

ERJ-135

Atlantic Sun Airways Pilot Procedures



This is the first of a series of Atlantic Sun Airways CAT A pilot procedures and checklists for our fleet. Use them with good judgment.

General Characteristics

Engines: Two AE 3007A1/3 turbofans with 7.426lb (3.368 kg) thrust each

Overall Length	86 ft 5 in	26.33m
Height	22ft 2 in	6,75m
Span	65ft 9 in	20.4m
Cabin width	6ft 11 in	2.1m
Cabin height	6ft 0 in	1.82m
Baggage compartment	325 ft ³	9.2m ³
Cargo capacity	2.205 lb	1000 kg
Maximum cruise speed	450 knts	833 km/hr
Range Full Pax	1,700 nm	3148 km
Take Off Field Length	5,577 ft	1700 m
Landing Field Length	4,200 ft	1280 m

Now that your are an ASA pilot, and this may be you first CAT A plane, here are some tips that have been compiled from the experience of other ASA pilots on the best way to operate the ERJ-135.

For a takeoff weight of 41,888 pounds:

V1: 117 knots

VR: 127 knots (pull back on the yoke to about 8 degrees)

V2: 133 knots (initial climb speed)

Flaps retract at 151 knots

Climb at 240 knots below 10000 feet (As the speed increases, gear and flaps up and aim for target climb speed of 240 knots)

Complete the After Takeoff Checklist

Maintain 240 knots until 10,000 feet, and then accelerate to 290 knots until you reach Mach 0.65, to your assigned altitude

Change the altimeter setting to 29.92 for flight above 18,000 feet

For descent use 2500-fpm

Flaps nine degrees when airport in sight

Set Nav1 for the ILS or Non Precision approach in clearance

Lower the gear when intercepting the localizer or over the Final Approach Fix (FAF)

Set 22 degrees of flaps

Slow to 137 knots

Put on 45 degrees of flaps and complete the Landing Checklist

Cross the threshold at 127 knots

Reverse thrust and slow to taxi speed (20 KTS max)



THE CHECKLISTS

PRESTART CHECKLIST

Parking Brake	SET
Throttle	IDLE
Fuel Flow	CUTOFF
BATT Master Switch	ON
Landing Gear Lever	CHECK DOWN
Flaps	UP
Spoiler	RETRACTED
Fuel Quantity	CHECK
Pitot Heat	OFF
DE-Ice	OFF
Aircraft Lighting	OFF
Flight Controls	FREE AND CORRECT
Fasten Seat Belts	ON
No Smoking	ON
Check Weather	(ATIS, Flight Service)
De-Ice	TEST/CHECK
<i>Request Clearance</i>	
Transponder	STANDBY
Beacon	ON

STARTUP CHECKLIST

Engine/throttle Panel	ACTIVATE
Thrust Levers	IDLE
Engine Area	CLEAR
Eng 1 Start Switch	START
At N2>20% fuel flow eng1	ON
N1 Increasing as N2 incr.	CHECK
Oil Pressure	CHECK
Alt/Generator	ON
Repeat for Eng 2	
Air-conditioning Fan	ON

BEFORE TAXI CHECKLIST

Nav Lights	ON
Taxi Lights / Runway Turnoff Lights	ON
Multi-Functional Display	CONFG
Heading Indicator/Altimeters	SET
Standby Instruments	SET
Radios and Avionics	SET FOR DEPARTURE
Autopilot	SET, don't activate
F/D Flight Director	ON
Elevator Trim	SET for takeoff
<i>Request Taxi Clearance</i>	

TAXI CHECKLIST

Parking Brake	RELEASE
Taxi to assigned runway	SPEED Max. 20 knots
Brakes/Gyro/Turn Coordinator	CHECK during taxi/turns

BEFORE TAKEOFF CHECKLIST

Parking Brake	SET
Throttle	IDLE
Elevator Trim	SET for takeoff
Flap Position Lever	FLAPS 8
Spoilers	RETRACTED
Flight Instruments	CHECK
Engine Instruments	CHECK
Takeoff Data (V1, VR, V2)	CHECK
Nav Equipment	CHECK
Landing Lights	ON
Taxi Lights / Runway Turnoff Lights	OFF
Strobe Lights	ON
Pitot Heat	ON
De-Ice	AS REQUIRED
Transponder	ON
<i>Request Takeoff Clearance</i>	

