

07-SEP-2017

**RIC-KRIC**

1-10

**A0I****A0I****GENERAL****Operational Hours****ATS Hours:** H24**AD OPS Hours:** Attended continuously**Airport Information****RFF:** FAA Index C / CAT 7, FAA Index D/E / CAT 8-10 O/R**Fuel:** Jet A**PCN:** RWY 02/20: 70/F/C/W/T, RWY 07/25: 57/F/C/W/T, RWY 16/34: 92/F/B/W/T**Operation****Traffic Note**

Low Level Windshear Alert System (LLWAS) in operation.

**Low Visibility Procedure**

During LVP conditions OPS are only permitted on RWY 16/34.

**TWY Restrictions**

TWY A between TWY C and TWY E MAX wingspan 52m / 171ft.

TWY J, K MAX wingspan 36m / 118ft and MAX wheel base 18m / 59ft.

TWY R between TWY A and FSDO Ramp MAX wingspan 36m / 118ft and MAX wheel base 18m / 59ft.

TWY R west of FSDO Ramp MAX wingspan 24m / 79ft

TWY T south of TWY J MAX wingspan 36m / 118ft and MAX wheel base 18m / 59ft.

TWY T north of TWY F MAX wingspan 36m / 118ft.

TWY V between TWY A and R MAX wingspan 30m / 99ft.

TWY M1, M2, M3 CLSD.

Taxiing is permitted on TWY C west of TWY U, R, V, F, G, E, L south of E, U and T.

Air carrier APN CLSD to unscheduled ACFT with MAX weight below 15.9t / 35000lbs.

Intersections requiring oversteering.

TWY M and north/south section of TWY V no edge lights, reflectors only.

**Warnings**

Non-radio equipped vehicles crossing midfields TWY C, E, H and driving on TWY L south of RWY 07/25.

Birds and deer in vicinity of AD and on AD.

**ARRIVAL****Speed**

MAX IAS 250KT below 10000ft.

**Communication****COM Failure:** See CRAR United States.**Arrival Procedure****Non-standard GP intercept position on RWY 16/34**

GP intercepts RWY 16/34 at 314m / 1030ft after landing threshold.

Remaining LDG DIST beyond GP is 2430m / 7973ft.

07-SEP-2017

**RIC-KRIC****1-20****A01****A01****DEPARTURE****Take-off Minima**

| RWY     |            | 34             |   |
|---------|------------|----------------|---|
| 1+2 ENG | ft - ft/SM | 0 - 5000R/1.0V | SID COLIN, SID KALLI, SID READE:<br>MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 5.9% up to 5000 |
| 3+4ENG  |            | 0 - 2400R/0.5V |   |
| RWY     |            | 25             |   |
| 1+2 ENG | ft - ft/SM | 0 - 5000R/1.0V | SID KALLI, SID READE:<br>MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 7.0% up to 5000            |
| 3+4ENG  |            | 0 - 2400R/0.5V |   |
| RWY     |            | 16             |   |
| 1+2 ENG | ft - ft/SM | 0 - 5000R/1.0V | SID COLIN, SID KALLI, SID READE:<br>MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 7.9% up to 4000 |
| 3+4ENG  |            | 0 - 2400R/0.5V |   |
| RWY     |            | 07             |   |
| 1+2 ENG | ft - ft/SM | 0 - 1.0V       | SID KALLI, SID READE:<br>MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 6.1% up to 5000            |
| 3+4ENG  |            | 0 - 0.5V       |   |
| RWY     |            | 20             |   |
| 1+2 ENG | ft - ft/SM | 0 - 1.0V       | SID COLIN, SID KALLI, SID READE:<br>MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 7.9% up to 4000 |
| 3+4ENG  |            | 0 - 0.5V       |   |

**DEPARTURE**

| RWY     |            | 02       |  |
|---------|------------|----------|--|
| 1+2 ENG | ft - ft/SM | 0 - 1.0V | MNM climb gradient 3.8% up to 400, or<br>TKOF must occur not later than 1600ft /<br>488m prior to DER.<br>SID COLIN, SID KALLI, SID READE: |
| 3+4 ENG |            | 0 - 0.5V | MNM climb gradient 8.3% up to 690<br>SID LUCYL:<br>MNM climb gradient 8.3% up to 690,<br>then 6.2% up to 5000                              |

**Speed**

MAX IAS 250KT below 10000ft.

**Communication**

**COM Failure:** See CRAR United States.

**Departure Procedure****Push-back**

ATC CLR required for push-backs from gate A6, A8, B5, B7, B9, B11, B13 onto TWY A.

ATC CLR required for push-back from hardstands C9, C10 and C12 onto TWY T.

**Richmond United States**

**AGC**  
**AFC**



### Landing RWY system:

|        |  |       |
|--------|--|-------|
| ML-P1R | THR 159 (6hPa) / <b>TDZ 161</b> (---%) | +0.1% |
|--------|--|-------|

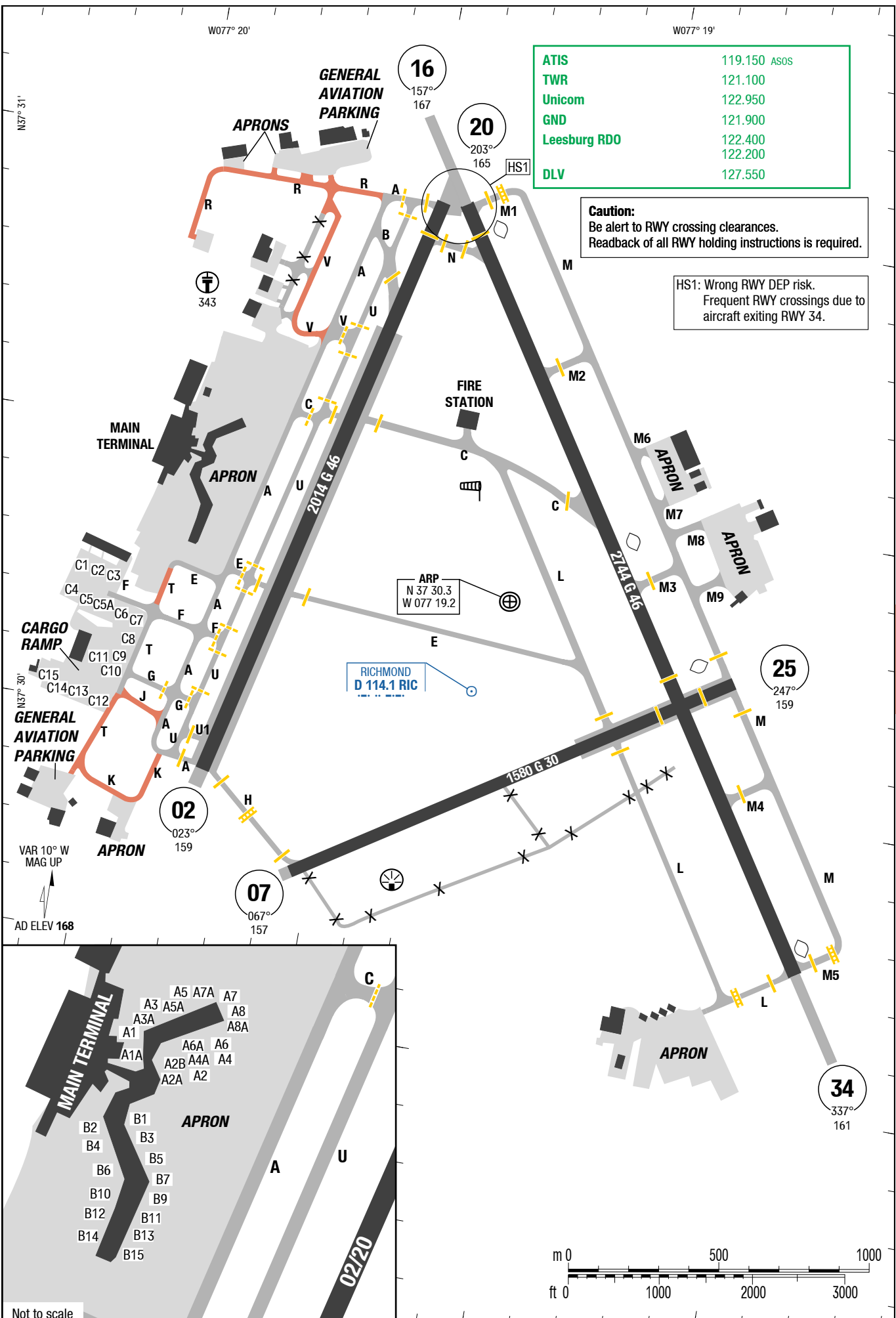
 -0.1% | **TDZ 168** (---%) / **THR 165** (6hPa) |

|                                 |      |
|---------------------------------|------|
| THR 157 (6hPa) / TDZ 158 (---%) | 0.0% |
|---------------------------------|------|

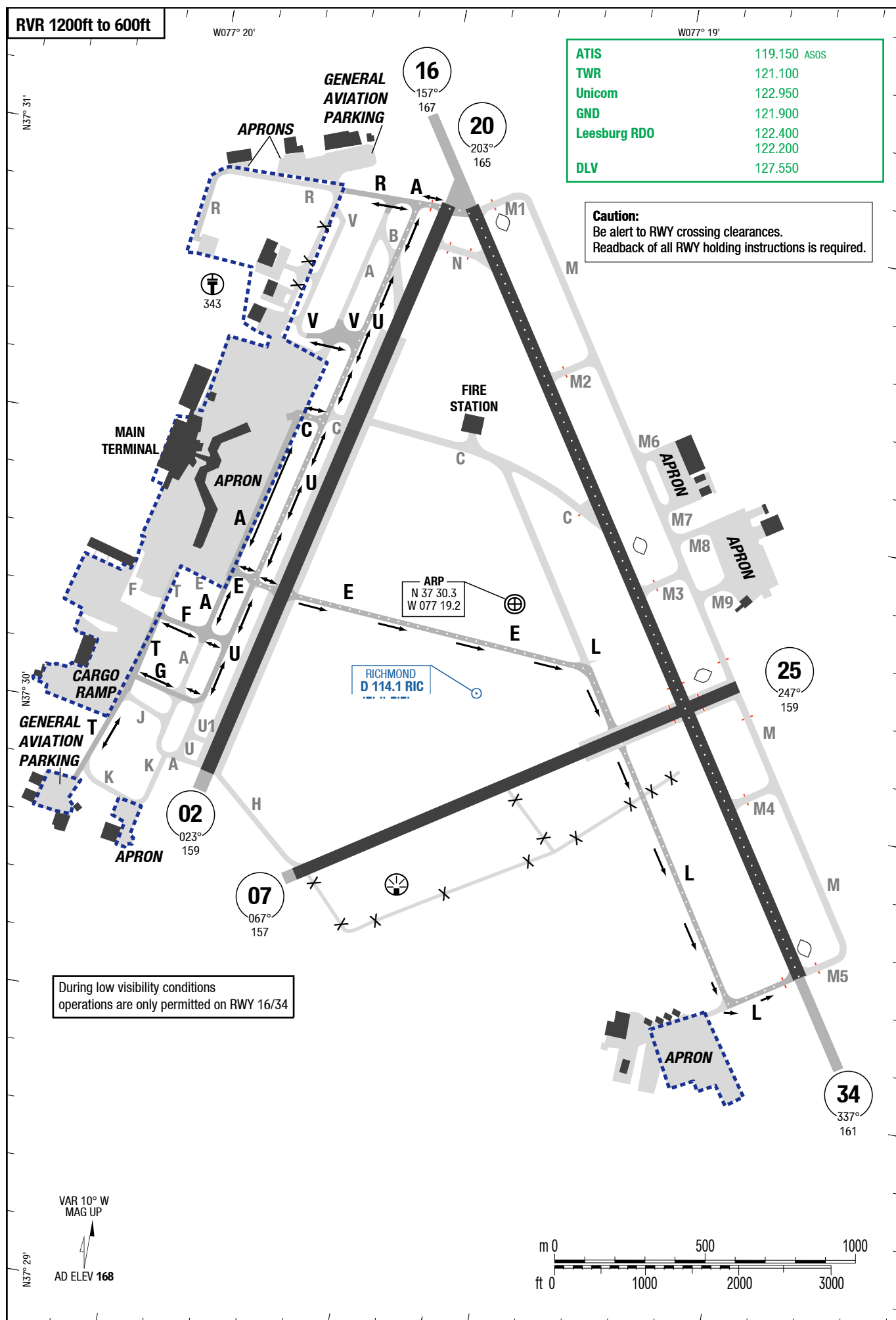
 0.0% | **TDZ 160** (---%) / **THR 159** (6hPa) |

|        |  |       |
|--------|--|-------|
| ML-P1R | THR 167 (6hPa) / <b>TDZ 167</b> (---%) | -0.1% |
|--------|--|-------|

|       |   |    |
|-------|---|----|
| +0.1% | <b>TDZ 161</b> (---%) / <b>THR 161</b> (6hPa) | HI |
|-------|---|----|







