

**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><br>KLGA      | <u>PROCEDURE NAME</u><br>RNAV (GPS) X RWY 31 | <u>ORIGINAL/AMENDMENT</u><br>ORIG-A      | <u>CITY</u><br>NEW YORK                   | <u>STATE</u><br>NY         |                       |                           |
| <u>AIRPORT ELEVATION</u><br>21 | <u>TDZE</u><br>7                             | <u>SUPERSEDED</u><br>RNAV (GPS) X RWY 31 | <u>ORIGINAL/AMENDMENT</u><br>ORIG         | <u>DATED</u><br>03/24/2022 | <u>MAG VAR</u><br>12W | <u>EPOCH YEAR</u><br>1980 |
| <u>FACILITY</u><br>RNAV        | <u>COORDINATES OF FACILITIES</u>             | <u>ACTUAL EFFECTIVE DATE</u>             | <u>REQUIRED EFFECTIVE DATE</u><br>ROUTINE | <u>CANCEL/SUSPEND</u>      |                       |                           |

**TERMINAL ROUTES**

| <u>FROM</u> | <u>FIX TYPE</u> | <u>TO</u> | <u>FIX TYPE</u> | <u>LEG TYPE</u> | <u>FO/FB</u> | <u>RNP</u> | <u>COURSE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> |
|-------------|-----------------|-----------|-----------------|-----------------|--------------|------------|---------------|-----------------|-----------------|
| GGREG       | IAF             | ZARID     |                 | TF              | FB           | 1.00       | 228.11        | 10.77           | 4000            |
| ZARID       |                 | VADDR     |                 | TF              | FB           | 1.00       | 317.12        | 5.81            | 4000            |
| VADDR       |                 | JACIE     |                 | TF              | FB           | 1.00       | 276.38        | 7.62            | 4000            |
| JACIE       |                 | NECOL     |                 | TF              | FB           | 1.00       | 217.91        | 14.65           | 4000            |
| NECOL       |                 | VARAZ     |                 | TF              | FB           | 1.00       | 127.89        | 4.35            | 4000            |
| VARAZ       | IAF             | PACHU     |                 | TF              | FB           | 1.00       | 044.00        | 9.97            | 3000            |
| PACHU       | IF              | SHAYY     |                 | TF              | FB           | 1.00       | 045.33        | 2.58            | 2500            |
| SHAYY       |                 | GACAR     |                 | TF              | FB           | 1.00       | 059.12        | 2.00            | 2200            |
| GACAR       | FAF             | @DRRYL    | MAP             | TF              | FB           | 0.30       | 089.09        | 3.11            |                 |
| \$DRRYL     | MAP             | @KEYTH    |                 | TF              | FB           | 0.30       | 044.14        | 1.06            |                 |
| KEYTH       |                 | @DCTRK    |                 | TF              | FB           | 0.30       | 359.14        | 1.06            |                 |
| DCTRK       |                 | @RW31     |                 | TF              | FO           | 0.30       | 314.15        | 1.08            |                 |
| RW31        |                 | 421 MSL   |                 | CA              |              |            | 314.15        |                 |                 |
| 421 MSL     |                 | GREKO     |                 | DF              | FO           | 1.00       |               |                 | 2000            |

QUALITY  
16  
CHECKED

**MISSED APPROACH****MAP:**

LNAV: DRRYL

**MISSED APPROACH INSTRUCTIONS:**

(DO NOT EXCEED 165 KAIS UNTIL RWY 31 THEN DO NOT EXCEED 210 KIAS UNTIL GREKO) CLIMB TO 2000 ON FMS LATERAL PATH TO RW31, THEN CLIMBING RIGHT TURN DIRECT GREKO AND HOLD. IF UNABLE TO FOLLOW THE FMS LATERAL PATH, TURN LEFT HEADING 024.64 AND CLIMB TO 2000 DIRECT GREKO AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:****PROFILE:**

