

APPENDIX I DOCUMENTATION RELATED TO FAA REVIEW AND APPROVAL OF NOISE EXPOSURE MAP FORECASTS

The following pages present copies of documentation related to FAA review and approval of the airport activity forecasts used in preparing these NEMs, including: (1) the FAA approval letter, and (2) and (3) the LAWA submission (comprised of a cover letter and technical memorandum).

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009

March 31, 2011

Scott Tatro
Environmental Affairs Officer
Los Angeles World Airports
1 World Way
Los Angeles, CA 90045

Dear Mr. Tatro:

Van Nuys Airport
14 CFR Part 150 Noise Exposure Maps
Aviation Demand Forecasts

The Federal Aviation Administration (FAA) has reviewed the Part 150 Noise Exposure Map Update Forecasts for the Van Nuys Airport (VNY). The forecasts were transmitted to us by letter dated March 3, 2011.

The forecasts establish an accurate baseline and present reasonable projections for future aviation activity levels. The forecasts are within ten percent, and therefore considered consistent with the current FAA Terminal Area Forecast for VNY.

Therefore, FAA hereby approves the subject VNY aviation forecasts for use in preparing your 14 CFR Part 150 Noise Exposure Maps.

If you have any questions concerning this matter, I can be reached at (310) 725-3637.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor Globa".

Victor Globa
Environmental Protection Specialist

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Los Angeles
World Airports

March 3, 2011

Victor Globa
Environmental Protection Specialist
Federal Aviation Administration
Los Angeles Airports District Office
P.O. 92007
Los Angeles, CA 90009-2007

Subject: Review and Approval of Van Nuys Part 150 Noise Exposure Map Update Forecasts

LAX

LA/Ontario

Van Nuys

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Gina Marie Lindsey
Executive Director

Dear Mr. Globa:

Los Angeles World Airports (LAWA) requests the Federal Aviation Administration (FAA) review and approval of 2011 and 2106 operations forecasts for the Van Nuys (VNY) Part 150 Noise Exposure Map Update. The attached technical memorandum describes the forecast methodology, and results in detail.

As the following table shows, the forecasts are consistent with the FAA's most recent (December 2010) Terminal Area Forecast (TAF) for VNY.

Year	NEM Forecast	December 2010 TAF	% Difference
2011	304,193	305,524	-0.4%
2016	326,910	315,745	3.5%

If you have any comments or questions related to this request, please feel free to contact Sean Doyle or Ted Baldwin of Harris Miller Miller & Hanson at (781) 229-0707 or me at (424) 646-6499.

Sincerely yours,

Scott Tatro
Environmental Affairs Officer

SMT:car

Attachment:
VNY Part 150 NEM Forecasts Memo Dated February 7, 2011

Cc: M. Feldman
R. Freeman
T. Baldwin
S. Doyle

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MEMORANDUM

To: Ted Baldwin

Date: February 7, 2011

From: Peter Stumpp

CC: Beverly Jones, Sean Doyle

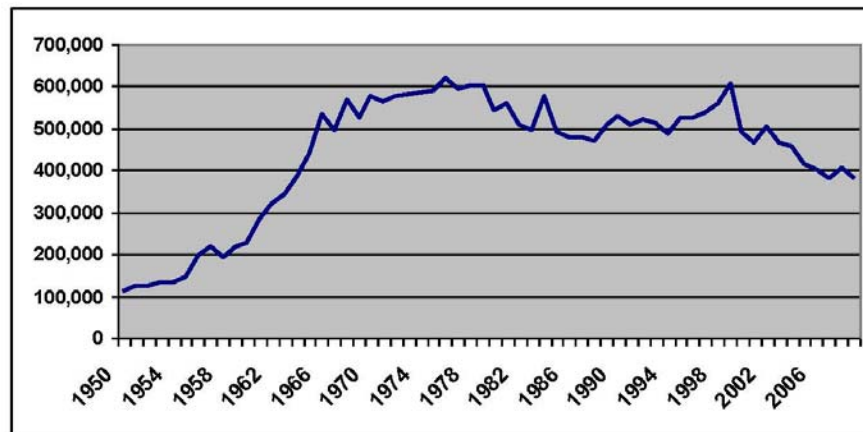
Subject: Van Nuys Aircraft Operations Forecasts for Noise Exposure Map Update

Historical Trends

The analysis of historical trends in aircraft operations at Van Nuys Airport (VNY) relies largely on two sources of information, airport records published by the airport proprietor LAWA and data compiled in the FAA Air Traffic Activity Data System (ATADS).

Exhibit 1 shows the long term trend in total aircraft operations at VNY based on airport records.

Exhibit 1 - Annual Operations at VNY from 1950 to 2009



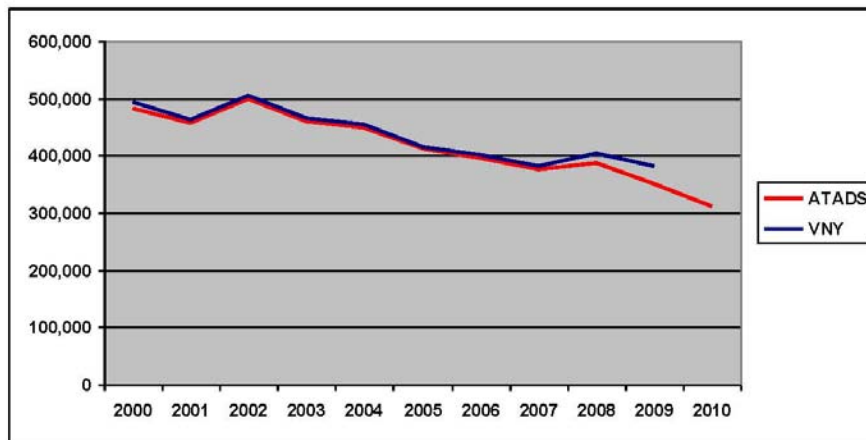
Source: LAWA airport records

One Main Street — Cambridge, MA 02142 — 617.218.3500 — 617.218.3600 fax — sh-e.com — icfi.com

For most years from 1966 to 1999 VNY had annual operations in the 500,000 to 600,000 range. From 1999 to 2007 annual operations fell sharply with an average decline of 6.4% per year, but they leveled out in the 380,000 to 400,000 range from 2007 through 2009, the latest full year for which VNY airport records are available.

