

# INFORMATION SHEET

## Cessna Model 510 Citation Mustang Electronic Pilot's Checklist

This Electronic Pilot's Checklist herein referred to as checklist, combines Normal, Abnormal and Emergency procedures. It is a reproduction of both current paper versions in Adobe® PDF format and includes hyperlinks (links) to make the checklist easier to navigate. Links are denoted by blue dashed lines. A color-coded quick-reference Table of Contents (TOC) menu is also included on the border of each page.

### CAUTION

- Before using this checklist in your airplane, refer to both cover pages and configuration code pages to make sure they match your model and applicable configuration codes.
- The Cessna-issued printed paper Pilot's Checklists 510CLEAP-07 and 510CLNP-07 and Airplane Flight Manual 510FM-07 must remain accessible to the pilot while operating this airplane.

This checklist was evaluated on May 21, 2013 for use in personal computers with Microsoft® Windows® and Apple® iPad tablet computers utilizing the GoodReader® application.

This checklist has been customized for individual airplanes having configuration codes AA, AC, AF, AH and AJ, showing only the pages that apply to these configuration codes. This checklist also includes any Temporary Changes (TC) and associated TC Lists applicable to this set of configuration codes in effect on the above date.

This checklist is provided for use only in countries that accept 510CLEAP-07 and 510CLNP-07 Model 510 Citation Mustang Normal and Emergency/Abnormal Procedures Pilot's Checklists.

The following is a list of the links in both checklists:

- From the color-coded TOC Menu on any page to any TOC (Red=Red CAS Message, Red/Amber=Emergency or Abnormal Procedures, Amber=Amber CAS messages, White= White CAS Messages and Green=Normal Procedures).
- From the cover page to the configuration code page and a return link.
- From the configuration code page to the TC List page and a return link.
- From the TC List to each individual TC and a return link.
- From each procedure title in the TOC to the page where that procedure resides, and a return link from each procedure title back to the TOC.
- From one procedure to another, as necessary and a return link, as necessary.
- From the point at which a TC changes a procedure to the applicable TC, and a return link to the main procedure, as necessary.
- To the individual Expanded Procedures from the point in the checklist where they are referenced by an asterisk and a return link (applies to Normal Procedures only).

**INSTRUCTIONS FOR USE:** From any page, click/tap the appropriate color in the TOC menu to navigate directly to the desired TOC. From the TOC, click/tap on the title of the procedure that you want to go to. If you want to return to the same page in the TOC, click/tap on the title of the procedure. In the Normal Procedures checklist, if there is an asterisk at the end of a step, click/tap on the asterisk to view expanded information about that step, and then click/tap the return link to go back to the main checklist.

Any TC applicable to this checklist is placed adjacent to the page of the procedure it modifies. From within the affected procedure, click/tap the link to view the TC. When finished with the TC, click/tap the link to return to the main procedure page. At the point where a reference is made to another procedure in the checklist, click/tap the link to view that procedure and, if needed, click/tap the return link.

# Pilots' Abbreviated Checklist

Model 510

# CITATION MUSTANG

**NORMAL PROCEDURES  
510-0001 AND ON**



THIS CHECKLIST IS CURRENT WITH MODEL 510 CITATION MUSTANG (510-0001 AND ON) FAA APPROVED U.S. AIRPLANE FLIGHT MANUAL REVISION 7 DATED 21 NOVEMBER 2008. (PART NUMBER 510FM-07)

APPROVED BY FAA APPROVED UNDER 14 CFR PART 21 SUBPART J  
Cessna Aircraft Co.  
Delegation Option Authorization DOA-230564-CE

*Kim Haskett* DOA Administrator  
KHA

DATE OF APPROVAL 30 AUGUST 2006

*the best safety device in any aircraft is a well trained crew ....*

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WICHITA, KANSAS, USA

**30 AUGUST 2006**

510CLNP-07

REVISION 7

21 NOVEMBER 2008

For Training Purposes Only

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

NOTICE

THE PILOTS' ABBREVIATED CHECKLIST EXCLUDES NOTES AND SYSTEM DESCRIPTIONS FOUND IN THE FAA APPROVED AIRPLANE FLIGHT MANUAL; THEREFORE, IT SHOULD NOT BE USED UNTIL THE FLIGHT CREW HAS BECOME FAMILIAR WITH THE AIRPLANE, ITS SYSTEMS, AND THE FAA APPROVED AIRPLANE FLIGHT MANUAL. SHOULD ANY CONFLICT EXIST BETWEEN THE ABBREVIATED CHECKLIST AND THE CHECKLIST IN THE FAA APPROVED AIRPLANE FLIGHT MANUAL, THE FLIGHT MANUAL SHALL TAKE PRECEDENCE. ALL AIRPLANE FLIGHT MANUAL NORMAL, EMERGENCY AND ABNORMAL PROCEDURE ITEMS MUST BE ACCOMPLISHED REGARDLESS OF WHICH CHECKLIST IS USED.

LOG OF EFFECTIVE PAGES

Use this page to determine the currency and applicability of your Pilots' Abbreviated Checklist. Pages affected by the current revision are indicated by an asterisk (\*) preceding the pages listed under the Page Number column. Refer to page iv for configuration code definitions, then determine which pages are applicable to your airplane under the configuration code column.

Following is a description of the Log of Effective Pages columns:

- Page Number . . . . .Pilots' Abbreviated Checklist page number.
- Page Status . . . . . Indicates if the page has been added, revised or deleted by the current revision.
- Revision Number . . . . .Indicates the revision number.
- Configuration Code . . .Indicates page effectivity by two letter code.

REVISION NUMBER	DATE
Original	30 August 2006
Revision 1	27 October 2006
Revision 2	30 November 2006
Revision 2A	31 January 2007
Revision 3	7 February 2007
Revision 4	13 April 2007
Revision 5	02 November 2007
Revision 6	29 February 2008
Revision 7	21 November 2008

PAGE NUMBER	PAGE STATUS	REVISION NUMBER	CONFIGURATION CODE
* Title	Revised	7	AA
* ii thru iv	Revised	7	AA
* v/vi	Added	7	AA
1	Revised	6	AA
2	Original	0	AA
3	Revised	5	AA
* 4	Revised	7	AA
5	Revised	5	AA

PAGE NUMBER	PAGE STATUS	REVISION NUMBER	CONFIGURATION CODE
6	Revised	6	AA
* 7	Revised	7	AA
* 8	Revised	7	AJ
* 8.1	Added	7	AK
* 9 thru 11	Revised	7	AA
12 thru 14	Revised	5	AA
15 thru 19	Revised	6	AH
15.1 thru 19.1	Added	6	AI
20	Revised	5	AA
21 thru 25	Revised	6	AH
21.1 thru 25.1	Added	6	AI
26 thru 37	Revised	5	AA
* 38	Revised	7	AA
39	Revised	5	AA
* 40	Revised	7	AA
41 thru 47	Revised	5	AA
48	Revised	6	AF
48.1	Revised	6	AG
49 thru 56	Revised	5	AA
57 thru 58	Revised	6	AA
* 59	Revised	7	AJ
* 59.1	Added	7	AK
* 60	Revised	7	AA

## APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J

Cessna Aircraft Co.

Delegation Option Authorization DOA-230564-CE



DOA Administrator

DATE OF APPROVAL 21 NOVEMBER 2008

TOC

RED  
CASAMBER  
CASEMER  
ABNORMWHITE  
CAS

NORM

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TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
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510CLNP

**NOTE:** The accompanying (attached) FAA Approved Temporary Change page(s) may or may not be applicable to your serial aircraft. Please refer to the individual FAA Approved Temporary Change page(s) to determine applicability status for your aircraft.

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FAA Approved

U.S. Pilots' Abbreviated Checklist

Model 510 Citation Mustang

Airplanes 510-0001 and On

**THIS IS A LIST OF ALL CURRENT TEMPORARY CHANGES.**

The following list of temporary changes should be incorporated into this FAA Approved Pilots' Abbreviated Checklist until the removal instructions have been complied with.

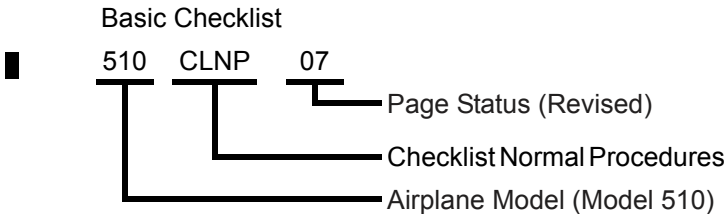
Insert this page opposite the Log of Effective Pages in the front of this FAA Approved Pilots' Abbreviated Checklist.

A bar located in the margin on the left side of the page, adjacent to the list, will extend the full length of any change. No change bars will be used in the footers or elsewhere. The date in the footer(s) reflects only the issue date of the most recent temporary change(s) listed on that page.

TEMPORARY CHANGE NUMBER	PAGE NUMBER	ISSUE DATE	SERVICE BULLETIN (IF APPLICABLE) OR SERIAL EFFECTIVITY
510CLNP TC-R07-01	9	5/29/09	Airplanes 510-0001 and On
510CLNP TC-R07-02	59 or 59.1	5/29/09	Airplanes 510-0001 and On
510CLNP TC-R07-03	40	9/25/09	Airplanes 510-0001 and On
510CLNP TC-R07-04	v/vi	10/28/09	Airplanes 510-0001 and On
510CLNP TC-R07-05	12	4/29/13	Airplanes 510-0001 and On

CHECKLIST PART NUMBER

Each page in this checklist contains the part number of the checklist and the page status of each page. Refer to the following example:



CONFIGURATION CODES

The following is a list of configuration codes which appear at the bottom of each page of the Pilots' Abbreviated Checklist and indicate page effectivity by serial number. Pages marked AA apply to all airplanes of this model. This list contains only the configurations which have been incorporated into this checklist.

Each page of the checklist is provided with a configuration code. In the event that a page is applicable to only a select number of airplanes, at least two (2) pages will be provided, one with a regular page number (e.g., 15), and one with a point page number (e.g., 15.1). The operator must then check the configuration code list in the front of the checklist to determine which page applies to his/her airplane. In some cases, multiple pages may be provided to allow for all configurations. This system allows for a "custom" checklist for each individual aircraft and therefore eliminates material that does not apply to the operator's airplane from the checklist. The page(s) that does(do) not apply to the airplane must be discarded. From each grouping, identify and record the configuration code that applies to your airplane, then select and insert the correct pages into this checklist.

CONFIGURATION CODE	EFFECTIVITY BY SERIAL NUMBER	APPLICABLE CODES
AA	Airplanes 510-0001 and On.	AA
AF	Airplanes 510-0041 and On (Airplanes with Multi-Function Change and Cabin Altitude Module Improvement)	AF
AG	Airplanes 510-0001 thru -0040 (Airplanes without Multi-Function Change and Cabin Altitude Module Improvement)	
AH	Airplanes 510-0001 thru -0065 incorporating SB510-34-02 (Garmin G1000 2008 Q1 Software/Hardware update) and Airplanes 510-0066 and On.	AH
AI	Airplanes 510-0001 thru -0065 not incorporating SB510-34-02 (Garmin G1000 2008 Q1 Software/Hardware Update)	

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## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist Normal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-12 and reflects the following change to the AFM, Section I, Introduction, change the serial effectivity for a configuration set.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist, Normal Procedures, adjacent to page v/vi.



Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist Normal Procedures.

In the Normal Procedures checklist, page v/vi, Configuration Codes, change the serial effectivity of configuration codes AJ and AK as follows:

CONFIGURATION CODE	EFFECTIVITY BY SERIAL NUMBER	APPLICABLE CODES
AJ	Airplanes 510-0001 thru -0177 incorporating SB510-34-09 and Airplanes 510-0178 and On.	<b>AJ</b>
AK	Airplanes 510-0001 thru -0177 not incorporating SB510-34-09.	

APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE

  
Kim A. Hackett ODA Administrator  


DATE OF APPROVAL OCTOBER 28, 2009



**CONFIGURATION CODES** (Continued)

CONFIGURATION CODE	EFFECTIVITY BY SERIAL NUMBER	APPLICABLE CODES
AJ	Airplanes 510-0001 thru -0152 incorporating SB510-34-09 Navigation - Garmin G1000 Software Version 010-00435-13 Upgrade and Airplanes 510-0153 and On.	
AK	Airplanes 510-0001 thru -0152 not incorporating SB510-34-09 Navigation - Garmin G1000 Software Version 010-00435-13 Upgrade.	

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RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## NORMAL PROCEDURES

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PILOT NOTES

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**PREFLIGHT INSPECTION****PRELIMINARY EXTERIOR INSPECTION**

1. Battery ----- **CONNECTED**
2. Engine Covers (4) ----- **REMOVED**
3. Pitot Covers (2) ----- **REMOVED**
4. Static Wick Covers ----- **REMOVED**
5. Ground Power Unit ----- **NOT CONNECTED**

**COCKPIT / CABIN INSPECTION**

1. Documents, Manuals, and Charts ----- **CHECK ABOARD**
  - a. To be displayed in the airplane at all times:
    - (1) Airworthiness and Registration Certificates.
    - (2) Transmitter License(s) (as required).
  - To be carried in the airplane at all times:
    - (1) FAA Approved Airplane Flight Manual.
    - (2) GARMIN G1000 Avionics Cockpit Reference Guide.
    - (3) Other applicable pilot's manuals as required in Section III, Operating Limitations or applicable AFM Supplement.
2. Required Equipment ----- **ONBOARD and SERVICED**
3. Cabin ----- **CHECK**
  - a. Emergency Exit ----- **SECURE/CLEAR/LOCK PIN  
REMOVED/COVER IN PLACE**
  - b. Passenger Seats ----- **UPRIGHT/CONDITION**
  - c. Exit Placards ----- **SECURE**
  - d. Door Entry Lights ----- **OFF**
4. Portable Fire Extinguisher ----- **SERVICED and SECURE**
5. Gust Lock ----- **REMOVE and STOW**
6. Circuit Breakers ----- **IN**
7. LANDING GEAR Handle ----- **DOWN**
8. ANTISKID Switch ----- **ON**
9. All Other Switches ----- **OFF or NORM**
10. Elevator Trim ----- **CHECK/SET**  
(trim indicator within TO trim range)
11. THROTTLES ----- **CUTOFF**
12. EMERGENCY GEAR RELEASE Handle ----- **STOWED and  
COVER INSTALLED**
13. BATTERY DISCONNECT Switch ----- **DISCONNECT**
14. BATT Switch ----- **BATT (ALL DISPLAYS OFF)**
15. BATTERY DISCONNECT Switch ----- **NORMAL/COVER DOWN**  
(PFD 1/2 and MFD powered)
16. Ground Power Unit (if desired) ----- **CONNECTED**
17. PARKING BRAKE ----- **SET**
18. Pitot-Static Switch ----- **PITOT STATIC (30 seconds); OFF**
19. LANDING Light Switch ----- **ON**  
(Check illumination; OFF, if seen from cockpit)
20. Other EXTERNAL LIGHTING Switches ----- **ON**  
(Check illumination; OFF, if seen from cockpit)

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COCKPIT / CABIN INSPECTION (Continued)

21. PAX SAFETY Switch - - - **PAX SAFETY** (Check illumination); **OFF**  
22. LANDING GEAR Position Lights - - **THREE GREEN LIGHTS / NO RED LIGHT**
23. Database/Chart Currency - - - - - **CHECK**  
24. Fuel Quantity and Balance - - - - - **CHECK**  
25. FLAP Handle - - - **AGREES WITH FLAP POSITION INDICATOR**  
26. AILERON and RUDDER TRIM - - - - - **-CHECK/SET**

EXTERIOR INSPECTION

During inspection, make a general check for security, condition, and cleanliness of the airplane and components. Check particularly for damage; fuel, oil, and hydraulic fluid leakage; security of access panels; and removal of keys from locks.

WARNING

PITOT TUBES AND STALL WARNING VANE MAY STILL BE HOT.

1.

Hot Items/Lights - - - - - **CHECK**
- a.

Left and Right Static Ports (4) - - - - - **CLEAR and WARM**
- b.

Left and Right Pitot Tubes (2) - - - - - **CLEAR and HOT**
- c.

Stall Warning Vane - - - - - **-CONDITION and HOT**
- d.

LANDING Lights - - - - - **-ON**  
(if not observed from cockpit)
- e.

BEACON Light - - - - - **ON and FLASHING**  
(if not observed from cockpit)
- f.

Right NAV and ANTI-COLLISION Lights - - - - - **-ON**  
(if not observed from cockpit)
- g.

Left WING INSP, NAV and ANTI-COLLISION Lights - - - - **-ON**  
(if not observed from cockpit)
2.

EXTERNAL LIGHTING Switches - - - - - **-OFF**
3.

BATT Switch - - - - - **-OFF**
4.

Left Nose - - - - - **CHECK**
- a.

Static Ports (2) and Surrounding Fuselage Skin - - - - **CLEAR and NO DAMAGE**
- b.

OAT Probe Inlet and Sensors (2) - - - - - **CLEAR and NO DAMAGE**
- c.

Accumulator Bleed Valve - - - **-OPEN; BLEED DOWN; CLOSE**
- d.

Hydraulic ACCUMULATOR PRECHARGE Pressure Gauge - - **CHECK** (per placard)
- e.

HYDRAULIC RESERVOIR - - - - - **CHECK FLUID LEVEL**
- f.

Baggage Door - - - - - **-SECURE and LOCKED**
- g.

Nose Gear, Doors, Wheel, Tire, and Strut - - - - - **-CONDITION**
- h.

Overboard Vent Line - - - - - **CLEAR**

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**EXTERIOR INSPECTION** (Continued)

5. Right Nose and Fuselage Right Side ----- **CHECK**
  - a. AUX BRAKE Pneumatic Pressure Gauge ----- **CHECK**  
(per placard)
  - b. AUX GEAR Pneumatic Pressure Gauge ----- **CHECK**  
(per placard)
  - c. Nose Compartment Light ----- **OFF**
  - d. Baggage Door ----- **SECURE and LOCKED**
  - e. Oxygen Blowout Disc ----- **GREEN**
  - f. Fresh Air Inlet ----- **CLEAR**
  - g. Overboard Vent and Drain Lines ----- **CLEAR**
  - h. Stall Warning Vane ----- **ROTATES FREELY**
  - i. Static Ports (2) and Surrounding Fuselage Skin - **CLEAN and NO DAMAGE**
  - j. Landing Light ----- **CONDITION**
  - k. Top and Bottom Antennas ----- **CONDITION**
6. Right Wing ----- **CHECK**
  - a. Fuel Quick Drains (4) ----- **DRAIN and CHECK FOR CONTAMINATION**
  - b. Main Gear Door, Wheel, Tire, and Strut ----- **CONDITION**
  - c. Emergency Exit ----- **SECURE**
  - d. Wing Deice Boot ----- **CONDITION**
  - e. Stall Strip ----- **CONDITION**
  - f. Vortex Generators (8 per wing) ----- **CONDITION**
  - g. Fuel Filler Cap ----- **SECURE**
  - h. Fuel Tank Vent ----- **CLEAR**
  - i. Static Wicks ----- **CHECK** (3 installed. 1 may be missing.  
No more than 2 total missing on entire airplane)
  - j. Aileron, Flap, and Speed Brakes ----- **CONDITION**  
(Make sure flap position matches indicator.)
7. Right Engine/Nacelle ----- **CHECK**
  - a. Engine Air Inlet ----- **CLEAR**
  - b. Engine Fan Duct and Fan ----- **CHECK**  
(for bent blades, nicks and blockage of fan stators)
  - c. Engine T2 Probe ----- **CONDITION**
  - d. Pylon Precooler Inlet ----- **CLEAR**
  - e. Generator Cooling Air Inlet ----- **CLEAR**
  - f. Engine Anti-Ice Exhaust ----- **CLEAR**
  - g. Generator Cooling Air Exhaust ----- **CLEAR**
  - h. Engine Fluid Drains ----- **CLEAR**
  - i. Oil Filter Differential Pressure Indicator - - - **NOT EXTENDED**
  - j. Oil Level ----- **CHECK**
  - k. Filler Cap and Access Door ----- **SECURE**
  - l. Engine Exhaust and Bypass Duct - - **CONDITION and CLEAR**
  - m. Pylon Precooler Exhaust ----- **CLEAR**

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AMBER CAS
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TOC
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**EXTERIOR INSPECTION** (Continued)

8. Empennage/Aft Fuselage ----- **CHECK**
  - a. Ground Power Service Door ----- **SECURE**
  - b. Air Conditioning Inlet and Exhaust ----- **CLEAR**
  - c. Fairing Vent (bottom of aft fuselage on right side) --- **CLEAR**
  - d. Overboard Drains/Vents ----- **CLEAR**
  - e. FADEC STATIC PORTS (L and R) ----- **CLEAR**
  - f. Tail Strakes ----- **CONDITION**
  - g. Tailcone Air Inlets ----- **CLEAR**
  - h. Right Horizontal Stabilizer Deice Boot ----- **CONDITION**
  - i. Vertical Stabilizer Deice Boot ----- **CONDITION**
  - j. Right Horizontal Stabilizer, Elevator,  
and Trim Tab ----- **CONDITION**  
(Make sure trim tab position matches indicator.)
  - k. Rudder and Trim Tab ----- **SECURE**  
(Make sure trim tab position matches indicator.)
  - l. Static Wicks (Rudder, Both Elevators, and Tailcone) - - **CHECK**  
(10 installed. 1 may be missing from either elevator  
and 1 may be missing from Rudder or Tailcone. No  
more than 2 total missing on entire airplane)
  - m. Left Horizontal Stabilizer, Elevator, and  
Trim Tab ----- **CONDITION**  
(Make sure trim tab position matches indicator.)
  - n. Left Horizontal Stabilizer Deice Boot ----- **CONDITION**
  - o. Rudder Gust Lock ----- **DISENGAGE**
9. Left Engine/Nacelle ----- **CHECK**
  - a. Pylon Precooler Exhaust ----- **CLEAR**
  - b. Engine Exhaust and Bypass Duct - **CONDITION and CLEAR**
  - c. Oil Level ----- **CHECK**
  - d. Filler Cap and Access Door ----- **SECURE**
  - e. Engine Fluid Drains ----- **CLEAR**
  - f. Generator Cooling Air Exhaust ----- **CLEAR**
  - g. Engine Anti-Ice Exhaust ----- **CLEAR**
  - h. Generator Cooling Air Inlet ----- **CLEAR**
  - i. EngineT2 Probe ----- **CONDITION**
  - j. Engine Air Inlet ----- **CLEAR**
  - k. Engine Fan Duct and Fan ----- **CHECK**  
(for bent blades, nicks and blockage of fan stators)
  - l. Pylon Precooler Inlet ----- **CLEAR**
  - m. Oil Filter Differential Pressure Indicator --- **NOT EXTENDED**
10. Aft Compartment ----- **CHECK**
  - a. Fire Bottle Pressure Gauge ----- **CHECK** per placard
  - b. Junction Box Circuit Breakers ----- **IN**
  - c. Equipment and Junction Box Access Doors ----- **SECURE**
  - d. Aft Compartment Baggage ----- **SECURE**
  - e. Aft Compartment Light ----- **OFF**
  - f. Aft Compartment Access Door ---- **SECURE and LOCKED**

(Continued Next Page)

**EXTERIOR INSPECTION** (Continued)

11. Left Wing-----**CHECK**
  - a. Flap, Speed Brakes, Aileron, and Trim Tab ----**CONDITION**  
(Make sure flap position and trim tab matches indicators)
  - b. Static Wicks -----**CHECK** (3 installed. 1 may be missing.  
No more than 2 total missing on entire airplane)
  - c. Fuel Tank Vent ----- **CLEAR**
  - d. Fuel Filler Cap ----- **SECURE**
  - e. Wing Deice Boot-----**CONDITION**
  - f. Vortex Generators (8 per wing) -----**CONDITION**
  - g. Stall Strip -----**CONDITION**
  - h. Main Gear Door, Wheel, Tire, and Strut-----**CONDITION**
  - i. Fuel Quick Drains (4) ----- **DRAIN and CHECK FOR  
CONTAMINATION**
12. Fuselage Left Side ----- **CHECK**
  - a. Wing Inspection Light -----**CONDITION**
  - b. Landing Light -----**CONDITION**
  - c. Cabin Door Seal -----**CHECK for RIPS and TEARS**

**COCKPIT PREPARATION**

1. BATTERY DISCONNECT Switch----- **NORM/COVER DOWN**
2. INTERIOR DISCONNECT Switch -----**NORM**
3. Circuit Breakers ----- **IN**
4. STBY INST Switch ----- **BATT TEST** (5 seconds);  
**GREEN LIGHT ON**
5. STBY INST Switch ----- **STBY INST; AMBER LIGHT ON**
6. If Ground Power Unit is connected (for battery power only, skip to  
Step 7):
  - a. BATT Switch ----- **ON**
  - b. AVN PWR Switch ----- **ON**
  - c. BATTERY VOLTAGE -----**CHECK 28V**
  - d. COCKPIT/CABIN FAN Knobs -----**AS DESIRED**
  - e. AIR COND Switch -----**AS DESIRED**
7. Cockpit Switches and Controls -----**SET**
  - a. OXYGEN CONTROL VALVE -----**NORMAL**
  - b. L/R GEN Switches -----**GEN** (for battery start)  
**OFF** (for GPU start)
    - c. L/R IGNITION Switches -----**NORM**
    - d. L/R FUEL BOOST Switches -----**NORM**
    - e. FUEL TRANSFER Knob ----- **OFF**
    - f. Pilot MIC Switch ----- **HEADSET**
    - g. ICE PROTECTION Switches ----- **OFF**
    - h. LANDING GEAR Handle -----**DOWN**
    - i. ANTISKID Switch ----- **ON**
    - j. PAX SAFETY Switch----- **OFF**
    - k. EXTERNAL LIGHTING Switches ----- **AS REQUIRED**
    - l. COCKPIT/CABIN TEMP Knobs -----**AS DESIRED**
    - m. AIR SOURCE SELECT Knob----- **BOTH**
    - n. PRESS CONT Switch -----**NORM**

(Continued Next Page)



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

COCKPIT PREPARATION (Continued)

- o. CABIN DUMP Switch ----- NORM
- p. Copilot MIC Switch----- HEADSET
- q. ELT Switch ----- ARM
- r. OXYGEN SUPPLY Handle ----- PUSHED IN
- s. THROTTLES----- CUTOFF
- t. ENGINE SYNC Switch ----- NORM
- u. EMERGENCY GEAR RELEASE Handle -----STOWED
- 8. BATT Switch -----EMER;  

CHECK POWER TO EMERGENCY BUS ITEMS
- 9. BATT Switch -----BATT
- 10. STBY INST Amber Light-----OFF
- 11. PARKING BRAKE -----SET
- 12. LANDING GEAR Position Lights ----- THREE GREEN LIGHTS/  

NO RED LIGHT
- 13. Cockpit Lighting-----AS REQUIRED
- 14. AVN PWR Switch -----ON
- 15. Database/Chart Currency----- CHECK
- 16. Rotary TEST Switch-----WARNING SYSTEMS CHECK
- 17. Oxygen System----- CHECK
  - a. Oxygen Pressure ----- 1600 to 1800 PSI
  - b. L and R MIC Switches -----OXYGEN MASK
  - c. Pilot and Copilot Masks ----- TEST/100%/AUDIBLE  

IN SPEAKER/STOWED
  - d. L and R MIC Switches ----- HEADSET
  - e. Smoke Goggles (if installed) -----STOWED
- 18. Fuel Quantity and Balance ----- CHECK
- 19. Pilot, Passenger, Cargo and Fuel Weights ----- ENTER (MFD  

AUX-WEIGHT PLANNING Page)
- 20. ATIS/Clearance -----AS REQUIRED
- 21. Avionics Flight Plan (if desired) ----- ENTER
- 22. AVN PWR Switch -----ON (for GPU start)  

OFF (for battery start)
- 23. Wing/Stab Deice System (if required)----- CHECK
  - a. WING/STAB Deice Switch ----- HOLD in MANUAL
  - b. Verify WING DE-ICE and TAIL DE-ICE FAIL messages display  

after 6 seconds.
  - c. WING/STAB Deice Switch -----OFF
  - d. Pitot-Static Switch ----- RESET STALL WARN then OFF

DELAY BEFORE FLIGHT WITHOUT GPU

- 1. STBY INST Switch-----OFF
- 2. BATT Switch -----OFF

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

Trim to  
5.75 x 11  
inches

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Normal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-07 and reflects the following change to the AFM, Section III, Operating Procedures, Normal Procedures, Starting Engines Checklist, add a Caution and change a step.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist Normal Procedures adjacent to page 9.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist Normal Procedures.

In the Normal Procedures Checklist, page 9, Starting Engines procedure, add a Caution after Step 4 and change Step 5 as shown below:

## STARTING ENGINES

4. Engine Instruments. . . . . **CHECK NORMAL**  
(battery current less than 100 Amps)

### CAUTION

If the operating generator drops off-line during a cross-generator start (GEN OFF L-R), an ENG CTRL SYS L or R CAS message posts, or ITT indication is lost at any time during the start sequence, abort the start immediately by bringing the throttle to CUTOFF to reduce the possibility of a hot or hung engine start.

5. Operating Engine N<sub>2</sub> . . . . **INCREASE** to 10% above ground idle N<sub>2</sub> (for a cross-generator start)

### APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100128-CE

*Kim A. Hachert*  
Kim A. Hachert, ODA Administrator  
KAH

DATE OF APPROVAL 29 MAY 2009

**BEFORE STARTING ENGINES**

1. If delayed before flight without GPU:
  - a. STBY INST Switch ----- **STBY INST**
  - b. BATT Switch ----- **BATT**
2. Preflight Inspection ----- **COMPLETE**
3. Wheel Chocks ----- **REMOVED**
4. Cabin Door ----- **CLOSED**. Check indicators for proper door pin position, no CABIN DOOR message displayed, and handle latched.
5. Passenger Briefing ----- **COMPLETE**  
(include seat/seat belt adjustment, emergency exits, smoking, and emergency use of oxygen)
6. Seats and Seat Belts ----- **ADJUST** and **SECURE**
7. EXTERNAL LIGHTING Switches ----- **AS REQUIRED**
8. AIR COND Switch ----- **OFF**
9. COCKPIT/CABIN FAN Knobs ----- **OFF**
10. EICAS ----- **CHECK**
11. BATTERY VOLTAGE ----- **CHECK**

 BEFORE START/  
START
**STARTING ENGINES**

1. ENGINE START Button ----- **PRESS MOMENTARILY**  
(verify button illuminates)
2. THROTTLE ----- **IDLE**
3. Engine Instruments ----- **MONITOR**
  - a.  $N_1$  ----- Abort start if no  $N_1$  indication by 40%  $N_2$
  - b. ITT ----- **CHECK FOR RISE**  
Abort start if ITT rapidly approaches 830°C or shows no rise within 10 seconds. Do not exceed 830°C for more than 5 seconds, limit 862°C.
  - c. Oil Pressure ----- **STEADY INCREASE**
  - d. Engine must reach stabilized idle within 45 seconds.
  - e.  $N_2$  display digits will change from WHITE to GREEN when FADEC start sequence is completed
4. Engine Instruments ----- **CHECK NORMAL**  
(Battery Current less than 100 amps)
5. Operating Engine  $N_2$  ----- **INCREASE** to 55%  
(for a cross-generator start)
6. Other Engine ----- **START; repeat steps 1 through 4**
7. Ground Power Unit ----- **DISCONNECT** (if applicable)
8. L/R GEN Switches ----- **GEN** (if ground power was used)
9. AVN PWR Switch ----- **ON**

(Continued Next Page)

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

STARTING ENGINES (Continued)

- 
10. DC AMPS/VOLTS ----- **CHECK**
    - a. L GEN Switch ----- **OFF** (L AMP decrease,  
R AMP increase, battery voltage 28 Volts.)
    - b. L GEN Switch ----- **GEN** (L AMPS increase,  
battery voltage 28 Volts.)
    - c. R GEN Switch ----- **OFF** (R AMP decrease,  
L AMP increase, battery voltage 28 Volts.)
    - d. R GEN Switch ----- **GEN** (Check generators  
parallel and battery voltage 28 Volts.)
    - e. BATT Switch ----- **OFF** (Check L AMP  
and R AMP decrease, battery voltage 0 Volts.)
    - f. BATT Switch ----- **BATT** (Check battery voltage 28 Volts.)

BEFORE TAXI

1. COCKPIT/CABIN FAN Knobs ----- **AS DESIRED**
2. AIR COND Switch ----- **AS DESIRED**
3. COCKPIT/CABIN TEMP Knobs ----- **AS DESIRED**
4. WINDSHIELD ANTI-ICE Switches----- **AS REQUIRED** for defog
5. Avionics Glareshield Cooling Fans (3) -- **CHECK FOR AIR FLOW**
6. Air Source Select System----- **CHECK**
  - a. AIR SOURCE SELECT Knob ----- **OFF (No Inflow)**
  - b. AIR SOURCE SELECT Knob ----- **L** (Check for sound  
of inflow to cockpit)
  - c. AIR SOURCE SELECT Knob ----- **R** (Check for sound  
of inflow to cabin and cockpit)
  - d. AIR SOURCE SELECT Knob ----- **BOTH**
7. Flight Controls----- **FREE and CORRECT**
8. Flaps ----- **SET**
9. Speed Brakes ----- **CHECK and RETRACT**
  - a. Extend Speed Brakes.
  - b. Advance throttles to the CRU Detent; verify speed brakes  
retract and the SPD BRK EXTEND CAS message  
extinguishes; throttles IDLE.
10. Electric Elevator Trim ----- **CHECK and SET**  
(both pilot's and copilot's)
  - a. Push both sides of trim switch DOWN ---- verify correct trim  
wheel and pointer movement; press AP/TRIM DISC Switch --  
verify trim wheel stops moving.
  - b. Push both sides of trim switch UP ----- verify correct trim  
wheel and pointer movement; press AP/TRIM DISC Switch --
  - c. verify trim wheel stops moving.  
Verify pilot's trim switch command overrides copilot's trim  
switch command.
  - d. Set trim as required within TAKEOFF band.
11. Avionics Setup and Charts ----- **AS REQUIRED**

(Continued Next Page)

**BEFORE TAXI** (Continued)

12. Altimeters (pilot, standby and copilot) - - - - -**SET and COMPARE**  
Pilot and copilot altimeters must indicate departure field elevation within +/-50 feet and within 75 feet of each other when set to local altimeter setting.
13. Takeoff Data ( $V_1$ ,  $V_R$ ,  $V_2$ ,  $V_{ENR}$ , Takeoff Field Length, and Weight Limits for appropriate takeoff flap setting) - - - - -**SET and VERIFY**
14. Destination Field Elevation - - - - -**SET**
15. Radar - - - - -**STANDBY**
16. CAS/PFD Messages- - - - -**CHECK**

**\*\*\* CLEARED / READY FOR TAXI \*\*\***

17. PAX SAFETY Switch - - - - -**SEAT BELT**
18. EXTERNAL LIGHT Switches- - - - -**AS REQUIRED**
19. Brakes - - - - -**APPLY and HOLD**
20. PARKING BRAKE - - - - -**RELEASE**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TAXI

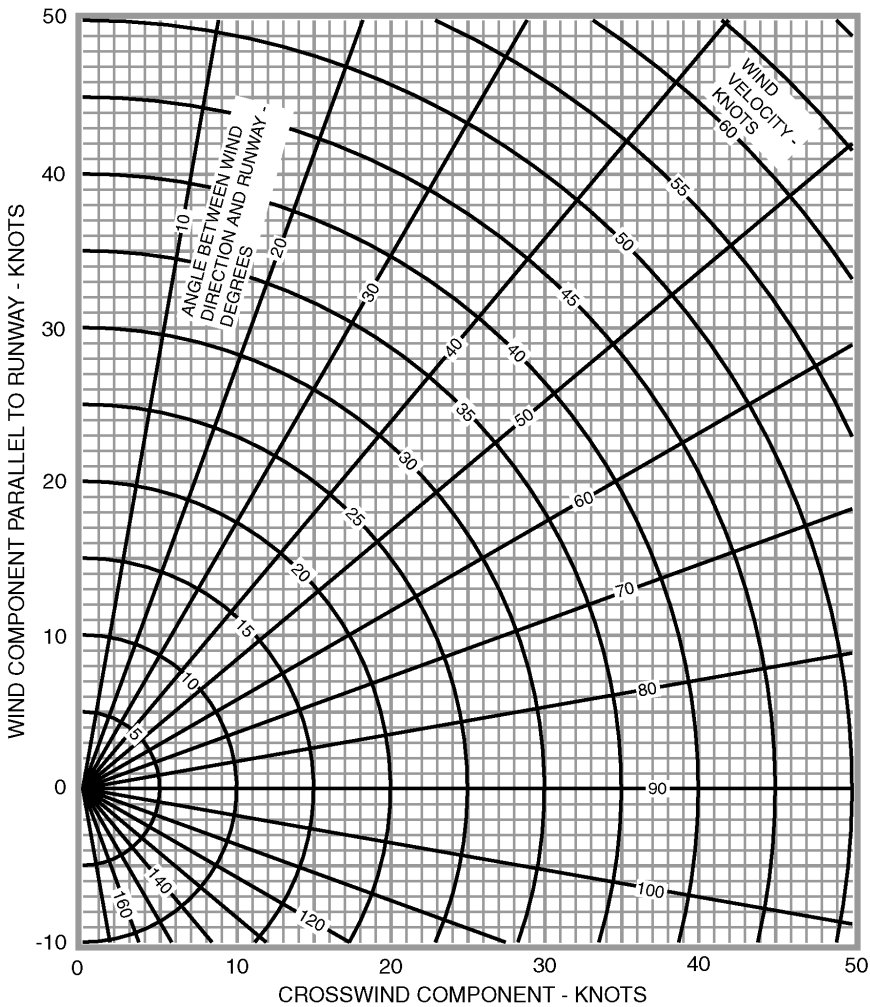
1. Brakes ----- CHECK

CAUTION

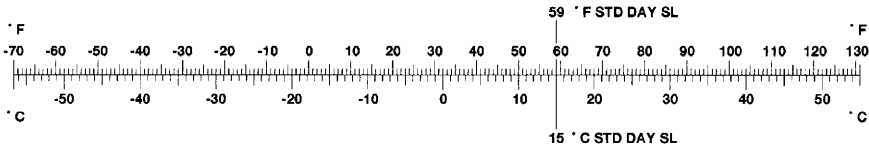
IF DURING TAXI, A NO BRAKING CONDITION IS ENCOUNTERED, OPERATE THE EMERGENCY BRAKE SYSTEM. MAINTENANCE IS REQUIRED BEFORE FLIGHT.

2. Nosewheel Steering----- CHECK
3. Flight Instruments (including standby instruments) ----- CHECK

CROSSWIND COMPONENT



TEMPERATURE CONVERSION CHART



## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-28 and reflects the following change to the AFM, Section III, Operating Procedures, Normal Procedures, TAXI, add a warning.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist adjacent to page 12.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

Trim to  
5.75 x 11  
inches



In the Normal Procedures checklist, Tab TAXI, page 12, after step 3, add a warning:

### TAXI

3. Flight Instruments (including standby instruments) - - - - -**CHECK**

### WARNING

**Takeoff with a noticeably drifting heading indicator is prohibited.**

APPROVED BY

for

John Bouma, Lead ODA Administrator  
Cessna Aircraft Company  
Organization Delegation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL

29 APRIL 2013

## PILOT NOTES

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TAXI



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

STANDARD PERFORMANCE CONDITIONS

All takeoff and landing performance in this checklist is based on a paved, dry runway.

TAKEOFF PERFORMANCE SIMPLIFIED CRITERIA

A simplified criteria is provided which is intended to cover the majority of situations where runway length is appreciably longer than required for this airplane. The other tabulated data gives more exact performance criteria through a range of conditions which include all but the most extreme cases.

The majority of takeoff situations result in field length margins that permit using a single set of values for speeds and power settings for takeoff. If the following conditions are met, the simplified procedures may be used.

1. No obstacle in flight path.
2. Throttles - - **TAKEOFF** detent (Thrust mode indicator - green TO).
3. Takeoff and approach flaps (15°).
4. Anti-Ice OFF or ON.
5. Takeoff field length available = 5,000 feet or longer.
6. No tail wind.
7. Runway Gradient-Takeoff = Zero to -2.0% (downhill).
8. Dry paved runway

The values to be used are as follows:

WEIGHT	8,645 POUNDS OR LESS	8,645 POUNDS OR LESS	8,645 POUNDS OR LESS
ALTITUDE OF AIRPORT	2000 FEET OR BELOW	4000 FEET TO 2001 FEET	6000 FEET TO 4001 FEET
AMBIENT TEMPERATURE	30°C OR LESS	20°C OR LESS	15°C OR LESS
V <sub>1</sub>	90 KIAS	90 KIAS	91 KIAS
V <sub>R</sub>	90 KIAS	90 KIAS	91 KIAS
V <sub>2</sub>	97 KIAS	97 KIAS	97 KIAS
SINGLE ENGINE CLIMB SPEED	118 KIAS	118 KIAS	118 KIAS

510FM-05-00

When conditions are other than those specified in the simplified criteria, the appropriate tabulated data must be referred to.

