

SECTION 1 GENERAL

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IMPORTANT NOTICE

This manual should be read carefully by the owner and the operator to become familiar with the operation of the airplane. Suggestions and recommendations have been made within it to aid in obtaining maximum performance without sacrificing economy. Be familiar with, and operate the airplane in accordance with the FAA Approved Airplane Flight Manual and/or placards which are located in the airplane.

As a further reminder, the owner and the operator should also be familiar with the Federal Aviation Regulations applicable to the operation and maintenance of the airplane. Further, the airplane must be operated and maintained in accordance with FAA Airworthiness Directives which may be issued against it.

The Federal Aviation Regulations place the responsibility for the maintenance of this airplane on the owner and the operator, who should ensure that all maintenance is done by qualified mechanics in conformity with all airworthiness requirements established for this airplane.

All limits, procedures, safety practices, time limits, servicing, and maintenance requirements contained in this manual are considered mandatory for continued airworthiness and to maintain the airplane in a condition equal to that of its original manufacture.

Raytheon Aircraft Services can provide recommended modification, service, and operating procedures, issued by both the FAA and Hawker Beechcraft Corporation, which are designed to get maximum utility and safety from the airplane.

USE OF THE MANUAL

WARNINGS, CAUTIONS, AND NOTES

The following definitions apply to (WARNINGS), (CAUTIONS), and (NOTES) found throughout the handbook:

WARNING

Operating procedures, techniques, etc., which could result in personal injury or loss of life if not carefully followed.

CAUTION

Operating procedures, techniques, etc., which could result in damage to equipment if not carefully followed.

NOTE

An operating procedure, technique, etc., which is considered essential to emphasize.

REVISING THE MANUAL

The FAA Approved Airplane Flight Manual is designed to facilitate maintaining the documents necessary for the safe and efficient operation of the airplane. The handbook has been prepared in loose-leaf form for ease in maintenance. It incorporates quick-reference tabs imprinted with the title of each section.

NOTE

In an effort to provide as complete coverage as possible, applicable to any configuration of the airplane, some optional equipment has been included in the scope of the manual. However, due to the variety of airplane appointments and arrangements available, optional equipment described or depicted here may not be designated as such in every case.

The following information may be provided to the holder of this manual automatically:

1. Original issues and revisions of Hawker Beechcraft Corporation Service Bulletins.
2. Reissues and revisions of the Pilot's Operating Manual and FAA Approved Airplane Flight Manual.
3. Original issues and revisions of FAA-approved and Manufacturer-approved Airplane Flight Manual Supplements.

This service is free and will be provided only to holders of this manual who are listed on the FAA Aircraft Registration Branch List or the Hawker Beechcraft Corporation International Owners Notification Service List, and then only if listed by airplane serial number for the model for which this manual is applicable. For detailed information on how to obtain "Revision Service" applicable to this manual or other Hawker Beechcraft Corporation Service Publications, consult any Authorized Outlet or refer to the latest revision of Hawker Beechcraft Corporation Service Bulletin No. 2001.

Hawker Beechcraft Corporation expressly reserves the right to supersede, cancel, and/or declare obsolete, without prior notice, any part number, kit, or publication referenced in this manual.

The owner/operator should always refer to all supplements for possible placards, limitations, emergency, abnormal, normal, and other operational procedures for proper operation of the airplane with optional equipment installed.

Immediately following the Logo Page is a List of Effective Pages. A complete listing of all pages is presented along with the current status of the material contained; i.e. Original, Reissued or Revised. Also, in the lower right corner of the blocked portion is a box containing a capital letter which denotes the issue or reissue of the manual. It will be advanced one letter, alphabetically, per reissue. A reissue of the manual or the revision of any portion will be received with a new List of Effective Pages to replace the previous one. Reference to the List of Effective Page(s) enables the user to determine the current issue, revision, or reissue in effect for each page in the flight manual (except for the Supplements Section).