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KALLI 4 RNAV

4-10

LUCYL 5 RNAV

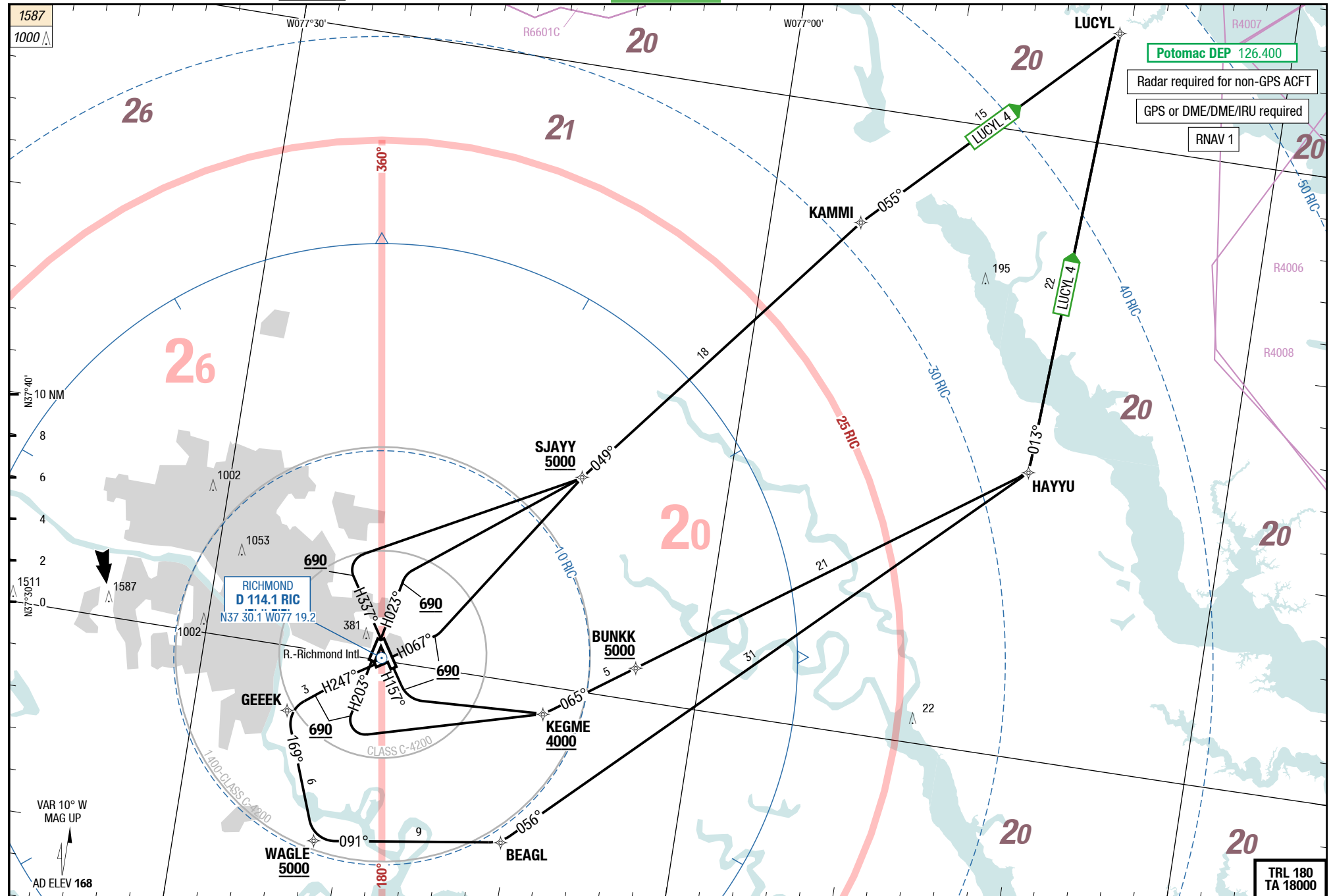
SID

SID

Richmond Intl **Richmond** United States

KALLI 4 RNAV

LUCYL 5 RNAV



Changes: Track, VAR, OBST, PROC renumbered



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SID

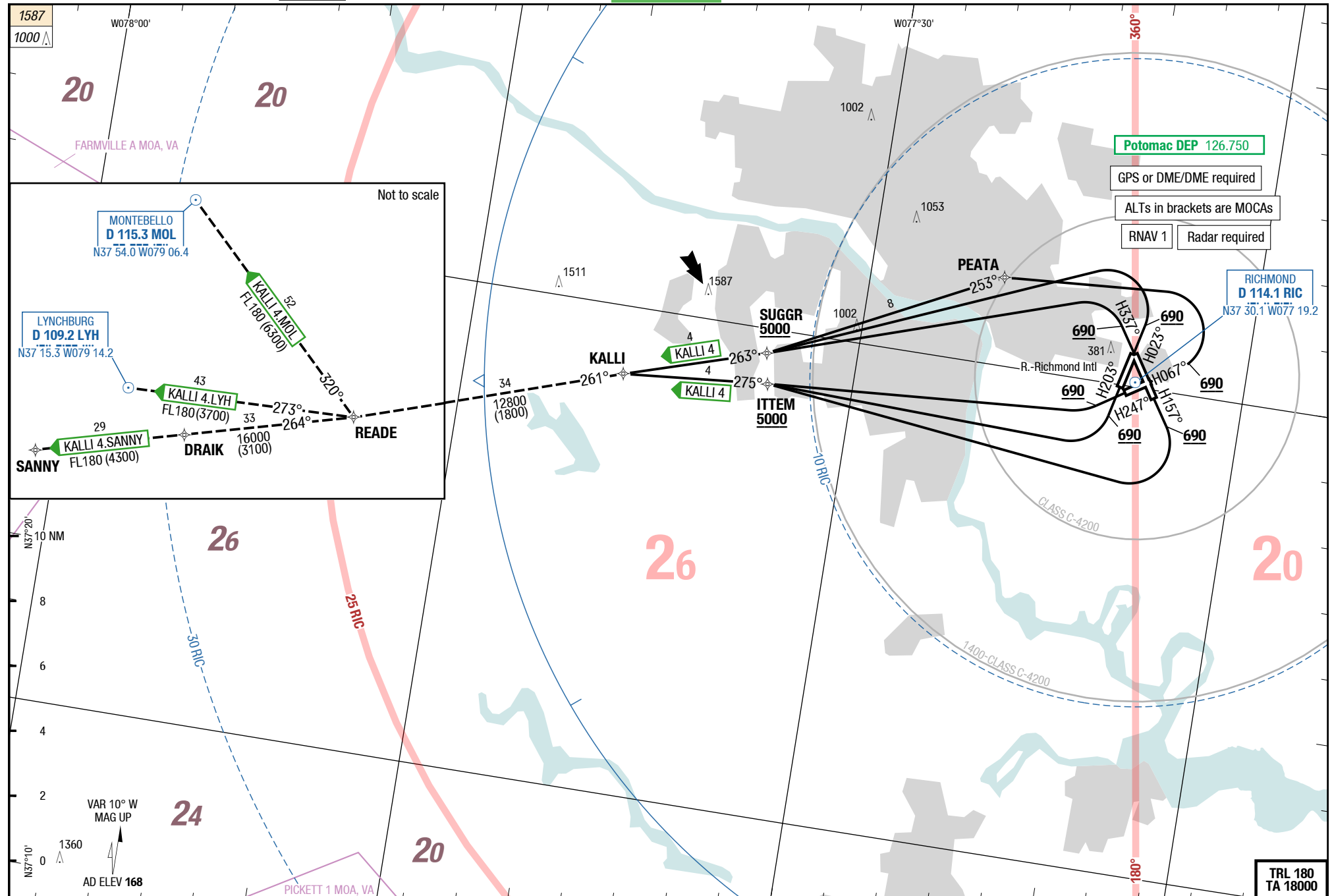
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Richmond Intl **Richmond** United States

4-20

KALLI 4 RNAV

KALLI 4 RNAV



Changes: Track, VAR, OBST, PROC renumbered

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RIC-KRIC

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READ 5

COLIN 8

SID

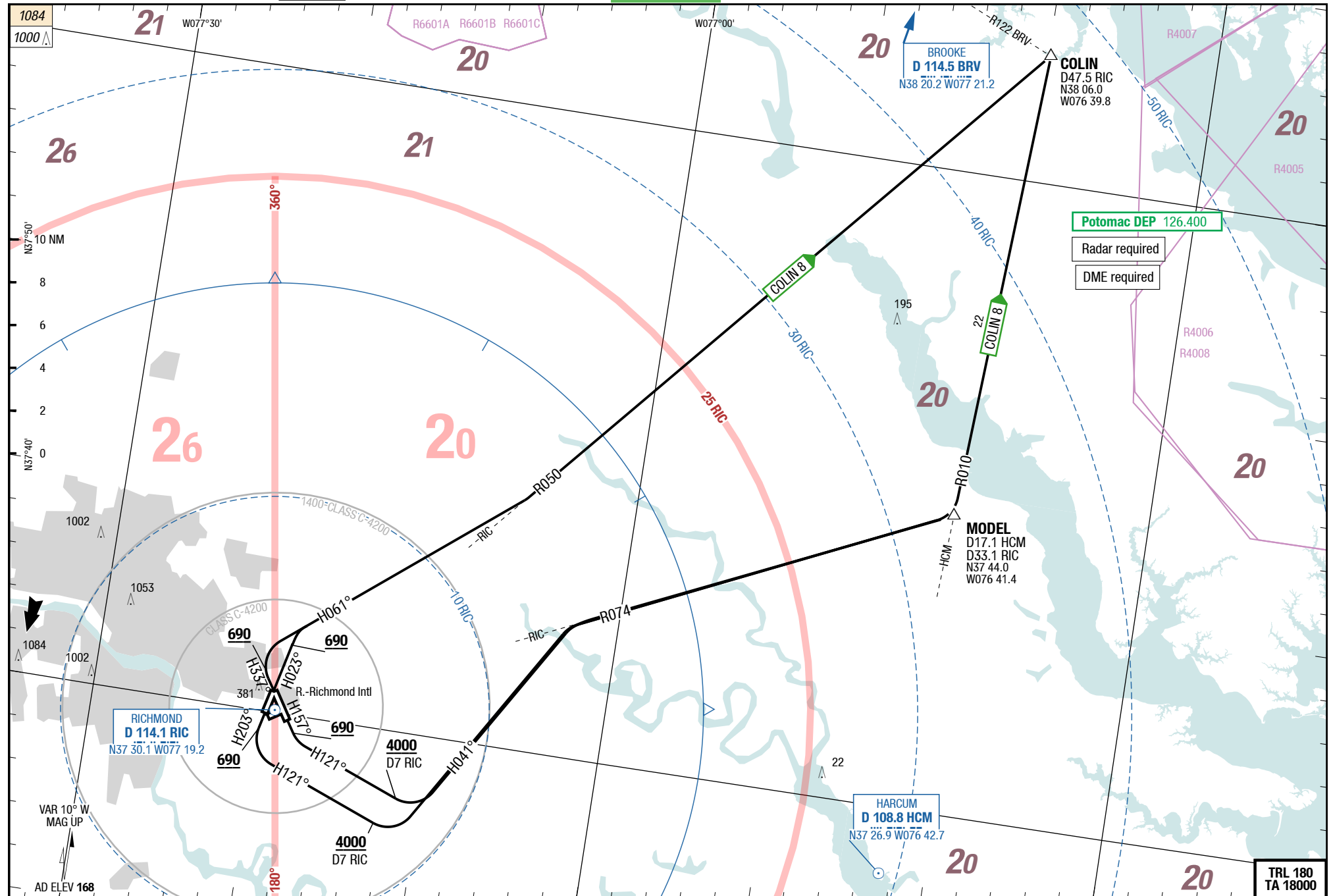
SID

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READ 5

COLIN 8

4-30



Changes: Track, VAR, PROC renumbered, OBST

## RIC-KRIC

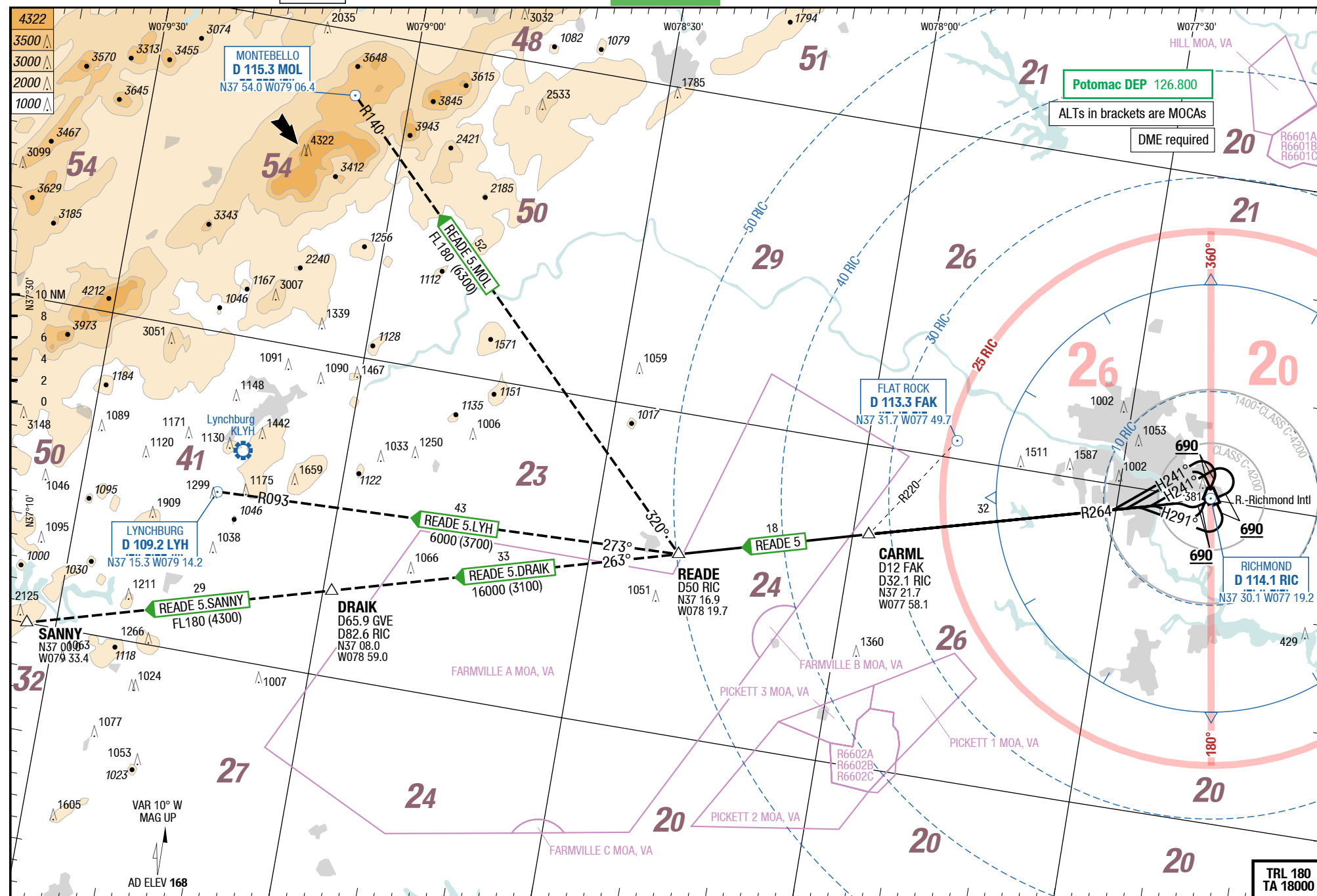
## READE 5

SID

SID

## READE 5

4-40



Changes: Track, VAR, OBST, PROC renumbered

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**RIC-KRIC**

5-10

**LUCYL 5 RNAV****LUCYL 5**

RWYs 02 (023°) / 07 (067°) / 16 (157°) / 20 (203°) / 25 (247°) / 34 (337°)

| DESIGNATOR                            | ROUTING   | ALTITUDES   |
|---------------------------------------|---|---|
| <b>LUCYL 5</b><br><b>126.400</b><br>① |   |   |
| <b>RWY 02</b>                         | HDG 023° - at MNM <b>690 RT</b> direct SJAYY - KAMMI - LUCYL              | SJAYY MNM <b>5000</b><br><b>initial climb 5000</b>                          |
| <b>RWY 07</b>                         | HDG 067° - at MNM <b>690 LT</b> direct SJAYY - KAMMI - LUCYL              | SJAYY MNM <b>5000</b><br><b>initial climb 5000</b>                          |
| <b>RWY 16</b>                         | HDG 157° - at MNM <b>690 LT</b> direct KEGME - BUNKK - HAYYU - LUCYL      | KEGME MNM <b>4000</b><br>BUNKK MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 20</b>                         | HDG 203° - at MNM <b>690 LT</b> direct KEGME - BUNKK - HAYYU - LUCYL      | KEGME MNM <b>4000</b><br>BUNKK MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 25</b>                         | HDG 247° - at MNM <b>690</b> direct GEECK - WAGLE - BEAGL - HAYYU - LUCYL | WAGLE MNM <b>5000</b><br><b>initial climb 5000</b>                          |
| <b>RWY 34</b>                         | HDG 337° - at MNM <b>690 RT</b> direct SJAYY - KAMMI - LUCYL              | SJAYY MNM <b>5000</b><br><b>initial climb 5000</b>                          |

① Expect clearance to filed altitude within 10 min after departure.

**RIC-KRIC**

5-20

**KALLI 4 RNAV****KALLI 4**

RWYs 02 (023°) / 07 (067°) / 16 (157°) / 20 (203°) / 25 (247°) / 34 (337°)

| DESIGNATOR                            | ROUTING  | ALTITUDES  |
|---------------------------------------|--|--|
| <b>KALLI 4</b><br><b>126.750</b><br>① |  |  |
| <b>RWY 02</b>                         | HDG 023° - at MNM <b>690 LT</b> direct SUGGR - KALLI         | SUGGR MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 07</b>                         | HDG 067° - at MNM <b>690 LT</b> direct PEATA - SUGGR - KALLI | SUGGR MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 16</b>                         | HDG 157° - at MNM <b>690 RT</b> direct ITTEM - KALLI         | ITTEM MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 20</b>                         | HDG 203° - at MNM <b>690 RT</b> direct ITTEM - KALLI         | ITTEM MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 25</b>                         | HDG 247° - at MNM <b>690 RT</b> direct ITTEM - KALLI         | ITTEM MNM <b>5000</b><br><b>initial climb 5000</b> |
| <b>RWY 34</b>                         | HDG 337° - at MNM <b>690 LT</b> direct SUGGR - KALLI         | SUGGR MNM <b>5000</b><br><b>initial climb 5000</b> |
|                                       | <b>TRANSITION</b>  |  |
|                                       | <b>LYNCHBURG (LYH)</b><br>KALLI - READE - <b>LYH</b>         |  |
|                                       | <b>MONTEBELLO (MOL)</b><br>KALLI - READE - <b>MOL</b>        |  |
|                                       | <b>SANNY</b><br>KALLI - READE - DRAIK - SANNY                |  |

① Expect clearance to filed altitude/flight level 10 minutes after departure.

