# VATSIM DC SFRA Pilot Guide

What is it, and where is it?

The Washington Special Flight Rules Area (SFRA or "Sifra") and Flight Restriction Zone (FRZ or "Freeze") are two airspaces published via TFR around the Washington D.C. area for national security. Additional procedures require constant communication with ATC and special filing of flight plans via ZDC Flight Data. While some of these procedures are impractical or impossible to emulate on VATSIM, some are. This section will provide context on real-world procedures and operational policy for use on VATSIM.

The SFRA consists of an area extending 30nm from the DCA VOR, from the surface to FL180. The FRZ is a more localized area closer to DCA, approximately 15nm radius, including DCA, ADW, CGS, DAA, and VKX. In real life, entry into the SFRA requires filing a specific SFRA flight plan, beacon code, and online training course. The Leesburg Maneuvering Area is a cutout of the SFRA overhead of the Leesburg Airport (JYO). Aircraft are not required to file an SFRA flight plan while operating directly from or directly to JYO under VFR within the Leesburg Maneuvering Area boundary, nor do the aircraft need to contact Air Traffic Control when Leesburg Tower is closed.

The FRZ is more heavily restricted and requires a unique PIN number, only issued after a background check and fingerprinting, and filing a flight plan over the phone with Washington ARTCC Flight Data. Aircraft may not fly pattern work within the FRZ, nor may they loiter. While SFRA procedures are realistic to simulate, FRZ procedures are impossible and impractical to enforce, and they should be treated as simply another area of the SFRA. Therefore, pattern work and normal VFR operations shall be permitted within the FRZ on VATSIM.
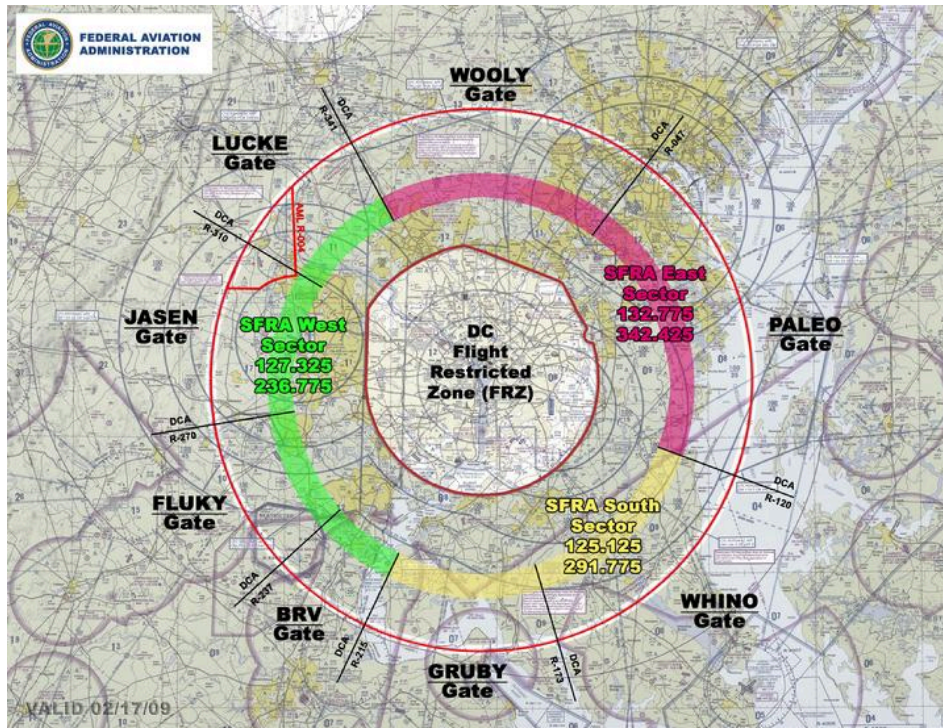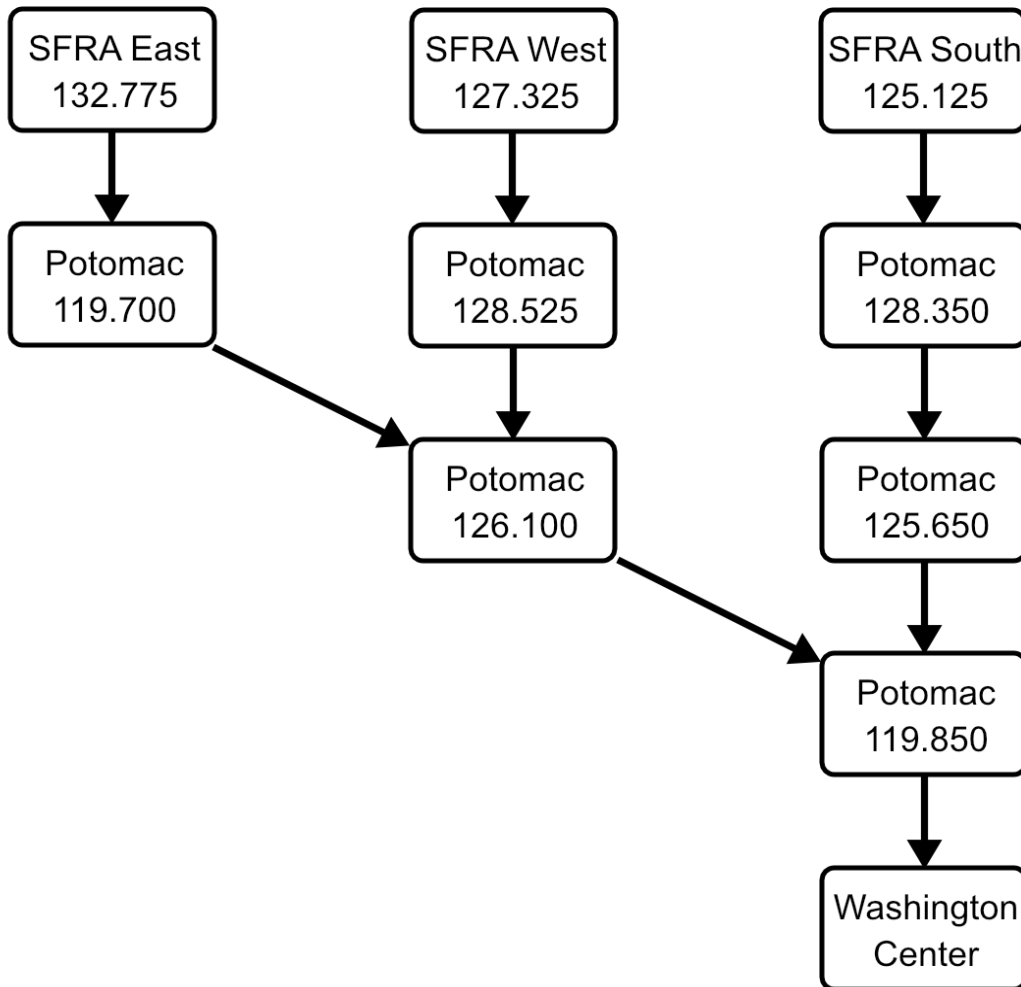

