US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

GLS - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.29

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
URANG (IAF)	CHILT (FB)	084.69 / 5.02	5000
CHILT	MEDIC (FB)	084.74 / 4.25	4000
MEDIC (IF)	DOHNN (FB)	084.77 / 3.77	4000
DOHNN	SAYNO (FB)	084.82 / 3.92	3000
SAYNO	HYWAY (FB)	084.85 / 4.67	2000
HYWAY (FAF)	RW09 (MAP) (FO)	084.89 / 5.84	
RW09 (MAP)	580 MSL	084.89	580
580 MSL	JEBOX (FO)		3000

MISSED APPROACH

MAP: DA

CLIMB TO 580 THEN CLIMBING RIGHT TURN TO 3000 DIRECT JEBOX AND HOLD.

ADDITIONAL FLIGHT DATA:

HOLD SE, LT, 316.72 INBOUND.
DISTANCE TO THLD FROM 200 HATH: 0.45 NM.
LAAS CHANNEL # 21895
REFERENCE PATH ID: GUYO
CHART LOC RWY 8L AND RWY 8R.
LTP HAE: .4 M

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT URANG
3. FAC: 084.89 FAF: DIST FAF TO MAP: 5.84 THLD:
4. MIN. ALT: URANG 5000, CHILT 5000, MEDIC 4000, DOHNN 4000, SAYNO 3000, HYWAY 2000
5. DIST TO THLD FROM OM: 5.84 MM: IM: 150 HAT: 100 HAT: GS ANT:
6. MIN GS INCPT: 2000 GS ALT AT: HYWAY 2000 OM: MM: IM:
7. GS ANGLE: 3.00 TCH: 49.6 34:1 IS CLEAR
8. MSA FROM: RW09 3100

MAG VAR: 5E EPOCH YEAR: 2000

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: N A X

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
GLS DA	292	2400	200	292	2400	200	292	2400	200	292	2400	200	292	2400	200

NOTES:
CHART NOTE: FOR INOPERATIVE MALSR, INCREASE GLS ALL CATS VISIBILITY TO RVR 4000.
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE: RADAR REQUIRED.
(SEE FORM 8260-10)

QUALITY CHECKED

CITY AND STATE	ELEVATION: 97 THRE: 92 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 9, 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 ZHU, IAH APP CON, IAH TOWER, AMGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:

DEVELOPED BY		
NAME:	FIFO	DATE:
SCOTT M. CORY	AJV-353	12/07/2011

APPROVED BY		
NAME:	FIFO	DATE:
LARRY H STROUT MANAGER	AJV-353	

CHANGES:

1. ORIGINAL PROCEDURE.

REASONS:

1. FPT REQUEST.

02/24/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/07/2011.
1. UPDATED TCH FROM 55.7 TO 49.6.

03/12/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/07/2011.
1. ADDED PROFILE NOTE: GLS UNUSABLE INSIDE DA.

04/02/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/07/2011.
1. ADDED ARINC 8260-10 FORMS AND UPDATED PAGE NUMBERS.

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

GLS - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.29

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NOTES, (CONT.):
CHART PROFILE NOTE: VGSI AND GLS GLIDEPATH NOT COINCIDENT.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 8L/R.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART PROFILE NOTE: GLS UNUSABLE INSIDE DA.

QUALITY 1 CHECKED

CITY AND STATE	ELEVATION: 97 THRE: 92 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 9, 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:

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

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	14
AIRPORT IDENTIFIER	KIAH
RUNWAY	RW09
APPROACH PERFORMANCE DESIGNATOR	1
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	4
REFERENCE PATH IDENTIFIER (APPROACH ID)	GUYO
LTP/FTP LATITUDE	295839.3340N
LTP/FTP LONGITUDE	0952002.7925W
LTP/FTP ELLIPSOIDAL HEIGHT	+00004
FPAP LATITUDE	295839.4000N
FPAP LONGITUDE	0951809.0900W
THRESHOLD CROSSING HEIGHT (TCH)	00049.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
CRC REMAINDER	83CBFBF2

