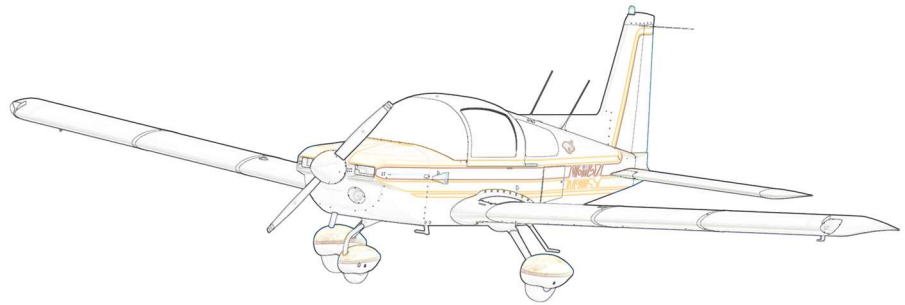
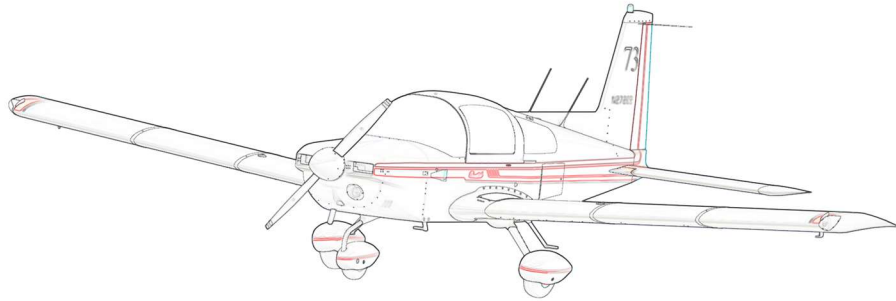
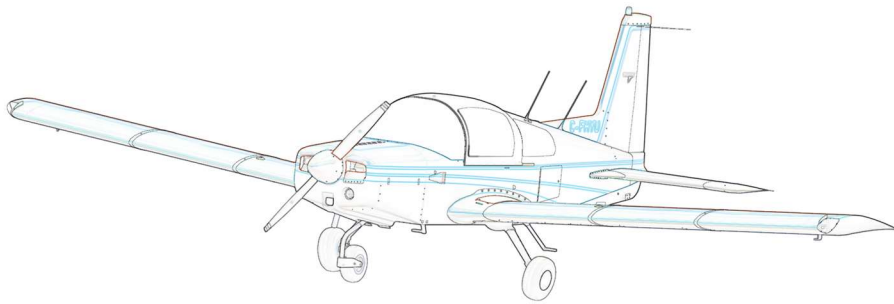


PILOT' S OPERATING HANDBOOK



GRUMMAN AA-5

AA-5 TRAVELER / AA-5A CHEETAH / AA-5B

TIGER

WELCOME ABOARD!

Thank you for purchasing the Grumman AA5 for MSFS. Included in this pack are the AA-5 Traveler, AA-5A Cheetah and AA-5B Tiger, several real world liveries for the corresponding aircraft and four different cockpit variations. This manual will help you understand the systems available in the aircraft, as well as aiding you in getting the maximum performance of the flight envelopes for the different models.

As the sole developer of the aircraft, I would like to personally thank you for purchasing this pack, and I hope it will provide you many hours of enjoyment. Happy flying!

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GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 1 - THE AIRCRAFT

1. THE AIRCRAFT

1.1. GRUMMAN AA-5 TRAVELER

Starting production in 1971, the original member of the AA-5 family is a 4-seat, low-wing general aviation aircraft built for simplicity and reliability. Powered by a 150-horsepower Lycoming O-320 engine, the Traveler cruises comfortably at around 127 knots, making it ideal for short cross-country hops. The aircraft's simple design combined with its responsive handling make it a solid choice for private pilots seeking an affordable yet sporty aircraft.



Figure 1 - AA-5 Traveler parked near Munich

STANDARD EMPTY WEIGHT	1286 lbs.
MAXIMUM GROSS WEIGHT	2200 lbs.
ENGINE	Lycoming O-320-E2G - 150hp. At 2700 r.p.m.
PROPELLER	Fixed pitch, McCauley 1C172. Diameter 73 in.
SPEED	Top speed at sea level: 136 knots Cruise, 75% power at 8500 ft.: 127 knots Cruise, 65% power at 8500 ft.: 118 knots
RANGE (37 Gallons, no reserve)	Cruise, 75% power at 8500 ft.: 638 miles, 4.3 hours Cruise, 65% power at 8500 ft.: 674 miles, 5 hours Optimum range at 10000 ft.: 680 miles, 5 hours
SERVICE CEILING	12,650 feet
RATE OF CLIMB	660 f.p.m. at sea level
TAKE OFF	Ground roll: 880 ft. Total distance over 50 ft. obstacle: 1600 ft.
LANDING	Ground roll: 380 ft. Total distance over 50 ft. obstacle: 1100 ft.
FUEL CAPACITY	38 gallons, 19 gallons per tank. 2 Wing tanks.
BAGGAGE	120 lbs.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 1 - THE AIRCRAFT

1.2. GRUMMAN AA-5A CHEETAH

The Cheetah is a refinement of the original AA5 design, which began its production in late 1975. The aircraft went under a redesign of the engine cowling, reducing drag and improving its cruising speed by six knots. The ventral fin was also removed. Despite retaining the same 150-horsepower Lycoming O-320-E2G power plant, these aerodynamic enhancements make the Cheetah a significantly more capable aircraft.



Figure 2 - AA-5A flying near Las Vegas

STANDARD EMPTY WEIGHT	1286 lbs.
MAXIMUM GROSS WEIGHT	2200 lbs.
ENGINE	Lycoming O-320-E2G - 150hp. At 2700 r.p.m.
PROPELLER	Fixed pitch, McCauley 1C172. Diameter 73 in.
SPEED	Top speed at sea level: 136 knots Cruise, 75% power at 8500 ft.: 127 knots Cruise, 65% power at 8500 ft.: 118 knots
RANGE (37 Gallons, no reserve)	Cruise, 75% power at 8500 ft.: 448 miles, 3.55 hours
SERVICE CEILING	12,650 feet
RATE OF CLIMB	660 f.p.m. at sea level
TAKE OFF	Ground roll: 880 ft. Total distance over 50 ft. obstacle: 1600 ft.
LANDING	Ground roll: 380 ft. Total distance over 50 ft. obstacle: 1100 ft.
FUEL CAPACITY	38 gallons, 19 gallons per tank. 2 Wing tanks.
BAGGAGE	120 lbs.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 1 - THE AIRCRAFT

1.3.GRUMMAN AA-5B TIGER

The AA-5B Tiger is the top performer in the AA-5 series, offering the culmination of various aerodynamic improvements over the original Traveler and developed alongside the AA-5A Cheetah. Powered by a 180-horsepower Lycoming O-360 engine, the Tiger cruises at up to 139 knots and boasts significantly improved climb performance. Retaining the simple, reliable fixed-pitch propeller and robust construction of the AA-5 series, the Tiger delivers impressive capabilities — perfect for private pilots seeking a high performing yet cost effective aircraft.



Figure 3 - AA-5B over Bristol

STANDARD EMPTY WEIGHT	1398 lbs.
MAXIMUM GROSS WEIGHT	2400 lbs.
ENGINE	Lycoming O-360-A 4K - 180hp. At 2700 r.p.m.
PROPELLER	Fixed pitch, McCauley 1C172. Diameter 75 in.
SPEED	Top speed at sea level: 148 knots Cruise, 75% power at 8500 ft.: 139 knots Cruise, 65% power at 8500 ft.: 129 knots
RANGE (51 Gallons, no reserve)	Cruise, 75% power at 8500 ft.: 554 miles, 4 hours
SERVICE CEILING	13,800 feet
RATE OF CLIMB	850 f.p.m. at sea level
TAKE OFF	Ground roll: 865 ft. Total distance over 50 ft. obstacle: 1550 ft.
LANDING	Ground roll: 410 ft. Total distance over 50 ft. obstacle: 1120 ft.
FUEL CAPACITY	52.6 gallons, 26.3 gallons per tank. 2 Wing tanks.
BAGGAGE	120 lbs.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 2 - THE INTERIOR

2. THE INTERIOR

In this section, you will find a description of all the switches and instruments found on the cockpit of your AA5. Please note that this section will be divided in two chapters: chapter 1 will cover all of the different panel variations and its specific instruments, while chapter 2 will cover all of the systems common to all variants of the AA5.

GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 2 - THE INTERIOR

2.1.PANEL VFR

This panel variant represents a very simple early panel meant for VFR only use, something you would see in early base models of the AA5 fresh out of the factory. It features a single Bendix-King KI208 VOR receiver with no glide slope, a Bendix-King KR87 ADF receiver and a complete Collins 251 radio suite. It also features a Bendix-King KT 76 transponder. For details on how to operate the radios, please reference Section 5.

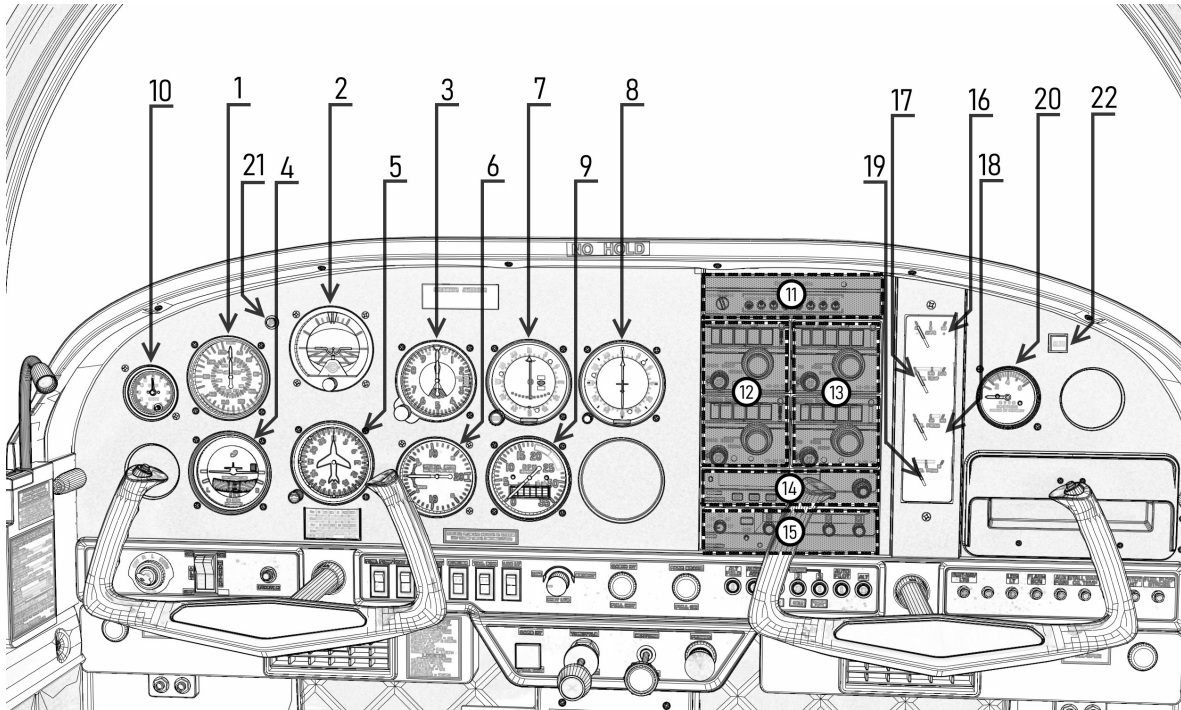


Figure 4 - VFR Panel diagram

1	Airspeed indicator	12	COM radios (Collins VHF-251)
2	Attitude indicator	13	NAV radios (Collins VIR-351)
3	Altimeter	14	ADF receiver (Bendix-King KR87)
4	Turn Coordinator	15	Transponder (Bendix-King KT76)
5	Directional Gyro Indicator	16	Ampere meter
6	Vertical Speed Indicator	17	Oil temperature
7	VOR 1 indicator (Bendix-King KI208)	18	Oil pressure
8	ADF indicator (Bendix-King KI227)	19	Fuel pressure
9	RPM indicator / Hour Meter	20	Suction meter
10	Clock	21	Low Voltage warning light
11	Audio selector (Collins AUD-250)	22	Alternator warning light

GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 2 - THE INTERIOR

2.2.PANEL IFR

This panel variant represents a more complex panel certified for IFR use, something you would see in more upscale models of the AA5 fresh out of the factory. It features both a Bendix-King KI209 and a NAV-122 VOR receivers, a Bendix-King KR87 ADF receiver, a mix of Bendix-King KX155 and a MX-11 radios and a Bendix-King KN62 DME receiver. It also features a Bendix-King KT 76 transponder. This panel is also equipped with a Century 1 autopilot/wing leveler. For details on how to operate the radios, please reference Section 5. For information on how to operate the Century-1 autopilot, reference Section 4.

