

# N39TT / West Wind Astra 1125 / TFE-731-3A-200G

Generated Mon, 21 Aug 2023 16:59 with version 4.8.17



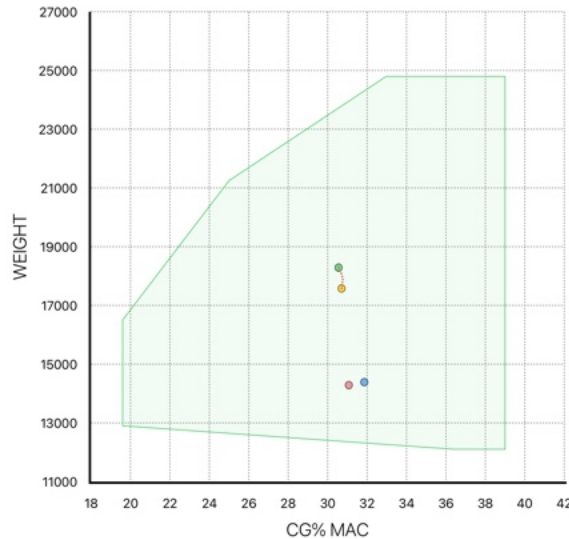
|                | Weight (lb) | FWD CG %MAC | CG %MAC | AFT CG %MAC |
|----------------|-------------|-------------|---------|-------------|
| BEW            | 13801       |             | 39.61   |             |
| Pilots         | 392         |             |         |             |
| Aircraft Items | 93          |             |         |             |
| BOW            | 14286       |             | 31.07   |             |
| Passengers     | 0           |             |         |             |
| Cabin Items    | 0           |             |         |             |
| Cargo          | 100         |             |         |             |
| ZFW            | 14386       | 19.60       | 31.86   | 39.00       |
| Fuel           | 4000        |             |         |             |
| TAXI           | 18386       | 21.74       | 30.75   | 39.00       |
| Taxi Burn      | 100         |             |         |             |
| TOW            | 18286       | 21.63       | 30.56   | 39.00       |
| Takeoff Limit  | 20700       | Obstacle    |         |             |
| Enroute Burn   | 710         |             |         |             |
| LDW            | 17576       | 20.82       | 30.70   | 39.00       |
| Landing Limit  | 20700       | Structural  |         |             |

|              | Departure | Arrival     |
|--------------|-----------|-------------|
| ICAO         | KMDW      | KPWK        |
| Runway       | 04RDP     | 34          |
| Shortened    |           |             |
| TORA/LDA     | 6446 ft   | 5001 ft     |
| Wind         | 06007 T   | 05007 T     |
| Crosswind    | 2         | 7           |
| Headwind     | 7         | 2           |
| Temp C       | 27        | 25          |
| Altimeter    | 30.22     | 30.19       |
| Flap         | FLAPS 20  | FLAPS 20/40 |
| Limit Weight | 20700 lb  | 20700 lb    |
| Reason       | Obstacle  | Structural  |

| 04RDP          | Departure | Reduced Thrust |
|----------------|-----------|----------------|
| Weight         | 18286 lb  |                |
| V1             | 103       | N/A            |
| VR             | 112       | N/A            |
| V2             | 121       | N/A            |
| VFTO           | 158       | N/A            |
| Power          | 96.1      | N/A            |
| TO Dist        | 3730 ft   | N/A            |
| L/O Altitude   | 1020 ft   | 1020 ft        |
| Assumed Temp C | N/A       | N/A            |

## Departure Options

DRY, ANTI ICE OFF, PRESSURIZATION ON, WITH OBSTACLE CLEARANCE



| 34           | Arrival     | Emerg Ret (04R)   |
|--------------|-------------|-------------------|
| Weight       | 17576 lb    | 18286 lb          |
| VFS          | 155         | 158               |
| VAPP         | 125         | 127               |
| VREF         | 121         | 123               |
| LD Dist      | 2525 ft     | 2568 ft           |
| 1.67 Dist    | 4209 ft     | (1.00 LD) 2568 ft |
| MA Grad      | 7.4         | 6.8               |
| Flap         | FLAPS 20/40 | FLAPS 20/40       |
| Limit Weight | 20700 lb    | 20700 lb          |
| Reason       | Structural  | Climb             |

## Arrival Options

DRY, ANTI ICE OFF, PRESSURIZATION ON, 60% LANDING FACTOR

## Emergency Return Options

DRY, ANTI ICE OFF, PRESSURIZATION ON, UNFACTORED LANDING DISTANCE

|                      |                       |
|----------------------|-----------------------|
| Flight ID            |                       |
| Flight Date          | Aug 21, 2023 1730 UTC |
| PIC                  |                       |
| SIC                  |                       |
| Jumpseat             |                       |
| Dept Alternate       |                       |
| Arrv Alternate       |                       |
| SOB/CREW/PAX/Infants | 2 / 2 / 0 / 0         |
| Prepared By          |                       |
| Notes                |                       |

## Loading Certificate

I hereby certify that this aircraft is loaded in accordance with current loading instructions.

(Date) (Name)

## Captains Certificate

I hereby certify that this aircraft is loaded in accordance with current loading instructions.

(Date) (Name)

# Takeoff

|                           | Departure                   |
|---------------------------|-----------------------------|
| ICAO                      | KMDW                        |
| Runway (Slope)            | 04RDP (-0.22)               |
| TORA / TODA / ASDA        | 6446 ft / 6446 ft / 6446 ft |
| Flap                      | <b>FLAPS 20</b>             |
| Wind / Temp C / Altimeter | 06007 T / 27 / 30.22 (1023) |
| Crosswind / Headwind      | 2 knots / 7 knots Headwind  |

Options DRY, ANTI ICE OFF, PRESSURIZATION ON, WITH  
OBSTACLE CLEARANCE

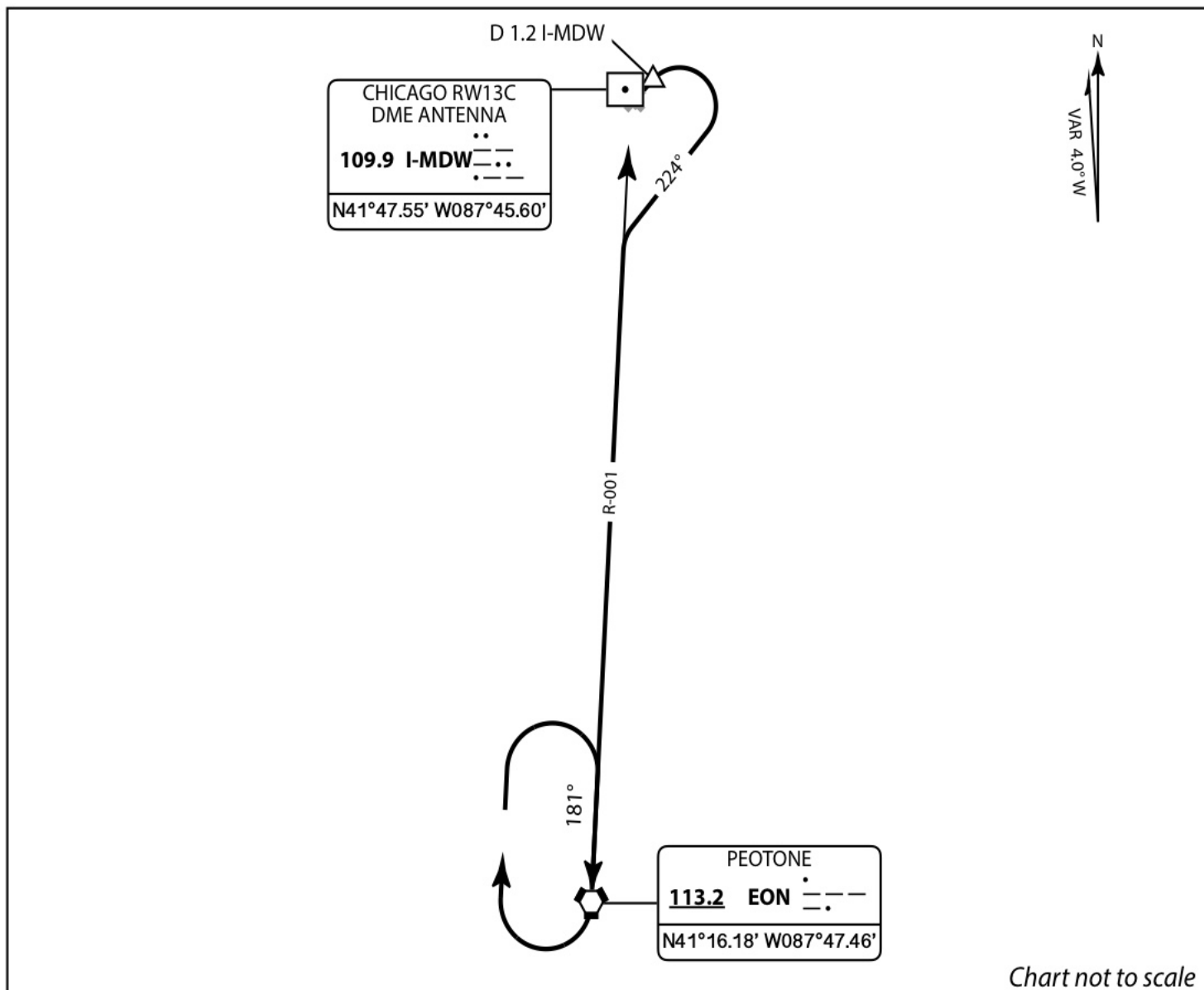
| TOW: 18286 lb    | Departure  | Reduced Thrust |
|------------------|------------|----------------|
| V1               | <b>103</b> | <b>N/A</b>     |
| VR               | <b>112</b> | <b>N/A</b>     |
| V2               | <b>121</b> | <b>N/A</b>     |
| VFTO             | <b>158</b> | <b>N/A</b>     |
| Power            | 96.1       | N/A            |
| Takeoff Distance | 3730 ft    | N/A            |
| L/O Altitude     | 1020 ft    | 1020 ft        |
| Assumed Temp C   | N/A        | N/A            |

