FLYING THE JET CITY AIRCRAFT MD-87

The MD-80 is a fun yet challenging airplane to fly provided you understand some basic fundamentals about it. The purpose of this brief guide is to walk you through a flight in the MD-80, pointing out some key features and characteristics of the airplane that will help you to pilot it successfully.

This document is not intended for real world flight and is by no means a complete “Operations Manual” type of document, as many aspects of flying involve specific settings in the cockpit that we won’t cover here. Because users of this airplane could be using a variety of cockpit environments, we will do our best to keep descriptions as generic as possible and will omit panel-specific procedures where we can. Please note that the speeds and figures listed below are only for general reference only; your airplane may need slight adjustments to account for aircraft weight, engine thrust, and weather conditions, but overall the figures below will work in most situations.

There are a few basic things you need to remember about the MD-80 Series.

First, the airplane requires special handling on the ground. Your main landing gear are nearly 70 feet behind the cockpit, and those main gear are your pivot points in sharp turns. Therefore, making sharp turns such as lining up on the runway for takeoff will require some practice. Make your turns slow, as the MD-80 has a tendency to skid during turns if you are going too fast.

Second, the airplane has a relatively small wing for the size of the airplane. To help compensate for this, you may be utilizing slats and flaps earlier in your descent than you are accustomed to help maintain lift. Takeoff will also require the correct flap setting and stabilizer trim or the airplane will be difficult to get airborne.

Lastly, because of the shape and aerodynamics of the airplane, you will find that the attitude of the airplane can change greatly during the approach phase. Due to the long fuselage, even the smallest change in attitude is very noticeable… the slower the speed and higher the weight, the higher the nose-up attitude. Make sure you are under the maximum landing weight, or you will likely have difficulty. We recommend that for your first few flights, operate with a light load and gradually work your way up as you become more familiar with the airplane.

So, are you ready? Let’s get started! Today we’ll be flying the short-fuselage MD-80 model, the MD-87. Our aircraft it equipped with JT8D-217C engines, producing 20,000 lbs of thrust each.

PREPARATION

One of the most important parts of a successful flight is being prepared. Plan your flight, know your routing, and plan your fuel load accordingly.

COMPUTING MINIMUM DISPATCH FUEL

The following flight plan factors must be considered to determine the dispatch minimum fuel requirements:

- Flight plan fuel as calculated
- Alternate fuel as calculated
- Taxi fuel: 450 lbs for each stop
- Contingency: 650 lbs (to cover unexpected deviations)
- Reserves: 4500 lbs

The minimum fuel required for takeoff is 7,500 lbs. We have provided a fuel and flight planning quick reference chart at the end of this document to assist you with your fuel planning. The main fuel tanks in the wings should be utilized first, then the center tank.

Once in the cockpit, prepare the airplane for the flight as per your cockpit procedure and checklists. At this time, load up the fuel you’ll need for your flight. When you’re ready to go, switch to external

view to do a quick visual check of the airplane to make sure your doors are all closed and ground service equipment is out of the way. Since you are outside the airplane, now is a good time to check the movement of your flight controls – rudder, elevators, stabilizer trim, ailerons, and spoilers should all move freely. While in external view, go ahead and get all your doors closed and stairs retracted. Switch back to cockpit view, turn on the anti-collision beacons to let the ground crew know you are ready to push, and let's get going.

PUSHBACK, STARTUP, and TAXI

Push back from the gate and go ahead and start your left (No. 1), or port engine. When it's stable, you can start the right (No. 2), or starboard engine. In the MD-80, you can start engines at the gate and power back, or start them during the pushback process, or push back, set the parking brake, and start them once pushed out away from the boarding area. You also have the option of a single engine taxi, which will reduce fuel burn on the ground at airports where there are long waits to take off. If the engines have been shut down for two hours or longer, all engines must be started at least 5 minutes prior to takeoff, otherwise no warm-up period is necessary. Whichever way you prefer, once your engine(s) are running and you are cleared to taxi, the fun begins!

Turn on your taxi lights, release the parking brake, and advance the throttles slowly until airplane moves slowly forward. At heavy weights, the airplane may take as much as 50% N1 to get moving; At lighter weights, the airplane may begin to creep forward without any additional throttle input.