**RIC-KRIC**

5-30

**COLIN 8****COLIN 8**

RWYs 02 (023°) / 16 (157°) / 20 (203°) / 34 (337°)

| DESIGNATOR                            | ROUTING  | ALTITUDES  |
|---------------------------------------|--|--|
| <b>COLIN 8</b><br><b>126.400</b><br>① |  |  |
| <b>RWY 02</b>                         | HDG 023° - at MNM <b>690</b> RT HDG 061° - <b>LT</b> intercept R050<br><b>RIC</b> to COLIN   | <b>initial climb 5000</b>                                      |
| <b>RWY 16</b>                         | HDG 157° - at MNM <b>690</b> <b>LT</b> HDG 121° - at D7 <b>RIC</b> <b>LT</b> HDG 041°<br>- <b>RT</b> intercept R074 <b>RIC</b> to MODEL - <b>LT</b> intercept R010 <b>HCM</b> to COLIN | D7 <b>RIC</b> MNM <b>4000</b><br><br><b>initial climb 5000</b> |
| <b>RWY 20</b>                         | HDG 203° - at MNM <b>690</b> <b>LT</b> HDG 121° - at D7 <b>RIC</b> <b>LT</b> HDG 041°<br>- <b>RT</b> intercept R074 <b>RIC</b> to MODEL - <b>LT</b> intercept R010 <b>HCM</b> to COLIN | D7 <b>RIC</b> MNM <b>4000</b><br><br><b>initial climb 5000</b> |
| <b>RWY 34</b>                         | HDG 337° - at MNM <b>690</b> RT HDG 061° - <b>LT</b> intercept R050<br><b>RIC</b> to COLIN   | <b>initial climb 5000</b>                                      |

① Expect clearance to filed altitude/flight level 10 minutes after departure.

**RIC-KRIC**

5-40

**READE 5****READE 5**

RWYs 02 (023°) / 07 (067°) / 16 (157°) / 20 (203°) / 25 (247°) / 34 (337°)

| DESIGNATOR                            | ROUTING   | ALTITUDES                 |
|---------------------------------------|---|---------------------------|
| <b>READE 5</b><br><b>126.800</b><br>① |   | <b>initial climb 5000</b> |
| <b>RWY 02</b>                         | HDG 023° - at MNM <b>690</b> LT HDG 241° - intercept R264 <b>RIC</b> to CARML - READE |                           |
| <b>RWY 07</b>                         | HDG 067° - at MNM <b>690</b> LT HDG 241° - intercept R264 <b>RIC</b> to CARML - READE |                           |
| <b>RWY 16</b>                         | HDG 157° - at MNM <b>690</b> RT HDG 291° - intercept R264 <b>RIC</b> to CARML - READE |                           |
| <b>RWY 20</b>                         | HDG 203° - at MNM <b>690</b> RT HDG 291° - intercept R264 <b>RIC</b> to CARML - READE |                           |
| <b>RWY 25</b>                         | HDG 247° - at MNM <b>690</b> RT HDG 291° - intercept R264 <b>RIC</b> to CARML - READE |                           |
| <b>RWY 34</b>                         | HDG 337° - at MNM <b>690</b> LT HDG 241° - intercept R264 <b>RIC</b> to CARML - READE |                           |
|                                       | <b>TRANSITION</b>   |                           |
|                                       | <b>DRAIK</b><br>READE - DRAIK   |                           |
|                                       | <b>LYNCHBURG (LYH)</b><br>READE - LYH   |                           |
|                                       | <b>MONTEBELLO (MOL)</b><br>READE - MOL  |                           |
|                                       | <b>SANNY</b><br>READE - DRAIK - SANNY   |                           |

① Expect clearance to filed altitude/flight level 10 minutes after departure.

**RIC-KRIC**

5-50

**Obstacle Departures**

| <b>Obstacle Departure</b> |   |
|---------------------------|---|
| <b>RWY</b>                | <b>Notes</b>  |
| <b>02</b>                 | Bushes 104ft from DER, 223ft left of centerline, up to 4ft AGL/169ft MSL. Trees beginning 2363ft from DER, 235ft left of centerline, up to 82ft AGL/251ft MSL. Trees beginning 2918ft from DER, 367ft right of centerline, up to 91ft AGL/260 MSL. Tower 5423ft from DER, 1709ft left of centerline, 157ft AGL/321ft MSL. |
| <b>07</b>                 | Trees beginning 1892ft from DER, 283ft left of centerline, up to 67ft AGL/226ft MSL. Trees 2346ft from DER, 190ft right of centerline, up to 69ft AGL/218ft MSL.  |
| <b>20</b>                 | Building 817ft from DER, 665ft right of centerline, 53ft AGL/212ft MSL. Trees 2307ft from DER, 1065ft left of centerline, up to 76ft AGL/235ft MSL. Pole and trees beginning 2645ft from DER, 424ft right of centerline, up to 86ftft AGL/255ft MSL.  |
| <b>25</b>                 | Railroad and tower beginning 779ft from DER, 1ft left of centerline, up to 26ft AGL/ 187ft MSL. Trees beginning 2414ft from DER, 285ft right of centerline, up to 86ft AGL/255ft MSL. Pole and trees beginning 3056ft from DER, 357ft left of centerline, up to 90ft AGL/252ft MSL.                                       |
| <b>34</b>                 | Pole 1262ft from DER, 732ft left of centerline, 41ft AGL/200ft MSL. Trees beginning 2202ft from DER, 1052ft right of centerline, up to 63ft AGL/232ft MSL. Trees beginning 2689ft from DER, 998ft left of centerline, up to 78ft AGL/237ft MSL.   |
|                           |   |



