vJaBoG 66
"High Rollers"

C-101EB
NORMAL PROCEDURES

PUBLIC RELEASE APPROVED

Revision	2
Letzte Änderung	13.05.2021

Änderungsübersicht

Rev 1	07.06.2020	-	Initiale Version
Rev 2	29.05.2021	-	Formatierung geändert
		-	FOR INTERNAL USE ONLY entfernt - PUBLIC RELEASE APPROVED hinzugefügt

Gültigkeitsbereich

Dieses Dokument ist für das Flugmuster C-101EB des vJaBoG 66 gültig.

VORWORT

Das normalen Prozeduren für das Muster C-101EB des virtuellen Jagdbombergeschwaders 66 wurde nach bestem Wissen und Gewissen erstellt.
Die einzelnen Teilbereiche wurden, soweit möglich, anhand von realen Vorbildern und Dokumenten erstellt und niedergeschrieben. Wenn keine realen Dokumente zur Verfügung standen oder wenn der Geschwaderstab entschieden hat, Abstriche für die Praktikabilität oder das Gameplay zu machen, dann sind die hier dargestellten Prozeduren nach unserem besten Wissen über die militärische und zivile Luftfahrt ausgearbeitet worden.

Sollten Rechtschreibfehler oder Fehler inhaltlicher Natur gefunden werden, meldet diese bitte dem Geschwaderstab.

vJaBoG 66, Geschwaderstab
Raku, Borin, Yurgon

Until ENGINE START, mandatory items are shown in black font.
Optional, non-mandatory and check-only items are shown in light-gray font.

From ENGINE START onwards, every item is mandatory.

BEFORE ENTERING COCKPIT

1. All hardware devices - Tested
2. Additional external programs - On and tested
3. Screen - Cleaned
4. Flight publications - Check

NOTE
Make sure your joystick, throttle, rudder pedals, TrackIR, MFDs, screens and other peripheral hardware devices are functioning properly, your screen is cleaned, every necessary software like Helios, SRS, Teamspeak, SSA is up and running and that you have all necessary documents/flight publications with you.

5. Beverages - Tested and quantity checked
6. Internal water tank - Check max quantity 10%

COCKPIT INTERIOR INSPECTION - SOLO FLIGHT

1. Kneeboard - Check
2. Fuel quantity - Check / as briefed

NOTE
If necessary, refuel as briefed or as required.

REAR COCKPIT

3. Ejection seat safety pin - IN
4. Emergency pitch trim guard - CLOSED
5. Ignition switch - OFF
6. Fuel transfer pump switches - ANT
7. Landing lights - FRONT
8. Parking brake - IN
9. UHF - ON / Set
10. Interior lights - OFF
11. VOR - ON / Set
12. Intercom selector - INT
13. VHF - ON / Set
14. Oxygen supply - CLOSED
15. Oxygen pressure warning - FRONT
16. Rear canopy - CLOSED / LOCKED

FRONT COCKPIT

Check the front cockpit as described in COCKPIT INTERIOR INSPECTION - TWO PILOTS.

COCKPIT INTERIOR INSPECTION - TWO PILOTS

NOTE
Items marked with an asterisk (*) are checked in the front cockpit only, because either they are not duplicated in the rear cockpit or the check in the front cockpit is sufficient.
Items marked with two asterisks (**) are checked in the rear cockpit only, because they are not duplicated.
Every other item is to be checked in both cockpits.

1. Kneeboard - Check
2. Fuel quantity - Check / as briefed
3. Ejection seat safety pin - IN
**4. Ejection seat priority lever - AS REQUIRED

NOTE
If the front pilot initiates ejection, only the front pilot will eject.
With the ejection seat priority lever in the ON position and the rear pilot initiating ejection, the rear pilot will eject first. The front pilot will automatically be ejected 0.3 to 0.4 seconds later.
With the ejection seat priority lever in the OFF position and the rear pilot initiating ejection, only the rear pilot will be ejected.

