Van Nuys Airport Citizens Advisory Council

The case for a

Voluntary Nighttime Curfew

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The Case for a
Voluntary Night Time Curfew at Van Nuys Airport

There are significant reasons to implement a voluntary Night Time Curfew (VNTC) at Van Nuys Airport (VNY).

Burbank Airport has a VNTC on Scheduled Carriers and limits on Aircraft not originally certified as Stage 3 Jets

There are multiple significant Airports around the world that have either a voluntary or mandatory night time curfew

Teterboro Airport in New Jersey is VNY's sister airport in terms of size and usage, and it has had a voluntary night time curfew for over 13 years from 11pm to 6am.

Teterboro noise management have reported a decrease in complaints as a result of the curfew especially on departures.

Noise events have a significant health impact on individuals in the community, especially noise events that disrupt sleep.

Residents have clearly documented a range of 5-15 departures (average 6-7 aircraft and 1-3 helicopter interruptions) during night time hours from VNY causing individuals to wake up and report the events.

Implementation of a VNTC will show the community that the airport is working to be a good neighbor. Teterboro says this has been much appreciated by the community affected.

Based on success of the VNTC at Teterboro Airport, departures could be reduced by as much as 50% at VNY

Teterboro also has had the FAA post their noise efforts including the VNTC NOTAMS, Airport Facility Directory (FAA) plus multiple public relations efforts work, including a close relationship with NBAA who does a good job of self policing members.

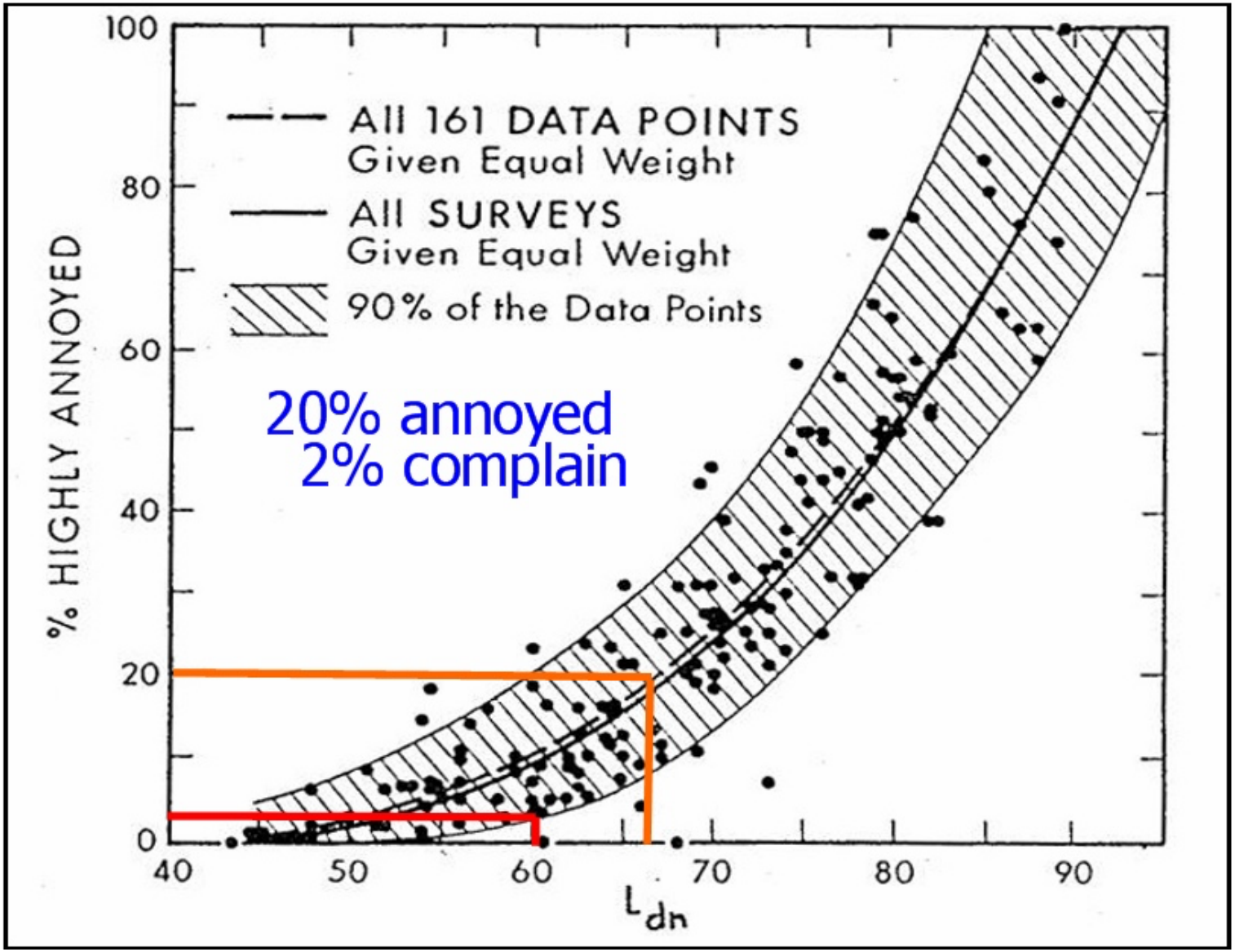
Noise studies in the U.S. indicate that at 65-70 DNL, 20% of the population find the sound level "annoying," yet only 2% of all affected people (or 10%) of those "annoyed") actually complain. European scientific studies show at 65 DNL, 48% are "annoyed" with 26% of those being "highly annoyed."

Studies also show that the perceived noise level of repeated overflights is 7 dB higher than the recorded dB, indicating that repeated overflights bother people more than the FAA measurements would suggest.

Noise Sources and their Effects

Noise Source	Decibel Level	comment
Jet take-off (at 25 meters)	150	Eardrum rupture
Aircraft carrier deck	140	
Military jet aircraft take-off from aircraft carrier with afterburner at 50 ft (130 dB).	130	
Thunderclap, chain saw. Oxygen torch (121 dB).	120	Painful. 32 times as loud as 70 dB.
Steel mill, auto horn at 1 meter. Turbo-fan aircraft at takeoff power at 200 ft (118 dB). Riveting machine (110 dB); live rock music (108 - 114 dB).	110	Average human pain threshold. 16 times as loud as 70 dB.
Jet take-off (at 305 meters), use of outboard motor, power lawn mower, motorcycle, farm tractor, jackhammer, garbage truck. Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft) before landing (106 dB); jet flyover at 1000 feet (103 dB); Bell J-2A helicopter at 100 ft (100 dB).	100	8 times as loud as 70 dB. Serious damage possible in 8 hr exposure
Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); power mower (96 dB); motorcycle at 25 ft (90 dB). Newspaper press (97 dB).	90	4 times as loud as 70 dB. Likely damage 8 hr exp
Garbage disposal, dishwasher, average factory, freight train (at 15 meters). Car wash at 20 ft (89 dB); propeller plane flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB). Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB).	80	2 times as loud as 70 dB. Possible damage in 8 h exposure.
Passenger car at 65 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB). Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB).	70	Arbitrary base of comparison. Upper 70s are annoyingly loud to some people.
Conversation in restaurant, office, background music, Air conditioning unit at 100 ft	60	Half as loud as 70 dB. Fairly quiet
Quiet suburb, conversation at home. Large electrical transformers at 100 ft	50	One-fourth as loud as 70 dB.
Library, bird calls (44 dB); lowest limit of urban ambient sound	40	One-eighth as loud as 70 dB.
Quiet rural area	30	One-sixteenth as loud as 70 dB. Very Quiet
Whisper, rustling leaves	20	
Breathing	10	Barely audible

[modified from **http://www.wenet.net/~hpb/dblevels.html**] on 2/2000. SOURCES: Temple University Department of Civil/Environmental Engineering (www.temple.edu/departments/CETP/environ10.html), and *Federal Agency Review of Selected Airport Noise Analysis Issues*, Federal Interagency Committee on Noise (August 1992). Source of the information is attributed to *Outdoor Noise and the Metropolitan Environment*, M.C. Branch et al., Department of City Planning, City of Los Angeles, 1970.


All 161 DATA POINTS
Given Equal Weight
All SURVEYS
Given Equal Weight
90% of the Data Points
20% annoyed
2% complain
% HIGHLY ANNOYED
100
80
60
40
20
0
40
50
60
70
80
90
L_{dn}

Current Van Nuys Airport

Resident Data

Documenting Night / Early Morning Flights

	April Van Nuys Night Departures 10:00pm to 7:00am Total 194									
		Time	Flight Number	Type of Craft	Sound Level at Cody	Sound Level at Victory monitor	Direction of departure	Altitude	Notes	
1-Apr		5:03:25	0							
		6:13:54	0	GLF4						
		6:16:05	LN904LR	C560						
		6:58:12	N746MN	GLF4						
2-Apr		23:01:00	0							
		6:04:00	0	GLF4	76					
3-Apr		5:01:50	TV 11	Helo	59					
		5:13:30	TV7	Helo	62					
		6:18:14	0	GLF4						
		6:21:55		GLF4						
4-Apr		5:01:10	N29HD	Helo						
		6:07:09		GLF4						
		6:12:17		F2TH						
		6:14:30		Helo						
5-Apr		22:00:00		C750						
		22:38:45		Helo						
6-Apr		4:24:36		Helo						
		4:37:33		Helo						
		6:13:06		H25B						
7-Apr		22:07:11	SIS302	CL30	65			1900'		
				GLEX				1900'		
		23:32:31	JNY7	GLF4				2000'		
		23:41:26	C0045	G280				2100'		
		0:11:35	N25VD	H25B		85				
		0:30:42						low	BUR to VNY	
		5:30:19	LN904LR	C560		83	West			
8-Apr		2:06:17		Helo						
		2:28:00		Helo						
9-Apr		none								
10-Apr		0:16:10		E50P			North	Santa Ana winds		
		6:26:00		CL60			North			
		6:47:00								
		23:24:39		C56X			North			
		6:37:00	SIS302	CL30		81	Northwest			
		6:43:00		CL35		84	Northwest			
		22:05:10	N63NM	GLF4		74	North			
		22:08:00	NL904	C560		79	Northwest			
		22:29:00	EJA122	GL5T		83	North			
		23:15:00		BE40		85	North			
		23:18:00	PEG78	GLF4		81	North			
12-Apr		4:01:18	JBU66	GLF4		85	North			
		4:52:05		GLF4		89	North			
		6:29:30		GLF4		86	North			
		22:22:14	PEG68	GLF4		90	Northwest			
		23:08:20	SUD360	F2TH		79	North			
13-Apr		4:53:08	N946QS	C750		75				
		6:30:57		GLF4		83				
		22:14:21	WW131	GLF4		84				

		22:46:00	EJA598	C68A		74	West			
		23:16:24		F2TH		82				
		23:53:58	SJE9	H25B		78				
14-Apr		0:49:11		E35L		80				
		2:10:46	TFF976	GLF5		81				
		2:18:34		GLF3		87				
		5:25:54	LN810BE	C560		78	West			
		5:52:27	LN561SR	C560		85	North		No wind	
		6:13:21	LN560PA	C560		82				
		6:14:23		F900		88				
		6:37:20	N707MT	F2TH		80				
		6:39:00		GLEX		85	West			
		6:40:50	N103BZ	C560		77	West			
		22:22:30	LN810BE	C560		80				
		22:58:29	N66M	E55P		78				
		23:20:46		F2TH		81				
15-Apr		0:27:49	LXJ454	GLF4		80		2800'		
		0:30:01	N904LR	C560		80				
		0:32:14	LXJ92	GLEX		81				
		1:39:55	N904LR	C560				1700'	Arrival	
		2:42:13	N110QS	GL5T		84				
		4:53:10	LN904LR	C560		77	West			
		6:33:08		GLF4		81				
		6:38:03		CL60		74				
16-Apr		0:37:35		no info		85				
		1:29:44		F2TH		79	West			
		5:13:15		GLF6		77				
		6:11:32	SJE62	H25A		85				
		6:57:30	EJA921	C750		73				
		22:08:36	N298RB	GLF4		86				
		23:24:24	ZSE7345	GL5T		79	West			
		23:56:00	LN561SR	C560				1900’	Arrival	
		23:58:19	LXJ456	GLF4		79				
17-Apr		0:21:00		GLF3		87	North			
		0:33:18		Helo				1600'		
		1:19:37	N323CH	Helo AS50				1700'		
		1:44:37		Helo				1700'		
		5:54:36	TV11	Helo				2200’		
		5:58:09		L575		77				
		6:09:08	SIS245	C25A		85				
		6:30:47								
		22:33:02	C56X			76	West			
		23:04:00	FTH452	C56X					BUR to VNY	
		23:11:36	TV9 & TV7	Helo						
		23:52:08	N392WC	PC 12 & Helo TV9					From BUR	
		23:56:00	SWA2093	BO 737					From BUR	
18-Apr		5:20:37	LN904LE	C560		85				
		6:21:04	LN561SR	C560		82				
		23:19:04	SIS11	F2TH		76				
		23:34:13	N622KM	BE9L				2900'		
		23:47:33	FGR 620	FA50		89				
19-Apr		4:04:24	WW131	GLF4		76				
		6:41:51	EJA545	C68A		76				
20-Apr		5:49:27		BE40		80				
		22:29:29	GAJ871	B350		74				
		22:35:02	KCR691	L J55		83				
		22:41:32		GLF5		74				
		23:18:16	LN560PA	C560		84				
		23:30:38	LN904LR	C560		83				

