# This is a corrected copy of the procedure published in FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.

Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name			Number STAR Computer Coc			Supers	eded Num	ber	Dated	Effective Date
PAATS (RNAV)		FOUR ESSSO.PAATS4			THREE				02/01/2018	04/20/2023
RANSITION ROUTE	<u>S:</u>									
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Al	titudes / Fixes
BBDOL	BBDOL.PAATS4	BBDOL	BBDOL							
			WNDYB	048.89	12.47	6000	2100			
			GDZLA	049.22	20.39	6000	2100			
			KRABY	045.73	22.63	6000	2100			
			BUKYY	057.65	27.43	6000	2100			
			JAYBO	086.98	35.02	6000	1600			
			HEDGE	087.49	09.00	6000	1600			
			CANNY	048.34	12.57	6000	1600			
			ESSSO	016.85	13.42	6000	1500			
GORDONSVILLE	GVE.PAATS4	GVE VORTAC	GVE VORTAC							
		-	BOOYA	069.59	44.14	6000	2800			
			BUKYY	070.08	34.18	6000	2100			
			JAYBO	086.98	35.02	6000	1600			
			HEDGE	087.49	09.00	6000	1600			
			CANNY	048.34	12.57	6000	1600			
			ESSSO	016.85	13.42	6000	1500			
HYTRA	HYTRA.PAATS4	HYTRA	HYTRA							
		-	PRNCZ	049.50	25.35	6000	1600			
		-	GARED	048.19	05.00	6000	1600			
			HEDGE	048.22	14.70	6000	1600			
			CANNY	048.34	12.57	6000	1600			
			ESSSO	016.85	13.42	6000	1500			

# ARRIVAL ROUTE DESCRIPTION:

KPHL: FROM ESSSO ON TRACK 046.03/7.52 TO PAATS.

LANDING KPHL RWY 9L/R: FROM PAATS ON TRACK 016.86/10.91 TO TRNBL, THEN ON TRACK 349.94/7.93 TO WEVVE, THEN ON TRACK 267.52/4.00 TO ERNYY, THEN ON TRACK 267.52. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KPHL RWY 17, 35: FROM PAATS ON TRACK 069.61/12.99 TO TEBEE, THEN ON TRACK 055.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

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Arrival Name Number STAR Computer Code Superseded Number Dated Effective Date PAATS (RNAV) FOUR ESSSO.PAATS4 THREE 02/01/2018 04/20/2023

LANDING KPHL RWY 26, 27L/R: FROM PAATS ON TRACK 080.79/12.63 TO RROLL, THEN ON TRACK 045.43/19.09 TO CHPMN, THEN ON TRACK 059.61/9.39 TO PSOUT, THEN ON TRACK 087.00/3.00 TO MKORD, THEN ON TRACK 087.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KMQS: FROM ESSSO ON TRACK 046.03/7.52 TO PAATS, THEN ON TRACK 025.89/16.61 TO RANSM, THEN ON TRACK 352.00/2.00 TO EBRLY, THEN ON TRACK 352.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KTTN/KPNE: FROM ESSSO ON TRACK 046.03/7.52 TO PAATS, THEN ON TRACK 025.89/16.61 TO RANSM, THEN ON TRACK 076.11/20.05 TO WOJIK, THEN ON TRACK 086.60/7.41 TO PSOUT, THEN ON TRACK 029.00/16.58 TO HENYY, THEN ON TRACK 029.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

#### PBN REQUIREMENT NOTES

RNAV 1 - DME/DME/IRU OR GPS

#### **EQUIPMENT REQUIREMENT NOTES**

RADAR REQUIRED

#### PROCEDURAL DATA NOTES:

NOTE: JET AIRCRAFT ONLY.

NOTE: HYTRA TRANSITION DO NOT FILE - TO BE ASSIGNED BY ATC.

NOTE: CAUTION: PARACHUTE JUMPING 2.7 NM SE CHPMN, 1.5 NM RADIUS OF CROSS KEYS AIRPORT, AOB 13,500 (SR-SS).

#### FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT BBDOL: HOLD SW, LT, 48.89 INBOUND, 10 NM LEGS.

CHART HOLDING AT BUKYY: HOLD W, RT, 068.08 INBOUND, 9 NM LEGS, 230 KIAS.

CHART HOLDING AT GDZLA: HOLD SW, RT, 049.22 INBOUND, 10 NM LEGS.

CHART HOLDING AT GVE VORTAC: HOLD W, LT, 093.00 INBOUND, 10 NM LEGS.

CHART HOLDING AT JAYBO: HOLD W, RT, 087.49 INBOUND, 8 NM LEGS.