## RIC-KRIC

POWTN 3 RNAV

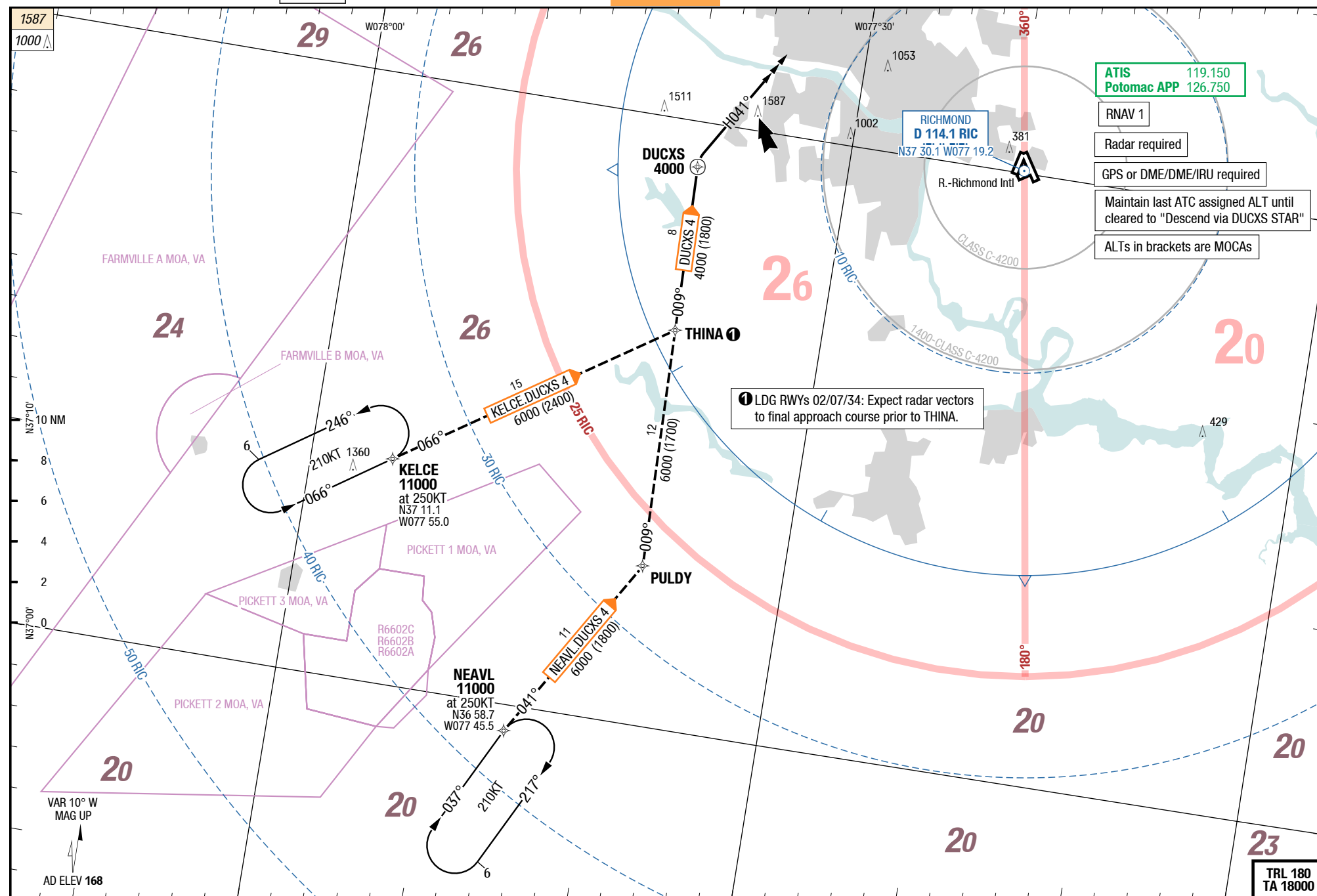
## DUCXS 4 RNAV

# STAR

**STAR**

POWTN 3 RNAV

## DUCXS 4 RNAV



Changes: Track, VAR, PROC renumbered, OBST, SUAs

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STAR

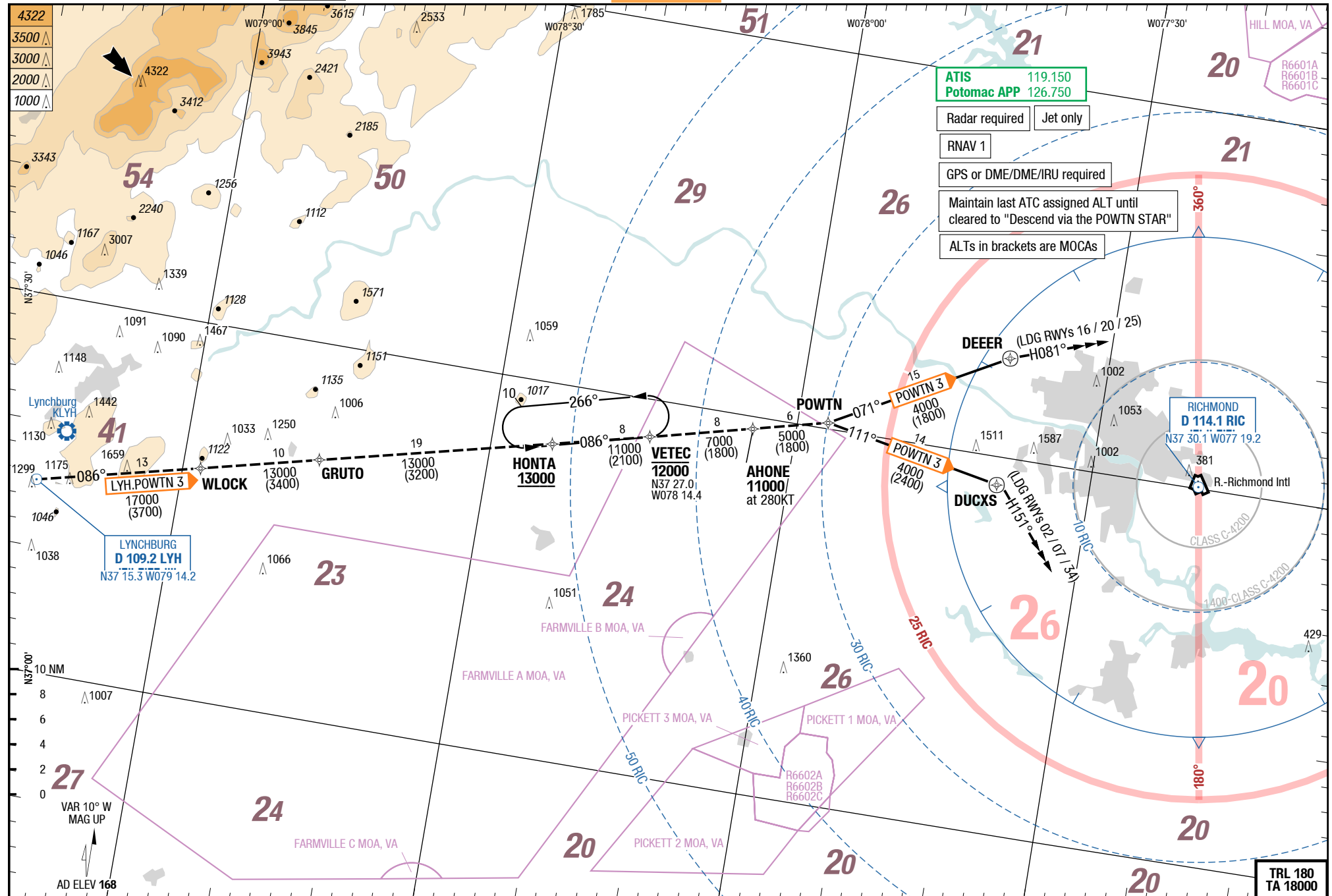
STAR

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6-20

POWTN 3 RNAV

POWTN 3 RNAV



Changes: Track, VAR, PROC renumbered, OBST, SUAs

TRL 180  
TA 18000

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## RIC-KRIC



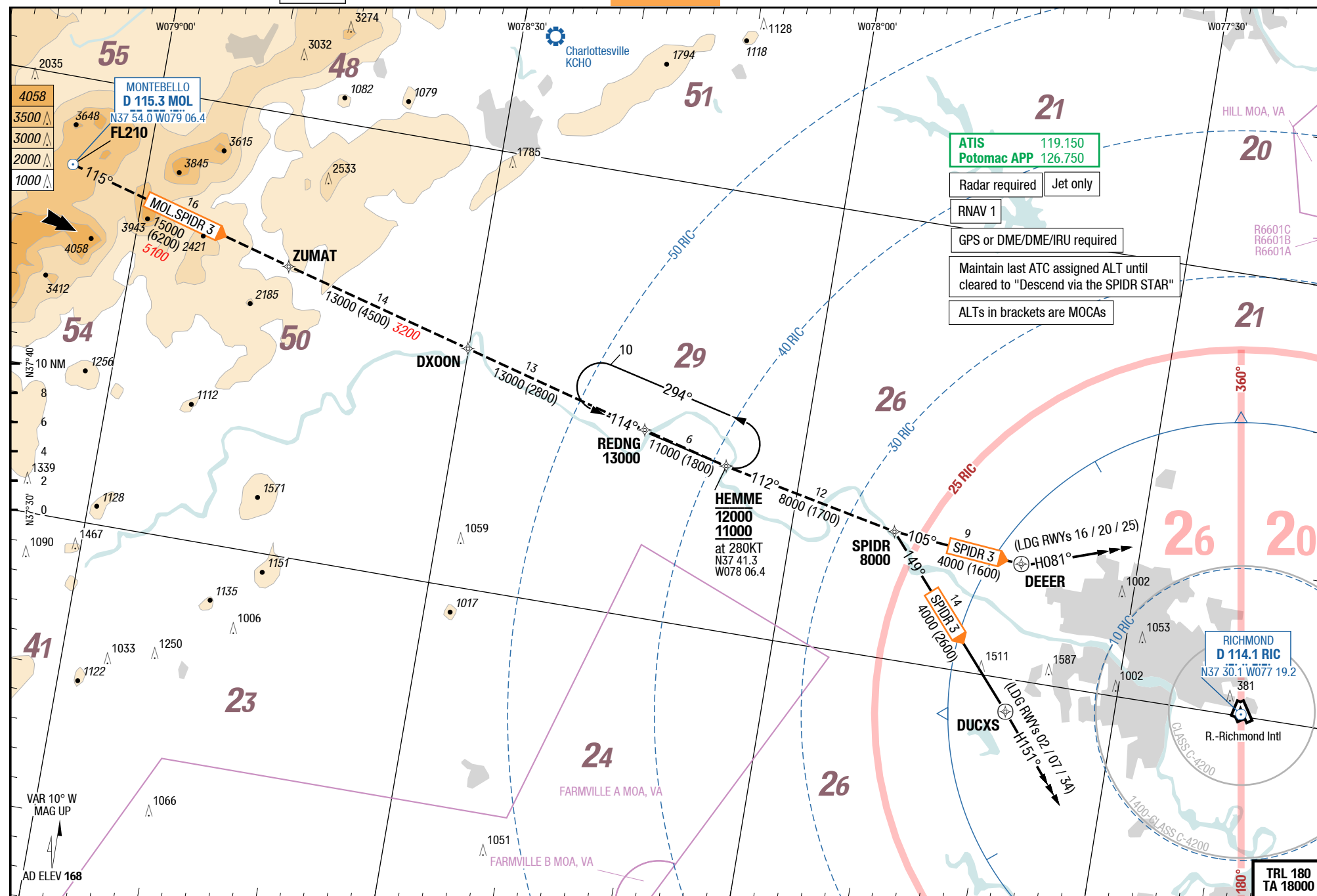
## SPIDR 3 RNAV

# STAR

**STAR**

NIL

## SPIDR 3 RNAV



Changes: Track, VAR, OBST, PROC renumbered, SUAs

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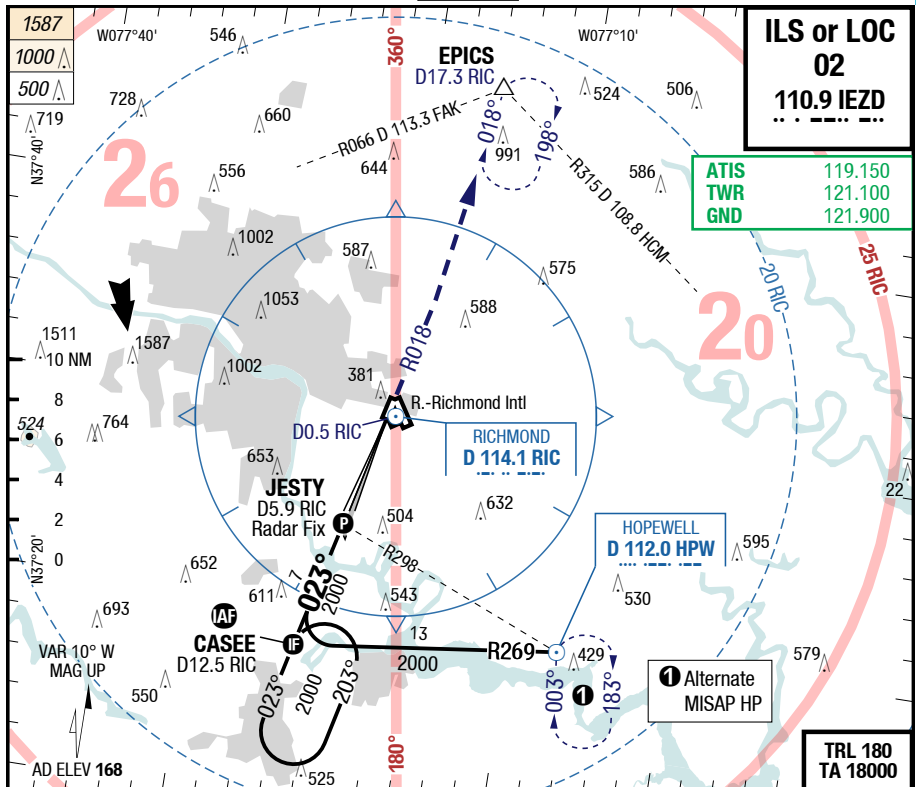
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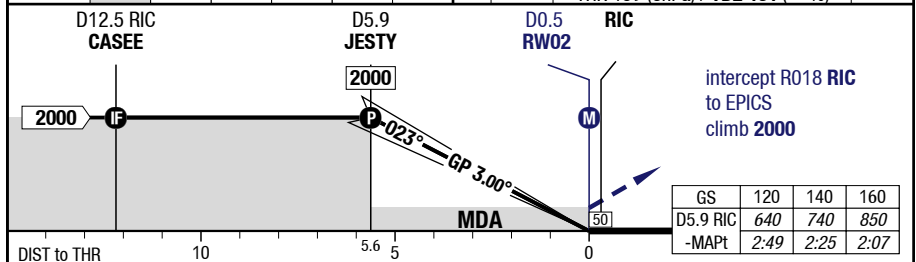
**RIC-KRIC**

7-10

**ILS or LOC 02**



| LOC 3.00°<br>D RIC | 5.9  | 5    | 4    | 3    | 2   | 02 | 83.0°                                  | 60 HL |
|--------------------|------|------|------|------|-----|----|--|-------|
|                    | 2000 | 1700 | 1380 | 1060 | 740 |    | 2014 G 46                              |       |
|                    |      |      |      |      |     |    | ML-P1R THR 159 (6hPa) / TDZ 161 (---%) | +0.1% |



| 02 |                  | Cat 1              | LOC                | LOC<br>APL U/S     |  |  | Circling<br>TERPS  |
|----|------------------|--------------------|--------------------|--------------------|--|--|--------------------|
| C  | ft - ft/SM<br>ft | 300 - 0.75V<br>460 | 380 - 0.75V<br>540 | 380 - 1.13V<br>540 |  |  | 600 - 1.5V<br>770  |
| D  | ft - ft/SM<br>ft | 300 - 0.75V<br>460 | 380 - 0.75V<br>540 | 380 - 1.13V<br>540 |  |  | 700 - 2.25V<br>870 |
|    |                  |                    |                    |                    |  |  |                    |

Changes: MIN, APL, Track, OBST, VAR

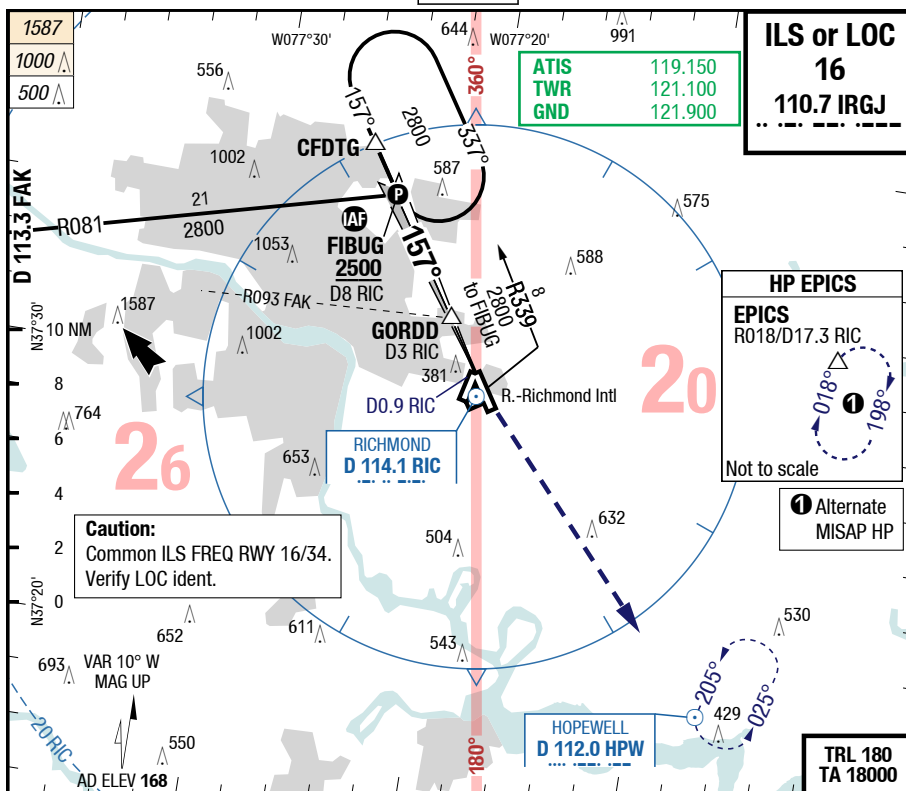
AMDT 2B

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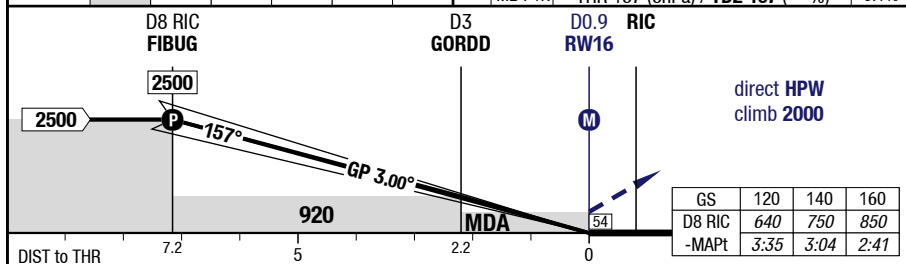
7-20

## ILS or LOC 16



|                  |  |      |      |      |      |     |             |   |
|------------------|--|------|------|------|------|-----|-------------|---|
| <b>LOC 3.01°</b> |  | 8    | 6    | 5    | 4    | 2   | <b>(16)</b> | ▶ ▶  .....  <b>2744 G 46</b> ..... 60 HL<br>15 HL |
| <b>D RIC</b>     |  | 2500 | 1880 | 1560 | 1240 | 590 |             |   |

ML-P1R THR 16Z (6hPa) / **TDZ 16Z** (----%) -0.1%



| 16         |                  | Cat 1                   | LOC                      | LOC<br>wo GORDD    | LOC<br>wo GORDD<br>APL U/S | Circling           | Circling 2)       |
|------------|------------------|-------------------------|--------------------------|--------------------|----------------------------|--------------------|-------------------|
| $T_{ERPs}$ |                  | 1)                      |                          |                    |                            | $N_{ew}$ TERPS     | $N_{ew}$ TERPS    |
| C          | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 420 - 4000R/0.75V<br>580 | 760 - 1.75V<br>920 | 760 - 2.0V<br>920          | 600 - 1.5V<br>770  | 760 - 2.5V<br>920 |
| D          | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 420 - 4000R/0.75V<br>580 | 760 - 1.75V<br>920 | 760 - 2.0V<br>920          | 700 - 2.25V<br>870 | 760 - 2.5V<br>920 |

1) FD or AP or HGS to DA required, else use RVR 2400ft or VIS 0.5SM

2) wo GORDD

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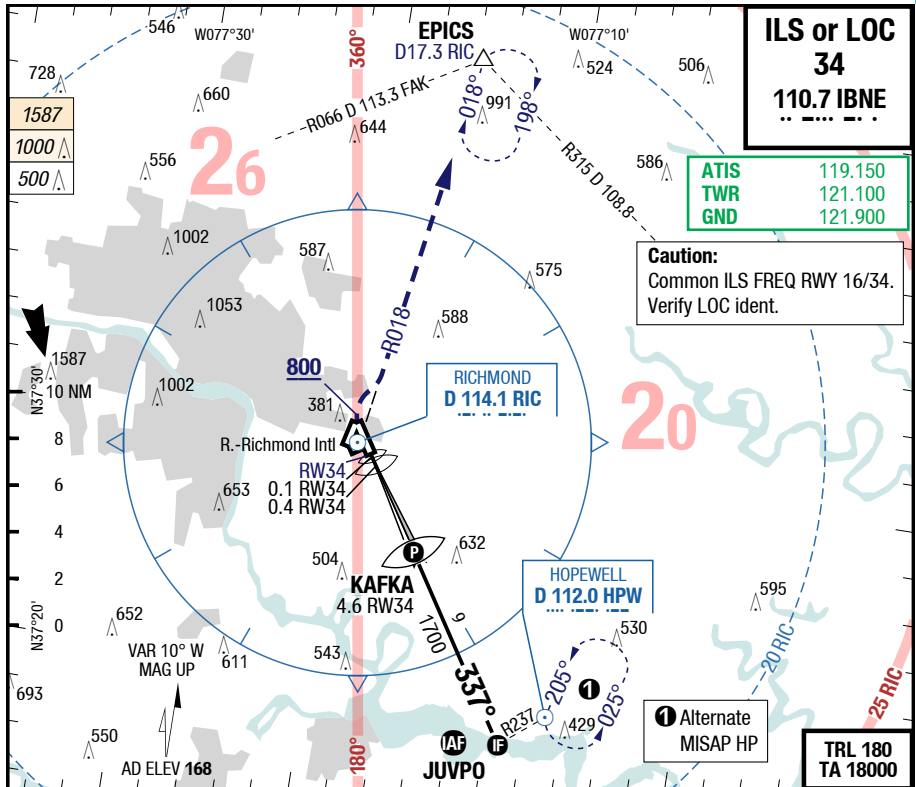
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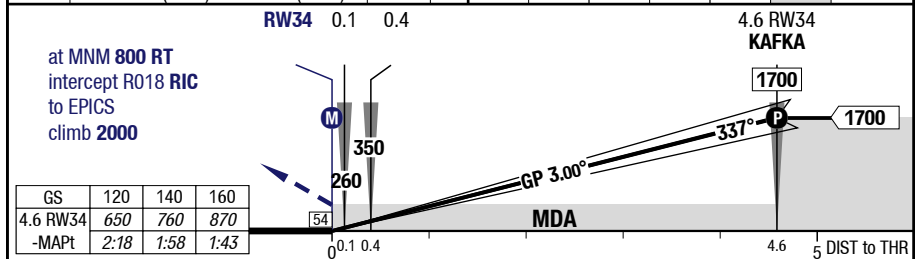
**RIC-KRIC**

7-30

**ILS or LOC 34**



|       |                                 |        |     |     |      |      |      |           |
|-------|---------------------------------|--------|-----|-----|------|------|------|-----------|
| 60 HL | 46 G 2744                       | 3.0°   | 1   | 2   | 3    | 4    | 4.6  | LOC 3.06° |
| 15 HL |                                 |        | 540 | 860 | 1190 | 1510 | 1700 | RW34      |
| +0.1% | TDZ 161 (---%) / THR 161 (6hPa) | HL-P2F |     |     |      |      |      |           |



| 34 |                  | Cat 3b              | Cat 2 <sup>1)</sup>   | Cat 1 <sup>2)</sup> | Cat 1 <sup>3)</sup>     | LOC                      | Circling<br>TERPS  |
|----|------------------|---------------------|-----------------------|---------------------|-------------------------|--------------------------|--------------------|
| C  | ft - ft/SM<br>ft | 0 - 600R<br>Company | 100 - 1000R<br>101 RA | 200 - 1400R<br>370  | 200 - 1800R/0.5V<br>370 | 360 - 3000R/0.63V<br>520 | 600 - 1.5V<br>770  |
| D  | ft - ft/SM<br>ft | 0 - 600R<br>Company | 100 - 1000R<br>101 RA | 200 - 1400R<br>370  | 200 - 1800R/0.5V<br>370 | 360 - 3000R/0.63V<br>520 | 700 - 2.25V<br>870 |