KMDW/MDW  
CHICAGO-MIDWAY



CHICAGO, IL  
RWY 04RDP

**SPECIAL ENGINE OUT PROCEDURE**



**Takeoff Runway 04RDP**

TAKEOFF WEIGHTS FOR RWY 04RDP REQUIRE THE USE OF THIS TAILORED NON-RNAV DEPARTURE PROCEDURE

NOTE: NON-RNAV PROCEDURE. ALL FIXES ARE FLY-OVER FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED.

MAINTAIN RUNWAY HEADING TO I-MXT OR I-MDW 1.2 DME (0.6 NM FROM DER)

TURN RIGHT HEADING 224 DEGREES TO INTERCEPT EON VOR R-001 INBOUND DIRECT TO EON VOR

CLIMB IN HOLDING PATTERN AT EON ON EON VOR R-001 (HOLD NORTH, RIGHT TURNS, 25 DEGREE BANK, 5NM LEGS, 181 COURSE INBOUND)

###

# Emergency Return

|                           | Arrival                     |
|---------------------------|-----------------------------|
| ICAO                      | KMDW                        |
| Runway (Slope)            | 04R (-0.22)                 |
| LDA                       | 5928 ft                     |
| Flap                      | <b>FLAPS 20/40</b>          |
| Wind / Temp C / Altimeter | 06007 T / 27 / 30.22 (1023) |
| Crosswind / Headwind      | 2 knots / 7 knots Headwind  |

**Options** DRY, ANTI ICE OFF, PRESSURIZATION ON,  
UNFACTORED LANDING DISTANCE

| LDW: 18286 lb     | Arrival    |
|-------------------|------------|
| VFS               | <b>158</b> |
| VAPP              | <b>127</b> |
| VREF              | <b>123</b> |
| Landing Distance  | 2568 ft    |
| 1.00 LD Distance  | 2568 ft    |
| MA Climb Gradient | 6.8        |

# Landing

|                           | Arrival                     |
|---------------------------|-----------------------------|
| ICAO                      | KPWK                        |
| Runway (Slope)            | 34 (-0.03)                  |
| LDA                       | 5001 ft                     |
| Flap                      | <b>FLAPS 20/40</b>          |
| Wind / Temp C / Altimeter | 05007 T / 25 / 30.19 (1022) |
| Crosswind / Headwind      | 7 knots / 2 knots Headwind  |

**Options** DRY, ANTI ICE OFF, PRESSURIZATION ON, 60%  
LANDING FACTOR

| LDW: 17576 lb     | Arrival    |
|-------------------|------------|
| VFS               | <b>155</b> |
| VAPP              | <b>125</b> |
| VREF              | <b>121</b> |
| Landing Distance  | 2525 ft    |
| 1.67 LD Distance  | 4209 ft    |
| MA Climb Gradient | 7.4        |

# Takeoff

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

**Actual TOW:** 18286 lb  
**Wind:** 06007 T  
**Altimeter:** 30.22 / 1023

**Flap: FLAPS 20**  
**Generated Mon, 21 August 2023 16:59 UTC**  
**with version 4.8.17**

**DRY**  
**ANTI ICE OFF**  
**PRESSURIZATION ON**  
**WITH OBSTACLE CLEARANCE**

| KMDW       | 04L                                                         | 04L-W                                                       | 04LDP                                                       | 04LDP1                                                      | Runway                                                          |
|------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| TEMP C PWR | 5507 ft/5507 ft/5507 ft                                     | 4749 ft/4749 ft/4749 ft                                     | 5507 ft/5507 ft/5507 ft                                     | 5507 ft/5507 ft/5507 ft                                     | TORA / TODA / ASDA                                              |
| 24 96.3    | 19969 lb / -O<br>102 / 112 / 121 / 158<br>3624 ft / 2653 ft | 19111 lb / -O<br>102 / 112 / 121 / 158<br>3624 ft / 1020 ft | 19977 lb / -O<br>102 / 112 / 121 / 158<br>3624 ft / 1020 ft | 19977 lb / -O<br>102 / 112 / 121 / 158<br>3624 ft / 1020 ft | Limit Weight / Code<br>V1 / VR / V2 / VFTO<br>TOFL / ACCEL(MSL) |
| 25 96.4    | 19823 lb / -O<br>102 / 112 / 121 / 158<br>3650 ft / 2647 ft | 18986 lb / -O<br>102 / 112 / 121 / 158<br>3650 ft / 1020 ft | 19849 lb / -O<br>102 / 112 / 121 / 158<br>3650 ft / 1020 ft | 19849 lb / -O<br>102 / 112 / 121 / 158<br>3650 ft / 1020 ft |                                                                 |
| 26 96.2    | 19623 lb / -O<br>103 / 112 / 121 / 158<br>3689 ft / 2640 ft | 18817 lb / -O<br>103 / 112 / 121 / 158<br>3689 ft / 1020 ft | 19671 lb / -O<br>103 / 112 / 121 / 158<br>3689 ft / 1020 ft | 19671 lb / -O<br>103 / 112 / 121 / 158<br>3689 ft / 1020 ft |                                                                 |
| 27 96.1    | 19422 lb / -O<br>103 / 112 / 121 / 158<br>3727 ft / 2634 ft | 18644 lb / -O<br>103 / 112 / 121 / 158<br>3727 ft / 1020 ft | 19494 lb / -O<br>103 / 112 / 121 / 158<br>3728 ft / 1020 ft | 19494 lb / -O<br>103 / 112 / 121 / 158<br>3728 ft / 1020 ft |                                                                 |
| 28 96.0    | 19218 lb / -O<br>103 / 112 / 121 / 158<br>3766 ft / 2627 ft | 18470 lb / -O<br>103 / 112 / 121 / 158<br>3766 ft / 1020 ft | 19317 lb / -O<br>103 / 112 / 121 / 158<br>3766 ft / 1020 ft | 19317 lb / -O<br>103 / 112 / 121 / 158<br>3766 ft / 1020 ft |                                                                 |
| 29 95.8    | 19004 lb / -O<br>104 / 112 / 121 / 158<br>3805 ft / 2621 ft | 18291 lb / -O<br>104 / 112 / 121 / 158<br>3805 ft / 1020 ft | 19138 lb / -O<br>104 / 112 / 121 / 158<br>3805 ft / 1020 ft | 19138 lb / -O<br>104 / 112 / 121 / 158<br>3805 ft / 1020 ft |                                                                 |
| 30 95.7    | 18797 lb / -O<br>104 / 112 / 121 / 158<br>3844 ft / 2614 ft | 18113 lb / -O<br>OVERWEIGHT                                 | 18956 lb / -O<br>104 / 112 / 121 / 158<br>3844 ft / 1020 ft | 18956 lb / -O<br>104 / 112 / 121 / 158<br>3844 ft / 1020 ft |                                                                 |