Exhibit 2 compares the airport records to data from FAA ATADS airport operations data which is available through 2010.

Exhibit 2 - Annual Operations at VNY Reported in ATADS and Airport Records

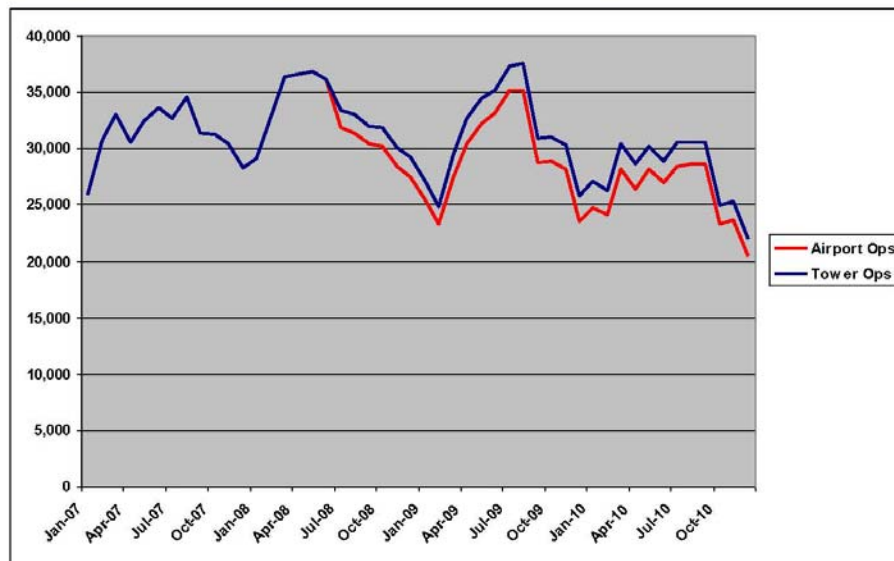


Source: FAA ATADS, LAWA airport records

The two data series track closely until 2008 when the FAA began subtracting overflights from its ATADS airport operations data, while airport records continue to include overflights. Because ATADS operations data for VNY reflects a change in data collection procedures as well as changes in actual operations, the 2008-2009 decline shown in Exhibit 2 overstates the actual decrease in operations, but the decrease in operations from 2009 to 2010 shown in the ATADS data reflects a true decline in VNY airport operations, not a result of changes in data collections.

Exhibit 3 shows the effect of subtracting overflights by comparing ATADS airport operations data to ATADS ATCT operations data which continues to include overflights. The FAA initiated this change in July 2008; from January 2009 through August 2010 an average of 2,100 monthly overflights has been subtracted. This exhibit also shows that the seasonal fourth quarter drop in operations at VNY was unusually sharp in 2010.

Exhibit 3 – Comparing ATADS Airport Operations to ATCT Operations Data

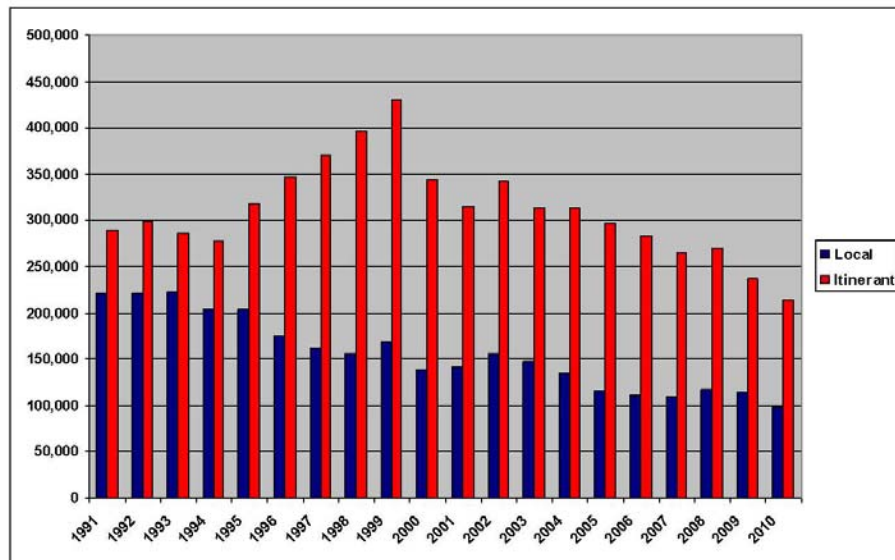


Source: FAA ATADS

While ATADS Airport Operations data appear to account accurately for fixed-wing aircraft overflights, information developed during the Van Nuys Noisier Aircraft Phaseout and Part 161 studies (“prior noise studies”) indicates that ATADS does not account for helicopter overflights and as a result overstates total aircraft operations at VNY. In addition, ATADS data reflect aircraft activity during the hours that the ATCT is open but do not capture activity during the time that ATCT is closed. To create more accurate base year data, this study makes two corrections to ATADS aircraft operations data; it subtracts helicopter overflights and adds operations that occur when the Air Traffic Control Tower (ATCT) is closed.

Exhibit 4 shows the trends in itinerant and local operations at VNY from 1991 through 2010 based on ATADS Airport Operations data.