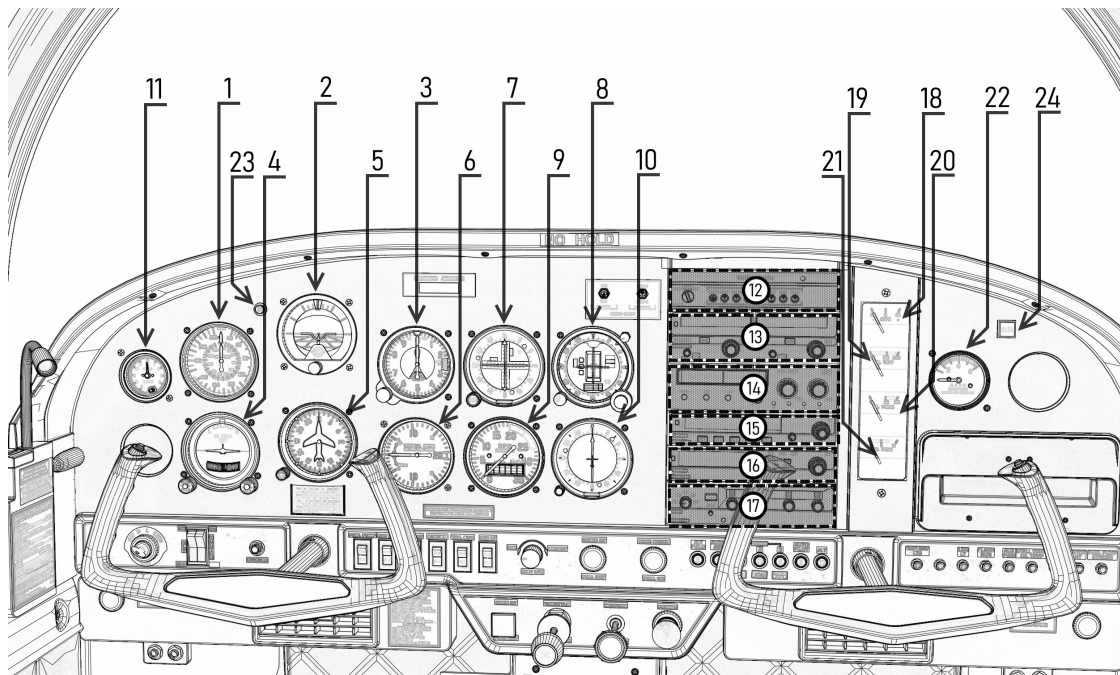


Figure 5 - IFR Panel diagram

1	Airspeed indicator	13	COM1/NAV1 radios (Bendix-King KX 155)
2	Attitude indicator	14	COM2 radio (TKM MX-11)
3	Altimeter	15	ADF receiver (Bendix-King KR87)
4	Century 1 Autopilot/Turn Coordinator	16	DME receiver (Bendix-King KN62)
5	Directional Gyro Indicator	17	Transponder (Bendix-King KT76)
6	Vertical Speed Indicator	18	Ampere meter
7	VOR 1 indicator (Bendix-King KI209)	19	Oil temperature
8	VOR 2 indicator (NAV-122)	20	Oil pressure
9	RPM indicator / Hour Meter	21	Fuel pressure
10	ADF indicator (Bendix-King KI227)	22	Suction meter
11	Clock	23	Low Voltage warning light
12	Audio selector (Collins AUD-250)	24	Alternator warning light

GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 2 - THE INTERIOR

2.3.PANEL IFR - GNS 430

This panel variant represents a more modern panel certified for IFR use, which includes the addition of a Garmin GNS 430 GPS. This is something you would see in a more modern AA5, that was retrofitted to improve quality of life in the cockpit. It features both a Bendix-King KI208 and a Bendix-King KI209 VOR receivers, a Bendix-King KR87 ADF receiver, a Bendix-King KX155 radio and a Garmin GNS 430 GPS unit. It also features a Garmin GTX330. Like the standard IFR panel, this configuration also includes a Century-1 autopilot/wing leveler. For details on how to operate the radios, please reference Section 5. For information on how to operate the Century-1 autopilot, reference Section 4.

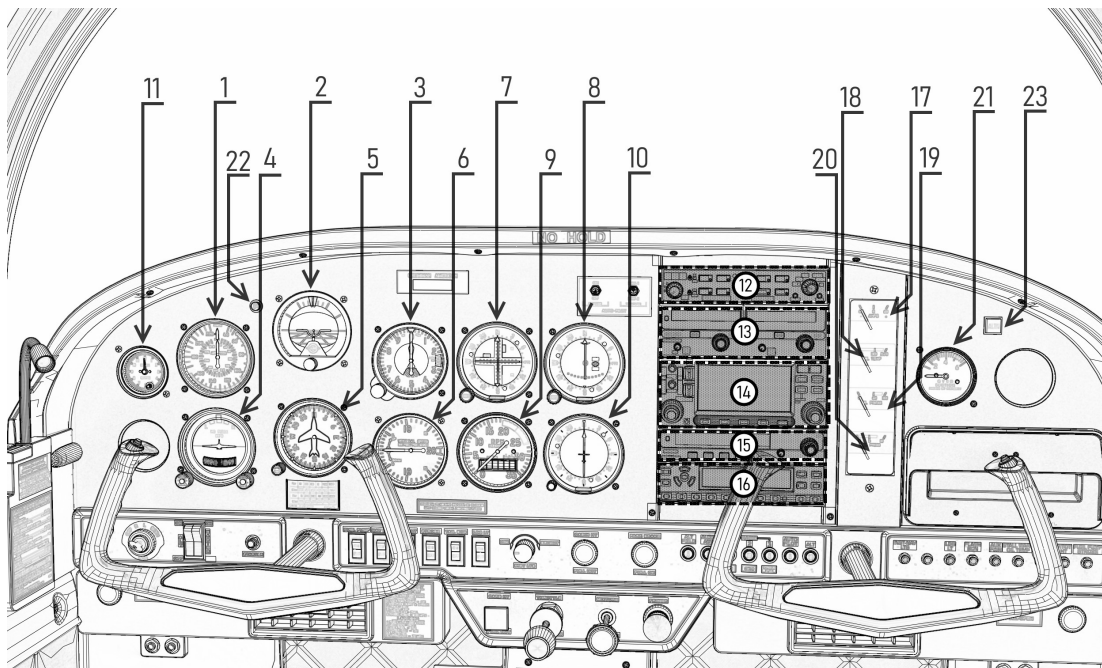


Figure 6 - IFR/GNS 430 Panel diagram

1	Airspeed indicator	13	COM1/NAV1 radios (Bendix-King KX 155)
2	Attitude indicator	14	GPS (Garmin GNS 430)
3	Altimeter	15	ADF receiver (Bendix-King KR87)
4	Century 1 Autopilot/Turn Coordinator	16	Transponder (Garmin GTX330)
5	Directional Gyro Indicator	17	Ampere meter
6	Vertical Speed Indicator	18	Oil temperature
7	VOR 1 indicator (Bendix-King KI208)	19	Oil pressure
8	VOR 2 indicator (Bendix-King KI209)	20	Fuel pressure
9	RPM indicator / Hour Meter	21	Suction meter
10	ADF indicator (Bendix-King KI227)	22	Low Voltage warning light
11	Clock	23	Alternator warning light
12	Audio selector (KMA 28)		

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 2 - THE INTERIOR

2.4.PANEL G1000

This panel means to represent one of the few AA5s that were fully retrofitted to use the G1000 glass panel. Gone are the vacuum gauges and bulky radios of the 1980s - everything has been replaced with two large modern touch displays, only the basic gauges remain as a backup. As part of the G1000 suite, the autopilot is now a fully capable unit that can perform the more complex tasks of navigating from take-off to touch down. As these types of retrofit are very low-scale and usually custom jobs, there is no “standard” manufactured version of this panel - this is merely trying to be a reasonable interpretation of one of these retrofits. This panel is heavily based on one such effort, found in a more modern American General AG-5B Tiger.

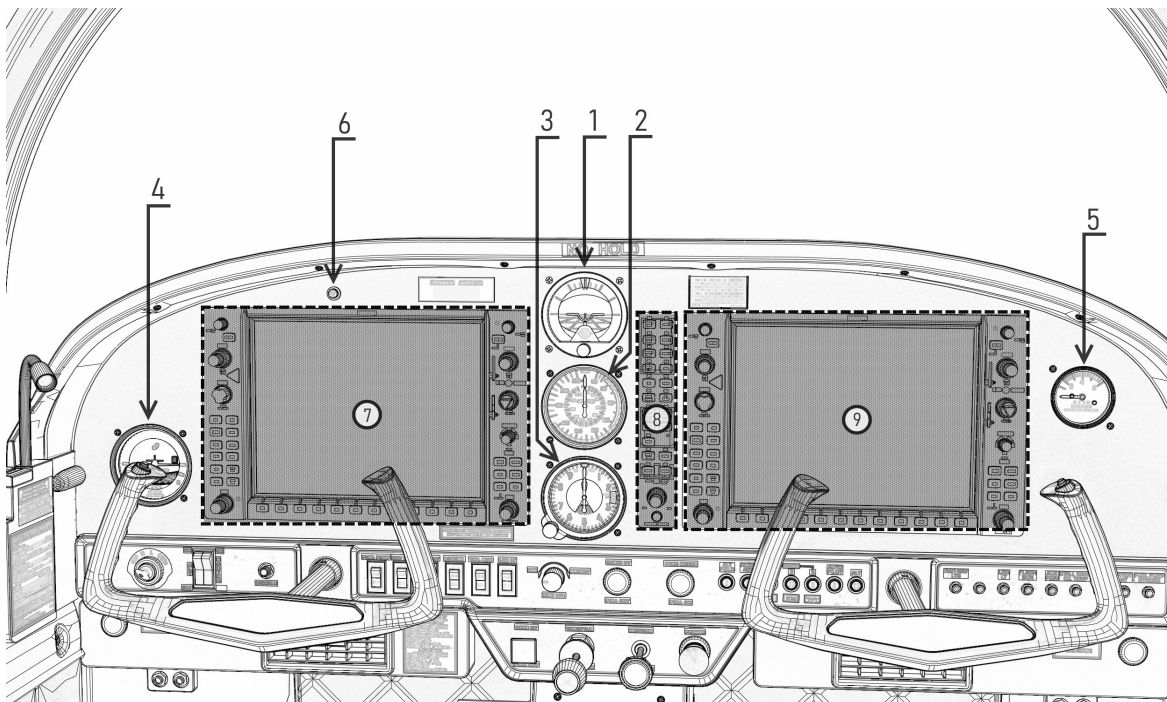


Figure 7 - G1000 Panel diagram

1	Attitude indicator	6	Vertical Speed Indicator
2	Airspeed indicator	7	Low Voltage warning light
3	Altimeter	8	G1000 PFD
4	Turn Coordinator	9	G1000 Audio Panel
5	Suction meter	10	G1000 MFD

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 2 - THE INTERIOR

2.5.BOTTOM PANEL AND CENTER CONSOLE

This section is common to all AA5s, regardless of model or panel variation.