NOT FOR REAL WORLD USE

Who should I call for SFRA on VATSIM?

For all SFRA-related activities, including requesting a beacon code from a non-towered airport within the SFRA, pilots should call the appropriate SFRA sector instead of the published real-world clearance frequency.

Due to VATSIM's top-down ATC environment and other limitations, there might not be dedicated SFRA positions online, nor would the SFRA frequencies be monitored. Pilots can use the following diagram to find out which controller to contact. Pilots may also contact any Potomac Approach or Washington Center controller when in doubt.

SFRA East	SFRA West	SFRA South
132.775	127.325	125.125

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SFRA East         SFRA West         SFRA South
132.775           127.325           125.125
    |                 |                 |
    v                 v                 v
Potomac           Potomac           Potomac
119.700           128.525           128.350
    \                 |                 |
     \                v                 v
      ->          Potomac           Potomac
                  126.100           125.650
                      \                 |
                       \                v
                        ->          Potomac
                                    119.850
                                        |
                                        v
                                    Washington
                                    Center
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How do I file an SFRA flight plan?

Pilots shall file their SFRA flight plan at https://my.vatsim.net/pilots/flightplan. The most important detail is to select "IFR" under flight rules, even if you intend to fly VFR only. Input your departure and arrival airport as normal, but specify the gate you intend to enter and/or exit the SFRA under "route details." The format follows: use the prefix "DEP/" for the entry gate and "DEST/" for the exit gate. For example: "DEP/PALEO DEST/WOOLY". For pattern work, pilots should file the airport code plus "360001" on the route instead of the gates. For example: "GAI360001".
The RMK/SFRA is optional.