| 1. PT                      | SIDE OF COURSE                     | OUTBOUND       | FT WITHIN             | MILES OF | (IAF)                  |
|----------------------------|------------------------------------|----------------|-----------------------|----------|------------------------|
| 2. PROFILE STARTS AT PACHU |                                    |                |                       |          |                        |
| 3.FAC: @                   | FAF: GACAR                         |                | DIST FAF TO MAP: 3.11 |          | DIST FAF TO THLD: 6.31 |
| 4. MIN ALT:                | PACHU 3000, SHAYY 2500, GACAR 2200 |                |                       |          |                        |
| 5. DIST TO THLD FROM OM:   | MM:                                | IM:            | 150 HAT:              | GS ANT:  |                        |
| 6. MIN GP INCPT:           | GP ALT AT FAF :                    |                | OM:                   | MM:      | IM:                    |
| 7. GP ANGLE:               | 34:1: IS NOT CLEAR                 | 20:1: IS CLEAR | TCH:                  |          |                        |
| 8. MSA FROM:               | RW31 2900                          |                |                       |          |                        |

**PBN REQUIREMENTS NOTE:**

RNP APCH - GPS.

EQUIPMENT REQUIREMENT NOTE: RADAR REQUIRED.

**NOTES:**

CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

CHART PLANVIEW NOTE: TURNS REQUIRED IN THE VISUAL SEGMENT.

CHART PLANVIEW NOTE: CROSS DRRYL, FLY VISUAL TO AIRPORT ALONG DEPICTED TRACK 044 TO KEYTH THEN 359 TO DCTRK, THEN 314 TO RWY 31.

CHART SPEED ICON IN PLANVIEW AT GGREG: MAX 240 KIAS.

CHART SPEED ICON IN PLANVIEW AT NECOL: MAX 200 KIAS.

CHART SPEED ICON IN PLANVIEW AT VARAZ: MAX 200 KIAS.

CHART SPEED ICON IN PLANVIEW AT SHAYY: MAX 180 KIAS.

**ADDITIONAL FLIGHT DATA:**

CHART IN PROFILE: \* CHECK ALT

CHART GP ALT AT FAF IN PROFILE: GACAR 2200, \*DRRYL 1142, \*KEYTH 782, \*DCTRK 422

\$THIS MAY RESULT IN THE NEED TO LABEL RW31 AS THE MAP FOR PACKING PURPOSES (DO NOT CHART).

HOLD NE, LT, 223.00 INBOUND.

CHART FAS OBST: 380 BUILDING (36-002382) 404342N/0735104W.

CHART 376 BUILDING 404533N/0735125W, 344 BUILDING 404513N/0734925W.

CHART 385 BLDG\_TWR 404418N/0735553W.

CHART MANDATORY 4000 AT GGREG.

GACAR TO RW31: 3.20/50.



**MINIMUMS:**

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

**ALTERNATE:** NA ☐ CAT A-D 1200-4

| <b>CATEGORY:</b>  | <b>A</b>      |            |                | <b>B</b>      |            |                | <b>C</b>      |            |                | <b>D</b>      |            |                | <b>E</b>      |            |                |
|-------------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|
| <b>FINAL TYPE</b> | <b>DA/MDA</b> | <b>VIS</b> | <b>HAT/HAA</b> | <b>DA/MDA</b> | <b>VIS</b> | <b>HAT/HAA</b> | <b>DA/MDA</b> | <b>VIS</b> | <b>HAT/HAA</b> | <b>DA/MDA</b> | <b>VIS</b> | <b>HAT/HAA</b> | <b>DA/MDA</b> | <b>VIS</b> | <b>HAT/HAA</b> |
| LNAV MDA          | 1160          | 4          | 1153           | 1160          | 4          | 1153           | 1160          | 4          | 1153           | 1160          | 4          | 1153           |               |            |                |

**CHANGES - REASONS**

1. REMOVED INTERMEDIATE STEPDOWN AT BENNG - ATC REQUEST: CONFUSING DUE TO FIX USED ON NUMEROUS PROCEDURES TO DIFFERENT RUNWAYS. STEPDOWN NOT DRIVEN BY OBSTACLE OR AIRSPACE.