Exhibit 4 – Annual VNY Itinerant and Local Operations



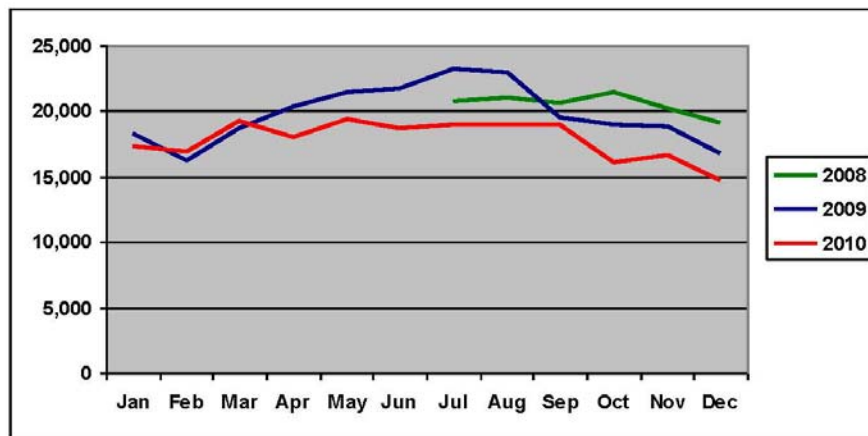
Source: FAA ATADS Airport Operations data

Local operations experienced a fairly steady decline from the mid-1990's to 2005, were flat from 2005 through 2009, and fell again in 2010. Itinerant operations grew rapidly during most of the 1990s reaching a peak of 430,000 in 1999, but fell by 20% in 2000 and have continued to decline. As noted previously, the FAA began subtracting overflights from ATADS Airport Operations data in July 2008, effectively overstating the decline in itinerant aircraft operations. Just under 25,000 overflights were subtracted in 2009, and without the change in data collection procedures VNY operations in 2009 would have been approximately 20,000 lower than 2008.

Recent Trends

Exhibit 5 shows VNY itinerant operations based on ATADS Airport Operations data on a month-over-month basis from July 2008 (when the FAA began excluding overflights) through December 2010.

Exhibit 5 – Monthly VNY Itinerant Operations

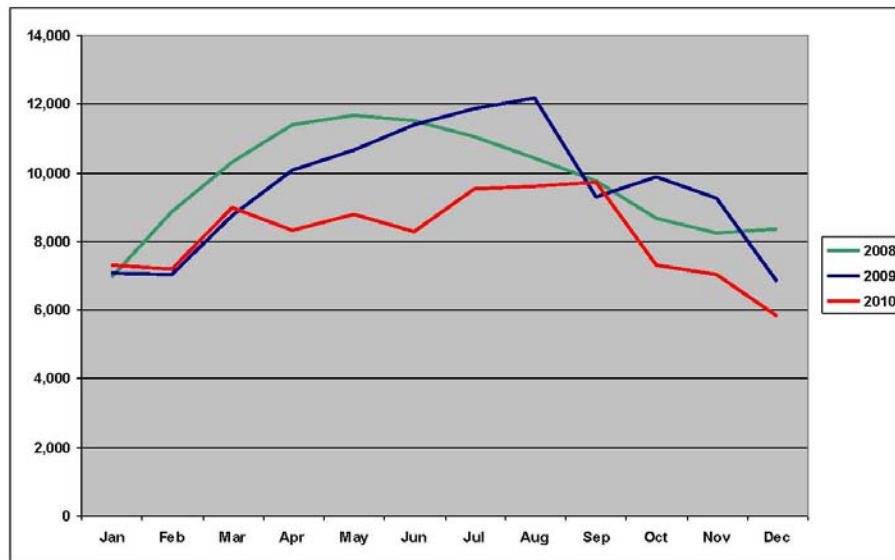


Source: FAA ATADS Airport Operations

Except for the normal December downturn, itinerant operations were flat during the second half of 2008, averaging 20,500 per month. Activity climbed in 2009 through August but fell sharply in September and remained below 2008 levels for the rest of 2009. 2010 activity tracked 2009 from January through March but the normal spring/summer peak did not materialize, and itinerant operations fell sharply in October. For the year, 2010 itinerant operations at VNY were 9.9% lower than in 2009.

Exhibit 6 shows VNY local operations on a month-over-month basis. Because the change in ATADS data collection procedures affects only itinerant operations, this chart includes all of 2008.

Exhibit 6 - Monthly VNY Local Operations



Source: FAA ATADS Airport Operations

Local operations at VNY generally follow a more seasonal pattern than itinerant operations, with the greatest number of flights taking place between March and August. Operations in 2008 and 2009 follow this pattern, although the increase in flights occurred later in 2009 and decreased more in December. In 2010 the usual spring-summer peak failed to take place, with monthly operations remaining below 10,000 through September, and October experienced the type of sharp decline in operations that usually takes place in December. For the year, 2010 VNY local operations were 14.4% lower than in 2009.

Forecast Approach

Aircraft operations forecasts for the VNY Noise Exposure Map (NEM) Update were prepared using a multi-step process. First, forecasts of annual local and itinerant operations by all types of aircraft were prepared using ATADS Airport Operations data as the base. As previously noted, this data excludes

fixed-wing aircraft overflights but includes helicopter overflights, and does not include operations that take place when the ATCT is closed.

Second, helicopter operations forecasts were prepared. This involved analyzing the ATCT daily logs of operations for the hours the ATCT is operated (06:00 to 22:45 daily) and the LAWA Operations Department curfew counts of operations that occur during the airport curfew period (22:45 to 6:59). Forecasts of annual VNY operations by all types of helicopters were prepared utilizing information developed for the prior noise studies, FAA forecasts, and other industry information. Forecasts of helicopter operations by helicopter type and time of day were based primarily on analysis conducted for the prior noise studies.

