

LA-Catalina (V1.0)

Flight created on 06.04.2026

Estimated flight time: 1 hour

Difficulty level: Easy - Extremely Hard

Objective: Fly from Los Angeles to Catalina.

Requirements: The “Piper Cherokee” is required for this flight.

Download this aircraft here:

<https://www.rikoooo.com/downloads/viewdownload/51/361>

(This aircraft also works in P3D V6, even though the website only lists P3D V4/5 compatibility.)

If the download link does not work, contact me: p3d@andi20.ch

Introduction:

On January 26, 2026, my 14-year-old gaming PC unexpectedly broke down.

It took about a month—from the PC failure, troubleshooting, and waiting until the custom-built PC was delivered and set up.

What did I do while I waited?

I dug out my 40-year-old C-64 and flew using Flight Simulator 2 by “subLOGIC” (the direct predecessor of P3D).

I flew a route from LA to Catalina using VOR navigation; for this, I scanned the original map and drew a route with a pen and ruler.

I re-flew exactly this same route on the new PC and turned it into a mission.

You can find more information about the PC failure and the flight with the C64 at the very bottom.

Flight:

You are at [Los Angeles International Airport \(KLAX\)](#), on Runway 7R. The flight takes you along the [058° radial to the Pomona VOR](#), near [Brackett Airport \(KPOC\)](#).

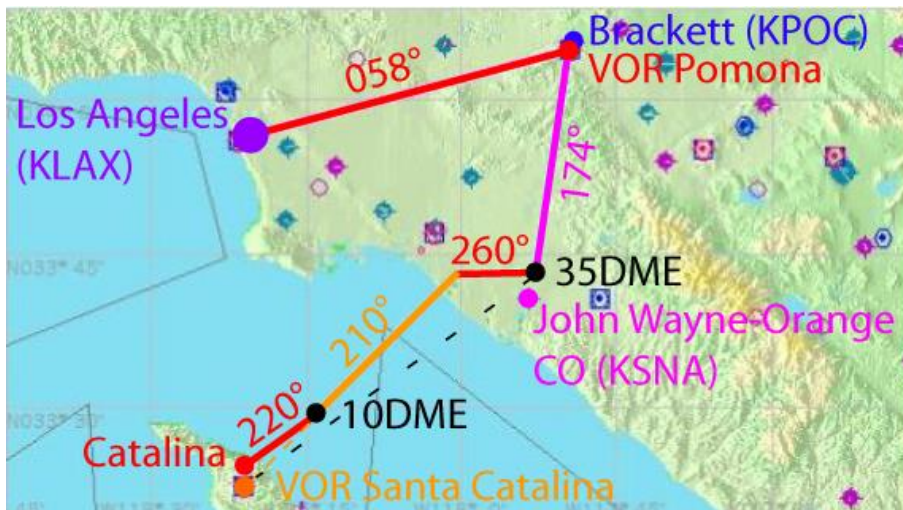
On the [outbound 174° radial](#) from the Pomona VOR, you head south toward [John Wayne-Orange County Airport \(KSNA\)](#).

At 35DME (distance to VOR Santa Catalina), head west on a [heading of 260°](#).

You will intercept the [210° radial from VOR Santa Catalina](#) and follow it.

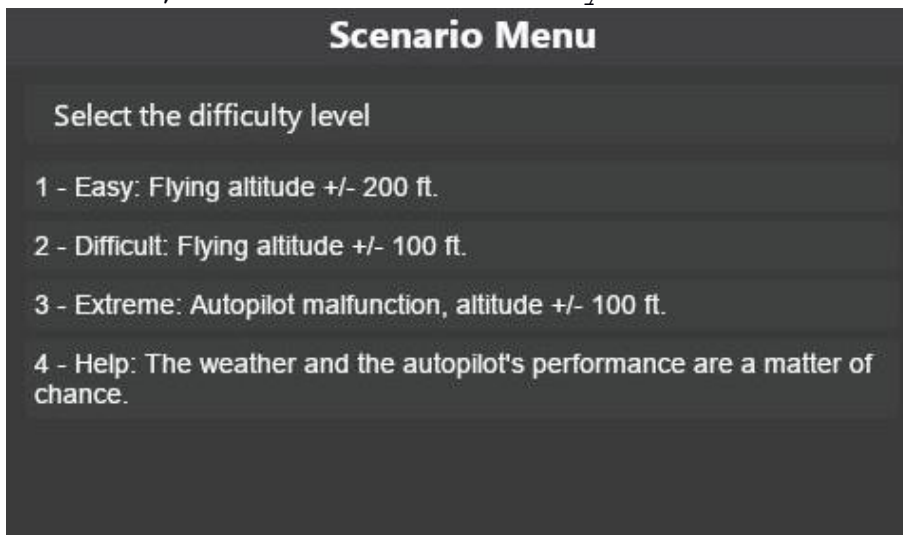
Descend to 3,000 feet at 20DME.

