

This is a Familiarization Flight using the Aerofly FS 2 Boeing 737-500 aircraft flying in the free DLC area near San Francisco Bay. I am not experienced in flying the B735 aircraft but I am a pilot with considerable experience, including other multiple engine jets. I suggest you read the entire document once before getting started.

This is a relatively short flight, maybe 30 minutes total time, and demonstrates at least one way of taking off, climbing to 20,000 feet, making a speed run, descending to an IAF and making an AP assisted ILS approach to a full stop landing.

I use multiple modes for climbing, descending, and making speed adjustment mainly to show that most things can be done in more than one way.

This is not a tutorial and I am not saying this way is better than another, or even if it is correct. But, how correct does it need to be if we walk away from the flight in one piece and we do it in a flight simulator.

If you would like to try your hand in replicating this flight, and it is totally an enjoyable one with plenty of scenic views of the bay area and San Francisco, then please join in.

I start by building a route using the Navigation Page to clear out any existing flight plan, Upper Right corner, one click required on the symbol in the middle.



I then move to the Location Page and resize as necessary to place the Green Airplane in the circle directly over Modesto airport (almost due East of San Francisco).

I then click on the airplane and select runway 28R as my Takeoff position. This returns me to the Start screen where I select the Navigation Box.



I move the screen just slightly to the right so I can see the Oakland airport. One click on Oakland and I can select the airport symbol on the right panel. I verify it is KOAK, runway 10000 ft, elev 9 ft and click on the landing airplane symbol for RWY 12 (for AP assisted ILS landings the airport must have an ILS frequency listed on this page).

An alternate method of selecting your Destination Airport is to scroll down the list of airports until you find Oakland. The airports are listed by distance so look around 60 nm for KOAK. You may have to enlarge the viewing area to expand the distance.

Either way, select Oakland KOAK RWY 12 as your Destination

Don't leave this page just yet, we have to customize our flight path. I added the following checkpoints in this order:

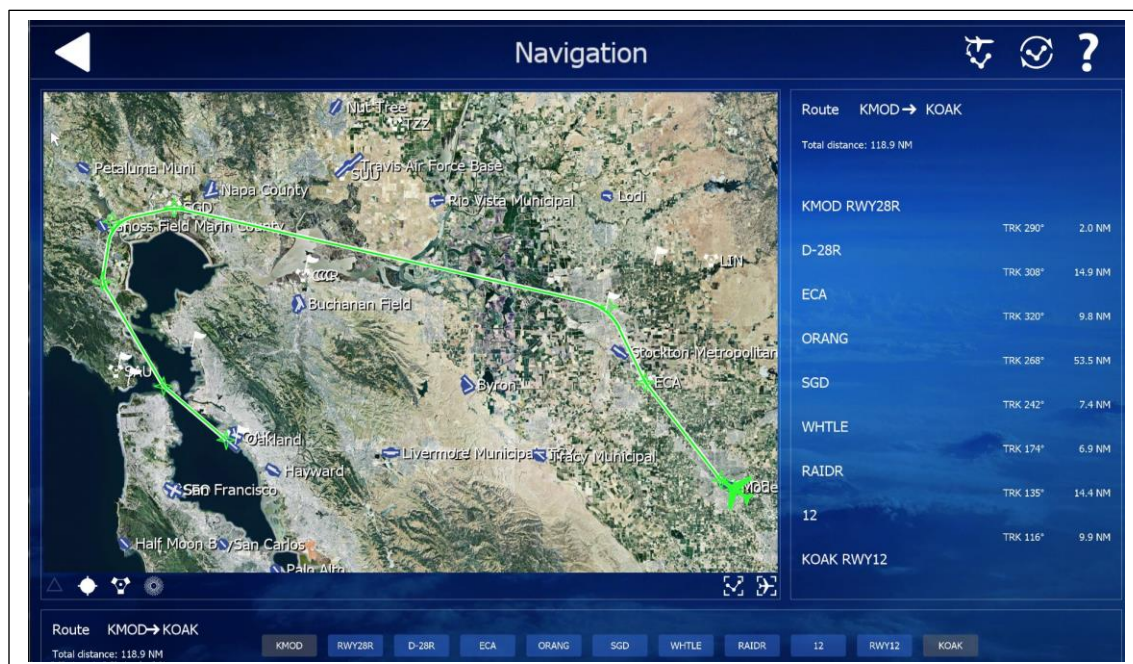
SGD VOR (Scaggs Island) North of the lake of the left side near Napa County airport = click on the dot I the center of the VOR symbol, then click on the Green Plus to Add to route.

ECA VOR (Nabteca) just North of Modesto airport where will be taking off shortly. Click on the VOR symbol then click the Green Plus to add to route.