With a runway gradient, the zero runway gradient takeoff field length and  $V_1$  must be adjusted using the table below

### TAKEOFF FIELD LENGTH AND $V_1$ ADJUSTED FOR RUNWAY GRADIENT - FLAPS UP, ANTI-ICE OFF

TAKEOFF FIELD LENGTH (ZERO GRADIENT)	UPHILL GRADIENT FOR BOTH SHADED AND NON-SHADED				DOWNHILL GRADIENT			
					SHADED		NON-SHADED	
	2%	1.5%	1%	0.5%	-1%	-2%	-1%	-2%
1200	1500	1400	1350	1300	1200	1150	1300	1350
1400	1700	1600	1550	1500	1400	1350	1500	1550
1600	1900	1800	1750	1700	1600	1550	1700	1750
1800	2150	2050	1950	1900	1800	1750	1900	1950
2000	2400	2300	2200	2100	2000	1950	2100	2150
2200	2700	2550	2400	2300	2200	2150	2300	2350
2400	3000	2800	2650	2550	2400	2350	2500	2550
2600	3300	3050	2900	2750	2600	2550	2700	2750
2800	3650	3350	3150	3000	2800	2750	2900	2950
3000	4000	3700	3400	3200	3000	2950	3100	3150
3200	4400	4000	3700	3400	3200	3100	3300	3350
3400	5000	4400	4000	3650	3400	3300	3500	3550
3600	5900	4750	4300	3900	3600	3450	3750	3750
3800	6750	5250	4650	4150	3800	3650	3950	4000
4000	7650	5900	4950	4400	4000	3800	4150	4200
4200	8550	6350	5300	4650	4150	4000	4350	4400
4400	10400	6900	5650	4900	4350	4150	4550	4600
4600	14050	7900	6000	5150	4500	4350	4750	4800
4800	17200	8900	6350	5450	4700	4500	5000	5000
5000		9900	6950	5700	4900	4650	5200	5200
5200		11500	7550	6000	5100	4850	5400	5400
5400		14000	8100	6250	5350	5000	5600	5600
5600		16950	8850	6550	5500	5150	5800	5800
5800			10000	6900	5700	5350	5950	6000
6000			11100	7350	5850	5500	6150	6150
6200			12250	7700	6050	5700	6350	6300
6400			13700	8150	6250	5850	6500	6500
6600			15150	8600	6450	6050	6700	6700
6800				9000	6650	6200	6900	6900
7000				9450	6850	6300	7100	7050
7200				10000	7000	6450	7300	7250
7400				10500	7150	6600	7500	7450
7600				11050	7300	6750	7650	7600
7800				11750	7500	6900	7850	7800
8000				12450	7650	7050	8050	8000
8500				15500	8100	7400	8450	8300
9000					8500	7750	8800	8550
9500					8950	8100	9150	8750
10000					9400	8450	9500	8950
10500					9800	8800	9850	9150
11000					10200	9150	10200	9300
11500					10600	9500	10550	9500
12000					11000	9850	10900	9700
12500					11400	10200	11250	9850
13000					11800	10550	11600	10050
13500					12200	10900	11950	10200
14000					12600	11250	12300	10400
15000					13400	11950	13000	10800
<b><math>V_1</math> ADJUSTMENT*</b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1 - 3</math> Knots</b>	<b><math>V_1 - 5</math> Knots</b>	<b><math>V_1 + 1</math> Knot</b>	<b><math>V_1 + 1</math> Knot</b>

\* If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**TAKEOFF FIELD LENGTH - FEET**

**FLAPS - UP**

**BLEED AIR - ON**

**ANTI-ICE - OFF**

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
50		86	86	94	2920	90	90	98	3500	95	95	102	4130
45		85	85	95	2700	89	89	98	3090	94	94	101	3650
40		86	88	99	2700	88	89	98	2850	92	93	101	3260
35		87	91	102	2700	89	91	102	2840	91	92	101	3000
30		89	94	106	2710	91	94	105	2830	92	94	105	2980
25		89	95	108	2700	91	95	107	2810	92	95	106	2960
20		89	95	108	2660	91	95	107	2780	93	95	106	2910
15		89	95	108	2620	91	95	107	2730	93	95	106	2860
10		89	95	108	2580	91	95	107	2690	93	95	106	2820
5		89	95	108	2540	91	95	107	2650	93	95	106	2780
0		89	95	108	2500	91	95	107	2610	93	95	106	2730
-5		89	95	108	2470	91	95	107	2570	93	95	106	2690
-10		89	95	108	2430	91	95	107	2530	93	95	106	2650
-15		89	95	108	2390	91	95	107	2490	93	95	106	2600
-20		89	95	107	2350	91	95	107	2450	93	95	106	2560
-25		89	95	107	2310	91	95	107	2410	93	95	106	2520
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		85	85	94	2880	90	90	98	3440	94	94	102	4090
40		85	86	96	2760	89	89	98	3060	93	93	101	3600
35		86	89	99	2750	88	89	99	2900	92	92	101	3280
30		88	92	103	2750	89	92	102	2890	91	92	102	3050
25		89	94	106	2760	91	94	106	2890	92	94	105	3040
20		89	95	108	2740	91	95	107	2860	92	95	106	3010
15		89	95	108	2700	91	95	107	2820	92	95	106	2960
10		89	95	108	2660	91	95	107	2780	93	95	106	2910
5		89	95	108	2620	91	95	107	2740	93	95	106	2860
0		89	95	108	2580	91	95	107	2690	93	95	106	2820
-5		89	95	108	2540	91	95	107	2650	93	95	106	2770
-10		89	95	108	2500	91	95	107	2610	93	95	106	2730
-15		89	95	108	2460	91	95	107	2570	93	95	106	2690
-20		89	95	108	2420	91	95	107	2530	93	95	106	2640
-25		89	95	108	2380	91	95	107	2490	93	95	106	2600
-30		89	95	108	2340	91	95	107	2440	93	95	106	2560
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		86	86	94	3200	91	91	98	3850	96	96	102	4460
40		85	85	94	2870	90	90	98	3400	94	94	101	4040
35		85	87	96	2810	88	89	98	3080	93	93	101	3610
30		86	89	100	2800	88	89	99	2950	92	92	101	3310
25		88	92	103	2810	89	92	103	2940	91	92	102	3110
20		89	95	107	2820	91	95	106	2940	92	95	106	3110
15		89	95	108	2790	91	95	107	2910	92	95	106	3060
10		89	95	108	2750	91	95	107	2870	92	95	106	3020
5		89	95	108	2710	91	95	107	2820	92	95	106	2970
0		89	95	108	2660	91	95	107	2780	93	95	106	2920
-5		89	95	108	2620	91	95	107	2740	93	95	106	2870
-10		89	95	108	2580	91	95	107	2690	93	95	106	2810
-15		89	95	108	2540	91	95	107	2650	93	95	106	2770
-20		89	95	108	2500	91	95	107	2610	93	95	106	2730
-25		89	95	108	2460	91	95	107	2570	93	95	106	2680
-30		89	95	108	2410	91	95	107	2520	93	95	106	2630
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - UP**

BLEED AIR - ON

ANTI-ICE - OFF

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
50		101	101	105	4670	106	106	108	5530	--	--	--	--
45		98	98	105	4260	103	103	108	4850	109	110	113	5880
40		97	97	105	3790	101	101	108	4390	106	108	113	5260
35		95	96	105	3460	99	100	108	3990	104	105	113	4790
30		93	95	105	3200	98	99	108	3660	103	104	112	4370
25		94	95	106	3120	97	99	108	3500	102	104	112	4170
20		94	95	106	3070	97	99	108	3450	102	104	112	4100
15		94	95	106	3020	97	99	108	3390	102	104	112	4030
10		94	95	105	2970	97	99	108	3340	103	104	112	3960
5		94	95	105	2920	98	99	108	3280	103	104	112	3890
0		94	95	105	2870	98	99	108	3220	103	104	112	3820
-5		94	95	105	2820	98	99	108	3170	103	104	112	3750
-10		94	95	105	2770	98	99	108	3110	103	104	112	3680
-15		94	95	105	2730	98	99	108	3060	103	104	112	3610
-20		94	95	105	2680	98	98	108	3000	103	104	112	3550
-25		95	95	105	2630	98	98	108	2950	104	104	112	3490
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		100	100	105	4630	105	105	108	5470	111	111	113	6480
40		97	97	105	4230	102	103	108	4840	109	109	113	5830
35		96	97	105	3800	101	101	108	4400	106	107	113	5270
30		95	96	105	3490	99	100	108	4030	104	105	113	4840
25		93	95	105	3230	97	99	108	3710	102	104	112	4430
20		93	95	106	3170	97	99	108	3570	102	104	112	4250
15		93	95	106	3120	97	99	108	3510	102	104	112	4170
10		94	95	106	3070	97	99	108	3450	102	104	112	4100
5		94	95	106	3020	97	99	108	3390	102	104	112	4030
0		94	95	106	2970	97	99	108	3330	103	104	112	3960
-5		94	95	106	2920	98	99	108	3270	103	104	112	3880
-10		94	95	106	2870	98	99	108	3220	103	104	112	3810
-15		94	95	106	2820	98	99	108	3160	103	104	112	3740
-20		94	95	106	2770	98	99	108	3100	103	104	112	3670
-25		94	95	106	2720	98	98	108	3040	103	104	112	3600
-30		94	95	105	2670	98	98	108	2990	104	104	112	3530
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		102	102	105	5180	106	107	108	6100	--	--	--	--
40		99	99	105	4620	104	105	108	5440	110	111	113	6460
35		97	97	105	4240	102	103	108	4880	108	109	113	5860
30		96	97	105	3840	100	101	108	4450	106	107	113	5310
25		94	96	105	3530	99	100	108	4070	104	105	113	4890
20		93	95	105	3280	97	99	108	3740	102	104	112	4470
15		93	95	106	3230	97	99	108	3630	102	104	112	4320
10		93	95	106	3180	97	99	108	3570	102	104	112	4250
5		94	95	106	3130	97	99	108	3510	102	104	112	4170
0		94	95	106	3070	97	99	108	3450	102	104	112	4090
-5		94	95	106	3020	97	99	108	3390	102	104	112	4020
-10		94	95	106	2970	97	99	108	3330	103	104	112	3950
-15		94	95	106	2910	97	99	108	3260	103	104	112	3870
-20		94	95	106	2860	98	99	108	3210	103	104	112	3800
-25		94	95	106	2810	98	98	108	3150	103	104	112	3720
-30		94	95	106	2760	98	98	108	3090	103	104	112	3650
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

510CLNP-06-00

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.  
 \* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

TAKEOFF FIELD LENGTH - FEET

FLAPS - UP

BLEED AIR - ON

ANTI-ICE - OFF

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	86	86	94	3170	90	90	98	3810	96	96	102	4450
35	84	85	94	2900	90	90	98	3410	94	94	101	4040
30	85	87	97	2860	88	89	98	3110	93	93	101	3640
25	87	90	100	2850	88	90	100	3010	91	92	101	3350
20	88	92	104	2860	90	93	103	3000	91	93	103	3180
15	89	95	108	2880	91	95	107	3010	92	95	106	3170
10	89	95	108	2830	91	95	107	2960	92	95	106	3120
5	89	95	108	2790	91	95	107	2910	92	95	106	3070
0	89	95	108	2750	91	95	107	2870	92	95	106	3020
-5	89	95	108	2710	91	95	107	2820	92	95	106	2970
-10	89	95	108	2660	91	95	107	2780	93	95	106	2910
-15	89	95	108	2620	91	95	107	2740	93	95	106	2860
-20	89	95	108	2580	91	95	107	2690	93	95	106	2810
-25	89	95	108	2540	91	95	107	2640	93	95	106	2770
-30	89	95	108	2490	91	95	107	2600	93	95	106	2720
-35	89	95	108	2450	91	95	107	2560	93	95	106	2670
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	87	87	94	3550	92	92	98	4240	97	97	102	4850
35	86	86	94	3180	90	90	98	3820	95	95	102	4480
30	84	85	94	2930	89	89	98	3430	94	94	101	4060
25	85	87	97	2910	88	89	98	3140	93	93	101	3680
20	87	90	101	2910	88	90	100	3060	91	92	101	3370
15	88	93	105	2920	90	93	104	3060	91	93	103	3250
10	89	95	108	2920	91	95	107	3060	92	95	106	3230
5	89	95	108	2880	91	95	107	3010	92	95	106	3180
0	89	95	108	2840	91	95	107	2960	92	95	106	3120
-5	89	95	108	2800	91	95	107	2920	92	95	106	3070
-10	89	95	108	2750	91	95	107	2870	92	95	106	3020
-15	89	95	108	2710	91	95	107	2820	93	95	106	2960
-20	89	95	108	2660	91	95	107	2780	93	95	106	2910
-25	89	95	108	2610	91	95	107	2730	93	95	106	2860
-30	89	95	108	2570	91	95	107	2680	93	95	106	2810
-35	89	95	108	2530	91	95	107	2640	93	95	106	2760
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
35	86	86	94	3550	91	91	98	4260	97	97	102	4880
30	86	86	94	3200	90	90	98	3830	95	95	102	4510
25	84	85	94	2980	89	89	98	3450	94	94	101	4070
20	86	88	98	2970	87	88	98	3170	92	93	101	3700
15	87	91	102	2970	89	91	101	3130	90	92	101	3390
10	88	93	105	2980	90	93	104	3130	91	94	104	3310
5	89	96	108	2980	91	95	107	3120	92	96	106	3290
0	89	96	108	2930	91	96	107	3070	92	96	106	3240
-5	89	96	108	2880	91	95	107	3020	92	96	106	3180
-10	89	96	108	2840	91	95	107	2970	92	96	106	3130
-15	89	96	108	2800	91	95	107	2910	92	96	106	3070
-20	89	95	108	2750	91	95	107	2870	92	95	106	3020
-25	89	95	108	2700	91	95	107	2820	93	95	106	2960
-30	89	95	108	2650	91	95	107	2770	93	95	106	2900
-35	89	95	108	2610	91	95	107	2720	93	95	106	2850
-40	89	95	108	2560	91	95	107	2670	93	95	106	2790
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - UP**

BLEED AIR - ON

ANTI-ICE - OFF

PA		3000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40		101	101	105	5160	106	106	108	6080	--	--	--	--
35		99	99	105	4650	103	104	108	5480	110	111	113	6500
30		97	97	105	4260	102	102	108	4940	108	109	113	5900
25		96	96	105	3880	100	100	108	4490	105	107	113	5360
20		94	95	105	3560	98	100	108	4100	103	105	113	4920
15		93	95	106	3350	96	99	108	3770	101	104	112	4500
10		93	96	106	3290	97	99	108	3690	101	104	112	4410
5		93	96	106	3240	97	99	108	3630	102	104	112	4320
0		93	95	106	3180	97	99	108	3570	102	104	112	4250
-5		94	95	106	3130	97	99	108	3500	102	104	112	4170
-10		94	95	106	3070	97	99	108	3440	102	104	112	4090
-15		94	95	106	3020	97	99	108	3380	102	104	112	4010
-20		94	95	106	2960	97	99	108	3320	102	104	112	3930
-25		94	95	106	2910	97	99	108	3250	103	104	112	3850
-30		94	95	106	2850	98	98	108	3190	103	104	112	3780
-35		94	95	106	2800	98	98	108	3130	103	104	112	3700
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		4000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40		102	103	105	5810	--	--	--	--	--	--	--	--
35		100	101	105	5180	105	106	108	6120	--	--	--	--
30		99	99	105	4700	103	104	108	5520	110	111	113	6560
25		97	97	105	4280	101	102	108	4990	107	109	113	5940
20		95	96	105	3910	99	100	108	4530	105	106	113	5390
15		93	95	105	3580	98	99	108	4130	103	104	113	4940
10		93	95	106	3410	96	99	108	3840	101	104	112	4590
5		93	96	106	3350	96	99	108	3760	101	104	112	4490
0		93	96	106	3300	96	99	108	3690	101	104	112	4410
-5		93	96	106	3240	97	99	108	3630	102	104	112	4320
-10		93	96	106	3180	97	99	108	3560	102	104	112	4240
-15		94	96	106	3120	97	99	108	3500	102	104	112	4160
-20		94	95	106	3070	97	99	108	3430	102	104	112	4080
-25		94	95	106	3010	97	99	108	3370	102	104	112	4000
-30		94	95	106	2950	97	98	108	3300	102	104	112	3920
-35		94	95	106	2900	97	98	108	3240	103	104	112	3840
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		5000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
35		102	102	105	5850	107	107	108	6750	--	--	--	--
30		100	101	105	5230	105	106	108	6150	--	--	--	--
25		98	99	105	4750	102	104	108	5550	109	110	113	6600
20		97	97	105	4310	101	102	108	5030	107	108	113	5930
15		95	96	105	3930	99	100	108	4550	104	106	113	5400
10		93	95	105	3620	97	99	108	4170	102	104	112	4980
5		93	96	106	3470	96	99	108	3900	101	104	112	4660
0		93	96	106	3420	96	99	108	3830	101	104	112	4570
-5		93	96	106	3360	96	99	108	3760	101	104	112	4480
-10		93	96	106	3300	96	99	108	3690	101	104	112	4400
-15		93	96	106	3240	97	99	108	3620	102	104	112	4310
-20		93	96	106	3180	97	99	108	3550	102	104	112	4230
-25		94	96	106	3120	97	99	108	3490	102	104	112	4140
-30		94	96	106	3060	97	98	108	3420	102	104	112	4060
-35		94	96	106	3000	97	98	108	3350	102	104	112	3980
-40		94	95	106	2940	97	98	108	3280	103	104	112	3890
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

510CLNP-06-00

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

With a runway gradient, the zero runway gradient takeoff field length and  $V_1$  must be adjusted using the table below

### TAKEOFF FIELD LENGTH AND $V_1$ ADJUSTED FOR RUNWAY GRADIENT - FLAPS UP, ANTI-ICE ON

TAKEOFF FIELD LENGTH (ZERO GRADIENT)	UPHILL GRADIENT				DOWNHILL GRADIENT	
	2%	1.5%	1%	0.5%	-1%	-2%
1200	1300	1350	1300	1300	1300	1350
1400	1550	1550	1500	1500	1500	1550
1600	1800	1750	1700	1700	1700	1750
1800	2100	2000	1950	1900	1900	1950
2000	2450	2300	2200	2100	2100	2150
2200	2750	2550	2450	2300	2300	2350
2400	3100	2850	2700	2550	2500	2550
2600	3400	3150	2950	2750	2700	2750
2800	3700	3400	3200	3000	2900	2950
3000	4000	3650	3400	3200	3100	3150
3200	4350	3950	3650	3400	3300	3350
3400	4650	4200	3850	3600	3500	3550
3600	4950	4500	4100	3850	3750	3750
3800	5350	4800	4350	4050	3950	4000
4000	5650	5150	4600	4300	4150	4200
4200	6050	5500	4850	4500	4350	4400
4400	6550	5800	5150	4750	4550	4600
4600	7150	6150	5450	5000	4750	4800
4800	7700	6500	5750	5200	5000	5000
5000	8250	6850	6000	5450	5200	5200
5200	8850	7200	6300	5650	5400	5400
5400	9400	7500	6550	5900	5600	5600
5600	10000	7800	6800	6100	5800	5850
5800	10550	8100	7000	6350	6000	6000
6000	11150	8400	7250	6550	6150	6200
6200	11750	8850	7450	6800	6350	6400
6400	12300	9250	7750	7000	6550	6600
6600	12900	9700	8050	7250	6700	6750
6800	13500	10100	8350	7500	6900	6900
7000	14050	10550	8700	7750	7100	7050
7200	14650	10950	9000	8000	7300	7200
7400	15200	11400	9350	8250	7500	7350
7600		11800	9650	8500	7700	7500
7800		12250	10000	8750	7900	7650
8000		12650	10300	9000	8100	7800
8500		13650	11050	9650	8600	8200
9000		14650	11800	10250	9100	8550
9500		15650	12550	10900	9600	8950
10000			13300	11500	10100	9300
10500			14050	12150	10600	9700
11000			14800	12750	11100	10050
11500			15550	13400	11600	10450
12000				14000	12100	10800
12500				14650	12600	11200
13000				15250	13100	11550
13500					13600	11950
14000					14100	12300
15000					15100	13050
$V_1$ ADJUSTMENT*	$V_1 + 1$ Knot	$V_1 + 1$ Knot	$V_1 + 1$ Knot	$V_1$	$V_1 + 1$ Knot	$V_1 + 1$ Knot

\* If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

510CLNP-06-01

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TAKEOFF FIELD LENGTH - FEET

FLAPS - UP

BLEED AIR - ON

ANTI-ICE - ON

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	95	108	2580	91	95	107	2690	93	95	106	2820
5		89	95	107	2540	91	95	107	2650	93	95	106	2770
0		89	95	107	2500	91	95	107	2610	93	95	106	2730
-5		89	95	107	2460	91	95	107	2570	93	95	106	2690
-10		89	95	107	2430	91	95	107	2530	93	95	106	2650
-15		89	95	107	2390	91	95	107	2490	93	95	106	2600
-20		89	95	107	2350	91	95	107	2450	93	95	106	2560
-25		89	95	107	2310	91	95	107	2410	93	95	106	2520
-30		89	95	107	2270	91	95	107	2370	93	95	106	2480
-35		89	95	107	2230	91	95	107	2330	93	95	106	2430
-40		89	95	107	2190	91	95	107	2290	93	95	106	2390
-45		89	95	107	2160	91	95	106	2250	93	95	106	2350
-50		89	95	107	2120	91	95	106	2210	93	95	106	2310
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	95	108	2660	91	95	107	2780	93	95	106	2910
5		89	95	108	2620	91	95	107	2740	93	95	106	2860
0		89	95	108	2580	91	95	107	2690	93	95	106	2820
-5		89	95	108	2540	91	95	107	2650	93	95	106	2770
-10		89	95	108	2500	91	95	107	2610	93	95	106	2730
-15		89	95	108	2460	91	95	107	2570	93	95	106	2690
-20		89	95	107	2420	91	95	107	2530	93	95	106	2640
-25		89	95	107	2380	91	95	107	2490	93	95	106	2600
-30		89	95	107	2340	91	95	107	2440	93	95	106	2550
-35		89	95	107	2300	91	95	107	2400	93	95	106	2510
-40		89	95	107	2260	91	95	107	2360	93	95	106	2470
-45		89	95	107	2220	91	95	107	2320	93	95	106	2420
-50		89	95	107	2180	91	95	107	2270	93	95	106	2380
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	95	108	2750	91	95	107	2870	92	95	106	3020
5		89	95	108	2700	91	95	107	2820	92	95	106	2970
0		89	95	108	2660	91	95	107	2780	93	95	106	2920
-5		89	95	108	2620	91	95	107	2740	93	95	106	2870
-10		89	95	108	2580	91	95	107	2690	93	95	106	2810
-15		89	95	108	2540	91	95	107	2650	93	95	106	2770
-20		89	95	108	2500	91	95	107	2610	93	95	106	2730
-25		89	95	108	2460	91	95	107	2560	93	95	106	2680
-30		89	95	108	2410	91	95	107	2520	93	95	106	2630
-35		89	95	108	2370	91	95	107	2480	93	95	106	2590
-40		89	95	108	2330	91	95	107	2430	93	95	106	2540
-45		89	95	107	2290	91	95	107	2390	93	95	106	2500
-50		89	95	107	2250	91	95	107	2350	93	95	106	2450
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET**

BLEED AIR - ON

**FLAPS - UP**

ANTI-ICE - ON

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		94	95	106	2970	97	99	108	3330	103	104	112	3960
5		94	95	105	2920	98	99	108	3280	103	104	112	3890
0		94	95	105	2870	98	99	108	3230	103	104	112	3820
-5		94	95	105	2820	98	99	108	3170	103	104	112	3750
-10		94	95	105	2770	98	99	108	3120	103	104	112	3680
-15		94	95	105	2720	98	99	108	3060	103	104	112	3620
-20		94	95	105	2680	98	99	108	3010	104	104	112	3550
-25		94	95	105	2630	98	99	108	2950	104	104	112	3490
-30		95	95	105	2590	98	98	108	2900	104	104	112	3440
-35		95	95	105	2550	98	98	108	2850	104	104	112	3390
-40		95	95	105	2500	98	98	108	2810	104	104	112	3330
-45		95	95	105	2460	98	98	108	2760	104	104	112	3280
-50		95	95	105	2410	98	98	108	2720	104	104	112	3230
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		94	95	106	3070	97	99	108	3440	102	104	112	4090
5		94	95	105	3020	97	99	108	3400	102	104	112	4030
0		94	95	105	2970	97	99	108	3340	103	104	112	3960
-5		94	95	105	2920	98	99	108	3280	103	104	112	3890
-10		94	95	105	2870	98	99	108	3220	103	104	112	3820
-15		94	95	105	2820	98	99	108	3160	103	104	112	3740
-20		94	95	105	2770	98	99	108	3100	103	104	112	3670
-25		94	95	105	2720	98	99	108	3050	103	104	112	3600
-30		94	95	105	2670	98	98	108	2990	104	104	112	3530
-35		95	95	105	2620	98	98	108	2940	104	104	112	3480
-40		95	95	105	2580	98	98	108	2880	104	104	112	3420
-45		95	95	105	2530	98	98	108	2840	104	104	112	3370
-50		95	95	105	2490	98	98	108	2790	104	104	112	3310
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		93	96	106	3180	97	99	108	3570	102	104	112	4240
5		94	95	106	3130	97	99	108	3510	102	104	112	4180
0		94	95	106	3070	97	99	108	3450	102	104	112	4100
-5		94	95	106	3020	97	99	108	3390	102	104	112	4030
-10		94	95	106	2970	97	99	108	3330	103	104	112	3950
-15		94	95	106	2910	98	99	108	3270	103	104	112	3870
-20		94	95	106	2860	98	99	108	3210	103	104	112	3800
-25		94	95	106	2810	98	99	108	3150	103	104	112	3720
-30		94	95	106	2760	98	98	108	3090	103	104	112	3650
-35		94	95	106	2710	98	98	108	3030	103	104	112	3580
-40		94	95	105	2660	98	98	108	2970	104	104	112	3510
-45		95	95	105	2610	98	98	108	2910	104	104	112	3450
-50		95	95	105	2560	98	98	108	2860	104	104	112	3400
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

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**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

# TAKEOFF FIELD LENGTH - FEET

BLEED AIR - ON

FLAPS - UP

ANTI-ICE - ON

PA		3000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	96	108	2840	91	95	107	2960	92	96	106	3120
5		89	95	108	2790	91	95	107	2910	92	95	106	3070
0		89	95	108	2750	91	95	107	2870	92	95	106	3020
-5		89	95	108	2710	91	95	107	2820	92	95	106	2970
-10		89	95	108	2660	91	95	107	2780	93	95	106	2910
-15		89	95	108	2620	91	95	107	2740	93	95	106	2860
-20		89	95	108	2580	91	95	107	2690	93	95	106	2810
-25		89	95	108	2540	91	95	107	2640	93	95	106	2770
-30		89	95	108	2490	91	95	107	2600	93	95	106	2720
-35		89	95	108	2450	91	95	107	2560	93	95	106	2670
-40		89	95	108	2400	91	95	107	2510	93	95	106	2620
-45		89	95	108	2360	91	95	107	2460	93	95	106	2580
-50		89	95	108	2320	91	95	107	2420	93	95	106	2530
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		4000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	95	108	2930	91	95	107	3060	92	96	106	3230
5		89	96	108	2880	91	95	107	3020	92	96	106	3180
0		89	95	108	2840	91	95	107	2960	92	95	106	3120
-5		89	95	108	2800	91	95	107	2920	92	95	106	3070
-10		89	95	108	2750	91	95	107	2870	92	95	106	3020
-15		89	95	108	2710	91	95	107	2820	93	95	106	2970
-20		89	95	108	2660	91	95	107	2780	93	95	106	2910
-25		89	95	108	2610	91	95	107	2730	93	95	106	2860
-30		89	95	108	2570	91	95	107	2680	93	95	106	2810
-35		89	95	108	2530	91	95	107	2640	93	95	106	2760
-40		89	95	108	2480	91	95	107	2590	93	95	106	2710
-45		89	95	108	2440	91	95	107	2540	93	95	106	2660
-50		89	95	108	2390	91	95	107	2500	93	95	106	2610
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		5000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		89	94	105	2980	90	94	105	3130	91	94	104	3310
5		89	96	108	2980	91	95	107	3120	92	96	106	3290
0		89	96	108	2930	91	96	107	3070	92	96	106	3240
-5		89	96	108	2890	91	96	107	3020	92	96	106	3180
-10		89	96	108	2840	91	96	107	2970	92	96	106	3130
-15		89	96	108	2800	91	95	107	2920	92	96	106	3070
-20		89	96	108	2750	91	95	107	2870	92	96	106	3020
-25		89	95	108	2700	91	95	107	2820	93	96	106	2960
-30		89	95	108	2650	91	95	107	2770	93	95	106	2900
-35		89	95	108	2610	91	95	107	2720	93	95	106	2850
-40		89	95	108	2560	91	95	107	2670	93	95	106	2800
-45		89	95	108	2520	91	95	107	2620	93	95	106	2740
-50		89	95	108	2470	91	95	107	2580	93	95	106	2690
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - UP**

BLEED AIR - ON

ANTI-ICE - ON

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	93	96	106	3300	96	99	108	3680	101	104	112	4390
5	93	96	106	3240	97	99	108	3630	102	104	112	4320
0	93	95	106	3180	97	99	108	3570	102	104	112	4250
-5	94	95	106	3130	97	99	108	3500	102	104	112	4170
-10	94	95	106	3070	97	99	108	3440	102	104	112	4090
-15	94	95	106	3020	97	99	108	3380	102	104	112	4010
-20	94	95	106	2960	97	99	108	3320	102	104	112	3930
-25	94	95	106	2910	97	99	108	3250	103	104	112	3850
-30	94	95	106	2850	98	98	108	3190	103	104	112	3780
-35	94	95	106	2800	98	98	108	3130	103	104	112	3700
-40	94	95	106	2750	98	98	108	3070	103	104	112	3630
-45	94	95	106	2690	98	98	108	3010	103	104	112	3560
-50	95	95	106	2640	98	98	108	2950	104	104	112	3490
VENR	118				118				118			
RETURN	109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>												

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	93	96	106	3410	96	99	108	3830	--	--	--	--
5	93	96	106	3360	96	99	108	3760	101	104	112	4480
0	93	96	106	3300	96	99	108	3690	101	104	112	4400
-5	93	96	106	3240	97	99	108	3630	102	104	112	4320
-10	93	96	106	3180	97	99	108	3560	102	104	112	4240
-15	94	96	106	3120	97	99	108	3500	102	104	112	4160
-20	94	96	106	3070	97	99	108	3430	102	104	112	4070
-25	94	95	106	3010	97	99	108	3370	102	104	112	4000
-30	94	95	106	2950	97	98	108	3300	102	104	112	3910
-35	94	95	106	2900	97	98	108	3240	103	104	112	3840
-40	94	95	106	2840	98	98	108	3180	103	104	112	3760
-45	94	95	106	2780	98	98	108	3110	103	104	112	3680
-50	94	95	106	2730	98	98	108	3050	103	104	112	3600
VENR	118				118				118			
RETURN	109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>												

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	93	95	105	3610	97	99	108	4160	--	--	--	--
5	93	96	106	3480	96	99	108	3900	--	--	--	--
0	93	96	106	3420	96	99	108	3820	101	104	112	4570
-5	93	96	106	3360	96	99	108	3750	101	104	112	4480
-10	93	96	106	3300	96	99	108	3680	101	104	112	4390
-15	93	96	106	3240	97	99	108	3620	102	104	112	4310
-20	93	96	106	3180	97	99	108	3550	102	104	112	4220
-25	94	96	106	3120	97	98	108	3480	102	104	112	4140
-30	94	96	106	3060	97	98	108	3420	102	104	112	4060
-35	94	96	106	3000	97	98	108	3350	102	104	112	3970
-40	94	96	106	2940	97	98	108	3280	102	104	112	3890
-45	94	95	106	2880	98	98	108	3220	103	104	112	3810
-50	94	95	106	2820	98	98	108	3150	103	104	112	3730
VENR	118				118				118			
RETURN	109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>												

510CLNP-06-01

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

With a runway gradient, the zero runway gradient takeoff field length and  $V_1$  must be adjusted using the table below.

### TAKEOFF FIELD LENGTH AND $V_1$ ADJUSTED FOR RUNWAY GRADIENT - FLAPS 15°, ANTI-ICE OFF

TAKEOFF FIELD LENGTH (ZERO GRADIENT)	UPHILL GRADIENT				DOWNHILL GRADIENT	
	2%	1.5%	1%	0.5%	-1%	-2%
1200	1400	1350	1300	1250	1350	1300
1400	1650	1600	1550	1450	1550	1500
1600	1950	1850	1800	1700	1750	1700
1800	2300	2150	2000	1900	1950	1950
2000	2600	2400	2250	2150	2150	2150
2200	3000	2750	2550	2350	2350	2350
2400	3350	3050	2800	2600	2550	2550
2600	3850	3400	3100	2850	2750	2750
2800	4500	3850	3400	3100	2950	2950
3000	5350	4250	3700	3350	3150	3150
3200	6350	4850	4000	3600	3350	3350
3400	7650	5600	4450	3850	3550	3600
3600	9250	6500	4800	4150	3750	3800
3800	11650	7550	5250	4450	3950	4000
4000	16250	8750	5900	4700	4150	4150
4200		10100	6500	5000	4300	4300
4400		11650	7000	5300	4450	4450
4600		13500	7550	5600	4600	4600
4800		15950	8450	5950	4750	4750
5000			9550	6300	4900	4900
5200			10600	6700	5050	5050
5400			11700	7150	5200	5150
5600			13450	7550	5350	5300
5800			15750	8000	5450	5400
6000				8400	5600	5550
6200				8950	5750	5650
6400				9350	5850	5800
6600				9750	6000	5900
6800				10150	6100	6000
7000				10650	6200	6050
7200				11050	6350	6150
7400				11450	6450	6250
7600				11950	6600	6350
7800				12400	6700	6450
8000				12850	6800	6550
8500				14000	7100	6750
9000				15100	7400	6950
9500					7700	7150
10000					8000	7350
10500					8300	7550
11000					8600	7750
11500					8900	7950
12000					9200	8150
12500					9500	8350
13000					9800	8550
13500					10100	8750
14000					10400	8950
15000					11000	9350
<b><math>V_1</math> ADJUSTMENT*</b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1</math></b>	<b><math>V_1 + 1</math> Knot</b>	<b><math>V_1 + 1</math> Knot</b>

\* If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

510CLNP-05-00

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TAKEOFF FIELD LENGTH - FEET
FLAPS - 15°

BLEED AIR - ON
ANTI-ICE - OFF

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
50		74	74	81	2320	77	77	84	2790	81	81	87	3390
45		74	75	83	2220	77	77	84	2440	80	80	87	2900
40		75	78	87	2210	77	78	86	2340	80	80	87	2570
35		75	81	90	2210	78	81	90	2330	79	81	89	2450
30		78	83	94	2300	78	83	93	2320	80	83	92	2430
25		79	84	95	2360	79	84	94	2310	81	84	94	2410
20		79	84	95	2330	79	84	94	2280	81	84	94	2380
15		79	84	95	2300	79	84	94	2250	81	84	94	2340
10		79	84	95	2270	79	84	94	2220	81	84	94	2310
5		79	84	95	2240	79	84	94	2190	81	84	94	2270
0		80	84	95	2210	79	84	94	2160	81	84	94	2240
-5		80	84	95	2180	79	84	94	2130	81	84	94	2210
-10		80	84	95	2150	79	84	94	2100	81	84	94	2170
-15		80	84	95	2120	79	84	94	2070	81	84	93	2140
-20		80	84	95	2090	79	84	94	2040	81	84	93	2110
-25		80	84	95	2060	79	84	94	2010	81	84	93	2070
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		73	73	81	2280	77	77	84	2730	81	81	87	3290
40		74	76	84	2260	76	77	84	2420	80	80	87	2860
35		75	79	88	2250	77	79	87	2380	80	80	87	2570
30		76	81	91	2270	78	81	90	2370	80	81	90	2490
25		78	83	94	2370	78	83	93	2360	80	83	93	2480
20		79	84	95	2400	79	84	94	2350	81	84	94	2450
15		79	84	95	2370	79	84	94	2320	81	84	94	2410
10		79	84	95	2340	79	84	94	2290	81	84	94	2380
5		79	84	95	2310	79	84	94	2260	81	84	94	2340
0		80	84	95	2280	79	84	94	2230	81	84	94	2310
-5		80	84	95	2250	79	84	94	2190	81	84	94	2270
-10		80	84	95	2220	79	84	94	2170	81	84	94	2240
-15		80	84	95	2190	79	84	94	2130	81	84	94	2200
-20		80	84	95	2160	79	84	94	2100	81	84	94	2170
-25		80	84	95	2120	79	84	94	2070	81	84	94	2130
-30		80	84	95	2090	79	84	94	2040	81	84	94	2100
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		74	74	81	2530	78	78	84	3080	81	81	87	3770
40		74	74	82	2320	77	77	84	2690	81	81	87	3230
35		74	76	85	2300	76	77	84	2450	80	80	87	2860
30		75	79	88	2290	77	79	87	2420	79	79	87	2590
25		76	81	91	2320	78	81	90	2410	80	81	90	2540
20		78	84	94	2420	78	84	94	2410	80	84	93	2520
15		79	84	95	2440	79	84	94	2390	81	84	94	2490
10		79	84	95	2410	79	84	94	2360	81	84	94	2450
5		79	84	95	2380	79	84	94	2330	81	84	94	2410
0		79	84	95	2350	79	84	94	2290	81	84	94	2380
-5		80	84	95	2310	79	84	94	2260	81	84	94	2340
-10		80	84	95	2280	79	84	94	2230	81	84	94	2310
-15		80	84	95	2250	79	84	94	2200	81	84	94	2270
-20		80	84	95	2220	79	84	94	2170	81	84	94	2230
-25		80	84	95	2190	79	84	94	2130	81	84	94	2200
-30		80	84	95	2150	79	84	94	2100	81	84	94	2160
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		87/82				91/85				95/88			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - 15°**

BLEED AIR - ON

ANTI-ICE - OFF

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
50		85	85	90	4150	--	--	--	--	--	--	--	--
45		84	84	90	3460	87	87	93	4170	--	--	--	--
40		83	83	90	3020	86	86	93	3550	91	91	97	4440
35		83	83	90	2700	86	86	93	3130	90	90	97	3820
30		82	83	92	2550	85	85	93	2810	89	89	97	3380
25		82	84	93	2520	85	85	93	2690	89	89	97	3190
20		82	84	93	2490	85	85	93	2650	89	89	97	3150
15		82	84	93	2450	85	85	93	2610	89	89	97	3110
10		82	84	93	2420	85	85	93	2580	89	89	97	3070
5		82	84	93	2380	85	85	93	2540	89	89	97	3030
0		83	84	93	2350	85	85	93	2500	89	89	97	2990
-5		83	84	93	2310	85	85	93	2470	89	89	97	2950
-10		83	84	93	2280	85	85	93	2430	89	89	97	2910
-15		83	84	93	2240	85	85	93	2400	89	89	97	2860
-20		83	84	93	2200	85	85	93	2360	89	89	97	2820
-25		83	84	93	2170	85	85	93	2330	89	89	97	2780
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		84	84	90	3990	88	88	93	4960	--	--	--	--
40		84	84	90	3390	87	87	93	4050	91	91	97	5240
35		83	83	90	3000	86	86	93	3520	90	90	97	4370
30		82	82	90	2700	86	86	93	3130	90	90	97	3810
25		82	83	92	2600	85	85	93	2840	89	89	97	3390
20		82	84	93	2560	85	85	93	2730	89	89	97	3240
15		82	84	93	2530	85	85	93	2690	89	89	97	3200
10		82	84	93	2490	85	85	93	2650	89	89	97	3150
5		82	84	93	2450	85	85	93	2610	89	89	97	3110
0		82	84	93	2420	85	85	93	2580	89	89	97	3070
-5		82	84	93	2380	85	85	93	2540	89	89	97	3020
-10		83	84	93	2340	85	85	93	2500	89	89	97	2980
-15		83	84	93	2310	85	85	93	2460	89	89	97	2940
-20		83	84	93	2270	85	85	93	2420	89	89	97	2900
-25		83	84	93	2230	85	85	93	2390	89	89	97	2850
-30		83	84	93	2200	85	85	93	2350	89	89	97	2810
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
45		85	85	90	4710	--	--	--	--	--	--	--	--
40		84	84	90	3880	87	87	93	4760	--	--	--	--
35		84	84	90	3380	87	87	93	4030	91	91	97	5160
30		83	83	90	3010	86	86	93	3530	90	90	97	4360
25		82	82	90	2720	86	86	93	3140	90	90	97	3810
20		82	84	92	2640	85	85	93	2860	89	89	97	3390
15		82	84	93	2600	84	85	93	2780	89	89	97	3280
10		82	84	93	2570	85	85	93	2740	89	89	97	3240
5		82	84	93	2530	85	85	93	2690	89	89	97	3190
0		82	84	93	2490	85	85	93	2650	89	89	97	3150
-5		82	84	93	2450	85	85	93	2610	89	89	97	3100
-10		82	84	93	2410	85	85	93	2570	89	89	97	3060
-15		82	84	93	2380	85	85	93	2530	89	89	97	3020
-20		83	84	93	2340	85	85	93	2490	89	89	97	2970
-25		83	84	93	2300	85	85	93	2450	89	89	97	2930
-30		83	84	93	2260	85	85	93	2410	89	89	97	2880
VENR		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/91				101/94				*105/98			

510CLNP-05-01

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.



TAKEOFF FIELD LENGTH - FEET

FLAPS - 15°

BLEED AIR - ON

ANTI-ICE - OFF

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	74	74	81	2510	78	78	84	3030	81	81	87	3690
35	74	74	82	2360	77	77	84	2700	81	81	87	3230
30	74	77	85	2340	76	77	85	2490	80	80	87	2870
25	75	79	88	2340	77	79	88	2460	79	79	87	2610
20	76	82	92	2380	78	82	91	2450	80	82	90	2580
15	79	84	95	2480	79	84	94	2450	81	84	94	2570
10	79	84	95	2480	79	84	94	2430	81	84	94	2530
5	79	84	95	2450	79	84	94	2400	81	84	94	2490
0	79	84	95	2410	79	84	94	2360	81	84	94	2450
-5	79	84	95	2380	79	84	94	2330	81	84	94	2410
-10	80	84	95	2350	79	84	94	2300	81	84	94	2380
-15	80	84	95	2310	79	84	94	2260	81	84	94	2340
-20	80	84	95	2280	79	84	94	2230	81	84	94	2300
-25	80	84	95	2250	79	84	94	2200	81	84	94	2260
-30	80	84	95	2210	79	84	94	2160	81	84	94	2230
-35	80	84	95	2180	79	84	94	2130	81	84	94	2190
V <sub>ENR</sub>	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	74	74	81	2820	78	78	84	3460	82	82	87	4320
35	74	74	81	2520	78	78	84	3040	81	81	87	3690
30	74	75	83	2400	77	77	84	2710	81	81	87	3240
25	74	77	86	2390	76	77	85	2530	80	80	87	2880
20	75	80	89	2380	77	80	88	2510	79	80	88	2650
15	77	82	92	2440	78	82	92	2500	80	82	91	2630
10	79	84	95	2520	79	84	94	2490	80	84	94	2600
5	79	85	95	2520	79	84	94	2470	81	84	94	2570
0	79	84	95	2480	79	84	94	2430	81	84	94	2530
-5	79	84	95	2450	79	84	94	2400	81	84	94	2490
-10	79	84	95	2410	79	84	94	2370	81	84	94	2450
-15	80	84	95	2380	79	84	94	2330	81	84	94	2410
-20	80	84	95	2350	79	84	94	2300	81	84	94	2380
-25	80	84	95	2310	79	84	94	2260	81	84	94	2340
-30	80	84	95	2280	79	84	94	2220	81	84	94	2300
-35	80	84	95	2240	79	84	94	2190	81	84	94	2260
V <sub>ENR</sub>	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
35	74	74	81	2820	78	78	84	3450	82	82	87	4280
30	74	74	81	2520	77	77	84	3040	81	81	87	3680
25	74	75	83	2440	77	77	84	2720	81	81	87	3240
20	74	78	86	2430	76	78	86	2580	80	80	87	2880
15	75	80	90	2430	77	80	89	2560	79	80	88	2700
10	77	83	93	2490	78	83	92	2550	80	83	91	2670
5	79	84	95	2570	79	84	94	2530	80	84	94	2640
0	79	85	95	2560	79	84	94	2510	81	84	94	2610
-5	79	85	95	2520	79	84	94	2470	81	84	94	2570
-10	79	85	95	2480	79	84	94	2430	81	84	94	2530
-15	79	85	95	2450	79	84	94	2400	81	84	94	2490
-20	79	85	95	2410	79	84	94	2360	81	84	94	2450
-25	80	84	95	2380	79	84	94	2330	81	84	94	2410
-30	80	84	95	2340	79	84	94	2290	81	84	94	2370
-35	80	84	95	2310	79	84	94	2250	81	84	94	2330
-40	80	84	95	2270	79	84	94	2220	81	84	94	2290
V <sub>ENR</sub>	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	87/82				91/85				95/88			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - 15°**

BLEED AIR - ON

ANTI-ICE - OFF

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	85	85	90	4570	--	--	--	--	--	--	--	--
35	84	84	90	3870	87	87	93	4720	--	--	--	--
30	84	84	90	3400	87	87	93	4030	91	91	97	5130
25	83	83	90	3020	86	86	93	3530	90	90	97	4350
20	82	82	90	2740	86	86	93	3140	90	90	97	3800
15	82	84	93	2690	84	85	93	2880	89	89	97	3390
10	82	84	93	2650	84	85	93	2830	89	89	97	3330
5	82	84	93	2610	84	85	93	2780	89	89	97	3280
0	82	84	93	2570	85	85	93	2740	89	89	97	3230
-5	82	84	93	2530	85	85	93	2690	89	89	97	3190
-10	82	84	93	2490	85	85	93	2650	89	89	97	3140
-15	82	84	93	2450	85	85	93	2600	89	89	97	3100
-20	82	84	93	2410	85	85	93	2570	89	89	97	3050
-25	83	84	93	2370	85	85	93	2520	89	89	97	3010
-30	83	84	93	2330	85	85	93	2480	89	89	97	2960
-35	83	84	93	2290	85	85	93	2440	89	89	97	2910
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/91				101/94				*105/98			

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
40	--	--	--	--	--	--	--	--	--	--	--	--
35	85	85	90	4530	--	--	--	--	--	--	--	--
30	84	84	90	3880	87	87	93	4700	--	--	--	--
25	83	83	90	3400	87	87	93	4020	91	91	97	5090
20	83	83	90	3020	86	86	93	3520	90	90	97	4320
15	82	82	91	2760	85	86	93	3140	90	90	97	3770
10	82	84	93	2730	84	85	93	2930	89	89	97	3450
5	82	84	93	2690	84	85	93	2870	89	89	97	3380
0	82	84	93	2650	84	85	93	2830	89	89	97	3330
-5	82	84	93	2610	84	85	93	2780	89	89	97	3280
-10	82	84	93	2570	85	85	93	2730	89	89	97	3230
-15	82	84	93	2530	85	85	93	2690	89	89	97	3180
-20	82	84	93	2490	85	85	93	2640	89	89	97	3140
-25	82	84	93	2440	85	85	93	2600	89	89	97	3090
-30	82	84	93	2400	85	85	93	2560	89	89	97	3040
-35	83	84	93	2360	85	85	93	2510	89	89	97	2990
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/91				101/94				*105/98			

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
35	--	--	--	--	--	--	--	--	--	--	--	--
30	85	85	90	4490	--	--	--	--	--	--	--	--
25	84	84	90	3860	87	87	93	4660	--	--	--	--
20	83	83	90	3390	87	87	93	4000	91	91	97	5020
15	83	83	90	3010	86	86	93	3500	90	90	97	4270
10	82	83	91	2810	85	85	93	3170	90	90	97	3780
5	82	84	93	2770	84	85	93	2980	89	89	97	3510
0	82	84	93	2740	84	85	93	2920	89	89	97	3440
-5	82	84	93	2690	84	85	93	2870	89	89	97	3380
-10	82	84	93	2650	84	85	93	2820	89	89	97	3320
-15	82	84	93	2610	84	85	93	2780	89	89	97	3270
-20	82	84	93	2570	85	85	93	2730	89	89	97	3220
-25	82	84	93	2520	85	85	93	2680	89	89	97	3170
-30	82	84	93	2480	85	85	93	2630	89	89	97	3120
-35	82	84	93	2440	85	85	93	2590	89	89	97	3070
-40	82	84	93	2400	85	85	93	2550	89	89	97	3030
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/91				101/94				*105/98			

510CLNP-05-01

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

PILOT NOTES

With a runway gradient, the zero runway gradient takeoff field length and  $V_1$  must be adjusted using the table below.

