MD500 SERIES

Technical Description

PAYLOAD & R

SL, ISA

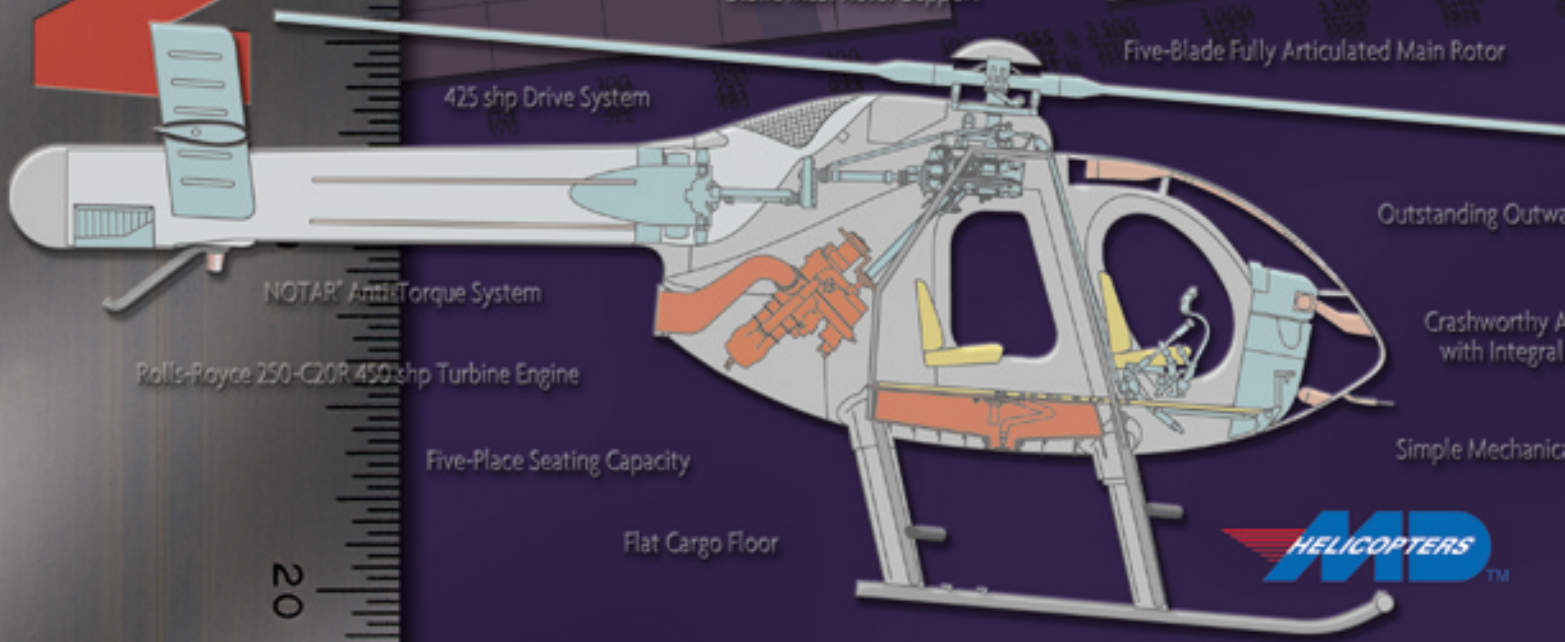
5K, ISA

OGE Hover Ceiling (ISA)

Static Mast Rotor Support

Five-Blade Fully Articulated Main Rotor

425 shp Drive System



Outstanding Outwa

NOTAR® Anti-Torque System

Crashworthy A with Integral

Pratt & Whitney Canada 250-C20R 450 shp Turbine Engine

Simple Mechanic

Five-Place Seating Capacity

Flat Cargo Floor

HELICOPTERS

MD500 SERIES

Technical Description

Marketing and Sales
4555 E. McDowell Road
Mesa, Arizona 85215-9797

Comments and/or questions may be directed to:

Sales: (480) 346-6300
Fax: (480) 346-6339
e-mail: helicoptersales@mdhelicopters.com

Revised January 2001

This Technical Description is not subject to a revision service. It is the manufacturer's practice to continuously improve its products and therefore the right is reserved to make changes without notice in the design or manufacture of the MD 500 series helicopter which may be considered necessary.

MD500E
CONTENTS


MD
500E
N503MP
POLICE

1.0 **High performance.**

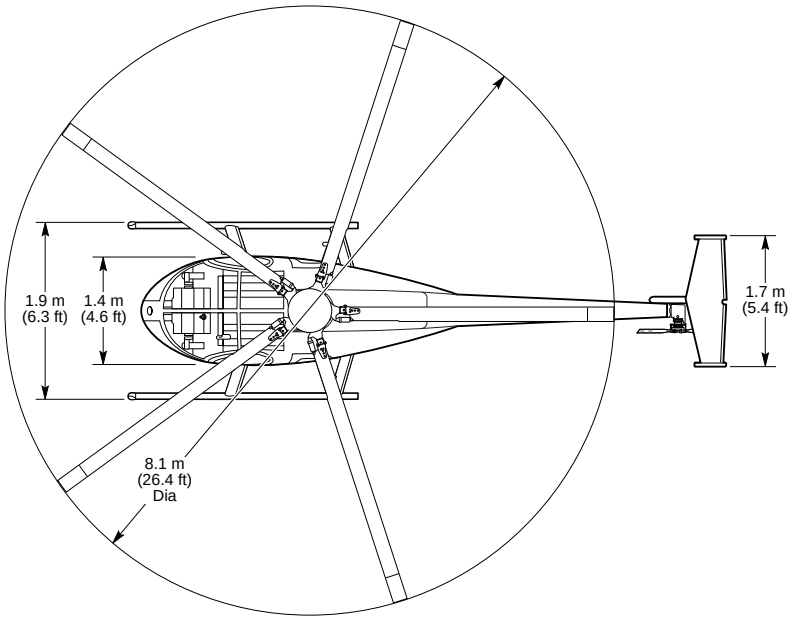
The MD 500E delivers the highest speed, payload and productivity in its class. Rear seat passengers have greater headroom and visibility than earlier Model 500s. Refinements provide first class front and rear seating with ample legroom. The T-shaped instrument panel provides space for a full complement of modern avionics.

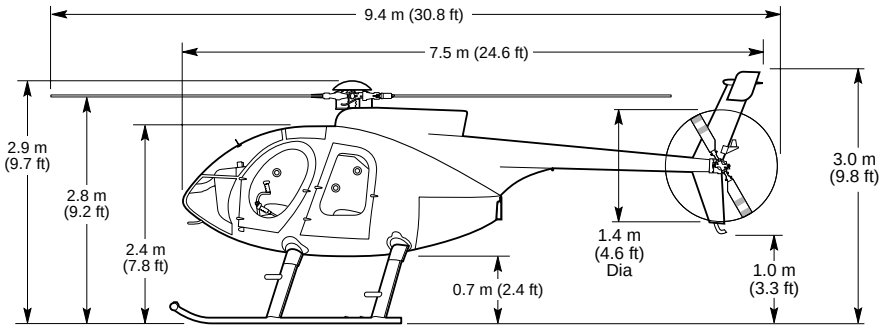
With a five-bladed main rotor and the choice of a 420-shp Allison 250-C20B or 450-shp Allison 250-C20R turbine engine, the MD 500E is the best performing helicopter in its class.

The MD 500E light turbine helicopter allows easy configuration conversions from a deluxe, five-place executive transport to a utility cargo carrier. Typical uses include urban and remote location transportation of key personnel, technicians and craftsmen; aerial survey, patrol and photography; agricultural and fire-fighting appli-cations; air rescue operations; and numerous other tasks within the construction, petroleum and forestry industries.

Optional high-clearance skids permit operations in rough terrain, while other optional equipment, such as inflatable floats, litter kit and external baggage pods increase the MD 500E's versatility.

Proven reliability of the derated turbine engine, fail-safe design and a worldwide network of factory-authorized service centers assure customer satisfaction.





MD 500E with optional extended landing gear.

NOTES

1. Helicopter on ground with full fuel. Typical attitude of cargo deck 5.3 degrees nose up.
2. Height-above-ground dimensions vary with installed equipment, center of gravity and terrain features.
3. If standard landing gear is installed, all vertical dimensions will be 0.3 m (1.0 ft) less.

2.0 **Equipment.**

Airframe

- Tinted canopy panels
- Tinted door/window panel-left front
- Tinted door/window panel-left rear
- Tinted door/window panel-right front
- Tinted door/window panel-right rear
- Rain gutter set
- Short landing gear
- Keyed locks (4)
- Fuselage hard points
- Jacking fittings
- Passenger steps
- Anti-collision lights (2)
- Landing light, nose mounted
- Position lights
- Paint 1 color standard

Interior

- Crew seats with 4-point harness restraint
- Passenger seats with 3-point harness restraint
- Vinyl and fabric cushions - 5 seats
- Vinyl interior trim panels
- Crew and cabin compartment floor carpet
- Map case
- Fire extinguisher
- First aid kit
- Crew ashtray and lighter/28-volt utility outlet
- Cabin lighter/28-volt utility outlet
- Battery-heavy duty Marathon 17-ampere-hour
- Ventilation system
- Cockpit utility light
- Cabin convenience light
- Instrument lighting
- Cabin soundproofing
- Cargo tie-down fittings

Engine and Electrical

- Allison 250-C20B engine, 420 shp (313 kw)
- Automatic engine reignition
- Engine wash kit, MD 500 series
- Engine compressor anti-ice
- 64 gallon (242 l) fuel system
- 85 amp starter generator
- External power receptacle

Rotor and Controls

- Flight controls, single, left hand command

Flight and Engine Instruments

- Dual tachometer, N_R and N_2
- Engine oil pressure indicator
- Engine torque meter
- N_1 tachometer
- Hobbs engine running time meter
- Fuel quantity indicator
- Digital chronometer
- Airspeed indicator
- Barometric altimeter
- DC ammeter
- Outside air temperature indicator
- Magnetic compass
- Turbine outlet temp indicator
- Engine oil temp indicator

Annunciator Panel

- Battery overtemp warning light
- Engine chip detector warning light
- Engine out warning light
- Fuel filter obstruction warning light
- Fuel low warning light
- Generator out warning light
- Low rotor rpm warning light
- Main transmission chip detector warning light
- Main transmission oil pressure warning light
- Main transmission oil temp warning light
- Tail rotor transmission chip detector warning light

Miscellaneous

- Ground handling wheels
- Engine and airframe log books
- Engine maintenance manual
- Battery manual
- Flight manual
- Handbook of maintenance instructions
- Illustrated parts catalog
- Engine exhaust cover
- Engine inlet cover
- Pitot tube cover
- Main rotor blade tie-downs

3.0 PERFORMANCE SPECIFICATIONS

Characteristics at Design Gross Weight		*Metric 1361 kg*	*Imperial 3,000 lb*
Maximum Cruise Speed:	Sea level 1524 m (5,000 ft)	249 km/hr 246 km/hr	135 kt (155 mph) 133 kt (153 mph)
Maximum Permitted Speed:	V_{NE} at sea level	282 km/hr	152 kt (175 mph)
Maximum Range:	Sea level 1524 m (5,000 ft)	443 km 488 km	239 nm (275 mi) 264 nm (304 mi)
Maximum Endurance:	Sea level	2.7 hr	2.7 hr
Maximum Rate of Climb:(TOP)	Sea level, Standard day ISA +20° C day	9.0 m/sec 9.0 m/sec	1,770 fpm 1,776 fpm
Maximum Operating Altitude:	Density Altitude	4877 m	16,000 ft
Service Ceiling:	ISA	4227 m	13,900 ft
Maximum Hook Capacity:		907 kg	2,000 lb
Hovering Performance:			
In-ground effect:	Standard day ISA + 20° C day	2591 m 1829 m	8,500 ft 6,000 ft
Out-of-ground effect:	Standard day ISA + 20° C day	1829 m 945 m	6,000 ft 3,100 ft

WEIGHTS

Characteristics		*Metric*	*Imperial*
Maximum Gross Weight:	Normal category External load operations	1361 kg 1610 kg	3,000 lb 3,550 lb
Empty Weight:	Standard configuration	672 kg	1,481 lb
Useful Load:	Normal category External load operations	689 kg 938 kg	1,519 lb 2,069 lb
Usable Fuel Capacity:	242 L (64 gal)	183 kg	403 lb

POWER PLANT

Characteristics		*Metric*	*Imperial*
Allison Model 250-C20B gas turbine,	Rated power:	313 kw	420 shp
Derated for reliability and safety to:	Takeoff power: Max. continuous power:	280 kw 261 kw	375 shp 350 shp

MD500E
WITH C20R ENGINE

PERFORMANCE SPECIFICATIONS

Characteristics at Design Gross Weight		*Metric 1361 kg*	*Imperial 3,000 lb*
Maximum Cruise Speed:	Sea level 1524 m (5,000 ft)	249 km/hr 251 km/hr	135 kt (155 mph) 136 kt (156 mph)
Maximum Permitted Speed:	V_{NE} at sea level	282 km/hr	152 kt (175 mph)
Maximum Range:	Sea level 1524 m (5,000 ft)	431 km 478 km	233 nm (268 mi) 258 nm (297 mi)
Maximum Endurance:	Sea level	2.5 hr	2.5 hr
Maximum Rate of Climb:(TOP)	Sea level, Standard day ISA +20° C day	9.0 m/sec 9.0 m/sec	1,770 fpm 1,776 fpm
Maximum Operating Altitude:	Density Altitude	4877 m	16,000 ft
Service Ceiling:	ISA	5029 m	16,500 ft
Maximum Hook Capacity:		907 kg	2,000 lb
Hovering Performance:			
In-ground effect:	Standard day ISA + 20° C day	3444 m 2103 m	11,300 ft 6,900 ft
Out-of-ground effect:	Standard day ISA + 20° C day	2652 m 1250 m	8,700 ft 4,100 ft