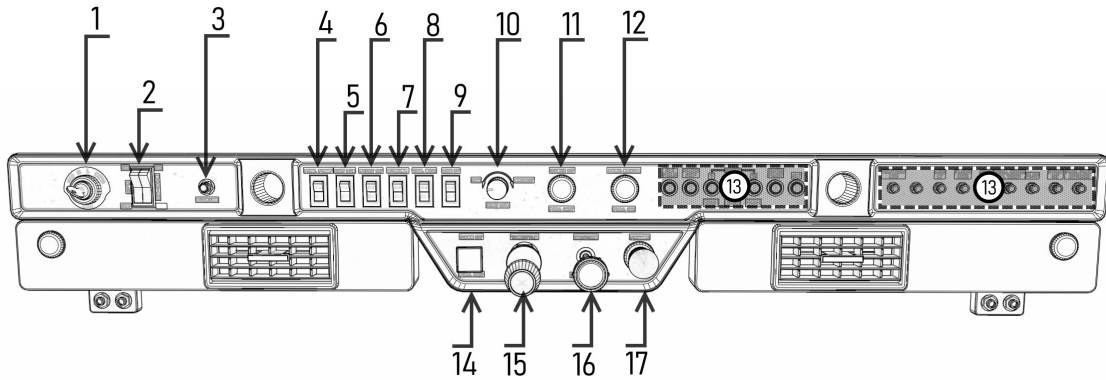
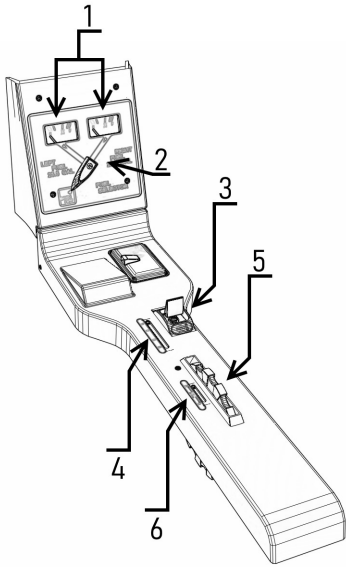


Figure 8 - Bottom panel diagram

1	Magneto switch	9	Landing lights	1	Carburetor heat
2	Battery/Alternator switch	1	Instrument lights	4	lever
3	Starter push button	0	dimmer knob	1	Throttle lever
4	Fuel pump	1	Cabin heat	5	
5	Navigation lights	1	Parking brake	1	Mixture lever
6	Pitot heat	2		6	
7	Strobe lights	1	Circuit breakers	1	Engine primer
8	Tail beacon	3	- Pull to isolate circuit	7	

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 2 - THE INTERIOR



1	Fuel quantity indicator - LEFT and RIGHT tanks
2	Fuel tank selector - OFF, LEFT or RIGHT
3	Flap switch
4	Flap position indicator
5	Trim wheel
6	Trim position indicator

Figure 9 - Center console diagram

2.6. UPPER WINDSHIELD

This section is common to all AA5s, regardless of model or panel variation.

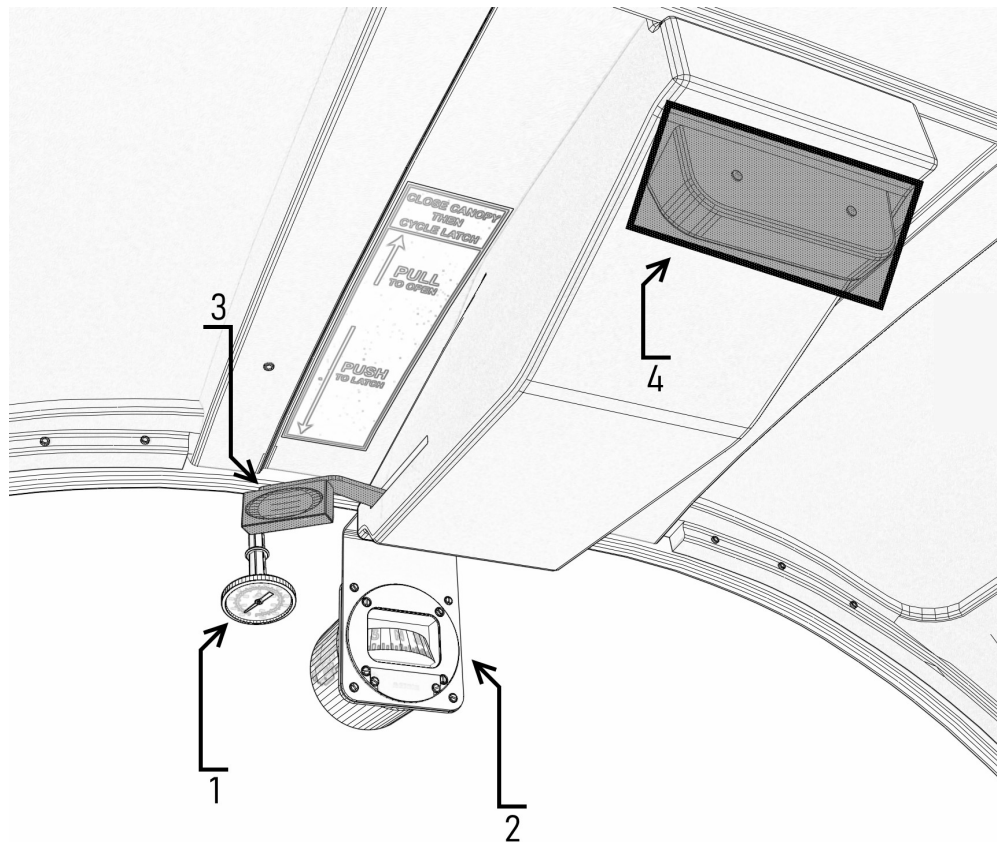


Figure 10 - Canopy diagram

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 2 - THE INTERIOR

-
- 1 Outside air temperature gauge

 - 2 Magnetic compass

 - 3 Canopy lock - Push to latch, pull to unlock

 - 4 Canopy handle - Click here to slide the canopy open or closed

GRUMMAN AA-5 OPERATION HANDBOOK SECTION 3 - PILOT' S OPERATING HANDBOOK

3. PILOT' S OPERATING HANDBOOK

3.1.FINDING THE POH

The POH can be found in the pilot' s foot well, to the left, in a small pocket on the bottom wall. This handbook contains some relevant performance figures, a quick reference checklist, as well as serving as the way to switch between panel variants and operating some miscellaneous functions of the aircraft. To open the book, click on it:

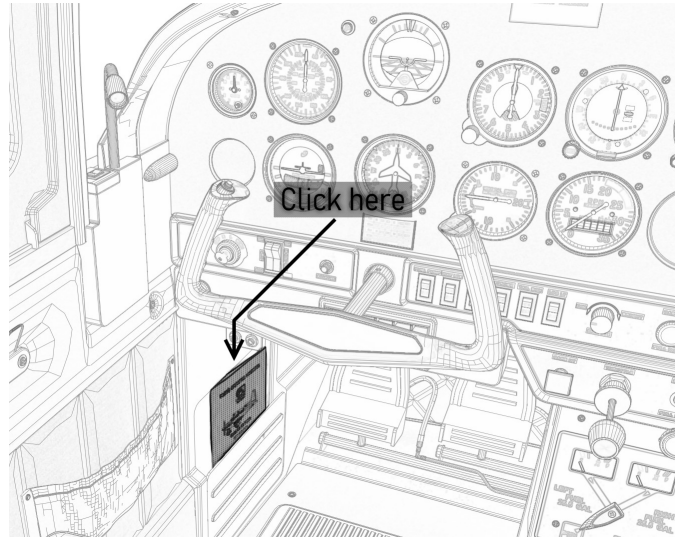


Figure 11 - Stored POH

To flip through the pages, click on them. Generally, clicking on the left page will go back a page, clicking on the right page will go forward one page. Clicking anywhere on the top part of the book will close it and stow it back on the pilot' s foot well.

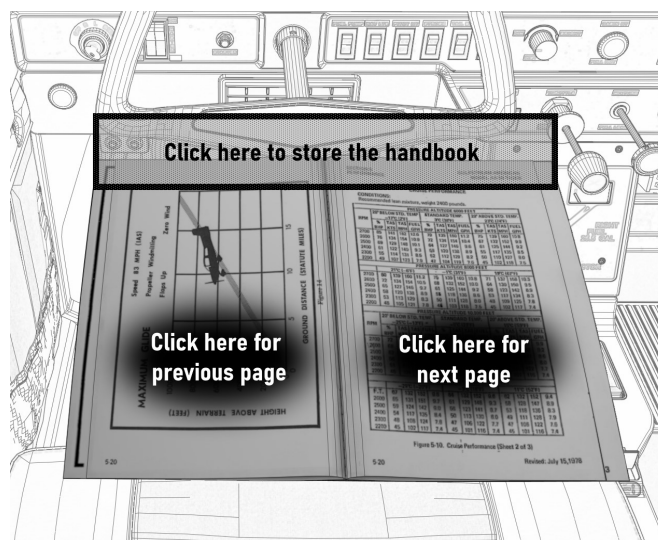


Figure 12 - POH click spots

GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 3 - PILOT'S OPERATING HANDBOOK

3.2. CHOOSING THE PANEL MODEL (VFR, IFR, G1000)

This is obviously a very simplified and abridged version on the real POH, as it would be unfeasible to add the over 100 pages in the real POH into MSFS. This is meant to serve as a quick and easy way to find the checklist (present on the last page), or find performance values during cruise so you can best judge speed, power and range. If you are interested in reading through scans of the real POH's for all three variants, please check Chapter x.

On page 3, you will find the airplane configuration page - this is where you can switch between different panel variations, as well as toggle the chocks, pitot and engine covers, as well as decide on whether you'd like wheel pants, hubcaps or none. This is also where you can open and close the baggage door, and fold the rear seats to give extra room for more bulky cargo.

Simply click on top of what you'd like to toggle. A scratch will appear if the option is currently turned OFF - so make sure the chocks, engine and pitot covers and the baggage door in the "Exterior" section are all scratched before takeoff.

In order to toggle any of these options, you must be landed with the parking brake applied.

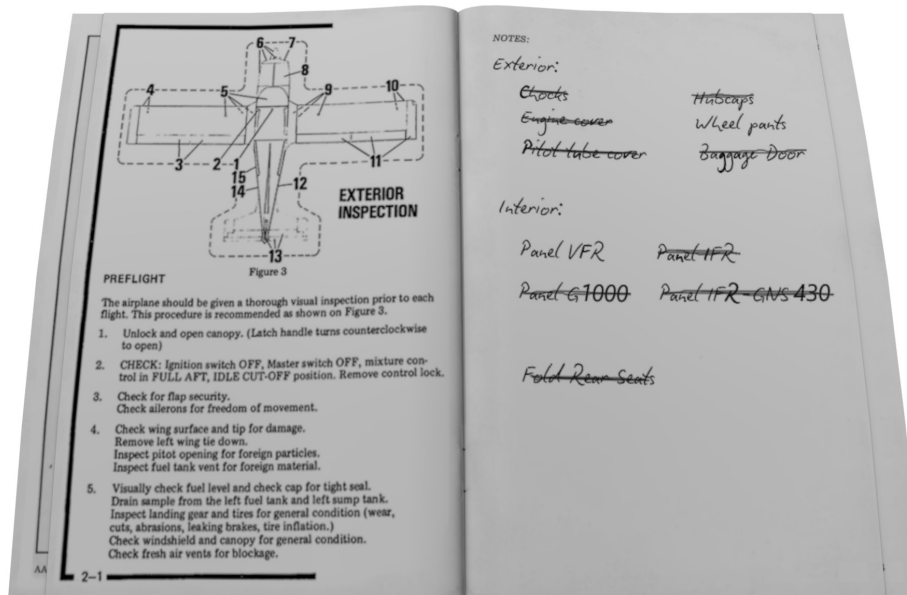


Figure 13 - Page 3 of the POH containing customization options

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 4 - CENTURY 1 AUTOPILOT

4. CENTURY 1 AUTOPILOT

4.1. INTRODUCTION

The Century I is an all-electric, rate-based, lightweight, single axis, roll/heading lateral stabilization autopilot. An electric servo on the aileron control system provides the control force for the wing-leveling stabilization and pilot-commanded, knob-controlled turns at rates of up to 200° /minute. The system utilizes a tilted rate gyro to sense rate of turn and roll rate in its 3-inch lighted standard turn indicator. The indicator includes an inclinometer (ball) for slip/skid indications and VOR/LOC radio signal tracking is standard.

