LMDX

LOADMASTER DIRECT X

Integrated Fuel Management Reporting System

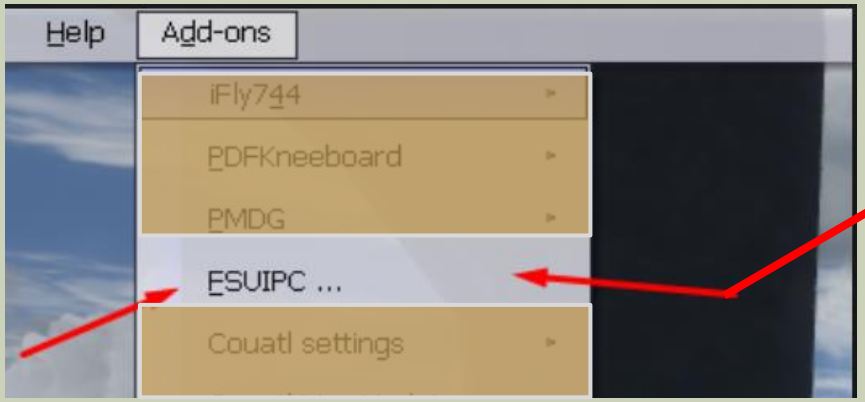
WHAT IS LMDX ?

- LMDX is an FSX add-on, based upon **FSUIPC**, the great free FSX interface by Peter Dowson that will assist you in the preflight phase to:
  - accurately plan the quantity of fuel necessary for your flight,
  - automatically add fuel into your tanks and adjust payload for your flight
- During flight LMDX will every 60 seconds:
  - generate an Integrated Fuel Management Report - IFMR , rich of information about the status of the flight, in terms of fuel, time schedules average speed and fuel consumption.
  - and take a screenshot report of your flight and save it in a convenient folder for review and study.
- The IFMR is available during flight both as a windowed gauge and as a text report in the briefing tab of the FS kneeboard.
- Prerequisites: Windows from version 7 on, Microsoft .NET Framework 4.5, and free FSUIPC installed in FSX.

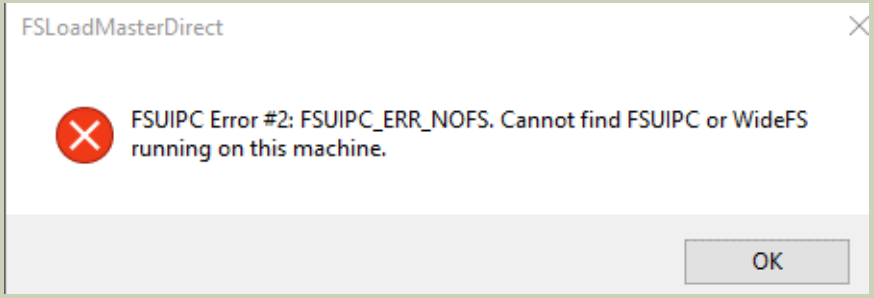
VERIFY THAT FSUIPC IS INSTALLED

LMDX requires the free FSUIPC add on to be installed on your computer.

Google "fsx FSUIPC" and download it from its official site. The installation is straightforward.



After a correct installation of FSUIPC you should see it active in the Add-ons menu in fsx



If fSX or FSUIPC are not active you will see this message.

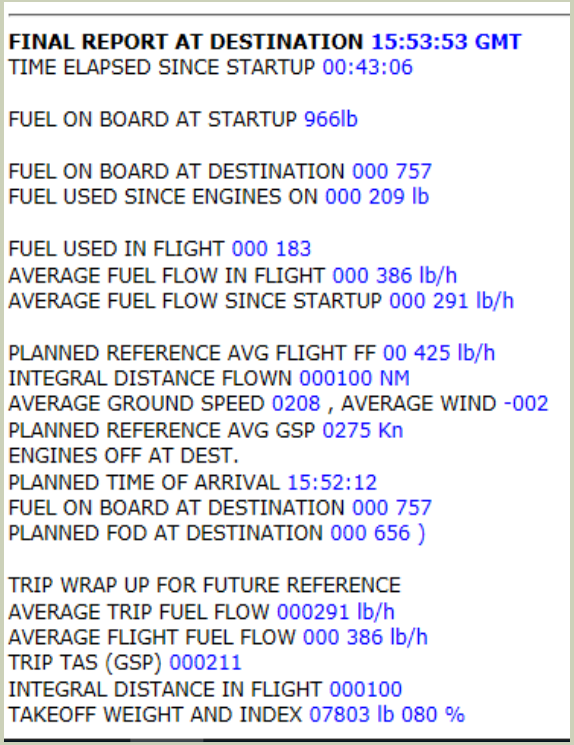
THE IFMR

Integrated Fuel Management Reporting System

- Sampling every second the instant Fuel Flow and True Air Speed of the aircraft during a flight, LMDX calculates in real time, for every phase of flight:

    1. AVGFF: The **Average Fuel consumption** for **any MSFS aircraft**, over **any flight plan.**
    2. AVGSP: **The Average Ground Speed of the aircraft in the current flight.**

- These data, integrated with the current flight status, provide an overall flight status report.

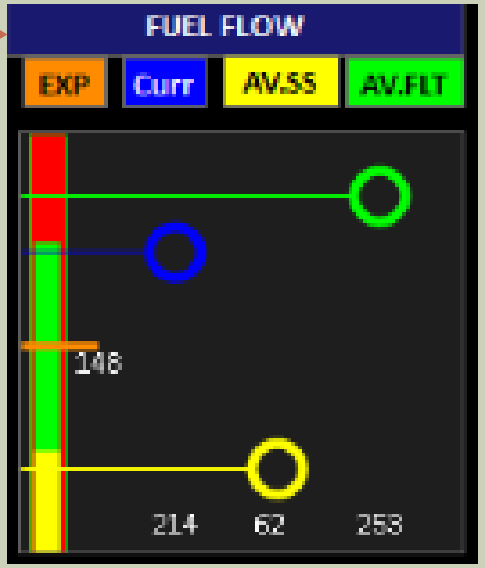


GAUGE AND REPORTING SYSTEM

- The Integrated Fuel Management Reports (IFMR) are available in real time in tabular and graphic form in the LDMX gauge in the main FS window
- IFMR data are also presented in the briefing tab of the FSX kneeboard, in the conversational form of a briefing a copilot would report on the flight status.

HOW FF CHANGES DURING FLIGHT

- During flight the instant Fuel Flow value changes continuously, due to changes in throttle, altitude, aircraft weight and wind conditions. Current fuel flow blue circle
- The instant FF is displayed in the cockpit Fuel Flow gauge
- FF will first be minimum on the ground and taxi, maximum at takeoff, then decreases at cruise, and will continue to decrease at cruise, because, as the aircraft proceeds, its weight decreases, fuel being burnt, and therefore the FF will decrease over time, even when the pilot maintains a constant cruise airspeed.
- In descent the FF will decrease to its minimum, till landing, where the fuel flow will again be the minimum and then will be zero at cutoff.



During flight the Average Fuel Flow (AV.FLT green circle) will converge to the expected (planned) average Fuel Flow (orange tick).

The same is true of Average Fuel Flow Since Start (yellow circle)

THE AVERAGE FUEL FLOW CONCEPT 1

- The average fuel flow – fuel burnt weight per hour - in a time interval, is simply the total fuel used in that period divided by the time period, normalized to the hour.
- Example:
  - time interval = 1 minute,
  - fuel used in that minute= 15 lbs,

the average fuel flow is 15lbs per minute, equivalent to:

900 pph (pounds per hour),

409kg/h (kilograms per hour)

134Gal/h (USA Gallons per hour, of aviation fuel with a ratio of 6,7 pounds to the Gallon

THE AVERAGE FUEL FLOW CONCEPT 2

- To know the fuel used in a time interval, LDMX samples the fuel flow reading once per second, saves the initial fuel weight and then calculates the consumed fuel weight for every trip phase

  FUEL_USED_IN_TIME INTERVAL =
  CURRENT_FUEL – FUEL_AT_START_OF_TIME_INTERVAL

- LMDX accounts for the following time intervals (trip phases):

  - Cockpit preparation: from **START_MONITORING** to **ENGINES ON**
  - Taxi: From **ENGINES ON** to**TAKE OFF**
  - Climb; from **TAKEOFF** to reached **CRUISE ALTITUDE**
  - Cruise: from **CRUISE ALTITUDE** reached to **START OF DESCENT**
  - Landing and taxi to parking at destination: from **LAND** to **ENGINES_OFF**

THE AVERAGE GROUND SPEED CONCEPT

- The Average Ground Speed – nautical miles per hour, or knots - in a time interval, is simply the total distance flown in that period divided by the time period, normalized to the hour.

- To know the actual distance flown, we cannot simply calculate the distance between the current aircraft position and the takeoff point, but we have to integrate GSP (*) over time.

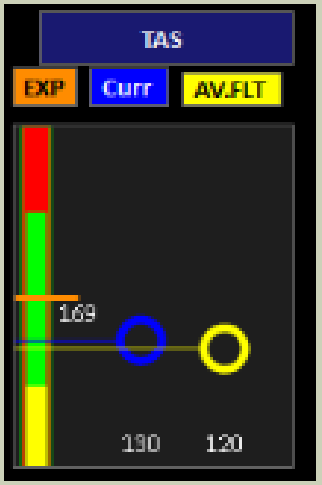
- As LDMX samples the GSP reading once per second, the integral formula looks like this, where n are the number of

$$\text{DISTANCE FLOWN} = \sum_{i=1}^{n} GSP(i)$$

- Example:
  - Time period = 1 minute,
  - Distance flown in that minute= 4 NM,

  the Average Ground Speed is 6 NM per minute, that is 240kn (NM per hour)

(*) Ground Speed is not directly known, but must be calculated d as True Air Speed plus wind (positive is tail wind, negative is nose wind) .



During flight the Average Flight True Airspeed (yellow circle) will converge to the expected (planned)Average TAS (orange tick)

Current TAS is the blue circle

TIME AND FUEL ESTIMATES

- At the start of the flight, LMDX will suggest a required fuel to board and anticipate the expected average values over flight for Ground Speed (EXP GSP) and Average Fuel Flow (EXP AVG).
- LMDX will also set an Expected Time of arrival (EXP TOA), and an Expected FUEL QUANTITY remaining in the tanks at arrival (EXP FOD –Fuel onboard at Destination)
- These initial estimates are based upon the previously monitored flights for the same aircraft AIR model or an initial best guess which will provide a basis for a safe flight
- DURING FLIGHT, LMDX will update estimates for Time of Arrival (EST.TOA), time to TOP OF DESCENT, and estimated Fuel on board at destination (EST FOD)
- Current averages of Fuel Flow and Ground speed are provided as inflight (FLT) and since start (SS)

AT the END OF THE FLIGHT the characteristic AVG.FF and AVG.GSP for this aircraft model will be saved for future reference

FUEL AND PAYLOAD SETUP

- When the aircraft is the ground, before starting the engines, LMDX will assist the user in the preflight phase providing:

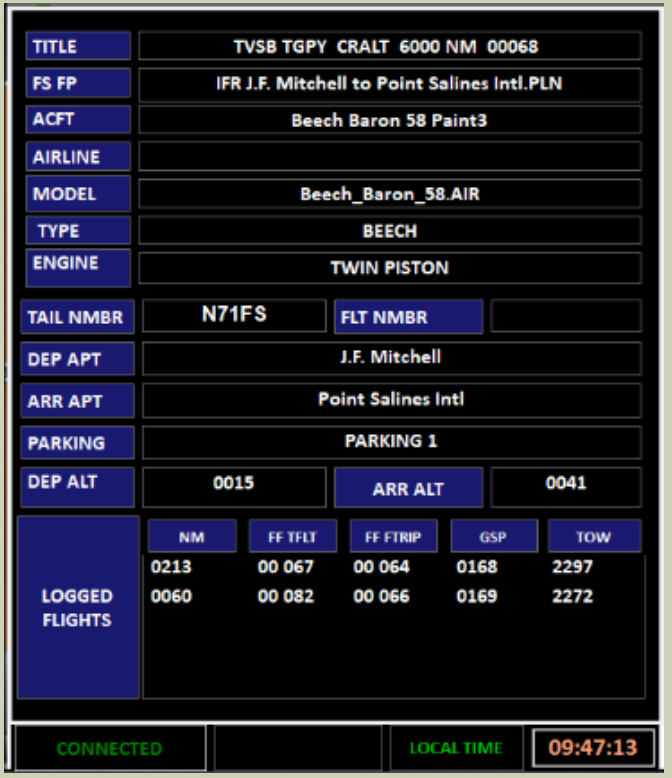
1. Automatic tank loading with the correct fuel weight required for the current flightplan, taking into account useer defined cruise wind conditions and taxi/approach time estimates
2. Automatic payload loading, based upon selectable average passenger weight, cargo station identification, and rows / seats configuration

NB. Some payware aircraft have a proprietory interface to load fuel and / or payload. In this case take note of the fuel proposed by LMDX and load it using the proprietory interface, and change payload using the proprietory interface. LMDX will acknowledge the changes.

ILLUSTRATED OPERATING GUIDE

SAMPLE FLIGHT FROM TVSB to TGPY

- J. F. Mitchell (TVSB) TO Point Salines Intl. (TGPY)
- VFR FLIGHT PLAN Generated by FSX (start at parking 1)
- AIRCRAFT Default MS Beechcraft B58
- PLANNED CRZ ALTITUDE 6000 ft
- TRIP NM 68
- FLIGHT PLAN: TVSB – CAI (NDB 302.0) - GND (VOR 117.10) - TGPY



START YOUR FLIGHT

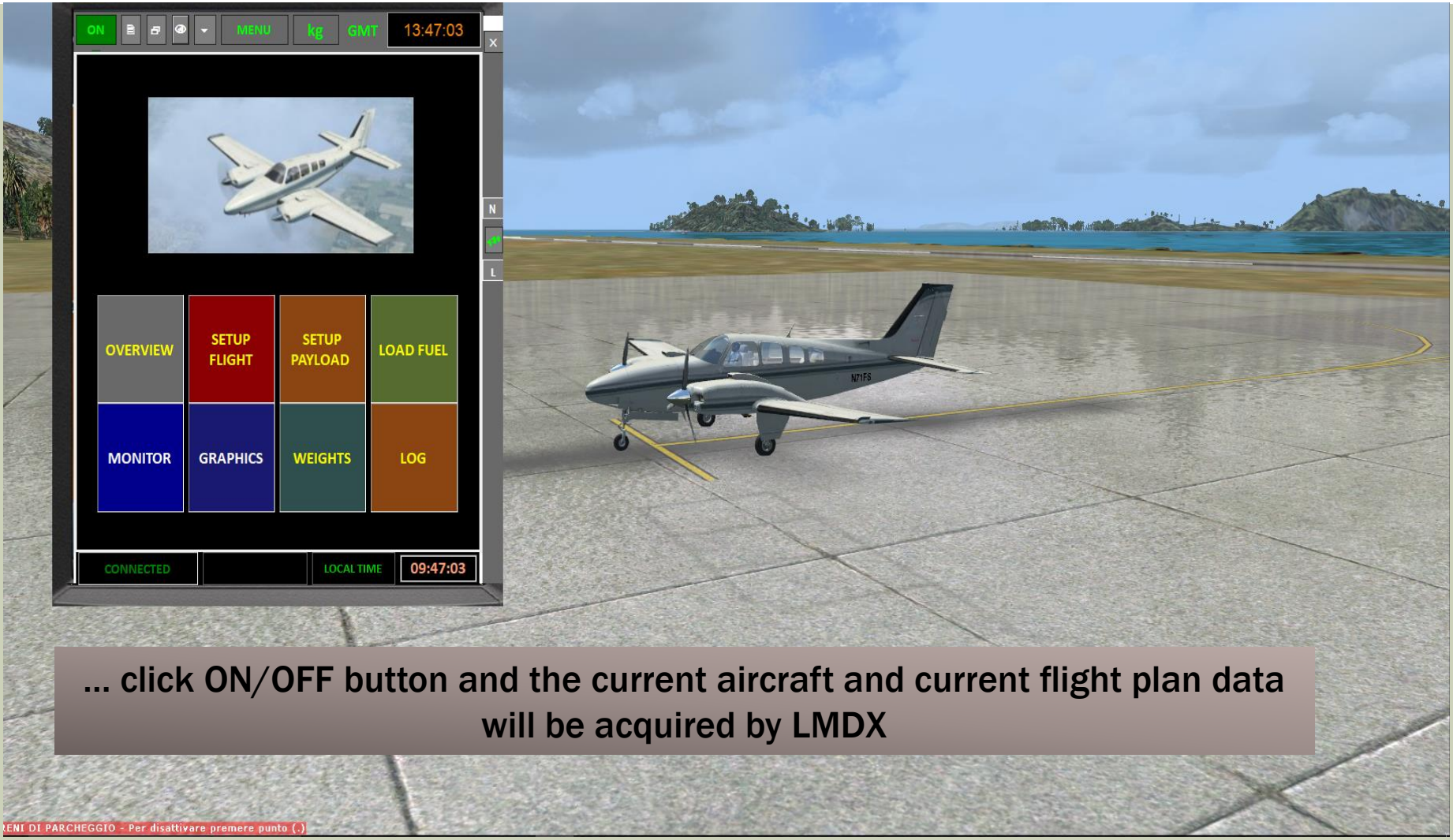
- Load load your flight with the default Beechcraft B58 aircraft on ground, and the flight plan loaded into FSX.
- Better if with engines off. A cold and dark cockpit is suggested.
- Please note that automatic refueling through LMDX requires engines off.

- if the engines were running at start off, LMDX will prevent you from automatically changing your fuel, to maintain the statistic consistency.
  You can anyway change your fuel while engines are on through the FSX interface, and LMDX will acknowledge the loaded quantity
- Please note also, that some aircraft manage fuel and payload through a proprietory interface and this makes it impossible to change fuel or payload through LMDX. In this case also load the desired quantity of fuel using the aircraft interface.

LAUNCH LMDX

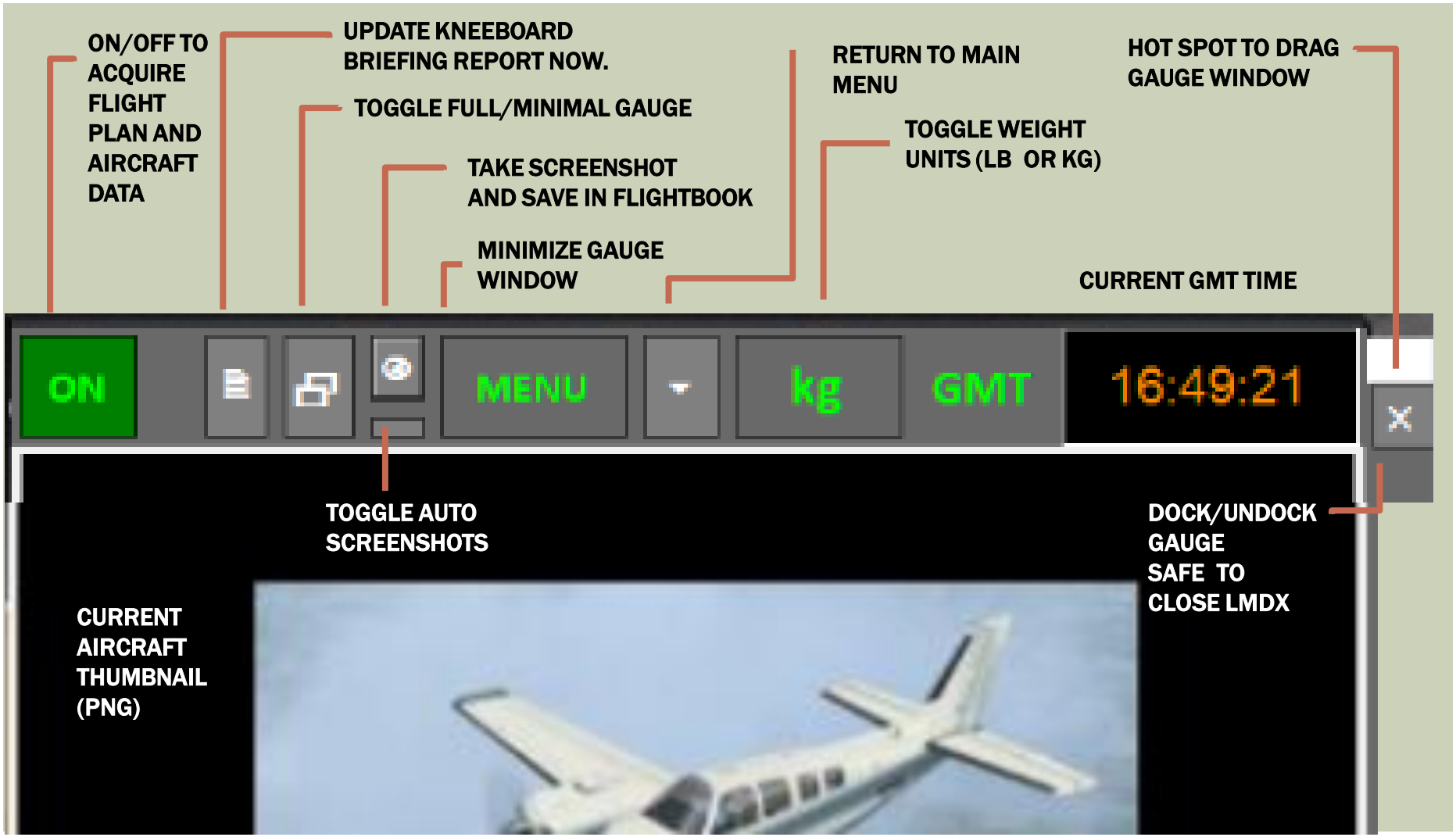
- Launch LMDX as administrator.
- As soon as the LMDX real time gauge is available in the fs window, click ON/OFF button, and the current aircraft and current flight plan data will be acquired by LMDX.
- From now on, the Integrated Fuel Management Reports will be available and **updated every minute** in the FS kneeboard (default shft F10) updating the briefing tab window of MSF and **every second in the LMDX window**
- Every minute) a discreet low volume “frshh sound” will announce a new report is available. You can silence or reactivate this sound by clicking on the sound button.
- Calculating the average FF and GSP values will however start only when you click the Monitor Menu and click the record button.
- We advise not to start monitoring now, but first setup flight, adjust payload and load fuel.

LAUNCH LMDX

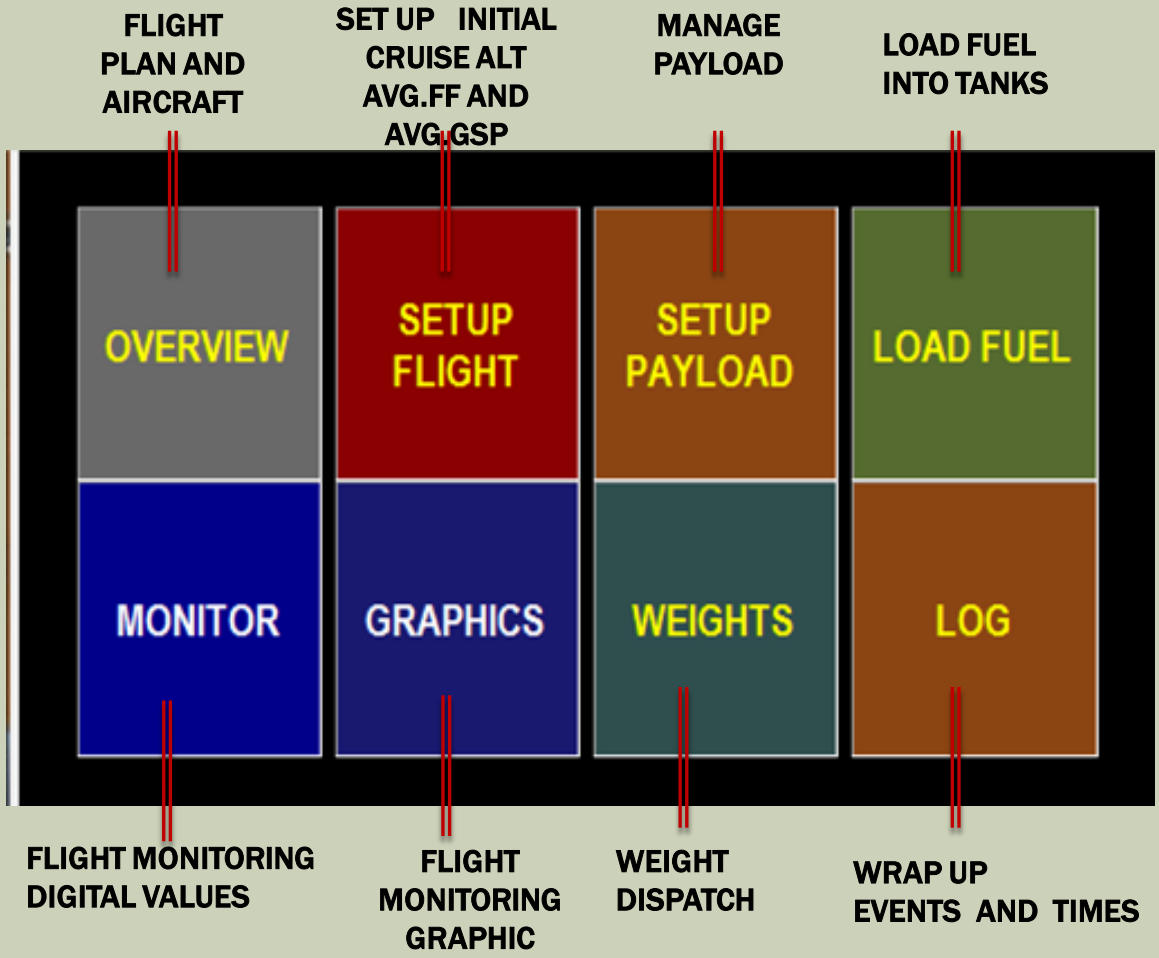


... click ON/OFF button and the current aircraft and current flight plan data will be acquired by LMDX

TOP MAIN GAUGE COMMANDS



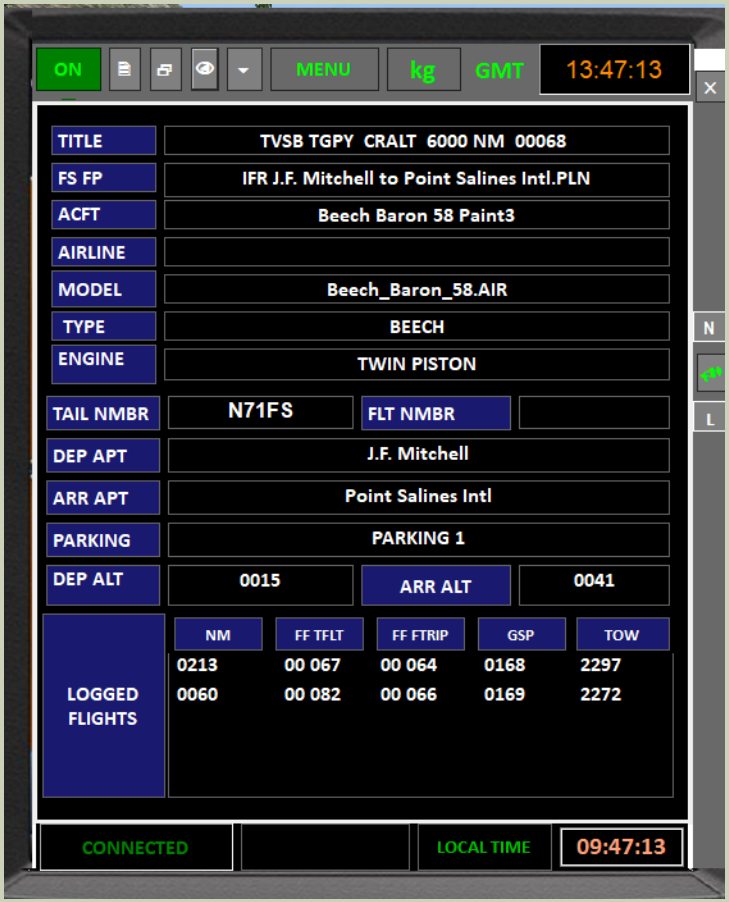
MAIN GAUGE MENU



FLIGHT OVERVIEW

FLIGHT OVERVIEW

- TITLE: CURRENT FILE PLAN CRZ ALT AND NM
- FS FP: FSX FLIGHT PLAN TITLE
- ACFT: CURRENT AIRCRAFT TITLE
- MODEL: AIRCRAFT FSX AIR MODEL FILE NAME
- TYPE: AIRCRAFT TYPE
- ENGINE: NUMBER AND TYPE OF ENGINES
- TAIL NUMBER: AND FLIGHT NUMBER
- DEP APT: Departure Airport Name
- ARR APT: Arrival Airport Name
- PARKING:
- DEP AND ARR ALTITUDES
- LOGGED FLIGHTS
- A record for every flight monitored with this same aircraft shows the relevant parameters, that will help you in fine-setting the flight
  - NM: the distance of the monitored flight
  - FF FLT: the Average Fuel Flow in flight
  - FF TRIP: the Average fuel flow over the entire trip
  - GSP: the Average AVG.GSP overthat flight
  - TOW: the gross weight at takeoff for that flight



SETUP FLIGHT

- It's now time to plan and load the fuel required for the current trip.
- We could just confirm the suggested values, values, displayed in column 1 for:
  - Trip distance to go – default is FSX flight plan distance
  - Cruise altitude – default is the flight plan altitude
  - Expected Average Ground Speed . Default is from previous records, if available, or internal evaluation based on the flight model
  - Expected Average Fuel Flow in flight – default is from previous records, if available, or internal evaluation based on the flight model

SETUP FLIGHT

- **YELLOW VALUES CAN BE CHANGED BY USER**
- **WHITE VALUES ARE READ ONLY**

- TRIP NM: CONFIRM FP VALUE OR ENTER A NEW VALUE

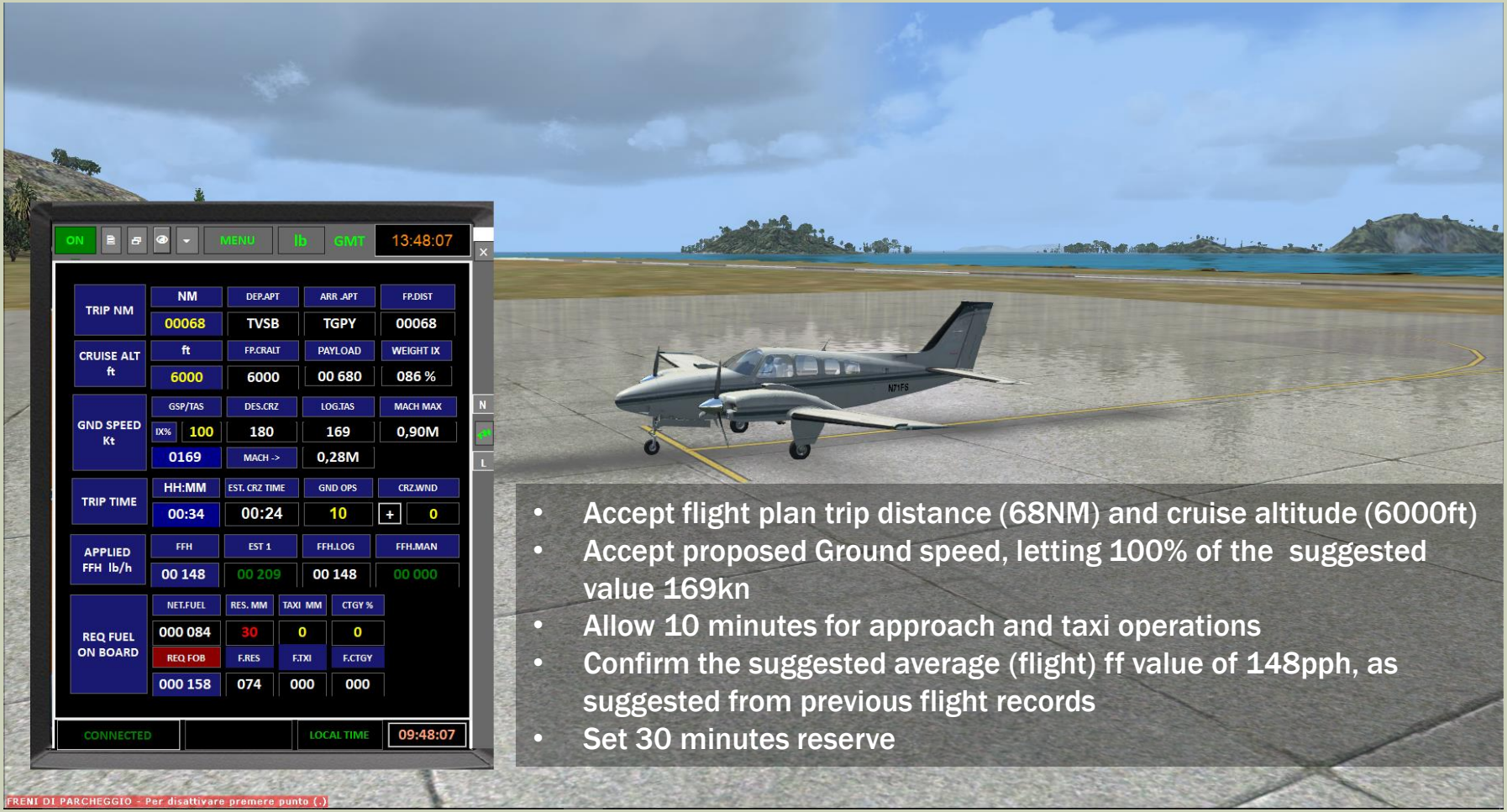
- CRUISE ALT: CONFIRM FP VALUE OR ENTER A NEW CRUISE ALTITUDE IN FEET

- GROUND SPEED: EXPECTED AVERAGE GND SPEED INDEX
  - SET INDEX FROM 1 TO 100%
    TO MODIFY LOG.TAS REFERENCE VALUE
  - DES CRZ: Design value at optimal altitude
  - LOG TAS: TAS as monitored in previous flight
  - MAX MACH: Max mach number at optimal cruise alt
  - MACH-> Mach number at planned altitude

- EXPECTED FUEL FLOW OVER FLIGHT
  - EST1 : Design value at optimal altitude
  - FFH.LOG :FF as monitored in previous flight

- ADDITIONAL FUEL:
  RES.MIN TAXI.MIN: RESERVE AND TAXI IN MINUTES
  CTGY % CONTINGENCY AS % OVER NET FUEL

SETUP FLIGHT



- Accept flight plan trip distance (68NM) and cruise altitude (6000ft)
- Accept proposed Ground speed, letting 100% of the suggested value 169kn
- Allow 10 minutes for approach and taxi operations
- Confirm the suggested average (flight) ff value of 148pph, as suggested from previous flight records
- Set 30 minutes reserve

SETUP FLIGHT OPERATIONS

- First set the flight **cruise altitude** in feet. By default the cruise altitude is the FS current flight plan altitude
- Then adjust the **expected average ground speed**. The aircraft configuration file is scanned to show the MACH number at the aircraft optimal altitude. You can check it with the current altitude Mach number for comparison.
- Adjust the expected average ground speed over flight through the % index.
- If you have meteo forecast enter the **cruise winds** as expected (nose wind component) adjust trip (block to block) time by changing the **ground/approch operations.** Default is 20 minutes, to account for both approach and taxi.
- Now that the flight time is defined, we can adjust the AVG.FF - Average Fuel Flow in flight. The default value is previous best record. For the first flight the FF is based upon the FS internal presumption. A good first guess is the real world aircraft manufacturer tech specs that show the cruise consumption at cruise, if available.

SETUP PAYLOAD

- **YELLOW VALUES CAN BE CHANGED BY USER**
- **WHITE VALUES ARE READ ONLY**

- Every station has number (ID) and a name
- TOTAL PAYLOAD ID surrently loaded aircraft weight
- P/C passenger or cargo identification code
- Click on a station ID to toggle from P to C
- Passenger reference weight: any weight exceeding this value will be considered cabin weight as baggage in cabin
- Set numbers of Pilot Copilot and Crew members
- To load a station, write WEIGHT (in current units) and Station number and then click reload twice until you see the new value
- Change rows and seats to obtain a weight for a station that represents a whole section of seats or drectly set a weight
- Click LOAD into station to load the selected weight into the station ID

ACCEPT LOADED OR REQUIRED FUEL

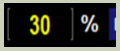
OPTIONS

1. TO ACCEPT REQUIRED FOB
    - Just click on the **CLICK TO LOAD FUEL** BUTTON
1. TO KEEP THE CURRENT FUEL ON BOARD
    - Click on the **KEEP CURRENT BUTTON**

- NB: Fuel will be loaded automatically only when engines are off.
- NB: some aircraft will not accept automatic loading. You will see that numbers do not change.

LOAD A CERTAIN % OF MAX FUEL

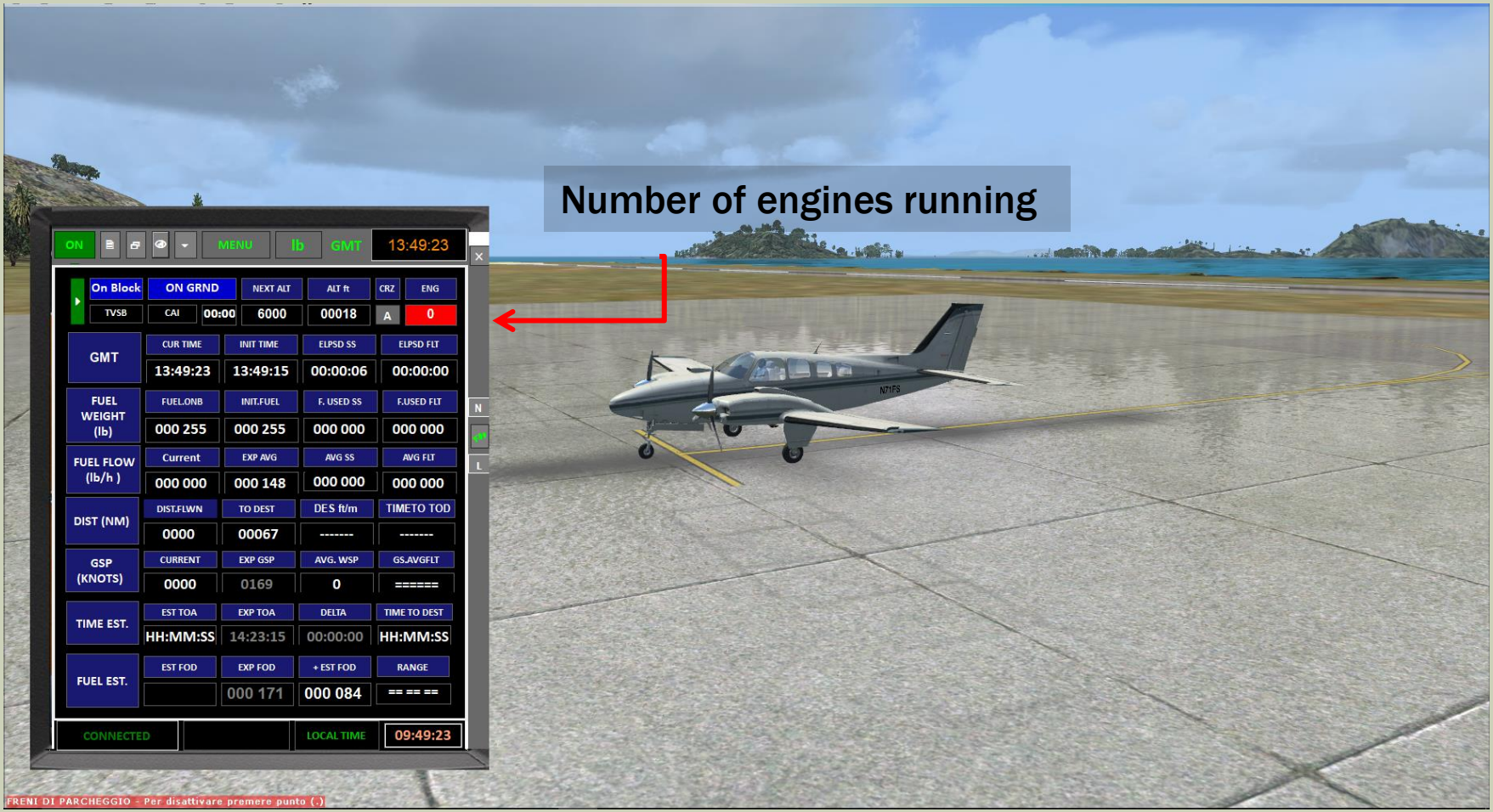
OPTIONS

1. FOR THIS FLIGHT WE WANT TO SET A % VALUE OF MAX FUEL TANK
    1. NB. VALUE IS ACCEPTED ONLY IF GREATER THAN REQ FOB
    2. FIRST SET THE % VALUE (YELLOW VALUE) 

    3. THEN CLICK ON THE SET AS FOB BUTTON 
    4. NOW CLICK ON THE **CLICK TO LOAD FUEL** BUTTON

LOAD 30% OF MAX FUEL

ENGINES STILL OFF



START MONITORING FLIGHT

- Click the start monitoring button

- Start flight monitoring **now**:
  - on the ground,
  - before firing engines,
  - after payload and fuel setup,

  by clicking on the “start monitoring button”

- The button will turn green, and the monitor active LED will start pulsing.

- It is important to start monitoring before takeoff for statistic consistency. LMDX will accept flight statistics to be started in flight, but obviously only flight averages will be significant.

TIME OF START OF FLIGHT MONITORING

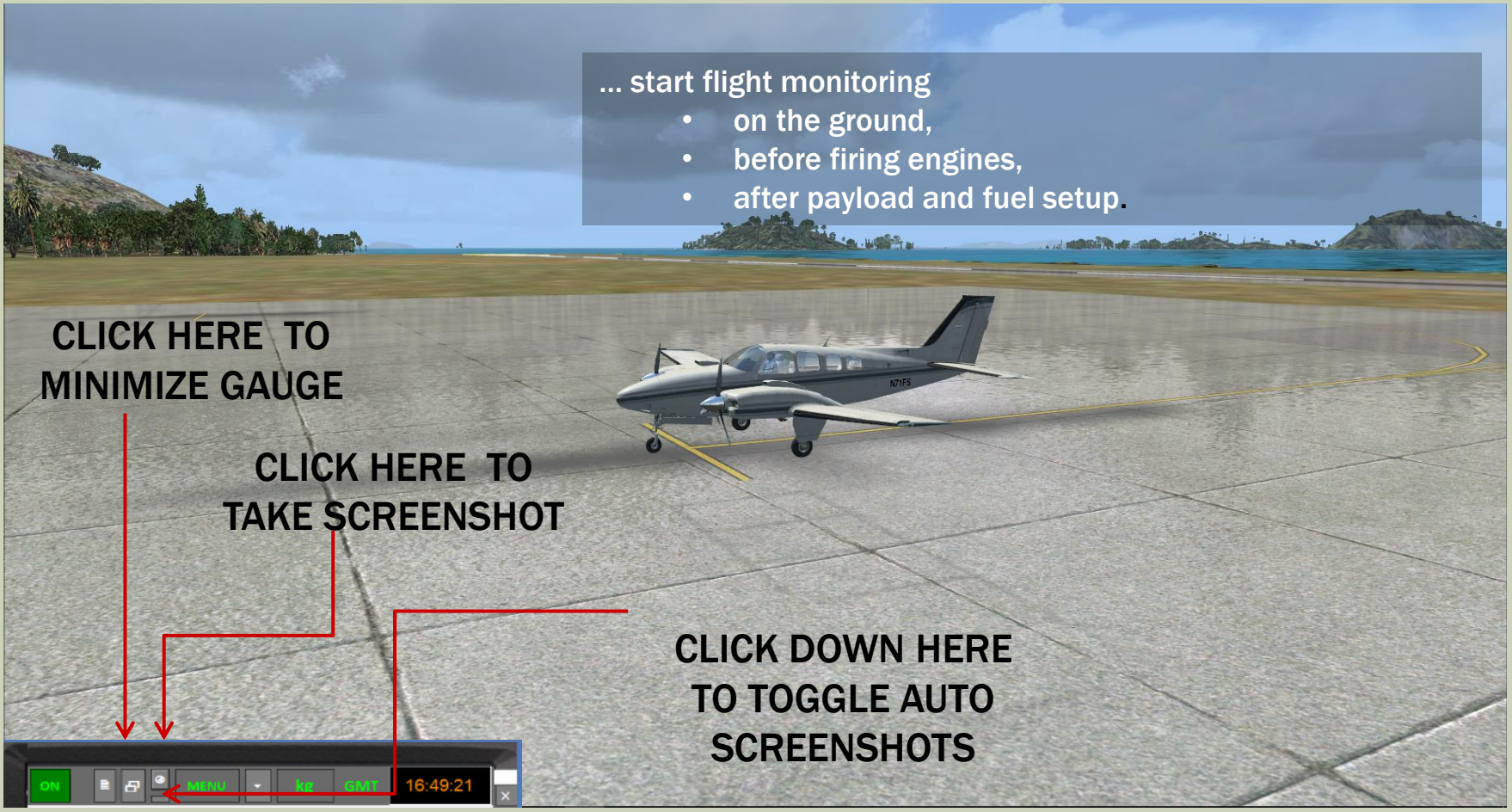
PROCEED WITH YOUR FLIGHT

- From now on, proceed with your flight as usual, an IFM report will be automatically generated every 60 seconds. (or when clicking on the update report now button)

- You can keep the gauge minimized in a FSX corner, or just send it to the taskbar out of the FSX window. You can also run FSX as full screen. The gauge will continue to work and generate reports into the kneeboard.

- If you toggle on the «auto screenshot button» a screenshot will automatically be shot every 60 seconds and saved into the flight book directory in the LMDX intallation folder \data\flighlogs and n a directory with name XXX YYYY where XXX and YYYY are the airport ICAO codes of departure and destination airports respectively

START MONITORING FLIGHT



ENGINES ON

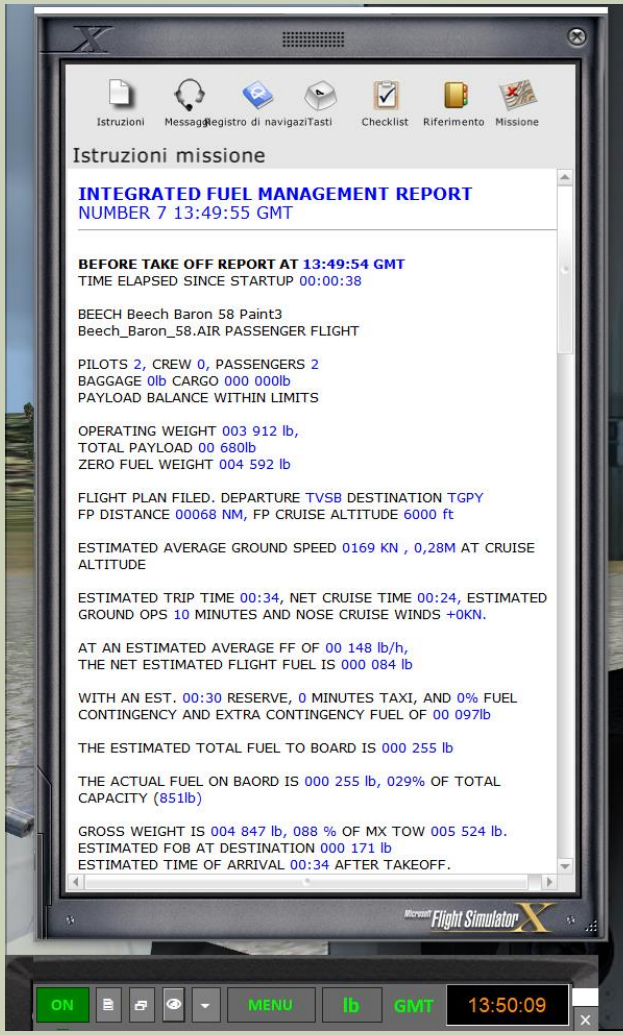

Microsoft Flight Simulator X
Voli Aeromobile Mondo Opzioni Viste Guida Moduli aggiuntivi
ON
MENU
lb
GMT
13:50:43
Taxi
ON GRND
NEXT ALT
ALT ft
CRZ
ENG
TVSB
CAI
00:00
6000
00018
A
2
GMT
CUR TIME
INIT TIME
ELPSD SS
ELPSD FLT
13:50:43
13:49:15
00:01:26
00:00:00
FUEL WEIGHT (lb)
FUEL.ONB
INIT.FUEL
F. USED SS
F.USED FLT
000 255
000 255
000 000
000 000
FUEL FLOW (lb/h)
Current
EXP AVG
AVG SS
AVG FLT
000 005
000 148
000 000
000 000
DIST (NM)
DIST.FLWN
TO DEST
DES ft/m
TIMETO TOD
0000
00067

GSP (KNOTS)
CURRENT
EXP GSP
AVG. WSP
GS.AVGFLT
0000
0169
0
======
TIME EST.
EST TOA
EXP TOA
DELTA
TIME TO DEST
HH:MM:SS
14:24:33
00:33:51
HH:MM:SS
FUEL EST.
EST FOD
EXP FOD
+ EST FOD
RANGE
000 171
000 084
== == ==
CONNECTED
LOCAL TIME
09:50:43
VERTICAL SPEED
NAV 1
NAV 2
REPLAY
GO AROUND
FRENI DI PARCHEGGIO - Per disattivare premere punto (.)

ENGINES ON

- MONITOR Whenever you need it you can maximize the window gauge and check you flight management data by looking at the LMDX real time gauge MONITOR

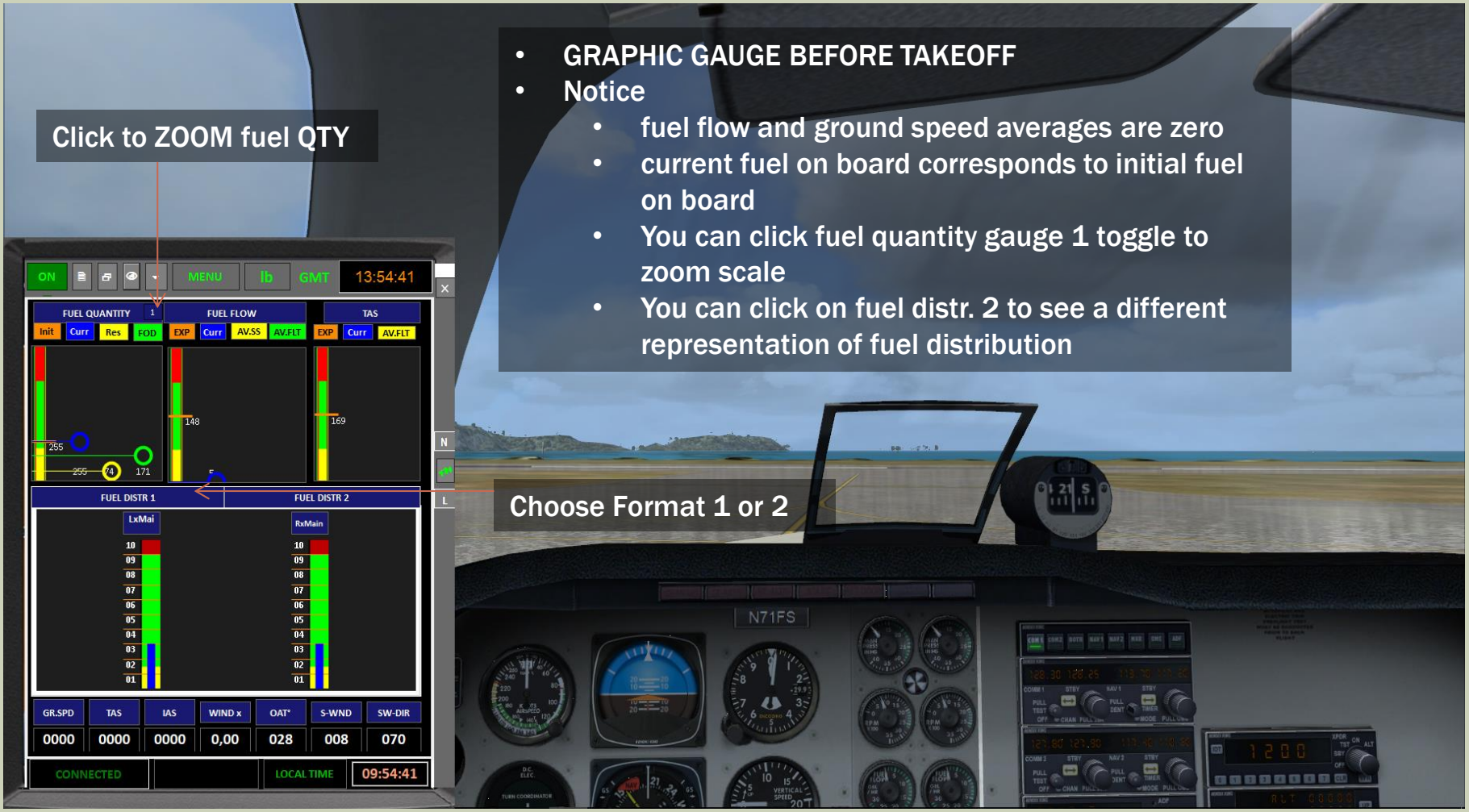
IFMR: BEFORE TAKEOFF



- Pop up the kneeboard window (FSX default value shft-F10)
- Remember to update the "BRIEFING" tab to display the most recent report (check GMT TIME)

- Scroll down the briefing to read all section
  - FLIGHT OVERVIEW,
  - WEIGHTS AND FUEL
  - GAUGE REPORT

TAXI



- GRAPHIC GAUGE BEFORE TAKEOFF
- Notice
  - fuel flow and ground speed averages are zero
  - current fuel on board corresponds to initial fuel on board
  - You can click fuel quantity gauge 1 toggle to zoom scale
  - You can click on fuel distr. 2 to see a different representation of fuel distribution

TAKEOFF

- TAKE OFF WITH MINIMIZED GAUGE
- You could also minimize window to task bar
  - HOT SPOT TO DRAG THE GAUGE OVER THE FSX SCREEN

IFMR: CLIMB


Istruzioni
Messaggi
Registro di navigazi
Tasti
Checklist
Riferimento
Missione
Istruzioni missione
INTEGRATED FUEL MANAGEMENT REPORT
NUMBER 19 13:59:27 GMT
CLIMB REPORT AT 13:59:26 GMT
TIME ELAPSED SINCE STARTUP 00:10:10
NEXT WAYPOINT CAI TIME TO WPT 00:08:40
CURRENT GAUGE READINGS: ALTITUDE 01858 ft ,
GSP 0129 Kn, IAS 0122 Kn, TAS 0128 Kn,
NOSE WIND COMPONENT 001Kn
ACTUAL FFH 000 224 lb/h
CLIMBING TO CRUISE ALTITUDE OF 6000ft
AVERAGE GSP IN CLIMB 0112 , AVERAGE WIND -001kn
(PLANNED AVERAGE GSP 0169)
AFTER 00:01:22 IN FLIGHT, FUEL ON BOARD IS 000 246 lb
FUEL USED IN FLIGHT 000 006 lb
AVERAGE FUEL FLOW IN FLIGHT 000 267 lb/h
REFERENCE AVERAGE FLIGHT FF 00 148 lb/h
AVERAGE AVG FF SINCE ENGINES ON 000 053 lb/h
FLIGHT OVERVIEW
01 Aircraft ..... Beech Baron 58 Paint3
02 Type & Reg ..... BEECH . N71FS
03 Airline ..... N/A FLIGHT N/A
04 Dep Apt ..... TVSB J.F. Mitchell
04 Parking ..... PARKING 1
05 Arr Apt ..... TGPY Point Salines Intl
08 TYPE ..... PASSENGER FLIGHT
. Crew ..... PILOTS 02 CREW 00
. Payload ..... PASS 2 CGO 000 000
00 DEP APT ALT. 0015 ft
Microsoft Flight Simulator X
ON
MENU
lb
GMT
13:59:41
N71FS

