: UC-123K  
**ENGINE OUT RATE OF CLIMB**  
 ENGINE: R2800-99W (1), J85-GE-17 (2)  
 PROPELLERS: 43E60-607  
 METO POWER  
 WITH JET THRUST  
 PROPELLER FEATHERED

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

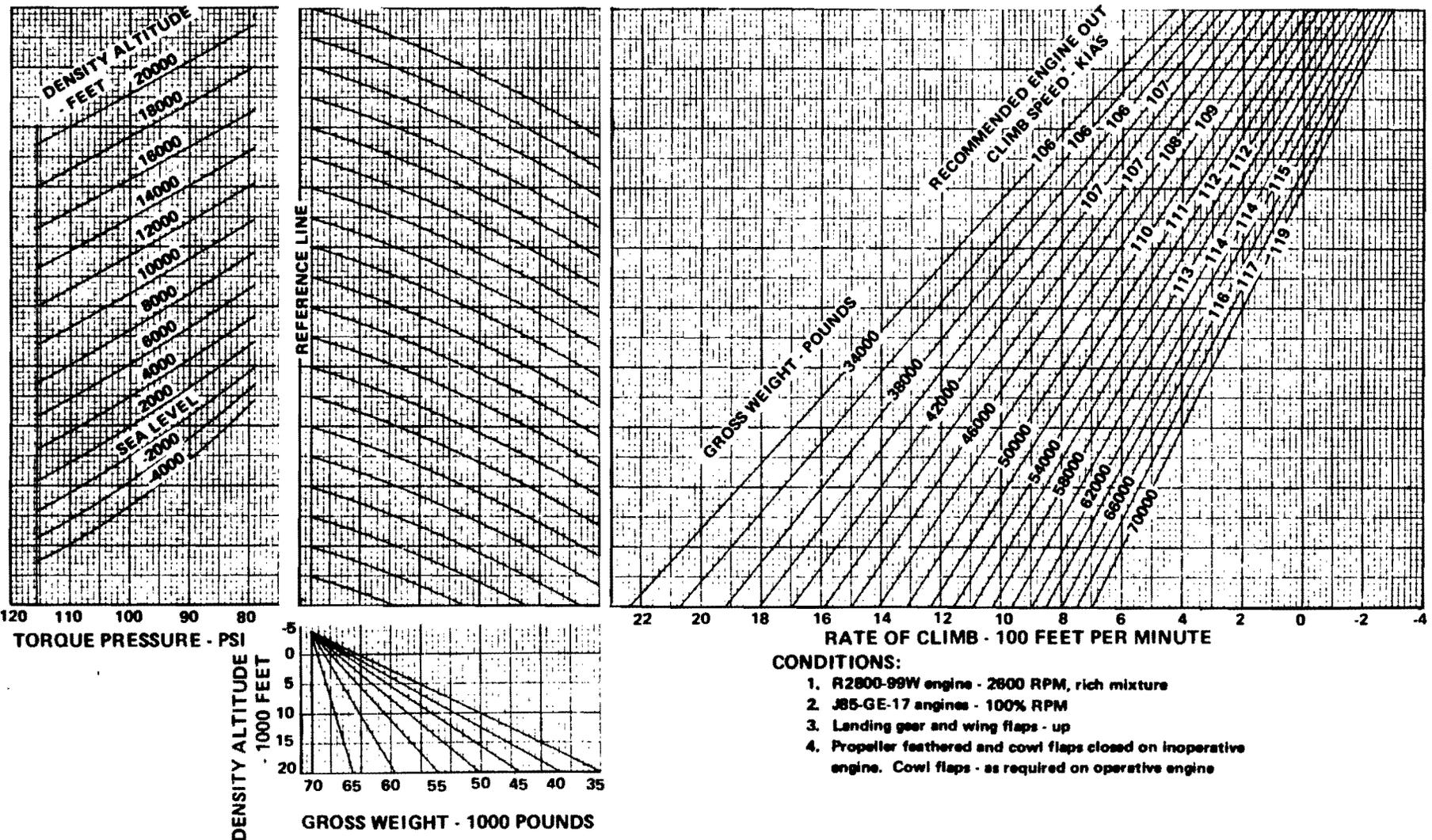


Figure A4-19

MODEL: UC-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 METO POWER  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

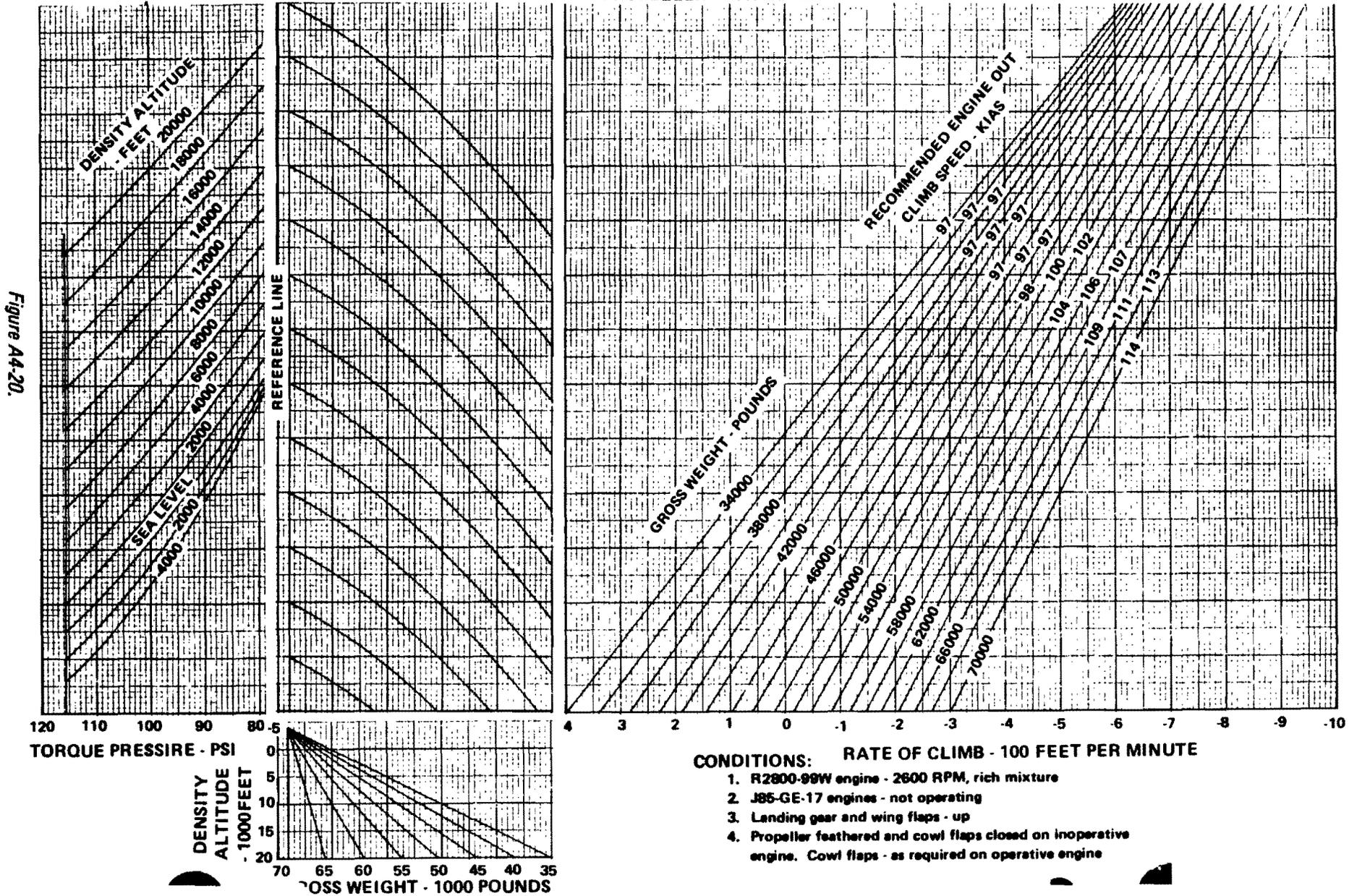


Figure A4-20.

**CONDITIONS: RATE OF CLIMB - 100 FEET PER MINUTE**

1. R2800-99W engine - 2600 RPM, rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine

MODEL: UC-123K  
**ENGINE OUT RATE OF CLIMB**

ENGINE: R2800-99W (1), J85-GE-17 (2)

PROPELLERS: 43E60-607

MAXIMUM POWER

WITH JET THRUST

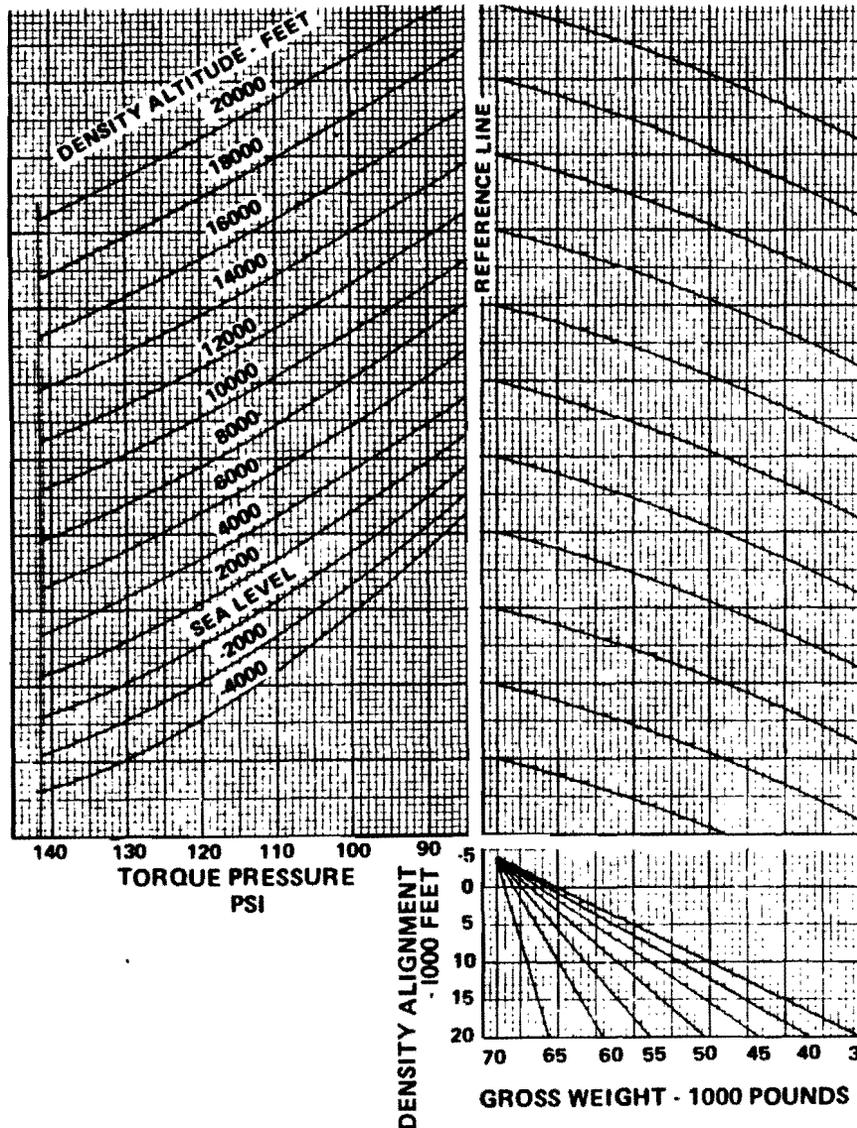
PROPELLER WINDMILLING

FUEL GRADE: 100/130

FUEL DENSITY: 6 LB/GAL

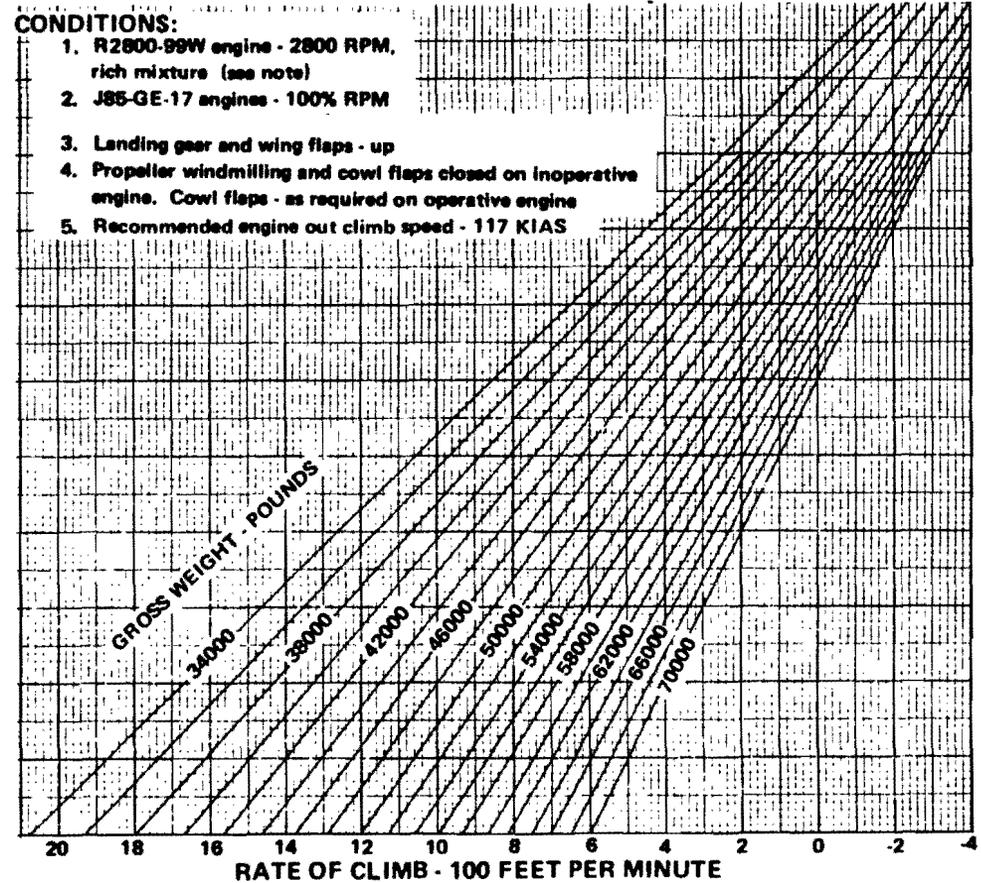
DATA AS OF: SEPTEMBER 15, 1973

DATA BASIS: FLIGHT TEST



**CONDITIONS:**

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller windmilling and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Recommended engine out climb speed - 117 KIAS



**NOTE:**

FOR RECIPROCATING ENGINE OPERATING AT OTHER THAN 2800 RPM, SEE ENGINE-OUT RATE-OF-CLIMB TEXT, THIS SECTION.

Figure A4-21.

