Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 10/06/2010	Task #: 2009082815410007002	Request #: 20090828154100
Procedure: RNAV (RNP) Z RWY 21 ORIG		Airport ID: KCHS	**Airport:** CHARLESTON AFB/INTL		Reimbursable #:
City: CHARLESTON	**ST:** SC	GPS #:		Estimated Chart Date: 07/26/2012	FICO #:
Fac ID:	**Fac. Type:** RNP	**Specialist:** CHRISTOPHER COX			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	01/17/2012	05/02/2012	MARLON ROBINSON	
QA:	05/02/2012	05/02/2012	SCOTT BEARD	
Liaison:	05/02/2012		Alfonso	

Procedure Comments: ENROUTE **Remark Type:** INFORMATION

pkg 4 of 5

CHARLESTON, SC CHARLESTON AFB/INTL (KCHS) RNAV (RNP) Z RWY 21, ORIG (RNP) ENROUTE-YES FC: 5.29.12 PUB: 7.26.12

ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): ADERY, REV 1; BAMDE, REV 3; CFFFT, ORIG; FEGIM, ORIG; PAKIC, ORIG; ZELPO, ORIG; ZOVIR, REV 1; (INFO ONLY) FEPID, REV 2; LUTHR-INT, ORIG; MYERS, ORIG; RSRVE, ORIG.

CONTACT: DON SMITH, AJV-352 LEAD, 405.954.1036:

RNAV (RNP) Z RWY 21

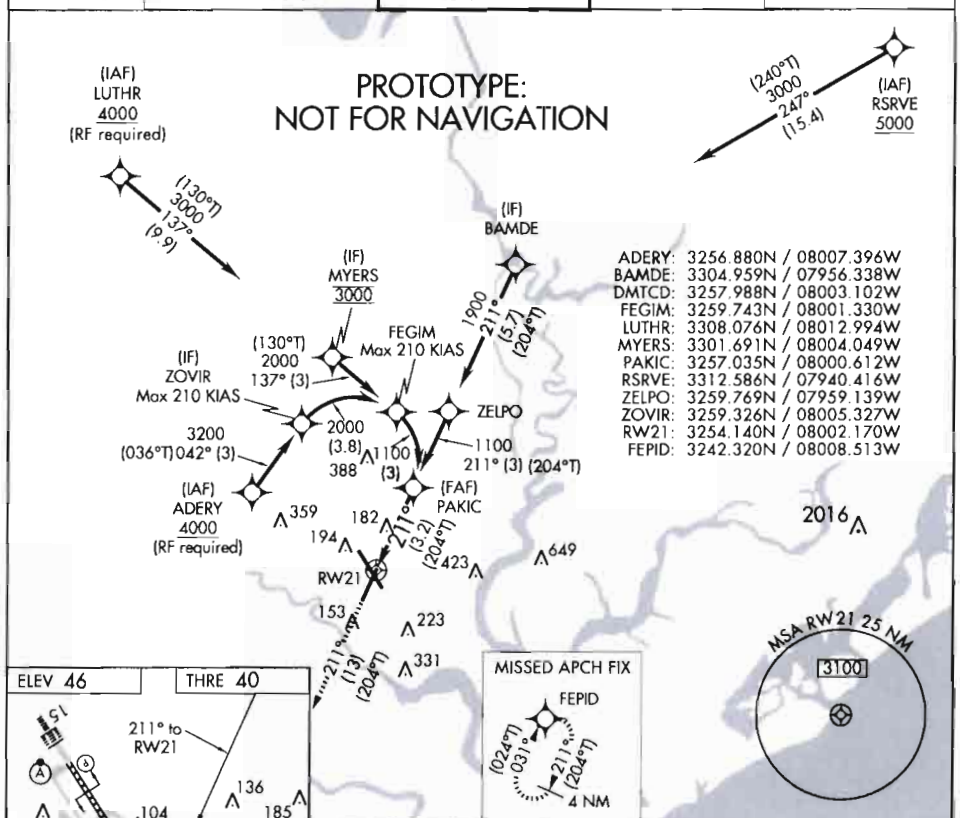
CHARLESTON AFB/INTL (CHS)

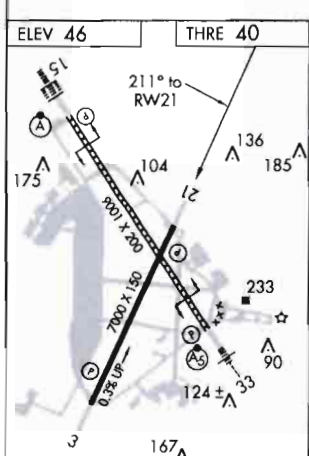
APP CRS	Rwy ldg	7000
211°	THRE	40
	Apt Elev	46

For uncompensated Baro-VNAV systems, procedure NA below -5°C (23°F) or above 47(116F) GPS required.

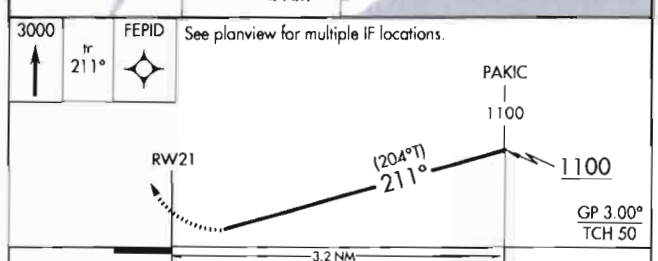
MISSED APPROACH: Climb to 3000 on track 211° to FEPID and hold.

