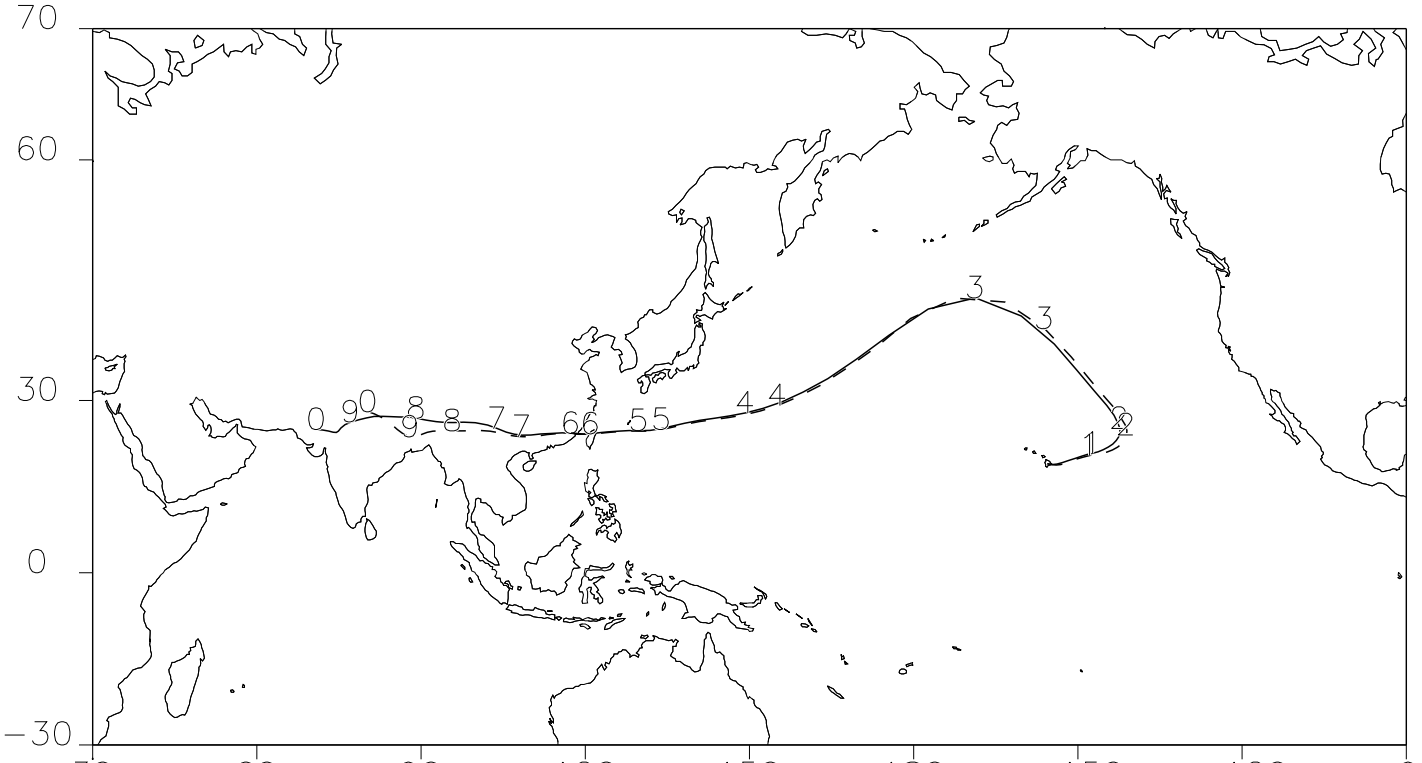
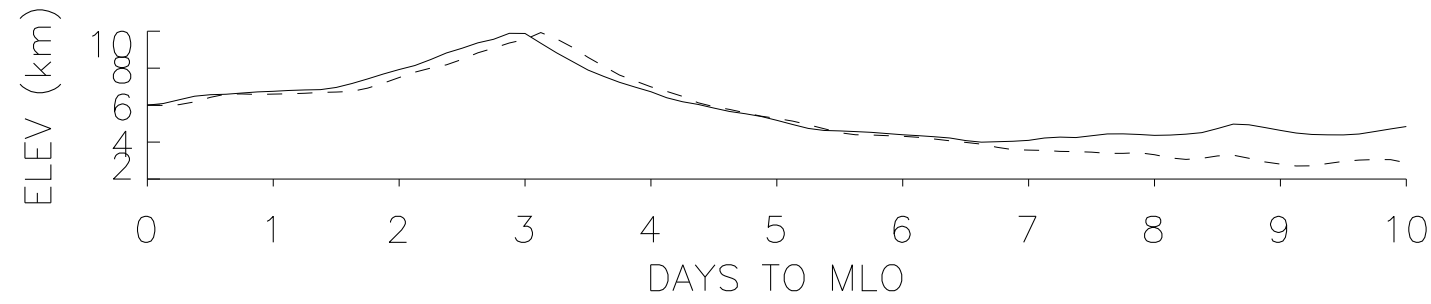
# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/1/2004 (Day of Year 92)
NCEP/NCAR Reanalysis 1 Data Set




00UT

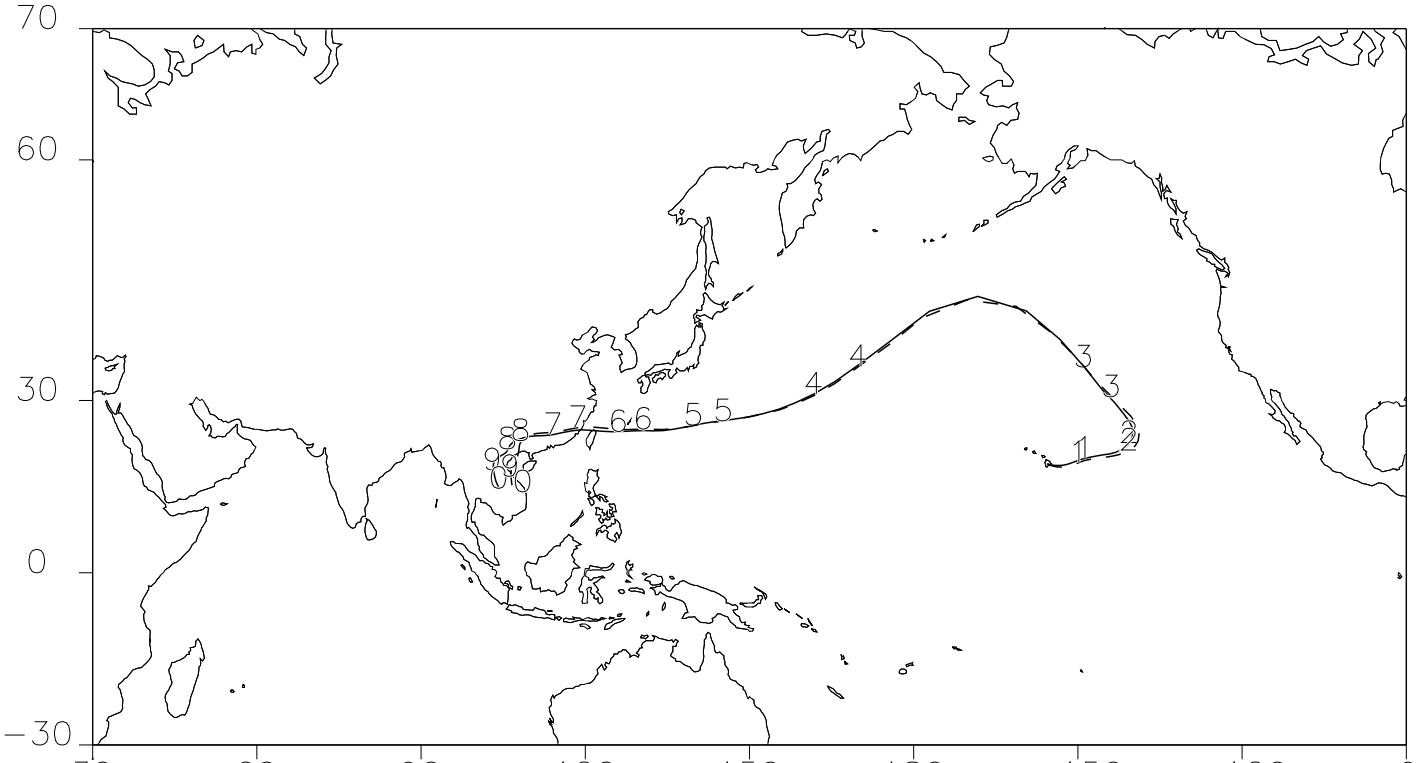
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.7 | 446 | −15 |
| 2 | 7.9 | 378 | −25 |
| 3 | 9.9 | 272 | −47 |
| 4 | 6.7 | 440 | −18 |
| 5 | 5.2 | 542 | −7 |
| 6 | 4.4 | 597 | 0 |
| 7 | 4.1 | 618 | 2 |
| 8 | 4.4 | 599 | 0 |
| 9 | 4.6 | 580 | 0 |
| 10 | 4.8 | 567 | 0 |

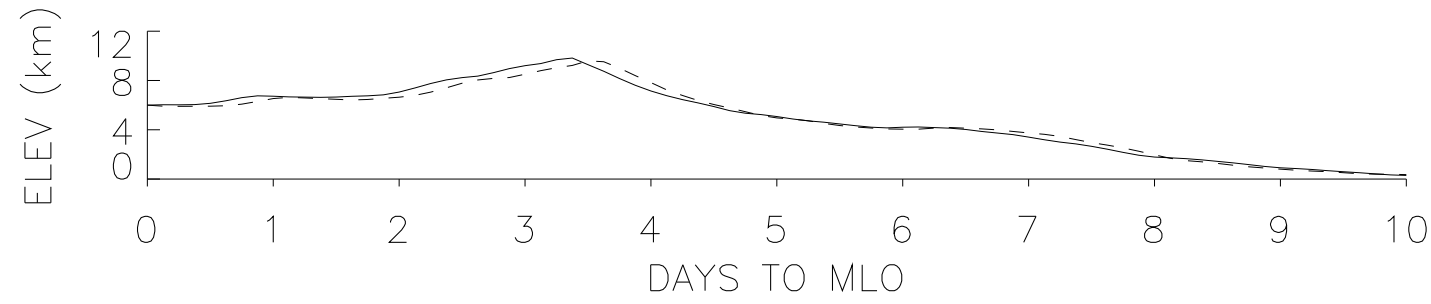
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −10 |
| 1 | 6.6 | 454 | −13 |
| 2 | 7.5 | 403 | −20 |
| 3 | 9.6 | 286 | −44 |
| 4 | 7.0 | 424 | −20 |
| 5 | 5.3 | 534 | −8 |
| 6 | 4.3 | 603 | 0 |
| 7 | 3.6 | 662 | 4 |
| 8 | 3.3 | 685 | 7 |
| 9 | 2.8 | 728 | 13 |
| 10 | 2.9 | 724 | 11 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/1/2004 (Day of Year 92)
NCEP/NCAR Reanalysis 1 Data Set




12UT

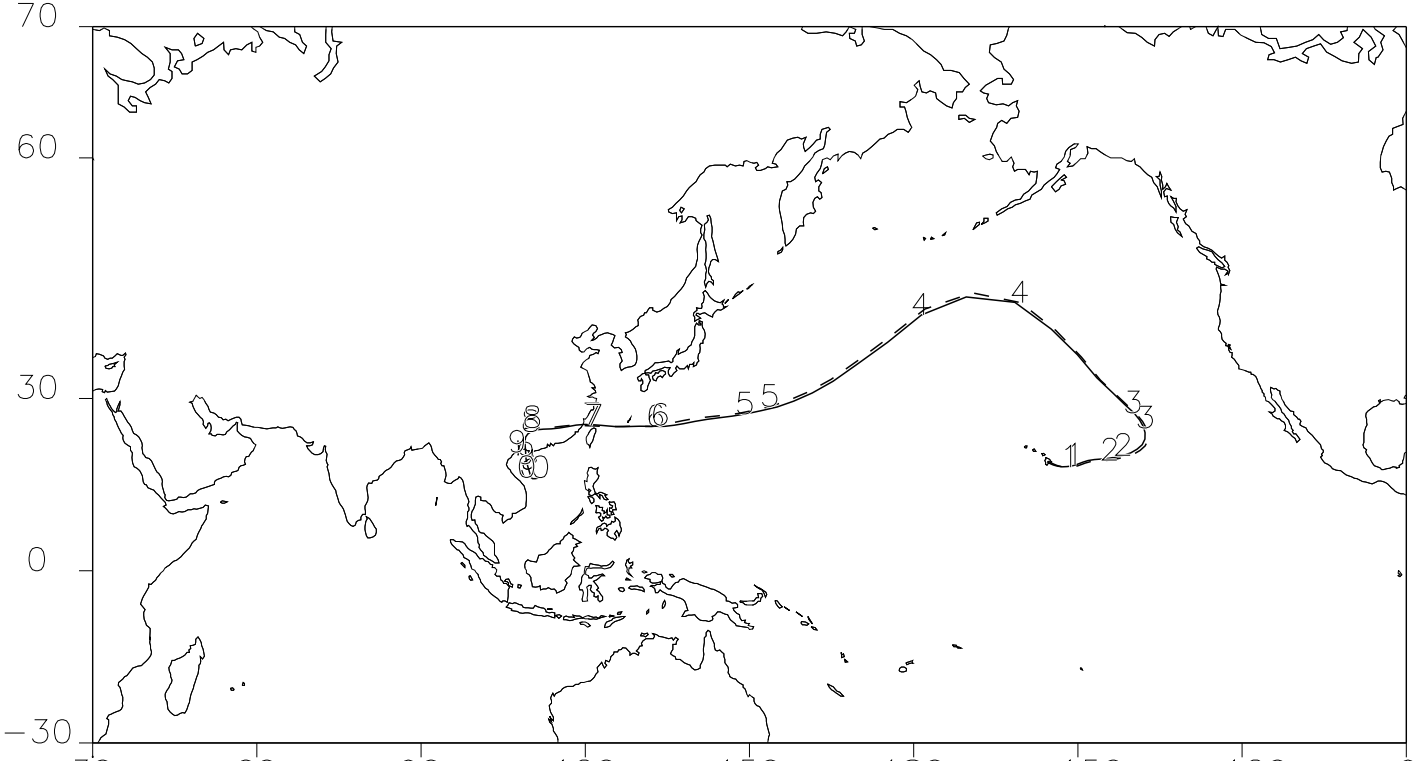
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.7 | 446 | −15 |
| 2 | 7.1 | 426 | −17 |
| 3 | 9.2 | 308 | −39 |
| 4 | 7.1 | 413 | −22 |
| 5 | 5.1 | 549 | −6 |
| 6 | 4.2 | 612 | 2 |
| 7 | 3.4 | 674 | 6 |
| 8 | 1.8 | 816 | 18 |
| 9 | 0.9 | 905 | 26 |
| 10 | 0.3 | 974 | 27 |

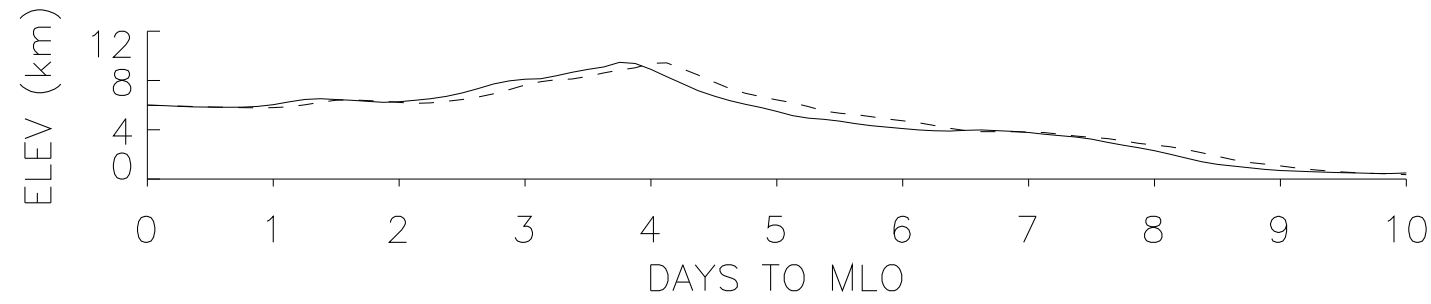
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −10 |
| 1 | 6.5 | 459 | −13 |
| 2 | 6.6 | 452 | −14 |
| 3 | 8.5 | 347 | −31 |
| 4 | 7.8 | 373 | −29 |
| 5 | 5.0 | 554 | −7 |
| 6 | 4.0 | 624 | 1 |
| 7 | 3.7 | 646 | 2 |
| 8 | 2.0 | 802 | 13 |
| 9 | 0.8 | 921 | 23 |
| 10 | 0.4 | 969 | 24 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/2/2004 (Day of Year 93)
NCEP/NCAR Reanalysis 1 Data Set



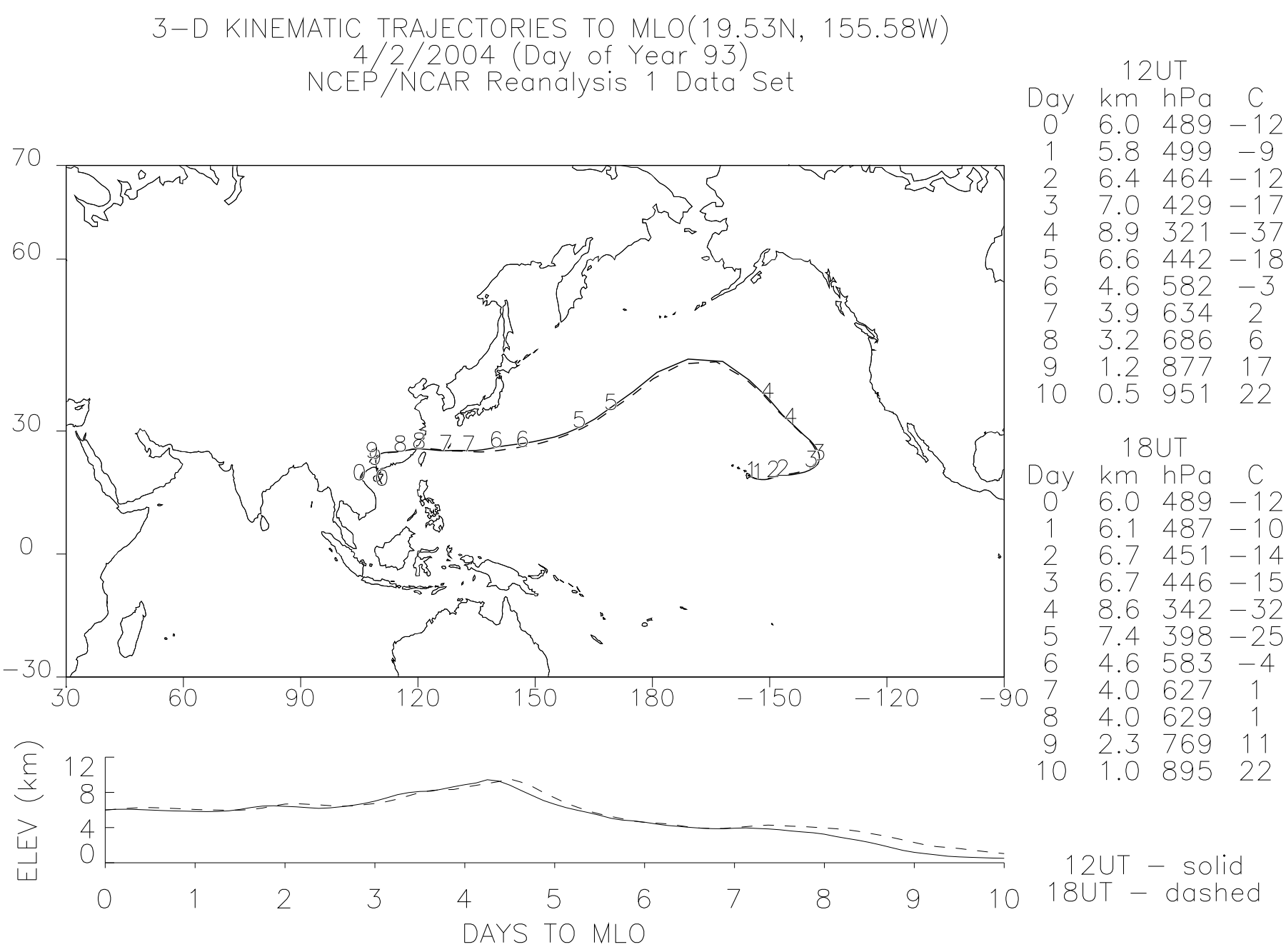

00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.0 | 488 | −9 |
| 2 | 6.3 | 473 | −10 |
| 3 | 8.1 | 368 | −27 |
| 4 | 8.9 | 315 | −39 |
| 5 | 5.5 | 518 | −8 |
| 6 | 4.1 | 621 | 0 |
| 7 | 3.8 | 643 | 2 |
| 8 | 2.3 | 770 | 9 |
| 9 | 0.7 | 933 | 20 |
| 10 | 0.5 | 956 | 21 |

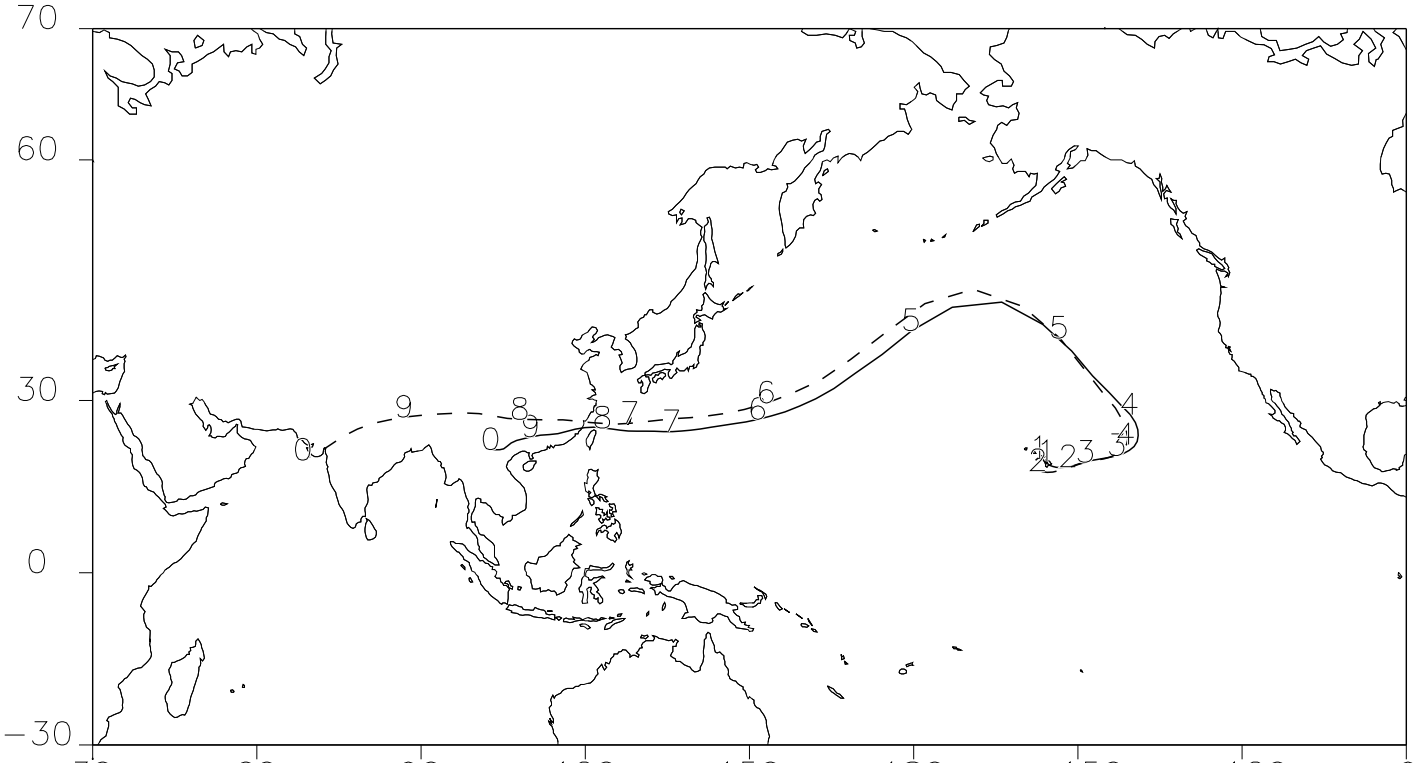
06UT

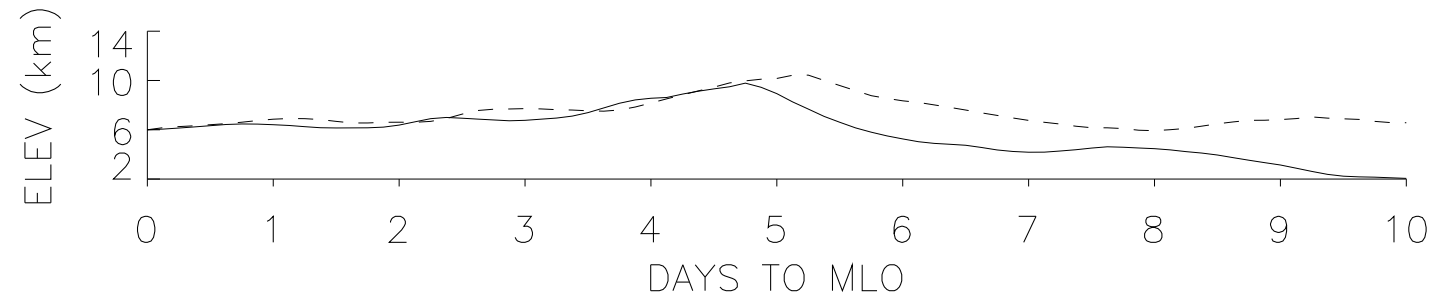
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 5.8 | 504 | −8 |
| 2 | 6.2 | 477 | −9 |
| 3 | 7.6 | 395 | −22 |
| 4 | 9.4 | 291 | −43 |
| 5 | 6.4 | 457 | −16 |
| 6 | 4.7 | 572 | −4 |
| 7 | 3.8 | 641 | 2 |
| 8 | 2.8 | 728 | 6 |
| 9 | 1.1 | 892 | 21 |
| 10 | 0.4 | 970 | 24 |

00UT − solid
06UT − dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/2/2004 (Day of Year 93)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
12
8
4
0
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 6.0 489 -12
1 5.8 499 -9
2 6.4 464 -12
3 7.0 429 -17
4 8.9 321 -37
5 6.6 442 -18
6 4.6 582 -3
7 3.9 634 2
8 3.2 686 6
9 1.2 877 17
10 0.5 951 22
18UT
Day km hPa C
0 6.0 489 -12
1 6.1 487 -10
2 6.7 451 -14
3 6.7 446 -15
4 8.6 342 -32
5 7.4 398 -25
6 4.6 583 -4
7 4.0 627 1
8 4.0 629 1
9 2.3 769 11
10 1.0 895 22
12UT - solid
18UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/3/2004 (Day of Year 94)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

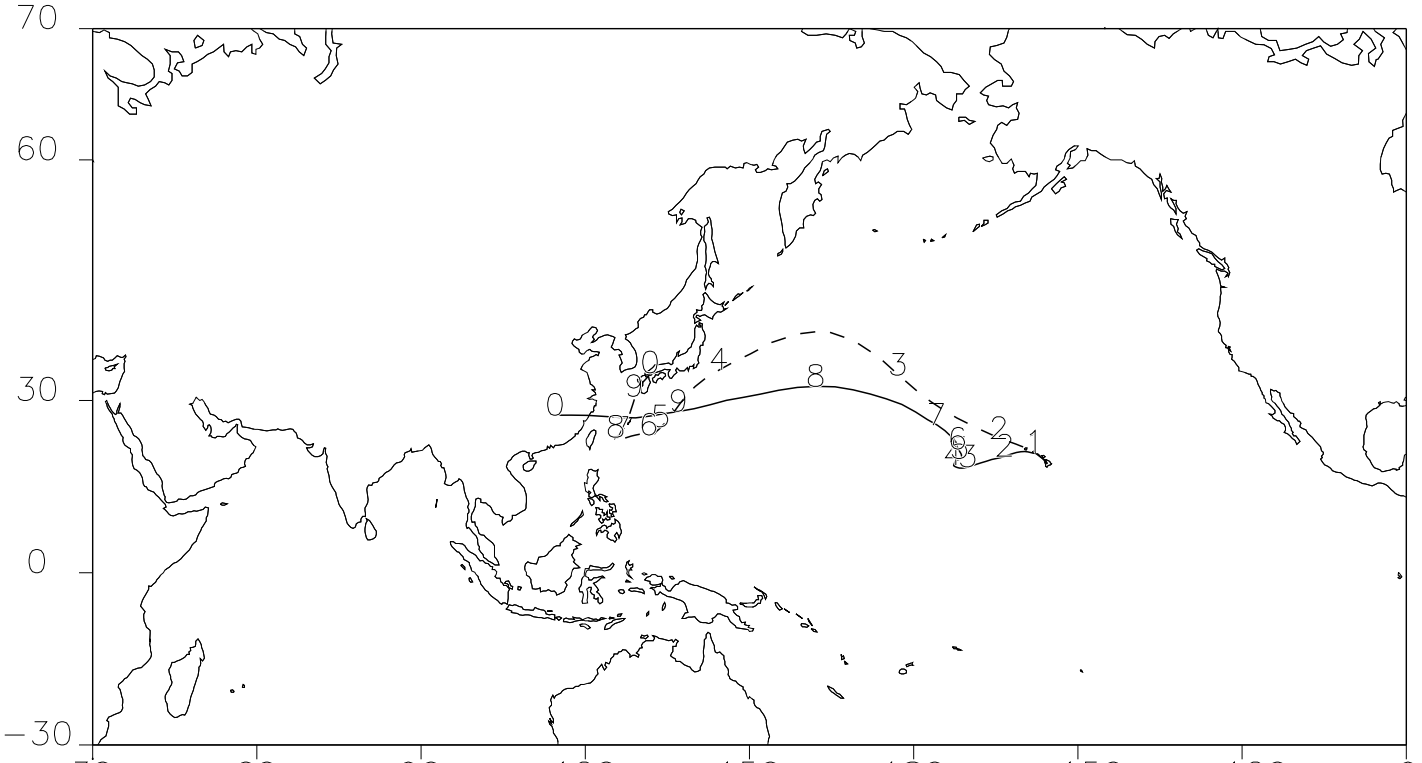
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −11 |
| 1 | 6.4 | 464 | −13 |
| 2 | 6.4 | 467 | −12 |
| 3 | 6.8 | 444 | −14 |
| 4 | 8.6 | 345 | −31 |
| 5 | 8.9 | 316 | −38 |
| 6 | 5.3 | 535 | −7 |
| 7 | 4.2 | 615 | 0 |
| 8 | 4.5 | 591 | −1 |
| 9 | 3.1 | 697 | 7 |
| 10 | 2.1 | 793 | 15 |

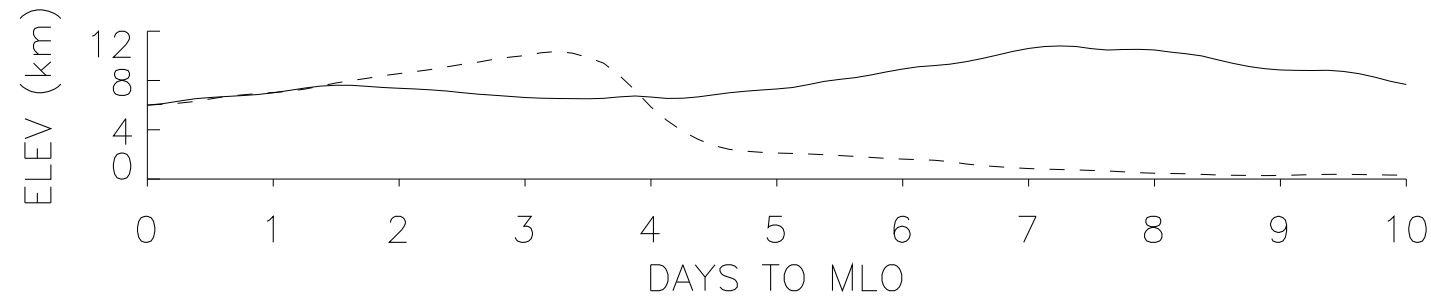
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 6.9 | 437 | −18 |
| 2 | 6.6 | 453 | −13 |
| 3 | 7.7 | 391 | −22 |
| 4 | 8.2 | 368 | −26 |
| 5 | 10.2 | 261 | −49 |
| 6 | 8.3 | 350 | −31 |
| 7 | 6.8 | 439 | −17 |
| 8 | 5.9 | 490 | −8 |
| 9 | 6.8 | 438 | −15 |
| 10 | 6.6 | 457 | −10 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/3/2004 (Day of Year 94)
NCEP/NCAR Reanalysis 1 Data Set




12UT

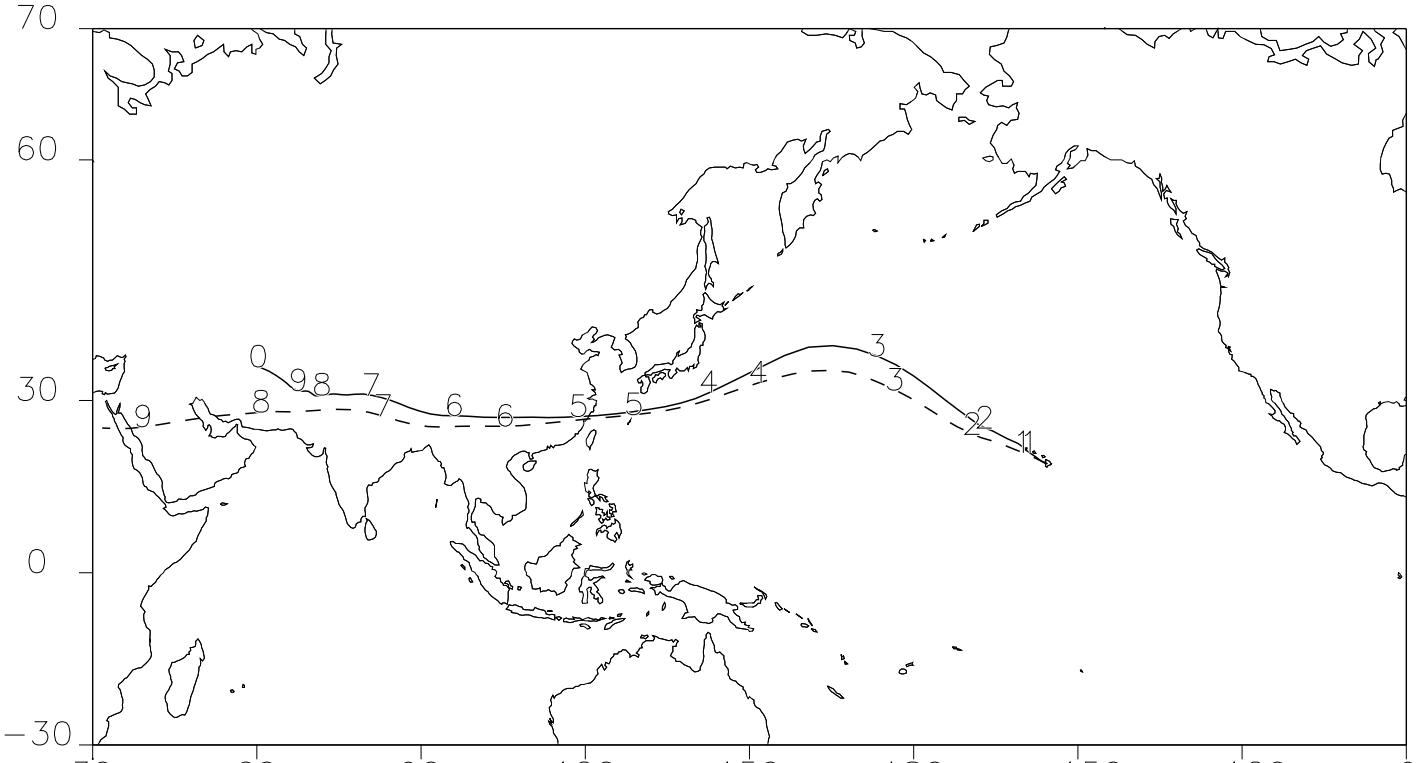
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 7.0 | 428 | −19 |
| 2 | 7.4 | 408 | −21 |
| 3 | 6.6 | 454 | −13 |
| 4 | 6.7 | 453 | −13 |
| 5 | 7.3 | 416 | −18 |
| 6 | 8.9 | 332 | −32 |
| 7 | 10.6 | 259 | −47 |
| 8 | 10.5 | 260 | −46 |
| 9 | 8.9 | 330 | −31 |
| 10 | 7.7 | 388 | −22 |

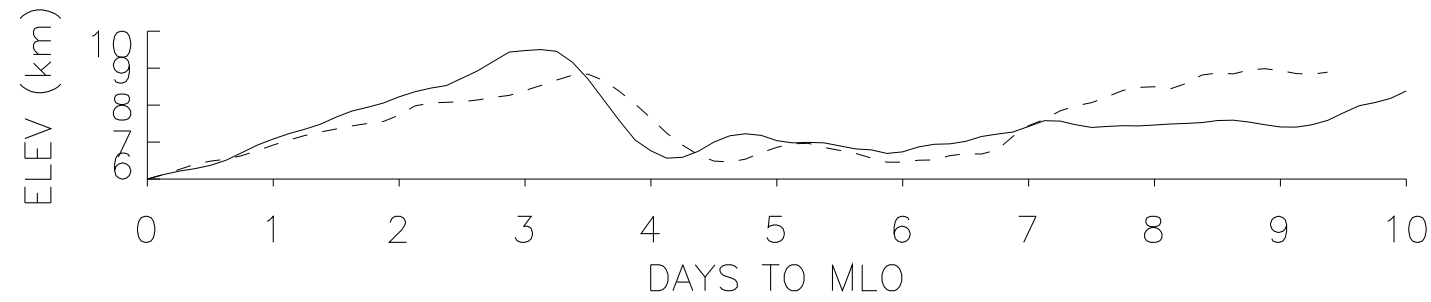
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 7.0 | 427 | −19 |
| 2 | 8.6 | 346 | −33 |
| 3 | 10.0 | 273 | −45 |
| 4 | 5.9 | 489 | −14 |
| 5 | 2.1 | 790 | 11 |
| 6 | 1.6 | 838 | 13 |
| 7 | 0.9 | 917 | 17 |
| 8 | 0.5 | 960 | 18 |
| 9 | 0.3 | 978 | 13 |
| 10 | 0.3 | 979 | 10 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/4/2004 (Day of Year 95)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

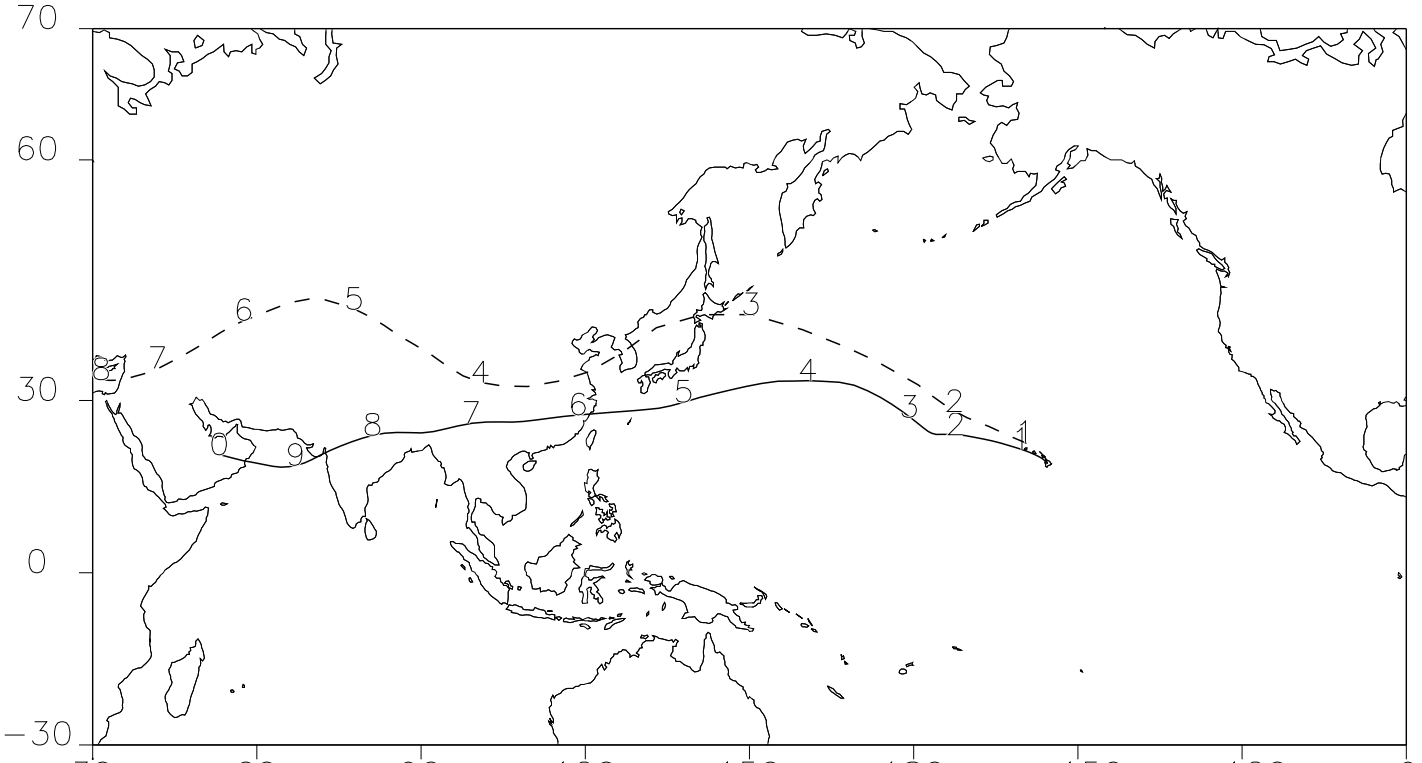
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -11 |
| 1 | 7.1 | 423 | -19 |
| 2 | 8.2 | 361 | -29 |
| 3 | 9.5 | 297 | -41 |
| 4 | 6.8 | 438 | -19 |
| 5 | 7.0 | 422 | -21 |
| 6 | 6.7 | 439 | -20 |
| 7 | 7.4 | 398 | -28 |
| 8 | 7.5 | 396 | -27 |
| 9 | 7.4 | 397 | -27 |
| 10 | 8.4 | 346 | -36 |

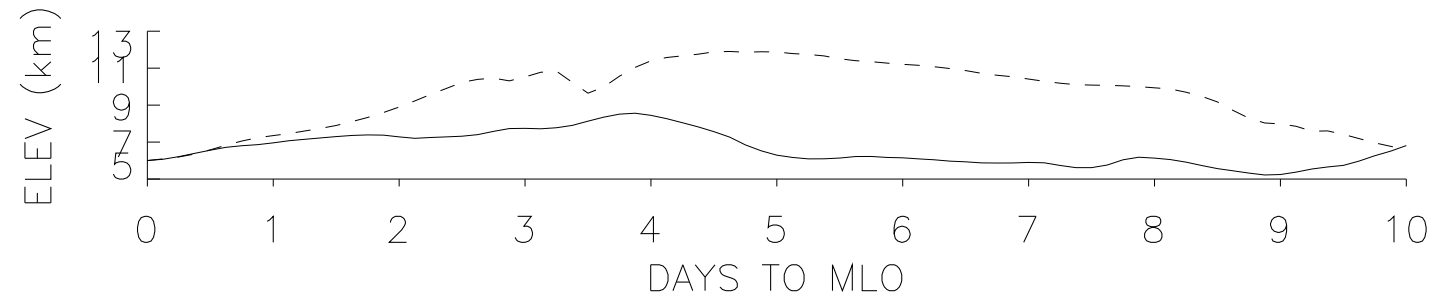
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -10 |
| 1 | 6.9 | 433 | -18 |
| 2 | 7.7 | 388 | -22 |
| 3 | 8.4 | 351 | -29 |
| 4 | 7.6 | 389 | -25 |
| 5 | 6.9 | 432 | -19 |
| 6 | 6.5 | 458 | -17 |
| 7 | 7.4 | 401 | -24 |
| 8 | 8.5 | 345 | -34 |
| 9 | 8.9 | 322 | -38 |

00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/4/2004 (Day of Year 95)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

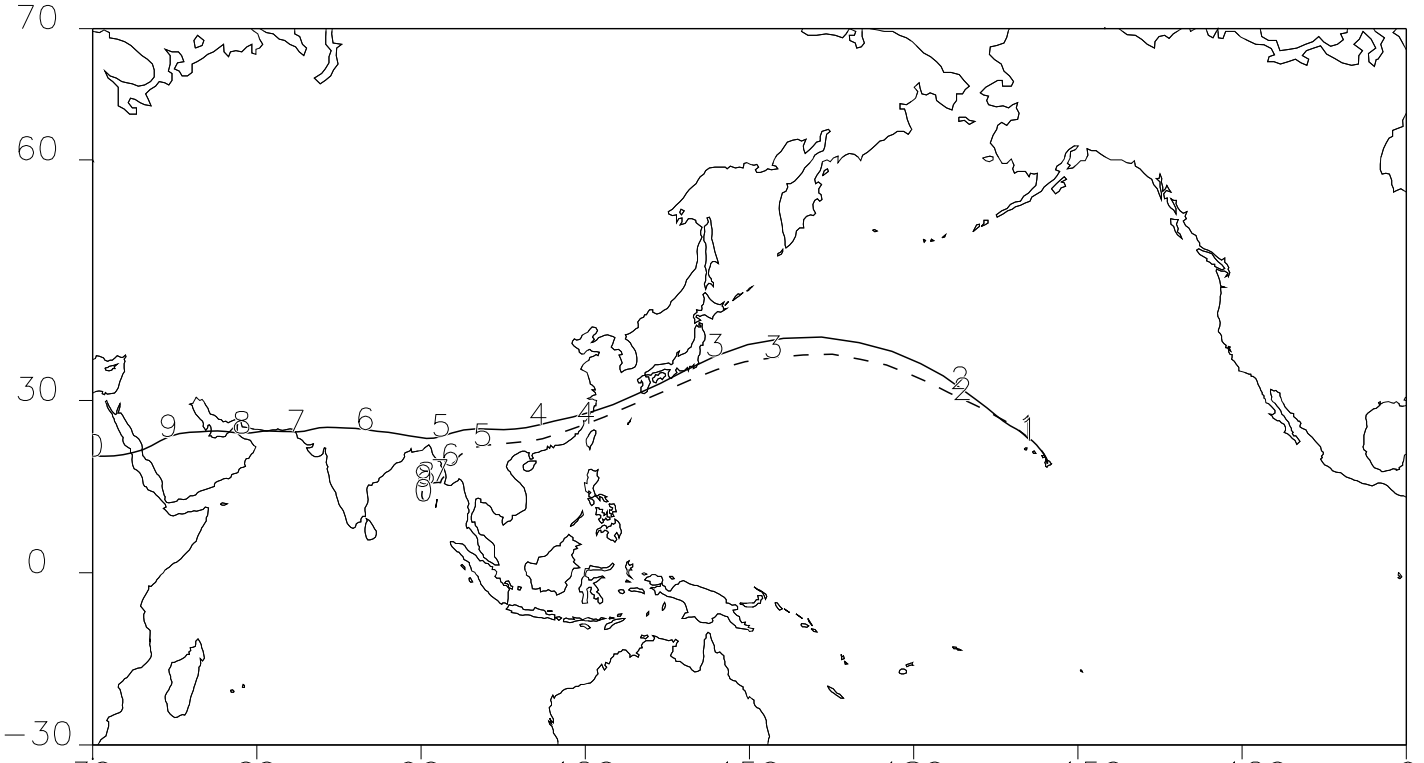
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −9 |
| 1 | 7.0 | 431 | −18 |
| 2 | 7.3 | 413 | −20 |
| 3 | 7.7 | 388 | −22 |
| 4 | 8.4 | 350 | −29 |
| 5 | 6.3 | 467 | −14 |
| 6 | 6.1 | 476 | −14 |
| 7 | 5.9 | 493 | −13 |
| 8 | 6.1 | 480 | −13 |
| 9 | 5.2 | 538 | −3 |
| 10 | 6.8 | 438 | −17 |

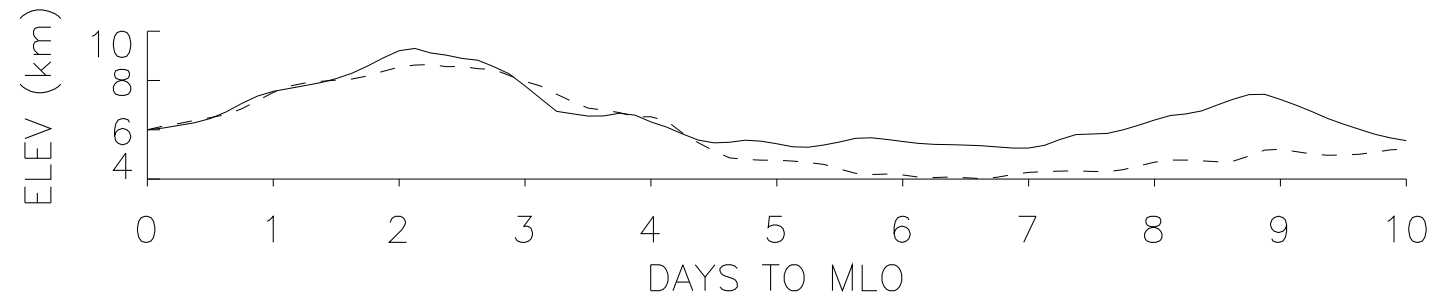
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 7.3 | 408 | −21 |
| 2 | 8.9 | 327 | −36 |
| 3 | 10.5 | 238 | −55 |
| 4 | 11.4 | 218 | −58 |
| 5 | 11.9 | 200 | −62 |
| 6 | 11.2 | 224 | −56 |
| 7 | 10.4 | 257 | −51 |
| 8 | 9.9 | 276 | −48 |
| 9 | 8.0 | 363 | −33 |
| 10 | 6.6 | 444 | −19 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/5/2004 (Day of Year 96)
NCEP/NCAR Reanalysis 1 Data Set




00UT

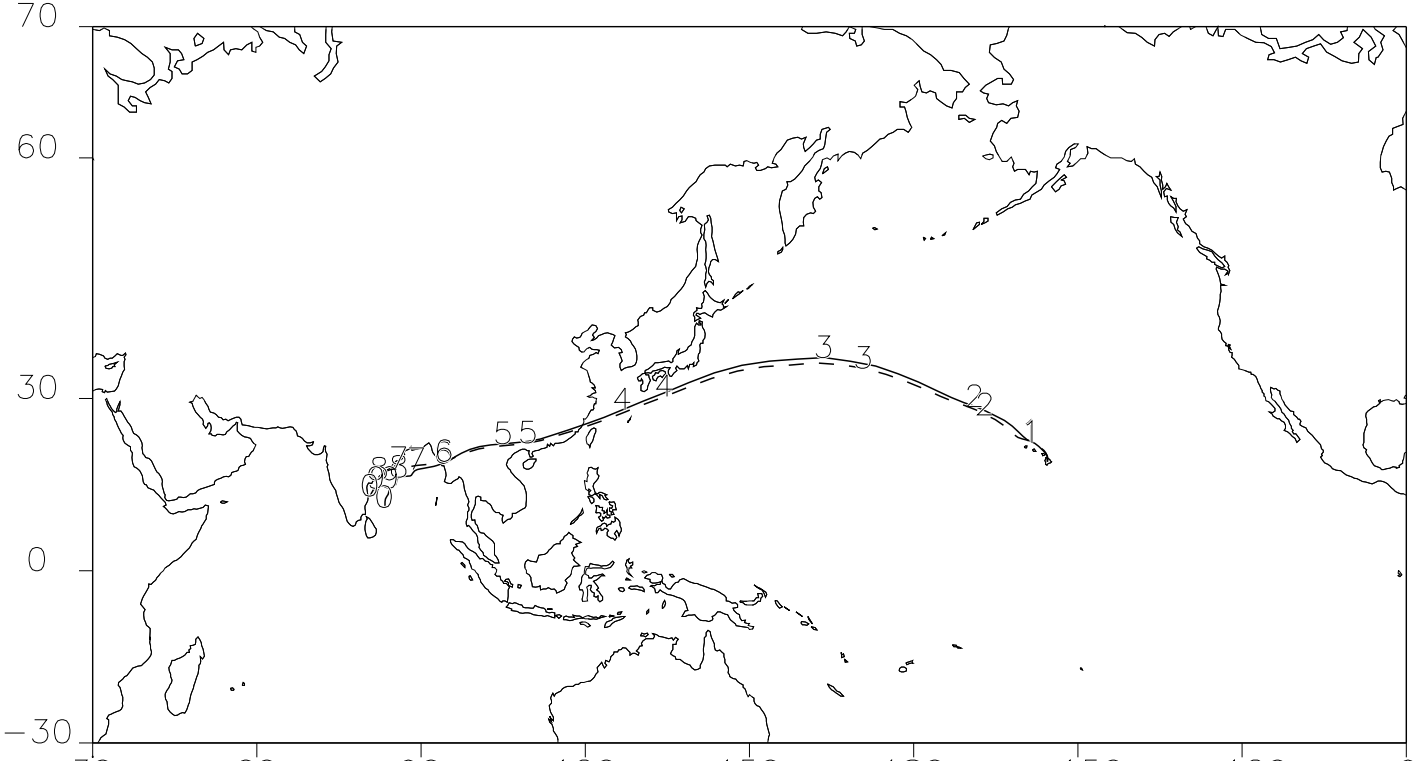
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 7.6 | 397 | −23 |
| 2 | 9.2 | 309 | −37 |
| 3 | 7.8 | 373 | −27 |
| 4 | 6.3 | 466 | −15 |
| 5 | 5.4 | 524 | −11 |
| 6 | 5.5 | 518 | −11 |
| 7 | 5.3 | 537 | −7 |
| 8 | 6.4 | 463 | −15 |
| 9 | 7.2 | 411 | −25 |
| 10 | 5.6 | 516 | −8 |

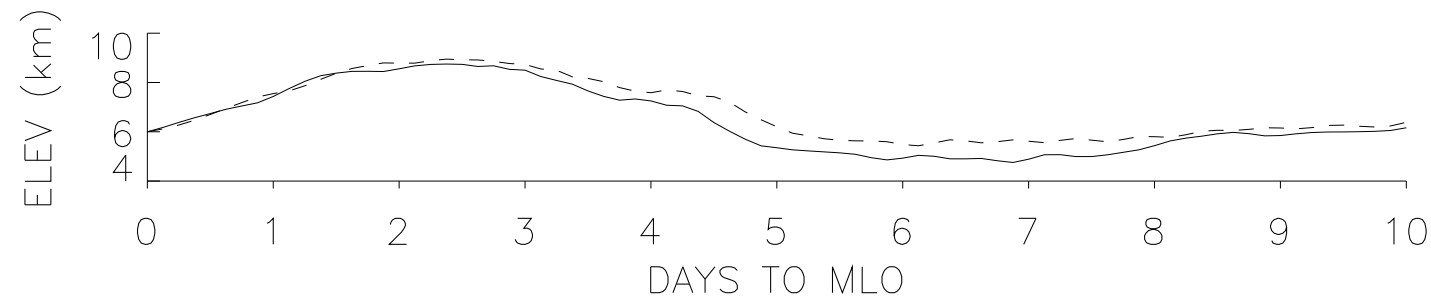
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 7.5 | 400 | −22 |
| 2 | 8.5 | 344 | −31 |
| 3 | 8.0 | 367 | −27 |
| 4 | 6.5 | 454 | −15 |
| 5 | 4.8 | 575 | −3 |
| 6 | 4.2 | 621 | 2 |
| 7 | 4.3 | 613 | 4 |
| 8 | 4.7 | 583 | 3 |
| 9 | 5.2 | 545 | −2 |
| 10 | 5.2 | 544 | −1 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/5/2004 (Day of Year 96)
NCEP/NCAR Reanalysis 1 Data Set




12UT

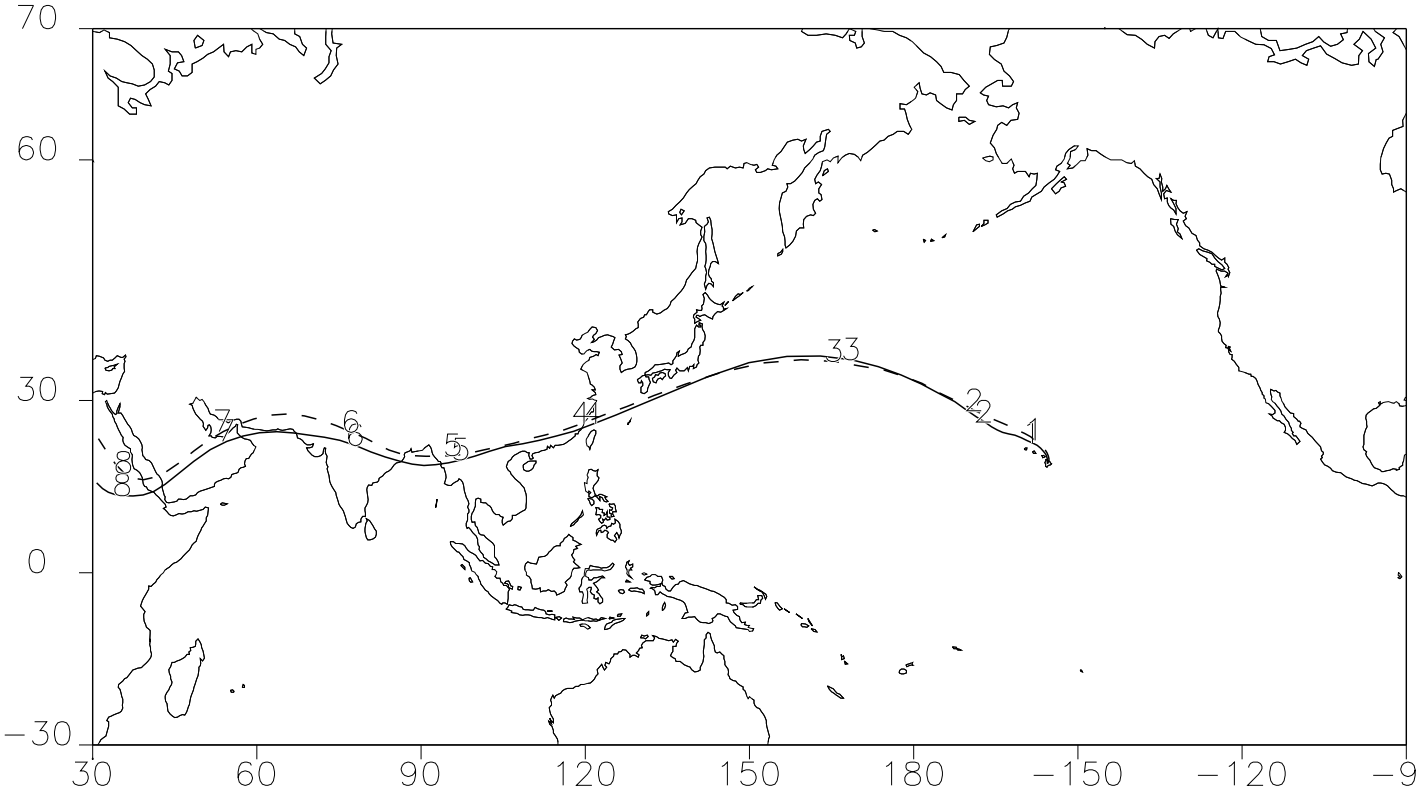
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 7.4 | 404 | −22 |
| 2 | 8.6 | 345 | −31 |
| 3 | 8.5 | 343 | −31 |
| 4 | 7.3 | 412 | −19 |
| 5 | 5.4 | 532 | −6 |
| 6 | 4.9 | 562 | −2 |
| 7 | 4.9 | 566 | 1 |
| 8 | 5.4 | 528 | −2 |
| 9 | 5.8 | 501 | −4 |
| 10 | 6.2 | 481 | −6 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 7.5 | 399 | −22 |
| 2 | 8.8 | 334 | −32 |
| 3 | 8.7 | 333 | −32 |
| 4 | 7.6 | 392 | −22 |
| 5 | 6.2 | 478 | −13 |
| 6 | 5.5 | 525 | −6 |
| 7 | 5.6 | 517 | −4 |
| 8 | 5.8 | 506 | −4 |
| 9 | 6.2 | 484 | −6 |
| 10 | 6.4 | 469 | −7 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/6/2004 (Day of Year 97)
NCEP/NCAR Reanalysis 1 Data Set

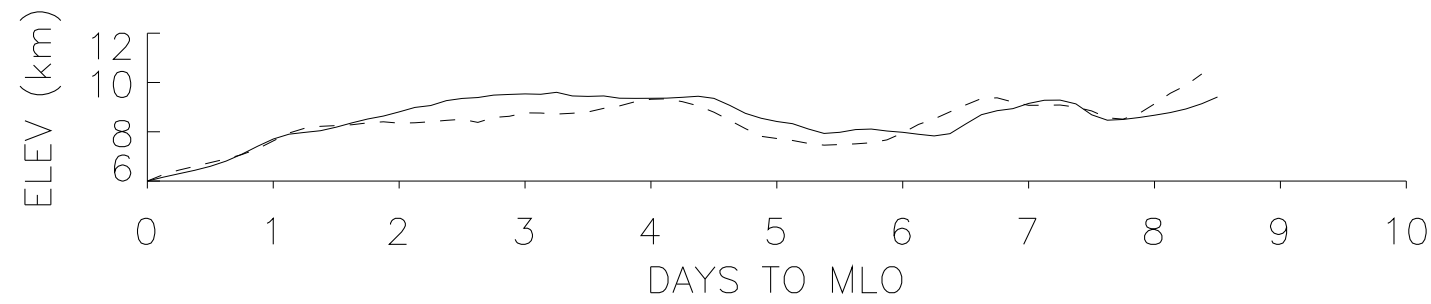



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 7.7 | 390 | −23 |
| 2 | 8.8 | 334 | −33 |
| 3 | 9.5 | 295 | −38 |
| 4 | 9.4 | 307 | −36 |
| 5 | 8.4 | 354 | −28 |
| 6 | 8.0 | 375 | −24 |
| 7 | 9.1 | 318 | −34 |
| 8 | 8.7 | 343 | −28 |

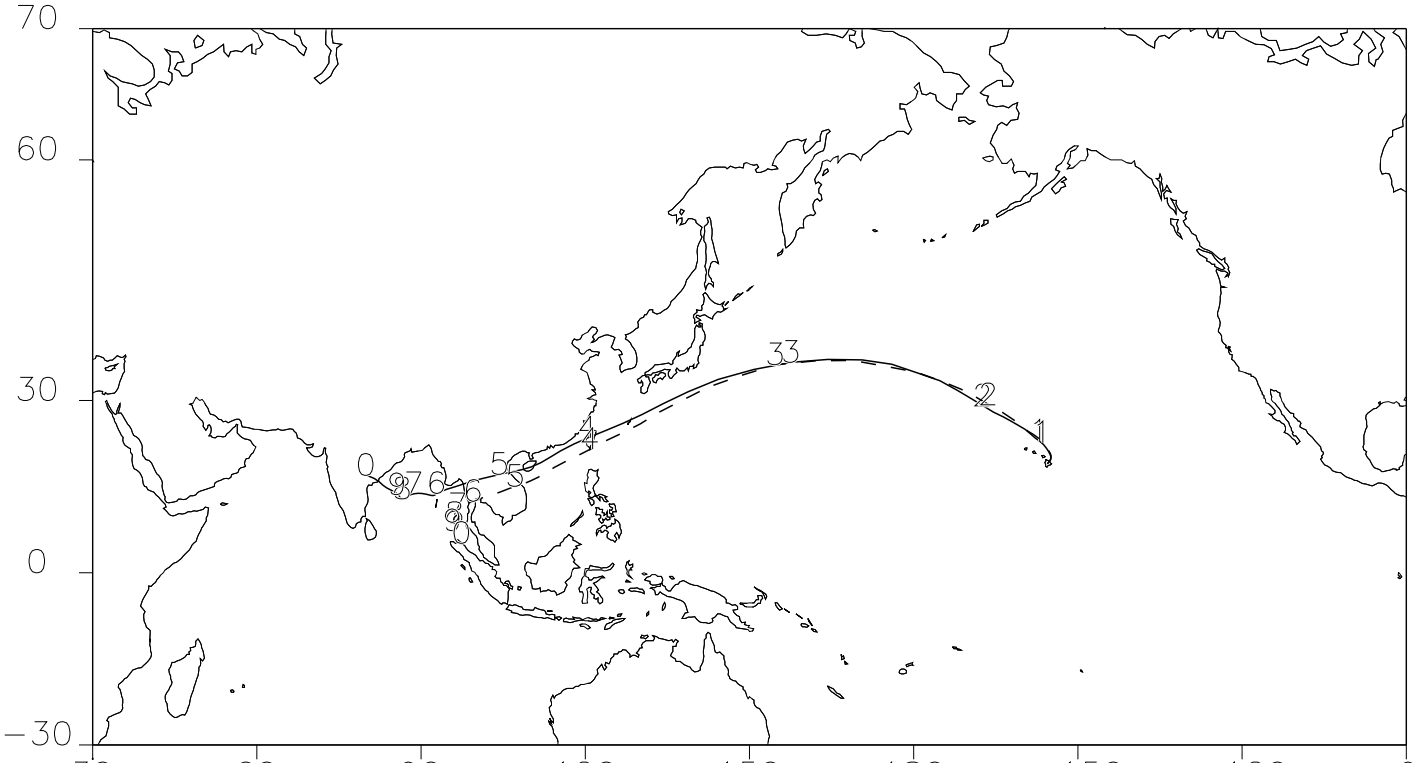
06UT

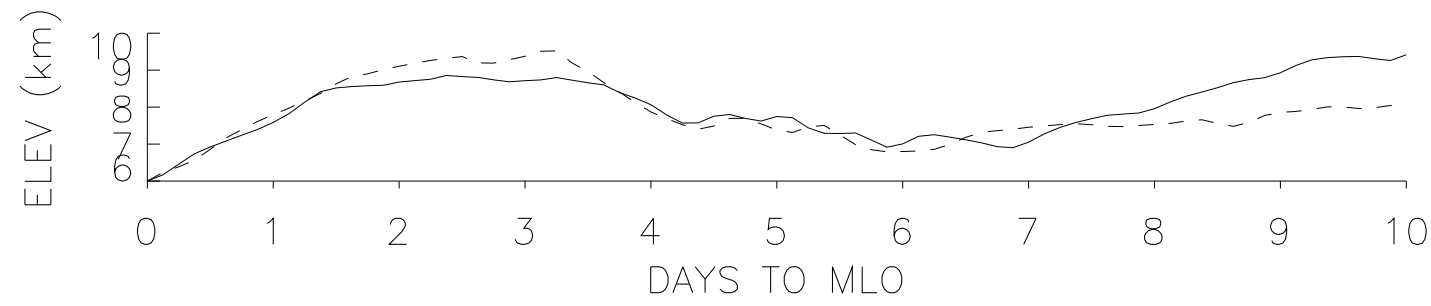
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −9 |
| 1 | 7.6 | 395 | −22 |
| 2 | 8.3 | 355 | −28 |
| 3 | 8.8 | 330 | −33 |
| 4 | 9.3 | 308 | −37 |
| 5 | 7.7 | 390 | −23 |
| 6 | 8.0 | 377 | −25 |
| 7 | 9.1 | 321 | −34 |
| 8 | 9.1 | 320 | −35 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/6/2004 (Day of Year 97)
NCEP/NCAR Reanalysis 1 Data Set




12UT

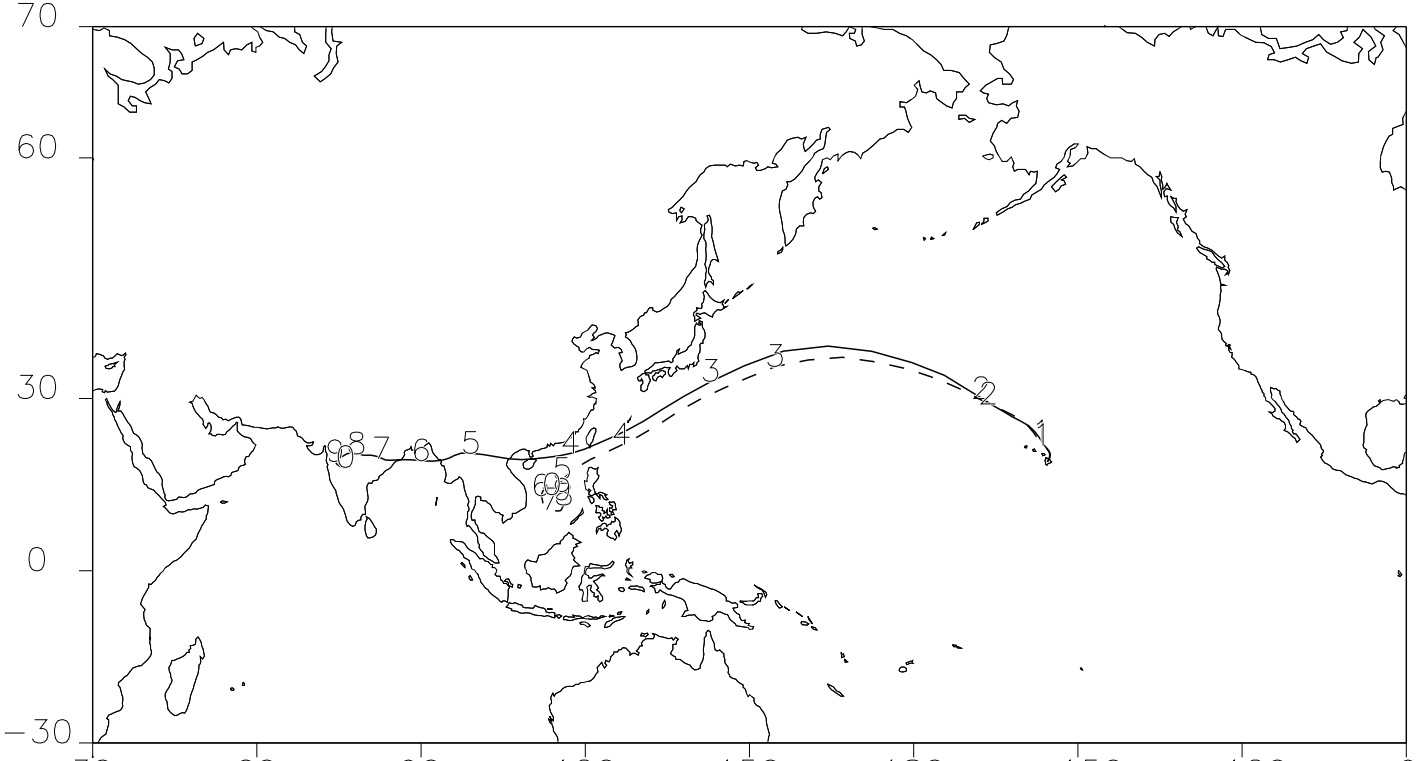
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 7.6 | 397 | −21 |
| 2 | 8.7 | 339 | −30 |
| 3 | 8.7 | 331 | −31 |
| 4 | 8.1 | 371 | −25 |
| 5 | 7.7 | 390 | −20 |
| 6 | 7.0 | 431 | −13 |
| 7 | 7.1 | 429 | −14 |
| 8 | 8.0 | 380 | −19 |
| 9 | 8.9 | 334 | −26 |
| 10 | 9.4 | 311 | −29 |

