

### **VNY PARALLEL RUNWAY OPERATIONS**

### CUPPER AVIANION OF THE PORT OF

### AIRPORT DIAGRAM AL-552 (FAA) $\Lambda_{885\pm}$

ANNUAL RATE OF CHANGE

0.1 nm (375ft), Omins

7-> (275ft), Omins (206 kts)

#### THE CONTEXT

11 AUG 2022

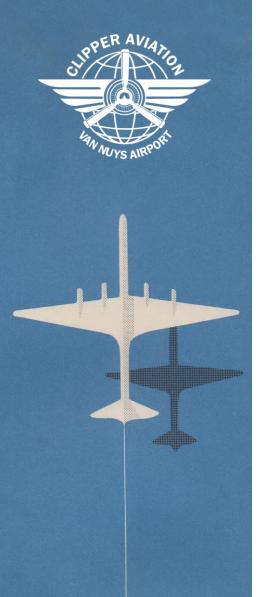
118°29'W

VAN NUYS, CALIFORNIA VAN NUYS (VNY)

ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED

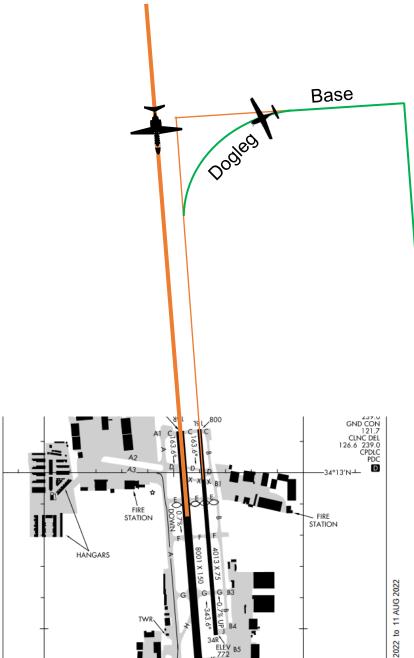
- Van Nuys Airport is home of two parallel runways with very close proximity.
- Typical separation criteria on parallel runways require 700
  ft lateral separation Van Nuys has only 370 ft of lateral
  separation.
- The primary Tower frequency is 119.3, however if 16L/34R is in use, expect to use 120.2 for that runway. Always contact 119.3 first when holding short of runway 16R/34L and 120.2 when holding short of runway 16L/34R.
- The Van Nuys runway layout poses the following risks:
  - Final overshoots resulting in Near mid air collisions
  - Departure leg drift over parallel runway
  - Approach runway changes
  - Runway incursions on crossing instructions/departure
  - Runway incursions after landing
  - Complex ground movement instructions
  - Human Limitations

This guide is designed to identify, clarify, and propose strategies for mitigating each of these risks.



#### FINAL OVERSHOOTS - 16L/16R Operations

Downwind



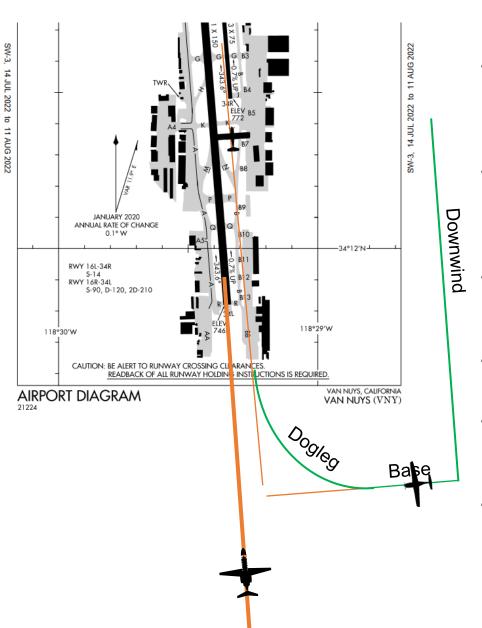
- As we all know, typical pattern direction for 16R is Right Traffic at 2000 MSL and 16L is Left Traffic at 1800 MSL.
- An easterly wind, or excessive airspeed on your base leg can result in an overshoot as you turn base to final on 16L.
- This can be especially hazardous if there is traffic on approach to the parallel 16R.
- The thresholds of 16L and 16R are situated at the same location so parallel traffic will typically be at the same altitude as you.
- In such a context, a **Dogleg** base to final turn is recommended.
- Tower may ask for you to square your base to final turn. In that situation, ensure that you are on speed and have traffic on the parallel in sight.
- Remember, if you don't see traffic you're following, traffic
  on the parallel, or if you're unsure that the traffic you have
  in sight is the right aircraft to follow/pass behind report
  "Negative Contact" and ask tower to call your base turn.
  This is critical!!!
- Be vigilant for traffic and always maintain visual contact.