Change 10

A4-25

# MODEL: UC-123K RECIPROCATING AND JET ENGINE OUT SAME SIDE RATE OF CLIMB

ENGINE: R2800-99W (1), J85-GE-17 (1)  
PROPELLERS: 43E60-607  
MAXIMUM POWER  
WITH JET THRUST  
PROPELLER FEATHERED

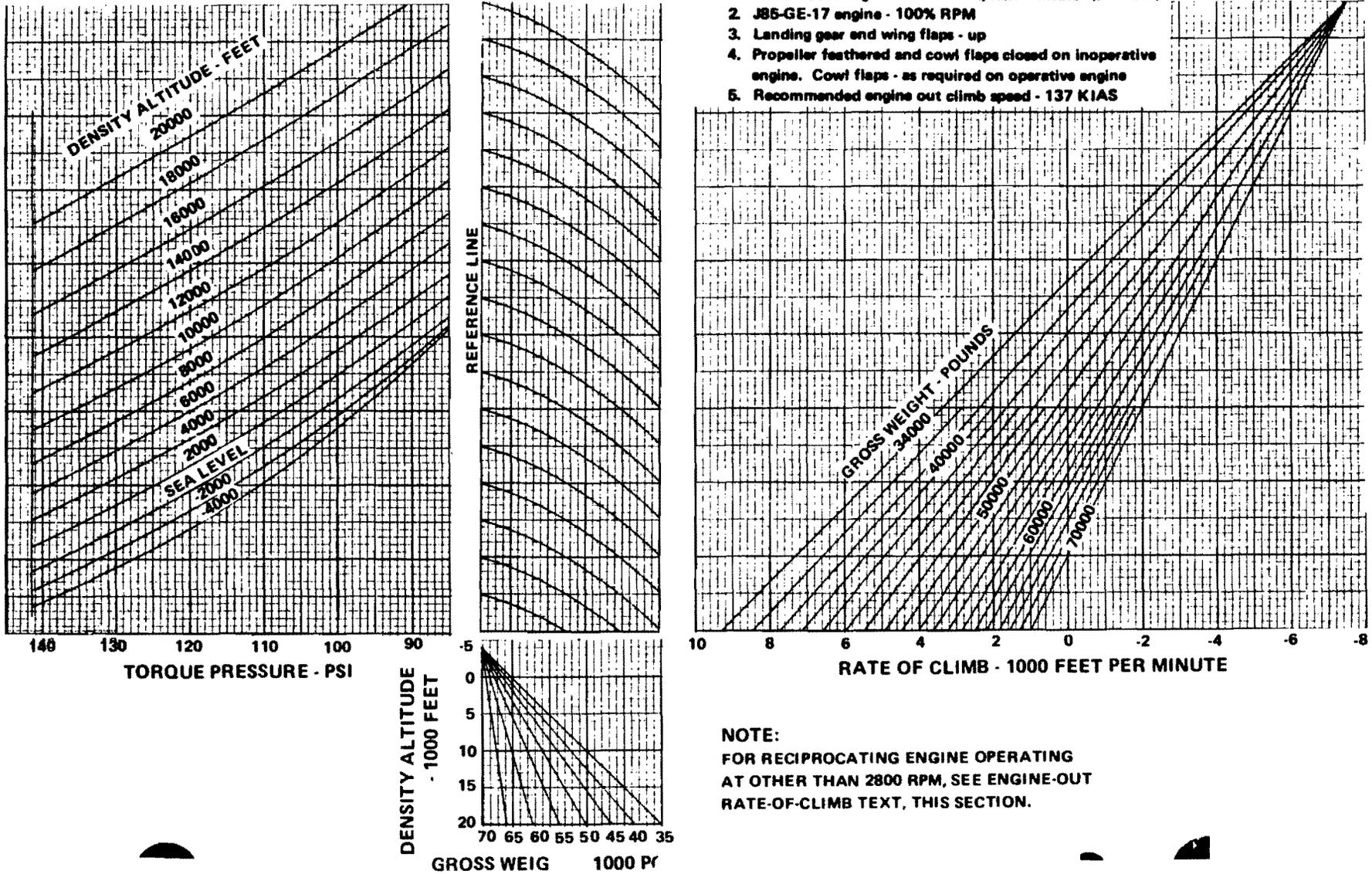
FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

### CONDITIONS:

1. R2800-99W engine - 2800 RPM, rich mixture (see note)
2. J85-GE-17 engine - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Recommended engine out climb speed - 137 KIAS

Figure A4-22.



**NOTE:**  
FOR RECIPROCATING ENGINE OPERATING  
AT OTHER THAN 2800 RPM, SEE ENGINE-OUT  
RATE-OF-CLIMB TEXT, THIS SECTION.

MODEL: UC-123K  
**RECIPROCATING AND JET ENGINE OUT SAME SIDE  
 RATE OF CLIMB**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (1)  
 PROPELLERS: 43E60-607 METO POWER  
 WITH JET THRUST PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

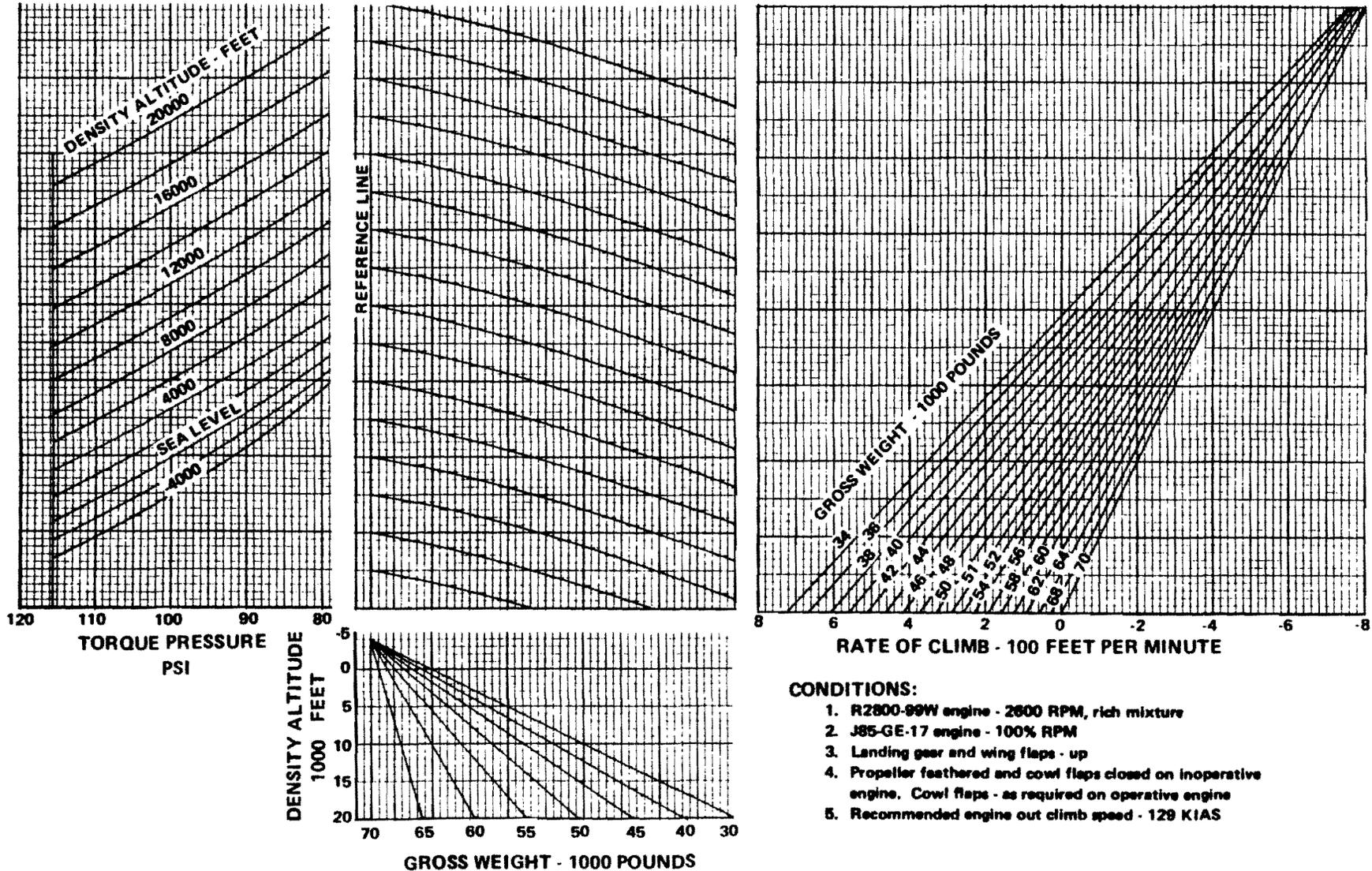


Figure A4-23.

**CONDITIONS:**

1. R2800-99W engine - 2600 RPM, rich mixture
2. J85-GE-17 engine - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Recommended engine out climb speed - 129 KIAS

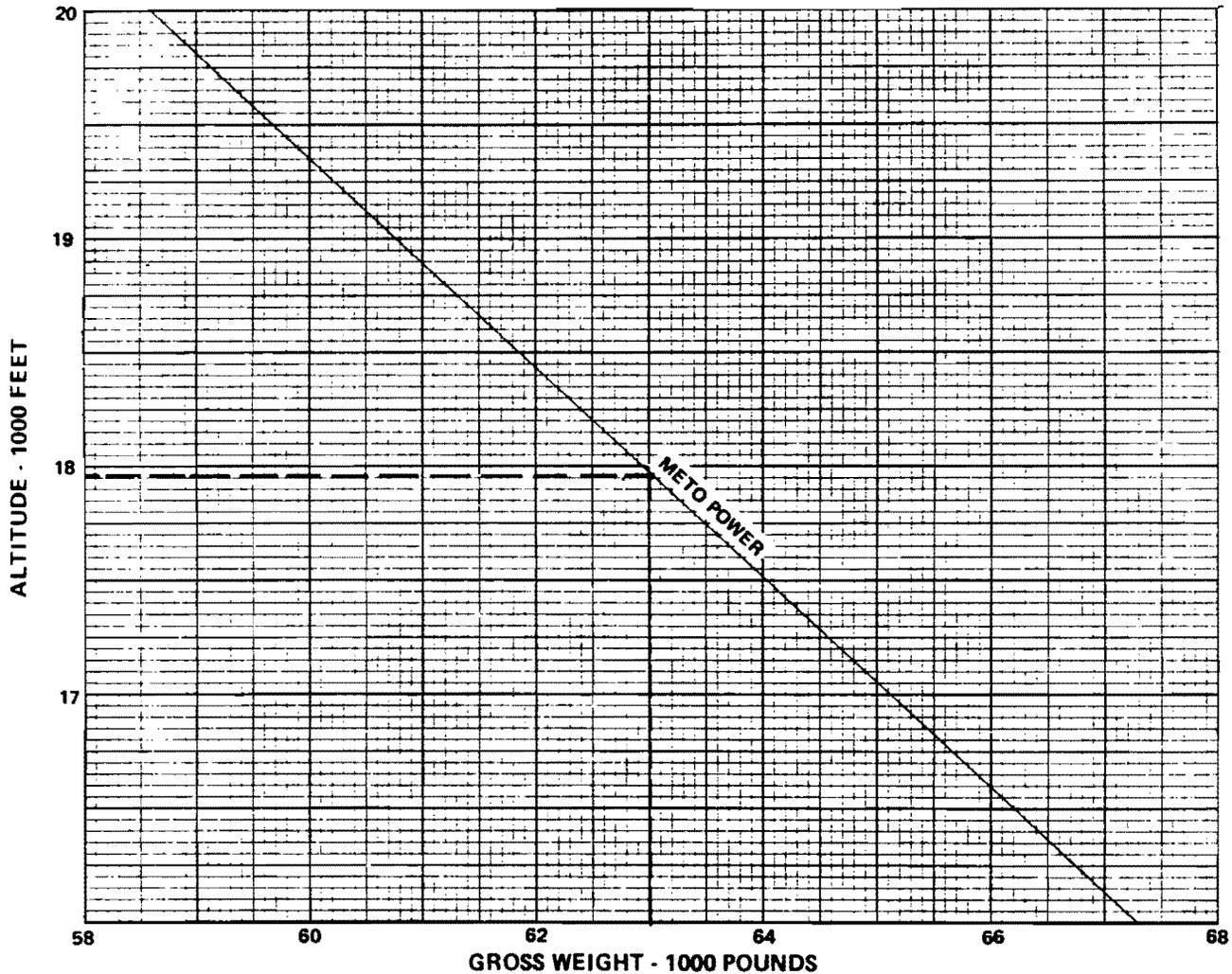
Change 10

A4-27

MODEL: C-123K  
**EMERGENCY SERVICE CEILING**  
ENGINE: R2800-99W (1), J85-GE-17 (2)  
PROPELLERS: 43E60-607  
WITH JET THRUST  
PROPELLER FEATHERED

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

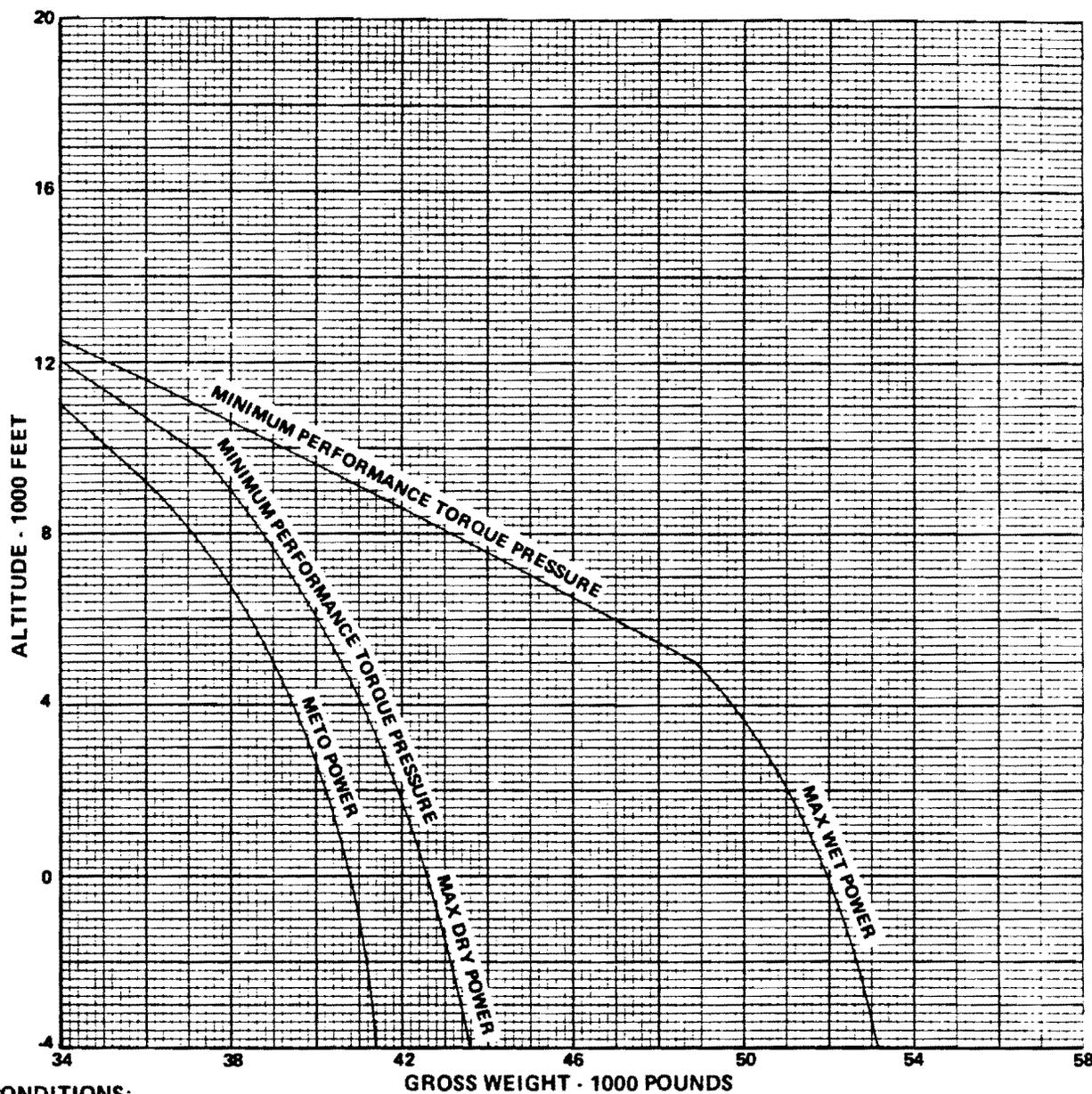
Figure A4-24.