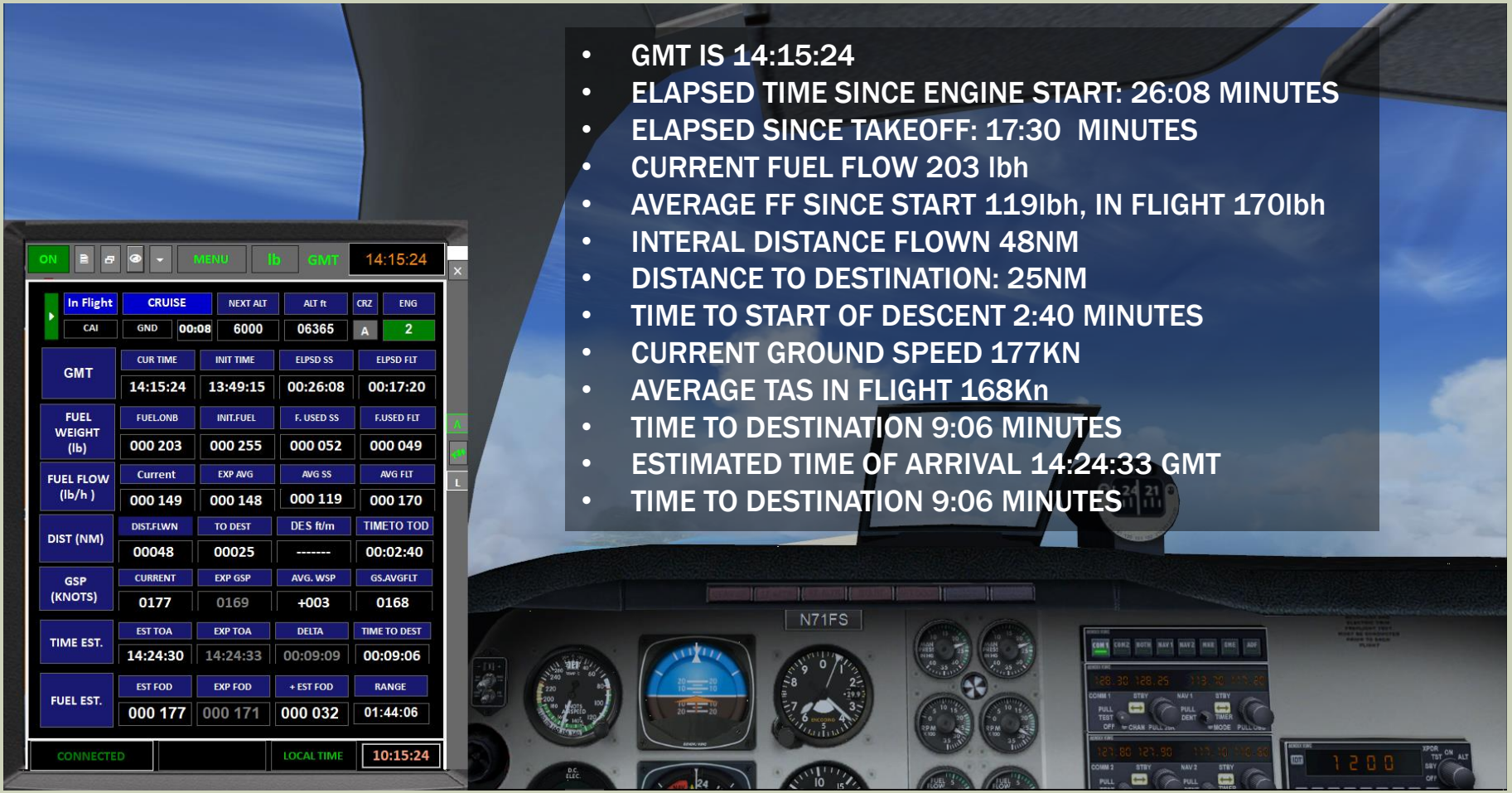
IFMR: FOLLOW CLIMB (SCREENSHOT)

IFMR: FOLLOW CLIMB

IFMR: CRUISE

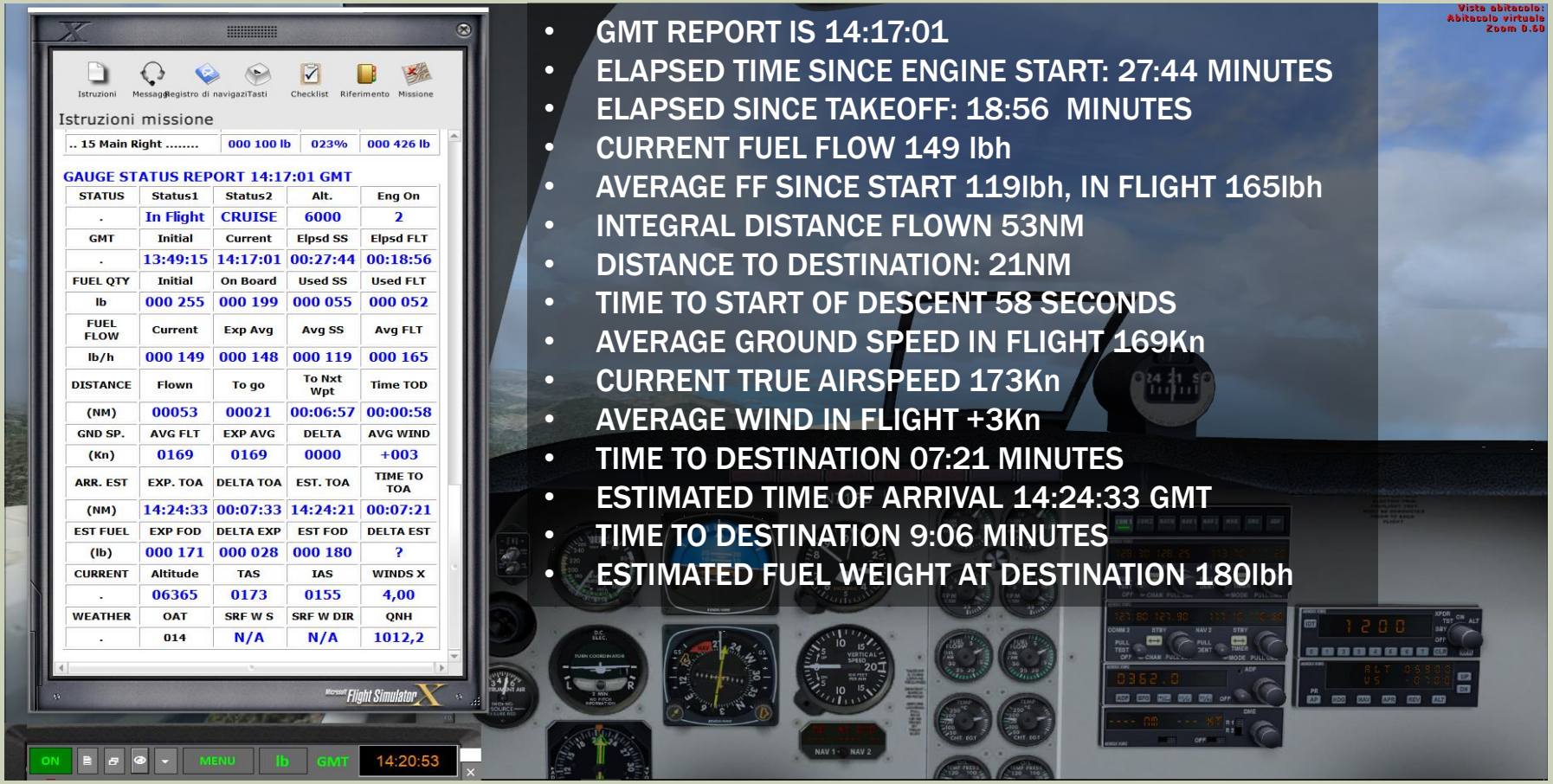

Istruzioni
Messaggi
Registro di navigazi
Tasti
Checklist
Riferimento
Missione
Istruzioni missione
INTEGRATED FUEL MANAGEMENT REPORT
NUMBER 26 14:05:10 GMT
CRUISE REPORT AT 14:05:10 GMT
TIME ELAPSED SINCE STARTUP 00:15:54
NEXT WAYPOINT CAI TIME TO WPT 00:02:11
CURRENT GAUGE VALUES: ALTITUDE 05978 ft ,
GSP 0176 Kn, IAS 0152 Kn, TAS 0168 Kn,
NOSE WIND COMPONENT 008Kn OAT 016 Celsius
ACTUAL FFH 000 154 lb/h
TIME IN FLIGHT 00:07:05
TIME IN CRUISE 00:02:02
FUEL ON BOARD 000 229 lb
FUEL USED IN CRUISE 000 006 lb, FUEL USED IN FLIGHT 000 023 lb
AVERAGE FUEL FLOW IN CRUISE 000 177 lb/H
AVERAGE FUEL FLOW IN FLIGHT 000 195 lb/h
(PLANNED REFERENCE FLIGHT AVG.FF 00 148 lb/h)
INTEGRAL DISTANCE FLOWN 00018 NM
DISTANCE TO DESTINATION 00056 NM
AVERAGE GSP 0149 , AVERAGE WIND +001kn
(PLANNED AVERAGE GSP 0169)
EST. TIME TO TOP OF DESCENT 00:15:14
EST. TIME TO DESTINATION 00:22:29
EST. TIME OF ARRIVAL 14:27:38
(PLANNED TIME OF ARRIVAL 14:24:33)
ESTIMATED FUEL ON BOARD AT DESTINATION 000 156 lb
(PLANNED FOD AT DESTINATION 000 171 lb)
ESTIMATED FUEL RANGE 02:20:12
FLIGHT OVERVIEW
01 Aircraft ..... Beech Baron 58 Paint3
Flight Simulator X
ON
MENU
lb
GMT
14:05:58
N71FS
• FLIGHT STATUS WIL CHANGE TO CRUISE AT 300 FEET UNDER THE PLANNED CRUISE ALTITUDE