Keep the nose wheel centered until the aircraft starts rolling then apply pressure to the nose wheel steering to make the desired turn. Differential power or wheel braking may be used for sharp turns but do not lock the pivot wheels as this causes premature tire wear.

Keep engines below 50% N1 / 1.2 EPR when departing the gate where possible. Once clear of the gate area, you can increase thrust to achieve a taxi speed of between 10 and 20 knots. Ground handling can vary greatly depending on weight and winds. A heavy airplane could need a steady 25-28% N1 to sustain taxi speed. Lighter aircraft, on the other hand, may not need any thrust beyond the idle setting to taxi. The more you fly the airplane and get to know the feel of it, the sooner you will become familiar with its ground handling capabilities and limitations.

After leaving the ramp, verify that your stabilizer trim and flaps are at the proper takeoff settings, and spoilers are retracted.

TAKEOFF AND CLIMBOUT

When clearance is received for takeoff, scan the annunciator panel and taxi onto the runway. Set the heading bug on the runway heading as an aid in maintaining directional control in the event an engine fails after V1.

Turn on your landing lights, and turn on your strobes at this time as well.

When beginning your takeoff roll, smoothly advance throttles to around 1.4 EPR and allow your engines to spool up a bit. Scan your engine instruments for abnormal indications. If all is OK, continue advancing the throttles until reaching takeoff EPR (See Chart). Have your takeoff power set by 60 knots.

At VR, initiate a smooth pull back on the yoke to create a 3°/sec rotation to achieve lift-off attitude in 2-3 seconds. After lift-off, continue to rotate to approximately 15° pitch attitude.

Minimum altitude for engaging the autopilot is 200 feet AGL, although it is common practice for pilots to hand-fly the airplane until the flaps and slats are retracted and the airplane is in a clean configuration.

With a positive rate of climb indicated on the altimeter, retract the landing gear and turn off your nose gear taxi lights. Continue the climb to 1,500 feet AGL at minimum V2+10 airspeed, not to exceed 20° pitch.

NORMAL CLIMBOUT: Passing 1,500 feet, set climb thrust and reduce climb rate in order to accelerate to 250 knots. Once at 250 knots, increase your climb rate to maintain 250 knots to 10,000 feet. Your climb rate will vary depending on the aircraft weight, engine performance, and weather. Remember to retract your flaps and slats according to the schedule in the tables below.

> **NOISE ABATEMENT CLIMBOUT:** Passing 1,500 feet, set climb thrust and continue to climb at V2+10. At 3,000 feet, reduce climb rate in order to accelerate to 250 knots. Once at 250 knots, increase your climb rate to maintain 250 knots to 10,000 feet. Your climb rate will vary depending on the aircraft weight, engine performance, and weather. Remember to retract your flaps and slats according to the schedule in the tables below.

At 10,000 feet, turn off your landing lights. Lower the climb rate to approximately 1,500 ft/min (give or take, depending on weight) and let the airplane accelerate to a climb speed of 290 knots. At 290 knots, raise the nose again and maintain a 290 knot climbout. When 290 knots equals mach .74 (around FL280), maintain a mach speed of .72 - .74 up to cruise altitude..

If you are using the autopilot to maintain your climb rate, about 1,000 feet before capturing your cruise altitude, lower the vertical speed setting in the autopilot to 500-700 ft/min. This will enable a nice, smooth altitude capture (as the ability of the simulator to capture an altitude is less than optimal in most aircraft).

NOTE: Because of the design limitations of the autopilot in the simulator, many self-taught virtual pilots think that climbing up to cruise altitude is as simple as setting the autothrottle, altitude, and vertical speed, then kicking back and enjoying the ride. This is NOT a realistic way to climb in an airliner! Operating a large jet requires constant monitoring of EPR or N1 fan speed, air speed, and climb rate; it's not a "Set it and forget it" type of deal. As you are learning, it's almost easier to control the airplane's climb manually than with the autopilot vertical speed settings. What you want to do is set your climb EPR and then adjust your rate of climb higher or lower in order to maintain a certain air speed. Remember that as you get higher, it takes more power to climb and maintain that airspeed... The reaction is to give it more throttle, but you need to do avoid touching the throttles and instead reduce your rate of climb, which will in turn allow you to maintain your airspeed. You may be able to climb at 3,000 ft/min at FL100 and by the time you are at FL280, your climb rate may be as little as 500 ft/min in order to maintain 290 knots and your climb EPR setting. This is perfectly normal when flying airliners. And of course, the settings you use today may not be the same as what you need tomorrow, as aircraft weight and weather impact performance greatly. That's part of the fun of flying… it's always different!

CRUISE

Do not normally exceed .76 mach during cruise. Max cruise speed is .78 mach, normal cruise speed is .76 mach, and econo cruise is .74 mach.

DESCENT

From cruise altitude, rotate the vertical speed wheel on the AP to your desired descent rate. Maintain Mach cruise speed until FL280. At FL280, adjust the descent rate to descend at idle thrust and 290 knots. Reduce your descent rate to about 1000 ft/min at 12,000 feet to start bleeding off speed as you need to be at or below 250 knots at 10,000 feet. At 10,000 feet, turn on your landing lights. Set your IAS for 250 knots. Maintain 250 knots for the remainder of your descent until advised by ATC to reduce speed.

APPROACH AND LANDING

Determine aircraft landing weight from the fuel totalizer gauge. If the totalizer is inoperative, subtract the fuel consumed by both engines from the ramp gross weight.

Be sure to extend your slats and flaps according to the schedule listed in the tables below. By 30nm from the airport, you should be at 10,000 ft and 250 knots. At 15nm, your slats and flaps

should be extended as required and your airspeed should be around 210 knots. Passing 4,000 ft, start slowing to 170 knots; you should be at 170 knots at 2,000 feet, approximately 6 nm from the airport. Passing through 2,000 ft, lower the landing gear, set landing flaps, arm your ground spoilers, and slow to your target speed. At 1,000 ft, you should be approximately 3mn from the airport in full landing configuration. At 500 ft, your vertical speed should be <1500 fpm and engines should be spooled.

You should not have to touch the throttles much during the final approach phase of flight, as the added drag from the gear and flaps will slow the aircraft down gradually.

Minimum altitude for disengaging autopilot is 50 feet AGL unless in Autoland mode.

Plan to pass over the runway numbers at 50 feet AGL. At approximately 20 feet AGL, slowly reduce throttles to idle and initiate the flare. Maximum pitch attitude at touchdown is 10°. The airplane will gently settle onto the runway.

When the main gear touches down, the spoilers will extend. Pull the throttle levers immediately to the idle position while gently lowering the nose to the runway. Once the nose wheel is on the ground, reverse thrust power may be used up to 80% N1.

Upon reaching 70 knots, gradually reduce reverse thrust to reach the idle detent by 60 knots and then use manual braking to reduce to taxi speed. Leave throttles at idle until forward thrust is needed. Delay application of the wheel brakes until below 80 knots if possible.

Vacate the runway at the first available turnoff. When clear of the active runway, turn off your landing lights and turn off your strobes. Turn on your taxi lights and retract your spoilers, slats, and flaps.

Upon reaching the parking area, set the parking brake, shut down both engines, and turn off your rotating beacons.

That's the general procedure for flying the MD-87.

Most of the settings listed in this document were taken directly from official flight/aircraft documents, and only modified where necessary to compensate for shortcomings in the simulator.

MD-87 LIMITATIONS

WEIGHT LIMITATIONS:	**STANDARD**	**OPTIONAL**
Maximum Ramp Weight:	141,000 lbs	150,500 lbs
Maximum Takeoff Weight:	140,000 lbs	149,500 lbs
Maximum Landing Weight:	128,000 lbs	130,000 lbs
Maximum Zero Fuel Weight:	112,000 lbs	112,000 lbs
Operating Empty Weight:	73,274 lbs	74,880 lbs
Maximum Structural Payload:	38,726 lbs	37,120 lbs

Takeoff and landing weights may be further restricted by runway lengths and performance requirements.

FUEL REQUIREMENTS AND CAPACITIES

Minimum fuel for takeoff: 7,500 lbs
Minimum fuel for go-around: 1,000 lbs in each main tank

Fuel Capacity (density of 6.7 ppg)

- Main Tanks: 2 @ 1,383 gallons each (18,532 lbs total)
- Center Tank: 3,074 gallons (20,596 lbs)
- Fwd Auxiliary Tank (Optional): 565 gallons (3,785 lbs)
- Aft Auxiliary Tank (Optional): 565 gallons (3,785 lbs)
- Total: 5,840 gallons (39,128 lbs) or optional 6,970 gallons (46,698 lbs)

AIRSPEED LIMITATIONS:

Vmo: 340 KIAS
Mmo: 0.84 Mach

FLAPS EXTEND MAX SPEEDS

Slats (Mid Position): 280 KIAS / 0.57 Mach
Slats (Fully Extended): 240 KIAS / 0.57 Mach
Flaps 0-13: 280 KIAS / 0.57 Mach
Flaps 15-20: 240 KIAS / 0.57 Mach
Flaps 21-25: 220 KIAS / 0.57 Mach
Flaps 26-30: 200 KIAS / 0.57 Mach
Flaps 31-40: 195 KIAS / 0.57 Mach

LANDING GEAR MAX OPERATING SPEEDS

Extension: 300 KIAS
Retraction: 250 KIAS

TURBULENCE PENETRATION MAX SPEED

IAS/MACH:	280 KIAS / 0.75 to .79 Mach, whichever is lower
BELOW 10,000 FT:	250 KIAS

TIRE LIMITS

Do not exceed 195 knots ground speed

MAXIMUM OPERATIONAL ALTITUDE

37,000 feet

ENGINE REVERSERS

Reverse taxiing is prohibited
In-flight reversing is prohibited

WIND COMPONENTS

Maximum 10 knots Tailwind (Runway 6,500 ft and longer)
Maximum 30 knots Crosswind (Dry Runway) or 25 knots (Wet Runway)
Maximum 15 knots Crosswind (Autoland)

SPOILERS

The speed brakes must only be used with 0° flaps. Slats can be extended or retracted.
Do not move the speed brake lever to the ground spoiler position in flight
Do not extend the gear with the speed brakes deployed
Do not arm the ground spoilers prior to gear extension

AUTOPILOT LIMITATIONS

Minimum altitude for engaging the autopilot is 200 feet AGL
Minimum altitude for disengaging the autopilot is 50 feet (VFR) or 70 feet (IFR) AGL, except for Autoland

TAKEOFF AND LANDING LIMITATIONS

Maximum Takeoff and Landing Altitude: 8,500 ft
Minimum Takeoff and Landing Altitude: -1,000 ft
Hard Landing Limits: 600 feet/min

MD-87 REFERENCE CHARTS

OPTIMUM FLIGHT LEVEL vs. STAGE LENGTH

(No Wind, Standard Temperature, Normal Cruise)
This table gives the maximum and optimum cruise flight level for a given gross weight OR the maximum and optimum gross weight for a given flight level.

GROSS WEIGHT (lbs)	100 NM	150 NM	200 NM	250 NM	300 NM	MAX INITIAL FLIGHT LEVEL
150,000	-	-	-	-	-	310
145,000	-	-	-	-	-	310
140,000	130	200	260	300	330	330
135,000	130	200	260	310	330	330
130,000	130	210	270	310	330	330
125,000	140	220	280	320	350	350
120,000	140	230	290	330	350	350
115,000	150	230	290	330	350	370
110,000	150	240	300	340	370	370
105,000	160	240	310	340	370	370
100,000	160	250	310	350	370	370

TAKEOFF EPR / N1 RPM

RAT °C	-40	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40
Sea Level	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.91	1.88	1.84
	80.6	82.3	83.2	84.0	84.9	85.7	86.5	87.3	88.2	88.9	89.6	90.4	91.1	90.9	90.6	90.1
1000 feet	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.93	1.89	1.84
	81.6	83.3	84.2	85.0	85.9	86.7	87.6	88.4	89.2	89.9	90.7	91.5	92.3	91.9	91.1	90.1
2000 feet	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.94	1.89	1.84
	82.6	84.4	85.2	86.1	87.0	87.8	88.6	89.4	90.3	91.0	91.8	92.6	93.4	91.9	91.1	90.1
3000 feet	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.98	1.94	1.89	1.84
	83.6	85.4	86.2	87.1	88.0	88.8	89.7	90.5	91.4	92.1	92.9	93.7	93.8	91.9	91.1	90.1
4000 feet	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	1.99	1.94	1.89	1.84
	84.7	86.5	87.4	88.2	89.1	90.0	90.9	91.7	92.6	93.3	94.1	95.0	94.3	91.9	91.1	90.1
Above 5000 feet	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.02	1.99	1.94	1.89	1.84
	85.9	87.7	88.6	89.5	90.4	91.3	92.1	93.0	93.9	94.7	95.5	95.4	94.3	91.9	91.1	90.1

MD-80 SLAT/FLAP SETTINGS

SLATS RETRACTED / FLAPS 0
SLATS MID-EXTEND / FLAPS 0
SLATS MID-EXTEND / FLAPS 11
SLATS FULL-EXTEND / FLAPS 15
SLATS FULL-EXTEND / FLAPS 28
SLATS FULL-EXTEND / FLAPS 40

TAKEOFF SPEEDS

	FLAPS 15				FLAPS 11				
WEIGHT (lbs)	V1	VR	V2	FR	V1	VR	V2	FR	SR
90,000	100	107	118	133	102	110	121	133	157
92,000	101	109	119	134	104	111	122	134	159
94,000	102	110	120	135	105	113	123	135	160
96,000	103	112	122	137	107	114	125	137	162
98,000	105	114	123	138	108	116	126	138	163
100,000	106	115	124	139	110	117	127	139	165
102,000	108	116	125	140	111	118	128	140	167
104,000	109	117	127	142	113	120	129	142	168
106,000	111	119	128	143	114	121	131	143	170
108,000	112	120	130	145	116	123	132	145	171
110,000	114	121	131	146	117	124	133	146	173
112,000	115	122	132	147	118	125	134	147	175
114,000	117	124	133	148	120	127	136	148	176
116,000	118	125	134	149	121	128	137	149	178
118,000	120	127	135	150	122	129	138	150	179
120,000	121	128	136	151	124	130	139	151	181
122,000	122	129	137	152	125	132	140	152	182
124,000	124	130	138	153	127	133	141	153	184
126,000	125	131	140	155	128	134	142	155	185
128,000	126	133	141	156	129	135	144	156	187
130,000	128	134	142	157	131	136	145	157	188
132,000	129	135	143	158	132	138	146	158	189
134,000	130	136	144	159	133	139	147	159	191
136,000	132	138	145	160	135	140	148	160	192
138,000	133	139	146	161	136	141	149	161	194
140,000	135	140	147	162	138	142	150	162	195
142,000	136	141	149	164	139	143	151	164	196
144,000	137	142	150	165	140	145	152	165	198
146,000	139	143	151	166	141	146	154	166	199
148,000	140	144	152	167	143	147	155	167	201
150,000	141	145	153	168	144	148	156	168	202

If over 100 degrees F or over 4,000 feet altitude, add +2 to V1 / VR

V1 = Take-off decision speed. Before V1, the pilot can abort take-off. After V1, the pilot MUST take off
VR = Take-off rotation speed at which the pilot pulls the flight controls to raise the nose and take off
V2 = Take-off safety speed to be reached before passing 35 ft above runway altitude
FR = Speed to begin flap retraction
SR = Speed that flaps and slats should be fully retracted