MODEL: C-123K  
**EMERGENCY SERVICE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

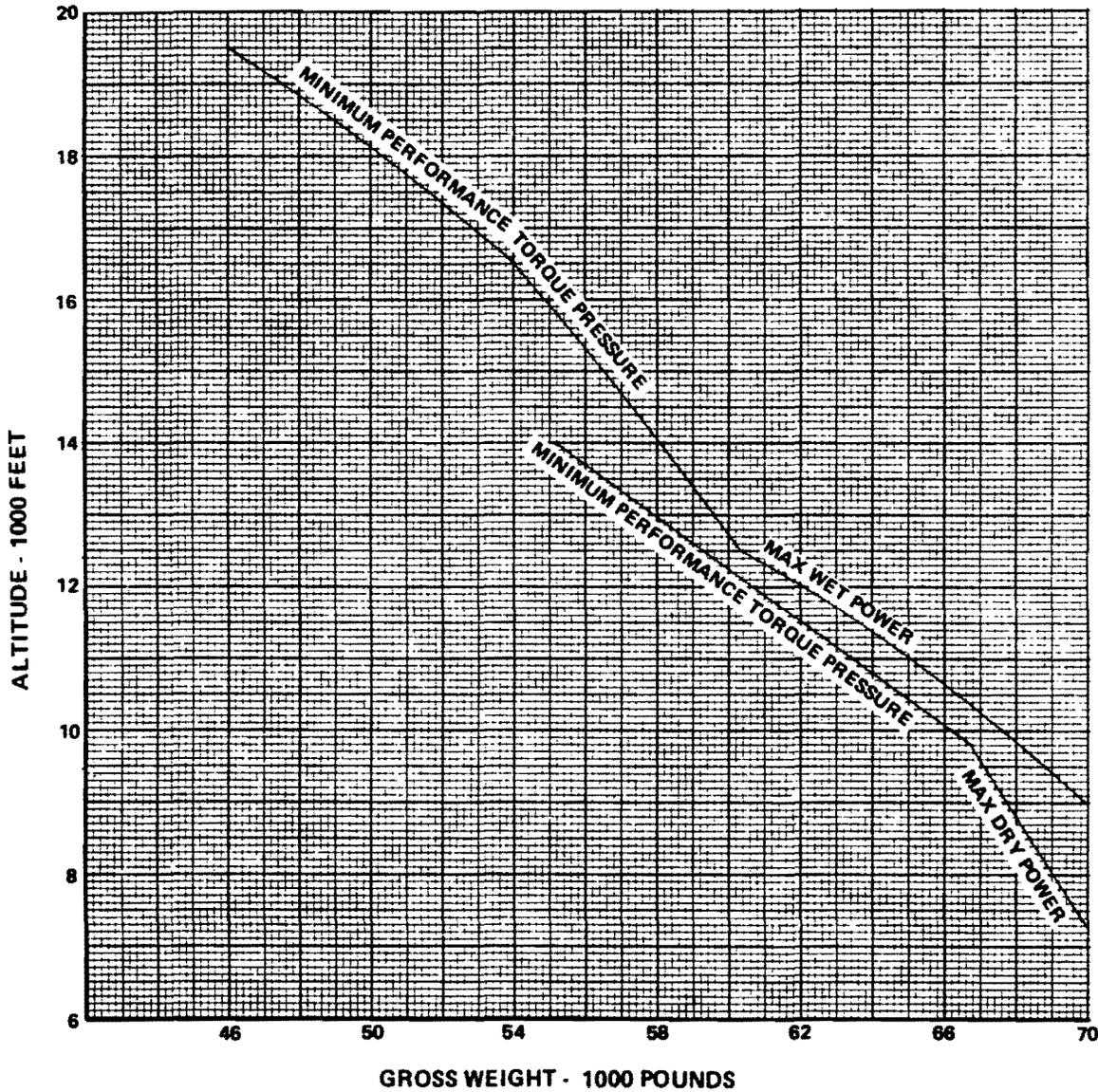
Figure A4-25.

MODEL: C-123K  
**EMERGENCY SERVICE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (2)  
PROPELLERS: 43E60-607  
WITH JET THRUST  
PROPELLER WINDMILLING

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

- 1. R2800-99W engine - rich mixture
- 2. J85-GE-17 engines - 100% RPM
- 3. Landing gear and wing flaps - up
- 4. Propeller windmilling and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
- 5. Operation at recommended engine out climb speed
- 6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

Figure A4-26.

MODEL: C-123K  
**EMERGENCY SERVICE CEILING**  
**RECIPROCATING AND JET ENGINE OUT SAME SIDE**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (1)  
 PROPELLERS: 43E60-607  
 WITH JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

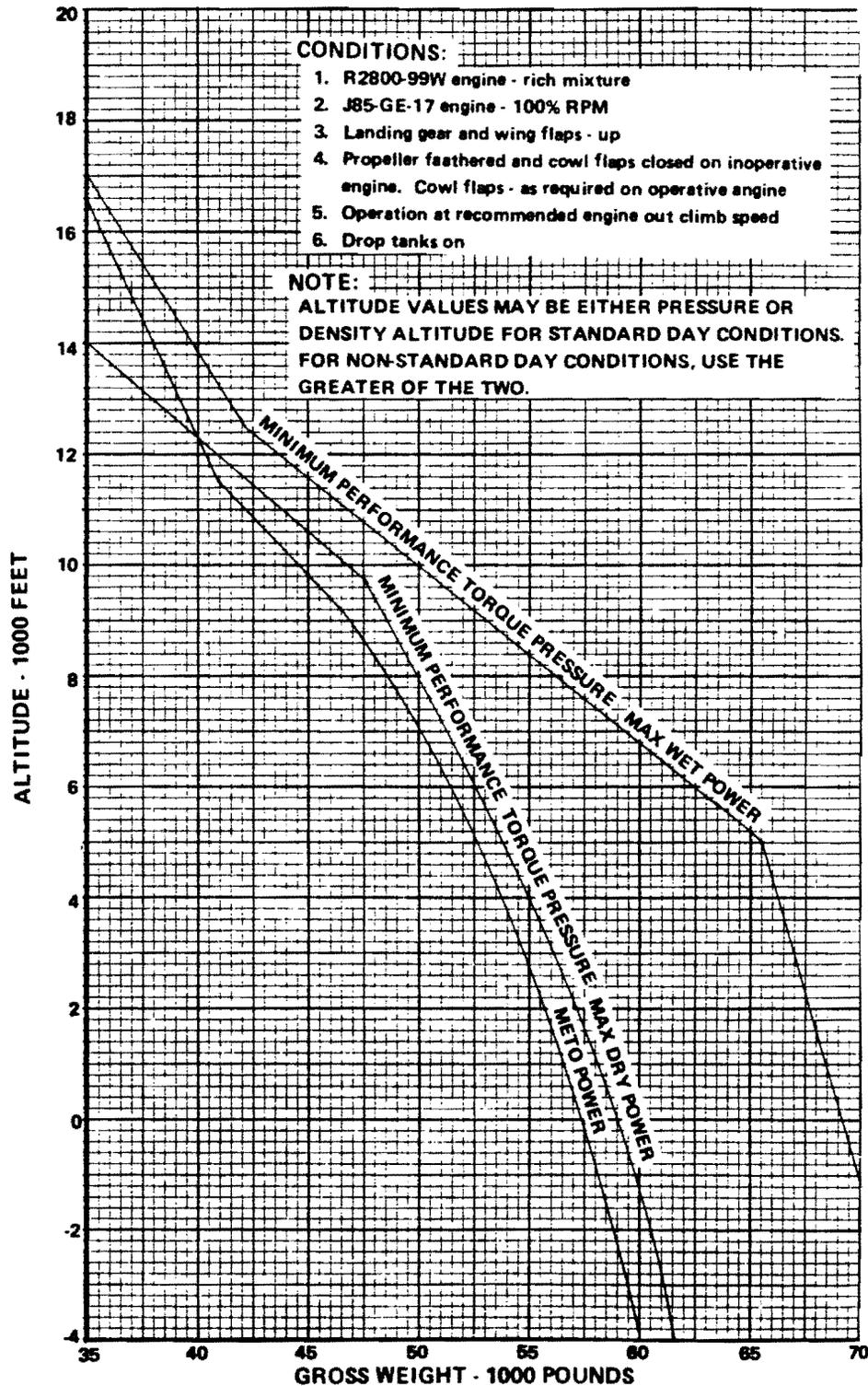


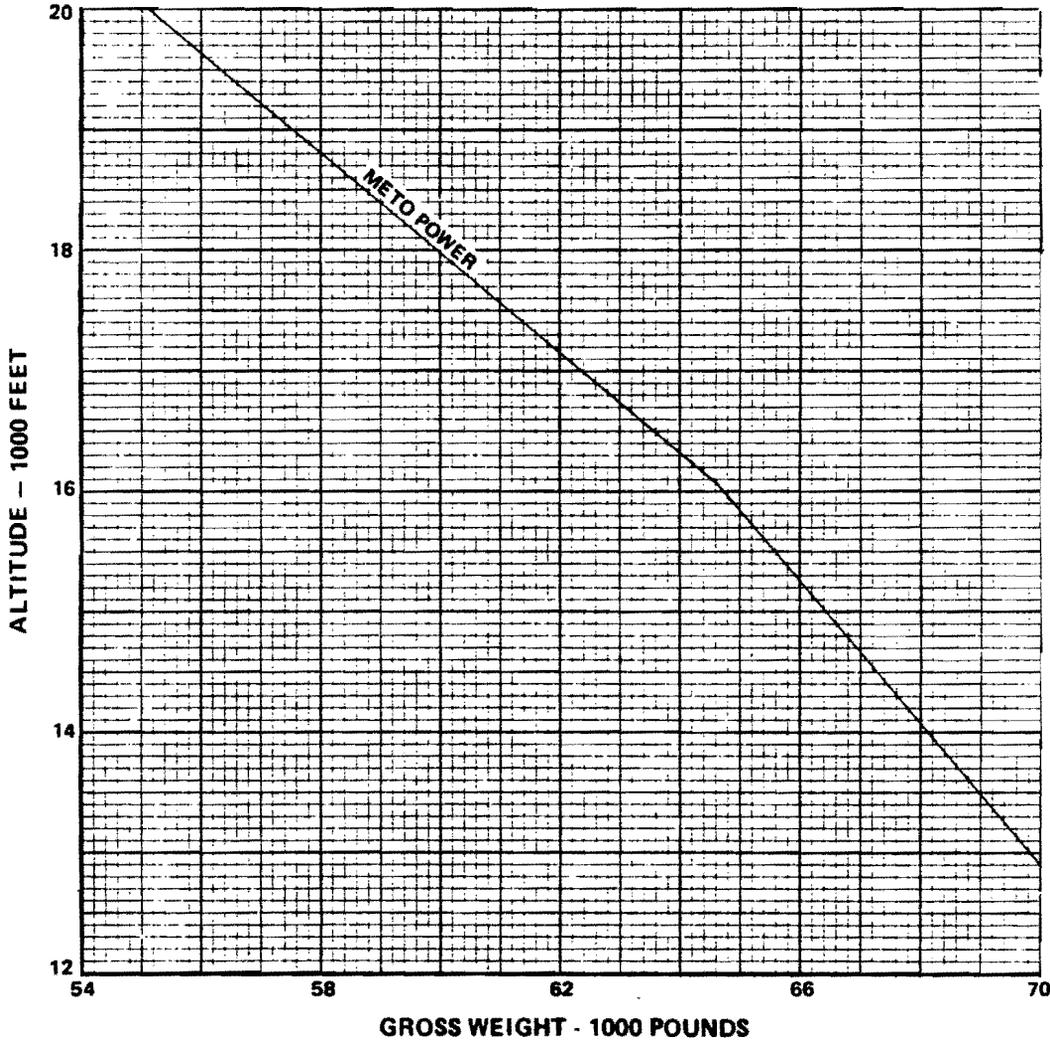
Figure A4-27.

MODEL: UC-123K  
**EMERGENCY SERVICE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (2)  
PROPELLERS: 43E60-607  
WITH JET THRUST  
PROPELLER FEATHERED

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

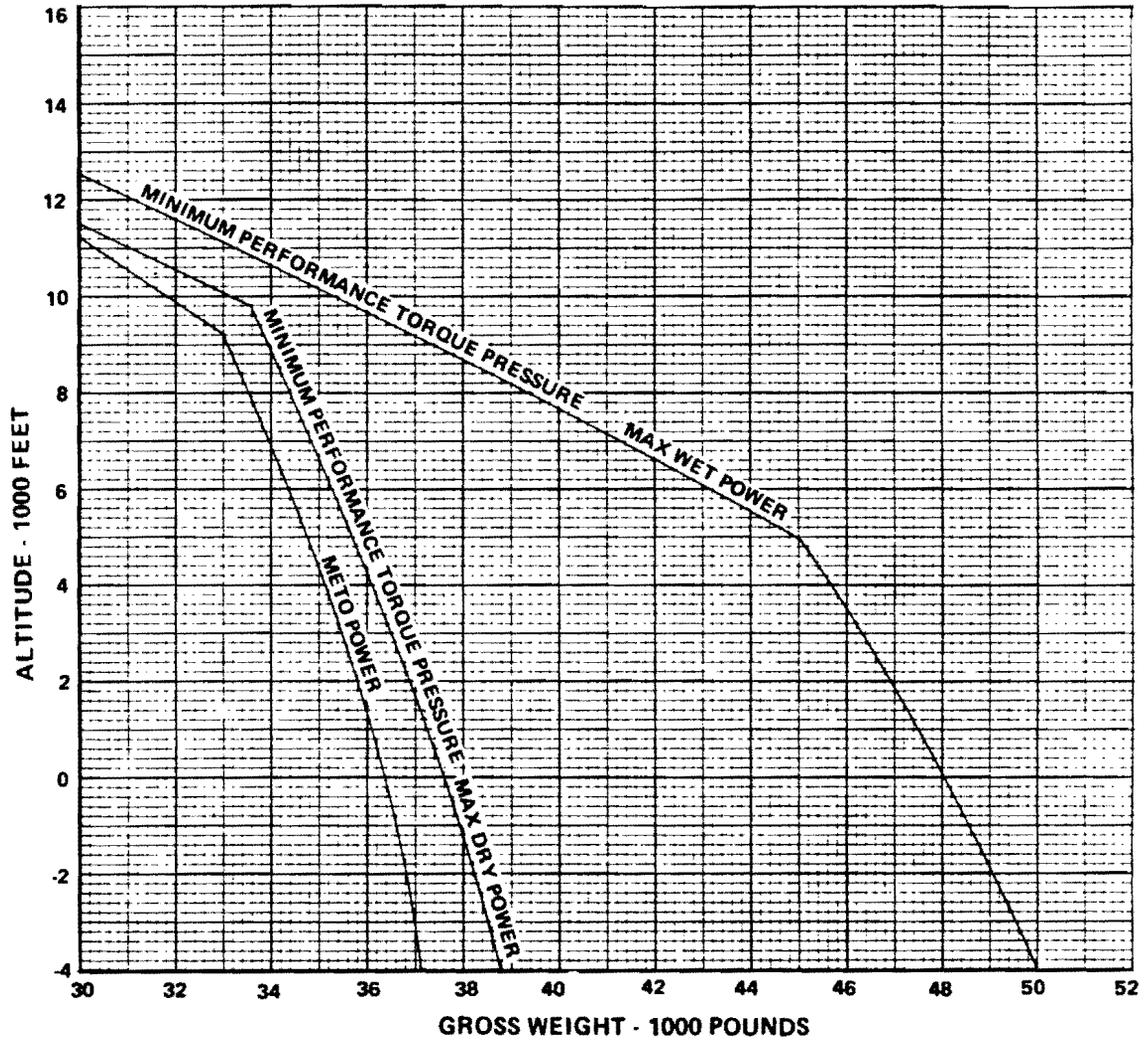
Figure A4-28.

MODEL: UC-123K  
**EMERGENCY SERVICE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

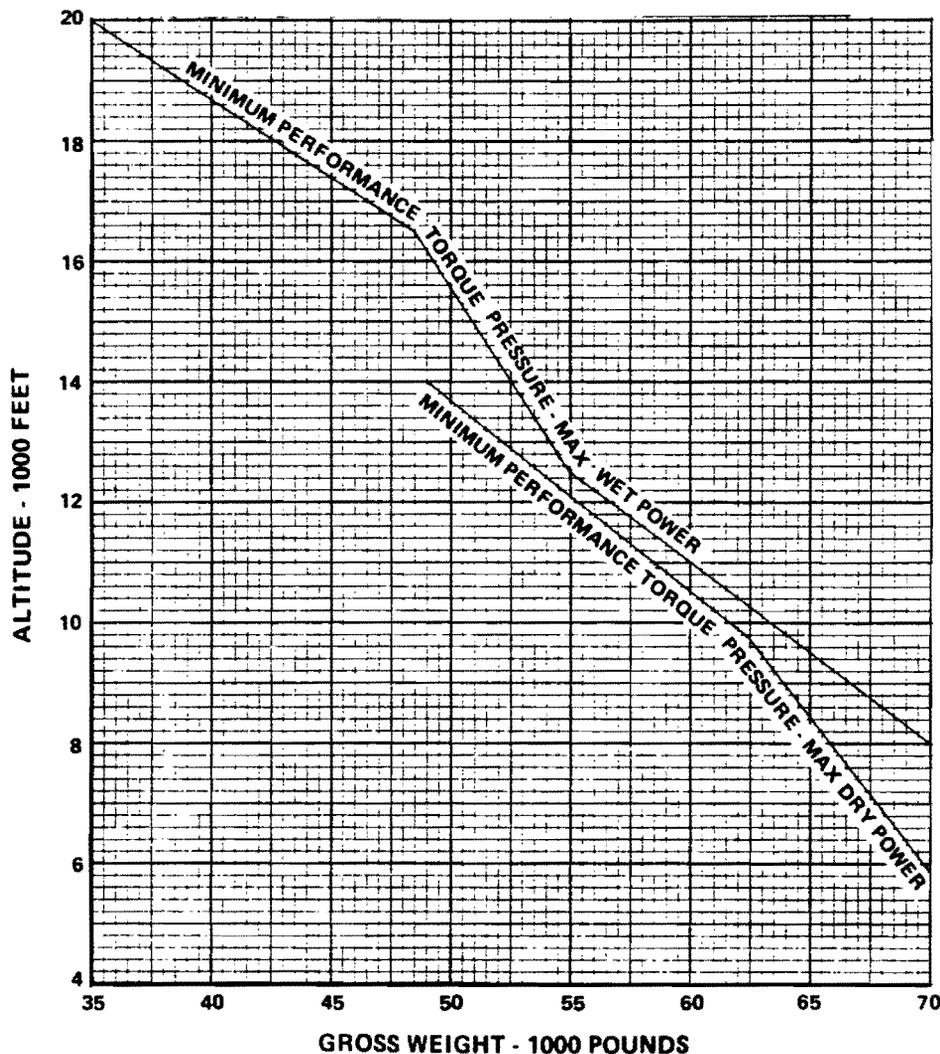
Figure A4-29.

MODEL: UC-123K  
**EMERGENCY SERVICE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (2)  
 PROPELLERS: 43E60-607  
 WITH JET THRUST  
 PROPELLER WINDMILLING

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller windmilling and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

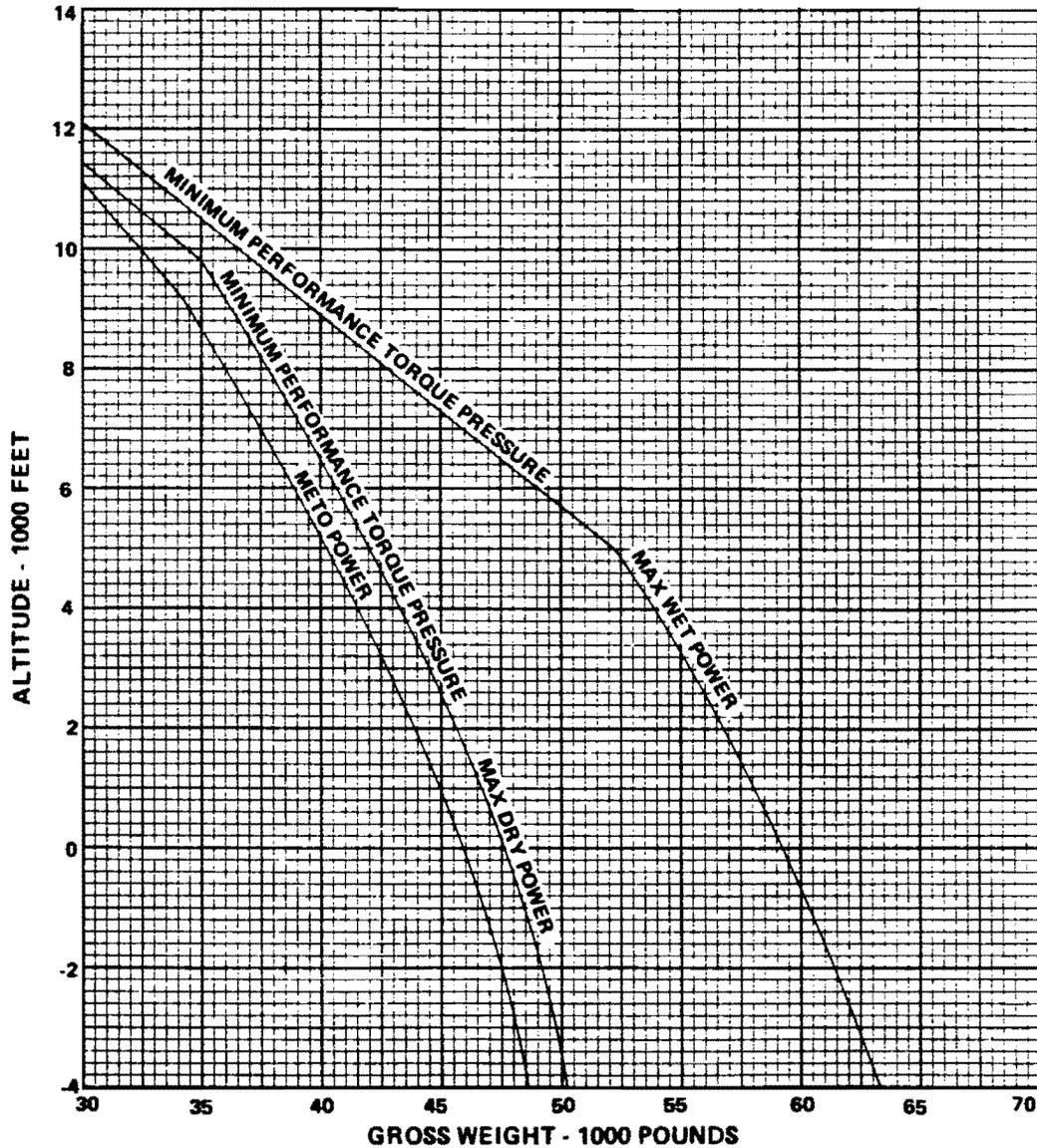
Figure A4-30.

MODEL: UC-123K  
**EMERGENCY SERVICE CEILING**  
**RECIPROCATING AND JET ENGINE OUT SAME SIDE**

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W (1), J85-GE-17 (1)  
 PROPELLERS: 43E60-607  
 WITH JET THRUST  
 PROPELLER FEATHERED

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engine - 100% RPM
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

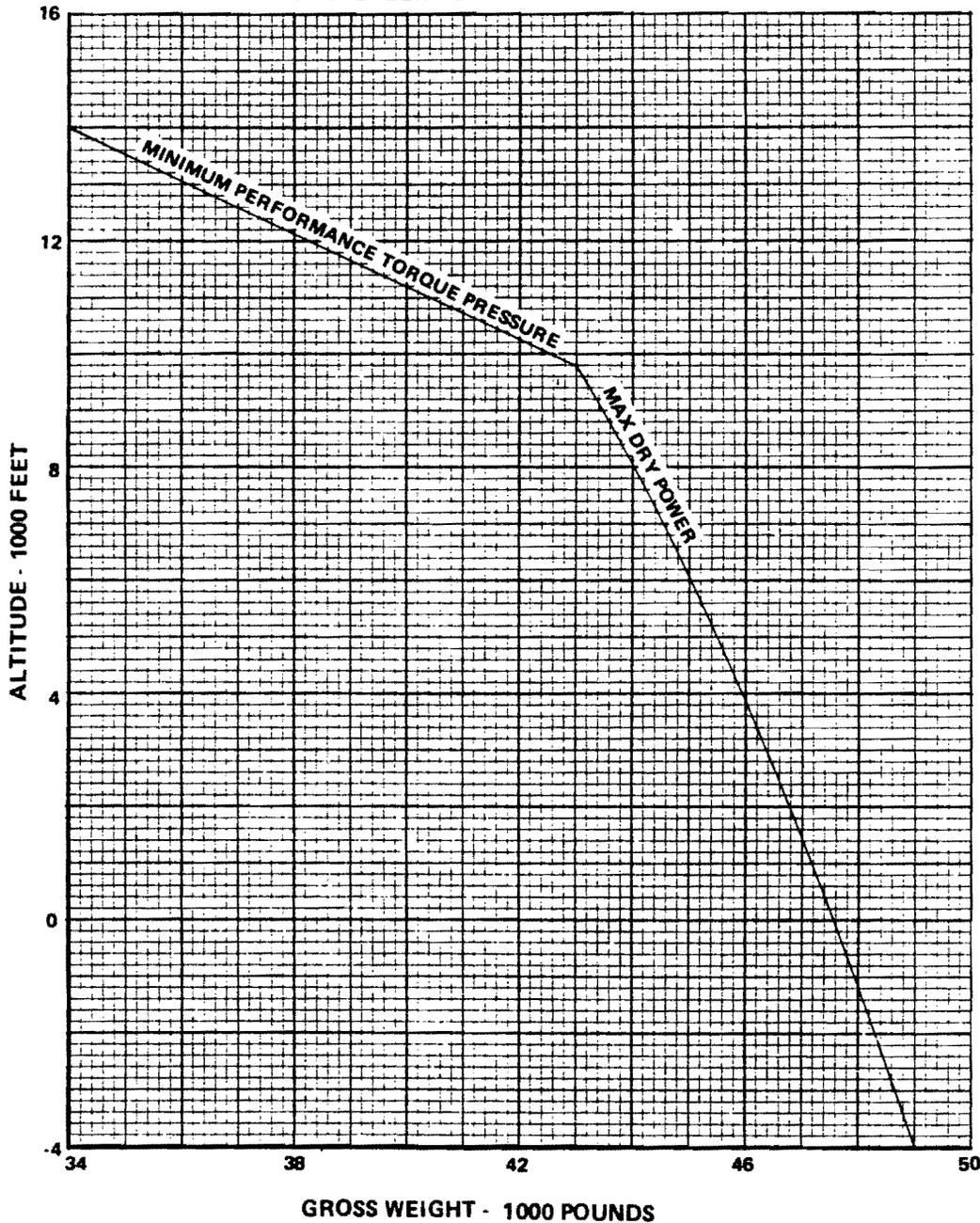
Figure A4-31.

MODEL: C-123K  
**EMERGENCY ABSOLUTE CEILING**

DATA AS OF: SEPTEMBER 15, 1973  
DATA BASIS: FLIGHT TEST

ENGINE: R2800-99W(1)  
PROPELLER : 43E60-607  
WITHOUT JET THRUST  
PROPELLER FEATHERED

FUEL GRADE: 100/130  
FUEL DENSITY 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

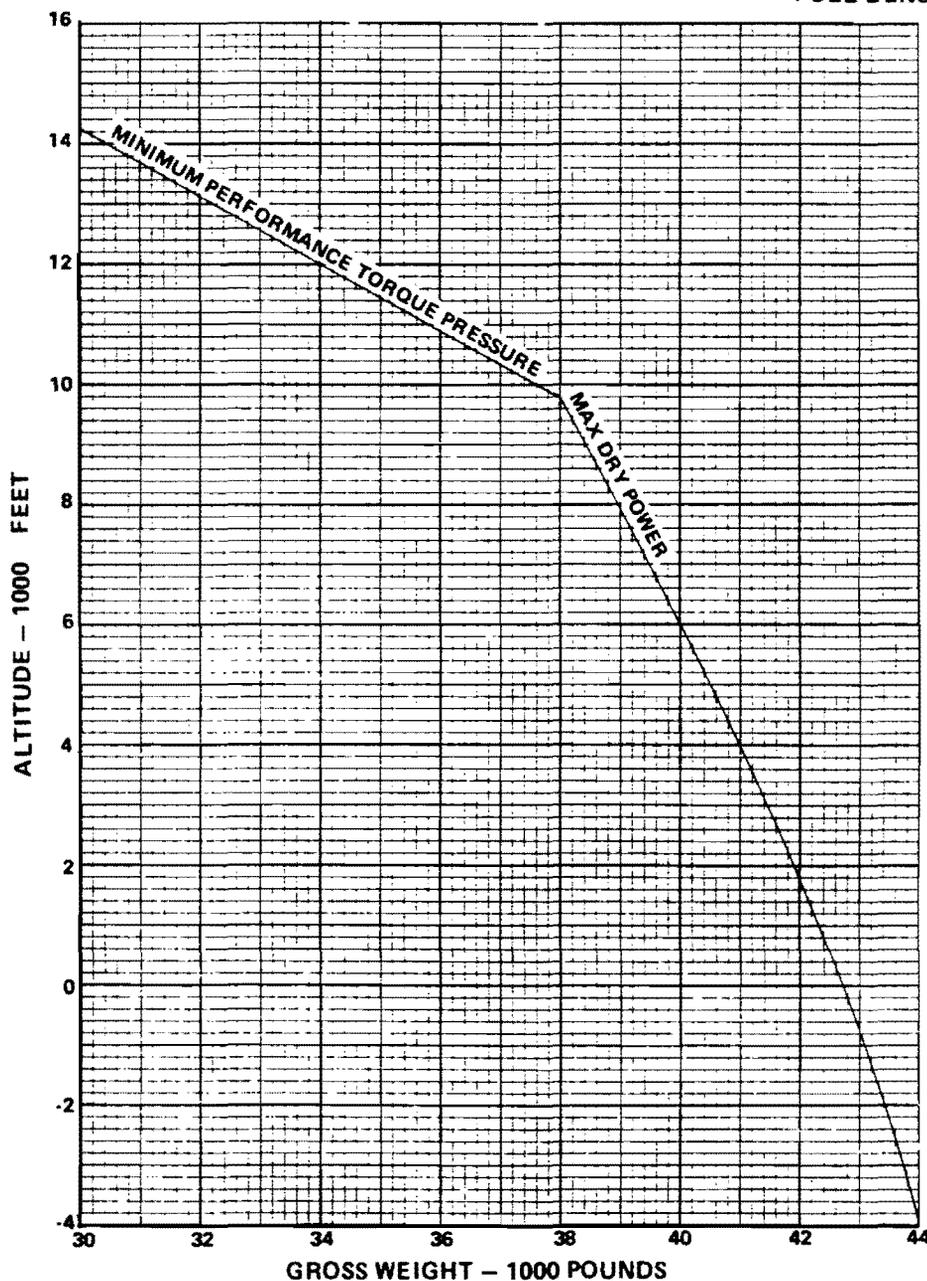
Figure A4-32.

MODEL: UC -123K  
**EMERGENCY ABSOLUTE CEILING**

ENGINE: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 WITHOUT JET THRUST  
 PROPELLER FEATHERED

DATA AS OF: SEPTEMBER 15, 1973  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL



**CONDITIONS:**

1. R2800-99W engine - rich mixture
2. J85-GE-17 engines - not operating
3. Landing gear and wing flaps - up
4. Propeller feathered and cowl flaps closed on inoperative engine. Cowl flaps - as required on operative engine
5. Operation at recommended engine out climb speed
6. Drop tanks on

**NOTE:**

ALTITUDE VALUES MAY BE EITHER PRESSURE OR DENSITY ALTITUDE FOR STANDARD DAY CONDITIONS. FOR NON-STANDARD DAY CONDITIONS, USE THE GREATER OF THE TWO.

Figure A4-33.

**CRUISE DATA****part 5****table of contents**

CRUISE DATA .....	A5-2
-------------------	------

**CRUISE CHARTS - TWO ENGINES - WITHOUT JET THRUST**

Air Nautical Miles Per Pound Of Fuel - Sea Level .....	A5-6
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet .....	A5-7
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet .....	A5-8
Air Nautical Miles Per Pound Of Fuel - 15,000 Feet - Low Blower .....	A5-9
Air Nautical Miles Per Pound Of Fuel - 15,000 Feet - High Blower .....	A5-10
Air Nautical Miles Per Pound Of Fuel - 20,000 Feet .....	A5-11
Long Range Prediction - Distance .....	A5-12
Long Range Prediction - Time .....	A5-13

**CRUISE CHARTS - SINGLE ENGINE - WITHOUT JET THRUST**

Air Nautical Miles Per Pound Of Fuel - Sea Level .....	A5-14
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet .....	A5-15
Long Range Prediction - Time and Distance .....	A5-16

**CRUISE CHARTS - SINGLE ENGINE WITH ONE JET ON OPPOSING SIDE**

Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,000 lbs/hr .....	A5-17
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,000 lbs/hr .....	A5-18
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,000 lbs/hr .....	A5-19
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,250 lbs/hr .....	A5-20
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,250 lbs/hr .....	A5-21
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,250 lbs/hr .....	A5-22
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,500 lbs/hr .....	A5-23
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,500 lbs/hr .....	A5-24
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,500 lbs/hr .....	A5-25

**CRUISE CHARTS - SINGLE ENGINE WITH ONE JET ON SAME SIDE**

Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,000 lbs/hr .....	A5-26
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,000 lbs/hr .....	A5-27
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,000 lbs/hr .....	A5-28
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,250 lbs/hr .....	A5-29
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,250 lbs/hr .....	A5-30
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,250 lbs/hr .....	A5-31
Air Nautical Miles Per Pound Of Fuel - 5,000 Feet - Jet Fuel Flow 1,500 lbs/hr .....	A5-32
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet - Jet Fuel Flow 1,500 lbs/hr .....	A5-33
Long Range Prediction - Time and Distance - Jet Fuel Flow 1,500 lbs/hr .....	A5-34

**CRUISE CHARTS - SINGLE ENGINE AT CONSTANT 1150 BHP WITH ONE JET ON OPPOSING SIDE**

Air Nautical Miles Per Pound Of Fuel - 5,000 Feet .....	A5-35
Air Nautical Miles Per Pound Of Fuel - 10,000 Feet .....	A5-36
Long Range Prediction - Time and Distance .....	A5-37

**MISCELLANEOUS CHARTS**

Brake Horsepower Reduction Due To Operation With Drop Tanks Off .....	A5-38
Brake Horsepower Increase Due To Operation With Spray Booms Installed .....	A5-39

**CRUISE DATA.**

**NOTE**

The cruise data presented in the Air Nautical Miles Per Pound Of Fuel charts and in the Long Range Prediction charts are applicable to the C-123K with drop tanks on only. For operation with drop tanks off, refer to Brake Horsepower Reduction Due to Operation With Drop Tanks Off, this section. For operation with spray boom installed, refer to Brake Horsepower Increase Due To Operation With Spray Boom Installed, this section.

**AIR NAUTICAL MILES PER POUND OF FUEL**

The Air Nautical Miles Per Pound of Fuel Charts illustrate graphically the cruise performance of the aircraft, in terms of airspeed and fuel consumption, at various gross weights. Two airspeed scales are plotted along the bottom edge of the charts; the upper scale is graduated in knots of true airspeed (TAS); the lower of the two, in knots of indicated airspeed (IAS). The fuel consumption scale is plotted vertically along the left edge of the charts and is marked off in air nautical miles per pound of fuel. Since this refers to fuel consumption in a no-wind condition, it is necessary to convert this figure to ground nautical miles per pound for flight planning purposes. A formula for this conversion is given under "CONDITIONS" on each chart. The power necessary to obtain a desired speed or fuel consumption is expressed in terms of BHP, and is clearly marked on each power setting line. In order to achieve the fuel consumption specified on the chart, the recommended power must be set in accordance with the Power Schedule Curves, Part 2, using limit MAP or torque and minimum RPM. Notice that MANUAL LEAN is recommended rather than AUTO LEAN when the recommended power does not require a RICH setting. A series of gross weight lines ranging from 30,000 to 70,000 pounds show the effect of various gross weights on the overall cruise performance. Notice that these gross weight lines curve upward to a peak fuel economy point, then fall off gradually as power and speed increase. The vertical portion of the lines indicates abrupt change in fuel flow which results when the mixture setting is advanced to RICH for the higher cruise power settings. Recommendations for maximum endurance performance are indicated by the dashed line intersecting the gross weight and power setting lines at the low speed extremities. Similarly the recommended power settings and speed for long range (99% Best Economy) are indicated by three dashed lines crossing the gross weight lines slightly on the high speed side of peak fuel economy. These lines permit the selection of an appropriate long range power setting and cruise speed in various wind conditions ranging from 50-knot tailwind to 50-knot headwind. Intermediate wind components should be interpolated visually. It should be remembered that the fuel consumption read from the scale at the left is always expressed as air nautical miles per pound for the reciprocating

engine only - even when a known wind condition is used in determining long range power settings. Six separate charts provide complete coverage for two-engine operation, jets inoperative, at density altitudes ranging from sea level to 20,000 feet. Engine-out operation, with jets inoperative, from sea level to 10,000 feet is similarly covered by six additional charts. Since the charts are plotted at selected density altitude levels in increments of 5000 feet, it is necessary to interpolate the readings from two separate charts for intermediate altitudes (refer to example No. 2). Also, various conditions of jet power are presented for special cruise performance as shown in the Table of Contents. Also included are two Air Nautical Miles Per Pound Of Fuel charts, for the conditions of one reciprocating engine and one jet engine on opposing sides with the reciprocating engine operating at a constant 1150 BHP and the jet engine operating at varying power levels.

In the event of a reciprocating engine failure, the engine and power setting combination for maximum range depends on altitude and gross weight. To facilitate the selection of the proper combination from the ten possibilities the following table presents the pertinent parameters in a quick reference format. Only the opposing jet condition is considered since this is the more likely occurrence.

**NOTE**

It should be noted that, except for the very lightest gross weights, the maximum range is attained at the higher altitude.

**ALTITUDE: 5,000 Feet**

<u>GROSS WEIGHT</u>	<u>NMPPF*</u>	<u>KIAS</u>	<u>POWER CONDITION</u>
35,000	0.159	98	No Jets, Figure A5-10
40,000	0.0805	107	Recip at 1150 BHP, Jet as required, Figure A5-30
45,000	0.068	111	Recip at 1150 BHP, Jet as Required, Figure A5-30
50,000	0.0597	117	Recip as Required, Jet at 1500 lbs/hr, Figure A5-18
55,000	0.049	119	Recip at 1150 BHP, Jet as Required, Figure A5-30

**ALTITUDE: 10,000 Feet**

<u>GROSS WEIGHT</u>	<u>NMPPF*</u>	<u>KIAS</u>	<u>POWER CONDITION</u>
35,000	0.115	98	Recip at 1150 BHP, Jet as Required, Figure A5-31
40,000	0.0836	107	Recip at 1150 BHP, Jet as Required, Figure A5-31

## ALTITUDE: 10,000 Feet (Cont)

<u>GROSS WEIGHT</u>	<u>NMPPF*</u>	<u>KIAS</u>	<u>POWER CONDITION</u>
45,000	0.0762	113	Recip as Required, Jet at 1250 lbs/hr, Figure A5-16
50,000	0.062	112	Recip as Required, Jet at 1500 lbs/hr, Figure A5-19
55,000	0.049	122	Recip as Required, Jet at 1500 lbs/hr, Figure A5-19

\*These values are for the tanks on configuration. If tanks are not installed, reduce the jet power slightly to attain the stated true airspeed. When this is done, the stated values of N. Mi/lb. will be slightly conservative.

**Use Of The Charts**

Generally, the charts are used to determine the relationship between speed, power, and fuel consumption. When maximum range is desired, oper-

ation at peak fuel economy is required, and the peak fuel economy for any particular gross weight can be read at the left, horizontally opposite the high point in the gross weight line. For long range, however, 99% Best Economy is considered a good compromise between more speed and slightly lower mileage per pound of fuel. For this reason the guide lines designating long range speeds cut across the gross weight lines slightly on the high speed side of the peak. When maximum endurance is desired, mileage per pound of fuel is unimportant, and the chart should be read along the maximum endurance line since it cuts across the gross weight lines at the minimum power settings. Aside from maximum range or endurance, the charts may also be used to determine the power required and fuel consumption for any desired speed - or to determine the speed obtainable with a given power setting. Regardless of the known factors in the problem, the chart is used in basically the same manner for various types of problems. First of all, a point must be plotted on the chart which satisfies all the known factors. From this point, then, speed is read vertically below on either of the two scales, fuel consumption is read on the scale at the left, and the power required is found by following the "power" guide lines upward to the right. Visual interpolation is required when reading gross weight and power.

## Note

The figures read from the charts are instantaneous values and cannot be expected to remain constant throughout the flight plan. In order to achieve the integrated performance shown in the Long Range Prediction Charts, the power required for long range (99% Best Economy) must be set in accordance with the Power Schedule Curves, Part 2, and should be reset throughout the mission following each 2000-pound reduction in gross weight.

## Example No. 1

**GIVEN:** cruise on two engines in a 25-knot tailwind with drop tanks ON, at a density altitude of 5000 feet and a gross weight of 56,388 pounds, jets inoperative.

**FIND:** fuel consumption, recommended speed and power for long range.

1. Select Figure A5-2, 5000 FEET DENSITY ALTITUDE, TWO-ENGINE OPERATION, DROP TANKS ON.
2. Sketch in a 56,388-pound gross weight line, a 25-knot tailwind line, and mark a point at the intersection of the two lines.
3. From this point, draw a horizontal line to the left and read 0.138 air nautical miles per pound of fuel on the left edge of the chart.
4. Drop a vertical line downward from the point and read a cruising speed of 132 knots (TAS) or 123 knots (IAS) on the airspeed scales at the bottom of the chart.
5. Again starting from the original point, follow the power guide lines upward to the right and read 1085 BHP.
6. Substituting in the following formula, convert the fuel consumption figure to ground nautical miles per pound:

$$\text{Ground N.Mi/Lb} = \text{Air N.Mi/Lb} \times \frac{\text{GS}}{\text{TAS}}$$

$$\text{Ground N.Mi/Lb} = 0.138 \times \frac{157}{132} = 0.164$$

## Example No. 2

**GIVEN:** cruise on two engines in a 25-knot tailwind with drop tanks ON, at a density altitude of 8000 feet, and a gross weight of 56,388 pounds, jets inoperative.

**FIND:** fuel consumption, recommended speed and power for 99% best economy when density altitude is other than charted.

1. Select Figure A5-3, 10,000 FEET DENSITY ALTITUDE, TWO-ENGINE OPERATION, DROP TANKS ON, and accomplish steps No. 2 through No. 5 of Example 1. Read 0.136 air nautical miles per pound of fuel, cruising speed of 140 knots (TAS) or 121 knots (IAS) and 1155 BHP.

2. Comparing the BHP, TAS, IAS and air nautical miles per pound values obtained from Figure A5-2 in Example No. 1 and the values from Figure A5-3 in this example we find the differences are 70 BHP (1155-1085), 8 knots TAS (140-132), -2 knots IAS (121-123) and -0.002 air nautical miles per pound (0.136-0.138).

3. Since 8000 feet occurs at a point 3/5 of the distance between 5000 feet and 10,000 feet, the following results are obtained.

$$\begin{aligned} 3/5 \text{ of } 70 \text{ BHP} &= 42 \text{ BHP} \\ 3/5 \text{ of } 8 \text{ knots (TAS)} &= 5 \text{ knots} \\ 3/5 \text{ of } -2 \text{ knots (IAS)} &= -1 \text{ knot} \\ 3/5 \text{ of } -0.002 \text{ ANMPP} &= -0.001 \text{ ANMPP} \end{aligned}$$

4. The differences determined in step No. 3 are applied to obtain the new values for the 8000 foot density altitude. The BHP becomes 1127 (1085 + 42); the TAS, 137 knots (132 + 5); the IAS, 122 knots (123 - 1); and the air nautical miles per pound of fuel, 0.137 (0.138 - 0.001).

5. Converting the above no wind data to the problem 25 knot tailwind yields the ground nautical mile per pound value of 0.162 GNMPP.

$$\text{Ground N.Mi/Lb} = 0.137 \times \frac{162}{137} = 0.162 \text{ GNMPP}$$

**LONG RANGE PREDICTION.**

The long range cruise performance of the aircraft is expressed in two forms: air distance travelled and cruising time available. Both forms are useful in the flight planning stage. Ten Long Range Prediction Charts are provided. These are classified for engine-out or two-engine operation with drop tanks ON. Various conditions of jet power are also presented for distance and time for special cruise problems as shown in the Table of Contents. If the distance or time available is the known factor in the problem, the charts may also be read in reverse to determine the amount of fuel required. Notice that the distance and time may not be read directly from the scale at the left but are represented by the difference between two readings which correspond to the initial and final cruising weights. Fuel quantity is read in a similar manner from the scale at the bottom when time or distance is known. It should be noted that the performance specified on the charts is obtained only when the power required for long range (99% Best Economy) is taken from the appropriate Air Nautical Miles Per Pound of Fuel chart and is set in accordance with the Power Schedule Curves, Part 2 (Refer to AIR NAUTICAL MILES PER POUND OF FUEL). Deviation from the recommended power setting will, in most cases, not be great enough to cause any significant change in fuel consumption. It should be noted, however, that in order to achieve the long range performance specified in these charts, the recommended power setting must be reset, throughout the flight, after each 2000-pound reduction in gross weight. The effect of density altitude is shown on each chart by density altitude lines ranging from sea level to 20,000 feet on the two-engine charts, and from sea level to 10,000 feet on the engine-out charts.

**Use Of The Charts.**

When the charts are used to determine the range capability of the aircraft at 99% Best Economy, the gross weight at start of cruise, the amount of fuel available for cruising, and the density altitude must be known. The gross weight at the start of cruise establishes one point on the distance scale. A second point on the distance scale is established by the final gross weight which is determined by subtracting the weight of fuel consumed during

cruise. The difference between the two points on the distance scale represents the range of the flight. This is expressed in air nautical miles and should be adjusted for any known wind conditions. In order to determine the fuel required to cover a known range, the chart must be read in the reverse manner. The gross weight at the end of cruise (basic operating weight plus cargo and reserve fuel) establishes the high point on the distance scale. From this point, the known range is counted downward on the distance scale to locate the second point. The second point establishes the gross weight at the start of cruise, and the difference in the two gross weights represents the fuel required for cruise. Time calculations are made in a similar manner, reading either from the gross weight scale to the time scale or vice-versa.

**Example.**

**GIVEN:** cruise 1000 miles on two engines at a density altitude of 10,000 feet, with drop tanks ON, at a gross weight of 59,200 pounds, jets inoperative.

**FIND:** fuel used in cruise at 99% Best Economy.

1. Select the chart for two-engine operation with drop tanks ON (Figure A5-7).
2. Enter the gross weight scale at the bottom of the chart with 59,200 pounds and read vertically upward to the 10,000-foot density altitude line.
3. From this point, read horizontally to the left and place a mark at the 1100-mile point on the distance scale.
4. Move up the air nautical miles scale 1000 miles to the 2100-mile point.
5. Reenter the chart from the 2100-mile point proceeding to the right until the 10,000-foot density altitude line is intersected.
6. Drop vertically from the point of intersection and read 51,850 pounds on the gross weight scale at the bottom of the chart.

7. Fuel consumed in the 1000-mile cruise is computed by subtracting the gross weight at the end of cruise from the gross weight at the start of cruise; in this case 7350 pounds.

#### **BRAKEHORSEPOWER REDUCTION DUE TO OPERATION WITH DROP TANKS OFF (Figure A5-33)**

When operating with drop tanks off the cruise performance can be determined by referring to the corresponding tanks-on cruise data and applying the BHP reduction from the Brakehorsepower Reduction Due To Operation With Drop Tanks Off, Figure A5-33. To determine the brakehorsepower required and the air nautical miles per pound value, the values are first determined from the appropriate tanks-on Air Nautical Miles Per Pound of Fuel Chart for the tanks-on configuration. With the brakehorsepower and indicated airspeed known for the tanks-on configuration, Figure A5-33 is then used to determine the incremental brakehorsepower reduction when the drop tanks are removed.

#### **Use Of The Charts.**

The Brakehorsepower Reduction Due To Operating With Drop Tanks Off chart, figure A5-33, is entered on the bottom right scale with the determined indicated airspeed. Proceed vertically upward to the appropriate curve for one or two reciprocating engines operating. From this intersection, move horizontally left until the vertical line representing the density altitude of the problem is reached. At this point read the reduction in brakehorsepower that may be made by the removal of the drop tanks. This value would then be used along with the appropriate tanks-on Air Nautical Miles Per Pound Of Fuel chart to determine the adjusted brakehorsepower and air nautical miles per pound of fuel values for the tanks-off configuration. This is demonstrated in the following example.

#### **Example.**

**GIVEN:** the conditions of example number 1 on page 3.

**FIND:** the brakehorsepower reduction and the increase in the air nautical miles per pound of fuel resulting from removal of the drop tanks.

1. Determine the problem indicated airspeed of 123 KIAS from figure A5-2.

2. Using figure A5-33 for this problem, enter the scale at the right bottom with the indicated airspeed of 123 knots and project vertically upward to intersect the two reciprocating engines operating curve.

3. From this intersection, move horizontally left until the vertical line representing a density altitude of 5000 feet is met.

4. Read the reduction in brakehorsepower of 27 due to the removal of the drop tanks.

5. Returning to figure A5-2, and starting from the previously established intersection of the 56,388 pound line and the 25 knot tailwind line, proceed vertically upward along a constant airspeed line, until intersecting a line corresponding to 1058 BHP (1085-27).

6. From this point, project a horizontal line to the left and read 0.141 air nautical miles per pound of fuel on the left edge of the chart.

