



F28

PROFESSIONAL

ELECTRONIC FLIGHT BAG (EFB)



Just Flight™



Electronic Flight Bag (EFB)

Please note that this manual is specifically for the Electronic Flight Bag (EFB) installed in the Just Flight F28 Professional add-on for Microsoft Flight Simulator.

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EFB OVERVIEW



Just Flight's F28 Professional is equipped with a tablet computer which is divided into two main areas:

1. An Electronic Flight Bag (EFB) which can be used for viewing your simBrief operational flight plan (OFP), monitoring your position on a moving map, viewing your Navigraph charts and making notes.
2. An Aircraft app for controlling various aircraft options and payload.

The tablet can be switched on/off with the physical 'Home' button on its left bezel. The Home button can also be used to return to the EFB Home page.

The EFB can be hidden by using a clickspot on the air vent on the cockpit side panels.



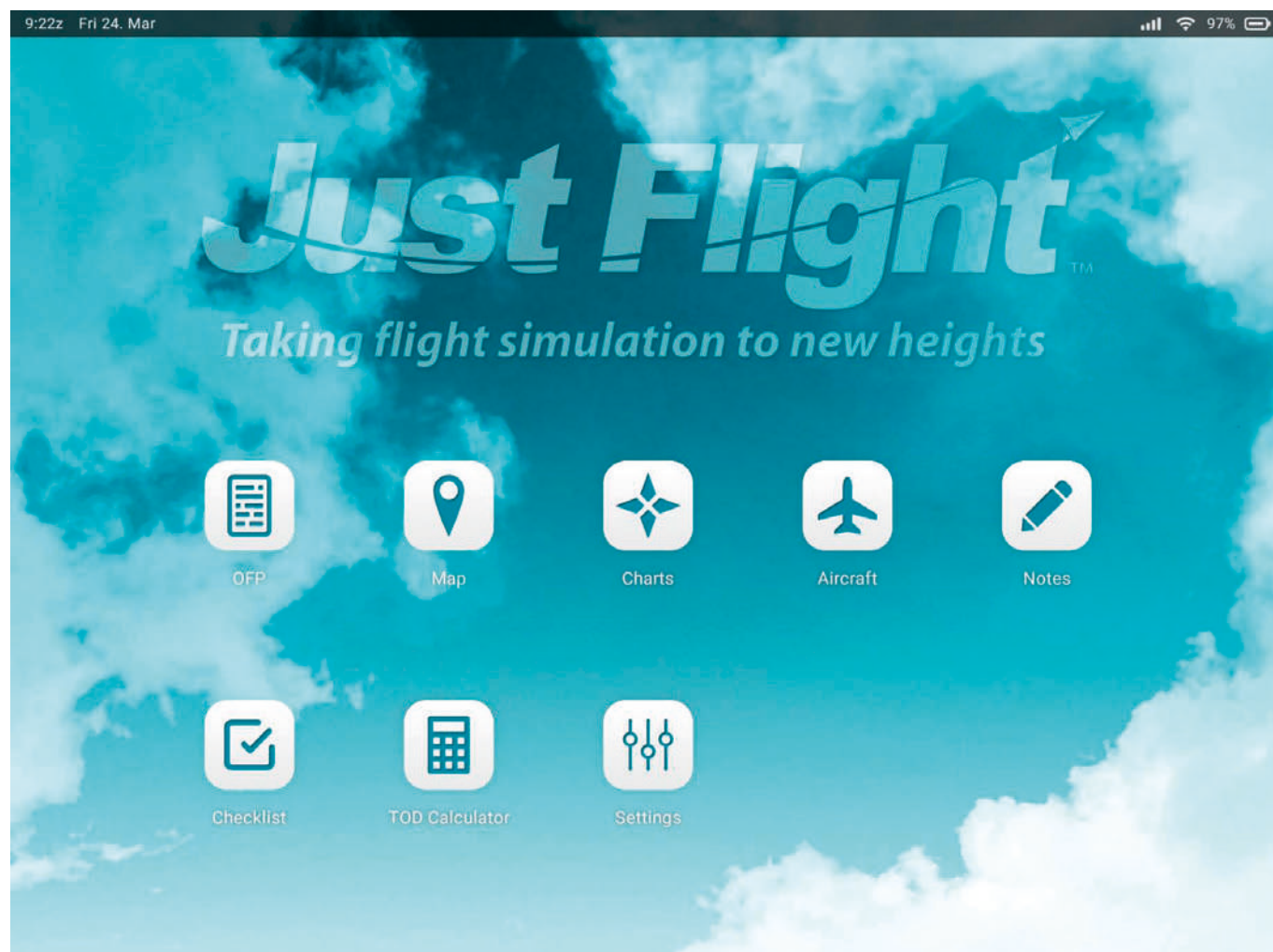
The Home page of the EFB shows the icons of the various applications that are available to use. Pressing one of these icons will open the respective application.

The top bar of the EFB shows the current simulator time and date in the top left corner, as well as the current battery status of the tablet in the top right corner. The battery will drain over time if the aircraft's electrical power (ESS DC) is switched off and will recharge once it is powered on again.

The tablet will automatically move between the Captain and Co-pilot sills depending on the selected camera view. Both tablets can also be toggled on at the same time by clicking on both cockpit vents.

The tablet can be rotated left/right and up/down using the clickspots on the outer edge (bezel) of the EFB tablet.

The background on the EFB can be changed to an image of your choice by replacing the wallpaper.jpg file in the following file directory: ...Community\justflight-aircraft-f28\html_ui\Pages\VCockpit\Instruments\Airliners\JF_F28\EFB\img.



OPERATIONAL FLIGHT PLAN (OFP)

The OFP app allows you to view your latest simBrief OFP and display its information conveniently within the simulator.


On first selecting the OFP app you will be prompted to enter your simBrief pilot ID to access your data. Alternatively, you can choose to identify yourself via your simBrief username by enabling the 'simBrief Username Login' setting in the EFB settings.

Once you have entered your simBrief identification and pressed the 'Continue' button, you are presented with a summary of your active OFP, including airport codes, times, route information, fuel weight etc.


16:05z Fri 31. Mar

OFP


100%




SESSION




SUMMARY



METAR



OUTPUT



REFRESH

ORIGIN

EGNT

EGCC

12:00z

DESTINATION

EHAM

EGLL

12:57z

AIRLINE

NLM

FLIGHT NO

963

ROUTE

GIRL1T GIRLI DCT BAVDO N110 ERKIT L602 OTR L90 SUPEL Y70 BODSO L17 MOLIX MOLI2A

AVG ISA

M004

AVG W/C

M001

AVG WIND

125 / 006

ZERO WEIGHT FUEL

29246 kg

BLOCK FUEL

4858 kg

CRUISE ALTITUDE

33000 ft

DISTANCE


325 NM


Pressing the METAR button allows you to view the wind information for your origin, destination and alternate airports. This information is shown in both raw and simplified forms.


16:06z Fri 31. Mar


OFP


100%


SESSION


SUMMARY


METAR


OUTPUT


REFRESH

ORIGIN (EGNT)

EGNT 311050Z 08011KT 5000 BR BKN005 09/09 Q0990

PRESSURE	TEMPERATURE	VISIBILITY	WIND
29.23inHg / 990.00mb	9°C / 48.20°F	5000m / 3mi	80deg, 11kts

DESTINATION (EHAM)

EHAM 311055Z 20020KT 9999 -RADZ FEW007 SCT016 BKN021 12/10 Q0991
RERADZ TEMPO 7000 BKN018

PRESSURE	TEMPERATURE	VISIBILITY	WIND
29.26inHg / 991.00mb	12°C / 53.60°F	10000m / 6mi	200deg, 20kts

ALTERNATE (EGLL)

EGLL 311050Z AUTO 24018KT 9999 OVC014 12/10 Q0984

PRESSURE	TEMPERATURE	VISIBILITY	WIND
29.06inHg / 984.00mb	12°C / 53.60°F	10000m / 6mi	240deg, 18kts

To view the full OFP, press the OUTPUT button. Your entire flight plan will then be shown in text form, which can be scrolled as desired by using the scrollbar to the right of the OFP output area.

16:06z Fri 31. Mar

SESSION

SUMMARY

METAR

OUTPUT

REFRESH

[OFP]

NLM0963 31MAR2023 EGNT-EHAM F70 N0705B RELEASE 1112 31MAR23

OFP 4 NEWCASTLE-SCHIPHOL

WX PROG 3112 3115 OBS 3106 3106

ATC C/S NLM963 EGNT/NCL EHAM/AMS CRZ SYS M70

31MAR2023 N0705B 1140/1200 1257/1305 GND DIST 325

FOKKER 70 / TAY 620-15 STA 1305 AIR DIST 326

CTOT:.... G/C DIST 282

MAXIMUM TOW 39916 LAW 36741 ZFW 33566 AVG WIND 125/006

ESTIMATED TOW 33832 LAW 31934 ZFW 29246 AVG W/C M001

AVG ISA M004

AVG FF KGS/HR 1983

FUEL BIAS P00.0

TKOF ALTN EGCC

ALTN EGLL

FL STEPS EGNT/0330/SUPEL/0230

DISP RMKS NIL

PLANNED FUEL

FUEL	ARPT	FUEL	TIME
TRIP	AMS	1898	0057
CONT 15 MIN		496	0015
ALTN	LHR	1422	0047
FINRES		770	0030
MINIMUM T/OFF FUEL		4586	0230
EXTRA		0	0000
T/OFF FUEL		4586	0230
TAXI	NCL	272	0020
BLOCK FUEL		NCL 4858	
PIC EXTRA		
TOTAL FUEL		
REASON FOR PIC EXTRA		

FMC INFO:

FINRES+ALTN 2192

TRIP+TAXI 2170

NO TANKERING RECOMMENDED (P)

I HEREWITH CONFIRM THAT I HAVE PERFORMED A THOROUGH SELF BRIEFING

ABOUT THE DESTINATION AND ALTERNATE AIRPORTS OF THIS FLIGHT

INCLUDING THE APPLICABLE INSTRUMENT APPROACH PROCEDURES, AIRPORT

FACILITIES, NOTAMS AND ALL OTHER RELEVANT PARTICULAR INFORMATION.

The OFP data can be refreshed at any time by pressing the REFRESH button in the left sidebar; this will update the data to your latest simBrief flight plan.

Note: A simBrief account is required for this functionality.

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F28 Professional – Electronic Flight Bag (EFB)

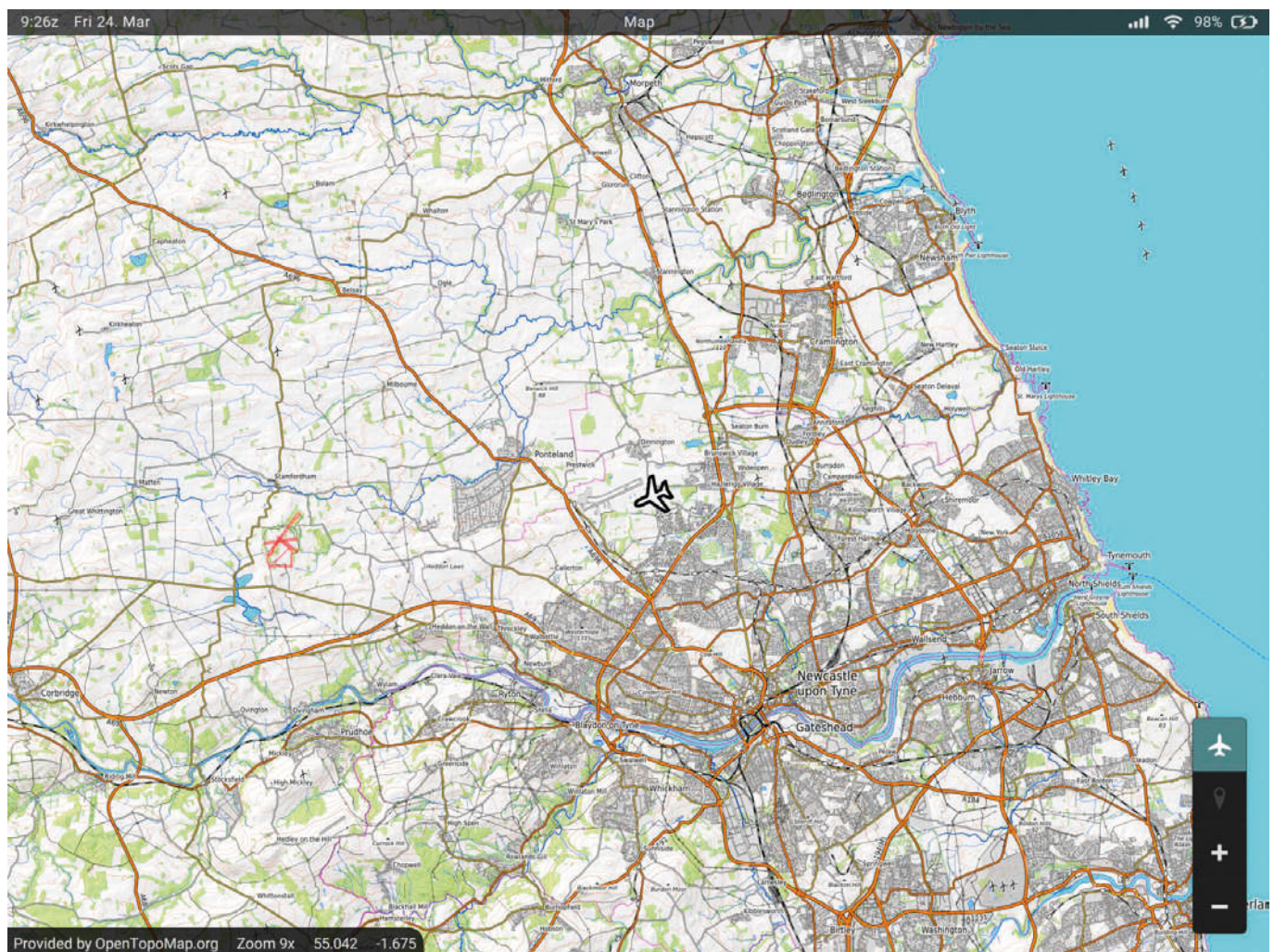
MAP

The Map app provides you with a moving map based on visual data from [OpenTopoMap.org](https://opentopomap.org).

By default, the map is set to track the aircraft's current position. It is also possible, however, to move the map manually by pressing the aircraft icon in the bottom right corner of the display and then simply clicking and dragging anywhere on the map. Pressing the location pointer icon will centre the view back to the aircraft's current position.

The map's zoom level can be adjusted via the '+' and '-' buttons.

Note: The time it takes for the map to load is dependent on the map provider. At busier times of day, the map may take longer to load.



CHARTS

The Charts app allows you to browse aviation charts provided by Navigraph as part of an active Navigraph subscription. A login (via external link or QR code) is required to link the EFB to your Navigraph account. Follow the instructions on the EFB and your external internet browser to complete the linking process.

With your Navigraph account linked, you can then enter an ICAO code in the ICAO code SEARCH field to view the various associated STAR/APP/TAXI/SID/REF charts for that airport.

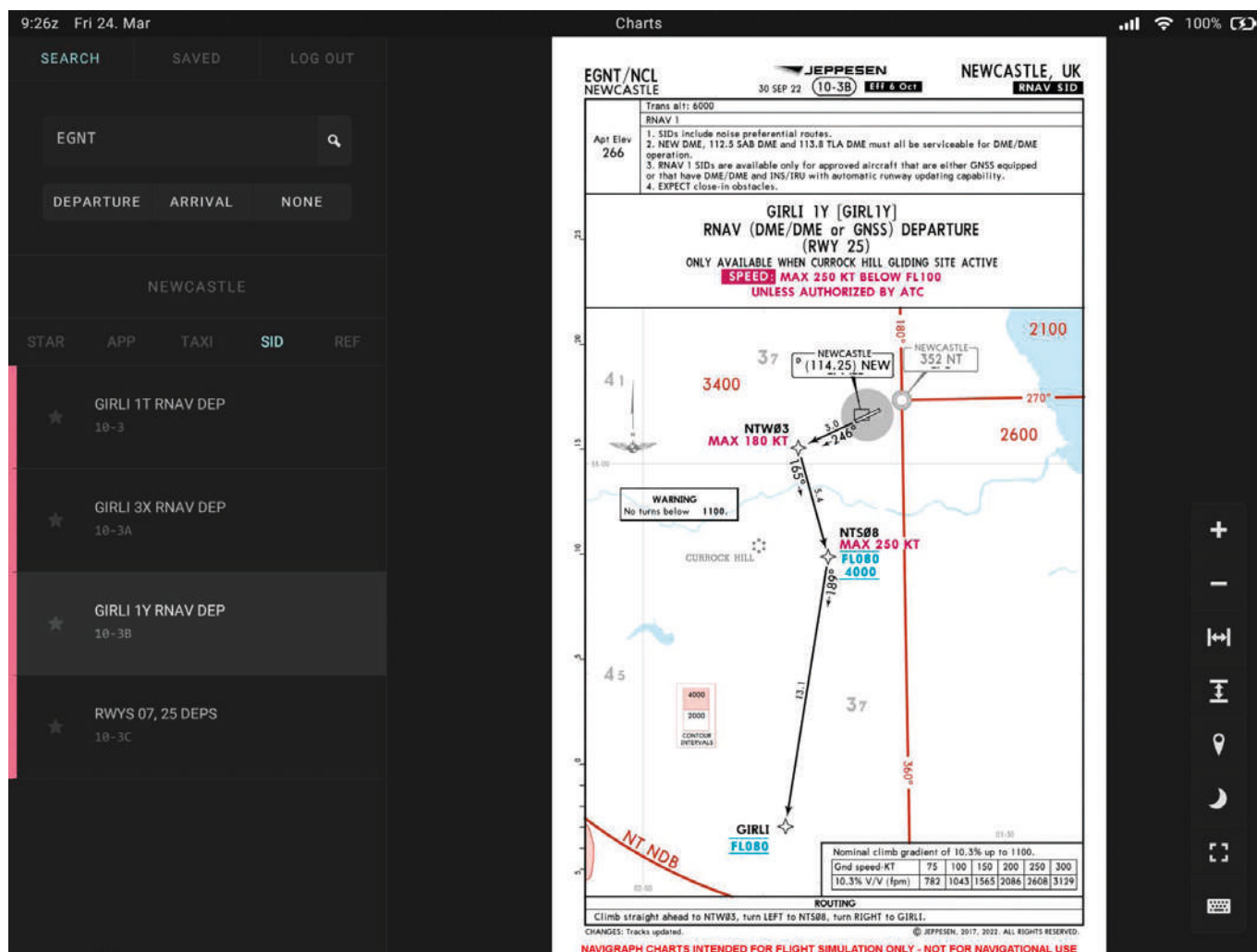
If you have a simBrief OFP loaded on the OFP page, you can quickly access the charts for the departure and arrival airports by pressing the respective DEPARTURE and ARRIVAL tabs. This will list all relevant charts for that airport under the STAR/APP/TAXI/SID/REF headings.

To view a chart, simply press the relevant tab and the chart will appear on the right side of the page. The active chart can be moved/resized/fitted as needed by using the controls on the right of the document window. Charts which provide georeferenced data will also display the aircraft's current position as an overlay icon if applicable.

Charts can be saved for quick reference by pressing the star icon to the left of the chart's name. You can quickly access all of your saved charts by pressing the SAVED button at the top of the page.

To unlink your Navigraph account from the EFB, press the LOG OUT button at the top of the page.

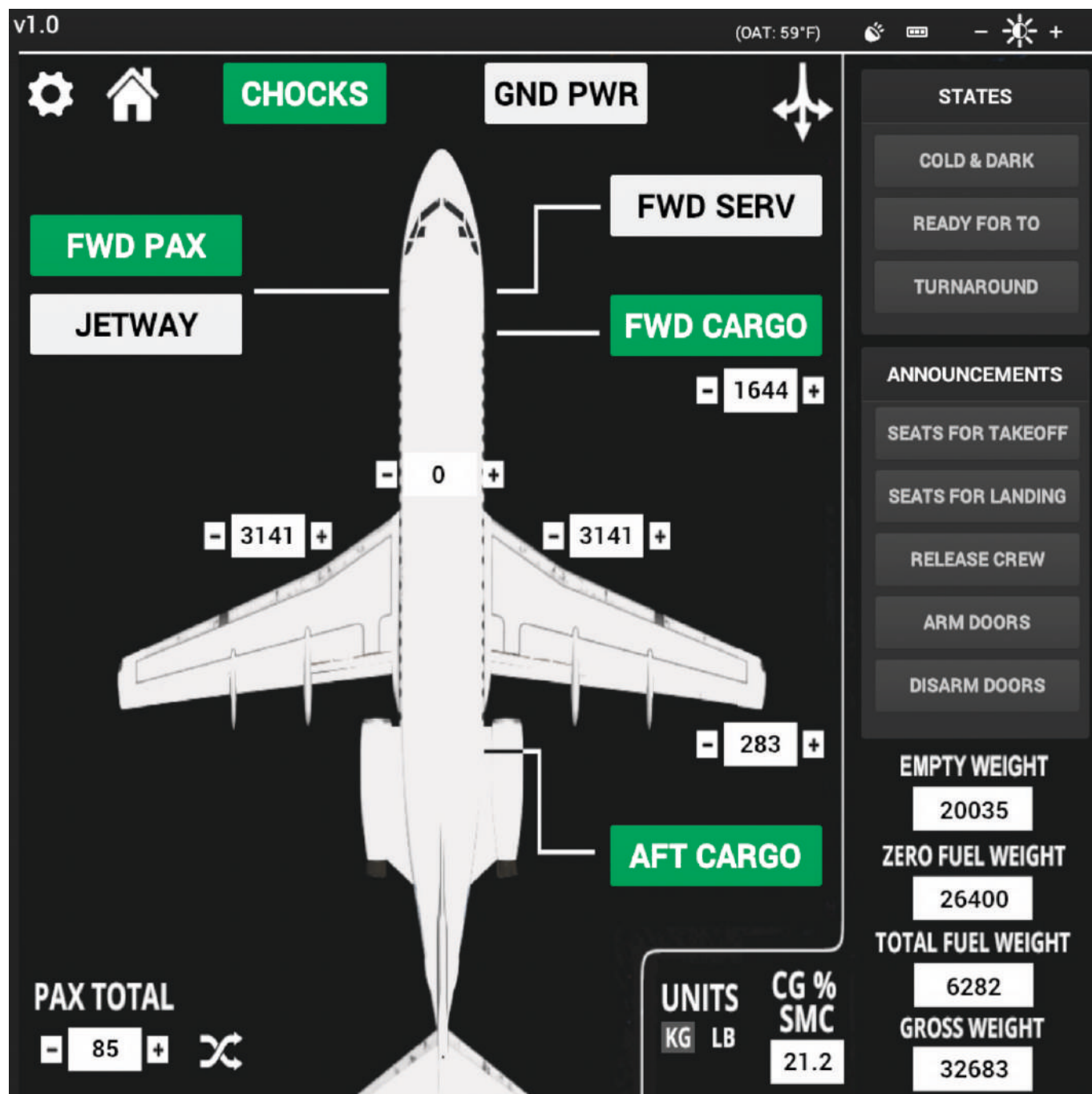
Note: A Navigraph account is required for this functionality.



AIRCRAFT

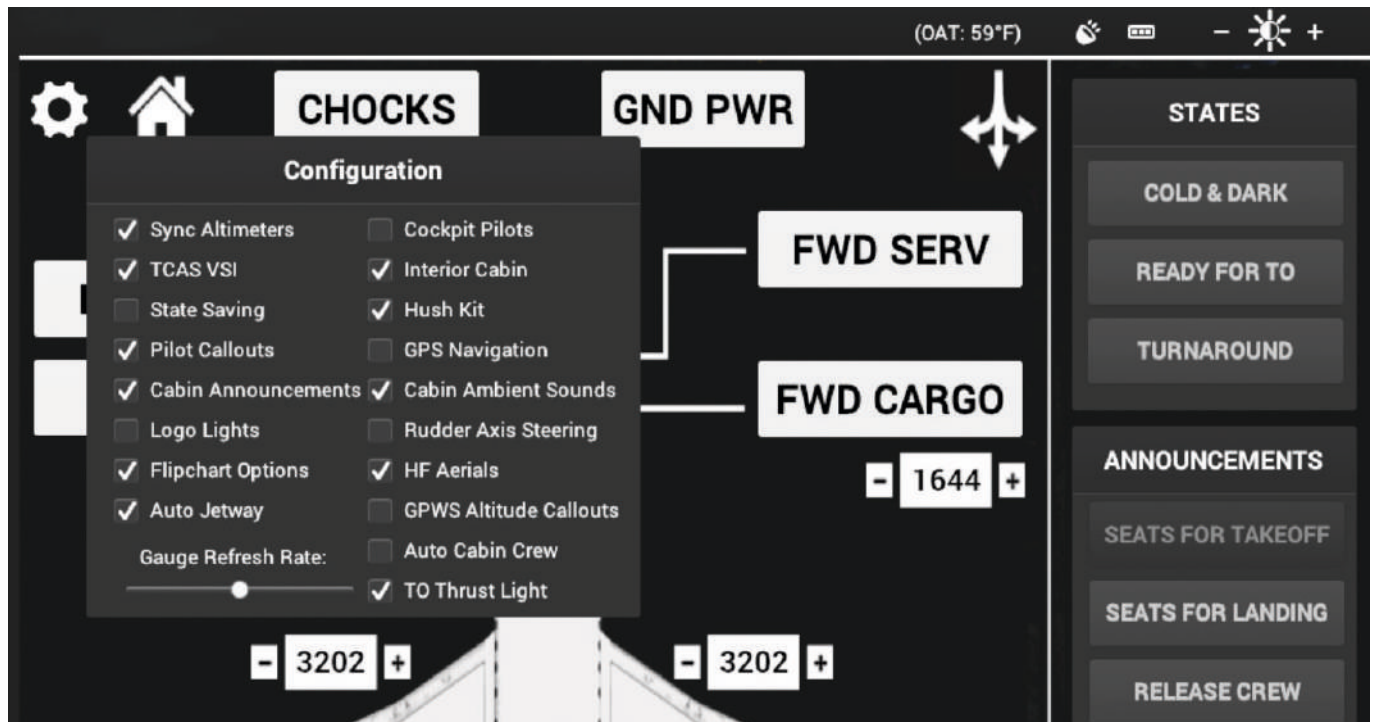
Selecting the Aircraft app from the EFB Home page will launch the Aircraft page, which allows you to control various aircraft options and payload.

Please refer to the sections below for further information on the individual functions of the Aircraft page. You can return to the EFB from the Aircraft screen by either clicking the Home icon or the physical Home button.



Configuration

With the Aircraft page displayed, pressing the Settings 'cog' icon opens and closes the Configuration menu.



This menu has the following options:

Sync Altimeters – automatically synchronises standby and Captain/Co-pilot altimeter barometric settings ('master setting' is based on camera selection).

TCAS VSI – toggles between traditional and TCAS vertical speed indicators.

State Saving – enables/disables aircraft state saving. The aircraft state can be saved and reloaded automatically between flights, allowing you to always return to your cockpit in the same state that you last left it.

Pilot Callouts – enables/disables pilot callouts ("Rotate", "V2" etc.).

Cabin Announcements – enables/disables cabin announcements ("The seatbelt sign has been turned off" etc.).

Logo Lights – enables/disables the logo lights fitted to the out flaps track fairings.

Flipchart Options – when enabled, you can click on the relevant row of the speeds flipchart (located below the landing gear lever) to specify which flap setting you would like the speed bugs to be set for. This allows you to preselect your take-off or approach flap setting. When disabled, clicking anywhere on the flipchart will set the speed bugs based on your current flap setting.

Auto Jetway – enables/disables the automatic jetway connection logic when converting the passenger door into a jetway configuration. Users of GSX and other products which control the jetways may wish to disable this option if a conflict occurs between the products.

Gauge Refresh Rate – allows you to control the digital gauge refresh rate (lower refresh rate = higher FPS).

Cockpit Pilots – enables/disables the visible Captain and Co-pilot with interior camera selected.

Interior Cabin – enables/disables the cabin with interior camera selected.

Hush Kit – enables/disables the engine hush kits. By default, this option is set based on the chosen livery's real-life configuration.

GPS Navigation – enables/disables the GNS530 GPS unit.

Cabin Ambient Sounds – enables/disables the cabin ambient sounds.

Rudder Axis Steering – when enabled, the rudder axis control assignment will also control the tiller for nose-wheel steering. When disabled, the STEERING INC/DEC and NOSE WHEEL STEERING AXIS assignments can be used to control the tiller without moving the rudder pedals. You can also click and drag the tillers to control only the steering.

HF Aerials – enables/disables HF aerial wires on the exterior. By default, this option is set based on the chosen livery's real-life configuration.

GPWS Altitude Callouts – enables/disables the GPWS altitude callouts (50, 40, 30 etc.)

Auto Cabin Crew – enables/disables the Automatic Cabin Crew feature. When enabled, the cabin crew will control the cabin lights and play cabin music at various stages during the flight.

TO Thrust Light – with this option enabled, the amber NAV TRANSFER FAILURE light in the centre of the glareshield will illuminate briefly when the Captain's left-hand throttle is in the detent position and thrust is set for take-off. With this option disabled, the NAV TRANSFER FAILURE light will only illuminate in the event of an actual failure or when tested.

Aircraft states

Three aircraft states can be selected:

COLD & DARK – aircraft is fully cold and dark, chocks are fitted and all doors are closed.

READY FOR TO – aircraft is fully configured for take-off, with the parking brake on.

The aircraft will automatically be configured in the COLD & DARK state when a flight is started at a parking/ramp/gate position, otherwise the READY FOR TO state will be selected. Restoration of a saved state, if enabled in the Configuration menu, will then occur.

TURNAROUND – aircraft is configured in a turn-around state with the engines off, cargo and forward passenger doors open, chocks fitted and ground power connected.

Announcements

Five cabin announcements can be triggered:

SEATS FOR TAKEOFF – flight deck to cabin PA for crew to take seats for take-off. After a short time the crew will confirm that the cabin is secure.

SEATS FOR LANDING – flight deck to cabin PA for crew to take seats for landing. After a short time the crew will confirm that the cabin is secure.

RELEASE CREW – flight deck to cabin PA to release crew to begin their service.

ARM DOORS – cabin PA to arm doors and cross-check.

DISARM DOORS – cabin PA to disarm doors.

The announcement buttons will be disabled (greyed out) if they have already been triggered.

The SEATS FOR TAKEOFF, RELEASE CREW and SEATS FOR LANDING cabin announcements can also be triggered by pressing the STEW CALL button on the overhead panel at the relevant stage of the flight (before take-off, during the climb and during the descent).

Doors and equipment

All passenger, service and cargo doors can be opened/closed by pressing the associated button:

FWD PAX – door 1L, main passenger door.

JETWAY – door 1L, converts the door into a jetway configuration by lowering the handrails and lowering a floor panel over the stairs. Pressing this button will also automatically call and connect a jetway to the aircraft (if available).

FWD SERV – door 1R, forward service door.

FWD CARGO – forward lower cargo doors.

AFT CARGO – aft lower cargo door.

CHOCKS – enables/disables the wheel chocks and cones.

GND PWR – enables/disables the ground power unit (GPU) which supplies external AC/DC power to the aircraft.

Fuel and payload

The EFB can be used to set:

- Fuel load in each of the tanks – left wing, right wing and centre tank.
- Forward and aft cargo payload.
- Total passenger (PAX) load.
- Zero fuel weight (ZFW) – the selected weight will be automatically split into a suitable passenger quantity and cargo load.
- Total fuel weight – the selected weight will be automatically split between the tanks.

Fuel and cargo loads, ZFW and total fuel weight values can be increased/decreased by 5% using the plus/minus buttons or entered manually. Manual entry can be achieved by clicking on the relevant value field, inputting the value with the number keys on your keyboard and then pressing the [Enter] key. The [Backspace] key can also be used. The value field will flash to indicate when an input is being made.

A Randomise icon is located immediately to the right of the PAX TOTAL field. Clicking this icon will set a random passenger and cargo load.

Units of measurement can be toggled between kilograms (kg) and pounds (lb).

Due to simulator limitations, any changes to the fuel load will only be shown on the FUEL/PAYLOAD window after a few seconds and no payload changes will be shown. We therefore advise you to only use the EFB for setting and reviewing fuel and payload.

The CG % SMC (Standard Mean Chord) is shown and the value can be left-clicked to automatically set the pitch trim to the correct position for take-off. The value will turn red if the CG is outside limits.

The gross weight value will turn red if the aircraft maximum take-off weight (MTOW) has been exceeded.

If you have imported a simBrief OFP, a window prompt will ask whether you would like to import the fuel and payload from the OFP data. This option will trigger the Zero Fuel Weight and Total Weight to be automatically set to the OFP values.

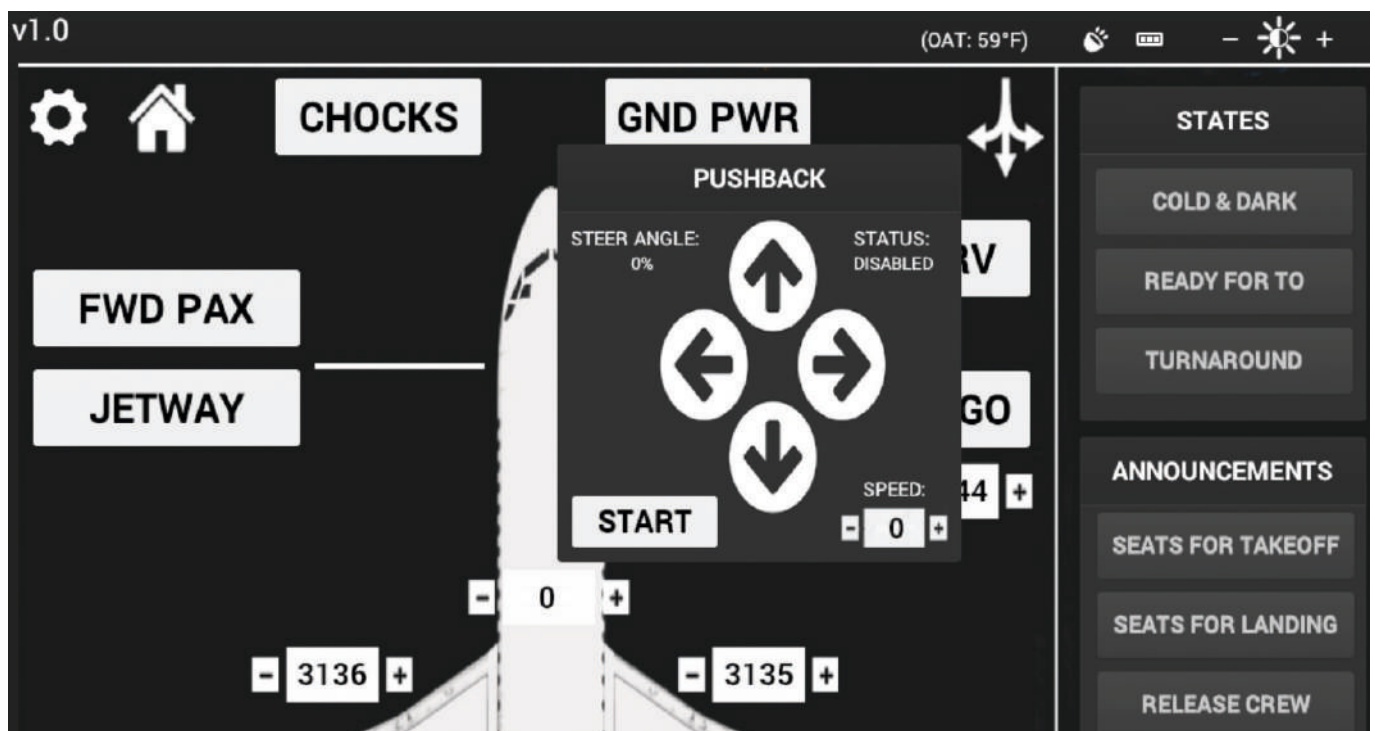
Pushback controls

Pushback controls can be accessed by clicking on the three-arrow icon in the top right corner of the Aircraft page.

A pop-out PUSHBACK menu will open, providing controls for manoeuvring the aircraft on the ground with a pushback tug:

- **CONNECT** – connects the pushback tug to the aircraft. Pushback will begin once a direction is chosen via the arrow buttons. Text will change to CANCEL once a button is pressed.
- **CANCEL** – stops the pushback and disconnects the pushback tug. Text will revert back to CONNECT once the button is pressed.
- **ARROW BUTTONS** – provide control of the aircraft in four directions. An arrow will change to green once that direction is selected. Multiple directions can be selected at the same time (e.g. reverse and left). The pushback direction can also be controlled with MSFS rudder axis control assignments.
- **SPEED** – provides control over the pushback tug speed. The greater the value, the higher the speed.
- **STEER ANGLE** – displays the current steering angle of the pushback tug.
- **STATUS** – displays the current status of pushback.

Note: Due to simulator limitations you may experience a slight jolt when the pushback tug connects to the aircraft, as well as some jittering when the aircraft speed varies between speeds 0 and 2.



