

RADIO FIX AND HOLDING DATA RECORD

NAME: ARMEL VOR/DME **STATE:** VA **COUNTRY:** US **ICAO REGION CODE:** K6

LATITUDE/LONGITUDE: 385604.54N/0772800.13W **TYPE:**

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	ARMEL	AML	VOR/DME	L							17500

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

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	AAO	385357.00N/0774157.00W	1542	4E

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 8W (1980).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	NATIONAL			KDCA	WASHINGTON	DC (US)
DP	ARSENAL			KHEF	WASHINGTON	DC (US)
DP	CAPITAL			KIAD	WASHINGTON	DC (US)
DP	PALEO			KBWI	BALTIMORE	MD (US)
DP	TRIXY			KMRB	MARTINSBURG	WV (US)
EN ROUTE	J149					(US)
EN ROUTE	J213					(US)
EN ROUTE	J220					(US)
EN ROUTE	J227					(US)
EN ROUTE	V4					(US)
EN ROUTE	V92					(US)
IAP	COPTER ILS OR LOC/DME RWY 1			KDCA	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 1			KDCA	WASHINGTON	DC (US)
IAP	ILS RWY 1 (CAT II)			KDCA	WASHINGTON	DC (US)
IAP	ILS RWY 1 (SA CAT I)			KDCA	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 15			KDCA	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 16L			KHEF	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 19L			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 1R			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 12			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 19C			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 19R			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 1C			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 1L			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 19C (CAT II & III)			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 19L (SA CAT II)			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 19R (CAT II & III)			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1C (SA CAT II)			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1L (CAT II & III)			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1R (CAT II & III)			KIAD	WASHINGTON	DC (US)
IAP	VOR/DME RWY 12			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 32			KDAA	FORT BELVOIR	VA (US)
IAP	NDB RWY 32			KDAA	FORT BELVOIR	VA (US)
IAP	VOR RWY 15			KHWY	WARRENTON	VA (US)
IAP	VOR-A			KMRB	MARTINSBURG	WV (US)
STAR	NUMMY			KDCA	WASHINGTON	DC (US)
STAR	COATT			KIAD	WASHINGTON	DC (US)
STAR	DOCCS			KIAD	WASHINGTON	DC (US)
STAR	SMYRNA			KDOV	DOVER	DE (US)
STAR	WESTMINSTER			KBWI	BALTIMORE	MD (US)
STAR	WESTMINSTER			KMTN	BALTIMORE	MD (US)
STAR	NUMMY			KADW	CAMP SPRINGS	MD (US)
STAR	GEMNI			KDTW	DETROIT	MI (US)
STAR	DYLIN			KEWR	NEWARK	NJ (US)
STAR	NUMMY			KDAA	FORT BELVOIR	VA (US)
STAR	DOCCS			KJYO	LEESBURG	VA (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, AREA, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14

DATE OF REVISION: 12/07/2017

QUALITY
17
CHECKED

REASON FOR REVISION:

1. ADDED REMARK: ASSIGNED FACILITY MAGVAR: 8W (1980).
2. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
3. ADDED RNAV (GPS) RWY 14 AT KDAA TO FIX USE.

DEVELOPED BY: **DATE:** 06/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION: **NFDC**
 FPO: EST
 ARTCC: ZDC
 ATC FACILITY: POTOMAC APP CON
 OTHER:

QUALITY
17
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BARIN

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 383510.92N/0772150.09W

TYPE: WP, INT

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	FAC FEET	MRA	MAA
1	BROOKE	BRV	VORTAC	L	007.01	358.01		15.00		2400	17500
2	CASANOVA	CSN	VORTAC	H	103.78	097.78		23.82		2400	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

BROOKE (FAC 1) AND CASANOVA (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 1C			KIAD	WASHINGTON	DC (US)
STAR	CAVLR (RNAV)			KIAD	WASHINGTON	DC (US)
STAR	COATT	1, 2		KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.

