

Virtual Controller Coordination Switch

User Guide for vCCS within Washington ARTCC Facilities

vZDC-Q-07

4 August 2026



ZDCARTCC
WASHINGTON DC

Table of Contents

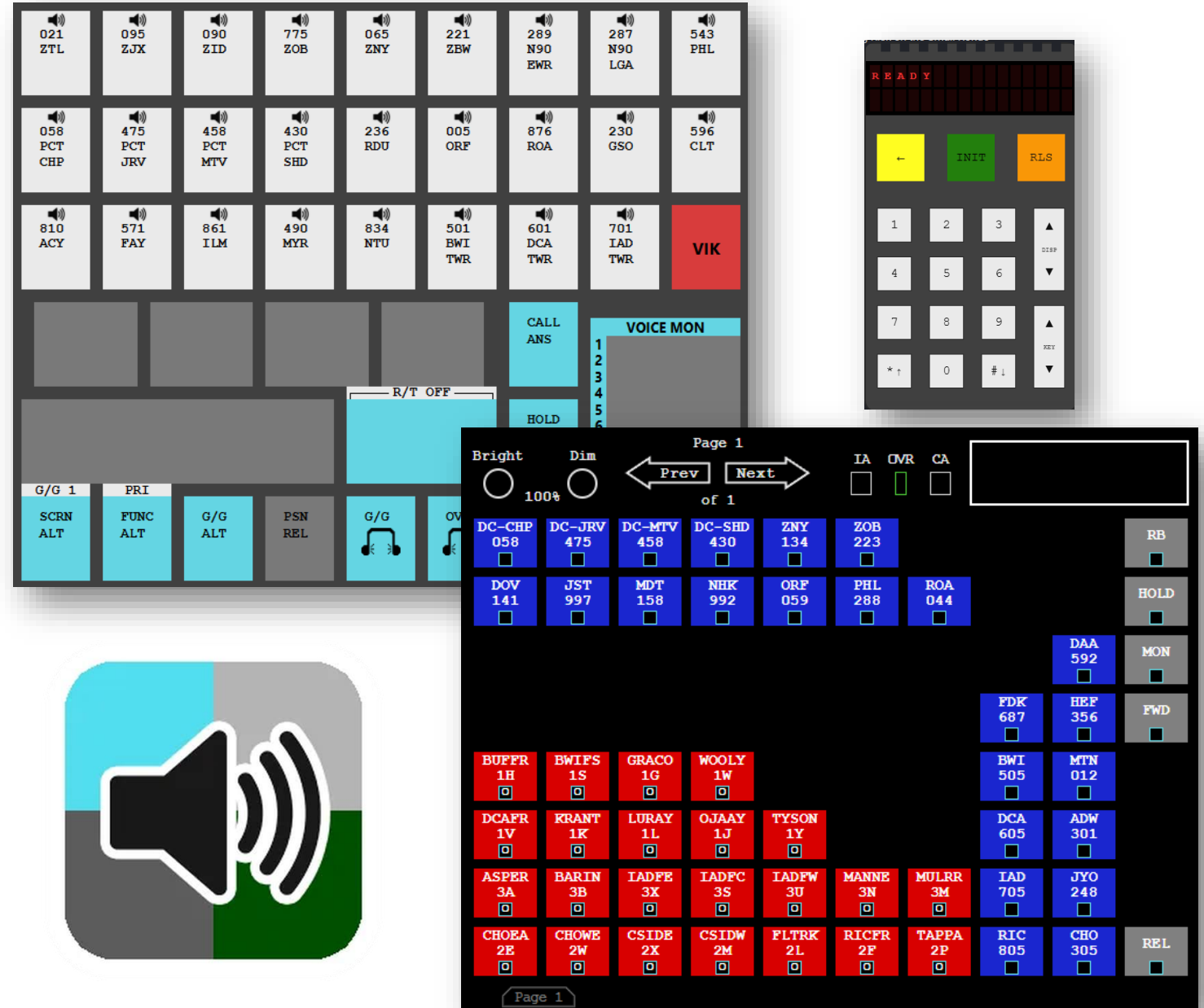
Overview & Background

Section 1 – Fundamental Landline Concepts

Section 2 – vCCS Installation, Configuration, and Settings

Section 3 – RDVS (Terminal Facilities)

Section 4 – VSCS (Enroute)



What is vCCS?

Virtual Controller Coordination Switch (vCCS) is an application that emulates real world voice switching systems. It currently emulates landline functionality (radio transmit/receive, etc., controls remains a CRC function).

Why not wait for vNAS/CRC organic capability development?

vNAS and CRC priorities and development timelines have different priorities and limited resources. The focus for development is different. vCCS offers these capabilities to controllers now with no impact on CRC operations.

Is vCCS usage required?

No. vCCS is *not* required to be used. Teamspeak remains the primary means of landline coordination. However, it is *highly encouraged* that controllers begin incorporating vCCS into their workflows when controlling on the network.

Who should be using vCCS?

All controllers controlling any position within vZDC. All vZDC facilities have profiles available for use at this time.

Why are we encouraging vCCS usage now before its incorporated to CRC?

vCCS emulates the real world equivalent systems. It's expected once CRC provides landline system implementation it will do so by emulating real world systems such as VSCS, RDVS, and ETVS. Since the user experience for these platforms will be near identical (comparing vCCS to an anticipated deployment through CRC) users can begin getting accustomed to landline coordination using these systems today. When the capability is ultimately introduced, the skillset will transfer with no additional training necessary.

What is the advantage of vCCS versus continuing to use Teamspeak?

VSCS and RDVS are purpose built systems where their entire existence is to facilitate communication between facilities. Using vCCS enables more effective communication between controllers, in some instances shares CRC audio so that the other person can hear radio traffic and avoid talking over aircraft, and ultimately provides not only more realistic, but more efficient means of coordinating while working traffic.

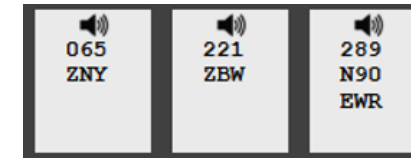
There are several types of lines. For the current vZDC implementation, “Shout” lines and “Overrides” or “intercom” lines are configured for use.

Shout Line (Inter Facility – e.g. PCT>ZDC)

Think of a shout line as a regular phone that is always connected between the same two end points. Facility A and Facility B have a line for coordination, all all positions within each facility share that same phone line to coordinate.



RDVS Shout Line



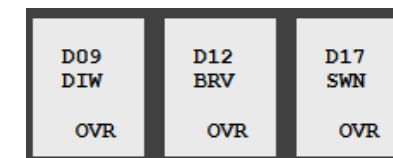
VSCS Shout Line

Override/Intercom (Intra Facility – e.g. ZDC>ZDC)

Overrides function as an intercom for communications *within* the same facility. Unlike shout lines, when a controller overrides another controller, the receiving controller does not answer the line. Instead, the receiving controller is automatically connected, and their mic is hot (vCCS allows controllers to choose to be auto hot or not).