When the flight manual is originally issued, and each time it is revised or reissued, a new Log of Revisions page is provided, immediately following the Log of Temporary Changes Page. All Log of Revisions pages must be retained until the flight manual is reissued. A capital letter in the lower right corner of the Log of Revisions page designates the Original Issue ("A") or reissue ("B", "C", etc.) covered by the Log of Revisions page. If a number follows the letter, it designates the sequential revision (1st, 2nd, 3rd, etc.) to the Original Issue or reissue covered by the Log of Revisions page. Reference to the Log of Revisions page(s) enables the user to determine the current issue, revision, or reissue in effect for each page in the flight manual, (except for the Supplements Section), and provides a record of changes made since the Original Issue or the latest reissue.

WARNING

It shall be the responsibility of the owner/operator to ensure that the latest revisions of publications referenced in this manual are utilized during operation, servicing, and maintenance of the airplane.

That portion of text or an illustration, which has been revised by the addition of, or a change in, information is denoted by a solid revision bar located adjacent to the area of change and placed along the outside margin of a page.

SUPPLEMENTS

When a new airplane is delivered from the factory, the handbook delivered with it contains either an FAA-approved STC (Supplemental Type Certificate) Supplement, FAA-approved Hawker Beechcraft Flight Manual Supplement, or a Manufacturer-approved Flight Manual Supplement (non-FAA approved) for every installed item requiring a supplement. If a new manual for operation of the airplane is obtained at a later date, it is the responsibility of the owner/operator to ensure that all required supplements (as well as weight and balance and other pertinent data) are transferred into the new manual.

AIRPLANE FLIGHT MANUAL SUPPLEMENTS REVISION RECORD

Section VII contains both FAA-approved and Manufacturer-approved Airplane Flight Manual Supplements, each headed by a Log of Supplements page. These Log pages contain a listing of the FAA-approved and Manufacturer-approved Supplemental Equipment available for installation on the airplane. When new supplements are received or existing supplements are revised, a new Log page will replace the previous one, since it contains a listing of all previous approvals, plus the new approval. The supplemental material will be added to the Section in accordance with the sequence specified on the Log page.

NOTE

Upon receipt of a new or revised supplement, compare the existing Log of Supplements in the handbook with the corresponding applicable Log page accompanying the new or revised supplement. It may occur that the Log page already in the handbook is dated later than the Log page accompanying the new or revised supplement. In any case, retain the Log page having the later date in the folio at the bottom-left corner of the page, and discard the older Log page.

SYMBOLS, ABBREVIATIONS, AND TERMINOLOGY

The following glossary is applicable within this flight manual.

GENERAL AIRSPEED TERMINOLOGY

CAS	<i>Calibrated Airspeed</i> is the indicated airspeed of an airplane corrected for position and instrument error. Calibrated airspeed is equal to true airspeed in standard atmosphere at sea level.
GS	<i>Ground Speed</i> is the speed of an airplane relative to the ground.
IAS	<i>Indicated Airspeed</i> is the speed of an airplane as shown on the airspeed indicator when corrected for instrument error. IAS values published in this manual assume zero instrument error.
KCAS	<i>Calibrated Airspeed</i> expressed in knots.
KIAS	<i>Indicated Airspeed</i> expressed in knots.
M	<i>Mach Number</i> is the ratio of true airspeed to the speed of sound.
TAS	<i>True Airspeed</i> is the airspeed of an airplane relative to undisturbed air, which is the CAS corrected for altitude, temperature, and compressibility.
V₁	<i>Take-off Decision Speed.</i>
V₂	<i>Take-off Safety Speed</i> is the speed at 35 feet AGL assuming an engine failure recognized at V ₁ .
V₃₅	<i>Take-off Safety Speed</i> at 35 feet AGL with both engines operating.
V_A	<i>Maneuvering Speed</i> is the maximum speed at which application of full available aerodynamic control will not overstress the airplane.
V_{ENR}	<i>One-Engine-Inoperative Final Segment Climb Speed.</i>
V_F	<i>Design Flap Speed</i> is the highest speed permissible at which wing flaps may be actuated.
V_{FE}	<i>Maximum Flap Extended Speed</i> is the highest speed permissible with wing flaps in a prescribed extended position.
V_{LE}	<i>Maximum Landing Gear Extended Speed</i> is the maximum speed at which an airplane can be safely flown with the landing gear extended.
V_{LO}	<i>Maximum Landing Gear Operating Speed</i> is the maximum speed at which the landing gear can be safely extended or retracted.

