

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
MANCHESTER, NH	MANCHESTER	13 SEPTEMBER 2018	10B

TAKEOFF MINIMUMS:

RWY 6, 24: STANDARD.

RWY 17: 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 268 FT PER NM TO 600.

RWY 35: 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 265 FT PER NM TO 500.

TEXTUAL DEPARTURE PROCEDURES:

RWY 6: CLIMB HEADING 057.42 TO 1000 BEFORE TURNING RIGHT.

RWY 24: CLIMB HEADING 244.00 TO 1000 BEFORE PROCEEDING ON COURSE.

RWY 35: CLIMB HEADING 351.53 TO 1300 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 6: FENCE 6 FT FROM DER, 468 FT RIGHT OF CENTERLINE, 12 FT AGL/242 FT MSL. LIGHTING 40 FT FROM DER, 117 FT RIGHT OF CENTERLINE, 3 FT AGL/243 FT MSL. POLE 67 FT FROM DER, 454 FT LEFT OF CENTERLINE, 24 FT AGL/253 FT MSL. TREES BEGINNING 584 FT FROM DER, 599 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/265 FT MSL. TREES BEGINNING 798 FT FROM DER, 90 FT RIGHT OF CENTERLINE, UP TO 66 FT AGL/268 FT MSL. TREES BEGINNING 819 FT FROM DER, 163 FT LEFT OF CENTERLINE, UP TO 66 FT AGL/273 FT MSL. TREE 1014 FT FROM DER, 309 FT RIGHT OF CENTERLINE, 87 FT AGL/269 FT MSL. TREES BEGINNING 1102 FT FROM DER, 473 FT RIGHT OF CENTERLINE, UP TO 72 FT AGL/272 FT MSL. TREE 1535 FT FROM DER, 660 FT LEFT OF CENTERLINE, 78 FT AGL/281 FT MSL. TREES BEGINNING 1893 FT FROM DER, 215 FT LEFT OF CENTERLINE, UP TO 97 FT AGL/297 FT MSL. TREE 2056 FT FROM DER, 366 FT LEFT OF CENTERLINE, 102 FT AGL/302 FT MSL. TREE 2154 FT FROM DER, 469 FT LEFT OF CENTERLINE, 102 FT AGL/307 FT MSL. TREES BEGINNING 2189 FT FROM DER, 551 FT LEFT OF CENTERLINE, UP TO 107 FT AGL/308 FT MSL. TREE 2315 FT FROM DER, 653 FT LEFT OF CENTERLINE, 107 FT AGL/313 FT MSL.