21-Apr		0:41:56	PEG7	CL60				1400'		
		1:49:12		CL60		74				
		3:00:29	N600HR	C525		81				
		4:50:30	LN810BE	C560		72				
		5:04:15	WW190	CL60		78				
		5:37:24	No info			81		2700'	VNY to BUR	
		5:43:44	N561SR	C560		81				
		5:49:13	LN560PA	C560		83				
22-Apr		0:13:47		CL60		76				
		0:50:41	FTH452	C56X		97				
		1:21:58		CL60					Arrival	
		2:38:00	LN810BE	C560		86			No Wind North	
		3:17:48	No info					1500'		
		5:04:36	N828AP	Helo AS50				1700'		
		6:15:18		CL60		78				
		6:17:40	N245SP	C25A		80	West			
		6:32:07		C500		79				
		6:34:59	EJA770	CL35		77				
		22:12:13		GLEX		82				
		22:30:00	N30EH					1700'		
		23:04:55	N188JF	BE40			West			
		23:36:07	N433AK	Helo A109				2000'		
23-Apr		0:38:19	N433AK	Helo A109				2000'	Arrival	
		0:52:29	LN560PA	C560		76				
		0:57:10	LN810BE	C560		78				
		2:20:50		Helo				1800’		
		4:04:13	EDG74	GLF4		91	North			
		4:41:51		C560		80				
		5:00:10	TV11					1800'		
		5:12:24	SIS41	GLF4		82				
		5:52:48	LN810BE	C560		82		2200'	Arrival	
		5:58:53	EJA369	C680		77		2200'		
		6:33:14	DLX401	LJ60		83				
		6:58:30	N336NR	Helo				1600'		
		23:09:09	No info					2300'		
		23:55:29	No info	Helo				1600'		
24-Apr		4:22:33	SDU364	F2TH		82	West			
		5:14:40	WW180	CL60		77				
		5:19:40	EJA375	C56X		81				
		6:14:20	N315TS	B737		86				
				C172						
		6:23:08	OPT355	E55P		79				
		6:33:35	EJA142	GLEX		77				
		6:48:00	DLX78	L J45		80	West			
		22:06:48	C172 and Helo AA5							
		23:03:27	N395BC	L J45		75				
25-Apr		0:20:23	N66M	E55P						
		5:58:38		F2TH						
		6:13:15		GLF6						
		6:26:18	LN810BE	C560						
		6:44:19	EJA325	E55P						
		21:59:52	LN810BE	C560						
		22:53:17		GLEX						
		23:05:15	N727KL	PIVI						
		23:58:39	N729AD	F900						
		23:39:56	KFS148	LJ35						
26-Apr		0:06:59	DLX49	HDJT						
		6:05:48	SDU299	FA50						
		6:10:33	EJA790	CL35						
		6:34:25	WWI111	GLF4						

		6:53:54	EJA117	BE40						
		22:17:20	N576GA	GLF5						
		22:19:30		GLF6						
		22:39:18	EJA657	C56X						
		22:44:34		CL60						
		23:17:07	SDU363	F2TH						
		23:57:54		GLEX						
		23:48:51	PEG78	GLF4						
27-Apr		23:31:56	N450XX	GLF4						
28-Apr		5:59:20	N105RH	C650						
		6:03:44	FTH950	C56X						
		6:21:50		GLF6						
		22:16:59	PEG19	GLF4						
		22:42:38	EDG74	GLF4						
		22:46:40		GLF6						
		23:21:37		F2TH						
29-Apr		5:22:21	SIS302	CL30						
		5:49:26	EJA660	C56X						
		6:04:40	DLX805	BE20						
		22:17:54	SDU370	F2TH						
		22:32:50		GLF6						
		22:43:46	TWY550	C172						
30-Apr		1:17:49	N878WS	PC12						
		22:00:54	LXJ522	CL30						
		22:12:41	N801BG	CL60						
		22:41:36		C56X						
		23:05:24	N272TX	GLF4						
		23:22:13	JNY7	GLF4						
		23:24:54		GLF4						
		23:50:33		GLF6						

May Van Nuys Night Departures 10:00 pm to 7:00 am Total 212									
Date		Time	Flight Number	Type of Craft	Sound Level at Victory or Roscoe monitor	Direction of departure	Altitude	Notes	
5/1/19		0:11:52	N350HH	CL30	84	EAST			
		0:32:03	N800P2	H25B	82	WEST		Move to LAX	
		1:13:22	LN560PA	C560	88	NW			
		3:19:13	N168LE	GLF5	84	NORTH			
		3:56:39	LN561SK	C560	79	WEST			
		5:11:10	NO INFO	-	80	EAST			
		6:11:13	NO INFO	-	85	EAST			
		6:14:14	NO INFO	-	87	EAST			
		22:01:08	-	LJ60	84	EAST			
		22:39:50	-	H25B	80	EAST			
5/2/19		0:04:42	DCM6929	C750	80	EAST			
		1:42:28	BDG74	F2TH	82	EAST			
		4:50:32	-	FA7X	92	EAST			
		6:27:19	PEG26	GLFF	84	EAST			
		6:46:24	EDG63	F2TH	83	EAST	2200	Move To LAX	
		6:49:20	NO INFO	-	79	EAST	2200	Move To LAX	
5/3/19		0:25:44	N253LA	CL60	79	EAST			
		1:03:10	NO INFO	-	77	WEST	2800		
		3:08:43	N810BE	C560	82	NW			
		4:31:15	EJA636	C68A	79	EAST			
		5:53:08	-	FA50	84	WEST			
		6:03:28	LXJ523	CL30	77	EAST			
		6:39:38	PEG64	LJ60	76	EAST			
		6:53:44	GAJ501	C56X	79	EAST		Move to LAX	
		22:19:59	N751AA	C750	79	EAST			
		22:43:10	N576GN	GLF5	80	EAST			
		22:51:03	N5BC	F2TH	81	EAST			
		22:57:11	G0555	PC2CX	81	EAST			
		23:12:30	-	GLF4	82	EAST			
		23:48:11	N44HB	GLF3		CIRCLING PATTERN			
5/4/19		NONE 12 TO 7							
		22:09:27	-	GLF4	81	WEST			
		22:22:03	EJA584	L68A	71	WEST			
		22:30:10	RGY937	BE40	79	EAST			
5/5/19		0:48:09	LN810BE	C560	80	WEST			
		5:45:01	N/A	E550	80	EAST			
		6:20:26	EJA364	C680	72	WEST			
		6:34:28	N630E	GLF4	84	WEST			
		6:52:20	-	GL5T	78	EAST			
		6:55:16	N61318	GLF5	78	WEST			
		6:56:47	FTH452	C56X	84	EAST			
		22:42:33	XAMAX	E135	81	EAST		Move to LAX	
5/6/19		3:12:27	N810BE	C560	80	NW			

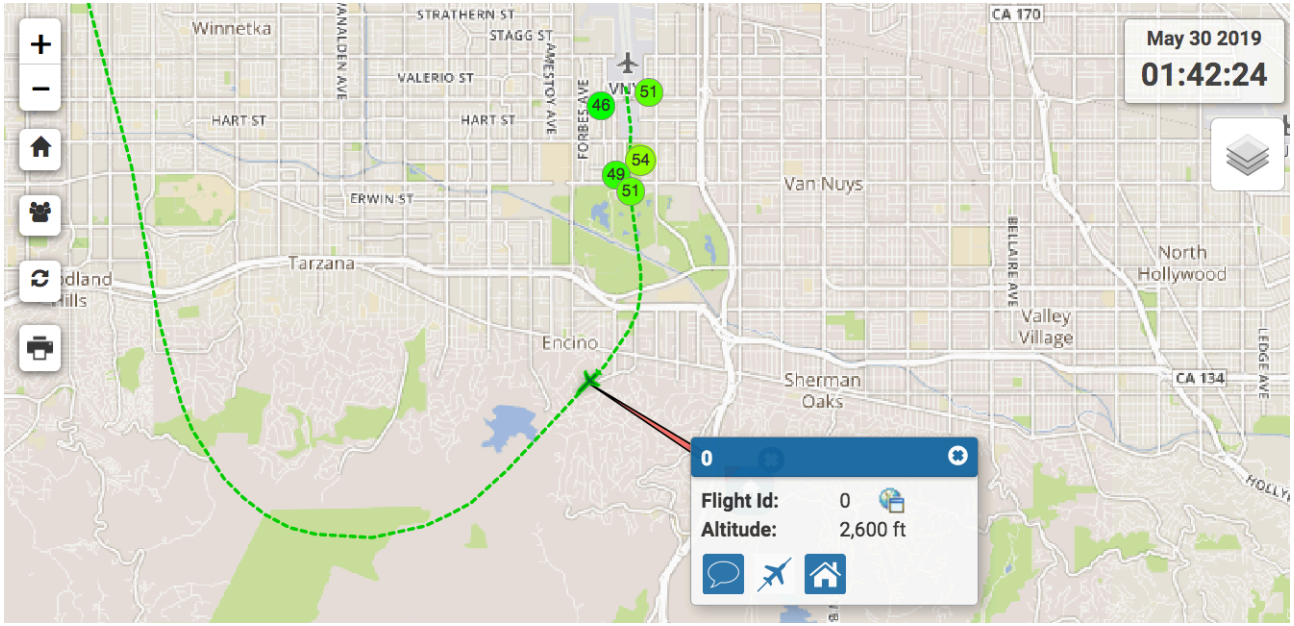
		5:01:37	N550	GLF5	83	EAST			
		5:05:10	LXJ623	CL30	74	EAST			
		6:39:55	-	GLF4	84	EAST			
		6:58:57	EJA625	G56X	80	WEST			
		11-12 NONE							
5/7/19		5:31:27	N47766	GLF2	86	EAST			
		6:22:51	EJA762	CL35	82	EAST			
		6:23:49	-	GLF4	87	EAST			
		6:30:38	-	GLF4	82	WEST			
		6:48:10	-	GLF6	80	EAST			
		6:55:41	-	CL30	77	WEST			
		22:00:01	N975BB	BE40	80	EAST			
5/8/19		0:01:08	-	GLF6	82	EAST			
		0:27:29	-	CL30	80	EAST			
		5:06:20	LN561SR	C560	83	EAST			
		5:11:52	LN810BE	C560	83	EAST			
		6:47:37	2 pistons						
		6:51:37	-	E50P					
		23:10:54	SOU30	GLF4				Low circling arrival	
5/9/19		0:27:15	N260DL	GLF5	81	EAST			
		0:46:37		C650	84	EAST			
		1:23:26	N560PA	C560	78	NW			
		6:53:51	N142TC	E50P	80	EAST			
		22:10:51	N701DB	GLF4	81	EAST			
		22:24:01	SJE62	H25A	76	WEST			
		23:14:40	HIDDEN		91				
5/10/19		0:19:14	EJA636	C68A	80	EAST			
		1:50:12	no info	-	82	EAST	2400		
		2:47:10	N701DB	GLF4	82	EAST			
		4:47:20	N810BE	C560	82	EAST			
		5:21:28	N168CE	GLF5	81	EAST			
		6:48:29		CL60	81	EAST			
		22:33:01	N62FF	GLF5	78	EAST			
		22:34:54		C560	88	EAST			
		22:52:50		GLF5	79	EAST			
		22:58:58	LN810BE	C560	79	WEST			
		23:12:42	N729TY	GLF4	82	EAST			
5/11/19		0:42:31	KFS148	LJ35	84	EAST			
		5:58:46	N378BB	FA20	82	NW			
		6:02:30		GLF5	80	NORTH			
		6:38:33	WWI 111	GLF5	77	WEST			
		6:40:14	N83PM	CG80	76	EAST			
		22:22:40		BE40	84	EAST			
		22:39:04	HIDDEN	F2TH					
5/12/19		2:13:37	LN560PA	C560	81	EAST			
		3:09:07	N561SR	C560	83	NW			
		22-24 NONE							
5/13/19		5:05:19	-	LJ60	80	WEST			
		5:47:44	NO INFO		81	EAST		Move to LAX	
		5:54:12	PEG64	LJ60	76	EAST			
		6:41:58	-	CL60	77	EAST			

