Instructor's Checklist

Precision Flight Controls
Advanced Aviation Training Device
CR-12

Original Issue – 12/01/2013

REVISIONS

Changes and/or additions in this checklist will be covered by Owner Advisories published by Precision Flight Controls. It is the responsibility of DSU to maintain this checklist in a current status when it is used for operational purposes.

A revision bar will extend the full length of new or revised text and/or illustrations added on new or existing pages. This Bar will be located adjacent to the applicable revised area on the outer margin of the page. All revised pages will carry the date of the revision on the applicable page.

LOG OF REVISIONS

Revision	Date
Original Issue	12/01/2013

NORMAL PROCEDURES

PREPARATION

Schedule Pointe©..... **DISPATCHED**
Hobbs/Tach Meters ..... RECORD
Battery Master. ..... OFF
Left/Right Alternators ..... OFF
Avionics Master ..... ON
Throttle Quadrant ..... SELECTED AND INSTALLED

System computers

KVM Monitor Switch ..... SELECT ON-LINE #1
Master Computer PC 1 ..... ON
Master Computer PC 2 ..... ON

After Computers ON

Windows Startup ..... ENTER PASS WORD
Avionics Master ..... VERIFY ON
X-Plane 9 ..... SELECT FROM DESKTOP
X-Plane Pop-Up Window ..... SELECT *"UNDERSTOOD"*

NOTE
X-Plane pop-up Window MUST indicate "Flight Training Approved" In order to begin training

Throttle Quadrant ..... CHECK PLUG-IN
See *Checking Power Quadrant Plug*, if applicable (Page 5)

Aircraft ..... LOAD
Airport ..... LOAD

SHUTDOWN

Aircraft Shutdown Checklist ..... COMPLETE
Shutdown All ..... SELECT

NOTE

The Quit All button exits X-Plane and returns to MS Windows

KVM Monitor Switch ..... SELECT ON-LINE #2
Video PC2 Shutdown..... SELECT
Hobbs Meter..... ENTER TIME
Schedule Pointe©..... **DISPATCH IN**

SYSTEM PROCEDURES

SYSTEM PROCEDURES

POWER QUADRANT

Checking Power Quadrant Plug-In

Instructor's Screen..... CLOSE

NOTE

With a blank instructor's screen, move the mouse to top of the screen to show tabs

Plugins Tab .....SELECT
PFC Standard Throttle Quadrants .....SELECT

NOTE

Selecting *'Throttle/Prop/Mixture'* under the Multi-Engine section will work with all DSU aircraft

Throttle Quadrant Setting .....SELECT

Return to Instructor Screen
Location Tab.....SELECT
Local Map.....SELECT

Switching the Quadrant

Throttle, Prop, and Mixture .....ALL LEVERS BACK
Thumbscrews ..... REMOVE
Push Rods.....ALIGN

CAUTION

Do not force the quadrant into position. All push rods should align without difficulty

Thumbscrews ..... REINSTALL

Changing the Standard Throttle Setting

After changing the quadrant, you will need to change the Standard Quadrant Setting to assure that the quadrant operates properly. With X-Plane 9 running on the instructor's monitor:

Instructor's Screen..... CLOSE

NOTE

With a blank instructor's screen, move the mouse to top of the screen to show tabs

Plugins Tab .....SELECT
PFC Standard Throttle Quadrants .....SELECT

NOTE

Selecting *'Throttle/Prop/Mixture'* under the Multi-Engine section will work with all DSU aircraft

Throttle Quadrant Setting .....SELECT

MAPS

Due to the higher quality graphics and elevation, prolonged use of other than the *'Hi Speed'* map tab may cause the system to slow down and reduce frame rates.

CAUTION

Should you get a message that says "Frame Rate Check Failed…Do not use for flight training", choose the Hi-Speed tab and restart X-Plane

Hi Speed

The Hi Speed Map displays the NAVAIDS you select with no ground reference

Low Enroute

The Low Enroute map view displays the aircraft's general area, along with airports, airport and beacon frequencies, ILS indicators, and Victor Airways

Hi Enroute

High Enroute map view is essentially the same as the Low Enroute view but displays the medium and Jet Airways

Sectional Map

The Sectional map view is designed as a VFR sectional chart with airport and NAV information displayed

Textured Map

Not recommended for use

WEATHER

Set Weather

There are three cloud layers that provides the ability to layer clouds during the simulation. Choose differing layers from Upper, Mid, and Lower altitudes.