At 10 DME, fly a heading of 220° to [Catalina Airport \(KAVX\)](#).



Start:

To start, select the difficulty level:



1 - Easy:

- a) Very forgiving flight; the 5,000-foot altitude must be maintained to within 200 feet.
- b) Although lateral deviation from the course is limited to one mark on the VOR display, it does not have to be strictly adhered to.

2 - Hard:

- a) If you deviate by 100 feet from the required 5,000-foot altitude, the flight fails.
- b) If the lateral deviation exceeds one mark, the flight fails.

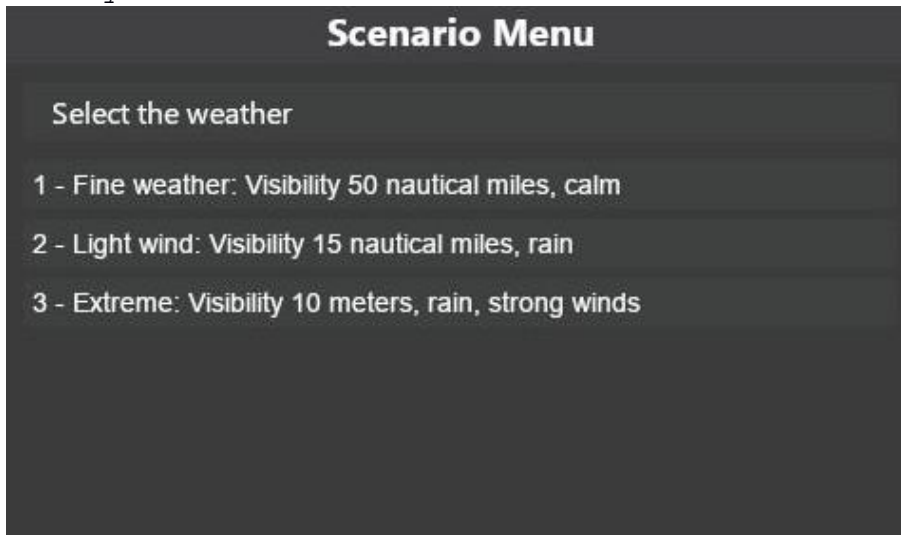
3 - Extreme:

- a) As with "Hard," you must maintain 5,000 feet with a tolerance of +/-100 feet.
- b) If you deviate laterally by more than one mark, the flight fails.
- c) The autopilot does not work here; you must fly everything

manually.

4 - Probably the most interesting mode, because here not only is one of the above 3 options selected at random, but the following possibilities are also chosen randomly. So you don't know what the weather conditions will be or whether you'll get any help.

Then you select the weather:

