Cindy Johnson <cynthia.johnson@edcgov.us>

Fwd: No Mather upgrades please Move all cargo to SMF

1 message

The BOSFOUR <bosfour@edcgov.us> Tue, May 14, 2013 at 8:09 AM
To: Cindy Johnson <cynthia.johnson@edcgov.us>
Cc: EDC COB <edc.cob@edcgov.us>

RE: #29

——— Forwarded message ———
From: **Christine Hutchins** <chutchins@comcast.net>
Date: Mon, May 13, 2013 at 11:54 PM
Subject: No Mather upgrades please Move all cargo to SMF
To: bosone@edcgov.us, bosthree@edcgov.us, ron@gotmilk.com, w.p.bryant@comcast.net
Cc: bostwo@edcgov.us, bosfour@edcgov.us, bosfive@edcgov.us

I live in El Dorado Hills. I moved here to avoid noise and many of my neighbors feel the same way.

Your plan does not address the true level of flights if Mather was to be expanded along with the extra noise level and property value lost in the event this expansion is approved. Do you have any idea what it is like to have these jets flying over low so early in the morning or during the work/school day?

It is outrageous – it is so loud I can't hear my clients on the phone.

I understand that during a growing economy that cargo flights will increase but that is why SMF is the perfect location for increased landings and take offs - Not over heavily built up areas such as Folsom and El Dorado Hills. Our Real Estate Market is finally coming back – with so many homeowners still underwater giving an extra disclosure in the Real Estate process that will further dampen property values is an extra challenge these homeowners do not need.

This must be stopped now.

Thank you

Christine Hutchins

James Phillips Realty

(916) 933 5012

(510) 579 0496 cell

(916) 290 0377 efax

DRE#01112057

Cindy Johnson <cynthia.johnson@edcgov.us>

Fwd: Mather Airport review

1 message

The BOSFOUR <bosfour@edcgov.us> Tue, May 14, 2013 at 10:25 AM
To: Cindy Johnson <cynthia.johnson@edcgov.us>
Cc: EDC COB <edc.cob@edcgov.us>

——— Forwarded message ———
From: **K** <gkari@sbcglobal.net>
Date: Tue, May 14, 2013 at 10:21 AM
Subject: Mather Airport review
To: bosone@edcgov.us, bostwo@edcgov.us, bosthree@edcgov.us, bosfour@edcgov.us, bosfive@edcgov.us

As a very concerned resident of El Dorado County, and specifically El Dorado Hills, I would urge you, our Board of Supervisors, not to be persuaded by yet another rehash of a flawed concept regarding the expansion of Mather Airport. Please vote NO on Mather upgrades and expansion and support moving all cargo to SMF.

Thank you.
Karin Shainman
El Dorado Hills

EDC COB <edc.cob@edcgov.us>

Air carrier cargo aircraft noise relative to EDH Blvd noise

1 message

Paul Raveling <Paul.Raveling@sierrafoot.org> Tue, May 14, 2013 at 11:56 PM
To: Clerk of the Board <edc.cob@edcgov.us>
Cc: Ron Mikulaco <bosone@edcgov.us>, Paul Raveling <paul.raveling@sierrafoot.org>

Clerk of the board, please include this email in the public record and distribute it to all supervisors. A Cc goes directly to Supervisor Mikulaco.

This nuts-and-bolts part of this email is a followup to Supervisor Nutting's question this afternoon about whether road noise or noise from air carrier cargo aircraft was louder. My answer that road noise was louder than aircraft is a bit of an understatement, and I have an example of "accidental science" that demonstrated that, described below. My thanks go to Supervisor Nutting for asking this specific question. This opens more issues than the single obvious one.e.

The general part of this email is a bit of philosophy that should apply to the BOS. The core message, stated very concisely (as usual) in the attached email from Neil Armstrong, is his favorite quote: "Science is about what is, engineering is about what can be." (Quoted from Bill Wulf, who was from my own discipline: Usually called computer science in earlier years, software engineering in later years.

One key point is that the BOS needs to understand "what is" in order to understand "what can be". Today's meeting demonstrated that amply: It was clear that at least two board members understand a fantasy instead of reality on the issue in question. I recommend exercising some very real experimental science: The County should set up permanent noise monitoring stations to literally measure "what is". Understanding relevance will require correlating measured noise with daily air traffic history, as SCAS does. Until the BOS has solid data on this, you do not have a basis for understanding "what is" in Mather issues, and therefore you do not have a valid basis to consider "what can be". You need to do objective research before reaching conclusions. This is inherent in the Scientific Method.