**COORDINATED WITH:**

**A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** LGA ATCT, N90, AMGR

**FLIGHT CHECKED BY**

JEREMY R VIRTS

*Digitally signed by*

**ERIC N SUSKI**

Jan 11, 2023

**OFFICE**

FPO

**DATE**

12/01/2022

**DEVELOPED BY**

KELLY DEAN

*Digitally signed by*

**KELLY D DEAN**

Nov 03, 2022

**OFFICE**

AJV-A431

**DATE**

10/21/2022

**APPROVED BY**

ERIC N SUSKI

*Digitally signed by*

**ERIC N SUSKI**

Nov 16, 2022

**OFFICE**

AJV-A431

**DATE**

**TITLE**  
MANAGER



FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

|                           |  |                           |                         |                    |                                |                         |
|---------------------------|--|---------------------------|-------------------------|--------------------|--------------------------------|-------------------------|
| <u>AIRPORT ID</u><br>KLGA | <u>PROCEDURE NAME</u><br>RNAV (GPS) X RWY 31 | <u>AMDT NO.</u><br>ORIG-A | <u>CITY</u><br>NEW YORK | <u>STATE</u><br>NY | <u>AIRPORT ELEVATION</u><br>21 | <u>FACILITY</u><br>RNAV |
|---------------------------|--|---------------------------|-------------------------|--------------------|--------------------------------|-------------------------|

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM  
GGREG

TO  
ZARID

| <u>RNP</u> | <u>DISTANCE</u><br>10.77 | <u>PAT</u> | <u>MAP</u> | <u>HAT</u> | <u>HMAS</u> |  |  |  |  |  |  | <u>OBSTRUCTION</u>   | <u>COORDINATES</u>     | <u>ELEV MSL</u> | <u>HORZ</u> | <u>VERT</u> | <u>AC</u> | <u>ROC</u> | <u>OCS</u> | <u>CG</u> | <u>CGTA</u> | <u>ADJUSTMENTS</u> | <u>MIN ALT</u> |
|------------|--------------------------|------------|------------|------------|-------------|--|--|--|--|--|--|----------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-----------|-------------|--------------------|----------------|
|            |                          |            |            |            |             |  |  |  |  |  |  | BUILDING (36-000454) | 404526.00N/0734254.00W | 604             | 250         | 50          | 4D        | 1000       |            |           |             | AT2396             | 4000           |
|            |                          |            |            |            |             |  |  |  |  |  |  | TERRAIN              | 404757.00N/0733833.00W | 295 (300)       |             |             |           |            |            |           |             | AS1500             | 1800           |

COMPUTATIONS

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM  
ZARID

TO  
VADDR

| <u>RNP</u> | <u>DISTANCE</u><br>5.81 | <u>PAT</u> | <u>MAP</u> | <u>HAT</u> | <u>HMAS</u> |  |  |  |  |  |  | <u>OBSTRUCTION</u> | <u>COORDINATES</u>     | <u>ELEV MSL</u> | <u>HORZ</u> | <u>VERT</u> | <u>AC</u> | <u>ROC</u> | <u>OCS</u> | <u>CG</u> | <u>CGTA</u> | <u>ADJUSTMENTS</u> | <u>MIN ALT</u> |
|------------|-------------------------|------------|------------|------------|-------------|--|--|--|--|--|--|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-----------|-------------|--------------------|----------------|
|            |                         |            |            |            |             |  |  |  |  |  |  | AAO                | 404424.00N/0734442.00W | 407             | 164         | 98          | 4E        | 1000       |            |           |             | AT2593             | 4000           |
|            |                         |            |            |            |             |  |  |  |  |  |  | TERRAIN            | 404324.00N/0734557.00W | 170 (200)       |             |             |           |            |            |           |             | AS1500             | 1700           |

COMPUTATIONS

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



INITIAL: STEPDOWN

FROM  
VADDR

TO  
JACIE

| RNP                  | DISTANCE<br>7.62       | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|----------------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BUILDING (36-030258) | 404558.85N/0735851.30W |     | 1649      | 250  | 50   | 4D | 1000 |     |    |      | AT1351      | 4000    |
| TERRAIN              | 404745.00N/0740048.00W |     | 285 (300) |      |      |    |      |     |    |      | AS1500      | 1800    |

| COMPUTATIONS | ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM  
JACIE

TO  
NECOL

| RNP                  | DISTANCE<br>14.65      | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|----------------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BUILDING (36-030184) | 404515.78N/0740003.58W |     | 1305      | 250  | 50   | 4D | 1000 |     |    |      | AT1695      | 4000    |
| TERRAIN              | 403615.00N/0740633.00W |     | 423 (400) |      |      |    |      |     |    |      | AS1500      | 1900    |

| COMPUTATIONS | ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:



INITIAL: STEPDOWN

FROM

NECOL

TO

VARAZ

| RNP         | DISTANCE               | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|-------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
|             | 14.65                  |     |           |      |      |    |      |     |    |      |             |         |
| OBSTRUCTION | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| AAO         | 403457.00N/0740718.00W |     | 463       | 164  | 98   | 4E | 1000 |     |    |      | AT2537      | 4000    |
| TERRAIN     | 403229.00N/0741200.00W |     | 170 (200) |      |      |    |      |     |    |      | AS1500      | 1700    |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

WAIVER REQUIRED FOR 200 KIAS IN THE INITIAL SEGMENT. VKTW 42.78 (2016-2020) KTS ARE HISTORIC WINDS

INITIAL

FROM

VARAZ

TO

PACHU

| RNP                | DISTANCE               | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|--------------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
|                    | 9.97                   |     |           |      |      |    |      |     |    |      |             |         |
| OBSTRUCTION        | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BRIDGE (36-000270) | 403630.00N/0740219.00W |     | 693       | 100  | 20   | 3C | 500  |     |    |      | AT1807      | 3000    |
| TERRAIN            | 403927.00N/0735915.00W |     | 216 (200) |      |      |    |      |     |    |      | AS1500      | 1700    |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

WAIVER REQUIRED FOR 200 KIAS IN THE INITIAL SEGMENT. VKTW 42.78 (2016-2020) KTS ARE HISTORIC WINDS



INTERMEDIATE

FROM  
PACHU

TO  
SHAYY

| RNP                  | DISTANCE<br>2.58       | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|----------------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BUILDING (36-160119) | 404126.40N/0735855.90W |     | 1048      | 250  | 50   | 4D | 500  |     |    |      | AT952       | 2500    |
| TERRAIN              | 404018.00N/0735800.00W |     | 190 (200) |      |      |    |      |     |    |      | AS1500      | 1700    |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM  
SHAYY

TO  
GACAR

| RNP                  | DISTANCE<br>2.00       | PAT | MAP       | HAT  |      |    | HMAS |     |    |      |             |         |
|----------------------|------------------------|-----|-----------|------|------|----|------|-----|----|------|-------------|---------|
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BUILDING (36-146576) | 404238.64N/0735929.69W |     | 824       | 250  | 50   | 4D | 500  |     |    |      | AT876       | 2200    |
| TERRAIN              | 404106.00N/0735400.00W |     | 144 (100) |      |      |    |      |     |    |      | AS1500      | 1600    |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LNAV

FROM

GACAR

TO

DRRYL

| RNP                  | DISTANCE               | PAT | MAP      | HAT  |      |    | HMAS |     |    |      |             |         |
|----------------------|------------------------|-----|----------|------|------|----|------|-----|----|------|-------------|---------|
|                      | 3.11                   |     | DRRYL    | 1153 |      |    |      |     |    |      |             |         |
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| BUILDING (36-002382) | 404341.59N/0735104.28W |     | 380      | 20   | 3    | 1A | 250  |     |    |      | DG530       | 1160    |

| COMPUTATIONS | ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:  
CHECK ALTITUDE AT DRRYL 1142 FT MSL. DRRYL IS THE START OF THE EXTENDED VISUAL SEGMENT TO RWY 31

FINAL: LNAV STEPDOWN

FROM

DRRYL

TO

KEYTH

| RNP               | DISTANCE               | PAT | MAP      | HAT  |      |    | HMAS |     |    |      |             |         |
|-------------------|------------------------|-----|----------|------|------|----|------|-----|----|------|-------------|---------|
|                   | 1.06                   |     |          |      |      |    |      |     |    |      |             |         |
| OBSTRUCTION       | COORDINATES            |     | ELEV MSL | HORZ | VERT | AC | ROC  | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
| TOWER (36-000599) | 404438.30N/0735041.88W |     | 256      | 20   | 3    | 1A |      |     |    |      |             | 782     |

| COMPUTATIONS | TF TURN FIX | ALT  | KIAS | KTAS | HAA    | VKTW | TR   | BA    | DTA  | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|--------------|-------------|------|------|------|--------|------|------|-------|------|---------------|------|---------|------------------------|
|              | DRRYL-KEYTH | 2000 | 165  | 175  | 1979.4 | 30   | 1.28 | 25.49 | 0.53 | 44.97         |      |         |                        |

