# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) TITLE 14 CFR PART 97.37

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CITY, STATEAIRPORTEFFECTIVE DATEAMDT NOCHATTANOOGA, TNLOVELL FIELD3 JANUARY 201912

### **TAKEOFF MINIMUMS:**

RWY 2, 20: STANDARD.

RWY 15: 300-2 1/4 OR STANDARD WITH MINIMUM CLIMB OF 375 FEET PER NM TO 1100.

RWY 33: 500-3 OR STANDARD WITH MINIMUM CLIMB OF 330 FEET PER NM TO 1300.

# **TEXTUAL DEPARTURE PROCEDURES:**

RWY 2: CLIMB HEADING 021.70 TO 2400 BEFORE TURNING.

RWY 15: CLIMB HEADING 150.48 TO 1400 BEFORE TURNING.

RWY 20: CLIMB HEADING 201.71 TO 2200 BEFORE TURNING.

RWY 33: CLIMBING RIGHT TURN HEADING 020.00 TO 2600 BEFORE PROCEEDING ON COURSE.

# **VISUAL CLIMB OVER AIRPORT:**

### **TAKEOFF OBSTACLE NOTES:**

NOTE: RWY 02: VEGETATION 279 FT FROM DER, 555 FT LEFT OF CENTERLINE, 676 FT MSL. VEHICLES ON ROAD 812 FT FROM DER, 644 FT RIGHT OF CENTERLINE, 695 FT MSL. TREE 869 FT FROM DER, 600 FT LEFT OF CENTERLINE, 720 FT MSL. TREE 918 FT FROM DER, 623 FT RIGHT OF CENTERLINE, 718 FT MSL. TREES BEGINNING 938 FT FROM DER, 503 FT RIGHT OF CENTERLINE, UP TO 733 FT MSL. TREES BEGINNING 968 FT FROM DER, 646 FT LEFT OF CENTERLINE, UP TO 731 FT MSL. TREES BEGINNING 1075 FT FROM DER, 520 FT LEFT OF CENTERLINE, UP TO 94 FT AGL/748 FT MSL. TREE 2045 FT FROM DER, 915 FT RIGHT OF CENTERLINE, 742 FT MSL. TREES BEGINNING 2054 FT FROM DER, 203 FT RIGHT OF CENTERLINE, UP TO 748 FT MSL.

NOTE: RWY 15: POLE AND TANK BEGINNING 61 FT FROM DER, 410 FT RIGHT OF CENTERLINE, UP TO 32 FT AGL/705 FT MSL. TANK 164 FT FROM DER, 489 FT LEFT OF CENTERLINE, 687 FT MSL. POLES BEGINNING 241 FT FROM DER, 287 FT RIGHT OF CENTERLINE, UP TO 713 FT MSL. TREE AND VEHICLES ON ROAD BEGINNING 351 FT FROM DER, 181 FT RIGHT OF CENTERLINE, UP TO 733 FT MSL. POLE AND VEHICLES ON ROAD BEGINNING 376 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 690 FT MSL. TERRAIN, VEHICLES ON ROAD, AND TREES BEGINNING 424 FT FROM DER, 40 FT RIGHT OF CENTERLINE, UP TO 764 FT MSL. TREE AND VEHICLES ON ROAD BEGINNING 578 FT FROM DER, 43 FT LEFT OF CENTERLINE, UP TO 717 FT MSL. POLE AND TREES BEGINNING 630 FT FROM DER, 68 FT LEFT OF CENTERLINE, UP TO 739 FT MSL. TREE 745 FT FROM DER, 618 FT RIGHT OF CENTERLINE, 771 FT MSL. TRANSMISSION LINE, VEHICLES ON ROAD, POLES, AND TREES BEGINNING 826 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 774 FT MSL. TREES BEGINNING 1052 FT FROM DER, 401 FT LEFT OF CENTERLINE, UP TO 755 FT MSL. POLE AND TREES BEGINNING 1164 FT FROM DER, 211 FT LEFT OF CENTERLINE, UP TO 758 FT MSL. POLE AND TREES BEGINNING 1256 FT FROM DER, 33 FT LEFT OF CENTERLINE, UP TO 764 FT MSL. TREES BEGINNING 1542 FT FROM DER, 7 FT LEFT OF CENTERLINE, UP TO 91 FT AGL/765 FT MSL. TREES BEGINNING 1905 FT FROM DER, 102 FT LEFT OF CENTERLINE, UP TO 766 FT MSL. SIGNS, POLES, AND TREES BEGINNING 2634 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 770 FT MSL. POLE 3005 FT FROM DER, 899 FT RIGHT OF CENTERLINE, 798 FT MSL. POLE AND TREES BEGINNING 3009 FT FROM DER. 12 FT RIGHT OF CENTERLINE, UP TO 130 FT AGL/809 FT MSL. TREES BEGINNING 3179 FT FROM DER. 836 FT LEFT OF CENTERLINE, UP TO 772 FT MSL. TREE 3439 FT FROM DER, 1408 FT LEFT OF CENTERLINE, 781 FT MSL. TREES BEGINNING 3485 FT FROM DER, 908 FT LEFT OF CENTERLINE, UP TO 786 FT MSL. TREES BEGINNING 3572 FT FROM DER, 770 FT LEFT OF CENTERLINE, UP TO 790 FT MSL. TREE 3764 FT FROM DER, 1357 FT LEFT OF CENTERLINE, 797 FT MSL. TREES BEGINNING 3768 FT FROM DER, 172 FT LEFT OF CENTERLINE, UP TO 810 FT MSL. TREES BEGINNING 3997 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 815 FT MSL. TREES BEGINNING 4268 FT FROM DER, 1446 FT LEFT OF CENTERLINE, UP TO 832 FT MSL. TREES BEGINNING 4393 FT FROM DER, 213 FT LEFT OF CENTERLINE, UP TO 864 FT MSL. TREES BEGINNING 4494 FT FROM DER, 1190 FT LEFT OF CENTERLINE, UP TO 865 FT MSL. TREES BEGINNING 4544 FT FROM DER, 371 FT LEFT OF CENTERLINE, UP TO 876 FT MSL. TREES BEGINNING 4633 FT FROM DER, 790 FT LEFT OF CENTERLINE, UP TO 891 FT MSL. TREES BEGINNING 4753 FT FROM DER, 1165 FT LEFT OF CENTERLINE, UP TO 892 FT MSL. TREES BEGINNING 4798 FT FROM DER, 445 FT LEFT OF CENTERLINE, UP TO 899 FT MSL. VEHICLES ON ROAD, POLES, BUILDINGS, AND TREES BEGINNING 4912 FT FROM DER, 124 FT LEFT OF CENTERLINE, UP TO 904 FT MSL. TREE 5276 FT FROM DER, 207 FT RIGHT OF CENTERLINE, 77 FT AGL/810 FT MSL. TREE 5301 FT FROM DER, 185 FT RIGHT OF CENTERLINE. 84 FT AGL/820 FT MSL. TREES BEGINNING 5338 FT FROM DER. 63 FT RIGHT OF CENTERLINE. UP TO 82 FT AGL/826 FT MSL. POLE. VEHICLES ON ROAD, BUILDINGS, AND TREES BEGINNING 5455 FT FROM DER, 181 FT LEFT OF CENTERLINE, UP TO 925 FT MSL. BUILDING 1.0 NM FROM DER, 25 FT RIGHT OF CENTERLINE, 831 FT MSL. POLES AND TREES BEGINNING 1.0 NM FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 86 FT AGL/946 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 410 FT RIGHT OF CENTERLINE, UP TO 845 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 487 FT RIGHT OF CENTERLINE, UP TO 847 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 315 FT RIGHT OF CENTERLINE, UP TO 864 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 113 FT RIGHT OF CENTERLINE, UP TO 865 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 315 FT RIGHT OF CENTERLINE, UP TO 866 FT MSL. TREES AND POLES BEGINNING 1.0 NM FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 869 FT MSL. TREES BEGINNING 1.1 NM FROM DER, 340 FT RIGHT OF CENTERLINE, UP TO 877 FT MSL. TREE 1.1 NM FROM DER, 231 FT RIGHT OF CENTERLINE, 892 FT MSL. TREE 1.1 NM FROM DER, 644 FT RIGHT OF CENTERLINE, 900 FT MSL. TREE 1.1 NM FROM DER, 440 FT RIGHT OF CENTERLINE, 906 FT MSL. TREES BEGINNING 1.1 NM FROM DER, 545 FT RIGHT OF CENTERLINE, UP TO 921 FT MSL. POLE AND TREES BEGINNING 1.1 NM FROM DER, 83 FT RIGHT OF CENTERLINE, UP TO 936 FT MSL. TREES, BUILDINGS, TOWERS, AND ANTENNAS BEGINNING 1.1 NM FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 88 FT AGL/940 FT MSL. TREE 1.8 NM FROM DER, 1924 FT LEFT OF CENTERLINE, 73 FT AGL/957 FT MSL.

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CITY, STATEAIRPORTEFFECTIVE DATEAMDT NOCHATTANOOGA, TNLOVELL FIELD3 JANUARY 201912

NOTE: RWY 20: LIGHTING 9 FT FROM DER, 55 FT LEFT OF CENTERLINE, 2 FT AGL/682 FT MSL. TREE 611 FT FROM DER, 585 FT LEFT OF CENTERLINE, 735 FT MSL. TREES BEGINNING 816 FT FROM DER, 698 FT RIGHT OF CENTERLINE, UP TO 719 FT MSL. TREES BEGINNING 1062 FT FROM DER, 688 FT RIGHT OF CENTERLINE, UP TO 736 FT MSL. TREE 2714 FT FROM DER, 1047 FT RIGHT OF CENTERLINE, 758 FT MSL. TREES BEGINNING 2724 FT FROM DER, 1156 FT RIGHT OF CENTERLINE, UP TO 763 FT MSL. TREES BEGINNING 2905 FT FROM DER, 791 FT RIGHT OF CENTERLINE, UP TO 771 FT MSL. TREES BEGINNING 3618 FT FROM DER, 938 FT RIGHT OF CENTERLINE, UP TO 118 FT AGL/786 FT MSL.

NOTE: RWY 33: TREE, VEHICLES ON ROAD, AND TREES BEGINNING 15 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 68 FT AGL/738 FT MSL. TERRAIN 67 FT FROM DER, 377 FT RIGHT OF CENTERLINE, 677 FT MSL. TERRAIN AND TREE BEGINNING 151 FT FROM DER, 324 FT RIGHT OF CENTERLINE, UP TO 725 FT MSL, TREES BEGINNING 263 FT FROM DER, 431 FT RIGHT OF CENTERLINE, UP TO 727 FT MSL, TREES BEGINNING 411 FT FROM DER, 9 FT RIGHT OF CENTERLINE, UP TO 751 FT MSL. POLE AND TREES BEGINNING 1682 FT FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 87 FT AGL/746 FT MSL. TREES BEGINNING 1928 FT FROM DER, 57 FT LEFT OF CENTERLINE, UP TO 101 FT AGL/749 FT MSL. TREES BEGINNING 2014 FT FROM DER, 18 FT LEFT OF CENTERLINE, UP TO 93 FT AGL/750 FT MSL. TREES BEGINNING 2130 FT FROM DER, 195 FT LEFT OF CENTERLINE, UP TO 106 FT AGL/755 FT MSL. TREES BEGINNING 2136 FT FROM DER, 54 FT LEFT OF CENTERLINE, UP TO 108 FT AGL/759 FT MSL. TREES BEGINNING 2256 FT FROM DER, 261 FT RIGHT OF CENTERLINE, UP TO 760 FT MSL. TREE 2295 FT FROM DER, 588 FT RIGHT OF CENTERLINE, 766 FT MSL. TREE 2327 FT FROM DER, 464 FT RIGHT OF CENTERLINE, 768 FT MSL. TREES BEGINNING 2364 FT FROM DER, 219 FT RIGHT OF CENTERLINE, UP TO 92 FT AGL/777 FT MSL. TREE 2403 FT FROM DER, 622 FT RIGHT OF CENTERLINE, 782 FT MSL. TREE 2411 FT FROM DER, 389 FT RIGHT OF CENTERLINE, 784 FT MSL. TOWER, POLES, AND TREES BEGINNING 2414 FT FROM DER, 8 FT RIGHT OF CENTERLINE, UP TO 790 FT MSL. TREE 2999 FT FROM DER, 127 FT LEFT OF CENTERLINE, 62 FT AGL/763 FT MSL. TREES BEGINNING 3153 FT FROM DER, 1229 FT LEFT OF CENTERLINE, UP TO 769 FT MSL. TREES BEGINNING 3254 FT FROM DER, 62 FT LEFT OF CENTERLINE, UP TO 90 FT AGL/781 FT MSL. TREES BEGINNING 3548 FT FROM DER, 7 FT RIGHT OF CENTERLINE, UP TO 85 FT AGL/796 FT MSL. TREES BEGINNING 3699 FT FROM DER, 30 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/795 FT MSL. ELECTRICAL SYSTEM AND TREES BEGINNING 3996 FT FROM DER, 8 FT LEFT OF CENTERLINE, UP TO 119 FT AGL/817 FT MSL. TREES BEGINNING 4842 FT FROM DER, 51 FT RIGHT OF CENTERLINE, UP TO 826 FT MSL. ELECTRICAL SYSTEM AND TREES BEGINNING 5227 FT FROM DER, 3 FT RIGHT OF CENTERLINE, UP TO 86 FT AGL/838 FT MSL. TRANSMISSION LINE 5583 FT FROM DER, 15 FT LEFT OF CENTERLINE, 90 FT AGL/823 FT MSL. TREES BEGINNING 5626 FT FROM DER, 31 FT LEFT OF CENTERLINE, UP TO 836 FT MSL. TREES BEGINNING 5707 FT FROM DER, 153 FT LEFT OF CENTERLINE, UP TO 840 FT MSL. TREES BEGINNING 5902 FT FROM DER, 1339 FT LEFT OF CENTERLINE, UP TO 857 FT MSL. TREES BEGINNING 1.0 NM FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 858 FT MSL. TREE 1.1 NM FROM DER, 292 FT RIGHT OF CENTERLINE, 846 FT MSL. TREES BEGINNING 1.1 NM FROM DER, 45 FT RIGHT OF CENTERLINE, UP TO 862 FT MSL. TREES BEGINNING 1.1 NM FROM DER, 86 FT RIGHT OF CENTERLINE, UP TO 888 FT MSL. TREES BEGINNING 1.1 NM FROM DER, 6 FT RIGHT OF CENTERLINE, UP TO 914 FT MSL. TREES BEGINNING 1.2 NM FROM DER, 81 FT LEFT OF CENTERLINE, UP TO 875 FT MSL. TREES BEGINNING 1.2 NM FROM DER, 65 FT LEFT OF CENTERLINE, UP TO 876 FT MSL. TREE 1.2 NM FROM DER, 915 FT RIGHT OF CENTERLINE, 918 FT MSL. TREES BEGINNING 1.2 NM FROM DER, 407 FT RIGHT OF CENTERLINE, UP TO 920 FT MSL. TREE 1.2 NM FROM DER, 1149 FT RIGHT OF CENTERLINE, 923 FT MSL. TREES BEGINNING 1.2 NM FROM DER, 284 FT RIGHT OF CENTERLINE, UP TO 926 FT MSL. TREES BEGINNING 1.2 NM FROM DER, 812 FT RIGHT OF CENTERLINE, UP TO 929 FT MSL. TREE 1.2 NM FROM DER, 1412 FT RIGHT OF CENTERLINE, 931 FT MSL. TREES BEGINNING 1,2 NM FROM DER, 480 FT RIGHT OF CENTERLINE, UP TO 932 FT MSL. TREES BEGINNING 1,2 NM FROM DER, 1292 FT RIGHT OF CENTERLINE, UP TO 936 FT MSL. POLE AND TREES BEGINNING 1.2 NM FROM DER, 659 FT RIGHT OF CENTERLINE, UP TO 90 FT AGL/990 FT MSL. TREES BEGINNING 1.7 NM FROM DER, 1629 FT LEFT OF CENTERLINE, UP TO 974 FT MSL. TREES BEGINNING 1.9 NM FROM DER, 2446 FT LEFT OF CENTERLINE, UP TO 1002 FT MSL. TREE 1.9 NM FROM DER, 3461 FT LEFT OF CENTERLINE, 1022 FT MSL. POLE AND TREES BEGINNING 2.0 NM FROM DER, 241 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/1099 FT MSL. TREE 2.3 NM FROM DER, 60 FT RIGHT OF CENTERLINE, 84 FT AGL/1033 FT MSL. TREE 2.5 NM FROM DER, 1570 FT LEFT OF CENTERLINE, 105 FT AGL/1126 FT MSL. TREE 2.5 NM FROM DER, 1088 FT LEFT OF CENTERLINE, 1085 FT MSL.

## **CONTROLLING OBSTACLES:**

**RWY 15:** 899 FT MSL TREE 350126.79N/0851104.18W (CLIMB GRADIENT). 946 FT MSL POLE 350113.00N/0851100.00W (CLIMB-TO ALTITUDE). 957 FT MSL TREE 350037.52N/0851017.03W (CEILING, VISIBILITY).

**RWY 33:** 990 FT MSL POLE 350352.37N/0851312.45W (CLIMB GRADIENT, CLIMB-TO ALTITUDE). 1126 FT MSL TREE 350440.21N/0851431.06W (CEILING). 1085 FT MSL TREE 350444.50N/0851427.61W (VISIBILITY).

## **OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:**

RWY 2, 15, 33: 2549 FT MSL TOWER 350806.00N/0851925.00W.

RWY 20: 2313 FT MSL AAO 350024.00W/0852039.00W.

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### **REMARKS:**

- 1. RWY 15 CLIMB GRADIENT ROUNDED TO 375 FT PER NM FOR PUBLICATION (COMPUTED VALUE 373.62 FT PER NM).
- 2. RWY 33 CLIMB GRADIENT ROUNDED TO 330 FT PER NM FOR PUBLICATION (COMPUTED VALUE 327.66 FT PER NM).

FLIGHT INSPECTED BY: Digitally signed by ROBERT G HAMILTON

DIGITAL DIGITA DIGITA DIGITAL DIGITAL DIGI

CLINT PALMER Jun 07, 2018 FICO 4/24/18

DEVELOPED BY:

Digitally signed by

OFFICE SYMBOL:

Digitally signed by

PETER GUIMOND PETER R GUIMOND AJV-5422 03/12/2018

Mar 12, 2018

APPROVED BY: Digitally signed by OFFICE SYMBOL: DATE:

JULIE MORGAN

Jun 07, 2018

AJV-5420

REQUIRED EFFECTIVE DATE:

ROUTINE

**COORDINATED WITH:** 

<u>A4A</u>	<u>ALPA</u>	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	<u>NBAA</u>
$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$		$\boxtimes$

## OTHER:

ZTL, CHA APP CON, CHA ATCT, AMGR

# **CHANGES - REASONS:**

- 1. AMENDED RWY 15 CLIMB GRADIENT FROM 360 FT PER NM TO 375 FT PER NM NEW CONTROLLING OBSTACLE IDENTIFIED.
- 2. AMENDED RWY 2 DEPARTURE COURSE FROM 018.70 TO 021.70 COMPUTED USING PENDING AIRPORT MAGVAR UPDATE TO 5W.
- 3. AMENDED RWY 15 DEPARTURE COURSE FROM 147.47 TO 150.48 COMPUTED USING PENDING AIRPORT MAGVAR UPDATE TO 5W.
- 4. AMENDED RWY 20 DEPARTURE COURSE FROM 198.70 TO 201.71 COMPUTED USING PENDING AIRPORT MAGVAR UPDATE TO 5W.
- 5. AMENDED RWY 33 DEPARTURE PROCEDURE CLIMB-TO ALTITUDE FROM 2900 TO 2600 NEW OBSTACLE STUDY.
- 6. AMENDED ALL RUNWAYS TAKEOFF OBSTACLE NOTES NEW OBSTACLE SURVEY ADDED SINCE LAST AMENDMENT. GROUPED AND FORMATTED IN ACCORDANCE WITH AJV OBSTACLE GROUPER APPLICATION.
- 7. ADDED OBSTACLES MANDATING ODP ROUTE DEVELOPMENT FOR ALL RUNWAYS FORMATTED IN ACCORDANCE WITH FAAO 8260.46F, APPENDIX D. PARA 10C.
- 8. AMENDED RWY 15 AND RWY 33 CONTROLLING OBSTACLES NEW OBSTACLE STUDY. FORMATTED IN ACCORDANCE WITH FAAO 8260.46F, APPENDIX D, PARA 10A.