From: Gary Wonacott
Sent: Tuesday, March 15, 2022 9:42 PM
To: SDCRAA clerk
Subject: Public Comment - Flight Procedures and Part 150 may have used incorrect baseline contour data

Committee members:

For the 2021-22 academic year, I am sponsoring a project at the University of Arizona to develop a methodology to use noise monitor data to adjust the AEDT generated 65 dB CNEL. While doing that work, by chance I came across an apparent significant anomaly with the data used in the 2018-22 Flight Procedures Analyses (FPA) and Part 150 Study. In the Flight Procedures Analyses and the Part 150 Study, the Airport Authority Noise Abatement Office personnel and consultants developed a 2018 65 dB CNEL baseline that is shown as the bottom contour in Figure 1. At the UA project, we were more interested in total contour area. I used an on-line tool, Sketch and Calc, to measure the area within this baseline contour, which turned out to be about 4 square miles.

I was also working with the Title 21 data that is reported to the State quarterly. I was correlating noise monitor data and found an inconsistency with the total contour size for the FPA and Part 150 Study contour. I used the same tool and found the total contour area for the Title 21 data is about 5 square miles. This is a big difference with major implications to "incompatible noise area" population and number of housing units.

But perhaps the most telling evidence is the position of the noise monitors relative to the contour peak on the departure side. Note that the noise monitors (e.g., #24) is well outside of the peak for the contour used in the FPA and Part 150 Study, but on or slightly inside the contour for the Title 21 contour. Further examination of the contours revealed that the areas on the arrival side are virtually the same. This means that the area on the departure side for the SDIA Title 21 contour is one square mile larger than for the contour used in the FPA and Part 150 studies.

The question arose whether the data to the State is consistent with data from other years. I then used the archive data at SDIA Noise 101 to determine the total contour area for a number of years to confirm the 2018 data. These are the triangle points in Figure 2. While 2018 is the largest contour, none of the contours come close to the 4.0 square mile contour used in the FPA and Part 150 Study. I also calculated the total contour area for the 2026 projection and found it to be about 5.6 square miles (also shown in Figure 2). The big question though is whether the 2026 projected total contour area suffers from the same short coming as the 2018 contour, or somehow it has been corrected. Based on everything we saw and heard during the two studies, it is much easier to believe that the 2026 at 5.6 square miles is based on the 4.0 square mile contour data.

If this is the case, and the real area is 5 square miles, then it is possible that the 2026 total contour is more like 7.2 square miles, as shown on the graph in Figure 2. Clearly, a 7.2 square mile contour would engulf all of the northern residential areas in Ocean Beach and potentially could make it to Mission Beach.

My last point addresses a potential issue that might be raised by the Airport Authority Noise Abatement office personnel; the FPA and Part 150 only deal with the incompatible noise area and not the total contour area. The third graph does show a positive correlation between the total contour area and the

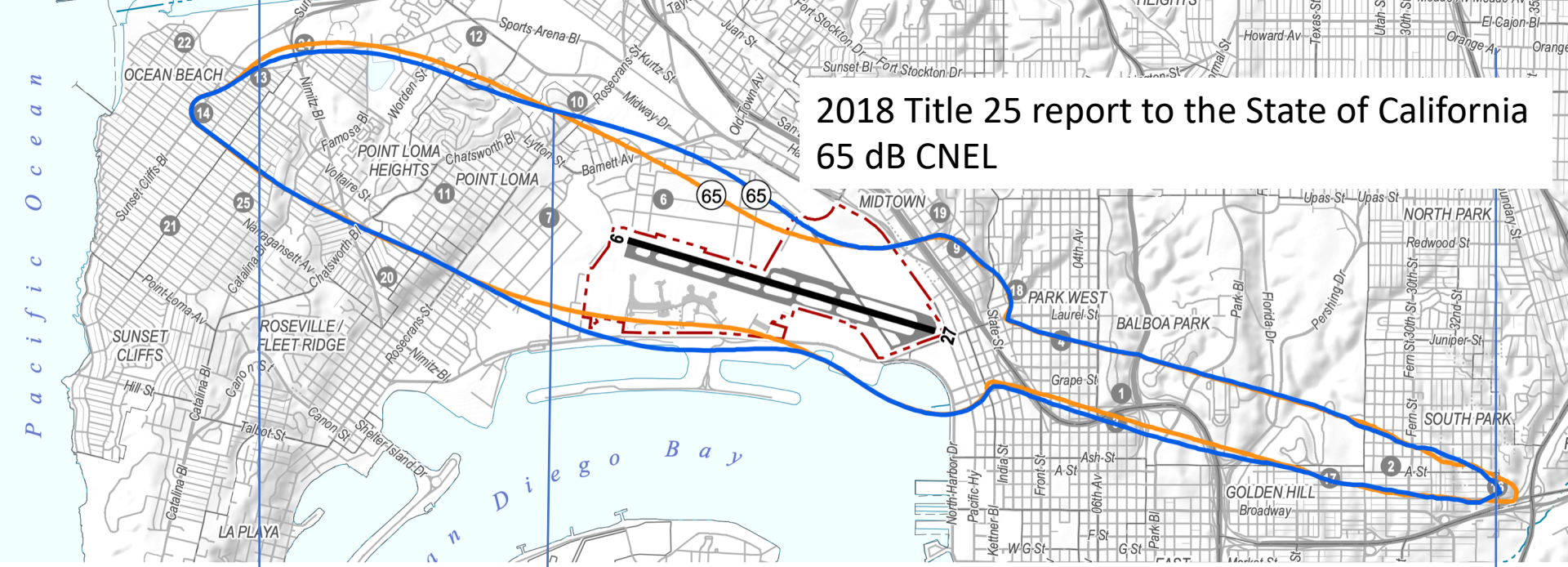
incompatible noise area, which is of course the criterion used by the FAA. The bottom line is that it appears that the wrong baseline contour was used for the 2018 baseline. And if this is the case, then there would be substantial ramifications for the 2026 projected areas, population and housing units within the 65 dB CNEL.