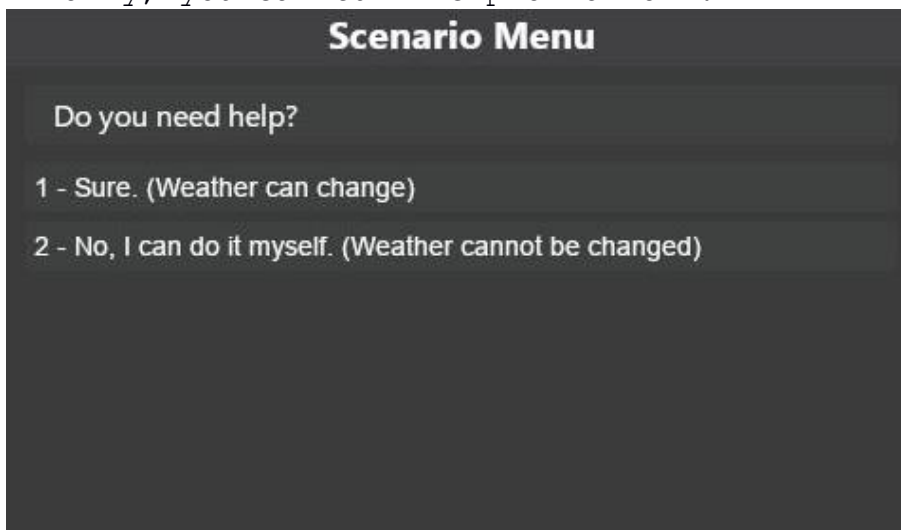


1 - Fair weather: There is practically no wind, and visibility is very good at 50 NM (nautical miles).

2 - Light wind: Visibility is 15 NM, it is raining, and the wind is blowing at 10-15 knots.

3 - Extreme: Visibility 10 NM, rain, wind speed 15-20 knots, with moderate to strong turbulence/wind shear

Finally, you can turn help on or off:



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Information about the aircraft:

I assume you are familiar with the instruments, so I will only describe the relevant ones and any special features here.

Main instruments:

Instruments 1, 2, and 3 are important for maintaining the flight path.



1 = Heading Indicator

This instrument always displays the current heading (at the top). The red marker indicates the HDG setting that the autopilot is following, provided HDG is activated in the AP.

When I fly without the autopilot, I always set the HDG pointer to my desired heading so that I have a visual reference. Before a turn, I set the pointer to the new heading so that I can easily see when I've reached the desired heading during the turn.

2 = VOR1

Use the knob at the bottom left to set the desired VOR1 radial; for the first leg of the route, this is 058°.

3 = VOR2

Use the knob at the bottom left to set the desired VOR2 radial; for the first leg of the route, this is 174°.

In the red rectangle, you'll see 4 warning lights.

During normal flight, these should not be lit.

- During takeoff, this warning light comes on when you apply full throttle. This is permitted for a short time, but after takeoff, you should reduce power.



- If the engine has been damaged due to excessive speed, oil will leak and oil pressure will drop. When the pressure reaches a critical level, the first two warning lights may come on.



Radio Group:

Here are the required items.



1 = NAV1

Here you set the frequency of the VOR station you are approaching. The corresponding radial is set on VOR1 (see Main Instruments No. 2).

- The left number (110.40) is the active frequency, which cannot be changed.

- The number on the right (111.40) is the standby frequency, which can be changed by clicking on the numbers.

- The double arrow below swaps the two frequencies above.

2 = NAV2

NAV2 works like NAV1; you can find the corresponding radial display among the main instruments (No. 3).

3 = COM1

The radio is typically used to communicate with air traffic control/the tower. On the C64, the radio could only be used to listen to weather information. There was no two-way communication with air traffic control/the tower.

That is why the radio is used only for weather information on this flight.

Set the frequency to 133.80 in standby mode and activate the frequency.
You will now hear the weather information on a continuous loop.
Once you have heard enough, switch the frequency back to standby.

4 = DME display

The DME display shows you the distance to VOR1, here 32.7 nautical miles.

This display is off at the start of the flight, so activate it using the button in the red rectangle.

Autopilot:

The autopilot controls on this aircraft work slightly differently than on most other aircraft.



If you want to set up the autopilot before takeoff, click on AP and ALT.

Now you can use the slider in the red rectangle to set the altitude to 5,000 feet.



Next, click on VS; you can now adjust the climb rate using UP/DN (in the red rectangle).

Deactivate VS, ALT, and AP, and check the elevator trim. You'll find the elevator trim to the right of the power quadrant. The autopilot has likely set the trim to +15. If you were to take off like that, it would be a disaster. So reset the trim to a normal value (0, or at most +3.5).

Control Panel:

On the control panel above the radio group, you normally activate NAV, DME, and ADF sounds. This is a Morse code for the respective radio station. It is typically used to audibly verify that you have set the correct frequency. Since you practically never use these buttons, I have "reprogrammed" them for other purposes.



In "Assist" mode, the buttons have the following functions:

- 1) This button displays the radial lines to the VOR stations.
- 2) This button hides the radial lines to the VOR stations.
- 3) Changes the weather to: Strong wind, visibility 10 nautical miles, rain
- 4) Changes the weather to: Light wind, visibility 15 nautical miles, rain
- 5) Changes the weather to: Fair weather, visibility 50 nautical miles, calm

Tips:

1. VOR Navigation:

On this flight, you must rely on the VOR readings; straying too far off course will result in mission failure.

This is what the VOR1 reading looks like when you are perfectly on course:



The vertical line is exactly in the middle.

If you look to the left of the given course, it looks like this:



The vertical line is one mark to the right of center. So you need to correct to the right.

Incidentally, this is also the maximum lateral deviation allowed; if the needle moves further to the right, the flight fails.

To help you better understand the indicators, here's a comparison:

Indicator Aircraft position

Exactly on course:



Turn left (20 NM from VOR):



Turn left (5 NM from the VOR):



As you can see, the closer you get to the VOR, the smaller the permitted lateral deviation becomes, even though the VOR1 indicator remains offset by a single mark.

Permitted deviation at:

20NM: 4,642 feet | 1,415 meters

5NM: 1,496 feet | 456 meters

2.2NM: 912 feet | 278 meters

The first leg of the route to the Pomona VOR must be flown with particular precision, as the maximum permitted deviation at the end is the 912 feet (278 meters) mentioned above.

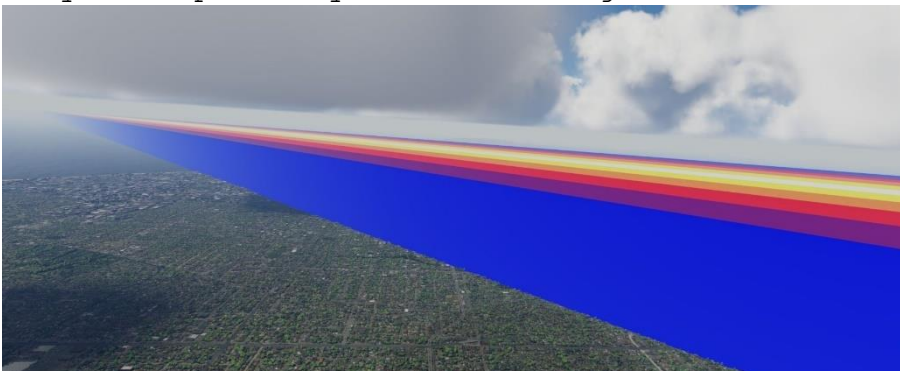
The radial of a VOR station illustrated differently here:



White indicates the desired radial; yellow shows one degree more or less, orange two degrees, and so on, up to blue at $\pm 5^\circ$.

By the way, for the approach to the 210° radial at VOR Santa Catalina, you can display these colored radials.

The target is the white line. You're approaching at a steep angle, so you'll probably see something like this:



2) Engine Problem

If the engine has been damaged due to excessive speed, the flight can still continue.

However, after landing, the engine may shut down if the power is reduced to zero.

In this case, these two lights will come on:



The flight is not considered complete until you have taxied to the parking area, so it's best not to let the engine stall; instead, increase the throttle slightly as soon as these lights come on.

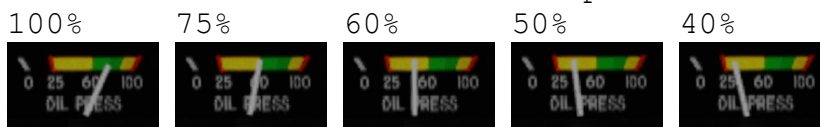
If the engine does stall, proceed as follows:

Increase power and restart the engine. The ignition switch is located under the control stick and is barely visible.

Alternatively, press CTRL+E.

3) Oil Pressure

If the engine is having problems and losing oil, you can monitor this via the oil pressure gauge. You'll find the gauge in the bottom-left corner of the cockpit.