5. Seat harness - ADJUSTED
6. Pedals - ADJUSTED

LEFT CONSOLE

1. Circuit breakers - IN

2. Emergency pitch trim guard - CLOSED
*3. Pitch trim breaker - IN
4. Throttles - Check
   a. Set FULL OPEN
   b. CHECK FRICTION
   c. Set OFF
5. Ignition switch - OFF
6. Starter mode switch - NORMAL
7. Fuel transfer pump switches - OFF(*) / ANT(**)
8. GPU - CONNECT

INSTRUMENT PANEL

1. Landing lights - RETRACT(*) / ANT(**)
*2. Stall warning power - OFF
3. Parking brake - SET
4. Accelerometer - RESET
5. UHF - OFF
*6. UHF Antenna Selector - AUT
7. TARSYN Mode Select - COMPASS
8. Altimeter - SET
9. Clock - SET
10. Standby ADI - CAGED
*11. IFF - OFF
*12. Inverter - OFF
*13. Generator - OFF
*14. Bus tie switch - OFF
*15. Batteries - OFF

RIGHT CONSOLE

*1. Cabin pressure - Check airfield elevation
2. Interior Lights - OFF
*3. Exterior lighting - Set
   a. Anti-collision beacon - ON
   b. Nav lights - OFF
   c. Formation lights - OFF
   d. Landing lights - RETRACTED
4. VOR - OFF
*5. TACAN - OFF
6. Oxygen supply - OPEN
7. VHF - OFF
**8. Oxygen pressure warning - BOTH
9. Audio panel - As required
*10. Air conditioning panel
   a. Air conditioning master switch - OFF
   b. Temperature mode - AUT
   c. Flow selector - CPT
   d. Temperature selector - 12 o'clock
   e. Emergency ventilation - OFF

BEFORE ENGINE START

1. Batteries - ON
2. Voltmeter - Check 24V
3. GPU - ON
4. Bus tie switch - ON
5. Inverter - STANDBY
6. Audio selector - INT
7. Seat height - Adjust
8. Engine ignition light - TEST
9. Computer - ON (light off)
10. Fuel panel
   a. Fuel tank indicators L/C/R - Check

(green: fuel tank not empty; red: fuel tank empty)

b. Fuel transfer pumps - Check

Set each fuel transfer pump switch with a green fuel tank indicator one after another to AUT, then MAN, then OFF. Check green pressure light for each pump in AUT and MAN.

NOTE

The MAN mode is not a normal operation mode and is reserved for the case a transfer pump is de-energized due to a fault in the low-level circuit breakers.
Routine operation of fuel transfer pumps in MAN mode can considerably shorten the lifespan of the fuel transfer pump, since they are designed to operate in a vacuum.

NOTE

Depending on environmental conditions, it may be necessary to accelerate the engine up to 50% N1 to gain positive pressure from any fuel transfer pump.

c. Fuel quantity selector - Check

If fuel quantity selector is ON (FUS light on), the fuel quantity indicator shows the content of the fuselage tank.
If positive pressure from at least one fuel transfer pump is set and fuel quantity selector is OFF (FUS light off), the fuel quantity indicator shows the content of the fuselage tank and the center wing tanks.

d. Fuselage tank pump - OFF

NOTE

The fuselage pump is energized by moving the throttle out of the STOP position.

e. Fuel switch - OFF

11. Stall warning power - ON

12. Stall warning - TEST

13. Fire warning button - PRESS / CHECK

Check red fire warning button illumination and red FIRE warning on the warning and caution lights panel.

14. Voltmeter - Check 28V

15. Fuel flow - CHECK

With depressed check button, fuel flow should indicate 1.200 lbs/h.
Total fuel used should rise by 10 lbs every 30 seconds.

16. Total Fuel Used - Reset

17. Warning lights - TEST

Check MASTER WARNING, MASTER CAUTION and every light on the warning and caution lights panel illuminates.
Repeat test for DIM and BRIGHT lamp setting.

18. ESS BUS - ON, then OFF

19. Inverter - NORMAL

ENGINE START

1. Area - Clear (see Figure 1)

2. Voltmeter - Check minimum 24V and no less than 15V during engine start cycle

3. Fuel Switch - ON

4. Ignition - ON, hold for 2s

5. Throttle - from STOP to IDLE when reaching 10% N2

Check ignition light illuminated.