### TAKEOFF FIELD LENGTH AND $V_1$ ADJUSTED FOR RUNWAY GRADIENT - FLAPS 15°, ANTI-ICE ON

TAKEOFF FIELD LENGTH (ZERO GRADIENT)	UPHILL GRADIENT				DOWNHILL GRADIENT	
	2%	1.5%	1%	0.5%	-1%	-2%
1200	1400	1400	1300	1300	1300	1300
1400	1700	1650	1550	1500	1500	1500
1600	2000	1900	1800	1700	1700	1700
1800	2300	2150	2050	1900	1900	1950
2000	2650	2450	2300	2150	2100	2150
2200	3000	2750	2550	2350	2300	2350
2400	3300	3000	2750	2600	2500	2550
2600	3650	3300	3000	2800	2700	2750
2800	4000	3600	3250	3000	2900	2950
3000	4350	3850	3500	3250	3150	3150
3200	4800	4200	3750	3450	3350	3350
3400	5250	4550	4050	3700	3550	3600
3600	5950	5000	4400	3950	3750	3800
3800	6550	5350	4700	4150	3950	4000
4000	7300	5850	5000	4450	4150	4150
4200	7900	6250	5300	4650	4300	4300
4400	8550	6600	5600	4900	4500	4450
4600	9200	7050	5900	5150	4650	4600
4800	9950	7500	6150	5350	4800	4750
5000	10700	7950	6450	5600	4950	4900
5200	11450	8400	6750	5800	5100	5050
5400	12250	8850	7050	6000	5250	5200
5600	13050	9300	7350	6250	5400	5350
5800	13950	9750	7650	6500	5550	5500
6000	14900	10200	7950	6750	5700	5650
6200	15850	10650	8250	7000	5850	5800
6400		11100	8550	7250	6000	5950
6600		11550	8900	7500	6150	6100
6800		12000	9250	7750	6300	6250
7000		12450	9600	8000	6450	6400
7200		12900	9950	8250	6600	6550
7400		13600	10300	8500	6750	6700
7600		14300	10650	8750	6900	6850
7800		15000	11000	9000	7050	7000
8000			11350	9250	7200	7150
8500			12250	9900	7600	7550
9000			13100	10500	7950	7900
9500			14000	11150	8350	8300
10000			14850	11750	8700	8650
10500			15750	12400	9100	9050
11000				13000	9450	9400
11500				13650	9850	9800
12000				14250	10200	10150
12500				14900	10600	10550
13000				15500	10950	10900
13500					11350	11300
14000					11700	11650
15000					12450	12400
$V_1$ ADJUSTMENT*	$V_1$	$V_1$	$V_1$	$V_1$	$V_1 + 1$ Knot	$V_1 + 1$ Knot

\* If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

510CLNP-05-00

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TAKEOFF FIELD LENGTH - FEET

FLAPS - 15°

BLEED AIR - ON

ANTI-ICE - ON

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		79	84	95	2280	79	84	94	2220	81	84	94	2310
5		80	84	95	2250	79	84	94	2200	81	84	93	2270
0		80	84	95	2220	79	84	94	2170	81	84	93	2240
-5		80	84	95	2190	79	84	94	2140	81	84	93	2200
-10		80	84	95	2160	79	84	94	2110	81	84	93	2170
-15		80	84	95	2130	79	84	94	2080	81	84	93	2140
-20		80	84	95	2100	79	84	94	2050	81	84	93	2100
-25		80	84	95	2070	79	84	94	2020	81	84	93	2070
-30		80	84	95	2040	79	84	94	1980	81	84	93	2040
-35		80	84	95	2010	80	84	94	1960	81	84	93	2000
-40		80	84	95	1980	80	84	94	1930	81	84	93	1970
-45		80	84	95	1950	80	84	94	1890	81	84	93	1940
-50		80	84	95	1920	80	84	94	1860	81	84	93	1900
V <sub>ENR</sub>		118				118				118			
V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		79	84	95	2350	79	84	94	2290	81	84	94	2380
5		80	84	95	2320	79	84	94	2270	81	84	94	2340
0		80	84	95	2290	79	84	94	2230	81	84	94	2310
-5		80	84	95	2250	79	84	94	2200	81	84	93	2270
-10		80	84	95	2220	79	84	94	2170	81	84	93	2240
-15		80	84	95	2190	79	84	94	2140	81	84	93	2200
-20		80	84	95	2160	79	84	94	2110	81	84	93	2170
-25		80	84	95	2130	79	84	94	2080	81	84	93	2130
-30		80	84	95	2100	79	84	94	2040	81	84	93	2100
-35		80	84	95	2070	80	84	94	2010	81	84	93	2060
-40		80	84	95	2030	80	84	94	1980	81	84	93	2030
-45		80	84	95	2000	80	84	94	1950	81	84	93	1990
-50		80	84	95	1970	80	84	94	1920	81	84	93	1960
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		6000				6500				7000			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		79	84	95	2410	79	84	94	2370	81	84	94	2450
5		80	84	95	2390	79	84	94	2340	81	84	94	2410
0		80	84	95	2360	79	84	94	2300	81	84	94	2380
-5		80	84	95	2320	79	84	94	2270	81	84	94	2340
-10		80	84	95	2290	79	84	94	2240	81	84	94	2310
-15		80	84	95	2260	79	84	94	2210	81	84	94	2270
-20		80	84	95	2230	79	84	94	2180	81	84	94	2230
-25		80	84	95	2190	79	84	94	2140	81	84	94	2200
-30		80	84	95	2160	80	84	94	2110	81	84	94	2160
-35		80	84	95	2130	80	84	94	2080	81	84	94	2130
-40		80	84	95	2100	80	84	94	2040	81	84	93	2090
-45		80	84	95	2060	80	84	94	2010	81	84	93	2050
-50		80	84	95	2030	80	84	94	1980	81	84	93	2010
V <sub>ENR</sub>		118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>		98/98				102/102				105/105			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - 15°**

BLEED AIR - ON

ANTI-ICE - ON

PA		SEA LEVEL											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		82	84	93	2420	85	85	93	2580	89	89	97	3070
5		82	84	93	2380	85	85	93	2540	89	89	97	3030
0		82	84	93	2350	85	85	93	2510	89	89	97	3000
-5		83	84	93	2310	85	85	93	2470	89	89	97	2950
-10		83	84	93	2270	85	85	93	2440	89	89	97	2910
-15		83	84	93	2240	85	85	93	2400	89	89	97	2870
-20		83	84	93	2200	85	85	93	2370	89	89	97	2830
-25		83	84	93	2170	85	85	93	2330	89	89	97	2790
-30		83	84	93	2130	85	85	93	2300	89	89	97	2750
-35		83	84	93	2100	85	85	93	2260	89	89	97	2710
-40		83	84	93	2060	85	85	93	2230	89	89	97	2660
-45		83	84	93	2030	85	85	93	2190	89	89	97	2620
-50		83	84	93	1990	85	85	93	2160	89	89	97	2590
VENR		118				118				118			
RETURN		109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

PA		1000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		82	84	93	2490	85	85	93	2650	89	89	97	3150
5		82	84	93	2450	85	85	93	2620	89	89	97	3120
0		82	84	93	2420	85	85	93	2580	89	89	97	3070
-5		82	84	93	2380	85	85	93	2540	89	89	97	3030
-10		82	84	93	2340	85	85	93	2500	89	89	97	2990
-15		83	84	93	2310	85	85	93	2470	89	89	97	2950
-20		83	84	93	2270	85	85	93	2430	89	89	97	2900
-25		83	84	93	2230	85	85	93	2400	89	89	97	2860
-30		83	84	93	2200	85	85	93	2360	89	89	97	2820
-35		83	84	93	2160	85	85	93	2320	89	89	97	2780
-40		83	84	93	2120	85	85	93	2290	89	89	97	2730
-45		83	84	93	2090	85	85	93	2250	89	89	97	2690
-50		83	84	93	2050	85	85	93	2220	89	89	97	2650
VENR		118				118				118			
RETURN		109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

PA		2000 FEET											
TEMP °C		WEIGHT - POUNDS											
		7500				8000				8645			
		V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10		82	84	93	2570	85	85	93	2730	89	89	97	3230
5		82	84	93	2530	85	85	93	2690	89	89	97	3200
0		82	84	93	2490	85	85	93	2650	89	89	97	3150
-5		82	84	93	2450	85	85	93	2610	89	89	97	3110
-10		82	84	93	2410	85	85	93	2570	89	89	97	3060
-15		82	84	93	2380	85	85	93	2530	89	89	97	3020
-20		83	84	93	2340	85	85	93	2490	89	89	97	2980
-25		83	84	93	2300	85	85	93	2450	89	89	97	2930
-30		83	84	93	2260	85	85	93	2420	89	89	97	2890
-35		83	84	93	2220	85	85	93	2380	89	89	97	2840
-40		83	84	93	2190	85	85	93	2350	89	89	97	2800
-45		83	84	93	2150	85	85	93	2310	89	89	97	2760
-50		83	84	93	2110	85	85	93	2270	89	89	97	2720
VENR		118				118				118			
RETURN		109/109				112/112				*117/117			
V <sub>APP</sub> /V <sub>REF</sub>		109/109				112/112				*117/117			

510CLNP-05-01

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

# TAKEOFF FIELD LENGTH - FEET

FLAPS - 15°

BLEED AIR - ON

ANTI-ICE - ON

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	79	85	95	2490	79	84	94	2440	81	84	94	2530
5	80	84	95	2460	79	84	94	2410	81	84	94	2490
0	80	84	95	2420	79	84	94	2380	81	84	94	2450
-5	80	84	95	2390	79	84	94	2340	81	84	94	2410
-10	80	84	95	2360	79	84	94	2310	81	84	94	2380
-15	80	84	95	2330	79	84	94	2270	81	84	94	2340
-20	80	84	95	2290	79	84	94	2240	81	84	94	2300
-25	80	84	95	2260	79	84	94	2210	81	84	94	2260
-30	80	84	95	2220	79	84	94	2170	81	84	94	2230
-35	80	84	95	2190	80	84	94	2140	81	84	94	2190
-40	80	84	95	2160	80	84	94	2100	81	84	94	2150
-45	80	84	95	2120	80	84	94	2070	81	84	94	2110
-50	80	84	95	2090	80	84	94	2030	81	84	93	2080
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/98				102/102				105/105			

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	79	84	95	2530	79	84	94	2490	81	84	94	2610
5	79	85	95	2530	79	84	94	2480	81	84	94	2570
0	80	84	95	2500	79	84	94	2450	81	84	94	2530
-5	80	84	95	2460	79	84	94	2410	81	84	94	2490
-10	80	84	95	2430	79	84	94	2380	81	84	94	2450
-15	80	84	95	2400	79	84	94	2350	81	84	94	2410
-20	80	84	95	2360	79	84	94	2310	81	84	94	2380
-25	80	84	95	2330	79	84	94	2270	81	84	94	2340
-30	80	84	95	2290	79	84	94	2240	81	84	94	2300
-35	80	84	95	2260	80	84	94	2200	81	84	94	2260
-40	80	84	95	2220	80	84	94	2170	81	84	94	2220
-45	80	84	95	2190	80	84	94	2130	81	84	94	2180
-50	80	84	95	2150	80	84	94	2100	81	84	94	2140
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/98				102/102				105/105			

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	6000				6500				7000			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	77	83	93	2500	78	83	92	2550	80	83	92	2670
5	79	84	95	2570	79	84	94	2530	80	84	94	2650
0	79	85	95	2570	79	84	94	2520	81	84	94	2610
-5	80	85	95	2530	79	84	94	2480	81	84	94	2570
-10	80	85	95	2500	79	84	94	2450	81	84	94	2530
-15	80	85	95	2460	79	84	94	2410	81	84	94	2490
-20	80	85	95	2430	79	84	94	2380	81	84	94	2450
-25	80	85	95	2390	79	84	94	2340	81	84	94	2410
-30	80	84	95	2360	79	84	94	2300	81	84	94	2370
-35	80	84	95	2320	79	84	94	2270	81	84	94	2330
-40	80	84	95	2280	79	84	94	2230	81	84	94	2290
-45	80	84	95	2240	79	84	94	2190	81	84	94	2250
-50	80	84	95	2200	80	84	94	2150	81	84	94	2200
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	98/98				102/102				105/105			

NOTE: ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

**TAKEOFF FIELD LENGTH - FEET****FLAPS - 15°**

BLEED AIR - ON

ANTI-ICE - ON

PA 3000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	82	84	93	2650	84	85	93	2820	89	89	97	3320
5	82	84	93	2610	84	85	93	2780	89	89	97	3280
0	82	84	93	2570	85	85	93	2740	89	89	97	3230
-5	82	84	93	2530	85	85	93	2690	89	89	97	3190
-10	82	84	93	2490	85	85	93	2650	89	89	97	3140
-15	82	84	93	2450	85	85	93	2610	89	89	97	3100
-20	82	84	93	2410	85	85	93	2570	89	89	97	3050
-25	82	84	93	2370	85	85	93	2520	89	89	97	3010
-30	83	84	93	2330	85	85	93	2480	89	89	97	2960
-35	83	84	93	2290	85	85	93	2440	89	89	97	2920
-40	83	84	93	2250	85	85	93	2410	89	89	97	2870
-45	83	84	93	2210	85	85	93	2370	89	89	97	2830
-50	83	84	93	2180	85	85	93	2330	89	89	97	2790
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	109/109				112/112				*117/117			

PA 4000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	82	84	93	2730	84	85	93	2930	--	--	--	--
5	82	84	93	2690	84	85	93	2870	89	89	97	3380
0	82	84	93	2650	84	85	93	2830	89	89	97	3330
-5	82	84	93	2610	84	85	93	2780	89	89	97	3280
-10	82	84	93	2570	85	85	93	2730	89	89	97	3230
-15	82	84	93	2530	85	85	93	2690	89	89	97	3180
-20	82	84	93	2490	85	85	93	2640	89	89	97	3130
-25	82	84	93	2440	85	85	93	2600	89	89	97	3090
-30	82	84	93	2400	85	85	93	2560	89	89	97	3040
-35	83	84	93	2360	85	85	93	2510	89	89	97	2990
-40	83	84	93	2320	85	85	93	2470	89	89	97	2950
-45	83	84	93	2280	85	85	93	2430	89	89	97	2900
-50	83	84	93	2240	85	85	93	2400	89	89	97	2860
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	109/109				112/112				*117/117			

PA 5000 FEET												
TEMP °C	WEIGHT - POUNDS											
	7500				8000				8645			
	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET	V <sub>1</sub>	V <sub>R</sub>	V <sub>2</sub>	FEET
10	82	83	91	2810	85	85	93	3160	--	--	--	--
5	82	84	93	2770	84	85	93	2980	--	--	--	--
0	82	84	93	2740	84	85	93	2920	89	89	97	3440
-5	82	84	93	2690	84	85	93	2870	89	89	97	3380
-10	82	84	93	2650	84	85	93	2820	89	89	97	3320
-15	82	84	93	2610	84	85	93	2770	89	89	97	3270
-20	82	84	93	2570	84	85	93	2720	89	89	97	3220
-25	82	84	93	2520	85	85	93	2680	89	89	97	3170
-30	82	84	93	2480	85	85	93	2630	89	89	97	3120
-35	82	84	93	2440	85	85	93	2590	89	89	97	3070
-40	82	84	93	2400	85	85	93	2550	89	89	97	3020
-45	83	84	93	2350	85	85	93	2500	89	89	97	2980
-50	83	84	93	2310	85	85	93	2460	89	89	97	2930
VENR	118				118				118			
RETURN V <sub>APP</sub> /V <sub>REF</sub>	109/109				112/112				*117/117			

510CLNP-05-01

**NOTE:** ALL TAKEOFF DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

BEFORE TAKEOFF

1. Anti-Ice/Deice systems (if required) ----- **CHECK**
  - a. Engine Speed at or above 70% N<sub>2</sub>.
  - b. L/R ENGINE ANTI-ICE Switches -----**-ON**
  - c. L/R ENG A/I COLD CAS message----- **DISPLAY**, then  
**EXTINGUISH** (within one minute or less)
  - d. L/R ENGINE ANTI-ICE Switches-----**-OFF**
  - e. WING/STAB Deice Switch ----- **AUTO**  
(check white SURFACE DE-ICE CAS message sequences properly)
  - f. Verify WING DE-ICE FAIL and TAIL DE-ICE FAIL messages are not displayed.
  - g. WING/STAB Deice Switch -----**-OFF**
  - h. Throttles ----- **IDLE**
  - i. Pitot-Static Switch ----- **RESET STALL WARN** then **OFF**

CAUTION

DO NOT OPERATE DEICE BOOTS WHEN AMBIENT AIR TEMPERATURE IS BELOW -30°C (-22°F).

2. STBY INST Switch---- **BATT TEST; GREEN LIGHT; STBY INST**  
(If not completed previously)
  3. Passenger Seats ----- **FULL UPRIGHT**
  4. Flaps ----- **SET FOR TAKEOFF**
  5. Trims (3)----- **SET FOR TAKEOFF**
  6. Speed Brakes ----- **RETRACTED**
  7. Transponder ----- **GND** (will auto transition to ALT at liftoff)
  8. Displays/Avionics/Navigation Systems----- **-SETUP**
  9. Crew Briefing ----- **COMPLETE**
- \*\*\* CLEARED / READY FOR TAKEOFF \*\*\***
10. Pitot-Static Switch ----- **PITOT-STATIC**

CAUTION

LIMIT GROUND OPERATION OF PITOT-STATIC HEAT TO TWO MINUTES TO PRECLUDE DAMAGE TO THE PITOT-STATIC AND STALL WARNING HEATERS.

11. ENGINE ANTI-ICE Switches-----**-AS REQUIRED**
12. WINDSHIELD ANTI-ICE Switches-----**-AS REQUIRED**
13. PAX SAFETY Switch ----- **PAX SAFETY**
14. LANDING Light Switch ----- **AS DESIRED**
15. ANTI-COLL Light Switch -----**-ON**
16. Radar ----- **AS REQUIRED**
17. EICAS ----- **CHECKED**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**TAKEOFF**

1. THROTTLES - - - - **TO Detent** (Thrust Mode Indicator - green T/O)
2. Engine Instruments - - - - - **CHECK NORMAL**  
(N<sub>1</sub> matches command bug)
3. Brakes - - - - - **RELEASE**
4. Elevator Control - - - - - **ROTATE** at V<sub>R</sub> to +10° initial pitch attitude  
(use flight director TO mode)

**AFTER TAKEOFF - CLIMB**

1. LANDING GEAR Handle- - - - - **UP**
2. FLAP Handle - - - - - **UP (V<sub>2</sub> + 12 and clear of obstacles)**
3. THROTTLES - - - - - **CLB Detent**
4. Yaw Damper - - - - - **AS DESIRED (ON Above FL300)**
5. Anti-Ice/Deice Systems- - - - - **AS REQUIRED**
6. PAX SAFETY Switch - - - - - **AS REQUIRED**
7. LANDING Light Switch - - - - - **AS REQUIRED**
8. Pressurization - - - - - **CHECK**
9. Altimeters (transition altitude) - - - **SET STD and CROSSCHECK**

**CRUISE**

1. THROTTLES - - - - - **CRU Detent or AS DESIRED**
2. Anti-Ice/Deice Systems- - - - - **AS REQUIRED**

**CAUTION**

DO NOT OPERATE DEICE BOOTS WHEN INDICATED RAT IS BELOW -30°C.

3. Pressurization - - - - - **CHECK**
4. In RVSM Airspace:
  - a. Autopilot - - - - - **ALT** Mode unless severe turbulence is encountered.
  - b. Altimeters - - - - - **CROSSCHECK** pilot and copilot altimeters at 1 hour intervals or less. Maximum allowed difference is 200 feet.

**DESCENT**

1. Pressurization - - - - - **VERIFY** destination field elevation set.
2. Anti-Ice/Deice Systems- - - - - **AS REQUIRED**
3. THROTTLES - - - - - **AS REQUIRED** for anti-ice/deice systems
4. Altimeters (transition altitude) - - - - - **SET** and **CROSSCHECK**
5. Landing Data (V<sub>APP</sub>, V<sub>REF</sub>, Landing Distance, Weight, and Factors) - - - - - **SET** and **VERIFY**
6. LANDING Light Switch - - - - - **AS REQUIRED**

 TAKEOFF/CLIMB/  
CRUISE/DESCENT

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

APPROACH

- Landing Data ----- CONFIRM
- Seats and Seat Belts ----- ADJUST and SECURE
- Avionics and Flight Instruments----- CHECK
- Minimums-----SET
- PAX SAFETY Switch -----PAX SAFETY
- Passenger Seats -----CHECK FULL UPRIGHT
- FUEL TRANSFER Knob-----OFF
- Anti-Ice/Deice Systems -----AS REQUIRED
- LANDING Light Switch-----ON
- FLAP Handle -----TO/APR
- CAS Messages ----- CHECK
- Crew Briefing ----- COMPLETE

VREF - KIAS

STALL WARNING - NORMAL

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF LAND	82	85	88	91	94	98
VAPP 15°	87	91	95	98	101	105

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

VREF - KIAS

STALL WARNING - HIGH

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF 15°	98	102	105	109	112	117
VAPP 15°	98	102	105	109	112	117

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

BEFORE LANDING

- Landing Gear ----- DOWN and LOCKED
- Speed Brakes ----- RETRACTED
- FLAP Handle ----- LAND (STALL WARNING-NORMAL only)
- Pressurization ----- CHECK ZERO DIFFERENTIAL
- Autopilot and Yaw Damper -----OFF
- Airspeed----- VREF

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
5.75 x 11  
inches

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-11 and reflects the following change to the AFM, Section III, Operating Procedures, BEFORE LANDING, add a new step 7.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist adjacent to page 40.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

In the Normal Procedures checklist, Tab APPROACH/LANDING, BEFORE LANDING, pg 40, add a new step 7:

### BEFORE LANDING

#### 7. WINDSHIELD ANTI-ICE Switches ----- AS REQUIRED

APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE  
*Chad Greene*  
Chad M. Greene Asst. ODA Administrator

DATE OF APPROVAL 25 September 2009

**LANDING**

1. THROTTLES ----- **IDLE**
2. Brakes ----- **APPLY** (after nosewheel touchdown)
3. Speed Brakes ----- **EXTEND** (after nosewheel touchdown)

**CAUTION**

IF A NO BRAKING CONDITION IS ENCOUNTERED DURING LANDING, OPERATE THE EMERGENCY BRAKE SYSTEM. MAINTENANCE IS REQUIRED BEFORE THE NEXT FLIGHT.

**ALL ENGINES GO-AROUND**

1. THROTTLES ----- **TO Detent**  
(Thrust Mode Indicator - green T/O)
2. Airplane Pitch Attitude ----- **POSITIVE ROTATION TO +8°**  
(use flight director go-around mode)
- 3. FLAP Handle ----- **TO/APR**
4. Climb Speed ----- **V<sub>APP</sub> MINIMUM**
5. LANDING GEAR Handle ----- **UP**  
(when positive rate-of-climb is established)
- 6. FLAP Handle ----- **UP**
7. THROTTLES ----- **CLB Detent**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

APPROACH/LANDING

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

LANDING DISTANCE - FEET

FLAPS - LAND

ACTUAL DISTANCE

STALL WARNING - NORMAL

PA		SEA LEVEL				
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
50	2070	2190	2330	2460	--	--
45	2050	2170	2300	2430	2580	--
40	2020	2140	2270	2400	2540	2730
35	2000	2120	2240	2370	2510	2690
30	1980	2090	2210	2340	2470	2660
25	1960	2070	2190	2310	2440	2620
20	1940	2050	2160	2280	2410	2580
15	1910	2020	2130	2250	2380	2550
10	1890	2000	2110	2220	2350	2510
5	1870	1980	2080	2190	2320	2480
0	1850	1960	2060	2170	2290	2440
-5	1830	1940	2030	2140	2250	2410
-10	1810	1910	2010	2110	2220	2380
-15	1790	1890	1990	2090	2190	2340
-20	1770	1870	1970	2060	2170	2310
-25	1750	1850	1940	2030	2140	2280

PA	1000 FEET					
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
45	2100	2220	2360	2500	2650	--
40	2070	2190	2330	2470	2610	2810
35	2050	2170	2300	2440	2580	2780
30	2030	2150	2270	2410	2550	2740
25	2000	2120	2240	2380	2510	2700
20	1980	2100	2210	2340	2480	2660
15	1960	2070	2190	2310	2440	2620
10	1940	2050	2160	2280	2410	2590
5	1920	2020	2130	2250	2380	2550
0	1900	2000	2110	2220	2350	2510
-5	1870	1980	2080	2200	2320	2480
-10	1850	1960	2060	2170	2290	2440
-15	1830	1940	2040	2140	2260	2410
-20	1810	1910	2010	2110	2220	2380
-25	1790	1890	1990	2080	2190	2340
-30	1770	1870	1970	2060	2170	2310

PA		2000 FEET				
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
45	2150	2280	2420	2570	--	--
40	2120	2250	2400	2540	2690	--
35	2100	2220	2370	2510	2660	2860
30	2080	2200	2330	2470	2620	2820
25	2050	2170	2300	2440	2590	2780
20	2030	2150	2270	2410	2550	2740
15	2000	2120	2240	2380	2510	2700
10	1980	2100	2220	2350	2480	2660
5	1960	2070	2190	2320	2450	2620
0	1940	2050	2160	2290	2410	2590
-5	1920	2030	2140	2260	2380	2550
-10	1900	2000	2110	2230	2350	2520
-15	1880	1980	2090	2200	2320	2480
-20	1850	1960	2060	2170	2290	2440
-25	1830	1940	2040	2140	2250	2410
-30	1810	1910	2010	2110	2220	2370

NOTE: ALL LANDING DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.  
\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

**LANDING DISTANCE - FEET****FLAPS - LAND**

ACTUAL DISTANCE

STALL WARNING - NORMAL

PA		3000 FEET				
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
40	2180	2310	2460	2610	--	--
35	2150	2280	2430	2580	2740	--
30	2130	2250	2400	2550	2700	2910
25	2100	2220	2370	2510	2660	2870
20	2080	2200	2340	2480	2620	2820
15	2050	2170	2310	2440	2590	2780
10	2030	2150	2280	2410	2550	2740
5	2010	2130	2250	2380	2520	2710
0	1990	2100	2220	2350	2480	2670
-5	1970	2080	2190	2320	2450	2630
-10	1940	2050	2170	2290	2420	2590
-15	1920	2030	2140	2260	2390	2550
-20	1900	2000	2110	2230	2350	2520
-25	1880	1980	2090	2200	2320	2480
-30	1850	1960	2060	2170	2280	2440
-35	1830	1940	2030	2140	2250	2400

PA		4000 FEET				
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
40	2230	2370	2530	--	--	--
35	2200	2340	2500	2660	--	--
30	2180	2310	2470	2620	2780	--
25	2160	2280	2430	2590	2740	2960
20	2130	2260	2400	2550	2700	2920
15	2110	2230	2370	2520	2660	2870
10	2080	2200	2340	2480	2630	2830
5	2060	2180	2310	2450	2590	2790
0	2030	2150	2280	2420	2560	2750
-5	2010	2130	2250	2390	2520	2710
-10	1990	2100	2220	2350	2490	2670
-15	1970	2080	2190	2320	2450	2630
-20	1950	2050	2170	2290	2420	2590
-25	1920	2030	2140	2260	2380	2550
-30	1900	2000	2110	2220	2350	2510
-35	1880	1980	2080	2190	2310	2470

PA		5000 FEET				
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
35	2260	2410	2570	2740	--	--
30	2230	2380	2540	2700	2870	--
25	2210	2350	2500	2660	2830	--
20	2180	2320	2470	2620	2790	3010
15	2160	2290	2440	2590	2750	2970
10	2130	2260	2410	2560	2710	2920
5	2110	2230	2380	2520	2670	2880
0	2090	2210	2350	2490	2630	2830
-5	2060	2180	2320	2450	2600	2800
-10	2040	2160	2280	2420	2560	2750
-15	2010	2130	2250	2390	2520	2710
-20	1990	2110	2220	2350	2490	2670
-25	1970	2080	2190	2320	2450	2630
-30	1950	2050	2170	2290	2410	2590
-35	1920	2030	2140	2250	2380	2550
-40	1900	2000	2110	2220	2340	2510

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**NOTE:** ALL LANDING DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.  
 \* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

LANDING DISTANCE - FEET

FLAPS - 15°

ACTUAL DISTANCE

STALL WARNING - HIGH

PA	SEA LEVEL					
TEMP	LANDING WEIGHT - POUNDS					
°C	6000	6500	7000	7500	8000	*8645
50	2500	2670	--	--	--	--
45	2470	2640	2810	--	--	--
40	2440	2600	2770	2940	--	--
35	2400	2570	2740	2900	3070	--
30	2380	2540	2700	2860	3020	--
25	2350	2500	2660	2820	2980	3200
20	2320	2470	2630	2780	2940	3150
15	2280	2430	2590	2740	2900	3110
10	2260	2400	2560	2710	2860	3060
5	2230	2380	2520	2670	2820	3020
0	2200	2350	2490	2630	2780	2980
-5	2180	2320	2460	2600	2740	2930
-10	2150	2290	2430	2570	2700	2890
-15	2120	2260	2400	2530	2670	2850
-20	2100	2230	2360	2490	2630	2810
-25	2070	2200	2330	2460	2590	2770

PA	1000 FEET					
TEMP	LANDING WEIGHT - POUNDS					
°C	6000	6500	7000	7500	8000	*8645
45	2540	2710	--	--	--	--
40	2500	2670	2850	--	--	--
35	2470	2640	2810	2990	--	--
30	2440	2600	2780	2940	3120	--
25	2410	2570	2740	2900	3070	--
20	2380	2540	2700	2860	3030	3250
15	2350	2500	2660	2820	2990	3200
10	2320	2470	2630	2780	2940	3160
5	2290	2440	2600	2750	2900	3110
0	2260	2410	2560	2710	2860	3070
-5	2230	2380	2530	2670	2820	3020
-10	2200	2350	2490	2640	2780	2980
-15	2180	2320	2460	2600	2740	2930
-20	2150	2290	2430	2560	2700	2890
-25	2120	2260	2400	2530	2660	2840
-30	2090	2230	2360	2490	2620	2800

PA	2000 FEET					
TEMP	LANDING WEIGHT - POUNDS					
°C	6000	6500	7000	7500	8000	*8645
45	2600	2790	--	--	--	--
40	2570	2750	2940	--	--	--
35	2540	2720	2900	--	--	--
30	2510	2680	2860	3030	--	--
25	2470	2640	2820	2990	3170	--
20	2440	2610	2780	2950	3120	--
15	2410	2570	2740	2900	3070	3300
10	2380	2540	2700	2860	3030	3250
5	2350	2510	2670	2830	2990	3210
0	2320	2480	2630	2790	2950	3160
-5	2290	2440	2600	2750	2910	3110
-10	2260	2410	2560	2710	2860	3070
-15	2230	2380	2530	2670	2820	3020
-20	2200	2350	2490	2640	2780	2980
-25	2180	2320	2460	2600	2740	2930
-30	2150	2290	2420	2560	2700	2880

NOTE: ALL LANDING DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.



**LANDING DISTANCE - FEET****FLAPS - 15°**

ACTUAL DISTANCE

STALL WARNING - HIGH

PA 3000 FEET						
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
40	2640	2830	--	--	--	--
35	2610	2800	2980	--	--	--
30	2580	2760	2940	--	--	--
25	2540	2720	2900	3080	--	--
20	2510	2680	2860	3030	3220	--
15	2480	2640	2820	2990	3170	--
10	2440	2610	2780	2950	3120	3360
5	2410	2580	2750	2910	3080	3310
0	2390	2550	2710	2870	3040	3260
-5	2350	2510	2670	2830	2990	3210
-10	2320	2480	2630	2790	2950	3160
-15	2290	2440	2600	2750	2910	3110
-20	2260	2410	2560	2710	2860	3070
-25	2230	2380	2530	2670	2820	3020
-30	2200	2350	2490	2630	2780	2970
-35	2180	2320	2460	2600	2740	2930

PA 4000 FEET						
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
40	2720	--	--	--	--	--
35	2680	2870	--	--	--	--
30	2650	2840	3030	--	--	--
25	2610	2800	2990	3180	--	--
20	2580	2760	2950	3130	--	--
15	2550	2720	2900	3080	3270	--
10	2510	2690	2860	3040	3220	--
5	2480	2650	2820	3000	3180	3420
0	2450	2620	2790	2960	3130	3370
-5	2420	2580	2750	2910	3080	3310
-10	2390	2550	2710	2870	3040	3260
-15	2360	2510	2670	2830	3000	3210
-20	2330	2480	2640	2790	2950	3160
-25	2290	2440	2600	2750	2910	3110
-30	2260	2410	2560	2710	2860	3060
-35	2230	2380	2530	2670	2820	3020

PA 5000 FEET						
TEMP °C	LANDING WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
35	2760	--	--	--	--	--
30	2730	2920	--	--	--	--
25	2690	2880	3080	--	--	--
20	2650	2840	3030	3230	--	--
15	2620	2800	2990	3180	--	--
10	2590	2770	2950	3130	3330	--
5	2550	2730	2910	3090	3280	--
0	2520	2690	2870	3050	3230	3480
-5	2490	2660	2830	3000	3180	3420
-10	2450	2620	2790	2960	3130	3370
-15	2420	2590	2750	2920	3090	3320
-20	2390	2550	2710	2870	3040	3260
-25	2360	2510	2670	2830	3000	3210
-30	2330	2480	2630	2790	2950	3160
-35	2290	2440	2600	2750	2900	3110
-40	2260	2410	2560	2700	2850	3060

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**NOTE:** ALL LANDING DISTANCES PREDICATED ON ZERO WIND AND ZERO RUNWAY GRADIENT.

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.



**QUICK TURN AROUND**

1. Exterior Inspection ----- **COMPLETE**
2. Circuit Breakers ----- **IN**
3. L/R GEN Switches ----- **GEN** (OFF if ground power is to be used for start)
4. STBY INST Switch ----- **BATT TEST (5 seconds)**  
then **STBY INST**
5. Ground Power Unit (if desired) ----- **CONNECTED**
6. BATT Switch ----- **BATT**
7. PARKING BRAKE ----- **SET**
8. AVN PWR Switch ----- **ON**
9. ATIS/Clearance ----- **AS REQUIRED**
10. Rotary TEST Switch ----- **WARNING SYSTEMS CHECK**
11. Fuel Quantity and Balance ----- **CHECK**
12. Pilot, Passenger, Cargo, and Fuel Weights ----- **ENTER**
13. Avionics Flight Plan (if desired) ----- **ENTER**
14. AVN POWER Switch ----- **OFF** (if ground power is not connected)
15. Wing/Stab Deice System (if required) ----- **CHECK**
  - a. Pitot-Static Switch ----- **RESET STALL WARN then OFF**
16. LANDING GEAR Handle ----- **DOWN; THREE GREEN LIGHTS/ NO RED LIGHT**
17. OXYGEN SUPPLY Handle ----- **PUSHED IN**
18. All other switches ----- **OFF or NORM**
19. THROTTLES ----- **CUTOFF**
20. Refer to Normal Procedures, BEFORE STARTING ENGINES.

**TURBULENT AIR PENETRATION**

Flight through severe turbulence should be avoided if possible. The following procedures are recommended for flight in severe turbulence.