NOTE: RWY 17: VEHICLES ON ROADWAY 643 FT FROM DER, 640 FT LEFT OF CENTERLINE, 303 FT MSL. BUILDING 761 FT FROM DER, 421 FT RIGHT OF CENTERLINE, 8 FT AGL/300 FT MSL. VEHICLES ON ROADWAY BEGINNING 764 FT FROM DER, 392 FT LEFT OF CENTERLINE, UP TO 304 FT MSL. TREE 1087 FT FROM DER, 640 FT LEFT OF CENTERLINE, 323 FT MSL. VEHICLES ON ROADWAY 1167 FT FROM DER, 717 FT RIGHT OF CENTERLINE, 303 FT MSL. TREES, TERRAIN BEGINNING 1288 FT FROM DER, 320 FT LEFT OF CENTERLINE, UP TO 334 FT MSL. VEHICLES ON ROADWAY, POLES BEGINNING 1345 FT FROM DER, 211 FT RIGHT OF CENTERLINE, UP TO 307 FT MSL. POLES BEGINNING 1430 FT FROM DER, 200 FT RIGHT OF CENTERLINE, UP TO 34 FT AGL/324 FT MSL. TREE 1479 FT FROM DER, 710 FT LEFT OF CENTERLINE, 27 FT AGL/335 FT MSL. TREES, POLES BEGINNING 1554 FT FROM DER, 281 FT RIGHT OF CENTERLINE, UP TO 40 FT AGL/329 FT MSL. TREES, TERRAIN, VERTICAL POINT, BUILDING, VEHICLES ON ROADWAY, SIGN, POLES BEGINNING 1558 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 41 FT AGL/346 FT MSL. TREE 1760 FT FROM DER, 530 FT RIGHT OF CENTERLINE, 43 FT AGL/332 FT MSL. TREE 1825 FT FROM DER, 413 FT RIGHT OF CENTERLINE, 47 FT AGL/335 FT MSL. TREES, FENCE, BUILDING, POLE, TERRAIN BEGINNING 1876 FT FROM DER, ON CENTERLINE, UP TO 48 FT AGL/336 FT MSL. TREES, POLE BEGINNING 2053 FT FROM DER, ON CENTERLINE, UP TO 49 FT AGL/339 FT MSL. TREE, VEHICLES ON ROADWAY, BUILDING BEGINNING 2146 FT FROM DER, 138 FT LEFT OF CENTERLINE, UP TO 43 FT AGL/352 FT MSL. TREES, SIGN, BUILDING, POLE BEGINNING 2177 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/359 FT MSL. TREES, POLE BEGINNING 2215 FT FROM DER, 118 FT RIGHT OF CENTERLINE, UP TO 58 FT AGL/362 FT MSL. TREE, BUILDING, POLE, TERRAIN, VEHICLES ON ROADWAY, SPIRE, SIGN BEGINNING 2267 FT FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 46 FT AGL/362 FT MSL. TREES, VEHICLES ON ROADWAY, POLE, BUILDING BEGINNING 2383 FT FROM DER, ON CENTERLINE, UP TO 55 FT AGL/366 FT MSL. TREES, POLE, BUILDING BEGINNING 2846 FT FROM DER, 64 FT LEFT OF CENTERLINE, UP TO 52 FT AGL/370 FT MSL. TREES BEGINNING 2876 FT FROM DER, 196 FT RIGHT OF CENTERLINE, UP TO 368 FT MSL. TREES, POLE, BUILDING BEGINNING 2885 FT FROM DER, 2 FT RIGHT OF CENTERLINE, UP TO 70 FT AGL/378 FT MSL. TREES, POLE BEGINNING 3155 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 78 FT AGL/384 FT MSL. TREES, BUILDING, TANK BEGINNING 3216 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 51 FT AGL/379 FT MSL. TREES, POLE, BUILDING BEGINNING 3401 FT FROM DER, 17 FT LEFT OF CENTERLINE, UP TO 52 FT AGL/383 FT MSL. TREES, POLE BEGINNING 3455 FT FROM DER, 33 FT RIGHT OF CENTERLINE, UP TO 385 FT MSL. TREES BEGINNING 3494 FT