NOTE

The engine computer automatically enriches the fuel until ignition.
Below -18°C outside air temperature, a manual enrichment using the manual enrichment button is recommended. In this case, hold the button until reaching ITT 300-400°C

6. ITT - Check rising within 10 seconds

7. N1 - Check rising within 20% N2

8. Oil pressure - Check rising within 10 seconds

9. Fuel flow - Check indication

CAUTION

Abort engine start when:

a. No ITT indication 10 seconds after moving throttle from STOP to IDLE

b. N2 does not rise continuously, but rapidly up until 24%

c. N1 does not rise until N2 reaches 20%

d. ITT reaches limit or rises rapidly

e. No positive oil pressure within 10 seconds of ignition

Abort engine start with the following procedure:

a. Throttle - STOP

b. Abort switch - HOLD ABORT

10. Ignition light - Extinguishes when N2 reaches 50%

11. Engine instruments - Check
    a. N1 - 33-37%
    b. N2 - 58-71%

CAUTION

The following times are not to be exceeded:

From 10% N2 to ignition: 10 seconds.
From ignition to idle: 50 seconds.

In case of exceeding the aforementioned times, abort the engine start. Find and fix the problem, before attempting another engine start.

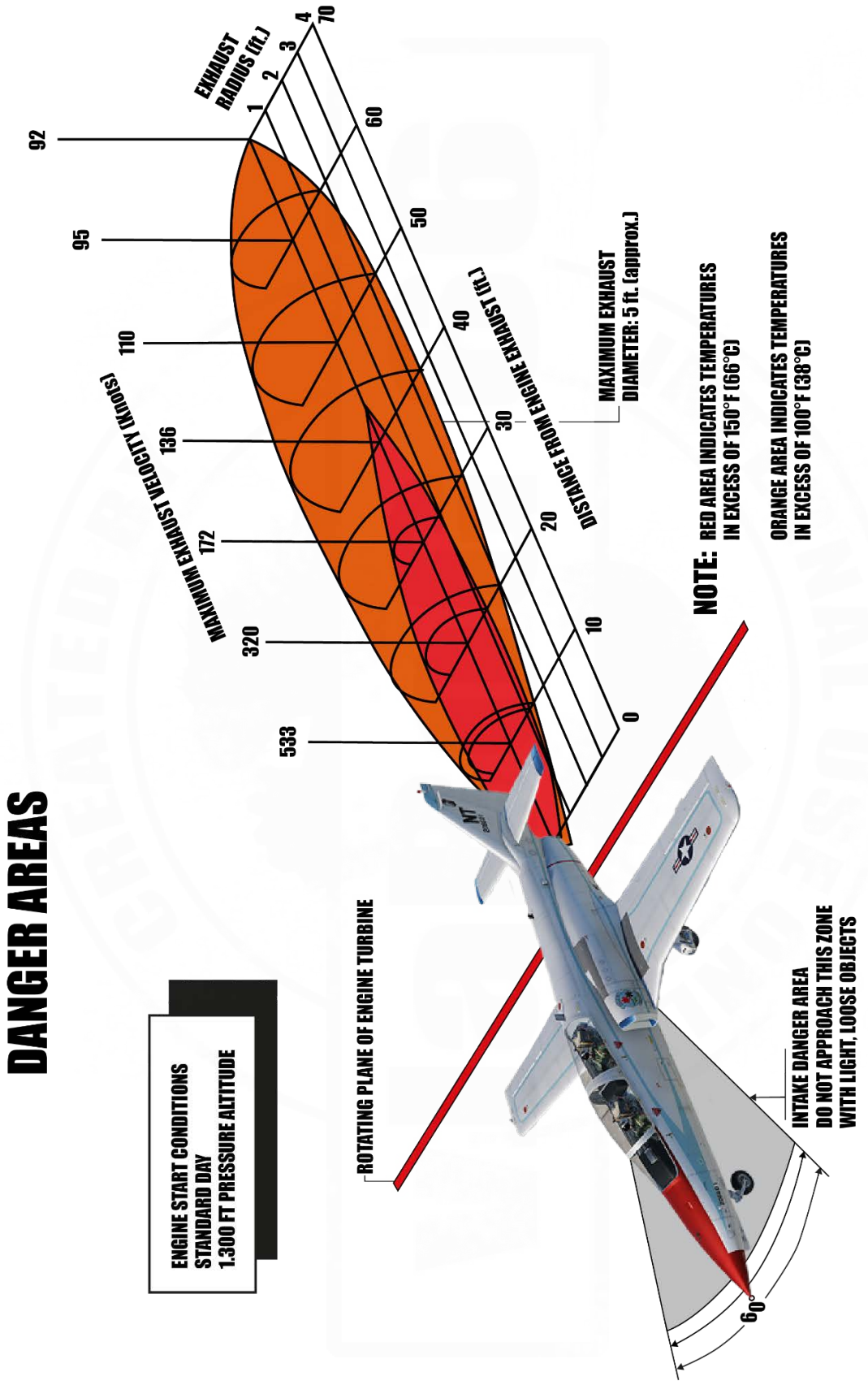

Figure 1: C-101 Engine Danger Areas

BEFORE TAXI

1. GPU - OFF
2. GPU - Disconnect
3. GPU - Check light extinguished
4. Generator - RESET, then ON

   Check GENERATOR warning light extinguishes
5. Generator test - GF (ground fault), then 0V.

   Check red GENERATOR warning light illuminates.
   Set generator switch to RESET, then ON.
6. Radios - As required
7. Navigation equipment - As required
8. Standby ADI - Uncaged
9. IFF - Standby
10. Hydraulic pressure - Check green (2.850 - 3.050 PSI).

    Check red HYD PRESS warning light extinguished.
11. Speedbrake - Check

    Open speed brakes, and while speed brakes are opening observe speed brake indication and pitch trim movement. When speed brakes are fully opened, speed brake indication shows OUT.
    Close speed brakes, and while speed brakes are closing observe speed brake indication and pitch trim movement. When speed brakes fully closed, speed brake indication shows IN.
12. Flaps - Check

    Move flaps to TAKE-OFF. Check flap indicator.
    Move flaps to DOWN. Check flap indicator.
13. Flaps - TAKE-OFF
14. Ailerons - Check
15. Pitch trim breaker - IN