ATIS	CHARLESTON APP CON	CHARLESTON TOWER	GND CON	CLNC DEL
124.75	120.7 306.925	126.0 239.0	121.9 348.6	127.325 291.65



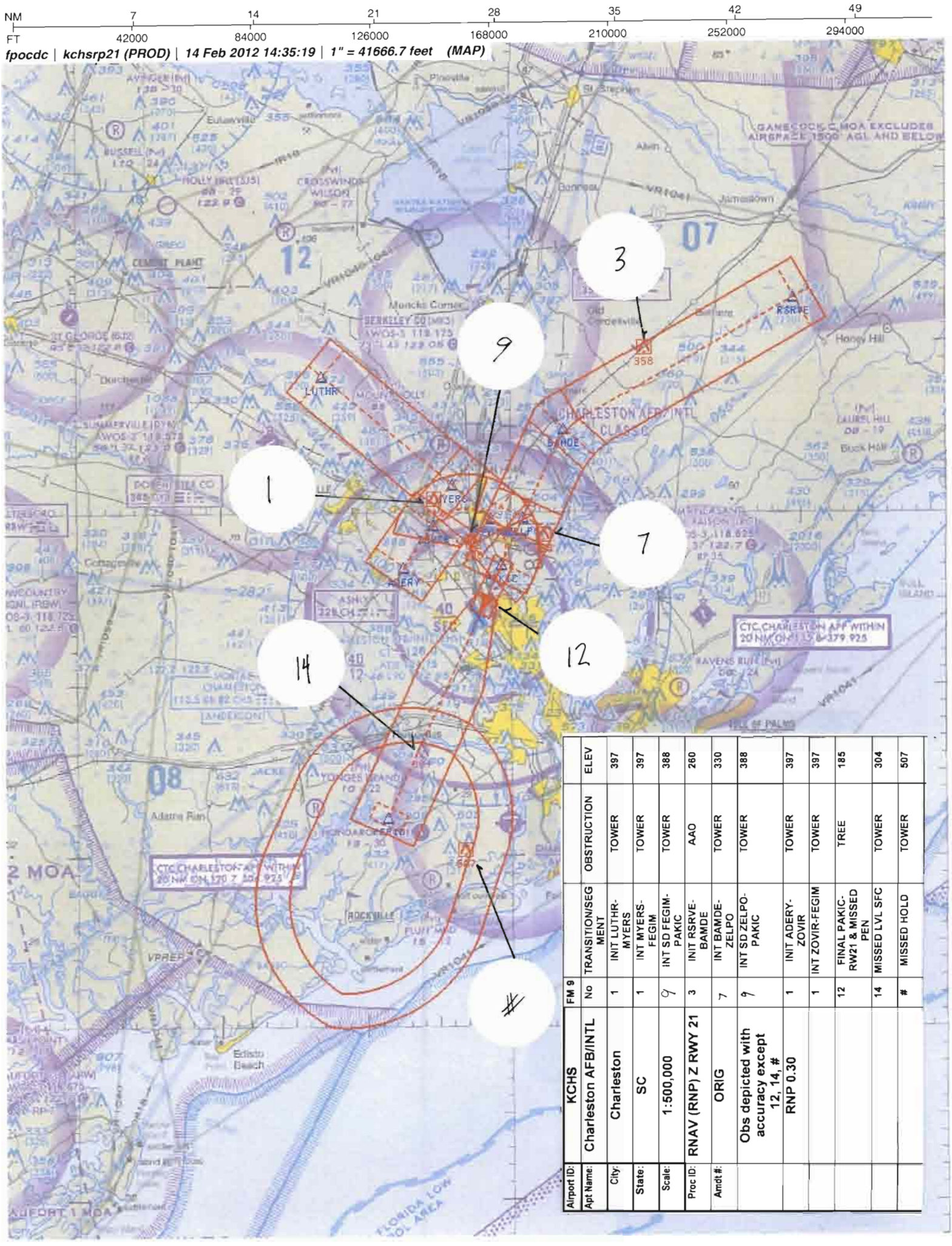


TDZ/CL Rwy 15
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 15-33

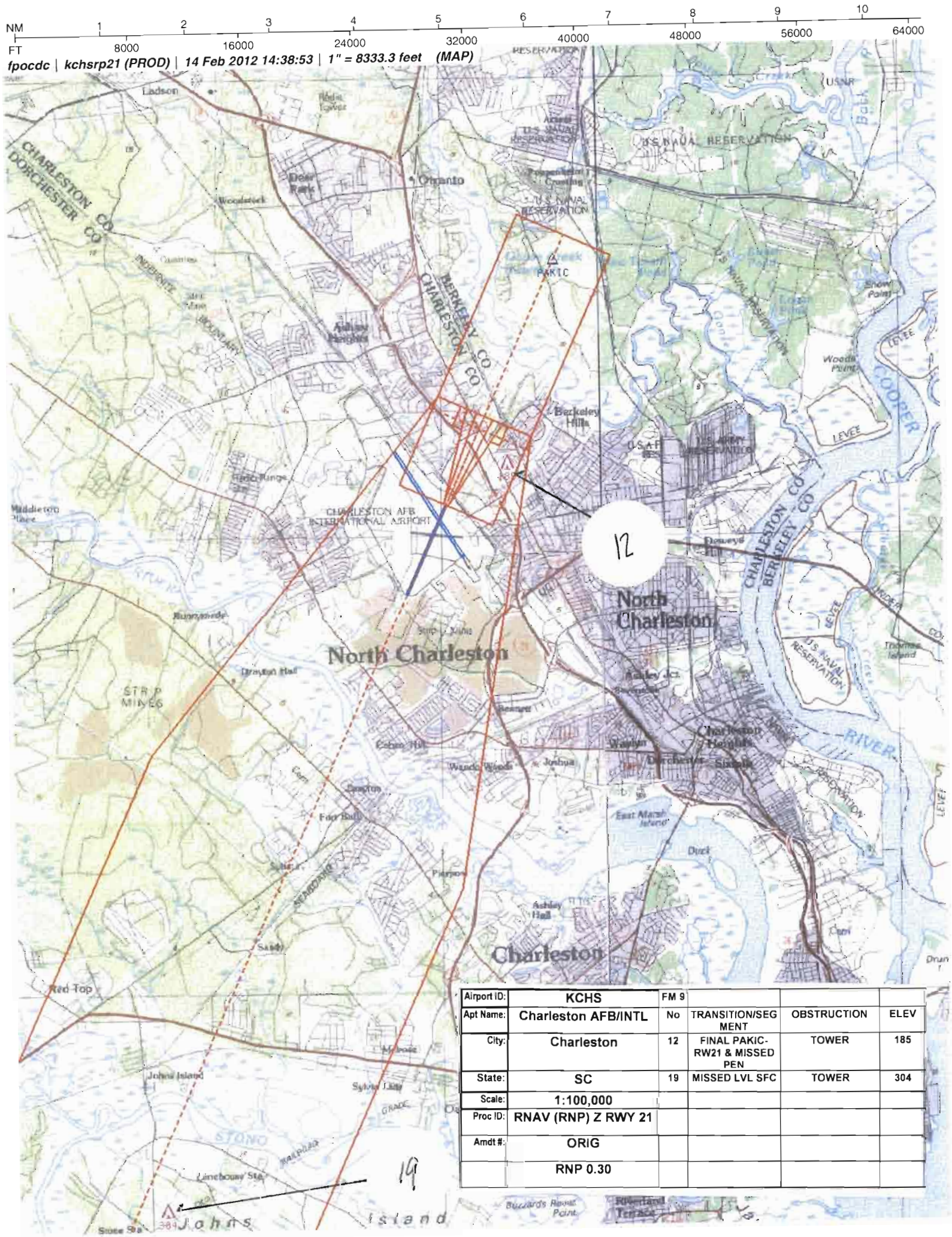


CATEGORY	A	B	C	D
RNP 0.21 DA		388-1⅛	348 (400-1⅛)	
RNP 0.30 DA		452-1⅜	412 (500-1⅜)	

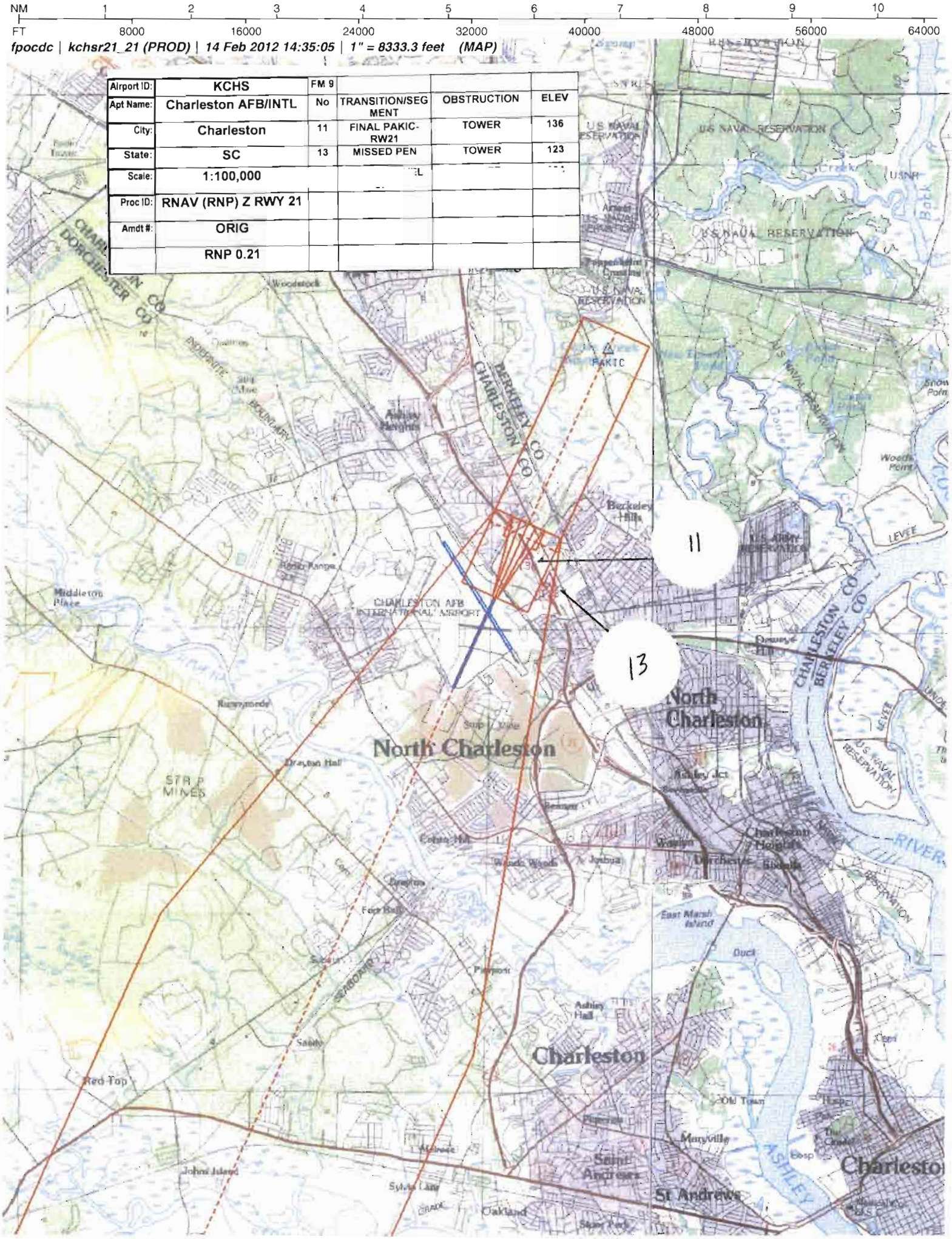
AUTHORIZATION REQUIRED



		FM 9				
Airport ID:	KCHS	No	TRANSITION/SEGMENT	OBSTRUCTION	ELEV
Apt Name:	Charleston AFB/INTL	1	INIT LUTHR-MYERS	TOWER	397
City:	Charleston	1	INT MYERS-FEGIM	TOWER	397
State:	SC	9	INT SD FEGIM-PAKIC	TOWER	388
Scale:	1:500,000	3	INIT RSRVE-BAMDE	AAO	260
Proc ID:	RNAV (RNP) Z RWY 21	7	INT BAMDE-ZELPO	TOWER	330
Amdt #:	ORIG	9	INT SD ZELPO-PAKIC	TOWER	388
	Obs depicted with accuracy except 12, 14, # RNP 0.30	1	INIT ADERY-ZOVIR	TOWER	397
		1	INT ZOVIR-FEGIM	TOWER	397
		12	FINAL PAKIC-RW21 & MISSED PEN	TREE	185
		14	MISSED LVL SFC	TOWER	304
		#	MISSED HOLD	TOWER	507