RDVS Override/Intercom



VSCS Override/Intercom

Basic Call Format

1. Caller identifies facility and/or position (and line number if more than one line between facilities exist)
2. Receiver responds with their facility and/or position
3. Type of coordination *may* be included in call (handoff, point out, APREQ, etc.)
4. Caller states the message
5. Receiver responds to the message followed by their operating initials
6. Caller states their operating initials

EXAMPLE:

Caller: "OJAAY, Gordonsville, 475"

Receiver: "OJAAY"

Caller: "Request control for climb AAL123"

Receiver: "AAL123 your control for climb, RX"

Caller: "CL"

Considerations:

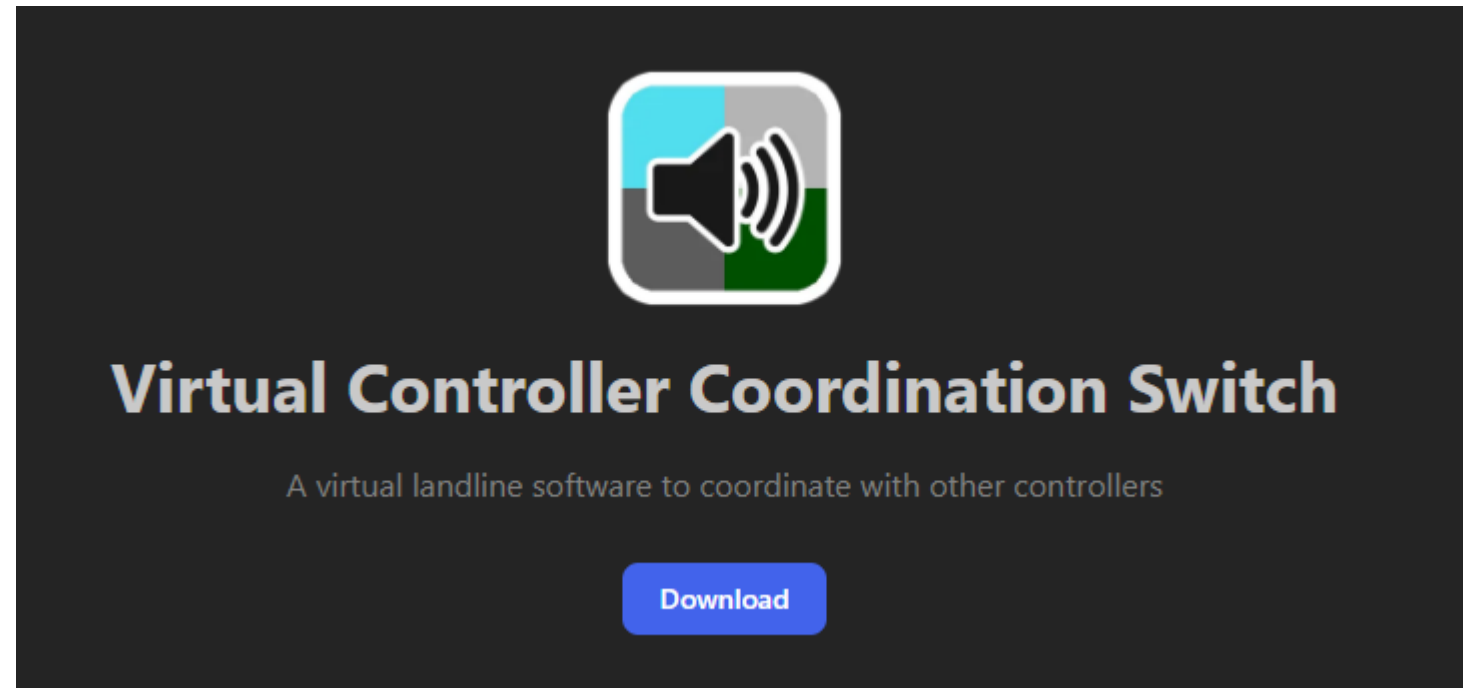
- On a shout line, when your initial call is made, that is heard on speaker by *all* controllers at that facility with that line
- On an override call, the controller can see what position is overriding and as a result, based on workload, consider waiting to identify until the controller tells you to go ahead

EXAMPLE:

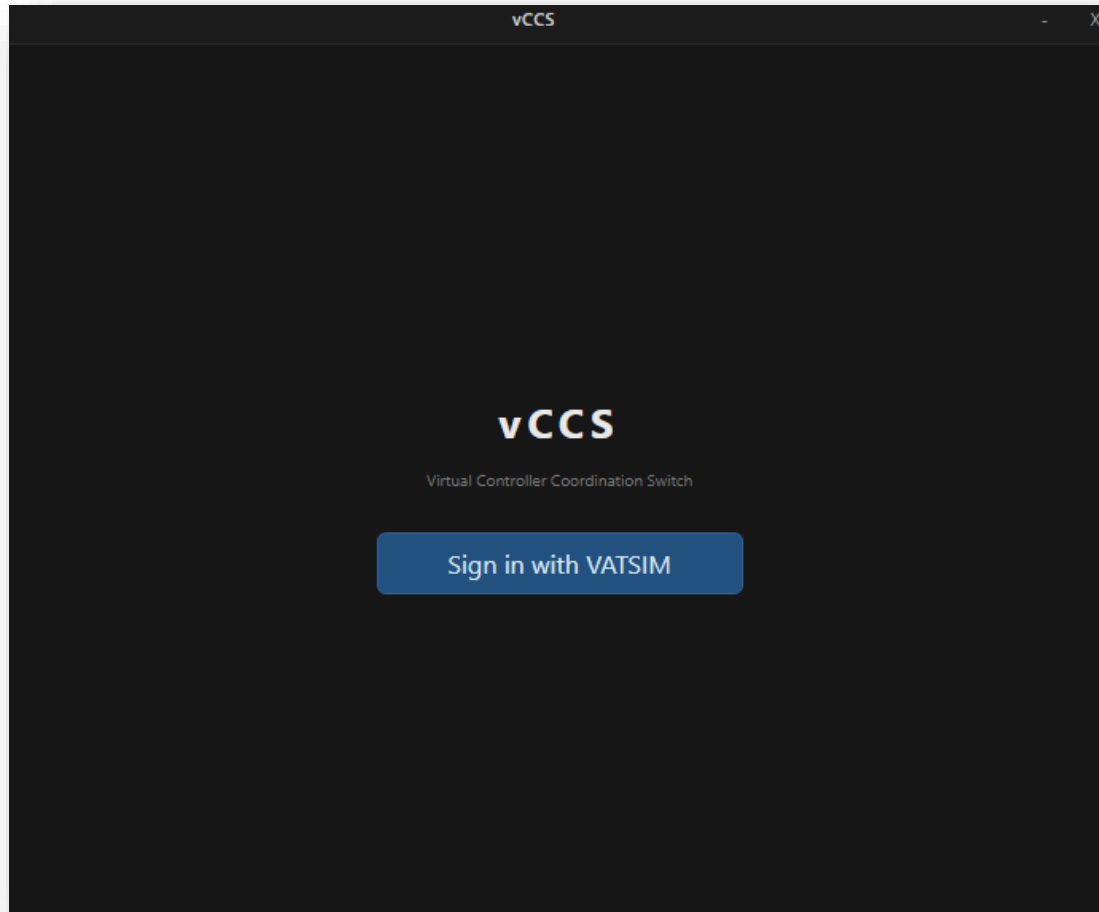
Caller: keys the override but does not speak
Receiver: hears the call tone and, as soon as able, acknowledges the caller (e.g. "TYSON, Go for OJAAY")

Step 1: Download vCCS and complete the installation.