SEGMENT REMARKS:  
CHECK ALTITUDE AT DRRYL 1142 FT MSL. EXTENDED VISUAL SEGMENT TO RWY 31. TURN COMPUTATIONS ARE BASED ON THE MISSED APPROACH AT 2000 FT MSL. 25.49° OF BANK REQUIRES A WAIVER





FINAL: LNAV STEPDOWN

FROM

KEYTH

TO

DCTRK

| RNP                  | DISTANCE               | PAT      | MAP  | HAT  | HMAS |     |     |    |      |             |         |  |
|----------------------|------------------------|----------|------|------|------|-----|-----|----|------|-------------|---------|--|
|                      | 1.06                   |          |      |      |      |     |     |    |      |             |         |  |
| OBSTRUCTION          | COORDINATES            | ELEV MSL | HORZ | VERT | AC   | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |  |
| BUILDING (36-000389) | 404513.00N/0734925.00W | 344      | 20   | 3    | 1A   |     |     |    |      |             | 422     |  |

| COMPUTATIONS |      |      |      |        |      |      |       |      |               |      |         |                        |
|--------------|------|------|------|--------|------|------|-------|------|---------------|------|---------|------------------------|
| TF TURN FIX  | ALT  | KIAS | KTAS | HAA    | VKTW | TR   | BA    | DTA  | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
| KEYTH-DCTRK  | 2000 | 165  | 175  | 1979.4 | 30   | 1.28 | 25.49 | 0.53 | 44.99         |      |         |                        |

SEGMENT REMARKS:

CHECK ALTITUDE AT KEYTH 782 FT MSL. EXTENDED VISUAL SEGMENT TO RWY 31. TURN COMPUTATIONS ARE BASED ON THE MISSED APPROACH AT 2000 FT MSL. 25.49° OF BANK REQUIRES A WAIVER

FINAL: LNAV STEPDOWN

FROM

DCTRK

TO

RW31

| RNP                  | DISTANCE               | PAT      | MAP  | HAT  | HMAS |     |     |    |      |             |         |  |
|----------------------|------------------------|----------|------|------|------|-----|-----|----|------|-------------|---------|--|
|                      | 1.08                   |          |      |      |      |     |     |    |      |             |         |  |
| OBSTRUCTION          | COORDINATES            | ELEV MSL | HORZ | VERT | AC   | ROC | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |  |
| BUILDING (36-029754) | 404533.02N/0735124.72W | 376      | 20   | 3    | 1A   |     |     |    |      |             | 376     |  |

| COMPUTATIONS |      |      |      |        |      |      |       |      |               |      |         |                        |
|--------------|------|------|------|--------|------|------|-------|------|---------------|------|---------|------------------------|
| TF TURN FIX  | ALT  | KIAS | KTAS | HAA    | VKTW | TR   | BA    | DTA  | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|              | 2000 | 165  | 175  | 1979.4 | 30   | 1.28 | 25.49 | 0.53 | 44.99         |      |         |                        |

SEGMENT REMARKS:

CHECK ALTITUDE AT KEYTH 782 FT MSL. EXTENDED VISUAL SEGMENT TO RWY 31. TURN COMPUTATIONS ARE BASED ON THE MISSED APPROACH AT 2000 FT MSL. 25.49° OF BANK REQUIRES A WAIVER



MISSED APPROACH : LNAV

FROM

RW31

TO

GREKO

| RNP                  | DISTANCE               | PAT | MAP       | HAT  |      |    | HMAS<br>1060 |     |    |      |             |         |
|----------------------|------------------------|-----|-----------|------|------|----|--------------|-----|----|------|-------------|---------|
| OBSTRUCTION          | COORDINATES            |     | ELEV MSL  | HORZ | VERT | AC | ROC          | OCS | CG | CGTA | ADJUSTMENTS | MIN ALT |
|                      |                        |     |           |      |      |    |              | ASC |    |      |             | 2000    |
| BUILDING (36-002397) | 405248.35N/0735238.48W |     | 620       | 500  | 50   | 5D | 1000         |     |    |      |             | 1700    |
| TERRAIN              | 405227.00N/0735045.00W |     | 160 (200) |      |      |    |              |     |    |      | AS1500      | 1700    |