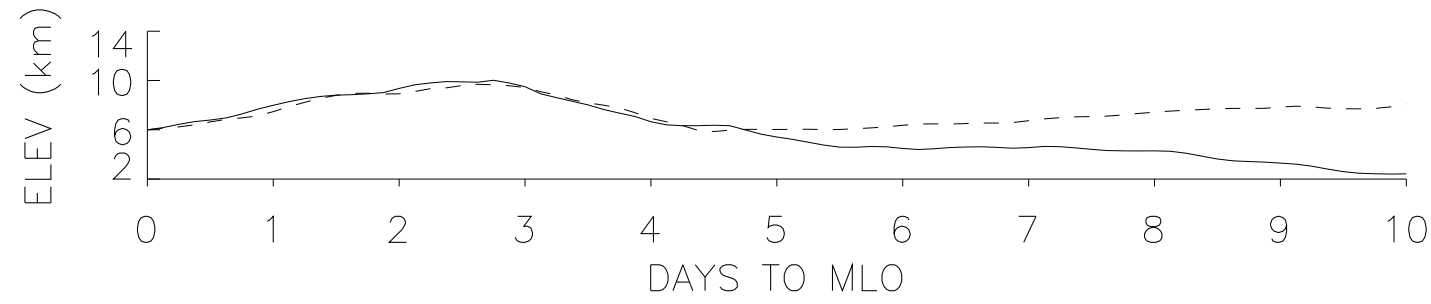
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 7.8 | 387 | −23 |
| 2 | 9.1 | 319 | −34 |
| 3 | 9.4 | 300 | −38 |
| 4 | 7.9 | 382 | −23 |
| 5 | 7.4 | 411 | −18 |
| 6 | 6.8 | 445 | −11 |
| 7 | 7.5 | 408 | −16 |
| 8 | 7.5 | 404 | −16 |
| 9 | 7.9 | 388 | −18 |
| 10 | 8.0 | 378 | −19 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/7/2004 (Day of Year 98)
NCEP/NCAR Reanalysis 1 Data Set




00UT

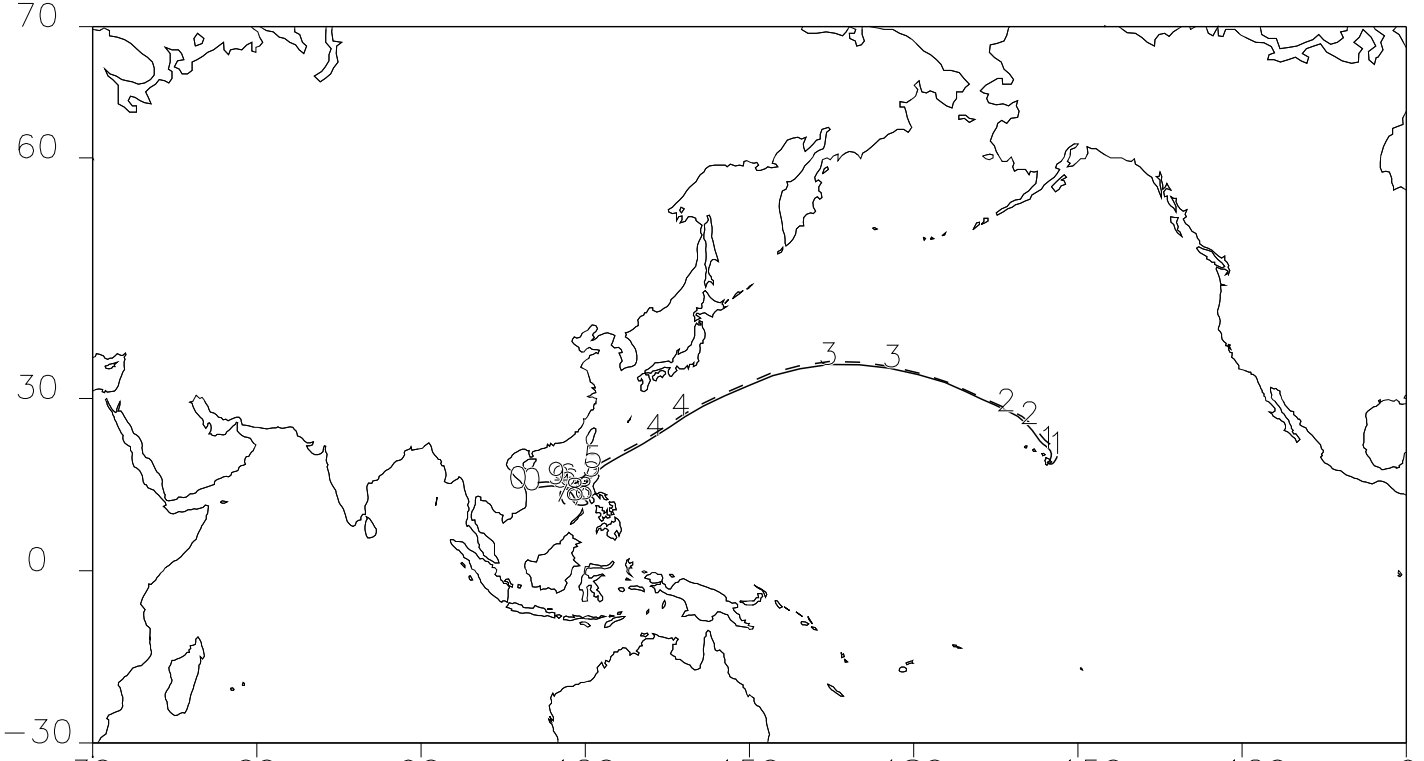
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 8.0 | 376 | −25 |
| 2 | 9.4 | 308 | −37 |
| 3 | 9.5 | 295 | −40 |
| 4 | 6.7 | 450 | −15 |
| 5 | 5.4 | 527 | −8 |
| 6 | 4.5 | 594 | −1 |
| 7 | 4.6 | 589 | −1 |
| 8 | 4.3 | 608 | 0 |
| 9 | 3.3 | 688 | 8 |
| 10 | 2.4 | 764 | 15 |

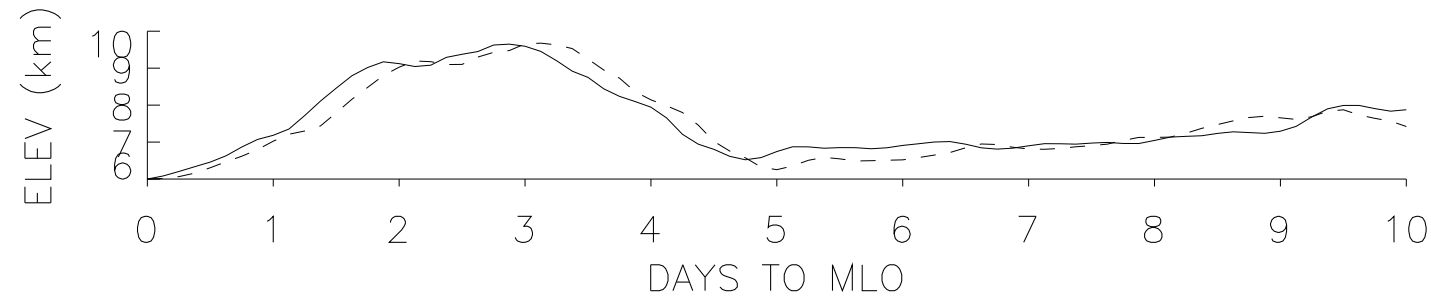
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 7.5 | 405 | −20 |
| 2 | 8.9 | 329 | −33 |
| 3 | 9.4 | 300 | −37 |
| 4 | 6.9 | 434 | −16 |
| 5 | 6.0 | 491 | −9 |
| 6 | 6.4 | 471 | −10 |
| 7 | 6.7 | 449 | −11 |
| 8 | 7.4 | 410 | −16 |
| 9 | 7.8 | 388 | −19 |
| 10 | 8.1 | 375 | −20 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/7/2004 (Day of Year 98)
NCEP/NCAR Reanalysis 1 Data Set




12UT

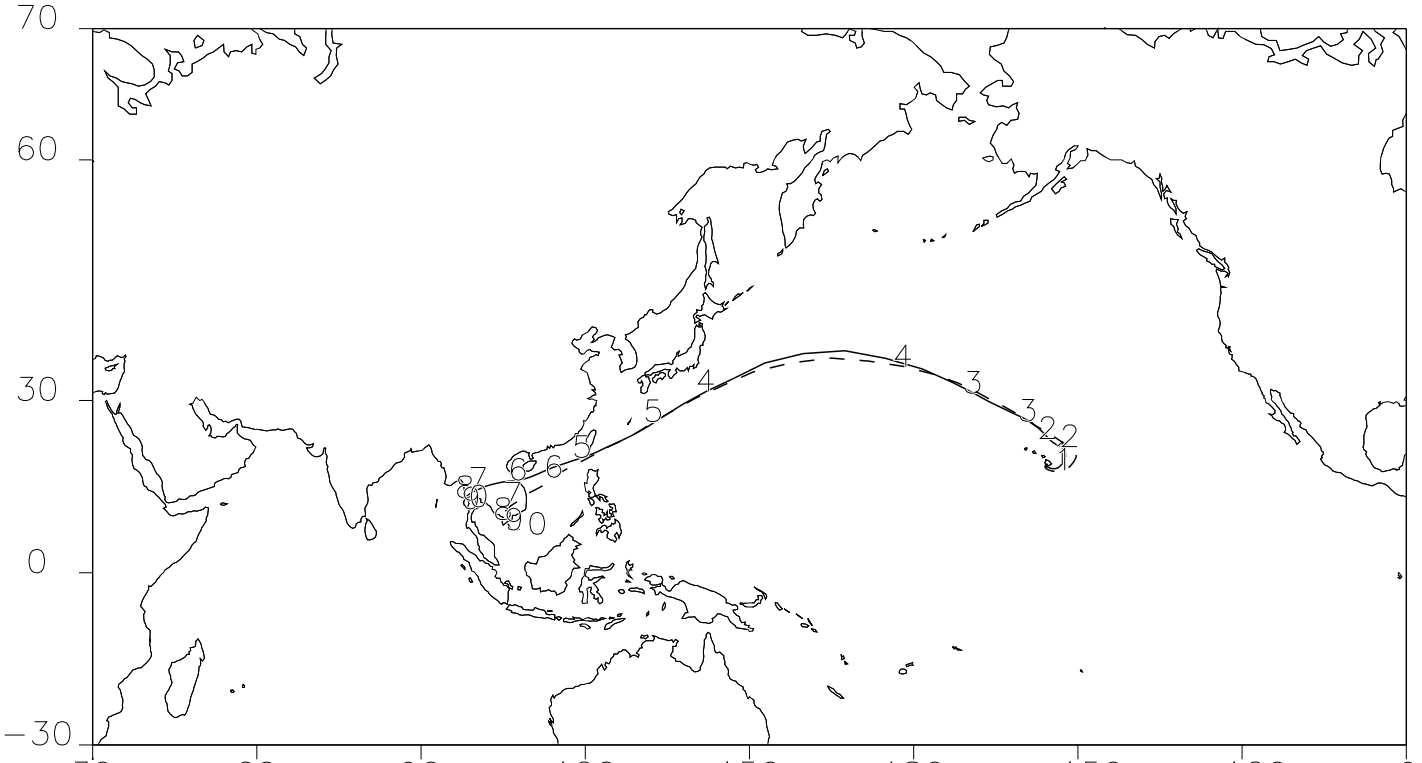
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 7.2 | 420 | −18 |
| 2 | 9.1 | 319 | −35 |
| 3 | 9.6 | 294 | −38 |
| 4 | 7.9 | 379 | −23 |
| 5 | 6.7 | 447 | −12 |
| 6 | 6.9 | 438 | −12 |
| 7 | 6.9 | 439 | −11 |
| 8 | 7.0 | 431 | −12 |
| 9 | 7.3 | 417 | −15 |
| 10 | 7.9 | 386 | −18 |

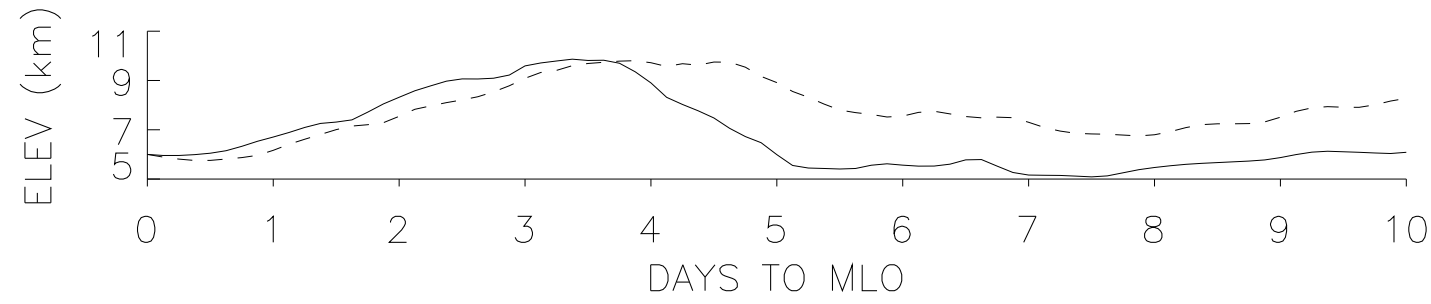
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 7.0 | 430 | −16 |
| 2 | 9.0 | 325 | −34 |
| 3 | 9.7 | 291 | −40 |
| 4 | 8.1 | 365 | −26 |
| 5 | 6.3 | 477 | −10 |
| 6 | 6.5 | 461 | −11 |
| 7 | 6.8 | 444 | −12 |
| 8 | 7.1 | 426 | −14 |
| 9 | 7.7 | 397 | −19 |
| 10 | 7.4 | 410 | −15 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/8/2004 (Day of Year 99)
NCEP/NCAR Reanalysis 1 Data Set




00UT

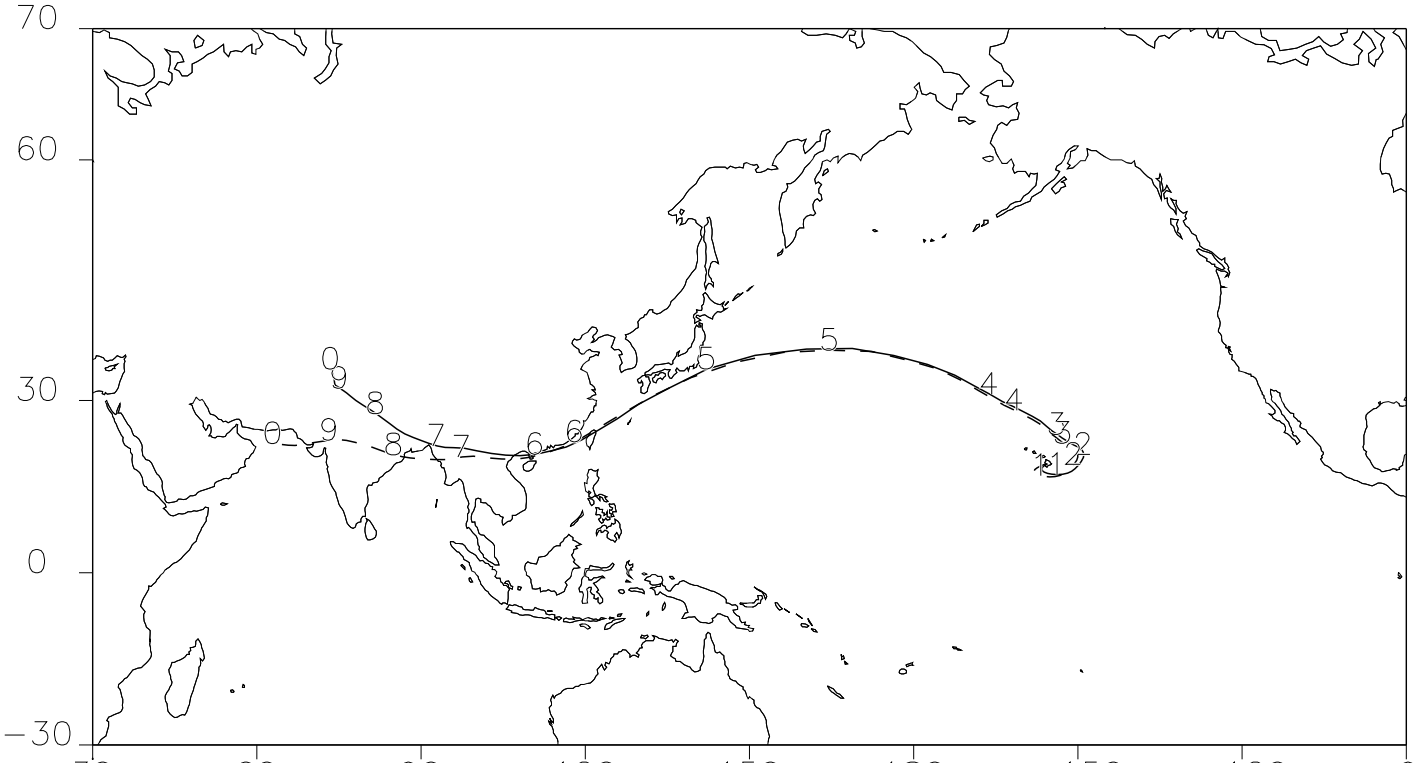
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.7 | 447 | −13 |
| 2 | 8.3 | 359 | −28 |
| 3 | 9.6 | 297 | −38 |
| 4 | 8.9 | 323 | −35 |
| 5 | 6.0 | 492 | −10 |
| 6 | 5.6 | 520 | −6 |
| 7 | 5.2 | 548 | −2 |
| 8 | 5.5 | 527 | −4 |
| 9 | 5.9 | 501 | −6 |
| 10 | 6.1 | 488 | −6 |

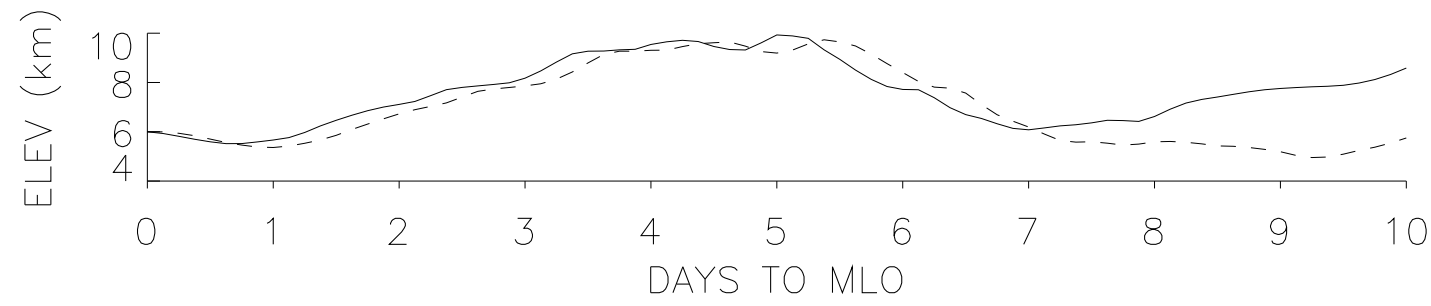
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.2 | 481 | −9 |
| 2 | 7.5 | 400 | −20 |
| 3 | 9.1 | 321 | −35 |
| 4 | 9.7 | 287 | −40 |
| 5 | 8.9 | 327 | −32 |
| 6 | 7.6 | 401 | −19 |
| 7 | 7.3 | 416 | −15 |
| 8 | 6.8 | 445 | −11 |
| 9 | 7.5 | 405 | −15 |
| 10 | 8.3 | 366 | −21 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/8/2004 (Day of Year 99)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

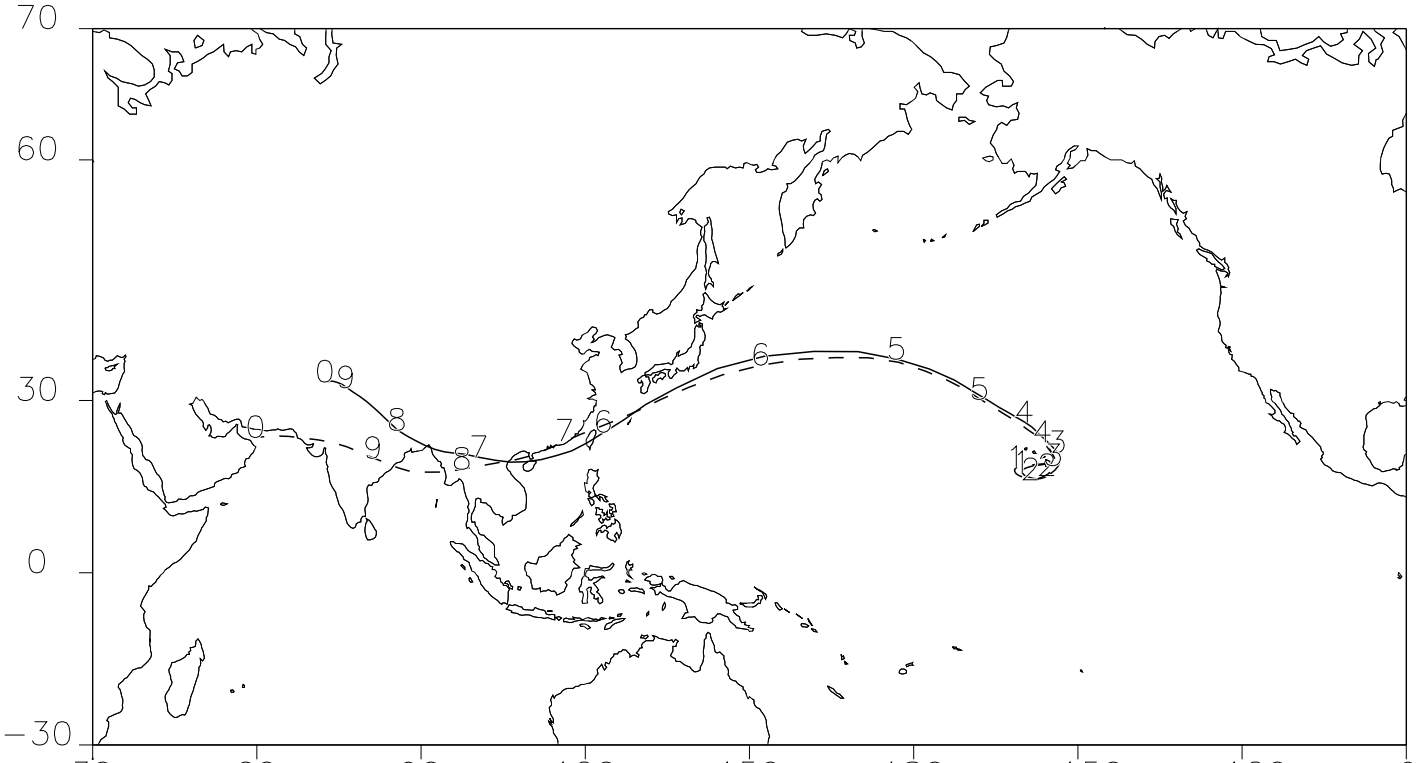
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −9 |
| 1 | 5.7 | 512 | −5 |
| 2 | 7.1 | 423 | −18 |
| 3 | 8.2 | 365 | −27 |
| 4 | 9.5 | 298 | −38 |
| 5 | 9.9 | 274 | −45 |
| 6 | 7.7 | 389 | −23 |
| 7 | 6.1 | 483 | −12 |
| 8 | 6.6 | 447 | −19 |
| 9 | 7.8 | 381 | −29 |
| 10 | 8.6 | 339 | −37 |

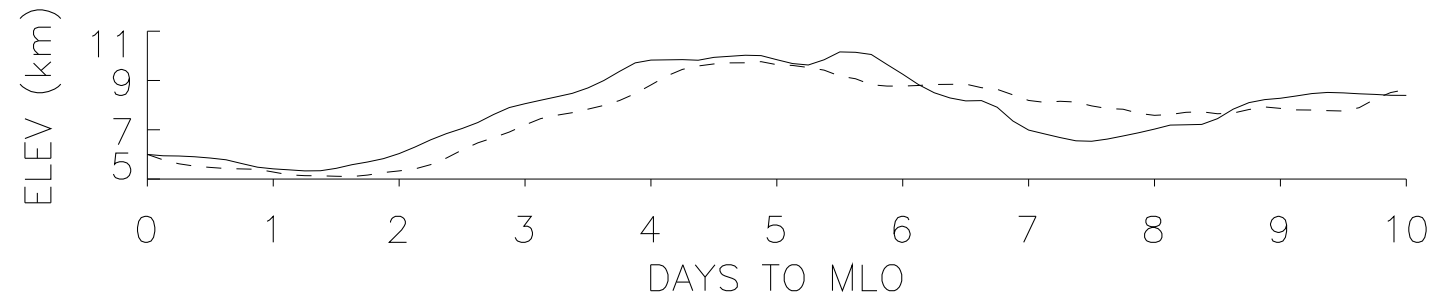
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.4 | 533 | −2 |
| 2 | 6.7 | 447 | −14 |
| 3 | 7.9 | 383 | −23 |
| 4 | 9.3 | 310 | −36 |
| 5 | 9.2 | 305 | −36 |
| 6 | 8.4 | 353 | −29 |
| 7 | 6.2 | 478 | −14 |
| 8 | 5.6 | 517 | −8 |
| 9 | 5.2 | 544 | −6 |
| 10 | 5.7 | 507 | −7 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/9/2004 (Day of Year 100)
NCEP/NCAR Reanalysis 1 Data Set




00UT

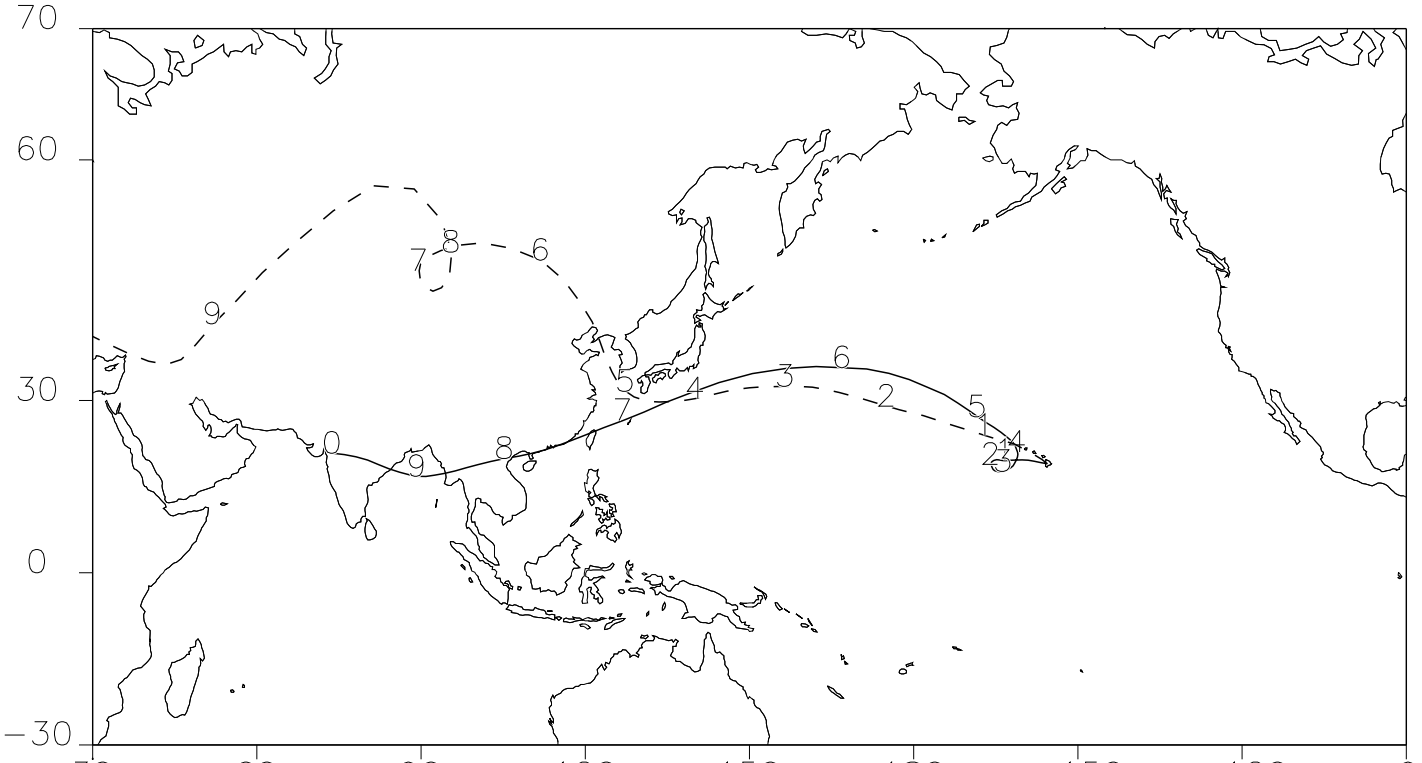
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -10 |
| 1 | 5.4 | 528 | -3 |
| 2 | 6.0 | 488 | -7 |
| 3 | 8.1 | 372 | -26 |
| 4 | 9.8 | 288 | -41 |
| 5 | 9.8 | 281 | -41 |
| 6 | 9.3 | 312 | -36 |
| 7 | 7.0 | 429 | -17 |
| 8 | 7.0 | 424 | -20 |
| 9 | 8.3 | 354 | -34 |
| 10 | 8.4 | 348 | -34 |

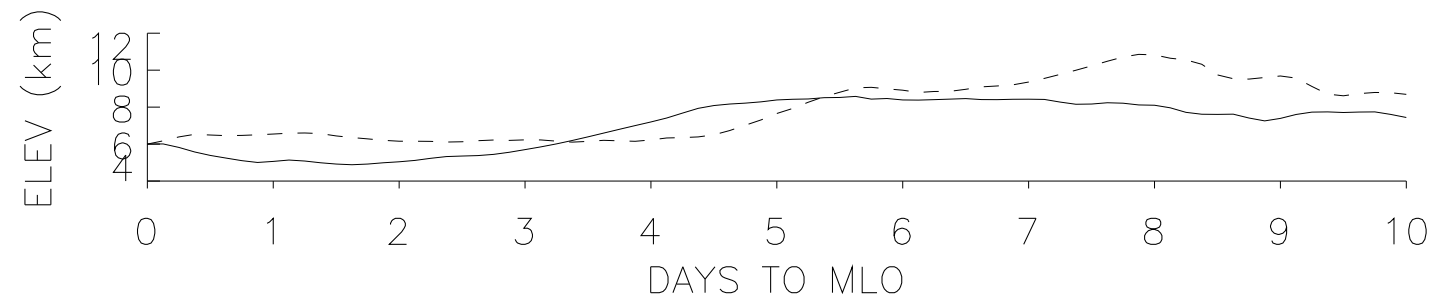
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -12 |
| 1 | 5.3 | 537 | -3 |
| 2 | 5.3 | 535 | -2 |
| 3 | 7.2 | 420 | -18 |
| 4 | 8.8 | 335 | -33 |
| 5 | 9.6 | 295 | -38 |
| 6 | 8.8 | 327 | -33 |
| 7 | 8.2 | 365 | -26 |
| 8 | 7.6 | 399 | -20 |
| 9 | 7.9 | 384 | -22 |
| 10 | 8.6 | 344 | -29 |

00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/9/2004 (Day of Year 100)
NCEP/NCAR Reanalysis 1 Data Set




12UT

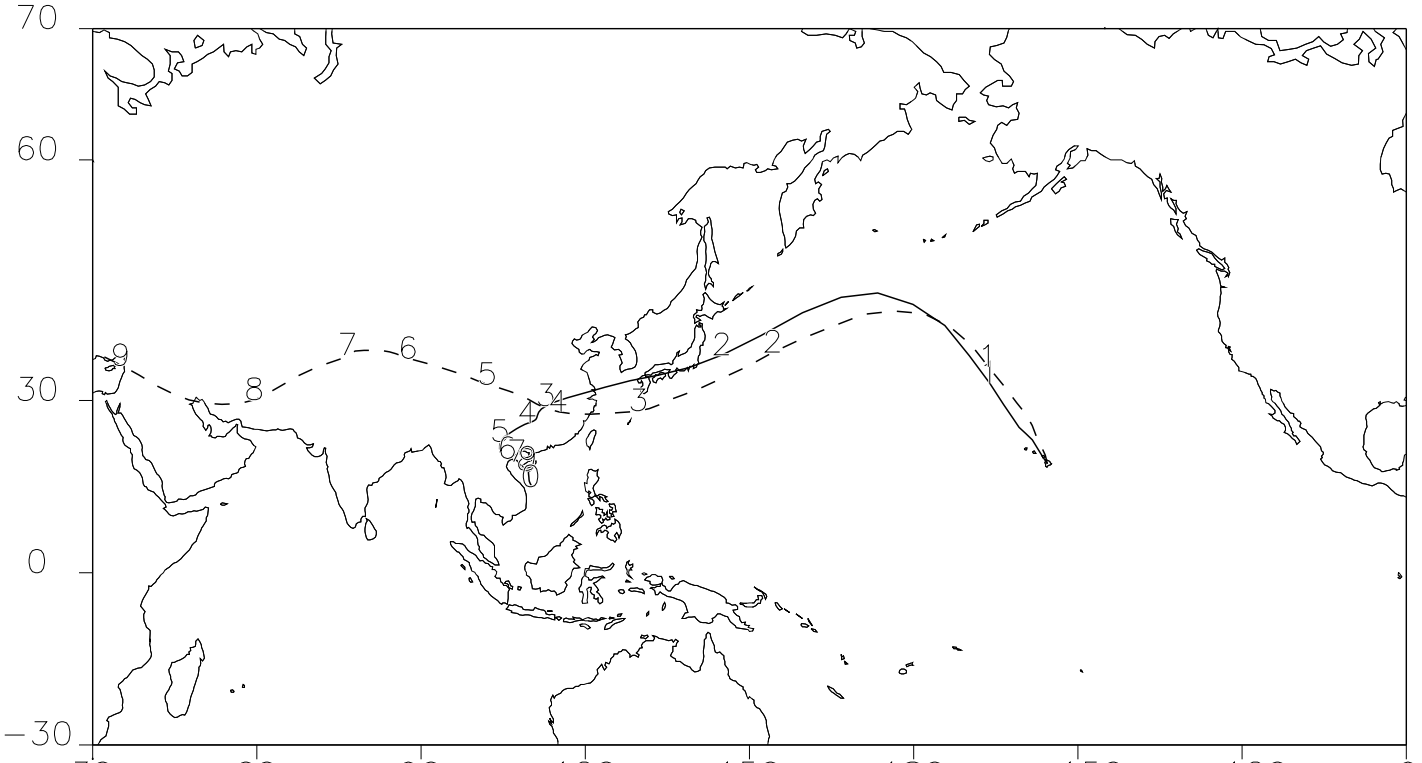
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −13 |
| 1 | 5.1 | 551 | −4 |
| 2 | 5.0 | 554 | 0 |
| 3 | 5.7 | 510 | −6 |
| 4 | 7.2 | 420 | −18 |
| 5 | 8.4 | 355 | −27 |
| 6 | 8.4 | 351 | −28 |
| 7 | 8.4 | 351 | −28 |
| 8 | 8.1 | 370 | −25 |
| 9 | 7.4 | 409 | −17 |
| 10 | 7.4 | 405 | −18 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −13 |
| 1 | 6.5 | 453 | −18 |
| 2 | 6.2 | 476 | −13 |
| 3 | 6.2 | 471 | −15 |
| 4 | 6.2 | 471 | −17 |
| 5 | 7.7 | 384 | −31 |
| 6 | 8.9 | 311 | −44 |
| 7 | 9.4 | 299 | −46 |
| 8 | 10.8 | 234 | −61 |
| 9 | 9.7 | 275 | −51 |
| 10 | 8.7 | 325 | −41 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/10/2004 (Day of Year 101)
## NCEP/NCAR Reanalysis 1 Data Set

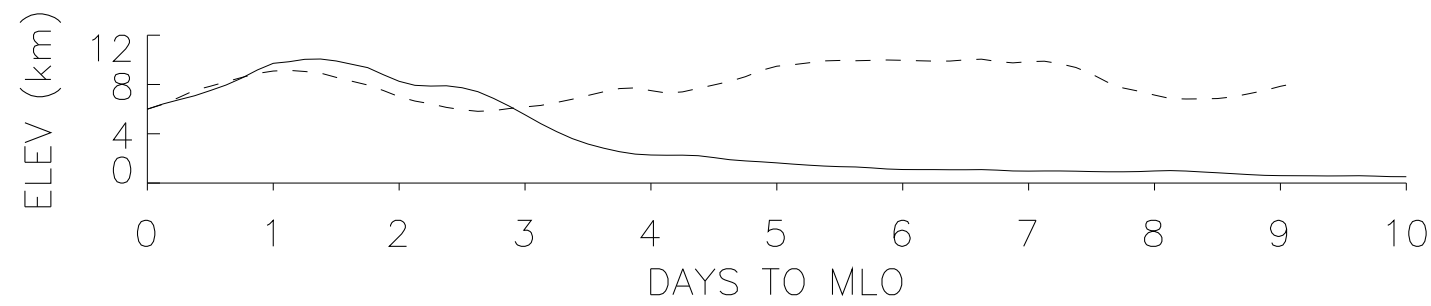



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -13 |
| 1 | 9.7 | 281 | -49 |
| 2 | 8.3 | 343 | -35 |
| 3 | 5.5 | 513 | -12 |
| 4 | 2.3 | 773 | 9 |
| 5 | 1.6 | 836 | 13 |
| 6 | 1.1 | 895 | 17 |
| 7 | 1.0 | 909 | 18 |
| 8 | 1.0 | 907 | 19 |
| 9 | 0.6 | 945 | 23 |
| 10 | 0.5 | 955 | 23 |

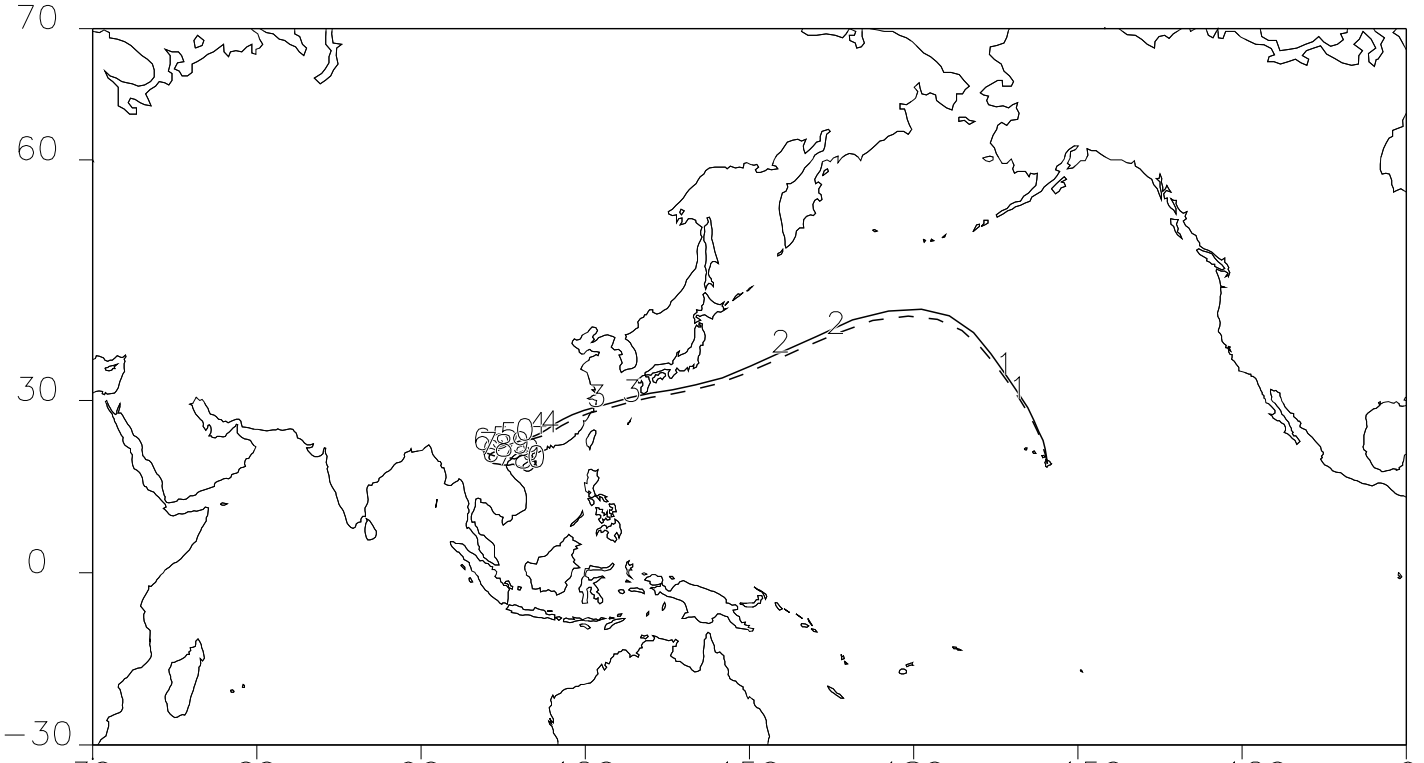
06UT

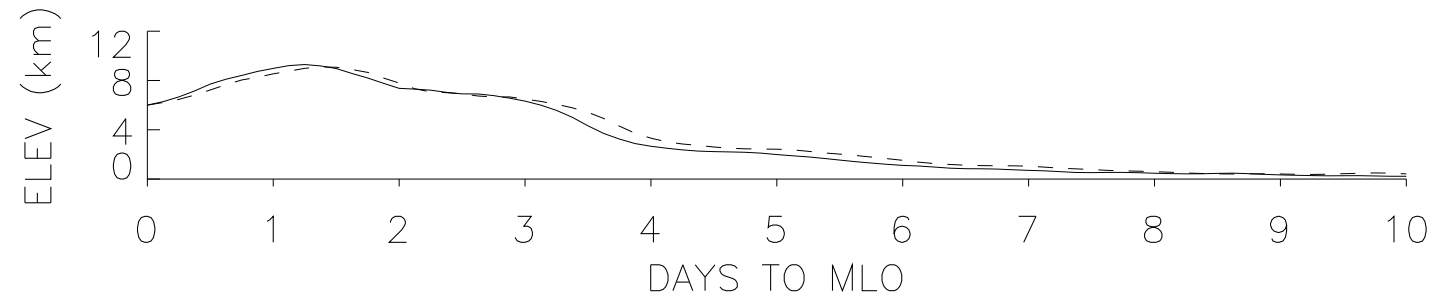
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | -10 |
| 1 | 9.1 | 308 | -42 |
| 2 | 7.0 | 413 | -23 |
| 3 | 6.2 | 474 | -13 |
| 4 | 7.5 | 395 | -26 |
| 5 | 9.5 | 297 | -46 |
| 6 | 10.0 | 278 | -50 |
| 7 | 9.9 | 281 | -47 |
| 8 | 7.1 | 415 | -24 |
| 9 | 7.9 | 372 | -30 |




00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/10/2004 (Day of Year 101)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

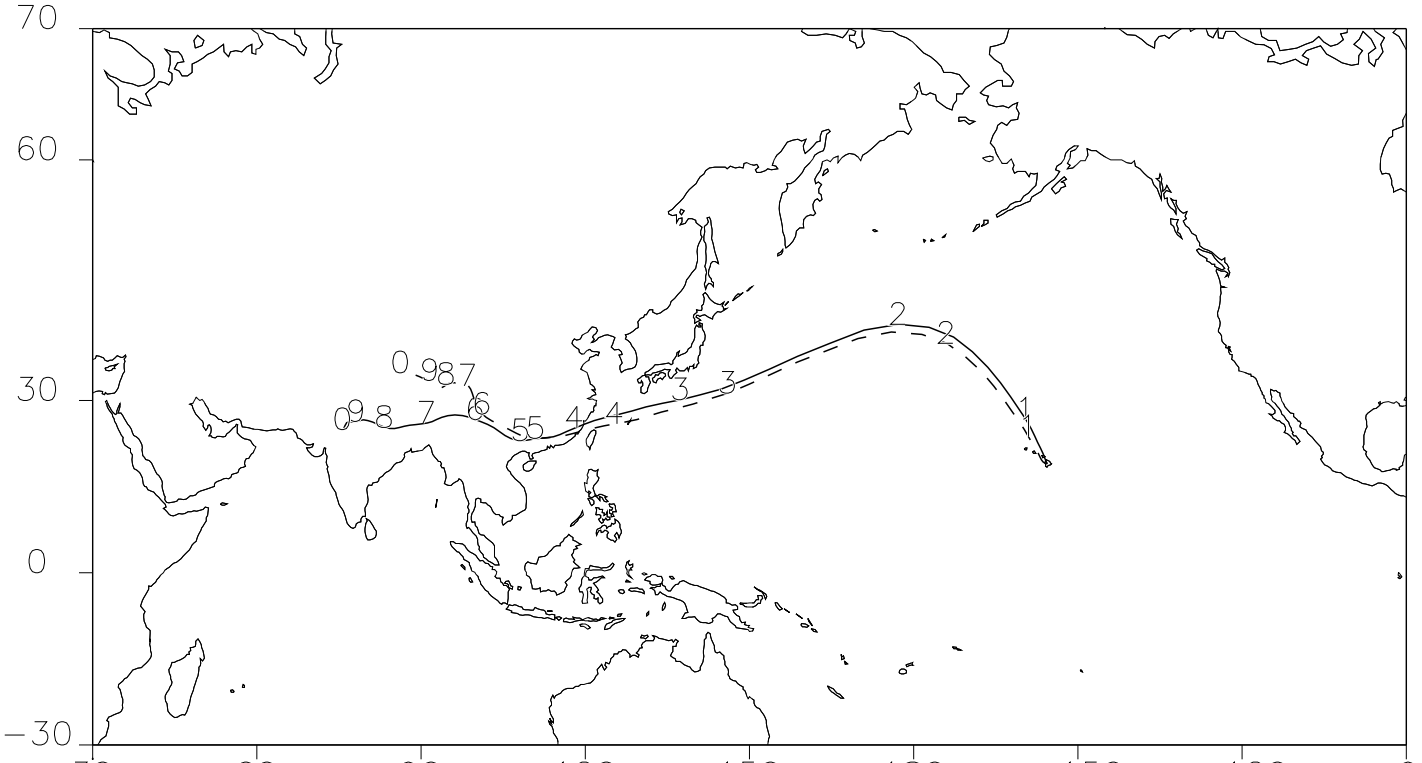
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 9.0 | 315 | −41 |
| 2 | 7.4 | 392 | −27 |
| 3 | 6.3 | 464 | −15 |
| 4 | 2.7 | 738 | 8 |
| 5 | 2.0 | 800 | 15 |
| 6 | 1.1 | 889 | 20 |
| 7 | 0.7 | 935 | 20 |
| 8 | 0.5 | 960 | 21 |
| 9 | 0.3 | 976 | 22 |
| 10 | 0.2 | 987 | 23 |

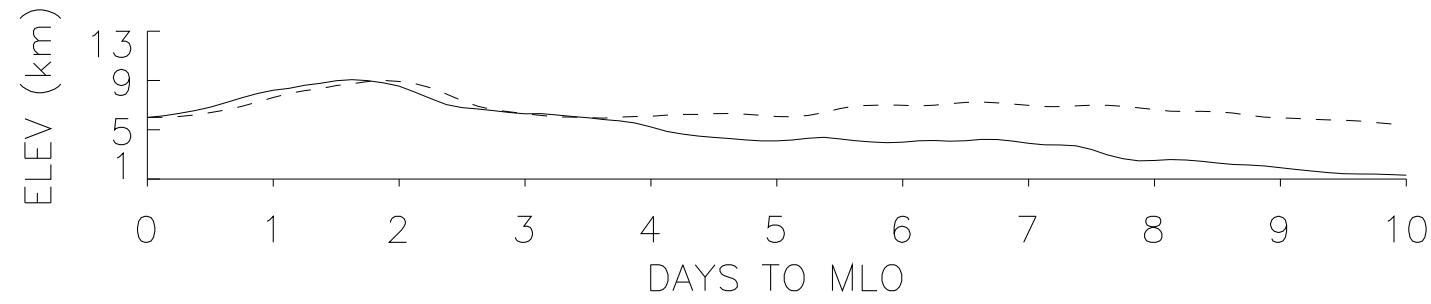
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 8.5 | 341 | −34 |
| 2 | 7.8 | 368 | −30 |
| 3 | 6.5 | 452 | −15 |
| 4 | 3.3 | 682 | 3 |
| 5 | 2.4 | 761 | 11 |
| 6 | 1.5 | 850 | 18 |
| 7 | 1.0 | 902 | 19 |
| 8 | 0.6 | 948 | 18 |
| 9 | 0.4 | 969 | 18 |
| 10 | 0.4 | 966 | 20 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/11/2004 (Day of Year 102)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

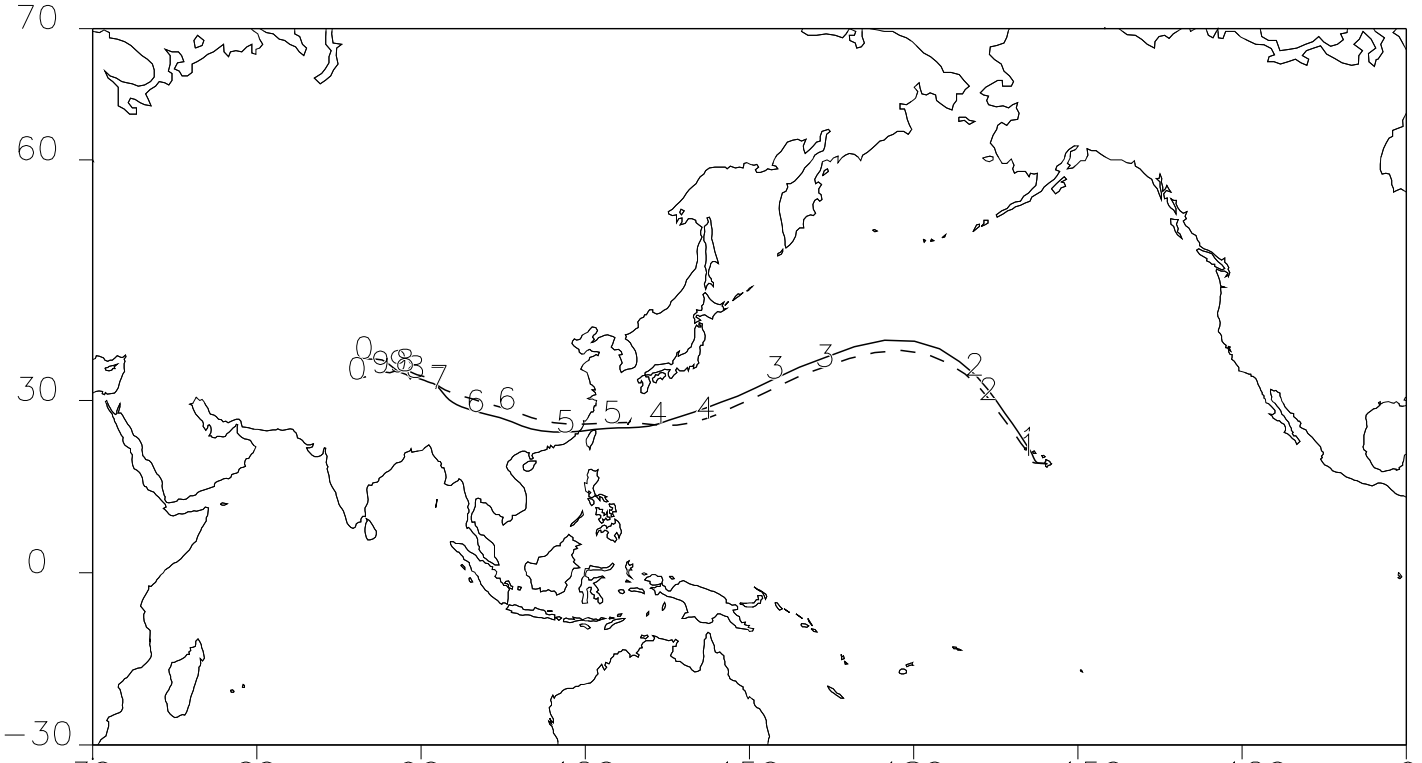
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 8.2 | 360 | −30 |
| 2 | 8.5 | 332 | −36 |
| 3 | 6.3 | 464 | −13 |
| 4 | 5.2 | 538 | −7 |
| 5 | 4.1 | 620 | 0 |
| 6 | 4.0 | 627 | −1 |
| 7 | 3.9 | 637 | 1 |
| 8 | 2.5 | 754 | 13 |
| 9 | 1.9 | 810 | 19 |
| 10 | 1.3 | 869 | 23 |

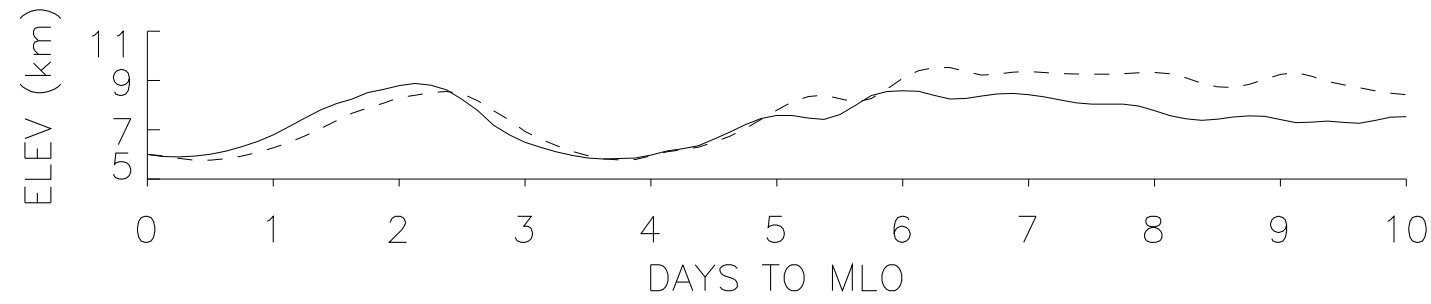
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 7.6 | 395 | −23 |
| 2 | 8.9 | 317 | −38 |
| 3 | 6.3 | 463 | −15 |
| 4 | 6.1 | 481 | −11 |
| 5 | 6.1 | 482 | −10 |
| 6 | 7.0 | 426 | −21 |
| 7 | 7.0 | 426 | −22 |
| 8 | 6.6 | 447 | −19 |
| 9 | 6.0 | 488 | −14 |
| 10 | 5.5 | 520 | −10 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/11/2004 (Day of Year 102)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

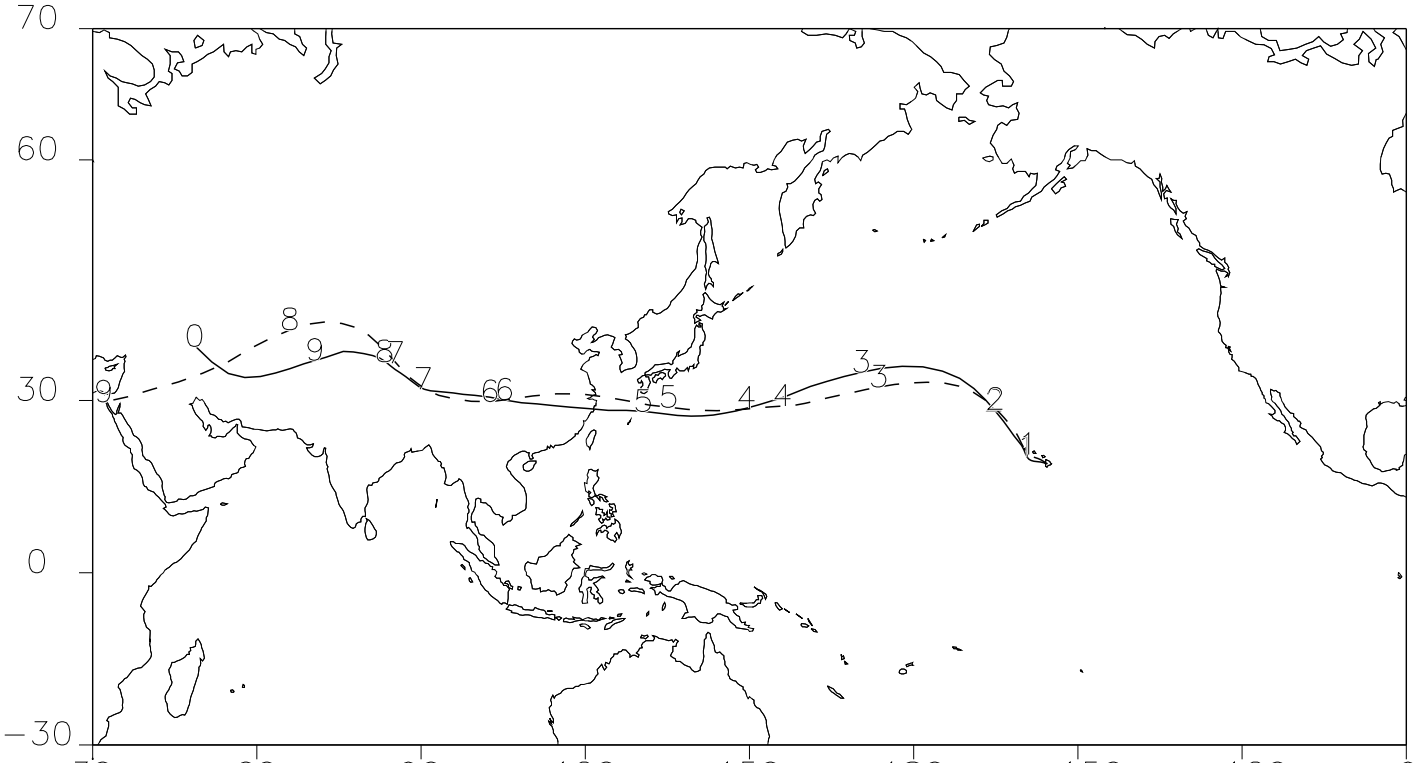
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.8 | 441 | −17 |
| 2 | 8.8 | 328 | −36 |
| 3 | 6.5 | 451 | −16 |
| 4 | 6.0 | 490 | −9 |
| 5 | 7.6 | 394 | −23 |
| 6 | 8.6 | 341 | −34 |
| 7 | 8.4 | 349 | −34 |
| 8 | 7.8 | 382 | −28 |
| 9 | 7.4 | 401 | −27 |
| 10 | 7.5 | 394 | −28 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.3 | 474 | −12 |
| 2 | 8.3 | 355 | −31 |
| 3 | 6.9 | 424 | −20 |
| 4 | 5.9 | 491 | −10 |
| 5 | 7.8 | 382 | −26 |
| 6 | 9.1 | 316 | −40 |
| 7 | 9.4 | 304 | −43 |
| 8 | 9.3 | 306 | −43 |
| 9 | 9.2 | 308 | −42 |
| 10 | 8.4 | 348 | −35 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/12/2004 (Day of Year 103)
## NCEP/NCAR Reanalysis 1 Data Set

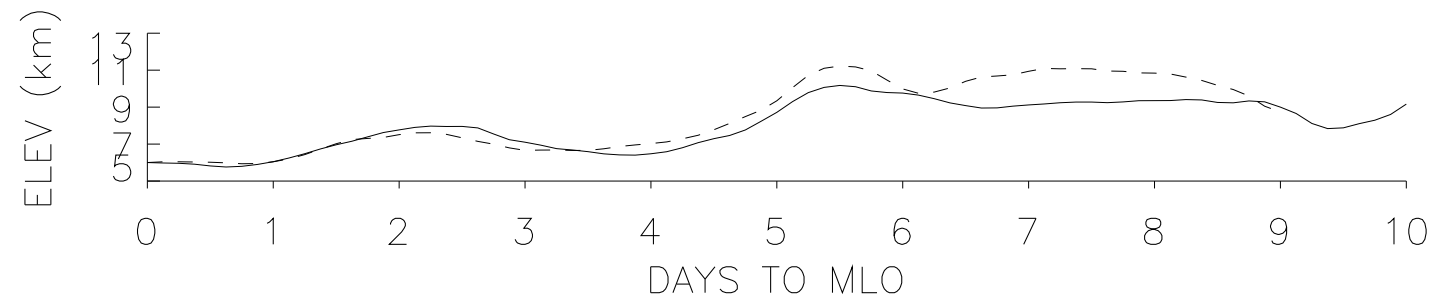



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -10 |
| 1 | 6.0 | 487 | -10 |
| 2 | 7.8 | 385 | -26 |
| 3 | 7.1 | 417 | -20 |
| 4 | 6.5 | 459 | -12 |
| 5 | 8.7 | 335 | -34 |
| 6 | 9.8 | 284 | -47 |
| 7 | 9.1 | 315 | -41 |
| 8 | 9.4 | 304 | -44 |
| 9 | 9.0 | 317 | -41 |
| 10 | 9.2 | 300 | -46 |

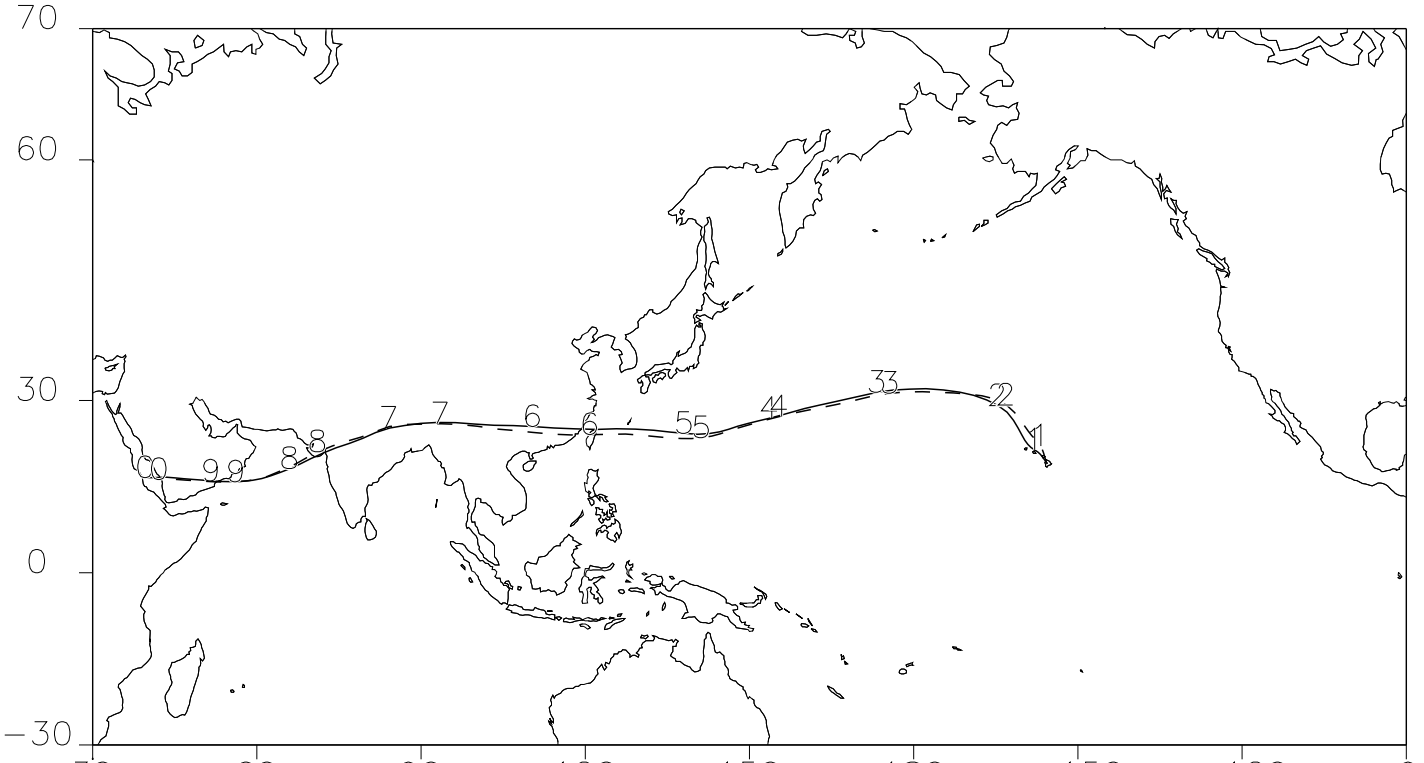
06UT

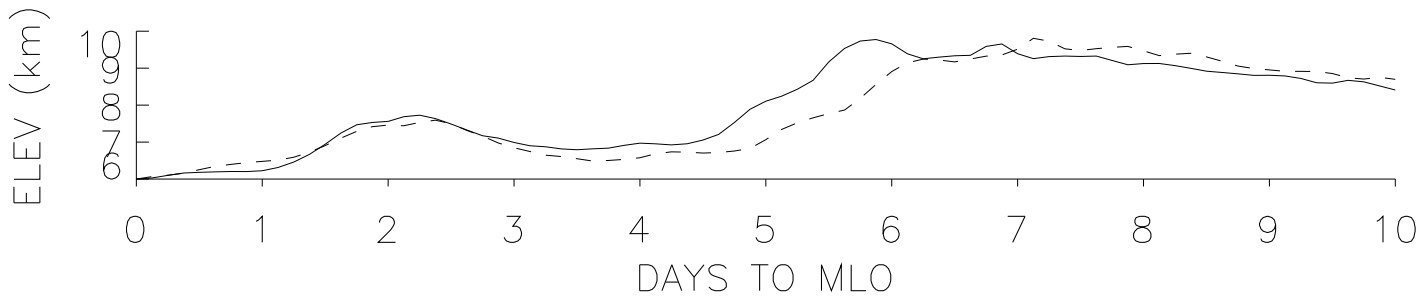
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -10 |
| 1 | 6.0 | 488 | -10 |
| 2 | 7.5 | 400 | -24 |
| 3 | 6.7 | 446 | -16 |
| 4 | 7.0 | 426 | -17 |
| 5 | 9.3 | 306 | -39 |
| 6 | 10.0 | 276 | -46 |
| 7 | 10.9 | 240 | -56 |
| 8 | 10.8 | 240 | -56 |
| 9 | 8.7 | 330 | -37 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/12/2004 (Day of Year 103)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

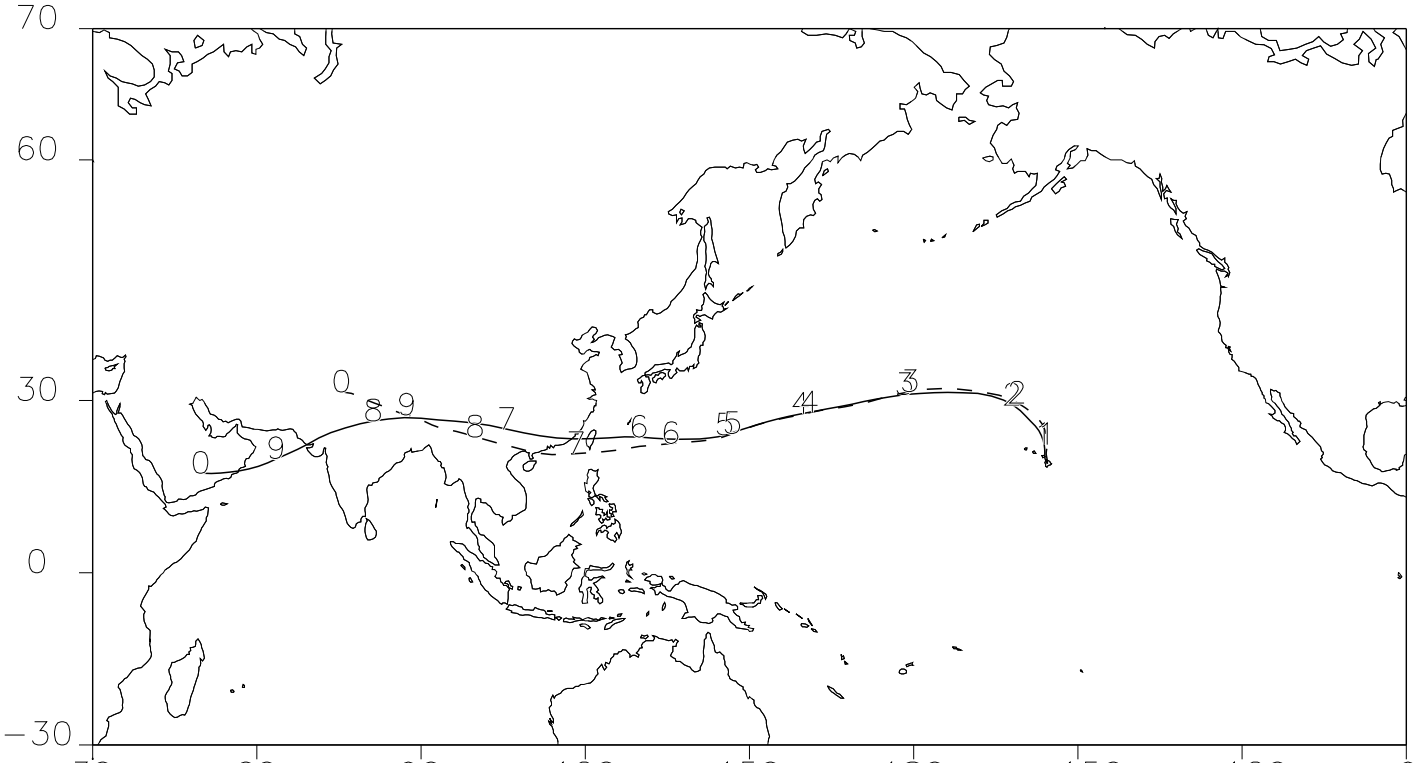
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.2 | 476 | −12 |
| 2 | 7.6 | 396 | −25 |
| 3 | 7.0 | 427 | −18 |
| 4 | 7.0 | 432 | −14 |
| 5 | 8.1 | 372 | −23 |
| 6 | 9.7 | 293 | −38 |
| 7 | 9.4 | 306 | −36 |
| 8 | 9.1 | 322 | −33 |
| 9 | 8.8 | 337 | −29 |
| 10 | 8.4 | 357 | −26 |