1) If not conducting autoland RVR 1200ft required

3) With EVS RVR 1200ft/ VIS 0.2SM

2) With EVS RVR 1200ft

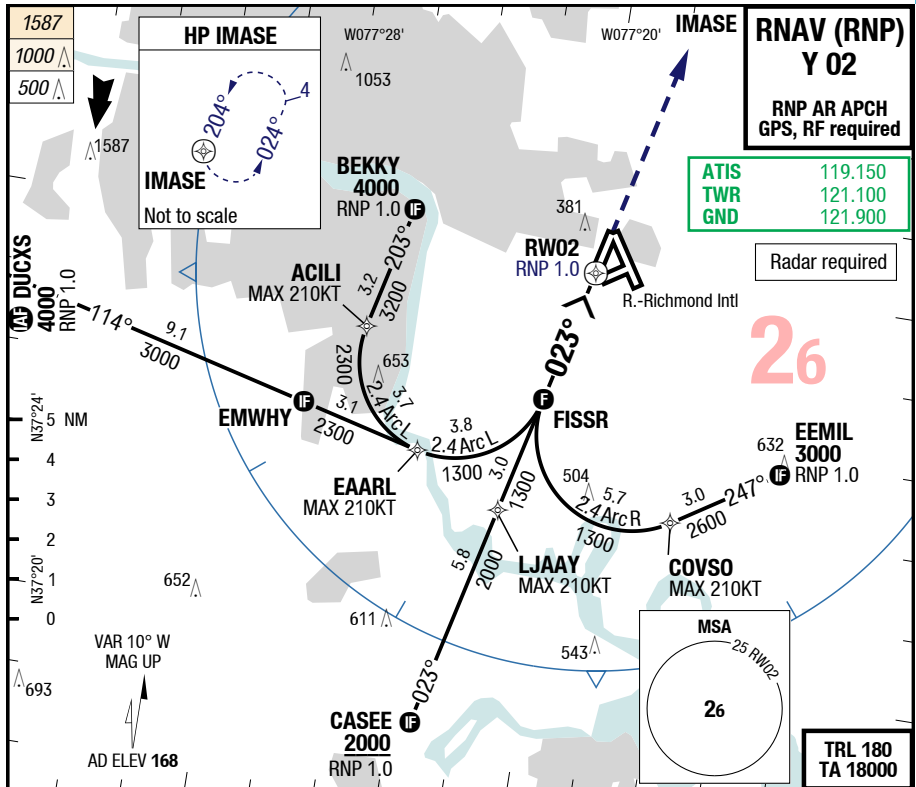
Changes: VAR, OBST, Note

AMDT 14A

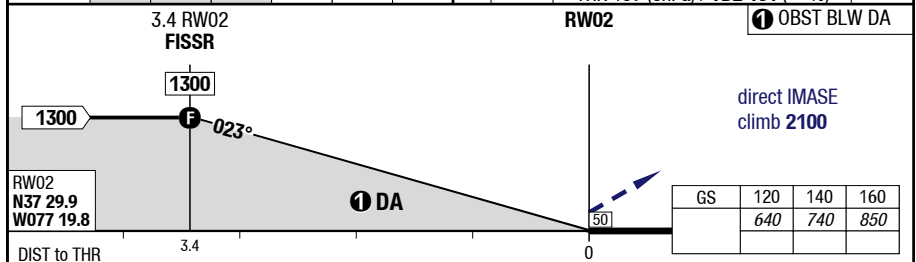
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**RIC-KRIC**

7-50

**RNAV (RNP) Y 02**

|       |  |  |  |      |      |     |    |       |       |           |       |
|-------|--|--|--|------|------|-----|----|-------|-------|-----------|-------|
| 3.00° |  |  |  | 3.4  | 3    | 2   | 02 | 83.0° | 60 HL | 2014 G 46 | +0.1% |
| RW02  |  |  |  | 1300 | 1170 | 850 |    |       |       |           |       |



| 02 | RNAV             | RNAV               |                   |  |  |  | Circling      |
|----|------------------|--------------------|-------------------|--|--|--|---------------|
|    | RNP 0.11 VNAV 1) | RNP 0.30 VNAV 1)   |                   |  |  |  | TERPS         |
| C  | ft - ft/SM<br>ft | 350 - 0.75V<br>510 | 440 - 1.0V<br>600 |  |  |  | Not published |
| D  | ft - ft/SM<br>ft | 350 - 0.75V<br>510 | 440 - 1.0V<br>600 |  |  |  | Not published |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)



**12-JUL-2018**

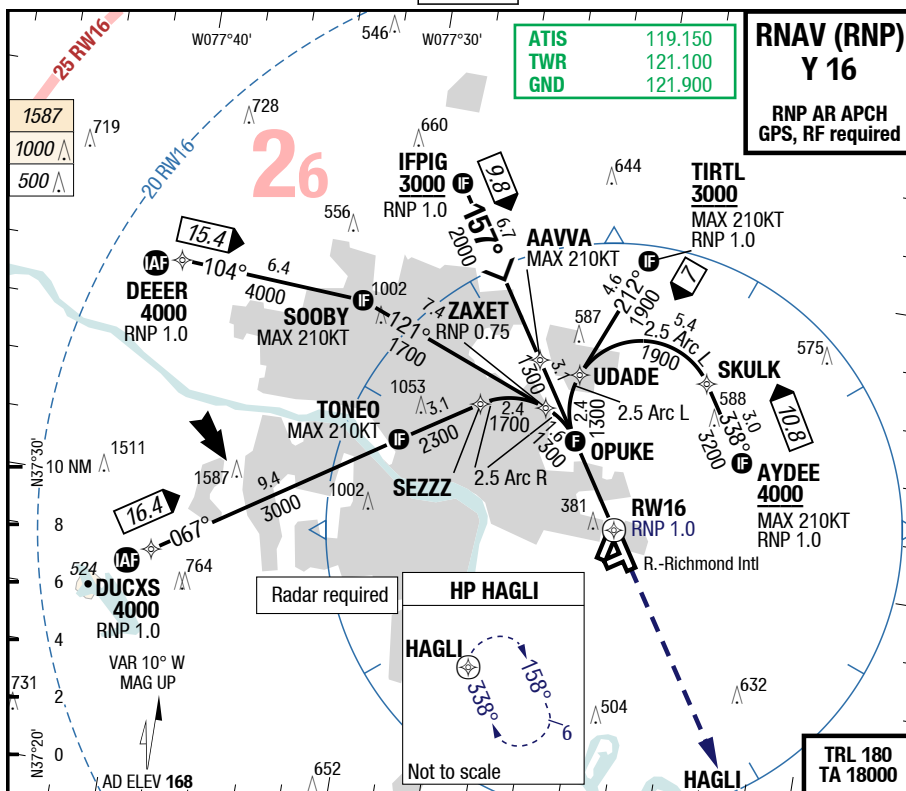
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# IAC

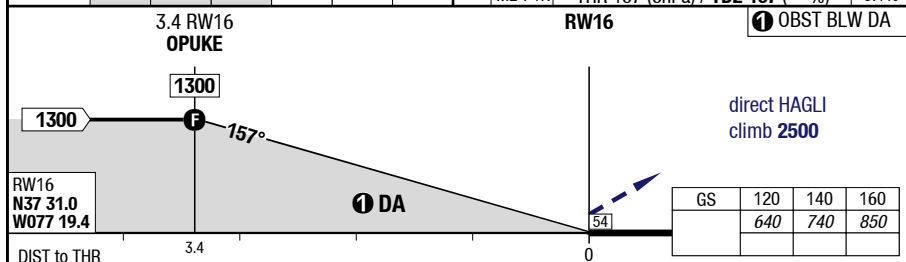
## RIC-KRIC

**7-60**

## RNAV (RNP) Y 16



|                      |  |  |  |      |      |     |  |
|----------------------|--|--|--|------|------|-----|--|
| 3.00°<br><b>RW16</b> |  |  |  | 3.4  | 3    | 2   | <div> <div> <div>16</div> <div> <div> <div>3.0°</div> <div>60 HL</div> </div> <div> <div>2744 G 46</div> <div>15 HL</div> </div> </div> <div>ML-P1R</div> <div>THR 167 (6hPa) / <b>TDZ 167</b> (---%)</div> <div>-0.1%</div> </div> </div> |
|                      |  |  |  | 1300 | 1180 | 860 |  |



| TERPS |                  | RNAV                            |                                |                             | Circling<br>TERPS |
|-------|------------------|---------------------------------|--------------------------------|-----------------------------|-------------------|
|       |                  | RNP 0.11 VNAV<br>1)             | RNP 0.30 VNAV<br>1)            | RNP 0.30 VNAV<br>APL U/S 1) |                   |
| C     | ft - ft/SM<br>ft | 340 - 4000R/0.75V<br><b>510</b> | 440 - 5000R/1.0V<br><b>610</b> | 440 - 1.5V<br><b>610</b>    | Not published     |
| D     | ft - ft/SM<br>ft | 340 - 4000R/0.75V<br><b>510</b> | 440 - 5000R/1.0V<br><b>610</b> | 440 - 1.5V<br><b>610</b>    | Not published     |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

Changes: MIN, Track, VAR, OBST, Profile

Orig C

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12-JUL-2018

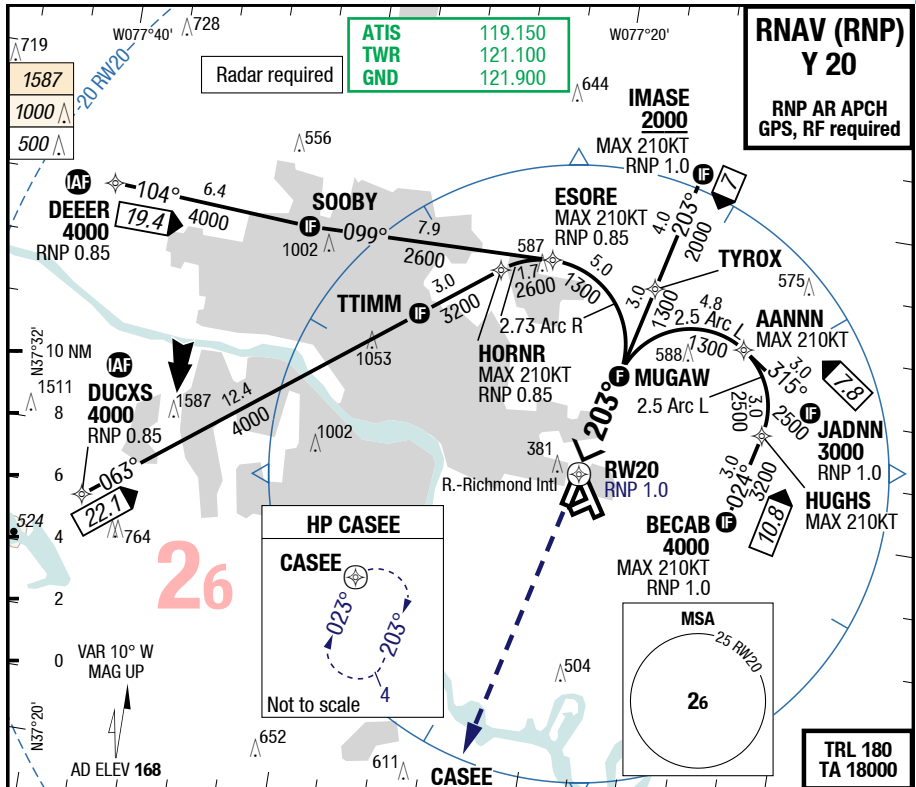
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IAC

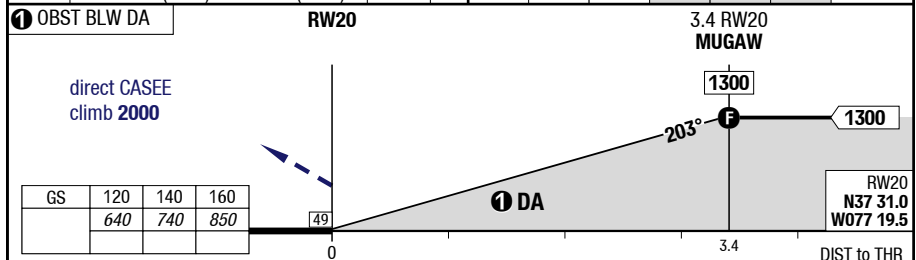
**RIC-KRIC**

7-70

**RNAV (RNP) Y 20**



|                                 |   |   |     |  |  |  |  |       |
|---------------------------------|---|---|-----|--|--|--|--|-------|
| 60 HL                           | 2 | 3 | 3.4 |  |  |  |  | 3.00° |
| 46 G 2014                       |   |   |     |  |  |  |  | RW20  |
| 3.0°                            |   |   |     |  |  |  |  |       |
| -0.1%                           |   |   |     |  |  |  |  |       |
| TDZ 168 (---%) / THR 165 (6hPa) |   |   |     |  |  |  |  |       |



| 20 | RNAV             | RNAV              |                   |  |  |  | Circling      |
|----|------------------|-------------------|-------------------|--|--|--|---------------|
|    | RNP 0.11 VNAV 1) | RNP 0.30 VNAV 1)  |                   |  |  |  | TERPS         |
| C  | ft - ft/SM<br>ft | 340 - 1.0V<br>510 | 450 - 1.5V<br>620 |  |  |  | Not published |
| D  | ft - ft/SM<br>ft | 340 - 1.0V<br>510 | 450 - 1.5V<br>620 |  |  |  | Not published |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

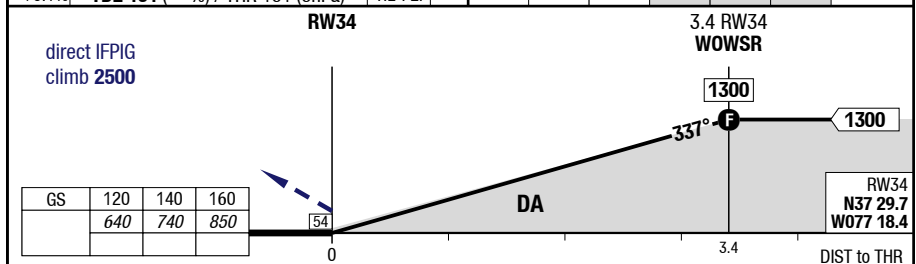
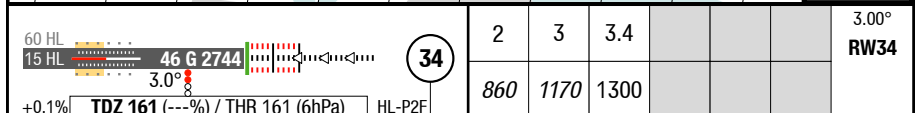
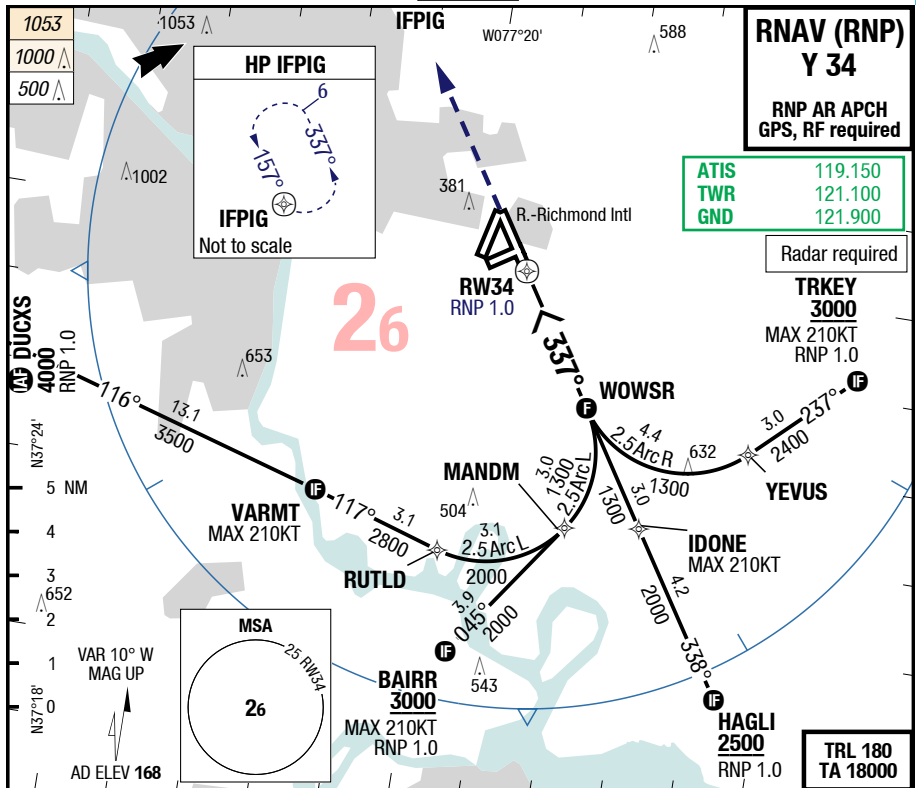
Changes: MIN, Track, Profile, OBST, VAR