Flight Details

Select IFR

* Callsign	* Flight Rules	* Aircraft Type (ICAO)	* Wake Category
N123AB	IFR	C172	Light (MTOW <= 7,0

* Equipment (ICAO/FAA)	Transponder (Skip if FAA Equip)
G	L

* Departure	* Off Block UTC (HHMM)	* Altitude (ft)	* Airspeed (knots)
KESN	1500	2500	110

* Arrival	Alternate	* Enroute Time (HHMM)	* Fuel Endurance (HHMM)
KFDK	KLAX	0130	0400

Route Details

DEP/PALEO DEST/WOOLY
Entry gate   Exit gate

Other Details

| PBN/	NAV/	DAT/	SUR/

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What are the DC SFRA Entry/Exit Gates?

The gates are used to file the SFRA entry or exit point on SFRA flight plans and to identify the position and direction of entry or exit when contacting ATC. Gate boundaries are defined by both VOR radials and prominent visual landmarks. Also, note that each gate is associated with the dedicated ATC frequency for the sector. This information can also be found on the FAA Baltimore-Washington TAC chart.

Pilots can enter/exit the SFRA within any portion of the gate and avoid overflying the fixes the gates are named after to reduce congestion.
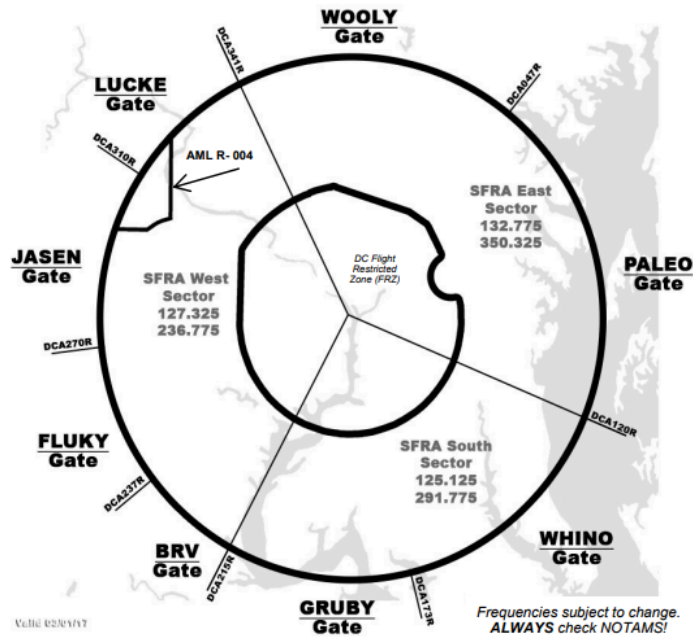
Entry/Exit Filing Gates for DC SFRA Flight Plans

Gate (Freq)	Defining Radials (DCA)		Visual Checkpoints	
WOOLY (132.775)	R-341	R-046	I-270	I-95
PALEO (132.775)	R-047	R-119	I-95	Abeam Chesapeake Beach
WHINO (125.125)	R-120	R-172	Abeam Chesapeake Beach	Northern boundary Wicomico River
GRUBY (125.125)	R-173	R-214	Northern boundary Wicomico River	Western boundary Potomac River / Widewater Beach
BRV (127.325)	R-215	R-236	Western boundary Potomac River / Widewater Beach	West side of Lunga Reservoir
FLUKY (127.325)	R-237	R-269	West side of Lunga Reservoir	VA Route 29
JASEN (127.325)	R-270	R-309	VA Route 29	VA Route 7
LUCKE (127.325)	R-310	R-340	VA Route 7	I-270

What do I need to operate within the DC SFRA on VATSIM?

1. Two-way radio
2. Operating transponder with altitude reporting (Mode C)
3. Flight plan appropriate to intended operation:
    a. IFR: IFR flight plan
    b. VFR: DC SFRA flight plan for all operations, except:
        i. JYO ingress/egress on 1226 (no flight plan required)
        ii. Fringe airport egress (no flight plan required)
        iii. Towered airport pattern work (make request to tower)
4. Discrete transponder code for all operations, except:
    a. Leesburg (JYO) ingress or egress (1226)
    b. Fringe airport egress (1205)
    c. Towered airport pattern work (1234)
5. VFR speed restriction (≤ 180 KIAS in DC SFRA, & ≤ 230 KIAS from 30 NM - 60 NM from DCA VOR/DME unless otherwise authorized.)
6. Communication with ATC for all operations, except:
    a. Leesburg (JYO) ingress/egress: make CTAF calls
    b. Fringe airport egress
    c. Towered airport pattern work: talk to tower
    d. Non-towered airport pattern work:
        i. Make CTAF calls

Activating: A DC SFRA flight plan to enter/exit the DC SFRA VFR is activated when the pilot obtains a discrete transponder code except:
- Towered airport pattern: with squawk & talk
- Non-towered airport pattern: with CTAF calls

Closing: The DC SFRA flight plan closes when the aircraft exits or lands at an airport inside the DC SFRA. For pattern operations at nontowered airports or when tower is not open, close by calling ATC on landing.