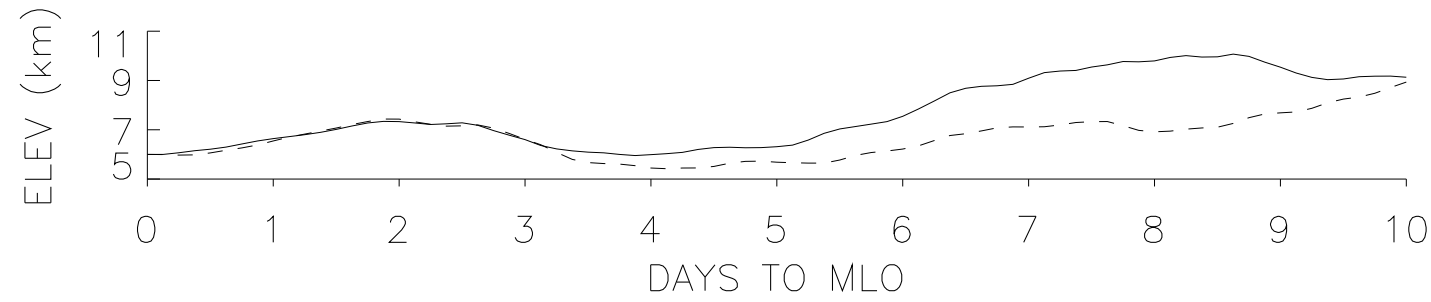
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.5 | 460 | −14 |
| 2 | 7.5 | 403 | −24 |
| 3 | 6.8 | 435 | −17 |
| 4 | 6.6 | 453 | −12 |
| 5 | 7.1 | 426 | −14 |
| 6 | 8.9 | 328 | −31 |
| 7 | 9.5 | 301 | −38 |
| 8 | 9.5 | 306 | −37 |
| 9 | 9.0 | 331 | −30 |
| 10 | 8.7 | 343 | −28 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/13/2004 (Day of Year 104)
NCEP/NCAR Reanalysis 1 Data Set




00UT

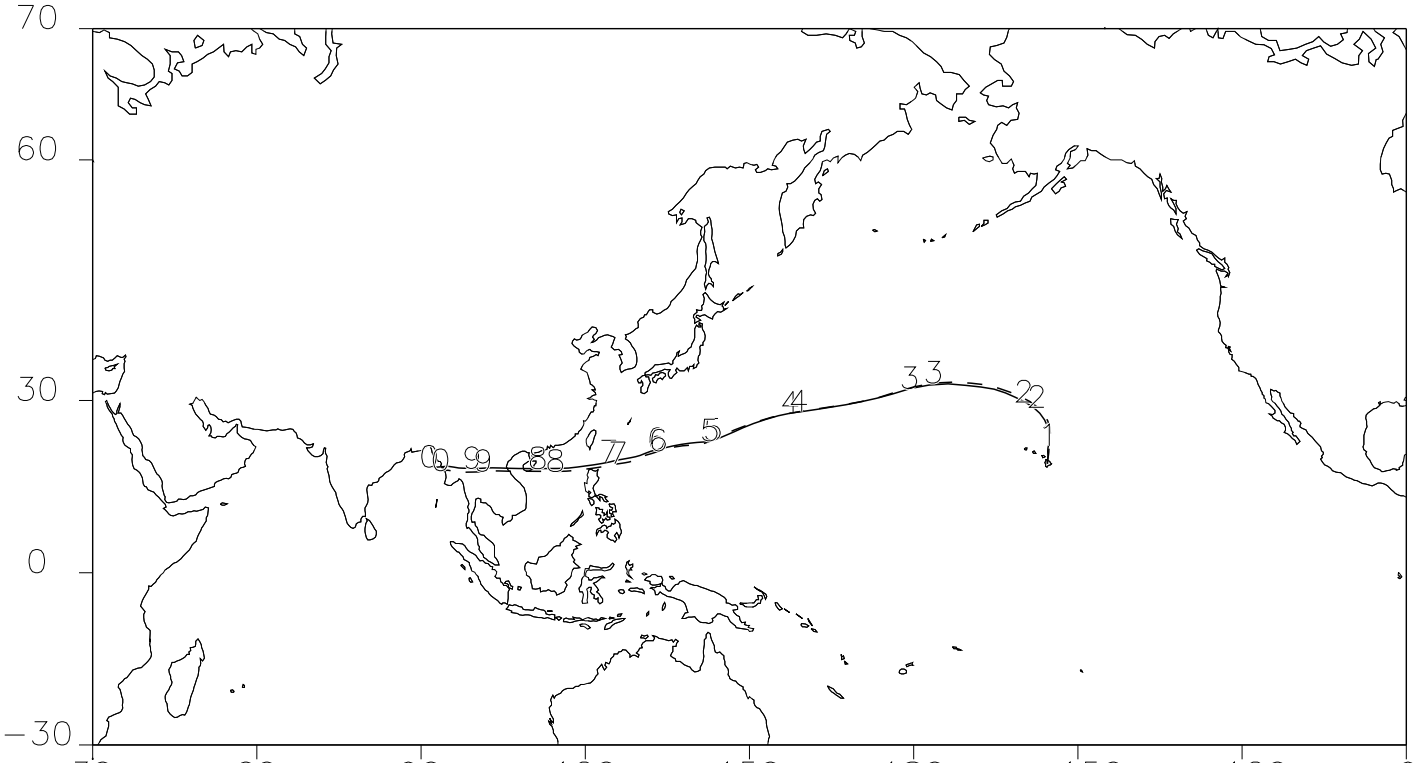
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.6 | 449 | −15 |
| 2 | 7.3 | 409 | −23 |
| 3 | 6.6 | 451 | −15 |
| 4 | 6.0 | 490 | −8 |
| 5 | 6.3 | 472 | −9 |
| 6 | 7.5 | 399 | −20 |
| 7 | 9.1 | 318 | −35 |
| 8 | 9.8 | 288 | −41 |
| 9 | 9.5 | 302 | −38 |
| 10 | 9.1 | 321 | −33 |

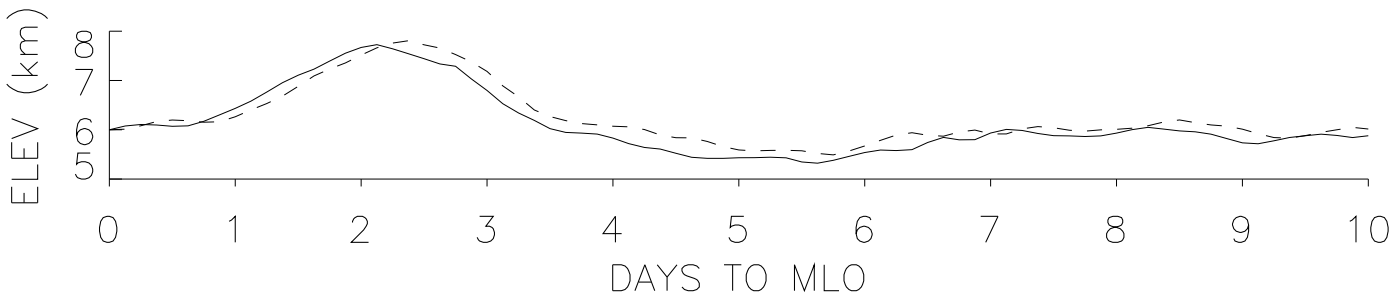
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.5 | 455 | −14 |
| 2 | 7.4 | 403 | −25 |
| 3 | 6.6 | 449 | −16 |
| 4 | 5.4 | 524 | −7 |
| 5 | 5.7 | 510 | −5 |
| 6 | 6.2 | 477 | −9 |
| 7 | 7.1 | 422 | −16 |
| 8 | 6.9 | 432 | −18 |
| 9 | 7.7 | 390 | −25 |
| 10 | 8.9 | 326 | −38 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/13/2004 (Day of Year 104)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

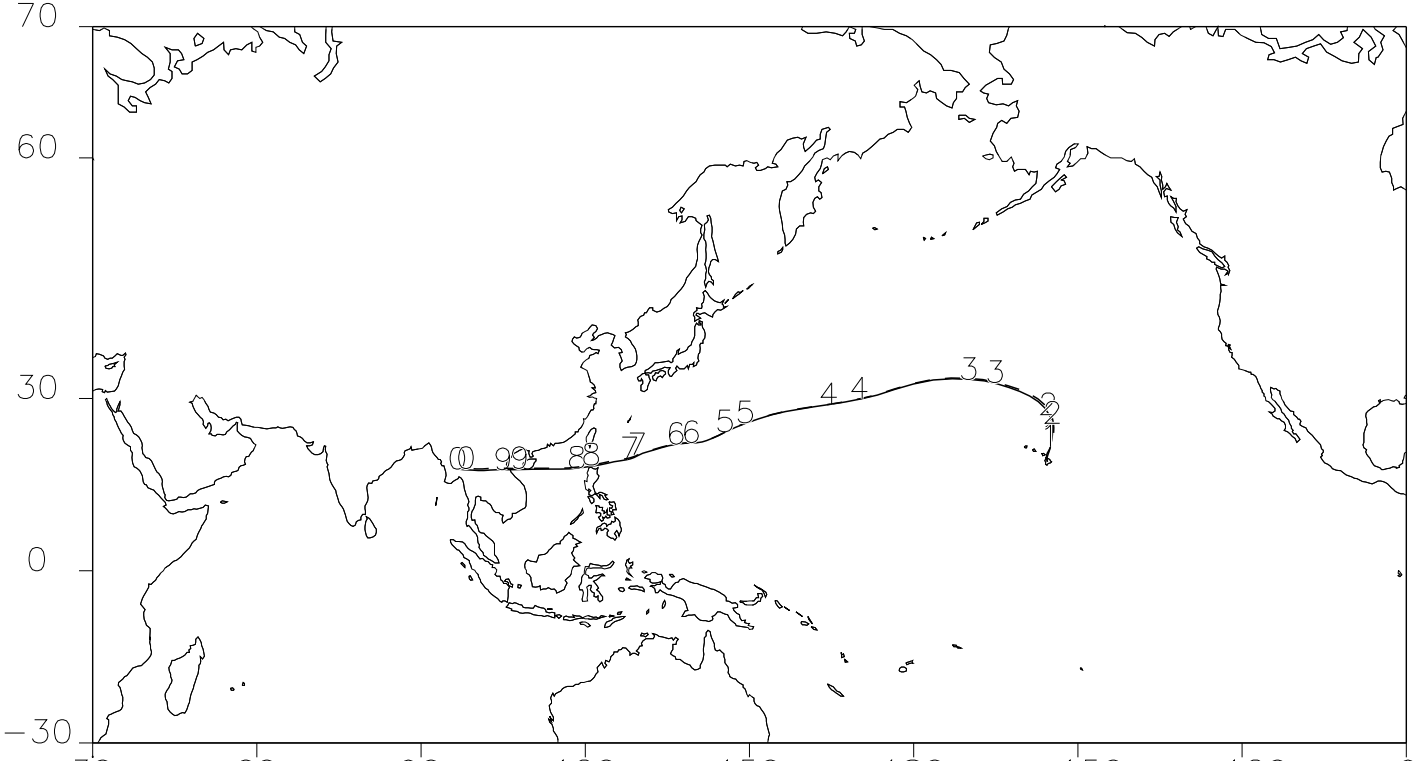
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.4 | 462 | −14 |
| 2 | 7.7 | 389 | −27 |
| 3 | 6.8 | 437 | −19 |
| 4 | 5.8 | 500 | −9 |
| 5 | 5.4 | 528 | −3 |
| 6 | 5.5 | 522 | −4 |
| 7 | 5.9 | 495 | −7 |
| 8 | 5.9 | 494 | −7 |
| 9 | 5.7 | 506 | −6 |
| 10 | 5.9 | 498 | −7 |

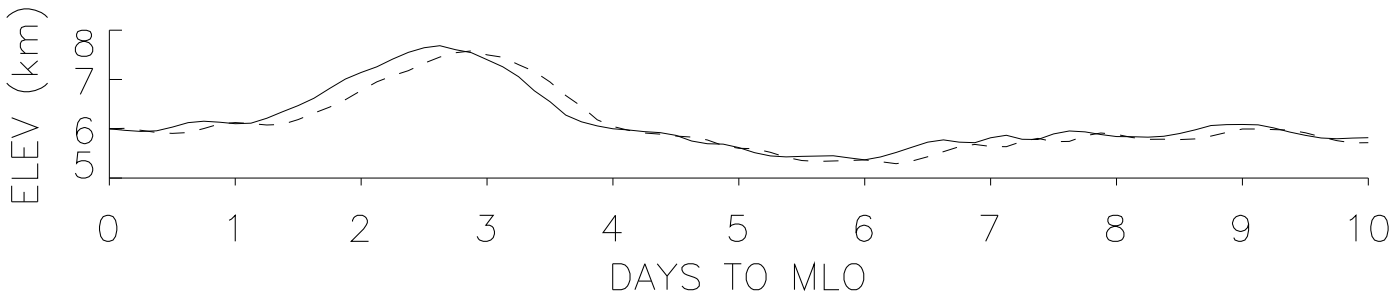
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.3 | 473 | −13 |
| 2 | 7.5 | 398 | −24 |
| 3 | 7.2 | 413 | −22 |
| 4 | 6.1 | 483 | −12 |
| 5 | 5.6 | 516 | −5 |
| 6 | 5.7 | 511 | −5 |
| 7 | 5.9 | 496 | −7 |
| 8 | 6.0 | 489 | −8 |
| 9 | 6.0 | 490 | −8 |
| 10 | 6.0 | 491 | −7 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/14/2004 (Day of Year 105)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

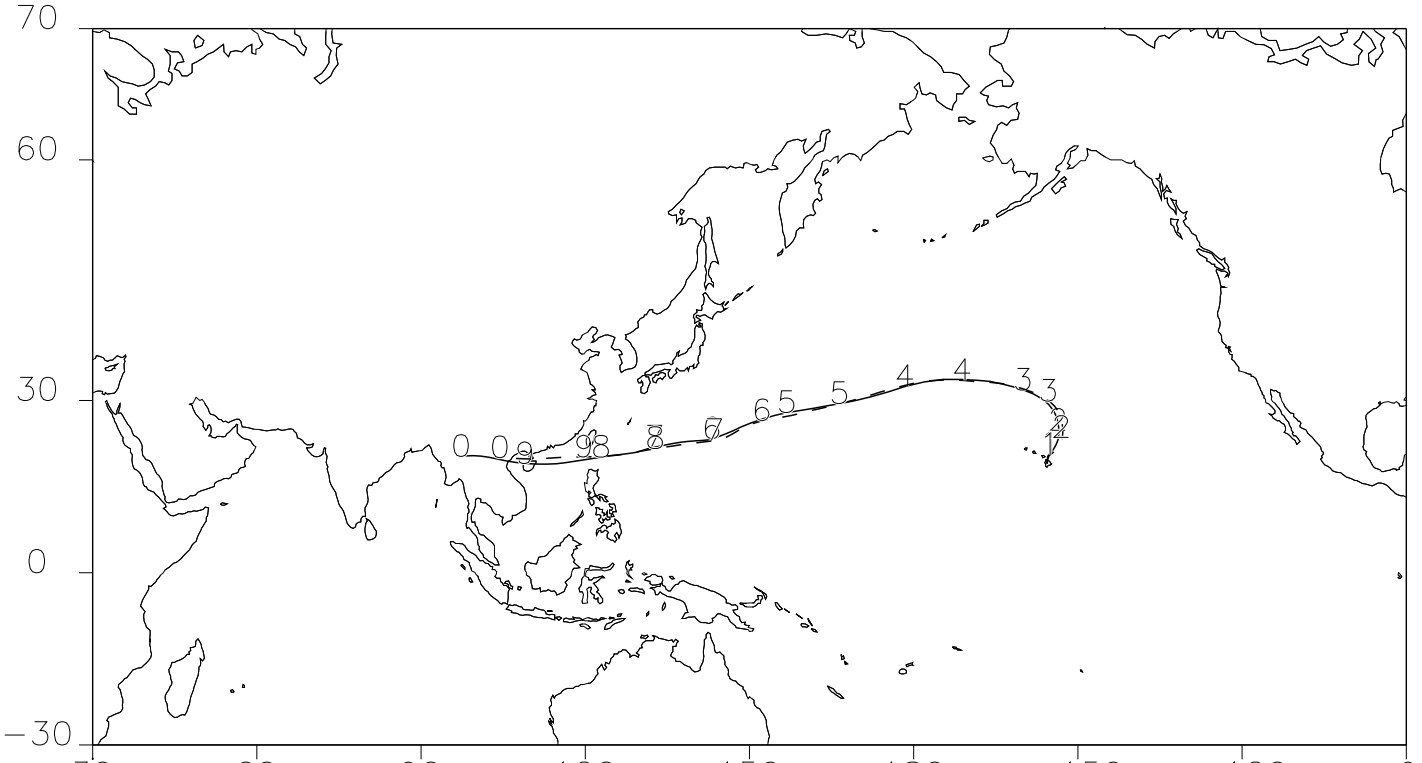
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.1 | 483 | −11 |
| 2 | 7.1 | 419 | −21 |
| 3 | 7.4 | 402 | −25 |
| 4 | 6.0 | 488 | −12 |
| 5 | 5.6 | 515 | −6 |
| 6 | 5.4 | 532 | −3 |
| 7 | 5.8 | 503 | −7 |
| 8 | 5.8 | 500 | −6 |
| 9 | 6.1 | 484 | −8 |
| 10 | 5.8 | 502 | −6 |

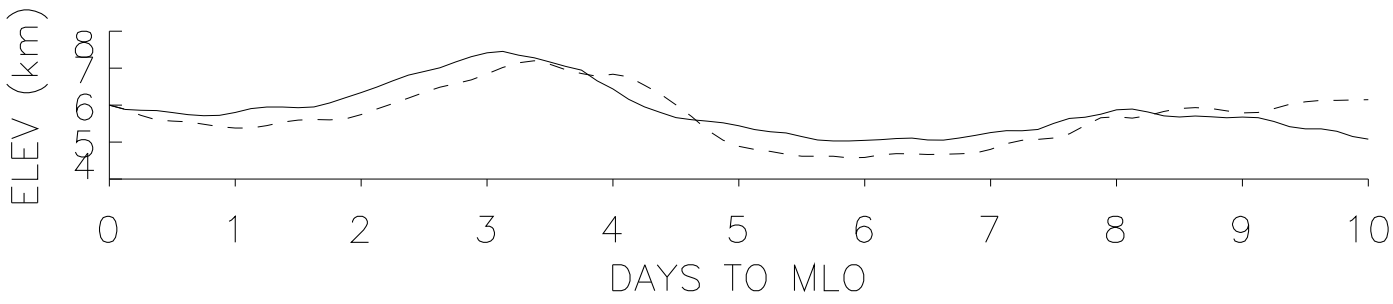
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 6.1 | 482 | −11 |
| 2 | 6.8 | 441 | −18 |
| 3 | 7.5 | 398 | −26 |
| 4 | 6.0 | 484 | −12 |
| 5 | 5.6 | 514 | −8 |
| 6 | 5.4 | 531 | −4 |
| 7 | 5.6 | 514 | −5 |
| 8 | 5.9 | 497 | −7 |
| 9 | 6.0 | 490 | −7 |
| 10 | 5.7 | 511 | −6 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/14/2004 (Day of Year 105)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

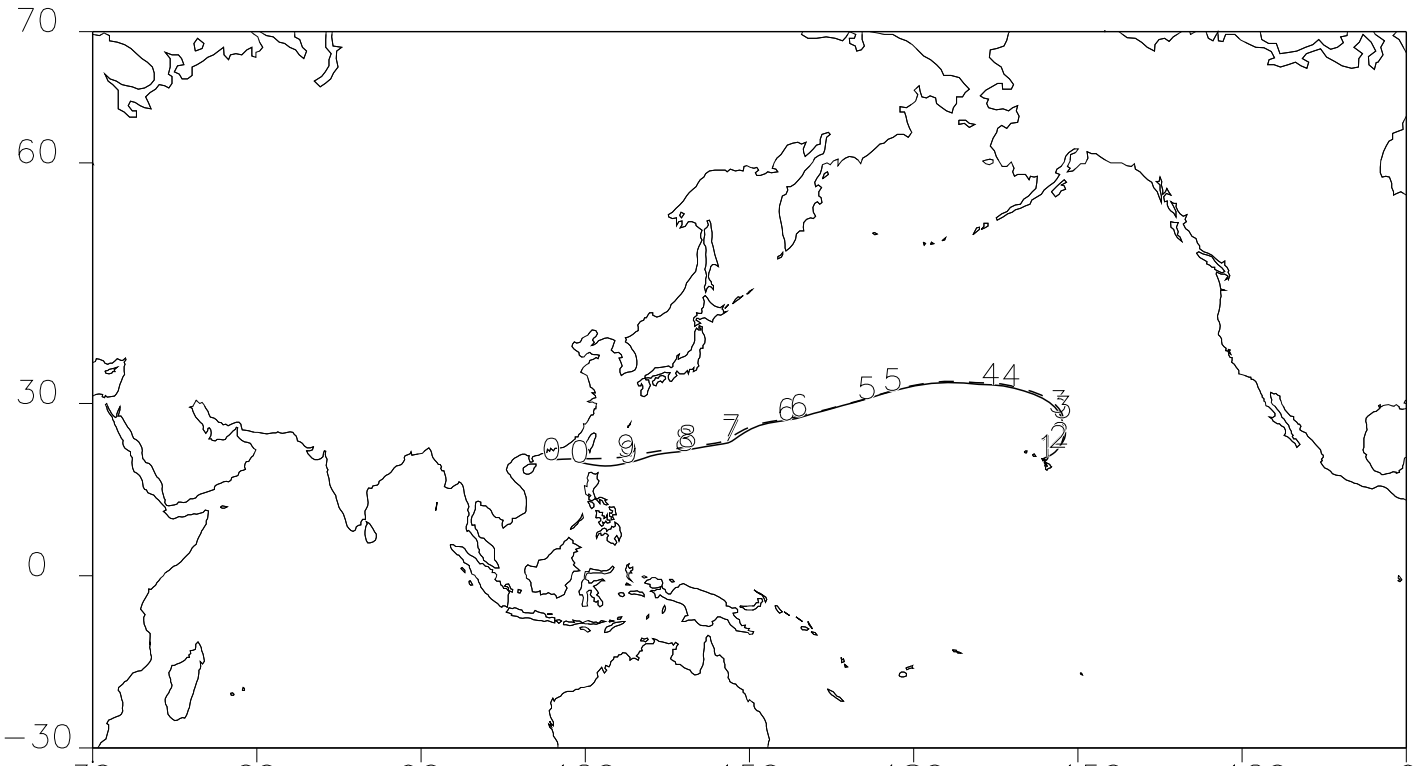
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.8 | 502 | −9 |
| 2 | 6.3 | 467 | −15 |
| 3 | 7.4 | 402 | −25 |
| 4 | 6.4 | 458 | −16 |
| 5 | 5.4 | 525 | −7 |
| 6 | 5.0 | 554 | −2 |
| 7 | 5.3 | 540 | −3 |
| 8 | 5.9 | 498 | −8 |
| 9 | 5.7 | 510 | −6 |
| 10 | 5.1 | 550 | −4 |

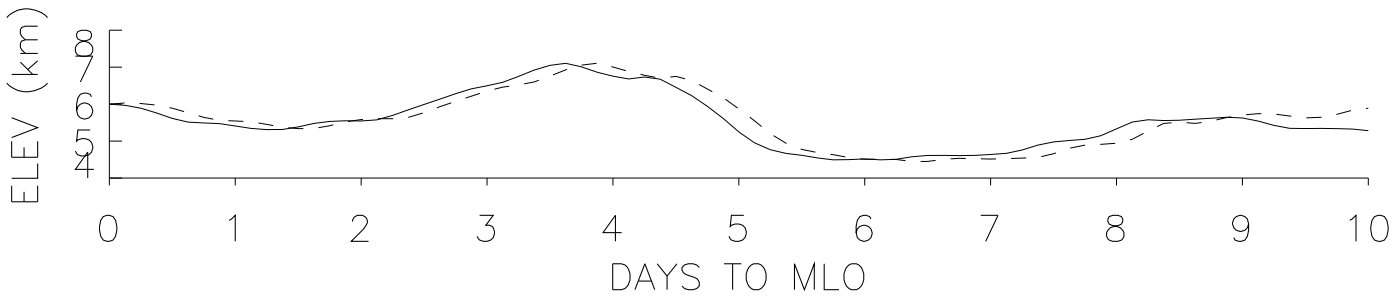
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 5.4 | 530 | −7 |
| 2 | 5.7 | 506 | −11 |
| 3 | 6.8 | 435 | −21 |
| 4 | 6.8 | 434 | −20 |
| 5 | 4.9 | 562 | −5 |
| 6 | 4.6 | 585 | −1 |
| 7 | 4.8 | 570 | −1 |
| 8 | 5.7 | 510 | −6 |
| 9 | 5.8 | 502 | −8 |
| 10 | 6.1 | 480 | −11 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/15/2004 (Day of Year 106)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

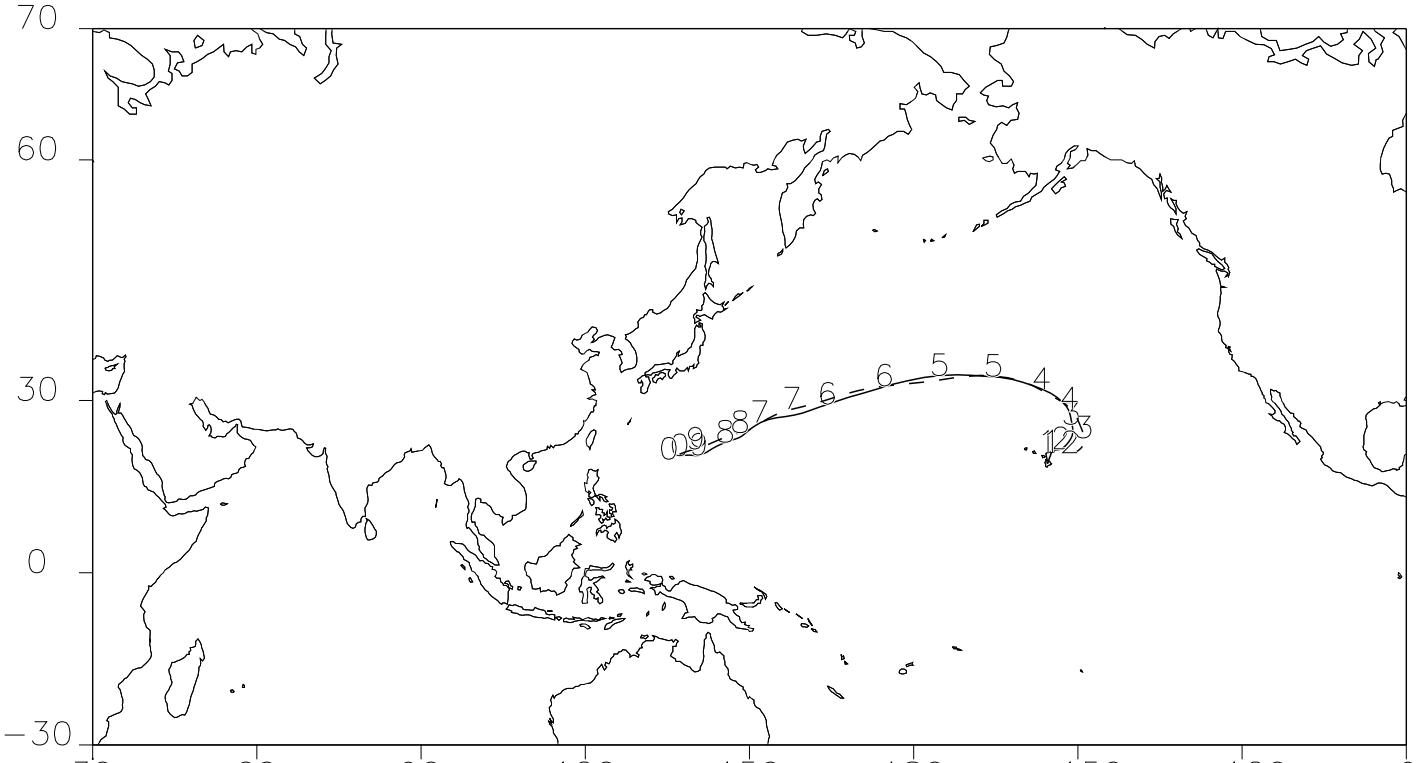
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.4 | 528 | −7 |
| 2 | 5.5 | 519 | −8 |
| 3 | 6.5 | 456 | −18 |
| 4 | 6.8 | 439 | −20 |
| 5 | 5.2 | 537 | −8 |
| 6 | 4.5 | 591 | −2 |
| 7 | 4.6 | 584 | 0 |
| 8 | 5.3 | 536 | −3 |
| 9 | 5.6 | 514 | −5 |
| 10 | 5.3 | 536 | −5 |

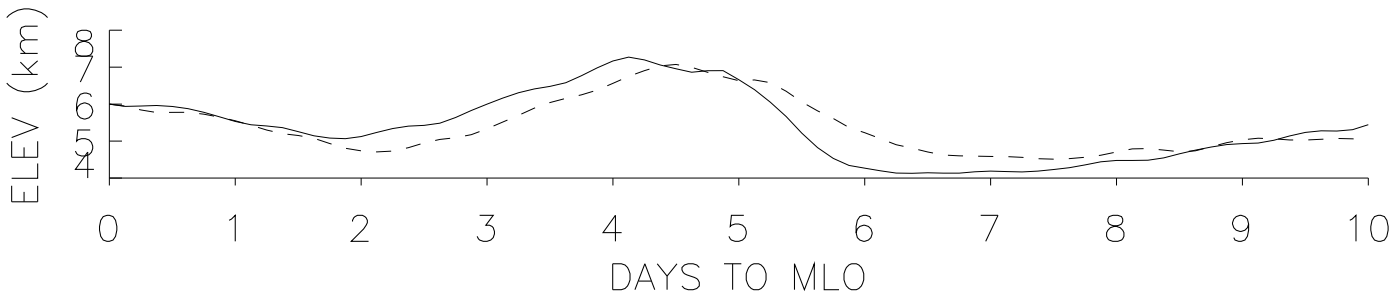
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.5 | 520 | −8 |
| 2 | 5.6 | 517 | −9 |
| 3 | 6.4 | 466 | −17 |
| 4 | 7.0 | 425 | −23 |
| 5 | 5.9 | 494 | −12 |
| 6 | 4.5 | 591 | −3 |
| 7 | 4.5 | 591 | 1 |
| 8 | 4.9 | 561 | −1 |
| 9 | 5.7 | 508 | −7 |
| 10 | 5.9 | 495 | −9 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/15/2004 (Day of Year 106)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

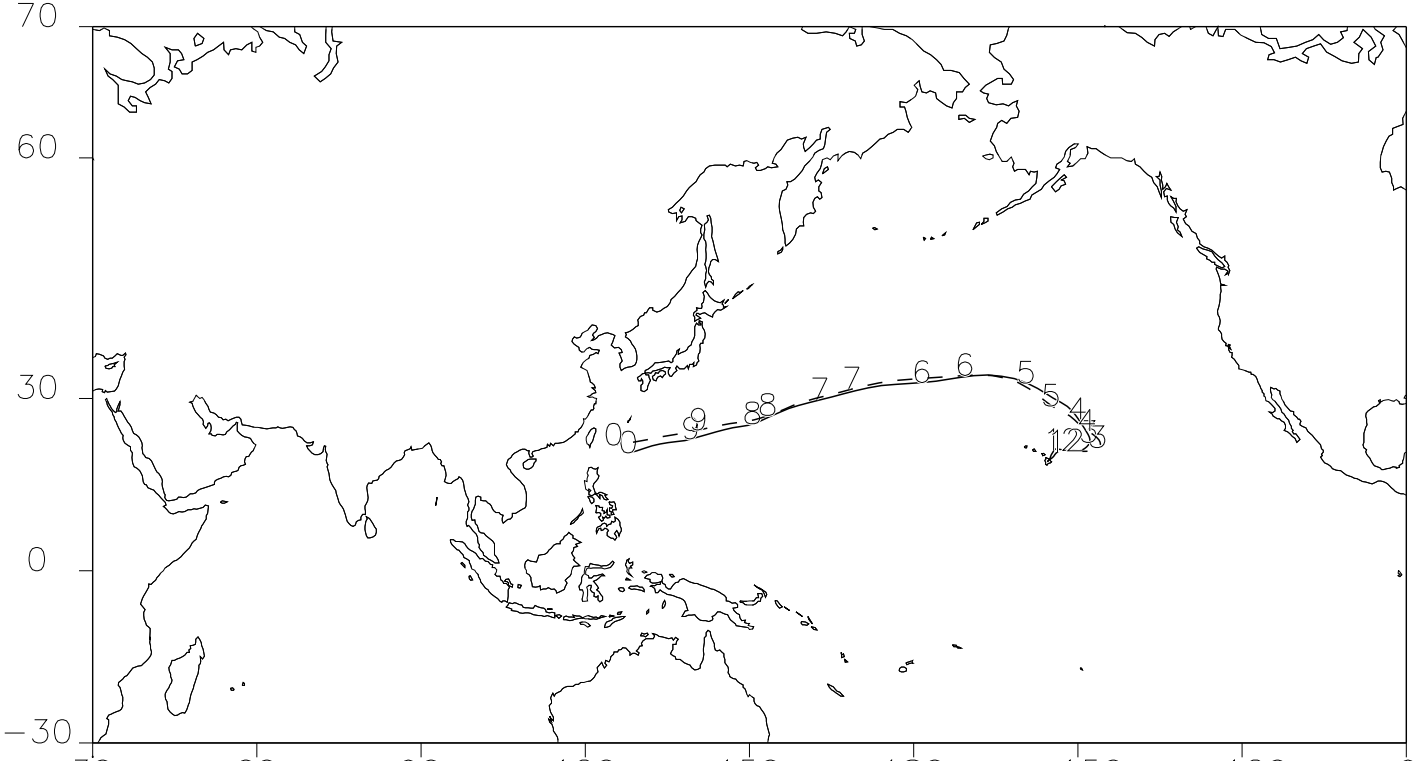
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 5.5 | 520 | −8 |
| 2 | 5.1 | 547 | −5 |
| 3 | 6.0 | 488 | −14 |
| 4 | 7.2 | 415 | −24 |
| 5 | 6.7 | 443 | −20 |
| 6 | 4.3 | 609 | −2 |
| 7 | 4.2 | 616 | 1 |
| 8 | 4.5 | 597 | 1 |
| 9 | 4.9 | 563 | 0 |
| 10 | 5.4 | 527 | −3 |

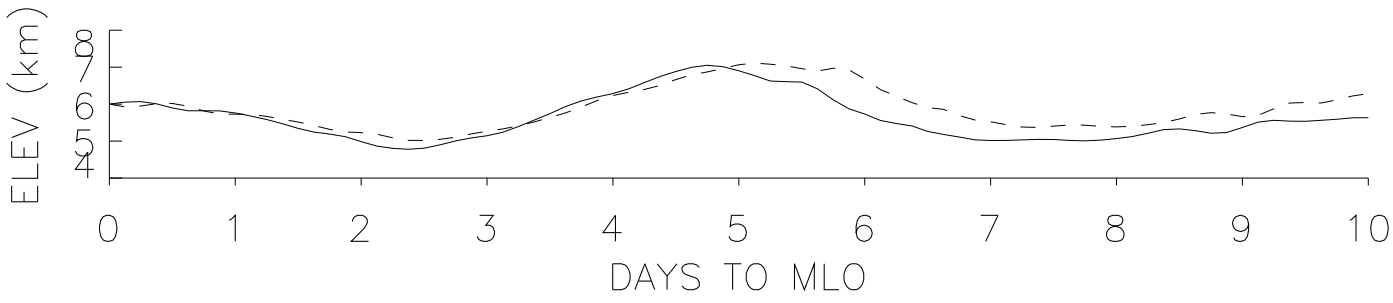
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 5.5 | 519 | −8 |
| 2 | 4.7 | 576 | −3 |
| 3 | 5.3 | 533 | −9 |
| 4 | 6.6 | 452 | −19 |
| 5 | 6.6 | 446 | −20 |
| 6 | 5.2 | 536 | −9 |
| 7 | 4.6 | 584 | −3 |
| 8 | 4.7 | 578 | −1 |
| 9 | 5.0 | 555 | −2 |
| 10 | 5.0 | 554 | −1 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/16/2004 (Day of Year 107)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

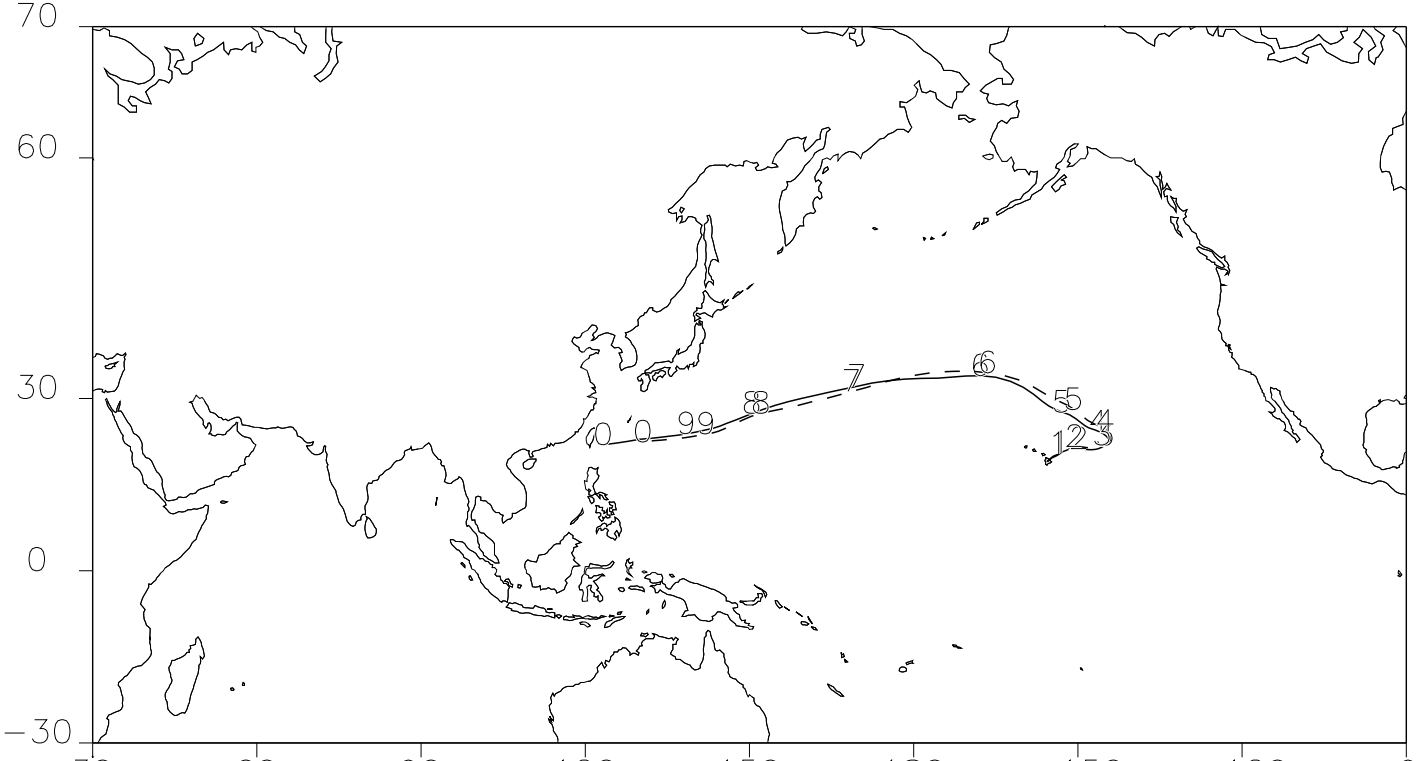
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.8 | 504 | −9 |
| 2 | 5.0 | 557 | −5 |
| 3 | 5.1 | 545 | −7 |
| 4 | 6.3 | 468 | −16 |
| 5 | 6.9 | 431 | −22 |
| 6 | 5.7 | 503 | −11 |
| 7 | 5.0 | 554 | −6 |
| 8 | 5.1 | 553 | −3 |
| 9 | 5.4 | 533 | −4 |
| 10 | 5.6 | 513 | −6 |

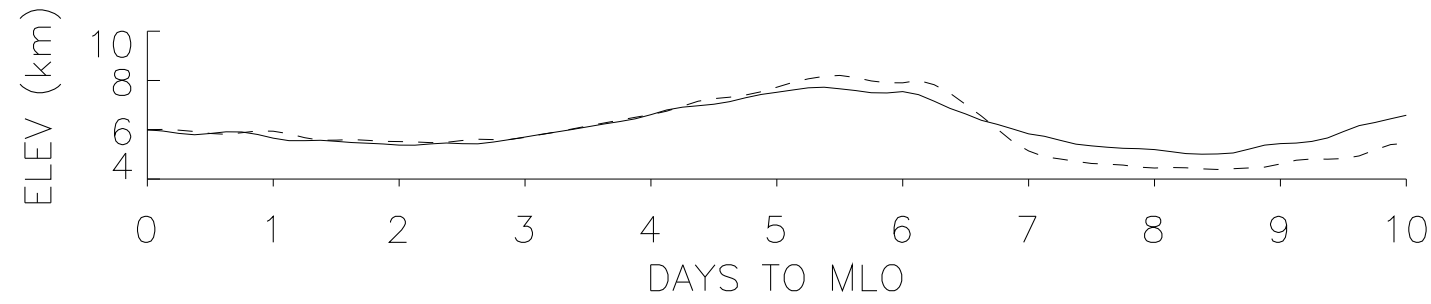
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 5.7 | 507 | −9 |
| 2 | 5.2 | 541 | −8 |
| 3 | 5.3 | 537 | −8 |
| 4 | 6.2 | 473 | −15 |
| 5 | 7.1 | 423 | −22 |
| 6 | 6.7 | 444 | −19 |
| 7 | 5.5 | 517 | −9 |
| 8 | 5.4 | 528 | −5 |
| 9 | 5.7 | 511 | −6 |
| 10 | 6.3 | 470 | −12 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/16/2004 (Day of Year 107)
## NCEP/NCAR Reanalysis 1 Data Set



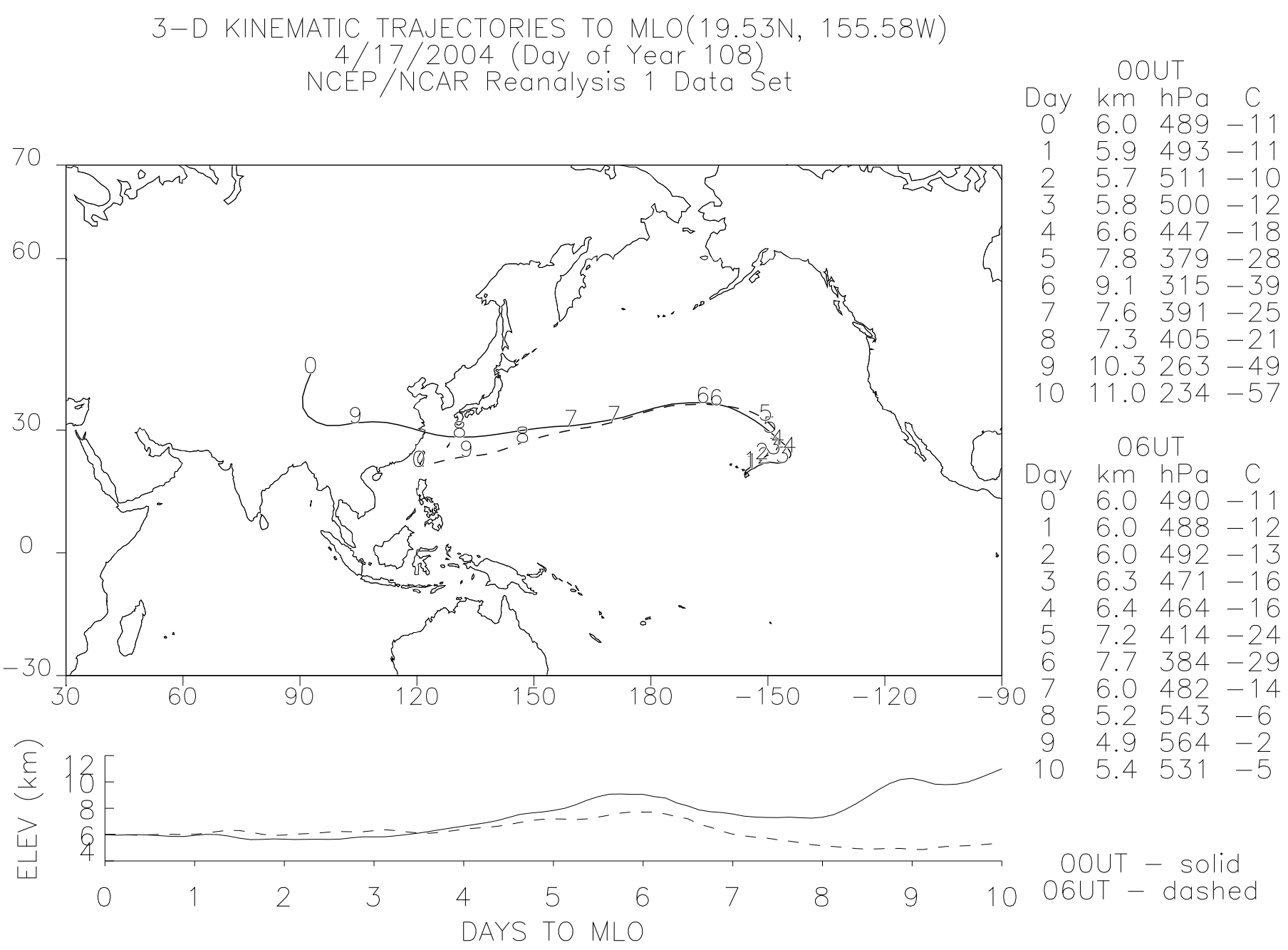

12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −11 |
| 1 | 5.7 | 510 | −9 |
| 2 | 5.4 | 530 | −9 |
| 3 | 5.7 | 507 | −11 |
| 4 | 6.6 | 449 | −18 |
| 5 | 7.5 | 397 | −25 |
| 6 | 7.5 | 394 | −26 |
| 7 | 5.8 | 496 | −12 |
| 8 | 5.2 | 542 | −5 |
| 9 | 5.4 | 527 | −4 |
| 10 | 6.6 | 453 | −13 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 5.9 | 493 | −11 |
| 2 | 5.5 | 521 | −9 |
| 3 | 5.7 | 510 | −11 |
| 4 | 6.6 | 450 | −17 |
| 5 | 7.7 | 386 | −26 |
| 6 | 7.9 | 375 | −29 |
| 7 | 5.1 | 542 | −8 |
| 8 | 4.4 | 594 | −1 |
| 9 | 4.6 | 584 | −1 |
| 10 | 5.5 | 525 | −5 |

12UT − solid
18UT − dashed




00UT

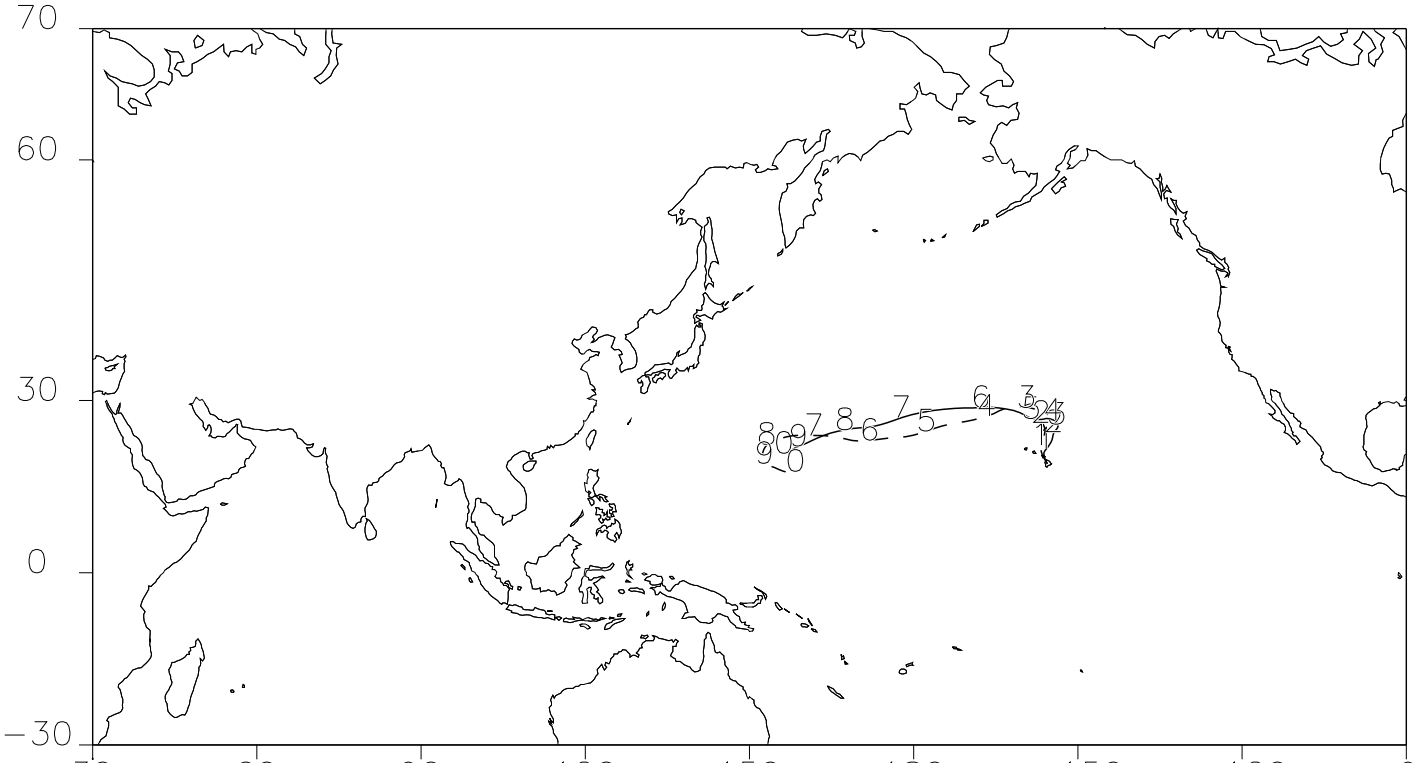
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 5.9 | 493 | −11 |
| 2 | 5.7 | 511 | −10 |
| 3 | 5.8 | 500 | −12 |
| 4 | 6.6 | 447 | −18 |
| 5 | 7.8 | 379 | −28 |
| 6 | 9.1 | 315 | −39 |
| 7 | 7.6 | 391 | −25 |
| 8 | 7.3 | 405 | −21 |
| 9 | 10.3 | 263 | −49 |
| 10 | 11.0 | 234 | −57 |

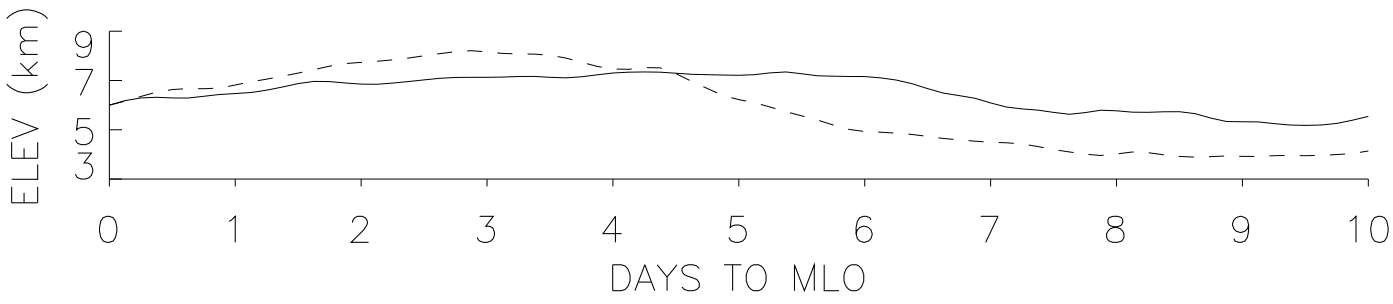
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 6.0 | 488 | −12 |
| 2 | 6.0 | 492 | −13 |
| 3 | 6.3 | 471 | −16 |
| 4 | 6.4 | 464 | −16 |
| 5 | 7.2 | 414 | −24 |
| 6 | 7.7 | 384 | −29 |
| 7 | 6.0 | 482 | −14 |
| 8 | 5.2 | 543 | −6 |
| 9 | 4.9 | 564 | −2 |
| 10 | 5.4 | 531 | −5 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/17/2004 (Day of Year 108)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

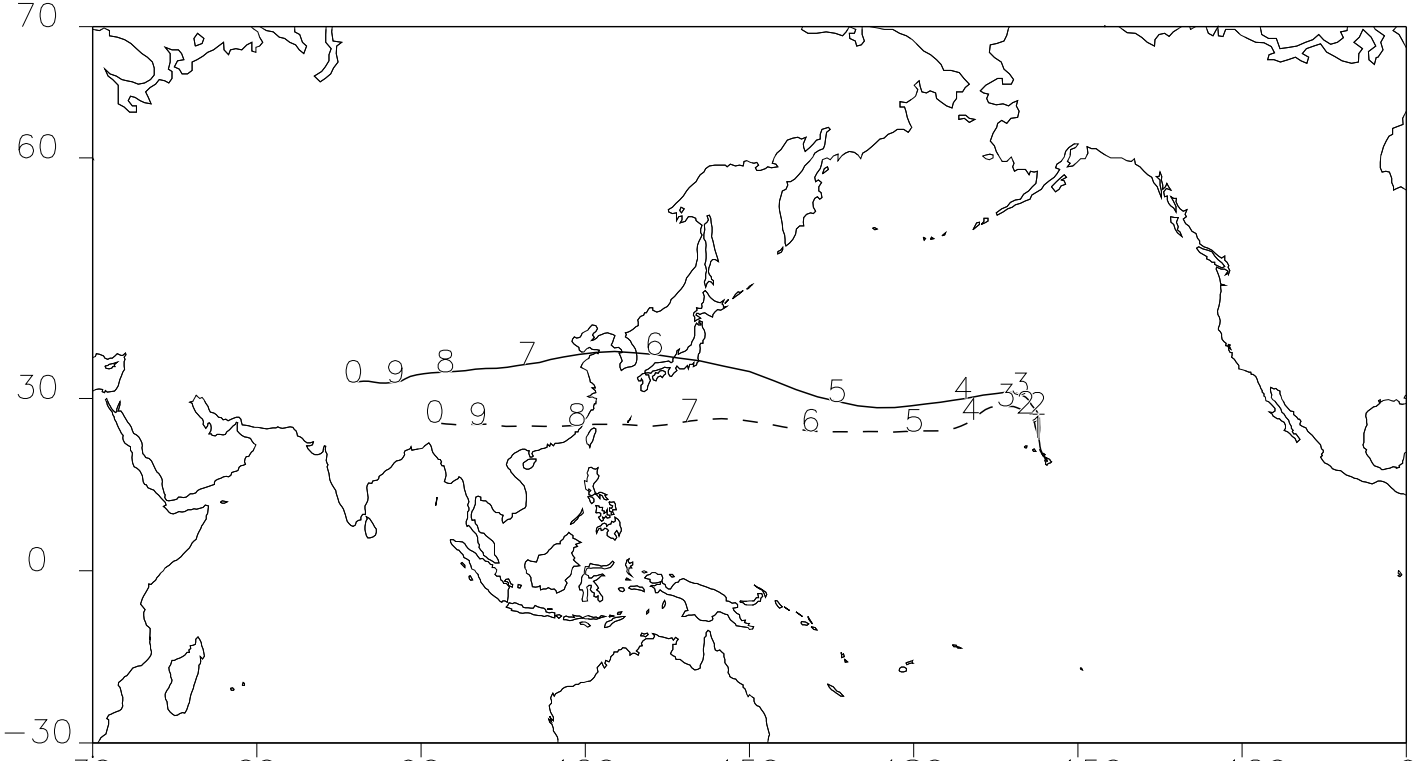
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −12 |
| 1 | 6.5 | 459 | −16 |
| 2 | 6.9 | 436 | −20 |
| 3 | 7.1 | 421 | −22 |
| 4 | 7.3 | 411 | −23 |
| 5 | 7.2 | 416 | −22 |
| 6 | 7.2 | 420 | −22 |
| 7 | 6.1 | 485 | −9 |
| 8 | 5.8 | 507 | −6 |
| 9 | 5.3 | 537 | −2 |
| 10 | 5.5 | 523 | −3 |

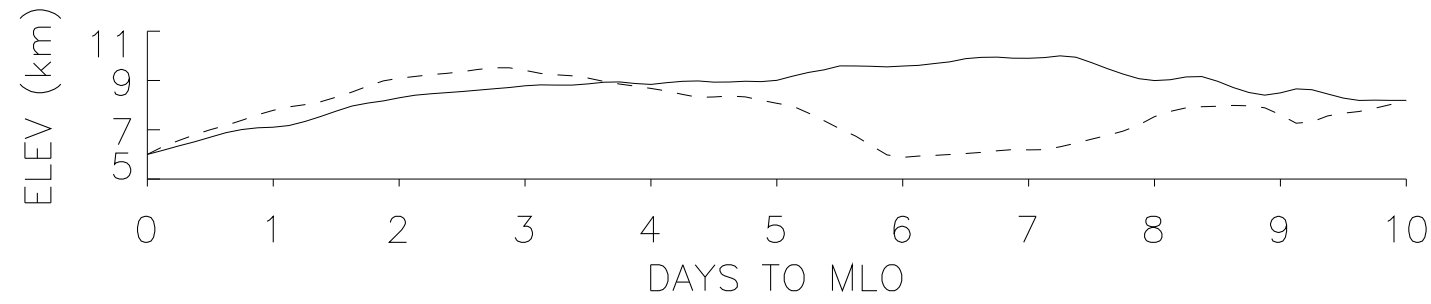
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.8 | 440 | −18 |
| 2 | 7.7 | 388 | −27 |
| 3 | 8.2 | 365 | −31 |
| 4 | 7.5 | 401 | −24 |
| 5 | 6.2 | 474 | −14 |
| 6 | 4.9 | 561 | −3 |
| 7 | 4.5 | 593 | −2 |
| 8 | 4.0 | 630 | 3 |
| 9 | 3.9 | 637 | 5 |
| 10 | 4.1 | 620 | 5 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/18/2004 (Day of Year 109)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

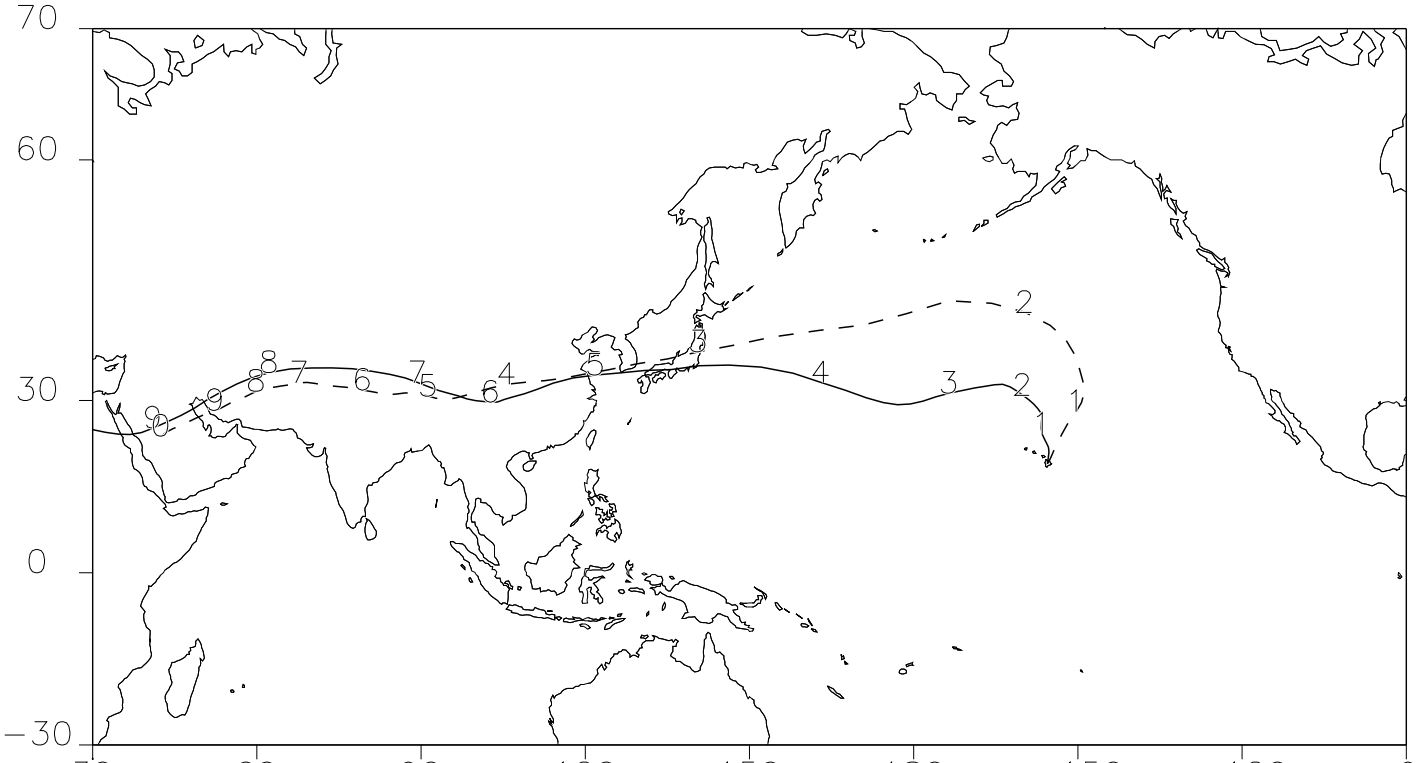
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 7.1 | 422 | −20 |
| 2 | 8.3 | 359 | −31 |
| 3 | 8.8 | 334 | −35 |
| 4 | 8.8 | 329 | −35 |
| 5 | 9.0 | 319 | −36 |
| 6 | 9.6 | 291 | −42 |
| 7 | 9.9 | 279 | −45 |
| 8 | 9.0 | 318 | −38 |
| 9 | 8.5 | 342 | −34 |
| 10 | 8.2 | 359 | −32 |

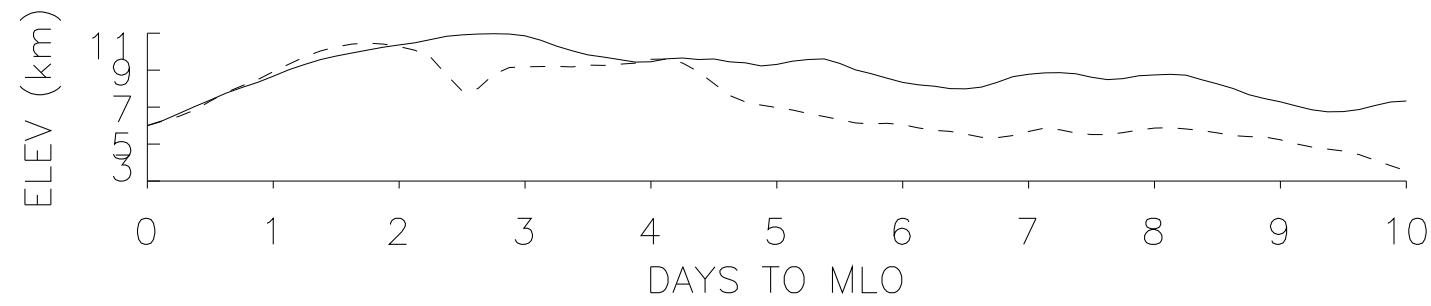
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 7.8 | 386 | −25 |
| 2 | 9.1 | 320 | −37 |
| 3 | 9.4 | 306 | −38 |
| 4 | 8.7 | 339 | −33 |
| 5 | 8.1 | 369 | −26 |
| 6 | 5.9 | 495 | −11 |
| 7 | 6.2 | 478 | −9 |
| 8 | 7.5 | 399 | −19 |
| 9 | 7.6 | 393 | −22 |
| 10 | 8.1 | 364 | −28 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/18/2004 (Day of Year 109)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

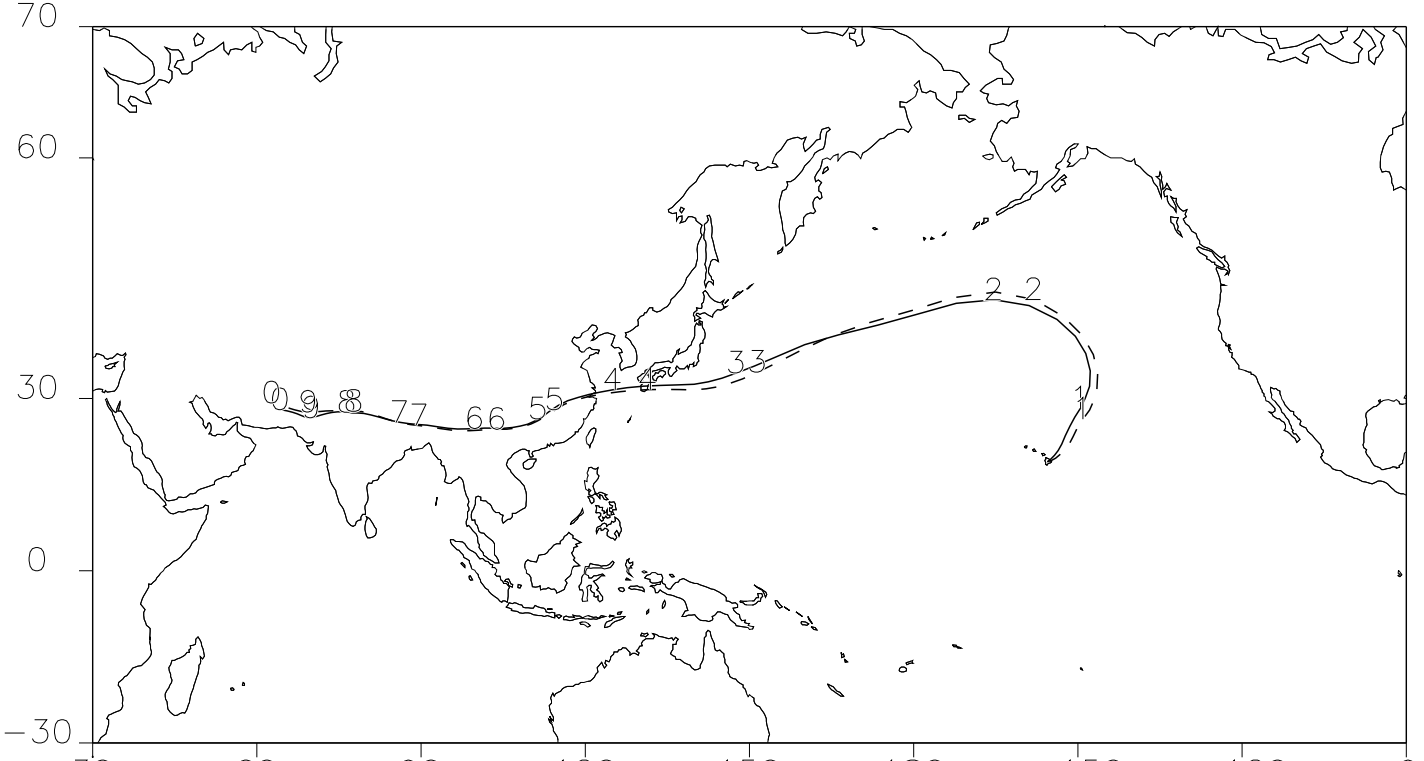
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 8.7 | 340 | −33 |
| 2 | 10.4 | 265 | −48 |
| 3 | 10.9 | 245 | −53 |
| 4 | 9.5 | 296 | −39 |
| 5 | 9.3 | 305 | −38 |
| 6 | 8.3 | 353 | −29 |
| 7 | 8.8 | 330 | −35 |
| 8 | 8.7 | 331 | −37 |
| 9 | 7.3 | 407 | −27 |
| 10 | 7.3 | 407 | −26 |

