



# 2022 Annual Noise Budget Analysis

Airport Advisory Commission

January 19, 2023

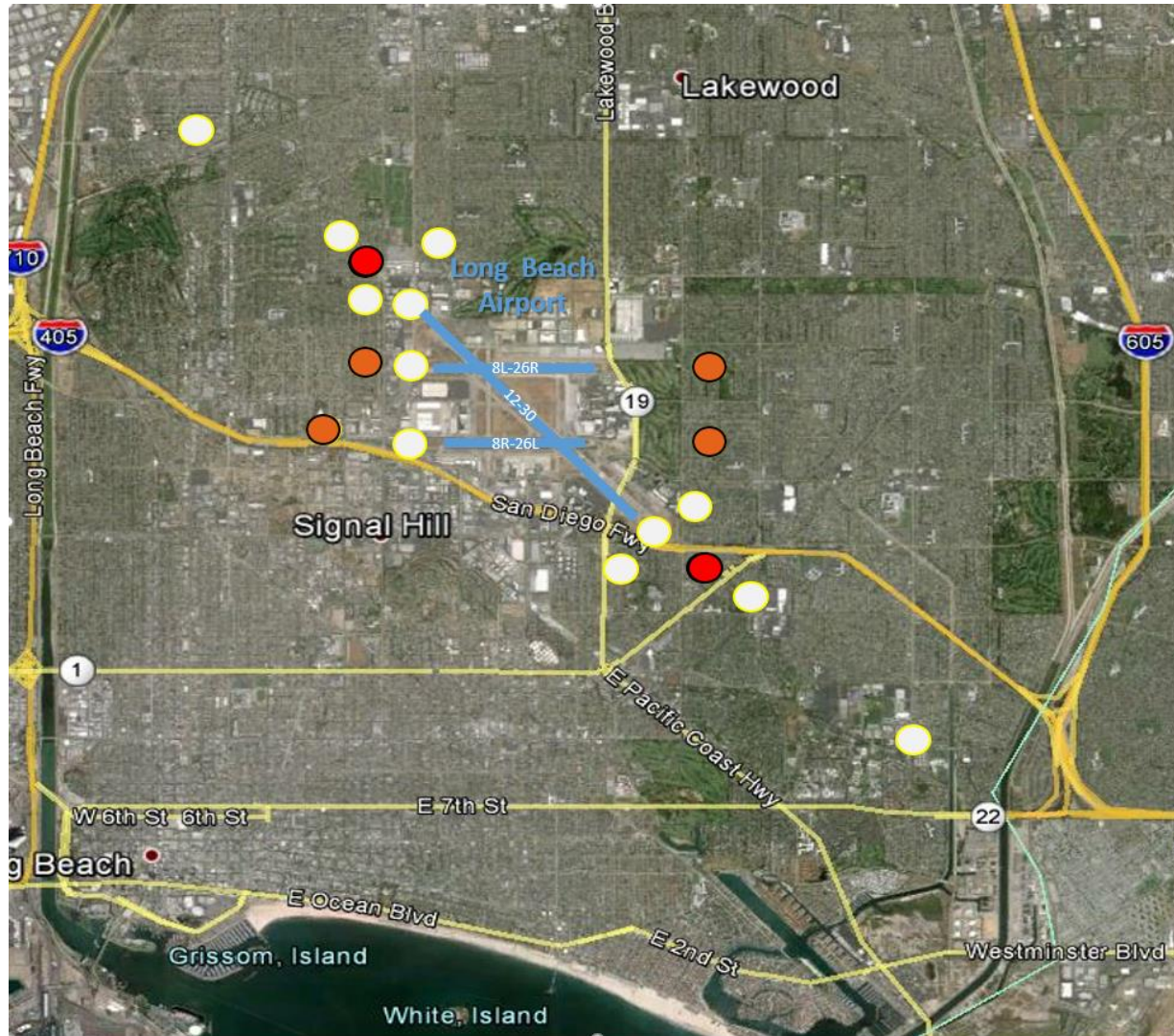
# Airport Noise Compatibility Ordinance (Noise Ordinance)

- Adopted in 1995, Long Beach Municipal Code (LBMC) 16.43, following a 12-year litigation period
- Represents a settlement agreement between the airlines and the City of Long Beach
- Permits increases in flight slots if noise levels comply with the noise budget
- Incentivizes air carriers to operate quietly
- Requires review of the noise budget on an annual basis