Third, fixed-wing aircraft operations were forecast by subtracting helicopter operations including overflights from the base year operations data, developing growth rates for itinerant and local operations based primarily on historical trends at VNY, FAA TAF and nationwide forecasts, and information developed for the prior noise studies. As with helicopters, forecasts of fixed-wing operations by aircraft type and time of day were based primarily on analysis conducted for the prior noise studies.

Helicopter Forecasts

Approach to Estimating Base Year Helicopter Operations

There are two sources of available data for estimating the level of helicopter activity at VNY in the base year. The FAA Air ATCT at Van Nuys keeps a daily log of itinerant or local operations. The ATCT helicopter counts are maintained for the period when the ATCT is operational, from 06:00 to 22:45 each day, and include transiting helicopters that neither take-off from nor land at VNY. The ATCT does not keep a separate count of transiting helicopters versus helicopters arriving and departing VNY. Instead the transiting helicopters are included in the itinerant counts. The study team was able to obtain the daily ATCT log sheets from January 1, 2009 through August 12, 2010.

The second data source is the report of curfew counts maintained by the LAWA Operations Department at VNY. The curfew counts include helicopter operations that land or depart from Van Nuys during the curfew hours of 22:45 to 6:59 with a separate break-out for the hours that the ATCT is closed (i.e., 22:45 to 5:59). The LAWA curfew counts include helicopter arrivals and departures, and do not include transiting helicopters. The study team was able to obtain LAWA's monthly curfew counts from January 2009 through July 2010.

The approach used to estimate arriving and departing helicopters for the Fiscal Year Ending (FYE) July 2010 was similar to the approach used in the prior noise studies. First, overflight activity was estimated



and subtracted from the ATCT Counts to estimate total arriving and departing helicopters for the 06:00-22:45 period. Next, night operations from the LAWA curfew counts for the period 22:45-5:59 are added to arrive at a 24-hour estimate of helicopters arriving and departing van Nuys.

Estimated Base Year Operations

The prior noise studies relied on helicopter count surveys conducted in 1991, 1995, 2005 and 2006 to estimate the number of transiting helicopters at Van Nuys. Based on these surveys, the prior noise studies assumed that 40% of the itinerant helicopter operations recorded by the ATCT from November to March and 20% of the ATCT's itinerant helicopter operations from April to October were transiting helicopters.

Exhibit 7 summarizes the estimation of arriving and departing helicopters at Van Nuys Airport for FYE July 2010. The FAA ATCT recorded 46,926 itinerant helicopter operations and 11,967 local helicopter operations at Van Nuys for the 12-month period. Of the itinerant operations, it is estimated that approximately 13,000 were transiting the airport. Overflights were estimated based on the same assumptions used in the prior noise studies, which relied on helicopter count surveys conducted in 1991, 1995, 2005 and 2006 to estimate the number of transiting helicopters at Van Nuys. Based on these surveys, it was assumed that 40% of the itinerant helicopter operations recorded by the ATCT from November to March and 20% of the ATCT's itinerant helicopter operations from April to October were transiting helicopters.

Exhibit 7 - Estimated Van Nuys 24-Hour Helicopter Operations for FYE July 2010

Operations	Months		Total	Source/Notes:
	Nov'09-Mar'10	Aug-Oct'09 Apr-Jul'10		
Itinerant				
FAA Tower (06:00-22:45)	18,151	28,775	46,926	FAA ATCT Daily Logs
Percent Overflights	40.0%	20.0%	27.7%	Van Nuys Noisy Aircraft Phaseout, Part 161
Est. Overflights	7,260	5,755	13,015	Percent overflights times FAA Tower counts
Est. Arriving/Departing (06:00-22:45)	10,891	23,020	33,911	FAA Tower Counts minus estimated overflights
Arriving/Departing (22:45-5:59)			1,594	LAWA Curfew Counts
Total Itinerant (24-hours)			35,505	Sum of FAA Tower Counts (excluding overflights) and LAWA Curfew Counts
Local				
FAA Tower (06:00-22:45)			11,967	FAA ATCT Daily Logs
Total Itinerant + Local (24 hours)			47,472	

Excluding the overflights, there were 33,911 itinerant helicopter operations at Van Nuys from 06:00 to 22:45 during FYE July 2010. Adding the LAWA Curfew Counts for 22:45 to 06:59 (1,594 operations) results in 35,505 arriving and departing helicopters for the FYE July 2010.

The FAA ATCT also recorded 11,967 local helicopter operations, for a total of 47,472 helicopter operations at Van Nuys in FYE July 2010.

Helicopter Operations Forecast

The project scope calls for a forecast of helicopter operations for the following years: 2010, 2011, 2015 and 2016. Operations for 2010 are estimated based on the actual change in ATCT operations for January to July 2010 compared to the same period in 2009. As shown in Exhibit 8, the helicopter operations recorded by the ATCT from January to July 2010 decreased by 21.5% over the same period in 2009. From March forward, the declines worsened each month, indicating that helicopter activity at Van Nuys has not yet begun to recover. The declines in helicopter activity are most likely related to the general state of the economy, which is characterized by high unemployment and weak economic growth. While certain sub-segments of the helicopter activity are less sensitive to economic decline than others, for example medical evacuation and fire fighting versus private pilot training, Van Nuys has experienced declines in both itinerant and local activity. However, local activity, which includes some pilot training operations, declined at a faster pace. For the same January to July 2010 period, itinerant activity declined by 18.1% and local activity fell by 33.8%.