CHART HOLDING AT PAATS: HOLD SW, LT, 051.18 INBOUND, 4 NM LEGS, 210 KIAS.

CHART HOLDING AT PRNCZ: HOLD SW, LT, 049.50 INBOUND, 10 NM LEGS.

#### COMMUNICATIONS:

CHART: MQS AWOS CHART: PHL APP CON

#### **AIRPORTS SERVED:**

AIRPORT ID	CITY	STATE
KPHL	PHILADELPHIA	PA
KMQS	COATESVILLE	PA
KPNE	PHILADELPHIA	PA
KTTN	TRENTON	NJ

#### LOST COMMUNICATIONS PREFERENCES:

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

## REMARKS:

THE ENVIRONMENTAL REVIEW UNDER ORDER 1050.1 (LATEST EDITION) AND THE NOISE SCREENING HAVE BEEN ACCOMPLISHED.

## **ADDITIONAL FLIGHT DATA:**

DME/DME ASSESSMENT: SAT (RNP 2.0)

MAG VAR: KPHL 12W/2020.

CHART AT ERNYY TERMINUS: KPHL LDG RWY 09L/R. CHART AT MKORD TERMINUS: KPHL LDG RWY 27L/R, 26. CHART AT TEBEE TERMINUS: KPHL LDG RWY 17, 35.

CHART AT EBRLY TERMINUS: LDG KMQS.

CHART AT HENYY TERMINUS: LDG KPNE AND KTTN.

		Digitally signed by	
		JASON KRETSCHMER	
		Feb 27, 2023	
Organization	Date	Signature	
		Digitally signed by	
		JASON KRETSCHMER	
AJV-A421	10/4/2022	Dec 01, 2022	
Organization	Date	Signature	
		Digitally signed by	
		JASON KRETSCHMER	
AJV-A420		Dec 01, 2022	
Organization	Date	Signature	
	AJV-A421 Organization AJV-A420	AJV-A421 10/4/2022 Organization Date	Organization         Date         JASON KRETSCHMER

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

#### CHANGES:

- 1. STAR COMPUTER CODE CHANGED FROM PAATS.PAATS3 TO ESSSO.PAATS4.
- 2. REMOVED FLAT ROCK (FAK) TRANSITION TO BUKYY.
- 3. ADDED BBDOL TRANSITION.
- 4. REMOVED PATUXENT (PXT) TRANSITION TO BUKYY.
- 5. ADDED HYTRA TRANSITION.
- 6. ALL MEAS LOWERED TO 6000.
- 7. REMOVED MEAS FROM THE COMMON ROUTE.
- 8. ADDED MINIMUM OBSTACLE CLEARANCE ALTITUDES TO ALL TRANSITION LEGS.
- 9. REMOVED FIXES BEELZ, CHEAZ, SHONA, AND TULKS.
- 10 AMENDED GORDONSVILLE (GVE) TRANSITION FROM "GVE BUKYY JAYBO HEDGE CANNY ESSO" TO "GVE BOOYA BUKKY JAYBO CANNY ESSO."
- 11. AMENDED KPHL RWY 09L AND 09R TRANSITION FROM "PAATS CHEAZ STAYK TRACK 266.00" TO "PAATS TRNBLE WEVVE ERNYY TRACK 267.52."
- 12. AMENDED KPHL RWY 17 AND 35 TRANSITION FROM "PAATS TEBEE TRACK 057.00" TO "PAATS TEBEE TRACK 055.00."
- 13. AMENDED KPHL RWY 26. 27L AND 27R TRANSITION FROM "PAATS RROLL BEELZ WOJIK PSOUT TRACK 087.00" TO "PAATS RROLL CHPMN PSOUT MKORD TRACK 087.00."
- 14. AMENDED MQS COMMON ROUTE FROM "PAATS RANSM TRACK 352.00" TO "ESSO PAATS RANSM EBRLY TRACK 352.00."
- 15. AMENDED PNE/TTN COMMON ROUTE FROM "PAATS RANSM WOJIK PSOUT TRACK 032.00" TO "ESSO PAATS RANSM WOJIK PSOUT HENYY TRACK 029.00".
- 16. REMOVED PROCEDURAL DATA NOTE: RNAV, DME/DME/IRU OR GPS REQUIRED. ADDED PBN REQUIREMENT NOTES: RNAV 1 DME/DME/IRU OR GPS.
- 17. REMOVED PROCEDURAL DATA NOTE: RADAR REQUIRED. ADDED EQUIPMENT REQUIREMENT NOTES: RADAR REQUIRED.
- 18. CHANGED TURBO JET AIRCRAFT NOTE TO READ JET AIRCRAFT.
- 19. ADDED NOTE: HYTRA TRANSITION DO NOT FILE TO BE ASSIGNED BY ATC.
- 20. REMOVED CHART: "EXPECT TO CROSS JAYBO AT 15000", "EXPECT TO CROSS GARED AT 13000", AND "CROSS CHEAZ AT 190 KIAS."
- 21. REMOVED CHART: LANDING PHL EXPECT TO CROSS ESSSO AT 10000 AND 250 KIAS. LANDING ALL OTHER AIRPORTS EXPECT TO CROSS ESSSO AT 12000 AND 250 KIAS.
- 22. REMOVED LANDING PHL: CROSS WOJIK AT 190 KIAS.
- 23. ADDED CHARTED HOLDING AT GVE. BBDOL. GDZLA AND PRNCZ.
- 24. REMOVED GARED HOLDING FROM PROCEDURE.
- 25. ADDED CHART AT ERNYY TERMINUS: KPHL LDG RWY 09L/R; CHART AT MKORD TERMINUS: KPHL LDG RWY 27L/R, 26; CHART AT TEBEE TERMINUS: KPHL LDG RWY 17, 35; CHART AT EBRLY TERMINUS: LDG KMQS: AND CHART AT HENYY TERMINUS: LDG KPNE AND KTTN.
- 26. CHANGED HOLDING AT BUKYY FROM "HOLD SW. RT. 056.00 INBOUND. 10 NM LEGS" TO "HOLD W. RT. 068.08 INBOUND. 9 NM LEGS. 230 KIAS."
- 27 REMOVED RECOMMENDED NAVAID
- 28. REMOVED AIRPORT NAMES FROM AIRPORTS SERVED.