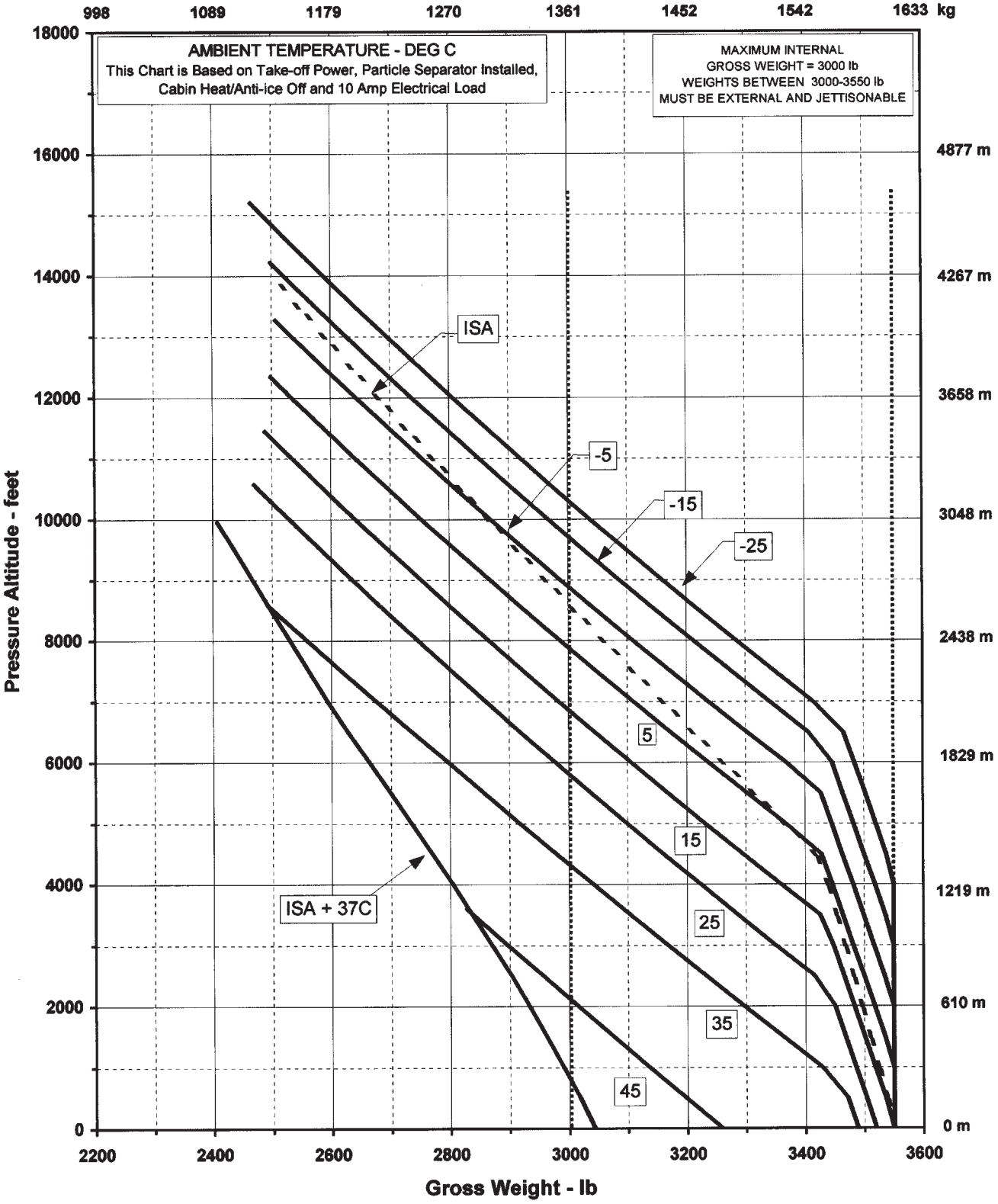
WEIGHTS

Characteristics		*Metric*	*Imperial*
Maximum Gross Weight:	Normal category External load operations	1361 kg 1610 kg	3,000 lb 3,550 lb
Empty Weight:	Standard configuration	688 kg	1,517 lb
Useful Load:	Normal category External load operations	673 kg 922 kg	1,483 lb 2,033 lb
Usable Fuel Capacity:	242 L (64 gal)	183 kg	403 lb

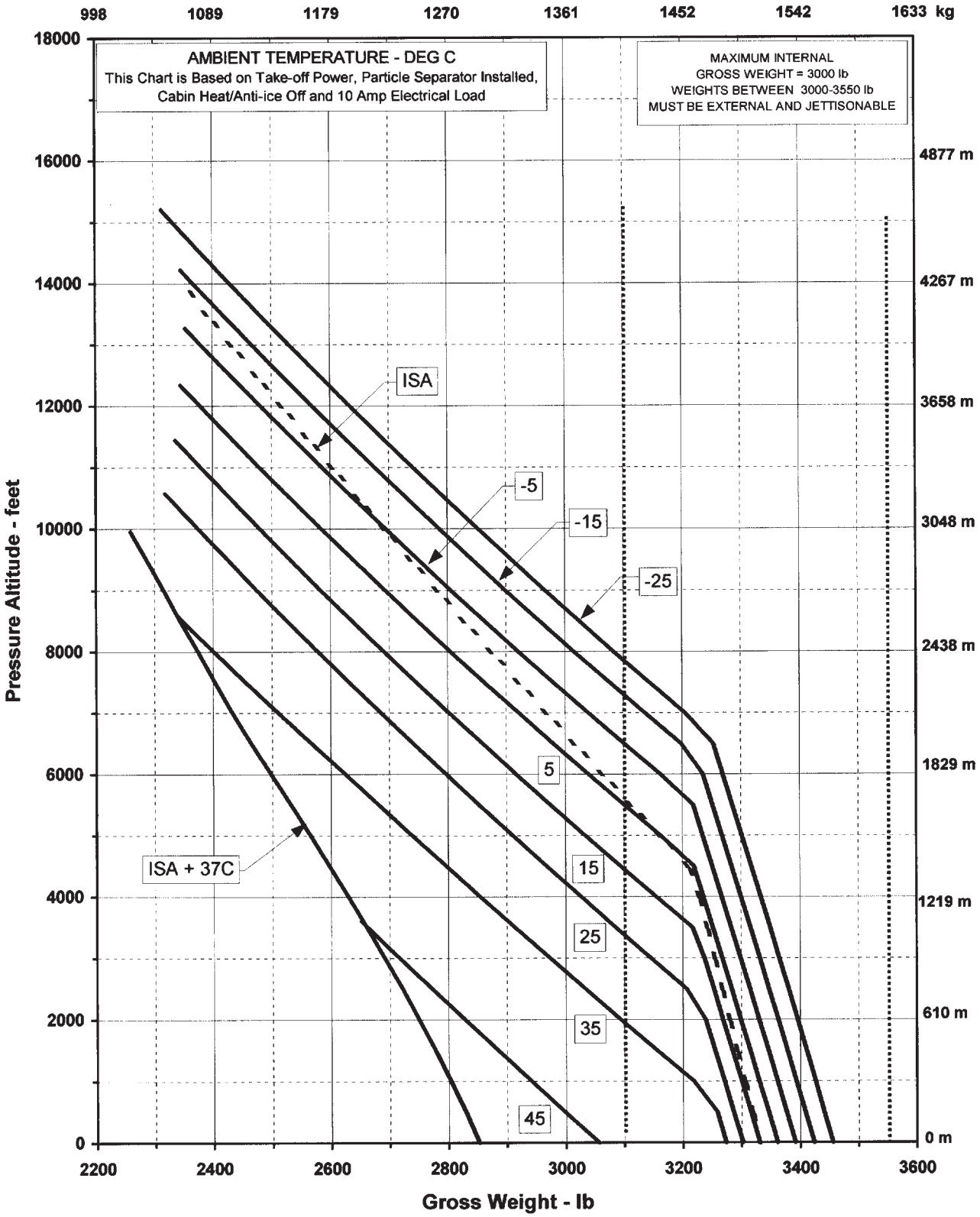
POWER PLANT

Characteristics		*Metric*	*Imperial*
Allison Model 250-C20R gas turbine,	Rated power:	336 kw	450 shp
Derated for reliability and safety to:	Takeoff power: Max. continuous power:	280 kw 261 kw	375 shp 350 shp

3.1 Hover-In-Ground-Effect.



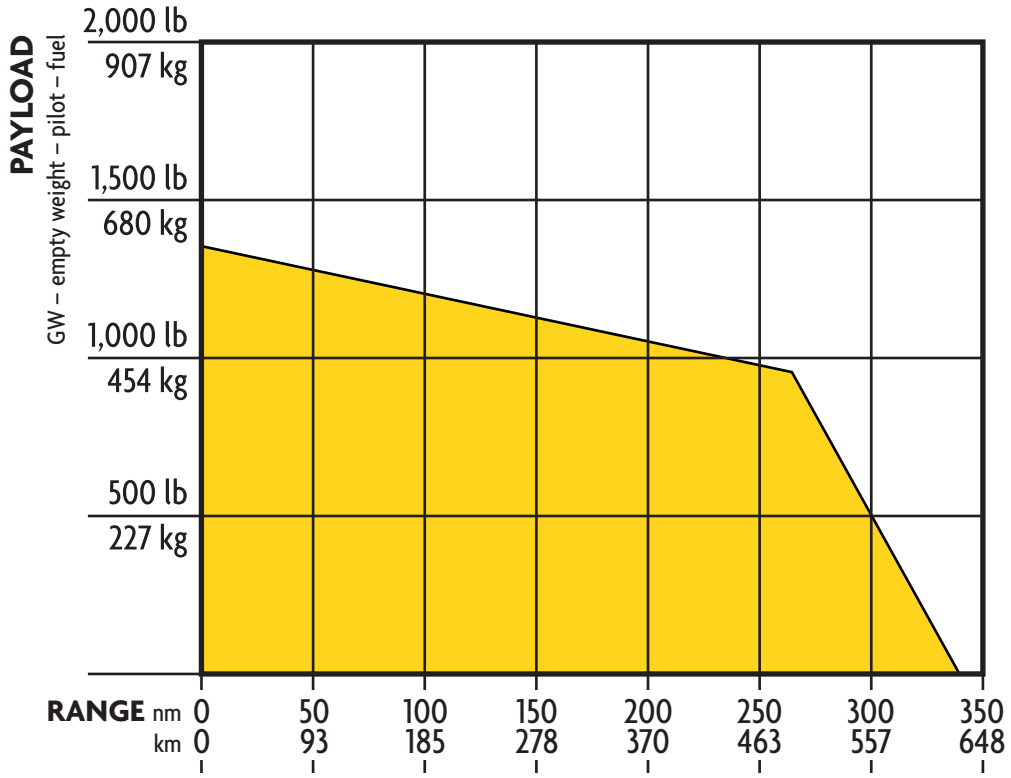
3.2 Hover-Out of-Ground-Effect.



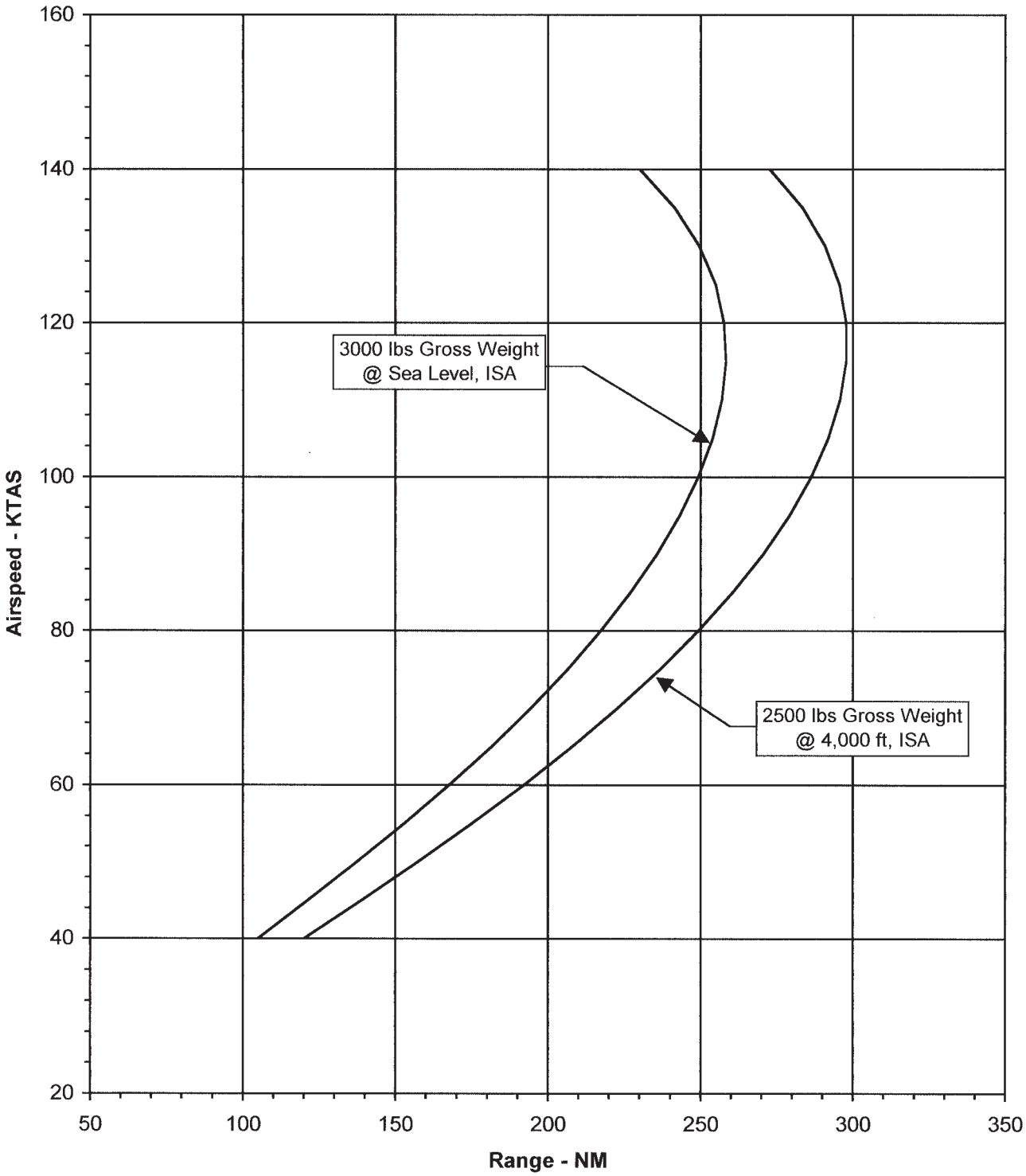
3.3 **Takeoff Gross Weight Worksheet.**

	C20B	Mission #1	Mission #2
Empty Weight	1,481 lb (672 kg)		
Pilot	170 lb (77 kg)		
Fuel	403 lb (183 kg)		
Payload	946 lb (428 kg)		
Takeoff GW	3,000 lb (1361 kg)		