4) Wind

The wind is blowing roughly from the south (180°), so you'll have to contend with different wind speeds during each phase of the flight.

Here's a visual aid to help you better visualize the direction from which the wind is blowing against the plane.

When you're on the runway, the wind is blowing like this:

So you have a slight tailwind. Normally, you'd take off into the wind, but because the weather is very changeable today and the wind direction shifted just a few moments ago, Runway 7R is still in use.



Section 1 (058° radial): Fly a heading of 066° in light winds to stay on course; in strong winds, you'll need to countersteer even more.

With a runway heading of 071° , you'll never reach the 058° radial in strong winds because the wind will push you off course. In this case, you'll need to fly a heading of 080° or higher.



Section 2 (outgoing 174° radial): Here, the wind comes from the front, sometimes slightly from the left or right.



Section 3 (course 260°): The wind is coming from the left here, but don't let that bother you—just stay on course 260° .



Section 4 (Heading 210°): On the approach to the Santa Catalina VOR, the wind is coming from the front left.



5) Aileron/Elevator Trim

When flying in light or strong winds, you'll have to constantly adjust the control stick and pedals to prevent the plane from drifting.

Aileron and elevator trim would be helpful here. Unfortunately, I haven't found any corresponding trim wheels or buttons in the cockpit.

However, the aircraft can definitely be trimmed. You can either use hardware with corresponding trim wheels or buttons (e.g., buttons on the control stick), or use keyboard commands.

- Under Key Assignment, search for "Aileron trim" (left | center | right) and assign suitable keys to the three commands to control the ailerons.
- For the rudder, search for "Rudder trim (left | center | right).

6) Autopilot

- If you're using the autopilot, you can easily follow the first section by activating AP and NAV. The autopilot cannot follow the second section, which uses NAV2, because it only "looks" at NAV1. Therefore, set the appropriate heading on the Heading Indicator (primary instrument #1) (start at 190; adjust accordingly as you approach the 174° radial). When changing sections, deactivate NAV and activate HDG.

- To maintain an altitude of 5,000 feet, only ALT needs to be activated (and, of course, AP Master). You only need to activate VS if you want to change the climb rate. The default for this autopilot is 500 ft/min. This is fine for descent, but for climb, 700-1,000 ft/min should be set.

PC damage:

As mentioned earlier, on January 26, 2026, my 14-year-old gaming PC unexpectedly stopped working.

- When I turned it on, the power supply just made a "click-clack" sound and the PC stayed off. The day before, the PC had been working perfectly; there were no warning signs like frequent crashes or startup issues.

- What now? Troubleshooting: first, I removed all external devices (USB drives, flight simulator hardware, mouse, keyboard, etc.), "click-clack."

- Hopefully, it was just the power supply that was defective, so I replaced it, but the new power supply also just made a "click-clack" sound.

- So I opened up the PC and removed everything non-essential (RAM, graphics card, drives, etc.), "click-clack." The PC shuts down before it can even boot into the BIOS, which would detect the remaining hardware.

- Unplugged the auxiliary CPU power connector, "click" (the PC doesn't shut down immediately, but nothing works without the CPU) . Removed the processor and plugged in the auxiliary power supply, "click." Great, either the processor or the motherboard is defective. Trying to find a suitable replacement for 14-year-old hardware is pointless.

I need a new PC—it was actually planned for this year anyway, just

not this soon. I've been looking for a suitable machine for a while, but no pre-built PC meets my requirements.

I'm not going to buy a PC that costs 6,000 francs, has only a single 2TB SSD, and doesn't even have an optical drive (CD/DVD/Blu-ray burner).

Since I run three versions of P3D side by side (P3D V4, V5, V6) and use other software as well (lots of games, graphics/video/music programs, etc.), I need at least two 4TB SSDs, a large 16TB hard drive for mass storage, and a CD/DVD/Blu-ray burner. Sure, I could connect everything externally via USB, but especially with the SSDs, I'd much rather have them internally, directly in the fast motherboard slot. Besides, I've already used up 14 USB ports just for the flight simulator hardware, so I don't want to have all the storage media floating around externally as well. Sure, I already have external HDs hooked up for backups, but the core of my software, including regular backups, should definitely be inside the computer.