DEVELOPED BY:

DATE: 06/27/2017

OFFICE: AJV-5422

NAME: PETER GUIMOND

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZDC
ATC FACILITY: POTOMAC APP CON
OTHER:

QUALITY
17
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BROOKE VORTAC STATE: VA COUNTRY: US ICAO REGION CODE: K6
 LATITUDE/LONGITUDE: 382010.53N/0772110.32W TYPE:

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	MRA FEET	MAA
1	BROOKE	BRV	VORTAC	L						17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW		WP	244.00	064.00	L		4	2000 2000	4 4
2	SW	BRV	VORTAC	214.12	034.12	L	1		3500 10000	4 9
3	SE	BRV	VORTAC	134.42	314.42	R	1		2000 3000	4 4

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (51-001570)	381631.33N/0773233.47W	799	5D
2	200	TOWER (51-000364)	381621.00N/0772946.00W	743	3C
3	200	TOWER (51-000966)	381957.00N/0772340.00W	629	5D

REASON FOR NONSTANDARD HOLDING:

PAT 1 PER NAVFIG
 PAT 2 REMAIN CLEAR OF DCA ARRIVALS

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-6611A AND/OR R-6613A
 PAT 1 BELONGS TO THE NAVY AT QUANTICO. ALL DATA WAS COORDINATED WITH NAVFIG (MARK RAUSCH).
 ASSIGNED FACILITY MAGVAR: 9W (1985).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PTOMC (RNAV)			KJYO	LEESBURG	VA (US)
DP	COLIN			KRIC	RICHMOND	VA (US)
EN ROUTE	J37					(US)
EN ROUTE	V155					(US)
EN ROUTE	V286					(US)
IAP	RNAV (GPS) RWY 34L			KHEF	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 34R			KHEF	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 1R			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1R (CAT II & III)			KIAD	WASHINGTON	DC (US)
IAP	RNAV (GPS) Y RWY 1R			KIAD	WASHINGTON	DC (US)
IAP	RNAV (RNP) Z RWY 1C			KIAD	WASHINGTON	DC (US)
IAP	RNAV (RNP) Z RWY 1R			KIAD	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 26			K7W4	BUMPASS	VA (US)
IAP	ILS OR LOC RWY 32			KDAA	FORT BELVOIR	VA (US)
IAP	NDB RWY 32			KDAA	FORT BELVOIR	VA (US)
IAP	NDB RWY 24			KEZF	FREDERICKSBURG	VA (US)
IAP	RNAV (GPS) RWY 24			KEZF	FREDERICKSBURG	VA (US)
IAP	RNAV (GPS) RWY 26			KOMH	ORANGE	VA (US)
IAP	RNAV (GPS) RWY 2		1	KNYG	QUANTICO	VA (US)
IAP	TACAN RWY 2			KNYG	QUANTICO	VA (US)
IAP	ILS OR LOC RWY 33			KRMN	STAFFORD	VA (US)
IAP	VOR RWY 33		3	KRMN	STAFFORD	VA (US)
STAR	COATT		2	KIAD	WASHINGTON	DC (US)
STAR	DELRO			KIAD	WASHINGTON	DC (US)
STAR	SELINGROVE			KIAD	WASHINGTON	DC (US)
STAR	SMYRNA			KDOV	DOVER	DE (US)
STAR	RIPKN			KBWI	BALTIMORE	MD (US)
STAR	RIPKN			KMTN	BALTIMORE	MD (US)
STAR	RIPKN			KDMW	WESTMINSTER	MD (US)
STAR	KORRY			KLGA	NEW YORK	NY (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 17

DATE OF REVISION: 12/07/2017



REASON FOR REVISION:

1. CORRECTED PAT 2 INBOUND COURSE FROM 034.13 TO 034.12 (ALIGN WITH FALKO TO BRV VORTAC COURSE ON COATT STAR AT IAD). NO CHANGE TO CONTROLLING OBSTACLE.
2. AMENDED PAT 2 MIN HOLDING ALTITUDE FROM 4000 TO 3500 (MATCH MEA ON COATT STAR AT IAD).
3. DELETED REMARK: CHART ON ENROUTE LOW: USE FAK R-031 WHEN BRV-214 UNUSABLE.
4. DELETED REMARK: CSN (133R @ 31 NM) AND FAK (031R @54 NM) VORTAC RADIALS/DIST USED IN EVENT OF BRV FAILURE/SHUTDOWN.
5. ADDED REMARK: ASSIGNED FACILITY MAGVAR: 9W (1985).
6. DELETED PAT 3 FROM CHARTING ON V286.
7. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
8. ADDED DELRO STAR AND SELINGSGROVE STAR AT KIAD TO FIX USE.

