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JAGUAR
AIRCRAFT
OPERATING DATA MANUAL

BY COMMAND OF THE DEFENCE COUNCIL

MINISTRY OF DEFENCE

SPONSORED FOR USE IN THE ROYAL AIR FORCE BY DFS(RAF)

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NOTES TO USERS
(Completely Revised)

1. The performance data scheduled in this Manual are subject to the Limitations and Restrictions on aircraft and engines given in the Aircrew Manual (ACM) (A.P.101B-3101 & 2-15A). The Manual is divided by Marker Cards into the following Sections:

Section 0	Preliminaries	Section 6	Climb
Section 1	General Information	Section 7	Subsonic Cruise Data
Section 2	Correction and Conversion Data	Section 8	Tactical/Combat Performance
Section 3	Drag Indices and Store Loading	Section 9	Descent
Section 4	Mass and Balance	Section 10	Landing
Section 5	Take-off	Section 11	Miscellaneous Data (Performance Data for Fly-in- Repairs).

2. The limitations quoted in the ACM are mandatory and shall invariably be denoted by the use of "must", "should" or "may" being used to introduce permissive or recommended clauses.

3. Amendment lists will be issued as necessary and each amendment list instruction sheet will state the main purpose of the amendment. New or amended matter of importance shall be identified:

a. Within individual pages by triangles positioned thus ▶--◀ outside the type area to show where the material has been changed or,

b. By a note "(Completely revised)" under the title of each prime unit when the Content has been so changed that triangle indicators would be inappropriate.

c. When amendment material between a pair of triangles runs onto a following page, both indicators shall appear on each page.

d. Amendment indicators shall not be repeated in subsequent re-issues.

IMPORTANT

Comments and suggestions by Service users should be forwarded to the Officer Commanding, Royal Air Force Handling Squadron, Boscombe Down, Salisbury, Wilts, SP4 0JF.

AMENDMENT RECORD SHEET

The details below should be completed by the person responsible for incorporating each amendment in the Operating Data Manual.

Amendment List. No.	Amendment List. Date	Section(s) Amended.	Entered by	Date A.L. Incorporated.
1	1 Oct 75	3, 5 & 8	M McGhee Cpl	13 Apr 76
2	2 Nov 75	0, 1 & 11	M McGhee Cpl	13 Apr 76
3	Nov 76	Cover.	M McGhee Cpl	4 Nov 77
4	May 77	5 & 11	M McGhee Cpl	9 Jun 77
5	6 JAN 78	1, 2, 3, 4, 7 & 9	MEO	6 JAN 78
6	FEB 78	1, 3, 5 & 7	J Freeman SAC	29 AUG 78
7	Oct 78	3.5.10.	D Page SAC	25/11/79
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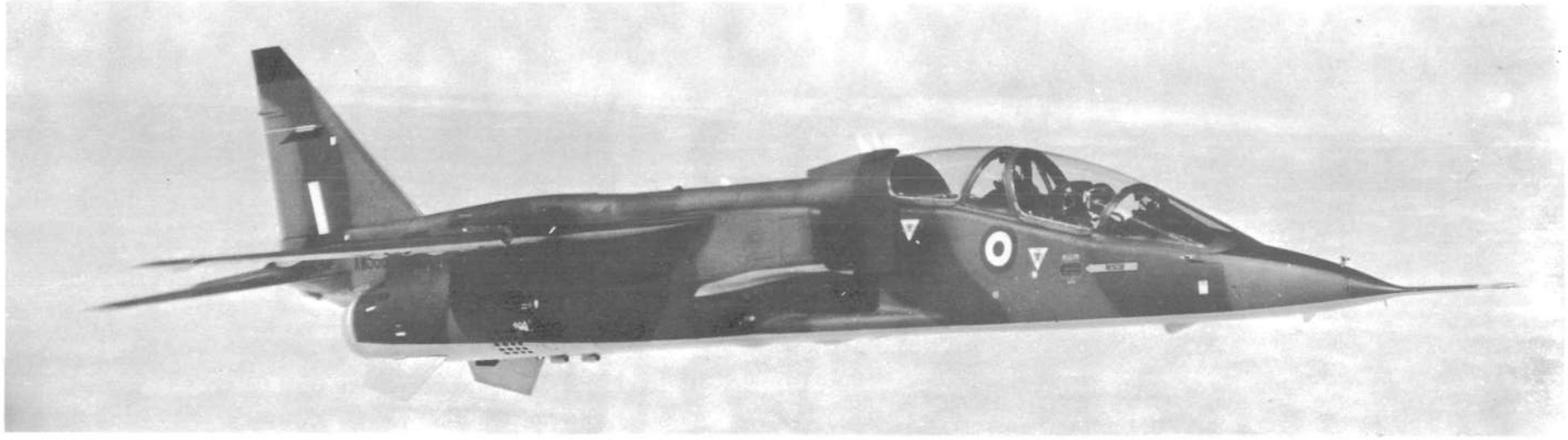
JAGUAR G.R. MK.1.



JAGUAR T. MK.2.

CONTENTS

SECTION 1

GENERAL INFORMATION

SECTION 1

GENERAL INFORMATION

CONTENTS

FIGURES

Aircraft Standard

1. This manual presents operating data for the Jaguar GR Mk 1 and T Mk 2 aircraft fitted with pitot engine air intakes. The assumed engine performance is that of an average new production engine with a twin-catalyst reheat system (Adour Mk 102/JP 103). Gross performance data are given in all cases but, as yet, insufficient flight test measurements have been accumulated to enable a tolerance covering variations between individual aircraft to be defined.

Data Base

2. The performance has been calculated using the following airframe and engine characteristics:

a. **Clean Aircraft Drag.** From flight test measurements on prototype aircraft fitted with wedge intakes and corrected for the pitot intake configuration on the basis of wind tunnel test results. The correction has been substantiated by some flight test measurements on aircraft fitted with pitot intakes.

b. **Engine Performance.** The performance of an average new production Adour Mk 102/JP 103 as defined by Rolls-Royce computer programme Q417.

▶ "Note: There is evidence that engine performance deteriorates during engine life. The best estimate of the magnitude of the deterioration is a 1% increase in fuel flow per 100 hours. This interval to be measured between any two modular engine changes". ◀

c. Intake Pressure Loss. From wind tunnel test results which have been well substantiated by flight test measurements.

d. Drag with Flaps and Landing Gear Extended. From flight test measurements.

e. Store Drags. Primarily from wind tunnel test results with some confirmation from flight test measurements.

Atmospheric Conditions

3. Unless otherwise stated all information is based upon the International Standard Atmosphere (ISA). To illustrate the effect of ambient temperature, performance data is also given in atmospheres having a constant temperature difference from ISA (eg ISA + 20°C). In all cases the term 'altitude' refers to pressure altitude.

Properties of Standard Atmosphere

4. Fig. 1.3 shows some properties of the International Standard Atmosphere (ISA) in the form of plots of ambient pressure, ambient temperature and speed of sound against altitude.

Determination of Wind Components

5. Fig. 1.4 enables the headwind and crosswind components to be determined given the reported wind strength and its direction relative to the runway. An example is shown on the figure.

Load Classification Groups

6. The Load Classification Groups (LCGs) of aircraft and aircraft pavements are determined by the Aircraft Pavements Branch, Directorate of Civil Engineering Development, Public Services Agency, Department of the Environment (DOE).

7. **Aircraft Load Classification.** The loading characteristics of an aircraft on a pavement are calculated from the all up weight, tyre pressure, and wheel arrangement of the aircraft. To simplify the relationship between aircraft and pavement classification each aircraft type is allocated a Load Classification Group or Groups, according to permissible variation in all up weights. LCGs vary from I for the heaviest aircraft, to VII for the lightest aircraft.

8. **Pavement Load Classification.** The bearing strength of a pavement is calculated from the total thickness of pavement construction and the bearing capacity of the sub-grade and is allocated an LCG from I for the highest bearing strength, to VII for bearing strengths suitable only for light aircraft. Pavement LCGs are to be published in:

a. En-route Supplements.

b. The Flight Information Publication "Planning", Section 5

9. **Application of LCGs.** It is the responsibility of the officer authorising a flight and the captain of an aircraft to ensure that the aircraft LCG is compatible with the pavement LCGs of the airfields of intended operation. The following regulations are to apply to the operation of military aircraft:

a. Aircraft of a given LCG may operate without restriction on pavements of the same or a higher rated LCG (eg Aircraft of LCG IV may be operated continuously on pavements of LCG I, II, III, or IV).

b. Aircraft of a given LCG may operate only on an occasional basis on pavements with an LCG rated one group lower than that of the aircraft (eg Group IV aircraft may be operated only occasionally on pavements of LCG V). Such movements are to be made on a "prior permission only" basis.

c. Pavements rated two or more groups lower than that of a given aircraft may be operated on by that aircraft only in an emergency. (eg Group IV aircraft may be operated on pavements of LCG VI and VII only in an emergency).

10. Figures 1.5 and 1.6 provide LCG, LCN or ESWL data in tabular form for the scheduled tyre pressure. In addition when operators require to know the boundaries where LCG, LCN or ESWL changes with variation in AUW, the curve on the lower part of Figs. 1.5 and 1.6 provides this information.

11. **Units**

In general the information presented in this manual is in SI units, but the following exceptions are made to conform to user requirements:

a. Altitude and runway distances are in feet.

b. Range is in nautical miles.

c. Speed is in knots or Mach number.

DEFINITIONS OF TERMS

12. **Airfield Geometry**

Runway Threshold		The beginning of that portion of the runway usable for landing. (ICAO). (For runways with sterile portions, the white bar beyond the sterile markings should be taken as the threshold)
Accelerate – Stop – Distance Available (BCAR term is: Emergency Distance Available	ASDA EMDA	The length of the Take-Off Run Available plus the length of stopway available (if stopway is provided) (ICAO).
Stopway		A defined rectangular area on the ground at the end of a runway in the direction of take-off designated and prepared by the operating authority as a suitable area in which an aircraft can be stopped in the case of an interrupted take-off. (ICAO). (At British military airfields stopways are classified as capable of supporting aircraft of 50000 lb, 100000 lb or 200000 lb AUW. If the stopway is incapable of supporting aircraft of 50000 lb no stopway is quoted).

Slope	Slope is the tangent of the angle of rise or fall of an airfield surface or obstacle profile expressed as a percentage (BCAR).
Performance	
Height	The vertical distance of a level, a point, or an object considered as a point, measured from a specified datum. (ICAO). (For scheduled performance purposes, the point referred to is the lowest part of the aeroplane in an unbanked attitude with the landing gear extended and the relevant datum).
Screen Height	The height of an imaginary screen which the aeroplane would just clear when taking off or landing in an unbanked attitude with the landing gear extended. (BCAR). This is 50ft for aircraft which comply with BCARs 1959, and 35ft for aircraft which comply with BCARs 1966. Military aircraft, except those scheduled to BCARs 1966, have a screen height of 50ft.
Gradient NB. A descent is expressed as a negative gradient	Gradient is the tangent of the angle of climb of an aircraft expressed as a percentage. (BCAR).
Gross Performance	Gross performance is such that the performance of any aircraft of a type, measured at any time, is at least as likely to exceed the gross performance as not. (BCAR). NOTE: In order to obtain the gross performance it is usually necessary to adjust the measured performance to allow for such things as engine fleet mean performance.
Wet Runway	Where the entire surface is wet, but there are no appreciable areas of continuous standing water.

Speeds

Indicated Air Speed	IAS	The indicated air speed is the reading obtained on a pitot-static air speed indicator having no instrument error. If the calibration error of the particular instrument is not known, the actual reading may be taken to be equal to IAS because the tolerances permitted on the instrument are small.
Calibrated Air Speed (Rectified Air Speed)	CAS RAS	The calibrated air speed is equal to the airspeed indicator reading corrected for position and instrument error. (As a result of the sea level adiabatic compressible flow correction to the airspeed instrument dial, CAS is equal to the true airspeed TAS in Standard Atmosphere at sea level).
Equivalent Air Speed	EAS	The equivalent air speed is the IAS corrected for pitot-static position errors and compressibility errors. The product of TAS and $\sqrt{\sigma}$ (BS185).
True Air Speed	TAS	The true air speed of the aircraft relative to the undisturbed air. It can be obtained by dividing the EAS value by the square root of relative air density. (BCAR). $\frac{(EAS)}{\sqrt{\sigma}}$
Stop-Speed	V_{stop}	The highest speed (IAS) during take-off from which an aircraft can be safely stopped within the EMDA using all normal methods of retardation after a failure of a critical power unit.
Rotation Speed	V_R	A speed (IAS) used in the determination of take-off performance at which the pilot initiates a change in the attitude of the aircraft with the intention of leaving the ground. (BCAR).
V safe (safe airborne speed)		The minimum speed at which a 2% gradient of climb can be maintained on an engine with the landing gear retracted.

Target Threshold Speed	V_{AT}	A speed at which the pilot aims to cross the runway threshold when landing. The speeds may be related to the all power units operating condition (V_{ATO}), the power unit inoperative conditions (V_{AT1}) and the 2 power units inoperative condition (V_{AT2}) (BCAR).
Maximum Braking Speed	MBS	A maximum braking speed (IAS) from which maximum continuous braking may be applied and the aircraft brought to rest without damage to the brakes.
Emergency Maximum Braking Speed	EMBS	The maximum speed (IAS) from which maximum continuous braking may be applied and the aircraft brought to rest but with the possibility of damage to the brakes.
Maximum Braking Parachute Selection Speed		The maximum speed at which the braking parachute may be selected consistent with no damage being sustained.
Tyre Speed Limit		A speed (IAS) which must not be exceeded on the ground or tyre damage due to heating and distortion will occur.

Miscellaneous

International Standard Atmosphere	ISA	An atmosphere in which:– a. The air is a perfect dry gas. b. The temperature at sea level is 15°C (59°F). c. The pressure at sea level is 1013.25 millibars, or 29.92 in Hg. d. The temperature gradient to the altitude at which the temperature becomes –56.5°C (–69. 7°F). is 1.98°C per 1,000 ft (BCAR).
Pressure Altitude		An Atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere. (ICAO). (Commonly used to indicate flight levels, ie the indicated height of an aircraft measured from an atmospheric pressure level of 1013.2mb).
Indicated Pressure Altitude		The reading of the ISA calibrated altimeter corrected for instrument and lag errors.
Pressure Error Correction	PEC	The difference between IAS and CAS/RAS.

PRINCIPAL DIMENSIONS – JAGUAR GR. Mk.1

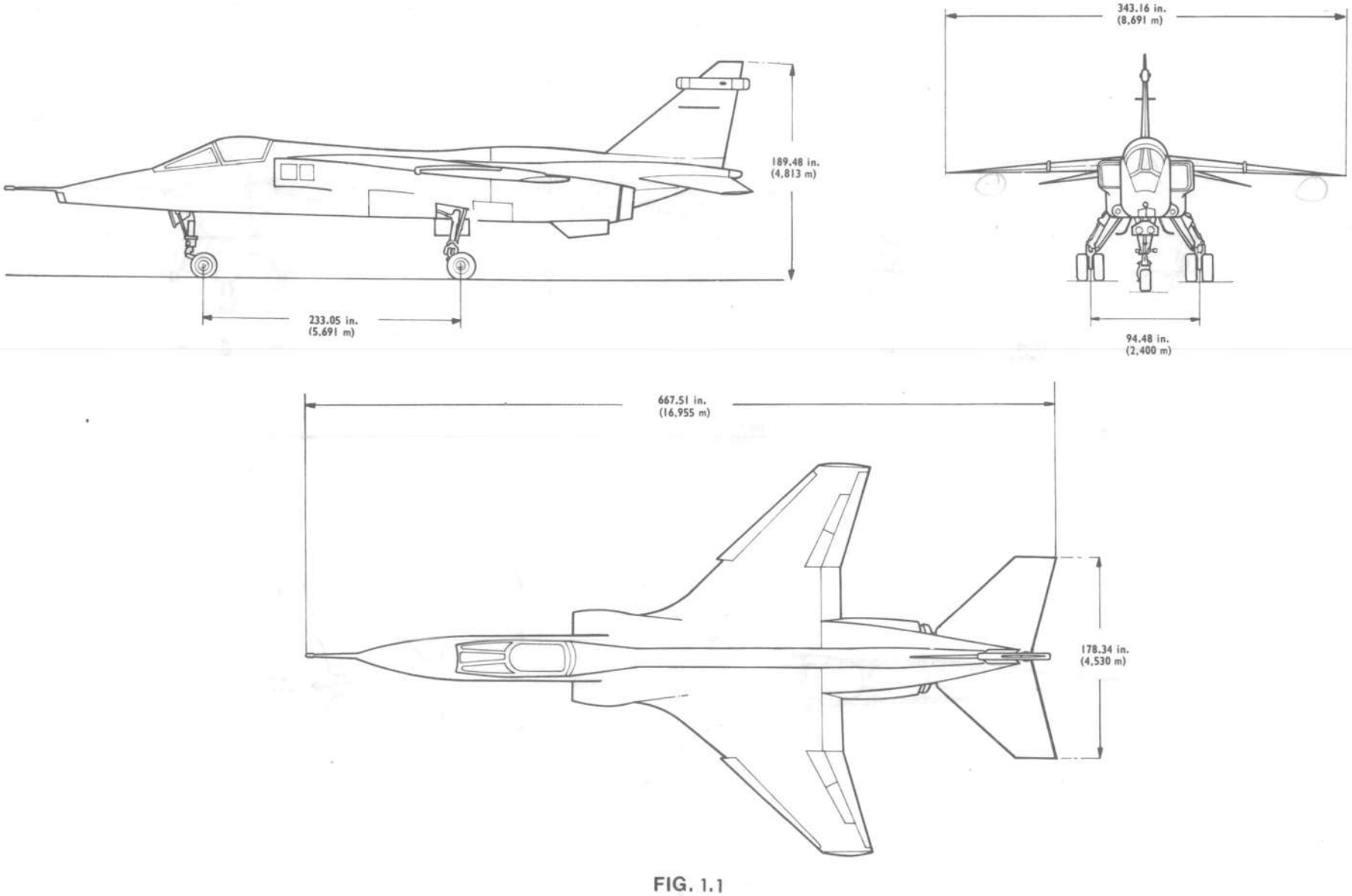


FIG. 1.1

PRINCIPAL DIMENSIONS – JAGUAR T. Mk. 2

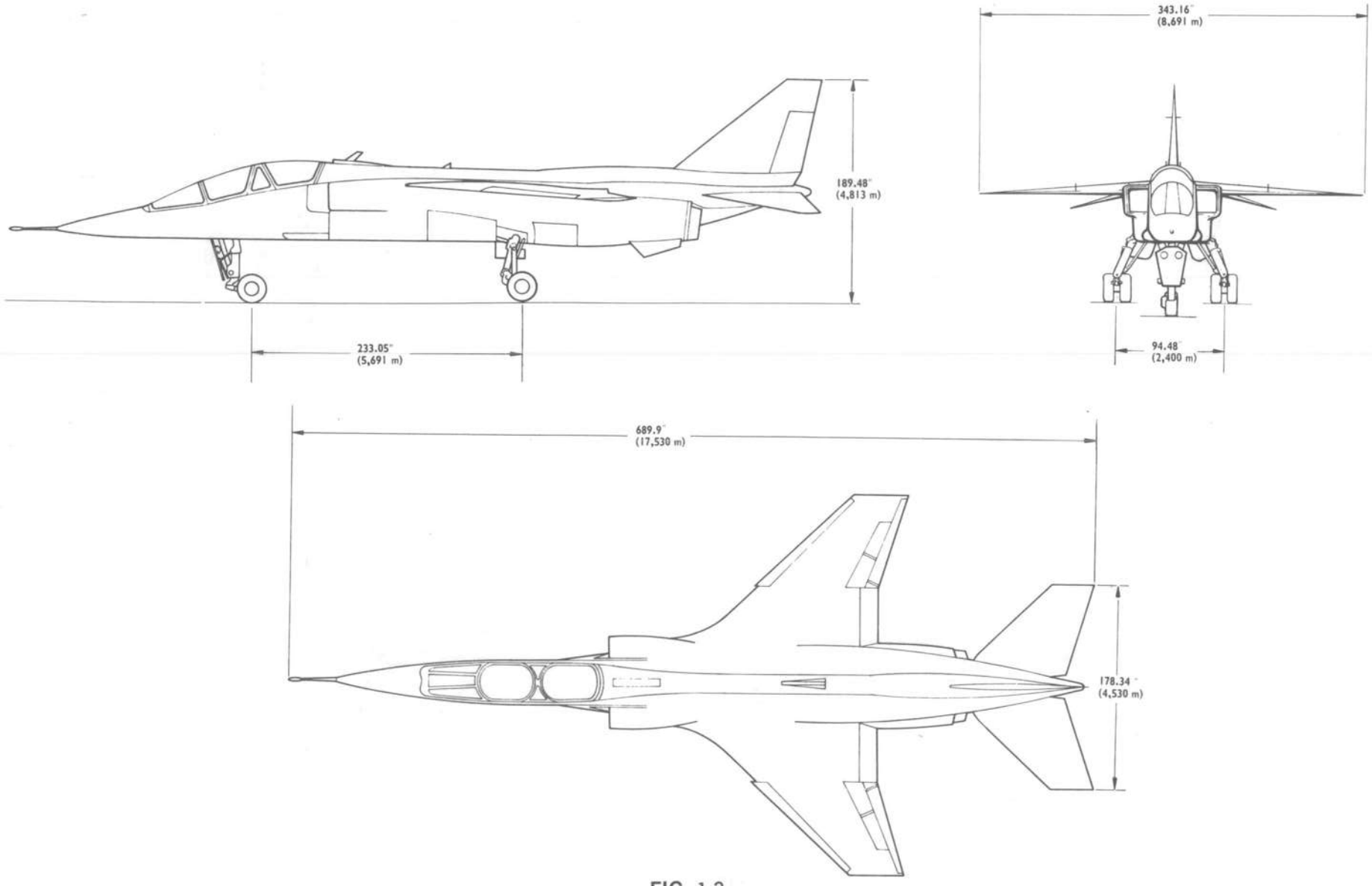


FIG. 1.2

PROPERTIES OF THE STANDARD ATMOSPHERE

JAGUAR GR. MK.1 T.M2

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

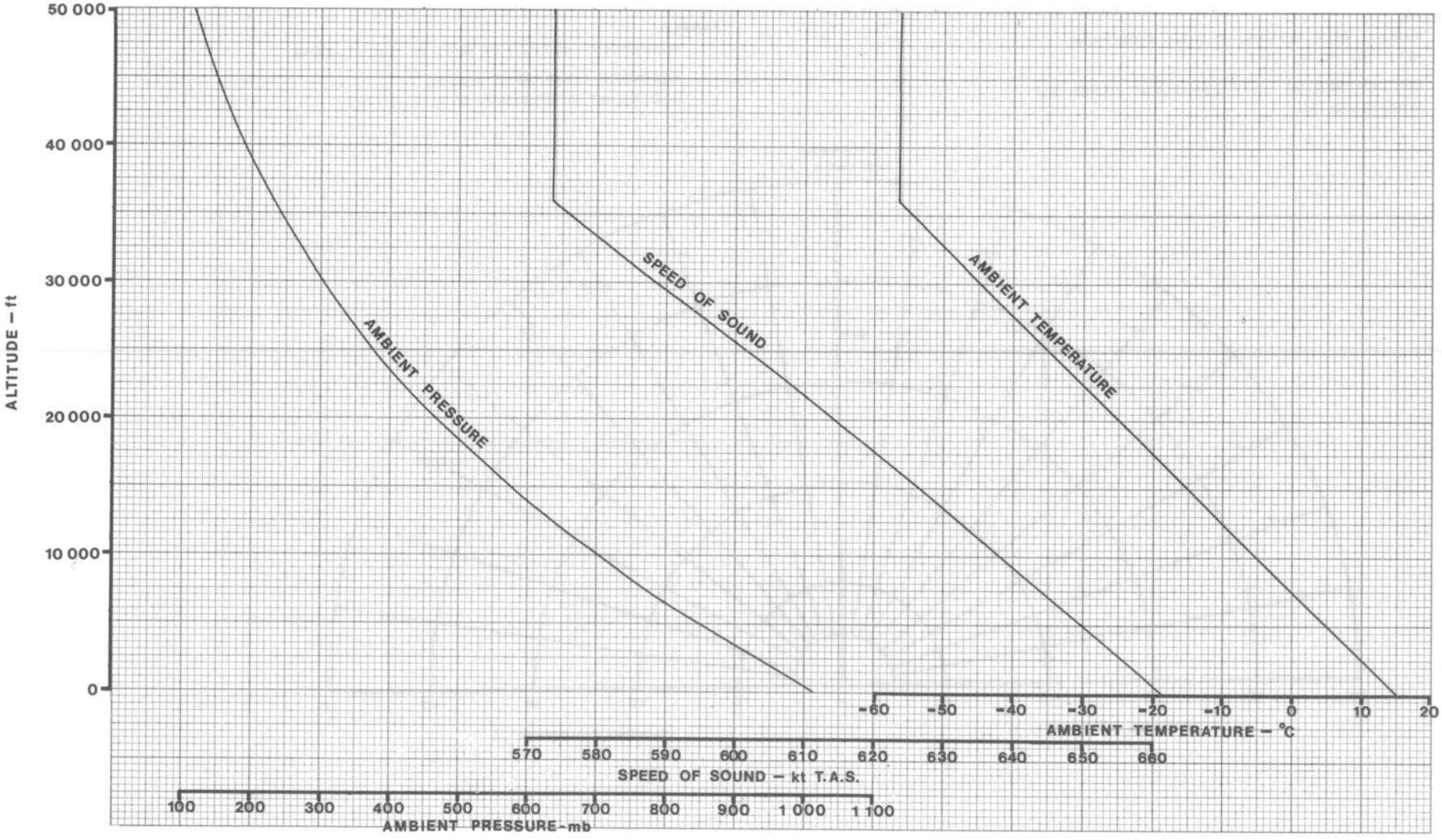


FIG. 1.3.

DETERMINATION OF WIND COMPONENT

JAGUAR GR. Mk.1 T. Mk. 2

DATE OF ISSUE: MAY 1975

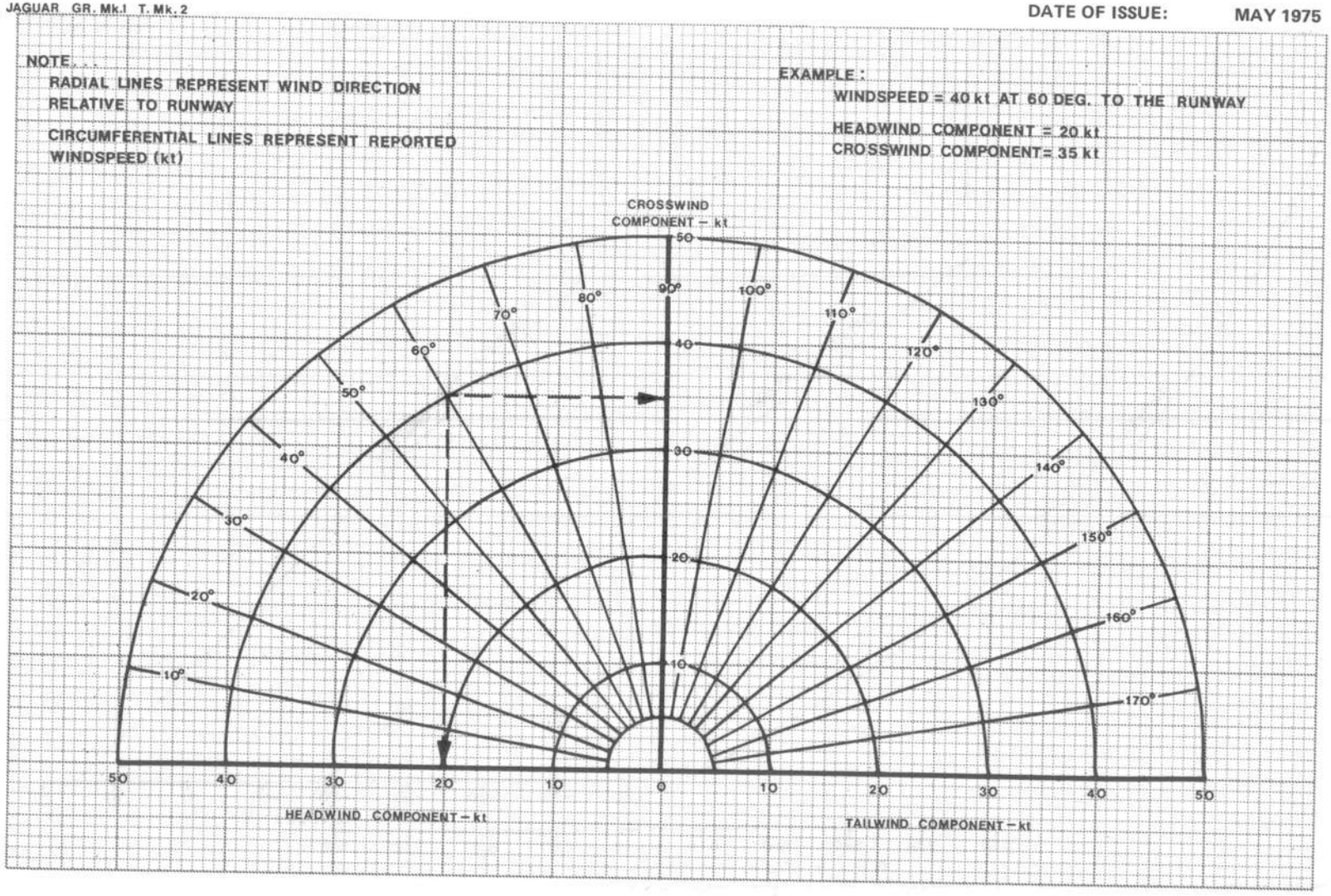


FIG. 1.4

AIRCRAFT LOAD CLASSIFICATION

HIGH TYRE PRESSURE

JAGUAR GR. MK.1. T.MK. 2

Load Condition		Unladen	Max Landing	Max Take-Off	Ramp / Development
Mass (kg)		7 362	13 600	15 130	16 000
Tyre Pressure (lbf/in^2)		102	102	102	102
Classification	ESWL (lbf)	5811	11 339	12 762	13 580
	LCG	VIII	VI	VI	VI
	LCN	7	13	14	15

ESWL – Equivalent Single Wheel Load
LCG – Load Classification Group
LCN – Load Classification Number
lbf/in^2 – Pound force per square inch

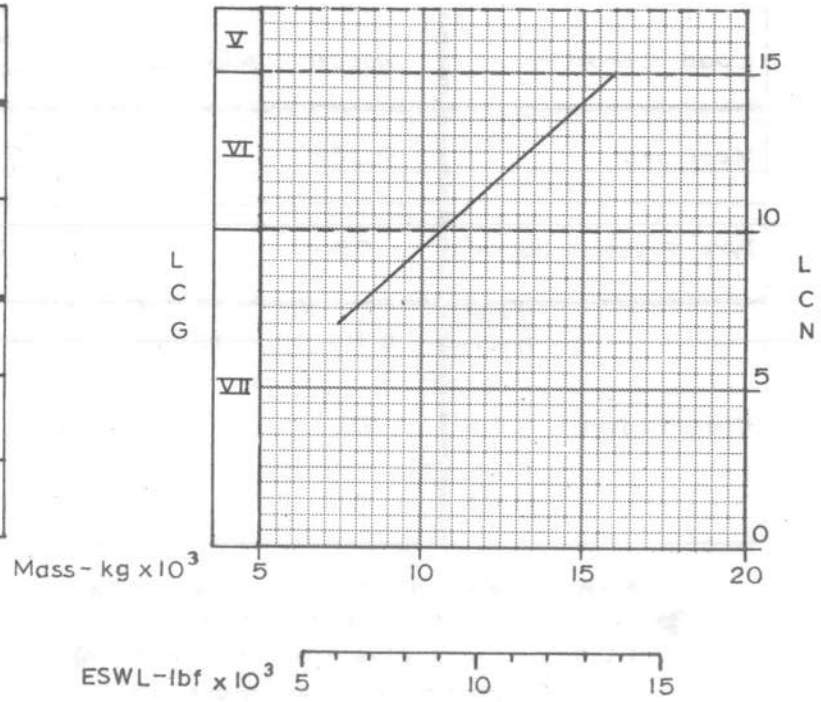


FIG. 1·5

AIRCRAFT LOAD CLASSIFICATION

LOW TYRE PRESSURE

JAGUAR GR. MK.I. T. MK.2

Load Condition		Unladen	Max Landing	Max Take-Off	Ramp / Development
Mass (kg)		7 362	13 600	15 130	16 000
Tyre Pressure (lbf/in^2)		58	58	58	58
Classification	ESWL (lbf)	6 119	12 162	13 758	14 690
	LCG	VII	VI	VI	VI
	LCN	6	11	12	13

ESWL – Equivalent Single Wheel Load
LCG – Load Classification Group
LCN – Load Classification Number
lbf/in^2 – Pound force per square inch

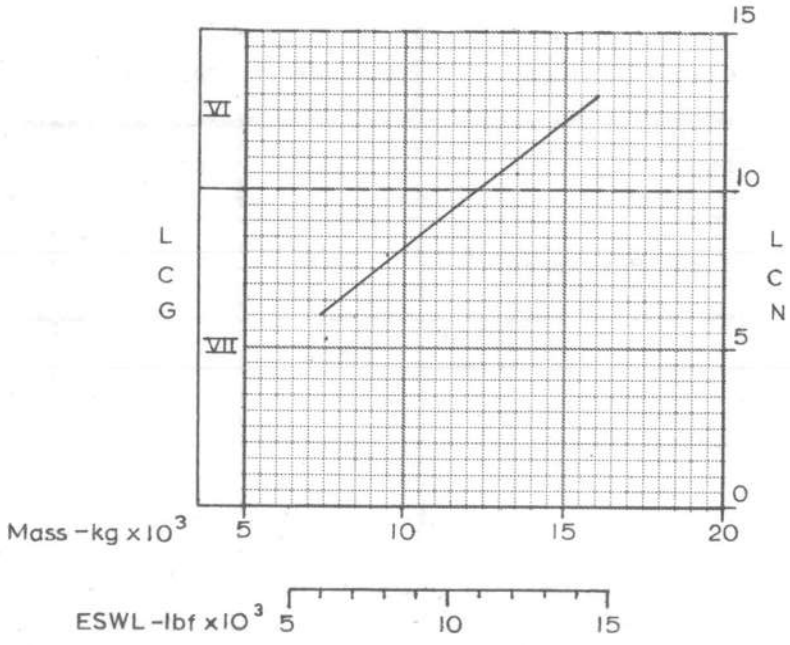


FIG. 1·6

SECTION 2
CORRECTION AND CONVERSION DATA

SECTION 2

CORRECTION AND CONVERSION DATA

CONTENTS

FIGURES

Pressure Error Corrections

1. The pressure error corrections shown on Figs 2.1 and 2.2 are based on flight test measurements and relate only to information from the nose probe. In all cases the corrections must be added to the indicated value in order to obtain the true value.

Conversion Data

2. a. Fig. 2.3 is a conventional chart relating CAS, altitude and Mach number. In addition lines of constant TAS in ISA conditions are shown. To determine TAS in conditions other than ISA, reference must be made to Fig. 2.4.

b. Fig. 2.4 enables TAS to be determined from ambient temperature, altitude and either CAS or Mach numbers, for example:

▶ Find the TAS when ambient temperature = $-25^{o}C$ and CAS = 400 kt at 20000 ft. From Fig. 2.4 Mach number = 0.855, and TAS = 525 kt. ◀

c. Fig. 2.5 converts ambient pressure to pressure altitude.

d. Fig. 2.6 provides conversion feet/metres.

e. Fig. 2.7 enables conversion of mass kg/lb.

f. Fig. 2.8 is a universal chart to convert ^{o}C to ^{o}F

g. Fig. 2.9 enables the mass of a given volume of fuel expressed in litres, US gallons, UK gallons, to be determined for a range of fuel specific gravity.

P.E.C. TO MACHMETER AND ALTIMETER

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

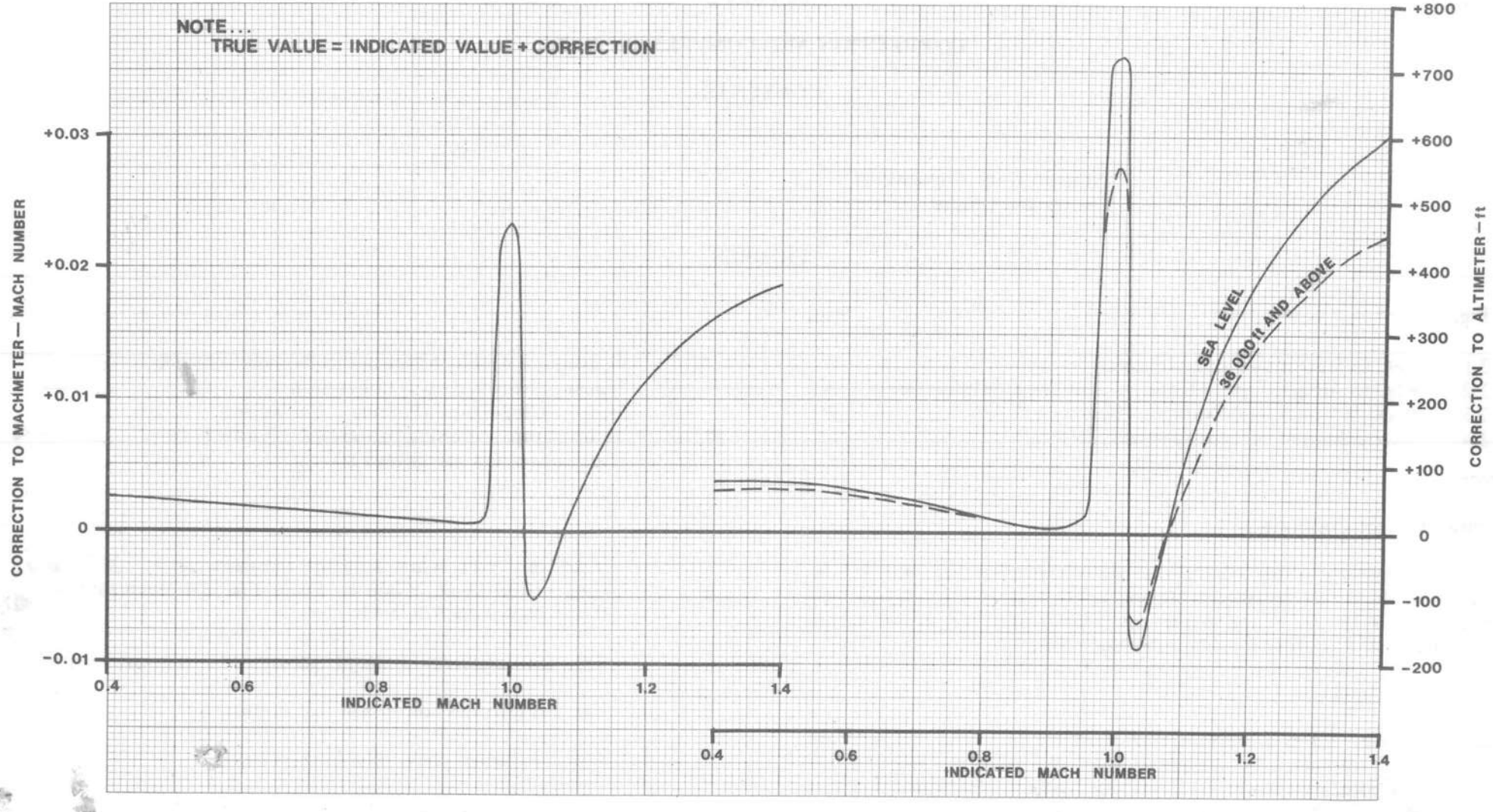


FIG. 2.1.

P.E.C. TO AIRSPEED AND ALTITUDE – LANDING CONFIGURATION

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

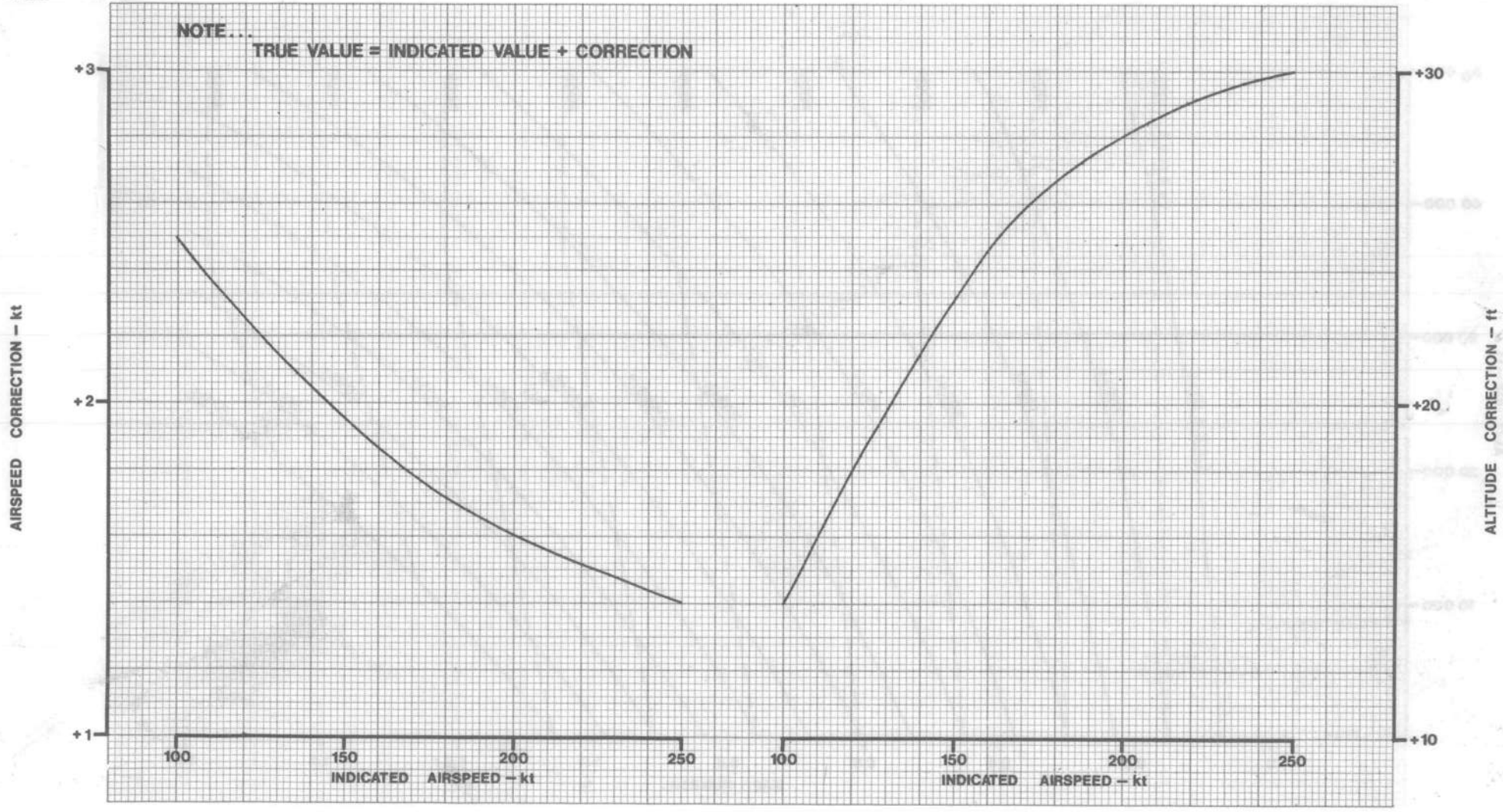


FIG. 2.2.

C.A.S./ALTITUDE/ MACH NUMBER CHART

JAGUAR GR.MK.1 T.MK.2

ENGINES: ADOUR MK. 102/JP103
DATE OF ISSUE: MAY 1975

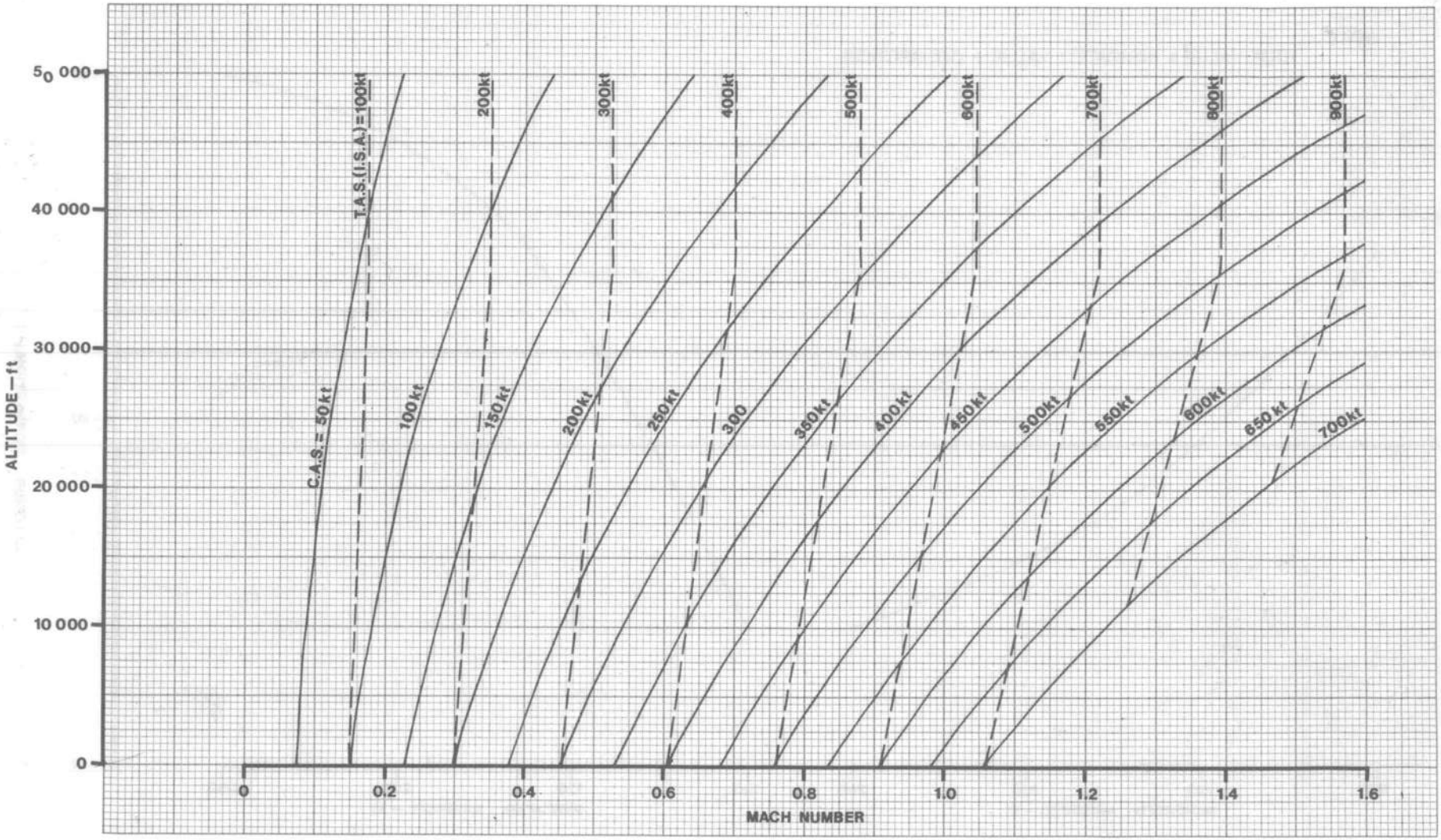


FIG. 2.3.

DETERMINATION OF TRUE AIRSPEED

JAGUAR GR.MK.1 T.MK.2

ENGINES: ADOUR MK. 102/JP103
DATE OF ISSUE: MAY 1975

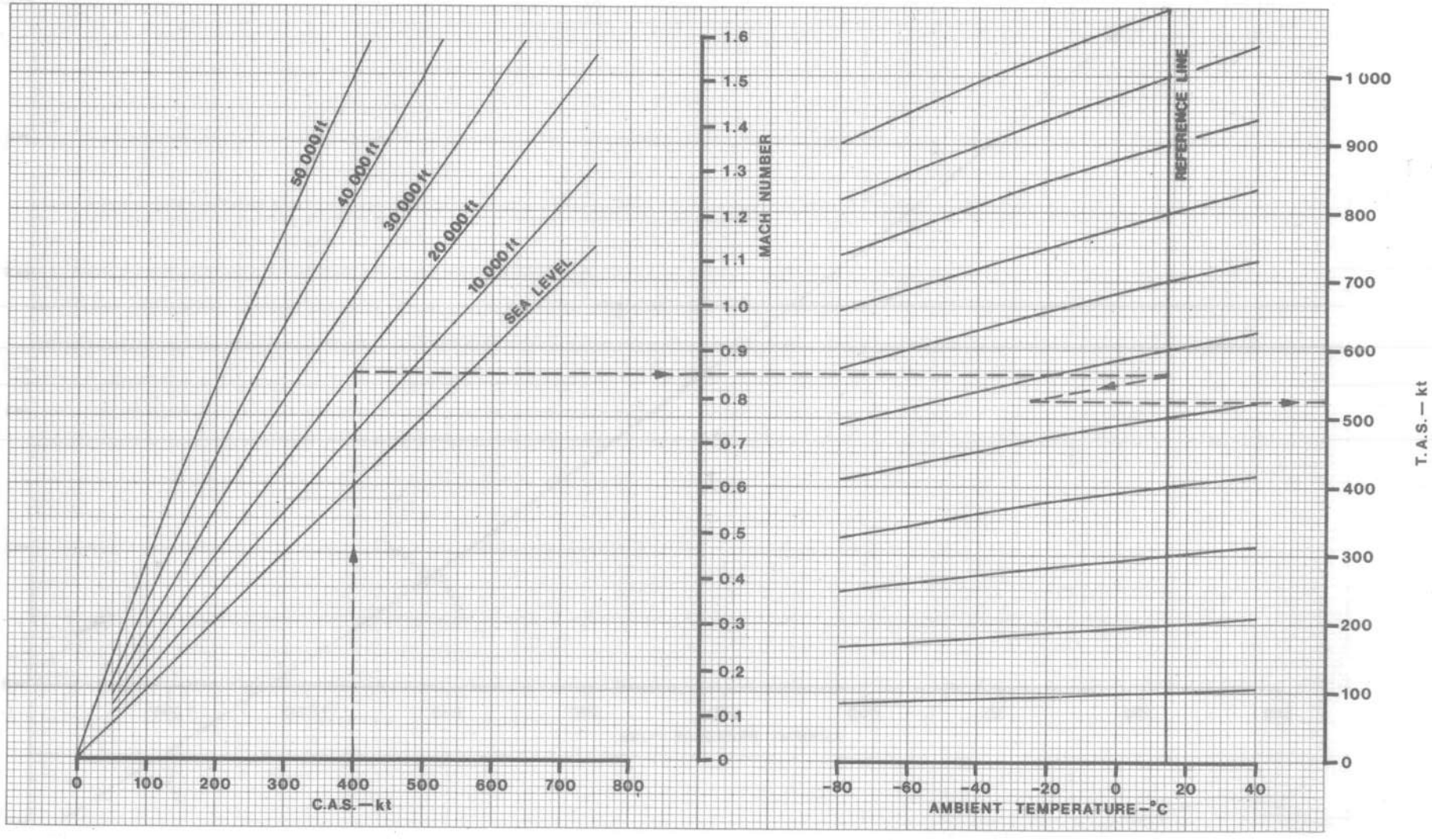


FIG. 2.4.

CONVERSION OF AMBIENT PRESSURE TO PRESSURE ALTITUDE

JAGUAR GR.MK.1 T.MK.2

DATE OF ISSUE: MAY 1975

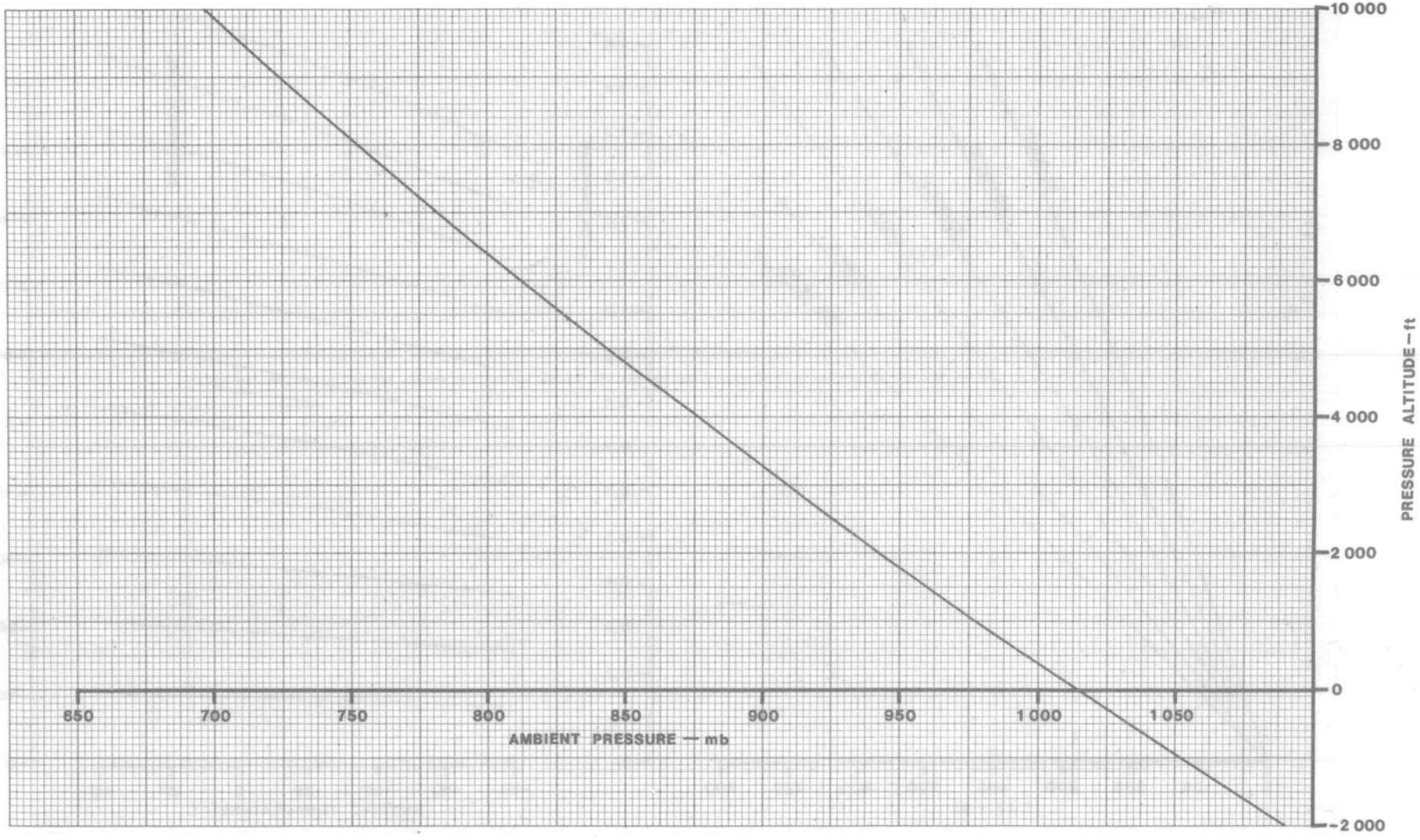


FIG.2.5.

LINEAR - FEET METRES - CONVERSION

DATE OF ISSUE: MAY 1975

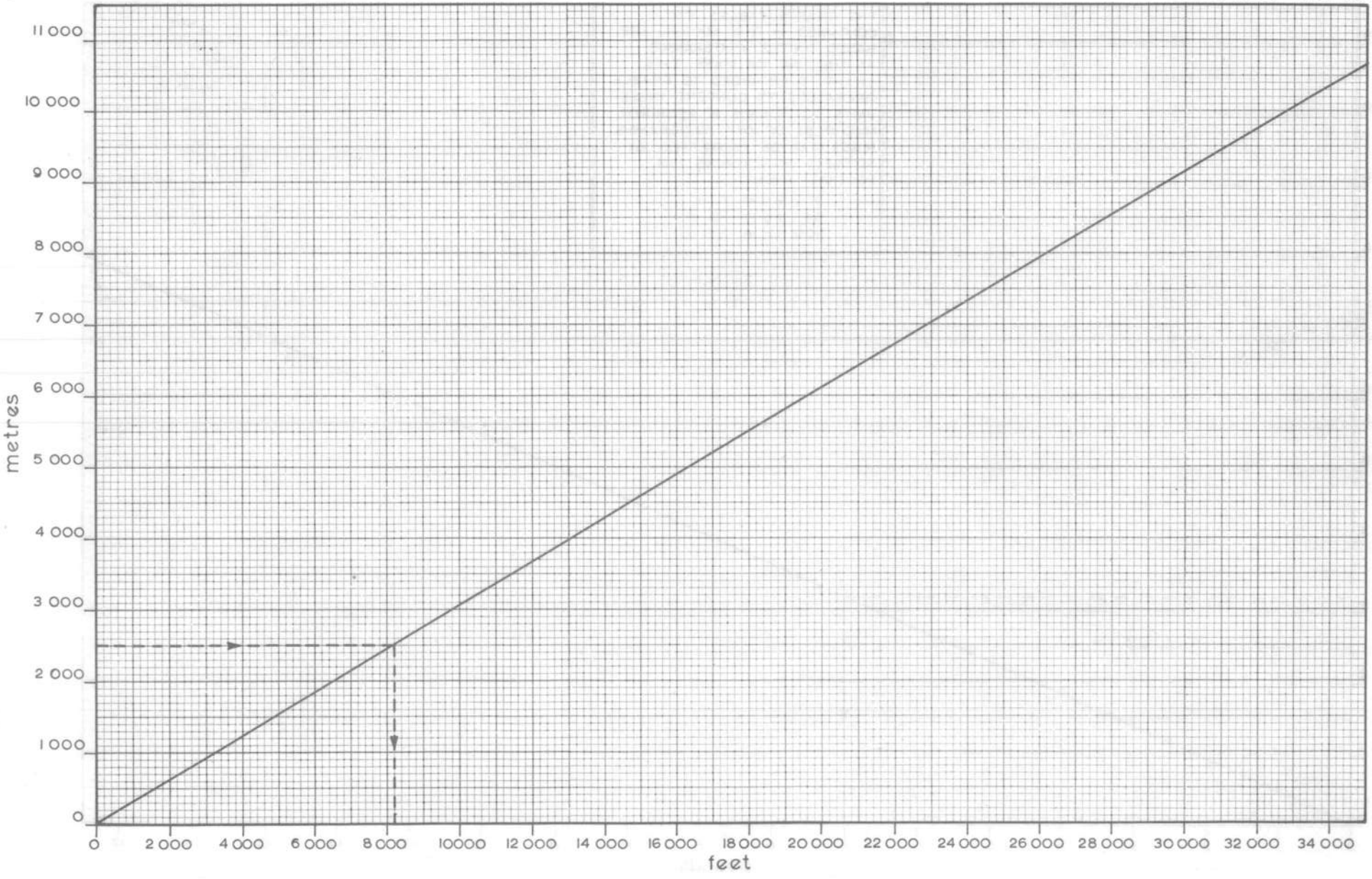


FIG. 2·6

MASS - KILOGRAMMES / POUNDS - CONVERSION

DATE OF ISSUE: MAY 1975

THE CHARTS, TABLES ETC, CONTAINED IN THIS MANUAL ARE BASED ON THE KILOGRAMME AS THE UNIT OF MASS. THIS CHART IS PROVIDED TO ENABLE OPERATORS TO CONVERT THESE UNITS TO POUNDS IF REQUIRED. MULTIPLES OF ANY KILOGRAMME MASS MAY BE CONVERTED BY SUITABLY POSITIONING THE DECIMAL POINT.

e g. 3·2 kg = 7 lb
32 kg = 70 lb
320 kg = 700 lb

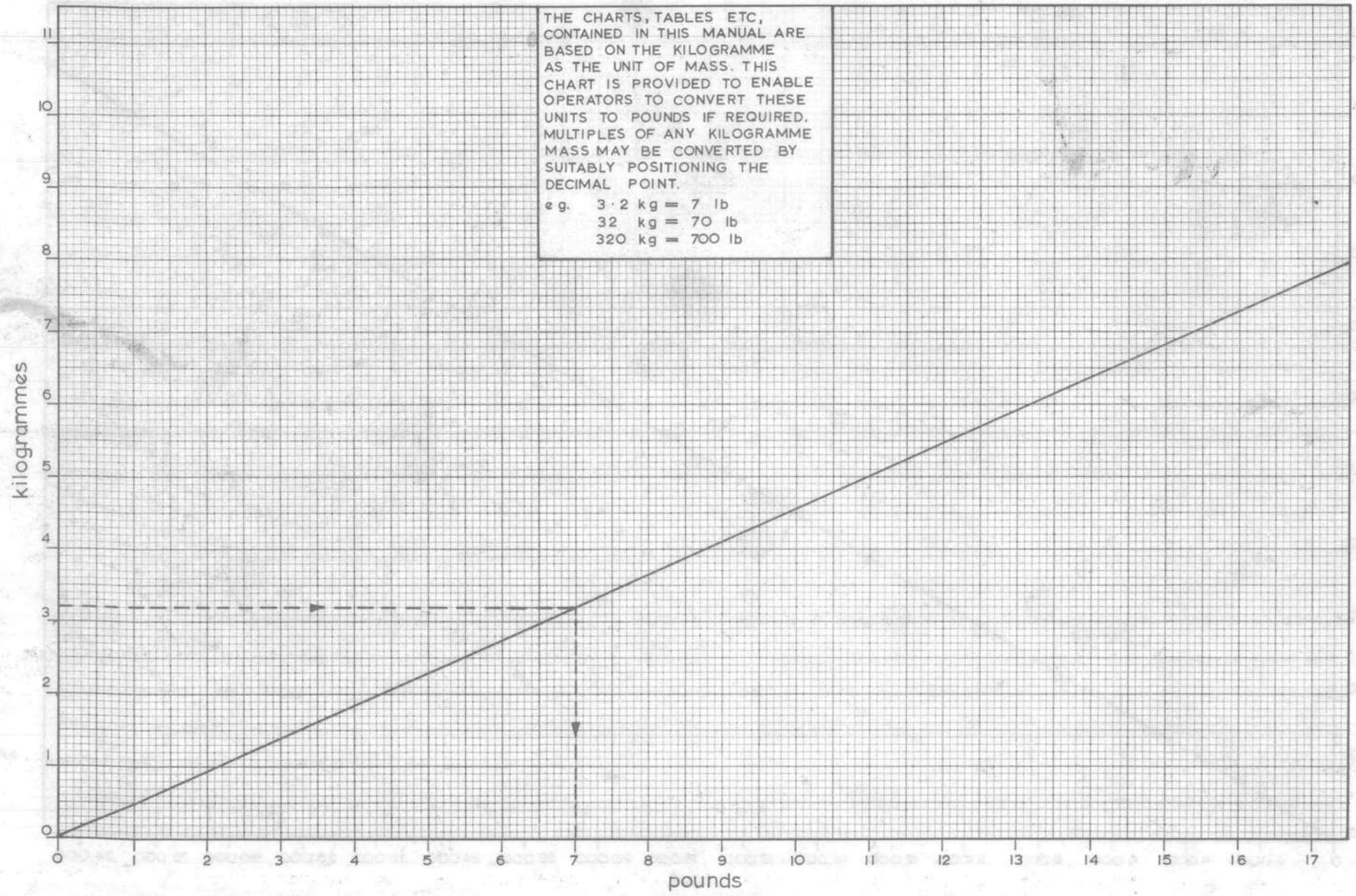


FIG. 2·7

TEMPERATURE - CELSIUS FAHRENHEIT CONVERSION

DATE OF ISSUE: MAY 1975

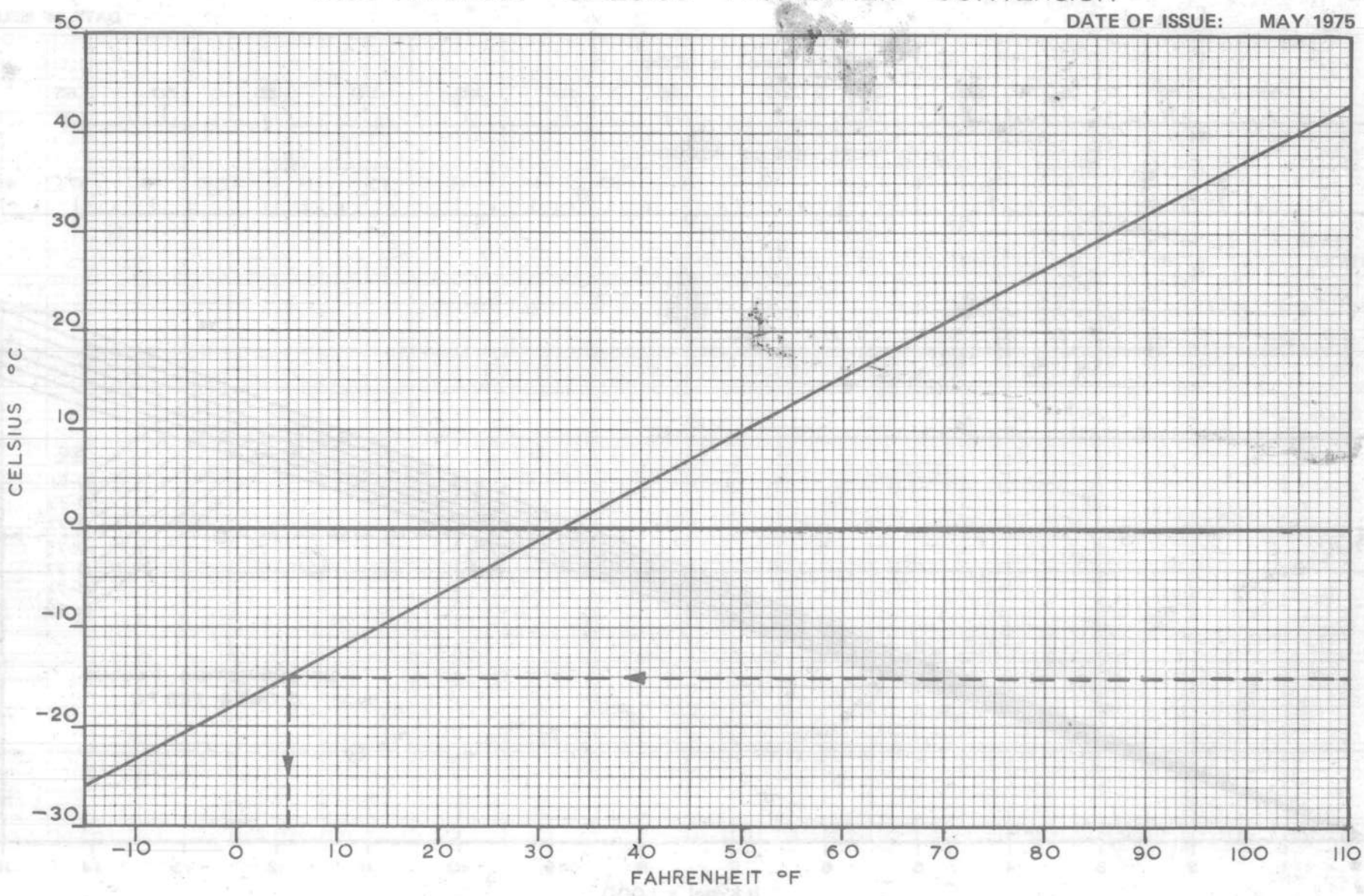


FIG. 2·8

FUEL CONVERSION - FOR VARIOUS S.G.

DATE OF ISSUE: MAY 1975

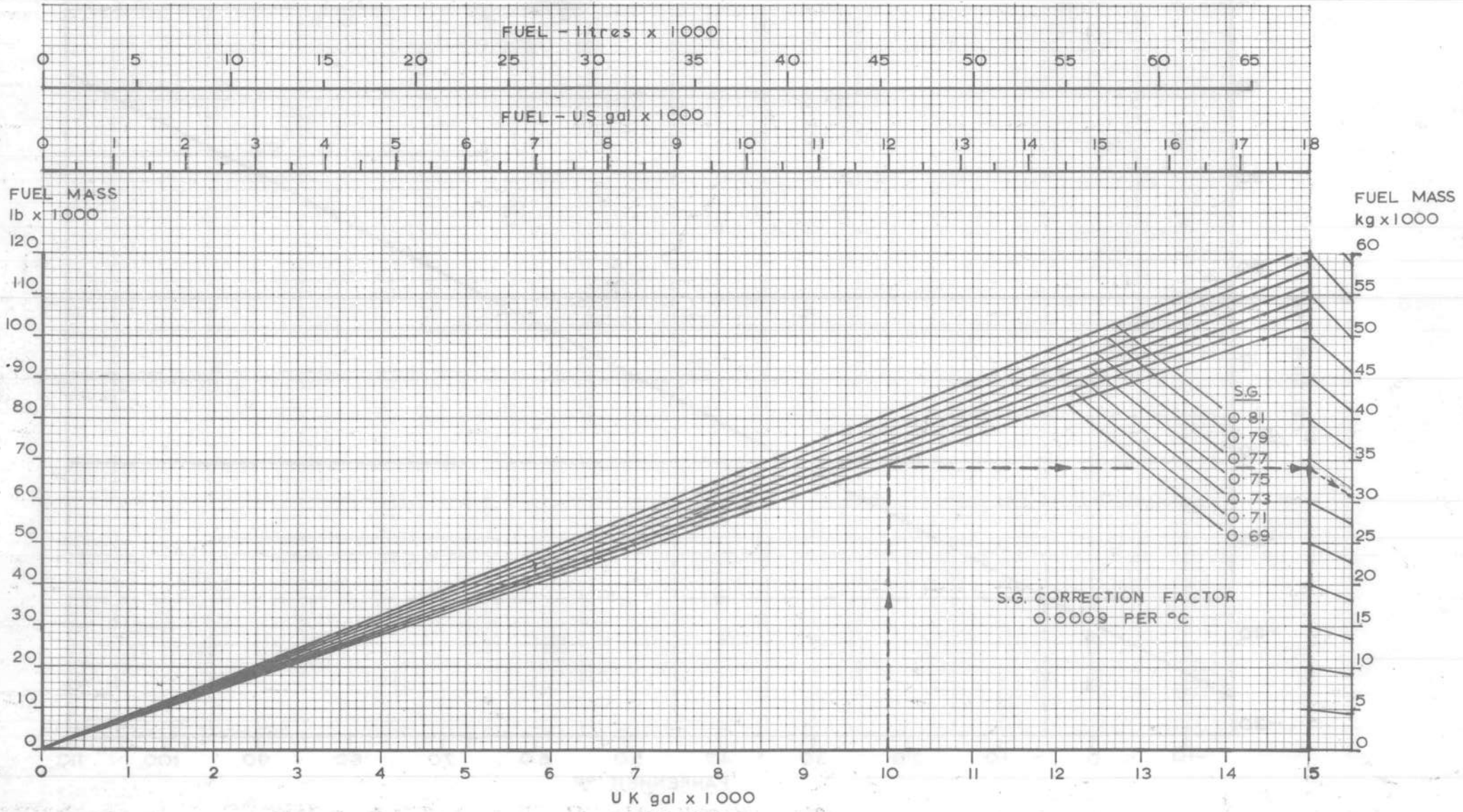


FIG. 2·9

SECTION 3
DRAG INDICES AND STORE LOADING

SECTION 3

DRAG INDICES AND STORE LOADING

CONTENTS

FIGURES

Configuration Drag Index

1. The effect of the carriage of external stores on performance is shown throughout this Manual as a variation in configuration drag index. Each store has a numerical drag index value proportional to its low-speed drag coefficient, the total drag index value for a particular configuration being the sum of the individual values. The variation of drag coefficient with Mach number is derived from a correlation of drag data for all relevant stores.

2. Drag index values and masses: for individual stores are shown on Fig. 3.1. Note that the drag index value represents the installed drag of the store (i.e. the drag of the store, suspension equipment and adaptors) but the masses are for the store alone. This avoids the need to relate a store to a particular station and also enables the mass change due to release or jettision to be read directly.

3. The masses shown on Fig. 3.1 for internal fuel and for the 1200 litre drop tank assume a fuel specific gravity of 0.78. For fuel at any other specific gravity, the following corrections should be used:

a. Full usable internal fuel = $\frac{3254 \times \text{fuel s.g.}}{0.78}$ kg

b. Full 1200 litre drop tank = $\frac{924 \times \text{fuel s.g.}}{0.78}$ kg

Example

4. Find the configuration drag index and mass of the GR.Mk.1 with full internal fuel and full centreline drop tank at 0.78 s.g., 300 rounds of ammunition, 2 x C.B.L.S. with 4 x 4lb practice bombs each in tandem on each inboard pylon, and empty outboard pylons without crutch feet fairings.

ITEM	DRAG INDEX		MASS (kg)	
Clean GR.Mk.1 including crew and ammunition		5		7700
Full usable internal fuel		0		3254
Centreline pylon + full drop tank		11	(130+1044)	1174
2 x Inboard wing pylons with tandem beams and 2 x C.B.L.S.	(28+28)	56	(340+176)	516
2 x outboard wing pylons	(2+2)	4	(46 + 46)	92
2 x increments due to absence of crutch feet fairings	(2+2)	4		
Totals		80		12736

DRAG INDEX VALUES AND MASSES

The following drag index values represent the installed drag of the store, i.e. all necessary suspension equipment is included. The masses are for the store alone, i.e. the mass of the appropriate suspension equipment must be added.

ITEM	DRAG INDEX	MASS (kg)
Clean GR.Mk.1 including 1 crew and 300 rounds (150 kg) of ammunition	5	7700*
Clean T.Mk.2 including 2 crew and 100 rounds (50 kg) of ammunition	5	7700*
Full usable internal fuel	0	3254
Empty centreline pylon	2	130
Empty inboard pylon	2	93
Empty outboard pylon	2	46
Empty tandem beam on inboard pylon	3	170***
Empty special weapon carrier on centreline pylon	4	174***
Full 1200 litre drop tank	11	1044
Empty 1200 litre drop tank	11	120**
Single 1000 lb retarded bomb	8	508
2 x 1000 lb retarded bombs in tandem	13	1016
Single 1000 lb free fall bomb	8	472
2 x 1000 lb free fall bombs in tandem	13	944
Single BL755 cluster bomb	9	272
2 x BL755 cluster bombs in tandem	15	544
Laser guided bomb on centreline pylon	11	545
Laser guided bomb on inboard pylon	14	545
Single C.B.L.S. with 2 x 28lb practice bombs	15	59
Single C.B.L.S. with 4 x 4lb practice bombs	15	44
Single C.B.L.S. empty	15	35
2 x C.B.L.S. in tandem each with 2 x 28lb practice bombs	28	118
2 x C.B.L.S. in tandem each with 4 x 4lb practice bombs	28	88
2 x C.B.L.S. in tandem both empty.	28	70
Single C.B.L.S. with 2 x 28 lb practice bombs, but without tail fairing	19	59
Single C.B.L.S. with 4 x 4lb practice bombs, but without tail fairing	19	44
Single C.B.L.S. without tail fairing and empty	19	35
Reconnaissance pack with 5 x F95 cameras	10	542
Single 950 lb special weapon	11	460
Single 600 lb special weapon	10	281
Flight refuelling probe (extended but not in contact with a drogue)	27	0
Increment when Crutch Feet Fairings are not fitted Applicable both in the Absence and the Presence of Stores.		
Centre line pylon	6	– 2
Inboard pylon	2	– 1
Outboard pylon	2	– 1
Tandem beam on inboard pylon	6	– 3
Increment due to Protruding E.R.U. Ram after Release of Stores		
Light duty, E.R.U. (119 type)	1	
Heavy duty, E.R.U. (120 type)	2	

* These are typical masses. The exact mass depends upon modification state.

** Includes unusable fuel.

*** Includes pylon mass, i.e. the given mass is that of the complete suspension equipment.

FIG. 3.1

See ANA1 attached

SECTION 4

MASS AND BALANCE

SECTION 4

MASS AND BALANCE

CONTENTS

TABLES

FIGURES

GENERAL

1. The following paragraphs provide some of the basic essentials concerning mass and balance, and detail a method of cg determination using a cg calculator. They are not, however, a substitute for A.P.119W-0001-1, Principles of Aircraft Weighing and CG Determination, and Chap. 10 of the Aircraft Servicing Manual, to which reference should be made for detailed advice on the determination of cg by arithmetical and vector transfer methods.

Definitions

2. The following terms are used throughout this Section:

a. **Basic Mass.** The mass of an empty aircraft. It consists of all basic equipment including hydraulic, starter and engine oils, and unusable internal fuel. The equipment included in the basic mass is listed in Chap. 10-40 of the Aircraft Servicing Manual.

b. **All-Up Mass for Take-off.** The total mass of the aircraft when all variable, expendable and fuel loads are added. These loads are listed in Tables 1 to 3.

c. **Centre of Gravity (cg).** The point at which all the given mass of a body or bodies may be regarded as being concentrated.

d. **Longitudinal Centre of Gravity Position.** The distance from

the X origin to the cg, measured parallel to the X axis. By convention, the cg position is considered positive when it is situated aft of the X origin and negative when forward. The cg position of an aircraft may be expressed as a percentage of the Mean Aerodynamic Chord.

e. **Load Arm.** The cg position of a load item with respect to the X origin.

f. **Moment.** The mass of an aircraft or load item multiplied by its cg position, relative to the X origin, or load arm.

g. **Mean Aerodynamic Chord (MAC).** A calculated wing chord length of 3.235 metres, the leading edge of which, when projected onto the aircraft centreline, is 6.747 metres aft of the X origin.

h. **CG Centrogram.** The use of a load item during a sortie produces a change in total mass and moment and a corresponding movement of cg. The effect of a particular load item on cg is proportionally increased as total mass is reduced. The centrogram is a graphical grid which enables the effect on cg of a load item to be represented by a pre-calculated vector of constant magnitude and direction regardless of total mass and moment.

Mass and CG

3. Two of the factors governing aircraft performance, manoeuvrability and longitudinal stability are mass and cg. The cg itself depends upon the distribution of the mass of the aircraft and alters in flight as fuel is used and armament stores are expended.

4. Generally, a forward movement of cg from a given position increases longitudinal stability and decreases manoeuvrability; the aircraft response in pitch is reduced and stick force increased. A rearward movement of cg results in increased manoeuvrability at the expense of stability; aircraft pitch response is increased and stick force reduced. Acceptable handling is, therefore, confined to a defined cg range and the significance of the forward and aft limits of this range is as follows:

a. The aft cg limit is determined primarily by stability considerations. Certain external stores reduce the aircraft longitudinal stability and it is for this reason that separate limitations are quoted for the carriage of these stores.

b. The forward cg limit is determined primarily by handling and trim requirements in the take-off and landing configurations.

c. Structural loading considerations are also important and must be examined in relation to the limits.

Calculation of Longitudinal CG Position

5. **General.** The longitudinal cg position for a given aircraft mass and and moment is calculated in terms of percentage MAC by use of the following equation.

$$\text{cg \% MAC} = \frac{\left(\frac{\text{Aircraft Moment}}{\text{Aircraft mass}}\right) - 6.747}{0.03235}$$

If the masses and moments of individual load items are known, it follows that the cg position at any time during a sortie can be calculated. Three methods of calculation are available; an arithmetical method using the equation directly, and two graphical vector methods, one using a centrogram in conjunction with pre-drawn vectors representing the load items, and the second using a cg calculator. This device for the Jaguar GR Mk. 1 and T. Mk 2 are identified under Reference A.P.101B-3100-16D.

NOTE:

The graphical vector methods have the advantage of producing a pictorial representation of cg movement but are not totally accurate. If the use of either graphical vector methodshows thecg position at any time during a sortie to approach within 0.3% MAC of the forward or aft limit, the calculation should be checked using the arithmetical method.

6. **Arithmetical Method.** For detailed advice on the determination of cg position using the arithmetical method, reference should be made to Chap. 10-30 of the Aircraft Servicing Manual. For convenience, an example of the arithmetical method is given in para 9.

7. **Pre-Drawn Vector Method.** Pre-drawn vectors representing all aircraft load items are included in Chap. 10-30 of the Aircraft Servicing Manual. These vectors are for use with a centrogram having a vertical scale of 1,000 kg = 18mm, and a horizontal scale of 1% MAC = 25mm at 16,000 kg all-up mass.

CG Calculator Method

8. a. **CG Calculator. (A.P.101B-3100-16D)** The cg calculator consists of a plastic frame in which are mounted two sliding scales, one above the other. The upper scale slide is transparent with a matt upper surface on which temporary markings can be made using a Chinagraph pencil. A mass/cg graphical grid is engraved on the underside of the slide which can be moved up and down in relation to the frame and the lower scale slide. The lower scale slide can be moved sideways in relation to the upper scale slide and frame, and is engraved with a series of vectors representing load items to the same scale as the mass/cg grid.

b. **Instructions for Use**

NOTE:
The cg calculator will be amended by the re-issue of the lower scale slide whenever changes are necessary. The calculator must NOT be used with unauthorised amendments.

(1) Compile a list of all load items in the following order:

Variable loads (Table 1)

Expendable loads (Table 2)

Usable fuel loads (Table 3)

(2) Obtain the aircraft basic mass and moment (Form 751) and apply the cg. equation (para. 5) to obtain the basic cg position. Mark this position against the basic mass on the mass/cg grid.

(3) Adjust the slides until the mark made in (2) lies over the lower end of the load line representing the first load item to be added. Reproduce this line on the mass/cg grid.

(4) Repeat the process by positioning the top point of the previously traced line over the lower end of the next load line to be added until a continuous series of vectors are traced on the grid. The load lines must be added in the following sequence, preferably using a different colour for each group:

Variable load vectors (in any order)

Expendable load vectors (in any order)

Landing gear 'up' vector

Usable fuel vectors (See Note 1)

Landing gear 'down' vector

NOTE 1:
The usable fuel vectors must be added in the reverse sequence to fuel usage. In the case of the GR1 aircraft with drop tanks, this involves tracing the internal fuel transfer load lines up to the top of the line representing V1/V2 tank transfer, adding the appropriate load lines representing drop tank transfer. and completing the sequence by adding the load line representing the initial F4 tank transfer. In the case of the T2 aircraft with drop tanks the appropriate drop tank transfer load lines are added immediately above the internal fuel vector.

NOTE 2:
The lower scale slide includes drop tank transfer load lines for one and two drop tanks, each line consisting of three vectors representing transfer from the rear, forward and centre compartments of the tanks. In the case of an aircraft operating in the ferry role with three drop tanks, the appropriate drop tank transfer load line must be produced by the vector addition of each pair of individual compartment vectors.

(5) The top of the last load line reproduced on the mass/cg grid indicates the all-up mass and cg position of the aircraft, and the

vectors between this point and the top of the uppermost expendable load line represent cg movement during the sortie assuming that expendable loads are retained. This section of the plot should now be examined to establish which point will give the most aft cg position when the expendable loads are removed, ignoring the take-off and landing sections. This point is not necessarily the most aft point already plotted.

(6) The expendable load items should now be reproduced on the plot in the normal release sequence, starting at the point established in (5). In this case the uppermost end of the first load item is positioned under the point established in (5) and the line is reproduced on the mass/cg grid. The process is repeated by positioning the top of each successive load line under the lower end of the previously traced line until all expendable load items have been removed.

(7) The plot now shows the pattern of cg movement during the sortie and highlights the worst possible aft cg case assuming that store hang-up and fuel transfer failures do not occur. If necessary, (5) and (6) should be repeated for the forward cg case.

(8) If the forward and aft cg limits for the configuration are now added to the plot, it can be determined whether or not the proposed sortie is permissible. The cg limits for each cleared configuration are listed in Part 2 of the Aircrew Manual.

NOTE:

If the plot shows the cg position to approach the forward or aft limit within 0.3% MAC at any time during the sortie, the calculation should be checked using the arithmetical method.

(9) The plot should also be examined to consider the effect of possible fuel transfer failures and store hang-up. The internal fuel load lines on the lower scale slide include vectors representing the effect of uncorrected F1 and F4 transfer failures; these vectors may also be used to illustrate the effect of manual transfer control. The effect of store hang-up can be reproduced by omitting the appropriate vector from stage (6).

Example – Arithmetical Method

9. Calculate the cg positions for a GR1 aircraft with two full drop tanks on the inboard wing pylons, two 1000 lb retarded bombs on the centreline pylon, two 1000 lb retarded bombs on the outboard wing pylons, and full internal fuel at 0.78 sg. The cg positions are obtained by use of the cg equation (para. 5.).

	Mass (kg)	Moment (kgm)	CG, (% MAC)
Basic mass and moment (Form 751)	7396	55980	25.41
a. Add variable load items from Table 1:			
Crew	85	260	
Centreline pylon	130	844	
2 x inboard pylons	186	1434	
2 x outboard pylons	92	798	
2 x drop tanks with unusable fuel	242	1848	
Operating Mass	8131	61164	23.97
b. Add expendable load items from Table 2:			
300 rounds ammunition	150	834	
Forward centreline bomb	508	2556	
Aft centreline bomb	508	3984	
Port outboard bomb	508	4326	
Starboard outboard bomb	508	4326	
Zero fuel mass	10313	77190	22.80

	Mass (kg)	Moment (kgm)	CG (% MAC)
Zero fuel mass	10313	77190	22.80
c. Add usable fuel load from Table 3:			
Usable fuel load	5102	38209	
All-up mass for take-off	15415	115399	22.85
d. Remove fuel load items in normal sequence (Table 4):			
(1) Take-off fuel (F4)	-100	-1076	
(2) Retract landing gear	15315	114323 -260	22.19
(3) F4 fuel to level M	15315 -234	114063 -2519	21.66
(4) Drop tank fuel (rear compartments)	15081 -200	111544 -1826	20.07
(5) Drop tank fuel (forward compartments)	14881 -946	109718 -5972	19.35
(6) Drop tank fuel (centre compartments)	13935 -702	103746 -5514	21.58
(7) V1/V2 tank fuel	13233 -745	98232 -5897	20.90
(8) F2/F3 tank fuel	12488 -912	92335 -6220	20.00
(9) F1/F4 tank fuel	11576 -950	86115 -7262	21.39
(10) Extend landing gear	10626	78853 +260	20.83
	10626	79113	21.58

	Mass (kg)	Moment (kgm)	CG (% MAC)
(11) Remaining F4 fuel	10626 -81	79113 -872	21.58
(12) N1/N2 fuel	10545 -232	78241 -1047	20.80
	10313	77194	22.80
e. Plot the above cg positions against mass on a centrogram (Fig. 4.3). Examination of the plot indicates that the worst possible aft cg condition will occur if the expendable loads are released at the end of fuel transfer from F2/F3 tanks.			
f. Remove the expendable load items in the normal sequence starting at the point established in (e):			
(1) Use ammunition	11576 -150	86115 -834	21.39
(2) Release forward bomb	11426 -508	85281 -2556	22.16
(3) Release port outboard bomb	10918 -508	82725 -4326	25.65
(4) Release starboard outboard bomb	10410 -508	78399 -4326	24.24
(5) Release aft bomb	9902 -508	74073 -3984	22.68
	9394	70089	22.07

g. If the above cg positions are plotted against mass on the centrogram, it can be seen that the worst possible aft cg condition occurs when the ammunition has been used and the forward bomb is released.

Table 1 Variable Load Items

Item	Mass (kg)	Load Arm (m)	Moment (kgm)	Item	Mass (kg)	Load Arm (m)	Moment (kgm)
Pilot (GR1)	85	3.060	260	Centreline drop tank with 6 kg unusable fuel	121	6.678	808
Pupil (T2)	85	1.480	126				
Instructor (T2)	85	3.060	260	2 x inboard drop tanks with 12 kg unusable fuel	242	7.636	1848
Centreline pylon	130	6.492	844	ECM pod (outboard wing pylon)	305	8.452	2578
2 x inboard wing pylon	186	7.712	1434	CBLS No. 100, Mk.1:			
2 x outboard wing pylon	92	8.678	798	Centreline forward	35	4.999	175
2 x tandem beam	136	7.390	1006	Centreline aft	35	7.808	273
Carrier, bomb, Mk. 103	44	6.629	292	Inboard wing pylon	35	7.556	264
Recce pod – F95 role	542	6.890	3734	Outboard wing pylon	35	8.482	297
Recce pod – F126 role	560	6.887	3857				

Note: Crew equipment (parachute, survival pack, emergency oxygen etc) is included in the basic mass.

Table 2 Expendable Load Items

Item	Mass (kg)	Load Arm (m)	Moment (kgm)	Item	Mass (kg)	Load Arm (m)	Moment (kgm)
1000 lb retarded bomb:				BL755 cluster bomb:			
centreline forward	508	5.031	2556	centreline forward	272	5.039	1371
centreline aft	508	7.842	3984	centreline aft	272	7.850	2135
inboard wing pylon	508	7.590	3856	inboard wing pylon	272	7.598	2067
tandem beam forward	508	6.198	3149	tandem beam forward	272	6.206	1688
tandem beam aft	508	8.708	4424	tandem beam aft	272	8.716	2371
outboard wing pylon	508	8.516	4326	outboard wing pylon	272	8.524	2319
1000 lb free fall bomb:				8 in.Lepus flare:			
centreline forward	472	4.985	2353	centreline forward	83	5.002	415
centreline aft	472	7.796	8680	centreline aft	83	7.810	648
inboard wing pylon	472	7.544	3561	tandem beam forward	83	6.166	512
tandem beam forward	472	6.152	2904	tandem beam aft	83	8.677	720
tandem beam aft	472	8.662	4088	outboard wing pylon	83	8.484	704
outboard wing pylon	472	8.470	3998	2 x 28 lb practice bombs:			
6000 lb special weapon	281	6.739	1894	centreline forward	24	5.100	122
950 lb special weapon	460	6.719	3091	centreline aft	24	7.913	190
100 rounds ammunition	50	5.560	278	inboard wing pylon	24	7.661	184
300 rounds ammunition	150	5.560	834	outboard wing pylon	24	8.587	206

Table 3 Usable Fuel Loads

	Tank	Load Arm (m)	'PARTIEL' Fuel Load GR1		'PARTIEL' Fuel Load T2		'TOTAL' Fuel Load		'TOTAL + RL1, RL2 and RLF' Fuel Load	
			Mass (kg)	Moment (kgm)	Mass (kg)	Moment (kgm)	Mass (kg)	Moment (kgm)	Mass (kg)	Moment (kgm)
Front Group	F1	4.525	475	2149	475	2149	475	2149	475	2149
	N1/N2	4.514	232	1048	232	1048	232	1048	232	1048
Centre Group	V1/V2	7.915	–	–	–	–	745	5896	745	5896
	F2/F3	6.826	–	–	–	–	912	6225	912	6225
Rear Group	F4	10.763	445	4790	870	9579	890	9579	890	9579
Drop Tanks	RLF	6.245	–	–	–	–	–	–	924	5770
	RL1/RL2	7.203	–	–	–	–	–	–	1848	13311
Fuel Load – No Drop tanks			1152	7987	1597	12776	3254	24898	–	–
Fuel Load - 1 Drop tank			–	–	–	–	–	–	4178	30668
Fuel Load - 2 Drop tanks			–	–	–	–	–	–	5102	38209
Fuel Load - 3 Drop tanks			–	–	–	–	–	–	6026	43979

Table 4. Fuel and Landing Gear Sequences – GR1

Item	Mass (kg)	Load Arm (m)	Moment (kgm)
'PARTIEL' FUEL LOAD			
1. Take-off fuel (F1/F4)	-100	7.644	-764
2. Retract landing gear	–	–	-260
3. F1/F4 fuel	-790	7.644	-6039
4. Extend landing gear	–	–	+260
5. Remaining F1 fuel	-30	4.525	-135
6. N1/N2 fuel	-232	4.514	-1047
'TOTAL' FUEL LOAD			
1. Take-off fuel (F4)	-100	10.763	-1076
2. Retract landing gear	–	–	-260
3. F4 fuel to level 'M':			
pre Mod 605	-345	10.763	-3713
post Mod. 605	-234	10.763	-2519
4. V1/V2 fuel	-745	7.915	-5897
5. F2/F3 fuel	-912	6.826	-6220
6. F1/F4 fuel:			
pre Mod. 605	-890	7.644	-6803
post Mod. 605	-950	7.644	-7262
7. Extend landing gear	–	–	+260
8. Remaining:			
F1 fuel (pre Mod.605)	-30	4.525	-135
F4 fuel (post Mod. 605)	-81	10.763	-872
9. N1/N2 fuel	-232	4.514	-1047

Item	Mass (kg)	Load Arm (m)	Moment (kgm)
'TOTAL' + RL1, RL2 and RLF FUEL LOAD			
1. Take-off fuel (F4)	-100	10.763	-1076
2. Retract landing gear	–	–	-260
3. F4 fuel to level 'M':			
pre Mod. 605	-345	10.763	-3713
post Mod. 605	-234	10.763	-2519
4. Drop tank fuel:			
a. rear compartment –			
1 tank	-100	8.170	-817
2 tanks	-200	9.128	-1826
3 tanks	-300	8.809	-2643
b. forward compartment–			
1 tank	-473	5.355	-2533
2 tanks	-946	6.313	-5972
3 tanks	-1419	5.994	-8505
c. centre compartment –			
1 tank	-351	6.896	-2420
2 tanks	-702	7.854	-5514
3 tanks	-1053	7.535	-7934
5. V1/V2 fuel	-745	7.915	-5897
6. F2/F3 fuel	-912	6.826	-6220
7. F1/F4 fuel:			
pre Mod. 605	-890	7.644	-6803
post Mod. 605	-950	7.644	-7262
8. Extend landing gear	–	–	+260
9. Remaining:			
F1 fuel (pre Mod.605)	-30	4.525	-135
F4 fuel (post Mod.605)	-81	10.763	-872
10. N1/N2 fuel	-232	4.514	-1047

NOTE: The landing gear is shown retracted at the end of the take-off run (100 kg of fuel used), and extended with approximately 10% full internal fuel remaining.

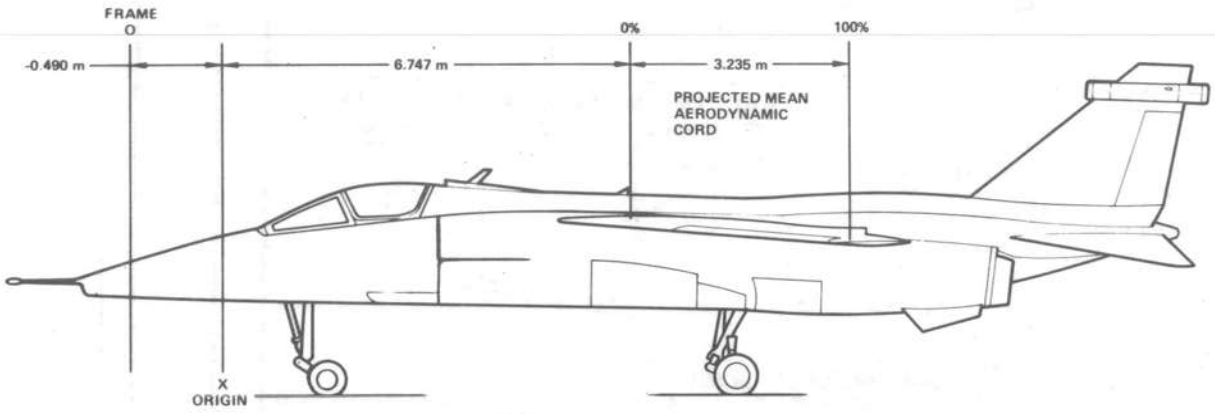
Table 5 Fuel and Landing Gear Sequences – T2

Item	Mass (kg)	Load Arm (m)	Moment (kgm)
'PARTIEL' FUEL LOAD			
1. Take-off fuel (F1/F4)	-100	7.644	-764
2. Retract landing gear	–	–	-260
3. F1/F4 fuel	-850	7.644	-6497
4. Remaining F4 fuel	-415	10.763	-4467
5. Extend landing gear	–	–	+260
6. N1/N2 fuel	-232	4.514	-1047
'TOTAL' FUEL LOAD			
1. Take-off fuel (V1/V2)	-100	7.915	-792
2. Retract landing gear	–	–	-260
3. Remaining V1/V2 fuel	-645	7.915	-5105
4. F2/F3 fuel	-912	6.826	-6220
5. F1/F4 fuel	-950	7.644	-7262
6. Remaining F4 fuel	-415	10.763	-4467
7. Extend landing gear	–	–	+260
8. N1/N2 fuel	-232	4.514	-1047

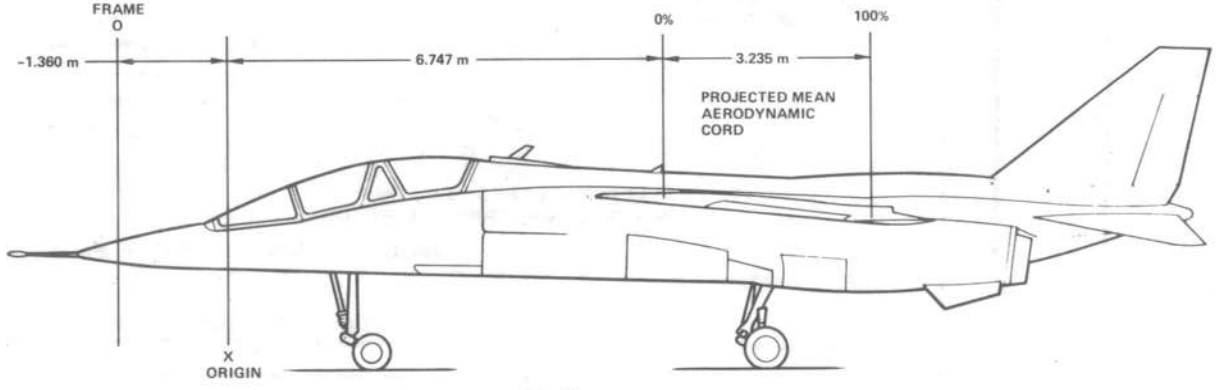
Item	Mass (kg)	Load Arm (m)	Moment (kgm)
'TOTAL' + RL1, RL2 AND RLF FUEL LOAD			
1. Take-off fuel (drop tank rear compartment):			
– 1 tank	-100	8.170	-817
– 2 tanks	-100	9.128	-913
– 3 tanks	-100	8.809	-881
2. Retract landing gear	–	–	-260
3. Remaining drop tank fuel:			
a. rear compartment			
– 2 tanks	-100	9.128	-913
– 3 tanks	-200	8.809	-1762
b. forward compartment			
– 1 tank	-473	5.355	-2533
– 2 tanks	-946	6.313	-5972
– 3 tanks	-1419	5.994	-8505
c. centre compartment			
– 1 tank	-351	6.896	-2420
– 2 tanks	-702	7.854	-5514
– 3 tanks	-1053	7.535	-7934
4. V1/V2 fuel	-745	7.915	-5897
5. F2/F3 fuel	-912	6.826	-6220
6. F1/F4 fuel	-950	7.644	-7262
7. Remaining F4 fuel	-415	10.763	-4467
8. Extend landing gear	–	–	+260
9. N1/N2 fuel	-232	4.514	-1047

NOTE: The landing gear is shown retracted at the end of the take-off run (100 kg of fuel used), and extended with approximately 10% full internal fuel remaining.

BASIC CG CO-ORDINATES



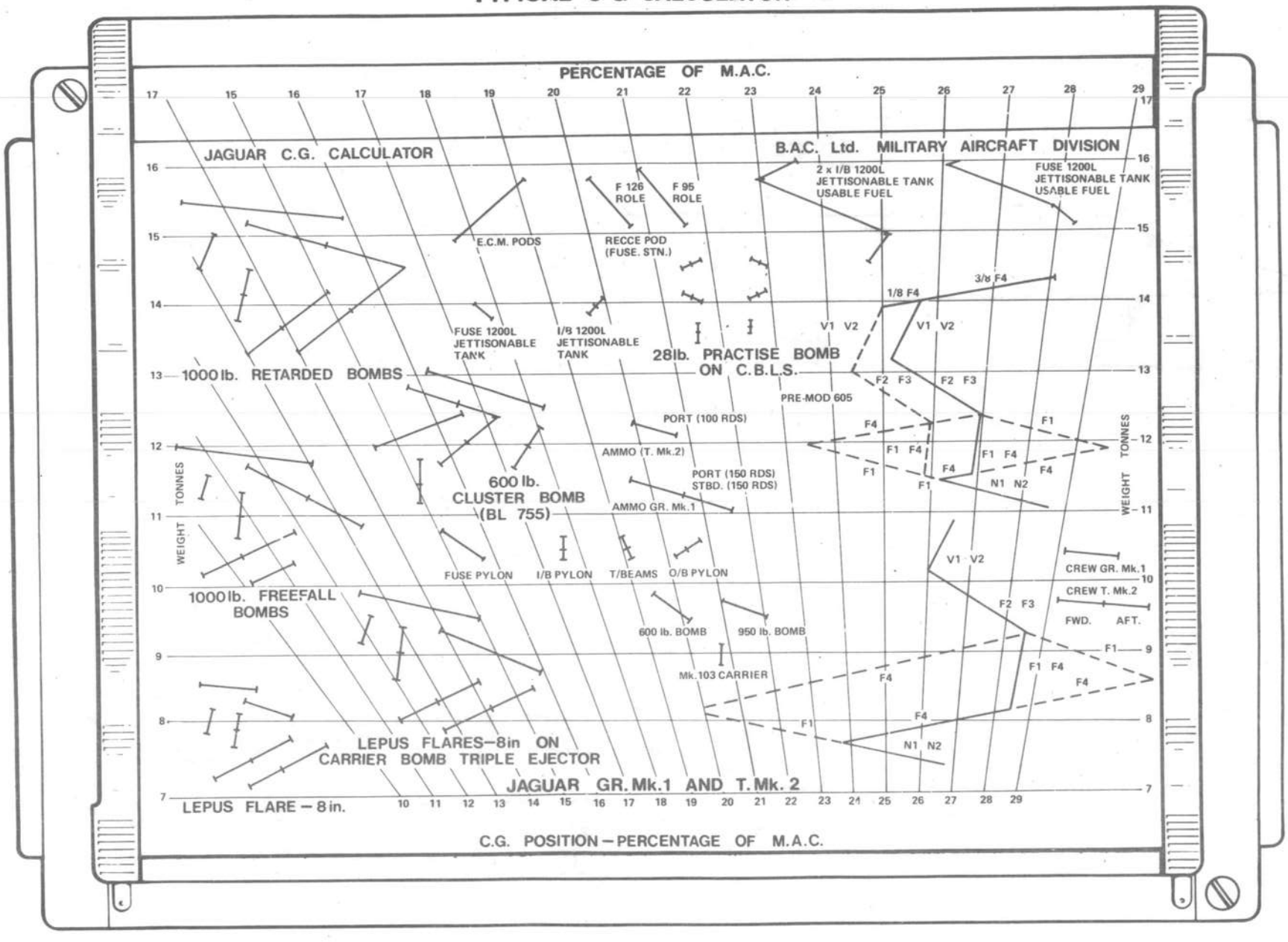
GR 1



T 2

FIG. 4.1

TYPICAL C G CALCULATOR



S10-30-11-1

FIG. 4.2

C G CENTROGRAM—ARITHMETICAL METHOD

JAGUAR GR.MK.1 T.MK.2
DATA: AIRCRAFT WEIGHTS
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.5, MAY 1977

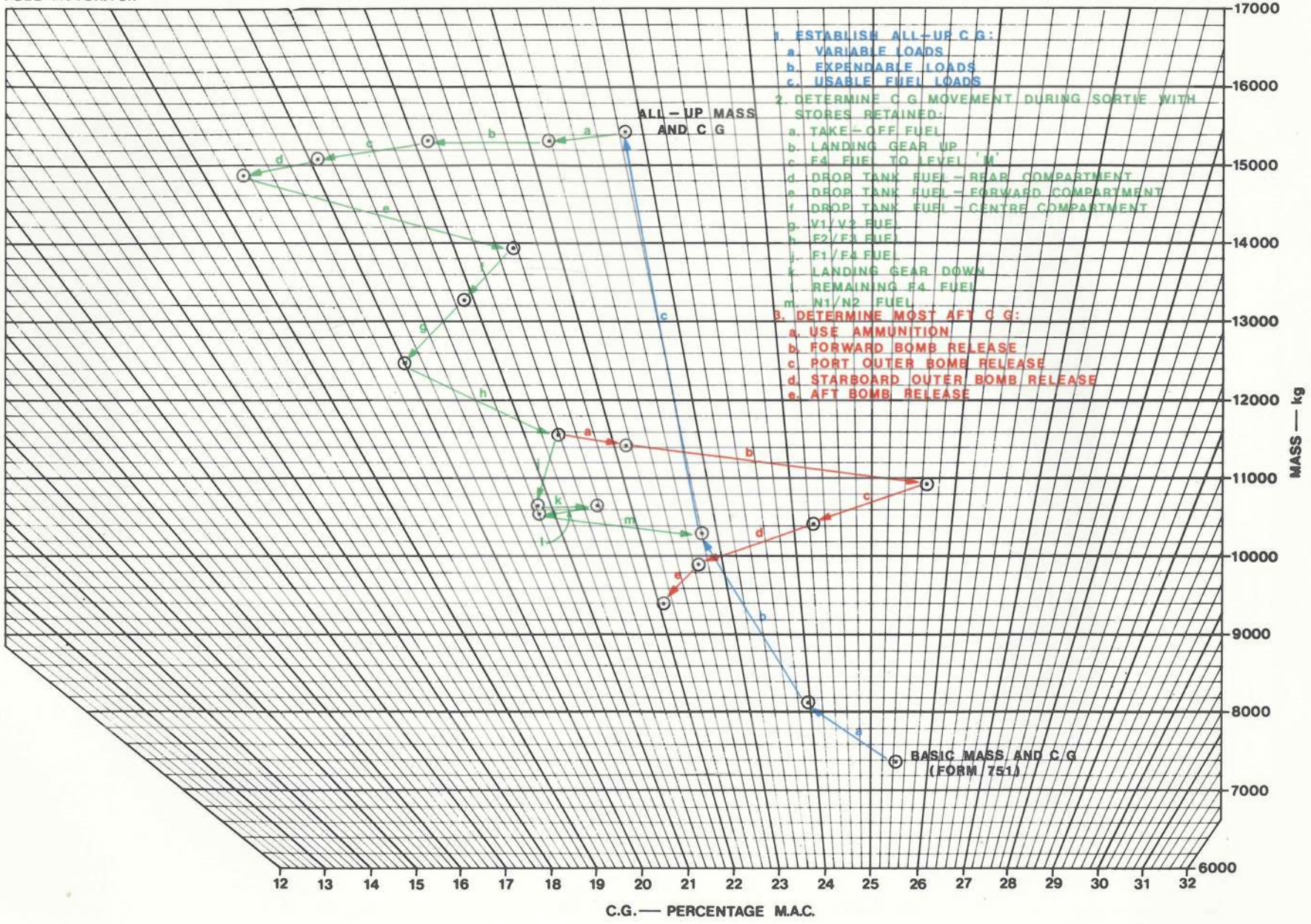


FIG. 4.3

SECTION 5

TAKE–OFF

SECTION 5

TAKE-OFF

CONTENTS

FIGURES

Recommended Take-off Technique

1. The data in this section are based on the use of the appropriate recommended take-off technique. Deviation from the chosen technique will greatly affect the performance and will invalidate the data. The attention of operators is drawn to para 1 of Section 1 which governs the assumptions upon which the gross performance is based. No account or recommendation for between overhaul variation in engine performance is made. However, operators attention is drawn to the Note after para 2b, Section 1 Page 2.

2. Both recommended techniques employ maximum reheat power and 20^{o} flap for all configurations. At the defined rotation speed (V_R) the stick is moved quickly and smoothly aft to rotate the aircraft to the appropriate climb-out incidence. The aircraft unsticks during the rotation; once clear of the runway, the landing gear is retracted and the climb-out incidence is maintained until clear of obstacles when the incidence may be reduced to permit the aircraft to accelerate more rapidly. Flap is selected up at a safe speed depending on aircraft mass. When operating close to the limiting mass obtained from Figs. 5.1 and 5.7, some speed loss may be experienced during the early stage of the climb out before the landing gear is locked up.

3. The recommended techniques are:

a. **Normal.** Rotation speeds for this technique are given on Fig. 5.3 and the climb out incidence is 14^{o} on the strip indicator (15^{o} on the HUD). As a guide to the correct rotation rate, this incidence should be achieved 3 seconds after V_R.

b. **High Incidence.** This is the technique recommended for best take-off performance. Minimum reheat is selected before brake release. Rotation speeds are given on Fig. 5.9 and the climb out incidence is 16^{o} on the strip indicator (17^{o} on the HUD). As a guide to the correct rotation rate, this incidence should be achieved 4 seconds after V_R.

Maximum Take-Off Mass

4. For a given pressure altitude and temperature, the ability of the aircraft to climb after becoming airborne is progressively reduced with increasing mass. The mass at which the aircraft is no longer able to climb forms an upper limit which is independent of the length of runway available. Maximum permitted take-off mass (altitude and temperature limited) is obtained from Fig. 5.1 for the normal technique and Fig. 5.7 for the high incidence technique. These graphs are plotted for zero drag index; for variations in drag index, subtract 90 kg from the value obtained for each drag index increment of 10.

5. Take-off mass must also be limited to ensure that the ground speed at unstick does not exceed the maximum permitted tyre speed. Maximum take-off mass (tyre limited) is obtained from Fig. 5.2 when the normal technique is used or from Fig. 5.8 when the high incidence technique is used; the tyre limit on both Figures is 195 knots.

6. The maximum permitted take-off mass is the lower of the two values obtained from Figs. 5.1 and 5.2 for the normal technique, or Figs. 5.7 and 5.8 for the high incidence technique.

* Flap is selected up at a safe speed depending on aircraft mass.

Take-Off Runs and Distances

7. The take-off runs and distances for the normal technique are obtained from Figs 5.4 and 5.5 or Figs. 5.10 and 5.11 for the high incidence technique.

▶ **Grass Surfaces**

8. When operating from dry grass surfaces, the high incidence take-off technique should be used and take-off runs and distances given in Figures 5.10 and 5.11 increased by a factor of 1.07. ◀

Acceleration Check Speeds

9. This is the indicated airspeed which an aircraft should achieve at a specified distance from the beginning of the runway. Failure to achieve this speed at the check points is a warning of loss of acceleration due to failure of engines, brakes binding, etc. Figure 5.0 presents the check speed as a ratio of the unstick speed and is used as follows:

a. **Example.** Using the same associated conditions as listed at para 14b below find the acceleration check speed if the check distance is 2400 feet.

From Figure 5.4 Ground Run = 3700 feet

$$\frac{\text{Check point distance}}{\text{Ground run}} = \frac{2400}{3700} = 0.65$$

From Figure 5.0 Enter with check point/ground run ratio 0.65 and obtain speed at check point unstick speed ratio = 0.88.

From Figure 5.6 Unstick Speed = 175 kn IAS
Acceleration Check Speed = 175 x 0.88
= 154 kn IAS.

Emergency Maximum Braking Speed (EMBS)

9. Fig. 5.14 shows the maximum speed from which braking may be applied following an aborted take-off. There is a possibility of damage to the brakes.

Maximum Take-Off Abort Speed (V_{stop})

10. V_{stop} is the highest speed to which the aircraft can be accelerated with both engines in maximum reheat and still be stopped within the distance available. It can be determined for any aircraft mass over a range of atmospheric and runway conditions. If no arrester gear is available, or it is not to be used, then use Figures 5.15A and B. If an arrester gear is in position, and it is intended to be used in the event of need, use Figures 5.16A and B for an aircraft fitted with a braking parachute and Figures 5.17A and B if the parachute is not fitted. It must be noted that the runway parameter on Figures 5.16A and 5.17A is that distance from the downwind end of the runway to the position of the RHAG equipment.

11. For the purpose of these figures the need to abandon the take-off was taken to be because of an engine failure. After the failure, 2 seconds was allowed before the live engine rundown was started, then 1 second later wheelbrakes were applied. The parachute was taken to be fully deployed 4 seconds after the engine failure point.

Note: If the wheelbrake application speed is in excess of the EMBS determined from Figure 5.14, brake application is delayed until the EMBS is reached. This restriction does NOT apply if an arrester gear is in position for use if needed.

Effect of Wind Component

12. Throughout this section standard safety factors of 0.5 and 1.5 have been applied respectively to the head wind and tail wind correction grids. Effective wind components therefore may be used directly.

Safe Airborne Speed (V_{safe})

13. Fig. 5.13 shows the minimum speed at which a 2% climb gradient can be maintained on one engine with the landing gear retracted, and 20^{o} flap. These data are used in conjunction with Fig. 5.6 for the normal technique or Fig. 5.12 for the high incidence technique, to assess the degree of airborne safety available in the event of an engine failure immediately after unstick.

Examples – Normal Technique

14. a. Find the maximum permitted take-off mass for a normal take-off in the following conditions:

Ambient temperature 45^{o}C (ISA + 30^{o}C)
Pressure altitude Sea Level
Reported wind component 5 kn headwind
From Fig. 5.1 the max take-off mass (altitude and temperature limited) = 14.95 tonnes.
From Fig. 5.2 the max take-off mass (tyre limited) = 13.45 tonnes
The max permitted take-off mass is the lower of the two values, ie = 13.45 tonnes.

b. Find the normal take-off speeds and distances in the following conditions:

Ambient temperature	$-15^{o}C$ (ISA – $30^{o}C$)
Pressure altitude	Sea Level
Take-off Mass	12 tonnes
Reported wind component	10 kn tail wind
Runway slope	1% up hill

From Fig. 5.3 the rotation speed (V_R) is 146.5 kn IAS.
From Fig. 5.6 the unstick speed is 175 kn IAS.
From Fig. 5.4 the ground run is 1125m (3700 ft.) and from Fig. 5.5 the total distance to 50ft (Screen Height) is 1400m (4600 ft.).

c. Find the safe speed after taking off in the following conditions:

Ambient temperature	$15^{o}C$ (ISA)
Pressure altitude	Sea Level
Take-off Mass	13 tonnes

From Fig. 5.13 the safe airborne speed is 196 kn IAS.

d. Find the Emergency Maximum Braking Speed (EMBS) in the following conditions:

Ambient temperature	$7^{o}C$ (ISA)
Pressure altitude	4000 ft.
Take-off Mass	13 tonnes
Reported wind component	10 kn tailwind
Runway slope	1% downhill
Runway condition	Wet

From Fig.5.14 the EMBS is 194 kn IAS.

e. Find the maximum speed from which a take-off can be aborted without engaging the arrester gear in the following conditions:

Ambient temperature	$7^{o}C$ (ISA)
Pressure altitude	4000 ft.
Take-off Mass	13 tonnes.
Runway length	7000 ft.
Reported wind component	20 kn headwind
Runway slope	1% uphill
Runway conditions	Wet

From Figs. 5.15A and 5.15B V stop is 149 kn IAS.

▶ f. If the arrester gear is inset 1500 ft and is available for use, then under the same conditions as example (e) above.

From Figures 5.16A and 5.16B V_{stop} is 166kn IAS.

g. If, under the same conditions as example (f) above, the aircraft was not fitted with a braking parachute

From Figures 5.17A and 5.17B V_{stop} is 159kn IAS. ◀

Fig. 5.0

This Figure will be issued later.

MAXIMUM TAKE-OFF MASS - ALTITUDE AND TEMPERATURE LIMITED
NORMAL TAKE-OFF TECHNIQUE

JAGUAR GR MK.1 T. MK.2
DATA: ESTIMATED
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.6. FEBRUARY 1978

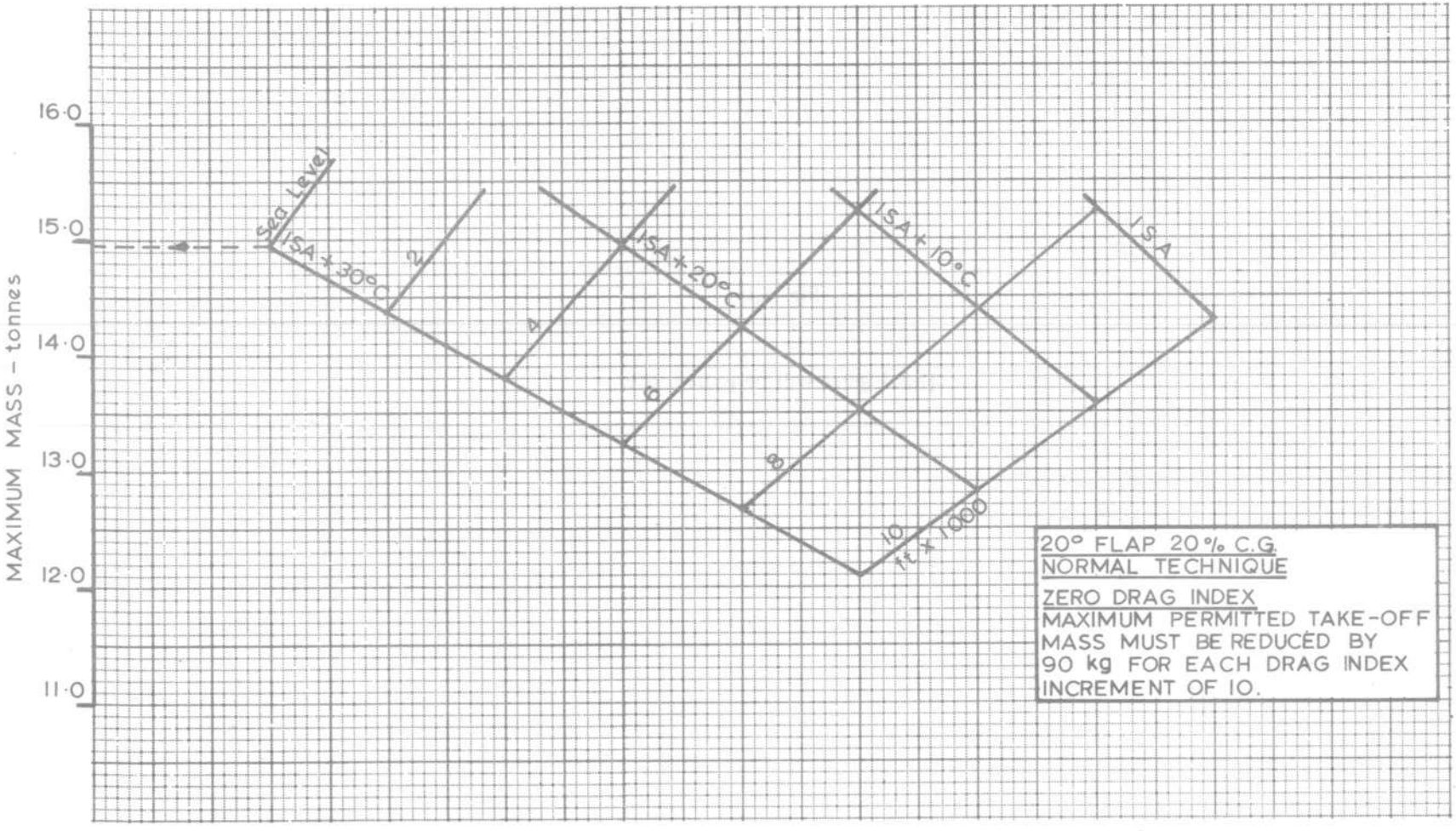


FIG. 5·1

TYRE LIMITED MAXIMUM TAKE-OFF MASS USING NORMAL TECHNIQUE

JAGUAR GR. MK.1 T. MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK.102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

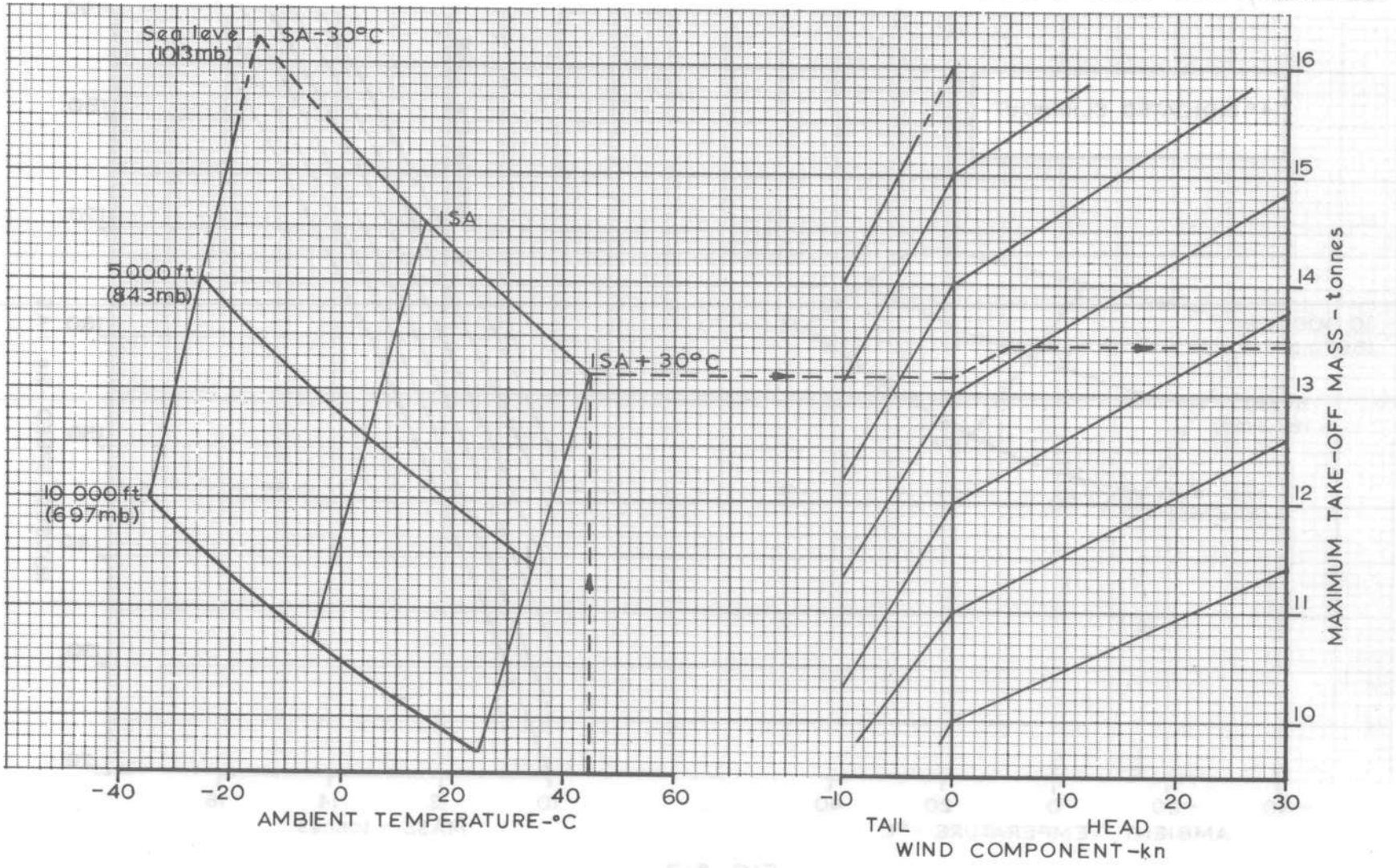


FIG. 5·2

ROTATION SPEED
NORMAL TAKE-OFF TECHNIQUE

JAGUAR GR MK.1 T.MK.2.
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK.102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

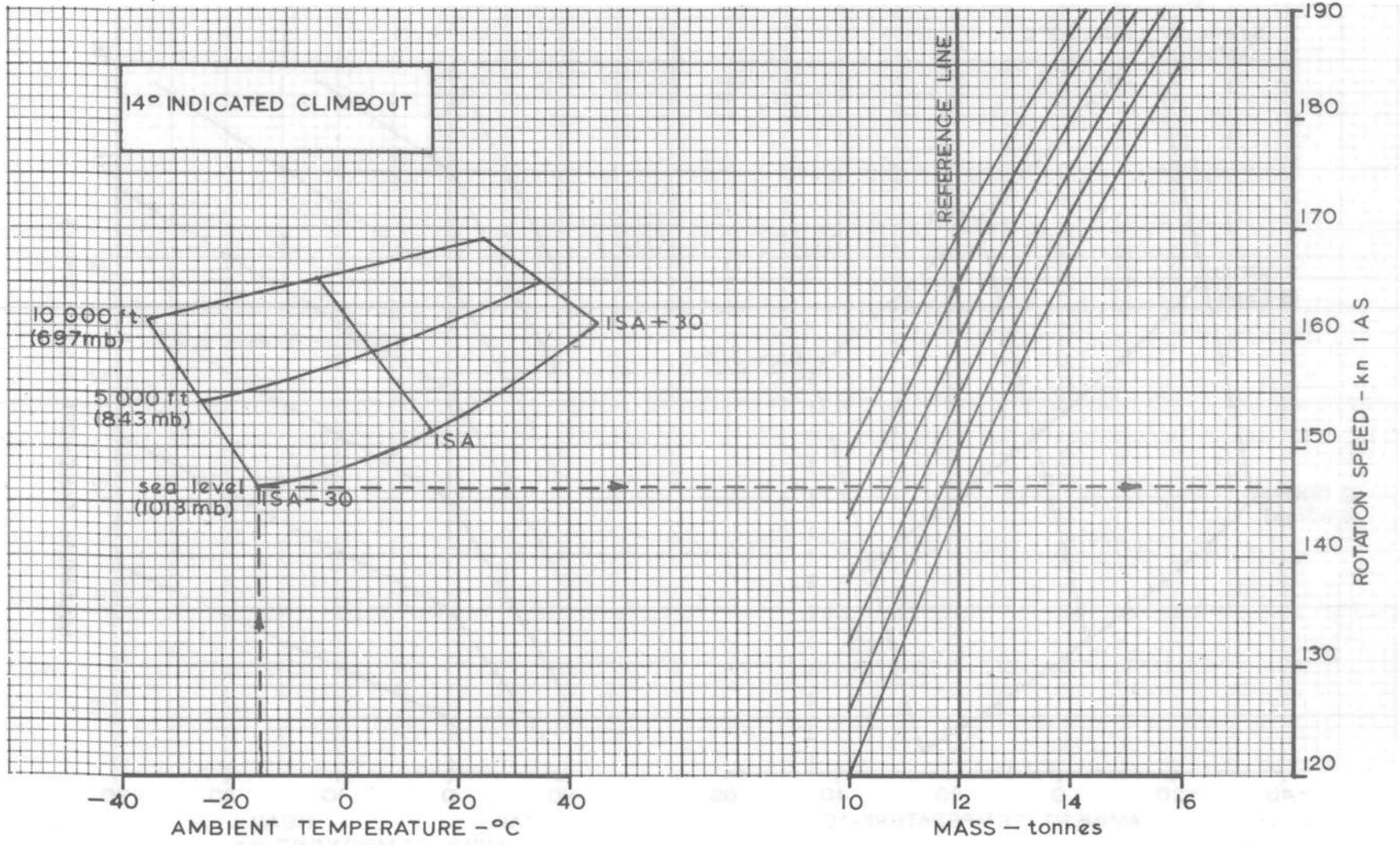
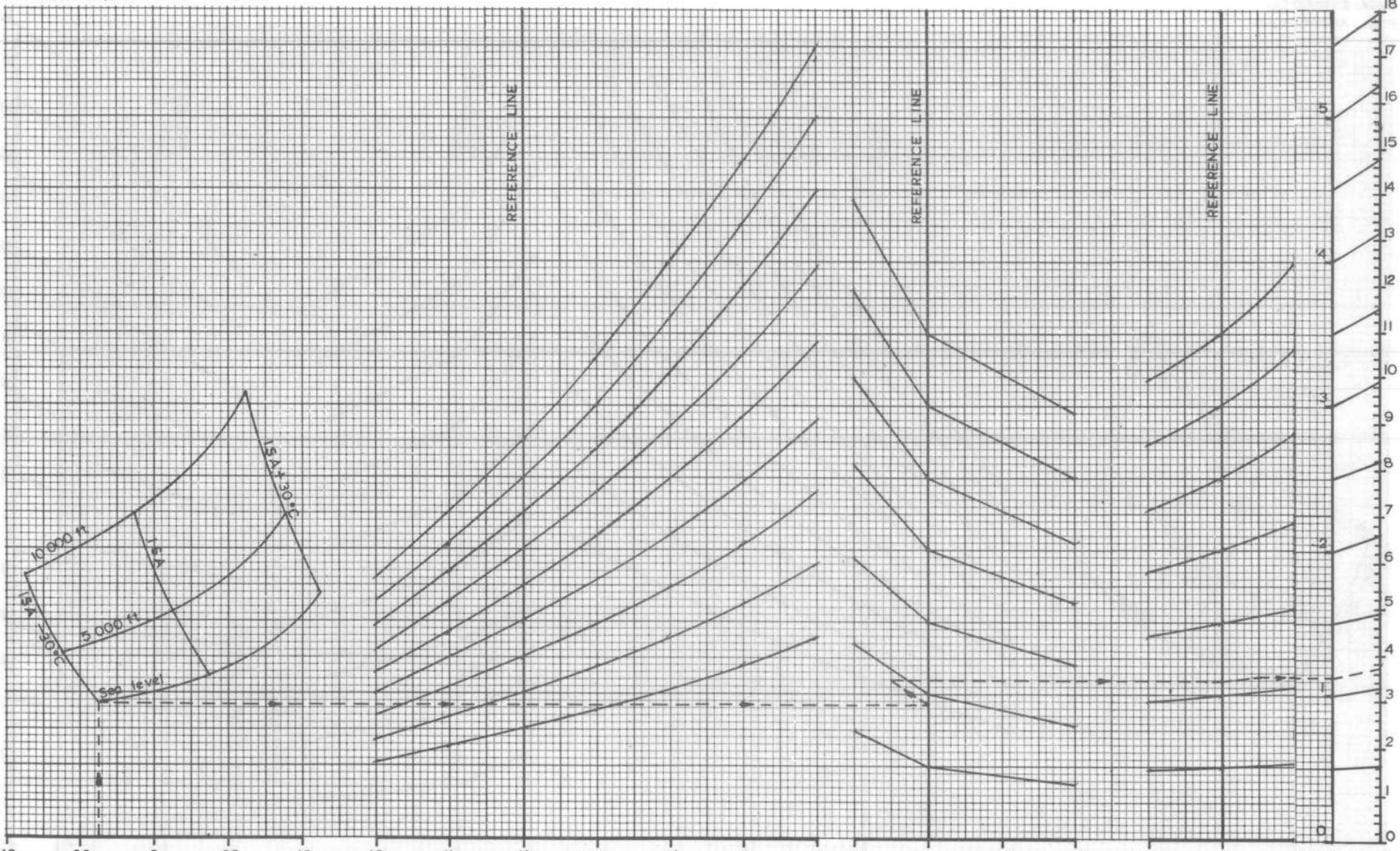


FIG. 5·3

NORMAL TAKE-OFF GROUND RUN

JAGUAR GR. MK.1 T. MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK. 102 / JP 103
DATE OF ISSUE: AL 4 MARCH 1977



TAKE-OFF GROUND RUN

FIG. 5·4

RESTRICTED

NORMAL TAKE-OFF DISTANCE TO 50 ft

JAGUAR GR MK.I. T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK. 102/JP 103
DATE OF ISSUE: AL 4 MARCH 1977

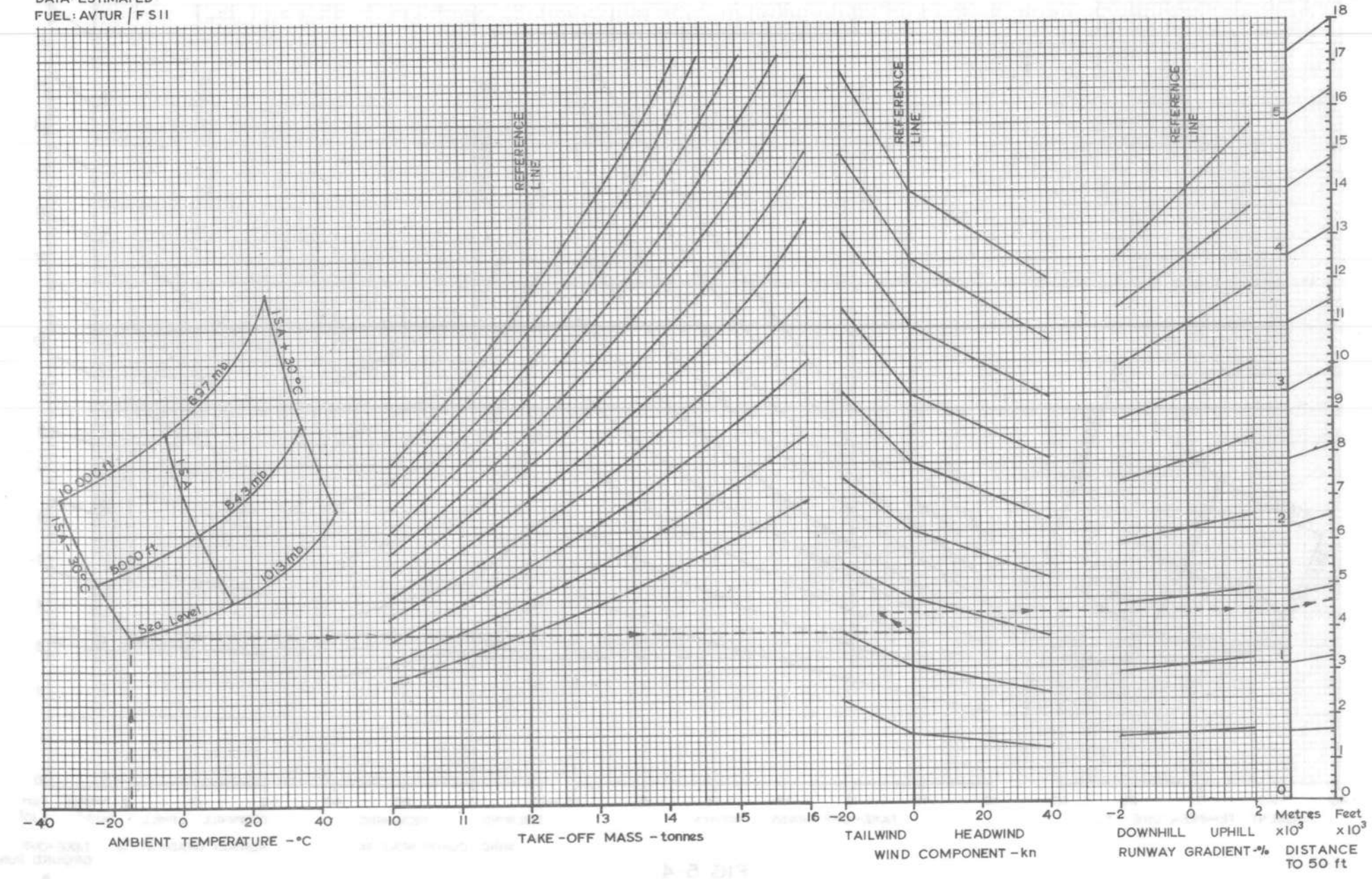


FIG. 5·5

NORMAL TAKE-OFF UNSTICK SPEEDS

JAGUAR GR MK.1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK 102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

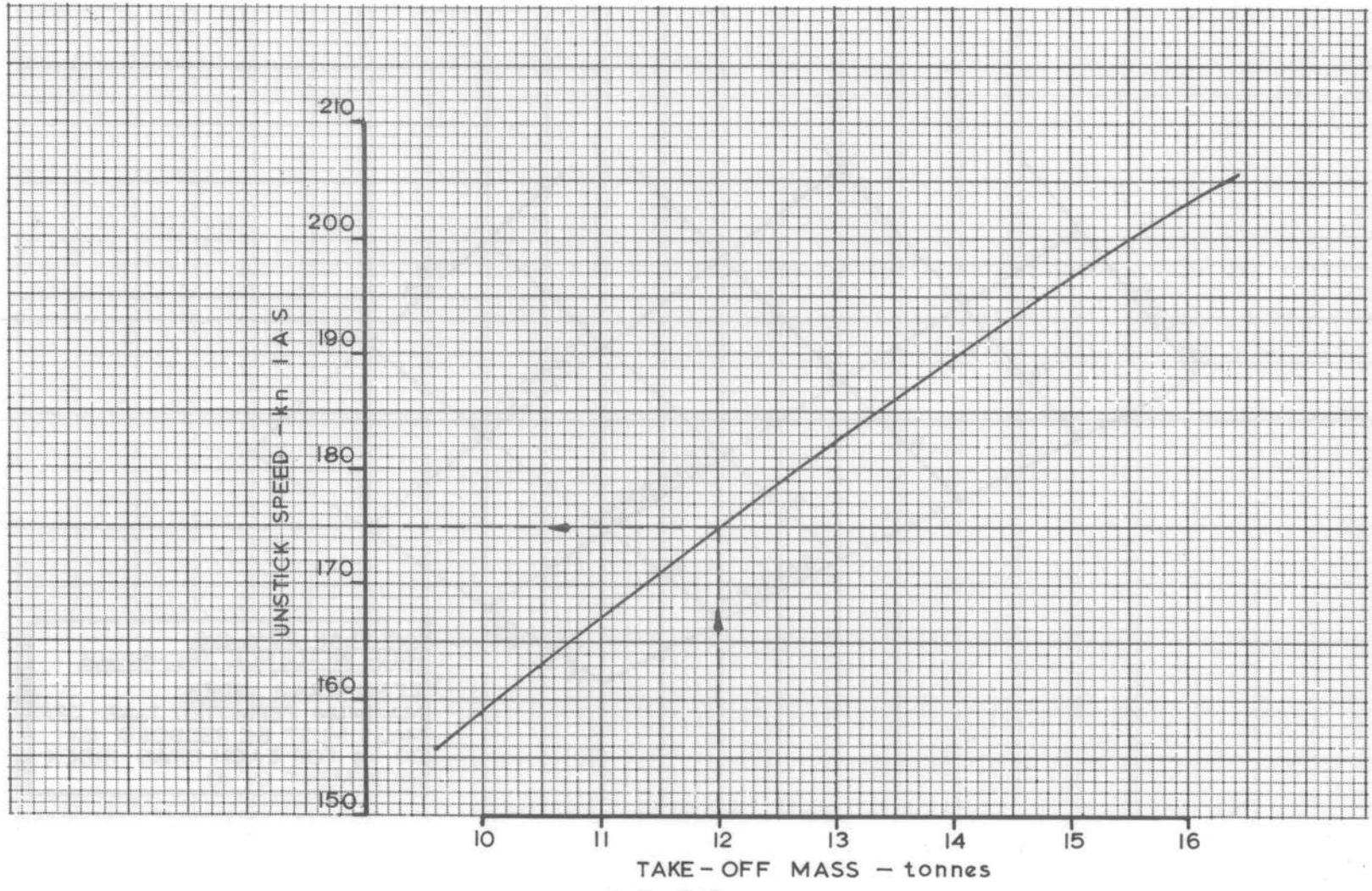


FIG. 5·6

MAXIMUM TAKE-OFF MASS – ALTITUDE AND TEMPERATURE LIMITED
HIGH INCIDENCE TAKE-OFF TECHNIQUE

JAGUAR GR MK.1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK. 102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

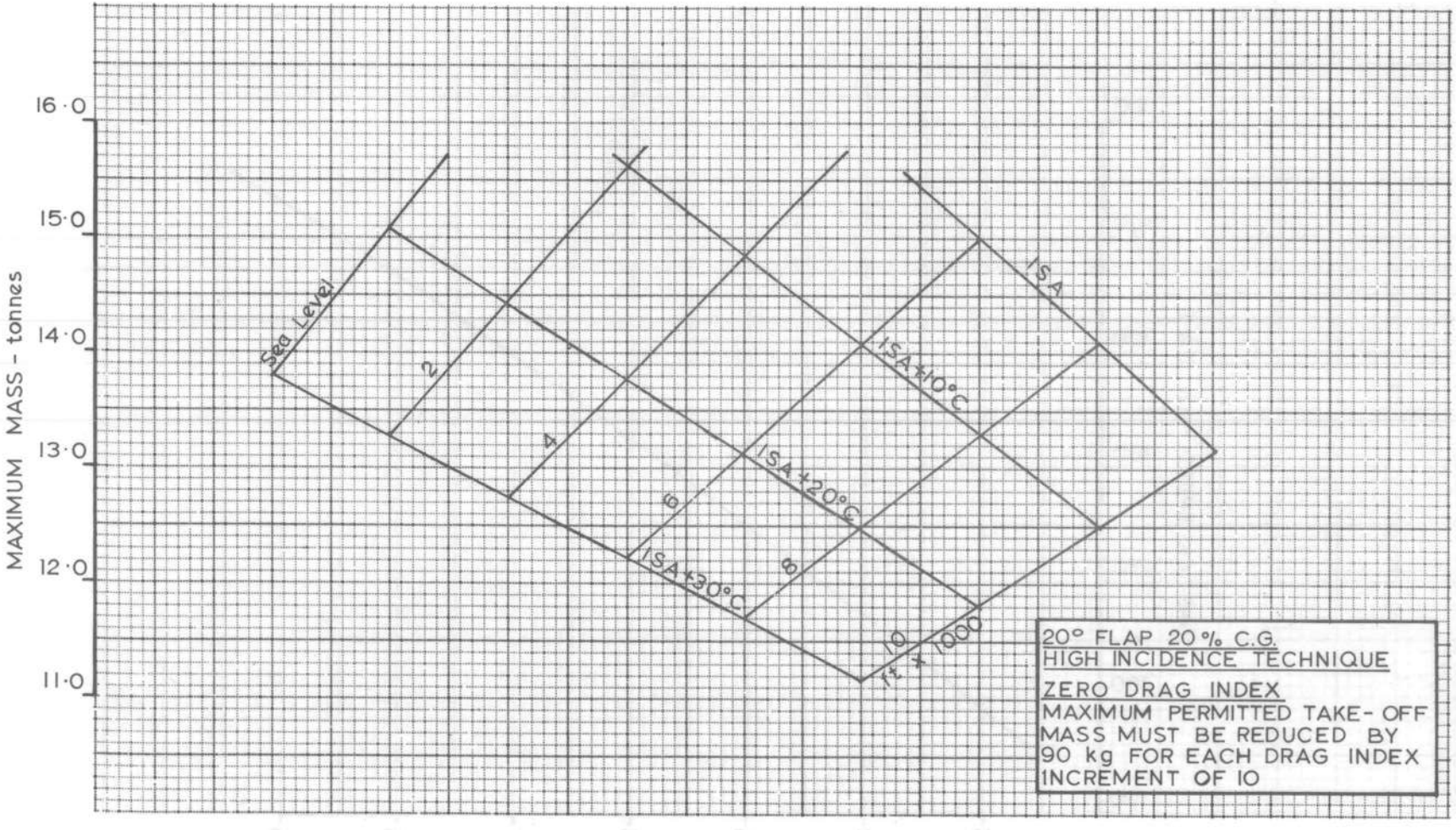


FIG. 5·7

TYRE LIMITED MAXIMUM TAKE-OFF MASS USING HIGH INCIDENCE TECHNIQUE

JAGUAR GR. MK.1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FSII

ENGINES: ADOUR MK. 102/JP103
DATE OF ISSUE: AL 4 MARCH 1977

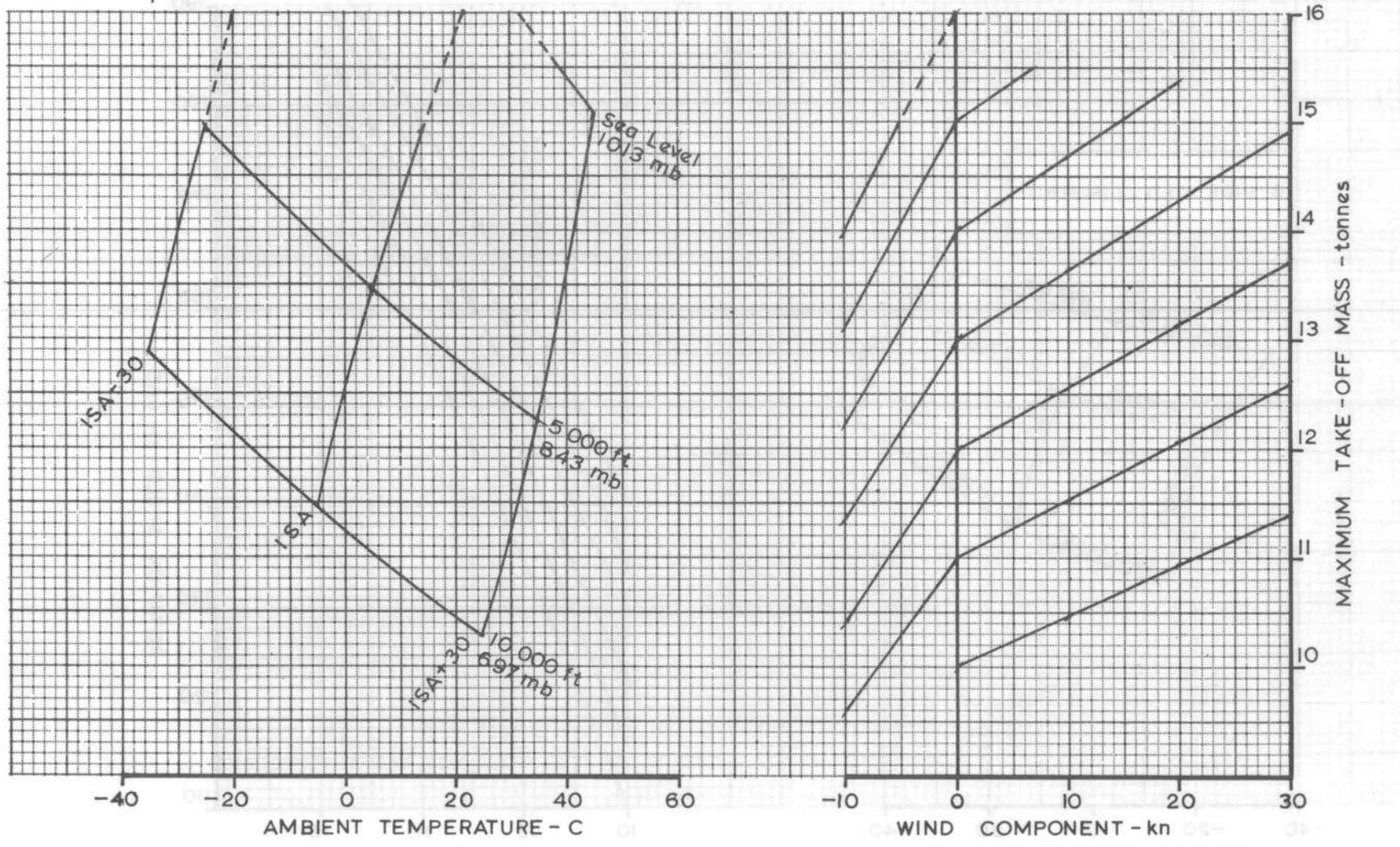


FIG. 5·8

ROTATION SPEED
HIGH INCIDENCE TECHNIQUE

JAGUAR GR. MK. 1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK.102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

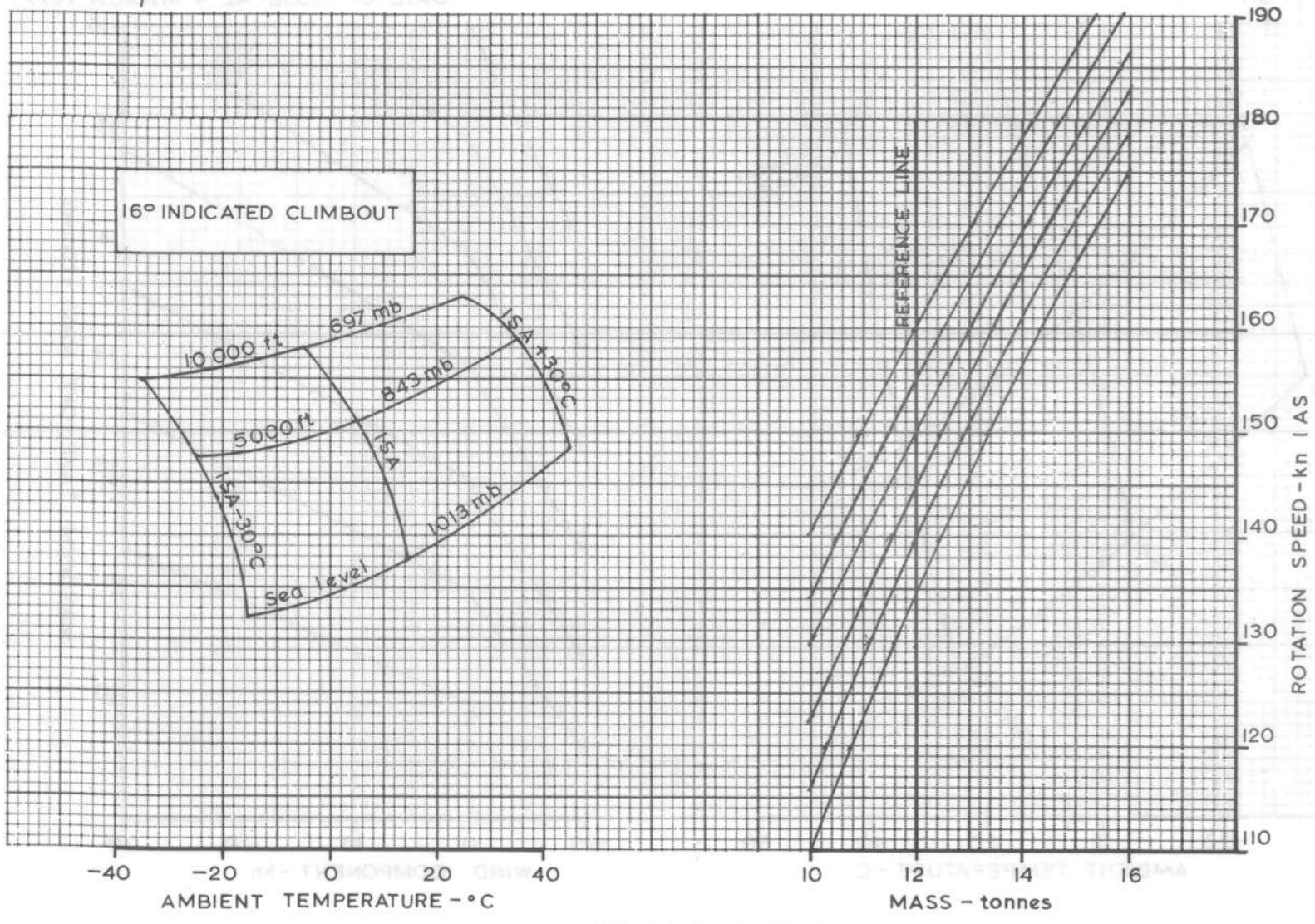


FIG. 5·9

HIGH INCIDENCE TAKE-OFF GROUND RUN

JAGUAR GR MK.1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR/FS11

ENGINES ADOUR MK.102/JP103
DATE OF ISSUE: AL 4 MARCH 1977

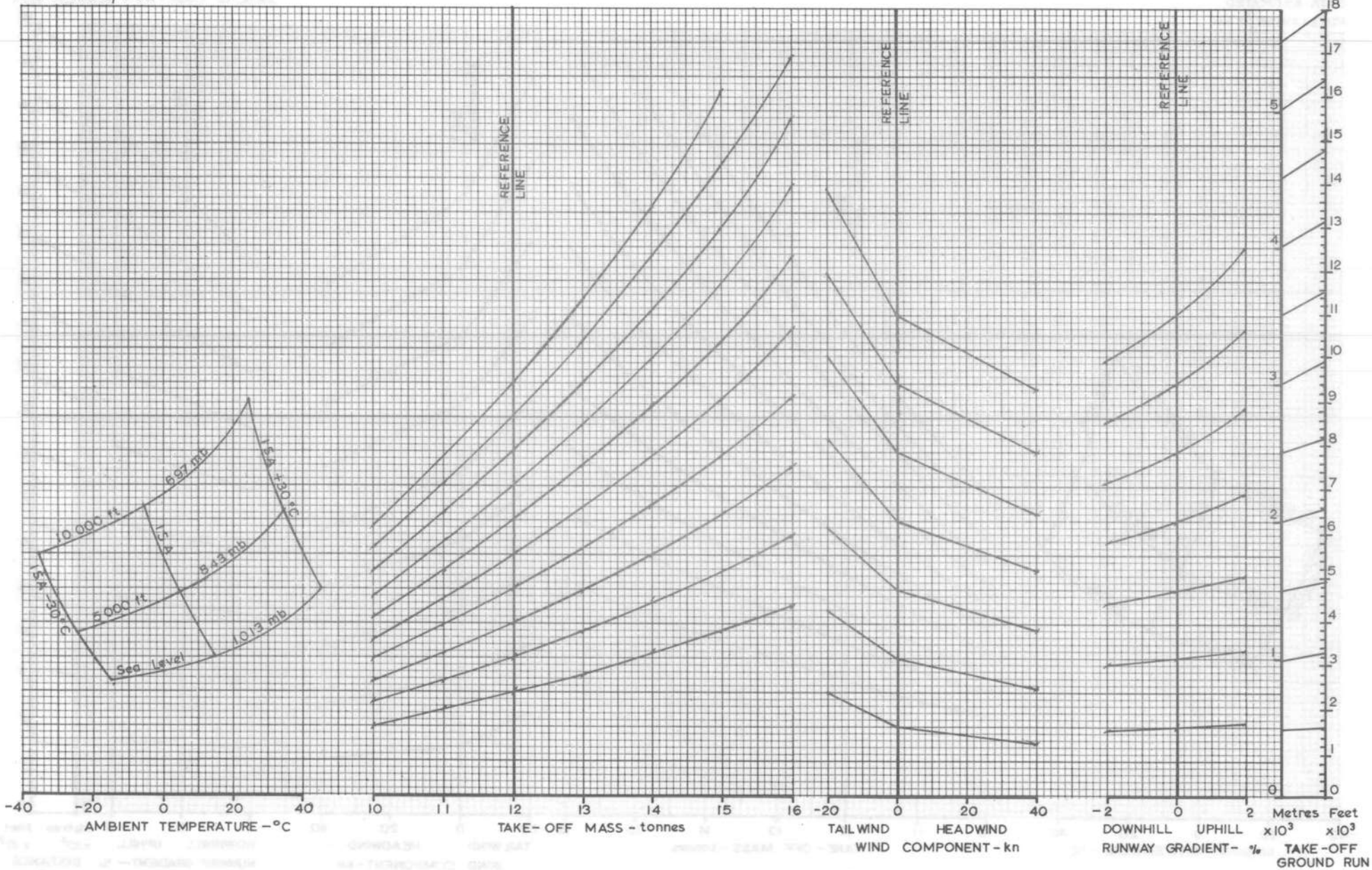


FIG. 5·10

RESTRICTED

HIGH INCIDENCE TAKE-OFF DISTANCE TO 50 ft

JAGUAR GR MK.1 T.MK.2
DATA: ESTIMATED
FUEL: AVTUR / FS11

ENGINES: ADOUR MK. 102 / JP103
DATE OF ISSUE: AL 4 MARCH 1977

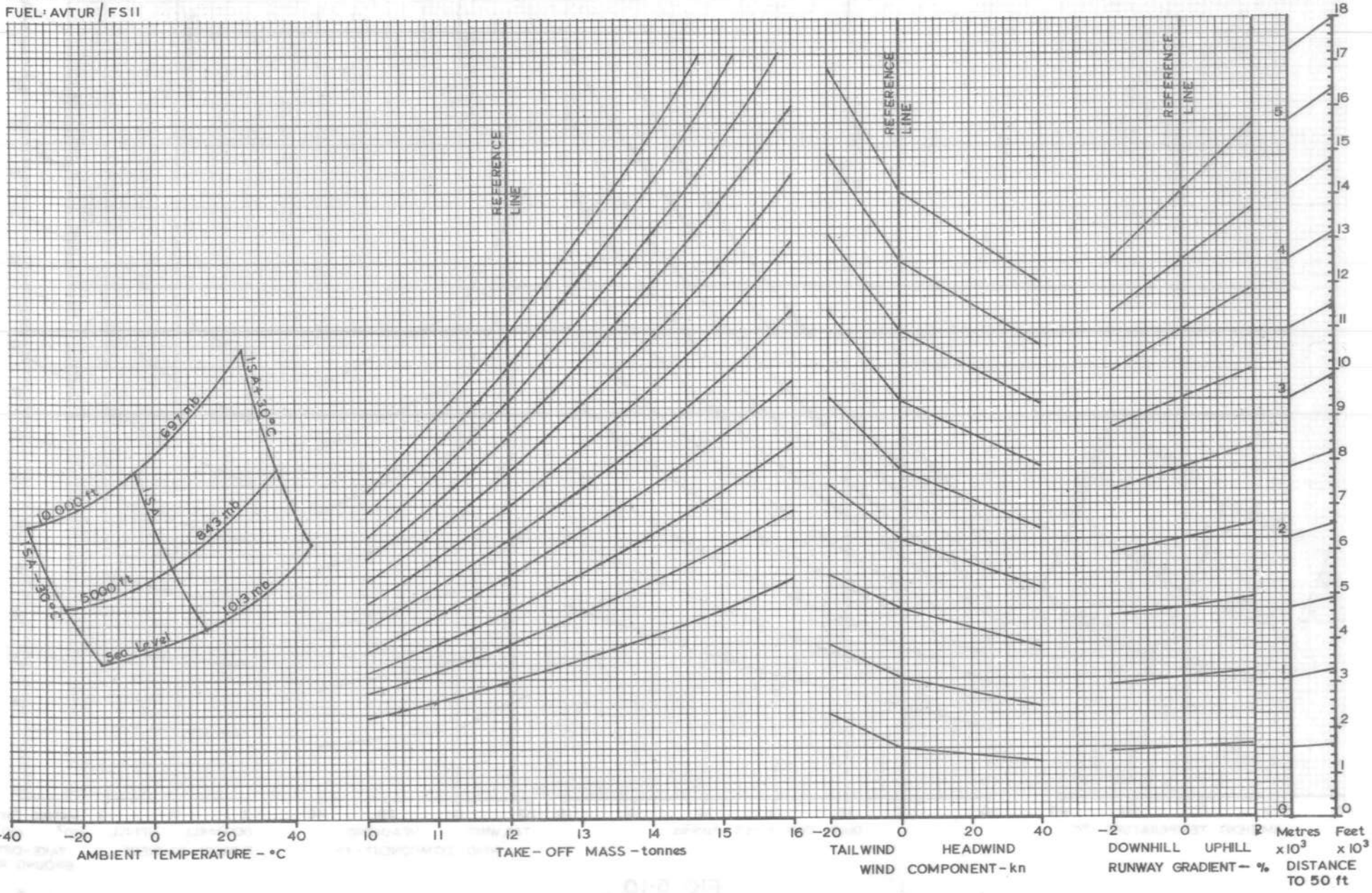


FIG. 5·11

HIGH INCIDENCE TAKE - OFF - UNSTICK SPEEDS

JAGUAR GR. MK. 1 T.MK. 2
DATA : ESTIMATED
FUEL : AVTUR / FS11

ENGINES : ADOUR MK. 102 / JP103
DATE OF ISSUE : AL 4 MARCH 1977

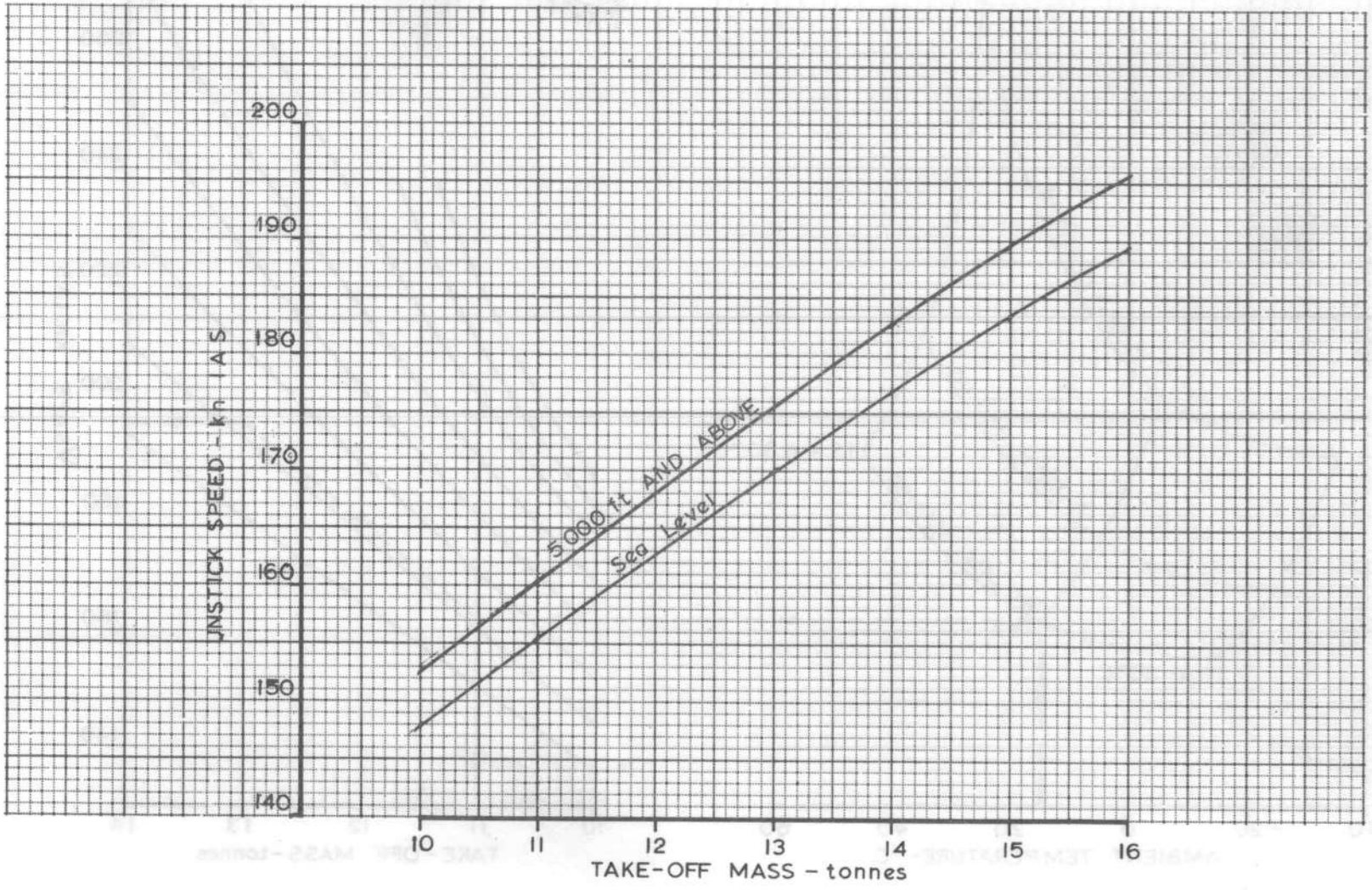


FIG. 5·12

SAFE AIRBORNE SPEED (V SAFE) – UNDERCARRIAGE UP TAKE-OFF FLAP

JAGUAR GR. MK. 1 T. MK. 2
DATA: ESTIMATED
FUEL: AVTUR / FS 11

ENGINES: ADOUR MK. 102 / J P 103
DATE OF ISSUE: AL 4 MARCH 1977

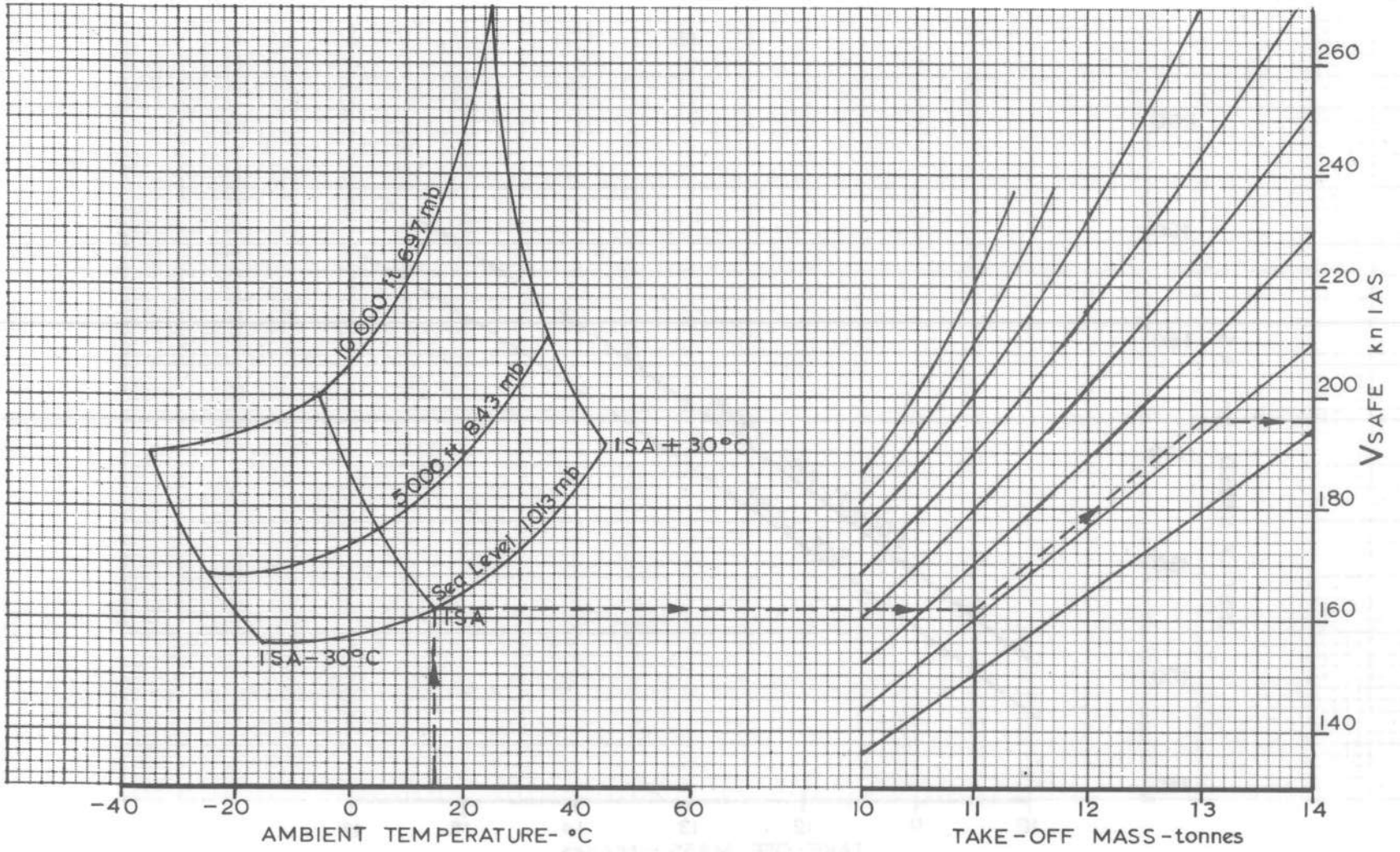


FIG. 5·13

EMERGENCY MAXIMUM BRAKING SPEED – PARACHUTE STREAMED

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL 4 MARCH 1977

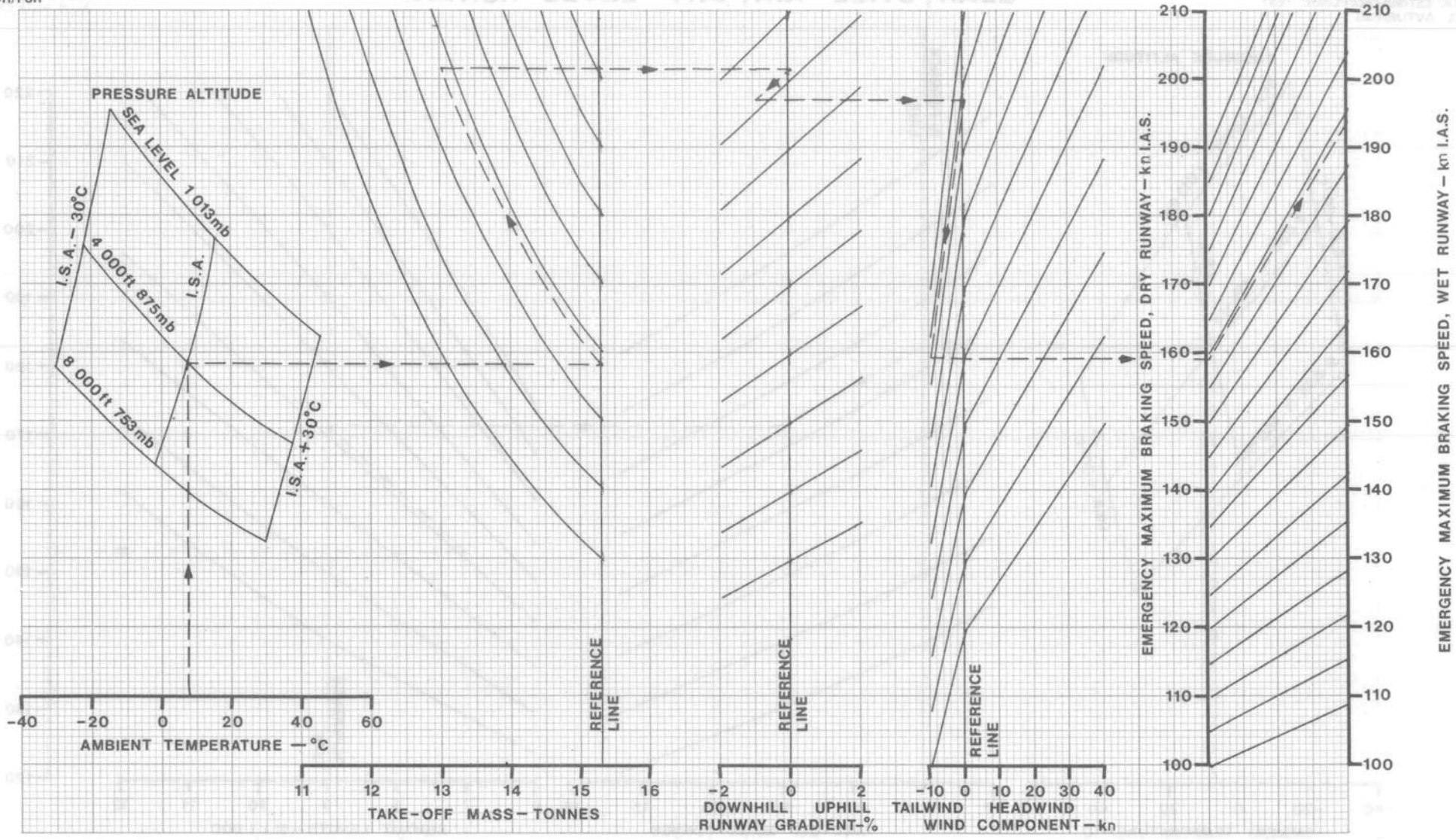


FIG. 5.14

MAXIMUM TAKE-OFF ABORT SPEED (V stop) – PARACHUTE STREAMED, NO ARRESTER GEAR, STILL AIR, DRY LEVEL RUNWAY

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL 4 MARCH 1977

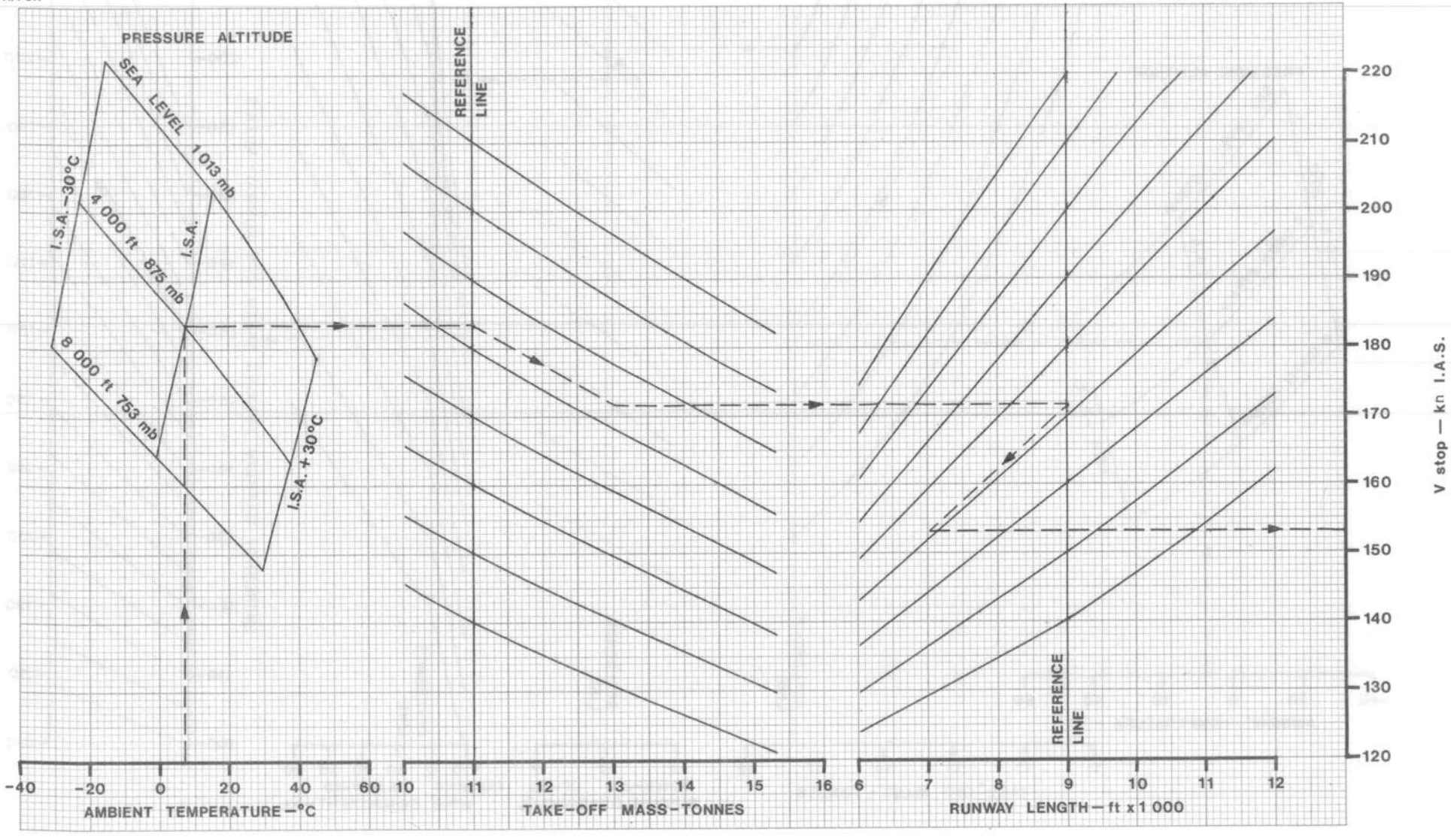


FIG.5.15A

EFFECT OF WIND COMPONENT AND RUNWAY CONDITIONS ON Vstop

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.6 FEBRUARY 1978

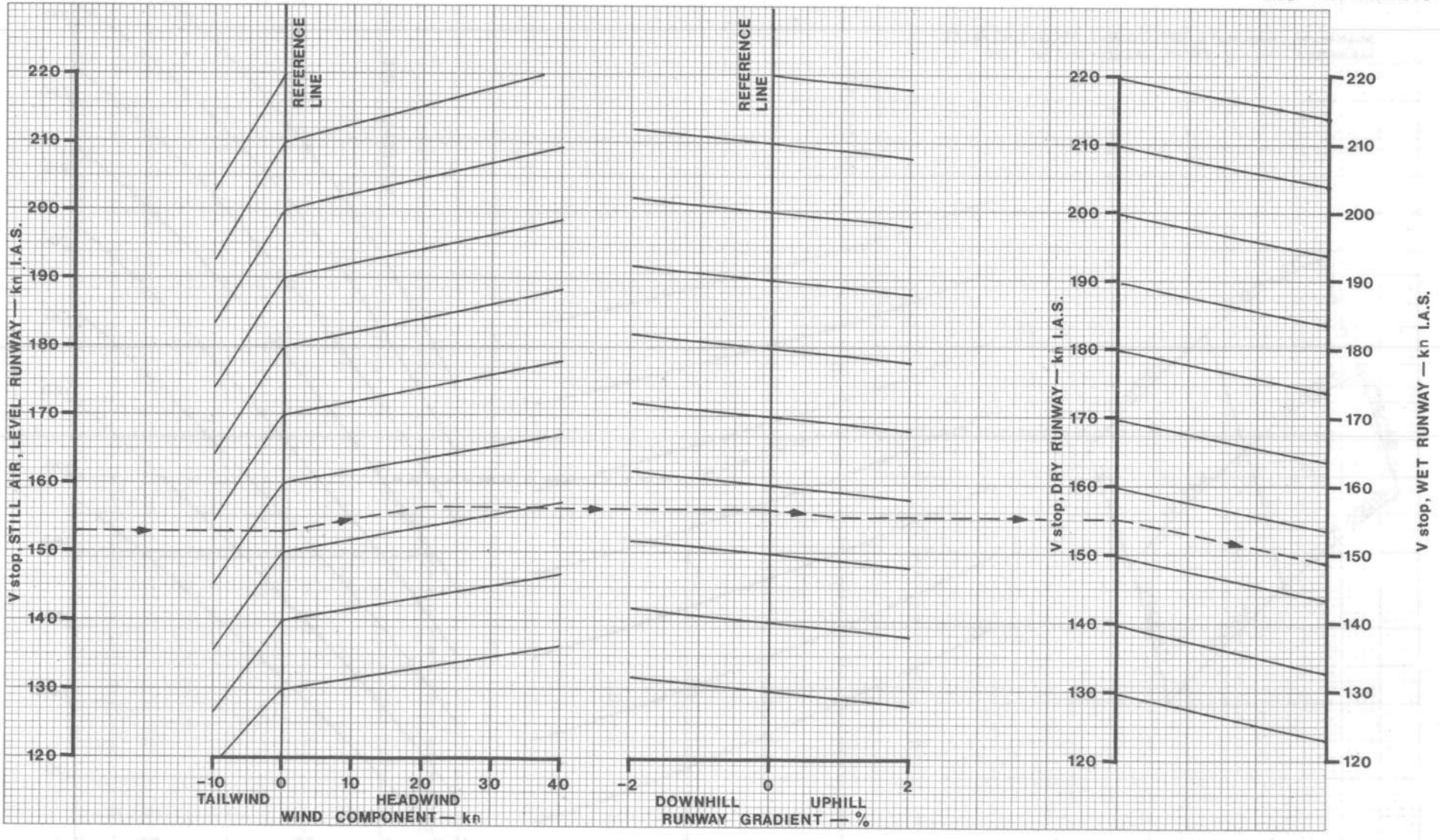


FIG. 5.15B

MAXIMUM TAKE-OFF ABORT SPEED (VSTOP) - INTO R H A G PARACHUTE STREAMED, STILL AIR DRY, LEVEL RUNWAY

AP 101B-3100-16
AL 6 FEBRUARY 1978

JAGUAR : GR MK.1 T MK.2
DATA : ESTIMATED FLIGHT
FUEL : AVTUR/FS II

ENGINES: ARDOUR Mk 102/JP103
DATE OF ISSUE: FEBRUARY 1978

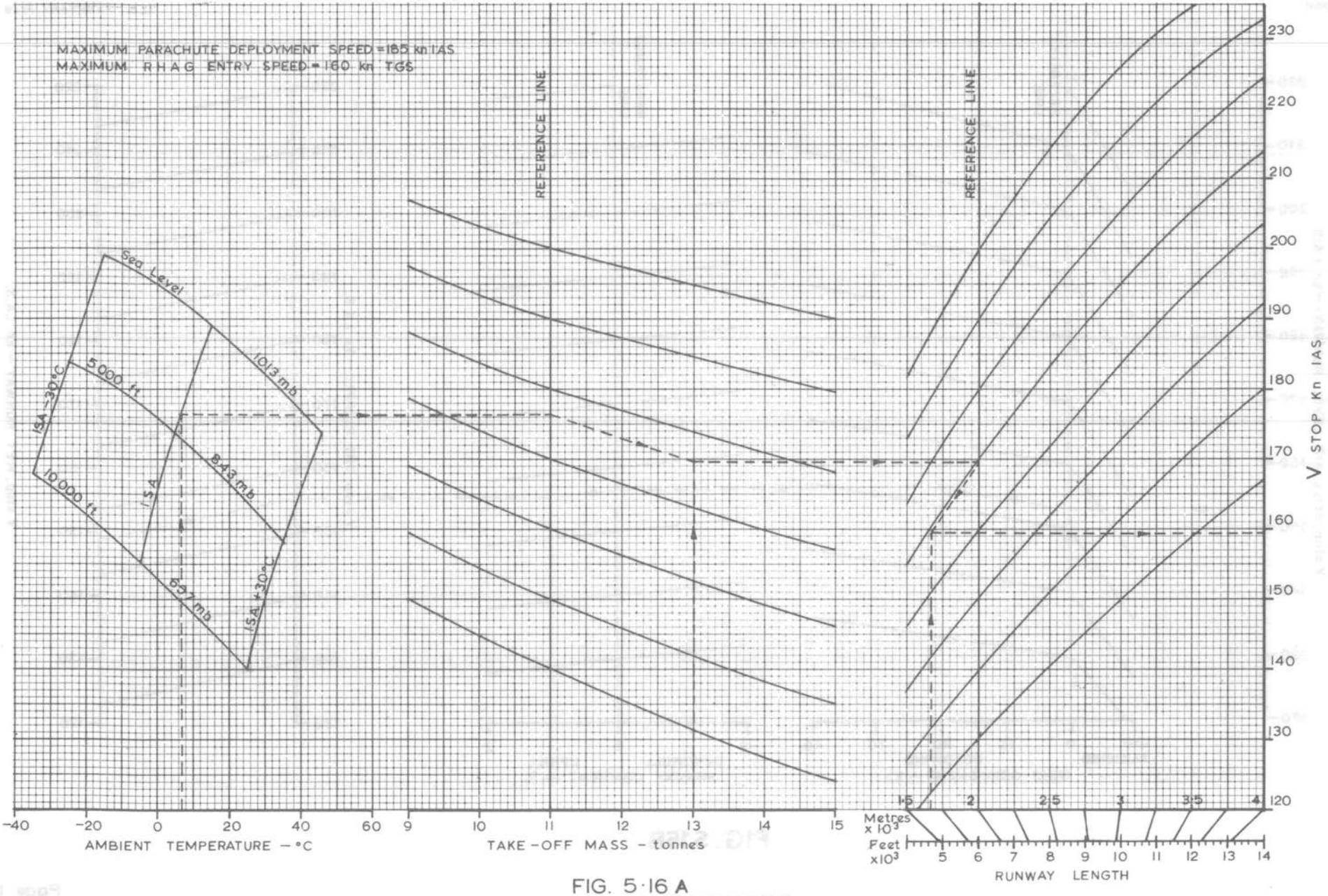


FIG. 5·16 A

EFFECT OF WIND COMPONENT AND RUNWAY CONDITIONS ON VSTOP INTO RHAG

JAGUAR : GR MK.1 T MK.2
DATA : ESTIMATED / FLIGHT TEST
FUEL : AVTUR/FS II

ENGINES: ADOUR Mk 102/JP103
DATE OF ISSUE: FEBRUARY 1978

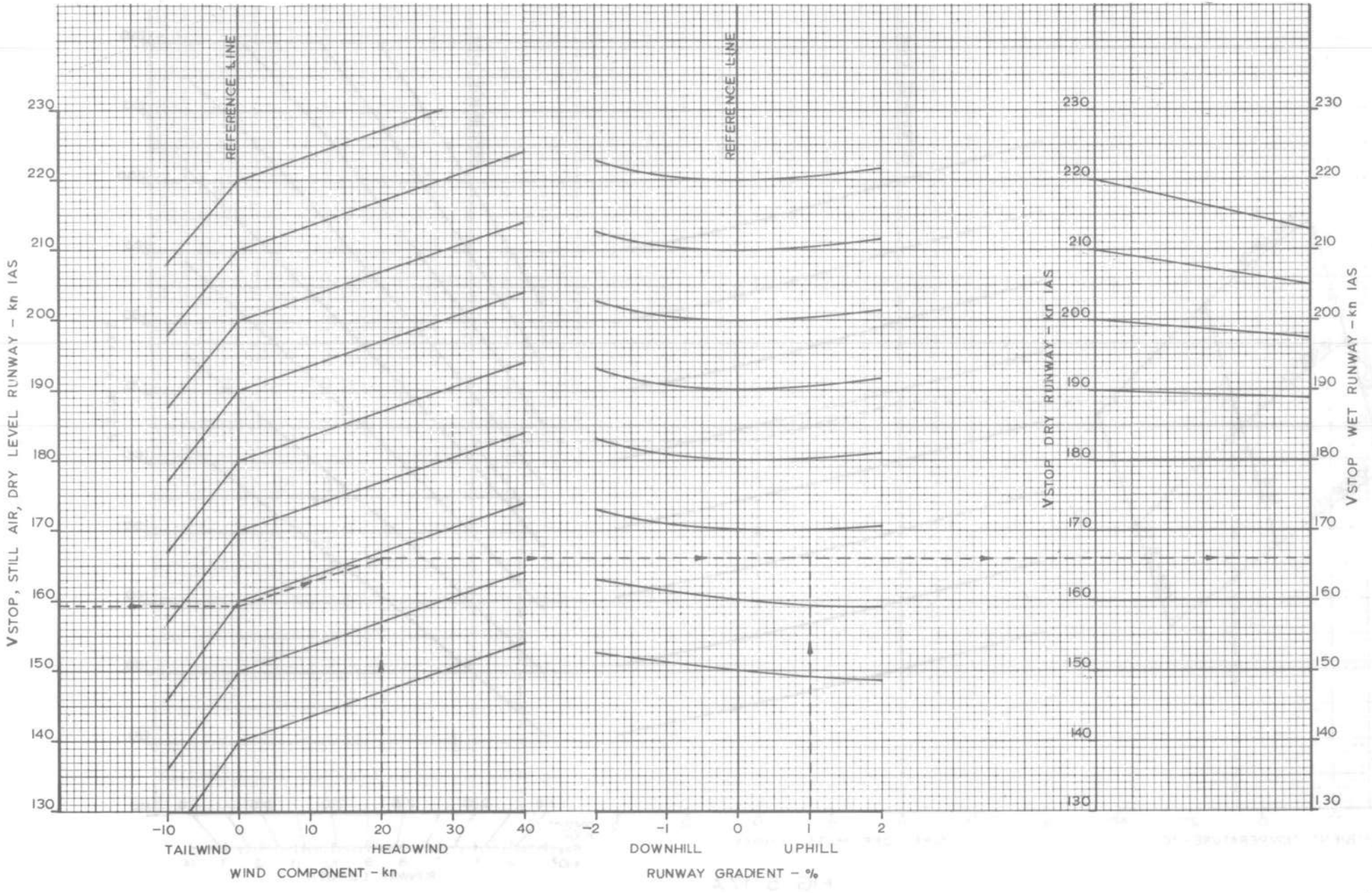


FIG. 5·16 B

MAXIMUM TAKE-OFF ABORT SPEED (VSTOP) INTO RHAG, NO PARACHUTE, STILL AIR, DRY, LEVEL RUNWAY

AP 101B-3100-16
AL.6 FEBRUARY 1978

JAGUAR : GR MK.1 T MK.2
DATA : ESTIMATED / FLIGHT TEST
FUEL : AVTUR / FS 11

ENGINES: ADOUR Mk 102/JP103
DATE OF ISSUE: FEBRUARY 1978

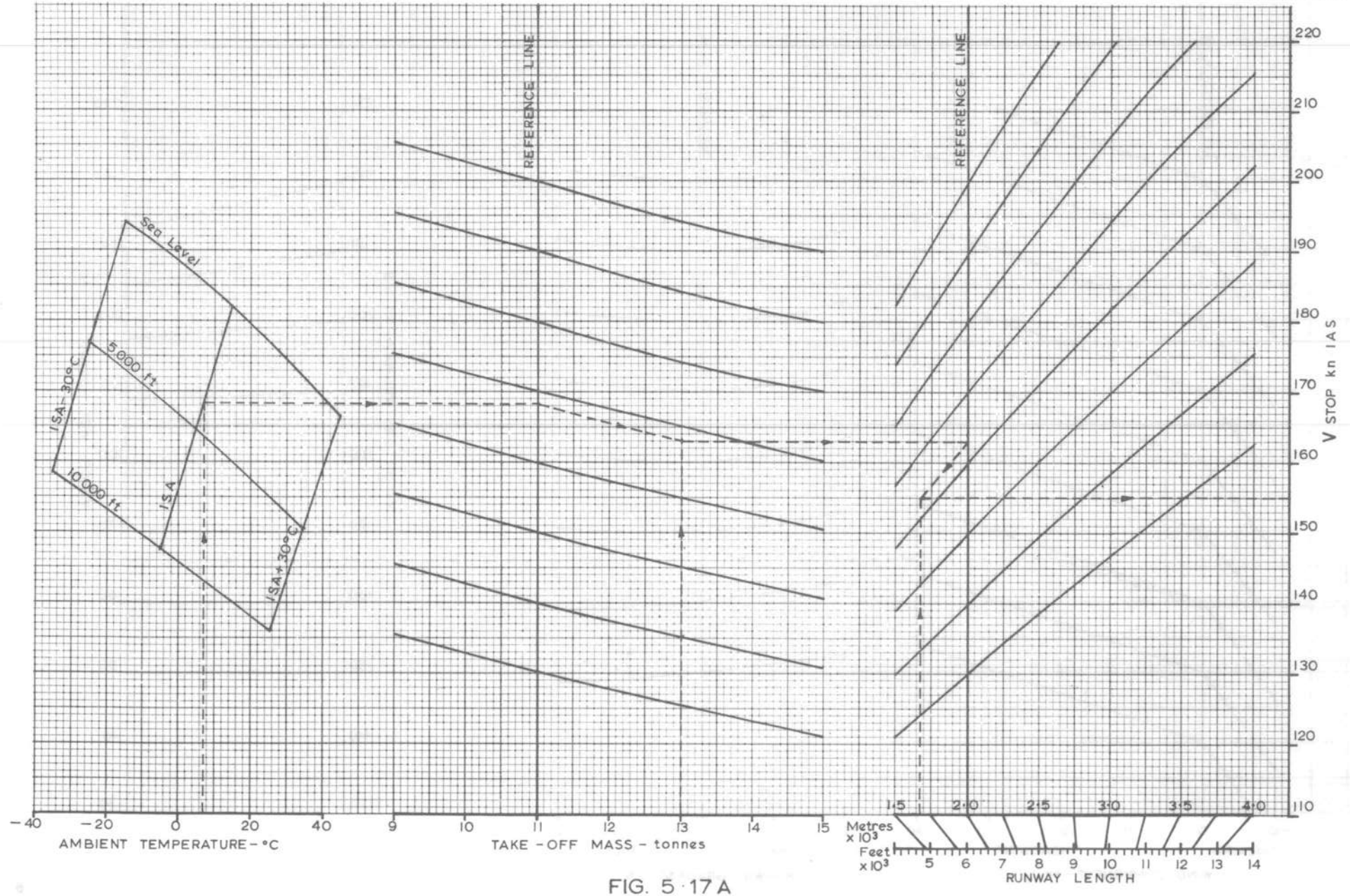


FIG. 5·17A

EFFECT OF WIND COMPONENT AND RUNWAY CONDITIONS ON VSTOP INTO RHAG

JAGUAR G.R. Mk.1. T. Mk 2
DATA ESTIMATED
FUEL AVTUR/FS11

ENGINES: ARDOUR Mk 102/JP103
DATE OF ISSUE: FEBRUARY 1978

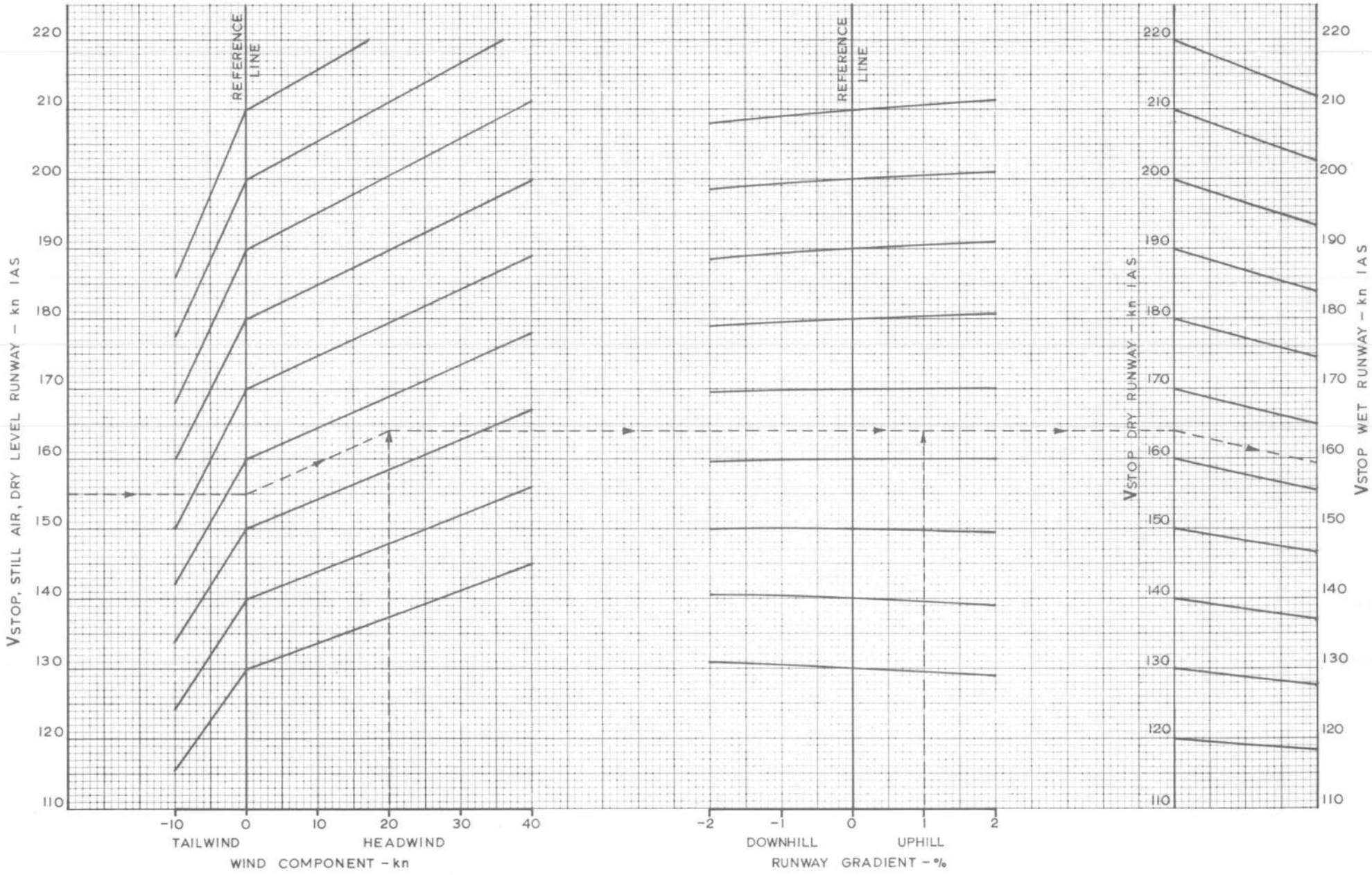


FIG. 5·17 B

SECTION 6
CLIMB

$\therefore$ Mass at start of climb = 10000 kg
− 305 kg
9695 kg

From Fig. 6.9(B), the fuel used for a max dry climb from sea level to 20000 ft is 180 kg, and the fuel used for a max dry climb from sea level to 8000 ft is 65 kg.

$\therefore$ The fuel used for a max dry climb from 8000 ft to 20000 ft = 180 − 65 kg = 115 kg

$\therefore$ The total fuel used to reach 20000 ft 420 kg

PRE-MAX. REHEAT CLIMB — FUEL AND TIME

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

NOTE...
1. THIS CHART SHOWS FUEL USED AND TIME FOR TAKE-OFF AND MAX. REHEAT ACCELERATION TO MAX. REHEAT CLIMB SPEED. A TYPICAL PRE-TAKE-OFF FUEL ALLOWANCE IS 100 kg.
2. DRAG INDEX HAS A NEGLIGIBLE EFFECT.

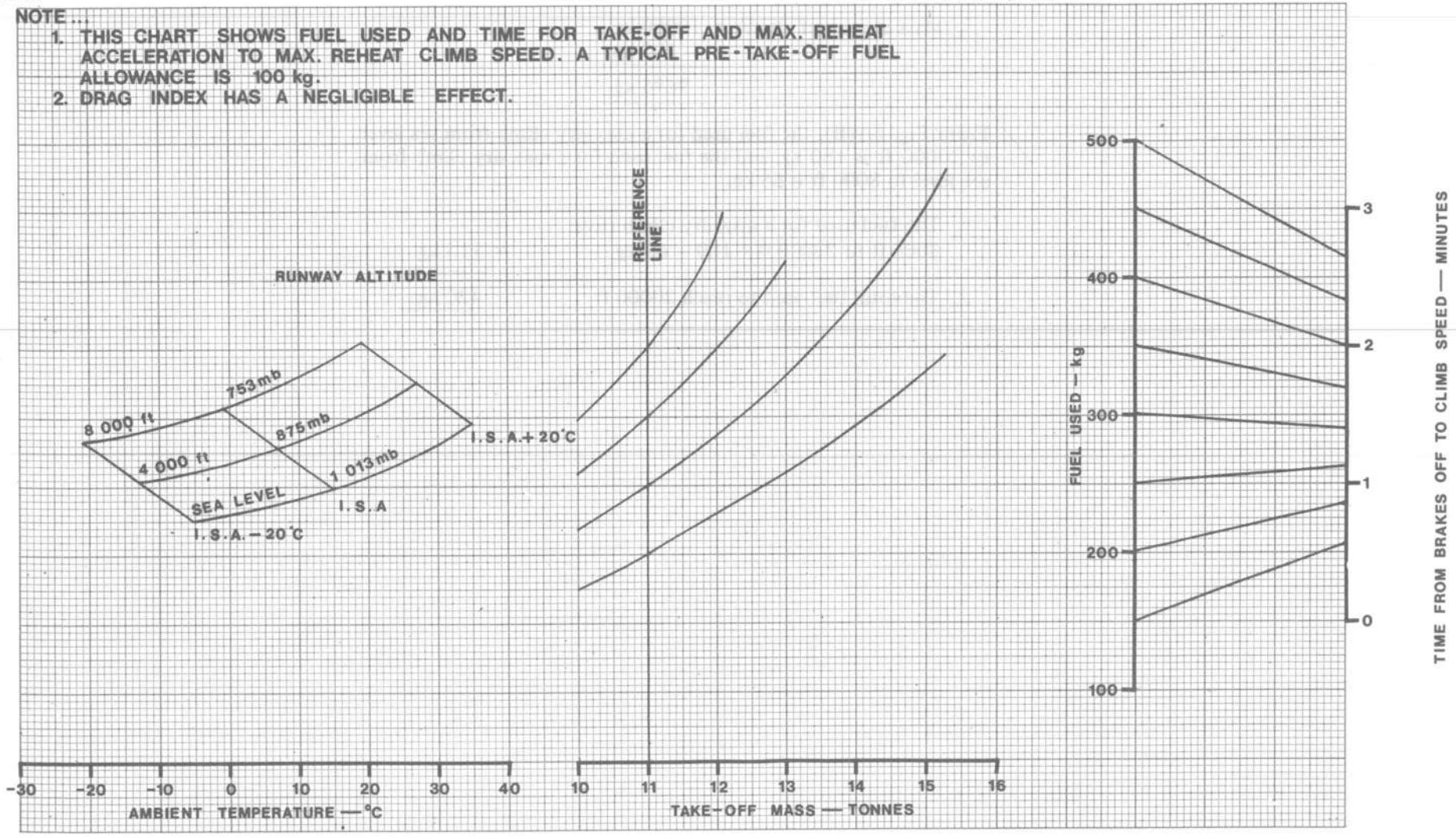


FIG. 6.1.

PRE-MAX. DRY CLIMB — FUEL AND TIME

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

NOTE...
1. THIS CHART SHOWS FUEL USED AND TIME FOR TAKE-OFF AND ACCELERATION TO MAX. DRY CLIMB SPEED WITH REHEAT SHUT DOWN AT 350 kt.
2. DRAG INDEX HAS A NEGLIGIBLE EFFECT.

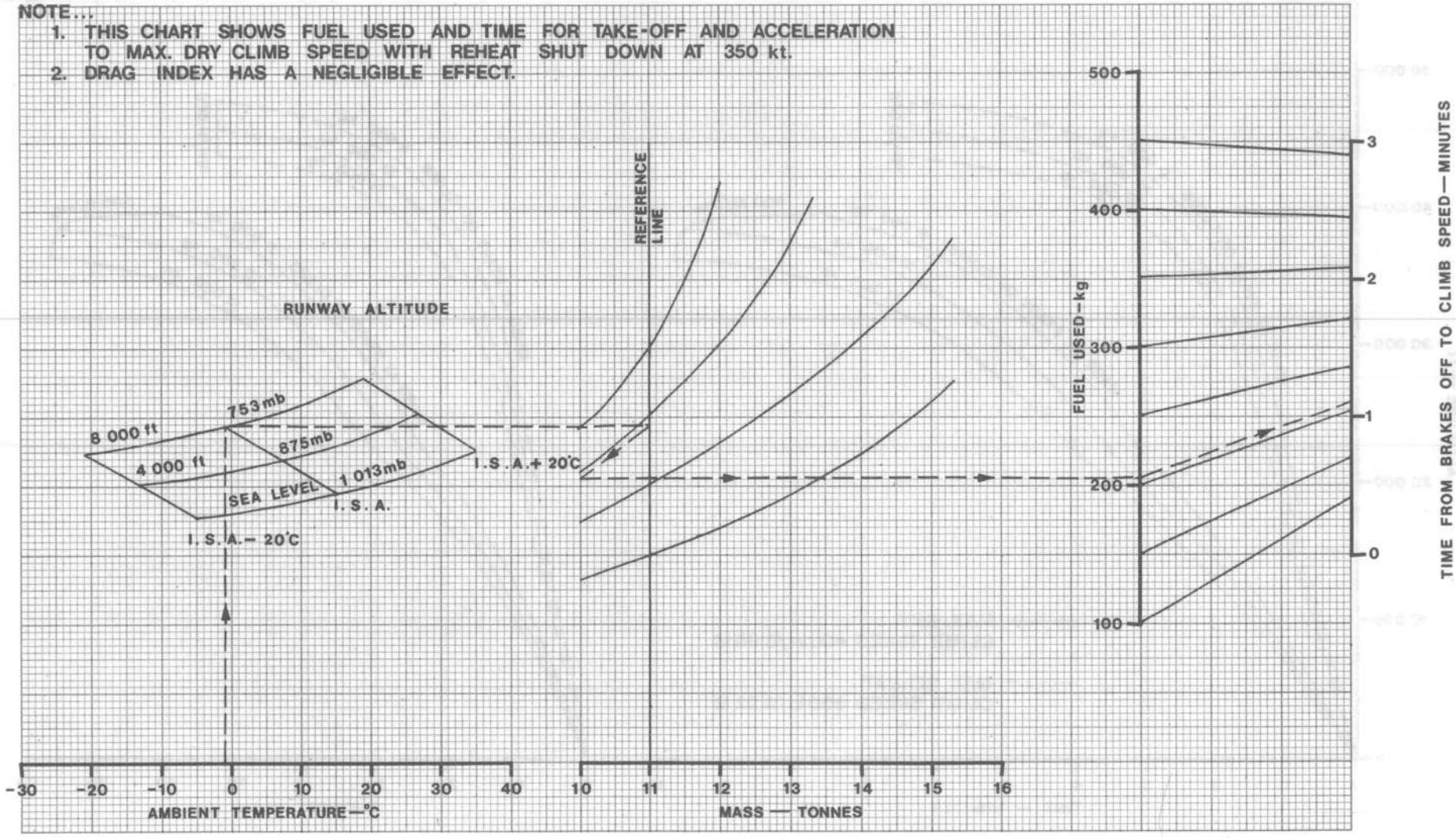


FIG. 6.2.

CLIMB PERFORMANCE — DRAG INDEX 0, I.S.A.-20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

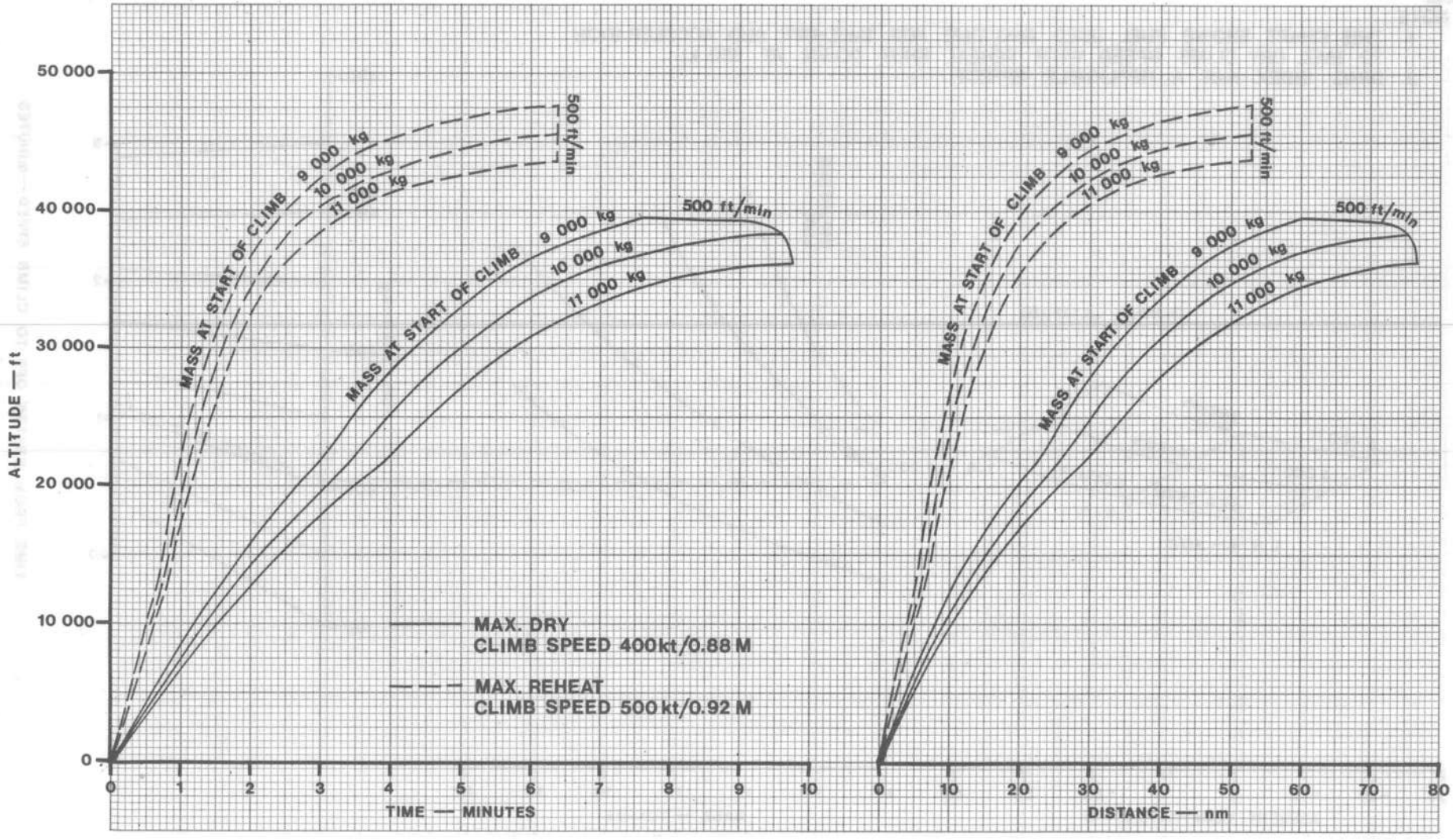


FIG. 6.3(A).

CLIMB PERFORMANCE — DRAG INDEX 0, I.S.A.-20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

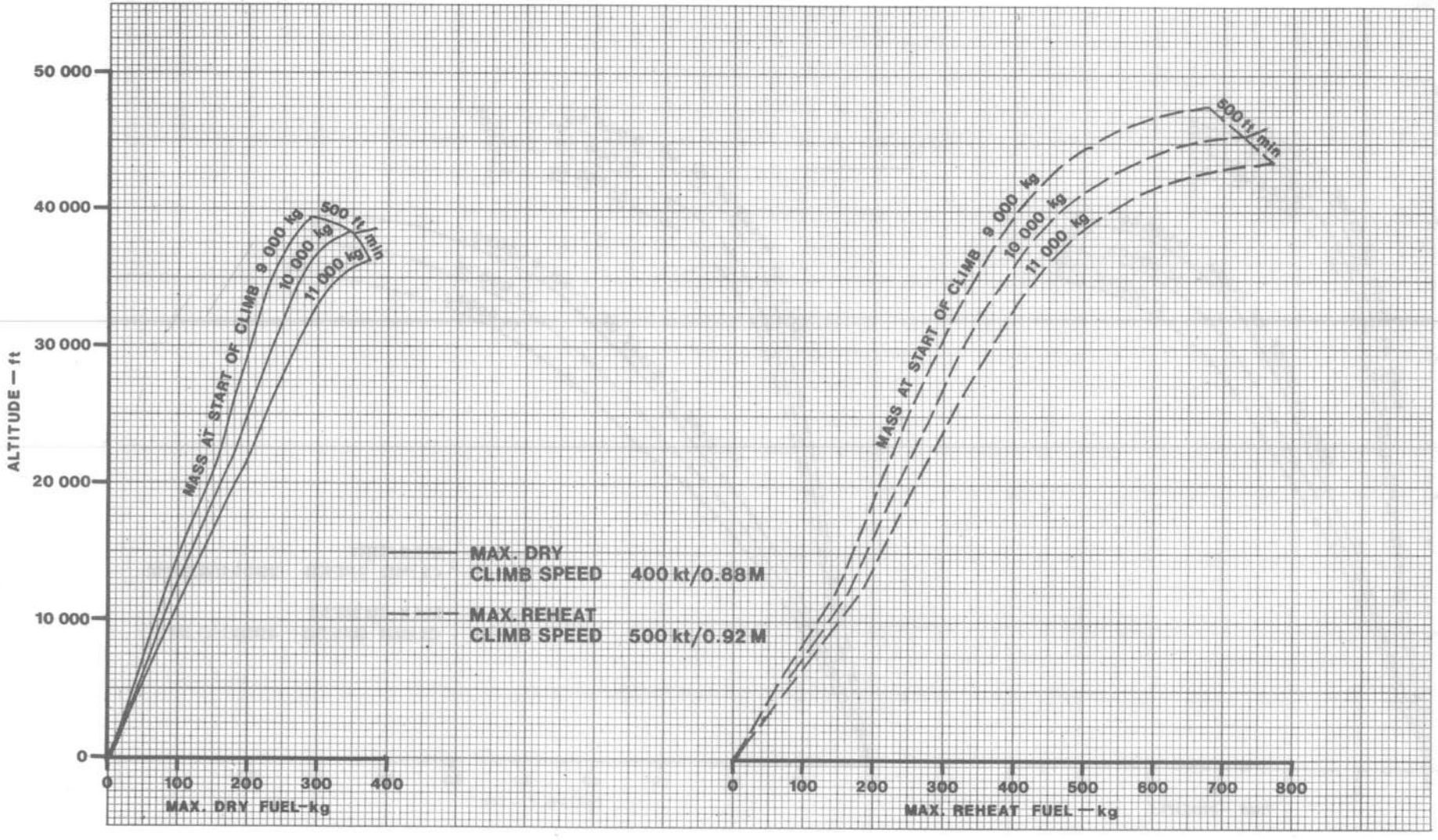


FIG.6.3(B).

CLIMB PERFORMANCE – DRAG INDEX 10, I.S.A. –20 °C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

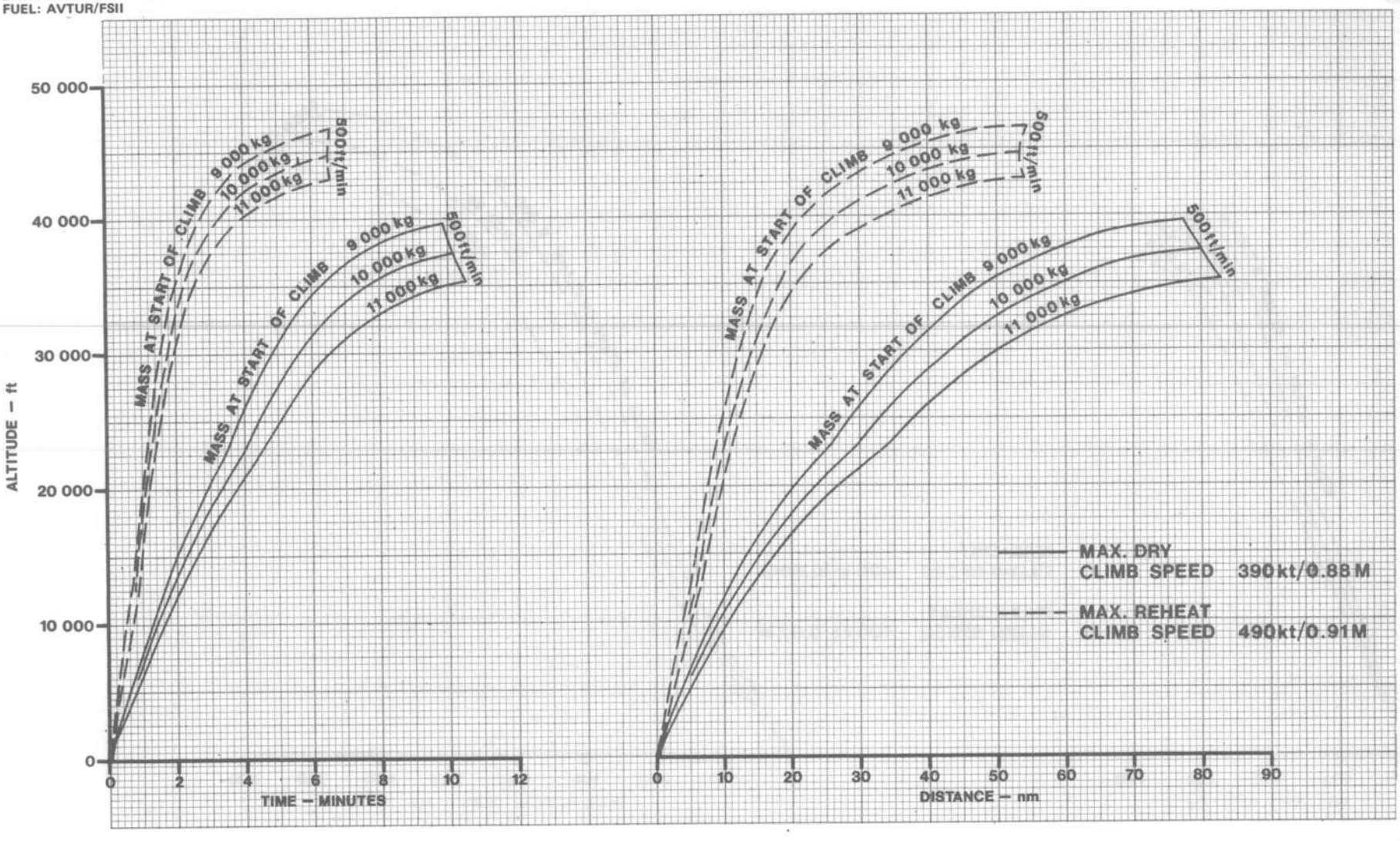


FIG. 6.4(A)

CLIMB PERFORMANCE — DRAG INDEX 10, I.S.A. −20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

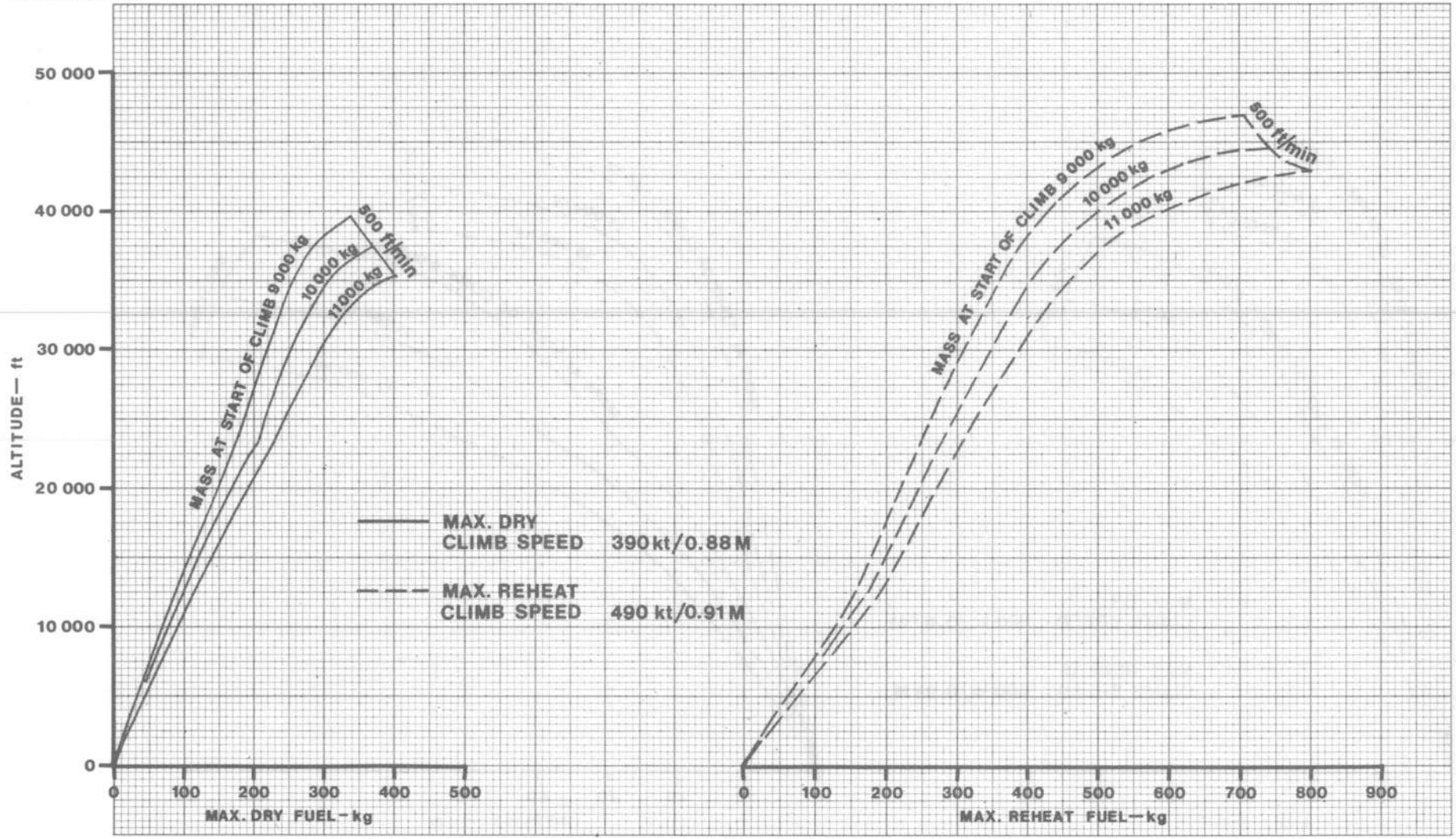


FIG.6.4(B).

CLIMB PERFORMANCE — DRAG INDEX 20, I.S.A. – 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

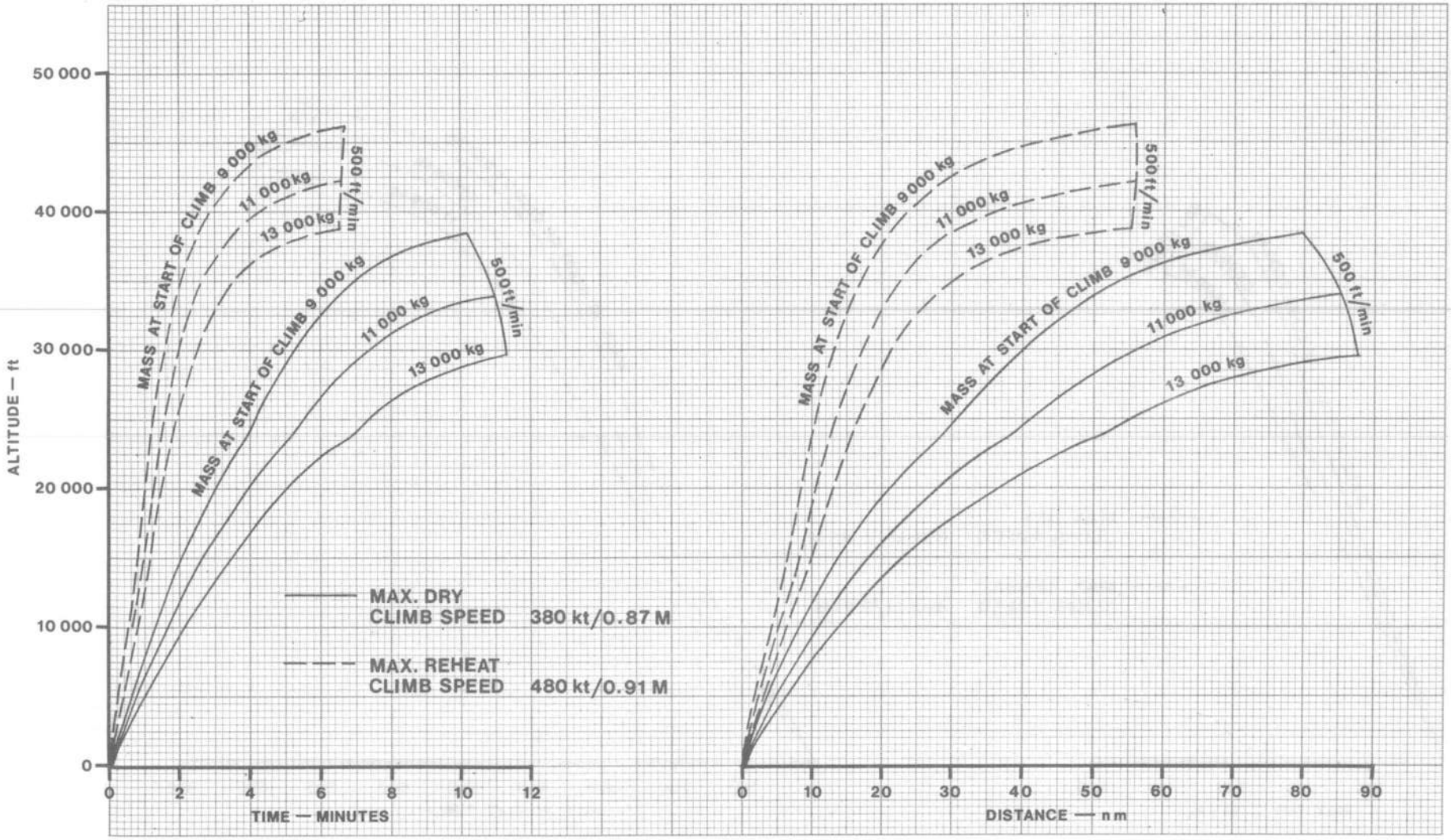


FIG.6.5(A).

CLIMB PERFORMANCE — DRAG INDEX 20, I.S.A. -20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

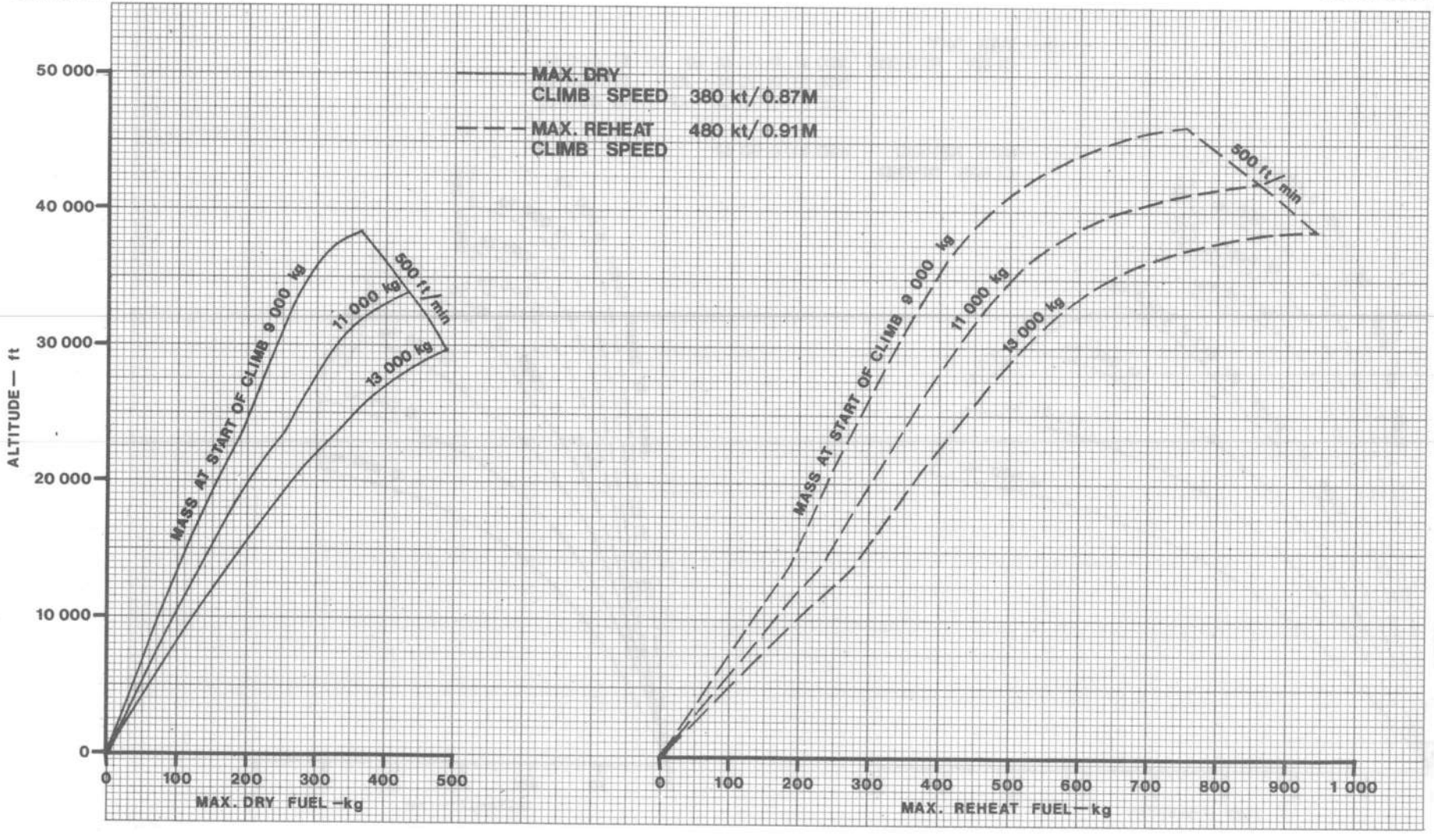


FIG. 6.5(B).

CLIMB PERFORMANCE — DRAG INDEX 40, I.S.A. – 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

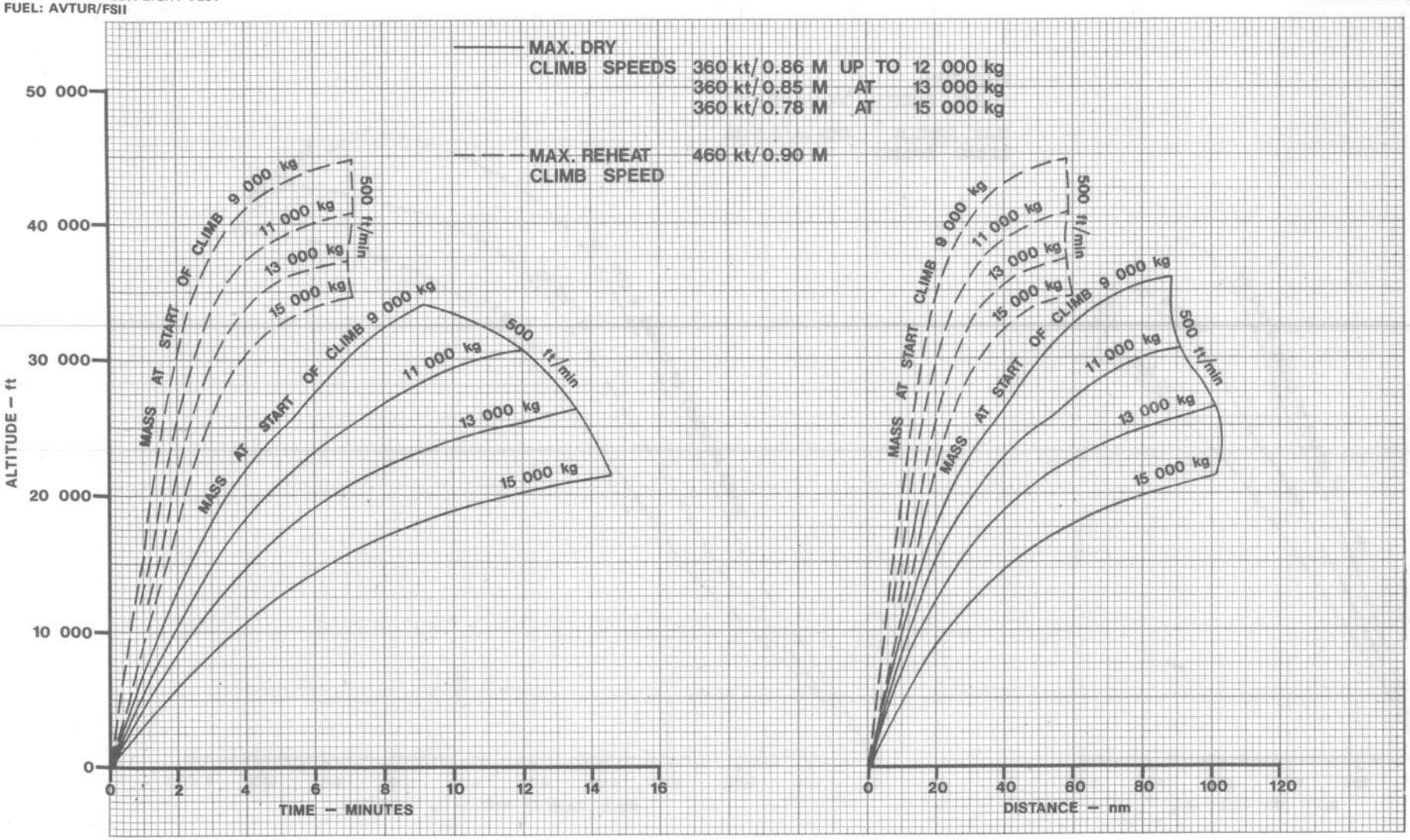


FIG.6.6(A).

CLIMB PERFORMANCE — DRAG INDEX 40, I.S.A.-20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

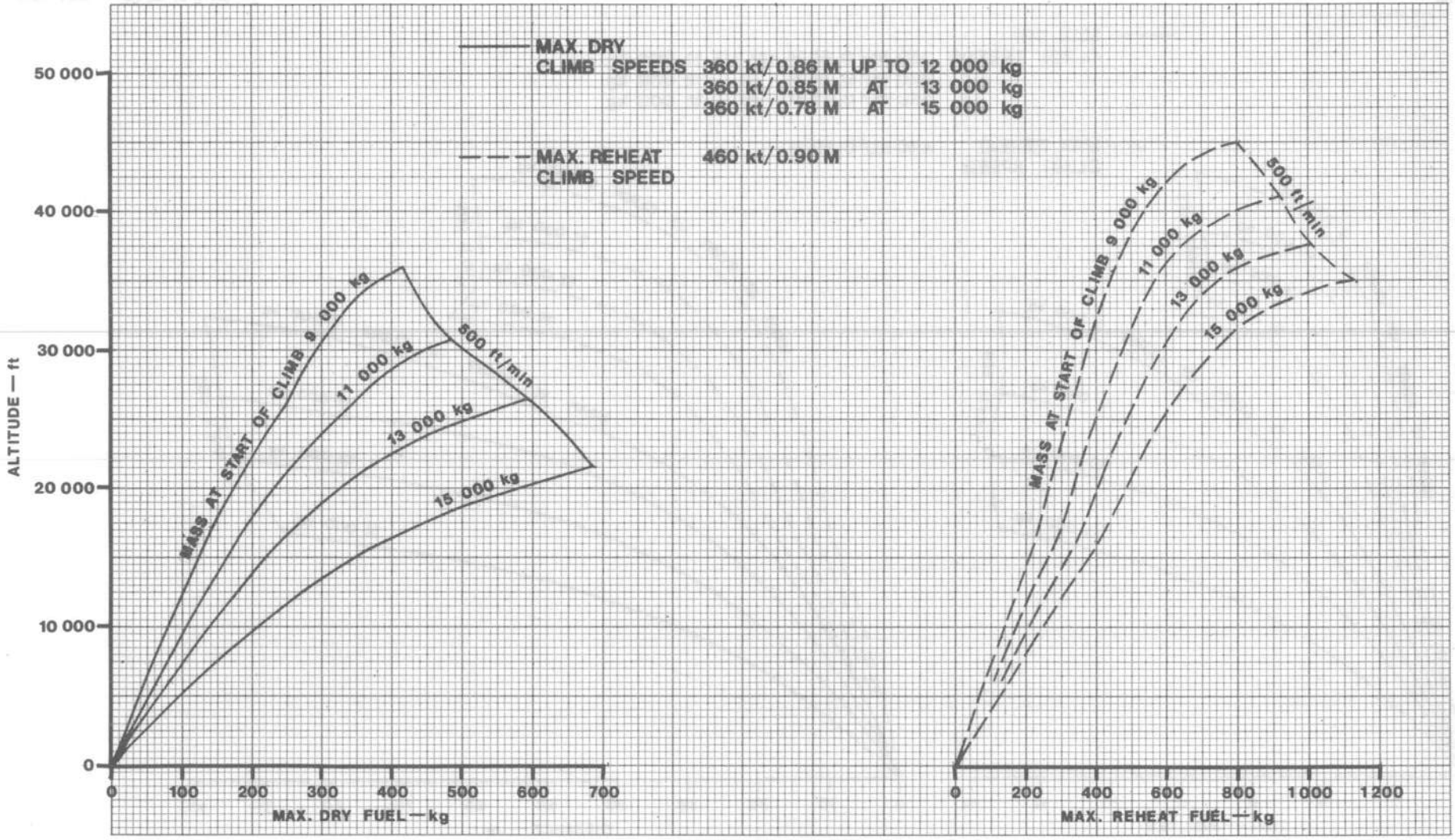


FIG. 6.6(B).

CLIMB PERFORMANCE — DRAG INDEX 60, I.S.A.-20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

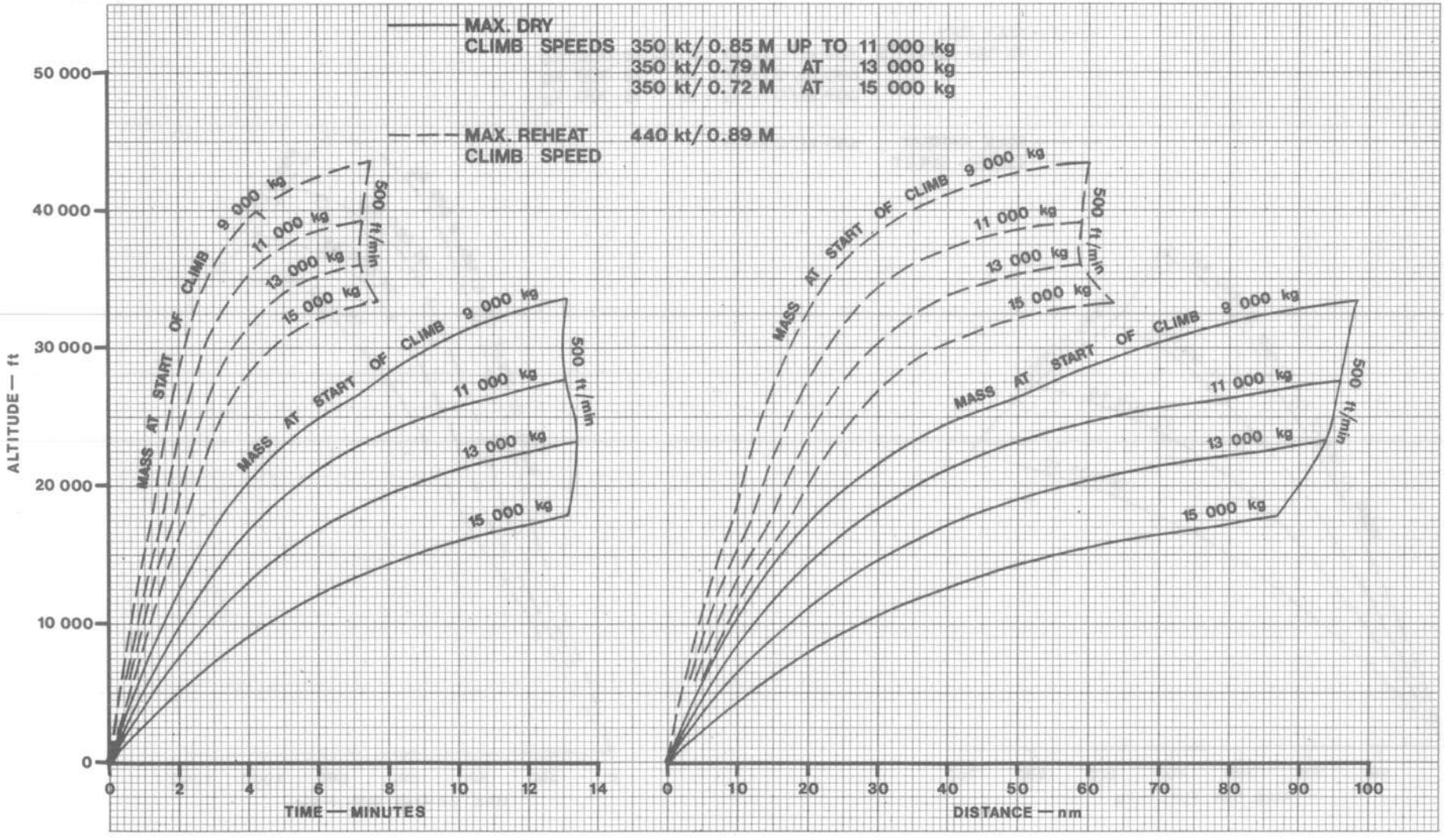


FIG. 6.7(A).

CLIMB PERFORMANCE — DRAG INDEX 60, I.S.A.-20 °C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

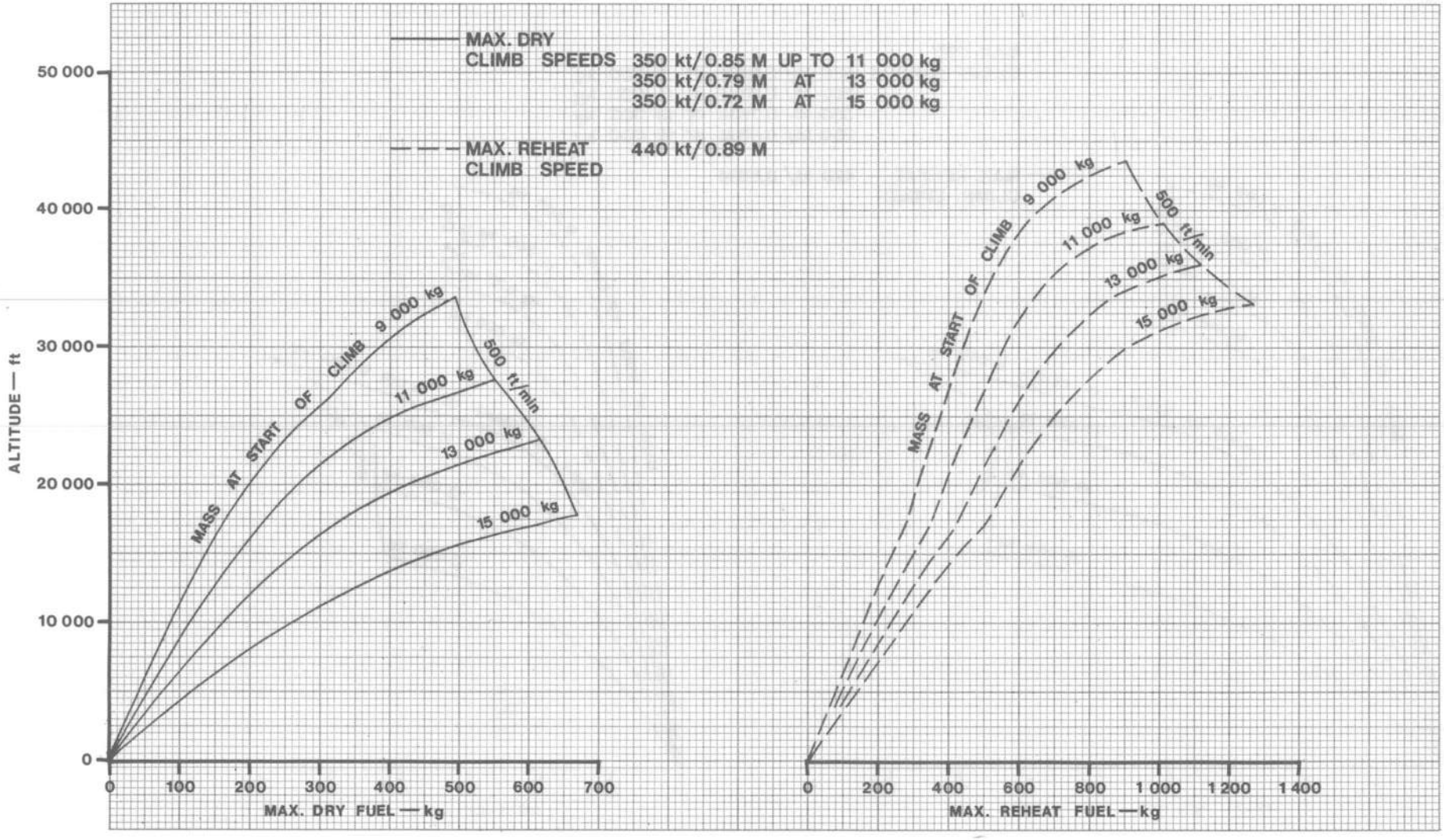


FIG. 6.7(B).

CLIMB PERFORMANCE — DRAG INDEX 80, I.S.A. – 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

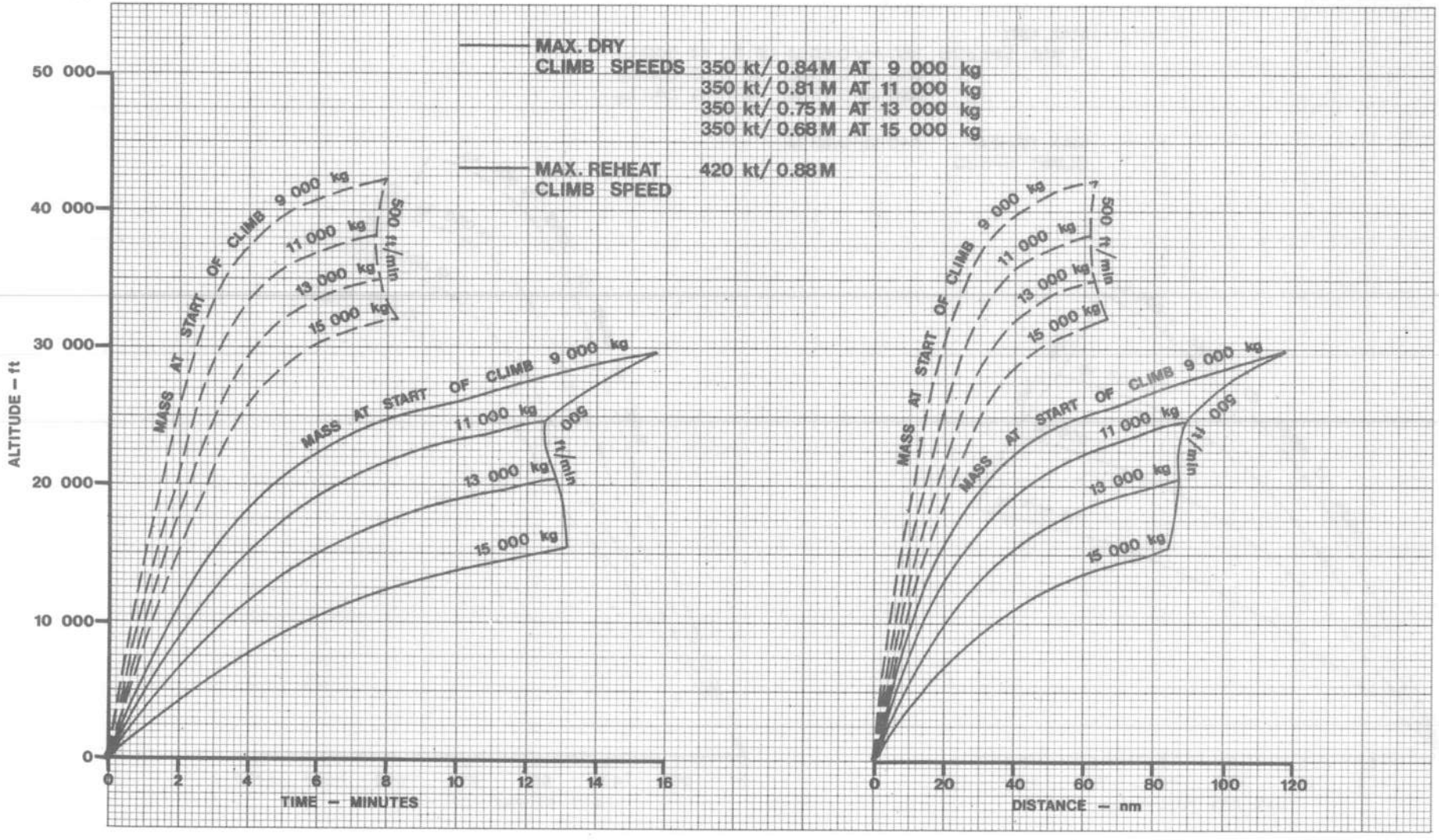


FIG.6.8(A).

CLIMB PERFORMANCE – DRAG INDEX 80, I.S.A.–20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

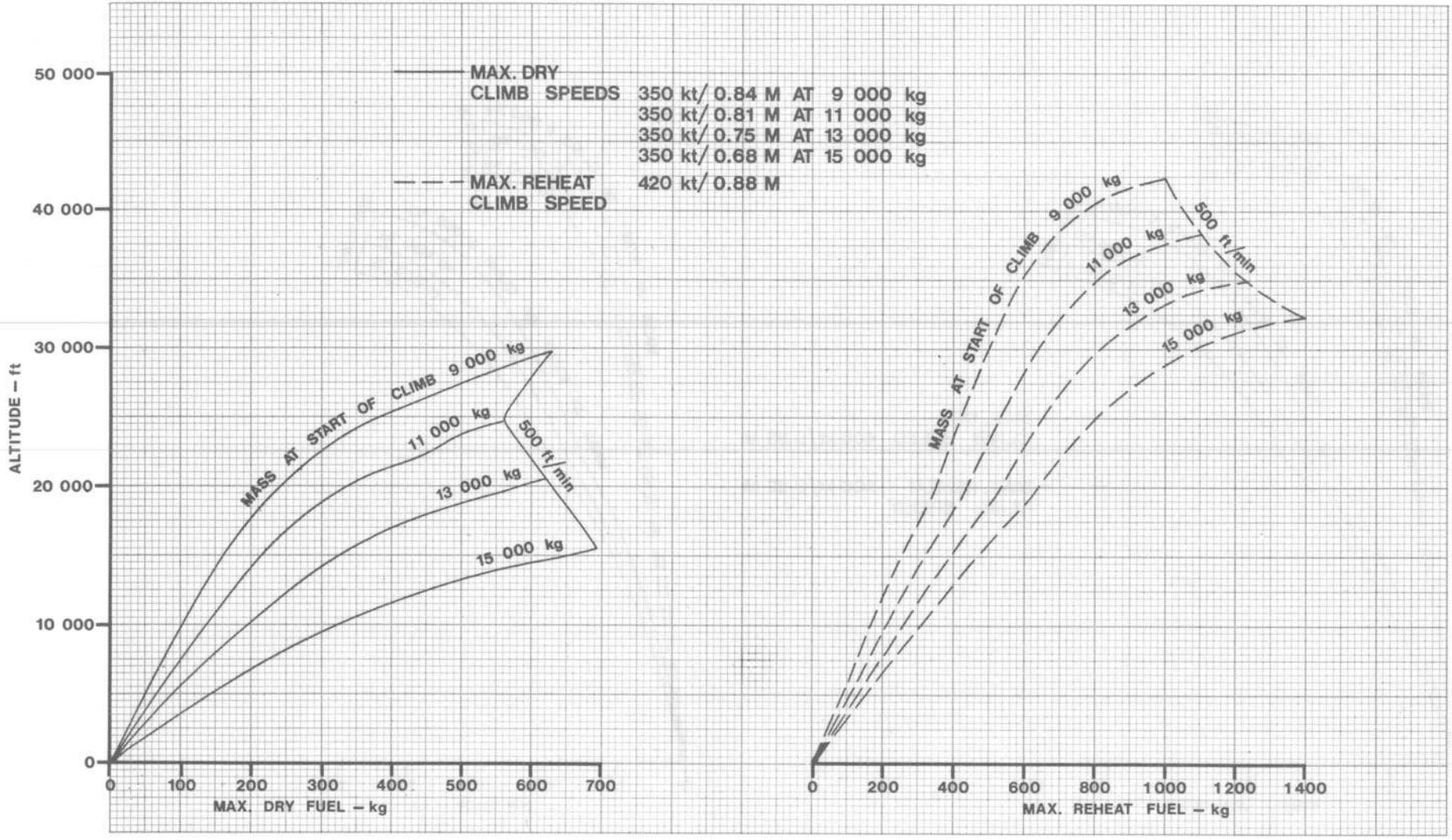


FIG.6.8(B).

CLIMB PERFORMANCE — DRAG INDEX 0, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

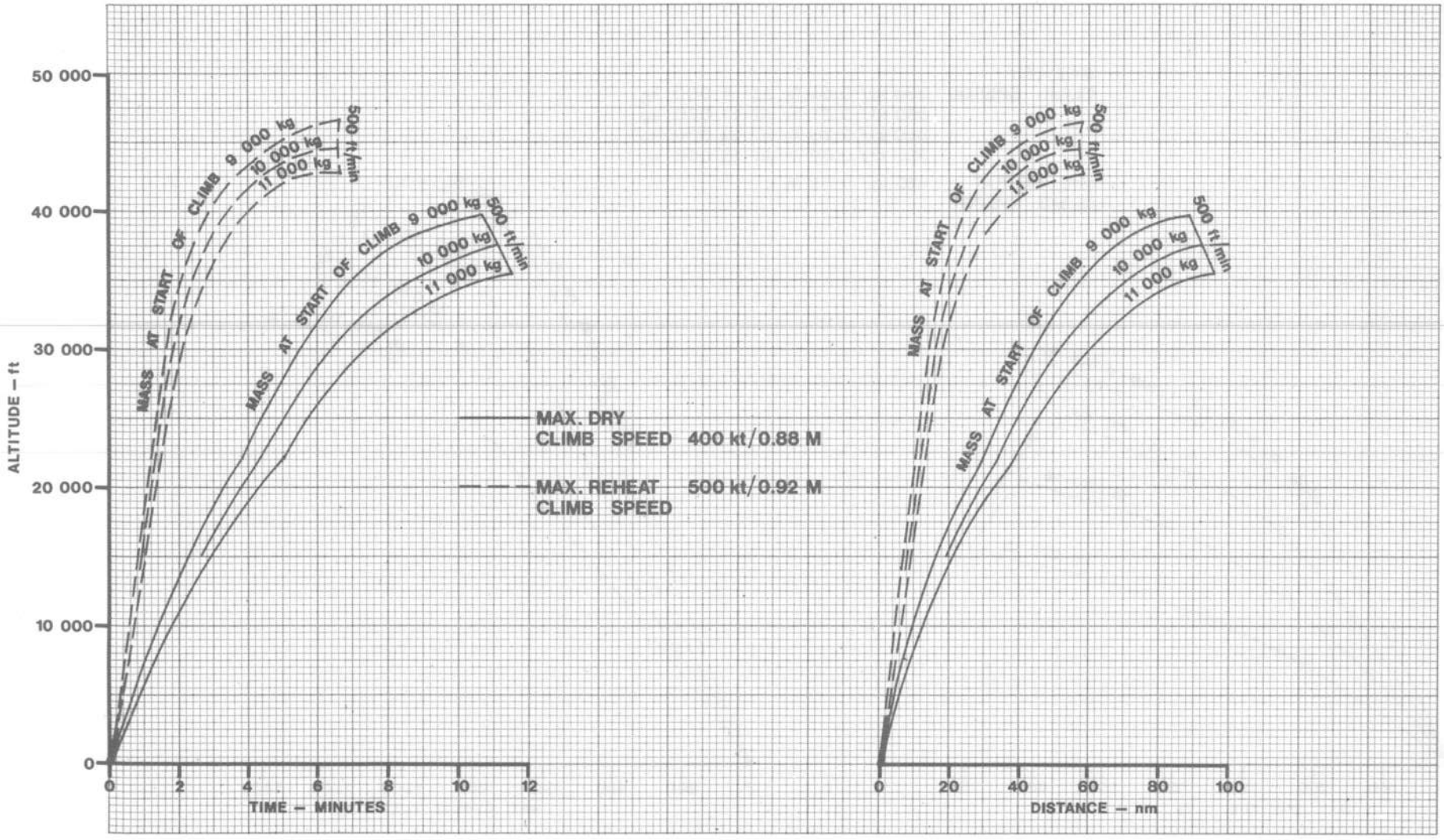


FIG.6.9(A).

CLIMB PERFORMANCE – DRAG INDEX 0, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

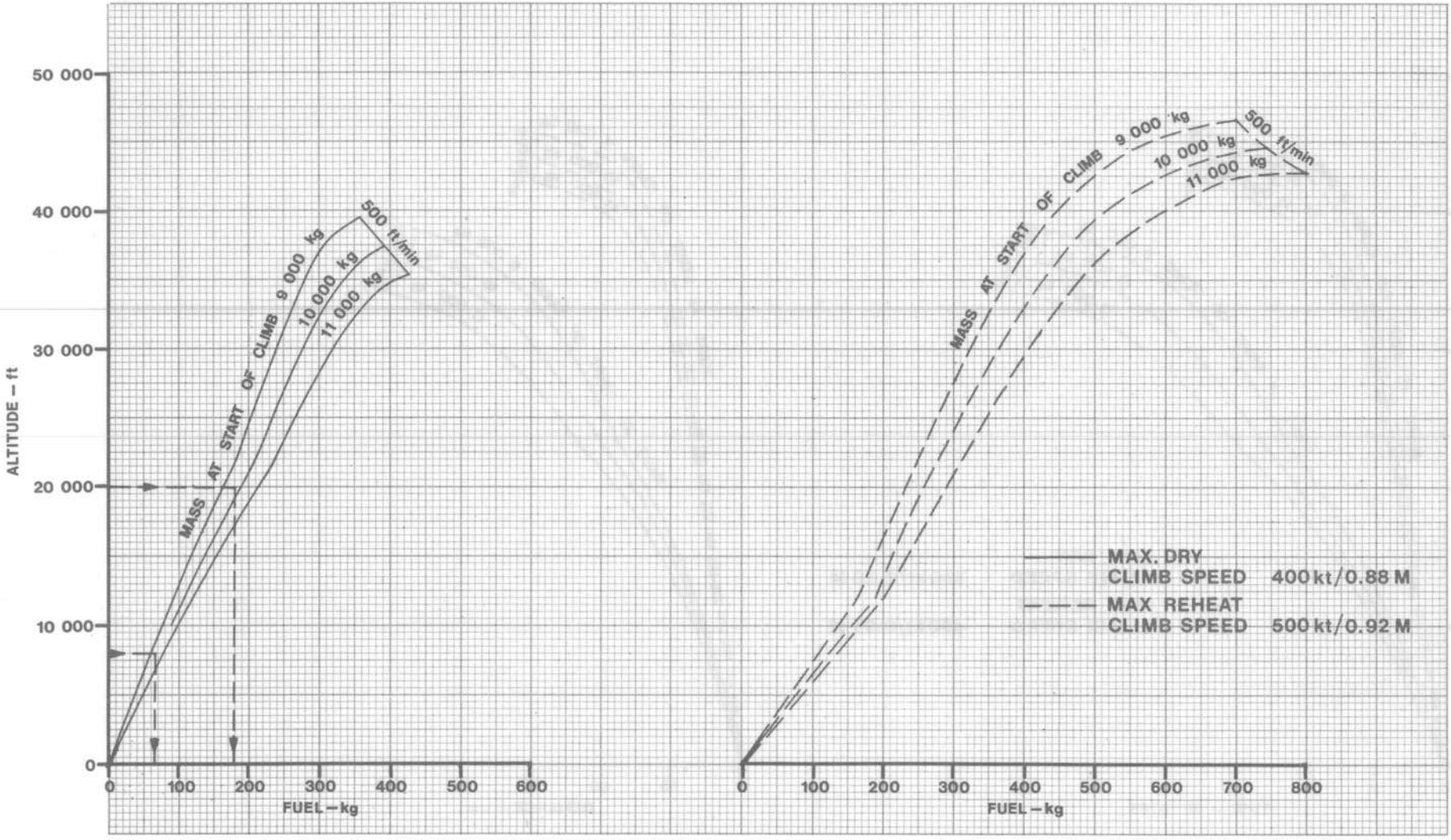


FIG.6.9(B).

CLIMB PERFORMANCE – DRAG INDEX 10, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

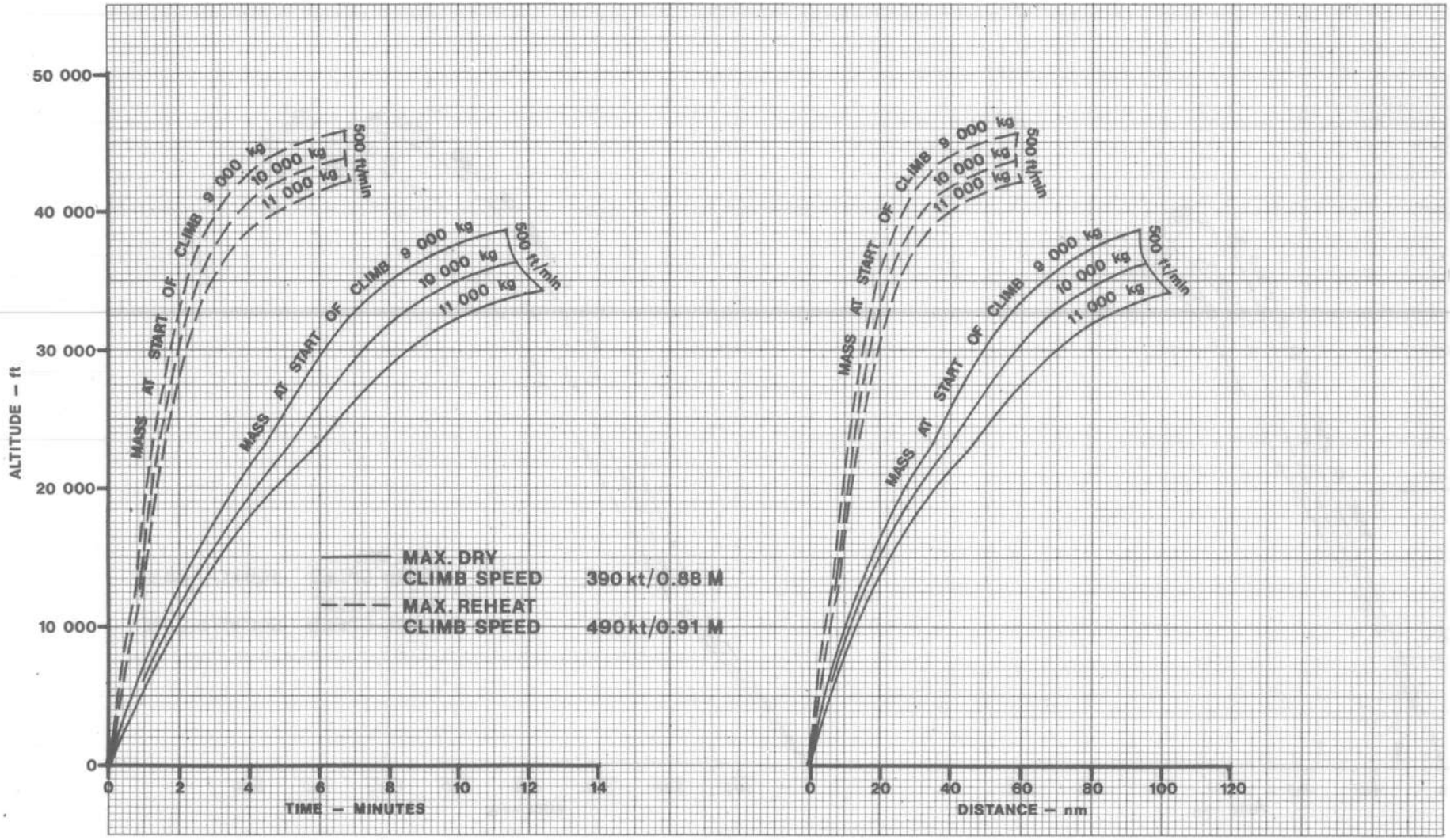


FIG.6.10(A).

CLIMB PERFORMANCE – DRAG INDEX 10, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

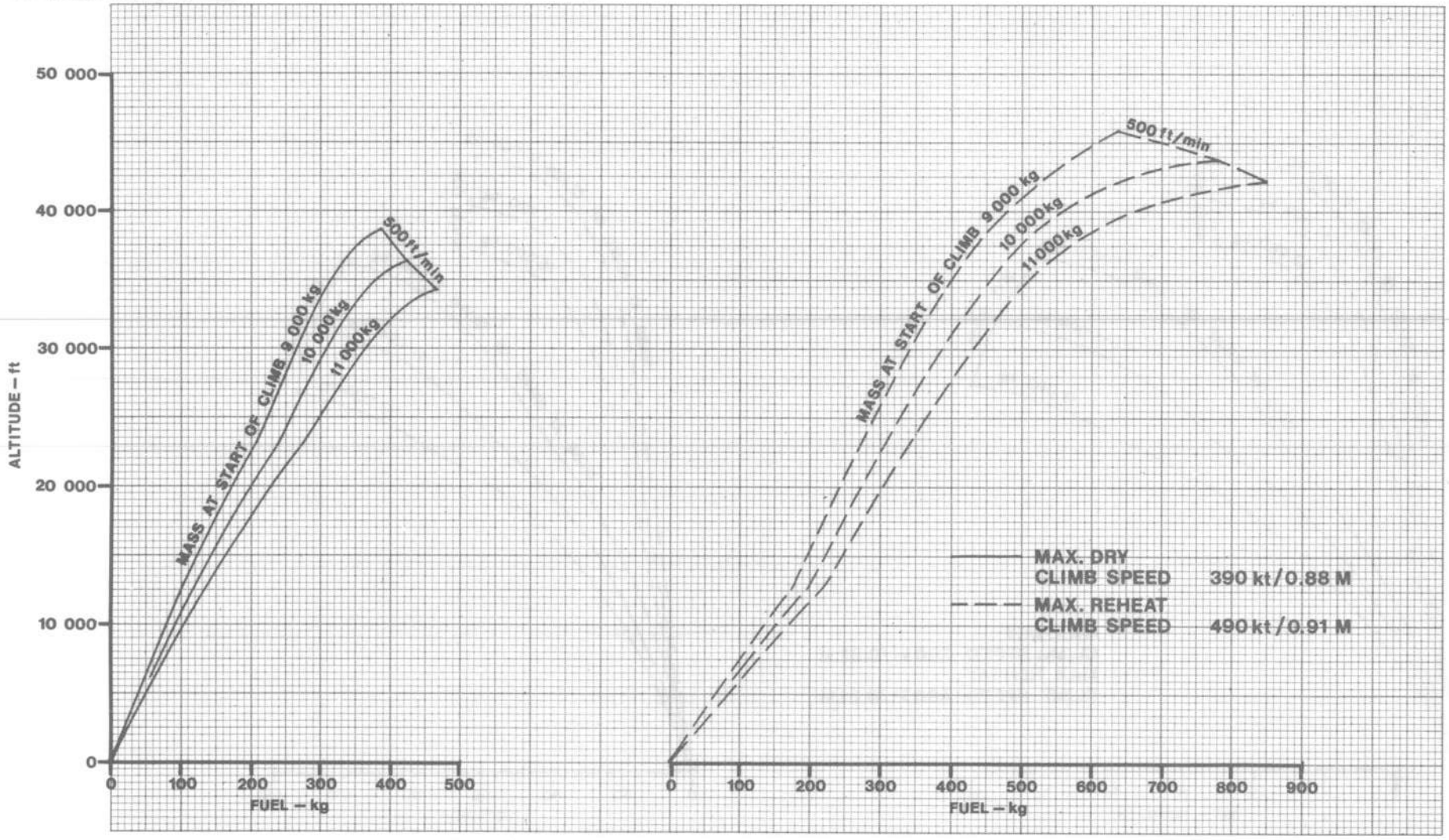


FIG.6.10(B).

CLIMB PERFORMANCE – DRAG INDEX 20, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES. ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

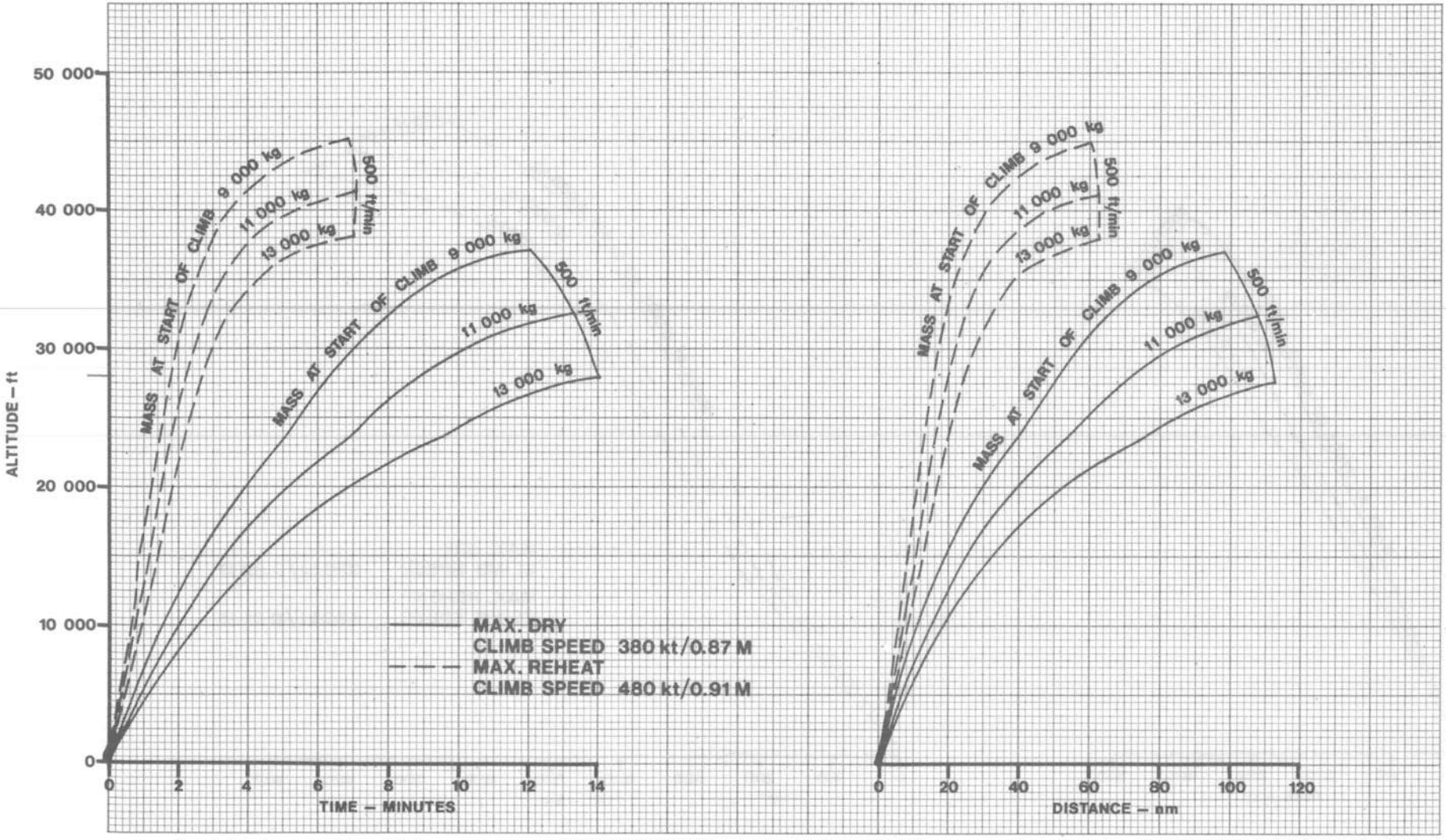


FIG.6.11(A).

CLIMB PERFORMANCE – DRAG INDEX 20, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

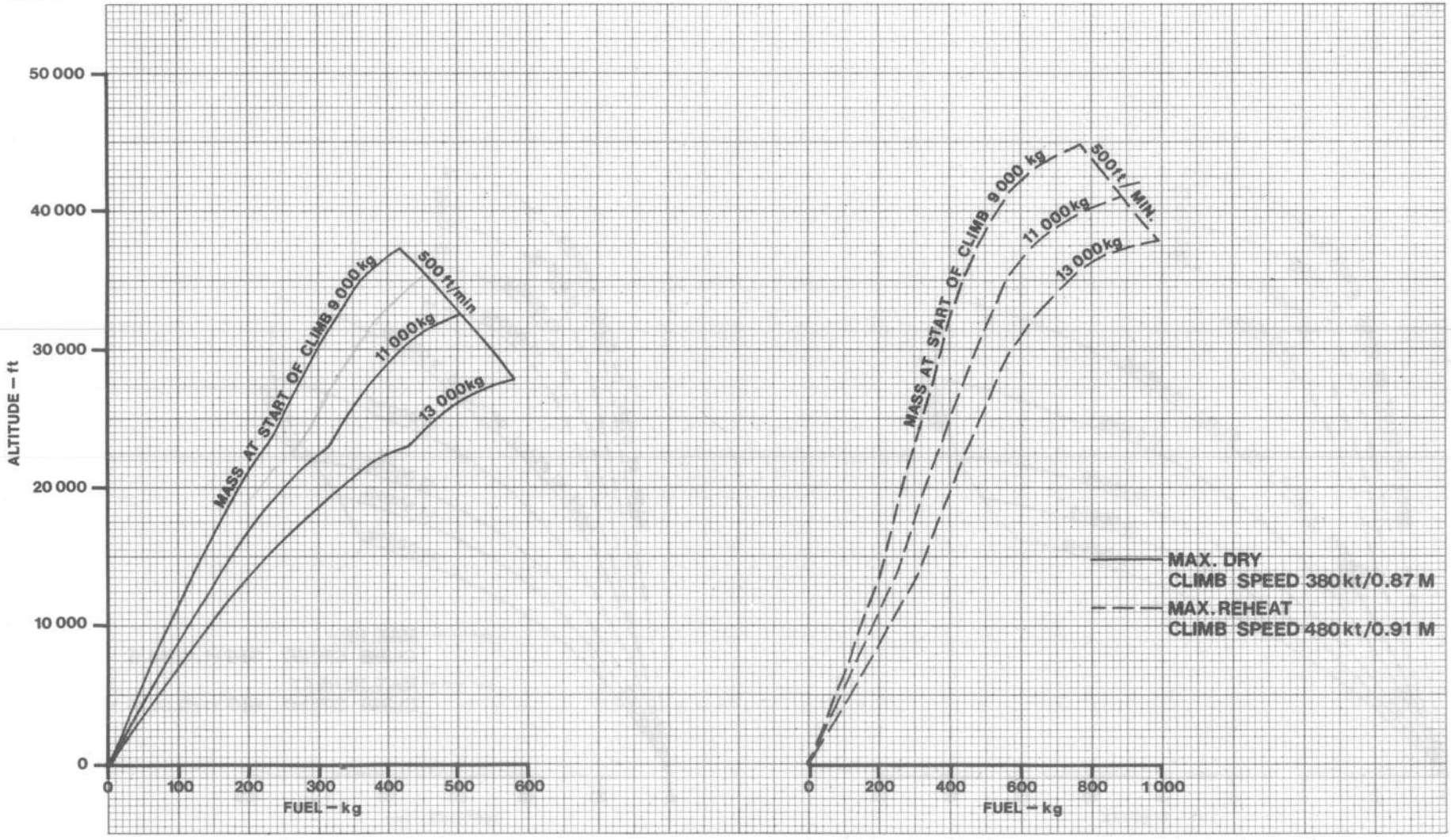


FIG.6.11(B).

CLIMB PERFORMANCE – DRAG INDEX 40, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

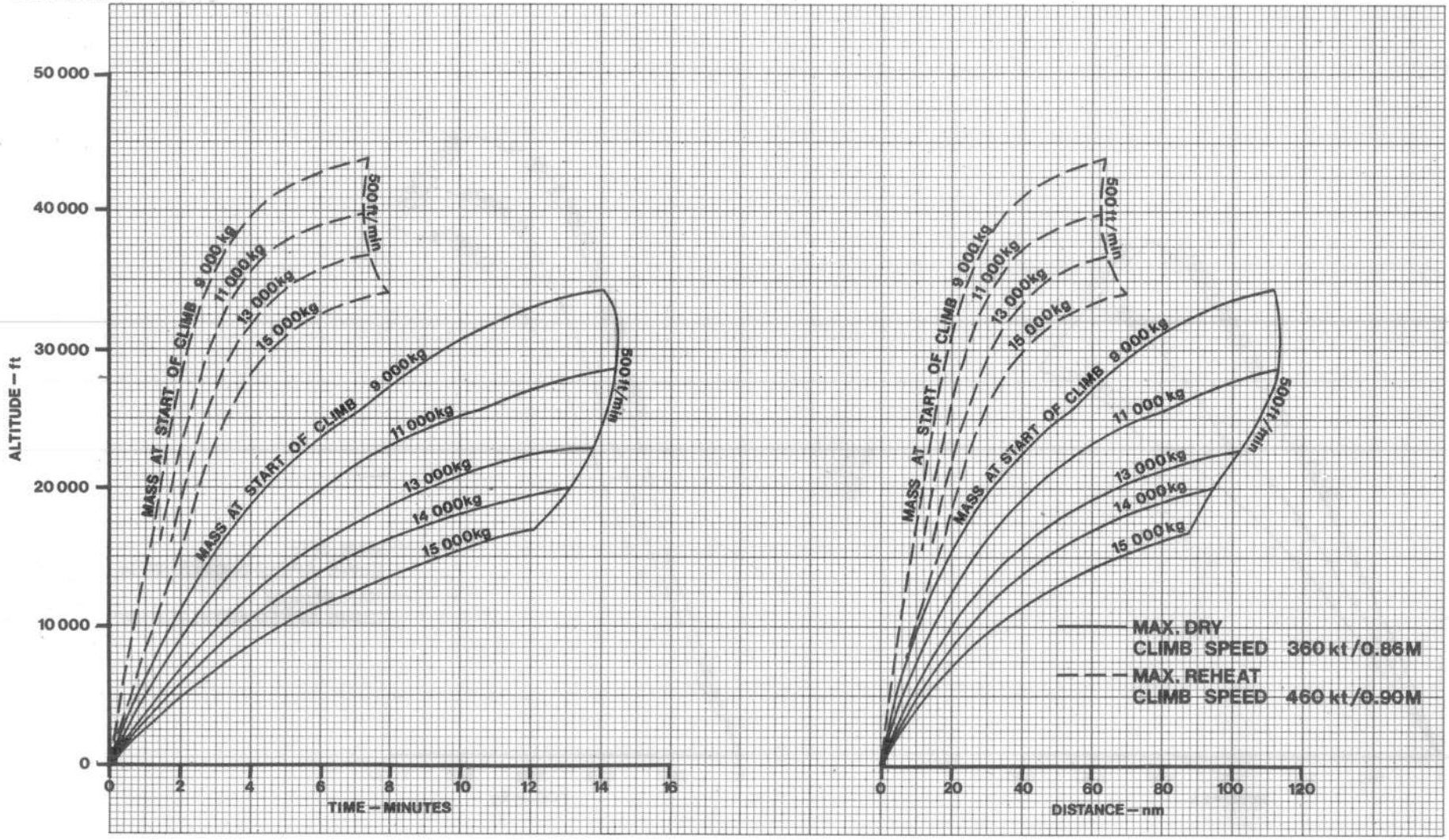


FIG.6.12(A).

CLIMB PERFORMANCE – DRAG INDEX 40, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

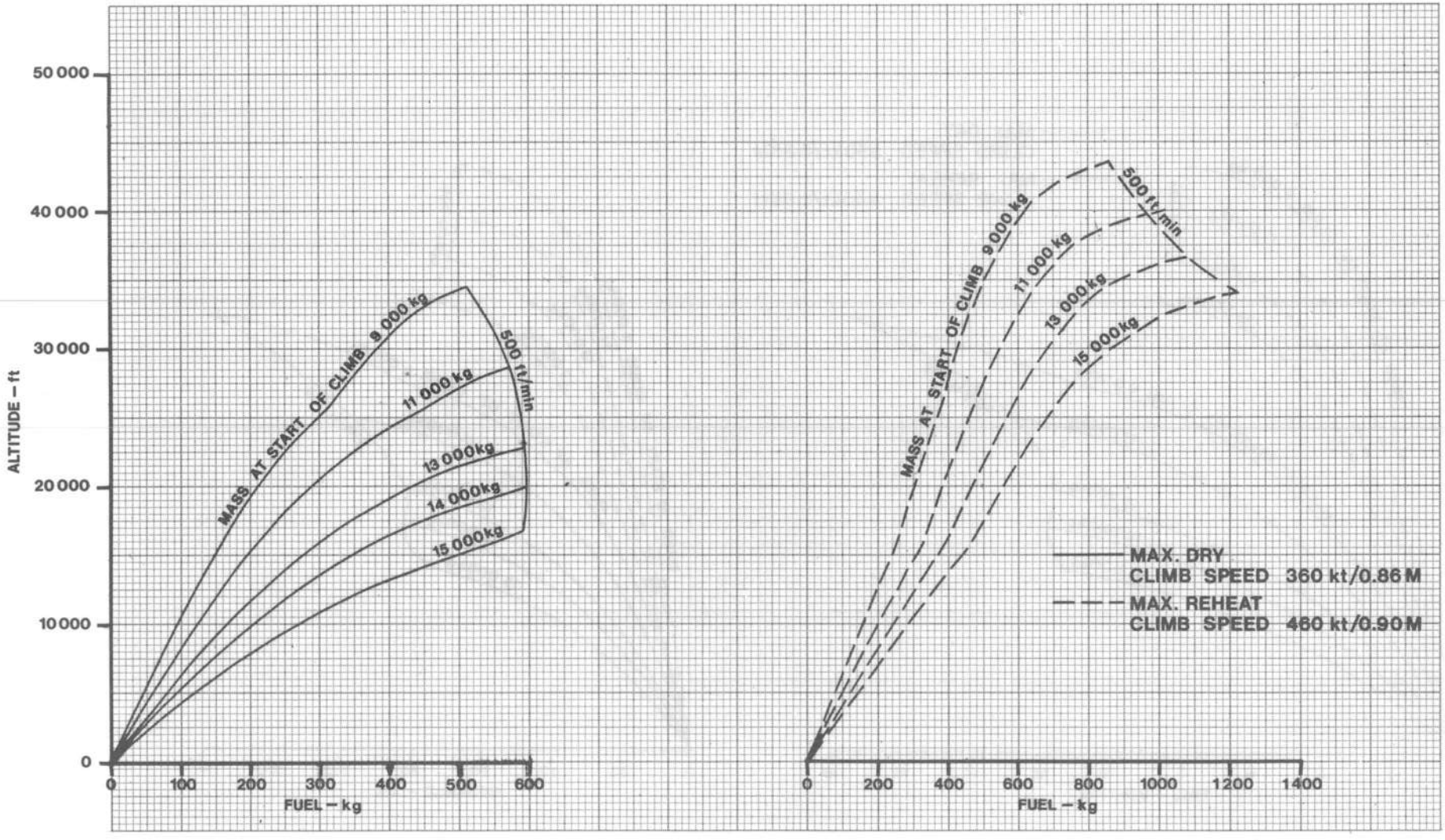


FIG. 6.12 (B).

CLIMB PERFORMANCE – DRAG INDEX 60, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

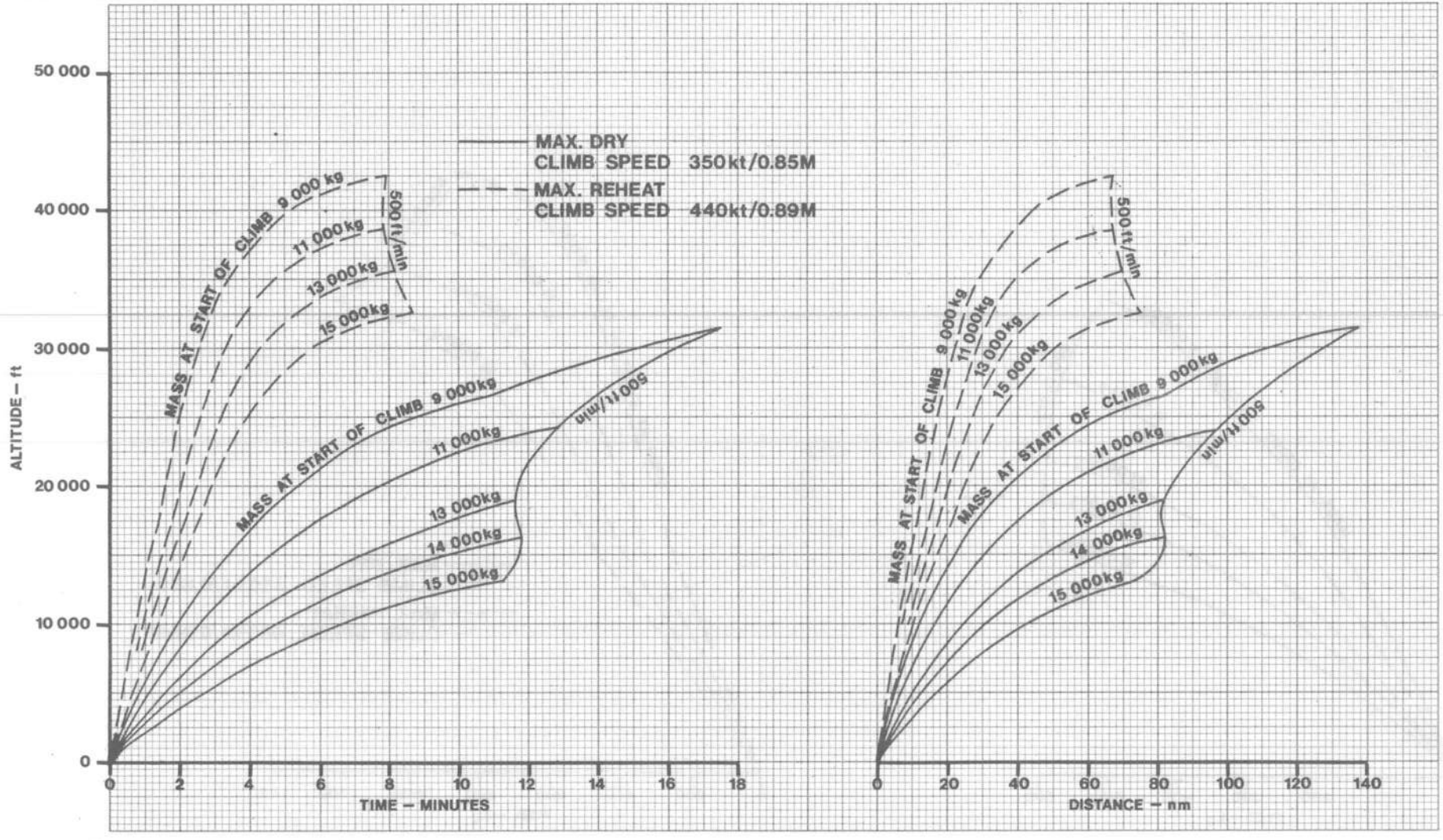


FIG. 6.13(A).

CLIMB PERFORMANCE – DRAG INDEX 60, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

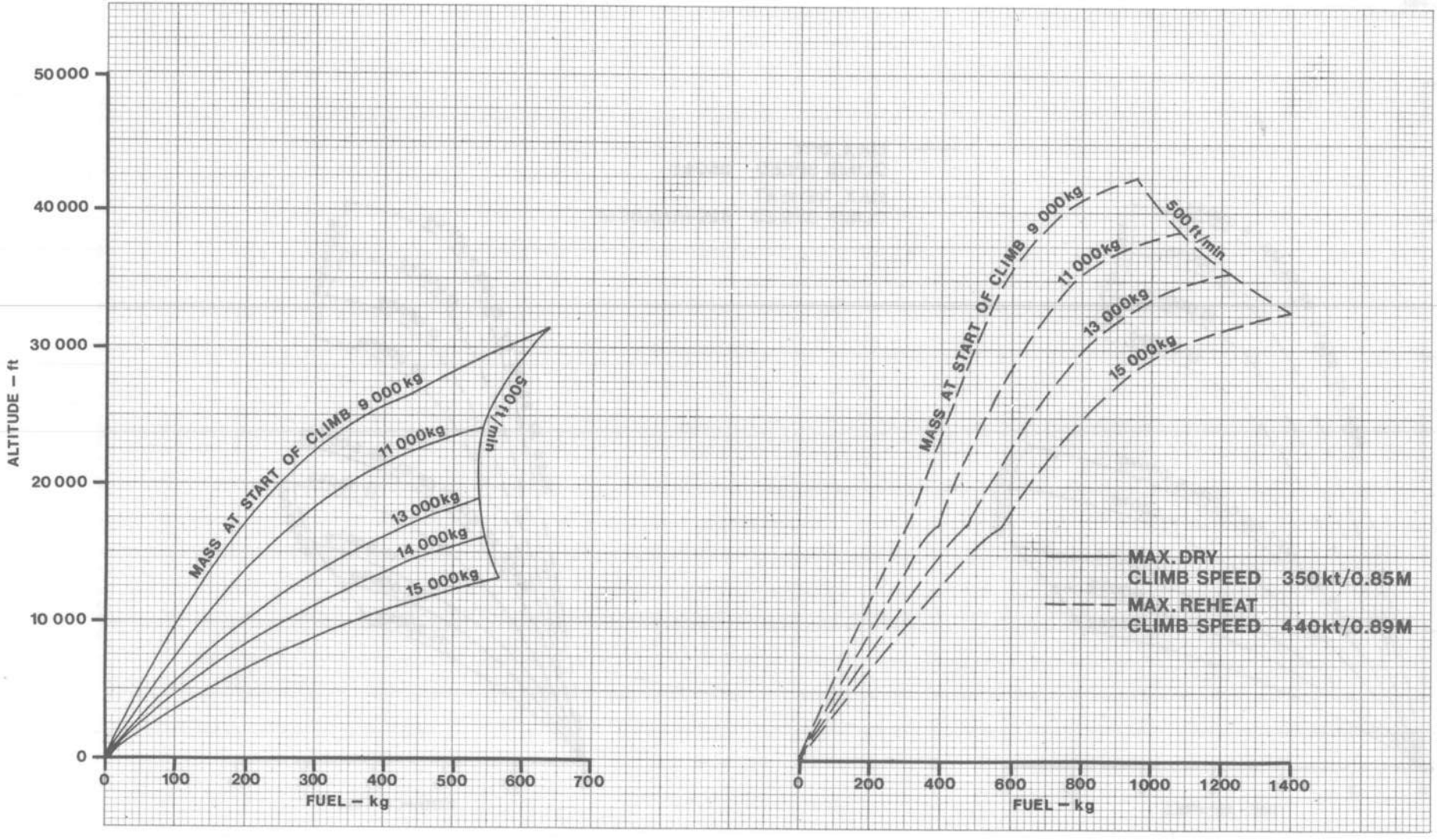


FIG. 6.13(B).

CLIMB PERFORMANCE – DRAG INDEX 80, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

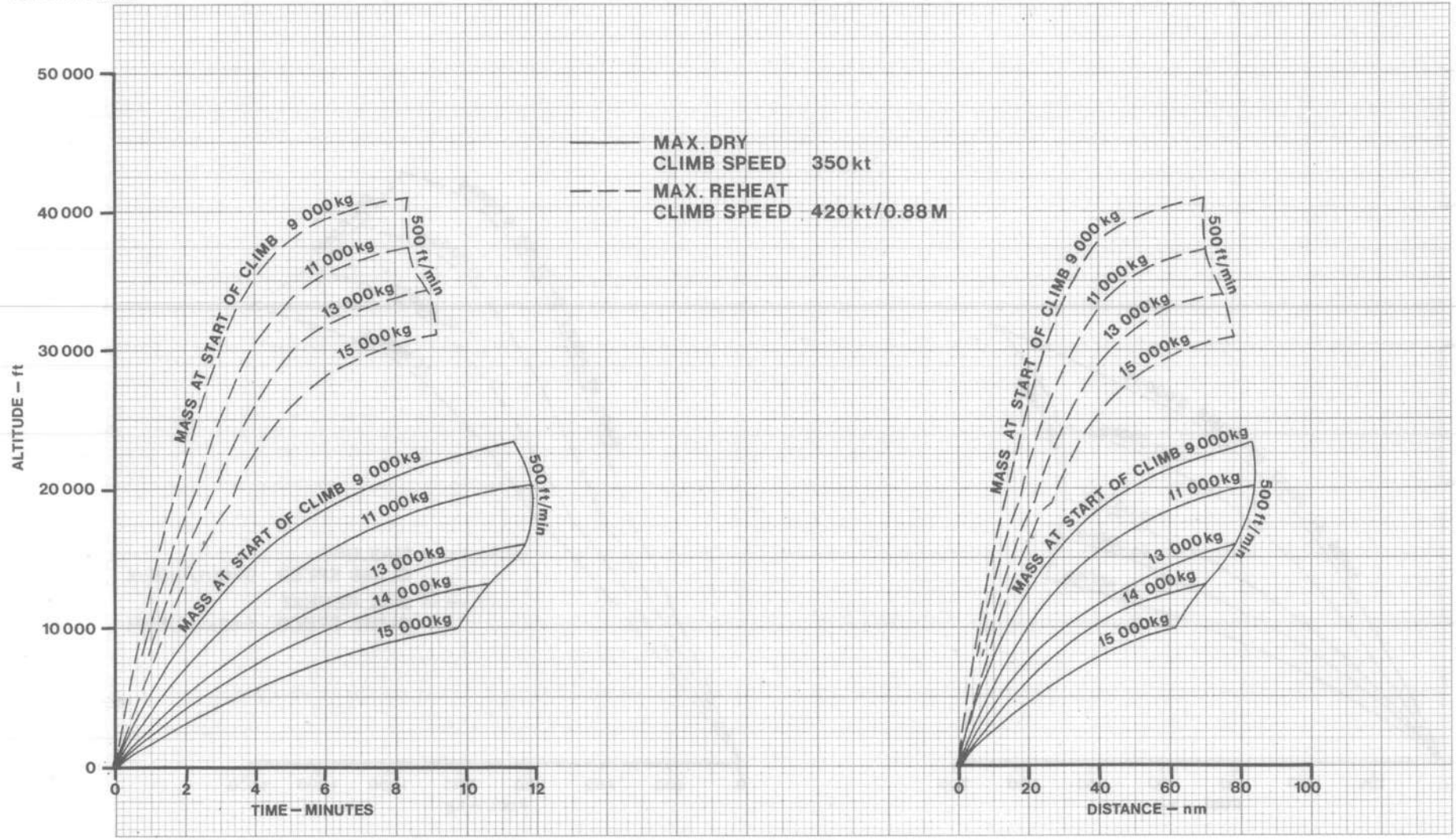


FIG. 6.14(A).

CLIMB PERFORMANCE – DRAG INDEX 80, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

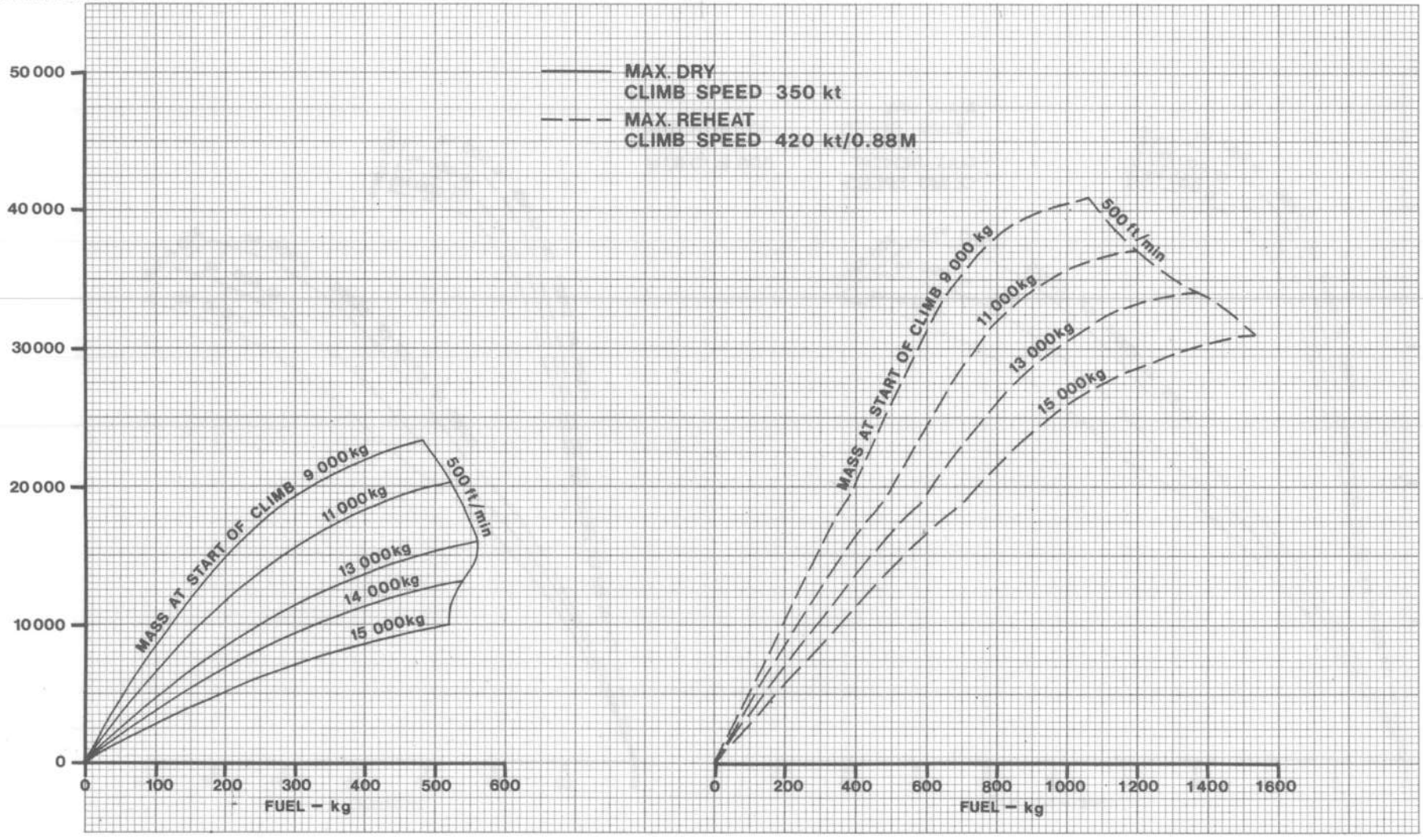


FIG. 6. 14 (B).

CLIMB PERFORMANCE — DRAG INDEX 0, I.S.A. +20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

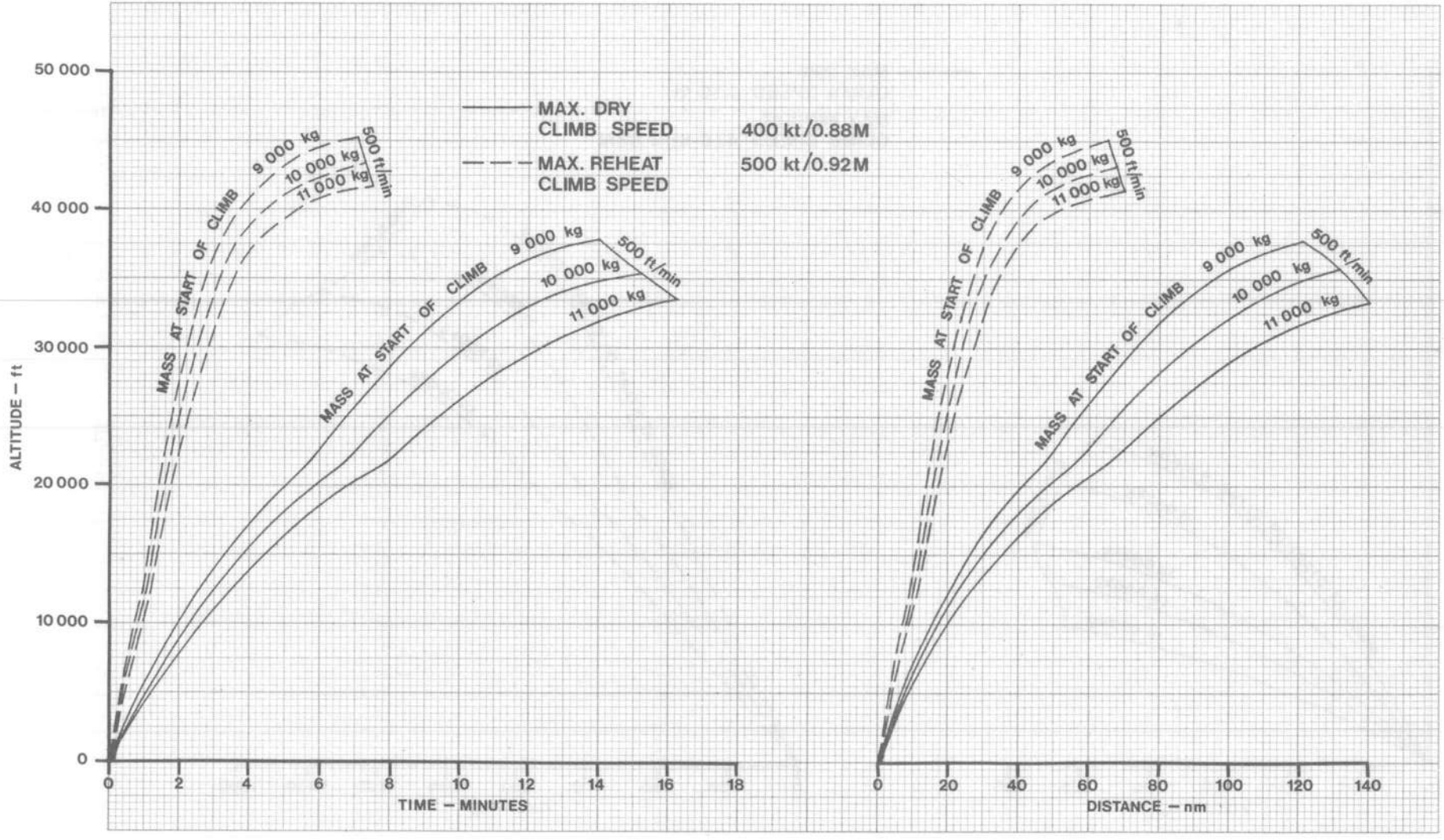


FIG.6.15 (A).

CLIMB PERFORMANCE — DRAG INDEX 0, I.S.A. +20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

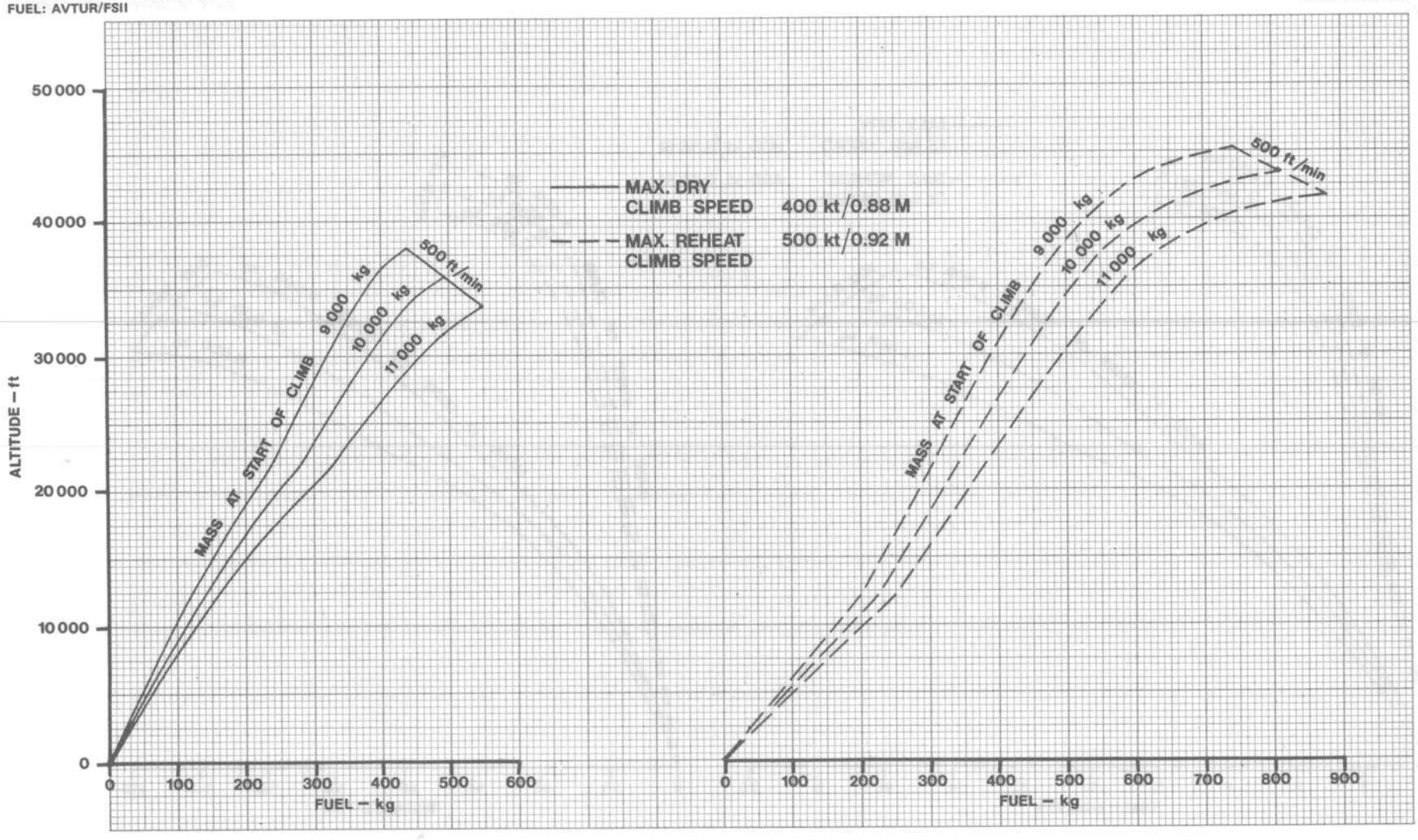


FIG.6.15(B).

CLIMB PERFORMANCE — DRAG INDEX 10, I.S.A. +20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

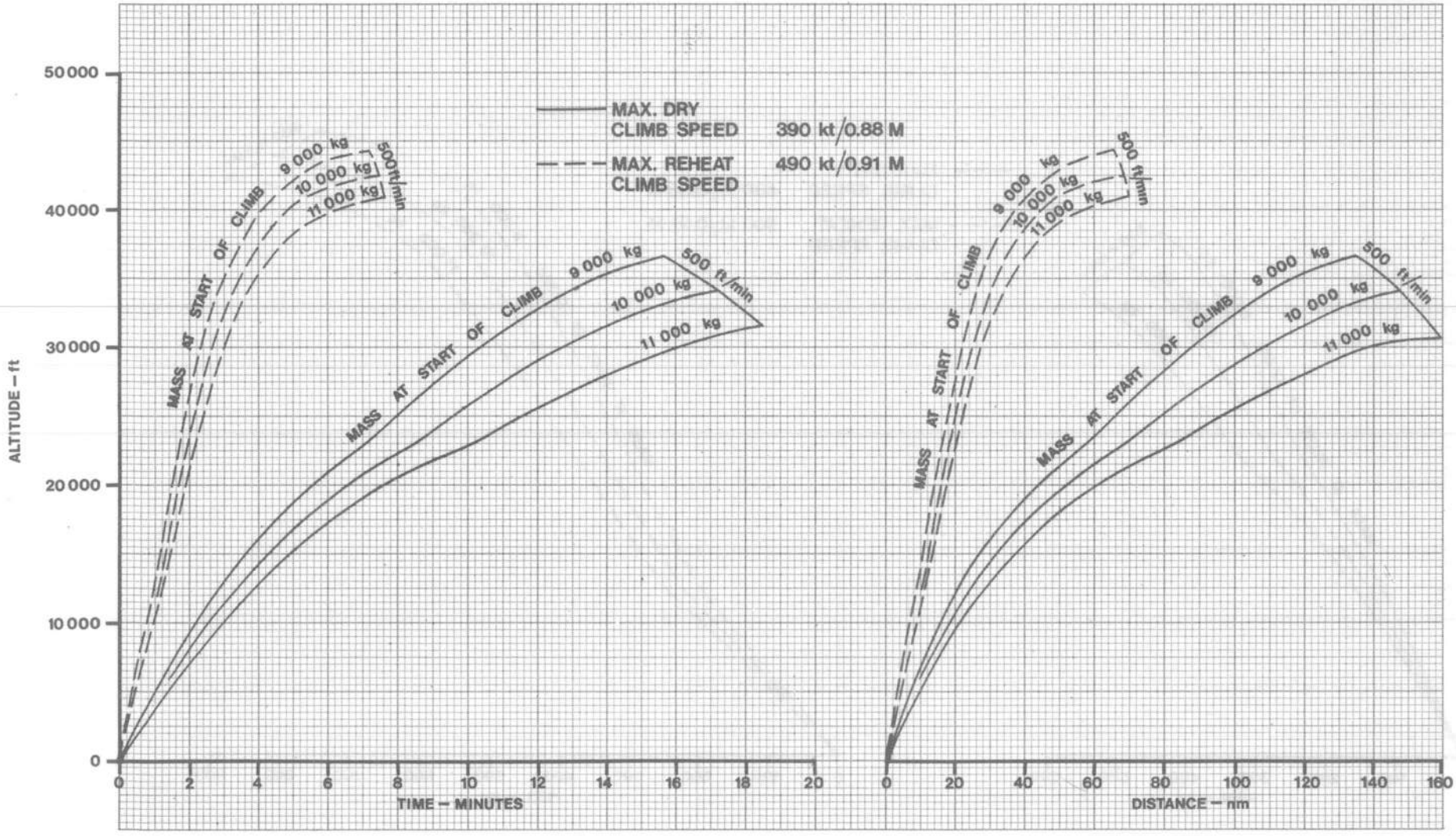


FIG. 6.16(A).

CLIMB PERFORMANCE – DRAG INDEX 10, I.S.A. + 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

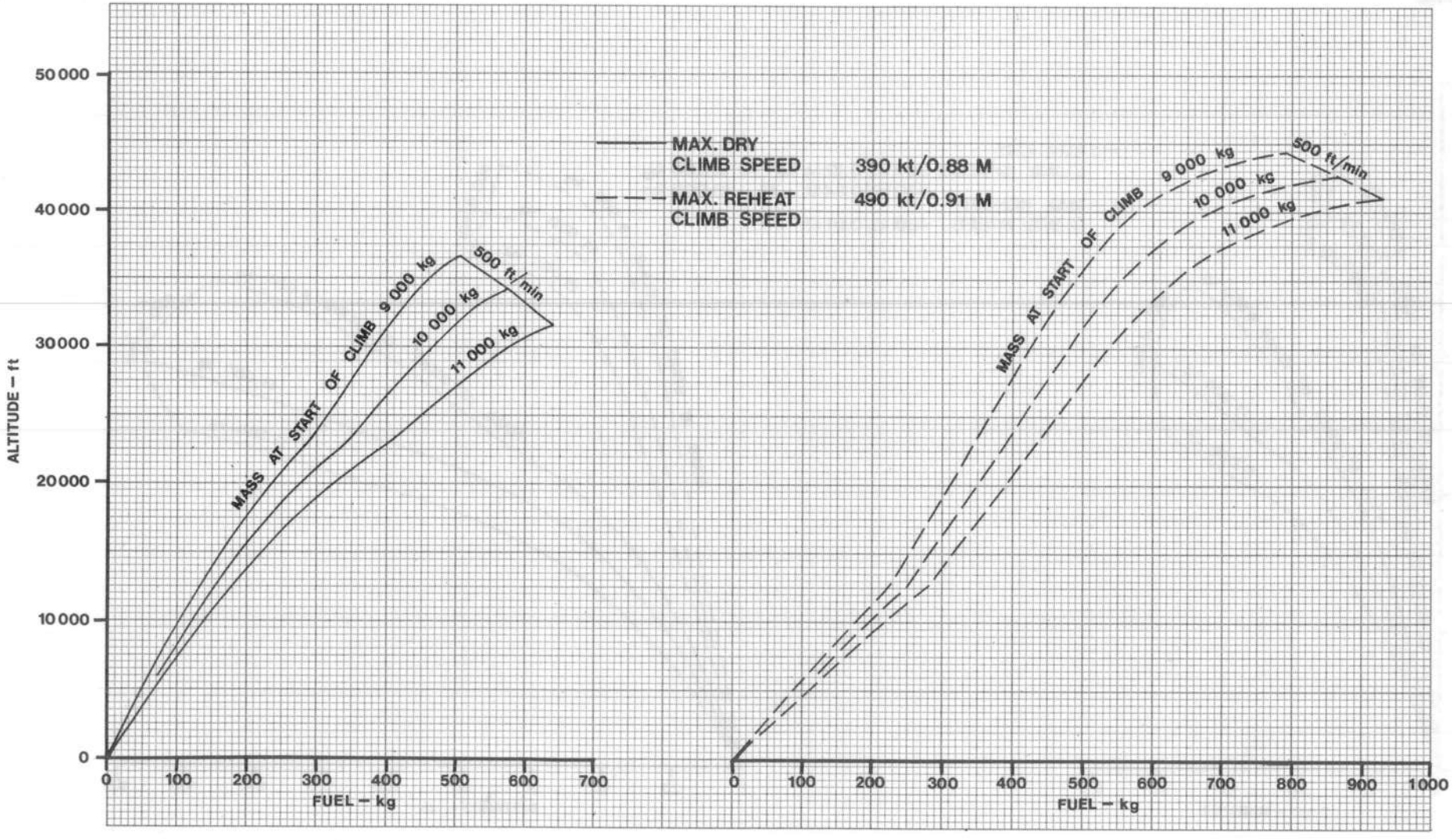


FIG. 6.16(B).