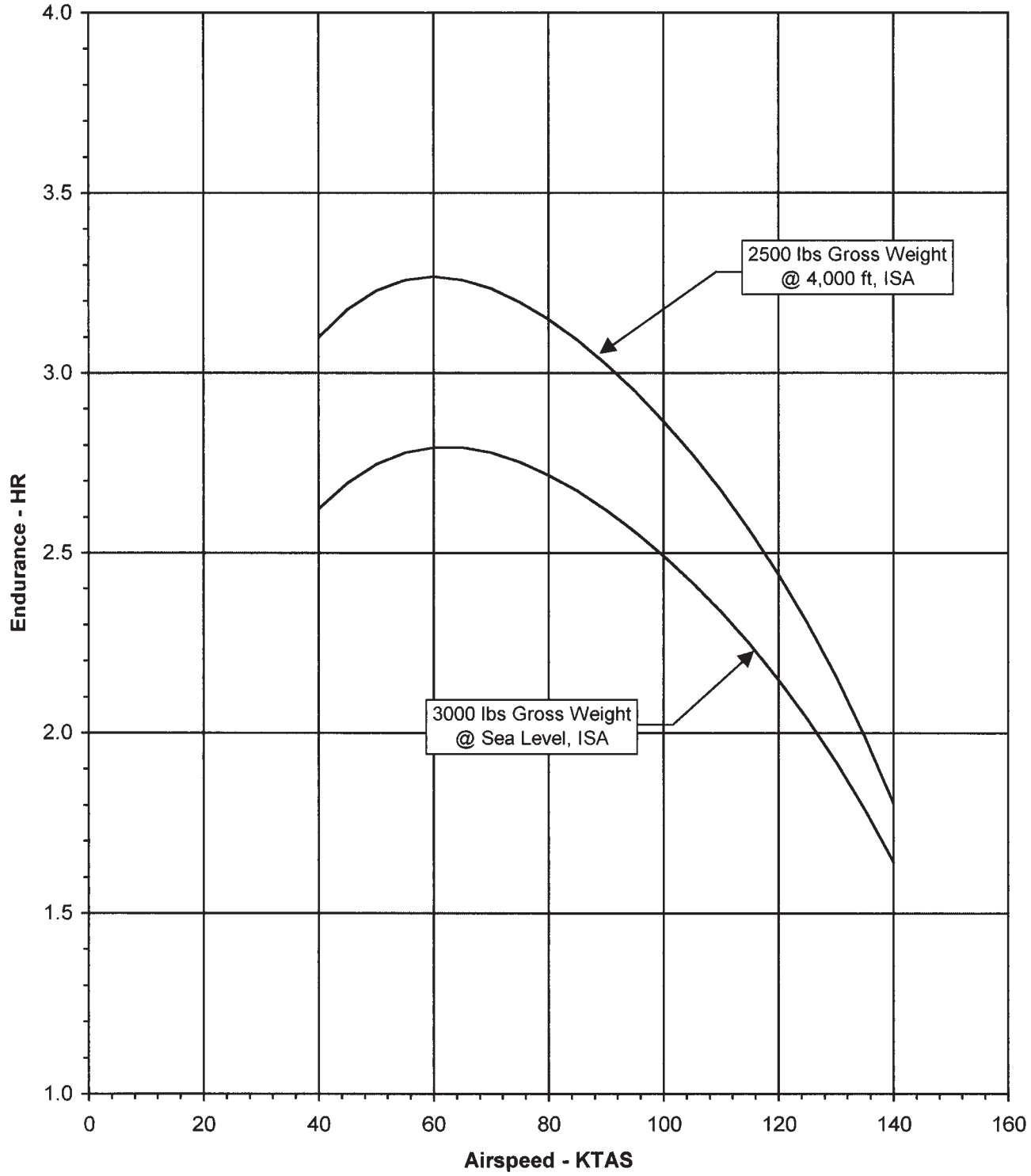
3.4 **Payload vs Range (5000', ISA).**



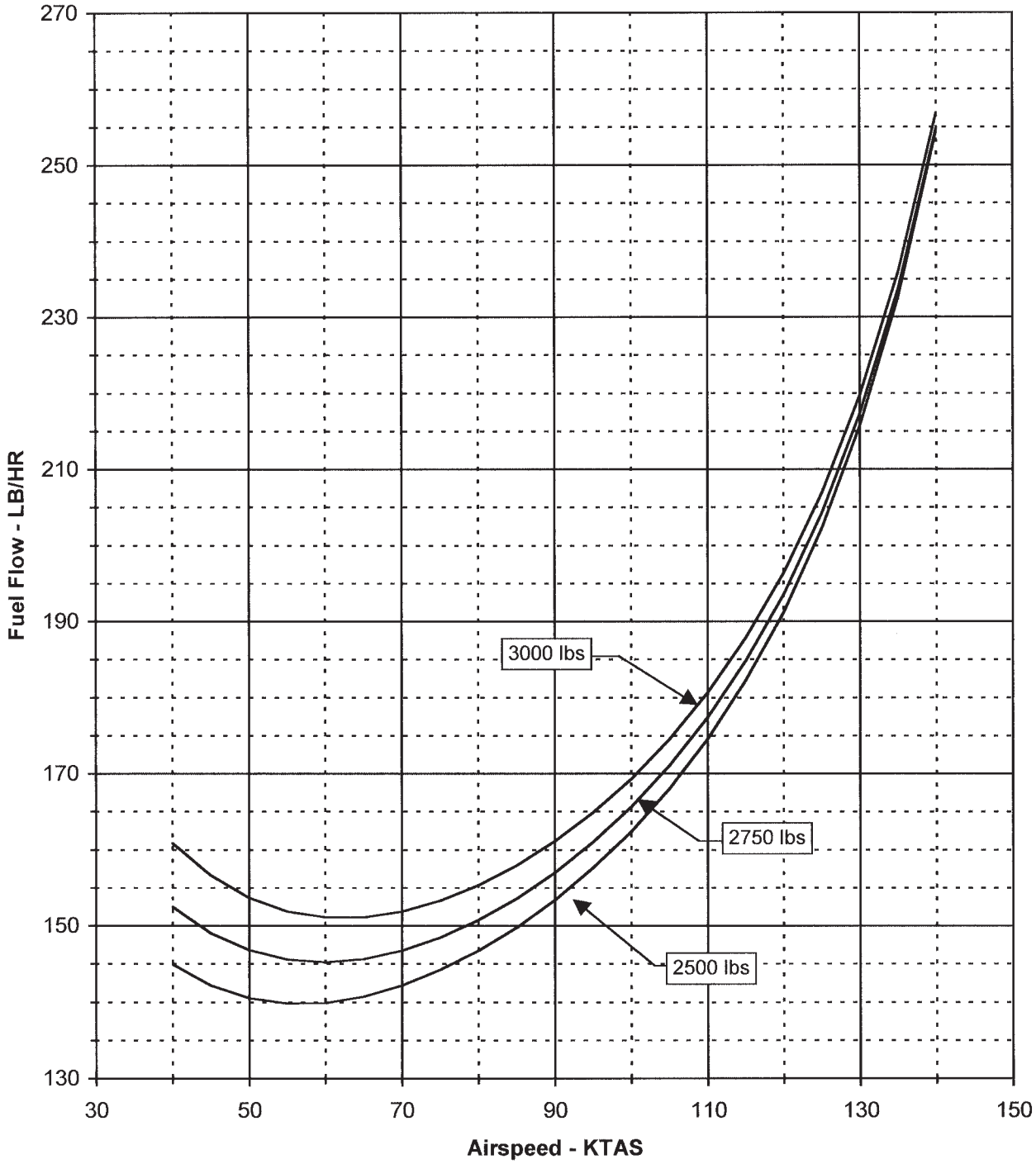
3.5 **Speed for Best Range.**



3.6 **Speed for Best Endurance.**

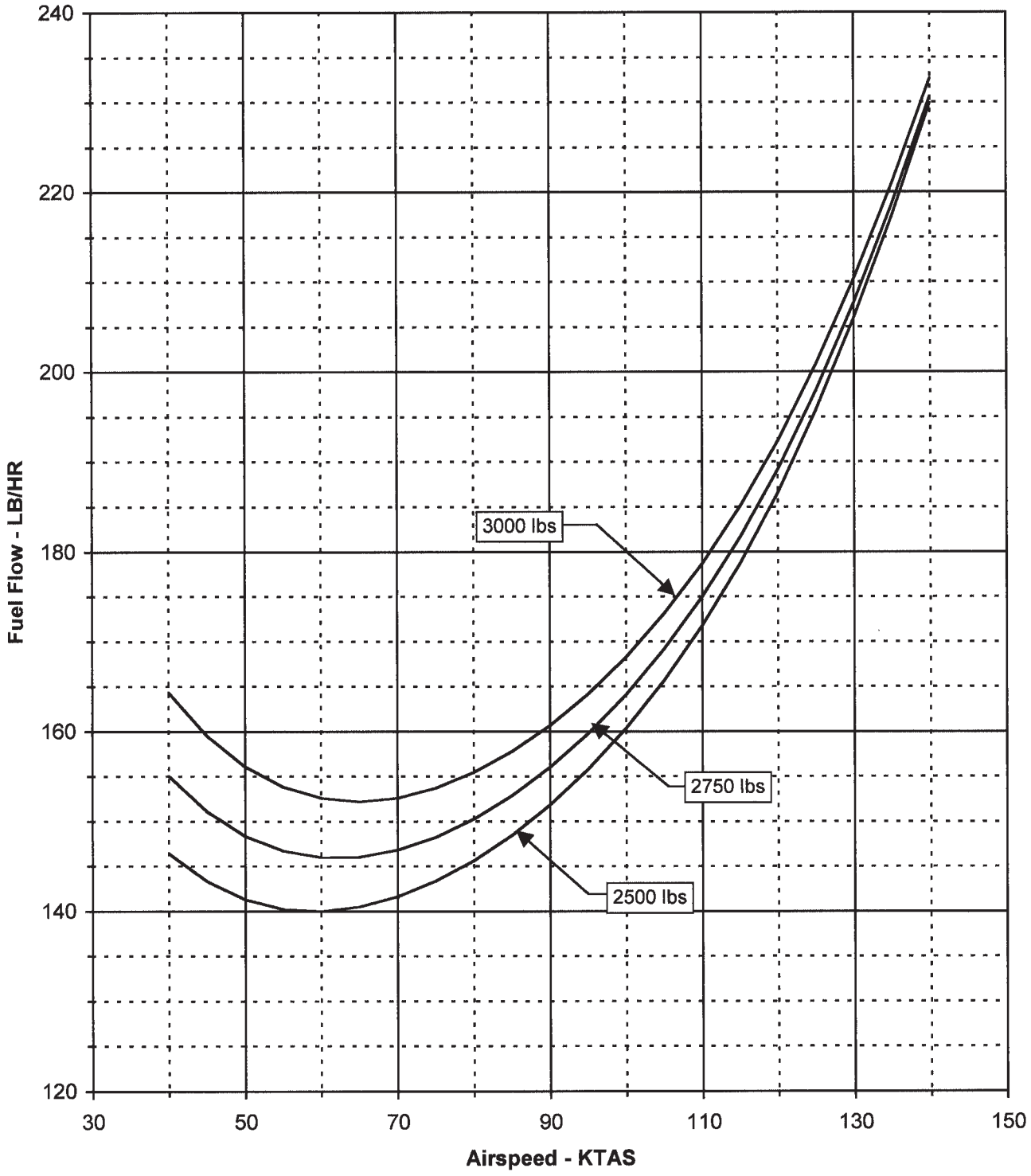


3.7 **Fuel Flow, Sea Level, ISA (15°C).**



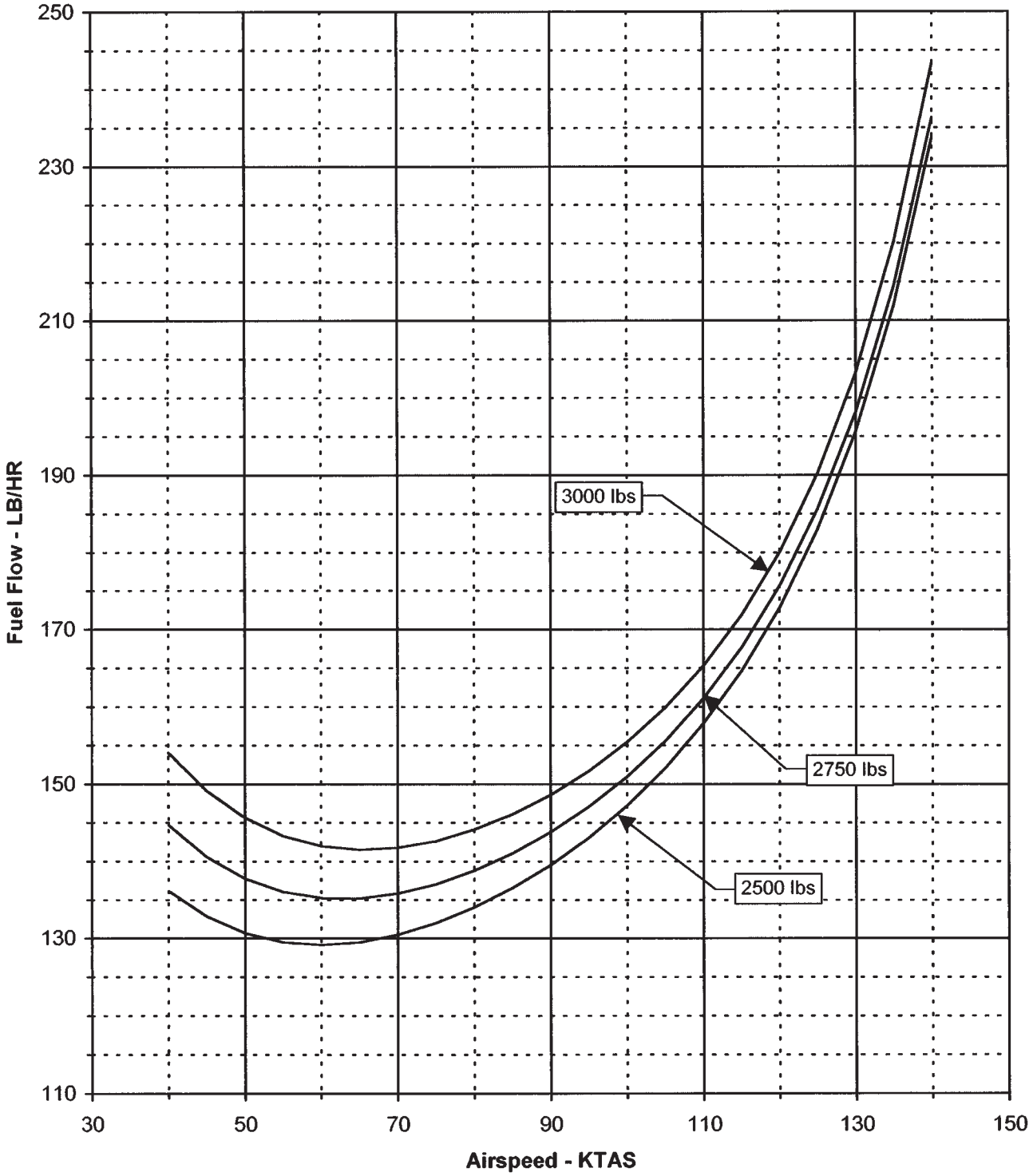
Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.8 **Fuel Flow, Sea Level, ISA +20°C (35°C).**