DEVELOPED BY: **DATE:** 06/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION: **NFDC**
 FPO: EST
 ARTCC: ZDC
 ATC FACILITY: POTOMAC APP CON
 OTHER: NAVFIG

QUALITY
17
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CASANOVA VORTAC **STATE:** VA **COUNTRY:** US **ICAO REGION CODE:** K6

LATITUDE/LONGITUDE: 383828.33N/0775155.80W **TYPE:**

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	MRA FEET	MAA
1	CASANOVA	CSN	VORTAC	H						45000

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	CSN	VORTAC	207.00	027.00	L	1-1 1/2	3000 17000	4 16
2	NW	CSN	VORTAC	299.00	119.00	R	1-1 1/2	2800 17000	4 16
3	N	CSN	VORTAC	003.51	183.51	L	1-1 1/2	2900 17000	4 16
4	SW	WP	WP	207.00	027.00	L		3000 8000	5 9
5	NE	CSN	VORTAC	052.09	232.09	R	1	4000 6000	4 5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	265	AAO	384536.00N/0781018.00W	3025	4E
1	200	AAO	384300.00N/0775309.00W	1080	4E
2	200	AAO	383924.00N/0770339.00W	1309	4E
3	200	AAO	384733.00N/0775021.00W	1555	4E
3	310	AAO	385018.00N/0775712.00W	1756	4E
4	200	AAO	384300.00N/0775309.00W	1080	4E
4	310	AAO	384718.00N/0775004.00W	1523	4E
5	200	TOWER (51-000111)	384402.38N/0775009.97W	1384	2C

REASON FOR NONSTANDARD HOLDING:

PAT 4 FOR SEPARATION
PAT 1 FOR SEPARATION
PAT 3 TO AVOID HIGH TERRAIN WEST

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 4100

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
3	LOC RWY 4	KCJR	CULPEPER	VA (US)
3	VOR-A	KCJR	CULPEPER	VA (US)
3	NDB RWY 4	KCJR	CULPEPER	VA (US)
4	RNAV (GPS) RWY 33	KHWY	WARRENTON	VA (US)

REMARKS:

HOLDING PATTERNS 1, 2 AND 3 HIGHER ALTITUDES REQUESTED BY ATC.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 6W (1965).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	NATIONAL			KDCA	WASHINGTON	DC (US)
DP	ARSENAL			KHEF	WASHINGTON	DC (US)
DP	CAPITAL			KIAD	WASHINGTON	DC (US)
DP	PTOMC (RNAV)			KJYO	LEESBURG	VA (US)
EN ROUTE	J147					(US)
EN ROUTE	J48					(US)
EN ROUTE	J8					(US)
EN ROUTE	V128					(US)
EN ROUTE	V140					(US)
EN ROUTE	V286					(US)
EN ROUTE	V453					(US)
IAP	RNAV (GPS) RWY 34L		4	KHEF	DISTRICT OF COLUMBIA	DC (US)
IAP	ILS OR LOC RWY 16L		1	KHEF	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 16L		4	KHEF	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 16R		4	KHEF	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 34R		4	KHEF	WASHINGTON	DC (US)
IAP	ILS OR LOC RWY 1R			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 12			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 19C		5	KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 19R			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 1C			KIAD	WASHINGTON	DC (US)
IAP	ILS OR LOC/DME RWY 1L			KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 19C (CAT II & III)		5	KIAD	WASHINGTON	DC (US)