ORANG intersection - just North of Stockton Metro airport. Make sure the white triangle is showing in the lower left in the row with airports, VOR, and NBD. (it is normally turned off to save on the clutter). Zoom in on your NAV screen to see the cluster of triangles just North of Stockton Metro. Click on each one until you see ORANG, then click the Green Plus to add to route.

Now arrange your NAV screen to enlarge the approach path to KOAK . Hunt and peck until you find the intersection for **RAIDR**. Yep, as in Oakland Raiders. When you find it click on the Green Plus to add to route.

Last checkpoint – Just above the RAIDR intersection near the Gness Field Marin County airport find **WHTLE** intersection. Find it and click on the Green Plus to add to route.

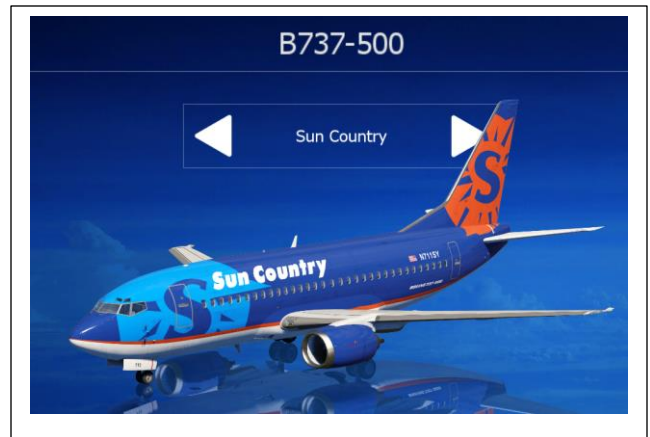


The reasoning behind selecting these obscure little intersections will become more apparent when we are flying the route. Just to make sure our routes are the same mine is 118.9 NM



Select the B737-500 Aircraft, I used the Sun Country livery, then click on START box.

You should be looking at your airplane with engines running and ready for takeoff on 28R. Check that you have the Flight Info Panel at the top of your screen. Do you see the green route info on the right side?



OK. Go to the Conditions Page and set the wind for 116 Degree and near the Calm side. You can set the time to UTC 20h for San Francisco.

Time for final setup of the cockpit. It will be the same as you left it from a previous flight. This is our clearance:

Sun Country Heavy cleared from MODESTO to OAKLAND as filed. Cleared direct to 20,000 feet. Cleared ILS approach RWY 12 KOAK. Be advised traffic is extremely light in the bay area today. Report level at Altitude.

Set of MCP (Mode Control Panel) in aircraft

1. Place cursor on ALT knob and roll wheel for 20000 feet
2. Set HDG SEL to 116 degrees (Knob with white triangle)
3. Set SPEED to 205, Course setting is not important at this time.
4. Turn FD switch to ON (left side of MCP) then dial up 3000 feet in VERT SPEED window.

Check that A/T ARM switch is OFF, and make damn sure the AP is OFF. (Green V/S will illuminate when FD is turned ON.)

5. Verify FLAP setting is 5 (Pre-set by flt sim) and 3 Greens for Landing Gear status.
6. Set Elevator Trim for Takeoff – (In Green Band) Nose heavy is desired change as needed.
7. Write down the TIME of DAY. Checklist complete, Ready to fly.



VR, Rotate speed is 145 knots. Keep back pressure on yoke until positive rate and near end of runway. DO NOT retract the Landing Gear until after Speed is Set on MCP.

Smoothly apply full throttles, rotate at 145 kts (use A/S or Flight Info Strip)

When on a solid climb path, click A/T ON switch on left side of MCP, Click L NAV , turn on AP, then click SPEED in this order.

Retract the Landing Gear, and raise FLAPs to FLAP 2

As plane banks right to start climb, raise FLAP to FLAP 1.

Raise FLAPs to FLAP 0

Verify you are following the route and climbing at about 200 knots or so.

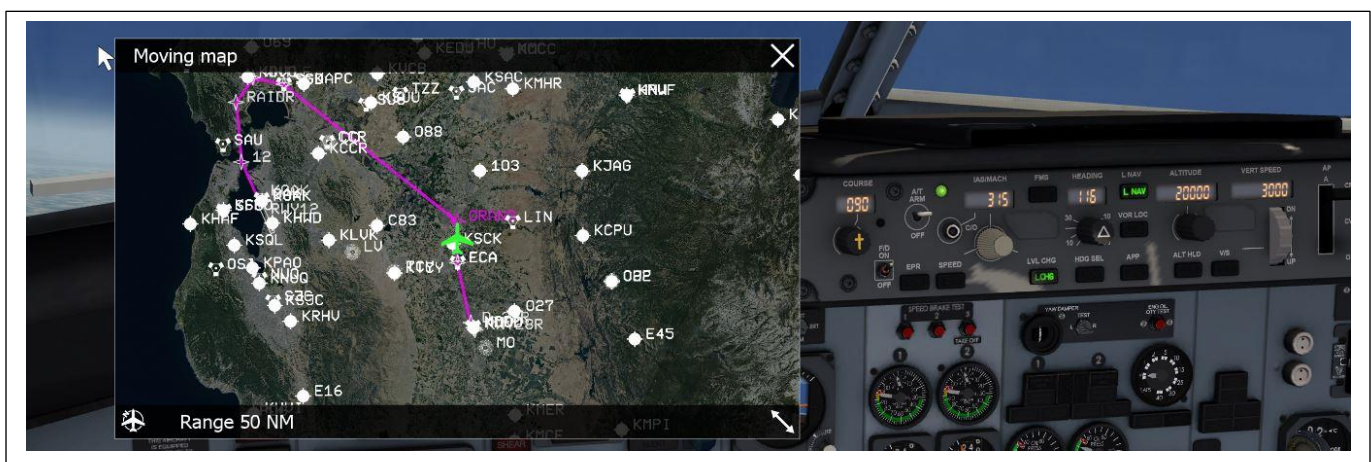
Use mouse to change speed to 250 knots **Check that GEAR is UP and FLAP are UP.**

At 10,000 feet click the LVL CHG button on MCP. Notice sharp increase in climb rate. LCHG button turns green.

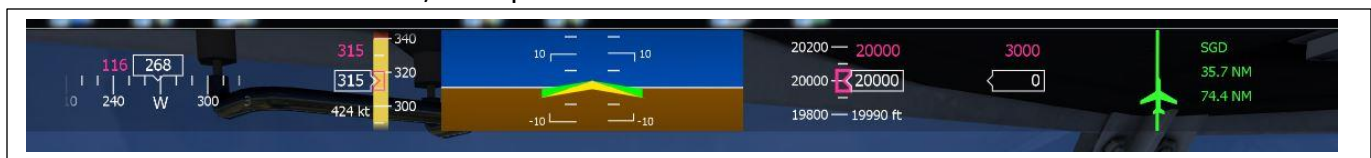
Increase SPEED to 315 knots on MCP with mouse wheel.

REPORT Level at 20,000 feet. Response, Roger, understand Sun Country Heavy level at 20.

Press keyboard M to bring up Moving Map. Set image size and range with mouse wheel to see entire route.



Look up at the green route info and when you are 35 nm from SGD, change the ALT in window to 10000 feet and Press the LVL CHG button. Verify Green LCHG and immediate start of descent. ROD ~ 3,000 fpm



As you approach 10,000 feet, change the SPEED to 240 knots. You will be about 5 nm or so from the SGD VOR at this time.

You should now be almost to the SGD VOR level at 10,000 feet with the speed slowly dropping to ~240 kts. ALT HLD should be Green now.

As the plane makes the left turn at SGD VOR , change the selected ALT to 5,000 feet and Press LVL CHG. Verify Green light and start of descent. (engines get quiet here)

Use this time to select the External view and look at the bay area. But, be ready for the **IAF coming up at RAIDR**. Gorgeous sights. OK back into the cockpit.

At RAIDR intersection you should be level at 5,000 feet and around 240 knots. **Change speed to 200 kts and set ALT window to 2,900 Feet.** Use the VERT SPEED wheel on the MCP to **select -900 fpm** then **press the V/S button**. Verify Green V/S and immediate start of slight descent.



You have now started your approach across the bay. Next checkpoint is the 12 checkpoint which is ALCAT OAK on the approach plate. You should be no less than 2,900 feet at this checkpoint. You may need to press the ALT HLD button at 2,900 feet.

Lower SPEED to 170 kts

Press the APP button now to initiate the final ILS descent; **VLOC green** will come on when the GS is locked on.



Deploy FLAPs 1 now, FLPS2 now

Gear DOWN at 2,900 feet, then FLAPS 3. You should have Alcatraz out the right window and the Oakland Bay Bridge on your nose.

Expect a slight turn to the left as the AP picks up the final approach path. Glide Slope will be locked on and VLOC in green will appear on MCP. Hear 2,500 ft verbal callout.

