



# Runway Labels

BCB runway extension (A.A. Trani)







# Runway Labels

Runway numerals (or labels) are used to uniquely identify runways at airports

- Runway labels are assigned based on runway magnetic heading (divided by 10)
- Example: Roanoke Regional Airport runway 16-34

## Runway 16/34

Source: [arnav.com](http://arnav.com)

Dimensions: 5810 x 150 ft. / 1771 x 46 m

Surface: asphalt/grooved, in good condition

Weight bearing capacity: PCN 54 /F/A/X/T

Single wheel: 150.0

Double wheel: 200.0

Double tandem: 310.0

Runway edge lights: high intensity

### **RUNWAY 16**

Latitude: 37-19.737388N

Longitude: 079-58.867565W

Elevation: 1165.6 ft.

Traffic pattern: left

Runway heading: 156 magnetic, 148 true

Declared distances: TORA:5810 TODA:5810

ASDA:5810 LDA:5810

### **RUNWAY 34**

37-18.926242N

079-58.230953W

1142.9 ft.

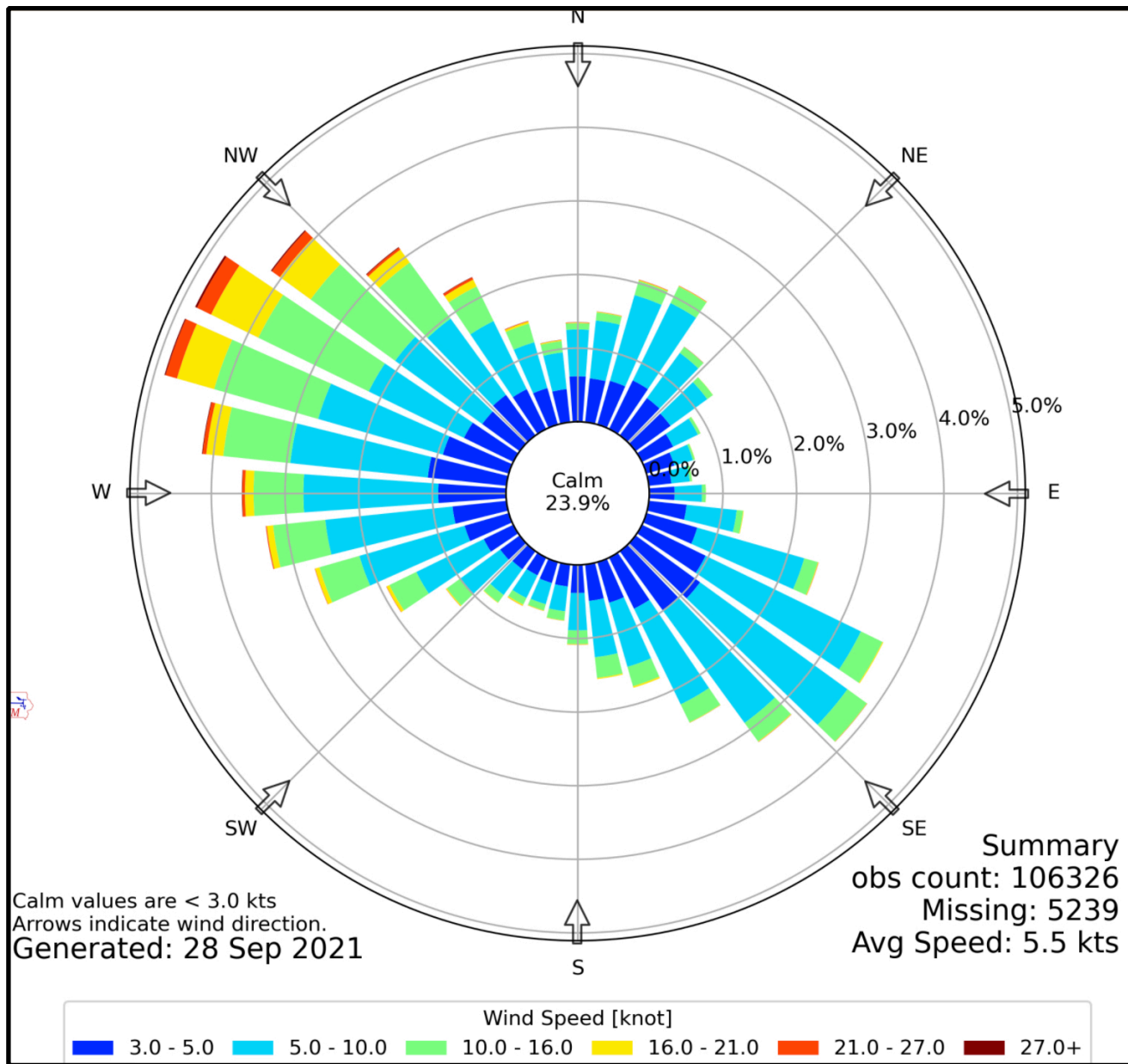
left

336 magnetic, 328 true

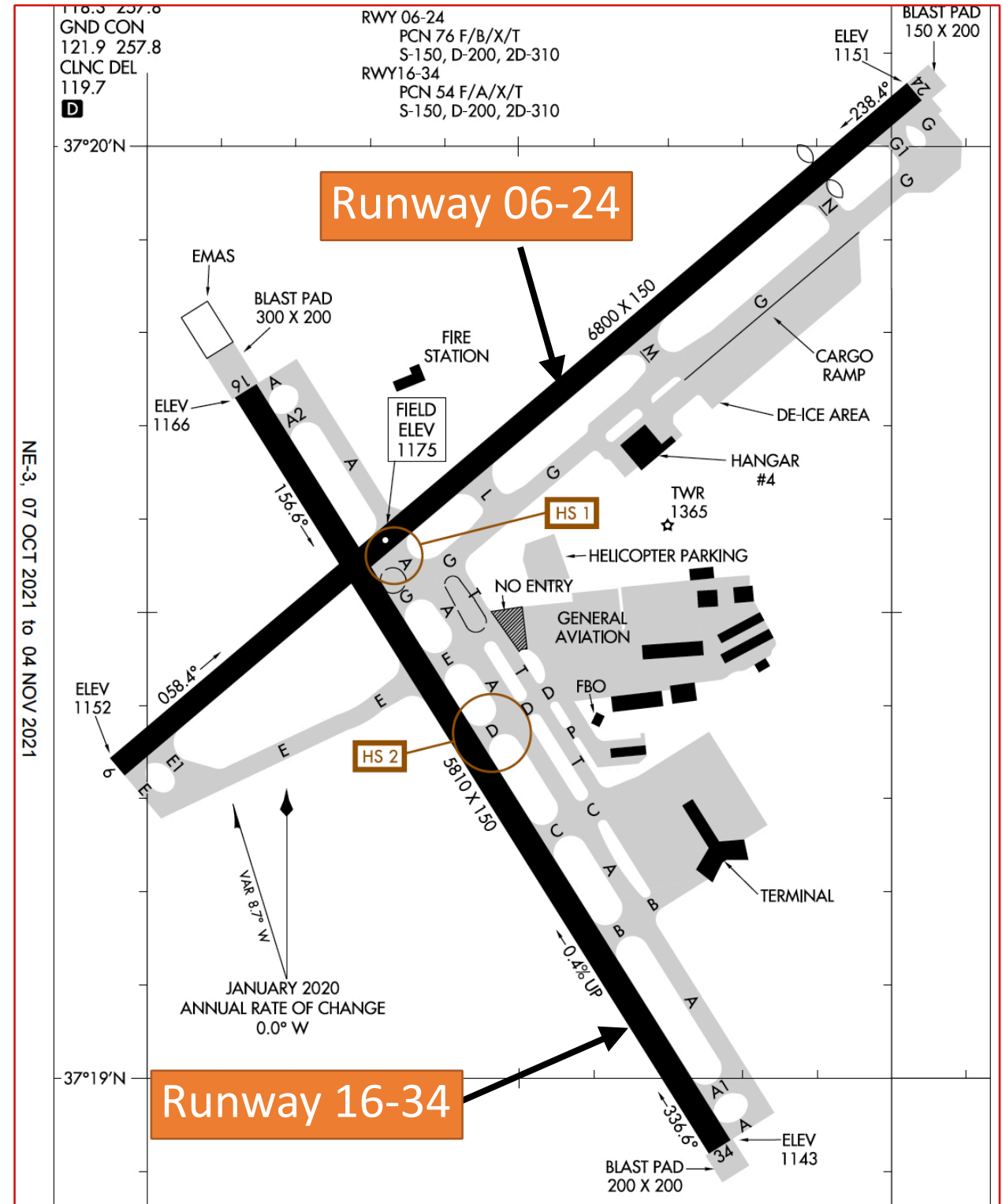
TORA:5810 TODA:5810 ASDA:5810 LDA:5810



# Roanoke (ROA) Regional



Wind Rose using the Iowa State Mesonet data





