

Chapter 237 Flight Simulator – Level 1 Orientation Checklist (v4)

Student's Name:

Orientation Date: (use back of sheet for additional notes)

 Topics	Detail Comments
1 Pilot Ergonomic Adjustments	
1.1 Rudder pedal adjustment (notches)	Pins on pedal base fit into numbered notches in track – remember your setting
1.2 Seat position adjustment (2 levers)	Pull up on lever at right front corner of seat while sitting – seatback recline lever left rear
1.3 Controls height adjustment (switch)	Rocker switches on right side behind touch screen monitor. Height indicator on left side.
2 Location of controls	
2.1 Keyboard with numpad (more later)	Required for login and some X-plane keyboard commands (p for pause, etc.)
2.2 Yoke – range and feel	180 degrees for aileron, limited pitch range, emulates feel at cruise speeds, not force feedback
2.3 Switches on yoke & panel (more later)	Can either use physical switches on yoke panel or simulated switches on touch panel
2.4 Mouse – trackball with scroll wheel	Rotate ball to move cursor, use buttons on lower left and lower right of ball, spin wheel for scroll.
2.5 Red button box (more later)	Allows most normal flight operations (changing views) without need to use keyboard
2.6 Knobster control (more later)	Used to rotate knobs for instruments on the touch screen instrument panel
2.7 Throttle quadrant (levers)	Levers like Piper or Beechcraft etc.
2.8 Flap switch (more later)	Similar to Cessna style flap switch
2.9 Pitch trim wheel (more later)	Similar to Cessna style pitch trim wheel
2.10 Speaker with volume control	Use knob on right side speaker to adjust volume
2.11 Replay controller (hand held)	Click Here to see the User Guide
3 Logging in as user	
3.1 User naming convention (X-nn etc.)	Each user has their own Windows login, based on X-NN format
3.2 Your username	Write it down
3.3 Your password	Change your password when logging in for the first time. - Write it down.
3.4 Proceed with login	Click here to see 'How to Log In' document
3.5 Note about DC server not running	Login credentials are stored on the domain controller server at opposite corner of room

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- 4 Display monitor orientation**
 - 4.1 Touch screen monitor (Air Manager) This is where the Air Manager instrument panel software runs. Touch screen operation.
 - 4.2 Repositioning of touch screen (carefully) Can be tilted backward to see X-plane configuration screens on large main monitor
 - 4.3 Three large monitors (X-Plane 11) X-Plane runs on large main monitor first then uses left and right monitors during a flight
 - 4.4 Monitor orientation (cursor movement) Cursor jumps between monitors based on their physical orientation to each other
 - 4.5 Cursor “focus” (for X-Plane) Large main monitor must have ‘cursor focus’ in order for keyboard input to X-Plane

- 5 Starting Air Manager (console)**
 - 5.1 Searching for Flight Simulator message Double-click on the Air Manager desktop icon
 - 5.2 Verifying Knobster hardware found Note the message in lower right corner of Air Manager console when first starting up
 - 5.3 Selecting C172 aircraft instrument panel Air Manager should find the Knobster (A) on one of the com ports (takes a few seconds)
 - 5.4 Verify Input mode: Mouse & Touch Change it from the Demo to the Cessna 172 panel
 - 5.5 Verify Knobster is selected Can verify that both touch and mouse input are enabled for the touch screen

- 6 Starting X-Plane 11 software**
 - 6.1 Progress bar while loading Double-click on the X-Plane 11 desktop icon
 - 6.2 Verifying Air Manager found X-plane X-Plane shows progress bar when loading – only on large center monitor at first
 - 6.3 Launch instrument panel in Air Manager As X-Plane loads verify that Air Manager has made the connection (lower right corner)
 - 6.4 X-plane menu choices (New Flight) Click on the light bulb icon next to selected panel
 - 6.5 Selecting the aircraft Choose New Flight for the first flight
 - 6.6 Selecting the airport and starting location Should default to the Cessna 172SP (use Customize button for more settings)
 - 6.7 Selecting the weather Search for KANE in the search window (or other desired airport designator)
 - 6.8 Selecting the time of day Can easily change by sliding the bar left or right (or Customize button for more settings)
 - 6.9 Starting the flight Can easily change by sliding the bar left or right (or Customize button for more settings)

- 7 Air Manager details**
 - 7.1 Toggle switch operation Flip toggle switches by touching them
 - 7.2 Single knob operation Touch finger on knob, highlights in yellow, then use knobster
 - 7.3 Concentric knob operation (Garmin) Touch finger on knob, highlights in yellow, then use knobster
 - 7.4 Switch synchronization with panel Move switches on Honeycomb yoke panel, display follows, touch screen oper puts out of sync
 - 7.5 Magnetic compass VS DG Magnetic compass is only displayed on X-Plane panel, not Air Manager panel