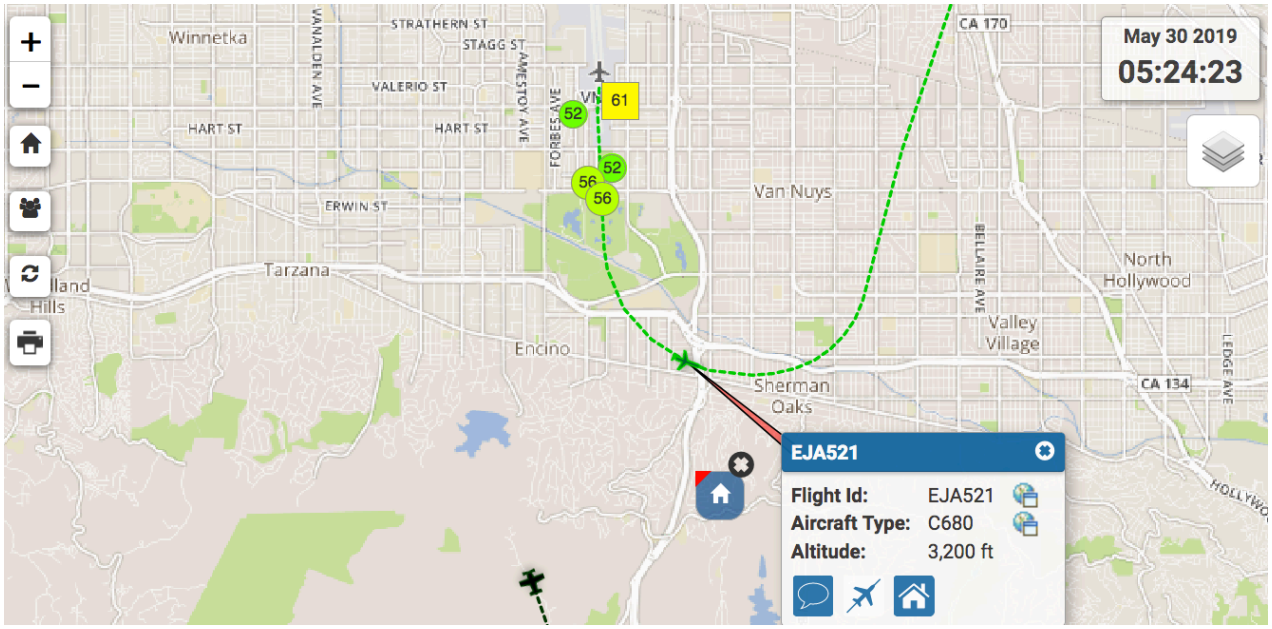
		6:45:17	-	GLEX	82	EAST			
		6:53:14	N992NB	GLF4	79	EAST			
		23:20:37	N729AD	F900	80	WEST			
5/14/19		0:22:52	NO INFO			ARRIVAL	1400		
		0:45:59				ARRIVAL			
		0:36:02	LN810BE			ARRIVAL			
		1:52:22	LN54DD	C560		ARRIVAL			
		2:40:01	-	C750	80	NORTH			
		2:57:54	LN54DD	C560	80	WEST			
		4:19:54	LN560PA	C560	82	EAST			
		6:42:50	-	CL60	80	EAST			
		6:51:27	-	CL30	75	EAST			
		6:59:02	EDC28	GLEX	85	WEST			
5/15/19		5:09:10	-	GLEX	87	EAST			
		6:11:29	NO INFO		75	EAST			
5/16/19		0:06:28	N868DM	C750	80	EAST			
		2:49:31	WWI111	GLF4	81	EAST			
		5:52:08	OPT365	E55P	75	EAST			
		6:24:01	EJA350	C680	74	WEST			
		6:45:04	PEG78	GLF4	78	EAST			
		6:54:21	N888XL	C550	79	EAST			
		22:16:42	EJA525	C680	77	NORTH			
		23:42:55	-	CL60	75	NORTH WEST			
5/17/19		2:20:35	-	FA7X	82	WEST	2200'		
		4:39:05	EJA364	C680	80	EAST			
		6:11:04	-	GLF4	88	EAST			
		22:22:21	N25UD	H25B	82	NORTH			
		22:46:50	PEG6	GLF5	82	NORTH WEST		Move to BUR	
		22:48:18	N378DB	FA20	80	NORTH			
		23:54:17	-	GLF6	80	NORTH WEST		Move to LAX	
5/18/19		1:11:10	SUD360	F2TH	75	NORTH			
		6:53:31	N90CJ	C25A	80	WEST			
		22:40:38	SIS66	HA4T	87	EAST			
		22:56:06	LN561SR	C560	85	EAST			
		23:00:58	N390SA	PRM1	83	WEST			
		23:12:01	SIS616	GLF4	80	EAST			
		23:43:58	-	GLF4	81	EAST			
5/19/19		5:59:08	PEG78	GLF4	82	EAST			
		22:10:23	-	GLEX	86	EAST			
		22:34:58	JNY200	GLF4	81	EAST			
		23:04:27	TFF959	GLF5	77	EAST			
		23:06:26	-	C525	76	west		Early turn	
5/20/19		0:15:48	LN810BE	C560	78	EAST			
		20:04:29	LN561SR	C560	81	NORTH WEST			
		5:38:20	EJA570	C68A	72	WEST			
		6:37:23	N648ME	E55P	83	WEST			
5/21/19		1:33:41	NO INFO	-	8	EAST			
		1:57:46	-	H25B	71	OVER AND CIRCLING			
		5:09:38	-	GLEX	85	EAST			
		5:33:18	DLX654	LJ60	74	EAST			

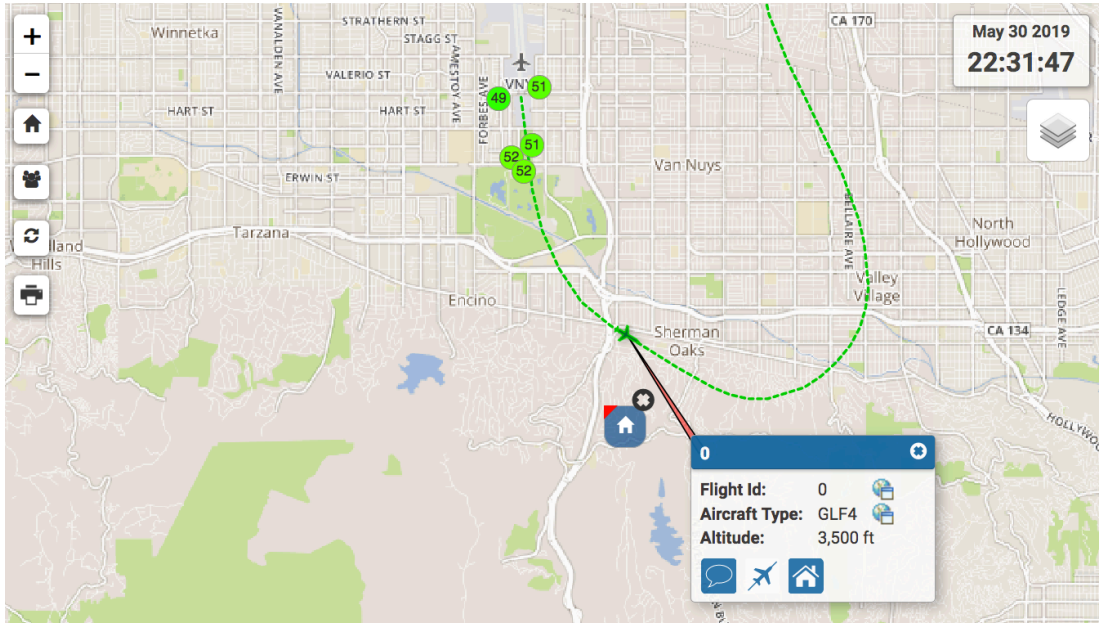
		6:36:35	N214KK	UHI	70	NORTH WEST			
		6:58:10	-	GLF4	75	WEST		Move to BUR	
		22:05:09	LN54DD	C560	83	EAST			
		22:11:11	SUD364	F2TH	82	EAST			
		23:12:51	-	GLF4	87	EAST			
		23:30:17	-	GLF4	84	EAST	2800'		
5/22/19		1:30:09	N701DB	GLF4	84	EAST		Early turn	
		4:53:27	EDG63	F2TH	82	WEST			
		6:08:02	EJA791	CL35	81	NORTH			
		6:23:49	LN560DA	C560	86	NORTH			
		6:26:40	-	GLEX	84	NORTH WEST			
		6:46:45	LN540D	C560	82	NORTH WEST			
		6:54:10	N483RA	GLF4	80	NORTH			
		22:13:03	LXJ530	CL30	79	EAST			
5/23/19		0:09:27	-	GLF6	77	EAST			
		6:19:06	N958BX	GLX4	86	EAST			
		6:29:04	EDG217	GLF4	83	EAST			
		6:30:29	EJA217	CL60	78	EAST			
		6:32:37	SDU372	F2TH	84	WEST			
		6:33:21	N54DD	C560	83	WEST			
		6:52:34	SDU363	F2TH	77	WEST			
		22:47:06	PEG6	GLF5	83	EAST			
5/24/19		0:44:25	N137WS	GLF4	91	EAST			
		1:47:10	LN54DD	C560	82	NORTH			
		6:12:12	DLX645	LJ60	75	EAST			
		6:56:36	EDG436	GLF4	85	EAST			
		22:22:15	N576GA	GLF5	80	EAST			
		22:28:42	-	GLF4	87	WEST			
		22:40:38	EJA520P	V680	76	WEST			
		23:27:25	N450XX	GLF4	81	WEST			
5/25/19		0:07:42	N272TX	GLF4	84	EAST			
		0:10:00	EJA548	C68A	76	WEST			
		5:49:20	-	CL60	76	EAST		Move to LAX	
		6:31:38	-	GLF5	77	EAST			
		6:44:40	NO INFO		75	EAST			
		22:53:08	CHN41	C25B	78	WEST			
5/26/19		0:42:28	-	C650	83	EAST			
		6:45:12	N518ME	C25A	83	EAST			
		22:17:53	N25UD	H25B	85	EAST			
		22:29:08	ETA116	BE40	86	EAST			
		23:35:28	-	GLF5	85	WEST			
5/27/19		3:54:00	EDG436	GLF4		ARRIVAL		BUR to VNY Move	
		4:57:06	-	GLF5	86	EAST			
		6:10:39	-	E35L	82	EAST			
5/28/19		2:08:22	N721FH	F900	83	EAST			
		5:57:39	SIS88	GLF5	76	EAST			
		6:20:14	MLM026	A319	84	ARRIVAL			
		6:23:38	NO INFO		85	WEST			
		22:32:11	TFF904	HA4T	80	EAST			
		22:34:26	NO INFO		88	EAST			
		23:43:48	NO INFO		82	EAST			

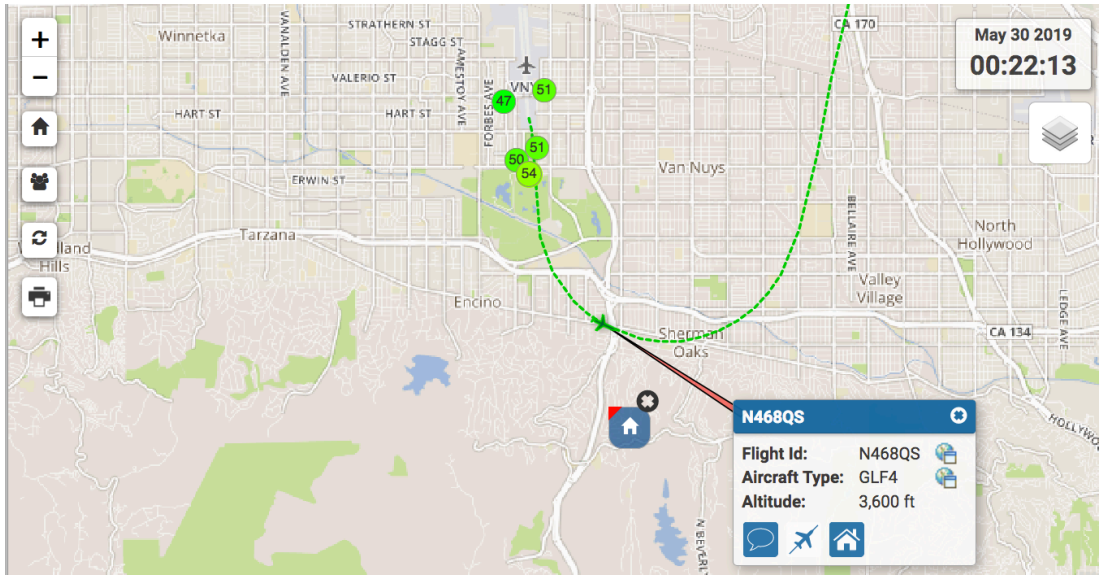
		23:54:07	N129TK	LJ35	77	EAST			
5/29/19		6:46:25	RSP924	E50P	77	EAST			
		22:15:00	-	FA7X	85	EAST			
5/30/19		0:22:19	N468QS	GLF4	85	EAST			
		1:17:59	LN810BE	C560	83	NORTH			
		1:36:44	N904LR	C560	82	NORTH WEST			
		1:42:23	NO INFO		75	WEST			
		5:24:25	EJA521	C680	79	EAST			
		6:33:50	NO INFO	-	84	EAST			
		22:31:47	-	GLF4	87	EAST			
5/31/19		5:06:57	-	GLF4	81	EAST			
		5:20:38	N882MR	GALX	79	WEST		BUR	
		5:38:39	-	GLF4	83	EAST		TO LAX	
		6:21:21	N851EM	BE20	80	EAST			
		6:31:29	-	GLEX	83	WEST			
		6:36:27	-	GLEX	84	EAST			
		6:45:20	N105RH	C680	88	EAST	2300'		
		6:56:34	TFF959	GLF5	85	EAST	2200'		