1. Airspeed - - **APPROXIMATELY 160 KIAS** (do not chase airspeed)
2. Maintain a constant attitude without chasing the altitude. Avoid sudden large control movements.
3. Operation of autopilot is recommended in basic modes only (ROL and PIT only).
4. PAX SAFETY Switch ----- **PAX SAFETY**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

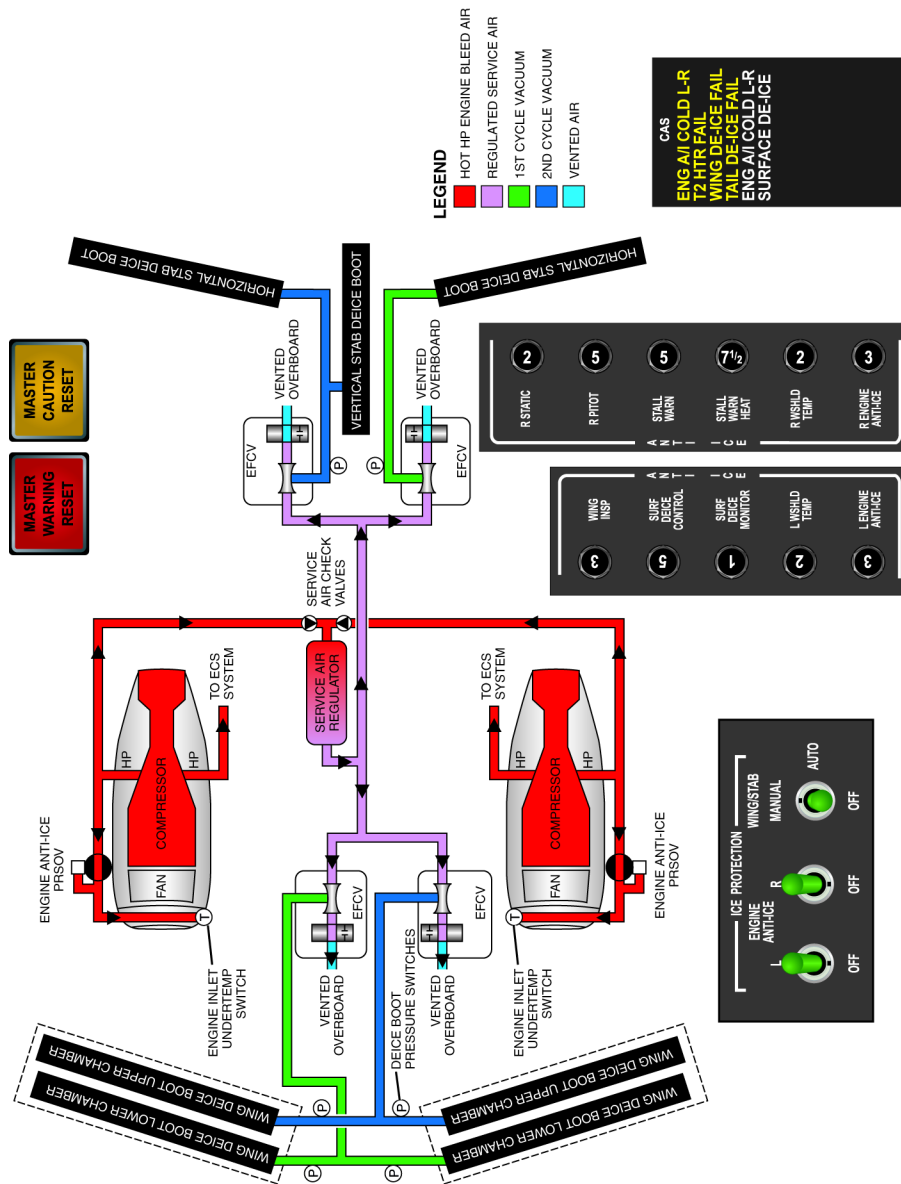
AFTER LANDING  
SHUTDOWN

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

WARNING SYSTEMS TEST

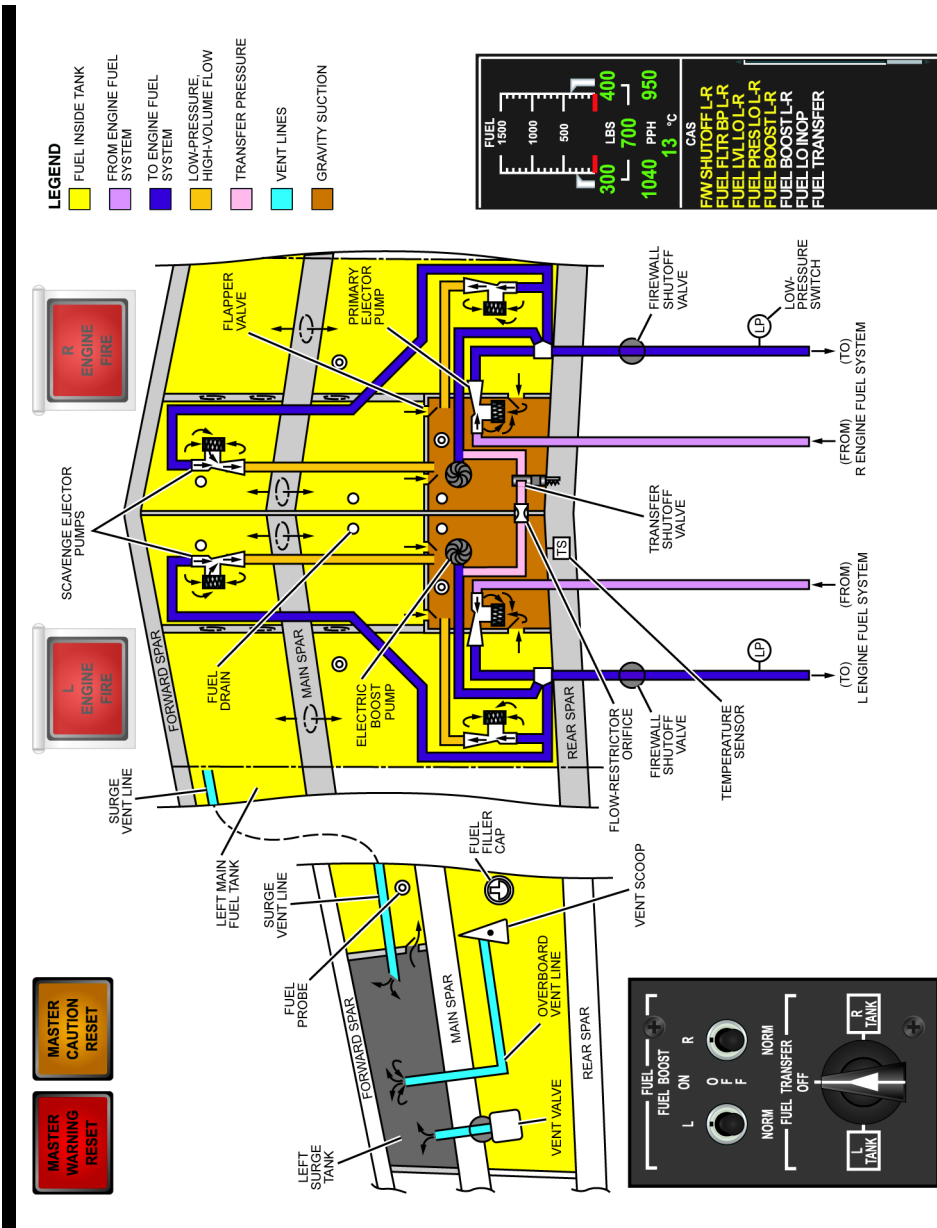
POSITION	INDICATIONS
FIRE WARN	<ul style="list-style-type: none"> <li>Red L ENG FIRE and R ENG FIRE switches illuminate.</li> <li>Master Warning Lights illuminate.</li> </ul>
LANDING GEAR	<ul style="list-style-type: none"> <li>3 green gear downlock lights illuminate.</li> <li>Red gear UNLOCK light illuminates.</li> <li>Gear warning horn sounds. Alternates between pilot and copilot speakers.</li> </ul>
CABIN ALT	<ul style="list-style-type: none"> <li>Red CABIN ALT message appears.</li> <li>Amber CABIN ALT message appears.</li> </ul>
STALL	<ul style="list-style-type: none"> <li>Amber STALL WARN FAIL message appears.</li> <li>Stall warning tone sounds and alternates between pilot and copilot speakers.</li> <li>Amber STALL WARN HTR message appears.</li> <li>White STALL WARN HI message appears.</li> </ul>
FLAPS	<ul style="list-style-type: none"> <li>The flap indicator on the MFD is replaced with a red "X" for 3 seconds.</li> <li>Amber FLAPS FAIL message appears.</li> <li>Amber STALL WARN FAIL message appears for 3 seconds.</li> </ul>
OVER SPEED	<ul style="list-style-type: none"> <li>The overspeed warning tone sounds and alternates between pilot and copilot speakers.</li> </ul>
ANTI SKID	<ul style="list-style-type: none"> <li>Amber ANTISKID FAIL message appears for 6 seconds.</li> <li>White NO TIRE SPINDOWN message appears for 6 seconds.</li> </ul>
ANNU	<ul style="list-style-type: none"> <li>MASTER CAUTION illuminates and cannot be cancelled.</li> <li>MASTER WARNING illuminates and cannot be cancelled.</li> <li>Autopilot Mode Control Panel indicators illuminate.</li> <li>Audio panel indicators illuminate.</li> <li>Red "DUMP" illuminates on Cabin Dump switch.</li> <li>Test audio tone sounds.</li> <li>Amber Standby Battery Discharge light illuminates (near STBY INST switch).</li> </ul>

## SCHEMATICS

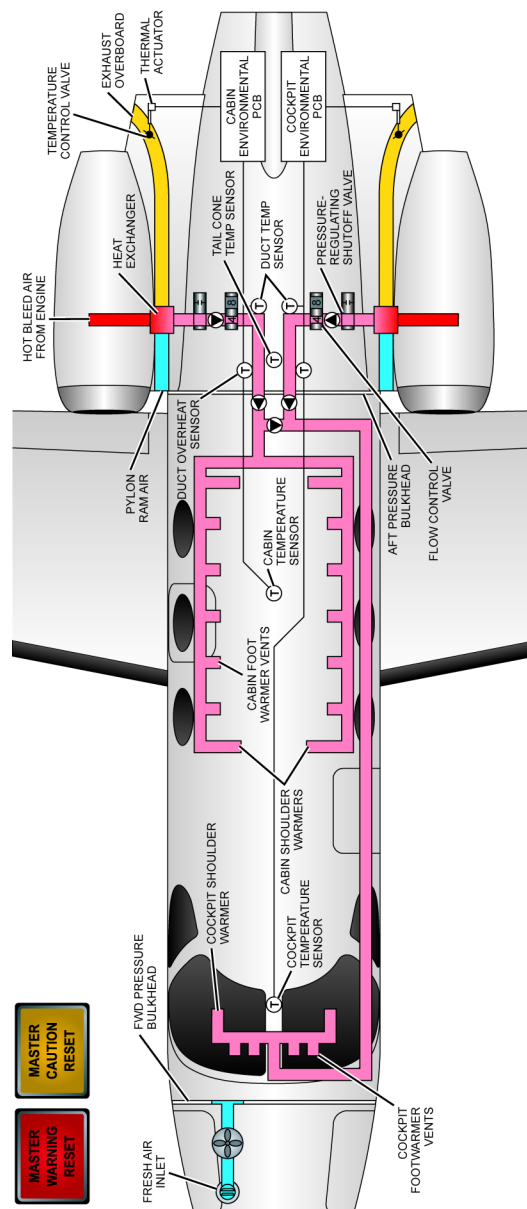


TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

FUEL SYSTEM SCHEMATIC

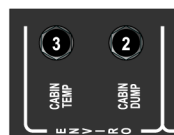
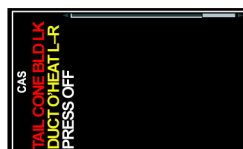


# AIR CONDITIONING SCHEMATIC



**LEGEND**

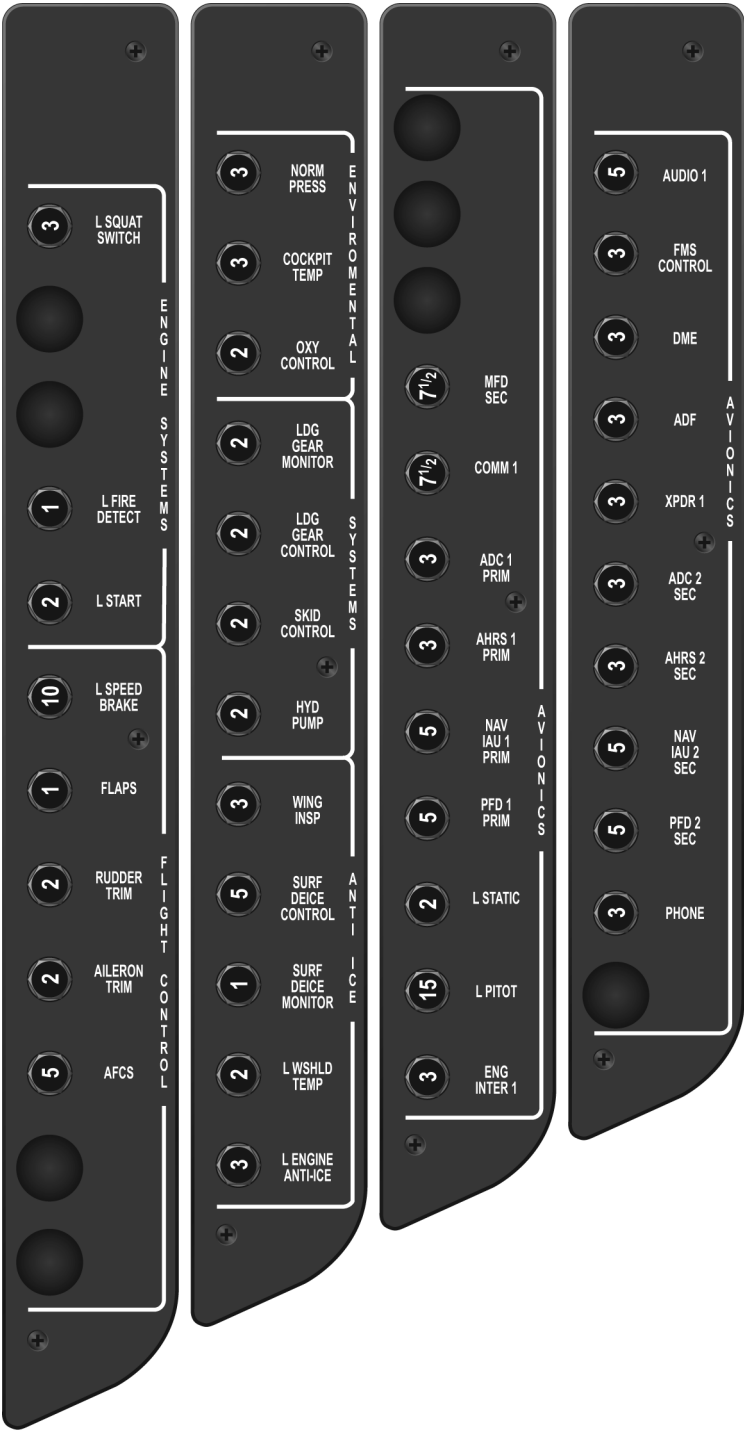
- REGULATED AIR (Pink)
- RAM AIR (Light Blue)
- HOT BLEED AIR (Red)
- EXHAUST OVERBOARD (Yellow)



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

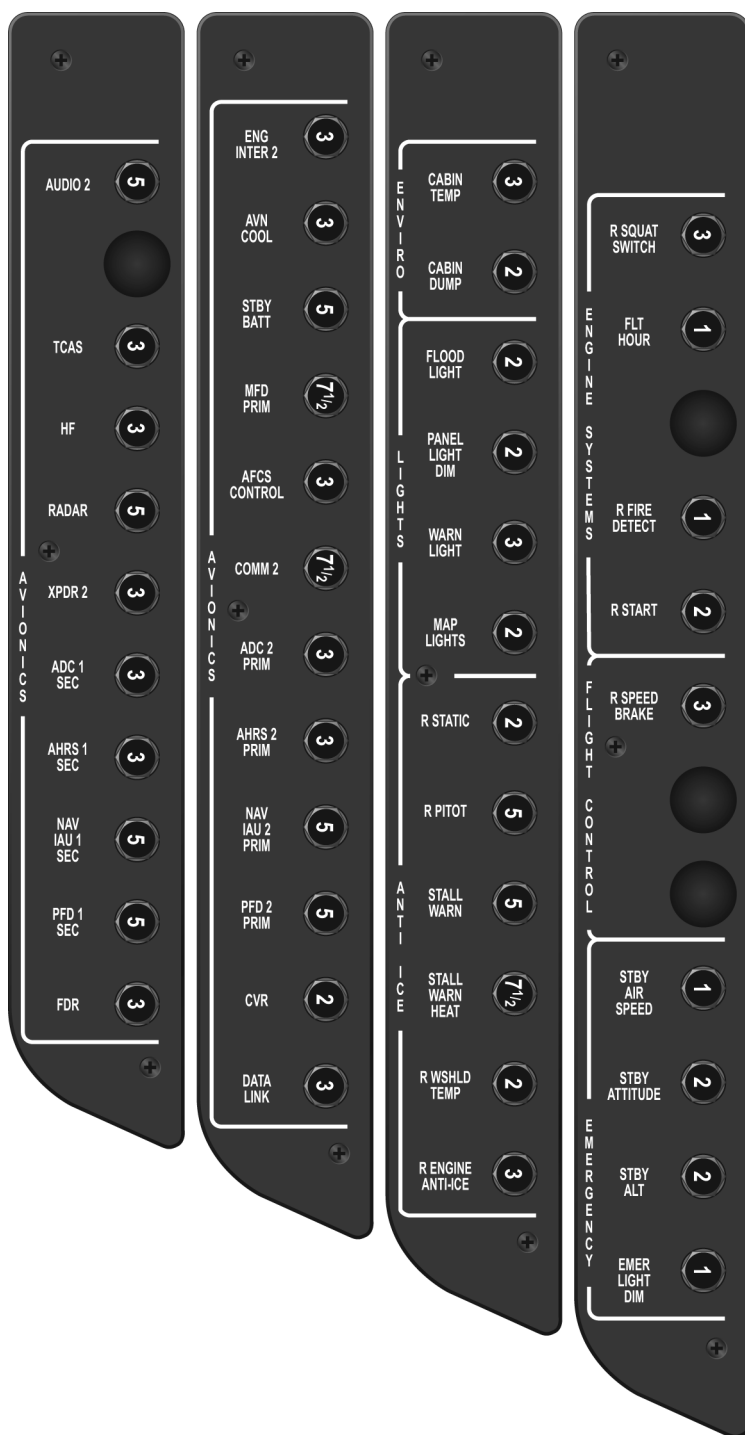
TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

PILOT (LH) CIRCUIT BREAKER PANEL



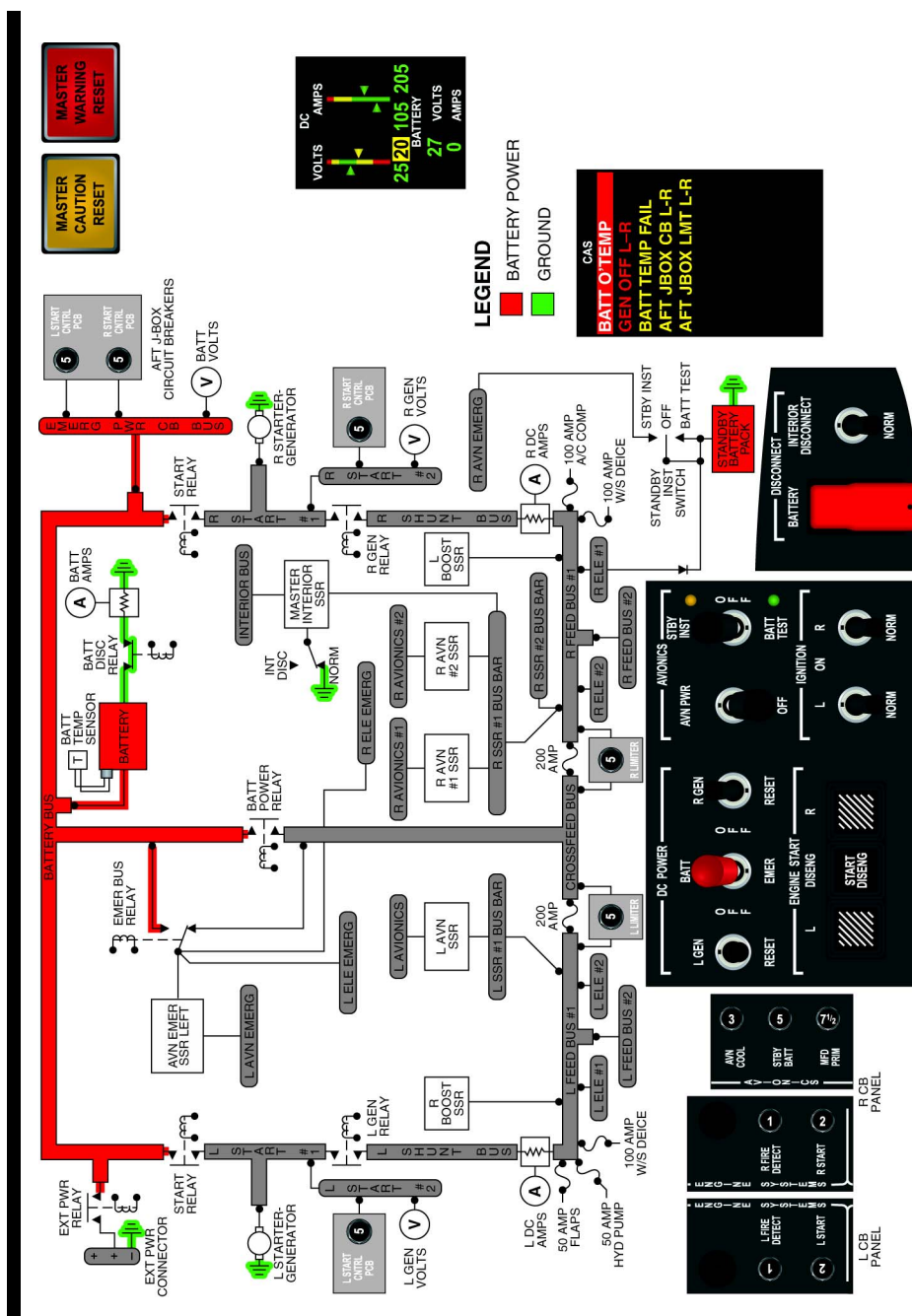


## COPILOT (RH) CIRCUIT BREAKER PANEL



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## ELECTRIC FLOW SCHEMATIC

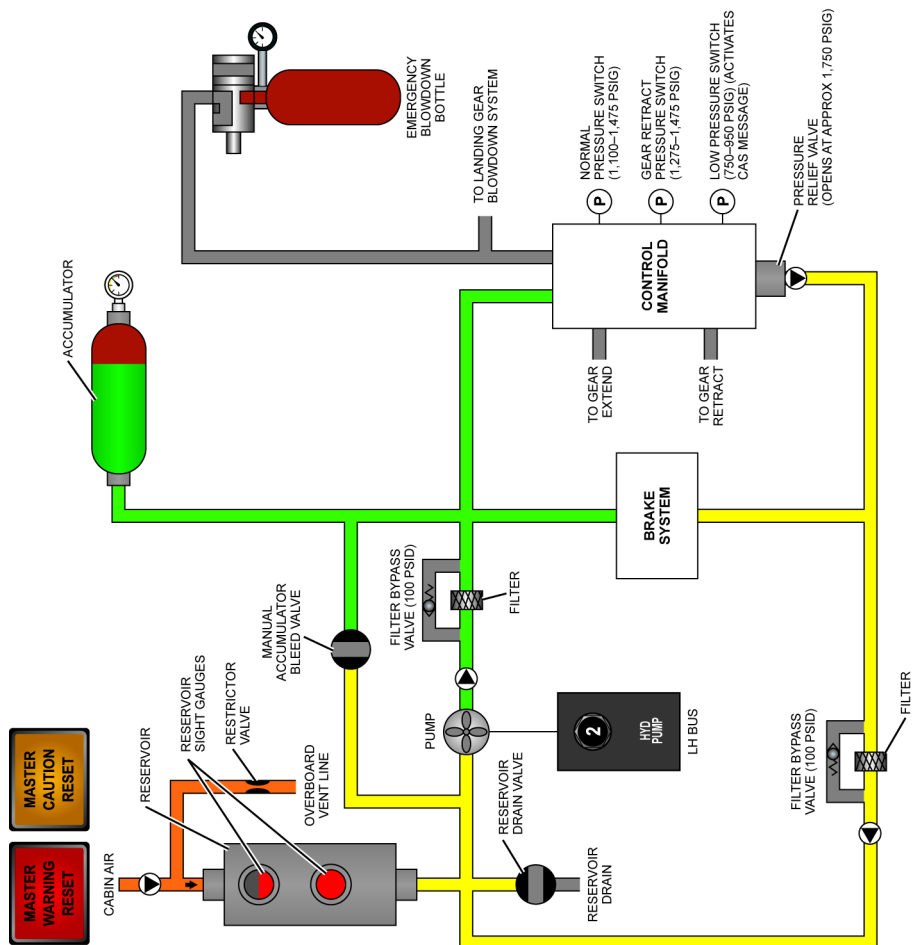


# HYDRAULIC SCHEMATIC

**LEGEND**

- NITROGEN
- SYSTEM PRESSURE
- RETURN
- CABIN AIR

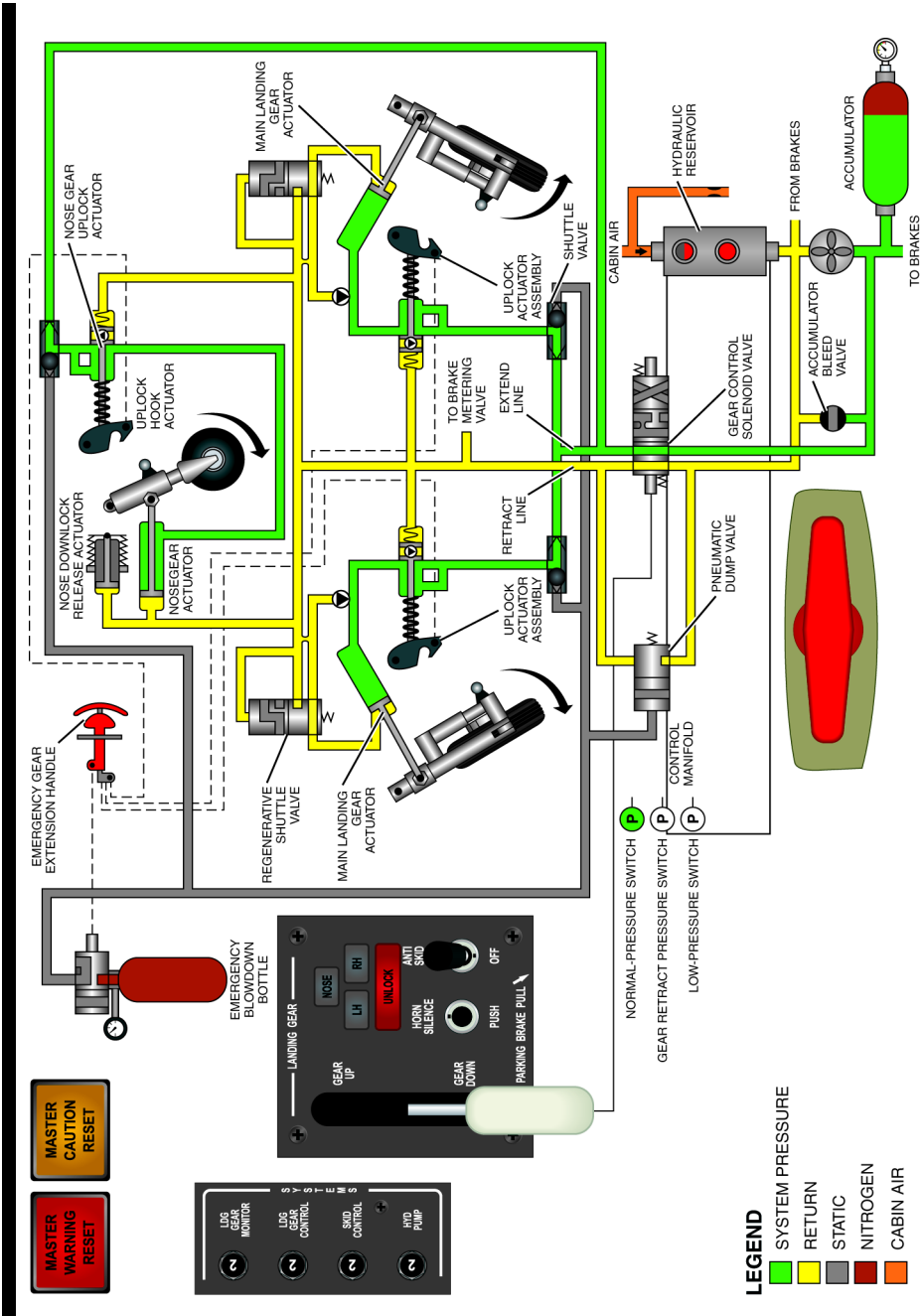
**CAS**  
**HYD PRESS LO**  
**HYD PUMP ON**



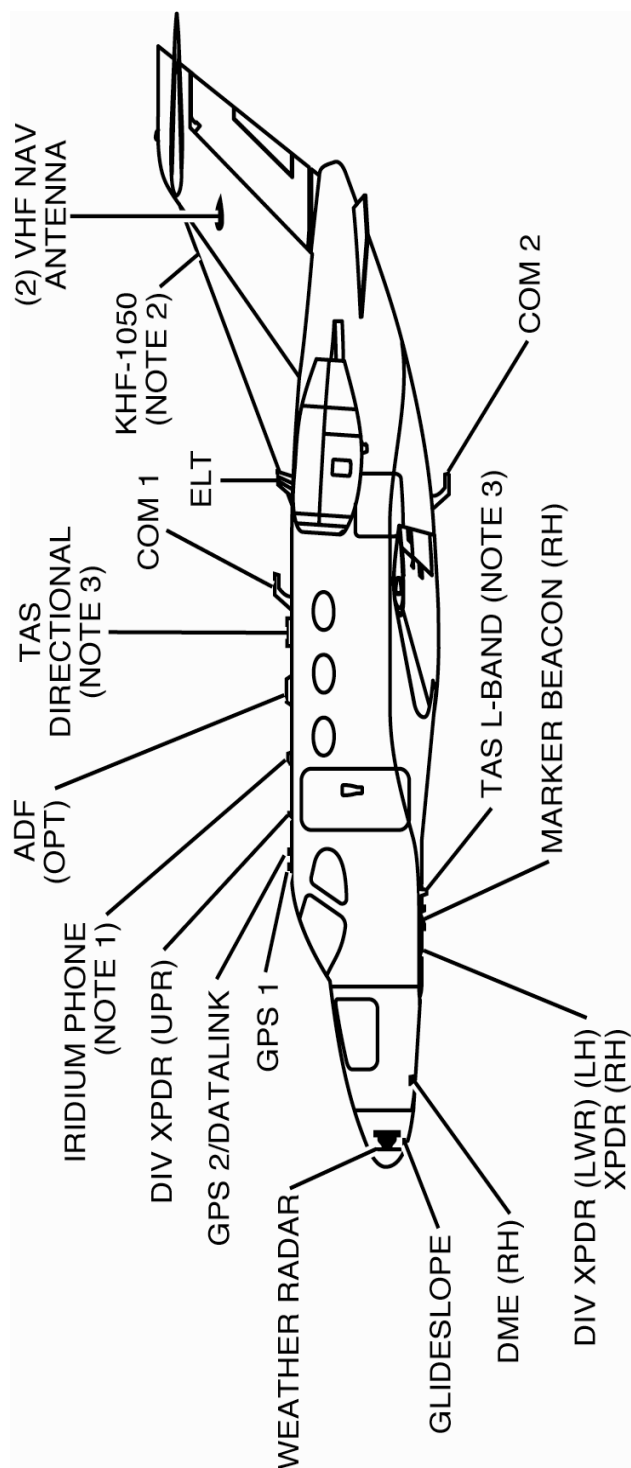
TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

LANDING GEAR SCHEMATIC



## ANTENNA CONFIGURATION



NOTE 1:  
THIS ANTENNA IS INSTALLED AS OPTIONAL EQUIPMENT ON AIRPLANES -0020 AND ON

NOTE 2:  
THIS ANTENNA IS INSTALLED AS OPTIONAL EQUIPMENT ON AIRPLANES -0033 AND ON

NOTE 3:  
THIS ANTENNA IS INSTALLED AS OPTIONAL EQUIPMENT ON AIRPLANES -0019 AND ON

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

Trim to  
5.75 x 11  
inches

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist Normal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-07 and reflects the following change to the AFM, Section III, Operating Procedures, Normal Procedures, Starting Engines Checklist, change a step.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist Normal Procedures adjacent to page 59 or 59.1.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist Normal Procedures.


In the Normal Procedures Checklist, Quick Reference Checklist, page 59 or 59.1, Starting Engines procedure, change Step 5 as shown below:

## STARTING ENGINES

5. Operating Engine N<sub>2</sub> . . . . **INCREASE** to 10% above ground idle N<sub>2</sub> (for a cross-generator start)

### APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE

  
Kim A. Heston, ODA Administrator  
KAH

DATE OF APPROVAL 29 MAY 2009

# MODEL 510

## QUICK REFERENCE CHECKLIST

### COCKPIT PREPARATION

1. BATTERY DISCONNECT Switch --- **NORM/COVER DOWN**
2. INTERIOR DISCONNECT Switch---**NORM**
3. Circuit Breakers ----- **IN**
4. STBY INST Switch **BATT TEST** (5 seconds);  
**GREEN LIGHT ON**
5. STBY INST Switch -----**STBY INST;**  
**AMBER LIGHT ON**
6. If Ground Power Unit is connected (for battery power only, skip to Step 7):
  - a. BATT Switch ----- **ON**
  - b. AVN PWR Switch----- **ON**
  - c. BATTERY VOLTAGE ---- **CHECK 28V**
  - d. COCKPIT/CABIN FAN Knobs ----- **AS DESIRED**
  - e. AIR COND Switch ----- **AS DESIRED**
7. Cockpit Switches and Controls ----- **SET**
8. BATT Switch- ----- **EMER; CHECK POWER TO EMERGENCY BUS ITEMS**
9. BATT Switch- ----- **BATT**
10. STBY INST Amber Light ----- **OFF**
11. PARKING BRAKE----- **SET**
12. LANDING GEAR Position Lights --- **THREE GREEN LIGHTS / NO RED LIGHT**
13. Cockpit Lighting ----- **AS REQUIRED**
14. AVN PWR Switch ----- **ON**
15. Database/Chart Currency ----- **CHECK**
16. Rotary TEST Switch - **WARNING SYSTEMS CHECK**
17. Oxygen System ----- **CHECK**
18. Fuel Quantity and Balance----- **CHECK**
19. Pilot, Passenger, Cargo, and Fuel Weights -- **ENTER (MFD AUX-WEIGHT PLANNING Page)**
20. ATIS/Clearance ----- **AS REQUIRED**
21. Avionics Flight Plan (if desired)----- **ENTER**
22. AVN PWR Switch ----- **ON** (for GPU start)  
**OFF** (for battery start)
23. Wing/Stab Deice System (if required) **CHECK**

### DELAY BEFORE FLIGHT WITHOUT GPU

1. STBY INST Switch ----- **OFF**
2. BATT Switch- ----- **OFF**

### BEFORE STARTING ENGINES

1. If delayed before flight without GPU:
  - a. STBY INST Switch ----- **STBY INST**
  - b. BATT Switch ----- **BATT**
2. Preflight Inspection ----- **COMPLETE**
3. Wheel Chocks ----- **REMOVED**
4. Cabin Door----- **CLOSED**
5. Passenger Briefing ----- **COMPLETE**
6. Seats and Seat Belts **ADJUST and SECURE**
7. EXTERNAL LIGHTING Switches ----- **AS REQUIRED**
8. AIR COND Switch----- **OFF**
9. COCKPIT/CABIN FAN Knobs ----- **OFF**
10. EICAS ----- **CHECK**
11. BATTERY VOLTAGE ----- **CHECK**

### STARTING ENGINES

1. ENGINE START Button----- **PRESS MOMENTARILY**
2. THROTTLE ----- **IDLE**
3. Engine Instruments ----- **MONITOR**
4. Engine Instruments ----- **CHECK NORMAL**  
(Battery Current less than 100 Amps)
5. Operating Engine N<sub>2</sub> --- **INCREASE** to 55%  
(for a cross-generator start)
6. Other Engine ----- **START;**  
**repeat steps 1 through 4**
7. Ground Power Unit ----- **DISCONNECT**  
(if applicable)
8. L/R GEN Switches ----- **GEN**
9. AVN POWER Switch----- **ON**
10. DC AMPS/VOLTS----- **CHECK**

### BEFORE TAXI

1. COCKPIT/CABIN FAN Knobs -**AS DESIRED**
2. AIR COND Switch----- **AS DESIRED**
3. COCK/CABIN TEMP Knobs-- **AS DESIRED**
4. WINDSHIELD ANTI-ICE Switches ----- **AS REQUIRED**
5. Avionics Glareshield Cooling Fans (3)-----  
**CHECK FOR AIR FLOW**
6. Air Source Select System ----- **CHECK**
7. Flight Controls ----- **FREE and CORRECT**
8. Flaps ----- **SET**

9. Speed Brakes ---- **CHECK and RETRACT**
10. Electric Elevator Trim ---- **CHECK and SET**
11. Avionics Setup and Charts- **AS REQUIRED**
12. Altimeters ----- **SET and COMPARE**
13. Takeoff Data----- **SET and VERIFY**
14. Destination Field Elevation ----- **SET**
15. Radar ----- **STANDBY**
16. CAS/PFD Messages----- **CHECK**

\*\*\* **CLEARED / READY FOR TAXI** \*\*\*

17. PAX SAFETY Switch ----- **SEAT BELT**
18. EXTERNAL LIGHT Switches **AS REQUIRED**
19. Brakes----- **APPLY and HOLD**
20. PARKING BRAKE ----- **RELEASE**

### TAKEOFF PERFORMANCE SIMPLIFIED CRITERIA

1. No obstacle in flight path
2. Throttles - TAKEOFF Detent
3. Takeoff and approach flaps (15°)
4. Anti-Ice OFF or ON
5. Takeoff field length available = 5,000 feet or longer
6. No tail wind
7. Runway Gradient - Takeoff = Zero to -2.0% (downhill)
8. Dry paved runway

WEIGHT	8,645 POUNDS OR LESS	8,645 POUNDS OR LESS	8,645 POUNDS OR LESS
ALTITUDE OF AIRPORT	2000 FEET OR BELOW	4000 FEET TO 2001 FEET	6000 FEET TO 4001 FEET
AMBIENT TEMPERATURE	30°C OR LESS	20°C OR LESS	15°C OR LESS
V <sub>1</sub>	90 KIAS	90 KIAS	91 KIAS
V <sub>R</sub>	90 KIAS	90 KIAS	91 KIAS
V <sub>X</sub>	97 KIAS	97 KIAS	97 KIAS
SINGLE ENGINE CLIMB SPEED	118 KIAS	118 KIAS	118 KIAS

When conditions are other than those specified in the simplified criteria, the appropriate tabulated data must be referred to.

### TAXI

1. Brakes----- **CHECK**
2. Nosewheel Steering ----- **CHECK**
3. Flight Instruments (including standby)**CHECK**

### BEFORE TAKEOFF

1. Anti-Ice/Deice systems (if required) - **CHECK**
  2. STBY INST Switch --- **BATT TEST; GREEN LIGHT; STBY INST** (if not completed previously)
  3. Passenger Seats ----- **FULL UPRIGHT**
  4. Flaps----- **SET FOR TAKEOFF**
  5. Trims (3) ----- **SET FOR TAKEOFF**
  6. Speed Brakes ----- **RETRACTED**
  7. Transponder ----- **GND**
  8. Displays / Avionics / Navigation Systems ----- **SETUP**
  9. Crew Briefing ----- **COMPLETE**
- \*\*\* **CLEARED / READY FOR TAKEOFF** \*\*\*
10. Pitot-Static Switch----- **PITOT STATIC**
  11. ENGINE ANTI-ICE Switches **AS REQUIRED**
  12. WINDSHIELD ANTI-ICE Switches ----- **AS REQUIRED**
  13. PAX SAFETY Switch ----- **PAX SAFETY**
  14. LANDING Light Switch ----- **AS DESIRED**
  15. ANTI-COLL Light Switch ----- **ON**
  16. Radar ----- **AS REQUIRED**
  17. EICAS----- **CHECK**

### TAKEOFF

1. THROTTLES ----- **TO Detent**
2. Engine Instruments----- **CHECK NORMAL**
3. Brakes----- **RELEASE**
4. Elevator Control ----- **ROTATE** at  
V<sub>R</sub> to +10° initial pitch attitude

### AFTER TAKEOFF / CLIMB

1. LANDING GEAR Handle----- **UP**
2. FLAP Handle ----- **UP**  
(V<sub>2</sub> + 12 and clear of obstacles)
3. THROTTLES ----- **CLB Detent**
4. Yaw Damper ----- **AS DESIRED**  
(ON Above FL300)
5. Anti-Ice/Deice Systems----- **AS REQUIRED**
6. PAX SAFETY Switch ----- **AS REQUIRED**
7. LANDING Light Switch ----- **AS REQUIRED**
8. Pressurization ----- **CHECK**
9. Altimeters (transition altitude)- **SET STD and CROSSCHECK**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM





## QUICK REFERENCE CHECKLIST

## MODEL 510

## CRUISE

1. THROTTLES -- **CRU** Detent or **AS DESIRED**
2. Anti-Ice / Deice Systems --- **AS REQUIRED**
3. Pressurization ----- **CHECK**
4. In RVSM Airspace:
  - a. Autopilot ---- **ALT** Mode unless severe turbulence is encountered.
  - b. Altimeters --- **CROSSCHECK** pilot and copilot altimeters at 1 hour intervals or less. Maximum allowed difference is 200 feet.

## DESCENT

1. Pressurization ----- **VERIFY**  
destination field elevation set
2. Anti-Ice/Deice Systems ---- **AS REQUIRED**
3. THROTTLES ----- **AS REQUIRED**  
for anti-ice/deice systems
4. Altimeters (transition altitude)----- **SET** and **CROSSCHECK**
5. Landing Data ( $V_{APP}$ ,  $V_{REF}$ , Landing Distance, Weight, and Factors)----- **SET** and **VERIFY**
6. LANDING Light Switch ---- **AS REQUIRED**

## VREF - KIAS

## STALL WARNING - NORMAL

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF LAND	82	85	88	91	94	98
VAPP 15°	87	91	95	98	101	105

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

## VREF - KIAS

## STALL WARNING - HIGH

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF 15°	98	102	105	109	112	117
VAPP 15°	98	102	105	109	112	117

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

## APPROACH

1. Landing Data ----- **CONFIRM**
2. Seats and Seat Belts **ADJUST** and **SECURE**
3. Avionics and Flight Instruments --- **CHECK**
4. Minimums ----- **SET**
5. PAX SAFETY Switch----- **PAX SAFETY**
6. Passenger Seats - **CHECK FULL UPRIGHT**
7. FUEL TRANSFER Knob ----- **OFF**
8. Anti-Ice/Deice Systems --- **AS REQUIRED**
9. LANDING Light Switch ----- **ON**
10. FLAP Handle ----- **TO/APR**
11. CAS Messages----- **CHECK**
12. Crew Briefing----- **COMPLETE**

## BEFORE LANDING

1. Landing Gear ----- **DOWN** and **LOCKED**
2. Speed Brakes----- **RETRACTED**
3. FLAP Handle --- **LAND** (STALL WARNING-NORMAL only)
4. Pressurization ----- **CHECK ZERO DIFFERENTIAL**
5. Autopilot and Yaw Damper----- **OFF**
6. Airspeed -----  **$V_{REF}$**

## LANDING

1. THROTTLES ----- **IDLE**
2. Brakes----- **APPLY**  
(after nosewheel touchdown)
3. Speed Brakes----- **EXTEND**  
(after nosewheel touchdown)

## ALL ENGINES GO-AROUND

1. THROTTLES ---- **TO Detent** (Thrust Mode Indicator - green T/O)
2. Airplane Pitch Attitude----- **POSITIVE ROTATION TO +8°**
3. FLAP Handle ----- **TO/APR**
4. Climb Speed-----  **$V_{APP}$  MINIMUM**
5. LANDING GEAR Handle ----- **UP**  
(when positive rate is established)
6. FLAP Handle ----- **UP**
7. THROTTLES ----- **CLB Detent**

## AFTER LANDING

1. FLAP Handle ----- **UP**
2. Speed Brakes----- **RETRACT**
3. WING/STAB Deice Switch ----- **OFF**
4. Pitot-Static Switch----- **OFF**
5. WINDSHIELD ANTI-ICE Switches ----- **AS REQUIRED** for defog
6. ENGINE ANTI-ICE Systems **AS REQUIRED**
7. ANTI COLL Light Switch --- **AS REQUIRED**
8. LANDING Light Switch ---- **AS REQUIRED**
9. Transponder----- **VERIFY GND**
10. Radar ----- **OFF** or **STBY**

## SHUTDOWN

1. PARKING BRAKE- **SET** or **Wheels - CHOCK**
2. ENGINE ANTI-ICE Switches ----- **OFF**
3. WINDSHIELD ANTI-ICE Switches ---- **OFF**
4. PAX SAFETY Switch----- **OFF**
5. LANDING Light Switch ----- **OFF**
6. AIR COND Switch----- **OFF**
7. FLAP Handle ----- **TO/APR**
8. AVN PWR Switch ----- **OFF**
9. THROTTLES --- **CUTOFF** after allowing ITT to stabilize at minimum value for two minutes
10. EXTERNAL LIGHTING Switches ----- **OFF**
11. COCKPIT/CABIN Fan Knobs ----- **OFF**
12. OXYGEN SUPPLY Handle ----- **PULL TO CUTOFF**
13. BATT Switch ----- **OFF**
14. STBY INST Switch ----- **VERIFY AMBER LIGHT ON; THEN OFF**
15. Gust Lock ----- **INSTALL**
16. Rudder Gust Lock----- **LOCK**  
(unless airplane will be towed)
17. Engine Oil Level ----- **CHECK**  
(10 minutes after shutdown)

## QUICK TURN AROUND

1. Exterior Inspection ----- **COMPLETE**
2. Circuit Breakers ----- **IN**
3. L/R GEN Switches ---- **GEN** (OFF if ground power is to be used for start)
4. STBY INST Switch ----- **BATT TEST (5 seconds) then STBY INST**
5. Ground Power Unit (if desired) **CONNECTED**
6. BATT Switch ----- **BATT**
7. PARKING BRAKE----- **SET**
8. AVN PWR Switch ----- **ON**
9. ATIS/Clearance ----- **AS REQUIRED**
10. Rotary TEST Switch - **WARNING SYSTEMS CHECK**
11. Fuel Quantity and Balance----- **CHECK**
12. Pilot, Passenger, Cargo and Fuel Weights ----- **ENTER**
13. Avionics Flight Plan (if desired) ---- **ENTER**
14. AVN POWER Switch----- **OFF** (if ground power is not connected)
15. Wing/Stab Deice System (if required) **CHECK**
  - a. Pitot-Static Switch ----- **RESET STALL WARN** then **OFF**
16. LANDING GEAR Handle --- **DOWN; THREE GREEN LIGHTS/NO RED LIGHTS**
17. OXYGEN SUPPLY Handle ----- **PUSHED IN**
18. All other switches ----- **OFF** or **NORM**
19. THROTTLES ----- **CUTOFF**
20. Refer to Normal Procedures, BEFORE STARTING ENGINES

# Pilots' Abbreviated Checklist

Model 510

## CITATION MUSTANG

Emergency/Abnormal Procedures

510-0001 AND ON



THIS CHECKLIST IS CURRENT WITH MODEL 510 CITATION MUSTANG (510-0001 AND ON) FAA APPROVED U.S. AIRPLANE FLIGHT MANUAL REVISION 7 DATED 21 NOVEMBER 2008. (PART NUMBER 510FM-07)

APPROVED BY FAA APPROVED UNDER 14 CFR PART 21 SUBPART J

Cessna Aircraft Co.