# ROA Regional Airport Example

- Runway 16 has a magnetic heading of 156 degrees
- Runway 16 has a 148 deg. true heading
- ROA has a magnetic variation of 8 degrees West (+)

## Runway 16/34

Dimensions: 5810 x 150 ft. / 1771 x 46 m

Surface: asphalt/grooved, in good condition

Weight bearing capacity: PCN 54 /F/A/X/T

Single wheel: 150.0

Double wheel: 200.0

Double tandem: 310.0

Runway edge lights: high intensity

### **RUNWAY 16**

Latitude: 37-19.737388N

Longitude: 079-58.867565W

Elevation: 1165.6 ft.

Traffic pattern: left

Runway heading: 156 magnetic, 148 true

Declared distances: TORA:5810 TODA:5810  
ASDA:5810 LDA:5810

Source: [airnav.com](http://airnav.com)

### **RUNWAY 34**

37-18.926242N

079-58.230953W

1142.9 ft.

left

336 magnetic, 328 true

TORA:5810 TODA:5810 ASDA:5810 LDA:5810





# Runway Labels Change with Time

- Runway 13-31 at Virginia Tech Montgomery Executive Airport changed in 2020
- Old runway designation was 12-30

Source: [airnav.com](https://www.airnav.com)

FAA Identifier: BCB  
 Lat/Long: 37-12-33.7920N 080-24-43.5240W  
 37-12.563200N 080-24.725400W  
 37.2093867,-80.4120900  
 (estimated)  
