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
ZAPPO (IAF)	NEWLY (FB)	265.22 / 5.04	5000
NEWLY	RAIDS (FB)	265.17 / 4.22	4000
RAIDS (IF)	CHUBS (FB)	265.13 / 7.22	3000
CHUBS	OWELL (FB)	265.06 / 4.36	2000
OWELL (FAF)	RW26R (MAP) (FO)	265.02 / 5.79	
RW26R (MAP)	600 MSL	265.02	600
600 MSL	PEPBI (FO)		3000

MISSED APPROACH

MAP: DA

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 3000 DIRECT PEPBI AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD N, RT, 163.47 INBOUND.
DISTANCE TO THLD FROM 200 HATH: 0.44 NM.
LAAS CHANNEL # 21484
REFERENCE PATH ID: GOND
CHART LOC RWY 26L AND RWY 27.
LTP HAE: 1.7 M

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT ZAPPO
3. FAC: 265.02 FAF: DIST FAF TO MAP: 5.79 THLD:
4. MIN. ALT: ZAPPO 5000, NEWLY 5000, RAIDS 4000, CHUBS 3000, OWELL 2000
5. DIST TO THLD FROM OM: 5.79 MM: IM: 150 HAT: 100 HAT: GS ANT:
6. MIN GS INCPT: 2000 GS ALT AT: OWELL 2000 OM: MM: IM:
7. GS ANGLE: 3.00 TCH: 59.4 34:1 IS CLEAR
8. MSA FROM: RW26R 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	295	2400	200	295	2400	200	295	2400	200	295	2400	200	295	2400	200

NOTES:
CHART NOTE: FOR INOPERATIVE ALSF, 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: 95 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 26R, 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	11/08/2011

APPROVED BY

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

CHANGES:

1. ORIGINAL PROCEDURE.

REASONS:

1. FPT REQUEST.

03/12/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/08/2011.
1. ADDED PROFILE NOTE: GLS UNUSABLE INSIDE DA.

04/02/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/08/2011.
1. ADDED ARINC 8260-10 FORMS AND UPDATED PAGE NUMBERS.

QUALITY CHECKED

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 NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 26L AND RWY 27.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART PROFILE NOTE: GLS UNUSABLE INSIDE DA.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 97 THRE: 95	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
HOUSTON, TX	AIRPORT NAME:	GIAH	GLS RWY 26R, ORIG	AMDT: NONE
	GEORGE BUSH INTERCONTINENTAL/HOUSTON			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:

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	14
AIRPORT IDENTIFIER	KIAH
RUNWAY	RW26R
APPROACH PERFORMANCE DESIGNATOR	1
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	3
REFERENCE PATH IDENTIFIER (APPROACH ID)	GOND
LTP/FTP LATITUDE	300025.8585N
LTP/FTP LONGITUDE	0951949.2895W
LTP/FTP ELLIPSOIDAL HEIGHT	+00017
FPAP LATITUDE	300025.7900N
FPAP LONGITUDE	0952131.9100W
THRESHOLD CROSSING HEIGHT (TCH)	00059.4
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0008
CRC REMAINDER	05A78E16

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00290
FPAP ORTHOMETRIC HEIGHT	+00290

QUALITY CHECKED

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:

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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```
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 26R         ORIG
WAYPOINT                                                                                           1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAEAENRT   CHUBS K40    C     N30002577W095080738                       E0030     NAR           CHUBS
SUSAEAENRT   NEWLY K40    C     N30002442W094545663                       E0028     NAR           NEWLY
SUSAEAENRT   OWELL K40    C     N30002593W095130885                       E0030     NAR           OWELL
SUSAEAENRT   PEPBI K40    C   L N30170628W095250501                       E0031     NAR           PEPBI
SUSAEAENRT   RAIDS K40    C     N30002507W094594835                       E0029     NAR           RAIDS
SUSAEAENRT   ZAPPO K40    C     N30002340W094490834                       E0028     NAR           ZAPPO
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 KIAHK4FJ26R  AZAPPO 010ZAPPOK4EA0E  A    IF                                 + 05000     18000                 A LS
SUSAP KIAHK4FJ26R  AZAPPO 020NEWLYK4EA0E       TF                                 + 05000                           A LS
SUSAP KIAHK4FJ26R  AZAPPO 030RAIDSK4EA0E  B    TF                                 + 04000                           A LS
SUSAP KIAHK4FJ26R  AZAPPO 040CHUBSK4EA0EE      TF                                 + 03000                           A LS
SUSAP KIAHK4FJ26R  J      010CHUBSK4EA0E  I    IF                                 + 03000     18000                 A LS
SUSAP KIAHK4FJ26R  J      020OWELLK4EA0E  F    TF                                 + 02000                 RW26R K4PGA LS
SUSAP KIAHK4FJ26R  J      030RW26RK4PG0GY M    TF                                   00155             -300          A LS
SUSAP KIAHK4FJ26R  J      040         0   M    CA                     2650        + 00600                           A LS
SUSAP KIAHK4FJ26R  J      050PEPBIK4EA0EY  R   DF                                 + 03000                           A LS
SUSAP KIAHK4FJ26R  J      060PEPBIK4EA0EE  R   HM                     16350040    + 03000                           A LS
```

QUALITY CHECKED

CITY AND STATE:	ELEVATION: 97 TDZE: 95 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 26R, 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

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.

RUNWAY

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4GRW26R   0090002650 N30002586W095194929+0000    +00017000950000591501IOND3
```