So the only option was a retailer who could build me a custom PC. It took about a month—between PC failures, troubleshooting, and waiting—until the PC built specifically for me was delivered and set up.

I passed the time with the 40-year-old C64 and subLOGIC's Flight Simulator 2.

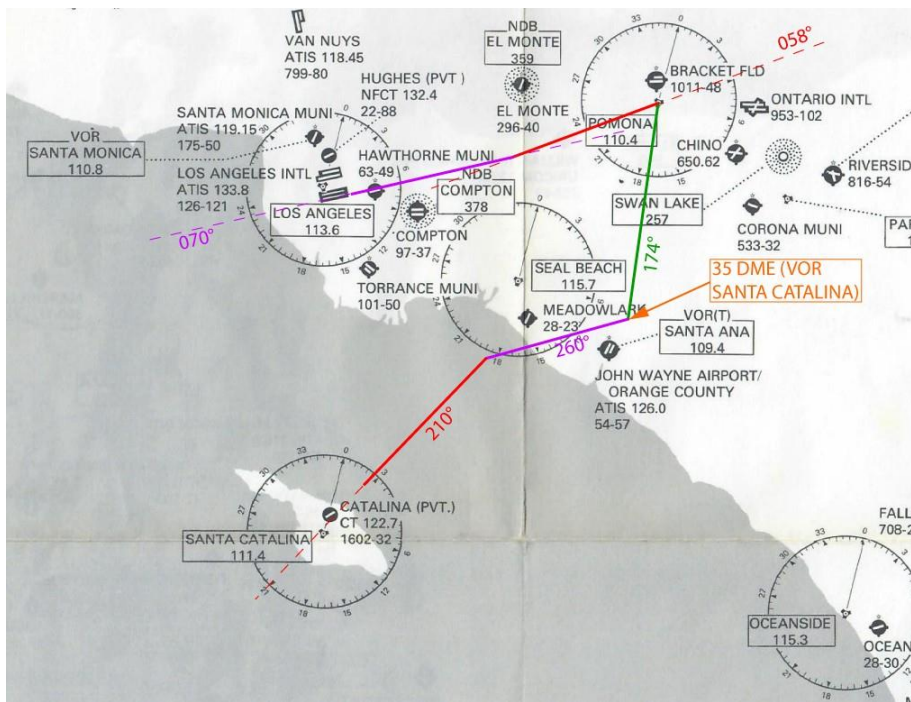
Good old, indestructible hardware that still works perfectly.

I had to re-learn how to fly with the rather clunky controls and a meager 0.6 to 2 FPS, but it was a lot of fun.

Flight using "Flight Simulator 2 by subLOGIC":

I flew from LA to Catalina using VOR navigation; to do this, I scanned the original chart and drew a route using a pen and ruler.

Here is the digitally redrawn version:



Shortly after takeoff, I switched to the rear view; you can see LAX getting smaller.
By the way, that thick vertical bar in the middle is the tail unit.



Here's what the same situation looks like in P3D:

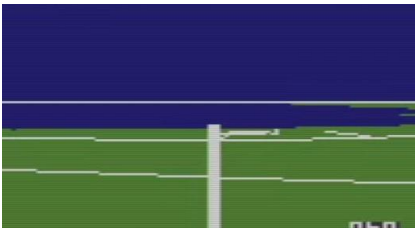


It's amazing how much detail you could see back then on the C64!

When I reached 5,000 feet, I looked back and thought about how beautiful flying is in P3D—you don't just see a few pixels, but the entire airport in fine detail.

But the comparison shows:

C64



P3d



I can't really see much in P3D anymore; I can see the second airport (on the right) much better in C64, at least.

So I flew my planned route, and as I approached Catalina, I wished I had my P3D, because in that game you can see the airport from a distance, unlike in C64—or so I thought. Yeah, right...



On the C64, you can clearly see the three pixels that make up the runway. In P3D, you can't see anything unless you know where to look.



Admittedly, the final approach is much easier in P3D because you can make precise adjustments with modern hardware, unlike on the C64, where you can only press one key at a time—never two, as that

overloads the keyboard decoder.
Still, it's amazing how good the flight simulator already was back then.