Orig B

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## RNAV (RNP) Y 34

**7-80**



| <div> <div>TERPS</div> <div>34</div> </div> |                  | RNAV                    | RNAV                    |  |  |  | Circling      |
|---|------------------|-------------------------|-------------------------|--|--|--|---------------|
|   |                  | RNP 0.11 VNAV 1)        | RNP 0.30 VNAV 1)        |  |  |  | TERPS         |
| C   | ft - ft/SM<br>ft | 320 - 2600R/0.5V<br>480 | 440 - 5000R/1.0V<br>600 |  |  |  | Not published |
| D   | ft - ft/SM<br>ft | 320 - 2600R/0.5V<br>480 | 440 - 5000R/1.0V<br>600 |  |  |  | Not published |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

Effective 19-JUL-2018

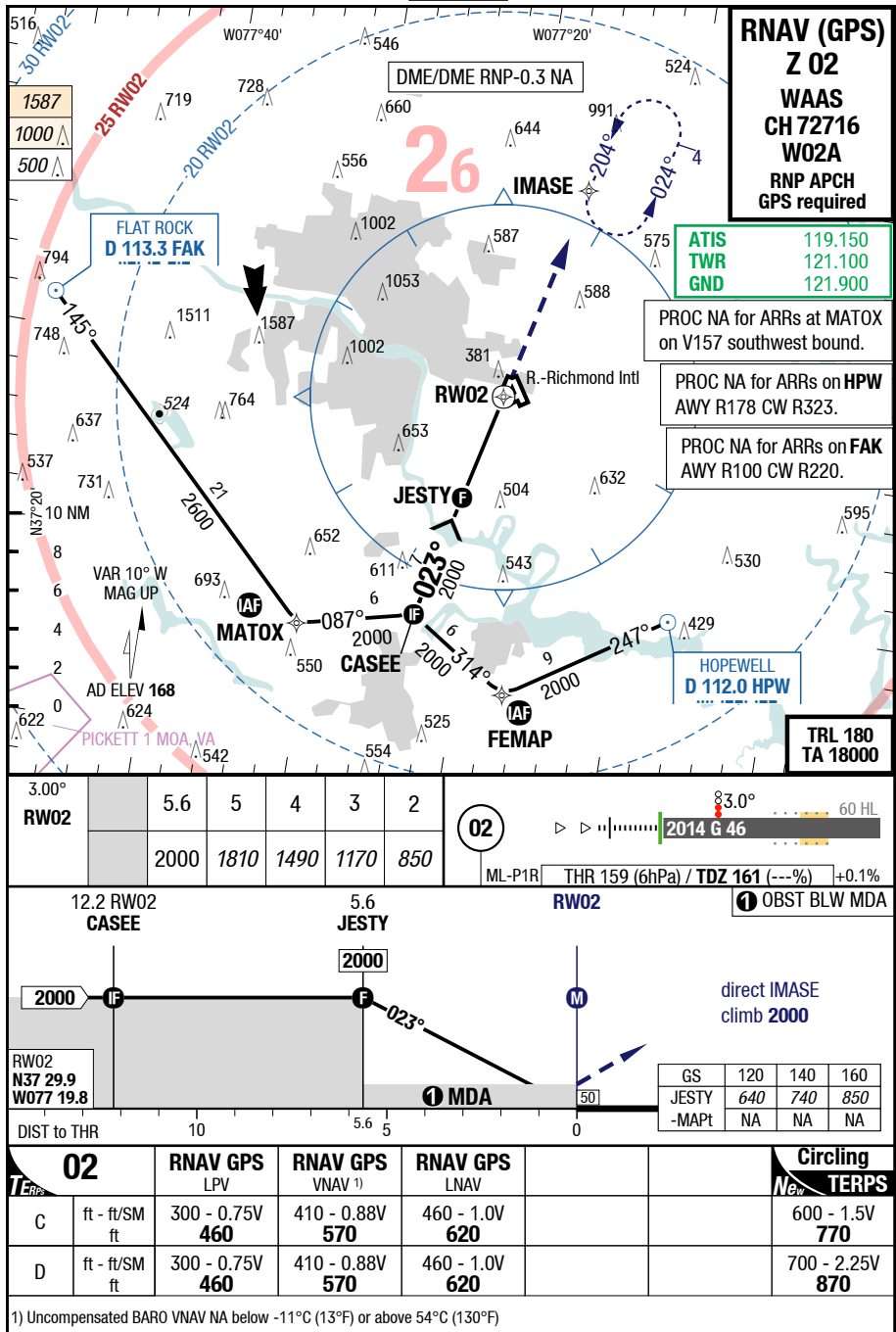
12-JUL-2018

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**RIC-KRIC**

7-90

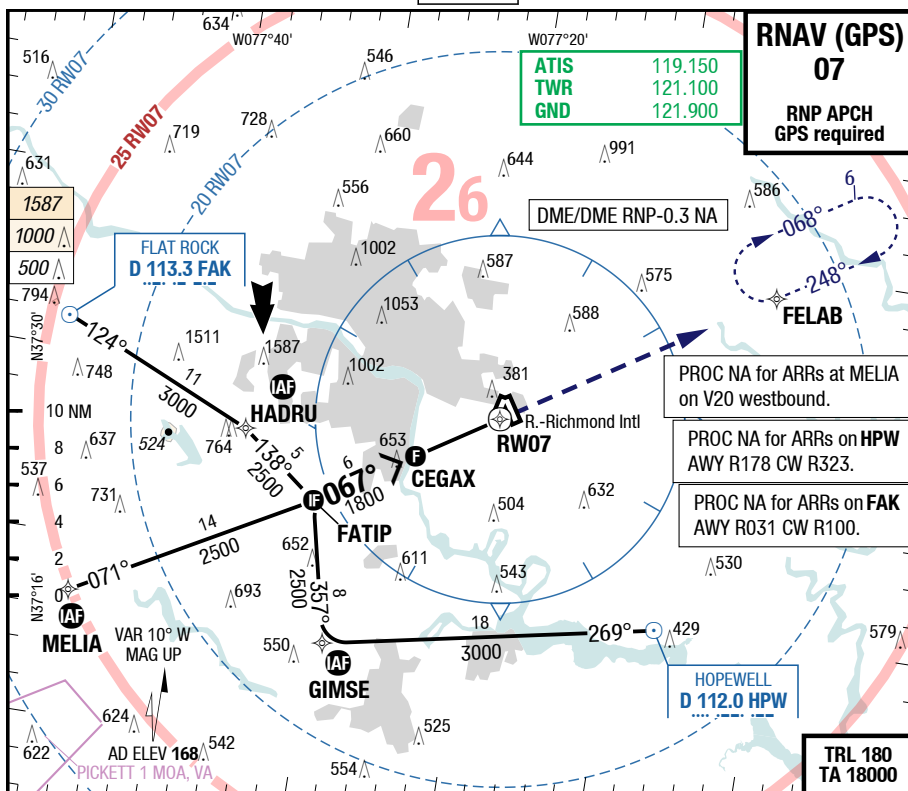
**RNAV (GPS) Z 02**




Changes: Track, APL, VAR, OBST, Profile

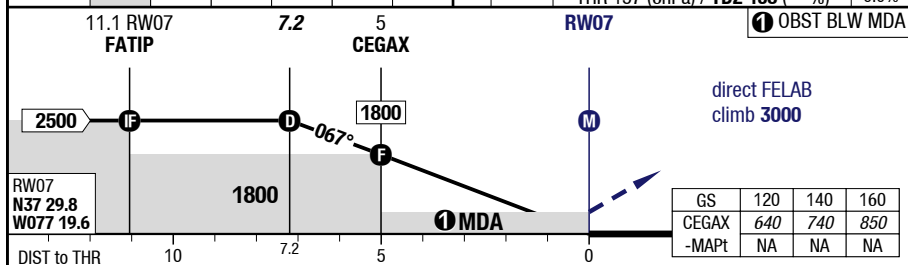
AMDT 1C

## RNAV (GPS) 07

7-100



|             |  |      |      |      |      |     |   |   |
|-------------|--|------|------|------|------|-----|---|---|
| 3.00°       |  | 7.2  | 6    | 4    | 3    | 2   |  |  |
| <b>RW07</b> |  | 2500 | 2120 | 1480 | 1170 | 850 |   |  |



|           |                  |                           |  |  |  |  |                                 |
|-----------|------------------|---------------------------|--|--|--|--|---------------------------------|
| <b>07</b> |                  | <b>RNAV GPS</b><br>LNAV   |  |  |  |  | <b>Circling</b><br><b>TERPS</b> |
| C         | ft - ft/SM<br>ft | 470 - 1.38V<br><b>620</b> |  |  |  |  | 600 - 1.5V<br><b>770</b>        |
| D         | ft - ft/SM<br>ft | 470 - 1.38V<br><b>620</b> |  |  |  |  | 700 - 2.25V<br><b>870</b>       |

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12-JUL-2018

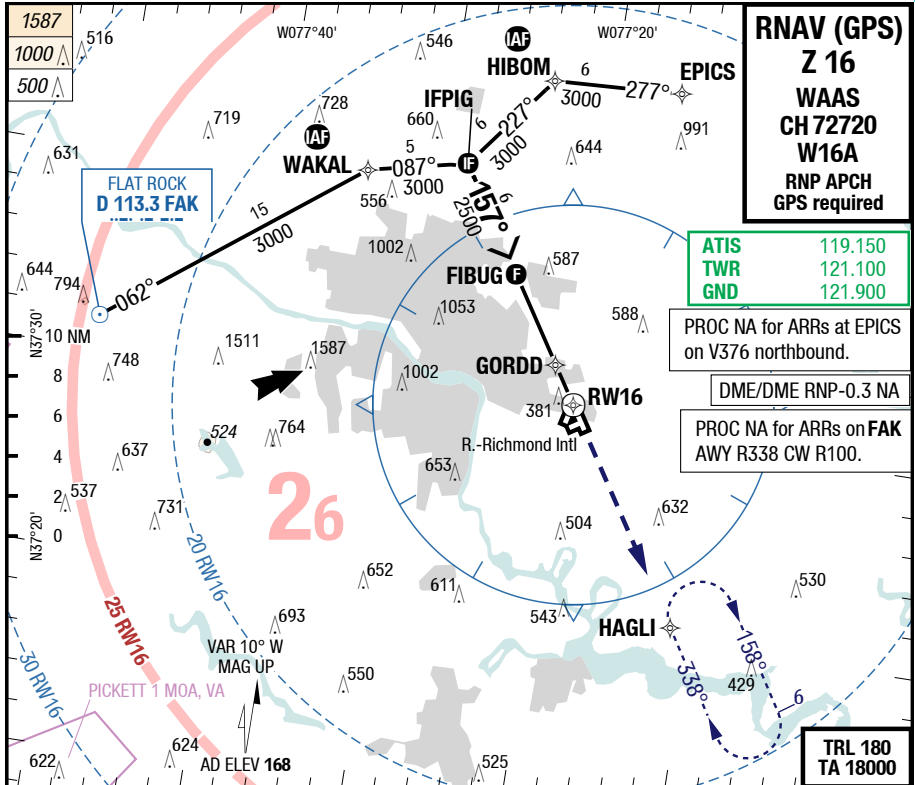
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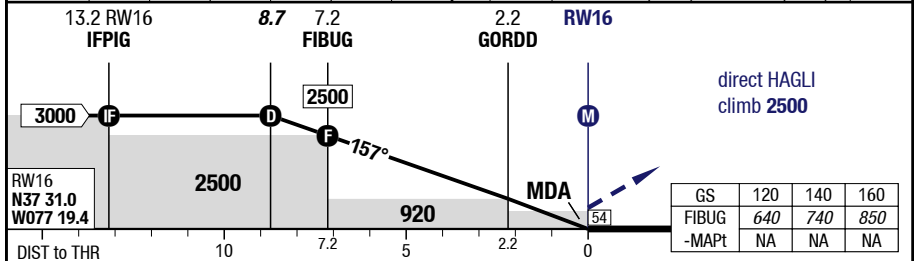
**RIC-KRIC**

7-110

**RNAV (GPS) Z 16**



|               |        |      |      |      |      |     |    |                                 |       |       |
|---------------|--------|------|------|------|------|-----|----|---------------------------------|-------|-------|
| 3.00°<br>RW16 | 8.7    | 6    | 5    | 4    | 3    | 2   | 16 | 83.0°                           | 60 HL | 15 HL |
|               | 3000   | 2140 | 1820 | 1500 | 1180 | 860 |    | 2744 G 46                       |       |       |
|               | ML-P1R |      |      |      |      |     |    | THR 167 (6hPa) / TDZ 167 (---%) | -0.1% |       |



| TERPS |                  | RNAV GPS LPV 1)         | RNAV GPS VNAV 2)         | RNAV GPS LNAV            |  | Circling TERPS     |
|-------|------------------|-------------------------|--------------------------|--------------------------|--|--------------------|
| C     | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 340 - 3500R/0.63V<br>510 | 440 - 4500R/0.88V<br>600 |  | 600 - 1.5V<br>770  |
| D     | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 340 - 3500R/0.63V<br>510 | 440 - 4500R/0.88V<br>600 |  | 700 - 2.25V<br>870 |

1) FD or AP or HGS to DA required, else use RVR 2400ft or VIS 0.5SM  
2) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

Changes: MIN, Track, VAR, OBST

AMDT 1D

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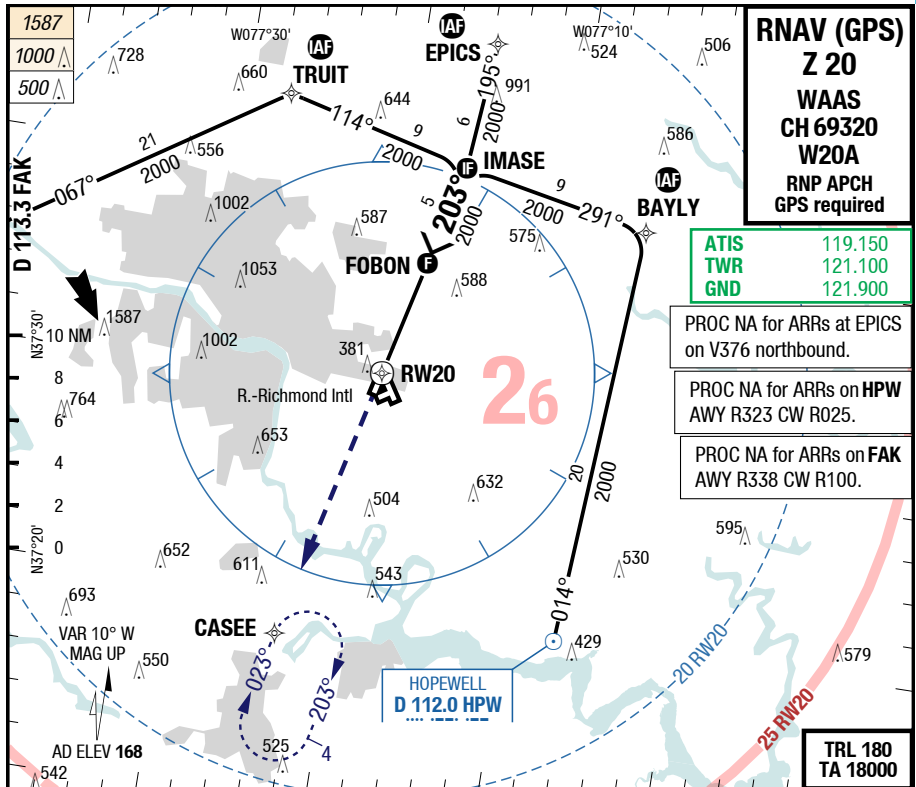
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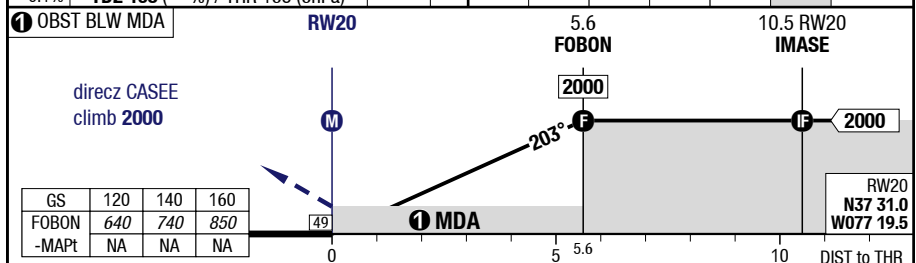
**RIC-KRIC**