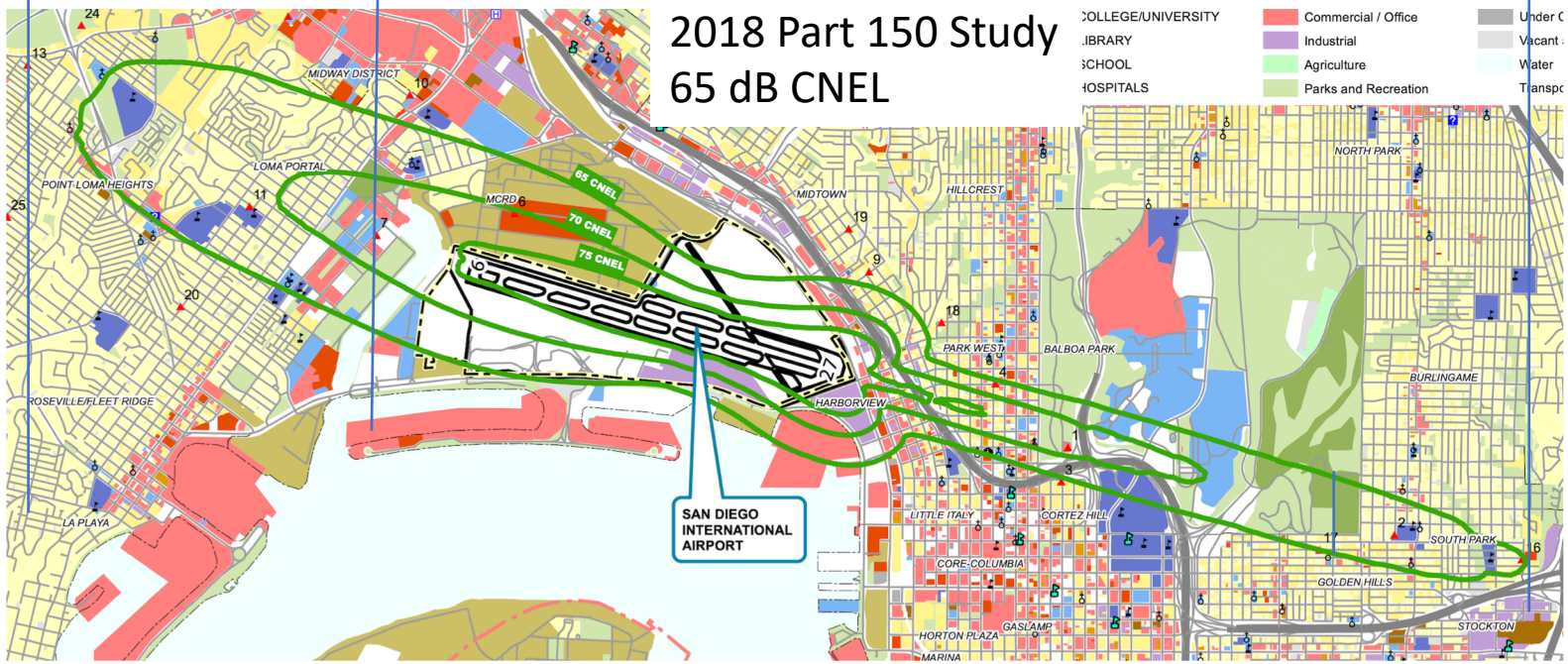
The Airport Authority submitted the draft part 150 for consideration by the FAA, but the implications of use of wrong data is too substantial to wait five to ten years to rectify. It is proposed that a study be performed to confirm one way or the other by an independent third party if the 2018 baseline contour is or is not correct.

