US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - 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
FDRKO (IAF)	SHREC (TF) (FB) (RNP 1.00)	249.93 / 6.06	5000
SUTRR (IAF)	JVEEE (TF) (FB) (RNP 1.00)	302.43 / 3.14	6000
JVEEE	ZUMLA (TF) (FB) (RNP 1.00)	302.40 / 3.14	5000
TEEBE (IAF)	BUSSO (TF) (FB) (RNP 1.00)	348.91 / 12.81	5000
SHREC (IF)	HUGBA (TF) (FB) (RNP 1.00)	243.16 / 5.40	3900
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 3000 DIRECT HULSO AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT RSCAL
3. FAC: 302.24 FAF: ____ DIST FAF TO MAP: 5.30 THLD: ____
4. MIN. ALT: RSCAL 2700, UCITY 2300
5. DIST TO THLD FROM OM: 5.30 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2300 GS ALT AT: UCITY 2300 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 55.7# 34:1 IS NOT CLEAR
8. MSA FROM: RW29 3000

ADDITIONAL FLIGHT DATA:
HOLD W, LT, 100.00 INBOUND.
CHART FAS OBST: 774 ATCT 384436N/0902158W
CHART FAS OBST: 724 ATCT 384439N/0902218W
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
DISTANCE TO THLD FROM 383 HATH: 1.03 NM.
CHART MINIMUM 5000 AT JYAAR.
CHART MINIMUM 5000 AT PEJAA.
CHART MINIMUM 7000 AT SUTRR.
CHART MINIMUM 8000 AT TEEBE AND MAXIMUM 9000 AT TEEBE.
CHART MINIMUM 6000 AT FDRKO AND MAXIMUM 7000 AT FDRKO.
#TCH 611.7 (DO NOT CHART)
CHART LOC RWY 30L AND 30R.

MAG VAR: 0E EPOCH YEAR: 2000

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
AUTHORIZATION REQUIRED															
RNP 0.12 DA	939	5000	383	939	5000	383	939	5000	383	939	5000	383			
RNP 0.17 DA	1011	5000	455	1011	5000	455	1011	5000	455	1011	5000	455			
RNP 0.30 DA	1064	6000	508	1064	6000	508	1064	6000	508	1064	6000	508			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -16C (3F) OR ABOVE 54C (130F).
CHART NOTE: FOR INOPERATIVE ALSF, INCREASE RNP 0.12 ALL CATS VISIBILITY TO RVR 6000, INCREASE RNP 0.17 ALL CATS VISIBILITY TO 1 1/2, AND INCREASE RNP 0.30 ALL CATS VISIBILITY TO 1 3/4.
CHART NOTE: GPS REQUIRED.
(SEE FORM 8260-10)

CITY AND STATE	ELEVATION: 618 THRE: 556 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
ST LOUIS, MO	LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	AMDT: NONE
				DATED

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] **ZKC, STL APP CON, STL ATCT, AMGR**

FLIGHT CHECKED BY

NAME:	FIFO	DATE:

DEVELOPED BY

NAME:	FIFO	DATE:
JON DENTON	**AJV-353**	**05/04/2012**

APPROVED BY

NAME:		FIFO	DATE:
LARRY H STROUT	**MANAGER**	**AJV-353**	

CHANGES:

ORIGINAL.

REASONS:

FPT REQUESTED.

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
ZUMLA (IF)	HUGBA (TF) (FB) (RNP 1.00)	302.36 / 4.37	3900
BUSSO (IF)	HUGBA (TF) (FB) (RNP 1.00)	345.63 / 4.44	3900
HUGBA	WEVRR (TF) (FB) (RNP 1.00)	302.30 / 4.28	3000
JYAAR (IF)	DOBLZ (TF) (FB) (RNP 1.00)	122.48 / 3.00	5000
DOBLZ	WEVRR (RF) (FB) (RNP 1.00)	(2.86 NM RADIUS CW (CFPTV) / 8.98	3000
WEVRR	RSCAL (TF) (FB) (RNP 1.00)	302.36 / 1.02	2700
PEJAA (IF)	DMOTO (TF) (FB) (RNP 1.00)	122.19 / 3.01	5000
DMOTO	VERML (RF) (FB) (RNP 1.00)	(2.60 NM RADIUS CCW (CFPTT) / 4.50	3700
VERML	RSCAL (RF) (FB) (RNP 1.00)	(2.60 NM RADIUS CCW (CFPTT) / 3.68	2700
RSCAL	UCITY (TF) (FB) (RNP 1.00)	302.20 / 1.21	2300
UCITY (FAF)	RW29 (MAP) (TF) (FO)	302.24 / 5.30	
RW29 (MAP)	1100 MSL (CA)	302.24	1100
1100 MSL	HULSO (DF) (FO)		3000

NOTES, (CONT.):

CHART PLANVIEW NOTE AT JYAAR : MAX 210 KIAS.
CHART PLANVIEW NOTE AT PEJAA : MAX 210 KIAS.
CHART PLANVIEW NOTE: RADAR REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO JYAAR IF: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO PEJAA IF: RF REQUIRED.

