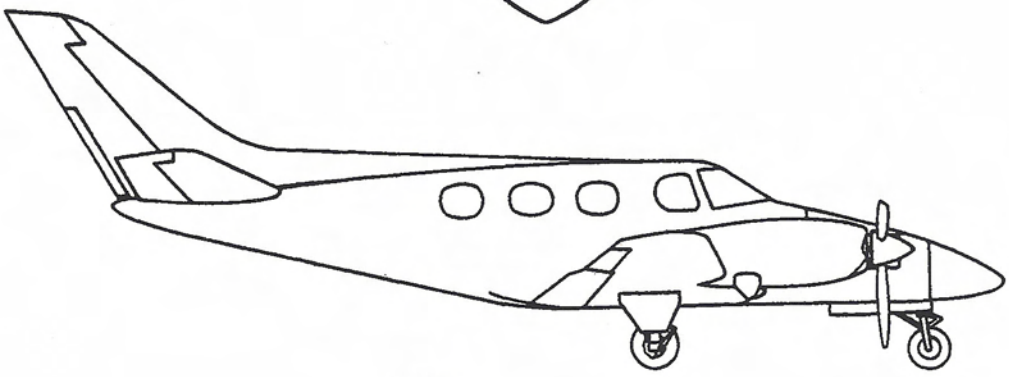

Beechcraft®

DUKE 60 &A60

PILOT'S OPERATING MANUAL

This book is incomplete without a current FAA Flight Manual, P/N 60-590000-5E, consisting of FAA Data, FAA Revision Log, FAA Limitations, FAA Normal Procedures, FAA Emergency Procedures, FAA Performance, and FAA Flight Manual Supplements.

PUBLISHED BY PARTS AND SERVICE OPERATIONS
BEECH AIRCRAFT CORPORATION - WICHITA, KANSAS 67201

P/N 60-590000-3D

Reissued: December 15, 1972

Listed below are the pages required for this publication, with effectivity current through the revision and/or reissue code shown on the lower right hand corner of this page, and on the title page. Each page is followed by an entry that denotes whether the page is still as originally issued or is a part of some later revision or reissue.

LIST OF EFFECTIVE PAGES

Always destroy superseded pages when you insert revised pages.

Original . . . . . July 1, 1968

D Reissue . . . . . December 15, 1972

NOTE: The asterisk denotes pages in the current revision.

D

98-34406

Basic publications are assigned a part number which appears on the title page with the date of the issue. Subsequent revisions are identified by the addition of a revision code after the part number. A_1 after a part number denotes the first revision to the basic publication, A_2 the second, etc. Occasionally, it is necessary to completely reissue and reprint a publication for the purpose of obsoleting a previous issue and outstanding revisions thereto. As these replacement reissues are made, the code will also change to the next successive letter of the alphabet at each issue. For example, B for the first reissue, C for the second reissue, etc.

When ordering a handbook, give the basic number, and the reissue code when applicable, if a complete up-to-date publication is desired. Should only revision pages be required, give the basic number and revision code for the particular set of revision pages you desire.

THANK YOU . . . .

for displaying your confidence in us by selecting a BEECHCRAFT airplane. Our design engineers, assemblers and inspectors have utilized their skills and years of experience to ensure that your new BEECHCRAFT Duke 60 & A60 meets the high standards of quality and performance for which BEECHCRAFT airplanes have become famous throughout the world.

IMPORTANT NOTICE

This manual should be read carefully in order that you may become familiar with the operation of your Duke. Suggestions and recommendations have been made within it to help you obtain maximum performance without sacrificing economy. Furthermore, you should also be familiar with and operate your new BEECHCRAFT in accordance with the Federal Aviation Administration Approved Flight Manual and/or the FAA Approved Placards which are located in your BEECHCRAFT.

As a further reminder, you should also be familiar with the applicable Federal Aviation Regulations concerning operation and maintenance of the airplane and FAR Part 91 General Operating and Flight Rules. Likewise your aircraft must be operated and maintained in accordance with FAA Airworthiness Directives which may be issued against your BEECHCRAFT.

The operation, care, and maintenance of your airplane after it is delivered to you is your responsibility. However, your authorized BEECHCRAFT Parts and Service Outlets will have all recommended modification, service, and operating procedures issued by both FAA and Beech, designed to get maximum utility and safety from your airplane.

USE OF THE MANUAL

A current manual is an informative manual. Every effort will be made by Beech Aircraft Corporation to incorporate the latest information available so that you may always have a current BEECHCRAFT Duke 60 & A60 Pilot's Operating Manual. The following information will inform you of the divisions of the book and the proper manner of updating the revision records and amending the content of the book as the material becomes available to you.