## REASONS:

- 1. UPDATED IAW 8260.19I, 4-5-2.R.
- 2-5. VOR MON DECOMMISSIONING.
- 6. MEA LOWERED TO THE LOWEST POSSIBLE ALTITUDE (CRITERIA).
- 7, 28. UPDATED IAW 8260.19I DOCUMENTATION STANDARDS.
- 8. REQUIRED IAW 8260.19I 4-5-12 B(8).
- 9. ATC REQUEST, NO LONGER NEEDED
- 10-15. ATC REQUEST TO IMPROVE EFFICIENCY AND ALIGN WITH CURRENT TRAFFIC FLOWS.
- 16-17. NEW FORMAT: IAW 8260.19I 8-6-8 MEMO.
- 18. CURRENT DOCUMENTATION STANDARDS IAW 8260.19I 4-5-12 D(4).
- 19. ATC REQUEST.
- 20-22. VERTICAL NAV PLANNING NO LONGER COMPLIANT IAW 8260.19I
- 23. ATC REQUEST TO FACILITATE HOLDING
- 24. ATC REQUEST, NO LONGER NEEDED
- 25. IAW 8260.19I 4-5-12 H(5)
- 26. UPDATED PER ATC REQUEST.
- 27. NO LONGER REQUIRED FOR CODING.

OVALITY 14 CHECKED

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Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

01/26/23: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/04/22.

1. ADDED "NOTE: CAUTION: PARACHUTE JUMPING 2.7 NM SE CHPMN, 1.5 NM RADIUS OF CROSS KEYS AIRPORT, AOB 13,500 (SR-SS)" -- ATC REQUEST; SEE LOA DATED 01/25/23.

02/08/23: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/04/22.

1. ADDED BLOCK ALTITUDE "BETWEEN 10000 AND 12000" AT ESSSO ON ALL TRANSITION ROUTES -- DIRECTED BY AFS IAW 8260.58B, 1-2-5.B(1)(A).

02/27/23: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/04/22.

1. REQUIRED EFFECTIVE DATE CHANGED FROM ROUTINE TO 04/20/2023.

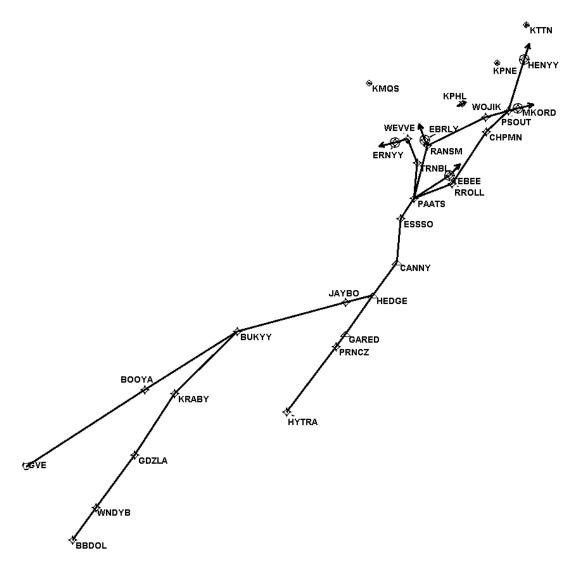
03/07/23: THIS IS AN CORRECTED COPY OF THE FORM APPROVED ON 02/27/22.

1. DELETED BLOCK ALTITUDE "BETWEEN 10000 AND 12000" AT ESSSO ON ALL TRANSITION ROUTES -- WAIVER REQUEST FOR ABSENCE OF MANDATORY ALTITUDES/MINIMUM LEG LENGTHS WAS SPLIT INTO SEPARATE WAIVERS TO ACCOMMODATE AFS APPROVAL.

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

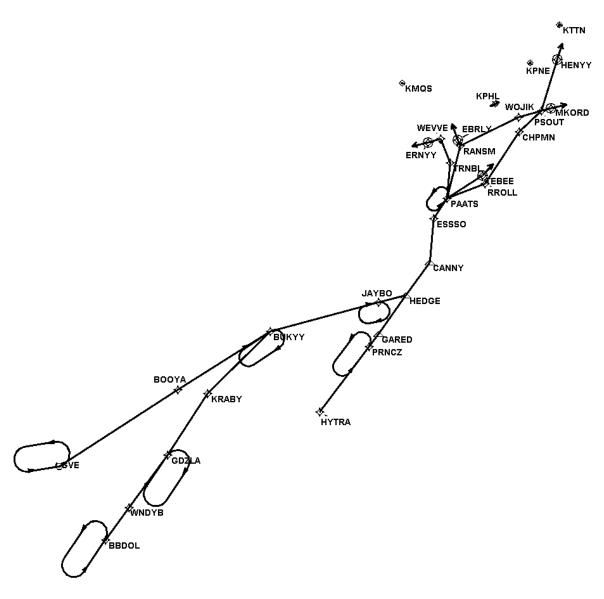
Graphic Depiction 1



Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

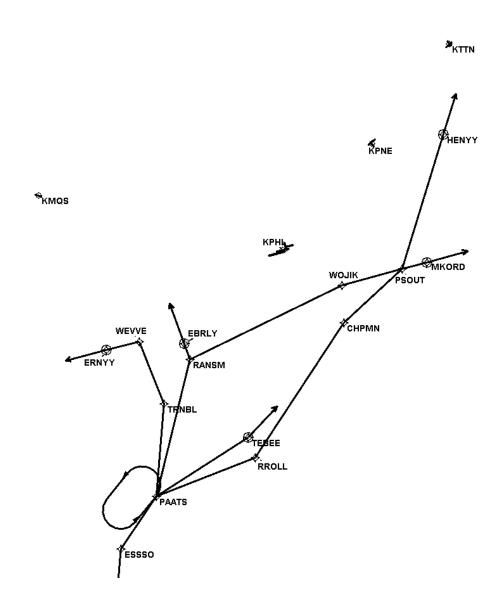
Graphic Depiction 2



Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PAATS (RNAV)	FOUR	ESSSO.PAATS4	THREE	02/01/2018	04/20/2023