| KMDW       | 04R                                                         | 04RDP                                                       | 04RDP1                                                      | 04RDP2                                                      | Runway                                                          |
|------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| TEMP C PWR | 6446 ft/6446 ft/6446 ft                                     | 6446 ft/6446 ft/6446 ft                                     | 6446 ft/6446 ft/6446 ft                                     | 6446 ft/6446 ft/6446 ft                                     | TORA / TODA / ASDA                                              |
| 24 96.3    | 19986 lb / -O<br>102 / 112 / 121 / 158<br>3626 ft / 2654 ft | 21207 lb / -O<br>102 / 112 / 121 / 158<br>3626 ft / 1020 ft | 21207 lb / -O<br>102 / 112 / 121 / 158<br>3626 ft / 1020 ft | 21137 lb / -O<br>102 / 112 / 121 / 158<br>3626 ft / 1020 ft | Limit Weight / Code<br>V1 / VR / V2 / VFTO<br>TOFL / ACCEL(MSL) |
| 25 96.4    | 19838 lb / -O<br>103 / 112 / 121 / 158<br>3652 ft / 2647 ft | 21066 lb / -O<br>103 / 112 / 121 / 158<br>3652 ft / 1020 ft | 21066 lb / -O<br>103 / 112 / 121 / 158<br>3652 ft / 1020 ft | 20991 lb / -O<br>103 / 112 / 121 / 158<br>3652 ft / 1020 ft |                                                                 |
| 26 96.2    | 19640 lb / -O<br>103 / 112 / 121 / 158<br>3691 ft / 2641 ft | 20881 lb / -O<br>103 / 112 / 121 / 158<br>3691 ft / 1020 ft | 20881 lb / -O<br>103 / 112 / 121 / 158<br>3691 ft / 1020 ft | 20808 lb / -O<br>103 / 112 / 121 / 158<br>3691 ft / 1020 ft |                                                                 |
| 27 96.1    | 19438 lb / -O<br>103 / 112 / 121 / 158<br>3730 ft / 2634 ft | 20700 lb / -O<br>103 / 112 / 121 / 158<br>3730 ft / 1020 ft | 20700 lb / -O<br>103 / 112 / 121 / 158<br>3730 ft / 1020 ft | 20623 lb / -O<br>103 / 112 / 121 / 158<br>3730 ft / 1020 ft |                                                                 |
| 28 96.0    | 19234 lb / -O<br>103 / 112 / 121 / 158<br>3769 ft / 2628 ft | 20517 lb / -O<br>103 / 112 / 121 / 158<br>3769 ft / 1020 ft | 20517 lb / -O<br>103 / 112 / 121 / 158<br>3769 ft / 1020 ft | 20433 lb / -O<br>103 / 112 / 121 / 158<br>3769 ft / 1020 ft |                                                                 |
| 29 95.8    | 19020 lb / -O<br>104 / 112 / 121 / 158<br>3808 ft / 2621 ft | 20335 lb / -O<br>104 / 112 / 121 / 158<br>3808 ft / 1020 ft | 20335 lb / -O<br>104 / 112 / 121 / 158<br>3808 ft / 1020 ft | 20245 lb / -O<br>104 / 112 / 121 / 158<br>3808 ft / 1020 ft |                                                                 |
| 30 95.7    | 18813 lb / -O<br>104 / 112 / 121 / 158<br>3847 ft / 2615 ft | 20148 lb / -O<br>104 / 112 / 121 / 158<br>3847 ft / 1020 ft | 20148 lb / -O<br>104 / 112 / 121 / 158<br>3847 ft / 1020 ft | 20052 lb / -O<br>104 / 112 / 121 / 158<br>3847 ft / 1020 ft |                                                                 |

### Runway Notes

RWY 04L-W INTXN T/O FROM W - 4749 FT

#### Limit Codes:

**AL:** Altitude  
**BE:** Brake Energy  
**CD:** Contaminant Depth  
**CF:** Critical Failure  
**CL:** Climb  
**CW:** Crosswind

**HW:** Headwind  
**IC:** Invalid Configuration  
**FL:** Field Length  
**FP:** Takeoff Thrust Time  
**-O:** Obstacle  
**OW:** Overweight

**SL:** Slope  
**SP:** Climb Speed  
**ST:** Structural  
**TP:** Temperature  
**TS:** Tire Speed  
**TW:** Tailwind

# Takeoff

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

**Actual TOW:** 18286 lb  
**Wind:** 06007 T  
**Altimeter:** 30.22 / 1023

**Flap:** FLAPS 20  
**Generated Mon, 21 August 2023 16:59 UTC**  
**with version 4.8.17**

**DRY**  
**ANTI ICE OFF**  
**PRESSURIZATION ON**  
**WITH OBSTACLE CLEARANCE**

| KMDW       | 13C                                                         | 13L                                                         | 13R                         | 22L                                                         | Runway                                                          |
|------------|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| TEMP C PWR | 6522 ft/6522 ft/6522 ft                                     | 5141 ft/5141 ft/5141 ft                                     | 3859 ft/3859 ft/3859 ft     | 6446 ft/6446 ft/6446 ft                                     | TORA / TODA / ASDA                                              |
| 24 96.3    | 19728 lb / -O<br>103 / 112 / 121 / 158<br>3782 ft / 1020 ft | 18931 lb / -O<br>103 / 112 / 121 / 158<br>3776 ft / 1020 ft | 16939 lb / -O<br>OVERWEIGHT | 19405 lb / -O<br>104 / 112 / 121 / 158<br>4335 ft / 1020 ft | Limit Weight / Code<br>V1 / VR / V2 / VFTO<br>TOFL / ACCEL(MSL) |
| 25 96.4    | 19605 lb / -O<br>103 / 112 / 121 / 158<br>3811 ft / 1020 ft | 18813 lb / -O<br>103 / 112 / 121 / 158<br>3805 ft / 1020 ft | 16830 lb / -O<br>OVERWEIGHT | 19289 lb / -O<br>104 / 112 / 121 / 158<br>4369 ft / 1020 ft |                                                                 |
| 26 96.2    | 19434 lb / -O<br>104 / 112 / 121 / 158<br>3854 ft / 1020 ft | 18636 lb / -O<br>104 / 112 / 121 / 158<br>3848 ft / 1020 ft | 16676 lb / -O<br>OVERWEIGHT | 19124 lb / -O<br>104 / 112 / 121 / 158<br>4419 ft / 1020 ft |                                                                 |
| 27 96.1    | 19266 lb / -O<br>104 / 112 / 121 / 158<br>3897 ft / 1020 ft | 18445 lb / -O<br>104 / 112 / 121 / 158<br>3890 ft / 1020 ft | 16522 lb / -O<br>OVERWEIGHT | 18961 lb / -O<br>104 / 112 / 121 / 158<br>4469 ft / 1020 ft |                                                                 |
| 28 96.0    | 19097 lb / -O<br>104 / 112 / 121 / 158<br>3939 ft / 1020 ft | 18246 lb / -O<br>OVERWEIGHT                                 | 16366 lb / -O<br>OVERWEIGHT | 18798 lb / -O<br>105 / 112 / 121 / 158<br>4519 ft / 1020 ft |                                                                 |
| 29 95.8    | 18923 lb / -O<br>104 / 112 / 121 / 158<br>3982 ft / 1020 ft | 18061 lb / -O<br>OVERWEIGHT                                 | 16213 lb / -O<br>OVERWEIGHT | 18629 lb / -O<br>105 / 112 / 121 / 158<br>4569 ft / 1020 ft |                                                                 |
| 30 95.7    | 18750 lb / -O<br>105 / 112 / 121 / 158<br>4025 ft / 1020 ft | 17898 lb / -O<br>OVERWEIGHT                                 | 16062 lb / -O<br>OVERWEIGHT | 18463 lb / -O<br>105 / 112 / 121 / 158<br>4620 ft / 1020 ft |                                                                 |