  Even if you're already on final and on centerline,
  ensure that they don't drift into your approach path.





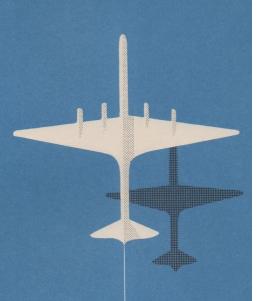
#### FINAL OVERSHOOTS - 34L/34R Operations



- The same context applies for northerly operations.

  However, since 34R threshold is significantly further north than that of 34L, your base turn will typically be at a higher altitude than the traffic on the parallel.
- However, if your downwind is extended for any reason, the vertical separation becomes smaller – the further out you are the closer you will be to the altitude of traffic on the parallel.
- An easterly wind, or excessive airspeed on your base leg can result in an overshoot as you turn base to final on 34R.
- In such a context, a **Dogleg** base to final turn is recommended.
- Tower may ask for you to square your base to final turn. In that situation, ensure that you are on speed and have traffic on the parallel in sight.
- If you overshoot, don't overbank and don't hesitate to initiate a Go Around! Often times that is the safest strategy.



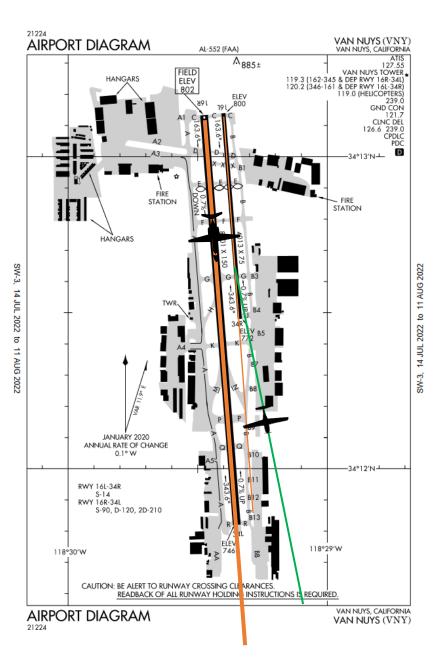


#### **FINAL OVERSHOOTS 16R/34L**

All the information you have read can be applied to the mirror operation, i.e. arriving RWY 16R/34L.



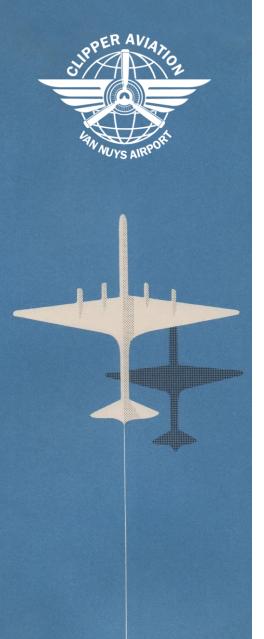
#### **DEPARTURE DRIFT**



- One of the fundamental skills you learn as a pilot is to track centerline on departure.
- However, with a crosswind or mechanical turbulence (or a bit of distraction) we can sometimes find ourselves drifting laterally off centerline during our climb.
- This can be especially hazardous with minimal separation between parallel runways.
- This applies to any runway at Van Nuys (just because you depart 16R doesn't mean you're immune).
- Tower may often ask you to "turn 10 degrees left/right for traffic departing the parallel".
- Always prioritize centerline track/crosswind correction on your climb out to avoid drift – if you can see the runway you just departed below you, you are drifting!

#### **APPROACH RUNWAY CHANGE**

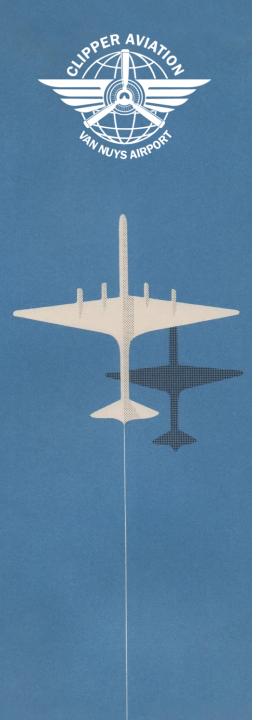
- With both runways now in operation, you should expect an occasional runway change on approach.
- Due to departure windows and flow considerations, Tower may ask you while you're on approach to 16R to change to 16L or vice versa.
- This is a simple sidestep maneuver and requires normal maneuvering.
- Make sure to readback the assigned runway when acknowledging a landing clearance.
- Never accept something you deem unsafe and always remember you can say "Unable"



