

Discovery Flight

The Pilot Club



September 21 , 2024
23:59Z | 7:59PM EDT

Not a TPC Member?! Click [here](#) to join!



- Recommend airplane: single or twin engine 100-150kts. No jets, airliners, or gliders please.
- Set the weather to either live weather (if VMC) or clear skies.
- **Turn off ATC voices in your sim.**
- You must be a VATSIM member with an approved pilot client installed prior to this flight – see the end of this document for instructions for registering.
- Download airport charts prior to flight

- **WANT TO LEARN MORE?:** Sign up for the TPC Flight School's Private Pilot License Course (PPL) which mimics real world flight training and receive your VATSIM P1: [The Pilot Club Flight School](#)

Suggested add-ons & charts

1. Detroit Sectional

FSX/P3d	X-Plane 11	MSFS 2020
		We Love VFR - Region 2 » Microsoft Flight Simulator

Flight plan

KMDW - KMLI (126 NM)

Alternative flight plan

There are towered airports along the route that we can use as an alternate if needed.

Using **SkyVector** to get flight route and airport information:

Use the Briefing section of this document to understand the flow of the flight. Use Sky Vector, a free website ([SkyVector: Flight Planning / Aeronautical Charts](#)) to visualize the route and obtain important airport chart supplements.

Once you load up Sky Vector, click on "Flight Plan", then enter the departure and destination airports, as well as KGON in the large box below. A magenta line will appear in Skyvector to outline the magnetic heading and distance of the trip.

Flight Plan [Icons] [Close]

Aircraft TAIL # ✈ Spd 110 Alt 080 Fuel 0

Departure KMDW [Chicago Midway International](#)

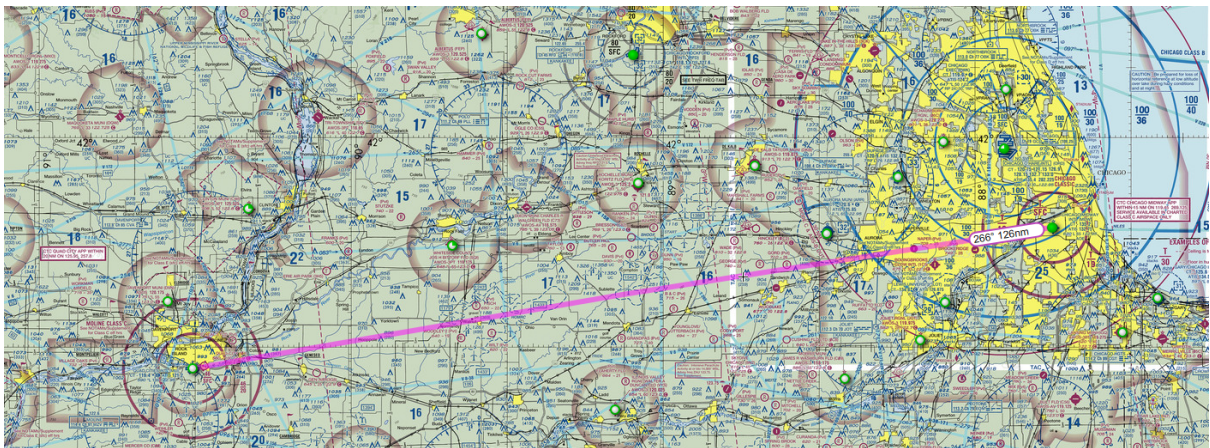
Destination KMLI [Quad Cities International](#)

ETD Zulu HHMM MM/DD [Calendar] Local HHMM MM/DD [Calendar]

Dist: 125.6 ETE: 1:09 Burn: Routes [Down Arrow]

[Empty Box with Arrow Icon]

[Briefing & Filing] [Nav Log]



Hover over the hyperlink of each airport name and click “Airport Information” to get a diagram of each airport.

Discovery Flight Purpose

The purpose of the discovery flight is to experience the thrill of (simulator) flying and introduce some foundational skills. There is a lot to flying, including navigation, chart reading, flight rules (VFR v IFR), knowing the weather and weather minimums, knowing your aircraft and its performance, and communicating with Air Traffic Control (ATC). We’re going to use the “crawl, walk, run” model and focus on just the essential basics to fly to: **“Aviate”, “Navigate”, and “Communicate”**. That is, we’re going to always fly the airplane safely (**Aviate**), know where we are and how to get to our destination (**Navigate**), and talk to ATC (**Communicate**) All other details, like route of flight, fuel requirements, weight and balance, etc. will already be handled for you.

Briefing

After a 10-15 minute introduction in Discord, we'll all spawn in **Chicago Midway International (KMDW)**. If you're using VATSIM, connect to vPilot once at KMDW. Since we're flying VFR, a Vatsim flight plan is encouraged but not required.