COMPUTATIONS

| ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☐ CAT A

☐ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☒ NOT AUTHORIZED

MSA

CENTER

RW31

RADIUS

25

| SECTOR  | OBSTRUCTION          | COORDINATES            | BEARING | DISTANCE | ELEV MSL | HORZ | VERT | AC | ROC  | OCS | ADJUSTMENTS | MIN ALT |
|---------|----------------------|------------------------|---------|----------|----------|------|------|----|------|-----|-------------|---------|
| 360-360 | BUILDING (36-020633) | 404246.75N/0740047.27W | 256     | 07.9     | 1806     | 20   | 3    | 1A | 1000 |     |             | 2900    |

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

|                           |                         |                            |                                 |                      |                       |                         |
|---------------------------|-------------------------|----------------------------|---------------------------------|----------------------|-----------------------|-------------------------|
| <u>WX SERVICE</u><br>ASOS | <u>LOCATION</u><br>KLGA | <u>HRS OPERATION</u><br>24 | <u>ALTIMETER SOURCE</u><br>KLGA | <u>DISTANCE</u><br>0 | <u>SERVICE-A</u><br>Y | <u>ADJUSTMENTS</u><br>0 |
| <u>BACK-UP WX SERVICE</u> | <u>LOCATION</u>         | <u>HRS OPERATION</u>       | <u>ALTIMETER SOURCE</u>         | <u>DISTANCE</u>      | <u>SERVICE-A</u>      | <u>ADJUSTMENTS</u>      |

WX REMARKS:  
BACKUP SOURCE NOT PROVIDED DUE TO REDUNDANT ALTIMETER SOURCE AVAILABLE AT KLGA 24 HOURS.

|                       |                      |                      |            |
|-----------------------|----------------------|----------------------|------------|
| <u>PRIMARY NAVAID</u> | <u>MONITOR POINT</u> | <u>HRS OPERATION</u> | <u>CAT</u> |
|-----------------------|----------------------|----------------------|------------|

| <u>APPROACH AND RUNWAY LIGHTING SYSTEM</u> | <u>RUNWAY MARKINGS</u> | <u>RUNWAY VISUAL RANGE</u> |
|--|------------------------|----------------------------|
| RW04 - TDZ, MALSR, HIRL, C/LINE, PAPI-4R   | PIR-G                  | APPROACH, ROLL OUT         |
| RW13 - TDZ, MALSR, HIRL, C/LINE, PAPI-4L   | PIR-G                  | APPROACH, ROLL OUT         |
| RW22 - TDZ, ALSF-1, HIRL, C/LINE, PAPI-4R  | PIR-G                  | APPROACH, ROLL OUT         |
| RW31 - HIRL, REIL, C/LINE, PAPI-4R         | PIR-G                  | APPROACH, ROLL OUT         |

|                         |                           |            |                        |                          |                           |                    |
|-------------------------|---------------------------|------------|------------------------|--------------------------|---------------------------|--------------------|
| <u>GLIDESLOPE ANGLE</u> | <u>ELEV RWY THRESHOLD</u> | <u>TCH</u> | <u>ELEV GS ANTENNA</u> | <u>DISTANCE FROM RWY</u> | <u>VGSI ANGLE</u><br>3.00 | <u>TCH</u><br>70.8 |
|-------------------------|---------------------------|------------|------------------------|--------------------------|---------------------------|--------------------|

FINAL APPROACH COURSE AIMING

|                  |                                     |                    |                              |
|------------------|-------------------------------------|--------------------|------------------------------|
| RUNWAY THRESHOLD | <input checked="" type="checkbox"/> | FT FROM THRESHOLD  | DISPLACED THRESHOLD DISTANCE |
| ON CENTERLINE    | <input checked="" type="checkbox"/> | FT FROM CENTERLINE |                              |

CRITICAL TEMPERATURES

|                     |                      |            |                |
|---------------------|----------------------|------------|----------------|
| <u>CRITICAL LOW</u> | <u>CRITICAL HIGH</u> | <u>ACT</u> | <u>APT ISA</u> |
|---------------------|----------------------|------------|----------------|

CRITICAL TEMPERATURE REMARKS:



"VISUAL PORTION OF FINAL" PENETRATIONS

|   |             |   |  |
|---|-------------|---|--|
| Final Type  | LNAV RWY 31 |   |  |
| 20:1  |             |   |  |
| 19 NAVAID (36-022763) 404617.39N/0735121.28W (2.66) DETERMINED FIXED BY FUNCTION - NO FACTOR. |             |   |  |
| Final Type  | LNAV RWY 31 |   |  |
| 34:1  |             |   |  |
| 97 CRANE 404611.93N/0735050.89W (33.10), 103 STACK 404608.76N/0735051.19W (19.34),            |             | 226 BLDG 404536.41N/0735003.70W (0.15), |  |
| 97 CRANE 404611.04N/0735057.92W (29.84),  |             | 97 BLDG 404603.99N/0735049.01W (1.61)   |  |

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or  
5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

VEGETATION 80FT PER FPT

FINAL APPROACH HAS AN EXTENDED VISUAL SEGMENT WITH TF TURNS. THE FIX DRRYL IS IDENTIFIED AS A VGF (VISUAL GUIDANCE FIX) WHICH IS THE POINT THE FIGHT CREW SHOULD BE ABLE TO SEE THE RUNWAY TO CONTINUE THE EXTENDED VISUAL SEGMENT TO A LANDING, OR EXECUTE THE MISSED APPROACH.

WAIVERS:  
VISUAL AREA CONSTRUCTION WAIVER  
TF TURNS IN FINAL (VISUAL SEGMENT)  
BANK ANGLE WAIVER  
SPEED RESTRICTION IN MISSED APPROACH SEGMENT  
MAP FIX CODED AS A FB FIX

APPROVAL LETTER:  
200 KIAS IN INITIAL SEGMENT

MISSED APPROACH: THE FOLLOWING ADDITIONAL INSTRUCTIONS "IF UNABLE TO FOLLOW THE FMS LATERAL PATH, TURN LEFT HEADING 024.64 AND CLIMB TO 2000 DIRECT GREKO AND HOLD"  
COVERS RARE STITUATIONS DUE TO EQUIPMENT MALFUNCTION THAT DOES NOT CONSTITUTE AN EMERGENCY.

ORDER 8260.3 CHAPTER 2 APPLIED TO 385 BLDG\_TWR (36-000237) 404418.17N/0735552.50W.



|                           |  |                           |                         |                    |                                |                         |
|---------------------------|--|---------------------------|-------------------------|--------------------|--------------------------------|-------------------------|
| <u>AIRPORT ID</u><br>KLGA | <u>PROCEDURE NAME</u><br>RNAV (GPS) X RWY 31 | <u>AMDT NO.</u><br>ORIG-A | <u>CITY</u><br>NEW YORK | <u>STATE</u><br>NY | <u>AIRPORT ELEVATION</u><br>21 | <u>FACILITY</u><br>RNAV |
|---------------------------|--|---------------------------|-------------------------|--------------------|--------------------------------|-------------------------|

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

|                 |       |                                 |      |
|-----------------|-------|---------------------------------|------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 2.86 |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 1.20 |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | @    |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 200  |
| DISTANCE FROM   | THLD  | TO 1500FT POINT                 | 5.24 |
| WIDTH OF        | FINAL | SEGMENT AT 1500FT POINT         | 1.20 |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1500FT POINT | @    |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1500FT POINT | 200  |

THRESHOLD  
COORDINATES  
(IF STR-IN)

404619.46N/0735125.60W

ARP COORDINATES

404638.10N/0735221.40W

RUNWAY APCH END  
AND DIST FURTHEST  
FROM ARP

RUNWAY 31 DISTANCE 0.77 NM

FAF  
COORDINATES

404307.46N/0735439.06W

FIX NAME  
COORDINATES

REMARKS

@ TRUE COURSE FROM GACAR TO DRRYL 089.09, DRRYL TO KEYTH 044.14, KEYTH TO DCTRK 359.15, DCTRK TO RW31 314.15  
NO ADDITIONAL AIRSPACE REQUIRED

QUALITY  
16  
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

|                           |                           |                           |   |
|---------------------------|---------------------------|---------------------------|---|
| <u>NAME</u><br>KELLY DEAN | <u>OFFICE</u><br>AJV-A431 | <u>DATE</u><br>10/21/2022 | <u>TITLE</u><br>AERONAUTICAL INFORMATION SPECIALIST |
|---------------------------|---------------------------|---------------------------|---|