| KMDW       | 22R                         | 22R-N                       | 22R-P                       | 31C                                                         | Runway                                                          |
|------------|-----------------------------|-----------------------------|-----------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| TEMP C PWR | 5507 ft/5507 ft/5507 ft     | 4817 ft/4817 ft/4817 ft     | 4817 ft/4817 ft/4817 ft     | 6522 ft/6522 ft/6522 ft                                     | TORA / TODA / ASDA                                              |
| 24 96.3    | 18187 lb / -O<br>OVERWEIGHT | 17511 lb / -O<br>OVERWEIGHT | 17511 lb / -O<br>OVERWEIGHT | 19836 lb / -O<br>103 / 112 / 121 / 158<br>3934 ft / 1020 ft | Limit Weight / Code<br>V1 / VR / V2 / VFTO<br>TOFL / ACCEL(MSL) |
| 25 96.4    | 18047 lb / -O<br>OVERWEIGHT | 17402 lb / -O<br>OVERWEIGHT | 17402 lb / -O<br>OVERWEIGHT | 19714 lb / -O<br>103 / 112 / 121 / 158<br>3965 ft / 1020 ft |                                                                 |
| 26 96.2    | 17868 lb / -O<br>OVERWEIGHT | 17248 lb / -O<br>OVERWEIGHT | 17248 lb / -O<br>OVERWEIGHT | 19543 lb / -O<br>103 / 112 / 121 / 158<br>4009 ft / 1020 ft |                                                                 |
| 27 96.1    | 17689 lb / -O<br>OVERWEIGHT | 17096 lb / -O<br>OVERWEIGHT | 17096 lb / -O<br>OVERWEIGHT | 19374 lb / -O<br>103 / 112 / 121 / 158<br>4053 ft / 1020 ft |                                                                 |
| 28 96.0    | 17511 lb / -O<br>OVERWEIGHT | 16943 lb / -O<br>OVERWEIGHT | 16943 lb / -O<br>OVERWEIGHT | 19205 lb / -O<br>104 / 112 / 121 / 158<br>4098 ft / 1020 ft |                                                                 |
| 29 95.8    | 17330 lb / -O<br>OVERWEIGHT | 16789 lb / -O<br>OVERWEIGHT | 16789 lb / -O<br>OVERWEIGHT | 19034 lb / -O<br>104 / 112 / 121 / 158<br>4142 ft / 1020 ft |                                                                 |
| 30 95.7    | 17159 lb / -O<br>OVERWEIGHT | 16633 lb / -O<br>OVERWEIGHT | 16633 lb / -O<br>OVERWEIGHT | 18862 lb / -O<br>104 / 112 / 121 / 158<br>4187 ft / 1020 ft |                                                                 |

### Runway Notes

RWY 22R-N INTXN T/O FROM N - 4817 FT  
 RWY 22R-P INTXN T/O FROM P - 4817 FT

#### Limit Codes:

**AL:** Altitude  
**BE:** Brake Energy  
**CD:** Contaminant Depth  
**CF:** Critical Failure  
**CL:** Climb  
**CW:** Crosswind

**HW:** Headwind  
**IC:** Invalid Configuration  
**FL:** Field Length  
**FP:** Takeoff Thrust Time  
**-O:** Obstacle  
**OW:** Overweight

**SL:** Slope  
**SP:** Climb Speed  
**ST:** Structural  
**TP:** Temperature  
**TS:** Tire Speed  
**TW:** Tailwind

# Takeoff

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

Actual TOW: 18286 lb  
 Wind: 06007 T  
 Altimeter: 30.22 / 1023

Flap: FLAPS 20  
 Generated Mon, 21 August 2023 16:59 UTC  
 with version 4.8.17

DRY  
 ANTI ICE OFF  
 PRESSURIZATION ON  
 WITH OBSTACLE CLEARANCE

| KMDW       | 31L                         | 31R                                                         |  |  | Runway                                                          |
|------------|-----------------------------|-------------------------------------------------------------|--|--|-----------------------------------------------------------------|
| TEMP C PWR | 3859 ft/3859 ft/3859 ft     | 5141 ft/5141 ft/5141 ft                                     |  |  | TORA / TODA / ASDA                                              |
| 24 96.3    | 17802 lb / -O<br>OVERWEIGHT | 18709 lb / -O<br>103 / 112 / 121 / 158<br>3940 ft / 1020 ft |  |  | Limit Weight / Code<br>V1 / VR / V2 / VFTO<br>TOFL / ACCEL(MSL) |
| 25 96.4    | 17689 lb / -O<br>OVERWEIGHT | 18590 lb / -O<br>103 / 112 / 121 / 158<br>3970 ft / 1020 ft |  |  |                                                                 |
| 26 96.2    | 17532 lb / -O<br>OVERWEIGHT | 18421 lb / -O<br>103 / 112 / 121 / 158<br>4015 ft / 1020 ft |  |  |                                                                 |
| 27 96.1    | 17375 lb / -O<br>OVERWEIGHT | 18249 lb / -O<br>OVERWEIGHT                                 |  |  |                                                                 |
| 28 96.0    | 17220 lb / -O<br>OVERWEIGHT | 18074 lb / -O<br>OVERWEIGHT                                 |  |  |                                                                 |
| 29 95.8    | 17066 lb / -O<br>OVERWEIGHT | 17904 lb / -O<br>OVERWEIGHT                                 |  |  |                                                                 |
| 30 95.7    | 16911 lb / -O<br>OVERWEIGHT | 17742 lb / -O<br>OVERWEIGHT                                 |  |  |                                                                 |