QUALITY
17
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IAP	ILS RWY 19R (CAT II & III)		KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1C (SA CAT II)		KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1L (CAT II & III)		KIAD	WASHINGTON	DC (US)
IAP	ILS RWY 1R (CAT II & III)		KIAD	WASHINGTON	DC (US)
IAP	RNAV (GPS) RWY 1L		KIAD	WASHINGTON	DC (US)
IAP	RNAV (GPS) Y RWY 19C	4	KIAD	WASHINGTON	DC (US)
IAP	RNAV (GPS) Y RWY 1R		KIAD	WASHINGTON	DC (US)
IAP	RNAV (RNP) Z RWY 1C		KIAD	WASHINGTON	DC (US)
IAP	RNAV (RNP) Z RWY 1R		KIAD	WASHINGTON	DC (US)
IAP	VOR/DME RWY 12		KIAD	WASHINGTON	DC (US)
IAP	LOC RWY 4	3	KCJR	CULPEPER	VA (US)
IAP	NDB RWY 4	3	KCJR	CULPEPER	VA (US)
IAP	RNAV (GPS) RWY 22		KCJR	CULPEPER	VA (US)
IAP	RNAV (GPS) RWY 4		KCJR	CULPEPER	VA (US)
IAP	VOR-A	3	KCJR	CULPEPER	VA (US)
IAP	ILS OR LOC RWY 17		KJYO	LEESBURG	VA (US)
IAP	RNAV (GPS) RWY 26		KOMH	ORANGE	VA (US)
IAP	LOC/DME RWY 15	1	KHWY	WARRENTON	VA (US)
IAP	RNAV (GPS) RWY 15	4	KHWY	WARRENTON	VA (US)
IAP	RNAV (GPS) RWY 33	4	KHWY	WARRENTON	VA (US)
IAP	VOR RWY 15	2	KHWY	WARRENTON	VA (US)
IAP	ILS OR LOC RWY 32		KOKV	WINCHESTER	VA (US)
IAP	VOR-A		KMRB	MARTINSBURG	WV (US)
STAR	IRONS		KDCA	WASHINGTON	DC (US)
STAR	NUMMY		KDCA	WASHINGTON	DC (US)
STAR	COATT		KIAD	WASHINGTON	DC (US)
STAR	DOCCS		KIAD	WASHINGTON	DC (US)
STAR	SMYRNA		KDOV	DOVER	DE (US)
STAR	RIPKN		KBWI	BALTIMORE	MD (US)
STAR	RIPKN		KMTN	BALTIMORE	MD (US)
STAR	NUMMY		KADW	CAMP SPRINGS	MD (US)
STAR	RIPKN		KDMW	WESTMINSTER	MD (US)
STAR	NUMMY		KDAA	FORT BELVOIR	VA (US)
STAR	DOCCS		KJYO	LEESBURG	VA (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 21

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. ADDED REMARK: ASSIGNED FACILITY MAGVAR: 6W (1965).
2. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
3. DELETED IRONS STAR AT KW00, KADW, KW32, KCGS, KVKX, AND K2W5 FROM FIX USE.

DEVELOPED BY: **DATE:** 06/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

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FPO: EST
ARTCC: ZDC
ATC FACILITY: POTOMAC APP CON
OTHER:

QUALITY
17
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: COATT

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 375729.81N/0773436.49W

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 NM	FAC FEET	MRA	MAA
1	FLAT ROCK	FAK	VORTAC	H	030.84	024.84	28.40	28.40		2000	17500
2	RICHMOND	RIC	VORTAC	H	345.00	336.00	29.93	29.93		2000	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	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NE	FAK	VORTAC	030.84	210.84	R	1		2000	6000	5	7
2	S		WP	165.24	345.24	R		4	2000	6000	4	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (51-020253)	375553.37N/0773837.89W	652	1A
2	200	TOWER (51-020253)	375553.37N/0773837.89W	652	1A

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

FLAT ROCK (FAC 1) AND RICHMOND (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V155	1, 2				(US)
IAP	LOC RWY 16	1, 2	1	KOFP	RICHMOND/ASHLAND	VA (US)
IAP	RNAV (GPS) RWY 16			KOFP	RICHMOND/ASHLAND	VA (US)
IAP	RNAV (GPS) RWY 34		2	KOFP	RICHMOND/ASHLAND	VA (US)
IAP	VOR RWY 16	1, 2		KOFP	RICHMOND/ASHLAND	VA (US)
STAR	COATT	1, 2		KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. AMENDED PAT 1 CONTROLLING OBSTACLE FROM 612 MSL TOWER TO 652 MSL TOWER (NO CHANGE TO MIN HOLDING ALTITUDE REQUIRED).
2. AMENDED PAT 2 CONTROLLING OBSTACLE FROM 621 MSL TOWER TO 652 MSL TOWER (NO CHANGE TO MIN HOLDING ALTITUDE REQUIRED).
3. DELETED COPTER NDB 173 AT KAPH FROM FIX USE.
4. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
5. DELETED BARIN (RNAV) STAR AT KIAD FROM FIX USE.