Comparison of final approaches:

C64



P3d



If you'd like, you can recreate this flight on the C64, the C64U, or a C64 emulator.

You can find all the necessary information, maps, etc., here:

<https://andi20.ch/c64/FlightLA-Catalina.html>

By the way, a map (with flight details) is available for printing in this flight's storage directory.

Here's a preview:

Flight from Los Angeles International to Catalina (in SubLogic's Flight Simulator 2 for the C64)

- Prepare flight (launch the flight simulator and press E to switch to the editor, then):

AUTO-COORDINATION=0 | REALITY MODE=1 | NORTH POSITION=15371 | EAST POSITION=5800 | ALTITUDE=0
HEADING=74 | Time 8:00 a.m.

Exit the editor and check the position:

(If the heading is incorrect, go back into the editor and re-enter 74.)

Incorrect heading

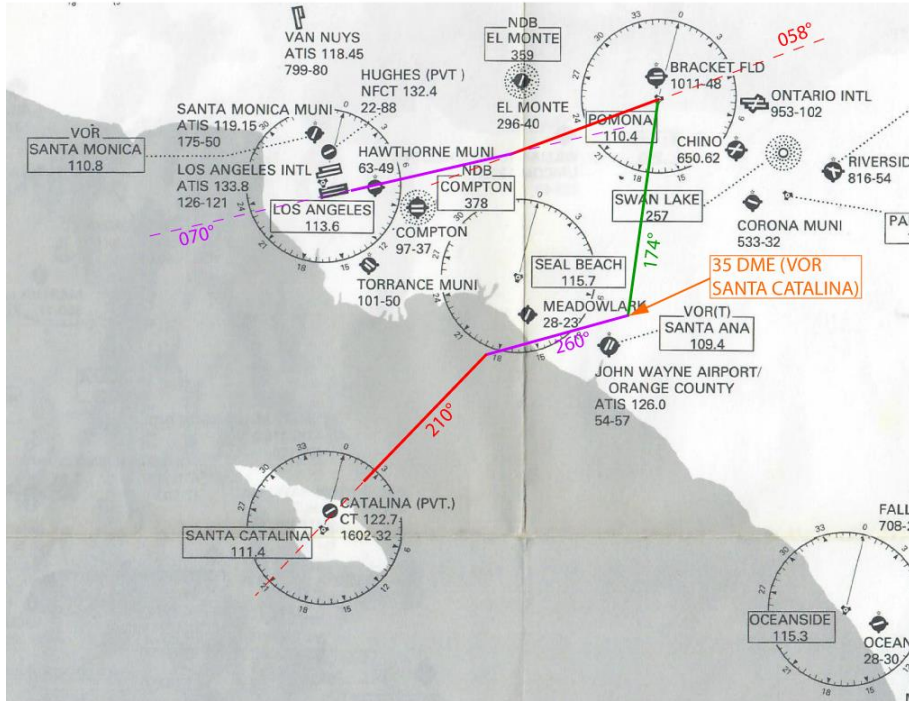


Correct heading



- Prepare aircraft: Start engine (CTRL+M,5) | Set trim for takeoff (5xV)

- Radio settings: COM=133.8 | NAV1+2=110.4 | VOR1=58 | VOR2=174



Flight description:

- Take off and climb to 5,000 feet, maintaining a runway heading of **070°** until you reach the **058° radial from VOR POMONA (110.4)**.

- Follow the 058° radial to 1 DME, then turn right and **pick up the outgoing 174° radial**.

(Use the display on the NAV2 for this)

- Now set VOR1 to 111.4 (VOR SANTA CATALINA) and NAV1 to 210. Keep an eye on the DME distance; at **35 DME**, turn right to a heading of **260°**.

- Maintain a heading of 260° until you intercept the **210° radial from VOR SANTA CATALINA**. Align with the 210° radial and descend to 3,000 feet at 20 DME. As soon as the airport comes into view, head for Runway 22.



I hope you enjoyed this flight, if so please give feedback to p3d@andi20.ch . Also send error messages (spelling mistakes, wrong information, etc.) to p3d@andi20.ch, I appreciate any feedback.