TAKEOFF CHECKLIST

Smoothly increase thrust to
Takeoff Thrust
Brakes
V1=
Vr=
Pitch
V2=
At Positive Climb Rate
Landing Gear
At 1000' AGL/151KIAS

40% N1 let spool up
FULL or TO/GA
RELEASE
117 KIAS (decision)
127 KIAS (rotate)
8 –10 deg. nose up
133KIAS (safety speed)
Touch Brakes
RETRACT
RETRACT flaps

CLIMBOUT CHECKLIST

Throttle
Trim for
Autopilot
Below 10,000' max. speed
ATC
Fasten Seatbelts
No Smoking
Landing Lights
Above 10,000' speed

AS REQUIRED
240 KIAS / 1700 FPM
CHECK and ACTIVATE
250KIAS
AS REQUIRED
OFF
OFF
OFF
290 KIAS

CRUISE CHECKLIST (above FL 180)

At Transition Altitude (FL180) set Altimeter to
Accelerate to cruise speed FL180
FL240
FL280
FL330
Engine Instruments
Fuel Quantity
Radios
Autopilot
Lights

29.92 (1013 mb)
0.67 mach (330 KIAS)
0.76 mach (335 KIAS)
0.80 mach (325KIAS)
0.81 mach (295 KIAS)
CHECK
CHECK
TUNED and SET
CHECK and SET
AS REQUIRED

DESCENT CHECKLIST

ATIS /Airport Information
Altimeter
De-Ice
Descent Speed To FL240
To FL180
At Transition Altitude (FL180) reset Altimeters to local
To 12,000'
Below 10,000'
Fuel Quantities and Balance
Flaps / landing Gear
Check Weather

CHECK
CHECK
AS REQUIRED
0.75 mach
0.65 mach
280KIAS
250KIAS
CHECK
CHECK UP
(ATIS, Flight Service)

APPROACH CHECKLIST

On Localizer Level flight:

Fasten Seat Belts

ON

No Smoking

ON

Avionics + Radios

SET

Speed: Establish

210KIAS

Landing Lights

ON

Flap Lever Position

8 → 20 deg.

Speed: Establish

180KIAS

Flap Lever Position

20

Speed: Establish

160KIAS

Landing Gear

DOWN

Set Flap Lever Position

20 → 40 deg.

Final glide Slope Descent:

Speed Establish

140KIAS

Elevator Trim

AS DESIRED

Parking Brake

VERIFY OFF

De-Ice

AS REQUIRED

LANDING CHECKLIST

Landing Gear

CHECK DOWN

Autopilot

OFF

Landing Speed

127KIAS

After Touchdown

Apply Reverse Thrust

60KIAS:

Cancel Reverse Thrust

Spoilers

VERIFY EXTENDED

Brakes

AS REQUIRED

TAXI TO RAMP CHECKLIST

Strobe Light

OFF

Flaps

UP

Spoilers

RETRACTED

Taxi Lights /Runway Turnoff Lights

ON

Landing Lights

OFF

Speed

Max. 20 knots

Transponder

1200/OFF

Elevator Trim

TAKEOFF SETTING

SHUTDOWN CHECKLIST

Parking Brake	SET
Throttles	IDLE
Passenger Signs	OFF
Air-conditioning Fan	OFF
Pitot Heat	OFF
De-ice	OFF
Taxi Lights / Runway turnoff Lights	OFF
Nav Lights	OFF
F/D	OFF
Fuel flow	OFF
Alt/Generators	OFF
Engine Start Switches	VERIFY OFF
Beacon	OFF
Passenger Door	OPEN
BATT Master Switch	OFF

SECURING AIRCRAFT

Parking Brake	VERIFY SET
Throttles	VERIFY IDLE
All Switches	VERIFY OFF
Passenger Door	CLOSED

Good Luck and enjoy using these procedures, I have flight tested and verified them on FS9. Of course if you have a real ERJ-135 use the Operating Procedures in your AFM!

Ted Feiertag
Training Manager Atlantic Sun Airways