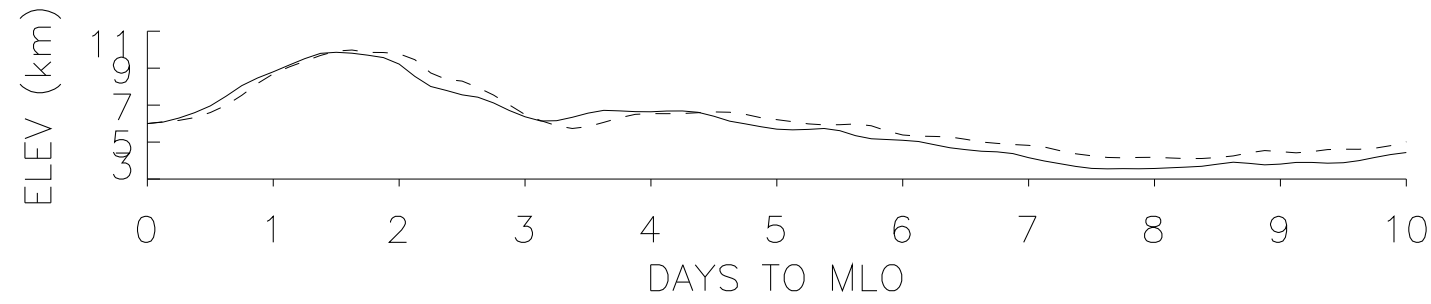
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 8.9 | 328 | −37 |
| 2 | 10.3 | 260 | −52 |
| 3 | 9.2 | 302 | −41 |
| 4 | 9.6 | 292 | −44 |
| 5 | 7.0 | 423 | −21 |
| 6 | 6.1 | 482 | −14 |
| 7 | 5.7 | 507 | −12 |
| 8 | 5.9 | 495 | −15 |
| 9 | 5.2 | 537 | −11 |
| 10 | 3.6 | 667 | 5 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/19/2004 (Day of Year 110)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

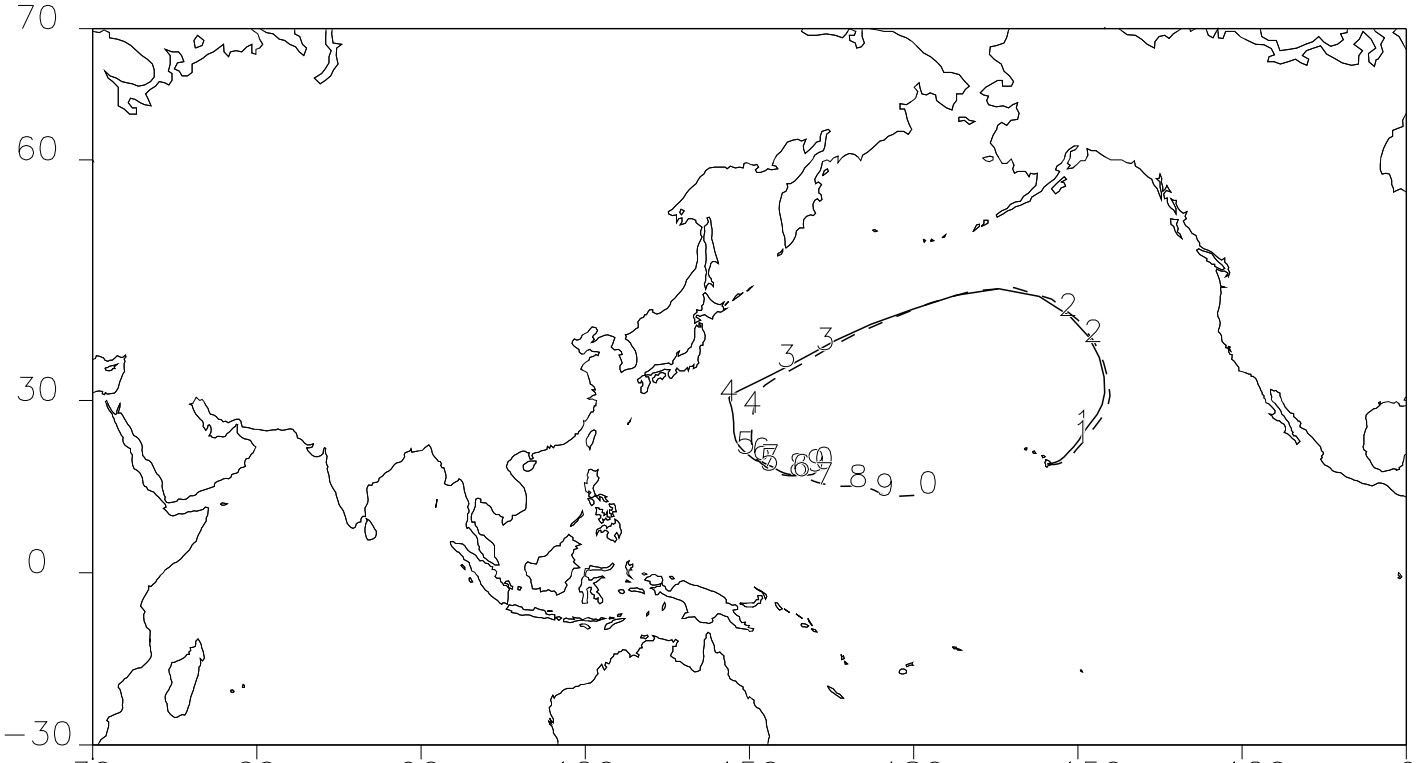
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −6 |
| 1 | 8.8 | 333 | −34 |
| 2 | 9.2 | 304 | −41 |
| 3 | 6.4 | 454 | −17 |
| 4 | 6.6 | 444 | −17 |
| 5 | 5.7 | 506 | −10 |
| 6 | 5.1 | 546 | −7 |
| 7 | 4.2 | 615 | 1 |
| 8 | 3.6 | 663 | 5 |
| 9 | 3.8 | 642 | 3 |
| 10 | 4.4 | 594 | −2 |

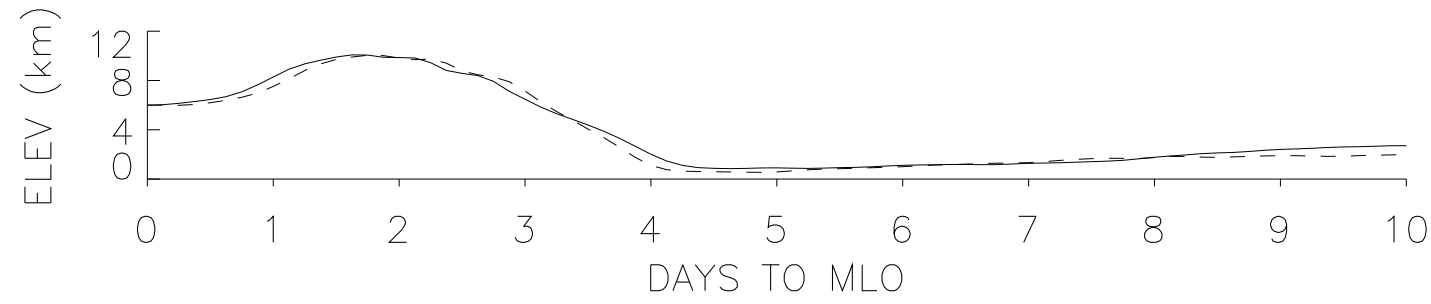
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −6 |
| 1 | 8.7 | 339 | −33 |
| 2 | 9.8 | 281 | −45 |
| 3 | 6.5 | 446 | −17 |
| 4 | 6.5 | 449 | −15 |
| 5 | 6.2 | 472 | −13 |
| 6 | 5.4 | 527 | −7 |
| 7 | 4.8 | 568 | −3 |
| 8 | 4.2 | 617 | 2 |
| 9 | 4.5 | 592 | −1 |
| 10 | 5.0 | 553 | −7 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/19/2004 (Day of Year 110)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

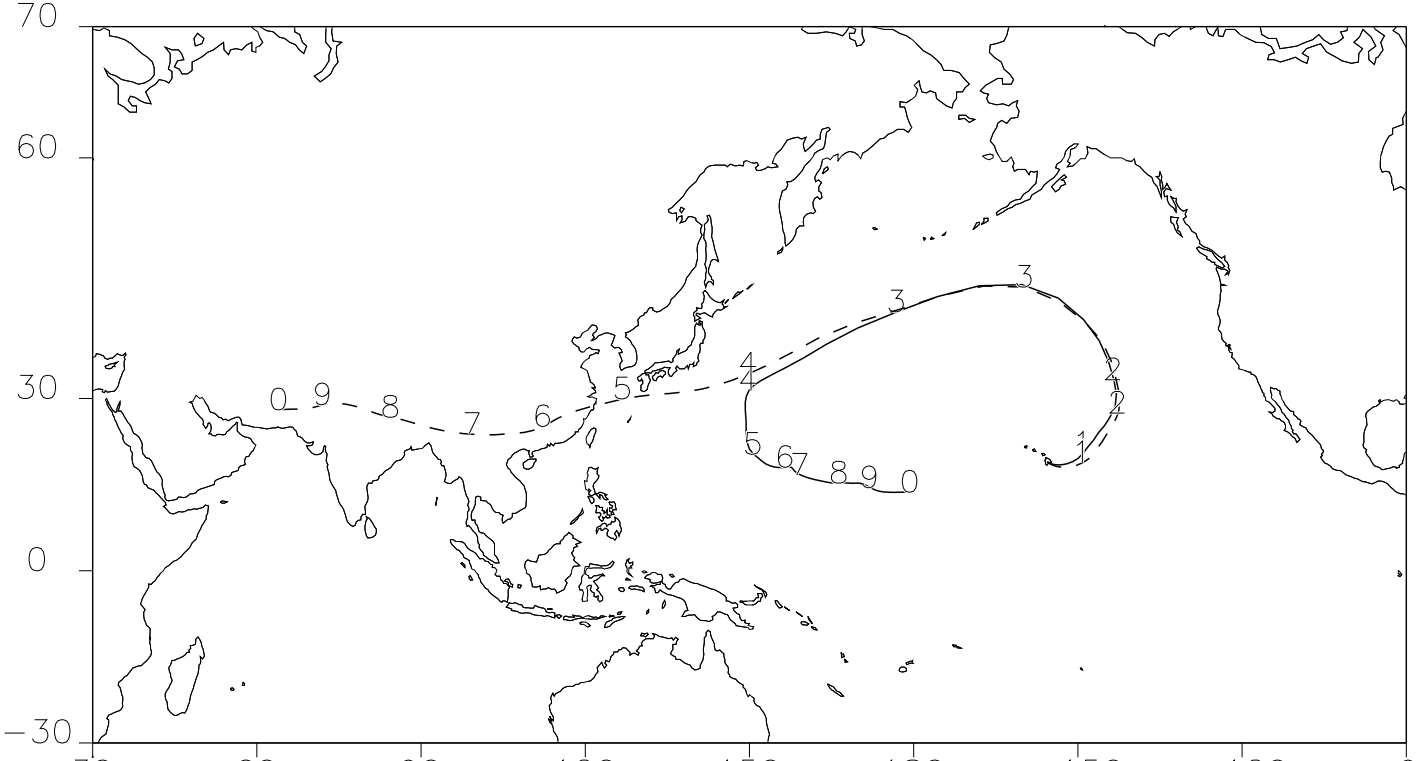
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −6 |
| 1 | 8.3 | 359 | −29 |
| 2 | 9.9 | 278 | −45 |
| 3 | 6.5 | 446 | −17 |
| 4 | 2.0 | 792 | 10 |
| 5 | 0.9 | 913 | 23 |
| 6 | 1.1 | 893 | 20 |
| 7 | 1.3 | 876 | 19 |
| 8 | 1.8 | 828 | 16 |
| 9 | 2.4 | 769 | 13 |
| 10 | 2.7 | 741 | 11 |

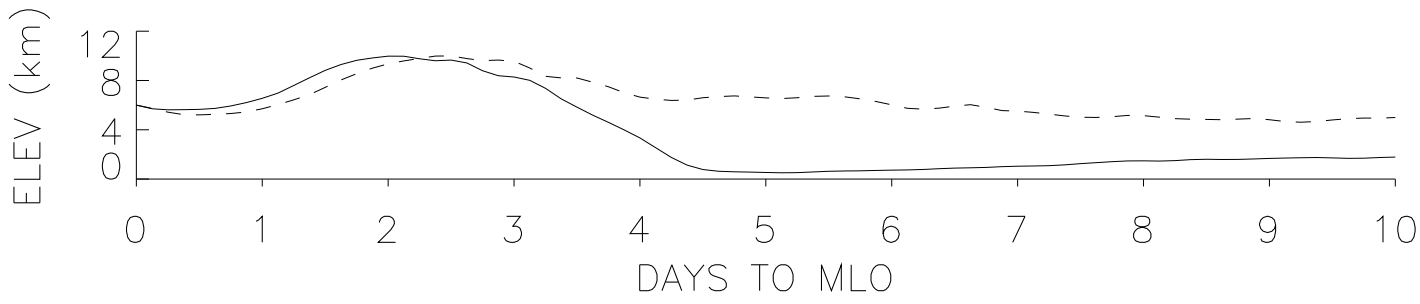
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 7.5 | 402 | −20 |
| 2 | 9.8 | 282 | −44 |
| 3 | 7.1 | 407 | −22 |
| 4 | 1.1 | 882 | 17 |
| 5 | 0.6 | 945 | 24 |
| 6 | 1.0 | 902 | 20 |
| 7 | 1.3 | 867 | 18 |
| 8 | 1.7 | 828 | 15 |
| 9 | 1.9 | 814 | 14 |
| 10 | 2.0 | 802 | 13 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/20/2004 (Day of Year 111)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

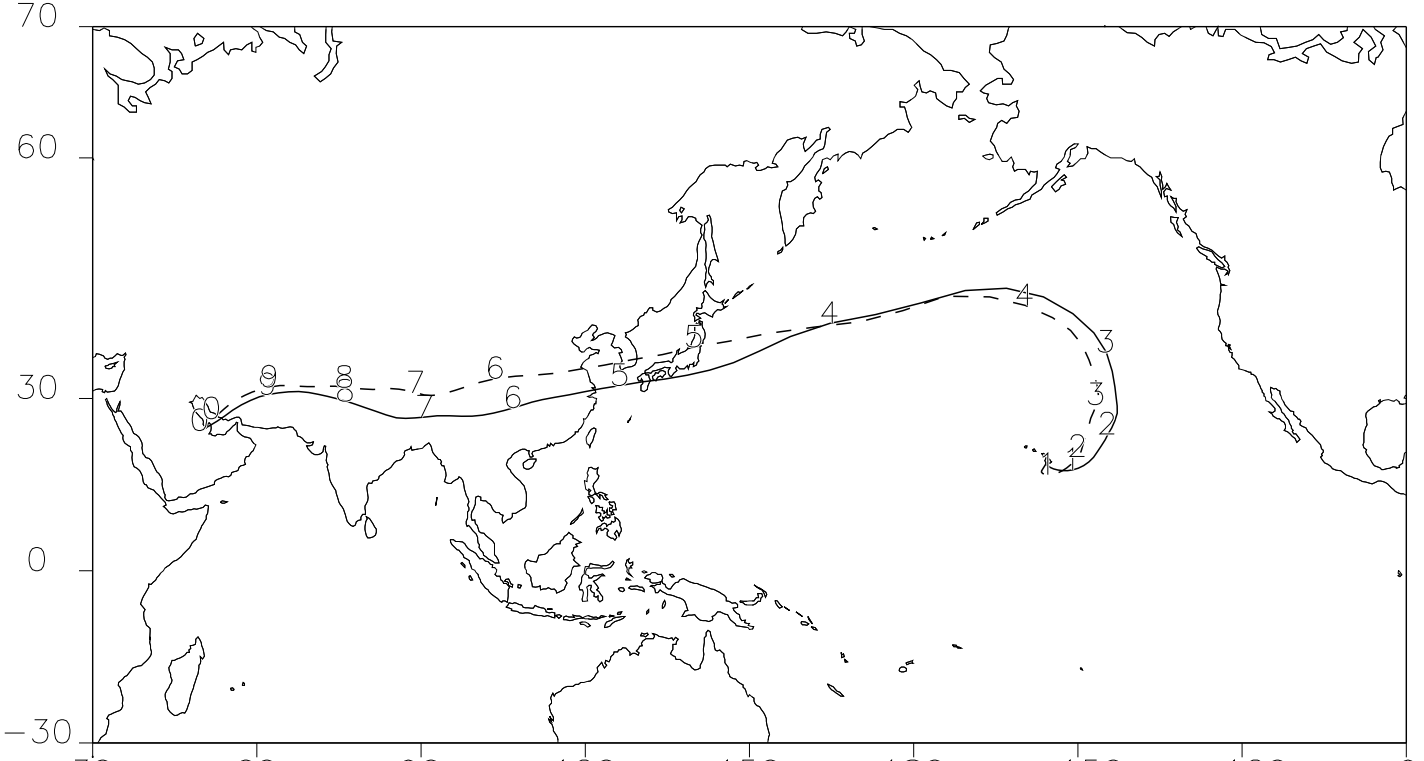
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.5 | 457 | −13 |
| 2 | 10.0 | 278 | −44 |
| 3 | 8.3 | 343 | −34 |
| 4 | 3.3 | 673 | 3 |
| 5 | 0.5 | 951 | 25 |
| 6 | 0.7 | 933 | 22 |
| 7 | 1.0 | 899 | 20 |
| 8 | 1.5 | 855 | 18 |
| 9 | 1.7 | 837 | 15 |
| 10 | 1.8 | 824 | 15 |

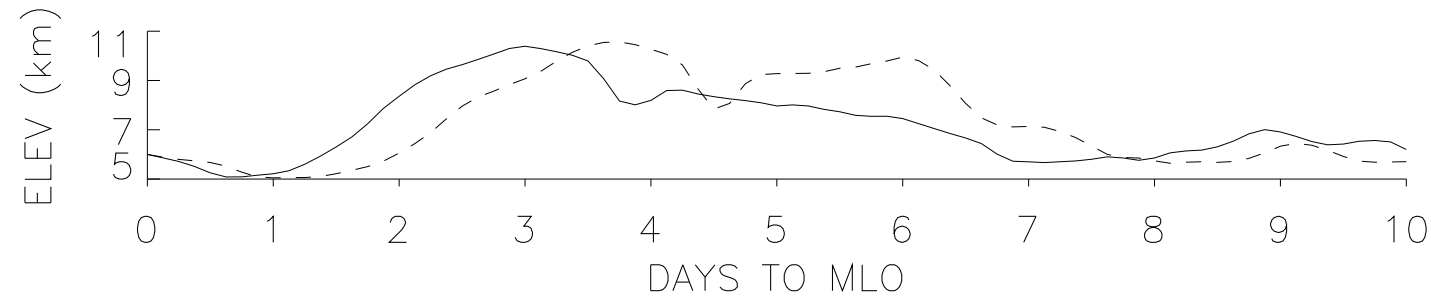
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −9 |
| 1 | 5.7 | 511 | −6 |
| 2 | 9.3 | 307 | −40 |
| 3 | 9.6 | 288 | −44 |
| 4 | 6.7 | 437 | −19 |
| 5 | 6.6 | 448 | −15 |
| 6 | 6.0 | 485 | −10 |
| 7 | 5.5 | 520 | −8 |
| 8 | 5.1 | 545 | −4 |
| 9 | 4.8 | 570 | −3 |
| 10 | 5.0 | 555 | −7 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/20/2004 (Day of Year 111)
## NCEP/NCAR Reanalysis 1 Data Set



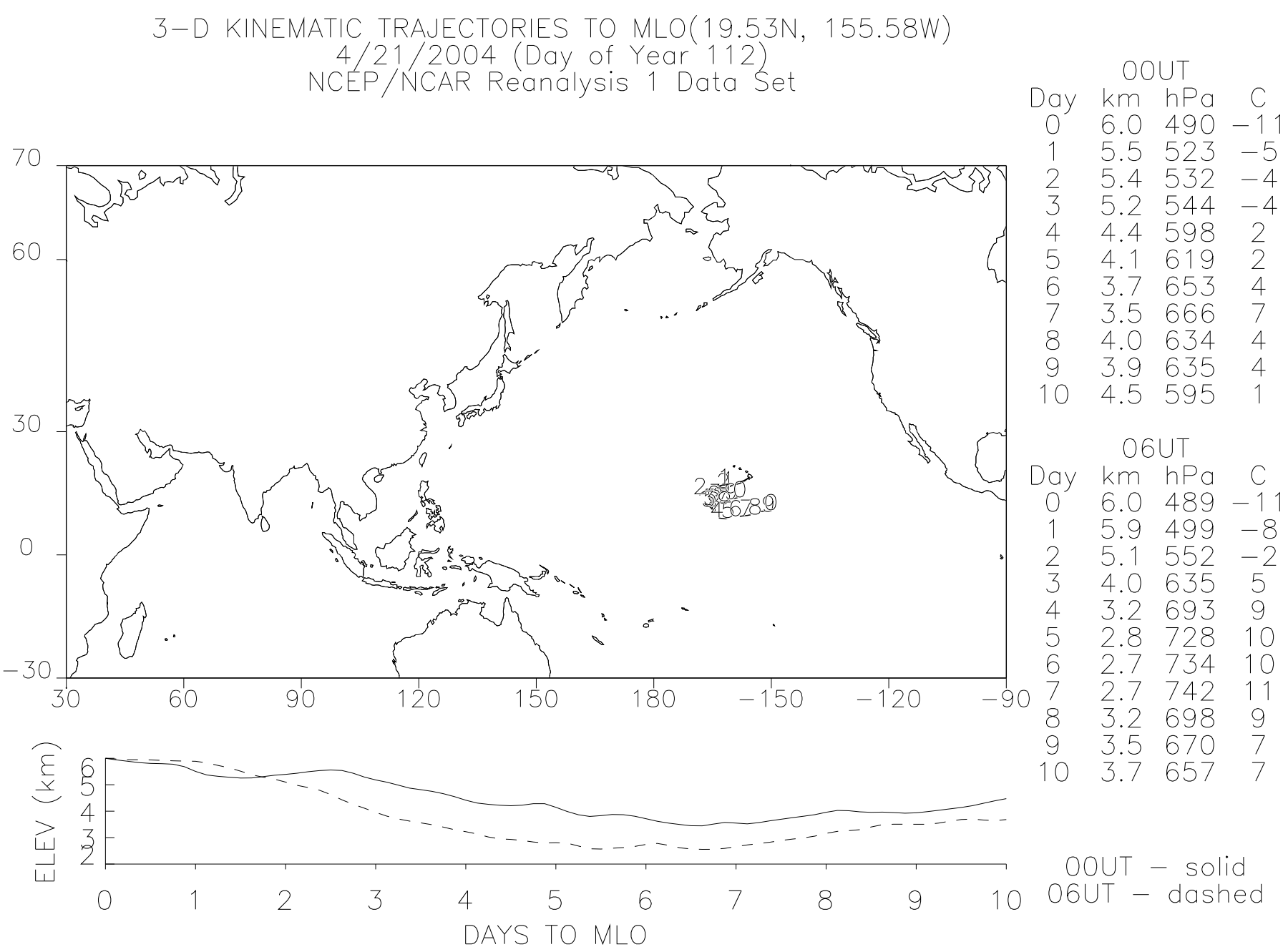

12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 5.2 | 542 | −3 |
| 2 | 8.4 | 354 | −32 |
| 3 | 10.4 | 258 | −53 |
| 4 | 8.2 | 342 | −34 |
| 5 | 8.0 | 369 | −27 |
| 6 | 7.5 | 398 | −22 |
| 7 | 5.7 | 503 | −10 |
| 8 | 5.9 | 496 | −11 |
| 9 | 6.9 | 432 | −20 |
| 10 | 6.2 | 473 | −16 |

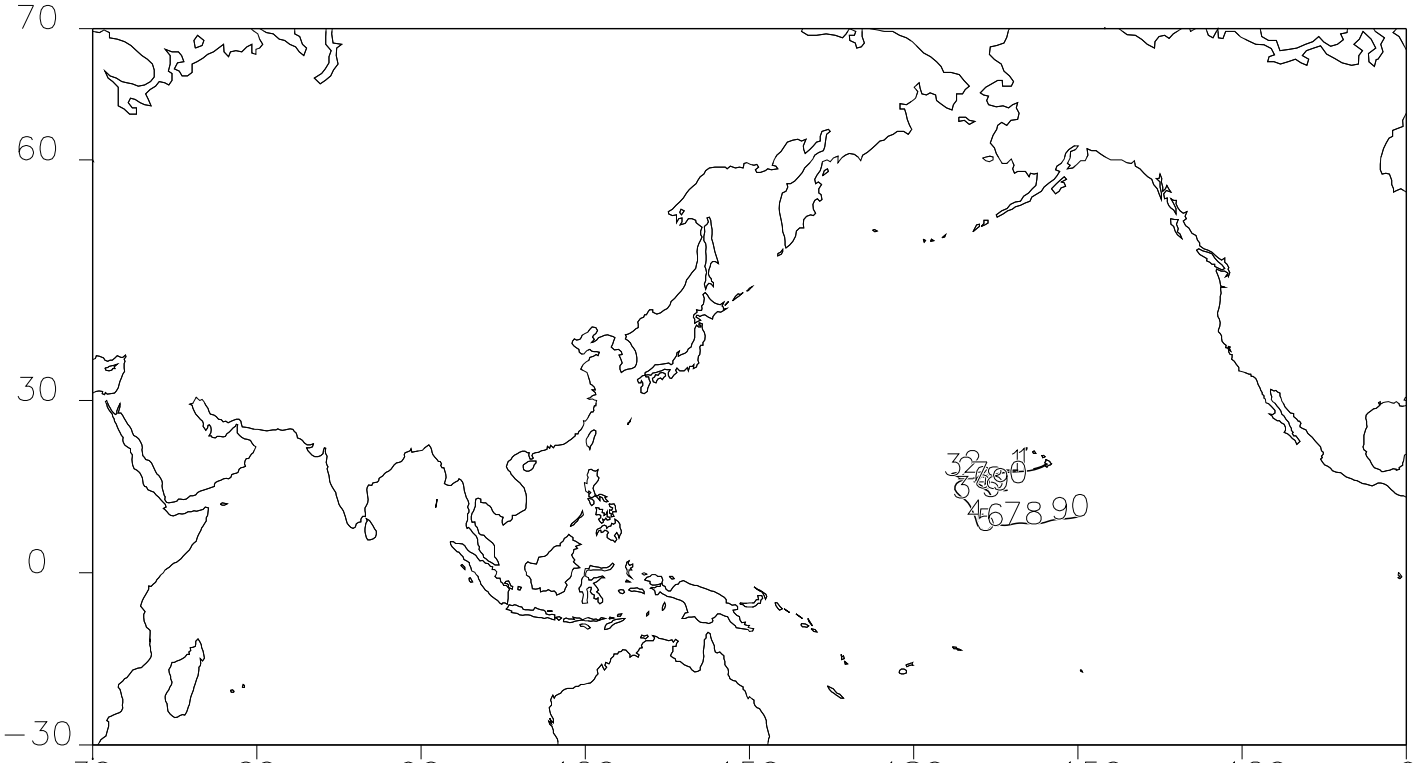
18UT

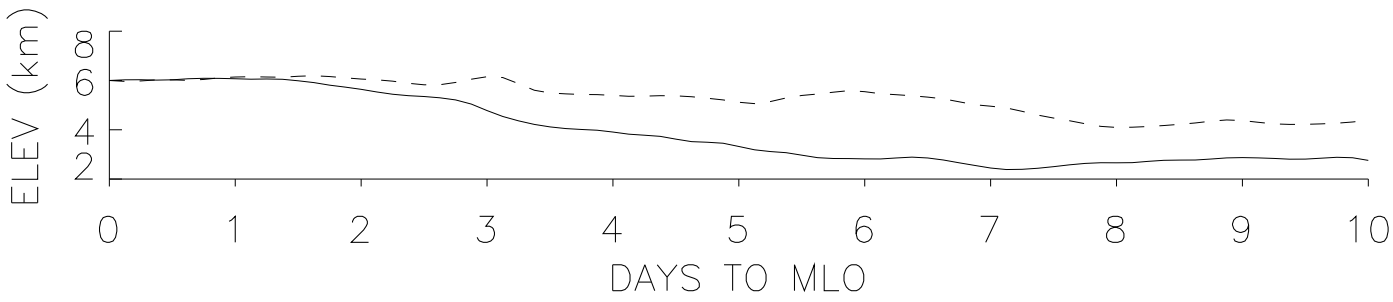
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 5.0 | 555 | −1 |
| 2 | 6.1 | 487 | −9 |
| 3 | 9.1 | 319 | −39 |
| 4 | 10.3 | 259 | −53 |
| 5 | 9.3 | 296 | −42 |
| 6 | 9.9 | 275 | −47 |
| 7 | 7.1 | 414 | −23 |
| 8 | 5.7 | 502 | −12 |
| 9 | 6.3 | 466 | −17 |
| 10 | 5.7 | 506 | −13 |

12UT − solid
18UT − dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/21/2004 (Day of Year 112)
NCEP/NCAR Reanalysis 1 Data Set
00UT
Day km hPa C
0 6.0 490 -11
1 5.5 523 -5
2 5.4 532 -4
3 5.2 544 -4
4 4.4 598 2
5 4.1 619 2
6 3.7 653 4
7 3.5 666 7
8 4.0 634 4
9 3.9 635 4
10 4.5 595 1
06UT
Day km hPa C
0 6.0 489 -11
1 5.9 499 -8
2 5.1 552 -2
3 4.0 635 5
4 3.2 693 9
5 2.8 728 10
6 2.7 734 10
7 2.7 742 11
8 3.2 698 9
9 3.5 670 7
10 3.7 657 7
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
2 3 4 5 6
0 1 2 3 4 5 6 7 8 9 10
DAYS TO MLO
00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/21/2004 (Day of Year 112)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

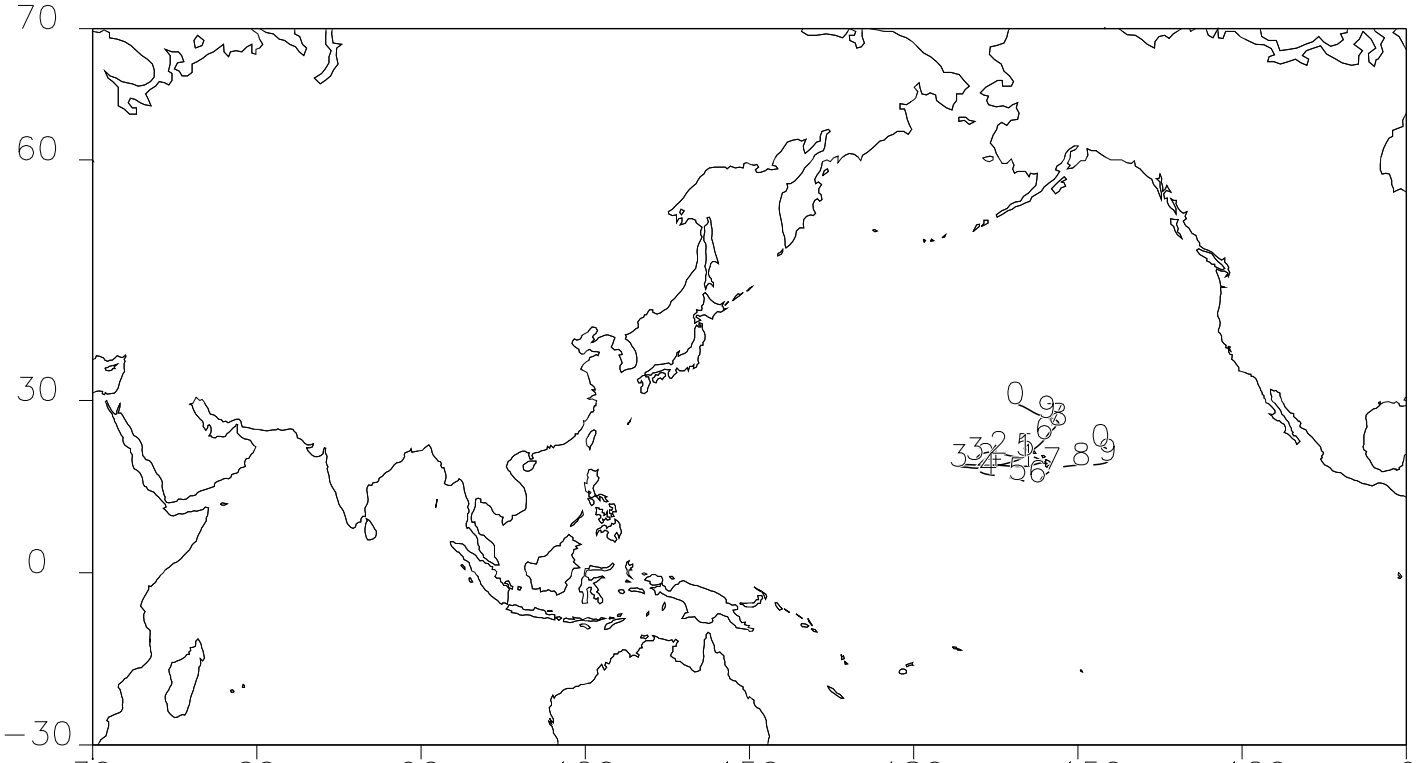
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 6.1 | 485 | −11 |
| 2 | 5.6 | 515 | −7 |
| 3 | 4.8 | 574 | −2 |
| 4 | 3.9 | 637 | 5 |
| 5 | 3.3 | 685 | 8 |
| 6 | 2.8 | 728 | 11 |
| 7 | 2.4 | 760 | 12 |
| 8 | 2.7 | 741 | 12 |
| 9 | 2.9 | 721 | 8 |
| 10 | 2.8 | 733 | 10 |

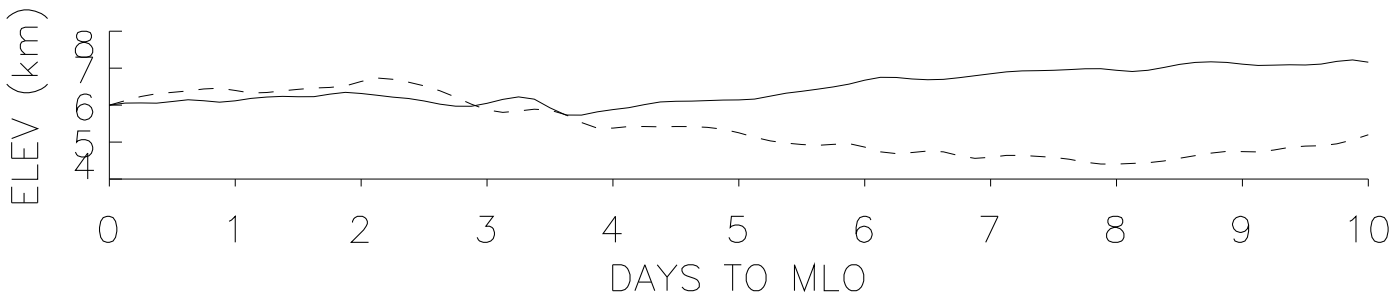
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 6.1 | 481 | −12 |
| 2 | 6.1 | 487 | −10 |
| 3 | 6.2 | 481 | −13 |
| 4 | 5.4 | 530 | −7 |
| 5 | 5.1 | 548 | −4 |
| 6 | 5.5 | 519 | −6 |
| 7 | 5.0 | 560 | −3 |
| 8 | 4.1 | 623 | 3 |
| 9 | 4.4 | 602 | 2 |
| 10 | 4.4 | 602 | 2 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/22/2004 (Day of Year 113)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

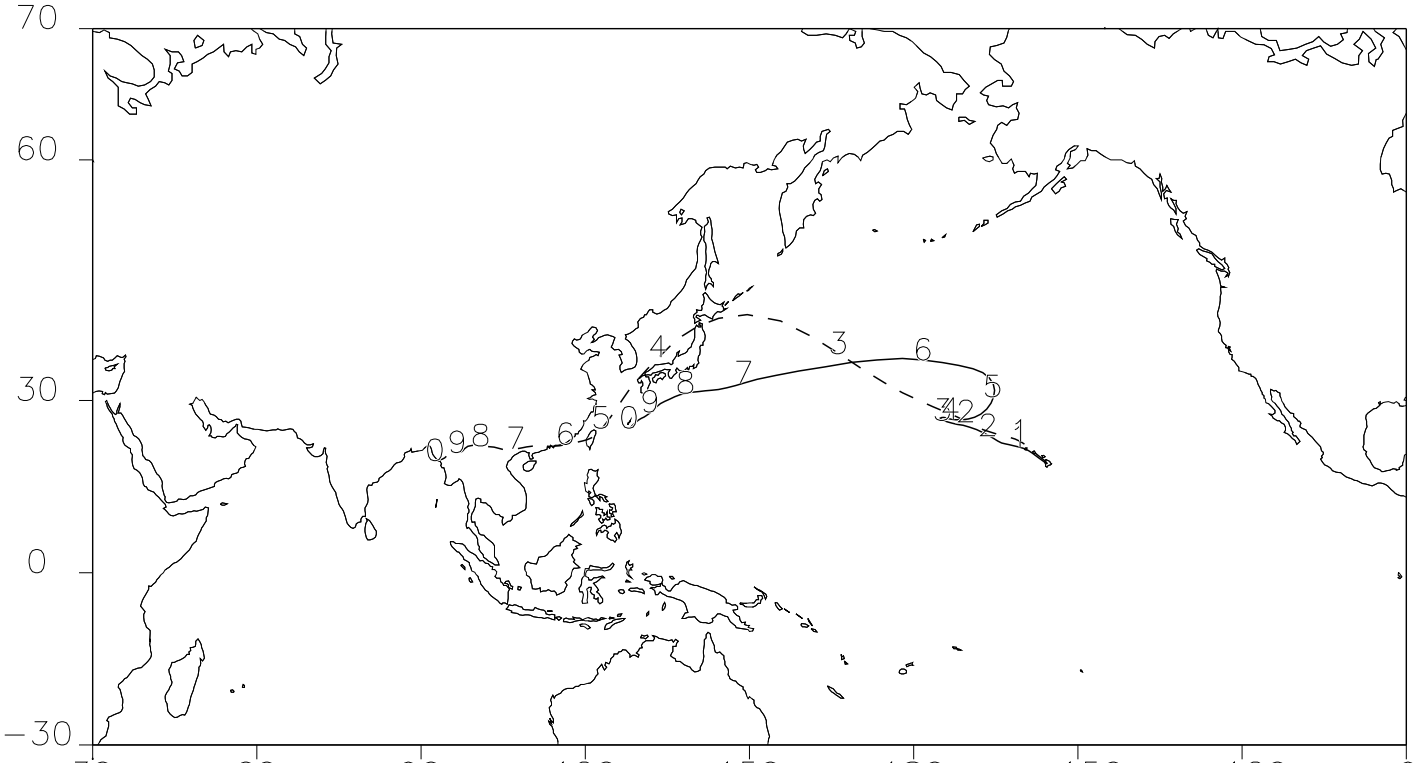
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.1 | 482 | −12 |
| 2 | 6.3 | 470 | −12 |
| 3 | 6.0 | 488 | −12 |
| 4 | 5.9 | 499 | −11 |
| 5 | 6.1 | 481 | −13 |
| 6 | 6.7 | 448 | −18 |
| 7 | 6.8 | 438 | −20 |
| 8 | 6.9 | 432 | −20 |
| 9 | 7.1 | 422 | −21 |
| 10 | 7.2 | 419 | −21 |

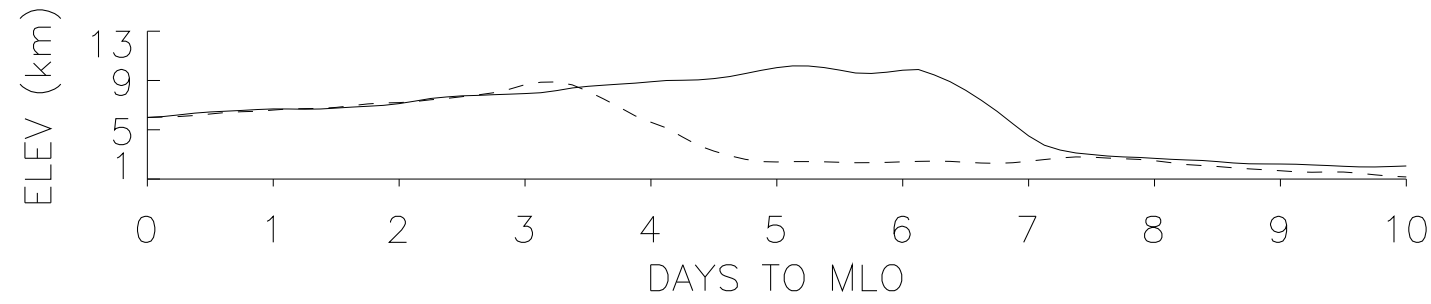
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 6.4 | 464 | −14 |
| 2 | 6.6 | 450 | −15 |
| 3 | 5.9 | 499 | −11 |
| 4 | 5.4 | 532 | −7 |
| 5 | 5.3 | 539 | −5 |
| 6 | 4.9 | 565 | −3 |
| 7 | 4.6 | 586 | −2 |
| 8 | 4.4 | 601 | −2 |
| 9 | 4.7 | 574 | −4 |
| 10 | 5.2 | 541 | −7 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/22/2004 (Day of Year 113)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

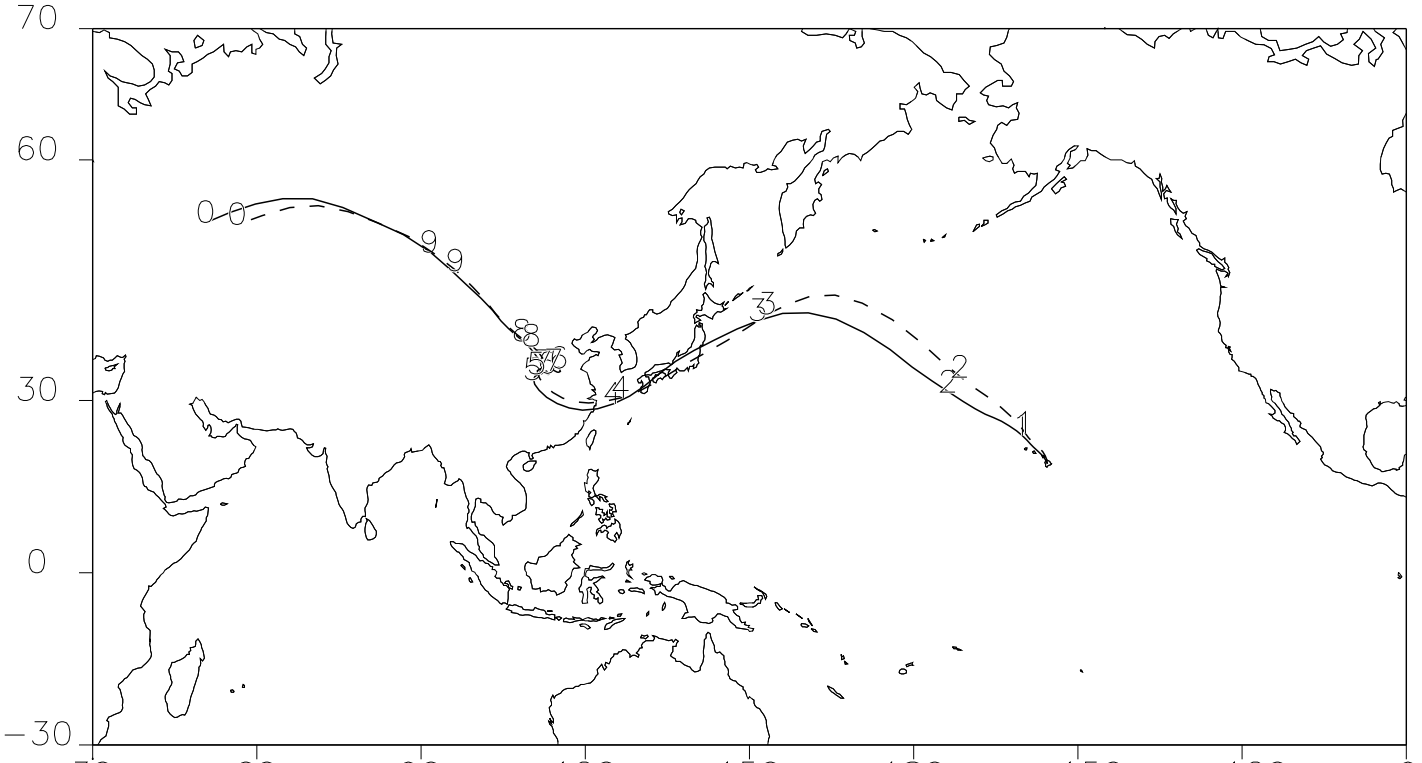
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −11 |
| 1 | 6.7 | 446 | −16 |
| 2 | 7.1 | 422 | −20 |
| 3 | 7.9 | 380 | −24 |
| 4 | 8.9 | 335 | −31 |
| 5 | 10.0 | 283 | −41 |
| 6 | 9.8 | 286 | −38 |
| 7 | 4.5 | 584 | −3 |
| 8 | 2.7 | 735 | 7 |
| 9 | 2.2 | 780 | 12 |
| 10 | 2.1 | 795 | 14 |

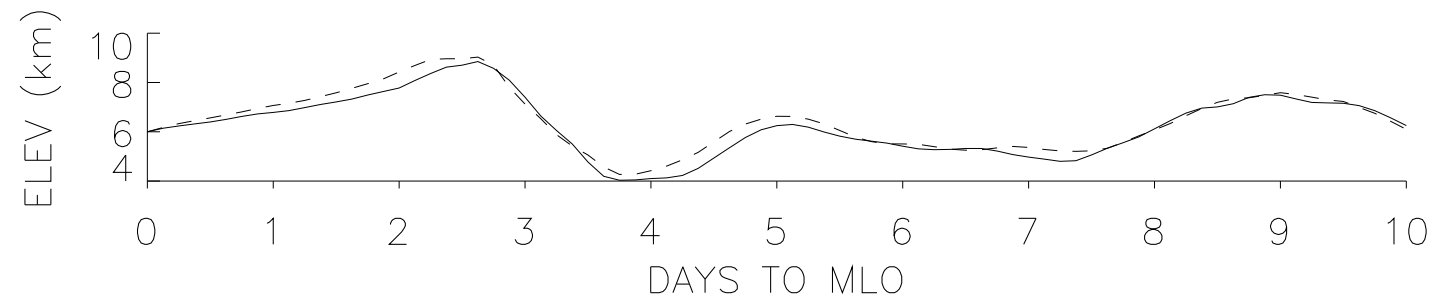
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 6.6 | 452 | −16 |
| 2 | 7.2 | 415 | −20 |
| 3 | 8.7 | 331 | −34 |
| 4 | 5.6 | 507 | −11 |
| 5 | 2.4 | 763 | 11 |
| 6 | 2.4 | 763 | 11 |
| 7 | 2.4 | 760 | 11 |
| 8 | 2.5 | 756 | 13 |
| 9 | 1.7 | 833 | 21 |
| 10 | 1.2 | 882 | 25 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/23/2004 (Day of Year 114)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

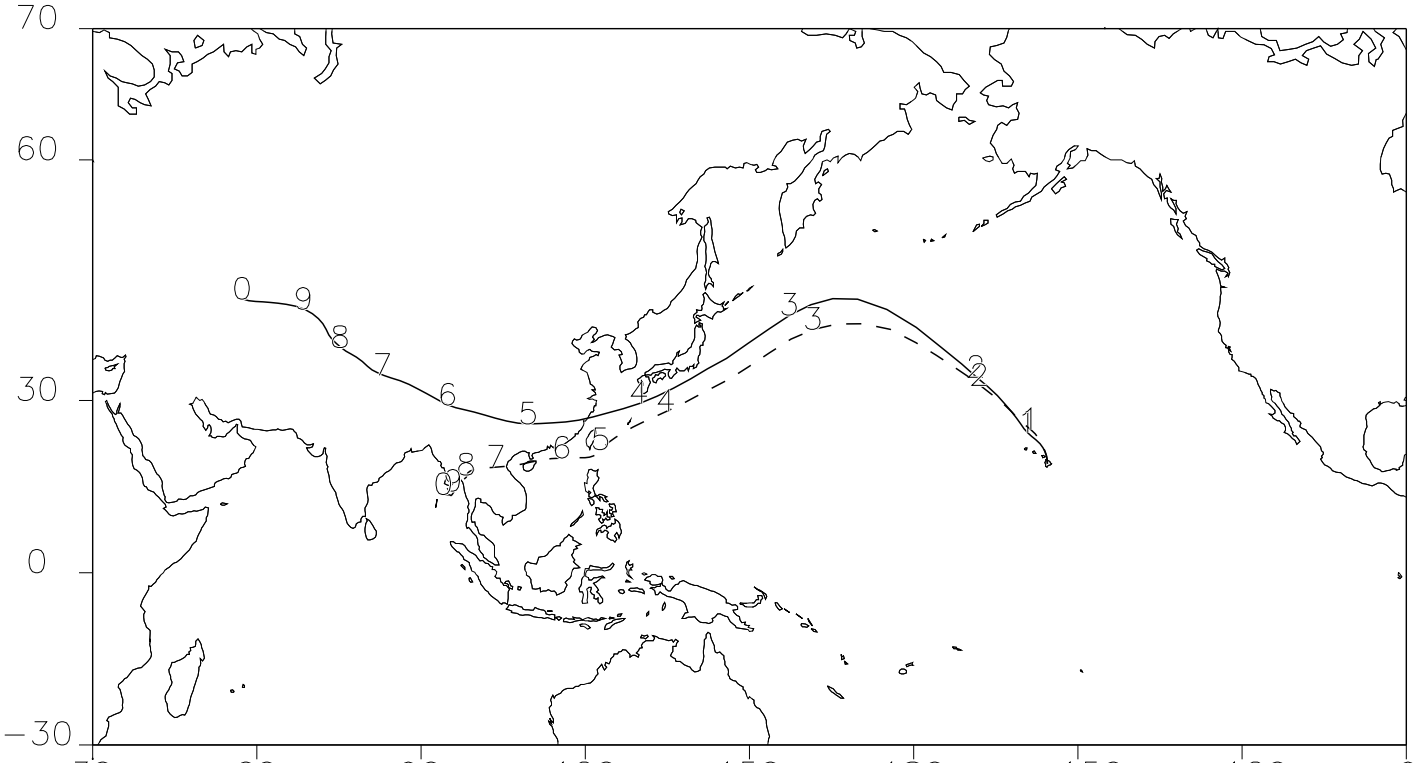
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 6.8 | 441 | −18 |
| 2 | 7.8 | 381 | −27 |
| 3 | 7.4 | 393 | −26 |
| 4 | 4.1 | 615 | 1 |
| 5 | 6.2 | 460 | −24 |
| 6 | 5.4 | 518 | −16 |
| 7 | 5.0 | 550 | −13 |
| 8 | 6.1 | 469 | −25 |
| 9 | 7.5 | 378 | −39 |
| 10 | 6.3 | 450 | −27 |

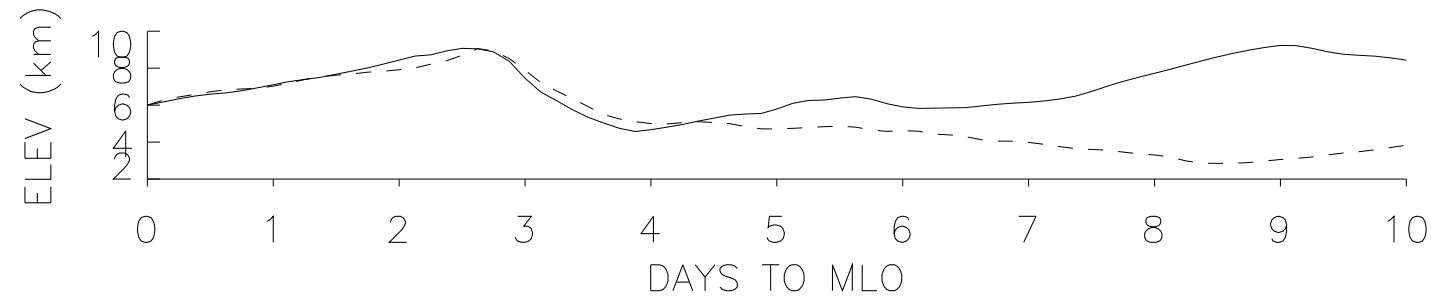
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 7.1 | 424 | −19 |
| 2 | 8.4 | 344 | −34 |
| 3 | 7.1 | 407 | −23 |
| 4 | 4.4 | 590 | −1 |
| 5 | 6.6 | 438 | −26 |
| 6 | 5.5 | 512 | −17 |
| 7 | 5.4 | 522 | −15 |
| 8 | 6.1 | 473 | −23 |
| 9 | 7.6 | 376 | −37 |
| 10 | 6.1 | 461 | −25 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/23/2004 (Day of Year 114)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

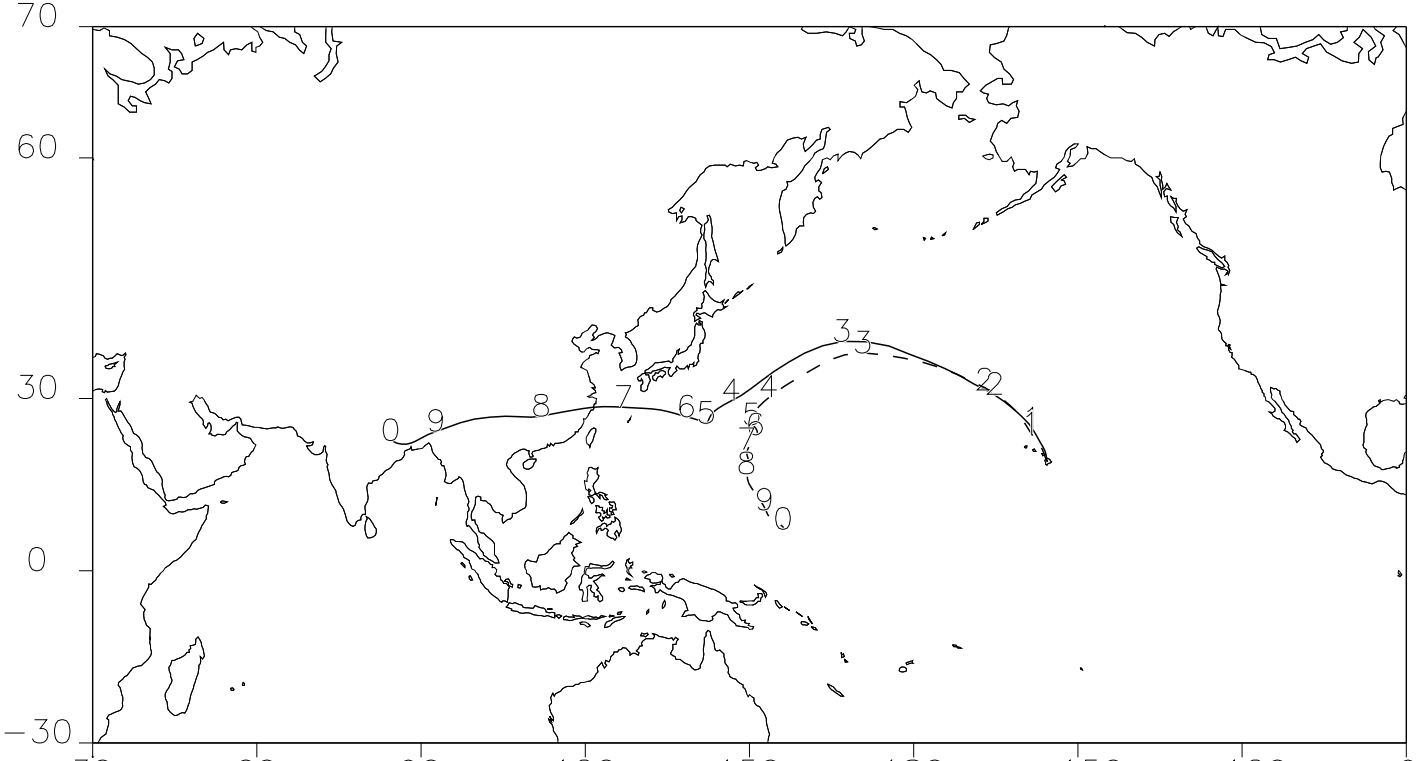
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 7.1 | 422 | −19 |
| 2 | 8.4 | 346 | −33 |
| 3 | 7.5 | 390 | −26 |
| 4 | 4.7 | 576 | 0 |
| 5 | 5.8 | 499 | −11 |
| 6 | 5.9 | 490 | −11 |
| 7 | 6.1 | 475 | −14 |
| 8 | 7.7 | 381 | −30 |
| 9 | 9.2 | 304 | −45 |
| 10 | 8.4 | 344 | −37 |

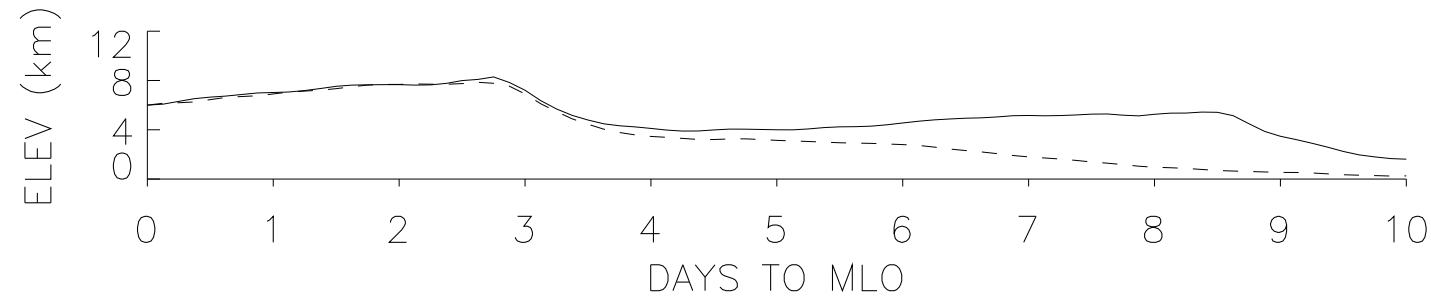
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 7.0 | 427 | −18 |
| 2 | 7.9 | 374 | −26 |
| 3 | 7.9 | 369 | −29 |
| 4 | 5.0 | 555 | −2 |
| 5 | 4.7 | 578 | 1 |
| 6 | 4.6 | 582 | 0 |
| 7 | 4.0 | 632 | 4 |
| 8 | 3.3 | 687 | 9 |
| 9 | 3.1 | 708 | 10 |
| 10 | 3.8 | 645 | 7 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/24/2004 (Day of Year 115)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

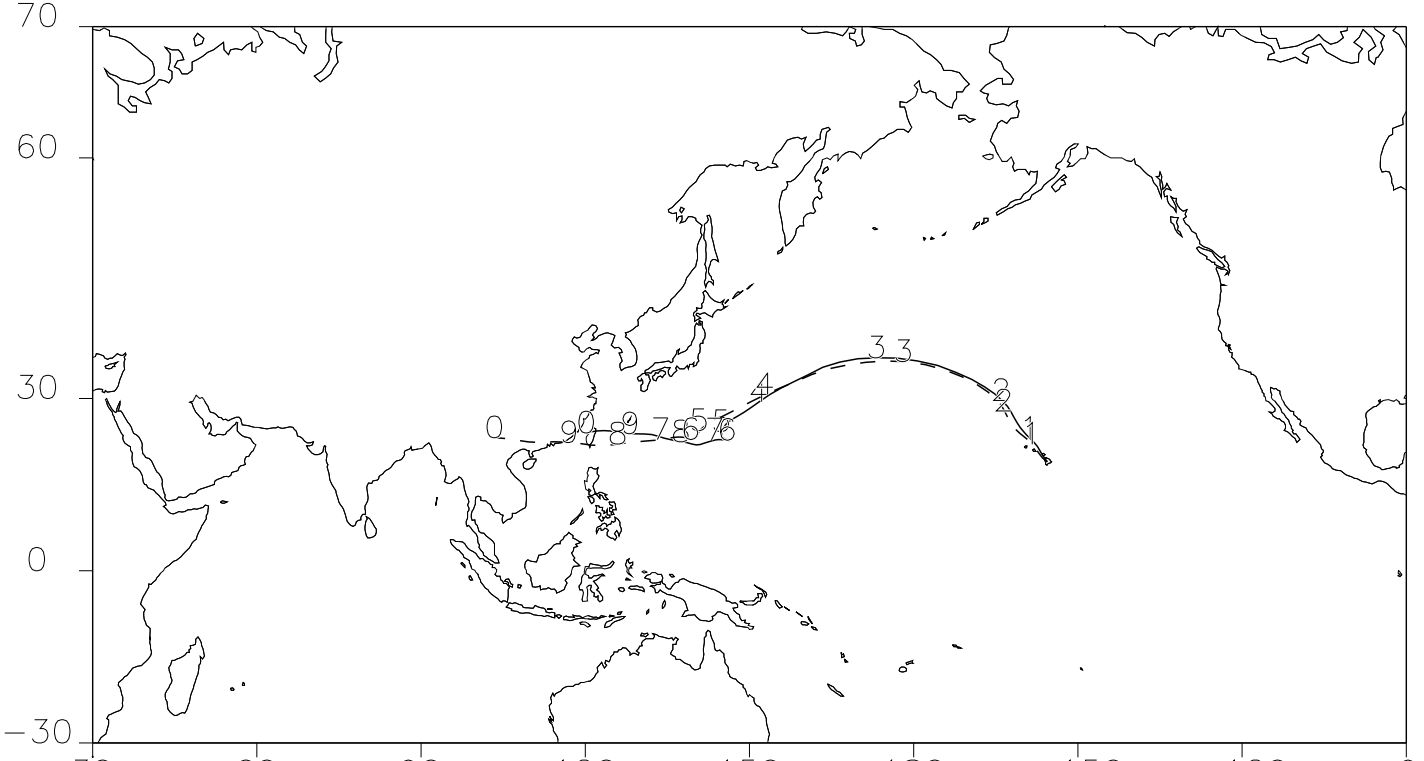
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 7.0 | 428 | −17 |
| 2 | 7.7 | 389 | −22 |
| 3 | 7.2 | 409 | −23 |
| 4 | 4.1 | 623 | 3 |
| 5 | 4.0 | 633 | 5 |
| 6 | 4.6 | 588 | −1 |
| 7 | 5.2 | 540 | −7 |
| 8 | 5.3 | 533 | −7 |
| 9 | 3.5 | 668 | 6 |
| 10 | 1.6 | 835 | 24 |

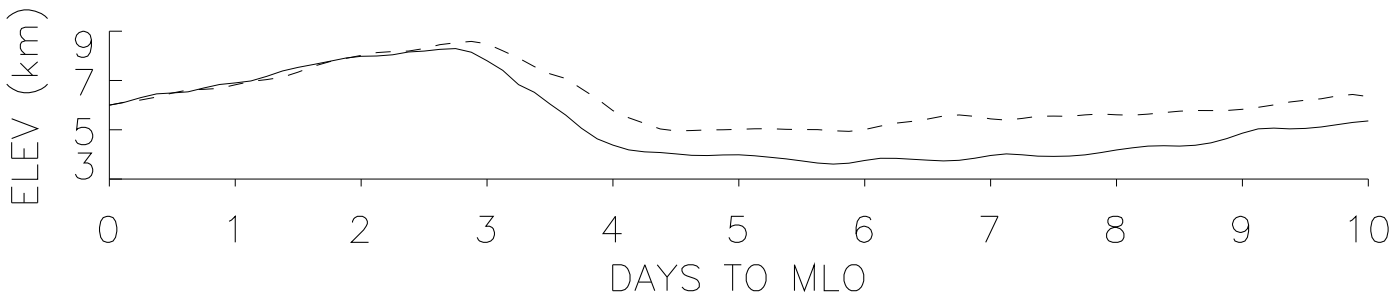
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.9 | 436 | −15 |
| 2 | 7.7 | 389 | −22 |
| 3 | 6.9 | 427 | −19 |
| 4 | 3.5 | 675 | 5 |
| 5 | 3.1 | 703 | 8 |
| 6 | 2.8 | 730 | 9 |
| 7 | 1.8 | 821 | 16 |
| 8 | 1.0 | 903 | 22 |
| 9 | 0.5 | 946 | 24 |
| 10 | 0.3 | 978 | 27 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/24/2004 (Day of Year 115)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

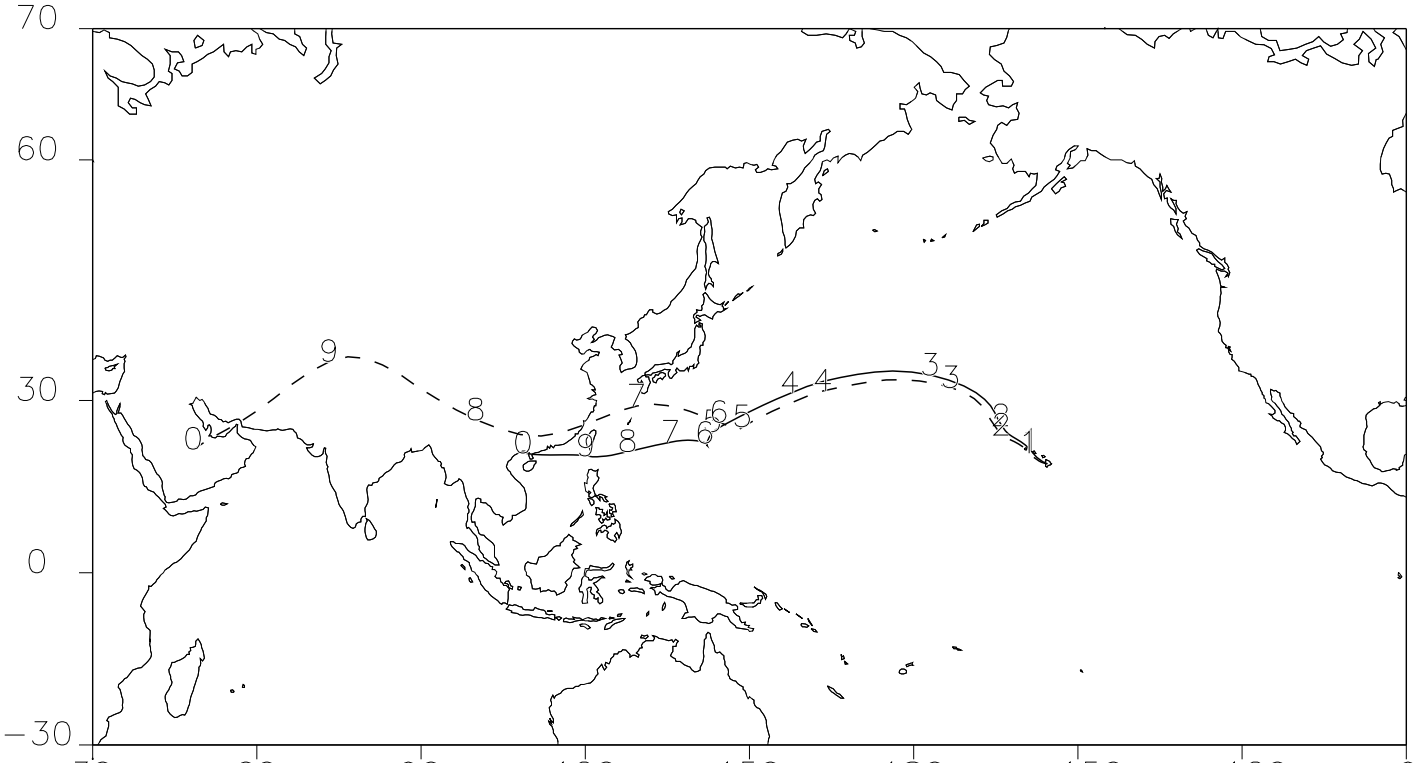
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.9 | 436 | −15 |
| 2 | 8.0 | 374 | −24 |
| 3 | 7.8 | 380 | −25 |
| 4 | 4.4 | 603 | 1 |
| 5 | 4.0 | 636 | 6 |
| 6 | 3.8 | 652 | 8 |
| 7 | 4.0 | 634 | 6 |
| 8 | 4.2 | 615 | 4 |
| 9 | 4.9 | 565 | −1 |
| 10 | 5.4 | 530 | −4 |

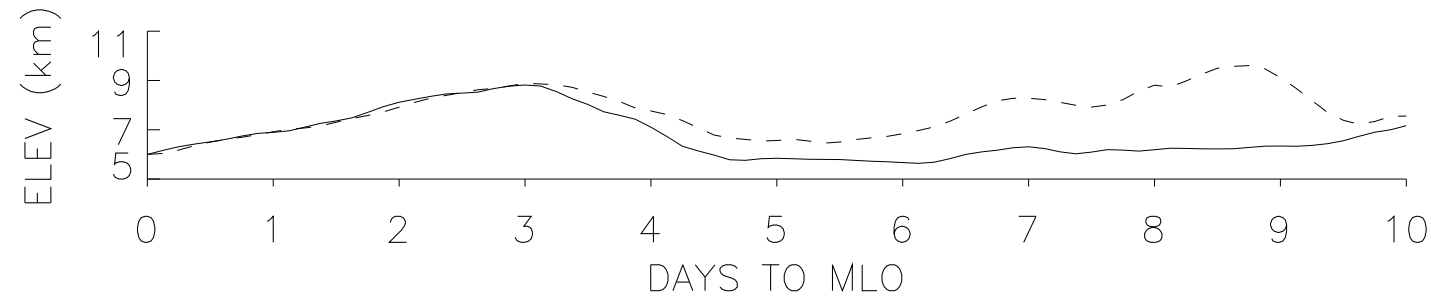
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.8 | 442 | −13 |
| 2 | 8.0 | 373 | −24 |
| 3 | 8.5 | 344 | −30 |
| 4 | 5.8 | 501 | −9 |
| 5 | 5.0 | 558 | 1 |
| 6 | 5.0 | 558 | 1 |
| 7 | 5.4 | 525 | −3 |
| 8 | 5.6 | 514 | −5 |
| 9 | 5.8 | 499 | −7 |
| 10 | 6.3 | 466 | −14 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/25/2004 (Day of Year 116)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