FROM DER, 201 FT LEFT OF CENTERLINE, UP TO 384 FT MSL. TREE 3514 FT FROM DER, 425 FT LEFT OF CENTERLINE, 385 FT MSL. TREES, TANK BEGINNING 3543 FT FROM DER, 36 FT LEFT OF CENTERLINE, UP TO 397 FT MSL. TREES, POLE BEGINNING 3564 FT FROM DER, 41 FT RIGHT OF CENTERLINE, UP TO 395 FT MSL. TREES, ELEVATOR, GRAIN ELEVATOR, POLE, TANK, BUILDING, ANTENNA, VERTICAL POINT BEGINNING 3721 FT FROM DER, 6 FT RIGHT OF CENTERLINE, UP TO 396 FT MSL. TREES BEGINNING 3994 FT FROM DER, 49 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/401 FT MSL. TREES BEGINNING 4090 FT FROM DER, 147 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/402 FT MSL. TREES BEGINNING 4197 FT FROM DER, 50 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/405 FT MSL. TREES, POLE, TRANSMISSION LINE, BUILDING BEGINNING 4334 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 93 FT AGL/414 FT MSL. TREES BEGINNING 4372 FT FROM DER, 764 FT LEFT OF CENTERLINE, UP TO 407 FT MSL. TREES BEGINNING 4457 FT FROM DER, 1078 FT LEFT OF CENTERLINE, UP TO 408 FT MSL. TREES, POLE BEGINNING 4500 FT FROM DER, 10 FT LEFT OF CENTERLINE, UP TO 417 FT MSL. TREE 4773 FT FROM DER, 511 FT LEFT OF CENTERLINE, 60 FT AGL/419 FT MSL. TREES BEGINNING 4784 FT FROM DER, 92 FT RIGHT OF CENTERLINE, UP TO 416 FT MSL. TREES BEGINNING 4793 FT FROM DER, 421 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/422 FT MSL. TREES BEGINNING 4820 FT FROM DER, 10 FT LEFT OF CENTERLINE, UP TO 81 FT AGL/426 FT MSL. TREE, POLE BEGINNING 4830 FT FROM DER, 26 FT RIGHT OF CENTERLINE, UP TO 419 FT MSL. TREE, POLE BEGINNING 4907 FT FROM DER, 91 FT RIGHT OF CENTERLINE, UP TO 422 FT MSL. TREES BEGINNING 5004 FT FROM DER, 155 FT RIGHT OF CENTERLINE, UP TO 426 FT MSL. TREE, POLE BEGINNING 5105 FT FROM DER, 63 FT RIGHT OF CENTERLINE, UP TO 431 FT MSL. TREES BEGINNING 5128 FT FROM DER, 186 FT LEFT OF CENTERLINE, UP TO 32 FT AGL/427 FT MSL. TREE, TERRAIN BEGINNING 5182 FT FROM DER, 52 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/436 FT MSL. TREES, VEHICLES ON ROADWAY BEGINNING 5278 FT FROM DER, 4 FT RIGHT OF CENTERLINE, UP TO 59 FT AGL/437 FT MSL. TREE, POLE BEGINNING 5331 FT FROM DER, 44 FT RIGHT OF CENTERLINE, UP TO 56 FT AGL/441 FT MSL. TREE, TERRAIN BEGINNING 5346 FT FROM DER, 35 FT LEFT OF CENTERLINE, UP TO 64 FT AGL/445 FT MSL. TREE, VEHICLES ON ROADWAY, POLE BEGINNING 5392 FT FROM DER, 8 FT RIGHT OF CENTERLINE, UP TO 442 FT MSL. POLES, TREES, VEHICLES ON ROADWAY, TERRAIN BEGINNING 5550 FT FROM DER, 4 FT LEFT OF CENTERLINE, UP TO 29 FT AGL/447 FT MSL. TREES, VEHICLES ON ROADWAY, TERRAIN, POLE, BUILDING BEGINNING 5696 FT FROM DER, 14 FT LEFT OF CENTERLINE, UP TO 80 FT AGL/455 FT MSL. TREES