Exhibit 8 - Percent Change in Helicopter Operations at Van Nuys over Prior Year



Note: Based on ATCT counts that include overflights and exclude operations conducted between 22:45 and 05:59.

Source: FAA, Van Nuys ATCT Daily Logs.

Estimated 2010 Helicopter Operations

As shown in Exhibit 9, applying the same percentage changes to itinerant and local operations for August to December 2009, results in an estimated 52,972 operations for CY 2010 (including overflights, but excluding operations from 22:45 to 05:59). The ratios of estimated CY 2010 ATCT operations to FY 2010 ATCT operations are 0.919 for itinerant activity and 0.825 for local activity.

Exhibit 9 - Estimated Helicopter Growth at Van Nuys, FY 2010 to CY 2010 Growth

Period	Helicopter Operations		
	Itinerant	Local	Total
Actual			
FYE July 2010	46,926	11,967	58,893
Jan-July '09	31,473	8,697	40,170
Jan-July '10	25,781	5,759	31,540
Percent Change	-18.1%	-33.8%	-21.5%
Aug-Dec '09	21,145	6,208	27,353
Estimated			
Aug-Dec '10 [1]	17,321	4,111	21,432
CY 2010 [2]	43,102	9,870	52,972
Growth Ratio			
CY 2010 vs. FY 2010	0.919	0.825	

Notes:
 [1] Actual Jan-July percent change times actual Aug-Dec '09 operations.
 [2] Actual Jan-July '10 plus estimated Aug-Dec '10 operations

Source: FAA, Van Nuys ATCT Daily Logs.

The growth ratios calculated from the ATCT counts were applied to the estimated helicopter operations for the FYE July 2010 base year (excluding overflights, but including operations conducted between 22:45 and 05:59) to estimate operations for CY 2010. The resulting projection for CY 2010 is 42,481 operations, as shown in Exhibit 10.

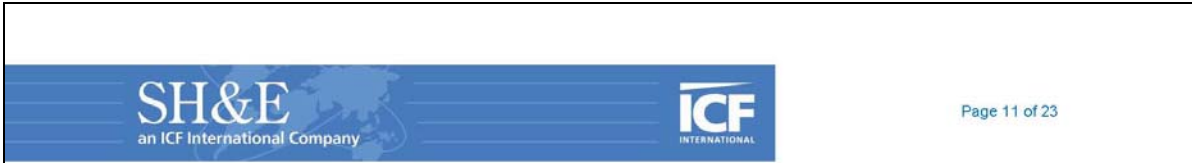


Exhibit 10- Estimated Van Nuys Helicopter Operations for CY 2010

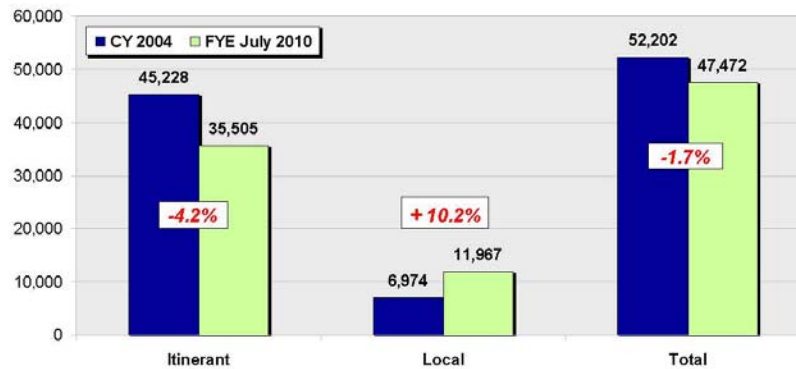
Year	Operations		
	Itinerant	Local	Total
FYE July 2010	35,505	11,967	47,472
Growth Factor	0.919	0.825	
Est. CY 2010	32,611	9,870	42,481

Notes:
 [1] Actual Jan-July percent change times actual Aug-Dec '09 operations.
 [2] Actual Jan-July '10 plus estimated Aug-Dec '10 operations.

Helicopter Operations Forecast for 2011, 2015 and 2016

Because of the lack of readily available data on annual helicopter operations at Van Nuys, it is difficult to analyze historic or recent growth trends. Compared to estimated CY 2004 operations, which was the base year for the prior noise studies, total helicopter operations at Van Nuys have declined by 1.7% per year., as shown in Exhibit 11. Itinerant operations grew 4.2% per year while local operations grew by 10.2% annually.

Exhibit 11 - Comparison of Van Nuys Helicopter Operations, CY 2004 and FYE July 2010



The number of helicopters based at Van Nuys declined from 63 in 2004 to 50 in 2006. Since 2006 the number of based helicopters has risen reaching 62 in 2008.

Exhibit 12 - Based Helicopters at Van Nuys, 2004 to 2008

Year	Based Helicopters	Percent Change
2000	62	-4.6%
2001	60	-3.2%
2002	64	6.7%
2003	70	9.4%
2004	63	-10.0%
2005	52	-17.5%
2006	50	-3.8%
2007	60	20.0%
2008	62	3.3%

Source: LAWA, Van Nuys Based Aircraft Inventory

Exhibit 13 shows actual and forecast helicopter activity for the U.S. as a whole. National helicopter activity, as measured by hours flown, declined in 2001 and 2002 as a result of 9/11 and the economic recession. U.S. helicopter activity rebounded and grew at double digit rates between 2003 and 2006. In 2007, as economic growth slowed, helicopter hours flown declined by 5.8% and the negative trend has persisted through 2009. The latest available FAA forecast predicts U.S. helicopter activity will grow by 1% in 2010. Between 2011 and 2016, the FAA projects helicopter hours to increase approximately 3.8% per year. The FAA forecast shows U.S. helicopter activity recovering to its pre-recession level in 2013.

Exhibit 13 - Actual and Forecast Helicopter Hours Flown in the U.S.