# Air Carrier Flight Slots

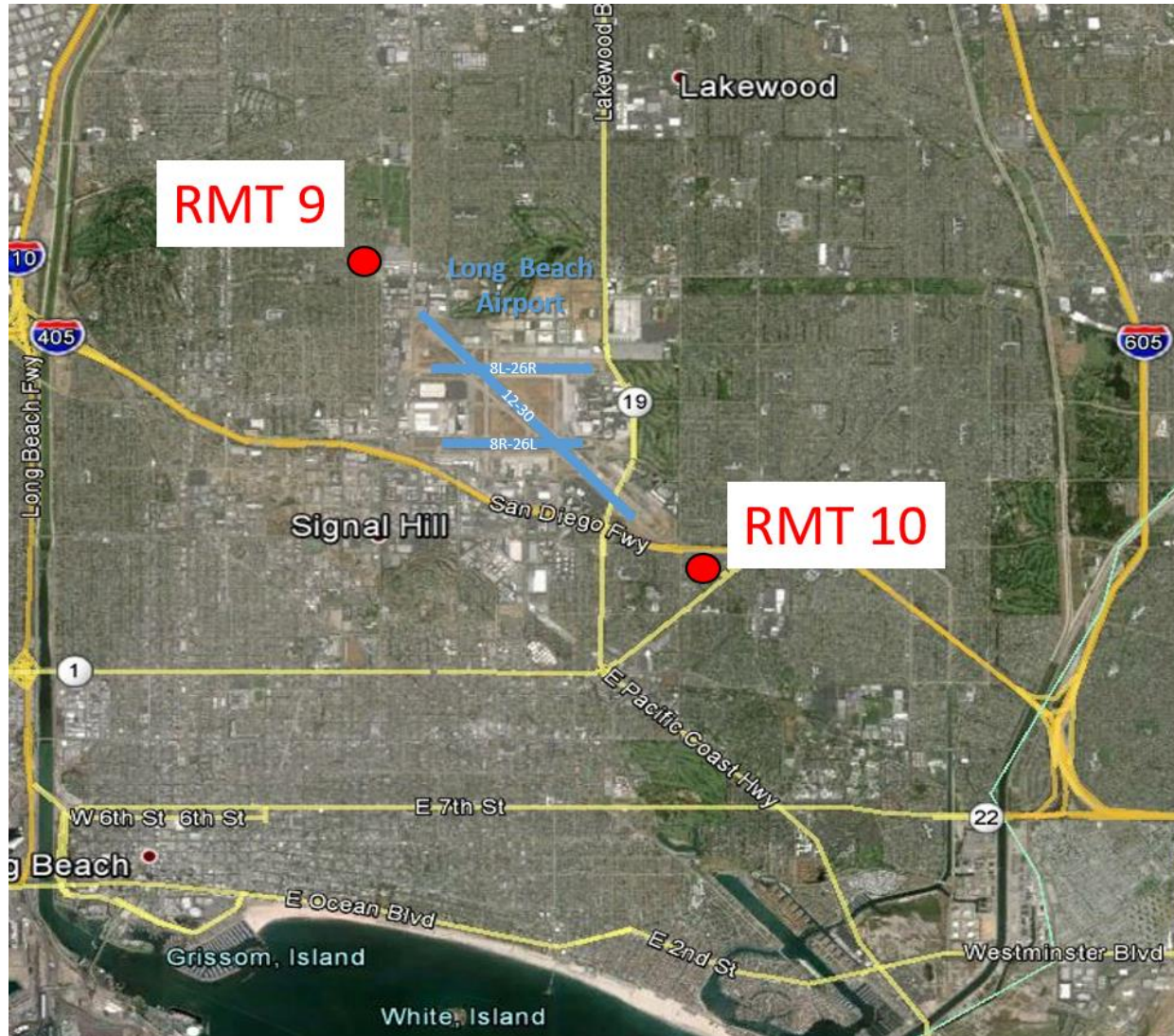
- Noise Ordinance provides for 41 Permanent flight slots
  - 2015 Noise Budget Analysis – 9 Supplemental flight slots added
  - 2019 Noise Budget Analysis – 3 Supplemental flight slots added
  - 2022 Noise Budget Analysis – 5 Supplemental flight slots added
- Supplemental flight slots are to be rescinded if the
  - Air Carrier Noise Budget is exceeded during the Noise Year, and the
  - Overall Airport Noise Budget is exceeded during the Noise Year