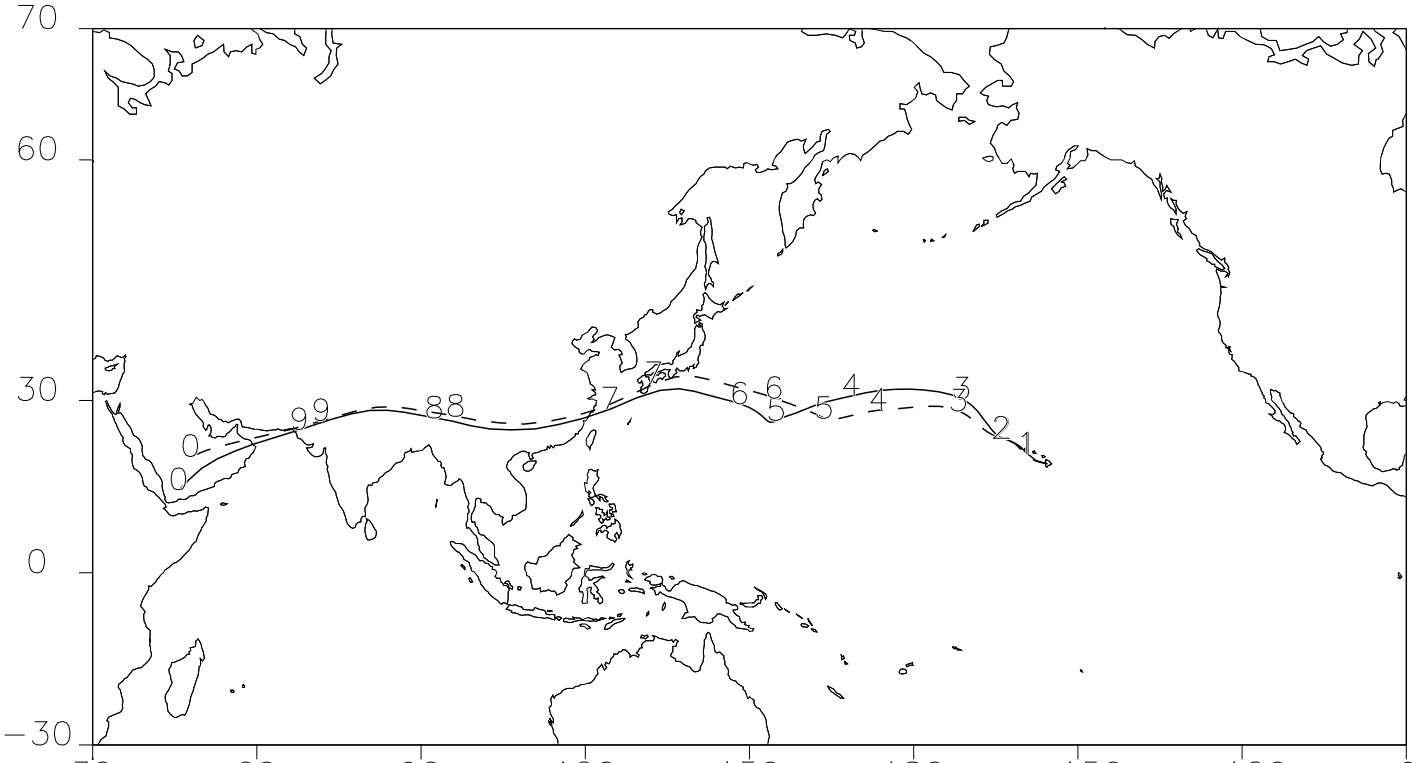
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.9 | 438 | −14 |
| 2 | 8.1 | 371 | −24 |
| 3 | 8.8 | 332 | −31 |
| 4 | 7.1 | 422 | −18 |
| 5 | 5.8 | 504 | −4 |
| 6 | 5.7 | 515 | −2 |
| 7 | 6.3 | 472 | −8 |
| 8 | 6.2 | 478 | −8 |
| 9 | 6.3 | 469 | −9 |
| 10 | 7.2 | 420 | −16 |

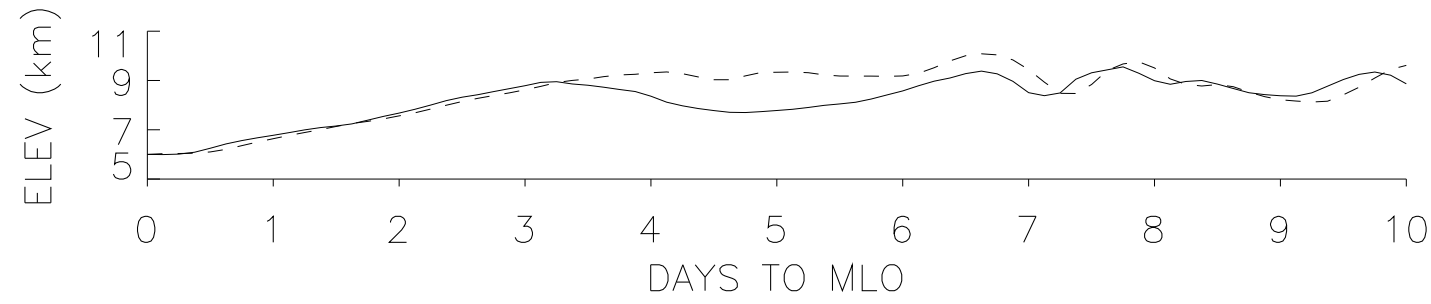
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.9 | 436 | −14 |
| 2 | 7.9 | 381 | −22 |
| 3 | 8.9 | 330 | −30 |
| 4 | 7.8 | 386 | −22 |
| 5 | 6.6 | 458 | −10 |
| 6 | 6.8 | 442 | −12 |
| 7 | 8.3 | 360 | −25 |
| 8 | 8.8 | 330 | −33 |
| 9 | 9.1 | 315 | −37 |
| 10 | 7.6 | 398 | −22 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/25/2004 (Day of Year 116)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

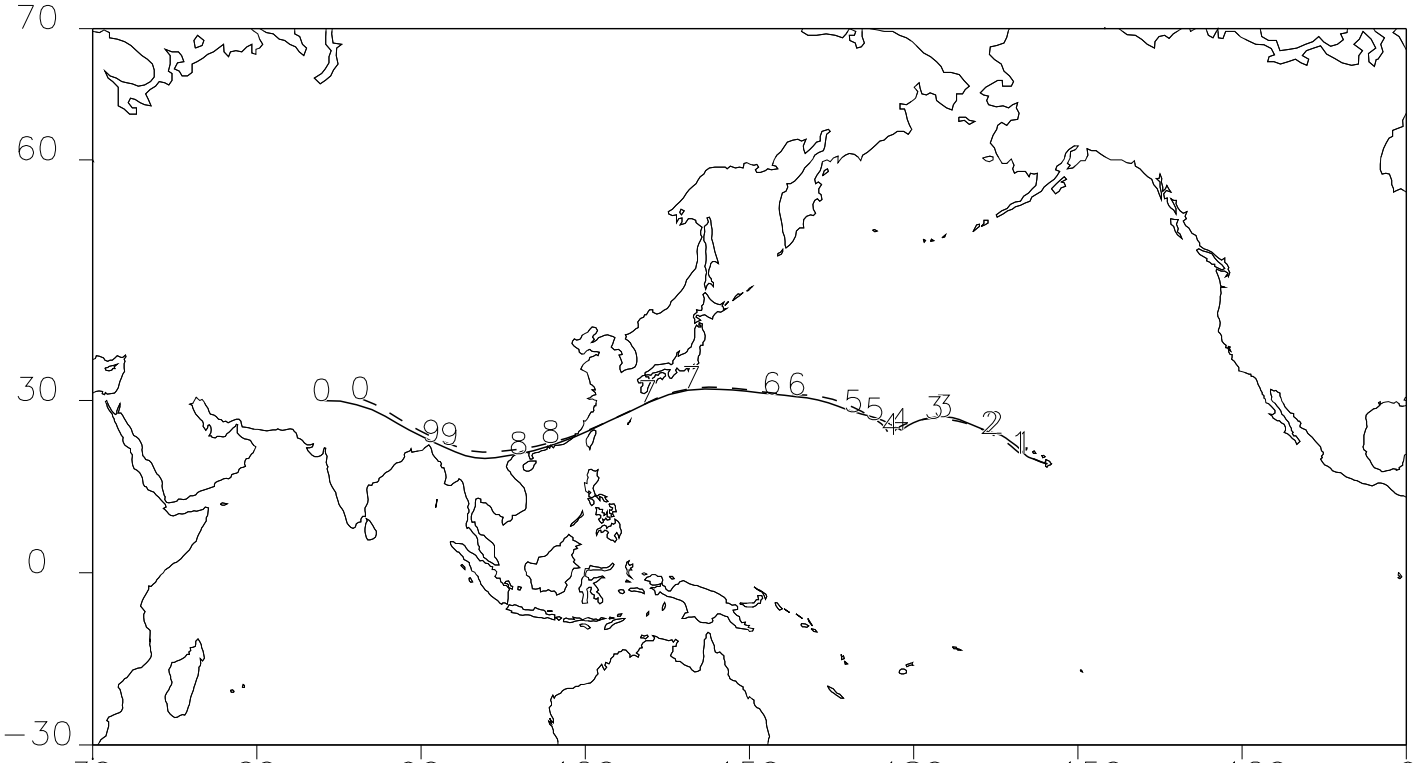
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −9 |
| 1 | 6.8 | 444 | −14 |
| 2 | 7.7 | 394 | −20 |
| 3 | 8.8 | 336 | −29 |
| 4 | 8.4 | 357 | −26 |
| 5 | 7.8 | 391 | −18 |
| 6 | 8.6 | 350 | −26 |
| 7 | 8.5 | 347 | −26 |
| 8 | 9.0 | 324 | −31 |
| 9 | 8.4 | 356 | −24 |
| 10 | 8.9 | 336 | −27 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 6.6 | 452 | −13 |
| 2 | 7.6 | 400 | −19 |
| 3 | 8.6 | 345 | −28 |
| 4 | 9.3 | 313 | −33 |
| 5 | 9.3 | 313 | −34 |
| 6 | 9.2 | 320 | −32 |
| 7 | 9.4 | 304 | −35 |
| 8 | 9.5 | 299 | −38 |
| 9 | 8.2 | 364 | −24 |
| 10 | 9.6 | 300 | −35 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/26/2004 (Day of Year 117)
## NCEP/NCAR Reanalysis 1 Data Set

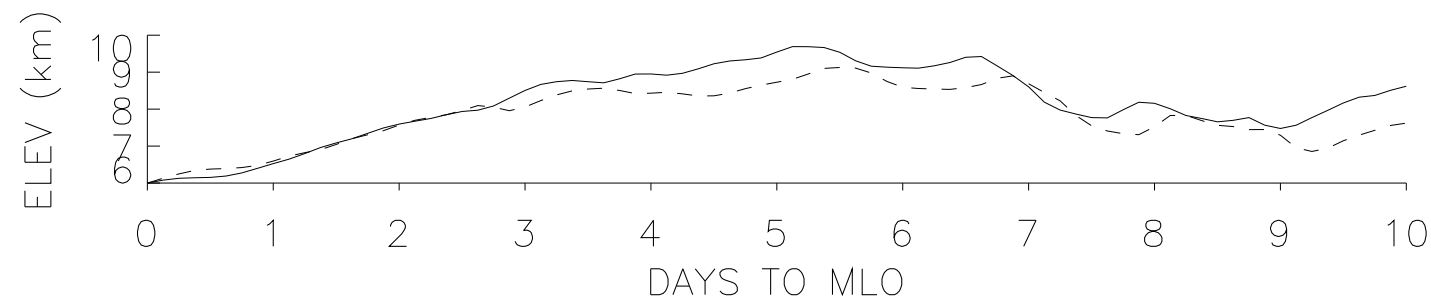



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -10 |
| 1 | 6.5 | 458 | -12 |
| 2 | 7.6 | 399 | -20 |
| 3 | 8.5 | 353 | -27 |
| 4 | 9.0 | 332 | -30 |
| 5 | 9.5 | 304 | -36 |
| 6 | 9.1 | 323 | -32 |
| 7 | 8.6 | 346 | -26 |
| 8 | 8.2 | 367 | -22 |
| 9 | 7.5 | 402 | -18 |
| 10 | 8.6 | 342 | -28 |

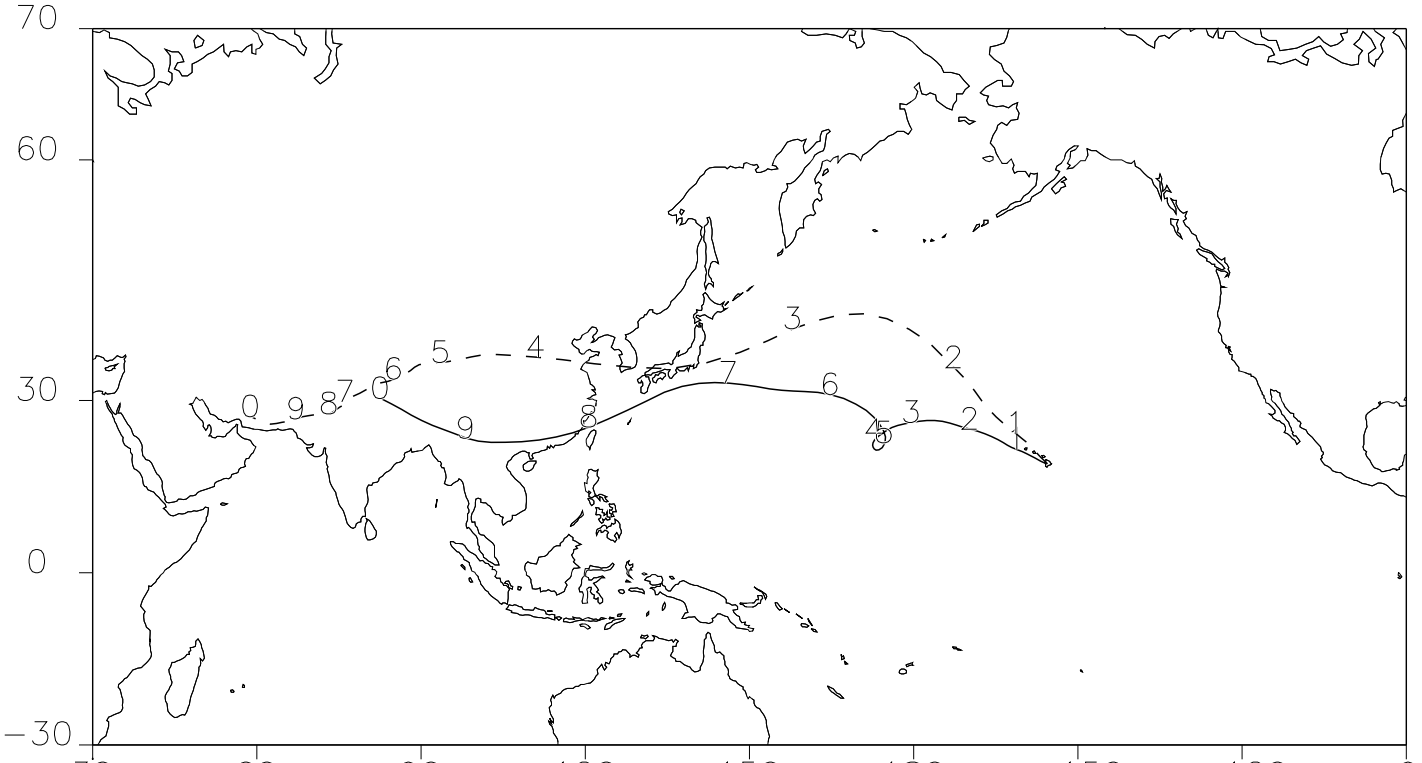
06UT

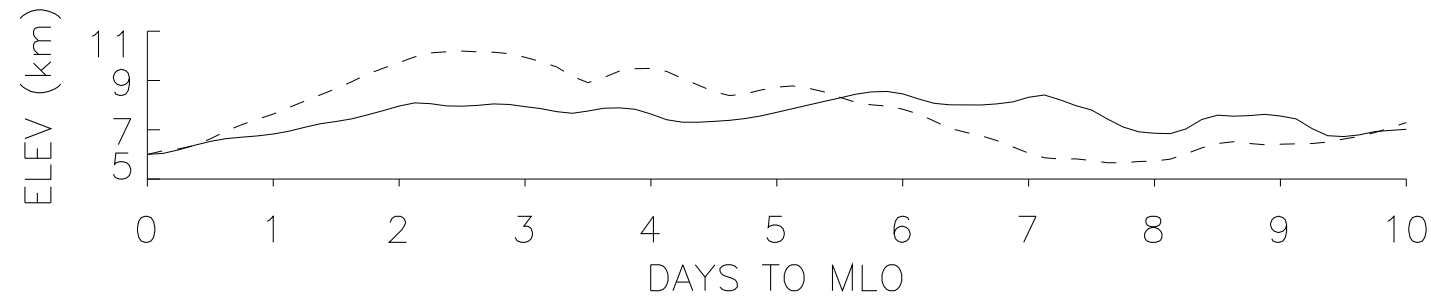
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -10 |
| 1 | 6.6 | 453 | -14 |
| 2 | 7.6 | 400 | -20 |
| 3 | 8.1 | 374 | -25 |
| 4 | 8.4 | 356 | -27 |
| 5 | 8.7 | 341 | -29 |
| 6 | 8.6 | 347 | -28 |
| 7 | 8.7 | 341 | -28 |
| 8 | 7.5 | 400 | -17 |
| 9 | 7.3 | 413 | -16 |
| 10 | 7.6 | 394 | -21 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/26/2004 (Day of Year 117)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

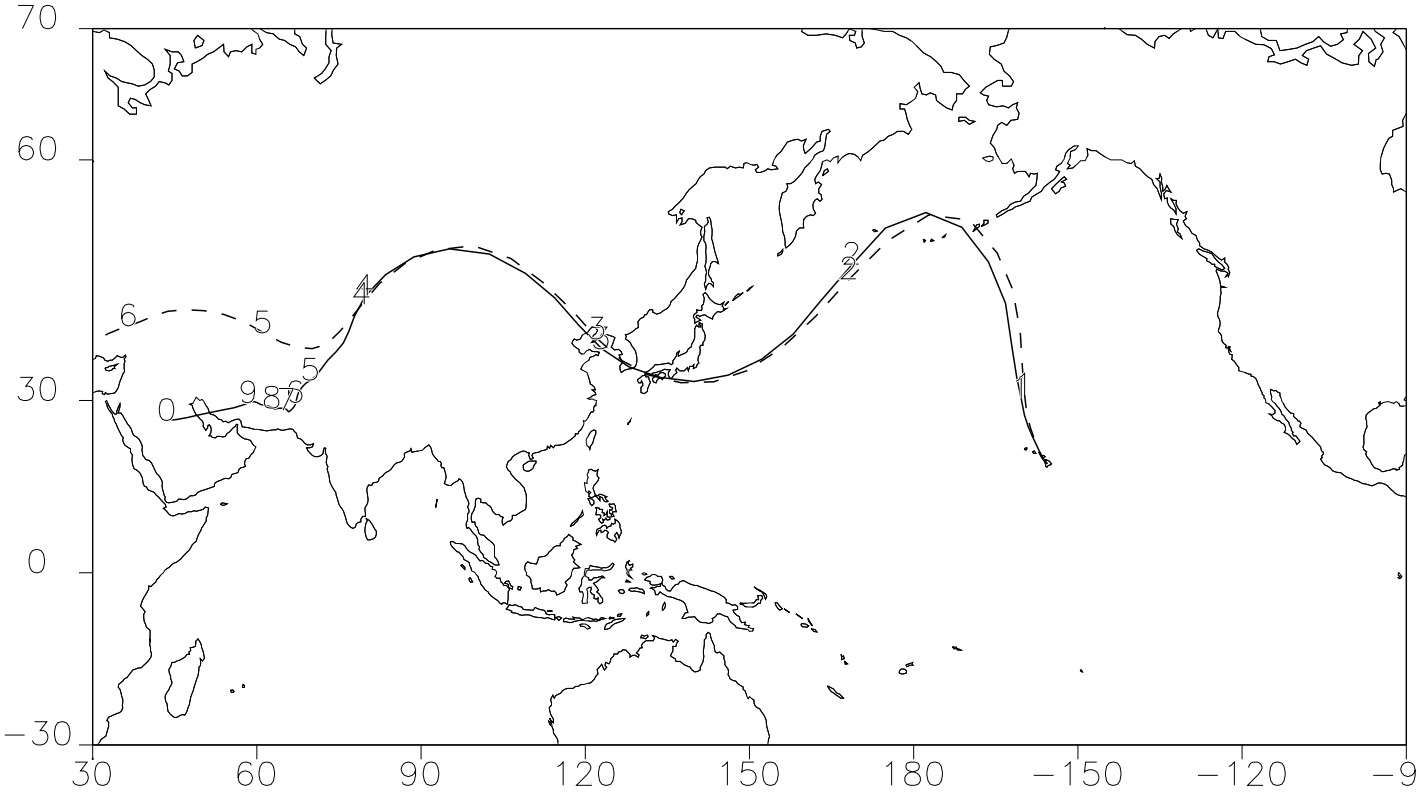
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −10 |
| 1 | 6.8 | 439 | −16 |
| 2 | 8.0 | 379 | −25 |
| 3 | 7.9 | 382 | −25 |
| 4 | 7.6 | 398 | −21 |
| 5 | 7.7 | 394 | −21 |
| 6 | 8.5 | 354 | −28 |
| 7 | 8.3 | 360 | −25 |
| 8 | 6.9 | 436 | −12 |
| 9 | 7.6 | 396 | −20 |
| 10 | 7.0 | 425 | −17 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −10 |
| 1 | 7.6 | 391 | −24 |
| 2 | 9.7 | 291 | −42 |
| 3 | 9.9 | 273 | −45 |
| 4 | 9.5 | 297 | −41 |
| 5 | 8.7 | 335 | −33 |
| 6 | 7.8 | 382 | −26 |
| 7 | 6.1 | 487 | −9 |
| 8 | 5.7 | 506 | −6 |
| 9 | 6.4 | 464 | −12 |
| 10 | 7.3 | 413 | −19 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/27/2004 (Day of Year 118)
## NCEP/NCAR Reanalysis 1 Data Set

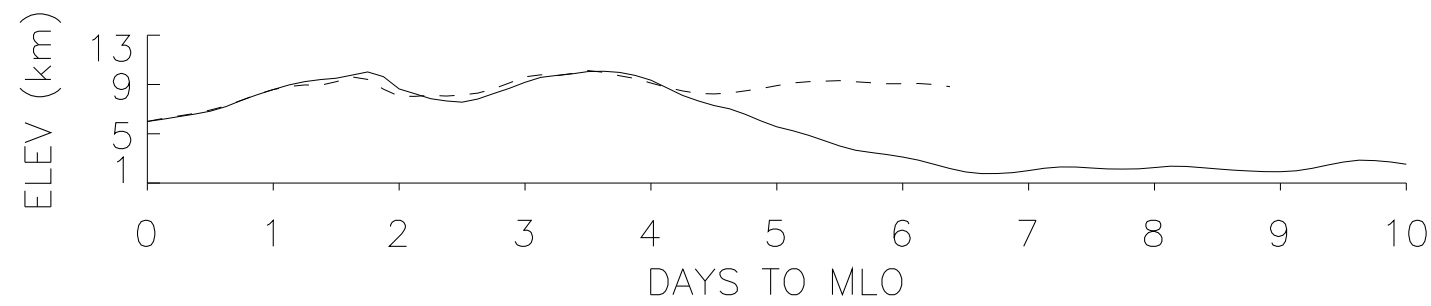



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −10 |
| 1 | 8.6 | 341 | −35 |
| 2 | 8.6 | 323 | −38 |
| 3 | 9.2 | 301 | −45 |
| 4 | 9.3 | 297 | −47 |
| 5 | 5.6 | 510 | −13 |
| 6 | 3.1 | 702 | 10 |
| 7 | 2.0 | 798 | 19 |
| 8 | 2.3 | 773 | 14 |
| 9 | 1.9 | 804 | 14 |
| 10 | 2.5 | 749 | 10 |

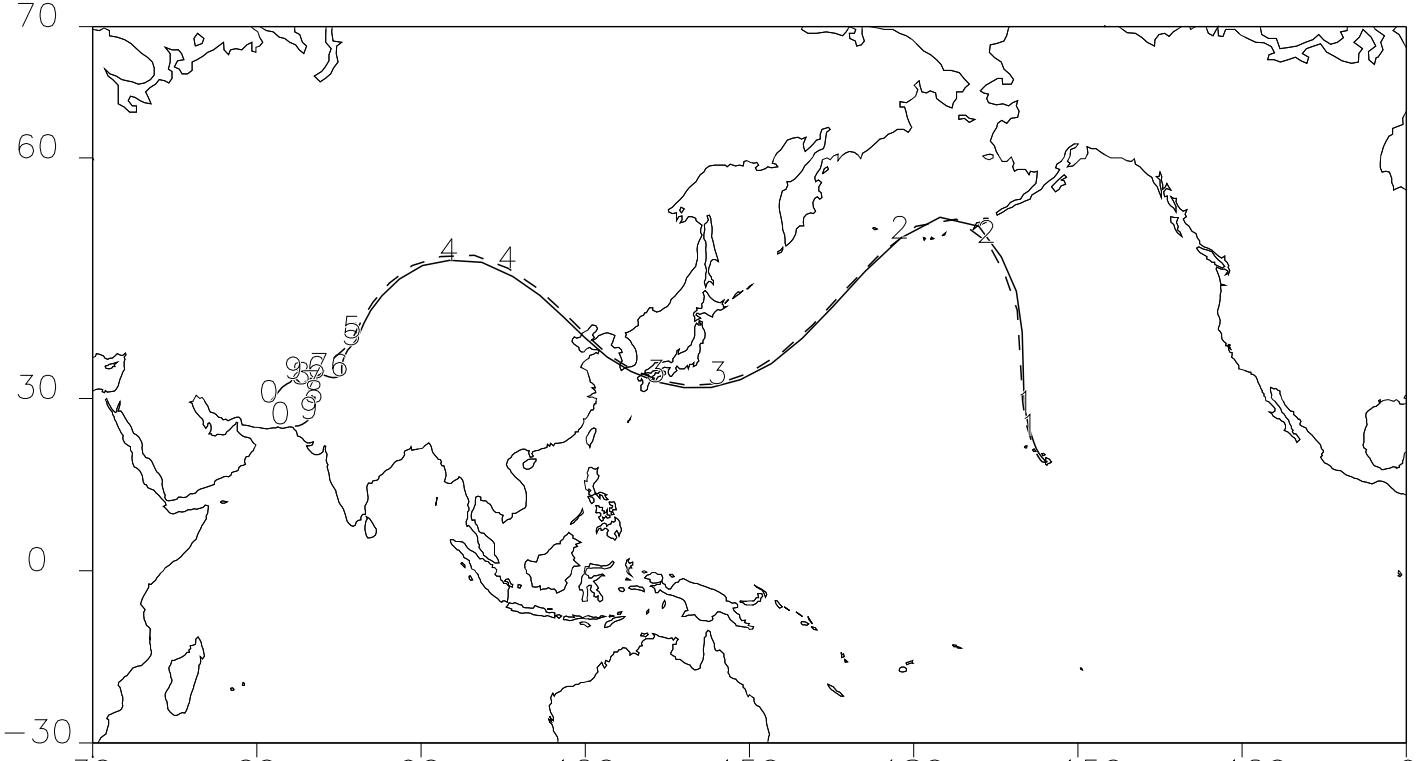
06UT

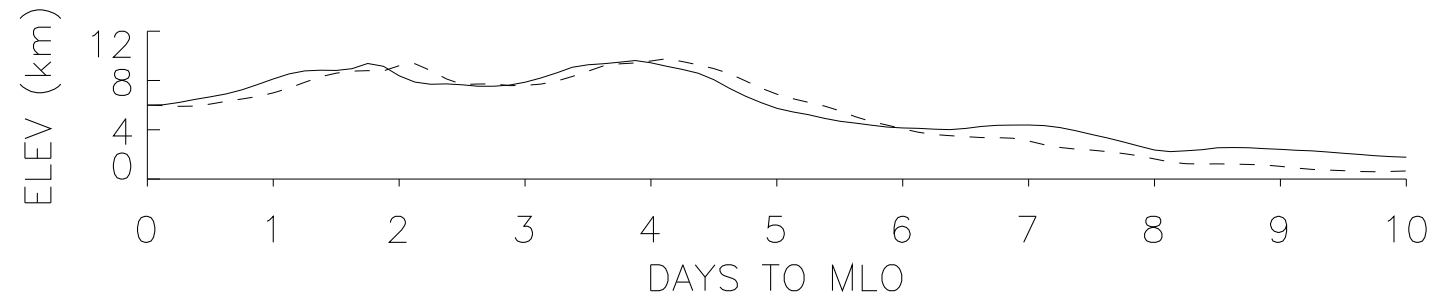
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −9 |
| 1 | 8.6 | 339 | −35 |
| 2 | 8.0 | 351 | −32 |
| 3 | 9.6 | 283 | −49 |
| 4 | 9.1 | 307 | −44 |
| 5 | 8.9 | 314 | −45 |
| 6 | 9.1 | 306 | −47 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/27/2004 (Day of Year 118)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

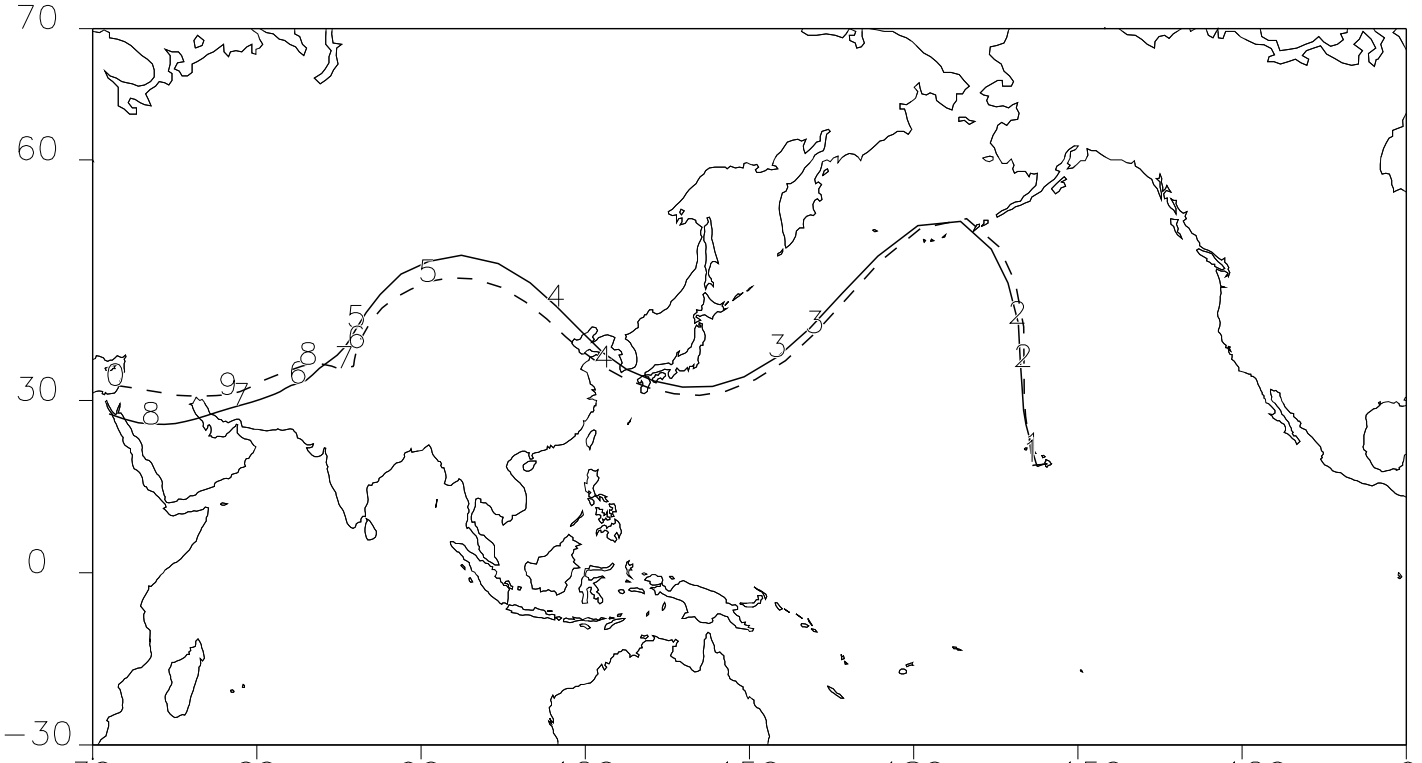
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −9 |
| 1 | 8.1 | 365 | −29 |
| 2 | 8.4 | 338 | −34 |
| 3 | 7.9 | 371 | −30 |
| 4 | 9.4 | 293 | −45 |
| 5 | 5.7 | 497 | −12 |
| 6 | 4.1 | 616 | 1 |
| 7 | 4.4 | 600 | −1 |
| 8 | 2.4 | 765 | 18 |
| 9 | 2.4 | 759 | 16 |
| 10 | 1.8 | 818 | 25 |

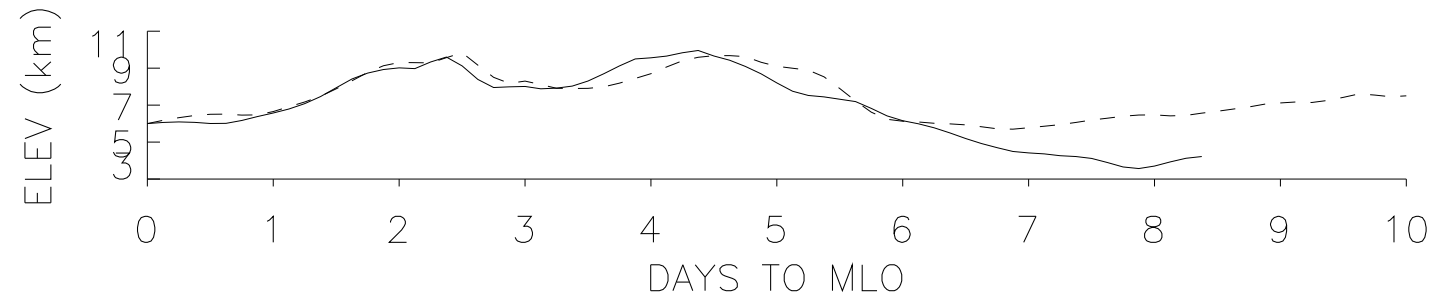
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 7.0 | 428 | −17 |
| 2 | 9.2 | 302 | −41 |
| 3 | 7.6 | 383 | −28 |
| 4 | 9.6 | 284 | −49 |
| 5 | 6.9 | 427 | −23 |
| 6 | 4.1 | 620 | −1 |
| 7 | 3.1 | 706 | 11 |
| 8 | 1.6 | 835 | 24 |
| 9 | 1.0 | 892 | 26 |
| 10 | 0.7 | 933 | 27 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/28/2004 (Day of Year 119)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

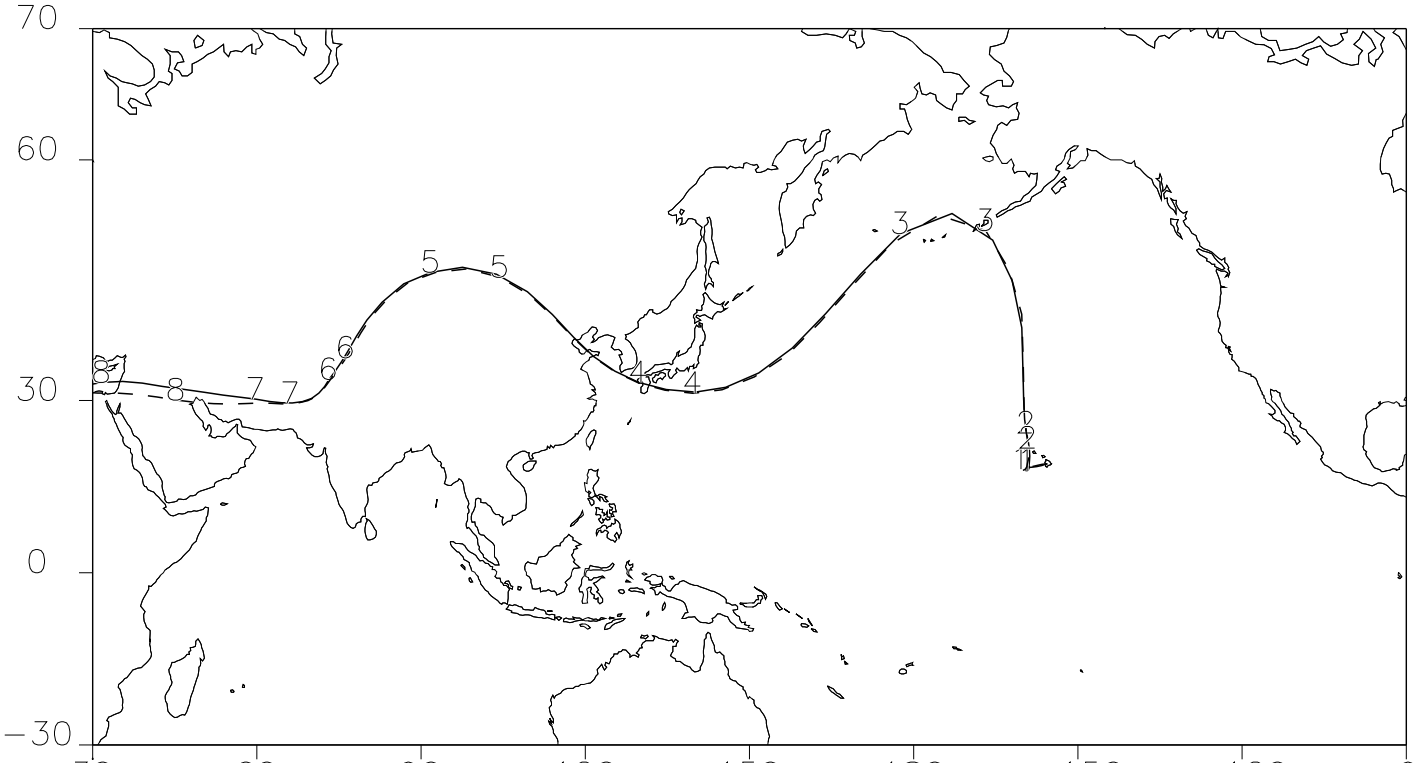
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -9 |
| 1 | 6.6 | 452 | -14 |
| 2 | 9.0 | 313 | -40 |
| 3 | 8.0 | 359 | -32 |
| 4 | 9.6 | 285 | -48 |
| 5 | 8.2 | 354 | -34 |
| 6 | 6.2 | 471 | -19 |
| 7 | 4.4 | 597 | -4 |
| 8 | 3.7 | 650 | 2 |

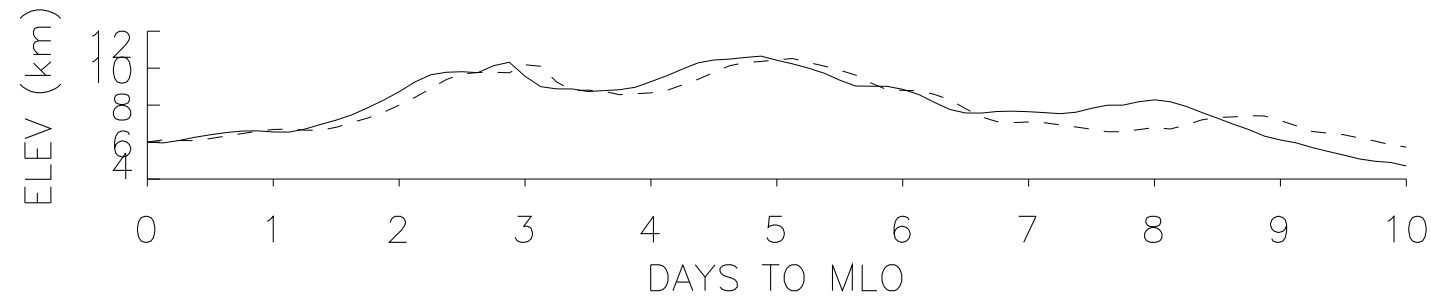
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -9 |
| 1 | 6.7 | 448 | -14 |
| 2 | 9.3 | 303 | -41 |
| 3 | 8.3 | 345 | -33 |
| 4 | 8.7 | 331 | -37 |
| 5 | 9.1 | 311 | -41 |
| 6 | 6.1 | 475 | -14 |
| 7 | 5.8 | 502 | -12 |
| 8 | 6.5 | 457 | -19 |
| 9 | 7.1 | 414 | -26 |
| 10 | 7.5 | 391 | -30 |

00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/28/2004 (Day of Year 119)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

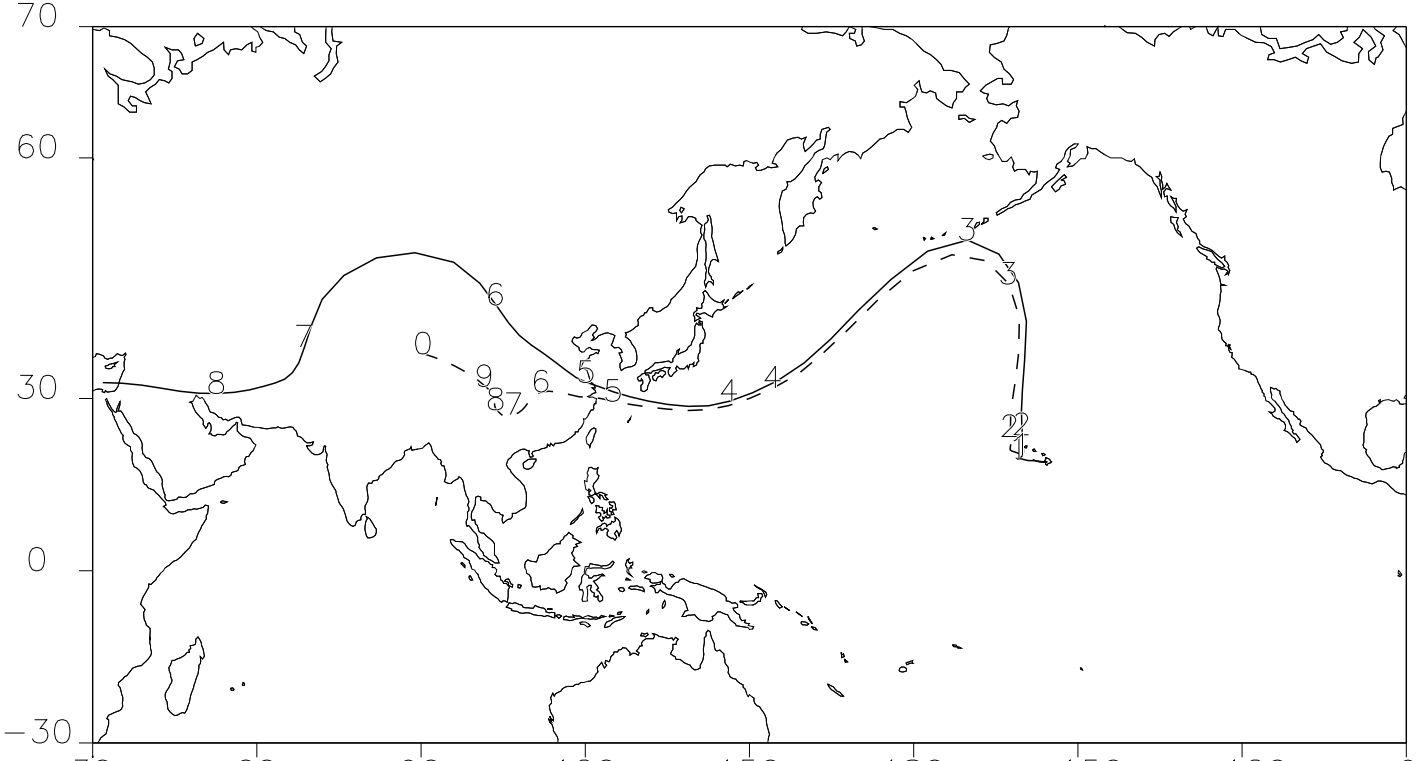
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −9 |
| 1 | 6.5 | 455 | −13 |
| 2 | 8.7 | 337 | −34 |
| 3 | 9.6 | 283 | −43 |
| 4 | 9.3 | 305 | −40 |
| 5 | 10.4 | 253 | −53 |
| 6 | 8.9 | 325 | −38 |
| 7 | 7.6 | 389 | −26 |
| 8 | 8.3 | 350 | −34 |
| 9 | 6.1 | 478 | −15 |
| 10 | 4.7 | 580 | −2 |

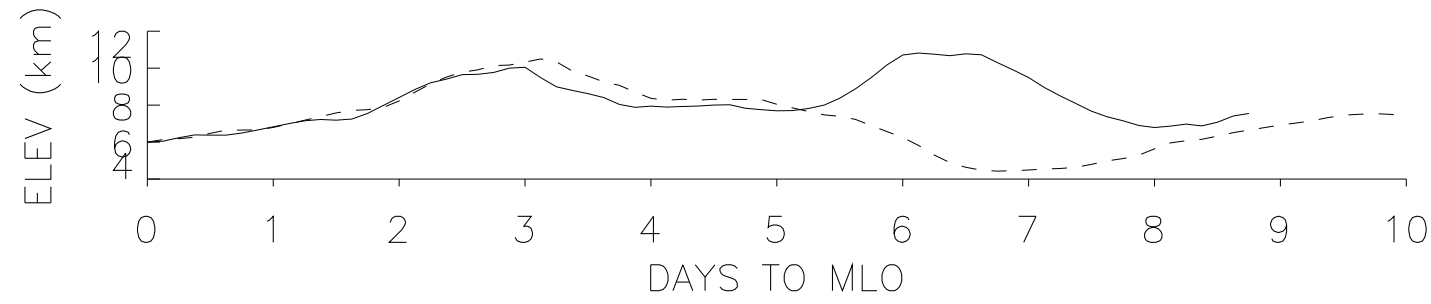
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.7 | 448 | −14 |
| 2 | 8.0 | 374 | −26 |
| 3 | 10.2 | 260 | −49 |
| 4 | 8.7 | 332 | −35 |
| 5 | 10.4 | 251 | −55 |
| 6 | 8.8 | 327 | −38 |
| 7 | 7.1 | 420 | −22 |
| 8 | 6.8 | 436 | −19 |
| 9 | 7.2 | 411 | −25 |
| 10 | 5.7 | 503 | −12 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/29/2004 (Day of Year 120)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

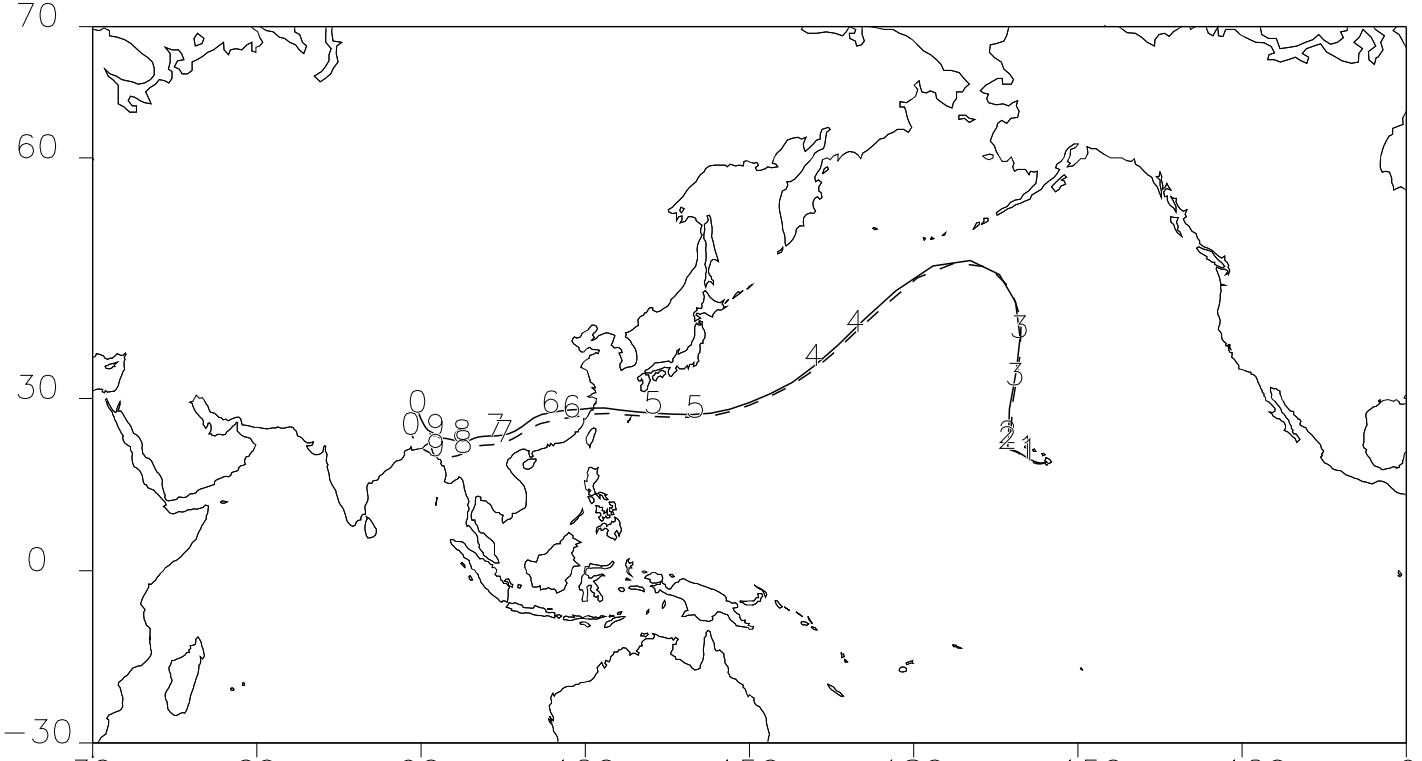
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.8 | 439 | −15 |
| 2 | 8.4 | 353 | −29 |
| 3 | 10.1 | 270 | −47 |
| 4 | 7.9 | 373 | −26 |
| 5 | 7.7 | 386 | −26 |
| 6 | 10.7 | 242 | −57 |
| 7 | 9.5 | 292 | −45 |
| 8 | 6.8 | 435 | −21 |

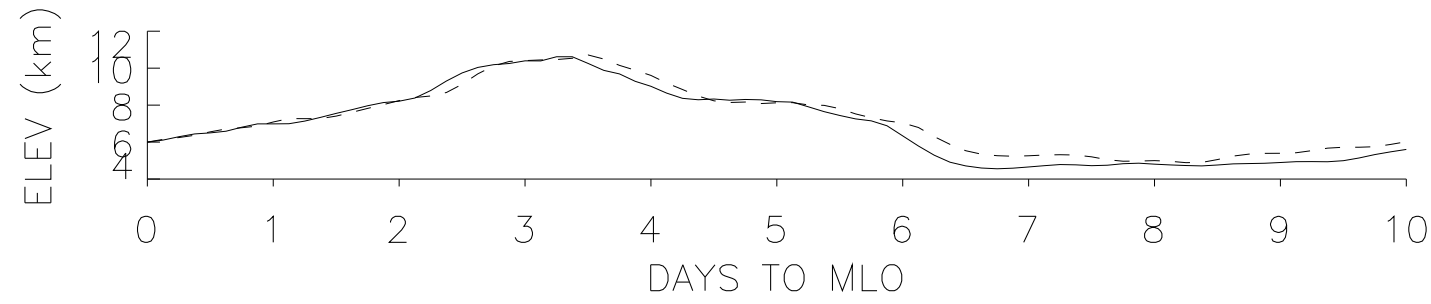
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.8 | 441 | −14 |
| 2 | 8.2 | 362 | −27 |
| 3 | 10.3 | 261 | −47 |
| 4 | 8.4 | 351 | −29 |
| 5 | 8.0 | 369 | −26 |
| 6 | 6.2 | 471 | −13 |
| 7 | 4.5 | 592 | 1 |
| 8 | 5.6 | 513 | −6 |
| 9 | 6.9 | 432 | −18 |
| 10 | 7.4 | 401 | −25 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/29/2004 (Day of Year 120)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

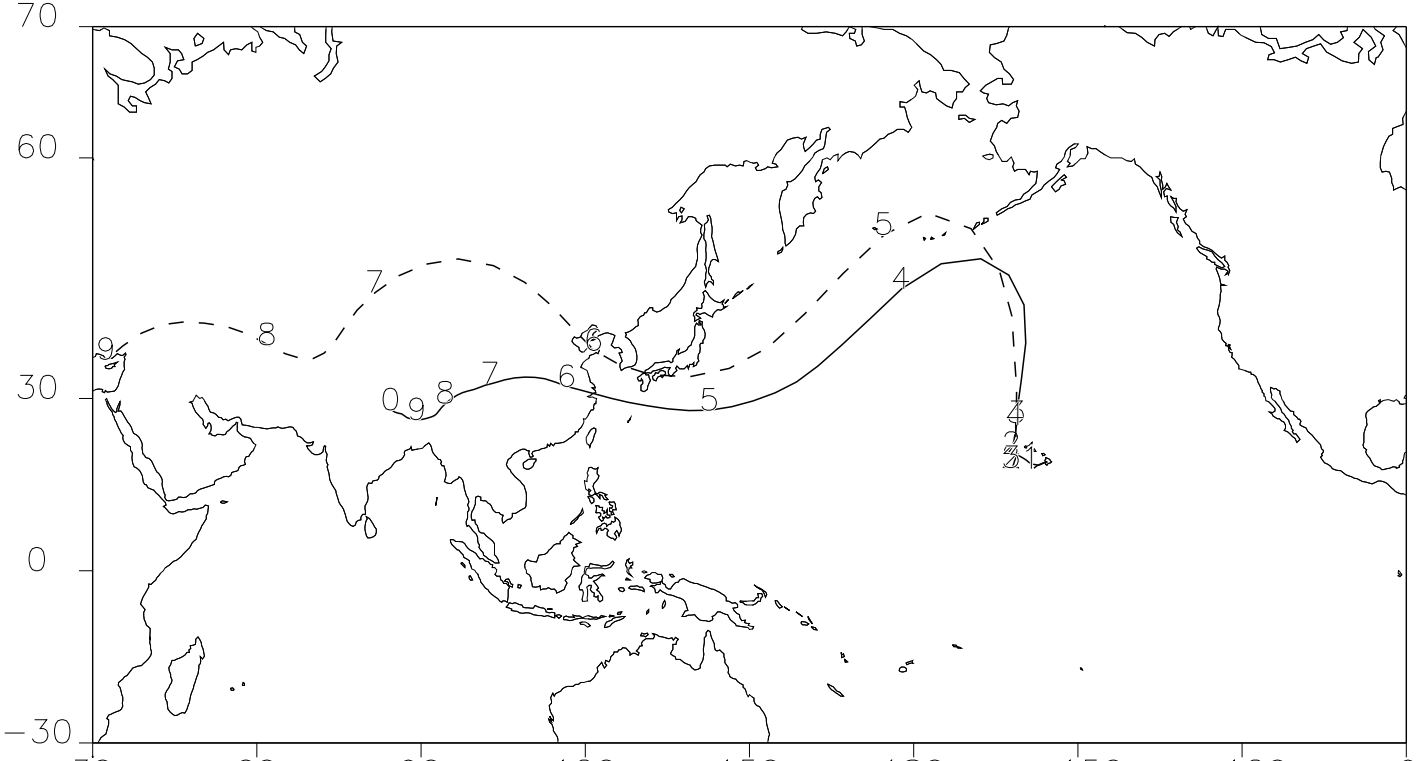
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 7.0 | 429 | −16 |
| 2 | 8.2 | 364 | −26 |
| 3 | 10.4 | 260 | −48 |
| 4 | 9.0 | 321 | −35 |
| 5 | 8.2 | 363 | −26 |
| 6 | 6.3 | 466 | −11 |
| 7 | 4.7 | 579 | −1 |
| 8 | 4.8 | 568 | −2 |
| 9 | 4.9 | 563 | −2 |
| 10 | 5.6 | 513 | −8 |

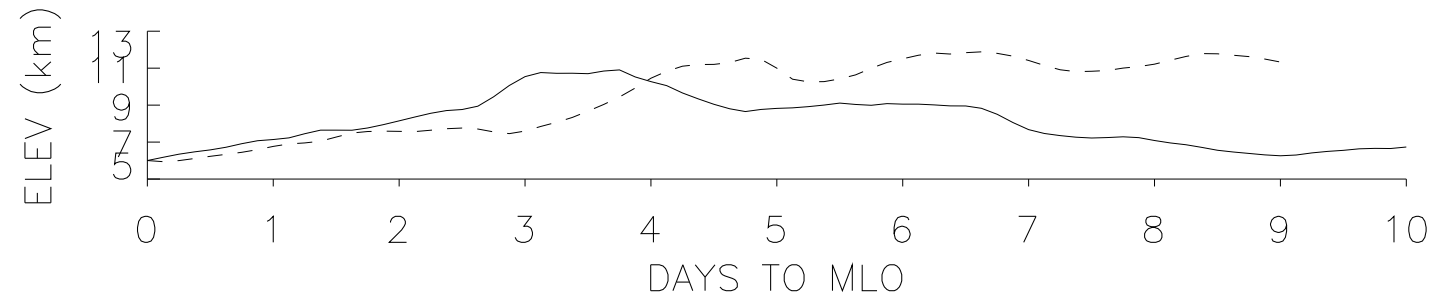
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 7.1 | 425 | −16 |
| 2 | 8.2 | 363 | −26 |
| 3 | 10.4 | 262 | −47 |
| 4 | 9.6 | 292 | −41 |
| 5 | 8.1 | 366 | −26 |
| 6 | 7.0 | 426 | −16 |
| 7 | 5.3 | 538 | −4 |
| 8 | 5.0 | 557 | −4 |
| 9 | 5.4 | 532 | −6 |
| 10 | 6.0 | 490 | −10 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 4/30/2004 (Day of Year 121)
## NCEP/NCAR Reanalysis 1 Data Set



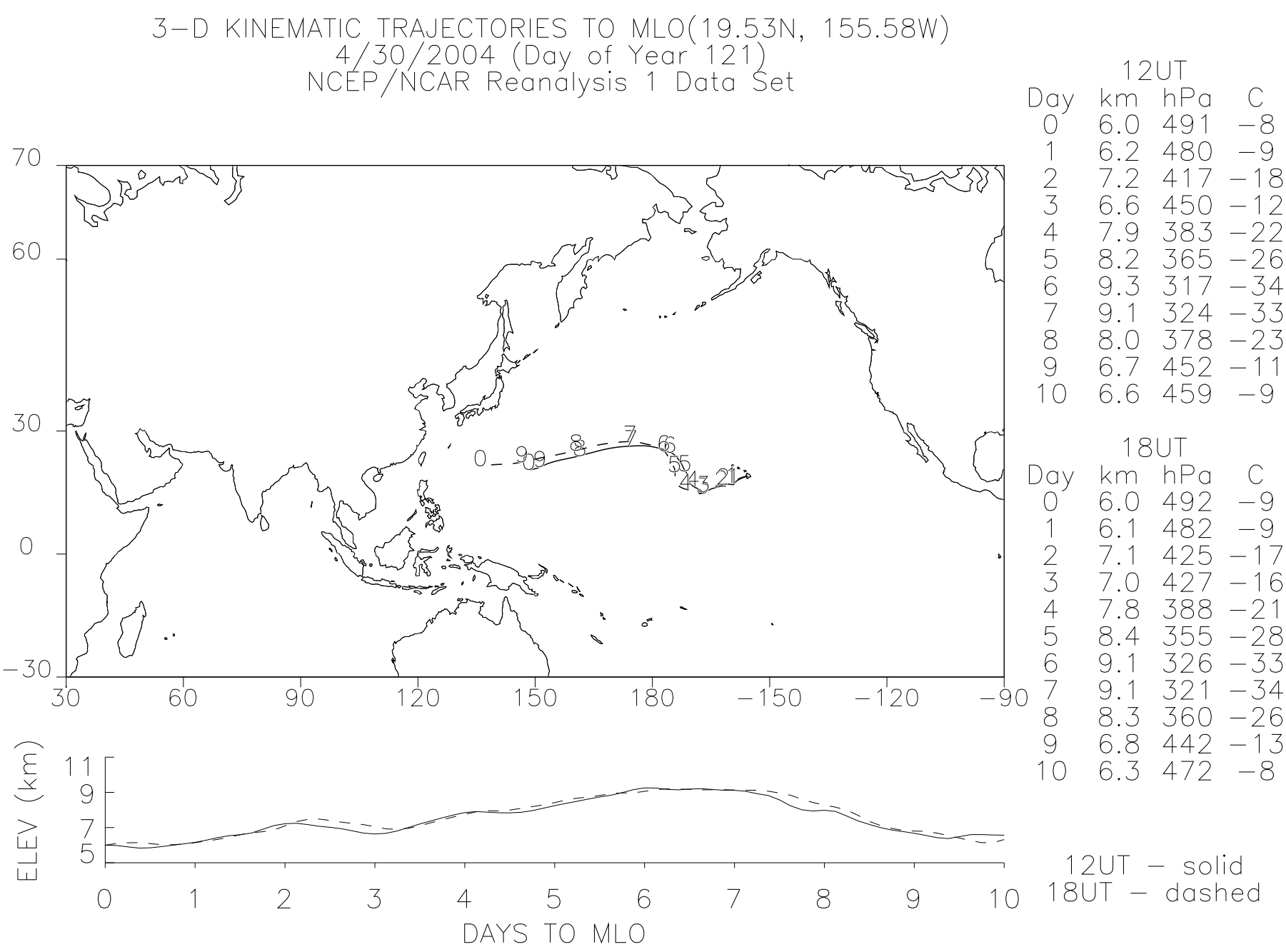

00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 7.1 | 422 | −17 |
| 2 | 8.1 | 368 | −25 |
| 3 | 10.5 | 259 | −47 |
| 4 | 10.3 | 262 | −47 |
| 5 | 8.8 | 332 | −32 |
| 6 | 9.1 | 320 | −34 |
| 7 | 7.7 | 389 | −21 |
| 8 | 7.1 | 422 | −17 |
| 9 | 6.3 | 473 | −10 |
| 10 | 6.7 | 445 | −15 |

06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.8 | 445 | −14 |
| 2 | 7.6 | 398 | −20 |
| 3 | 7.6 | 396 | −21 |
| 4 | 10.5 | 261 | −48 |
| 5 | 11.0 | 226 | −53 |
| 6 | 11.5 | 214 | −58 |
| 7 | 11.4 | 216 | −55 |
| 8 | 11.2 | 222 | −53 |
| 9 | 11.3 | 216 | −54 |

00UT − solid
06UT − dashed




12UT

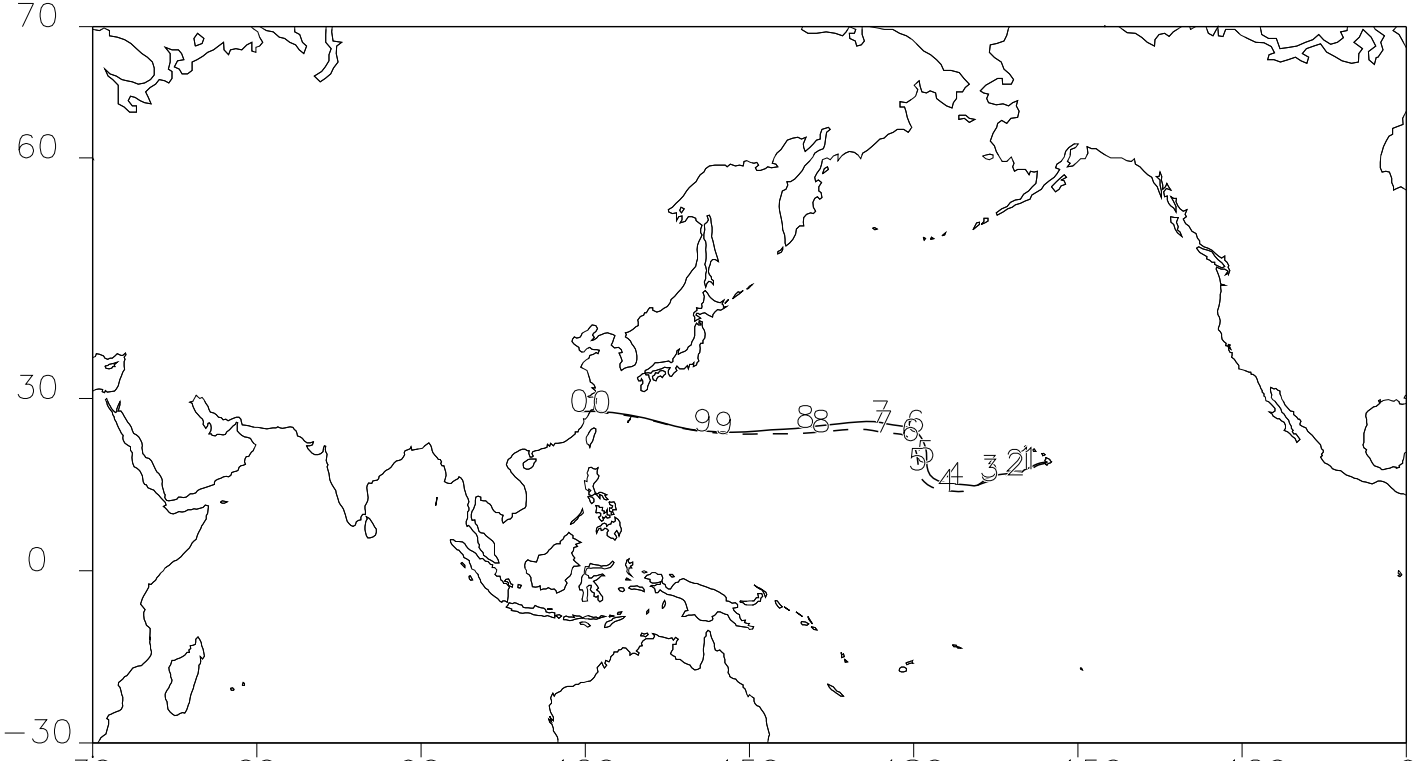
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.2 | 480 | −9 |
| 2 | 7.2 | 417 | −18 |
| 3 | 6.6 | 450 | −12 |
| 4 | 7.9 | 383 | −22 |
| 5 | 8.2 | 365 | −26 |
| 6 | 9.3 | 317 | −34 |
| 7 | 9.1 | 324 | −33 |
| 8 | 8.0 | 378 | −23 |
| 9 | 6.7 | 452 | −11 |
| 10 | 6.6 | 459 | −9 |

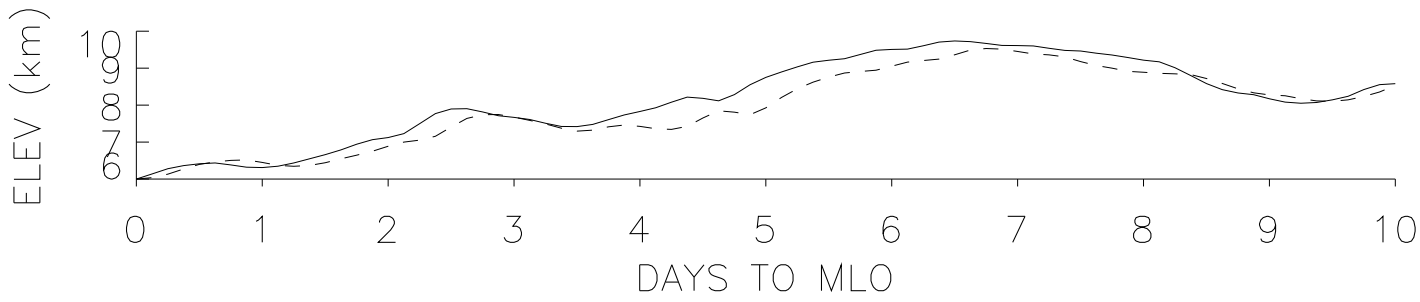
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −9 |
| 1 | 6.1 | 482 | −9 |
| 2 | 7.1 | 425 | −17 |
| 3 | 7.0 | 427 | −16 |
| 4 | 7.8 | 388 | −21 |
| 5 | 8.4 | 355 | −28 |
| 6 | 9.1 | 326 | −33 |
| 7 | 9.1 | 321 | −34 |
| 8 | 8.3 | 360 | −26 |
| 9 | 6.8 | 442 | −13 |
| 10 | 6.3 | 472 | −8 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/1/2004 (Day of Year 122)
NCEP/NCAR Reanalysis 1 Data Set