CLIMB PERFORMANCE – DRAG INDEX 20, I.S.A.+20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

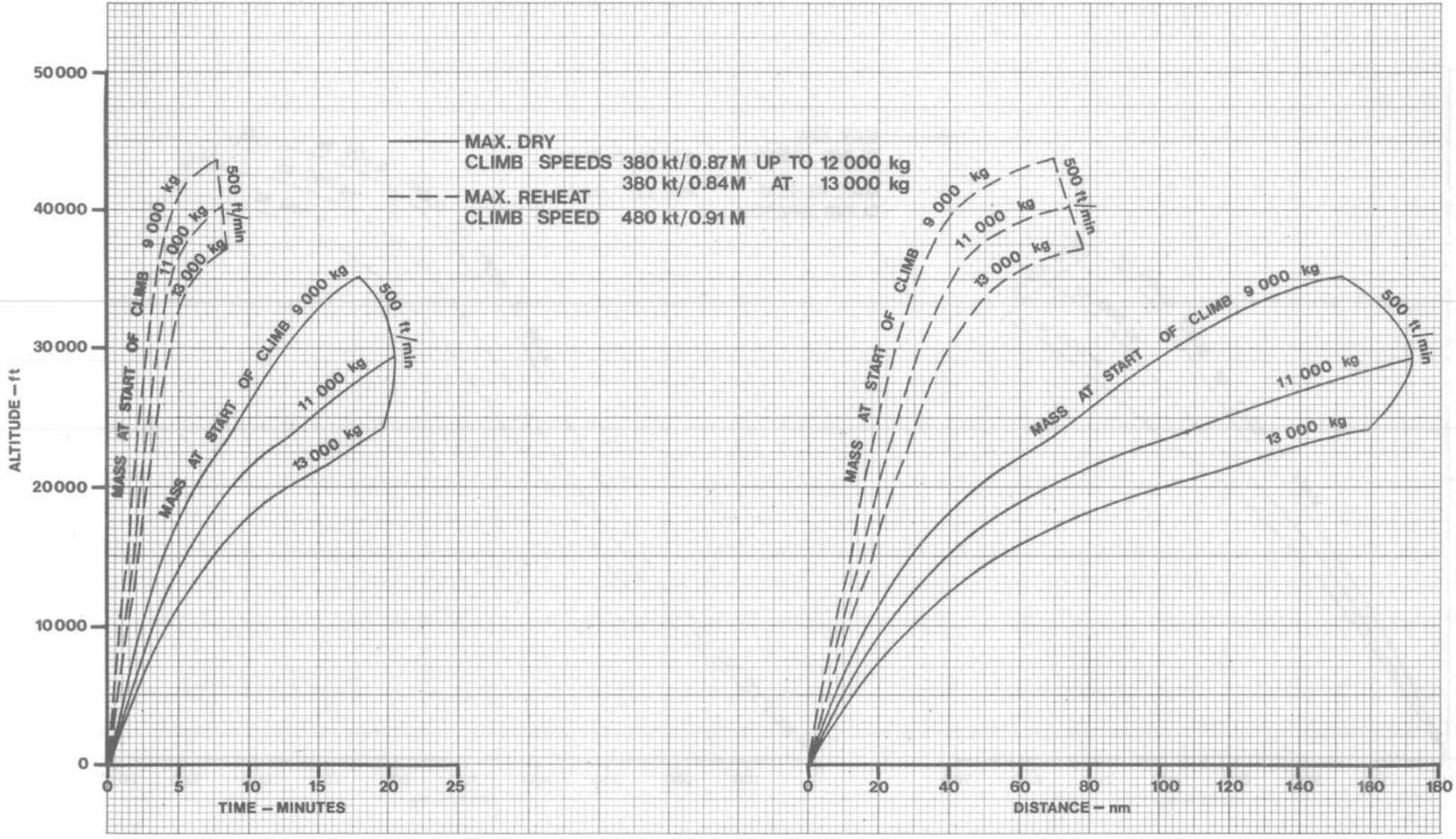


FIG. 6.17(A).

CLIMB PERFORMANCE – DRAG INDEX 20, I.S.A. +20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

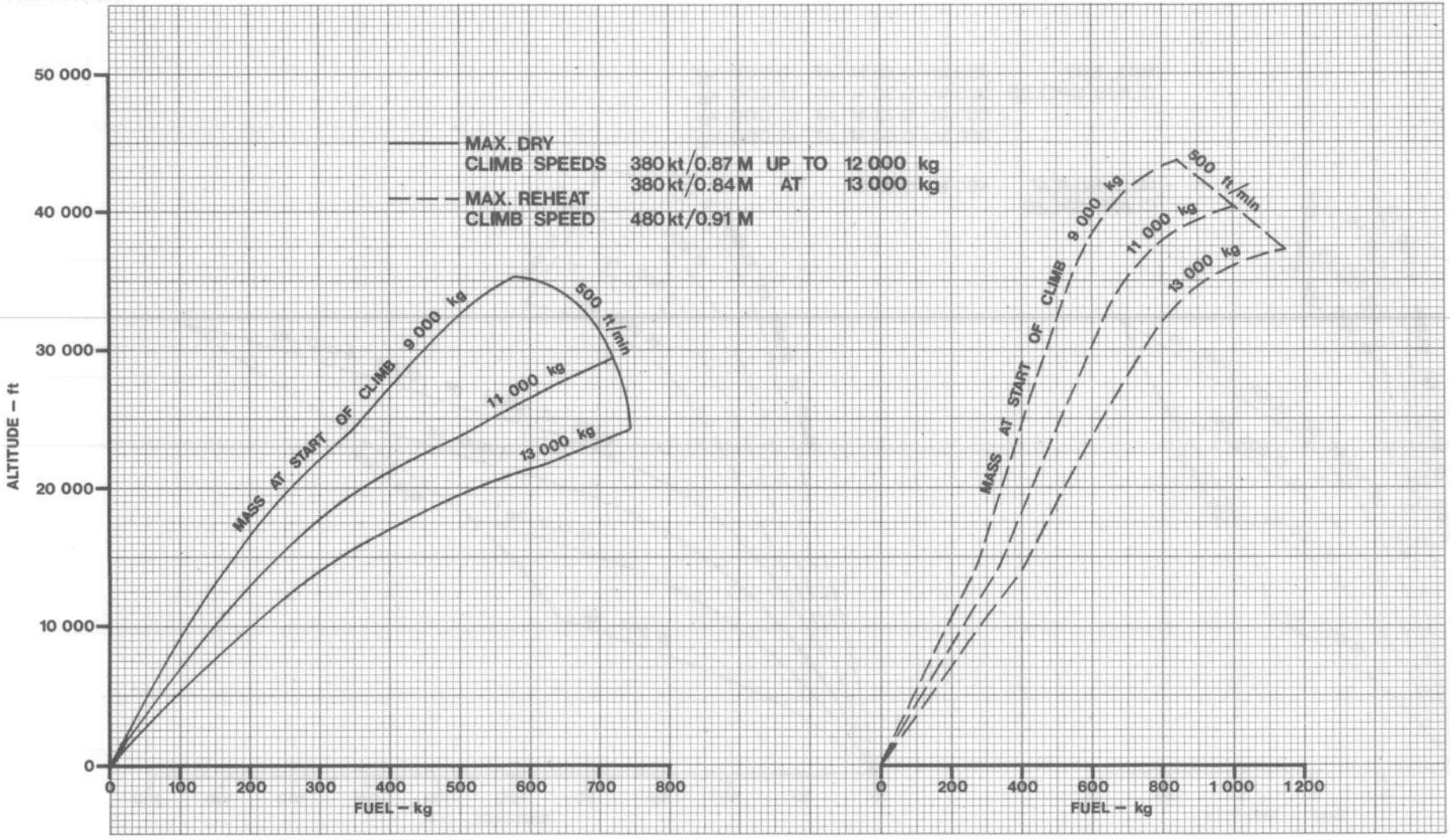


FIG. 6.17(B).

CLIMB PERFORMANCE – DRAG INDEX 40, I.S.A. + 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

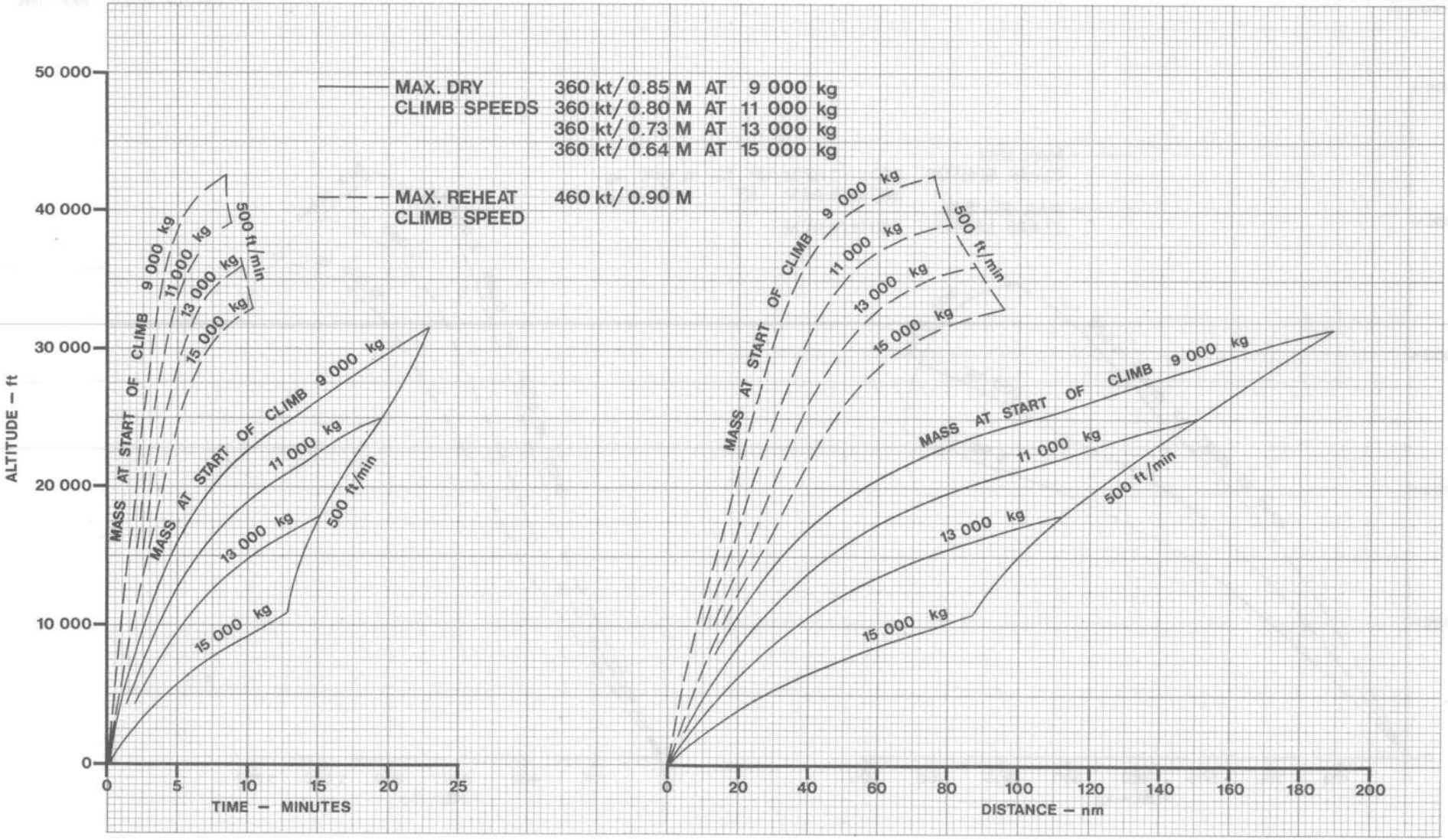


FIG. 6.18(A).

CLIMB PERFORMANCE — DRAG INDEX 40, I.S.A. + 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

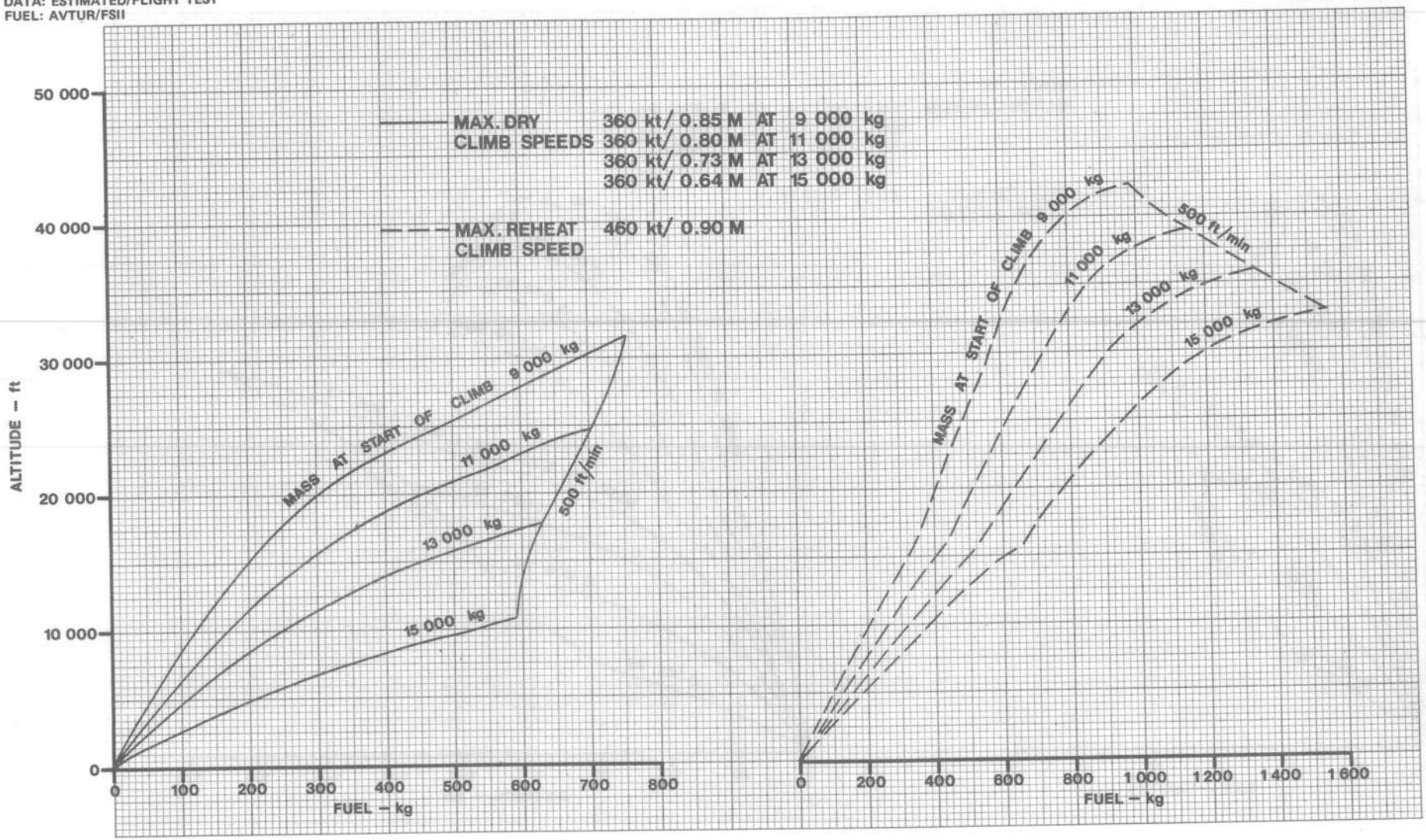


FIG. 6.18(B).

CLIMB PERFORMANCE – DRAG INDEX 60, I.S.A. + 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

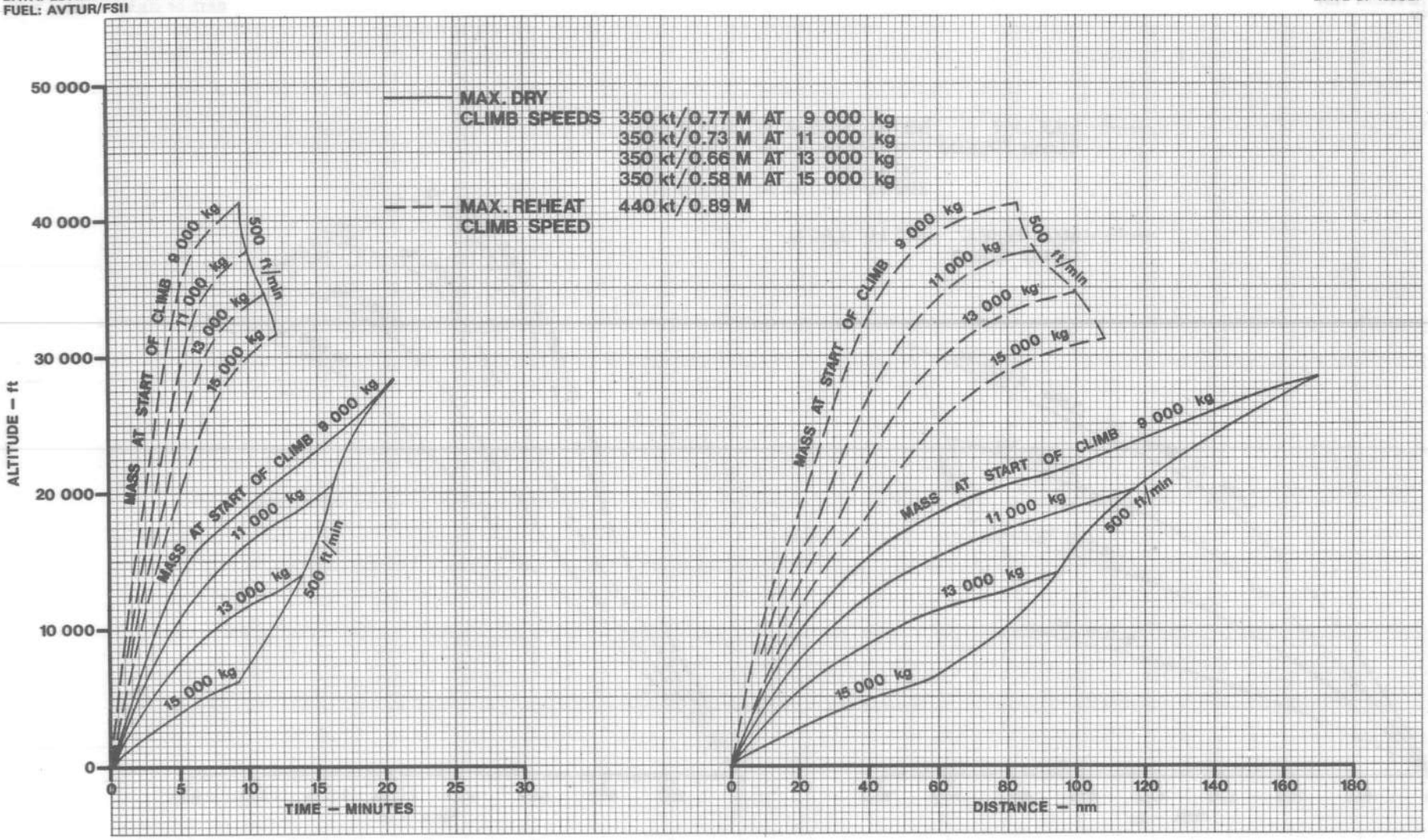


FIG. 6.19(A).

CLIMB PERFORMANCE – DRAG INDEX 60, I.S.A. + 20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

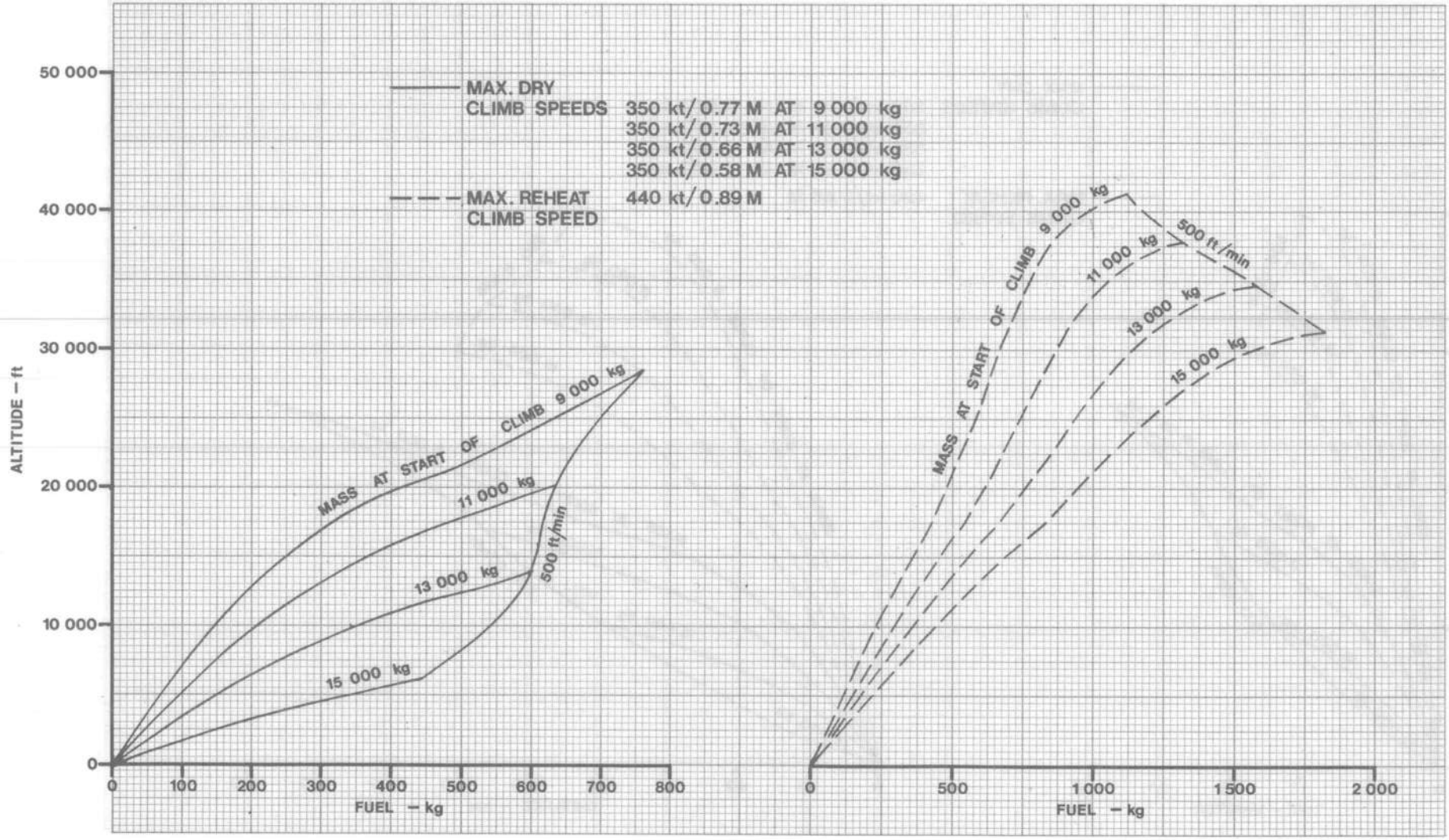


FIG. 6.19(B).

CLIMB PERFORMANCE — DRAG INDEX 80, I.S.A.+20°C

ENGINES: ADOUR MK 102/ JP103
DATE OF ISSUE: MAY 1975

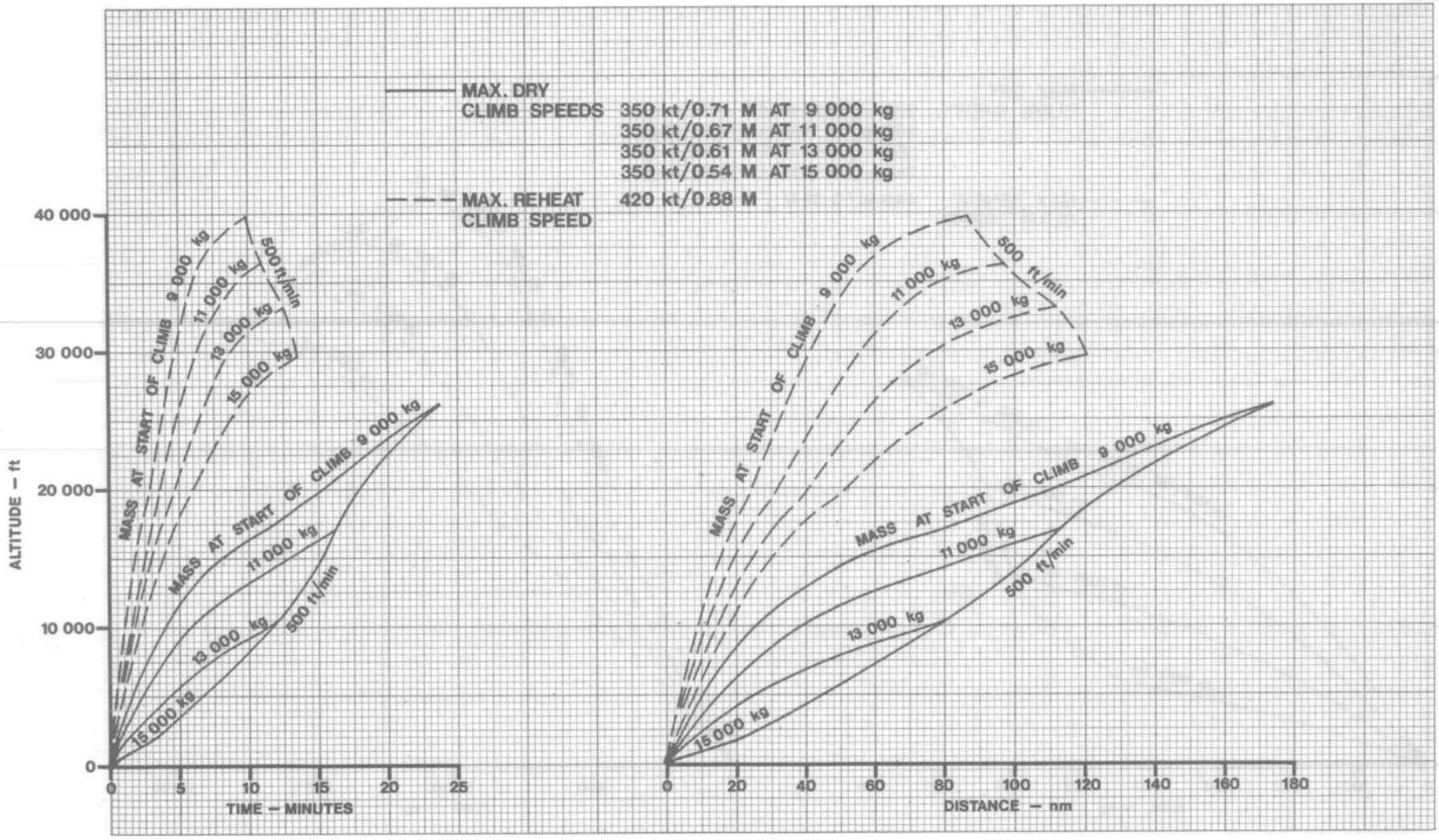


FIG. 6.20(A).

CLIMB PERFORMANCE – DRAG INDEX 80, I.S.A. +20°C

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

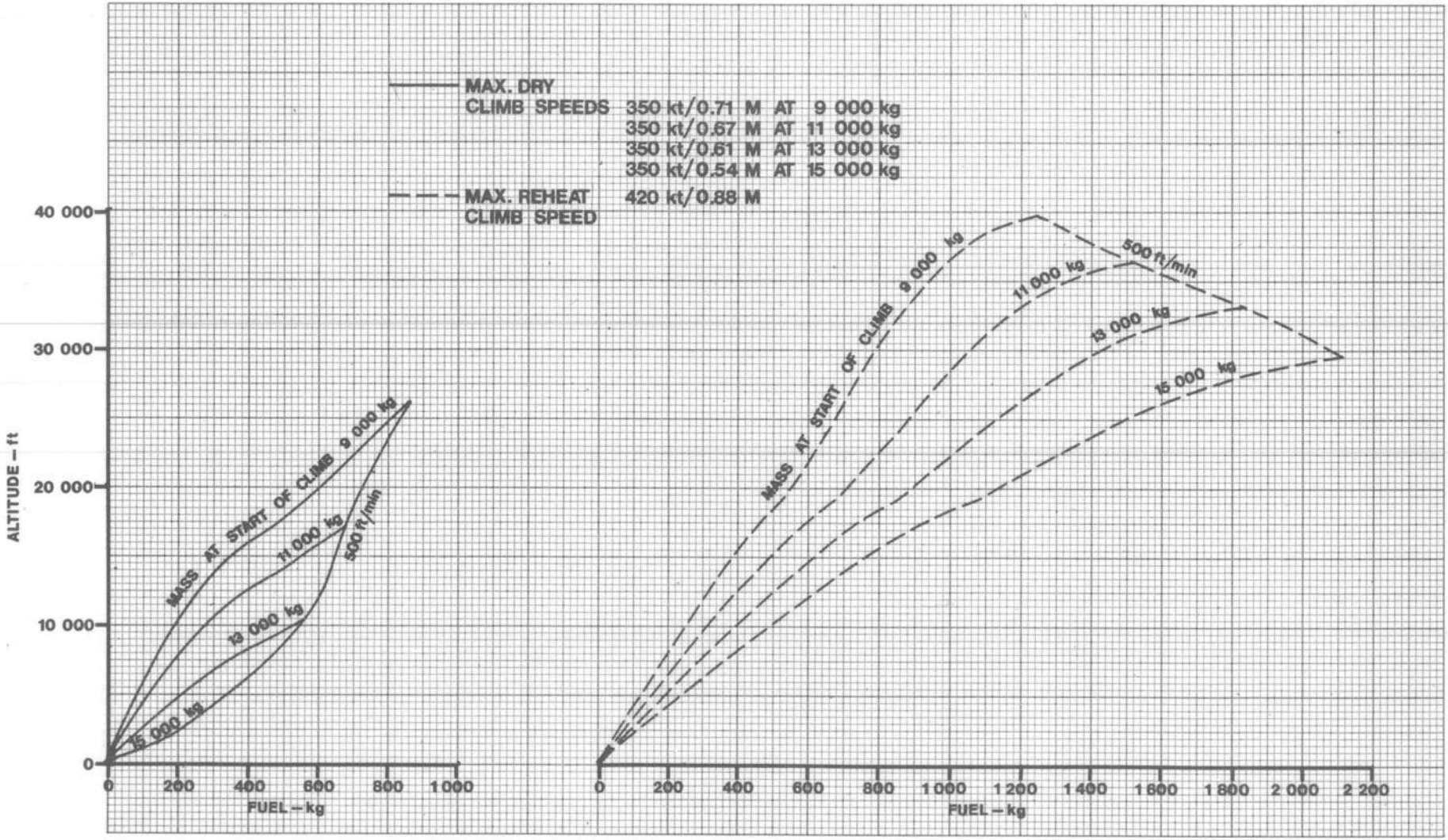


FIG.6.20(B).

SECTION 7

SUBSONIC CRUISE DATA

SECTION 7

SUBSONIC CRUISE DATA

CONTENTS

FIGURES

Level Cruise, One Engine Windmilling

Low Level Acceleration from Take-Off

7.49 Mass 9000 kg ISA – 20
7.50 Mass 11 000 kg ISA – 20
7.51 Mass 13 000 kg ISA – 20
7.52 Mass 15 000 kg ISA– 20
7.53 Mass 9 000 kg ISA
7.54 Mass 11 000 kg ISA
7.55 Mass 13 000 kg ISA
7.56 Mass 15 000 kg ISA
7.57 Mass 9 000 ISA + 20
7.58 Mass 11 000 kg ISA + 20
7.59 Mass 13 000 kg ISA + 20
7.60 Mass 15 000 kg ISA + 20

Cruise Performance with Two Engines Operating

1. Level cruise performance is presented in tabular form on Figs.7.1 to 7.33. Each table shows, for a range of Mach numbers and altitudes at constant mass and drag index values, the total fuel consumption (kg/min), the total fuel consumption per air nautical mile travelled (kg/Anm), the distance travelled per 100 kg of fuel used (Anm/100 kg), and the percentage HP compressor speed (% RPM). In addition each table shows the fuel consumption, specific range and Mach number achieved using maximum continuous and maximum dry thrust.

▶Note: There is evidence that engine performance deteriorates during engine life. The best estimate of the magnitude of the deterioration in service is a 1% increase in fuel flow per 100 hours. This interval to be measured between any two modular engine changes. ◀

2. At each altitude, the Mach number giving maximum endurance is shown in red and that giving maximum range, where this differs from maximum endurance, in green. At low altitudes the maximum endurance may be outside the scope of the tables; in these cases reference should be made to the low speed cruise data shown on Figs 7.36 to 7.39.

3. Absolute optimum range and endurance are achieved by adopting a climb cruise technique at constant incidence. The Mach numbers and altitudes required to achieve these optima, and the corresponding performance data, are shown graphically on Figs 7.34 and 7.35.

Cruise Performance with One Engine Windmilling

4. Tabular data are given for drag index values of 0 and 10 on Figs 7.40 to 7.46. The presentation of these tables is identical to that of the cruise performance with two engines operating.

5. The Mach numbers and altitudes required to achieve maximum range and maximum endurance are shown graphically, together with the corresponding performance data, on Figs. 7.47 and 7.48.

Effect of Ambient Temperature

6. The data in this section applies to I.S.A. conditions. Variation in ambient temperature has a negligible effect on range (Anm/100 kg) at a given Mach number and altitude, but fuel consumption (kg/min) changes by 1% for every 5°C above or below I.S.A., an increase in temperature resulting in an increase in fuel consumption.

Interpolation

7. Linear interpolation should be used for intermediate values of mass and drag index.

Low Level Acceleration

▶8. Low level acceleration from take-off data are presented on Figs. 7.49 to 7.60 for various masses and speeds when reheat is cut at 350kn IAS and in maximum reheat. The data also covers a range of drag indices from 0 to 80 and for three temperature bands, ISA−20°C, ISA and ISA +20°C. The data are based on sea level pressure altitude, and the time intervals are given in minutes and seconds. ◀

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 8 000 kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	21.6	24.1	27.0	30.2	34.0	38.0	42.9	48.2	57.7	FUEL FLOW — kg/min	55.7	64.9
	FUEL USED — kg/Anm	3.9	4.0	4.1	4.2	4.4	4.6	4.9	5.1	5.8	FUEL USED — kg/Anm	5.7	6.4
	DISTANCE—Anm/100kg	25.5	25.1	24.5	23.7	22.7	21.7	20.6	19.4	17.2	DISTANCE—Anm/100kg	17.6	15.6
	ENG. SPEED — %RPM	85.7	86.9	88.6	90.1	91.6	93.3	94.7	96.5	98.7	MACH NUMBER	0.89	0.92
5 000 ft	FUEL FLOW — kg/min	18.9	20.8	23.0	25.6	28.6	31.9	35.8	40.1	47.8	FUEL FLOW — kg/min	53.3	60.4
	FUEL USED — kg/Anm	3.5	3.5	3.5	3.6	3.8	3.9	4.1	4.4	4.9	FUEL USED — kg/Anm	5.4	5.9
	DISTANCE—Anm/100kg	28.6	28.6	28.2	27.5	26.6	25.5	24.2	23.0	20.4	DISTANCE—Anm/100kg	18.7	16.8
	ENG. SPEED — %RPM	85.2	86.4	87.6	89.4	90.6	91.8	93.5	95.1	97.4	MACH NUMBER	0.92	0.94
10 000 ft	FUEL FLOW — kg/min	16.9	18.2	19.9	21.8	24.1	26.7	29.9	33.3	39.5	FUEL FLOW — kg/min	48.5	57.5
	FUEL USED — kg/Anm	3.2	3.1	3.1	3.2	3.2	3.3	3.5	3.7	4.1	FUEL USED — kg/Anm	4.9	5.6
	DISTANCE—Anm/100kg	31.5	32.2	32.1	31.7	30.9	29.9	28.5	27.1	24.2	DISTANCE—Anm/100kg	20.6	17.8
	ENG. SPEED — %RPM	84.4	85.8	87.0	88.2	89.4	90.6	92.3	93.6	96.2	MACH NUMBER	0.94	0.97
15 000 ft	FUEL FLOW — kg/min	16.4	16.2	17.4	18.8	20.5	22.5	25.0	27.7	32.7	FUEL FLOW — kg/min	44.3	54.1
	FUEL USED — kg/Anm	3.1	2.8	2.8	2.5	2.8	2.9	3.0	3.1	3.5	FUEL USED — kg/Anm	4.5	5.3
	DISTANCE—Anm/100kg	31.8	35.4	36.0	40.3	35.6	34.8	33.4	32.0	28.7	DISTANCE—Anm/100kg	22.4	18.7
	ENG. SPEED — %RPM	85.3	85.3	86.5	87.8	88.3	89.9	91.1	92.4	94.8	MACH NUMBER	0.95	0.97
20 000 ft	FUEL FLOW — kg/min	17.4	16.0	15.6	16.5	17.8	19.2	21.1	23.2	27.0	FUEL FLOW — kg/min	39.0	43.3
	FUEL USED — kg/Anm	3.4	2.8	2.5	2.5	2.5	2.5	2.6	2.7	2.9	FUEL USED — kg/Anm	4.0	4.4
	DISTANCE—Anm/100kg	29.5	35.2	39.5	40.3	40.3	40.0	38.9	37.5	34.1	DISTANCE—Anm/100kg	25.2	22.9
	ENG. SPEED — %RPM	88.0	86.6	86.0	86.6	87.8	89.0	89.9	91.2	93.2	MACH NUMBER	0.96	0.97
25 000 ft	FUEL FLOW — kg/min	19.1	16.9	15.6	14.7	15.4	16.4	17.7	19.3	22.3	FUEL FLOW — kg/min	36.3	37.1
	FUEL USED — kg/Anm	3.8	3.1	2.6	2.3	2.2	2.2	2.2	2.3	2.5	FUEL USED — kg/Anm	3.7	3.8
	DISTANCE—Anm/100kg	26.3	32.7	38.6	44.2	45.6	45.9	45.3	44.2	40.5	DISTANCE—Anm/100kg	26.8	26.5
	ENG. SPEED — %RPM	91.2	88.6	87.3	86.6	87.2	87.8	88.8	90.0	92.2	MACH NUMBER	0.97	0.98
30 000 ft	FUEL FLOW — kg/min		20.3	17.3	15.7	14.8	14.5	15.4	16.4	18.7	FUEL FLOW — kg/min	23.6	31.6
	FUEL USED — kg/Anm		3.8	2.9	2.5	2.2	2.0	2.0	2.0	2.1	FUEL USED — kg/Anm	2.5	3.3
	DISTANCE—Anm/100kg		26.6	34.0	40.7	46.5	50.6	51.0	50.8	47.2	DISTANCE—Anm/100kg	39.3	30.5
	ENG. SPEED — %RPM		94.4	91.4	89.4	87.9	87.2	88.4	89.0	91.1	MACH NUMBER	0.97	0.98
36 090 ft	FUEL FLOW — kg/min					19.2	16.3	14.8	14.4	15.8	FUEL FLOW — kg/min	23.6	25.9
	FUEL USED — kg/Anm					2.9	2.3	1.9	1.8	1.8	FUEL USED — kg/Anm	2.5	2.8
	DISTANCE—Anm/100kg					34.8	44.1	51.7	56.5	54.5	DISTANCE—Anm/100kg	39.3	36.1
	ENG. SPEED — %RPM					95.8	92.0	90.0	89.2	90.3	MACH NUMBER	0.97	0.98
40 000 ft	FUEL FLOW — kg/min							17.4	16.1	16.1	FUEL FLOW — kg/min	20.0	21.2
	FUEL USED — kg/Anm							2.3	2.0	1.9	FUEL USED — kg/Anm	2.2	2.3
	DISTANCE—Anm/100kg							43.9	50.5	53.6	DISTANCE—Anm/100kg	45.3	43.3
	ENG. SPEED — %RPM							96.6	94.0	94.0	MACH NUMBER	0.95	0.96

FIG.7.1.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	22.4	24.8	27.6	30.7	34.4	38.4	43.2	48.5	57.9	FUEL FLOW — kg/min	56.0	63.8
	FUEL USED — kg/Anm	4.1	4.1	4.2	4.3	4.5	4.6	4.9	5.2	5.8	FUEL USED — kg/Anm	5.7	6.3
	DISTANCE—Anm/100kg	24.6	24.5	24.0	23.3	22.4	21.5	20.4	19.3	17.1	DISTANCE—Anm/100kg	17.5	15.9
	ENG. SPEED — %RPM	85.7	87.5	89.3	90.5	91.7	93.3	94.7	96.5	99.0	MACH NUMBER	0.89	0.92
5 000 ft	FUEL FLOW — kg/min	19.9	21.6	23.7	26.2	29.1	32.3	36.2	40.5	48.2	FUEL FLOW — kg/min	53.0	60.8
	FUEL USED — kg/Anm	3.7	3.6	3.6	3.7	3.8	4.0	4.2	4.4	4.9	FUEL USED — kg/Anm	5.3	6.0
	DISTANCE—Anm/100kg	27.3	27.6	27.4	26.9	26.1	25.1	23.9	22.7	20.2	DISTANCE—Anm/100kg	18.8	16.7
	ENG. SPEED — %RPM	85.8	87.0	88.2	89.4	90.6	92.2	93.8	95.1	97.4	MACH NUMBER	0.92	0.94
10 000 ft	FUEL FLOW — kg/min	18.3	19.1	20.6	22.5	24.7	27.3	30.3	33.8	39.9	FUEL FLOW — kg/min	48.2	54.6
	FUEL USED — kg/Anm	3.4	3.3	3.2	3.3	3.3	3.4	3.6	3.7	4.2	FUEL USED — kg/Anm	4.9	5.4
	DISTANCE—Anm/100kg	29.1	30.6	30.9	30.8	30.1	29.3	28.0	26.8	24.0	DISTANCE—Anm/100kg	20.5	18.5
	ENG. SPEED — %RPM	85.8	86.4	87.6	88.8	89.8	91.0	92.3	93.9	96.2	MACH NUMBER	0.93	0.95
15 000 ft	FUEL FLOW — kg/min	19.0	17.7	18.3	19.6	21.2	23.2	25.6	28.3	33.2	FUEL FLOW — kg/min	42.8	49.5
	FUEL USED — kg/Anm	3.6	3.1	2.9	2.9	2.9	3.0	3.1	3.2	3.5	FUEL USED — kg/Anm	4.4	5.0
	DISTANCE—Anm/100kg	27.4	32.4	34.2	34.6	34.4	33.8	32.6	31.4	28.3	DISTANCE—Anm/100kg	22.9	20.2
	ENG. SPEED — %RPM	87.8	86.5	87.1	87.7	88.8	90.3	91.5	92.8	95.0	MACH NUMBER	0.94	0.96
20 000 ft	FUEL FLOW — kg/min	20.7	18.7	17.4	17.5	18.6	20.0	21.8	23.8	27.6	FUEL FLOW — kg/min	38.2	42.8
	FUEL USED — kg/Anm	4.0	3.3	2.8	2.6	2.6	2.6	2.7	2.7	3.0	FUEL USED — kg/Anm	3.9	5.0
	DISTANCE—Anm/100kg	24.8	30.2	35.2	38.0	38.5	38.4	37.6	36.5	33.3	DISTANCE—Anm/100kg	25.5	20.2
	ENG. SPEED — %RPM	90.4	88.6	87.2	87.2	88.4	89.5	90.4	91.6	93.7	MACH NUMBER	0.95	0.97
25 000 ft	FUEL FLOW — kg/min	24.3	20.7	18.4	17.1	16.4	17.3	18.5	20.1	23.0	FUEL FLOW — kg/min	33.0	39.7
	FUEL USED — kg/Anm	4.8	3.7	3.0	2.6	2.3	2.3	2.3	2.4	2.5	FUEL USED — kg/Anm	3.4	4.0
	DISTANCE—Anm/100kg	20.7	26.7	32.8	38.2	42.7	43.5	43.3	42.5	39.2	DISTANCE—Anm/100kg	29.2	24.8
	ENG. SPEED — %RPM	95.8	92.1	89.9	88.6	87.8	88.3	89.5	90.5	92.6	MACH NUMBER	0.96	0.98
30 000 ft	FUEL FLOW — kg/min			22.1	19.3	17.5	16.4	16.4	17.4	19.6	FUEL FLOW — kg/min	28.7	33.1
	FUEL USED — kg/Anm			3.7	3.0	2.5	2.2	2.1	2.1	2.2	FUEL USED — kg/Anm	3.0	3.4
	DISTANCE—Anm/100kg			26.7	33.0	39.3	44.8	47.9	47.9	45.0	DISTANCE—Anm/100kg	32.8	29.0
	ENG. SPEED — %RPM			96.0	92.9	91.0	89.8	88.9	90.3	92.1	MACH NUMBER	0.96	0.98
36 090 ft	FUEL FLOW — kg/min						20.0	19.1	17.3	17.4	FUEL FLOW — kg/min	23.5	26.2
	FUEL USED — kg/Anm						2.8	2.5	2.1	2.0	FUEL USED — kg/Anm	2.6	2.8
	DISTANCE—Anm/100kg						35.8	40.1	46.9	49.5	DISTANCE—Anm/100kg	39.0	35.4
	ENG. SPEED — %RPM						96.5	95.2	92.3	92.0	MACH NUMBER	0.96	0.97
40 000 ft	FUEL FLOW — kg/min									19.4	FUEL FLOW — kg/min	19.7	22.6
	FUEL USED — kg/Anm									2.3	FUEL USED — kg/Anm	2.2	2.5
	DISTANCE—Anm/100kg									44.2	DISTANCE—Anm/100kg	44.7	39.8
	ENG. SPEED — %RPM									97.7	MACH NUMBER	0.92	0.94

FIG. 7.2.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 10 000kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	23.3	25.5	28.2	31.3	34.9	38.8	43.6	48.9	58.3	FUEL FLOW — kg/min	56.0	63.2
	FUEL USED — kg/Anm	4.2	4.2	4.3	4.4	4.5	4.7	4.9	5.2	5.9	FUEL USED — kg/Anm	5.7	6.2
	DISTANCE—Anm/100kg	23.7	23.7	23.4	22.9	22.1	21.3	20.2	19.2	17.0	DISTANCE—Anm/100kg	17.5	16.1
	ENG. SPEED — %RPM	86.3	88.1	89.3	90.5	92.1	93.4	95.1	96.5	99.1	MACH NUMBER	0.89	0.92
5 000 ft	FUEL FLOW — kg/min	20.9	22.5	24.4	26.8	29.7	32.8	36.7	40.9	48.6	FUEL FLOW — kg/min	52.7	62.0
	FUEL USED — kg/Anm	3.9	3.8	3.8	3.8	3.9	4.0	4.2	4.4	5.0	FUEL USED — kg/Anm	5.3	6.1
	DISTANCE—Anm/100kg	25.9	26.5	26.6	26.3	25.6	24.7	23.6	22.5	20.1	DISTANCE—Anm/100kg	18.9	16.4
	ENG. SPEED — %RPM	86.4	87.7	88.8	89.8	91.0	92.2	93.8	95.4	97.8	MACH NUMBER	0.92	0.94
10 000 ft	FUEL FLOW — kg/min	20.8	20.1	21.5	23.2	25.4	27.9	30.9	34.3	40.4	FUEL FLOW — kg/min	49.7	55.6
	FUEL USED — kg/Anm	3.9	3.4	3.4	3.4	3.4	3.5	3.6	3.8	4.2	FUEL USED — kg/Anm	5.0	5.5
	DISTANCE—Anm/100kg	25.6	29.1	29.7	29.8	29.3	28.6	27.5	26.4	23.7	DISTANCE—Anm/100kg	20.1	18.2
	ENG. SPEED — %RPM	87.7	87.0	88.2	89.4	90.3	91.5	92.7	94.2	96.5	MACH NUMBER	0.94	0.95
15 000 ft	FUEL FLOW — kg/min	22.0	20.2	19.4	20.5	22.0	23.9	26.2	28.8	33.7	FUEL FLOW — kg/min	43.5	50.2
	FUEL USED — kg/Anm	4.2	3.5	3.1	3.0	3.0	3.1	3.1	3.3	3.6	FUEL USED — kg/Anm	4.5	5.0
	DISTANCE—Anm/100kg	23.7	28.4	32.3	33.1	33.1	32.7	31.8	30.8	27.8	DISTANCE—Anm/100kg	22.5	19.9
	ENG. SPEED — %RPM	90.1	88.4	87.7	88.9	89.5	90.7	91.6	92.8	95.3	MACH NUMBER	0.94	0.96
20 000 ft	FUEL FLOW — kg/min	24.8	21.9	19.9	18.9	19.6	20.9	22.6	24.5	28.3	FUEL FLOW — kg/min	38.4	44.5
	FUEL USED — kg/Anm	4.8	3.9	3.2	2.8	2.7	2.7	2.8	2.8	3.1	FUEL USED — kg/Anm	4.0	4.5
	DISTANCE—Anm/100kg	20.6	25.8	30.8	35.3	36.6	36.8	36.3	35.4	32.5	DISTANCE—Anm/100kg	25.3	22.3
	ENG. SPEED — %RPM	93.4	91.3	89.8	88.5	89.0	89.9	90.8	92.1	94.0	MACH NUMBER	0.95	0.97
25 000 ft	FUEL FLOW — kg/min		25.5	22.1	20.0	18.7	18.3	19.5	21.0	23.8	FUEL FLOW — kg/min	33.8	37.8
	FUEL USED — kg/Anm		4.6	3.7	3.1	2.7	2.4	2.4	2.5	2.6	FUEL USED — kg/Anm	3.5	3.9
	DISTANCE—Anm/100kg		21.6	27.2	32.7	37.6	41.0	41.1	40.7	37.9	DISTANCE—Anm/100kg	28.5	25.7
	ENG. SPEED — %RPM		96.5	93.2	91.3	90.2	89.6	91.0	91.4	93.1	MACH NUMBER	0.96	0.97
30 000 ft	FUEL FLOW — kg/min				24.0	21.1	19.4	18.5	18.6	20.7	FUEL FLOW — kg/min	28.8	32.0
	FUEL USED — kg/Anm				3.8	3.1	2.6	2.4	2.2	2.3	FUEL USED — kg/Anm	3.1	3.4
	DISTANCE—Anm/100kg				26.6	32.6	37.9	42.5	44.9	42.7	DISTANCE—Anm/100kg	32.8	29.8
	ENG. SPEED — %RPM				97.6	94.5	92.6	91.3	91.2	92.6	MACH NUMBER	0.96	0.97
36 090 ft	FUEL FLOW — kg/min								20.4	20.2	FUEL FLOW — kg/min	24.0	25.5
	FUEL USED — kg/Anm								2.5	2.3	FUEL USED — kg/Anm	2.6	2.8
	DISTANCE—Anm/100kg								39.9	42.6	DISTANCE—Anm/100kg	37.8	36.0
	ENG. SPEED — %RPM								95.9	96.0	MACH NUMBER	0.95	0.96
40 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG.7.3.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 8 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED FLIGHT TEST
FUEL: AVTUR FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	22.9	25.7	28.9	32.6	36.7	41.3	46.8	53.0	68.2	FUEL FLOW – kg/min	56.0	68.2
	FUEL USED – kg/Anm	4.2	4.2	4.4	4.5	4.8	5.0	5.3	5.7	6.9	FUEL USED – kg/Anm	5.9	6.9
	DISTANCE–Anm/100kg	24.1	23.6	22.9	22.0	21.0	20.0	18.8	17.7	14.5	DISTANCE–Anm/100kg	16.9	14.5
	ENG. SPEED – %RPM	86.3	88.1	89.7	91.3	92.9	94.2	96.1	97.7	100.2	MACH NUMBER	0.86	0.90
5 000 ft	FUEL FLOW – kg/min	20.0	22.1	24.6	27.5	30.8	34.5	39.0	44.0	53.2	FUEL FLOW – kg/min	51.5	60.6
	FUEL USED – kg/Anm	3.7	3.7	3.8	3.9	4.1	4.3	4.5	4.8	5.5	FUEL USED – kg/Anm	5.4	6.0
	DISTANCE – Anm/100kg	27.1	27.0	26.4	25.6	24.6	23.5	22.2	20.9	18.3	DISTANCE – Anm/100kg	18.7	16.6
	ENG. SPEED – %RPM	85.8	87.0	88.8	90.3	91.5	93.1	94.7	96.5	99.2	MACH NUMBER	0.89	0.93
10 000 ft	FUEL FLOW – kg/min	17.7	19.2	21.1	23.3	25.9	28.9	32.4	36.5	44.0	FUEL FLOW – kg/min	48.2	57.0
	FUEL USED – kg/Anm	3.3	3.3	3.3	3.4	3.5	3.6	3.8	4.0	4.6	FUEL USED – kg/Anm	4.9	5.7
	DISTANCE – Anm/100kg	30.0	30.4	30.3	29.7	28.7	27.6	26.3	24.8	21.8	DISTANCE–Anm/100kg	20.3	17.5
	ENG. SPEED – %RPM	85.1	86.4	87.6	89.4	90.7	91.9	93.7	95.1	97.6	MACH NUMBER	0.92	0.94
15 000 ft	FUEL FLOW – kg/min	17.5	17.1	18.4	20.0	21.9	24.3	27.0	30.2	36.1	FUEL FLOW – kg/min	44.9	50.7
	FUEL USED – kg/Anm	3.4	3.0	2.9	2.9	3.0	3.1	3.2	3.4	3.8	FUEL USED – kg/Anm	4.5	5.1
	DISTANCE – Anm/100kg	29.8	33.7	34.1	33.9	33.3	32.3	30.9	29.4	26.0	DISTANCE–Anm/100kg	22.3	19.6
	ENG. SPEED – %RPM	86.6	85.9	87.1	88.3	89.5	90.7	92.0	93.7	96.2	MACH NUMBER	0.93	0.95
20 000 ft	FUEL FLOW – kg/min	18.2	17.1	16.5	17.5	18.9	20.6	22.7	25.2	29.9	FUEL FLOW – kg/min	38.5	43.1
	FUEL USED – kg/Anm	3.6	3.0	2.7	2.6	2.6	2.7	2.8	2.9	3.2	FUEL USED – kg/Anm	4.0	4.4
	DISTANCE – Anm/100kg	28.1	33.0	37.3	38.1	37.9	37.3	36.0	34.5	30.8	DISTANCE–Anm/100kg	25.0	22.8
	ENG. SPEED – %RPM	88.6	87.3	86.6	87.2	88.4	90.0	91.2	92.5	94.8	MACH NUMBER	0.94	0.96
25 000 ft	FUEL FLOW – kg/min	20.0	17.7	16.6	15.9	16.3	17.4	19.0	20.9	24.5	FUEL FLOW – kg/min	34.8	36.0
	FUEL USED – kg/Anm	4.0	3.2	2.8	2.4	2.3	2.3	2.4	2.5	2.7	FUEL USED – kg/Anm	3.5	3.7
	DISTANCE – Anm/100kg	25.0	31.1	36.3	40.9	43.1	43.1	42.2	40.8	36.9	DISTANCE–Anm/100kg	28.7	26.7
	ENG. SPEED – %RPM	91.8	89.3	88.6	87.9	87.8	88.9	90.1	91.4	93.6	MACH NUMBER	0.95	0.96
30 000 ft	FUEL FLOW – kg/min		21.3	18.5	16.7	15.9	15.6	16.4	17.7	20.5	FUEL FLOW – kg/min	28.5	30.0
	FUEL USED – kg/Anm		3.9	3.1	2.6	2.3	2.1	2.1	2.1	2.3	FUEL USED – kg/Anm	3.1	3.2
	DISTANCE – Anm/100kg		25.4	31.9	38.2	43.2	47.3	48.0	47.0	43.1	DISTANCE–Anm/100kg	32.8	31.5
	ENG. SPEED – %RPM		95.4	92.0	90.0	89.2	88.5	89.1	90.7	92.6	MACH NUMBER	0.95	0.96
36 090 ft	FUEL FLOW – kg/min					18.8	18.2	16.7	16.0	17.3	FUEL FLOW – kg/min	23.0	23.7
	FUEL USED – kg/Anm					2.8	2.5	2.2	2.0	2.0	FUEL USED – kg/Anm	2.5	2.6
	DISTANCE – Anm/100kg					35.6	39.5	45.9	50.7	49.8	DISTANCE–Anm/100kg	39.4	38.7
	ENG. SPEED – %RPM					95.3	94.1	91.9	91.0	92.0	MACH NUMBER	0.95	0.96
40 000 ft	FUEL FLOW – kg/min								17.5	17.8	FUEL FLOW – kg/min	20.0	21.5
	FUEL USED – kg/Anm								2.2	2.1	FUEL USED – kg/Anm	2.3	2.4
	DISTANCE – Anm/100kg								46.4	48.3	DISTANCE–Anm/100kg	44.4	41.8
	ENG. SPEED – %RPM								96.3	95.9	MACH NUMBER	0.93	0.94

FIG.7.4.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 9 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	23.7	26.4	29.5	33.1	37.1	41.7	47.0	53.3		FUEL FLOW – kg/min	56.4	63.2
	FUEL USED – kg/Anm	4.3	4.3	4.5	4.6	4.8	5.0	5.3	5.7		FUEL USED – kg/Anm	6.0	6.5
	DISTANCE–Anm/100kg	23.3	23.0	22.4	21.7	20.8	19.8	18.7	17.6		DISTANCE–Anm/100kg	16.8	15.5
	ENG. SPEED – %RPM	86.6	88.0	90.1	91.3	92.9	94.5	96.1	97.7		MACH NUMBER	0.86	0.89
5 000 ft	FUEL FLOW – kg/min	20.9	22.9	25.2	28.1	31.3	35.0	39.4	44.3	53.6	FUEL FLOW – kg/min	46.8	54.3
	FUEL USED – kg/Anm	3.9	3.8	3.9	4.0	4.1	4.3	4.5	4.8	5.5	FUEL USED – kg/Anm	5.4	6.1
	DISTANCE – Anm/100kg	25.9	26.1	25.7	25.1	24.2	23.2	22.0	20.8	18.2	DISTANCE – Anm/100kg	18.5	16.5
	ENG. SPEED – %RPM	86.4	87.6	89.4	90.3	91.9	93.0	95.1	96.5	99.2	MACH NUMBER	0.89	0.92
10 000 ft	FUEL FLOW – kg/min	19.7	20.1	21.9	24.0	26.5	29.4	32.9	36.9	44.4	FUEL FLOW – kg/min	48.6	58.5
	FUEL USED – kg/Anm	3.7	3.4	3.4	3.5	3.6	3.7	3.9	4.1	4.6	FUEL USED – kg/Anm	5.0	5.9
	DISTANCE – Anm/100kg	27.1	29.1	29.2	28.8	28.1	27.1	25.9	24.5	21.6	DISTANCE–Anm/100kg	20.1	17.1
	ENG. SPEED – %RPM	87.0	87.0	88.2	89.5	90.7	91.9	93.7	95.3	98.1	MACH NUMBER	0.92	0.94
15 000 ft	FUEL FLOW – kg/min	20.1	19.1	19.3	20.8	22.7	24.9	27.6	30.8	36.6	FUEL FLOW – kg/min	43.5	52.5
	FUEL USED – kg/Anm	3.9	3.3	3.1	3.1	3.1	3.2	3.3	3.5	3.9	FUEL USED – kg/Anm	4.5	5.3
	DISTANCE – Anm/100kg	25.9	30.1	32.4	32.6	32.2	31.4	30.2	28.8	25.6	DISTANCE–Anm/100kg	22.3	18.9
	ENG. SPEED – %RPM	88.4	87.8	87.8	88.9	89.9	91.2	92.4	94.0	96.5	MACH NUMBER	0.93	0.95
20 000 ft	FUEL FLOW – kg/min	21.7	19.7	18.7	18.4	19.7	21.4	23.4	25.8	30.5	FUEL FLOW – kg/min	38.9	42.5
	FUEL USED – kg/Anm	4.2	3.5	3.0	2.8	2.8	2.8	2.9	3.0	3.3	FUEL USED – kg/Anm	4.0	4.4
	DISTANCE – Anm/100kg	23.6	28.5	32.8	36.1	36.3	35.9	35.0	33.7	30.2	DISTANCE–Anm/100kg	24.8	22.9
	ENG. SPEED – %RPM	91.4	89.8	88.5	88.5	89.6	90.3	91.7	92.9	95.4	MACH NUMBER	0.94	0.95
25 000 ft	FUEL FLOW – kg/min	25.4	21.8	19.6	18.3	17.8	18.4	19.9	21.7	25.2	FUEL FLOW – kg/min	33.4	36.0
	FUEL USED – kg/Anm	5.1	3.9	3.3	2.8	2.5	2.4	2.5	2.5	2.8	FUEL USED – kg/Anm	3.5	3.7
	DISTANCE – Anm/100kg	19.7	25.3	30.7	35.6	39.6	40.9	40.3	39.3	35.9	DISTANCE–Anm/100kg	28.5	26.7
	ENG. SPEED – %RPM	96.7	93.3	91.0	89.8	89.0	89.6	90.5	91.8	94.1	MACH NUMBER	0.95	0.96
30 000 ft	FUEL FLOW – kg/min			23.5	20.6	18.9	18.0	17.7	18.8	21.4	FUEL FLOW – kg/min	28.7	30.1
	FUEL USED – kg/Anm			4.0	3.2	2.8	2.4	2.3	2.3	2.4	FUEL USED – kg/Anm	3.1	3.2
	DISTANCE – Anm/100kg			25.1	31.0	36.3	40.9	44.4	44.4	41.2	DISTANCE–Anm/100kg	32.5	31.0
	ENG. SPEED – %RPM			97.6	94.2	92.2	90.8	90.7	91.1	93.0	MACH NUMBER	0.95	0.95
36 090 ft	FUEL FLOW – kg/min							19.7	19.2	19.4	FUEL FLOW – kg/min	23.7	24.6
	FUEL USED – kg/Anm							2.6	2.4	2.3	FUEL USED – kg/Anm	2.6	2.7
	DISTANCE – Anm/100kg							38.8	42.3	44.2	DISTANCE–Anm/100kg	38.0	36.9
	ENG. SPEED – %RPM							95.7	94.8	94.4	MACH NUMBER	0.94	0.95
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.5.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 10 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	24.6	27.1	30.1	33.6	37.6	42.2	47.5	53.7		FUEL FLOW — kg/min	55.2	60.5
	FUEL USED — kg/Anm	4.5	4.5	4.6	4.7	4.9	5.1	5.4	5.7		FUEL USED — kg/Anm	5.8	6.2
	DISTANCE—Anm/100kg	22.4	22.4	21.9	21.3	20.5	19.6	18.6	17.5		DISTANCE—Anm/100kg	17.2	16.2
	ENG. SPEED—%RPM	87.4	88.6	90.1	91.7	92.9	94.5	96.5	98.1		MACH NUMBER	0.86	0.89
5 000 ft	FUEL FLOW — kg/min	22.0	23.7	26.0	28.7	31.9	35.5	39.8	44.8	54.0	FUEL FLOW — kg/min	52.4	64.4
	FUEL USED — kg/Anm	4.1	4.0	4.0	4.1	4.2	4.4	4.6	4.9	5.5	FUEL USED — kg/Anm	5.4	6.5
	DISTANCE—Anm/100kg	24.7	25.1	25.0	24.5	23.8	22.9	21.7	20.6	18.1	DISTANCE—Anm/100kg	18.4	16.5
	ENG. SPEED—%RPM	87.0	88.2	89.4	90.7	91.9	93.6	95.1	96.5	99.2	MACH NUMBER	0.89	0.92
10 000 ft	FUEL FLOW — kg/min	22.1	21.2	22.8	24.8	27.2	30.0	33.5	37.4	44.9	FUEL FLOW — kg/min	49.1	60.2
	FUEL USED — kg/Anm	4.2	3.6	3.6	3.6	3.7	3.8	3.9	4.1	4.7	FUEL USED — kg/Anm	5.0	6.0
	DISTANCE—Anm/100kg	24.0	27.6	28.0	27.9	27.3	26.5	25.4	24.2	21.3	DISTANCE—Anm/100kg	19.9	16.6
	ENG. SPEED—%RPM	88.9	87.5	88.8	89.8	91.1	92.4	93.9	95.3	98.1	MACH NUMBER	0.92	0.94
15 000 ft	FUEL FLOW — kg/min	23.2	21.5	20.7	21.7	23.5	25.7	28.3	31.4	37.3	FUEL FLOW — kg/min	44.1	50.8
	FUEL USED — kg/Anm	4.4	3.7	3.3	3.2	3.2	3.3	3.4	3.5	4.0	FUEL USED — kg/Anm	4.5	5.1
	DISTANCE—Anm/100kg	22.5	26.7	30.3	31.2	31.1	30.5	29.5	28.3	25.2	DISTANCE—Anm/100kg	22.0	19.5
	ENG. SPEED—%RPM	90.6	89.6	88.9	89.6	90.4	91.6	92.8	94.3	96.9	MACH NUMBER	0.93	0.95
20 000 ft	FUEL FLOW — kg/min	25.8	23.1	21.4	20.4	20.7	22.3	24.2	26.5	31.2	FUEL FLOW — kg/min	38.8	42.4
	FUEL USED — kg/Anm	5.0	4.1	3.5	3.1	2.9	2.9	3.0	3.1	3.4	FUEL USED — kg/Anm	4.0	4.4
	DISTANCE—Anm/100kg	19.8	24.4	28.7	32.6	34.5	34.5	33.8	32.8	29.6	DISTANCE—Anm/100kg	24.8	22.9
	ENG. SPEED—%RPM	94.3	92.2	90.7	90.1	90.1	90.8	92.1	93.3	95.7	MACH NUMBER	0.94	0.95
25 000 ft	FUEL FLOW — kg/min		27.0	23.4	21.4	20.3	19.8	20.9	22.6	26.1	FUEL FLOW — kg/min	33.4	36.7
	FUEL USED — kg/Anm		4.9	3.9	3.3	2.9	2.6	2.6	2.6	2.9	FUEL USED — kg/Anm	3.5	3.8
	DISTANCE—Anm/100kg		20.5	25.8	30.5	34.6	38.0	38.4	37.7	34.6	DISTANCE—Anm/100kg	28.3	26.0
	ENG. SPEED—%RPM		97.8	94.2	92.4	91.2	90.6	91.4	92.3	94.6	MACH NUMBER	0.94	0.95
30 000 ft	FUEL FLOW — kg/min					22.5	21.0	20.2	20.1	22.5	FUEL FLOW — kg/min	28.9	31.1
	FUEL USED — kg/Anm					3.3	2.9	2.6	2.4	2.5	FUEL USED — kg/Anm	3.1	3.3
	DISTANCE—Anm/100kg					30.5	35.1	38.8	41.6	39.3	DISTANCE—Anm/100kg	32.0	30.0
	ENG. SPEED—%RPM					97.1	94.7	92.9	92.5	94.0	MACH NUMBER	0.94	0.95
36 090 ft	FUEL FLOW — kg/min								22.4	22.7	FUEL FLOW — kg/min	23.7	26.0
	FUEL USED — kg/Anm								2.8	2.6	FUEL USED — kg/Anm	2.7	2.9
	DISTANCE—Anm/100kg								36.2	38.0	DISTANCE—Anm/100kg	37.0	34.5
	ENG. SPEED—%RPM								97.7	97.1	MACH NUMBER	0.92	0.94
40 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG.7.6.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 10 500 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	25.1	27.5	30.5	33.9	37.9	42.4	47.7	53.9		FUEL FLOW – kg/min	55.4	63.3
	FUEL USED – kg/Anm	4.5	4.5	4.6	4.7	4.9	5.1	5.4	5.8		FUEL USED – kg/Anm	5.9	6.5
	DISTANCE–Anm/100kg	22.0	22.0	21.7	21.1	20.4	19.5	18.5	17.4		DISTANCE–Anm/100kg	17.1	15.5
	ENG. SPEED – %RPM	87.4	89.4	90.6	91.7	93.4	94.8	96.5	98.1		MACH NUMBER	0.86	0.89
5 000 ft	FUEL FLOW – kg/min	23.1	24.2	26.4	29.1	32.2	35.8	40.1	45.0	54.2	FUEL FLOW – kg/min	52.0	60.3
	FUEL USED – kg/Anm	4.3	4.1	4.1	4.1	4.2	4.4	4.6	4.9	5.6	FUEL USED – kg/Anm	5.4	6.1
	DISTANCE – Anm/100kg	23.4	24.6	24.6	24.2	23.5	22.7	21.6	20.4	18.0	DISTANCE – Anm/100kg	18.5	16.4
	ENG. SPEED – %RPM	87.6	88.8	89.8	91.1	92.4	93.6	95.0	97.0	99.2	MACH NUMBER	0.89	0.94
10 000 ft	FUEL FLOW – kg/min	23.5	22.3	23.2	25.2	27.6	30.4	33.8	37.7	45.1	FUEL FLOW – kg/min	49.4	61.1
	FUEL USED – kg/Anm	4.4	3.8	3.6	3.6	3.7	3.8	4.0	4.2	4.7	FUEL USED – kg/Anm	5.0	6.1
	DISTANCE – Anm/100kg	22.7	26.2	27.5	27.4	27.0	26.3	25.2	24.0	21.2	DISTANCE – Anm/100kg	19.8	16.4
	ENG. SPEED – %RPM	89.6	88.9	89.5	90.4	91.6	92.3	93.9	95.6	98.1	MACH NUMBER	0.92	0.94
15 000 ft	FUEL FLOW – kg/min	24.9	22.9	21.8	22.2	24.0	26.1	28.6	31.7	37.6	FUEL FLOW – kg/min	43.9	50.8
	FUEL USED – kg/Anm	4.8	4.0	3.5	3.3	3.3	3.3	3.4	3.6	4.0	FUEL USED – kg/Anm	4.5	5.1
	DISTANCE – Anm/100kg	21.0	25.0	28.7	30.5	30.5	30.0	29.2	28.0	25.0	DISTANCE–Anm/100kg	22.1	19.5
	ENG. SPEED – %RPM	91.6	90.6	89.6	90.0	90.9	91.7	92.8	94.6	96.9	MACH NUMBER	0.93	0.95
20 000 ft	FUEL FLOW – kg/min	28.4	24.9	22.9	21.7	21.3	22.8	24.7	26.9	31.5	FUEL FLOW – kg/min	39.0	43.1
	FUEL USED – kg/Anm	5.5	4.4	3.7	3.3	3.0	3.0	3.0	3.1	3.4	FUEL USED – kg/Anm	4.0	4.4
	DISTANCE – Anm/100kg	18.0	22.6	26.8	30.7	33.6	33.7	33.2	32.3	29.2	DISTANCE–Anm/100kg	24.7	22.5
	ENG. SPEED – %RPM	96.2	93.2	91.7	90.6	90.7	91.3	92.2	93.4	96.0	MACH NUMBER	0.94	0.95
25 000 ft	FUEL FLOW – kg/min			25.6	23.1	21.7	21.0	21.4	23.1	26.5	FUEL FLOW – kg/min	33.6	35.7
	FUEL USED – kg/Anm			4.3	3.5	3.1	2.8	2.7	2.7	2.9	FUEL USED – kg/Anm	3.6	3.8
	DISTANCE – Anm/100kg			23.5	28.3	32.4	35.9	37.4	37.0	34.0	DISTANCE–Anm/100kg	28.1	26.1
	ENG. SPEED – %RPM			96.3	94.0	92.2	91.6	92.0	92.8	95.0	MACH NUMBER	0.94	0.95
30 000 ft	FUEL FLOW – kg/min					25.0	22.6	21.6	21.2	23.0	FUEL FLOW – kg/min	29.0	31.0
	FUEL USED – kg/Anm					3.6	3.1	2.8	2.5	2.6	FUEL USED – kg/Anm	3.1	3.3
	DISTANCE – Anm/100kg					27.5	32.5	36.4	39.3	38.4	DISTANCE–Anm/100kg	31.9	30.1
	ENG. SPEED – %RPM					98.1	95.4	94.0	93.2	94.6	MACH NUMBER	0.94	0.95
36 090 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		26.4
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		3.0
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		33.3
	ENG. SPEED – %RPM										MACH NUMBER		0.92
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.7.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 8 500 kg, DRAG INDEX 20

AP 101B-3100-16

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	24.6	27.6	31.1	35.1	39.7	44.9	51.1	58.3		FUEL FLOW – kg/min	55.4	61.8
	FUEL USED – kg/Anm	4.5	4.6	4.7	4.9	5.1	5.4	5.8	6.2		FUEL USED – kg/Anm	6.1	6.4
	DISTANCE–Anm/100kg	22.4	22.0	21.2	20.4	19.5	18.4	17.2	16.1		DISTANCE–Anm/100kg	16.5	15.5
	ENG. SPEED – %RPM	87.4	89.4	90.6	92.2	94.0	95.5	97.3	99.2		MACH NUMBER	0.83	0.87
5 000 ft	FUEL FLOW – kg/min	21.5	23.7	26.5	29.6	33.3	37.5	42.5	48.5	59.2	FUEL FLOW – kg/min	50.4	59.2
	FUEL USED – kg/Anm	4.0	4.0	4.1	4.2	4.4	4.6	4.9	5.3	6.1	FUEL USED – kg/Anm	5.4	6.1
	DISTANCE – Anm/100kg	25.2	25.1	24.5	23.7	22.8	21.6	20.4	19.0	16.5	DISTANCE – Anm/100kg	18.5	16.5
	ENG. SPEED – %RPM	87.0	88.2	89.9	91.2	92.9	94.5	96.2	97.9	101.1	MACH NUMBER	0.86	0.90
10 000 ft	FUEL FLOW – kg/min	19.9	20.7	22.7	25.2	28.0	31.4	35.4	40.1	49.0	FUEL FLOW – kg/min	47.1	56.5
	FUEL USED – kg/Anm	3.7	3.5	3.6	3.6	3.8	3.9	4.2	4.4	5.1	FUEL USED – kg/Anm	5.0	5.8
	DISTANCE – Anm/100kg	26.8	28.3	28.1	27.5	26.6	25.4	24.0	22.6	19.5	DISTANCE–Anm/100kg	20.1	17.3
	ENG. SPEED – %RPM	87.0	87.6	88.6	90.3	91.6	93.3	94.8	96.5	99.6	MACH NUMBER	0.89	0.92
15 000 ft	FUEL FLOW – kg/min	19.9	19.3	19.8	21.6	23.8	26.4	29.5	33.3	40.5	FUEL FLOW – kg/min	42.8	49.1
	FUEL USED – kg/Anm	3.7	3.4	3.2	3.2	3.3	3.4	3.5	3.7	4.3	FUEL USED – kg/Anm	4.5	5.1
	DISTANCE – Anm/100kg	26.8	29.8	31.6	31.4	30.7	29.7	28.3	26.7	23.2	DISTANCE–Anm/100kg	22.2	19.8
	ENG. SPEED – %RPM	87.0	87.8	88.4	89.6	90.8	92.0	93.8	95.1	98.0	MACH NUMBER	0.91	0.93
20 000 ft	FUEL FLOW – kg/min	20.8	19.4	18.8	18.9	20.4	22.4	24.8	27.7	33.3	FUEL FLOW – kg/min	38.2	45.7
	FUEL USED – kg/Anm	4.1	3.4	3.1	2.8	2.9	2.9	3.0	3.2	3.6	FUEL USED – kg/Anm	4.1	4.7
	DISTANCE – Anm/100kg	24.6	29.0	32.6	35.2	35.0	34.2	33.0	31.4	27.7	DISTANCE–Anm/100kg	24.7	21.1
	ENG. SPEED – %RPM	90.4	89.2	88.5	88.5	90.1	90.9	92.6	94.1	96.9	MACH NUMBER	0.92	0.94
25 000 ft	FUEL FLOW – kg/min	23.4	20.7	19.1	18.3	18.1	19.1	20.9	23.0	27.4	FUEL FLOW – kg/min	33.7	37.9
	FUEL USED – kg/Anm	4.7	3.8	3.2	2.8	2.6	2.5	2.6	2.7	3.0	FUEL USED – kg/Anm	3.6	4.0
	DISTANCE – Anm/100kg	21.4	26.6	31.5	35.7	38.8	39.5	38.5	37.0	33.0	DISTANCE–Anm/100kg	27.7	24.8
	ENG. SPEED – %RPM	95.1	92.2	91.0	89.8	89.7	90.1	91.5	92.8	95.5	MACH NUMBER	0.93	0.94
30 000 ft	FUEL FLOW – kg/min			21.9	19.9	18.7	18.2	18.3	19.7	22.9	FUEL FLOW – kg/min	29.0	31.3
	FUEL USED – kg/Anm			3.7	3.1	2.7	2.5	2.3	2.4	2.6	FUEL USED – kg/Anm	3.2	3.4
	DISTANCE – Anm/100kg			26.8	32.1	36.8	40.4	42.8	42.3	38.6	DISTANCE–Anm/100kg	31.5	29.4
	ENG. SPEED – %RPM			95.7	93.6	92.2	91.4	91.4	92.2	94.6	MACH NUMBER	0.93	0.94
36 090 ft	FUEL FLOW – kg/min						20.8	20.1	19.5	20.3	FUEL FLOW – kg/min	23.6	25.3
	FUEL USED – kg/Anm						2.9	2.6	2.4	2.4	FUEL USED – kg/Anm	2.7	2.8
	DISTANCE – Anm/100kg						34.5	38.1	41.6	42.3	DISTANCE–Anm/100kg	37.7	35.4
	ENG. SPEED – %RPM						97.4	96.1	94.8	95.0	MACH NUMBER	0.93	0.94
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.8.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 10 500 kg, DRAG INDEX 20

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	26.4	29.1	32.4	36.2	40.7	45.8	52.0	59.1		FUEL FLOW – kg/min	54.4	63.0
	FUEL USED – kg/Anm	4.8	4.8	4.9	5.1	5.3	5.5	5.9	6.3		FUEL USED – kg/Anm	6.0	6.6
	DISTANCE–Anm/100kg	20.9	20.8	20.4	19.8	19.0	18.0	17.0	15.9		DISTANCE–Anm/100kg	16.6	15.2
	ENG. SPEED – %RPM	88.1	89.8	91.0	92.6	94.3	95.8	97.7	99.6		MACH NUMBER	0.82	0.87
5 000 ft	FUEL FLOW – kg/min	24.8	25.5	28.0	31.0	34.5	38.6	43.5	49.4	61.3	FUEL FLOW – kg/min	52.7	61.3
	FUEL USED – kg/Anm	4.6	4.3	4.3	4.4	4.5	4.7	5.0	5.4	6.3	FUEL USED – kg/Anm	5.6	6.3
	DISTANCE – Anm/100kg	21.9	23.4	23.2	22.7	22.0	21.1	19.9	18.7	15.9	DISTANCE – Anm/100kg	17.9	15.9
	ENG. SPEED – %RPM	88.9	89.4	90.7	91.5	93.3	94.8	96.5	97.9	101.1	MACH NUMBER	0.87	0.90
10 000 ft	FUEL FLOW – kg/min	24.9	24.0	24.5	26.7	29.4	32.6	36.5	41.1	50.0	FUEL FLOW – kg/min	46.4	55.6
	FUEL USED – kg/Anm	4.7	4.1	3.8	3.9	4.0	4.1	4.3	4.6	5.2	FUEL USED – kg/Anm	5.0	5.7
	DISTANCE – Anm/100kg	21.4	24.4	26.0	25.9	25.3	24.5	23.3	22.0	19.1	DISTANCE–Anm/100kg	20.2	17.6
	ENG. SPEED – %RPM	90.5	89.9	89.9	91.2	92.5	93.7	95.3	96.9	100.0	MACH NUMBER	0.88	0.92
15 000 ft	FUEL FLOW – kg/min	26.1	24.3	23.5	23.5	25.4	27.9	30.8	34.5	41.7	FUEL FLOW – kg/min	41.7	52.1
	FUEL USED – kg/Anm	5.0	4.2	3.8	3.5	3.5	3.6	3.7	3.9	4.4	FUEL USED – kg/Anm	4.4	5.4
	DISTANCE – Anm/100kg	20.0	23.6	26.6	28.9	28.7	28.1	27.1	25.7	22.5	DISTANCE–Anm/100kg	22.5	18.6
	ENG. SPEED – %RPM	92.6	91.6	90.9	90.5	91.7	93.0	94.4	95.9	99.3	MACH NUMBER	0.90	0.93
20 000 ft	FUEL FLOW – kg/min	29.7	26.1	24.3	23.3	23.0	24.2	26.4	29.2	34.9	FUEL FLOW – kg/min	37.7	44.5
	FUEL USED – kg/Anm	5.8	4.6	4.0	3.5	3.2	3.2	3.2	3.4	3.8	FUEL USED – kg/Anm	4.0	4.6
	DISTANCE – Anm/100kg	17.2	21.6	25.3	28.5	31.1	31.7	31.0	29.8	26.4	DISTANCE–Anm/100kg	24.7	21.6
	ENG. SPEED – %RPM	97.2	94.2	92.6	92.1	91.5	92.2	93.5	94.9	97.9	MACH NUMBER	0.91	0.94
25 000 ft	FUEL FLOW – kg/min			27.3	24.5	23.2	22.8	23.0	24.8	29.2	FUEL FLOW – kg/min	33.4	40.5
	FUEL USED – kg/Anm			4.5	3.8	3.3	3.0	2.9	2.9	3.2	FUEL USED – kg/Anm	3.6	4.3
	DISTANCE – Anm/100kg			22.1	26.6	30.2	33.0	34.9	34.4	30.9	DISTANCE–Anm/100kg	27.6	23.3
	ENG. SPEED – %RPM			97.7	95.1	93.7	93.0	93.0	94.3	96.5	MACH NUMBER	0.92	0.94
30 000 ft	FUEL FLOW – kg/min						24.6	23.6	23.4	25.5	FUEL FLOW – kg/min	27.9	32.9
	FUEL USED – kg/Anm						3.3	3.0	2.8	2.9	FUEL USED – kg/Anm	3.1	3.6
	DISTANCE – Anm/100kg						29.9	33.3	35.7	34.7	DISTANCE–Anm/100kg	32.3	28.0
	ENG. SPEED – %RPM						97.2	95.8	95.3	96.5	MACH NUMBER	0.92	0.94
36 090 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.9.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 12 500 kg, DRAG INDEX 20

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	29.9	30.9	34.0	37.6	41.9	46.9	52.9	59.9		FUEL FLOW — kg/min	55.4	63.9
	FUEL USED — kg/Anm	5.4	5.1	5.1	5.2	5.4	5.7	6.0	6.4		FUEL USED — kg/Anm	6.1	6.7
	DISTANCE—Anm/100kg	18.4	19.5	19.5	19.1	18.4	17.6	16.7	15.6		DISTANCE—Anm/100kg	16.3	15.0
	ENG. SPEED—%RPM	90.3	90.6	91.8	93.5	94.6	96.1	97.7	99.6		MACH NUMBER	0.82	0.87
5 000 ft	FUEL FLOW — kg/min	30.0	29.0	29.9	32.6	35.9	39.8	44.6	50.4	64.8	FUEL FLOW — kg/min	51.7	64.8
	FUEL USED — kg/Anm	5.5	4.9	4.6	4.6	4.7	4.9	5.2	5.5	6.7	FUEL USED — kg/Anm	5.6	6.7
	DISTANCE—Anm/100kg	18.1	20.6	21.8	21.6	21.1	20.4	19.4	18.3	15.0	DISTANCE—Anm/100kg	18.0	15.0
	ENG. SPEED—%RPM	91.8	91.2	91.2	92.5	94.0	95.4	97.0	98.3	101.1	MACH NUMBER	0.86	0.90
10 000 ft	FUEL FLOW — kg/min	31.1	29.2	28.3	28.7	31.1	34.1	37.9	42.5	51.2	FUEL FLOW — kg/min	46.4	59.7
	FUEL USED — kg/Anm	5.9	5.0	4.4	4.1	4.2	4.3	4.4	4.7	5.3	FUEL USED — kg/Anm	5.0	6.1
	DISTANCE—Anm/100kg	17.1	20.0	22.5	24.1	23.9	23.4	22.5	21.3	18.7	DISTANCE—Anm/100kg	20.2	16.4
	ENG. SPEED—%RPM	93.8	92.7	92.2	92.2	93.4	94.2	95.9	97.4	100.5	MACH NUMBER	0.88	0.92
15 000 ft	FUEL FLOW — kg/min	34.8	30.9	28.8	27.9	27.7	29.6	32.5	36.0	43.2	FUEL FLOW — kg/min	42.1	49.2
	FUEL USED — kg/Anm	6.7	5.4	4.6	4.1	3.8	3.8	3.9	4.1	4.6	FUEL USED — kg/Anm	4.5	5.1
	DISTANCE—Anm/100kg	15.0	18.6	21.7	24.3	26.4	26.4	25.7	24.7	21.8	DISTANCE—Anm/100kg	22.1	19.5
	ENG. SPEED—%RPM	97.7	95.2	93.8	93.2	93.1	93.9	95.2	96.5	99.4	MACH NUMBER	0.90	0.92
20 000 ft	FUEL FLOW — kg/min			32.2	29.3	28.0	27.6	28.4	31.1	36.8	FUEL FLOW — kg/min	36.8	46.3
	FUEL USED — kg/Anm			5.2	4.4	3.9	3.6	3.5	3.6	4.0	FUEL USED — kg/Anm	4.0	4.9
	DISTANCE—Anm/100kg			19.1	22.7	25.6	27.8	28.8	28.0	25.1	DISTANCE—Anm/100kg	25.1	20.6
	ENG. SPEED—%RPM			98.3	96.0	95.0	94.4	94.8	96.0	98.7	MACH NUMBER	0.90	0.93
25 000 ft	FUEL FLOW — kg/min					31.1	29.0	28.1	28.2	31.7	FUEL FLOW — kg/min	33.3	39.4
	FUEL USED — kg/Anm					4.4	3.9	3.5	3.3	3.5	FUEL USED — kg/Anm	3.6	4.2
	DISTANCE—Anm/100kg					22.6	26.0	28.6	30.3	28.5	DISTANCE—Anm/100kg	27.4	23.7
	ENG. SPEED—%RPM					99.6	97.6	96.5	96.4	98.2	MACH NUMBER	0.91	0.93
30 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
36 090 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
40 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG.7.10.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 30

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	26.3	29.5	33.4	37.7	42.7	48.5	55.4	66.2		FUEL FLOW — kg/min	55.4	66.2
	FUEL USED — kg/Anm	4.8	4.9	5.0	5.3	5.5	5.9	6.3	7.1		FUEL USED — kg/Anm	6.3	7.1
	DISTANCE—Anm/100kg	21.0	20.5	19.8	19.0	18.1	17.0	15.9	14.2		DISTANCE—Anm/100kg	15.9	14.2
	ENG. SPEED—%RPM	88.1	90.1	91.4	93.5	94.9	96.9	98.6	100.5		MACH NUMBER	0.80	0.85
5 000 ft	FUEL FLOW — kg/min	23.2	25.4	28.4	31.9	35.8	40.5	46.2	52.9		FUEL FLOW — kg/min	51.2	59.6
	FUEL USED — kg/Anm	4.3	4.3	4.4	4.5	4.7	5.0	5.3	5.7		FUEL USED — kg/Anm	5.6	6.2
	DISTANCE—Anm/100kg	23.4	23.4	22.9	22.1	21.2	20.0	18.8	17.4		DISTANCE—Anm/100kg	17.8	16.0
	ENG. SPEED—%RPM	87.6	89.4	90.7	92.0	94.0	95.7	97.4	99.3		MACH NUMBER	0.84	0.88
10 000 ft	FUEL FLOW — kg/min	22.3	22.4	24.4	27.1	30.2	33.9	38.3	43.8	53.9	FUEL FLOW — kg/min	45.5	53.9
	FUEL USED — kg/Anm	4.3	3.8	3.8	3.9	4.1	4.2	4.5	4.8	5.6	FUEL USED — kg/Anm	5.0	5.6
	DISTANCE—Anm/100kg	23.4	26.1	26.2	25.5	24.7	23.5	22.2	20.6	17.7	DISTANCE—Anm/100kg	20.0	17.7
	ENG. SPEED—%RPM	90.2	89.0	89.9	91.2	92.5	94.2	95.9	98.0	101.5	MACH NUMBER	0.86	0.90
15 000 ft	FUEL FLOW — kg/min	22.3	21.7	21.7	23.3	25.6	28.5	32.0	36.3	44.7	FUEL FLOW — kg/min	41.4	52.9
	FUEL USED — kg/Anm	4.3	3.8	3.5	3.4	3.5	3.6	3.8	4.1	4.8	FUEL USED — kg/Anm	4.5	5.5
	DISTANCE—Anm/100kg	23.4	26.5	28.8	29.2	28.5	27.5	26.1	24.5	21.0	DISTANCE—Anm/100kg	22.2	18.2
	ENG. SPEED—%RPM	90.2	89.6	89.6	90.5	91.7	93.0	94.9	96.5	99.8	MACH NUMBER	0.88	0.92
20 000 ft	FUEL FLOW — kg/min	23.7	22.1	21.4	21.3	22.1	24.3	26.9	30.2	37.1	FUEL FLOW — kg/min	37.1	44.9
	FUEL USED — kg/Anm	4.6	3.9	3.5	3.2	3.1	3.2	3.3	3.5	4.0	FUEL USED — kg/Anm	4.0	4.7
	DISTANCE—Anm/100kg	21.6	25.5	28.8	31.2	32.4	31.6	30.5	28.8	24.9	DISTANCE—Anm/100kg	24.9	21.2
	ENG. SPEED—%RPM	92.9	91.3	90.7	90.7	91.0	92.2	94.0	95.5	98.7	MACH NUMBER	0.90	0.93
25 000 ft	FUEL FLOW — kg/min	27.8	23.9	22.0	21.1	20.8	21.2	22.7	25.2	30.5	FUEL FLOW — kg/min	32.9	39.0
	FUEL USED — kg/Anm	5.5	4.3	3.7	3.2	3.0	2.8	2.8	3.0	3.4	FUEL USED — kg/Anm	3.6	4.2
	DISTANCE—Anm/100kg	18.0	23.1	27.3	30.9	33.8	35.3	35.3	33.9	29.6	DISTANCE—Anm/100kg	27.7	23.9
	ENG. SPEED—%RPM	99.0	94.9	93.1	92.4	91.7	91.7	92.9	94.3	97.4	MACH NUMBER	0.91	0.93
30 000 ft	FUEL FLOW — kg/min				23.3	21.7	21.1	21.2	21.9	25.7	FUEL FLOW — kg/min	29.0	31.9
	FUEL USED — kg/Anm				3.6	3.2	2.9	2.7	2.6	2.9	FUEL USED — kg/Anm	3.2	3.5
	DISTANCE—Anm/100kg				27.4	31.7	34.8	37.0	38.0	34.4	DISTANCE—Anm/100kg	31.2	28.7
	ENG. SPEED—%RPM				96.9	95.0	94.2	94.1	94.3	96.8	MACH NUMBER	0.92	0.93
36 090 ft	FUEL FLOW — kg/min								22.8		FUEL FLOW — kg/min		22.8
	FUEL USED — kg/Anm								2.8		FUEL USED — kg/Anm		2.8
	DISTANCE—Anm/100kg								35.6		DISTANCE—Anm/100kg		35.6
	ENG. SPEED — %RPM								98.1		MACH NUMBER		0.85
40 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG. 7.11.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 11 000 kg, DRAG INDEX 30

AP101B-3100-16

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	28.6	31.1	34.7	38.9	43.7	49.5	56.3			FUEL FLOW – kg/min	54.7	62.9
	FUEL USED – kg/Anm	5.2	5.1	5.3	5.4	5.7	6.0	6.4			FUEL USED – kg/Anm	6.3	6.8
	DISTANCE–Anm/100kg	19.3	19.5	19.0	18.4	17.6	16.7	15.7			DISTANCE–Anm/100kg	15.9	14.7
	ENG. SPEED – %RPM	89.8	90.6	92.2	93.8	95.2	96.9	99.0			MACH NUMBER	0.79	0.84
5 000 ft	FUEL FLOW – kg/min	27.6	27.7	30.0	33.3	37.1	41.6	47.2	53.8		FUEL FLOW – kg/min	51.4	60.7
	FUEL USED – kg/Anm	5.1	4.6	4.6	4.7	4.9	5.1	5.4	5.8		FUEL USED – kg/Anm	5.7	6.4
	DISTANCE – Anm/100kg	19.6	21.5	21.6	21.2	20.5	19.5	18.4	17.1		DISTANCE–Anm/100kg	17.5	15.7
	ENG. SPEED – %RPM	90.4	90.4	91.6	92.9	94.2	96.0	97.4	99.3		MACH NUMBER	0.83	0.88
10 000 ft	FUEL FLOW – kg/min	27.7	26.9	26.9	28.7	31.6	35.2	39.5	45.0	56.1	FUEL FLOW – kg/min	45.4	56.1
	FUEL USED – kg/Anm	5.2	4.6	4.2	4.2	4.2	4.4	4.6	5.0	5.9	FUEL USED – kg/Anm	5.0	5.9
	DISTANCE – Anm/100kg	19.2	21.8	23.7	24.1	23.5	22.7	21.5	20.1	17.1	DISTANCE–Anm/100kg	19.9	17.1
	ENG. SPEED – %RPM	91.9	91.4	91.3	92.1	93.4	94.9	96.5	98.5	101.5	MACH NUMBER	0.85	0.90
15 000 ft	FUEL FLOW – kg/min	29.0	27.2	26.4	26.3	27.4	30.1	33.4	37.7	46.0	FUEL FLOW – kg/min	40.8	48.8
	FUEL USED – kg/Anm	5.6	4.7	4.2	3.9	3.7	3.8	4.0	4.2	4.9	FUEL USED – kg/Anm	4.5	5.1
	DISTANCE – Anm/100kg	18.0	21.1	23.7	25.8	26.7	26.0	25.0	23.5	20.4	DISTANCE–Anm/100kg	22.3	19.5
	ENG. SPEED – %RPM	94.5	92.9	92.4	92.4	92.6	94.2	95.7	97.4	100.2	MACH NUMBER	0.87	0.91
20 000 ft	FUEL FLOW – kg/min		29.7	27.3	26.2	26.0	26.5	28.7	31.9	38.7	FUEL FLOW – kg/min	37.1	44.9
	FUEL USED – kg/Anm		5.3	4.4	3.9	3.6	3.5	3.5	3.7	4.2	FUEL USED – kg/Anm	4.1	4.8
	DISTANCE – Anm/100kg		19.0	22.5	25.4	27.6	29.0	28.6	27.3	23.8	DISTANCE–Anm/100kg	24.6	21.0
	ENG. SPEED – %RPM		96.9	95.0	93.9	93.8	93.7	94.8	96.3	99.6	MACH NUMBER	0.89	0.92
25 000 ft	FUEL FLOW – kg/min				28.5	26.6	26.0	26.3	27.4	32.7	FUEL FLOW – kg/min	32.1	36.7
	FUEL USED – kg/Anm				4.4	3.8	3.5	3.3	3.2	3.6	FUEL USED – kg/Anm	3.6	4.0
	DISTANCE – Anm/100kg				22.9	26.4	29.0	30.5	31.1	27.6	DISTANCE–Anm/100kg	27.8	25.1
	ENG. SPEED – %RPM				98.1	96.3	93.7	95.4	95.8	99.0	MACH NUMBER	0.89	0.92
30 000 ft	FUEL FLOW – kg/min							27.8	27.5	30.8	FUEL FLOW – kg/min		32.1
	FUEL USED – kg/Anm							3.5	3.3	3.5	FUEL USED – kg/Anm		3.6
	DISTANCE – Anm/100kg							28.3	30.4	28.7	DISTANCE–Anm/100kg		27.8
	ENG. SPEED – %RPM							99.5	98.5	100.1	MACH NUMBER		0.91
36 090 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.12.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 13000kg, DRAG INDEX 30

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED FLIGHT TEST
FUEL: AVTUR FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	33.2	33.3	36.4	40.3	45.0	50.6	57.3			FUEL FLOW – kg/min	55.8	64.7
	FUEL USED – kg/Anm	6.0	5.5	5.5	5.6	5.8	6.1	6.5			FUEL USED – kg/Anm	6.4	7.0
	DISTANCE–Anm/100kg	16.6	18.2	18.2	17.8	17.1	16.3	15.4			DISTANCE–Anm/100kg	15.6	14.3
	ENG. SPEED – %RPM	91.6	91.6	92.7	94.4	95.8	97.4	99.0			MACH NUMBER	0.79	0.84
5 000 ft	FUEL FLOW – kg/min	33.1	32.2	32.4	34.9	38.6	42.9	48.4	54.9		FUEL FLOW – kg/min	51.1	60.8
	FUEL USED – kg/Anm	6.1	5.4	5.0	5.0	5.1	5.3	5.6	6.0		FUEL USED – kg/Anm	5.8	6.4
	DISTANCE – Anm/100kg	16.4	18.5	20.1	20.2	19.7	18.9	17.9	16.8		DISTANCE – Anm/100kg	17.4	15.7
	ENG. SPEED – %RPM	93.2	92.6	92.6	93.8	94.8	96.5	97.9	99.7		MACH NUMBER	0.82	0.88
10 000 ft	FUEL FLOW – kg/min	34.4	32.3	31.5	31.6	33.4	36.8	41.0	46.4		FUEL FLOW – kg/min	46.4	56.3
	FUEL USED – kg/Anm	6.5	5.5	4.9	4.6	4.5	4.6	4.8	5.1		FUEL USED – kg/Anm	5.1	6.0
	DISTANCE – Anm/100kg	15.5	18.1	20.2	21.9	22.3	21.7	20.7	19.5		DISTANCE–Anm/100kg	19.5	16.8
	ENG. SPEED – %RPM	95.4	94.3	93.6	93.6	94.3	95.7	97.0	99.1		MACH NUMBER	0.85	0.89
15 000 ft	FUEL FLOW – kg/min	39.4	34.7	32.2	31.2	31.1	32.0	35.2	39.4	47.5	FUEL FLOW – kg/min	41.1	53.3
	FUEL USED – kg/Anm	7.5	6.0	5.1	4.6	4.3	4.1	4.2	4.4	5.1	FUEL USED – kg/Anm	4.6	5.6
	DISTANCE – Anm/100kg	13.2	16.6	19.4	21.8	23.5	24.5	23.7	22.5	19.8	DISTANCE–Anm/100kg	21.8	17.8
	ENG. SPEED – %RPM	100.4	97.3	95.8	95.1	94.8	94.9	96.5	97.9	101.2	MACH NUMBER	0.86	0.91
20 000 ft	FUEL FLOW – kg/min				33.5	31.7	31.3	31.9	34.1	40.7	FUEL FLOW – kg/min	36.8	43.9
	FUEL USED – kg/Anm				5.0	4.4	4.1	3.9	3.9	4.4	FUEL USED – kg/Anm	4.1	4.7
	DISTANCE – Anm/100kg				19.9	22.6	24.5	25.7	25.5	22.6	DISTANCE–Anm/100kg	24.2	21.2
	ENG. SPEED – %RPM				98.6	97.3	96.5	96.5	97.3	100.4	MACH NUMBER	0.87	0.91
25 000 ft	FUEL FLOW – kg/min							32.6	32.7	38.2	FUEL FLOW – kg/min		38.2
	FUEL USED – kg/Anm							4.1	3.8	4.2	FUEL USED – kg/Anm		4.2
	DISTANCE – Anm/100kg							24.6	26.0	23.6	DISTANCE–Anm/100kg		23.6
	ENG. SPEED – % RPM							99.6	99.3	100.7	MACH NUMBER		0.90
30 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
36 090 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – % RPM										MACH NUMBER		
40 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.13.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	27.6	31.1	35.3	40.2	45.8	52.4	60.0			FUEL FLOW — kg/min	55.1	64.0
	FUEL USED — kg/Anm	5.0	5.1	5.3	5.6	5.8	6.3	6.8			FUEL USED — kg/Anm	6.5	7.1
	DISTANCE—Anm/100kg	20.0	19.5	18.7	17.8	16.9	15.8	14.7			DISTANCE—Anm/100kg	15.4	14.1
	ENG. SPEED — %RPM	89.4	90.6	92.2	94.4	96.1	97.8	99.8			MACH NUMBER	0.77	0.82
4 000 ft	FUEL FLOW — kg/min	24.7	27.6	31.1	35.1	39.8	45.4	52.0	61.6		FUEL FLOW — kg/min	52.0	61.6
	FUEL USED — kg/Anm	4.5	4.6	4.8	5.0	5.2	5.6	6.0	6.7		FUEL USED — kg/Anm	6.0	6.7
	DISTANCE—Anm/100kg	22.0	21.7	21.0	20.1	19.1	18.0	16.7	15.0		DISTANCE—Anm/100kg	16.7	15.0
	ENG. SPEED — %RPM	88.9	90.3	91.6	93.4	95.1	97.0	98.9	101.0		MACH NUMBER	0.80	0.85
8 000 ft	FUEL FLOW — kg/min	23.5	24.5	27.3	30.7	34.5	39.1	44.8	51.9		FUEL FLOW — kg/min	48.3	57.0
	FUEL USED — kg/Anm	4.4	4.2	4.3	4.4	4.6	4.9	5.2	5.7		FUEL USED — kg/Anm	5.5	6.1
	DISTANCE—Anm/100kg	22.8	24.0	23.5	22.7	21.7	20.5	19.1	17.5		DISTANCE—Anm/100kg	18.2	16.3
	ENG. SPEED — %RPM	89.0	89.6	90.8	92.6	94.0	95.9	98.0	100.0		MACH NUMBER	0.82	0.87
12 000 ft	FUEL FLOW — kg/min	23.1	23.1	24.3	27.0	30.1	33.9	38.5	44.7		FUEL FLOW — kg/min	44.7	51.1
	FUEL USED — kg/Anm	4.4	4.0	3.8	3.9	4.1	4.3	4.6	5.0		FUEL USED — kg/Anm	5.0	5.4
	DISTANCE—Anm/100kg	22.9	25.2	26.1	25.5	24.5	23.3	21.9	20.1		DISTANCE—Anm/100kg	20.1	18.4
	ENG. SPEED — %RPM	90.0	90.0	90.4	91.7	93.4	94.8	97.0	98.9		MACH NUMBER	0.85	0.89
16 000 ft	FUEL FLOW — kg/min	23.2	22.6	22.7	23.9	26.4	29.5	33.3	38.4		FUEL FLOW — kg/min	39.8	44.4
	FUEL USED — kg/Anm	4.5	3.9	3.6	3.5	3.6	3.8	4.0	4.3		FUEL USED — kg/Anm	4.5	4.8
	DISTANCE—Anm/100kg	22.4	25.3	27.5	28.3	27.5	26.5	25.0	23.0		DISTANCE—Anm/100kg	22.4	20.8
	ENG. SPEED — %RPM	91.1	90.6	90.6	90.8	92.6	94.0	95.6	97.8		MACH NUMBER	0.86	0.89
20 000 ft	FUEL FLOW — kg/min	24.3	22.9	22.3	22.4	23.4	25.9	28.9	33.1	41.3	FUEL FLOW — kg/min	35.8	41.3
	FUEL USED — kg/Anm	4.8	4.1	3.6	3.4	3.3	3.4	3.5	3.8	4.5	FUEL USED — kg/Anm	4.0	4.5
	DISTANCE—Anm/100kg	21.0	24.6	27.5	29.6	30.6	29.7	28.3	26.3	22.3	DISTANCE—Anm/100kg	24.8	22.3
	ENG. SPEED — %RPM	93.4	91.8	91.1	91.5	92.0	93.1	95.0	96.9	100.9	MACH NUMBER	0.87	0.90
24 000 ft	FUEL FLOW — kg/min	27.3	24.1	22.6	22.1	22.1	22.9	25.1	28.5	35.5	FUEL FLOW — kg/min	32.8	37.9
	FUEL USED — kg/Anm	5.4	4.3	3.7	3.4	3.1	3.0	3.1	3.3	3.9	FUEL USED — kg/Anm	3.7	4.1
	DISTANCE—Anm/100kg	18.5	23.0	26.7	29.7	31.8	33.0	32.1	30.0	25.5	DISTANCE—Anm/100kg	27.0	24.2
	ENG. SPEED — %RPM	97.6	94.8	93.0	92.3	92.2	92.5	94.4	96.0	99.8	MACH NUMBER	0.88	0.91
28 000 ft	FUEL FLOW — kg/min			24.9	23.0	22.2	22.3	22.9	25.0	30.8	FUEL FLOW — kg/min	29.6	33.8
	FUEL USED — kg/Anm			4.2	3.6	3.2	3.0	2.9	3.0	3.5	FUEL USED — kg/Anm	3.4	3.8
	DISTANCE—Anm/100kg			23.9	28.0	31.2	33.3	34.5	33.7	29.0	DISTANCE—Anm/100kg	29.8	26.7
	ENG. SPEED — %RPM			97.5	94.9	94.2	94.0	94.3	95.5	99.2	MACH NUMBER	0.89	0.91
32 000 ft	FUEL FLOW — kg/min					25.1	23.1	22.9	23.7	27.4	FUEL FLOW — kg/min	25.6	29.4
	FUEL USED — kg/Anm					3.7	3.2	2.9	2.9	3.1	FUEL USED — kg/Anm	3.0	3.3
	DISTANCE—Anm/100kg					27.1	31.6	34.0	34.9	32.0	DISTANCE—Anm/100kg	33.5	30.2
	ENG. SPEED — %RPM					98.4	96.8	96.2	96.5	99.3	MACH NUMBER	0.88	0.91

FIG. 7.14.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 11 000 kg, DRAG INDEX 40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	29.9	32.7	36.7	41.4	46.8	53.3	60.8			FUEL FLOW – kg/min	53.7	65.0
	FUEL USED – kg/Anm	5.4	5.4	5.5	5.8	6.1	6.4	6.9			FUEL USED – kg/Anm	6.5	7.3
	DISTANCE–Anm/100kg	18.4	18.5	18.0	17.3	16.5	15.5	14.5			DISTANCE–Anm/100kg	15.4	13.9
	ENG. SPEED – %RPM	90.2	91.5	93.1	94.6	96.5	98.3	100.2			MACH NUMBER	0.75	0.82
4 000 ft	FUEL FLOW – kg/min	28.9	29.4	32.6	36.5	41.0	46.5	53.0	65.0		FUEL FLOW – kg/min	51.4	65.0
	FUEL USED – kg/Anm	5.3	4.9	5.0	5.2	5.4	5.7	6.1	7.0		FUEL USED – kg/Anm	6.0	7.0
	DISTANCE – Anm/100kg	18.8	20.3	20.0	19.4	18.6	17.5	16.4	14.2		DISTANCE – Anm/100kg	16.7	14.2
	ENG. SPEED – %RPM	90.9	91.3	92.5	94.0	95.6	97.4	99.2	101.0		MACH NUMBER	0.79	0.85
8 000 ft	FUEL FLOW – kg/min	28.6	28.3	29.1	32.2	35.9	40.4	46.0	53.0		FUEL FLOW – kg/min	47.5	57.9
	FUEL USED – kg/Anm	5.3	4.8	4.5	4.6	4.8	5.0	5.4	5.8		FUEL USED – kg/Anm	5.5	6.2
	DISTANCE – Anm/100kg	18.7	20.8	22.1	21.6	20.9	19.9	18.7	17.2		DISTANCE–Anm/100kg	18.3	16.1
	ENG. SPEED – %RPM	91.9	91.8	91.8	93.3	94.8	96.5	98.4	100.3		MACH NUMBER	0.81	0.87
12 000 ft	FUEL FLOW – kg/min	28.9	28.0	27.9	28.8	31.7	35.4	39.9	45.9		FUEL FLOW – kg/min	43.3	53.0
	FUEL USED – kg/Anm	5.5	4.8	4.4	4.2	4.3	4.5	4.7	5.1		FUEL USED – kg/Anm	5.0	5.7
	DISTANCE – Anm/100kg	18.2	20.8	22.7	23.9	23.3	22.4	21.2	19.5		DISTANCE–Anm/100kg	20.2	17.7
	ENG. SPEED – %RPM	93.4	92.3	92.2	92.5	94.1	95.6	97.4	99.4		MACH NUMBER	0.83	0.89
16 000 ft	FUEL FLOW – kg/min	30.5	28.4	27.5	27.6	28.3	31.2	34.8	40.0		FUEL FLOW – kg/min	40.0	47.4
	FUEL USED – kg/Anm	5.9	5.0	4.4	4.1	3.9	4.0	4.2	4.5		FUEL USED – kg/Anm	4.5	5.1
	DISTANCE – Anm/100kg	17.0	20.2	22.6	24.5	25.7	25.0	23.9	22.1		DISTANCE–Anm/100kg	22.1	19.5
	ENG. SPEED – %RPM	95.7	94.5	93.3	93.3	3.6	95.0	96.5	98.7		MACH NUMBER	0.85	0.89
20 000 ft	FUEL FLOW – kg/min		30.8	28.4	27.4	27.4	28.3	30.7	35.0		FUEL FLOW – kg/min	36.3	43.9
	FUEL USED – kg/Anm		5.5	4.6	4.1	3.8	3.7	3.8	4.0		FUEL USED – kg/Anm	4.1	4.8
	DISTANCE – Anm/100kg		18.3	21.6	24.2	26.1	27.1	26.6	24.9		DISTANCE–Anm/100kg	24.2	21.0
	ENG. SPEED – %RPM		97.5	95.8	94.9	94.5	94.9	96.1	97.8		MACH NUMBER	0.86	0.90
24 000 ft	FUEL FLOW – kg/min				29.1	27.7	27.6	28.5	30.7		FUEL FLOW – kg/min	33.2	39.6
	FUEL USED – kg/Anm				4.4	3.9	3.7	3.5	3.6		FUEL USED – kg/Anm	3.8	4.4
	DISTANCE – Anm/100kg				22.5	25.4	27.3	28.4	27.8		DISTANCE–Anm/100kg	26.4	22.9
	ENG. SPEED – %RPM				97.8	96.5	96.1	96.2	97.2		MACH NUMBER	0.87	0.90
28 000 ft	FUEL FLOW – kg/min						29.1	28.8	29.7		FUEL FLOW – kg/min		34.7
	FUEL USED – kg/Anm						3.9	3.6	3.5		FUEL USED – kg/Anm		3.9
	DISTANCE – Anm/100kg						25.5	27.5	28.4		DISTANCE–Anm/100kg		25.4
	ENG. SPEED – %RPM						99.6	98.8	99.0		MACH NUMBER		0.89
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.15.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 13 000 kg, DRAG INDEX 40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED FLIGHT TEST
FUEL: AVTUR FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER									POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	34.5	35.0	38.3	42.8	48.1	54.5	61.9			54.5	61.9
	FUEL USED — kg/Anm	6.3	5.8	5.8	6.0	6.2	6.6	7.0			6.6	7.0
	DISTANCE—Anm/100kg	16.0	17.3	17.3	16.7	16.0	15.2	14.3			15.2	14.3
	ENG. SPEED — %RPM	92.4	92.4	93.6	95.2	96.9	98.7	100.7			MACH NUMBER 0.75	0.80
4 000 ft	FUEL FLOW — kg/min	34.2	33.8	34.5	38.1	42.4	47.8	54.2			52.0	61.2
	FUEL USED — kg/Anm	6.3	5.7	5.3	5.4	5.6	5.9	6.2			6.1	6.7
	DISTANCE—Anm/100kg	15.9	17.6	18.9	18.5	17.9	17.0	16.0			16.3	14.9
	ENG. SPEED — %RPM	93.6	94.1	93.4	94.5	96.2	98.0	99.4			MACH NUMBER 0.78	0.84
8 000 ft	FUEL FLOW — kg/min	34.7	33.4	33.3	31.4	37.6	42.0	47.4	54.2		47.4	56.2
	FUEL USED — kg/Anm	6.5	5.7	5.2	4.9	5.0	5.2	5.5	6.0		5.5	6.1
	DISTANCE—Anm/100kg	15.4	17.6	19.3	20.4	20.0	19.2	18.1	16.8		18.1	16.4
	ENG. SPEED — %RPM	94.9	94.1	94.0	94.1	95.3	96.9	98.9	100.8		MACH NUMBER 0.80	0.86
12 000 ft	FUEL FLOW — kg/min	36.9	34.1	33.0	32.9	33.8	37.1	41.6	47.4		44.1	53.3
	FUEL USED — kg/Anm	7.0	5.9	5.2	4.8	4.6	4.7	4.9	5.3		5.1	5.8
	DISTANCE—Anm/100kg	14.3	17.0	19.2	20.8	21.9	21.4	20.3	18.9		19.6	17.4
	ENG. SPEED — %RPM	97.2	95.8	95.0	94.9	95.2	96.5	97.8	99.8		MACH NUMBER 0.82	0.88
16 000 ft	FUEL FLOW — kg/min		37.8	34.1	32.9	32.8	33.8	36.9	41.8		40.8	48.5
	FUEL USED — kg/Anm		6.5	5.5	4.9	4.5	4.3	4.4	4.7		4.7	5.2
	DISTANCE—Anm/100kg		15.4	18.3	20.6	22.2	23.1	22.6	21.2		21.4	19.1
	ENG. SPEED — %RPM		99.2	97.3	96.2	95.9	96.2	97.3	99.2		MACH NUMBER 0.84	0.89
20 000 ft	FUEL FLOW — kg/min				35.1	33.6	33.5	34.5	37.2		35.1	41.7
	FUEL USED — kg/Anm				5.3	4.7	4.4	4.2	4.3		4.2	4.6
	DISTANCE—Anm/100kg				19.0	21.3	22.9	23.8	23.4		23.9	21.6
	ENG. SPEED — %RPM				99.4	98.4	97.7	98.1	99.0		MACH NUMBER 0.82	0.88
24 000 ft	FUEL FLOW — kg/min							34.5	35.6			35.6
	FUEL USED — kg/Anm							4.3	4.2			4.2
	DISTANCE—Anm/100kg							23.3	24.0			24.0
	ENG. SPEED — %RPM							100.4	100.6		MACH NUMBER	0.85
28 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED — %RPM										MACH NUMBER	
32 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED — %RPM										MACH NUMBER	

FIG.7.16.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 15 000 kg, DRAG INDEX 40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	40.0	39.5	40.3	44.5	49.7	55.8	64.8			FUEL FLOW – kg/min	54.7	64.8
	FUEL USED – kg/Anm	7.3	6.5	6.1	6.2	6.4	6.8	7.4			FUEL USED – kg/Anm	6.7	7.4
	DISTANCE–Anm/100kg	13.8	15.4	16.4	16.1	15.5	14.8	13.6			DISTANCE–Anm/100kg	14.9	13.6
	ENG. SPEED – %RPM	94.6	94.2	94.4	95.9	97.3	99.1	100.7			MACH NUMBER	0.74	0.80
4 000 ft	FUEL FLOW – kg/min	40.5	39.0	38.9	40.0	44.2	49.4	55.6			FUEL FLOW – kg/min	51.5	62.1
	FUEL USED – kg/Anm	7.4	6.5	6.0	5.7	5.8	6.1	6.4			FUEL USED – kg/Anm	6.2	6.9
	DISTANCE – Anm/100kg	13.4	15.3	16.7	17.6	17.2	16.5	15.6			DISTANCE – Anm/100kg	16.2	14.5
	ENG. SPEED – %RPM	96.0	95.2	96.2	95.3	97.0	98.4	99.7			MACH NUMBER	0.77	0.83
8 000 ft	FUEL FLOW – kg/min	42.9	39.7	38.4	38.5	39.5	43.8	49.0	55.8		FUEL FLOW – kg/min	47.8	55.8
	FUEL USED – kg/Anm	8.0	6.7	6.0	5.5	5.3	5.5	5.7	6.1		FUEL USED – kg/Anm	5.7	6.1
	DISTANCE – Anm/100kg	12.5	14.8	16.7	18.1	19.0	18.3	17.5	16.3		DISTANCE–Anm/100kg	17.7	16.3
	ENG. SPEED – %RPM	98.6	96.9	96.2	96.0	96.2	97.5	99.4	101.3		MACH NUMBER	0.79	0.85
12 000 ft	FUEL FLOW – kg/min		42.7	39.8	38.5	38.5	39.7	43.6	49.2		FUEL FLOW – kg/min	43.6	51.0
	FUEL USED – kg/Anm		7.3	6.3	5.6	5.2	5.0	5.2	5.5		FUEL USED – kg/Anm	5.2	5.6
	DISTANCE – Anm/100kg		13.6	15.9	17.8	19.2	19.9	19.4	18.2		DISTANCE–Anm/100kg	19.4	17.8
	ENG. SPEED – %RPM		99.8	98.2	97.3	97.3	97.6	98.8	100.7		MACH NUMBER	0.80	0.86
16 000 ft	FUEL FLOW – kg/min				40.3	39.0	39.1	40.4	43.9		FUEL FLOW – kg/min		46.5
	FUEL USED – kg/Anm				6.0	5.4	5.0	4.9	5.0		FUEL USED – kg/Anm		5.2
	DISTANCE – Anm/100kg				16.8	18.7	20.0	20.6	20.1		DISTANCE–Anm/100kg		19.4
	ENG. SPEED – %RPM				100.2	99.4	99.1	99.2	100.6		MACH NUMBER		0.87
20 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.17.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 50

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	28.6	32.4	36.9	42.1	48.1	55.2	66.0			FUEL FLOW — kg/min	55.2	66.0
	FUEL USED — kg/Anm	5.2	5.3	5.6	5.9	6.2	6.7	7.5			FUEL USED — kg/Anm	6.7	7.5
	DISTANCE—Anm/100kg	19.3	18.7	17.9	17.0	16.0	15.0	13.4			DISTANCE—Anm/100kg	15.0	13.4
	ENG. SPEED — %RPM	89.8	91.5	93.2	94.9	97.0	98.6	100.7			MACH NUMBER	0.75	0.80
4 000 ft	FUEL FLOW — kg/min	25.6	28.7	32.4	36.7	41.7	47.8	55.0			FUEL FLOW — kg/min	51.0	61.3
	FUEL USED — kg/Anm	4.7	4.8	5.0	5.2	5.5	5.9	6.3			FUEL USED — kg/Anm	6.1	6.8
	DISTANCE—Anm/100kg	21.3	20.8	20.1	19.2	18.2	17.0	15.8			DISTANCE—Anm/100kg	16.4	14.7
	ENG. SPEED — %RPM	89.5	90.8	92.5	93.9	95.9	97.9	99.6			MACH NUMBER	0.77	0.83
8 000 ft	FUEL FLOW — kg/min	24.3	25.5	28.5	32.0	36.2	41.2	47.3	55.1		FUEL FLOW — kg/min	47.3	55.1
	FUEL USED — kg/Anm	4.5	4.3	4.4	4.6	4.8	5.1	5.5	6.0		FUEL USED — kg/Anm	5.5	6.0
	DISTANCE—Anm/100kg	22.1	23.1	22.6	21.7	20.7	19.5	18.1	16.5		DISTANCE—Anm/100kg	18.1	16.5
	ENG. SPEED — %RPM	89.5	90.0	91.7	92.9	94.8	96.5	98.9	101.3		MACH NUMBER	0.80	0.85
12 000 ft	FUEL FLOW — kg/min	23.7	23.8	25.2	28.1	31.5	35.6	40.8	47.5		FUEL FLOW — kg/min	44.5	51.9
	FUEL USED — kg/Anm	4.5	4.1	4.0	4.1	4.3	4.5	4.8	5.3		FUEL USED — kg/Anm	5.1	5.6
	DISTANCE—Anm/100kg	22.3	24.4	25.1	24.5	23.5	22.2	20.7	18.9		DISTANCE—Anm/100kg	19.7	17.7
	ENG. SPEED — %RPM	90.1	90.0	90.8	92.1	93.9	95.7	97.9	99.8		MACH NUMBER	0.83	0.87
16 000 ft	FUEL FLOW — kg/min	23.8	23.3	23.5	24.9	27.6	31.0	35.1	40.9		FUEL FLOW — kg/min	39.8	46.2
	FUEL USED — kg/Anm	4.6	4.1	3.8	3.7	3.8	4.0	4.2	4.6		FUEL USED — kg/Anm	4.6	5.0
	DISTANCE—Anm/100kg	21.9	24.6	26.5	27.2	26.4	25.2	23.7	21.6		DISTANCE—Anm/100kg	21.9	19.9
	ENG. SPEED — %RPM	91.6	91.0	91.0	91.8	93.1	95.0	96.5	99.1		MACH NUMBER	0.84	0.88
20 000 ft	FUEL FLOW — kg/min	24.8	23.5	23.0	23.3	24.4	27.0	30.4	35.3		FUEL FLOW — kg/min	36.3	41.2
	FUEL USED — kg/Anm	4.8	4.2	3.7	3.5	3.4	3.5	3.7	4.1		FUEL USED — kg/Anm	4.1	4.5
	DISTANCE—Anm/100kg	20.6	24.0	26.7	28.6	29.3	28.4	26.9	24.7		DISTANCE—Anm/100kg	24.3	22.1
	ENG. SPEED — %RPM	93.4	92.3	92.1	92.1	92.4	94.2	95.7	98.2		MACH NUMBER	0.86	0.89
24 000 ft	FUEL FLOW — kg/min	27.9	24.6	23.3	22.8	23.0	23.9	26.5	30.3		FUEL FLOW — kg/min	32.1	36.6
	FUEL USED — kg/Anm	5.5	4.4	3.9	3.5	3.3	3.2	3.3	3.5		FUEL USED — kg/Anm	3.7	4.1
	DISTANCE—Anm/100kg	18.0	22.5	26.0	28.7	30.6	31.6	30.5	28.2		DISTANCE—Anm/100kg	27.0	24.5
	ENG. SPEED — %RPM	98.1	95.4	93.5	93.4	93.4	93.6	95.0	97.3		MACH NUMBER	0.86	0.89
28 000 ft	FUEL FLOW — kg/min			25.6	23.7	23.0	23.2	24.1	26.5		FUEL FLOW — kg/min	28.3	32.2
	FUEL USED — kg/Anm			4.3	3.7	3.3	3.1	3.0	3.1		FUEL USED — kg/Anm	3.3	3.6
	DISTANCE—Anm/100kg			23.2	27.2	30.1	32.0	32.9	31.8		DISTANCE—Anm/100kg	30.4	27.6
	ENG. SPEED — %RPM			98.0	96.0	94.7	95.0	95.2	96.4		MACH NUMBER	0.87	0.89
32 000 ft	FUEL FLOW — kg/min						24.2		25.2		FUEL FLOW — kg/min	25.2	27.7
	FUEL USED — kg/Anm						3.3		3.0		FUEL USED — kg/Anm	3.0	3.2
	DISTANCE—Anm/100kg						30.2		32.8		DISTANCE—Anm/100kg	32.8	31.3
	ENG. SPEED — %RPM						97.9		97.8		MACH NUMBER	0.85	0.89

FIG.7.18.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 11 000 kg, DRAG INDEX 50

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	31.0	34.0	38.2	43.3	49.2	56.2				FUEL FLOW – kg/min	54.8	63.2
	FUEL USED – kg/Anm	5.6	5.6	5.8	6.0	6.4	6.8				FUEL USED – kg/Anm	6.7	7.3
	DISTANCE–Anm/100kg	17.8	17.8	17.3	16.5	15.7	14.7				DISTANCE–Anm/100kg	14.9	13.8
	ENG. SPEED – %RPM	90.7	91.9	93.6	95.2	96.9	99.2				MACH NUMBER	0.74	0.79
4 000 ft	FUEL FLOW – kg/min	29.8	30.5	33.9	38.1	43.0	49.0	55.9			FUEL FLOW – kg/min	51.6	59.6
	FUEL USED – kg/Anm	5.5	5.1	5.2	5.4	5.6	6.0	6.4			FUEL USED – kg/Anm	6.2	6.7
	DISTANCE – Anm/100kg	18.2	19.6	19.2	18.5	17.7	16.6	15.5			DISTANCE – Anm/100kg	16.2	14.9
	ENG. SPEED – %RPM	91.3	91.7	92.9	94.5	96.2	98.0	100.2			MACH NUMBER	0.77	0.82
8 000 ft	FUEL FLOW – kg/min	29.3	29.3	30.3	33.6	37.6	42.5	48.5	57.5		FUEL FLOW – kg/min	48.5	57.5
	FUEL USED – kg/Anm	5.5	5.0	4.7	4.8	5.0	5.3	5.7	6.3		FUEL USED – kg/Anm	5.7	6.3
	DISTANCE – Anm/100kg	18.3	20.1	21.2	20.7	20.0	18.9	17.7	15.8		DISTANCE–Anm/100kg	17.7	15.8
	ENG. SPEED – %RPM	92.2	92.2	92.5	93.9	95.4	96.9	98.9	101.3		MACH NUMBER	0.80	0.85
12 000 ft	FUEL FLOW – kg/min	29.6	28.7	28.8	29.9	33.1	37.1	42.2	48.7		FUEL FLOW – kg/min	43.6	51.8
	FUEL USED – kg/Anm	5.6	5.0	4.6	4.4	4.5	4.7	5.0	5.4		FUEL USED – kg/Anm	5.1	5.7
	DISTANCE – Anm/100kg	17.8	20.2	22.0	22.9	22.3	21.4	20.0	18.4		DISTANCE–Anm/100kg	19.6	17.7
	ENG. SPEED – %RPM	93.4	92.8	92.8	93.4	94.6	96.5	98.3	100.2		MACH NUMBER	0.81	0.87
16 000 ft	FUEL FLOW – kg/min	31.2	29.1	28.4	28.5	29.5	32.7	36.8	42.4		FUEL FLOW – kg/min	40.1	47.1
	FUEL USED – kg/Anm	6.0	5.1	4.5	4.2	4.1	4.2	4.4	4.8		FUEL USED – kg/Anm	4.7	5.2
	DISTANCE – Anm/100kg	16.7	19.7	22.0	23.7	24.7	23.9	22.6	20.8		DISTANCE–Anm/100kg	21.5	19.4
	ENG. SPEED – %RPM	96.1	94.7	93.9	93.9	94.3	95.6	97.3	99.6		MACH NUMBER	0.83	0.88
20 000 ft	FUEL FLOW – kg/min		31.7	29.3	28.4	28.5	29.6	32.4	37.1		FUEL FLOW – kg/min	36.0	42.4
	FUEL USED – kg/Anm		5.6	4.8	4.3	4.0	3.9	4.0	4.3		FUEL USED – kg/Anm	4.2	4.7
	DISTANCE – Anm/100kg		17.8	21.0	23.4	25.1	25.9	25.3	23.4		DISTANCE–Anm/100kg	23.9	21.5
	ENG. SPEED – %RPM		98.2	96.2	95.5	95.2	95.6	96.9	99.0		MACH NUMBER	0.84	0.89
24 000 ft	FUEL FLOW – kg/min				30.1	28.9	29.0	30.0	32.7		FUEL FLOW – kg/min	32.7	36.6
	FUEL USED – kg/Anm				4.6	4.1	3.8	3.7	3.8		FUEL USED – kg/Anm	3.8	4.1
	DISTANCE – Anm/100kg				21.7	24.4	26.1	26.9	26.2		DISTANCE–Anm/100kg	26.2	24.5
	ENG. SPEED – %RPM				98.7	97.5	97.2	97.3	98.5		MACH NUMBER	0.85	0.89
28 000 ft	FUEL FLOW – kg/min							30.6	32.0		FUEL FLOW – kg/min		32.0
	FUEL USED – kg/Anm							3.9	3.8		FUEL USED – kg/Anm		3.8
	DISTANCE – Anm/100kg							25.9	26.3		DISTANCE–Anm/100kg		26.3
	ENG. SPEED – %RPM							99.9	100.2		MACH NUMBER		0.85
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.19.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 13 000 kg, DRAG INDEX 50

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	35.6	36.2	39.9	44.7	50.5	57.3				FUEL FLOW – kg/min	54.7	64.0
	FUEL USED – kg/Anm	6.5	6.0	6.0	6.2	6.5	6.9				FUEL USED – kg/Anm	6.8	7.4
	DISTANCE–Anm/100kg	15.5	16.7	16.6	16.0	15.3	14.4				DISTANCE–Anm/100kg	14.7	13.6
	ENG. SPEED – %RPM	92.8	92.8	94.1	95.8	97.4	99.6				MACH NUMBER	0.73	0.79
4 000 ft	FUEL FLOW – kg/min	35.1	34.9	35.8	39.7	44.5	50.3	57.1			FUEL FLOW – kg/min	51.5	60.9
	FUEL USED – kg/Anm	6.5	5.8	5.5	5.6	5.8	6.2	6.6			FUEL USED – kg/Anm	6.3	6.9
	DISTANCE – Anm/100kg	15.5	17.1	18.2	17.8	17.1	16.6	15.2			DISTANCE–Anm/100kg	16.0	14.6
	ENG. SPEED – %RPM	94.0	93.5	93.8	95.4	96.9	98.4	101.2			MACH NUMBER	0.76	0.82
8 000 ft	FUEL FLOW – kg/min	35.5	34.4	34.4	35.5	39.3	44.1	49.9			FUEL FLOW – kg/min	47.5	55.5
	FUEL USED – kg/Anm	6.6	5.8	5.4	5.1	5.2	5.5	5.8			FUEL USED – kg/Anm	5.7	6.2
	DISTANCE – Anm/100kg	15.1	17.1	18.7	19.6	19.1	18.2	17.2			DISTANCE–Anm/100kg	17.6	16.2
	ENG. SPEED – %RPM	95.4	94.5	94.5	94.6	96.2	97.9	99.4			MACH NUMBER	0.78	0.84
12 000 ft	FUEL FLOW – kg/min	37.7	34.9	34.0	34.2	35.2	39.0	43.9	50.2		FUEL FLOW – kg/min	43.9	50.2
	FUEL USED – kg/Anm	7.1	6.0	5.4	5.0	4.8	4.9	5.2	5.6		FUEL USED – kg/Anm	5.2	5.6
	DISTANCE – Anm/100kg	14.0	16.6	18.6	20.1	21.0	20.3	19.2	17.9		DISTANCE–Anm/100kg	19.2	17.9
	ENG. SPEED – %RPM	97.7	96.2	95.5	95.5	95.7	97.3	98.8	101.3		MACH NUMBER	0.80	0.85
16 000 ft	FUEL FLOW – kg/min		38.0	35.2	34.1	34.2	35.5	38.9	44.2		FUEL FLOW – kg/min	39.9	45.8
	FUEL USED – kg/Anm		6.6	5.6	5.0	4.7	4.5	4.7	5.0		FUEL USED – kg/Anm	4.8	5.1
	DISTANCE – Anm/100kg		15.1	17.7	19.8	21.3	22.0	21.4	20.0		DISTANCE–Anm/100kg	21.1	19.5
	ENG. SPEED – %RPM		99.6	97.7	96.9	96.9	97.3	98.2	100.6		MACH NUMBER	0.81	0.86
20 000 ft	FUEL FLOW – kg/min				36.9	35.0	35.1	36.3	39.4		FUEL FLOW – kg/min		40.6
	FUEL USED – kg/Anm				5.6	4.9	4.6	4.4	4.5		FUEL USED – kg/Anm		4.6
	DISTANCE – Anm/100kg				18.0	20.5	21.9	22.6	22.1		DISTANCE–Anm/100kg		21.7
	ENG. SPEED – %RPM				100.2	99.2	98.9	99.0	100.3		MACH NUMBER		0.86
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.20.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 15 000 kg, DRAG INDEX 50

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	41.0	40.8	41.9	46.4	52.0	58.6				FUEL FLOW — kg/min	54.7	63.2
	FUEL USED — kg/Anm	7.4	6.7	6.3	6.5	6.7	7.1				FUEL USED — kg/Anm	6.9	7.4
	DISTANCE—Anm/100kg	13.4	14.9	15.8	15.4	14.8	14.1				DISTANCE—Anm/100kg	14.5	13.6
	ENG. SPEED—%RPM	95.1	94.8	95.0	96.5	97.9	100.0				MACH NUMBER	0.72	0.78
4 000 ft	FUEL FLOW — kg/min	41.4	40.2	40.3	41.7	46.3	51.9	58.5			FUEL FLOW — kg/min	51.9	62.3
	FUEL USED — kg/Anm	7.6	6.7	6.2	5.9	6.1	6.4	6.7			FUEL USED — kg/Anm	6.4	7.0
	DISTANCE—Anm/100kg	13.1	14.9	16.2	17.0	16.4	15.7	14.9			DISTANCE—Anm/100kg	15.7	14.3
	ENG. SPEED—%RPM	96.5	95.7	95.7	95.9	97.5	99.0	100.7			MACH NUMBER	0.75	0.82
8 000 ft	FUEL FLOW — kg/min	43.9	40.9	39.7	39.9	41.3	46.0	51.6			FUEL FLOW — kg/min	46.8	57.0
	FUEL USED — kg/Anm	8.2	6.9	6.2	5.7	5.5	5.7	6.0			FUEL USED — kg/Anm	5.8	6.4
	DISTANCE—Anm/100kg	12.2	14.4	16.2	17.4	18.1	17.5	16.6			DISTANCE—Anm/100kg	17.4	15.6
	ENG. SPEED—%RPM	98.7	97.4	96.9	96.5	96.9	98.4	100.4			MACH NUMBER	0.76	0.83
12 000 ft	FUEL FLOW — kg/min		43.7	41.0	39.9	40.1	41.7	45.9			FUEL FLOW — kg/min	42.4	52.8
	FUEL USED — kg/Anm		7.5	6.5	5.8	5.4	5.3	5.4			FUEL USED — kg/Anm	5.3	5.9
	DISTANCE—Anm/100kg		13.3	15.5	17.2	18.4	19.0	18.4			DISTANCE—Anm/100kg	18.9	16.8
	ENG. SPEED—%RPM		100.2	99.0	98.2	97.8	98.3	99.7			MACH NUMBER	0.76	0.84
16 000 ft	FUEL FLOW — kg/min				43.9	40.5	40.8	42.4	49.0		FUEL FLOW — kg/min		49.0
	FUEL USED — kg/Anm				6.5	5.6	5.2	5.1	5.5		FUEL USED — kg/Anm		5.5
	DISTANCE—Anm/100kg				15.4	18.0	19.1	19.6	18.0		DISTANCE—Anm/100kg		18.0
	ENG. SPEED—%RPM				100.6	99.8	99.9	100.0	101.0		MACH NUMBER		0.85
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG. 7.21.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 60

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	30.2	34.4	39.3	45.1	51.9	59.8				FUEL FLOW — kg/min	55.0	65.5
	FUEL USED — kg/Anm	5.5	5.7	5.9	6.3	6.7	7.2				FUEL USED — kg/Anm	6.9	7.6
	DISTANCE—Anm/100kg	18.3	17.6	16.8	15.9	14.9	13.8				DISTANCE—Anm/100kg	14.4	13.1
	ENG. SPEED — %RPM	90.2	91.9	94.2	95.8	98.0	100.3				MACH NUMBER	0.72	0.78
4 000 ft	FUEL FLOW — kg/min	26.9	30.4	34.4	39.3	45.0	51.9	60.5			FUEL FLOW — kg/min	51.9	60.5
	FUEL USED — kg/Anm	4.9	5.1	5.3	5.6	5.9	6.4	7.0			FUEL USED — kg/Anm	6.4	7.0
	DISTANCE—Anm/100kg	20.2	19.7	18.9	18.0	16.9	15.7	14.4			DISTANCE—Anm/100kg	15.7	14.4
	ENG. SPEED — %RPM	90.0	91.7	93.4	95.1	97.0	99.0	101.3			MACH NUMBER	0.75	0.80
8 000 ft	FUEL FLOW — kg/min	25.4	26.9	30.2	34.2	38.9	44.7	51.5			FUEL FLOW — kg/min	47.7	57.4
	FUEL USED — kg/Anm	4.7	4.3	4.7	4.9	5.2	5.6	6.0			FUEL USED — kg/Anm	5.8	6.5
	DISTANCE—Anm/100kg	21.1	23.2	21.3	20.4	19.3	18.0	16.6			DISTANCE—Anm/100kg	17.3	15.5
	ENG. SPEED —%RPM	90.0	90.8	92.5	94.1	95.9	98.0	100.3			MACH NUMBER	0.77	0.83
12 000 ft	FUEL FLOW — kg/min	24.7	25.1	26.7	29.9	33.8	38.6	44.4	54.9		FUEL FLOW — kg/min	43.4	54.9
	FUEL USED — kg/Anm	4.7	4.3	4.2	4.4	4.6	4.9	5.3	6.1		FUEL USED — kg/Anm	5.2	6.1
	DISTANCE—Anm/100kg	21.4	23.2	23.7	22.9	21.9	20.5	19.0	16.3		DISTANCE—Anm/100kg	19.2	16.3
	ENG. SPEED —%RPM	91.0	91.0	91.8	93.5	95.2	96.9	99.2	101.3		MACH NUMBER	0.79	0.85
16 000 ft	FUEL FLOW — kg/min	24.6	24,3	24.8	26.4	29.5	33.4	38.3	44.7		FUEL FLOW — kg/min	39.7	47.2
	FUEL USED — kg/Anm	4.7	4.2	4.0	3.9	4.1	4.3	4.6	5.1		FUEL USED — kg/Anm	4.7	5.3
	DISTANCE—Anm/100kg	21.1	23.5	25.2	25.6	24.7	23.4	21.7	19.8		DISTANCE—Anm/100kg	21.2	18.9
	ENG. SPEED —%RPM	92.1	91.5	92.0	92.7	94.3	95.9	98.2	100.5		MACH NUMBER	0.81	0.86
20 000 ft	FUEL FLOW — kg/min	25.6	24.4	24.1	24.6	26.0	29.2	33.1	38.7		FUEL FLOW — kg/min	35.2	41.6
	FUEL USED — kg/Anm	5.0	4.3	3.9	3.7	3.6	3.8	4.0	4.4		FUEL USED — kg/Anm	4.2	4.7
	DISTANCE—Anm/100kg	20.0	23.1	25.5	27.0	27.6	26.3	24.7	22.5		DISTANCE—Anm/100kg	23.8	21.4
	ENG. SPEED —%RPM	93.9	93.2	92.6	92.9	93.8	95.3	97.4	99.9		MACH NUMBER	0.82	0.87
24 000 ft	FUEL FLOW — kg/min	28.8	25.6	24.3	24.0	24.4	25.6	28.7	33.4		FUEL FLOW — kg/min	32.3	37.1
	FUEL USED — kg/Anm	5.7	4.6	4.0	3.7	3.5	3.4	3.6	3.9		FUEL USED — kg/Anm	3.8	4.2
	DISTANCE—Anm/100kg	17.5	21.6	24.9	27.3	28.9	29.5	28.1	25.7		DISTANCE—Anm/100kg	26.2	23.9
	ENG. SPEED —%RPM	98.9	96.0	94.6	93.9	94.2	94.7	96.5	98.9		MACH NUMBER	0.84	0.88
28 000 ft	FUEL FLOW — kg/min				25.0	24.4	24.9	26.1	29.2		FUEL FLOW — kg/min	28.0	31.5
	FUEL USED — kg/Anm				3.9	3.5	3.3	3.3	3.5		FUEL USED — kg/Anm	3.4	3.7
	DISTANCE—Anm/100kg				25.7	28.4	29.9	30.4	28.9		DISTANCE—Anm/100kg	29.4	27.3
	ENG. SPEED — %RPM				97.1	96.2	96.2	96.7	98.6		MACH NUMBER	0.83	0.87
32 000 ft	FUEL FLOW — kg/min							27.2			FUEL FLOW — kg/min		27.2
	FUEL USED — kg/Anm							3.5			FUEL USED — kg/Anm		3.5
	DISTANCE—Anm/100kg							28.7			DISTANCE—Anm/100kg		28.7
	ENG. SPEED —%RPM							99.1			MACH NUMBER		0.80

FIG. 7. 22.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 11 000 kg, DRAG INDEX 60

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	32.5	36.0	40.7	46.3	53.0	60.7				FUEL FLOW — kg/min	54.0	63.8
	FUEL USED — kg/Anm	5.9	5.9	6.2	6.5	6.9	7.3				FUEL USED — kg/Anm	6.9	7.5
	DISTANCE—Anm/100kg	16.9	16.9	16.3	15.5	14.6	13.6				DISTANCE—Anm/100kg	14.5	13.3
	ENG. SPEED — %RPM	91.6	92.8	94.5	96.5	98.4	100.5				MACH NUMBER	0.71	0.77
4 000 ft	FUEL FLOW — kg/min	31.2	32.2	36.0	40.7	46.3	53.0	64.4			FUEL FLOW — kg/min	51.1	64.4
	FUEL USED — kg/Anm	5.7	5.4	5.5	5.8	6.1	6.5	7.4			FUEL USED — kg/Anm	6.4	7.4
	DISTANCE—Anm/100kg	17.4	18.6	18.1	17.4	16.4	15.4	13.5			DISTANCE—Anm/100kg	15.7	13.5
	ENG. SPEED — %RPM	91.8	92.2	93.8	95.6	97.5	99.5	101.3			MACH NUMBER	0.74	0.80
8 000 ft	FUEL FLOW — kg/min	30.5	30.7	32.0	35.8	40.3	46.1	52.7			FUEL FLOW — kg/min	47.4	56.6
	FUEL USED — kg/Anm	5.7	5.2	5.0	5.1	5.4	5.7	6.1			FUEL USED — kg/Anm	5.8	6.4
	DISTANCE—Anm/100kg	17.6	19.4	20.1	19.5	18.6	17.4	16.3			DISTANCE—Anm/100kg	17.2	15.5
	ENG. SPEED — %RPM	92.8	93.7	93.4	94.9	96.5	98.4	100.4			MACH NUMBER	0.76	0.82
12 000 ft	FUEL FLOW — kg/min	30.6	30.0	30.3	31.8	35.4	40.2	45.9			FUEL FLOW — kg/min	43.4	52.7
	FUEL USED — kg/Anm	5.8	5.2	4.8	4.6	4.8	5.1	5.4			FUEL USED — kg/Anm	5.3	6.0
	DISTANCE—Anm/100kg	17.3	19.4	20.9	21.6	20.9	19.7	18.4			DISTANCE—Anm/100kg	19.0	16.8
	ENG. SPEED — %RPM	94.4	93.7	93.7	94.5	95.9	97.9	99.8			MACH NUMBER	0.78	0.84
16 000 ft	FUEL FLOW — kg/min	32.2	30.3	29.7	30.2	31.5	35.2	40.1	48.6		FUEL FLOW — kg/min	39.1	48.6
	FUEL USED — kg/Anm	6.2	5.3	4.8	4.5	4.3	4.5	4.8	5.5		FUEL USED — kg/Anm	4.8	5.5
	DISTANCE—Anm/100kg	16.1	18.9	21.0	22.4	23.1	22.1	20.8	18.2		DISTANCE—Anm/100kg	21.0	18.2
	ENG. SPEED — %RPM	96.5	95.3	94.8	94.9	95.3	96.9	99.2	101.0		MACH NUMBER	0.79	0.85
20 000 ft	FUEL FLOW — kg/min		33.0	30.7	30.0	30.4	31.8	35.3	41.5		FUEL FLOW — kg/min	35.3	41.5
	FUEL USED — kg/Anm		5.9	5.0	4.5	4.2	4.1	4.3	4.8		FUEL USED — kg/Anm	4.3	4.8
	DISTANCE—Anm/100kg		17.1	20.0	22.2	23.6	24.1	23.2	21.0		DISTANCE—Anm/100kg	23.2	21.0
	ENG. SPEED — %RPM		98.9	97.2	96.3	96.3	96.9	98.6	101.0		MACH NUMBER	0.80	0.85
24 000 ft	FUEL FLOW — kg/min				32.2	30.8	31.2	32.6	35.8		FUEL FLOW — kg/min		35.8
	FUEL USED — kg/Anm				4.9	4.4	4.1	4.0	4.2		FUEL USED — kg/Anm		4.2
	DISTANCE—Anm/100kg				20.3	22.9	24.2	24.7	23.9		DISTANCE—Anm/100kg		23.9
	ENG. SPEED — %RPM				99.8	98.9	98.8	99.2	100.6		MACH NUMBER		0.85
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.23.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 13 000 kg, DRAG INDEX 60

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	37.1	38.2	42.4	47.8	53.4	61.9				FUEL FLOW — kg/min	54.3	61.9
	FUEL USED — kg/Anm	6.7	6.3	6.4	6.7	7.0	7.5				FUEL USED — kg/Anm	7.0	7.5
	DISTANCE—Anm/100kg	14.8	15.9	15.6	15.0	14.2	13.4				DISTANCE—Anm/100kg	14.2	13.4
	ENG. SPEED — %RPM	93.8	93.7	95.3	97.0	98.8	101.0				MACH NUMBER	0.70	0.75
4 000 ft	FUEL FLOW — kg/min	36.5	36.6	37.9	42.3	47.8	54.3				FUEL FLOW — kg/min	50.5	60.0
	FUEL USED — kg/Anm	6.7	6.1	5.8	6.0	6.3	6.7				FUEL USED — kg/Anm	6.5	7.1
	DISTANCE—Anm/100kg	14.9	16.3	17.2	16.7	15.9	15.0				DISTANCE—Anm/100kg	15.5	14.1
	ENG. SPEED — %RPM	94.4	94.4	94.6	96.2	98.0	99.9				MACH NUMBER	0.72	0.78
8 000 ft	FUEL FLOW — kg/min	36.7	35.9	36.2	37.7	42.1	47.7	54.1			FUEL FLOW — kg/min	47.7	54.1
	FUEL USED — kg/Anm	6.9	6.1	5.6	5.4	5.6	5.9	6.3			FUEL USED — kg/Anm	5.9	6.3
	DISTANCE—Anm/100kg	14.6	16.4	17.7	18.5	17.8	16.9	15.8			DISTANCE—Anm/100kg	16.9	15.8
	ENG. SPEED — %RPM	95.8	95.3	95.3	95.7	97.5	98.9	101.3			MACH NUMBER	0.75	0.80
12 000 ft	FUEL FLOW — kg/min	39.0	36.4	35.6	36.1	37.7	42.1	47.6			FUEL FLOW — kg/min	42.1	52.0
	FUEL USED — kg/Anm	7.4	6.3	5.6	5.3	5.1	5.3	5.6			FUEL USED — kg/Anm	5.3	6.0
	DISTANCE—Anm/100kg	13.5	16.0	17.8	19.0	19.6	18.8	17.8			DISTANCE-Anm/100kg	18.8	16.8
	ENG. SPEED — %RPM	98.4	96.9	96.5	96.5	96.9	98.3	100.2			MACH NUMBER	0.75	0.83
16 000 ft	FUEL FLOW — kg/min		40.4	36.9	36.1	36.5	38.3	42.1			FUEL FLOW — kg/min	38.3	46.2
	FUEL USED — kg/Anm		7.1	5.9	5.3	5.0	4.9	5.1			FUEL USED — kg/Anm	4.9	5.4
	DISTANCE—Anm/100kg		14.2	16.9	18.7	19.9	20.4	19.7			DISTANCE-Anm/100kg	20.4	18.7
	ENG. SPEED — %RPM		100.4	98.8	98.2	98.2	98.7	100.0			MACH NUMBER	0.75	0.83
20 000 ft	FUEL FLOW — kg/min					37.7	37.6	39.7			FUEL FLOW — kg/min		39.7
	FUEL USED — kg/Anm					5.3	4.9	4.9			FUEL USED — kg/Anm		4.9
	DISTANCE—Anm/100kg					19.0	20.4	20.6			DISTANCE-Anm/100kg		20.6
	ENG. SPEED — %RPM					100.3	100.0	100.6			MACH NUMBER		0.80
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.24.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 15 000 kg, DRAG INDEX 60

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	42.6	42.8	44.3	49.6	55.8	65.9				FUEL FLOW – kg/min	54.4	65.9
	FUEL USED – kg/Anm	7.7	7.1	6.7	6.9	7.2	8.0				FUEL USED – kg/Anm	7.1	8.0
	DISTANCE–Anm/100kg	12.9	14.2	14.9	14.4	13.8	12.5				DISTANCE–Anm/100kg	14.0	12.5
	ENG. SPEED – %RPM	95.6	95.6	95.9	97.4	99.3	101.0				MACH NUMBER	0.69	0.75
4 000 ft	FUEL FLOW – kg/min	43.0	41.9	42.4	44.4	49.6	55.9				FUEL FLOW – kg/min	51.0	61.7
	FUEL USED – kg/Anm	7.9	7.0	6.5	6.3	6.5	6.9				FUEL USED – kg/Anm	6.6	7.3
	DISTANCE – Anm/100kg	12.7	14.3	15.4	15.9	15.3	14.6				DISTANCE – Anm/100kg	15.1	13.7
	ENG. SPEED – %RPM	96.9	96.5	96.5	96.9	98.5	100.4				MACH NUMBER	0.71	0.78
8 000 ft	FUEL FLOW – kg/min	45.3	42.6	41.8	42.4	44.3	49.5	58.5			FUEL FLOW – kg/min	46.8	58.5
	FUEL USED – kg/Anm	8.5	7.2	6.5	6.1	5.9	6.2	6.8			FUEL USED – kg/Anm	6.0	6.8
	DISTANCE – Anm/100kg	11.8	13.8	15.4	16.4	16.9	16.2	14.7			DISTANCE–Anm/100kg	16.7	14.7
	ENG. SPEED – %RPM	99.5	98.3	97.4	97.5	97.9	99.9	101.3			MACH NUMBER	0.73	0.80
12 000 ft	FUEL FLOW – kg/min			42.8	42.1	42.8	44.8	49.7			FUEL FLOW – kg/min		49.7
	FUEL USED – kg/Anm			6.8	6.1	5.8	5.7	5.9			FUEL USED – kg/Anm		5.9
	DISTANCE – Anm/100kg			14.8	16.3	17.3	17.7	17.0			DISTANCE–Anm/100kg		17.0
	ENG. SPEED – %RPM			99.9	99.1	99.2	99.7	101.2			MACH NUMBER		0.80
16 000 ft	FUEL FLOW – kg/min						45.3				FUEL FLOW – kg/min		45.3
	FUEL USED – kg/Anm						5.8				FUEL USED – kg/Anm		5.8
	DISTANCE – Anm/100kg						17.2				DISTANCE–Anm/100kg		17.2
	ENG. SPEED – %RPM						100.8				MACH NUMBER		0.75
20 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.25.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 9 000 kg, DRAG INDEX 70

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	31.5	36.0	41.3	47.6	54.9	66.5				FUEL FLOW — kg/min	54.9	66.5
	FUEL USED — kg/Anm	5.7	5.9	6.2	6.6	7.1	8.0				FUEL USED — kg/Anm	7.1	8.0
	DISTANCE—Anm/100kg	17.5	16.9	16.0	15.0	14.1	12.4				DISTANCE—Anm/100kg	14.1	12.4
	ENG. SPEED — %RPM	91.1	92.7	94.7	97.0	98.8	101.4				MACH NUMBER	0.70	0.75
4 000 ft	FUEL FLOW — kg/min	28.0	31.7	36.1	41.4	47.6	55.0				FUEL FLOW — kg/min	50.1	60.5
	FUEL USED — kg/Anm	5.2	5.3	5.5	5.9	6.3	6.8				FUEL USED — kg/Anm	6.4	7.2
	DISTANCE—Anm/100kg	19.4	18.8	18.1	17.1	16.0	14.8				DISTANCE—Anm/100kg	15.6	14.0
	ENG. SPEED — %RPM	90.4	92.2	94.0	95.9	98.1	100.4				MACH NUMBER	0.72	0.78
8 000 ft	FUEL FLOW — kg/min	26.4	28.1	31.6	36.0	41.1	47.5	54.8			FUEL FLOW — kg/min	47.5	54.8
	FUEL USED — kg/Anm	4.9	4.8	4.9	5.2	5.5	5.9	6.4			FUEL USED — kg/Anm	5.9	6.4
	DISTANCE—Anm/100kg	20.3	21.0	20.3	19.4	18.3	16.9	15.6			DISTANCE—Anm/100kg	16.9	15.6
	ENG. SPEED — %RPM	90.4	91.4	93.1	94.9	96.9	99.0	101.3			MACH NUMBER	0.75	0.80
12 000 ft	FUEL FLOW — kg/min	25.5	26.0	27.9	31.4	35.6	41.0	47.3			FUEL FLOW — kg/min	43.2	52.0
	FUEL USED — kg/Anm	4.8	4.5	4.4	4.6	4.8	5.2	5.6			FUEL USED — kg/Anm	5.3	5.9
	DISTANCE—Anm/100kg	20.7	22.3	24.2	21.8	20.8	19.3	17.8			DISTANCE—Anm/100kg	18.8	16.8
	ENG. SPEED — %RPM	91.5	91.5	93.2	94.0	96.0	97.8	100.2			MACH NUMBER	0.77	0.83
16 000 ft	FUEL FLOW — kg/min	25.3	25.2	25.8	27.7	31.1	35.4	40.9			FUEL FLOW — kg/min	39.5	47.0
	FUEL USED — kg/Anm	4.9	4.4	4.1	4.1	4.3	4.5	4.9			FUEL USED — kg/Anm	4.8	5.4
	DISTANCE—Anm/100kg	20.5	22.7	24.2	24.4	23.4	22.0	20.3			DISTANCE—Anm/100kg	20.8	18.6
	ENG. SPEED — %RPM	92.6	92.0	92.4	93.2	95.0	96.9	99.5			MACH NUMBER	0.79	0.84
20 000 ft	FUEL FLOW — kg/min	26.2	25.1	25.0	25.7	27.3	30.8	35.4			FUEL FLOW — kg/min	35.4	40.4
	FUEL USED — kg/Anm	5.1	4.5	4.1	3.9	3.8	4.0	4.3			FUEL USED — kg/Anm	4.3	4.7
	DISTANCE—Anm/100kg	19.5	22.4	24.6	25.9	26.2	24.9	23.1			DISTANCE—Anm/100kg	23.1	21.3
	ENG. SPEED — %RPM	94.4	93.7	93.1	93.5	94.5	96.3	98.6			MACH NUMBER	0.80	0.84
24 000 ft	FUEL FLOW — kg/min		26.4	25.1	24.9	25.6	27.1	30.7	36.2		FUEL FLOW — kg/min	31.6	36.2
	FUEL USED — kg/Anm		4.8	4.2	3.8	3.6	3.6	3.8	4.2		FUEL USED — kg/Anm	3.9	4.2
	DISTANCE—Anm/100kg		20.9	24.1	26.3	27.6	27.8	26.2	23.6		DISTANCE—Anm/100kg	25.8	23.6
	ENG. SPEED — %RPM		96.5	95.3	95.0	95.1	95.9	98.0	100.6		MACH NUMBER	0.81	0.85
28 000 ft	FUEL FLOW — kg/min				26.2	25.7	26.4	27.9	31.8		FUEL FLOW — kg/min	27.9	31.8
	FUEL USED — kg/Anm				4.1	3.7	3.5	3.5	3.8		FUEL USED — kg/Anm	3.5	3.8
	DISTANCE—Anm/100kg				24.6	27.0	28.2	28.4	26.5		DISTANCE—Anm/100kg	28.4	26.5
	ENG. SPEED — %RPM				98.2	97.2	97.3	98.1	100.2		MACH NUMBER	0.80	0.85
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.26.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 11 000 kg, DRAG INDEX 70

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	33.8	37.6	42.7	48.9	56.0					FUEL FLOW – kg/min	54.3	63.8
	FUEL USED – kg/Anm	6.1	6.2	6.5	6.8	7.3					FUEL USED – kg/Anm	7.1	7.8
	DISTANCE–Anm/100kg	16.3	16.1	15.5	14.7	13.8					DISTANCE–Anm/100kg	14.0	12.8
	ENG. SPEED – %RPM	92.0	93.7	95.3	97.4	99.3					MACH NUMBER	0.69	0.74
4 000 ft	FUEL FLOW – kg/min	32.3	33.6	37.7	42.8	48.9	56.2				FUEL FLOW – kg/min	50.4	60.5
	FUEL USED – kg/Anm	5.9	5.6	5.8	6.1	6.4	6.9				FUEL USED – kg/Anm	6.5	7.3
	DISTANCE – Anm/100kg	16.8	17.8	17.3	16.5	15.5	14.5				DISTANCE – Anm/100kg	15.3	13.8
	ENG. SPEED – %RPM	92.7	93.0	94.6	96.5	98.5	100.4				MACH NUMBER	0.71	0.77
8 000 ft	FUEL FLOW – kg/min	31.4	31.9	33.4	37.6	42.6	48.8	59.3			FUEL FLOW – kg/min	46.5	59.3
	FUEL USED – kg/Anm	6.0	5.4	5.2	5.4	5.7	6.1	6.9			FUEL USED – kg/Anm	5.9	6.9
	DISTANCE – Anm/100kg	16.8	18.5	19.2	18.5	17.6	16.5	14.5			DISTANCE–Anm/100kg	16.8	14.5
	ENG. SPEED – %RPM	94.6	93.2	94.0	95.7	97.5	99.4	101.3			MACH NUMBER	0.73	0.80
12 000 ft	FUEL FLOW – kg/min	31.4	30.9	31.6	33.3	37.3	42.6	48.7			FUEL FLOW – kg/min	42.6	52.5
	FUEL USED – kg/Anm	6.0	5.3	5.0	4.9	5.0	5.4	5.8			FUEL USED – kg/Anm	5.4	6.1
	DISTANCE – Anm/100kg	16.8	18.8	20.1	20.6	19.8	18.6	17.3			DISTANCE–Anm/100kg	18.6	16.5
	ENG. SPEED – %RPM	94.6	95.9	94.4	94.9	96.9	98.8	100.7			MACH NUMBER	0.75	0.82
16 000 ft	FUEL FLOW – kg/min	33.2	31.3	30.9	31.6	33.1	37.4	42.6			FUEL FLOW – kg/min	38.5	45.9
	FUEL USED – kg/Anm	6.4	5.5	4.9	4.7	4.5	4.8	4.1			FUEL USED – kg/Anm	4.9	5.3
	DISTANCE – Anm/100kg	15.7	18.3	20.2	21.4	22.0	20.8	19.5			DISTANCE–Anm/100kg	20.5	18.8
	ENG. SPEED – %RPM	97.2	95.9	95.4	95.6	96.2	98.2	100.0			MACH NUMBER	0.76	0.83
20 000 ft	FUEL FLOW – kg/min		34.0	32.0	31.4	32.0	33.8	37.6			FUEL FLOW – kg/min	34.6	39.9
	FUEL USED – kg/Anm		6.0	5.2	4.7	4.5	4.4	4.6			FUEL USED – kg/Anm	4.4	4.7
	DISTANCE – Anm/100kg		16.5	19.2	21.2	22.4	22.7	21.8			DISTANCE–Anm/100kg	22.5	21.3
	ENG. SPEED – %RPM		99.6	97.9	97.3	97.3	98.1	99.7			MACH NUMBER	0.76	0.83
24 000 ft	FUEL FLOW – kg/min					32.3	33.0	34.8			FUEL FLOW – kg/min		23.8
	FUEL USED – kg/Anm					4.6	4.4	4.3			FUEL USED – kg/Anm		4.3
	DISTANCE – Anm/100kg					21.8	22.9	23.1			DISTANCE–Anm/100kg		23.1
	ENG. SPEED – %RPM					100.8	99.8	99.8			MACH NUMBER		0.80
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.27.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 13 000 kg, DRAG INDEX 70

JAGUAR GR.MK.1 T.MK.2-
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	38.5	39.9	44.4	50.4	57.3					FUEL FLOW — kg/min	53.1	62.3
	FUEL USED — kg/Anm	7.0	6.6	6.7	7.0	7.4					FUEL USED — kg/Anm	7.2	7.8
	DISTANCE—Anm/100kg	14.3	15.2	14.9	14.2	13.5					DISTANCE—Anm/100kg	13.9	12.9
	ENG. SPEED — %RPM	94.0	94.5	95.8	97.9	99.8					MACH NUMBER	0.67	0.73
4 000 ft	FUEL FLOW — kg/min	37.6	38.0	39.6	44.5	50.5	57.5				FUEL FLOW — kg/min	50.5	59.4
	FUEL USED — kg/Anm	6.9	6.4	6.1	6.3	6.6	7.1				FUEL USED — kg/Anm	6.6	7.2
	DISTANCE—Anm/100kg	14.5	15.7	16.5	15.9	15.1	14.2				DISTANCE—Anm/100kg	15.1	13.9
	ENG. SPEED — %RPM	94.7	94.9	95.4	97.0	99.0	101.1				MACH NUMBER	0.70	0.76
8 000 ft	FUEL FLOW — kg/min	37.7	37.1	37.7	39.5	44.5	50.5				FUEL FLOW — kg/min	45.3	55.7
	FUEL USED — kg/Anm	7.0	6.3	5.9	5.7	5.9	6.3				FUEL USED — kg/Anm	6.0	6.7
	DISTANCE—Anm/100kg	14.2	15.9	17.0	17.6	16.9	15.9				DISTANCE—Anm/100kg	16.8	15.0
	ENG. SPEED — %RPM	96.2	95.7	96.0	96.5	98.3	100.3				MACH NUMBER	0.71	0.78
12 000 ft	FUEL FLOW — kg/min	40.1	37.7	37.0	37.8	39.7	44.6	53.1			FUEL FLOW — kg/min	41.5	53.1
	FUEL USED — kg/Anm	7.6	6.5	5.8	5.5	5.4	5.6	6.3			FUEL USED — kg/Anm	5.5	6.3
	DISTANCE—Anm/100kg	13.2	15.4	17.1	18.1	18.6	17.8	15.9			DISTANCE—Anm/100kg	18.3	15.9
	ENG. SPEED — %RPM	98.9	97.8	96.9	97.3	97.8	99.7	101.2			MACH NUMBER	0.72	0.80
16 000 ft	FUEL FLOW — kg/min			38.3	37.7	38.4	40.5	46.3			FUEL FLOW — kg/min		46.3
	FUEL USED — kg/Anm			6.1	5.6	5.3	5.2	5.6			FUEL USED — kg/Anm		5.6
	DISTANCE—Anm/100kg			16.3	17.9	18.9	19.3	18.0			DISTANCE—Anm/100kg		18.0
	ENG. SPEED — %RPM			99.7	98.9	99.6	99.4	100.9			MACH NUMBER		0.80
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.28.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 15 000 kg, DRAG INDEX 70

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER									POWER SETTING	
		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	44.0	44.5	46.4	52.1	58.8					53.5	62.5
	FUEL USED — kg/Anm	8.0	7.3	7.0	7.3	7.6					7.4	7.9
	DISTANCE—Anm/100kg	12.5	13.6	14.3	13.7	13.1					13.6	12.7
	ENG. SPEED—%RPM	96.1	96.1	96.5	98.4	100.2					MACH NUMBER 0.66	0.72
4 000 ft	FUEL FLOW — kg/min	44.3	43.4	44.2	46.6	52.3	60.4				50.6	60.4
	FUEL USED — kg/Anm	8.1	7.3	6.8	6.6	6.9	7.4				6.8	7.4
	DISTANCE—Anm/100kg	12.3	13.8	14.7	15.2	14.6	13.5				14.8	13.5
	ENG. SPEED—%RPM	97.5	97.0	97.0	97.9	99.4	101.2				MACH NUMBER 0.69	0.75
8 000 ft	FUEL FLOW — kg/min	46.5	44.0	43.4	44.4	46.6	52.3				46.6	55.7
	FUEL USED — kg/Anm	8.7	7.5	6.8	6.4	6.2	6.5				6.2	6.8
	DISTANCE—Anm/100kg	11.5	13.4	14.8	15.7	16.1	15.4				16.1	14.8
	ENG. SPEED—%RPM	100.2	98.7	98.3	98.3	98.8	100.9				MACH NUMBER 0.70	0.77
12 000 ft	FUEL FLOW — kg/min			44.3	43.9	44.8	47.3					48.9
	FUEL USED — kg/Anm			7.0	6.4	6.1	6.0					6.0
	DISTANCE—Anm/100kg			14.3	15.6	16.5	16.7					16.6
	ENG. SPEED—%RPM			100.5	99.9	100.0	100.8					MACH NUMBER 0.77
16 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED—%RPM											MACH NUMBER
20 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED—%RPM											MACH NUMBER
24 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED—%RPM											MACH NUMBER
28 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED—%RPM											MACH NUMBER
32 000 ft	FUEL FLOW — kg/min											
	FUEL USED — kg/Anm											
	DISTANCE—Anm/100kg											
	ENG. SPEED—%RPM											MACH NUMBER

FIG. 7.29.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 9 000 kg, DRAG INDEX 80

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	32.7	37.6	43.4	50.2	57.9					FUEL FLOW – kg/min	54.7	63.8
	FUEL USED – kg/Anm	5.9	6.2	6.6	7.0	7.5					FUEL USED – kg/Anm	7.3	7.9
	DISTANCE–Anm/100kg	16.8	16.1	15.2	14.3	13.3					DISTANCE–Anm/100kg	13.7	12.6
	ENG. SPEED – %RPM	91.5	93.6	95.6	97.5	99.9					MACH NUMBER	0.68	0.73
4 000 ft	FUEL FLOW – kg/min	29.1	33.1	37.9	43.6	50.3	58.2				FUEL FLOW – kg/min	50.3	58.2
	FUEL USED – kg/Anm	5.1	5.5	5.8	6.2	6.6	7.1				FUEL USED – kg/Anm	6.6	7.1
	DISTANCE – Anm/100kg	19.6	18.0	17.2	16.2	15.1	14.0				DISTANCE – Anm/100kg	15.1	14.0
	ENG. SPEED – %RPM	90.9	92.4	94.5	96.5	98.9	101.3				MACH NUMBER	0.70	0.75
8 000 ft	FUEL FLOW – kg/min	27.3	29.2	33.1	37.8	43.5	50.3				FUEL FLOW – kg/min	46.5	55.7
	FUEL USED – kg/Anm	5.1	5.0	5.2	5.4	5.8	6.3				FUEL USED – kg/Anm	6.0	6.7
	DISTANCE – Anm/100kg	19.6	20.1	19.4	18.4	17.3	16.0				DISTANCE–Anm/100kg	16.6	15.0
	ENG. SPEED – %RPM	90.9	92.1	93.9	95.7	97.9	99.8				MACH NUMBER	0.72	0.78
12 000 ft	FUEL FLOW – kg/min	26.3	27.1	29.2	33.0	37.6	43.5	52.1			FUEL FLOW – kg/min	42.2	52.1
	FUEL USED – kg/Anm	5.0	4.7	4.6	4.8	5.1	5.5	6.2			FUEL USED – kg/Anm	5.4	6.2
	DISTANCE – Anm/100kg	20.1	21.5	21.7	20.8	19.7	18.2	16.2			DISTANCE–Anm/100kg	18.5	16.2
	ENG. SPEED – %RPM	91.5	91.9	93.1	94.9	96.9	99.3	101.1			MACH NUMBER	0.74	0.80
16 000 ft	FUEL FLOW – kg/min	26.0	26.0	26.9	28.9	32.7	37.6	43.4			FUEL FLOW – kg/min	38.7	44.8
	FUEL USED – kg/Anm	5.0	4.6	4.3	4.3	4.5	4.8	5.2			FUEL USED – kg/Anm	4.9	5.3
	DISTANCE – Anm/100kg	20.0	22.0	23.2	23.4	22.3	20.7	19.2			DISTANCE–Anm/100kg	20.4	18.8
	ENG. SPEED – %RPM	93.1	92.5	92.8	94.2	95.9	98.1	100.4			MACH NUMBER	0.76	0.81
20 000 ft	FUEL FLOW – kg/min	26.8	25.9	25.9	26.8	28.8	32.8	37.7			FUEL FLOW – kg/min	35.0	39.9
	FUEL USED – kg/Anm	5.2	4.6	4.2	4.0	4.0	4.3	4.6			FUEL USED – kg/Anm	4.4	4.8
	DISTANCE – Anm/100kg	19.1	21.7	23.7	24.9	24.9	23.4	21.7			DISTANCE–Anm/100kg	22.5	21.0
	ENG. SPEED – %RPM	95.1	94.2	94.2	94.4	95.4	97.3	99.7			MACH NUMBER	0.77	0.82
24 000 ft	FUEL FLOW – kg/min		27.4	26.1	26.1	26.9	28.7	32.7			FUEL FLOW – kg/min	31.0	35.3
	FUEL USED – kg/Anm		4.9	4.3	4.0	3.8	3.8	4.1			FUEL USED – kg/Anm	4.0	4.2
	DISTANCE – Anm/100kg		20.2	23.1	25.1	26.2	26.3	24.6			DISTANCE–Anm/100kg	25.3	23.7
	ENG. SPEED – %RPM		97.4	96.1	95.7	96.0	96.8	99.2			MACH NUMBER	0.78	0.83
28 000 ft	FUEL FLOW – kg/min				27.8	27.1	27.9	29.7			FUEL FLOW – kg/min		30.6
	FUEL USED – kg/Anm				4.3	3.9	3.8	3.7			FUEL USED – kg/Anm		3.8
	DISTANCE – Anm/100kg				23.2	25.6	26.6	26.7			DISTANCE–Anm/100kg		26.5
	ENG. SPEED – %RPM				99.1	98.4	98.6	99.6			MACH NUMBER		0.82
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.30.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 11 000 kg, DRAG INDEX 80

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	35.1	39.2	44.8	51.5	59.0					FUEL FLOW – kg/min	54.2	68.2
	FUEL USED – kg/Anm	6.4	6.5	6.8	7.2	7.7					FUEL USED – kg/Anm	7.4	8.5
	DISTANCE–Anm/100kg	15.7	15.4	14.8	13.9	13.1					DISTANCE–Anm/100kg	13.6	11.8
	ENG. SPEED – %RPM	92.5	94.3	96.2	98.0	100.3					MACH NUMBER	0.67	0.73
4 000 ft	FUEL FLOW – kg/min	33.4	35.0	39.5	45.1	51.6	61.3				FUEL FLOW – kg/min	50.3	61.3
	FUEL USED – kg/Anm	6.1	5.9	6.1	6.4	6.8	7.5				FUEL USED – kg/Anm	6.7	7.5
	DISTANCE – Anm/100kg	16.3	17.1	16.5	15.7	14.7	13.3				DISTANCE – Anm/100kg	14.9	13.3
	ENG. SPEED – %RPM	93.2	93.5	95.5	17.7	99.5	101.4				MACH NUMBER	0.69	0.75
8 000 ft	FUEL FLOW – kg/min	32.4	33.1	35.0	39.4	45.0	51.6				FUEL FLOW – kg/min	46.1	56.5
	FUEL USED – kg/Anm	6.0	5.6	5.4	5.7	6.0	6.4				FUEL USED – kg/Anm	6.1	6.8
	DISTANCE – Anm/100kg	16.6	17.8	18.4	17.7	16.7	15.6				DISTANCE–Anm/100kg	16.5	14.6
	ENG. SPEED – %RPM	93.8	94.1	94.4	96.5	98.3	100.3				MACH NUMBER	0.71	0.77
12 000 ft	FUEL FLOW – kg/min	32.3	32.0	32.9	34.9	39.4	45.1				FUEL FLOW – kg/min	42.8	53.4
	FUEL USED – kg/Anm	6.1	5.5	5.2	5.1	5.3	5.7				FUEL USED – kg/Anm	5.5	6.4
	DISTANCE – Anm/100kg	16.3	18.1	19.2	19.7	18.7	17.6				DISTANCE–Anm/100kg	18.0	15.6
	ENG. SPEED – %RPM	95.1	94.7	95.1	95.8	97.8	99.6				MACH NUMBER	0.73	0.79
16 000 ft	FUEL FLOW – kg/min	34.2	32.3	32.1	33.0	34.9	39.6	47.9			FUEL FLOW – kg/min	38.5	47.9
	FUEL USED – kg/Anm	6.6	5.6	5.1	4.9	4.8	5.1	5.8			FUEL USED – kg/Anm	5.0	5.8
	DISTANCE – Anm/100kg	15.2	17.7	19.5	20.5	20.9	19.7	17.4			DISTANCE–Anm/100kg	20.0	17.4
	ENG. SPEED – %RPM	97.7	96.5	96.0	96.2	97.4	99.4	100.9			MACH NUMBER	0.74	0.80
20 000 ft	FUEL FLOW – kg/min			33.3	32.9	33.7	35.8	42.3			FUEL FLOW – kg/min	33.7	42.3
	FUEL USED – kg/Anm			5.4	4.9	4.7	4.7	5.2			FUEL USED – kg/Anm	4.7	5.2
	DISTANCE – Anm/100kg			18.5	20.2	21.2	21.4	19.4			DISTANCE–Anm/100kg	21.2	19.4
	ENG. SPEED – %RPM			98.9	98.3	98.4	99.2	100.6			MACH NUMBER	0.70	0.80
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.31.

LEVEL CRUISE, TWO ENGINES OPERATING – MASS 13 000 kg, DRAG INDEX 80

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0·50	0·55	0·60	0·65	0·70	0·75	0·80	0·85	0·90		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	39.8	41.5	46.5	53.0	60.3					FUEL FLOW – kg/min	54.6	65.0
	FUEL USED – kg/Anm	7.2	6.9	7.0	7.4	7.8					FUEL USED – kg/Anm	7.5	8.2
	DISTANCE–Anm/100kg	13.8	14.6	14.2	13.5	12.8					DISTANCE–Anm/100kg	13.3	12.2
	ENG. SPEED – %RPM	94.6	95.1	96.5	98.5	100.7					MACH NUMBER	0.66	0.72
4 000 ft	FUEL FLOW – kg/min	38.7	39.5	41.4	46.9	53.2					FUEL FLOW – kg/min	50.5	61.7
	FUEL USED – kg/Anm	7.1	6.6	6.4	6.6	7.0					FUEL USED – kg/Anm	6.9	7.7
	DISTANCE – Anm/100kg	14.0	15.1	15.7	15.1	14.3					DISTANCE – Anm/100kg	14.6	13.0
	ENG. SPEED – %RPM	95.3	95.5	96.2	98.0	100.0					MACH NUMBER	0.68	0.74
8 000 ft	FUEL FLOW – kg/min	38.8	38.3	39.3	41.5	46.9	53.2				FUEL FLOW – kg/min	46.9	53.2
	FUEL USED – kg/Anm	7.2	6.5	6.1	6.0	6.2	6.6				FUEL USED – kg/Anm	6.2	6.6
	DISTANCE – Anm/100kg	13.8	15.4	16.4	16.8	16.0	15.1				DISTANCE–Anm/100kg	16.0	15.1
	ENG. SPEED – %RPM	96.9	96.3	96.5	97.4	98.9	101.4				MACH NUMBER	0.70	0.75
12 000 ft	FUEL FLOW – kg/min	41.2	39.0	38.6	39.7	41.9	47.0				FUEL FLOW – kg/min	41.9	48.5
	FUEL USED – kg/Anm	7.8	6.7	6.1	5.8	5.7	5.9				FUEL USED – kg/Anm	5.7	6.1
	DISTANCE – Anm/100kg	12.8	14.9	16.4	17.3	17.7	16.8				DISTANCE-Anm/100kg	17.7	16.5
	ENG. SPEED – %RPM	99.4	98.2	97.8	97.8	98.8	100.6				MACH NUMBER	0.70	0.76
16 000 ft	FUEL FLOW – kg/min			39.8	39.4	40.3	42.7				FUEL FLOW – kg/min		42.7
	FUEL USED – kg/Anm			6.4	5.8	5.5	5.5				FUEL USED – kg/Anm		5.5
	DISTANCE – Anm/100kg			15.7	17.2	18.1	18.3				DISTANCE-Anm/100kg		18.3
	ENG. SPEED – %RPM			100.5	99.8	99.9	100.8				MACH NUMBER		0.75
20 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – % RPM										MACH NUMBER		
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE–Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – % RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE–Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.32.

LEVEL CRUISE, TWO ENGINES OPERATING — MASS 15 000 kg, DRAG INDEX 80

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	45.3	46.2	48.6	54.8	61.9					FUEL FLOW — kg/min	54.8	61.9
	FUEL USED — kg/Anm	8.2	7.6	7.3	7.6	8.0					FUEL USED — kg/Anm	7.6	8.0
	DISTANCE—Anm/100kg	12.2	13.1	13.6	13.1	12.5					DISTANCE—Anm/100kg	13.1	12.5
	ENG. SPEED — %RPM	96.5	96.5	97.5	99.0	101.2					MACH NUMBER	0.65	0.70
4 000 ft	FUEL FLOW — kg/min	45.6	45.1	46.2	48.9	55.0					FUEL FLOW — kg/min	49.8	60.0
	FUEL USED — kg/Anm	8.4	7.5	7.1	6.9	7.2					FUEL USED — kg/Anm	7.0	7.8
	DISTANCE—Anm/100kg	11.9	13.3	14.1	14.4	13.8					DISTANCE—Anm/100kg	14.3	12.8
	ENG. SPEED — %RPM	97.9	97.5	97.9	98.5	100.4					MACH NUMBER	0.66	0.73
8 000 ft	FUEL FLOW — kg/min	47.6	45.5	45.2	46.5	49.0					FUEL FLOW — kg/min	45.2	54.0
	FUEL USED — kg/Anm	8.9	7.7	7.0	6.7	6.5					FUEL USED — kg/Anm	7.0	6.9
	DISTANCE—Anm/100kg	11.2	13.0	14.2	15.0	15.3					DISTANCE—Anm/100kg	14.2	14.5
	ENG. SPEED — %RPM	100.5	99.2	98.8	99.3	99.9					MACH NUMBER	0.60	0.74
12 000 ft	FUEL FLOW — kg/min			48.7	45.7	47.0					FUEL FLOW — kg/min		47.0
	FUEL USED — kg/Anm			7.7	6.7	6.4					FUEL USED — kg/Anm		6.4
	DISTANCE—Anm/100kg			13.0	15.0	15.7					DISTANCE—Anm/100kg		15.7
	ENG. SPEED — %RPM			101.2	101.0	101.2					MACH NUMBER		0.70
16 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.33.

CRUISE CONDITIONS FOR MAXIMUM RANGE — TWO ENGINES OPERATING

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

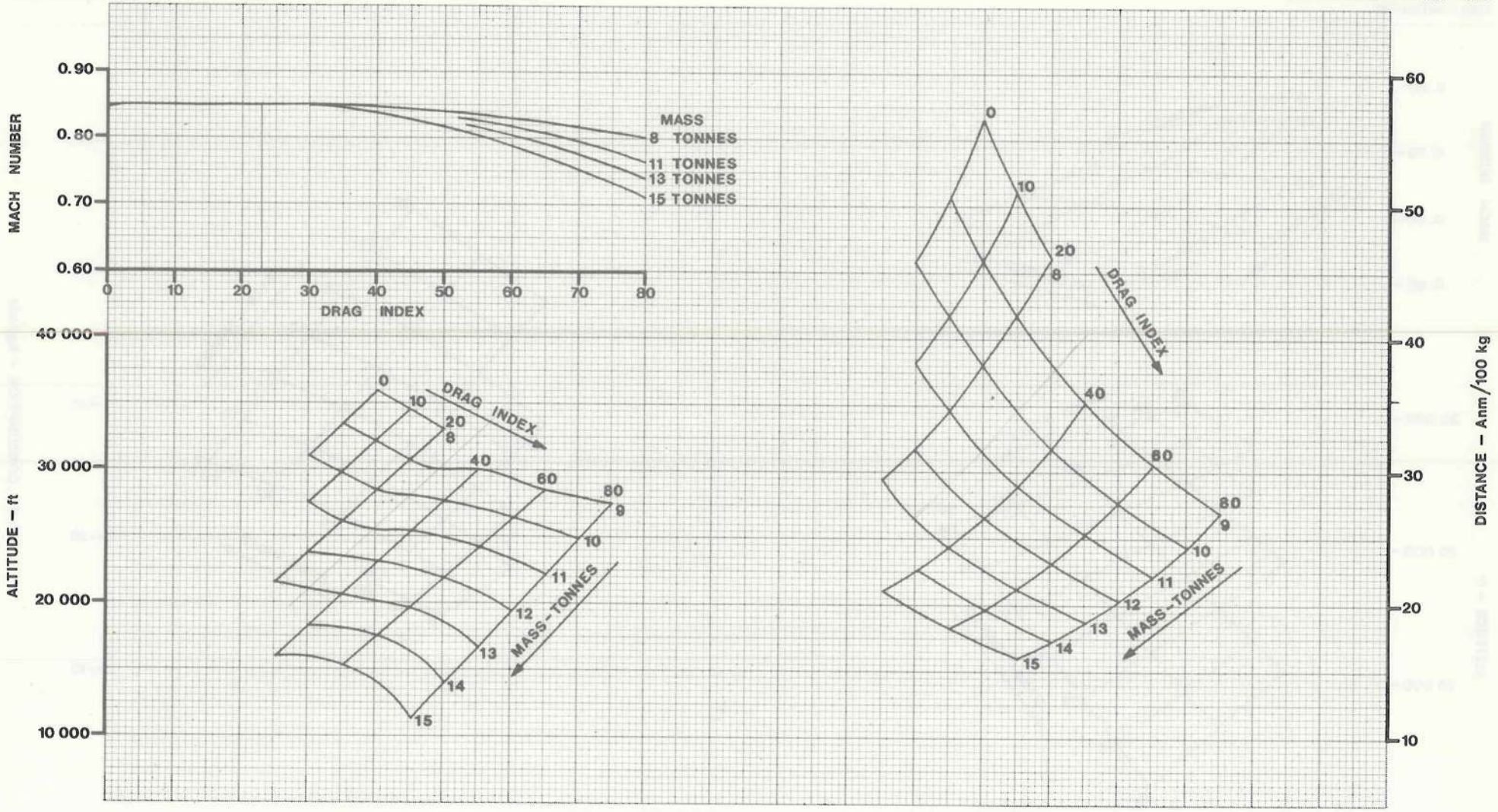


FIG. 7.34.

CRUISE CONDITIONS FOR MAXIMUM ENDURANCE – TWO ENGINES OPERATING

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

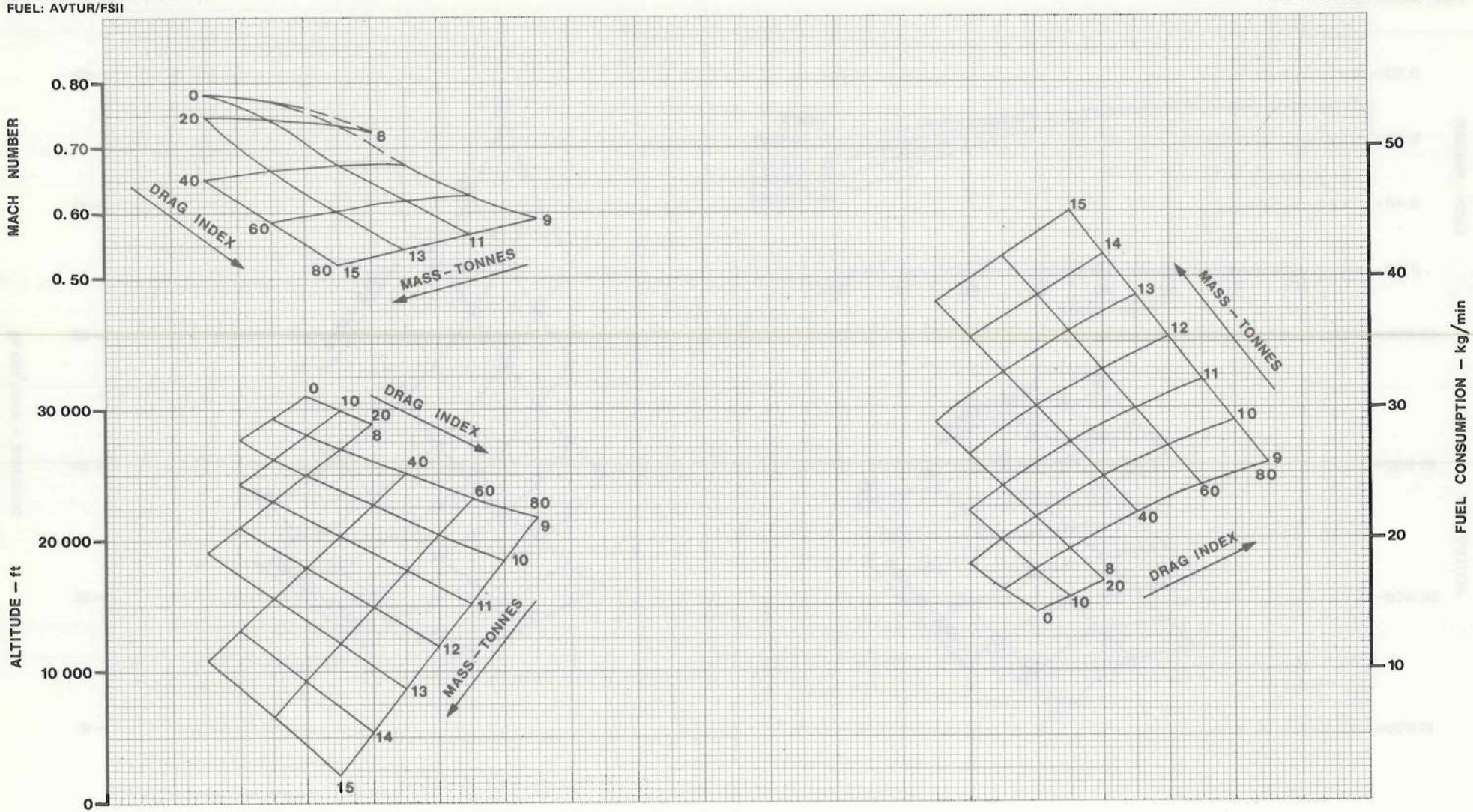


FIG. 7.35.

LOW SPEED CRUISE, TWO ENGINES OPERATING – DRAG INDEX 0 AND 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

DRAG INDEX 0

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MASS 8 000 kg				MASS 9 000 kg				MASS 10 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW-kg/min	19.4	17.9	19.5	21.6	22.5	20.2	20.4	22.4	26.0	22.9	21.5	23.3
	FUEL USED-kg/Anm	5.0	4.1	3.9	3.9	5.8	4.6	4.1	4.1	6.8	5.2	4.3	4.2
	DISTANCE-Anm/100kg	19.9	24.6	25.5	25.5	17.1	21.8	24.3	24.6	14.8	19.2	23.0	23.7
	ENG. SPEED-%RPM	84.0	83.4	84.0	85.7	86.6	84.6	84.6	85.7	88.3	86.4	85.7	86.3
5 000 ft	FUEL FLOW-kg/min	20.2	18.0	17.4	18.9	23.9	20.8	19.1	19.9				
	FUEL USED-kg/Anm	5.3	4.2	3.5	3.5	6.3	4.8	3.9	3.7				
	DISTANCE-Anm/100kg	18.7	24.1	28.6	28.6	15.9	20.8	25.6	27.3				
	ENG. SPEED-%RPM	85.8	84.6	85.2	84.0	88.4	86.6	85.2	85.8				

MASS 8 000 TO 10 000 kg, DRAG INDEX 10

ALTITUDE		MASS 8 000 kg				MASS 9 000 kg				MASS 10 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW-kg/min	20.4	19.0	20.5	22.9	23.5	21.5	21.5	23.7	27.0	24.2	22.9	24.6
	FUEL USED-kg/Anm	5.3	4.3	4.1	4.2	6.1	4.9	4.3	4.3	7.0	5.5	4.6	4.5
	DISTANCE-Anm/100kg	18.9	23.1	24.2	24.1	16.4	20.5	23.1	23.3	14.3	18.2	21.7	22.4
	ENG. SPEED-%RPM	84.6	84.0	84.6	86.3	87.0	85.8	85.2	86.8	89.0	87.0	86.4	87.4
5 000 ft	FUEL FLOW-kg/min	21.0	19.0	18.2	20.0	24.7	21.9	20.4	20.9				
	FUEL USED-kg/Anm	5.5	4.4	3.7	3.7	6.5	5.1	4.2	3.9				
	DISTANCE-Anm/100kg	18.0	22.8	26.7	27.1	15.4	19.8	23.9	25.9				
	ENG. SPEED-%RPM	86.5	85.2	84.6	85.8	89.2	87.1	85.8	86.4				

MASS 10 500 kg, DRAG INDEX 10

ALTITUDE		MASS 10 500 kg											
		0.35M	0.40M	0.45M	0.50M								
SEA LEVEL	FUEL FLOW-kg/min	28.9	25.7	24.0	25.1								
	FUEL USED-kg/Anm	7.5	5.8	4.8	4.5								
	DISTANCE-Anm/100kg	13.3	17.1	20.6	22.0								
	ENG. SPEED-%RPM	90.1	88.2	87.0	87.4								
5 000 ft	FUEL FLOW-kg/min												
	FUEL USED-kg/Anm												
	DISTANCE-Anm/100kg												
	ENG. SPEED-%RPM												

FIG. 7.36.

LOW SPEED CRUISE, TWO ENGINES OPERATING – DRAG INDEX 20 TO 40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

DRAG INDEX 20

ALTITUDE		MASS 8 500 kg				MASS 10 500 kg			
		0.35 M	0.40 M	0.45 M	0.50 M	0.35 M	0.40 M	0.45 M	0.50 M
SEA LEVEL	FUEL FLOW – kg/min	22.9	21.5	22.0	24.6	29.9	27.0	25.7	26.4
	FUEL USED – kg/Anm	5.9	4.9	4.4	4.5	7.8	6.1	5.2	4.8
	DISTANCE – Anm/100 kg	16.9	20.5	22.6	22.4	12.9	16.3	19.3	20.9
	ENG. SPEED – % RPM	86.4	85.8	85.8	87.4	90.6	88.9	88.2	88.1
5 000 ft	FUEL FLOW – kg/min	23.6	21.5	20.6	21.5				
	FUEL USED – kg/Anm	6.2	5.0	4.2	4.0				
	DISTANCE – Anm/100 kg	16.1	20.2	23.7	25.2				
	ENG. SPEED – % RPM	88.5	87.1	86.4	87.0				

DRAG INDEX 30

ALTITUDE		MASS 9 000 kg			
		0.35 M	0.40 M	0.45 M	0.50 M
SEA LEVEL	FUEL FLOW – kg/min	25.4	24.0	23.9	26.3
	FUEL USED – kg/Anm	6.6	5.4	4.8	4.8
	DISTANCE – Anm/100 kg	15.2	18.3	20.7	21.0
	ENG. SPEED – % RPM	88.3	87.0	87.0	88.1
5 000 ft	FUEL FLOW – kg/min	26.3	23.9	23.0	23.2
	FUEL USED – kg/Anm	6.9	5.5	4.7	4.3
	DISTANCE – Anm/100 kg	14.4	18.1	21.1	23.4
	ENG. SPEED – % RPM	90.2	88.4	87.7	87.6

DRAG INDEX 40

ALTITUDE		MASS 9 000 kg				MASS 11 000 kg			
		0.35 M	0.40 M	0.45 M	0.50 M	0.35 M	0.40 M	0.45 M	0.50 M
SEA LEVEL	FUEL FLOW – kg/min	26.1	24.9	25.0	27.6	33.5	30.7	29.7	29.9
	FUEL USED – kg/Anm	6.8	5.6	5.0	5.0	8.7	7.0	6.0	5.4
	DISTANCE – Anm/100 kg	14.8	17.7	19.8	20.0	11.5	14.4	16.7	18.4
	ENG. SPEED – % RPM	88.3	87.6	87.6	89.4	92.3	90.9	90.3	90.2
4 000 ft	FUEL FLOW – kg/min	26.5	24.6	24.1	24.7				
	FUEL USED – kg/Anm	7.0	5.7	4.9	4.5				
	DISTANCE – Anm/100 kg	14.3	17.7	20.3	22.0				
	ENG. SPEED – % RPM	90.0	89.0	88.4	88.9				

FIG. 7.37.

LOW SPEED CRUISE, TWO ENGINES OPERATING – DRAG INDEX 50 AND 60

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

DRAG INDEX 50

ALTITUDE		MASS 9 000 kg				MASS 11 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW – kg/min	26.5	25.5	25.8	28.6	34.0	31.3	30.5	31.0
	FUEL USED – kg/Anm	6.9	5.8	5.2	5.2	8.8	7.1	6.1	5.6
	DISTANCE – Anm/100kg	14.5	17.3	19.2	19.3	11.3	14.1	16.3	17.8
	ENG. SPEED – % RPM	89.0	88.2	88.2	89.8	92.3	91.3	90.7	90.7
4 000ft	FUEL FLOW – kg/min	27.0	25.1	24.8	25.6				
	FUEL USED – kg/Anm	7.1	5.8	5.1	4.7				
	DISTANCE – Anm/100kg	14.1	17.3	19.7	21.3				
	ENG. SPEED – % RPM	90.1	89.2	89.1	89.5				

DRAG INDEX 60

ALTITUDE		MASS 9 000 kg				MASS 11 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW – kg/min	27.2	26.5	27.1	30.2	34.7	32.3	31.7	32.5
	FUEL USED – kg/Anm	7.1	6.0	5.5	5.5	9.0	7.3	6.4	5.9
	DISTANCE – Anm/100kg	14.2	16.7	18.3	18.3	11.1	13.7	15.6	16.9
	ENG. SPEED – % RPM	89.7	88.9	88.9	90.2	92.8	91.8	91.2	91.6
4 000ft	FUEL FLOW – kg/min	27.6	25.9	25.8	26.9				
	FUEL USED – kg/Anm	7.2	6.0	5.3	4.9				
	DISTANCE – Anm/100kg	13.8	16.8	18.9	20.2				
	ENG. SPEED – % RPM	90.6	89.7	89.6	90.0				
8 000ft	FUEL FLOW – kg/min	28.6	26.1	25.2	25.4				
	FUEL USED – kg/Anm	7.6	6.1	5.2	4.7				
	DISTANCE – Anm/100kg	13.1	16.4	19.2	21.1				
	ENG. SPEED – % RPM	92.1	90.6	90.0	90.0				

FIG. 7.38.

LOW SPEED CRUISE, TWO ENGINES OPERATING – DRAG INDEX 70 AND 80

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

DRAG INDEX 70

ALTITUDE		MASS 9 000 kg				MASS 11 000 kg				MASS 13 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW-kg/min	27.8	27.2	28.1	31.5	35.3	33.1	32.8	33.8	44.7	40.1	38.4	38.5
	FUEL USED-kg/Anm	7.2	6.2	5.7	5.7	9.2	7.5	6.6	6.1	11.6	9.1	9.1	7.0
	DISTANCE-Anm/100kg	13.9	16.2	17.7	17.5	10.9	13.3	15.1	16.3	8.6	11.0	11.0	14.3
	ENG. SPEED-% RPM	89.7	88.9	89.5	91.1	93.2	91.8	91.7	92.0	96.9	95.0	95.0	94.0
4 000 ft	FUEL FLOW-kg/min	28.1	26.6	26.7	28.0	36.8	33.3	32.0	32.3				
	FUEL USED-kg/Anm	7.4	6.1	5.5	5.2	9.7	7.7	6.6	5.9				
	DISTANCE-Anm/100kg	13.5	16.3	18.3	19.4	10.3	13.1	15.3	16.8				
	ENG. SPEED-% RPM	90.6	90.1	90.1	90.4	95.0	93.3	92.3	92.7				
8 000 ft	FUEL FLOW-kg/min	29.1	26.6	25.9	26.4								
	FUEL USED-kg/Anm	7.8	6.2	5.4	4.9								
	DISTANCE-Anm/100kg	12.9	16.1	18.6	20.3								
	ENG. SPEED-% RPM	92.6	91.0	90.4	90.4								

DRAG INDEX 80

ALTITUDE		MASS 9 000 kg				MASS 11 000 kg				MASS 13 000 kg			
		0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M	0.35M	0.40M	0.45M	0.50M
SEA LEVEL	FUEL FLOW-kg/min	28.4	28.0	29.1	32.7	35.9	33.9	33.8	35.1	45.4	41.0	39.4	39.8
	FUEL USED-kg/Anm	7.4	6.4	5.9	5.9	9.3	7.7	6.8	6.4	11.8	9.3	8.0	7.2
	DISTANCE-Anm/100kg	13.6	15.7	17.0	16.8	10.7	13.0	14.7	15.7	8.5	10.8	12.6	13.8
	ENG. SPEED-% RPM	90.1	89.6	89.9	91.5	93.2	92.2	92.1	92.5	96.9	95.2	94.4	94.6
4 000 ft	FUEL FLOW-kg/min	28.6	27.3	27.6	29.1	37.3	34.0	32.9	33.4				
	FUEL USED-kg/Anm	7.5	6.3	5.6	5.4	9.8	7.8	6.7	6.1				
	DISTANCE-Anm/100kg	13.3	15.9	17.7	18.7	10.2	12.8	14.9	16.3				
	ENG. SPEED-% RPM	91.1	90.6	90.6	90.9	95.2	93.8	92.8	93.2				
8 000 ft	FUEL FLOW-kg/min	29.5	27.2	26.7	27.3								
	FUEL USED-kg/Anm	7.9	6.4	5.5	5.1								
	DISTANCE-Anm/100kg	12.7	15.7	18.1	19.6								
	ENG. SPEED-% RPM	92.6	91.3	90.9	90.9								

FIG. 7.39.

LEVEL CRUISE, ONE ENGINE WINDMILLING – MASS 8 000 kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	20.8	17.7	16.3	18.1	20.6	23.6	27.2	31.6		FUEL FLOW – kg/min	27.2	31.6
	FUEL USED – kg/Anm	6.3	4.6	3.7	3.7	3.7	3.9	4.1	4.4		FUEL USED – kg/Anm	4.1	4.4
	DISTANCE–Anm/100kg	15.9	21.9	27.0	27.3	26.7	25.7	24.3	22.7		DISTANCE–Anm/100kg	24.3	22.7
	ENG. SPEED – %RPM	95.8	93.2	91.8	93.4	95.1	96.9	98.9	101.3		MACH NUMBER	0.60	0.65
4 000 ft	FUEL FLOW – kg/min	23.1	18.6	16.5	16.6	18.5	21.0	24.1	27.5		FUEL FLOW – kg/min	24.6	28.8
	FUEL USED – kg/Anm	7.1	4.9	3.8	3.4	3.4	3.5	3.7	3.9		FUEL USED – kg/Anm	3.7	4.0
	DISTANCE – Anm/100kg	14.1	20.5	26.3	29.5	29.3	28.5	27.1	25.7		DISTANCE – Anm/100kg	26.9	25.2
	ENG. SPEED – %RPM	98.8	95.1	92.9	93.2	94.7	96.5	98.4	100.9		MACH NUMBER	0.61	0.67
8 000 ft	FUEL FLOW – kg/min		20.6	17.3	15.8	16.8	18.8	21.3	24.2		FUEL FLOW – kg/min	22.5	26.2
	FUEL USED – kg/Anm		5.5	4.0	3.3	3.1	3.2	3.3	3.5		FUEL USED – kg/Anm	3.4	3.6
	DISTANCE – Anm/100kg		18.2	24.7	30.5	31.8	31.4	30.2	28.8		DISTANCE–Anm/100kg	29.5	28.2
	ENG. SPEED – %RPM		98.2	95.2	93.3	94.4	96.0	97.9	99.7		MACH NUMBER	0.62	0.69
12 000 ft	FUEL FLOW – kg/min			19.4	16.6	15.5	17.0	19.1	21.5		FUEL FLOW – kg/min	20.2	23.5
	FUEL USED – kg/Anm			4.6	3.5	2.9	2.9	3.0	3.1		FUEL USED – kg/Anm	3.1	3.2
	DISTANCE – Anm/100kg			21.8	28.5	34.0	34.1	33.2	31.9		DISTANCE–Anm/100kg	32.5	31.0
	ENG. SPEED – %RPM			98.9	95.6	94.5	95.7	97.8	99.5		MACH NUMBER	0.62	0.69
16 000 ft	FUEL FLOW – kg/min				19.9	16.6	15.8	17.4	19.4		FUEL FLOW – kg/min	18.2	20.8
	FUEL USED – kg/Anm				4.2	3.2	2.8	2.8	2.9		FUEL USED – kg/Anm	2.8	2.9
	DISTANCE – Anm/100kg				23.6	31.5	36.2	35.9	34.9		DISTANCE–Anm/100kg	35.5	34.4
	ENG. SPEED – %RPM				100.2	97.2	96.0	97.6	99.4		MACH NUMBER	0.62	0.69
20 000 ft	FUEL FLOW – kg/min						17.0	16.3	17.8		FUEL FLOW – kg/min	16.3	18.5
	FUEL USED – kg/Anm						3.0	2.7	2.7		FUEL USED – kg/Anm	2.7	2.7
	DISTANCE – Anm/100kg						33.0	37.6	37.3		DISTANCE–Anm/100kg	37.6	37.0
	ENG. SPEED – %RPM						99.6	98.3	99.7		MACH NUMBER	0.60	0.67
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG.7.40.

LEVEL CRUISE, ONE ENGINE WINDMILLING – MASS 9 000 kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER									POWER SETTING	
		0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	25.7	20.9	18.6	19.1	21.4	24.4	27.8	33.9		27.0	33.9
	FUEL USED – kg/Anm	7.8	5.4	4.2	3.9	3.9	4.0	4.0	4.7		4.2	4.7
	DISTANCE–Anm/100kg	12.9	18.4	23.7	25.9	25.7	24.9	23.8	21.1		24.1	21.1
	ENG. SPEED – %RPM	99.3	95.8	94.0	94.1	95.6	97.5	99.5	101.3		0.59	0.65
4 000 ft	FUEL FLOW – kg/min		22.8	19.4	17.8	19.5	21.8	24.8	28.1		24.8	28.8
	FUEL USED – kg/Anm		6.0	4.5	3.6	3.6	3.7	3.8	4.0		3.8	4.0
	DISTANCE – Anm/100kg		16.7	22.4	27.4	27.9	27.4	26.3	25.1		26.3	24.9
	ENG. SPEED – %RPM		98.4	95.5	94.1	95.5	96.9	98.9	100.9		0.60	0.66
8 000 ft	FUEL FLOW – kg/min			21.3	18.6	17.9	19.7	22.2	25.0		22.2	25.5
	FUEL USED – kg/Anm			5.0	3.9	3.4	3.4	3.5	3.6		3.5	3.6
	DISTANCE – Anm/100kg			20.1	26.0	29.8	27.4	29.0	27.9		29.0	27.7
	ENG. SPEED – %RPM			98.8	96.0	95.4	96.9	98.9	100.9		0.60	0.66
12 000 ft	FUEL FLOW – kg/min				20.7	18.3	18.2	20.2	22.5		20.2	22.8
	FUEL USED – kg/Anm				4.4	3.5	3.1	3.2	3.3		3.2	3.3
	DISTANCE – Anm/100kg				23.0	28.8	31.8	31.4	30.6		31.4	30.5
	ENG. SPEED – %RPM				99.7	97.2	96.9	98.7	100.6		0.60	32.5
16 000 ft	FUEL FLOW – kg/min						18.6	18.8	20.8			20.8
	FUEL USED – kg/Anm						3.3	3.0	3.1			3.1
	DISTANCE – Anm/100kg						30.7	33.2	32.5			32.5
	ENG. SPEED – %RPM						99.2	99.2	100.6			0.65
20 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											
24 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											
28 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											
32 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											

FIG. 7. 41.

LEVEL CRUISE, ONE ENGINE WINDMILLING — MASS 10 000 kg, DRAG INDEX 0

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED FLIGHT TEST
FUEL: AVTUR FSII

ENGINES: ADOUR MK.102 JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70		MAX. CONT	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min		24.9	21.5	20.2	22.4	25.2	28.5			FUEL FLOW — kg/min	26.5	32.3
	FUEL USED — kg/Anm		6.5	4.9	4.1	4.1	4.2	4.3			FUEL USED — kg/Anm	4.2	4.6
	DISTANCE—Anm/100kg		15.5	20.5	24.5	24.6	24.1	23.2			DISTANCE—Anm/100kg	23.7	21.8
	ENG. SPEED—%RPM		98.4	95.9	94.9	96.5	98.0	100.0			MACH NUMBER	0.57	0.64
4 000 ft	FUEL FLOW — kg/min			23.1	20.5	20.6	22.8	25.6	29.9		FUEL FLOW — kg/min	25.0	29.9
	FUEL USED — kg/Anm			5.3	4.2	3.8	3.8	3.9	4.2		FUEL USED — kg/Anm	3.9	4.2
	DISTANCE—Anm/100kg			18.8	23.9	26.4	26.2	25.4	23.7		DISTANCE—Anm/100kg	25.6	23.7
	ENG. SPEED—%RPM			98.8	96.5	96.2	97.8	99.5	101.4		MACH NUMBER	0.59	0.65
8 000 ft	FUEL FLOW — kg/min				22.3	20.1	21.0	23.2	26.0		FUEL FLOW — kg/min	22.8	26.0
	FUEL USED — kg/Anm				4.6	3.8	3.6	3.6	3.7		FUEL USED — kg/Anm	3.6	3.7
	DISTANCE—Anm/100kg				21.7	26.7	28.1	27.7	26.8		DISTANCE—Anm/100kg	27.8	26.8
	ENG. SPEED—%RPM				99.5	97.4	97.8	99.2	101.2		MACH NUMBER	0.59	0.65
12 000 ft	FUEL FLOW — kg/min					23.6	20.1	21.4	24.9		FUEL FLOW — kg/min		24.9
	FUEL USED — kg/Anm					4.5	3.5	3.4	3.6		FUEL USED — kg/Anm		3.6
	DISTANCE—Anm/100kg					22.4	28.8	29.6	27.5		DISTANCE—Anm/100kg		27.5
	ENG. SPEED—%RPM					100.6	99.0	99.9	100.9		MACH NUMBER		0.65
16 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG. 7.42.

LEVEL CRUISE, ONE ENGINE WINDMILLING – MASS 8 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min	21.6	18.7	17.5	19.2	21.9	25.4	29.3			FUEL FLOW – kg/min	27.0	31.1
	FUEL USED – kg/Anm	6.5	4.8	4.0	3.9	4.0	4.2	4.4			FUEL USED – kg/Anm	4.3	4.6
	DISTANCE–Anm/100kg	15.3	20.7	25.2	25.9	25.1	23.9	22.6			DISTANCE–Anm/100kg	23.3	22.0
	ENG. SPEED – %RPM	96.5	94.1	92.6	94.1	95.9	98.0	100.5			MACH NUMBER	0.57	0.62
4 000 ft	FUEL FLOW – kg/min	23.9	19.5	17.6	17.5	19.7	22.5	25.9			FUEL FLOW – kg/min	24.5	28.7
	FUEL USED – kg/Anm	7.3	5.1	4.1	3.6	3.6	3.8	4.0			FUEL USED – kg/Anm	3.9	4.1
	DISTANCE – Anm/100kg	13.6	19.5	24.6	28.0	27.6	26.5	25.2			DISTANCE – Anm/100kg	25.7	24.2
	ENG. SPEED – %RPM	99.8	95.8	94.3	93.7	95.5	97.4	99.8			MACH NUMBER	0.58	0.64
8 000 ft	FUEL FLOW – kg/min		21.6	18.4	17.1	17.8	20.1	23.0			FUEL FLOW – kg/min	22.4	27.4
	FUEL USED – kg/Anm		5.8	4.3	3.5	3.3	3.4	3.6			FUEL USED – kg/Anm	3.5	3.9
	DISTANCE – Anm/100kg		17.3	23.4	28.2	30.1	29.4	28.0			DISTANCE–Anm/100kg	28.2	25.4
	ENG. SPEED – %RPM		99.0	96.1	94.7	95.3	96.9	99.3			MACH NUMBER	0.59	0.65
12 000 ft	FUEL FLOW – kg/min			20.6	17.9	16.9	18.2	20.6			FUEL FLOW – kg/min	20.1	23.9
	FUEL USED – kg/Anm			4.9	3.8	3.2	3.1	3.2			FUEL USED – kg/Anm	3.2	3.5
	DISTANCE – Anm/100kg			20.5	26.5	31.2	31.9	30.8			DISTANCE–Anm/100kg	31.1	28.7
	ENG. SPEED – %RPM			100.1	96.9	95.8	96.9	99.1			MACH NUMBER	0.59	0.65
16 000 ft	FUEL FLOW – kg/min					18.2	17.1	18.7			FUEL FLOW – kg/min	17.7	20.2
	FUEL USED – kg/Anm					3.5	3.0	3.0			FUEL USED – kg/Anm	3.0	3.1
	DISTANCE – Anm/100kg					28.6	33.4	33.3			DISTANCE–Anm/100kg	33.5	32.5
	ENG. SPEED – %RPM					99.2	97.6	99.3			MACH NUMBER	0.57	0.63
20 000 ft	FUEL FLOW – kg/min							18.5			FUEL FLOW – kg/min		18.5
	FUEL USED – kg/Anm							3.0			FUEL USED – kg/Anm		3.0
	DISTANCE – Anm/100kg							33.2			DISTANCE–Anm/100kg		33.2
	ENG. SPEED – %RPM							100.5			MACH NUMBER		0.60
24 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW – kg/min										FUEL FLOW – kg/min		
	FUEL USED – kg/Anm										FUEL USED – kg/Anm		
	DISTANCE – Anm/100kg										DISTANCE–Anm/100kg		
	ENG. SPEED – %RPM										MACH NUMBER		

FIG. 7.43.

LEVEL CRUISE, ONE ENGINE WINDMILLING — MASS 9 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER										POWER SETTING	
		0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70		MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min	26.6	22.0	20.0	22.8	22.8	26.1	29.9			FUEL FLOW — kg/min	26.8	31.2
	FUEL USED — kg/Anm	8.0	5.7	4.5	4.1	4.1	4.3	4.5			FUEL USED — kg/Anm	4.4	4.6
	DISTANCE—Anm/100kg	12.4	17.6	22.1	24.2	24.2	23.2	22.1			DISTANCE—Anm/100kg	23.0	21.9
	ENG. SPEED — %RPM	99.8	96.5	94.9	96.5	96.5	98.4	101.0			MACH NUMBER	0.56	0.62
4 000 ft	FUEL FLOW — kg/min		23.9	20.6	19.3	20.6	23.4	26.7			FUEL FLOW — kg/min	24.7	28.4
	FUEL USED — kg/Anm		6.3	4.7	4.0	3.8	3.9	4.1			FUEL USED — kg/Anm	4.0	4.2
	DISTANCE — Anm/100kg		15.9	21.1	25.3	26.3	25.5	24.5			DISTANCE — Anm/100kg	25.1	24.1
	ENG. SPEED — %RPM		99.3	96.5	95.5	96.5	98.4	100.3			MACH NUMBER	0.57	0.63
8 000 ft	FUEL FLOW — kg/min			22.6	20.1	19.1	21.2	23.9			FUEL FLOW — kg/min	22.2	25.6
	FUEL USED — kg/Anm			5.3	4.2	3.6	3.6	3.7			FUEL USED — kg/Anm	3.6	3.8
	DISTANCE — Anm/100kg			19.0	24.0	28.1	27.9	26.9			DISTANCE—Anm/100kg	27.5	26.3
	ENG. SPEED — %RPM			99.9	97.4	96.5	97.8	100.0			MACH NUMBER	0.57	0.63
12 000 ft	FUEL FLOW — kg/min					20.1	19.5	21.7			FUEL FLOW — kg/min	20.3	23.0
	FUEL USED — kg/Anm					3.8	3.4	3.4			FUEL USED — kg/Anm	3.4	3.5
	DISTANCE — Anm/100kg					26.2	29.8	29.2			DISTANCE-Anm/100kg	29.6	29.0
	ENG. SPEED — %RPM					98.9	98.1	99.9			MACH NUMBER	0.57	0.63
16 000 ft	FUEL FLOW — kg/min							20.7			FUEL FLOW — kg/min		20.7
	FUEL USED — kg/Anm							3.3			FUEL USED — kg/Anm		3.3
	DISTANCE — Anm/100kg							30.1			DISTANCE-Anm/100kg		30.1
	ENG. SPEED — %RPM							100.5			MACH NUMBER		0.60
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE — Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE — Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE — Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE — Anm/100kg										DISTANCE-Anm/100kg		
	ENG. SPEED — %RPM										MACH NUMBER		

FIG. 7.44.

LEVEL CRUISE, ONE ENGINE WINDMILLING – MASS 10 000 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER									POWER SETTING	
		0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW – kg/min		26.1	22.9	21.6	23.8	26.9	30.6			26.9	30.6
	FUEL USED – kg/Anm		6.8	5.2	4.4	4.3	4.4	4.6			4.4	4.6
	DISTANCE–Anm/100kg		14.8	19.2	22.9	23.2	22.5	21.6			22.5	21.6
	ENG. SPEED – %RPM		99.3	96.9	95.9	97.4	98.9	101.5			MACH NUMBER 0.55	0.60
4 000 ft	FUEL FLOW – kg/min			24.5	22.2	21.8	24.4	27.5			24.4	29.2
	FUEL USED – kg/Anm			5.6	4.5	4.0	4.1	4.2			4.1	4.3
	DISTANCE – Anm/100kg			17.8	22.0	24.9	24.5	23.7			24.5	23.1
	ENG. SPEED – %RPM			99.7	97.9	97.4	98.9	100.7			MACH NUMBER 0.55	0.62
8 000 ft	FUEL FLOW – kg/min				23.8	22.0	22.4	24.9				25.5
	FUEL USED – kg/Anm				4.9	4.1	3.8	3.9				3.9
	DISTANCE – Anm/100kg				20.2	24.3	26.3	25.9				25.6
	ENG. SPEED – %RPM				100.9	99.1	99.1	100.5				MACH NUMBER 0.61
12 000 ft	FUEL FLOW – kg/min						22.7	24.2				24.2
	FUEL USED – kg/Anm						3.9	3.8				3.8
	DISTANCE – Anm/100kg						25.6	26.2				26.2
	ENG. SPEED – %RPM						100.7	100.8				MACH NUMBER 0.60
16 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											MACH NUMBER
20 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											MACH NUMBER
24 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											MACH NUMBER
28 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											MACH NUMBER
32 000 ft	FUEL FLOW – kg/min											
	FUEL USED – kg/Anm											
	DISTANCE – Anm/100kg											
	ENG. SPEED – %RPM											MACH NUMBER

FIG. 7.45.

LEVEL CRUISE, ONE ENGINE WINDMILLING —MASS 10 500 kg, DRAG INDEX 10

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

ALTITUDE		MACH NUMBER 0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70		POWER SETTING MAX. CONT.	MAX. DRY
SEA LEVEL	FUEL FLOW — kg/min		28.3	24.6	24.3	24.3	27.4	31.3			FUEL FLOW — kg/min	26.8	31.3
	FUEL USED — kg/Anm		7.3	5.6	4.4	4.4	4.5	4.7			FUEL USED — kg/Anm	4.5	4.7
	DISTANCE—Anm/100kg		13.6	17.9	22.6	22.6	22.1	21.1			DISTANCE—Anm/100kg	22.2	21.1
	ENG. SPEED—%RPM		100.9	98.4	97.5	97.5	99.4	101.5			MACH NUMBER	0.54	0.60
4 000 ft	FUEL FLOW — kg/min			27.3	23.8	22.6	24.9	27.9			FUEL FLOW — kg/min	24.3	27.9
	FUEL USED — kg/Anm			6.3	4.9	4.2	4.2	4.3			FUEL USED — kg/Anm	4.2	4.3
	DISTANCE—Anm/100kg			15.9	20.5	24.0	24.0	23.3			DISTANCE—Anm/100kg	24.1	23.3
	ENG. SPEED—%RPM			101.1	98.9	97.9	97.9	101.2			MACH NUMBER	0.54	0.60
8 000 ft	FUEL FLOW — kg/min					23.7	23.0	26.0			FUEL FLOW — kg/min		26.0
	FUEL USED — kg/Anm					4.4	3.9	4.0			FUEL USED — kg/Anm		4.0
	DISTANCE—Anm/100kg					22.6	25.6	24.8			DISTANCE—Anm/100kg		24.8
	ENG. SPEED—%RPM					100.4	99.5	101.1			MACH NUMBER		0.60
12 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
16 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
20 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
24 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
28 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		
32 000 ft	FUEL FLOW — kg/min										FUEL FLOW — kg/min		
	FUEL USED — kg/Anm										FUEL USED — kg/Anm		
	DISTANCE—Anm/100kg										DISTANCE—Anm/100kg		
	ENG. SPEED—%RPM										MACH NUMBER		

FIG. 7.46.

CRUISE CONDITIONS FOR MAXIMUM RANGE — ONE ENGINE WINDMILLING

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

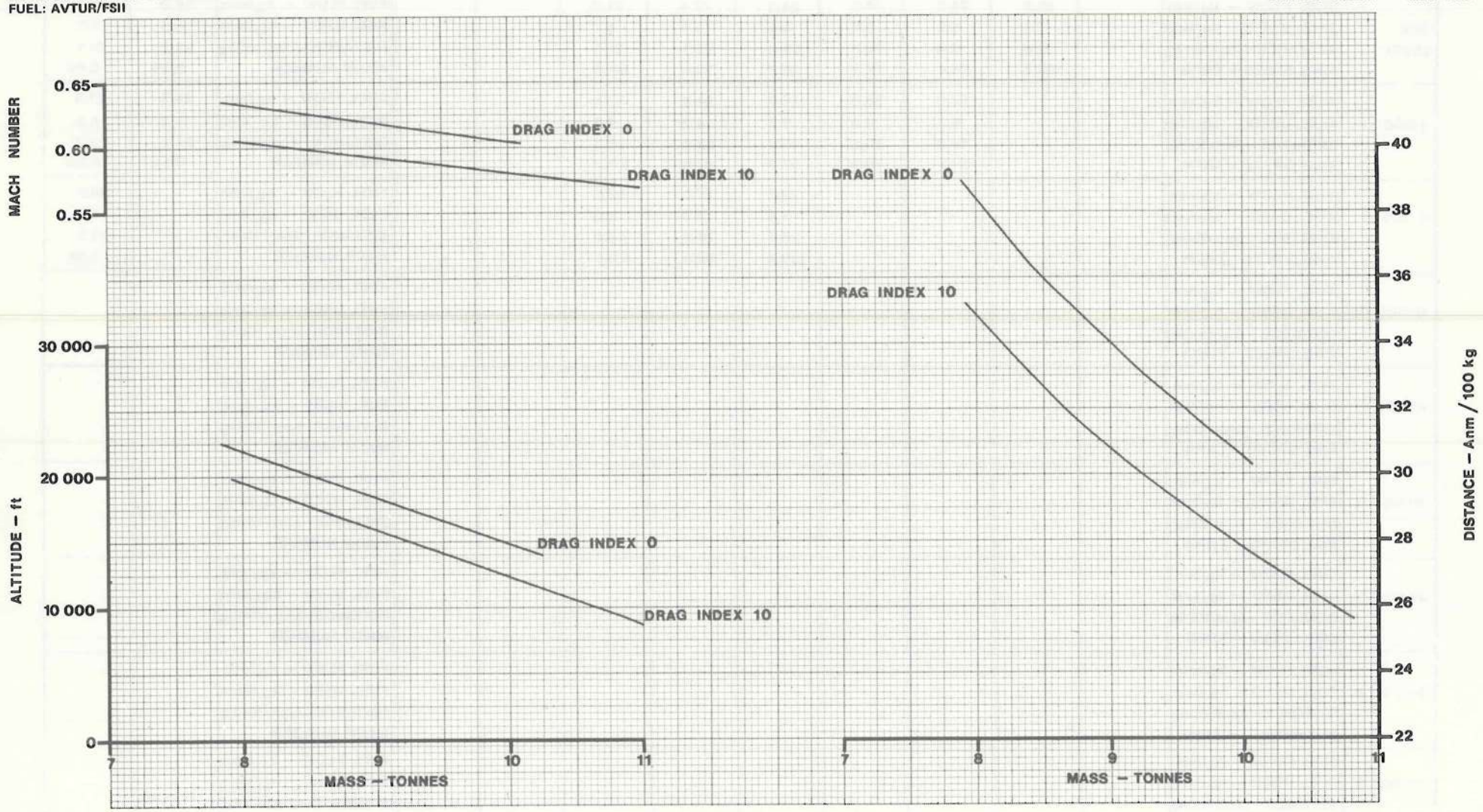


FIG. 7.47.

CRUISE CONDITIONS FOR MAXIMUM ENDURANCE – ONE ENGINE WINDMILLING

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.6. FEBRUARY 1978

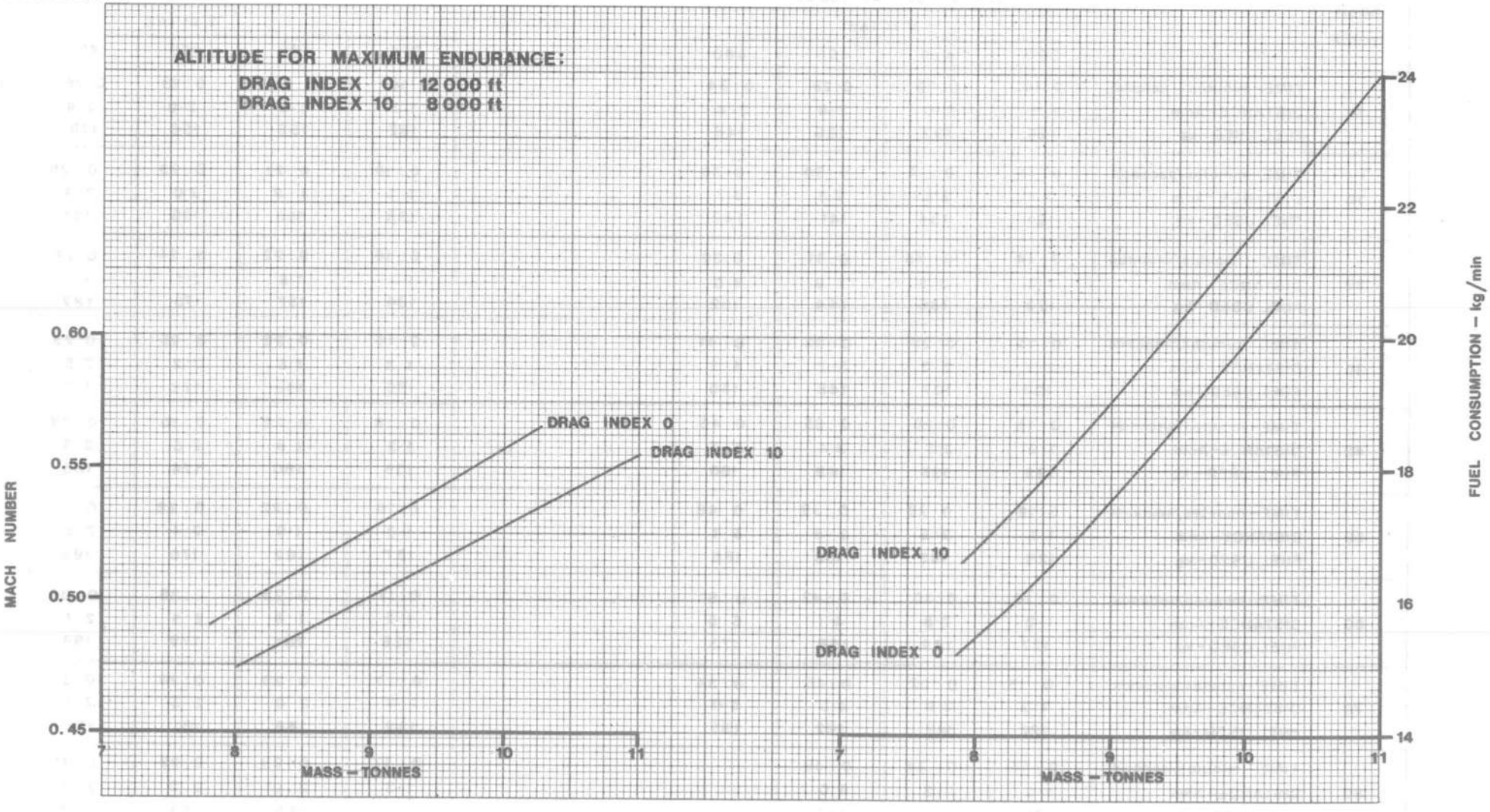


FIG. 7.48.

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 9 000 kg, ISA – 20° C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL.6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt					MAX. REHEAT				
		V kt IAS					V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TJME-minutes / seconds	0:14	0:23	0:28	0:34		0:16	0:21	0:23	0:26	0:28
	DISTANCE-Anm	1·1	2·0	2·6	3·4		1·1	1·8	2·0	2·4	2·5
	FUEL USED-kg	120	132	138	145		132	155	166	178	186
10	TIME-minutes/seconds	0:14	0:24	0:30	0:36		0:16	0:21	0:23	0:26	0:28
	DISTANCE-Anm	1·1	2·1	2·8	3·7		1·1	1·8	2·0	2·4	2·6
	FUEL USED-kg	121	134	141	149		133	156	168	181	188
20	TIME-minutes/seconds	0:14	0:25	0:31	0:39		0:16	0:22	0:24	0:27	0:29
	DISTANCE-Anm	1·1	2 2	2·9	4·0		1·1	1·8	2·1	2·5	2·7
	FUEL USED-kg	122	136	144	152		134	157	170	182	191
30	TIME-minutes/seconds	0:15	0:26	0:33	0:41		0:16	0:22	0:25	0:28	0:29
	DISTANCE-Anm	1·1	2·3	3·2	4·4		1·2	1·8	2·2	2·5	2·8
	FUEL USED-kg	123	137	146	156		135	158	172	185	195
40	TIME-minutes/seconds	0:15	0:26	0:35	0:45		0:16	0:22	0:26	0:28	0:31
	DISTANCE-Anm	1·1	2·5	3·4	4·7		1·2	1·8	2·3	2·5	2·9
	FUEL USED-kg	125	139	149	160		136	160	174	188	198
50	TIME-minutes/seconds	0:16	0:28	0:38	0:48		0:16	0:22	0:28	0:29	0:31
	DISTANCE-Anm	1·1	2·6	3·8	5·1		1·2	1·9	2·4	2·6	3·0
	FUEL USED-kg	126	142	153	166		137	162	176	190	202
60	TIME-minutes/seconds	0:16	0:30	0:42	0:51		0:17	0:23	0:28	0:30	0:32
	DISTANCE-Anm	1·2	2·8	4·1	5·6		1·2	1·9	2·5	2·7	3·1
	FUEL USED-kg	127	144	158	173		138	164	179	194	205
70	TIME-minutes/seconds	0:16	0:32	0:46	0:54		0:17	0:23	0:28	0:31	0:33
	DISTANCE-Anm	1·2	2·9	4·5	6·0		1·3	2·0	2·5	2·8	3·2
	FUEL USED-kg	127	147	162	181		139	166	181	198	210
80	TIME-minutes/seconds	0:17	0:34	0:49			0:17	0:23	0:28	0:31	0:34
	DISTANCE-Anm	1·3	3·2	5·0			1·3	2.0	2.5	2·9	3·3
	FUEL USED-kg	130	150	167			141	168	184	202	215

FIG. 7.49

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 11 000kg, ISA –20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL.6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0 : 23	0 : 35	0 : 41	0 : 48		0 : 26	0 : 32	0 : 36	0 : 38	0 : 40
	DISTANCE–Anm	1·6	2·9	3·6	4·4		1·8	2·5	3·0	3·2	3·5
	FUEL USED–kg	175	186	194	202		188	216	230	244	254
10	TIME–minutes/seconds	0 : 23	0 : 35	0 : 43	0 : 52		0 : 26	0 : 32	0 : 36	0 : 38	0 : 41
	DISTANCE–Anm	1·6	3·0	3·8	4·9		1·8	2·5	3·0	3·2	3·6
	FUEL USED–kg	175	189	198	207		189	218	233	248	258
20	TIME – minutes/seconds	0 : 23	0 : 37	0 : 45	0 : 55		0 : 26	0 : 32	0 : 36	0 : 39	0 : 42
	DISTANCE–Anm	1·7	3·1	4·1	5·3		1·8	2·5	3·0	3·3	3·7
	FUEL USED–kg	176	192	201	213		190	219	235	251	262
30	TIME–minutes/seconds	0 : 23	0 : 38	0 : 47	0 : 59		0 : 26	0 : 33	0 : 37	0 : 40	0 : 43
	DISTANCE–Anm	1·7	3·2	4·3	5·9		1·8	2·5	3·0	3·4	3·8
	FUEL USED–kg	176	194	205	219		192	222	238	255	266
40	TIME–minutes/seconds	0 : 24	0 : 39	0 : 50	1 : 03		0 : 27	0 : 34	0 : 37	0 : 41	0 : 44
	DISTANCE–Anm	1·7	3·4	4·6	6·4		1·8	2·5	3·0	3·5	3·9
	FUEL USED–kg	177	198	209	225		194	225	241	259	271
50	TIME–minutes/seconds	0 : 25	0 : 42	0 : 53	1 : 13		0 : 27	0 : 34	0 : 38	0 : 41	0 : 44
	DISTANCE–Anm	1·7	3·6	5·0	7·5		1·8	2·5	3·1	3·6	3·9
	FUEL USED–kg	179	201	216	238		195	228	244	263	276
60	TIME–minutes/seconds	0 : 25	0 : 44	0 : 56	1 : 24		0 : 27	0 : 35	0 : 38	0 : 43	0 : 46
	DISTANCE–Anm	1·7	3·8	5·3	8·6		1·8	2·6	3·2	3·7	4·1
	FUEL USED–kg	180	205	223	249		197	230	248	267	281
70	TIME–minutes/seconds	0 . 25	0 : 47	0 : 59	1 : 34		0 : 28	0 : 35	0 : 40	0 : 44	0 : 47
	DISTANCE–Anm	1·8	4·1	5·6	9·8		1·9	2·7	3·2	3·8	4·3
	FUEL USED–kg	183	209	229	263		199	233	251	272	287
80	TIME – minutes/seconds	0 : 26	0 : 49	1 : 02			0 : 28	0 : 36	0 : 40	0 : 45	0 : 49
	DISTANCE–Anm	1·9	4·4	5·9			1·9	2·8	3·3	3·9	4·5
	FUEL USED–kg	186	213	236			201	235	255	277	293

FIG. 7.50

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 13 000 kg, ISA – 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME – minutes / seconds	0:26	0:41	0:50	0:53		0:29	0:37	0:40	0:44	0:48
	DISTANCE – Anm	1·9	3·5	4·4	5·6		2·0	2·9	3·4	3·9	4·3
	FUEL USED – kg	214	233	242	252		209	241	258	278	312
10	TIME – minutes/seconds	0:27	0:43	0:52	1:02		0:30	0:38	0:41	0:46	0:49
	DISTANCE – Anm	2·0	3·7	4·7	6·2		2·1	3·0	3·5	3·9	4·4
	FUEL USED – kg	216	236	247	259		210	244	261	279	318
20	TIME – minutes/seconds	0:28	0:44	0:55	1:08		0:31	0:38	0:42	0:47	0:50
	DISTANCE – Anm	2·0	3·8	5·1	6·8		2·2	3·1	3·6	4·0	4·5
	FUEL USED – kg	218	239	251	266		213	247	264	285	323
30	TIME – minutes/seconds	0:28	0:46	0:58	1:13		0:31	0:39	0:43	0:48	0:51
	DISTANCE – Anm	2·1	4·1	5·5	7·4		2·2	3·1	3·6	4·2	4·6
	FUEL USED – kg	220	242	256	273		215	250	269	289	329
40	TIME – minutes/seconds	0:29	0:49	1:01	1:19		0:32	0:40	0:44	0:49	0:53
	DISTANCE – Anm	2·2	4·3	5·9	8·1		2·3	3·2	3·7	4·3	4·7
	FUEL USED – kg	221	245	260	281		216	253	273	293	335
50	TIME – minutes/seconds	0:29	0:52	1:09	1:31		0:32	0:41	0:46	0:50	0:54
	DISTANCE – Anm	2·2	4·6	6·4	9·6		2·3	3·2	3·7	4·3	4·9
	FUEL USED – kg	224	251	270	298		218	257	278	298	341
60	TIME – minutes/seconds	0:30	0:55	1:17	1:44		0:32	0:41	0:47	0:52	0:56
	DISTANCE – Anm	2·2	4·9	7·3	11·2		2·4	3·3	3·8	4·6	5·1
	FUEL USED – kg	227	257	281	316		220	260	281	305	349
70	TIME – minutes/seconds	0:31	0:59	1:24			0:33	0:43	0:49	0:53	0:57
	DISTANCE – Anm	2·3	5·3	8·2			2·5	3·3	3·9	4·7	5·3
	FUEL USED – kg	229	263	291			223	264	287	312	356
80	TIME – minutes/seconds	0:32	1:02	1:31			0:34	0:44	0:50	0:55	0:59
	DISTANCE – Anm	2·3	5·6	9·2			2·5	3·4	4·6	4·8	5·4
	FUEL USED – kg	233	269	302			225	267	291	318	364

FIG. 7.51

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 15 000 kg, ISA – 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt				MAX. REHEAT				
		V kt IAS				V kt IAS				
		360	420	450	480	360	420	450	480	500
0	TIME – minutes / seconds	0:31	0:48	0:57	1:07	0:34	0:42	0:47	0:52	0:55
	DISTANCE – Anm	2·3	4·3	5·3	7·4	2·5	3·4	3·9	4·6	5·1
	FUEL USED – kg	260	280	291	304	282	322	340	362	375
10	TIME – minutes/seconds	0:31	0:50	1:02	1:15	0:34	0:43	0:48	0:53	0:56
	DISTANCE – Anm	2·3	4·5	5·8	8·7	2·5	3·5	4·0	4·7	5·2
	FUEL USED – kg	263	285	298	314	285	325	345	368	382
20	TIME – minutes/seconds	0:32	0:53	1:06	1:22	0:35	0:44	0:49	0:53	0:58
	DISTANCE – Anm	2·4	4·7	6·2	8·9	2·6	3·6	4·1	4·8	5·3
	FUEL USED – kg	265	290	305	325	288	329	350	373	388
30	TIME – minutes/seconds	0:32	0:55	1:11	1:29	0:35	0:45	0:50	0:55	0:59
	DISTANCE – Anm	2·5	5·0	6·7	9·7	2·7	3·7	4·2	4·9	5·4
	FUEL USED – kg	268	295	312	335	291	333	355	380	395
40	TIME – minutes/seconds	0:34	0:58	1:15	1:37	0:36	0:46	0:52	0:57	1:01
	DISTANCE – Anm	2·6	5·2	7·2	9·7	2·7	3·8	4·4	5·1	5·6
	FUEL USED – kg	271	300	319	346	293	338	360	385	402
50	TIME – minutes/seconds	0:34	1:03	1:26	1:50	0:37	0:47	0:53	0:58	1:03
	DISTANCE – Anm	2·6	5·7	8·5	11·6	2·7	3·9	4·5	5·2	5·8
	FUEL USED – kg	274	308	335	366	296	342	366	393	411
60	TIME – minutes/seconds	0:35	1:08	1:38	2:05	0:38	0:49	0:53	1:00	1:05
	DISTANCE – Anm	2·6	6·2	9·8	13·0	2·7	3·9	4·6	5·3	6·0
	FUEL USED – kg	277	316	350	385	299	347	371	400	419
70	TIME – minutes/seconds	0:37	1:13	1:49		0:38	0:49	0:55	1:02	1:07
	DISTANCE – Anm	2·7	6·8	11·1		2·8	4·0	4·7	5·3	6·2
	FUEL USED – kg	280	323	365		302	352	377	408	428
80	TIME – minutes/seconds	0:38	1:19	2:01		0:40	0:51	0:57	1:04	1:10
	DISTANCE – Anm	2·8	7·3	12·4		2·9	4·1	4·9	5·4	6·5
	FUEL USED – kg	284	331	381		306	356	383	415	439

FIG. 7. 52

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 9 000kg, ISA

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0:19	0:29	0:35	0:41		0:20	0:26	0:29	0:32	0:36
	DISTANCE–Anm	1·3	2·6	3·2	4·1		1·5	2·1	2·5	2·8	3·2
	FUEL USED–kg	134	146	152	159		146	171	184	196	204
10	TIME–minutes/seconds	0:19	0:30	0:37	0:44		0:20	0:26	0:29	0:32	0:35
	DISTANCE–Anm	1·4	2·6	3·5	4·5		1·5	2·2	2·5	2·9	3·2
	FUEL USED–kg	135	148	156	165		147	173	186	199	208
20	TIME – minutes/seconds	0:19	0:31	0:39	0:48		0:20	0:27	0:30	0:33	0:35
	DISTANCE–Anm	1·4	2·8	3·7	5·0		1·5	2·2	2·5	3·0	3·3
	FUEL USED–kg	136	150	159	170		148	174	188	202	212
30	TIME–minutes/seconds	0:19	0:32	0:41	0:52		0:21	0:28	0:31	0:34	0:36
	DISTANCE–Anm	1·4	2·9	4·0	5·4		1·6	2·2	2·6	3·1	3·4
	FUEL USED–kg	137	152	162	175		149	176	189	204	216
40	TIME–minutes/seconds	0:20	0:34	0:43	0:56		0:22	0:28	0:31	0:35	0:37
	DISTANCE–Anm	1·5	3·1	4·3	5·9		1·6	2·3	2·7	3·2	3·5
	FUEL USED–kg	139	155	165	180		151	178	192	208	219
50	TIME–minutes/seconds	0:20	0:36	0:49	1:07		0:22	0:28	0:32	0:36	0:38
	DISTANCE–Anm	1·5	3·3	5·0	7·1		1·6	2·3	2·7	3·2	3·6
	FUEL USED–kg	140	158	173	192		152	180	195	212	224
60	TIME–minutes/seconds	0:21	0:38	0:55	1:15		0:22	0:29	0:32	0:37	0:40
	DISTANCE–Anm	1·6	3·5	5·6	8·4		1·7	2·4	2·8	3·3	3·7
	FUEL USED–kg	142	162	180	204		153	182	198	216	229
70	TIME–minutes/seconds	0:21	0:41	1:00			0:22	0:29	0:33	0:37	0:40
	DISTANCE–Anm	1·7	3·8	6·2			1·7	2·5	2·9	3·4	3·9
	FUEL USED–kg	143	166	188			155	185	201	219	234
80	TIME – minutes/seconds	0:21	0:43	1:05			0:23	0:30	0:34	0:38	0:42
	DISTANCE–Anm	1·7	4·1	6·8			1·7	2·5	3·0	3·6	4·0
	FUEL USED–kg	144	170	195			157	188	204	224	240

FIG. 7.53

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 11 000 kg, ISA

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt					MAX. REHEAT				
		V kt IAS					V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME – minutes / seconds	0:26	0:39	0:46	0:55		0:29	0:36	0:39	0:43	0:46
	DISTANCE – Anm	1·8	3·4	4·2	5·2		2·1	2·9	3·2	3·8	4·1
	FUEL USED – kg	188	204	212	221		203	233	254	265	277
10	TIME – minutes/seconds	0:26	0:41	0:50	0:59		0:29	0:37	0:40	0:44	0:47
	DISTANCE – Anm	1·9	3·5	4·6	5·9		2·1	2·9	3·3	3·9	4·2
	FUEL USED – kg	190	207	216	228		205	236	256	269	280
20	TIME – minutes/seconds	0:27	0:43	0:53	1:05		0:30	0:37	0:41	0:45	0:48
	DISTANCE – Anm	2·0	3·7	5·0	6·5		2·1	3·0	3·4	3·9	4·3
	FUEL USED – kg	192	209	221	229		207	239	258	273	286
30	TIME – minutes/seconds	0:28	0:44	0:56	1:11		0:31	0:38	0:42	0:46	0:49
	DISTANCE – Anm	2·0	3·9	5·3	7·2		2·2	3·1	3·5	4·0	4·5
	FUEL USED – kg	193	213	226	242		209	242	260	278	291
40	TIME – minutes/seconds	0:28	0:47	0:59	1:16		0:31	0:39	0:43	0:47	0:50
	DISTANCE – Anm	2·1	4·1	5·7	8·0		2·2	3·1	3·6	4·2	4·6
	FUEL USED – kg	195	216	231	250		211	245	263	282	295
50	TIME – minutes/seconds	0:29	0:49	1:04	1:30		0:32	0:40	0:44	0:49	0:52
	DISTANCE – Anm	2·2	4·4	6·3	9·8		2·2	3·2	3·8	4·3	4·7
	FUEL USED – kg	197	220	238	266		213	248	266	287	302
60	TIME – minutes/seconds	0:29	0:52	1:10	1:44		0:32	0:40	0:46	0:50	0:53
	DISTANCE – Anm	2·2	4·7	6·9	11·6		2·3	3·2	3·9	4·5	4·9
	FUEL USED – kg	199	224	245	285		215	251	270	293	308
70	TIME – minutes/seconds	0:30	0:56	1:22			0:32	0:41	0:47	0:52	0:55
	DISTANCE – Anm	2·3	5·2	8·3			2·3	3·2	3·9	4·6	5·1
	FUEL USED – kg	200	230	259			217	254	275	298	316
80	TIME – minutes/seconds	0:31	1:00	1:32			0:32	0:42	0:47	0:53	0:57
	DISTANCE – Anm	2·3	5·6	9·7			2·4	3·3	4·0	4·7	5·3
	FUEL USED – kg	203	236	273			219	258	280	305	323

FIG. 7.54

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 13 000kg, ISA

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt					MAX. REHEAT				
		V kt IAS					V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0:30	0:47	0:56	1:05		0:34	0:43	0:47	0:52	0:54
	DISTANCE–Anm	2·4	4·2	5·3	6·5		2·5	3·4	3·9	4·6	4·9
	FUEL USED–kg	233	253	263	272		251	288	308	325	338
10	TIME–minutes/seconds	0:31	0:50	1:01	1:13		0:35	0:44	0:48	0:53	0:56
	DISTANCE–Anm	2·4	4·4	5·8	7·4		2·5	3·5	4·0	4·6	5·1
	FUEL USED–kg	235	256	269	283		254	292	311	331	344
20	TIME–minutes/seconds	0:32	0:52	1:04	1:20		0:35	0:44	0:49	0:53	0:57
	DISTANCE–Anm	2·5	4·7	6·2	8·3		2·5	3·6	4·1	4·7	5·3
	FUEL USED–kg	237	261	275	293		257	295	315	337	351
30	TIME–minutes/seconds	0:33	0:55	1:09	1:28		0:36	0:45	0:50	0:55	0:59
	DISTANCE–Anm	2·6	4·9	6·7	9·2		2·5	3·6	4·2	4·9	5·4
	FUEL USED–kg	240	266	281	303		260	299	320	342	357
40	TIME–minutes/seconds	0:34	0:57	1:13	1:35		0:37	0:46	0:52	0:57	1:01
	DISTANCE–Anm	2·6	5·2	7·1	10·1		2·6	3·7	4·4	5·1	5·6
	FUEL USED–kg	242	270	288	313		263	303	324	348	365
50	TIME–minutes/seconds	0:34	1:01	1:20	1:53		0:37	0:47	0:53	0:58	1:02
	DISTANCE–Anm	2·6	5·6	8·0	12·5		2·7	3·8	4·6	5·3	5·8
	FUEL USED–kg	245	276	298	337		265	308	330	354	372
60	TIME–minutes/seconds	0:35	1:05	1:28	2:22		0:38	0:49	0:56	0:59	1:04
	DISTANCE–Anm	2·7	6·1	9·0	16·2		2·8	3·9	4·9	5·4	6·0
	FUEL USED–kg	248	282	309	371		268	311	336	361	381
70	TIME–minutes/seconds	0:36	1:11	1:47			0:38	0:49	0:56	1:01	1:06
	DISTANCE–Anm	2·8	6·7	11·3			2·8	4·0	5·0	5·6	6·3
	FUEL USED–kg	250	290	333			271	316	341	368	390
80	TIME–minutes/seconds	0:37	1:17	2:07			0:40	0:50	0:57	1:04	1:08
	DISTANCE–Anm	2·9	7·4	13·7			2·9	4·1	5·1	5·9	6·6
	FUEL USED–kg	253	298	356			274	321	347	377	399

FIG. 7.55

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 15 000kg, ISA

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt					MAX. REHEAT				
		V kt IAS					V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME – minutes / seconds	0:37	0:57	1:08	1:19		0:40	0:52	0:56	1:01	1:04
	DISTANCE – Anm	2·9	5·1	6·5	7·8		3·1	4·2	4·7	5·5	6·0
	FUEL USED – kg	289	312	325	336		312	356	378	399	415
10	TIME – minutes/seconds	0:38	1:01	1:14	1:29		0:41	0:52	0:57	1:02	1:06
	DISTANCE – Anm	2·9	5·5	7·1	9·2		3·2	4·3	4·9	5·7	6·2
	FUEL USED – kg	292	319	333	351		316	361	383	407	424
20	TIME – minutes/seconds	0:39	1:04	1:20	1:40		0:43	0:53	0:59	1:04	1:08
	DISTANCE – Anm	3·0	5·9	7·8	10·5		3·2	4·4	5·1	5·9	6·4
	FUEL USED – kg	296	325	342	366		320	366	389	414	432
30	TIME – minutes/seconds	0:40	1:08	1:26	1:51		0:44	0:55	0:59	1:05	1:10
	DISTANCE – Anm	3·1	6·2	8·5	11·8		3·3	4·5	5·3	6·0	6·7
	FUEL USED – kg	299	331	352	381		323	371	396	422	441
40	TIME – minutes/seconds	0:41	1:11	1:32	2:01		0:44	0:56	1:02	1:08	1:13
	DISTANCE – Anm	3·2	6·7	9·2	13·1		3·4	4·6	5·4	6·2	6·9
	FUEL USED – kg	304	338	361	396		328	377	403	430	450
50	TIME – minutes/seconds	0:43	1:17	1:44	2:34		0:46	0:58	1:05	1:11	1:15
	DISTANCE – Anm	3·3	7·3	10·5	16·9		3·5	4·7	5·7	6·4	7·2
	FUEL USED – kg	308	347	378	429		333	383	411	440	461
60	TIME – minutes/seconds	0:44	1:23	1:56	2:33		0:47	0:59	1:08	1:13	1:18
	DISTANCE – Anm	3·5	7·9	11·9	25·1		3·6	4·9	6·0	6·7	7·4
	FUEL USED – kg	313	358	396	491		338	390	416	449	473
70	TIME – minutes/seconds	0:46	1:33	2:35			0:48	1:01	1:09	1:16	1:20
	DISTANCE – Anm	3·6	8·9	16·8			3·7	5·2	6·0	7·0	7·7
	FUEL USED – kg	318	372	436			342	398	427	460	487
80	TIME – minutes/seconds	0:47	1:43	3:16			0:49	1:02	1:10	1:18	1:24
	DISTANCE – Anm	3·8	10·0	21·7			3·8	5·3	6·1	7·3	8·1
	FUEL USED – kg	323	387	493			347	404	435	472	499

FIG. 7. 56

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 9 000 kg, ISA + 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt					MAX. REHEAT				
		V kt IAS					V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0:21	0:35	0:43	0:47		0:23	0:31	0:33	0:36	0:40
	DISTANCE–Anm	1·7	3·4	4·6	4·7		1·8	2·6	3·2	3·7	4·0
	FUEL USED–kg	145	158	167	170		157	185	201	215	225
10	TIME–minutes/seconds	0:21	0:38	0:48	1:06		0:23	0:31	0:34	0:39	0:41
	DISTANCE–Anm	1·7	3·7	5·0	6·8		1·8	2·7	3·2	3·8	4·2
	FUEL USED–kg	146	162	173	186		158	188	203	219	231
20	TIME–minutes/seconds	0:22	0:41	0:53	1:14		0:23	0:32	0:34	0:40	0:43
	DISTANCE–Anm	1·8	4·0	5·7	8·8		1·8	2·8	3·3	3·9	4·4
	FUEL USED–kg	147	165	179	201		158	190	206	224	236
30	TIME–minutes/seconds	0:22	0:44	0:59	1:28		0:24	0:32	0:36	0:38	0:44
	DISTANCE–Anm	1·9	4·3	6·4	10·8		1·9	2·9	3·4	4·0	4·6
	FUEL USED–kg	149	169	186	217		160	193	210	230	242
40	TIME–minutes/seconds	0:23	0:46	1:04	1:41		0:25	0:33	0:33	0:43	0:46
	DISTANCE–Anm	2·0	4·7	7·0	12·8		1·9	3·0	3·5	4·2	4·7
	FUEL USED–kg	151	173	192	234		162	196	214	234	248
50	TIME–minutes/seconds	0:25	0:54	1:23	1:34		0:25	0:39	0:39	0:44	0:49
	DISTANCE–Anm	2·0	5·6	8·4	15·1		1·9	3·1	3·7	4·4	5·0
	FUEL USED–kg	153	181	201	251		164	199	218	241	258
60	TIME–minutes/seconds	0:28	1:01	1:12			0:25	0:35	0:40	0:46	0:51
	DISTANCE–Anm	2·1	6·6	10·6			2·0	3·2	3·9	4·6	5·3
	FUEL USED–kg	157	189	219			166	203	224	248	267
70	TIME–minutes/seconds	0:30	1:03	2:01			0:26	0:36	0:42	0:49	0:53
	DISTANCE–Anm	2·2	7·6	13·7			2·1	3·2	3·9	4·8	5·5
	FUEL USED–kg	161	197	252			168	206	230	255	276
80	TIME–minutes/seconds						0:26	0:37	0:43	0:50	0:56
	DISTANCE–Anm						2·1	3·3	4·1	5·1	5·9
	FUEL USED–kg						170	210	234	263	285

FIG. 7.57

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 11 000kg, ISA + 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0:35	0:55	1:04	1:02		0:40	0:49	0:53	0:58	1:01
	DISTANCE–Anm	2·6	4·8	6·0	5·9		2·9	3·9	4·6	5·2	5·7
	FUEL USED–kg	220	239	248	236		237	272	291	310	323
10	TIME–minutes/seconds	0:37	0:59	1:12	1:29		0:40	0:50	0:55	1:00	1:04
	DISTANCE–Anm	2·7	5·3	7·0	9·3		2·9	4·0	4·7	5·3	5·9
	FUEL USED–kg	221	244	257	274		240	277	296	317	331
20	TIME – minutes/seconds	0:37	1:02	1:20	1:56		0:41	0:51	0:56	1:01	1:05
	DISTANCE–Anm	2·8	5·8	8·0	12·8		3·0	4·1	4·8	5·5	6·0
	FUEL USED–kg	225	249	267	303		243	281	302	323	339
30	TIME–minutes/seconds	0:38	1:07	1:28	2:23		0:41	0:53	0:57	1:04	1:08
	DISTANCE–Anm	2·9	6·2	8·9	16·3		3·0	4·2	4·9	5·7	6·3
	FUEL USED–kg	227	255	277	332		246	286	308	331	348
40	TIME–minutes/seconds	0:40	1:11	1:37	2:50		0:43	0:53	0:59	1:05	1:10
	DISTANCE–Anm	2·9	6·7	9·9	19·7		3·1	4·4	5·1	6·0	6·6
	FUEL USED–kg	229	261	286	361		248	291	313	338	356
50	TIME–minutes/seconds	0:40	1:13	1:46			0:44	0:55	1:01	1:08	1:13
	DISTANCE–Anm	2·9	6·8	11·1			3·2	4·5	5·3	6·2	6·9
	FUEL USED–kg	232	264	298			252	295	320	347	368
60	TIME–minutes/seconds	0:41	1:14	1:55			0:44	0:56	1:03	1:10	1:16
	DISTANCE–Anm	3·0	7·0	12·3			3·2	4·6	5·5	6·5	7·3
	FUEL USED–kg	235	268	310			256	301	327	356	379
70	TIME–minutes/seconds	0:43					0:46	0:58	1:05	1:13	1:19
	DISTANCE–Anm	3·2					3·3	4·7	5·7	6·7	7·7
	FUEL USED–kg	240					259	307	335	368	393
80	TIME – minutes/seconds	0:44					0:46	0:59	1:07	1:16	1:23
	DISTANCE–Anm	3·5					3·4	4·9	5·9	7·1	8·1
	FUEL USED–kg	245					263	312	342	379	407

FIG. 7. 58

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 13000kg, ISA + 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME – minutes / seconds	0:46	1:10	1:17	1:32		0:50	1:01	1:07	1:13	1:18
	DISTANCE – Anm	5·5	6·2	7·7	9·0		3·8	5·0	5·8	6·6	7·2
	FUEL USED – kg	285	308	319	332		309	353	375	398	413
10	TIME – minutes/seconds	0:47	1:16	1:33	1:55		0:52	1:03	1:10	1:16	1:20
	DISTANCE – Anm	3·6	6·9	9·2	12·2		3·9	5·2	6·0	6·8	7·4
	FUEL USED – kg	291	319	336	359		314	359	383	408	425
20	TIME – minutes/seconds	0:48	1:22	1:46	2:20		0:53	1:05	1:11	1:18	1:22
	DISTANCE – Anm	3·7	7·6	10·7	15·0		3·9	5·3	6·1	7·1	7·7
	FUEL USED – kg	296	328	352	382		319	366	391	418	437
30	TIME – minutes/seconds	0:49	1:29	1:58	2:42		0:54	1:07	1:14	1:20	1:26
	DISTANCE – Anm	3·8	8·3	12·2	15·4		4·0	5·5	6·3	7·4	8·1
	FUEL USED – kg	301	339	368	415		323	372	399	428	449
40	TIME – minutes/seconds	0:50	1:35	2:11			0:56	1:09	1:16	1:23	1:29
	DISTANCE – Anm	4·0	9·0	13·7			4·1	5·7	6·6	7·6	8·4
	FUEL USED – kg	306	349	385			329	380	408	439	460
50	TIME – minutes/seconds	0:53	1:41	2:24			0:57	1:11	1:19	1:27	1:34
	DISTANCE – Anm	4·2	9·8	15·2			4·2	5·9	6·8	8·1	8·9
	FUEL USED – kg	312	363	406			336	389	419	454	478
60	TIME – minutes/seconds	0:56	1:47				0:58	1:13	1:22	1:31	1:38
	DISTANCE – Anm	4·4	10·7				4·3	6·0	7·1	8·4	9·5
	FUEL USED – kg	319	375				341	398	430	468	496
70	TIME – minutes/seconds	0:59					1:00	1:16	1:25	1:35	1:43
	DISTANCE – Anm	4·7					4·5	6·2	7·4	8·8	10·0
	FUEL USED – kg	325					348	406	442	483	515
80	TIME – minutes/seconds	1:02					1:02	1:18	1:28	1:39	1:47
	DISTANCE – Anm	4·9					4·6	6·5	7·7	9·2	10·5
	FUEL USED – kg	332					353	415	453	497	533

FIG. 7. 59

LOW LEVEL ACCELERATION FROM TAKE-OFF – MASS 15000 kg, ISA + 20°C

JAGUAR GR. MK.1 T. MK.2
DATA : ESTIMATED
FUEL : AVTUR/FS11

ENGINES : ADOUR MK.102/JP103
AL. 6 FEBRUARY 1978

DRAG INDEX		REHEAT CUT AT 350 kt V kt IAS					MAX. REHEAT V kt IAS				
		360	420	450	480		360	420	450	480	500
0	TIME–minutes / seconds	0:59	1:26	1:29			1:05	1:19	1:26	1:31	1:37
	DISTANCE–Anm	4·6	7·5	9·8			5·0	6·5	7·4	8·2	9·0
	FUEL USED–kg	370	399	410			403	450	476	503	522
10	TIME–minutes/seconds	1:02	1:39	1·54			1:08	1:22	1:29	1:36	1:41
	DISTANCE–Anm	4·8	8·3	12·0			5·2	6·7	7·7	8·7	9·5
	FUEL USED–kg	380	417	439			410	463	491	520	541
20	TIME – minutes/seconds	1:05	1:50	2:18			1:10	1:25	1:33	1:41	1:46
	DISTANCE–Anm	5·0	9·2	14·3			5·3	7·0	8·1	9·1	9·9
	FUEL USED–kg	390	434	468			416	476	506	537	560
30	TIME–minutes/seconds	1:08	2:01	2:42			1:13	1:29	1:37	1:44	1:51
	DISTANCE–Anm	5·3	10·2	16·9			5·5	7·3	8·4	9·5	10·2
	FUEL USED–kg	401	452	497			424	489	520	555	579
40	TIME–minutes/seconds	1:11	2:13	3:07			1:16	1:32	1:41	1:50	1:56
	DISTANCE–Anm	5·6	11·2	19·7			5·8	7·6	8·8	10·0	10·9
	FUEL USED–kg	410	471	526			441	503	535	572	598
50	TIME–minutes/seconds	1:16	2:38	3:41			1:20	1:37	1:46	1:56	2:04
	DISTANCE–Anm	5·9	13·9	24·4			6·0	8·0	9·2	10·5	11·6
	FUEL USED–kg	424	499	569			457	518	556	594	625
60	TIME–minutes/seconds	1:21	3:25				1:24	1:41	1:51	2:02	2:10
	DISTANCE–Anm	6·3	20·9				6·3	8·3	9·6	11·1	12·3
	FUEL USED–kg	437	558				468	535	575	617	650
70	TIME–minutes/seconds	1:26					1:29	1:47	1:58	2:10	2:19
	DISTANCE–Anm	7·5					6·7	8·8	10·2	11·8	13·1
	FUEL USED–kg	459					486	557	598	646	684
80	TIME – minutes/seconds						1:31	1:53	2:05	2:17	2:28
	DISTANCE–Anm						7·0	9·3	10·8	12·5	14·1
	FUEL USED–kg						503	578	621	676	719

FIG. 7. 60

SECTION 8
TACTICAL / COMBAT PERFORMANCE

SECTION 8

TACTICAL/COMBAT PERFORMANCE

CONTENTS

FIGURES

Conversion Charts

1. Fig. 8.1 enables the wing incidence (the angle between the wing datum and flight path) to be determined from any combination of mass, normal g, altitude and Mach number. An example is shown on the figure.

2. Fig. 8.2 is a universal chart giving the rate and radius of a steady banked turn in terms of normal g, ambient temperature, and either T.A.S. or Mach number. The relationship between normal g and bank angle is also given. An example is shown on the figure.

Supersonic Performance

3. Supersonic cruise range (Anm/kg) and fuel consumption (kg/min) for the clean aircraft and for an aircraft with five empty pylons are obtained from Fig. 8.3 to 8.6. At supersonic speeds the difference in performance between the GR.Mk.1 and the T.Mk.2 is negligible.

Maximum Sustained Normal g

4. Maximum sustained (thrust limited) normal g for a range of drag index values using max. dry power is obtained from Fig. 8.7 to 8.12, and using max. reheat power from Fig. 8.13 to 8.18. Linear interpolation should be used for intermediate drag index values.

Note...

Limitations on normal acceleration may exist for some store configurations. Reference should be made to the Release to Service for the current limitations.

Acceleration Data

5. Level acceleration data is presented in tabular form on Fig. 8.19 to 8.54. Each table shows, for a range of drag index values at constant mass and ambient temperature; the time taken (minutes), the distance covered (Anm) and the total fuel used (kg) during accelerations using max. dry and max., reheat power. In addition each table shows the maximum achievable Mach number (M_{max}) for each value of drag index.

Note...

Mach number limitations may apply to some store configurations. Reference should be made to the Release to Service for the current limitations.

Combat Ceiling

6. Combat ceiling (500 ft/min. climb rate available) in max. dry and max. reheat power are shown on Fig. 8.55 to 8.64 as functions of mass, drag index value and ambient temperature.

Examples

7. a. Find the maximum sustained normal g in the following conditions:–

Power setting	Max. dry
Drag index value	0
Mach number	0.75
Altitude	10,000 ft
Ambient temperature	25°C (I.A.S. + 10°C)
Mass	9,000 kg

From Fig. 8.7 the maximum sustained normal g is 2.5.

b. Find the combat ceiling in the following conditions:–

Power setting	Max dry
Drag index value	0
Mach number	0.70
Ambient temperature	25°C (I.S.A. + 10°C)
Mass	10,000 kg

From Fig. 8.55 the combat ceiling is 30,500 ft.

c. Find the maximum combat ceiling and the Mach number at which it will be achieved in the following conditions:–

Power setting	Max. dry
Drag index value	0
Ambient temperature	25°C (I.S.A. + 10°C)
Mass	10,000 kg

From Fig. 8.55:–

the maximum combat ceiling is 35,600 ft

the Mach number at which it will be achieved is 0.89.

FLIGHT INCIDENCE

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975

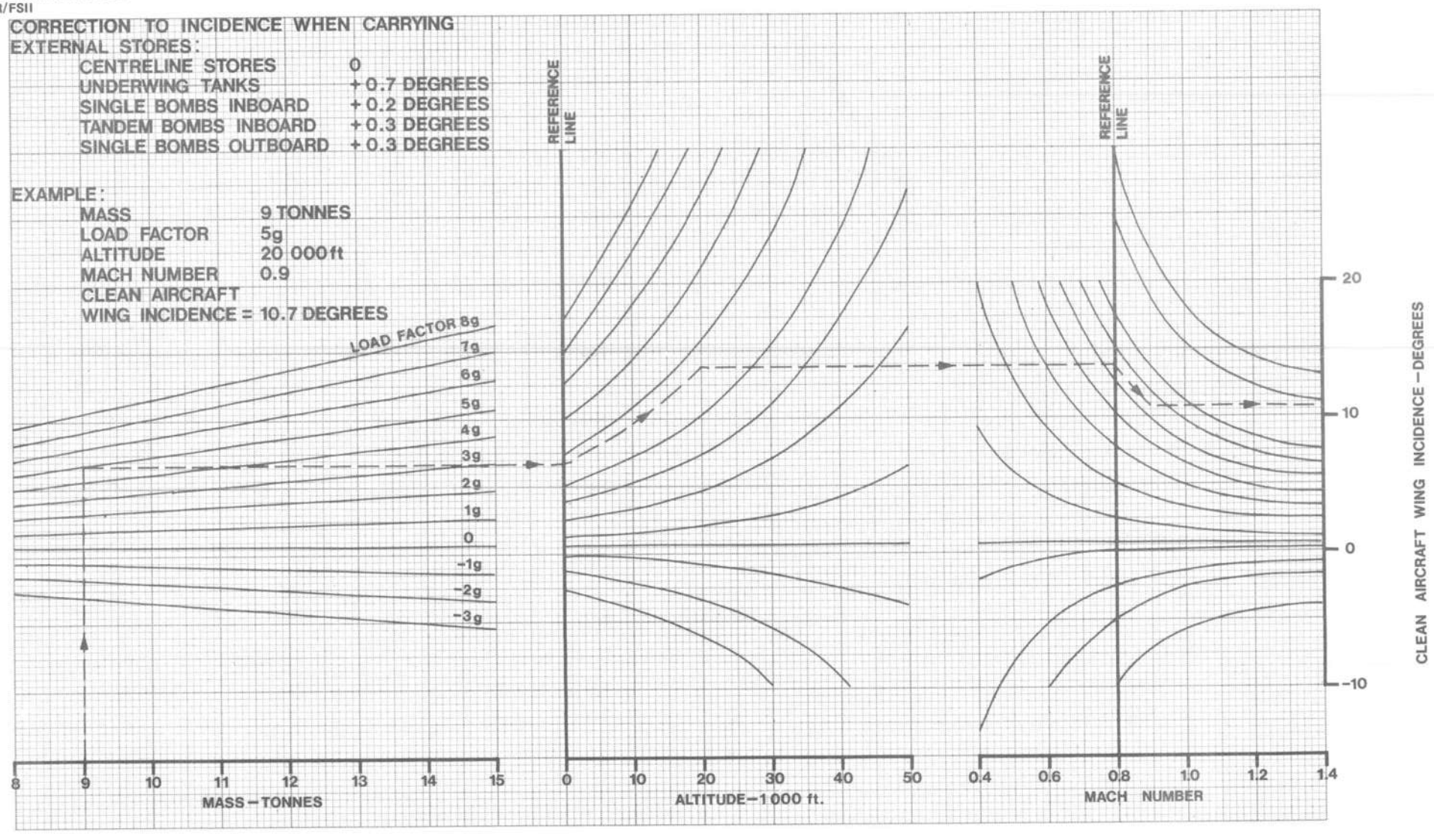


FIG.8.1

RATE AND RADIUS OF A STABILISED BANKED TURN

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

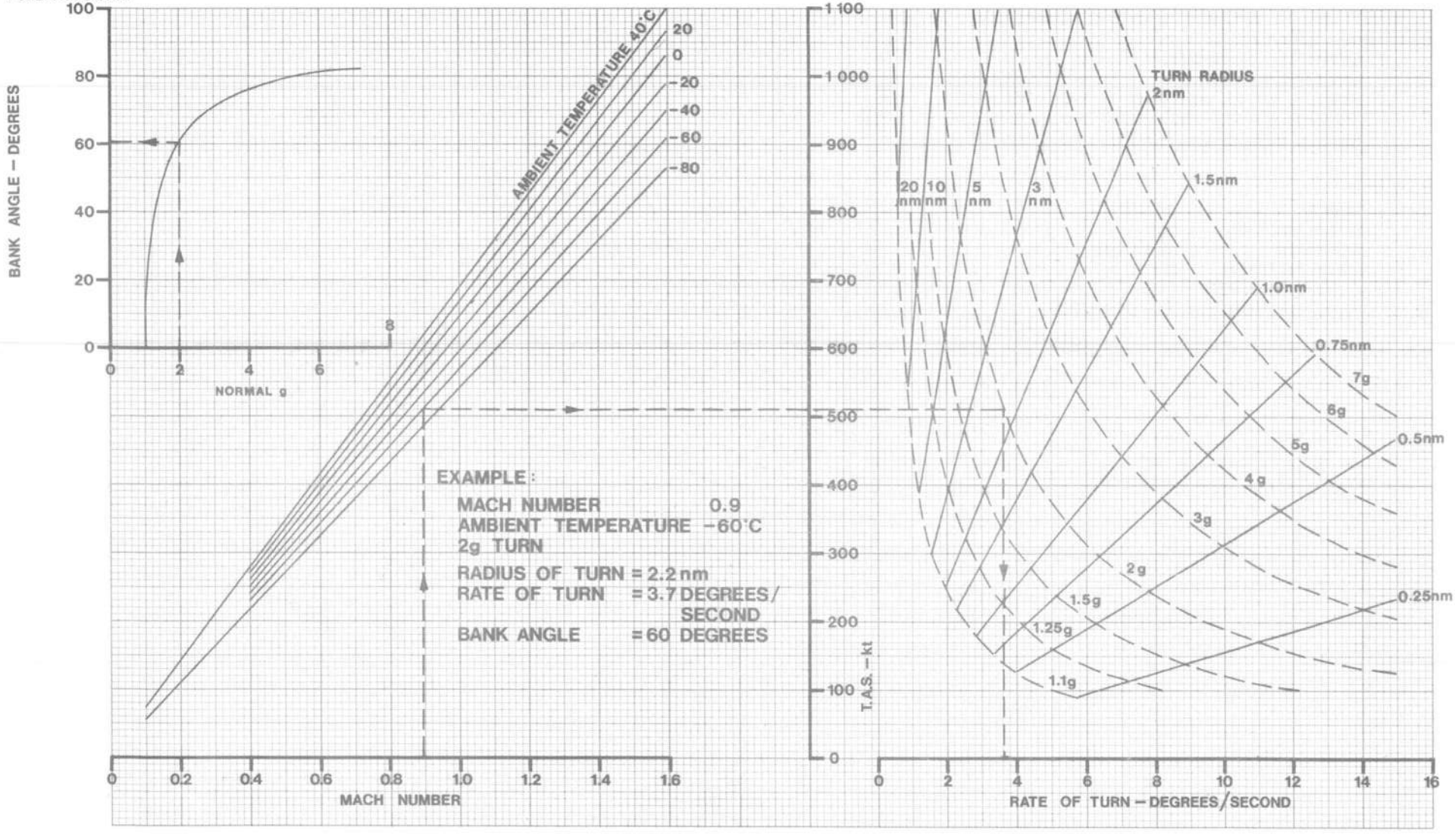


FIG.8.2

SUPERSONIC CRUISE RANGE – CLEAN AIRCRAFT, MASS 9 000 kg, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

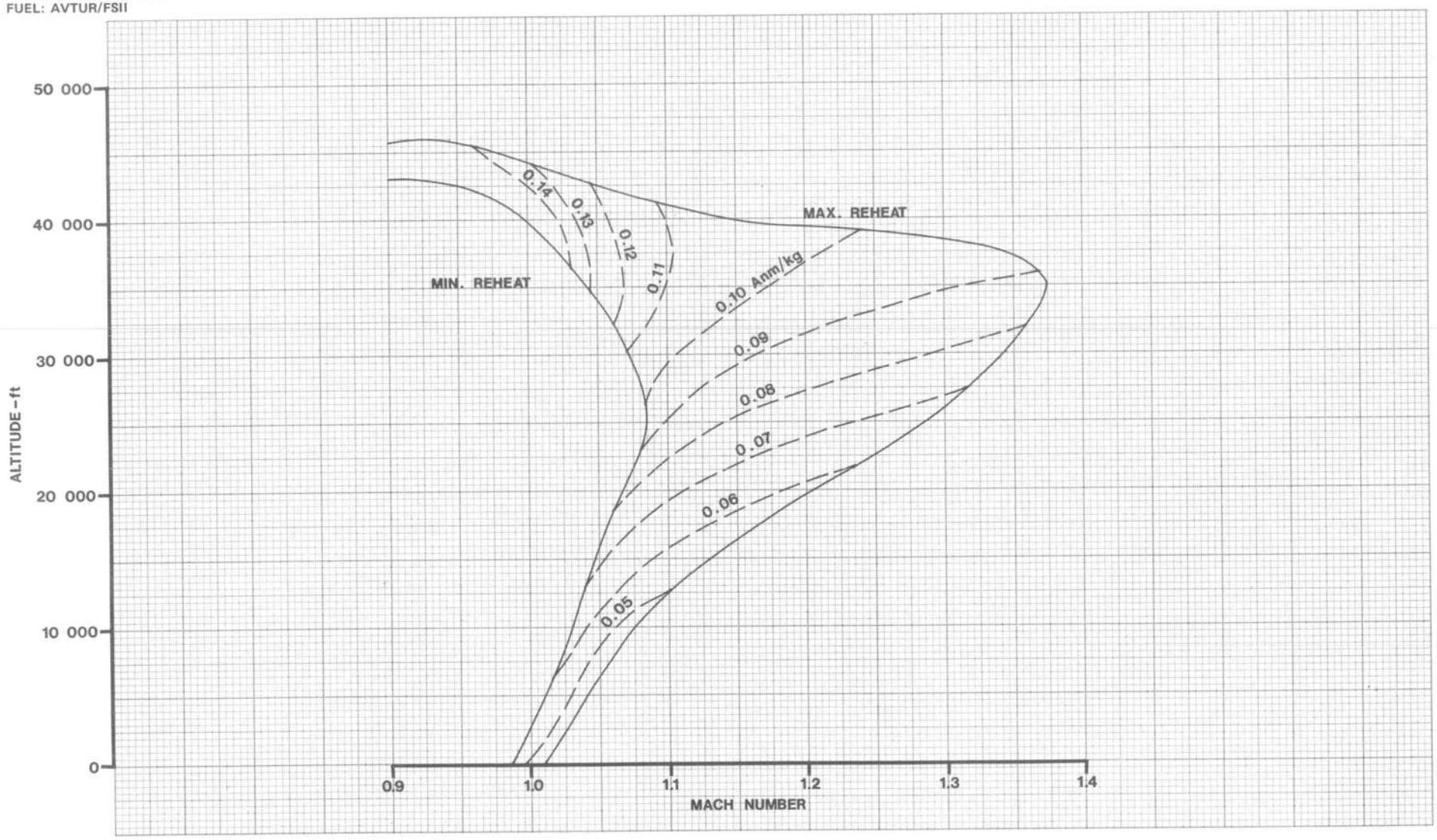


FIG. 8.3

SUPERSONIC CRUISE FUEL CONSUMPTION - CLEAN AIRCRAFT, MASS 9 000 kg, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

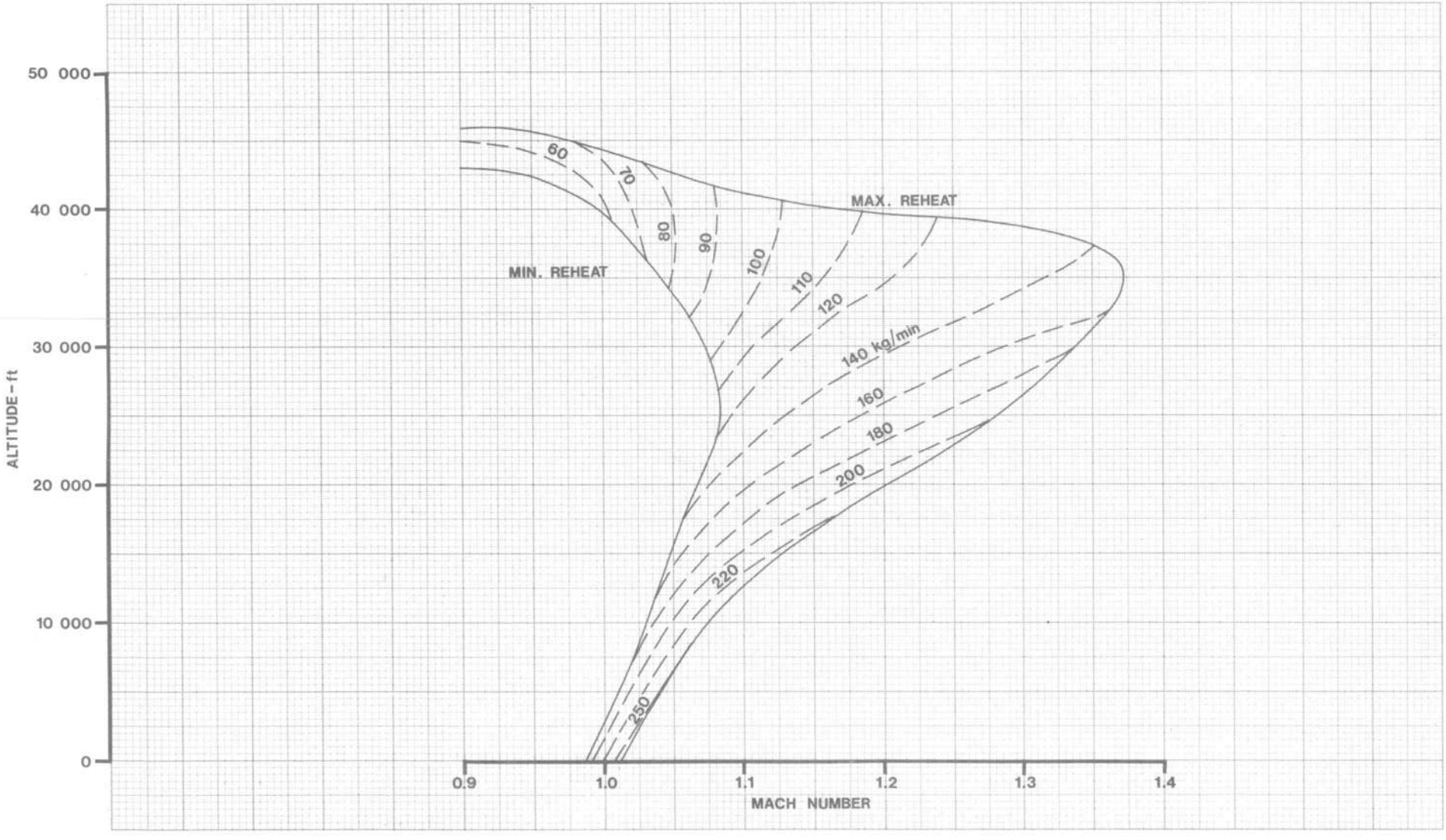


FIG. 8.4

SUPERSONIC CRUISE RANGE – AIRCRAFT + FIVE EMPTY PYLONS, MASS 9 500 kg, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

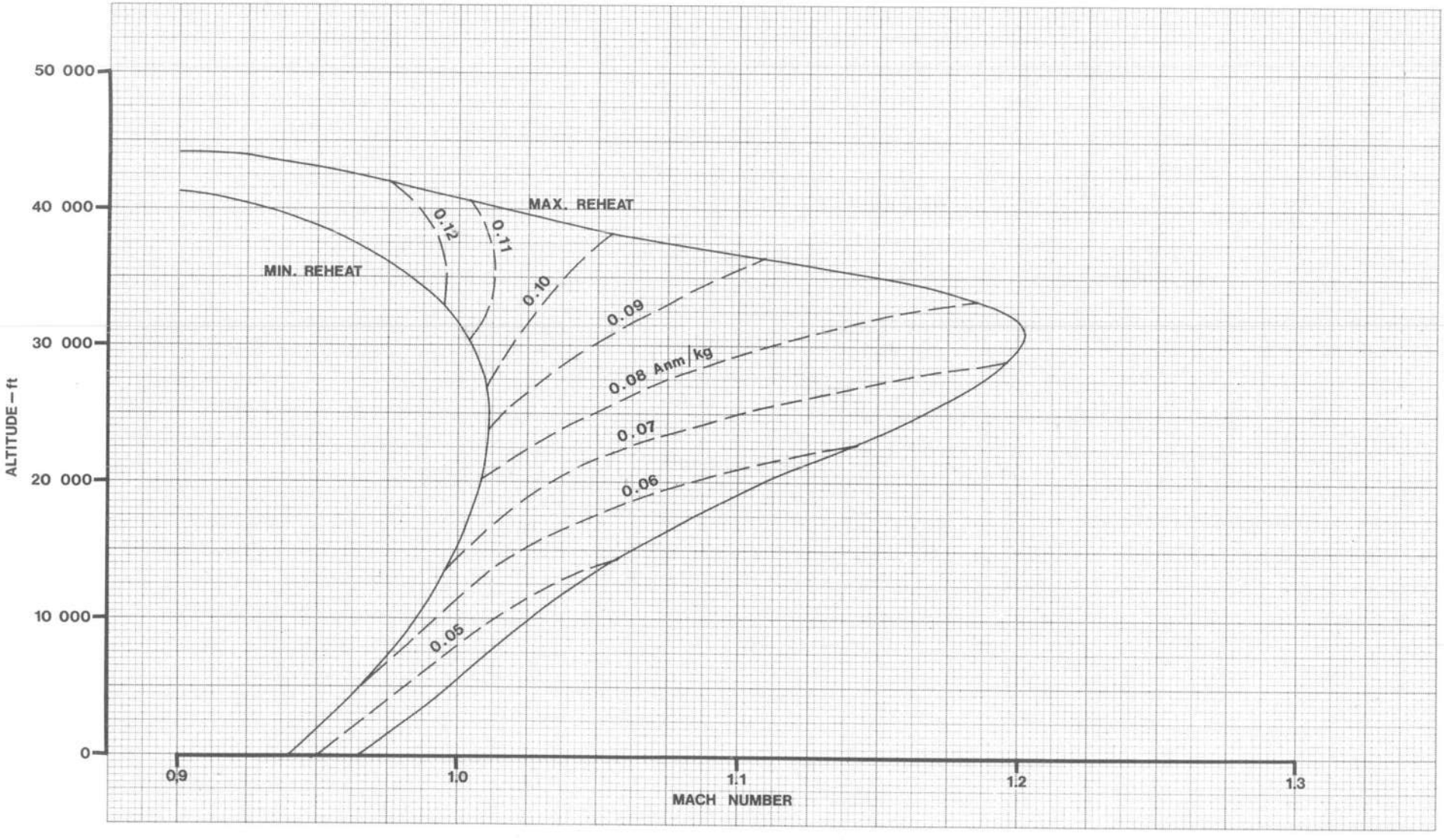


FIG. 8.5

SUPERSONIC CRUISE FUEL CONSUMPTION — AIRCRAFT + FIVE EMPTY PYLONS, MASS 9 500 kg, I.S.A.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975