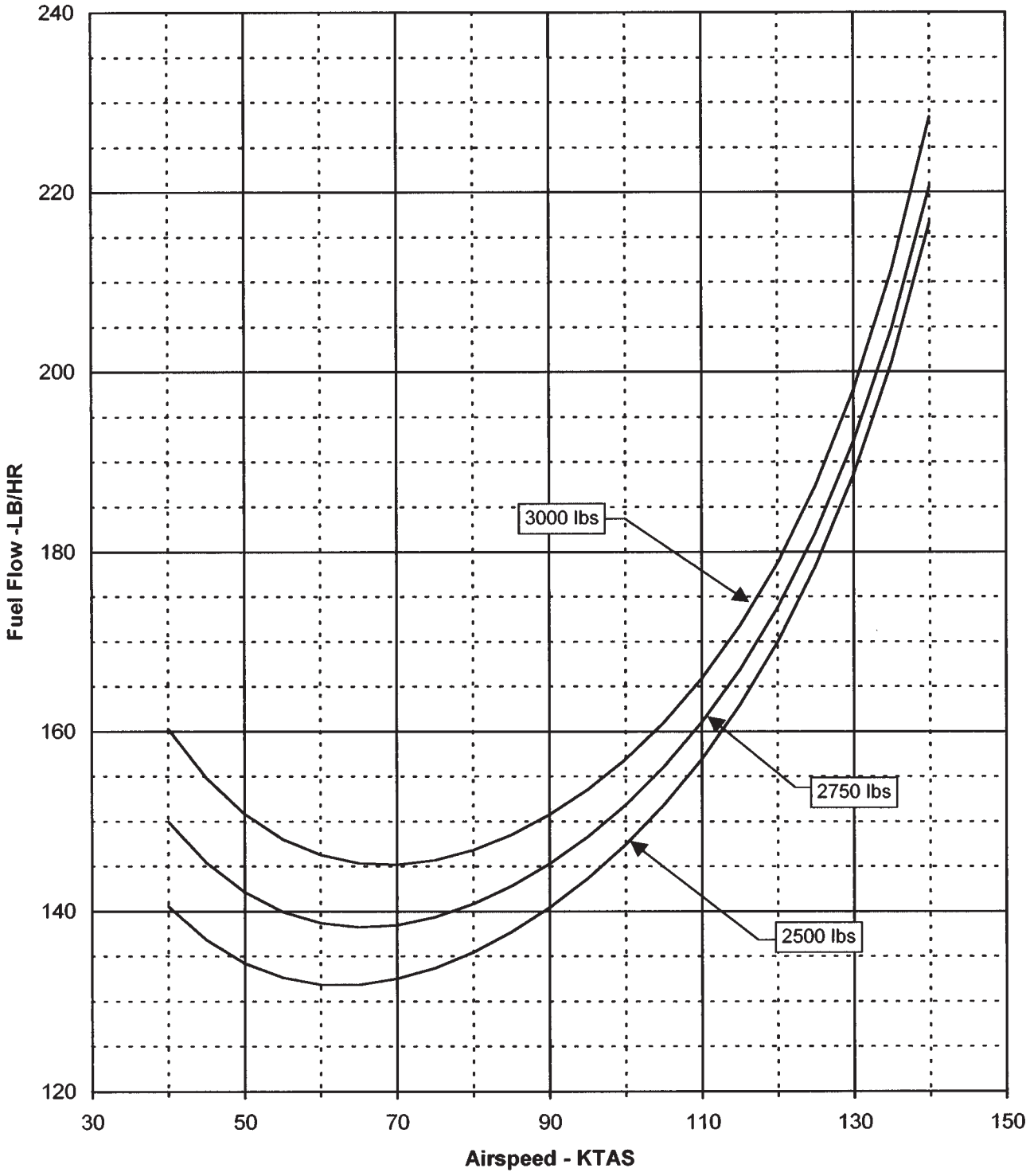
Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.9 Fuel Flow, 4,000 feet, ISA (7°C).



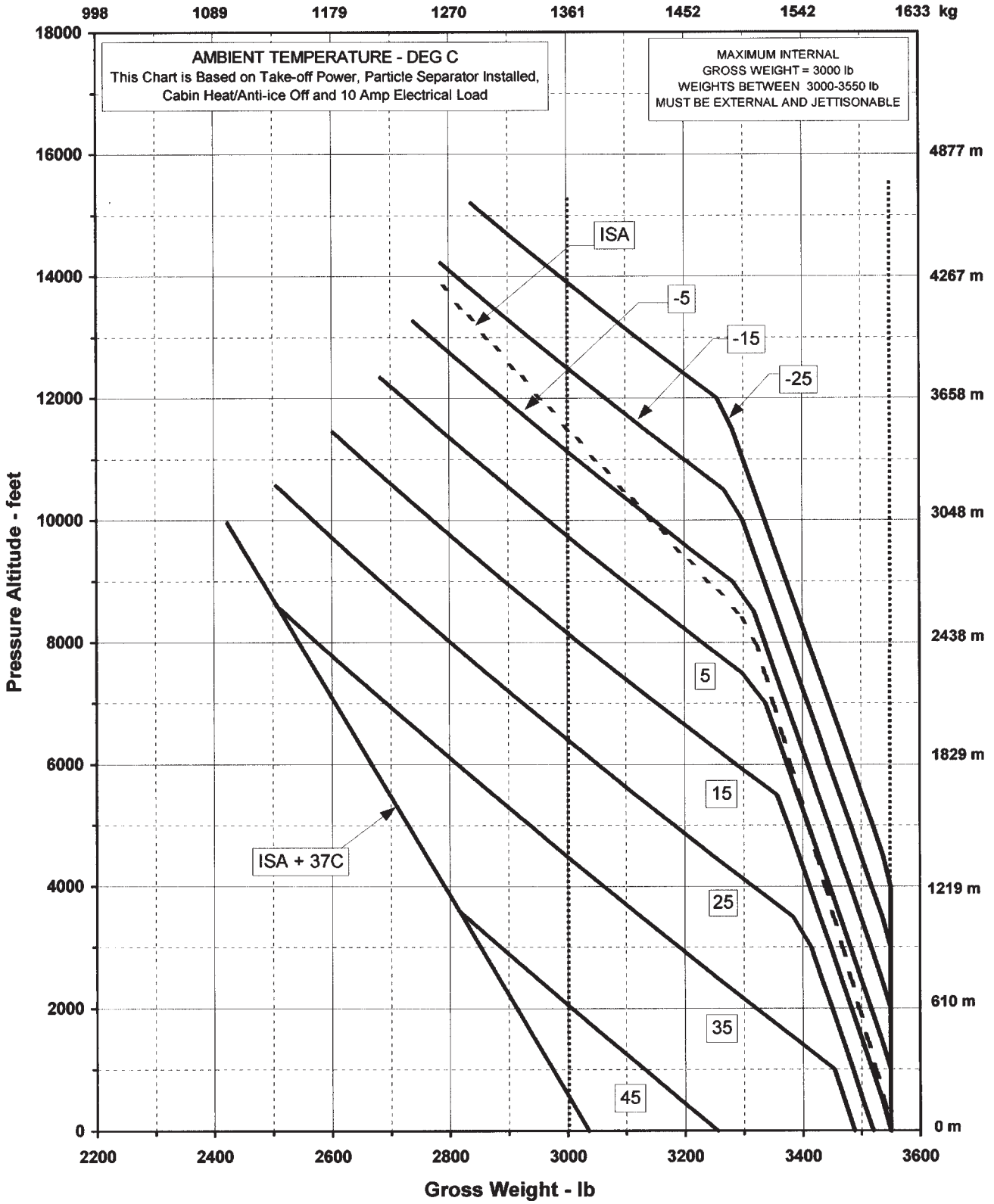
Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.10 **Fuel Flow, 4,000 feet, ISA +20°C (27°C).**

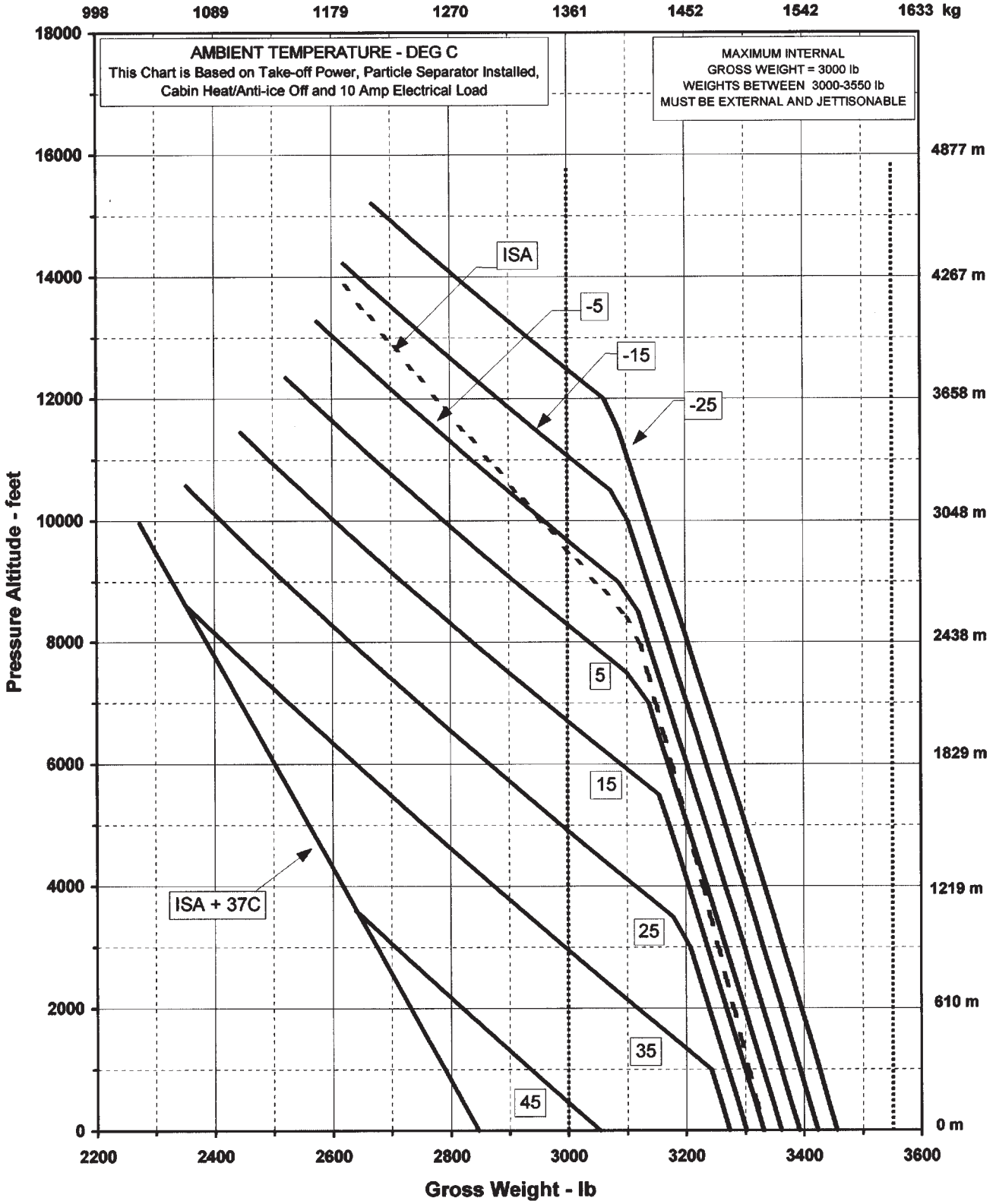


Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.11 **Hover-In-Ground-Effect.**



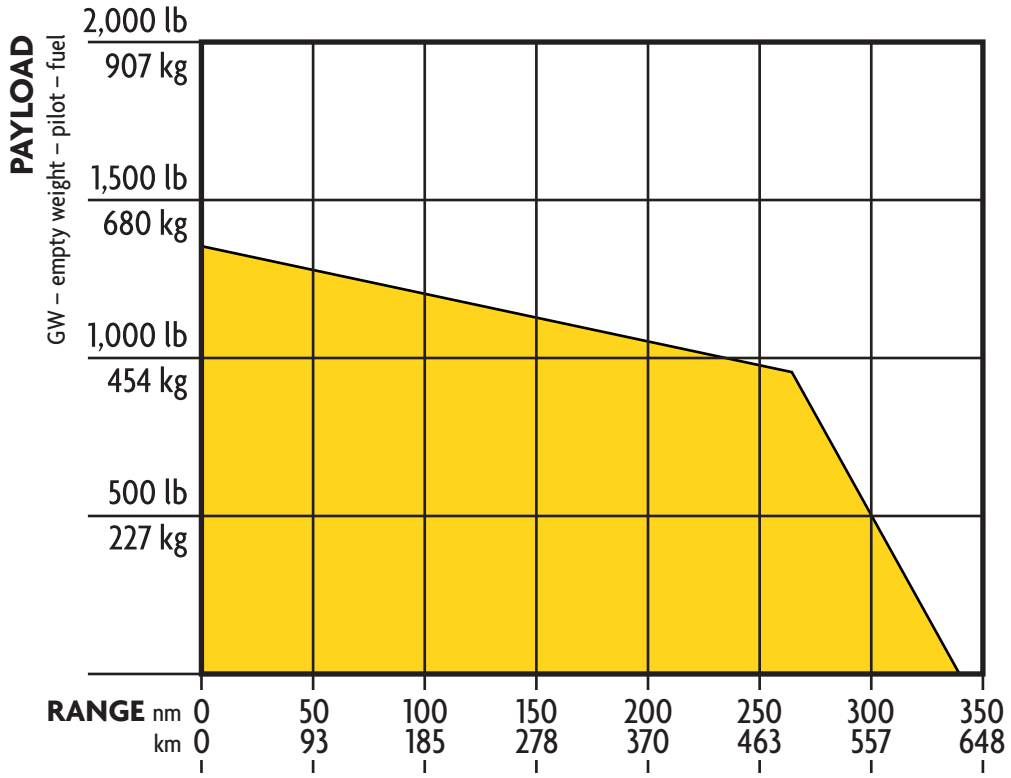
3.12 **Hover-Out of-Ground-Effect.**



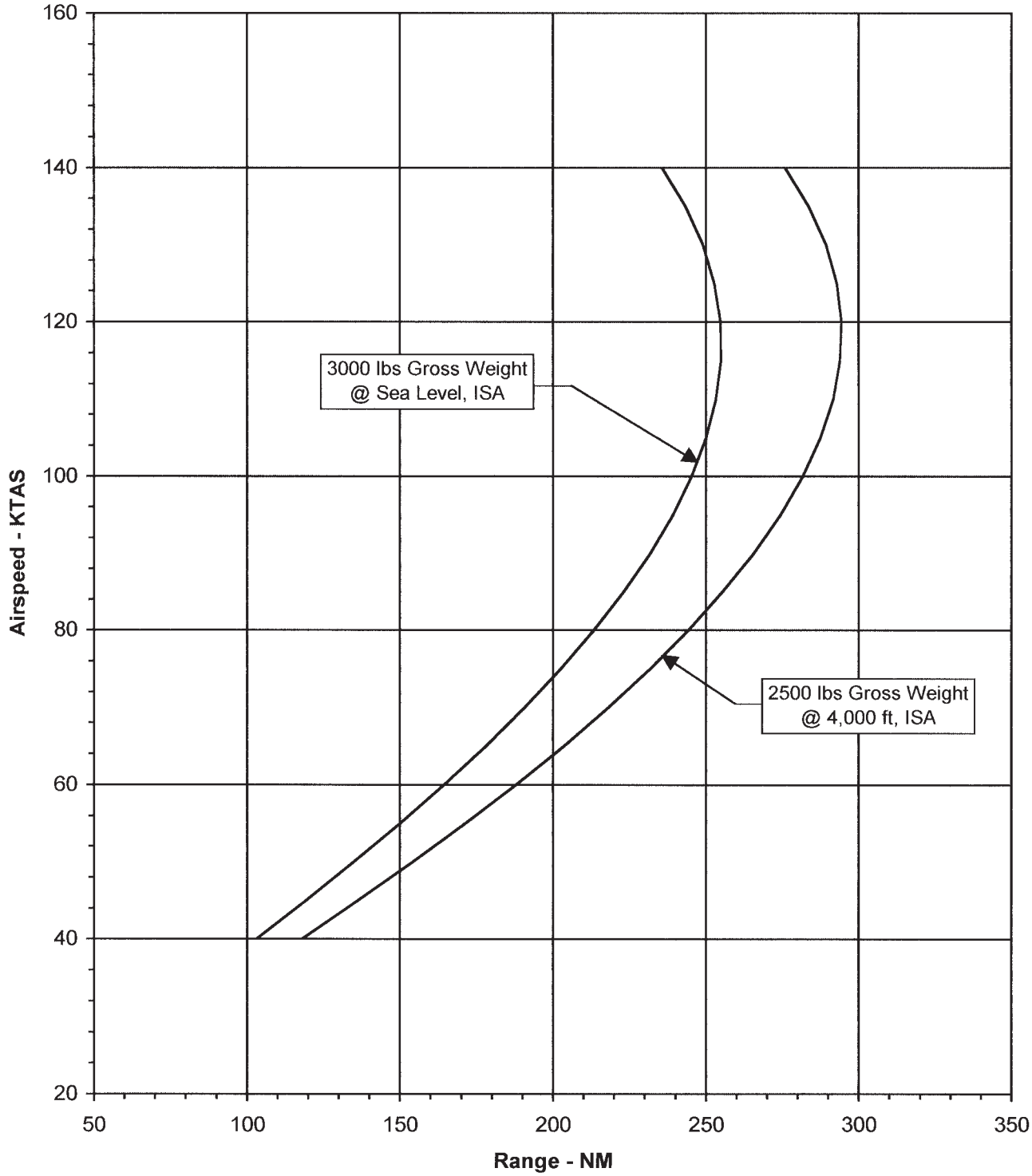
3.13 **Takeoff Gross Weight Worksheet.**

	C20R	Mission #1	Mission #2
Empty Weight	1,517 lb (688 kg)		
Pilot	170 lb (77 kg)		
Fuel	403 lb (183 kg)		
Payload	910 lb (413 kg)		
Takeoff GW	3,000 lb (1361 kg)		

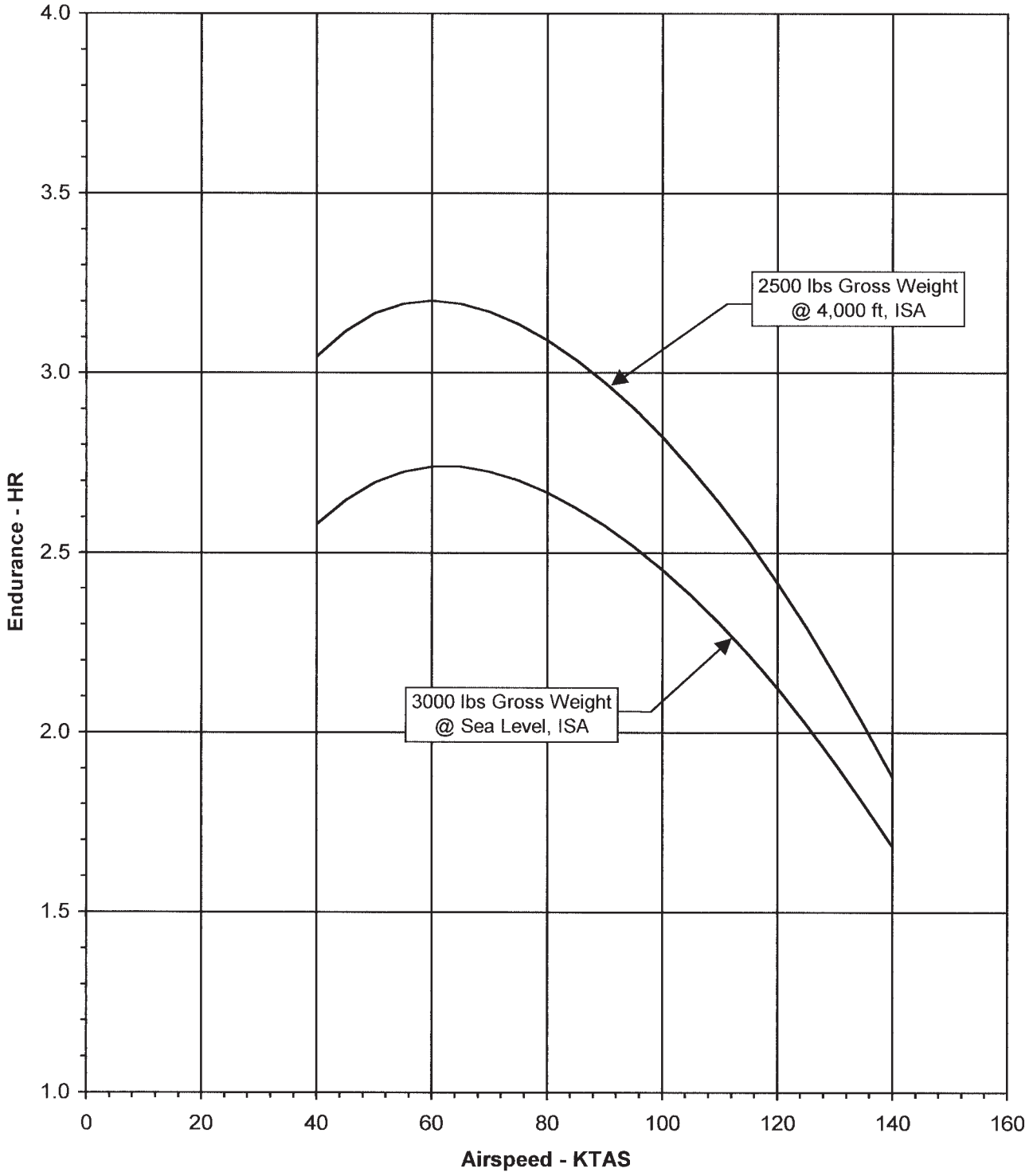
3.14 **Payload vs Range (5000', ISA).**



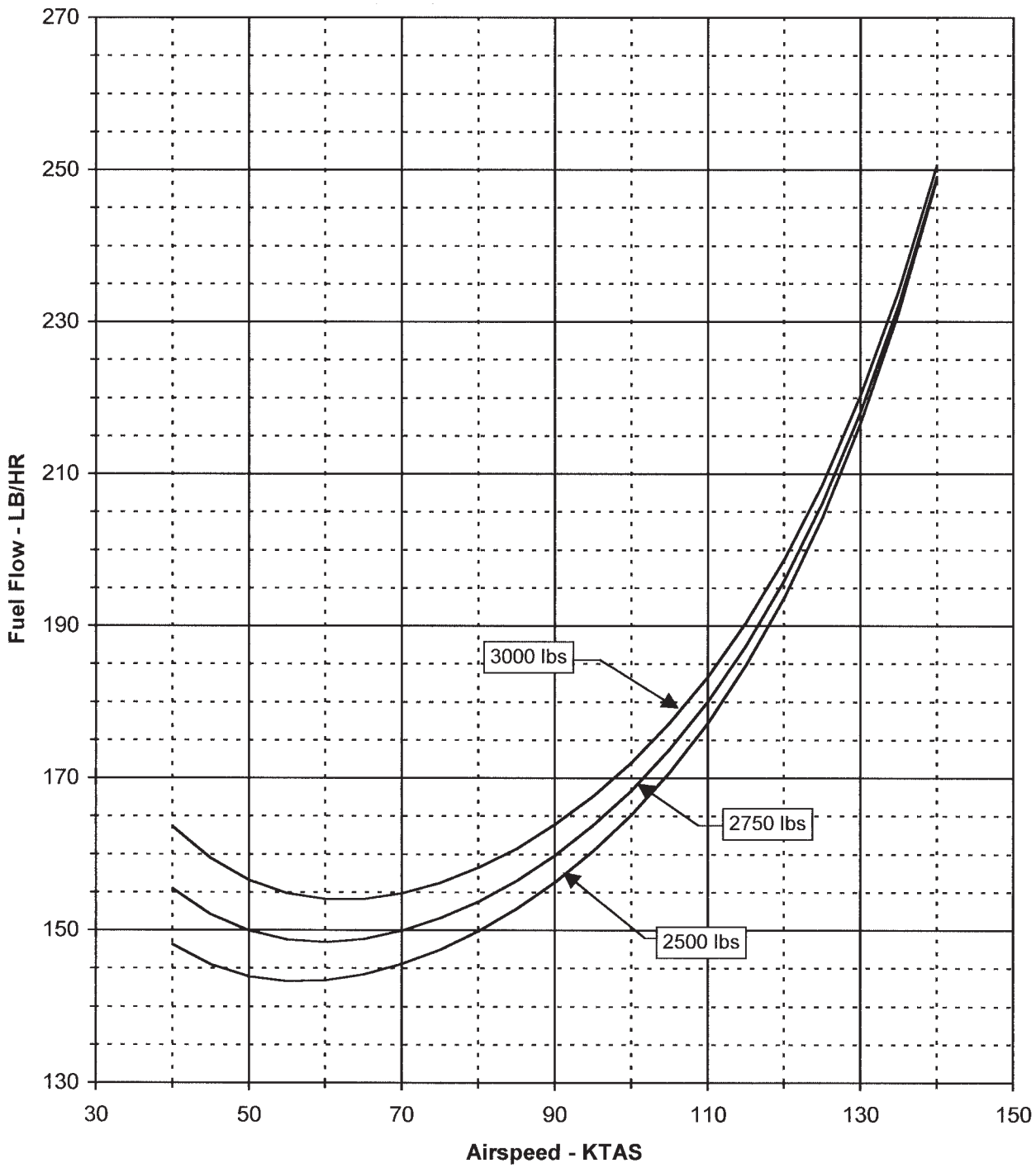
3.15 **Speed for Best Range.**



3.16 **Speed for Best Endurance.**

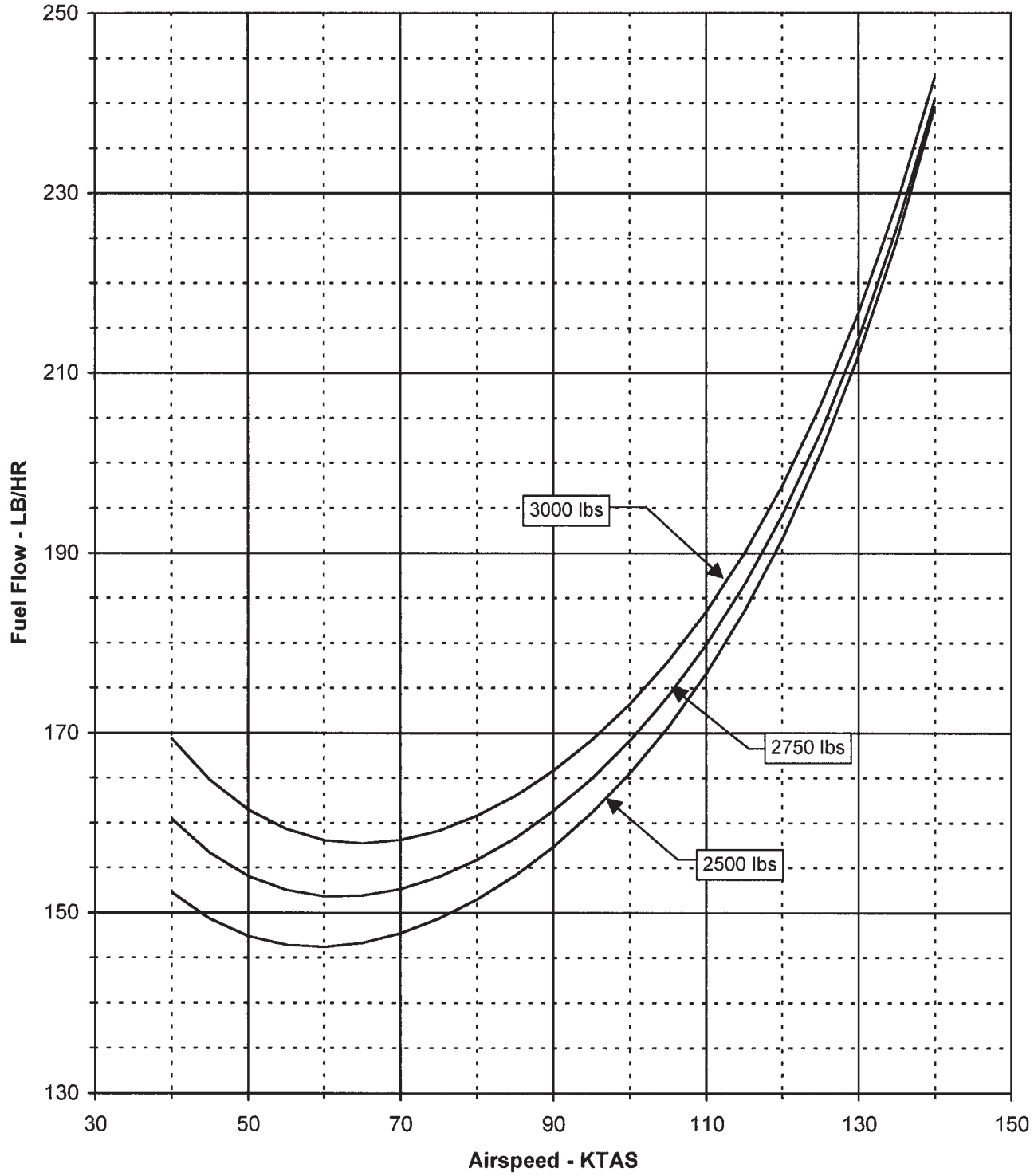


3.17 Fuel Flow, Sea Level, ISA (15°C).



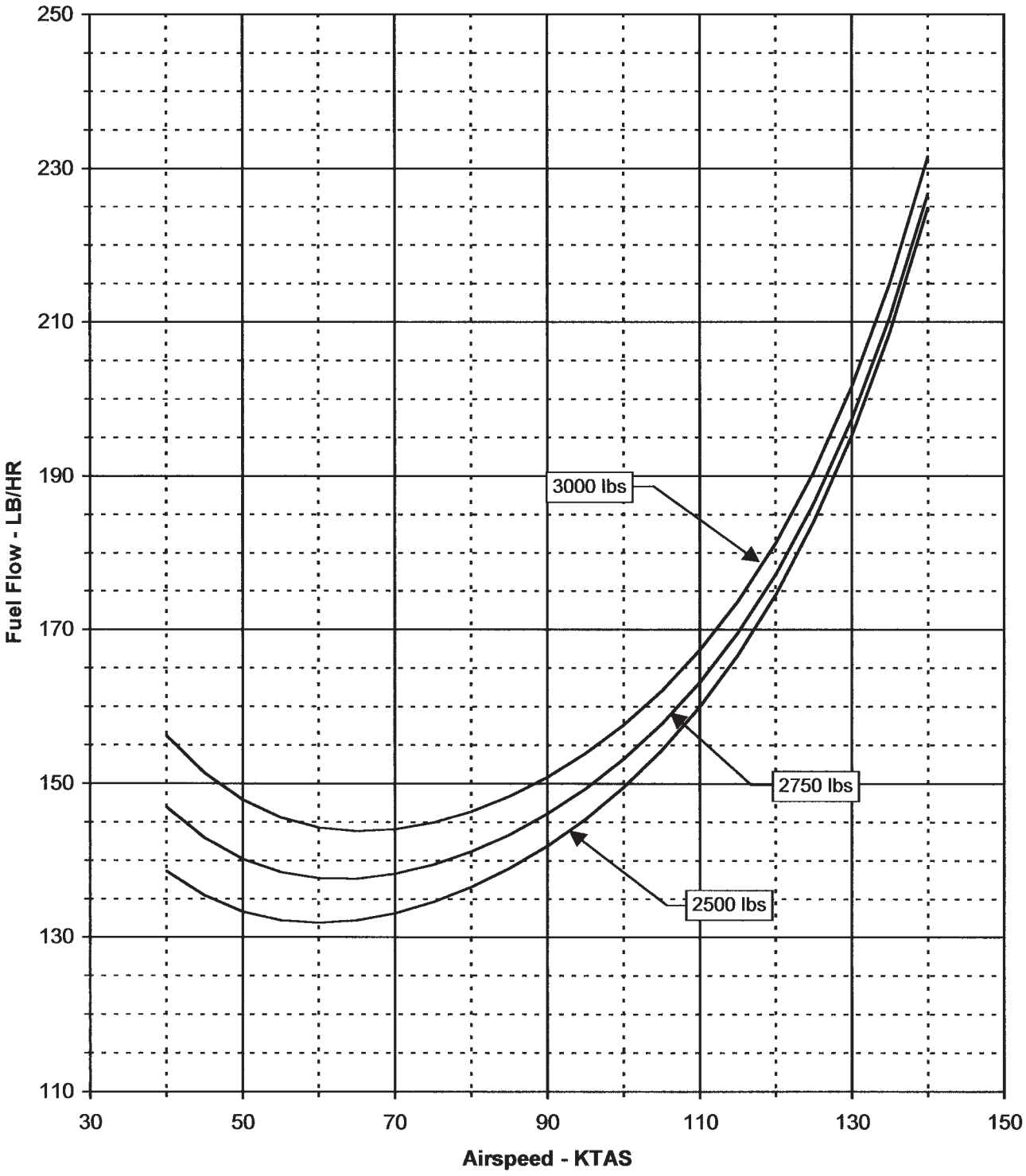
Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.18 **Fuel Flow, Sea Level, ISA +20°C (35°C).**



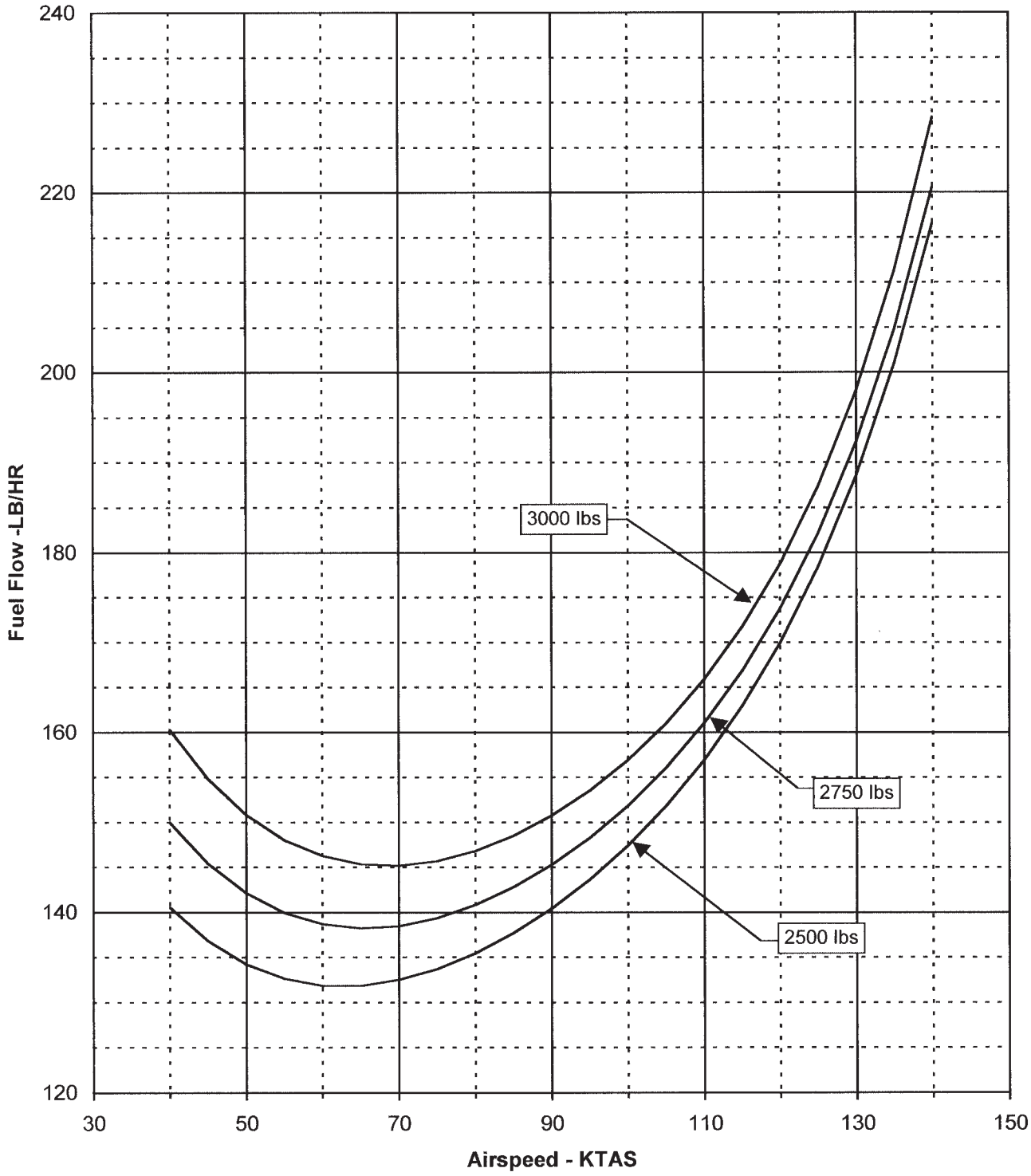
Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.19 **Fuel Flow, 4,000 feet, ISA (7°C).**



Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

3.20 **Fuel Flow, 4,000 feet, ISA +20°C (27°C).**



Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 10 ampere electrical load.

MD500E

2001 ESTIMATED DIRECT OPERATING COST

4.0 **Direct Operating Cost.**

Estimated Direct Operating Cost Per Hour
(Based upon year 2001 US $)

	C20 B Engine	C20 RS Engine
■ Fuel and Lubricants[1]:		
Fuel @ $2.06* per gallon @ approx. 25/27 gallons per hour .....$ 51.50	55.62	
Lubricants @ 3% of fuel 1.55	1.67	
Total Fuel Cost	**$53.05**	**$57.29**
■ Airframe Maintenance and Spares[2]:		
Maintenance labor costs:		
Scheduled (.15 Manhours/Flight Hours) @ $58.00/Hour* .....$ 8.70		
Unscheduled (.26 Manhours/Flight Hours) @ $58.00/Hour* 15.08		
Spares Cost:		
Scheduled (Inspection) Parts: Used during periodic inspection i.e. filters, seals, o-rings, etc. .....$ 5.78		
On-Condition/Unscheduled Part 20.11		
Reserves: Component Overhaul (TBO) 26.48		
Reserves: Limited-Life Parts 25.29		
Total Airframe Cost	**$ 101.44**	**$101.44**
■ Engine[3]:		
Scheduled maintenance labor and parts .....$ 3.00	3.00	
Reserve for engine overhaul, spares and accessories 44.86	43.76	
Total Engine Cost	**$47.86**	**$46.76**
■ **Total Direct Operating Cost**[4]	**$202.35**	**$205.49**

* Fuel Cost and labor rate is based on Conklin & deBecker book, "The Aircraft Cost Evaluator" dated Spring 2000.

[1] Average cost while operating under the following conditions:
Gross Weight: 10% less than maximum certified
Speed: Maximum Range Speed, 118 KIAS
Altitude: 1,000 feet on a standard day

[2] Overhaul costs (Projected) are based on participation in factory exchange program.

[3] Engine fleet maintenance costs provided by Rolls Royce Engine Company.

[4] Indirect costs such as insurance, hangar, salary, etc., are excluded.

Data Subject to Change Without Notice

Cost figures shown are extrapolated from a broad data base and are intended for example purposes only. Actual costs will vary, depending on local operating conditions, pricing and supplier practices. We encourage you to compare these figures with other manufacturers', using the same unit costs for fuel, labor, etc.

MD500E

TOTAL COST OF OPERATION WORKSHEET

Direct Operating Cost per Hour

- Fuel and Lubricants

  Fuel @ $_____ per gallon @ approx._____ gallons per hour .....$ _____
  Lubricants @ _____ % of fuel .....$ _____
  Total Fuel Cost .....**$** _____ (A)

- Airframe Maintenance and Spares

  Scheduled maintenance labor rate @ $_____ per hour
  (Maintenance man-hour/flight hour=$_____) .....$ _____
  Unscheduled maintenance labor rate @ $_____ per hour
  (Maintenance man-hour/flight hour=$_____) .....$ _____
  Scheduled (Inspection) Parts: .....$ _____
  On-Condition/Unscheduled Part .....$ _____
  Reserves: Component Overhaul (TBO) .....$ _____
  Reserves: Limited-Life Parts .....$ _____
  Total Airframe Cost .....**$** _____ (B)

- Engine

  Scheduled maintenance labor rate @ $_____ per hour
  (Maintenance man-hour/flight hour=$_____) .....$ _____
  Unscheduled maintenance labor rate @ $_____ per hour
  (Maintenance man-hour/flight hour=$_____) .....$ _____
  Reserves for engine overhaul and spares .....$ _____
  Total Engine Cost .....**$** _____ (C)
  Total Direct Maintenance/Spares Cost (B+C).....$ _____

- **Total Direct Operating Cost** (A+B+C) .....**$** _____ (D)

Fixed Operating Cost

- Depreciation

  Hull insurance .....$ _____
  Liability insurance.....$ _____
  Pilot salary .....$ _____
  Hangar rental.....$ _____
  Total Annual Fixed Operating Cost .....**$** _____ (E)
  Total Hours (_____) flown annually (F)
  Total Fixed Operating Cost Per Hour (E÷F) .....**$** _____ (G)
  Total Direct Operating Cost Per Hour (from above) .....**$** _____ (D)

- **Total Hourly Fixed Operating Cost** (D+G) .....**$** _____

COMPONENT MAINTENANCE SCHEDULE

LIMITED-LIFE PARTS

Component	*Finite Time (hr)*
Main Rotor Blade	3,530
Blade Pin	7,600
Main Rotor Hub	8,900
Pitch Housing/MR	9,100
Retention Strap/MR	2,770
Bolt-Lead Lag/MR	6,120
Lead Lag Link/MR	11,080
Drive Shaft	5,020
Mast	10,450
Transmission Coupling	4,300
T/R Drive Shaft	13,900
T/R Transmission Input Shaft	12,000
T/R Transmission Output Shaft	7,290
T/R Blade	5,140
T/R Hub	3,450
T/R Retention Strap	5,100
Tail Boom Bolts	21,950
Tail Boom	10,300
Vertical Stabilizer	12,700
Horizontal Stabilizer	7,700
Idler Bellcrank	6,500

OVERHAUL SYSTEMS

Component	*Finite Time (hr)*
Transmission/MR	5,000
M/R Swashplate	2,770
M/R Hub	2,770
Overrunning, Clutch	1,800
T/R Transmission	4,800
Starter, Generator	1,200
Blower Bearings	1,200
Blower Belt	1,200
Landing Gear Dampers	1,000

With the launch of the new helicopter company, MD Helicopters, Inc. announces its new Product Support Plan. Named *The MDHI Support Plan 2000*, it signifies MDHI's commitment to satisfy the operators of its products now and well into the next century.

6.0 **The MDHI Support Plan 2000**

MDHI is dedicated to a successful fielding of its new helicopters and to improve the support it currently offers operators of its commercial helicopters. The following items highlight how the MDHI helicopters will be the best-supported aircraft of its type anywhere in the world.

Operator Input

Input from many of our existing fleet operators has been actively solicited by our support team. We have created Customer Satisfaction Advisory Teams, composed of operators from all over the world who are chartered to work together with MDHI technical representatives to lower operating costs, and to improve our products and the way we support them. As a result of this improved level of two-way communication, many improvements suggested by our customers are being included in our production, publications, and maintenance procedures.

Training

MDHI offers pilot and maintenance training to our new customers at no extra charge. Customers will be trained at the MDHI Commercial Training Center by our staff of specially trained pilots and technical representatives. At the training center, we stress hands-on experience in both our flight and ground schools. The materials we use for our school are continually updated to reflect the latest product and maintenance developments by our technical staff.

IInitial Fielding

All new aircraft customers will be greeted at their facility by a Customer Support Technical Representative who is trained specifically on the operation and maintenance of MDHI helicopters. These Technical Representatives are backed up by a factory team of MDHI Product Support Engineers who can be called upon at any time to support specific technical issues or questions that may arise. The Technical Representatives will spend as much time with the customers as required to familiarize them with their new aircraft.

Regular Maintenance

Follow-up visits by our Customer Support Technical Representatives will be performed as required at the regularly scheduled maintenance periods. This provides the customer with the latest maintenance information, and provides the factory with feedback on the operation, reliability and maintainability of their new aircraft. In addition, we plan to offer all models maintenance and parts manuals on CD-ROM.

Direct Operating Costs

The operating costs of MDHI helicopters are planned to be clearly the lowest in their classes. The plan is to keep the parts costs down, maximize the reliability of the helicopter systems, and minimize maintenance hours. This is accomplished by “benchmarking” all of these areas against the existing fleet of MD 500® helicopters, already one of the most reliable turbine helicopter lines in the world. Every part, system and maintenance procedure has undergone scrutiny before being incorporated on new production aircraft.

Spare Parts

The MDHI recognizes the importance of timely deliveries of spare parts to our customers. A thorough review of spare parts utilization has been conducted with the intent to significantly improve turnaround time of AOG spares. Additionally, we will increase our activities in using customer advanced spares requirement notification to eliminate known spare part requirements. On-line spares ordering and statusing is in our near future. Additionally, we have established a MDHI Support Center in Europe, where a significant inventory of spare parts, exchange components and tools are maintained.

7.0 **Training**

The MDHI Commercial Training Center offers cost-effective factory designed training courses for MD 500 series pilots and maintenance crews. This training, given by senior instructors with extensive experience in our products, provides our customers/students with the detailed knowledge of our products that will increase safety, reduce insurance costs and result in more efficient operation of the aircraft. Training is customarily conducted at our facility in Mesa, but offsite training at the customer's facility can also be arranged. We can also arrange for pilot training in the customer's aircraft, as long as MDHI's insurance requirements are met before training begins.

Pilot Training

The transition flight training course is designed to familiarize a rated helicopter pilot with the operation of the MD 500 series helicopter. This five-day course introduces the student to all the associated company publications as well as detailed explanations of all aircraft systems and daily/preflight inspection procedures. The ground school, including the exam and exam review, requires 16 to 20 hours to complete. The student will be expected to pass an exam demonstrating basic knowledge of the aircraft. The flight training syllabus includes five hours of instructor time and is broken down into four flight lessons:

- Normal Operations (pattern and hover work)
- Normal Operations and emergency procedures
- Heavy Weight Performance
- Emergency Procedures (autorotations)

Recurrent pilot training consists of a two-day refresher course for any pilot who has previously attended the transition flight training course. Ground school includes a closed-book exam, review of AD's and notices, and a daily/preflight inspection review. A BFR (biennial flight review) can also be given in conjunction with this course and includes review of FAR Part 91 and an open book exam. Flight training consists of three hours of intensive emergency procedures review.

Maintenance Training

The Airframe Maintenance Course is designed to familiarize a licensed A & P mechanic with the maintenance and inspection of all major systems on the aircraft. This 2-week course will require the student to learn and demonstrate the skill and knowledge required to safely perform selected maintenance tasks on the MD 500 series. The 1-week course is available to selected students with prior knowledge of MD products (the 500 series aircraft). The 80-hour syllabus is comprised of the following sections:

- Intro to helicopter design
- Landing gear
- Fan assembly
- Rotor assembly, controls and rigging
- Lubrication/fuel
- Engine controls
- Airframe
- Drive system
- Anti-torque
- Track and balance
- Powerplant
- Electrical systems

Other Training

The other types of training that are currently available to 500 series customers are:

- Instructor pilot training
- Maintenance test flight pilot training

Airspeed/Time	lb	kg
ASTROTECH LC-6 CLOCK	0.3	0.1
DAVTRON N877 CLOCK	0.2	0.1
HEATED PITOT	0.4	0.2

Altitude	lb	kg
KRA10-00 RADAR ALT W/KI250 IND	4.4	2.0
KRA405B-15 RADAR ALT W/KNI416 IND	10.5	4.8
UNITED 5035 ENCODING ALTIMETER	3.7	1.7
UNITED 5120 BLIND ENCODER	2.0	0.9
UNITED 7130-C41 IVSI	2.5	1.1

Altitude/Heading	lb	kg
AIM ATITUDE GYRO 510-1B	3.1	1.4
AIM DIRECTIONAL GYRO 205-1BL	3.0	1.4
EHS 40 ELECTRONIC FLIGHT INTRUMENT SYSTEM	23.9	10.8
KCS55A-01 COMP SYS WKI525A HSI, KA51B	10.3	4.7
KI229-00 RADIO MAGNETIC INDICATOR	2.0	0.9
MID-CONTINENT 9510 3-INCH TURN AND BANK INDICATOR	1.6	0.7
UNITED 9551 2-INCH TURN AND BANK INDICATOR	1.4	0.6

Comm/Intercom	lb	kg
FLIGHT TRAILS AVIONICS MASTER SWITCH	1.5	0.7
FLIGHT TRAILS COPILOT ICS FOOT SWITCH	0.5	0.2
FLIGHT TRAILS CYCLIC REMOTE FREQ SWITCH ONLY	.3	0.1
FLIGHT TRAILS REAR SEAT TRANSMIT	2.5	1.1
HEADSET BOSE SERIES II	1.1	0.5
HEADSET BOSE SERIES X	1.1	0.5
HEADSET DAVID CLARK H10-56	1.1	0.5
HEADSET WIRE HARNESS (W/O ICS) W/ADAPTS	2.0	0.9
KFM985 FM TRANSCEIVER	3.0	1.4
KHF990-00 HF SYSTEM WITH BELLY MOUNTED ANT	22.5	10.2
KMA24H-71 AUDIO CONTROL/INTERCOM (5-PLACE)	3.1	1.4
KMA24H-71 DUAL AUDIO CONTROL/INTERCOM	6.2	2.8
KY196A-30 TRANSCEIVER	5.2	2.4
KY196A-30 TRANSCEIVER W/CYCLIC REMOTE SWITCH	5.5	2.5
MOTOROLA DVP-DVS ENCODER	0.0	0.0
NAT 138 FMNPX HIGH BAND TRANSCEIVER	3.1	1.4
NAT 150 VHF HI BAND TRANSCEIVER	8.5	3.9
NAT 403-00 UHF TRANSCEIVER	0.0	0.0
NAT 806 UHF 800MHZ BAND TRANSCEIVER	6.0	2.7
NAT AA22-163 100 WATT PA AND SIREN	21.6	9.8
NAT AA22-163 220 WATT PA AND SIREN	21.4	9.7
NAT AA34-200 UNIVERSAL RADIO INTERFACE	0.0	0.0
NAT AA94-SSD DUAL CHANNEL AUDIO CONTROLLER	2.3	1.0
NAT AA95-512 SINGLE CHANNEL AUDIO CONTROLLER	2.5	1.1
NAT AA95-512 SINGLE CHANNEL AUDIO DUAL CONTROLLERS	5.0	2.3
NAT AA97-400 SINGLE CHANNEL AUDIO CONTROLLER	2.5	1.1
NAT AMS44 DUAL CHANNEL AUDIO CONTROLLER	2.8	1.3
NAT CC250 COMMUNICATIONS CONTROLLER	3.0	1.4
NAT CC450 COMMUNICATIONS CONTROLLER	2.5	1.1
NAT DTE12-001 DATA ENCODER KEYBOARD	0.8	0.4
NAT TH250-7NN MASTER CONTROL HEAD	0.0	0.0
NAT TH350-2 MASTER CONTROL HEAD	3.0	1.4
PROVISIONS C1000-10 FLEXCOMM CONTROL HEAD	0.0	0.0
PROVISIONS C5000-1 FLEXCOMM CONTROL HEAD	0.0	0.0
TECHNISOFT TFM-403 FM COMM	4.5	2.0
TFM-138 VHF HIGH BAND TRANSCEIVER	3.1	1.4
WULFSBERG C1000-10 FLEX COMM CONTROL HEAD	2.6	1.8
WULFSBERG RT138F-0 TRANSCEIVER	7.5	3.4
WULFSBERG RT30-0 TRANSCEIVER (WIDEBAND)	8.3	3.8
WULFSBERG RT406F-0 TRANSCEIVER	7.5	3.4
WULFSBERG RT5000-01 TRANSCEIVER	27.2	12.3
WULFSBERG C5000-1 FLEX COMM CONTROL HEAD	4.2	1.9