N39TT  
 08/21/2023

### Runway Notes

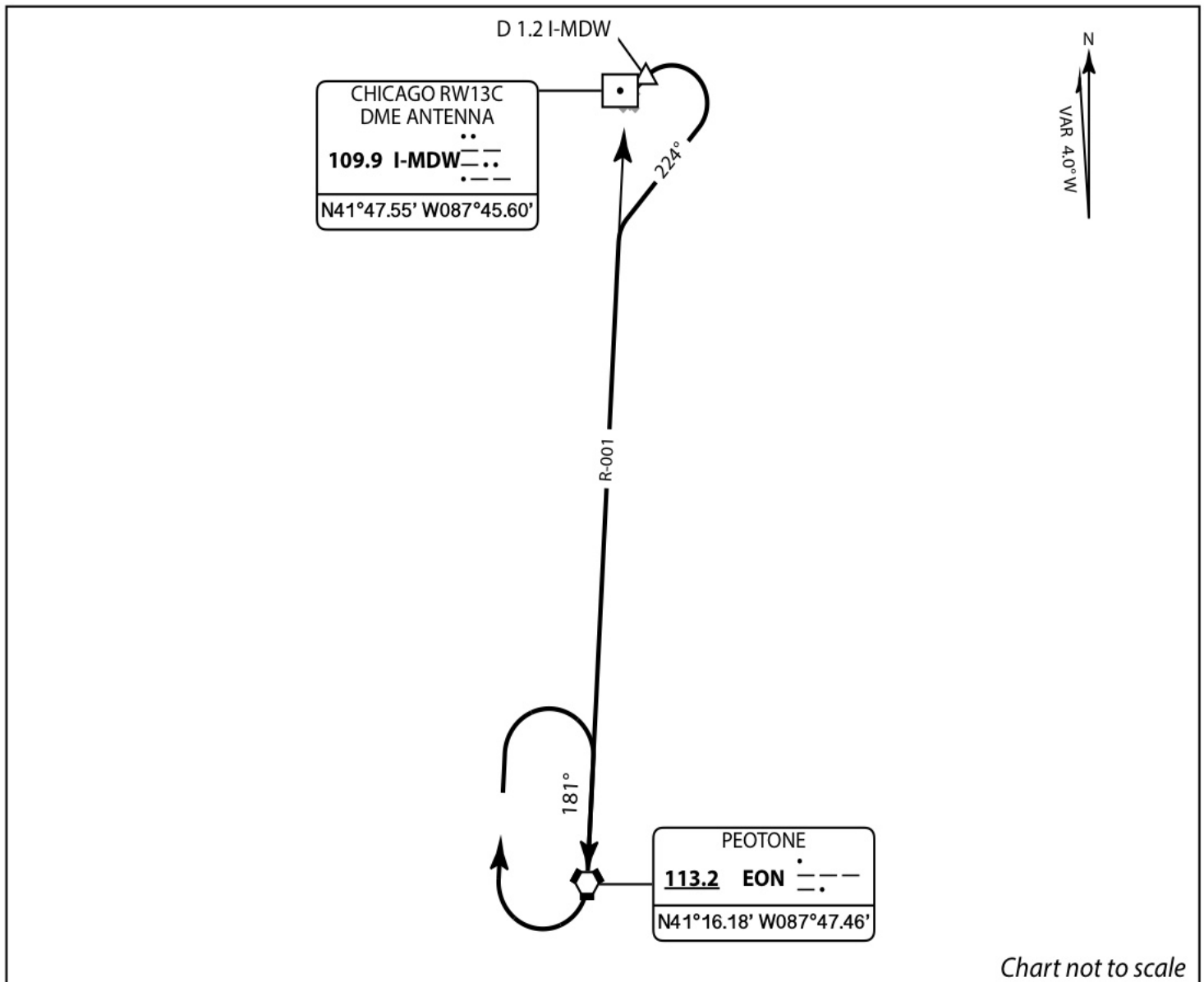
|                                                                                                                                                                                  |                                                                                                                                                                      |                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Limit Codes:</b><br><b>AL:</b> Altitude<br><b>BE:</b> Brake Energy<br><b>CD:</b> Contaminant Depth<br><b>CF:</b> Critical Failure<br><b>CL:</b> Climb<br><b>CW:</b> Crosswind | <b>HW:</b> Headwind<br><b>IC:</b> Invalid Configuration<br><b>FL:</b> Field Length<br><b>FP:</b> Takeoff Thrust Time<br><b>-O:</b> Obstacle<br><b>OW:</b> Overweight | <b>SL:</b> Slope<br><b>SP:</b> Climb Speed<br><b>ST:</b> Structural<br><b>TP:</b> Temperature<br><b>TS:</b> Tire Speed<br><b>TW:</b> Tailwind |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

KMDW/MDW  
CHICAGO-MIDWAY



CHICAGO, IL  
RWY 04LDP

**SPECIAL ENGINE OUT PROCEDURE**



**Takeoff Runway 04LDP**

TAKEOFF WEIGHTS FOR RWY 04LDP REQUIRE THE USE OF THIS TAILORED NON-RNAV DEPARTURE PROCEDURE

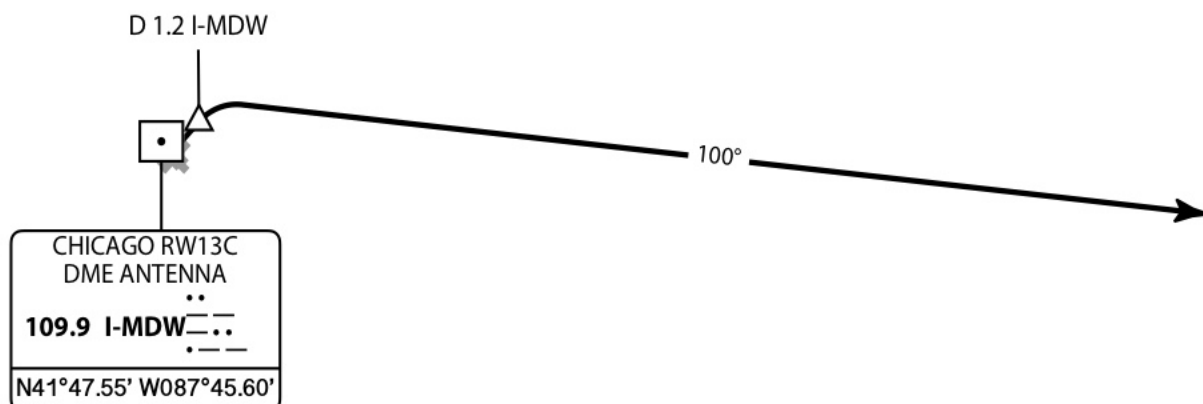
NOTE: NON-RNAV PROCEDURE. ALL FIXES ARE FLY-OVER FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED.

MAINTAIN RUNWAY HEADING TO I-MXT OR I-MDW 1.2 DME (0.7 NM FROM DER)

TURN RIGHT HEADING 224 DEGREES TO INTERCEPT EON VOR R-001 INBOUND DIRECT TO EON VOR

CLIMB IN HOLDING PATTERN AT EON ON EON VOR R-001 (HOLD NORTH, RIGHT TURNS, 25 DEGREE BANK, 5NM LEGS, 181 COURSE INBOUND)

###



*Chart not to scale*

### Takeoff Runway 04LDP1

TAKEOFF WEIGHTS FOR RWY 04LDP1 REQUIRE THE USE OF THIS TAILORED NON-RNAV DEPARTURE PROCEDURE

NOTE: NON-RNAV PROCEDURE. ALL FIXES ARE FLY-OVER FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED.

MAINTAIN RUNWAY HEADING TO I-MXT OR I-MDW 1.2 DME (0.7 NM FROM DER)