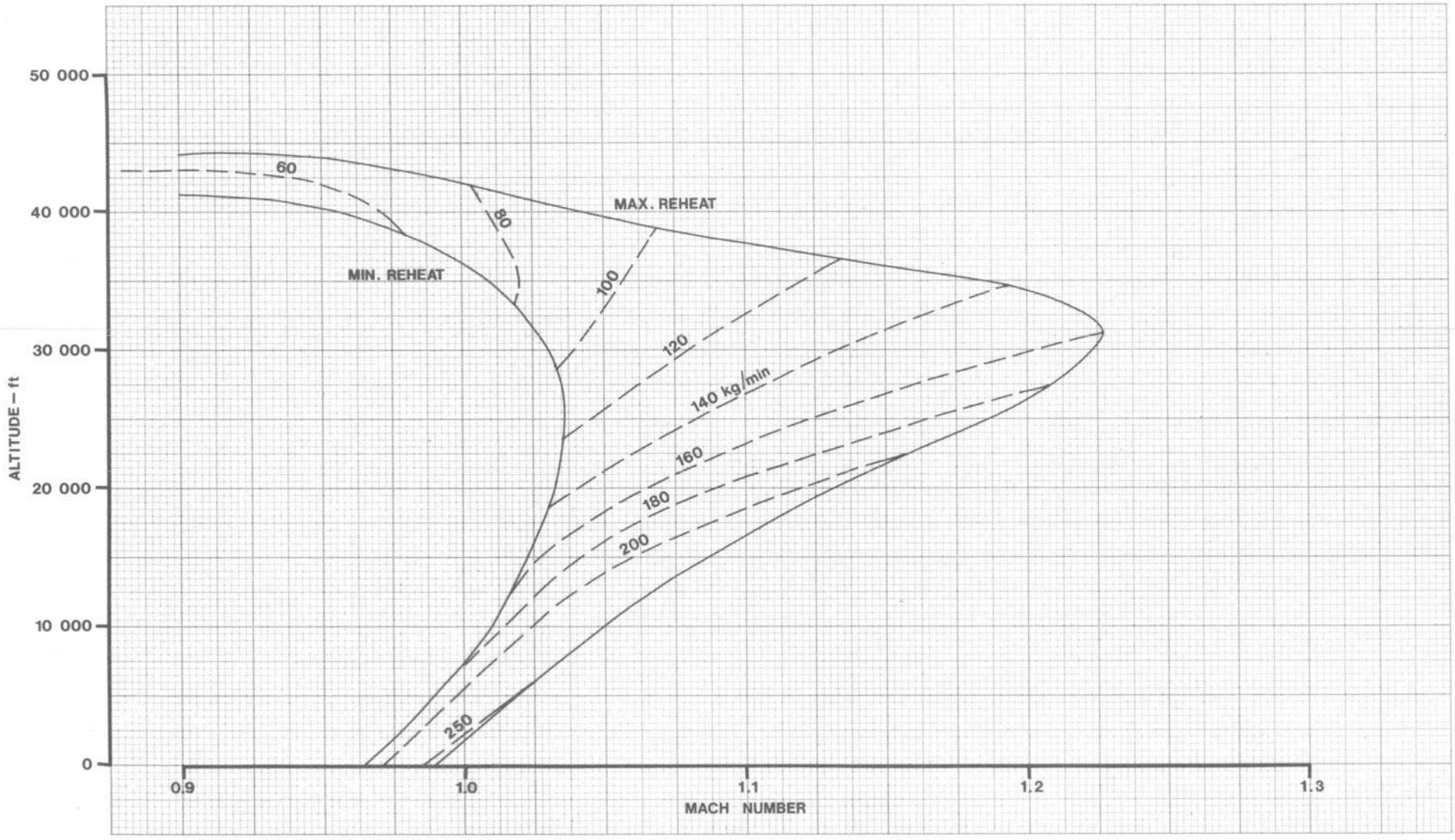


FIG. 8.6

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 0

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

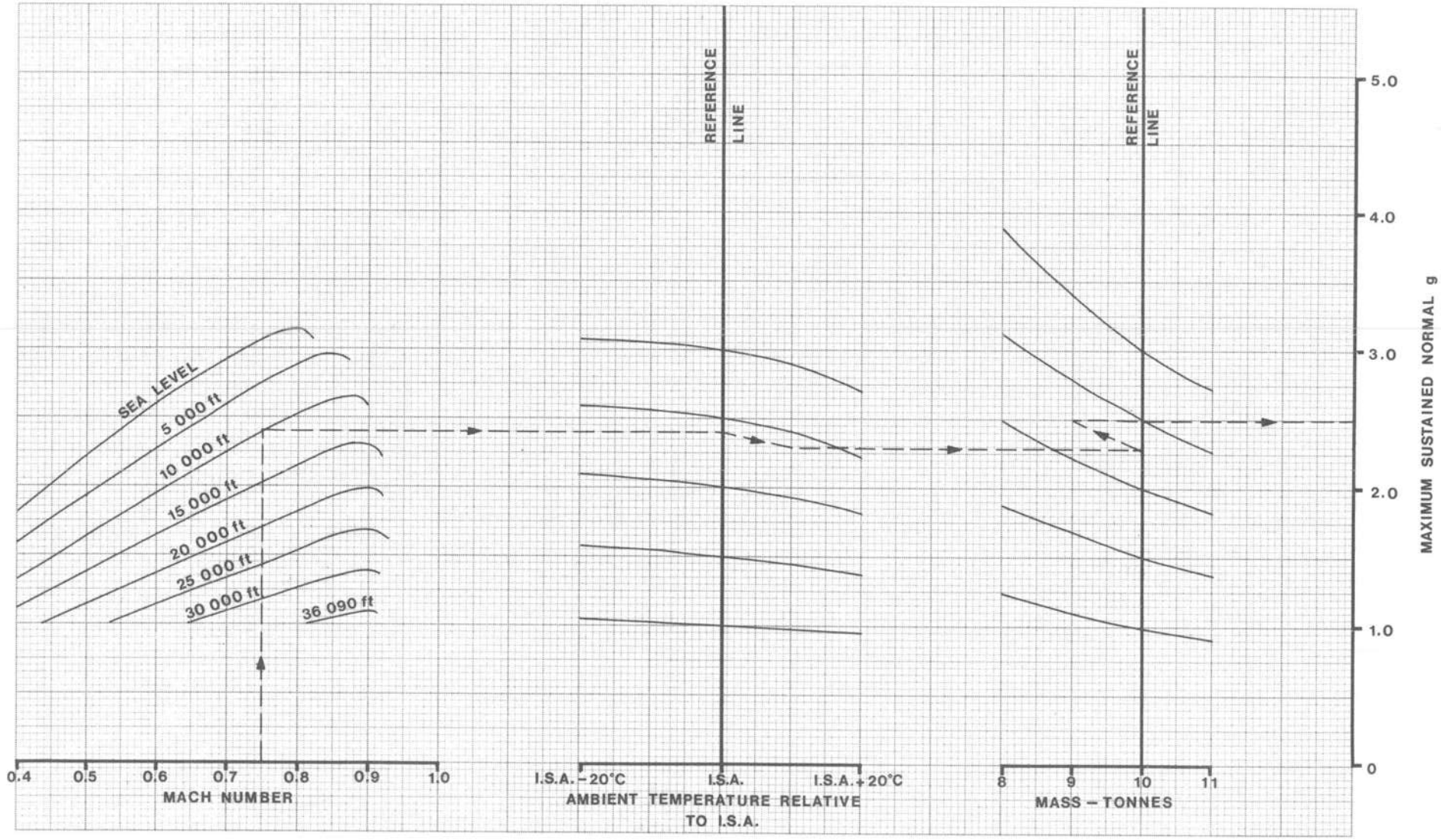


FIG. 8.7

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 10

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

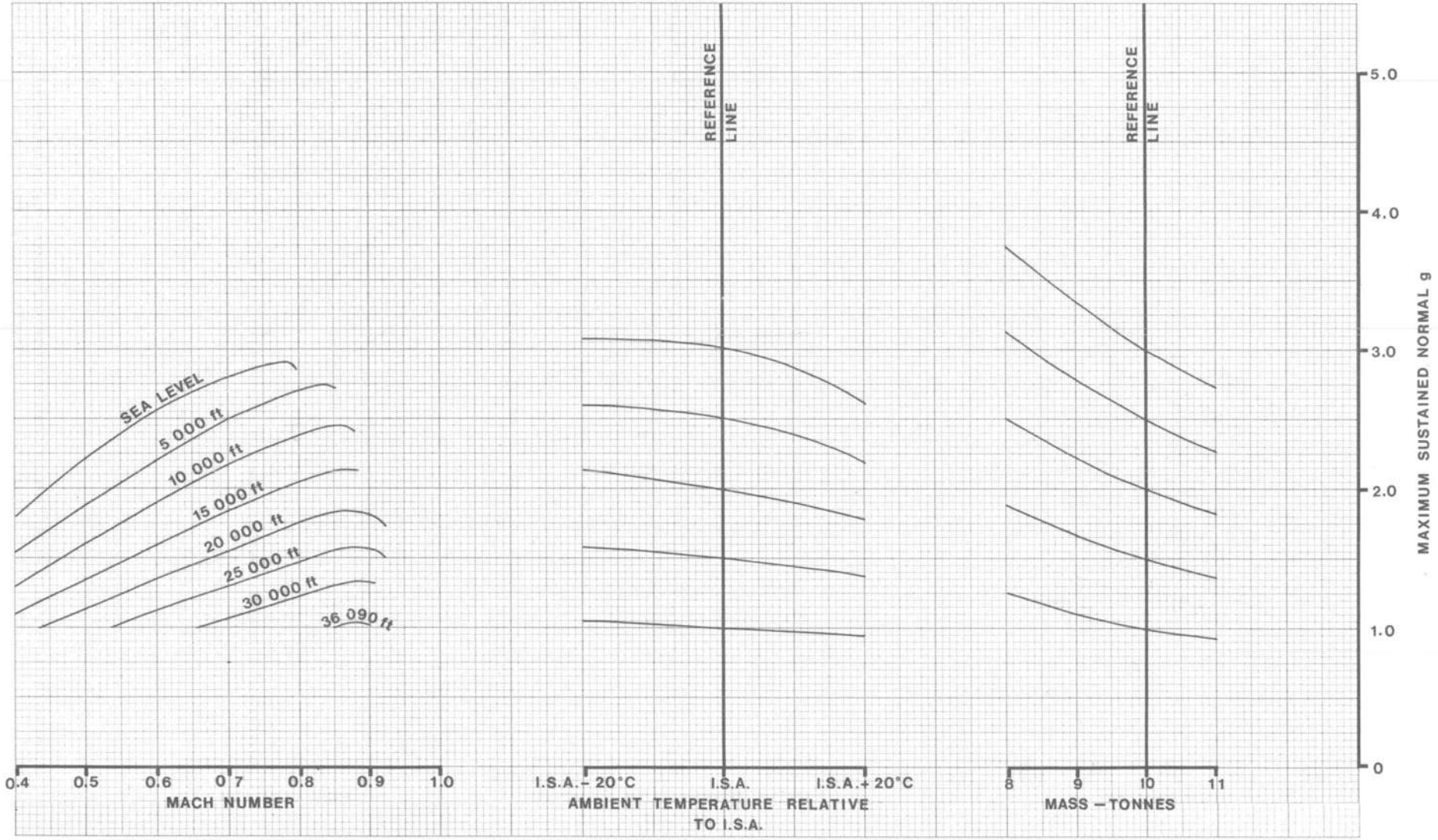


FIG. 8.8

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 20

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

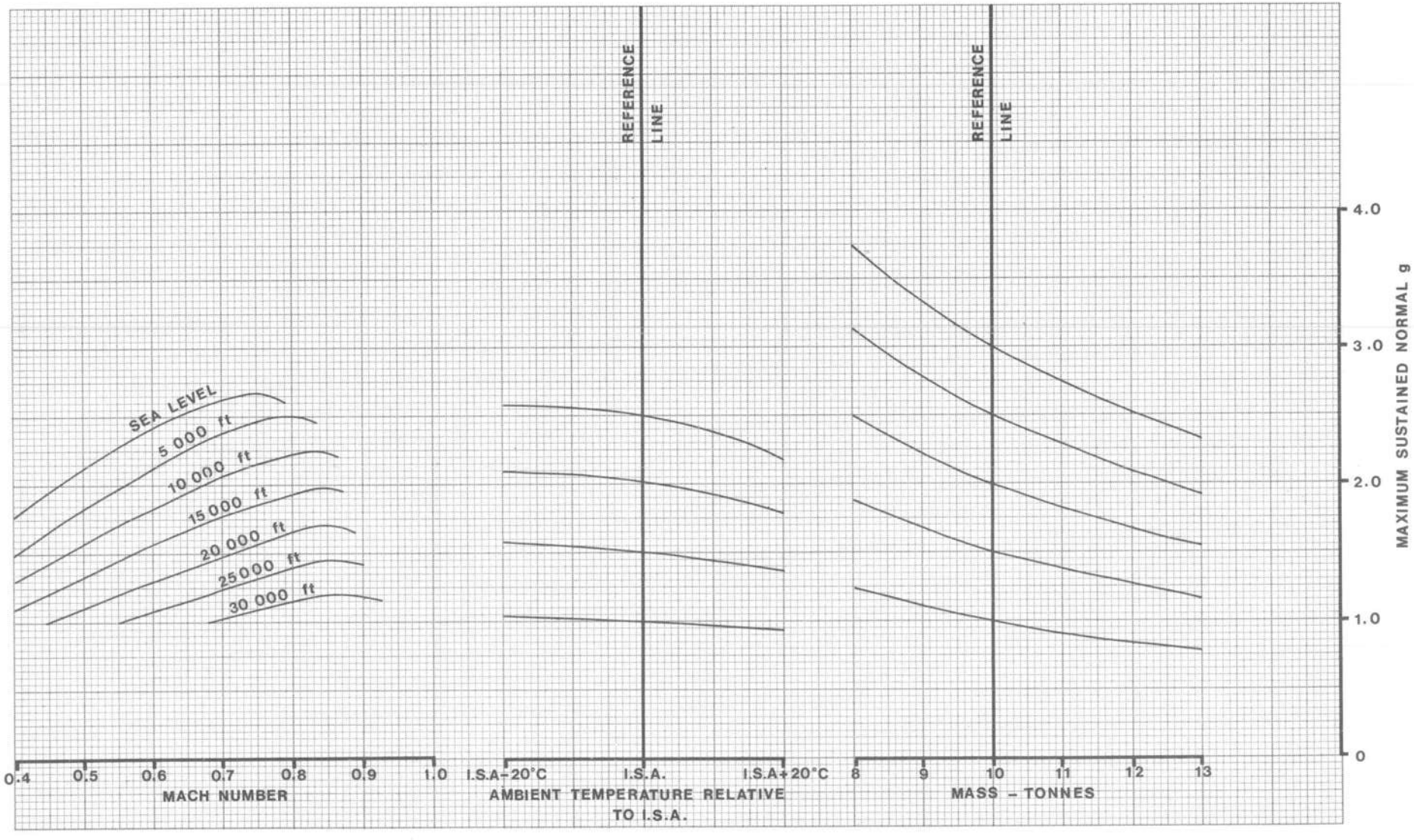


FIG. 8.9

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 40

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

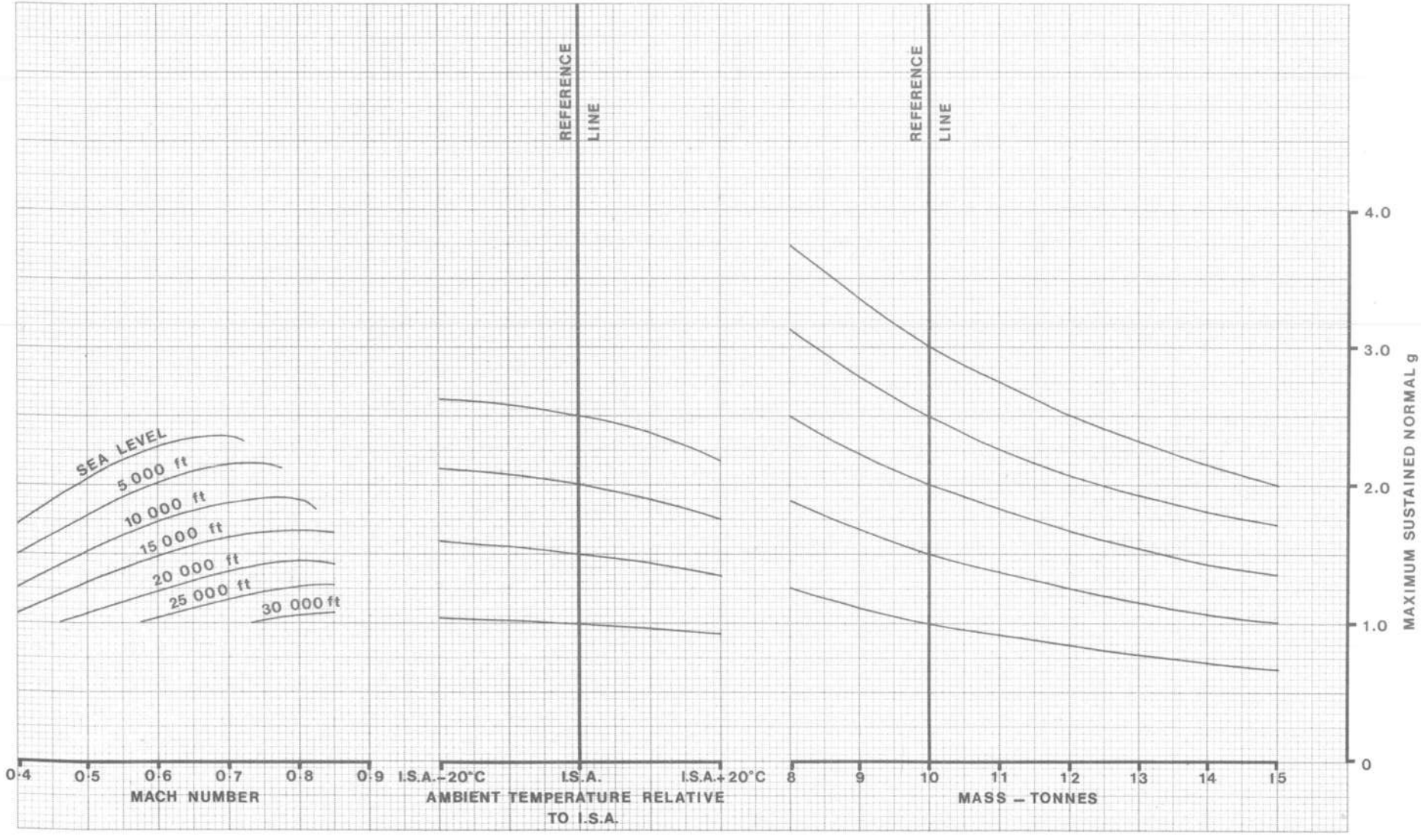


FIG. 8.10

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 60

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

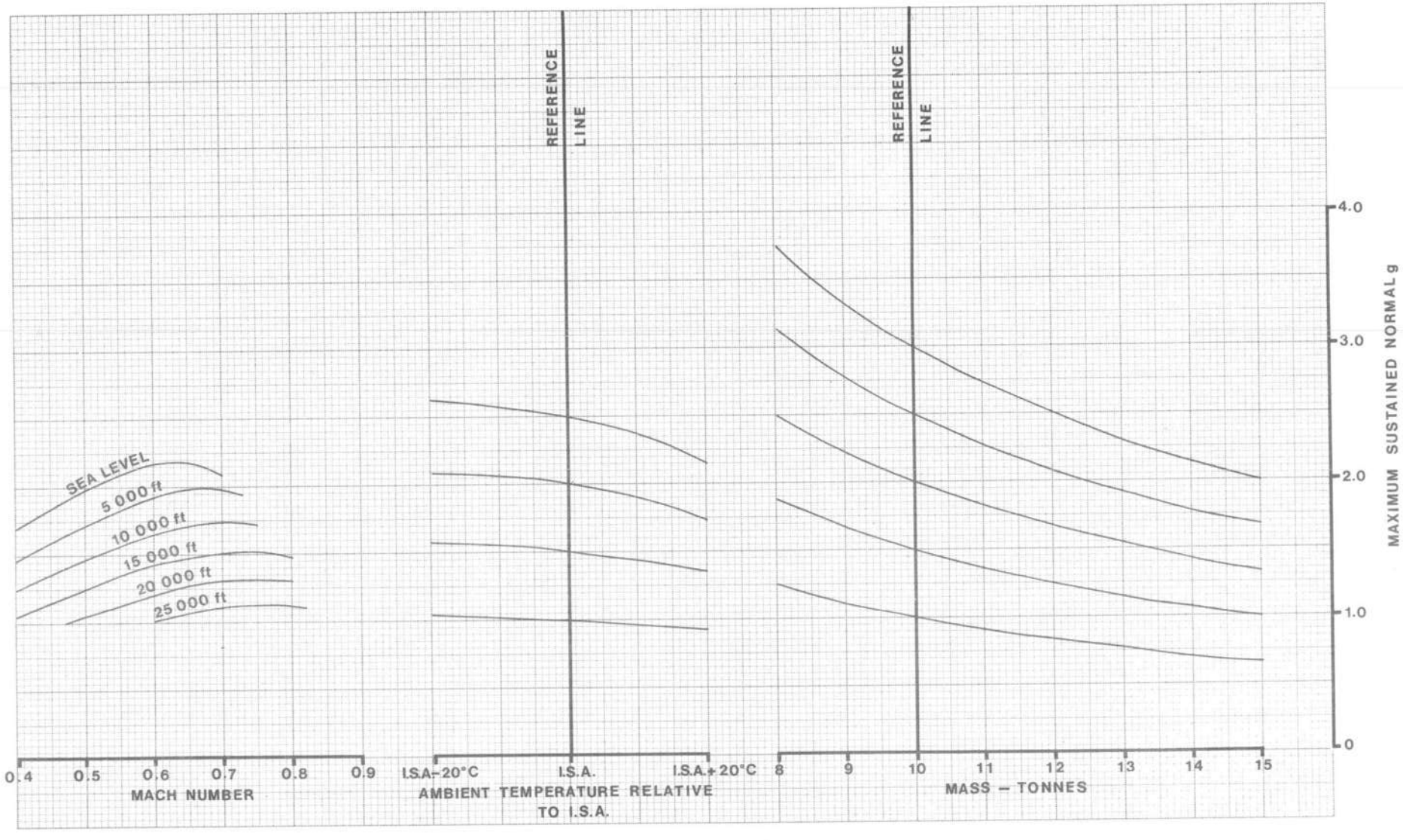


FIG. 8.11

MAXIMUM SUSTAINED NORMAL g — MAX. DRY, DRAG INDEX 80

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

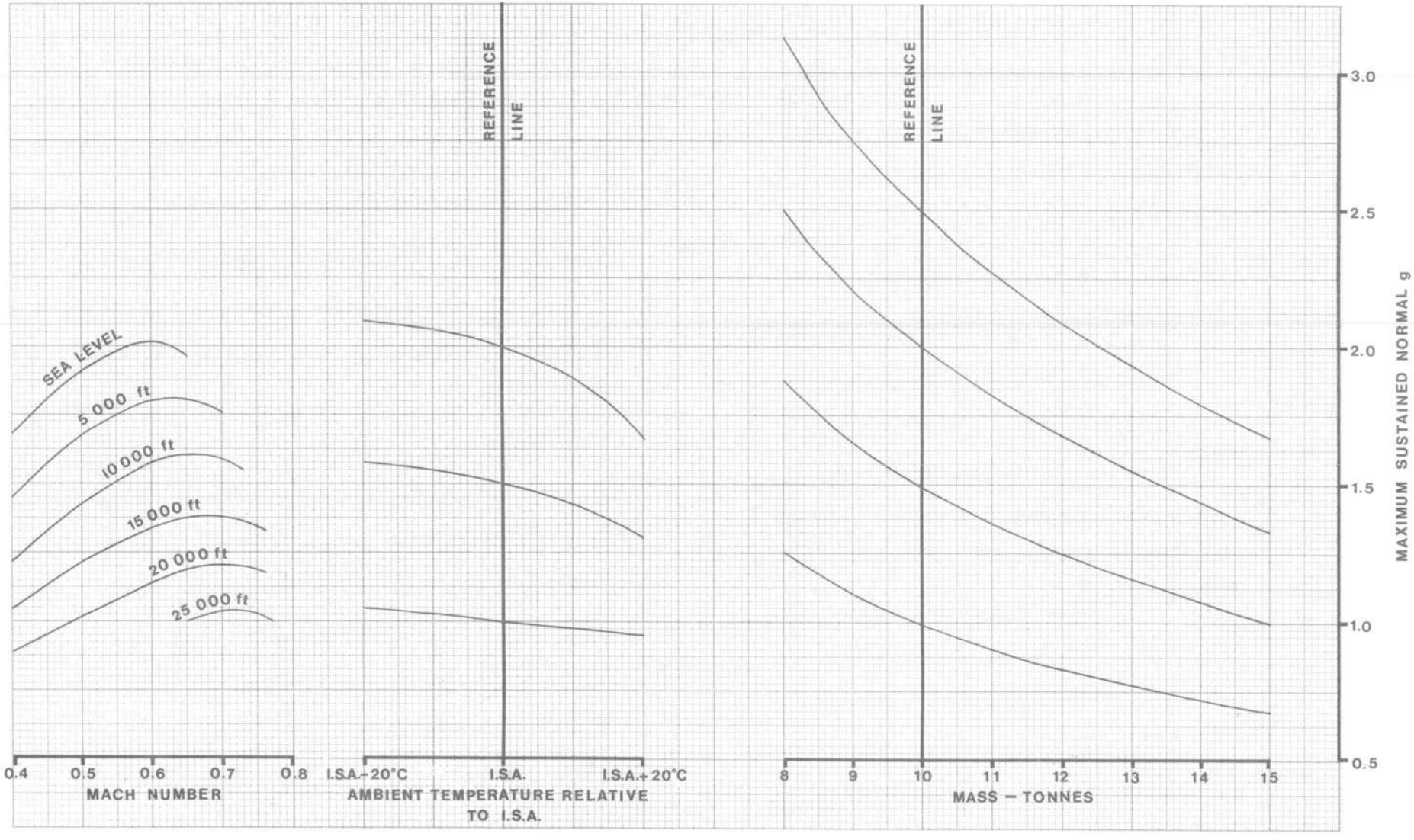


FIG. 8.12

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 0

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

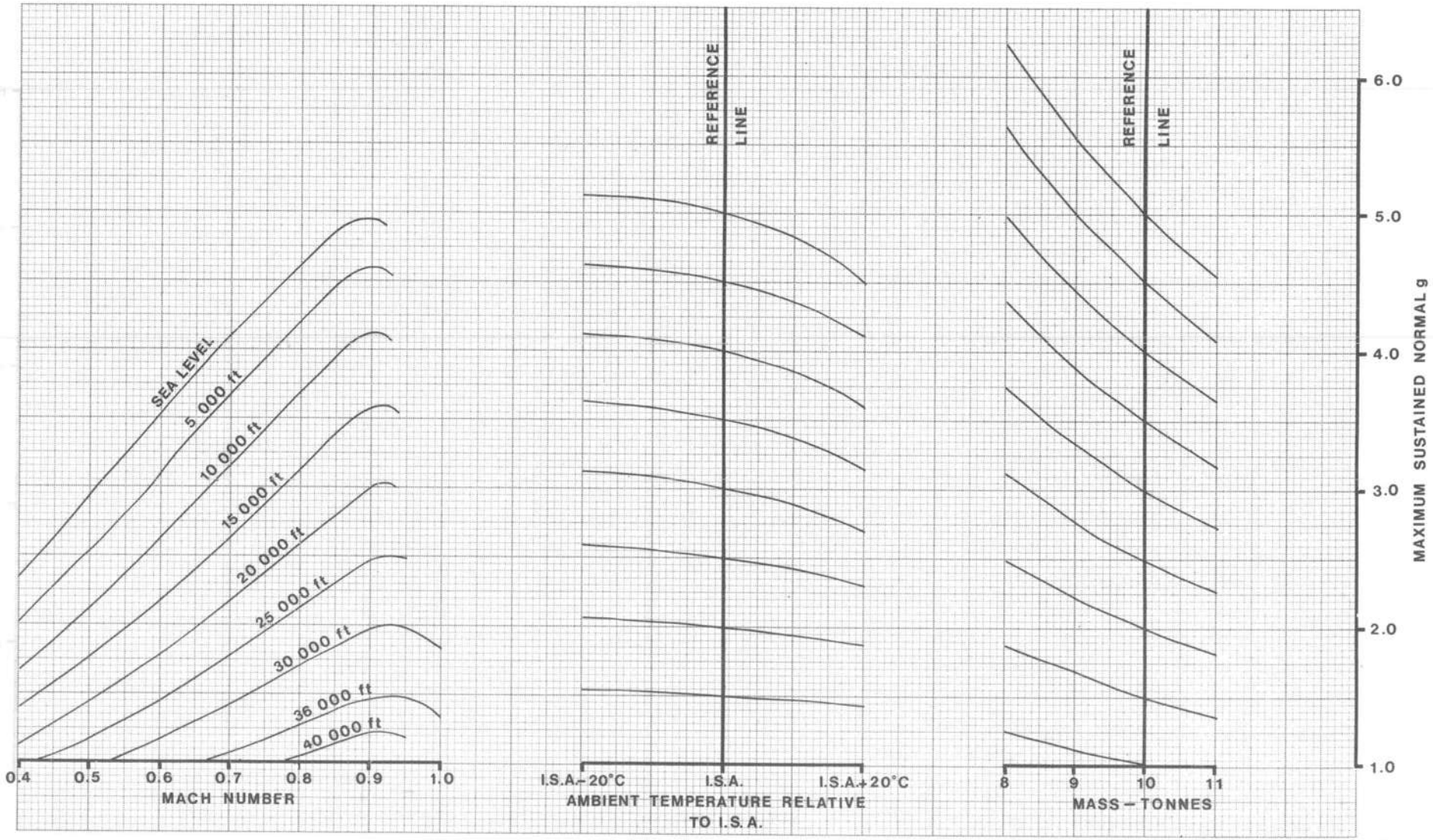


FIG. 8.13

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 10

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

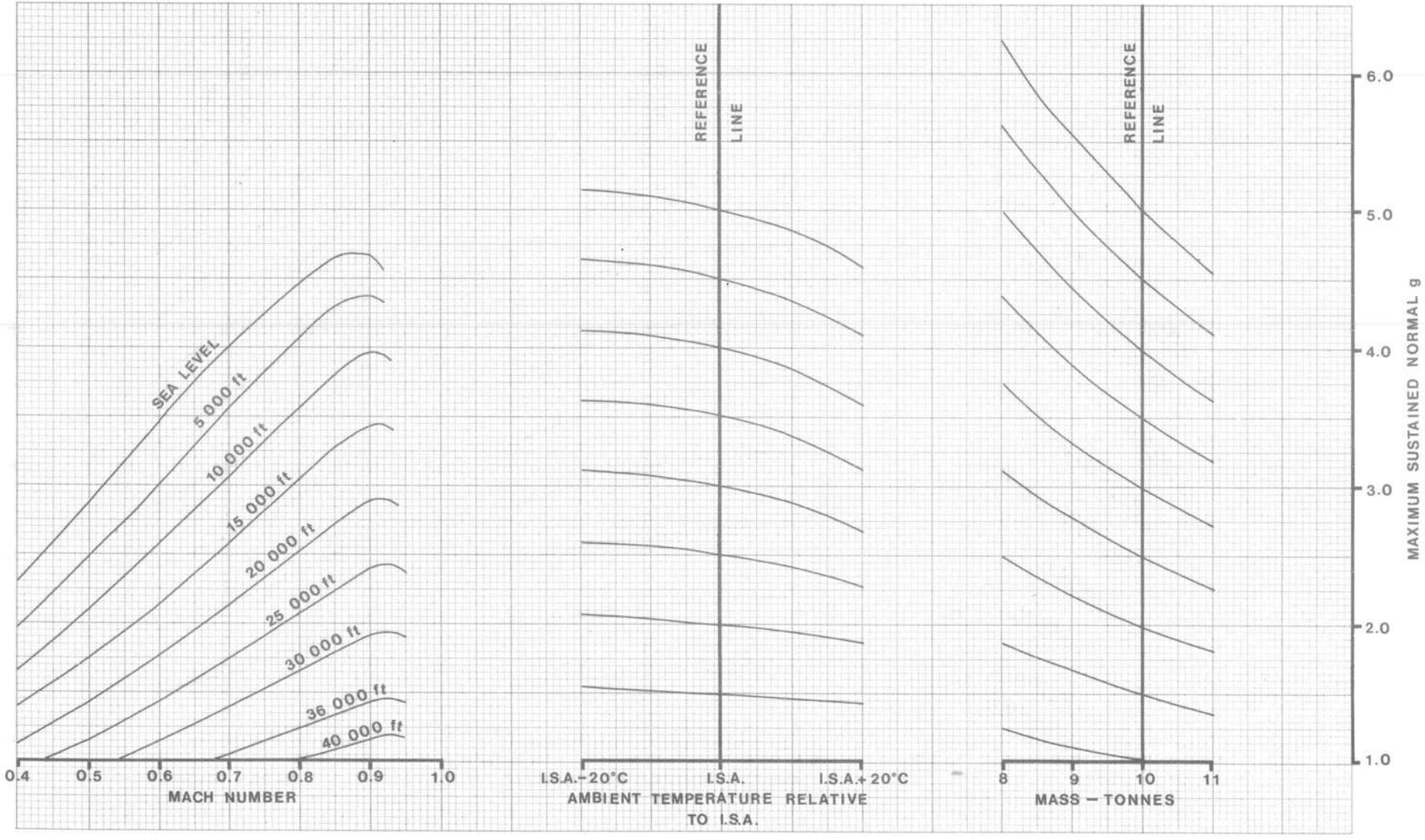


FIG. 8.14

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 20

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

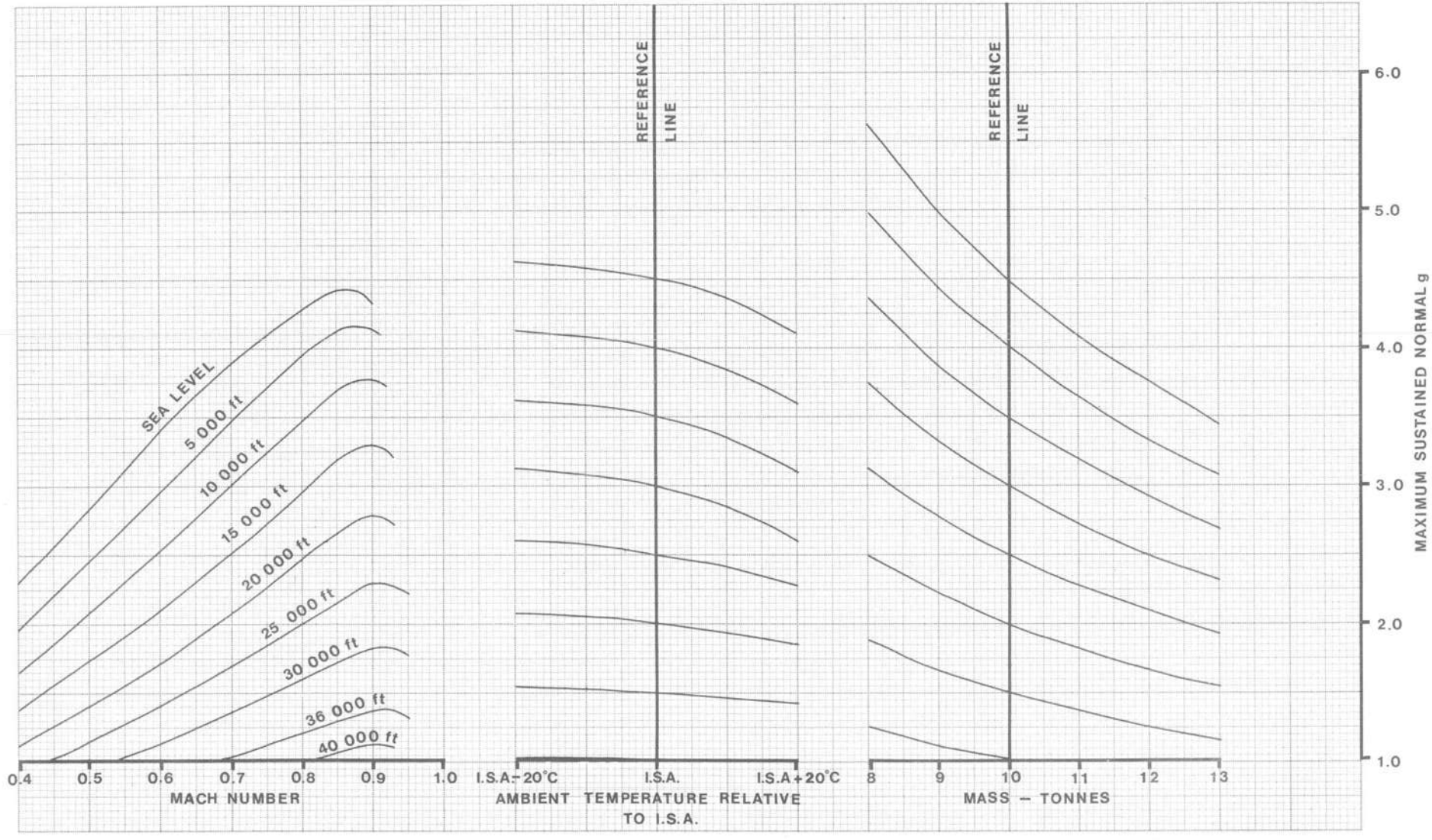


FIG. 8.15

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 40

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

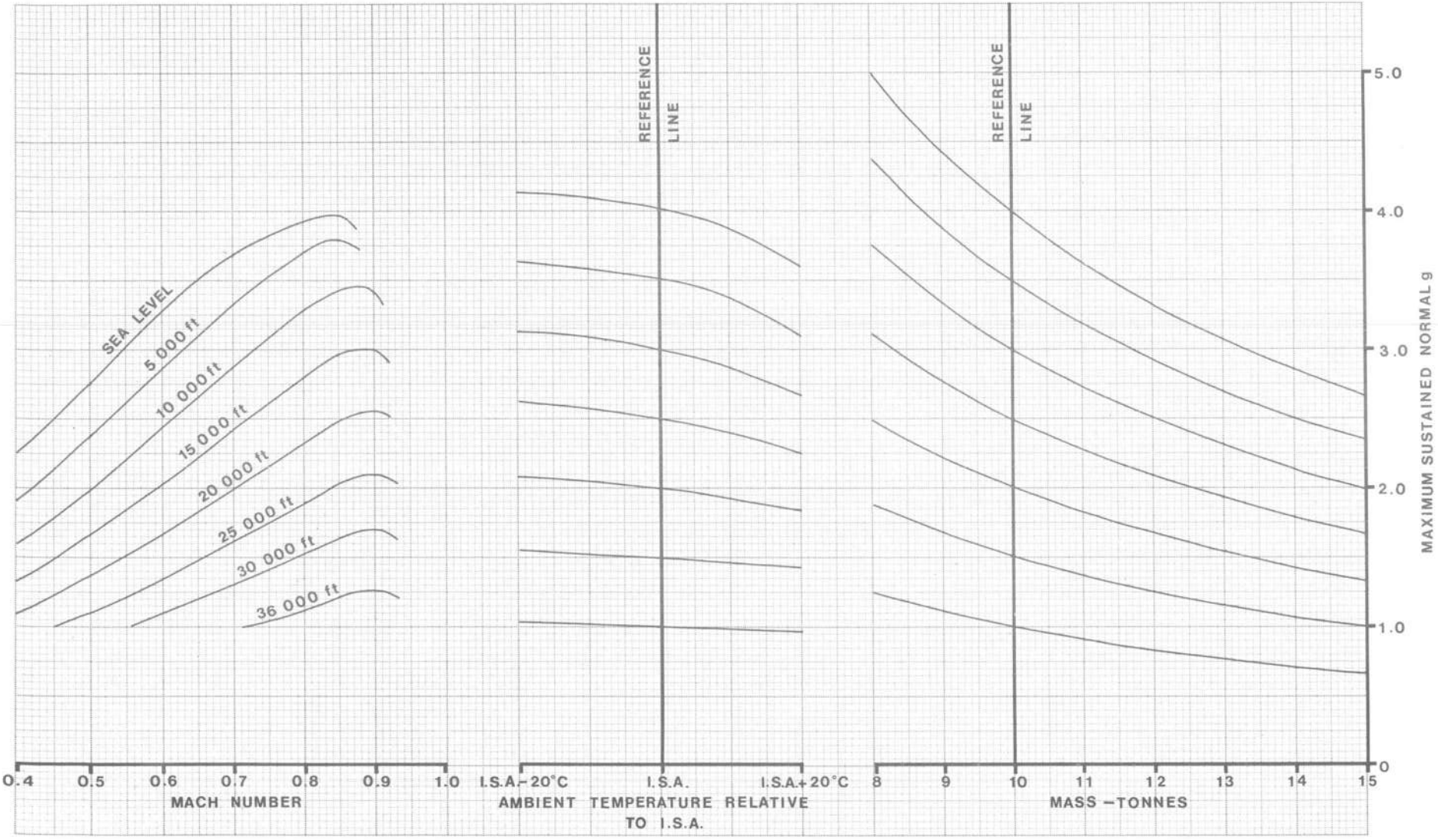


FIG. 8.16

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 60

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

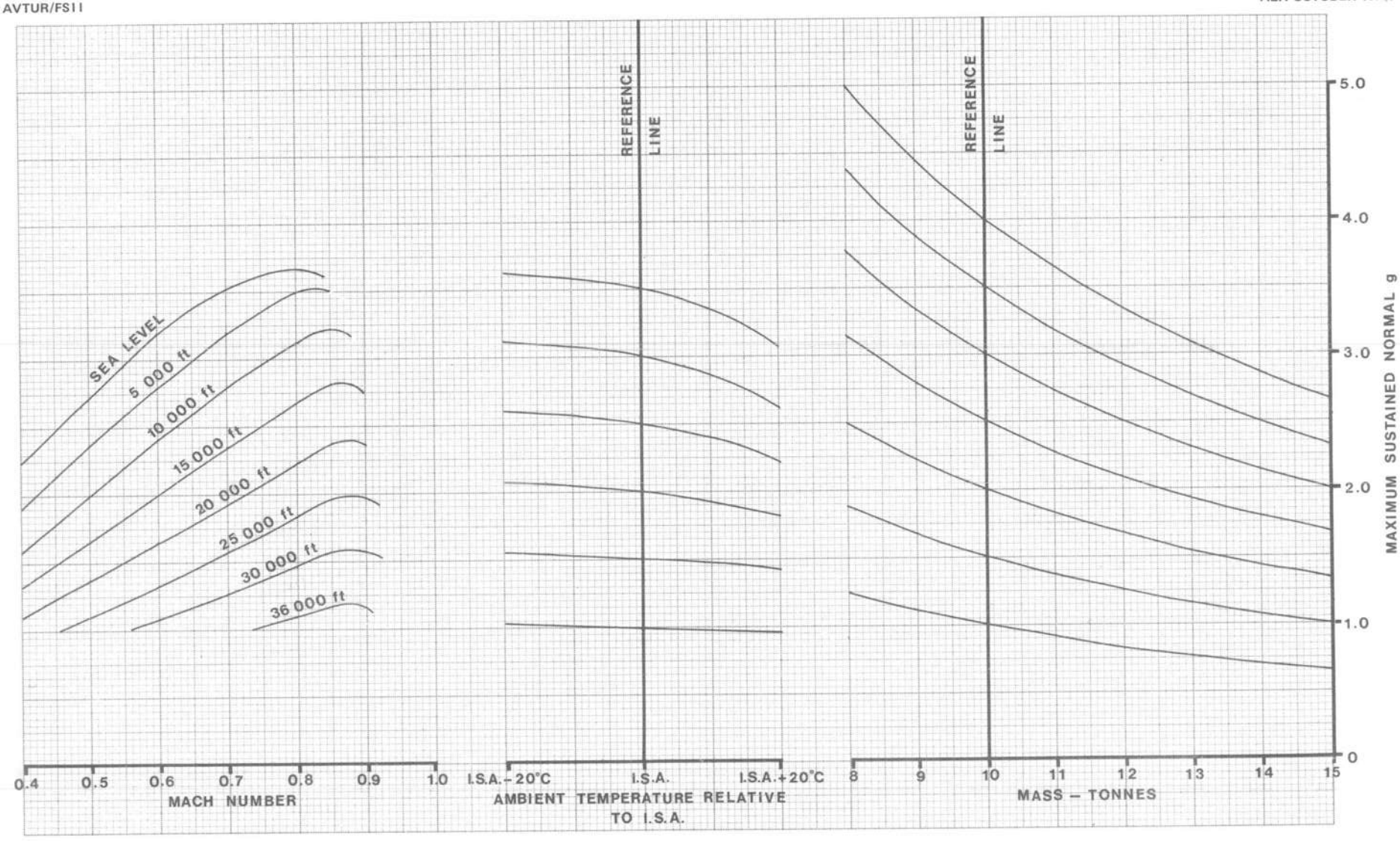


FIG. 8.17

MAXIMUM SUSTAINED NORMAL g — MAX. REHEAT, DRAG INDEX 80

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

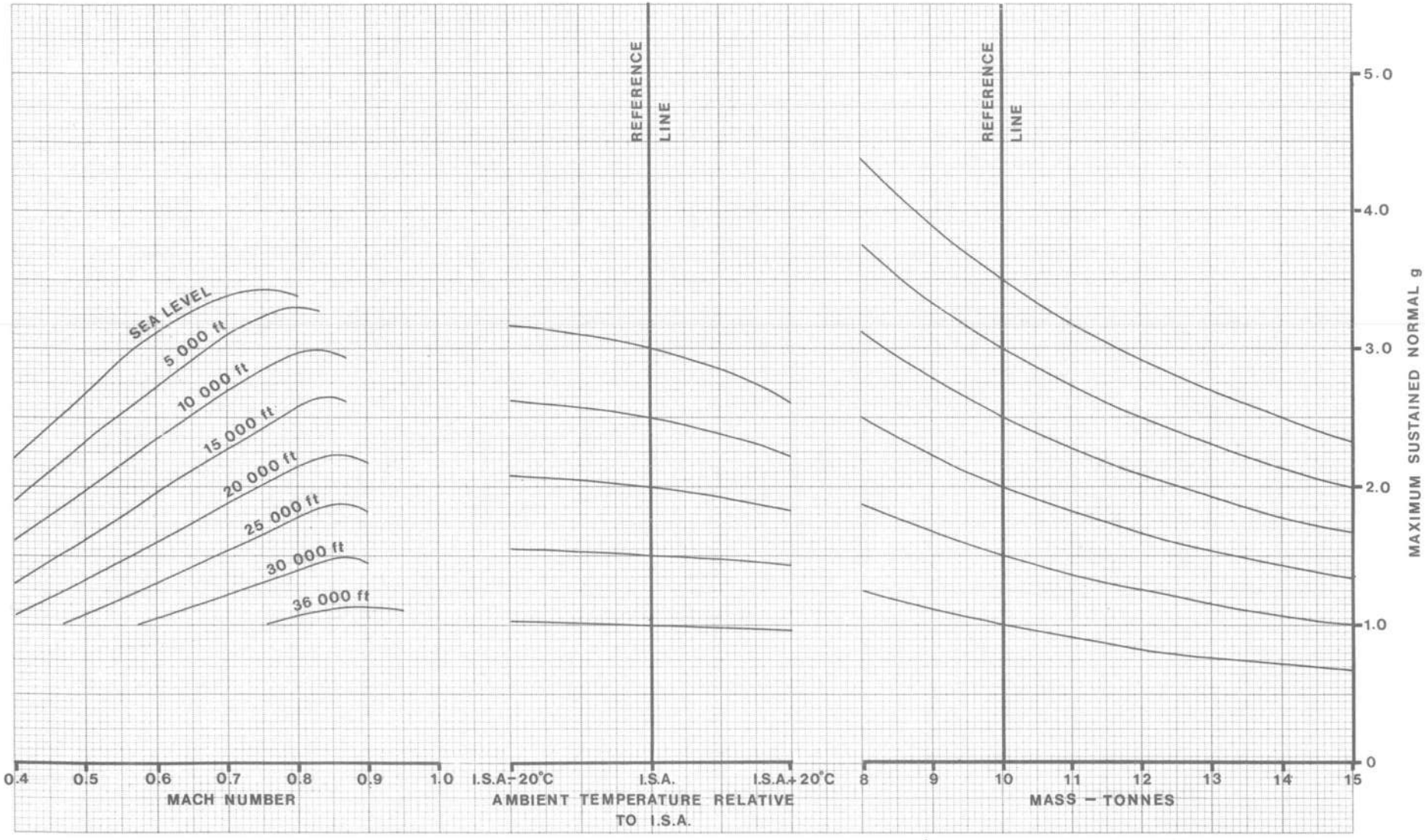


FIG. 8.18

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5 M AT SEA LEVEL — MASS 9 000 kg, I.S.A. −20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.70	0.75	0.80	0.85	0.90	0.60	0.70	0.80	0.90	0.95	1.00		
0	TIME – minutes	0.20	0.43	0.57	0.74	0.96	1.32	0.10	0.20	0.31	0.44	0.52	0.69	0.92	1.02
	DISTANCE – Anm	1.0	3.0	4.0	5.0	7.0	10.0	1.0	1.0	2.0	3.0	4.0	6.0		
	FUEL USED – kg	12.0	27.0	36.0	46.0	60.0	82.0	25.0	51.0	79.0	111.0	133,0	178.0		
10	TIME – minutes	0.21	0.46	0.62	0.82	1.10	1.94	0.10	0.21	0.32	0.46	0.56		0.90	1.00
	DISTANCE – Anm	1.0	3.0	4.0	6.0	8.0	16.0	1.0	1.0	2.0	3.0	4.0			
	FUEL USED – kg	13.0	28.0	38.0	51.0	68.0	121.0	25.0	52.0	82.0	117.0	142.0			
20	TIME – minutes	0.22	0.49	0.67	0.92	1.33		0.10	0.21	0.33	0.48	0.62		0.88	0.97
	DISTANCE – Anm	1.0	3.0	5.0	7.0	10.0		1.0	1.0	2.0	4.0	5.0			
	FUEL USED – kg	13.0	30.0	42.0	57.0	83.0		26.0	53.0	85.0	123.0	158.0			
30	TIME – minutes	0.23	0.53	0.74	1.06	1.92		0.10	0.22	0.35	0.51	0.71		0.86	0.96
	DISTANCE – Anm	1.0	3.0	5.0	8.0	15.0		1.0	1.0	2.0	4.0	6.0			
	FUEL USED – kg	14.0	33.0	46.0	66.0	122.0		26.0	55.0	88.0	131.0	182.0			
40	TIME – minutes	0.24	0.57	0.83	1.32			0.11	0.22	0.36	0.55			0.83	0.94
	DISTANCE – Anm	1.0	4.0	6.0	10.0			1.0	1.0	2.0	4.0				
	FUEL USED – kg	15.0	36.0	52.0	82.0			27.0	57.0	92.0	141.0				
50	TIME – minutes	0.25	0.63	0.96	1.96			0.11	0.23	0.38	0.60			0.80	0.93
	DISTANCE – Anm	1.0	4.0	7.0	15.0			1.0	1.0	3.0	5.0				
	FUEL USED – kg	16.0	39.0	59.0	122.0			28.0	58.0	96.0	153.0				
60	TIME – minutes	0.27	0.70	1.17				0.11	0.24	0.40	0.67			0.78	0.92
	DISTANCE – Anm	2.0	5.0	8.0				1.0	1.0	3.0	5.0				
	FUEL USED – kg	17.0	43.0	73.0				28.0	60.0	101.0	171.0				
70	TIME – minutes	0.28	0.79	1.67				0.11	0.25	0.42	0.77			0.76	0.91
	DISTANCE – Anm	2.0	5.0	12.0				1.0	2.0	3.0	6.0				
	FUEL USED – kg	18.0	49.0	104.0				29.0	62.0	106.0	198.0				
80	TIME – minutes							0.12	0.26	0.44	1.08				0.90
	DISTANCE – Anm							1.0	2.0	3.0	9.0				
	FUEL USED – kg							30.0	65.0	112.0	278.0				

FIG. 8.19

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 11 000 kg, I.S.A. –20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.70	0.75	0.80	0.85	0.90	0.60	0.70	0.80	0.90	0.95	1.00		
0	TIME – minutes	0.25	0.55	0.73	0.94	1.22	1.69	0.12	0.25	0.39	0.54	0.64	0.86	0.92	1.02
	DISTANCE – Anm	1.0	3.0	5.0	7.0	9.0	13.0	1.0	2.0	3.0	4.0	5.0	7.0		
	FUEL USED – kg	16.0	34.0	45.0	59.0	76.0	105.0	31.0	63.0	98.0	138.0	165.0	222.0		
10	TIME – minutes	0.26	0.59	0.79	1.04	1.40		0.12	0.26	0.40	0.57	0.69		0.90	1.00
	DISTANCE – Anm	1.0	4.0	5.0	7.0	11.0		1.0	2.0	3.0	4.0	6.0			
	FUEL USED – kg	16.0	36.0	49.0	65.0	87.0		31.0	65.0	101.0	145.0	177.0			
20	TIME – minutes	0.28	0.63	0.86	1.18	1.73		0.13	0.26	0.41	0.60	0.77		0.87	0.97
	DISTANCE – Anm	2.0	4.0	6.0	9.0	13.0		1.0	2.0	3.0	5.0	6.0			
	FUEL USED – kg	17.0	39.0	53.0	73.0	108.0		32.0	67.0	105.0	153.0	196.0			
30	TIME – minutes	0.29	0.68	0.95	1.37	2.51		0.13	0.27	0.43	0.64	0.89		0.83	0.96
	DISTANCE – Anm	2.0	4.0	7.0	10.0	20.0		1.0	2.0	3.0	5.0	7.0			
	FUEL USED – kg	18.0	42.0	59.0	85.0	156.0		33.0	69.0	110.0	163.0	228.0			
40	TIME – minutes	0.31	0.74	1.08	1.74			0.13	0.28	0.45	0.69			0.82	0.94
	DISTANCE – Anm	2.0	5.0	7.0	13.0			1.0	2.0	3.0	5.0				
	FUEL USED – kg	19.0	46.0	67.0	108.0			34.0	71.0	114.0	176.0				
50	TIME – minutes	0.32	0.81	1.25				0.14	0.29	0.47	0.75			0.80	0.93
	DISTANCE – Anm	2.0	5.0	9.0				1.0	2.0	3.0	6.0				
	FUEL USED – kg	20.0	50.0	78.0				35.0	73.0	119.0	191.0				
60	TIME – minutes	0.35	0.91	1.57				0.14	0.30	0.49	0.84			0.78	0.92
	DISTANCE – Anm	2.0	6.0	11.0				1.0	2.0	3.0	7.0				
	FUEL USED – kg	21.0	57.0	98.0				35.0	76.0	126.0	214.0				
70	TIME – minutes	0.37	1.05					0.14	0.31	0.52	0.97			0.76	0.91
	DISTANCE – Anm	2.0	7.0					1.0	2.0	3.0	8.0				
	FUEL USED – kg	23.0	65.0					36.0	78.0	132.0	249.0				
80	TIME – minutes	0.40	1.25					0.15	0.32	0.55	1.30			0.73	0.90
	DISTANCE – Anm	2.0	8.0					1.0	2.0	4.0	11.0				
	FUEL USED – kg	25.0	77.0					37.0	81.0	140.0	333.0				

FIG.8.20

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 13 000kg, I.S.A. -20° C

ENGINES: ADOUR MK.102/JP10B
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.65	0.70	0.75	0.80	0.85	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.35 2.0 21.0	0.55 3.0 34.0	0.79 5.0 49.0	1.08 7.0 67.0	1.48 11.0 92.0	2.21 17.0 138.0	0.15 1.0 39.0	0.32 2.0 81.0	0.50 3.0 127.0	0.60 4.0 154.0	0.72 6.0 185.0	0.92 8.0 236.0	0.87	0.97
30	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.37 2.0 23.0	0.59 4.0 36.0	0.85 6.0 53.0	1.20 8.0 74.0	1.74 13.0 108.0		0.16 1.0 40.0	0.33 2.0 83.0	0.52 4.0 132.0	0.63 5.0 161.0	0.77 6.0 196.0	1.08 9.0 277.0	0.84	0.96
40	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.39 2.0 24.0	0.63 4.0 39.0	0.93 6.0 58.0	1.37 9.0 85.0	2.30 17.0 143.0		0.16 1.0 41.0	0.34 2.0 85.0	0.54 4.0 138.0	0.67 5.0 170.0	0.83 6.0 213.0		0.82	0.94
50	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.41 2.0 25.0	0.68 4.0 42.0	1.03 7.0 64.0	1.62 11.0 100.0			0.17 1.0 42.0	0.35 2.0 88.0	0.57 4.0 145.0	0.71 5.0 180.0	0.91 7.0 231.0		0.80	0.93
60	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.44 3.0 27.0	0.74 5.0 46.0	1.18 8.0 73.0	2.11 15.0 131.0			0.17 1.0 43.0	0.36 2.0 92.0	0.60 4.0 152.0	0.75 6.0 192.0	1.02 8.0 260.0		0.77	0.92
70	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.47 3.0 29.0	0.82 5.0 51.0	1.37 9.0 85.0				0.18 1.0 44.0	0.38 2.0 95.0	0.63 4.0 160.0	0.81 6.0 206.0	1.19 10.0 306.0		0.75	0.91
80	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.51 3.0 32.0	0.91 6.0 56.0	1.68 11.0 104.0				0.18 1.0 45.0	0.39 2.0 99.0	0.67 5.0 170.0	0.87 7.0 223.0			0.73	0.90

FIG.8.21

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5 M AT SEA LEVEL—MASS 15 000 kg, I.S.A.-20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.65	0.70	0.75	0.80	0.85	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
10	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
20	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
30	TIME - minutes	0.47	0.74	1.07	1.51	2.22		0.19	0.39	0.62	0.75	0.91	1.30	0.83	0.95
	DISTANCE - Anm	3.0	5.0	7.0	10.0	16.0		1.0	2.0	4.0	5.0	7.0	11.0		
	FUEL USED - kg	29.0	46.0	66.0	93.0	138.0		48.0	99.0	157.0	191.0	233.0	332.0		
40	TIME - minutes	0.50	0.80	1.18	1.75	3.11		0.20	0.40	0.65	0.79	0.99		0.81	0.94
	DISTANCE - Anm	3.0	5.0	8.0	12.0	23.0		1.0	3.0	4.0	6.0	8.0			
	FUEL USED - kg	31.0	50.0	73.0	108.0	193.0		49.0	102.0	164.0	202.0	252.0			
50	TIME - minutes	0.53	0.57	1.33	2.11			0.20	0.42	0.68	0.84	1.08		0.79	0.93
	DISTANCE - Anm	3.0	5.0	9.0	15.0			1.0	3.0	5.0	6.0	8.0			
	FUEL USED - kg	33.0	54.0	82.0	131.0			51.0	106.0	172.0	214.0	275.0			
60	TIME - minutes	0.58	0.96	1.53				0.21	0.43	0.71	0.90	1.21		0.76	0.92
	DISTANCE - Anm	3.0	6.0	10.0				1.0	3.0	5.0	7.0	10.0			
	FUEL USED - kg	36.0	59.0	95.0				52.0	110.0	181.0	229.0	310.0			
70	TIME - minutes	0.63	1.07	1.82				0.21	0.45	0.75	0.97	1.44		0.74	0.91
	DISTANCE - Anm	4.0	7.0	12.0				1.0	3.0	5.0	7.0	12.0			
	FUEL USED - kg	39.0	66.0	113.0				54.0	114.0	192.0	246.0	370.0			
80	TIME - minutes	0.68	1.21	2.35				0.22	0.47	0.80	1.05			0.72	0.90
	DISTANCE - Anm	4.0	8.0	16.0				1.0	3.0	6.0	8.0				
	FUEL USED - kg	42.0	75.0	146.0				55.0	118.0	203.0	267.0				

FIG. 8.22

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5 M AT SEA LEVEL — MASS 9 000 kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.60	0.70	0.80	0.90	0.95	1.0		
0	TIME - minutes	0.34	0.48	0.65	0.84	1.10	1.60	0.11	0.22	0.34	0.49	0.58	0.82	0.91	1.01
	DISTANCE - Anm	2.0	3.0	4.0	6.0	9.0	13.0	1.0	1.0	2.0	4.0	5.0	7.0		
	FUEL USED - kg	21.0	30.0	40.0	52.0	68.0	100.0	27.0	55.0	86.0	123.0	147.0	209.0		
10	TIME - minutes	0.36	0.52	0.70	0.94	1.29		0.11	0.23	0.36	0.51	0.63		0.89	0.99
	DISTANCE - Anm	2.0	3.0	5.0	7.0	10.0		1.0	1.0	3.0	4.0	5.0			
	FUEL USED - kg	22.0	32.0	43.0	58.0	80.0		27.0	57.0	90.0	129.0	159.0			
20	TIME - minutes	0.39	0.56	0.77	1.07	1.68		0.11	0.23	0.37	0.54	0.71		0.87	0.97
	DISTANCE - Anm	2.0	4.0	5.0	8.0	14.0		1.0	2.0	3.0	4.0	6.0			
	FUEL USED - kg	24.0	34.0	48.0	66.0	104.0		28.0	58.0	93.0	137.0	180.0			
30	TIME - minutes	0.41	0.60	0.86	1.28			0.12	0.24	0.39	0.58	0.91		0.84	0.95
	DISTANCE - Anm	3.0	4.0	6.0	10.0			1.0	2.0	3.0	5.0	8.0			
	FUEL USED - kg	25.0	37.0	53.0	79.0			29.0	60.0	97.0	147.0	229.0			
40	TIME - minutes	0.44	0.66	0.99	1.76			0.12	0.25	0.41	0.64			0.81	0.94
	DISTANCE - Anm	3.0	4.0	7.0	14.0			1.0	2.0	3.0	5.0				
	FUEL USED - kg	27.0	41.0	61.0	109.0			29.0	62.0	102.0	160.0				
50	TIME - minutes	0.48	0.73	1.17				0.12	0.26	0.43	0.70			0.79	0.92
	DISTANCE - Anm	3.0	5.0	8.0				1.0	2.0	3.0	6.0				
	FUEL USED - kg	29.0	45.0	72.0				30.0	64.0	107.0	176.0				
60	TIME - minutes	0.52	0.83	1.57				0.13	0.27	0.45	0.80			0.76	0.91
	DISTANCE - Anm	3.0	6.0	12.0				1.0	2.0	3.0	7.0				
	FUEL USED - kg	32.0	51.0	97.0				31.0	67.0	113.0	203.0				
70	TIME - minutes	0.57	0.97					0.13	0.28	0.48	1.03			0.74	0.90
	DISTANCE - Anm	4.0	7.0					1.0	2.0	3.0	9.0				
	FUEL USED - kg	35.0	60.0					32.0	69.0	119.0	261.0				
80	TIME - minutes	0.64	1.19					0.13	0.29	0.50				0.72	0.89
	DISTANCE - Anm	4.0	8.0					1.0	2.0	4.0					
	FUEL USED - kg	39.0	74.0					33.0	72.0	126.0					

FIG. 8.23

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5 M AT SEA LEVEL – MASS 11 000 kg, I. S. A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.60	0.70	0.80	0.90	0.95	1.00		
0	TIME – minutes	0.44	0.62	0.82	1.07	1.41	2.08	0.14	0.28	0.43	0.61	0.72	1.03	0.91	1.01
	DISTANCE – Anm	3.0	4.0	6.0	8.0	11.0	17.0	1.0	2.0	3.0	5.0	6.0	9.0		
	FUEL USED – kg	27.0	38.0	51.0	66.0	87.0	129.0	33.0	69.0	107.0	152.0	183.0	262.0		
10	TIME – minutes	0.47	0.66	0.90	1.20	1.67		0.14	0.28	0.45	0.64	0.78		0.89	0.99
	DISTANCE – Anm	3.0	4.0	6.0	9.0	13.0		1.0	2.0	3.0	5.0	7.0			
	FUEL USED – kg	29.0	41.0	55.0	74.0	104.0		34.0	71.0	111.0	161.0	198.0			
20	TIME – minutes	0.50	0.71	0.99	1.39	2.22		0.14	0.29	0.46	0.68	0.89		0.86	0.97
	DISTANCE – Anm	3.0	5.0	7.0	10.0	18.0		1.0	2.0	3.0	5.0	7.0			
	FUEL USED – kg	31.0	44.0	61.0	86.0	138.0		35.0	73.0	116.0	171.0	224.0			
30	TIME – minutes	0.53	0.78	1.11	1.67			0.15	0.30	0.48	0.72	1.16		0.83	0.95
	DISTANCE – Anm	3.0	5.0	8.0	13.0			1.0	2.0	3.0	6.0	10.0			
	FUEL USED – kg	33.0	48.0	68.0	104.0			36.0	75.0	121.0	182.0	293.0			
40	TIME – minutes	0.57	0.86	1.29	2.45			0.15	0.31	0.51	0.79			0.81	0.93
	DISTANCE – Anm	4.0	6.0	9.0	19.0			1.0	2.0	4.0	6.0				
	FUEL USED – kg	35.0	53.0	80.0	152.0			37.0	78.0	127.0	199.0				
50	TIME – minutes	0.62	0.96	1.56				0.15	0.32	0.53	0.87			0.79	0.92
	DISTANCE – Anm	4.0	6.0	11.0				1.0	2.0	4.0	7.0				
	FUEL USED – kg	38.0	59.0	96.0				38.0	80.0	133.0	220.0				
60	TIME – minutes	0.68	1.10	2.23				0.16	0.34	0.56	1.01			0.76	0.91
	DISTANCE – Anm	4.0	7.0	17.0				1.0	2.0	4.0	8.0				
	FUEL USED – kg	42.0	68.0	138.0				39.0	83.0	141.0	255.0				
70	TIME – minutes	0.75	1.30					0.16	0.35	0.59	1.33			0.74	0.90
	DISTANCE – Anm	5.0	9.0					1.0	2.0	4.0	11.0				
	FUEL USED – kg	46.0	80.0					40.0	87.0	149.0	337.0				
80	TIME – minutes	0.85	1.66					0.17	0.36	0.63				0.72	0.89
	DISTANCE – Anm	5.0	12.0					1.0	2.0	5.0					
	FUEL USED – kg	52.0	103.0					41.0	90.0	158.0					

FIG .8.24

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL—MASS 13 000 kg , I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.65	0.70	0.75	0.80	0.85	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME - minutes DISTANCE - Anm FUEL USED - kg														
10	TIME - minutes DISTANCE - Anm FUEL USED - kg														
20	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.40 2.0 24.0	0.63 4.0 38.0	0.90 6.0 55.0	1.25 9.0 77.0	1.76 13.0 109.0	2.94 24.0 183.0	0.17 1.0 43.0	0.36 2.0 88.0	0.56 4.0 140.0	0.68 5.0 170.0	0.82 6.0 206.0	1.08 9.0 272.0	0.86	0.97
30	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.42 3.0 26.0	0.67 4.0 41.0	0.98 7.0 61.0	1.41 10.0 87.0	2.16 16.0 134 0		0.18 1.0 44.0	0.37 2.0 91.0	0.58 4.0 146.0	0.71 5.0 179.0	0.88 7.0 221.0	1.39 12.0 353.0	0.83	0.95
40	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.45 3.0 27.0	0.73 5.0 45.0	1.09 7.0 67.0	1.66 12.0 103.0			0.18 1.0 45.0	0.38 2.0 94.0	0.61 4.0 154.0	0.26 6.0 190.0	0.96 8.0 242.0		0.80	0.93
50	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.48 3.0 29.0	0.79 5.0 49.0	1.23 8.0 76.0	2.06 15.0 128.0			0.19 1.0 46.0	0.39 3.0 98.0	0.64 5.0 161.0	0.81 6.0 203.0	1.06 9.0 268.0		0.78	0.92
60	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.52 3.0 32.0	0.88 6.0 54.0	1.44 10.0 89.0				0.19 1.0 47.0	0.41 3.0 102.0	0.68 5.0 171.0	0.87 7.0 219.0	1.24 10.0 312.0		0.75	0.91
70	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.56 3.0 34.0	0.98 6.0 60.0	1.75 12.0 108.0				0.20 1.0 49.0	0.42 3.0 106.0	0.72 5.0 181.0	0.94 7.0 237.0	1.67 14.0 422.0		0.73	0.90
80	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.62 4.0 38.0	1.12 7.0 69.0	2.40 17.0 148.0				0.20 1.0 50.0	0.44 3.0 110.0	0.77 6.0 193.0	1.04 8.0 261.0			0.71	0.89

FIG .8.25

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 15 000kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.55	0.60	0.65	0.70	0.75	0.80	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
10	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
20	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
30	TIME – minutes	0.27	0.55	0.86	1.25	1.76	2.83	0.21	0.44	0.70	0.85	1.04	1.61		
	DISTANCE – Anm	2.0	3.0	5.0	8.0	13.0	22.0	1.0	3.0	5.0	6.0	8.0	14.0	0.83	0.95
	FUEL USED – kg	16.0	33.0	53.0	77.0	111.0	176.0	53.0	109.0	174.0	213.0	262.0	408.0		
40	TIME – minutes	0.29	0.59	0.94	1.41	2.16		0.22	0.46	0.73	0.90	1.14			
	DISTANCE – Anm	2.0	4.0	6.0	9.0	15.0		1.0	3.0	5.0	7.0	9.0		0.80	0.93
	FUEL USED – kg	17.0	36.0	58.0	87.0	133.0		54.0	113.0	183.0	227.0	288.0			
50	TIME – minutes	0.31	0.63	1.03	1.60	2.80		0.23	0.47	0.77	0.96	1.27			
	DISTANCE – Anm	2.0	4.0	7.0	11.0	20.0		1.0	3.0	6.0	7.0	10.0		0.77	0.92
	FUEL USED – kg	19.0	39.0	63.0	99.0	173.0		56.0	117.0	193.0	242.0	320.0			
60	TIME – minutes	0.33	0.69	1.16	1.91			0.23	0.49	0.82	1.04	1.49			
	DISTANCE – Anm	2.0	4.0	7.0	13.0			1.0	3.0	6.0	8.0	12.0		0.74	0.91
	FUEL USED – kg	20.0	42.0	71.0	118.0			58.0	122.0	204.0	261.0	376.0			
70	TIME – minutes	0.36	0.76	1.32	2.44			0.24	0.51	0.87	1.13				
	DISTANCE – Anm	2.0	5.0	8.0	17.0			1.0	3.0	6.0	9.0			0.72	0.90
	FUEL USED – kg	22.0	46.0	81.0	151.0			59.0	127.0	217.0	285.0				
80	TIME – minutes	0.39	0.84	1.53				0.25	0.53	0.93	1.25				
	DISTANCE – Anm	2.0	5.0	10.0				1.0	4.0	7.0	10.0			0.70	0.89
	FUEL USED – kg	24.0	51.0	94.0				61.0	133.0	232.0	314.0				

FIG. 8.26

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL—MASS 9 000 kg, I.S.A. + 20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.65	0.70	0.75	0.80	0.85	0.60	0.70	0.80	0.90	0.95	1.00		
0	TIME - minutes	0.31	0.49	0.69	0.93	1.22	1.64	0.14	0.29	0.45	0.63	0.74	1.21	0.90	1.00
	DISTANCE - Anm	2.0	3.0	5.0	7.0	9.0	13.0	1.0	2.0	3.0	5.0	6.0	11.0		
	FUEL USED - kg	16.0	26.0	37.0	51.0	68.0	92.0	32.0	66.0	104.0	147.0	176 0	293.0		
10	TIME - minutes	0.33	0.53	0.76	1.05	1.44	2.16	0.15	0.30	0.47	0.67	0.82		0.87	0.98
	DISTANCE - Anm	2.0	3.0	5.0	8.0	11.0	18.0	1.0	2.0	3.0	5.0	7.0			
	FUEL USED - kg	18.0	28.0	41.0	57.0	80.0	123.0	33.0	69.0	109.0	156.0	195.0			
20	TIME - minutes	0.35	0.57	0.84	1.21	1.83		0.15	0.31	0.50	0.72	0.97		0.84	0.96
	DISTANCE - Anm	2.0	4.0	6.0	9.0	14.0		1.0	2.0	4.0	6.0	9.0			
	FUEL USED - kg	19.0	31.0	46.0	67.0	102.0		34.0	71.0	114.0	169.0	232.0			
30	TIME - minutes	0.38	0.63	0.96	1.46			0.16	0.33	0.52	0.78			0.80	0.93
	DISTANCE - Anm	2.0	4.0	7.0	11.0			1.0	2.0	4.0	6.0				
	FUEL USED - kg	20.0	34.0	52.0	80.0			35.0	74.0	120.0	183.0				
40	TIME - minutes	0.41	0.70	1.12	2.00			0.16	0.34	0.56	0.88			0.77	0.92
	DISTANCE - Anm	3.0	5.0	8.0	15.0			1.0	2.0	4.0	7.0				
	FUEL USED - kg	22.0	38.0	61.0	111.0			36.0	78.0	128.0	207.0				
50	TIME - minutes	0.45	0.79	1.37				0.17	0.36	0.59	1.01			0.74	0.91
	DISTANCE - Anm	3.0	5.0	10.0				1.0	2.0	4.0	9.0				
	FUEL USED - kg	24.0	43.0	75.0				37.0	81.0	137.0	239.0				
60	TIME - minutes	0.50	0.93	1.93				0.17	0.38	0.64	1.36			0.72	0.90
	DISTANCE - Anm	3.0	6.0	14.0				1.0	3.0	5.0	12.0				
	FUEL USED - kg	27.0	50.0	106.0				39.0	85.0	147.0	323.0				
70	TIME - minutes	0.57	1.12					0.18	0.39	0.69				0.70	0.89
	DISTANCE - Anm	4.0	8.0					1.0	3.0	5.0					
	FUEL USED - kg	30.0	61.0					40.0	90.0	160.0					
80	TIME - minutes	0.65	1.49					0.19	0.42	0.75				0.67	0.87
	DISTANCE - Anm	4.0	10.0					1.0	3.0	6.0					
	FUEL USED - kg	34.0	80.0					42.0	95.0	175.0					

FIG. 8.27

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 11 000kg, I.S.A. +20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.60	0.65	0.70	0.75	0.80	0.85	0.60	0.70	0.80	0.90	0.95	1.00		
0	TIME – minutes	0.40	0.63	0.89	1.20	1.59	2.13	0.18	0.37	0.56	0.78	0.93	1.50	0.90	1.00
	DISTANCE – Anm	2.0	4.0	6.0	9.0	12.0	17.0	1.0	2.0	4.0	6.0	8.0	14.0		
	FUEL USED – kg	21.0	34.0	49.0	66.0	88.0	120.0	40.0	83.0	129.0	183.0	220.0	365.0		
10	TIME – minutes	0.43	0.69	0.99	1.37	1.89	2.90	0.18	0.38	0.59	0.83	1.02		0.87	0.98
	DISTANCE – Anm	3.0	4.0	7.0	10.0	15.0	24.0	1.0	3.0	4.0	7.0	9.0			
	FUEL USED – kg	23.0	37.0	54.0	75.0	106.0	165.0	41.0	86.0	136.0	195.0	243.0			
20	TIME – minutes	0.46	0.75	1.11	1.60	2.46		0.19	0.39	0.62	0.90	1.22		0.83	0.96
	DISTANCE – Anm	3.0	5.0	8.0	12.0	20.0		1.0	3.0	5.0	7.0	11.0			
	FUEL USED – kg	25.0	40.0	60.0	88.0	138.0		43.0	89.0	143.0	211.0	292.0			
30	TIME – minutes	0.50	0.83	1.27	1.96			0.20	0.41	0.66	0.98			0.80	0.93
	DISTANCE – Anm	3.0	6.0	9.0	15.0			1.0	3.0	5.0	8.0				
	FUEL USED – kg	27.0	45.0	69.0	108.0			44.0	93.0	151.0	230.0				
40	TIME – minutes	0.55	0.94	1.51	2.90			0.20	0.43	0.70	1.10			0.76	0.92
	DISTANCE – Anm	3.0	6.0	11.0	22.0			1.0	3.0	5.0	9.0				
	FUEL USED – kg	29.0	50.0	82.0	161.0			45.0	97.0	161.0	260.0				
50	TIME – minutes	0.61	1.08	1.91				0.21	0.45	0.74	1.27			0.73	0.91
	DISTANCE – Anm	4.0	7.0	14.0				1.0	3.0	6.0	11.0				
	FUEL USED – kg	32.0	58.0	104.0				47.0	102.0	172.0	301.0				
60	TIME – minutes	0.68	1.28					0.22	0.47	0.80	1.78			0.71	0.90
	DISTANCE – Anm	4.0	9.0					1.0	3.0	6.0	16.0				
	FUEL USED – kg	36.0	69.0					49.0	107.0	186.0	426.0				
70	TIME – minutes	0.78	1.61					0.23	0.50	0.87				0.69	0.89
	DISTANCE – Anm	5.0	11.0					1.0	3.0	7.0					
	FUEL USED – kg	42.0	87.0					51.0	113.0	202.0					
80	TIME – minutes	0.91	2.36					0.24	0.53	0.96				0.66	0.87
	DISTANCE – Anm	6.0	16.0					1.0	4.0	7.0					
	FUEL USED – kg	49.0	128.0					53.0	120.0	221.0					

FIG.8.28

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 13 000kg, I.S.A. +20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.55	0.60	0.65	0.70	0.75	0.80	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
10	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
20	TIME – minutes	0.29	0.60	0.98	1.44	2.09	3.33	0.23	0.48	0.76	0.91	1.09	1.50	0.82	0.96
	DISTANCE – Anm	2.0	4.0	7.0	10.0	15.0	26.0	1.0	3.0	6.0	7.0	9.0	13.0		
	FUEL USED – kg	15.0	32.0	52.0	78.0	115.0	187.0	52.0	109.0	174.0	211.0	256.0	358.0		
30	TIME – minutes	0.31	0.66	1.09	1.68	2.65		0.24	0.50	0.80	0.97	1.19		0.79	0.93
	DISTANCE – Anm	2.0	4.0	7.0	12.0	20.0		1.0	3.0	6.0	8.0	10.0			
	FUEL USED – kg	16.0	35.0	59.0	91.0	146.0		54.0	114.0	184.0	226.0	280.0			
40	TIME – minutes	0.33	0.73	1.25	2.05			0.25	0.53	0.85	1.05	1.35		0.75	0.92
	DISTANCE – Anm	2.0	5.0	8.0	14.0			2.0	4.0	6.0	8.0	11.0			
	FUEL USED – kg	18.0	39.0	67.0	111.0			56.0	119.0	196.0	245.0	317.0			
50	TIME – minutes	0.37	0.82	1.46	2.73			0.26	0.55	0.91	1.15	1.57		0.72	0.91
	DISTANCE – Anm	2.0	5.0	10.0	20.0			2.0	4.0	7.0	9.0	13.0			
	FUEL USED – kg	19.0	44.0	79.0	149.0			58.0	125.0	210.0	267.0	371.0			
60	TIME – minutes	0.40	0.94	1.80				0.27	0.58	0.99	1.28	2.11		0.70	0.90
	DISTANCE – Anm	2.0	6.0	12.0				2.0	4.0	8.0	10.0	19.0			
	FUEL USED – kg	21.0	50.0	97.0				60.0	132.0	228.0	298.0	504.0			
70	TIME – minutes	0.45	1.09	2.43				0.28	0.62	1.07	1.45			0.68	0.89
	DISTANCE – Anm	3.0	7.0	17.0				2.0	4.0	8.0	12.0				
	FUEL USED – kg	24.0	58.0	131.0				63.0	140.0	248.0	339.0				
80	TIME – minutes	0.51	1.32					0.29	0.65	1.18	1.71			0.65	0.87
	DISTANCE – Anm	3.0	8.0					2.0	4.0	9.0	14.0				
	FUEL USED – kg	27.0	70.0					66.0	148.0	274.0	402.0				

FIG.8.29

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.5M AT SEA LEVEL – MASS 15 000kg, I.S.A. +20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.55	0.60	0.65	0.70	0.75	0.80	0.60	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
10	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
20	TIME – minutes							0.29	0.58	0.91	1.09	1.31	1.82		
	DISTANCE – Anm							2.0	4.0	7.0	9.0	11.0	16.0		0.95
	FUEL USED – kg							64.0	132.0	209.0	253.0	306.0	434.0		
30	TIME – minutes	0.45	0.91	1.49	2.28	3.72		0.30	0.61	0.96	1.17	1.43			
	DISTANCE – Anm	3.0	6.0	10.0	16.0	28.0		2.0	4.0	7.0	9.0	12.0		0.77	0.93
	FUEL USED – kg	23.0	49.0	80.0	124.0	206.0		67.0	138.0	222.0	271.0	335.0			
40	TIME – minutes	0.50	1.03	1.74	2.90			0.31	0.64	1.03	1.27	1.62			
	DISTANCE – Anm	3.0	7.0	11.0	20.0			2.0	4.0	8.0	10.0	13.0		0.74	0.92
	FUEL USED – kg	26.0	55.0	93.0	158.0			69.0	145.0	237.0	290.0	382.0			
50	TIME – minutes	0.56	1.18	2.10				0.32	0.67	1.10	1.38	1.91			
	DISTANCE – Anm	3.0	7.0	14.0				2.0	5.0	8.0	11.0	16.0		0.71	0.91
	FUEL USED – kg	29.0	63.0	113.0				72.0	152.0	254.0	323.0	451.0			
60	TIME – minutes	0.63	1.39	2.74				0.33	0.71	1.20	1.55				
	DISTANCE – Anm	4.0	9.0	18.0				2.0	5.0	9.0	12.0			0.68	0.90
	FUEL USED – kg	33.0	74.0	148.0				75.0	161.0	276.0	361.0				
70	TIME – minutes	0.74	1.70					0.35	0.75	1.31	1.77				
	DISTANCE – Anm	4.0	11.0					2.0	5.0	10.0	14.0			0.66	0.88
	FUEL USED – kg	39.0	90.0					78.0	171.0	302.0	414.0				
80	TIME – minutes	0.88	2.21					0.37	0.80	1.45	2.12				
	DISTANCE – Anm	5.0	14.0					2.0	6.0	11.0	17.0			0.63	0.86
	FUEL USED – kg	47.0	117.0					82.0	182.0	335.0	497.0				

FIG .8.30

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6 M AT 10 000 ft — MASS 13 000 kg, I.S.A. -20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.65	0.70	0.80	0.85	0.90	0.95		
0	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
10	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
20	TIME - minutes	0.22	0.47	0.73	1.04	1.43	2.10	0.09	0.19	0.37	0.47	0.57	0.69	0.91	1.03
	DISTANCE - Anm	1.0	3.0	5.0	8.0	11.0	17.0	1.0	1.0	3.0	3.0	4.0	6.0		
	FUEL USED - kg	12.0	25.0	39.0	56.0	76.0	112.0	21.0	41.0	84.0	106.0	130.0	159.0		
30	TIME - minutes	0.24	0.50	0.80	1.16	1.65		0.10	0.19	0.39	0.49	0.60	0.74	0.90	1.00
	DISTANCE - Anm	1.0	3.0	6.0	8.0	12.0		1.0	1.0	3.0	4.0	5.0	6.0		
	FUEL USED - kg	13.0	27.0	42.0	62.0	88.0		21.0	43.0	87.0	110.0	136.0	170.0		
40	TIME - minutes	0.26	0.55	0.89	1.33	2.05		0.10	0.20	0.40	0.51	0.63	0.81	0.88	0.98
	DISTANCE - Anm	2.0	4.0	6.0	10.0	16.0		1.0	1.0	3.0	4.0	5.0	7.0		
	FUEL USED - kg	14.0	29.0	47.0	71.0	109.0		22.0	44.0	90.0	115.0	143.0	186.0		
50	TIME - minutes	0.28	0.60	0.99	1.55	2.91		0.10	0.20	0.42	0.53	0.66	0.89	0.86	0.97
	DISTANCE - Anm	2.0	4.0	7.0	11.0	23.0		1.0	1.0	3.0	4.0	5.0	7.0		
	FUEL USED - kg	15.0	32.0	53.0	82.0	156.0		22.0	45.0	94.0	120.0	151.0	206.0		
60	TIME - minutes	0.30	0.66	1.14	1.93			0.11	0.21	0.43	0.56	0.70	1.07	0.84	0.95
	DISTANCE - Anm	2.0	4.0	8.0	14.0			1.0	1.0	3.0	4.0	6.0	9.0		
	FUEL USED - kg	16.0	35.0	60.0	103.0			23.0	47.0	98.0	126.0	161.0	249.0		
70	TIME - minutes	0.33	0.74	1.33	2.69			0.11	0.22	0.45	0.58	0.75		0.81	0.94
	DISTANCE - Anm	2.0	5.0	9.0	20.0			1.0	1.0	3.0	4.0	6.0			
	FUEL USED - kg	18.0	39.0	71.0	144.0			24.0	48.0	102.0	133.0	172.0			
80	TIME - minutes	0.37	0.84	1.68				0.11	0.23	0.47	0.61	0.81		0.79	0.94
	DISTANCE - Anm	2.0	6.0	11.0				1.0	1.0	3.0	5.0	6.0			
	FUEL USED - kg	19.0	45.0	86.0				25.0	50.0	107.0	140.0	185.0			

FIG. 8.31

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6 M AT 10 000 ft — MASS 15 000 kg, I.S.A.–20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.65	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
10	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
20	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
30	TIME – minutes	0.35	0.69	1.07	1.54	2.20		0.12	0.24	0.47	0.59	0.72	0.89		
	DISTANCE – Anm	2.0	5.0	7.0	11.0	17.0		1.0	2.0	3.0	4.0	6.0	7.0	0.90	1.00
	FUEL USED – kg	18.0	36.0	57.0	82.0	117.0		27.0	52.0	105.0	133.0	163.0	203.0		
40	TIME – minutes	0.38	0.76	1.21	1.80	2.84		0.13	0.24	0.49	0.61	0.76	0.97		
	DISTANCE – Anm	2.0	5.0	8.0	13.0	22.0		1.0	2.0	3.0	5.0	6.0	8.0	0.87	0.98
	FUEL USED – kg	20.0	40.0	64.0	96.0	152.0		27.0	54.0	109.0	139.0	173.0	223.0		
50	TIME – minutes	0.42	0.84	1.37	2.16			0.13	0.25	0.51	0.64	0.80	1.08		
	DISTANCE – Anm	3.0	6.0	10.0	16.0			1.0	2.0	4.0	5.0	6.0	9.0	0.84	0.97
	FUEL USED – kg	22.0	45.0	73.0	115.0			28.0	56.0	114.0	145.0	182.0	249.0		
60	TIME – minutes	0.47	0.96	1.62	2.84			0.13	0.26	0.53	0.67	0.85	1.34		
	DISTANCE – Anm	3.0	6.0	11.0	21.0			1.0	2.0	4.0	5.0	7.0	11.0	0.82	0.95
	FUEL USED – kg	25.0	51.0	86.0	152.0			29.0	58.0	119.0	153.0	195.0	311.0		
70	TIME – minutes	0.53	1.10	1.97				0.14	0.27	0.55	0.71	0.91			
	DISTANCE – Anm	3.0	7.0	14.0				1.0	2.0	4.0	5.0	7.0		0.80	0.94
	FUEL USED – kg	28.0	58.0	105.0				30.0	60.0	124.0	161.0	208.0			
80	TIME – minutes	0.61	1.30	2.57				0.14	0.28	0.58	0.75	0.98			
	DISTANCE – Anm	4.0	9.0	18.0				1.0	2.0	4.0	6.0	8.0		0.78	0.94
	FUEL USED – kg	32.0	69.0	136.0				31.0	62.0	130.0	170.0	224.0			

FIG. 8.32

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6M AT 10 000ft – MASS 13 000kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.65	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.30 2.0 14.0	0.61 4.0 30.0	0.96 7.0 47.0	1.36 10.0 68.0	1.86 15.0 95.0	2.86 24.0 149.0	0.11 1.0 22.0	0.22 1.0 45.0	0.43 3.0 92.0	0.54 4.0 116.0	0.65 5.0 143.0	0.80 7.0 176.0	0.91	1.01
30	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.32 2.0 15.0	0.67 5.0 33.0	1.07 8.0 53.0	1.56 12.0 78.0			0.11 1.0 23.0	0.22 1.0 47.0	0.45 3.0 95.0	0.56 4.0 121.0	0.69 5.0 150.0	0.86 7.0 189.0	0.89	0.99
40	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.35 2.0 17.0	0.75 5.0 36.0	1.22 9.0 60.0	1.86 14.0 93.0			0.12 1.0 24.0	0.23 2.0 48.0	0.47 3.0 99.0	0.59 5.0 127.0	0.73 6.0 159.0	0.95 8.0 211.0	0.86	0.97
50	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.39 3.0 19.0	0.84 6.0 41.0	1.42 10.0 70.0	2.33 18.0 117.0			0.12 1.0 25.0	0.24 2.0 50.0	0.49 4.0 104.0	0.62 5.0 134.0	0.77 6.0 169.0	1.08 9.0 241.0	0.83	0.96
60	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.44 3.0 21.0	0.97 7.0 48.0	1.74 13.0 86.0	3.37 26.0 170.0			0.12 1.0 26.0	0.25 2.0 52.0	0.51 4.0 109.0	0.65 5.0 141.0	0.83 7.0 182.0	1.34 12.0 301.0	0.81	0.95
70	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.50 3.0 24.0	1.15 8.0 56.0	2.26 16.0 112.0				0.13 1.0 26.0	0.26 2.0 54.0	0.53 4.0 114.0	0.69 5.0 149.0	0.89 7.0 196.0		0.79	0.94
80	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.58 4.0 28.0	1.41 10.0 69.0					0.13 1.0 27.0	0.27 2.0 56.0	0.56 4.0 120.0	0.73 6.0 159.0	0.97 8.0 213.0		0.76	0.94

FIG.8.33

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6M AT 10 000ft – MASS 15 000kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.80	0.85	0.90	0.65	0.70	0.80	0.85	0.90	0.95		
0	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
10	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
20	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														
30	TIME – minutes	0.50	0.97	1.50	2.16	3.14		0.14	0.28	0.54	0.68	0.83	1.03		
	DISTANCE – Anm	3.0	7.0	11.0	16.0	25.0		1.0	2.0	4.0	5.0	7.0	9.0	0.89	0.99
	FUEL USED – kg	24.0	47.0	74.0	108.0	160.0		29.0	58.0	116.0	147.0	181.0	228.0		
40	TIME – minutes	0.57	1.11	1.77	2.68	4.26		0.15	0.29	0.57	0.72	0.88	1.15		
	DISTANCE – Anm	4.0	8.0	13.0	20.0	34.0		1.0	2.0	4.0	5.0	7.0	10.0	0.86	0.97
	FUEL USED – kg	27.0	54.0	87.0	135.0	218.0		30.0	60.0	121.0	155.0	193.0	255.0		
50	TIME – minutes	0.66	1.30	2.13	3.58			0.15	0.30	0.59	0.75	0.94	1.33		
	DISTANCE – Anm	4.0	9.0	15.0	27.0			1.0	2.0	4.0	6.0	8.0	11.0	0.83	0.95
	FUEL USED – kg	32.0	63.0	105.0	180.0			32.0	62.0	127.0	163.0	205.0	296.0		
60	TIME – minutes	0.78	1.57	2.77				0.16	0.31	0.63	0.80	1.01			
	DISTANCE – Anm	5.0	11.0	20.0				1.0	2.0	5.0	6.0	8.0		0.80	0.94
	FUEL USED – kg	38.0	77.0	137.0				33.0	65.0	133.0	172.0	221.0			
70	TIME – minutes	0.96	1.98	3.78				0.17	0.32	0.66	0.85	1.09			
	DISTANCE – Anm	6.0	14.0	28.0				1.0	2.0	5.0	7.0	9.0		0.77	0.93
	FUEL USED – kg	46.0	97.0	188.0				34.0	68.0	140.0	183.0	239.0			
80	TIME – minutes	1.25	2.69					0.17	0.34	0.69	0.90	1.19			
	DISTANCE – Anm	8.0	19.0					1.0	2.0	5.0	7.0	10.0		0.73	0.93
	FUEL USED – kg	60.0	131.0					35.0	70.0	148.0	194.0	262.0			

FIG.8.34

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6 M AT 10 000 ft — MASS 13 000 kg, I.S.A. +20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.75	0.775	0.80	0.85	0.70	0.75	0.80	0.85	0.90	0.95		
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.48 3.0 20.0	1.01 7.0 43.0	1.68 13.0 72.0	2.14 16.0 93.0	2.61 21.0 114.0	4.50 38.0 201.0	0.29 2.0 54.0	0.44 3.0 82.0	0.60 5.0 112.0	0.76 6.0 143.0	0.93 8.0 179.0	1.18 10.0 231.0	0.86	0.96
30	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.54 4.0 23.0	1.19 9.0 51.0	2.05 16.0 89.0	2.84 23.0 124.0	3.63 29.0 159.0		0.31 2.0 56.9	0.46 3.0 86.0	0.63 5.0 118.0	0.80 6.0 152.0	1.00 8.0 192.0	1.35 12.0 264.0	0.82	0.95
40	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.63 4.0 27.0	1.45 10.0 62.0	2.78 21.0 120.0				0.32 2.0 59.0	0.49 4.0 90.0	0.67 5.0 125.0	0.86 7.0 163.0	1.10 9.0 211.0		0.79	0.94
50	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.76 5.0 32.0	1.86 13.0 79.0					0.34 2.0 61.0	0.51 4.0 95.0	0.71 6.0 132.0	0.92 8.0 175.0	1.21 10.0 233.0		0.76	0.93
60	TIME – minutes DISTANCE – Anm FUEL USED – kg	0.96 7.0 41.0	2.74 20.0 117.0					0.35 3.0 65.0	0.55 4.0 101.0	0.76 6.0 142.0	1.00 8.0 191.0	1.37 12.0 264.0		0.72	0.92
70	TIME – minutes DISTANCE – Anm FUEL USED – kg	1.30 9.0 55.0						0.37 3.0 68.0	0.58 4.0 108.0	0.82 6.0 153.0	1.10 9.0 209.0	1.61 14.0 311.0		0.69	0.91
80	TIME – minutes DISTANCE – Anm FUEL USED – kg	2.01 14.0 85.0						0.39 3.0 72.0	0.62 5.0 115.0	0.88 7.0 165.0	1.21 10.0 231.0	2.15 19.0 422.0		0.66	0.90

FIG. 8.35

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.6M AT 10 000ft — MASS 15 000 kg, I.S.A. +20° C

ENGINES: ADOUR MK.102/JP103
AL. 1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.65	0.70	0.725	0.75	0.775	0.80	0.70	0.75	0.80	0.85	0.90	0.95		
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.37 3.0 68.0	0.55 4.0 102.0	0.74 6.0 138.0	0,93 7.0 176.0	1,14 10.0 219.0	1.45 13.0 283.0		0.96
30	TIME – minutes DISTANCE – Anm FUEL USED – kg	1.09 8.0 46.0	2.08 15.0 88.0	2.78 21.0 119.0	3.48 26.0 150.0			0.39 3.0 71.0	0.58 4.0 107.0	0.78 6.0 146.0	0.99 8.0 187.0	1.23 10.0 236.0	1.66 15.0 326.0	0.79	0.95
40	TIME – minutes DISTANCE – Anm FUEL USED – kg	1.44 10.0 61.0	2.82 20.0 120.0					0.41 3.0 75.0	0.61 5.0 114.0	0.83 6.0 155.0	1.07 9.0 202.0	1.36 11.0 261.0		0.76	0.94
50	TIME – minutes DISTANCE – Anm FUEL USED – kg	2.11 14.0 89.0	4.29 31.0 183.0					0.43 3.0 79.0	0.65 5.0 120.0	0.89 7.0 166.0	1.15 9.0 218.0	1.50 13.0 289.0		0.73	0.93
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.46 3.0 83.0	0.69 5.0 128.0	0.95 7.0 179.0	1.26 10.0 238.0	1.71 15.0 331.0			0.92
70	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.48 3.0 88.0	0.74 6.0 137.0	1.03 8.0 193.0	1.38 11.0 262.0	2.05 18.0 397.0			0.91
80	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.51 4.0 94.0	0.79 6.0 147.0	1.12 9.0 210.0	1.54 12.0 292.0				0.90

FIG. 8.36

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000ft – MASS 9 000kg, I.S.A. –20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.85	0.875	0.90	0.95	0.80	0.85	0.90	0.95	1.10	1.20		
0	TIME – minutes	0.18	0.36	0.54	0.64	0.75	1.03	0.16	0.23	0.30	0.38	0.77	1.49	0.98	1.25
	DISTANCE – Anm	1.0	3.0	4.0	5.0	6.0	9.0	1.0	2.0	2.0	3.0	7.0	15.0		
	FUEL USED – kg	7.0	15.0	23.0	27.0	32.0	45.0	27.0	40.0	54.0	69.0	149.0	304.0		
10	TIME – minutes	0.19	0.39	0.59	0.71	0.83	1.24	0.16	0.24	0.31	0.39	0.92		0.96	1.18
	DISTANCE – Anm	1.0	3.0	4.0	5.0	7.0	10.0	1.0	2.0	2.0	3.0	9.0			
	FUEL USED – kg	8.0	16.0	25.0	30.0	35.0	54.0	28.0	42.0	56.0	72.0	181.0			
20	TIME – minutes	0.21	0.42	0.65	0.79	0.94		0.17	0.25	0.33	0.41			0.95	1.10
	DISTANCE – Anm	1.0	3.0	5.0	6.0	7.0		1.0	2.0	3.0	3.0				
	FUEL USED – kg	8.0	17.0	27.0	34.0	40.0		29.0	43.0	58.0	75.0				
30	TIME – minutes	0.22	0.46	0.73	0.91	1.08		0.17	0.26	0.34	0.44			0.93	1.05
	DISTANCE – Anm	2.0	3.0	6.0	8.0	9.0		1.0	2.0	3.0	3.0				
	FUEL USED – kg	9.0	19.0	30.0	38.0	46.0		30.0	45.0	61.0	80.0				
40	TIME – minutes	0.25	0.52	0.84	1.10	1.36		0.18	0.27	0.36	0.47			0.91	1.03
	DISTANCE – Anm	2.0	4.0	6.0	9.0	11.0		1.0	2.0	3.0	4.0				
	FUEL USED – kg	10.0	21.0	35.0	47.0	59.0		31.0	47.0	64.0	86.0				
50	TIME – minutes	0.27	0.58	0.97	1.47	1.97		0.19	0.28	0.38	0.50			0.90	1.00
	DISTANCE – Anm	2.0	4.0	8.0	12.0	16.0		1.0	2.0	3.0	4.0				
	FUEL USED – kg	11.0	24.0	41.0	63.0	86.0		32.0	49.0	68.0	92.0				
60	TIME – minutes	0.31	0.68	1.19				0.20	0.29	0.40	0.55			0.89	0.98
	DISTANCE – Anm	2.0	5.0	9.0				1.0	2.0	3.0	4.0				
	FUEL USED – kg	12.0	28.0	50.0				34.0	51.0	71.0	101.0				
70	TIME – minutes	0.35	0.80	1.55				0.20	0.31	0.42	0.61			0.87	0.98
	DISTANCE – Anm	2.0	6.0	12.0				1.0	2.0	3.0	5.0				
	FUEL USED – kg	14.0	33.0	66.0				35.0	54.0	76.0	113.0				
80	TIME – minutes	0.41	0.98					0.21	0.32	0.45				0.85	0.95
	DISTANCE – Anm	3.0	7.0					2.0	2.0	4.0					
	FUEL USED – kg	16.0	40.0					37.0	57.0	81.0					

FIG.8.37

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000ft – MASS 11 000kg, I.S.A. – 20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.85	0.875	0.90	0.95	0.80	0.85	0.90	0.95	1.10	1.20		
0	TIME – minutes	0.24	0.48	0.73	0.86	1.00	1.40	0.20	0.29	0.38	0.48	0.99	2.07	0.98	1.23
	DISTANCE – Anm	2.0	4.0	6.0	7.0	8.0	11.0	1.0	2.0	3.0	4.0	9.0	21.0		
	FUEL USED – kg	10.0	20.0	31.0	37.0	43.0	61.0	34.0	51.0	68.0	87.0	192.0	424.0		
10	TIME – minutes	0.26	0.53	0.80	0.96	1.12	1.74	0.21	0.30	0.40	0.50	1.21		0.96	1.16
	DISTANCE – Anm	2.0	4.0	6.0	8.0	9.0	14.0	1.0	2.0	3.0	4.0	11.0			
	FUEL USED – kg	11.0	22.0	34.0	41.0	48.0	76.0	35.0	53.0	71.0	91.0	238.0			
20	TIME – minutes	0.29	0.58	0.90	1.10	1.29		0.21	0.31	0.42	0.53			0.94	1.10
	DISTANCE – Anm	2.0	4.0	7.0	9.0	10.0		2.0	2.0	3.0	4.0				
	FUEL USED – kg	11.0	24.0	38.0	47.0	55.0		37.0	55.0	74.0	96.0				
30	TIME – minutes	0.31	0.64	1.01	1.27	1.52		0.22	0.33	0.43	0.56			0.92	1.05
	DISTANCE – Anm	2.0	5.0	8.0	10.0	12.0		2.0	2.0	3.0	4.0				
	FUEL USED – kg	13.0	27.0	43.0	54.0	65.0		38.0	57.0	78.0	101.0				
40	TIME – minutes	0.35	0.73	1.19	1.60	2.02		0.23	0.34	0.46	0.60			0.91	1.03
	DISTANCE – Anm	2.0	5.0	9.0	12.0	16.0		2.0	3.0	4.0	5.0				
	FUEL USED – kg	14.0	30.0	50.0	69.0	87.0		40.0	60.0	82.0	109.0				
50	TIME – minutes	0.40	0.84	1.42				0.24	0.36	0.48	0.64			0.90	1.00
	DISTANCE – Anm	3.0	6.0	11.0				2.0	3.0	4.0	5.0				
	FUEL USED – kg	16.0	35.0	60.0				41.0	63.0	87.0	118.0				
60	TIME – minutes	0.46	1.01	1.83				0.25	0.38	0.51	0.71			0.88	0.98
	DISTANCE – Anm	3.0	8.0	14.0				2.0	3.0	4.0	6.0				
	FUEL USED – kg	19.0	42.0	77.0				43.0	66.0	92.0	130.0				
70	TIME – minutes	0.54	1.25	2.67				0.27	0.40	0.55	0.79			0.86	0.97
	DISTANCE – Anm	4.0	9.0	21.0				2.0	3.0	4.0	7.0				
	FUEL USED – kg	22.0	52.0	113.0				46.0	70.0	98.0	146.0				
80	TIME – minutes	0.66	1.63					0.28	0.42	0.58	0.83			0.84	0.97
	DISTANCE – Anm	5.0	12.0					2.0	3.0	5.0	7.0				
	FUEL USED – kg	27.0	68.0					48.0	74.0	104.0	153.0				

FIG.8.38

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION 0.7 M AT 20 000 ft — MASS 13 000 kg, I.S.A. -20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.825	0.85	0.875	0.90	0.75	0.80	0.85	0.875	0.90	0.95		
0	TIME - minutes DISTANCE - Anm FUEL USED - kg														
10	TIME - minutes DISTANCE - Anm FUEL USED - kg														
20	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.45 3.0 18.0	0.86 6.0 35.0	1.07 8.0 45.0	1.29 10.0 54.0	1.57 12.0 66.0	1.84 14.0 79.0	0.14 1.0 24.0	0.27 2.0 47.0	0.40 3.0 70.0	0.46 3.0 81.0	0.52 4.0 93.0	0.66 5.0 120.0	0.93	1.10
30	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.51 4.0 20.0	0.97 7.0 40.0	1.13 9.0 51.0	1.49 11.0 63.0	1.87 14.0 79.0	2.25 18.0 96.0	0.15 1.0 25.0	0.28 2.0 49.0	0.42 3.0 73.0	0.49 3.0 85.0	0.55 4.0 98.0	0.70 6.0 127.0	0.91	1.05
40	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.59 4.0 24.0	1.15 9.0 47.0	1.49 11.0 62.0	1.83 14.0 77.0	2.50 19.0 107.0	3.16 25.0 136.0	0.15 1.0 26.0	0.30 2.0 51.0	0.44 3.0 76.0	0.51 3.0 89.0	0.58 4.0 103.0	0.75 6.0 138.0	0.90	1.03
50	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.71 5.0 29.0	1.39 10.0 57.0	1.85 14.0 77.0	2.31 18.0 97.0	3.18 25.0 136.0		0.16 1.0 27.0	0.31 2.0 53.0	0.46 3.0 80.0	0.54 4.0 96.0	0.61 5.0 109.0	0.82 7.0 149.0	0.88	1.00
60	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.89 6.0 36.0	1.79 13.0 74.0	2.06 21.0 107.0	3.32 26.0 140.0			0.17 1.0 28.0	0.33 2.0 56.0	0.48 4.0 85.0	0.57 4.0 101.0	0.65 5.0 117.0	0.90 7.0 166.0	0.86	0.98
70	TIME - minutes DISTANCE - Anm FUEL USED - kg	1.19 9.0 48.0	2.47 18.0 102.0	3.53 27.0 148.0				0.18 1.0 30.0	0.34 2.0 59.0	0.51 4.0 90.0	0.61 5.0 108.0	0.70 6.0 125.0	1.02 9.0 189.0	0.83	0.97
80	TIME - minutes DISTANCE - Anm FUEL USED - kg	1.75 12.0 71.0	3.62 27.0 150.0					0.19 1.0 31.0	0.36 3.0 62.0	0.54 4.0 95.0	0.64 5.0 114.0	0.75 6.0 133.0		0.80	0.96

FIG. 8.39

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000 ft — MASS 15 000 kg, I.S.A. - 20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.825	0.85	0.875	0.90	0.75	0.80	0.85	0.875	0.90	0.95		
0	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
10	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
20	TIME - minutes														
	DISTANCE - Anm														
	FUEL USED - kg														
30	TIME - minutes	1.34	2.20	2.59	2.97	3.59	4.20	0.20	0.38	0.54	0.62	0.70	0.88		
	DISTANCE - Anm	10.0	16.0	19.0	22.0	28.0	33.0	1.0	3.0	4.0	4.0	5.0	7.0	0.90	1.03
	FUEL USED - kg	54.0	90.0	107.0	124.0	151.0	178.0	34.0	65.0	94.0	110.0	125.0	161.0		
40	TIME - minutes							0.21	0.40	0.57	0.66	0.75	0.96		
	DISTANCE - Anm							1.0	3.0	4.0	5.0	6.0	8.0		0.99
	FUEL USED - kg							36.0	69.0	100.0	117.0	133.0	175.0		
50	TIME - minutes							0.23	0.42	0.60	0.70	0.79	1.05		
	DISTANCE - Anm							2.0	3.0	5.0	6.0	6.0	9.0		0.98
	FUEL USED - kg							38.0	72.0	106.0	124.0	141.0	191.0		
60	TIME - minutes							0.24	0.45	0.64	0.74	0.85	1.17		
	DISTANCE - Anm							2.0	3.0	5.0	6.0	7.0	10.0		0.97
	FUEL USED - kg							40.0	77.0	112.0	132.0	152.0	214.0		
70	TIME - minutes							0.25	0.48	0.69	0.80	0.91	1.35		
	DISTANCE - Anm							2.0	3.0	5.0	6.0	7.0	11.0		0.97
	FUEL USED - kg							43.0	82.0	120.0	141.0	163.0	249.0		
80	TIME - minutes							0.27	0.51	0.73	0.86	0.99	1.41		
	DISTANCE - Anm							2.0	4.0	6.0	7.0	8.0	12.0		0.96
	FUEL USED - kg							46.0	87.0	128.0	152.0	176.0	260.0		

FIG. 8.40

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7 M AT 20 000 ft – MASS 9 000 kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.85	0.875	0.90	0.95	0.80	0.85	0.90	0.95	1.10	1.20		
0	TIME – minutes	0.22	0.45	0.70	0.84	0.98	1.42	0.18	0.26	0.35	0.43	0.94	2.55	0.97	1.21
	DISTANCE – Anm	2.0	3.0	6.0	7.0	8.0	12.0	1.0	2.0	3.0	4.0	9.0	28.0		
	FUEL USED – kg	8.0	17.0	27.0	33.0	38.0	57.0	29.0	44.0	58.0	74.0	174.0	512.0		
10	TIME – minutes	0.24	0.50	0.78	0.95	1.12	1.92	0.18	0.27	0.36	0.46	1.22		0.95	1.14
	DISTANCE – Anm	2.0	4.0	6.0	8.0	9.0	17.0	1.0	2.0	3.0	4.0	12.0			
	FUEL USED – kg	9.0	19.0	30.0	37.0	44.0	78.0	30.0	45.0	61.0	79.0	230.0			
20	TIME – minutes	0.27	0.55	0.88	1.10	1.33		0.19	0.29	0.38	0.48			0.93	1.08
	DISTANCE – Anm	2.0	4.0	7.0	9.0	11.0		1.0	2.0	3.0	4.0				
	FUEL USED – kg	10.0	21.0	34.0	43.0	52.0		31.0	48.0	63.0	82.0				
30	TIME – minutes	0.29	0.62	1.02	1.34	1.67		0.19	0.29	0.39	0.50			0.91	1.04
	DISTANCE – Anm	2.0	5.0	8.0	11.0	14.0		1.0	2.0	3.0	4.0				
	FUEL USED – kg	11.0	24.0	39.0	53.0	66.0		32.0	49.0	67.0	88.0				
40	TIME – minutes	0.33	0.73	1.25				0.21	0.31	0.42	0.55			0.90	1.01
	DISTANCE – Anm	2.0	6.0	10.0				1.0	2.0	3.0	5.0				
	FUEL USED – kg	12.0	28.0	48.0				34.0	51.0	70.0	95.0				
50	TIME – minutes	0.38	0.86	1.60				0.22	0.33	0.44	0.60			0.88	0.99
	DISTANCE – Anm	3.0	7.0	13.0				2.0	3.0	4.0	5.0				
	FUEL USED – kg	14.0	33.0	62.0				35.0	54.0	75.0	104.0				
60	TIME – minutes	0.45	1.08	2.46				0.22	0.34	0.47	0.67			0.86	0.97
	DISTANCE – Anm	3.0	8.0	20.0				2.0	3.0	4.0	6.0				
	FUEL USED – kg	17.0	41.0	96.0				37.0	57.0	80.0	117.0				
70	TIME – minutes	0.55						0.24	0.37	0.51	0.79			0.83	0.96
	DISTANCE – Anm	4.0						2.0	3.0	4.0	7.0				
	FUEL USED – kg	21.0						39.0	60.0	85.0	137.0				
80	TIME – minutes							0.25	0.38	0.54					
	DISTANCE – Anm							2.0	3.0	4.0					0.95
	FUEL USED – kg							41.0	64.0	92.0					

FIG. 8.41

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000 ft — MASS 11 000 kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.85	0.875	0.90	0.95	0.80	0.85	0.90	0.95	1.00	1.10		
0	TIME – minutes	0.31	0.63	0.96	1.15	1.34	2.00	0.23	0.34	0.44	0.55	0.69	1.22	0.96	1.19
	DISTANCE – Anm	2.0	5.0	8.0	10.0	11.0	17.0	2.0	3.0	4.0	5.0	6.0	12.0		
	FUEL USED – kg	12.0	24.0	37.0	45.0	53.0	80.0	37.0	56.0	74.0	95.0	121.0	227.0		
10	TIME – minutes	0.34	0.70	1.09	1.32	1.56		0.24	0.35	0.46	0.58	0.74	1.69	0.95	1.13
	DISTANCE – Anm	2.0	5.0	9.0	11.0	13.0		2.0	3.0	4.0	5.0	7.0	17.0		
	FUEL USED – kg	13.0	27.0	42.0	52.0	61.0		39.0	58.0	78.0	100.0	130.0	319.0		
20	TIME – minutes	0.38	0.79	1.26	1.59	1.92		0.24	0.36	0.48	0.61	0.83		0.92	1.06
	DISTANCE – Anm	3.0	6.0	10.0	13.0	16.0		2.0	3.0	4.0	5.0	8.0			
	FUEL USED – kg	14.0	30.0	49.0	62.0	75.0		40.0	60.0	81.0	105.0	147.0			
30	TIME – minutes	0.43	0.91	1.50	2.03	2.56		0.26	0.38	0.50	0.64	0.94		0.90	1.03
	DISTANCE – Anm	3.0	7.0	12.0	17.0	22.0		2.0	3.0	4.0	6.0	9.0			
	FUEL USED – kg	16.0	35.0	58.0	79.0	101.0		41.0	63.0	85.0	112.0	180.0			
40	TIME – minutes	0.50	1.10	1.93	2.89			0.26	0.39	0.53	0.71			0.89	1.00
	DISTANCE – Anm	4.0	8.0	16.0	24.0			2.0	3.0	4.0	6.0				
	FUEL USED – kg	19.0	42.0	75.0	114.0			43.0	66.0	90.0	122.0				
50	TIME – minutes	0.59	1.36	2.70				0.28	0.42	0.57	0.78			0.87	0.99
	DISTANCE – Anm	4.0	10.0	22.0				2.0	3.0	5.0	7.0				
	FUEL USED – kg	22.0	52.0	105.0				46.0	69.0	97.0	134.0				
60	TIME – minutes	0.75	1.86					0.30	0.44	0.61	0.88			0.85	0.97
	DISTANCE – Anm	5.0	14.0					2.0	3.0	5.0	7.0				
	FUEL USED – kg	28.0	71.0					48.0	73.0	103.0	152.0				
70	TIME – minutes	0.98	2.73					0.31	0.47	0.65	1.05			0.82	0.96
	DISTANCE – Anm	7.0	21.0					2.0	4.0	5.0	9.0				
	FUEL USED – kg	37.0	104.0					50.0	78.0	110.0	182.0				
80	TIME – minutes	1.43						0.32	0.49	0.70	1.07			0.79	0.96
	DISTANCE – Anm	11.0						3.0	4.0	6.0	9.0				
	FUEL USED – kg	54.0						53.0	83.0	119.0	188.0				

FIG. 8.42

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7 M AT 20 000 ft — MASS 13 000 kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.85	0.875	0.90		0.75	0.80	0.85	0.90	0.95	1.00		
0	TIME - minutes DISTANCE - Anm FUEL USED - kg														
10	TIME - minutes DISTANCE - Anm FUEL USED - kg														
20	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.66 5.0 24.0	1.26 10.0 48.0	1.95 15.0 75.0	2.47 20.0 96.0	2.98 25.0 117.0		0.16 1.0 26.0	0.31 2.0 50.0	0.45 4.0 75.0	0.60 5.0 101.0	0.76 6.0 131.0	1.05 9.0 184.0	0.92	1.05
30	TIME - minutes DISTANCE - Anm FUEL USED - kg	0.79 6.0 29.0	1.53 12.0 58.0	2.44 19.0 94.0	3.00 26.0 123.0			0.17 1.0 27.0	0.32 2.0 53.0	0.48 4.0 79.0	0.63 5.0 106.0	0.81 7.0 140.0	1.22 11.0 219.0	0.90	1.03
40	TIME - minutes DISTANCE - Anm FUEL USED - kg	1.00 7.0 38.0	1.99 15.0 76.0	3.48 28.0 135.0				0.18 1.0 28.0	0.34 3.0 55.0	0.51 4.0 83.0	0.68 5.0 114.0	0.89 7.0 154.0		0.87	1.00
50	TIME - minutes DISTANCE - Anm FUEL USED - kg	1.36 10.0 51.0	2.78 21.0 105.0					0.19 1.0 29.0	0.36 3.0 58.0	0.53 4.0 88.0	0.72 6.0 121.0	0.98 8.0 169.0		0.83	0.98
60	TIME - minutes DISTANCE - Anm FUEL USED - kg	2.17 16.0 81.0						0.19 1.0 31.0	0.38 3.0 62.0	0.56 4.0 93.0	0.77 6.0 130.0	1.12 10.0 194.0		0.78	0.97
70	TIME - minutes DISTANCE - Anm FUEL USED - kg							0.20 2.0 33.0	0.40 3.0 65.0	0.60 5.0 99.0	0.83 7.0 140.0	1.26 11.0 220.0			0.96
80	TIME - minutes DISTANCE - Anm FUEL USED - kg							0.21 2.0 34.0	0.42 3.0 79.0	0.64 5.0 106.0	0.89 7.0 153.0	1.40 12.0 245.0			0.95

FIG. 8.43

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000 ft – MASS 15 000 kg, I.S.A

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.75	0.80	0.85	0.875	0.90	0.95	MAX. DRY	MAX. REHEAT
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg														
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.24 2.0 39.0	0.45 3.0 74.0	0.64 5.0 107.0	0.74 6.0 124.0	0.84 7.0 141.0	1.07 9.0 183.0		1.02
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.25 2.0 41.0	0.48 3.0 78.0	0.68 6.0 114.0	0.79 7.0 133.0	0.90 8.0 152.0	1.19 10.0 204.0		0.99
50	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.27 2.0 44.0	0.51 4.0 83.0	0.73 6.0 121.0	0.85 7.0 142.0	0.97 8.0 163.0	1.31 11.0 226.0		0.98
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.29 2.0 47.0	0.55 4.0 90.0	0.79 7.0 131.0	0.92 8.0 154.0	1.06 9.0 178.0	1.76 15.0 308.0		0.96
70	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.32 2.0 51.0	0.59 4.0 96.0	0.85 7.0 141.0	1.00 8.0 167.0	1.15 9.0 193.0	2.21 19.0 390.0		0.95
80	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.35 2.0 56.0	0.65 5.0 103.0	0.92 8.0 152.0	1.09 9.0 181.0	1.25 10.0 212.0			0.95

FIG. 8.44

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7 M AT 20 000 ft — MASS 9 000 kg, I.S.A.+20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.825	0.85	0.875	0.90	0.75	0.80	0.85	0.90	0.95	1.00		
0	TIME - minutes	0.32	0.67	0.87	1.06	1.31	1.56	0.11	0.22	0.33	0.45	0.58	0.76	0.94	1.08
	DISTANCE - Anm	2.0	5.0	7.0	9.0	11.0	13.0	1.0	2.0	3.0	4.0	5.0	7.0		
	FUEL USED - kg	10.0	22.0	29.0	36.0	45.0	54.0	16.0	32.0	49.0	66.0	86.0	116.0		
10	TIME - minutes	0.36	0.76	1.00	1.24	1.56	1.99	0.12	0.23	0.35	0.47	0.62	0.85	0.92	1.04
	DISTANCE - Anm	3.0	6.0	8.0	10.0	13.0	17.0	1.0	2.0	3.0	4.0	5.0	8.0		
	FUEL USED - kg	12.0	26.0	34.0	42.0	55.0	69.0	17.0	34.0	51.0	70.0	92.0	131.0		
20	TIME - minutes	0.41	0.90	1.22	1.54			0.12	0.25	0.37	0.50	0.67		0.90	1.01
	DISTANCE - Anm	3.0	7.0	10.0	13.0			1.0	2.0	3.0	4.0	6.0			
	FUEL USED - kg	14.0	30.0	41.0	52.0			17.0	35.0	54.0	74.0	100.0			
30	TIME - minutes	0.48	1.10	1.58	2.06			0.13	0.26	0.39	0.54	0.73		0.88	0.99
	DISTANCE - Anm	4.0	9.0	13.0	17.0			1.0	2.0	3.0	5.0	7.0			
	FUEL USED - kg	16.0	37.0	54.0	70.0			18.0	37.0	57.0	79.0	110.0			
40	TIME - minutes	0.60	1.47					0.13	0.27	0.42	0.58	0.85		0.85	0.97
	DISTANCE - Anm	5.0	12.0					1.0	2.0	3.0	5.0	8.0			
	FUEL USED - kg	20.0	49.0					19.0	39.0	61.0	86.0	128.0			
50	TIME - minutes	0.76	2.20					0.14	0.29	0.44	0.63	1.04		0.82	0.96
	DISTANCE - Anm	6.0	18.0					1.0	2.0	4.0	5.0	10.0			
	FUEL USED - kg	25.0	74.0					20.0	41.0	65.0	93.0	158.0			
60	TIME - minutes	1.11						0.15	0.31	0.48	0.69			0.79	0.94
	DISTANCE - Anm	9.0						1.0	2.0	4.0	6.0				
	FUEL USED - kg	37.0						21.0	44.0	70.0	103.0				
70	TIME - minutes							0.16	0.33	0.52	0.77				0.93
	DISTANCE - Anm							1.0	3.0	4.0	7.0				
	FUEL USED - kg							23.0	47.0	75.0	114.0				
80	TIME - minutes							0.17	0.35	0.56	0.87				0.93
	DISTANCE - Anm							1.0	3.0	5.0	8.0				
	FUEL USED - kg							24.0	50.0	82.0	129.0				

FIG. 8.45

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7 M AT 20 000 ft — MASS 11 000 kg, I.S.A. +20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.80	0.825	0.85	0.875	0.90	0.75	0.80	0.85	0.90	0.95	1.00		
0	TIME – minutes	0.47	0.98	1.27	1.55	1.93	2.30	0.15	0.29	0.43	0.58	0.74	0.98	0.93	1.07
	DISTANCE – Anm	4.0	8.0	10.0	13.0	17.0	20.0	1.0	2.0	4.0	5.0	7.0	9.0		
	FUEL USED – kg	16.0	33.0	43.0	52.0	65.0	79.0	21.0	42.0	63.0	85.0	111.0	149.0		
10	TIME – minutes	0.54	1.15	1.52	1.89	2.52	3.16	0.15	0.30	0.45	0.61	0.79	1.11	0.91	1.03
	DISTANCE – Anm	4.0	9.0	12.0	16.0	22.0	28.0	1.0	2.0	4.0	5.0	7.0	10.0		
	FUEL USED – kg	18.0	39.0	51.0	64.0	86.0	109.0	22.0	44.0	66.0	90.0	119.0	171.0		
20	TIME – minutes	0.65	1.42	1.95	2.49			0.16	0.32	0.48	0.65	0.86		0.89	1.01
	DISTANCE – Anm	5.0	11.0	16.0	21.0			1.0	2.0	4.0	6.0	8.0			
	FUEL USED – kg	21.0	48.0	66.0	84.0			23.0	46.0	70.0	96.0	130.0			
30	TIME – minutes	0.80	1.86	2.34	3.82			0.17	0.34	0.51	0.70	0.95		0.86	0.99
	DISTANCE – Anm	6.0	15.0	24.0	32.0			1.0	3.0	4.0	6.0	9.0			
	FUEL USED – kg	26.0	62.0	96.0	130.0			24.0	48.0	74.0	103.0	144.0			
40	TIME – minutes	1.07	2.89					0.18	0.36	0.54	0.76	1.12		0.83	0.97
	DISTANCE – Anm	8.0	23.0					1.0	3.0	4.0	7.0	10.0			
	FUEL USED – kg	35.0	97.0					25.0	51.0	80.0	112.0	170.0			
50	TIME – minutes	1.59						0.19	0.38	0.58	0.82	1.45		0.79	0.95
	DISTANCE – Anm	12.0						1.0	3.0	5.0	7.0	13.0			
	FUEL USED – kg	53.0						27.0	55.0	85.0	122.0	222.0			
60	TIME – minutes							0.20	0.41	0.63	0.91				0.94
	DISTANCE – Anm							1.0	3.0	5.0	8.0				
	FUEL USED – kg							28.0	59.0	92.0	136.0				
70	TIME – minutes							0.21	0.44	0.69	1.03				0.93
	DISTANCE – Anm							2.0	3.0	6.0	9.0				
	FUEL USED – kg							30.0	63.0	100.0	152.0				
80	TIME – minutes							0.23	0.47	0.75	1.18				0.92
	DISTANCE – Anm							2.0	4.0	6.0	10.0				
	FUEL USED – kg							32.0	68.0	109.0	175.0				

FIG. 8.46

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000 ft – MASS 13 000 kg, I.S.A. +20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.75	0.775	0.80	0.825	0.85		0.75	0.80	0.85	0.875	0.90	0.95		
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg	1.56 12.0 51.0	2.26 18.0 75.0	2.97 24.0 99.0	4.07 34.0 1.37	5.17 43.0 175.0		0.22 2.0 31.0	0.42 3.0 60.0	0.62 5.0 91.0	0.73 6.0 108.0	0.84 7.0 124.0	1.11 10.0 167.0	0.87	1.00
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.23 2.0 32.0	0.44 3.0 64.0	0.66 5.0 97.0	0.78 7.0 115.0	0.90 8.0 133.0	1.24 11.0 186.0		0.98
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.24 2.0 35.0	0.48 4.0 69.0	0.71 6.0 104.0	0.85 7.0 125.0	0.99 8.0 146.0	1.49 13.0 225.0		0.96
50	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.26 2.0 37.0	0.51 4.0 73.0	0.77 6.0 112.0	0.93 8.0 136.0	1.08 9.0 160.0			0.94
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.28 2.0 40.0	0.55 4.0 79.0	0.84 7.0 123.0	1.03 9.0 152.0	1.21 10.0 180.0			0.93
70	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.30 2.0 43.0	0.60 5.0 86.0	0.92 8.0 135.0	1.15 10.0 170.0	1.38 12.0 205.0			0.92
80	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.33 2.0 46.0	0.65 5.0 93.0	1.02 8.0 149.0	1.32 11.0 195.0	1.62 14.0 241.0			0.92

FIG. 8.47

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.7M AT 20 000ft – MASS 15 000 kg, I.S.A.+20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.75	0.80	0.85	0.875	0.90	0.95	MAX. DRY	MAX. REHEAT
0	TIME – minutes DISTANCE – Anm FUEL USED – kg														
10	TIME – minutes DISTANCE – Anm FUEL USED – kg														
20	TIME – minutes DISTANCE – Anm FUEL USED – kg														
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.34 3.0 49.0	0.64 5.0 92.0	0.92 8.0 133.0	1.06 9.0 156.0	1.21 10.0 179.0	1.65 15.0 249.0		0.98
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.37 3.0 53.0	0.70 6.0 100.0	1.00 8.0 146.0	1.17 10.0 172.0	1.35 11.0 199.0	2.07 19.0 313.0		0.96
50	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.41 3.0 58.0	0.76 6.0 109.0	1.09 9.0 159.0	1.21 11.0 190.0	1.50 13.0 222.0			0.94
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.45 3.0 64.0	0.84 7.0 120.0	1.22 10.0 177.0	1.47 12.0 215.0	1.71 15.0 253.0			0.93
70	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.50 4.0 71.0	0.93 7.0 134.0	1.36 11.0 199.0	1.67 14.0 248.0	1.99 17.0 295.0			0.92
80	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.56 4.0 80.0	1.04 8.0 150.0	1.54 13.0 225.0	1.98 17.0 296.0	2.42 21.0 360.0			0.91

FIG.8.48

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8 M AT 36 090 ft – MASS 9 000 kg, I.S.A. –20 °C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.825	0.85	0.875	0.90	0.925	0.95	0.85	0.90	0.95	1.00	1.10	1.20		
0	TIME – minutes	0.34	0.68	0.95	1.22	1.53	1.85	0.21	0.38	0.55	0.76	1.39	2.33	0.98	1.56
	DISTANCE – Anm	2.0	5.0	7.0	9.0	12.0	15.0	1.0	3.0	4.0	6.0	12.0	21.0		
	FUEL USED – kg	8.0	16.0	23.0	29.0	37.0	44.0	20.0	38.0	55.0	78.0	152.0	263.0		
10	TIME – minutes	0.41	0.83	1.16	1.49	1.97	2.45	0.22	0.41	0.59	0.83	1.73		0.96	1.46
	DISTANCE – Anm	3.0	6.0	8.0	11.0	15.0	20.0	2.0	3.0	5.0	7.0	16.0			
	FUEL USED – kg	9.0	19.0	27.0	35.0	47.0	59.0	21.0	40.0	59.0	85.0	192.0			
20	TIME – minutes	0.55	1.10	1.53	1.97			0.23	0.44	0.64	0.95	3.27		0.93	1.09
	DISTANCE – Anm	4.0	8.0	11.0	15.0			2.0	3.0	5.0	8.0	29.0			
	FUEL USED – kg	12.0	25.0	35.0	46.0			22.0	43.0	64.0	98.0	376.0			
30	TIME – minutes	0.79	1.59	2.21	2.83			0.25	0.47	0.70				0.90	1.02
	DISTANCE – Anm	6.0	12.0	17.0	22.0			2.0	4.0	6.0					
	FUEL USED – kg	19.0	37.0	51.0	66.0			24.0	46.0	70.0					
40	TIME – minutes							0.27	0.51	0.79					1.00
	DISTANCE – Anm							2.0	4.0	6.0					
	FUEL USED – kg							26.0	50.0	79.0					
50	TIME – minutes							0.29	0.56	0.89					0.98
	DISTANCE – Anm							2.0	4.0	7.0					
	FUEL USED – kg							28.0	55.0	90.0					
60	TIME – minutes							0.32	0.62	1.05					0.97
	DISTANCE – Anm							2.0	5.0	9.0					
	FUEL USED – kg							31.0	61.0	106.0					
70	TIME – minutes							0.36	0.70	1.33					0.94
	DISTANCE – Anm							3.0	5.0	11.0					
	FUEL USED – kg							34.0	68.0	135.0					
80	TIME – minutes							0.40	0.79	1.40					0.94
	DISTANCE – Anm							3.0	6.0	11.0					
	FUEL USED – kg							39.0	77.0	141.0					

FIG. 8.49

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8M AT 36 090 ft – MASS 11 000kg, I.S.A. –20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.85	0.90	0.95	1.00	1.10	1.20	MAX. DRY	MAX. REHEAT
0	TIME – minutes							0.41	0.71	0.99	1.30	2.43	4.15		
	DISTANCE – Anm							3.0	3.0	8.0	11.0	21.0	40.0		1.53
	FUEL USED – kg							40.0	70.0	98.0	133.0	268.0	493.0		
10	TIME – minutes							0.45	0.78	1.09	1.47	3.55			
	DISTANCE – Anm							3.0	6.0	9.0	12.0	32.0			1.31
	FUEL USED – kg							43.0	77.0	109.0	151.0	399.0			
20	TIME – minutes							0.51	0.87	1.22					
	DISTANCE – Anm							4.0	7.0	10.0					1.03
	FUEL USED – kg							49.0	86.0	122.0					
30	TIME – minutes							0.57	0.98	1.40					
	DISTANCE – Anm							4.0	8.0	11.0					1.01
	FUEL USED – kg							55.0	96.0	139.0					
40	TIME – minutes							0.68	1.16	1.69					
	DISTANCE – Anm							5.0	9.0	13.0					0.97
	FUEL USED – kg							65.0	113.0	169.0					
50	TIME – minutes							0.81	1.37	2.10					
	DISTANCE – Anm							6.0	10.0	17.0					0.95
	FUEL USED – kg							78.0	133.0	210.0					
60	TIME – minutes							1.02	1.69						
	DISTANCE – Anm							8.0	13.0						0.94
	FUEL USED – kg							97.0	165.0						
70	TIME – minutes							1.35	2.19						
	DISTANCE – Anm							10.0	17.0						0.92
	FUEL USED – kg							129.0	214.0						
80	TIME – minutes														
	DISTANCE – Anm														
	FUEL USED – kg														

FIG. 8.50

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8 M AT 36 090 ft — MASS 9 000 kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY						MAX. REHEAT						M max.	
		MACH NUMBER						MACH NUMBER						MAX. DRY	MAX. REHEAT
		0.825	0.85	0.875	0.90	0.925	0.95	0.85	0.90	0.925	0.95	1.10	1.20		
0	TIME – minutes	0.50	1.00	1.37	1.73	2.22	2.70	0.23	0.43	0.53	0.63	1.76	3.26	0.97	1.38
	DISTANCE – Anm	4.0	8.0	11.0	14.0	18.0	22.0	2.0	3.0	4.0	5.0	17.0	33.0		
	FUEL USED – kg	11.0	22.0	31.0	39.0	50.0	62.0	21.0	41.0	50.0	60.0	187.0	374.0		
10	TIME – minutes	0.68	1.35	1.83	2.31			0.25	0.46	0.56	0.67	2.51		0.95	1.17
	DISTANCE – Anm	6.0	11.0	15.0	19.0			2.0	4.0	5.0	6.0	24.0			
	FUEL USED – kg	15.0	30.0	41.0	52.0			23.0	43.0	54.0	65.0	271.0			
20	TIME – minutes							0.26	0.50	0.61	0.73				1.06
	DISTANCE – Anm							2.0	4.0	5.0	6.0				
	FUEL USED – kg							24.0	47.0	59.0	71.0				
30	TIME – minutes							0.28	0.53	0.67	0.81				1.03
	DISTANCE – Anm							2.0	4.0	6.0	7.0				
	FUEL USED – kg							26.0	50.0	64.0	78.0				
40	TIME – minutes							0.31	0.59	0.76	0.93				0.99
	DISTANCE – Anm							2.0	5.0	7.0	8.0				
	FUEL USED – kg							29.0	56.0	73.0	90.0				
50	TIME – minutes							0.34	0.65	0.86	1.07				0.98
	DISTANCE – Anm							3.0	5.0	7.0	9.0				
	FUEL USED – kg							31.0	62.0	83.0	104.0				
60	TIME – minutes							0.38	0.73	1.03	1.34				0.96
	DISTANCE – Anm							3.0	6.0	9.0	11.0				
	FUEL USED – kg							35.0	69.0	100.0	130.0				
70	TIME – minutes							0.43	0.83	1.22	1.62				0.95
	DISTANCE – Anm							3.0	7.0	10.0	14.0				
	FUEL USED – kg							39.0	79.0	119.0	158.0				
80	TIME – minutes							0.48	0.96	1.47	1.98				0.95
	DISTANCE – Anm							4.0	8.0	12.0	17.0				
	FUEL USED – kg							45.0	91.0	142.0	194.0				

FIG. 8.51

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8M AT 36 090ft – MASS 11 000kg, I.S.A.