PATH POINT

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4QJ26R  RW26R001   03GOND1N3000258585W09519492895+000170300N3000257900W09521319100106750008000594F      05A78E16
SUSAP KIAHK4QJ26R  RW26R002E      +00290+00290          21484
```

MSA

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4SRW26RK4PG                0   18018003125                                                                  M
```

GLS

```
                                                                                                   1         1         1         1
         1         2         3         4         5         6         7         8         9         0         1         2         3
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
SUSAP KIAHK4TGOND1   021484RW26R                  2650N30000409W095202020KIAH     23  300E0050  00094NARL    00014
```

QUALITY CHECKED

CITY AND STATE:	ELEVATION: 97 TDZE: 95 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
HOUSTON, TX	GEORGE BUSH INTERCONTINENTAL/HOUSTON	GIAH	GLS RWY 26R, 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	ZAPPO	NEWLY	1. TOWER (48-001839)	300212.00N/0945331.00W	321 (4D)	1000	AT3679	5000
			2. TERRAIN	300224.00N/0945454.00W	79 (100)		AS1500	1600
INITIAL: STEPDOWN	NEWLY	RAIDS	3. TOWER (48-001259)	300156.00N/0945938.00W	455 (4D)	1000	AT2545	4000
			4. TERRAIN	300224.00N/0945709.00W	79 (100)		AS1500	1600
INTERMEDIATE	RAIDS	CHUBS	5. TOWER (48-002793)	300209.00N/0950417.00W	569 (3C)	500	AT1931	3000
			6. TERRAIN	300224.00N/0950000.00W	76 (100)		AS1500	1600
INTERMEDIATE: STEPDOWN	CHUBS	OWELL	7. TOWER (48-005522)	300020.16N/0951259.52W	557 (2C)	500	AT943	2000
			8. TERRAIN	300000.00N/0951306.00W	76 (100)		AS1500	1600
FINAL	OWELL	RW26R				ASC		295/200
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA	PEPBI				ASC		3000
			9. TOWER (48-005042)	301120.90N/0952617.65W	622 (1A)	1000		1700
ELEV:	125		10. TERRAIN	301739.00N/0952257.00W	210 (200)		AS1500	1700

4. CIRCLING AREA	DISTANCE	REQUIRED	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	

HT. ABV. ARPT.

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW26R

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (48-004048)	193/ 27.2	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 26R, ORIG	ASW

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
ZHU ARTCC IAH APP CON IAH TOWER	N W S / F A A / A / C — OTHER: ASOS	SOURCE: KIAH DISTANCE: HOURS REMOTE OPERATION:
SATISFACTORY ON:		
X V H F X U H F H F	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: 95.3	
DISTANCE FROM RWY:	ELEV GP ANTENNA:	
	THRESHOLD CROSSING HEIGHT: 59.4	

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: SCOTT M. CORY	DATE: 11/08/2011
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.

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 RAIDS, CHUBS; AHT: 39 C.

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: CHUBS **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 300025.77N/0950807.38W **TYPE:** WP, INT, DME

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

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-OND	LOC/DME		086.96	089.96	11.82	11.82		3000	4500
2	HOBBY	HUB	VOR/DME	H	014.27	019.27		22.29		3000	17500

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-OND COORDINATES: 300021.58N/0952144.35W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 26R			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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: NEWLY **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 300024.42N/0945456.63W **TYPE:** WP, INT, DME

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

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-OND	LOC/DME		086.96	089.96	23.27	23.26		5000	12000
2	DAISETTA	DAS	VORTAC	H	227.22	232.22		17.85		5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-OND	LOC/DME	R-087	24	5000	12000

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-OND DME COORDINATES: 300021.58N/0952144.35W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 26R			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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: OWELL **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 300025.93N/0951308.85W **TYPE:** WP, RADAR, DME

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

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-OND	LOC		086.96	089.96	7.46	7.45	45289	2000	4500

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

REMARKS:
I-OND DME COORDINATES: 300021.58N/0952144.35W
PFAF DETERMINED IAW FAAO 8260.54A FORMULA 2-16B.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 26R			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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:

QUALITY A CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PEPBI **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 301706.28N/0952505.01W **TYPE:** WP, INT, DME

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

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	344.17	349.17	20.00	20.00		3000	17500
2	NAVASOTA	TNV	VORTAC	H	082.19	090.19		33.26		3000	17500
3	HOBBY	HUB	VOR/DME	H	343.97	348.97	38.39	38.39		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	N	IAH	VORTAC	344.17	164.17	R	1		3000	6000	6	7
2	N	HUB	VOR/DME	343.97	163.97	R	1		3000	6000	6	7
3	N		WP	343.47	163.47	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (48-004505)	302243.74N/0953141.88W	932	2C
2	200	TOWER (48-004505)	302243.74N/0953141.88W	932	2C
3	200	TOWER (48-004505)	302243.74N/0953141.88W	932	2C

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 (US)
EN ROUTE	V477	1, 2				
IAP	GLS RWY 26R		3	KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1, 2, 3	1, 2	KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1, 2, 3	1, 2	KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1, 2, 3	1, 2	KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R		3	KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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: RAIDS **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 300025.07N/0945948.35W **TYPE:** WP, INT, DME

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

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-OND	LOC/DME		086.96	089.96	19.04	19.04		4000	6400
2	HOBBY	HUB	VOR/DME	H	029.71	034.71		25.60		4000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-OND	LOC/DME	R-087	20	4000	6400

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-OND DME COORDINATES: 300021.58N/0952144.35W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 26R			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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: ZAPPO **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 300023.40N/0944908.34W **TYPE:** WP, INT, DME

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

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-OND	LOC/DME		086.96	089.96	28.31	28.30		5000	12000
2	DAISETTA	DAS	VORTAC	H	214.59	219.59		14.22		5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-OND	LOC/DME	R-087	29	5000	12000

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

REMARKS:
HOUSTON (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-OND DME COORDINATES: 300021.58N/0952144.35W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	GLS RWY 26R			KIAH	HOUSTON	TX (US)
IAP	ILS OR LOC RWY 26R	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (CAT II/III)	1, 2		KIAH	HOUSTON	TX (US)
IAP	ILS RWY 26R (SA CAT I)	1, 2		KIAH	HOUSTON	TX (US)
IAP	RNAV (GPS) RWY 26R			KIAH	HOUSTON	TX (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
REMOVED FIX RESTRICTION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 12/05/2011 **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:

TERMINAL AIRSPACE DATA REQUIREMENTS

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

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

PROCEDURE: **GLS RWY 26R** 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 **2.97**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **0.86**
   (Enter appropriate segment, final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **270.02**
4. High Terrain in **FINAL** segment containing 1000' point **105**
5. Distance from **THLD** to 1500' point **4.54**
   (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 **270.02**
8. High Terrain in **FINAL** segment containing 1500' point **105**
9. Threshold Coordinates (if straight-in) ... **300025.86N** / **0951949.29W**
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 ..... **300025.93N** / **0951308.85W**

REMARKS: Approach/Drawing attached.

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:
Houston, TX (IAH)
George Bush Intercontinental/Houston
GLS RWY 26R

2. Waiver Required and Applicable Standard:
8260.19E APPENDIX L PARA 4i; Reference Path Identifier (RPI). "For ground based augmentation systems (e.g., LAAS) the identifier is defined with a "G" followed by the runway number. The last character, beginning with the letter "A," excluding the letters "C," "L," and "R," will be used to define the first procedure, followed by a succeeding letter for each procedure to a particular runway."

3. Reason for Waiver *(Justification for nonstandard treatment)*:
The current RPI methodology allows multiple procedures at different airports located within the GBAS facility service volume to have the same RPI. For future application of GBAS RPI, Spectrum Engineering and GBAS program office have requested a new format which provides a unique RPI for all procedures at all airports within GBAS facility service volume. New RPI format is still defined with a "G", but is followed by the corresponding ILS system identifier for that runway. RPI for KIAH, GLS RWY 26R: GOND.

4. Equivalent Level of Safety Provided:

1. The change of RPI methodology supports current systems and future GBAS authentication.

2. Only a small number of aircraft are currently equipped to fly GLS approach procedures.

3. Air carriers must obtain FAA authorization via Operations Specifications (C052) to fly GLS procedures.

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

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

AJV-353: _____

7. SUBMITTED BY

DATE:	Office Identification:	Title:	Signature:
	AJV-35	**Manager, Terminal Products Group**	**Greg Yamamoto**

FAA FORM 8260 - 1 / July 2003 (computer generated)

8. CONTINUATION
Comments:

9. AFS ACTION		
		Approved
		Disapproved
		Not Required

Comments:

Date:	Routing Symbol:	Signature: