



OPERATIONAL EVALUATION REPORT

BEECHCRAFT CORPORATION

MU-300

MU-300-10

BE-400

BE-400A

GRUPO DE AVALIAÇÃO DE AERONAVES – GAA

BRAZILIAN AIRCRAFT EVALUATION GROUP

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

RIO DE JANEIRO, BRAZIL

ORIGINAL – OCTOBER 10, 2014

Revision Control

REVISION	DATE	HIGHLIGHTS OF CHANGE
Original	October 10, 2014	Original report.

Approval

Audir Mendes de Assunção Filho
Training Organizations Certification Manager
Flight Standards Superintendence

Table of Contents

REVISION CONTROL.....	2
APPROVAL.....	3
TABLE OF CONTENTS	4
1 GENERAL.....	5
1.1 EVALUATION TEAM	5
ACRONYMS.....	6
2 INTRODUCTION.....	7
2.1 BACKGROUND	7
2.2 OBJECTIVE.....	7
2.3 PURPOSE.....	7
2.4 APPLICABILITY	8
2.5 CANCELATION	8
3 PILOT TYPE RATING	9
4 MASTER DIFFERENCE REQUIREMENTS (MDR)	10
5 OPERATOR DIFFERENCE REQUIREMENTS (ODR)	11
6 SPECIFICATIONS FOR TRAINING, CHECKING AND CURRENCY	12
6.1 AIRMEN MINIMUM EXPERIENCE FOR INITIAL FLIGHT TRAINING	12
6.2 AIRMEN MINIMUM QUALIFICATION FOR DIFFERENCES TRAINING	12
6.3 TRAINING AREA OF SPECIAL EMPHASIS (TASE).....	12
7 COMPLIANCE TO RBHA 91 AND RBAC 135	14
8 TECHNICAL PUBLICATIONS.....	15
8.1 MASTER MINIMUM EQUIPMENT LIST - MMEL	15
8.2 AIRPLANE FLIGHT MANUAL - AFM.....	15
APPENDIX 1 ACCEPTABLE OPERATOR DIFFERENCE REQUIREMENTS (ODR) TABLES	16

1 General

1.1 Evaluation Team

1.1.1. First issue team member

Name	Task	Organization
Guilherme dos Santos Macedo	Evaluator Inspector	ANAC

Acronyms

- FAA – Federal Aviation Administration
- FFS – Full Flight Simulator
- FSB – Flight Standardization Board
- FSTD – Flight Simulator Training Device
- FTD – Flight Training Device
- IFR – Instrument Flight Rules
- MCR – Master Common Requirements
- MDR – Master Difference Requirements
- MEL – Minimum Equipment List
- MMC – Multi Crew Coordination
- MMEL – Master Minimum Equipment List
- ODR – Operational Difference Requirements
- RBAC – Regulamento Brasileiro de Aviação Civil
- RBHA – Regulamento Brasileiro de Homologação Aeronáutica
- TCDS – Type Certificate Data Sheet

2 Introduction

2.1 Background

This evaluation was conducted by documentation analysis using the information provided by the manufacturer and the determinations of the Flight Standardization Board (FSB) Report Revision 2, issued by the Federal Aviation Administration (FAA) on March 6th, 2013.

In case more detailed information is required, refer to the FSB Report mentioned above.

2.2 Objective

This report presents ANAC collection of results obtained from the operational evaluations of Beechcraft Corporation aircraft models MU-300, MU-300-10, BE-400 and BE-400A commercially known as Diamond I (or Diamond IA), Diamond II, Model 400 Beechjet and Model 400A Beechjet (or Hawker 400XP), respectively.

2.3 Purpose

The purpose of this report is to:

- a. Define the pilot type rating assigned for the MU-300, MU-300-10, BE-400 and BE-400A aircraft;
- b. Define the requirements for training, checking and currency applicable to flight crew for the MU-300, MU-300-10, BE-400 and BE-400A, and functionalities;
- c. Provide the Master Differences Requirements (MDR) for crews requiring differences qualification for mixed-fleet-flying;
- d. Provide an acceptable Operator Differences Requirements (ODR);
- e. Describe the required Flight Simulation Training Device (FSTD) for crew training and checking.

2.4 Applicability

This report is applicable to:

- a. Brazilian operators of the aircraft identified as MU-300, MU-300-10, BE-400 and BE-400A in the ANAC TCDS EA-8404 and EA-9405 who operate under RBHA 91 and RBAC 135 rules;
- b. Approved Training Organizations certified under RBAC 142 (Type Rating Training Organizations - TRTO);
- c. Civil Aviation Inspectors (INSPAC) related to safety oversight of MU-300, MU-300-10, BE-400 and BE-400A aircraft;
- d. ANAC Principal Operations Inspectors (POIs) of MU-300, MU-300-10, BE-400 and BE-400A operators.

2.5 Cancelation

Not applicable.

3 Pilot Type Rating

Until October 2014, ANAC had used two different pilot type rating designations for the models MU-300 and BE-400A aircraft – MU30 and BE40, respectively.

With the addition of the models BE-400 and MU-300-10 to the TCDS EA-9405 in November 2013 and, to be in accordance with the FAA type rating designation as described in the FSB report, ANAC has decided to assign a single common pilot type rating designation for all models MU-300, MU-300-10, BE-400 and BE-400A.

The specific pilot type rating assigned to the MU-300, MU-300-10, BE-400 and BE-400A aircraft is designated "**BE40**".

Airmen who wish to pursue any specific type rating must comply with the requirements established on subparagraph 61.213(a)(1) of RBAC 61.

The GAA recommends the update of ANAC type rating list (Instrução Suplementar – IS 61-004) with the following information:

Table 1 - Pilot Type Rating

X – Type Rating (Airplane) – Land – Multi Pilot Operation, Multi Engine (All Engines)				
Manufacturer	Aircraft		RMK	Type Rating
	Model	Name		ANAC
Beech/ Mitsubishi/ Raytheon	MU-300	Diamond I / IA	D	BE40
	MU-300-10	Diamond II		
	BE-400	Beechjet 400		
	BE-400A	Beechjet 400A (Hawker 400XP)		

4 Master Difference Requirements (MDR)

The Master Difference Requirements matrix for MU-300, MU-300-10, BE-400 and BE-400A is shown in Table 2. These provisions are applied when there are differences between models which affect crew knowledge, skills, or abilities related to flight safety (e.g., Level A or greater differences) for training, checking and currency, respectively, according to IAC 121-1009.

Table 2 - Master Difference Requirements

		From Airplane			
		MU-300	MU-300-10	BE-400	BE-400A
To Airplane	MU-300	A/A/A	B/A/B	B/A/B	D/D/D
	MU-300-10	B/A/B	(1) A/A/A	(1) A/A/A	D/D/C
	BE-400	B/A/B	(1) A/A/A	(1) A/A/A	D/D/C
	BE-400A	D/D/D	D/D/C	D/D/C	(2)(3) A/A/A

Notes:

- (1) BE-400 aircraft with Bendix King KFC-400/EFIS-10 or Sperry SPZ-900 are C/D/C.
BE-400 aircraft with Collins FCS-850/Proline 4 EFIS is D/D/C.
- (2) BE-400A aircraft modified by STC for Proline 21 avionics system (400XT) is C/B/B.
(400 XT) aircraft modified by STC for LPV WAAS to aircraft is C/B/B.
(400 XT) aircraft modified by STC for Universal TAWS is B/B/B.
- (3) BE-400A aircraft modified by STC for Williams Fj44-3AP engines is C/B/B.

5 Operator Difference Requirements (ODR)

Each operator of a mixed fleet of MU-300, MU-300-10, BE-400 and BE-400A shall produce its own ODR, as required by IAC 121-1009.

For Operators flying the MU-300, MU-300-10, BE-400 and BE-400A aircraft, the ODR tables in Appendix 1 have been found acceptable and may be approved by POI for an operator with the specific aircraft equipage.

6 Specifications for Training, Checking and Currency

Specifications for training, checking and currency are detailed on FSB Report mentioned above.