CITY AND STATE	ELEVATION: 618 THRE: 556 / AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
ST LOUIS, MO	LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	AMDT: NONE
				DATED:

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

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:

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, - TITLE 14 CFR PART 97.33

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CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 30L/R.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 618 THRE: 556	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
ST LOUIS, MO	AIRPORT NAME: LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	AMDT: NONE
				DATED:

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

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:

QUALITY CHECKED

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ARINC PACKET - 424-18 - RNAV (RNP)

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                1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BUSSO K50    W     N38341156W090084952                          W0011     NAR           BUSSO
        SUSAEAENRT   CFPTT K30    W     N38390796W090174341                          W0010     NAR           CNF(CFPTT)
        SUSAEAENRT   CFPTV K30    W     N38431245W090125405                          W0011     NAR           CNF(CFPTV)
        SUSAEAENRT   DMOTO K30    W     N38365584W090192962                          W0010     NAR           DMOTO
        SUSAEAENRT   DOBLZ K30    W     N38453725W090105624                          W0011     NAR           DOBLZ
        SUSAEAENRT   FDRKO K50    W     N38430178W089564880                          W0013     NAR           FDRKO
        SUSAEAENRT   HUGBA K50    C     N38383001W090101393                          W0011     NAR           HUGBA
        SUSAEAENRT   HULSO K30    C     N38475501W090414877                          W0007     NAR           HULSO
        SUSAEAENRT   JVEEE K50    W     N38342877W090020864                          W0012     NAR           JVEEE
        SUSAEAENRT   JYAAR K30    W     N38471404W090141033                          W0011     NAR           JYAAR
        SUSAEAENRT   PEJAA K30    W     N38383210W090224445                          W0010     NAR           PEJAA
        SUSAEAENRT   RSCAL K30    W     N38412014W090155726                          W0011     NAR           RSCAL
        SUSAEAENRT   SHREC K50    W     N38405671W090040475                          W0012     NAR           SHREC
        SUSAEAENRT   SUTRR K50    W     N38324767W089584587                          W0013     NAR           SUTRR
        SUSAEAENRT   TEEBE K50    W     N38213662W090054100                          W0012     NAR           TEEBE
        SUSAEAENRT   UCITY K30    W     N38415875W090171550                          W0010     NAR           UCITY
        SUSAEAENRT   VERML K30    W     N38380643W090144035                          W0011     NAR           VERML
        SUSAEAENRT   WEVRR K30    W     N38404742W090145137                          W0011     NAR           WEVRR
        SUSAEAENRT   ZUMLA K50    C     N38360977W090053156                          W0012     NAR           ZUMLA

                1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3ASTL     0     110YHN38445531W090221210E000000618          1800018000C    MNAR    LAMBERT-ST LOUIS INTL

                1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3FH29-Z AFDRKO 010FDRKOK5EA0E  A    IF                                   B 070000600018000                A FS
        SUSAP KSTLK3FH29-Z AFDRKO 020SHRECK5EA0E  B 010TF                                   + 05000                          A FS
        SUSAP KSTLK3FH29-Z AFDRKO 030HUGBAK5EA0E    010TF                                   + 03900                          A FS
        SUSAP KSTLK3FH29-Z AFDRKO 040WEVRRK3EA0E    010TF                                   + 03000                          A FS
        SUSAP KSTLK3FH29-Z AFDRKO 050RSCALK3EA0EE   010TF                                   + 02700                          A FS
        SUSAP KSTLK3FH29-Z AJYAAR 010JYAARK3EA0E  B    IF                                   + 05000     18000210             A-FS
        SUSAP KSTLK3FH29-Z AJYAAR 020DOBLZK3EA0E    010TF                                   + 05000                          A FS
        SUSAP KSTLK3FH29-Z AJYAAR 030WEVRRK3EA0E   R010RF       0028601225     30240090    + 03000                CFPTV K3EAA FS
        SUSAP KSTLK3FH29-Z AJYAAR 040RSCALK3EA0EE   010TF                                   + 02700                          A FS
        SUSAP KSTLK3FH29-Z APEJAA 010PEJAAK3EA0E  B    IF                                   + 05000     18000210             A-FS
        SUSAP KSTLK3FH29-Z APEJAA 020DMOTOK3EA0E    010TF                                   + 05000                          A FS
        SUSAP KSTLK3FH29-Z APEJAA 030VERMLK3EA0E   L010RF       0026001222     02320045    + 03700                CFPTT K3EAA FS
        SUSAP KSTLK3FH29-Z APEJAA 040RSCALK3EA0EE  L010RF       0026000232     30220037    + 02700                CFPTT K3EAA FS
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CITY AND STATE	ELEVATION: **618** **THRE: 556**	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
ST LOUIS, MO	AIRPORT NAME: **LAMBERT-ST LOUIS INTL**	**RNAV**	**RNAV (RNP) Z RWY 29, ORIG**	AMDT: **NONE**
				DATED:

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

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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```
SUSAP KSTLK3FH29-Z ASUTRR 010SUTRRK5EA0E  A    IF                                  + 07000     18000                A FS
SUSAP KSTLK3FH29-Z ASUTRR 020JVEEEK5EA0E    010TF                                  + 06000                          A FS
SUSAP KSTLK3FH29-Z ASUTRR 030ZUMLAK5EA0E  B 010TF                                  + 05000                          A FS
SUSAP KSTLK3FH29-Z ASUTRR 040HUGBAK5EA0E    010TF                                  + 03900                          A FS
SUSAP KSTLK3FH29-Z ASUTRR 050WEVRRK3EA0E    010TF                                  + 03000                          A FS
SUSAP KSTLK3FH29-Z ASUTRR 060RSCALK3EA0EE   010TF                                  + 02700                          A FS
SUSAP KSTLK3FH29-Z ATEEBE 010TEEBEK5EA0E  A    IF                                  B 090000800018000                A FS
SUSAP KSTLK3FH29-Z ATEEBE 020BUSSOK5EA0E  B 010TF                                  + 05000                          A FS
SUSAP KSTLK3FH29-Z ATEEBE 030HUGBAK5EA0E    010TF                                  + 03900                          A FS
SUSAP KSTLK3FH29-Z ATEEBE 040WEVRRK3EA0E    010TF                                  + 03000                          A FS
SUSAP KSTLK3FH29-Z ATEEBE 050RSCALK3EA0EE   010TF                                  + 02700                          A FS
SUSAP KSTLK3FH29-Z H      010RSCALK3EA0E  I    IF                                  + 02700     18000                A FS
SUSAP KSTLK3FH29-Z H      020UCITYK3EA1E  F 010TF                                  + 02300                RW29  K3PGA FS
SUSAP KSTLK3FH29-Z H      020UCITYK3EA2W                                                A031A172A122                 FS
SUSAP KSTLK3FH29-Z H      030RW29 K3PG0GY M 031TF                                    00612            -300           A FS
SUSAP KSTLK3FH29-Z H      040         0  M     CA                      3022        + 01100                          A FS
SUSAP KSTLK3FH29-Z H      050HULSOK3EA0EY      DF                                  + 03000                          A FS
SUSAP KSTLK3FH29-Z H      060HULSOK3EA0EE  L   HM                      10000050    + 03000                          A FS
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                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3GRW29    0090013022 N38444846W090225939+0700    +0138100556000056150IIRQN1
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                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3SRW29 K3PG                0   18018003025                                                                    M
```

CITY AND STATE	ELEVATION: 618 THRE: 556	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
ST LOUIS, MO	AIRPORT NAME: LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	AMDT: NONE
				DATED:

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

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:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (RNP)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	FDRKO	FDRKO	010	IAF	IF		FB				BT 0700006000	
	FDRKO	SHREC	020		TF		FB	1.0			AA 05000	
	FDRKO	HUGBA	030		TF		FB	1.0			AA 03900	
	FDRKO	WEVRR	040		TF		FB	1.0			AA 03000	
	FDRKO	RSCAL	050		TF		FB	1.0			AA 02700	
	JYAAR	JYAAR	010		IF		FB				AA 05000	AB 210
	JYAAR	DOBLZ	020		TF		FB	1.0			AA 05000	
	JYAAR	WEVRR	030		RF	R	FB	1.0		009.0	AA 03000	
	JYAAR	RSCAL	040		TF		FB	1.0			AA 02700	
	PEJAA	PEJAA	010		IF		FB				AA 05000	AB 210
	PEJAA	DMOTO	020		TF		FB	1.0			AA 05000	
	PEJAA	VERML	030		RF	L	FB	1.0		004.5	AA 03700	
	PEJAA	RSCAL	040		RF	L	FB	1.0		003.7	AA 02700	
	SUTRR	SUTRR	010	IAF	IF		FB				AA 07000	
	SUTRR	JVEEE	020		TF		FB	1.0			AA 06000	
	SUTRR	ZUMLA	030		TF		FB	1.0			AA 05000	
	SUTRR	HUGBA	040		TF		FB	1.0			AA 03900	
	SUTRR	WEVRR	050		TF		FB	1.0			AA 03000	
	SUTRR	RSCAL	060		TF		FB	1.0			AA 02700	
	TEEBE	TEEBE	010	IAF	IF		FB				BT 0900008000	
	TEEBE	BUSSO	020		TF		FB	1.0			AA 05000	
	TEEBE	HUGBA	030		TF		FB	1.0			AA 03900	
	TEEBE	WEVRR	040		TF		FB	1.0			AA 03000	
	TEEBE	RSCAL	050		TF		FB	1.0			AA 02700	
		RSCAL	010	FACF	IF		FB				AA 02700	