DEVELOPED BY: DATE: 06/27/2017

OFFICE: AJV-5422

NAME: PETER GUIMOND

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION:

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ARTCC: ZDC
ATC FACILITY: POTOMAC APP CON
OTHER:

QUALITY
17
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DEAND

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 374825.53N/0772928.90W

TYPE: 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 NM	FAC FEET	MRA	MAA
1	RICHMOND	RIC	VORTAC	H	345.00	336.00	20.00	20.00		3500	29000
2	FLAT ROCK	FAK	VORTAC	H	049.76	043.76	23.16	23.16		3500	29000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

RICHMOND (FAC 1) AND FLAT ROCK (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	COATT	1, 2		KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. AMENDED FAC 1 AND FAC 2 MRA FROM 2000 TO 3500.
2. DELETED COATT STAR AT KJYO AND KHEF FROM FIX USE.

DEVELOPED BY:

DATE: 06/27/2017

OFFICE: AJV-5422

NAME: PETER GUIMOND

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: JULIE MORGAN

SIGNATURE:

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Aug 18, 2017

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RADIO FIX AND HOLDING DATA RECORD

NAME: FALKO STATE: VA COUNTRY: US ICAO REGION CODE: K6
 LATITUDE/LONGITUDE: 381106.69N/0772633.33W 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	MRA	MAA
1	FLAT ROCK	FAK	VORTAC	H	030.85	024.85	43.41	43.41	2000	17500
2	GORDONSVILLE	GVE	VORTAC	H	078.79	072.79		35.18	2000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
FAK	VORTAC	R-031	44	2000	17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	SW	FAK	VORTAC	030.85	030.85	L	1		3500	14000	8	10
2	SW		WP	030.85	030.85	L		4	4000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	210	TOWER (51-000740)	381148.00N/0773344.00W	819	5D
2	200	TOWER (51-002161)	380742.92N/0773026.15W	652	4D

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST

HOLDING RESTRICTIONS:

PAT 1 CHART 210K ICON
 HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

FLAT ROCK (FAC 1) AND GORDONSVILLE (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V155	1, 2				(US)
IAP	RNAV (GPS) RWY 2			KNYG	QUANTICO	VA (US)
IAP	RNAV (GPS) RWY 33		2	KRMN	STAFFORD	VA (US)
STAR	COATT	1	1	KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. DELETED HOLDING PATTERN 3 AND ASSOCIATED DATA.
2. AMENDED PAT 1 MIN HOLDING ALTITUDE FROM 2000 TO 3500, MIN HOLDING TEMPLATE FROM 5 TO 8, AND MAX HOLDING TEMPLATE FROM 9 TO 10.
3. AMENDED PAT 1 HOLDING LEG LENGTH FROM 4 DME TO 1 MINUTE.
4. AMENDED PAT 1 CONTROLLING OBSTACLE FROM 652 MSL TOWER TO 819 MSL TOWER.
5. DELETED COATT STAR AT KHEF AND KJYO IN FIX USE.

DEVELOPED BY: DATE: 06/27/2017 OFFICE: AJV-5422 NAME: PETER GUIMOND

APPROVED BY: DATE: OFFICE: AJV-5420 NAME: JULIE MORGAN

SIGNATURE:

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ROBERT G HAMILTON

DISTRIBUTION:

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 ATC FACILITY: NYG APP CON, POTOMAC APP CON
 OTHER:

Aug 18, 2017



RADIO FIX AND HOLDING DATA RECORD

NAME: FLAT ROCK VORTAC STATE: VA COUNTRY: US ICAO REGION CODE: K6
 LATITUDE/LONGITUDE: 373142.63N/0774941.59W TYPE:

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	MRA FEET	MAA
1	FLAT ROCK	FAK	VORTAC	H						45000

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	FAK	VORTAC	218.00	038.00	L	1 1/2		21000 37000	18 26

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	TOWER (51-000705)	373023.00N/0774202.00W	1538	3D

REASON FOR NONSTANDARD HOLDING:

PAT 1 AIR TRAFFIC REQUEST

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 ASSIGNED FACILITY MAG VAR: 6W (1965).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HICKORY (OBSTACLE)			KHKY	HICKORY	NC (US)
DP	OXFRD (RNAV)			KRDU	RALEIGH/DURHAM	NC (US)
DP	RALEIGH			KRDU	RALEIGH/DURHAM	NC (US)
DP	BLACKSTONE			KBKT	BLACKSTONE	VA (US)
DP	HENRY			KPHF	NEWPORT NEWS	VA (US)
DP	KISRR			KORF	NORFOLK	VA (US)
DP	READE			KRIC	RICHMOND	VA (US)
EN ROUTE	J109					(US)
EN ROUTE	J24					(US)
EN ROUTE	J51		1			(US)
EN ROUTE	V155					(US)
EN ROUTE	V16					(US)
EN ROUTE	V223					(US)
EN ROUTE	V260					(US)
EN ROUTE	V290					(US)
EN ROUTE	V3					(US)
IAP	RNAV (GPS)-A			KW81	CREWE	VA (US)
IAP	NDB RWY 3			KFVX	FARMVILLE	VA (US)
IAP	RNAV (GPS) RWY 21			KFVX	FARMVILLE	VA (US)
IAP	RNAV (GPS) RWY 15			KFCI	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 16			KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 2			KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 34			KRIC	RICHMOND	VA (US)
IAP	ILS RWY 34 (CAT II & III)			KRIC	RICHMOND	VA (US)
IAP	ILS RWY 34 (SA CAT I)			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) RWY 7			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 16			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 2			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 20			KRIC	RICHMOND	VA (US)
IAP	RNAV (GPS) Z RWY 34			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 02			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 34			KRIC	RICHMOND	VA (US)
IAP	LOC RWY 16			KOFP	RICHMOND/ASHLAND	VA (US)
IAP	VOR RWY 16			KOFP	RICHMOND/ASHLAND	VA (US)
STAR	IRONS			KDCA	WASHINGTON	DC (US)
STAR	COATT			KIAD	WASHINGTON	DC (US)
STAR	RIPKN			KBWI	BALTIMORE	MD (US)
STAR	RIPKN			KMTN	BALTIMORE	MD (US)
STAR	RIPKN			KDMW	WESTMINSTER	MD (US)
STAR	JAIKE (RNAV)			KCDW	CALDWELL	NJ (US)
STAR	JAIKE (RNAV)			KLDJ	LINDEN	NJ (US)
STAR	JAIKE (RNAV)			K47N	MANVILLE	NJ (US)
STAR	JAIKE (RNAV)			KMMU	MORRISTOWN	NJ (US)
STAR	DYLIN			KEWR	NEWARK	NJ (US)
STAR	PHLBO (RNAV)			KEWR	NEWARK	NJ (US)
STAR	JAIKE (RNAV)			KSMQ	SOMERVILLE	NJ (US)
STAR	JAIKE (RNAV)			KTEB	TETERBORO	NJ (US)

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STAR	PAATS (RNAV)	KTTN	TRENTON	NJ (US)
STAR	PAATS (RNAV)	KMQS	COATESVILLE	PA (US)
STAR	PAATS (RNAV)	KPHL	PHILADELPHIA	PA (US)
STAR	PAATS (RNAV)	KPNE	PHILADELPHIA	PA (US)
STAR	TERKS	KCPK	NORFOLK	VA (US)
STAR	TERKS	KNGU	NORFOLK	VA (US)
STAR	TERKS	KORF	NORFOLK	VA (US)
STAR	TERKS	KPVG	NORFOLK	VA (US)
STAR	TERKS	KSFQ	SUFFOLK	VA (US)
STAR	TERKS	KNTU	VIRGINIA BEACH	VA (US)