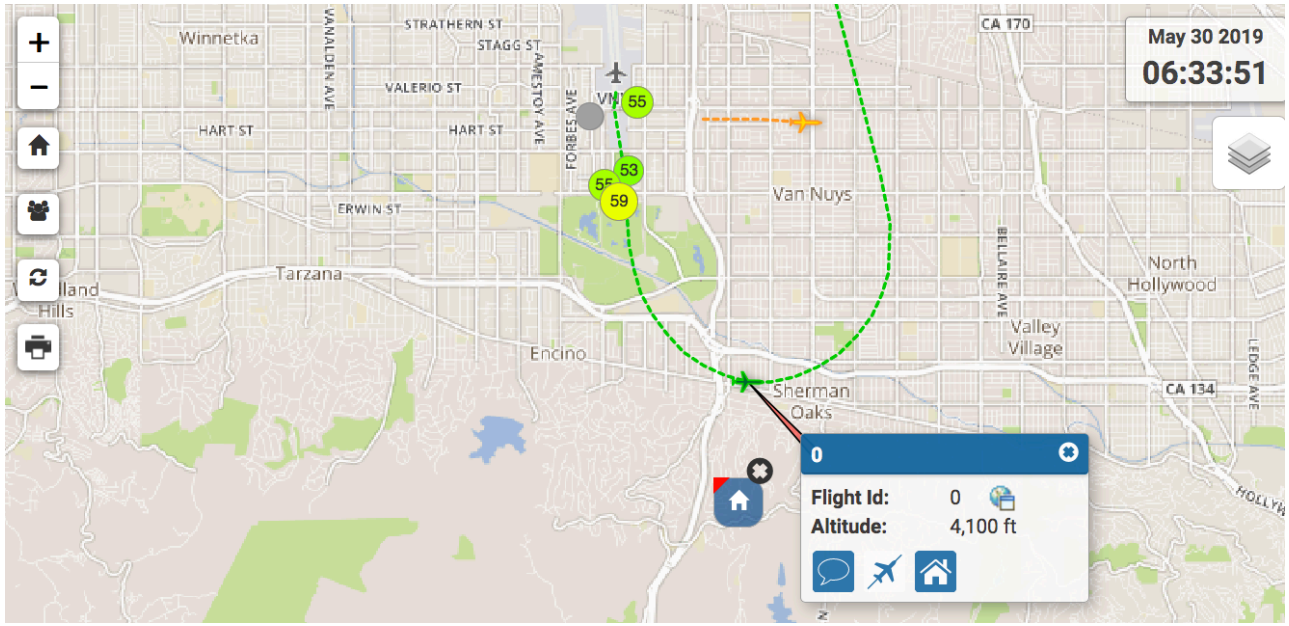
Examples of Night Flights from Log

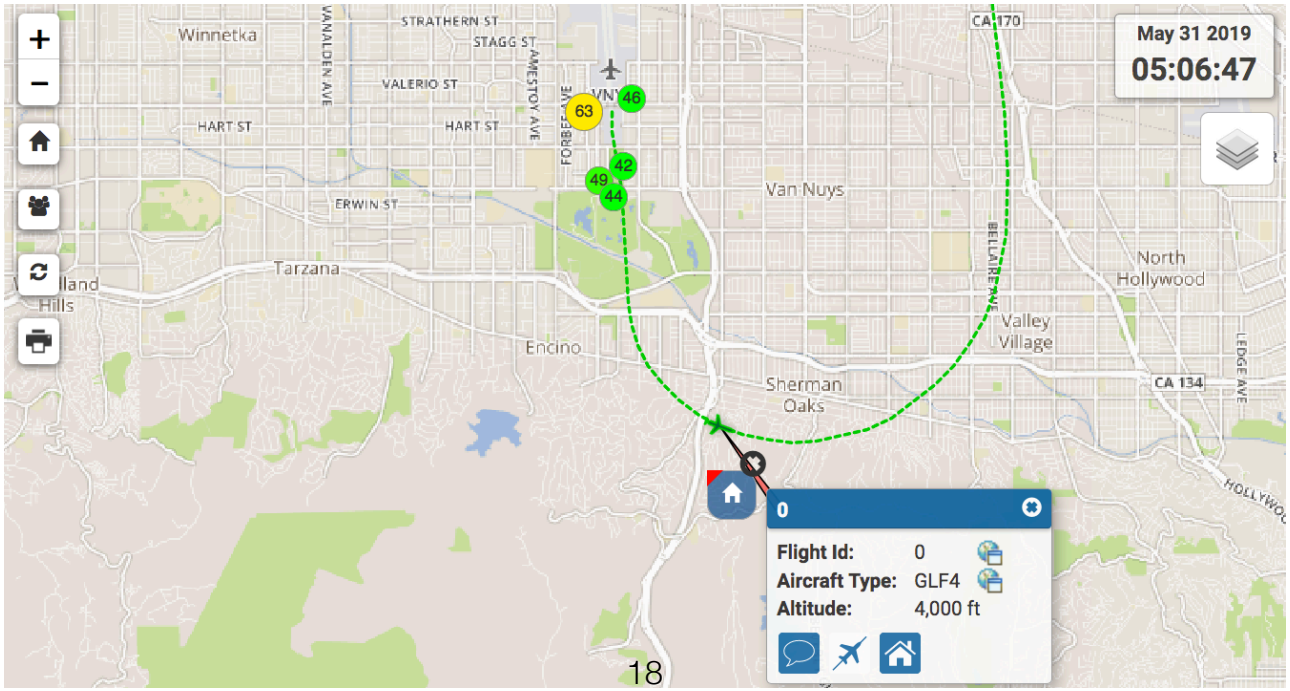


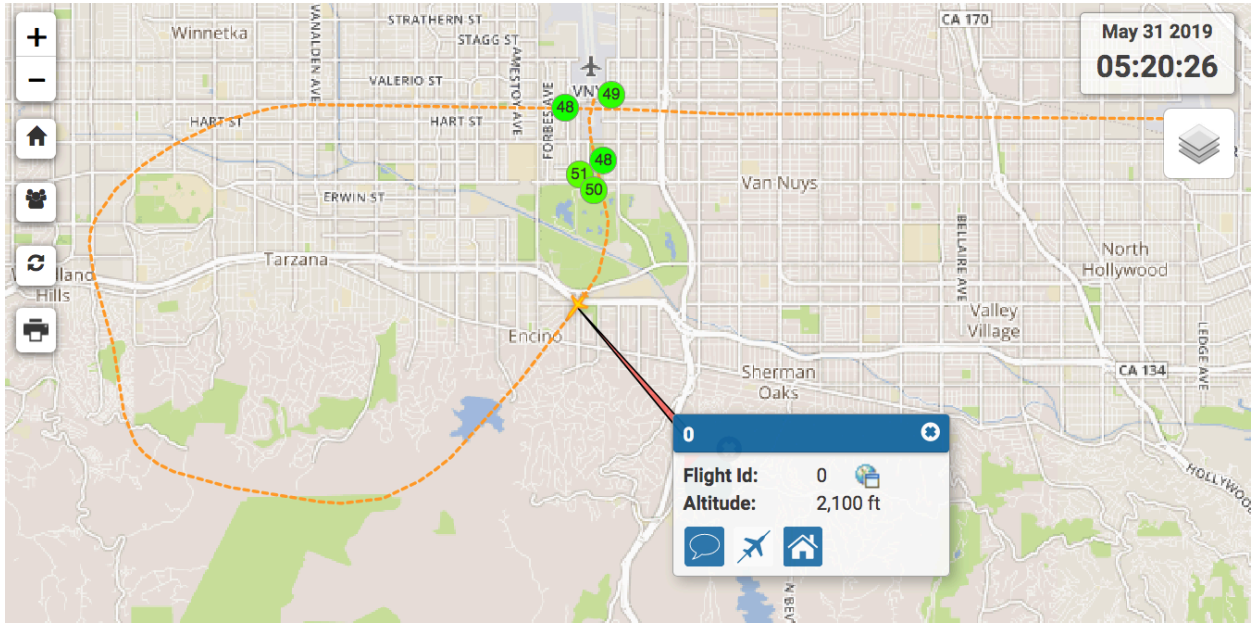


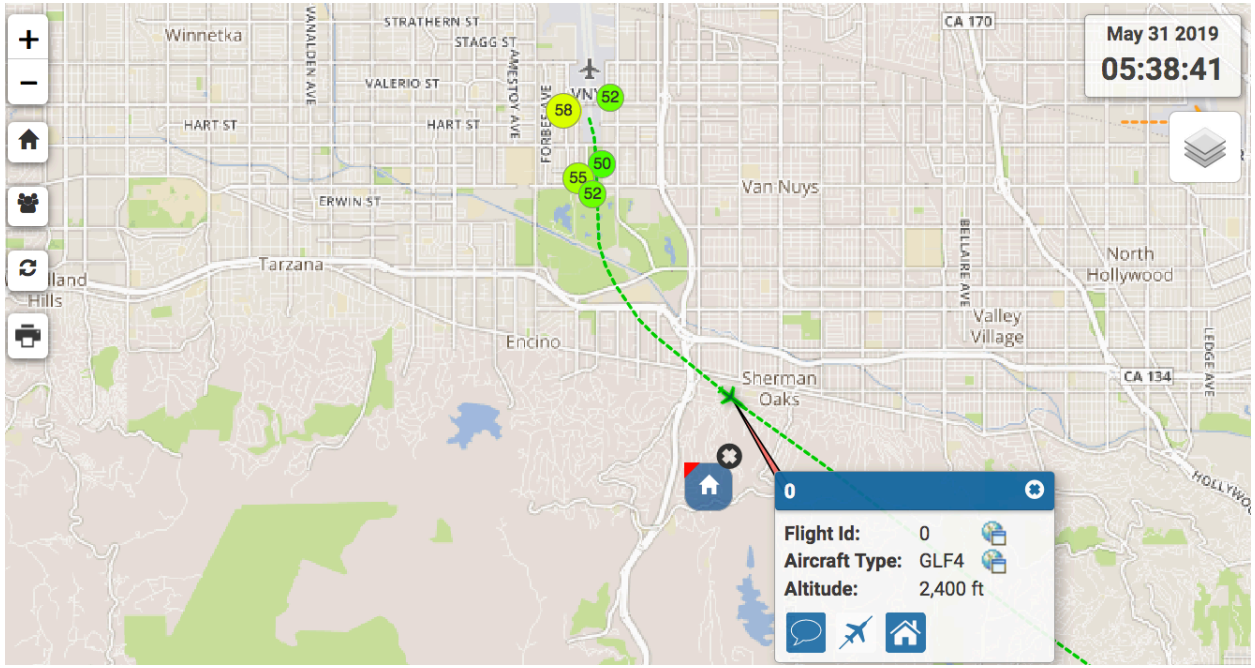

May 30 2019
22:31:47
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 134
LEDGE AVE
0
Flight Id: 0
Aircraft Type: GLF4
Altitude: 3,500 ft

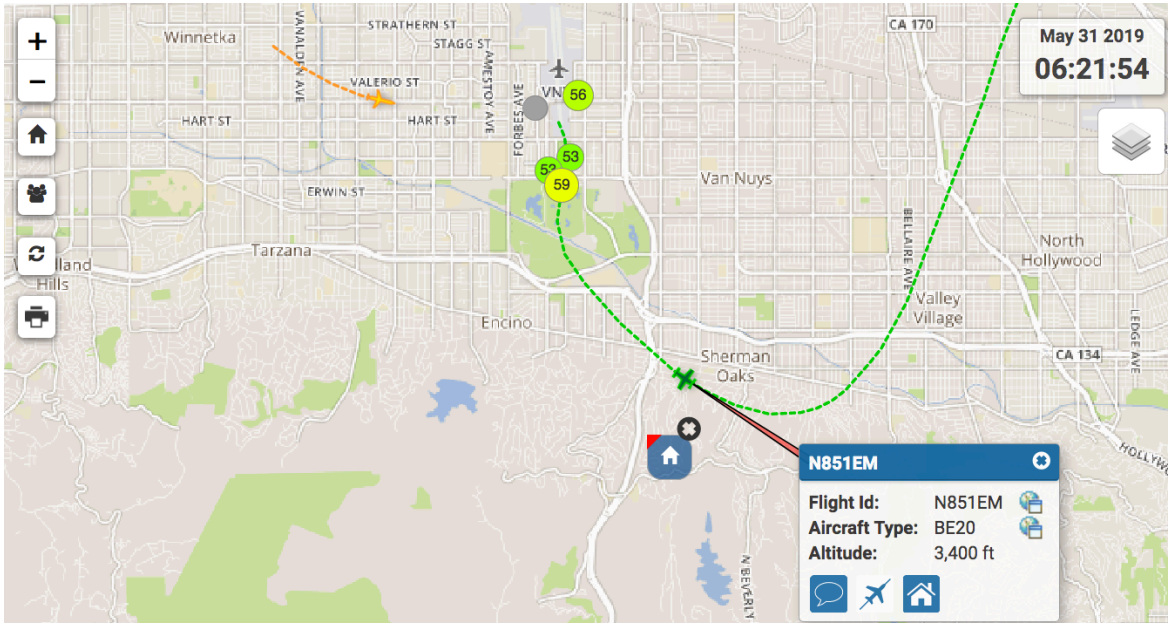

May 30 2019
00:22:13
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 134
LEDGE AVE
N468QS
Flight Id: N468QS
Aircraft Type: GLF4
Altitude: 3,600 ft

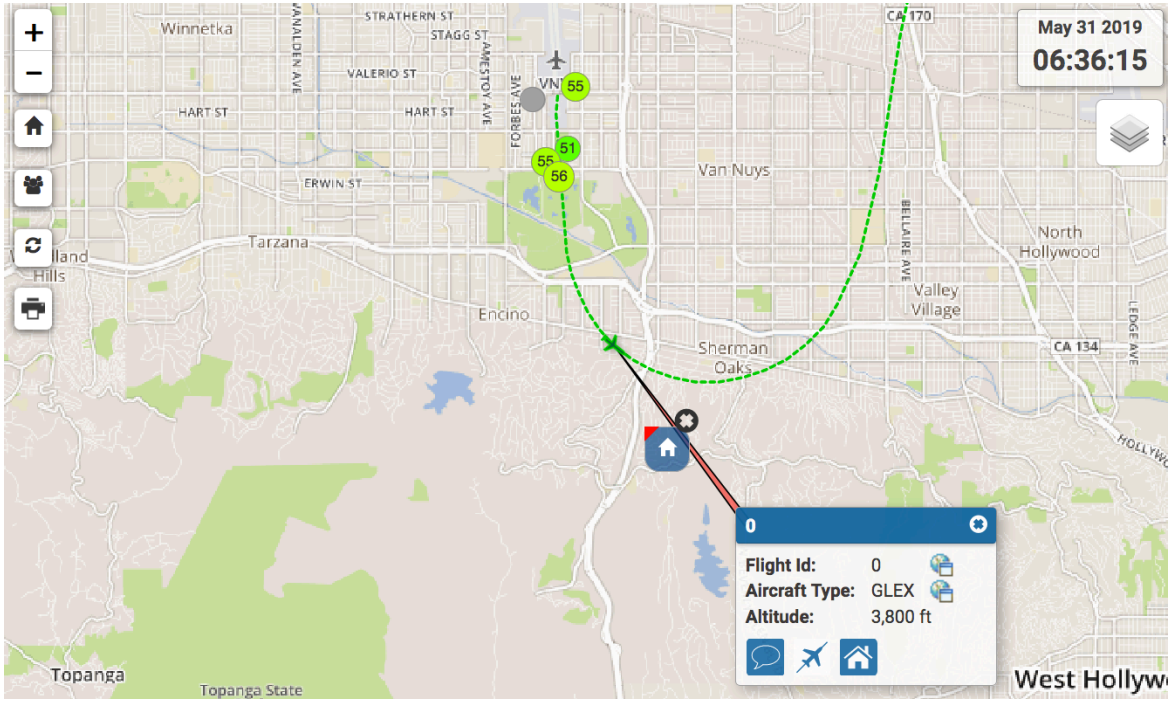

May 30 2019
06:33:51
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
Valley Village
North Hollywood
BELLAIRE AVE
CA 134
LEDGE AVE
55
53
59
0
Flight Id: 0
Altitude: 4,100 ft