6.1 Airmen Minimum Experience for Initial Flight Training

There is no minimum experience requirement for airmen who wish to pursue the initial flight training. However, specifications for training detailed in the FSB report apply to programs for airmen who have experience in multi-engine transport turbojet aircraft including glass cockpit and FMS experience. For airmen not having this experience, additional requirements may be appropriate as determined by ANAC Flight Standards Superintendence.

6.2 Airmen Minimum Qualification for Differences Training

The candidate pilot for a differences training between the airplanes must hold a valid “BE40” type rating and be qualified on the base aircraft.

6.3 Training Area of Special Emphasis (TASE)

The following areas of emphasis should be addressed during ground and flight training:

- a) Primary flight instruments. MU-300, MU-300-10, BE-400 and BE-400A aircraft are equipped with mechanical individual flight instruments, primary flight displays (PFDs), and multifunction displays (MFDs). Various formats of altitude and airspeed are presented. Pilots need to be able to understand the multitude of information presented on these displays. Pilots transitioning from traditional round dial “Basic T” instruments may require additional training and instrument scan practice to gain proficiency in manually flying by reference to the PFD. Recognition of reversionary modes and display failures and appropriate corrective action to be taken should be addressed.
- b) Flight Control System. An operational understanding of the spoiler control system as well as an understanding of the roll trim system is critical to efficient operation of the aircraft, especially with One-Engine-Inoperative procedures.

- c) Flight Guidance System including the Autopilot and Flight Director. An understanding of the various lateral and vertical modes and the ability to select and arm the modes during different phases of flight is essential.
- d) Electronic Fuel Control (EFC). An operational understanding of the EFC and the engine thrust control is required.

7 Compliance to RBHA 91 and RBAC 135

No Compliance Checklists were provided by the manufacturer.

8 Technical Publications

8.1 Master Minimum Equipment List - MMEL

The MU-300, MU-300-10, BE-400 and BE-400A MMEL approved by the FAA shall be used by Brazilian operators as a basis for developing their MEL. These documents are available at the FAA website, through the link <http://fsims.faa.gov/PublicationForm.aspx>.

8.2 Airplane Flight Manual - AFM

The MU-300, MU-300-10, BE-400 and BE-400A AFM approved by GGCP/SAR shall be used by Brazilian operators as a basis for developing their Operator Airplane Operation Manual (AOM).

APPENDIX 1

Acceptable Operator Difference Requirements (ODR) Tables

ACCEPTABLE OPERATOR DIFFERENCE REQUIREMENTS (ODR) TABLES

Definitions used in the Tables:	
X	= Flight Manual/Pilot's Operating Handbook and/or FM Supplement
AI	= Aided Instruction
CPT	= Cockpit Procedures Trainer
ICBT	= Interactive Computer Based Training
FTD	= Flight Training Device (Level 1 to 7)
FBS	= Fixed Base Simulator (Level 5 to 7)
FFS	= Full Flight Simulator (Level A, B, C, D)

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP)with FMS-6100 LPV									
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Instrument Panel Layout	No Change								
Center Pedestal	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-AP)with FMS-6100 LPV									
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP)				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Instrument Approaches	WAAS LPV Approaches enabled.	No	Minor			FTD		B	B
Normal Procedures	Procedures for flying WAAS LPV Approaches	No	Minor			FTD		B	B
Abnormal Procedures	Procedures specific to FMS with LPV Capabilities	No	Minor		AI			B	B
Emergency Procedures	No Change								

Definitions used in the Tables:

X	= Flight Manual/Pilot's Operating Handbook and/or FM Supplement
AI	= Aided Instruction
CBT	= Computer Based Training
ICBT	= Interactive Computer Based Training
FTD	= Flight Training Device (Level 1 to 7)
FBS	= Fixed Base Simulator (Level 5 to 7)
FFS	= Full Flight Simulator (Level A, B, C, D)