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
MANCHESTER, NH	MANCHESTER	13 SEPTEMBER 2018	10B

BEGINNING 5787 FT FROM DER, 16 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/452 FT MSL. TREE 5929 FT FROM DER, 474 FT LEFT OF CENTERLINE, 68 FT AGL/457 FT MSL. TREE, POLE BEGINNING 5952 FT FROM DER, 73 FT LEFT OF CENTERLINE, UP TO 66 FT AGL/459 FT MSL. TREES BEGINNING 1 NM FROM DER, 98 FT LEFT OF CENTERLINE, UP TO 96 FT AGL/461 FT MSL. TREES BEGINNING 1 NM FROM DER, 17 FT LEFT OF CENTERLINE, UP TO 463 FT MSL. TREE 1.1 NM FROM DER, 336 FT RIGHT OF CENTERLINE, 453 FT MSL. TREE 1.2 NM FROM DER, 608 FT LEFT OF CENTERLINE, 100 FT AGL/458 FT MSL.

NOTE: RWY 24: TERRAIN 3 FT FROM DER, ON CENTERLINE, 221 FT MSL. POLE 221 FT FROM DER, 475 FT LEFT OF CENTERLINE, 18 FT AGL/227 FT MSL. BUILDING 394 FT FROM DER, 581 FT LEFT OF CENTERLINE, 28 FT AGL/233 FT MSL. TREES BEGINNING 451 FT FROM DER, 220 FT LEFT OF CENTERLINE, UP TO 74 FT AGL/257 FT MSL. TREES BEGINNING 785 FT FROM DER, 545 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/264 FT MSL. TREES BEGINNING 810 FT FROM DER, 352 FT LEFT OF CENTERLINE, UP TO 119 FT AGL/293 FT MSL. TREE 2556 FT FROM DER, 1112 FT RIGHT OF CENTERLINE, 85 FT AGL/294 FT MSL. TREES BEGINNING 3529 FT FROM DER, 1042 FT RIGHT OF CENTERLINE, UP TO 101 FT AGL/313 FT MSL.

NOTE: RWY 35: TREE 612 FT FROM DER, 613 FT LEFT OF CENTERLINE, 237 FT MSL. TREE 712 FT FROM DER, 493 FT LEFT OF CENTERLINE, 239 FT MSL. TREE 719 FT FROM DER, 623 FT RIGHT OF CENTERLINE, 38 FT AGL/243 FT MSL. TREES BEGINNING 891 FT FROM DER, 527 FT LEFT OF CENTERLINE, UP TO 26 FT AGL/248 FT MSL. TREE 1114 FT FROM DER, 788 FT RIGHT OF CENTERLINE, 261 FT MSL. POLE, TREE BEGINNING 1147 FT FROM DER, 486 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/258 FT MSL. TREE 1779 FT FROM DER, 944 FT RIGHT OF CENTERLINE, 77 FT AGL/271 FT MSL. TREE 1888 FT FROM DER, 991 FT RIGHT OF CENTERLINE, 96 FT AGL/287 FT MSL. TREE 1989 FT FROM DER, 994 FT LEFT OF CENTERLINE, 274 FT MSL. TREE 2030 FT FROM DER, 989 FT LEFT OF CENTERLINE, 61 FT AGL/280 FT MSL. TREE 2247 FT FROM DER, 1079 FT LEFT OF CENTERLINE, 68 FT AGL/288 FT MSL. TREE, POLES BEGINNING 2505 FT FROM DER, 558 FT RIGHT OF CENTERLINE, UP TO 64 FT AGL/303 FT MSL. TREE 2514 FT FROM DER, 1135 FT LEFT OF CENTERLINE, 75 FT AGL/295 FT MSL. TREES BEGINNING 2518 FT FROM DER, 923 FT LEFT OF CENTERLINE, UP TO 74 FT AGL/297 FT MSL. TREES BEGINNING 2785 FT FROM DER, 694 FT LEFT OF CENTERLINE, UP TO 78 FT AGL/301 FT MSL. TREES BEGINNING 3093 FT FROM DER, 511 FT LEFT OF CENTERLINE, UP TO 78 FT AGL/305 FT MSL. TREE 3358 FT FROM DER, 1235 FT LEFT OF CENTERLINE, 314 FT MSL. TREE 3378 FT FROM DER, 1133 FT LEFT OF CENTERLINE, 318 FT MSL. TREE 3422 FT FROM DER, 1212 FT LEFT OF CENTERLINE, 106 FT AGL/319 FT MSL. TREES BEGINNING 3475 FT FROM DER, 268 FT LEFT OF CENTERLINE, UP TO 327 FT MSL. TREES BEGINNING 4270 FT FROM DER, 261 FT LEFT OF CENTERLINE, UP TO 86 FT AGL/333 FT MSL. TREE 5359 FT FROM DER, 1186 FT LEFT OF CENTERLINE, 84 FT AGL/352 FT MSL. TREE 5509 FT FROM DER, 528 FT LEFT OF CENTERLINE, 357 FT MSL. TREES BEGINNING 5536 FT FROM DER, 1317 FT LEFT OF CENTERLINE, UP TO 67 FT AGL/361 FT MSL. TREES BEGINNING 5581 FT FROM DER, 1079 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/364 FT MSL. TREES BEGINNING 5689 FT FROM DER, 1038 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/368 FT MSL. TREES BEGINNING 5703 FT FROM DER, 1259 FT LEFT OF CENTERLINE, UP TO 63 FT AGL/370 FT MSL. TREE 5775 FT FROM DER, 1860 FT LEFT OF CENTERLINE, 78 FT AGL/395 FT MSL. TREES BEGINNING 5851 FT FROM DER, 1038 FT LEFT OF CENTERLINE, UP TO 77 FT AGL/403 FT MSL. TREES BEGINNING 5934 FT FROM DER, 1317 FT LEFT OF CENTERLINE, UP TO 76 FT AGL/409 FT MSL. TREE, POLE BEGINNING 1 NM FROM DER, 795 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/416 FT MSL. TREES BEGINNING 1 NM FROM DER, 1093 FT LEFT OF CENTERLINE, UP TO 68 FT AGL/417 FT MSL. TREE 1.2 NM FROM DER, 1944 FT LEFT OF CENTERLINE, 85 FT AGL/407 FT MSL.

