

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks 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 feet RVR.

<u>AIRPORT ID</u> KMQS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 29	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> COATESVILLE	<u>STATE</u> PA	
<u>AIRPORT ELEVATION</u> 660	<u>TDZE</u> 660	<u>SUPERSEDED</u> RNAV (GPS) RWY 29	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 05/20/2021	<u>MAG VAR</u> 11W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 7 OCTOBER 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1990

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
PTW VORTAC		HEWZY		TF	FB	1.00	197.75	10.87	2400
DQO VORTAC		GOWZO		TF	FB	1.00	000.20	9.37	2400
HEWZY	IAF	CERTS		TF	FB	1.00	202.82	6.31	2400
GOWZO	IAF	CERTS		TF	FB	1.00	022.78	6.58	2400
CERTS	IF	EFECO		TF	FB	1.00	292.79	6.02	2400
EFECO	FAF	RW29	MAP	TF	FO	0.30	292.72	5.29	
RW29	MAP	1300 MSL		CA			292.72		1300
1300 MSL		GLOMO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW29

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1300 THEN CLIMBING LEFT TURN TO 3000 DIRECT GLOMO AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF** (IAF)

2. PROFILE STARTS AT CERTS

3. **FAC:** 292.72 **FAF:** EFECO **DIST FAF TO MAP:** 5.29 **DIST FAF TO THLD:** 5.29

4. **MIN ALT:** CERTS 2400, EFECO 2400

5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **250 HAT:** 0.61 **GS ANT:**

6. **MIN GP INCPT:** 2400 **GP ALT AT FAF :** EFECO 2400 **OM:** **MM:** **IM:**

7. **GP ANGLE:** 3.00 **34:1:** IS CLEAR **20:1:** IS CLEAR **TCH:** 54.8

8. **MSA FROM:** RW29 2600

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 54°C.
 CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON DQO VORTAC AIRWAY RADIALS 271 CW 080.
 CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON PTW VORTAC AIRWAY RADIALS 205 CW 287.

ADDITIONAL FLIGHT DATA:

790 AAO 395805N/0754407W.
 HOLD NE, RT, 231.18 INBOUND.
 FAS OBST: 760 AAO 395830N/0754649W.
 CHART VDP AT 0.95 NM TO RW29.
 WAAS CHANNEL # 82506
 REFERENCE PATH ID: W29A
 CHART CIRCLING ICON.
 LTP HAE: 167.6 M

MINIMUMS:

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

ALTERNATE: NA STANDARD - CAT D 800-2 1/2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E		
	FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS
LPV DA	910	3/4	250	910	3/4	250	910	3/4	250	910	3/4	250			
LNAV/VNAV DA	915	3/4	255	915	3/4	255	915	3/4	255	915	3/4	255			
LNAV MDA	1020	1	360	1020	1	360	1020	1	360	1020	1	360			
CIRCLING	1140	1	480	1240	1	580	1260	1 1/2	600	1420	2 1/2	760			



