US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
CHALN (IF)	ZARID (FB)	314.27 / 6.00	1700
ZARID (FAF)	RW31 (MAP) (FO)	314.20 / 4.99	
RW31 (MAP)	700 MSL	314.20	700
700 MSL	CEPOG (FO)		2000

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW31

CLIMB TO 700 THEN CLIMBING RIGHT TURN TO 2000 DIRECT CEPOG AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT CHALN
3. FAC: 314.20 FAF: ZARID DIST FAF TO MAP: 4.99 THLD: 4.99
4. MIN. ALT: CHALN 2000, ZARID 1700
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1700 GS ALT AT: ZARID 1700 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.10 TCH: 50.0 34:1 IS NOT CLEAR
8. MSA FROM: RW31 2600

ADDITIONAL FLIGHT DATA:
HOLD SW, RT, 044.00 INBOUND.
CHART FAS OBST: 380 BLDG 404410N/0734828W
CHART FAS OBST: 214 BLDG 404526N/0735003W
DISTANCE TO THLD FROM 323 HATH: 0.83 NM.
WAAS CHANNEL # 48928
REFERENCE PATH ID: W31A
LTP HAE: -29.4 M

MAG VAR: 12W EPOCH YEAR: 1980

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT ALTERNATE: N A STANDARD @

CATEGORY =====>	A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	330	5000	323	330	5000	323	330	5000	323	330	5000	323			
LNAV/VNAV DA	567	1 7/8	560	567	1 7/8	560	567	1 7/8	560	567	1 7/8	560			
LNAV MDA	640	5500	633	640	5500	633	640	1 3/4	633	640	1 3/4	633			
CIRCLING	640	1	619	640	1	619	640	1 3/4	619	700	2 1/4	679			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -11C (13F) OR ABOVE 33C (91F). @ CAT D 800-2 1/4
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PLANVIEW NOTE: RADAR REQUIRED.
(SEE FORM 8260-10)

QUALITY CHECKED 4

CITY AND STATE	ELEVATION: 21 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
NEW YORK, NY	AIRPORT NAME: LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AMDT: 1
				DATED 07/26/2012

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		**ROUTINE**

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[X]	[ ]	[X]	[X]	[X]	[X]	[X] **ZNY, N90, LGA ATCT, APT MGR**

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: **MARLON J. ROBINSON**	FIFO **AJV-352**	DATE: **07/24/2012**
APPROVED BY		
NAME: **DARRYEL ADAMS** **MANAGER**	FIFO **AJV-352**	DATE:

CHANGES:

1. CHANGED MINIMUM ALTITUDE FROM CHALN TO ZARID FROM 1800 TO 1700 IN TERMINAL ROUTE AND LINE 4 IN PROFILE.

REASONS:

1. 1800 WAS NOT THE CORRECT ALTITUDE.

QUALITY 4 CHECKED

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NOTES, (CONT.):
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART PLANVIEW NOTE AT CEPOG: LIMIT MISSED APPROACH TO 220 KIAS.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 21 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
NEW YORK, NY	AIRPORT NAME: LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AMDT: 1
				DATED: 07/26/2012

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KLGA
RUNWAY	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	404619.4570N
LTP/FTP LONGITUDE	0735125.6015W
LTP/FTP ELLIPSOIDAL HEIGHT	-00294
FPAP LATITUDE	404706.8800N
FPAP LONGITUDE	0735304.9200W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.10
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0616
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	6FF3EB4E

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00020
FPAP ORTHOMETRIC HEIGHT	+00020

QUALITY CHECKED

CITY AND STATE	ELEVATION: 21 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
NEW YORK, NY	AIRPORT NAME: LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AMDT: 1
				DATED: 07/26/2012

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CEPOG K60    W     N40533604W073465650                      W0132     NAR           CEPOG
        SUSAEAENRT   CHALN K60    W     N40402779W073391177                      W0132     NAR           CHALN
        SUSAEAENRT   ZARID K60    W     N40433984W073455191                      W0132     NAR           ZARID

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLGAK6ALGA     0     070YHN40463810W073522140W012000021         1800018000C    MNAR    LA GUARDIA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLGAK6FR31   R      010CHALNK6EA0E  I    IF                                  + 02000     18000                  A JS
        SUSAP KLGAK6FR31   R      020ZARIDK6EA1E  F 051TF                      31430060    + 01700                  RW31  K6PGA JS
        SUSAP KLGAK6FR31   R      020ZARIDK6EA2WALPV       ALNAV/VNAV ALNAV                                                     JS
        SUSAP KLGAK6FR31   R      030RW31 K6PG0GY M 031TF                      31420050      00057              -310          A JS
        SUSAP KLGAK6FR31   R      040         0  M     CA                      3142        + 00700                            A JS
        SUSAP KLGAK6FR31   R      050CEPOGK6EA0EY  R   DF                                  + 02000          220               A-JS
        SUSAP KLGAK6FR31   R      060CEPOGK6EA0EE  R   HM                      04400040    + 02000                            A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLGAK6GRW31    0070033141 N40461946W073512560+0100    -0029400007000050150R

                 1         2         3         4         5         6         7         8         9         0         1         2         3
PP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLGAK6PR31   RW31 001 0000W31A0N4046194570W07351256015-002940310N4047068800W07353049200106750616000500F4005006FF3EB4E
        SUSAP KLGAK6PR31   RW31 002E      +00020+00020LPV       48928