By today's standards, using the word "autopilot" for this unit is a bit of a stretch - this unit is merely capable of holding the wings at a certain bank angle, and is capable of following a VOR after the pilot has captured it manually. This unit is also completely self-contained and has no communication with any other instruments - in other words, the autopilot has no idea where it's going or what the current heading is. It is merely capable of operating the servos mounted on the ailerons to maintain a desired bank.

NOTE: This unit has NO authority over the pitch angle. The altitude of the aircraft must be constantly monitored by the pilot, and adjusted using trim inputs or by using the yoke if necessary.

GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 4 - CENTURY 1 AUTOPILOT

The system is composed of the indicator, as well as a master switch and a NAV selection switch.

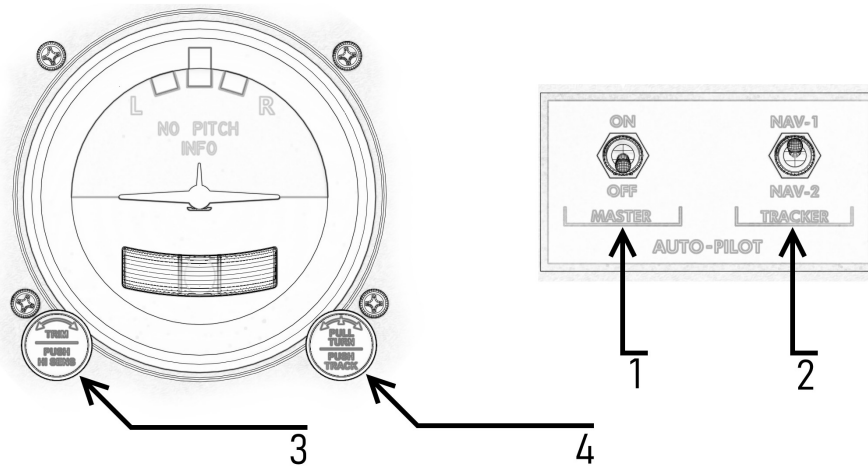


Figure 14 - Century 1 autopilot diagram

-
- | | |
|---|---------------------------|
| 1 | Master switch - On or OFF |
|---|---------------------------|
-
- | | |
|---|---|
| 2 | NAV source switch - The unit will use NAV 1 or NAV 2 frequency to track the VOR |
|---|---|
-
- | | |
|---|--|
| 3 | Stabilizer Trim Control: <ul style="list-style-type: none">• TURN to set trim• PUSH to enable high sensitivity mode• PULL to enable low sensitivity mode |
|---|--|
-
- | | |
|---|--|
| 4 | Turn Command Control: <ul style="list-style-type: none">• TURN to set a bank angle target• PUSH to enable VOR tracking mode• PULL to enable wing bank mode |
|---|--|
-

4.2. OPERATING THE AUTOPILOT - COMMANDING TURNS

To use the autopilot, you must turn it on by using the master switch. Once the switch is enabled and the Turn Command Control (4) is pulled, the autopilot will set the wings to the desired bank angle. Using the Turn Command Control (4), it's possible to set the desired bank angle. There is a small detent on the center position, so it's easy to quickly identify at a glance if the autopilot is set to wings-level flight. If, during flight, it becomes necessary to perform a turn, setting the Turn Command Control (4) to the left or right will command a turn in that direction, with the desired degree of bank.

NOTE: The autopilot, when properly trimmed, will seek to hold a constant heading (no turning). If the aircraft consistently flies wing low, if you find that the attitude indicator

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 4 - CENTURY 1 AUTOPILOT

is not centered or if you notice the yoke deviate from its center position too much, it indicates that the rudder is not properly trimmed. Rudder trim is needed in the direction of the low wing - this can be achieved by using the Stabilizer Trim Control (3) knob.

4.3. OPERATING THE AUTOPILOT - VOR TRACKER

To engage the VOR tracker, firstly make sure you have the correct frequency tuned and identified. You can use the NAV source switch (2) to switch between using NAV1 or NAV2 as a source. Before engaging the VOR tracking mode, the pilot must set the desired course and manually track the VOR, either by using yoke commands or by commanding a turn using the autopilot. Once established in level flight and tracking the VOR, you can now select the VOR Tracking mode by pushing the turn knob (4). If the VOR needle is within the "Target" and the heading within 10° of the centered OBS reading, the Tracker will capture and track the radial without undue heading deviation.

If the Tracker tends to fly with the VOR needle off center for an extended period, turn the Stabilizer Trim Control (3) toward the needle until accurate tracking is established. The Tracker has high and low sensitivity positions. Low sensitivity is used for cross country navigation and high sensitivity, where accuracy is desired such as approaches and close-in work. To switch between these modes, push/pull the Stabilizer Trim Control (3) knob.

Like stated before, the Century 1 is not a "smart" autopilot - it's merely a gyroscope and a servo controlling the ailerons. The following section is copy-pasted directly from the Century 1 handbook, as it describes it's very real limitations the best:

OPERATIONAL NOTE ON THE CENTURY I

The Century I Autopilot really has no idea of the actual heading, the radial, or the crosswind. It simply seeks to maintain a condition of no turning which results in the holding of a relatively constant heading. The human pilot only knows the desired heading.

When the Tracker is ON, it seeks to keep the VOR/LOC Needle in the center. It does this by first stopping any needle movement and then gradually trying to center the needle. The Tracker has been designed to TRACK the needle after the human pilot has captured the needle, centered it, and aimed the aircraft in the direction of intended flight +/- 10°. Under very strictly controlled conditions the Tracker can capture and track a radial. This ability should be considered a happenstance and not a capability of the device.

Of necessity, the Tracker works slowly. Under conditions of extreme crosswind, the human pilot can assist the Tracker in getting established on a radial by turning the aircraft slightly into the wind before turning on the Tracker.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5. RADIOS AND NAVIGATIONAL EQUIPMENT

The following section will provide information regarding the radio equipment installed on all of the variants of the AA5. Please note that descriptions of the GNS 430 and G1000 GPS systems are out of the scope of this manual, and will not be mentioned here.

5.1. Collins AUD-250

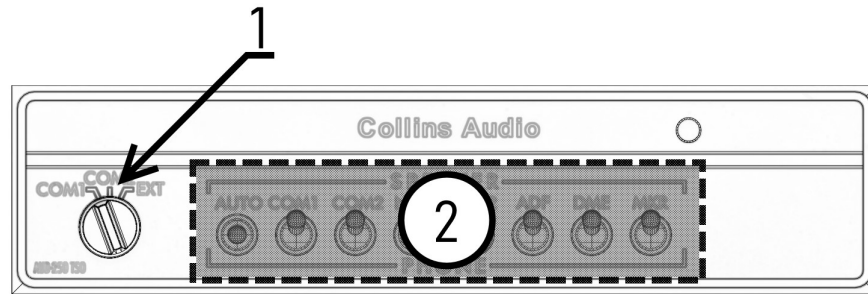


Figure 15 - Collins AUD-250 diagram

- | | |
|---|--|
| 1 | Audio transmit selector (COM 1 or COM 2) |
| 2 | Channel audio selector |

NOTE: In real life, you are able to select the audio output to use the headphones or the cabin speakers. This function is not simulated - therefore flipping the switches to the up or down position has the same effect of turning on the audio receiver for that channel. Leaving the switch in the middle will mute the channel.

5.2. Collins VHF-251

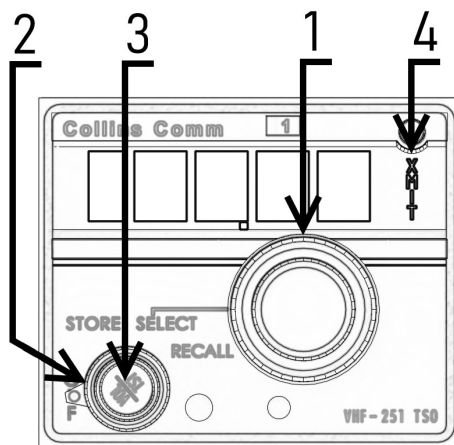


Figure 16 - VHF-251 diagram

- | | |
|---|--|
| 1 | Tuner knobs (MHz and kHz) |
| 2 | Mode selector knob: <ul style="list-style-type: none"> • OFF • STORE - will store the current frequency • SELECT - allows tuning to different frequencies RECALL - will tune the radio to the last stored frequency |
| 3 | Volume knob |
| 4 | Transmit light |

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5.3. Collins VIR-351

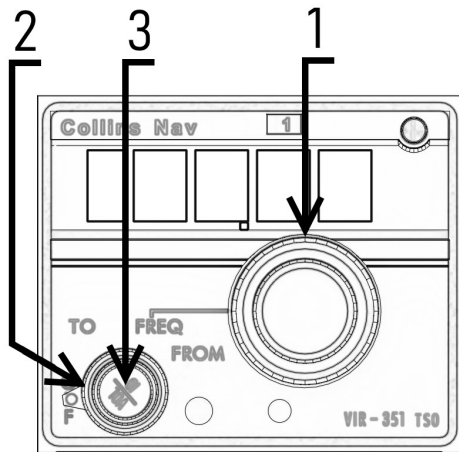


Figure 17 - VIR-351 diagram

- | | |
|---|---|
| 1 | Tuner knobs (MHz and kHz) |
| 2 | Mode selector knob: <ul style="list-style-type: none"> • OFF • FREQ - allows tuning to different frequencies • TO and FROM - not simulated |
| 3 | Volume/power knob |

5.4. NAV-122 VOR Receiver/Indicator

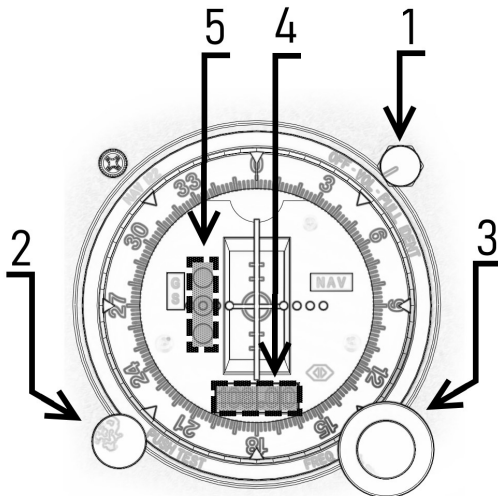


Figure 18 - NAV-122 VOR diagram

- | | |
|---|---------------------------|
| 1 | Volume/power knob |
| 2 | Tuner knobs (MHz and kHz) |
| 3 | Course selector |
| 4 | Active frequency |
| 5 | OMI Indicator |

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5.5.TKM MX-11 COM Radio

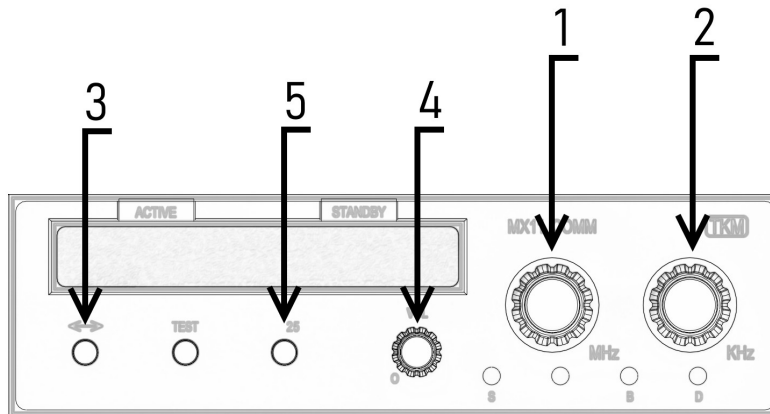


Figure 19 - MX-11 radio diagram

- | | |
|---|-------------------------------------|
| 1 | Tuner knob (MHz) |
| 2 | Tuner knob (kHz) |
| 3 | Switch active/standby COM frequency |
| 4 | COM volume/power knob |
| 5 | Switch to 25 kHz increments |