A related point is one shared with the Historical Method: When doing research, get as close as you can to primary sources. It is normal for even very good secondary sources to introduce factual errors. An equivalent in the scientific method is an obvious action: Do your own objective research. In this case it means instrumentation to record actual sound pressure levels at the specific places where you need to know about sound levels. It requires some specialized knowledge: There are international standards and FAA regulatory standards on how to measure aircraft noise. Having standards supplies a basis to understand your own results by relating it to a large body of research by others.

This attached email also illustrates something I recommended very briefly this afternoon: Consult with experts. The context was that I had prepared draft-version web pages to document X-15 Flight 3-4-8, which Neil had piloted. It's one of the high-adventure stories from the X-15 program, and it changed the plans for how the Space Shuttle would do reentries from space. I went directly to the primary source – the pilot, Neil Armstrong, for factual review. His first email response affirmed that I had everything right except an attempt to map his flight path, which used an excessively small radius on the turn back toward Edwards after his 45-mile overrun. In learning that I also learned that the X-15 pilot had *very* poor downward visibility, he could not confirm his flight path from what he could see. The result was two engineers, him and me, cooperating to work out valid ways to reconstruct the flight path.

On average, the general public is a terrible example of who to consult with, especially in board meetings. The portion of attendees who have biases and prejudices is very high, as is the portion who come in to gripe. Any board needs to recognize this. Yesterday your board seemed to pay attention to John Kerhlikar, who lives 4 miles away from the Mather ILS and claims he's a victim of jet freighters. You didn't give appropriate attention to Glen Rickleton, who has very extensive experience and knowledge. He did the briefing on the Master Plan, the BOS raised a different issue without having a clue to whether or how the complaints might be related to the Master Plan. Credit goes to Supervisor Santiago for raising an appropriate question about that. The BOS needs to recognize that professionals with a solid track record are the most appropriate experts to consult.

And incidentally, late in the meeting I pulled out my iPhone and brought up a trusted sound level measurement app. Most of the meeting dialog was about a dead tie for the *maximum* sound level (L_{max}) produced by air carrier cargo jets at the point of minimum altitude above

ground level in El Dorado Hills. Sometimes the meeting sound level escalated to L_{max} around 73 to 74 dBA: 74 dBA is the loudest level I ever measured in EDH, on one unusual approach with the aircraft throttled up for level flight. When they use the procedure that members of your board want changed the throttles are very slightly cracked open, just above flight idle, and the combination of airspeed and flap setting is the one that minimizes noise.

Now the nuts-and-bolts part:

The graph below shows the location I worked out as best for measuring aircraft noise from EDH CSD – the ILS crosses Harward Way near the southeast comer of the CSD property. Road noise is somewhat variable at any given time, depending on what specific vehicles and

how many are passing by. In any given minute afternoon road noise has some peaks that are louder than air carrier cargo jets overhead.

My "normal" experimental technique was to use the to select and hold ("latch") the loudest instantaneous sound level during a freighter overflight. With that value on its screen, I gently set it down on the ground and photographed the meter reading. The problem was that noise from EDH Blvd, and sometimes from other parts of CSD's parks and pool, were louder -- before I could photograph the meter the road noise especially often rose above the meter's latched reading and the meter reset to show the maximum level of the new noise. I lost the aircraft noise reading.

My "80%" solution was to scout out parts of CSD property that were quieter and that didn't mask aircraft noise by standing under trees. The spot that worked best was the one at the right end of the yellow line drawn on the photo below: I used the CSD Pavilion building as a sound wall. Even there road noise occasionally triggered new L_{max} readings, though more often it was noise from kids in the pool in that location.

