Supernote Kneeboard Checklists for C206F

CONTENTS

BEFORE FLIGHT CHECKLISTS

PERSONAL MINIMUMS

☐ **Aircraft**: At least two (2) hours within previous two (2) months
☐ Currency:
— Flight review in previous twenty-four (24) months
— At least three (3) landings in the last sixty (60) days
☐ **Weather** (VFR):
— **Pattern work**: > 2,000 foot ceiling and five (3) miles visibility
— **Cross-country**: > 5,000 foot ceiling and ten (5) miles visibility
☐ **Crosswind**: < 15 knots maximum crosswind component
☐ **Fuel**: 60-minute reserve

DAYS BEFORE FLIGHT

☐ **Plan route**: Update EFB, 1800wxbrief, FltPlan, etc.
— Review route airspace, terrain, alternate landing sites
— Review all airport information, layout, services, run-up areas, important remarks — Compute weight and balance: retrieve passenger's weight, update "C206 Performance" application
— Save Route in Garmin Pilot
— Add Frequencies to Checklists, pages 7,
☐ **Weather**:
— Watch "weekly outlook" reports
— Check updated weather
☐ **Review route TFRs, NOTAMs, airspace, terrain, obstacles, etc.**
☐ **Check night currency and sunset/sunrise times**
☐ **Charge batteries**: Headphones, ADHRS, iPad, Phone, watch, flashlights, handheld radio, cameras, voice recorder
☐ **Verify EFB data is updated**: latest weather, winds, charts, TFRs, etc.
☐ **Get sleep**
☐ **Evaluate fitness to fly**
☐ **Evaluate weather on the way to airport**
☐ **Talk to other pilots who have flown recently**

BEFORE LEAVING HOUSE

☐ **Appropriate Clothing for WX:** jacket, pants vs. shorts, etc.
☐ **Wallet:** credit cards, drivers license, PPL, medical
☐ **Flight bag:** knee board, Supernote Nomad
☐ **Headphones:** including passenger headphones and backups
☐ **Supernote**: Charged, new note loaded with template, ready
☐ **Phone:** Update databases, add airport, APP/DEP, and Center numbers
☐ Flashlight
☐ Water and Snacks

BEFORE FLIGHT

☐ **Review route:** TFRs, NOTAMs, PIREPs, radio and navigation, airspace, navigational and procedural information, terrain, obstacles, landmarks, cultural elements (railroads, roads, trails, populated areas), etc.
☐ Review destination airport information:
— Review A/FD information
— Review the IAPs to the primary and parallel runways expected
— Review runways and approach lighting installations
— Review all lighting limitations marked on charts
— Review the NOTAMS, and pay special attention to FICONs when the airport surfaces are wet or frozen
— Note the location of the control tower
— Review light gun signals
— Highlight destination on the airfield
— Brief expected taxi route to destination
☐ Weather:
— Check updated weather forecast along route
— Check updated weather forecast at alternates
☐ Verify weight and balance
☐ Review aircraft performance: "C206 Performance App"
— Review takeoff performance
— Review en-route performance
— Review landing performance at destination (and expected conditions)
☐ **Review avionics:** expected configurations and workflows
☐ Prepare in-flight log sheet:
— Write-down frequencies, en-route altitude, and destination pattern altitude
— Get departure ATIS information

PREFLIGHT

PREFLIGHT (10HR ENGINE CHECK)

☐ **look for stains** (fuel, oil,and exhaust)
— Fuel stains are normally blue (if you use blue-dyed 100LL avgas). Oil stains are, well, oily. Exhaust stains are generally brightly colored: mostly yellow, orange or red
☐ look for signs of heat distress
☐ look for signs of chafing
— where hoses, wire bundles and control cables come into close proximity to the engine or each other. If you see two things rubbing, isolate them with a tie-wrap or clamp before you launch, lest the chafing continue and cause a serious problem in-flight.
☐ Open Engine

PREFLIGHT

1. Cabin

☐ a. Control Wheel Lock ..... Remove
☐ b. Check ignition switch .....Off
☐ c. Turn on Master Switch .....Check Fuel Then turn off Master
☐ d. Check Fuel Selecter .....Fuller Tank

2. Tail

☐ a. Rudder Gust Lock (if installed) ..... Remove
☐ b. Tail tie-down (if attached) ..... Disconnect
☐ c. Check Control Surfaces .....for freedom of movement and security
☐ d. Check Cargo doors ..... securely latched and locked (right side only)
— If cargo load will not permit access to the front cargo door inside handle, lock the door from the outside by means of the T-handle stored in the map compartment.