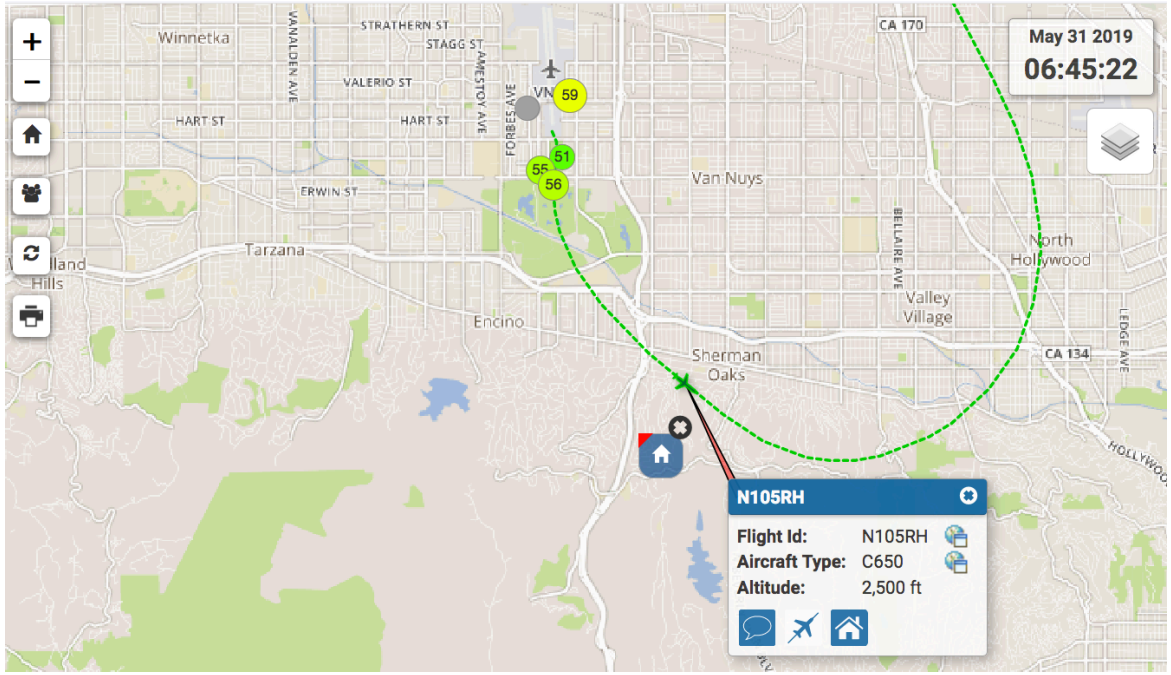

May 31 2019
05:06:47
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
Valley Village
North Hollywood
BELLAIRE AVE
CA 134
LEDGE AVE
63
46
42
49
44
0
Flight Id: 0
Aircraft Type: GLF4
Altitude: 4,000 ft

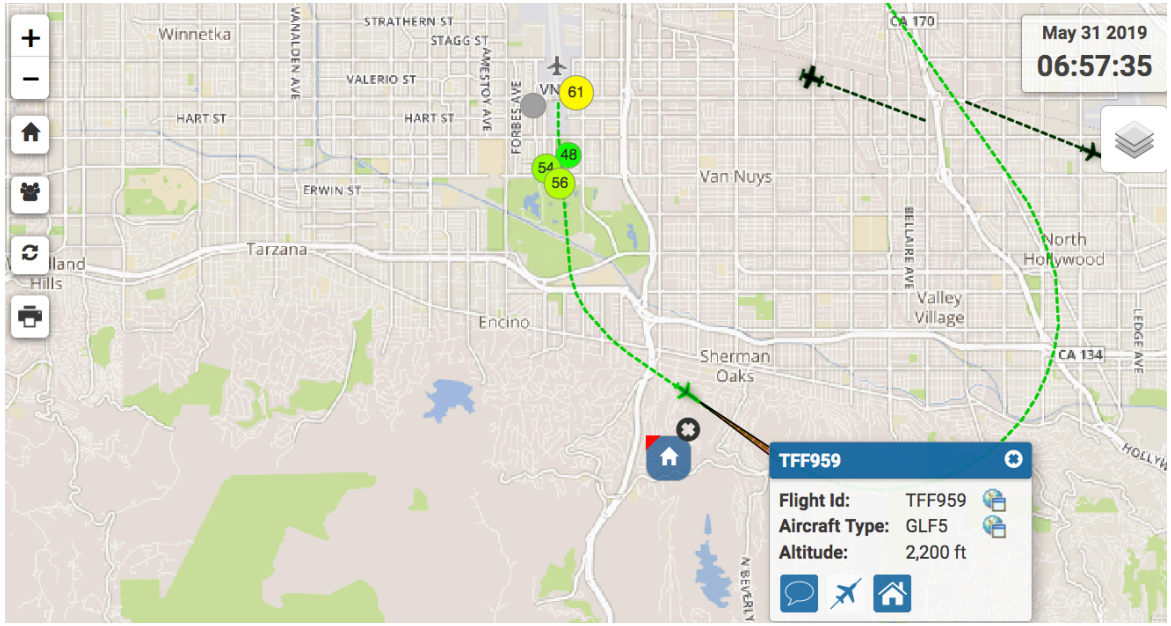

May 31 2019
05:20:26
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
VNY
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 134
LEDGE AVE
0
Flight Id: 0
Altitude: 2,100 ft

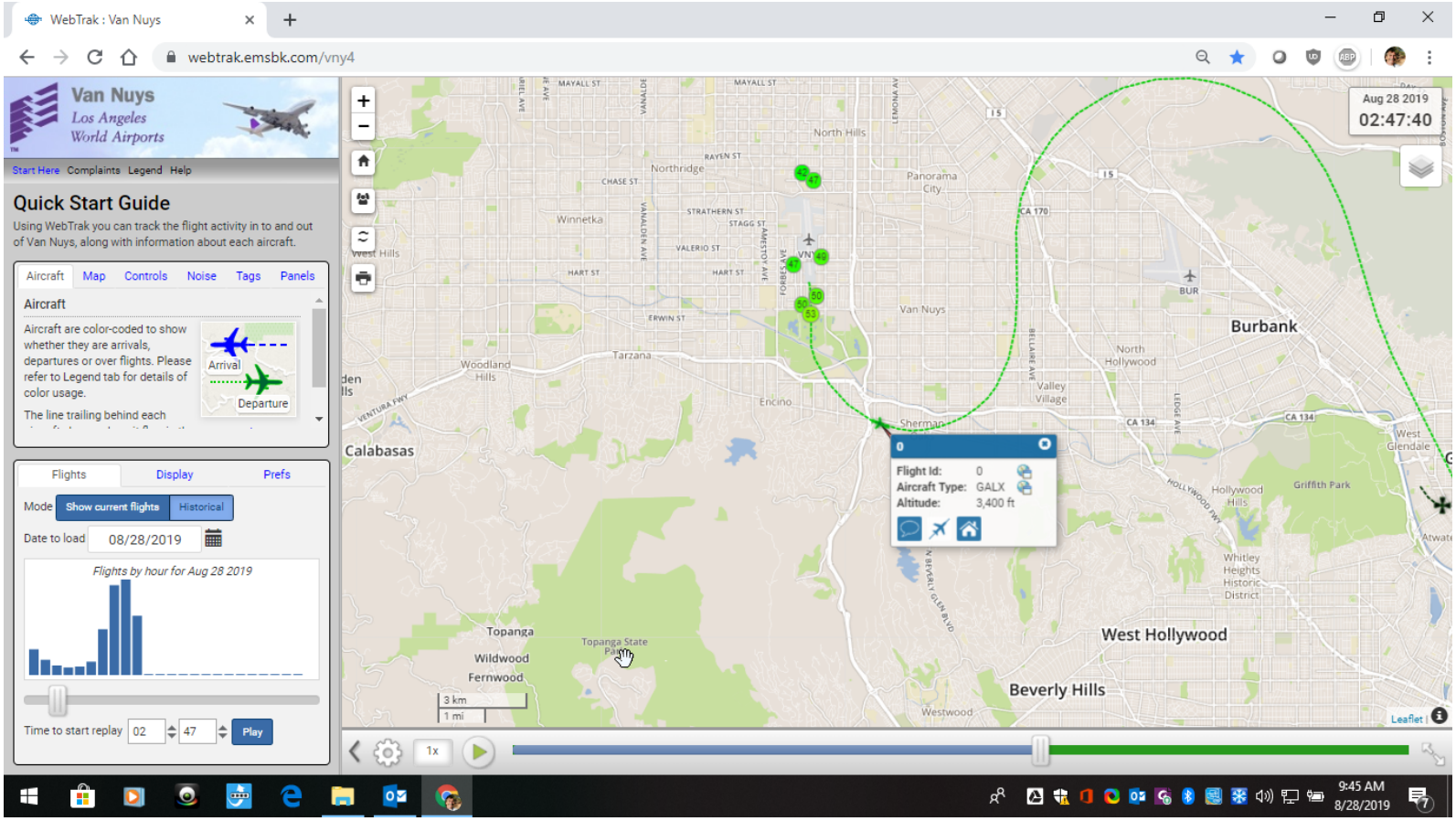

May 31 2019
05:38:41
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
VNY
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 134
LEDGE AVE
0
Flight Id: 0
Aircraft Type: GLF4
Altitude: 2,400 ft


May 31 2019
06:21:54
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
VN
56
53
59
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 170
CA 134
LEDGE AVE
N BEVERLY
N851EM
Flight Id: N851EM
Aircraft Type: BE20
Altitude: 3,400 ft


May 31 2019
06:36:15
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
VN
55
51
56
Van Nuys
Tarzana
Encino
Sherman Oaks
North Hollywood
Valley Village
BELLAIRE AVE
CA 170
CA 134
LEDGE AVE
0
Flight Id: 0
Aircraft Type: GLEX
Altitude: 3,800 ft
Topanga
Topanga State
West Hollyw


May 31 2019
06:45:22
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
Valley Village
North Hollywood
BELLAIRE AVE
LEDGE AVE
CA 134
59
51
55
56
N105RH
Flight Id: N105RH
Aircraft Type: C650
Altitude: 2,500 ft


May 31 2019
06:57:35
Winnetka
STRATHERN ST
STAGG ST
VALERIO ST
HART ST
ERWIN ST
VANALDEN AVE
AMESTOY AVE
FORBES AVE
CA 170
Van Nuys
Tarzana
Encino
Sherman Oaks
Valley Village
North Hollywood
BELLAIRE AVE
LEDGE AVE
CA 134
61
48
54
56
TFF959
Flight Id: TFF959
Aircraft Type: GLF5
Altitude: 2,200 ft


WebTrak : Van Nuys
webtrak.emsbk.com/vny4
Van Nuys
Los Angeles
World Airports
Start Here Complaints Legend Help
Quick Start Guide
Using WebTrak you can track the flight activity in to and out of Van Nuys, along with information about each aircraft.
Aircraft Map Controls Noise Tags Panels
Aircraft
Aircraft are color-coded to show whether they are arrivals, departures or over flights. Please refer to Legend tab for details of color usage.
The line trailing behind each
Arrival
Departure
Flights Display Prefs
Mode Show current flights Historical
Date to load 08/28/2019
Flights by hour for Aug 28 2019
Time to start replay 02 47 Play
Aug 28 2019
02:47:40
Flight Id: 0
Aircraft Type: GALX
Altitude: 3,400 ft
Burbank
Calabasas
West Hollywood
Beverly Hills
Topanga
Wildwood
Fernwood
Topanga State Park
Woodland Hills
Tarzana
Encino
Sherman
Van Nuys
North Hills
Northridge
Panorama City
Winnetka
North Hollywood
Valley Village
Hollywood Hills
Griffith Park
Whitley Heights Historic District
West Glendale
Westwood
3 km
1 mi
Leaflet
1x
9:45 AM
8/28/2019

WebTrak : Van Nuys

webtrak.emsbk.com/vny4

Van Nuys
Los Angeles
World Airports

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The line trailing behind each