NOTES

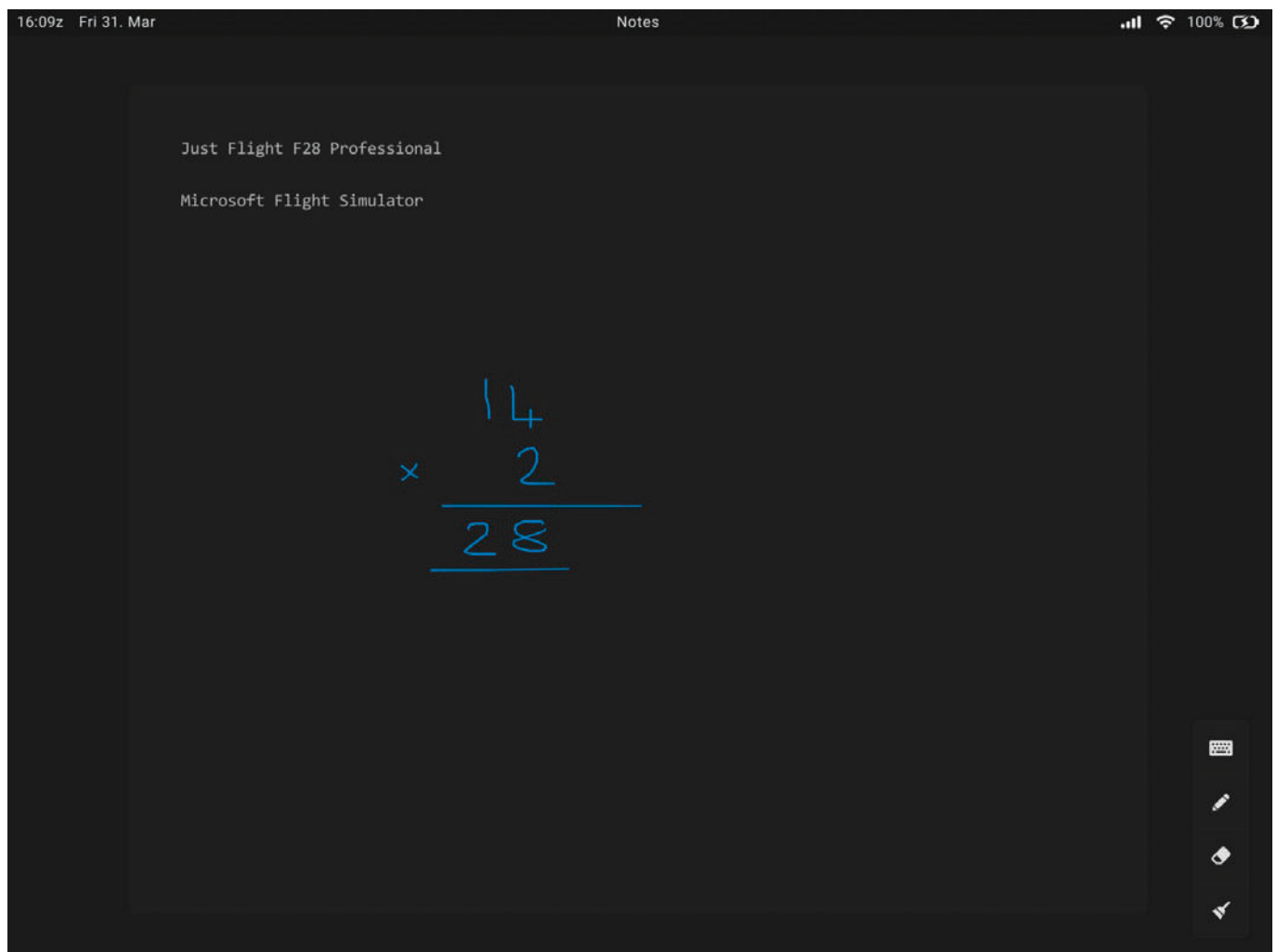
The Notes app acts as a virtual notepad for the pilot, allowing you to take text-based and handwritten notes on the fly (particularly useful for noting clearances and taxi instructions).

The Notes app supports standard keyboard inputs and will automatically display a scrollbar once the content exceeds the height of the input area.

An on-screen keyboard is also available. This can be toggled on/off by pressing the keyboard icon at the bottom right of the page. Once open, the keyboard can be moved freely to any position on the display by pressing and holding the top bar of the keyboard. To hide the keyboard, simply press the keyboard icon again (this feature is particularly useful for VR users).

To make handwritten notes, click the pen icon at the bottom right of the page and then left-click with your mouse and drag the pen to write on the screen. To erase text, press the eraser icon and, again with your mouse, left-click and drag to erase what you have written.

To erase all handwritten notes from the page, simply press the paintbrush icon at the bottom right of the page.



CHECKLIST

The Checklist app allows you to view all the aircraft's checklists on one easy-to-navigate page. The title of each checklist is shown on the left side of the page. Pressing the title of a checklist will open the respective checklist on the right side of the page.

Each step of a checklist has an item, an action and a tick box which can be manually ticked to allow you to keep track of your progress. You can see your progress through the checklist at the top of the page.

Two controls at the bottom right of the page allow you to tick all boxes on the page or to untick all boxes.

Note: The Checklist page on the EFB is intended to be used as a guide only. For automated checklists please use the interactive checklist menu within MSFS.

The screenshot displays the Checklist app interface. At the top, the status bar shows '16:10z Fri 31. Mar', 'Checklist', and battery status '100%'. On the left, a vertical list of checklist titles is shown: 'BEFORE STARTING APU', 'STARTING APU', 'AFTER STARTING APU', 'PRE-FLIGHT CHECK COCKPIT', 'PRE DEPARTURE CHECK (APU RUNNING)', 'BEFORE STARTING ENGINES', 'AFTER STARTING', 'TAXIING', 'LINING UP', and 'AFTER TAKE-OFF'. The 'BEFORE STARTING APU' checklist is selected and expanded on the right. It shows a progress bar with 'TOTAL: 7', 'REMAINING: 5', and 'PROGRESS: 29%'. Below the progress bar, there are seven checklist items, each with a checkbox and a description: 'Battery Voltage - Check' (checked), 'Battery switch - ON' (checked), 'APU FIRE/EXTINGUISHER warning - Test' (unchecked), 'APU MAIN switch - ON' (unchecked), 'GEN 3 switch - OFF/RESET' (unchecked), 'APU AIR switch - OFF' (unchecked), and 'Air Conditioning MAIN switches - One ON, One OFF/RESET' (unchecked). At the bottom right, there are two icons: a checkmark in a box and a box with a checkmark.

Checklist Title	Total	Remaining	Progress
BEFORE STARTING APU	7	5	29%

Item	Status
Battery Voltage - Check	Checked
Battery switch - ON	Checked
APU FIRE/EXTINGUISHER warning - Test	Unchecked
APU MAIN switch - ON	Unchecked
GEN 3 switch - OFF/RESET	Unchecked
APU AIR switch - OFF	Unchecked
Air Conditioning MAIN switches - One ON, One OFF/RESET	Unchecked

TOD CALCULATOR

The top of descent (TOD) calculator app is a useful tool which allows you to calculate and view the exact point at which you should begin your descent.