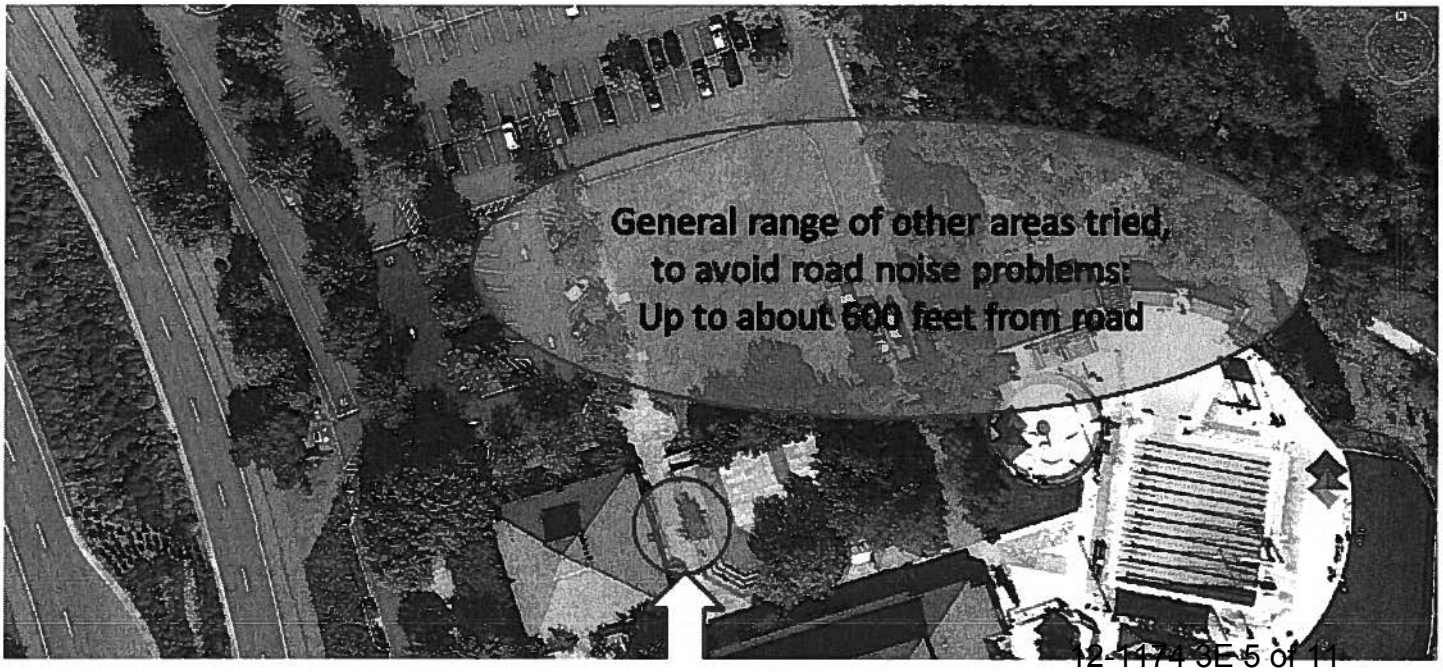
The distance from the center of EDH Blvd to that "listening post" was about 433 feet, according to Google Earth. I had tried other locations up to about 600 feet, but the best relief from other noise was in the "sound shadow" of the Pavilion.

I'll follow up in somewhere between 1 and 3 days with another note. First it will gather links to some web-biased tools that each of you can use individually for at least two or three types of web-based research into actual aircraft operations, sometimes with viewing in real time and sometimes replayable.

–

Paul Raveling
Paul.Raveling@sierrafoot.org

Home: 916-933-5826
Cell: 916-849-5826



xxx

Re Brief followup.eml
3K

The BOSFOUR <bosfour@edcgov.us>

Fwd: Mather, followup note on actual conditions for air carrier cargo operations

1 message

EDC COB <edc.cob@edcgov.us> Mon, May 20, 2013 at 8:09 AM
To: The BOSTWO <bostwo@edcgov.us>, The BOSTHREE <bosthree@edcgov.us>, The BOSFOUR <bosfour@edcgov.us>, The BOSFIVE <bosfive@edcgov.us>

This came into the clerk's in box. It is more follow up for the Mather item.

Thanks.

——— Forwarded message ———
From: **Paul Raveling** <Paul.Raveling@sierrafoot.org>
Date: Sun, May 19, 2013 at 11:18 AM
Subject: Mather, followup note on actual conditions for air carrier cargo operations
To: Clerk of the Board <edc.cob@edcgov.us>
Cc: Ron Mikulaco <bosone@edcgov.us>, John Hidahl <Hidahl@aol.com>, Norm Rowett <arowett@pacbell.net>, Paul Raveling <paul.raveling@sierrafoot.org>

Clerk of the board, please forward this to all supervisors and place it into the public record. This is one of multiple followups with reference to the Mather Master Plan agenda item at the 5/14/2013 Board of Supervisors meeting.

The Excel spreadsheet attached to this email and uploaded to ***http://www.sierrafoot.org/civics/mather/log_130512-1305.pptx*** summarizes two days of data on all UPS (air carrier cargo) flights arriving and departing at Mather on the busiest days of the week for air carrier cargo. Hypertext links in the spreadsheet will work only in the copy on the web, not in viewing the email attachment.

In short:

- Of the 10 total air carrier cargo operations on busy days, four (4) are arrivals which overfly EDH and parts of the county east of EDH. One departure is an evening flight to Reno which climbs over Sacramento County south of US 50 before turning on course an overflying part of El Dorado County while continuing its climb, typically crossing Cameron Park at about 14,000 feet.