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER, 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.85	0.90	0.925	0.95	1.10	1.20	MAX. DRY	MAX. REHEAT
0	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.48 4.0 45.0	0.84 7.0 79.0	1.00 9.0 95.0	1.16 10.0 111.0	3.50 33.0 374.0	8.09 84.0 946.0		1.20
10	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.54 4.0 50.0	0.93 8.0 87.0	1.11 10.0 106.0	1.29 11.0 124.0				1.06
20	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.61 5.0 57.0	1.05 8.0 99.0	1.26 10.0 120.0	1.47 12.0 142.0				1.03
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.71 6.0 66.0	1.20 10.0 113.0	1.46 12.0 139.0	1.72 14.0 165.0				1.00
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.86 7.0 80.0	1.45 12.0 137.0	1.82 15.0 174.0	2.18 18.0 210.0				0.98
50	TIME – minutes DISTANCE – Anm FUEL USED – kg							1.07 8.0 99.0	1.78 14.0 167.0	2.35 19.0 225.0	2.92 24.0 282.0				0.96
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							1.45 11.0 134.0	2.33 18.0 219.0						0.92
70	TIME – minutes DISTANCE – Anm FUEL USED – kg														0.90
80	TIME – minutes DISTANCE – Anm FUEL USED – kg														0.88

FIG. 8.52

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8M AT 36 090ft – MASS 9 000kg, I.S.A. +20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.85	0.875	0.90	0.925	0.95	1.00	MAX. DRY	MAX. REHEAT
0	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.28 2.0 24.0	0.40 3.0 35.0	0.52 4.0 46.0	0.64 6.0 57.0	0.76 7.0 69.0	1.08 10.0 100.0		1.11
10	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.30 2.0 26.0	0.43 3.0 38.0	0.56 5.0 50.0	0.69 6.0 62.0	0.83 7.0 75.0	1.24 11.0 116.0		1.05
20	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.33 3.0 29.0	0.47 4.0 42.0	0.61 5.0 54.0	0.76 7.0 69.0	0.92 8.0 83.0	1.61 15.0 151.0		1.02
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.36 3.0 31.0	0.51 4.0 46.0	0.67 6.0 60.0	0.85 8.0 87.0	1.04 9.0 94.0			1.00
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.40 3.0 35.0	0.58 4.0 51.0	0.76 6.0 68.0	1.00 9.0 90.0	1.24 11.0 113.0			0.97
50	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.45 4.0 39.0	0.65 6.0 58.0	0.86 7.0 76.0	1.20 10.0 109.0	1.55 14.0 142.0			0.96
60	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.51 4.0 45.0	0.75 6.0 66.0	0.99 8.0 88.0					0.94
70	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.59 5.6 52.0	0.89 8.0 78.0	1.18 10.0 105.0					0.93
80	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.70 6.0 61.0	1.07 9.0 94.0	1.44 12.0 128.0					0.92

FIG.8.53

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

LEVEL ACCELERATION FROM 0.8M AT 36 090ft – MASS 11 000kg, I.S.A. + 20°C

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

DRAG INDEX		MAX. DRY MACH NUMBER						MAX. REHEAT MACH NUMBER						M max.	
								0.85	0.875	0.90	0.925	0.95	1.00	MAX. DRY	MAX. REHEAT
0	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.66 5.0 58.0	0.88 7.0 78.0	1.11 9.0 99.0	1.32 11.0 119.0	1.53 13.0 138.0	2.10 19.0 193.0		1.04
10	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.76 6.0 67.0	1.02 9.0 90.0	1.27 11.0 113.0	1.51 13.0 136.0	1.76 15.0 159.0	2.60 23.0 240.0		1.02
20	TIME – minutes DISTANCE – Anm FUEL USED – kg							0.92 8.0 80.0	1.21 10.0 106.0	1.50 13.0 133.0	1.80 16.0 161.0	2.11 18.0 190.0			0.98
30	TIME – minutes DISTANCE – Anm FUEL USED – kg							1.13 9.0 99.0	1.47 12.0 130.0	1.82 15.0 161.0	2.22 19.0 199.0	2.62 23.0 236.0			0.96
40	TIME – minutes DISTANCE – Anm FUEL USED – kg							1.55 13.0 135.0	1.98 17.0 175.0	2.42 20.0 214.0					0.93
50	TIME – minutes DISTANCE – Anm FUEL USED – kg														
60	TIME – minutes DISTANCE – Anm FUEL USED – kg														
70	TIME – minutes DISTANCE – Anm FUEL USED – kg														
80	TIME – minutes DISTANCE – Anm FUEL USED – kg														

FIG. 8.54

COMBAT CEILING – MAX. DRY, DRAG INDEX 0

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JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

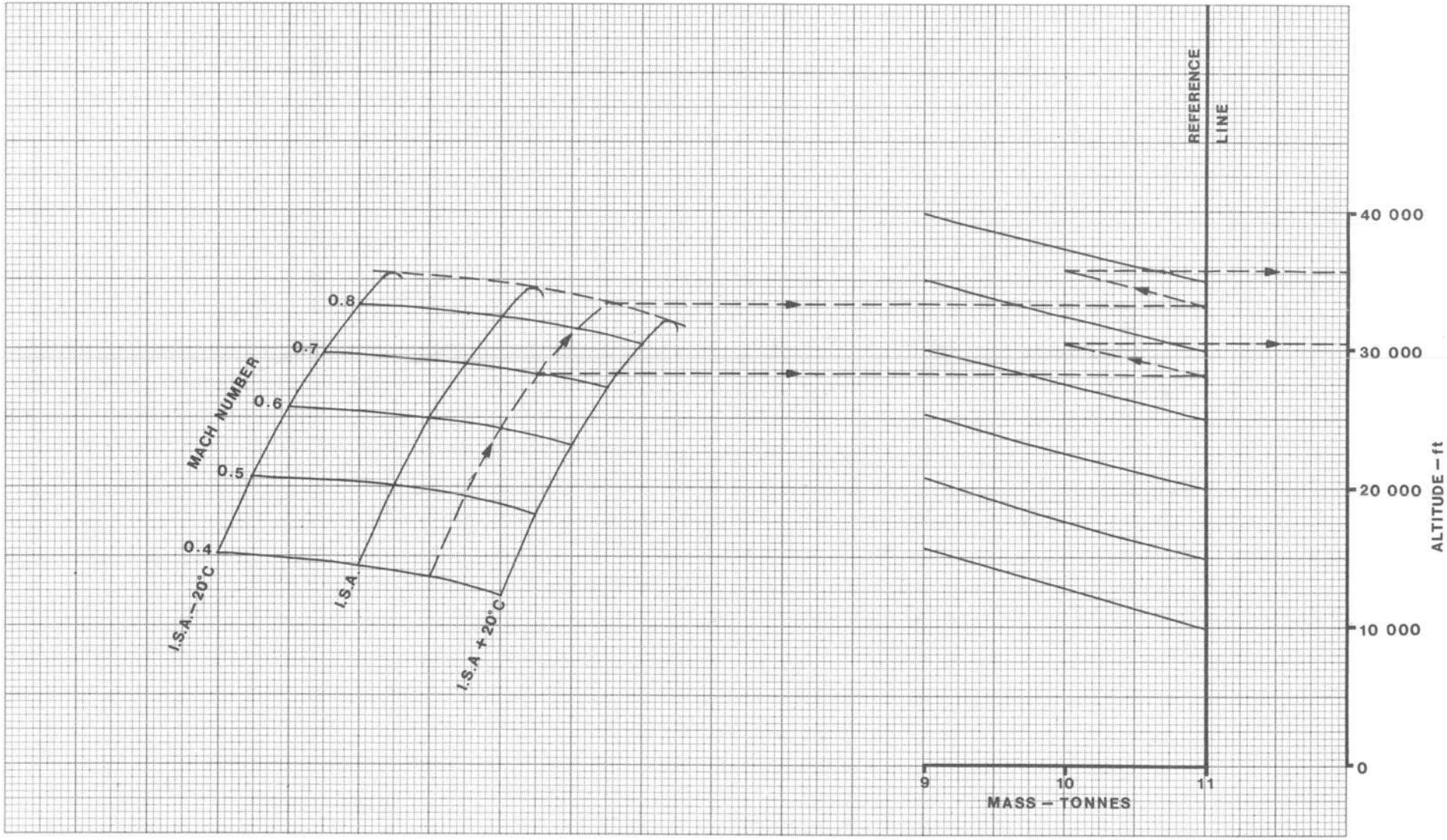

FIG. 8.55

COMBAT CEILING – MAX. DRY, DRAG INDEX 20

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

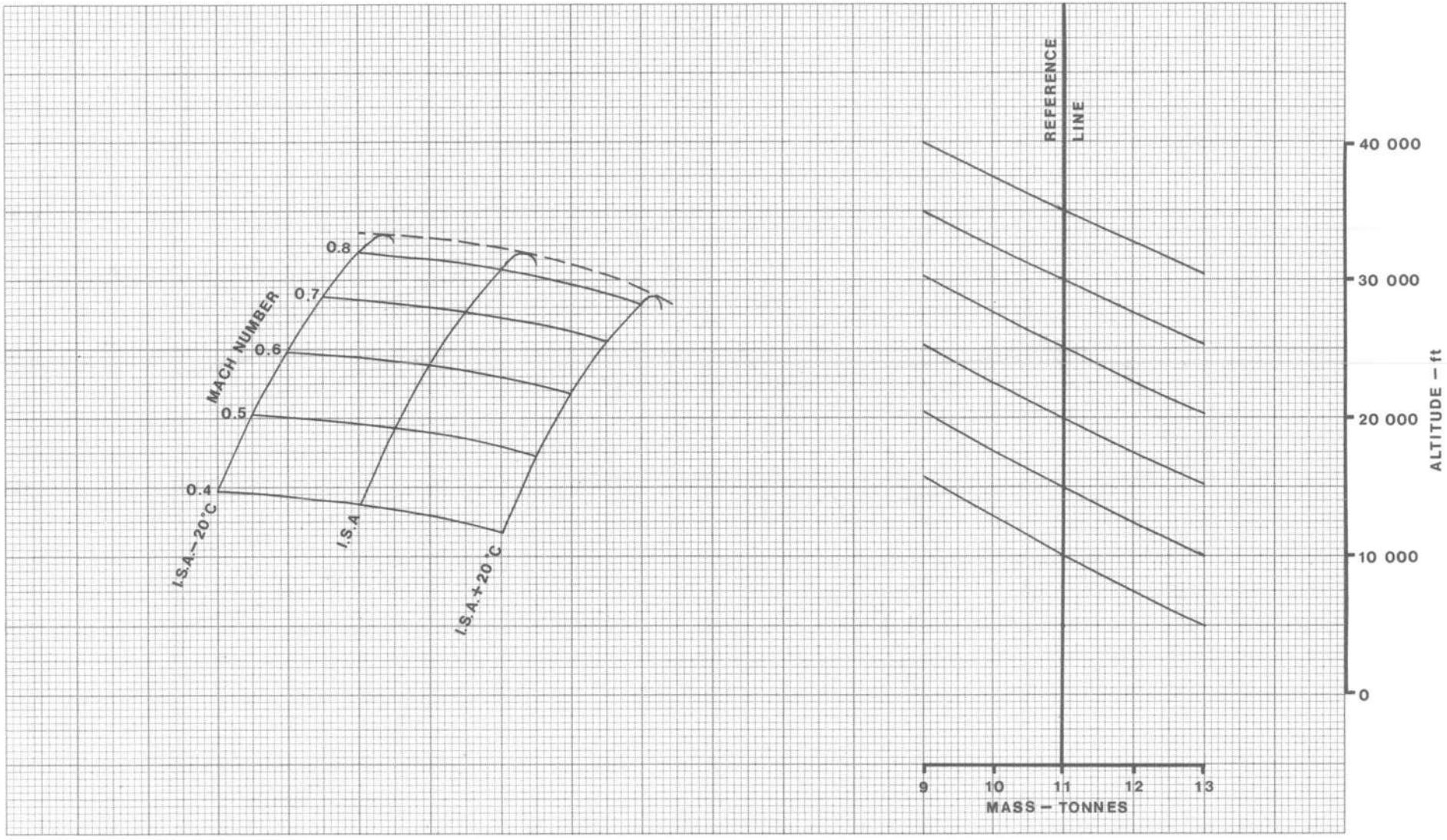

FIG. 8.56

COMBAT CEILING – MAX. DRY, DRAG INDEX 40

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

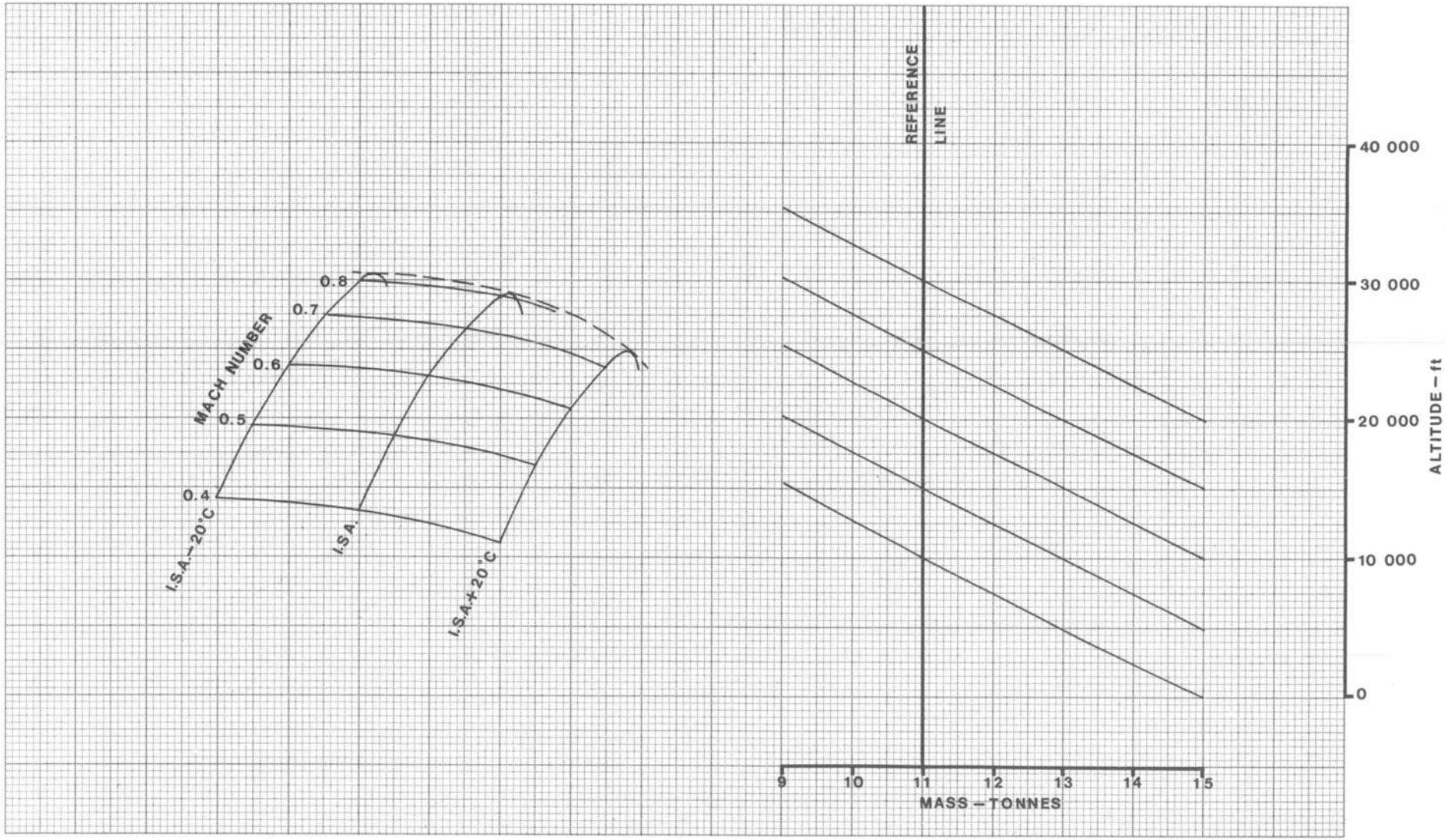

FIG. 8.57

COMBAT CEILING – MAX. DRY, DRAG INDEX 60

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

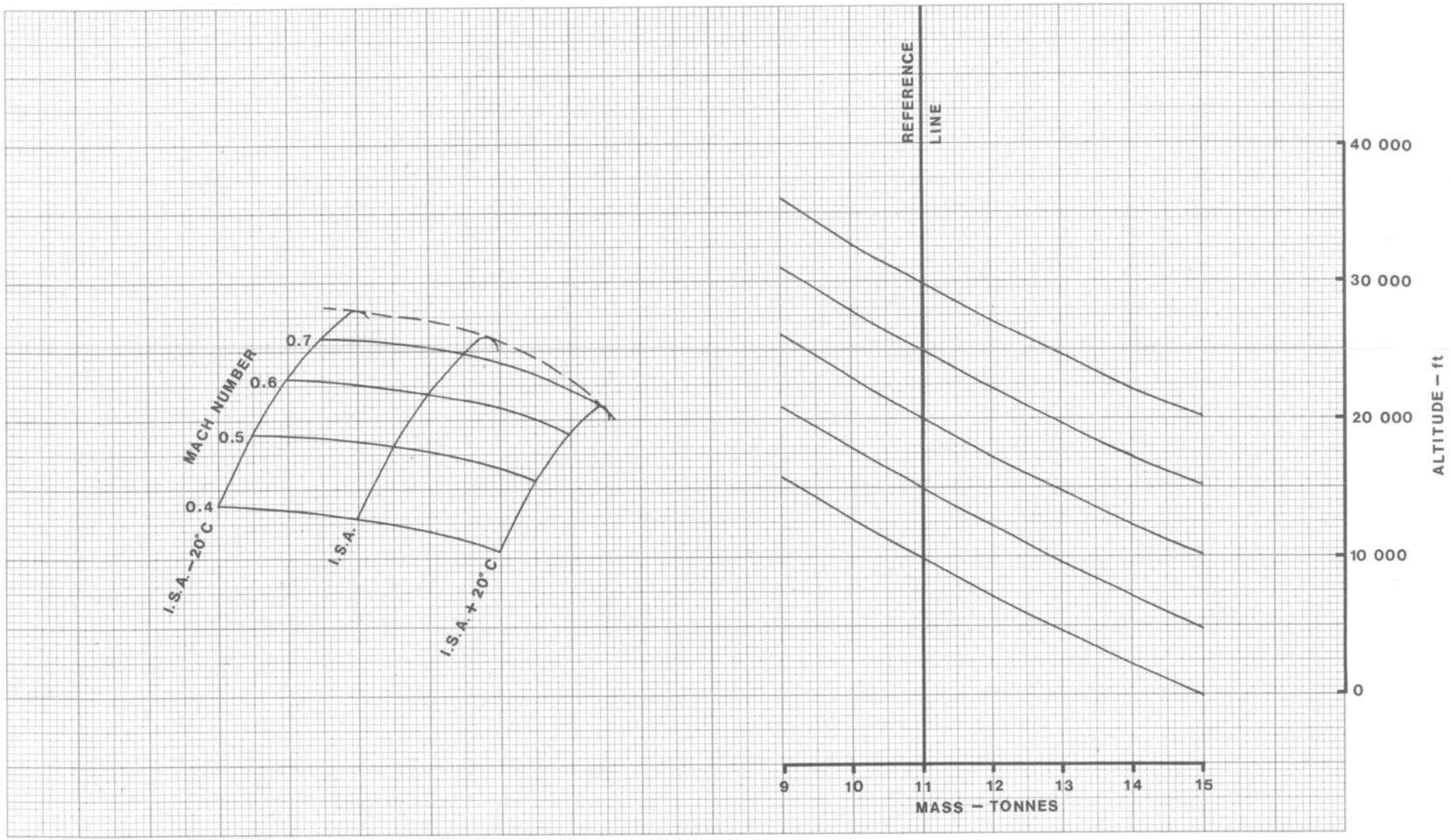

FIG. 8.58

COMBAT CEILING — MAX. DRY, DRAG INDEX 80

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975

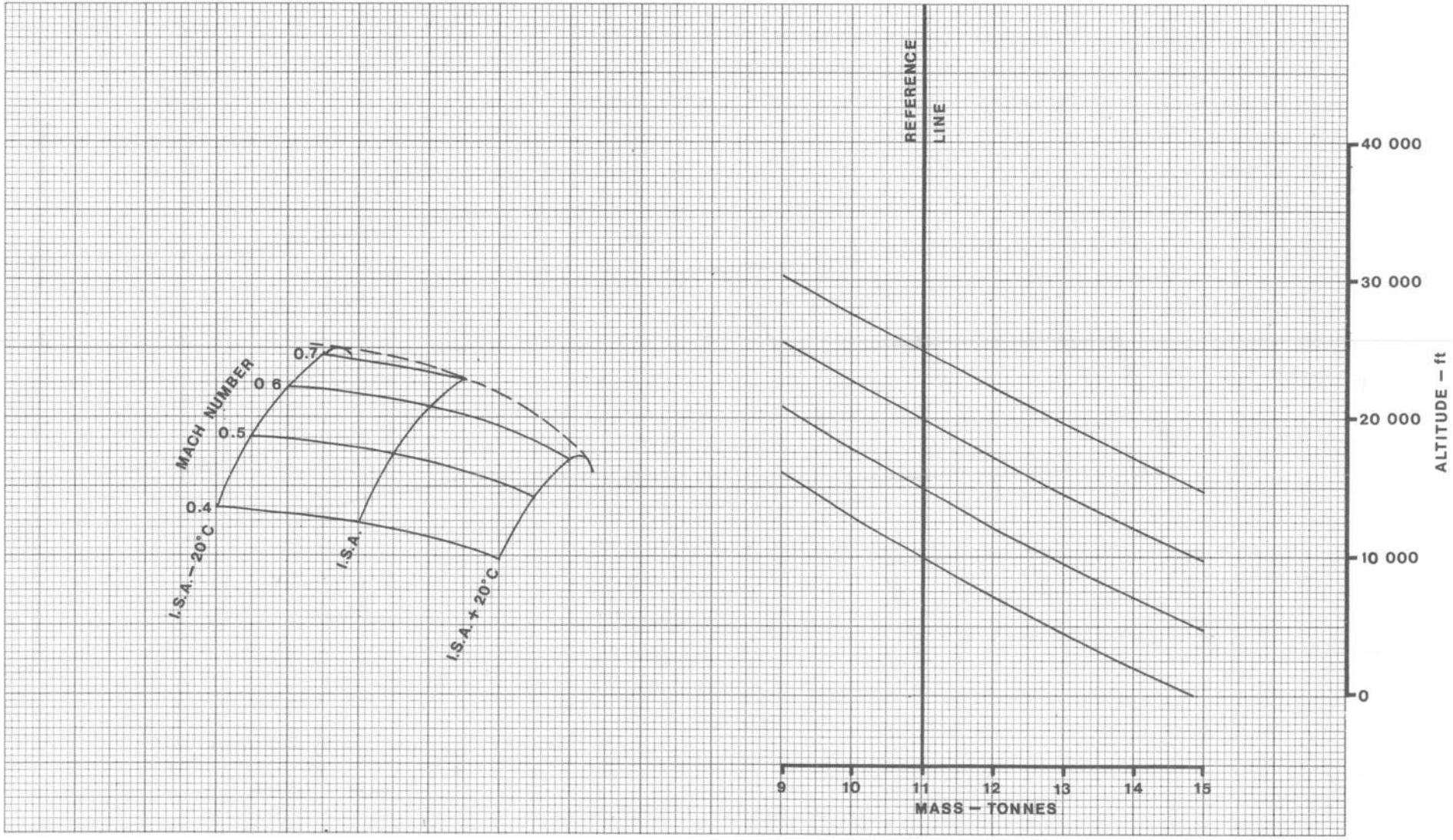

FIG. 8.59

COMBAT CEILING – MAX. REHEAT, DRAG INDEX 0

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

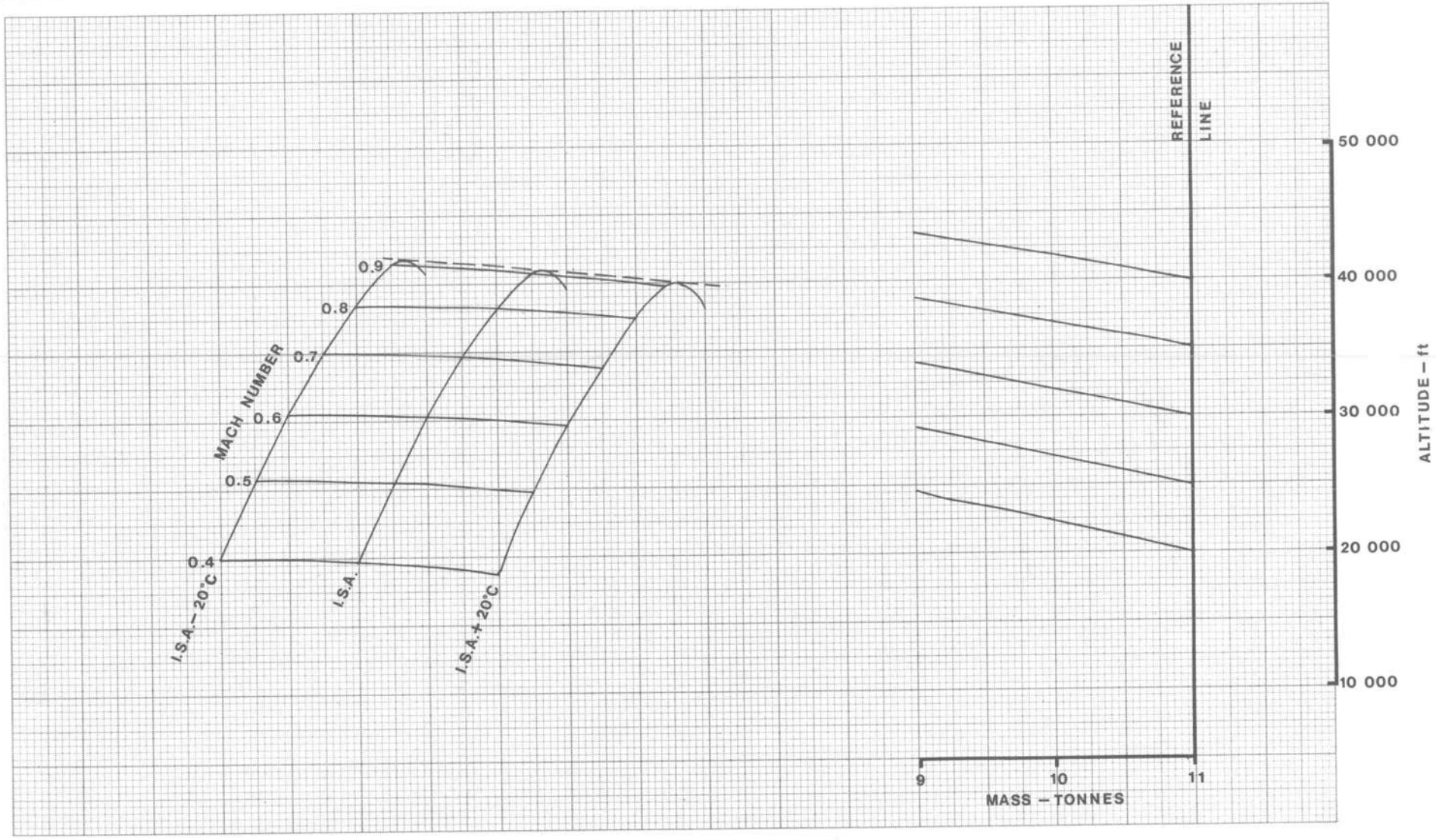

FIG. 8.60

COMBAT CEILING — MAX. REHEAT, DRAG INDEX 20

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

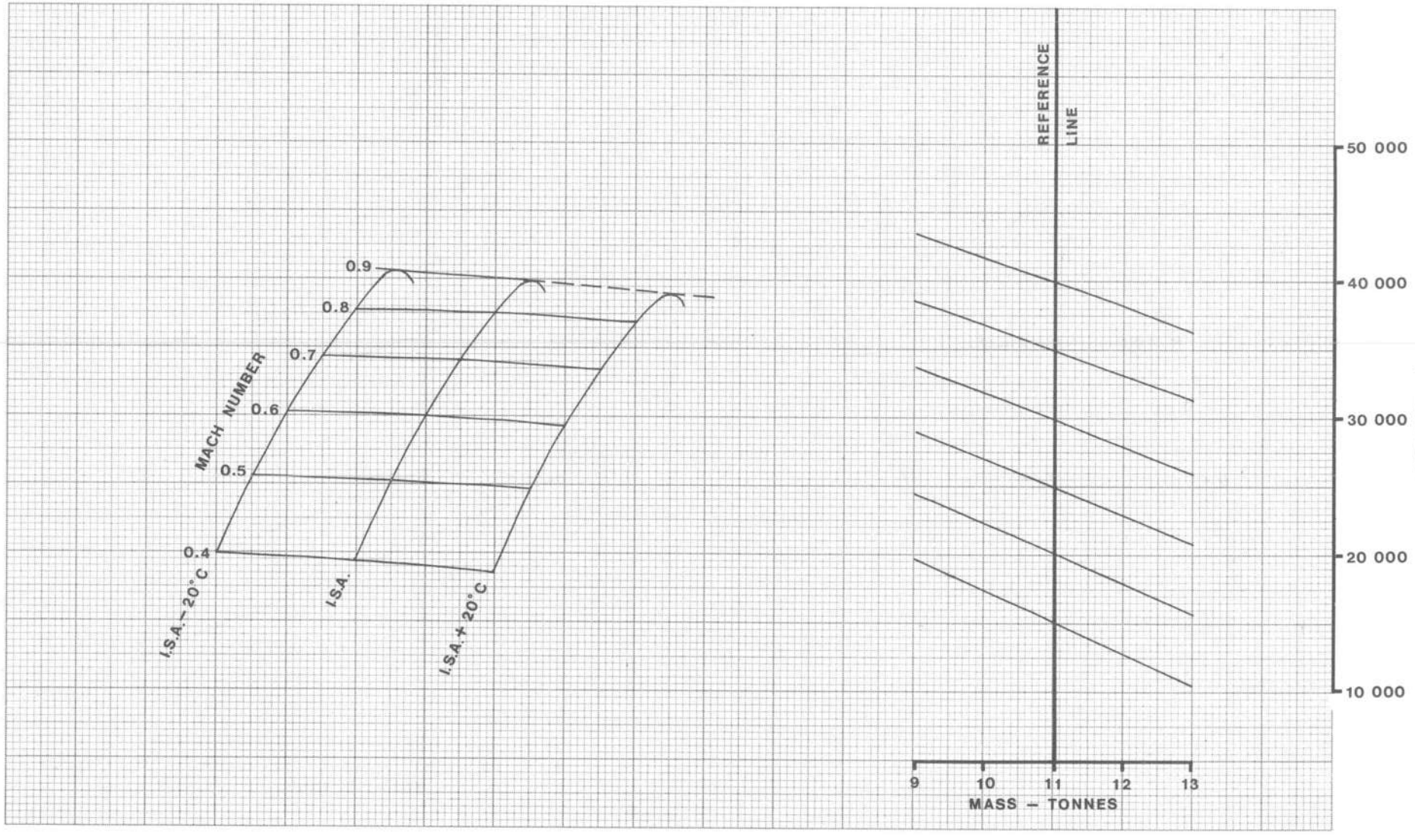

FIG. 8.61

COMBAT CEILING — MAX. REHEAT, DRAG INDEX 40

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

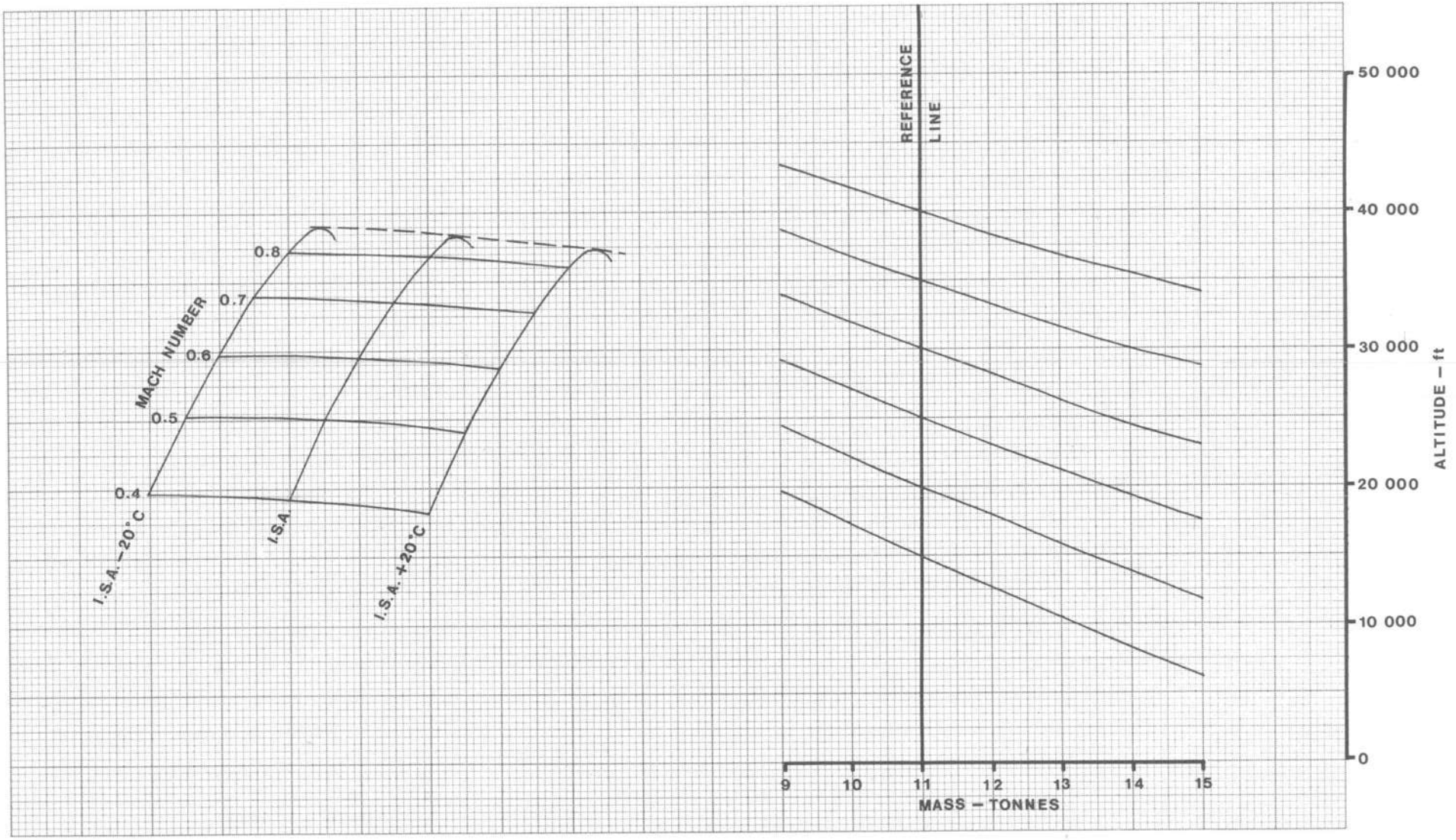

FIG. 8.62

COMBAT CEILING – MAX. REHEAT, DRAG INDEX 60

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

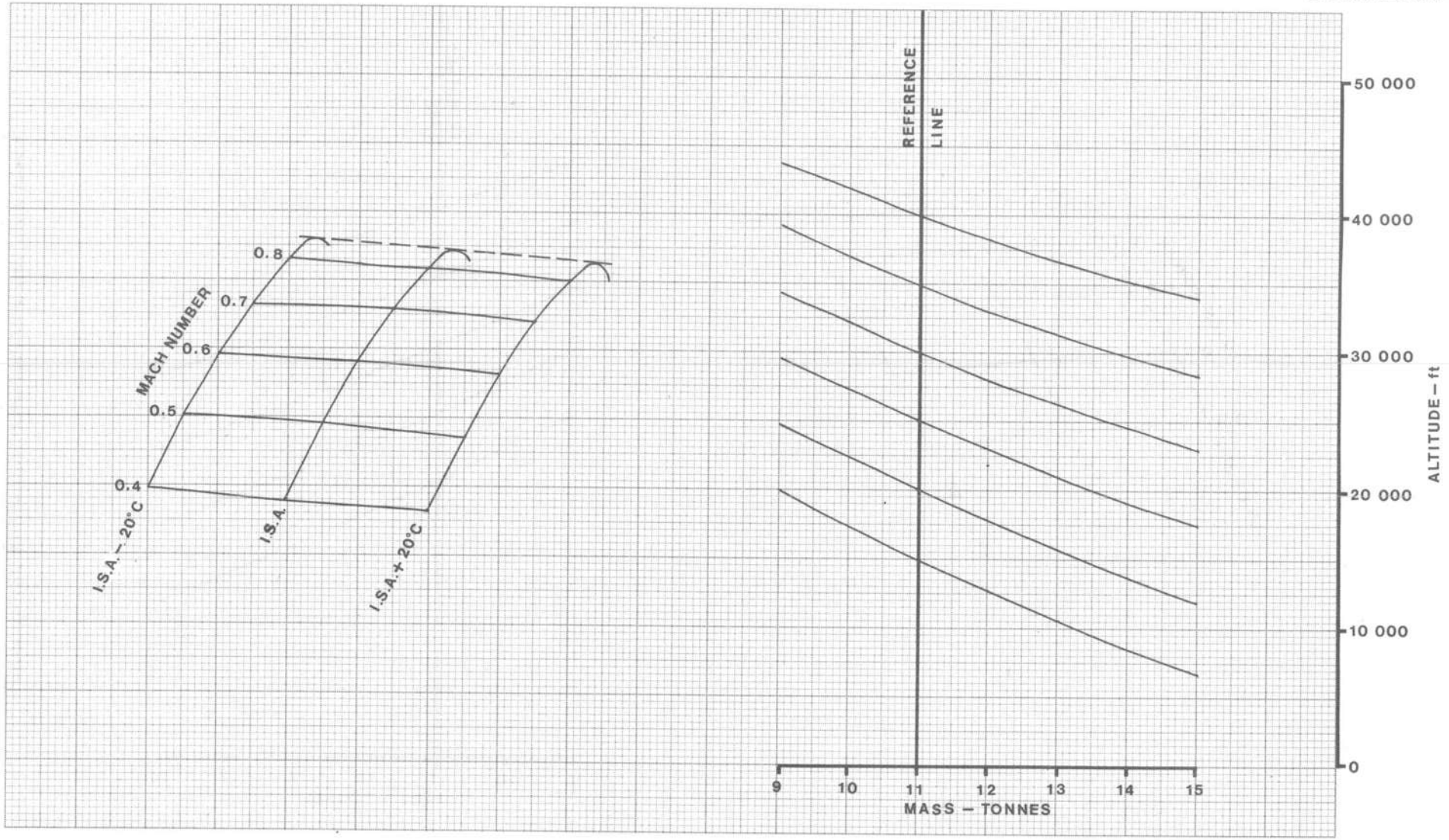

FIG. 8.63

COMBAT CEILING – MAX. REHEAT, DRAG INDEX 80

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FS11

ENGINES: ADOUR MK.102/JP103
AL.1 OCTOBER 1975.

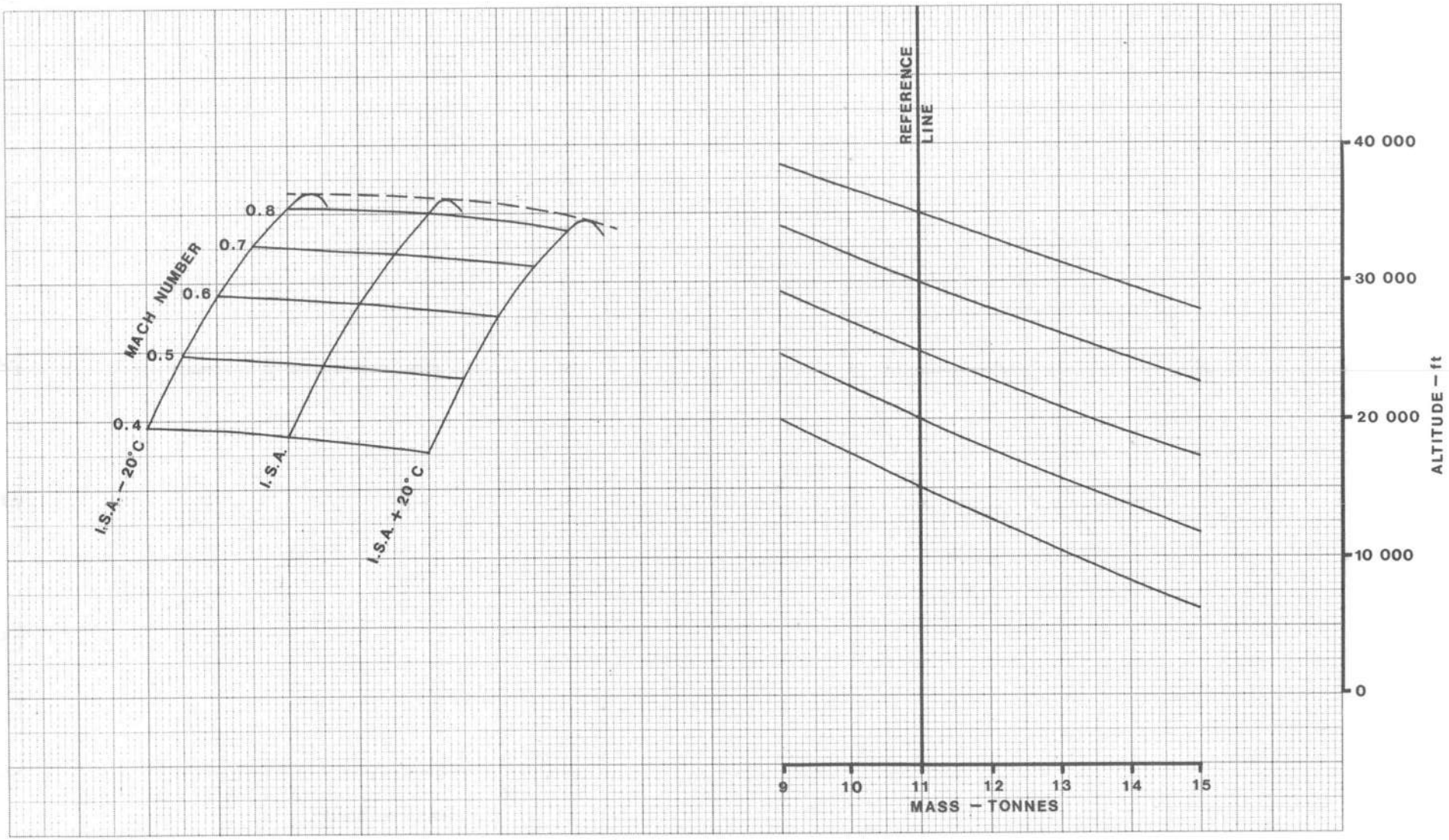

FIG. 8.64

SECTION 9
DESCENT

SECTION 9

DESCENT

CONTENTS

FIGURES

Presentation of Figures

1. Time, distance and fuel used for descents to 1000 ft are presented as functions of mass, initial altitudes and drag index value. The effect of ambient temperature on descent performance is negligible. Data for descents to intermediate altitudes are obtained by subtraction. The figures also show the recommended descent speeds, engine power and airbrake position.

Example

2. Find the time, distance and fuel used for a tactical clear weather descent from 28000 ft to 10000 ft with an initial mass of 13 tonnes and a drag index value of 40.

From Fig. 9.1

Time from 28000 ft to 1000 ft	= 2.45 min
Time from 10000 ft to 1000 ft	= 0.90 min
	1.55 min
Distance from 28000 ft to 1000 ft	= 19nm
Distance from 10000 ft to 1000 ft	= 7nm
	12nm
Fuel used from 28000 ft to 1000 ft	= 40 kg
Fuel used from 10000 ft to 1000 ft	= 17 kg
	23 kg

TACTICAL CLEAR WEATHER DESCENT TO 1 000 FT

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

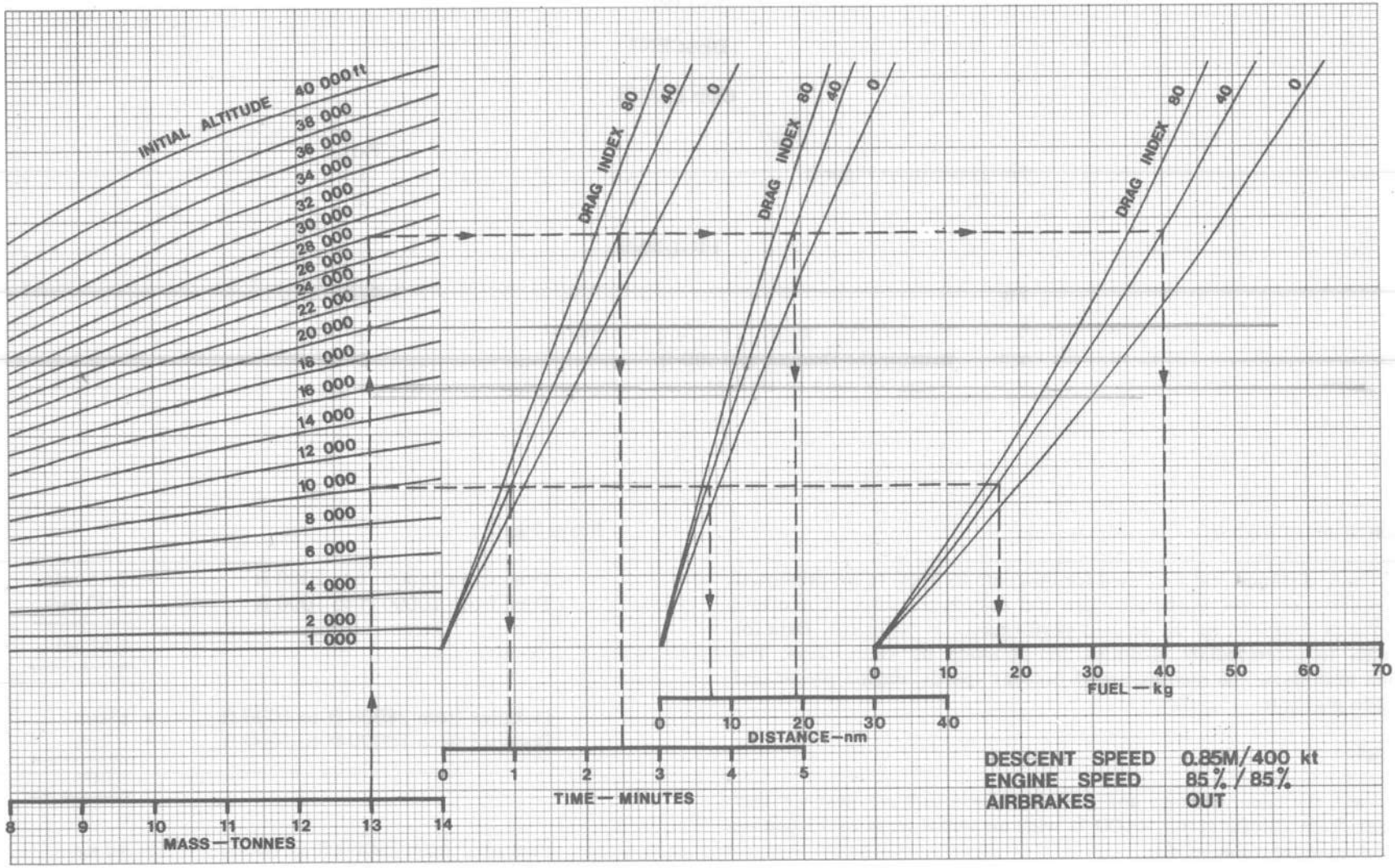

FIG. 9.1.

INSTRUMENT DESCENT TO 1 000 FT.

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
AL.5, MAY 1977

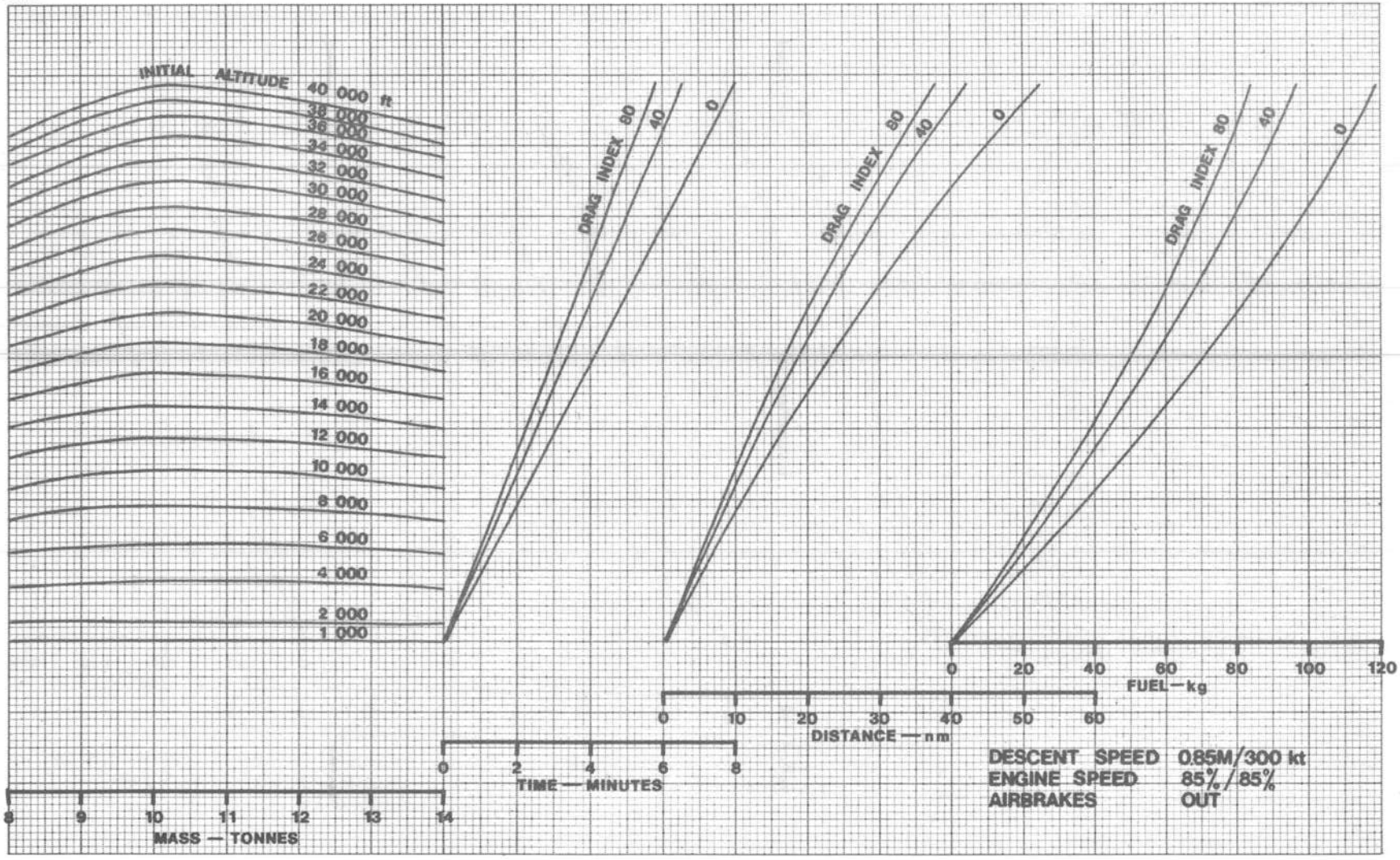

FIG. 9.2.

AP101B-3100-16

RANGE DESCENT TO 1 000 FT

JAGUAR GR.MK.1/T.MK.2
DATA : ESTIMATED/FLIGHT TEST
FUEL : AVTUR/FSII

ENGINES : ADOUR MK.102/JP103
DATE OF ISSUE AL.5 MAY 1977.

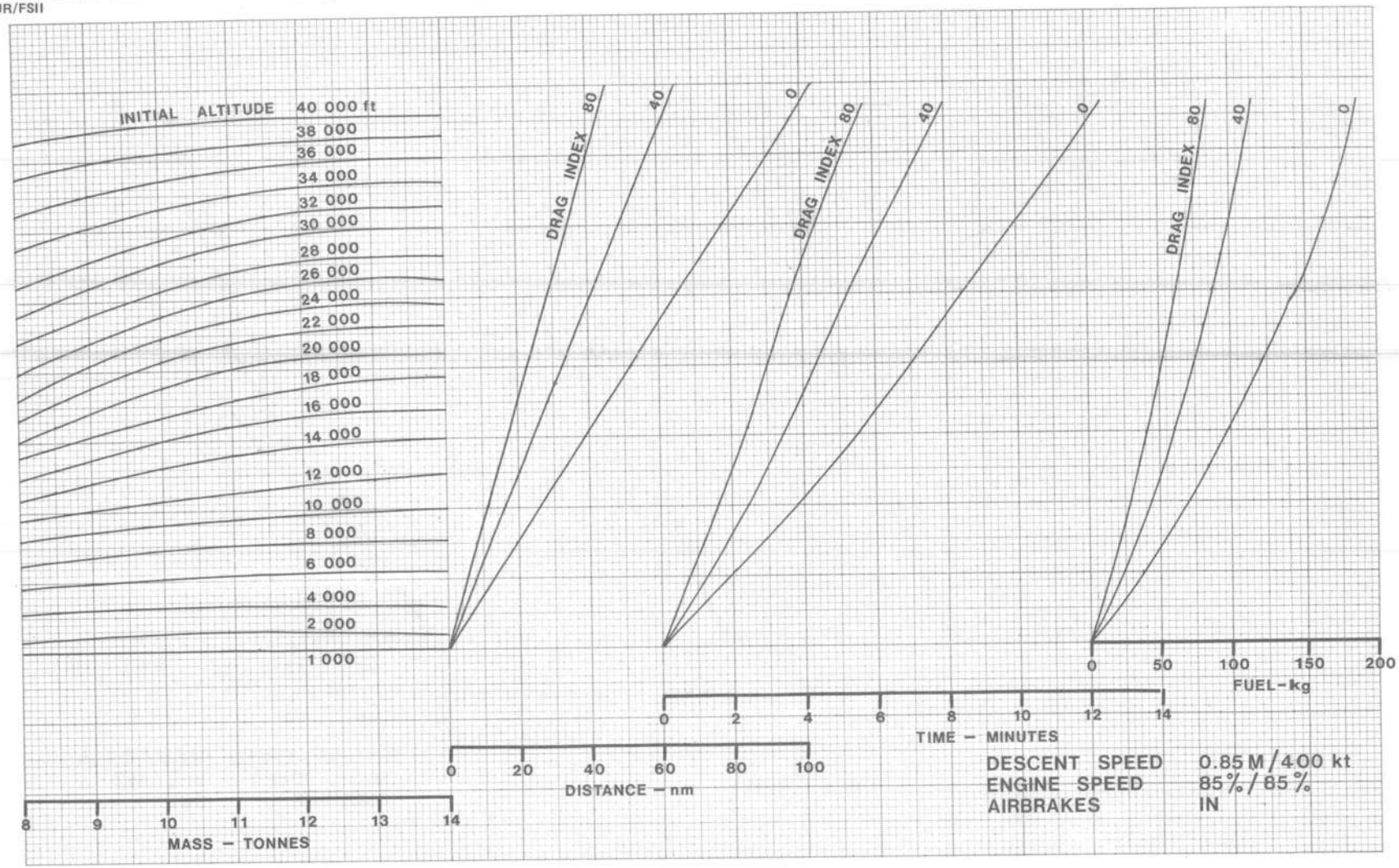

FIG. 9.3

SECTION 10
LANDING

SECTION 10

LANDING

CONTENTS

FIGURES

Normal Landing Technique

1. The recommended normal landing technique involves a 3 degree glideslope at 12 degrees incidence, increasing incidence to 14 degrees for the flare and aiming to touch down at a sink rate of 100ft/minute. The nose wheel is lowered onto the runway 2 seconds after the main wheels and the brake parachute is streamed at nose wheel touchdown. Wheel braking is applied either at nose wheel touchdown or when speed has reduced to the maximum braking speed.

2. The landing distances given in this Section assume the use of maximum wheel braking although this will rarely be necessary in practice. With the brake parachute streamed very little wheel braking is normally required.

3. The flap setting used for landing varies with c.g. Reference should be made to Part 2 of the Aircrew Manual for the current landing flap limitations and to Section 4 of this Manual for the configurations to which the limitations may apply. The effect of reduced flap angle on landing distance is small.

Short Landing Technique

4. It is expected that the normal maximum incidence with flaps extended will be increased from the current 14 degree value to 17 degrees. This will enable a short landing technique to be adopted involving a 4 degree glideslope at 14 degrees incidence, increasing incidence to 16 degrees for the flare and aiming for a sink rate of 300ft/minute at touchdown. Performance data for this technique will be issued by amendment when the increased incidence has been cleared.

Threshold and Touchdown Speeds

5. Threshold and touchdown speeds for full flap and for 30 degree flap angle are shown on Fig. 10.1.

Maximum Braking Speeds

6. Normal and Emergency Maximum Braking Speeds are shown on Figs. 10.2 and 10.3 respectively. The Emergency Maximum Braking Speeds are for use in the event of brake parachute failure.

Normal Landing Distances

7. Airborne distance from 50ft above the runway to touchdown is shown on Fig. 10.4. This figure includes the definition of airborne distance for the case of a sloping runway. Ground roll distances with and without the brake parachute streamed are shown on Fig. 10.5 and 10.6 respectively.

▶ Grass Surfaces

8. When landing on dry grass surfaces the parachute should always be used and the ground roll distances obtained from Figure 10.5 may be greater by a factor of 1.40 if the wheel brakes are applied less rigorously than would normally be the case on hard dry surfaces. Landing ground rolls on wet grass will also be about 1.40 greater than the distances scheduled in Figure 10.5. ◀

Examples

9. Find the speeds and distances for a landing with full flap and brake parachute streamed in the following conditions:

Ambient temperature	7°C
Pressure altitude	4000 ft (875 mb)
Mass	11500 kg
Runway slope	1% downhill
Wind component	5 kn tailwind
Runway condition	Wet

From Fig. 10.1:	threshold speed	= 168 kn
	touchdown speed	= 161 kn
From Fig. 10.2	Normal Maximum Braking Speed	= 114 kn
From Fig. 10.4:	distance from 50ft to touchdown	= 2020 ft.
From Fig. 10.5:	ground roll distance	= 4500 ft.
	∴ total distance from 50 ft.	= 6520 ft.

In this case the Normal Maximum Braking Speed is below the touchdown speed; if continuous maximum wheel braking is required it should not be applied until speed has reduced to 114 kn.

10. Find the speeds and distances for a full flap landing without brake parachute in the following conditions:

Ambient temperature	7°C
Pressure altitude	4000 ft (875 mb)
Mass	8000 kg
Runway gradient	1% uphill
Wind component	10 kn headwind
Runway condition	Dry

From Fig. 10.1:	threshold speed	= 140 kn
	touchdown speed	= 133.5 kn
From Fig. 10.4:	distance from 50ft to touchdown	= 1460 ft
From Fig. 10.6:	ground roll distance	= 3000 ft.
	∴ total distance from 50 ft.	= 4460 ft.

From Fig. 10.3 the Emergency Maximum Braking Speed is clearly greater than the touchdown speed; therefore in this case continuous maximum wheel braking may be applied as soon as the nose wheel is on the ground.

NORMAL LANDING SPEEDS

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

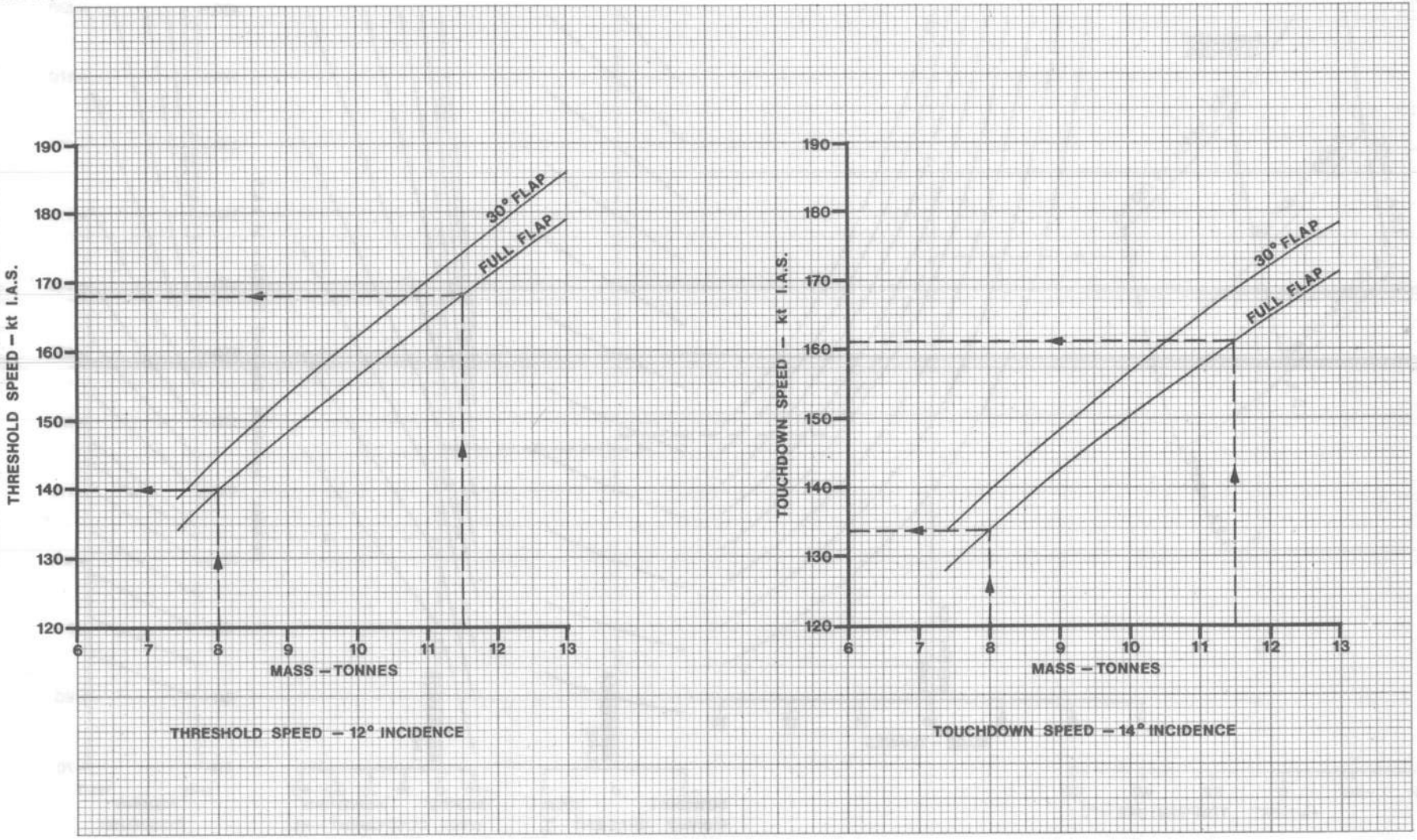

FIG.10.1.

NORMAL MAXIMUM BRAKING SPEED — PARACHUTE STREAMED

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

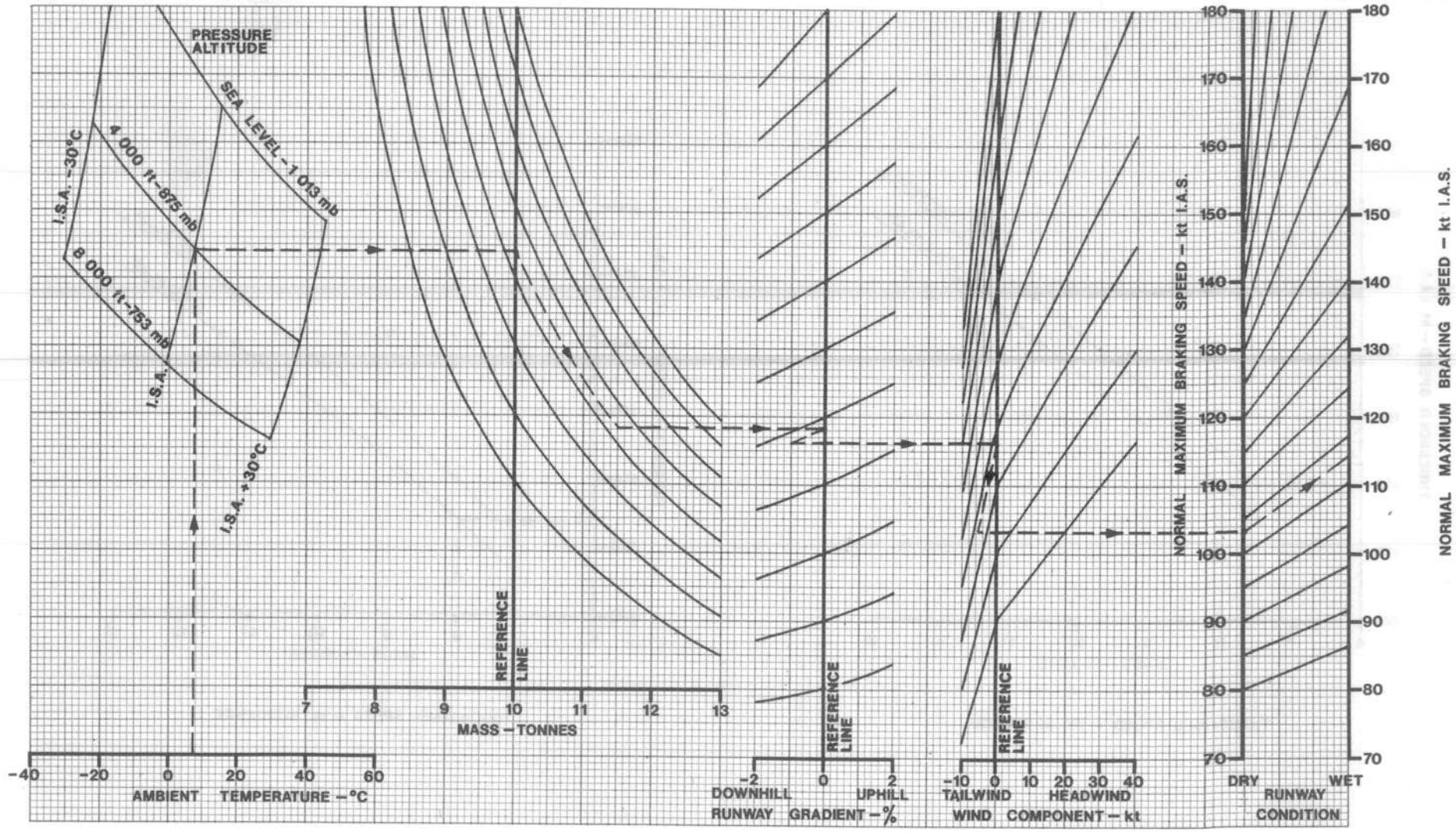

FIG. 10. 2.

EMERGENCY MAXIMUM BRAKING SPEED — NO PARACHUTE

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

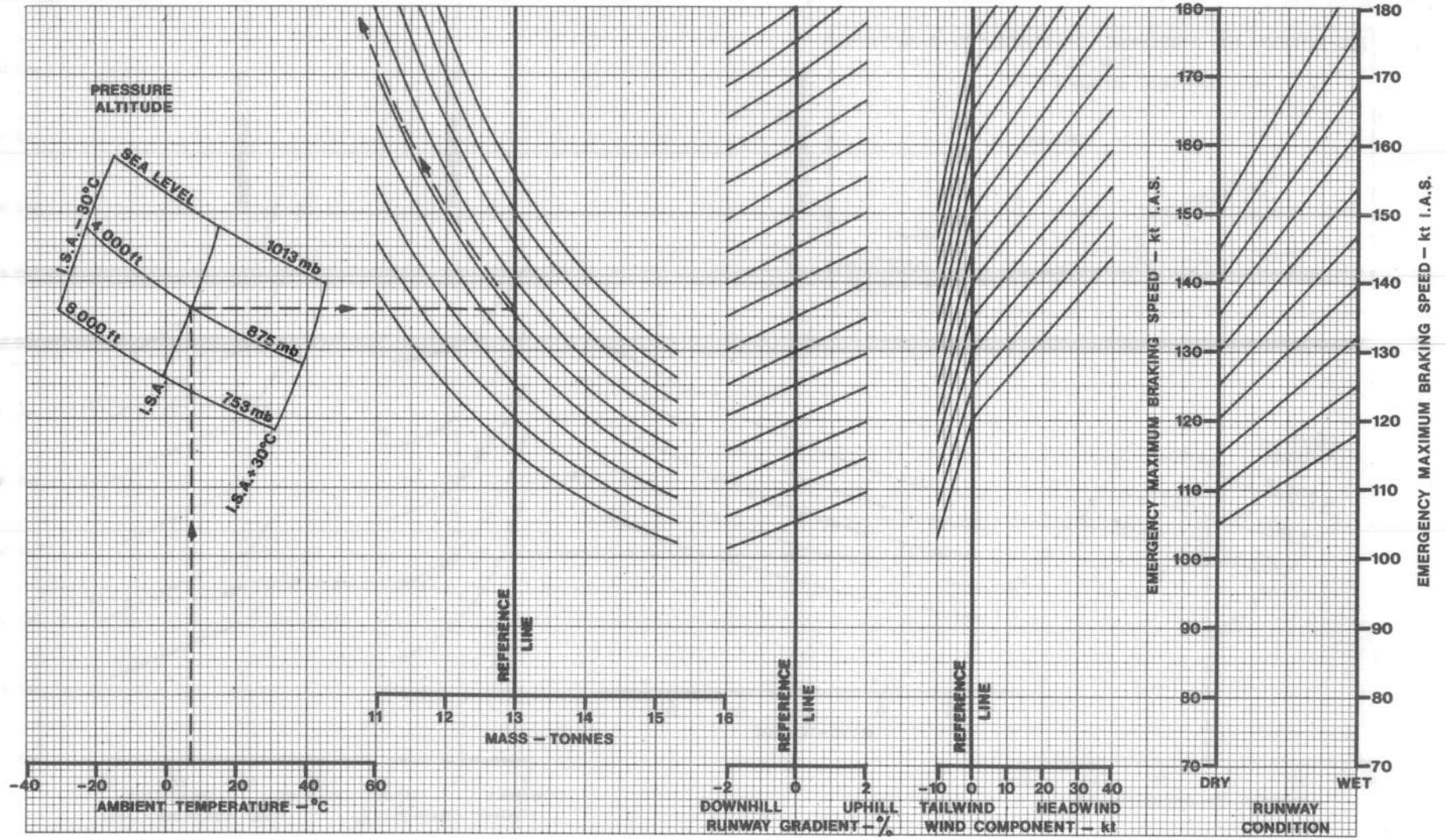

FIG.10.3.

DISTANCE FROM 50 ft TO TOUCHDOWN

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

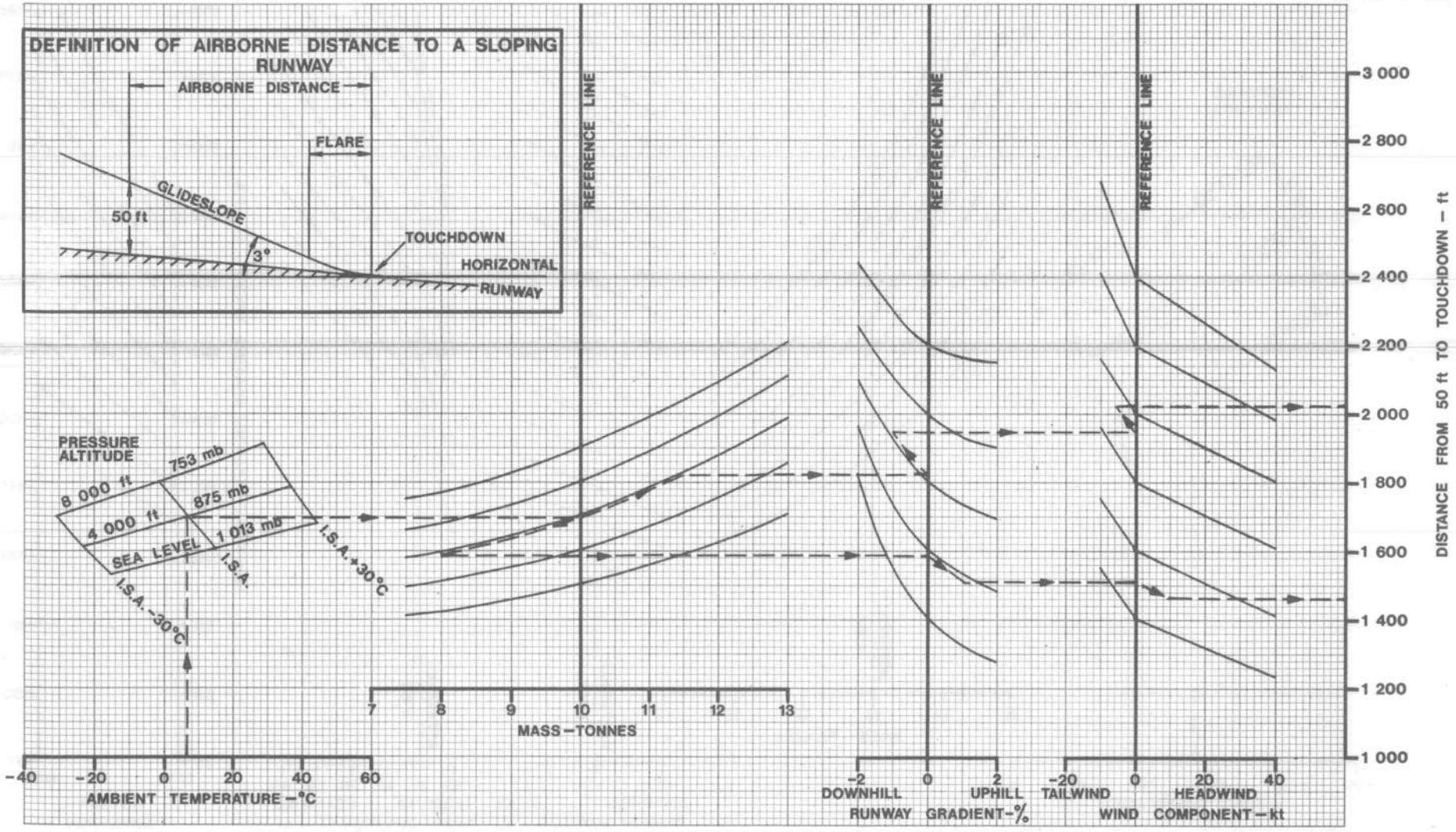

FIG. 10.4.

LANDING GROUND ROLL — PARACHUTE STREAMED

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

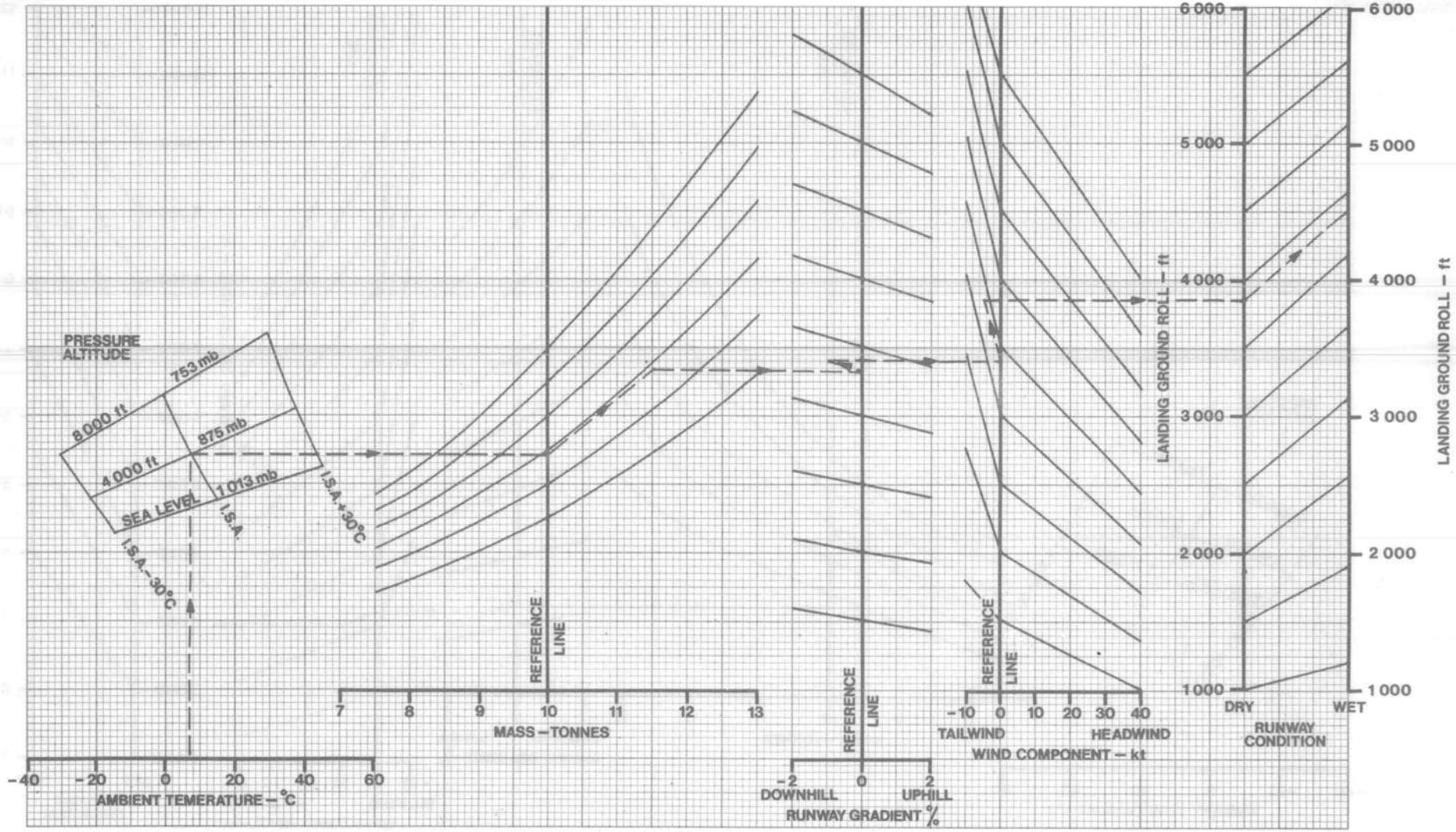

FIG. 10.5.

LANDING GROUND ROLL – NO PARACHUTE

JAGUAR GR.MK.1 T.MK.2
DATA: ESTIMATED/FLIGHT TEST
FUEL: AVTUR/FSII

ENGINES: ADOUR MK.102/JP103
DATE OF ISSUE: MAY 1975

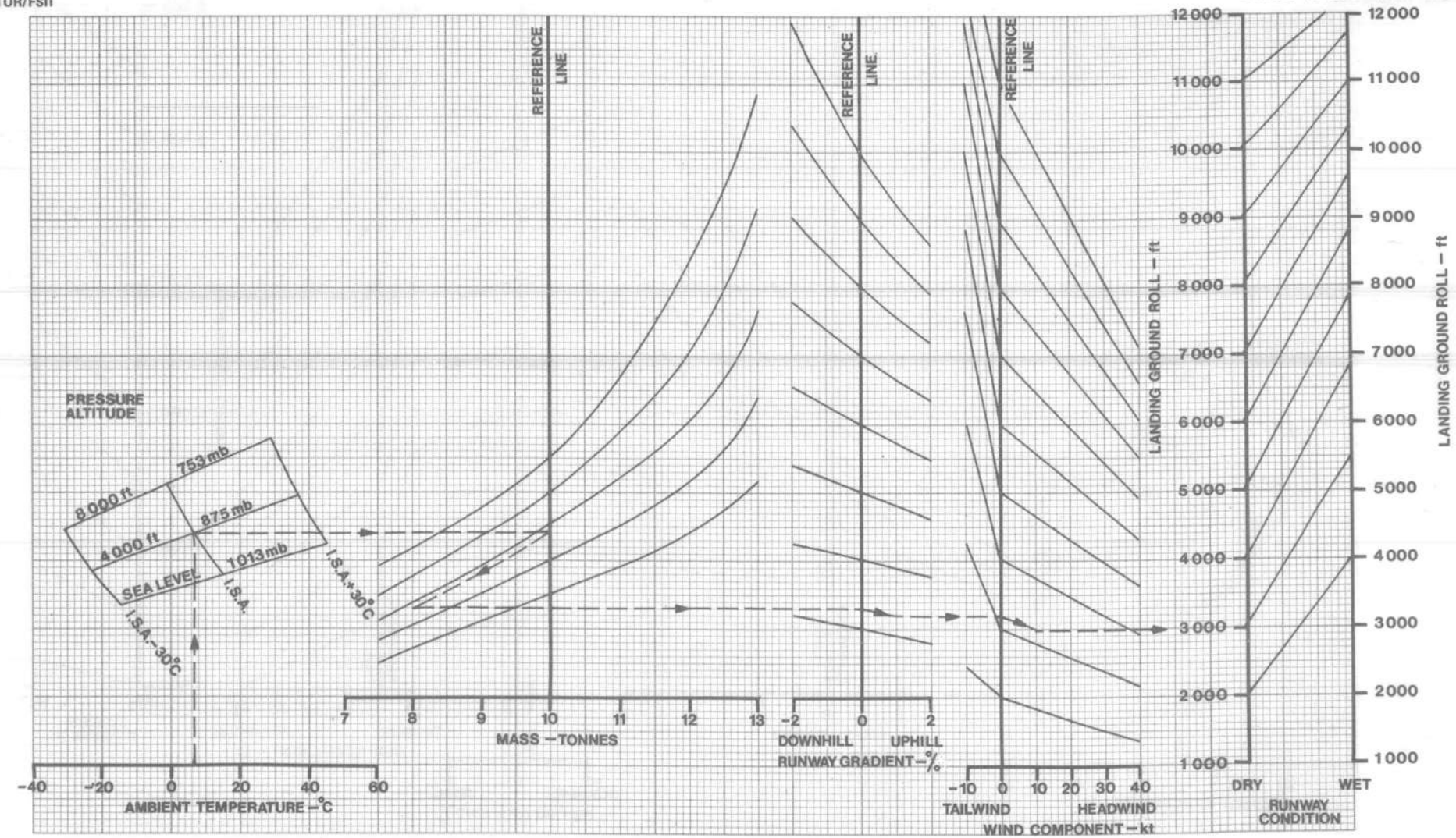

FIG.10.6.

A.P.101B–3100–16
AL.2, November 1975.

SECTION 11

MISCELLANEOUS DATA

SECTION 11

MISCELLANEOUS DATA
INCLUDING PERFORMANCE DATA FOR FLY-IN REPAIRS

CONTENTS

General

1. This chapter includes performance data for use in cases where it is necessary to fly a structurally damaged aircraft to base for repair. The acceptable levels of damage and the associated flight limitations are detailed in the Aircraft Repair Manual, A.P.101B–3100–6A.

Runway Requirement

2. In all cases the runway surface requirements are as detailed in Section 1.

Pre-Take-Off and Landing Fuel Allowances.

3. Typical allowances for pre-take-off and landing fuel consumption (including reserves) are 100 kg and 330 kg respectively.

Take-Off Distance

4. Take-off distances to 50ft. are as detailed in Section 5 except in cases where the flaps and slats are fully retracted. Distances for these cases are presented graphically on Fig. 11.1. If the flaps cannot be extended it is recommended that, if possible, the slats be extended to the combat position. With both flaps and slats retracted, indicated incidence during take-off and climb-out must not exceed 16^{o}.

Climb, Cruise and Descent Performance.

5. Fig. 11.2 provides performance data for climb, cruise and descent in tabular form as follows:

6. **Climb Performance.** Fuel used (kg) and distance travelled (Anm) from brake-off to cruise altitude for each case are obtained directly from Fig. 11.2 together with the appropriate climb power setting.

7. **Cruise Performance.**

a. **Cruise Altitude.** Optimum cruise altitude (ft) is obtained from the following:

A–(B x mass at start of cruise)

where A and B are altitude constants for the configuration obtained directly from Fig. 11.2, and mass at start of cruise is obtained from:

Mass at start-up fuel used in climb – pre-take-off fuel allowance.

b. **Cruise Range.** Maximum cruise range (Anm) is obtained from the following:

$$\text{Fuel available for cruise} \times \left[C - \left(\frac{D}{1000} \times \text{mass at start of cruise} \right) \right]$$

where C and D are fuel consumption constants for the configuration obtained directly from Fig. 11.2, and fuel available for cruise is obtained from:

Usable fuel mass – pre-take-off fuel allowance – fuel used in climb – fuel used in descent – landing fuel allowance.

c. **Cruise Speed.** Optimum cruise speeds (IAS or IMN) for each case are obtained directly from Fig. 11.2.

8. **Descent Performance.** Fuel used (kg) and distance travelled (Anm) during descent are obtained directly from Fig. 11.2.

Landing Distances.

9. Landing distances from 50 ft. are as detailed in Section 9 except in cases where the flaps and slats are fully retracted. Distances for these cases are presented graphically on Fig. 11.3.

Example

10. Find the maximum cruise range and optimum cruise altitude for a GR.Mk.1 aircraft with a retractable undercarriage but with the main undercarriage doors removed and with wing fuel tanks empty. No pylons or external stores are carried (Fig. 11.2, case 6).

From Fig 11.2 :–

Altitude constant A	56500
Altitude constant B	3.0
Fuel constant C	0.68
Fuel constant D	0.033
Fuel used for take-off and climb	480 kg
Fuel used for descent	22 kg

From para 3:

Pre-take-off fuel allowance	100 kg
Landing fuel allowance	330 kg

Basic mass including crew and unusable fuel	7600 kg
Usable fuel mass	2566 kg
Mass at start-up = 7600 + 2566 kg	= 10166 kg
Mass at start of cruise = 10166-100-480	= 9586 kg

Fuel available for cruise = 2566-100-480-22-330 kg = 1634 kg

Maximum cruise range

$$= 1634 \times \left(0.68 - \left[\frac{0.033}{1000} \times 9586 \right] \right) = \underline{594 \text{ Anm}}$$

Optimum cruise altitude

$$= 56500 - (3.0 \times 9586) = \underline{27742 \text{ ft.}}$$

Use of Composite Graphs

11. In a typical Jaguar mission, the pilot is given an air task which states target location and time over target. For targets outside Lo-Lo range, the flight profile has to be HI-LO-HI, the graphs give data for a given configuration, height, met, wind and distance. A minimum Fuel to return to base at optimum height is easily read off from the graph. which is all that is required for operation planning except for missions close to maximum range. In this case, regulations would have to be made to determine how much of the outbound route would have to be flown at high level in the prevailing met wind - this is done simply by trial and error, firstly assuming the entire route is flown at height and obtaining the excess fuel. For time over target calculations, the time from start of climb to bottom of descent can be read off from the Time graph. The graphs are both calculated, from start of climb to bottom of descent and assume the following:

a. Max dry climb to height at quoted climb speed.

b. Range descent.

c. Cruise at range speed at constant flight level.

d. Wind in climb is 2/3 value at height.

e. Wind in descent is ½ value at height.

f. The graphs are optimised for FL 100, 11 tonnes, zero wind, 200n miles and ISA, and errors will be apparent at the ends of the scales; in particular for ranges well in excess of 200n miles, the fuel used will not be as great due to decreasing mass.

g. The correction for temperature is ± 1% per ± 5% from ISA.

h. Estimated accuracy for the graph is approximately ± 30 kg and ± 1½ minutes.

eg. The pilot is required to attack a target 400 miles away from base. The task specifies a Time over Target (TOT) of 14 30 and that the required aircraft configuration is 41 (2 tanks, 4CBU). For tactical reasons the pilot decides to fly the final 150 miles to the target at low level and at tactical speed (450 kn).

12. The pilot must now calculate a take-off time, a JOKER fuel to return LO-HI from the target area, and a combat fuel allowance.

Take-Off Time Calculation

13. From Jaguar Data Card No. 41, drag index = 55, mass = 14100 kg and best height = 17000 ft. From Met. forecast - wind at 17000 ft = 50 kn headwind.

14. Enter the time graph on the height scale at 17000 ft. Follow the 17000 ft line vertically until the curve is reached. From point (A) proceed horizontally until the mass reference is reached (B). Follow the guide lines until 14.1 tonnes is reached on the mass scale (C). Continue horizontally through the wind and range grids, points D, E, F and G and finally proceeding to point H and reading the time taken. In this case the total time from the beginning of the climb to the bottom of descent is 36.5 mins. To this must be added the time taken to accelerate to climbing speed, which in this case is 1 minute 50 seconds = approx 2 mins (from Card 41). Therefore the total time elapsed from brakes off to bottom of descent is 38.5 mins. The time taken to cover the low level 150 n miles to the target is $\frac{150}{450} \times 60 = 20$ mins, therefore the take-off time for a 14 30 TOT is 13 31.5 hrs.

Calculation of Joker Fuel

15. At the bottom of card 41 the pilot sees that his configuration for the return journey is given by card 01A. From card 01A - Drag Index = 28, mass = 10250 kg best height = 30000 ft. Fuel consumption at 450 Kn, low level 5.5 kg/ANM From Met forecast - Wind at 30000 ft. = 70 Kn tailwind. The fuel required to travel the 150 n miles at low level = 150 x 5.5 = 825 Kg.

16. To calculate the fuel for the 250 n miles at high level enter the fuel graph at 30000 ft in the height scale. Follow the 30000 ft. line until the drag index of 28 is reached (J). Ignore the lines marked Mass - these are used to estimate the best cruising altitude for a given mass and drag index. From J proceed following the guide lines through K, L, M and the fuel required for the climb, cruise and descent is found at N. This is 710 Kg. The total fuel for the return to base is therefore 710 + 825 = 1535Kg. A Joker fuel of 2000 Kg in the target area would therefore give the pilot 465 Kg on return to base.

Calculation of Combat Fuel Allowance

17. From card 41 – Fuel remaining after acceleration to climbing speed = 4750 Kg, Fuel consumption at 450 Kn low level = 6.8 Kg/Anm.

18. Follow the fuel graph using the parameters from card 41 given in para 12; ie best height 17000 ft, mass 14100 Kg and DI 55 starting at 0 and following the figure through P, Q, R and S to T and so obtain the fuel used at high level on track to target; this is 1420Kg. The fuel used at low level to Target = 150 x 6.8 = 1020 Kg. The fuel remaining at the target = 4750 – (1020 + 1420) = 2310 Kg. Therefore the Combat fuel allowance = 2310 – 2000 = 310 Kg.

TAKE – OFF DISTANCE TO 50 FEET – FLAPS AND SLATS RETRACTED

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED
FUEL: AVTUR/FS11

Engines: Adour Mk. 102/JP103
AL.4 March 1977

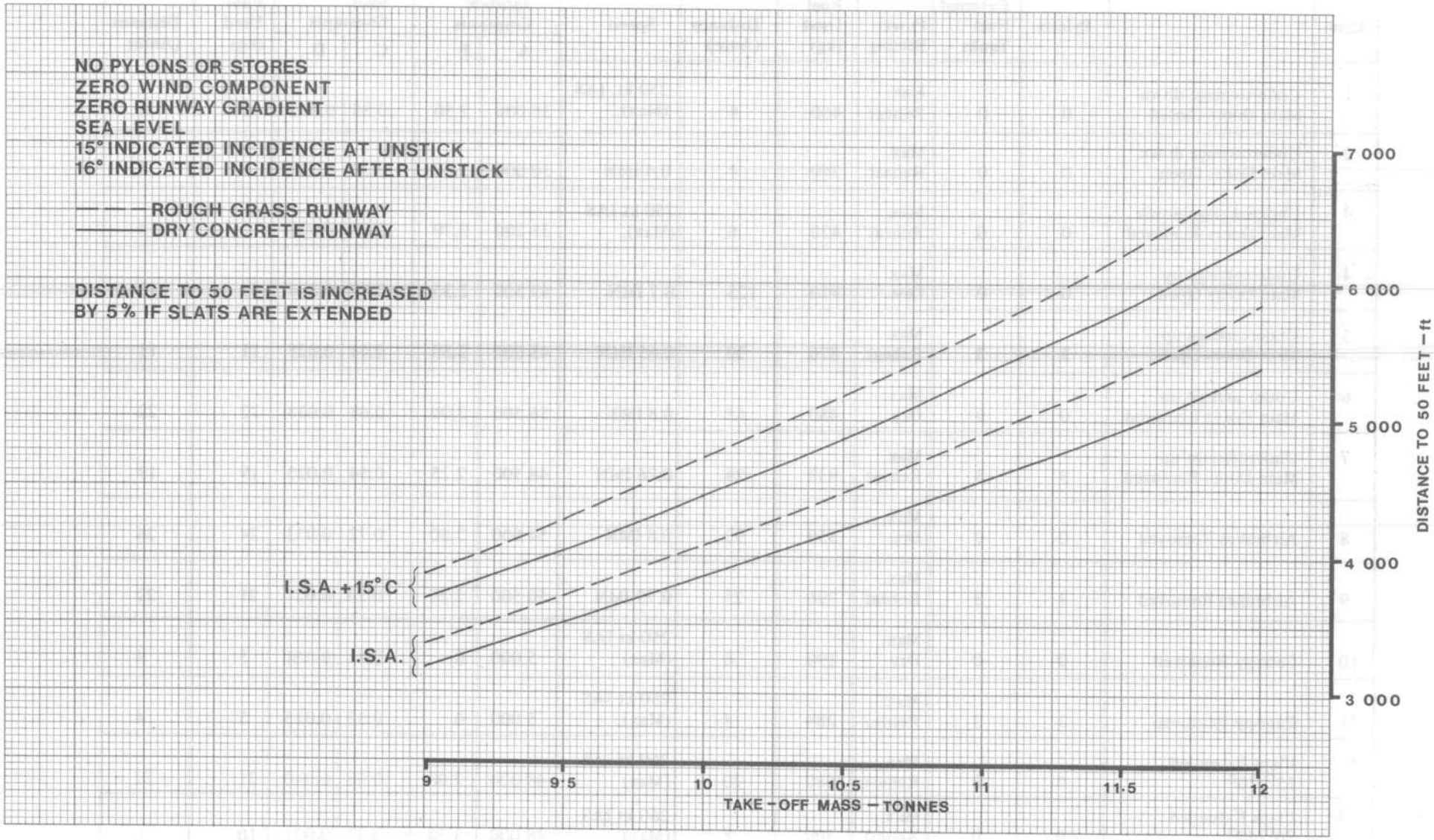

FIG. 11.1

CLIMB, CRUISE AND DESCENT PERFORMANCE

Case	CONFIGURATION			CLIMB			CRUISE					DESCENT	
		Pylons	External Fuel Tanks	Power Setting	Fuel Used (kg)	Distance (Anm)	Speed	Altitude Constants A	Altitude Constants B	Fuel Constants C	Fuel Constants D	Fuel Used (kg)	Distance (Anm)
1	Undercarriage down Main Doors Closed	0	0	Max. Reheat	460	8	250 kt. IAS (Max).	35 000	2.50	0.35	0.025	6	4
2	Undercarriage down Main Doors Open	0	0	Max. Reheat	340	4	0.4 IMN	30 000	2.50	0.30	0.022	4	4
3	Undercarriage down Main Doors Removed	0	0	Max. Reheat	420	6	250 kt IAS (Max).	35 200	2.70	0.35	0.076	7	3
4	Undercarriage up Main Doors Open	0	0	Max. Dry.	910	125	0.7 IMN	45 300	2.35	0.49	0.026	15	15
5	Undercarriage up Main Doors Open	3	3	Max. Reheat.	870	20	0.65 IMN	43 000	2.50	0.44	0.025	11	11
6	Undercarriage up Main Doors Removed	0	0	Max. Dry	480	63	0.8 IMN	56 500	3.00	0.68	0.033	22	22
7	Undercarriage up Main Doors Removed	3	3	Max. Reheat	833	24	0.76 IMN	48 500	2.25	0.54	0.025	19	19
8	Airbrakes Removed	0	0	Max. Dry	550	90	0.8 IMN	54 800	2.60	0.72	0.033	24	26
9	Airbrakes Removed	3	3	Max. Reheat	796	23	0.79 IMN	50 500	2.25	0.59	0.027	21	22
10	Canopy Removed	0	0	Max. Dry	190	6	250 kt IAS (Max)	5 000	0	0.41	0.024	5	4
11	Canopy Removed	3	3	Max. Reheat	384	4	250 kt IAS (Max).	5 000	0	0.33	0.013	5	4
12	Flaps Extended $15^{o}/20^{o}$	0	0	Max. Reheat	680	20	260 kt IAS (Max)	48 000	2.00	0.68	0.040	21	22
13	Flaps Extended $30^{o}/40^{o}$	0	0	Max. Reheat	500	8	260 kt IAS (Max)	48 000	3.50	0.33	0.021	10	9

FIG 11.2

LANDING DISTANCE FROM 50 FEET – FLAPS AND SLATS RETRACTED

JAGUAR GR MK.1 T MK.2
DATA: ESTIMATED
FUEL: AVTUR/FS11

Engines: Adour Mk. 102/JP103
AL.4 March 1977

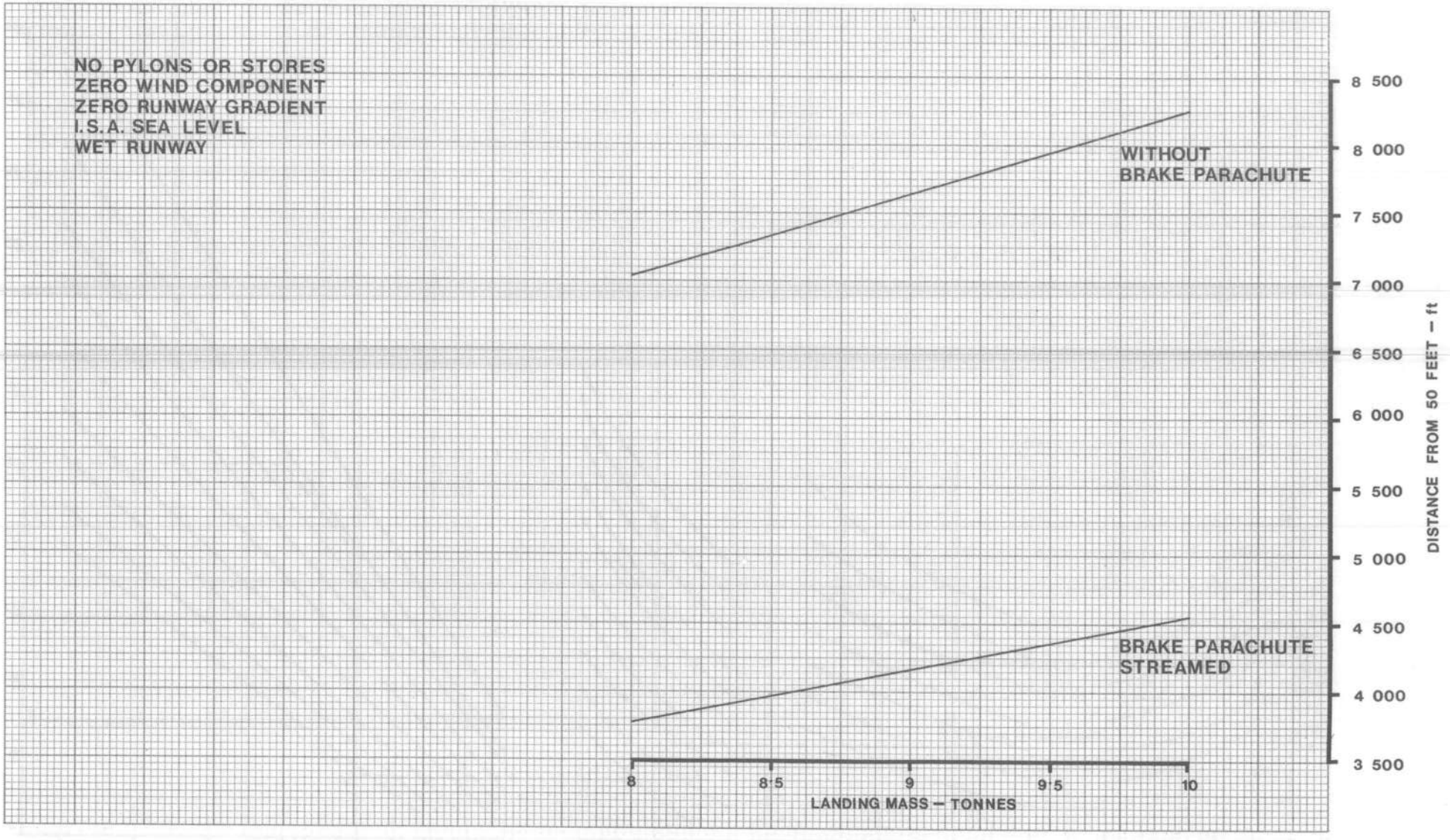

FIG.11.3

COMPOSITE FUEL GRAPH

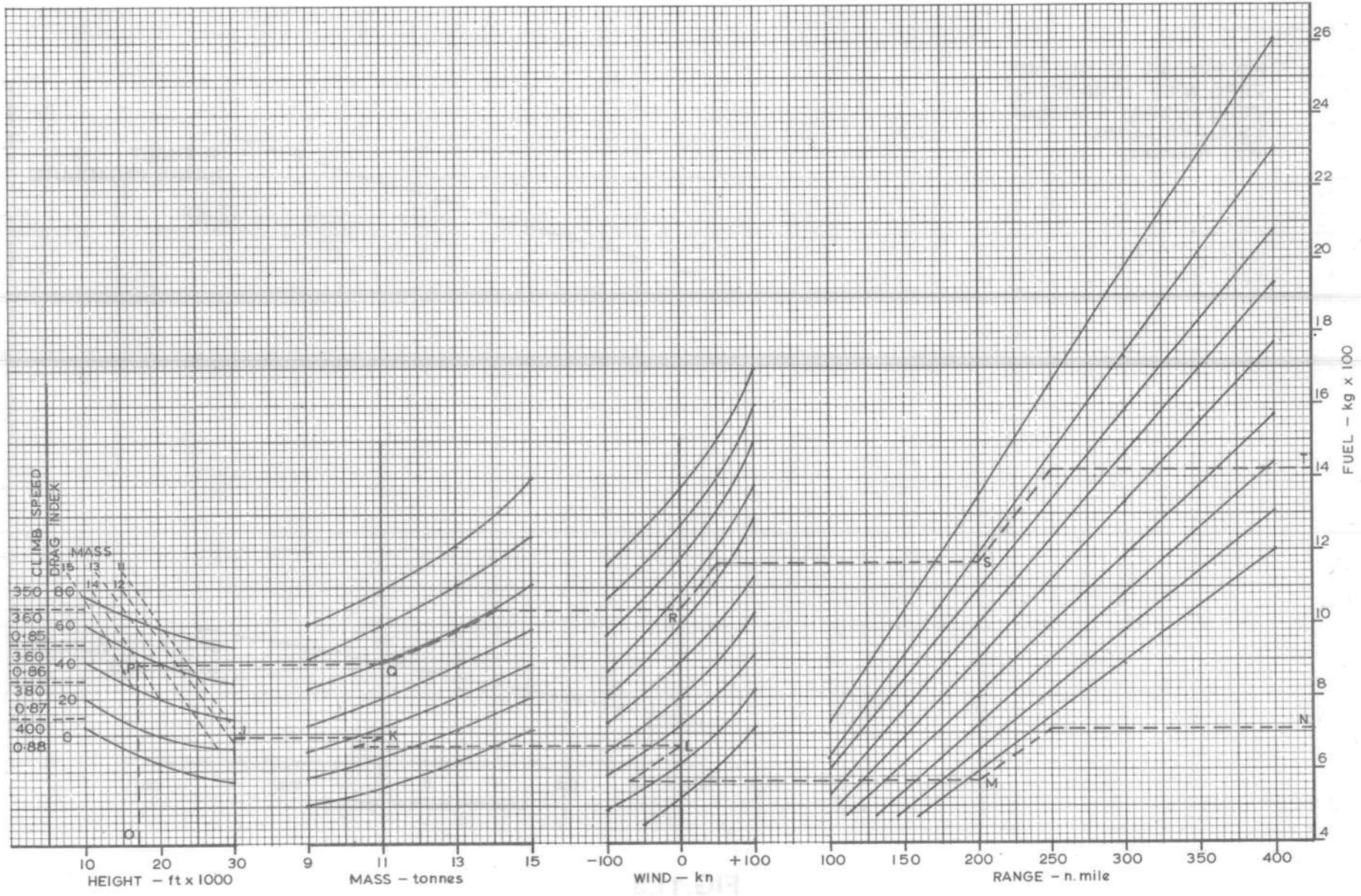

FIG. 11·4

COMPOSITE TIME GRAPH

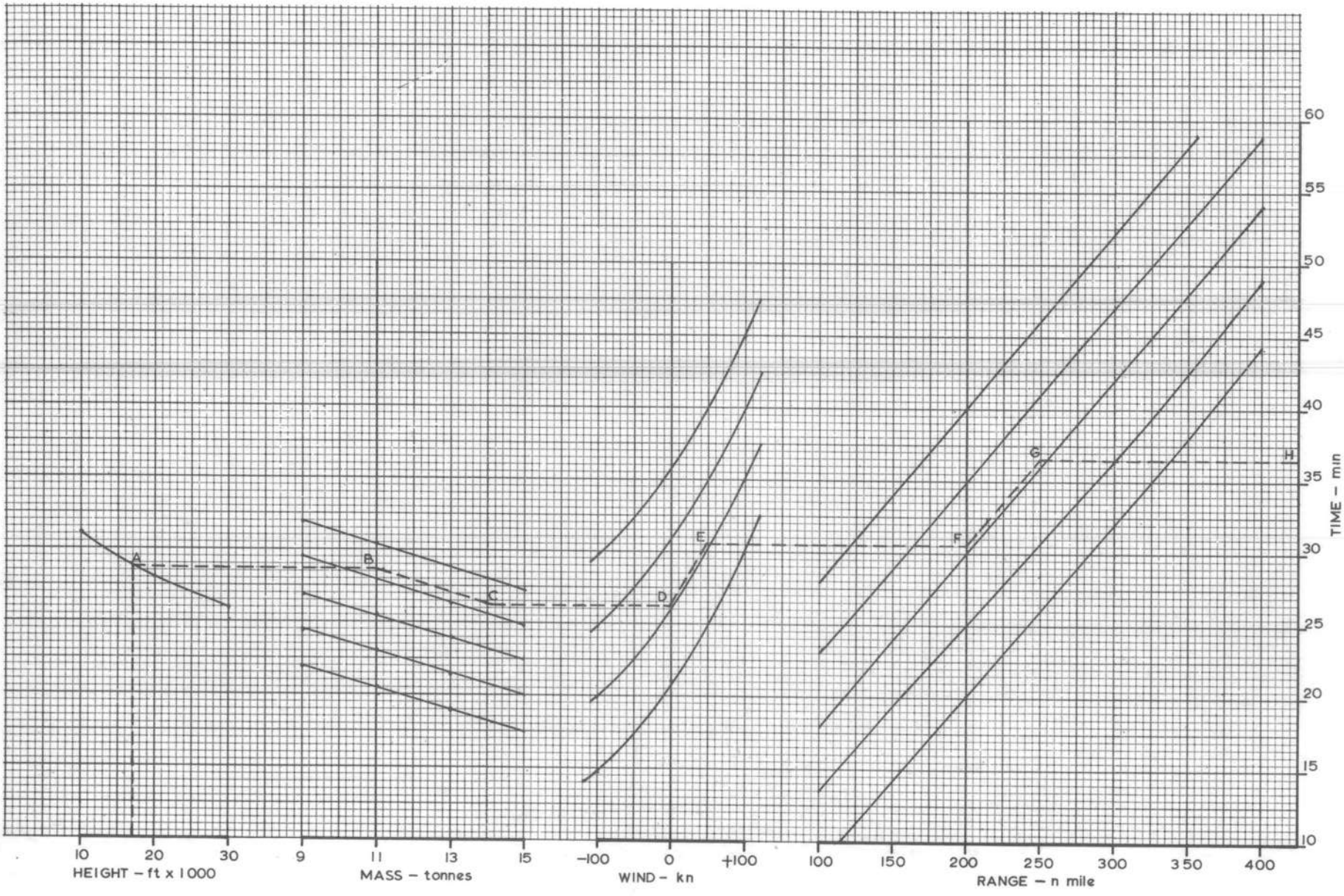

FIG. 11·5