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00280
FPAP ORTHOMETRIC HEIGHT	+00280

QUALITY 1 CHECKED

CITY AND STATE	ELEVATION: 97 THRE: 92	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
HOUSTON, TX	AIRPORT NAME:	GIAH	GLS RWY 9, ORIG	AMDT: NONE
	GEORGE BUSH INTERCONTINENTAL/HOUSTON			DATED:

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

COORDINATED WITH:

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

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

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

GLS

INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES TITLE 14 CFR PART 97.29

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.

```
HEADER                                                                                             1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
HDR      USA       HOUSTON                  TX   IAP       KIAH      GLS RWY 9           ORIG
WAYPOINT                                                                                           1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAEAENRT   CHILT K40    C     N29583562W095455303                       E0033     NAR           CHILT
SUSAEAENRT   DOHNN K40    C     N29583753W095363949                       E0033     NAR           DOHNN
SUSAEAENRT   HYWAY K40    C     N29583885W095264601                       E0032     NAR           HYWAY
SUSAEAENRT   JEBOX K40    C     N29442530W095055035                       E0030     NAR           JEBOX
SUSAEAENRT   MEDIC K40    C     N29583671W095405977                       E0033     NAR           MEDIC
SUSAEAENRT   SAYNO K40    C     N29583821W095320887                       E0032     NAR           SAYNO
SUSAEAENRT   URANG K40    C     N29583409W095513962                       E0034     NAR           URANG
AIRPORT                                                                                            1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4AIAH     0     120YHN29590396W095202919E005000097         1800018000C    MNAR    GEORGE BUSH INTERCONTINENTAL/H
SEGMENT                                                                                            1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4FJ09   AURANG 010URANGK4EA0E  A    IF                                 + 05000     18000                 A LS
SUSAP KIAHK4FJ09   AURANG 020CHILTK4EA0E       TF                                 + 05000                           A LS
SUSAP KIAHK4FJ09   AURANG 030MEDICK4EA0E  B    TF                                 + 04000                           A LS
SUSAP KIAHK4FJ09   AURANG 040DOHNNK4EA0E       TF                                 + 04000                           A LS
SUSAP KIAHK4FJ09   AURANG 050SAYNOK4EA0EE      TF                                 + 03000                           A LS
SUSAP KIAHK4FJ09   J      010SAYNOK4EA0E  I    IF                                 + 03000     18000                 A LS
SUSAP KIAHK4FJ09   J      020HYWAYK4EA0E  F    TF                                 + 02000                 RW09  K4PGA LS
SUSAP KIAHK4FJ09   J      030RW09 K4PG0GY M    TF                                   00147             -300          A LS
SUSAP KIAHK4FJ09   J      040          0  M    CA                     0849        + 00580                           A LS
SUSAP KIAHK4FJ09   J      050JEBOXK4EA0EY  R   DF                                 + 03000                           A LS
SUSAP KIAHK4FJ09   J      060JEBOXK4EA0EE  L   HM                     31670040    + 03000                           A LS
```

QUALITY CHECKED 1

CITY AND STATE:	ELEVATION: 97 TDZE: 92 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 9, 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

GLS **INSTRUMENT APPROACH PROCEDURE**

FLIGHT STANDARDS SERVICES TITLE 14 CFR PART 97.29

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RUNWAY

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4GRW09    0100000850 N29583933W095200279-0100    +0000400092000050150IIUY01
```

PATH POINT

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4QJ09   RW09 001   04GUY01N2958393340W09520027925+000050300N2958394000W095180909001067500000000496F     83CBFBF2
SUSAP KIAHK4QJ09   RW09 002E      +00280+00280          21895
```

MSA

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4SRW09 K4PG                0   18018003125                                                                  M
```

GLS

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4TGUY01   021895RW09                    0849N30000409W095202020KIAH     23  300E0050  00094NARL    00014
```