#### **RUNWAY INCURSIONS - DEPARTURES**



- With parallel runway operations, Tower will leverage both runways. Smaller aircraft will often utilize 16L/34R for departure, freeing up the larger runway for jet traffic.
- Due to this context, a heightened risk for runway incursions exists.
- Pilots should expect CROSS AND LAUNCH operations where you are asked to cross one runway to depart another.
  - "Cross 16R at C, hold short 16L"
  - "Cross 16R at D, hold short Rwy 16L." Then, "Rwy 16L Cleared for T/O"
- Pilots should also expect increased **CROSS AND HOLD SHORT** instructions to be much more frequent.
- Always ensure that your tail clears the Hold Short bars of one runway and that you stop prior to the bars of the other runway.
- Remember that it is critical to always readback runway and intesection assignments in crossing, hold short, and takeoff instructions.
- If you are not certain of an instruction, don't move the aircraft until you clarify. You may miss a gap for departure, but you will be safer and avoid a possible pilot deviation.



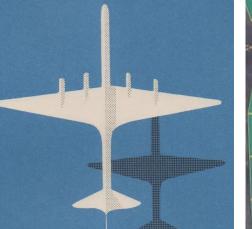
## **RUNWAY INCURSIONS TWY D** Remember, you can cross a dashed double yellow without a clearance.

You CANNOT CROSS a solid double yellow without

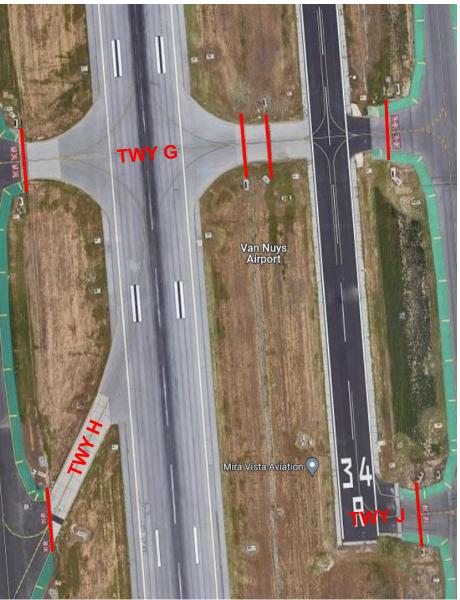
clearance.

W





#### **RUNWAY INCURSIONS - ARRIVALS**



- Runway incursion potential isn't limited to departing the airport environment.
- With parallel runway operations, the potential for a runway incursion is very high when exiting 16L/34R.
- When exiting a runway, always ensure you clear the hold short bars, but stop prior to the hold short bars for another runway. NEVER CROSS hold short bars without a clearance.
- The space between hold short bars on the taxiways between 16R/34L and 16L/34R is very narrow. Be extra vigilant if your exit from 16L/34R puts you in-between the two runways.
- Tower may ask you to continue and cross the parallel runway, but don't ever assume that this is a given. Unless you hear the words "Cross Runway 16R/34L" you should always stop and hold short.
- Don't ever switch off tower frequency when holding between the two runways.
- If an instruction is not clear or you're not sure that it was for you, don't move the aircraft. Confirm first before making a mistake.



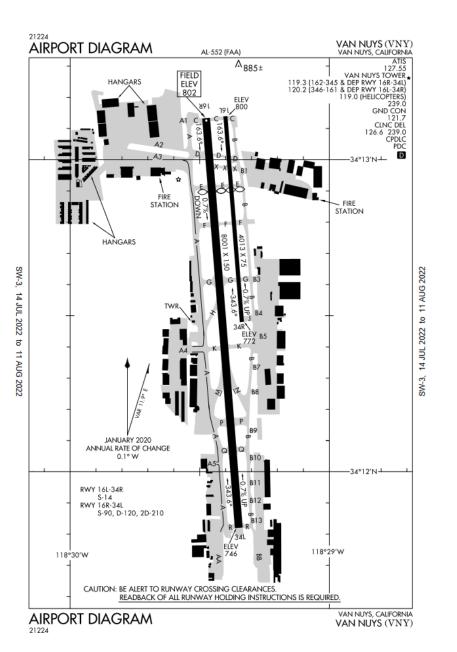
#### **RUNWAY INCURSIONS - ARRIVALS**

# Don't ever switch off tower frequency when holding between the two runways.

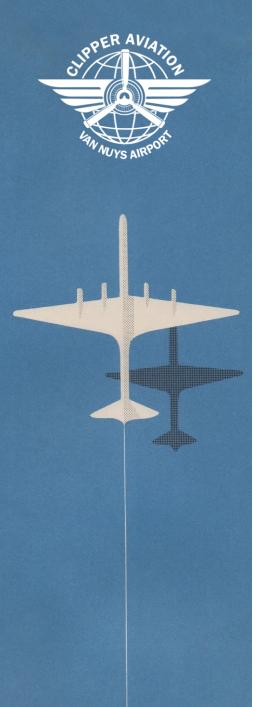
Just wanted to be sure this didn't get missed.