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP) with Universal Avionics Terrain Awareness Warning System				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP)				LVL A	LVL B	LVL C	LVL D	CHK	CURR
DESIGN	REMARKS	FLT CHAR	PROC CHNG						
Instrument Panel Layout	Added Glideslope Inhibit Switch, Flap Override Switch and Obstacle Inop Annunciator to Center Panel	No	Minor	X				A	A
Center Pedestal	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP) with Universal Avionics Terrain Awareness Warning System				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ44-3AP)				LVL A	LVL B	LVL C	LVL D	CHK	CURR
MANEUVER	REMARKS	FLT CHAR	PROC CHNG						
Preflight Procedures	Preflight test of TAWS System	No	Minor		AI			B	B
Normal Procedures	Procedures for use of TAWS A	No	Minor		AI			B	B
Abnormal Procedures	Procedures specific for use of the Universal Avionics TAWS A	No	Minor		AI			B	B
Emergency Procedures	No Change								

Definitions used in the Tables:

X	= Flight Manual/Pilot's Operating Handbook and/or FM Supplement
AI	= Aided Instruction
CBT	= Computer Based Training
ICBT	= Interactive Computer Based Training
FTD	= Flight Training Device (Level 1 to 7)
FBS	= Fixed Base Simulator (Level 5 to 7)
FFS	= Full Flight Simulator (Level A, B, C, D)

SAMPLE DIFFERENCES TABLE					COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ-44-3AP)										
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & JT15D)					TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR	
General Airplane Configuration	No Change									
Weights	Update BOW	NO	NO	X				A	A	
Airworthiness Limitations	Revised AFM Limitations	NO	NO	X				B	A	
Placards and Markings	Revised Instrument Panel placards Engine Instrument Markings revised Add annunciators (L&R each) (B/A Source, B/A Overpress, and TT2 Fail) Change EFC annunciators to No Dispatch	NO	NO		AI			B	A	
Servicing	No Change									
Engines	P&W Jt15D-5 engines replaced with Williams International FJ44-3AP engines. Engine mounts and cowling replaced.	NO	YES		AI			A	A	
Flight Deck	No Change									
Instrument Panel Layout	Add L&R FADEC Switches and Channel A/B Indicators on lower Inst. Panel. Convert 2 EFC Switches to Idle Speed Switch & WOW/GDAL Test Switch. Remove T/R throttle paddles. Replace throttle cables with TLA sensors. Replace Engine Sync rotary know with toggle switch Remove T/R annunciators and stow	NO	YES		AI			A	A	
Cabin	No Change									
Flight Controls	No Change									

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ-44-3AP)				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & JT15D)				LVL A	LVL B	LVL C	LVL D	CHK	CURR
MANEUVER	REMARKS	FLT CHAR	PROC CHNG						
Preflight	JT15D-5 replaced with FJ44-3AP Exterior and Interior Preflight	NO	YES			FTD		B	B
Engine Start	JT15D-5 replaced with FJ44-3AP Include FADEC	NO	YES		AI			B	B
Taxi	JT15D-5 replaced with FJ44-3AP GDAL/WOW & Idle checks	NO	YES			FTD		B	B
Takeoff	JT15D-5 replaced with FJ44-3AP Engine Power Setting procedure	NO	YES		AI			A	A
RTO Or V1 Fail	JT15D-5 replaced with FJ44-3AP No Thrust Reverser	NO	YES		AI			B	B
Climb Cruise Decent	JT15D-5 replaced with FJ44-3AP Power setting procedures	NO	YES		AI			A	A
Instrument Approaches	No Change								
Landing	JT15D-5 replaced with FJ44-3AP Thrust Reversers removed	NO	YES	X				A	A
Normal Procedures	JT15D-5 replaced with FJ44-3AP FADEC BIT, FADAC checks, Ignition No Thrust Reverser	NO	YES			FTD		B	B
Abnormal Procedures	JT15D-5 replaced with FJ44-3AP affecting several Abnormal Procedures, Additional FADEC procedures.	NO	YES		AI			B	B
Emergency Procedures	JT15D-5 replaced with FJ44-3AP affecting Emergency Procedures.	NO	YES		AI			B	B
In-Flight Maneuvers	No Change								