Procedures for Traffic Pattern Work:

- **Towered Airport:** Request pattern work from tower; squawk 1234, remain in two-way communication with tower. If tower is closed, use the non-towered airport procedure.

- **Non-Towered Airport:** File DC SFRA flight plan; obtain and squawk discrete transponder code, communicate pattern position via 122.8 or published CTAF. Upon terminating pattern operations, call ATC to close flight plan.

VFR Outbound Procedures

➔ Step 1: Preflight—File a DC SFRA Flight Plan
➔ Step 2: Pre-Takeoff — Activate DC SFRA Flight Plan
  ◆ Call ATC for frequency & squawk.
    "Potomac Clearance, (call sign) at Tipton, VFR departure."
  ◆ Set assigned frequency & transponder code.
  ◆ Verify that Mode C (ALT) is on.
➔ Step 3: After Takeoff—Communicate w/ ATC
  ◆ Establish radio contact with Potomac TRACON.
    "Potomac Departure, (call sign), off Tipton"
  ◆ Monitor assigned frequency
  ◆ Remain out of Class B unless explicitly cleared to enter.
➔ Step 4: Exiting—Close DC SFRA Flight Plan
  ◆ Remain on frequency/squawk until ATC authorizes change; DC SFRA flight plan closes upon exiting the DC SFRA.

VFR Inbound Procedures

➔ Step 1: Preflight—File a DC SFRA Flight Plan
➔ Step 2: Before Entry - Activate DC SFRA Flight Plan
  ◆ Before entry, call Potomac to request a transponder code.
    "Potomac Approach, (call sign), VFR inbound to Gaithersburg."
  ◆ Set assigned code and verify that Mode C (ALT) is on.
  ◆ Continue inbound unless otherwise instructed.
  ◆ Remain out of Class B unless explicitly cleared to enter.
➔ Step 3: After Entry—Communicate w/ ATC
  ◆ Monitor Potomac TRACON.
  ◆ Remain out of Class B airspace unless explicitly cleared to enter.
➔ Step 4: Arriving—Close DC SFRA Flight Plan
  ◆ Change to tower / advisory frequency when so instructed.
  ◆ Remain on assigned transponder code until you land.
  ◆ DC SFRA flight plan closes upon landing.

Leesburg Maneuvering Area (LMA) Procedures
● Squawk 1226 when operating directly from or directly to JYO under VFR within the Leesburg Maneuvering Area, no SFRA flight plan required
● File an SFRA flight plan and request a squawk code for pattern work or practice instrument approaches when Leesburg Tower is closed

FRZ Procedures

Due to VATSIM limitations, FRZ operations are not simulated on VATSIM, therefore it should be treated as another area of the SFRA with no additional requirements for entry.

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Fringe Airports: They are near the outer boundary of the SFRA, which are MD47, MD77, MD43, MD14, and 51VA. Departing fringe airports do not need an SFRA flight plan nor ATC communications, but arriving shall comply with all the standard operating requirements for SFRA.

Further Readings

This guide only covers the VATSIM applicable normal scenarios and is far from complete. For more information, pilots are encouraged to study the relevant real-world materials as they can be easily found online. Here are a few helpful resources:

FAA SFRA training course notes:
https://www.faasafety.gov/files/gslac/courses/content/405/1310/200115%20SFRA%20Course%20NOTES.pdf

FAA DC SFRA checklist and quick reference:
https://www.faasafety.gov/files/gslac/courses/content/405/1310/200115%20Kneeboard%20-%20DC%20SFRA%20Checklist.pdf

FAA JYO Procedures checklist and quick reference:
https://www.faasafety.gov/files/gslac/courses/content/405/1310/200115%20Kneeboard%20-%20JYO%20DC%20SFRA%20Checklist.pdf

Real-world required training course for pilots:
https://www.faasafety.gov/gslac/ALC/CourseLanding.aspx?cID=405

DC SFRA Presentation by Open Sky Aviation LLC:
http://www.flying20club.org/documents/DC_SFRA_Presentation.pdf