

# Maintenance Synthetic Trainer (MST)

## Summary

#	Model	# of Systems	# of Lessons
1	737 MAX	16	43
2	777X	14	18
3	787	14	24
3	737 NG	8	13

## Systems Available

- Air conditioning
- Auto flight
- Electrical power
- Fire protection
- Flight controls
- Hydraulic power
- Ice and rain protection
- Indicating/recording system
- Landing gear
- Lights
- Navigation
- Pneumatic
- Information systems
- Inert gas system
- Leap-1b engines power plant
- Leap-1b engines engine fuel and control
- Leap-1b engines engine air
- Leap-1b engines engine indicating
- Leap-1b engines exhaust
- Leap-1b engines engine oil

## Line Oriented Scenarios – 737 Max

ATA	ATA Chapter Name	Lesson Title
00-00	MST	INTRODUCTION: General - Supply External Power to the Ground Service Buses
00-00	MST	INTRODUCTION: Tutorial - MST Quick Start Guide
21-51	AIR CONDITIONING	PACK FLOW CONTROL AND PACK COOLING SYSTEM: Fault Isolation - PACK CONTROL CHANNEL L
22-00	AUTO FLIGHT	AUTO FLIGHT: Fault Isolation - SPEED TRIM Light
24-22	ELECTRICAL POWER	MANUAL CONTROL: Maintenance Practices - Supply External Power to the 115V AC Transfer Buses

## Line Oriented Scenarios – 737 Max (cont.)

ATA	ATA Chapter Name	Lesson Title
24-34	ELECTRICAL POWER	STANDBY POWER SYSTEM: Fault Isolation - ELEC Light
24-41	ELECTRICAL POWER	AC EXTERNAL POWER: Adjustment/Test - Operational Test
26-11	FIRE PROTECTION	ENGINE FIRE DETECTION: Adjustment/Test - Operational Test
26-18	FIRE PROTECTION	WHEEL WELL, WING AND LOWER AFT BODY OVERHEAT DETECTION SYSTEM: Fault Isolation - Wheel Well Fault
27-61	FLIGHT CONTROLS	FLIGHT SPOILER CONTROL SYSTEM: Fault Isolation - SPOILER CONTROL CHANNEL
29-21	HYDRAULIC POWER	STANDBY HYDRAULIC SYSTEM: Adjustment/Test - Standby Pump Operational Test
30-21	ICE AND RAIN PROTECTION	ENGINE ANTI-ICE SYSTEM: Dispatch Deviations Guide - ENGINE (COWL) ANTI-ICE VALVE R INOP
31-65	INDICATING/RECORDING SYSTEM	MAX DISPLAY SYSTEM: Fault Isolation - DPC 1
31-65	INDICATING/RECORDING SYSTEM	MAX DISPLAY SYSTEM: General - Display Switching
31-65	INDICATING/RECORDING SYSTEM	MAX DISPLAY SYSTEM: General - Component Location
31-65	INDICATING/RECORDING SYSTEM	MAX DISPLAY SYSTEM: Maintenance Practices - Multi-Function Panel and Dual MFD Operation
32-09	LANDING GEAR	AIR/GROUND SYSTEM: Fault Isolation - PSEU FAIL
32-09	LANDING GEAR	AIR/GROUND SYSTEM: Maintenance Practice - Air/Ground Override
32-31	LANDING GEAR	LANDING GEAR CONTROL SYSTEM: Fault Isolation – GEAR XFR VALVE CONTROL
32-42	LANDING GEAR	ANTISKID/AUTOBRAKE SYSTEM: Adjustment/Test - AACU Operational Test
33-20	LIGHTS	PASSENGER COMPARTMENT: Maintenance Practice – ACP Data Load
33-20	LIGHTS	PASSENGER COMPARTMENT: Maintenance Practice – Mass Storage Device ACP LSAP Installation
34-36	NAVIGATION	HEAD-UP DISPLAY SYSTEM: Maintenance Practices - Software Loading
34-61	NAVIGATION	FLIGHT MANAGEMENT COMPUTER SYSTEM: Fault Isolation - NAV DATA OUT OF DATE
36-11	PNEUMATIC	ENGINE BLEED AIR DISTRIBUTION SYSTEM: Fault Isolation - BLEED PRSOV CTRL R
36-11	PNEUMATIC	ENGINE BLEED AIR DISTRIBUTION SYSTEM: Fault Isolation - BLEED HPSOV R
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Offboard Links
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Mass Storage Device Software Part Installation
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Download Manager
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - LRU Reports
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Export Fault History
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Fault Isolation - NFS Internal Fault (IDL)
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Fault Isolation - SD Card Fault