3. Right Wing

☐ a. Check Aileron4. Tail .....for freedom of movement and security

4. Right Wing Base

☐ a. Wing Tie-Down (if attached) ..... Disconnect
☐ b. Fuel Tank Vent Opening .....Check for stoppage
☐ c. Main Wheel Tire .....Check for proper inflation
☐ d. Fuel drain valve ..... Sample and check fuel
☐ e. Fuel Quantity .....Visually Check

5. Propeller

☐ a. static source opening (both sides) ..... Inspect for stopage
☐ b. Propeller and Spinner ..... Check for nicks and security
☐ c. Propeller ..... Check for oil leaks
☐ d. Nose Wheel ..... Check for proper inflation
☐ e. Oil Level ..... Check - add if under 10 quarts
☐ e. Oil Level ..... Fill to 12 for extended flights
☐ f. Strainer drain knob ..... Pull and drain for 4 seconds
☐ f. Fuel drain valve (2 one for each tank) ..... Sample and check fuel
☐ g. Engine heater (Winter) ..... unplug and secure cords

6. Left Wing Base

☐ a. Main Wheel Tire ..... Check for proper inflation
☐ b. Fuel Quantity ..... Visually Check
☐ c. Fuel drain valve ..... Sample and check fuel
☐ d. Pitot tube cover ..... Remove
☐ e. Wing Tie-Down (if attached) ..... Disconnect
☐ f. Fuel Tank Vent Opening ..... Check for stoppage

7. Left Wing

☐ a. Check Aileron ..... for freedom of movement and security

BEFORE STARTING ENGINE

☐ 1) Exterior Preflight ..... COMPLETE
☐ 2) Seats, Belts, Sholder Harnesses ..... ADJUSTED and LOCK
☐ 3) Breaks ..... TEST and SET
☐ 4) Cowl Flaps ..... OPEN
☐ 5) Radios and Electrical Equipment ..... OFF
☐ 6) Master Switch ..... ON
☐ 7) Fuel Selector Valve ..... FULLER TANK

START ENGINE

☐ 1) Mixture ..... Rich
☐ 2) Propeller ..... HIGH RPM
☐ 3) Throttle ..... CLOSED
☐ 4) Auxiliary Fuel Pump ..... ON
☐ 5) Throttle ..... ADVANCE to obtain 8-10 gl/hr
☐ 6) Auxiliary Fuel Pump ..... OFF
☐ 7) Propeller Area ..... CLEAR
☐ 8) Ignition Switch ..... START
☐ 9) Throttle ..... ADVANCE slowly
☐ 10) Ignition Switch ..... RELEASE when engine starts

— The engine should start in two or three revolutions. If it does not continue running, start again at step (3) above. If the engine does not start, leave auxiliary fuel pump switch off, set mixture to idle cut-off, open throttle, and crank until engine fires (or for approximately 15 seconds). If still unsuccessful, start again using the normal starting procedure after allowing the starter motor to cool.

☐ 11) Throttle ..... IDLE
☐ 12) Oil Pressure ..... CHECK

BEFORE TAKE-OFF

☐ 1) Parking Brake ..... SET
☐ 2) Cowl Flaps ..... OPEN
☐ 3) Flight Controls ..... FREE and CORRECT
☐ 4) Cabin Doors and Window ..... CLOSED and LOCKED
☐ 5) Flight Instruments and Radios ..... SET
☐ 6) ALT SEL knob ..... SET TO TARGET ALTITUDE
☐ 7) HDG/TRK knob ..... ALIGN WITH RUNWAY
☐ 8) Elevator and Rudder Trim ..... TAKE-OFF setting
☐ 9) Mixture ..... RICH (below 3000 ft)
☐ 10) Radio Freq ..... Check
☐ 11) Radio Call ..... FOR TAXI
— Hibbing Traffic, 75PJ, taxiway C, Taxing to Runway 31, Hibbing
☐ 12) Taxi to ..... RUNUP POSITION
☐ 13) Throttle ..... 1700 RPM
— Magnetos ..... CHECK
— Propeller ..... CYCLE from high to low RPM
— Propeller ..... RETURN to high RPM (Full Forward)
— Engine Instruments and Ammeter ..... CHECK
— Suction Gage ..... CHECK (4.6 to 5.4)
☐ 14) Throttle ..... IDLE
☐ 15) Throttle Friction Lock ..... ADJUST
☐ 16) Wing Flaps ..... 0˚ - 20˚
☐ 17) Radio Call ..... FOR DEPARTURE
— Hibbing Traffic, 75PJ is taxing onto Runway 31 departing pattern to the south climbing to 5000, Hibbing
☐ 18) GA Button ..... PRESS
☐ 19) Taxi to ..... TAKE-OFF Position

TAKEOFF / CRUISE / ENROUTE

NORMAL TAKE-OFF

☐ 1) Wing Flaps ..... 0˚ - 20˚
☐ 2) Power ..... FULL THROTTLE and 2850 RPM
☐ 3) Mixture ..... LEAN for field elevation (rich if below 3000)
☐ 4) Elevator Control ..... LIFT NOSE WHEEL at 60 MPH
☐ 5) Climb Speed ..... 90-100 mph
☐ 6) Wing Flaps ..... RETRACT after obstacles are cleared
☐ 7) AP button ..... PRESS
— Observe “AP YD” to indicate autopilot is active with yaw damper
☐ 8) IAS Button ..... PRESS
— Climb will continue at current speed under autopilot control, Notice IAS and the airspeed being targeted are indicated

MAX PERFORMANCE TAKE-OFF

☐ 1) Wing Flaps ..... 20˚
☐ 2) Breaks ..... APPLY
☐ 3) Power ..... FULL THROTTLE and 2850 RPM
☐ 4) Mixture ..... LEAN for field elevation (rich if below 3000)
☐ 5) Breaks ..... RELEASE
☐ 6) Elevator Control ..... SLIGHTLY TAIL-LOW ATTIUDE
☐ 7) Climb Speed ..... 78 mph
☐ 8) Wing Flaps ..... RETRACT after obstacles are cleared and 90MPH
☐ 9) AP button ..... PRESS
— Observe “AP YD” to indicate autopilot is active with yaw damper
☐ 10) IAS Button ..... PRESS
— Climb will continue at current speed under autopilot control, Notice IAS and the airspeed being targeted indicated