REQUIRED CHARTING: DP, STAR, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 17

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. AMENDED UNPLANNED HOLDING CONTROLLING OBSTACLE FROM 1539 MSL TOWER TO 1538 MSL TOWER TO MATCH AIRNAV VALUE FOR OBSTACLE 51-000705.
2. ADDED BLACKSTONE DP AT KBKT TO FIX USE.
3. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
4. DELETED BARIN (RNAV) STAR AT KIAD FROM FIX USE.
5. DELETED LOC/NDB RWY 5 AND VOR RWY 23 AT KPTB FROM FIX USE.
6. DELETED IRONS STAR AT KW00, KADW, KW32, KCGS, KVKX, AND K2W5 FROM FIX USE.

DEVELOPED BY: **DATE:** 06/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION: **NFDC**
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17
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RADIO FIX AND HOLDING DATA RECORD

NAME: NABBS

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 375235.80N/0773729.39W

TYPE: DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	FLAT ROCK	FAK	VORTAC	H	030.84	024.84	23.00	23.00		2000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V155	1				(US)
STAR	COATT	1		KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. MOVED FIX 20.57 FEET WEST TO V155 CENTERLINE.
2. AMENDED FAC 1 MAG BRG FROM 030.85 TO 030.84.
3. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
4. DELETED REMARK: FLAT ROCK (FAC 1) USED TO ESTABLISH FIX COORDINATES.

DEVELOPED BY: DATE: 06/27/2017 OFFICE: AJV-5422 NAME: PETER GUIMOND

APPROVED BY: DATE: OFFICE: AJV-5420 NAME: JULIE MORGAN

SIGNATURE:

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ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION: NFDC
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17
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RADIO FIX AND HOLDING DATA RECORD

NAME: OGATE STATE: VA COUNTRY: US ICAO REGION CODE: K6
 LATITUDE/LONGITUDE: 380329.07N/0773104.65W TYPE: DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	FLAT ROCK	FAK	VORTAC	H	030.84	024.84	35.00	35.00		2000	45000

HOLDING: HOLDING TYPE OF ACTION: ESTABLISH

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	FAK	VORTAC	030.84	030.84	L	1-1 1/2	10000 20000	11 19

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (51-002161)	380742.92N/0773026.15W	652	4D

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 HOLDING EVALUATED AT 230 KIAS PER ATC REQUEST.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V155	1				(US)
STAR	COATT	1	1	KIAD	WASHINGTON	DC (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 12/07/2017

REASON FOR REVISION:

1. MOVED FIX 31.66 FEET WEST TO V155 CENTERLINE.
2. AMENDED FAC 1 MAG BRG FROM 030.85 TO 030.84.
3. RE-ESTABLISHED PAT 1 (PATTERN WAS INADVERTENTLY CANCELED BUT IS STILL CHARTED AND USED BY ATC)
4. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.

DEVELOPED BY: DATE: 06/27/2017 OFFICE: AJV-5422 NAME: PETER GUIMOND

APPROVED BY: DATE: OFFICE: AJV-5420 NAME: JULIE MORGAN

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RADIO FIX AND HOLDING DATA RECORD

NAME: RICHMOND VORTAC

STATE: VA

COUNTRY: US

ICAO REGION CODE: K6

LATITUDE/LONGITUDE: 373008.46N/0771913.00W

TYPE:

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	MRA FEET	MAA
1	RICHMOND	RIC	VORTAC	H						45000

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W		WP	276.48	096.48	L		4	2100	6000	5	6
2	S		WP	169.20	349.20	R		4	2000	6000	4	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	265	TOWER (51-002454)	373045.56N/0773604.76W	1587	1A
1	200	TOWER (51-000027)	373359.00N/0772834.00W	1053	1D
2	200	TOWER (51-001514)	372544.43N/0771255.91W	632	4D

REASON FOR NONSTANDARD HOLDING:

PAT 1 PER ATC/FPT REQUEST

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000. (3000 FT REQUESTED BY ATC)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 9W (1985).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	QUAKER			KGSO	GREENSBORO	NC (US)
DP	QUAKER			KINT	WINSTON-SALEM	NC (US)
DP	BLACKSTONE			KBKT	BLACKSTONE	VA (US)
DP	COLIN			KRIC	RICHMOND	VA (US)
DP	READE			KRIC	RICHMOND	VA (US)
EN ROUTE	J14					VA (US)
EN ROUTE	J165					VA (US)
EN ROUTE	J40					VA (US)
EN ROUTE	J52					VA (US)
EN ROUTE	V157					VA (US)
EN ROUTE	V16					VA (US)
EN ROUTE	V20					VA (US)
EN ROUTE	V213					VA (US)
EN ROUTE	V260					VA (US)
EN ROUTE	V376					VA (US)
EN ROUTE	V38					VA (US)
IAP	RNAV (GPS) RWY 26			K7W4	BUMPASS	VA (US)
IAP	RNAV (GPS) RWY 8			K7W4	BUMPASS	VA (US)
IAP	LOC RWY 5			KPTB	PETERSBURG	VA (US)
IAP	RNAV (GPS) RWY 23			KPTB	PETERSBURG	VA (US)
IAP	RNAV (GPS) RWY 5			KPTB	PETERSBURG	VA (US)
IAP	VOR RWY 23			KPTB	PETERSBURG	VA (US)
IAP	RNAV (GPS) RWY 11		1	KW96	QUINTON	VA (US)
IAP	VOR-A			KW96	QUINTON	VA (US)
IAP	ILS OR LOC RWY 33			KFCI	RICHMOND	VA (US)
IAP	RNAV (GPS) RWY 15			KFCI	RICHMOND	VA (US)
IAP	RNAV (GPS) RWY 33			KFCI	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 16			KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 2			KRIC	RICHMOND	VA (US)
IAP	ILS OR LOC RWY 34			KRIC	RICHMOND	VA (US)
IAP	ILS RWY 34 (CAT II & III)			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 16			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 2			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 20			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 25			KRIC	RICHMOND	VA (US)
IAP	VOR RWY 34			KRIC	RICHMOND	VA (US)
IAP	LOC RWY 16			KOFP	RICHMOND/ASHLAND	VA (US)
IAP	RNAV (GPS) RWY 34		2	KOFP	RICHMOND/ASHLAND	VA (US)
IAP	VOR RWY 16			KOFP	RICHMOND/ASHLAND	VA (US)
STAR	IRONS			KDCA	WASHINGTON	DC (US)
STAR	COATT			KIAD	WASHINGTON	DC (US)
STAR	RIPKN			KBWI	BALTIMORE	MD (US)
STAR	RIPKN			KMTN	BALTIMORE	MD (US)

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17
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STAR	RIPKN	KDMW	WESTMINSTER	MD (US)
STAR	JAIKE (RNAV)	KCDW	CALDWELL	NJ (US)
STAR	JAIKE (RNAV)	KLDJ	LINDEN	NJ (US)
STAR	JAIKE (RNAV)	K47N	MANVILLE	NJ (US)
STAR	JAIKE (RNAV)	KMMU	MORRISTOWN	NJ (US)
STAR	JAIKE (RNAV)	KSMQ	SOMERVILLE	NJ (US)
STAR	JAIKE (RNAV)	KTEB	TETERBORO	NJ (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 16

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. DELETED HOLDING PATTERN 1 (NOT PUBLISHED ON ANY PROCEDURES).
2. DELETED COATT STAR AT KHEF AND KJYO FROM FIX USE.
3. DELETED IRONS STAR AT KW00, KADW, KW32, KCGS, KVKX, AND K2W5 FROM FIX USE.
4. DELETED COLIN DP AT KPTB FROM FIX USE.
5. ADDED BLACKSTONE DP AT KBKT TO FIX USE.
6. ADDED JAIKE (RNAV) STAR AT KCDW, KLDJ, K47N, KMMU, AND KMSQ TO FIX USE.
7. AMENDED PAT 1 CONTROLLING OBSTACLE HEIGHT FROM 1054 MSL TO 1053 MSL TO MATCH AIRNAV VALUE FOR OBSTACLE 51-000027.

DEVELOPED BY: **DATE:** 06/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Aug 18, 2017

DISTRIBUTION: **NFDC**
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