SAMPLE DIFFERENCES TABLE					COMPLIANCE METHOD				
DIFFERENCE AIRCRAFT: BE-400A (400XT)(Proline 21 & FJ-44-3AP)									
BASE AIRCRAFT: BE-400A (400XT)(Proline 21 & JT15D)					TRAINING			CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
28 Fuel	Fuel Jet Pumps modified for FJ44 fuel flows.	NO	NO	X				A	A
30 Ice / Rain	Engine Anti-Ice modified for FJ44	NO	NO	X				A	A
54 Nacelles/Pylons	Engine pylon modified for FJ44 Engine nacelles modified for FJ44	NO	NO	X				A	A
71 Powerplant	FJ44 Powerplant Assembly, Nacelles, Cowling and engine plumbing and wiring	NO	NO	X				A	A
72 Engine (turbine)	JT15D-5 replaced with FJ44-3AP Sea Level Thrust increase to 3050 lbs.	NO	YES		AI			B	B
73 Fuel Controls	Replace JT15D Hydro-Mechanical fuel control with FJ44 FADEC	NO	YES		AI			B	B
74 Engine Ignitions	Ignition control through FADEC. Remove OFF switch position	NO	YES		AI			B	B
75 Engine Bleed Air	Bleed Air temperature control system installed in nacelle. Bleed Air auto-shutdown added.	NO	YES		AI			B	B
76 Engine Controls	Remove Thrust Lever Paddles Thrust lever cables replace with RVDTs EFC replaced with FADEC	NO	YES		AI			B	B
77 Engine Indicating	Engine instrument limits changed to FJ44	NO	NO	X				A	A
78 Exhaust	Removed Thrust Reversers New FJ44 exhaust nozzles	NO	YES	X				A	A
79 Engine Oil	Engine oil specifications change for FJ44	NO	NO	X				B	A
80 Engine Starting	FADEC control of engine start	NO	YES			FTD		B	B
All other Systems	No Change								

Definitions used in the Tables:

X	= Flight Manual/Pilot's Operating Handbook and/or FM Supplement
AI	= Aided Instruction
CBT	= Computer Based Training
ICBT	= Interactive Computer Based Training
FTD	= Flight Training Device (Level 1 to 7)
FBS	= Fixed Base Simulator (Level 5 to 7)
FFS	= Full Flight Simulator (Level A, B, C, D)

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(JT15D & Proline 21)									
BASE AIRCRAFT: BE-400A (JT15D & Proline 4)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
General Airplane Configuration	Proline 4 CRT displays replaced with Proline 21 LCD Adaptive Flight Displays	NO	NO	X				A	A
Weights	Update BOW	NO	NO	X				A	A
Airworthiness Limitations	Revised AFM Limitations & FMS-6100 capability	NO	YES	X				A	A
Placards and Markings	Revised cockpit placards & labels Analog Engine Instrument replaced with EIS with new display marking methods	NO	NO	X				A	A
Servicing	No Change								
Engines	Engine Instruments now EIS	NO	NO	X				A	A
Flight Deck	Annunciator Panel moved to overhead No change glareshield or specific annunc. New course/heading panel (CHP) Altitude Selector moved to CHP RTUs moved aft to accommodate CHP Reversion controls now toggle switches AFD Display line select keys New Display Control Panels (DCP) New Cursor Control Panel (CCP) for MFD New PS-835 Standby Battery Systems Collins TCAS-4000 (TCAS II) option Install DBU-5000 Install IFIS-5000	NO	YES		AI			B	B
Instrument Panel Layout	Engine Instruments now EIS top of MFD Fuel quantity indicators now digital on MFD Fuel Temperature & flow digital on MFD SDU removed Vertical Speed display to tape format	NO	NO	X				A	A
Cabin	No Change								
Flight Controls	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A (400XT)(JT15D & Proline 21)				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400A (JT15D & Proline 4)				LVL A	LVL B	LVL C	LVL D	CHK	CURR
MANEUVER	REMARKS	FLT CHAR	PROC CHNG						
Preflight	Display power-up for EIS system to display Preflight Check required information	NO	YES		AI			B	B
Engine Start	Display power sources and functions during Engine Start Procedures	NO	YES		AI			B	B
Taxi	No change								
Takeoff	No Change								
RTO Or V1 Fail	No Change								
Climb Cruise Decent	No Change								
Instrument Approaches	Flight Mode Annunciation format and information change on PFD	NO	YES		AI			A	A
Landing	No Change								
Normal Procedures	Proline 21 AFD LCD displays with EIS, IFIS & Electronic Pilot Checklist All Normal Procedures affected.	NO	YES			FTD		B	B
Abnormal Procedures	Proline 21 AFD LCD displays with EIS, IFIS & Electronic Pilot Checklist Changed and New Procedures	NO	YES		AI			B	B
Emergency Procedures	Proline 21 AFD LCD displays with EIS, IFIS & Electronic Pilot Checklist Changed Procedures only	NO	YES		AI			B	B
In-Flight Maneuvers	Proline 21 AFD LCD displays Vertical Speed indication format	NO	NO		AI			B	B