- One (1) arrival is in early morning hours, usually around 4:45 a.m.

- Three (3) arrivals usually overfly the County's government center in Placerville or the area within a small fraction of a mile of it. Two (2) of them are around 5 p.m., they can easily be observed by staff and Supervisors.

I have these concerns:

- the County seems to have a stronger position on a maximum of four (4) aircraft overflights than on 18,000 average daily trips on Green Valley Road. The GVR traffic has now been at that level for over 3 years, and Highway Capacity Manual standards recognize it as 3,000 ADT above the threshold of LOS F.

- The Board of Supervisors does not appear to understand the factual reality of air carrier cargo flights and jet noise. It very clearly does not understand the operational and regulatory basis for aircraft flights, as well as the body of what could be referred to as "best practices" to optimize flight safety and efficiency while variously minimizing or eliminating noise impacts.

- The County apparently is sensitive to claims from individuals in the public even when those claims are wildly disparate from reality.

I recommend that all supervisors and appropriate County staff review the flight tracks currently uploaded as images to http://www.sierrafoot.org/civics/mather/2013_data/ to gain a degree of familiarity with actual operations. Filenames begin with the date and time of either the approximate closest approach to EDH or the actual time of crossing Ridgeview in EDH.

I expect to forward additional notes on the latter point sometime in the coming week. Briefly for now, please note that the gentleman from Shingle Springs who spoke last week is what is referred to peer-reviewed research as a "serial complainer". His home is 4.09 miles away from the Mather ILS approach, and approach noise normally drops below the threshold of human hearing at a slant distance no greater than 1.5 miles.

Where he claimed 80 to 90 decibels of noise at his home, 74 dBA is the loudest approach noise I ever recorded in El Dorado Hills, where the aircraft crossing altitude is about 2,500 feet lower than in Shingle Springs. Typical measurements at Ridgecrest are in the range of 66 to 68 dBA.

If you like, I can discuss the relevant standard arrival procedures in greater detail verbally. An abbreviated summary is that flights arriving from the east funnel in to an enroute waypoint at the Hangtown VOR, on the premises of the Placerville airport, usually crossing very near bot not precisely over the airport and the VOR (HNW). Nonpilots should be aware that a standard safety procedure is to avoid flying directly to a VOR: If all pilots do this, the risk of a mid-air collision over the VOR is significantly elevated. From HNW the arrivals variously turn slightly, if not already on the needed heading, to intercept the Mather Runway 22L ILS locator course at CAMRR, the Initial Approach Fix (IAF) common to several charted variants of the approach. FAA changes several months ago reclassified several feeder fixes as additional IAFs, one of these being HNW, the Hangtown VOR.

–

Paul Raveling
Paul.Raveling@sierrafoot.org

Home: 916-933-5826
Cell: 916-849-5826

–

Clerk of the Board
El Dorado County
330 Fair Lane, Placerville, CA 95667

---

log_130512-130513.xlsx
16K

Daily Seq	Date	Time	UPS Flight	Operation	Route	Local Altitude	Area Track	Local Track	AC Type
1	05/15/2013	4:17:05	954	Arr	VFR from S	[2,759]	A	E	A300-600
2	05/15/2013	4:41:17	960	Arr	ILS via HNW	3,799	A	E	767-300
3	05/15/2013	5:46:46	954	Dep	NE via Cam Pk	[13,953]	A	E	A300-600
4	05/15/2013	6:06:12	2959	Dep	NE via HNW	[12,021]	A	E	757-200
5	05/15/2013	6:34:52	2957	Dep	ENE via Aukum	[10,535]	A	E	767-300
6	05/15/2013	16:49:58	2958	Arr	ILS via HNW	3,848	A	E	767-300
7	05/15/2013	17:17:32	2940	Arr	ILS via HNW	3,783	A	E	757-200
8	05/15/2013	19:21:44	957	Dep	E via Rch Mur	[9,629]	A	E	767-300
9	05/15/2013	20:10:35	953	Arr	ILS via SWR	3,451	A	E	A300-600
10	05/15/2013	21:14:58	953	Dep	SE	[6,358]	A	E	A300-600
1	05/16/2013	3:55:02	954	Arr	VFR from S	[2,546]	A	E	A300-600
2	05/16/2013	4:42:14	960	Arr	ILS via HNW	3,822	A	E	767-300
3	05/16/2013	5:39:45	954	Dep	NE via Cam Pk	[14,104]	A	E	A300-600
4	05/16/2013	6:10:35	2959	Dep	E via Aukum	[9,987]	A	E	757-200
5	05/16/2013	6:28:24	2957	Dep	E via Rch Mur	[8,547]	A	E	767-300
6	05/16/2013	16:48:48	2958	Arr	ILS via HNW	4,209	A	E	767-300
7	05/16/2013	18:34:56	2940	Arr	ILS via HNW	3,809	A	E	757-200
8	05/16/2013	19:24:51	957	Dep	E via Rch Mur	[10,128]	A	E	767-300
9	05/16/2013	20:22:21	953	Arr	ILS via SWR	2,976	A	E	A300-600
10	05/16/2013	21:21:58	953	Dep	SE	[10,771]	A	E	A300-600