CRUISE

☐ 1) Power ..... 15-25 MP, 2200-2550 RPM (no more than 75%)
☐ 2) Mixture ..... LEAN for to 16 gal/hr (per Farly)
☐ 3) Elevator and Rudder Trim ..... ADJUST
☐ 4) Cowl Flaps ..... AS REQUIRED

NORMAL CLIMB ENROUTE

☐ 1) Airspeed ..... 110-120 MPH
☐ 2) Power ..... 25 MP and 2550 RPM
☐ 3) Mixture ..... Lean to 18 gal/hr
☐ 4) IAS Button ..... Press
☐ 5) UP-DN wheel ..... ADJUST SPEED as necessary
☐ 6) Cowl Flaps ..... OPEN as required

MAX PERFORMANCE CLIMB ENROUTE

☐ 1) Airspeed ..... 100 MPH at sea level 93 MPH at 10k feet
☐ 2) Power ..... FULL THROTTLE and 2700 RPM
☐ 3) Mixture ..... Lean for Altitude per fuel flow indicator placard
☐ 4) IAS Button ..... Press
☐ 5) UP-DN wheel ..... ADJUST SPEED as necessary
☐ 6) Cowl Flaps ..... FULL OPEN

LET DOWN / DECENT ENROUTE

☐ 1) VS Button ..... Press
☐ 2) UP-DN wheel ..... DN DIRECTION - SET DESIRED DECENT RATE
☐ 3) Power ..... AS DESIRED
☐ 4) Mixture ..... LEAN for smoothness in power descents
— Use full rich mixture for idle power.
☐ 5) Cowl Flaps ..... CLOSED

LANDING VFR

BEFORE LANDING

☐ 1) Fuel Selector Valve ..... FULLER TANK
☐ 2) Mixture ..... RICH (below 3000 ft)
☐ 3) Propeller ..... HIGH RPM
☐ 4) Wing Flaps ..... Down 0˚ - 10˚ (below 160 MPH), 10˚ - 40˚ (below 120 mph)
☐ 5) Airspeed ..... 85-95 MPH (flaps UP), 75-85 mph (flaps DOWN)
☐ 6) Elevator Trim ..... ADJUST for landing
☐ 7) VS Button ..... Press
☐ 8) UP-DN wheel ..... DN DIRECTION - SET DESIRED DECENT RATE

BALKED LANDING / GO AROUND

☐ 1) Power ..... FULL THROTTLE and 2850 RPM
☐ 2) Wing Flaps ..... Retract to 20˚
☐ 3) Airspeed ..... 90 MPH
☐ 4) Wing Flaps ..... RETRACT slowly
☐ 5) Cowl Flaps ..... OPEN

BALKED LANDING / GO AROUND WITH AUTOPILOT

☐ 1) GO ARROUND Button ..... PRESS
— Verify GA on GI275 (Autopilot will not disengage)
☐ 2) Autopilot ..... VERIFY airplane pitches up following flight director
☐ 3) Power ..... FULL THROTTLE and 2850 RPM
☐ 4) Wing Flaps ..... Retract to 20˚
☐ 5) Airspeed ..... 90 MPH
☐ 6) Altitude Preselect ..... VERIFY or SET as needed
☐ 7) Wing Flaps ..... RETRACT slowly
☐ 8) Cowl Flaps ..... OPEN

NORMAL LANDING

☐ 1) Touchdown ..... MAIN WHEELS FIRST
☐ 2) Landing Roll ..... LOWER NOSE WHEEL GENTLY
☐ 3) Braking ..... MINIMUM REQUIRED

AFTER LANDING

☐ 1) Cowl Flaps ..... OPEN
☐ 2) Wing Flaps ..... RETRACT

SECURING AIRCRAFT

☐ 1) Parking Brake ..... SET
☐ 2) Radios and Electrical Equipment ..... OFF
☐ 3) Mixture ..... IDLE CUT-OFF (Pulled full out)
☐ 4) Ignition Switch ..... OFF
☐ 5) Master Switch ..... OFF
☐ 6) Control Lock ..... INTSALL

APPROACHES

ILS APPROACH

☐ 1) Navigation source ..... SELECT CDI to VHF Nav
— Tune and identify an ILS station frequency
☐ 2) CDI ..... SET to front LOC Course
— **NOTE:** Ensure that the current heading will result in a capture of the selected course prior to the final Approach fix.
☐ 3) APR Key ..... PRESS, verify LOC and GS ARMED
☐ 4) LOC and GS Mode ..... SET in Altitude preselect
— At Decision Altitude (DA)
☐ 5) AP DISC Button ..... PRESS, Continue visually for a normal landing
— OR
☐ 6) GO AROUND (GA) Button ..... PRESS, Execute Missed Approach Procedure
— **NOTE:** Pressing the GA button will not disconnect the autopilot. Select NAV or HDG mode to fly the missed approach procedure.
— If the Course Deviation Indicator (CDI) is greater than half scale deflection, the autopilot will arm the LOC mode. The pilot must ensure that the current heading will result in a capture of the selected course. If the CDI is within half scale deflection, the autopilot will enter the capture mode when the APR key is pressed.
— When the selected navigation source is an ILS, glideslope coupling is automatically armed when the APR key is pressed. The glideslope cannot be captured until the localizer is captured. The autopilot can capture the glideslope from above or below the glideslope.