QUALITY CHECKED

CITY AND STATE:	ELEVATION: 97 TDZE: 92	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
HOUSTON, TX	AIRPORT NAME: GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 9, 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	URANG	CHILT	1. TOWER (48-009581)	295942.00N/0954758.00W	466 (5D)	1000	AT3534	5000
			2. TERRAIN	300033.00N/0955139.00W	220 (200)		AS1500	1700
INITIAL: STEPDOWN	CHILT	MEDIC	3. AAO	300012.00N/0954700.00W	404 (4E)	1000	AT2596	4000
			4. TERRAIN	300015.00N/0954551.00W	201 (200)		AS1500	1700
INTERMEDIATE	MEDIC	DOHNN	5. TOWER (48-002815)	295941.00N/0953729.00W	517 (4D)	500	AT2983	4000
			6. TERRAIN	300036.00N/0953927.00W	161 (200)		AS1500	1700
INTERMEDIATE: STEPDOWN	DOHNN	SAYNO	7. TOWER (48-005638)	295642.00N/0953214.00W	722 (5D)	500	AT1778	3000
			8. TERRAIN	300036.00N/0953639.00W	145 (100)		AS1500	1600
INTERMEDIATE: STEPDOWN	SAYNO	HYWAY	7. TOWER (48-005638)	295642.00N/0953214.00W	722 (5D)	500	AT778	2000
			9. TERRAIN	295842.00N/0953206.00W	128 (100)		AS1500	1600
FINAL	HYWAY	RW09				ASC		292/200
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA	JEBOX				ASC		3000
			10. TOWER (48-002348)	294818.66N/0951219.38W	667 (2C)	1000		1700
ELEV:	127		11. TERRAIN	295915.00N/0951357.00W	89 (100)		AS1500	1600

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: RW09

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (48-004048)	194/ 25.5	2049 (5D)	3100					

QUALITY CHECKED

CITY AND STATE	ELEVATION: 97 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 9, ORIG	ASW

PART B - SUPPLEMENTAL DATA

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

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

5. APPROACH & RUNWAY LIGHTING		
	X	ALSF-2 27, 08L, 26R, 26L
		(S) SALS
	X	MALSR 15R, 08R, 09, 33R
	X	HIRL 15R, 33L, 27, 08L, 08R, 26R, 09, 26L, 15L, 33R
		MIRL
		REIL
	X	TDZ 15R, 33L, 27, 08L, 08R, 26R, 26L
	X	C/L 15R, 33L, 27, 08L, 08R, 26R, 09, 26L, 15L, 33R
	X	OTHER (SPECIFY) PAPI-4R 33L, 09 PAPI-4L 15R, 27, 08R, 26L, 15L, 33R

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 15R, 27, 08L, 08R, 26R, 09, 26L, 33R
	INSTRUMENT	NPI-G 33L, 15L
7. RUNWAY VISUAL RANGE	APPROACH	15R, 33L, 27, 08L, 08R, 26R, 09, 26L, 15L, 33R
	MIDFIELD	15R, 33L, 27, 08L, 08R, 26R, 09, 26L, 15L, 33R
	ROLL OUT	15R, 33L, 27, 08L, 08R, 26R, 09, 26L, 15L, 33R

8. GLIDE PATH		
GP ANGLE: 3.00	ELEV RWY THRESHOLD: 91.7	
DISTANCE FROM RWY:	ELEV GP ANTENNA:	
	THRESHOLD CROSSING HEIGHT: 49.6	

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

10. WAIVERS: 1

ORDER 8260.19E APPENDIX L PARA 4I; REFERENCE PATH IDENTIFIER (RPI) FORMAT.

PART D - PREPARED BY:	DATE:
SCOTT M. CORY	12/07/2011
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

2. KIAH ASOS ON SERVICE A; HRS OPTN: 24.

BACKUP ALTIMETER SOURCE NOT ESTABLISHED DUE TO REDUNDANT WEATHER SOURCES AT AIRPORT.

VGSI DATA: 3.00/70.7

SEE ATTACHED AIRSPACE LETTER.

8260.54A LPV (200' HATH) CRITERIA USED FOR DEVELOPMENT OF GLS (LAAS) PROCEDURES PER FPO/WORKING GROUP REQUEST.

GLS:
FINAL OCS SLOPE - 34:1

AVERAGE HIGH TEMPERATURE BASED ON 5-YEAR HISTORY (2006-2010), APPLIED TO DOHNN; AHT: 39 C; NOT APPLIED TO SAYNO PER FPT/AIR TRAFFIC REQUEST TO KEEP AT EXISTING LOCATION TO DECONFLICT WITH ARRIVALS TO KDWH RWY 35L.

CIRCLING NA PER CENTRAL FPO AND ATC REQUEST.

SIMULTANEOUS APPROACH AUTHORIZATION AND ASSOCIATED NOTES INCLUDED ON PROCEDURE; PER FPT: AIR TRAFFIC HAS CONFIRMED THAT AS OF 18 JAN 2012 GNSS IS INCLUDED IN THE SIMULTANEOUS OPERATIONS PLAN FOR GROUND-BASED AND SATELLITE-BASED INSTRUMENT FLIGHT PROCEDURES.

PROCEDURE NOT CONNECTED TO ENROUTE STRUCTURE PER FPO/AIR TRAFFIC REQUEST; RADAR REQUIRED FOR PROCEDURE ENTRY.

MISSED APPROACH DEVELOPED/EVALUATED WITH IPDS.

RADIO FIX AND HOLDING DATA RECORD

NAME: CHILT **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295835.62N/0954553.03W **TYPE:** WP, 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	HOUSTON	I-UYO	LOC/DME		266.95	269.95	22.28	24.25		5000	8000
2	NAVASOTA	TNV	VORTAC	H	132.65	140.65		24.12		5000	8000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-UYO	LOC/DME	R-267	25	4500	8000

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-UYO DME COORDINATES: 295835.38N/0952013.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED DIST FROM FAC FOR FAC 1 AND 2.
CHANGED FAC 1 MAA FROM 5000 TO 8000 FOR 318 FT/NM PLANNING.
CHANGED FAC 2 MAA FROM 5000 TO 8000.
DELETED FAC 3 DATA.
CHANGED ESV RADIAL, DIST AND MIN ALT FROM 23/2000 TO 25/4500.
CHANGED ESV MAX ALT FROM 5000 TO 8000.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DOHNN **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295837.53N/0953639.49W **TYPE:** WP, INT, 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	HOUSTON	I-UYO	LOC/DME		266.95	269.95	14.27	16.24		4000	4500
2	HOBBY	HUB	VOR/DME	H	312.88	317.88		25.98		4000	17500

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-UYO DME COORDINATES: 295835.38N/0952013.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HYWAY **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295838.85N/0952646.01W **TYPE:** WP, 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	HOUSTON	I-UYO	LOC		266.95	269.95	5.68	7.65	46477	2000	4500
2	HOBBY	HUB	VOR/DME	H	330.38	335.38		21.20		2000	4500

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

REMARKS:
I-UYO DME COORDINATES: 295835.38N/0952013.58W
PFAF DETERMINED IAW FAAO 8260.54A FORMULA 2-16B.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
FIX MOVED 670.20 FT WEST.
UPDATED FIX COORDINATES.
DELETED FAC 3 DATA.
ADDED DIST FROM FAC FOR FAC 1 AND 2.
FAC 1 DME CHANGED FROM 5.57 TO 5.66.
FAC 2 COURSE CHANGED FROM 330.65 TO 330.38.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JEBOX **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 294425.30N/0950550.35W **TYPE:** WP, 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	HUMBLE	IAH	VORTAC	H	129.94	134.94	18.33	18.33		3000	10000
2	HOBBY	HUB	VOR/DME	H	056.53	061.53		10.66		3000	10000
3	TRINITY	MHF	VOR/DME	L	295.50	302.50	21.66	21.66		3000	10000