This flight will have several distinct phases including startup, departure (aka takeoff), enroute, arrival (aka arriving at our destination airport) and landing. Key points are bolded below, additional knowledge points are in italics:

STARTUP: Weather, Ground, Taxi to Runway

It's HIGHLY encouraged that you know how to start your aircraft prior to this flight. If you don't know how, please use a Cessna 172 or 152 and one of our instructors can assist.

- **It is highly encouraged to use appropriate checklists during your flight, please consult the TOM or TC if you are unfamiliar with checklists.**
- Check ATIS for current weather conditions and takeoff runway
- Contact Clearance Delivery to request transition through the BRAVO airspace - **VERY IMPORTANT!**
- Obtain clearance from the Ground Controller to Taxi to the departure runway. **You'll be told which taxiway(s) to follow to get to the active runway. Keep note of them.**
- **Runways are aligned pointing to a magnetic compass heading, with the last 0 of the heading removed.** *For example, if we're taking off from runway 28, when your aircraft is at the end of runway 28, you'll be pointing to 280 magnetic, which is West.*
- While holding short of runway, contact the Tower Controller to obtain a take off clearance.

TAKEOFF/DEPARTURE: Up, up, and Away!

- Once cleared for takeoff, depart and climb using V_y speed (best rate of climb, in a Cessna 172 it's 74 KIAS)
- Continue to communicate with ATC and follow all instructions. **At some point, the tower controller will hand you over to the departure controller.**
- **Continue to climb to the altitude assigned by ATC until you are out of the BRAVO airspace. Once out of the BRAVO, climb to 4,500.** This altitude is our safe altitude, guaranteeing we won't crash into any mountains or obstacles. *This was obtained from the large blue numbers on the chart. For example, 2⁴ means if we fly 2400 feet MSL, we're clear of obstacles in that chart grid.*

ENROUTE: Stay on course!

- Maintain altitude of 4,500 feet and follow the course outlined on Sky Vector
- Switch to UNICOM/CTAF on 122.8 once clear of the Class B airspace (the last solid blue circle around the airport)
- **Verify your position using several different methods: such as visual scanning (called “pilotage”), GPS, and other forms of radio navigation.**
- Stay at 4,500 feet MSL.
- Run through your cruise checklist.

ARRIVAL: I’m going in....

- When within 20 NM of Quad Cities International (KMLI) contact the approach controller.
- State your intentions and write down any instructions the approach controller gives you.
- Be sure to plan ahead and know when you should start descending.
- Approach will give you an assigned route (or approach) to use and then switch you over to the tower controller.
- Run through your approach checklist.

LANDING: Wheels Down, look out below

- **Obtain and read back landing clearance instruction**
- **Follow your landing checklist items**
- **Land Safely.** If you feel as if you’re not set up for a safe landing, GO AROUND and inform the tower controller. Better to go around and try again then crash and burn (reference: <https://youtu.be/lr5d3sGxSXQ>)
- Once safely on the ground, exit the runway at an available taxi way.
- Switch to the ground controller and request a taxi to the parking area.
- Taxi using the route provided by the ground controller.

Airport information

Take a few minutes to become familiar with the airport, the runway diagrams, etc. Most of the information can be found on Skyvector’s site. Each airport links to their respective pages.

Departure

Name	ICAO	Elevation ¹	Runways
KMDW Chicago Midway International	KMDW	620 ft	13/31, 4/22

Chicago Midway Int'l (KMDW) is a (control) towered airport within **Class C** airspace. **This means pilots MUST communicate with the control tower to depart the airport and while within the airport's Class C airspace.** The airport also has ATIS which will allow us to get current weather conditions at the airport. It handles more traffic than a Class D airport.

Arrival

Name	ICAO	Elevation ¹	Runways
KMLI - Quad Cities Int'l	KMLI	590 ft	9/27, 5/23, 13/31

Quad Cities Int'l (KMLI), is a (control) towered airport within **Class C** airspace. **This means pilots MUST communicate with the approach controller when 20 NM away from the airport.** There is runway lighting on most runways which should make the airfield very easy to see.

VATSIM

One of the goals during the flight is to have air traffic control support from real people through the VATSIM network. Register for a free account at vatsim.net and complete the new member orientation in order to join the network.



When filing a flight plan with VATSIM make sure to add the following remarks to help support the club and increase our presence on the network.

/RMK OPERATED BY THEPILOTCLUB.ORG

¹ All elevations are indicated as feet mean sea level.

The Pilot Club Training Operations Team

- Elliot J, TPC24 – TPC Director of Pilot Training / ATO CFI
- Mike D TPC1079, -Assistant Director of Pilot Training
- Tyler S , TPC2135- TPC Training Ops Coordinator

For more information about this organization visit thepilotclub.org. There is also good information on the [Standard Operating Procedures](#) page. We also have a very active Discord server.

References

1. https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/vfr/
2. <https://notams.aim.faa.gov/notamSearch/nsapp.html#/>