You should be looking down Runway 12 and at about 1500 feet altitude

Hear 1,000 feet callout

Lower SPEED to 150 add FULL FLAPS. Get ready to take over manually and Land

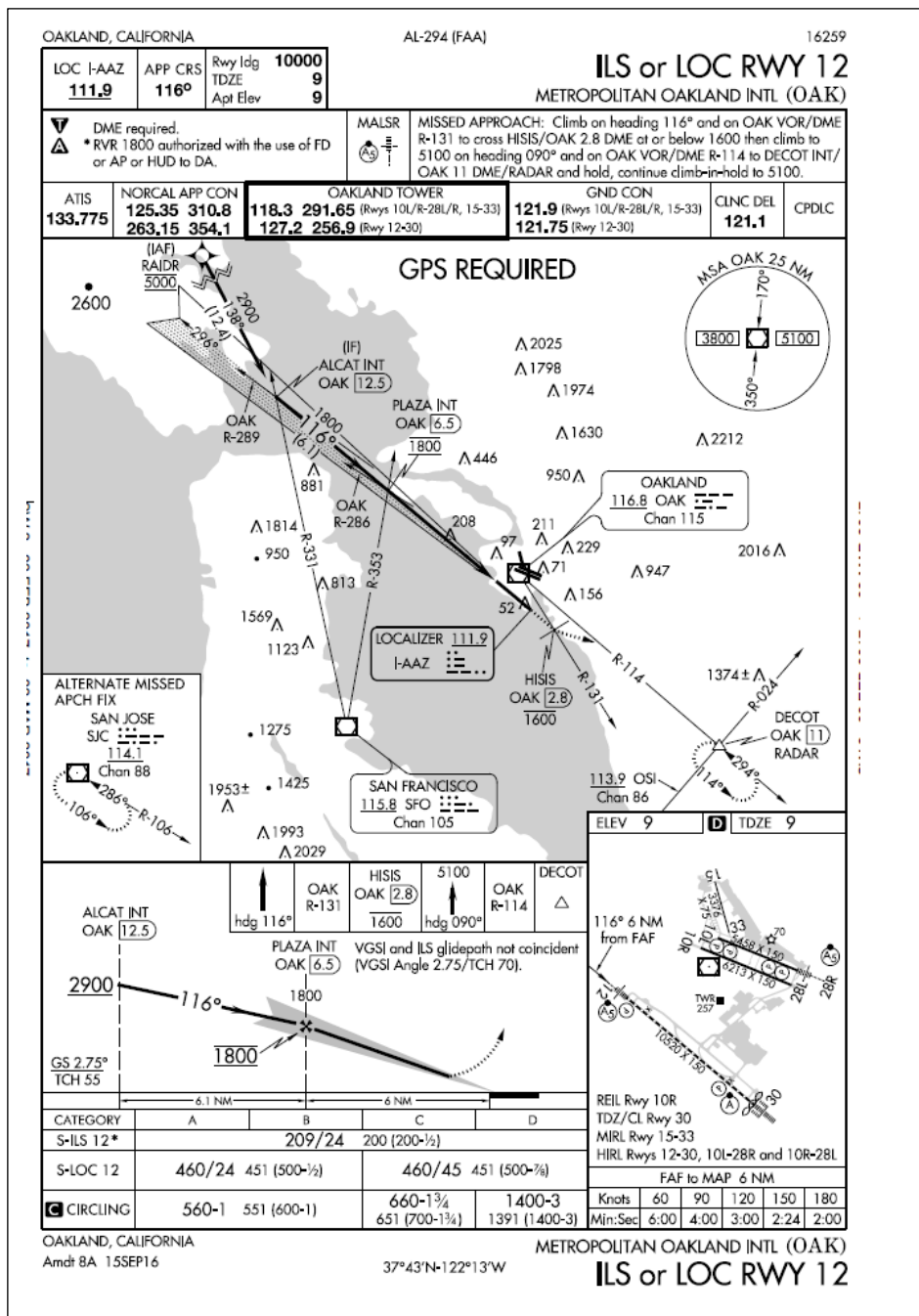
Reset your throttle to mid-range. **Turn OFF A/T, turn OFF AP.**

Give yourself enough time for any last minute adjustment for center line alignment. You have 2 miles of runway so ease it down slowly and smoothly. Left turn off at 45 deg angle 2nd half of runway. Taxi to base of the Tower.

Check Time of Day.

Now that you know the ropes, do it one more time for even more fun. Now time to plan and fly your own HUD route and approach.

Thanks for flying with Sun Country Airlines. Have a nice day.



Route KMOD → KOAK

Total distance: 118.9 NM

KMOD RWY28R

TRK 290° 2.0 NM

D-28R

TRK 308° 14.9 NM

ECA

TRK 320° 9.8 NM

ORANG

TRK 268° 53.5 NM

SGD

TRK 242° 7.4 NM

WHTLE

TRK 174° 6.9 NM

RAIDR

TRK 135° 14.4 NM

12

TRK 116° 9.9 NM

KOAK RWY12