5.6.Bendix-King KX 155 COM/NAV Radio

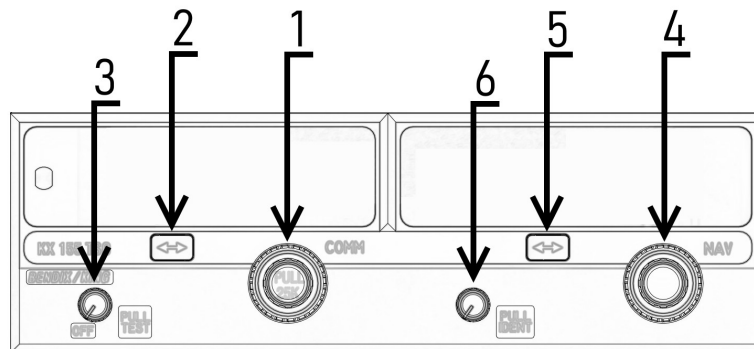


Figure 20 - KX-155 radio diagram

- | | |
|---|-------------------------------------|
| 1 | COM tuner knobs (MHz and kHz) |
| 2 | Switch active/standby COM frequency |
| 3 | COM volume/power knob |
| 4 | NAV tuner knobs (MHz and kHz) |
| 5 | Switch active/standby NAV frequency |
| 6 | NAV volume knob |

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5.7. Bendix-King KR 87 ADF Receiver

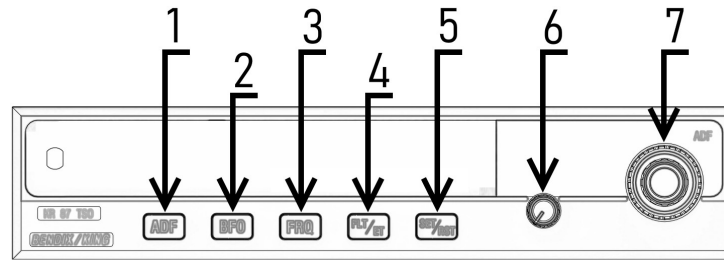


Figure 21 - KR87 ADF Receiver diagram

-
- | | |
|---|---|
| 1 | ADF/ANT mode selector |
| 2 | BFO mode selector |
| 3 | Switch active/standby frequency |
| 4 | FLT/ET button - Switches between elapsed time and flight time |
| 5 | SET/RST button - Operates the timer |
| 6 | Volume/Power knob |
| 7 | Tuner knobs (MHz and kHz) |
-

5.8. Bendix-King KN 62 DME Receiver

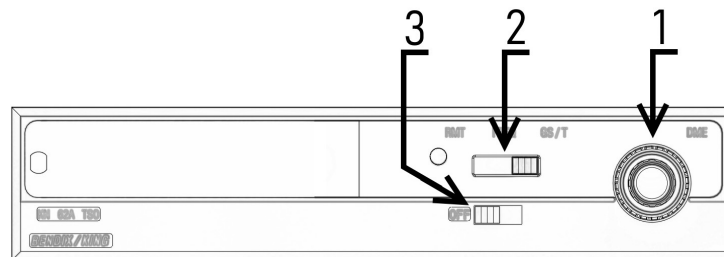


Figure 22 - KN 62 DME diagram

-
- | | |
|---|--|
| 1 | Tuner knobs (MHz and kHz) |
| 2 | Mode selector: <ul style="list-style-type: none"> • RMT - Remote mode, displays distance to VOR (nm), current ground speed (knots) and ETA. In remote mode, this will slave the unit to the frequency set in the NAV 1 radio. • TUNE - Displays the distance to VOR (nm) and the active frequency. Use the tuner knob to change the frequency • GS/T - Displays distance to VOR (nm), current ground speed (knots) and ETA. In this mode, this will use the frequency tuned in the unit using FREQ mode |
| 3 | On/off switch |
-

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5.9. Bendix-King KT 76 Transponder

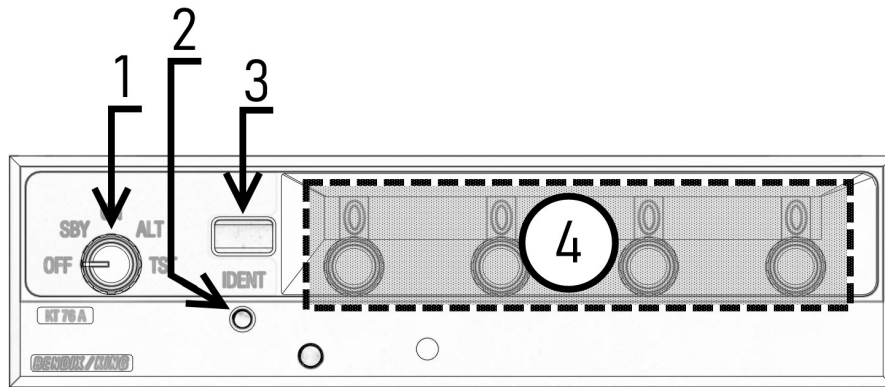


Figure 23 - KT 76 transponder diagram

-
- 1 Mode knob
 - 2 Ident button
 - 3 Ident light
 - 4 Code selection knobs
-

5.10. Garmin GTX330 Transponder

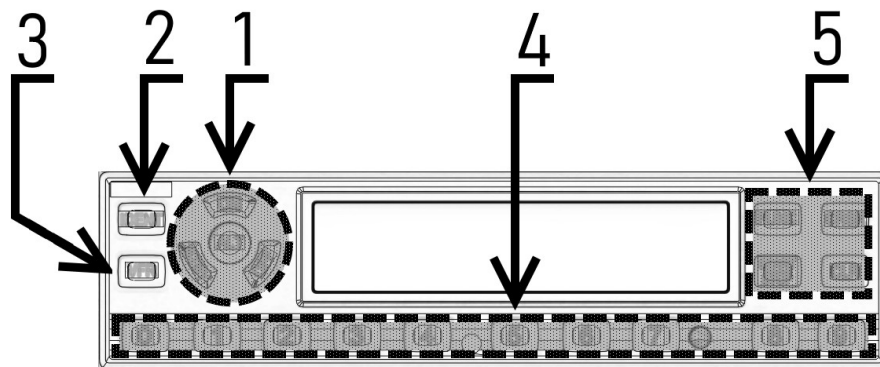


Figure 24 - GTX330 transponder diagram

-
- 1 Mode buttons
 - 2 Ident button
 - 3 VFR mode - will set squawk to 1200 or 7000
 - 4 Code selection buttons
 - 5 Timer/function buttons
-

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 5 - RADIOS AND NAVIGATIONAL EQUIPMENT

5.11. KMA-28 Audio selector

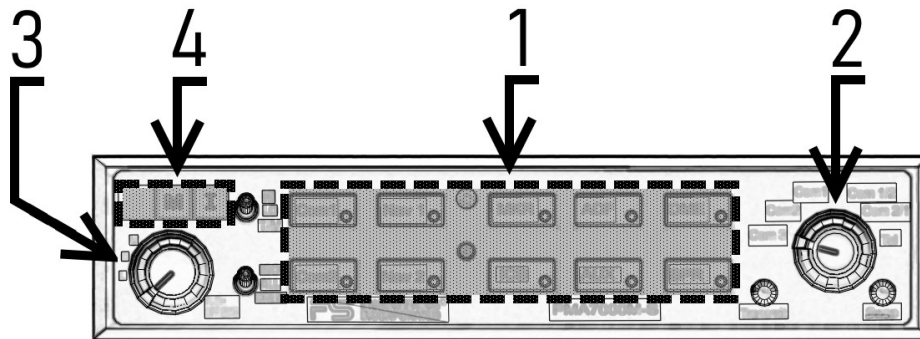


Figure 25 - KMA 28 audio selector diagram

-
- 1 Channel audio selector

 - 2 Audio transmit selector (COM 1 or COM 2)

 - 3 Volume knob

 - 4 OMI Indicator

**GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 6 - CHECKLIST**

6. CHECKLIST

This section contains the fully detailed checklist applicable to all models of the AA5. An abridged version is included in the last page of the in-game POH for quick reference (see Section 3).

BEFORE STARTING ENGINE:

Preflight Inspection – Complete
Seats, Seat belts and Shoulder Harness - Adjusted, locked
Radios, Autopilot, Electrical Equipment - OFF
Parking Brake - SET
Controls - Check for proper operation

STARTING ENGINE:

Master/Alternator Switch - ON
Mixture - FULL RICH
Carburetor Heat - OFF
Fuel Selector Valve - Set to fullest tank
Prime - As required
Flaps - UP
Auxiliary Fuel Pump - ON (check pressure 0.6 - 8 PSI)
Propeller - CLEAR
Ignition Switch - ON, LEFT
Throttle - Open $\frac{1}{4}$ inch
Starter Button - Press, release when engine starts
Ignition Switch - ON, BOTH
Oil Pressure - Check, if no pressure within 30 seconds, shut down engine
Engine - Warm up at 1000 to 1200 RPM
Auxiliary Fuel Pump – OFF

**GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 6 - CHECKLIST**

BEFORE TAKEOFF:

Parking Brake - Set
Throttle - Set for 1800 RPM
Engine Instruments - In green arc
Ammeter - Charging
Vacuum Gauge - 4.6 to 5.4 in. Hg.
Magnetos - Check, 175 RPM maximum drop, not over 50 RPM difference between left and right magnetos
Carburetor Heat - ON, check for RPM drop, then OFF
Throttle - Set 1000 RPM
Radios - ON, checked, transponder - STANDBY
Engine - Idles smoothly
Engine is ready for takeoff once it will take throttle without hesitating or faltering and oil temperature is in green arc
Trim Tab - SET
Flaps - Checked for operation, set UP
Mixture - FULL RICH (or as required by field elevation)
Throttle Friction Lock - ADJUSTED
Auxiliary Fuel Pump - ON, check for pressure change, then set OFF
Flight Instruments - SET (clock, directional gyro, altimeter, radios)
Lights - ON (as required)
Parking Brake - OFF

TAKEOFF - NORMAL:

Flaps - UP
Carburetor Heat - OFF
Auxiliary Fuel Pump - ON
Throttle - FULL OPEN
Elevator Control - Raise nosewheel at 50 KIAS (58 MPH) to 55 KIAS (62 MPH)
Turn Transponder to ON after takeoff

**GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 6 - CHECKLIST**

TAKEOFF - OBSTACLE CLEARANCE:

Flaps - UP

Carburetor Heat - OFF

Auxiliary Fuel Pump - ON

Throttle - FULL OPEN

Elevator Control - Apply light backpressure at 50 KIAS (58 MPH), lift nosewheel 55 KIAS (62 MPH)

Climb Speed - 65 KIAS (75 MPH)

CLIMB:

Normal Climb Speed - 90 KIAS (104 MPH) at full throttle

Best Rate of Climb Speed - 90 KIAS (104 MPH) at sea level, full throttle

Best Angle of Climb Speed - 70 KIAS (81 MPH) at sea level, full throttle

CRUISE:

Auxiliary Fuel Pump - OFF

Power - SET at 2200 to 2700 RPM

Trim Tab - SET as required

Mixture - SET as required. If in doubt of percentage of power being used, use full rich mixture for operations below 5000 Ft.