00UT

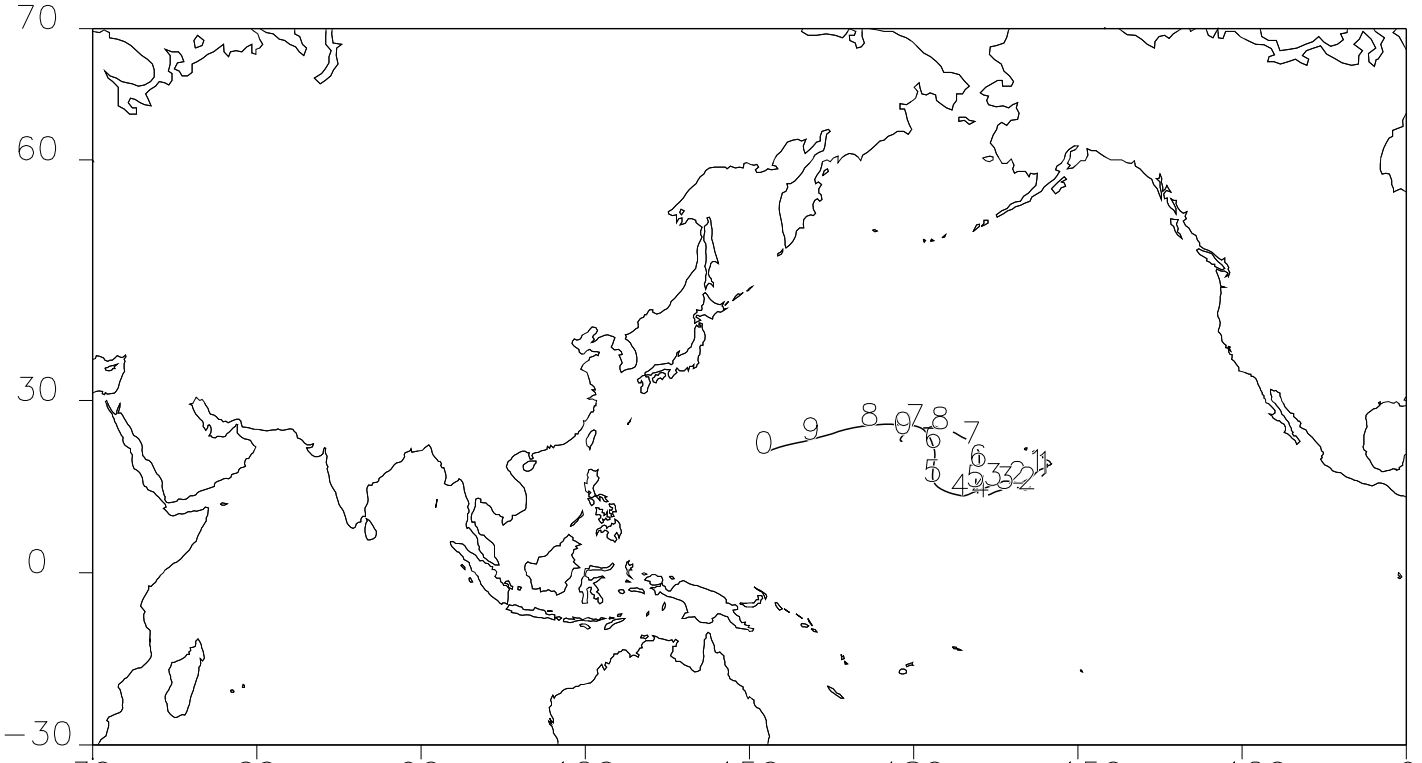
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.3 | 471 | −10 |
| 2 | 7.1 | 423 | −17 |
| 3 | 7.7 | 393 | −20 |
| 4 | 7.8 | 384 | −22 |
| 5 | 8.8 | 340 | −30 |
| 6 | 9.5 | 307 | −35 |
| 7 | 9.6 | 301 | −36 |
| 8 | 9.2 | 317 | −33 |
| 9 | 8.2 | 367 | −24 |
| 10 | 8.6 | 346 | −28 |

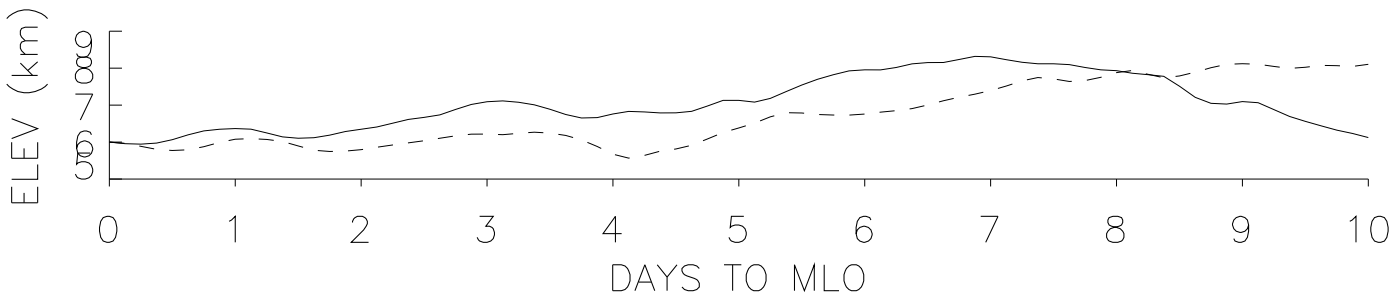
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.4 | 464 | −11 |
| 2 | 6.9 | 438 | −15 |
| 3 | 7.7 | 393 | −21 |
| 4 | 7.4 | 405 | −19 |
| 5 | 7.9 | 380 | −23 |
| 6 | 9.1 | 326 | −32 |
| 7 | 9.5 | 308 | −35 |
| 8 | 8.9 | 332 | −31 |
| 9 | 8.3 | 361 | −25 |
| 10 | 8.5 | 349 | −26 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/1/2004 (Day of Year 122)
NCEP/NCAR Reanalysis 1 Data Set




12UT

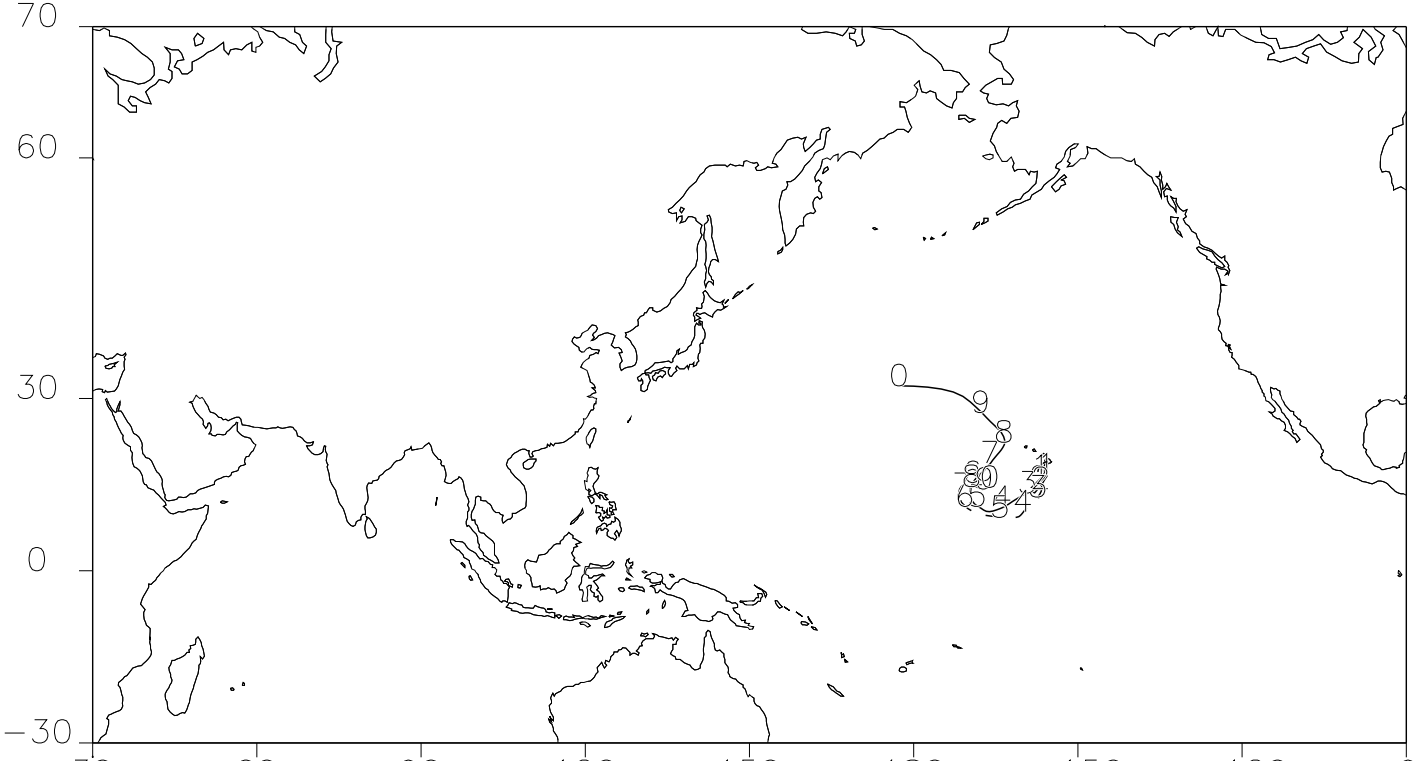
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.4 | 468 | −11 |
| 2 | 6.3 | 469 | −10 |
| 3 | 7.1 | 425 | −16 |
| 4 | 6.8 | 443 | −14 |
| 5 | 7.1 | 423 | −17 |
| 6 | 8.0 | 380 | −24 |
| 7 | 8.3 | 363 | −27 |
| 8 | 7.9 | 382 | −24 |
| 9 | 7.1 | 426 | −16 |
| 10 | 6.1 | 485 | −8 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.1 | 488 | −9 |
| 2 | 5.8 | 505 | −6 |
| 3 | 6.2 | 477 | −8 |
| 4 | 5.7 | 510 | −5 |
| 5 | 6.4 | 465 | −11 |
| 6 | 6.8 | 443 | −15 |
| 7 | 7.4 | 409 | −19 |
| 8 | 7.9 | 384 | −24 |
| 9 | 8.1 | 371 | −25 |
| 10 | 8.1 | 372 | −24 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/2/2004 (Day of Year 123)
NCEP/NCAR Reanalysis 1 Data Set

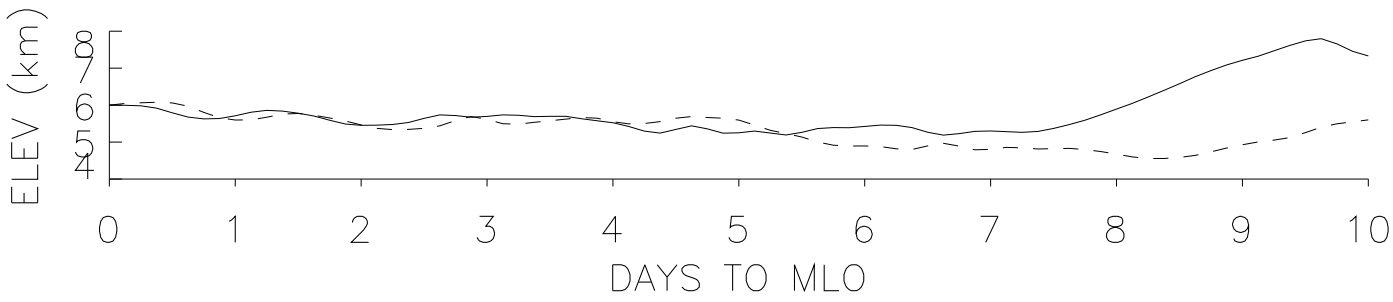



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 5.7 | 510 | −7 |
| 2 | 5.5 | 526 | −4 |
| 3 | 5.7 | 510 | −4 |
| 4 | 5.5 | 520 | −2 |
| 5 | 5.3 | 537 | −3 |
| 6 | 5.4 | 527 | −5 |
| 7 | 5.3 | 537 | −3 |
| 8 | 5.9 | 499 | −8 |
| 9 | 7.2 | 420 | −18 |
| 10 | 7.3 | 410 | −20 |

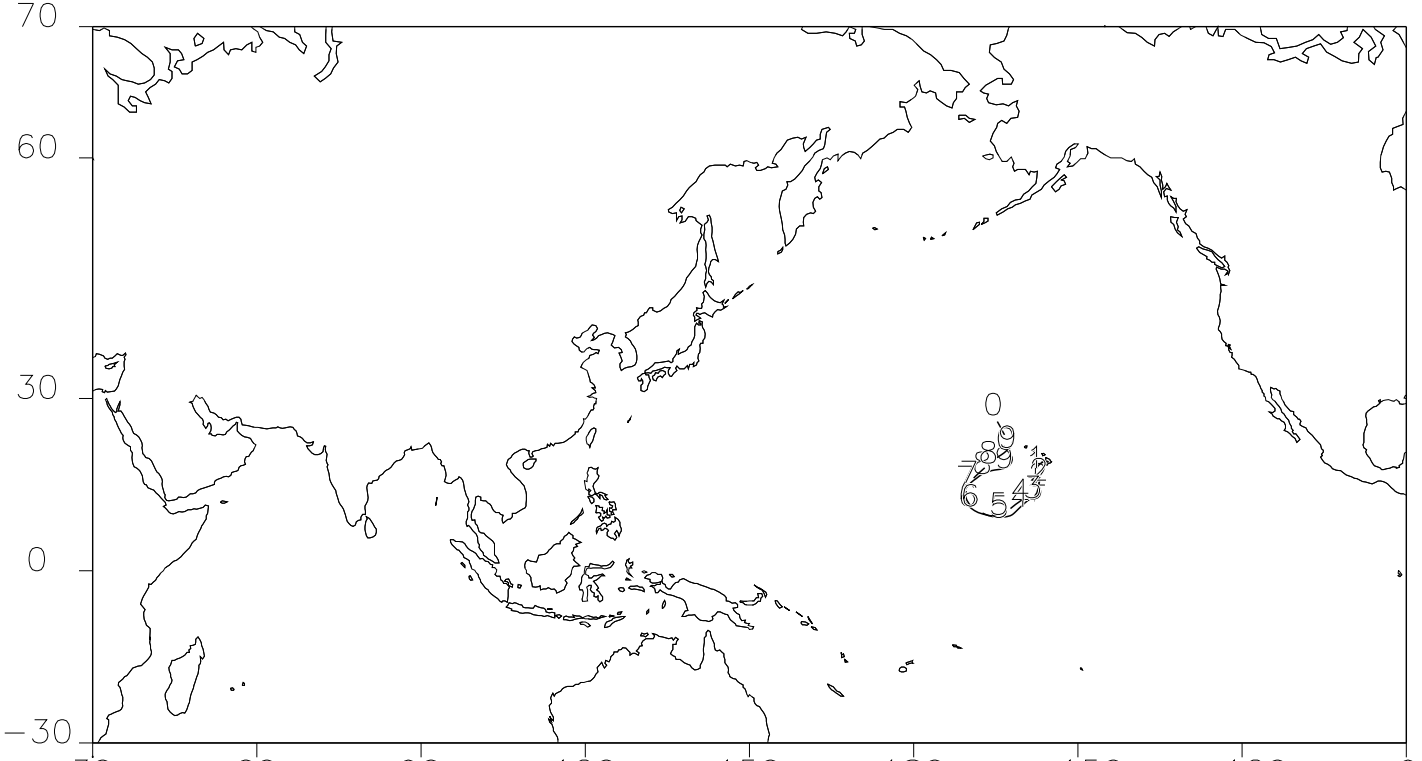
06UT

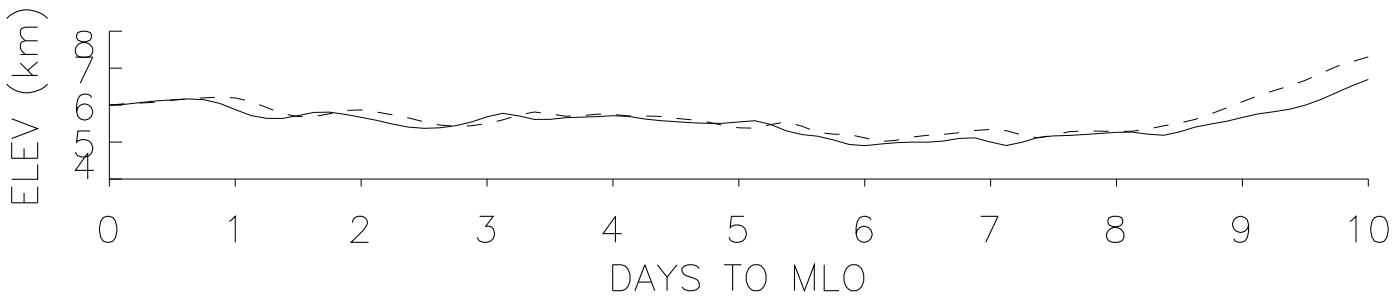
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 5.6 | 518 | −6 |
| 2 | 5.5 | 527 | −4 |
| 3 | 5.6 | 516 | −5 |
| 4 | 5.6 | 519 | −3 |
| 5 | 5.6 | 515 | −4 |
| 6 | 4.9 | 563 | −1 |
| 7 | 4.8 | 571 | 0 |
| 8 | 4.7 | 582 | 1 |
| 9 | 4.9 | 563 | 0 |
| 10 | 5.6 | 516 | −5 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/2/2004 (Day of Year 123)
NCEP/NCAR Reanalysis 1 Data Set




12UT

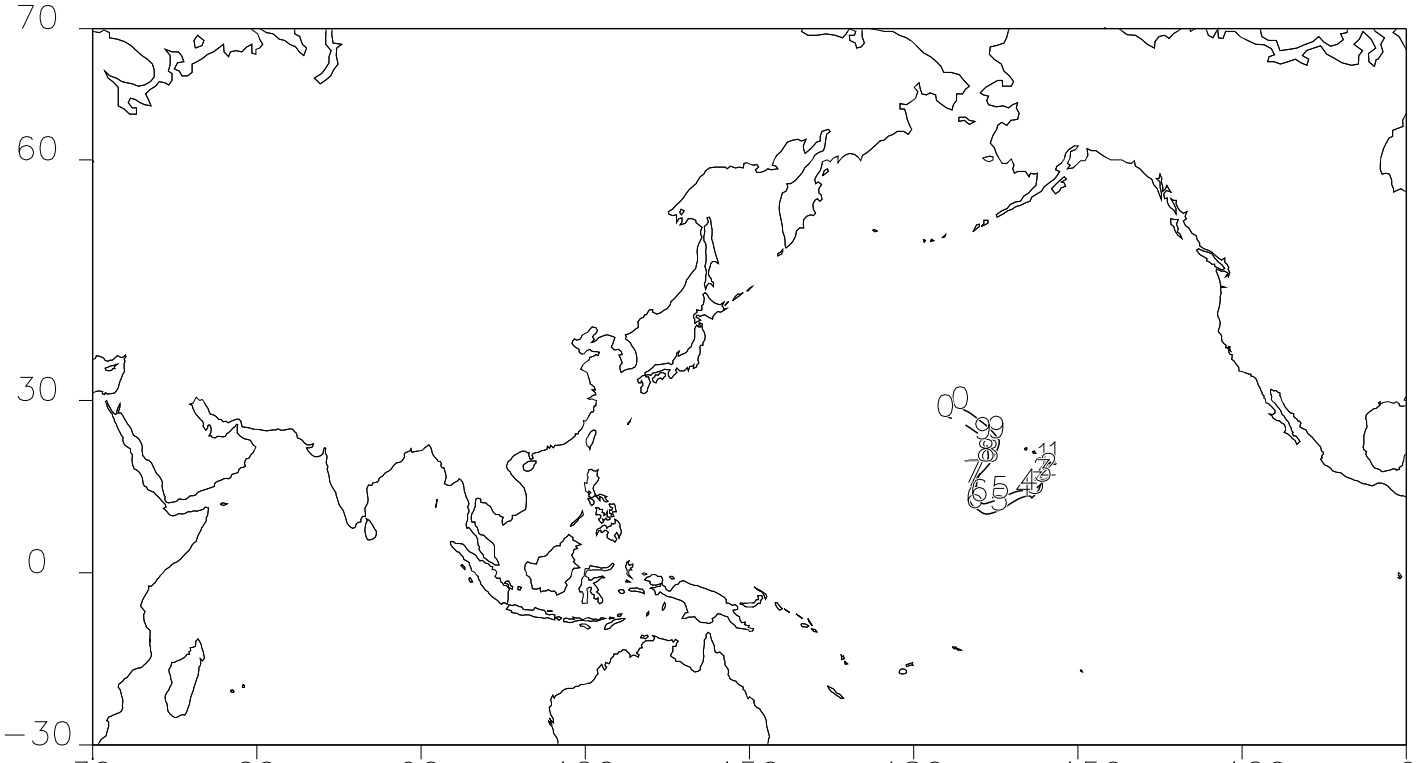
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 5.9 | 498 | −9 |
| 2 | 5.7 | 512 | −6 |
| 3 | 5.7 | 511 | −5 |
| 4 | 5.7 | 508 | −5 |
| 5 | 5.5 | 519 | −3 |
| 6 | 4.9 | 562 | −1 |
| 7 | 5.0 | 557 | −2 |
| 8 | 5.3 | 540 | −3 |
| 9 | 5.7 | 513 | −5 |
| 10 | 6.7 | 448 | −13 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.2 | 479 | −12 |
| 2 | 5.9 | 501 | −8 |
| 3 | 5.5 | 524 | −4 |
| 4 | 5.7 | 507 | −4 |
| 5 | 5.4 | 529 | −2 |
| 6 | 5.1 | 547 | −2 |
| 7 | 5.3 | 532 | −5 |
| 8 | 5.3 | 539 | −4 |
| 9 | 6.1 | 487 | −8 |
| 10 | 7.3 | 412 | −19 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/3/2004 (Day of Year 124)
NCEP/NCAR Reanalysis 1 Data Set

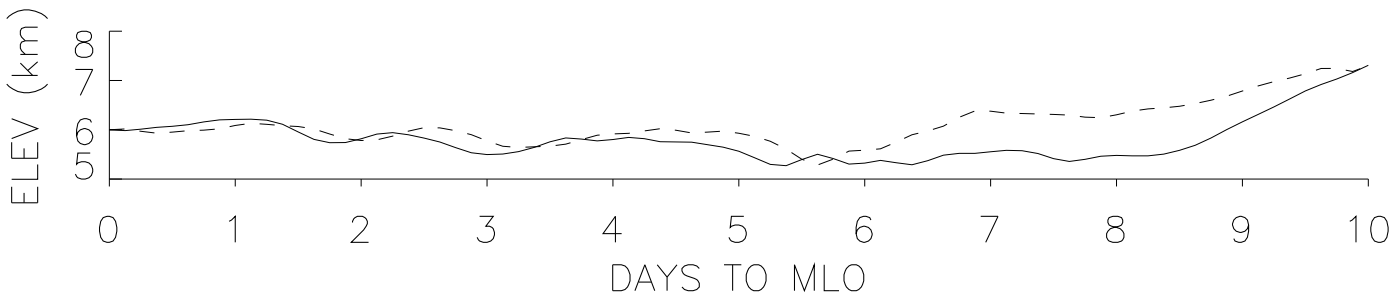



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.2 | 477 | −12 |
| 2 | 5.8 | 503 | −8 |
| 3 | 5.5 | 524 | −4 |
| 4 | 5.8 | 503 | −5 |
| 5 | 5.6 | 517 | −2 |
| 6 | 5.3 | 532 | −3 |
| 7 | 5.6 | 518 | −5 |
| 8 | 5.5 | 525 | −5 |
| 9 | 6.2 | 482 | −10 |
| 10 | 7.3 | 415 | −19 |

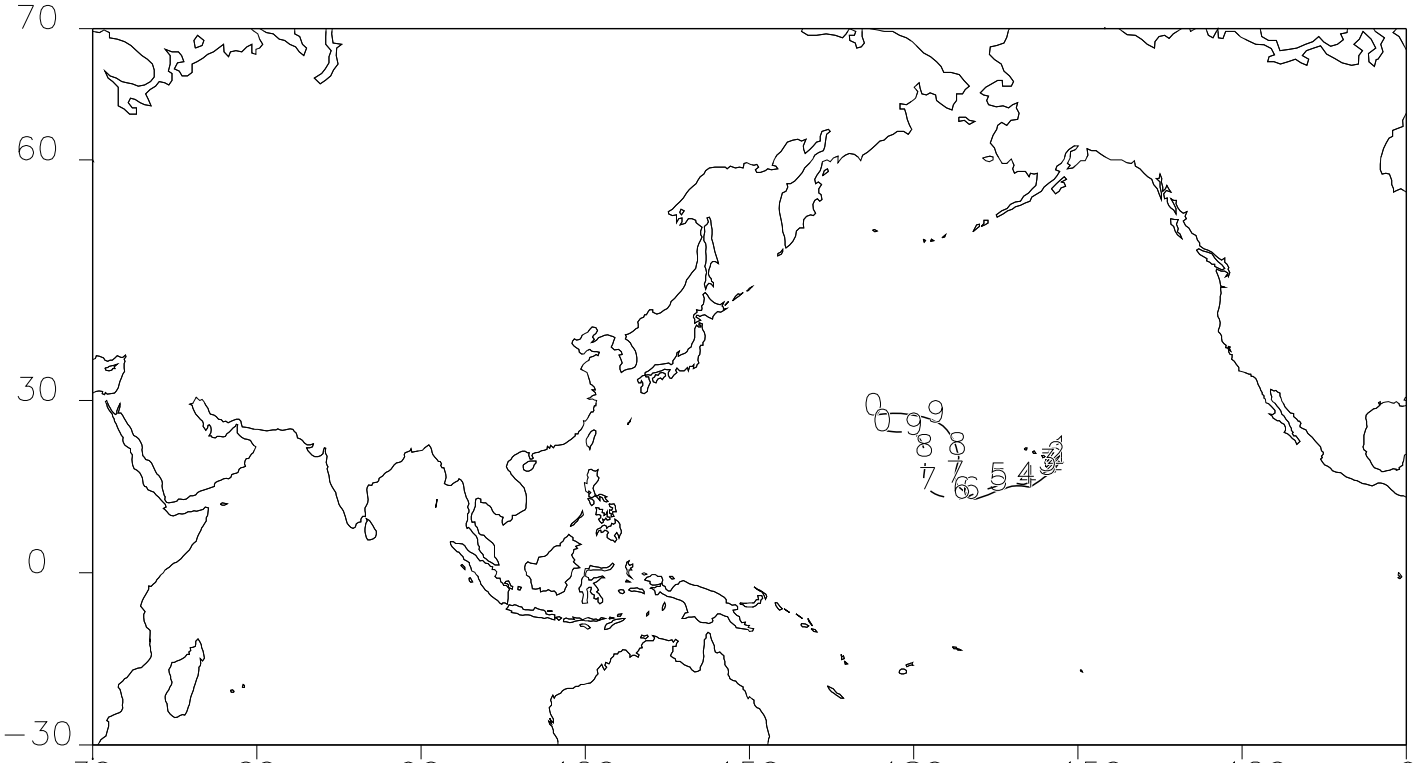
06UT

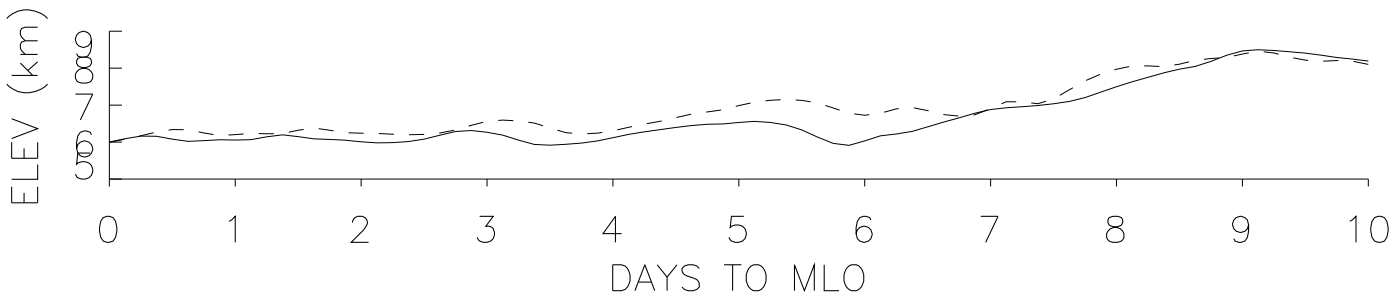
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −11 |
| 1 | 6.1 | 485 | −12 |
| 2 | 5.8 | 505 | −7 |
| 3 | 5.8 | 506 | −6 |
| 4 | 5.9 | 497 | −7 |
| 5 | 5.9 | 494 | −5 |
| 6 | 5.6 | 515 | −4 |
| 7 | 6.4 | 466 | −11 |
| 8 | 6.3 | 471 | −11 |
| 9 | 6.8 | 445 | −15 |
| 10 | 7.3 | 415 | −20 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/3/2004 (Day of Year 124)
NCEP/NCAR Reanalysis 1 Data Set



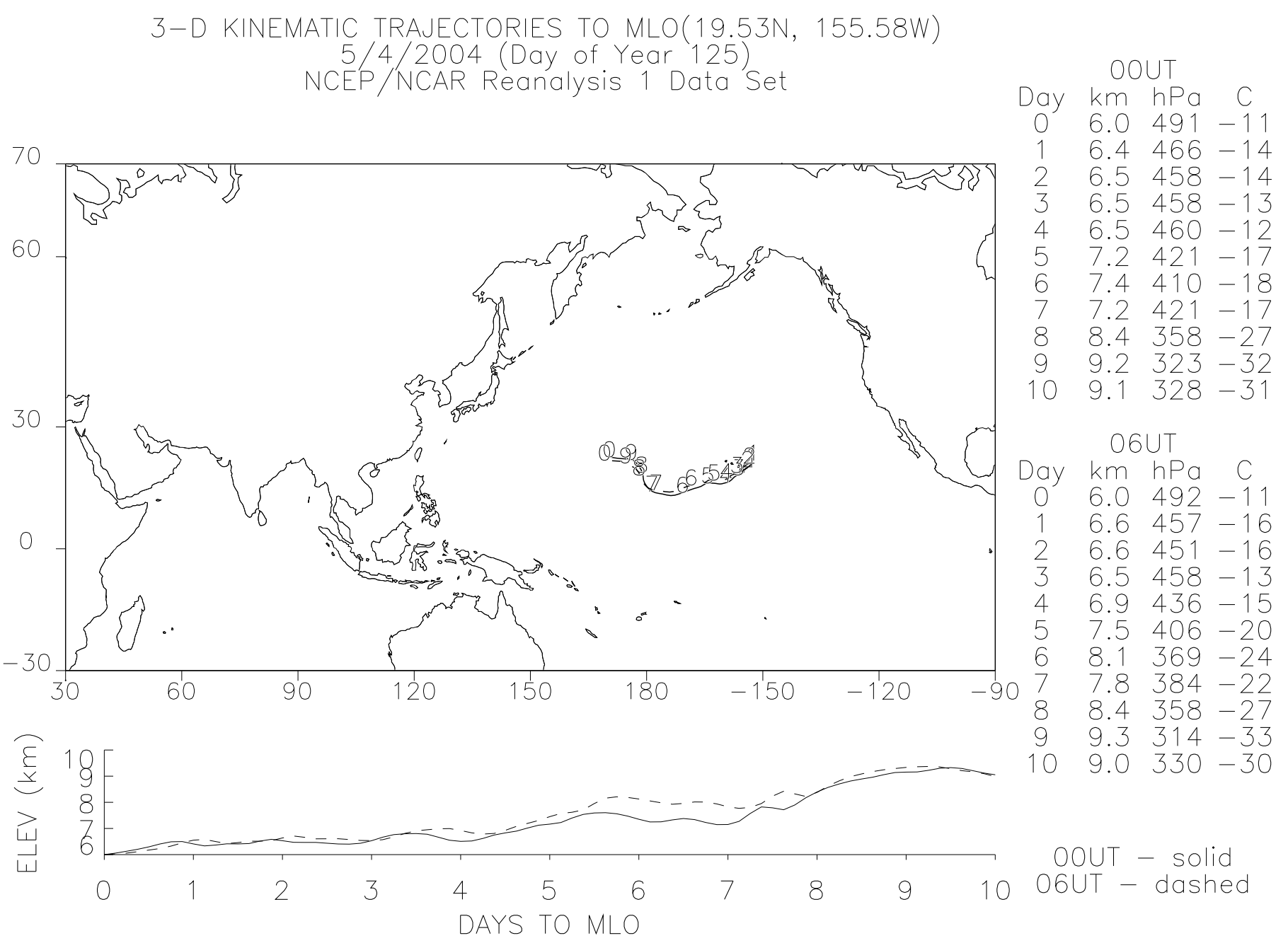

12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −10 |
| 1 | 6.1 | 487 | −11 |
| 2 | 6.0 | 490 | −9 |
| 3 | 6.3 | 474 | −11 |
| 4 | 6.1 | 483 | −9 |
| 5 | 6.5 | 457 | −11 |
| 6 | 6.0 | 487 | −7 |
| 7 | 6.9 | 436 | −15 |
| 8 | 7.5 | 403 | −20 |
| 9 | 8.5 | 354 | −28 |
| 10 | 8.2 | 368 | −27 |

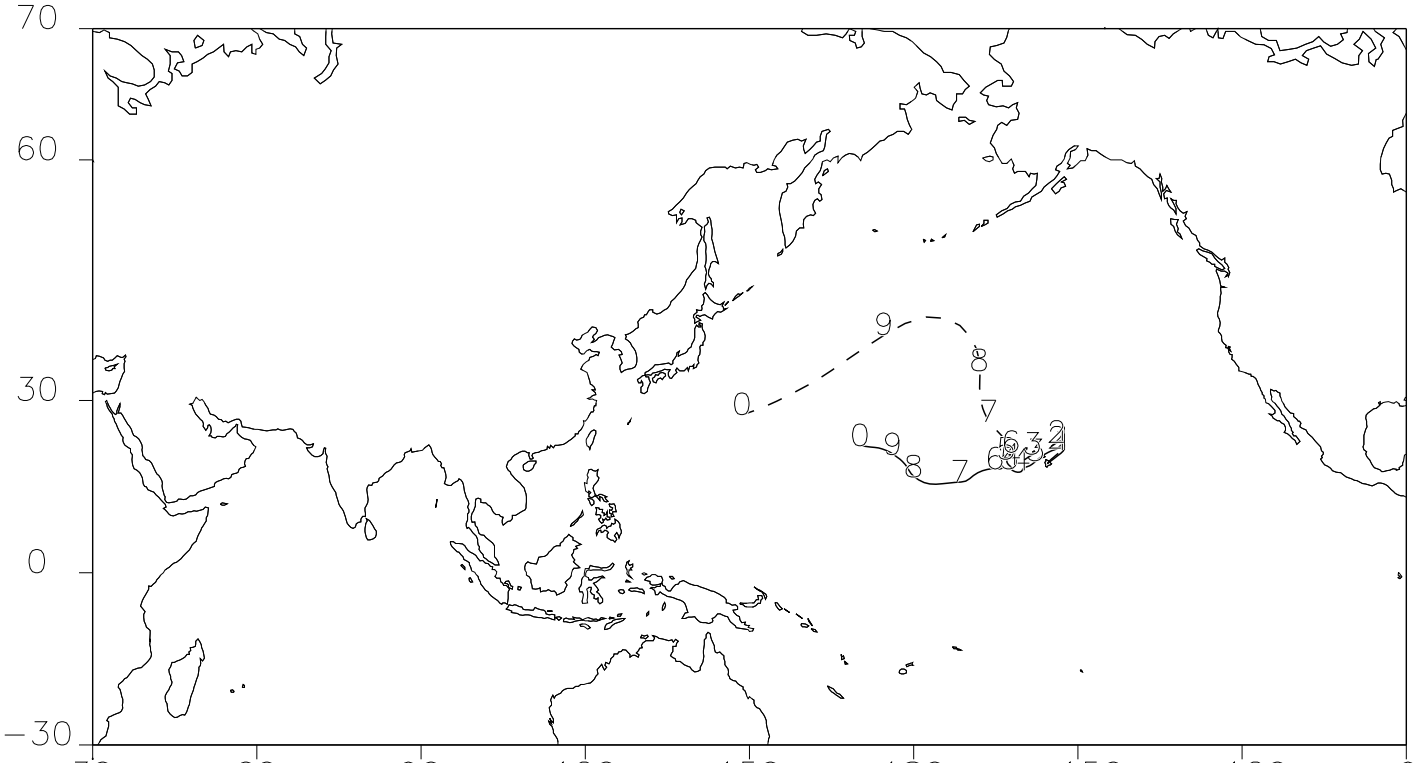
18UT

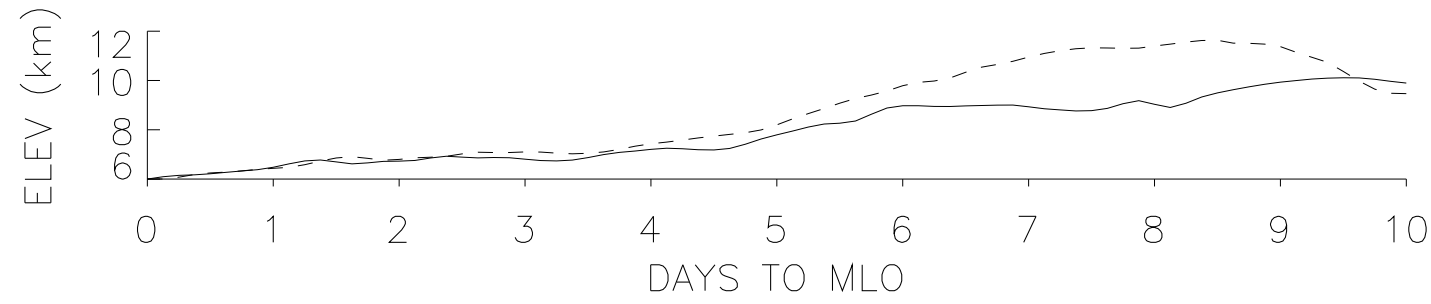
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.2 | 479 | −12 |
| 2 | 6.2 | 476 | −12 |
| 3 | 6.6 | 458 | −13 |
| 4 | 6.3 | 472 | −10 |
| 5 | 7.0 | 431 | −15 |
| 6 | 6.7 | 445 | −13 |
| 7 | 6.9 | 435 | −15 |
| 8 | 8.0 | 378 | −24 |
| 9 | 8.4 | 358 | −27 |
| 10 | 8.1 | 372 | −25 |

12UT − solid
18UT − dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/4/2004 (Day of Year 125)
NCEP/NCAR Reanalysis 1 Data Set
00UT
Day km hPa C
0 6.0 491 -11
1 6.4 466 -14
2 6.5 458 -14
3 6.5 458 -13
4 6.5 460 -12
5 7.2 421 -17
6 7.4 410 -18
7 7.2 421 -17
8 8.4 358 -27
9 9.2 323 -32
10 9.1 328 -31
06UT
Day km hPa C
0 6.0 492 -11
1 6.6 457 -16
2 6.6 451 -16
3 6.5 458 -13
4 6.9 436 -15
5 7.5 406 -20
6 8.1 369 -24
7 7.8 384 -22
8 8.4 358 -27
9 9.3 314 -33
10 9.0 330 -30
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
0 1 2 3 4 5 6 7 8 9 10
ELEV (km)
DAYS TO MLO
00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/4/2004 (Day of Year 125)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

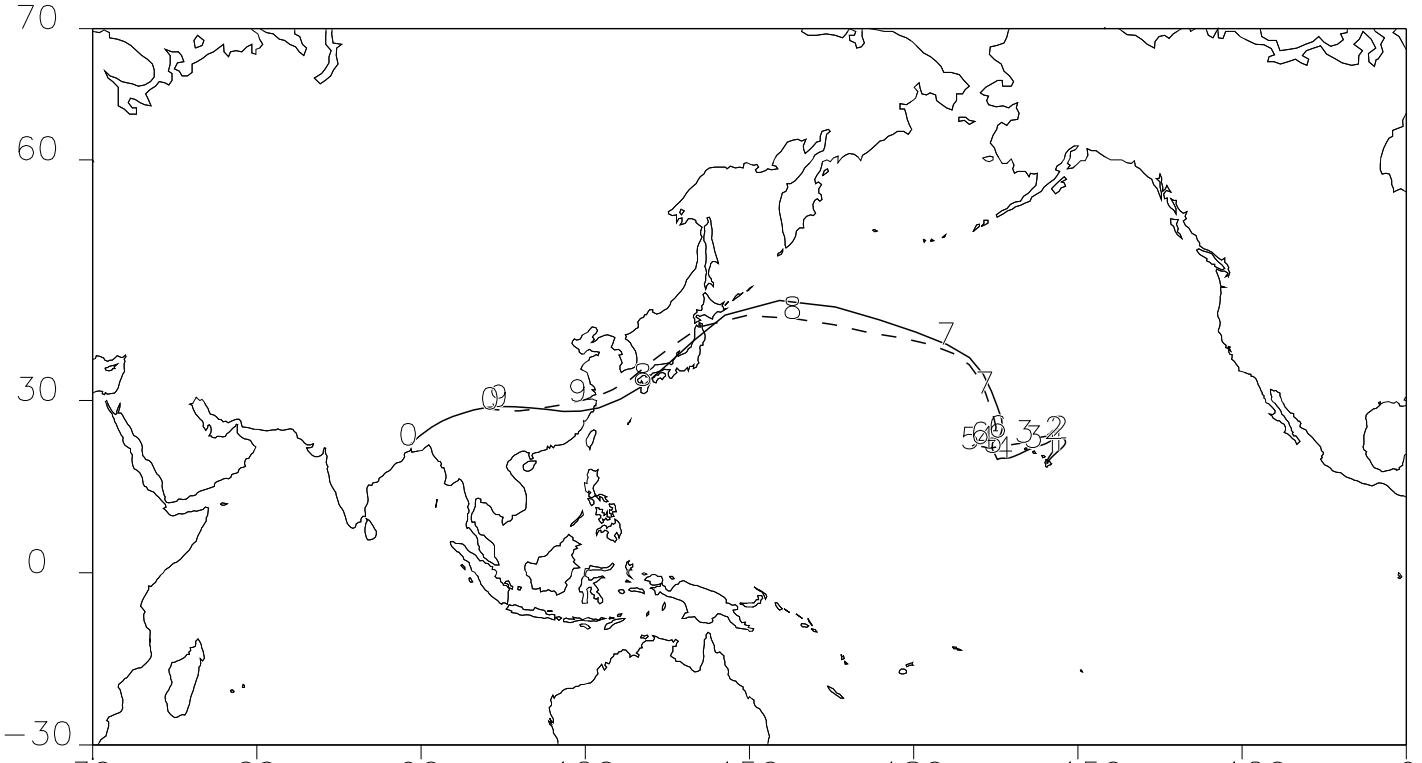
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 6.5 | 461 | −15 |
| 2 | 6.7 | 446 | −15 |
| 3 | 6.8 | 442 | −15 |
| 4 | 7.2 | 419 | −17 |
| 5 | 7.8 | 387 | −22 |
| 6 | 9.0 | 328 | −31 |
| 7 | 8.9 | 329 | −30 |
| 8 | 9.0 | 326 | −31 |
| 9 | 9.9 | 288 | −39 |
| 10 | 9.9 | 291 | −37 |

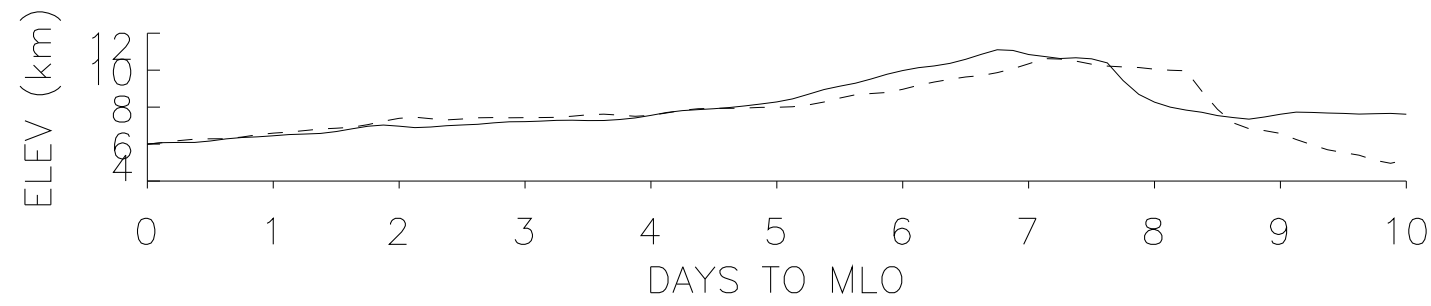
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.4 | 464 | −15 |
| 2 | 6.8 | 443 | −17 |
| 3 | 7.1 | 424 | −18 |
| 4 | 7.4 | 408 | −19 |
| 5 | 8.2 | 367 | −25 |
| 6 | 9.8 | 293 | −38 |
| 7 | 10.9 | 245 | −48 |
| 8 | 11.4 | 229 | −51 |
| 9 | 11.4 | 228 | −50 |
| 10 | 9.5 | 304 | −33 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/5/2004 (Day of Year 126)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

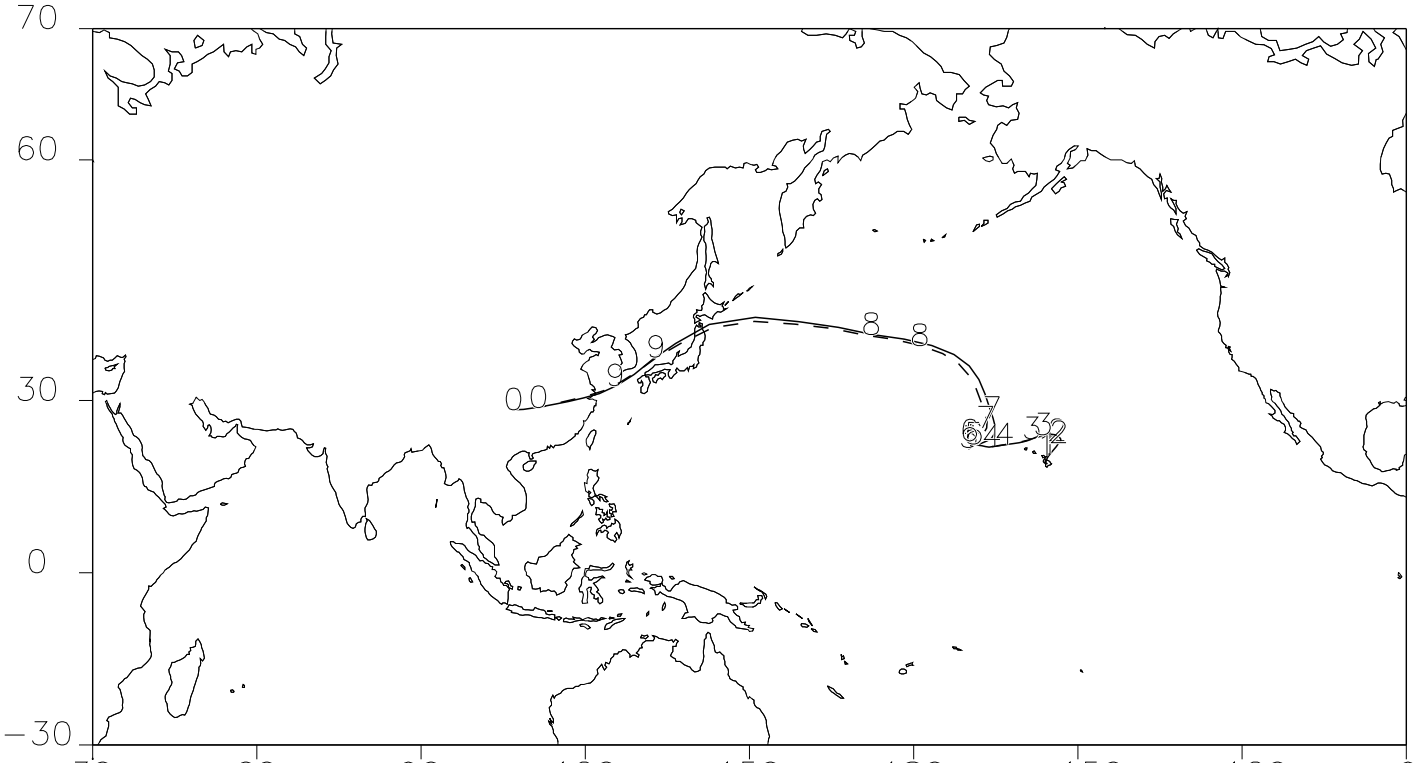
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −11 |
| 1 | 6.5 | 463 | −15 |
| 2 | 7.0 | 432 | −19 |
| 3 | 7.2 | 417 | −19 |
| 4 | 7.6 | 400 | −20 |
| 5 | 8.3 | 363 | −25 |
| 6 | 10.0 | 285 | −40 |
| 7 | 10.8 | 246 | −49 |
| 8 | 8.3 | 352 | −27 |
| 9 | 7.6 | 394 | −20 |
| 10 | 7.6 | 393 | −21 |

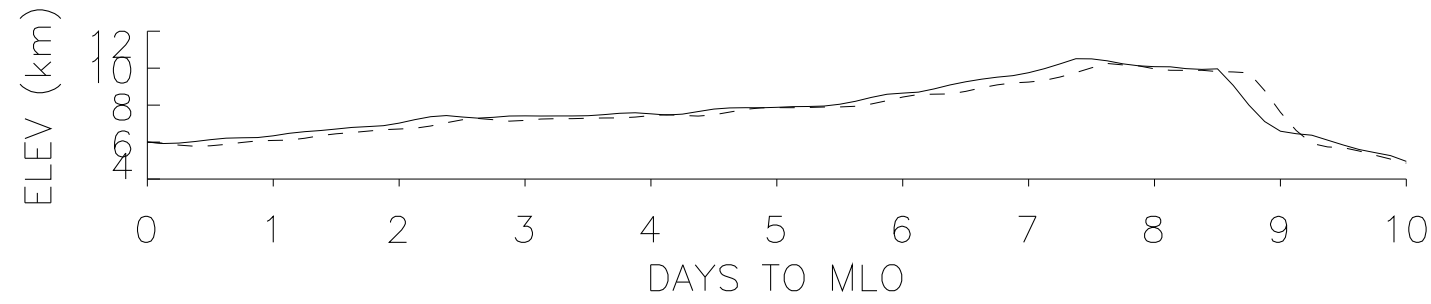
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −11 |
| 1 | 6.6 | 455 | −16 |
| 2 | 7.4 | 408 | −22 |
| 3 | 7.4 | 405 | −21 |
| 4 | 7.6 | 399 | −21 |
| 5 | 8.0 | 377 | −22 |
| 6 | 9.0 | 330 | −31 |
| 7 | 10.3 | 268 | −44 |
| 8 | 10.1 | 268 | −43 |
| 9 | 6.6 | 450 | −12 |
| 10 | 5.1 | 542 | −1 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/5/2004 (Day of Year 126)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

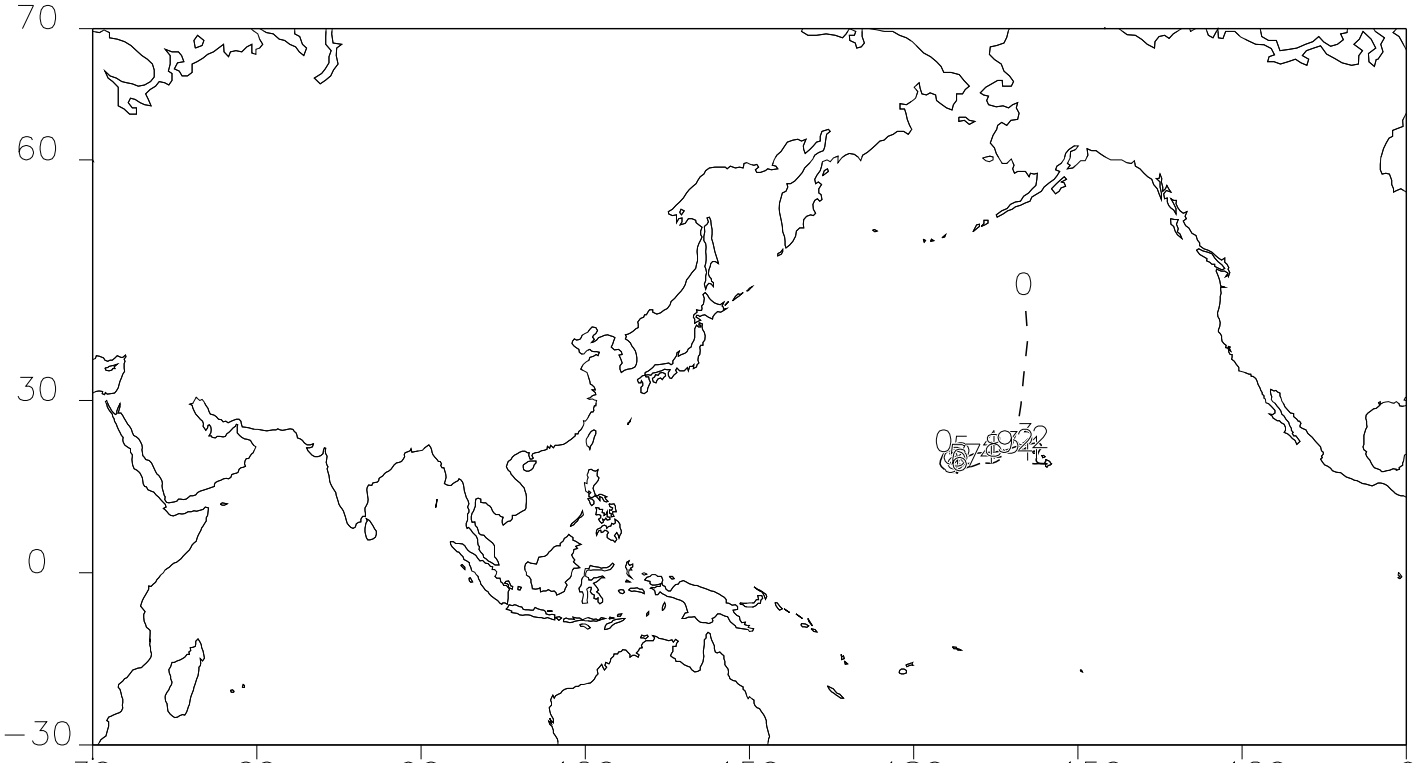
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -11 |
| 1 | 6.3 | 469 | -14 |
| 2 | 7.0 | 428 | -20 |
| 3 | 7.4 | 406 | -21 |
| 4 | 7.5 | 400 | -21 |
| 5 | 7.9 | 383 | -22 |
| 6 | 8.6 | 345 | -29 |
| 7 | 9.8 | 293 | -38 |
| 8 | 10.1 | 275 | -41 |
| 9 | 6.6 | 445 | -14 |
| 10 | 5.0 | 555 | 0 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -11 |
| 1 | 6.1 | 486 | -12 |
| 2 | 6.7 | 448 | -17 |
| 3 | 7.2 | 420 | -20 |
| 4 | 7.4 | 405 | -20 |
| 5 | 7.9 | 383 | -22 |
| 6 | 8.4 | 355 | -27 |
| 7 | 9.2 | 317 | -33 |
| 8 | 10.0 | 281 | -40 |
| 9 | 7.6 | 385 | -22 |
| 10 | 4.9 | 563 | -2 |

12UT - solid
18UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/6/2004 (Day of Year 127)
NCEP/NCAR Reanalysis 1 Data Set

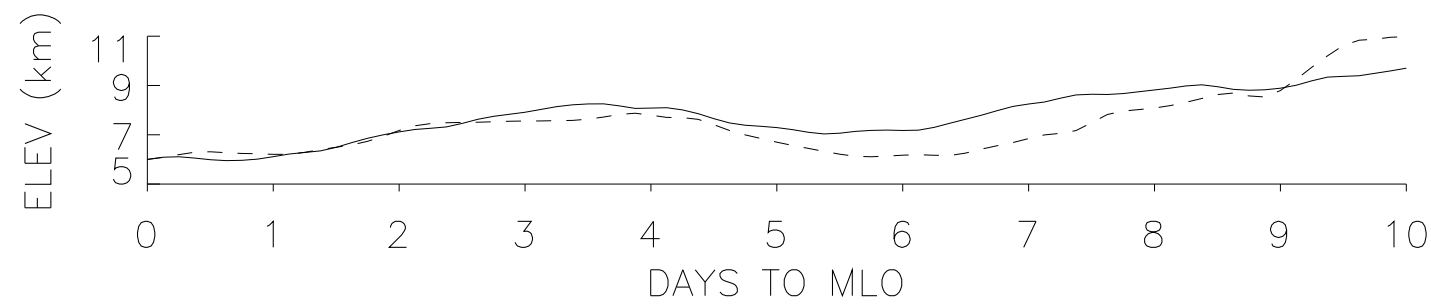



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −12 |
| 1 | 6.1 | 484 | −12 |
| 2 | 7.1 | 424 | −20 |
| 3 | 7.9 | 380 | −26 |
| 4 | 8.1 | 371 | −26 |
| 5 | 7.3 | 415 | −19 |
| 6 | 7.2 | 422 | −17 |
| 7 | 8.2 | 364 | −26 |
| 8 | 8.8 | 335 | −30 |
| 9 | 8.9 | 331 | −30 |
| 10 | 9.7 | 296 | −38 |

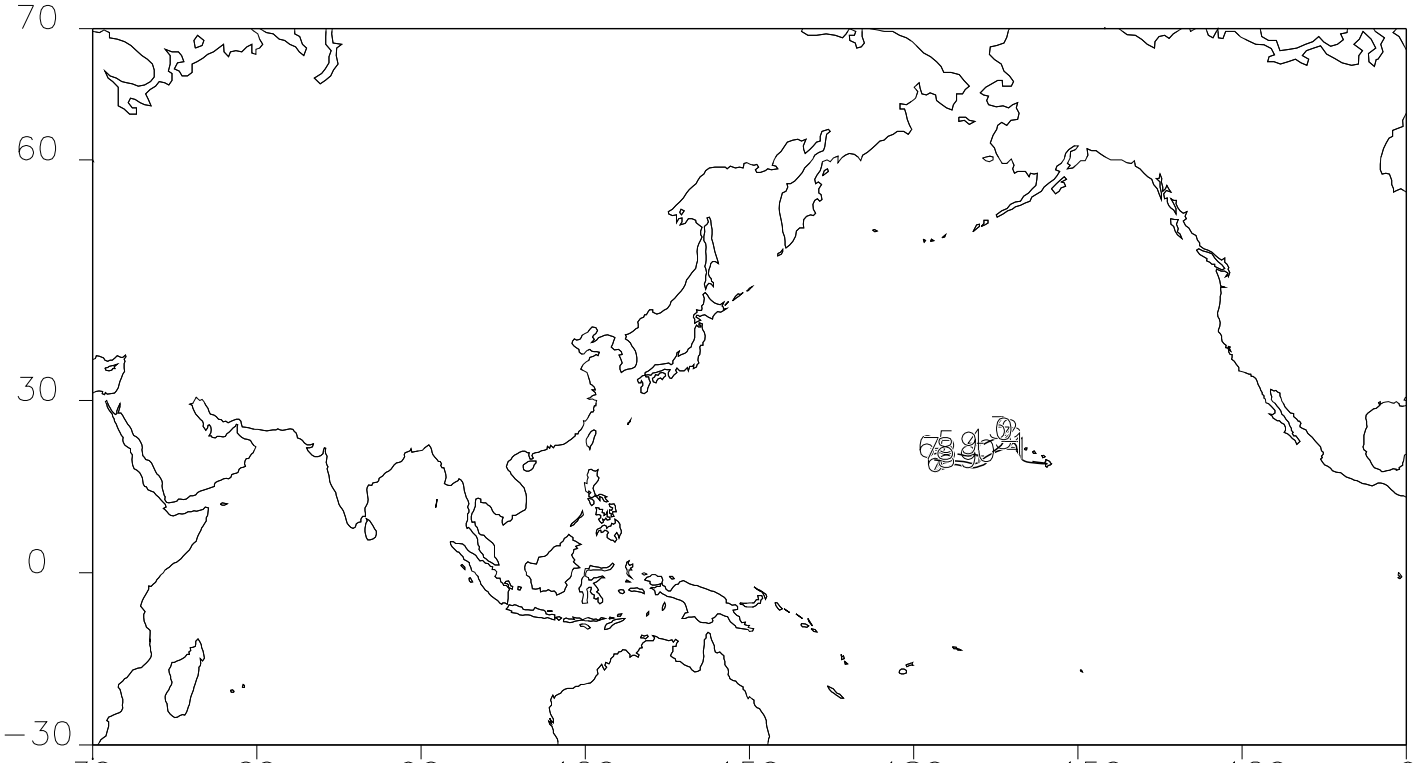
06UT

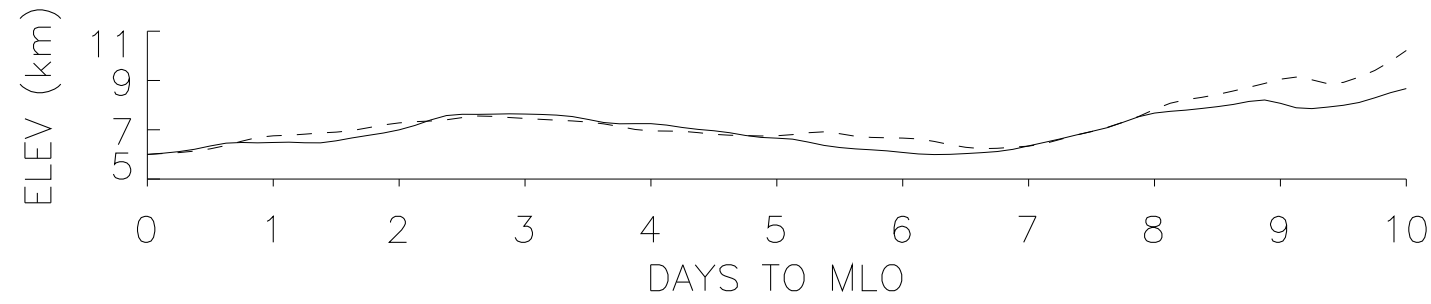
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −13 |
| 1 | 6.2 | 477 | −13 |
| 2 | 7.2 | 421 | −20 |
| 3 | 7.6 | 399 | −22 |
| 4 | 7.8 | 386 | −24 |
| 5 | 6.7 | 448 | −14 |
| 6 | 6.2 | 480 | −9 |
| 7 | 6.8 | 440 | −15 |
| 8 | 8.1 | 371 | −24 |
| 9 | 8.8 | 335 | −31 |
| 10 | 11.0 | 234 | −53 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/6/2004 (Day of Year 127)
NCEP/NCAR Reanalysis 1 Data Set




12UT

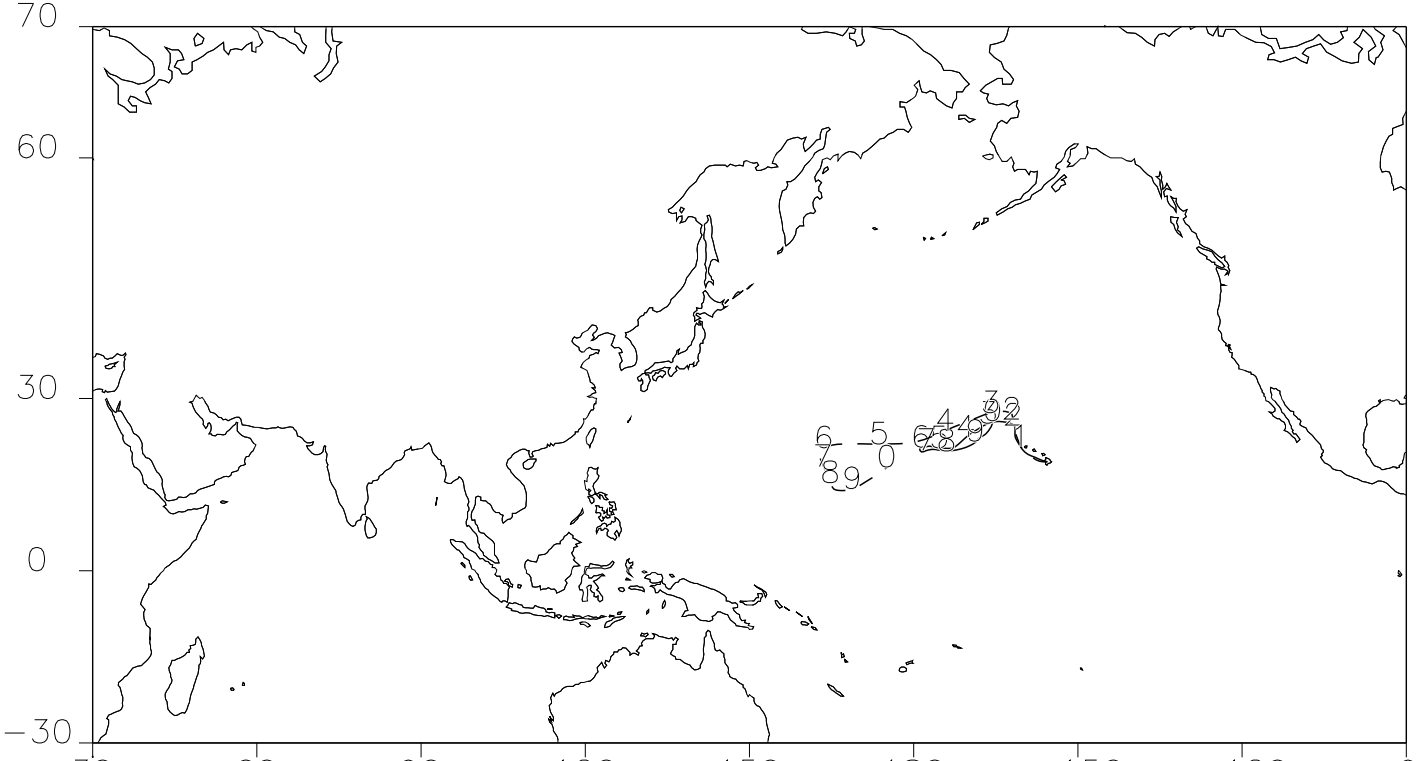
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −12 |
| 1 | 6.5 | 459 | −15 |
| 2 | 7.0 | 431 | −19 |
| 3 | 7.6 | 394 | −23 |
| 4 | 7.2 | 416 | −19 |
| 5 | 6.7 | 451 | −15 |
| 6 | 6.1 | 486 | −8 |
| 7 | 6.3 | 470 | −11 |
| 8 | 7.7 | 393 | −22 |
| 9 | 8.1 | 371 | −25 |
| 10 | 8.7 | 341 | −31 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −12 |
| 1 | 6.8 | 443 | −18 |
| 2 | 7.3 | 415 | −21 |
| 3 | 7.5 | 404 | −23 |
| 4 | 7.0 | 432 | −17 |
| 5 | 6.8 | 444 | −15 |
| 6 | 6.7 | 451 | −14 |
| 7 | 6.3 | 470 | −12 |
| 8 | 7.8 | 385 | −24 |
| 9 | 9.1 | 324 | −33 |
| 10 | 10.2 | 273 | −44 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/7/2004 (Day of Year 128)
NCEP/NCAR Reanalysis 1 Data Set

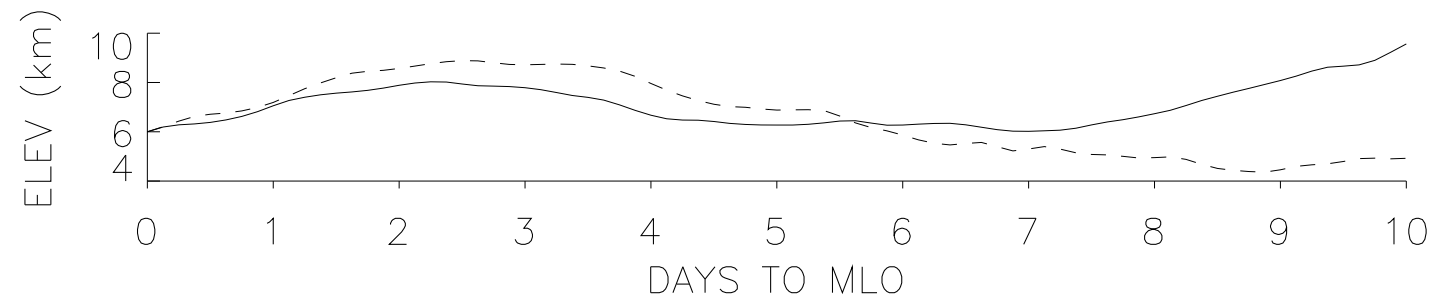



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −11 |
| 1 | 7.1 | 424 | −20 |
| 2 | 7.9 | 381 | −27 |
| 3 | 7.8 | 387 | −26 |
| 4 | 6.7 | 448 | −16 |
| 5 | 6.3 | 473 | −11 |
| 6 | 6.3 | 475 | −12 |
| 7 | 6.0 | 491 | −10 |
| 8 | 6.7 | 447 | −15 |
| 9 | 8.1 | 372 | −25 |
| 10 | 9.6 | 301 | −37 |

