

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| Arrival Name CUUGR (RNAV) | Number TWO | STAR Computer Code TPGUN.CUUGR2 | Superseded Number ONE | Dated 09/13/2018 | Effective Date 10 OCT 2019 |
|-------------------------------------|----------------------|---|---------------------------------|----------------------------|--------------------------------------|

TRANSITION ROUTES:

| Transition Name | Transition Computer Codes | From FIX/NAVAID | To FIX/NAVAID | Course | Distance | MEA | MOCA | MAA | Crossing Altitudes / Fixes |
|-----------------|---------------------------|-----------------|---------------|--------|----------|-------|------|-----|----------------------------|
| BOBTA | BOBTA.CUUGR2 | BOBTA | BOBTA | | | | | | |
| | | | JAIBE | 226.54 | 62.63 | 15000 | 2700 | | |
| | | | GGUCE | 225.91 | 23.00 | 15000 | 2300 | | |
| | | | WLFMN | 273.40 | 20.26 | 10000 | 2100 | | AT/ABOVE FL240 |
| | | | MAVVV | 270.51 | 20.61 | 10000 | 2100 | | |
| | | | TPGUN | 270.20 | 27.23 | 8000 | 2200 | | BETWEEN 16000 AND FL230 |
| DONEO | DONEO.CUUGR2 | DONEO | DONEO | | | | | | |
| | | | VYPRE | 270.61 | 28.67 | 15000 | 2200 | | |
| | | | GGUCE | 273.76 | 23.00 | 15000 | 2100 | | |
| | | | WLFMN | 273.40 | 20.26 | 10000 | 2100 | | AT/ABOVE FL240 |
| | | | MAVVV | 270.51 | 20.61 | 10000 | 2100 | | |
| | | | TPGUN | 270.20 | 27.23 | 8000 | 2200 | | BETWEEN 16000 AND FL230 |
| GGUCE | GGUCE.CUUGR2 | GGUCE | GGUCE | | | | | | |
| | | | WLFMN | 273.40 | 20.26 | 10000 | 2100 | | AT/ABOVE FL240 |
| | | | MAVVV | 270.51 | 20.61 | 10000 | 2100 | | |
| | | | TPGUN | 270.20 | 27.23 | 8000 | 2200 | | BETWEEN 16000 AND FL230 |

ARRIVAL ROUTE DESCRIPTION:

FROM TPGUN ON TRACK 253.04/21.00 TO CROSS HHUNT BETWEEN 12000 AND 15000, THEN ON TRACK 252.75/11.97 TO CROSS CUUGR BETWEEN 10000 AND 11000 AND AT 250 KIAS.
 LANDING RWY 3L/R, 4R: FROM CUUGR ON TRACK 214.22/5.40 TO ROOAD, THEN ON TRACK 214.18/12.01 TO CROSS ROYYY AT 8000 AND AT 210 KIAS, THEN ON TRACK 215.68. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.
 LANDING RWY 4L: FROM CUUGR ON TRACK 266.73/15.41 TO ZUBBY, THEN ON TRACK 216.14/4.00 TO CROSS SKRUG AT 8000 AND AT 210 KIAS, THEN ON TRACK 218.18. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

PROCEDURAL DATA NOTES:

- NOTE: RADAR REQUIRED
- NOTE: RNAV 1
- NOTE: DME/DME/IRU OR GPS REQUIRED
- NOTE: USE RWY 3R TRANSITION OR AS ASSIGNED BY ATC. EXPECT RUNWAY ASSIGNMENT FROM DETROIT APP CON NO LATER THAN 10 NM FROM CUUGR.
- NOTE: JET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL INTERCEPTING 280 KIAS. MAINTAIN 280 KIAS UNTIL SLOWED BY THE STAR.
- NOTE: FOR USE WHEN DTW LANDING NORTH. WHEN DTW LANDING SOUTH OR WEST, FILE AND EXPECT THE TPGUN RNAV STAR.
- NOTE: GGUCE TRANSITION: EXCEPT FOR FLIGHTS ORIGINATING IN CANADA, DO NOT FILE, TO BE ASSIGNED BY ATC.



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| Arrival Name | Number | STAR Computer Code | Superseded Number | Dated | Effective Date |
|---------------------|------------|---------------------|-------------------|-------------------|--------------------|
| CUUGR (RNAV) | TWO | TPGUN.CUUGR2 | ONE | 09/13/2018 | 10 OCT 2019 |

FIXES AND/OR HOLDING PATTERNS:

- CHART HOLDING AT TPGUN: HOLD E, RT, 270.20 INBOUND, 10 NM LEGS.
- CHART HOLDING AT DONEO: HOLD E, LT, 270.61 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

DTW ATIS, DETROIT APP CON

AIRPORTS SERVED:

DETROIT METROPOLITAN WAYNE COUNTY, DETROIT, MI (KDTW)

LOST COMMUNICATIONS PROCEDURE:

REMARKS:

MEA'S OF 15000 TO REMOVE CRITICAL DME.

