

Boeing 747-400

Atlantic Sun Airways CAT C Pilot Procedures



This is the fourth of a series of Atlantic Sun Airways CAT C pilot procedures and checklists for our fleet. Use them with good judgment. Note, the start procedures may vary from FS9 Panel to Panel. However the “V” speeds are appropriate for our ASA FS9 747- 400.

General Characteristics

Dimensions:

Wing Span: 211 ft 5 in
Length: 231 ft 10 in
Height: 63 ft 8 in
Wing Area: 5,825 sq ft

Engines:

Four 56,750 Pratt & Whitney PW-4056 turbofans or 60,000 lb PW-4060s or 62,000 lb PW-4062s 56,750 General electric CF6-80-C2B1Fs or 61,500 lb CF6-C2B1F1s or -80-C2B7Fs, or 58,000 lb Rolls Royce RB-211-524G or -524Hs, or 59 to 60,000 lb RB-211-524G/H-Ts.

Weight and Capacities

Standard operating empty weight with PW-4056s: 399,000 lb, with CF6-80-C2B1Fs: 398,000 lb, with RB-211s: 400,700 lb.
Operating weights at optional MTOW with PW-4056s: 400,100 lb, with CF6-80-C2B1Fs: 399,600 lb, with RB-211s: 401,800 lb.
Max Takeoff: 800,000 lb, or optionally 833,000 lb, or 875,000 lb.
Flightcrew of two. Typical three class for 416 (23 First Class, 78 Business Class, and 315 Coach Class).

Performance:

Max Cruising Speed: 507 kts
Long Range Cruising Speed: 490 kts
Design Range with 420 three class pax at 875,000 lb MTOW: 7,284 nm, with PW-4000s: 7,259 nm. With GEs: 7,135 nm.



THE CHECKLISTS

PRESTART CHECKLIST

Parking Brake
 Throttles
 Fuel Flow
 BATT Master Switch
 Panel Lights
 Landing Gear Lever
 Flaps
 Spoiler
 Fuel Quantity
 Engine Instruments
 Pitot Heat
 Aircraft Lighting / Anti-ice
 Flight Controls
 Avionics
 Fasten Seat Belts/No Smoking
 Check Weather
 Anti-ice

SET
 IDLE
 CUTOFF
 ON
 AS REQUIRED
 CHECK DOWN
 UP
 RETRACTED
 CHECK
 CHECK
 OFF
 OFF
 FREE AND CORRECT
 ON
 ON
 (ATIS, Flight Service)
 TEST/CHECK

PRESTART CHECKLIST contd.

Request Clearance

Transponder STANDBY
Beacon ON

STARTUP CHECKLIST

Engine/Throttle Panel ACTIVATE
Thrust Levers IDLE
Engine Area CLEAR
MFD EICAS

Engine Start Sequence: 1 – 4 – 3 – 2

Eng 1 Start Switch START (hold)
At N2 > 20% Fuel Flow Eng 1 ON
Fuel Flow CHECK
N1 increasing as N2 incr. CHECK

Repeat for Eng. 4 – 3 – 2

De-ice AS REQUIRED
MFD EICAS

BEFORE TAXI CHECKLIST

Nav Lights ON
Taxi Lights ON
Heading Indicator/Altimeters SET
Radios and Avionics SET FOR DEPARTURE
Autopilot SET, don't activate
Autothrottle SET, don't activate
F/D ON
Yaw Damper ON AS REQUIRED
Autobrake RTO
Elevator Trim SET for takeoff

Request Taxi Clearance

TAXI CHECKLIST

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

BEFORE TAKEOFF CHECKLIST

Parking Brake	SET
Throttle	IDLE
Flap Position Lever	FLAPS 5 deg.
Spoilers	RETRACTED
Flight Instruments	CHECKED
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	40% N1 let spool up
Takeoff Thrust	FULL or TO/GA
Brakes	RELEASE
V1=	165 KIAS (decision)
Vr=	175 KIAS (rotate)
Pitch	10 deg. nose up
V2=	185 KIAS (safety speed)
At Positive Climb Rate	Touch Brakes
Landing Gear	RETRACT
At 200 KIAS	RETRACT flaps to 1 deg.
At 220 KIAS	RETRACT flaps up

CLIMBOUT CHECKLIST

Throttle	AS REQUIRED
Trim for	250 KIAS
Autothrottle	ARM and SET
Autopilot	ON and SET
Autobrake	OFF
Below 10,000' max. speed	250 KIAS
<i>ATC</i>	<i>AS REQUIRED</i>
Fasten Seatbelts	OFF
No Smoking	OFF
Landing Lights	OFF
Above 10,000' speed	300 KIAS

CRUISE CHECKLIST (above FL 180)

At Transition Altitude (FL180) set Altimeter to
Accelerate to cruise speed

29.92 (1013 mb)
FL180 0.67 mach (330KIAS)
FL240 0.76 mach (335KIAS)
FL280 0.82 mach (335KIAS)
FL330 0.85 mach (315KIAS)

Engine+ Instruments
Fuel Quantity
Radios
Autopilot
Lights

CHECK
CHECK
TUNED and SET
CHECK and SET
AS REQUIRED

DESCENT CHECKLIST

ATIS /Airport Information
Altimeter
Radios
De-ice

CHECK
CHECK
CHECK
AS REQUIRED

Descent Speed

to FL240 0.75 mach
to FL180 0.65 mach

At Transition Altitude (FL180) reset Altimeters to local

to 12,000' 300 KIAS
Below 10,000' 240 KIAS

Fuel Quantities and Balance
Flaps /Landing Gear
Check Weather

CHECK
CHECK UP
(ATIS, Flight Service)

APPROACH CHECKLIST

On Localizer Level flight:

Fasten Seat Belts
No Smoking
Avionics + Radios
Speed: Establish
MFD
Landing Lights
Auto Spoilers
Autobrake
Flap Lever Position
Speed: Establish
Flap Lever Position
Speed: Establish
Flaps Lever Position
Speed: Establish
Landing Gear
Set Flap Lever Position

ON
ON
SET
220 KIAS
EICAS 1
ON
ARM
SET
5 - 10 deg.
200 KIAS
5 – 10 deg.
200 KIAS
20 deg.
180 KIAS
DOWN
25 deg. or FULL

APPROACH CHECKLIST contd.

Final glide Slope Descent:

Speed Establish	170 KIAS
Elevator Trim	AS DESIRED
Parking Brake	VERIFY OFF
De-ice	AS REQUIRED

LANDING CHECKLIST

Landing Gear	CHECK DOWN
Autopilot	OFF
Landing Speed	160 KIAS
After Touchdown	Apply Reverse Thrust
	60KIAS: Cancel Reverse Thrust
Spoilers	VERIFY EXTENDED
Brakes	AS REQUIRED
Autobrake	OFF

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
Pitot Heat	OFF
De-ice	OFF
Taxi Lights / Runway turnoff Lights	OFF
Nav Lights	OFF
F/D	OFF
Avionics	OFF
Fuel Flow	OFF
Eng Start Switches 1 – 2 – 3 – 4	OFF
Beacon	OFF
Panel Lights	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 747-400 use the Operating Procedures in your AFM!

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