Airport ID:	KCHS	FM 9			
Apt Name:	Charleston AFB/INTL	No	TRANSITION/SEGMENT	OBSTRUCTION	ELEV
City:	Charleston	12	FINAL PAKIC-RW21 & MISSED PEN	TOWER	185
State:	SC	19	MISSED LVL SFC	TOWER	304
Scale:	1:100,000				
Proc ID:	RNAV (RNP) Z RWY 21				
Amdt #:	ORIG				
	RNP 0.30				


NM 1 2 3 4 5 6 7 8 9 10
FT 8000 16000 24000 32000 40000 48000 56000 64000
fpocdc | kchsr21_21 (PROD) | 14 Feb 2012 14:35:05 | 1" = 8333.3 feet (MAP)
Airport ID: KCHS
Apt Name: Charleston AFB/INTL
City: Charleston
State: SC
Scale: 1:100,000
Proc ID: RNAV (RNP) Z RWY 21
Amdt #: ORIG
RNP 0.21
FM 9
No
11
13
TRANSITION/SEGMENT
FINAL PAKIC-RW21
MISSED PEN
OBSTRUCTION
TOWER
TOWER
ELEV
136
123
PAKIC
11
13
CHARLESTON AFB INTERNATIONAL AIRPORT
North Charleston
Charleston
St Andrews
U.S. NAVAL RESERVATION
BERKELEY CO
CHARLESTON CO
DORCHESTER CO

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

FROM	TO	COURSE AND DISTANCE	ALTITUDE
LUTHR (IAF)	MYERS (TF) (FB) (RNP 1.00)	137.25 / 9.85	3000
RSRVE (IAF)	BAMDE (TF) (FB) (RNP 1.00)	247.41 / 15.38	3000
ADERY (IAF)	ZOVIR (TF) (FB) (RNP 1.00)	042.48 / 3.00	3200
ZOVIR (IF)	FEGIM (RF) (FB) (RNP 1.00)	(2.30 NM RADIUS CW (CFFFT))/3.81	2000
BAMDE (IF)	ZELPO (TF) (FB) (RNP 1.00)	211.46 / 5.69	1900
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 3000 ON TRACK 211.41 TO FEPID AND HOLD.

ADDITIONAL FLIGHT DATA:

HOLD SW, RT, 031.35 INBOUND.
CHART FAS OBST: 136 TOWER 325435N/0800143W
CHART FAS OBST: 185 TOWER 325433N/0800118W
DISTANCE TO THLD FROM 348 HATH: 0.94 NM.
CHART 5000 AT RSRVE.
CHART 4000 AT ADERY.
CHART 4000 AT LUTHR.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
#TCH 89.6 MSL (DO NOT CHART)
CHART MANDATORY 3000 AT MYERS.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT PAKIC
3. FAC: 211.42 FAF: ____ DIST FAF TO MAP: ____ THLD: ____
4. MIN. ALT: PAKIC 1100
5. DIST TO THLD FROM OM: 3.17 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 1100 GS ALT AT: PAKIC 1100 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 50.0# 34:1 IS NOT CLEAR
8. MSA FROM: RW21 3100

MAG VAR: 7W EPOCH YEAR: 2010

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 0.21 DA	388	1 1/8	348	388	1 1/8	348	388	1 1/8	348	388	1 1/8	348			
RNP 0.30 DA	452	1 3/8	412	452	1 3/8	412	452	1 3/8	412	452	1 3/8	412			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -5C (23F) OR ABOVE 47C (116F).
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE AT FEGIM : MAX 210 KIAS.
CHART PLANVIEW NOTE AT ZOVIR : MAX 210 KIAS.
(SEE FORM 8260-10)

QUALITY CHECKED

CITY AND STATE	ELEVATION: 46 THRE: 40 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
CHARLESTON, SC	CHARLESTON AFB/INTL	RNAV	RNAV (RNP) Z RWY 21, 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] **ZJX, CHS APP CON, ARPT MGR**

FLIGHT CHECKED BY

NAME:	FIFO	DATE:
	FIOG	

DEVELOPED BY

NAME:	FIFO	DATE:
CHRISTOPHER COX	**AJV-352**	**02/14/2012**

APPROVED BY

NAME:		FIFO	DATE:
DARRYEL ADAMS	**MANAGER**	**AJV-352**	

CHANGES:

ORIGINAL

REASONS:

QUALITY CHECKED

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
MYERS (IF)	FEGIM (TF) (FB) (RNP 1.00)	137.37 / 3.00	2000
FEGIM	PAKIC (RF) (FB) (RNP 1.00)	(2.30 NM RADIUS CW (CFFFT))/2.97	1100
ZELPO	PAKIC (TF) (FB) (RNP 1.00)	211.44 / 3.00	1100
PAKIC (FAF)	RW21 (MAP) (TF) (FO)	211.42 / 3.17	
RW21 (MAP)	FEPID (TF) (FO) (RNP 1.00)	211.41 / 12.95	3000

NOTES, (CONT.):
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART PLANVIEW NOTE ADJACENT TO LUTHR: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO ADERY: RF REQUIRED.

CITY AND STATE	ELEVATION: 46 THRE: 40	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
CHARLESTON, SC	AIRPORT NAME:	RNAV	RNAV (RNP) Z RWY 21, ORIG	AMDT: NONE
	CHARLESTON AFB/INTL			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:

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 (RNP)

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   ADERY K70    W     N32565279W080072379                      W0075     NAR           ADERY
        SUSAEAENRT   BAMDE K70    W     N33045754W079562025                      W0077     NAR           BAMDE
        SUSAEAENRT   CFFFT K70    W     N32575925W080030611                      W0076     NAR           CNF(CFFFT)
        SUSAEAENRT   FEGIM K70    W     N32594458W080011983                      W0076     NAR           FEGIM
        SUSAEAENRT   FEPID K70    W     N32421918W080083079                      W0074     NAR           FEPID
        SUSAEAENRT   LUTHR K70    C     N33080455W080125962                      W0075     NAR           LUTHR
        SUSAEAENRT   MYERS K70    W     N33014146W080040296                      W0076     NAR           MYERS
        SUSAEAENRT   PAKIC K70    W     N32570211W080003675                      W0076     NAR           PAKIC
        SUSAEAENRT   RSRVE K70    W     N33123514W079402498                      W0079     NAR           RSRVE
        SUSAEAENRT   ZELPO K70    W     N32594615W079590835                      W0076     NAR           ZELPO
        SUSAEAENRT   ZOVIR K70    W     N32591958W080051963                      W0075     NAR           ZOVIR

                1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KCHSK7ACHS     0     090YHN32535510W080022590W007000046          1800018000C    MNAR    CHARLESTON AFB/INTL

                1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KCHSK7FH21-Z AADERY 010ADERYK7EA0E  A    IF                                  + 04000     18000                A FS
        SUSAP KCHSK7FH21-Z AADERY 020ZOVIRK7EA0E  B 010TF                                  + 03200          210             A-FS
        SUSAP KCHSK7FH21-Z AADERY 030FEGIMK7EA0E   R010RF       0023000425    13740038    + 02000          210    CFFFT K7EAA-FS
        SUSAP KCHSK7FH21-Z AADERY 040PAKICK7EA0EE  R010RF       0023001374    21140030    + 01100                 CFFFT K7EAA FS
        SUSAP KCHSK7FH21-Z ALUTHR 010LUTHRK7EA0E  A    IF                                  + 04000     18000                A FS
        SUSAP KCHSK7FH21-Z ALUTHR 020MYERSK7EA0E  B 010TF                                    03000                          A FS
        SUSAP KCHSK7FH21-Z ALUTHR 030FEGIMK7EA0E    010TF                                  + 02000          210             A-FS
        SUSAP KCHSK7FH21-Z ALUTHR 040PAKICK7EA0EE  R010RF       0023001374    21140030    + 01100                 CFFFT K7EAA FS
        SUSAP KCHSK7FH21-Z ARSRVE 010RSRVEK7EA0E  A    IF                                  + 05000     18000                A FS
        SUSAP KCHSK7FH21-Z ARSRVE 020BAMDEK7EA0E  B 010TF                                  + 03000                          A FS
        SUSAP KCHSK7FH21-Z ARSRVE 030ZELPOK7EA0E    010TF                                  + 01900                          A FS
        SUSAP KCHSK7FH21-Z ARSRVE 040PAKICK7EA0EE   010TF                                  + 01100                          A FS
        SUSAP KCHSK7FH21-Z H      020PAKICK7EA1E  F    IF                                  + 01100     18000       RW21  K7PGA FS
        SUSAP KCHSK7FH21-Z H      020PAKICK7EA2W                                               A031A212                     FS
        SUSAP KCHSK7FH21-Z H      030RW21 K7PG0GY M 031TF                                    00090              -300          A FS
        SUSAP KCHSK7FH21-Z H      040FEPIDK7EA0EYM  010TF                                  + 03000                          A FS
        SUSAP KCHSK7FH21-Z H      050FEPIDK7EA0EE  R   HM                      03140040    + 03000                          A FS

                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
```

CITY AND STATE	ELEVATION: 46 THRE: 40	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CHARLESTON, SC	AIRPORT NAME: CHARLESTON AFB/INTL	RNAV	RNAV (RNP) Z RWY 21, 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 KCHSK7GRW21    0070002114 N32540842W080021025-0300     -0020800040000050150R

                  1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KCHSK7SRW21 K7PG              0   18018003125                                                                  M
```

CITY AND STATE	ELEVATION: 46 THRE: 40	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CHARLESTON, SC	AIRPORT NAME: CHARLESTON AFB/INTL	RNAV	RNAV (RNP) Z RWY 21, 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
	ADERY	ADERY	010	IAF	IF		FB				AA 04000	
	ADERY	ZOVIR	020		TF		FB	1.0			AA 03200	AB 210
	ADERY	FEGIM	030		RF	R	FB	1.0		003.8	AA 02000	AB 210
	ADERY	PAKIC	040		RF	R	FB	1.0		003.0	AA 01100	
	LUTHR	LUTHR	010	IAF	IF		FB				AA 04000	
	LUTHR	MYERS	020		TF		FB	1.0			AT 03000	
	LUTHR	FEGIM	030		TF		FB	1.0			AA 02000	AB 210
	LUTHR	PAKIC	040		RF	R	FB	1.0		003.0	AA 01100	
	RSRVE	RSRVE	010	IAF	IF		FB				AA 05000	
	RSRVE	BAMDE	020		TF		FB	1.0			AA 03000	
	RSRVE	ZELPO	030		TF		FB	1.0			AA 01900	
	RSRVE	PAKIC	040		TF		FB	1.0			AA 01100	
		PAKIC	020	FAF	IF		FB				AA 01100	
		RW21	030	MAP	TF		FO	0.3			AT 00090	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	FEPID	040		TF		FO	1.0			AA 03000	
	FEPID	050		HM	R	FO		031.4(024.4T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	ADERY	N325652.79	W0800723.79	N3256.880	W08007.397
	BAMDE	N330457.54	W0795620.25	N3304.959	W07956.338
	CFFFT	N325759.25	W0800306.11	N3257.988	W08003.102
	FEGIM	N325944.58	W0800119.83	N3259.743	W08001.331
	FEPID	N324219.18	W0800830.79	N3242.320	W08008.513
	LUTHR	N330804.55	W0801259.62	N3308.076	W08012.994
	MYERS	N330141.46	W0800402.96	N3301.691	W08004.049
	PAKIC	N325702.11	W0800036.75	N3257.035	W08000.613
	RSRVE	N331235.14	W0794024.98	N3312.586	W07940.416
	ZELPO	N325946.15	W0795908.35	N3259.769	W07959.139
	ZOVIR	N325919.58	W0800519.63	N3259.326	W08005.327
	RW21	N325408.42	W0800210.25	N3254.140	W08002.171