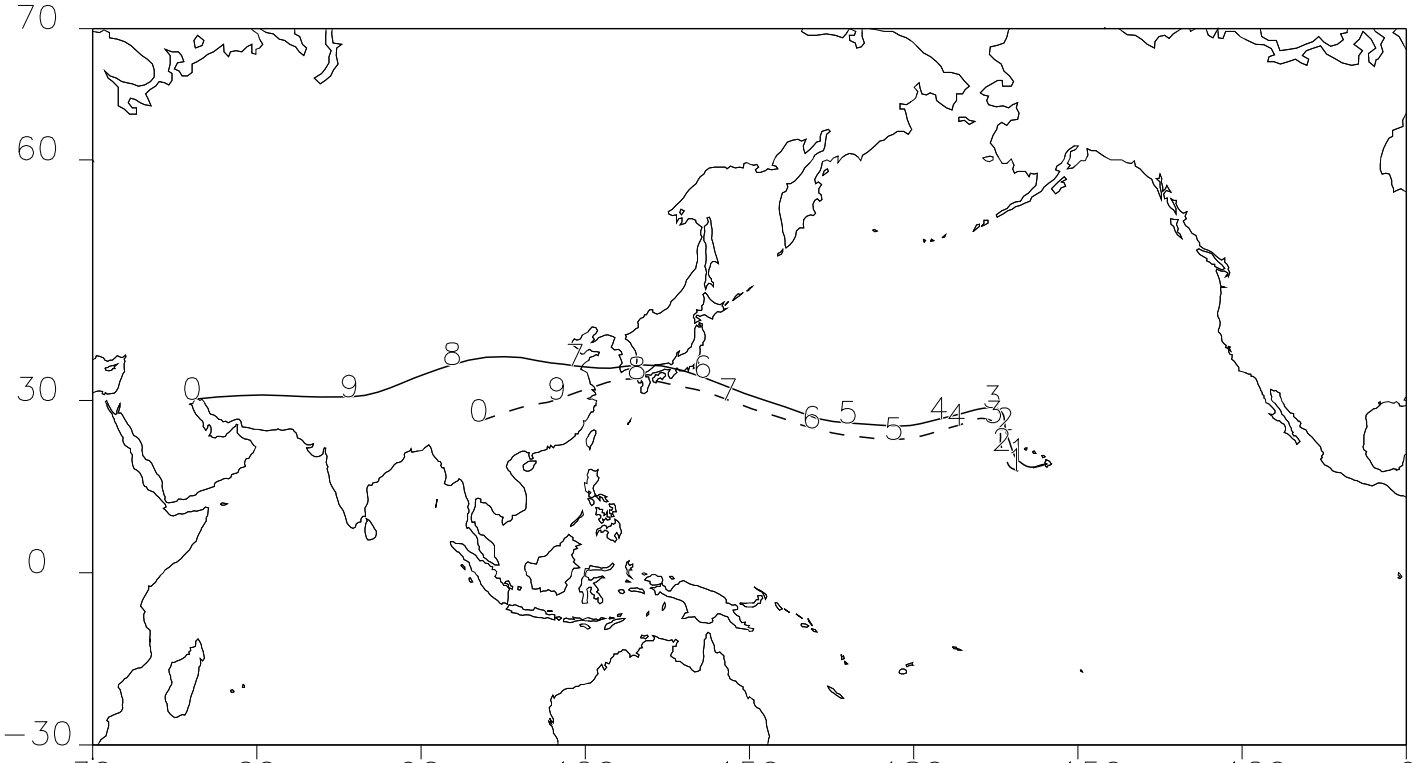
06UT

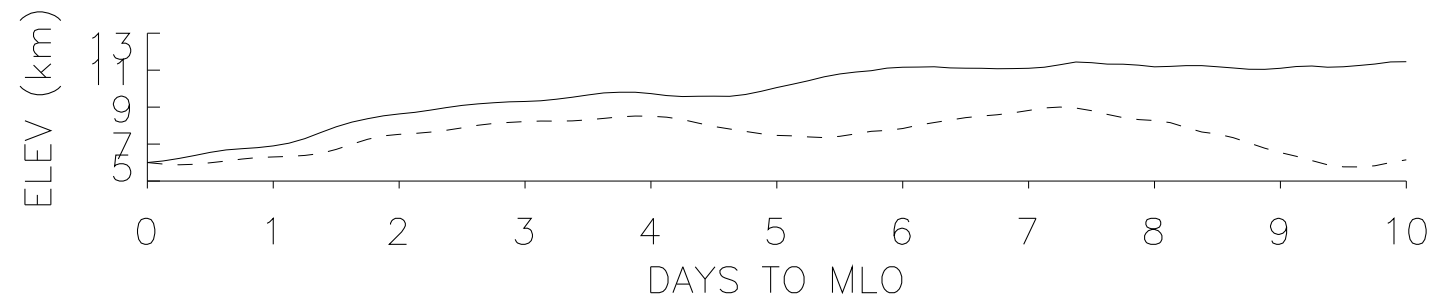
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 7.2 | 416 | −20 |
| 2 | 8.6 | 346 | −32 |
| 3 | 8.7 | 339 | −33 |
| 4 | 8.0 | 375 | −26 |
| 5 | 6.9 | 436 | −17 |
| 6 | 5.9 | 499 | −8 |
| 7 | 5.3 | 536 | −4 |
| 8 | 4.9 | 559 | −2 |
| 9 | 4.5 | 594 | 2 |
| 10 | 4.9 | 562 | −2 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/7/2004 (Day of Year 128)
NCEP/NCAR Reanalysis 1 Data Set




12UT

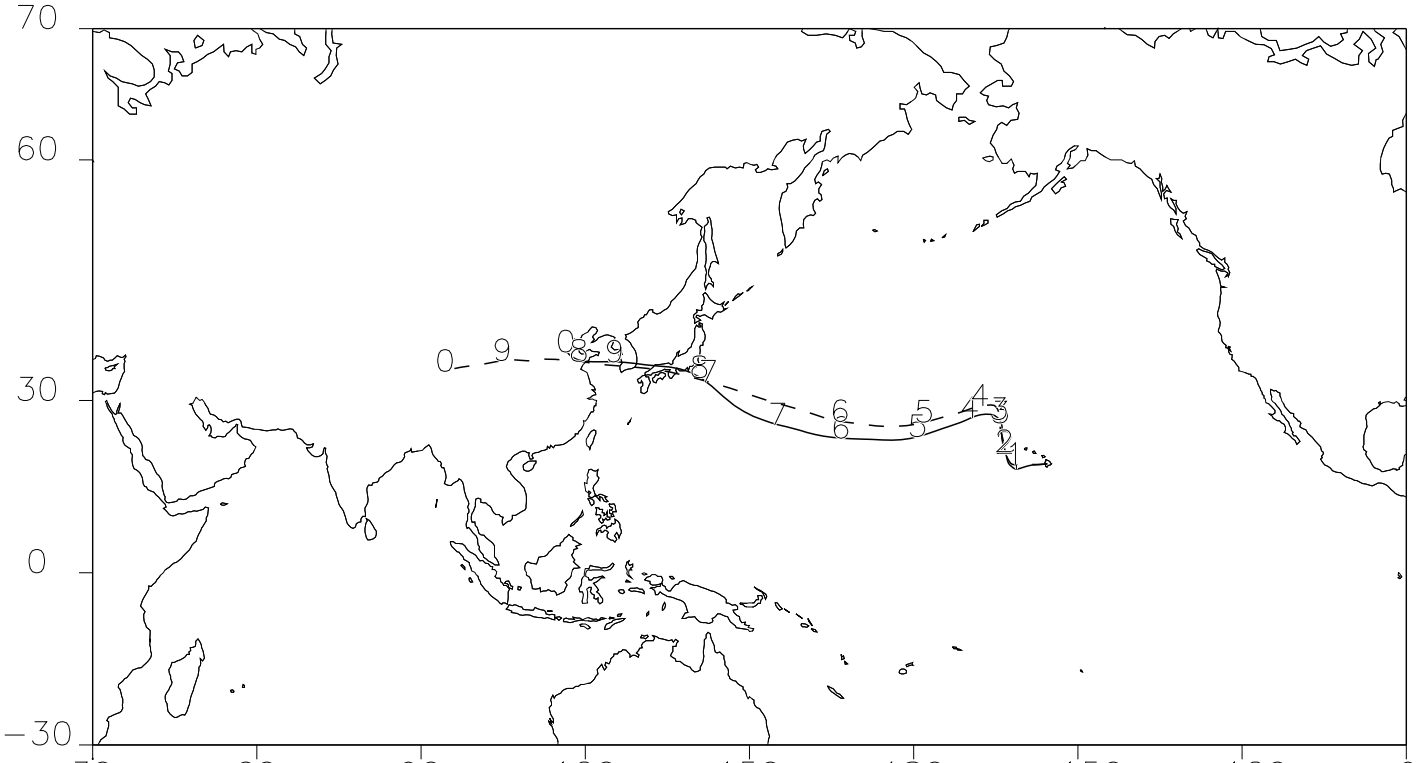
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 487 | −10 |
| 1 | 6.9 | 433 | −17 |
| 2 | 8.6 | 342 | −33 |
| 3 | 9.3 | 311 | −38 |
| 4 | 9.7 | 291 | −40 |
| 5 | 10.1 | 277 | −43 |
| 6 | 11.2 | 235 | −52 |
| 7 | 11.1 | 237 | −50 |
| 8 | 11.2 | 233 | −49 |
| 9 | 11.1 | 235 | −48 |
| 10 | 11.5 | 225 | −52 |

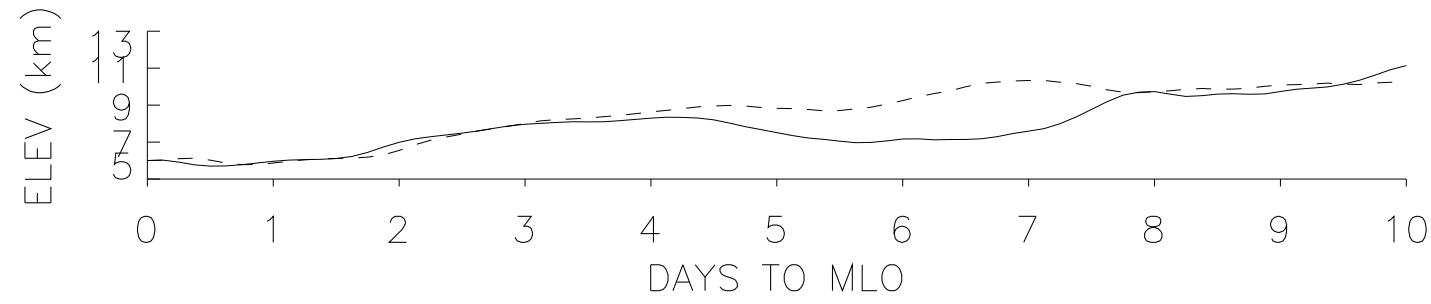
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 6.3 | 469 | −13 |
| 2 | 7.5 | 400 | −23 |
| 3 | 8.2 | 364 | −30 |
| 4 | 8.5 | 348 | −31 |
| 5 | 7.5 | 400 | −23 |
| 6 | 7.8 | 383 | −24 |
| 7 | 8.8 | 332 | −33 |
| 8 | 8.3 | 358 | −28 |
| 9 | 6.5 | 455 | −14 |
| 10 | 6.1 | 479 | −11 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/8/2004 (Day of Year 129)
NCEP/NCAR Reanalysis 1 Data Set




00UT

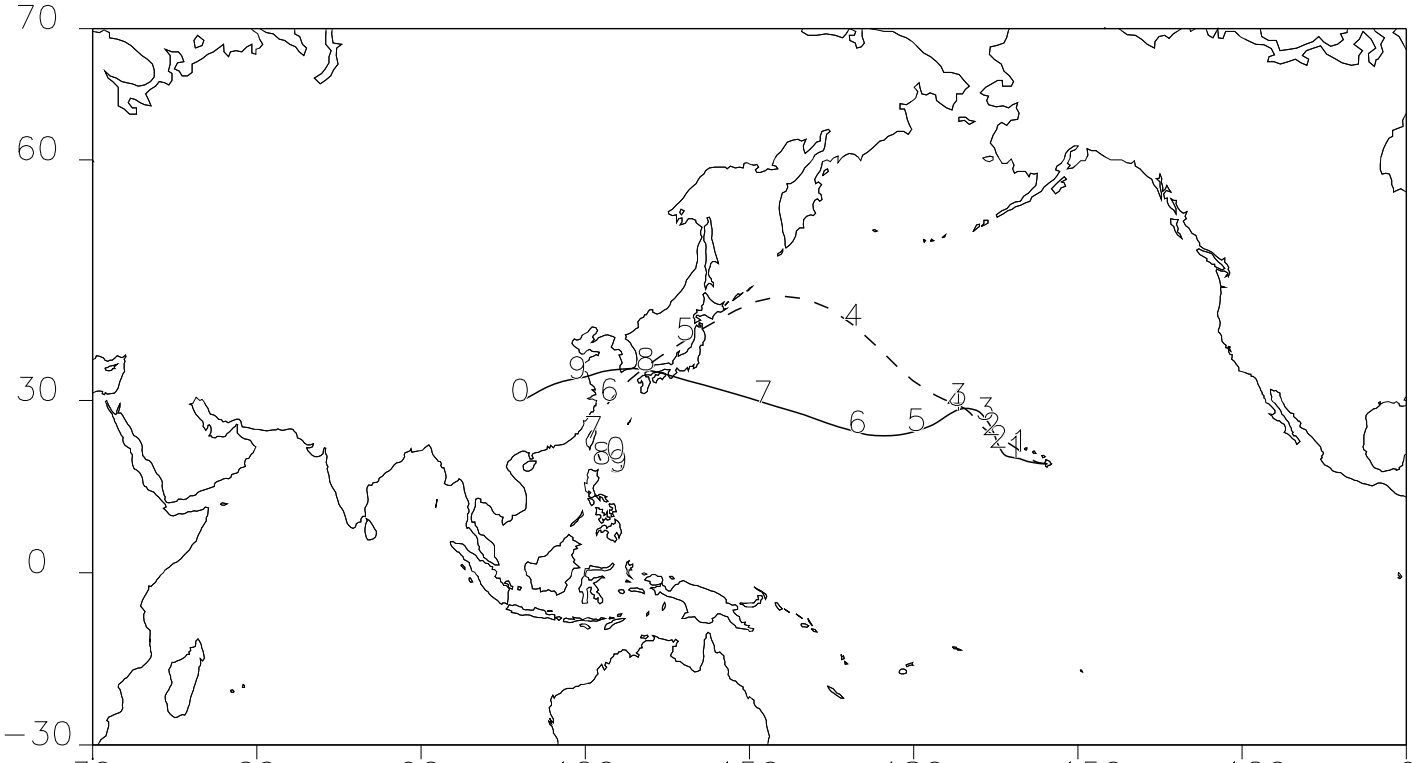
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 6.0 | 491 | −10 |
| 2 | 7.0 | 429 | −19 |
| 3 | 8.0 | 377 | −28 |
| 4 | 8.3 | 360 | −30 |
| 5 | 7.5 | 398 | −23 |
| 6 | 7.2 | 420 | −19 |
| 7 | 7.6 | 397 | −23 |
| 8 | 9.7 | 290 | −43 |
| 9 | 9.7 | 289 | −43 |
| 10 | 11.1 | 233 | −56 |

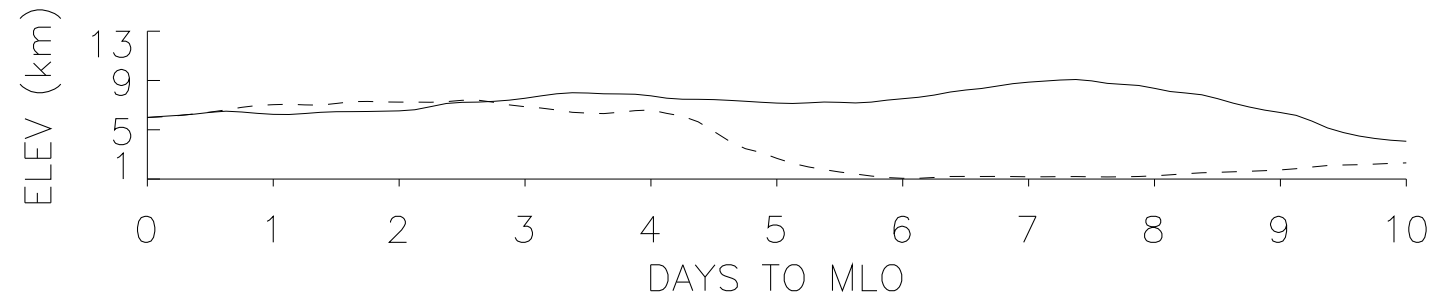
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −11 |
| 1 | 5.9 | 497 | −10 |
| 2 | 6.5 | 454 | −16 |
| 3 | 8.0 | 374 | −28 |
| 4 | 8.6 | 343 | −33 |
| 5 | 8.8 | 331 | −34 |
| 6 | 9.2 | 312 | −36 |
| 7 | 10.3 | 266 | −44 |
| 8 | 9.7 | 290 | −40 |
| 9 | 10.1 | 274 | −44 |
| 10 | 10.1 | 272 | −42 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/8/2004 (Day of Year 129)
NCEP/NCAR Reanalysis 1 Data Set




12UT

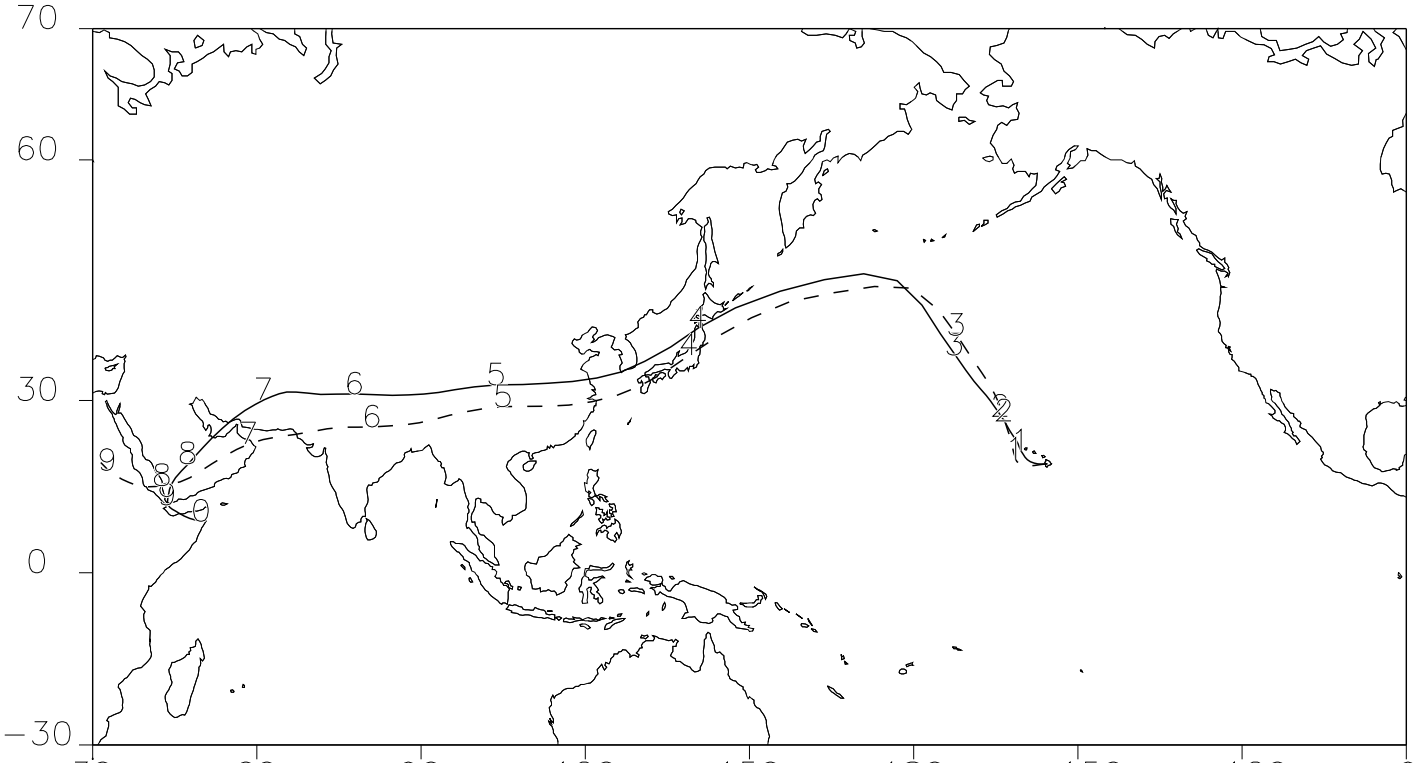
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −11 |
| 1 | 6.3 | 472 | −13 |
| 2 | 6.5 | 455 | −15 |
| 3 | 7.6 | 398 | −25 |
| 4 | 7.8 | 388 | −25 |
| 5 | 7.2 | 418 | −21 |
| 6 | 7.5 | 398 | −23 |
| 7 | 8.9 | 331 | −32 |
| 8 | 8.4 | 353 | −28 |
| 9 | 6.4 | 460 | −14 |
| 10 | 4.1 | 620 | 4 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −10 |
| 1 | 7.0 | 425 | −19 |
| 2 | 7.2 | 414 | −20 |
| 3 | 6.9 | 436 | −18 |
| 4 | 6.6 | 438 | −17 |
| 5 | 2.7 | 725 | 8 |
| 6 | 1.1 | 895 | 20 |
| 7 | 1.2 | 883 | 19 |
| 8 | 1.3 | 874 | 19 |
| 9 | 1.7 | 826 | 16 |
| 10 | 2.3 | 774 | 13 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/9/2004 (Day of Year 130)
NCEP/NCAR Reanalysis 1 Data Set

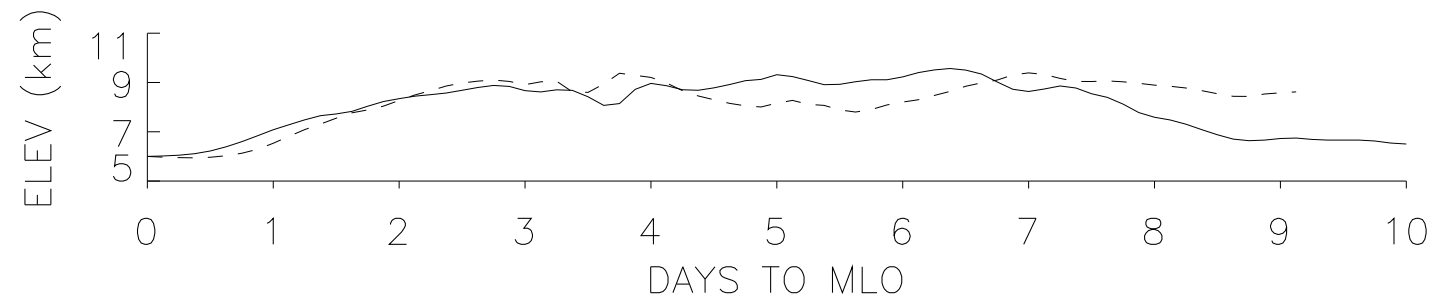



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −9 |
| 1 | 7.1 | 423 | −18 |
| 2 | 8.3 | 355 | −30 |
| 3 | 8.7 | 335 | −33 |
| 4 | 9.0 | 313 | −38 |
| 5 | 9.3 | 305 | −38 |
| 6 | 9.2 | 310 | −36 |
| 7 | 8.6 | 341 | −31 |
| 8 | 7.6 | 397 | −22 |
| 9 | 6.7 | 447 | −11 |
| 10 | 6.5 | 460 | −8 |

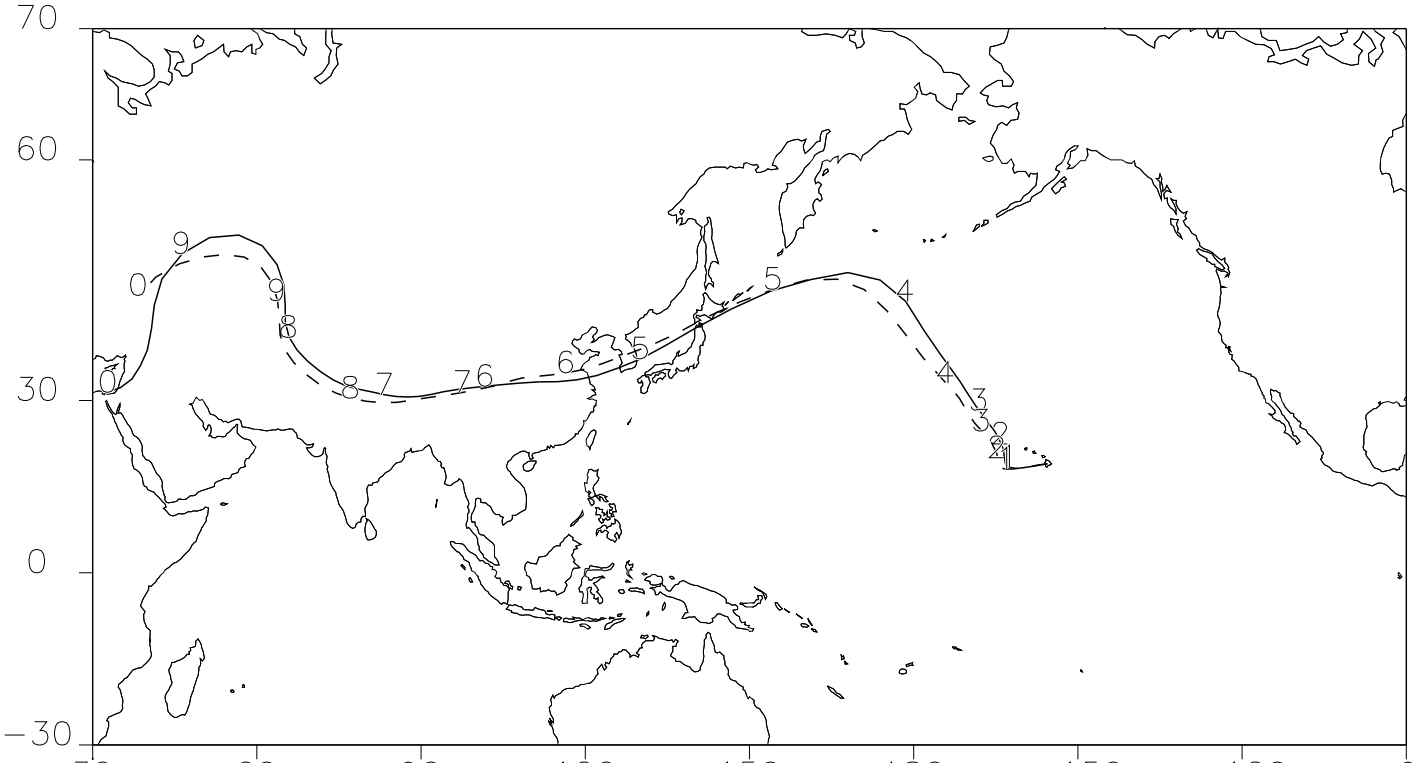
06UT

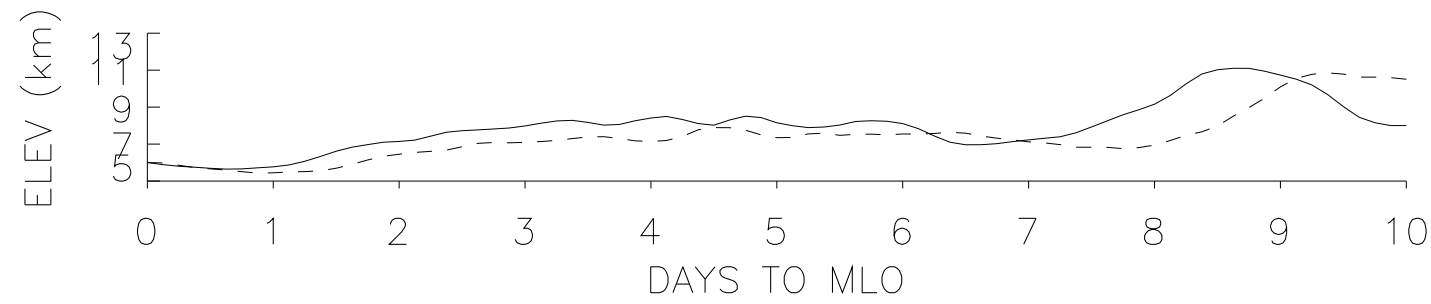
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | −9 |
| 1 | 6.5 | 456 | −13 |
| 2 | 8.3 | 358 | −29 |
| 3 | 8.9 | 321 | −34 |
| 4 | 9.2 | 308 | −36 |
| 5 | 8.2 | 364 | −24 |
| 6 | 8.2 | 366 | −23 |
| 7 | 9.4 | 311 | −33 |
| 8 | 8.9 | 334 | −27 |
| 9 | 8.6 | 347 | −26 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/9/2004 (Day of Year 130)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

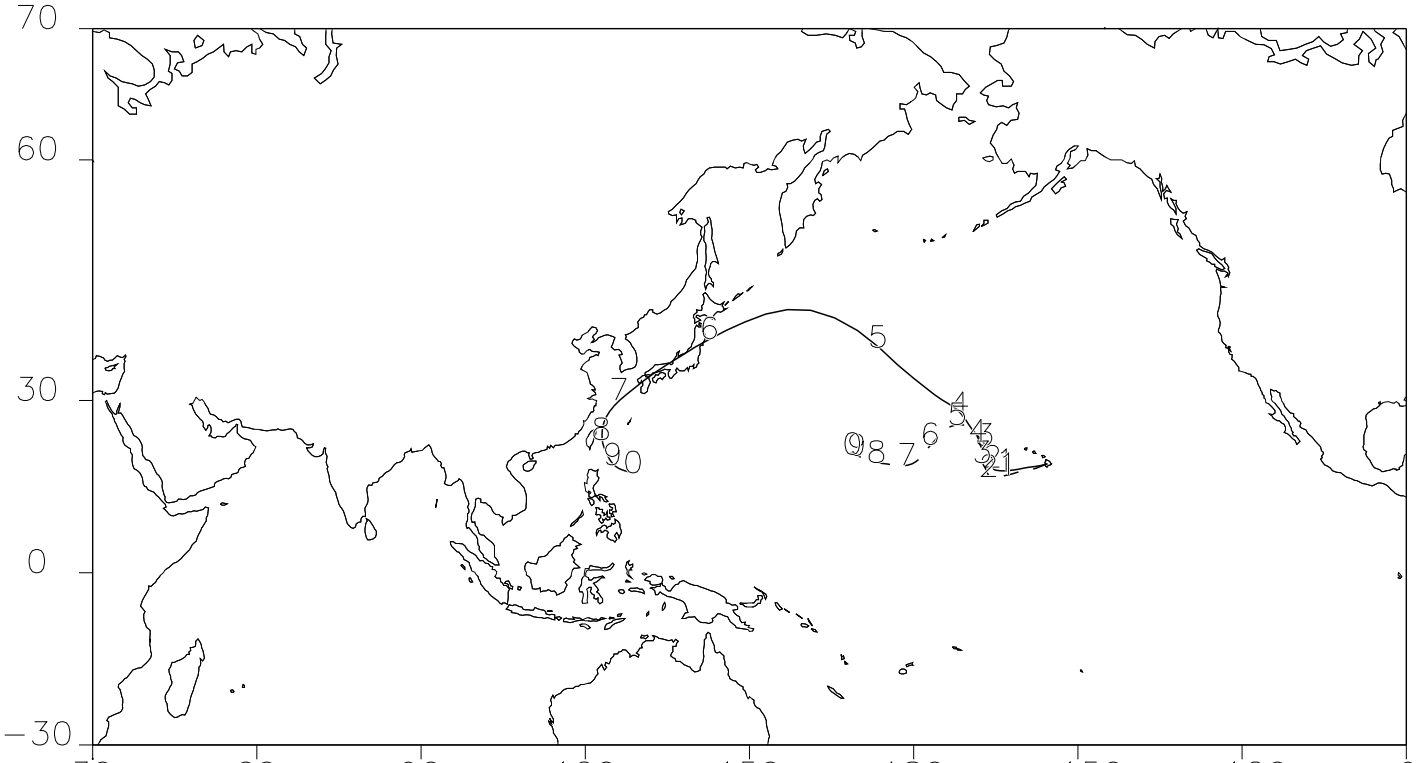
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −9 |
| 1 | 5.8 | 504 | −8 |
| 2 | 7.1 | 419 | −20 |
| 3 | 8.0 | 374 | −26 |
| 4 | 8.4 | 342 | −31 |
| 5 | 8.2 | 356 | −29 |
| 6 | 8.1 | 364 | −25 |
| 7 | 7.2 | 410 | −23 |
| 8 | 9.2 | 310 | −42 |
| 9 | 10.7 | 239 | −57 |
| 10 | 8.0 | 365 | −33 |

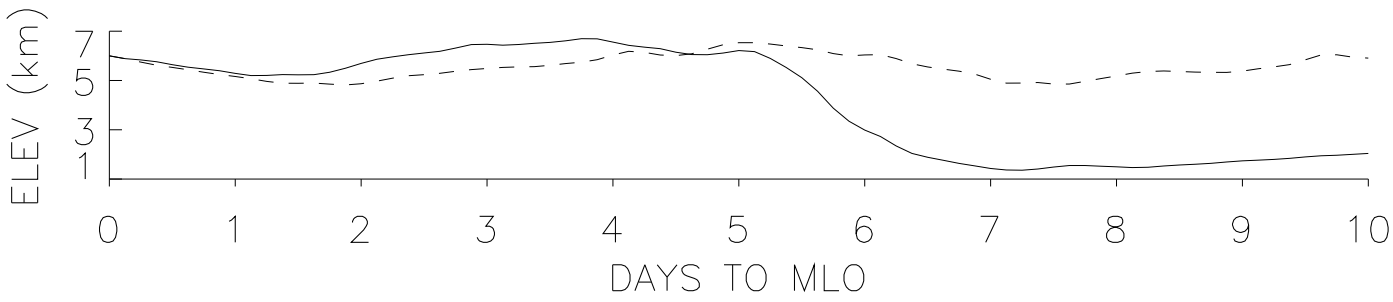
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 5.4 | 525 | −5 |
| 2 | 6.5 | 460 | −14 |
| 3 | 7.1 | 422 | −19 |
| 4 | 7.1 | 419 | −20 |
| 5 | 7.3 | 391 | −24 |
| 6 | 7.5 | 391 | −22 |
| 7 | 7.1 | 417 | −18 |
| 8 | 6.9 | 426 | −21 |
| 9 | 10.1 | 268 | −52 |
| 10 | 10.5 | 245 | −57 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/10/2004 (Day of Year 131)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

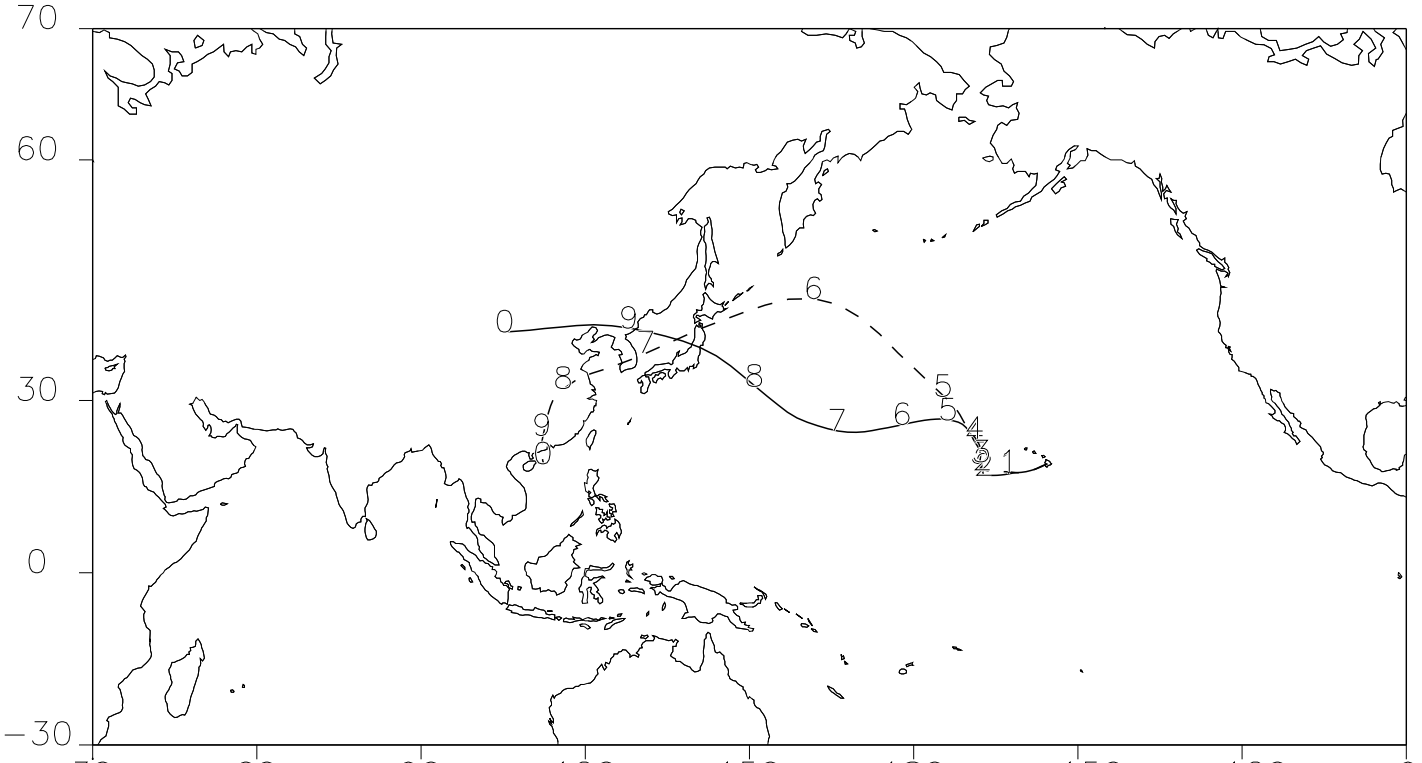
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -9 |
| 1 | 5.3 | 536 | -3 |
| 2 | 5.7 | 509 | -7 |
| 3 | 6.5 | 460 | -15 |
| 4 | 6.6 | 455 | -16 |
| 5 | 6.2 | 468 | -14 |
| 6 | 3.0 | 700 | 6 |
| 7 | 1.4 | 858 | 18 |
| 8 | 1.5 | 854 | 19 |
| 9 | 1.7 | 829 | 17 |
| 10 | 2.0 | 799 | 15 |

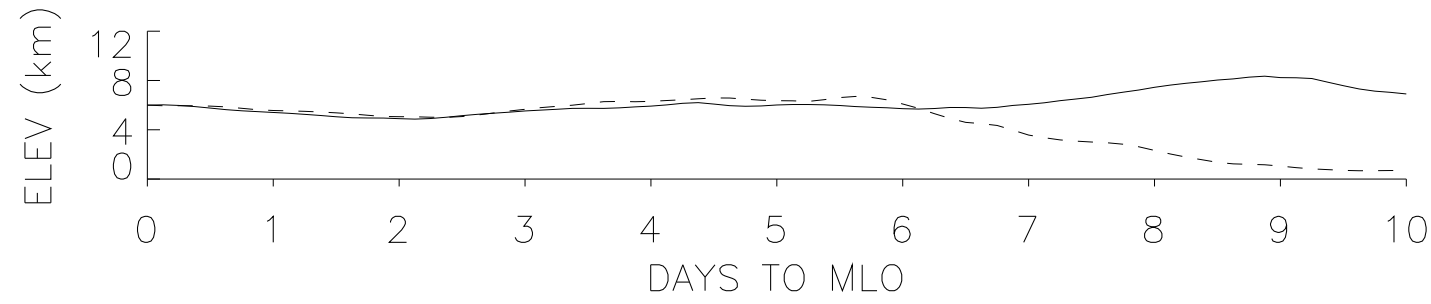
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -10 |
| 1 | 5.2 | 544 | -3 |
| 2 | 4.9 | 565 | -1 |
| 3 | 5.5 | 522 | -7 |
| 4 | 6.0 | 487 | -12 |
| 5 | 6.5 | 458 | -15 |
| 6 | 6.0 | 488 | -11 |
| 7 | 5.0 | 552 | -3 |
| 8 | 5.2 | 544 | -3 |
| 9 | 5.4 | 532 | -4 |
| 10 | 5.9 | 497 | -10 |

00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/10/2004 (Day of Year 131)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

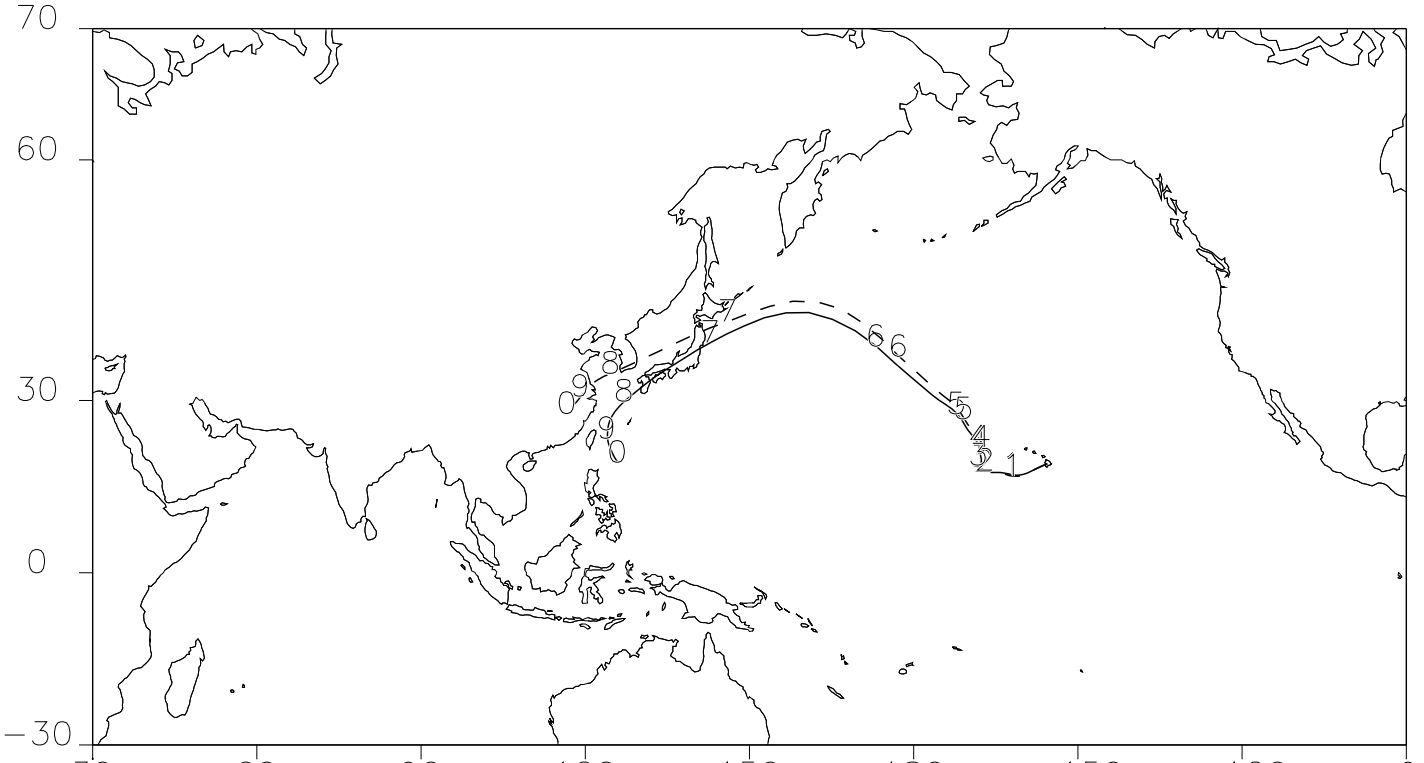
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | −10 |
| 1 | 5.4 | 528 | −5 |
| 2 | 4.9 | 563 | −1 |
| 3 | 5.5 | 520 | −8 |
| 4 | 5.9 | 494 | −10 |
| 5 | 6.0 | 491 | −11 |
| 6 | 5.7 | 508 | −8 |
| 7 | 6.1 | 482 | −11 |
| 8 | 7.4 | 401 | −22 |
| 9 | 8.2 | 357 | −30 |
| 10 | 6.9 | 427 | −19 |

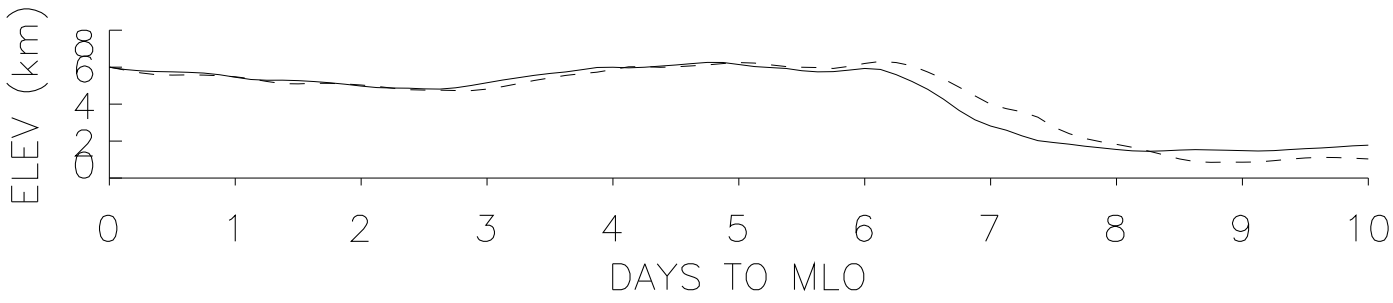
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −10 |
| 1 | 5.6 | 517 | −7 |
| 2 | 5.1 | 552 | −3 |
| 3 | 5.7 | 510 | −8 |
| 4 | 6.3 | 469 | −13 |
| 5 | 6.4 | 466 | −14 |
| 6 | 6.1 | 468 | −13 |
| 7 | 3.6 | 651 | 3 |
| 8 | 2.3 | 768 | 10 |
| 9 | 1.1 | 893 | 20 |
| 10 | 0.7 | 932 | 25 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/11/2004 (Day of Year 132)
## NCEP/NCAR Reanalysis 1 Data Set



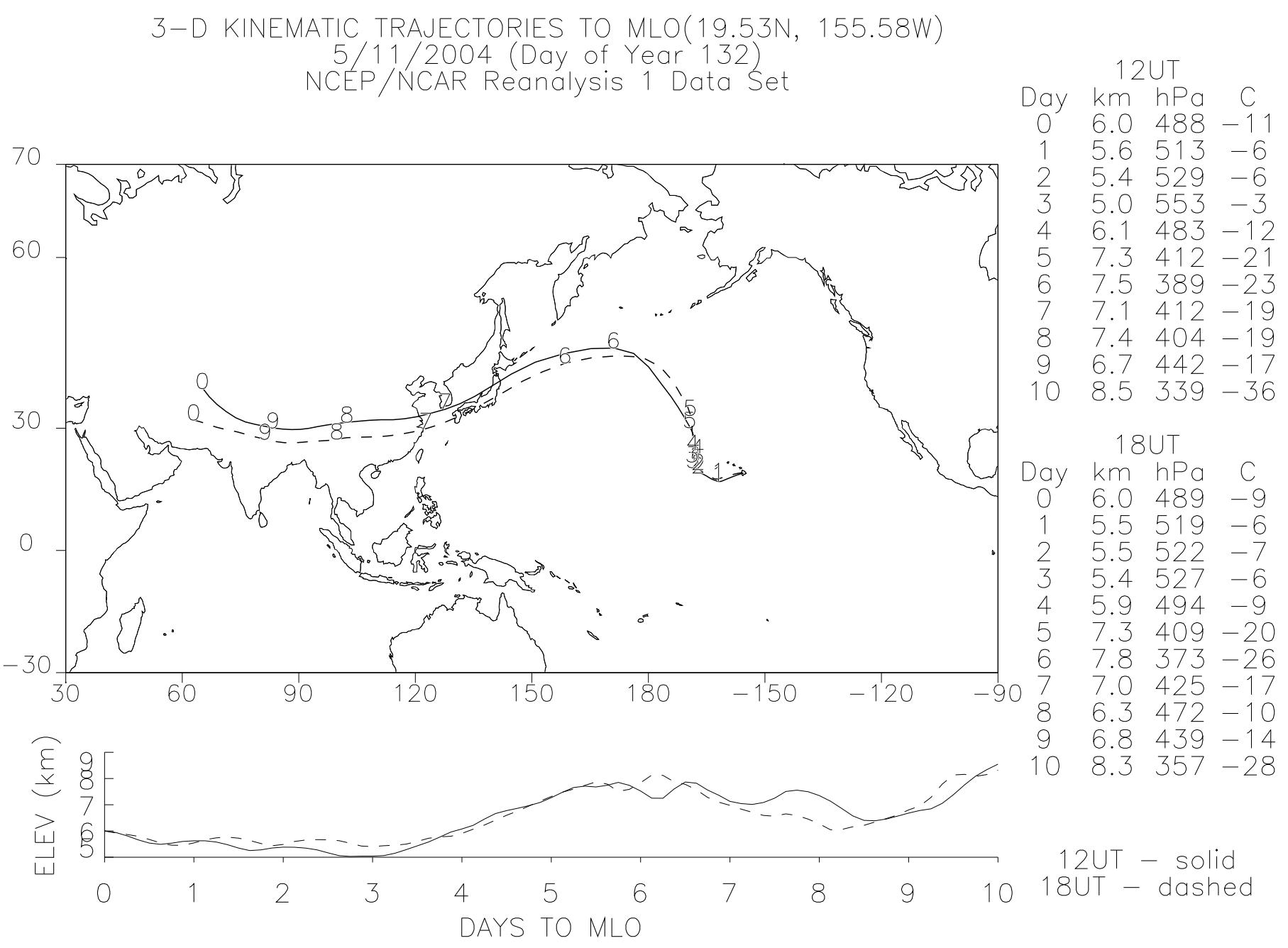

00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 488 | -11 |
| 1 | 5.5 | 524 | -5 |
| 2 | 5.0 | 557 | -2 |
| 3 | 5.2 | 545 | -3 |
| 4 | 6.0 | 489 | -11 |
| 5 | 6.1 | 481 | -12 |
| 6 | 5.9 | 486 | -12 |
| 7 | 2.8 | 715 | 7 |
| 8 | 1.5 | 847 | 16 |
| 9 | 1.5 | 856 | 19 |
| 10 | 1.8 | 825 | 16 |

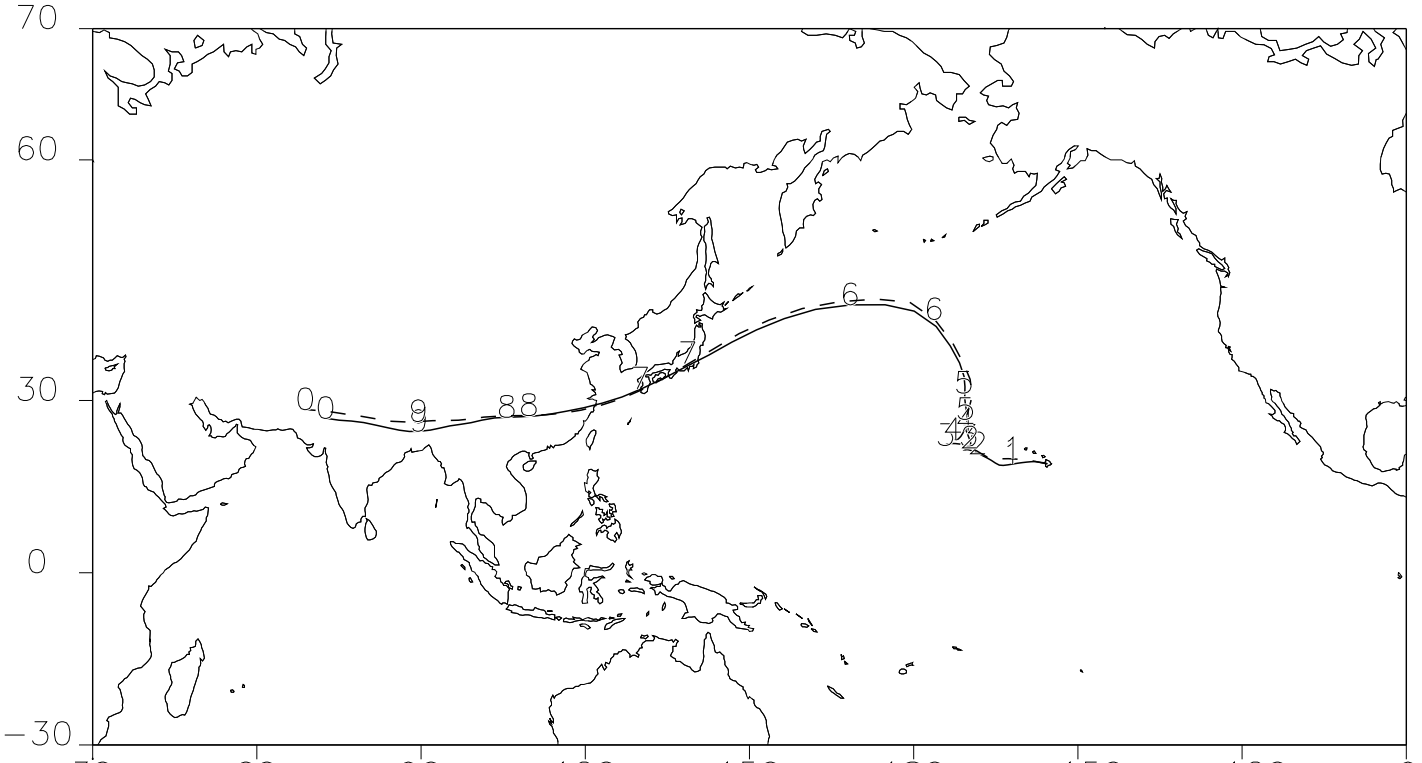
06UT

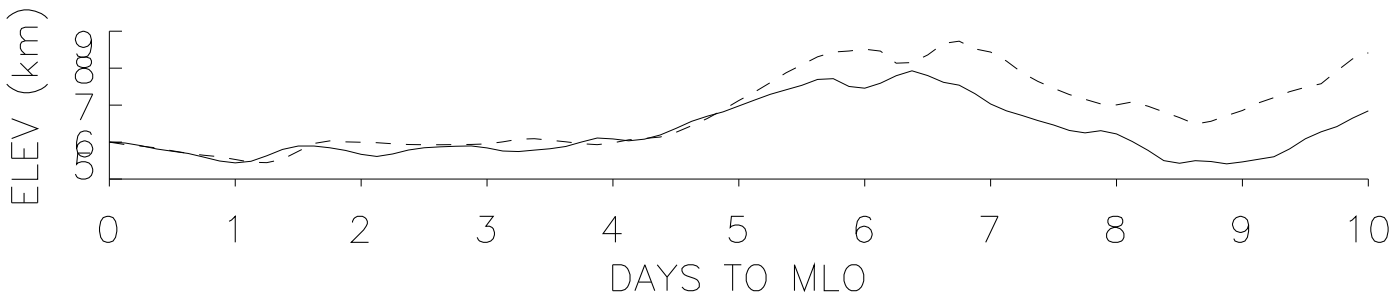
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 489 | -10 |
| 1 | 5.5 | 523 | -5 |
| 2 | 5.0 | 553 | -3 |
| 3 | 4.8 | 569 | -1 |
| 4 | 5.9 | 496 | -11 |
| 5 | 6.2 | 473 | -13 |
| 6 | 6.2 | 471 | -13 |
| 7 | 4.0 | 613 | 2 |
| 8 | 1.8 | 811 | 13 |
| 9 | 0.9 | 915 | 20 |
| 10 | 1.0 | 896 | 18 |

00UT - solid
06UT - dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/11/2004 (Day of Year 132)
NCEP/NCAR Reanalysis 1 Data Set
12UT
Day km hPa C
0 6.0 488 -11
1 5.6 513 -6
2 5.4 529 -6
3 5.0 553 -3
4 6.1 483 -12
5 7.3 412 -21
6 7.5 389 -23
7 7.1 412 -19
8 7.4 404 -19
9 6.7 442 -17
10 8.5 339 -36
18UT
Day km hPa C
0 6.0 489 -9
1 5.5 519 -6
2 5.5 522 -7
3 5.4 527 -6
4 5.9 494 -9
5 7.3 409 -20
6 7.8 373 -26
7 7.0 425 -17
8 6.3 472 -10
9 6.8 439 -14
10 8.3 357 -28
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
5
6
7
8
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT - solid
18UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/12/2004 (Day of Year 133)
## NCEP/NCAR Reanalysis 1 Data Set



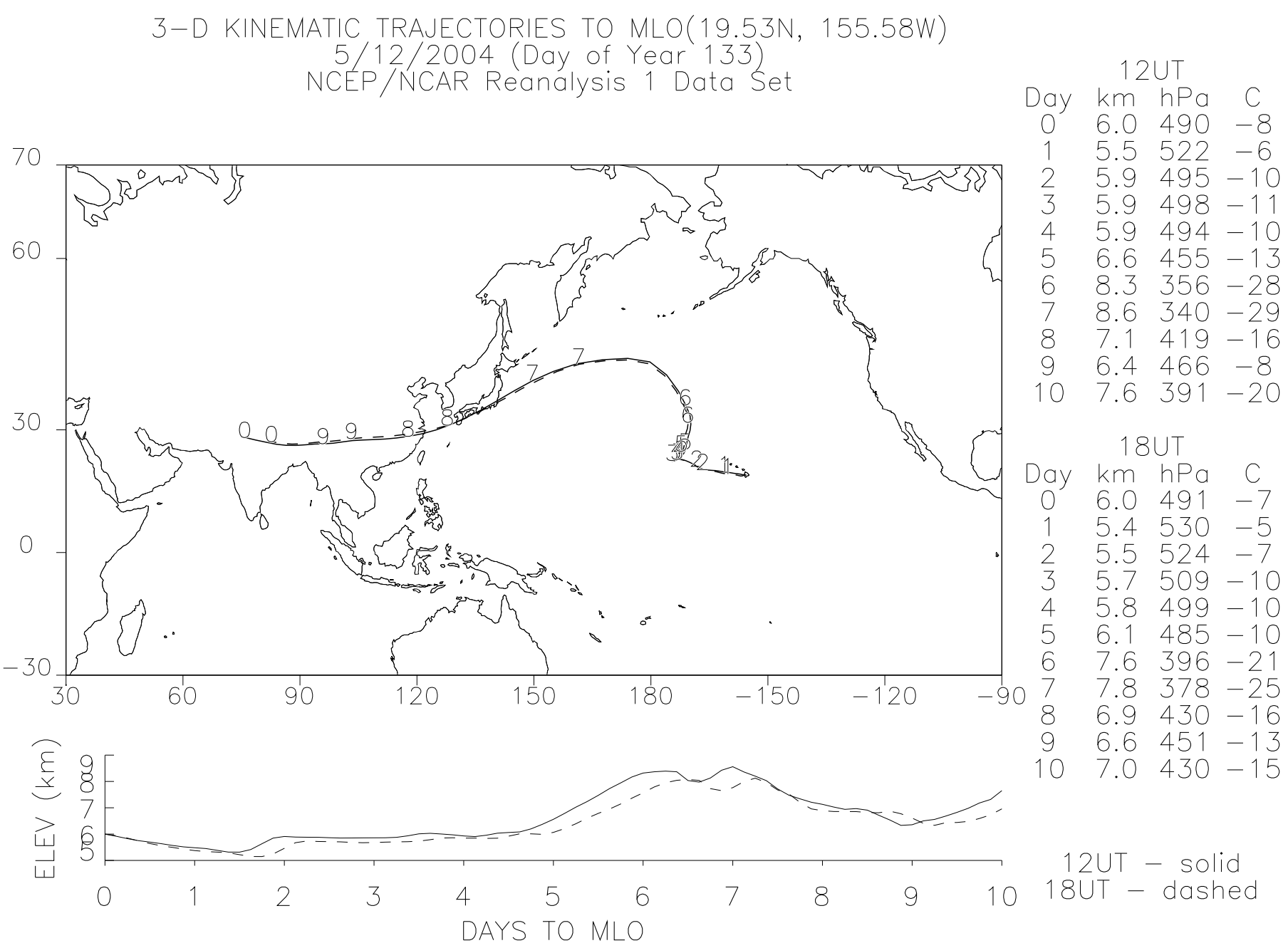

00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 5.4 | 525 | −6 |
| 2 | 5.7 | 510 | −7 |
| 3 | 5.8 | 500 | −9 |
| 4 | 6.1 | 485 | −9 |
| 5 | 7.0 | 430 | −17 |
| 6 | 7.5 | 395 | −22 |
| 7 | 7.0 | 421 | −18 |
| 8 | 6.2 | 474 | −10 |
| 9 | 5.5 | 523 | −3 |
| 10 | 6.8 | 436 | −15 |

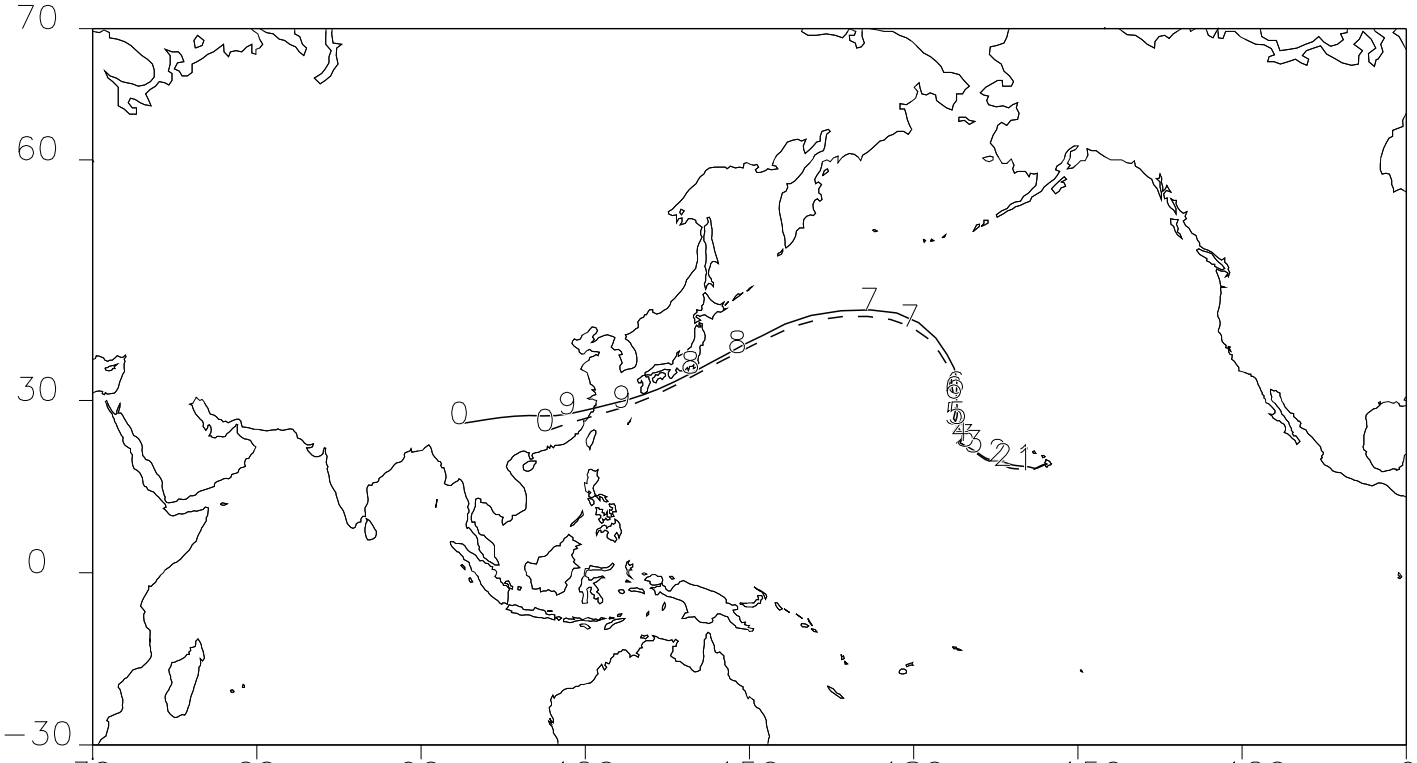
06UT

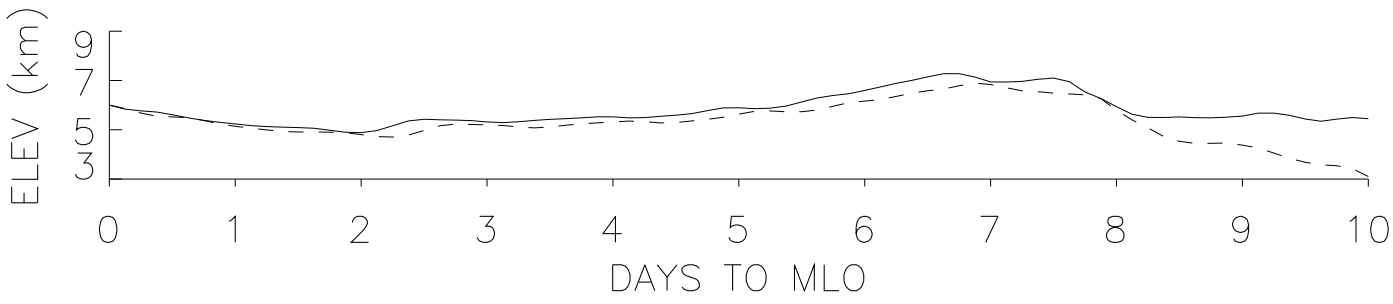
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 5.5 | 519 | −7 |
| 2 | 6.0 | 489 | −11 |
| 3 | 5.9 | 491 | −11 |
| 4 | 6.0 | 491 | −9 |
| 5 | 7.1 | 421 | −17 |
| 6 | 8.5 | 342 | −30 |
| 7 | 8.4 | 346 | −29 |
| 8 | 7.0 | 427 | −15 |
| 9 | 6.9 | 438 | −13 |
| 10 | 8.4 | 354 | −27 |

00UT – solid
06UT – dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/12/2004 (Day of Year 133)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
DAYS TO MLO
12UT
Day km hPa C
0 6.0 490 -8
1 5.5 522 -6
2 5.9 495 -10
3 5.9 498 -11
4 5.9 494 -10
5 6.6 455 -13
6 8.3 356 -28
7 8.6 340 -29
8 7.1 419 -16
9 6.4 466 -8
10 7.6 391 -20
18UT
Day km hPa C
0 6.0 491 -7
1 5.4 530 -5
2 5.5 524 -7
3 5.7 509 -10
4 5.8 499 -10
5 6.1 485 -10
6 7.6 396 -21
7 7.8 378 -25
8 6.9 430 -16
9 6.6 451 -13
10 7.0 430 -15
12UT - solid
18UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/13/2004 (Day of Year 134)
NCEP/NCAR Reanalysis 1 Data Set



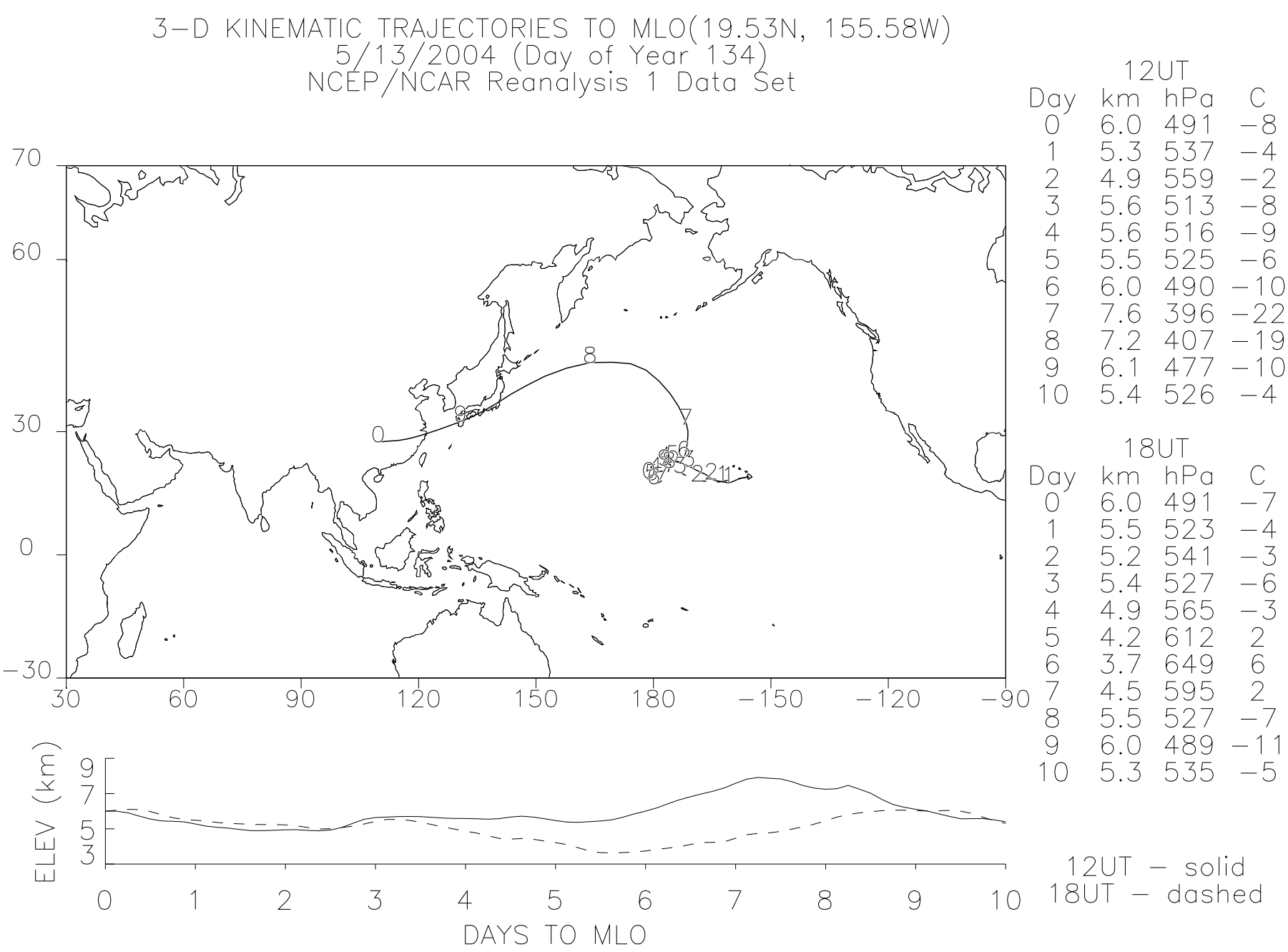

00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −6 |
| 1 | 5.2 | 540 | −4 |
| 2 | 4.9 | 563 | −3 |
| 3 | 5.3 | 534 | −6 |
| 4 | 5.5 | 521 | −7 |
| 5 | 5.9 | 498 | −8 |
| 6 | 6.6 | 453 | −14 |
| 7 | 6.9 | 426 | −18 |
| 8 | 5.9 | 488 | −10 |
| 9 | 5.6 | 516 | −6 |
| 10 | 5.4 | 523 | −5 |