CONTROLLING OBSTACLES:

RWY 17: 445 FT MSL TREE 425420.95N/0712455.43W (CG), 455 FT MSL TREE 425417.96N/0712452.98W (CGTA), 463 FT MSL TREE 425409.52N/0712446.70W (CEILING), 458 FT MSL TREE 425402.53N/0712446.19W (VISIBILITY).

RWY 35: 416 FT MSL TREE 425718.77N/0712716.20W (CG/CGTA), 417 FT MSL TREE 425721.17N/0712716.52W (CEILING), 407 FT MSL TREE 425729.22N/0712725.78 (VISIBILITY).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

RWY 6: 789 FT MSL AAO 425822.72N/0712137.11W.

RWY 24: 1523 FT MSL TOWER 425854.70N/0713519.50W.

RWY 35: 1523 FT MSL TOWER 425854.70N/0713519.50W.

REMARKS:

FLIGHT INSPECTED BY:	<i>Digitally signed by</i> ROBERT G HAMILTON Jul 13, 2018	OFFICE SYMBOL:	DATE:
BOB S PRESSLER		FICO	7/11/18
DEVELOPED BY:	<i>Digitally signed by</i> ROBERT G HAMILTON Jul 13, 2018	OFFICE SYMBOL:	DATE:
LONNIE EVERHART (RALPH MILLER)		AJV-5400	04/13/2018
APPROVED BY:		OFFICE SYMBOL:	DATE:
LONNIE EVERHART		AJV-5400	
REQUIRED EFFECTIVE DATE:	<i>Digitally signed by</i> ROBERT G HAMILTON Jul 13, 2018		
ROUTINE			

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
MANCHESTER, NH	MANCHESTER	13 SEPTEMBER 2018	10B

COORDINATED WITH:

<u>A4A</u>	<u>ALPA</u>	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	<u>NBAA</u>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

OTHER:

ZBW, BOS APP CON, MHT ATCT, AMGR

CHANGES - REASONS:

1. TAKEOFF MINIMUMS: CHANGED RWY 35 TAKEOFF MINIMUMS 300 - 1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 253 FT PER NM TO 500 TO 300 - 1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 265 FT PER NM TO 500 - NEW CONTROLLING OBSTACLE.
2. TAKEOFF MINIMUMS: CHANGED RWY 17 TAKEOFF MINIMUMS 300 - 1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 277 FT PER NM TO 600 TO 300 - 1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 268 FT PER NM TO 600. - NEW CONTROLLING OBSTACLE.
3. TEXTUAL DEPARTURE PROCEDURES: CHANGED RWY 35 CLIMB TO ALTITUDE OF 1000 TO 1300 - CORRECTED CLIMB TO ALTITUDE MINIMUMS.
4. UPDATED TAKEOFF OBSTACLE NOTES ALL RWYS - NEW OBSTACLE DATA REVIEW.
5. UPDATED RWY 35 CONTROLLING OBSTACLES - NEW CG/CGTA OBSTACLE.
6. UPDATED RWY 17 CONTROLLING OBSTACLES - NEW CG/CGTA/CEILING/ VISIBILITY OBSTACLES.