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- 7.6 Accessing fuel selector switch Touch red & yellow 'gas can' icon with plus sign (below oil temp gauge), use knobster
- 8 Button Box Operations**
- 8.1 Reduced need for keyboard Can change X-Plane views by using the red buttons
- 8.2 Changing views during flight Works anytime during flight (cursor focus need not be on X-Plane main display)
- 8.3 '90 degrees left or right Use **Left** and **Right** buttons when on downwind pattern
- 8.4 Chase view VS circle view Chase follows behind plane when turning, Circle view maintains compass heading
- 8.5 View movement buttons Use **Left**, **Right**, **Up**, **Down**, **Zoom in** and **Zoom out** buttons to change perspective
- 8.6 Mouse scroll wheel zoom Behaves like a telephoto lens on a camera
- 9 Pitch Trim Control Operations** (note: multiple ways to change the pitch trim)
- 9.1 Via touch screen Touch trim wheel on screen and slide up or down
- 9.2 Mechanical via Cessna trim wheel Can use Saitek pitch trim wheel (located below throttle quadrant)
- 9.3 Electric via yoke switches On left yoke handle (note is a split trim operation using two switches together)
- 9.4 Trim indicator and knob visualization Position indicator will move but won't see trim wheel on panel move when using mechanical
- 9.5 How pitch trim works in X-Plane As you move trim wheel you also need to move yoke to compensate (not like real airplane)
- 10 Flap operations** (note: multiple ways to operate the flaps)
- 10.1 Via touch screen Touch flap handle on touch screen and slide down (or up)
- 10.2 Via mechanical flap switch Mechanical flap switch like on a Cessna 172
- 10.3 Switch synchronization with panel Touch screen method will make display different than mechanical switch position
- 11 Taking a flight** Try taking a flight around the traffic pattern (remember to use view buttons)
- 11.1 Trip around the pattern Runway takeoff, touch parking brake handle to release, throttle lever to full power, use rudder
- 11.2 Flight replay (DVR controls) [After landing try out the Replay Controller to review the flight \(see user guide\)](#)
- 11.3 Saving flights (naming convention) Add your username as a prefix to the saved file name. Example: X-07_my_cross_country.rep
- 11.4 Saving situations (naming convention) Username prefix. Example: X-07_anoka_hangar.sit
- 11.5 Recalling saved flights and situations Use Load Flight button on startup screen,
- 12 Menus and Keyboard**
- 12.1 X-Plane 11 keyboard map (cheat sheet) Note: The main X-Plane monitor (upper center) must have 'cursor focus' for keys to work
- 12.2 Brief overview of top menus Involves a quick 'walk-through' of the menus (one-on-one) with trainer

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- 12.3 Map controls (m) Presents a map showing where you are on the current flight (more detail in Level 2 orientation)
- 13 Exit and log off**
- 13.1 Quit X-Plane Select File then Quit from the top left menu. Or use Alt-F4 key. Then click Quit button
- 13.2 Quit Air Manager Put cursor on touch screen then press right mouse key and select 'Close Air Manager'
- 13.3 Logout of Windows [Click here to see 'How to Log In' document then scroll down to page 3 for how to log out](#)
- 14 Repeat the login and logout process**
- 14.1 Log in to Windows
- 14.2 Start Air Manager
- 14.3 Start X-Plane 11
- 14.4 Exit X-Plane 11
- 14.5 Exit Air Manager
- 14.6 Log out of Window
- 15 Miscellaneous**
- 15.1 Logging time on the sim Please log all time on the sim. Log sheet should be first page in white notebook binder
- 15.2 Access to chapter building You will be given building access info during your Level 1 orientation.
- 15.3 Flight sim scheduling procedure [Click here to see 'How to Schedule a Session' document](#)
- 15.4 Customer support procedure We use a Slack Workspace for support. You will be given more info during Level 1 orientation
- 15.5 Online documentation [Use the Flight Simulator page to access documentation \(Click here for link\)](#)
- 15.6 COVID protocols (ever changing) Please follow the latest CDC guidance regarding COVID safety.

The following describes use of Air Manager without using Knobster

- 16 Air Manager details (without Knobster)**
- 16.1 Deselect Knobster operation Scroll down below control panel to Knobster label and then use drop-down
- 16.2 Launch instrument panel in Air Mgr Single-click on the light bulb icon
- 16.3 Toggle switch operation (same) Flip toggle switches by touching them
- 16.4 Single knob operation (touch and swirl) Touch finger on knob the slide finger off-center and move finger in circle

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16.5	Concentric knob operation (Garmin)	Touch finger near small knob or large knob (ring) then move finger in circle
16.6	Closing the panel (without exiting AM)	Use right mouse button for drop-down menu then click 'Close panel'
16.7	Selecting Knobster operation	Scroll down below control panel to Knobster label and then use drop-down
16.8	Relaunching the instrument panel	Single-click on the light bulb icon
16.9	Single knob operation	Touch a single knob (turns yellow) then rotate either small or large knob on knobster
16.10	Concentric knob operation (Garmin)	Touch a dual knob on Garmin (yellow) then rotate small or large knob (also push button)