# Airport Noise & Operations Monitoring System (ANOMS)



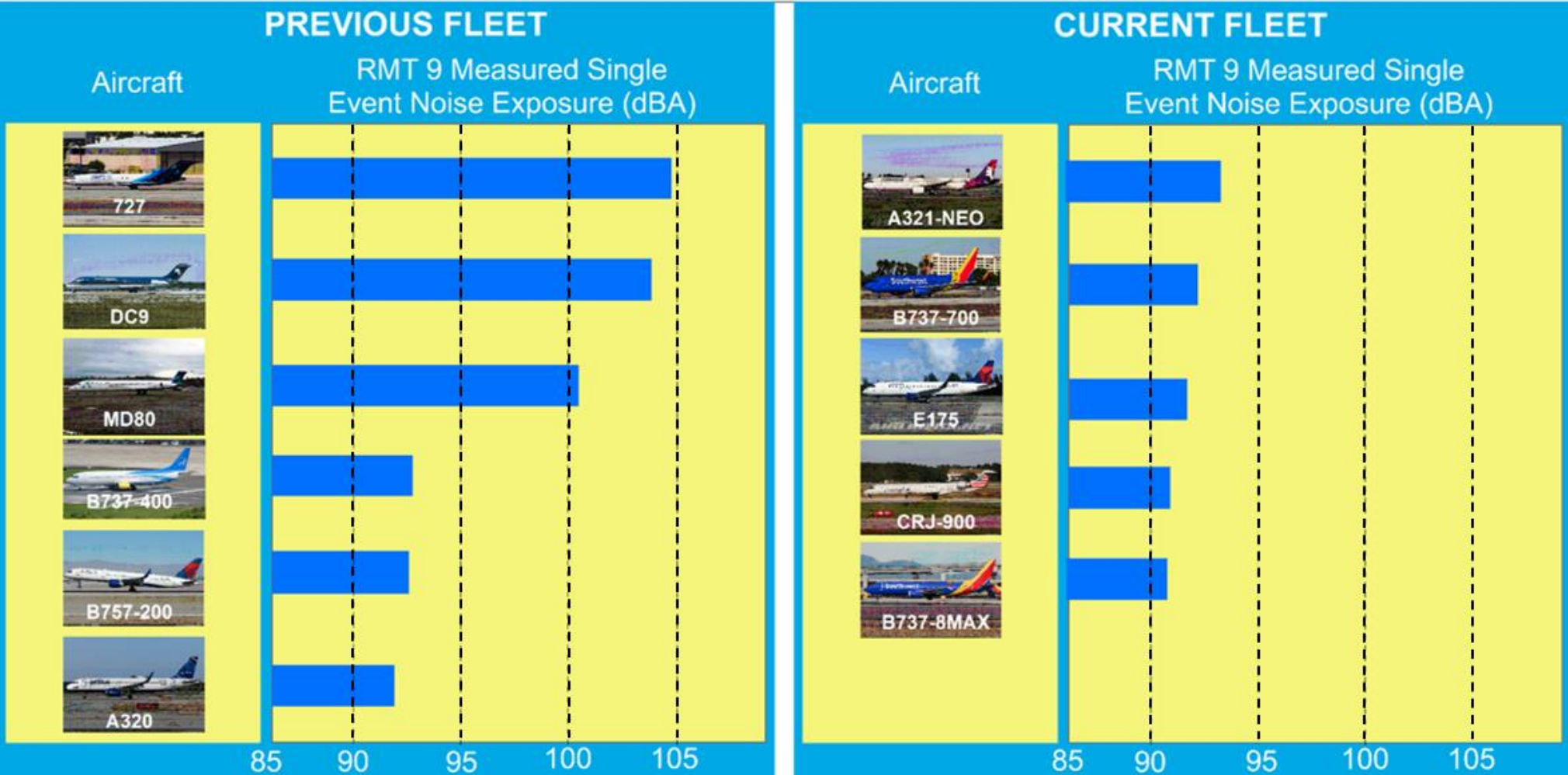
- ● ● 18 Noise Monitors
- ● 6 Regulatory Noise Monitors with Single-Event Noise Exposure Level (SENEL) Limits
- 2 Noise Budget Monitors with Community Noise Equivalent Level (CNEL) Limits for annual noise budget analysis

# Noise Data Analysis - Remote Monitoring Terminals (RMT)



- Reviewed every Quarter
- Annual Noise Budget Analysis and Evaluation
  - Noise Year; October 1 through September 30
  - Noise Data is compared to 1989/90 noise levels
  - Required by Airport Noise Compatibility Ordinance (LBMC 16.43)

# Air Carrier Fleet Noise Levels - A-weighted decibels (dBA)

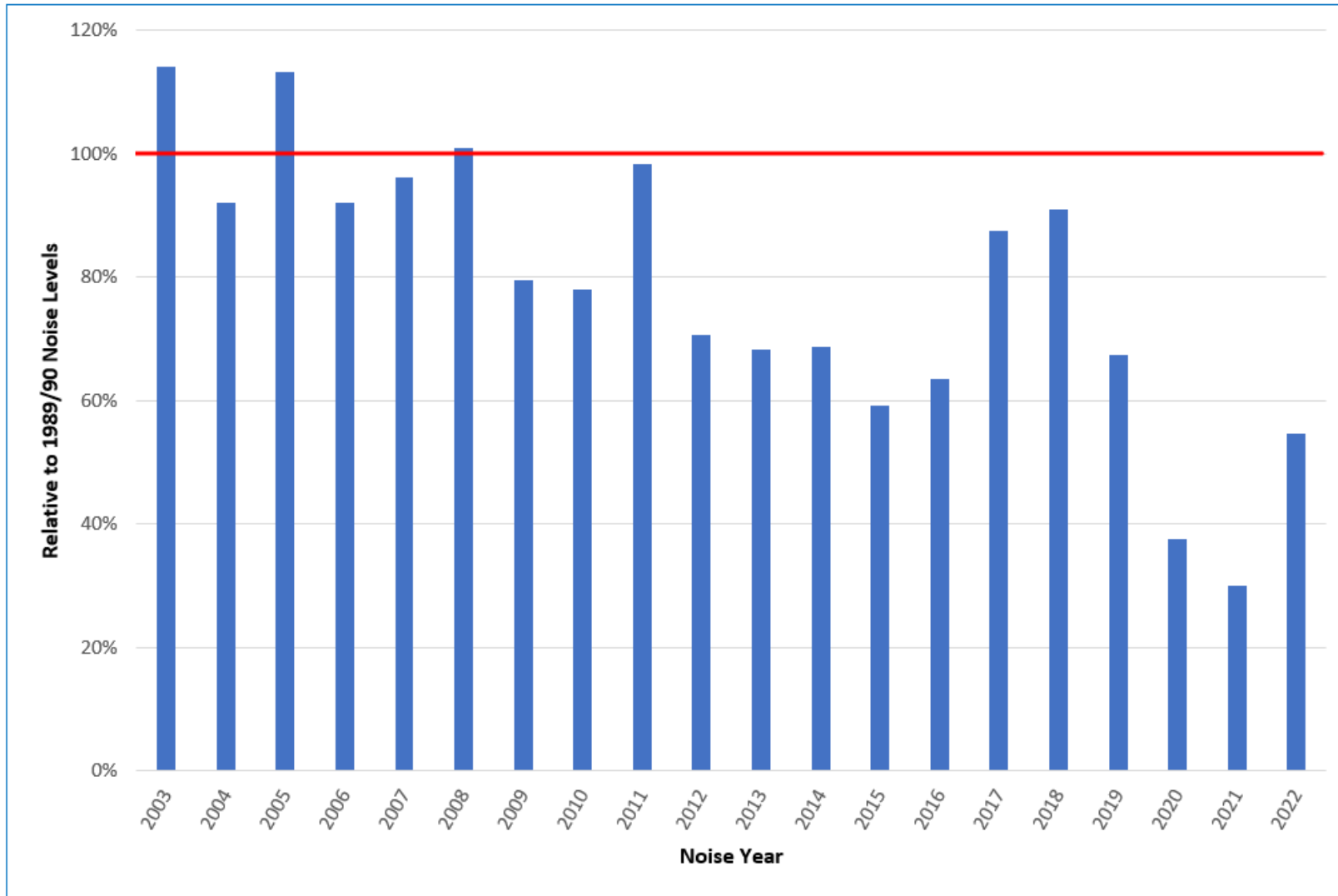


Aircraft have become quieter over time.

# Historical & Recent Changes at LGB

- Flight Slot Allocations
  - Partial relinquishment of flight slots in 2019 by JetBlue Airways
  - Allocation of relinquished slots to Southwest Airlines
  - Cease of operations and relinquishment of slots by JetBlue Airways in Oct 2021
  - Allocation of remaining relinquished slots to Southwest Airlines
- Aircraft Fleet Mix
  - Retirement of older aircraft – 727, 757 and MD-80
  - Acquisition of newer, quieter & more fuel-efficient aircraft – 737-700, 737-8MAX, CRJ-900 and E-175
- Time of Operations
  - Elimination of JetBlue's frequent late-night operations
  - Fewer late-night operations overall from remaining air carriers
- COVID-19 Pandemic

# Historical Air Carrier Noise Levels – RMT 9



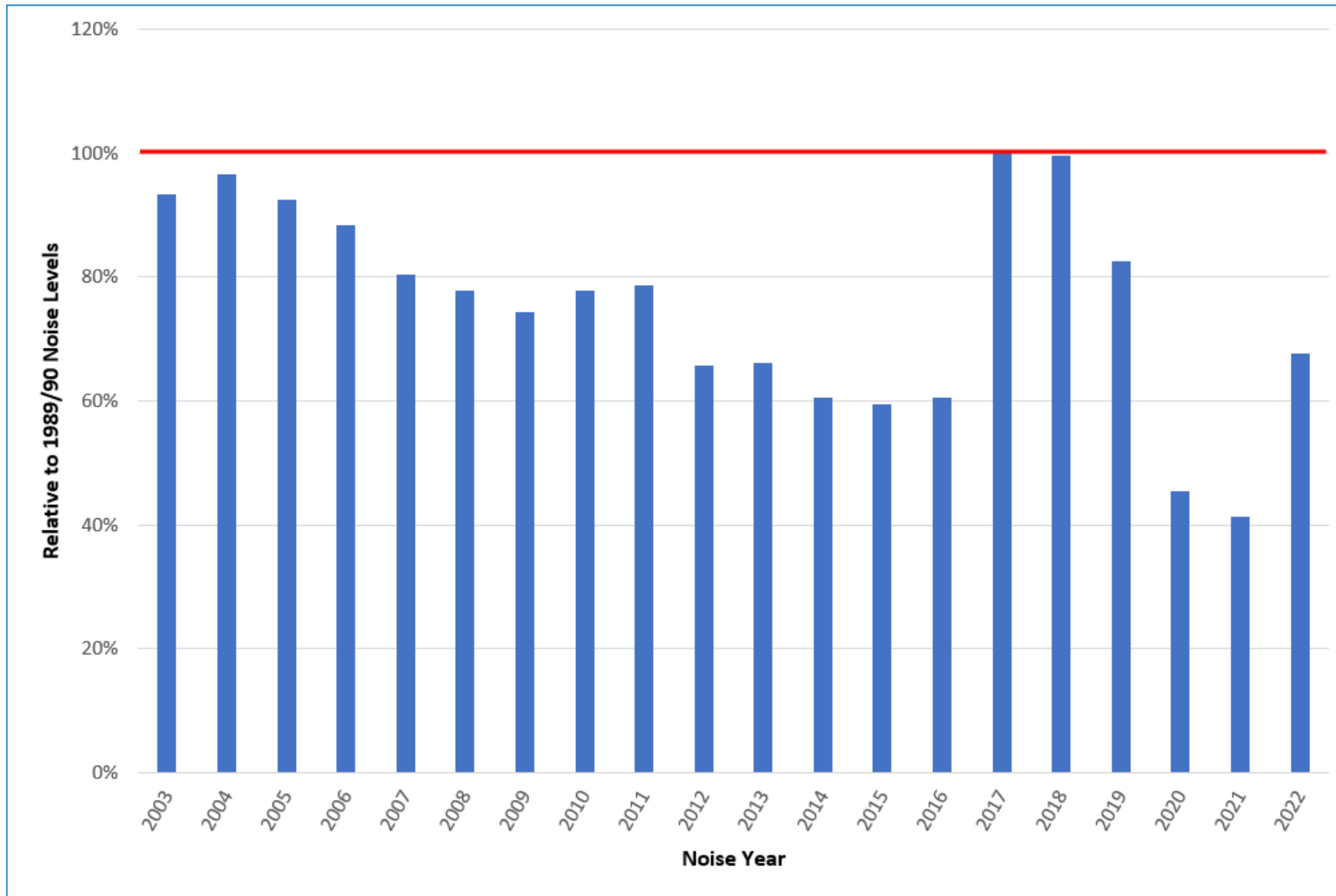
Actual Noise Levels compared to Baseline 1989/90 Noise Limits

- Highest levels reflect periods with predominantly older aircraft
- Airport has historically operated below the noise budget limit



**long beach**  
airport

# Historical Air Carrier Noise Levels – RMT 10



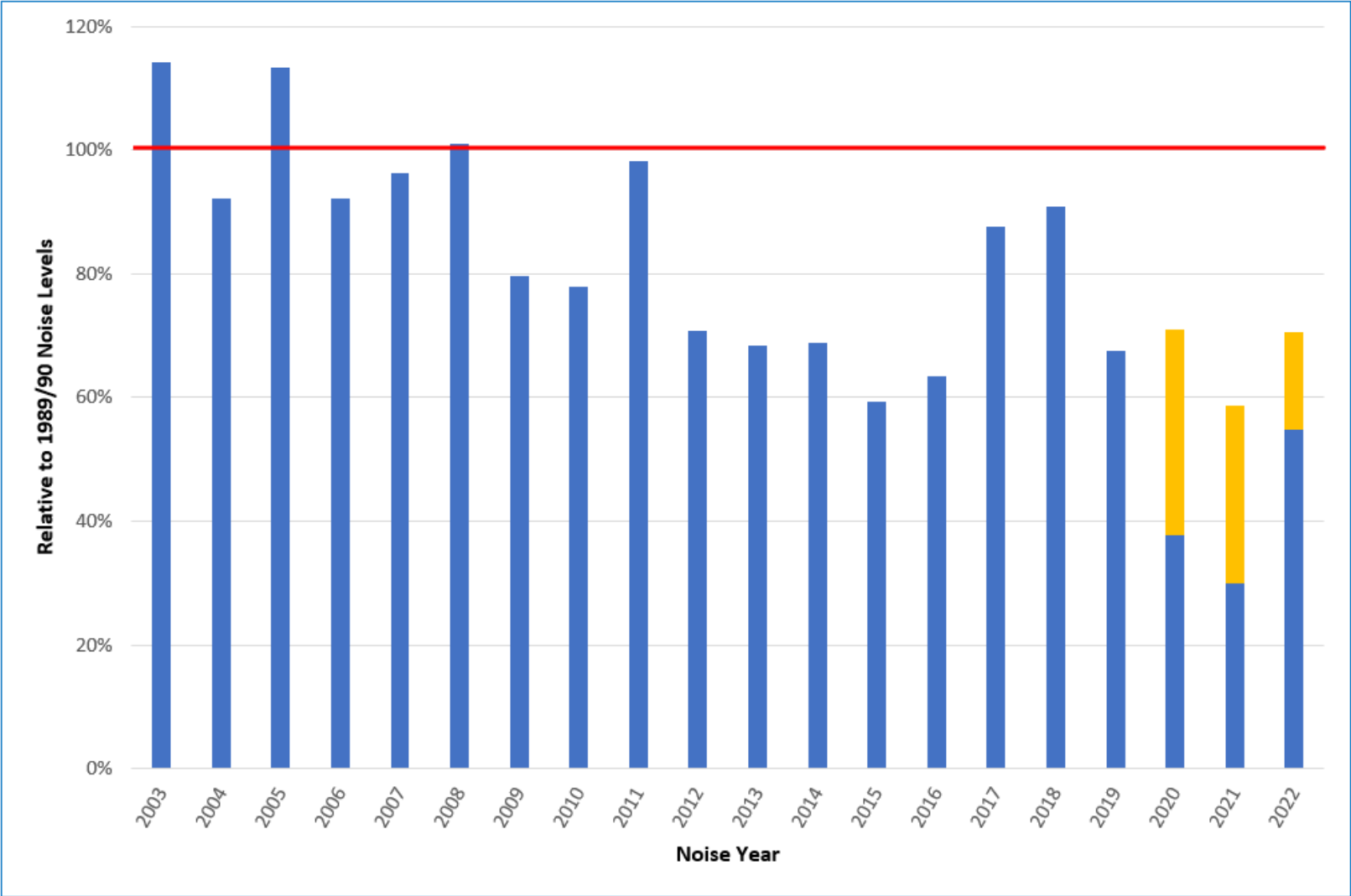
Actual Noise Levels compared to Baseline 1989/90 Noise Limits

- Primarily an arrival noise monitor
- Arrival noise levels are typically quieter and more consistent than departure noise levels
- Spikes in 2017 and 2018 were due to high utilization of 50 total flight slots and large number of late-night operations





**long beach**  
airport

# Historical Air Carrier Noise Levels – RMT 9



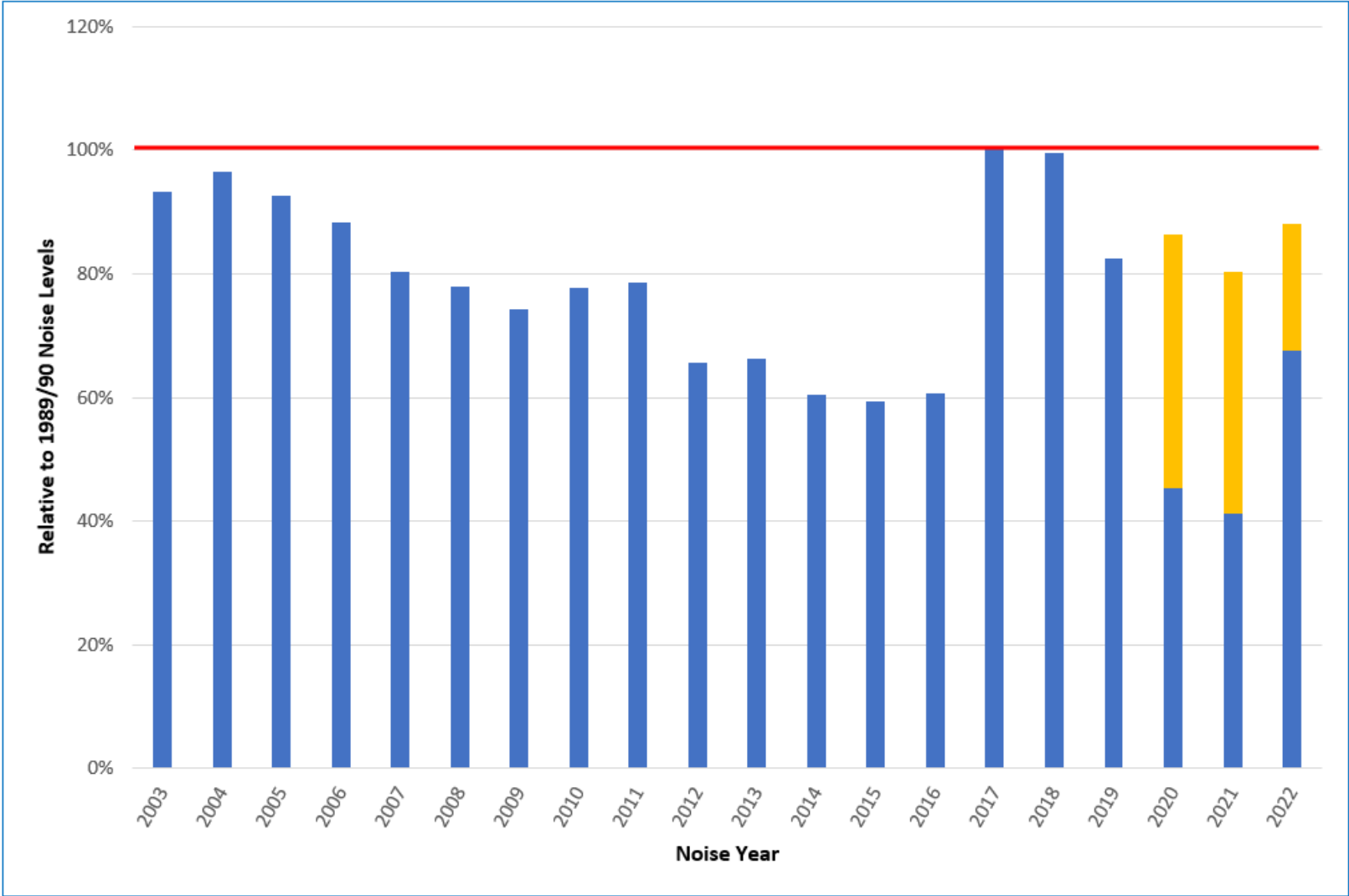
Actual Noise Levels compared to Baseline 1989/90 Noise Limits

-  Actual annual noise levels
-  Additional noise level if flight slots had been utilized at 100%





long beach  
airport

# Historical Air Carrier Noise Levels – RMT 10



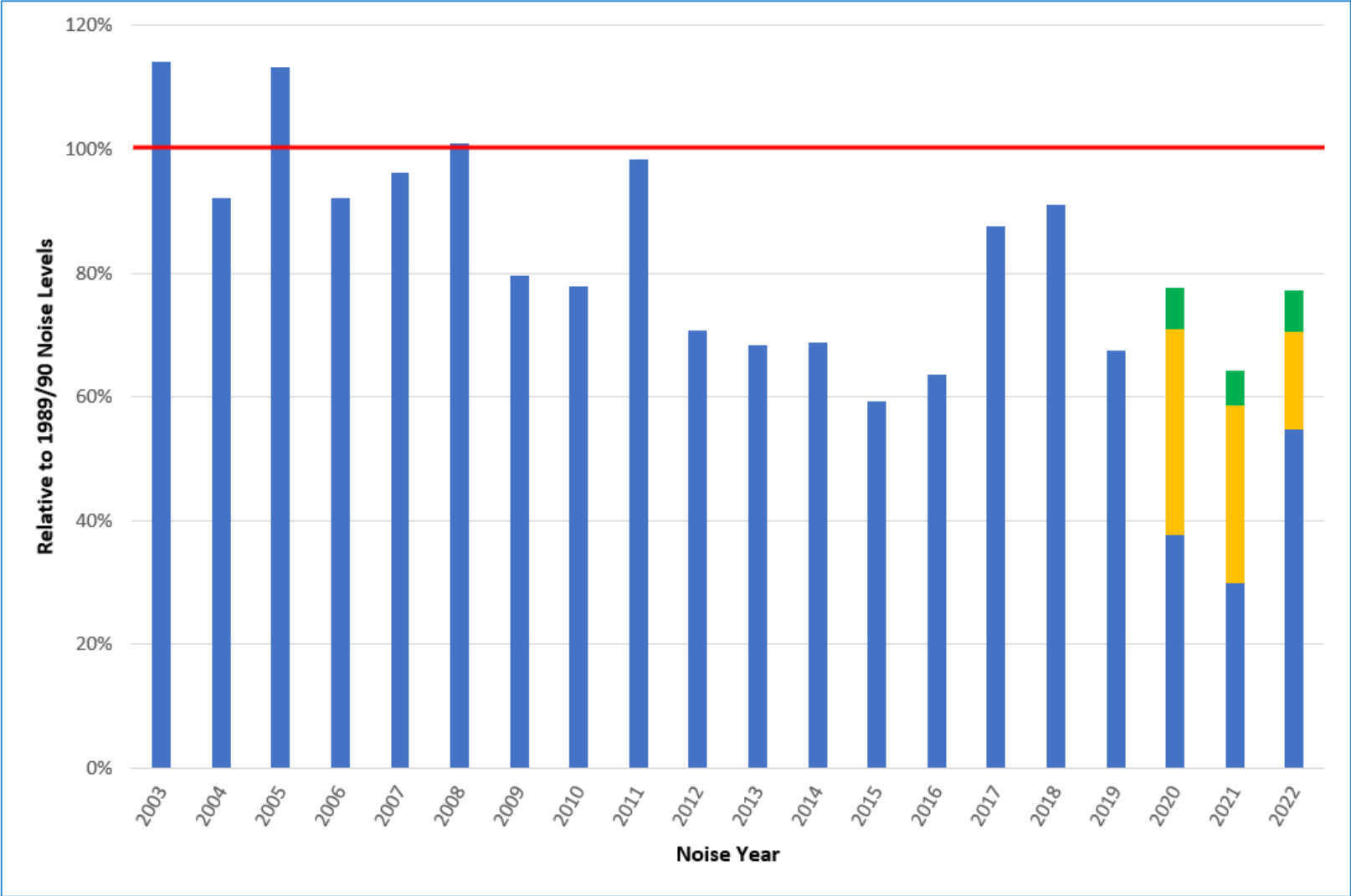
Actual Noise Levels compared to Baseline 1989/90 Noise Limits

-  Actual annual noise levels
-  Additional noise level if flight slots had been utilized at 100%






long beach  
airport

# Historical Air Carrier Noise Levels – RMT 9



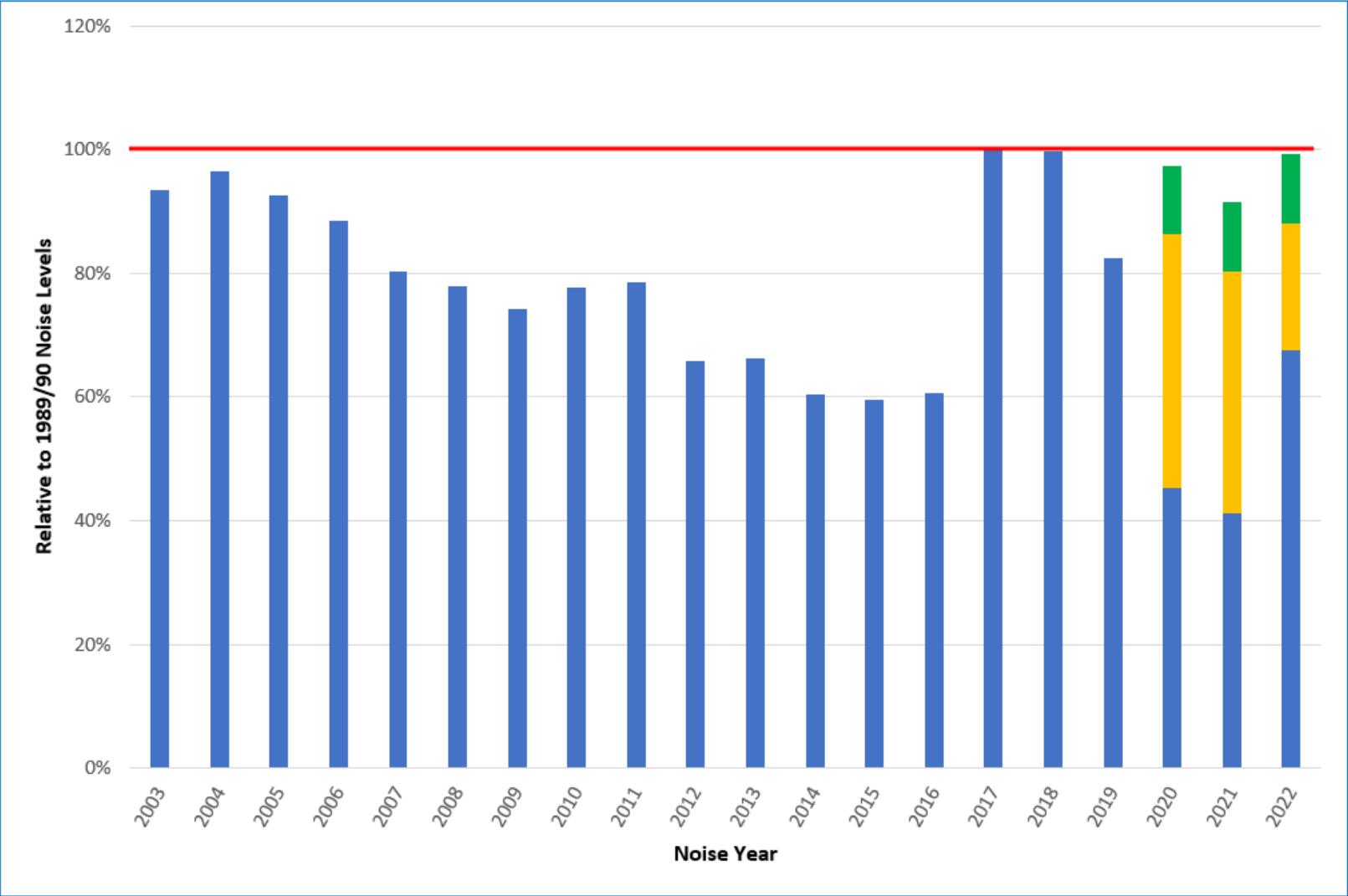
Actual Noise Levels compared to Baseline 1989/90 Noise Limits

-  Actual annual noise levels
-  Additional noise level if flight slots had been utilized at 100%
-  Additional noise level from the 2022 five flight slot increase



**long beach**  
airport

# Historical Air Carrier Noise Levels – RMT 10



Actual Noise Levels compared to Baseline 1989/90 Noise Limits

- Actual annual noise levels
- Additional noise level if flight slots had been utilized at 100%
- Additional noise level from the 2022 five flight slot increase



long beach  
airport

# Summary and Next Steps

- This action is required by the Noise Ordinance
- The conclusions and recommendations are based on long-term empirical data established trends
- This action is required to preserve and protect the Noise Ordinance
- We must add 5 additional flight slots
- Air carriers will be notified of the availability of 5 supplemental slots
- The allocation will be completed based on the procedures outlined in the Noise Ordinance and Flight Slot Allocation Resolution





**long beach**  
airport

where the going is easy<sup>®</sup>