Delegation Option Authorization DOA-230594-CE

*Kim Haskett*  
KHH

DOA Administrator

DATE OF APPROVAL 30 AUGUST 2006

*the best safety device in any aircraft is a well trained crew ....*

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WICHITA, KANSAS, USA

**30 AUGUST 2006**

510CLEAP-07

REVISION 7

21 NOVEMBER 2008

For Training Purposes Only

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

NOTICE

THIS PILOTS' ABBREVIATED CHECKLIST EXCLUDES NOTES AND SYSTEM DESCRIPTIONS FOUND IN THE FAA APPROVED AIRPLANE FLIGHT MANUAL; THEREFORE, IT SHOULD NOT BE USED UNTIL THE FLIGHT CREW HAS BECOME FAMILIAR WITH THE AIRPLANE, ITS SYSTEMS, AND THE FAA APPROVED AIRPLANE FLIGHT MANUAL. SHOULD ANY CONFLICT EXIST BETWEEN THE ABBREVIATED CHECKLIST AND THE CHECKLIST IN THE FAA APPROVED AIRPLANE FLIGHT MANUAL, THE FLIGHT MANUAL SHALL TAKE PRECEDENCE. ALL AIRPLANE FLIGHT MANUAL NORMAL, EMERGENCY AND ABNORMAL PROCEDURE ITEMS MUST BE ACCOMPLISHED REGARDLESS OF WHICH CHECKLIST IS USED.

LOG OF EFFECTIVE PAGES

Use this page to determine the currency and applicability of your Pilots' Abbreviated Checklist. Pages affected by the current revision are indicated by an asterisk (\*) preceding the pages listed under the Page Number column. Refer to page iv for configuration code definitions, then determine which pages are applicable to your airplane under the configuration code column.

Following is a description of the Log of Effective Pages columns:

- Page Number . . . . . Pilots' Abbreviated Checklist page number.
- Page Status . . . . . Indicates if the page has been added, revised or deleted by the current revision.
- Revision Number . . . . . Indicates the revision number.
- Configuration Code . Indicates page effectivity by two letter code.

REVISION NUMBER	DATE
Original	30 August 2006
Revision 1	27 October 2006
Revision 2	20 November 2006
Revision 2A	31 January 2007
Revision 3	7 February 2007
Revision 4	13 April 2007
Revision 5	2 November 2007
Revision 6	29 February 2008
Revision 7	21 November 2008

PAGE NUMBER	PAGE STATUS	REVISION NUMBER	CONFIGURATION CODE
* Title	Revised	7	AA
* ii thru v/vi	Revised	7	AA
* 1	Revised	7	AJ
* 1.1	Added	7	AK
* 2	Revised	7	AA
* 3	Revised	7	AJ

PAGE NUMBER	PAGE STATUS	REVISION NUMBER	CONFIGURATION CODE
* 3.1	Added	7	AK
* 4 thru 5	Revised	7	AA
6	Revised	3	AA
7	Revised	6	AA
* 8	Revised	7	AA
* 9	Revised	7	AJ
* 9.1	Added	7	AK
* 10 thru 42	Revised	7	AA
* 43	Revised	7	AJ
* 43.1	Added	7	AK
* 44 thru 45	Revised	7	AA
46	Revised	6	AA
* 47 thru 48	Revised	7	AB
* 47.1 thru 48.1	Revised	7	AC
* 49 thru 71	Revised	7	AA
* 72	Revised	7	AJ
* 72.1	Added	7	AK
* 73 thru 88	Revised	7	AA
* 89 thru 90	Added	7	AA

**APPROVED BY**

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J

Cessna Aircraft Co.

Delegation Option Authorization DOA-230594-CE



DOA Administrator

DATE OF APPROVAL 21 NOVEMBER 2008

TOC

RED  
CASAMBER  
CASEMER  
ABNORMWHITE  
CAS

NORM

Trim to  
5.5 x 11  
inches

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

510CLEAP

**NOTE:** The accompanying (attached) Temporary Change page(s) may or may not be applicable to your serial aircraft. Please refer to the individual Temporary Change page(s) to determine applicability status for your aircraft.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

Trim to

5.5 x 11

inches

Pilots' Abbreviated Checklist

Model 510

Airplanes 510-0001 and On

THIS IS A LIST OF ALL CURRENT TEMPORARY CHANGES.

The following list of temporary changes should be incorporated into this Pilots' Abbreviated Checklist until the removal instructions have been complied with.

Insert this page opposite the Log of Effective Pages in the front of this Pilots' Abbreviated Checklist.

A bar located in the margin on the left side of the page, adjacent to the list, will extend the full length of any change. No change bars will be used in the footers or elsewhere. The date in the footer(s) reflects only the issue date of the most recent temporary change(s) listed on that page.

TEMPORARY CHANGE NUMBER	PAGE NUMBER	ISSUE DATE	SERVICE BULLETIN (IF APPLICABLE) OR SERIAL EFFECTIVITY
510CLEAP TC-R07-01	12	11/19/09	Airplanes 510-0001 and On.
510CLEAP TC-R07-02	iv	10/28/09	Airplanes 510-0001 and On.
510CLEAP TC-R07-03	66	12/23/10	Airplanes 510-0001 and On.
510CLEAP TC-R07-04	61	6/9/10	Airplanes 510-0001 and On.
510CLEAP TC-R07-05	Cancelled	Cancelled	Replaced by 510CLEAP TC-R07-10.
510CLEAP TC-R07-06	7	6/9/10	Airplanes 510-0001 and On.
510CLEAP TC-R07-07	88	6/23/10	Airplanes 510-0001 and On.
510CLEAP TC-R07-08	21	3/14/12	Airplanes 510-0405 and On and Airplanes 510-0001 thru -0404 incorporating SB510-76-01.
510CLEAP TC-R07-09	58	3/14/12	Airplanes 510-0405 and On and Airplanes 510-0001 thru -0404 incorporating SB510-76-01.
510CLEAP TC-R07-10	28	3/14/12	Airplanes 510-0001 thru -0404 not incorporating SB510-76-01. Replaces 510CLEAP TC-R07-05.

i

U.S.

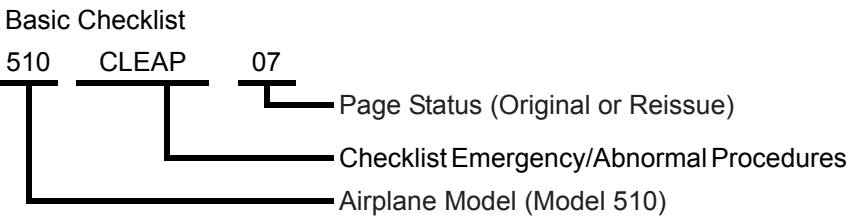
For Training Purposes Only

14 March 2012

510CLEAP

CHECKLIST PART NUMBER

Each page in this checklist contains the part number of the checklist and the page status of each page. Refer to the following example:



CONFIGURATION CODES

The following is a list of configuration codes which appear at the bottom of each page of the Pilots' Abbreviated Checklist and indicate page effectivity by serial number. Pages marked AA apply to all airplanes of this model. This list contains only the configurations which have been incorporated into this checklist.

Each page of the checklist is provided with a configuration code. In the event that a page is applicable to only a select number of airplanes, at least two (2) pages will be provided, one with a regular page number (e.g., 15), and one with a point page number (e.g., 15.1). The operator must then check the configuration code list in the front of the checklist to determine which page applies to his/her airplane. In some cases, multiple pages may be provided to allow for all configurations. This system allows for a "custom" checklist for each individual aircraft and therefore eliminates material that does not apply to the operator's airplane from the checklist. The page(s) that does(do) not apply to the airplane must be discarded. From each grouping, identify and record the configuration code that applies to your airplane, then select and insert the correct pages into this checklist.

CONFIGURATION CODE	EFFECTIVITY BY SERIAL NUMBER	APPLICABLE CODES
AA	Airplanes 510-0001 and On.	AA
AB	Airplanes 510-0001 and On with NiCad battery option.	AC
AC	Airplanes 510-0001 and On without NiCad battery option.	
AJ	Airplanes 510-0001 thru -0152 incorporating SB510-34-09 Navigation - Garmin G1000 Software Version 010-00435-13 Upgrade and Airplanes 510-0153 and On.	
AK	Airplanes 510-0001 thru -0152 not incorporating SB510-34-09 Navigation - Garmin G1000 Software Version 010-00435-13 Upgrade.	

# TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
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inches

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-12 and reflects the following change to the AFM, Section I, Introduction, Airplane Configuration Codes, change the serial effectivity for a configuration set.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist Emergency/Abnormal Procedures adjacent to page iv.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist Emergency/Abnormal Procedures.

In the Emergency/Abnormal Procedures checklist, page iv, Configuration Codes, change the serial effectivity of configuration codes AJ and AK as follows:

AJ	Airplanes 510-0001 thru -0177 incorporating SB510-34-09 and Airplanes 510-0178 and On.	<b>AJ</b>
AK	Airplanes 510-0001 thru -0177 not incorporating SB510-34-09.	

APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE

*Kim A. Hackett*  
Kim A. Hackett ODA Administrator  
*KAH*

DATE OF APPROVAL OCTOBER 28, 2009





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TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

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**SYMBOLS USED FOR PROCEDURE DIVISION**

Symbols are used to mark different parts of procedures. A decision must be made by the pilot to identify the applicable part of the procedure. After the initial choice has been made, a further division of the procedure is possible. In that case, a second choice must be made, etc. When a choice has been made, all remaining actions, consequences, and references are listed. When the procedure is no longer required, this will be indicated by "PROCEDURE COMPLETED".

The division symbols are identified as follows:

**■ FIRST DIVISION****● SECOND DIVISION****□ THIRD DIVISION****○ FOURTH DIVISION**

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RED CAS
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**WHITE CAS MESSAGES****TABLE OF CONTENTS**

CABIN ALT - - - - -	A1
ENG A/I COLD L-R - - - - -	A2
FUEL BOOST L-R - - - - -	A3
FUEL LO INOP L-R - - - - -	A4
FUEL TRANSFER - - - - -	A5
MFD COLD - - - - -	A6
NO TIRE SPINDOWN - - - - -	A7
PRESS CTRL - - - - -	A8
PRESS OFF - - - - -	A9
SPD BRK EXTEND - - - - -	A10
STALL WARN HI - - - - -	B1
SURFACE DE-ICE - - - - -	B2
W/S A/I FAIL L-R - - - - -	B3
W/S O'HEAT L-R - - - - -	B4

**WHITE CAS  
MESSAGES**

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RED  
CASAMBER  
CASEMER  
ABNORMWHITE  
CAS

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WHITE CAS
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WHITE CAS MESSAGES

A

White CAS messages are advisory in nature and denote items which are considered normal during operation of the airplane or do not normally require any pilot action. These are intended primarily to provide feedback to the pilot regarding system status. However, some procedures are provided in the event a white message posts at an inappropriate time or when not commanded by the pilot. Garmin G1000 System Messages are displayed in the PFD message window and are accessed by pressing the MSG softkey on either PFD. Additional information on these and other G1000 advisory messages can be found in the Garmin G1000 Cockpit Reference Guide.

1

CABIN ALT – WHITE

This message is displayed when the pressurization system is operating in High Altitude Airfield mode and cabin altitude exceeds 10,000 feet for less than 30 minutes.

2

ENG A/I COLD L-R – WHITE

Indicates that the engine inlet temperature is below safe level for satisfactory ice protection. This message will post in white for up to two minutes after engine anti-ice is turned on while the inlet warms up to the normal operating temperature.

3

FUEL BOOST L-R - WHITE (FUEL BOOST PUMP ON)

Indicates that the respective fuel boost pump has been activated normally.

4

FUEL LO INOP L-R

Indicates that the fuel quantity signal condition is not able to determine if the fuel level is below 170 lbs. in the respective tank.

1.
- Refer to Emergency/Abnormal Procedures, FUEL QUANTITY RED “X” OR INCORRECT FUEL QUANTITY INDICATION; **Tab D7**.

PROCEDURE COMPLETED

5

FUEL TRANSFER

Indicates that the fuel transfer valve is open. In the event that this message remains posted after the fuel transfer knob is turned OFF, refer to Emergency/Abnormal Procedures, FUEL TRANSFER MESSAGE ON WHEN TRANSFER NOT SELECTED; **Tab E2**.

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RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 6 ■ MFD COLD

Indicates that the MFD temperature is below -20°C. Engine start should be delayed until this CAS message clears. The MFD is warmed and operational when the individual display elements such as letters and cursors change without blurring or streaking. Engines may be started when engine instrument numerical values are legible on the MFD.

A

## 7 ■ NO TIRE SPINDOWN

Indicates that the spindown feature of the antiskid system has failed. The following procedures are required for subsequent flights.

### AFTER TAKEOFF

1. ANTISKID Switch -----OFF
2. Brakes-----APPLY GENTLY  
to stop wheel rotation
3. ANTISKID Switch ----- ON
4. LANDING GEAR Handle -----UP

PROCEDURE COMPLETED

## 8 ■ PRESS CTRL – WHITE (PRESSURIZATION CONTROL FAULT)

Indicates the loss of communication between the Pressurization Controller and the Garmin system. Pressurization system will continue to function normally using built-in backup sensors; however, it will not be possible to change the Destination Elevation.

## 9 ■ PRESS OFF (PRESSURIZATION OFF)

Indicates that the AIR SOURCE SELECT Knob is in either the OFF or FRESH AIR position. The cabin will not pressurize unless switch positioned in L, BOTH, or R.

1. AIR SOURCE SELECT Knob----- L, BOTH, OR R

PROCEDURE COMPLETED

## 10 ■ SPD BRK EXTEND

Indicates that one or both speed brakes are not in the stowed position.

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RED CAS
AMBER CAS
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NORM

1

■ STALL WARN HI

Indicates that the stall warning system is set to the Icing Conditions schedule.

B

- IF STILL IN ICING CONDITIONS OR IT CANNOT BE VISUALLY VERIFIED THAT THE AIRPLANE IS CLEAR OF ICE
  1. Landing Performance - - **USE STALL WARNING-HIGH LANDING PERFORMANCE CHARTS**

PROCEDURE COMPLETED
- IF IT CAN BE VISUALLY VERIFIED THAT THE AIRPLANE IS CLEAR OF ICE
  1. PITOT-STATIC Switch - - - - - **RESET STALL WARN AND RELEASE**
  2. Landing Performance - - - - - **USE STALL WARNING-NORMAL LANDING PERFORMANCE CHARTS**

PROCEDURE COMPLETED

2

■ SURFACE DE-ICE

Indicates that a segment of the deice boot system is inflated to a satisfactory pressure.

3

■ W/S A/I FAIL L-R – WHITE (WINDSHIELD ANTI-ICE FAILURE)

Indicates that the windshield controller has failed for less than 5 seconds or is performing a self-test. This message will normally post for 5 seconds then clear when Windshield Anti-Ice is first turned ON.

4

■ W/S O’HEAT L-R – WHITE (WINDSHIELD OVERHEAT)

Indicates that the windshield controller has detected an overheat condition for less than 5 seconds or is performing a self-test. This message will normally post for 5 seconds then clear when Windshield Anti-Ice is first turned ON.

**EMERGENCY / ABNORMAL PROCEDURES****RED AND AMBER CAS MESSAGES**

Tab

**RED CAS MESSAGES**

BATTERY O'TEMP ----- K1  
 CABIN ALT ----- F2  
 GEN OFF L-R ----- J2  
 OIL PRESS LO L-R----- A8  
 TAIL CONE BLD LK ----- J1

**AMBER CAS MESSAGES**

AFT DOOR ----- AE2  
 AFT JBOX CB L-R ----- L2  
 AFT JBOX LIMIT L-R ----- L3  
 ANTISKID FAIL ----- Z1  
 BATTERY O'TEMP ----- K1  
 BATT TEMP FAIL ----- L1  
 CABIN ALT ----- G2  
 CABIN DOOR ----- AE3  
 CHECK DOORS----- AE4  
 DUCT O'HEAT L-R ----- H1  
 ENG A/I COLD L-R ----- P1  
 ENG CTRL SYS L-R----- D5  
 FLAPS FAIL ----- O2  
 F/W SHUTOFF L-R----- D6  
 FUEL BOOST L-R ----- D8  
 FUEL FLTR BP L-R----- D9  
 FUEL LVL LO L-R----- D10  
 FUEL PRES LO L-R ----- E1  
 GEN OFF L-R ----- L4  
 HYD PRESS LO----- AA1  
 HYD PUMP ON ----- AA2  
 NOSE DOOR L-R----- AF1  
 OXYGEN OFF ----- I2  
 P/S HTR L-R ----- P2  
 PRESS CTRL----- I3  
 STALL WARN FAIL ----- V4  
 STALL WARN HTR----- Q1  
 T2 HTR FAIL ----- Q2  
 TAIL DE-ICE FAIL----- Q4  
 W/S A/I FAIL L-R ----- Q3  
 W/S O'HEAT L-R ----- R1  
 WING DE-ICE FAIL----- R2  
 WOW MISCOMPARE ----- AB1

RED AND AMBER  
CAS MESSAGES

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RED CAS
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EMER ABNORM
WHITE CAS
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RED AND AMBER  
CAS MESSAGES

PILOT NOTES



# TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

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TOC

RED  
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WHITE  
CAS

NORM

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-21 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, Table of Contents, add and delete a procedure.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, adjacent to page 7.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

In the Emergency/Abnormal Procedures checklist, Table of Contents, page 7 add the Uncommanded Reduction in Engine Power procedure and delete the Uncommanded Reduction in Engine Power During Icing Conditions procedure:

## ENGINE/FUEL

Uncommanded Reduction in Engine Power - - - - - E3

## ICING

~~Uncommanded Reduction in Engine Power During Icing Conditions - R3~~

APPROVED BY

*for* *Ken Hackett*  
Vasant Gondhalekar, Lead ODA Administrator  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL 09 JUNE 2010

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### ENGINE / FUEL

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Airstart Envelope - - - - -	<b>A5</b>
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Switch Light ON After Engine Start) - - - - -	<b>C1</b>
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High Sustained ITT During Ground Shutdown - - - - -	<b>C3</b>
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EMERGENCY/ABNORMAL
--------------------

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Aileron Trim Inoperative - - - - -	N3
Rudder Trim Inoperative - - - - -	N4
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ICING

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EMERGENCY / ABNORMAL PROCEDURES

This section lists procedures associated with specific annunciators and other malfunctions requiring emergency or abnormal procedures. A red box around the title denotes a procedure that can be found in the Emergency Procedures section of the AFM.

A

1

ENGINE FAILURE OR FIRE OR MASTER WARNING OR ANY OTHER NON-NORMAL EVENT DURING TAKEOFF

● SPEED BELOW  $V_1$  - TAKEOFF REJECTED

1. Takeoff-----ABORT
- a. Brakes-----MAXIMUM PILOT EFFORT

b. Throttles----- IDLE

c. Speed Brakes----- EXTEND

d. Throttles----- CUTOFF
- (if runway departure is imminent)

☐ IF ENGINE FIRE

2. Refer to ENGINE FIRE L or R (Engine Fire Warning Light Illuminated); **Tab A3.**

PROCEDURE COMPLETED

☐ IF ENGINE FAILURE (POSSIBLE ENGINE FAIL L-R CAS MESSAGE)

2. Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1.**

PROCEDURE COMPLETED

● SPEED ABOVE  $V_1$  - TAKEOFF CONTINUED

1. Climb to a safe altitude.
- a. Maintain directional control.

b. Rotate at  $V_R$  to  $+10^\circ$  initial pitch attitude (use flight director TO mode).

c. LANDING GEAR----- **UP** (after positive rate-of-climb)

d. Airspeed -----  $V_2$  (single-engine) or **AS REQUIRED** (multi-engine)

e. At 1500 feet AGL (minimum) and clear of obstacles - - - **RETRACT FLAPS AT  $V_2 + 10$  AND ACCELERATE TO  $V_{ENR}$**

☐ IF ENGINE FIRE INDICATIONS ARE PRESENT (ENGINE FIRE LIGHT)

2. Refer to ENGINE FIRE L or R (Engine Fire Warning Light Illuminated); **Tab A3.**

PROCEDURE COMPLETED

☐ IF ENGINE FAILURE (POSSIBLE ENGINE FAIL L-R CAS MESSAGE)

2. Refer to INFLIGHT RESTART - ONE ENGINE; **Tab B2** or ENGINE FAILURE/PRECAUTIONARY SHUTDOWN; **Tab B1.**

PROCEDURE COMPLETED

**2**

## ENGINE FAILURE DURING APPROACH (POSSIBLE ENGINE FAIL L-R CAS MESSAGE)

1. Throttle (operating engine) - - - - - **INCREASE**  
as required
2. Airspeed - - - - - **V<sub>APP</sub>**
3. FLAP Handle - - - - - **TO/APR**
4. RUDDER TRIM - - - - - **TRIM**  
toward operating engine (as required)
5. Throttle (Affected Engine) - - - - - **CUTOFF**
6. Landing Gear - - - - - **DOWN AND LOCKED**
7. Landing Distance:

STALL WARNING - NORMAL	Multiply normal FLAP LAND landing distance by 1.12.
STALL WARNING - HIGH	Use normal FLAP TO/APR landing distance.

### WHEN LANDING ASSURED

8. Pressurization - - - - - **CHECK ZERO DIFFERENTIAL**
9. Autopilot and Yaw Damper - - - - - **OFF** (at or above minimums)
10. Speed brakes - - - - - **RETRACT PRIOR TO 50 FEET AGL**
11. Airspeed - - - - - **V<sub>APP</sub>**

### CAUTION

AVOID LANDING WITH A TAILWIND.

PROCEDURE COMPLETED

**3**

## ENGINE FIRE L OR R (ENGINE FIRE WARNING LIGHT ILLUMINATED)

1. Throttle (affected engine) - - - - - **IDLE**
- **IF LIGHT REMAINS ON (15 SECONDS)**
2. Illuminated ENGINE FIRE Switch - - - - - **LIFT COVER AND PUSH**
3. Throttle (affected engine) - - - - - **CUTOFF**
4. FUEL BOOST Switch (affected side) - - - - - **OFF THEN NORM**

### □ IF ENGINE FIRE LIGHT REMAINS ON (30 SECONDS)

5. Illuminated BOTTLE ARMED Switch - - - - - **PUSH**  
(BOTTLE ARMED Light goes off)

### ○ IF ENGINE FIRE LIGHT REMAINS ON OR SECONDARY FIRE INDICATIONS ARE PRESENT

6. Land as soon as possible.
7. Accomplish SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2.**

PROCEDURE COMPLETED

(Continued Next Page)

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■ **ENGINE FIRE L OR R (ENGINE FIRE WARNING LIGHT ILLUMINATED)** (Continued)

○ **IF ENGINE FIRE LIGHT GOES OUT AND SECONDARY FIRE INDICATIONS ARE NOT PRESENT**

- 6. Rotary Test ----- **FIRE WARN**  
(ENG FIRE LIGHTS should both illuminate)
- 7. Land as soon as practical.
- 8. Refer to ENGINE FAILURE/PRECAUTIONARY SHUTDOWN;  
**Tab B1.**

PROCEDURE COMPLETED

□ **IF ENGINE FIRE LIGHT GOES OUT AND SECONDARY FIRE INDICATIONS ARE NOT PRESENT**

- 5. Rotary Test ----- **FIRE WARN**  
(ENG FIRE LIGHTS should both illuminate).

○ **IF BOTH ENGINE FIRE LIGHTS ILLUMINATE**

- 6. Land as soon as practical.
- 7. Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN;  
**Tab B1.**

PROCEDURE COMPLETED

○ **IF ENGINE FIRE LIGHT ON AFFECTED SIDE DOES NOT ILLUMINATE (POSSIBLE DAMAGE TO FIRE SENSOR)**

- 6. Refer to ENGINE FIRE LIGHT REMAINS ON (30 SECONDS),  
this procedure.

PROCEDURE COMPLETED

● **IF ENGINE FIRE LIGHT GOES OUT - ENGINE AT IDLE - (PROBABLE BLEED AIR LEAK)**

- 2. Rotary Test ----- **FIRE WARN**  
(ENG FIRE LIGHTS should both illuminate)

□ **IF BOTH ENGINE FIRE LIGHTS ILLUMINATE**

- 3. Throttle (affected engine) ----- **AS REQUIRED**
- 4. Land as soon as practical.

PROCEDURE COMPLETED

□ **IF ENGINE FIRE LIGHT ON AFFECTED SIDE DOES NOT ILLUMINATE (POSSIBLE DAMAGE TO FIRE SENSOR)**

- 3. Illuminated ENGINE FIRE Switch ----- **LIFT COVER** and **PUSH**
- 4. Illuminated BOTTLE ARMED Switch ----- **PUSH**
- 5. Throttle (affected side) ----- **CUTOFF**
- 6. FUEL BOOST Switch (affected side) ----- **OFF** then **NORM**

○ **IF SECONDARY FIRE INDICATIONS ARE PRESENT**

- 7. Land as soon as possible.
- 8. Accomplish SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2.**

○ **IF SECONDARY FIRE INDICATIONS ARE NOT PRESENT**

- 7. Land as soon as practice.
- 8. Refer to ENGINE FAILURE/PRECAUTIONARY SHUTDOWN;  
**Tab B1.**

PROCEDURE COMPLETED

A



## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Emergency / Abnormal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-09 and reflects the following change to the AFM, Section III, Operating Procedures, Emergency Procedures, ENGINE FIRE L OR R procedure, change a step.

Filing Instructions: Insert this temporary change in the Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Emergency / Abnormal Procedures, adjacent to page 12.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

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In the Pilots' Emergency/Abnormal Procedures Checklist, page 12, ENGINE FIRE L OR R procedure, change Step 3 under the third-level icon titled, "IF ENGINE FIRE LIGHT ON AFFECTED SIDE DOES NOT ILLUMINATE (POSSIBLE DAMAGE TO FIRE SENSOR)" as shown below:

### ■ ENGINE FIRE L OR R (ENGINE FIRE WARNING LIGHT ILLUMINATED) (Continued)

#### ● IF ENGINE FIRE LIGHT GOES OUT - ENGINE AT IDLE - (PROBABLE BLEED AIR LEAK)

#### □ IF ENGINE FIRE LIGHT ON AFFECTED SIDE DOES NOT ILLUMINATE (POSSIBLE DAMAGE TO FIRE SENSOR)

3. Affected ENGINE FIRE Switch - - - - - LIFT COVER and PUSH

APPROVED BY

FAA Approved Under 14 CFR Part 183 Subpart D  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE

*Kim A. Hackett*  
Kim A. Hackett ODA Administrator

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DATE OF APPROVAL 19 NOVEMBER 2009



**4****EMERGENCY RESTART - TWO ENGINES**(Refer to **Tab A5** for Airstart Envelope)

● **EMERGENCY RESTART - STARTER ASSIST (ALTITUDE 20,000 FEET OR LOWER)**

- |    |                            |       |                          |
|----|----------------------------|-------|--------------------------|
| 1. | BATT Switch                | ----- | <b>BATT</b>              |
| 2. | Throttles                  | ----- | <b>CUTOFF</b>            |
| 3. | Either Engine START button | ----- | <b>PRESS momentarily</b> |
| 4. | Throttle (selected engine) | ----- | <b>IDLE</b>              |
5. ENGINE ANTI-ICE Switches ----- **OFF**  
 6. AIR COND Switch----- **OFF**  
 7. Opposite Engine (after first start complete or aborted) ----- **START**  
 (repeat steps 4-5)

**A****WARNING**

- **Emergency Battery 30-minute duration is based on a maximum of two starter-assist start attempts. Additional starter-assist start attempts will cause battery power to be depleted prematurely.**
- **The battery switch may remain in the BATT position for a maximum of 2 minutes while attempting restarts. Exceeding 2 minutes will reduce the battery capacity available to power the Emergency Bus items.**

☐ **IF NEITHER ENGINE STARTS**

8. BATT Switch ----- **RAPIDLY SELECT EMER**  
 9. Refer to Emergency Procedures, MAXIMUM GLIDE - EMERGENCY LANDING; **Tab A6**.

PROCEDURE COMPLETED

☐ **IF ONLY ONE ENGINE STARTS**

8. ENGINE ANTI-ICE (operating engine) ----- **AS REQUIRED**  
 9. Refer to Abnormal Procedures, ENGINE FAILURE/ PRECAUTIONARY SHUTDOWN; **Tab B1** to secure non-running engine or Abnormal Procedures, INFLIGHT RESTART - ONE ENGINE; **Tab B2** to attempt another start.

PROCEDURE COMPLETED

☐ **IF BOTH ENGINES START**

8. ENGINE ANTI-ICE Switches ----- **AS REQUIRED**  
 9. AIR COND Switch----- **AS DESIRED**

PROCEDURE COMPLETED

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■ EMERGENCY RESTART - TWO ENGINES (Continued)

- EMERGENCY RESTART - WINDMILL (AIRSPEED 225 KIAS MINIMUM, ALTITUDE 15,000 FEET OR LOWER, 4% N<sub>2</sub> MINIMUM, RAT -10°C OR WARMER)

1. BATT Switch -----BATT
2. L and R FUEL BOOST Switches ----- ON
3. L and R GEN Switches -----OFF
4. ENGINE ANTI-ICE Switches -----OFF
5. AIR COND Switch-----OFF
6. Firewall Shutoff ----- CHECK BOTH OPEN
7. Throttles ----- CUTOFF, then IDLE

□ IF NEITHER ENGINE STARTS

8. Throttles----- CUTOFF
9. BATT Switch----- RAPIDLY SELECT EMER
10. Refer to Emergency Procedures, MAXIMUM GLIDE-EMERGENCY LANDING; **Tab A6**.

□ IF ONE OR BOTH ENGINES START

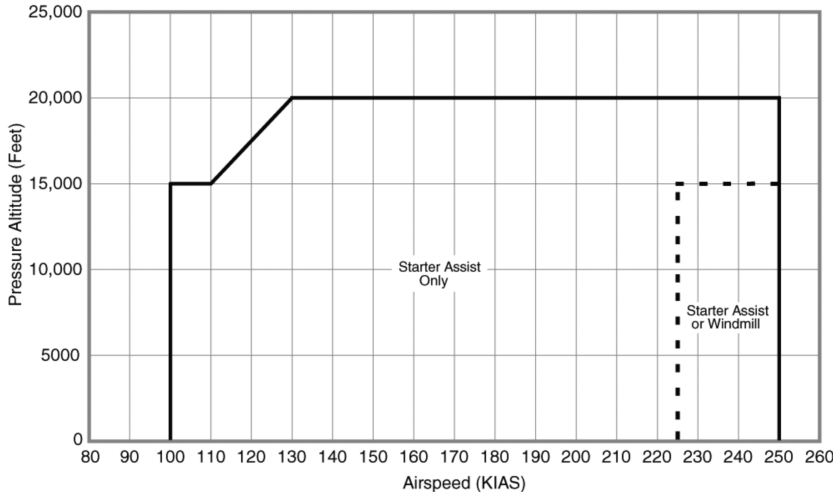
8. GEN Switch (operating engine) ----- GEN
9. ENGINE ANTI-ICE Switches -----AS REQUIRED
10. AIR COND Switch----- AS DESIRED

PROCEDURE COMPLETED

5

■ AIRSTART ENVELOPE

A63445



CAUTION

- Minimum N<sub>2</sub> for windmill start is 4%.
- Minimum RAT for windmill start is -10°C.
- The windmill starting envelope is provided as an alternate procedure for use in the event of a failure of the normal electric starting system. The windmill start envelope is not a guaranteed envelope and is provided for informational purposes only.
- Use of the windmill start procedure for training or routine airstarts is not recommended.

**6****■ MAXIMUM GLIDE - EMERGENCY LANDING****DESCENT**

1. Airspeed - PER CHART BELOW:

**MAXIMUM GLIDE AIRSPEED**

Weight - lbs	6000	6500	7000	7500	8000	8645
KIAS	120	125	130	135	140	145

**A**

2. FLAP Handle ----- **UP**
3. Speed Brakes ----- **RETRACTED**
4. LANDING GEAR Handle (if desired) ----- **UP**
5. Transponder ----- **EMERGENCY**
6. ATC ----- **ADVISE**
7. Throttles ----- **CUTOFF**
8. FUEL TRANSFER ----- **OFF**
9. BATT Switch ----- **RAPIDLY SELECT EMER**  
(for a sustained descent)
10. DISPLAY BACKUP Button (pilot audio panel) ----- **PRESS**
11. Altitude permitting and below FL200, attempt engine restart. Refer to EMERGENCY RESTART - TWO ENGINES; **Tab A4**.

**WARNING**

Wing and tail deice systems will be inoperative. Avoid entering or exit icing conditions as required. STALL WARNING-HIGH landing data is provided and must be used in the event any ice remains on the wings and/or tail during approach and landing.

**BEFORE LANDING**

1. Landing Data ----- **CONFIRM**
  - a. Airspeed

**V<sub>REF</sub> (KIAS)**

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
UP or UNKNOWN	<b>NORMAL</b>	<b>98</b>	<b>102</b>	<b>106</b>	<b>109</b>	<b>113</b>	<b>117</b>
	HIGH	110	114	118	122	126	131
TO/APR	<b>NORMAL</b>	<b>87</b>	<b>91</b>	<b>95</b>	<b>98</b>	<b>101</b>	<b>105</b>
	HIGH	98	102	105	109	112	117
LAND	<b>NORMAL</b>	<b>82</b>	<b>85</b>	<b>88</b>	<b>91</b>	<b>94</b>	<b>98</b>

\*Use in an emergency which requires landing at weights in excess of 8000 pounds.

- b. Landing Distance:

Flaps UP or UNKNOWN	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.31.
Flaps TO/APR	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.10.
Flaps LAND	MULTIPLY appropriate landing distance by 1.83.

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■ **MAXIMUM GLIDE - EMERGENCY LANDING** (Continued)

**CAUTION**

- Avoid landing with a tailwind.
  - Landing above 8000 feet MSL with flaps UP may exceed brake energy limits.
- Crew Briefing ----- **COMPLETE**
  - Seats and Seat Belts----- **ADJUST and SECURE**
  - Avionics and Flight Instruments ----- **CHECK**
  - PAX SAFETY Switch----- **PAX SAFETY**
  - Passenger Briefing ----- **COMPLETE**
  - Passenger Seats ----- **CHECK FULL UPRIGHT**
  - LANDING GEAR ----- **EMERGENCY EXTEND**
    - LDG GEAR CONT Circuit Breaker ----- **PULL**  
(L circuit breaker panel)
    - LANDING GEAR Handle ----- **DOWN**
    - EMERGENCY GEAR RELEASE Cover ----- **REMOVE**
    - EMERGENCY GEAR RELEASE T-Handle ----- **PULL AND ROTATE TO LOCK**
    - EMERGENCY GEAR RELEASE Knob ----- **PULL TO BLOW DOWN** (for positive lock)
    - Landing Gear ----- **CHECK DOWN AND LOCKED**  
(3 green lights)

**CAUTION**

- Prior to using the emergency extension system, the landing gear handle must be down and/or the gear control circuit breaker pulled to prevent possible energizing of the gear hydraulic system to the retract position.
  - Once the emergency gear extension system has been used, do not attempt to retract the landing gear.
- Airspeed ----- **V<sub>REF</sub>**
  - Pressurization ----- **ZERO DIFFERENTIAL PRESSURE**  
at touchdown (use CABIN DUMP switch if required)

**LANDING**

- Brake Pedals ----- **REMOVE FEET FROM BRAKE PEDALS**
- EMERGENCY BRAKE Handle----- **SMOOTH PULL AS REQUIRED**

(Continued Next Page)

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## ■ MAXIMUM GLIDE - EMERGENCY LANDING (Continued)

### CAUTION

- Antiskid system does not function during emergency braking. Excessive pressure on emergency brake handle can cause both wheel brakes to lock, resulting in blowout of both tires.
- Repeated application and release of the emergency brake handle may cause premature loss of pneumatic pressure.
- After landing, clear the runway and stop. Do not attempt to taxi onto the ramp using emergency brakes.

13. Directional Control - - - - - **MAINTAIN**  
with nosewheel steering

PROCEDURE COMPLETED

**A**

**7**

## ■ ENGINE SURGES OR UNSTABLE ENGINE OPERATION

1. Throttle (affected engine) - - - - - **IDLE**

### ● IF ENGINE CONTINUES TO SURGE AND/OR ITT EXCEEDS LIMIT

2. Throttle (affected engine) - - - - - **-CUTOFF**

3. Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1.**

### ● IF ENGINE SURGING STOPS

2. Throttle (affected engine) - - - - - **INCREASE CAUTIOUSLY**

3. Engine Instruments - - - - - **MONITOR**

4. Throttles - - - - - **RESUME NORMAL OPERATION**

PROCEDURE COMPLETED

**8**

## ■ OIL PRESS LO L-R (LOW OIL PRESSURE, RED POINTER AND DIGITS)

1. Throttle (affected engine) - - - - - **IDLE**

### ● IF POINTER AND DIGITS CHANGE TO AMBER OR GREEN

2. Throttle (affected engine) - - - - - **MAINTAIN REDUCED  
POWER AS REQUIRED**

3. Land as soon as practical.

PROCEDURE COMPLETED

### ● IF POINTER AND DIGITS RETURN TO RED OR REMAIN RED FOR MORE THAN 15 SECONDS

2. Throttle (affected engine) - - - - - **-CUTOFF**

3. Accomplish ENGINE FAILURE/PRECAUTIONARY SHUTDOWN; **Tab B1.**

PROCEDURE COMPLETED

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ENGINE FAILURE/PRECAUTIONARY SHUTDOWN

1.
- Throttle (affected engine) ----- CUTOFF

CAUTION

- If possible, the engines should remain at idle for a minimum of two minutes prior to shutdown to allow the engine inter-turbine temperatures to stabilize and avoid turbine blade rub.
- If the engine windmills for more than 15 minutes without a positive indication of oil pressure, a notation is required in the engine logbook and the engine must be inspected in accordance with the pratt and whitney engine maintenance manual.
- If the engine windmills for more than 15 minutes with the firewall shutoff closed or the boost pump turned off, the engine fuel pump must be inspected in accordance with the Pratt and Whitney Engine Maintenance Manual.

2.
- GEN Switch (affected side) -----OFF
3.
- IGNITION Switch (affected side) ----- NORM
4.
- Electrical Load ----- REDUCE as required  
(300A maximum ≤ FL300 / 280A > FL300)
5.
- Fuel TRANSFER Knob -----AS REQUIRED

● IF ENGINE FIRE HAS OCCURRED (FIRE EXTINGUISHED, SECURE ENGINE)

6.
- Verify ENGINE FIRE switch (affected side) is pushed (appropriate F/W SHUTOFF L-R CAS message is displayed).
7.
- Land as soon as practical. Refer to Abnormal Procedures, SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

PROCEDURE COMPLETED

● PRECAUTIONARY ENGINE SHUTDOWN (NO ENGINE FIRE)

6.
- Verify ENGINE FIRE switch is not depressed and firewall shutoff is open (no F/W SHUTOFF CAS message).
7.
- FUEL BOOST Switch (affected side) ----- ON
8.
- Land as soon as practical. Refer to Abnormal Procedures, SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

PROCEDURE COMPLETED

## 2 ■ INFLIGHT RESTART – ONE ENGINE

1. Altitude ----- **BELOW 20,000 FEET**  
(Refer to **Tab A5** for Airstart Envelope)

### CAUTION

Do not attempt to restart an engine if it is possible that ice has formed in the engine or engine inlet. Significant damage to the engine can occur.

2. Throttle (affected engine) ----- **CUTOFF**
3. FUEL TRANSFER Knob ----- **OFF**
4. ENGINE ANTI-ICE (affected side) ----- **OFF**
5. ENGINE FIRE Switch ----- **CHECK OPEN**  
(F/W SHUTOFF CAS message not displayed)
6. AIR COND Switch ----- **OFF**
7. AIR SOURCE SELECT Knob ----- **OPERATING ENGINE**
8. GEN Switch (affected side) ----- **OFF**

**B**

### ● WITH STARTER ASSIST (ALTITUDE 20,000 FEET OR LOWER)

9. FUEL BOOST Switch (affected side) ----- **NORM**
10. ENGINE START Button (affected side) ----- **PRESS**  
(momentarily)
11. Throttle (affected engine) ----- **IDLE**
12. Engine Instruments ----- **MONITOR**
  - a. Abort Start if no ITT rise within 10 seconds or ITT limit exceeded.
  - b. Abort Start if stabilized flight idle is not achieved within 45 seconds.
13. ENGINE START Button ----- **LIGHT EXTINGUISHED**

### □ IF ENGINE DOES NOT START

14. Throttle (affected engine) ----- **CUTOFF**
15. ENGINE START DISENG Button ----- **PRESS**
16. FUEL BOOST Switch (affected engine) ----- **ON**
17. Fuel TRANSFER Knob ----- **AS REQUIRED**
18. Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1**, and SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

PROCEDURE COMPLETED

### □ IF ENGINE DOES START

14. GEN Switch (affected side) ----- **GEN**
15. Engine Instruments/CAS Messages ----- **CHECK NORMAL**
16. ENG ANTI-ICE and AIR COND Switches ----- **AS REQUIRED**
17. AIR SOURCE SELECT Knob ----- **BOTH**

PROCEDURE COMPLETED

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■ INFLIGHT RESTART - ONE ENGINE (Continued)

- WINDMILLING AIRSTART (AIRSPEED 225 KIAS MINIMUM, ALTITUDE 15,000 FEET OR LOWER, 4% N<sub>2</sub> MINIMUM, RAT -10°C OR WARMER)
  - 9. FUEL BOOST Switch (affected side) ----- ON
  - 10. Throttle (affected engine)----- IDLE at 4% N<sub>2</sub> (minimum)
  - 11. Engine Instruments----- MONITOR
    - a. Abort Start if no ITT rise within 10 seconds or ITT limit exceeded.
    - b. Abort Start if stabilized flight idle is not achieved within 90 seconds.

CAUTION

B

- The FADEC will cycle fuel flow and ignition to accelerate N<sub>2</sub> to 20% while maintaining ITT within limits. ITT and N<sub>2</sub> will increase in a stair-step manner and ITT may briefly exceed 830°C. Once N<sub>2</sub> reaches 20%, the cycling should stop and the ITT should smoothly increase until peaking. If ITT exceeds a start limit during this portion of the start sequence, the start must be manually terminated.
- If the airspeed decreases below 225 KIAS during the windmill start sequence, the start attempt should be terminated.