16. Pitch trim - Check

    Check movement of trim in normal operation.
    Check movement of trim when actuating trimmer on the emergency panel.
17. Pitch trim - SET -1.5
18. Roll trim - Check and SET 0
19. Pitot heat and stall warning - TEST and as required
20. Stall warning - ON
21. Engine anti-ice - Check

    Depress button. Check amber ANTI-ICE caution light and MASTER CAUTION illuminate briefly. Depress button to turn engine anti-ice off.

    NOTE

    Anti-ice check has to be performed before each flight, regardless of ambient icing conditions.

    CAUTION

    If the ambient temperature is at or above 4°C, the engine anti-ice system cannot be activated longer than 10 seconds.
    If de-icing is needed for engine start, activate the anti-ice system before N1 reaches start parameters.
22. Engine computer - Check MAN mode
    a. Throttle - 75% N2
    b. COMPUTER - OFF

       Check amber OFF light illuminates on button and amber COMPUTER caution light illuminates.

       CAUTION

       If the engine accelerates in an uncontrollable state, reconnect the computer and shut the engine down.
    c. Throttle - Move slowly back to 75% N2. Check N2 response.

       CAUTION

       If N2 does not respond to throttle movement, shut the engine down.
    d. COMPUTER - ON

       Check amber OFF light extinguishes on button and amber COMPUTER caution light extinguishes.
23. Landing lights - Check

    Front cockpit: Check illumination in TAXI and LANDING position. Set both switches to RETRACT.

    Back cockpit: Check illumination in LANDING

position. Set both switches to FRONT.

24. Interior lighting - Check / Set

25. Exterior lighting - Set
    a. Anti-collision beacon - ON
    b. Nav lights - BRIGHT
    c. Formation lights - BRIGHT (only at nighttime)
    d. Landing lights - TAXI

TAXI

1. Chocks - Remove
2. Parking brake - Release
3. N1 - Set 50%
4. Brakes - Check
5. Flight controls - Check
6. Flight instruments - Check
7. Engine instruments - Check
8. Hydraulic pressure - within limits
9. Fuel transfer pumps - AUT
10. Fuselage tank pump - ON

    Check amber FUEL PRESS warning extinguished.
11. Fuel switch - ON
12. Speed brake - IN
13. Flaps - TAKE-OFF
14. Air conditioning master switch - ON
15. SAI - Uncage and check
15. Warning lights - all OFF
16. Gear indicator - 3 green
17. Shoulder harness - Check