		UCITY	020	FAF	TF		FB	1.0			AA 02300	
		RW29	030	MAP	TF		FO	0.3			AT 00612	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		302.2(302.2T)		AA 01100	
	HULSO	050		DF		FO				AA 03000	
	HULSO	060		HM	L	FO		100.0(100.0T)	005.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	BUSSO	N383411.56	W0900849.52	N3834.193	W09008.825
	CFPTT	N383907.96	W0901743.41	N3839.133	W09017.724
	CFPTV	N384312.45	W0901254.05	N3843.208	W09012.901
	DMOTO	N383655.84	W0901929.62	N3836.931	W09019.494
	DOBLZ	N384537.25	W0901056.24	N3845.621	W09010.937
	FDRKO	N384301.78	W0895648.80	N3843.030	W08956.813

CITY AND STATE	ELEVATION: 618 THRE: 556	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
ST LOUIS, MO	AIRPORT NAME: **LAMBERT-ST LOUIS INTL**	**RNAV**	**RNAV (RNP) Z RWY 29, ORIG**	AMDT: **NONE**
				DATED:

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

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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HUGBA	N383830.01	W0901013.93	N3838.500	W09010.232
HULSO	N384755.01	W0904148.77	N3847.917	W09041.813
JVEEE	N383428.77	W0900208.64	N3834.480	W09002.144
JYAAR	N384714.04	W0901410.33	N3847.234	W09014.172
PEJAA	N383832.10	W0902244.45	N3838.535	W09022.741
RSCAL	N384120.14	W0901557.26	N3841.336	W09015.954
SHREC	N384056.71	W0900404.75	N3840.945	W09004.079
SUTRR	N383247.67	W0895845.87	N3832.795	W08958.765
TEEBE	N382136.62	W0900541.00	N3821.610	W09005.683
UCITY	N384158.75	W0901715.50	N3841.979	W09017.258
VERML	N383806.43	W0901440.35	N3838.107	W09014.673
WEVRR	N384047.42	W0901451.37	N3840.790	W09014.856
ZUMLA	N383609.77	W0900531.56	N3836.163	W09005.526
RW29	N384448.46	W0902259.39	N3844.808	W09022.990

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW29	00556	56

CITY AND STATE	ELEVATION: 618 THRE: 556	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
ST LOUIS, MO	AIRPORT NAME: **LAMBERT-ST LOUIS INTL**	**RNAV**	**RNAV (RNP) Z RWY 29, ORIG**	AMDT: **NONE**
				DATED:

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

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.
INITIAL	FDRKO	SHREC	1. TOWER (17-000440)	384101.37N/0900004.01W	1038 (2D)	1000	AT2912 AC50	5000
(RNP 1.00)			2. TERRAIN	384418.00N/0895651.00W	597 (600)		AS1500	2100
INITIAL	SUTRR	JVEEE	3. TOWER (17-001504)	383531.65N/0900202.29W	1047 (2D)	1000	AT3903 AC50	6000
(RNP 1.00)			4. TERRAIN	383330.00N/0900006.00W	640 (600)		AS1500	2100
INITIAL: STEPDOWN	JVEEE	ZUMLA	3. TOWER (17-001504)	383531.65N/0900202.29W	1047 (2D)	1000	AT2903 AC50	5000
(RNP 1.00)			5. TERRAIN	383445.00N/0900412.00W	656 (700)		AS1500	2200
INITIAL	TEEBE	BUSSO	6. AAO	382642.00N/0900833.00W	879 (4D)	1000	AT3071 AC50	5000
(RNP 1.00)			7. TERRAIN	382642.00N/0900833.00W	679 (700)		AS1500	2200
INTERMEDIATE:	SHREC	HUGBA	8. BLDG (29-001352)	383739.00N/0901121.00W	1055 (5E)	500	AT2285 AC60	3900
(RNP 1.00)			9. TERRAIN	383827.00N/0901112.00W	482 (500)		AS1500	2000
INTERMEDIATE:	ZUMLA	HUGBA	10. BLDG (29-001024)	383740.00N/0901140.00W	1050 (5E)	500	AC135 AT2215	3900
(RNP 1.00)			11. TERRAIN	383754.00N/0901212.00W	489 (500)		AS1500	2000
INTERMEDIATE:	BUSSO	HUGBA	10. BLDG (29-001024)	383740.00N/0901140.00W	1050 (5E)	500	AC135 AT2215	3900
(RNP 1.00)			12. TERRAIN	383657.00N/0901251.00W	548 (500)		AS1500	2000
2. PROCEDURE TURN								
3. MISSED APPROACH MAP:								
3. MISSED APPROACH ELEV:								

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL
CATEGORY A	1.3 NM	350	
CATEGORY B	1.5 NM	450	
CATEGORY C	1.7 NM	450	
CATEGORY D	2.3 NM	550	
CATEGORY E	4.5 NM	550	

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: **RW29**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (29-001023)	199/ 24.4	1949 (5D)	3000					

CITY AND STATE	ELEVATION: 618 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
ST LOUIS, MO	LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	ACE

QUALITY CHECKED

PART B - SUPPLEMENTAL DATA

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

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3

5. APPROACH & RUNWAY LIGHTING	X	ALSF-2 12L, 30R, 11, 29
		(S) SALS
	X	MALS 24 MALSR 30L, 06, 12R
	X	HIRL 12L, 30R, 11, 24, 29, 30L, 06, 12R
		MIRL
	X	REIL 12L, 30L
	X	TDZ 12L, 30R, 12R
	X	C/L 12L, 30R, 11, 29, 30L, 12R
	X	OTHER (SPECIFY) PAPI-4R 12L, 30R, 11, 30L LDIN 30L PAPI-4L 24, 29, 06, 12R