Arrival
Departure

Flights Display Prefs

Mode: Show current flights | Historical

Date to load: 09/05/2019

Flights by hour for Sep 5 2019

Time to start replay 01 35 Play

Sep 5 2019
01:35:05

WWI80
Flight Id: WWI80
Aircraft Type: CL60
Altitude: 9,300 ft

N36BL
Flight Id: N36BL
Aircraft Type: LJ31
Altitude: 1,800 ft

Weather
Fair
North winds @ 0 mph

Observation Time	00:51
Temperature	79 °F
Pressure	29.9 inHg
Relative Humidity	50%
Dew Point	59 °F
Visibility	10 mi

1 km
5000 ft

1x

WebTrak : Van Nuys

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Van Nuys
Los Angeles
World Airports

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The line trailing behind each

Arrival
Departure

Flights Display Prefs

Mode: Show current flights | Historical

Date to load: 09/05/2019

Flights by hour for Sep 5 2019

Time to start replay 02 23 Play

Sep 5 2019
02:23:44

0
Flight Id: 0
Aircraft Type: GLF4
Altitude: 3,500 ft

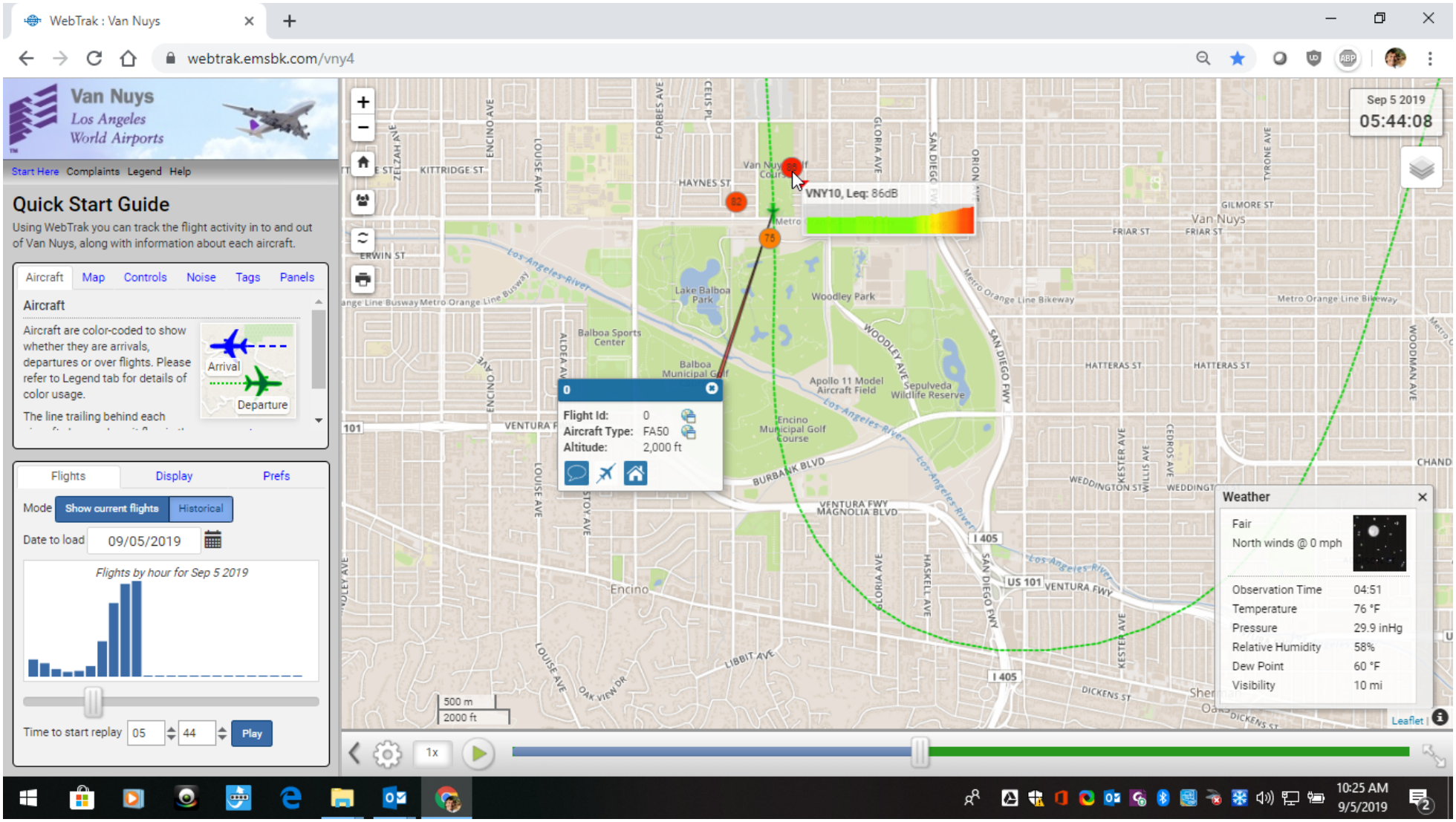
Weather
Fair
North winds @ 0 mph

Observation Time	01:51
Temperature	79 °F
Pressure	29.9 inHg
Relative Humidity	50%
Dew Point	59 °F
Visibility	10 mi

1 km
5000 ft

1x

10:23 AM
9/5/2019


WebTrak : Van Nuys
webtrak.emsbk.com/vny4
Van Nuys
Los Angeles
World Airports
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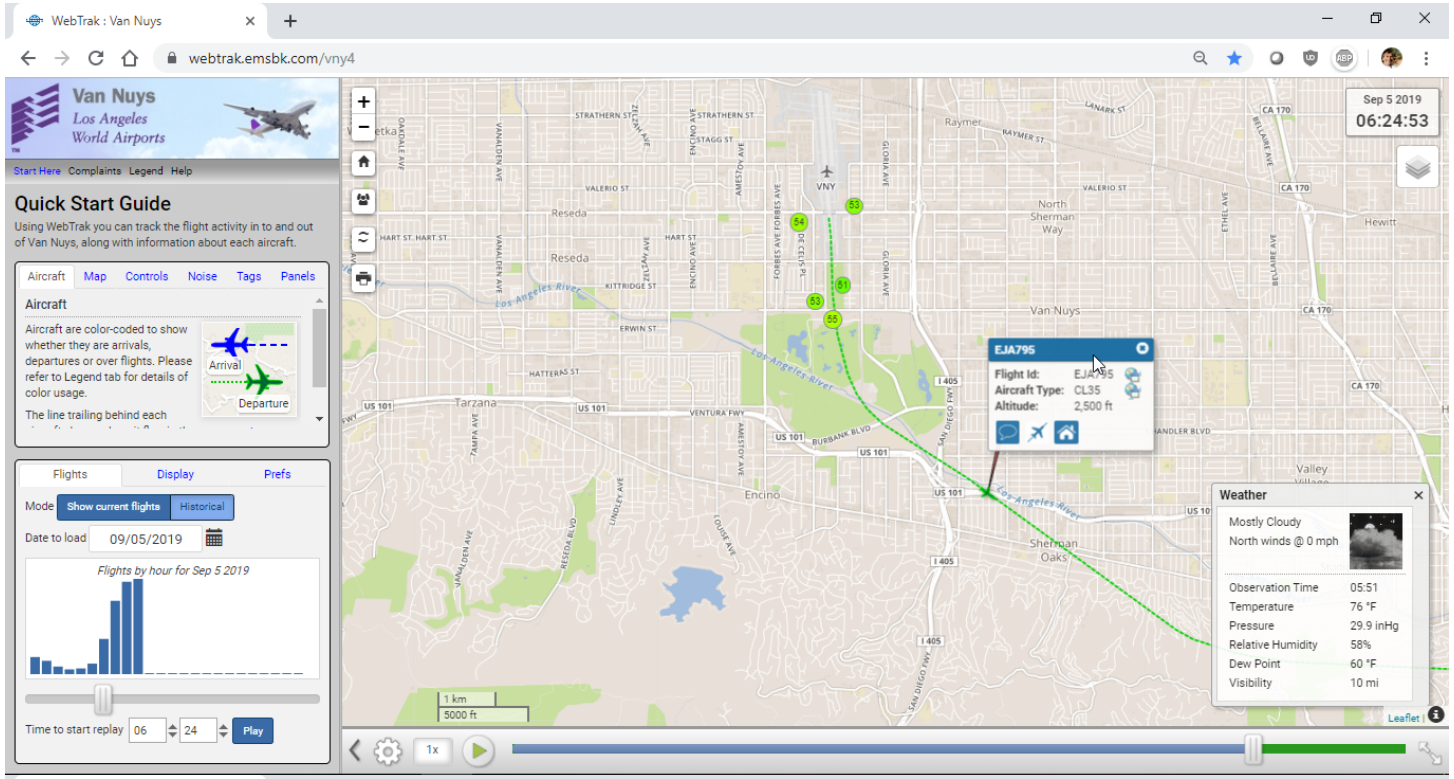
Aircraft
Aircraft are color-coded to show whether they are arrivals, departures or over flights. Please refer to Legend tab for details of color usage.
Arrival
Departure
The line trailing behind each
Flights Display Prefs
Mode Show current flights Historical
Date to load 09/05/2019
Flights by hour for Sep 5 2019
Time to start replay 05 44 Play
Sep 5 2019
05:44:08
VNY10, Leq: 86dB
Flight Id: 0
Aircraft Type: FA50
Altitude: 2,000 ft
Weather
Fair
North winds @ 0 mph
Observation Time 04:51
Temperature 76 °F
Pressure 29.9 inHg
Relative Humidity 58%
Dew Point 60 °F
Visibility 10 mi
Van Nuys
Encino
Lake Balboa Park
Woodley Park
Balboa Sports Center
Balboa Municipal Golf
Apollo 11 Model Aircraft Field
Sepulveda Wildlife Reserve
Encino Municipal Golf Course
Los Angeles River
Metro Orange Line Bikeway
500 m
2000 ft
1x
Leaflet
10:25 AM
9/5/2019


WebTrak : Van Nuys
webtrak.emsbk.com/vny4
Van Nuys
Los Angeles
World Airports
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Using WebTrak you can track the flight activity in to and out of Van Nuys, along with information about each aircraft.
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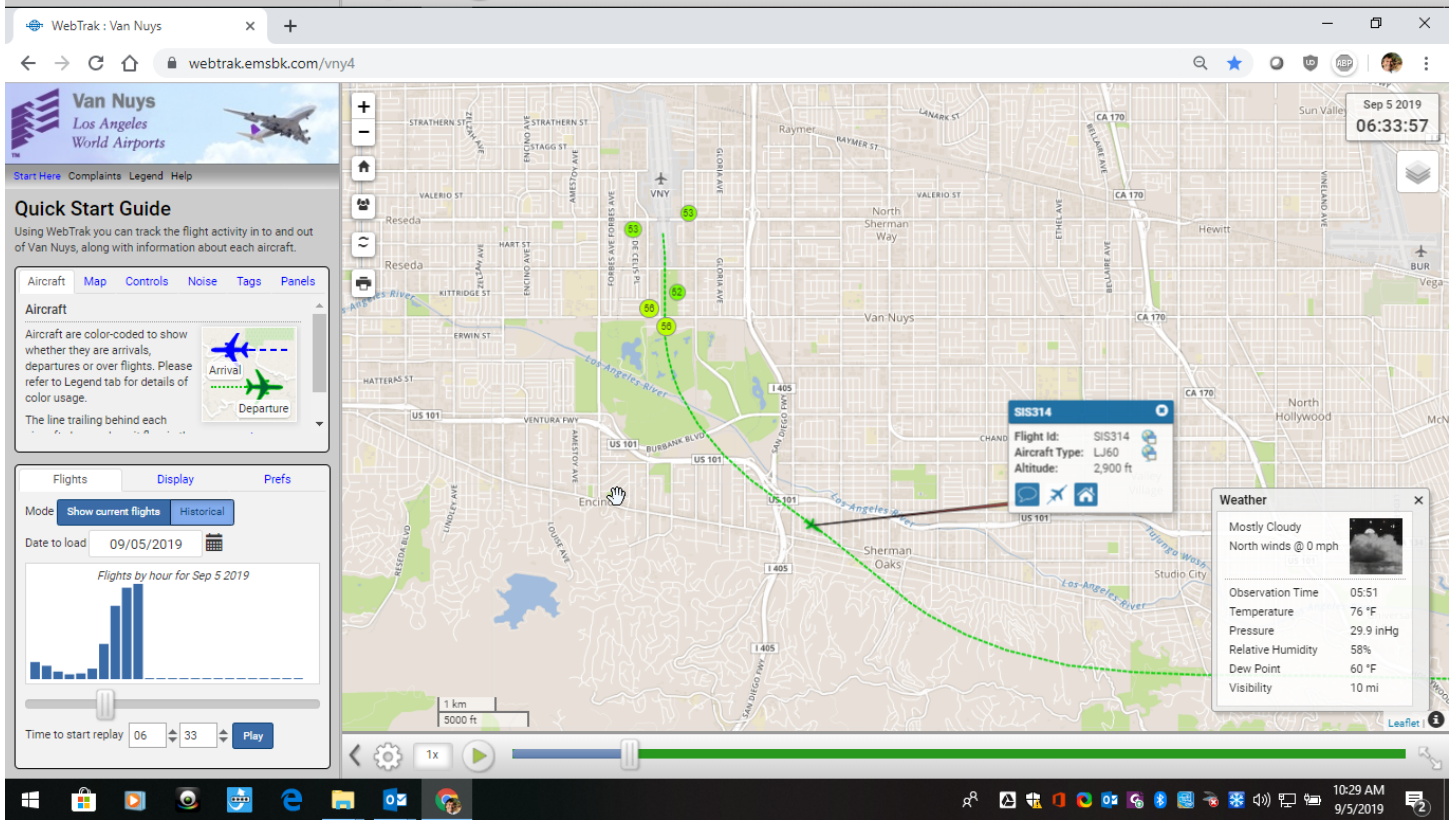
Aircraft
Aircraft are color-coded to show whether they are arrivals, departures or over flights. Please refer to Legend tab for details of color usage.
The line trailing behind each
Arrival
Departure
Flights Display Prefs
Mode Show current flights Historical
Date to load 09/05/2019
Flights by hour for Sep 5 2019
Time to start replay 06 24 Play
Sep 5 2019
06:24:53
EJA795
Flight Id: EJA795
Aircraft Type: CL35
Altitude: 2,500 ft
Weather
Mostly Cloudy
North winds @ 0 mph
Observation Time 05:51
Temperature 76 °F
Pressure 29.9 inHg
Relative Humidity 58%
Dew Point 60 °F
Visibility 10 mi
1 km
5000 ft
Leaflet
1x