DESCENT:

Power - As required for descent

Mixture - As required by altitude

Carburetor Heat - As required by weather conditions

Trim Tab - SET as required

**GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 6 - CHECKLIST**

BEFORE LANDING:

Seats, Seat belts and Shoulder Harness - Adjust and lock
Fuel Selector - On fullest tank
Mixture - FULL RICH
Auxiliary Fuel Pump - ON
Carburetor Heat - ON if required
Parking Brake - OFF
Flaps - SET as required, below 103 KIAS (119 MPH)
Airspeed - 65 KIAS (75 MPH) to 70 KIAS (80 MPH)
Landing Light - ON as required

BALKED LANDING:

Power - Full Throttle
Carburetor Heat - OFF
Airspeed - 70 KIAS (80 MPH)
Establish Climb Altitude
Flaps - Retract slowly, maintain safe airspeed

LANDING - NORMAL:

Touch down on main gear
Lower nosewheel slowly as airspeed decreases
Use rudder to maintain directional control down to approximately 17 KIAS (20 MPH)
Brakes - Use as required for stopping and directional control

LANDING - OBSTACLE CLEARANCE:

Flaps - Fully extended below 103 KIAS (119 MPH)
Airspeed - 63 KIAS (73 MPH)
Touch down on main gear
Elevator - Full up control
Flaps - UP
Brakes - As required for stopping and directional control

**GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 6 - CHECKLIST**

AFTER LANDING:

Flaps - UP
Auxiliary Fuel Pump - OFF
Landing Light - OFF (if used)
Carburetor Heat - OFF
Strobe Light - OFF (if used)

SHUT DOWN/SECURING AIRPLANE:

Electrical Equipment, Radios, Lights - OFF
Mixture - IDLE CUTOFF
Ignition - OFF (after propeller has stopped)
Master Switch - OFF
Control Lock - Installed
Parking Brake - SET
Chocks/Tie downs - Installed
Parking Brake - OFF

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7. PERFORMANCE TABLES:

In this section, you will find the relevant performance tables for each variant of the AA5 organized for your convenience. These are taken directly from publicly available scans of the real Pilot's Operating Handbook. In the in game POH, you'll find abridged versions of most of these tables for quick reference – see Section 3. If you are interested in analyzing the real-life POHs for these aircraft, please see Section 8.

7.1.AA5 TRAVELER

7.1.1. AA5 TRAVELER - TAKE OFF DATA

TAKE-OFF DATA										
HARD SURFACE RUNWAY - FLAPS UP										
Gross Weight Pounds	IAS At 50' MPH	Head Wind Knots	At Sea Level & 59° F.		At 2000 Ft. & 52° F.		At 4000 Ft. & 45° F.		At 6000 Ft. & 38° F.	
			Ground Run	Total To Clear 50' Obs.	Ground Run	Total To Clear 50' Obs.	Ground Run	Total To Clear 50' Obs.	Ground Run	Total To Clear 50' Obs.
2200	73	0	880	1600	1015	1915	1195	2375	1405	3075
		10	615	1215	715	1475	850	1845	1010	2430
		20	395	875	465	1075	565	1375	680	1845
2000	70	0	680	1265	785	1515	925	1880	1085	2445
		10	475	960	555	1165	660	1460	780	1930
		20	305	690	360	850	435	1088	525	1465
1800	67	0	510	975	590	1170	695	1455	815	1895
		10	355	740	415	900	495	1130	585	1500
		20	230	535	270	655	330	840	395	1140

NOTES: 1. Increase ground run 7% for each 20° F. above standard temperatures.
2. The increase in total take-off distance varies from 8% at sea level to 14% at 6000 feet for each 20° F. above standard temperature.

7.1.2. AA5 TRAVELER - CLIMB DATA

MAXIMUM RATE-OF-CLIMB DATA				
2200 POUNDS GROSS WEIGHT - FLAPS RETRACTED				
ALTITUDE FEET	TEMPERATURE °F.	IAS MPH	RATE OF CLIMB FT./MIN.	FUEL USED FROM SEA LEVEL GALLONS
S. L.	59°	91	660	1.0
2500	50°	89	550	1.8
4500	43°	88	460	2.7
6500	36°	87	370	3.7
8500	28°	86	280	4.9
10500	21°	85	200	6.5

NOTES: 1. Full throttle climb, mixture leaned above 5,000 feet to smooth engine operation.
2. Fuel used includes taxi and warm up allowance.
3. Power loss attributable to the presence of humidity can be as high as 7%, this represents approximately 100 FPM loss in climb rate at sea level.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7.1.3. AA5 TRAVELER - CRUISE DATA

CRUISE & RANGE PERFORMANCE				GROSS WEIGHT-2200 LBS. STANDARD CONDITIONS ZERO WIND LEAN MIXTURE		
MODEL AA-5						
ALTITUDE	RPM	PERCENT POWER	TRUE AIR SPEED--MPH	GALLONS/ HOUR	ENDURANCE HOURS	RANGE MILES
2500	2600	76	142	8.9	4.0	571
	2500	71	136	8.1	4.4	604
	2400	63	129	7.2	4.9	635
	2300	57	121	6.5	5.5	661
	2200	52	113	5.9	6.0	680
4500	2600	74	142	8.5	4.2	588
	2500	67	135	8.0	4.6	617
	2400	61	127	6.9	5.1	644
	2300	55	118	6.2	5.6	666
	2200	50	110	5.7	6.1	679
6500	2700	78	148	9.0	4.0	575
	2600	71	141	8.1	4.3	603
	2500	65	133	7.3	4.8	629
	2400	58	124	6.6	5.3	653
	2300	53	116	6.0	5.8	666
8500	2700	75	147	8.5	4.1	594
	2600	68	139	7.7	4.5	616
	2500	62	131	7.0	5.0	638
	2400	56	122	6.4	5.4	656
	2300	52	113	5.8	5.9	662
10500	2700	71	145	8.1	4.3	606
	2600	65	137	7.3	4.7	630
	2500	59	128	6.7	5.1	642
	2400	54	119	6.2	5.5	651
	2300	51	110	5.8	5.8	640

NOTES:

1. Range and endurance data include allowance for take-off and climb. No fuel reserve is included.
2. Fuel consumption is for level flight with mixture leaned. See Section III for proper leaning technique. Continuous operations at powers above 75% should be with full rich mixture.
3. Speed performance is with wheel fairings. Subtract 4 MPH without wheel fairings.
4. For temperatures other than standard, add or subtract 1% power for each 10° F. below or above standard temperature respectively.

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7.1.4. AA5 TRAVELER - LANDING DATA

LANDING DATA				
LANDING DISTANCE ON HARD SURFACE RUNWAY ZERO WIND-FLAPS DOWN-2200 LBS. GROSS WEIGHT 70 MPH IAS AT 50 FEET				
ALTITUDE TEMPERATURE	SEA LEVEL 59 ° F.	2000 FT. 52 ° F.	4000 FT. 45 ° F.	6000 FT. 37 ° F.
GROUND RUN	380	405	430	455
TOTAL DISTANCE	1100	1150	1205	1265
NOTE: 1. Reduce total landing distance 10% for each 5 knots of head wind.				

7.1.5. AA5 TRAVELER - STALL SPEED DATA

STALL SPEEDS - MPH CAS				
CONDITION	BANK ANGLE			
	0 °	20 °	40 °	60 °
FLAPS UP	62	64	71	88
FLAPS DOWN	58	60	66	82
2200 LBS. GROSS WEIGHT - POWER OFF - AFT CG LOADING				

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7.2.AA-5A CHEETAH

7.2.1. AA-5A CHEETAH - TAKE OFF DATA

WEIGHT LBS.	TAKEOFF SPEED		PRESS. ALT. FT.	0°C (32°F)		10 C (50 F)		20°C (68 F)		30°C (86 F)		40°C (104°F)	
	LIFT OFF	CLEAR 50 FT.		GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.
2200	56 (64')	63 (73)	S.L.	754	1374	836	1522	925	1681	1020	1850	1120	2029
			2000	897	1625	996	1801	1101	1988	1214	2188	1334	2400
			4000	1071	1927	1189	2135	1315	2358	1449	2595	1592	2847
			6000	1282	2290	1423	2538	1573	2803	1734	3084	1905	3384
			8000	1538	2730	1707	3025	1888	3340	2080	3676	2286	4033
2000	53 (61')	60 (69)	S.L.	600	1102	665	1221	736	1349	811	1484	891	1628
			2000	714	1304	792	1445	876	1595	966	1755	1061	1926
			4000	852	1546	946	1713	1046	1891	1153	2082	1267	2284
			6000	1020	1838	1132	2036	1252	2248	1379	2474	1516	2715
			8000	1223	2190	1358	2427	1502	2679	1655	2949	1818	3235
1800	50 (58)	57 (66)	S.L.	466	864	517	958	572	1057	630	1164	692	1277
			2000	554	1022	615	1133	680	1251	750	1376	824	1510
			4000	662	1212	724	1343	812	1483	895	1632	984	1790
			6000	792	1441	879	1596	972	1763	1071	1940	1177	2128
			8000	950	1717	1054	1902	1166	2100	1285	2311	1412	2536

7.2.2. AA-5A CHEETAH - CLIMB DATA

WEIGHT LBS.	PRESSURE ALTITUDE FT.	CLIMB SPEED		RATE-OF-CLIMB IN FT. PER MIN.			
		KIAS	MPH	-20°C (-4°F)	0°C (32°F)	20°C (68°F)	40°C (104°F)
2200	S.L.	79	91	883	744	629	534
	2000	78	90	784	634	527	439
	4000	77	89	646	523	424	343
	8000	76	87	527	413	322	248
	8000	75	86	409	303	219	152
	10000	74	85	290	193	117	57
2000	S.L.	77	89	1036	887	767	668
	2000	76	87	909	771	659	568
	4000	75	86	782	654	551	468
	6000	74	85	655	538	444	368
	8000	73	84	529	421	336	268
	10000	72	83	402	305	228	168
1800	S.L.	75	86	1217	1058	931	827
	2000	74	85	1081	934	816	721
	4000	73	84	945	810	707	616
	6000	72	82	810	685	588	510
	8000	71	82	674	561	473	404
	10000	70	81	538	437	359	298

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7.2.3. AA-5A CHEETAH - CRUISE DATA

PRESSURE ALTITUDE 2000 FEET													
RPM	20°C BELOW STD. TEMP				STANDARD TEMP				20°C ABOVE STD. TEMP				
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	
	-9°C (16°F)				11°C (52°F)				31°C (88°F)				
2700	92	130	150	10.7	87	129	149	10.0	82	129	148	9.5	
2600	83	125	143	9.6	79	124	143	9.0	75	123	142	8.6	
2500	75	119	137	8.6	71	119	136	8.1	68	118	135	7.7	
2400	68	114	131	7.8	65	113	130	7.4	61	111	127	7.0	
2300	61	108	124	7.0	58	106	121	6.6	55	103	118	6.3	
2200	55	101	116	6.2	52	98	113	5.9	50	96	110	5.7	
PRESSURE ALTITUDE 3000 FEET													
	-11°C (12°F)				9°C (48°F)				29°C (84°F)				
2700	90	130	149	10.4	85	129	149	9.8	80	129	148	9.2	
2600	82	125	143	9.4	77	124	142	8.8	73	123	142	8.4	
2500	73	119	137	8.4	70	118	136	8.0	66	117	134	7.6	
2400	66	113	130	7.6	63	112	129	7.2	60	110	126	6.8	
2300	60	107	123	6.8	57	105	121	6.5	54	103	118	6.2	
2200	54	100	115	6.1	51	97	112	5.8	50	95	108	5.6	
PRESSURE ALTITUDE 4000 FEET													
	-13°C (9°F)				7°C (45°F)				27°C (81°F)				
2700	88	129	149	10.1	83	129	149	9.6	79	129	148	9.0	
2600	80	124	143	9.2	75	124	142	8.6	71	122	141	8.1	
2500	72	119	137	8.2	68	118	135	7.8	65	116	133	7.4	
2400	65	113	130	7.4	62	111	128	7.0	59	109	125	6.7	
2300	59	106	122	6.7	56	103	119	6.3	54	102	117	6.1	
2200	52	98	113	5.9	51	96	111	5.7	49	93	107	5.5	

PRESSURE ALTITUDE 5000 FEET													
RPM	20°C BELOW STD. TEMP				STANDARD TEMP				20°C ABOVE STD. TEMP				
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	
	-15°C (5°F)				5°C (41°F)				25°C (77°F)				
2700	86	130	149	9.9	81	129	148	9.3	77	128	147	8.8	
2600	78	124	142	8.9	73	123	142	8.4	70	122	140	8.0	
2500	70	119	136	8.1	67	117	135	7.6	63	115	132	7.2	
2400	64	112	129	7.3	60	110	126	6.9	57	107	123	6.5	
2300	58	105	121	6.5	55	102	118	6.2	53	100	115	6.0	
2200	52	98	113	5.9	50	95	109	5.6	48	92	105	5.5	
PRESSURE ALTITUDE 6000 FEET													
	-17°C (2°F)				3°C (38°F)				23°C (74°F)				
2700	84	129	149	9.6	79	128	148	9.1	75	128	147	8.6	
2600	76	124	142	8.7	72	123	141	8.2	68	121	139	7.8	
2500	69	118	136	7.9	65	116	134	7.4	62	114	131	7.1	
2400	62	111	128	7.1	59	109	125	6.7	56	107	123	6.4	
2300	56	105	120	6.4	54	102	117	6.1	52	99	114	5.9	
2200	51	97	112	5.8	49	94	108	5.6	48	89	103	5.4	
PRESSURE ALTITUDE 7000 FEET													
	-19°C (-2°F)				1°C (34°F)				21°C (70°F)				
2700	82	129	148	9.4	77	128	147	8.8	73	127	146	8.4	
2600	74	123	142	8.5	70	122	141	8.0	67	120	138	7.6	
2500	67	118	135	7.7	64	115	132	7.3	61	113	130	6.9	
2400	61	110	127	6.9	58	107	124	6.6	56	106	122	6.3	
2300	55	102	118	6.2	53	101	116	6.0	51	97	112	5.8	