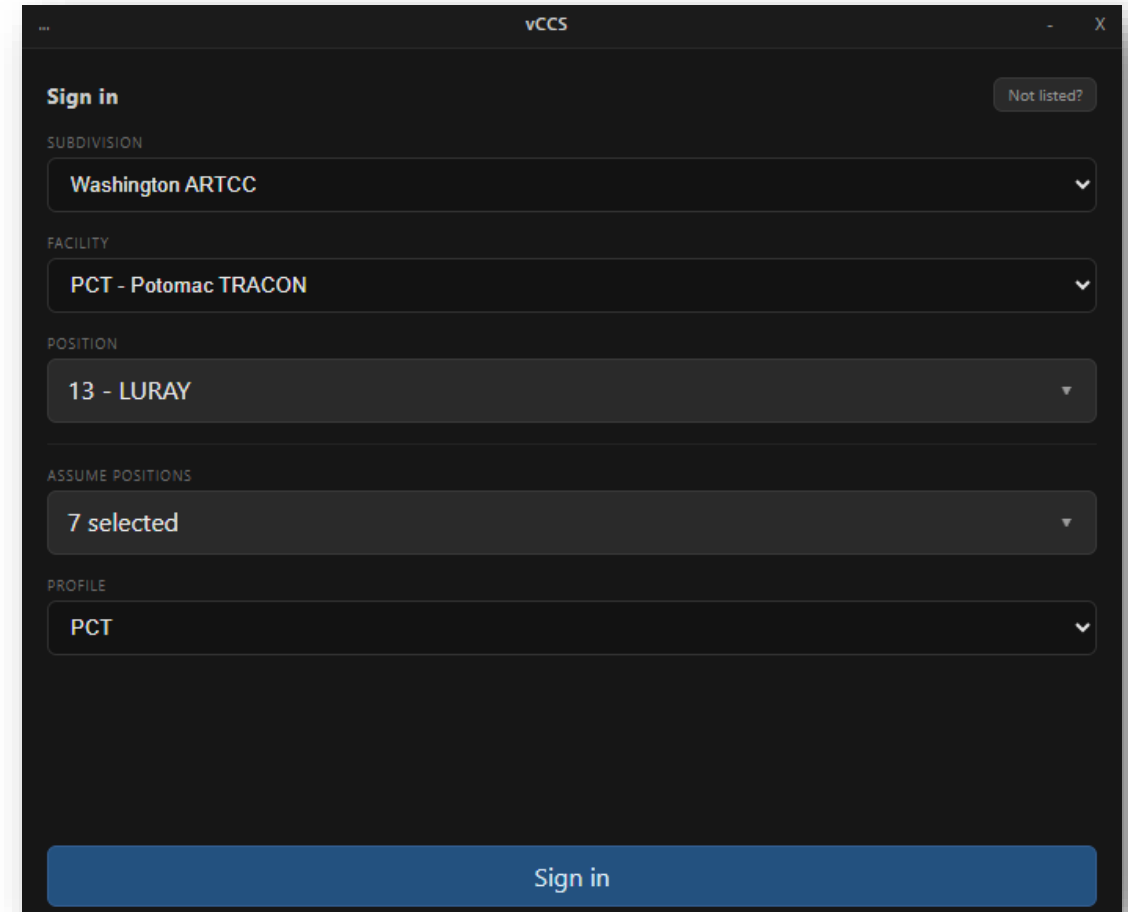
<https://vccs.app/>



Step 2: Sign in using VATSIM SSO (don't sign into a facility/position yet!)



(Before Sign In)



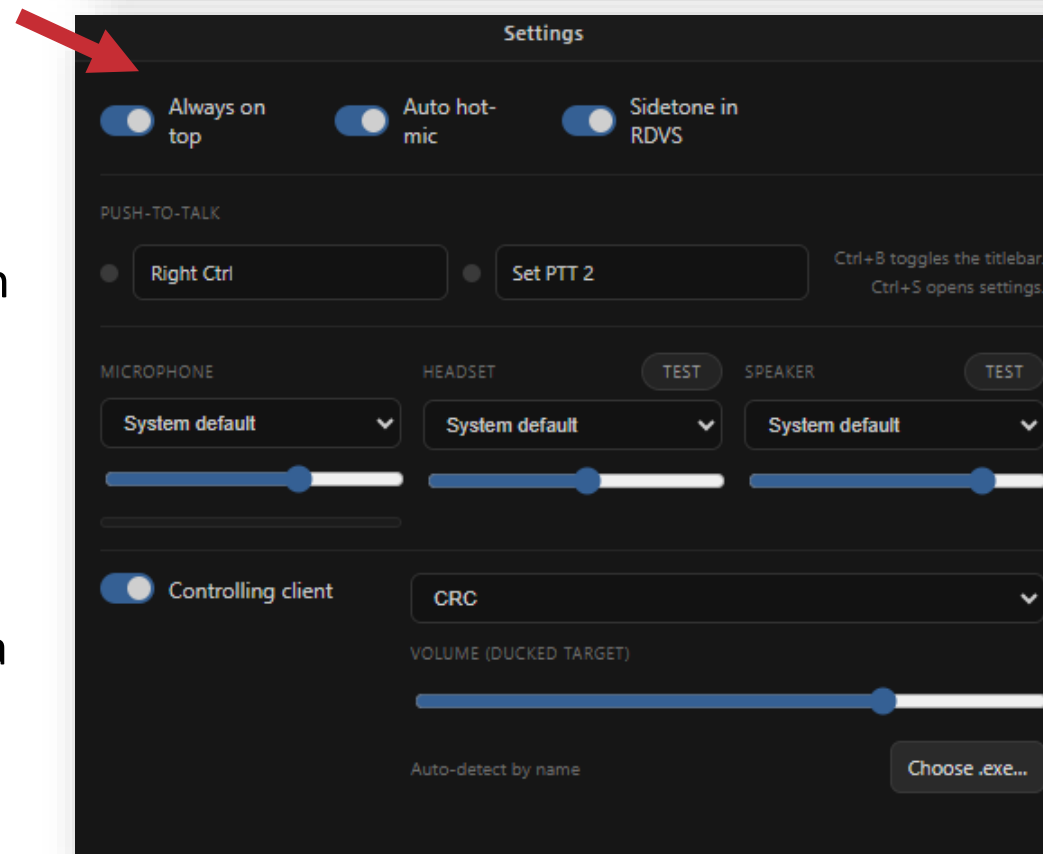
(After successful Sign In)

Step 3: Select settings using the *** menu at the top left of the vCCS application



Step 4: Ensure all settings are accurate. It is *highly* recommended that you use headset *and* speaker to minimize confusion in line usage when calls are made.