TURN RIGHT HEADING 100 DEGREES

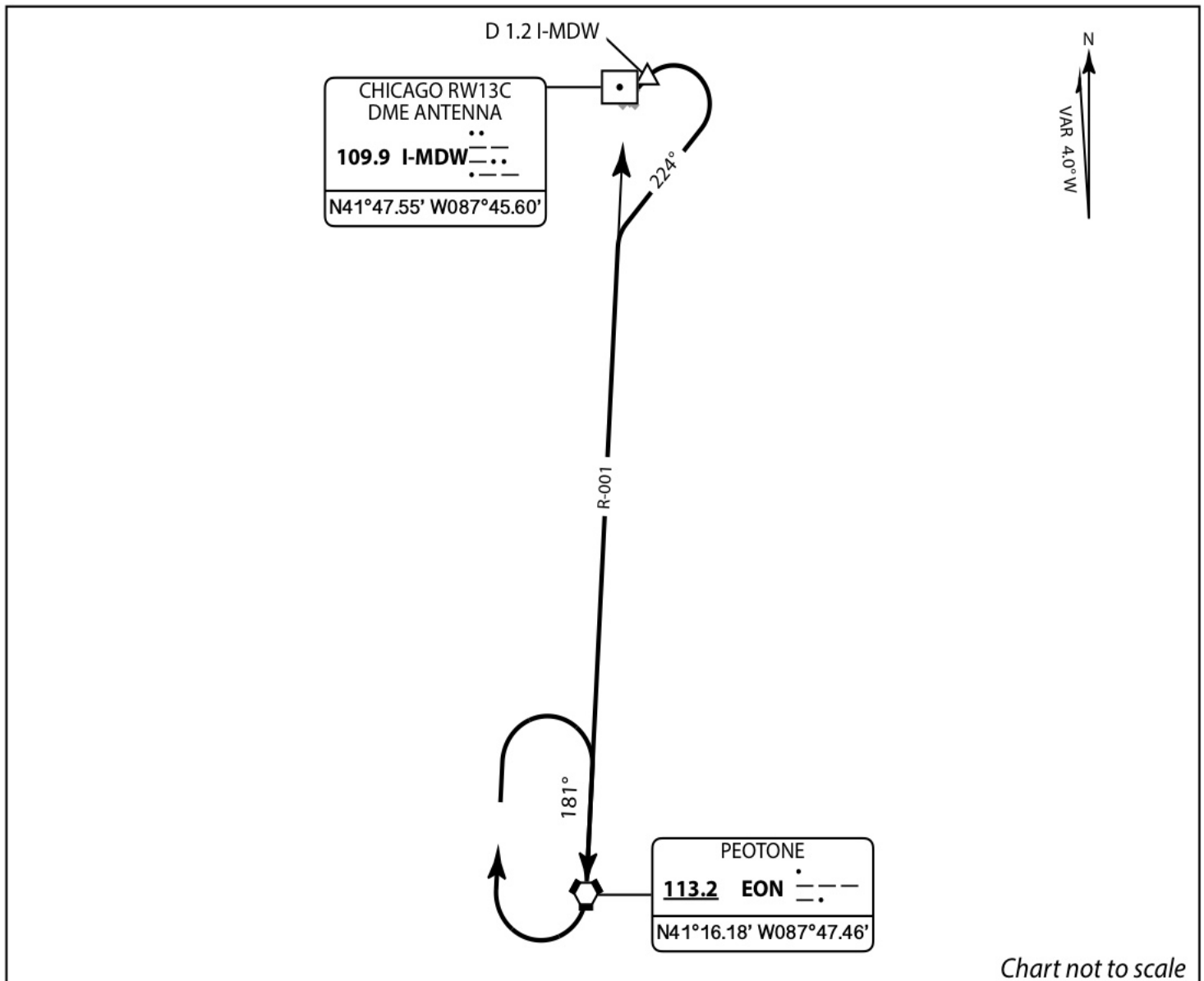
###

KMDW/MDW  
CHICAGO-MIDWAY



CHICAGO, IL  
RWY 04RDP

**SPECIAL ENGINE OUT PROCEDURE**



**Takeoff Runway 04RDP**

TAKEOFF WEIGHTS FOR RWY 04RDP REQUIRE THE USE OF THIS TAILORED NON-RNAV DEPARTURE PROCEDURE

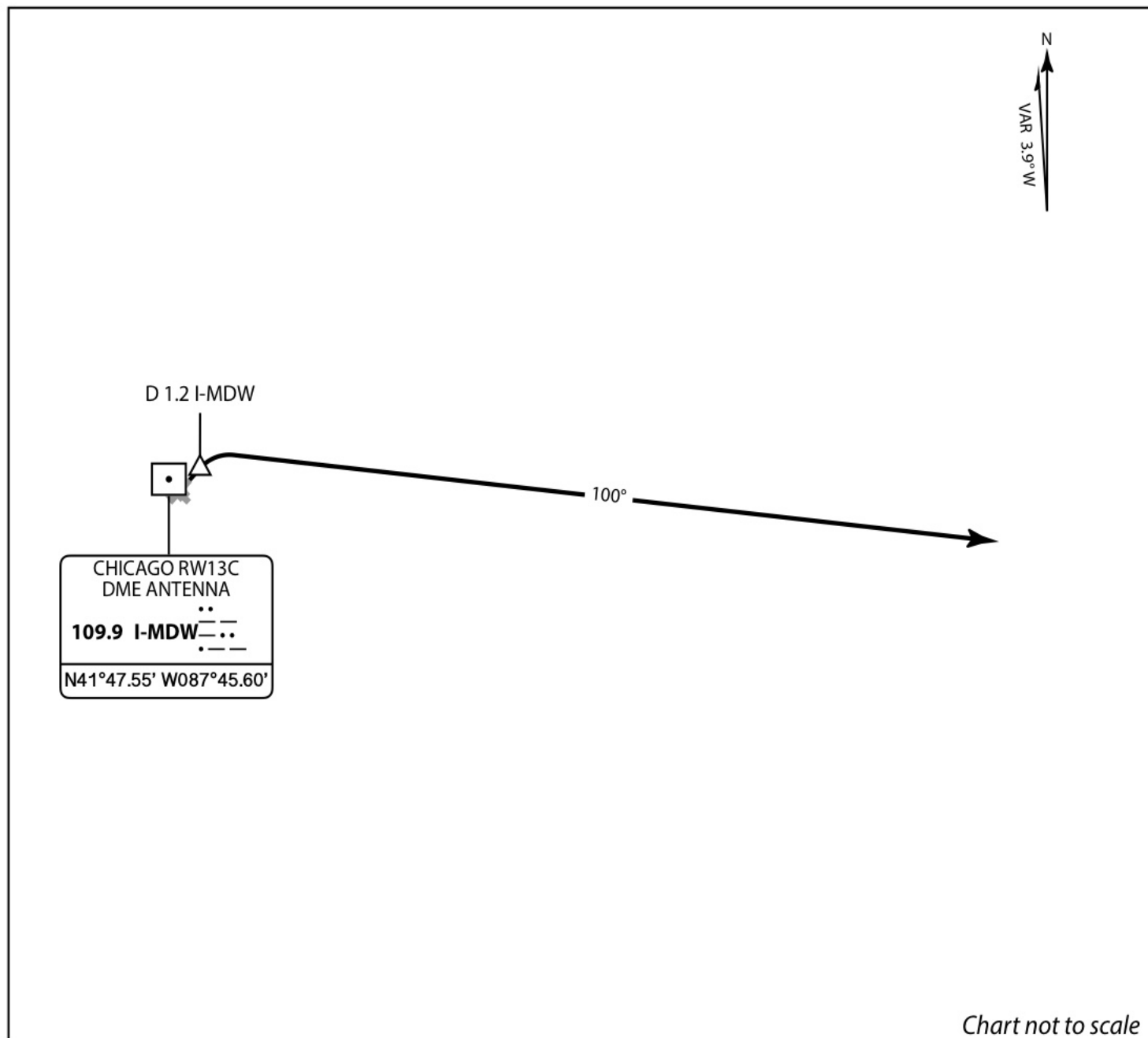
NOTE: NON-RNAV PROCEDURE. ALL FIXES ARE FLY-OVER FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED.

MAINTAIN RUNWAY HEADING TO I-MXT OR I-MDW 1.2 DME (0.6 NM FROM DER)

TURN RIGHT HEADING 224 DEGREES TO INTERCEPT EON VOR R-001 INBOUND DIRECT TO EON VOR

CLIMB IN HOLDING PATTERN AT EON ON EON VOR R-001 (HOLD NORTH, RIGHT TURNS, 25 DEGREE BANK, 5NM LEGS, 181 COURSE INBOUND)

###



### Takeoff Runway 04RDP1

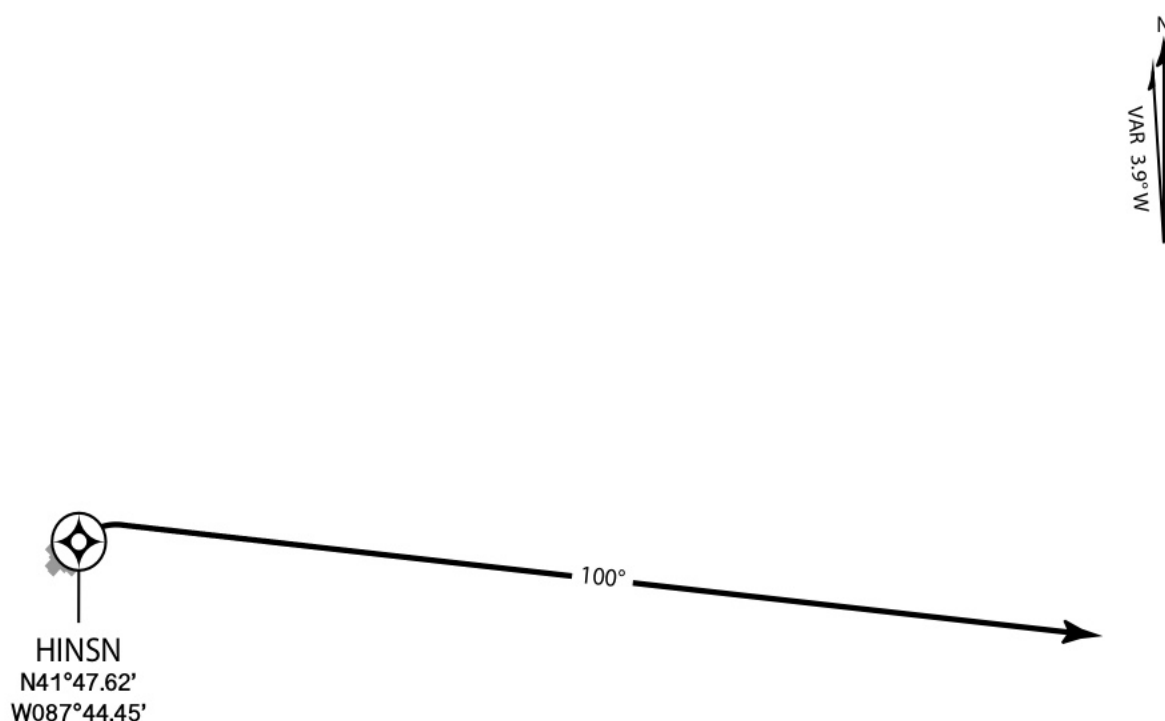
TAKEOFF WEIGHTS FOR RWY 04RDP1 REQUIRE THE USE OF THIS TAILORED NON-RNAV DEPARTURE PROCEDURE

NOTE: NON-RNAV PROCEDURE. ALL FIXES ARE FLY-OVER FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED.