PRESSURE ALTITUDE 8000 FEET													
RPM	20°C BELOW STD. TEMP				STANDARD TEMP				20°C ABOVE STD. TEMP				
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	
	21°C (-6°F)				-1°C (31°F)				19°C (67°F)				
2700	79	128	147	9.1	75	128	147	8.6	72	126	145	8.2	
2600	73	123	142	8.3	69	121	140	7.9	65	119	137	7.4	
2500	66	117	134	7.5	63	114	132	7.1	59	111	128	6.7	
2400	60	110	126	6.8	67	107	123	6.5	55	104	120	6.2	
2300	54	102	118	6.1	52	99	114	5.9	51	96	110	5.7	
PRESSURE ALTITUDE 9000 FEET													
	-23°C (-9°F)				-3°C (27°F)				17°C (63°F)				
2700	75	126	145	8.7	73	126	145	8.3	70	125	144	8.0	
2600	71	122	141	8.1	67	120	138	7.7	64	118	136	7.3	
2500	64	116	133	7.3	61	113	130	7.0	59	111	128	6.6	
2400	58	108	125	6.6	56	106	122	6.3	54	108	118	6.1	
2300	53	101	116	6.0	51	98	112	5.8	50	93	107	5.7	
PRESSURE ALTITUDE 10,000 FEET													
	-25°C (-13°F)				-5°C (23°F)				15°C (59°F)				
F.T.	71	123	142	8.1	69	123	142	7.9	68	123	142	7.7	
2600	70	122	140	8.0	66	119	137	7.5	62	116	134	7.1	
2500	63	115	132	7.2	60	111	128	6.8	58	107	126	6.5	
2400	57	107	123	6.5	55	105	120	6.2	53	101	116	6.0	
2300	52	100	115	5.9	51	96	110	5.7	49	91	105	5.6	
PRESSURE ALTITUDE 11,000 FEET													
	-27°C (-16°F)				-7°C (20°F)				13°C (45°F)				
F.T.	—	—	—	—	65	119	137	7.4	64	119	137	7.3	
2600	57	119	137	7.6	64	118	136	7.3	61	116	133	7.0	
2500	62	114	131	7.0	59	111	129	6.7	57	108	124	6.4	
2400	56	107	123	6.4	54	108	118	6.1	53	99	114	6.0	

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7.2.4. AA-5A CHEETAH - LANDING DATA

WEIGHT LBS	SPEED AT 50 FT.		PRESS. ALT. FT.	0°C (32°F)		10°C (50°F)		20°C (68°F)		30°C (86°F)		40°C (104°F)	
	KIAS	MPH		GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.
2200	61	70	S.L.	366	1057	375	1086	385	1114	394	1144	404	1173
			2000	385	1116	396	1148	406	1180	417	1212	428	1245
			4000	432	1183	419	1218	431	1253	443	1289	455	1325
			6000	432	1257	445	1296	458	1335	471	1375	485	1415
			8000	460	1342	474	1384	489	1428	504	1472	518	1516
2000	60	69	S.L.	342	986	351	1011	359	1037	368	1063	377	1090
			2000	360	1038	369	1067	379	1095	388	1125	398	1154
			4000	379	1098	390	1130	400	1162	411	1194	422	1227
			6000	402	1165	413	1200	425	1236	437	1272	449	1308
			8000	427	1241	440	1280	453	1319	466	1359	480	1399
1800	5P	67	S.L.	381	912	325	934	333	957	341	980	348	1004
			2000	333	959	342	984	350	1009	359	1035	367	1062
			4000	351	1012	360	1040	369	1068	379	1097	389	1126
			6000	371	1072	381	1103	391	1134	402	1166	413	1199
			8000	393	1139	405	1174	416	1209	428	1244	440	1280

7.2.5. AA-5A CHEETAH - STALL SPEED DATA

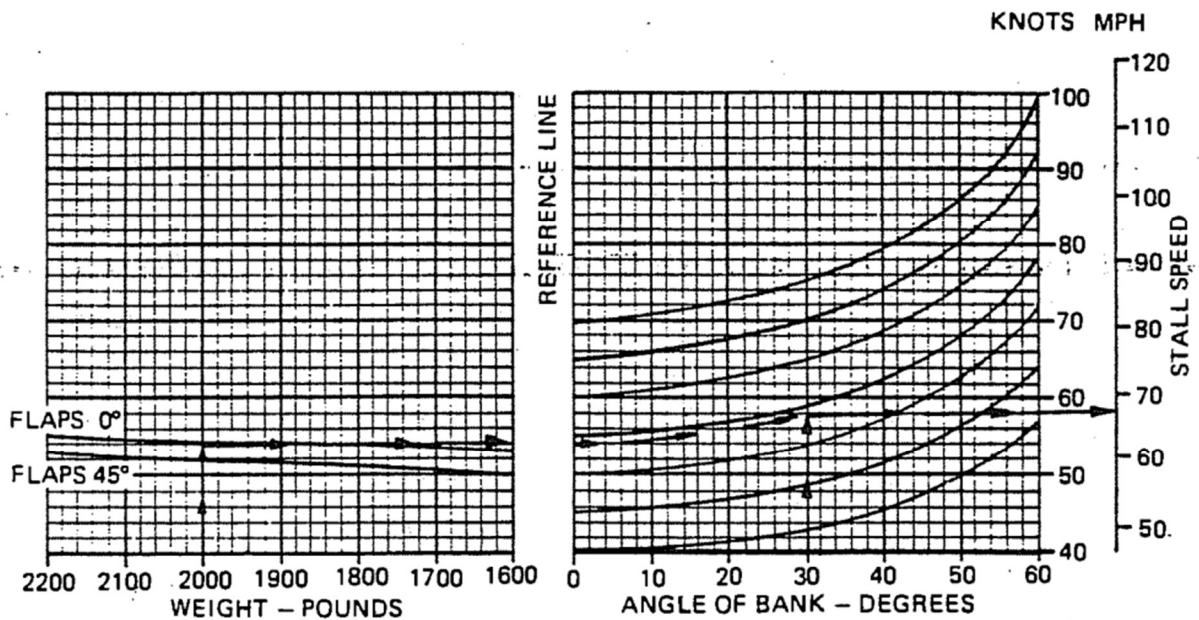


Figure 5-3. Stall Speeds

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SECTION 7 - PERFORMANCE TABLES

7.3.AA-5B TIGER

7.3.1. AA-5B TIGER - TAKE OFF DATA

WEIGHT LBS.	TAKEOFF SPEED KIAS (MPH)		PRESS. ALT. FT.	0°C (32°F)		10°C (50°F)		20°C (68°F)		30°C (86°F)		40°C (104°F)	
	LIFT OFF	CLEAR 50 FT.		GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.	GROUND ROLL	CLEAR 50 FT.
2400	57 (66)	65 (75)	S.L.	741	1331	822	1474	909	1628	1002	1792	1101	1966
			2000	882	1574	979	1744	1083	1926	1193	2120	1311	2326
			4000	1053	1867	1169	2069	1292	2284	1424	2514	1564	2758
			6000	1260	2220	1398	2460	1546	2716	1704	2989	1873	3260
			8000	1512	2646	1676	2932	1855	3237	2045	3563	2247	3909
2200	55 (63)	63 (73)	S.L.	601	1088	667	1206	738	1332	813	1465	894	1608
			2000	716	1287	795	1427	879	1575	968	1734	1064	1902
			4000	854	1527	948	1692	1049	1868	1156	2056	1270	2256
			6000	1022	1815	1135	2011	1255	2221	1383	2444	1520	2682
			8000	1277	2163	1361	2398	1506	2647	1660	2913	1823	3197
2000	52 (60)	61 (70)	S.L.	478	873	531	968	587	1068	647	1176	711	1290
			2000	570	1033	632	1145	699	1264	770	1391	846	1526
			4000	680	1225	754	1357	834	1499	920	1649	1010	1809
			6000	813	1456	903	1613	998	1782	1100	1961	1209	2151
			8000	976	1735	1083	1923	1198	2123	1320	2337	1450	2564

7.3.2. AA-5B TIGER - CLIMB DATA

WEIGHT LBS	PRESSURE ALTITUDE FT	CLIMB SPEED		RATE-OF-CLIMB IN FT. PER MIN			
		KIAS	MPH	-20°C	0°C	20°C	40°C
				(-4°F)	(32°F)	(68°F)	(104°F)
2400	S.L.	90	104	1125	950	808	690
	2000	88	101	979	816	683	574
	4000	86	99	833	682	558	457
	6000	83	96	688	547	434	340
	8000	81	93	542	413	309	224
	10000	79	90	397	278	184	108
2200	S.L.	88	101	1272	1088	938	815
	2000	86	99	1119	946	807	693
	4000	84	97	965	805	676	571
	6000	82	94	811	663	545	449
	8000	79	91	657	522	414	328
	10000	77	89	503	380	283	206
2000	S.L.	86	99	1447	1250	1091	961
	2000	84	97	1283	1100	953	833
	4000	82	94	1119	950	814	704
	6000	80	92	955	800	676	576
	8000	77	89	791	649	537	448
	10000	75	86	627	499	399	320

GRUMMAN AA-5 OPERATION HANDBOOK
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7.3.3. AA-5B TIGER - CRUISE DATA

PRESSURE ALTITUDE 2000 FEET												
RPM	20° BELOW STD. TEMP. -9°C (16°F)				STANDARD TEMP. 11°C (52°F)				20° ABOVE STD. TEMP. 31°C (88°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	96	142	163	14.4	89	141	162	13.3	88	140	161	13.1
2600	85	136	156	12.6	79	135	155	11.2	75	134	154	10.7
2500	76	130	149	10.9	71	129	148	10.4	67	128	147	10.0
2400	68	124	142	10.0	63	122	141	9.5	60	121	140	9.2
2300	60	117	135	9.2	57	115	132	8.7	54	113	131	8.4
2200	54	110	126	8.4	51	108	124	8.1	49	107	123	7.9

PRESSURE ALTITUDE 3000 FEET												
RPM	-11°C (12°F)				9°C (48°F)				29°C (84°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	93	141	163	13.9	86	141	162	12.8	81	140	161	12.0
2600	83	135	156	12.3	77	134	155	11.0	73	134	154	10.6
2500	74	129	148	10.6	70	128	148	10.2	66	127	146	9.7
2400	67	123	142	9.9	62	122	140	9.4	59	120	138	9.0
2300	59	117	134	9.0	56	115	132	8.6	53	113	130	8.3
2200	53	109	125	8.3	50	107	123	8.0	48	105	121	7.8

PRESSURE ALTITUDE 4000 FEET												
RPM	-13°C (9°F)				7°C (45°F)				27°C (81°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	90	141	162	13.4	84	140	161	12.5	78	139	160	11.1
2600	81	135	156	12.0	75	134	154	10.8	72	134	154	10.4
2500	72	129	148	10.5	68	129	148	10.0	64	127	146	9.6
2400	65	123	142	9.6	61	121	140	9.2	58	120	138	8.8
2300	58	116	134	8.9	54	114	131	8.5	52	112	129	8.2
2200	51	108	125	8.1	49	107	123	7.9	47	103	119	7.6