- Verify microphone is registering sound
- Verify you hear the “test” tone when test button is selected for both headset and speaker
- CRC should be populated in the drop down automatically. This function allows your CRC radio audio to play through vCCS when you are being overridden by another position.
- You may use the *same* PTT as CRC. vCCS will ensure you do not transmit on the frequency if a line is selected.



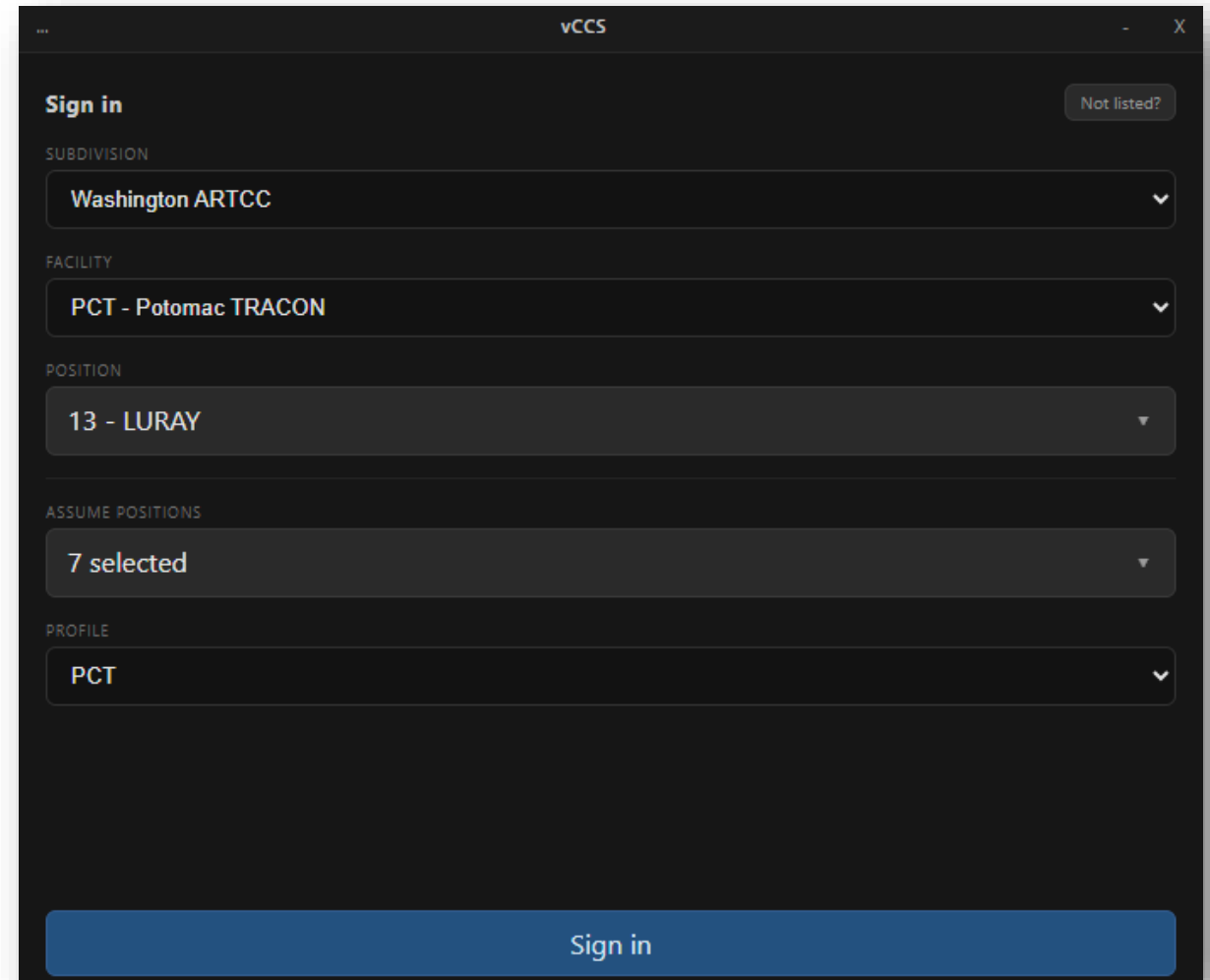
Note: if you do not hear the test tone for headset or speaker, complete **Step 7**.

Step 5: Select the facility and position you are signing in to work then select sign in.

Once “Sign In” is selected VSCS or RDVS will open with the selected facility profile.

vZDC has adapted a single profile for each facility at this time.

Step 6: Begin controlling!

A screenshot of the vCCS Sign in interface. The window has a dark theme. At the top, it says "vCCS" in the title bar. Below the title bar, there's a "Sign in" header with a "Not listed?" link on the right. The form contains five dropdown menus: "SUBDIVISION" with "Washington ARTCC" selected, "FACILITY" with "PCT - Potomac TRACON" selected, "POSITION" with "13 - LURAY" selected, "ASSUME POSITIONS" with "7 selected" selected, and "PROFILE" with "PCT" selected. At the bottom of the form is a large blue "Sign in" button.

Sign in

Not listed?

SUBDIVISION

Washington ARTCC

FACILITY

PCT - Potomac TRACON

POSITION

13 - LURAY

ASSUME POSITIONS

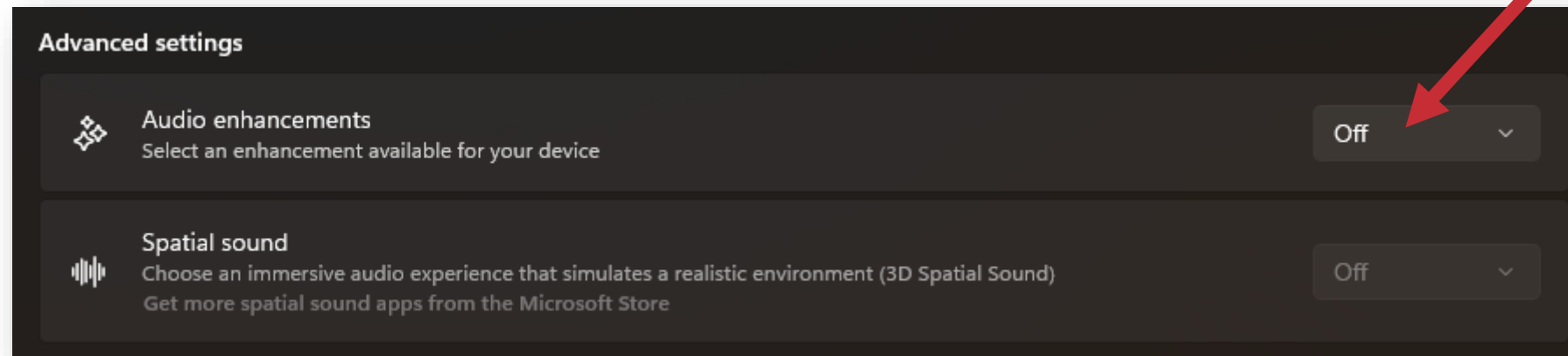
7 selected

PROFILE

PCT

Sign in

- Step 7:** Computer system audio setting adjustment (not required if your audio passed all three sound tests)
- Right click the speaker icon in the taskbar and select Sound Settings.
 - In System > Sound, click the Output device that is not playing the test tone.
 - Under the Advanced Settings group, select “Audio enhancements” to “Off.”
 - Restart, vCCS then reattempt the sound tests in vCCS settings.



RDVS (Terminal Facilities)

- vZDC facilities will follow a standard grouping convention for consistency.
- Adjacent Radar Facilities (shout lines) are grouped at top
- Underlying towers are grouped vertically to the right
- Facility overrides are grouped at bottom. For ATCT/TRACON facilities, cab positions form the bottom row, TRACON positions form the row(s) above
- The far-right column contains RDVS function buttons

Page 1

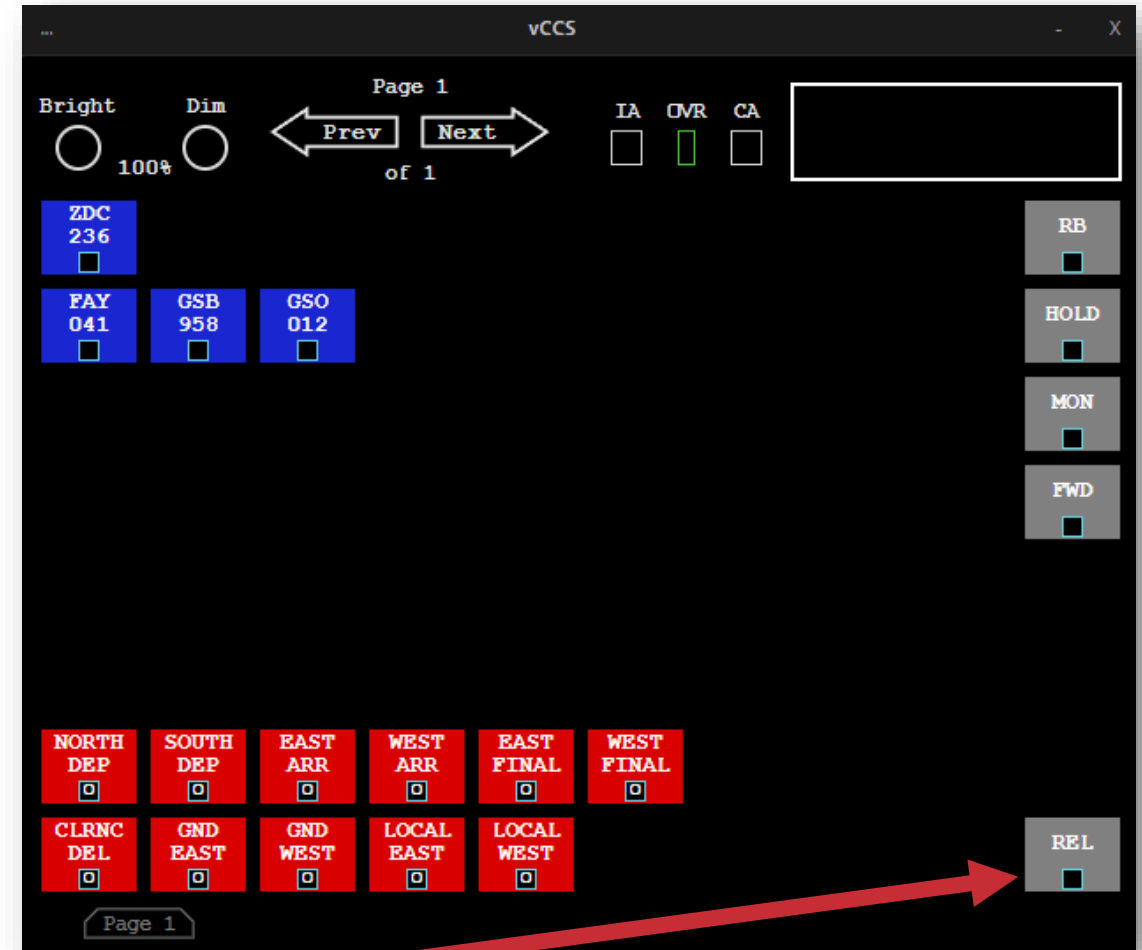
Bright 100% Dim

← Prev Next →

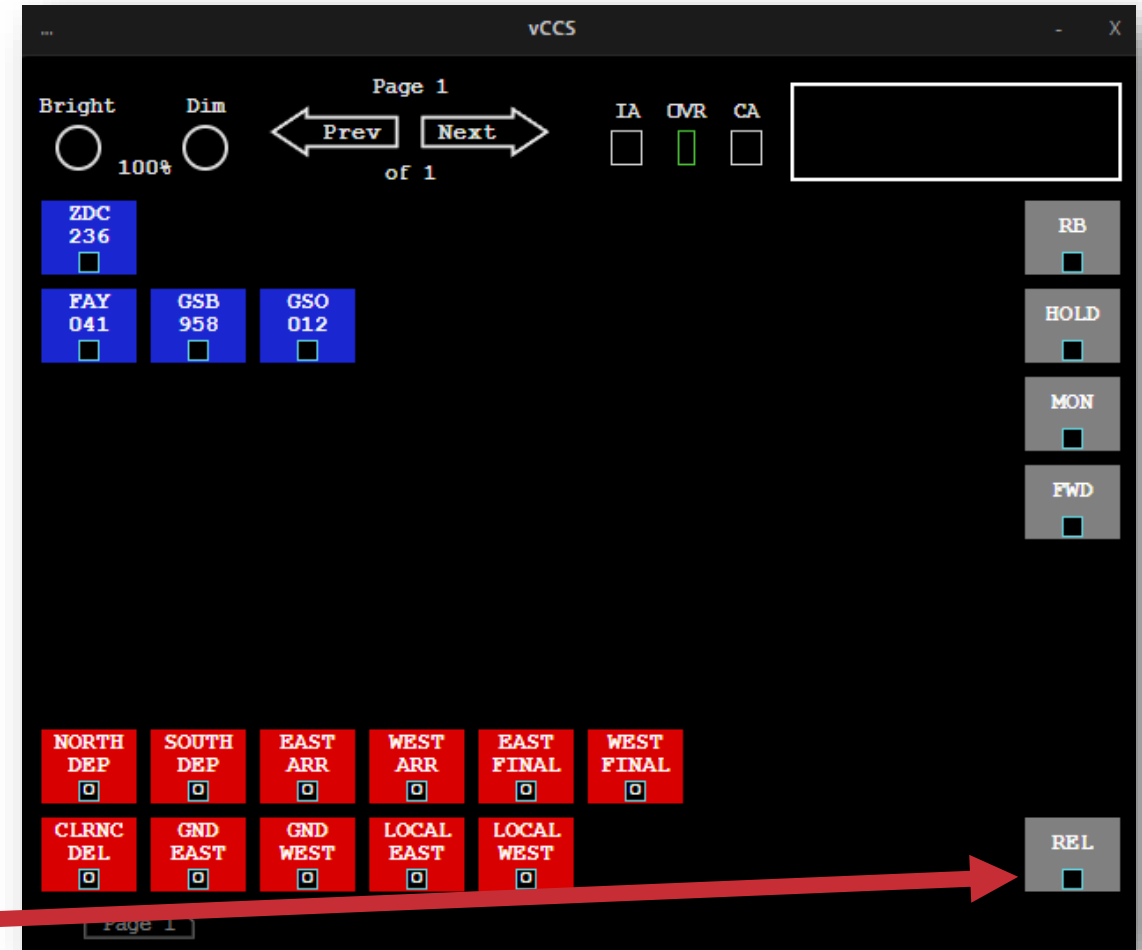
IA CWR CA

DC-CHP 058	DC-JRV 475	DC-MTV 458	DC-SHD 430	ZNY 134	ZOB 223				
DOV 141	JST 997	MDT 158	NHK 992	ORF 059	PHL 288	ROA 044			
							DAA 592		RB
							FDK 687	HEF 356	HOLD
							BWI 505	MTN 012	MON
							DCA 605	ADW 301	FWD
							IAD 705	JYO 248	
							RIC 805	CHO 305	REL
BUFR 1H	BWFS 1S	GRACO 1G	WOOLY 1W						
DCAFR 1V	KRANT 1K	LURAY 1L	OJAAY 1J	TYSON 1Y					