7-120

**RNAV (GPS) Z 20**

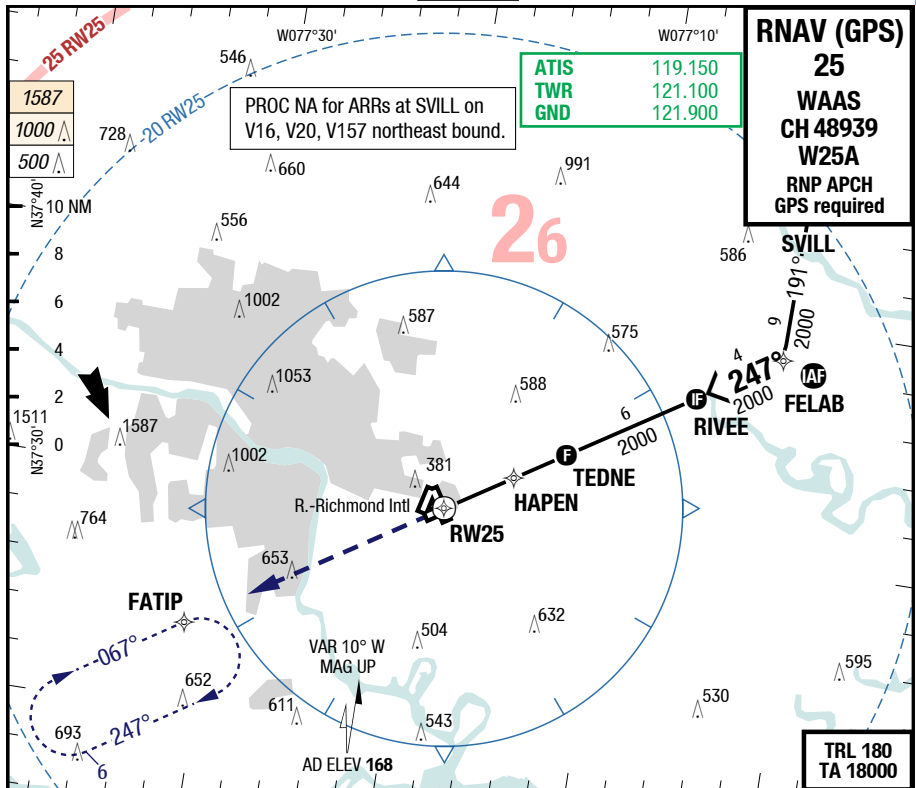


|       |                                 |      |     |      |      |      |      |       |
|-------|---------------------------------|------|-----|------|------|------|------|-------|
| 60 HL | 46 G 2014                       | 3.0° | 2   | 3    | 4    | 5    | 5.6  | 3.00° |
| -0.1% | TDZ 168 (---%) / THR 165 (6hPa) |      | 850 | 1170 | 1490 | 1810 | 2000 | RW20  |



| 20 | RNAV GPS LPV      | RNAV GPS VNAV 1)  | RNAV GPS LNAV     | Circling TERPS     |
|----|-------------------|-------------------|-------------------|--------------------|
| C  | ft - ft/SM<br>470 | 440 - 1.5V<br>610 | 520 - 1.5V<br>680 | 600 - 1.5V<br>770  |
| D  | ft - ft/SM<br>470 | 440 - 1.5V<br>610 | 520 - 1.5V<br>680 | 700 - 2.25V<br>870 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

**RIC-KRIC****7-130****RNAV (GPS) 25**

12-JUL-2018

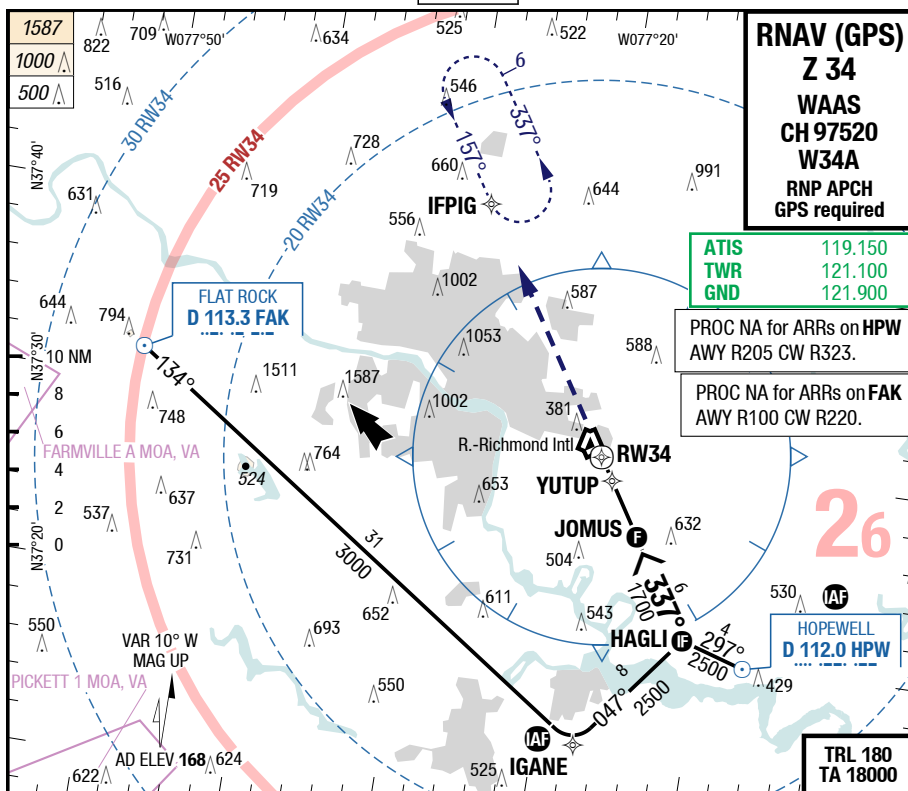
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# IAC

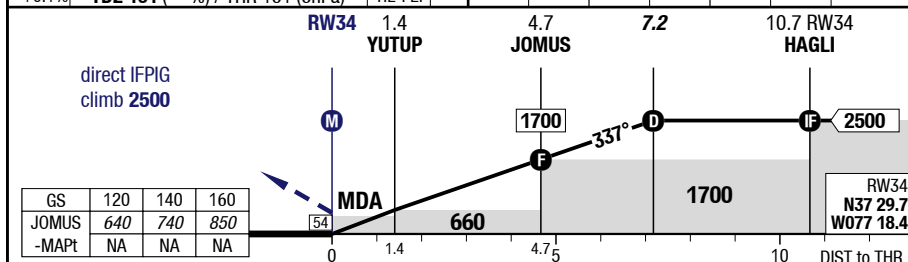
## RIC-KRIC

7-140

## RNAV (GPS) Z 34



|       |                                 |      |        |     |      |      |      |      |      |               |
|-------|---------------------------------|------|--------|-----|------|------|------|------|------|---------------|
| 60 HL | 46 G 2744                       | 3.0° | 34     | 2   | 3    | 4    | 5    | 6    | 7.2  | 3.00°<br>RW34 |
| 15 HL |                                 |      |        | 860 | 1170 | 1490 | 1810 | 2130 | 2500 |               |
| +0.1% | TDZ 161 (---%) / THR 161 (6hPa) |      | HL-P2F |     |      |      |      |      |      |               |



| 34 |                  | RNAV GPS<br>LPV         | RNAV GPS<br>VNAV<br>1)   | RNAV GPS<br>VNAV<br>APL U/S 1) | RNAV GPS<br>LNAV         | Circling<br>TERPS  |
|----|------------------|-------------------------|--------------------------|--------------------------------|--------------------------|--------------------|
| C  | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 370 - 4000R/0.75V<br>530 | 370 - 1.25V<br>530             | 360 - 3000R/0.63V<br>520 | 600 - 1.5V<br>770  |
| D  | ft - ft/SM<br>ft | 200 - 1800R/0.5V<br>370 | 370 - 4000R/0.75V<br>530 | 370 - 1.25V<br>530             | 360 - 3000R/0.63V<br>520 | 700 - 2.25V<br>870 |

1) Uncompensated BARO VNAV NA below -11°C (13°F) or above 54°C (130°F)

Changes: MIN, Track, Note, OBST, VAR

AMDT 1D

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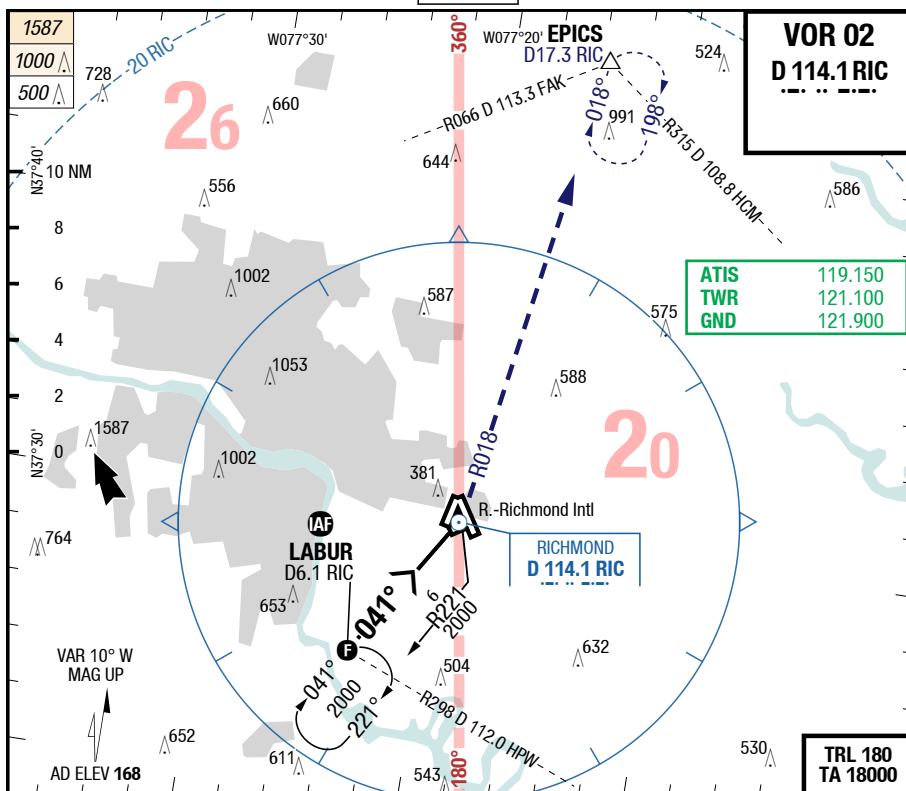
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# IAC

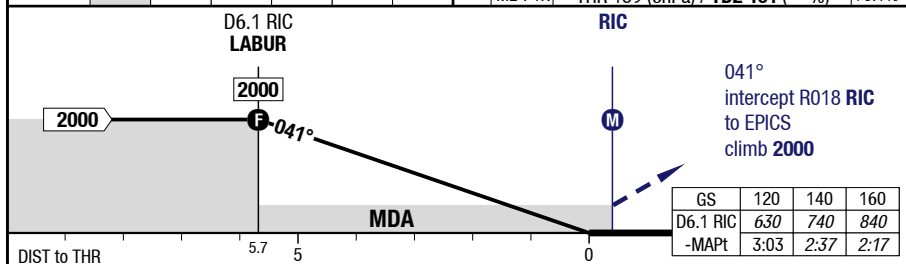
## RIC-KRIC

**7-150**

## VOR 02



|               |  |      |      |      |      |     |  |
|---------------|--|------|------|------|------|-----|--|
| 2.98°         |  | 6.1  | 5    | 4    | 3    | 2   | <div> <div>02</div> <div> <div> <div>83.0°</div> <div>60 HL</div> </div> <div> <div>2014 G 46</div> </div> </div> </div> |
| D RIC<br>041° |  |      |      |      |      |     |  |
| RWY 022°      |  | 2000 | 1650 | 1330 | 1010 | 690 | <div> <div>ML-P1R</div> <div>THR 159 (6hPa) / TDZ 161 (---%)</div> <div>+0.1%</div> </div>                               |



|           |                  |                          |  |  |  |                           |
|-----------|------------------|--------------------------|--|--|--|---------------------------|
| <b>02</b> |                  | <b>VOR</b>               |  |  |  | <b>Circling<br/>TERPS</b> |
| C         | ft - ft/SM<br>ft | 480 - 1.0V<br><b>640</b> |  |  |  | 600 - 1.5V<br><b>770</b>  |
| D         | ft - ft/SM<br>ft | 480 - 1.0V<br><b>640</b> |  |  |  | 700 - 2.25V<br><b>870</b> |

Changes: APL, OBST, VAR

AMDT 6A

**12-JUL-2018**

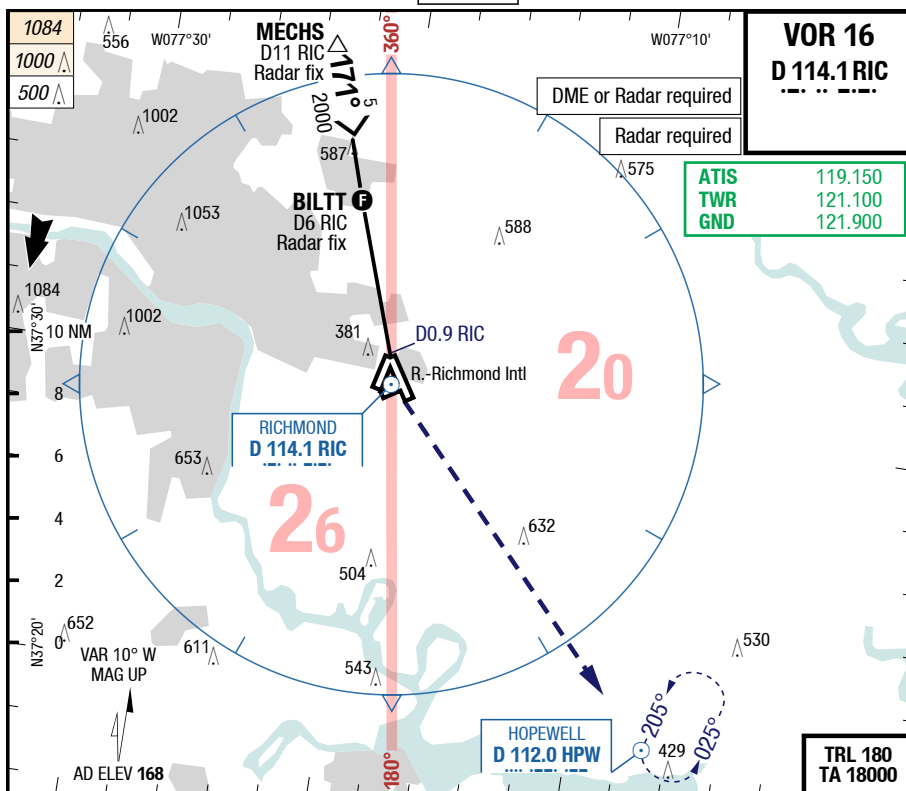
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# IAC