GENERAL AIRSPEED TERMINOLOGY (CONT'D)

V_{MCA}	<i>Air Minimum Control Speed</i> is the minimum flight speed at which the airplane is directionally controllable as determined in accordance with Federal Aviation Regulations. The airplane certification conditions include one engine becoming inoperative with autofeather armed, a 5° bank towards the operative engine, take-off power on operative engine, landing gear up, flaps takeoff, and most rearward C.G. For some conditions of weight and altitude, stall can be encountered at speeds above V_{MCA} as established by the certification procedure described above, in which event stall speed must be regarded as the limit of effective directional control.
V_{MO}	<i>Maximum Operating Limit Speed</i> is the speed limit that may not be deliberately exceeded in normal flight operations. V is expressed in knots.
V_R	<i>Rotation Speed.</i>
V_{REF}	<i>Reference Landing Approach Speed</i> with the landing gear and flaps down.
V_S	<i>Stalling Speed</i> or the minimum steady flight speed at which the airplane is controllable.
V_{SO}	<i>Stalling Speed</i> or the minimum steady flight speed at which the airplane is controllable in the landing configuration.
V_{SSE}	<i>Intentional One-Engine-Inoperative Speed</i> is a speed above both V_{MCA} and stall speed, selected to provide a margin of lateral and directional control, when one engine is suddenly rendered inoperative.
V_X	<i>Best Angle-of-Climb Speed</i> is the airspeed which delivers the greatest gain of altitude in the shortest possible horizontal distance.
V_{XSE}	<i>One-Engine-Inoperative Best Angle-of-Climb Speed</i> is the airspeed which delivers the greatest gain in altitude in the shortest possible horizontal distance with one engine inoperative.
V_Y	<i>Best Rate-of-Climb Speed</i> is the airspeed which delivers the greatest gain in altitude in the shortest possible time.
V_{YSE}	<i>One-Engine-Inoperative Best Rate-of-Climb Speed</i> is the airspeed which delivers the greatest gain in altitude in the shortest possible time with one engine inoperative.

METEOROLOGICAL TERMINOLOGY

Altimeter Setting	Barometric Pressure corrected to sea level.
Indicated Pressure Altitude	The number actually read from an altimeter when the barometric subscale has been set to 29.92 inches of mercury (1013.2 millibars).
IOAT	<i>Indicated Outside Air Temperature</i> is the temperature value read from an indicator.

METEOROLOGICAL TERMINOLOGY (CONT'D)

ISA	International Standard Atmosphere in which: (1) The air is a dry perfect gas; (2) The temperature at sea level is 15° Celsius (59° Fahrenheit); (3) The pressure at sea level is 29.92 inches of mercury (1013.2 millibars); (4) The temperature gradient from sea level to the altitude at which the temperature is -56.5°C (-69.7°F) is -0.00198°C (0.003566°F) per foot and zero above that altitude.
OAT	<i>Outside Air Temperature</i> is the free air static temperature obtained either from the temperature indicator (IOAT) and adjusted for compressibility effects, or from ground meteorological sources.
Pressure Altitude	Altitude measured from standard sea-level pressure (29.92 in. Hg) by a pressure (barometric) altimeter. It is the indicated pressure altitude corrected for position and instrument error. In this manual, altimeter instrument errors are assumed to be zero. Position errors may be obtained from the Altimeter Correction graphs.
Station Pressure	Actual atmospheric pressure at field elevation.
Temperature Compressibility Effects	An error in the indication of temperature caused by airflow over the temperature probe. The error varies, depending on altitude and airspeed.

POWER TERMINOLOGY

Beta Range	The region of the Power Lever control which is aft of the Idle Stop and forward of reversing range where blade pitch angle can be changed without a change of gas generator rpm.
Maximum Climb and Maximum Cruise	Is the maximum power approved for normal climb and cruise. These powers are torque or temperature (ITT) limited.
Propeller Ground Fine	Propeller ground fine operation is used to provide deceleration on the ground during landing and accelerate-stop conditions by taking advantage of the maximum available propeller drag without creating negative thrust.
Maximum Continuous Power	Is the highest power rating not limited by time. Use of this rating is at the discretion of the pilot.
Static Take-off Power	Is the static power which must be available for takeoff without exceeding the engine limitations.
Reverse	Reverse thrust is obtained by lifting the Power Levers and moving them aft of the Beta and Ground Fine range.
SHP	Shaft Horsepower
Take-off Power	Is the maximum power rating and is limited to a maximum of 5 minutes operation. Use of this rating should be limited to normal take-off operations and emergency situations.