ASPER 3A	BARIN 3B	IADFE 3X	IADFC 3S	IADFW 3U	MANNE 3N	MULRR 3M			
CHOEA 2E	CHOWE 2W	CSIDE 2X	CSIDW 2M	FLTRK 2L	RICFR 2F	TAPPA 2P			

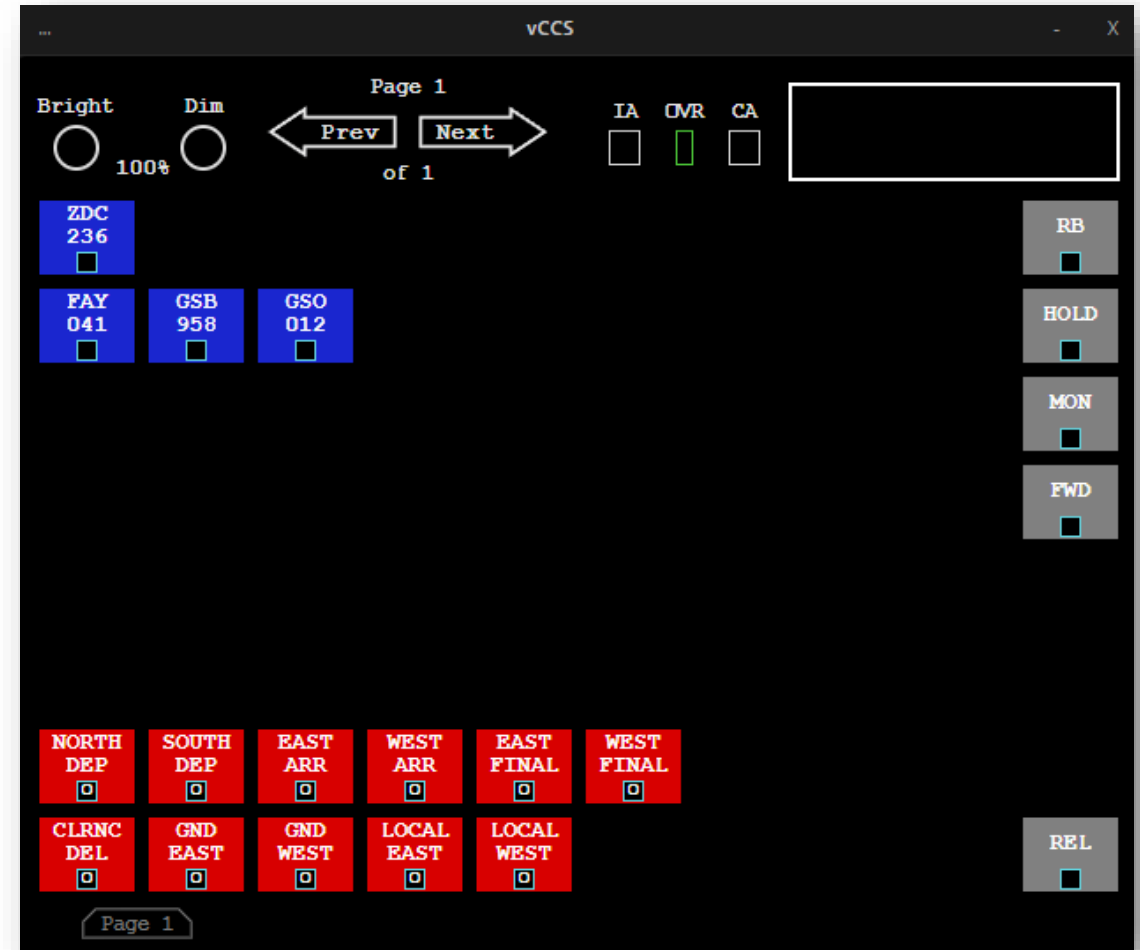
- To use a shout line, single click the line you will call on to activate that line
- State who you are calling and then who you are (e.g. “Greensboro, Raleigh”)
 - Use your vCCS PTT if auto hot mic was *not* selected
 - If auto hot mic *is* selected once you select the line it is hot
- After completing the coordination, select the release (REL) button to release the line



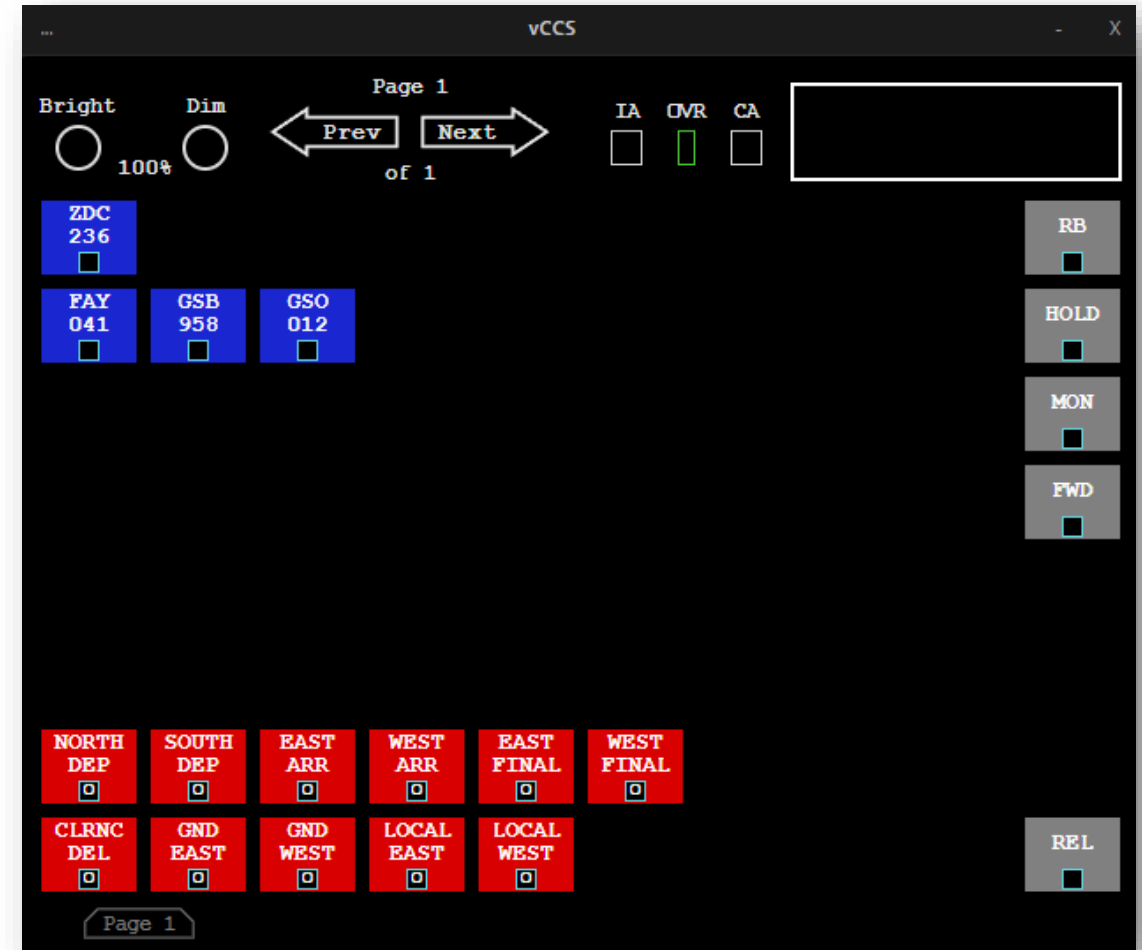
- When you hear the sector/facility that you are working on the speaker, click the line to answer
- State who you are (e.g. Raleigh East)
 - Use your vCCS PTT if auto hot mic was *not* selected
 - If auto hot mic *is* selected once you select the line it is hot
- After completing the coordination, select the release (REL) button to release the line