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW21	00040	50

CITY AND STATE	ELEVATION: 46	THRE: 40	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
CHARLESTON, SC	AIRPORT NAME: CHARLESTON AFB/INTL		RNAV	RNAV (RNP) Z RWY 21, 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: (RNP 1.00)	LUTHR	MYERS	1. TOWER (45-000533)	330025.00N/0800515.00W	397 (5D)	1000	AC50 AT1553	3000
			2. TERRAIN	330654.00N/0800748.00W	92 (100)		AS1500	1600
INITIAL: (RNP 1.00)	RSRVE	BAMDE	3. AAO	330918.00N/0795045.00W	260 (4E)	1000	AC98 AT1642	3000
			4. TERRAIN	330921.00N/0795048.00W	60 (100)		AS1500	1600
INITIAL: (RNP 1.00)	ADERY	ZOVIR	1. TOWER (45-000533)	330025.00N/0800515.00W	397 (5D)	1000	AC50 AT1753	3200
			5. TERRAIN	330000.00N/0800742.00W	53 (100)		AS1500	1600
INTERMEDIATE: (RNP 1.00)	ZOVIR	FEGIM	1. TOWER (45-000533)	330025.00N/0800515.00W	397 (5D)	500	AC50 AT1053	2000
			6. TERRAIN	330000.00N/0800312.00W	56 (100)		AS1000	1100
INTERMEDIATE: (RNP 1.00)	BAMDE	ZELPO	7. TOWER (45-002151)	325819.00N/0795743.00W	330 (1A)	500	AC3 AT1067	1900
			8. TERRAIN	330000.00N/0795851.00W	50 (100)		AS1500	1600
INTERMEDIATE: (RNP 1.00)	MYERS	FEGIM	1. TOWER (45-000533)	330025.00N/0800515.00W	397 (5D)	500	AC50 AT1053	2000
			6. TERRAIN	330000.00N/0800312.00W	56 (100)		AS1500	1600
INTERMEDIATE: STEPDOWN	FEGIM	PAKIC	9. TOWER (45-000767)	325758.00N/0800233.00W	388 (2C)	500	AC20	1000
(RNP 1.00)			8. TERRAIN	330000.00N/0795851.00W	50 (100)		AS1000	1100
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: **RW21**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (45-000706)	092/ 17.1	2016 (5D)	3100					

CITY AND STATE	ELEVATION: 46 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
CHARLESTON, SC	CHARLESTON AFB/INTL	RNAV	RNAV (RNP) Z RWY 21, ORIG	ASO

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ZJX ARTCC CHS APP CON CHS TOWER	[ ] NWS [ ] FAA [ ] A/C OTHER: ASOS	SOURCE: KCHS DISTANCE: HOURS REMOTE OPERATION:
SATISFACTORY ON:		
[X] VHF [X] UHF [ ] HF	LOCATION: KCHS	ADJUSTMENT: 0

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

5. APPROACH & RUNWAY LIGHTING	X	ALSF-2 15
		(S) SALS
	X	MALSR 33
	X	HIRL 21, 33, 15, 03
		MIRL
	X	REIL 21, 03
	X	TDZ 15
	X	C/L 33, 15
	X	OTHER (SPECIFY) PAPI-4L 21, 33, 15, 03

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 21, 33, 15, 03
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	33, 15
	MIDFIELD	33, 15
	ROLL OUT	33, 15

8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 39.6
	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: CHRISTOPHER COX	DATE: 04/25/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

MAX SPEED FEGIM TO PAKIC - 210 KIAS.

MAX SPEED ZOVIR TO FEGIM - 210 KIAS.

VDP NOT ESTABLISHED - RNP PROCEDURE.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BLOCK 3: ALTIMETER SETTING
SOURCE: KCHS
DISTANCE:
2. ASOS IS ON SERVICE-A.
3. BACKUP ALTIMETER SOURCE NOT REQUIRED, REDUNDANT WEATHER SERVICE AVAILABLE.
VGSI DATA: 3.00/50

SEE ATTACHED AIRSPACE LETTER.

MANDATORY ALTITUDES REQUIRED BY ATC.

AUTHORIZATION REQUIRED (AR) PER AJV-3 MEMO DATED 05/17/2011.

AVERAGE LOW TEMPERATURE BASED ON 5-YEAR HISTORY (2006-2010): 06 27F 07 26F 08 19F 09 19F 10 18F

ACT: -5C

ISA DEVIATION: -20

HISTORICAL WIND DATA USED USED FOR TAILWIND VALUE:
ZOVIR TO FEGIM 47 (47.3) KTS AND AT BAMDE 48 (47.5) KTS

8260.54A TABLE 2-3 APPLIED FOR RF TURN FEGIM TO PAKIC (CONSTRUCTION ALT AT OR UNDER 2000 FT) 30KTS

RF TURN DATA:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
FEGIM-PAKIC	2000	210.0	218.40	1954	30.00	2.30	21.37
ZOVIR-FEGIM	3200	210.0	223.44	3154	47.00	2.30	24.89

TF TURN DATA:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
BAMBE	3273	250	266.36	3227	48.00	4.40	18.00

PARA 251, 34:1 PENETRATION:
63 RAILROAD KCHS0016 325415.83N/0800202.18W .87FT (1A)

APPLIED MEMO DATED OCT 03, 2011: REVISED PERFORMACE BASED NAVIGATION (PBN) FLY-BY (FB)/RADIUS-TO-FIX (RF) TURN MAXIMUM BANK ANGLE LIMITS; OMNI-DIRECTIONAL TAILWIND REQUIREMENTS; AND MINIMUM INITIAL DEPARTURE LEG SEGMENT LENGTH DESIGN CRITERIA.