SAMPLE DIFFERENCES TABLE					COMPLIANCE METHOD				
DIFFERENCE AIRCRAFT: BE-400A (400XT)(JT15D & Proline 21)									
BASE AIRCRAFT: BE-400A (JT15D & Proline 4)					TRAINING			CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
22 Auto-Flight	No Change								
23 Communications	No Change								
24 Electrical Power	Existing Standby Power : STBY Altimeter, STBY Alt. Vibrator, STBY Inst Lights, #1 Comm, #1 RTU, #1 DCP, #1 CCP 2nd Standby Power System: Two PS-835 Standby Battery system installed to power #1 MFD, #1 AHRS, #1 ADC, #1 FSU, #1/#2 oil pressure sensor, & #1/#2 DCU. WOW switch prevents 2 nd STBY PWR on ground.	NO	YES		AI			B	B
28 Fuel	Analog Fuel Quantity Indicators replaced by EIS on top of MFD with Digital Display Fuel Temperature digital EIS on MFD Fuel Quantity Signal Conditioner added to convert fuel sensing signals for DCU.	NO	NO	X				A	A
31 Indicating/Record	Upgrade IAPS to accommodate AFDs	NO	NO	X				A	A
34 Navigation	Collins RTA-854 radar with Turb. Detection AHS-3000A AHRS installed FMS now FMC-6100 card and software Replace GPS receivers to GPS-4000 Remove SDU & add Navigation Display capability on MFD	NO	NO		AI			A	A
45 Maintenance Computer	MDC 4000 replaced with MDC 3110	NO	NO	X				A	A
46 Information Systems	IFIS-5000 (1 or 2 FSU option with 2 MFD) XM graphical weather products Enhanced Map Overlays Jeppesen Electronic Charts (Class 3 EFB) Electronic Pilot Checklist	NO	YES			FTD		B	C
53 Fuselage	New Antennas for L-band, Mode S, GPS2, XM and TCAS (optional)	NO	NO	X				A	A
73 Fuel Controls	Fuel Flow indicators digital on top MFD	NO	NO	X				A	A
77 Engine Indicating	Analog engine instruments replaced with EIS. EIS provides display of N1, N2, ITT, Fuel Flow, Oil Pressure, Oil Temperature. (4) Data Concentrator Units (DCU) installed to provide data to EIS.	NO	NO		AI			B	B
80 Engine Starting	EIS Display powered for engine start	NO	NO			FTD		B	B
All other Systems	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A & BE-400T				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400				LVL A	LVL B	LVL C	LVL D	CHK	CURR
DESIGN	REMARKS	FLT CHAR	PROC CHNG						
General Airplane Configuration	Electro Mechanical Flight Instruments replaced with Proline 4 EFIS	NO	YES				FFS	D	C
Weights	Increased maximum weights New MGTOW 16,100 pounds Max Landing weight 15,700 pounds Max Fuel Temp increased to 50 C	NO	NO	X				A	A
Airworthiness Limitations	Revised AFM Limitations VMCA and VMCG increased Rudder Boost required	NO	YES	X				A	A
Placards and Markings	Revised cockpit placards & labels	NO	NO	X				A	A
Servicing	No Change								
Engines	Same JT15D-5 engine with 65 pound thrust increase	NO	NO	X				A	A
Flight Deck	AOA Indexer removed	NO	NO	X				A	A
Instrument Panel Layout	Change from 6 independent flight instruments to PFD combined format	NO	YES				FFS	D	C
Cabin	New Interior passenger configuration	NO	NO	X				A	A
Flight Controls	Automatic Flap delay with H STAB Ice ON Rudder Boost added	YES	YES		AI			A	B
Aerodynamic Controls	Yaw Damper control surface removed, Yaw Damper incorporated into rudder Yaw Damper OFF for takeoff & landing	NO	YES		AI			B	B