DIVISIONS OF THE MANUAL

The Pilot's Operating Manual is divided into two basic parts; the FAA Approved portion which includes the FAA Approved Airplane Flight Manual and Supplements (each page being folioed as such with the FAA approval and date), and the portion that is not FAA Approved (folioed as Supplemental Operational Data), which includes the remainder of the manual. The FAA Approved sections of the manual are distinguished from the non-approved sections in that the quick reference divider tabs are marked "FAA" preceding the title of the section.

The FAA Approved Airplane Flight Manual bears its own part number and is a complete manual in itself, but the Pilot's Operating Manual bears a separate part number and is incomplete without the Flight Manual.

PILOT'S OPERATING MANUAL REVISION RECORD

On the back side of the title page is a List of Effective Pages or the "A" Page, as it is normally called. Take a moment, now, to examine this page. You will see that a complete listing of all pages is presented along with the current status of the material contained; i.e., Original, Reissued, Revised or described in another section. Also, in the lower right corner of the blocked portion is a box containing a capital letter which denotes reissue of the manual. It will be advanced one letter, alphabetically, per reissue. A reissue of the manual or the revision of any portion that does not require another revision log, will be received with a new "A" Page to replace the previous one.

FAA APPROVED AIRPLANE FLIGHT MANUAL REVISION RECORD

Note the reference to the FAA Airplane Flight Manual Log of Revisions which is located under the tab of that name in the first part of the manual. This page is used for description of all material covered under the FAA Approved portion except the Airplane Flight Manual Supplements. When a revision of any information contained in this portion of the manual is made, a new Log of Revisions sheet will be issued for insertion immediately ahead of all previously issued Log of Revisions sheets. All Log of Revisions pages must be retained in the manual to provide a current record of material status until a reissue of the manual is made at which time all pages are removed. Looking at this page, you will notice that under the column labeled Revision Number, there will be a letter indicating the current issue, followed by a number indicating the numerical revisions. The revised pages will be listed along with the description. As noted at the bottom of this page, each revised portion of the pages issued will have a black border indicating the portion changed. All revised pages listed in the new Log of Revisions are to be removed and replaced with the current page.

AIRPLANE FLIGHT MANUAL SUPPLEMENTS REVISION RECORD

Looking further to the last section before the full-page divider tab, you will find the FAA Approved Airplane Flight Manual Supplements headed by a Log of Revisions page. Here you will find a listing of the FAA Approved Supplemental Equipment available for installation on the BEECHCRAFT Duke 60 & A60. When new supplements are received the new "Log" sheet 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 grouping in accordance with the descriptive listing.

NOTE

In an effort to provide you with as complete coverage as possible, applicable to any configuration of the BEECHCRAFT Duke 60 & A60, optional equipment has been included in the scope of these manuals. Because of the versatility of the appointments and arrangements of the aircraft, the equipment described or depicted herein may not be designated as optional equipment in every case. Through variations provided by custom designing, the illustrations in this manual will not be typical of every airplane.

DIVISION TABULAR INDEX

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ABBREVIATIONS AND TERMINOLOGIES

The following Abbreviations and Terminologies have been listed for your convenience and ready interpretation where used within this manual. Whenever possible, they have been categorized for ready reference.

AIRSPEED TERMINOLOGY

IAS	Indicated airspeed is the speed of an aircraft as shown on its airspeed indicator. As used within this manual IAS assumes no instrument error.
CAS	Calibrated Airspeed is indicated airspeed of an aircraft, corrected for position error.
TAS	True Airspeed is actual or exact airspeed. Indicated airspeed corrected for temperature and pressure.
GS	Ground Speed, through not an airspeed, is directly calculable from True Airspeed if the True wind speed and direction are known.
M	Mach Number is the ratio of true airspeed to the speed of sound.
V_{mc}	Minimum Control Speed - The minimum flight speed at which the airplane is controllable with a maximum of 5° bank when one engine suddenly becomes inoperative and the remaining engine is operating at takeoff power.
V_a	Maneuvering Speed - The maximum speed at which application of full available aerodynamic control will not overstress the airplane.
V_f	Design flap speed is the highest speed permissible at which wing flaps may be actuated.
V_{fe}	Maximum "flap extended speed" is the highest speed permissible with wing flaps in a prescribed extended position.
V_c	The design cruising speed.
V_{le}	Maximum landing gear extended speed is the maximum speed at which an aircraft can be safely flown with the landing gear extended.
V_{lo}	Maximum landing gear operating speed is the maximum speed at which the landing gear can be safely extended or retracted.
V_s	The stalling speed or the minimum steady flight speed in a specified flap, landing gear, and power configuration.
V_{so}	The stalling speed or the minimum steady flight speed, power off, in the landing configuration.
V_x	The best angle of climb speed.
V_y	The best rate of climb speed.