- Intrafacility communication is accomplished via overrides or intercom lines
- Unlike the shout lines, the intercom is between 2 positions, and the line is immediately “hot” as soon as the caller pushes the button (that is, the receiver doesn’t get a choice to answer or not)
- Overrides allow you to hear what the receiver has going on so you know when to talk and not to talk
- The receiver will hear a tone in their ear when someone calls which is their indication there is a call to respond to

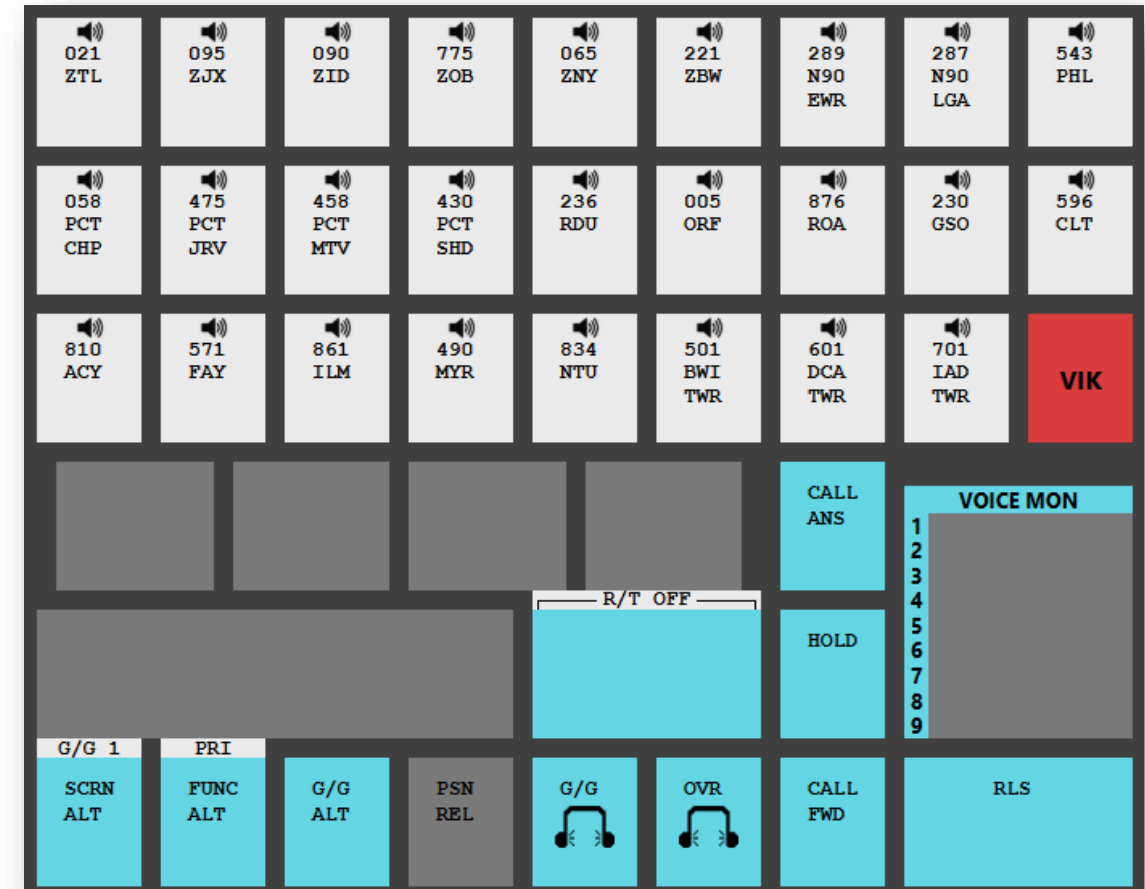


- Caller selects the position to override
- Receiver hears tone and responds (e.g. “go for local” or “east arrival, local, go ahead”)
- If the receiver does not acknowledge the caller, then the caller can use standard interphone phraseology (“receiver, caller”)
- **Important!** The caller *must* release the call when complete. The receiver does *not* have the ability to end an override