#### **BREAK HORSEPOWER INCREASE DUE TO OPERATION WITH SPRAY BOOMS INSTALLED**

When operating with the spray boom installed (UC-123K), the cruise performance can be determined by referring to the corresponding C-123K cruise data and applying the BHP increase from the Brake Horsepower Increase Due To Operation With Spray Boom Installed chart, figure A5-34. To determine the brake horsepower required and the air nautical miles per pound value, the values are first determined from the appropriate C-123K Air Nautical Miles Per Pound Of Fuel chart. With brake horsepower and indicated airspeed known for the C-123K configuration, figure A5-34 is then used to determine the incremental brake horsepower increase when the spray booms are installed. Figure A5-34 is used in conjunction with the Air Nautical Miles Per Pound Of Fuel charts in the same manner as the Brake Horsepower Reduction Due To Operation With Drop Tanks Off chart discussed above.

MODEL: C-123K

**AIR NAUTICAL MILES PER POUND OF FUEL  
SEA LEVEL DENSITY ALTITUDE**

ENGINES: R2800-99W (2)

PROPELLERS: 43E60-607

**TWO-ENGINE OPERATION**

**LOW BLOWER**

**DROP TANKS ON**

**CONDITIONS:**

1. Landing gear and flaps - UP.
2. J85-GE-17 engines - Not operating.
3. Fuel flow based on flight test and increased by 5%.
4.  $\text{Ground N. Mi/Lb} = \text{Air N. Mi/Lb} \times \text{GS/TAS}$ .

DATA AS OF: 1 August 1968  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL.

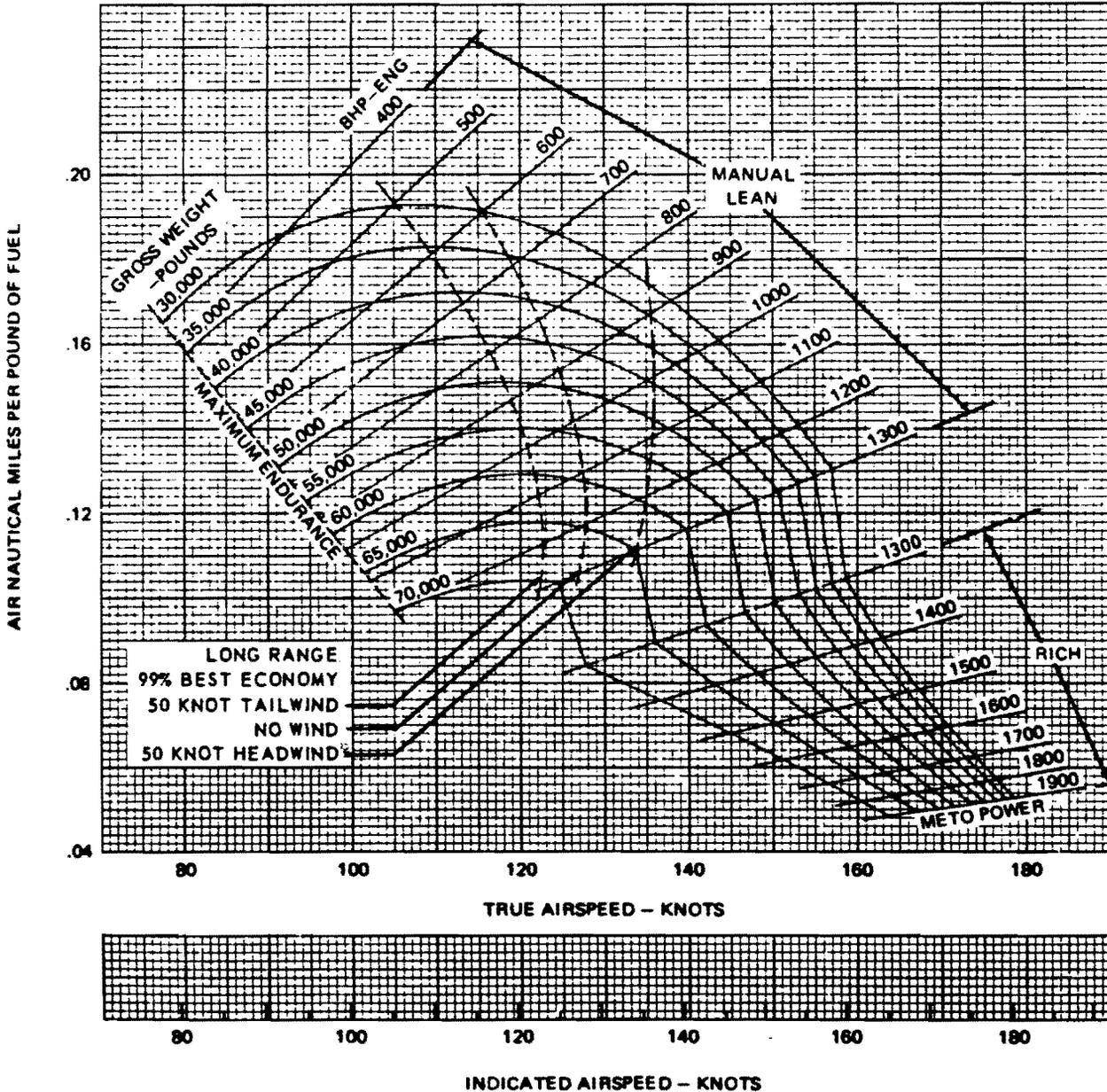


Figure A5-1.

MODEL: C-123K

CONDITIONS:

1. Landing gear and flaps - UP.
  2. J85-GE-17 engines - Not operating.
  3. Fuel flow based on flight test and increased by 5%.
- Ground N. Mi/LB = Air N. Mi/Lb x GS/TAS.

AIR NAUTICAL MILES PER POUND OF FUEL

5000 FEET DENSITY ALTITUDE

ENGINES: R2800-99W (2)

PROPELLERS: 43E60-607

TWO-ENGINE OPERATION

LOW BLOWER

DROP TANKS ON

DATA AS OF: 1 August 1968  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL.

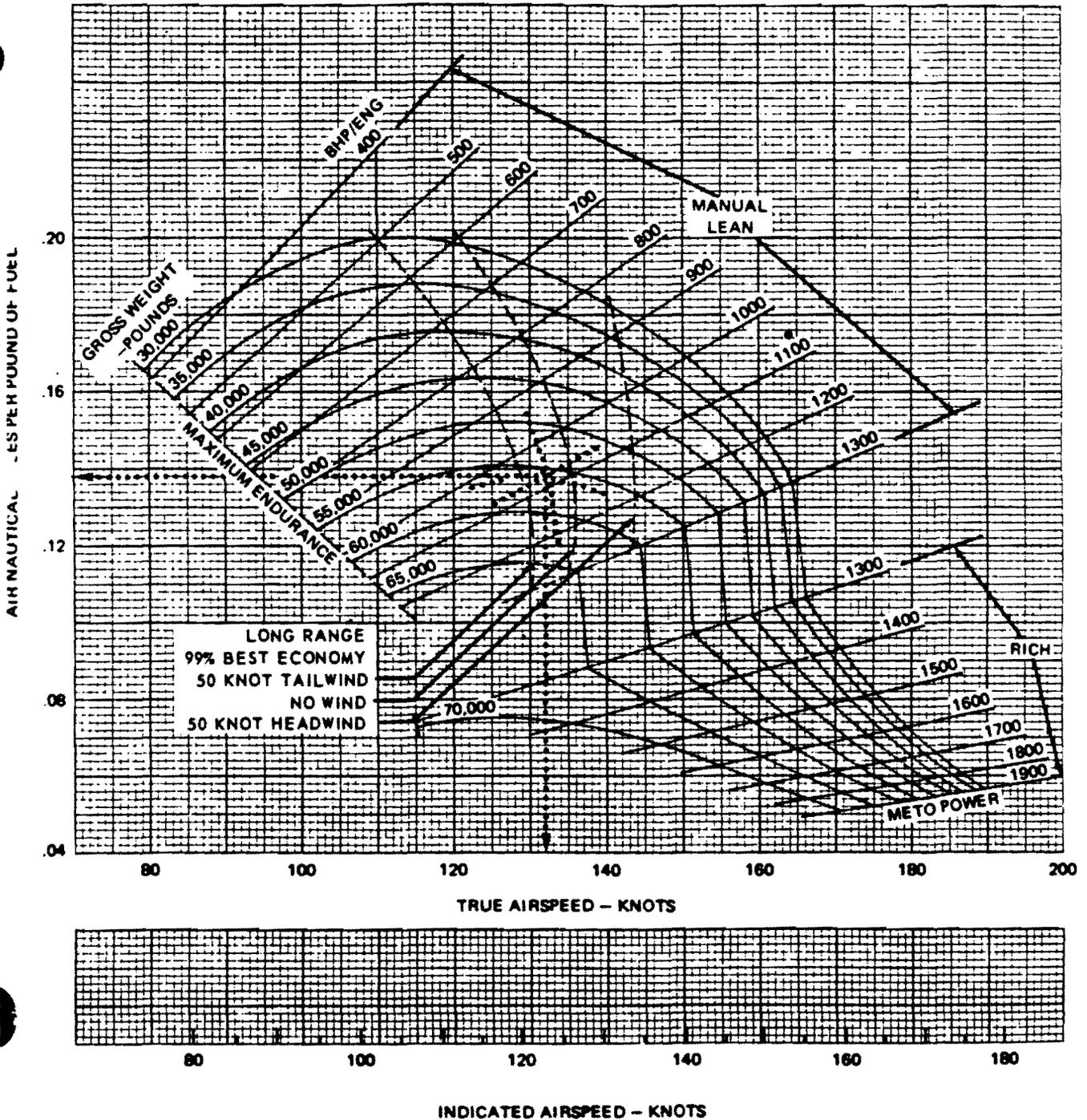


Figure A5-2.

CONDITIONS:

- 1. Landing gear and flaps - UP.
- 2. J85-GE-17 engines - Not operating.
- 3. Fuel flow based on flight test and increased by 5%.
- 4. Ground N. Mi/Lb = Air N. Mi/Lb x GS/TAS.

### AIR NAUTICAL MILES PER POUND OF FUEL

10,000 FEET DENSITY ALTITUDE

ENGINES: R2800-99W (2)

PROPELLERS: 43E60-607

TWO-ENGINE OPERATION

LOW BLOWER

DROP TANKS ON

DATA AS OF: 1 August 1968  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL.

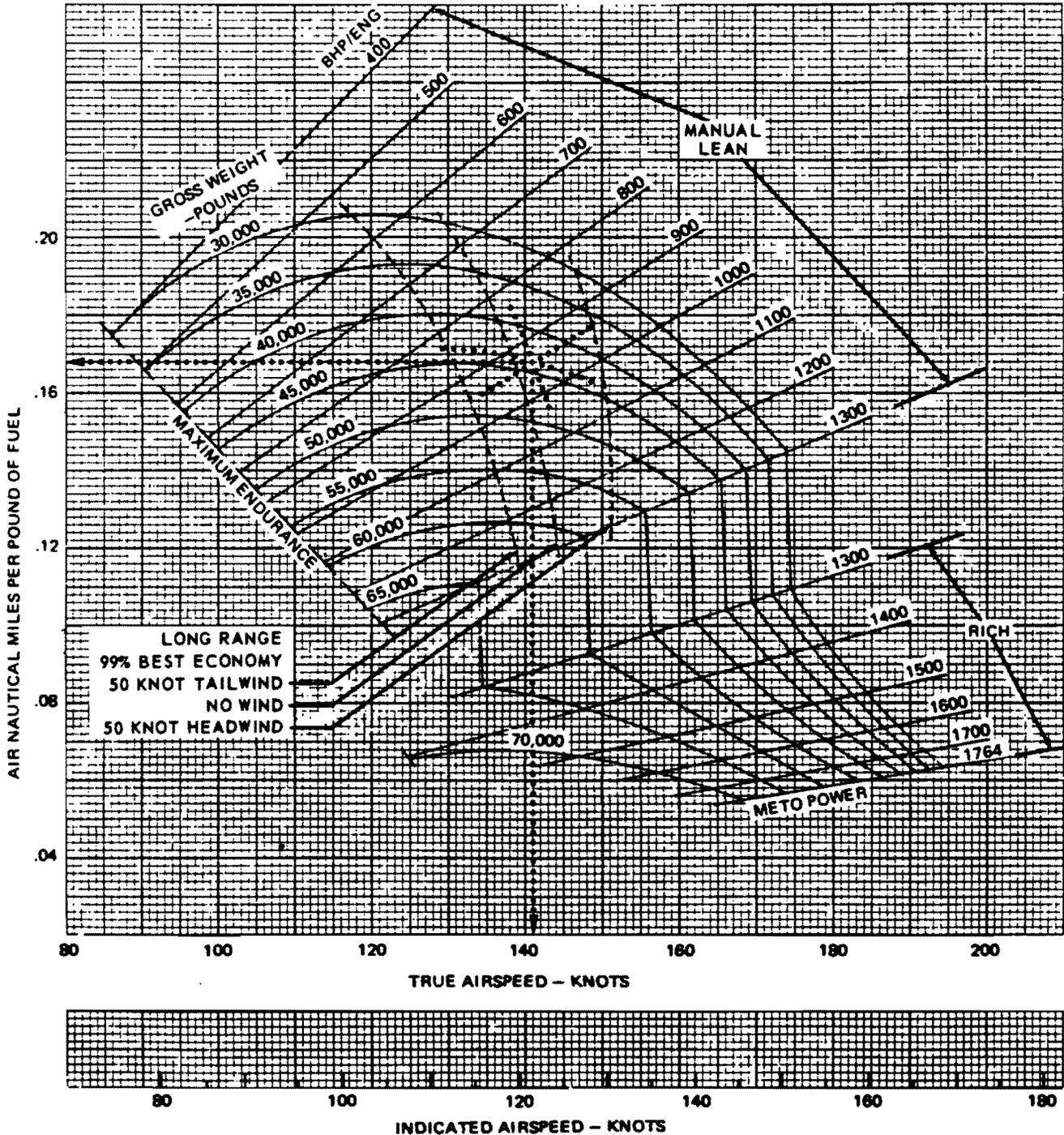


Figure A5-3.

MODEL: C-123K

**AIR NAUTICAL MILES PER POUND OF FUEL**  
**15,000 FEET DENSITY ALTITUDE**

**CONDITIONS:**

1. Landing gear and flaps - UP.
2. J85-GE-17 engines - Not operating.
3. Fuel flow based on flight test and increased by 5%.
4. Ground N. Mi/Lb = Air N. Mi/Lb x GS/TAS.

ENGINES: R2800-99W (2)  
 PROPELLERS: 43E60-607  
**TWO-ENGINE OPERATION**  
**LOW BLOWER**  
**DROP TANKS ON**

DATA AS OF: 1 August 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL.

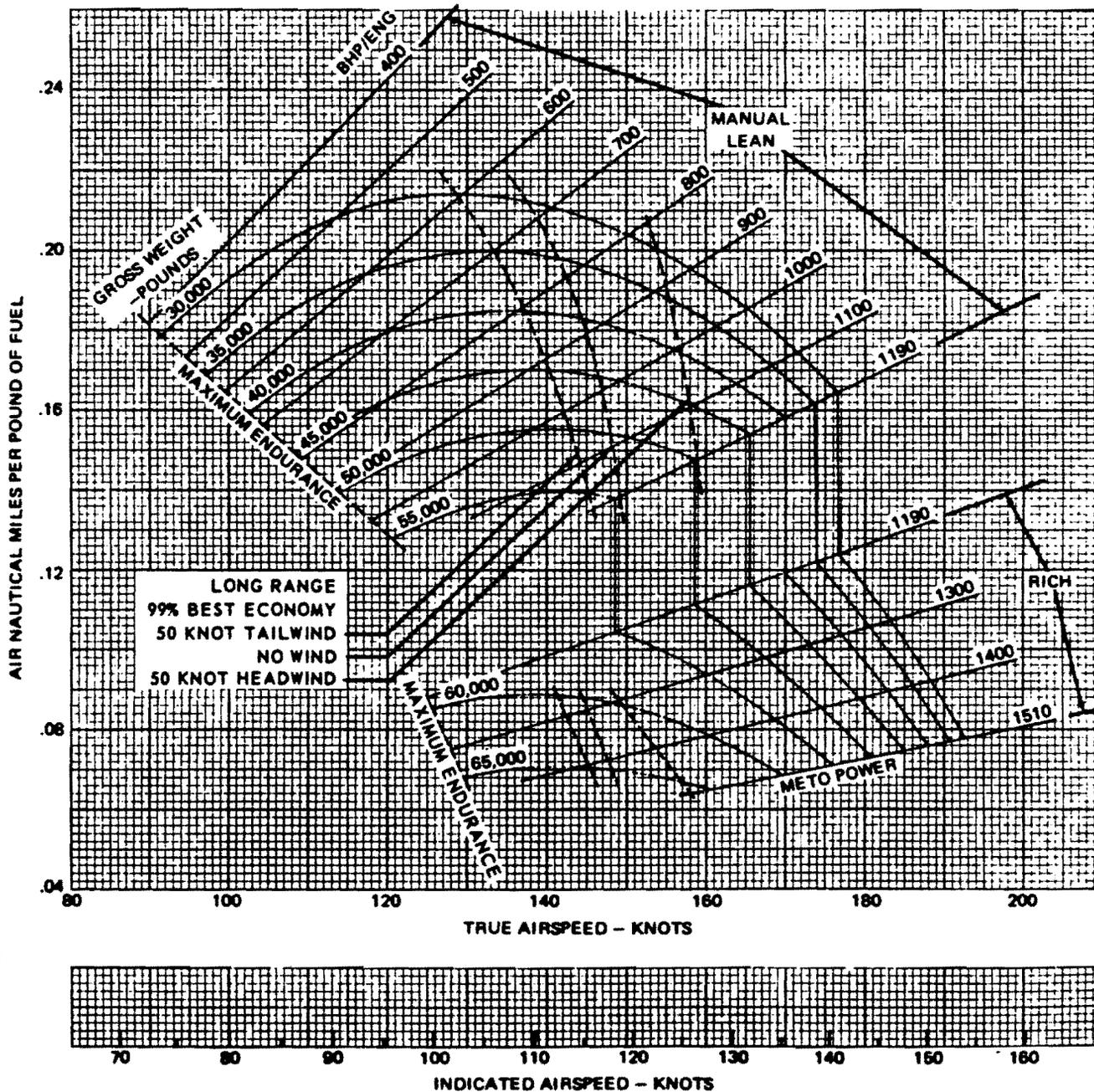


Figure A5-4.