CHANGES - REASONS

1. COURSE/DISTANCE FROM PTW VORTAC TO HEWFY CHANGED FROM 198.29/12.18 TO 197.75/10.87 - HEWFY MOVED 1.31 NM N DUE TO LEG LENGTH ISSUES.
2. COURSE/DISTANCE FROM DQO VORTAC TO GOWZO CHANGED FROM 003.41/10.85 TO 000.20/9.37 - GOWZO MOVED 1.58 NM S DUE TO LEG LENGTH ISSUES.
3. COURSE/DISTANCE FROM HEWFY TO CERTS CHANGED FROM 202.81/5.00 TO 202.82/6.31 - HEWFY MOVED 1.31 NM N DUE TO LEG LENGTH ISSUES.
4. COURSE/DISTANCE FROM GOWZO TO CERTS CHANGED FROM 022.79/5.00 TO 022.78/6.58 - GOWZO MOVED 1.58 NM S DUE TO LEG LENGTH ISSUES.
5. COURSE/DISTANCE FROM CERTS TO EFECO CHANGED FROM 292.80/6.10 TO 292.79/6.02 - EFECO MOVED 488.92 FT E DUE TO NEW I-MQS ILS DESIGN TCH.
6. DIST FAF TO MAP AND DIST FAF TO THLD CHANGED FROM 5.21 TO 5.29 IN LINE 3 - EFECO MOVED 488.92 FT E DUE TO NEW I-MQS ILS DESIGN TCH.
7. REMOVED "DISTANCE TO THLD FROM 278 HAT: 0.70 NM" FROM ADDITIONAL FLIGHT DATA AND ADDED "DIST TO THLD FROM 250 HAT: 0.61" TO LINE 5 - NEW LPV MINIMUMS, 8260.191 8-6-7.E.
8. CHANGED 34:1 FROM "IS NOT CLEAR" TO "IS CLEAR" IN LINE 7 - NEW OBSTACLE EVALUATION.
9. CHANGED TCH FROM 56.4 TO 54.8 IN LINE 7 - EFECO MOVED 488.92 FT E DUE TO NEW I-MQS ILS DESIGN TCH.
10. REMOVED "CHART NOTE: DME/DME RNP-0.3 NA" AND ADDED "RNP APCH - GPS" TO PBN REQUIREMENTS NOTES - CURRENT NOTATION PER 8260.191 8-6-8.B(2).
11. CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16 C (4 F) OR ABOVE 47 C (116 F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16 C OR ABOVE 54 C" - 8260.191 8-6-9.R.
12. REMOVED "CHART NOTE: BARO-VNAV NA WHEN USING HERITAGE FIELD ALTIMETER SETTING" - MOVED TO 8260-9 PART C REMARKS FOR CONTINGENCY PURPOSES.
13. REMOVED "CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HERITAGE FIELD ALTIMETER SETTING AND INCREASE ALL DA 98 FEET ALL MDA 100 FEET, LPV VISIBILITY 1/4 MILE ALL CATS, LNAV/VNAV VISIBILITY 1/4 MILE ALL CATS, LNAV VISIBILITY CATS C AND D 1/4 MILE, AND CIRCLING VISIBILITY CAT C AND D 1/4 MILE" - MOVED TO 8260-9 PART C REMARKS FOR CONTINGENCY PURPOSES.
14. REMOVED "CHART NOTE: VDP NA WHEN USING HERITAGE FIELD ALTIMETER SETTING" - MOVED TO 8260-9 PART C REMARKS FOR CONTINGENCY PURPOSES.
15. REMOVED "CHART NOTE: RWY 29 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA" - 34:1 SURFACE CLEAR, NEW OBSTACLE EVALUATION.
16. CHANGED "HOLD SW, RT, 055.00 INBOUND" TO "HOLD NE, RT, 231.18 INBOUND" IN ADDITIONAL FLIGHT DATA - CLEARANCE LIMIT MOVED TO GLOMO, ATC REQUEST.
17. CHANGED "CHART FAS OBST: 759 TREE 395846N/0755109W" TO "FAS OBST: 760 AAO 395830N/0754649W" IN ADDITIONAL FLIGHT DATA - NEW CONTROLLING OBSTACLE, 8260.191 8-6-10.C.
18. CHANGED "CHART VDP AT 0.95 MILES TO RW29" TO "CHART VDP AT 0.95 NM TO RW29" AND REMOVED "LNAV ONLY" IN ADDITIONAL FLIGHT DATA - 8260.191 8-6-10.M.
19. ADDED "LTP HAE: 167.6 M" TO ADDITIONAL FLIGHT DATA - 8260.191 8-6-10.J(3).
20. LPV DA/HAT CHANGED FROM 938/278 TO 910/250 - NEW OBSTACLE EVALUATION.
21. LPV VISIBILITY ALL CATS CHANGED FROM 1 SM TO 3/4 SM - LOWER LPV DA/HAT, 8260.3D TABLE 3-3-1.
22. LNAV/VNAV DA/HAT CHANGED FROM 1029/369 TO 915/255 - NEW OBSTACLE EVALUATION.
23. LNAV/VNAV VISIBILITY ALL CATS CHANGED FROM 1 SM TO 3/4 SM - LOWER LNAV/VNAV DA/HAT, 8260.3D TABLE 3-3-1.
24. LNAV VISIBILITY CAT D CHANGED FROM 1 1/4 SM TO 1 SM - 8260.3D TABLE 3-3-1.
25. CIRCLING MDA/HAA CAT C CHANGED FROM 1280/620 TO 1260/600, CAT D FROM 1440/780 TO 1420/760 - NEW OBSTACLE EVALUATION.
26. CIRCLING VISIBILITY CAT C CHANGED FROM 1 3/4 SM TO 1 1/2 SM - 8260.3D TABLE 3-3-7.
27. ADDED "790 AAO 395805N/0754407W" TO ADDITIONAL FLIGHT DATA - 8260.191 8-6-10.E.
28. CHANGED CHART PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS ON DQO VORTAC AIRWAY RADIALS 309 CW 053" TO "PROCEDURE NA FOR ARRIVALS ON DQO VORTAC AIRWAY RADIALS 271 CW 080" - TURN GREATER THAN 90 DEGREES, 8260.191 8-2-5.E(2).
29. CHANGED CHART PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS ON PTW VORTAC AIRWAY RADIALS 205 CW 231" TO "PROCEDURE NA FOR ARRIVALS ON PTW VORTAC AIRWAY RADIALS 205 CW 287" - TURN GREATER THAN 90 DEGREES, 8260.191 8-2-5.E(2).
30. CRC REMAINDER CHANGED FROM C3FA49CC TO E9275001 - LTP/FTP COORDINATES CHANGED FROM 395838.8800N/0755121.7200W TO 395838.8775N/0755121.7155W, LTP/FTP ELLISOIDAL HEIGHT CHANGED FROM +01677 TO +01676, FPAP COORDINATES CHANGED FROM 395849.6400N/0755229.6500W TO 395856.8595N/0755315.2425W, TCH CHANGED FROM 56.4 TO 54.8, COURSE WIDTH AT THLD CHANGED FROM 99.50 TO 106.75, LENGTH OFFSET CHANGED FROM 0 TO 1104.

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA OTHER: ZNY, PHL APP CON, AIRPORT MGR

<i>Digitally signed by</i>		OFFICE	DATE
FLIGHT CHECKED BY	BEV L BORDY	FICO	08/03/2021
BOB S PRESSLER	Jul 07, 2021		

<i>Digitally signed by</i>		OFFICE	DATE
DEVELOPED BY	ANTHONY J CAPPABIANCO	AJV-A422	04/20/2021
ANTHONY CAPPABIANCO	Jun 25, 2021		

APPROVED BY	<i>Digitally signed by</i>	OFFICE	DATE	TITLE
MARLON ROBINSON	BEV L BORDY	AJV-A420		MANAGER
	Jul 07, 2021			



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMQS
RUNWAY	RW29
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W29A
LTP/FTP LATITUDE	395838.8775N
LTP/FTP LONGITUDE	0755121.7155W
LTP/FTP ELLIPSOIDAL HEIGHT	+01676
FPAP LATITUDE	395856.8595N
FPAP LONGITUDE	0755315.2425W
THRESHOLD CROSSING HEIGHT (TCH)	00054.8
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1104
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	E9275001

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+02012
FPAP ORTHOMETRIC HEIGHT	+02012