METEOROLOGICAL TERMINOLOGY

Pressure Altitude	Altitude measured from standard sea-level pressure (29.92 in. Hg) by a pressure or barometric altimeter.
Station Pressure	Actual atmospheric pressure at field elevation.

OAT	Outside Air Temperature - The free air static temperature, obtained either from ground meteorological sources or from inflight temperature indications, adjusted for instrument error and compressibility effects.
Wind	The wind velocities recorded as variables on the charts of this manual are to be understood as the headwind or tailwind components of the actual winds at 50 feet above runway surface (tower winds).
ISA	International Standard Atmosphere in which (1) The air is a dry perfect gas: (2) The temperature at sea level is 59 degrees Fahrenheit; (3) The pressure at sea level is 29.92 inches Hg.; (4) The temperature gradient from sea level to the altitude at which the temperature is -69.7 degrees Fahrenheit is -0.003566 Fahrenheit per foot and zero above that altitude.
ICAO	International Civil Aviation Organization

POWER TERMINOLOGY

Maximum Continuous	Is the highest power rating not limited by time. Use of this rating should be limited to emergency situations.
Cruise Climb	Is the power recommended for normal climb.
Critical Altitude	Is that altitude for a given rpm where the desired manifold pressure can no longer be maintained.

CONTROL AND INSTRUMENT TERMINOLOGY

Throttle Control	Is the lever used to control the forced introduction of a fuel-air mixture into the intake passages of an engine by means of a pressure differential other than that caused by the induction airflow in the engine.
Propeller Control	This lever requests the governor to maintain rpm at a selected value and, in the maximum decrease rpm position, feathers the propellers.
Mixture Control	This lever, in the idle cut-off position, stops the flow of fuel at the injectors and in the intermediate to the full rich position regulates the fuel air mixture.
Propeller Governor	This governor will maintain the selected rpm requested by the propeller control lever.
Manifold Pressure Gage	An instrument that measures the pressure in the intake manifold of an engine, measured from zero, and expressed in inches of mercury (in. Hg)
Tachometer	An instrument that indicates the rotation of the propeller in revolutions per minute (rpm).
Turbo Supercharger	A turbin type compressor, driven by engine exhaust gases, that forces more air or fuel-air mixture into an internal combustion reciprocating engine than the engine would induct under the prevailing atmospheric pressures.

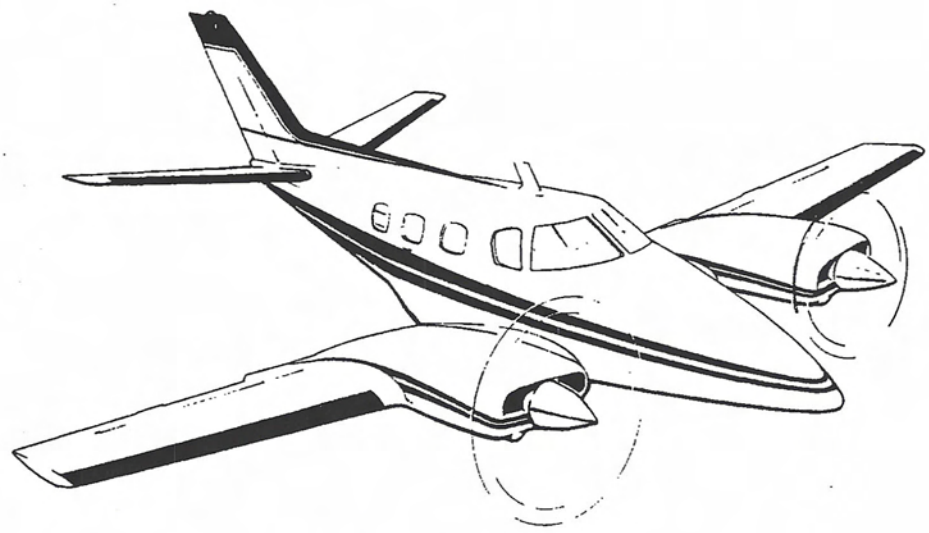
CHART AND GRAPH TERMINOLOGY

Climb Gradient	The demonstrated ratio of the change in height during a portion of a climb, to the horizontal distance traversed in the same time interval.