GPS APPROACH (LPV, LNAV/VNAV, LP+V, OR LNAV+V)

☐ 1) Navigation Source ..... SELECT CDI to GPS
☐ 2) Course Pointer ..... VERIFY CDI set to the Desired Course
— **NOTE** Ensure that the current heading will result in a capture of the selected course.
☐ 3) APR Key ..... PRESS, verify GPS and GP ARMED
☐ 4) GPS and GP Mode ..... VERIFY airplane Captures and Tracks GPS and GP
☐ 5) Missed Approach Altitude ..... SET after GP capture
☐ 6) ALT Key ... PRESS to level off at the MDA for a LP+V or LNAV+V approach
— At DA (LPV or LNAV/VNAV approach), or MDA and Missed Approach Point (LP+V or LNAV+V),
☐ 7) AP DISC Button ..... PRESS, Continue visually for a normal landing
— Or
☐ 8) GO AROUND (GA) Button ..... PRESS, Execute Missed Approach Procedure
— **NOTE:** Pressing the GA Button will not disconnect the autopilot. Select NAV or HDG mode to fly the missed approach procedure.

GPS APPROACH (LP, LNAV)

☐ 1) Navigation Source ..... SELECT GPS on the CDI

☐ 2) Course Pointer ..... VERIFY CDI set on the Desired Course
— **NOTE**: Ensure that the current heading will result in a capture of the selected course.
☐ 3) NAV Key ..... PRESS, verify GPS ARMED
☐ 4) GPS Mode ..... VERIFY airplane Captures and Tracks GPS Course
☐ 5) Altitude Preselect ..... SET to next required step-down altitude
☐ 6) Missed Approach Altitude ..... SET when in ALT mode at the MDA
— At Missed Approach Point,
☐ 7) AP DISC Button ..... PRESS, Continue visually for a normal landing
— Or
☐ 8) GO AROUND (GA) Button ..... PRESS, Execute Missed Approach Procedure
— **NOTE:** Pressing the GA button will not disconnect the autopilot. Select NAV or HDG mode to fly the missed approach procedure.

VOR APPROACH

☐ 1) Navigation Source. ..... SELECT CDI to VHF Nav
— Tune and identify the station frequency
☐ 2) Course Pointer ..... SET CDI to the Desired Course
— **NOTE**: Ensure that the current heading will result in a capture of the selected course.
☐ 3) NAV Key ..... PRESS, verify VOR ARMED
☐ 4) VOR Mode ..... VERIFY airplane Captures and Tracks VOR Course
☐ 5) Altitude Preselect ..... SET to next required step-down altitude
☐ 6) Missed Approach Altitude ..... SET when in ALT mode at the MDA
— At Missed Approach Point,
☐ 7) AP DISC Button ..... PRESS, Continue visually for a normal landing
— Or
☐ 8) GO AROUND (GA) Button ..... PRESS, Execute Missed Approach Procedure
— **NOTE**: Pressing the GA Button will not disconnect the autopilot. Select NAV or HDG mode to fly the missed approach procedure.

RADIO CHEAT-SHEET

DEPARTURE

Departure Airport _____

Frequencies

ATIS	Ground	Tower	Clearance

ATIS Information (Departure)

Info.	Time	Wind Direction	Wind Speed	Temp	Altimeter	Runway
NOTAMS/Misc:						

Uncontrolled Airport

_____ area traffic, 75PJ back taxi runway _____.
(airport) *(tail #)* *(Rwy #)*

_____ area traffic, 75PJ departing runway _____ to the _____.
(airport) *(tail #)* *(Rwy #)* *(direction)*

_____ area traffic, 75PJ exiting pattern to the _____.
(airport) *(tail #)* *(direction)*

Controlled Airport

_____ ground, 75PJ is at _____ with information _____, departing to the _____.
(airport) *(tail #)* *(location)* *(ATIS)* *(direction)*

Taxi instructions:

Taxi runway:		via			

When Holding Short, and ready to go:

_____ tower, _____ is holding short at Runway _____, Ready for departure .
airport) *(tail #)* *(Rwy #)*

ARRIVAL

Arrival Airport _____

Frequencies

ATIS	Ground	Tower	Clearance

ATIS Information (Departure)

Info.	Time	Wind Direction	Wind Speed	Temp	Altimeter	Runway
NOTAMS/Misc:						

Uncontrolled Airport

_____ area traffic, 75PJ entering the pattern on the _____.
(airport) *(tail #)* *(leg)*

_____ area traffic, 75PJ downwind for runway / base for runway / final for runway _____.
(airport) *(tail #)* *(Rwy #)*

_____ area traffic, 75PJ clear active runway, taxi _____ to _____.
(airport) *(tail #)* *(taxiway)* *(parking location)*

Controlled Airport

_____ tower, 75PJ is _____ miles to the _____, with information _____ inbound for landing.
(airport) *(tail #)* *(distance)* *(direction)* *(ATIS)*

When landed, clear of the runway:

_____ ground, 75PJ is clear of runway _____ at _____ for _____.
(airport) *(tail #)* *(Rwy #)* *(intersection)* *(parking location)*