Year	Helicopter Hours (000)	Percent Change
Actual		
2000	2,191	
2001	1,952	-10.9%
2002	1,875	-3.9%
2003	2,135	13.9%
2004	2,534	18.7%
2005	3,116	23.0%
2006	3,446	10.6%
2007	3,245	-5.8%
2008	3,222	-0.7%
2009	3,065	-4.9%
Forecast		
2010	3,096	1.0%
2011	3,216	3.9%
2012	3,336	3.8%
2013	3,461	3.7%
2014	3,591	3.8%
2015	3,733	4.0%
2016	3,866	3.6%



Source: FAA, Aerospace Forecasts, FY 2009-FY 2025 and FY 2010-FY 2030.

Since ATCT Counts for Van Nuys indicate that helicopter operations have continued to decline through July 2010 (latest complete month of data) and the trend has worsened since the beginning of the year, activity at Van Nuys is forecast to recover more slowly than the FAA forecast for U.S. helicopter activity. Instead of a return to growth in 2010, as in the FAA national forecast, helicopter operations at Van Nuys are assumed to return to growth during 2011, increasing by 1% over 2010, as shown in Exhibit 14. In 2012, Van Nuys operations are forecast to grow at 0.8 times the forecast rate for the U.S., increasing by 3.0% over 2011. From 2012 to 2015, helicopter operations at Van Nuys are assumed to increase by 3.8% per year, the same rate as the U.S. helicopter market (forecast average annual growth from 2011 to 2015 is 3.6%). In 2016, Van Nuys is also forecast to grow at the same rate as the U.S., 3.6%.

Exhibit 14 –Van Nuys Helicopter Operations Forecast for 2011, 2015 and 2016

Year	Helicopter Operations	Forecast Growth Rate	Notes:
Actual			
FYE July 2010	47,472		
Forecast			
CY 2010	42,481	-	Estimated based on actual Jan-July 2010 operations
CY 2011	42,906	1.0%	Assumes gradual return to growth in 2011
CY 2015	49,453	3.6%	Assumes slightly slower recovery than FAA forecast (0.8 times FAA growth for 2012 and FAA growth for 2013-2015)
CY 2016	51,373	3.9%	Based on FAA Forecast growth for 2015-2016

Note: Includes itinerant and local operations.

By 2014, forecast helicopter operations at Van Nuys return to the base year level of 47,000. Total helicopter activity is forecast to reach 49,000 in 2015 and 51,000 in 2016.



Operations Forecast by INM Type

The forecast of helicopter operations by aircraft type is based on the fleet mix used in the prior noise studies. The assumed fleet mix is held constant over the forecast period. Exhibit 15 presents annual helicopter operations by INM type for the base year and forecast years.

Exhibit 15 – Forecast Annual Van Nuys Helicopter Operations by INM Type

INM Type	Percent of Total	Forecast Annual Helicopter Operations			
		2010	2011	2015	2016
A109	1.9%	811	820	945	981
B206L	22.0%	9,345	9,439	10,879	11,302
B212	0.1%	27	27	31	32
B222	0.1%	49	49	57	59
BO105	6.6%	2,783	2,811	3,240	3,366
CH47D	0.1%	26	26	30	32
EC130	0.2%	94	95	110	114
H500D	1.8%	758	766	883	917
SC300C	6.6%	2,815	2,843	3,277	3,404
R22	10.9%	4,622	4,668	5,381	5,590
S65	0.2%	100	101	117	121
S76	3.5%	1,481	1,496	1,724	1,791
SA330J	0.0%	7	7	8	9
SA341G	1.0%	411	415	479	497
B407	1.1%	466	471	543	564
R44	5.1%	2,166	2,188	2,521	2,619
SA350D	36.1%	15,338	15,492	17,856	18,549
SA355F	2.8%	1,179	1,191	1,372	1,426
Total		42,481	42,906	49,453	51,373

Note: Includes itinerant and local operations.

Operations Forecast by Time of Day

The distribution of helicopter operations by time of day is assumed to be the same as in the prior noise studies. The Day / Evening / Night distribution for helicopter arrivals was estimated at 82.9% / 9.3% / 7.8%. For departures the distribution was estimated at 80.4% / 12.2% / 7.4%. Assuming a balanced flow of arrivals and departures the overall temporal distribution for forecast helicopter operations is: 81.6% / 10.8% / 7.6%. Annual operations by time period are summarized in Exhibit 16.

Exhibit 16 – Forecast of Annual Van Nuys Helicopter Operations by Time-of-Day

Year	Forecast Annual Helicopter Operations			Total
	Day	Evening	Night	
2010	34,679	4,574	3,228	42,481
2011	35,026	4,620	3,260	42,906
2015	40,370	5,325	3,757	49,453
2016	41,938	5,532	3,903	51,373

Note: Includes itinerant and local operations.

Fixed-Wing Aircraft Forecasts

Total Aircraft Operations Forecasts

Exhibit 17 shows the unadjusted forecast of total annual aircraft operations at VNY. Historical values for 2004 through 2010 are based on ATADS Airport Operations data which show that total aircraft operations at VNY fell by almost 40,00 from 2009 to 2010.

Exhibit 17 – Unadjusted Forecast of Total Aircraft Operations at VNY

	Itinerant	Local	Total
2004	313,942	134,760	448,702
2005	296,035	115,282	411,317
2006	282,999	111,916	394,915
2007	264,949	109,515	374,464
2008	269,721	116,985	386,706
2009	237,038	114,195	351,233
2010	213,545	97,766	311,311
2011	215,680	97,766	313,446
2012	219,994	97,766	317,760
2013	224,394	97,766	322,160
2014	228,882	97,766	326,648
2015	233,459	97,766	331,225
2016	238,129	97,766	335,895
Average Annual Growth Rate			
2004-2009	-5.5%	-3.3%	-4.8%
2009-2010	-9.9%	-14.4%	-11.4%
2010-2016	1.8%	0.0%	1.3%

Source: FAA ATADS, SH&E analysis

As noted earlier, ATADS Airport Operations data do not include fixed-wing overflights but continue to include helicopter overflights, and ATADS also does not include operations that take place when the ATCT is closed. The values shown in Exhibit 17 do not include adjustments to correct for these factors.