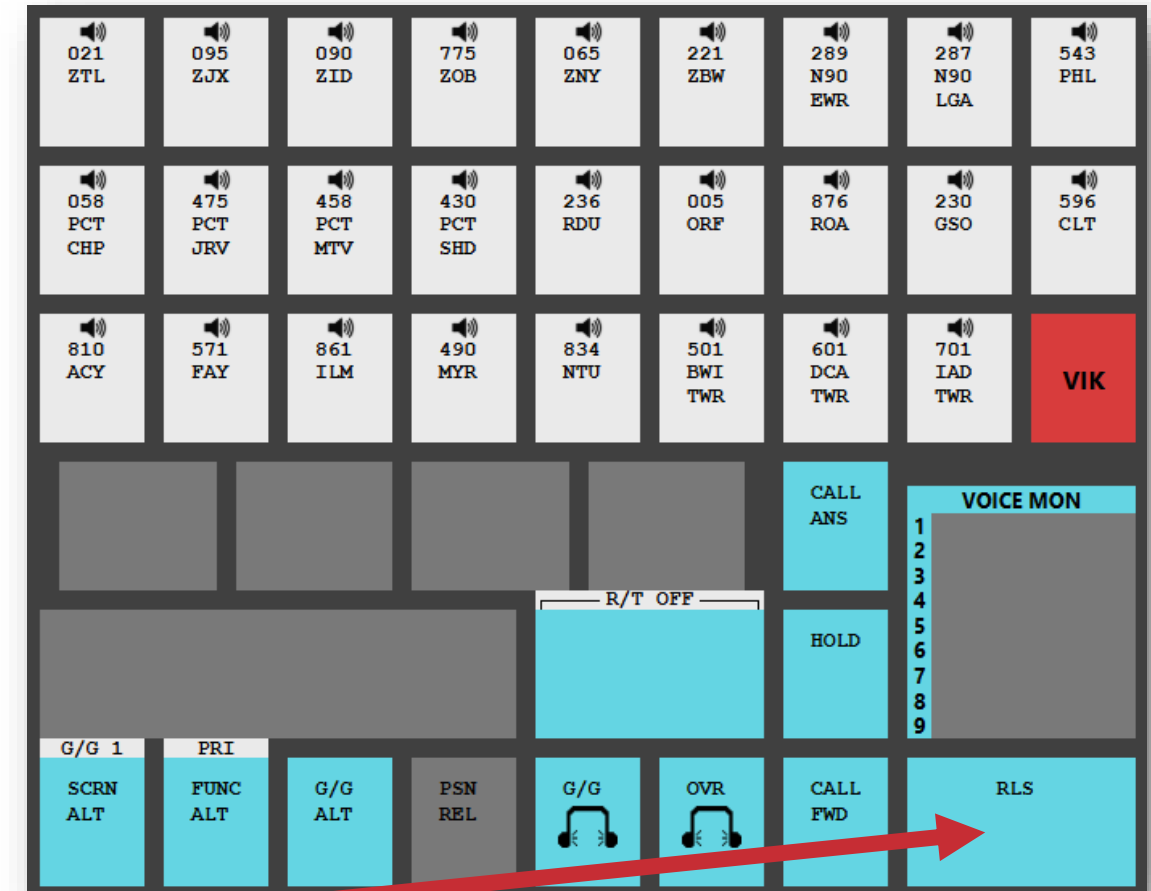
VSCS (Enroute Facilities)

- VSCS only permits two G/G pages. As a result, the majority of facilities are included on page 1, with less common facilities on page 2. *Note: not all facilities have a line available in VSCS at this time as ZDC is managed on a single profile*
- Page 2 includes dedicated override buttons that may be used in lieu of direct dial via the VIK
- Due to the unknown nature of CRC implementation, only basic configurations are being made to avoid creating “unlearning” requirements if capabilities or implementation changes



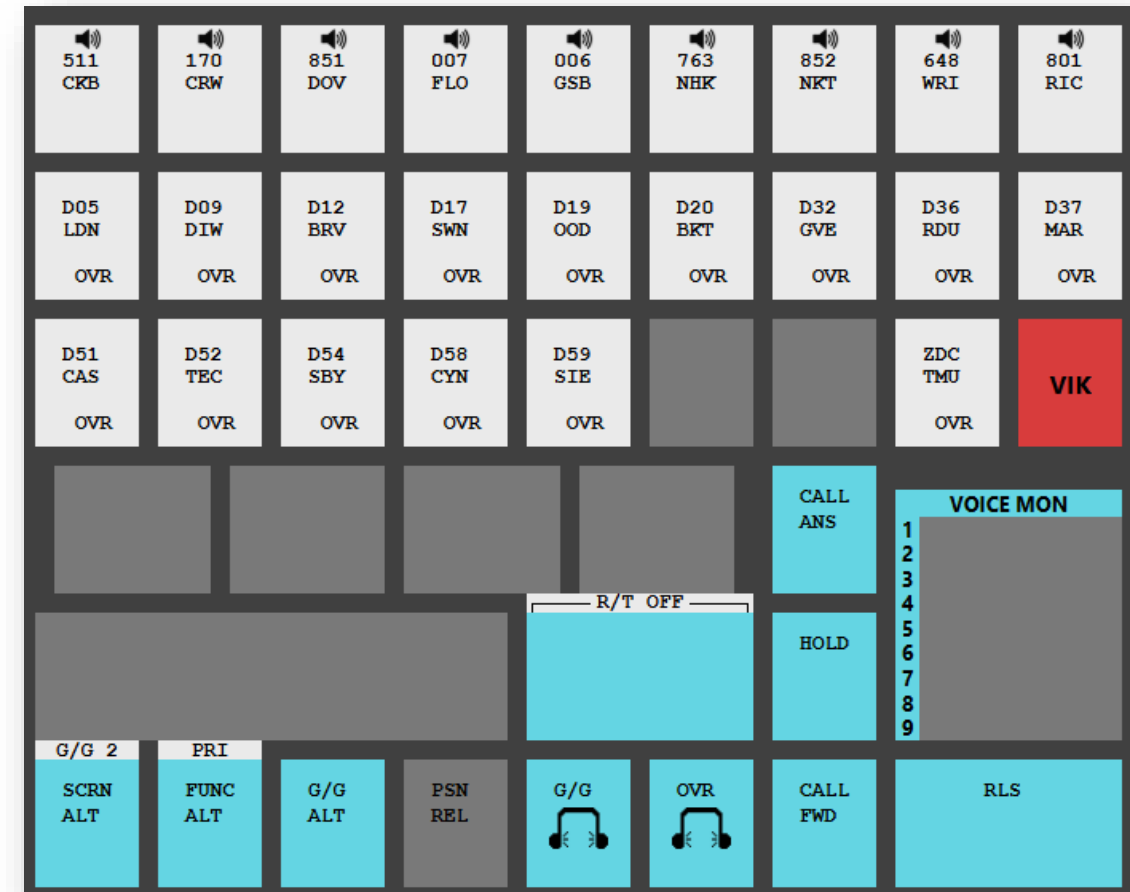
VSCS (Calling another facility)

- To use a shout line, single click the line you will call on to activate that line
- State who you are calling and then who you are (e.g. “Greensboro, Raleigh”)
 - Use your vCCS PTT to talk on the line
 - **Important!** Unlike RDVS, VSCS *requires* both parties to use their PTT to communicate on a shout line
- After completing the coordination, select the release (RLS) button to release the line



VSCS (Override Usage)

- Caller selects the position to override
- Receiver hears tone and responds (e.g. “go for Brooke” or “12, 32, go ahead”)
- If the receiver does not acknowledge the caller, then the caller can use standard interphone phraseology (“receiver, caller”)
- VSCS requires that the caller use their PTT to talk on the override. The receiver is hot mic and does not use their PTT (unless auto hot mic is disabled)
- **Important!** The caller *must* release the call when complete. The receiver does *not* have the ability to end an override



VSCS (Using the VIK)

- The VIK permits direct dial to a position.
To access the VIK, click the red VIK button
- Dial the code for the position you are trying to reach. *Note: only limited dialing capability is adapted at this time*
 - 1 + Sector Number = R-Side
 - 2+ Sector Number = D-Side
 - D-side is automatically forwarded to the R-Side when not staffed
- Example: To call R-Side at 32, touch 1, 3, 2 and the line will connect immediately.
- Always remember to select RLS when done