MAINTAIN RUNWAY HEADING TO I-MXT OR I-MDW 1.2 DME (0.6 NM FROM DER)

TURN RIGHT HEADING 100 DEGREES

###



*Chart not to scale*

## Takeoff Runway 04RDP2 RNAV

TAKEOFF WEIGHTS FOR RWY 04RDP2 REQUIRE THE USE OF THIS TAILORED RNAV DEPARTURE PROCEDURE

\*\*\* RNAV PROCEDURE. ALL FIXES ARE FLY-BY FIXES UNLESS OTHERWISE NOTED. ALL TURNS ARE CLIMBING 15 DEGREES OF BANK UNLESS OTHERWISE NOTED. \*\*\*

MAINTAIN RUNWAY HEADING DIRECT TO HINSN NOTE: HINSN IS A FLYOVER WAYPOINT

TURN RIGHT HEADING 100 DEGREES

###

**These procedures describe the non-standard, one engine inoperative, departure flight path. The maximum allowable takeoff weights, presented in the attached analysis, are based upon the procedure(s) outlined above.**

# Emergency Return

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

Actual LDW: 18286 lb  
Wind: 06007 T  
Altimeter: 30.22 / 1023

Flap: FLAPS 20/40  
Generated Mon, 21 August 2023 16:59 UTC  
with version 4.8.17

DRY  
ANTI ICE OFF  
PRESSURIZATION ON  
UNFACTORED LANDING DISTANCE

| KMDW   | 04L                                                         | 04R                                                         | 13C                                                         | 13L                                                         | Runway                                                           |
|--------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------|
| TEMP C | 4749 ft                                                     | 5928 ft                                                     | 6059 ft                                                     | 4388 ft                                                     | LDA                                                              |
| 24     | 20700 lb / CL / 7.3<br>2552 ft / 2552 ft<br>123 / 127 / 158 | 20700 lb / CL / 7.3<br>2549 ft / 2549 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.9<br>2562 ft / 2562 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.9<br>2566 ft / 2566 ft<br>123 / 127 / 158 | Limit / Cd / MA Grad<br>LD Dist / 1.00 Dist<br>VREF / VAPP / VFS |
| 25     | 20700 lb / CL / 7.2<br>2559 ft / 2559 ft<br>123 / 127 / 158 | 20700 lb / CL / 7.2<br>2555 ft / 2555 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.7<br>2568 ft / 2568 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.7<br>2573 ft / 2573 ft<br>123 / 127 / 158 |                                                                  |
| 26     | 20700 lb / CL / 7.0<br>2565 ft / 2565 ft<br>123 / 127 / 158 | 20700 lb / CL / 7.0<br>2562 ft / 2562 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.6<br>2574 ft / 2574 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.6<br>2579 ft / 2579 ft<br>123 / 127 / 158 |                                                                  |
| 27     | 20700 lb / CL / 6.8<br>2572 ft / 2572 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.8<br>2568 ft / 2568 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.4<br>2581 ft / 2581 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.4<br>2586 ft / 2586 ft<br>123 / 127 / 158 |                                                                  |
| 28     | 20700 lb / CL / 6.6<br>2578 ft / 2578 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.6<br>2574 ft / 2574 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.2<br>2587 ft / 2587 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.2<br>2592 ft / 2592 ft<br>123 / 127 / 158 |                                                                  |
| 29     | 20700 lb / CL / 6.5<br>2585 ft / 2585 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.5<br>2581 ft / 2581 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.0<br>2594 ft / 2594 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.0<br>2599 ft / 2599 ft<br>123 / 127 / 158 |                                                                  |
| 30     | 20700 lb / CL / 6.3<br>2591 ft / 2591 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.3<br>2587 ft / 2587 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2600 ft / 2600 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2605 ft / 2605 ft<br>123 / 127 / 158 |                                                                  |
| KMDW   | 13R                                                         | 22L                                                         | 22R                                                         | 31C                                                         | Runway                                                           |
| TEMP C | 3859 ft                                                     | 5812 ft                                                     | 4629 ft                                                     | 5826 ft                                                     | LDA                                                              |
| 24     | 20700 lb / CL / 6.9<br>2546 ft / 2546 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.1<br>2894 ft / 2894 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.1<br>2891 ft / 2891 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.5<br>2722 ft / 2722 ft<br>123 / 127 / 158 | Limit / Cd / MA Grad<br>LD Dist / 1.00 Dist<br>VREF / VAPP / VFS |
| 25     | 20700 lb / CL / 6.7<br>2553 ft / 2553 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.0<br>2902 ft / 2902 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.0<br>2898 ft / 2898 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.4<br>2729 ft / 2729 ft<br>123 / 127 / 158 |                                                                  |
| 26     | 20700 lb / CL / 6.6<br>2559 ft / 2559 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2909 ft / 2909 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2906 ft / 2906 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.2<br>2736 ft / 2736 ft<br>123 / 127 / 158 |                                                                  |
| 27     | 20700 lb / CL / 6.4<br>2566 ft / 2566 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.7<br>2916 ft / 2916 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.7<br>2913 ft / 2913 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.1<br>2743 ft / 2743 ft<br>123 / 127 / 158 |                                                                  |
| 28     | 20700 lb / CL / 6.2<br>2572 ft / 2572 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.6<br>2924 ft / 2924 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.6<br>2921 ft / 2921 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2750 ft / 2750 ft<br>123 / 127 / 158 |                                                                  |
| 29     | 20700 lb / CL / 6.0<br>2579 ft / 2579 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.4<br>2931 ft / 2931 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.4<br>2928 ft / 2928 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.7<br>2757 ft / 2757 ft<br>123 / 127 / 158 |                                                                  |
| 30     | 20700 lb / CL / 5.9<br>2585 ft / 2585 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.3<br>2939 ft / 2939 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.3<br>2935 ft / 2935 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.6<br>2764 ft / 2764 ft<br>123 / 127 / 158 |                                                                  |

### Runway Notes

|                              |                                  |                        |
|------------------------------|----------------------------------|------------------------|
| <b>Limit Codes:</b>          | <b>HW:</b> Headwind              | <b>SL:</b> Slope       |
| <b>AL:</b> Altitude          | <b>IC:</b> Invalid Configuration | <b>SP:</b> Climb Speed |
| <b>BE:</b> Brake Energy      | <b>FL:</b> Field Length          | <b>ST:</b> Structural  |
| <b>CD:</b> Contaminant Depth | <b>FP:</b> Takeoff Thrust Time   | <b>TP:</b> Temperature |
| <b>CF:</b> Critical Failure  | <b>-O:</b> Obstacle              | <b>TS:</b> Tire Speed  |
| <b>CL:</b> Climb             | <b>OW:</b> Overweight            | <b>TW:</b> Tailwind    |
| <b>CW:</b> Crosswind         |                                  |                        |

# Emergency Return

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

Actual LDW: 18286 lb  
 Wind: 06007 T  
 Altimeter: 30.22 / 1023

Flap: FLAPS 20/40  
 Generated Mon, 21 August 2023 16:59 UTC  
 with version 4.8.17