Exhibit 18 compares the unadjusted Noise Exposure Map Update forecast to the 2010 FAA Terminal Area Forecast (TAF) for VNY. Historical values for the two series differ because the NEM forecast is based on calendar year data while the TAF is based on data for fiscal years ending in September. From 2004 through 2010 the two series track closely, although the NEM forecast drops more sharply in 2010 than the TAF because of the decline in fourth quarter operations at VNY. The NEM forecast calls for a slight recovery with 0.7% growth in 2011 while the TAF calls for operations to continue falling in 2011, and the NEM calls for slightly faster growth than the TAF from 2011 to 2016.

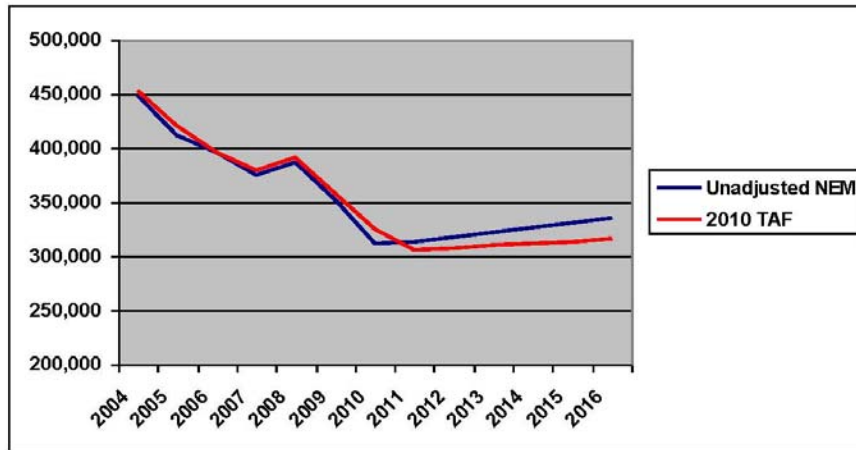
Exhibit 18 – Comparison of Unadjusted NEM Forecast for VNY to the 2010 TAF

	Unadjusted NEM	TAF	% Difference
2004	448,702	453,496	-1.1%
2005	411,317	420,984	-2.3%
2006	394,915	395,243	-0.1%
2007	374,464	379,405	-1.3%
2008	386,706	390,576	-1.0%
2009	351,233	356,697	-1.5%
2010	311,311	324,338	-4.0%
2011	313,446	305,524	2.6%
2012	317,760	307,534	3.3%
2013	322,160	309,562	4.1%
2014	326,648	311,605	4.8%
2015	331,225	313,667	5.6%
2016	335,895	315,745	6.4%
Average Annual Growth Rate			
2004-2009	-4.8%	-4.7%	
2009-2010	-11.4%	-9.1%	
2010-2011	0.7%	-5.8%	
2011-2016	1.4%	0.7%	

Source: SH&E analysis, FAA 2010 Terminal Area Forecast

Exhibit 19 presents the same comparison graphically. The 2010 TAF calls for a continued decline in operations in 2011 and very little growth in operations through 2016. The unadjusted NEM forecast calls for a modest recovery beginning in 2011. Under both forecasts annual operations at VNY will remain lower than recent levels throughout the forecast period.

Exhibit 19 - Comparison of Unadjusted NEM Forecast for VNY to the 2010 TAF



Source: SH&E analysis, FAA 2010 Terminal Area Forecast

Adjusted Fixed-Wing Operations Forecast

Exhibit 20 shows the adjusted itinerant fixed-wing operations forecast. Information developed during the VNY Noisy Aircraft Phaseout and Part 161 studies indicates that ATADS Airport Operations data include approximately 13,000 helicopter overflights per year. These operations are subtracted from the unadjusted operations forecast. Airport staff also keeps a count of operations during the curfew period from 2245 to 0659, and these operations are added to the unadjusted forecast. However, operations that take place between 0600 and 0659 are also included in the ATCT reports that ultimately form the basis of ATADS data, so operations from 0600 to 0659 are subtracted to avoid double counting. Taking these corrections into account, the total number of itinerant operations in 2010 by all types of aircraft including helicopters has been adjusted from 213,545 to 204,266, and comparable adjustments have been made for 2011, 2015 and 2016.

Exhibit 20 – Adjusted Annual Itinerant Fixed-Wing Operations Forecast

	2010	2011	2015	2016
Unadjusted	213,545	215,680	233,459	238,129
Total Helo	42,481	42,906	49,453	51,373
Itinerant Helo (74.8% of Total)	(31,772)	(32,090)	(36,987)	(38,423)
Helo Overflights	(13,015)	(13,015)	(13,015)	(13,015)
Curfew count	5,604	5,642	5,962	6,046
minus 0600-0659 ops	(1,868)	(1,881)	(1,987)	(2,015)
Total Curfew Adjustment	3,736	3,761	3,975	4,031
Total Itinerant Fixed-Wing	172,494	174,337	187,433	190,721

Source: SH&E analysis

Analysis of helicopter operations found that itinerant operations account for 74.8% of total helicopter operations. After subtracting 31,772 itinerant helicopter operations and adjusting for helicopter overflights and operations when the ATCT is closed, VNY had an estimated 172,494 itinerant fixed wing aircraft operations in 2010, projected to increase to 190,721 annual operations by 2016.