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 12L, 30R, 11, 24, 29, 30L, 06, 12R
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	12L, 30R, 24, 30L, 06, 12R
	MIDFIELD	12L, 30R
	ROLL OUT	12L, 30R

8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 556.0
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 55.7

9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: 1

DESIGN INSTRUMENT APPROACH PROCEDURE SEGMENTS TO PROVIDE DESCENT AT THE STANDARD GRADIENT. FAAO 8260.52, PARAGRAPH 2.4 TABLE 2-1. THE DESCENT GRADIENT IN THE INTERMEDIATE STEPDOWN SEGMENT EXCEEDS THAT OF THE FINAL SEGMENT. THE FINAL SEGMENT DESCENT GRADIENT IS 318 FT/NM (3 DEGREES). THE INTERMEDIATE STEPDOWN DESCENT GRADIENT, PRIOR TO THE PFAF, IS 330.58 FT/NM (3.11 DEGREES).

PART D - PREPARED BY: JON DENTON	DATE: 05/04/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

ACTUAL HIGH TEMP: 54C (130F)

ISA DEVIATION USED: -30C (-22F)

VDP NOT ESTABLISHED - RNP PROCEDURE.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FPT INFORMED OF 20:1 PENETRATIONS.
TERPS, VOLUME 1, "VISUAL PORTION OF FINAL"
PENETRATIONS:
20:1:
555 OL ON LOC (KSTL0074) (20/3) 384445.65N/0902258.45W (2.00)

34:1:
658 TREE (KSTLO036) (20/3) 384426.42N/0902231.37W (21.29)
650 FLGPL (KSTLO034) (20/3) 384438.32N/0902222.60W (14.85)
632 TREE (KSTLO029) (20/3) 384428.57N/0902235.40W (6.64)
680 SIGN (KSTLO046) (20/3) 384420.06N/0902217.34W (5.54)
619 TREE (KSTLO025) (20/3) 384430.24N/0902238.79W (2.96)
649 TREE (KSTLO039) (20/3) 384432.28N/0902221.68W (2.46)
616 ANT ON BLDG (KSTLO024) (20/3) 384440.66N/0902230.64W (0.42)

RF SEGMENT RADIUS/BANK ANGLE COMUPTATIONS:

SEGMENT	ALT	KIAS	KTAS	HAA	*VKTW	TR	BA
DMOTO-VERML	5000	210	232.2	4382	53.9	2.60	24.65
VERML-RSCAL	3700	210	227.7	3082	52	2.60	23.67
DOBLZ-WEVRR	5000	210	233.1	4848	53.5	2.86	22.72

*VKTW WINDS FROM 99% MITRE AND 8260.52 TABLE 1-3 DATA.

TFTURNFIX	ALT	KIAS	KTAS	HAA	*VKTW	TR	BA
HUGBA	3900	250	272.6	3453	55.0	4.81	18.00

MAX SPEED DMOTO TO VERML - 210 KIAS
MAX SPEED VERML TO RSCAL - 210 KIAS
MAX SPEED DOBLZ TO WEVRR - 210 KIAS

PART B: SUPPLEMENTAL DATA
2. KSTL ASOS ON SERVICE A. HRS OPTN: 24.
3. BACKUP ALTIMETER SOURCE NOT REQUIRED DUE TO REDUNDANT LOCAL SOURCES.

VGSI DATA: 3.00/73.0

SEE ATTACHED AIRSPACE LETTER.

STANDARD ISA DEVIATION OF -30 USED, WEATHER HISTORY FOR KSTL NOT AVAILABLE AT TIME OF PROCEDURE DEVELOPMENT. (HTTP://WWW.NCDC.NOAA.GOV/OA/CLIMATE/STATIONLOCATOR.HTML DOWN INDEFINITELY.)

QUALITY CHECKED

CONT.

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: STEPDOWN	HUGBA	WEVRR	10. BLDG (29-001024)	383740.00N/0901140.00W	1050 (5E)	500	AT1315 AC135	3000
(RNP 1.00)			13. TERRAIN	384018.00N/0901639.00W	568 (600)		AS1500	2100
INTERMEDIATE:	JYAAR	DOBLZ	14. AAO	384727.00N/0901524.00W	807 (4D)	500	AT3643 AC50	5000
(RNP 1.00)			15. TERRAIN	384727.00N/0901524.00W	607 (600)		AS1500	2100
INTERMEDIATE: STEPDOWN	DOBLZ	WEVRR	16. TOWER (17-000279)	384505.00N/0900713.00W	1009 (5E)	500	AC135 AT1356	3000
(RNP 1.00)			17. TERRAIN	384042.00N/0901657.00W	594 (600)		AS1500	2100
INTERMEDIATE: STEPDOWN	WEVRR	RSCAL	18. TOWER (29-020098)	384053.00N/0901516.00W	845 (5E)	500	AC60 AT1295	2700
(RNP 1.00)			19. TERRAIN	384145.00N/0901706.00W	617 (600)		AS1500	2100
INTERMEDIATE:	PEJAA	DMOTO	20. TOWER (29-000382)	383450.00N/0901945.00W	1649 (4D)	500	AT2801 AC50	5000
(RNP 1.00)			21. TERRAIN	383957.00N/0902306.00W	686 (700)		AS1500	2200
INTERMEDIATE: STEPDOWN	DMOTO	VERML	20. TOWER (29-000382)	383450.00N/0901945.00W	1649 (4D)	500	AT1501 AC50	3700
(RNP 1.00)			22. TERRAIN	383627.00N/0901700.00W	610 (600)		AS1500	2100
INTERMEDIATE: STEPDOWN	VERML	RSCAL	23. TOWER (29-000032)	383908.00N/0901700.00W	1049 (5E)	500	AC60 AT1091	2700
(RNP 1.00)			19. TERRAIN	384145.00N/0901706.00W	617 (600)		AS1500	2100
INTERMEDIATE: STEPDOWN	RSCAL	UCITY	18. TOWER (29-020098)	384053.00N/0901516.00W	845 (5E)	500	AC60 VEB23 AT872	2300
(RNP 1.00)			24. TERRAIN	384218.00N/0901751.00W	669 (700)		AS1500	2200
3. MISSED APPROACH — MAP:								
ELEV:								

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL
CATEGORY A	1.3 NM	350	
CATEGORY B	1.5 NM	450	
CATEGORY C	1.7 NM	450	
CATEGORY D	2.3 NM	550	
CATEGORY E	4.5 NM	550	

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