CONTROL AND INSTRUMENT TERMINOLOGY

Condition Lever (Fuel Cut-off Lever)	The fuel cut-off lever actuates a valve in the fuel control unit which controls the flow of fuel at the fuel control outlet.
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CONTROL AND INSTRUMENT TERMINOLOGY (CONT'D)

ITT (Interstage Turbine Temperature)	Ten probes wired in parallel indicate the temperature between the compressor and power turbines.
N₁ Tachometer (Gas Generator RPM)	The tachometer registers the rpm of the gas generator with 100% representing a gas generator speed of 37,468 rpm.
Power Lever (Gas Generator N₁ RPM)	This lever serves to modulate engine power from full reverse thrust to takeoff. The position for idle represents the lowest recommended level of power for flight operation.
Propeller Control Lever (N₂ RPM)	This lever is used to control the rpm setting of the propeller governor. Movement of the lever results in an increase or decrease in propeller rpm. Propeller feathering is the result of lever movement beyond the detent at the low rpm (high pitch) end of the lever travel.
Propeller Governor	The propeller governor senses changes in rpm and hydraulically changes propeller blade angle to compensate for the changes in rpm. Constant propeller rpm is thereby maintained at the selected setting.
Torquemeter	The torquemeter system indicates the shaft output torque. Instrument readout is in foot-pounds.

GRAPH AND TABULAR TERMINOLOGY

AGL	<i>Above Ground Level.</i>
Best Angle of Climb	The best angle-of-climb speed is the airspeed which delivers the greatest gain of altitude in the shortest possible horizontal distance with gear and flaps retracted.
Best Rate of Climb	The best rate-of-climb speed is the airspeed which delivers the greatest gain of altitude in the shortest possible time with gear and flaps retracted.
Clearway	A clearway is an area beyond the airport runway not less than 500 feet (153 meters) wide, centrally located about the extended centerline of the runway, and under the control of the airport authorities. The clearway is expressed in terms for a clear plane, extending from the edge of the runway with an upward slope not exceeding 1.25 percent, above which no object nor any terrain protrudes. However, threshold lights may protrude above the plane if their height above the end of the runway is 26 inches (66 centimeters) or less and if they are located to each side of the runway.
Climb Gradient	The ratio of the change in height during a portion of a climb, to the horizontal distance traversed in the same time interval.
Demonstrated Crosswind	The maximum 90° crosswind component for which adequate control of the airplane during takeoff and landing was actually demonstrated during certification. The value shown is not limiting.
Gross Height	The actual altitude that the airplane will achieve at the end of the Second Segment climb.
Gross Take-Off Flight Path	The actual take-off flight path of the airplane, expressed as climb gradients and horizontal distances, following an engine failure and subsequent takeoff and climb to 1500 feet AGL. The Gross Take-Off Flight Path assumes the airplane is flown at the required weights to comply with take-off climb requirements and Accelerate-Go Procedures are accurately followed.

GRAPH AND TABULAR TERMINOLOGY (CONT'D)