Taxi instructions:

Taxi to parking via:					

CRAFT

C	Clearance Limit, Destination or waypoint
R	Route, Path via SIDs, waypoints, or airways
A	Altitude, Initial and step climbs
F	Frequency, ATC Communication
T	Transponder Code

EXECUTING A 180° TURN IN CLOUDS

Upon entering the clouds, an immediate plan should be made to turn back as follows:

☐ 9) Note the time on the minute hand and observe the position of the sweep second hand on the clock.
☐ 10) When the sweep second hand indicates the nearest half-minute, initiate a standard rate left turn, holding the turn coordinator symbolic aircraft wing opposite the lower left index mark for 60 seconds. Then roll back to level flight by leveling the miniature aircraft.
☐ 11) Check accuracy of the turn by observing the compass heading which should be the reciprocal of the original heading.
☐ 12) If necessary, adjust heading primarily with kidding motions rather than rolling motions so that the compass will read more accurately.
☐ 13) Maintain altitude and airspeed by cautious application of elevator control. Avoid overcontrolling by keeping the hands off the control wheel and steering only with rudder.

EMERGENCY LET-DOWNS THROUGH CLOUDS

If possible, obtain radio clearance for an emergency descent through clouds. To guard against a spiral dive, choose an easterly or westerly heading to minimize compass card swings due to changing bank angles. In addition, keep hands off the control wheel and steer a straight course with rudder control by monitoring the turn coordinator. Occasionally check the compass heading and make minor corrections to hold an approx-imate course. Before descending into the clouds, set up a stabilized let- down condition as follows:

☐ 1) Reduce power to set up a 500 to 800 ft/min rate of descent.
☐ 2) Adjust mixture for smooth operation.
☐ 3) Adjust the elevator and rudder trim for a for stabilized descent at 110 MPH.
☐ 4) Keep hands off the control wheel.
☐ 5) Monitor turn coordinator and make corrections by rudder alone.
☐ 6) Readjust rudder trim to relieve unbalanced rudder force if pre-sent.
☐ 7) Check trend of compass card movement make cautious corrections with rudder to stop the turn.
☐ 8) Upon breaking out of clouds resume normal cruising flight.

RECOVERY FROM A SPIRAL DIVE

☐ 1) Close the throttle place propeller control in high RPM.
☐ 2) Stop the turn by using coordinated aileron and rudder control to align the symbolic aircraft in the turn coordinator with the horizon reference line.
☐ 3) Cautiously apply control wheel back pressure to slowly reduce the indicated airspeed to 110 MPH.
☐ 4) Adjust the elevator trim control to maintain a 110 MPH glide.
☐ 5) Keep hands off the control wheel using rudder control to hold a straight heading. Adjust rudder trim to relieve unbalanced rudder force, if present.
☐ 6) Clear engine occasionally but avoid using enough power to disturb the trimmed glide.
☐ 7) Upon breaking out of clouds apply normal cruising power and resume flight.

SPINS

Intentional spins are prohibited in this aircraft. Should an inadvertent spin occur, the following recovery technique should be used.

☐ 1) Retard throttle to idle position.
☐ 2) Apply full rudder opposite to the direction of rotation.
☐ 3) After one-fourth turn move the control wheel forward of neutral in a brisk motion.
☐ 4) As rotation stops neutralize rudder, and make a smooth re-covery from the resulting dive.

FLIGHT IN ICING CONDITIONS

Although flying in known icing conditions is prohibited, an unexpected icing encounter should be handled as follows:

☐ 1) Turn pitot heat ON
☐ 2) Turn back or change altitude to obtain an outside air temperature that is less conducive to icing.
☐ 3) Pull cabin heat control full out and rotate defrost knob clockwise to obtain maximum windshield defroster effectiveness.
☐ 4) Increase engine speed to minimize ice build-up on propeller blades. If excessive vibration is noted, momentarily reduce engine speed to 2200 RPM with the propeller control, and then rapidly move the control full forward.
— Cyling the RPM flexes the propeller blades and high RPM increases centrifugal force, causing ice to shed more readily.
☐ 5) Watch for signs of induction air filter ice and regain manifold pressure by increasing the throttle setting.

— If ice accumulates on the intake filter (causing the alternate air valve to open), a decrease of 1 to 2 inches of full throttle manifold pressure will be experienced.

☐ 6) If icing conditions are unavoidable plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.

☐ 7) With an ice accumulation of 1/4 inch or more on the wing leading edges be prepared for a significantly higher power requirement, approach speed, stall speed, and landing roll.

☐ 8) Open the window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.

☐ 9) Use a 10 - 20˚ landing flap setting for ice accumulations of 1 inch or less.

— With heavier ice formations, approach with flaps retracted to ensure adequate elevator effectiveness in the approach and landing.

☐ 10) Approach at 110 to 120 MPH with 20˚ flaps and 120 to 130 MPH with 0 - 10˚ flaps, depending upon the amount of ice accumulation.

— If ice accumulation is unusually large, decelerate to the planned approach speed while in the approach configuration at a high enough altitude which would permit recovery in the event that a stall buffet is encountered.

☐ 11) Land on the main wheels first avoiding the slow and high type of flare-out.

☐ 12) Missed approaches should be avoided wherever possible because of severely reduced climb capability. However, if a go-around is mandatory, make the decision much earlier in the approach than normal. Apply maximum power and maintain 110 MPH while retracting the flaps slowly in 10˚ increments.