MODEL: C-123K

**AIR NAUTICAL MILES PER POUND OF FUEL**  
**15,000 FEET DENSITY ALTITUDE**

CONDITIONS: -

1. Landing gear and flaps - UP.
2. J85-GE-17 engines - Not operating.
3. Fuel flow based on flight test and increased by 5%.
4. Ground N. Mi/Lb = Air N. Mi/Lb x GS/TAS.

ENGINES: R2800-99W (2)  
 PROPELLERS: 43E60-607  
**TWO-ENGINE OPERATION**  
**HIGH BLOWER**  
**DROP TANKS ON**

DATA AS OF: 1 August 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL.

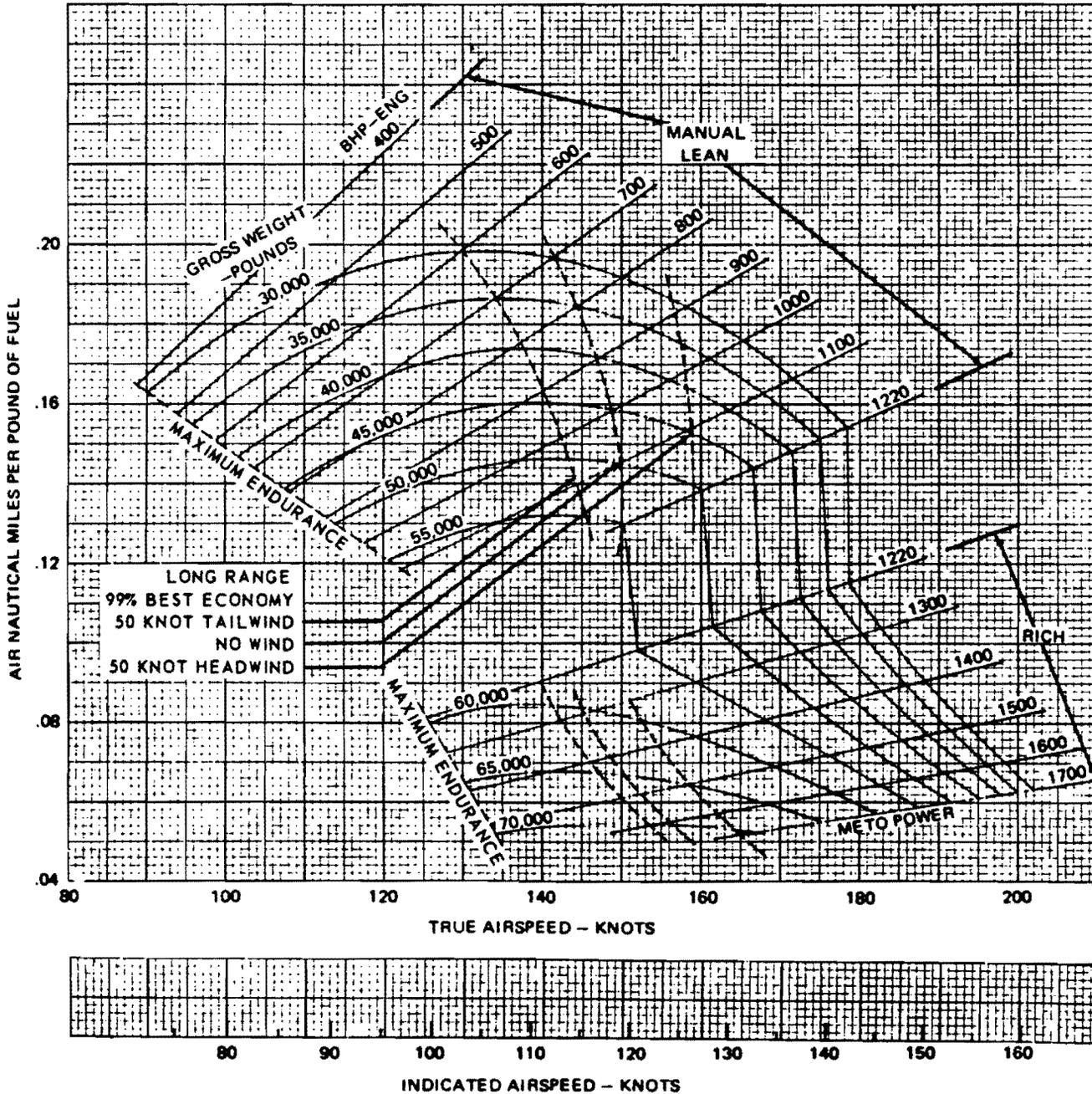


Figure A5-5.

MODEL: C-123K

**AIR NAUTICAL MILES PER POUND OF FUEL**  
**20,000 FEET DENSITY ALTITUDE**

ENGINES: R2900-99W (2)

PROPELLERS: 43E60-607

**TWO-ENGINE OPERATION**

**HIGH BLOWER**

**DROP TANKS ON**

**CONDITIONS:**

1. Landing gear and flaps - UP.
2. J85-GE-17 engines - Not operating.
3. Fuel flow based on flight test and increased by 5%.
4.  $\text{Ground N. Mi/Lb} = \text{Air N. Mi/Lb} \times \text{GS/TAS}$ .

DATA AS OF: 1 August 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL.

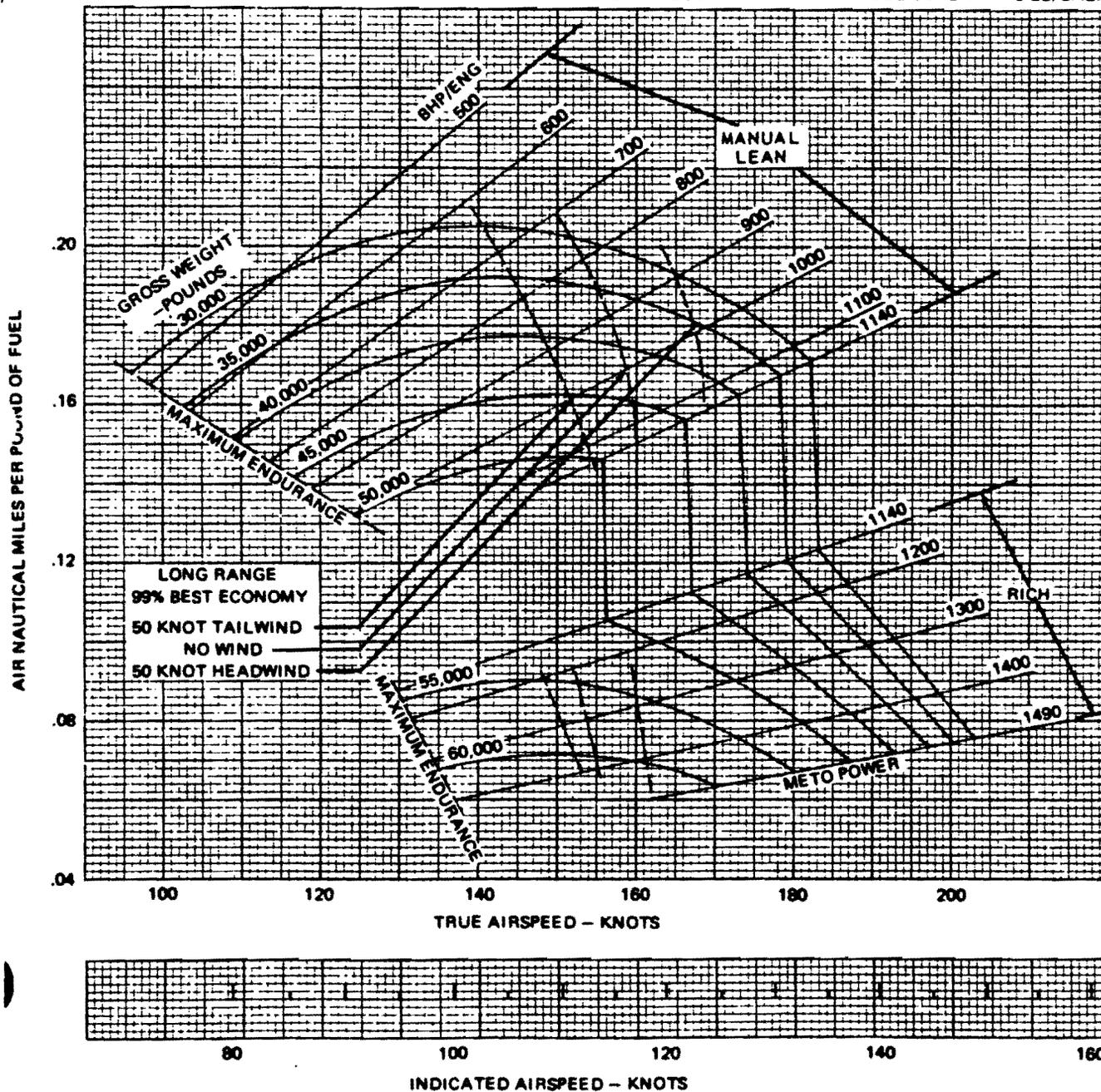


Figure A5-6.

### LONG RANGE PREDICTION – DISTANCE

ENGINES: R2800-99W (2)  
PROPELLERS: 43E60-607  
TWO-ENGINE OPERATION  
WITHOUT JET THRUST  
DROP TANKS ON

CONDITIONS:

1. R2800-99W engines – Power setting for long range (99% best economy).
2. J85-GE-17 engines not operating.
3. Landing gear and wing flaps – UP.

DATA AS OF: 1 August 1968  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL.

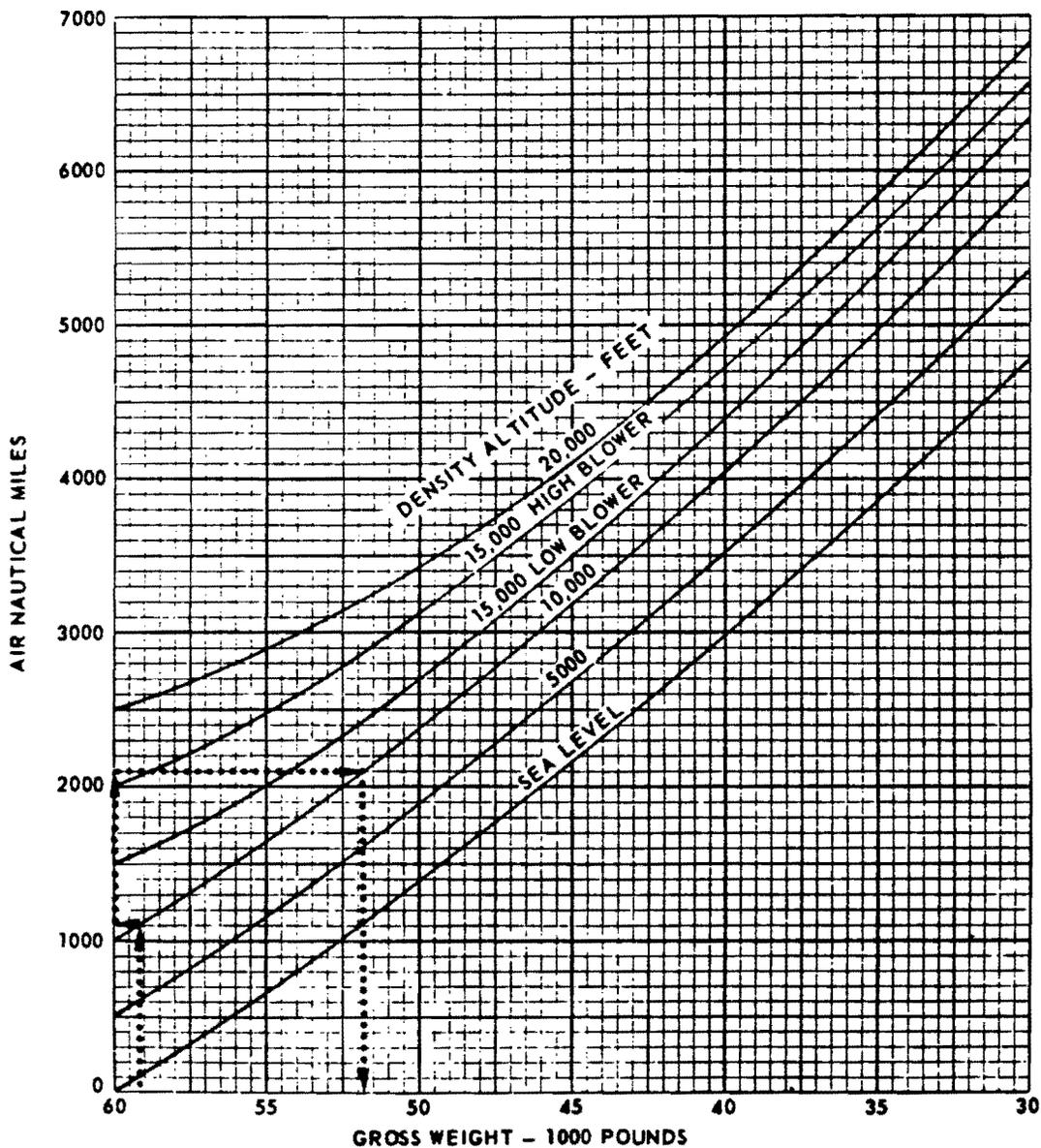


Figure A5-7.

MODEL: C-123K

**LONG RANGE PREDICTION - TIME**

ENGINES: R2800-99W (2)

PROPELLERS: 43E60-607

**TWO-ENGINE OPERATION**

**WITHOUT JET THRUST**

**DROP TANKS ON**

**CONDITIONS:**

1. R2800-99W engines - Power setting for long range (99% best economy).
2. J85-GE-17 engines not operating.
3. Landing gear and wing flaps - UP.

DATA AS OF: 1 August 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL.