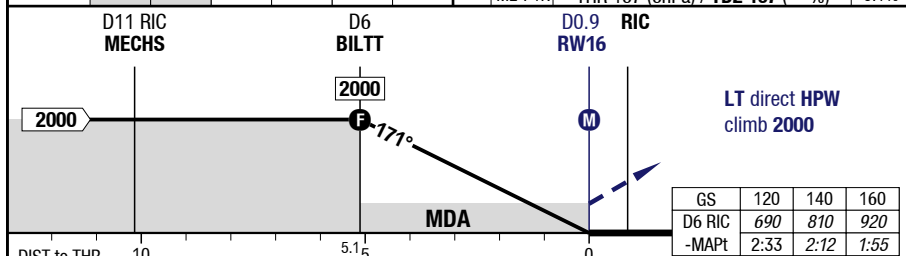
## RIC-KRIC

**7-160**

**VOR 16**



|                             |  |  |      |      |      |     |   |
|-----------------------------|--|--|------|------|------|-----|---|
| 3.26°                       |  |  | 6    | 5    | 4    | 3   | <div> <div> <div>16</div> <div> <div> <div>8.3.0°</div> <div>60 HL</div> </div> <div> <div>2744 G 46</div> <div>15 HL</div> </div> </div> <div>ML-P1R</div> <div>THR 16Z (6hPa) / <b>TDZ 16Z</b> (----%)</div> <div>-0.1%</div> </div> </div> |
| <b>D RIC</b><br><b>171°</b> |  |  | 2000 | 1660 | 1320 | 970 |   |
| RWY 156°                    |  |  |      |      |      |     |   |



|           |                  |                                |  |  |  |  |                           |
|-----------|------------------|--------------------------------|--|--|--|--|---------------------------|
| <b>16</b> |                  | <b>VOR</b>                     |  |  |  |  | <b>Circling<br/>TERPS</b> |
| C         | ft - ft/SM<br>ft | 480 - 5000R/1.0V<br><b>640</b> |  |  |  |  | 600 - 1.5V<br><b>770</b>  |
| D         | ft - ft/SM<br>ft | 480 - 5000R/1.0V<br><b>640</b> |  |  |  |  | 700 - 2.25V<br><b>870</b> |

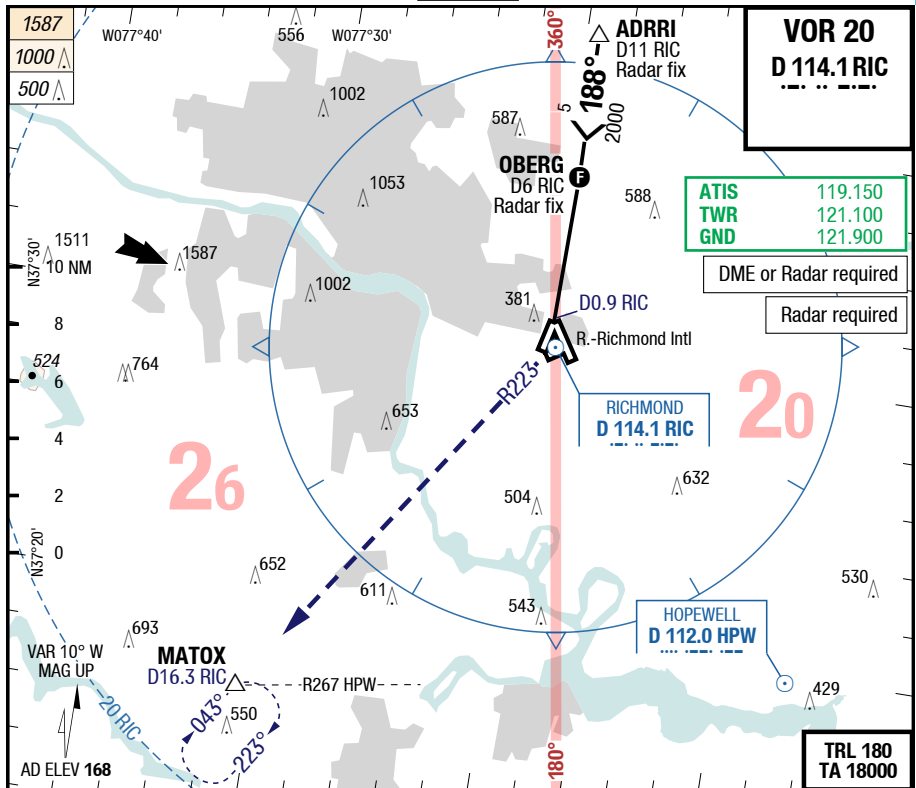
Changes: OBST, VAR, AD ELEV

AMDT 27B

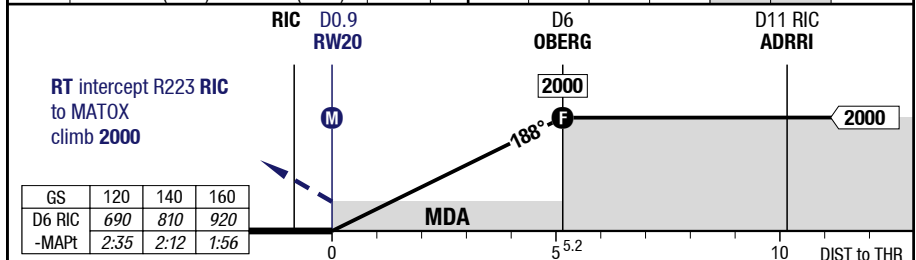
# RIC-KRIC

7-170

VOR 20



|       |           |      |       |                                 |     |      |      |      |  |  |          |
|-------|-----------|------|-------|---------------------------------|-----|------|------|------|--|--|----------|
| 60 HL | 46 G 2014 | 3.0° | -0.1% | TDZ 168 (---%) / THR 165 (6hPa) | 3   | 4    | 5    | 6    |  |  | 3.26°    |
|       |           |      |       |                                 | 960 | 1310 | 1660 | 2000 |  |  | D RIC    |
|       |           |      |       |                                 |     |      |      |      |  |  | 188°     |
|       |           |      |       |                                 |     |      |      |      |  |  | RWY 202° |

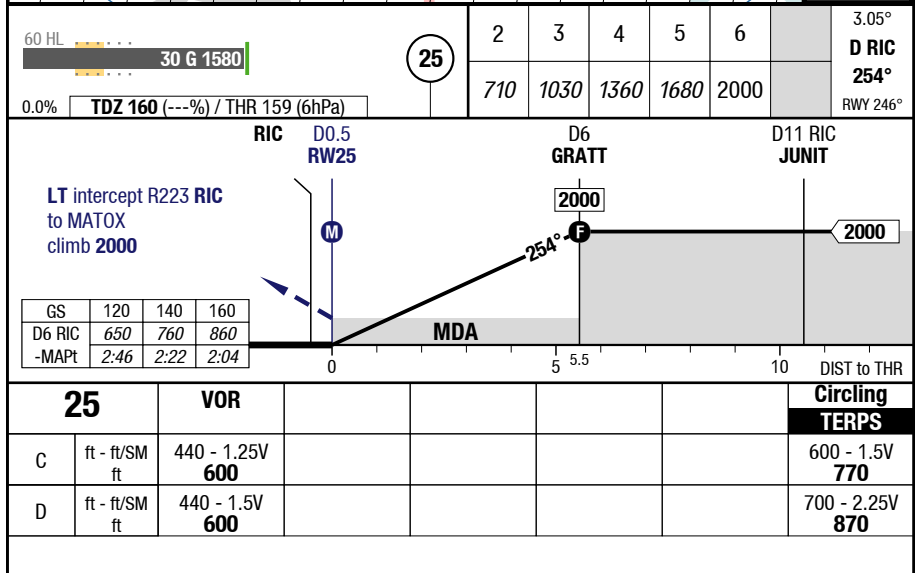
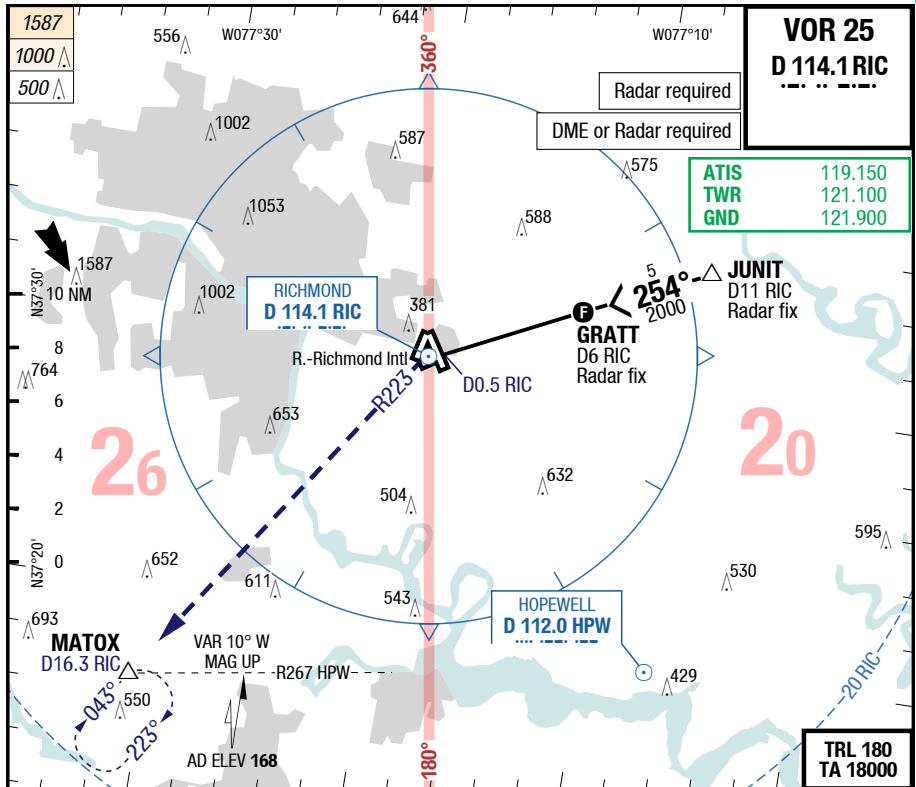


| 20 | VOR              |                    |  |  |  |  | Circling TERPS     |
|----|------------------|--------------------|--|--|--|--|--------------------|
| C  | ft - ft/SM<br>ft | 480 - 1.38V<br>640 |  |  |  |  | 600 - 1.5V<br>770  |
| D  | ft - ft/SM<br>ft | 480 - 1.5V<br>640  |  |  |  |  | 700 - 2.25V<br>870 |

**RIC-KRIC**

7-180

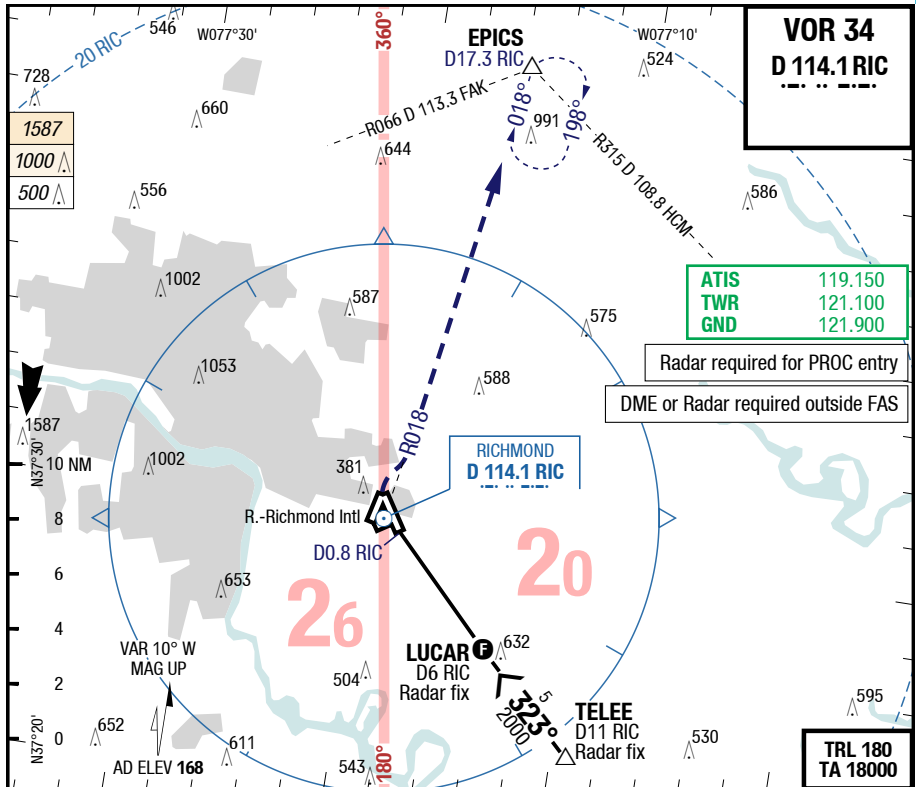
**VOR 25**



**RIC-KRIC**

7-190

**VOR 34**



|   |  |                  |  |                          |  |      |  |                                       |  |        |  |    |  |              |  |                    |  |                  |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |
|---|--|------------------|--|--------------------------|--|------|--|---------------------------------------|--|--------|--|----|--|--------------|--|--------------------|--|------------------|--|-------------------|--|---|--|------------------------------------|--|--|--|------|--|------|--|
| 60 HL<br>15 HL                                  |  |                  |  | 46 G 2744<br>3.0°        |  |      |  | +0.1% TDZ 161 (---%) / THR 161 (6hPa) |  | HL-P2F |  | 34 |  | 2            |  | 3                  |  | 4                |  | 5                 |  | 6 |  | 3.19°<br>D RIC<br>323°<br>RWY 336° |  |  |  |      |  |      |  |
| RIC   |  |                  |  |                          |  |      |  |                                       |  |        |  |    |  | D0.8<br>RW34 |  | D6<br>LUCAR        |  | D11 RIC<br>TELEE |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |
| RT intercept R018 RIC<br>to EPICS<br>climb 2000 |  |                  |  |                          |  |      |  |                                       |  |        |  |    |  | 2000         |  |                    |  |                  |  |                   |  |   |  |                                    |  |  |  | 323° |  | 2000 |  |
| GS  |  |                  |  | 120                      |  | 140  |  | 160                                   |  | MDA    |  |    |  |              |  |                    |  |                  |  |                   |  |   |  | DIST to THR                        |  |  |  |      |  |      |  |
| D6 RIC  |  |                  |  | 680                      |  | 790  |  | 900                                   |  |        |  |    |  |              |  |                    |  |                  |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |
| -MAPt   |  |                  |  | 2:39                     |  | 2:16 |  | 1:59                                  |  |        |  |    |  |              |  |                    |  |                  |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |
| 34  |  |                  |  | VOR                      |  |      |  | VOR<br>APL U/S                        |  |        |  |    |  |              |  |                    |  |                  |  | Circling<br>TERPS |  |   |  |                                    |  |  |  |      |  |      |  |
| C   |  | ft - ft/SM<br>ft |  | 380 - 4000R/0.75V<br>540 |  |      |  |                                       |  |        |  |    |  |              |  | 600 - 1.5V<br>770  |  |                  |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |
| D   |  | ft - ft/SM<br>ft |  | 380 - 5000R/1.0V<br>540  |  |      |  | 380 - 6000R/1.25V<br>540              |  |        |  |    |  |              |  | 700 - 2.25V<br>870 |  |                  |  |                   |  |   |  |                                    |  |  |  |      |  |      |  |