ADDITIONAL FLIGHT DATA:

- DME/DME ASSESSMENT: SAT (RNP 2.0)
- REFERENCE MAGNETIC VARIATION = KDTW 07W/2020
- CHART AT ROYYY TERMINUS: KDTW LDG RWY 3L/R, 4R
- CHART AT SKRUG TERMINUS: KDTW LDG RWY 4L
- DO NOT CHART MOCAs

FLIGHT INSPECTED BY:

CHARLES D CUNNINGHAM
 Name

FICO
 Organization

6/13/19
 Date

Digitally signed by

JACOB POWERS

Jul 17, 2019

Signature

DEVELOPED BY:

MIKE FERRELL
 Name

CLEVELAND ARTCC METROPLEX LEAD
 Organization

03/18/2019
 Date

Digitally signed by

JACOB POWERS

Jul 17, 2019

Signature

APPROVED BY:

PAT MULQUEEN
 Name

AJV-A440
 Organization

Date

Digitally signed by

JACOB POWERS

Jul 17, 2019

Signature

CHANGES:

1. CHANGED MEA FOR MAVVV-TPGUN LEG TO 8000.
2. ADDED GGUCE ENROUTE TRANSITION (EMBEDDED WITHIN DONEO TRANSITION).
3. ADDED CHART NOTE: "GGUCE TRANSITION: EXCEPT FOR FLIGHTS ORIGINATING IN CANADA, DO NOT FILE, TO BE ASSIGNED BY ATC."
4. CHANGED ALTITUDE RESTRICTION AT WLFMN FROM BETWEEN FL240 AND FL250 TO AT OR ABOVE FL240.



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| Arrival Name | Number | STAR Computer Code | Superseded Number | Dated | Effective Date |
|--|------------|---------------------|-------------------|-------------------|--------------------|
| CUUGR (RNAV) | TWO | TPGUN.CUUGR2 | ONE | 09/13/2018 | 10 OCT 2019 |
| 5. MOVED MAVVV 0.9 NM SOUTH. 6. REMOVED RESTRICTIONS AT MAVVV. 7. MOVED TPGUN 3.1 NM SOUTH; HOLDING INBOUND COURSE CHANGED FROM 274.25 TO 270.20. 8. MOVED HHUNT 1.6 NM SOUTH. 9. CHANGED CHART NOTE FROM "FOR USE WHEN DTW IS IN NORTH FLOW. WHEN DTW IS IN SOUTH FLOW, FILE AND EXPECT THE TPGUN RNAV STAR" TO "FOR USE WHEN DTW LANDING NORTH. WHEN DTW LANDING SOUTH OR WEST, FILE AND EXPECT THE TPGUN RNAV STAR." 10. CHANGED CHART NOTE TO READ FROM "USE RWY 3R TRANSITION OR AS ASSIGNED BY ATC. EXPECT RUNWAY ASSIGNMENT FROM DETROIT TRACON PRIOR TO CUUGR" TO "USE RWY 3R TRANSITION OR AS ASSIGNED BY ATC. EXPECT RUNWAY ASSIGNMENT FROM DETROIT APP CON NO LATER THAN 10 NM FROM CUUGR." 11. MOVED SKRUG 4 NM NE. 12. CHANGED ALTITUDE RESTRICTION AT SKRUG TO 8000. 13. REMOVED ALTITUDE RESTRICTION AT ZUBBY. 14. MOCA AT JAIBE LOWERED FROM 3700 TO 2700. 15. MOCA AT GGUCE (BOBTA TRANSITION ONLY) LOWERED FROM 3300 TO 2300. 16. MOCA AT MAVVY LOWERED FROM 3100 TO 2100. 17. MOCA AT TPGUN LOWERED FROM 3700 TO 2200. 18. MOCA AT VYPRE LOWERED FROM 3300 TO 2200. 19. MOCA AT GGUCE (DONEO TRANSITION ONLY) LOWERED FROM 3100 TO 2100. 20. REMOVED RECOMMENDED NAVAID. | | | | | |

REASONS:

1. LOWER MEA NEEDED FOR PROPS AND TURBOPROPS.
- 2, 3. SEPARATE/SHORTER TRANSITION NEEDED FOR FLIGHTS FROM CANADA.
4. MAXIMUM ALTITUDE NO LONGER NEEDED.
- 5, 8. REDUCE FLYING MILES.
6. NO LONGER NEEDED.
7. MOVED TO MORE EFFICIENT LOCATION / MATCH INBOUND COURSE.
9. CHANGED WORDING OF CHART NOTE TO LANDING DIRECTION AND STANDARDIZED FOR ALL PROCEDURES.
10. IDENTIFY WHEN TO EXPECT RUNWAY ASSIGNMENT REFERENCE WAYPOINT.
- 11, 12. NEEDED TO RAISE BOTTOM ALTITUDE TO 8000.
13. NO LONGER NEEDED.
- 14-19. NEW OBST ASSESMENT.
20. NO LONGER REQUIRED.