Basic statistics for this sample	Full Day		Early Morning	
	at Mather	over EDH	at Mather	over EDH
Number of operations per day	10	4	5	1
Number of arrivals per day	5	4	2	1
Number of departures per day	5	0	3	0
Average crossing altitude at Ridgeview		3,712		3,811
Median crossing altitude at Ridgeview		3,804		3,811
Minimum crossing altitude at Ridgeview		2,976		3,799
Maximum crossing altitude at Ridgeview		4,209		3,822

Detail note for one flight:

Flight 9 on 5/16, an A300-600 arrival from Reno, had ground track waviness typical of hand-flying instead of using automation to track the locator course and glide slope.
The aircraft descended below the designated altitude for the Mather 22L ILS IAF (Initial Approach Fix) and began to reduce descent rate approximately at Silva Valley
Its descent was arrested approximately as it crossed EDH Blvd. It stayed level at just under 3,000 feet MSL until reaching US 50 in Folsom
Noise level as it crossed Ridgeview probably was about 72 dBA plus or minus 2 dBA

Local Altitude is MSL (feet above Mean Sea Level).

Flights on the ILS are color-highlighted, without square brackets.

This is at Ridgeview, the point of minimum altitude AGL (Above Ground Level) in El Dorado County.

Flights which did not overfly El Dorado Hills are in square brackets.

Altitudes are at the approximate point of closest approach to EDH, typically about 5 to 10 miles south of US 50.

The operation closest to EDH was the approach for operation #1, about 2 1/2 miles southe of US 50 & 2 miles west of Carson Creek.

Area Track provides an html link to a wide-area view of the flight track, captured from WebTrak.

Local Track provides an html link to a local (zoomed-in) view in the EDH area.

For flights on the ILS approach this shows the aircraft and data block as it crosses Ridgeview.

For other flights it shows the aircraft at its approximate point of closest approach to EDH.

Codes for other airports:

KSDF: Louisville, Kentucky; the UPS national hub
KONT: Ontario, California; the UPS regional hub in the southwest
KSDM: Des Moines,Iowa
KRNO: Reno, Nevada
KCAE: Columbia, South Carolina

The latter three airports are not UPS hubs. Luisville is a "world" hub, but probably at least 95% of its operations are domestic.

Codes for navaids and ILS fixes:

HNW Hangtown VOR: Navaid on the Placerville airport, now designated as an alternat Iniatial Approach Fix for Mather (KMHR)
SWR Squaw Valley VOR: Turn point for arrivals from the northeast to joint the Mather 22L localizer course

Abbreviations:

Arr Arrival (approach)
Dep Departure
Cam Pk Cameron Park
Rch Mur Rancho Murieta
ILS Instrument Landing System; used here to refer to approaches using the localizer and glide slope for Mather Runway 22L
VFR Visual Flight Rules; used here to refer to a visual approach, not using the ILS.

VFR approaches are used frequently for arrivals from the south, for purposes of both noise abatement and flight efficiency

Other Airport	Notes
KONT	Wednesday operations
KSDF	
KRNO	
KDSM	
KSDF	
KSDF	Overflew Placerville Govt Center at 16:46:43, 8,258 ft
KCAE	Overflew Placerville Driive N of Govt Center at 17:13:42, 7,684 ft
KSDF	Departed due east via Rancho Murieta
KRNO	
KONT	Departure was via Rancho Seco & San Andreas
KONT	Thursday operations
KSDF	
KRNO	
KDSM	
KSDF	
KSDF	Flew past Placerville Govt Center ~1/2 mile south @ 16:45:22, 8,594 ft
KCAE	Overflew Placerville Drive N of Govt Center at 18:30:59, 6,175 ft
KSDF	
KRNO	See detail note below
KONT	Departure was via Rancho Seco & San Andreas

Early Morning can formally be defined
as either before 7 a.m. or 8 a.m.
Statistics for this sample are identical for either choice.