Gary Wonacott
Mission Beach

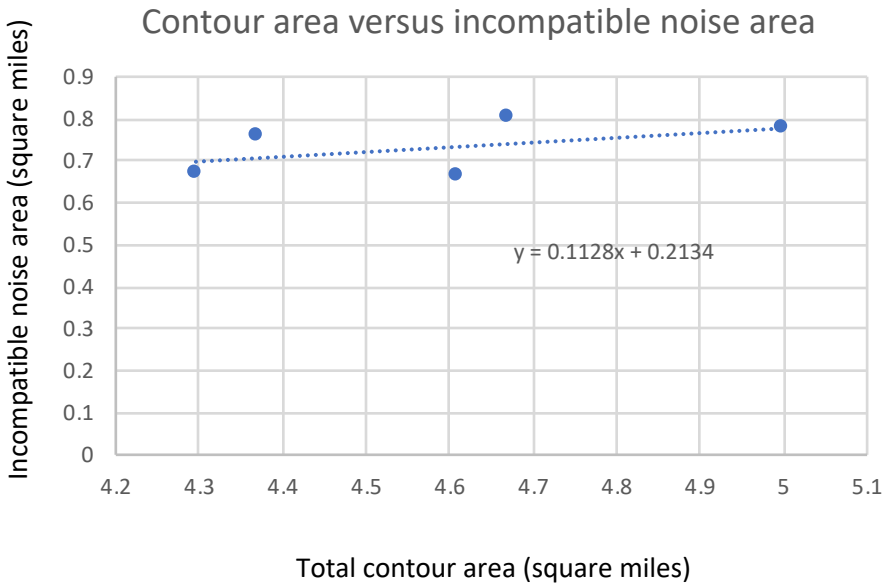
Figure 1

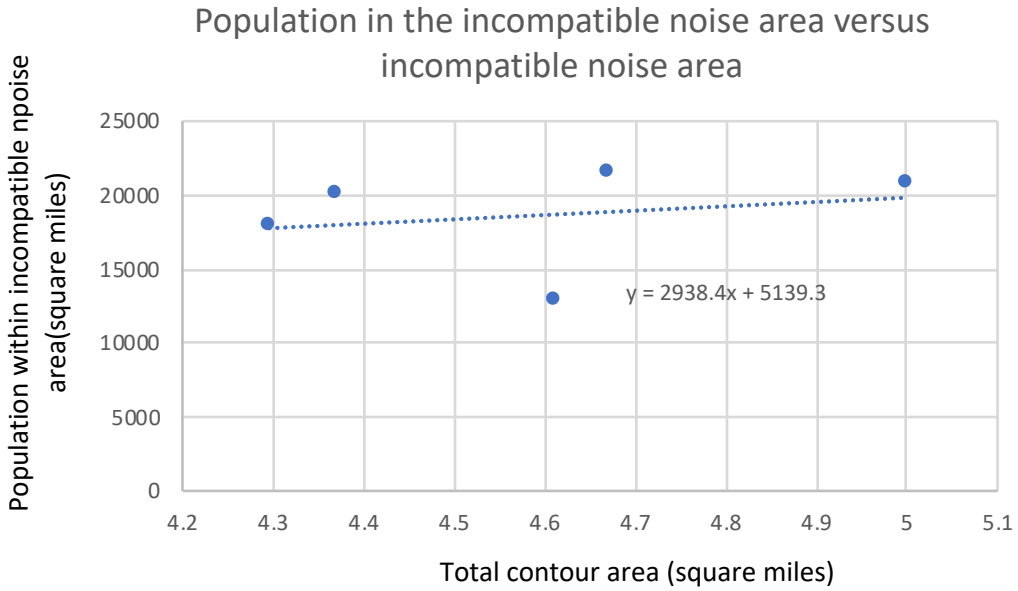
Figure 2
Figure 3

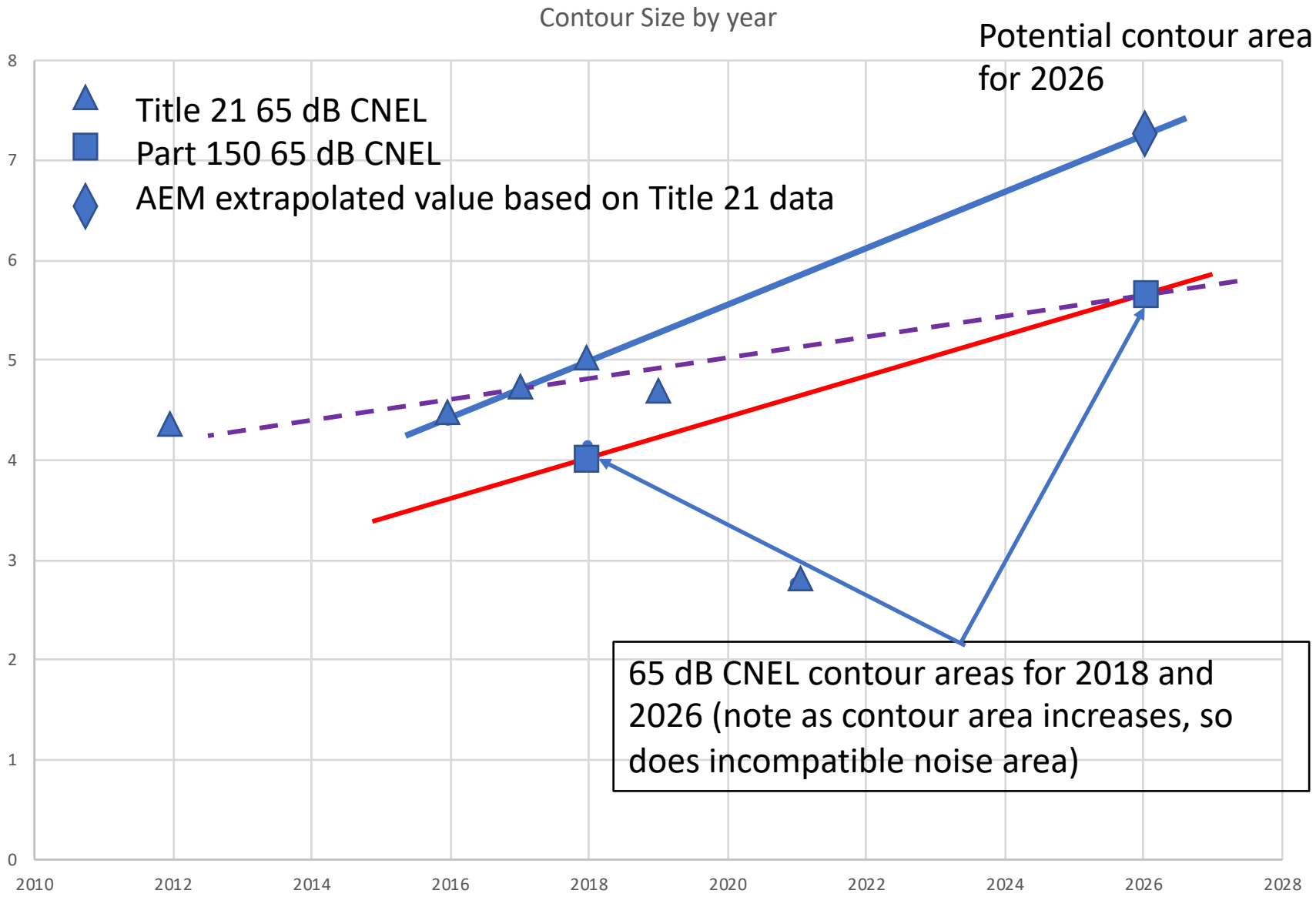

2018 Title 25 report to the State of California
65 dB CNEL
Pacific Ocean
San Diego Bay
OCEAN BEACH
POINT LOMA HEIGHTS
POINT LOMA
SUNSET CLIFFS
ROSEVILLE / FLEET RIDGE
LA PLAYA
MIDTOWN
PARK WEST
BALBOA PARK
NORTH PARK
SOUTH PARK
GOLDEN HILL
65
65


2018 Part 150 Study
65 dB CNEL
COLLEGE/UNIVERSITY
LIBRARY
SCHOOL
HOSPITALS
Commercial / Office
Industrial
Agriculture
Parks and Recreation
65 CNEL
70 CNEL
75 CNEL
SAN DIEGO INTERNATIONAL AIRPORT
MIDWAY DISTRICT
LOMA PORTAL
POINT LOMA HEIGHTS
ROSEVILLE/FLEET RIDGE
LA PLAYA
MIDTOWN
HILLCREST
NORTH PARK
PARK WEST
BALBOA PARK
HARBORVIEW
LITTLE ITALY
CORTEZ HILL
CORE-COLUMBIA
GOLDEN HILLS
SOUTH PARK
HORTON PLAZA
GASLAMP
STOCKTON
MARINA

Both population size and incompatible noise area correlate with total contour area






Contour Size by year
Potential contour area for 2026
Title 21 65 dB CNEL
Part 150 65 dB CNEL
AEM extrapolated value based on Title 21 data
65 dB CNEL contour areas for 2018 and 2026 (note as contour area increases, so does incompatible noise area)
0
1
2
3
4
5
6
7
8
2010
2012
2014
2016
2018
2020
2022
2024
2026
2028