The distance of your descent can be calculated based on the following four factors:

- Current altitude (feet)
- Ground speed (knots)
- Target altitude (feet)
- Desired angle (degrees)

Each of these factors is shown on this page, where text can be entered into each of these fields either via an external keyboard or via the on-screen keyboard which can be toggled from the lower right corner of the page.

Once values have been entered into each of these four fields, the calculator will then produce two outputs:

Desired TOD distance – the ground distance covered between the start of your descent and your target altitude.

Desired vertical speed – the vertical speed at which the aircraft will have to descend to meet the distance stated.

Note: *Desired Distance, Desired Vertical Speed and Desired Angle are all interchangeable values and can be toggled by pressing the arrow buttons in the fourth field.*

For ease of use, the CURRENT ALTITUDE (FT) and GROUND SPEED (KT) fields both have a SYNC feature; once active, this continuously inputs the aircraft's current altitude and ground speed into their respective fields. With this feature active, the calculator's outputs will be constantly updated as the aircraft's altitude and speed change during its descent.

The screenshot shows the TOD Calculator app interface. At the top, the status bar displays '16:10z Fri 31. Mar', 'Calculator', and '100%' battery. The main interface has a dark background with light green text. It features four input fields arranged in a 2x2 grid. The top-left field is labeled 'CURRENT ALTITUDE (FT)' and contains the value '35000' with a 'SYNC' button. The top-right field is labeled 'GROUND SPEED (KT)' and contains the value '400' with a 'SYNC' button. The bottom-left field is labeled 'TARGET ALTITUDE (FT)' and contains the value '0'. The bottom-right field is labeled 'DESIRED ANGLE (DEG)' and contains the value '3', with left and right arrow buttons on either side. Below these fields, a large box displays the results: 'Desired TOD distance: 110 NM' and 'Desired vertical speed: 2025 ft/min'.

Input Field	Value
Current Altitude (FT)	35000
Ground Speed (KT)	400
Target Altitude (FT)	0
Desired Angle (DEG)	3

Output	Value
Desired TOD distance	110 NM
Desired vertical speed	2025 ft/min

SETTINGS

The Settings app offers several options to adjust the look and behaviour of the EFB:

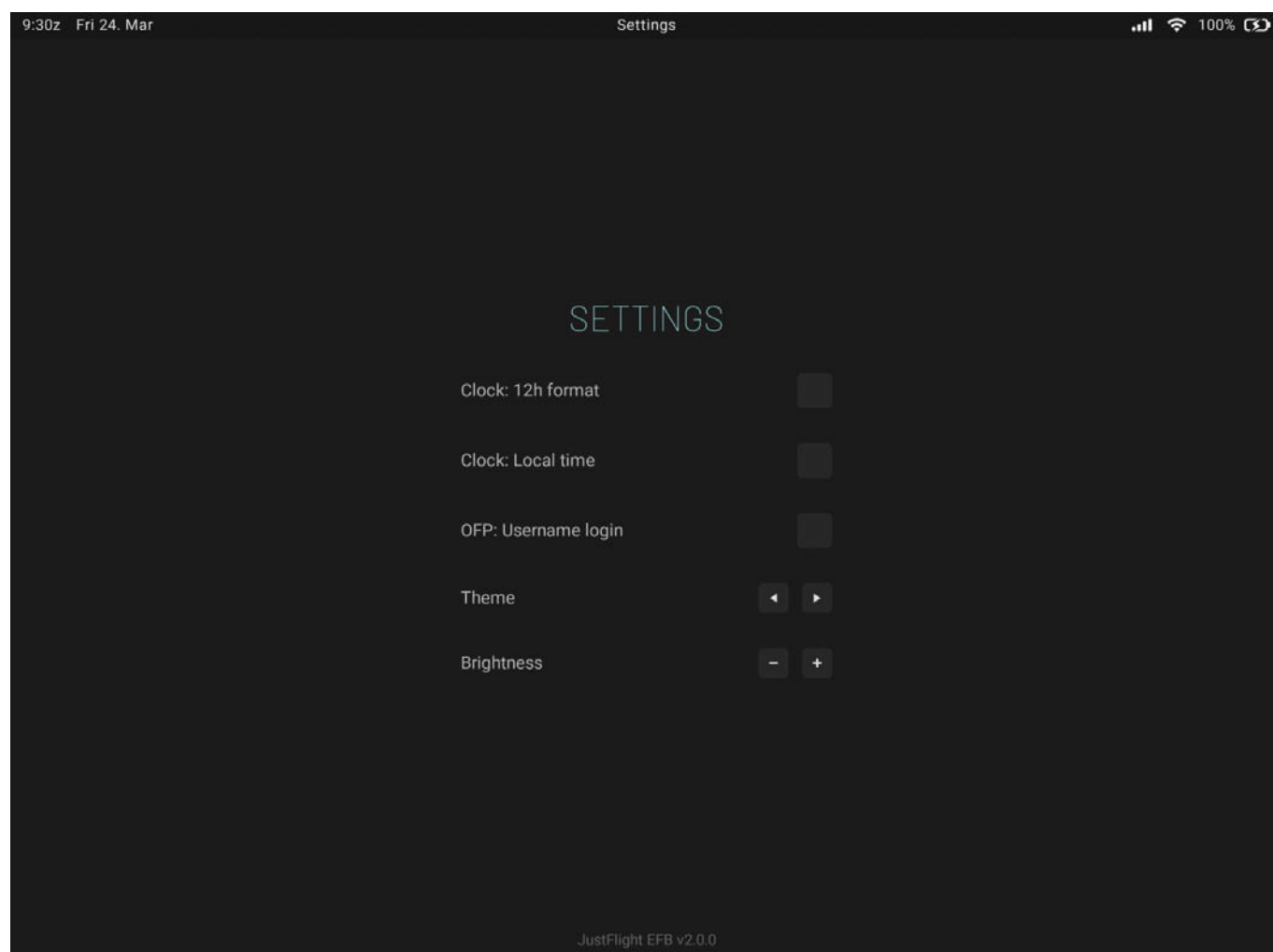
Clock: 12h format – toggles the 12/24-hour format of the top bar clock.

Clock: Local time – toggles between UTC and local time on the top bar clock.

OFP: Username login – allows simBrief identification via username instead of pilot ID.

Theme – switches the EFB's colour scheme.

Brightness – increases/decreases the EFB's brightness.



CREDITS

Project management	Martyn Northall
EFB modelling and design	Mark Griffiths
EFB programming	Omniwise, Martyn Northall
Manual	Mark Allison, Mark Embleton
Design	Fink Creative

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