## Line Oriented Scenarios – 737 Max (cont.)

ATA	ATA Chapter Name	Lesson Title
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Mass Storage Device Software Part Installation (SMT)
47-31	INERT GAS SYSTEM	NITROGEN GENERATION CONTROL SYSTEM: Adjustment/Test - NGS PERF HI FLOW Test
71-00	LEAP-1B ENGINES POWER PLANT	POWER PLANT: Adjustment/Test - Engine Idle System Test
71-00	LEAP-1B ENGINES POWER PLANT	POWER PLANT: Adjustment/Test - Oil Debris Monitoring System Chip Count Entry
73-00	LEAP-1B ENGINES ENGINE FUEL AND CONTROL	ENGINE FUEL AND CONTROL: General - Component Location
73-00	LEAP-1B ENGINES ENGINE FUEL AND CONTROL	ENGINE FUEL AND CONTROL: Fault Isolation - ENGINE CONTROL Light
75-00	LEAP-1B ENGINES ENGINE AIR	ENGINE AIR: General - Component Location
77-00	LEAP-1B ENGINES ENGINE INDICATING	ENGINE INDICATING: General - Component Location
78-34	LEAP-1B ENGINES EXHAUST	THRUST REVERSER CONTROL SYSTEM: Fault Isolation - REVERSER LIMITED Light
79-00	LEAP-1B ENGINES ENGINE OIL	ENGINE OIL: General - Component Location

## Line Oriented Scenarios – 777X

ATA	ATA Chapter Name	Lesson Title
00-00	MST	INTRODUCTION: Tutorial - MST Quick Start Guide
24-22	ELECTRICAL POWER	AC GENERATION AND BUS CONTROL: Maintenance Practices - Primary External Power (Ground Service Bus) - Activation
26-17	FIRE PROTECTION	WHEEL WELL FIRE DETECTION: Fault Isolation - DET FIRE WHEEL WELL LOOP 2
27-02	FLIGHT CONTROLS	PRIMARY FLIGHT CONTROL SYSTEM: Fault Isolation - FLAPERON SYS
28-42	FUEL	FUEL PRESSURE INDICATING SYSTEM: Fault Isolation - FUEL PUMP R AFT
29-11	HYDRAULIC POWER	MAIN HYDRAULIC SYSTEMS: Fault Isolation - HYD COLD SYS L
31-61	INDICATING / RECORDING SYSTEMS	PRIMARY DISPLAY SYSTEM: Maintenance Practices - Operation
32-09	LANDING GEAR	AIR/GROUND SYSTEM (AGS): Fault Isolation - AIR/GROUND
32-42	LANDING GEAR	ANTISKID/AUTOBRAKE SYSTEM: Fault Isolation - ANTISKID NORM VLV L
36-11	PNEUMATIC	ENGINE AIR SUPPLY: Fault Isolation - BLEED HPSOV L
42-21	INTEGRATED MODULAR AVIONICS	COMMON CORE SYSTEM: Fault Isolation - CCR FOX LA
42-21	INTEGRATED MODULAR AVIONICS	COMMON CORE SYSTEM: Fault Isolation - CCS RDC 1
45-11	CENTRAL MAINTENANCE SYSTEM (CMS)	CENTRAL MAINTENANCE COMPUTING FUNCTION (CMCF): Fault Isolation - Operation
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - MSD Software Part Installation without SMT
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - MSD Software Part Installation with SMT

## Line Oriented Scenarios – 777X (cont.)

ATA	ATA Chapter Name	Lesson Title
46-13	INFORMATION SYSTEMS	ONBOARD NETWORK SYSTEM: Maintenance Practices - Software Installation (CCR GPM R2)
57-91	WINGS	FOLDING WING TIP SYSTEM: Fault Isolation - WINGTIPS L CHAN B
80-12	STARTING	ENGINE TURNING SYSTEM: Fault Isolation - ENG TURNING SYS L