BEFORE TAKEOFF

1. Canopies - Closed and locked.
   Check red CANOPY warning light extinguished
2. Anti-skid - ON
3. Pitot heat - ON
4. Ignition - CONTINUOUS
5. Exterior lighting - Set
    a. Anti-collision beacon - ON
    b. Nav lights - BRIGHT
    c. Formation lights - BRIGHT (only at nighttime)
    d. Landing lights - LAND
6. Ejection seat safety pin - OUT

TAKEOFF

1. Brakes - Set
2. Throttle - MAX
3. Engine instruments - Check
4. Brakes - Release
5. Acceleration - Check
6. At rotation speed - ROTATE

AFTER TAKEOFF

1. Landing gear - UP (between 120 KIAS and 200 KIAS)
2. Flaps - UP (between 125 KIAS and 190 KIAS)

   CAUTION

   Retracting the flaps will result in a pitch-up moment. The pilot has to anticipate and counter this by pushing the stick forward.
3. Landing lights - RETRACT (below 200 KIAS)
4. RPM, ITT, OIL TEMP, OIL PRESS, FUEL PRESS - Check

CLIMB (6.000 FT)

1. Ignition - OFF
2. Altimeter - As required

CLIMB (10.000 FT)

1. Oxygen - Check
2. Fuel - Check
3. Cabin altitude - Check
4. Anti-ice - As required
5. IFF - As required

FLIGHT

1. Oxygen - Check
2. Cabin altitude - Check
3. Fuel - Check
4. Fuel - Check fuel used, fuel flow and fuel quantity

   NOTE

   On ferry flights, deactivate the wing transfer pumps, when the wing tanks are empty. Leave center pumpts in AUT (ANT in rear cockpit).
5. Engine and navigation instruments - Check

DESCENT

1. Flow selector - As required
2. Pitot heat - ON
3. Anti-ice - As required
4. Oxygen - Check
5. Altimeter - Set QNH
6. TARSYN Mode select - Check COMPASS
7. Fuel - Check

BEFORE LANDING

1. Ignition - CONTINUOUS
2. Hydraulic pressure - Check
3. Anti-skid - ON

LANDING

All calculated landing data assumes flight over a 50 ft obstacle and landing with minimum required landing distance.
For normal landings, where no such obstacle is present and runway length is not a problem, it is recommended to pass the runway threshold at 110 KIAS and touch down at 95 KIAS. These values may be reduced if landing with a smaller gross weight.
Touch down should occur with the main wheels first. Hold the stick back towards you, to delay nose wheel touchdown.
While the speed decreases, pull the stick further back, until full deflection is achieved.
Wait until the nose wheel touches down.
Apply slight brake pressure and increase upon need.

To avoid loss of control during approaches with high wind gusts, increase approach speed by ½ of mean measured gusts.

MISSED APPROACH

1. Throttle - MAX

CAUTION

When operating the engine computer in MAN mode, the engine compressor can stall if the throttle is moved too fast.

2. Speed brake - IN
3. Trim - As required

NOTE

Main wheel touchdown can be inevitable.
Do not try to not touchdown, as this can result in a nose high attitude. Instead, let the aircraft touchdown and fly a normal takeoff.

4. Gear - UP
5. Flaps - UP

AFTER LANDING

1. Pitot heat - OFF
2. Anti-ice - OFF
3. Ignition - OFF
4. Speed brake - IN
5. Flaps - UP
6. Ejection seat safety pin - IN
7. Landing lights - TAXI
8. IFF - OFF
9. VOR - OFF
10. TACAN - OFF
11. Canopies - As required

    Check cabin altitude prior to opening canopy.

SHUTDOWN

1. Wheel chocks - Set
2. Parking brake - Set
3. Throttle - Idle (for a minimum duration of 2 minutes)
4. Speed brake - OUT
5. Flaps - DOWN, then UP
6. Radios - OFF
7. Fuselage tank pump - OFF

8. Throttle - STOP

9. Engine instruments - Check shutdown time:

   N2 - approx. minimum 15 seconds to 0%
   N1 - approx. minimum 50 seconds to 0%

10. Fuel valve - OFF

11. Inverter - OFF

12. Generator - OFF

13. Bus tie - OFF (down)

14. Battery - OFF (when N1 is 0%)

15. Exterior lighting - Set
    a. Anti-collision beacon - OFF
    b. Nav lights - OFF
    c. Formation lights - OFF
       (only at nighttime)
    d. Landing lights - RETRACTED

16. Oxygen - CLOSED