□ IF ENGINE DOES NOT START

- 12. Throttle (affected engine)----- CUTOFF
- 13. FUEL TRANSFER Knob -----AS REQUIRED
- 14. Refer to the WITH STARTER ASSIST bullet in this procedure; **Tab B2**, or ENGINE FAILURE/PRECAUTIONARY SHUTDOWN; **Tab B1**, or SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

PROCEDURE COMPLETED

□ IF ENGINE DOES START

- 12. GEN Switch (affected side) ----- GEN
- 13. FUEL BOOST Switch (affected side)----- NORM  
(after engine stabilizes)
- 14. Engine Instruments/CAS Messages -----CHECK NORMAL
- 15. ENGINE ANTI-ICE and AIR COND Switches-----AS REQUIRED
- 16. AIR SOURCE SELECT Knob----- BOTH

PROCEDURE COMPLETED



## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

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NORM

Publication Affected:	Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Revision 7, dated 21 November 2008.
Airplane Serial Nos. Affected:	Airplanes 510-0405 and On and Airplanes 510-0001 thru -0404 incorporating SB510-76-01.
Description of Change:	This temporary change is current with 510FM TC-R07-24 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, replace the ENGINE START MALFUNCTION (ENGINE DOES NOT START) procedure.
Filing Instructions:	Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist adjacent to page 21.
Removal Instructions:	This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

In the Emergency/Abnormal Procedures checklist, page 21, Tab B3, replace the ENGINE START MALFUNCTION (ENGINE DOES NOT START) procedure with the following:

### **3 ■ ENGINE START MALFUNCTION (ENGINE DOES NOT START)**

1. Throttle (affected engine) - - - - - **CUTOFF**
2. ENGINE START DISENG Button - - - - - **PRESS 15 SECONDS AFTER THROTTLE CUTOFF**

#### **● ON GROUND**

3. IGN Switch (affected engine) - - - - - **ON** to check the maximum ITT (if FADEC commanded a start abort)
4. IGN Switch (affected engine) - - - - - **NORM**

#### **☐ IF UNABLE TO ATTEMPT ANOTHER START**

PROCEDURE COMPLETED

#### **☐ IF ABLE TO ATTEMPT ANOTHER START**

5. Refer to DRY MOTORING; **Tab B4**, prior to making another start attempt.

PROCEDURE COMPLETED

(Continued Next Page)

TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

■ **ENGINE START MALFUNCTION (ENGINE DOES NOT START)**

(Continued)

● **IN FLIGHT**

☐ **IF UNABLE TO ATTEMPT ANOTHER START**

3. Land as soon as practical. Refer to ENGINE FAILURE/  
PRECAUTIONARY SHUTDOWN; **Tab B1**.

PROCEDURE COMPLETED

☐ **IF ABLE TO ATTEMPT ANOTHER START**

3. Refer to INFLIGHT RESTART - ONE ENGINE; **Tab B2**.

PROCEDURE COMPLETED

Trim to  
6.5 x 11  
inches

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WHITE CAS
NORM

**APPROVED BY** Kim Hackett

*for*

John Bouma, Lead ODA Administrator  
Cessna Aircraft Company  
Organization Delegation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

**DATE OF APPROVAL** 14 MARCH 2012

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**3****ENGINE START MALFUNCTION (ENGINE DOES NOT START)**

1. Throttle (affected engine)-----CUTOFF
2. ENGINE START DISENG Button ----- **PRESS 15 SECONDS AFTER THROTTLE CUTOFF**

**● IF UNABLE TO ATTEMPT ANOTHER START****☐ ON GROUND**

PROCEDURE COMPLETED

**☐ IN FLIGHT**

3. Land as soon as practical. Refer to ENGINE FAILURE/ PRECAUTIONARY SHUTDOWN; **Tab B1**.

PROCEDURE COMPLETED

**● IF ABLE TO ATTEMPT ANOTHER START****☐ ON GROUND**

3. Refer to DRY MOTORING, **Tab B4**, prior to making another start attempt.

PROCEDURE COMPLETED

**☐ IN FLIGHT**

3. Refer to INFLIGHT RESTART – ONE ENGINE; **Tab B2**.

PROCEDURE COMPLETED

**B****4****DRY MOTORING**

1. Throttle (affected engine)-----CUTOFF
2. IGNITION Switch (affected side)----- **NORM**
3. ENGINE START Button (affected side) ----- **PRESS** momentarily  
Motor engine for desired duration (observe starter limits; refer to Operating Limitations, START CYCLE LIMITATIONS in the AFM).
4. ENGINE START DISENG Button ----- **PRESS**

PROCEDURE COMPLETED

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ENGINE STARTER DOES NOT DISENGAGE (ENGINE START L OR R SWITCH LIGHT ON AFTER ENGINE START)

1. ENGINE START DISENG Button ----- PRESS

● IF STARTER DOES NOT DISENGAGE AND ENGINE START SWITCH LIGHT REMAINS ILLUMINATED (START RELAY STUCK)

□ ON GROUND

2. L and R GEN Switches -----OFF
3. BATTERY DISCONNECT Switch ----- LIFT GUARD AND DISCONNECT
4. Ground Power Unit (if connected) ----- DISCONNECT
5. Throttle(s) ----- CUTOFF
6. Battery (in tailcone) ----- DISCONNECT
7. BATT Switch-----OFF
8. STBY INST Switch -----OFF
9. Ground Power Unit ----- DO NOT RECONNECT

PROCEDURE COMPLETED

□ IN-FLIGHT/START SUCCESSFUL

2. Land as soon as practical.

SHUTDOWN

3. PARKING BRAKE-----SET
4. L and R GEN Switches -----OFF
5. BATTERY DISCONNECT Switch ----- LIFT GUARD AND DISCONNECT
6. Throttles----- CUTOFF
7. Battery (in tailcone) ----- DISCONNECT
8. BATT Switch-----OFF
9. STBY INST Switch -----OFF
10. Ground Power Unit ----- DO NOT CONNECT

PROCEDURE COMPLETED

□ IN-FLIGHT/START ABORTED

2. BATTERY DISCONNECT Switch ----- LIFT GUARD AND DISCONNECT

WARNING

The current limiter on the side with the operating generator will most likely fail when the engine start disengage button is pressed. This will cause items powered by the crossfeed, battery, and opposite side generator busses to lose power when the battery is disconnected with only one generator available. Most avionics systems will remained powered.

3. Speed Brakes----- DO NOT USE
4. Land as soon as practical. Refer to SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**, LANDING GEAR WILL NOT EXTEND; **Tab Y1**, HYD PRESS LO; **Tab AA1** and FLAPS INOPERATIVE APPROACH AND LANDING; **Tab AC3**, as required.

(Continued Next Page)

## ■ ENGINE STARTER DOES NOT DISENGAGE (ENGINE START L OR R SWITCH LIGHT ON AFTER ENGINE START) (Continued)

### SHUTDOWN

5. PARKING BRAKE- - - - - SET or WHEELS - CHOCK
6. L and R GEN Switch - - - - - OFF
7. Throttle - - - - - CUTOFF
8. Battery (in tailcone)- - - - - DISCONNECT
9. BATT Switch - - - - - OFF
10. STBY INST Switch - - - - - OFF
11. Ground Power Unit - - - - - DO NOT CONNECT

PROCEDURE COMPLETED

### ● IF STARTER DOES DISENGAGE

PROCEDURE COMPLETED

## 2 ■ ENGINE DOES NOT RESPOND TO THROTTLE MOVEMENT

C

1. Throttle (affected engine)- - - - - IDLE
2. FADEC RESET Switch - - - - SELECT AFFECTED SIDE AND RELEASE

### ● IF NO THROTTLE RESPONSE AND ENGINE OPERATION WITHIN NORMAL LIMITS

3. Engine Instruments- - - - - MONITOR
4. Land as soon as practical.
5. Refer to ENGINE FAILURE/PRECAUTIONARY SHUTDOWN procedure; **Tab B1**, when required for descent, approach, landing, or taxi.

PROCEDURE COMPLETED

### ● IF ENGINE OPERATION OUTSIDE NORMAL LIMITS

1. Throttle (affected engine) - - - - - CUTOFF
2. Refer to ENGINE FAILURE/PRECAUTIONARY SHUTDOWN procedure; **Tab B1**.
3. Land as soon as practical.

PROCEDURE COMPLETED

### ● IF THROTTLE RESPONSE RETURNS TO NORMAL

PROCEDURE COMPLETED

## 3 ■ HIGH SUSTAINED ITT DURING GROUND SHUTDOWN

1. Throttle (affected engine)- - - - - CUTOFF
2. ENGINE START Button (affected side) - - - - - PRESS momentarily
3. ENGINE START DISENG Button - - - - - PRESS after 15 seconds

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

- 1

■

**OIL PRESSURE HIGH (>170 PSI, AMBER OIL PRESS INDICATION)**
1.

Throttle (affected engine)----- **REDUCE**  
to maintain oil pressure at or below 170 PSI
- **IF THE INDICATION DOES NOT RESPOND OR INDICATION TURNS RED**
2.

Throttle (affected engine)----- **CUTOFF**  
Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1**.  
PROCEDURE COMPLETED
- **IF THE INDICATION RESPONDS BUT PRESSURE IS ABOVE 170 PSI AT IDLE**
2.

Oil Temperature ----- **MONITOR**
- **IF OIL TEMPERATURE INCREASES**
3.

Throttle (affected engine)----- **CUTOFF**  
Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1**.  
PROCEDURE COMPLETED
- **IF OIL TEMPERATURE IS NORMAL**
3.

Throttle (affected engine)----- **AS REQUIRED,**  
normal operations
4.

Engine instruments ----- **MONITOR**
5.

Land as soon as practical.  
PROCEDURE COMPLETED
- **IF THE INDICATION RESPONDS AND PRESSURE GOES BELOW 170 PSI**  
PROCEDURE COMPLETED
- 2

■

**LOW OIL PRESSURE (AMBER POINTER AND DIGITS)**
1.

Throttle (affected engine)----- **REDUCE**
- **IF POINTER AND DIGITS RETURN TO GREEN**
2.

Throttle (affected engine)----- **MAINTAIN REDUCED POWER AS REQUIRED**  
PROCEDURE COMPLETED
- **IF POINTER AND DIGITS TURN RED FOR MORE THAN 15 SECONDS (ACCOMPANIED BY OIL PRESS LO L-R CAS MESSAGE)**
2.

Throttle (affected engine)----- **CUTOFF**
3.

Accomplish ENGINE FAILURE/PRECAUTIONARY SHUTDOWN procedure; **Tab B1**.
4.

Land as soon as practical. Refer to SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.  
PROCEDURE COMPLETED

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WHITE CAS
NORM

**3**

### ■ OIL TEMPERATURE HIGH (>135°C, AMBER OIL TEMP INDICATION)

1. Throttle (affected engine) - - - - - **REDUCE**  
to maintain oil temperature at or below 130°C.
  - **IF THE OIL TEMPERATURE DOES NOT DECREASE BELOW 135°C OR OIL PRESSURE LIMIT IS REACHED**
  2. Throttle (affected engine) - - - - - **CUTOFF**  
Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **Tab B1**.
- PROCEDURE COMPLETED
- **IF THE OIL TEMPERATURE DECREASES BELOW 135°C AND ALL OTHER ENGINE INDICATIONS ARE NORMAL**  
PROCEDURE COMPLETED

**4**

### ■ ENGINE INDICATION FAILURE (RED “X” ON ENGINE DISPLAY)

1. FADEC RESET Switch - - - - - **SELECT AFFECTED SIDE AND RELEASE**
  2. ENGINE INTER 1 (L circuit breaker panel) and  
ENGINE INTER 2 (R circuit breaker panel) - - - - - **CHECK**
- **IF ENGINE INDICATIONS REMAIN FAILED (RED “X”)**
  3. Use caution when adjusting engine thrust.
  4. Land as soon as practical.

PROCEDURE COMPLETED
- **IF NORMAL INDICATIONS RETURN**  
PROCEDURE COMPLETED

**D****5**

### ■ ENG CTRL SYS L-R (ENGINE CONTROL SYSTEM FAULT)

Indicates that an input to the FADEC has failed, exceeded tolerances, or a FADEC channel is inoperative. May also be accompanied by RED “X” N<sub>1</sub> and ITT. This message will display when EMER power is selected due to loss of normal aircraft DC power to the FADEC.

1. FADEC RESET Switch - - - - - **SELECT AFFECTED SIDE AND RELEASE**
- **IF MESSAGE REMAINS DISPLAYED**
2. Throttle (affected engine) - - - - - **MOVE LEVER SLOWLY DURING ALL POWER CHANGES**

#### **CAUTION**

The engine may be operating in a degraded mode. Depending on the exact cause, some possible effects of this include:

- Degraded or lack of response to throttle movements including possible surging or flameout.
- Possible inability to restart.
- Possible inability to achieve ground idle.
- Loss of automatic ITT limiting during ground or windmill starts.
- Loss of ITT indication.

(Continued Next Page)

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## ■ ENG CTRL SYS L-R (ENGINE CONTROL system FAULT) (Continued)

3. Land as soon as practical.

PROCEDURE COMPLETED

### ● IF MESSAGE CLEARS

PROCEDURE COMPLETED

## 6 ■ F/W SHUTOFF L-R (FIREWALL SHUTOFF VALVES CLOSED)

Indicates that all electrical and fuel systems are shutoff to the indicated engine. Usually indicates that the respective ENGINE FIRE switch has been activated. If this message posts when the throttle is moved to CUTOFF, it indicates a malfunction of the normal shutdown system and the respective side Firewall Shutoff Valve has been closed by the FADEC. Moving the respective throttle out of CUTOFF will re-open the Firewall Shutoff Valve.

### ● IN FLIGHT (DURING ENGINE START)

1. Verify ENGINE FIRE Switch (affected side) is not pushed.
2. Verify F/W SHUTOFF L or R CAS message clears with throttle out of CUTOFF.

### □ IF F/W SHUTOFF L OR R CAS MESSAGE CLEARS

PROCEDURE COMPLETED

### □ IF F/W SHUTOFF L OR R CAS MESSAGE DOES NOT CLEAR

3. Throttle (affected side)----- CUTOFF
4. Land as soon as practical. Refer to SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

### ● ON GROUND

1. Verify ENGINE FIRE switch (affected side) is not pushed.
2. Correct prior to flight.

PROCEDURE COMPLETED

## 7 ■ FUEL QUANTITY RED “X” OR INACCURATE FUEL QUANTITY INDICATION

Indicates a fault in the fuel quantity gauging system.

1. FMS Fuel On Board (MFD AUX-WEIGHT PLANNING page) ----- **MONITOR ESTIMATED FUEL REMAINING**
2. Land as soon as practical.

### **WARNING**

The fuel on board, landing fuel, fuel reserves, excess fuel, and gross weight estimate functions of the FMS are supplemental information only and must be verified by the flight crew.

PROCEDURE COMPLETED

D



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## 8 ■ FUEL BOOST L-R – AMBER (FUEL BOOST PUMP ON)

Indicates that the respective fuel boost pump has been activated by the low pressure switch.

1. FUEL BOOST switch (affected side) - - - - - **ON; THEN NORM**  
(check for FUEL PRES LO message to display then clear, MASTER CAUTION may flash)

### CAUTION

If “FUEL BOOST L-R” message remains displayed and/or “FUEL PRES LO L-R” message is displayed, leave the fuel boost switch in NORM with the pump running. If the low fuel pressure switch has caused the boost pump to trip on, turning the boost pump off could possibly result in engine flameout.

2. Land as soon as practical.
- PROCEDURE COMPLETE

## 9 ■ FUEL FLTR BP L-R (FUEL FILTER BYPASS)

Indicates fuel filter bypass or impending bypass of respective engine fuel filter.

1. Land as soon as practical.

### WARNING

It is possible that contaminated fuel could have been introduced into both fuel tanks. Monitor opposite engine, restrict fuel transfer, and consider partial or total loss of thrust from both engines. Inspect both fuel filters after landing.

PROCEDURE COMPLETED

## 10 ■ FUEL LVL LO L-R (FUEL LEVEL LOW)

Indicates that 170 pounds or less of fuel remains in the respective tank.

1. FUEL BOOST switch (affected side) - - - - - **ON**
2. FUEL TRANSFER Knob - - - - - **AS REQUIRED**
3. Land as soon as practical. Consider an alternate destination as required.

PROCEDURE COMPLETED

**D**

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1

FUEL PRES LO L-R (FUEL PRESSURE LOW)

Indicates that the fuel pressure supplied to the engine is low. The engine could run irregularly or stop completely.

- FUEL BOOST Switch (affected side)----- ON
  - Fuel Quantity ----- CHECK
- IF FUEL BOOST L-R CAS MESSAGE IS NOT DISPLAYED (FUEL BOOST PUMP IS INOPERATIVE)

CAUTION

If fuel pressure is low and the boost pump is failed, the engine may flame out.

- FUEL TRANSFER Knob -----AS REQUIRED  
(to the affected tank)
- Avoid rapid throttle movements.
- Land as soon as practical.

PROCEDURE COMPLETED

E

- IF FUEL BOOST L-R CAS MESSAGE DISPLAYS (WITH OR WITHOUT FUEL PRES LO L-R CAS MESSAGE)

CAUTION

Do not plan to transfer fuel to the fuel tank with the boost pump operating. Doing so would require turning the boost pump off which could result in an engine flame-out.

PROCEDURE COMPLETED

2

FUEL TRANSFER MESSAGE ON WHEN TRANSFER NOT SELECTED

Indicates that the fuel transfer valve is not closed.

- FUEL BOOST Switches----- BOTH ON
- Fuel Quantity ----- MONITOR
- Land as soon as practical.

PROCEDURE COMPLETED

- IF ADDITIONAL FUEL TRANSFER REQUIRED
- FUEL TRANSFER Knob ----- DESIRED DIRECTION
  - FUEL BOOST Switch (on receiving side) ----- NORM
  - Fuel Quantity ----- MONITOR
  - FUEL BOOST Switch ----- ON  
(when transfer complete)
  - FUEL TRANSFER Knob -----OFF
- PROCEDURE COMPLETED

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

Publication Affected:	Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist Emergency/Abnormal Procedures, Revision 7, dated 21 November 2008.
Airplane Serial Nos. Affected:	Airplanes 510-0001 thru -0404 not incorporating SB510-76-01.
Description of Change:	This temporary change is current with 510FM TC-R07-26 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, Engine/Fuel, add a procedure.
Filing Instructions:	Remove and discard 510CLEAP TC-R07-05. Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, adjacent to page 28. This temporary change replaces 510CLEAP TC-R07-05 in its entirety.
Removal Instructions:	This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist or when SB510-76-01 has been incorporated.

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In the Emergency/Abnormal Procedures checklist, add a new procedure, Uncommanded Reduction in Engine Power on page 28, and renumber subsequent tabs appropriately:

### **3** ■ UNCOMMANDED REDUCTION IN ENGINE POWER

In some icing encounters, the heater on the engine T2 probe cannot keep the probe clear of ice. This can cause a false high RAT temperature indication to the FADEC. The result is the FADEC will command a lower N1 until the T2 probe is de-iced, or the Engine Anti-Ice is selected OFF. This may occur with no ice accumulation visible on the airplane.

If both engine anti-ice circuit breakers are pulled, the engine inlets will both be heated, but an amber ENG A/I COLD CAS message will display due to the loss of nacelle temperature monitoring. No additional action is required to address the amber ENG A/I COLD CAS message, and the message will clear when either circuit breaker is reset.

1. Engine Sync-----**OFF**
  2. ENGINE ANTI-ICE Switch (affected engine) -----**OFF**
  3. RAT Indication on PFD ----- **VERIFY** decrease
  4. Exit icing conditions as soon as practical
  5. Monitor for ice accumulation.
- **IF ICING INTENSITY IS TRACE OR LESS**  
Go to Step 8 prior to descent.
  - **IF ICING INTENSITY IS GREATER THAN TRACE**
    6. Engine Anti-Ice Circuit Breaker (affected engine)-----**PULL**
    7. Exit icing conditions as soon as possible.

(Continued Next Page)

TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

■ **UNCOMMANDED REDUCTION IN ENGINE POWER** (Continued)

**PRIOR TO DESCENT**

8. Engine Anti-Ice Circuit Breaker----- **RESET**
9. ENGINE ANTI-ICE Switches ----- **ON** until RAT indications are normal  
and icing conditions are exited

PROCEDURE COMPLETED

**APPROVED BY** \_\_\_\_\_

*for*

*Kim Harbott*  
John Bouma, Lead ODA Administrator  
Cessna Aircraft Company  
Organization Delegation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

**DATE OF APPROVAL** 14 MARCH 2012

**3****■ ELECTRICAL FIRE OR SMOKE****● UNKNOWN SOURCE**

- |    |                      |       |   |
|----|----------------------|-------|---|
| 1. | Oxygen Masks         | ----- | <b>DON AND EMER</b>   |
| 2. | L and R MIC Switches | ----- | <b>-OXYGEN MASK</b>   |
| 3. | Smoke Goggles        | ----- | <b>DON</b> (if required)                                    |
| 4. | OXYGEN CONTROL VALVE | ----- | <b>AS APPROPRIATE</b>                                       |
| 5. | Passenger Oxygen     | ----- | <b>ENSURE PASSENGERS ARE RECEIVING OXYGEN</b> (if selected) |
| 6. | AP/TRIM DISC Button  | ----- | <b>PRESS</b>  |
| 7. | L and R GEN Switches | ----- | <b>-OFF</b>   |
| 8. | BATT Switch          | ----- | <b>-RAPIDLY SELECT EMER</b>                                 |
9. DISPLAY BACKUP Button (pilot audio panel) ----- **-PRESS**  
 10. PAX SAFETY Switch ----- **-OFF**  
 11. FUEL TRANSFER ----- **-OFF**  
 12. AIR SOURCE SELECT Knob ----- **BOTH**  
 13. Cockpit Curtain ----- **OPEN**  
 14. Exit icing environment.

**WARNING**

**Wing and tail deice systems will be inoperative. Avoid entering or exit icing conditions as required. STALL WARNING-HIGH landing data is provided and must be used in the event any ice remains on the wings and/or tail during approach and landing.**

**E****□ COCKPIT OR CABIN FIRE**

15. Fire Extinguisher ----- **UNSTOW AND REMOVE SAFETY PIN**  
 (Fire Extinguisher is stowed in cabinet drawer directly behind pilot seat)
16. Fire ----- **LOCATE and EXTINGUISH**
17. Accomplish SMOKE REMOVAL (if required); **Tab F1**.
18. Land as soon as possible. Refer to BEFORE LANDING, this procedure.

PROCEDURE COMPLETED

(Continued Next Page)

■ ELECTRICAL FIRE OR SMOKE (Continued)

□ COCKPIT OR CABIN SMOKE (NO FIRE)

- 15. Accomplish SMOKE REMOVAL (if required); **Tab F1**.
- 16. Land as soon as possible. Refer to BEFORE LANDING, this procedure.

PROCEDURE COMPLETED.

**WARNING**

Whether or not smoke has dissipated, if it cannot be visibly confirmed that any fire has been extinguished following fire suppression and/or smoke evacuation, land immediately at the nearest suitable airport.

BEFORE LANDING

- 1. Landing Data ----- **CONFIRM**
  - a. Airspeed

**V<sub>REF</sub> (KIAS)**

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
UP or UNKNOWN	<b>NORMAL</b>	<b>98</b>	<b>102</b>	<b>106</b>	<b>109</b>	<b>113</b>	<b>117</b>
	HIGH	110	114	118	122	126	131
TO/APR	<b>NORMAL</b>	<b>87</b>	<b>91</b>	<b>95</b>	<b>98</b>	<b>101</b>	<b>105</b>
	HIGH	98	102	105	109	112	117
LAND	<b>NORMAL</b>	<b>82</b>	<b>85</b>	<b>88</b>	<b>91</b>	<b>94</b>	<b>98</b>

\*Use in an emergency which requires landing at weights in excess of 8000 pounds.

- b. Landing Distance:

Flaps UP or UNKNOWN	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.31.
Flaps TO/APR	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.10.
Flaps LAND	MULTIPLY appropriate landing distance by 1.83.

**CAUTION**

- Avoid landing with a tailwind.
  - Landing above 8000 feet MSL with flaps UP may exceed brake energy limits.
- 2. Crew Briefing ----- **COMPLETE**
  - 3. Seats and Seat Belts----- **ADJUST AND SECURE**
  - 4. Avionics and Flight Instruments ----- **CHECK**
  - 5. PAX SAFETY Switch----- **PAX SAFETY**
  - 6. Passenger Briefing ----- **COMPLETE**
  - 7. Passenger Seats ----- **CHECK FULL UPRIGHT**

(Continued Next Page)

## ■ ELECTRICAL FIRE OR SMOKE (Continued)

8. LANDING GEAR ----- **EMERGENCY EXTEND**
  - a. LDG GEAR CONT Circuit Breaker ----- **PULL**  
(L circuit breaker panel)
  - b. LANDING GEAR HANDLE ----- **DOWN**
  - c. EMERGENCY GEAR RELEASE Cover ----- **REMOVE**
  - d. EMERGENCY GEAR RELEASE T-Handle -- **PULL AND ROTATE**  
**TO LOCK**
  - e. EMERGENCY GEAR RELEASE Knob ----- **PULL TO BLOW**  
**DOWN** (for positive lock)
  - f. Landing Gear ----- **CHECK DOWN AND LOCKED**  
(3 green lights)

### CAUTION

- Prior to using the emergency extension system, the landing gear handle must be down and/or the gear control circuit breaker pulled to prevent possible energizing of the gear hydraulic system to the retract position.
- Once the emergency gear extension system has been used, do not attempt to retract the landing gear.

9. Airspeed ----- **V<sub>REF</sub>**
10. Pressurization ----- **CHECK ZERO DIFFERENTIAL**  
at touchdown (use CABIN DUMP switch if required)

## LANDING

11. Brake Pedals ----- **REMOVE FEET FROM BRAKE PEDALS**
12. EMERGENCY BRAKE Handle ----- **SMOOTH PULL**  
**AS REQUIRED**

### CAUTION

- Antiskid system does not function during emergency braking. Excessive pressure on emergency brake handle can cause both wheel brakes to lock, resulting in blowout of both tires.
- Repeated application and release of the emergency brake handle may cause premature loss of pneumatic pressure.
- After landing, clear the runway and stop. Do not attempt to taxi onto the ramp using emergency brakes.

13. Directional Control ----- **MAINTAIN**  
with nosewheel steering

14. Refer to EMERGENCY EVACUATION, **Tab AF2** as appropriate.

PROCEDURE COMPLETED

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E

■ ELECTRICAL FIRE OR SMOKE (Continued)

● KNOWN SOURCE

- |    |                            |                     |
|----|----------------------------|---------------------|
| 1. | Oxygen Masks -----         | <b>DON AND EMER</b> |
| 2. | L and R MIC Switches ----- | <b>OXYGEN MASK</b>  |
- Smoke Goggles -----**DON** (if required)
  - OXYGEN CONTROL VALVE -----**AS APPROPRIATE**
  - Passenger Oxygen -----**ENSURE PASSENGERS ARE RECEIVING OXYGEN** (if selected)
  - AIR SOURCE SELECT Knob ----- **BOTH**
  - Isolate Faulty Circuit(s) ----- **PULL CIRCUIT BREAKER(S)**
  - INTERIOR DISCONNECT Switch ----- **DISCONNECT**  
(if cabin equipment is known fault)

□ COCKPIT OR CABIN FIRE

- Fire Extinguisher -----**UNSTOW AND REMOVE SAFETY PIN**  
(Fire extinguisher is stowed in cabinet drawer directly behind pilot seat).
- Fire ----- **LOCATE AND EXTINGUISH**
- Accomplish SMOKE REMOVAL (if required); **Tab F1**.
- Land as soon as possible.

**WARNING**

Whether or not smoke has dissipated, if it cannot be visibly confirmed that any fire has been extinguished following fire suppression and/or smoke evacuation, land immediately at the nearest suitable airport.

PROCEDURE COMPLETED

□ COCKPIT OR CABIN SMOKE (NO FIRE)

- Accomplish SMOKE REMOVAL (if required); **Tab F1**.
- Land as soon as practical.

PROCEDURE COMPLETED

E



**4****ENVIRONMENTAL SYSTEM SMOKE OR ODOR**

- |                               |              |
|-------------------------------|--------------|
| 1. Oxygen Masks -----         | DON AND EMER |
| 2. L and R MIC Switches ----- | -OXYGEN MASK |

**WARNING**

Some large eyeglasses, headsets, hats and hairstyles may interfere with the quick donning capability of the mask. It is the crew member's responsibility to ensure the mask can be donned quickly.

3. Smoke Goggles ----- **DON**  
(if required)
4. OXYGEN CONTROL VALVE (if fire source is known and away from oxygen system) ----- **AS APPROPRIATE**
5. Passenger Oxygen ----- **ENSURE PASSENGERS ARE RECEIVING OXYGEN** (if selected)
6. AIR COND switch ----- **OFF**
7. PAX SAFETY Switch ----- **PAX SAFETY**
8. AIR SOURCE SELECT Knob ----- **L**  
(allow time to purge)

**● IF SMOKE/ODOR CONTINUES**

9. AIR SOURCE SELECT Knob ----- **R**  
(allow time to purge)

**□ IF SMOKE/ODOR STILL CONTINUES**

10. Altitude ----- **DESCEND**
11. Accomplish EMERGENCY DESCENT (if required); **Tab F3**.
12. AIR SOURCE SELECT Knob ----- **FRESH AIR**  
(cabin will depressurize)
13. Accomplish SMOKE REMOVAL (if required); **Tab F1**.
14. Land as soon as possible.

**WARNING**

Whether or not smoke has dissipated, if it cannot be visibly confirmed that any fire has been extinguished following fire suppression and/or smoke evacuation, land immediately at the nearest suitable airport.

PROCEDURE COMPLETED

**□ IF SMOKE/ODOR DISSIPATES**

10. Land as soon as practical.

PROCEDURE COMPLETED

**● IF SMOKE/ODOR DISSIPATES**

9. Land as soon as practical.

PROCEDURE COMPLETED

**E**

1

SMOKE REMOVAL

- |    |                            |              |
|----|----------------------------|--------------|
| 1. | Oxygen Masks -----         | DON AND EMER |
| 2. | L and R MIC Switches ----- | OXYGEN MASK  |
- 
3.

Smoke Goggles -----

DON

(if required)
4.

OXYGEN CONTROL VALVE -----

DROP MASK
5.

Passenger Oxygen -----

ENSURE PASSENGERS ARE RECEIVING OXYGEN
6.

PAX Safety Switch-----

PAX SAFETY
7.

AIR COND Switch-----

OFF
8.

CABIN DUMP Switch -----

LIFT COVER AND PRESS

(cabin altitude will not exceed approximately 15,000 feet with AIR SOURCE SELECT in L, R, or BOTH.)
9.

Land as soon as possible. Refer to EMERGENCY DESCENT; **Tab F3**, or EMERGENCY EVACUATION; **Tab AF2** or USE OF SUPPLEMENTAL OXYGEN; **Tab I1**, as appropriate.

WARNING

F

Whether or not smoke has dissipated, if it cannot be visibly confirmed that any fire has been extinguished following fire suppression and/or smoke evacuation, land immediately at the nearest suitable airport.

PROCEDURE COMPLETED

2

LOSS OF CABIN PRESSURE (RED CABIN ALT CAS MESSAGE)

- |    |                            |                     |
|----|----------------------------|---------------------|
| 1. | Oxygen Masks -----         | DON and 100% OXYGEN |
| 2. | L and R MIC Switches ----- | OXYGEN MASK         |
| 3. | Emergency Descent -----    | AS REQUIRED         |
- Refer to EMERGENCY DESCENT; **Tab F3**
4.

OXYGEN CONTROL VALVE Knob -----

DROP MASK

(as required) (ensure passengers are receiving oxygen)
5.

Transponder-----

EMERGENCY

(as required)
- PROCEDURE COMPLETED

**3****EMERGENCY DESCENT**

- |    |                                  |                                       |
|----|----------------------------------|---------------------------------------|
| 1. | AP/TRIM DISC Button - - - - -    | <b>PRESS</b>                          |
| 2. | Throttles - - - - -              | <b>IDLE</b>                           |
| 3. | Speed Brakes - - - - -           | <b>EXTEND</b>                         |
| 4. | LANDING GEAR Handle - - - - -    | <b>DOWN</b>                           |
| 5. | Initial Pitch Attitude - - - - - | <b>INITIALLY TARGET 20° NOSE DOWN</b> |

**WARNING**

The autopilot Emergency Descent Mode (EDM) cannot achieve maximum rate-of-descent. The autopilot should be disengaged and the airplane hand flown if maximum rate-of-descent is required.

**CAUTION**

If structural damage is suspected, limit airspeed to a reasonable value and limit maneuvering loads until damage assessment can be made.

- |     |                                     |   |
|-----|-------------------------------------|---|
| 6.  | Airspeed - - - - -                  | <b>-M<sub>MO</sub>/V<sub>MO</sub></b>   |
| 7.  | Transponder - - - - -               | <b>-EMERGENCY</b>   |
| 8.  | OXYGEN CONTROL VALVE Knob - - - - - | <b>DROP MASK (as required)</b><br>(make sure passengers are receiving oxygen) |
| 9.  | PAX SAFETY Switch - - - - -         | <b>PAX SAFETY</b>   |
| 10. | ATC - - - - -                       | <b>ADVISE AND OBTAIN<br/>LOCAL ALTIMETER SETTING</b>                          |
| 11. | Yaw Damper - - - - -                | <b>ENGAGE</b>   |
| 12. | Altitude - - - - -                  | <b>15,000 MSL or MINIMUM SAFE ALTITUDE</b>                                    |

**F****WARNING**

It is the pilot's responsibility to determine minimum safe altitude and to make sure that the autopilot does not turn the airplane into traffic, terrain or hazardous weather.

- |     |  |                 |
|-----|--|-----------------|
| 13. | Descend (if conditions permit) to 10,000 feet MSL. |                 |
| 14. | Passenger Briefing - - - - -                       | <b>COMPLETE</b> |
| 15. | Land as soon as possible.                          |                 |

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

- 1

■

AUTOMATIC TEMPERATURE CONTROL INOPERATIVE

1. AIR COND Switch ----- VERIFY ON (if required)

2. COCKPIT and CABIN TEMP Knob ----- VERIFY appropriate setting is selected

3. COCKPIT and CABIN FAN Knob ----- VERIFY LO, MED, or FLOOD (not OFF)

4. COCKPIT TEMP or CABIN TEMP circuit breakers----- CHECK

● IF COCKPIT TOO HOT OR DUCT O'HEAT L MESSAGE IS DISPLAYED

5. AIR SOURCE SELECT Knob-----R

□ IF COCKPIT STILL TOO HOT OR MESSAGE IS STILL DISPLAYED

6. COCKPIT TEMP circuit breaker -----PULL (L circuit breaker panel)

7. Control cockpit temperature with the left throttle.

PROCEDURE COMPLETED

□ IF COCKPIT TEMPERATURE IS SATISFACTORY AND MESSAGE IS CLEARED

PROCEDURE COMPLETED

● IF CABIN TOO HOT OR DUCT O'HEAT R MESSAGE IS DISPLAYED

5. AIR SOURCE SELECT Knob----- L

□ IF CABIN STILL TOO HOT OR MESSAGE IS STILL DISPLAYED

6. CABIN TEMP circuit breaker -----PULL (R circuit breaker panel)

7. Control cabin temperature with the right throttle.

PROCEDURE COMPLETED

● IF CABIN TEMPERATURE IS SATISFACTORY AND MESSAGE IS CLEARED

PROCEDURE COMPLETED

● IF COCKPIT TOO COLD

5. AIR SOURCE SELECT Knob----- L

● IF CABIN TOO COLD

5. AIR SOURCE SELECT Knob-----R

PROCEDURE COMPLETED

● IF TEMPERATURE IS SATISFACTORY

PROCEDURE COMPLETED
- G
- 
- 36

Configuration AA

510CLEAP-07

For Training Purposes Only

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 2 ■ CABIN ALT – AMBER (CABIN ALTITUDE)

This message is displayed when the pressurization system is operating in High Altitude Airfield mode and the cabin altitude exceeds 10,000 feet for more than 30 minutes.

1. Oxygen Masks ----- **DON AND NORM**
2. L and R MIC Switches ----- **OXYGEN MASK**
3. Cabin altitude ----- **NOTE**

### ● IF CABIN ALTITUDE IS CLIMBING OR IF MESSAGE TURNS RED

5. Emergency Descent ----- **AS REQUIRED**  
(Refer to EMERGENCY DESCENT; **Tab F3**)
6. OXYGEN CONTROL VALVE Knob ----- **DROP MASK** (as required)  
(make sure passengers are receiving oxygen)
7. Transponder ----- **EMERGENCY CODE** (as required)

PROCEDURE COMPLETED

### ● IF CABIN ALTITUDE IS STEADY

PROCEDURE COMPLETED

## 3 ■ COCKPIT FORWARD OR SIDE WINDSHIELD OR CABIN WINDOW CRACKED OR SHATTERED

1. PRESS CONT Switch ----- **STANDBY**
2. Altitude ----- **DESCEND AS ABLE**
3. Crew Oxygen Masks (if altitude > 10,000 feet) ----- **DON and NORM**
4. L and R MIC Switches ----- **OXYGEN MASK**
5. OXYGEN CONTROL VALVE ----- **DROP MASK** (if required)
6. Refer to Abnormal Procedures, USE OF SUPPLEMENTAL OXYGEN; **Tab I1.**
7. Land as soon as practical.

### ● IF EITHER FORWARD WINDSHIELD CRACKED/SHATTERED

8. L and/or R WINDSHIELD ANTI-ICE Switches ----- **OFF**
9. Remain clear of or exit icing environment.

PROCEDURE COMPLETED

### ● IF CABIN WINDOW CRACKED/SHATTERED

PROCEDURE COMPLETED

**G**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1

DUCT O'HEAT L-R (ENVIRONMENTAL SYSTEM AIR DUCT OVERHEAT)

This message is displayed when the duct temperature exceeds 149°C (300°F).

● IF DUCT O'HEAT L IS DISPLAYED

1. COCKPIT TEMP Knob ----- SELECT COOLER TEMPERATURE
2. COCKPIT TEMP circuit breaker ----- CHECK  
(L circuit breaker panel)

□ IF MESSAGE REMAINS DISPLAYED OR COCKPIT CANNOT BE CONTROLLED TO COMFORTABLE TEMPERATURE

3. AIR SOURCE SELECT Knob -----R

○ IF MESSAGE IS STILL DISPLAYED OR COCKPIT STILL TOO HOT

4. COCKPIT TEMP circuit breaker -----PULL  
(L circuit breaker panel)
5. Control cockpit temperature with the left throttle.

PROCEDURE COMPLETED

○ IF MESSAGE CLEARS AND COCKPIT TEMPERATURE IS SATISFACTORY

PROCEDURE COMPLETED

● IF DUCT O'HEAT R IS DISPLAYED

1. CABIN TEMP Knob----- SELECT COOLER TEMPERATURE
2. CABIN TEMP circuit breaker ----- CHECK  
(R circuit breaker panel)

□ IF MESSAGE REMAINS DISPLAYED OR CABIN CANNOT BE CONTROLLED TO COMFORTABLE TEMPERATURE

3. AIR SOURCE SELECT KNOB ----- L

○ IF MESSAGE IS STILL DISPLAYED

4. CABIN TEMP circuit breaker -----PULL  
(R circuit breaker panel)
5. Control cabin temperature with the right throttle.

PROCEDURE COMPLETED

○ IF MESSAGE CLEARS AND CABIN TEMPERATURE IS SATISFACTORY

PROCEDURE COMPLETED

H

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 2 ■ OVERPRESSURIZATION (>8.5 PSI)

1. AIR SOURCE SELECT Knob - ..... **L or R**
2. Throttle (on side selected as pressurization source) - ..... **REDUCE**  
(as required)

### ● IF UNABLE TO CONTROL

3. PRESS CONT Switch - ..... **STANDBY**
4. Altitude - ..... **DESCEND**  
(as required)
5. Verify Cabin Differential Pressure decreases as aircraft descends.

### □ IF DIFFERENTIAL PRESSURE DOES NOT CHANGE OR INCREASES

6. NORM PRESS Circuit Breaker - ..... **PULL**  
(L circuit breaker panel)

### ○ IF DIFFERENTIAL PRESSURE STILL DOES NOT CHANGE OR INCREASES

7. AIR SOURCE SELECT Knob - ..... **OFF**
8. Oxygen Masks - ..... **DON AND 100%**
9. L and R MIC SEL Switches - ..... **OXYGEN MASK**
10. OXYGEN CONTROL VALVE - ..... **DROP MASK**  
(make sure passengers are receiving oxygen)
11. CABIN DUMP Switch - ..... **DUMP**  
(if required)
12. Descend as required. Consider minimum safe altitude and oxygen duration. Refer to EMERGENCY DESCENT; **Tab F3**, if required.

### BEFORE LANDING

13. CABIN DUMP Switch - ..... **DUMP**  
(if Cabin Differential Pressure not Zero)

PROCEDURE COMPLETED

### ○ IF ABLE TO CONTROL

#### BEFORE LANDING

7. CABIN DUMP Switch - ..... **DUMP**  
(if Cabin Differential Pressure not Zero)

PROCEDURE COMPLETED

### ● IF ABLE TO CONTROL

3. Control cabin pressure with selected throttle.

#### BEFORE LANDING

4. CABIN DUMP Switch - ..... **DUMP**  
(if Cabin Differential Pressure not Zero)

PROCEDURE COMPLETED

### ● IF PRESSURIZATION RETURNS TO NORMAL

3. Throttle - ..... **AS DESIRED**

PROCEDURE COMPLETED

H

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**1 ■ USE OF SUPPLEMENTAL OXYGEN (UNPRESSURIZED)**

1. Oxygen Masks ----- **EMER FOR FIRE, SMOKE, OR ODOR**
  - a. 100% AT OR ABOVE 25,000 FEET CABIN ALTITUDE
  - b. NORMAL BELOW 25,000 FEET ALTITUDE
  - c. MAKE SURE CREW AND PASSENGERS ARE RECEIVING OXYGEN
2. Cabin Altitude
  - a. MAX 25,000 FEET WITH PASSENGERS
  - b. MAX 40,000 FEET CREW ONLY
3. Oxygen ----- **CHECK ENDURANCE**  
 (refer to Figure 3-4 or 3-5 in Normal Procedures, Oxygen System in AFM)
4. Range ----- **COMPUTE**  
 (based on oxygen endurance and revised fuel flow and groundspeed)

**2 ■ OXYGEN OFF**

Indicates that the OXYGEN SUPPLY Knob is OFF (pulled out) or the pressure in the oxygen supply line is low.

1. OXYGEN SUPPLY Knob ----- **PUSH IN**
2. Oxygen Pressure ----- **CHECK**
- **IF GAUGE INDICATES LOW OR OXYGEN OFF MESSAGE REMAINS POSTED**
  3. Altitude ----- **DESCEND TO 25,000 FEET OR LOWER**

PROCEDURE COMPLETED
- **IF GAUGE INDICATES NORMALLY AND OXYGEN OFF MESSAGE CLEARED**  
 PROCEDURE COMPLETED

I



**3****■ PRESS CTRL – AMBER (PRESSURIZATION CONTROL FAULT)**

Indicates that the Pressurization Control switch is in the STANDBY position or that there is an internal failure of the pressurization controller.

1. PRESS CONT Switch ----- **VERIFY NORM**

**● IF MESSAGE DOES NOT CLEAR**

2. Cabin altitude, differential pressure,  
and rate indications ----- **MONITOR**
3. PRESS CONT Switch ----- **STANDBY**  
(if cabin pressure not stable)

**□ IF CABIN ALTITUDE INCREASING (RED CABIN ALTITUDE IS DISPLAYED)**

4. Consider emergency descent if required. Refer to EMERGENCY DESCENT, **Tab F3**.

PROCEDURE COMPLETED

**□ IF CABIN ALTITUDE DECREASING**

4. Cabin Differential Pressure ----- **MONITOR**  
Refer to OVERPRESSURIZATION (>8.5 PSI); **Tab H2**, if 8.5 PSI is exceeded.

PROCEDURE COMPLETED

**□ IF INDICATIONS ARE STABLE**

4. Pressurization Instruments ----- **CONTINUE TO MONITOR**
5. Land as soon as practical.

**BEFORE LANDING**

6. CABIN DUMP Switch ----- **DUMP**  
(if Cabin Differential Pressure not zero)

PROCEDURE COMPLETED

I

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1

TAIL CONE BLEED LEAK (RED TAIL CONE BLD LK CAS MESSAGE)

Indicates that the tail cone temperature sensor has detected a tail cone temperature over 82°C (180°F) which may indicate a bleed air leak or fire in the tailcone.

1.

Left and Right ITT -----

NOTE
2.

Throttle (engine with highest ITT) -----

IDLE

(If unable to determine a higher ITT, start procedure by retarding the left engine to IDLE.)

IF CAS MESSAGE EXTINGUISHES (INDICATES POSSIBLE BLEED LEAK FROM IDLE ENGINE)

3.

Throttle -----

MAINTAIN REDUCED POWER

(to keep message extinguished)
4.

Land as soon as practical.

PROCEDURE COMPLETED

IF MESSAGE DOES NOT CLEAR

3.

Throttle (idle engine) -----

AS REQUIRED
4.

Throttle (opposite engine) -----

IDLE

IF CAS MESSAGE CLEARS (INDICATES POSSIBLE BLEED LEAK FROM IDLE ENGINE)

5.