Best Rate of Climb	The best rate-of-climb speed is the airspeed which delivers the greatest gain in altitude in the shortest possible time with gear and flaps up.
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 up.
Demonstrated Crosswind	The demonstrated crosswind velocity is the velocity of the crosswind component for which adequate control of the airplane during takeoff and landing was actually demonstrated during certification tests. The value shown is not considered to be limiting.
Accelerate-stop Distance	The distance required to accelerate an airplane to a specified speed and, assuming failure of an engine at the instant that speed is attained, to bring the airplane to a stop.
Take-off Weight	The gross weight of the aircraft at lift-off from runway.
Landing Weight	The weight of the aircraft at landing touch-down.
Ramp Weight	The gross weight of the aircraft before engine start. Included is the take-off weight plus a fuel allowance for start, taxi, run-up and take-off ground roll to lift-off.
MEA	Minimum enroute IFR altitude.
Route Segment	A part of a route. Each end of that part is identified by: (1) a geographical location; or (2) a point at which a definite radio fix can be established.

FAA APPROVED

Airplane Flight Manual



Beechcraft® DUKE® 60 &A60

NOTE: THE FAA APPROVED FLIGHT MANUAL MUST BE KEPT WITHIN REACH OF THE PILOT DURING ALL FLIGHT OPERATIONS

Mfr's Serial No. _____

Registration No. _____

FAA Approved by W. A. Schultz

for CHESTER A. REMBLESKE
BEECH AIRCRAFT CORPORATION
DOA CE-2

Date of Approval December 15, 1972

Part No. 60-590000-5E

FAA Approved, based on FAR 23, Normal Category.

TABLE OF CONTENTS

SECTION III, EMERGENCY PROCEDURES

SECTION IV, FAA PERFORMANCE

SECTION V, FLIGHT MANUAL SUPPLEMENTS

LOG OF REVISIONS

Duke 60 & A60 Airplane Flight Manual, P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E6	1-1	Engine Limitations, Operation above 27,000 Feet

for Chester A. Rembleske
Beech Aircraft Corporation
DOA CE-2

98-34404A

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FAA Approved
Revised: November 6, 1974

LOG OF REVISIONS

Duke 60 & A60 Airplane Flight Manual, P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E5	ii	Change Table of Contents
E5	1-1	Remove Fuel Information
E5	1-2	Add Instrument Air
E5	1-5	Remove 144 Gal System
E5	2-12	Change Oxygen Duration
E5	3-8	Add Spin Recovery Procedure

for Chester A. Rembleske
Beech Aircraft Corporation
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98-34404-A

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FAA Approved
Revised: June 5, 1974

LOG OF REVISIONS

Duke 60 & A60 Airplane Flight Manual P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E4	ii	Add Alternate Static Air Source
E4	1-5	Added Alternate Static Air Source Kit Installation Number
E4	3-6	Added Alternate Static Air Source Kit Installation Number
E4	3-7	Rearranged information

A. H. Schultz

for Chester A. Rembleske
Beech Aircraft Corporation
DOA CE-2

98-34404A

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LOG OF REVISIONS

Duke 60 & A60 Airplane Flight Manual P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E-3	4-1	Changed Table of Contents
E-3	4-3	Changed Airspeed Calibration - Alternate System Graph
E-3	4-5	Changed Altimeter Correction - Alternate System Graph

CHESTER A. REMBLESKE
BEECH AIRCRAFT CORP.
DOA CE-2

98-34404A

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LOG OF REVISIONS

Duke 60 and A60 Airplane Flight Manual, P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E-2	1-3	Correction of Minimum Single Engine Control Speed (Red Radial)
E-2	1-3	Landing Weight Restrictions with 8-Ply Rated Tires

for Chester A. Rembleske
Beech Aircraft Corporation
DOA CE-2

98-34404A

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LOG OF REVISIONS

Duke 60 and A60 Airplane Flight Manual, P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision
E-1	i	Add Battery Condition Check to Table of Contents
E-1	2-6	Add Battery Check to Cruise
E-1	2-8	Add Battery Check to Shutdown
E-1	2-9	Add Battery Condition Check
E-1	4-11	Change "Approach Speed" to "Climb Speed"
E-1	4-12	Change "Climb Speed" to "Approach Speed"

C. H. Schultz
for Chester A. Rembleske
Beech Aircraft Corporation
DOA CE-2

98-34404A

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LOG OF REVISIONS

Duke 60 & A60 Airplane Flight Manual, P/N 60-590000-5E

Revision Number	Revised Pages	Description of Revision	FAA Approved
E	Title	Original	
E	i thru ii	Original	
E	1-1 thru 1-9	Original	
E	2-1 thru 2-12	Original	
E	3-1 thru 3-7	Original	
E	4-1 thru 4-13	Original	
			R. H. Schultz for Chester A. Rembleske Beech Aircraft Corporation DOA CE-2

98-34404

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