Landing Distance	The distance from a point 50 feet above the runway surface to the point at which the airplane would come to a full stop utilizing the technique in Section 5, PERFORMANCE. The distances do not include landing factors which may be required by the operating regulations for destination or alternate airports.
MEA	<i>Minimum Enroute Altitude.</i>
Net Climb Gradient	<p>"Net" indicates that the actual climb gradient has been reduced by a specified factor to allow for turbulence and pilot technique.</p> <p>The net climb gradients shown for the first segment, second segment, and final segment take-off flight path performance were obtained by reducing the actual climb gradients by 0.8 of a percentage point. In addition, these graphs are constructed so that the value(s) obtained using the airport pressure altitude and outside air temperature will be the average gradient from 35 feet above the runway up to 1500 ft above the runway.</p> <p>The net climb gradients shown on the Climb - One Engine Inoperative graphs were obtained by reducing the actual climb gradients by 1.1 percentage points.</p>
Net Height	The altitude that the airplane would achieve at the end of the Second Segment climb if the actual second segment climb gradient were reduced by 0.8%.
Net Take-Off Flight Path	The Net Take-Off Flight Path is the Gross Take-Off Flight Path reduced by a safety factor of 0.8%. The Net Take-Off Flight Path determines whether or not an obstacle can be cleared by 35 feet (or higher margin selected by the operator) in the event of an engine failure during a continued takeoff and climb to 1500 feet AGL.
Route Segment	A part of a route. Each end of that part is identified by: (1) a geographic location; or (2) a point at which a definite radio fix can be established.
Take-off Field Length	<p>The minimum runway length required for departure. This distance is the longest of:</p> <p>(1) The distance to accelerate and recognize an engine failure at V_1, accelerate to and rotate at V_R, then climb and accelerate in order to achieve V_2 at 35 feet above the runway, OR (2) The distance to accelerate to V_1, with an engine failure occurring just prior to V_1, recognize the engine failure and take the first action to stop at V_1, then bring the airplane to a complete stop, OR (3) The all-engine-operating distance to accelerate to and rotate at V_R, then climb and accelerate in order to achieve V_{35} at 35 feet above the runway, increased by 15%.</p>
Take-off Flight Path	The minimum gradient of climb required to clear obstacles in excess of 35 feet, measured horizontally from reference zero and vertically at the altitude above the runway. Reference zero is the point where the airplane has reached 35 feet above the runway as determined from the Accelerate-Go graphs.
Wind	The wind velocities recorded as variables on the charts of this flight manual are to be understood as the headwind or tailwind components of the reported winds.

WEIGHT AND BALANCE TERMINOLOGY

Approved Loading Envelope	Those combinations of airplane weight and center of gravity which define the limits beyond which loading is not approved.
Arm	The distance from the center of gravity of an object to a line about which moments are to be computed.
Basic Empty Weight	The weight of an empty airplane including full engine oil and unusable fuel. This equals empty weight plus the weight of unusable fuel, and the weight of all the engine oil required to fill the lines and tanks. Basic empty weight is the basic configuration from which loading data is determined.
Center of Gravity	A point at which the weight of an object may be considered concentrated for weight and balance purposes.
CG Limits	The extreme center of gravity locations within which the airplane must be operated at a given weight.
Datum	A vertical plane perpendicular to the airplane longitudinal axis from which fore and aft (usually aft) measurements are made for weight and balance purposes.
Empty Weight	The weight of an empty airplane before any oil or fuel has been added. This includes all permanently installed equipment, fixed ballast, full hydraulic fluid, full chemical toilet fluid, and all other operating fluids full, except that the engines, tanks, and lines do not contain any engine oil or fuel.
Engine Oil	That portion of the engine oil which can be drained from the engine.
Jack Point	Points on the airplane identified by the manufacturer as suitable for supporting the airplane for weighing or other purposes.
Landing Weight	The weight of the airplane at landing touchdown.
Leveling Points	Those points which are used during the weighing process to level the airplane.
Maximum Weight	The greatest weight allowed by design, structural, performance or other limitations.
Moment	A measure of the rotational tendency of a weight, about a specified line, mathematically equal to the product of the weight and the arm.
Payload	Weight of occupants, cargo and baggage.
Ramp Weight	The airplane weight at engine start assuming all loading is completed.
Station	The longitudinal distance from some point to the zero datum.
Take-off Weight	The weight of the airplane at lift-off from the runway.
Tare	The weight which may be indicated by a set of scales before any load is applied.
Unusable Fuel	The fuel remaining after consumption of usable fuel.
Usable Fuel	That portion of the total fuel which is available for consumption as determined in accordance with applicable regulatory standards. All usable fuel is available for all approved flight conditions.
Useful Load	The difference between the airplane ramp weight and the basic empty weight.
Zero Fuel Weight	The airplane ramp weight minus the weight of usable fuel on board.