IFMR GAUGE: FOLLOW CRUISE



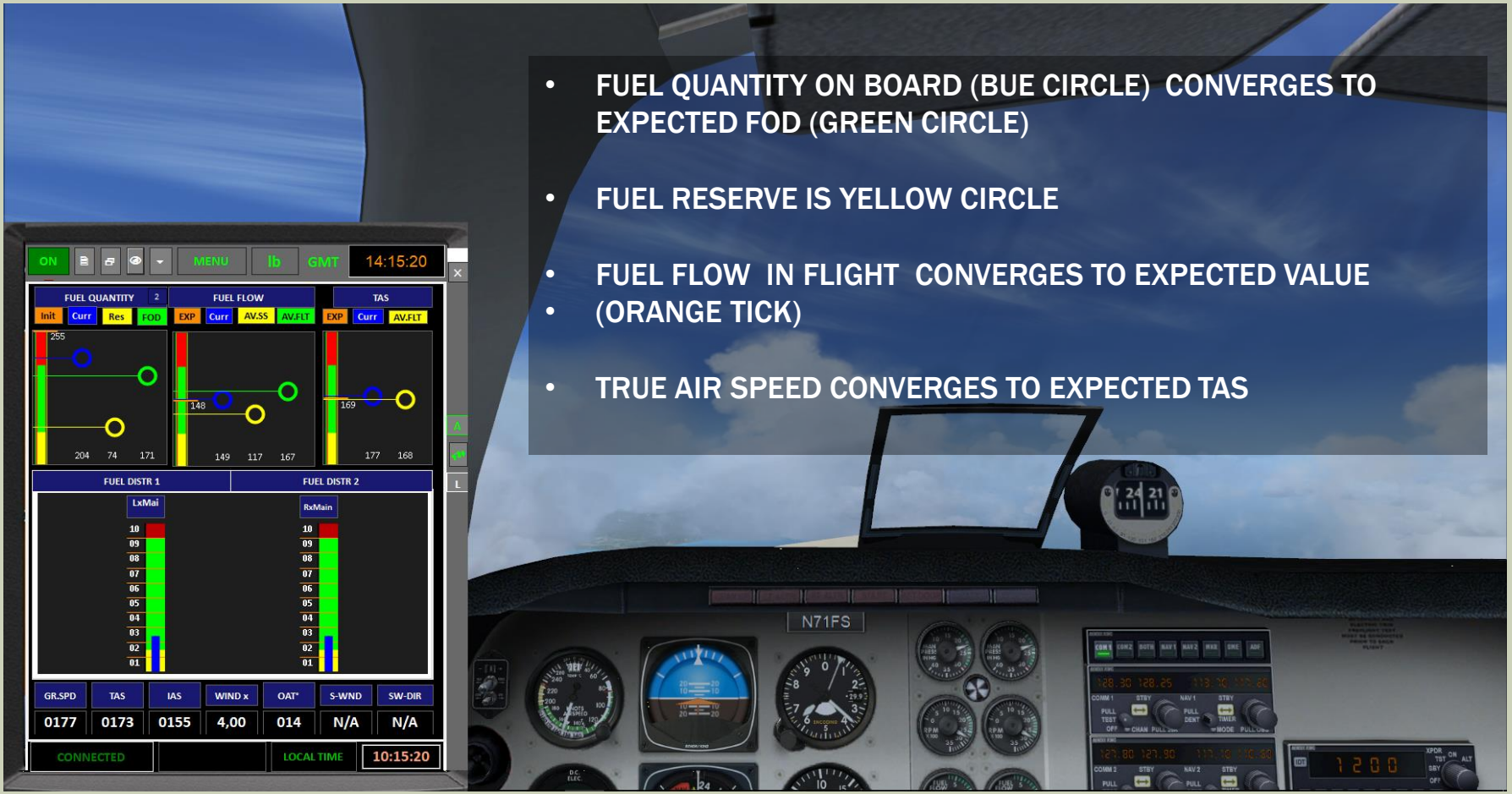
- GMT IS 14:15:24
- ELAPSED TIME SINCE ENGINE START: 26:08 MINUTES
- ELAPSED SINCE TAKEOFF: 17:30 MINUTES
- CURRENT FUEL FLOW 203 lbh
- AVERAGE FF SINCE START 119lbh, IN FLIGHT 170lbh
- INTERAL DISTANCE FLOWN 48NM
- DISTANCE TO DESTINATION: 25NM
- TIME TO START OF DESCENT 2:40 MINUTES
- CURRENT GROUND SPEED 177KN
- AVERAGE TAS IN FLIGHT 168Kn
- TIME TO DESTINATION 9:06 MINUTES
- ESTIMATED TIME OF ARRIVAL 14:24:33 GMT
- TIME TO DESTINATION 9:06 MINUTES

IFMR KNEEBOARD: FOLLOW CRUISE



- GMT REPORT IS 14:17:01
- ELAPSED TIME SINCE ENGINE START: 27:44 MINUTES
- ELAPSED SINCE TAKEOFF: 18:56 MINUTES
- CURRENT FUEL FLOW 149 lbh
- AVERAGE FF SINCE START 119lbh, IN FLIGHT 165lbh
- INTEGRAL DISTANCE FLOWN 53NM
- DISTANCE TO DESTINATION: 21NM
- TIME TO START OF DESCENT 58 SECONDS
- AVERAGE GROUND SPEED IN FLIGHT 169Kn
- CURRENT TRUE AIRSPEED 173Kn
- AVERAGE WIND IN FLIGHT +3Kn
- TIME TO DESTINATION 07:21 MINUTES
- ESTIMATED TIME OF ARRIVAL 14:24:33 GMT
- TIME TO DESTINATION 9:06 MINUTES
- ESTIMATED FUEL WEIGHT AT DESTINATION 180lbh

GAUGE CONVERGE IN CRUISE



- FUEL QUANTITY ON BOARD (BUE CIRCLE) CONVERGES TO EXPECTED FOD (GREEN CIRCLE)
- FUEL RESERVE IS YELLOW CIRCLE
- FUEL FLOW IN FLIGHT CONVERGES TO EXPECTED VALUE
- (ORANGE TICK)
- TRUE AIR SPEED CONVERGES TO EXPECTED TAS

TOD REACHED INITIATE DESCENT

DESCENT

- NEXT ALTITUDE (PATTERN ALTITUDE) 1500ft
- INSTANT DESCENT RATE TO REACH PATTERN ALTITUDE T 6 MILES FROM THRESHOLD AT CURRENT SPEED (180Kn): 1650ft/m

APPROACH

GEAR DOWN

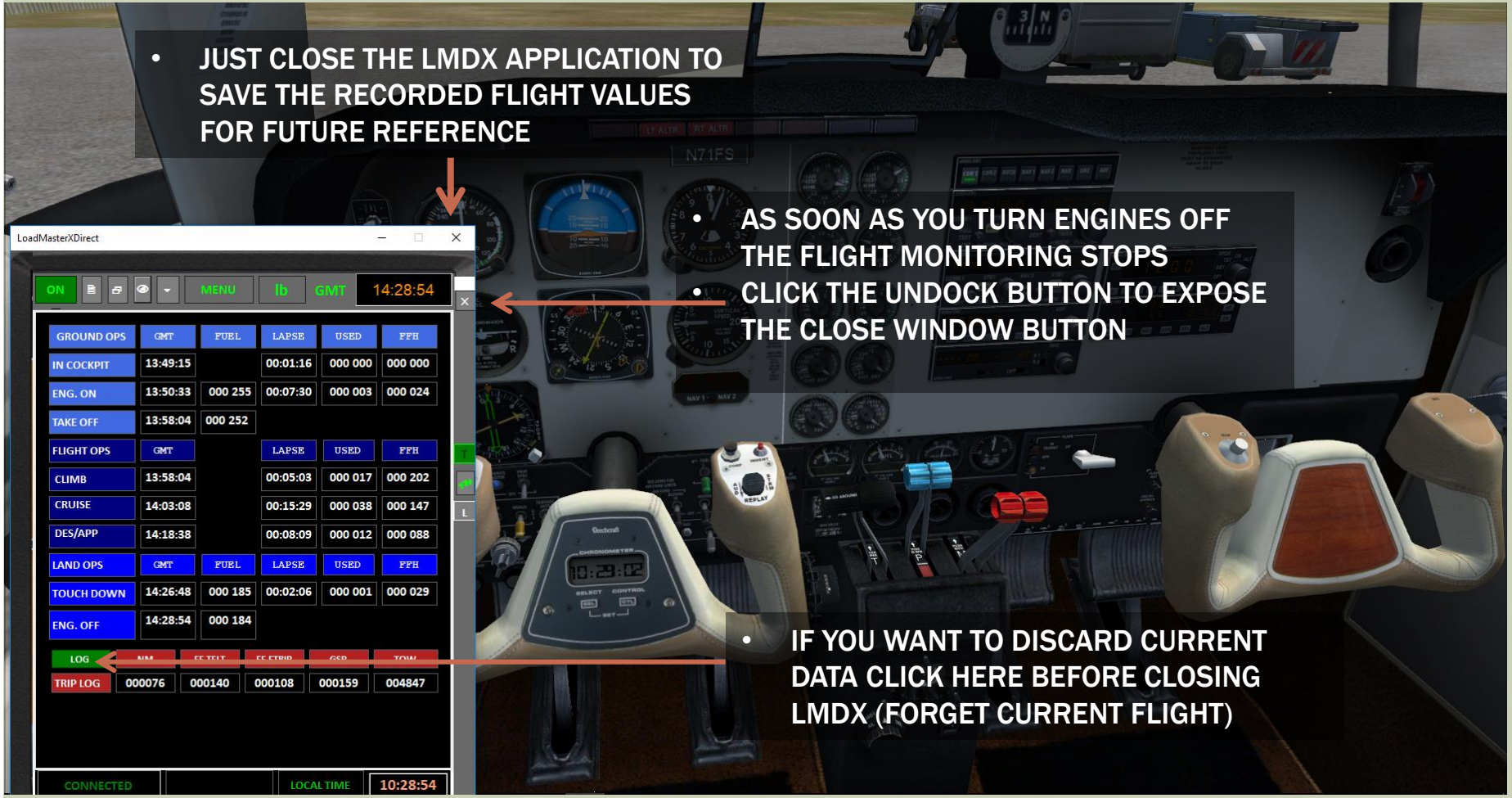

Vista aeromobile:
Ala destra
Zoom 0.63
N71FS
ON
MENU
lb
GMT
14:24:44

IFMR: FINAL REPORT

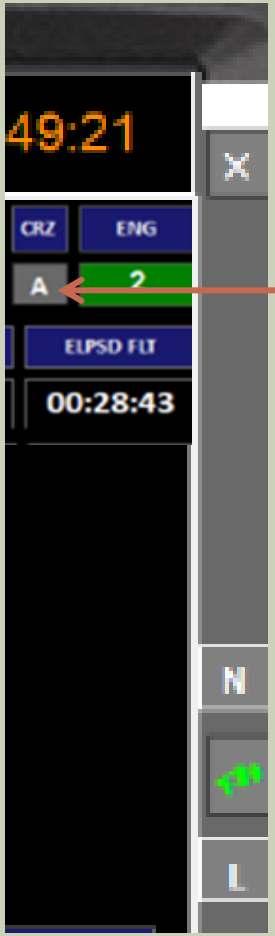
ENGINES OFF


• AS SOON AS YOU TURN ENGINES OFF THE FLIGHT MONITORING STOPS
• AND LMDX IS READY TO SAVE AIRCRAFT AVERAGES
N71FS
ON
MENU
lb
GMT
14:28:43

LOG AND SAVE


• JUST CLOSE THE LMDX APPLICATION TO SAVE THE RECORDED FLIGHT VALUES FOR FUTURE REFERENCE
LoadMasterXDirect
ON
MENU
lb
GMT
14:28:54
GROUND OPS
GMT
FUEL
LAPSE
USED
FFH
IN COCKPIT
13:49:15
00:01:16
000 000
000 000
ENG. ON
13:50:33
000 255
00:07:30
000 003
000 024
TAKE OFF
13:58:04
000 252
FLIGHT OPS
GMT
LAPSE
USED
FFH
CLIMB
13:58:04
00:05:03
000 017
000 202
CRUISE
14:03:08
00:15:29
000 038
000 147
DES/APP
14:18:38
00:08:09
000 012
000 088
LAND OPS
GMT
FUEL
LAPSE
USED
FFH
TOUCH DOWN
14:26:48
000 185
00:02:06
000 001
000 029
ENG. OFF
14:28:54
000 184
LOG
TRIP LOG
000076
000140
000108
000159
004847
CONNECTED
LOCAL TIME
10:28:54
• AS SOON AS YOU TURN ENGINES OFF THE FLIGHT MONITORING STOPS
• CLICK THE UNDOCK BUTTON TO EXPOSE THE CLOSE WINDOW BUTTON
• IF YOU WANT TO DISCARD CURRENT DATA CLICK HERE BEFORE CLOSING LMDX (FORGET CURRENT FLIGHT)

RIGHT GAUGE COMMANDS



GAUGE WINDOW HANDLE. DRAG HERE TO MOVE THE GAUGE WINDOW

GAUGE DOCK/UNDOCK CLICK HERE TO CLOSE LMDX

SET CURRENT ALTITUDE AS NEW CRUISE ALTITUDE

- the current altitude will be set as cruise altitude, forcing flight status to CRUISE and updating Top of Descent

TOGGLE PAUSE AT TOP OF DESCENT A=ARMED (GREEN) N=NOT ARMED (WHITE)

MUTE/ACTIVATE «REPORT READY» GREEN = SOUND ON WHITE= NO SOUND

LOCK/FREE ALTITUDE DESCENT L = (WHITE) LOCKED F=(GREEN) FREE

OTHER OPERATIONS

- NO FLIGHT PLAN:
  - FREELY SET UP A TRIP DISTANCE, THE
  - THE LOCKED/FREE ALTITUDE BUTTIN; WHICH IS OFF BY DEFAULT, WILL BE SET TO ON
  - THIS FORCES LMDX TO ENTER DESCENT STATUS WHENEVER LEAVING CRUISE ALTITUDE (BY DEFAULT DESCENT STATUS IS TRIGGERED ONLY AFTER TOD IS REACHED)
- PAUSE AT TOD TOGGLED TO ARMED: FSX ENTERS PAUSE AT TOD POINT . PRESS P TO RESUME.