#### **COMPLEX TAXI INSTRUCTIONS**



- Van Nuys has a simple taxiway layout with two north/south taxiways flanking the runways to the west and east. There are several crossing taxiways to facilitate movement.
- With 16L/34R in operation, pilots should expect taxi instructions that may include a crossing instruction. Often times this will come in two parts:
  - Part One: taxi instructions to get you to hold short at an intersection.
  - Part Two: crossing instructions with taxi instruction to your departure runway.
- If instructed to hold short at an intersection by the Ground controller, always check if they would like you to switch to Tower if you're unsure.
- Pay attention to the taxi instructions. They will be the tell tale sign of what to expect.
- "Cirrus 810RT taxi RWY 34R via A, K, hold short RWY 34L"
  - In this instruction the controller identified 34R as our departure runway, but gave you instructions to taxi to an intermediate position and hold short of 34L.
  - Always clarify if confusion exists.

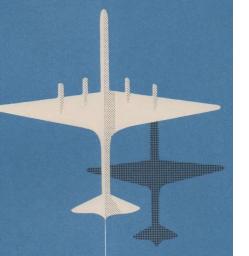


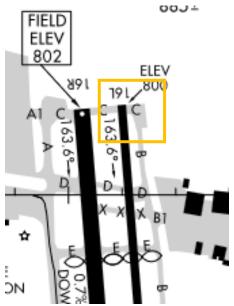
#### **HUMAN LIMITATIONS**

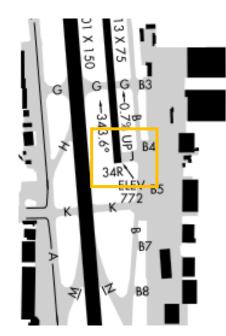


- We pilots are often times the weakest link in a system. In the context of parallel runway operations, we need to be aware of two very likely limitations that exist within ourselves and guard against them.
- Confirmation Bias we have a tendency to seek information that confirms a decision that we've already made.
   For example, you have calculated performance for 16R and already briefed a departure for 16R. However, the local ATC controllers may have a different plan. We need to be aware that our operational context can change and pay careful attention to instructions vs following what we've already decided. If an instruction does not work for us (due to performance considerations or otherwise) we need to communicate with "Unable" followed by a plan of action.
- Patterns and Expectations day in and day out you taxi to via the same route to 16R via A and C taxiways. Our brains seek to simplify and leverage existing knowledge and experience as a shortcut to processing new information. This can be very useful but can also be very dangerous. In the parallel runway environment, you need to pay careful attention to instructions issued and always confirm them if there is any doubt. If you are saturated and feeling the pressure to complete a flight or hurry up and depart, take a moment and confirm. Don't ever assume because "it just has to be". You may be very used to hearing "Cleared to land 16R" and assume due to a stepped on transmission that's what was meant when in fact the controller stated "Cleared to land 16L". Pay attention and always confirm.









#### **16L/34R RUNUP AREAS**

- There are no distinct runup areas for either 16L or 34R when you are on the East side of the field.
- The de facto runup area for 16L when you are on B is taxiway C as you're holding short.
  - Don't let traffic holding in queue behind you intimidate your diligent and effective pre-takeoff preparation. DO NOT RUSH.
  - If tower needs you to make way for another aircraft they may have you cross to the West side of the field and position you in the runup area for 16R.
- The de facto runup area for 34R is taxiway J when you are holding short of 34R.
  - Always be considerate and try to position your aircraft offset to one side
    of taxiway J as to offer up room for another aircraft as needed to do
    their runup next to you.
  - Also consider the need to ensure that you are not blocking taxiway B when you are holding short of 34R at J.
- If you're ever in a need to maneuver around an aircraft, ground/tower may say "at pilot's discretion/at your own risk". Understand that this is ATC's way of relinquishing responsibility in that context; so be sure you understand the hazards and risks when requesting/accepting an instruction that includes "at pilot's discretion/at your own risk".



#### **ADDITIONAL RESOURCES**



FAA Video - Runway Safety @ VNY



Alexander Gornakov Chief Pilot 404.376.0594 alex@clipperaviation.com



Jeff "JJ" Gutowski Assistant Chief Pilot 619.709.9205 jj@clipperaviation.com