 Elevation: 2119.5 ft / 646.0 m (surveyed)  
 Variation: 08W (2020)  
 From city: 5 miles S of BLACKSBURG, VA  
 Time zone: UTC -4 (UTC -5 during Standard Time)  
 Zip code: 24060

## Runway 13/31

Runway 13 data for BCB as of July 2021

Dimensions: 5501 x 100 ft. / 1677 x 30 m  
 Surface: asphalt/grooved, in fair condition  
 Runway edge lights: medium intensity  
 Runway edge markings: NSTD TAXIWAY IN-LINE WITH RWY. WHITE  
 IS END OF RWY.

## RUNWAY 13

Latitude: 37-12.770175N  
 Longitude: 080-25.229450W  
 Elevation: 2119.2 ft.  
 Traffic pattern: left

Runway heading: 125 magnetic, 117 true

Markings: nonprecision, in good condition

The magnetic variation  
 changed from 7 W to 8 W  
 Old magnetic heading - 124 degrees



Runway 12 at BCB until July 2020



# Parallel Runways

## Two parallel runways

- Use Right and Left designations
- Example: 18R and 18L

## Three runways

- Ideally, use Right, Left and Center designators
- Example: 18R, 18C and 18L (like Charlotte, NC)
- Variation with two close parallels labeled equally, third runway adopts a heading 10 degrees apart (like Phoenix, AZ)