Cloud Type .....SELECT
Cloud Tops .....SELECT
Cloud Bases .....SELECT

X-Plane defaults to 3000 feet between cloud bases and cloud tops. Defaults of 3000 feet are also set between low, mid, and high cloud layers

NOTE

Choosing any of the Cumulus cloud type automatically induces some turbulence. Select another cloud type to fly with no turbulence

Quick Set Buttons

CAT-III ..... DH 50ft AGL – RVR less than 700ft
CAT-II ..... DH 100ft AGL – RVR 1200ft
CAT-I ..... DH 200ft AGL – RVR 2400ft
N-Precision ..... 400ft ceiling – 3sm Visibility
MVFR ..... 1000ft ceiling – 5sm Visibility
VFR ..... 1000ft AGL – 7sm Visibility
CAVOK.....Clear

Temperature and Pressure

Selected conditions will take effect at the nearest airport. Temperature must be set below 32 degrees Fahrenheit or 0 degrees Centigrade to induce snow or icing. The temperature will drop 1 degree per 1,000 feet and the aircraft will accumulate ice

FAIL EQUIPMENT

To reset all systems back to operational status, click on Reset all systems to operational button found at the top left of each System Failure screen

Always Working

Item is working

Mean time until failure

X-Plane will decide the failure from 0 minutes to the time set in the window

Exact time until failure

Item will fail at the time set in the window

Fail at exact speed KIAS

Item will fail at the time set in the window

Fail at exact altitude AGL

Item will fail at the altitude set in the window

Fail if CTRL-F or JOY inoperative

Item will fail when CTRL-F keys are pressed

SESSION REPLAY

Save Replay

NOTE

The Save Replay feature saves the current training flight from the time the airport is loaded

Save Replay .....SELECT
File Name ..... ENTER

NOTE

Use departure location, destination location and type approach, aircraft, student name format. Example: 33N-KESN-ILS4-ARROW-JONES

Save .....SELECT

Load Replay

Pause .....SELECT
Load Replay .....SELECT
Replay File .....SELECT DESIRED FILE
Unpause .....SELECT

NOTE

Reload airport to get out of the Reply mode

LOAD AND CREATE SITUATIONS

Load Situation

Load a preloaded situation:

Pause ..... SELECT
Load Situation ..... SELECT

NOTE

Preloaded situations are located on the right side of the window. DSU predefined situations are displayed in the center of the screen

Load Predefined situations ..... SELECT (RIGHT SIDE)
Load DSU Situation ..... SELECT (CENTER SCREEN)

Create a Situation

If Starting from Runway:

Airport ..... SELECT
Aircraft ..... SELECT
Weather ..... SET
Frequencies ..... SET
Unpause ..... SELECT
Aircraft ..... REPOSITION

NOTE

Allow aircraft to idle with brakes set in the takeoff position for at least two (2) minutes, then select Pause

Create a Situation (Cont.)

If starting from Airborne Position:

NOTE

If Starting from Airborne, start and fly the airplane to stabilized level cruise flight, then select Pause

Aircraft..... CLICK AND HOLD AIRCRAFT THEN DRAG TO DESIRED POSITION
Aircraft Altitude ..... SET
Aircraft Heading.....CHANGE AS DESIRED
Aircraft Speed.....SET AS DESIRED
Frequencies..... SET
Stabilize Aircraft..... UN-PAUSE THEN PAUSE

Save Runway or Airborne Situation

Save Situation ..... SELECT
File Name ..... ENTER

NOTE

Use airport, approach, aircraft, format. Example: 33N VOR27 WARRIOR

Save ..... SELECT

IMPORTANT

Record aircraft heading, altitude, and weather. Deliver record of the saved situation to the Chief Pilot.

PRELOADED SITUATIONS

Airport/Runway

	RUNWAY	AIRCRAFT	WX
33N	RWY 27	WARRIOR	MVFR

Difficulty Level (Low 1 – 5 High)

ILS

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KSBA	3	ILS RWY7					
KDOV	3	ILS/LOC Z RWY19	WARRIOR	10ESE DISEC	296	3000	3SM 500 OVC

VOR

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
33N	1	VOR RWY27	ARROW	10SW ENO	090	2500	MVFR

DME ARC

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KSLN	2	VOR RWY17	WARRIOR	10E ZITIK	255	4000	3SM 2000 OVC
KMTN	4	VOR/DME RWY 15					
KVRB	3	VOR/DME RWY 23					
KADW	1	TACAN RWY 1R					

LOC

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KRNO	2						

BACK COURSE

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KPNE	1	LOCBC RWY6	WARRIOR	10W WAMCA	120	3000	3SM 1500 OVC
KSMX	2						
KRDD	3	LOCBC RWY16					

LDA

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KSNA	2						
KDCA	2						

SDF

	LEVEL	APPROACH	AIRCRAFT	LOCATION	HDG	ALT	WX
KSUE	1	SDF RWY2					

AS OF: 11/26/2013