Throttle -----

MAINTAIN REDUCED POWER

(to keep message extinguished)
6.

Land as soon as practical.

PROCEDURE COMPLETED

IF CAS MESSAGE STILL DOES NOT CLEAR (INDICATES POSSIBLE TAILCONE/BAGGAGE FIRE OR MAJOR BLEED LEAK)

5.

Use minimum symmetric power as required for descent and landing. Consider the potential of baggage or tailcone fire and subsequent need for emergency evacuation after landing.
6.

Land as soon as possible.

PROCEDURE COMPLETED

J

**2****DUAL GENERATOR FAILURE (RED GEN OFF L-R CAS MESSAGE)**

1. L and R GEN Switches ----- **RESET THEN OFF**
2. Generator Voltages ----- **CHECK**
3. L and R GEN Switches ----- **ON**

**● IF NEITHER GENERATOR COMES ON LINE**

4. AP/TRIM DISC Button ----- **PRESS**
5. BATT Switch ----- **RAPIDLY SELECT EMER**

6. AIR COND Switch ----- **OFF**
7. FUEL TRANSFER Knob ----- **OFF**
8. Exit icing environment if required.
9. Land as soon as possible (within 30 minutes). Refer to BEFORE LANDING, this procedure.

**WARNING**

With the battery switch in EMER, wing and tail deice systems will be inoperative. Avoid entering or exit icing conditions as required. **STALL WARNING-HIGH** landing data is provided and must be used in the event any ice remains on the wings and/or tail during approach and landing.

**● IF ONLY ONE GENERATOR COMES ON LINE**

4. Electrical Load ----- **REDUCE AS REQUIRED**  
(300A ≤ FL300 / 280A > FL300)
5. Land as soon as practical.

PROCEDURE COMPLETED

**● IF BOTH GENERATORS COME ON LINE**

PROCEDURE COMPLETED

**BEFORE LANDING**

1. Landing Data ----- **CONFIRM**
  - a. Airspeed

**V<sub>REF</sub> (KIAS)**

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
UP or UNKNOWN	<b>NORMAL</b>	98	102	106	109	113	117
	HIGH	110	114	118	122	126	131
TO/APR	<b>NORMAL</b>	87	91	95	98	101	105
	HIGH	98	102	105	109	112	117
LAND	<b>NORMAL</b>	82	85	88	91	94	98

\*Use in an emergency which requires landing at weights in excess of 8000 pounds.

(Continued Next Page)

**J**

■ **DUAL GENERATOR FAILURE (RED GEN OFF L-R CAS MESSAGE)**  
(Continued)

b. Landing Distance:

Flaps UP or UNKNOWN	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.31.
Flaps TO/APR	MULTIPLY appropriate STALL WARNING-NORMAL or HIGH landing distance by 2.10.
Flaps LAND	MULTIPLY appropriate landing distance by 1.83.

**CAUTION**

- Avoid landing with a tailwind.
  - Landing above 8000 feet MSL with flaps UP may exceed brake energy limits.
- Crew Briefing ----- **COMPLETE**
  - Seats and Seat Belts----- **ADJUST AND SECURE**
  - Avionics and Flight Instruments ----- **CHECK**
  - PAX SAFETY Switch----- **PAX SAFETY**
  - Passenger Briefing ----- **COMPLETE**
  - Passenger Seats ----- **CHECK FULL UPRIGHT**
  - LANDING GEAR ----- **EMERGENCY EXTEND**
    - LDG GEAR CONT Circuit Breaker ----- **PULL**  
(L circuit breaker panel)
    - LANDING GEAR HANDLE ----- **DOWN**
    - EMERGENCY GEAR RELEASE Cover ----- **REMOVE**
    - EMERGENCY GEAR RELEASE T-Handle ----- **PULL AND ROTATE TO LOCK**
    - EMERGENCY GEAR RELEASE Knob ----- **PULL TO BLOW DOWN** (for positive lock)
    - Landing Gear ----- **CHECK DOWN AND LOCKED**  
(3 green lights)

J

**CAUTION**

- Prior to using the emergency extension system, the landing gear handle must be down and/or the gear control circuit breaker pulled to prevent possible energizing of the gear hydraulic system to the retract position.
  - Once the emergency gear extension system has been used, do not attempt to retract the landing gear.
- Airspeed ----- **V<sub>REF</sub>**

(Continued Next Page)

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## ■ DUAL GENERATOR FAILURE (RED GEN OFF L-R RED CAS MESSAGE) (Continued)

10. Pressurization ----- **CHECK ZERO DIFFERENTIAL**  
at touchdown (use CABIN DUMP switch if required)
11. Brake Pedals ----- **REMOVE FEET FROM BRAKE PEDALS**
12. EMERGENCY BRAKE Handle ----- **SMOOTH PULL**  
**AS REQUIRED**

### CAUTION

- Antiskid system does not function during emergency braking. Excessive pressure on emergency brake handle can cause both wheel brakes to lock, resulting in blowout of both tires.
- Repeated application and release of the emergency brake handle may cause premature loss of pneumatic pressure.
- After landing, clear the runway and stop. Do not attempt to taxi onto the ramp using emergency brakes.

13. Directional Control ----- **MAINTAIN**  
with nosewheel steering.

PROCEDURE COMPLETED

**J**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

PILOT NOTES

K

**1 ■ BATTERY O'TEMP - AMBER (BATTERY  
OVERTEMPERATURE)**

This message is normally associated with the optional NiCad battery installation; however, the wiring to support the temperature sensor is installed regardless of which battery is installed. If this message is displayed with the standard Sealed Lead Acid battery installed, no immediate action is required and the sensor wiring should be inspected and repaired as soon as practical.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**K**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 1 ■ BATT TEMP FAIL

This message is normally associated with the optional NiCad battery installation; however, the wiring to support the temperature sensor is installed regardless of which battery is installed. If this message is displayed with the standard sealed lead acid battery installed, no immediate action is required and the sensor wiring should be inspected and repaired as soon as practical.

## 2 ■ AFT JBOX CB L-R (AFT J-BOX CIRCUIT BREAKER)

This message is displayed when a respective START CONTROL circuit breaker in the aft junction box is tripped.

### ● ON GROUND

1. Correct prior to flight. Respective engine cannot be started.

PROCEDURE COMPLETED

### ● IN FLIGHT

1. Respective engine cannot be restarted in flight.

PROCEDURE COMPLETED

L



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

### 3 ■ AFT JBOX LMT L-R (AFT J-BOX LIMITER)

Indicates a current limiter is open in the aft junction box. The electrical bus on the side with the failed current limiter can still receive power from its on-side generator, but cannot receive power from the battery. Neither the left or right busses can receive power from the opposite generator.

#### ● ON GROUND

1. Correct prior to flight.

PROCEDURE COMPLETED

#### ● IN FLIGHT

1. Be prepared for loss of FEED BUS and SHUNT BUS and the associated busses on the affected side in the event of a generator failure.

PROCEDURE COMPLETED

### 4 ■ GEN OFF L-R AMBER (SINGLE GENERATOR INOPERATIVE)

Indicates that the respective generator is not operating. This message will be red if both generators are inoperative.

1. Electrical Load ----- **REDUCE AS REQUIRED**  
(300 A maximum  $\leq$  FL300/280 A > FL300)
2. AIR COND Switch ----- **OFF**
3. GEN Switch (affected side) ----- **RESET; THEN OFF**
4. Generator Volts ----- **CHECK**

#### ● IF VOLTAGE IS APPROXIMATELY 28 VOLTS

5. GEN Switch (affected side) ----- **ON**
6. Generator Amps ----- **VERIFY GENERATOR ON LINE**

#### □ IF GENERATOR DOES NOT COME ON LINE

7. GEN Switch (affected side) ----- **OFF**
8. Electrical Load ----- **MONITOR; REDUCE AS REQUIRED**  
(300 A maximum  $\leq$  FL300/280 A > FL300)

### CAUTION

To avoid the possibility of ice shedding from the inoperative windshield and entering the engine, avoid entering or exit icing conditions as required.

PROCEDURE COMPLETED

#### □ IF GENERATOR COMES ON LINE

7. AIR COND Switch ----- **AS DESIRED**

PROCEDURE COMPLETED

#### ● IF VOLTAGE IS ABOVE 29 VOLTS OR LESS THAN 26 VOLTS

5. GEN Switch (affected side) ----- **LEAVE OFF**
6. Electrical Load ----- **MONITOR; REDUCE AS REQUIRED**  
(300 A maximum  $\leq$  FL300/280 A > FL300)

PROCEDURE COMPLETED

L

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1

AUTOPILOT MALFUNCTION (POSSIBLE RED AFCS ON PFD)

1. AP/TRIM DISC Button ----- PRESS

PROCEDURE COMPLETED

2

PITCH TRIM FAILURE (RED PTRM ON PFD)

1. Control Wheel-----GRIP FIRMLY
2. AP/TRIM DISC Button (if required) ----- PRESS  
(high elevator control forces possible)
3. Trim-----AS REQUIRED USING  
MANUAL TRIM WHEEL
4. Actuate each half of the pilot and copilot manual electric trim switches separately for at least 3 seconds each.

IF RED PTRM MESSAGE CLEARS

PROCEDURE COMPLETED

IF RED PTRM MESSAGE REMAINS OR POSTS DURING SWITCH ACTIVATION

5. Autopilot ----- DO NOT RE-ENGAGE
- PROCEDURE COMPLETED

3

ROLL AXIS AUTOPILOT FAILURE (RED ROLL ON PFD)

Indicates a failure of the roll axis of the autopilot. The autopilot will be inoperative.

4

PITCH AXIS AUTOPILOT FAILURE (RED PTCH ON PFD)

Indicates a failure of the pitch axis of the autopilot. The autopilot will be inoperative.

5

YAW AXIS AUTOPILOT FAILURE (RED YAW ON PFD)

Indicates a failure of the yaw axis of the autopilot. The autopilot and yaw damper will be inoperative.

1. Refer to YAW DAMPER INOPERATIVE; Tab X3.

M

**6****AILERON TRIM RUNAWAY**

1. Control Wheel ----- **GRIP FIRMLY**
2. AP/TRIM DISC Button----- **PRESS AND HOLD**  
(high aileron control forces possible)
3. Airspeed ----- **REDUCE**  
(as required to minimize control forces)
4. AILERON TRIM Circuit Breaker (left circuit breaker panel) ----- **PULL**
5. AP/TRIM DISC Button----- **RELEASE**
6. Land as soon as practical. Refer to AILERON TRIM INOPERATIVE; **Tab N3**.

PROCEDURE COMPLETED

**7****RUDDER TRIM RUNAWAY**

1. RUDDER PEDALS ----- **HOLD FIRMLY**
2. AP/TRIM DISC Button----- **PRESS AND HOLD**  
(high rudder control forces possible)
3. RUDDER TRIM Circuit Breaker (left circuit breaker panel) ----- **PULL**
4. AP/TRIM DISC Button----- **RELEASE**
5. Land as soon as practical. Refer to RUDDER TRIM INOPERATIVE; **Tab N4**.

PROCEDURE COMPLETED

**8****PITCH TRIM RUNAWAY**

1. CONTROL WHEEL----- **GRIP FIRMLY**
2. AP/TRIM DISC Button----- **PRESS AND HOLD**  
(high elevator control forces possible)
3. Trim----- **AS REQUIRED USING MANUAL TRIM WHEEL**
4. AFCS Circuit Breaker (left circuit breaker panel)----- **PULL**
5. AP/TRIM DISC Button----- **RELEASE**
6. Land as soon as practical.

PROCEDURE COMPLETED

**M**

1

ELECTRIC ELEVATOR TRIM INOPERATIVE

- Actuate both halves of pilot and copilot trim switches to check for stuck switch.
- AFCS Circuit Breaker (L circuit breaker panel) ----- **RESET**

● IF STILL INOPERATIVE

- Manual Elevator Trim -----**AS REQUIRED**
- If unable to trim using manual trim wheel, refer to JAMMED ELEVATOR TRIM TAB procedure; **Tab N2**.

PROCEDURE COMPLETED

● IF OPERATIVE

PROCEDURE COMPLETED

2

JAMMED ELEVATOR TRIM TAB

● DURING CRUISE

- Airspeed ----- **MAINTAIN**  
trim airspeed as long as practical
- Land as soon as practical.
- Descent ----- **MAINTAIN**  
a continuous descent to landing, if possible, to minimize elevator force
- Flaps -----**AS REQUIRED**
- Landing Gear -----**AS REQUIRED**

PROCEDURE COMPLETED

● TAKEOFF OR GO-AROUND

- Throttle ----- **REDUCE**  
(at safe altitude)
- Airspeed ----- **150 KIAS OR LESS**

**BEFORE LANDING**

- Landing Gear -----**DOWN**
- Flap Handle ----- **LAND (TO/APR** if STALL WARN HI is displayed)
- Airspeed -----**V<sub>REF</sub>+10**
- Landing Distance/Weight:

STALL WARNING	FLAPS	*MULTIPLY LANDING DISTANCE BY:	*REDUCE MAX LANDING WEIGHT BY:
NORMAL	LAND	1.28	50 lbs.
HIGH	TO/APR	1.22	40 lbs.
* Basic landing distance and maximum landing weight values must be obtained from the appropriate landing performance charts based on the STALL WARNING and ANTI-ICE system settings.			

CAUTION

N

Avoid landing with a tailwind.

PROCEDURE COMPLETED

**3 ■ AILERON TRIM INOPERATIVE**

1. AP/TRIM DISC Button ----- **PRESS**
2. Either Control Wheel ----- **APPLY**  
opposite roll input
3. Airspeed ----- **REDUCE**  
(if required to reduce control force)
4. Rudder ----- **TRIM**  
as required up to 1/2 bar slip/skid displacement to reduce roll control forces
5. FUEL TRANSFER Knob ----- **AS REQUIRED**
6. YD or AP Switch ----- **AS DESIRED**
7. Land as soon as practical.

PROCEDURE COMPLETED

**4 ■ RUDDER TRIM INOPERATIVE**

1. AP/TRIM DISC Button ----- **PRESS**
2. Rudder ----- **APPLY**  
opposing control input as required
3. Aileron ----- **APPLY**  
opposing control input and TRIM as required
4. Airspeed ----- **REDUCE**  
(if required to reduce control force)
5. FUEL TRANSFER Knob ----- **AS REQUIRED**
6. YD or AP Switch ----- **AS DESIRED**
7. Land as soon as practical.

PROCEDURE COMPLETED

**5 ■ SPEED BRAKES FAIL TO RETRACT**

1. L/R SPEED BRAKE Circuit Breakers ----- **CHECK**
2. SPD BRK Switch ----- **RETRACT**  
(try switches on both throttle knobs)
3. Land as soon as practical. If enroute, consider effect of extended speed brakes on range.
4. Airspeed -----  **$V_{REF} + 10$**
5. Landing Distance/Weight:

STALL WARNING	FLAPS	*MULTIPLY LANDING DISTANCE BY:	*REDUCE MAX LANDING WEIGHT BY:
NORMAL	LAND	1.28	50 lbs.
HIGH	TO/APR	1.22	40 lbs.

\* Basic landing distance and maximum landing weight values must be obtained from the appropriate landing performance charts based on the STALL WARNING and ANTI-ICE system settings.

**CAUTION**

- Maximum crosswind limit is 10 knots.
- Avoid landing with a tailwind.

PROCEDURE COMPLETED

**N**

1

SPEED BRAKES OPERATE ASYMMETRICALLY

1.

L/R SPEED BRAKE Circuit Breakers -----

CHECK
2.

SPEED BRAKE Switch -----

RETRACT OR EXTEND

to achieve zero roll

●

IF SPEED BRAKES ARE EXTENDED

3.

Refer to SPEED BRAKES FAIL TO RETRACT; **Tab N5**.
- PROCEDURE COMPLETED

●

IF SPEED BRAKES ARE RETRACTED

3.

Land as soon as practical.
- PROCEDURE COMPLETED

●

IF UNABLE TO ACHIEVE SYMMETRIC SPEED BRAKE DEPLOYMENT

3.

AILERON TRIM -----

AS REQUIRED to reduce control forces
4.

Land as soon as practical. If enroute, consider effect on range.
5.

If field length permits, use Flaps TO/APR for landing.
6.

Landing Data - Refer to the following tables:

**V<sub>REF</sub>** (KIAS)

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
TO/APR	NORMAL HIGH	97 108	101 112	105 115	108 119	111 122	115 127
LAND	NORMAL	92	95	98	101	104	108

\* Use in an emergency which requires landing at weights in excess of 8000 pounds.

**LANDING DISTANCE / MAXIMUM LANDING WEIGHT**

FLAPS	STALL WARNING	*MULTIPLY LANDING DISTANCE BY	*REDUCE MAXIMUM LANDING WEIGHT BY
TO/APR	NORMAL HIGH	1.37 1.22	50 lbs 40 lbs
LAND	NORMAL	1.28	50 lbs

\* Basic landing distance and weight values must be obtained from the appropriate landing performance charts based on the STALL WARNING and ANTI-ICE system settings.

**CAUTION**

- Avoid landing with a tailwind.
  - Maximum crosswind limit is 10 knots.
  - The amount of aileron trim required will increase as flap deflection is increased. At flaps land and V<sub>REF</sub>, nearly full opposite aileron trim may be required.
- PROCEDURE COMPLETED

O

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 2 ■ FLAPS FAIL (FLAPS FAIL TO MOVE, OR FLAPS MOVE UNCOMMANDED, RED "X" ON FLAP INDICATOR)

1. FLAP Handle ----- RESET TO PREVIOUS DETENT
2. FLAPS Circuit Breaker ----- CHECK  
(L circuit breaker panel)

### ● IF FLAPS FAIL CAS MESSAGE AND RED "X" ON FLAP INDICATOR CLEAR, AND FLAPS OPERATE NORMALLY

PROCEDURE COMPLETED

### ● IF FAILURE INDICATIONS REMAIN DISPLAYED OR FLAPS FAIL TO MOVE

#### □ IF FLAP POSITION IS KNOWN

3. Airspeed - Stay below appropriate flap limit speed:
  - a. Flaps UP-----250 KIAS MAXIMUM
  - b. Flaps TO/APR -----185 KIAS MAXIMUM
  - c. Flaps LAND-----150 KIAS MAXIMUM

#### ○ IF FLAPS ARE IN UP OR TO/APR POSITION

4. Refer to FLAPS INOPERATIVE APPROACH AND LANDING (Flaps not in Landing Position); **Tab AC2**.

PROCEDURE COMPLETED

#### ○ IF FLAPS ARE IN THE LAND POSITION

4. Land as soon as practical.
5. Landing data - Use normal landing data and procedures.

PROCEDURE COMPLETED

#### □ IF FLAP POSITION IS UNKNOWN (RED "X" ON FLAP INDICATOR)

1. Airspeed -----150 KIAS MAXIMUM
2. Refer to FLAP INOPERATIVE APPROACH AND LANDING (Flaps not in Landing Position); **Tab AC2**.

PROCEDURE COMPLETED

0

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**1 ■ ENG A/I COLD L-R – AMBER (ENGINE ANTI-ICE COLD)**

Indicates engine inlet temperature is below safe level for satisfactory ice protection.

- ENGINE ANTI-ICE Switches (both sides) ----- **OFF** then **ON**
- Throttle (affected engine) ----- **INCREASE**
- Respective ENGINE ANTI-ICE circuit breaker ----- **CHECK**

● **IF MESSAGE REMAINS DISPLAYED**

- Respective ENGINE ANTI-ICE circuit breaker ----- **PULL**
- Monitor engine inlet. If ice is accumulating, exit icing environment.

PROCEDURE COMPLETED

● **IF MESSAGE CLEARS**

PROCEDURE COMPLETED

**2 ■ P/S HTR L-R (PITOT-STATIC HEATER)**

Indicates that no current is flowing to the pitot probe or static port heaters.

● **IN FLIGHT**

- Pitot-Static Switch ----- **PITOT-STATIC**
- Circuit Breaker ----- **CHECK**
- Airspeed/Altitude (affected system) ----- **COMPARE**  
with unaffected systems

□ **IF AIRSPEED AND ALTITUDE NOT NORMAL**

- SENSOR Softkey (affected side) ----- **PRESS**
- ADC1/2 Softkey ----- **PRESS**  
appropriate softkey
- PFD ADI Displays ----- **CONFIRM** “BOTH ON ADC1 or 2”  
is displayed on both PFDs.
- Exit icing environment. Consider impact on RVSM capability.

PROCEDURE COMPLETED

□ **IF AIRSPEED AND ALTITUDE NORMAL**

- Continue to monitor.

PROCEDURE COMPLETED

● **ON GROUND**

- PITOT STATIC Switch ----- **ON**;  
verify message clears then OFF

**CAUTION**

Pitot probes may be damaged if the pitot/static heat is operated for more than 2 minutes on the ground.

PROCEDURE COMPLETED

P



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**3 ■ SEVERE ICING ENCOUNTER****IF SEVERE ICING IS PRESENT**

1. Immediately report weather conditions and request priority handling from Air Traffic Control to facilitate a route or altitude change to exit the severe icing conditions.
2. Flaps ----- **LEAVE IN CURRENT POSITION**  
(Do not extend or retract until airframe is clear of ice)
3. Autopilot ----- **Hold control wheel firmly and DISENGAGE**

**P****CAUTION**

Exert control wheel force as required to maintain desired flight path.

4. Avoid abrupt and excessive maneuvering that may aggravate control problems.
5. If unusual or uncommanded roll is encountered ----- **REDUCE ANGLE OF ATTACK**

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**1 ■ STALL WARN HTR (STALL WARNING VANE HEATER FAILURE)**

Indicates that no power is being supplied to the stall warning vane.

1. PITOT STATIC Switch ----- **PITOT-STATIC**
2. STALL WARN HEAT Circuit Breaker ----- **CHECK**  
(R circuit breaker panel)

**Q**

**● IF IN ICING CONDITIONS AND MESSAGE DOES NOT CLEAR**

3. Exit icing environment.
4. Airspeed (except approach and landing) ----- **160 KIAS MINIMUM**
5. Airspeed (approach and landing) ----- **V<sub>APP</sub>/V<sub>REF</sub> MINIMUM**  
from STALL WARNING-HIGH performance charts for approach and landing.

**WARNING**

If the stall warning vane becomes iced, the following systems may provide invalid data:

- Stall warning horn with automatic autopilot disconnect
- Low speed awareness range on airspeed indicator
- On-speed circle

PROCEDURE COMPLETED

**● IF NOT IN ICING CONDITIONS OR MESSAGE CLEARS**

PROCEDURE COMPLETED

**2 ■ T2 HTR FAIL (ENGINE T2 HEATER FAILURE)**

Indicates that there is no current to the T2 heater on the affected side when ENGINE ANTI-ICE Switch has been selected ON for that side.

**● ON GROUND**

1. Correct prior to flight.
- PROCEDURE COMPLETED

**● IN FLIGHT**

1. Exit icing environment.
- PROCEDURE COMPLETED

**3 ■ W/S A/I FAIL L-R – AMBER (WINDSHIELD ANTI-ICE FAILURE)**

Indicates a loss of power to the windshield anti-ice system or insufficient heat is being provided to the windshield.

1. WINDSHIELD ANTI-ICE Switch (affected side) ----- **OFF** then **ON**
2. L or R WSHLD TEMP circuit breaker ----- **CHECK**

**● IF W/S A/I FAIL MESSAGE REMAINS DISPLAYED**

3. Exit icing environment.
4. Windshield ----- **CLEAR FOG MANUALLY** (as required)
5. Refer to WINDSHIELD A/I INOPERATIVE APPROACH AND LANDING;  
**Tab AE1.**

PROCEDURE COMPLETED

**● IF W/S A/I FAIL MESSAGE EXTINGUISHED**

PROCEDURE COMPLETED

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

Publication Affected:	Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Revision 7, dated 21 November 2008.
Airplane Serial Nos. Affected:	Airplanes 510-0405 and On and Airplanes 510-0001 thru -0404 incorporating SB510-76-01.
Description of Change:	This temporary change is current with 510FM TC-R07-25 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, replace the T2 HTR FAIL (ENGINE T2 HEATER FAILURE) procedure.
Filing Instructions:	Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist adjacent to page 58.
Removal Instructions:	This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

In the Emergency/Abnormal Procedures checklist, page 58, Tab Q2, replace the T2 HTR FAIL (ENGINE T2 HEATER FAILURE) procedure with the following:

### **2 ■ T2 HTR FAIL (ENGINE T2 HEATER FAILURE)**

Indicates there is no current to the T2 heater on the affected side when the ENGINE ANTI-ICE Switch is selected ON for that side. When operating above 4000 ft pressure altitude with ENGINE ANTI-ICE on, the FADEC automatically detects errors in the T2 temperature probe that may be caused by ice accumulation associated with operation in an ice crystal environment. When an error is detected, the FADEC implements temperature confirmation logic and automatically removes power from the T2 heater, causing the T2 HTR FAIL CAS message to illuminate. Resetting the ENGINE ANTI-ICE Switch during temperature confirmation will not reset the logic, will not reapply power to the T2 heater, will not clear the CAS message, and should not be attempted. Fault code logs may be checked after flight to determine if the message was illuminated due to activation of FADEC temperature confirmation logic or actual heater failure.

#### ● **ON GROUND**

1. Correct prior to flight.

PROCEDURE COMPLETED

#### ● **IN FLIGHT**

1. Engine ANTI-ICE Switches - - - - - **ON**
2. Exit icing environment.

PROCEDURE COMPLETED

TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

**APPROVED BY**

*Kim Hackett*

*for*

John Bouma, Lead ODA Administrator

Cessna Aircraft Company

Organization Delegation Authorization ODA-100129-CE

FAA Approved Under 14 CFR Part 183 Subpart D

**DATE OF APPROVAL**

14 MARCH 2012

TOC

RED  
CAS

AMBER  
CAS

EMER  
ABNORM

WHITE  
CAS

NORM

## 4 ■ TAIL DE-ICE FAIL

Indicates that one or more segments of the horizontal or vertical tail deice boot system did not reach the required pressure when commanded or that pressure is present when not commanded.

### ● IF WING/STAB DEICE SWITCH AUTO OR MANUAL

1. Throttles ----- **INCREASE POWER**  
(as required above 70% N<sub>2</sub>)
2. WING/STAB Deice Switch-----**OFF**  
(Verify TAIL DE-ICE FAIL message clears)
3. WING/STAB Deice Switch-----**HOLD IN MANUAL**  
(SURFACE DE-ICE message should display within 6 seconds)
4. WING/STAB Deice Switch-----**AUTO** for at least 2 minutes

Q

### □ IF TAIL DE-ICE FAIL MESSAGE REMAINS DISPLAYED OR DISPLAYS AGAIN

5. Exit icing environment.

### ○ IF IT CANNOT BE VERIFIED THERE IS NO ICE ON THE HORIZONTAL STABILIZER

#### ENROUTE / DESCENT

6. Minimum Airspeed (once out of icing conditions) ---- **130 KIAS**

#### APPROACH AND LANDING

7. Flaps ----- **TO/APR**
8. Airspeed ----- **V<sub>REF</sub> + 10**
9. Landing Distance/Weight:
  - a. MULTIPLY normal Flap TO/APR landing distance by 1.22.
  - b. REDUCE maximum landing weight by 40 lbs.

### CAUTION

Avoid landing with a tailwind.

PROCEDURE COMPLETED

### ○ IF NO ICE ON THE HORIZONTAL STABILIZER

PROCEDURE COMPLETED

### □ IF TAIL DE-ICE FAIL MESSAGE REMAINS OFF

PROCEDURE COMPLETED

### ● IF WING/STAB DEICE SWITCH OFF

1. Do not fly into icing conditions.

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 1 ■ W/S O'HEAT L-R – AMBER (WINDSHIELD OVERHEAT)

Indicates the windshield has been overheated for more than 5 seconds. The white W/S O'HEAT message turns amber if it is on for 5 seconds. If the windshield temperature controller is working properly, it will shut off power to the windshield heater to allow the windshield to cool then turn heat back on.

### ● IF MESSAGE IS ON STEADY

1. WINDSHIELD ANTI-ICE switch (affected side) -----**OFF**
2. Exit icing environment.
3. Refer to WINDSHIELD A/I INOPERATIVE APPROACH AND LANDING;  
**Tab AE1.**

PROCEDURE COMPLETED

### ● IF MESSAGE IS CYCLING ON AND OFF

1. W/S O'HEAT message ----- **MONITOR**

PROCEDURE COMPLETED

## 2 ■ WING DE-ICE FAIL

Indicates that one or more segments of the wing deice boot system did not reach the required pressure when commanded or that pressure is present when not commanded.

### ● IF WING/STAB DEICE SWITCH AUTO OR MANUAL

1. Throttles ----- **INCREASE POWER**  
(as required above 70% N<sub>2</sub>)
2. WING/STAB Deice Switch -----**OFF**  
(Verify WING DE-ICE FAIL message clears)
3. WING/STAB Deice Switch ----- **HOLD IN MANUAL**  
(SURFACE DE-ICE message should display within 6 seconds)
4. WING/STAB Deice Switch ----- **AUTO** for at least 2 minutes

### □ IF WING DE-ICE FAIL MESSAGE REMAINS DISPLAYED OR DISPLAYS AGAIN

5. WING/STAB Deice Switch -----**OFF**
6. Exit icing environment.

### ○ IF IT CANNOT BE VERIFIED THERE IS NO ICE ON THE WING

7. Refer to LANDING WITH ICE ON WING LEADING EDGE; **Tab AD2.**

PROCEDURE COMPLETED

### ○ IF NO ICE ON THE WING

PROCEDURE COMPLETED

### □ IF WING DE-ICE FAIL MESSAGE REMAINS OFF

PROCEDURE COMPLETED

### ● IF WING/STAB DEICE SWITCH OFF

1. Do not fly into icing conditions.
2. WING/STAB Deice Switch ----- **AUTO then OFF**  
(Verify white STALL WARN HI message is displayed).
3. Use STALL WARNING-HIGH performance data for landing.

PROCEDURE COMPLETED

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

TOC

RED  
CAS

AMBER  
CAS

EMER  
ABNORM

WHITE  
CAS

NORM

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-19 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, Icing, delete a procedure.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, adjacent to page 61.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

In the Emergency/Abnormal Procedures checklist, Tab R3, page 61 delete the Uncommanded Reduction in Engine Power During Icing Conditions procedure:

3

### **UNCOMMANDED REDUCTION IN ENGINE POWER DURING ICING CONDITIONS**

~~In some icing encounters at high altitude, the heater on the engine T2 probe cannot keep the probe clear of ice. This can cause a false high RAT temperature indication to the FADEC. The result is the FADEC will command a lower  $N_1$  until the T2 probe is de-iced, or the Engine Anti Ice is selected OFF. This may occur with only a trace of ice accumulation visible on the airplane.~~

~~If both engine anti-ice circuit breakers are pulled, the engine inlets will both be heated, but an amber ENG A/I COLD CAS message will display due to the loss of nacelle temperature monitoring. No additional action is required to address the amber ENG A/I COLD CAS message, and the message will clear when either circuit breaker is reset.~~

- ~~1. Engine Synce \_\_\_\_\_ OFF~~
- ~~2. ENGINE ANTI ICE Switch (affected engine) \_\_\_\_\_ OFF~~
- ~~3. RAT Indication on PFD \_\_\_\_\_ VERIFY decrease~~
- ~~4. Exit icing conditions as soon as practical~~
- ~~5. Monitor for ice accumulation.~~

#### **IF ICING INTENSITY IS TRACE OR LESS**

~~Go to Step 8 prior to descent.~~

#### **IF ICING INTENSITY IS GREATER THAN TRACE**

- ~~6. Engine Anti Ice Circuit Breaker (affected engine) \_\_\_\_\_ PULL~~
- ~~7. Exit icing conditions as soon as possible.~~

#### **PRIOR TO DESCENT**

- ~~8. Engine Anti Ice Circuit Breaker \_\_\_\_\_ RESET~~
- ~~9. ENGINE ANTI ICE Switches \_\_\_\_\_ ON until RAT indications are normal and icing conditions are exited~~

#### **PROCEDURE COMPLETED**

# TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

**APPROVED BY**

*for* *Kim Hackett*  
Vasant Gondhalekar, Lead ODA Administrator  
Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

**DATE OF APPROVAL** 09 JUNE 2010

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM



TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**3**

### ■ UNCOMMANDED REDUCTION IN ENGINE POWER DURING ICING CONDITIONS

In some icing encounters at high altitude, the heater on the engine T2 probe cannot keep the probe clear of ice. This can cause a false high RAT temperature indication to the FADEC. The result is the FADEC will command a lower  $N_1$  until the T2 probe is de-iced, or the Engine Anti-Ice is selected OFF. This may occur with only a trace of ice accumulation visible on the airplane.

If both engine anti-ice circuit breakers are pulled, the engine inlets will both be heated, but an amber ENG A/I COLD CAS message will display due to the loss of nacelle temperature monitoring. No additional action is required to address the amber ENG A/I COLD CAS message, and the message will clear when either circuit breaker is reset.

1. Engine Sync-----OFF
2. ENGINE ANTI-ICE Switch (affected engine) -----OFF
3. RAT Indication on PFD ----- **VERIFY** decrease
4. Exit icing conditions as soon as practical
5. Monitor for ice accumulation.

#### ● IF ICING INTENSITY IS TRACE OR LESS

Go to Step 8 prior to descent.

#### ● IF ICING INTENSITY IS GREATER THAN TRACE

6. Engine Anti-Ice Circuit Breaker (affected engine)-----**PULL**
7. Exit icing conditions as soon as possible.

#### PRIOR TO DESCENT

8. Engine Anti-Ice Circuit Breaker-----**RESET**
9. ENGINE ANTI-ICE Switches ----- **ON** until RAT indications are normal and icing conditions are exited

PROCEDURE COMPLETED

**R****4**

### ■ AILERON MISTRIM (← AIL OR AIL → ANNUNCIATION PFD)

1. Control Wheel ----- **GRIP**
2. Autopilot ----- **DISCONNECT**  
(high aileron control forces possible)
3. AILERON TRIM Switch ----- **AS REQUIRED**
4. Autopilot ----- **ENGAGE** as desired

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1

■ ELEVATOR MISTRIM (↑ ELE OR ELE ↓ ANNUNCIATION PFD)

Indicates a mistrim of the elevator while the autopilot is engaged. The autopilot will normally trim automatically as required. However, during rapid acceleration, deceleration, or configuration changes momentary illumination of this message may occur accompanied by minor fluctuations in flight path. If the autopilot is disconnected while this message is displayed, high elevator control forces are possible. In the event of a sustained illumination, the following procedure should be followed:

1.

Control Wheel-----

GRIP
2.

Autopilot-----

DISCONNECT

(high elevator control forces possible)
3.

Elevator Trim -----

AS REQUIRED
4.

Autopilot-----

ENGAGE as desired

S

PROCEDURE COMPLETED

2

■ RUDDER MISTRIM (← RUD OR RUD → ANNUNCIATION PFD)

1.

Rudder Pedals -----

HOLD FIRMLY
2.

AP/TRIM DISC Button-----

PRESS

(high rudder control forces possible)
3.

RUDDER TRIM Switch -----

AS REQUIRED
4.

Autopilot and Yaw Damper-----

ENGAGE as desired

PROCEDURE COMPLETED

3

■ ALT MISCOMP (ALTITUDE MISCOMPARE)

This message is displayed when the G1000 detects a difference of 200 feet or greater between the pilot and copilot's altitude information (displayed in the upper right of the PFD.) Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1.

Altimeter Settings -----

VERIFY

both pilot and copilot have the correct altimeter setting

● IF ANNUNCIATION DOES NOT CLEAR

2.

ATC-----

ADVISE

of non-RVSM status, if required
3.

Pilot and Copilot Altitude -----

COMPARE

with Standby Altimeter

WARNING

The Standby Altimeter uses the same pitot-static sources as the pilot's side air data computer (ADC1). Do not use Standby Altimeter as sole source in determining correct altitude.

(Continued Next Page)

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## ■ ALT MISCOMP (ALTITUDE MISCOMPARE) (Continued)

### □ IF COPILOT PFD AND STANDBY ALTIMETER AGREE (PILOT PFD DIFFERS)

4. SENSOR Softkey (pilot PFD) -----PRESS
5. ADC2 Softkey-----PRESS
6. PFD ADI Displays----- **CONFIRM “BOTH ON ADC2”**  
is displayed on both PFDs

PROCEDURE COMPLETED

### □ IF PILOT PFD AND STANDBY ALTIMETER AGREE (COPILOT PFD DIFFERS)

4. Compare indicated altitude to GPS altitude on MFD AUX-GPS STATUS page to aid in determining which primary system is most accurate.

#### ○ IF ABLE TO IDENTIFY ACCURATE ALTITUDE SOURCE

5. Use SENSOR REVERSION to select most accurate ADC on both PFDs.
6. Land as soon as practical.

**S**

PROCEDURE COMPLETED

#### ○ IF UNABLE TO IDENTIFY ACCURATE ALTITUDE SOURCE

5. Land as soon as practical. Consider diversion to visual conditions.
6. Maintain altitudes based on LOWEST indicated altitude.
7. ATC ----- **ADVISE**  
of inability to verify correct altitude
8. If unable to descend into visual conditions, plan ILS approach with course intercept well outside the Final Approach Fix (FAF).
9. Once glideslope is intercepted, determine most accurate altitude source when crossing FAF.
10. Reference ILS Decision Height to most accurate altimeter based on FAF crossing.

### **WARNING**

**TAWS alerts are based on GPS altitude and position information and are independent of ADC data. If a TAWS alert is received, it should be considered valid and appropriate terrain avoidance action should be taken.**

PROCEDURE COMPLETED

#### ● IF ANNUNCIATION CLEARS

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1

IAS MISCOMP (AIRSPEED MISCOMPARE)

This message is displayed when the G1000 detects a difference of 7 KIAS or greater between the pilot's and copilot's airspeed information (10 KIAS difference during takeoff or landing roll). Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. Pilot and Copilot Airspeed -----COMPARE
- with Standby Airspeed Indicator

WARNING

■

The Standby Airspeed Indicator uses the same pitot-static sources as the pilot's side Air Data Computer (ADC1). Do not use Standby Airspeed indicator as sole source in determining correct airspeed.

■

T

● IF STANDBY AIRSPEED AND COPILOT PFD AGREE (PILOT PFD DIFFERS)

2. SENSOR Softkey (pilot PFD)----- PRESS
3. ADC2 Softkey ----- PRESS
4. PFD ADI Displays----- CONFIRM "BOTH ON ADC2"
- is displayed on both PFDs

PROCEDURE COMPLETED

● IF PILOT PFD AND STANDBY AIRSPEED AGREE (COPILOT PFD DIFFERS)

2. Pilot and Copilot ALTITUDE----- NOTE

□ IF ALTITUDES AGREE

3. Airspeed ----- 120 KIAS MINIMUM
- on slowest indicator
4. Monitor all three airspeed indicators during changes in power setting or altitude to determine which indicators are inaccurate. Indications of inaccurate airspeed include:
- a. No change in indicated airspeed when power changed and altitude maintained.
- b. Indicated airspeed increases when climbing or decreases when descending.
5. Use SENSOR REVERSION to select most accurate ADC on the affected PFDs.
6. Airspeed ----- RESUME NORMAL SPEEDS

PROCEDURE COMPLETED

□ IF ALTITUDES DO NOT AGREE

- 
3. Refer to ALT MISCOMP (Altitude Miscompare) procedure; Tab S3, to determine most accurate ADC.

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**2**

## ■ PIT/ROL/HDG MISCOMP (PITCH/ROLL/HEADING MISCOMPARE)

This message is displayed when the G1000 detects a difference between the pilot and copilot's attitude or heading information (displayed in the upper right of the PFD). Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

### ● PITCH OR ROLL MISCOMP INDICATION

1. Refer to STANDBY ATTITUDE indicator to determine which AHRS is providing the most accurate data.
2. Use SENSOR REVERSION to select the most accurate AHRS on the affected PFD.

### ● HEADING MISCOMP

1. L/R WINDSHIELD ANTI-ICE Switches ----- **OFF**
2. COCKPIT FAN ----- **OFF**
3. AIR SOURCE SELECT Knob ----- **L, BOTH, R or OFF**  
(Any position other than FRESH AIR)
4. Refer to Magnetic Compass to determine which AHRS is providing the most accurate heading information.
5. Use SENSOR REVERSION to select the most accurate AHRS on the affected PFD.
6. L/R WINDSHIELD ANTI-ICE Switches ----- **AS REQUIRED**
7. COCKPIT FAN ----- **AS DESIRED**
8. AIR SOURCE SELECT Knob ----- **AS REQUIRED**

PROCEDURE COMPLETED

**T**

**3**

## ■ CAS FAILURE (RED "X" ON CAS MESSAGE WINDOW)

This indicates a loss of the CAS messaging system. This is usually caused by a database or configuration mismatch within the G1000 system after loading software.

### ● ON GROUND

1. Correct prior to flight.

PROCEDURE COMPLETED

### ● IN FLIGHT

1. Land as soon as practical.

### CAUTION

No CAS messages will post to indicate any emergency, abnormal or normal system conditions.

PROCEDURE COMPLETED

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

**1 ■ DISPLAY UNIT FAILURE**

This is indicated by a complete loss of image on a display. If only individual elements of the display are failed, refer to appropriate procedures for the individual failures.

● **IF PFD**

1. DISPLAY BACKUP Button (affected side) - - - - - **PRESS, IF REQUIRED**  
(flight and EICAS information is displayed on MFD)
2. Flight Director - - - - - **TRANSFER**  
(XFR button) to operating PFD
3. FD Modes/AUTOPILOT - - - - **RESELECT** and **REENGAGE** as required
4. Transponder - - - - - **SWITCH**  
to operating transponder
5. COM and NAV Radios- - - - - **SWITCH**  
to operating Com and Nav radios.
6. PFD Controls - - - - - **USE OPERATING PFD**  
for required data entry (Com, Nav, Baro setting, etc.)

U

**CAUTION**

The “FUEL LO INOP L-R” and the “PRESS CTRL” messages may be displayed. Refer to the abnormal procedures for these messages as time allows.

PROCEDURE COMPLETED

● **IF MFD**

1. Either DISPLAY BACKUP Button - - - - - **PRESS**  
(EICAS info will be displayed on PFDs)

PROCEDURE COMPLETED

**2 ■ AUDIO PANEL FAILURE**

Audio panel failure may be indicated by a GMA 1/2 FAIL Garmin System Message or the inability to communicate using the affected audio panel. This failure may also be accompanied by the loss of some aural warnings such as Altitude Alert, Autopilot Disconnect, TAWS and Traffic alerts.

1. AUDIO1 or AUDIO2 Circuit Breaker (affected side)- - - - - **PULL**
2. SPKR Button (operating audio panel) - - - - - **ON**
3. COM Radio - - - - - **USE ON-SIDE RADIO**  
for communication (Pilot-COM1, Copilot-COM2)

PROCEDURE COMPLETED

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

Publication Affected:	Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist, Revision 7, dated 21 November 2008.
Airplane Serial Nos. Affected:	Airplanes 510-0001 and On.
Description of Change:	This temporary change is current with 510FM TC-R07-17 and reflects the following change to the AFM, Section III, Operating Procedures, Abnormal Procedures, replace the AUDIO PANEL FAILURE procedure.
Filing Instructions:	Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist adjacent to page 66.
Removal Instructions:	This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

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AMBER CAS
EMER ABNORM
WHITE CAS
NORM

In the Emergency/Abnormal Procedures checklist, page 66, Tab U2, replace the AUDIO PANEL FAILURE procedure with the following:

### ■ **AUDIO PANEL FAILURE; LOSS OF COM MIC; OR LOSS OF AURAL ALERTS**

This failure may be indicated by a GMA 1/2 FAIL Garmin System Message or the inability to communicate using the affected audio panel. This failure may be accompanied by the unannounced loss of COM1 receiver audio, microphone audio or sidetone, and failure of the microphone key to transmit even though "TX" is annunciated on the display. Garmin generated aural alerts will be unavailable. These include autopilot disconnect tone, TIS traffic alerts only, TAWS alerts, and altitude alerts. VOR/LOC receiver audio will also be unavailable.