DRY  
 ANTI ICE OFF  
 PRESSURIZATION ON  
 UNFACTORED LANDING DISTANCE

| KMDW   | 31L                                                         | 31R                                                         |  |  | Runway                                                           |
|--------|-------------------------------------------------------------|-------------------------------------------------------------|--|--|------------------------------------------------------------------|
| TEMP C | 3859 ft                                                     | 5141 ft                                                     |  |  | LDA                                                              |
| 24     | 20700 lb / CL / 6.5<br>2745 ft / 2745 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.5<br>2715 ft / 2715 ft<br>123 / 127 / 158 |  |  | Limit / Cd / MA Grad<br>LD Dist / 1.00 Dist<br>VREF / VAPP / VFS |
| 25     | 20700 lb / CL / 6.4<br>2752 ft / 2752 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.4<br>2722 ft / 2722 ft<br>123 / 127 / 158 |  |  |                                                                  |
| 26     | 20700 lb / CL / 6.2<br>2759 ft / 2759 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.2<br>2729 ft / 2729 ft<br>123 / 127 / 158 |  |  |                                                                  |
| 27     | 20700 lb / CL / 6.1<br>2766 ft / 2766 ft<br>123 / 127 / 158 | 20700 lb / CL / 6.1<br>2736 ft / 2736 ft<br>123 / 127 / 158 |  |  |                                                                  |
| 28     | 20700 lb / CL / 5.9<br>2773 ft / 2773 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.9<br>2743 ft / 2743 ft<br>123 / 127 / 158 |  |  |                                                                  |
| 29     | 20700 lb / CL / 5.7<br>2780 ft / 2780 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.7<br>2750 ft / 2750 ft<br>123 / 127 / 158 |  |  |                                                                  |
| 30     | 20700 lb / CL / 5.6<br>2787 ft / 2787 ft<br>123 / 127 / 158 | 20700 lb / CL / 5.6<br>2757 ft / 2757 ft<br>123 / 127 / 158 |  |  |                                                                  |

08/21/2023 N39TT

### Runway Notes

|                                                                                                                                                                                  |                                                                                                                                                                      |                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Limit Codes:</b><br><b>AL:</b> Altitude<br><b>BE:</b> Brake Energy<br><b>CD:</b> Contaminant Depth<br><b>CF:</b> Critical Failure<br><b>CL:</b> Climb<br><b>CW:</b> Crosswind | <b>HW:</b> Headwind<br><b>IC:</b> Invalid Configuration<br><b>FL:</b> Field Length<br><b>FP:</b> Takeoff Thrust Time<br><b>-O:</b> Obstacle<br><b>OW:</b> Overweight | <b>SL:</b> Slope<br><b>SP:</b> Climb Speed<br><b>ST:</b> Structural<br><b>TP:</b> Temperature<br><b>TS:</b> Tire Speed<br><b>TW:</b> Tailwind |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

# Landing

## N39TT / West Wind Astra 1125 / TFE-731-3A-200G

**Actual LDW:** 17576 lb  
**Wind:** 05007 T  
**Altimeter:** 30.19 / 1022

**Flap: FLAPS 20/40**  
**Generated Mon, 21 August 2023 16:59 UTC**  
**with version 4.8.17**

DRY  
 ANTI ICE OFF  
 PRESSURIZATION ON  
 60% LANDING FACTOR

| KPWK   | 06                                | 12                                | 16                                                          | 24                         | Runway                                                           |
|--------|-----------------------------------|-----------------------------------|-------------------------------------------------------------|----------------------------|------------------------------------------------------------------|
| TEMP C | 3304 ft                           | 3785 ft                           | 5001 ft                                                     | 2429 ft                    | LDA                                                              |
| 22     | 12678 lb / FL / 8.4<br>OVERWEIGHT | 15151 lb / FL / 7.9<br>OVERWEIGHT | 20700 lb / ST / 7.4<br>2637 ft / 4394 ft<br>121 / 125 / 155 | 0 / FL / 7.0<br>OVERWEIGHT | Limit / Cd / MA Grad<br>LD Dist / 1.67 Dist<br>VREF / VAPP / VFS |
| 23     | 12627 lb / FL / 8.2<br>OVERWEIGHT | 15095 lb / FL / 7.8<br>OVERWEIGHT | 20700 lb / ST / 7.3<br>2643 ft / 4405 ft<br>121 / 125 / 155 | 0 / FL / 6.8<br>OVERWEIGHT |                                                                  |
| 24     | 12576 lb / FL / 8.1<br>OVERWEIGHT | 15040 lb / FL / 7.6<br>OVERWEIGHT | 20700 lb / ST / 7.1<br>2650 ft / 4416 ft<br>121 / 125 / 155 | 0 / FL / 6.7<br>OVERWEIGHT |                                                                  |
| 25     | 12526 lb / FL / 7.9<br>OVERWEIGHT | 14984 lb / FL / 7.5<br>OVERWEIGHT | 20700 lb / ST / 7.0<br>2657 ft / 4427 ft<br>121 / 125 / 155 | 0 / FL / 6.6<br>OVERWEIGHT |                                                                  |
| 26     | 12476 lb / FL / 7.7<br>OVERWEIGHT | 14927 lb / FL / 7.3<br>OVERWEIGHT | 20700 lb / ST / 6.8<br>2663 ft / 4439 ft<br>121 / 125 / 155 | 0 / FL / 6.4<br>OVERWEIGHT |                                                                  |
| 27     | 12426 lb / FL / 7.5<br>OVERWEIGHT | 14870 lb / FL / 7.1<br>OVERWEIGHT | 20700 lb / ST / 6.6<br>2670 ft / 4450 ft<br>121 / 125 / 155 | 0 / FL / 6.3<br>OVERWEIGHT |                                                                  |
| 28     | 12377 lb / FL / 7.4<br>OVERWEIGHT | 14813 lb / FL / 6.9<br>OVERWEIGHT | 20700 lb / ST / 6.5<br>2677 ft / 4461 ft<br>121 / 125 / 155 | 0 / FL / 6.1<br>OVERWEIGHT |                                                                  |

| KPWK   | 30                                | 34                                                          |  |  | Runway                                                           |
|--------|-----------------------------------|-------------------------------------------------------------|--|--|------------------------------------------------------------------|
| TEMP C | 3725 ft                           | 5001 ft                                                     |  |  | LDA                                                              |
| 22     | 13732 lb / FL / 7.4<br>OVERWEIGHT | 20700 lb / ST / 7.9<br>2506 ft / 4177 ft<br>121 / 125 / 155 |  |  | Limit / Cd / MA Grad<br>LD Dist / 1.67 Dist<br>VREF / VAPP / VFS |
| 23     | 13677 lb / FL / 7.2<br>OVERWEIGHT | 20700 lb / ST / 7.7<br>2513 ft / 4188 ft<br>121 / 125 / 155 |  |  |                                                                  |
| 24     | 13623 lb / FL / 7.1<br>OVERWEIGHT | 20700 lb / ST / 7.6<br>2519 ft / 4198 ft<br>121 / 125 / 155 |  |  |                                                                  |
| 25     | 13570 lb / FL / 6.9<br>OVERWEIGHT | 20700 lb / ST / 7.4<br>2525 ft / 4209 ft<br>121 / 125 / 155 |  |  |                                                                  |
| 26     | 13516 lb / FL / 6.8<br>OVERWEIGHT | 20700 lb / ST / 7.2<br>2532 ft / 4219 ft<br>121 / 125 / 155 |  |  |                                                                  |
| 27     | 13463 lb / FL / 6.6<br>OVERWEIGHT | 20700 lb / ST / 7.1<br>2538 ft / 4230 ft<br>121 / 125 / 155 |  |  |                                                                  |
| 28     | 13410 lb / FL / 6.5<br>OVERWEIGHT | 20700 lb / ST / 6.9<br>2544 ft / 4240 ft<br>121 / 125 / 155 |  |  |                                                                  |

### Runway Notes

#### Limit Codes:

**AL:** Altitude  
**BE:** Brake Energy  
**CD:** Contaminant Depth  
**CF:** Critical Failure  
**CL:** Climb  
**CW:** Crosswind

**HW:** Headwind  
**IC:** Invalid Configuration  
**FL:** Field Length  
**FP:** Takeoff Thrust Time  
**-O:** Obstacle  
**OW:** Overweight

**SL:** Slope  
**SP:** Climb Speed  
**ST:** Structural  
**TP:** Temperature  
**TS:** Tire Speed  
**TW:** Tailwind