AUTOPILOT PRE-FLIGHT TEST FAIL

— Amber AP with a red X on GI 275 autopilot status box

☐ 1) Indicates the AFCS system failed the automatic Pre-Flight test.

— **NOTE**: The autopilot, yaw damper (if installed), and ESP will be inoperative.

LOSS OF NAVIGATION INFORMATION

— Amber GPS, VOR, LOC, or BS flashes for 10 seconds on GI275

— **NOTE**: If a navigation signal is lost while the autopilot is tracking it, the autopilot will roll the aircraft wings level and default to roll mode (ROL).

— If on an instrument approach at the time the nav signal is lost

☐ 1) Missed Approach Procedure .....EXECUTE (as necessary)

LOSS OF AIRSPEED DATA

— Red X through airspeed tape on the GI 275, amber AP with a red X in autopilot status box.

— **NOTE**: If airspeed data is lost while the autopilot is tracking airspeed, the flight director will default to pitch mode (PIT).

☐ 1) AP DISC Button .....PRESS and RELEASE

— May be GI 275 Knob of Autopilot Status Button (cancels disconnect tone)

☐ 2) Aircraft Attitude..... MAINTAIN / REGAIN AIRCRAFT CONTROL

☐ 3) Trim Switch .....TRIM as required

— **NOTE**: The autopilot cannot be re-engaged. The flight director will be available however IAS mode cannot be selected. Loss of airspeed will be accompanied by a red PTRIM indication on the GI 275.

LOSS OF ALTITUDE DATA

— RED X through altitude tape on the GI 275

— **NOTE:** If altitude data is lost while the autopilot is tracking altitude, the autopilot will default to pitch mode (PIT).

☐ 1) Autopilot ..... SELECT different vertical mode

LOSS OF GPS INFORMATION

— GPS position information is lost to the autopilot.

— **NOTE:** If GPS position data is lost while the autopilot is tracking a GPS, VOR, LOC or Back Course the autopilot will default to roll mode (ROL). The autopilot will default to pitch mode (PIT) if GPS information is lost while tracking an ILS. The autopilot uses GPS aiding in VOR, LOC and BC modes.

☐ 1) Autopilot .....SELECT different lateral and/or vertical mode as necessary

— If on an instrument approach:

☐ 2) AP DISC BUTTON ..... PRESS, Continue the approach manually

☐ 3) Missed Approach Procedure .....EXECUITE (as necessary)

HEADING DATA SOURCE FAILURE

☐ 1) Autopilot ..... SELECT different lateral mode as necessary

— **NOTE:** Track information will be displayed on the GI 275. GPSS will not be provided to the autopilot for heading legs.

ELEVATOR MISTRIM

— Amber TRIM UP or TRIM DOWN displayed on the G5 or GI 275

— This annunciation indicates a mistrim of the elevator while the autopilot is engaged. The autopilot will normally trim the airplane as required using the pitch trim servo cartridge. However, during rapid acceleration, deceleration, configuration changes, or near either end of the elevator trim limits, momentary illumination of this annunciation may occur. If the autopilot is disconnected while this annunciation is displayed, high elevator control forces are possible.

— **WARNING:** Do not attempt to overpower the autopilot in the event of a pitch mistrim. The autopilot servo will oppose pilot input and will cause pitch trim to run opposite the direction of pilot input. This will lead to a significant out-of-trim condition, resulting in large Control Yoke force when disengaging the autopilot.
— **NOTE:** Momentary display of the TRIM UP or TRIM DOWN annunciation during configuration changes or large airspeed changes is normal.

☐ 1) Control Yoke ..... GRIP FIRMLY
— **WARNING:** Be prepared for significant sustained control forces in the direction of the mistrim annunciation. For example, TRIM DOWN indicates nose down Control Yoke force will be required upon autopilot disconnect.
☐ 2) AP DISC Button ..... PRESS AND RELEASE
☐ 3) Trim Switch .... ATTEMPT MANUAL ELECTRIC PITCH TRIM ADJUSTMENT AS REQUIRED
— **NOTE:** Manual electric pitch trim should be used with caution until the cause of the mistrim has been investigated and corrected.

YAW DAMPER DISCONNECT

— Amber YD displayed in autopilot status box on display
☐ 1) YD Button on GMC.....PRESS and RELEASE
— OR GI 275 Knob
☐ 2) Aircraft Attitude..... MAINTAIN / REGAIN AIRCRAFT CONTROL
— **NOTE:** A flashing amber 'YD' in the autopilot status box indicates that the yaw damper has disconnected. If the disconnect was not pilot initiated, Refer to Section 3 – Emergency Procedures, YAW AXIS FAILURE / ABNORMAL DISCONNECT, for further information.