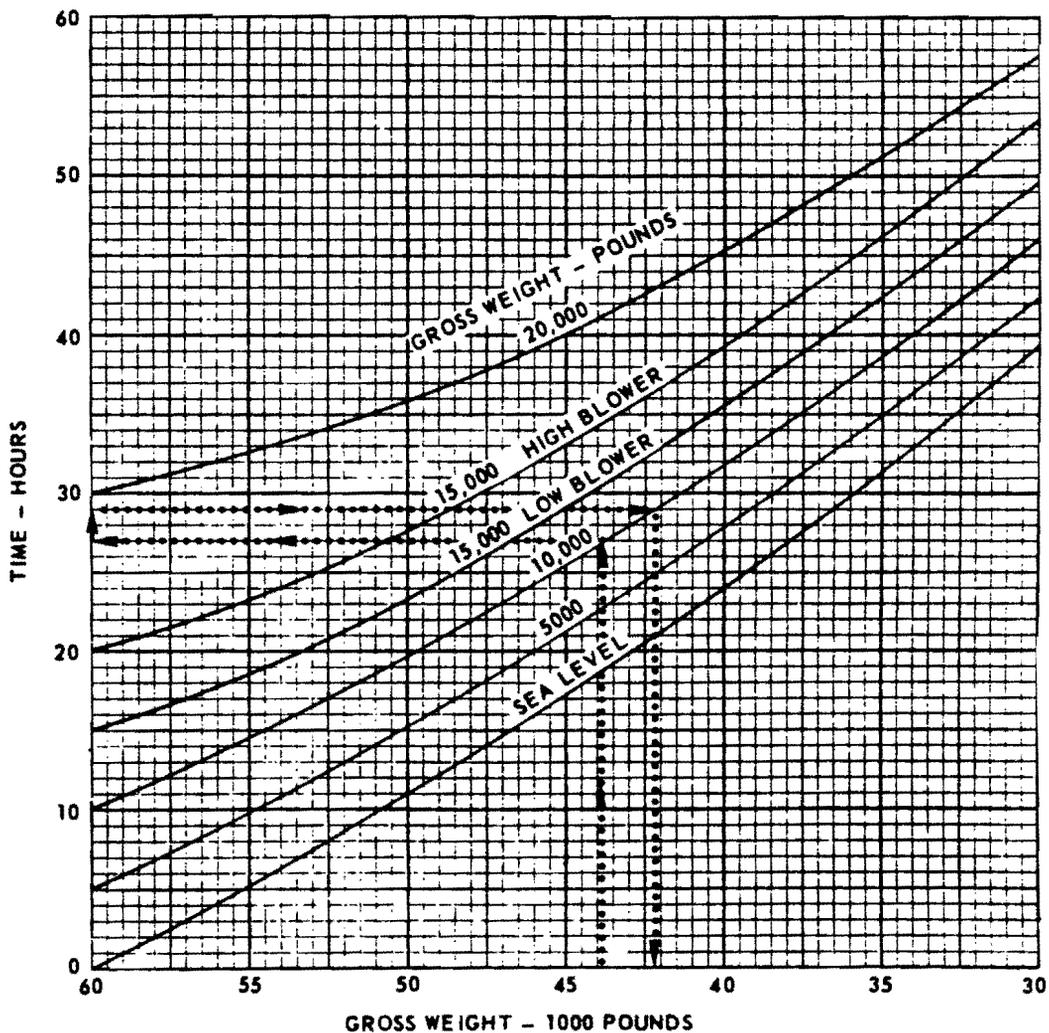


Figure A5-8.

**MODEL: C-123K**  
**AIR NAUTICAL MILES PER POUND OF FUEL**  
 SEA LEVEL DENSITY ALTITUDE  
 ENGINES: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 ENGINE - OUT OPERATION  
 LOW BLOWER  
 WITHOUT JET THRUST  
 DROP TANKS ON

DATA AS OF: AUGUST 1, 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

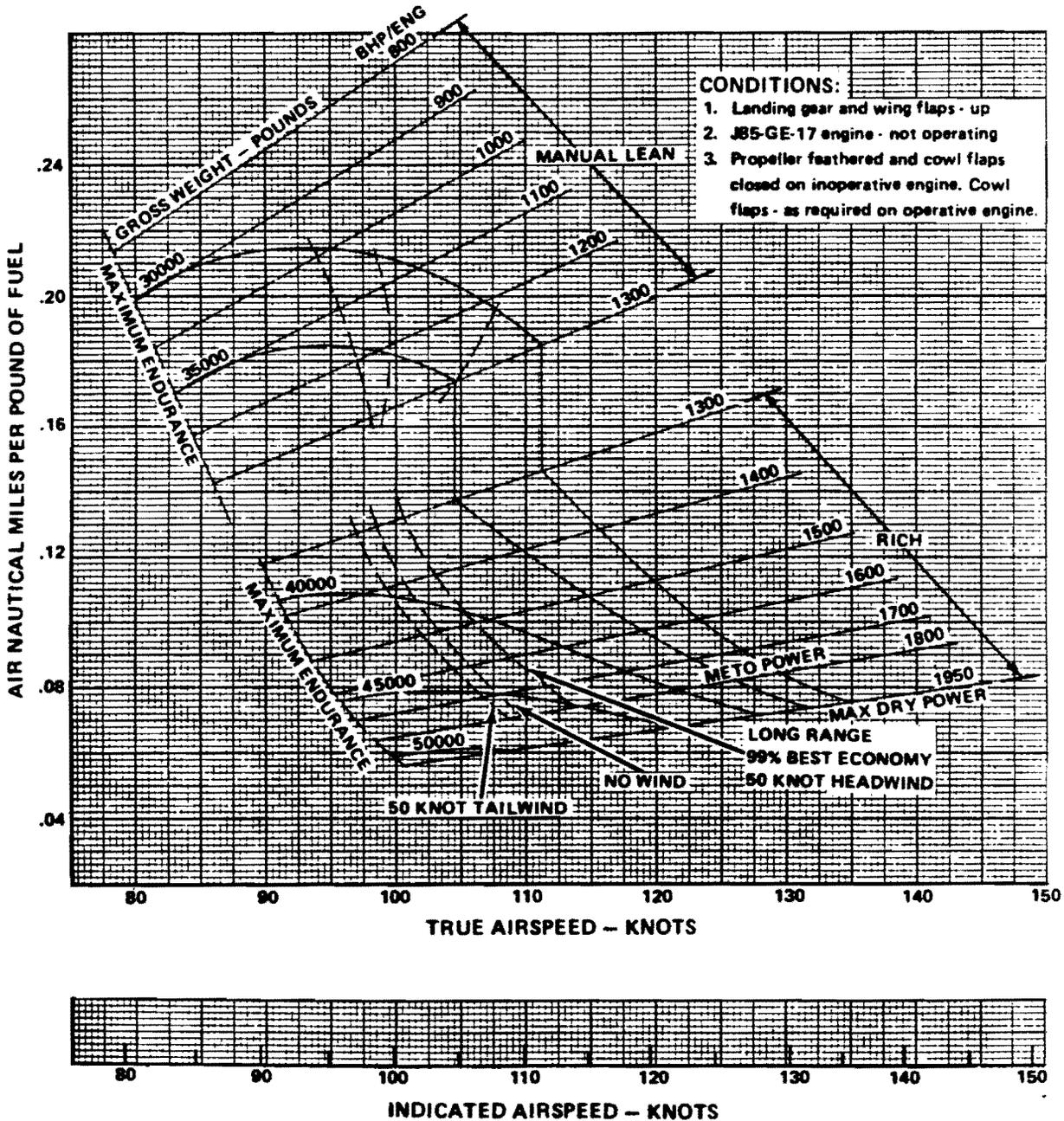


Figure A5-9.

MODEL: C-123K  
**AIR NAUTICAL MILES PER POUND OF FUEL**  
 5000 FEET DENSITY ALTITUDE  
 ENGINES: R2800-99W (1)  
 PROPELLERS: 43E60-607  
 ENGINE -OUT OPERATION  
 LOW BLOWER  
 WITHOUT JET THRUST  
 DROP TANKS ON

DATA AS OF: AUGUST 1, 1968  
 DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
 FUEL DENSITY: 6 LB/GAL

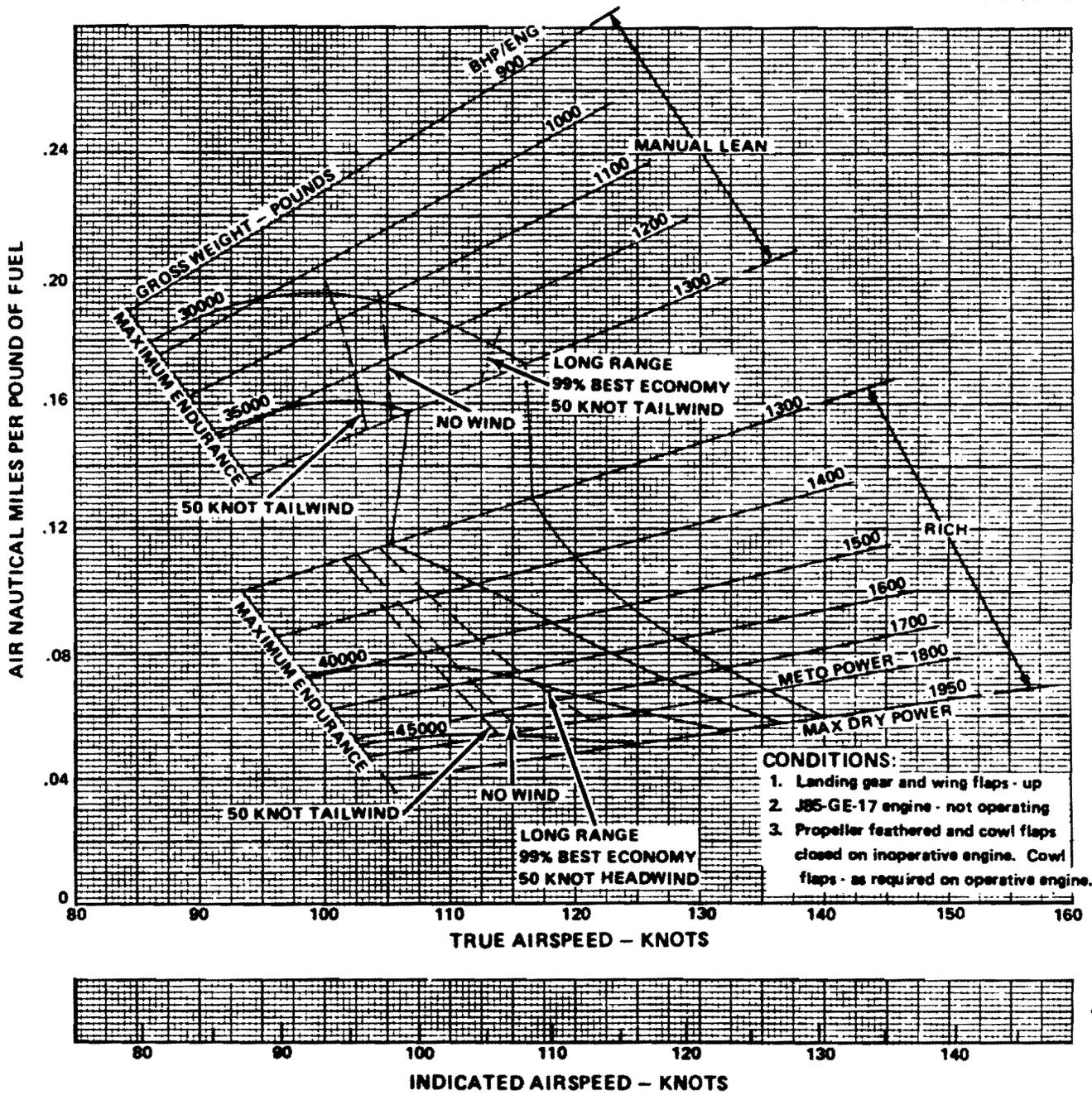


Figure A5-10.

MODEL: C-123K  
**LONG RANGE PREDICTION - TIME AND DISTANCE**

ENGINES: R2800-99W (1)  
PROPELLERS: 43E60-607  
ENGINE - OUT OPERATION  
LOW BLOWER  
WITHOUT JET THRUST  
DROP TANKS ON

DATA AS OF: AUGUST 1, 1968  
DATA BASIS: FLIGHT TEST

FUEL GRADE: 100/130  
FUEL DENSITY: 6 LB/GAL

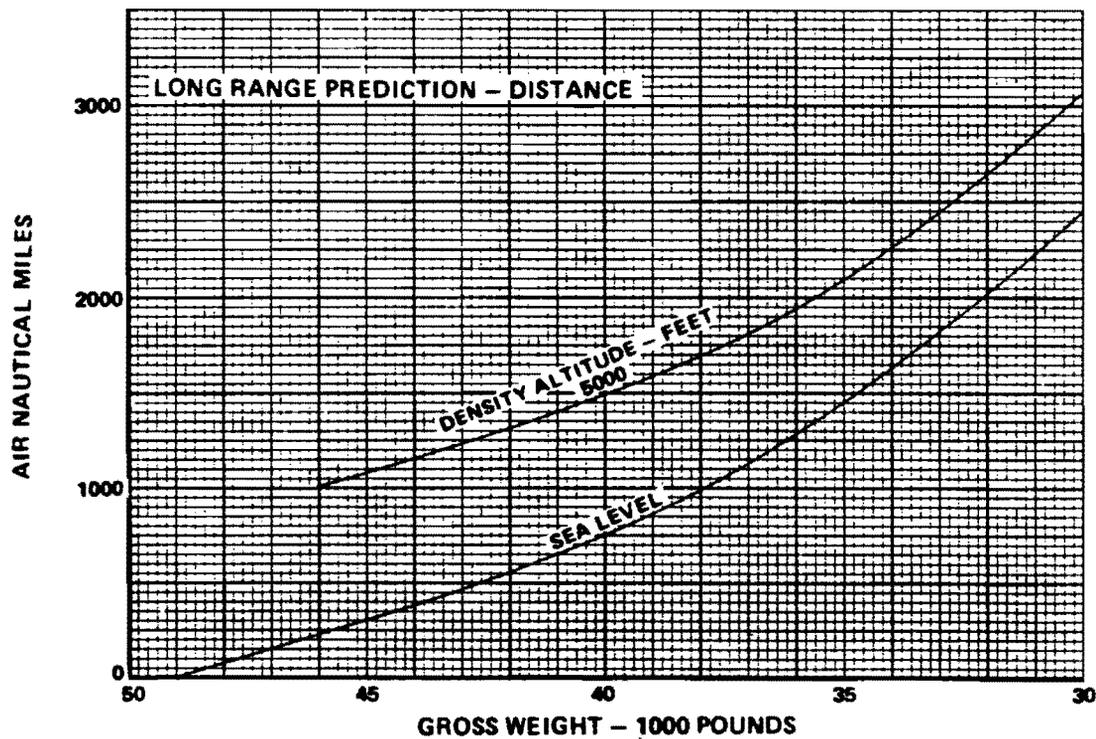
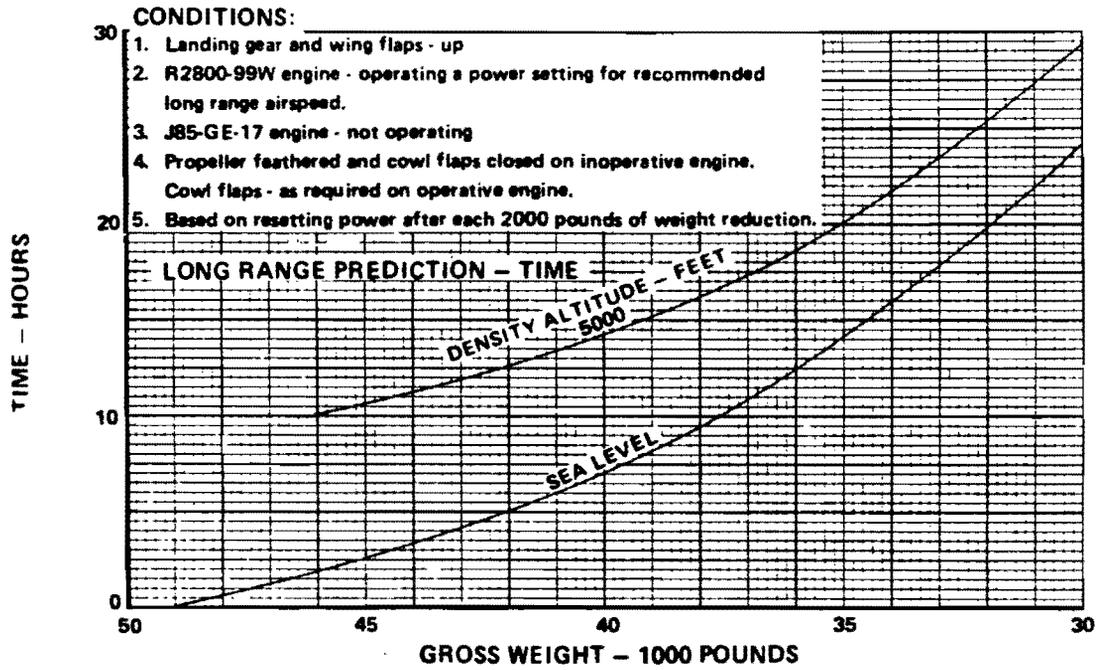


Figure A5-11.