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	ZELPO	PAKIC	9. TOWER (45-000767)	325758.00N/0800233.00W	388 (2C)	500	AC20 AT192	1100
(RNP 1.00)			10. TERRAIN	325815.00N/0795830.00W	46 (0)		AS1000	1000
FINAL: (RNP 0.21)	PAKIC	RW21	11. TOWER (45-000366)	325435.00N/0800143.00W	136 (1A)	20.70:1	AC3 MA34	388/348
FINAL: (RNP 0.30)	PAKIC	RW21	12. TOWER (45-001467)	325433.00N/0800118.00W	185 (1B)	20.69:1	AC10 MA1	452/412
MISSED APPROACH	DA	RW21 (40:1)	13. TOWER (45-020196)	32514.68N/0800124.50W	123 (5D)	ASC	AC50	
(RNP 0.21-1.00)								
MISSED APPROACH	DA	RW21 (40:1)	12. TOWER (45-001467)	325433.00N/0800118.00W	185 (1B)	ASC	AC10	
(RNP 0.30-1.00)								
MISSED APPROACH	RW21	FEPID (40:1)				ASC		
(RNP 0.21-1.00)								
MISSED APPROACH	RW21	FEPID (40:1)				ASC		
(RNP 0.30-1.00)								
3. MISSED APPROACH MAP:	DA / DA	FEPID				ASC		3000
			14. TOWER (45-001871)	324547.00N/0800612.00W	304 (2C)	1000	AC20	1400
ELEV:	124/150		15. TERRAIN	325515.00N/0800430.00W	40 (0)		AS1500	1500

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
CHARLESTON, SC	ELEVATION: 46 AIRPORT NAME: CHARLESTON AFB/INTL	RNAV	RNAV (RNP) Z RWY 21, ORIG	ASO

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
	☐ NWS OTHER:	SOURCE:
	☐ FAA	DISTANCE:
	☐ A/C	HOURS REMOTE OPERATION:
SATISFACTORY ON:		
☐ VHF ☐ UHF ☐ HF	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: CHRISTOPHER COX	DATE: 04/25/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

RADIO FIX AND HOLDING DATA RECORD

NAME: ADERY **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325652.79N/0800723.79W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)
STAR	BAGGY (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	BAGGY (RNAV)			KJZI	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED IAP TO REQUIRED CHARTING.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: BAMDE **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 330457.54N/0795620.25W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

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	NE		WP	031.46	211.46	R		4	3000	14000	5	14

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (45-000850)	331323.00N/0795619.00W	451	2C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 21		1	KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 3		1	KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 3			KCHS	CHARLESTON	SC (US)
STAR	AMYLU (RNAV)			KCHS	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
CHANGED PAT 1 MAX TEMPLATE FROM 13 TO 14.

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFFT **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325759.25N/0800306.11W **TYPE:** CNF

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FEGIM **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325944.58N/0800119.83W **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 21			KCHS	CHARLESTON	SC (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PAKIC **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325702.11N/0800036.75W **TYPE:** WP

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

REMARKS:
LNAV/VNAV FORMULA USED TO ESTABLISH PFAF LOCATION.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZELPO **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325946.15N/0795908.35W **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 21			KCHS	CHARLESTON	SC (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZOVIR **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 325919.58N/0800519.63W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)
STAR	BAGGY (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	BAGGY (RNAV)			KJZI	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED IAP TO REQUIRED CHARTING.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 02/02/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: FEPID **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 324219.18N/0800830.79W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

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	SW		WP	211.35	031.35	R		4	3000	14000	5	14

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	COMMUNICATION TOWER (KJZIT0009)	323957.20N/0800309.89W	507	2C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 21		1	KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 3		1	KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 3			KCHS	CHARLESTON	SC (US)
STAR	BAGGY (RNAV)			KCHS	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 08/25/2011

INFO ONLY

REASON FOR REVISION:
UPDATED LAT LONGS: FIX MOVED .3 NM SE
REMOVED FAC 1
UPDATED FIX USE
ADDED PRECIPITOUS TERRAIN NOTE TO REMARKS
MOVED HOLDING LIMITED NOTE TO HOLD RESTRICTIONS
UPDATED MAX TEMPLATE SIZE PAT 1 FROM 13 TO 14
UPDATED PAT 1 CONTROLLING OBSTACLE
ADDED STAR TO REQUIRED CHARTING

07/06/2011: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 06/28/2011
1. PAT 1 LEG LENGTH DME CHANGED FROM 5 TO 4

DEVELOPED BY: **DATE:** 03/07/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (CHRISTOPHER COX)

APPROVED BY: **DATE:** 07/08/2011 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

QUALITY CHECKED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: LUTHR **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 330804.55N/0801259.62W **TYPE:** WP, RADAR, DME

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

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	CHARLESTON	I-CHS	LOC		334.41	327.41		17.41		1600	4500
2	CHARLESTON	CHS	VORTAC	H	332.97	327.97	16.98	16.98		1600	4500

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 15	1, 2		KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 15			KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 21			KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 15			KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)
STAR	OSPRI (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	OSPRI (RNAV)			KJZI	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, MILITARY IAP, IAP

INFO ONLY

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 08/25/2011

DEVELOPED BY: **DATE:** 02/22/2011 **OFFICE:** AJV-352 **NAME:** DONALD SMITH (CHRISTOPHER COX)

APPROVED BY: **DATE:** 07/08/2011 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

QUALITY CHECKED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: MYERS **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 330141.46N/0800402.96W **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 21			KCHS	CHARLESTON	SC (US)
STAR	OSPRI (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	OSPRI (RNAV)			KJZI	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 08/25/2011

DEVELOPED BY: **DATE:** 03/01/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** 07/13/2011 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

INFO ONLY

QUALITY CHECKED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: RSRVE **STATE:** SC **COUNTRY:** US

LATITUDE/LONGITUDE: 331235.14N/0794024.98W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 03			KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 15			KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 21			KCHS	CHARLESTON	SC (US)
IAP	RNAV (GPS) Y RWY 33			KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 15			KCHS	CHARLESTON	SC (US)
IAP	RNAV (RNP) Z RWY 21			KCHS	CHARLESTON	SC (US)
STAR	AMYLU (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	RSRVE (RNAV)			KCHS	CHARLESTON	SC (US)
STAR	AMYLU (RNAV)			KJZI	CHARLESTON	SC (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 08/25/2011

DEVELOPED BY: **DATE:** 02/24/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** 07/13/2011 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZJX
ATC FACILITY: CHS APP CON
OTHER:

INFO ONLY

QUALITY CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **CHARLESTON** STATE: **SC**