# Example: Charlotte Douglas Airport (CLT) (North Carolina)



Source: Google Earth

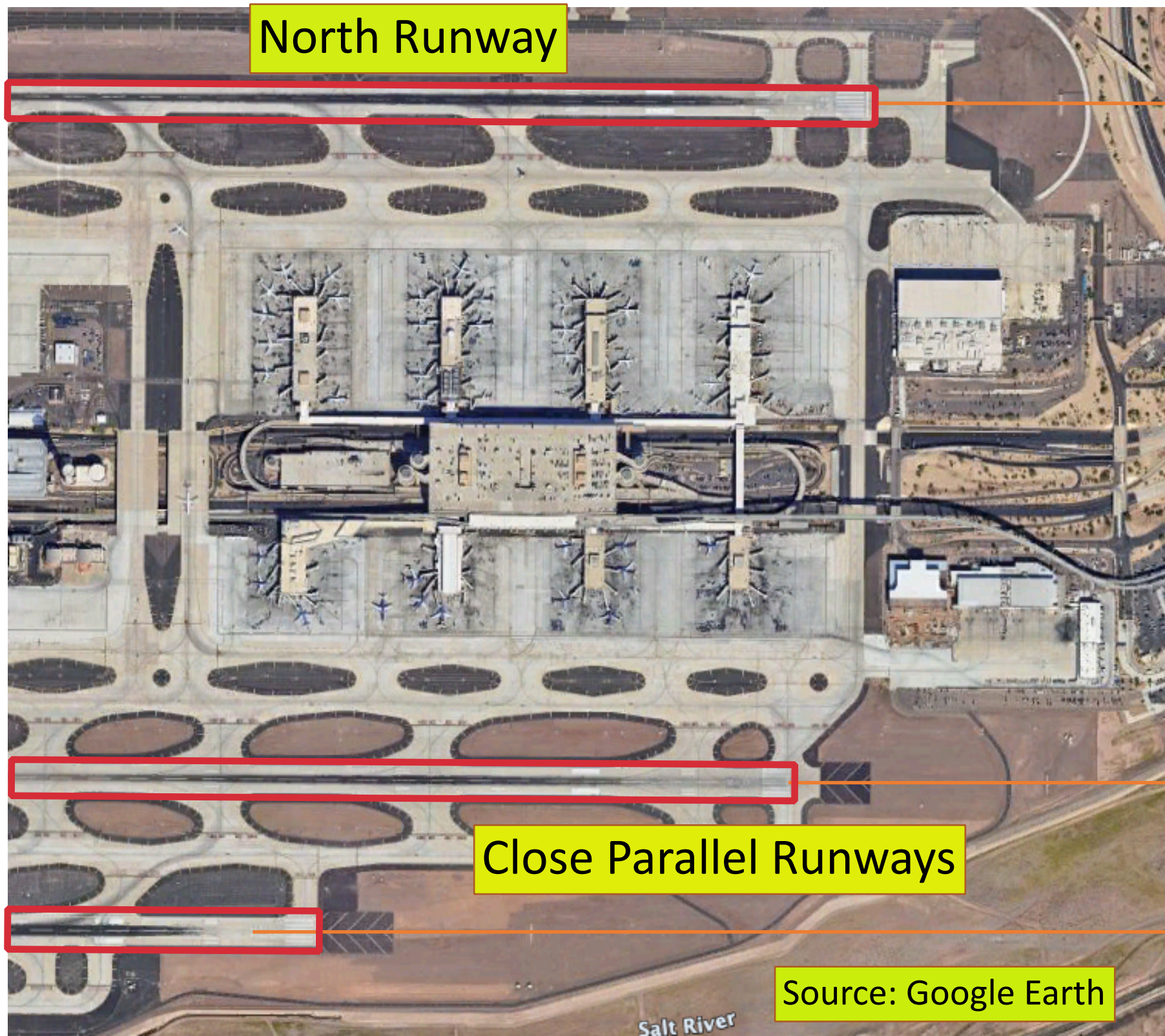








# Example: Phoenix Airport (Phoenix, Arizona)



3,600 ft (1100 m)

800 ft (244 m)





# Example: Phoenix Airport (Phoenix, Arizona)

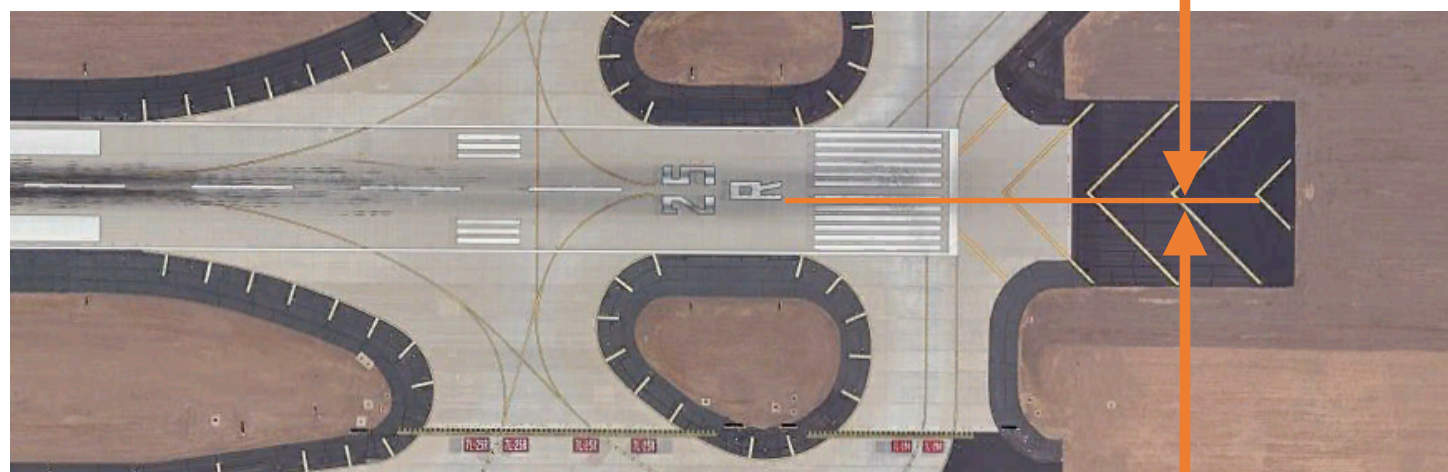
North Runway



3,600 ft (~1100 m)

All runways have the same runway heading (78/258 deg. magnetic)

Close Parallel Runways



800 ft (244 m)



Source: Google Earth



# Parallel Runways (4 or More)

## Four parallel runways

- Use Right and Left designations for each close parallel set
- Differentiate each pair using designators separated by 10 degrees
- Example: 08R and 08L and 09R and 09L (like Denver, CO)

**For five runways - use the four runway rule + a new designator for the 5th runway (like Atlanta)**

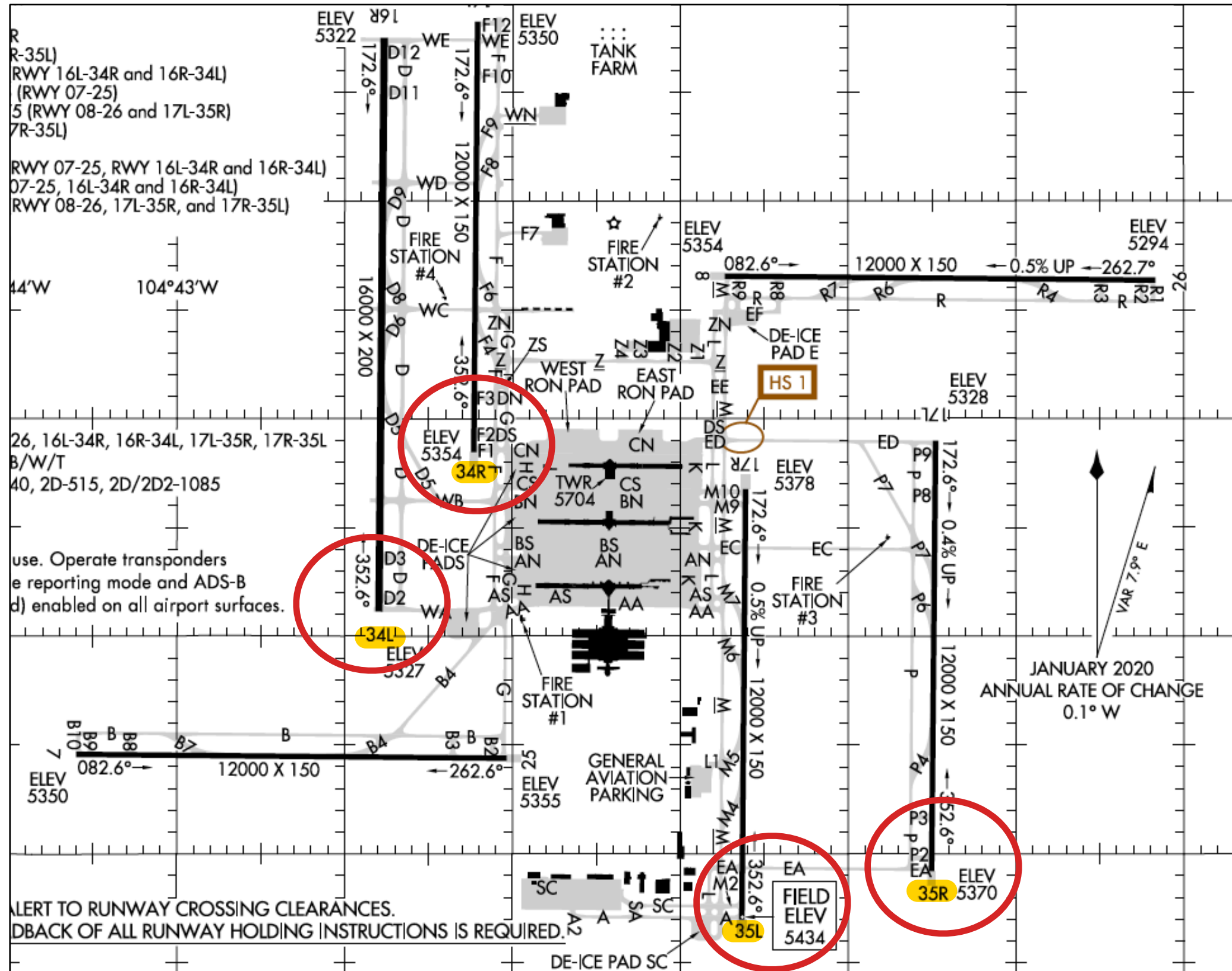




# Example: Denver Airport

Runways 34L  
and 34R

Runways 35L  
and 35R



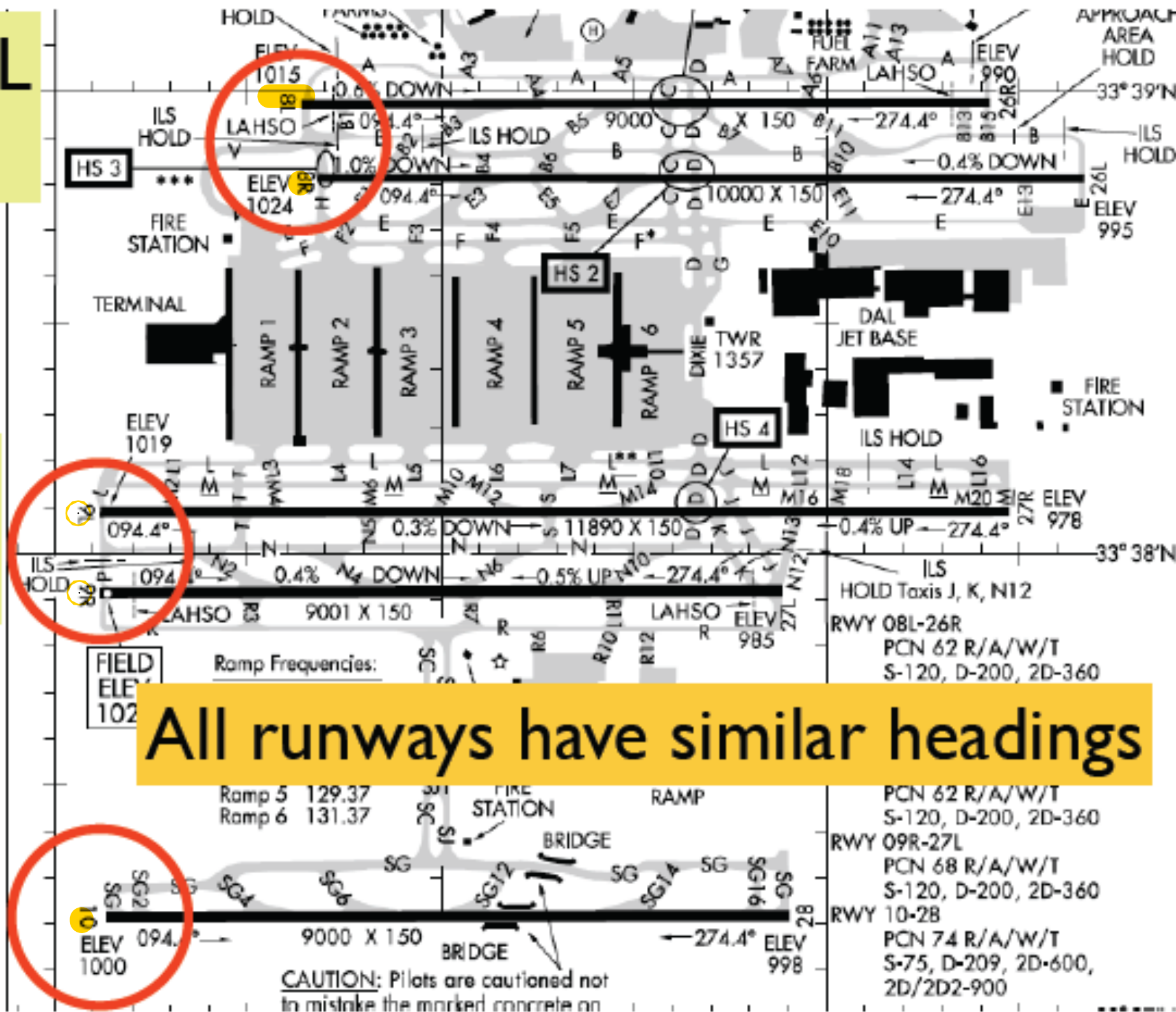


# Example: Atlanta Airport

Runways 08L and 08R

Runways 09L and 09R

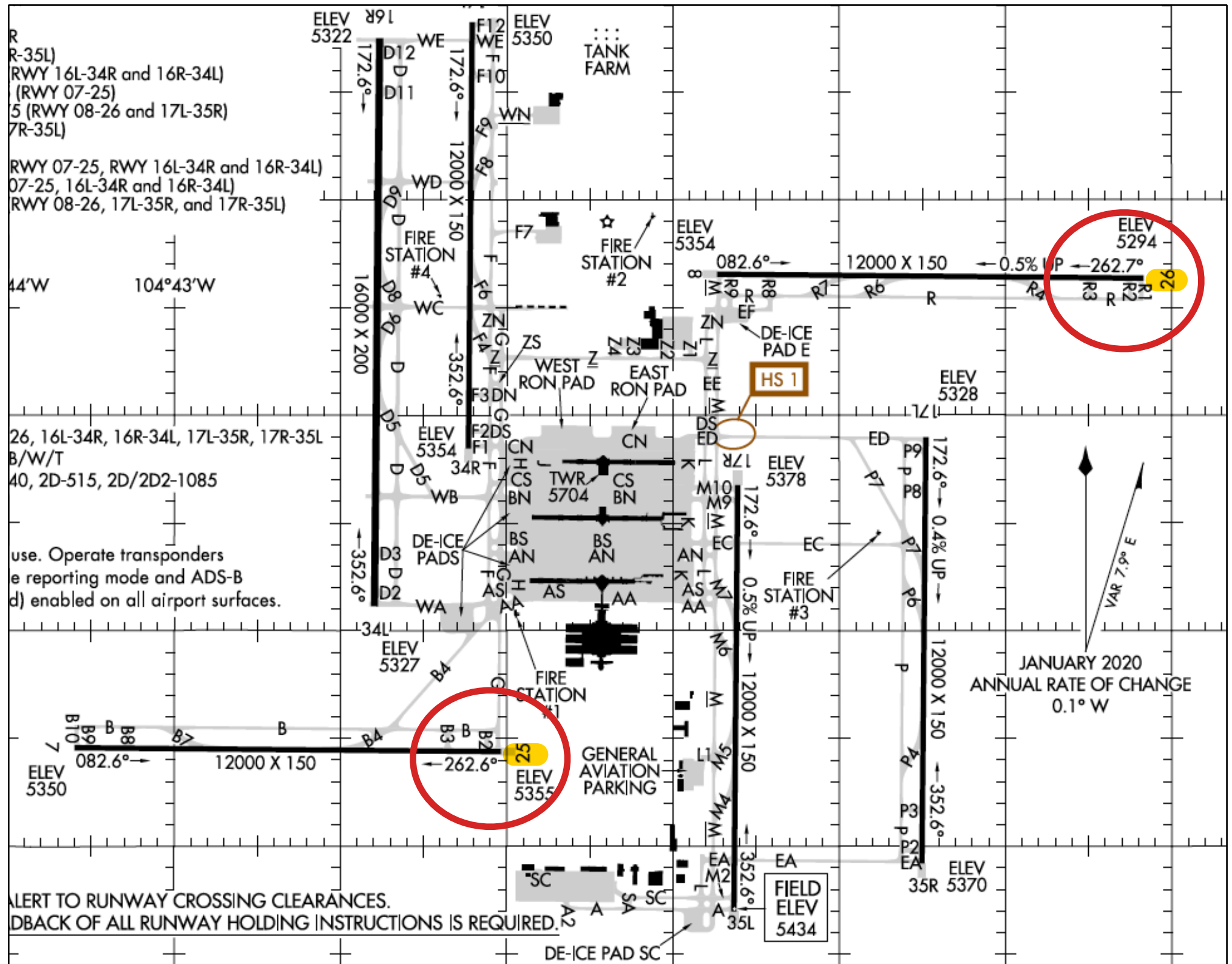
Runway 10





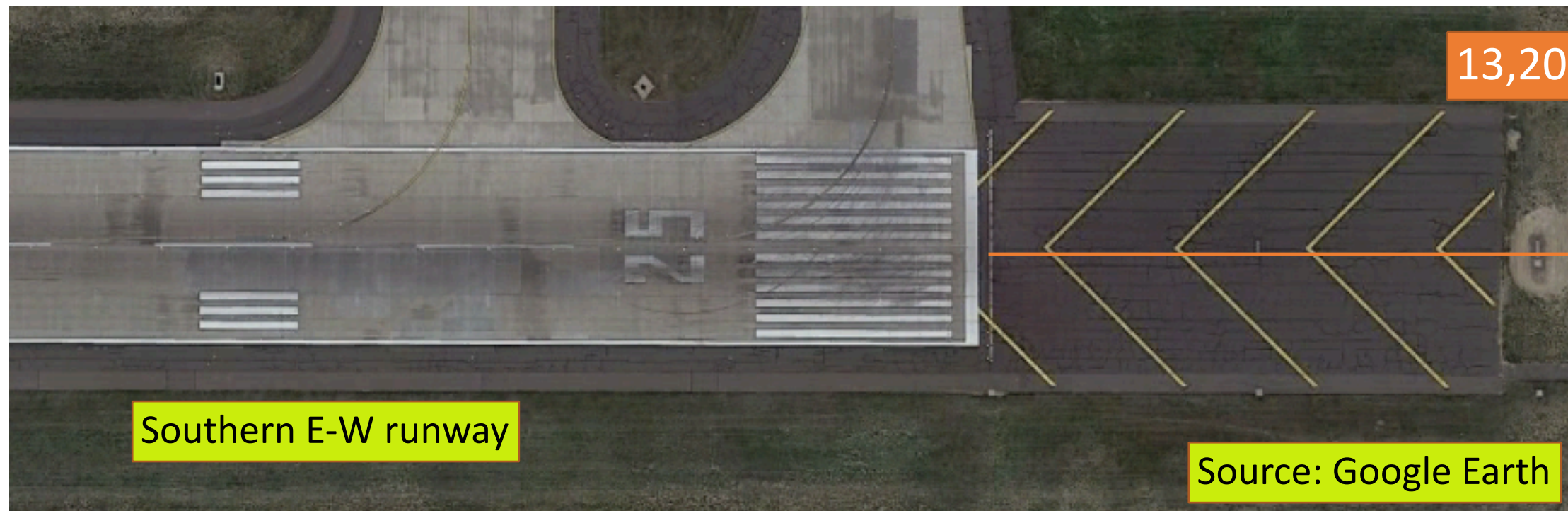


# Example: Denver Airport (Two Far Away Parallel Runways)





# Example: Denver Airport (Parallel Far Away Runways)



13,200 ft (4,024 m)