PRESSURE ALTITUDE 5000 FEET												
RPM	-15°C (5°F)				5°C (41°F)				25°C (77°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	87	141	162	13.0	81	140	161	12.0	77	139	160	10.9
2600	78	134	155	11.1	74	134	154	10.6	69	132	152	10.1
2500	71	129	148	10.3	66	127	146	9.7	62	125	144	9.3
2400	63	122	141	9.5	59	120	138	9.0	56	119	137	8.7
2300	56	115	132	8.7	53	113	130	8.3	51	112	129	8.1
2200	50	108	124	8.0	48	106	121	7.8	46	104	119	7.6

PRESSURE ALTITUDE 6000 FEET												
RPM	20° BELOW STD. TEMP. -17°C (2°F)				STANDARD TEMP. 3°C (38°F)				20° ABOVE STD. TEMP. 23°C (74°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	85	141	162	12.6	79	139	160	11.2	75	139	160	10.8
2600	76	134	154	10.9	72	134	154	10.4	67	132	152	9.9
2500	69	129	148	10.1	64	127	146	9.6	61	125	144	9.2
2400	61	122	140	9.3	58	120	138	8.9	55	117	135	8.5
2300	55	114	131	8.5	52	112	129	8.2	50	110	127	8.0
2200	49	107	123	7.9	47	104	119	7.6	45	102	118	7.5

PRESSURE ALTITUDE 7000 FEET												
RPM	-19°C (-2°F)				1°C (34°F)				21°C (70°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	83	140	161	12.3	77	139	160	11.0	73	138	159	10.5
2600	74	134	154	10.7	70	133	153	10.2	66	131	151	9.7
2500	67	128	147	9.9	63	126	145	9.4	59	124	143	9.0
2400	60	121	139	9.1	56	119	137	8.7	54	117	135	8.4
2300	53	113	130	8.4	51	112	129	8.1	48	108	124	7.8
2200	49	107	123	7.8	46	103	119	7.6	45	102	117	7.4

PRESSURE ALTITUDE 8000 FEET												
RPM	21°C (-6°F)				-1°C (31°F)				19°C (67°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	80	139	160	11.2	75	139	160	10.8	71	137	158	10.3
2600	72	134	154	10.5	68	132	152	10.0	64	130	150	9.5
2500	65	127	146	9.7	61	125	144	9.2	58	123	142	8.9
2400	58	120	138	8.9	55	118	136	8.6	53	117	134	8.3
2300	53	113	129	8.3	50	111	128	8.0	48	109	125	7.8
2200	48	105	121	7.8	46	103	118	7.5	45	102	117	7.4

PRESSURE ALTITUDE 9000 FEET												
RPM	-23°C (-9°F)				-3°C (27°F)				17°C (63°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	78	138	158	10.9	74	138	158	10.6	69	137	157	10.1
2600	71	134	154	10.4	66	131	151	9.8	63	130	149	9.4
2500	63	126	145	9.5	60	124	143	9.1	57	123	141	8.7
2400	57	119	137	8.8	54	117	135	8.4	52	115	132	8.2
2300	52	112	129	8.2	49	108	125	7.8	47	107	123	7.7
2200	46	103	119	7.6	45	102	117	7.4	45	101	117	7.4

PRESSURE ALTITUDE 10,000 FEET												
RPM	20° BELOW STD. TEMP. -25°C (-13°F)				STANDARD TEMP. -5°C (23°F)				20° ABOVE STD. TEMP. 15°C (59°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	72	136	156	10.5	68	136	156	10.2	67	135	155	9.9
2600	68	132	152	10.0	64	130	150	9.6	61	129	148	9.2
2500	62	125	144	9.3	58	123	142	8.9	56	123	141	8.6
2400	56	118	136	8.6	53	117	135	8.3	50	113	130	8.0
2300	51	112	129	8.1	48	108	125	7.8	47	106	122	7.7
2200	46	104	120	7.6	45	102	117	7.4	45	101	116	7.4

PRESSURE ALTITUDE 11,000 FEET												
F.T.	-27°C (-16°F)				-7°C (20°F)				13°C (45°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	70	134	154	10.2	67	134	154	9.9	65	134	154	9.7
2600	67	132	152	9.9	63	130	150	9.5	60	129	148	9.1
2500	61	125	144	9.2	57	123	141	8.8	54	120	139	8.5
2400	55	117	135	8.5	52	115	133	8.2	50	114	131	8.0
2300	50	110	126	8.0	47	107	123	7.7	47	106	122	7.6
2200	45	102	117	7.5	45	101	117	7.4	45	101	116	7.4

PRESSURE ALTITUDE 12,000 FEET												
F.T.	-29°C (-20°F)				-9°C (16°F)				11°C (52°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	67	132	152	9.8	64	132	152	9.6	62	132	152	9.4
2600	65	131	151	9.7	61	129	148	9.3	58	128	147	8.9
2500	59	124	142	9.0	56	123	141	8.7	53	118	136	8.3
2400	54	117	135	8.4	50	113	130	8.0	49	111	128	7.9
2300	48	108	124	7.8	47	106	122	7.7	47	106	122	7.6
2200	45	102	117	7.4	45	101	116	7.4	45	101	116	7.4

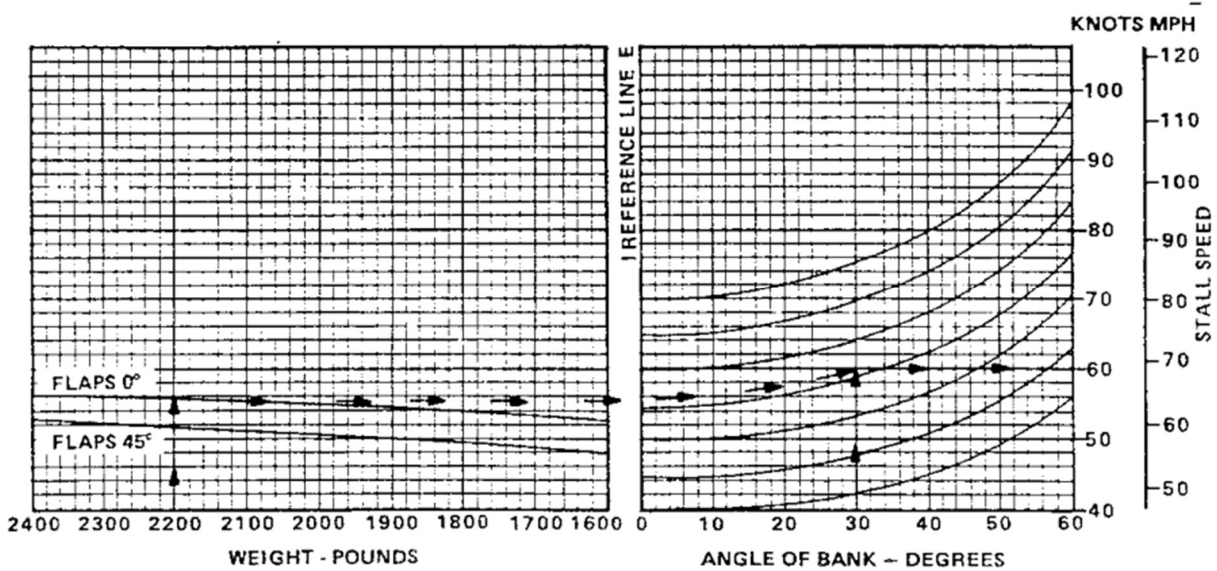
PRESSURE ALTITUDE 13,000 FEET												
F.T.	-31°C (-24°F)				-11°C (13°F)				9°C (49°F)			
	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL	%	TAS	TAS	FUEL
	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH	BHP	KTS	MPH	GPH
2700	64	130	150	8.6	62	130	150	8.3	60	130	150	8.1
2600	64	130	150	9.5	60	128	147	9.1	57	127	146	8.8
2500	58	123	142	8.9	55	121	139	8.5	52	118	136	8.2
2400	52	116	133	8.3	50	114	131	8.0	49	111	127	7.8
2300	48	109	125	7.8	47	106	122	7.6	47	106	122	7.6
2200	45	101	117	7.4	45	101	116	7.4	45	100	115	7.4

GRUMMAN AA-5 OPERATION HANDBOOK
SECTION 7 - PERFORMANCE TABLES

7.3.4. AA-5B TIGER - LANDING DATA

WEIGHT LBS	SPEED AT 50 FT.		PRESS. ALT. FT.	0°C (32°F)		10°C (50°F)		20°C (68°F)		30°C (86°F)		40°C (104°F)	
	KIAS	MPH		GROUND	CLEAR	GROUND	CLEAR	GROUND	CLEAR	GROUND	CLEAR	GROUND	CLEAR
				ROLL 50 FT.	50 FT.	ROLL 50 FT.	50 FT.	ROLL 50 FT.	50 FT.	ROLL 50 FT.	50 FT.	ROLL 50 FT.	50 FT.
2400	69	78	S.L.	395	1305	405	1342	415	1379	426	1416	437	1454
			2000	416	1381	427	1421	439	1462	451	1504	463	1546
			4000	440	1466	453	1511	466	1556	479	1602	492	1648
			6000	467	1561	481	1611	496	1661	510	1712	525	1763
			8000	498	1669	514	1723	530	1779	546	1834	562	1890
2200	67	77	S.L.	371	1220	380	1254	389	1287	399	1321	409	1356
			2000	390	1289	400	1326	411	1363	422	1401	433	1439
			4000	412	1367	423	1407	435	1449	447	1490	459	1533
			6000	437	1454	450	1499	463	1544	476	1590	489	1637
			8000	465	1551	479	1601	493	1651	508	1702	523	1753
2000	66	76	S.L.	346	1134	355	1164	363	1194	372	1224	380	1256
			2000	364	1196	373	1229	382	1262	392	1296	402	1331
			4000	383	1265	394	1302	404	1339	415	1377	426	1415
			6000	405	1394	417	1385	429	1426	441	1467	453	1509
			8000	431	1432	444	1477	456	1522	470	1568	483	1614

7.3.5. AA-5B TIGER - STALL DATA



GRUMMAN AA-5 OPERATION HANDBOOK

SECTION 8 - SUPPLEMENTS

8. SUPPLEMENTS

8.1. REAL LIFE PILOT OPERATIONS HANDBOOK

If you'd like to inspect the real-world, scanned POH's for each of the aircraft, please visit the following links:

I would also like to personally thank the people at Yankee Aviation and Jason Blair for these scans, as they were quite helpful during the development of the aircraft:

- AA-5 Traveler: <https://www.yankee-aviation.com/docs/AA5%20POH.pdf> (Yankee Aviation)
- AA-5A Cheetah: <https://www.yankee-aviation.com/docs/AA5A%20POH.pdf> (Yankee Aviation)
- AA-5B Tiger: <https://jasonblair.net/wp-content/uploads/2015/06/Grumman-AA5B-Tiger-1977-79-POH.pdf> (Jason Blair)

8.2. PAINTKIT

Inside this aircraft's installation folder, you'll find a folder named "Paintkit". This folder includes a .psd file for each of the aircraft variants, for both the wings and the fuselage. There is a layer called "Paint Here" for your convenience, but of course feel free to add extra layers as necessary.

Inside the "Paintkit" folder, you'll also find two different folders: "Panel" and "Interior". These include the different colors used in the interior fabric (brown, red, blue and beige/white) and panel (beige, black, white) in the original liveries. If you'd like to use one of these colors, add these files to your livery texture folder.

NOTE: It is necessary to rename the panel and interior texture files before they'll work - you'll need to delete the color suffix from the texture file name, or in other words, delete the upper case color from the end of name. For example, let's imagine you'd like to use a red interior with black panel:

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SECTION 8 - SUPPLEMENTS

- For the interior, copy the “AA5_int1_leather1_RED.png” , “AA5_int2_RED.png” and “AA5_int2_leather1_RED.png” from the “Paintkit/Fabric” folder into your texture folder
- Rename the texture files to “AA5_int1_leather1.png” , “AA5_int2.png” and “AA5_int2_leather1.png”

- For the panel, copy the “AA5_int3_BLACK.png” and “AA5_Panels_BLACK.png” from the “Paintkit/Panel” folder into your texture folder
- Rename the texture files to “AA5_int3.png” and “AA5_Panels.png”

The basics of how to use an image editor to create liveries and how to import them into MSFS will not be covered in this manual.