EMERGENCY

ENGINE FAILURE AFTER TAKE-OFF

☐ 1) Airspeed ..... 90 MPH
☐ 2) Mixture ..... IDLE CUT-OFF
☐ 3) Fuel Selector Valve.....OFF
☐ 4) Ignition Switch.....OFF
☐ 5) Wing Flaps ..... AS REQUIRED (40˚ recommended)
☐ 6) Master Switch .....OFF

ENGINE FAILURE DURING FLIGHT

☐ 1) Airspeed ..... 85 MPH
☐ 2) Fuel Selector Valve and Quantity .....CHECK
☐ 3) Mixture .....RICH
☐ 4) Auxiliary Fuel Pump.....
— ON ..... for 3 - 5 seconds with throttle 1/2 open;
— Then .....OFF
☐ 5) Ignition Switch.....BOTH (or START if propeller is not windmilling)
☐ 6) Throttle .....SLOWLY ADVANCE

EMERGENCYLANDING WITHOUT ENGINE POWER

☐ 1) Airspeed .....90 MPH (flaps UP) 80 MPH (flaps DOWN)
☐ 2) Mixture ..... IDLE CUT-OFF
☐ 3) Fuel Selector Valve.....OFF
☐ 4) Ignition Switch.....OFF
☐ 5) Wing Flaps ..... AS REQUIRED (40˚ recommended)
☐ 6) Master Switch .....OFF
☐ 7) Doors.....UNLATCH PRIOR TO TOUCHDOWN
☐ 8) Touchdown.....SLIGHTLY TAIL LOW
☐ 9) Brakes.....APPLY HEAVILY

PRECAUTIONARY LANDING WITH ENGINE POWER

☐ 1) Perform the Before Landing checklist ..... DONE
— Drag over selected field with flaps 20˚ and 90 MPH airspeed noting the preferred area, retract flaps upon reaching a safe altitude and airspeed.
☐ 2) Radio, Electrical Switches .....OFF
☐ 3) Wing Flaps .....40˚
☐ 4) Airspeed ..... 80 MPH
☐ 5) Master Switch .....OFF
☐ 6) Doors.....UNLATCH PRIOR TO TOUCHDOWN.
☐ 7) Touchdown.....SLIGHTLY TAIL LOW
☐ 8) Ignition Switch .....OFF
☐ 9) Brakes.....APPLY HEAVILY

DITCHING

Prepare for ditching by securing or jettisoning heavy objects located in the baggage area, and collect folded coats or cushions for protection of occupant's face at touchdown. Transmit Mayday message on 121. 5 MHz giving location and intentions.

☐ 1) Plan approach into wind if winds are high and seas are heavy. With heavy swells and light wind, land parallel to swells.
☐ 2) Approach with flaps 40˚ and sufficient power for a 300 ft/min rate of descent at 75 MPH.
☐ 3) cabin and front cargo doors. ..... Unlatch
☐ 4) Descent ..... Continuous until touchdown in level attitude
— Avoid a landing flare because of difficulty in judging aircraft height over a water surface.
☐ 5) Place a folded coat or cushion in front of face at time of touch-down.
☐ 6) Evacuate aircraft through cabin and cargo doors. If necessary, open window to flood cabin compartment for equalizing pressure so that doors can be opened.
☐ 7) After evacuation of cabin Inflate life vests and raft (if available)
— The aircraft cannot be depended on for flotation for more than a few minutes.

ENGINE FIRE IN FLIGHT

Although engine fires are extremely rare in flight, the following steps should be taken if one is encountered:

☐ 1) Mixture ..... IDLE CUT-OFF
☐ 2) Fuel Selecter Valve ..... OFF
☐ 3) Master Switch ..... OFF
☐ 4) Cabin Heat and Air ..... OFF (except overhead vents)
☐ 5) Airspeed ..... 120 MPH
— If fire is not extinguished, increase flite speed to find an airspeed which will provide an incombustible mixture.
☐ 6) Execute a forced landing

ELECTRICAL FIRE IN FLIGHT

The initial indication of an electrical fire isusually the odor of burning insulation. The following procedure should then be used:

☐ 1) Master Switch ..... OFF
☐ 2) All Other Switches (except ignition) ..... OFF
☐ 3) Vents/Cabin Air/Heat ..... CLOSED
☐ 4) Fire Extinguisher ..... ACTIVATE (if available)
— **NOTE:** If an oxygen system is available and breathing is difficult, occupants should use oxygen masks until smoke and discharged dry power clears.

If fire appears out and electrical power is necessary for continuance of flight:

☐ 5) Master Switch ..... ON
☐ 6) Circuit Breakers ..... CHECK for faulty circuit do not reset
☐ 7) Electrical/Radio Switches ..... ON one at a time
— With delay after each until short circuit is localized
☐ 8) Vents/Cabin Air/heat..... OPEN when fire is completely extinguished

AUTOPILOT MALFUNCTOIN / PITCH TRIM RUNAWAY

☐ 1) Control Yoke ..... GRIP FIRMLY
☐ 2) AP DISC Button ..... PRESS AND HOLD
— **Caution**: Be prepared for high elevator control forces
☐ 3) Aircraft Attitude..... MAINTAIN/REGAIN AIRCRAFT CONTROL
☐ 4) Trim Switch .....RE-TRIM if necessary, using the trim switch on yoke
☐ 5) Autopilot Circuit Breaker ..... PULL
— **NOTE**: Do not release the AP DISC button until after pulling the autopilot Circuit Breaker. Pulling the Autopilot circuit breaker will render the autopilot, yaw damper, and ESP inoperative.
☐ 6) AO DISC Button ..... RELEASE

AUTOPILOT FAILURE / ABNORMAL DISCONNECT

☐ 1) AP DISC Button .....PRESS and RELEASE
— May be GI 275 Knob of Autopilot Status Button (cancels disconnect tone)
☐ 2) Aircraft Attitude..... MAINTAIN/REGAIN AIRCRAFT CONTROL
— **NOTE**: The autopilot disconnect may be accompanied by a red AFCS in the autopilot status box, indicating the Automatic Flight Control System has failed. The flight director will not be available, and the autopilot cannot be re-engaged with this annunciation present.
— If the disconnect is accompanied by an amber AP with a red X, the autopilot will not be available. However, the flight director will still function.
— In the event of a GMC failure, pressing the G5 knob, or the GI 275 knob or autopilot status button, will acknowledge the disconnect tone.