Graphic Depiction 3



# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

Arrival Name PAATS (RNAV)		Number FOUR		STAR Computer Code ESSSO.PAATS4			Superseded Number THREE		Dated <b>02/01/2018</b>	Effective Date 04/20/2023
FIX/NAVAID	LAT/LONG	С	FO/FB	LEG TYPE	тс	DIST (NM)	ALTITUDE	SPEED	REMARKS	
En Route Transition										
BBDOL	373809.20N / 0775047.86W	Υ		IF					BBDOL.PAATS4	
WNDYB	374807.91N / 0774121.23W	Υ	FB	TF	036.89	12.47				
GDZLA	380422.01N / 0772544.41W	Υ	FB	TF	037.22	20.39				
KRABY	382311.14N / 0770945.72W	Υ	FB	TF	033.73	22.63				
BUKYY	384220.00N / 0764442.63W	Υ	FB	TF	045.65	27.43				
JAYBO	385117.17N / 0760124.35W	Υ	FB	TF	074.98	35.02				
HEDGE	385332.11N / 0755014.46W	Υ	FB	TF	075.49	09.00				
CANNY	390339.92N / 0754040.65W	Υ	FB	TF	036.34	12.57				
ESSSO	391703.00N / 0753913.00W	Υ	FB	TF	004.85	13.42				
En Route Transition										
GVE VORTAC	380048.96N / 0780910.90W	Υ		IF					GVE.PAATS4	
BOOYA	382420.50N / 0772146.36W	Υ	FB	TF	057.59	44.14				
BUKYY	384220.00N / 0764442.63W	Υ	FB	TF	058.08	34.18				
JAYBO	385117.17N / 0760124.35W	Υ	FB	TF	074.98	35.02				
HEDGE	385332.11N / 0755014.46W	Υ	FB	TF	075.49	09.00				
CANNY	390339.92N / 0754040.65W	Υ	FB	TF	036.34	12.57				
ESSSO	391703.00N / 0753913.00W	Υ	FB	TF	004.85	13.42				
En Route Transition										
HYTRA	381731.91N / 0762449.80W	Υ		IF					HYTRA.PAATS4	
PRNCZ	383738.10N / 0760508.20W	Υ	FB	TF	037.50	25.35				
GARED	384140.41N / 0760121.96W	Υ	FB	TF	036.19	05.00				
HEDGE	385332.11N / 0755014.46W	Υ	FB	TF	036.22	14.70				
CANNY	390339.92N / 0754040.65W	Υ	FB	TF	036.34	12.57				
ESSSO	391703.00N / 0753913.00W	Υ	FB	TF	004.85	13.42				

# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

Arrival Name PAATS (RNAV)			Number FOUR		STAR Comp ESSSO.P.		Superseded Number THREE		Dated <b>02/01/2018</b>	Effective Date 04/20/2023
FIX/NAVAID	LAT/LONG	С	FO/FB	LEG TYPE	тс	DIST (NM)	ALTITUDE	SPEED	REMARKS	
Common Route										
ESSSO	391703.00N / 0753913.00W	Υ		IF					ESSSO.PAATS4	
PAATS	392317.01N / 0753347.46W	Y	FB	TF	034.03	07.52				
Common Route										
ESSSO	391703.00N / 0753913.00W	Υ		IF					ESSSO.PAATS4	
PAATS	392317.01N / 0753347.46W	Υ	FB	TF	034.03	07.52				
RANSM	393925.02N / 0752837.70W	Υ	FB	TF	013.89	16.61				
EBRLY	394117.87N / 0752930.87W	Υ	FO	TF	340.00	02.00				
KMQS				FM	340.00					
Common Route										
ESSSO	391703.00N / 0753913.00W	Υ	-	IF					ESSSO.PAATS4	
PAATS	392317.01N / 0753347.46W	Υ	FB	TF	034.03	07.52				
RANSM	393925.02N / 0752837.70W	Υ	FB	TF	013.89	16.61				
WOJIK	394808.34N / 0750513.46W	Υ	FB	TF	064.11	20.05				
PSOUT	395006.14N / 0745557.16W	Υ	FB	TF	074.60	07.41				
HENYY	400558.20N / 0744938.00W	Υ	FO	TF	017.00	16.58				
KPNE, KTTN				FM	017.00					
Runway Transition										
PAATS	392317.01N / 0753347.46W	Υ		IF						
TRNBL	393409.96N / 0753235.72W	Υ	FB	TF	004.86	10.91				
WEVVE	394131.35N / 0753627.25W	Υ	FB	TF	337.94	07.93				
ERNYY	394031.19N / 0754128.22W	Υ	FO	TF	255.52	04.00				
KPHL:RWY 9L, RWY 9R				FM	255.52					

# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

Arrival Name PAATS (RNAV)			ımber <b>OUR</b>	(	STAR Comp ESSSO.P		Superseded Number THREE		Dated <b>02/01/2018</b>	Effective Date 04/20/2023
FIX/NAVAID	LAT/LONG	С	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
Runway Transition										
PAATS	392317.01N / 0753347.46W	Υ		IF						
TEBEE	393013.97N / 0751937.19W	Υ	FO	TF	057.61	12.99				
KPHL: RWY 17, RWY 35				FM	043.00					
Runway Transition			_							
PAATS	392317.01N / 0753347.46W	Υ		IF						
RROLL	392750.44N / 0751835.08W	Υ	FB	TF	068.79	12.63				
CHPMN	394346.53N / 0750457.02W	Υ	FB	TF	033.43	19.09				
PSOUT	395006.14N / 0745557.16W	Υ	FB	TF	047.61	09.39				
MKORD	395052.70N / 0745211.41W	Υ	FO	TF	075.00	03.00				
KPHL: RWY 26, RWY 27L, RWY 27R				FM	075.00					