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	SE	IAH	VORTAC	129.94	309.94	L	1		3000	10000	5	10
2	SE	MHF	VOR/DME	295.50	295.50	L	1		3000	10000	5	10
3	SE		WP	136.72	316.72	L		4	3000	10000	5	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	MONUMENT (48-000853)	294500.00N/0950451.00W	629	1D
2	200	TOWER (48-014549)	294606.90N/0950104.62W	631	1A
3	200	MONUMENT (48-000853)	294500.00N/0950451.00W	629	1D

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

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9		3	KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2, 3	1, 2	KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2, 3	1, 2	KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9		3	KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
ADDED DIST FROM FAC (NM) TO FAC 1, 2, AND 3.
DELETED FAC 4.
UPDATED REASON FOR NONSTANDARD HOLDING TO INCLUDE ALL PATS.
MOVED HOLDING LIMITED NOTE FROM REMARKS TO HOLDING RESTRICTIONS.
CONDUCTED/DOCUMENTED PRECIPITOUS TERRAIN EVALUATION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** SCOTT CORY

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MEDIC **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295836.71N/0954059.77W **TYPE:** WP, 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	HOUSTON	I-UYO	LOC/DME		266.95	269.95	18.04	20.01		4000	7000
2	HOBBY	HUB	VOR/DME	H	307.28	312.28		28.64		4000	7000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-UYO	LOC/DME	R-267	21	4000	7000

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-UYO DME COORDINATES: 295835.38N/0952013.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
FIX MOVED 1.39 NM WEST.
UPDATED FIX COORDINATES.
ADDED DIST FROM FAC FOR FAC 1 AND 2.
CHANGED FAC 1 MAA FROM 4500 TO 7000 FOR 318 FT/NM PLANNING.
CHANGED FAC 2 MAA FROM 4500 TO 7000.
DELETED FAC 3 DATA.
ADDED ESV FOR FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: SAYNO **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295838.21N/0953208.87W **TYPE:** WP, 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	HOUSTON	I-UYO	LOC/DME		266.95	269.95	10.35	12.32		3000	4500
2	HOBBY	HUB	VOR/DME	H	319.97	324.97		23.53		3000	4500

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-UYO DME COORDINATES: 295835.38N/0952013.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 07/26/2012

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

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: URANG **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 295834.09N/0955139.62W **TYPE:** WP, 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	HOUSTON	I-UYO	LOC/DME		266.95	269.95	27.30	29.27		5000	10000
2	NAVASOTA	TNV	VORTAC	H	143.19	151.19		21.33		5000	10000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-UYO	LOC/DME	R-267	30	5000	10000

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-UYO DME COORDINATES; 295835.38N/0952013.58W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 9			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 9	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 9 (SA CAT II)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 9			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
ADDED DIST FROM FAC FOR FAC 1 AND 2.
DELETED FAC 3 DATA.
CHANGED ESV RADIAL AND DIST FROM 265/28 TO 267/30.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/29/2011 **OFFICE:** AJV-353 **NAME:** JON DENTON

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: IAH APP CON
OTHER:

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **HOUSTON** STATE: **TX**

AIRPORT NAME: **GEORGE BUSH INTERCONTINENTAL/HOUSTON** ID: **KIAH**

PROCEDURE: **GLS RWY 9** 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 **2.99**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **0.87**
   (Enter appropriate segment, final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **089.89**
4. High Terrain in **FINAL** segment containing 1000' point **114**
5. Distance from **THLD** to 1500' point **4.56**
   (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 **089.89**
8. High Terrain in **FINAL** segment containing 1500' point **114**
9. Threshold Coordinates (if straight-in) ... **295839.33N** / **0952002.79W**
10. ARP Coordinates ..... **295903.96N** / **0952029.19W**
11. Runway Approach End and distance furthest from ARP ..... RWY **27**
    Distance **2.07** NM
12. FAF Coordinates ..... **295838.85N** / **0952644.69W**

REMARKS: Approach/Drawing attached.