WebTrak : Van Nuys
webtrak.emsbk.com/vny4
Van Nuys
Los Angeles
World Airports
Start Here Complaints Legend Help
Quick Start Guide
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Aircraft
Aircraft are color-coded to show whether they are arrivals, departures or over flights. Please refer to Legend tab for details of color usage.
The line trailing behind each
Arrival
Departure
Flights Display Prefs
Mode Show current flights Historical
Date to load 09/05/2019
Flights by hour for Sep 5 2019
Time to start replay 06 33 Play
Sep 5 2019
06:33:57
SIS314
Flight Id: SIS314
Aircraft Type: LJ60
Altitude: 2,900 ft
Weather
Mostly Cloudy
North winds @ 0 mph
Observation Time 05:51
Temperature 76 °F
Pressure 29.9 inHg
Relative Humidity 58%
Dew Point 60 °F
Visibility 10 mi
1 km
5000 ft
Leaflet
1x
10:29 AM
9/5/2019

Burbank Airport
Voluntary
Night Time Curfew

Voluntary Nighttime Curfew
The Authority has a long-standing voluntary curfew on scheduled arrivals and departures of passenger airline operations between the hours of 10 p.m. and 6:59 a.m. During those hours, airlines are strongly encouraged not to schedule any arrivals or departures.

The complete Noise Abatement Rules were reaffirmed and clarified on April 1, 2019, however, for quick reference select noise rules are summarized as follows:

Procedures: Rule 3
General aviation jet aircraft are to use the National Business Aircraft Association's noise abatement procedures.

Prohibited Activities: Rule 8
Between the hours of 10 p.m. and 7 a.m. local time, the following activities are prohibited:

- Intersection takeoffs
- Maintenance run-ups
- Flight training operations
- Practice approaches
- Touch and go landings

The fine for a first-time violation is $1,555 and subsequent violations are each fined $2,258.

Nighttime Curfew: Rule 9
Aircraft originally certified as Stage 3 or quieter are permitted to fly 24 hours per day. Aircraft not originally certified as Stage 3 are not permitted to operate between 10:00 p.m. and 7:00 a.m. unless they can demonstrate compliance with these Rules as written (see Rule 9.6a). The chart below is a list of maximum take-off weights and required procedures that have been demonstrated for certain aircraft not originally certified as Stage 3 or quieter in order for them it to meet these nighttime noise restrictions.

Aircraft
Procedure & Weight Restriction
Gulfstream 2 with Stage 3 Kit
Manufacturer's "Quiet Flying Procedures" & Gross weight of 47,000 lbs. is not exceeded
Gulfstream 2B & Gulfstream 3 with Stage 3 Kit
Manufacturer's "Quiet Flying Procedures" & Gross weight of 55,000 lbs. is not exceeded

These rules are not intended to interfere with the rights or responsibilities of the pilot-in-command concerning safety of flight.
Violations of these provisions carry with them monetary sanctions in amounts of up to $4,522 per violation. Questions should be addressed to the Noise Management Office at 818.840.8840 or to the Airport Operations Office at 818.840.8830.

Teterboro Airport

Voluntary Night Time Curfew

Information

Conversation with Gabriel Andino
Manager - Noise Abatement & Environmental Compliance
Teterboro Airport
New Jersey, NJ

With Wayne Williams - Member of the VNY CAC on 7/24/19

How long have you been at the airport and in this position?
10 years as Manager at Noise Office
They have had a version of our VNY CAC since '87
Noise rules in place and grandfathered limits on db's since ANCA.

What precipitated the voluntary Night time curfew?
Community complaints for late night operations and their CAC, cancelled checks flights since gone away. Charters & repositioning for next day flights are still an issue but diminished since implementation.

When was the curfew implemented?
Post ANCA, VNTC was originally set from 12pm-6am.
Then in 2006 it was moved to 11pm-6am for political (concerns for larger aircraft coming into the airport) as well as concerns for safety issues.

How was the curfew created, what steps did you take?
The airport pushed and got the following:

1. NOTAMS (FAA)
2. Airport Facility Directory (FAA)
3. Flight planning staff, web site, when they travel to industry conventions NBAA and their schedules and dispatchers conference.
4. Literature hand outs and mobile app for flight planning
5. Send letters after the fact if there is a violation and invite feedback from pilot/owner. Leave out emergency flights that they know of.
6. Periodically send reminder letter targeting those that drive flight decisions.

How many aircraft were departing at night prior to implementation?

No stats prior to 2005 for VNTC from 12pm to 11pm.
In 2005 they had about 14K flights at night for the year or 8% of total traffic. Average 38 arrivals/departures per night.

They are now down to 8K flights pre year at night or 4% total flights, so industry accommodated a decline by at least half. Average 21 arrivals/departures per night.

They sent out about a 1000 violation notification letters to flight pilot/owners last year.

Yes, the VNTC did help the community, if not implemented there would be at least 25% more traffic on arrivals and 50% on departures.

How has it worked out?
Still getting complaints as ability to report has gotten easier (AirNoise button etc) but community-noticed flights are not as frequent.

Still a mixed bag of complaints about wanting more permanent restrictions but most citizens understand the limitations. Overall, the decrease is relatively small on arrivals (25%) and certain nights have more volume than others. They get more arrivals at night thus more complaints than VNY on arrivals. Arrivals get the biggest complaints due to time zone, frequency and flight path route over residents homes.

Departures, "the voluntary curfew has been very effective" in limiting volume of departures, as pilots respect the curfew. When asked, pilots are asked to inform their passengers to change departures which works well.

As such, there has been at least 50% decrease in departures since implementation.

25% arrivals decrease
50% departures decrease

Noise complaints are more often reported when there are repetitive flights and as a result of the VNTC these complaints have diminished. Teterboro staff work closely with NBAA as they are amiable to self policing. The community also very much appreciates that the airport is making the effort.

From: **Gabriel Andino** gandino@TEB.com

Subject: TEB Nighttime Operations stats

Date: July 25, 2019 at 1:11 PM
To: WAYNE WILLIAMS wwclick@mac.com **Cc:** KRUGLER, LEONARD A. LKRUGLER@lawa.org

Wayne,

It was a pleasure talking to you yesterday. As promised, I am sending you aircraft movement statistics during the 11:00 pm to 6:00 AM timeframe for the years 2006 through 2018. As discussed on the phone, we focus our measurement on the year 2006 as it was the year the airport, aircraft operators and other industry partners pledged to address public concerns related to safety, security and noise at TEB. One of the pledges was to amend the existing voluntary curfew program hours from 12:00-06:00 to 11:00-07:00 and increase our efforts to raise operator awareness of the curfew.

Night Time Aircraft Movements			
	Night Movements	Total Aircraft Movements	Percentage of Total Movements @ Night
2006	14,833	187,300	7.92%
2007	13,854	182,101	7.61%
2008	11,902	162,433	7.33%
2009	9,419	137,890	6.83%
2010	9,880	149,530	6.61%
2011	9,825	152,250	6.45%
2012	9,035	147,476	6.13%
2013	9,254	155,032	5.97%
2014	8,096	161,842	5.00%
2015	8,047	166,751	4.83%
2016	8,299	170,843	4.86%
2017	8,432	174,870	4.82%
2018	8,384	172,101	4.87%

“Night Movements” include both departure and arrivals between 11:00 pm and 6:00 am

A couple of notes on the statistics above. You’ll notice a sharp decrease in both night and total movements in 2009. This decrease coincides with the economic downturn that year which had a direct impact on business travel. A9er 2013 we saw a sizable decrease and eventual elimination of night time “check hauler” flights, hence the next dip in aircraft movements at night the year a9er.

The number we focus on is the percentage of night movements, displayed in the far right column. Total movements at TEB have steadily increased since the 2009 economic downturn, however night movements continued to decrease during that ;me and have stayed relatively even the last 5 years. We attribute much of this trend to our outreach efforts to aircraft operators to abide by the voluntary curfew as much as possible.

operators to abide by the voluntary curfew as much as possible.

Of the approximately 5% of flights that occur within the voluntary curfew period in a given year, the majority are operated by on-demand charter companies, fractional ownership firms and others who have passengers requesting to leave/arrive within that ;me period, or are relocating aircraft to/from Teterboro to prepare for a future flight. We have found success in reducing operations by private or corporate owned aircraft who have demonstrated schedule flexibility. In some cases though, plans to operate outside of the curfew may not be successful due to weather delays, passenger delays, airspace congestion or other circumstances.

I have also included a sample our correspondence related to operations within the voluntary curfew timeframe. These letters are automatically generated every month and cite each instance of “non-compliance” for the given month.

I hope you find this helpful. If you any questions or need additional info please don’t hesitate to contact me.

Best regards,

Gabriel Andino

Manager - Noise Abatement & Environmental Compliance AvPORTS | Teterboro Airport
90 Moonachie Avenue | Teterboro, NJ 07608 **P: 201.393.0399 | C: 201.481.1126 | F: 201.440.2416**

February 5, 2019

Operator Name
Address
City, State
Zip

Dear Chief Pilot:

Teterboro Airport's Community Pledge Program, is an initiative that seeks to bridge the interests of the aviation community, with those of the airport's residential neighbors. The Program consists of four pledges that we ask operators to observe; among those four is a:

"Voluntary restraint of non-essential aircraft operations during the hours of 11 p.m. and 6 a.m."

The following operation(s) by your aircraft did not comply with this pledge:

Date	Time	Aircraft ID	Aircraft Type	Operation	Runway	Comments
01/16/19	0054	XXXX	F900	A	19	

Your support of TEB's Community Pledge Program, is critical in our efforts to foster the "good neighbor" relationships that are vital to the business of the aviation community. We are contacting you today as a reminder of this program, and to ask that you consider this pledge when operating at TEB in the future.

If operational circumstances require you to operate at TEB between 11 p.m. and 6 a.m. we ask that you operate your aircraft in the quietest manner possible. With this in mind, we suggest that you request the airport's preferred noise abatement runways – Runway 19 for southbound departures and Runway 01 for northbound arrivals – as well as utilizing noise abatement takeoff and landing procedures.

Your attention to this is greatly appreciated. If there were any unusual circumstances that contributed to your aircraft not attaining these voluntary goals, please let us know. For any questions regarding the noise abatement program at Teterboro Airport, please feel free to contact the Noise Office at (201) 393-0399 or via email at noiseoffice@teb.com

Sincerely,

Gabriel Andino
Noise Abatement Manager
Teterboro Airport

Additional Voluntary or Mandatory Airport Night Time Curfews Around the World

There are other airports around the world of significant substance that have also imposed night time curfews:

Singapore Seletar Airport has a full Night Curfew as of 1/1/19.
It is in the heart of Singapore hosting International Aircraft charters, private flights, cargo etc.

Zurich Airport in Germany bans non emergency flights between 11:30pm-6am since 2010.

Frankfurt International Airport in Germany also has a 11pm-6am allows only a limited flights.

British Airports Heathrow, Gatwick and Stansted have night time flight quotas that restrict movements limits and established noise quotas.