YAW AXIS FAILURE / ABNORMAL YAW DAMPER DISCONNECT

☐ 1) AP DISC Button .....PRESS and RELEASE
— May be GI 275 Knob of Autopilot Status Button (cancels disconnect tone)
☐ 2) Aircraft Attitude..... MAINTAIN/REGAIN AIRCRAFT CONTROL
— **NOTE**: The yaw damper disconnect may be accompanied by an amber YD with a red X in the autopilot status box. The YD is inoperative and will not be available. The autopilot may be re-engaged and disengaged normally, but the yaw damper will remain inoperative.

PITCH TRIM FAILURE

☐ 1) Control Yoke ..... GRIP FIRMLY
☐ 2) AP DISC Button .....PRESS and RELEASE
— **Caution**: Be prepared for high elevator control forces
☐ 3) Elevator Control..... AS REQUIRED USING THE CONTROL YOKE

— **Caution**: Do not reengage the autopilot. Be prepared for high elevator control forces.

☐ 4) Trim Switch ..... ATTEMPT MANUAL ELECTRIC PITCH TRIM ADJUSTMENT

— **Note**: Manual Electric Pitch Trime may be inoperative

☐ 5) Yaw Damper ..... ENGAGE AS REQUIRED

ESP ACTIVATION

☐ 1) Throttle ..... AS REQUIRED

☐ 2) Aircraft Attitude..... MAINTAIN/REGAIN AIRCRAFT CONTROL

— **NOTE**: If ESP is active for approximately 10 seconds, the autopilot will automatically engage in LVL mode, an aural 'ENGAGING AUTOPILOT' will be played (or a Sonalert tone will sound for installations without a supported audio panel), and the autopilot will roll the wings level and fly at zero vertical speed. Refer to Section 7, System Description for further information.

— ESP will be disabled by pressing and holding the AP DISC button. Releasing the button will allow ESP to function.

OVERSPEED PROTECTION (MAXSPD)

☐ 1) Throttle ..... REDUCE

☐ 2) Aircraft Attitude and Altitude ..... MONITOR

— Continue After overspeed condition is corrected:

☐ 3) Autopilot ..... RESELECT VERTICAL AND LATERAL MODES (if necessary)

☐ 4) Throttle ..... ADJUST as necessary

— **NOTE**: Overspeed protection mode provides a pitch up command to decelerate the airplane to or below the maximum autopilot operating speed

UNDERSPEED PROTECTION (MINSPD)

☐ 1) Throttle ..... INCREASE POWER AS REQUIRED TO CORRECT

☐ 2) Aircraft Attitude and Altitude ..... MONITOR

— Continue After underspeed condition is corrected:

☐ 3) Autopilot ..... RESELECT VERTICAL AND LATERAL MODES (if necessary)

☐ 4) Throttle ..... ADJUST as necessary

— **NOTE**: Autopilot Underspeed Protection Mode provides a pitch down command to maintain approximately 77 KIAS.

GFC 500 NOTES

Gray notes are incorporated into appropriate checklists in previous sections.

Listen to AWOS and use **ALT SEL knob** to set Target Elevation
Then use **HDG/TRK knob** to set heading bug to align with runway
Before taxing onto runway for takeoff off press **GA button**

Once airborne and at or above pattern altitude press **AP button**
Observe "AP YD" to indicate Autopilote is active with yaw damper.

To facilitate clime press **IAS button** to clime at the current airspeed.
Notice IAS and the airspeed being targeted indicated

To track heading bug press **HDG button**
Notice HDG light up to indicate heading mode

Only climb with IAS, as its safer for climbs.
To turn to new headings turn **HDG/TRK knob** and the plane will turn.

Activate a direct to waypoint on navcom, when active press the **NAV button.**
Notice GPS replaces HDG in the status box.

Notice altitude flashing when crossing within 1000ft, then a tone when 200ft from target elevation. Indicator will change from IAS with Airspeed to ALTS with Elevation.

If ATC gives instructions to divert some number of degrees. Turn **HDG/TRK knob** to move bug to new heading, press **HDG button** to activate following the bug.

To descend press **VS button** and notice the indicator box showing VS with rate of decent at 0. Set rate of decent by turning the **UP-DN wheel** in the DN direction.

IF ATC gives an elevation target along the track, use navcom to set an "Along Track" waypoint. Give the along track waypoint a target elevation. Use the **ALT SEL knob** to turn selected altitude to match ATC target. Push the **VNAV button** verify there is a white VNAV indicator in the status box. It will turn green at the correct time to descend to the target altitude.

After selecting and activating an RNAV or similar approach on the navcom, arm the approach by pressing the **APR button.** Notice white GP in the vertical indication status box, when the glide path is captured GP will turn green. Use **ALT SEL knob** to adjust target altitude to the missed approach altitude.