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A & BE-400T									
BASE AIRCRAFT: BE-400				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Preflight	Preflight Check items changed & added	NO	YES		AI			B	B
Engine Start	Ignition control sequence	NO	YES		AI			B	B
Taxi	Rudder Boost Check Change H Stab check	NO	YES		AI			B	B
Takeoff	Operation of Yaw Damper	NO	YES	X				A	B
RTO Or V1 Fail	No Change								
Climb Cruise Decent	No Change								
Instrument Approaches	FMS approach selection and Modes	NO	YES		AI			A	A
Landing	Yaw Damper OFF	NO	YES	X				A	B
Normal Procedures	Normal Procedures revised	NO	YES			FTD		B	B
Abnormal Procedures	Abnormal Procedures changed & added	NO	YES		AI			B	B
Emergency Procedures	Emergency Procedures changed & added	NO	YES		AI			B	B
In-Flight Maneuvers	Operation of Anti-Ice systems	NO	YES		AI			B	B

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A & BE-400T									
BASE AIRCRAFT: BE-400				TRAINING				CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
21 Air Conditioning	New 5 degree C Limitation Refrigeration Air Conditioning operation	NO	YES	X				B	B
22 Auto-Flight	Dual fail passive 3-axis AFCS and Autopilot	NO	YES				FFS	D	C
23 Communications	Radio Tuning Changes	NO	YES	X				A	A
24 Electrical Power	Reduction in AC power use and distribution Inverter procedures change Generator normal limit increased 280 amps	NO	YES		AI			B	B
25 Equipment / Furn.	Optional Lav moved to rear of cabin Pax Seating configuration changes	NO	NO	X				A	B
27 Flight Controls	Delayed Flap extension with H Stab Anti-Ice ON	NO	NO	X				A	A
28 Fuel	Add 2 nd Fuel Transfer Pump Add Fuel Feed indicator light Fuel capacity increase to 4912 pounds Wing fuel decrease, Fuselage fuel increase More Fuselage Tanks, 2 Transfer Pumps Fuselage Fill System option removed	NO	NO	X				A	A
30 Ice / Rain	Horizontal Stabilizer Antiice/Deice changes	NO	YES		AI			B	B
31 Indicating/Record	Several new & changed Annunciators	NO	YES		AI			B	B
33 Lights	Automatic retraction of Landing Lights with Landing Gear Retraction	NO	YES	X				A	A
34 Navigation	Proline 4 PFD format for Flight Instruments Proline 4 MFD format for Nav/WX/TCAS Add Multi-Sensor FMS TAWS added	NO	YES				FFS	D	C
35 Oxygen	Remove Oxygen Generators Pass Oxygen on 77 cubic ft oxygen bottle	NO	YES		AI			B	B
72 Engine (turbine)	Engine thrust increase to 2965 pounds	NO	NO	X				A	A
77 Engine Indicating	N1 & N2 add digital display	NO	NO	X				A	A
78 Exhaust	Model 400T has no Thrust Reversers	NO	YES	X				A	B
80 Engine Starting	Ignition ON with Thrust Lever during start	NO	YES		AI			B	B

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: BE-400A & BE-400T				TRAINING				CHKG/CURR	
BASE AIRCRAFT: BE-400				TRAINING				CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
All other Systems	No Change								

Definitions used in the Tables:	
X	= Flight Manual/Pilot's Operating Handbook and/or FM Supplement
AI	= Aided Instruction
CBT	= Computer Based Training
ICBT	= Interactive Computer Based Training
FTD	= Flight Training Device (Level 1 to 7)
FBS	= Fixed Base Simulator (Level 5 to 7)
FFS	= Full Flight Simulator (Level A, B, C, D)

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: MU-300-10 & BE-400				TRAINING				CHKG/CURR	
BASE AIRCRAFT: Mitsubishi Model MU-300				LVL A	LVL B	LVL C	LVL D	CHK	CURR
DESIGN	REMARKS	FLT CHAR	PROC CHNG						
General Airplane Configuration	No Change								
Weights	MGTOW increase to 15,780 pounds	NO	NO	X				A	B
Airworthiness Limitations	New Operating Weights & speeds	NO	NO	X				A	B
Placards and Markings	Engine limitations changed	NO	NO	X				A	A
Servicing	No Change								
Engines	Engine change to JT-15D-5 with 2900 pounds of thrust. Add EFC for engine fuel control	NO	YES		AI			A	B
Flight Deck	Add EFC switches on center pedestal Annunciator panel moved from overhead panel to center instrument panel	NO	YES		AI			A	B
Instrument Panel Layout	Generator ammeters and Voltmeter moved to overhead. Fuel gauges relocated	NO	NO	X				A	A
Cabin	New Cabin configuration	NO	NO	X				A	B
Flight Controls	No Change								
Aerodynamic Controls	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: MU-300-10 & BE-400									
BASE AIRCRAFT: Mitsubishi Model MU-300				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Preflight	Minor changes to exterior preflight items New preflight action for EFC	NO	YES		AI			A	B
Engine Start	EFC annunciator checks	NO	YES		AI			A	B
Taxi	Add EFC check	NO	YES		AI			A	B
Takeoff	Additional thrust affects acceleration at lower takeoff weights. ECS OFF takeoff procedure option No zero flap takeoff data or procedures	NO	YES		AI			A	B
RTO Or V1 Fail	Change in V speeds and weights	NO	NO	X				A	A
Climb Cruise Decent	Increased rate of climb	NO	NO	X				A	A
Instrument Approaches	No Change								
Landing	No Change								
Normal Procedures	New procedures for EFC and ECS OFF Takeoff	NO	YES		AI			A	B
Abnormal Procedures	Minor changes and additions.	NO	YES		AI			A	A
Emergency Procedures	Minor changes and additions	NO	YES		AI			A	A
In-Flight Maneuvers	No Change								

SAMPLE DIFFERENCES TABLE				COMPLIANCE METHOD					
DIFFERENCE AIRCRAFT: MU-300-10 & BE-400				TRAINING				CHKG/CURR	
BASE AIRCRAFT: Mitsubishi Model MU-300				LVL A	LVL B	LVL C	LVL D	CHK	CURR
SYSTEM	REMARKS	FLT CHAR	PROC CHNG						
21 Air Conditioning	Single Zone Temperature Control System not available.	NO	NO	X				A	A
22 Auto-Flight	No Change								
23 Communications	Remove Comm 1 Plt Phone	NO	YES		AI			A	B
24 Electrical Power	Standard 8 buss secondary power distribution system	NO	NO	X				A	A
25 Equipment / Furn.	New aircraft interior and seat configuration	NO	NO	X				A	A
28 Fuel	Optional fuselage fuel tank increases fuel capacity to 4904 pounds and fuselage fuel transfer system (standard @ RJ-34&after)	NO	YES	X				A	B
31 Indicating/Record	Annunciator Panel relocated from overhead panel to center instrument panel. Add annunciators for EFC system	NO	YES	X				A	B
33 Lights	Automatic landing light retract with landing gear retraction	NO	YES	X				A	B
72 Engine (turbine)	Replaced JT15D-4 with JT15D-5, increase thrust from 2500 pounds to 2900 pounds	NO	NO	X				A	B
73 Fuel Controls	New EFC for fuel control	NO	YES		AI			A	B
74 Engine Ignitions	No Change								
76 Engine Controls	No Change								
77 Engine Indicating	New Limits on Engine Instruments	NO	NO	X				A	B
78 Exhaust	Optional Thrust Reversers	NO	YES		AI			A	B
80 Engine Starting	New Procedures to check EFC during engine start.	NO	YES		AI			A	B
All other Systems	No Change								