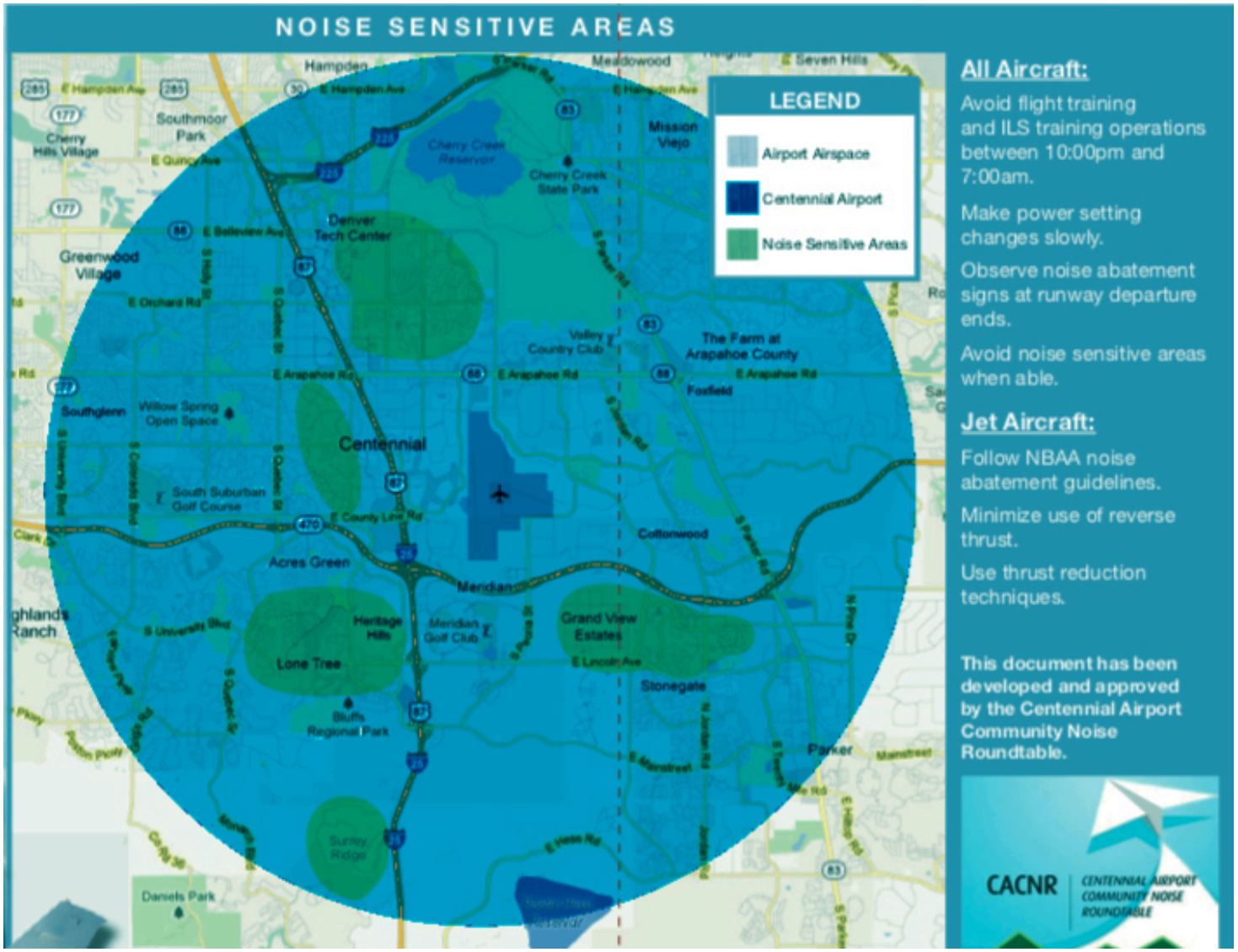
All Australian airports have restrictions on nearly all aircraft between 11pm-6am with exceptions for emergency, a limited number of
low noise freighter and jet aircraft and small propeller aircraft that meet international noise standards.

Aspen/Pitkin County Airport is CLOSED from 11pm to 7am

Centennial Airport outside of Denver, CO.
It is in a rural area south east of Englewood, CO and is a PRIVATE General Aviation Airport.
They do not have a voluntary night time curfew but have few homes within the vicinity of the facility and pilots are given specific well documented routes to avoid flying near those homes at all hours.
They are asked to gain altitude as quickly as possible for this purpose as well.

Of course, VNY does not have the luxury of this situation as we are in the heart of the significantly populated San Fernando Valley.

Colorado Centennial Airport Area Map



Health Impacts
-
Scientific Studies
of
Aircraft Noise
and
Health Impacts on Communities

Scientific Studies on Health Impacts related to Aircraft Noise

1) The WHO Europe Night Noise Guidelines (WHO, 2009) were based on expert- consensus that there was sufficient evidence that nocturnal environmental noise exposure was related to self-reported sleep disturbance and medication use, and that there was some evidence for effects of nocturnal noise exposure on high blood pressure (hypertension) and heart attacks. The WHO Europe Night Noise Guidelines state that the target for nocturnal noise exposure should be 40 dB Lnight, outside, which should protect the public as well as vulnerable groups such as the elderly, children, and the chronically ill from the effects of nocturnal noise exposure on health. The Night Noise Guidelines also recommend the level of 55 dB Lnight, outside, as an interim target for countries wishing to adopt a step-wise approach to the guidelines. It is worth noting that the 40dB Lnight outside guideline represents a very low level of noise exposure, e.g. a refrigerator humming.

2) Exposure to aircraft noise at 60dB Lden is estimated to be associated with 38% of the population reporting being “annoyed” and 17% being “highly annoyed” (EC, 2002). Exposure to aircraft noise at 65dB Lden is estimated to be associated with 48% of the population reporting being “annoyed” and 26% being “highly annoyed” (EC, 2002). However, in recent years, several studies have suggested that aircraft noise annoyance around major airports in Europe has increased (Babisch et al., 2009; Janssen et al., 2011; Schreckenberg et al., 2010), so the percentage of the population reporting being “annoyed” or “highly annoyed” at each noise exposure level may have increased since these figures were put forward by the European Commission in 2002 (EC, 2002).

3) Annoyance responses can also increase in relation to a change in airport operations. A study around Zurich airport found that residents who experienced a significant increase in aircraft noise exposure due to an increase in early morning and late evening flight operations had a pronounced over-reaction of annoyance i.e. the annoyance reaction was greater than that which would be predicted by the level of noise exposure (Brink et al., 2008).

4) The HYENA study (HYpertension and Exposure to Noise near Airports) examined noise effects on the blood pressure (hypertension) of 4,861 people, aged 45-70 years, who had lived for over 5 years near 7 major European airports including London Heathrow; Amsterdam Schiphol; Stockholm Arlanda & Bromma; Berlin Tegel, Milan Malpensa; and Athens Eleftherios Venizelos (Jarup et al., 2008). The HYENA study found that a 10dB increase in day-time (LAeq 16 hour) was associated with a 28% increase in anxiety medication use: similarly, a 10dB increase in night-time (Lnight) aircraft noise was associated with a 27% increase in anxiety medication use. Anxiety medication is prescribed for individuals experiencing levels of anxiety and worry that interfere with their ability to function effectively: they can also be prescribed for sleeping problems. A sub- study of the HYENA study found that salivary cortisol (a stress hormone which is higher in people with depression) was 34% higher for women exposed to aircraft noise > 60dB LAeq 24 hour, compared to women exposed to less than 50dB LAeq 24 hour (Selander et al., 2009). However, no association between aircraft noise and salivary cortisol was found for men.

5) (Halperin, 2014) Environmental noise, especially that caused by transportation means, is viewed as a significant cause of sleep disturbances. Poor sleep causes endocrine and metabolic measurable perturbations and is associated with a number of cardiometabolic, psychiatric and social negative outcomes both in adults and children. Nocturnal environmental noise also provokes measurable biological changes in the form of a stress response, and clearly affects sleep architecture, as well as subjective sleep quality. These sleep perturbations are similar in their nature to those observed in endogenous sleep disorders. Apart from these measurable effects and the subjective feeling of disturbed sleep, people who struggle with nocturnal environmental noise often also suffer the next day from daytime sleepiness and tiredness, annoyance, mood changes as well as decreased well-being and cognitive performance. But there is also emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardiometabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems.

CORNELL CHRONICLE

Airport noise is harmful to the health and well-being of children and may cause lifelong problems, Cornell study shows

By Susan S. Lang | March 4, 1998

The constant roar from jet aircraft can seriously affect the health and psychological well-being of children, according to a new Cornell study. The health problems resulting from chronic airport noise, including higher blood pressure and boosted levels of stress hormones, the researchers say, may have lifelong effects.

"This study is probably the most definitive proof that noise causes stress and is harmful to humans," says Gary Evans, a professor of design and environmental analysis in Cornell's College of Human Ecology. This is, he says, the first longitudinal study of noise and human beings to look at the same group of individuals before and after noise pollution.

Other studies have been cross sectional, comparing people exposed to noise to well-matched controls who were not subjected to noise. Evans, an environmental psychologist and an international expert on environmental stress (such as noise, crowding and air pollution) and his German and Swedish colleagues, Monika Bullinger and Stafan Hygge, respectively, reported their findings in the January issue of *Psychological Science*, published by the American Psychological Association.

The researchers looked at 217 third- and fourth-grade children in rural areas 22 miles from Munich, Germany, before and after the opening of a new airport.

About half the children live in an area under the flight path of the new international airport; the others, who were matched for age, parental jobs, family size and socioeconomic status, live in quiet areas. The children were tested for blood pressure, stress hormone levels and quality of life six months before the airport was completed as well as six and 18 months after it opened.

The children in the chronic noise group experienced modest but significant increases in blood pressure and significant increases in stress hormones (epinephrine, norepinephrine and cortisol) while the children in the quiet areas experienced no significant changes. Eighteen months after the airport opened, the children exposed to the chronic aircraft noise also reported a significant decline in their quality of life.

"Although the increases in blood pressure were modest in the children living under the flight path, they may predict a greater likelihood of having higher blood pressure throughout adulthood," says Evans. There are indications, he says, that elevated blood pressure in childhood predicts higher blood pressure later in life.

Boosts in stress hormones also are of concern because they indicate that noise induces physiological stress. These hormones are linked to adult illnesses, some of which are life- threatening, including high blood pressure, elevated lipids and cholesterol, heart disease and a reduction in the body's supply of disease-fighting immune cells.

Evans' and his colleagues' new study adds powerful evidence to cross-sectional and animals studies which have shown higher stress levels in children and adults working and living in chronically noisy environments.

Evans also reported last year that New York children living near an international airport tended to be poor listeners and did not read as well as matched children in quiet schools. Later this year, Evans hopes to report on how chronic noise a!ects reading, learning and mental health in the Munich study group.

The study was supported, in part, by the Society for the Psychological Study of Social Issues, the National Institutes of Health, the Nordic Scientific Group for Noise Effects, the Swedish Environmental Protection Agency and the German Research Foundation.

MEDIA CONTACT

Media Relations Office

mediarelations@cornell.edu

(mailto:mediarelations@cornell.edu) 607-255-6074 (tel:607-255-6074)

Annoyance of Repetitive Sound Sources

Mon Oct 5th, 2015 11:00 PM

Before the EPA's Noise Abatement office was defunded, they were supporting several noise research studies. **This 1979 article concludes that repetitive noise has a perceived loudness factor on average 7dB higher than measured.** In other words, repeated overflights annoy us far more than measured data would suggest.

Read the article by going to:

https://skyote.com/noise/files/EPA%209100NPO.PDF

Financial

Costs and Impacts

There are no financial costs to implementing a Voluntary Night Time Curfew at Van Nuys Airport as the program is voluntary and the airport itself already has an ongoing public relations program to promote the airport which can easily include information informing the public and the industry of the VNTC.

The industry will not be impacted as there will be no penalties for flying during the voluntary curfew and all flights can still be conducted during non-curfew hours.

PROPOSED VAN NUYS AIRPORT
VOLUNTARY NIGHT TIME CURFEW
MOTION

Whereas, Burbank Airport has a voluntary night time curfew on scheduled aircraft from 10pm to 6:59am.

WHEREAS, Teterboro Airport in New Jersey, the general aviation airport most comparable to VNY's, has implemented a voluntary nighttime curfew of all non-essential aircraft operations between 11 pm and 6 am in which violators receive letters informing them of the program.

WHEREAS, noise complaints have dramatically increased across the San Fernando Valley over the past two years, placing aircraft noise into the foothills and Santa Monica Mountain residential communities which never experienced aircraft noise of this magnitude previously.

WHEREAS, multiple scientific studies have clearly documented the impact of night time aircraft noise on sleep patterns in adults and children showing long term effects on stress hormones, heart conditions and cognitive impairment.

WHEREAS, Van Nuys Airport has a long-standing night time partial curfew on departures of aircraft that weigh more than 74,000 lbs or exceed 77 dB noise level, per FAA Part 36 during the hours of 10:00 pm and 6:59 am.

WHEREAS, there will be NO financial impact on the airport, the airport users, the City of Los Angeles or the surrounding communities.

NOW THEREFORE, to assure a greater degree of evening and early morning hour peacefulness and less impact from aircraft noise for residents in the south San Fernando Valley, the following VOLUNTARY Night Time Curfew shall be submitted to Los Angeles World Airports and the FAA as follows:

a. Request that the Board of Airport Commissioners direct Los Angeles World Airports (LAWA) to amend the existing VNY curfew ordinance to expand the hours of the current partial curfew to include a VOLUNTARY Night Time Curfew of ALL non-emergency jet, general aviation aircraft and non-emergency helicopters as a voluntary addition to the National Business Aircraft Association 'Fly Neighborly' airport policy, as that would

come under the provisions of the voluntary night time curfew during the hours of 10:00 pm to 6:59 am. During those hours operators are strongly discouraged to conduct any arrivals or departures. Helicopter operators, including emergency, adhere to freeways whenever possible, avoid residential areas and maintain 1,000 feet over residential areas except upon immediate departure and arrival.

b. Voluntarily extend the ending time of the existing VNY partial curfew and the addition of this VOLUNTARY Night Time curfew for above aircraft from 7 am to 9 am on weekends and holidays. During those hours, operators are strongly encouraged not to conduct any arrivals or departures.

c. This information shall be distributed to all aircraft operators and users of Van Nuys Airport as a clearly stated Voluntary Night Time Curfew via all Van Nuys Airport and FAA means (NOTAM's, NBAA events, VNY publications and websites) so that they are made aware of the good neighbor practices. The Airport shall also clearly post on the jet blast fences, notification of the Voluntary Curfew as is similarly posted at Burbank Airport.

d. Have the City of Los Angeles formally request Burbank Airport expand its nighttime curfew to include all General Aviation aircraft as well.

The passage of this motion reflects a willingness of both residents and the aviation community to compromise in order to mitigate the significant health impacts of sleep disturbance/deprivation and chronic stress caused by ongoing exposure to noise from nighttime flights at Van Nuys Airport.

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REFERENCES

Burbank Voluntary Nighttime Curfew:

"The Authority has a long-standing voluntary curfew on scheduled arrivals and departures of passenger airline operations between the hours of 10 pm and 6:59 am. During those hours, airlines are strongly encouraged not to schedule any arrivals or departures."