ST LOUIS, MO	**ELEVATION: 618** AIRPORT NAME: LAMBERT-ST LOUIS INTL	RNAV	RNAV (RNP) Z RWY 29, ORIG	ACE

QUALITY CHECKED

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ N W S OTHER:	SOURCE:
	☐ F A A	DISTANCE:
	☐ A / C	HOURS REMOTE OPERATION:
☐ V H F ☐ U H F ☐ H F	LOCATION:	ADJUSTMENT:

4. MONITOR STATUS	PRIMARY NAVAID:		
	MONITOR POINT:		
	HRS OPTN:	CAT 1	
		CAT 3	

5. APPROACH & RUNWAY LIGHTING	☐	ALS
	☐	(S) SALS
	☐	MALS
	☐	HIRL
	☐	MIRL
	☐	REIL
	☐	TDZ
	☐	C/LINE
	☐	OTHER (SPECIFY)

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING	☐	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	☐	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

CONTINUED.
MULTIPLE INTERMEDIATE SEGMENTS DEVELOPED PER ATC REQUEST.

INTERMEDIATE SEGMENT HUGBA TO WEVRR CONTAINS DIFFERENT COORDINATES FOR AIRSPACE TERRAIN, TERRAIN POINT HEIGHTS SAME.

MISSED APPROACH: FAAO 8260.54A CRITERIA APPLIED.

AUTHORIZATION REQUIRED, FAA 8260.52 CRITERIA APPLIED.

VEB ROC (0.30 HIGHER VALUE) APPLIED/USED.

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FINAL: RNP 0.12	**UCITY**	**RW29**	**25. ATCT (29-001194)**	**384439.00N/0902218.00W**	**724 (1A)**	**21.74:1**	**AC3**	**939/383**
FINAL: RNP 0.17	**UCITY**	**RW29**	**26. ATCT (29-002098)**	**384436.00N/0902158.00W**	**774 (1A)**	**21.73:1**	**AC3**	**1011/455**
FINAL: RNP 0.30	**UCITY**	**RW29**	**26. ATCT (29-002098)**	**384436.00N/0902158.00W**	**774 (1A)**	**21.70:1**	**AC3**	**1064/508**
MISSED APPROACH	DA	RW29				ASC		
(RNP 0.12 - 1.00)		40:1						
MISSED APPROACH	DA	RW29				ASC		
(RNP 0.17 - 1.00)		40:1						
MISSED APPROACH	DA	RW29				ASC		
(RNP 0.30 - 1.00)		40:1						
MISSED APPROACH	RW29	HULSO				ASC		
(RNP 0.12 - 1.00)		40:1						
MISSED APPROACH	RW29	HULSO				ASC		
(RNP 0.17 - 1.00)		40:1						
MISSED APPROACH	RW29	HULSO				ASC		
(RNP 0.30 - 1.00)		40:1						
3. MISSED APPROACH MAP:	DA / DA / DA	HULSO				ASC		3000
			27. TOWER (29-001138)	384507.00N/0903723.00W	970 (5E)	1000	AC60	2100
ELEV:	778/850/903		28. TERRAIN	384518.00N/0903451.00W	621 (600)		AS1500	2100

4. CIRCLING AREA	DISTANCE		HT. ABV. ARPT.		
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL	
CATEGORY B	1.5 NM		450		
CATEGORY C	1.7 NM		450		
CATEGORY D	2.3 NM		550		
CATEGORY E	4.5 NM		550		

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
ST LOUIS, MO	**ELEVATION: 618** AIRPORT NAME: **LAMBERT-ST LOUIS INTL**	**RNAV**	**RNAV (RNP) Z RWY 29, ORIG**	**ACE**

QUALITY 8 CHECKED

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	☐ N W S ☐ F A A ☐ A / C OTHER:	SOURCE: DISTANCE: HOURS REMOTE OPERATION:
☐ V H F ☐ U H F ☐ H F	LOCATION:	ADJUSTMENT:

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN: CAT 1	
	HRS OPTN: CAT 3	

5. APPROACH & RUNWAY LIGHTING	
☐	ALS
☐	(S) SALS
☐	MALS
☐	HIRL
☐	MIRL
☐	REIL
☐	TDZ
☐	C/LINE
☐	OTHER (SPECIFY)

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING			
	☐	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	☐	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BUSSO **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 383411.56N/0900849.52W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/24/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFPTT **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383907.96N/0901743.41W **TYPE:** CNF

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED IN IPDS, ACTUAL COORDINATES: 383907.963N/0901743.408W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CFPTV **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384312.45N/0901254.05W **TYPE:** CNF

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED IN IPDS, ACTUAL COORDINATES: 384312.445N/0901254.053W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DMOTO **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383655.84N/0901929.62W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED USING IPDS, ACTUAL COORDINATES: 383655.837N/0901929.615W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DOBLZ **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384537.25N/0901056.24W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FDRKO **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 384301.78N/0895648.80W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)
STAR	AARCH (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/20/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HUGBA **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 383830.01N/0901013.93W **TYPE:** WP, RADAR, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	ST LOUIS	I-RQN	LOC		122.18	122.18	13.46	13.46		4500	5100
2	TROY	TOY	VORTAC	L	239.80	243.80		13.20		4500	5100

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
I-RQN DME COORDINATES 384543.83N/0902444.64W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 29	1, 2		KSTL	ST LOUIS	MO (US)
IAP	ILS PRM RWY 29 (SIM CLOSE PAR)	1, 2		KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
ADDED DIST FROM FAC FOR FAC 1 AND 2.
DELETED FAC 3 DATA.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HULSO **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384755.01N/0904148.77W **TYPE:** WP, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	CARDINAL	CSX	VOR/DME	H	280.00	280.00	16.00	16.00		3000	17500
2	TROY	TOY	VORTAC	L	271.82	275.82	36.69	36.69		3000	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	W	CSX	VOR/DME	280.00	100.00	L	1		3000	6000	5	6
2	W		WP	280.00	100.00	L		5	3000	6000	6	6
3	W	TOY	VORTAC	271.82	091.82	L	1		3000	6000	6	7

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (29-001237)	384644.00N/0904343.00W	1128	5D
2	200	TOWER (29-001237)	384644.00N/0904343.00W	1128	5D
3	200	TOWER (29-001237)	384644.00N/0904343.00W	1128	5D

REASON FOR NONSTANDARD HOLDING:
PAT 1 ATC REQUEST
PAT 2 ATC REQUEST
PAT 3 ATC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
CARDINAL (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 29	1, 2	1, 3	KSTL	ST LOUIS	MO (US)
IAP	ILS OR LOC RWY 30L	1, 2	1	KSTL	ST LOUIS	MO (US)
IAP	ILS PRM RWY 29 (SIM CLOSE PAR)	1, 2	1, 3	KSTL	ST LOUIS	MO (US)
IAP	LDA PRM RWY 30L (SIMULTANEOUS CLOSE PARALLEL)	1, 2	1	KSTL	ST LOUIS	MO (US)
IAP	LDA/DME RWY 30L	1, 2	1	KSTL	ST LOUIS	MO (US)
IAP	RNAV (GPS) Y RWY 29		2	KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 29		2	KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
ADDED DIST FROM FAC FOR FAC 1 AND 2.
DELETED FAC 3 DATA.
DELETED ESV DATA, WAS LISTED FOR HOLDING AREA.
UPDATED CONTROLLING OBSTACLE DATA.
ADDED PRECIPITOUS TERRAIN STATEMENT.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JVEEE **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 383428.77N/0900208.64W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/26/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JYAAR **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384714.04N/0901410.33W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PEJAA **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383832.10N/0902244.45W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: RSCAL **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384120.14N/0901557.26W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED USING IPDS, ACTUAL COORDINATES: 384120.144N/0901557.260W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SHREC **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 384056.71N/0900404.75W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/20/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SUTRR **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 383247.67N/0895845.87W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/26/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TEEBE **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 382136.62N/0900541.00W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30L			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 30R			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/24/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: UCITY **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384158.75N/0901715.50W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
PFAF DETERMINED IAW FAAO 8260.54A FORMULA 2-16B.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: VERML **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383806.43N/0901440.35W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED USING IPDS, ACTUAL COORDINATES: 383806.432N/0901440.349W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WEVRR **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384047.42N/0901451.37W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
FIX DEVELOPED IN IPDS, ACTUAL COORDINATES: 384047.424N/0901451.368W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/25/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ZUMLA **STATE:** IL **COUNTRY:** US

LATITUDE/LONGITUDE: 383609.77N/0900531.56W **TYPE:** WP, RADAR, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	ST LOUIS	I-RQN	LOC/DME		122.18	122.18	17.83	17.83		2300	6000
2	TROY	TOY	VORTAC	L	220.96	224.96		11.55		2300	6000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-RQN	LOC/DME	R-122	18	2300	6000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
ESV: I-RQN GS R-122/18/2300/6000
ESV: I-RQN DME R-122/18/2300/6000
FAC 1 DME COORDINATES 384543.83N/0902444.64W.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 29	1, 2		KSTL	ST LOUIS	MO (US)
IAP	ILS PRM RWY 29 (SIM CLOSE PAR)	1, 2		KSTL	ST LOUIS	MO (US)
IAP	RNAV (GPS) Y RWY 29			KSTL	ST LOUIS	MO (US)
IAP	RNAV (RNP) Z RWY 29			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
CHANGED MRA FAC 1 AND 2 TO 2300 TO MATCH ESTABLISHED ESV.
ADDED DIST FROM FAC FOR FAC 1 AND 2.
DELETED FAC 3 DATA.
UPDATED ESV DATA LOCATION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/26/2012 **OFFICE:** AJV-353 **NAME:** JON DENTON

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:

ST LOUIS, MO. (STL)
LAMBERT - ST LOUIS INTL
RNAV (RNP) Z RWY 29

2. Waiver Required and Applicable Standard:

DESIGN INSTRUMENT APPROACH PROCEDURE SEGMENTS TO PROVIDE DESCENT AT THE STANDARD GRADIENT. FAAO 8260.52, PARAGRAPH 2.4 TABLE 2-1. THE DESCENT GRADIENT IN THE INTERMEDIATE STEPDOWN SEGMENT EXCEEDS THAT OF THE FINAL SEGMENT. THE FINAL SEGMENT DESCENT GRADIENT IS 318 FT/NM (3 DEGREES). THE INTERMEDIATE STEPDOWN DESCENT GRADIENT, PRIOR TO THE PFAF, IS 330.58 FT/NM (3.11 DEGREES).

3. Reason for Waiver *(Justification for nonstandard treatment)*:

GROUND TRACK/DESCENT GRADIENT IS COLLABORATION BETWEEN AIR CARRIER, ST LOUIS AIR TRAFFIC, FAA REQUIRED NAVIGATION PERFORMANCE OFFICE AND TERMINAL PROCEDURES AND CHARTING SERVICES TEAM. PROCEDURE PROVIDES OPTIMUM FUEL ECONOMY ON REPEATABLE GROUND TRACK THAT PROCEDURALLY SEPARATES AND BLENDS INTO EXISTING TRAFFIC FLOW. THIS PROCEDURE WILL BE CONNECTED TO RNAV (GPS) STARS THAT PROVIDE STABILIZED OPTIMUM DESCENT, AND PREDICTABLE OPERATION FROM THE ENROUTE TO LANDING.

4. Equivalent Level of Safety Provided:

1. PROCEDURE IS AUTHORIZATION REQUIRED (AR).
2. OVERALL INTERMEDIATE SEGMENT PROVIDES A 240.86 FT/NM (2.27 DEGREES) DESCENT GRADIENT, ALLOWING DECEL AND CONFIGURATION PRIOR TO CONFIGURATION FOR FINAL SEGMENT.
3. PROCEDURE VALIDATED IN SIMULATOR TEST WITH SATISFACTORY RESULTS.

5. How Relocation or Additional Facilities Will Affect Waiver Requirement:

NA - RNAV PROCEDURE.

6. Coordination With User Organizations *(Specify)*:

AJV-353
AJV-351

7. SUBMITTED BY

DATE:	Office Identification:	Title:	Signature:
5/14/2012	AJV-35	MANAGER, TERMINAL PROCEDURES AND CHARTING SERVICES TEAM	GREGORY YAMAMOTO

8. CONTINUATION		
Comments:		
9. AFS ACTION	☐	Approved
	☐	Disapproved
	☐	Not Required
Comments:		
Date:	Routing Symbol:	Signature:

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **ST LOUIS** STATE: **MO**

AIRPORT NAME: **LAMBERT-ST LOUIS INTL** ID: **KSTL**

PROCEDURE: **RNAV (RNP) Z RWY 29** AMDT: **ORIG**

DOCKET#: **NOT REQUIRED**
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.10**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment, final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **302.24**
4. High Terrain in **FINAL** segment containing 1000' point **594**
5. Distance from **THLD** to 1500' point **4.67**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **FINAL** segment at 1500' point **1.20**
7. True Course of **FINAL** segment containing 1500' point **302.24**
8. High Terrain in **FINAL** segment containing 1500' point **594**
9. Threshold Coordinates (if straight-in) ... **384448.46N** / **0902259.39W**
10. ARP Coordinates ..... **384455.31N** / **0902212.10W**
11. Runway Approach End and distance furthest from ARP ..... RWY **11**
    Distance **1.99** NM
12. FAF Coordinates ..... **384158.75N** / **0901715.50W**

REMARKS: Approach/Drawing attached.