Comm/Nav	lb	kg
Emergency LOC TRANS, ARTEX-100HM	6.9	3.1
Emergency LOC transmitter pointer 3000	4.0	1.8
FOXTRONICS 3050 wide band antennna	0.0	0.0
KDF806-00 ADF w/KFS586 freq selector	5.0	2.3
KI202-00 VOR/LOC indicator	1.3	0.6
KI203-00 VOR/LOC indicator	1.0	.5
KI204-02 VOR/LOC/GS indicator	3.0	1.4
KI206-04 VOR/LOC/GS indicator	3.0	1.4
KI208-00 VOR/LOC indicator	2.4	1.0
KI209-01 VOR/LOC/GS indicator	1.2	0.5
KN53-00 NAV receiver w/GLS	3.0	1.4
KN62A-01 DME	2.6	1.2
KN63-04 DME w/KDI 572 indicator	3.6	1.6
KN75-02 glideslope receiver	1.6	0.7
KR22-00 marker beacon receiver	1.6	0.7
KR87-16 ADF	6.8	3.1
KR87-16 ADF W/KI227-00 IND	8.2	3.7
KT70-00 S-MODE TRANSPONDER	5.2	2.4
KT71-00 A AND C-MODE DIGITAL TRANSPONDER	4.0	1.8
KT76A-01 A AND C-MODE TRANSPONDER	4.2	1.9
KX155-39 NAV/COMM TRANSCEIVER	7.9	3.6
KX155-39 NAV/COMM W/KI208 VOR IND	9.7	4.4
KX155-43 NAV/COMM TRANSCEIVER W/GLS	7.9	3.6
KX155-43 NAV/COMM W/GS W/KI209 VOR/GLS IND	9.7	4.4
KX165-25 NAV/COMM W/GS W/KI206 VOR/GLS IND	10.6	4.8

Controls	lb	kg
FLIGHT CONTROLS-DUAL, LH COMMAND	10.4	4.7
FLIGHT CONTROLS-DUAL, RH COMMAND	10.4	4.7

Electrical System	lb	kg
BATTERY -500E SAFT HEAVY DUTY, 17 AMP	14.1	6.4
BATTERY -500N/530FF HD, SAFT	0.0	0.0
BATTERY -520N NOSE MOUNTED	8.0	3.6
BATTERY -LEAD ACID KIT AND BATTERY	23.0	10.4
FLIGHT TRAILS 28V RECP FRONT AND REAR	0.0	0.0
KA-33 AVIONICS COOLING FAN	2.2	1.0
VOLTMETER-DAVTRON M450 DIGITAL BATTERY	0.0	0.0
WECO GENERATOR COOLER SCOOP KIT	0.0	0.0
WECO 165 AMP STARGER GENERATOR	0.0	0.0

MD500 SERIES
OPTIONAL EQUIPMENT

Engine	lb	kg
ENGINE COMPRESSOR ANTI-ICE	0.0	0.0
ENGINE OIL EXHAUST BREATHER	0.0	0.0
FACET OIL FILTER - MD530FF	3.7	1.7
HOBBS COLLECTIVE RUNNING TIME METER	0.5	0.2
MIST ELIMINATOR	4.2	1.9
PARTICLE SEPARATOR	13.0	5.9
SYSTRON DONNER FIRE DETECTION SYSTEM	0.0	0.0

Environmental	lb	kg
AERO-AIRE BOOST FAN	0.0	0.0
AIR CONDITIONING, INTEGRATED FLIGHT SYSTEMS	88.8	40.3
HEATER/DEFOGGER	8.1	3.7

Exterior Accessories	lb	kg
BREEZE CARGO HOOK, MD 500 SERIES	6.3	2.9
ONBOARD SYSTEMS CARGO HOOK	7.0	3.2
ONBOARD SYSTEMS CARGO HOOK LOAD WEIGHT SYSTEM	5.0	2.3
PROVISIONS FLIR 4000-SAFIRE BELLY MOUNT	20.0	9.1
PROVISIONS FLIR REAR MONITOR MOUNT	0.0	0.0
PROVISIONS ULTRA 7000 FLIR -NOSE MOUNTED	10.0	4.5
PROVISIONS ULTRA 7000 FLIR -LEFT SIDE MOUNTED	10.0	4.5
PROVISIONS ULTRA 7000 FLIR -NOSE MOUNT	20.0	9.1
PROVISIONS ULTRA 7000 FLIR -RIGHT SIDE MOUNTED	10.0	4.5
WATER PROOF COVER	0.0	0.0
WIRE STRIKE KIT, MD 500 SERIES	17.0	7.7
FLOAT LIGHT KIT	4.8	2.2
NIGHTSCANNER 400K CPWR SEARCHLIGHT	23.0	10.4
NIGHTSCANNER, IR LENS KIT	0.8	0.4
NIGHTSCANNER, SUPER 800K CPWR	24.1	10.9
NIGHTSCANNER, SUPER, IR LENS KIT	0.8	0.4
PROVISIONS SX16 SEARCHLIGHT LEFT SIDE MOUNTED	30.0	13.6
PROVISIONS SX16 SEARCHLIGHT NOSE MOUNTED	30.0	13.6
PROVISIONS SX16 SEARCHLIGHT RIGHT SIDE MOUNTED	30.0	13.6
PROVISIONS SX5 SEARCHLIGHT LEFT SIDE MOUNTED	23.5	10.7
PROVISIONS SX5 SEARCHLIGHT NOSE MOUNTED	23.3	10.6
PROVISIONS SX5 SEARCHLIGHT RIGHT SIDE MOUNTED	23.5	10.7
SX16 SEARCHLIGHT LEFT SIDE MOUNTED	65.0	29.5
SX16 SEARCHLIGHT NOSE MOUNTED	65.0	29.5
SX16 SEARCHLIGHT RIGHT SIDE MOUNTED	65.0	29.5
SX5 SEARCHLIGHT LEFT SIDE MOUNTED	14.8	6.7
SX5 SEARCHLIGHT NOSE MOUNTED	14.8	6.7
SX5 SEARCHLIGHT RIGHT SIDE MOUNTED	14.8	6.7

Fuel System	lb	kg
AIRFRAME FUEL FILTER	5.3	2.4
FARGO 21 GAL (79L) AUX FUEL TANK	44.5	20.2
POVISIONS FARGO 21 GAL (79L) AUX FUEL TANK	8.0	3.6
ROBERTSON 38.5 GAL (146L) AUX FUEL TANK	56.0	25.4
PROVISIONS ROBERTSON 38.5 GAL (146L) AUX FUEL TANK	9.0	4.1
SELF SEALING FUEL CELLS	21.2	9.6
SHADIN DIGIDATA FUEL AIR DATA SYSTEM	2.4	1.1

Gear/Handling	lb	kg
EMERGENCY FLOATS, AIR CRUISERS	152.0	68.9
EMERGENCY FLOATS, APICAL INDUSTRIES	115.0	52.2
EXTENDED LANDING GEAR	9.5	4.3
FLIGHT TRAILS CREW HANDLES (4)	5.0	2.3
FLIGHT TRAILS SKID MIRROR	2.0	0.9
WINTERIZED H/D DAMPERS SET (4)	0.0	0.0

Interior Trim/Lights/Seats	lb	kg
D BENCH SEAT WITH CUSHIONS	-1.0	-0.5
D BENCH SEAT WITH MESH	-9.0	-4.1
FLIGHT TRAILS CONSOLE FACE PLATE	0.0	0.0
FLIGHT TRAILS NVG LIGHTING COMPATABILITY	6.0	2.7
FLIGHT TRAILS OAT GAUGE LIGHT	0.0	0.0
FLIGHT TRAILS POST LIGHT MODIFICATION	0.0	0.0
FLIGHT TRAILS SLANT PANEL	3.0	1.4
INTERIOR -SOUNDPROOF IN SPECIAL COLOR	119.9	54.4
INTERIOR -LEATHER SEATS, PANELS, TRIM, MD 500	20.0	9.1
INTERIOR -BASIC MILITARY BLACK	30.0	13.6
INTERIOR -BASIC MILITARY GRAY	30.0	13.6
INTERIOR -SOUNDPROOF IN BEIGE	119.9	54.4
INTERIOR -SOUNDPROOF IN GRAY	119.9	54.4
INTERIOR -SOUNDPROOF IN OPTIONAL COLORS	0.0	0.0
INTERIOR -VELOUR PANELS IN BEIGE	36.0	16.3
INTERIOR -VELOUR PANELS IN GRAY	36.0	16.3
SEATS -BLACK MESH 2+1	-22.2	-10.1
SEATS -BLACK MESH 2+2	-23.7	-10.8
VINYL INTERIOR TRIM PANELS	0.0	0.0

Interior Accessories	lb	kg
CABIN LIGHTER/28-VOLT UTILITY OUTLET	0.0	0.0
COCKPIT UTILITY-MAP GOOSENECK LIGHT - NVG	3.1	1.4
COCKPIT UTILITY-MAP LUMINATOR LIGHT - NON-NVG	3.1	1.4
COCKPIT UTILITY-MAP LUMINATOR LIGHT - NVG	3.1	1.4
FLIGHT TRAILS INSTRUMENT PANEL MAP CASE	0.5	0.2
FLIGHT TRAILS LH FWD MAP CASE	0.3	0.1
LITTER KIT RIGHT HAND	66.0	29.9
ROTOR BRAKE LH COMMAND	6.7	3.0
ROTOR BRAKE RH COMMAND	6.7	3.0

Nav Special	lb	kg
ARGUS 5000 MOVING MAP DISPLAY	3.5	1.6
ARGUS 7000 MOVING MAP DISPLAY	0.0	0.0
FLIGHT TRAILS GPS-VOR SWITCH	0.3	0.1
GARMIN 155 XL GPS	4.3	2.0
GARMIN 250 XL GPS/COMM	5.3	2.4
GARMIN GNS-430 MAP/COMM/VOR/GPS	7.8	3.5
GARMIN GNS-530 MAP/COMM/VOR/GPS	9.8	4.4
KLN90B-01 GPS NORTH AMERICA	8.4	3.8
KLN90B-01 GPS INTERNATIONAL	8.4	3.8
KLX135-00 GPS NORTH AMERICA	0.0	0.0
KLX135-01 INTERNATIONAL	0.0	0.0
MAGELLAN 5000 SKY-NAV GPS	3.0	1.4
RYAN ATS-7000 TCAD	4.0	1.8
RYAN ATS-9900 TCAD	5.0	2.3

MD500 SERIES
OPTIONAL EQUIPMENT

Paint	lb	kg
HIGH VISIBILITY MAIN ROTOR BLADE PAINT	0.4	0.2
PAINT 0 COLOR PRIMER ONLY 500 SERIES	-20.0	-9.1
PAINT 2 COLOR AMBASSADOR	0.0	0.0
PAINT 2 COLOR CUSTOM 2	0.0	0.0
PAINT 2 COLOR DIPLOMAT	0.0	0.0
PAINT 2 COLOR ENVOY	0.0	0.0
PAINT 2 COLOR STATESMAN	0.0	0.0
PAINT 2 COLOR VICEROY	0.0	0.0
PAINT 3 COLOR AMBASSADOR	0.0	0.0
PAINT 3 COLOR CUSTOM 3	0.0	0.0
PAINT 3 COLOR DIPLOMAT	0.0	0.0
PAINT 3 COLOR ENVOY	0.0	0.0
PAINT 3 COLOR STATESMAN	0.0	0.0
PAINT 3 COLOR VICEROY	0.0	0.0
PAINT 4 COLOR AMBASSADOR	0.0	0.0
PAINT 4 COLOR CUSTOM 4	0.0	0.0
PAINT 4 COLOR DIPLOMAT	0.0	0.0
PAINT 4 COLOR ENVOY	0.0	0.0
PAINT 4 COLOR STATESMAN	0.0	0.0
PAINT 4 COLOR VICEROY	0.0	0.0
PAINT 5 COLOR AMBASSADOR	0.0	0.0
PAINT 5 COLOR CUSTOM 5	0.0	0.0
PAINT 5 COLOR DIPLOMAT	0.0	0.0
PAINT 5 COLOR ENVOY	0.0	0.0
PAINT 5 COLOR STATESMAN	0.0	0.0
PAINT 5 COLOR VICEROY	0.0	0.0

Windows/Canopy	lb	kg
MEEKER QUICK RELEASE ENGINE BAY DOORS	2.1	1.0
MEEKER QUICK RELEASE DOOR HINGES (4) MD 500	7.0	3.2
PARAVION LEFT FRONT DOOR OPENER	1.2	0.5
PARAVION LEFT REAR DOOR OPENER	1.2	0.5
PARAVION RIGHT FRONT DOOR OPENER	1.5	0.7
PARAVION RIGHT REAR DOOR OPENER	1.5	0.7
TECH TOOL LF COMFORT W/POP OUT VENTS	0.0	0.0
TECH TOOL LF COMFORT W/SLIDE	0.0	0.0
TECH TOOL LR COMFORT W/POP OUT VENTS	0.0	0.0
TECH TOOL LR COMFORT W/SLIDE	0.0	0.0
TECH TOOL RF COMFORT W/POP OUT VENTS	0.0	0.0
TECH TOOL RF COMFORT W/SLIDE	0.0	0.0
TECH TOOL RR COMFORT W/POP OUT VENTS	0.0	0.0
TECH TOOL RR COMFORT W/SLIDE	0.0	0.0

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