Exhibit 21 shows the NEM forecast for local fixed-wing operations. Because overflights are not an issue with local flight data and airport regulations prohibit touch-and-go training operations at night, the types of adjustments mad to the itinerant operations data are not necessary for local operations.

Exhibit 21 – Annual Local Fixed-Wing Operations Forecast

	2010	2011	2015	2016
Unadjusted	97,766	97,766	97,766	97,766
Total Helo	42,481	42,906	49,453	51,373
Local Helo (25.2% of Total)	(10,709)	(10,816)	(12,466)	(12,950)
Total Local Fixed -Wing	87,057	86,950	85,300	84,816
Touch & Go	83,575	83,472	81,888	81,423
Other Local Fixed -Wing	3,482	3,478	3,412	3,393

Source: SH&E analysis

Total local operations by all types of aircraft are projected to remain constant at just under 100,000 per year throughout the forecast period. With total helicopter operations projected to grow and the local share of helicopter operations remaining constant, local helicopter operations grow from 10,700 in 2010 to 12,950 in 2016. Local fixed-wing operations decline from approximately 87,000 in 2010 to just under 85,000 in 2016. Touch-and-go training operations account for 96% of the total local fixed-wing operations.

Fixed-Wing Operations Forecast by INM Type

Exhibit 22 shows the fixed-wing operations forecast by INM type. The shares by type are based on the analysis conducted for the VNY Noisy Aircraft Phascout study.

Exhibit 22 – VNY Fixed-Wing Operations Forecast by INM Type

INM Acft ID	2010 Share	2010	2011	2015	2016
BEC58P	50.6%	131,247	132,129	125,398	126,746
GASEPF	9.7%	25,110	25,079	24,601	24,461
LEAR35	7.1%	18,521	18,714	26,070	26,559
GASEPV	6.4%	16,669	16,649	16,336	16,245
DHC6	5.6%	14,466	14,617	13,670	13,926
GIV	3.2%	8,297	8,384	12,385	12,617
CNA441	2.5%	6,487	6,554	6,129	6,244
MU3001	2.3%	6,030	6,093	7,873	8,021
CL600	1.7%	4,381	4,427	6,471	6,592
CNA500	1.2%	3,164	3,197	4,131	4,209
CNA750	1.2%	3,131	3,164	4,557	4,643
PA31	1.0%	2,539	2,565	2,409	2,454
GV	0.9%	2,445	2,471	3,650	3,718
IA1125	0.8%	2,182	2,205	3,176	3,235
CNA55B	0.8%	2,065	2,087	3,006	3,062
GIIB	0.5%	1,284	1,297	108	0
1900D	0.5%	1,254	1,267	1,185	1,207
LEAR25	0.4%	1,121	1,133	663	675
FAL50	0.4%	1,027	1,037	1,494	1,522
GII	0.4%	959	969	108	0
CNA208	0.3%	888	898	839	855
737700	0.3%	875	884	1,306	1,331
PA30	0.3%	714	721	677	690
FAL900	0.3%	681	688	1,017	1,036
CIT3	0.3%	653	660	951	969
SD330	0.2%	648	654	612	623
All Other	1.0%	2,713	2,742	3,909	3,897
Total	100.0%	259,551	261,287	272,732	275,537

Source: SH&E analysis

INM type BEC58P, twin-engine piston aircraft including Cessna 414, Piper Aztec, and Beech Queen Air aircraft, account for the largest share of fixed-wing operations, while single-engine piston aircraft represented by types GASEPF and GASEPV also account for large number of operations. INM type Lear35 which includes Learjet 30 - 60 Series and Falcon 200/10 aircraft accounts for the largest number of business jet operations at VNY. INM type GIIB and GII aircraft operations are phased out by 2016 at VNY under the terms of the Noisy Aircraft Phaseout regulations.

Fixed-Wing Operations Forecast by Time of Day

Exhibit 23 shows the fixed-wing operations forecast by time of day. Like the shares of operations by aircraft types, the time of day forecast is based on analysis conducted for the VNY Noisy Aircraft Phaseout and Part 161 studies.

Exhibit 23 – Average Daily Fixed-Wing Operations by Time of Day

	Arrivals			Departures			Total
	Day	Evening	Night	Day	Evening	Night	
2010	309	36	11	325	22	9	711
2011	311	36	11	327	22	9	716
2015	321	38	15	339	23	12	747
2016	323	39	15	341	23	12	753

Source: SH&E analysis

Average daily fixed-wing operations are projected to increase from 711 in 2010 to 753 in 2016. The number of night arrivals is expected to increase from 11 per day in 2010 to 15 per day in 2016. Night departures are expected to remain at low levels, increasing from 9 per day in 2010 to 12 per day by 2016.

Comparison of Adjusted NEM Study Year Forecast to the December 2010 TAF

The VNY Part 150 NEM update will use 2011 and 2016 for its study years. Exhibit 24 shows the comparison between the forecast after adjustments to compensate for helicopter overflights and operations taking place when the control ATCT is closed to the December 2010 FAA Terminal Area Forecast for VNY.

Exhibit 24 – Comparison of Adjusted NEM Forecast for VNY to the 2010 TAF

	Adjusted NEM Forecast	2010 TAF	%Difference
2011	304,193	305,524	-0.4%
2016	326,910	315,745	3.5%

Source: SH&E analysis

After accounting for differences between the ATADS airport operations data used as the basis for the TAF and actual operations at VNY, the VNY NEM and TAF forecasts for 2011 are nearly identical. For 2016, the NEM forecast values are slightly higher than the TAF forecast but the differences between the two forecasts do not appear to be significant.

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