## Line Oriented Scenarios – 787

ATA	ATA Chapter Name	Lesson Title
00-00	MST	Introduction: Tutorial - MST Quick Start Guide
21-00	AIR CONDITIONING	AIR CONDITIONING: General - Operation
21-62	AIR CONDITIONING	ZONE TRIM SYSTEM: Fault Isolation - TRIM AIR PRSOV L
24-15	ELECTRICAL POWER	COMMON MOTOR START CONTROLLER SYSTEM: Fault Isolation - ELEC MC CAC L1 / START L1
24-41	ELECTRICAL POWER	AC EXTERNAL POWER: General - CBIC/ESIC Operation
24-41	ELECTRICAL POWER	AC EXTERNAL POWER: General - Operation
27-03	FLIGHT CONTROLS	HIGH LIFT FUNCTION: General - Flight Control Operation/Indication
28-42	FUEL	FUEL PRESSURE INDICATING SYSTEM: Fault Isolation - FUEL PUMP L FWD
29-11	HYDRAULIC POWER	HYDRAULIC SYSTEM: Fault Isolation - HYD FILTER CASE C1
29-11	HYDRAULIC POWER	HYDRAULIC SYSTEM: Maintenance Practices - Main Hydraulic Systems Fluid - Servicing
31-61	INDICATING/RECORDING SYSTEM	PRIMARY DISPLAY SYSTEM: General - Operation
32-41	LANDING GEAR	BRAKE ACTUATION SYSTEM: Fault Isolation - BRAKE 2
42-21	INTEGRATED MODULAR AVIONICS	COMMON CORE SYSTEM: Fault Isolation - CCR FIBER OPTIC XLTR
42-21	INTEGRATED MODULAR AVIONICS	COMMON CORE SYSTEM: Fault Isolation - RDC 1
45-11	CENTRAL MAINTENANCE SYSTEM (CMS)	CENTRAL MAINTENANCE COMPUTING FUNCTION: Fault Isolation - Operation
46-11	INFORMATION SYSTEMS	ELECTRONIC FLIGHT BAG: General - Operation
46-13	INFORMATION SYSTEMS	ONBOARD BOEING ELECTRONIC DISTRIBUTION SYSTEM: Maintenance Practices - Scheduled LRU Software Installation
46-13	INFORMATION SYSTEMS	ONBOARD BOEING ELECTRONIC DISTRIBUTION SYSTEM: Maintenance Practices - Unscheduled LRU Software Installation
49-11	AIRBORNE AUXILIARY POWER	AUXILIARY POWER UNIT: General - Operation
49-15	AIRBORNE AUXILIARY POWER	APU AIR INLET SYSTEM: Fault Isolation - APU DOOR
71-00	POWER PLANT	POWER PLANT: Maintenance Practices - Engine Operation - GE
71-00	POWER PLANT	POWER PLANT: Maintenance Practices - Engine Operation - RR
78-31	EXHAUST	THRUST REVERSER SYSTEM: Fault Isolation - ENG REVERSER L - GE
78-31	EXHAUST	THRUST REVERSER SYSTEM: Fault Isolation - ENG REVERSER L - RR

## Line Oriented Scenarios – 737 NG

ATA	ATA Chapter Name	Lesson Title
00-00	MST	INTRODUCTION: Tutorial - MST Quick Start Guide
24-22	ELECTRICAL POWER	INTRODUCTION: General: Supply External Power to the Ground Service Buses
21-61	AIR CONDITIONING	ZONE TEMP CONTROL AND INDICATION: Fault Isolation – L PACK TEMP INDICATION NOT CORRECT FOR ONE POSITION
24-22	ELECTRICAL POWER	MANUAL CONTROL: Maintenance Practices - Supply External Power to the 115v AC Transfer Buses
24-31	ELECTRICAL POWER	DC GENERATION SYSTEM: Fault Isolation (SPCU INOP) – ELEC LIGHT
24-34	ELECTRICAL POWER	STANDBY POWER SYSTEM: Fault Isolation (STATIC INVERTER INOP) – ELEC LIGHT
24-41	ELECTRICAL POWER	AC EXTERNAL POWER: Adjustment/Test – Operational Test
26-00	FIRE PROTECTION	ENGINE FIRE PROTECTION SYSTEM: Adjustment/Test – Operational Test
29-30	HYDRAULIC POWER	HYDRAULIC POWER INDICATING: Fault Isolation – System B Hydraulic Pressure Reads Zero
31-31	INDICATING/RECORDING SYSTEM	FLIGHT DATA RECORDER SYSTEM: Fault Isolation – DFDR Internal Failure
31-62	INDICATING/RECORDING SYSTEM	INDICATING/RECORDING SYSTEM: General – Display Switching
36-00	PNEUMATIC	MANUAL CONTROL: Maintenance Practices – Supply Pressure to the Pneumatic System with the APU
73-22	ENGINE FUEL AND CONTROL	ENGINE FUEL AND CONTROL: Fault Isolation – Internal EEC Pressures are out of Range