DATA MAINTENANCE

- FLIGHT RECORDS ARE SAVED IN THE DBCALIBRATIONS.TXT FILE, IN THE DATA SUBDIRECTORY OF THE LDMX INSTALLATION DIRECTORY
- FLIGHT SCREENSCHOTS ARE SAVED IN THE DATA\DOCS SUBDIRECTORY OF THE LDMX INSTALLATION DIRECTORY .
- TO RESET THE DBCALIBRATIONS.TXT FILE, PLEASE COPY TO THE LMDX ROOT DIRECTORY THE PROVIDED DBCALIBRATIONS_BACKUP.TXT FILE IN THE DATA\DOCS SUBDIRECTORY AND RENAME IT TO DBCALIBRATIONS.TXT
- TO DELETE RECORDS IN THE DBCALIBRATIONS:TXT FILE USE A TEXT EDITOR
- DO NOT DELETE THE HEADER RECORD

```
 AIRFILE|LOGAVG|FLTAVG|AVGTAS|TASDIST |TOW  |GROUND|CLIMB  |CRUISE|  DES
b55_7|000167|000205|000157|000068|004470|000000|000248|000211|000188
```

- DELETE ENTIRE LINES (RECORDS) ONLY

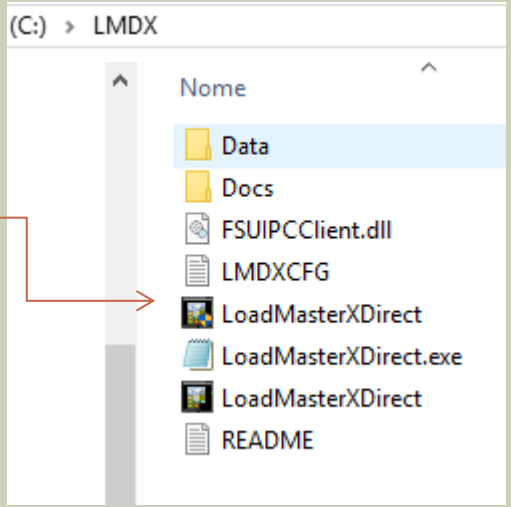
INSTALLATION TIPS

INSTALLATION

The downloaded zip file can be unzipped to any directory , and the program will assume the install directory as root for the program and data subdirectories.

Unzip LMDX.rar anywhere (preferably to C:) and run the application LoadMasterXDirect, by double clicking on the application icon, then allow the program to run with high priviledges. Create a shortcut to the application from the desktop.

We suggest unzipping the file into C: so as to have this tree structure in Windows:



ANTIVIRUS AND SECURITY TROUBLESHOOTING

If blocked by antivirus, mark LMDX as trusted, and/or exclude LMDX directory from antivirus control.
If you have no right to unzip into C: , try moving LMDX.rar to desktop first.
For any other problem contact
support@pegasuswebproductions.com

IFMR REPORT STRUCTURE

BEFORE TAKE OFF REPORT AT 15:24:11 GMT
TIME ELAPSED SINCE STARTUP 00:13:24

CESSNA Cessna 441 N7755T
Cessna441.AIR PASSENGER FLIGHT 456

PILOTS 2, CREW 0, PASSENGERS 4
BAGGAGE 0lb CARGO 000 050lb
PAYLOAD BALANCE WITHIN LIMITS

OPERATING WEIGHT 005 801 lb,
TOTAL PAYLOAD 01 070lb
ZERO FUEL WEIGHT 006 871 lb

FLIGHT PLAN FILED. DEPARTURE KFXE DESTINATION MYGF
FP DISTANCE 00090 NM, FP CRUISE ALTITUDE 9500 ft

ESTIMATED AVERAGE GROUND SPEED 0275 KN , 0,46M AT CRUISE ALTITUDE

ESTIMATED TRIP TIME 00:40, NET CRUISE TIME 00:20, ESTIMATED GROUND OPS 20 MINUTES AND NOSE CRUISE WINDS +0KN.

AT AN ESTIMATED AVERAGE FF OF 00 425 lb/h,
THE NET ESTIMATED FLIGHT FUEL IS 000 276 lb

WITH AN EST. 01:00 RESERVE, 5 MINUTES TAXI, AND 5% FUEL CONTINGENCY AND EXTRA CONTINGENCY FUEL OF 00 218lb

THE ESTIMATED TOTAL FUEL TO BOARD IS 000 967 lb

THE ACTUAL FUEL ON BAORD IS 000 942 lb, 029% OF TOTAL CAPACITY (3223lb)

GROSS WEIGHT IS 007 813 lb, 080 % OF MX TOW 009 849 lb.
ESTIMATED FOB AT DESTINATION 000 656 lb
ESTIMATED TIME OF ARRIVAL 00:40 AFTER TAKEOFF.
CURRENTLY 15:52:12.

DEPARTURE AIRPORT ALT 0013 ft
SURFACE WINDS 001 AT 359DEG
ALTIMETER SET 1017/1017

CLIMB REPORT AT 15:30:00 GMT
TIME ELAPSED SINCE STARTUP 00:19:13

CLIMBING TO CRUISE ALTITUDE OF 9500ft
AFTER 00:05:48 IN FLIGHT, FUEL ON BOARD IS 000 890 lb
FUEL USED IN FLIGHT 000 052 lb
AVERAGE FLIGHT FUEL FLOW 000 538 lb/h
REFERENCE AVERAGE FLIGHT FF 00 425 lb/h
AVERAGE FF SINCE ENGINES ON 000 237 lb/h

CRUISE REPORT AT 15:42:45 GMT
TIME ELAPSED SINCE STARTUP 00:31:58

NEXT WAYPOINT PADUS TIME TO WPT 00:00:29
CURRENT GAUGE VALUES: ALTITUDE 09016 ft ,
GSP 0252 Kn, IAS 0221 Kn, TAS 0253 Kn,
NOSE WIND COMPONENT -001Kn OAT 008 Celsius
ACTUAL FFH 000 232 lb/h

TIME IN FLIGHT 00:18:32
TIME IN CRUISE 00:12:43

FUEL ON BOARD 000 787 lb
FUEL USED IN CRUISE 000 103 lb, FUEL USED IN FLIGHT 000 155 lb
AVERAGE FUEL FLOW IN CRUISE 000 486 lb/H
AVERAGE FUEL FLOW IN FLIGHT 000 502 lb/h
REFERENCE PLANNED FLIGHT FF 00 425 lb/h

INTEGRAL DISTANCE FLOWN 00072 NM
DISTANCE TO DESTINATION 00026 NM

AVERAGE TAS 0233 , AVERAGE WIND +000kn
PLANNED AVERAGE GSP 0275

EST. TIME TO TOP OF DESCENT TOD
EST. TIME TO DESTINATION 00:06:47
EST. TIME OF ARRIVAL 15:49:31

PLANNED TIME OF ARRIVAL 15:52:12

ESTIMATED FUEL ON BOARD AT DESTINATION000 730 lb

DESCENT REPORT AT 15:52:40 GMT
TIME ELAPSED SINCE STARTUP 00:41:53

CURRENT GAUGE VALUES: ALTITUDE 00022 ft ,
GSP 0099 Kn, IAS 0100 Kn, TAS 0102 Kn,
NOSE WIND COMPONENT -003Kn OAT 025 Celsius
ACTUAL FFH 000 077 lb/h

DESCENDING TO PATTERN ALTITUDE 1507ft
AIRPORT ALT 0007 ft, SURFACE WINDS 004 AT 090DEG
QNH / ALT SETTING 1017/1017 in

TIME IN DESCENT 00:09:54, TIME IN FLIGHT 00:28:27

FUEL ON BOARD 000 759
FUEL USED IN DESCENT 000 028,
AVERAGE FUEL FLOW IN DESCENT 000 170
FUEL USED IN FLIGHT 000 183 ,
AVERAGE FUEL FLOW IN FLIGHT 000 386 lb/h
REFERENCE FUEL FLOW 00 425 lb/h

DISTANCE FLOWN 00099 NM, AVERAGE GROUND SPEED 0208 Kn
AVERAGE WIND -002kn
PLANNED AVERAGE GSP 0275

DISTANCE TO DESTINATION 00000NM,
EST. TIME TO DESTINATION 00:00:03
EST. TIME OF ARRIVAL 15:52:42,
PLANNED TIME OF ARRIVAL 15:52:12

ESTIMATED FOB AT DESTINATION 000 759 lb
PLANNED FOD AT DESTINATION 000 656 lb

FINAL REPORT AT DESTINATION 15:53:53 GMT
TIME ELAPSED SINCE STARTUP 00:43:06

FUEL ON BOARD AT STARTUP 966lb

FUEL ON BOARD AT DESTINATION 000 757
FUEL USED SINCE ENGINES ON 000 209 lb

FUEL USED IN FLIGHT 000 183
AVERAGE FUEL FLOW IN FLIGHT 000 386 lb/h
AVERAGE FUEL FLOW SINCE STARTUP 000 291 lb/h

PLANNED REFERENCE AVG FLIGHT FF 00 425 lb/h
INTEGRAL DISTANCE FLOWN 000100 NM
AVERAGE GROUND SPEED 0208 , AVERAGE WIND -002
PLANNED REFERENCE AVG GSP 0275 Kn
ENGINES OFF AT DEST.
PLANNED TIME OF ARRIVAL 15:52:12
FUEL ON BOARD AT DESTINATION 000 757
PLANNED FOD AT DESTINATION 000 656)

TRIP WRAP UP FOR FUTURE REFERENCE
AVERAGE TRIP FUEL FLOW 000291 lb/h
AVERAGE FLIGHT FUEL FLOW 000 386 lb/h
TRIP TAS (GSP) 000211
INTEGRAL DISTANCE IN FLIGHT 000100
TAKEOFF WEIGHT AND INDEX 07803 lb 080 %