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLGAK6SRW31 K6PG                0   18018002625                                                                    M
```

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 21 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
NEW YORK, NY	AIRPORT NAME: LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AMDT: 1
				DATED: 07/26/2012

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		CHALN	010	FACF	IF		FB				AA 02000	
		ZARID	020	FAF	TF		FB	0.5	314.3(302.3T)	006.0	AA 01700	
		RW31	030	MAP	TF		FO	0.3	314.2(302.2T)	005.0	AT 00057	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		314.2(302.2T)		AA 00700	
	CEPOG	050		DF	R	FO				AA 02000	AB 220
	CEPOG	060		HM	R	FO		044.0(032.0T)	004.0	AA 02000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CEPOG	N405336.04	W0734656.50	N4053.601	W07346.942
	CHALN	N404027.79	W0733911.77	N4040.463	W07339.196
	ZARID	N404339.84	W0734551.91	N4043.664	W07345.865
	RW31	N404619.46	W0735125.60	N4046.324	W07351.427

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW31	00007	50

QUALITY 4 CHECKED

CITY AND STATE	ELEVATION: 21 THRE: 7	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
NEW YORK, NY	AIRPORT NAME: LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AMDT: 1
				DATED: 07/26/2012

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
INTERMEDIATE	CHALN	ZARID	1. AAO	404427.00N/0734436.00W	427 (4E)	500	AC98	1100
			2. TERRAIN	404427.00N/0734436.00W	227 (200)		AS1500	1700
FINAL: LPV	ZARID	RW31	3. STACK (36-002308)	404608.76N/0735051.19W	103 (5D)	32.90:1	AC50	330/323
FINAL: LNAV/VNAV	ZARID	RW31	4. BLDG (36-020566)	404526.01N/0735003.27W	214 (4D)	19.58:1	AC50	567/560
FINAL: LNAV	ZARID	RW31	5. BLDG (36-000388)	404410.00N/0734828.00W	380 (3C)	250	SA-9	640
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA / RW31	CEPOG				ASC		2000
			6. BLDG (36-020555)	405444.50N/0734653.30W	561 (5E)	1000		1600
ELEV:	108/406/540		7. TERRAIN	405245.00N/0735054.00W	170 (200)		AS1500	1700

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL		OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
CATEGORY A	1.3 NM	350	619		8. STACK (36-002467)	404652.42N/0735346.91W	282 (5D)	300	AC50	640
CATEGORY B	1.5 NM	450	619		8. STACK (36-002467)	404652.42N/0735346.91W	282 (5D)	300	AC50	640
CATEGORY C	1.7 NM	450	619		9. PLANT (36-000602)	404715.56N/0735444.59W	312 (1A)	300	SI	640
CATEGORY D	2.3 NM	550	679		10. BRIDGE (36-000233)	404817.43N/0734954.09W	383 (1A)	300		700
CATEGORY E	4.5 NM	550								

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW31

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (36-000290)	352/ 28.8	1564 (1A)	2600					

QUALITY CHECKED 4

CITY AND STATE	ELEVATION: 21 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
NEW YORK, NY	LA GUARDIA	RNAV	RNAV (GPS) RWY 31, AMDT 1A	AEA

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
NYC APP CON LGA TOWER SATISFACTORY ON:	N W S / F A A / A / C — OTHER: ASOS	SOURCE: KLGA DISTANCE: HOURS REMOTE OPERATION:
X V H F X U H F H F	LOCATION: KLGA	ADJUSTMENT: 0

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3
5. APPROACH & RUNWAY LIGHTING	X	ALSF-1 22
		(S) SALS
	X	MALSR 13, 04
	X	HIRL 31, 13, 22, 04
		MIRL
	X	REIL 31, 13, 22
	X	TDZ 13, 22
	X	C/L 31, 13, 22, 04
	X	OTHER (SPECIFY) PAPI-4R 31, 22, 04 PAPI-4L 13
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 31, 13, 22, 04
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	31, 13, 22, 04
	MIDFIELD	
	ROLL OUT	31, 13, 22, 04
8. GLIDE PATH	GP ANGLE: 3.10	ELEV RWY THRESHOLD: 6.7
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 50.0
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD — FT. FROM THRESHOLD
	X	ON CENTERLINE — FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: MARLON J. ROBINSON	DATE: 07/24/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

ISA DEVIATION USED: -11C (13F)

VDP NOT ESTABLISHED - OBSTACLES PENETRATE 20:1.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BLOCK 3: ALTIMETER SETTING
SOURCE: KLGA (REDUNDANT SOURCES)
ASOS IS ON SERVICE A AND ATIS.

VGSI DATA: 70/3.00

AVERAGE LOW TEMPERATURE BASED ON 5-YEAR HISTORY (2006-2010)

SEE ATTACHED AIRSPACE LETTER.

TAA NOT DEVELOPED PER EFPT/ATC.

INTERMEDIATE ONLY WITH RADAR REQUIRED PER ATC REQUEST.

REQUEST FLIGHT CHECK VERIFICATION OF OBSTACLE NUMBER 4, 214 BLDG (36-020566).

LPV SFC 32.903:1
VNAV SFC 19.58:1

TERPS VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS
R31 20:1
19 NAVAID (36-022763) 404617.39N/0735121.28W (2.67) *L
21 FENCE (36-022762) 404620.88N/0735121.07W (18.83) *L
34:1
97 BLDG (36-002451) 404603.99N/0735049.01W (1.80)
103 STACK (36-002308) 404608.76N/0735051.19W (19.81)

MISSED APPROACH RESTRICTIONS: RESTRICTIONS ARE IN PLACE TO ALLOW CONSTRUCTION TO THE EFPT/ATC COORDINATED MISSED APPROACH CLEARANCE LIMIT. WITHOUT RESTRICTIONS IN PLACE, MISSED APPROACH CATEGORY D GEOMETRY CAN NOT BE ACCOMPLISHED.
SPEED-220 KIAS
BA-25 DEGREES

QUALITY CHECKED