

Discovery Flight

The Pilot Club



November 19 , 2022
23:59Z | 7:59PM EST

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

KBVI - KERI (79NM Direct)

Alternative flight plan

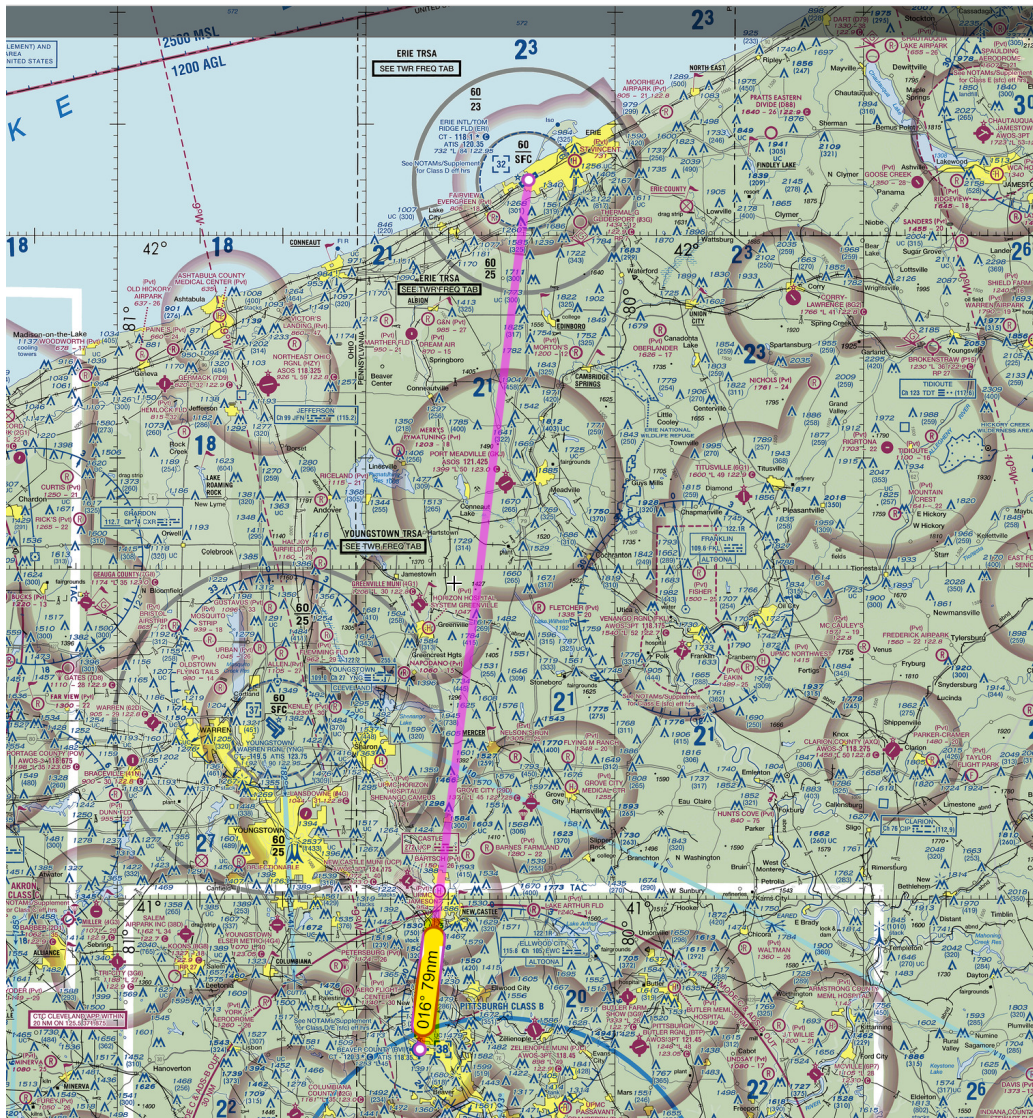
There are several small non towered airports, as well as a towered airport (KYNG), along the route that we can use as an alternate if needed.

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 (highlighted in yellow below). A magenta line will appear showing you direction of flight and heading. It should say "016°, 79 nm")

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



Follow Highway 79 to stay in line!

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 at **Beaver County (KBVI)**. If you're using VATSIM, connect to vPilot once at KBVI. 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
- 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
- Safely take off, continue climbing, and depart to the north unless otherwise instructed by the Tower controller.

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
- **Continue to climb to a cruising altitude of 3,500.** 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.*
- **Unless ATC tells you otherwise, navigate to follow the 016⁰, 79 nm (nautical mile) course outlined in SkyVector**

ENROUTE: Stay on course!

- Maintain altitude of 3,500 feet and follow the course outlined on Sky Vector
- Switch to UNICOM/CTAF on 122.8 once clear of the Class D airspace (the dashed 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.**
- This route has a major highway, 79, that runs North to South and is mostly parallel to our direction of travel. Also, there are several large bodies of water that should be easily recognizable. When looking at the flight route, try to pick out very large features on the chart to help keep you on course.



ARRIVAL: I’m going in....

- Erie International (KERI) airport’s controlled Class D airspace extends from the ground and up to 3,200 feet MSL. **If we’re at or lower than 3,200 feet MSL, we**

MUST establish 2-way radio communication before you enter the dashed blue line around the airport. *Above 3,200 feet? You're not in their airspace. Further than 5 miles away? You're not in their airspace.*

- **Establishing 2-way radio communication:**
 - The dashed circle around Erie has a radius of 5 miles. When you're about 10 NM away from the airport, **tune to the Erie (KERI) tower frequency and tell them your position and intentions.**
 - *For example, I might say: "Erie Tower, Cessna 1079M 10 miles to the South west at 3,500 with Information Z, request full stop"*
- Pay careful attention to the instructions the tower controller gives you.
- If it's not too busy, the tower controller will tell you to enter the traffic pattern and which runway will be used for landing. **All runways at Erie have a left hand traffic pattern and pattern altitude is 1,800 feet MSL.**
- **Erie also has a special radar service called a Terminal Service Radar Area (TRSA). We will talk more about this in the briefing and whether we will use it on the flight. It's optional for VFR pilots, like us, to use it when approaching Erie.**

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
BVI Beaver County Airport	KBVI	1253 ft	10/28

Beaver County Airport (KBVI) is a (control) towered airport within **Class D** airspace. **This means pilots MUST communicate with the control tower to depart the airport and while within the airport's Class D airspace** (shown as the dashed blue lines around it). The airport also has Automated Terminal Information Service (ATIS on 118.35) which will allow us to get current weather conditions at the airport. It also has Ground Control which we will need to communicate with to taxi to a runway.

Arrival

Name	ICAO	Elevation ¹	Runways
ERI - Erie International/Tom Ridge	KERI	732 ft	6/24, 2/20

Erie International/Tom Ridge Field (KERI) is a (control) towered airport within **Class D** airspace. **This means pilots MUST communicate with the control tower prior to entering its airspace, depicted on the chart with the dashed blue circle lines around it.** Runways 6 and 24 have a 4 light PAPI light system which can help guide you in at the correct glide slope (3°).

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 Training Coordinator / ATO CFItO
- David E, - Deputy Training Coordinator / ATO D-CFI
- Mike D, TPC1079 - TPC Training Ops Manager

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#/>