AIRPORT NAME: **CHARLESTON AFB/INTL** ID: **KCHS**

PROCEDURE: **RNAV (RNP) Z RWY 21** 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 (Enter THLD, FAF, ARP, FACILITY, as appropriate)	**THLD**	to 1000' point	**2.86**
2. Width of (Enter appropriate segment, final, intermediate, etc.)	**FINAL**	segment at 1000' point	**1.20**
3. True Course of	**FINAL**	segment containing 1000' point	**204.42**
4. High Terrain in	**FINAL**	segment containing 1000' point	**40**
5. Distance from (If 1500' point in PT maneuvering area or holding pattern note in remarks)	**THLD**	to 1500' point	**5.33**
6. Width of	**INTERMEDIATE**	segment at 1500' point	**4.00**
7. True Course of	**INTERMEDIATE**	segment containing 1500' point	*
8. High Terrain in	**INTERMEDIATE**	segment containing 1500' point	**50**

9. Threshold Coordinates (if straight-in) ... **325408.42N** / **0800210.25W**

10. ARP Coordinates ..... **325355.10N** / **0800225.90W**

11. Runway Approach End and distance furthest from ARP ..... RWY **3**

Distance **0.94** NM

12. FAF Coordinates ..... **325702.11N** / **0800036.75W**

REMARKS: Approach/Drawing attached.

*1500 FT POINT IN RF SEG. 2.16 NM FROM PFAF. 2.3 NM RADIUS.

MEASURED FROM 325906.98N/0800043.09W ABEAM HIGH TERRAIN ON COURSE CENTERLINE. FEGIM-PAKIC INT SD

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **CHARLESTON** STATE: **SC**

AIRPORT NAME: **CHARLESTON AFB/INTL** ID: **KCHS**

PROCEDURE: **RNAV (RNP) Z RWY 21** 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 **2.86**
   (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 **204.42**
4. High Terrain in **FINAL** segment containing 1000' point **40**
5. Distance from **THLD** to 1500' point **6.48**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point **204.44**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **50**
9. Threshold Coordinates (if straight-in) ... **325408.42N** / **0800210.25W**
10. ARP Coordinates ..... **325355.10N** / **0800225.90W**
11. Runway Approach End and distance furthest from ARP ..... RWY **3**
    Distance **0.94** NM
12. FAF Coordinates ..... **325702.11N** / **0800036.75W**

REMARKS: Approach/Drawing attached.

ZELPO INT SD

KCHS RNP 21
ZELPO-PAKIC
DO NOT REMOVE FROM PACKAGE

PFAF Calculations

Min Intermediate Segment Alt (a):	0.00
LTP MSL Elevation (b):	0.00
TCH:	0.00
Glidepath Angle (Θ):	0.00°
Distance from LTP to PFAF (D):	**0.00**
	0.00 NM
LTP/FTP Latitude:	000° 00' 00.00"
LTP/FTP Longitude:	000° 00' 00.00"
True RWY Bearing/True Course:	0.00
PFAF Latitude:	**000° 00' 00.00"**
PFAF Longitude:	**000° 00' 00.00"**

Latitude/Longitude valid for straight segment only

VEB OCS Origin & Slope

Intermediate Segment Altitude:	1100
LTP Elevation:	40
Glidepath Angle:	3
TCH:	50
RNP Value:	0.30
Δ ISA:	-20
Straight In Segment	
(Wingspan =<262) **LTP to Origin:**	**3,678.14'**
(Wingspan =<136) **LTP to Origin:**	**3,471.16'**
OCS Slope Ratio:	**20.70 : 1**
RF Turn Segment | Bank angle:	**0.00°**
(Wingspan =<262) **LTP to Origin:**	**NA**
(Wingspan =<136) **LTP to Origin:**	**NA**
OCS Slope Ratio:	**NA**

Version 2.0

VEB Temperature Limits

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	1400	
LTP Elevation:	284.4	
ACT:	-18.89°C	
Min Glidepath Angle	**2.75°**	
NA Below	**-15.67°C**	**3.79°F**
NA Above	**47.34°C**	**117.21°F**

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	40.00
TCH (ft)	50.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,804.10
Obstacle Distance (ft) *(measured along-track from LTP)*	20,376.24
VEB ROC *(at obstacle)*	**357**
Glidepath MSL altitude at Obstacle	1,167.82
OCS MSL altitude at Obstacle	810.63

KCHS RNP 1
FEGIM-PAKIC
DO NOT REMOVE FROM PACKAGE

PFAF Calculations

Min Intermediate Segment Alt (a):	0.00
LTP MSL Elevation (b):	0.00
TCH:	0.00
Glidepath Angle (Θ):	0.00°
Distance from LTP to PFAF (D):	**0.00**
	0.00 NM
LTP/FTP Latitude:	000° 00' 00.00"
LTP/FTP Longitude:	000° 00' 00.00"
True RWY Bearing/True Course:	0.00
PFAF Latitude:	**000° 00' 00.00"**
PFAF Longitude:	**000° 00' 00.00"**

Latitude/Longitude valid for straight segment only

VEB OCS Origin & Slope

Intermediate Segment Altitude:	1100
LTP Elevation:	40
Glidepath Angle:	3
TCH:	50
RNP Value:	0.30
Δ ISA:	-20
Straight In Segment	
(*Wingspan =<262*) **LTP to Origin:**	**3,678.14'**
(*Wingspan =<136*) **LTP to Origin:**	**3,471.16'**
OCS Slope Ratio:	**20.70 : 1**
RF Turn Segment | Bank angle:	**0.00°**
(*Wingspan =<262*) **LTP to Origin:**	**NA**
(*Wingspan =<136*) **LTP to Origin:**	**NA**
OCS Slope Ratio:	**NA**

Version 2.0

VEB Temperature Limits

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	1400	
LTP Elevation:	284.4	
ACT:	-18.89°C	
Min Glidepath Angle	**2.75°**	
NA Below	**-15.67°C**	**3.79°F**
NA Above	**47.34°C**	**117.21°F**

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	40.00
TCH (ft)	50.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,804.10
Obstacle Distance (ft) *(measured along-track from LTP)*	24,656.00
VEB ROC *(at obstacle)*	**385**
Glidepath MSL altitude at Obstacle	1,396.73
OCS MSL altitude at Obstacle	1,011.78