1. AUDIO 1 or AUDIO 2 Circuit Breaker (affected side) . . . . . **RESET**

- **IF AUDIO PANEL, COM MIC, OR AURAL ALERTS ARE NOT RESTORED**

2. COMM 1 or COMM 2 Circuit Breaker (affected side) . . . . . **PULL**
3. SPKR Button (operating audio panel) . . . . . **ON**
4. COM MIC Button (audio panel selection of operating COM radio) . . . . . **ON**

PROCEDURE COMPLETED

- **IF AUDIO PANEL, COM MIC, OR AURAL ALERTS ARE RESTORED**

PROCEDURE COMPLETED

TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

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RED  
CAS

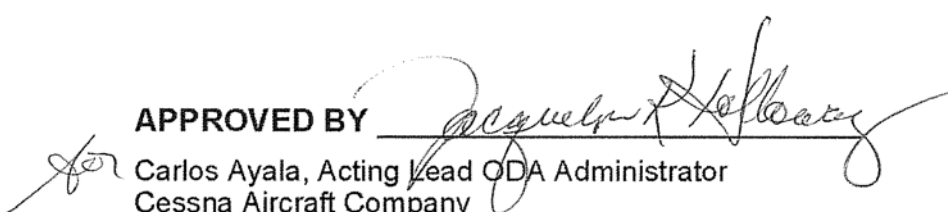
AMBER  
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APPROVED BY

  
for Carlos Ayala, Acting Lead ODA Administrator  
Cessna Aircraft Company  
Organization Delegation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL 23 December 2010



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### 3 ■ DUAL GPS FAILURE (AMBER “DR” OR “LOI” ON HSI)

When both GPS receivers are inoperative, the G1000 system will enter one of two modes: Dead Reckoning mode (DR) or Loss Of Integrity mode (LOI). The mode is indicated on the HSI by an amber “DR” or “LOI”. Which mode is active depends on the distance from the destination airport in the active flight plan.

#### ● IF ALTERNATE NAVIGATION SOURCES (ILS, LOC, VOR, DME, ADF) ARE AVAILABLE

- Navigation ----- **USE ALTERNATE SOURCES**  
PROCEDURE COMPLETED

#### ● IF NO ALTERNATE NAVIGATION SOURCES ARE AVAILABLE

##### □ DEAD RECKONING (DR) MODE - ACTIVE WHEN THE AIRPLANE IS GREATER THAN 30 NM FROM THE DESTINATION AIRPORT.

- Navigation ----- **USE**  
the airplane symbol and magenta course line on the map display

#### **WARNING**

- All information normally derived from GPS turns amber. All of this information will become more inaccurate over time.

- TAWS is inoperative.

##### □ LOSS OF INTEGRITY (LOI) MODE - ACTIVE WHEN THE AIRPLANE IS WITHIN 30NM OF THE DESTINATION AIRPORT (AS CALCULATED FROM THE PREVIOUS GPS OR DR POSITION).

- Navigation ----- **FLY**  
towards known visual conditions or available terminal navigation sources. Use ATC or other information sources as possible.

PROCEDURE COMPLETED

### 4 ■ LOSS OF RADIO TUNING FUNCTIONS

- COM Frequency Toggle Button (affected PFD) ----- **PRESS AND HOLD FOR 2 SECONDS**

PROCEDURE COMPLETED

### 5 ■ TRANSPONDER FAILURE

- TRANSPONDER) ----- **SELECT OPPOSITE TRANSPONDER**
  - PFD XPDR Softkey ----- **PRESS**
  - XPDR1 or XPDR2 Softkey ----- **PRESS**  
to select opposite transponder
- XPDR1 or XPDR2 Circuit Breaker (affected side) ----- **PULL**

PROCEDURE COMPLETED

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■ FAILED AIRSPEED, ALTITUDE, AND/OR VERTICAL SPEED (RED “X” ON PFD AIRSPEED, ALTITUDE, AND/OR VERTICAL SPEED INDICATORS)

This indicates a loss of valid air data system information to the respective system. If either primary altitude indication is affected, the airplane is no longer RVSM capable.

- IF BOTH SIDES
1.   Airspeed and Attitude -----

MONITOR  
using standby instruments
2.   Land as soon as practical.
- PROCEDURE COMPLETED
- IF ONE SIDE ONLY
1.   Affected PFD SENSOR softkey -----

PRESS
2.   Affected PFD  
ADC1/2 softkey -----

SELECT OPPOSITE SIDE ADC
3.   PFD ADI Displays-----

CONFIRM “BOTH ON ADC1 or 2”  
is displayed on both PFDs
- PROCEDURE COMPLETED

V

2

■ FAILED ATTITUDE AND/OR HEADING (ATTITUDE FAIL AND/OR RED “X” OVER HEADING DISPLAY ON PFD)

This message indicates a loss of pitch, roll, and/or heading information from AHRS. Refer to GARMIN G1000 Cockpit Reference Guide for additional information. Interference from GPS repeaters operating inside nearby hangars can cause an intermittent loss of attitude and heading displays while the aircraft is on the ground. This is usually accompanied by a BOTH ON GPS1/2 message. Moving the aircraft more than 100 yards away from the source of the interference should alleviate the condition.

- IF BOTH SIDES
1.   Attitude -----

MONITOR  
using standby attitude gyro
2.   COCKPIT FAN Knob-----

OFF
3.   AIR SOURCE SELECT Knob-----

L, BOTH, R or OFF  
(Any position other than FRESH AIR)
4.   L/R WINDSHIELD ANTI-ICE Switches -----

OFF
5.   Heading-----

MONITOR  
using magnetic compass
6.   Land as soon as practical.
- PROCEDURE COMPLETED
- IF ONE SIDE ONLY
1.   Standby Attitude Gyro -----

MONITOR
2.   Affected PFD SENSOR softkey -----

PRESS
3.   Affected PFD  
AHRS1/2 softkey -----

SELECT OPPOSITE SIDE AHRS
4.   PFD ADI Displays-----

CONFIRM “BOTH ON AHRS1 or 2”  
is displayed on both PFDs
5.   Flight Director-----

TRANSFER  
(XFR button) to functional side
- PROCEDURE COMPLETED

### 3 ■ LOSS OF NAVIGATION DATA (LATERAL DEVIATION BAR NOT PRESENT AND/OR GLIDESLOPE INDEX CLEARS)

This indicates a loss of data from the selected NAV source. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. Opposite NAV Source -----**SELECT**
2. PFD HSI Display -----**CONFIRM OPPOSITE "LOC1/LOC2"**  
or "**VOR1/VOR2**" is displayed on both PFDs

PROCEDURE COMPLETED

### 4 ■ STALL WARN FAIL (STALL WARNING FAILURE)

This message is displayed when the stall warning and/or low speed awareness functions are inoperative.

1. STALL WARN circuit breaker -----**RESET**  
(R circuit breaker panel)

#### ● IF MESSAGE DOES NOT CLEAR

2. Refer to INACCURATE STALL WARNING OR ON-SPEED INDICATION;  
**Tab V5.**

### WARNING

The following systems will be inoperative:

- Stall warning horn with automatic autopilot disconnect
- Low speed awareness range on airspeed indicator
- On-speed circle

PROCEDURE COMPLETED

#### ● IF MESSAGE CLEARS

PROCEDURE COMPLETED

### 5 ■ INACCURATE STALL WARNING OR ON-SPEED INDICATION

Indicated by stall warning horn sounding at an inappropriate time or on-speed indication that does not agree with expected speeds.

1. Airspeed -----**CROSSCHECK** with other indicators  
Refer to IAS MISCOMP (Airspeed Miscompare) procedure; **Tab T1**, if required.
2. Aircraft Weight -----**VERIFY CORRECT**

#### ● IF AIRSPEED AND GROSS WEIGHT ARE CORRECT

3. STALL WARN circuit breaker -----**PULL**  
(R circuit breaker panel)

### WARNING

The following systems will be inoperative:

- Stall warning horn with automatic autopilot disconnect
- Low speed awareness range on airspeed indicator
- On-speed circle

4. Airspeed
  - a. Climb/Cruise/Descent -----**120 MINIMUM** non-icing  
**160 MINIMUM** in icing conditions
  - b. Approach/Landing ----- **V<sub>APP</sub>/V<sub>REF</sub>**  
for approach and landing (per flap setting)

PROCEDURE COMPLETED

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INACCURATE OVERSPEED WARNING

- Indicated by overspeed warning tone sounding when airspeed is below the limit speed.
- AIRSPEED----- **CROSSCHECK**  
with opposite PFD
  - AIRSPEED----- **REDUCE AS REQUIRED**
  - IF BOTH AIRSPEEDS INDICATE BELOW  $V_{MO}/M_{MO}$  AND TONE STILL SOUNDS**
    - WARN LIGHTS Circuit Breaker -----**PULL**  
(R circuit breaker panel)

WARNING

- When the WARN LTS circuit breaker is pulled, the following items will be inoperative:
- Stall Warning Horn
  - Gear Warning Horn
  - Overspeed Warning Horn
  - Master Caution and Master Warning lights
- Land as soon as practical.
- PROCEDURE COMPLETED
- IF AIRSPEEDS DO NOT AGREE**
    - Refer to IAS MISCOMP (Airspeed Miscompare) procedure; **Tab T1**.
- PROCEDURE COMPLETED

W

2

INACCURATE FLIGHT DIRECTOR DISPLAY

- Indicated by one or both flight directors commanding attitude contrary to intended flight path.
- AP/TRIM DISC Button ----- **PRESS**
  - Attitude -----**CROSSCHECK BOTH PFDs**  
with the Standby Attitude indicator
  - Flight Director Modes ----- **RESELECT AS DESIRED**
  - Autopilot----- **ENGAGE AS DESIRED**  
(if flight director commands are appropriate)
- PROCEDURE COMPLETED

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### 3 ■ BOTH ON ADC 1/2

This message is displayed on both PFDs and indicates that both pilot and copilot PFDs are displaying data from the same Air Data Computer. Normally the pilot's side displays ADC 1 and the copilot's side displays ADC 2. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. PFD SENSOR softkey ----- **PRESS**  
on PFD displaying data from opposite side ADC
2. PFD ADC1/2 softkey ----- **SELECT ON-SIDE ADC**  
(ADC1 for Pilot PFD, ADC2 for copilot PFD)
3. PFD Displays ----- **CONFIRM "BOTH ON ADC 1 or 2"**  
message clears on both PFDs

PROCEDURE COMPLETED

### 4 ■ BOTH ON AHRS 1/2

This message is displayed on both PFDs and indicates that both pilot and copilot PFDs are displaying data from the same Attitude Heading Reference System. Normally the pilot's side displays AHRS 1 and the copilot's side displays AHRS 2. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. PFD SENSOR softkey ----- **PRESS**  
on PFD displaying data from opposite side AHRS
2. PFD AHRS1/2 softkey ----- **SELECT ON-SIDE AHRS**  
(AHRS1 for Pilot PFD, AHRS2 for copilot PFD)
3. PFD Displays ----- **CONFIRM "BOTH ON AHRS 1 or 2"**  
message clears on both PFDs

PROCEDURE COMPLETED

**W**

### 5 ■ BOTH GPS 1/2

This message is displayed on both PFDs and indicates that both pilot and copilot PFDs are displaying data from the same GPS receiver. Normally the pilot's side displays GPS 1 and the copilot's side displays GPS 2 and is not pilot selectable. This may be caused by operation outside of WAAS satellite coverage in which case the non-selected GPS is still available in the event the active GPS fails. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. GPS Status ----- **CHECK**
  - a. Select MFD AUX-GPS STATUS page.
  - b. Select GPS1 then GPS2 softkeys and verify sufficient satellite reception.

PROCEDURE COMPLETED

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**1 ■ USING ADC**

This message is displayed on both PFDs and indicates that both PFDs are displaying data from the opposite side Air Data Computer. Normally the pilot's side displays ADC 1 and the copilot's side displays ADC 2. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. Either PFD SENSOR softkey ----- **PRESS**
2. PFD ADC1/2 softkey ----- **SELECT ON-SIDE ADC**  
(ADC1 for Pilot PFD, ADC2 for copilot PFD)
3. PFD Displays ----- **CONFIRM "BOTH ON ADC 1 or 2"**  
message displays on both PFDs
4. Repeat procedure on opposite PFD.
5. PFD Displays ----- **CONFIRM "BOTH ON ADC 1 or 2"**  
message clears on both PFDs

PROCEDURE COMPLETED

**2 ■ USING AHRS**

This message is displayed on both PFDs and indicates that both PFDs are displaying data from the opposite side Attitude Heading Reference System. Normally the pilot's side displays AHRS 1 and the copilot's side displays AHRS 2. Refer to GARMIN G1000 Cockpit Reference Guide for additional information.

1. Either PFD SENSOR softkey ----- **PRESS**
2. PFD AHRS 1/2 softkey ----- **SELECT ON-SIDE AHRS**  
(AHRS1 for Pilot PFD, AHRS2 for Copilot PFD)
3. PFD Displays ----- **CONFIRM "BOTH ON AHRS 1 or 2"**  
message displays on both PFDs
4. Repeat procedure on opposite PFD.
5. PFD Displays ----- **CONFIRM "BOTH ON AHRS 1 or 2"**  
message clears on both PFDs

X

PROCEDURE COMPLETED

**3 ■ YAW DAMPER INOPERATIVE**

1. AFCS Circuit Breaker ----- **CHECK**  
(L circuit breaker panel)

● **IF STILL INOPERATIVE**

2. ALTITUDE ----- **FL300** Maximum

PROCEDURE COMPLETED

## 4 ■ HYDRAULIC WHEEL BRAKE FAILURE

1. Brake Pedals ----- **REMOVE FEET FROM BRAKE PEDALS**
2. EMERGENCY BRAKE Handle----- **SMOOTH PULL**  
**AS REQUIRED AND HOLD UNTIL STOPPED**

3. Directional Control ----- **MAINTAIN**  
with nosewheel steering
4. Landing Distance:

STALL WARNING - NORMAL	Multiply normal Flap LAND landing distance by 1.83.
STALL WARNING - HIGH	Multiply normal Flap TO/APR landing distance by 1.96.

### CAUTION

- The antiskid system does not function during emergency braking. Excessive pressure on the emergency brake handle can cause both wheel brakes to lock, resulting in the blowout of both main tires.
- Repeated application and release of the emergency brake handle may cause premature loss of pneumatic pressure.
- When clear of the runway, stop and shut down. Do not attempt to taxi in close proximity to buildings or other aircraft using emergency brakes. Maintenance action is required prior to subsequent flights.
- Avoid landing with a tailwind.

PROCEDURE COMPLETED

**X**

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■ LANDING GEAR WILL NOT EXTEND

1.

LDG GEAR CONT Circuit Breaker -----

CHECK  
(L circuit breaker panel)
2.

LDG GEAR MONITOR Circuit Breaker -----

CHECK  
(L circuit breaker panel)
3.

LANDING GEAR Handle -----

CYCLE UP then DOWN
- IF LANDING GEAR STILL DOES NOT INDICATE DOWN/LOCKED OR HANDLE FAILS TO MOVE FROM THE UP POSITION
4.

Airspeed -----

ABOVE 150 KIAS
5.

LDG GEAR CONT Circuit Breaker -----

PULL  
(L circuit breaker panel)
6.

EMERGENCY GEAR RELEASE Cover -----

REMOVE
7.

EMERGENCY GEAR RELEASE T-Handle -----

PULL AND  
ROTATE TO LOCK
8.

EMERGENCY GEAR RELEASE Knob -----

PULL TO BLOW  
DOWN (for positive lock)
9.

Landing Gear -----

CHECK DOWN AND LOCKED  
(3 green lights)

CAUTION

- Prior to using the emergency extension system, the landing gear handle must be down and/or the gear control circuit breaker pulled to prevent possible energizing of the gear hydraulic system to the retract position
- Once the emergency gear extension system has been used, do not attempt to retract the gear.

□ IF LANDING GEAR HANDLE REMAINS UP

10. Land as soon as practical.

CAUTION

- With the gear handle up, antiskid touchdown protection is lost. Caution should be used to ensure that the brakes are not applied while touching down.
- Once the airplane is on the ground, power brakes will function normally.

PROCEDURE COMPLETED

□ IF LANDING GEAR HANDLE IS DOWN

PROCEDURE COMPLETED

● IF LANDING GEAR HANDLE MOVES AND GEAR EXTENDS

PROCEDURE COMPLETED

Y



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## 2 ■ LANDING GEAR WILL NOT RETRACT (RED GEAR UNLOCK LIGHT REMAINS ON)

1. Airspeed ----- **BELOW 140 KIAS**
2. Rudder Input ----- **MINIMIZE**
3. LDG GEAR CONT Circuit Breaker ----- **CHECK**  
(L circuit breaker panel)
4. Landing Gear Handle ----- **CYCLE DOWN then UP**
- **IF GEAR DOES NOT RETRACT AND NO GREEN DOWN LOCK LIGHTS ARE ILLUMINATED**
  5. LANDING GEAR Handle ----- **DOWN**
  6. Landing Gear ----- **CHECK DOWN AND LOCKED**  
(3 green lights)
  7. Land as soon as practical.

PROCEDURE COMPLETED

- **IF LANDING GEAR DOES NOT RETRACT AND AT LEAST ONE GREEN DOWN LOCK LIGHT REMAINS ILLUMINATED**
  5. AIRSPEED ----- **150 KIAS OR ABOVE**
  6. LANDING GEAR Handle ----- **DOWN**
  7. LDG GEAR CONT Circuit Breaker ----- **PULL**  
(L circuit breaker panel)
  8. EMERGENCY GEAR RELEASE Cover ----- **REMOVE**
  9. EMERGENCY GEAR RELEASE T-Handle ----- **PULL AND ROTATE TO LOCK**
  10. EMERGENCY GEAR RELEASE Knob ----- **PULL TO BLOW DOWN** (for positive lock)
  11. Landing Gear ----- **CHECK DOWN and LOCKED**  
(3 green lights)
  12. Land as soon as practical.

### CAUTION

- Prior to using the emergency extension system, the landing gear handle must be down and/or the gear control circuit breaker pulled to prevent possible energizing of the gear hydraulic system to the retract position.
- Once the emergency gear extension system has been used, do not attempt to retract the gear.

PROCEDURE COMPLETED

### ● IF LANDING GEAR RETRACTS

5. Continue flight normally.

PROCEDURE COMPLETED

Y

**1 ■ ANTISKID FAIL**

This message is indicates that the anti-skid system is inoperative.

1. ANTISKID Switch -----**OFF, THEN ON**
2. SKID CONTROL circuit breaker ----- **CHECK**  
(L circuit breaker panel)

● **IF MESSAGE DOES NOT CLEAR**

☐ **ON GROUND**

3. Refer to DISPATCH WITH ANTISKID SYSTEM INOPERATIVE; **Tab Z2.**

PROCEDURE COMPLETED

☐ **IN FLIGHT**

3. ANTISKID Switch -----**OFF**
4. Landing Distance:

STALL WARNING - NORMAL	Multiply normal Flap LAND landing distance by 1.39.
STALL WARNING - HIGH	Multiply normal Flap TO/APR landing distance by 1.45.

**CAUTION**

- With the antiskid off, antiskid touchdown protection is lost. Caution should be used to make sure brakes are not applied during touchdown.
- Apply wheel brakes lightly. Differential power braking is available. However, since the anti-skid is inoperative, excessive brake pedal pressure may cause the wheel brakes to lock, resulting in tire blowout.
- When landing with STALL WARNING-NORMAL, avoid runways with a downhill gradient. If a downhill runway gradient cannot be avoided, reduce maximum landing weight by 180 lbs.

PROCEDURE COMPLETED

**Z**

**2**

## ■ DISPATCH WITH ANTISKID INOPERATIVE (ANTISKID FAIL MESSAGE DISPLAYED)

### CAUTION

Differential power braking is available. However, since the antiskid system is inoperative, excessive brake pedal pressure may cause the wheel brakes to lock, resulting in tire blowout.

### ● TAKEOFF

1. Takeoff Distance- ----- **CONFIRM**

Flaps UP	Multiply appropriate takeoff distance by 1.39.
Flaps TO/APR	Multiply appropriate takeoff distance by 1.44.

2. ANTISKID Switch ----- **OFF**
3. Throttles ----- **TO Detent**  
(Thrust Mode Indicator - green T/O)
4. Engine Instruments- ----- **CHECK NORMAL**  
(N<sub>1</sub> matches command bug)
5. CAS Messages ----- **VERIFY** only ANTISKID  
caution message is displayed
6. Brakes ----- **RELEASE**

PROCEDURE COMPLETED

### ● LANDING

1. Landing Distance ----- **CONFIRM**  
STALL WARNING-NORMAL: MULTIPLY normal Flap LAND landing distance by 1.39
2. Prior to landing ----- **ACCCOMPLISH**  
Normal Procedures, APPROACH, BEFORE LANDING, and LANDING

### CAUTION

- If unexpected icing conditions are encountered, appropriate "STALL WARN HI" landing procedures and performance data must be used. Multiply normal flap TO/APR landing distance by 1.45.
- With the antiskid system off, antiskid touchdown protection is lost. Caution should be used to make sure brakes are not applied during touchdown.
- When landing with STALL WARNING-NORMAL, avoid runways with a downhill gradient. If a downhill gradient cannot be avoided, reduce maximum landing weight by 180 lbs.

PROCEDURE COMPLETED

**Z**

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**1 ■ HYD PRESS LO (HYDRAULIC SYSTEM PRESSURE LOW)**

Indicates that the hydraulic system pressure is low. Landing gear extension and hydraulic wheel brakes may not work properly.

1. HYD PUMP circuit breaker ----- **RESET**  
(L circuit breaker panel)

● **IF MESSAGE REMAINS DISPLAYED (MAY BE ACCOMPANIED BY HYD PUMP ON MESSAGE)**

2. HYD PUMP circuit breaker -----**PULL**  
(L circuit breaker panel)

3. Refer to LANDING GEAR WILL NOT EXTEND; **Tab Y1** and HYDRAULIC WHEEL BRAKE FAILURE; **Tab X4** as required for landing.

PROCEDURE COMPLETED

● **IF MESSAGE CLEARS**

PROCEDURE COMPLETED

**AA**

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## 2 ■ HYD PUMP ON (HYDRAULIC PUMP ON)

Indicates that power has been applied to the hydraulic pump for more than 60 seconds. Continuous pump operation can result in overheating and shutdown of the pump.

### ● IF LANDING GEAR HANDLE IS UP

1. Landing Gear UNLOCK light ----- **CHECK**

#### □ IF UNLOCK LIGHT ILLUMINATED

2. Airspeed ----- **BELOW 140 KIAS**
3. Rudder Input ----- **MINIMIZE**
4. LDG GEAR CONTROL circuit breaker ----- **CHECK**  
(L circuit breaker panel)
5. LANDING GEAR Handle ----- **CYCLE DOWN then UP**

#### ○ IF LANDING GEAR DOES NOT RETRACT

6. LANDING GEAR Handle ----- **DOWN**
7. Landing Gear Downlock Lights ----- **VERIFY ALL ILLUMINATED**
8. HYD PUMP ON message ----- **VERIFY OFF**
9. Land as soon as practical.

PROCEDURE COMPLETED

#### ○ IF LANDING GEAR RETRACTS (UNLOCK LIGHT OUT)

6. HYD PUMP ON message ----- **VERIFY OFF**

PROCEDURE COMPLETED

#### □ IF UNLOCK LIGHT NOT ILLUMINATED

2. HYD PUMP circuit breaker ----- **PULL**  
(L circuit breaker panel)
3. Reset HYD PUMP circuit breaker prior to landing.

PROCEDURE COMPLETED

### ● IF LANDING GEAR HANDLE IS DOWN

#### □ ON GROUND

1. BRAKES ----- **APPLY**
2. PARKING BRAKE ----- **SET**
3. HYD PUMP circuit breaker ----- **PULL**  
(L circuit breaker panel)
4. Wheels ----- **CHOCK**
5. Correct prior to flight.

PROCEDURE COMPLETED

#### □ IN FLIGHT

2. HYD PUMP circuit breaker ----- **PULL**  
(L circuit breaker panel)
3. Reset HYD PUMP circuit breaker prior to landing.

PROCEDURE COMPLETED

**AA**

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**1 ■ WOW MISCOMPARE (WEIGHT-ON-WHEELS MISCOMPARE)**

Indicates the weight-on-wheels switches do not indicate the same condition – either on-ground or in-air. The following systems or equipment may not operate normally:

- Engine will default to Flight Idle (Ground Idle not available).
- Antiskid touchdown protection is not available.
- Landing gear will not retract.

● **ON GROUND**

1. Correct prior to flight.

PROCEDURE COMPLETED

● **IN FLIGHT**

1. Land as soon as practical.
2. LANDING GEAR Handle -----**DOWN**
3. CABIN DUMP Switch ----- **DUMP**  
(if Cabin Differential Pressure not zero)
4. Make sure brakes are not applied during touchdown.
5. Brakes----- **APPLY NORMALLY**  
after touchdown

PROCEDURE COMPLETED

**AB**

## 2 ■ SINGLE-ENGINE APPROACH AND LANDING

### APPROACH

1. Landing Data - Use the following landing data:
  - a. Airspeed:

#### $V_{REF}$ (KIAS)

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
TO/APR	<b>NORMAL</b> HIGH	<b>87</b> 98	<b>91</b> 102	<b>95</b> 105	<b>98</b> 109	<b>101</b> 112	<b>105</b> 117

\* Use in an emergency which requires landing at weights in excess of 8000 pounds.

- b. Landing Distance:

STALL WARNING - NORMAL	Multiply normal Flap LAND landing distance by 1.12.
STALL WARNING - HIGH	Use normal Flap TO/APR landing distance.

2. Seats and Seat Belts - - - - - **ADJUST AND SECURE**
3. Avionics and Flight Instruments - - - - - **CHECK**
4. Minimums - - - - - **SET**
5. Passenger Seats - - - - - **CHECK FULL UPRIGHT**
6. PAX SAFETY Switch - - - - - **PAX SAFETY**
7. FUEL TRANSFER Knob - - - - - **OFF**
8. Anti-Ice/Deice Systems - - - - - **AS REQUIRED**
9. FLAP Handle - - - - - **TO/APR** (as required)
10. ANTISKID Switch - - - - - **ON**
11. LANDING Light Switch - - - - - **ON**
12. CAS Messages - - - - - **CHECK**
13. Crew Briefing - - - - - **COMPLETE**

(Include SINGLE-ENGINE GO-AROUND; **Tab AC1**.)

### BEFORE LANDING

14. LANDING GEAR Handle - - - - - **DOWN AND LOCKED**
15. FLAP Handle - - - - - **TO/APR**
16. Pressurization - - - - - **CHECK ZERO DIFFERENTIAL**
17. Autopilot and Yaw Damper - - - - - **OFF**
18. Airspeed - - - - -  **$V_{REF}$**
19. Speed Brakes - - - - - **RETRACT PRIOR TO 50 FEET AGL**
20. Refer to SINGLE-ENGINE GO AROUND; **Tab AC1**, if required.

### CAUTION

Avoid landing with a tailwind.

PROCEDURE COMPLETED

**AB**

1

SINGLE-ENGINE GO-AROUND

- Throttle (operating engine) ----- **TO DETENT**  
(Thrust Mode Indicator - green T/O)
- Go-Around Button (either throttle) ----- **PRESS**
- Airplane Pitch Attitude ----- **8° INITIALLY**  
(go-around pitch command) then **AS REQUIRED**
- AP/TRIM DISC Button ----- **PRESS**  
(if required to turn off Yaw Damper)
- FLAP Handle ----- **TO/APR**
- Climb Speed ----- **V<sub>APP</sub> MINIMUM**
- LANDING GEAR Handle ----- **UP**  
(when positive rate of climb is established)
- FLAP Handle ----- **UP AT V<sub>APP</sub> +10 knots**  
(when clear of obstacles)
- Airspeed ----- **-ACCELERATE TO V<sub>ENR</sub> (118 KIAS)**
- Throttle (operating engine) ----- **CLB DETENT** or as required
- YD or AP Switch ----- **-AS REQUIRED**
- Land as soon as possible. Refer to ENGINE FAILURE/ PRECAUTIONARY SHUTDOWN; **Tab B1**, and/or SINGLE-ENGINE APPROACH AND LANDING; **Tab AB2**.

PROCEDURE COMPLETED

2

FLAPS INOPERATIVE APPROACH AND LANDING (FLAPS NOT IN LANDING POSITION)

APPROACH

- Landing Data - Refer to the following tables:

V<sub>REF</sub> (KIAS)

FLAPS	STALL WARNING	WEIGHT - POUNDS					
		6000	6500	7000	7500	8000	*8645
UP or UNKNOWN	<b>NORMAL</b>	<b>98</b>	<b>102</b>	<b>106</b>	<b>109</b>	<b>113</b>	<b>117</b>
	HIGH	110	114	118	122	126	131
TO/APR	<b>NORMAL</b>	<b>87</b>	<b>91</b>	<b>95</b>	<b>98</b>	<b>101</b>	<b>105</b>
	HIGH	98	102	105	109	112	117

\*Use in an emergency which requires landing at weights in excess of 8000 pounds.

LANDING DISTANCE

AC

FLAPS	STALL WARNING	*MULTIPLY LANDING DISTANCE BY		*REDUCE MAX LANDING WEIGHT BY
		LANDING WEIGHT 8000 LBS. OR LESS	** LANDING WEIGHT ABOVE 8000 LBS.	
UP or UNKNOWN	<b>NORMAL</b>	<b>1.57</b>	<b>1.87</b>	<b>***40 lbs.</b> 70 lbs.
	HIGH	1.89	2.06	
TO/APR	<b>NORMAL</b>	<b>1.12</b>	<b>1.12</b>	<b>0 lbs.</b> 0 lbs.
	HIGH	1.00	1.00	

\* Basic landing distance and maximum landing weight values must be obtained from the appropriate landing performance charts based on the STALL WARNING and ANTI-ICE system settings.

\*\* Use in an emergency which requires landing at weights in excess of 8000 lbs.

\*\*\* The 40 lbs. maximum landing weight reduction is only required if landing above 12,000 feet MSL with a downhill runway gradient. Other conditions require no weight reduction.

(Continued Next Page)



# **■ FLAPS INOPERATIVE APPROACH AND LANDING (FLAPS NOT IN LANDING POSITION) (Continued)**

## CAUTION

- Avoid landing with a tailwind.
  - Avoid excessive flare upon landing.
  - The following systems may be inoperative:
    - Stall warning horn with automatic autopilot disconnect
    - Low speed awareness range on airspeed indicator
    - On-speed circle
2. Seats and Seat Belts ----- **ADJUST AND SECURE**
  3. Avionics and Flight Instruments ----- **CHECK**
  4. Minimums ----- **SET**
  5. Passenger Seats ----- **CHECK FULL UPRIGHT**
  6. PAX SAFETY Switch ----- **PAX SAFETY**
  7. FUEL TRANSFER Knob ----- **OFF**
  8. Anti-Ice/Deice Systems ----- **AS REQUIRED**
  9. ANTISKID Switch ----- **ON**
  10. LANDING Light Switch ----- **ON**
  11. CAS Messages ----- **CHECK**
  12. Crew Briefing ----- **COMPLETE**
- BEFORE LANDING**
13. LANDING GEAR Handle ----- **DOWN AND LOCKED**
  14. Pressurization ----- **CHECK ZERO DIFFERENTIAL**
  15. Autopilot and Yaw Damper ----- **OFF**
  16. Airspeed ----- **V<sub>REF</sub>**
  17. Speed Brakes ----- **RETRACT PRIOR TO 50 FEET AGL**

PROCEDURE COMPLETED

**AC**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1 ■ LANDING WITH FAILED PRIMARY FLIGHT CONTROL

A failed flight control is defined as a flight control surface that does not respond to control input. The most probable cause would be a severed flight control cable. This condition typically results in the control surface trailing to the neutral position.

● AILERON

- 1. Use rudder for primary directional and lateral control. Use aileron trim as required to supplement rudder for lateral control.

CAUTION

Limit bank angles to 15° maximum.

- 2. If possible, choose a runway with the least possible crosswind.

PROCEDURE COMPLETED

● ELEVATOR

- 1. Elevator Trim ----- **USE MANUAL TRIM WHEEL**  
in small increments to control pitch attitude
- 2. Make small pitch and power changes and set up landing configuration early.
- 3. Airspeed ----- **-V<sub>REF</sub>+10**
- 4. Landing Distance/Weight:

STALL WARNING	FLAPS	*MULTIPLY LANDING DISTANCE BY	*REDUCE MAX LANDING WEIGHT BY
NORMAL	LAND	1.28	50 lbs.
HIGH	TO/APR	1.22	40 lbs.

\* Basic landing distance and maximum landing weight values must be obtained from the appropriate landing performance charts based on the STALL WARNING and ANTI-ICE system settings.

- 5. After touch down and nose wheel on ground, apply wheel brakes as soon as possible.

CAUTION

Avoid landing with a tailwind.

PROCEDURE COMPLETED

● RUDDER

- 1. RUDDER TRIM ----- **TRIM** for coordinated flight
- 2. If possible, choose a wide runway with the least possible crosswind.
- 3. Airspeed ----- **-V<sub>APP</sub> MINIMUM**  
until landing assured then slow to V<sub>REF</sub>

AD

CAUTION

Use of differential braking may be required for directional control upon landing.

PROCEDURE COMPLETED

**2 ■ LANDING WITH ICE ON WING LEADING EDGE**

This procedure should be used anytime there is an abnormal buildup of ice on the leading edge of the wing. This may be caused by a failure of the de-ice boot system or an unusually heavy accumulation of ice.

1. Landing Data - Use the following landing data (Landing Flaps limited to TO/APR):
  - a. Airspeed:

**V<sub>REF</sub> (KIAS) - STALL WARNING HIGH**

FLAPS	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	8645
TO/APR	108	112	115	119	122	127

\* Use in an emergency which requires landing at weights in excess of 8000 pounds.

- b. Landing Distance/Weight:
  - (1) **MULTIPLY** STALL WARNING-HIGH landing distance by 1.22.
  - (2) **REDUCE** maximum landing weight by 40 lbs.

**CAUTION**

Avoid landing with a tailwind.

PROCEDURE COMPLETED

**AD**

# 1 ■ WINDSHIELD A/I INOPERATIVE APPROACH AND LANDING

## APPROACH

1. Select an airport with a straight-in ILS approach or a GPS/RNAV approach with vertical guidance.
2. Landing Data ----- **CONFIRM**

### VREF - KIAS STALL WARNING - NORMAL

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF LAND	82	85	88	91	94	98
VAPP 15°	87	91	95	98	101	105

510CLNP-07-00

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

### VREF - KIAS STALL WARNING - HIGH

	WEIGHT - POUNDS					
	6000	6500	7000	7500	8000	*8645
VREF 15°	98	102	105	109	112	117
VAPP 15°	98	102	105	109	112	117

510CLNP-07-00

\* FOR USE IN AN EMERGENCY WHICH REQUIRES LANDING AT WEIGHTS IN EXCESS OF 8,000 POUNDS.

## CAUTION

Avoid landing with a tailwind.

3. Seats and Seat Belts ----- **ADJUST AND SECURE**
4. Avionics and Flight Instruments ----- **CHECK**
5. Minimums ----- **SET**
6. Passenger Seats ----- **CHECK FULL UPRIGHT**
7. PAX SAFETY Switch ----- **PAX SAFETY**
8. FUEL TRANSFER Knob ----- **OFF**
9. Anti-Ice/Deice Systems ----- **AS REQUIRED**
10. FLAP Handle ----- **TO/APR (as required)**
11. ANTISKID Switch ----- **ON**
12. LANDING Light Switch ----- **ON**
13. CAS Messages ----- **CHECK**
14. Crew Briefing ----- **COMPLETE**

(Include visibility call-outs, GO-AROUND, and landing flap setting)

## BEFORE LANDING

15. LANDING GEAR Handle ----- **DOWN AND LOCKED**
16. FLAP Handle ----- **TO/APR**
17. Pressurization ----- **CHECK ZERO DIFFERENTIAL**
18. Autopilot/Yaw Damper ----- **OFF (50 feet above minimums)**
19. Airspeed ----- **V<sub>REF</sub>**
20. Slip ----- **AS REQUIRED**  
to obtain and maintain runway visibility
21. Speed Brakes ----- **RETRACT PRIOR TO 50 FEET AGL**

PROCEDURE COMPLETED

AE

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 2 ■ AFT DOOR

Indicates that the tailcone baggage door is not locked.

### ● ON GROUND

1. Correct prior to flight. Secure baggage door if open, unlatched, or unlocked.

PROCEDURE COMPLETED

### ● IN FLIGHT

1. Land as soon as practical.

PROCEDURE COMPLETED

## 3 ■ CABIN DOOR

Indicates the cabin door is not fully closed, latched and locked. Switches are located on the inside handle, door pin mechanism, and the door frame.

### ● ON GROUND

1. Open the cabin door and close again.
2. Ensure inside handle is fully seated in the locked position.
3. Verify CAS message clears.

PROCEDURE COMPLETED

### ● IN FLIGHT

1. Airspeed ----- **REDUCE**
2. PAX SAFETY Switch ----- **PAX SAFETY**
3. Cabin Door ----- **KEEP CLEAR**
4. Altitude ----- **DESCEND**  
(15,000 feet or lower recommended)

5. Land as soon as practical.

PROCEDURE COMPLETED

## 4 ■ CHECK DOORS

Indicates that a nose baggage or cabin door monitor has not been properly tested or has failed. This message is only displayed on the ground.

### ● IF A NOSE DOOR L-R OR CABIN DOOR MESSAGE ALSO DISPLAYED

1. Open affected door.
2. Secure affected door making sure all latches and the key lock are properly secured.
3. Verify both CAS messages clear.

### □ IF MESSAGE DOES NOT CLEAR

1. Verify all doors are properly secured.

PROCEDURE COMPLETED

### ● IF NO ASSOCIATED DOOR MESSAGE DISPLAYED

1. Open cabin door and both nose baggage doors.
2. Secure each door making sure that all latches and the key lock as appropriate are secured.
3. Verify CAS message clears.

### □ IF MESSAGE DOES NOT CLEAR

1. Verify all doors are properly secured.

PROCEDURE COMPLETED

**AE**

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

1 ■ NOSE DOOR L-R

Indicates that the latches of one or both nose baggage doors are not properly secured.

● ON GROUND

- 1. Correct prior to flight. Secure nose door if open, unlatched, or unlocked.
- PROCEDURE COMPLETED

● IN FLIGHT

- 1. Land as soon as practical.
- PROCEDURE COMPLETED

2 ■ EMERGENCY EVACUATION

- |    |   |   |
|----|---|---|
| 1. | PARK BRAKE Handle (if gear down)-----                 | SET   |
| 2. | Throttles-----  | CUTOFF  |
| 3. | L and R ENGINE FIRE Switches (if fire suspected)----- | PRESS   |
| 4. | L or R BOTTLE ARMED Switches (if fire suspected)----- | PRESS   |
| 5. | PAX SAFETY Switch-----                                | PAX SAFETY  |
| 6. | BATT Switch-----                                      | OFF   |
| 7. | Airplane and Immediate Area -----                     | CHECK FOR BEST ESCAPE ROUTE AND DIRECT EVACUATION |

● IF THRU CABIN DOOR

- 8. Cabin Door ----- OPEN
  - 9. Move away from airplane.
- PROCEDURE COMPLETED

● IF THRU EMERGENCY EXIT

- 8. Emergency Exit - - **REMOVE** and **THROW HATCH OUT OF AIRPLANE**
  - 9. Move away from airplane.
- PROCEDURE COMPLETED

3 ■ INADVERTENT STALL (BUFFET AND/OR ROLL-OFF)

- |    |                     |   |
|----|---------------------|---|
| 1. | Autopilot-----      | DISCONNECT                                    |
| 2. | Pitch attitude----- | REDUCE  |
| 3. | Roll attitude ----- | LEVEL   |
| 4. | THROTTLES -----     | TO DETENT (Thrust Mode Indicator - Green T/O) |
| 5. | Airspeed -----      | INCREASE                                      |
| 6. | Altitude -----      | RETURN to previous altitude                   |
| 7. | Throttles-----      | AS REQUIRED                                   |

PROCEDURE COMPLETED

AF

## TEMPORARY PILOTS' ABBREVIATED CHECKLIST CHANGE

Trim to  
6.5 x 11  
inches

Publication Affected: Model 510 Citation Mustang (510-0001 and On) Pilots' Abbreviated Checklist Emergency/Abnormal Procedures, Revision 7, dated 21 November 2008.

Airplane Serial Nos. Affected: Airplanes 510-0001 and On.

Description of Change: This temporary change is current with 510FM TC-R07-22 and reflects the following change to the AFM, Section III, Operating Procedures, Emergency Procedures, update procedure title.

Filing Instructions: Insert this temporary change in the Model 510 (510-0001 and On) Pilots' Abbreviated Checklist, Emergency/Abnormal Procedures, adjacent to page 88.

Removal Instructions: This temporary change must be removed and discarded when Revision 8 has been collated into the Pilots' Abbreviated Checklist.

In the Emergency/Abnormal Procedures checklist, page 88, update the Inadvertent Stall procedure title as follows:

3

■ INADVERTENT STALL (STALL WARNING TONE, BUFFET AND/OR ROLL-OFF)

APPROVED BY

*for* Kim Hackett  
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Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE  
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL 23 JUNE 2010

TOC
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AMBER CAS
EMER ABNORM
WHITE CAS
NORM

TOC
RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM

## 4 ■ DITCHING

### PRELIMINARY

1. Radio----- MAYDAY
2. Transponder-----EMERGENCY
3. ELT Switch----- EMER
4. AIR SOURCE SELECT Knob-----OFF  
(prevents water from entering through bleed valves)
5. PAX SAFETY Switch----- PAX SAFETY
6. Water Barrier ----- RAISE AND LATCH INTO POSITION.

### WARNING

**Water barrier must be raised and latched into position prior to ditching.**

7. Passenger Life Jackets -----ON

### APPROACH

1. LANDING GEAR Handle -----UP
2. FLAP Handle -----LAND
3. Speed -----  $V_{REF}$
4. Rate-of-Descent -----200 TO 300 FEET PER MINUTE
5. Plan approach to parallel any uniform swell pattern and attempt to touch down along a wave crest or just behind it. If the surface wind is very strong or the water surface rough and irregular, ditch into the wind on the back side of a wave.

### WATER CONTACT

1. Aircraft Pitch Attitude----- SLIGHTLY HIGHER THAN  
NORMAL LANDING ATTITUDE
2. Airspeed and rate-of-descent -----REDUCE TO A MINIMUM,  
ABOVE STALL WARNING
3. Throttles ----- CUTOFF JUST PRIOR  
TO WATER CONTACT
4. Water surface-----CONTACT ON A CREST  
OF A SWELL PARALLEL  
TO THE MAJOR SWELL

### AFTER WATER CONTACT

Under reasonable ditching conditions, the airplane should remain afloat an adequate time to launch and board life rafts in an orderly manner.

If possible, the main cabin door should remain closed and evacuation made through the emergency exit. However, the water barrier will allow use of the cabin door as an additional egress route. The water barrier must be raised and latched into position for ditching, and barrier latches checked before the door is opened.

PROCEDURE COMPLETED

**AF**



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RED CAS
AMBER CAS
EMER ABNORM
WHITE CAS
NORM