FEDERAL AVIATION ADMINISTRATION
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STAR (DATA RECORD)

| | | | | | |
|-------------------------------------|----------------------|---|---------------------------------|----------------------------|--------------------------------------|
| Arrival Name CUUGR (RNAV) | Number TWO | STAR Computer Code TPGUN.CUUGR2 | Superseded Number ONE | Dated 09/13/2018 | Effective Date 10 OCT 2019 |
|-------------------------------------|----------------------|---|---------------------------------|----------------------------|--------------------------------------|

| FIX/NAVAID | LAT/LONG | C | FO/FB | LEG TYPE | TC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
|----------------------------|--------------------------|---|-------|----------|--------|-----------|----------------|---------|--------------|
| En Route Transition | | | | | | | | | |
| BOBTA | 434852.00N / 0793931.00W | Y | | IF | | | | | BOBTA.CUUGR2 |
| JAIBE | 430020.38N / 0803351.01W | Y | FB | TF | 219.54 | 62.63 | | | |
| GGUCE | 424224.64N / 0805326.73W | Y | FB | TF | 218.91 | 23.00 | | | |
| WLFMN | 424104.99N / 0812051.74W | Y | FB | TF | 266.40 | 20.26 | AT/ABOVE FL240 | AT 280K | |
| MAVVV | 423841.82N / 0814836.57W | Y | FB | TF | 263.51 | 20.61 | | | |
| TPGUN | 423522.40N / 0822512.49W | Y | FB | TF | 263.20 | 27.23 | 16000BFL230 | AT 280K | |

| | | | | | | | | | |
|----------------------------|--------------------------|---|----|----|--------|-------|----------------|---------|--------------|
| En Route Transition | | | | | | | | | |
| DONEO | 424704.97N / 0794338.44W | Y | | IF | | | | | DONEO.CUUGR2 |
| VYPRE | 424346.94N / 0802218.13W | Y | FB | TF | 263.61 | 28.67 | | | |
| GGUCE | 424224.64N / 0805326.73W | Y | FB | TF | 266.76 | 23.00 | | | |
| WLFMN | 424104.99N / 0812051.74W | Y | FB | TF | 266.40 | 20.26 | AT/ABOVE FL240 | AT 280K | |
| MAVVV | 423841.82N / 0814836.57W | Y | FB | TF | 263.51 | 20.61 | | | |
| TPGUN | 423522.40N / 0822512.49W | Y | FB | TF | 263.20 | 27.23 | 16000BFL230 | AT 280K | |

| | | | | | | | | | |
|----------------------------|--------------------------|---|----|----|--------|-------|----------------|---------|--------------|
| En Route Transition | | | | | | | | | |
| GGUCE | 424224.64N / 0805326.73W | Y | | IF | | | | | GGUCE.CUUGR2 |
| WLFMN | 424104.99N / 0812051.74W | Y | FB | TF | 266.40 | 20.26 | AT/ABOVE FL240 | AT 280K | |
| MAVVV | 423841.82N / 0814836.57W | Y | FB | TF | 263.51 | 20.61 | | | |
| TPGUN | 423522.40N / 0822512.49W | Y | FB | TF | 263.20 | 27.23 | 16000BFL230 | AT 280K | |

| | | | | | | | | | |
|---------------------|--------------------------|---|----|----|--------|-------|-------------|---------|--------------|
| Common Route | | | | | | | | | |
| TPGUN | 423522.40N / 0822512.49W | Y | | IF | | | 16000BFL230 | AT 280K | TPGUN.CUUGR2 |
| HHUNT | 422647.67N / 0825107.75W | Y | FB | TF | 246.04 | 21.00 | 12000B15000 | | |
| CUUGR | 422151.77N / 0830550.75W | Y | FB | TF | 245.75 | 11.97 | 10000B11000 | AT 250K | |

| | | | | | | | | | |
|--------------------------|--------------------------|---|----|----|--------|-------|-------------|---------|--|
| Runway Transition | | | | | | | | | |
| CUUGR | 422151.77N / 0830550.75W | Y | | IF | | | 10000B11000 | AT 250K | |
| ROOAD | 421703.52N / 0830910.36W | Y | FB | TF | 207.22 | 05.40 | | | |

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| | | | | | |
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|-------------------------------------|----------------------|---|---------------------------------|----------------------------|--------------------------------------|

| FIX/NAVAID | LAT/LONG | C | FO/FB | LEG TYPE | TC | DIST (NM) | ALTITUDE | SPEED | REMARKS |
|---------------------------|--------------------------|---|-------|----------|--------|-----------|----------|---------|---------|
| ROYYY | 420622.01N / 0831632.58W | Y | FO | TF | 207.18 | 12.01 | AT 8000 | AT 210K | |
| KDTW:RWY 3L,RWY 3R,RWY 4R | | | | FM | 208.68 | | | | |

| Runway Transition | | | | | | | | | |
|-------------------|--------------------------|---|----|----|--------|-------|-------------|---------|--|
| CUUGR | 422151.77N / 0830550.75W | Y | | IF | | | 10000B11000 | AT 250K | |
| ZUBBY | 421905.14N / 0832616.73W | Y | FB | TF | 259.73 | 15.41 | | | |
| SKRUG | 421535.41N / 0832854.12W | Y | FO | TF | 209.14 | 04.00 | AT 8000 | AT 210K | |
| KDTW:RWY 4L | | | | FM | 211.18 | | | | |