MINIMUM MANEUVERING AND LANDING SPEEDS

	MINIMUM MANEUVERING FLAP / SLAT						LANDING		LANDING	
WEIGHT (lbs)	0 RET	0 EXT	11 EXT	15 EXT	28 EXT	40 EXT	FLAPS	VREF	FLAPS	VREF
86,000	190	148	130	128	119	115	28	111	40	107
88,000	192	150	132	130	121	117	28	113	40	109
90,000	194	152	133	131	122	118	28	114	40	110
92,000	197	154	134	133	123	119	28	115	40	111
94,000	199	155	136	134	124	120	28	116	40	112
96,000	201	157	138	135	126	122	28	117	40	113
98,000	203	159	139	136	127	123	28	118	40	114
100,000	205	160	141	138	129	124	28	120	40	116
102,000	207	162	142	139	130	125	28	121	40	117
104,000	209	164	144	140	131	127	28	122	40	118
106,000	211	165	145	142	132	128	28	123	40	119
108,000	213	167	146	143	134	129	28	124	40	120
110,000	215	168	147	144	135	130	28	125	40	121
112,000	217	170	149	146	136	131	28	127	40	122
114,000	219	171	150	147	137	132	28	128	40	123
116,000	221	173	152	148	138	134	28	129	40	125
118,000	223	174	153	149	139	135	28	130	40	126
120,000	225	176	154	150	141	136	28	131	40	127
122,000	227	177	155	152	142	137	28	132	40	128
124,000	229	178	157	153	143	138	28	133	40	129
126,000	230	180	158	154	144	139	28	134	40	130
128,000	232	182	159	156	145	140	28	135	40	131
130,000	234	183	160	157	146	141	28	136	40	132
132,000	236	185	161	158	148	143	28	137	40	133
134,000	237	186	163	159	149	144	28	138	40	134
136,000	239	187	164	161	150	145	28	139	40	135
138,000	241	188	165	162	151	146	28	140	40	136
140,000	243	190	166	163	152	147	28	141	40	137
142,000	244	191	167	164	153	148	28	142	40	138
144,000	246	193	168	165	154	149	28	143	40	139
146,000	248	194	169	166	155	150	28	144	40	140
148,000	250	196	171	168	156	151	28	145	40	141
150,000	251	197	172	169	157	152	28	146	40	142

FLAPS = Recommended flaps setting for landing
VREF = Speed at which the aircraft should cross the runway threshold during landing
RET = Retracted
EXT = Extended

MD-80 CHECKLISTS

PRESTART

Master Battery Switch	On
Electrical	On
Position Lights	On
Air Conditioning System	On
Radios	On
FMS/GPS	Checked

ENGINE START

Parking Brakes	Check
Fuel Quantity	Check
Beacons	On
Doors	Check
Air Conditioning Supply	Check
Throttle Levers	Idle
Fuel Boost Pumps	Check On
Ignition	Both
Pneumatic Pressure	Check
Fuel Heat	Set
Port Engine	Start
Starboard Engine	Start

AFTER START / BEFORE TAXI

Electrical Power	Check
Electrical Bus	Check
Ignition Switch	Off
Yaw Damper	On
Air Conditioning Temperature Switches	Check
Emergency Lights / Cabin Signs	Check
Hydraulic Pressure Indicators	Check

TAXI

Flight Instruments	Check
Taxi Lights	On
Fuel Heat	As Required
Flaps and Slats	Set Takeoff
Takeoff EPR	Set
Stabilizer Trim	Check
Flight Controls	Check
Brake Temperature	Check

TAKEOFF

Landing Lights	On
Strobes	On
Ignition	Both
Ice Protection	Check
Hydraulic Booster Pumps	On
Transponder	On
Radio Altimeter	Set

CLIMB AND CRUISE

Flaps and Slats	Full Up
Taxi Lights	Off
Landing Gear	Up
Ignition	Off
Boost Pumps	As Required
Air Conditioning Shutoff	Override
Hydraulic Boost Pumps	Off
Radio Altimeter	Check
Cabin Pressurization	Set
Passing 10,000ft - Landing Lights	Off

DESCENT

Cabin Pressure	Set
EPR Bug	Set
Hydraulic Boost Pumps	On
Passing 10,000ft - Landing Lights	On

APPROACH

Hydraulic Boost Pumps	Check On
Cabin Signs	On
Altimeters	Set
Navaids	Check
Flight Instruments	Check

LANDING

Landing Gear	Down / 3 Green
Ignition	Both
Spoilers	Auto
Annunciator Panel	Check
Landing Weight and Data	Check
Hydraulic Indicators	Check
Flaps and Slats	Set
Landing Lights	On

AFTER LANDING

Hydraulic Boost Pumps	Off
Flaps and Slats	Full Up and Retract
Spoilers	Retract
Landing Lights	Off
Strobes	Off
Ignition	Off
Anti-Ice Switches	Off
Taxi Lights	On

PARKING

Parking Brake	Set
Emergency Lights / Cabin Signs	Off
Air Conditioning Supply	As Needed
Taxi Lights	Off
Beacons	Off
Engines	Off
Flight Recorders	Off

SECURE

External Lighting	Off
Air Conditioning System	Off
Radios	Off
Electrical	Off
Master Battery Switch	Off