06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 5.1 | 547 | −3 |
| 2 | 4.8 | 569 | −2 |
| 3 | 5.2 | 542 | −4 |
| 4 | 5.3 | 533 | −6 |
| 5 | 5.6 | 512 | −6 |
| 6 | 6.2 | 479 | −11 |
| 7 | 6.8 | 434 | −17 |
| 8 | 5.8 | 499 | −10 |
| 9 | 4.4 | 598 | 1 |
| 10 | 3.1 | 702 | 10 |

00UT – solid
06UT – dashed




12UT

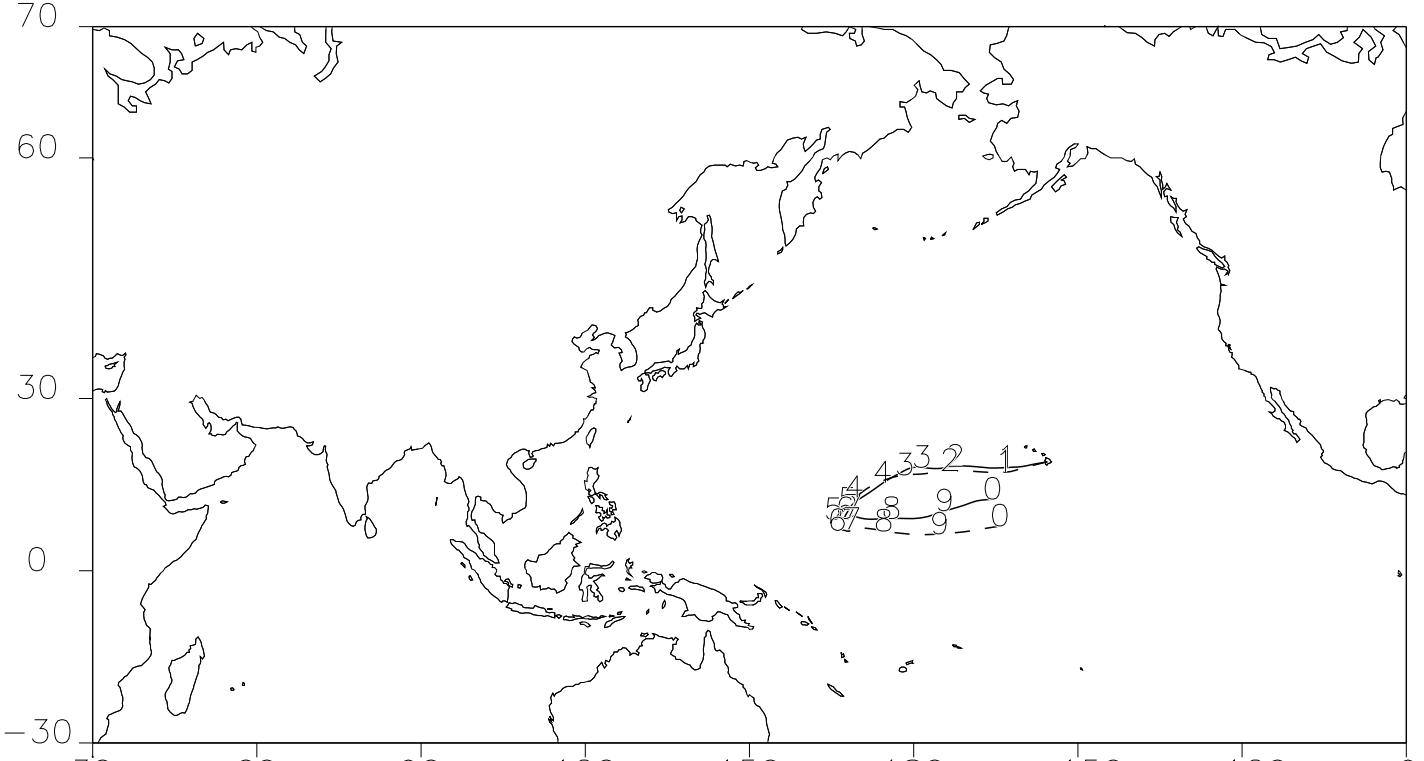
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 5.3 | 537 | −4 |
| 2 | 4.9 | 559 | −2 |
| 3 | 5.6 | 513 | −8 |
| 4 | 5.6 | 516 | −9 |
| 5 | 5.5 | 525 | −6 |
| 6 | 6.0 | 490 | −10 |
| 7 | 7.6 | 396 | −22 |
| 8 | 7.2 | 407 | −19 |
| 9 | 6.1 | 477 | −10 |
| 10 | 5.4 | 526 | −4 |

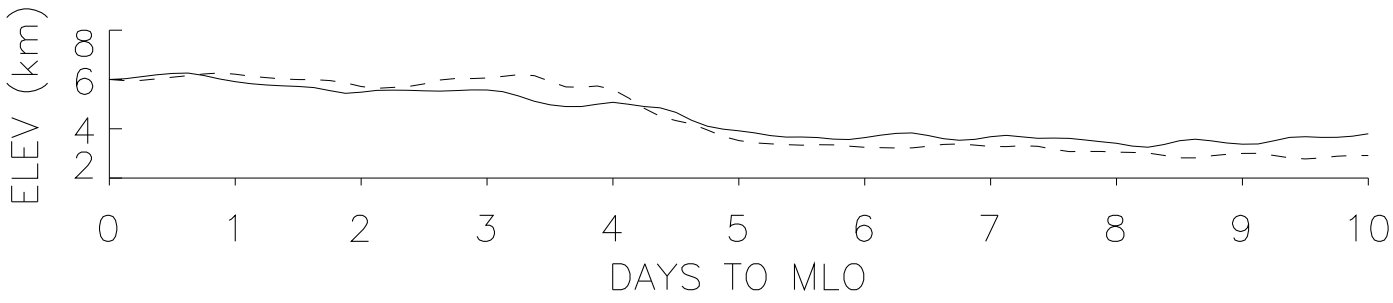
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 5.5 | 523 | −4 |
| 2 | 5.2 | 541 | −3 |
| 3 | 5.4 | 527 | −6 |
| 4 | 4.9 | 565 | −3 |
| 5 | 4.2 | 612 | 2 |
| 6 | 3.7 | 649 | 6 |
| 7 | 4.5 | 595 | 2 |
| 8 | 5.5 | 527 | −7 |
| 9 | 6.0 | 489 | −11 |
| 10 | 5.3 | 535 | −5 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/14/2004 (Day of Year 135)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

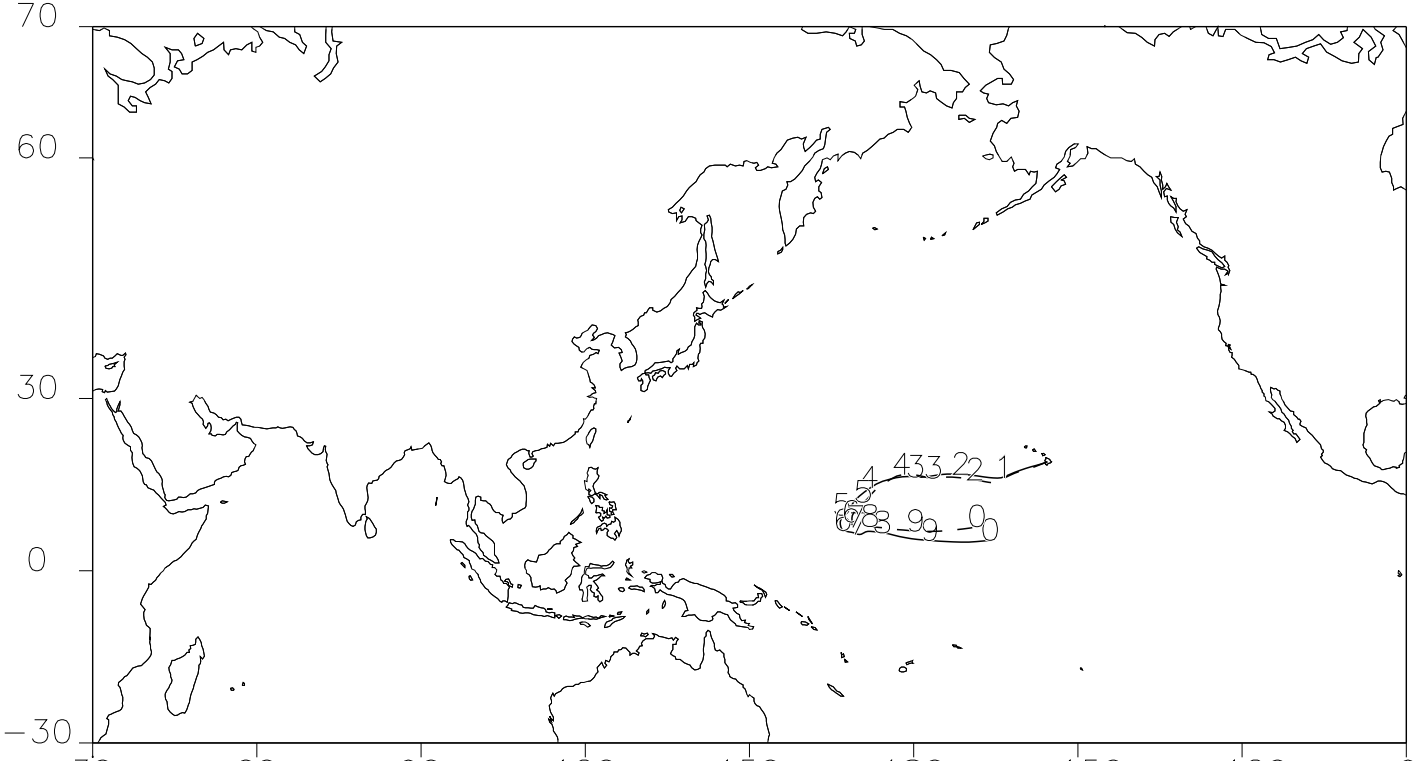
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -6 |
| 1 | 5.9 | 496 | -7 |
| 2 | 5.5 | 524 | -5 |
| 3 | 5.6 | 518 | -7 |
| 4 | 5.1 | 552 | -2 |
| 5 | 3.9 | 637 | 6 |
| 6 | 3.6 | 659 | 8 |
| 7 | 3.7 | 656 | 7 |
| 8 | 3.4 | 679 | 9 |
| 9 | 3.4 | 683 | 10 |
| 10 | 3.8 | 648 | 5 |

06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -6 |
| 1 | 6.2 | 478 | -9 |
| 2 | 5.7 | 508 | -7 |
| 3 | 6.1 | 486 | -9 |
| 4 | 5.6 | 516 | -5 |
| 5 | 3.5 | 667 | 9 |
| 6 | 3.2 | 689 | 10 |
| 7 | 3.3 | 686 | 9 |
| 8 | 3.1 | 706 | 11 |
| 9 | 3.0 | 711 | 12 |
| 10 | 2.9 | 719 | 11 |

00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/14/2004 (Day of Year 135)
## NCEP/NCAR Reanalysis 1 Data Set

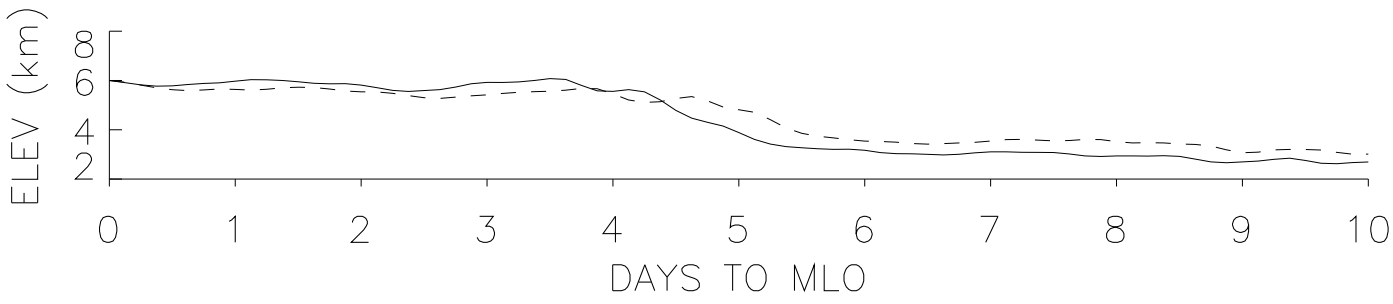



12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 6.0 | 493 | −8 |
| 2 | 5.8 | 502 | −7 |
| 3 | 5.9 | 496 | −8 |
| 4 | 5.6 | 520 | −5 |
| 5 | 3.9 | 640 | 6 |
| 6 | 3.2 | 698 | 11 |
| 7 | 3.1 | 702 | 11 |
| 8 | 2.9 | 718 | 11 |
| 9 | 2.7 | 739 | 14 |
| 10 | 2.7 | 738 | 12 |

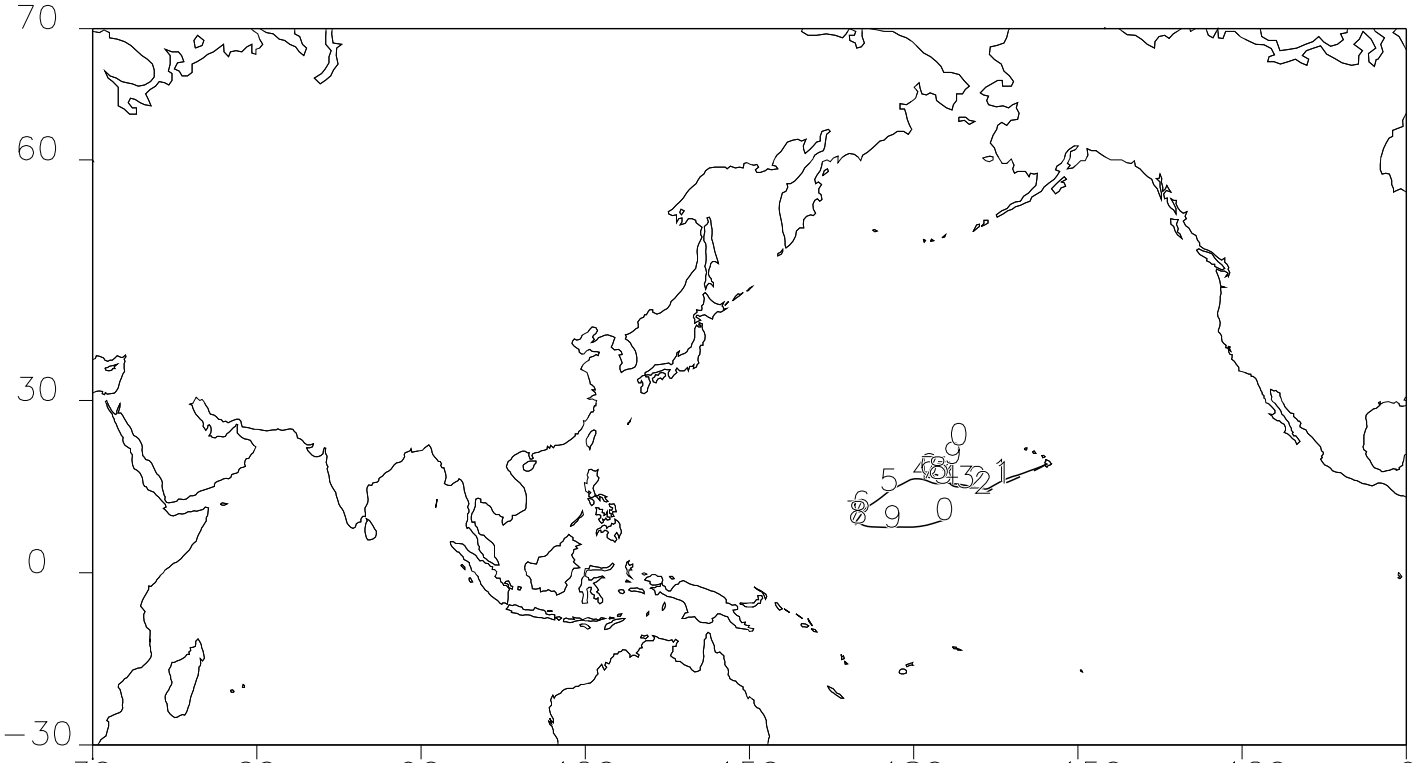
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 5.6 | 514 | −4 |
| 2 | 5.5 | 520 | −5 |
| 3 | 5.4 | 528 | −5 |
| 4 | 5.5 | 525 | −5 |
| 5 | 4.8 | 569 | 0 |
| 6 | 3.5 | 665 | 8 |
| 7 | 3.5 | 665 | 8 |
| 8 | 3.5 | 667 | 8 |
| 9 | 3.1 | 704 | 12 |
| 10 | 3.0 | 711 | 12 |




12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/15/2004 (Day of Year 136)
NCEP/NCAR Reanalysis 1 Data Set

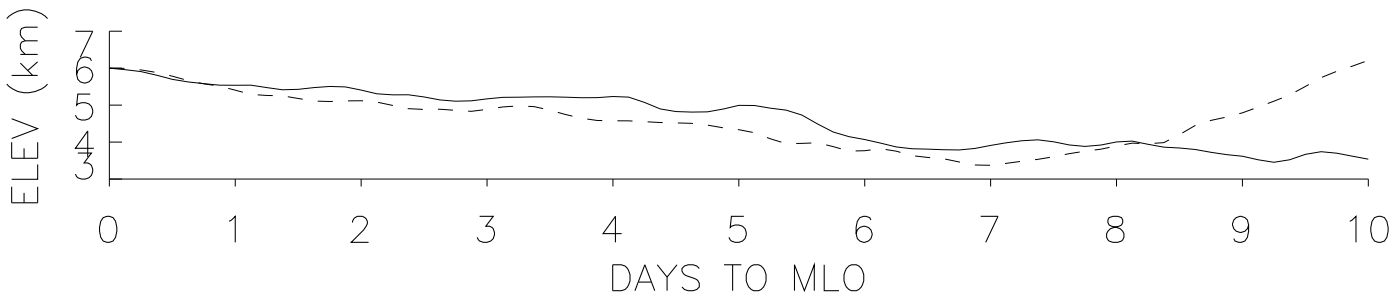



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 5.5 | 521 | −3 |
| 2 | 5.4 | 530 | −3 |
| 3 | 5.2 | 546 | −2 |
| 4 | 5.2 | 541 | −4 |
| 5 | 5.0 | 558 | −1 |
| 6 | 4.1 | 626 | 6 |
| 7 | 3.9 | 637 | 7 |
| 8 | 4.0 | 630 | 5 |
| 9 | 3.6 | 662 | 8 |
| 10 | 3.5 | 669 | 9 |

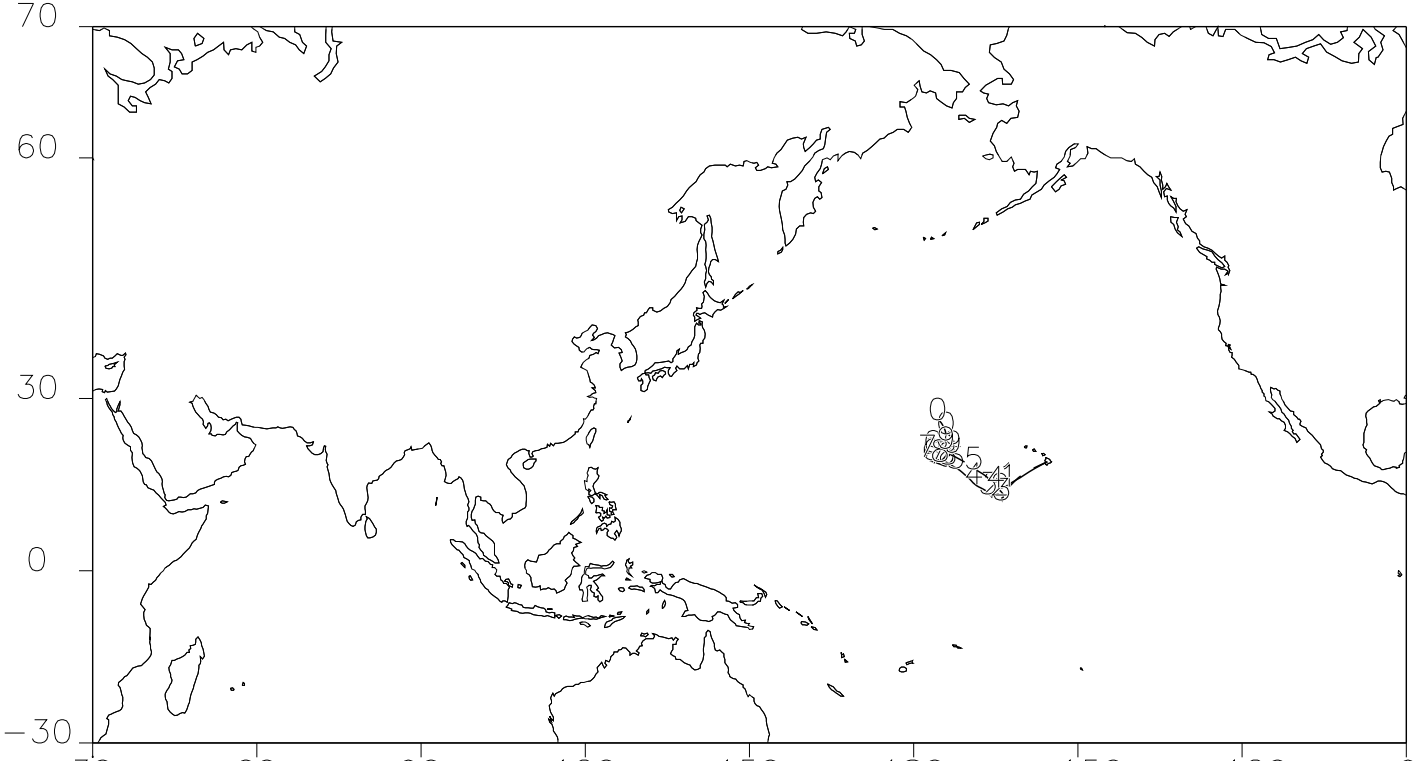
06UT

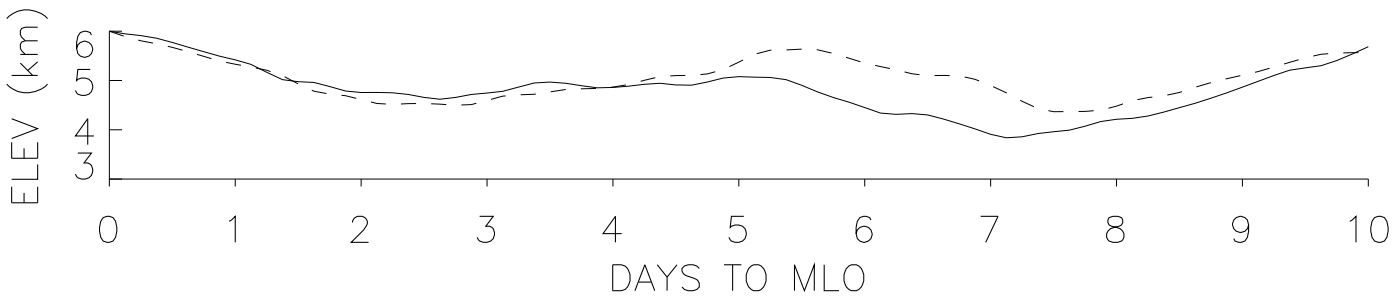
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 5.4 | 530 | −2 |
| 2 | 5.1 | 550 | −1 |
| 3 | 4.9 | 565 | 0 |
| 4 | 4.6 | 587 | 1 |
| 5 | 4.3 | 605 | 4 |
| 6 | 3.8 | 647 | 6 |
| 7 | 3.4 | 678 | 10 |
| 8 | 3.9 | 637 | 5 |
| 9 | 4.8 | 572 | −2 |
| 10 | 6.2 | 479 | −13 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/15/2004 (Day of Year 136)
NCEP/NCAR Reanalysis 1 Data Set




12UT

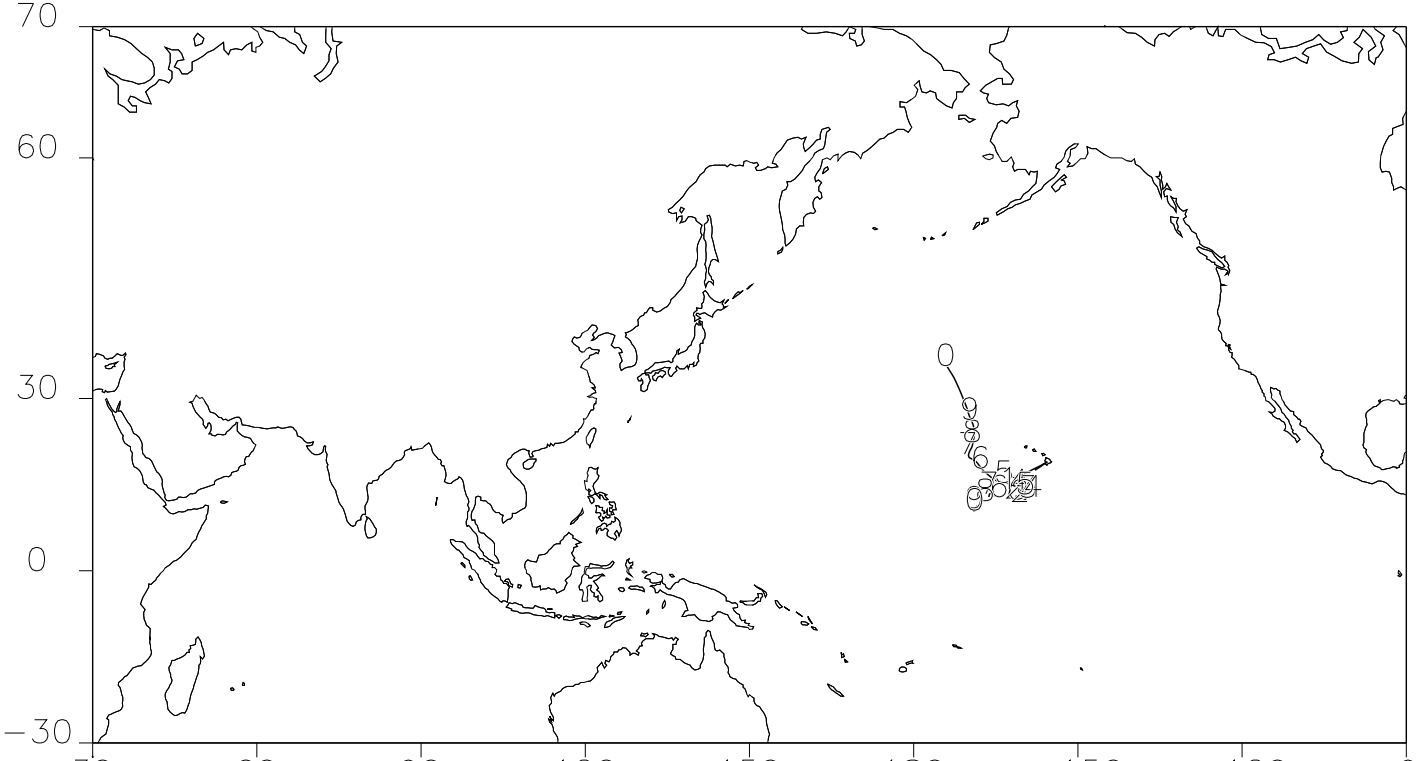
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 5.4 | 529 | −3 |
| 2 | 4.8 | 575 | 2 |
| 3 | 4.7 | 575 | 1 |
| 4 | 4.9 | 566 | 0 |
| 5 | 5.1 | 552 | −1 |
| 6 | 4.5 | 596 | 2 |
| 7 | 3.9 | 637 | 5 |
| 8 | 4.2 | 614 | 3 |
| 9 | 4.9 | 567 | −2 |
| 10 | 5.7 | 513 | −9 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 5.3 | 536 | −3 |
| 2 | 4.6 | 586 | 3 |
| 3 | 4.6 | 586 | 2 |
| 4 | 4.9 | 566 | 1 |
| 5 | 5.4 | 531 | −4 |
| 6 | 5.4 | 531 | −7 |
| 7 | 4.9 | 563 | −3 |
| 8 | 4.5 | 593 | 2 |
| 9 | 5.1 | 549 | −3 |
| 10 | 5.6 | 519 | −7 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/16/2004 (Day of Year 137)
NCEP/NCAR Reanalysis 1 Data Set

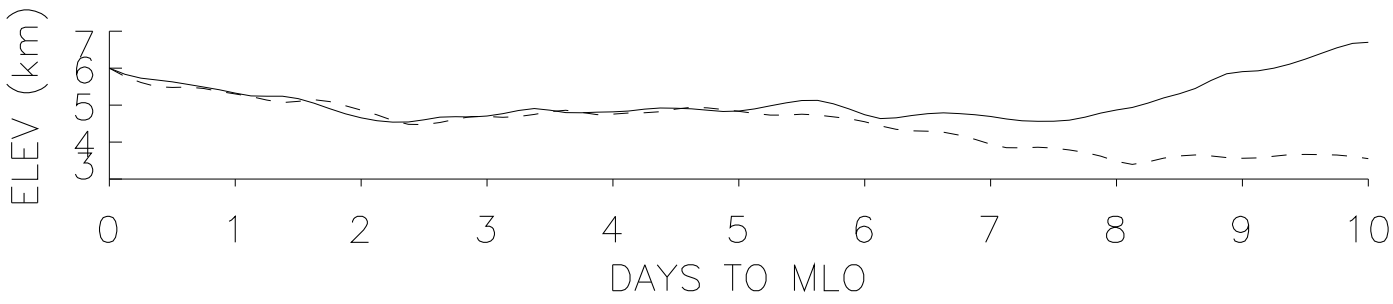



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 5.3 | 536 | −3 |
| 2 | 4.7 | 582 | 3 |
| 3 | 4.7 | 578 | 2 |
| 4 | 4.8 | 569 | 1 |
| 5 | 4.8 | 567 | 0 |
| 6 | 4.7 | 574 | 1 |
| 7 | 4.7 | 578 | 0 |
| 8 | 4.9 | 566 | −1 |
| 9 | 5.9 | 495 | −10 |
| 10 | 6.7 | 444 | −17 |

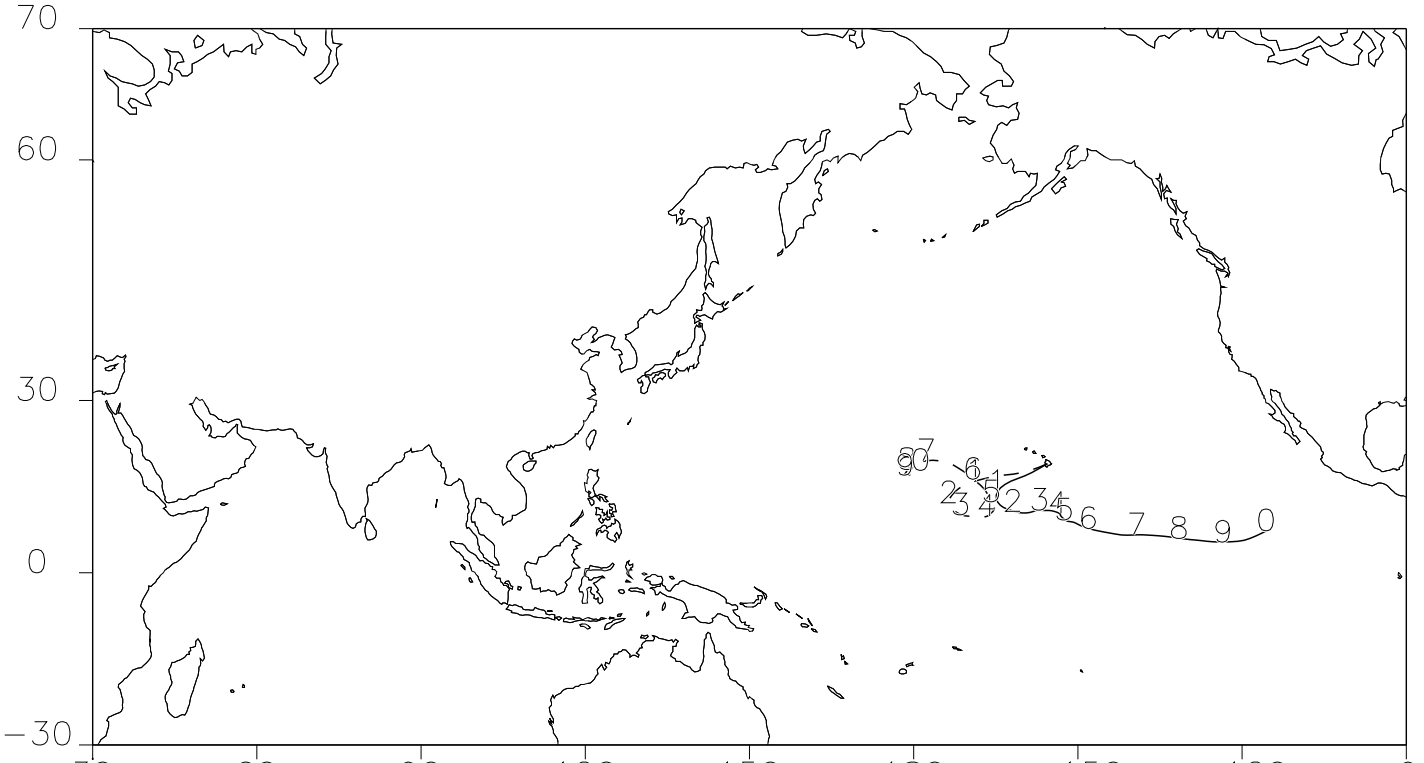
06UT

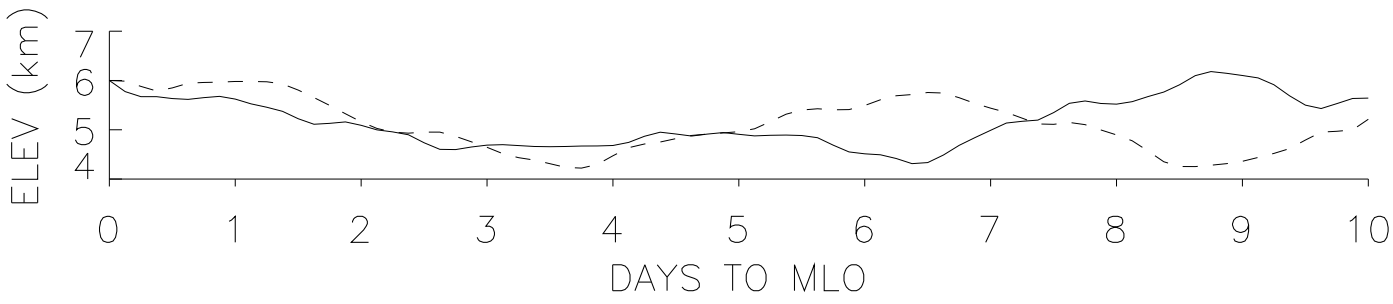
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −9 |
| 1 | 5.3 | 538 | −3 |
| 2 | 4.9 | 568 | 2 |
| 3 | 4.7 | 580 | 3 |
| 4 | 4.8 | 574 | 1 |
| 5 | 4.8 | 568 | 0 |
| 6 | 4.6 | 589 | 2 |
| 7 | 3.9 | 634 | 5 |
| 8 | 3.5 | 671 | 9 |
| 9 | 3.6 | 664 | 8 |
| 10 | 3.6 | 665 | 8 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/16/2004 (Day of Year 137)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

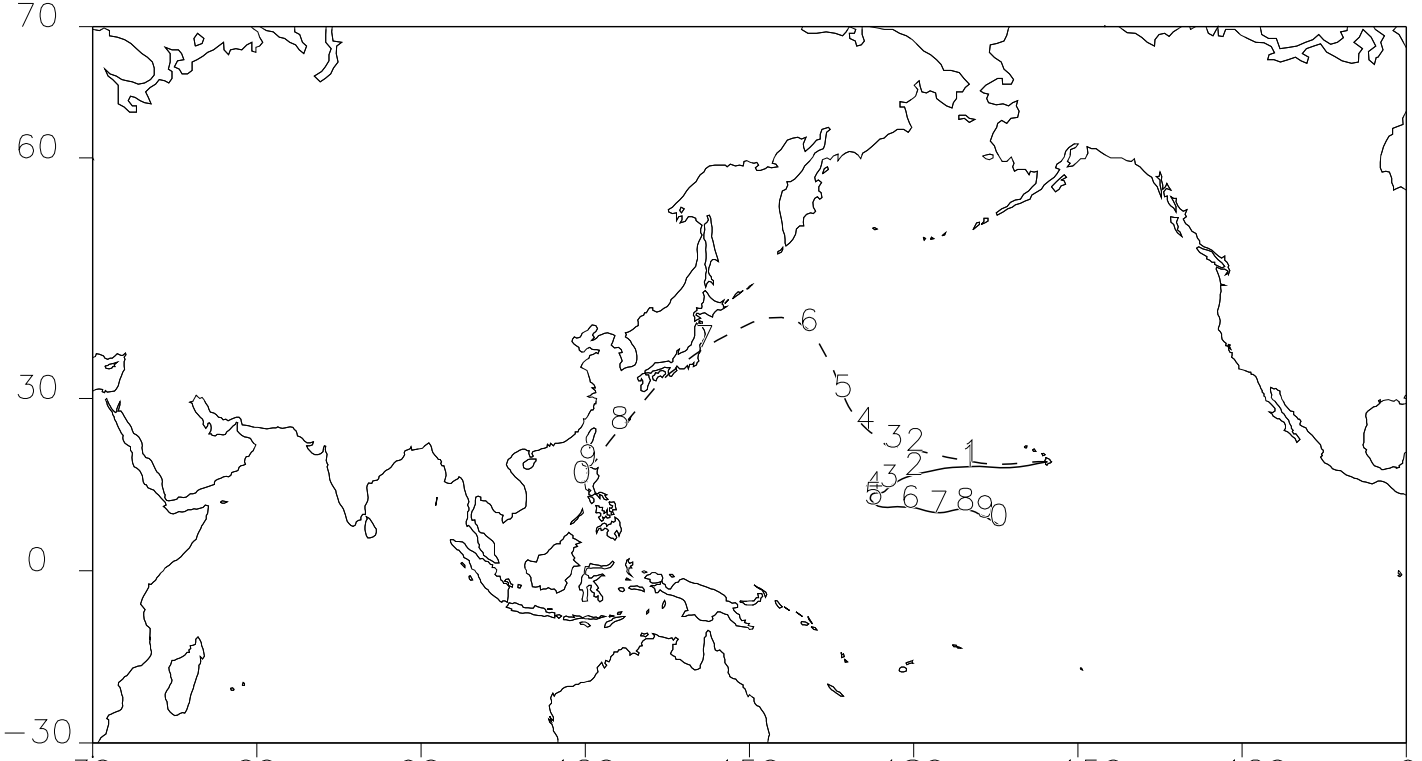
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 5.6 | 517 | −5 |
| 2 | 5.1 | 552 | 0 |
| 3 | 4.7 | 580 | 3 |
| 4 | 4.7 | 580 | 3 |
| 5 | 4.9 | 563 | 1 |
| 6 | 4.5 | 591 | 5 |
| 7 | 5.0 | 558 | 2 |
| 8 | 5.5 | 522 | −2 |
| 9 | 6.1 | 484 | −7 |
| 10 | 5.6 | 514 | −3 |

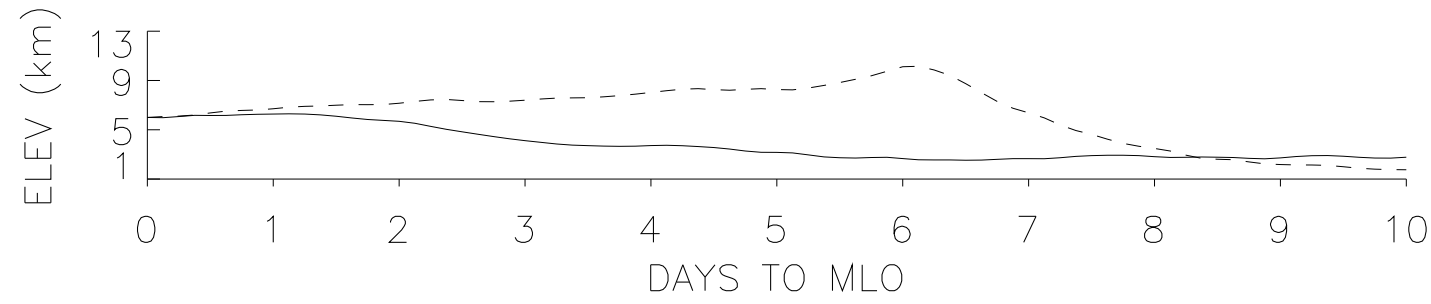
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.0 | 493 | −8 |
| 2 | 5.2 | 547 | −2 |
| 3 | 4.6 | 584 | 3 |
| 4 | 4.5 | 595 | 3 |
| 5 | 5.0 | 560 | 0 |
| 6 | 5.5 | 523 | −4 |
| 7 | 5.4 | 526 | −6 |
| 8 | 4.9 | 563 | −3 |
| 9 | 4.4 | 602 | 3 |
| 10 | 5.2 | 542 | −3 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/17/2004 (Day of Year 138)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

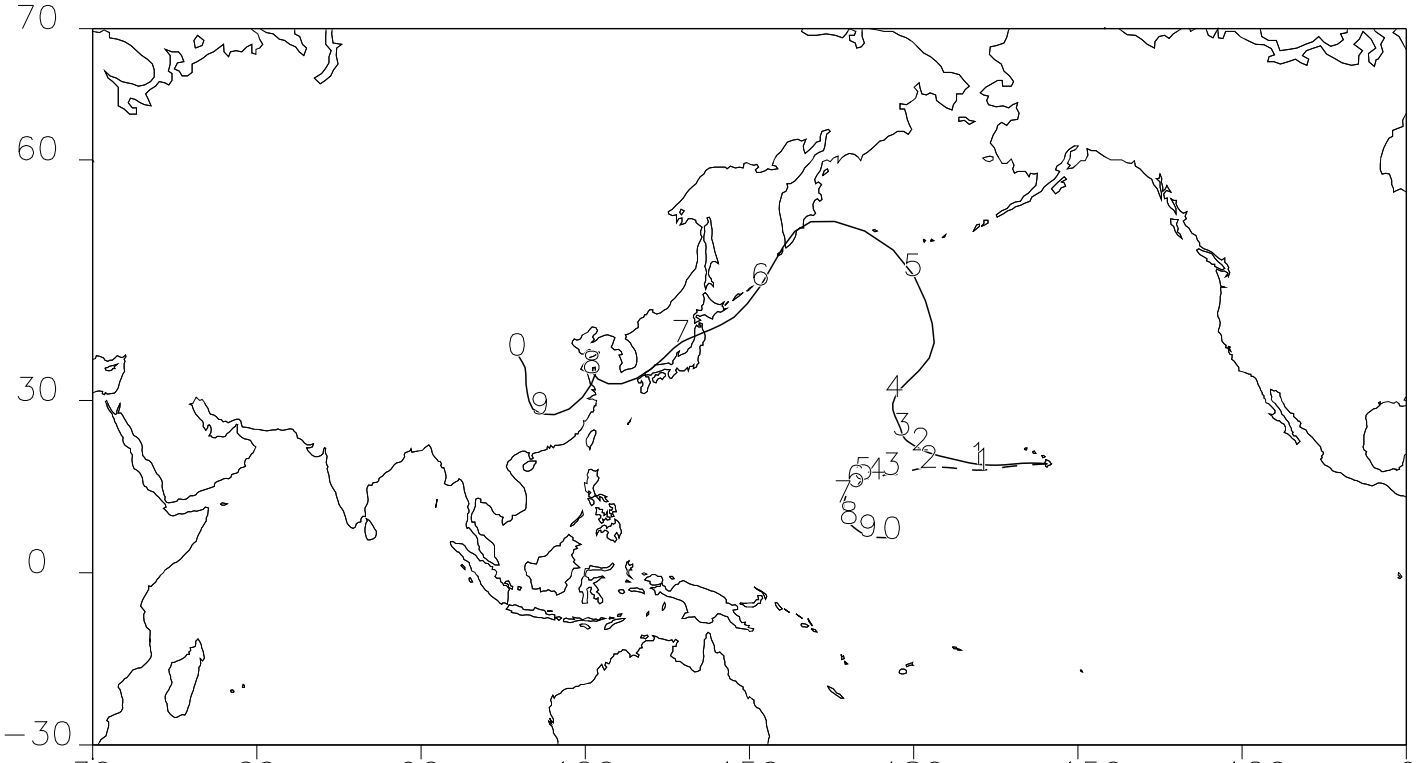
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.3 | 474 | −10 |
| 2 | 5.7 | 511 | −6 |
| 3 | 4.1 | 622 | 3 |
| 4 | 3.7 | 653 | 6 |
| 5 | 3.2 | 698 | 11 |
| 6 | 2.7 | 740 | 14 |
| 7 | 2.7 | 741 | 14 |
| 8 | 2.8 | 727 | 12 |
| 9 | 2.7 | 735 | 13 |
| 10 | 2.8 | 730 | 12 |

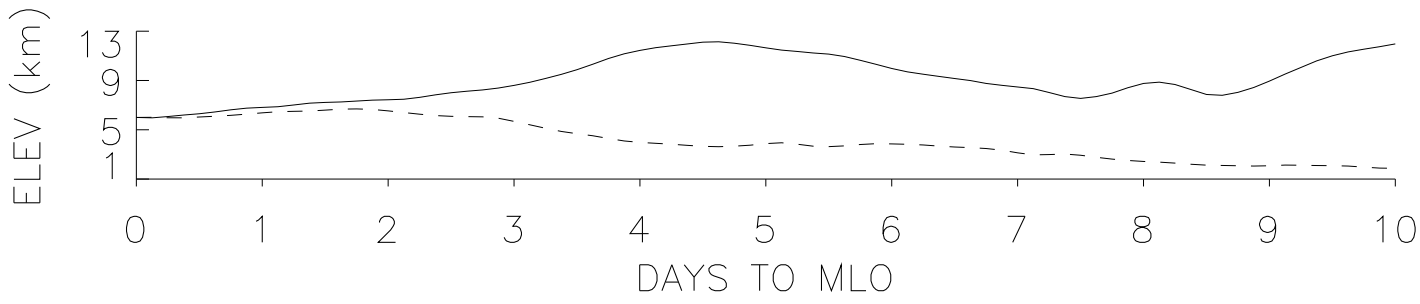
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 6.7 | 448 | −13 |
| 2 | 7.2 | 421 | −17 |
| 3 | 7.4 | 407 | −20 |
| 4 | 8.0 | 373 | −25 |
| 5 | 8.3 | 360 | −27 |
| 6 | 10.1 | 272 | −44 |
| 7 | 6.4 | 461 | −13 |
| 8 | 3.5 | 672 | 8 |
| 9 | 2.2 | 786 | 17 |
| 10 | 1.8 | 827 | 19 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/17/2004 (Day of Year 138)
NCEP/NCAR Reanalysis 1 Data Set




12UT

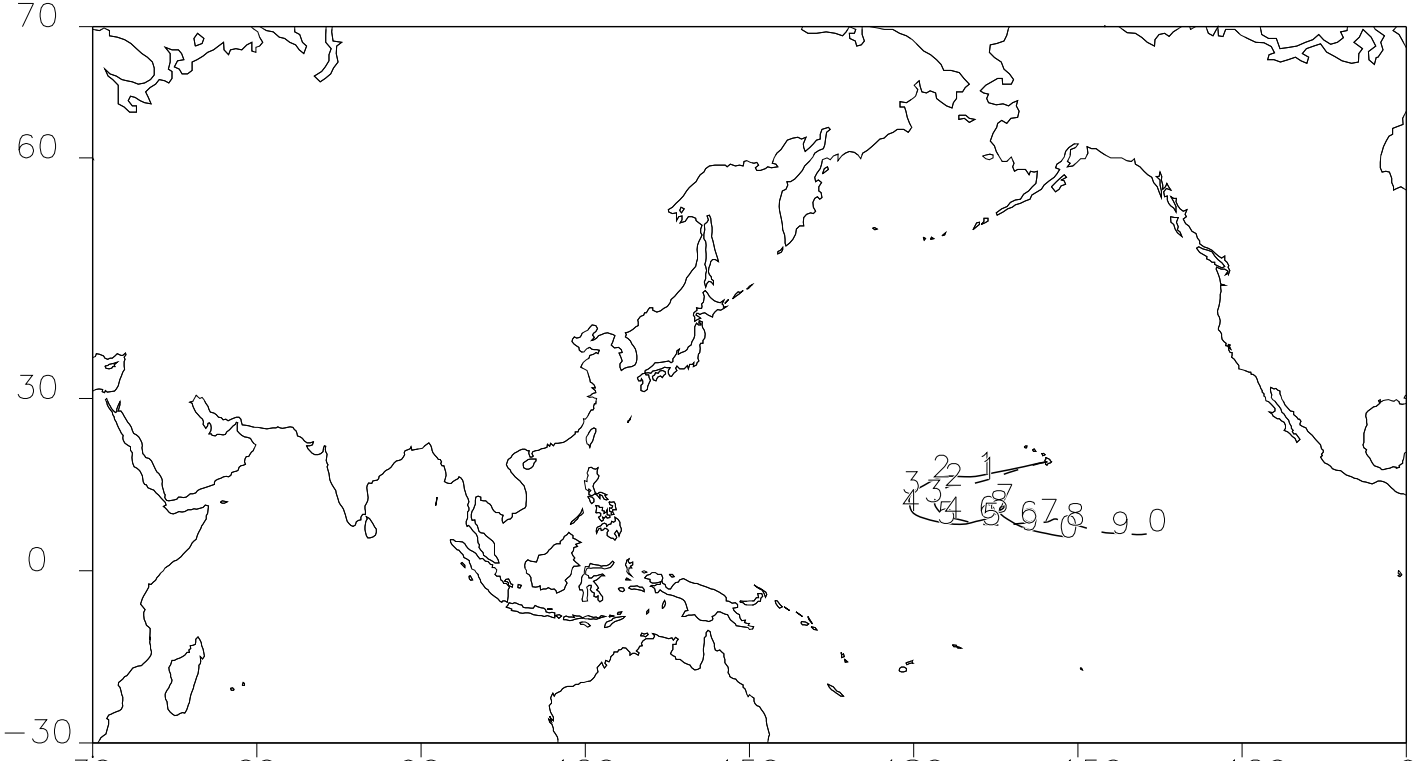
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.8 | 442 | −13 |
| 2 | 7.4 | 406 | −20 |
| 3 | 8.6 | 345 | −31 |
| 4 | 11.4 | 224 | −54 |
| 5 | 11.6 | 209 | −59 |
| 6 | 10.0 | 271 | −45 |
| 7 | 8.5 | 340 | −33 |
| 8 | 8.8 | 327 | −35 |
| 9 | 9.0 | 319 | −36 |
| 10 | 12.0 | 200 | −56 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 6.4 | 468 | −11 |
| 2 | 6.5 | 457 | −12 |
| 3 | 5.7 | 510 | −6 |
| 4 | 4.0 | 632 | 3 |
| 5 | 3.9 | 638 | 3 |
| 6 | 3.9 | 640 | 3 |
| 7 | 3.1 | 700 | 10 |
| 8 | 2.4 | 758 | 14 |
| 9 | 2.1 | 791 | 15 |
| 10 | 1.9 | 811 | 16 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/18/2004 (Day of Year 139)
NCEP/NCAR Reanalysis 1 Data Set

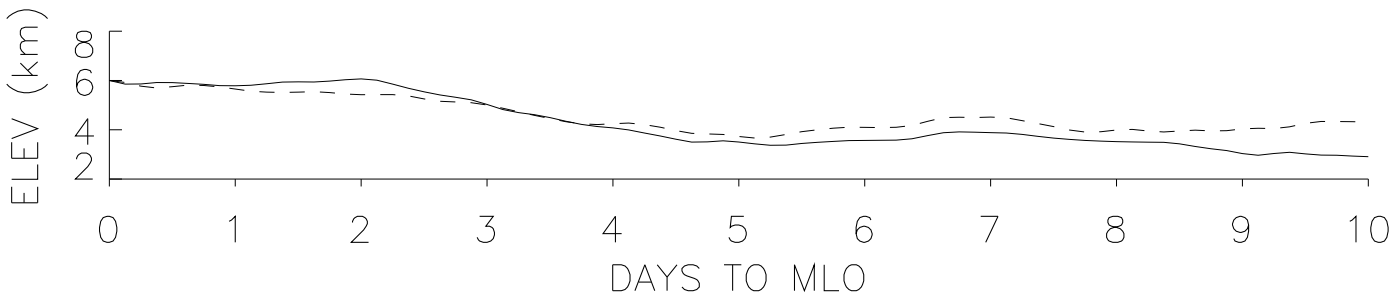



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 5.8 | 506 | −6 |
| 2 | 6.1 | 488 | −9 |
| 3 | 5.0 | 557 | −1 |
| 4 | 4.1 | 625 | 6 |
| 5 | 3.5 | 669 | 11 |
| 6 | 3.6 | 663 | 9 |
| 7 | 3.9 | 638 | 7 |
| 8 | 3.5 | 667 | 10 |
| 9 | 3.0 | 708 | 12 |
| 10 | 2.9 | 718 | 13 |

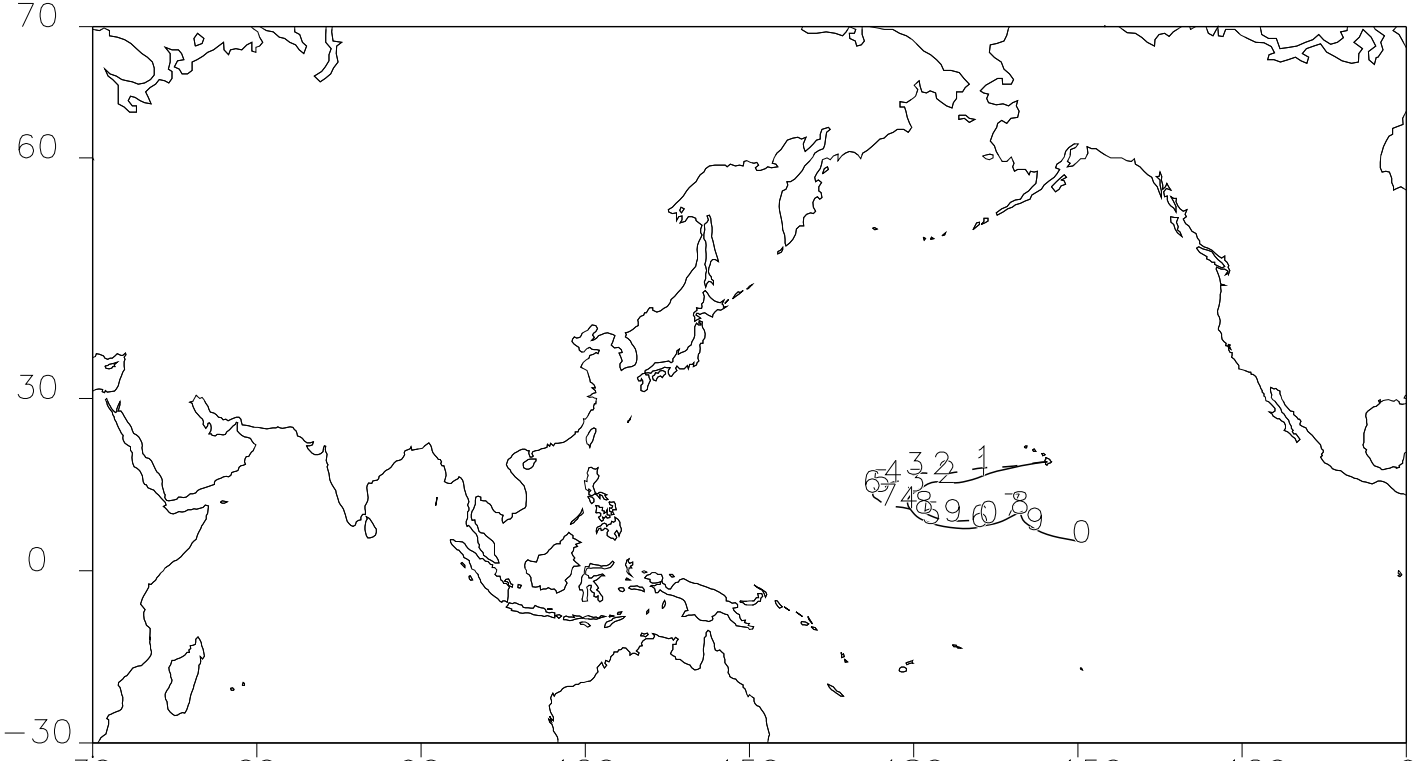
06UT

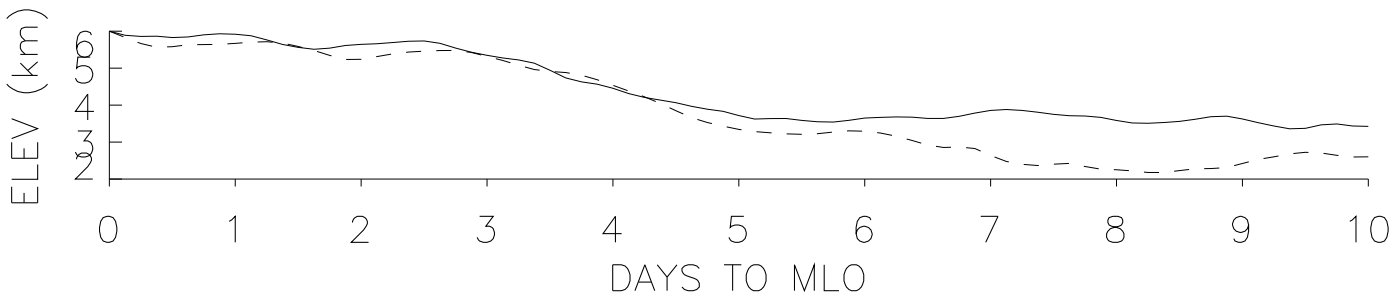
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 5.7 | 514 | −5 |
| 2 | 5.4 | 530 | −4 |
| 3 | 5.0 | 558 | −1 |
| 4 | 4.2 | 612 | 6 |
| 5 | 3.7 | 652 | 9 |
| 6 | 4.1 | 623 | 7 |
| 7 | 4.5 | 592 | 4 |
| 8 | 4.0 | 630 | 7 |
| 9 | 4.0 | 628 | 7 |
| 10 | 4.3 | 608 | 5 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/18/2004 (Day of Year 139)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

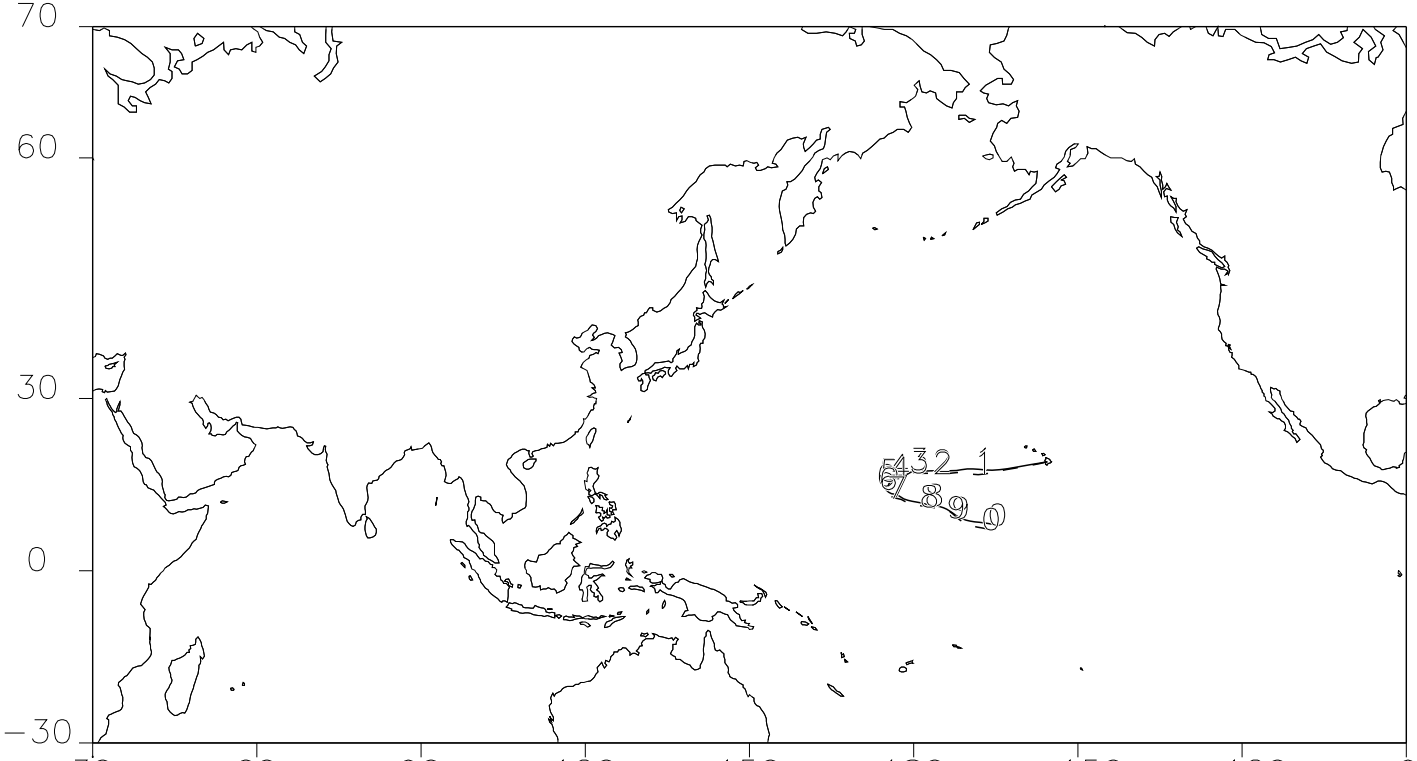
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −9 |
| 1 | 5.9 | 497 | −7 |
| 2 | 5.6 | 516 | −5 |
| 3 | 5.3 | 534 | −3 |
| 4 | 4.5 | 597 | 3 |
| 5 | 3.7 | 653 | 9 |
| 6 | 3.6 | 658 | 9 |
| 7 | 3.9 | 640 | 7 |
| 8 | 3.6 | 662 | 9 |
| 9 | 3.6 | 659 | 9 |
| 10 | 3.4 | 675 | 10 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 5.7 | 511 | −6 |
| 2 | 5.2 | 541 | −3 |
| 3 | 5.3 | 535 | −4 |
| 4 | 4.5 | 590 | 1 |
| 5 | 3.3 | 683 | 8 |
| 6 | 3.3 | 686 | 8 |
| 7 | 2.6 | 742 | 14 |
| 8 | 2.3 | 777 | 15 |
| 9 | 2.4 | 761 | 14 |
| 10 | 2.6 | 745 | 13 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/19/2004 (Day of Year 140)
NCEP/NCAR Reanalysis 1 Data Set

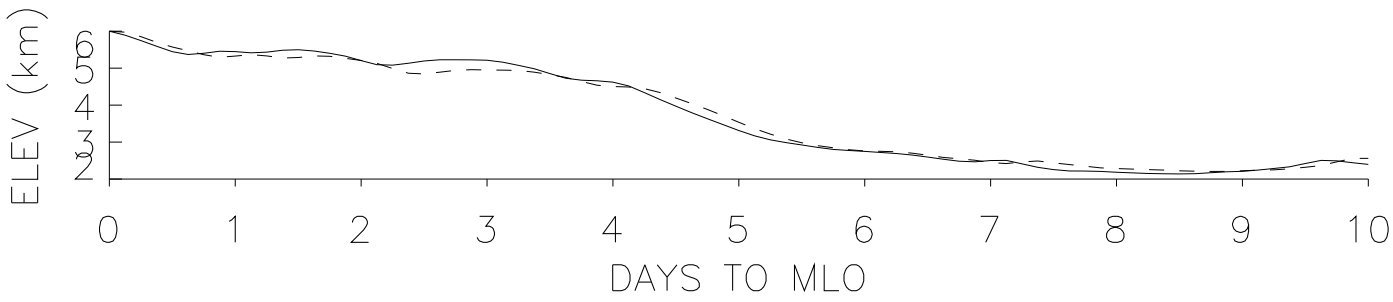



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 5.4 | 526 | −4 |
| 2 | 5.2 | 544 | −3 |
| 3 | 5.2 | 544 | −3 |
| 4 | 4.6 | 585 | 0 |
| 5 | 3.3 | 686 | 7 |
| 6 | 2.7 | 734 | 12 |
| 7 | 2.5 | 755 | 13 |
| 8 | 2.2 | 784 | 16 |
| 9 | 2.2 | 781 | 15 |
| 10 | 2.4 | 764 | 14 |

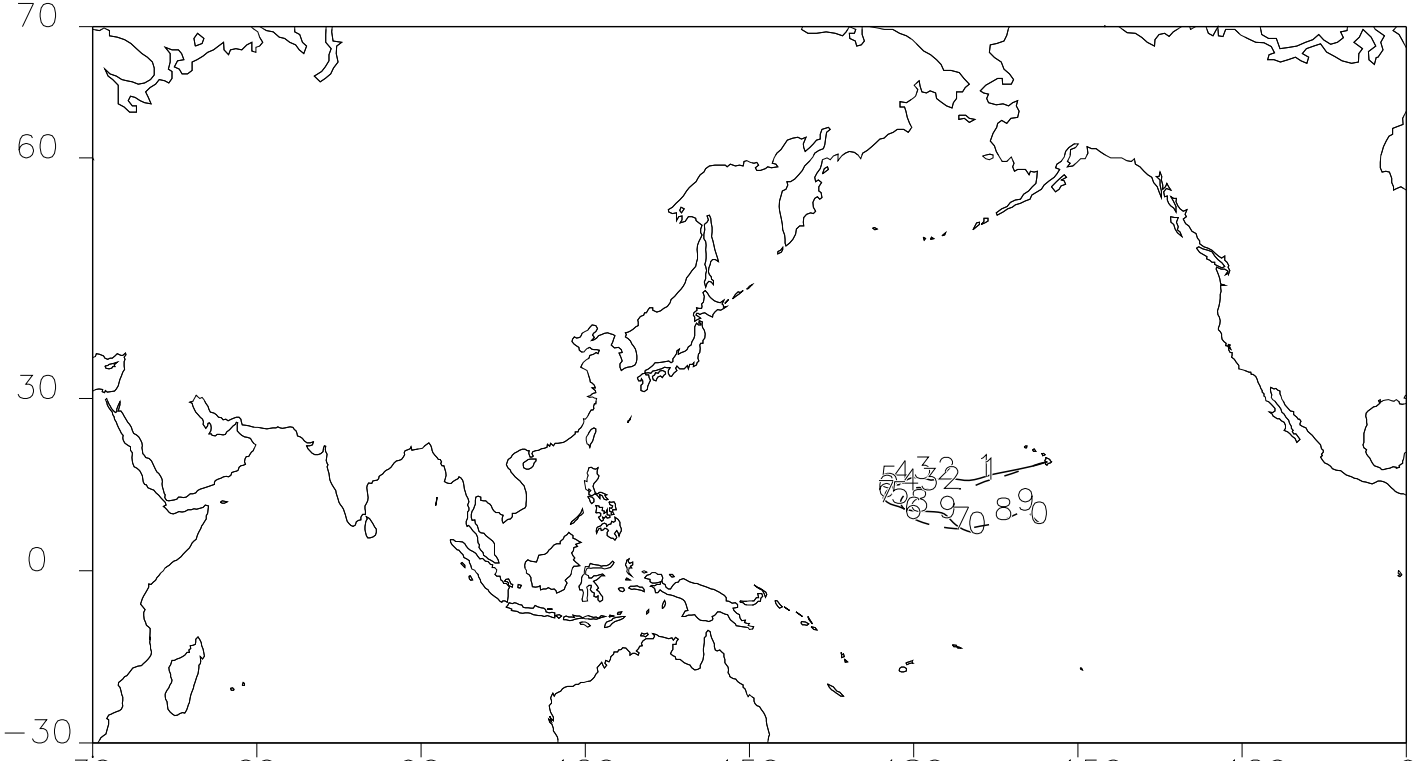
06UT

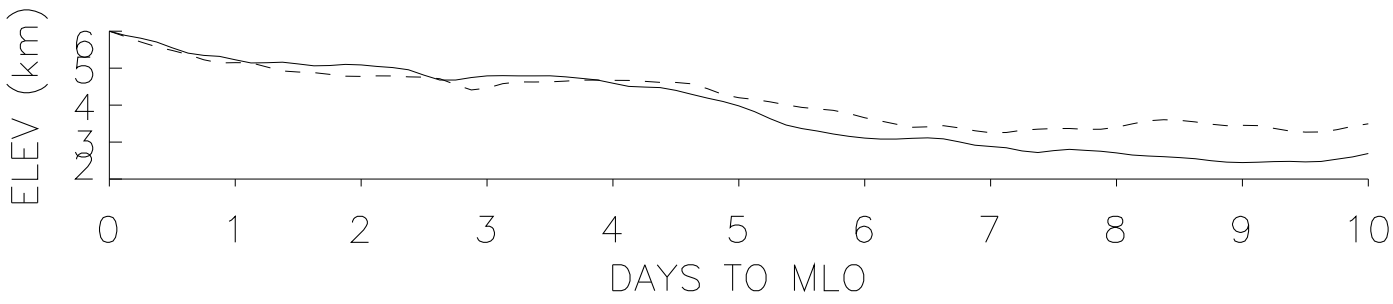
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 5.3 | 535 | −3 |
| 2 | 5.2 | 544 | −3 |
| 3 | 5.0 | 562 | −1 |
| 4 | 4.5 | 593 | 1 |
| 5 | 3.5 | 667 | 7 |
| 6 | 2.8 | 731 | 11 |
| 7 | 2.4 | 759 | 14 |
| 8 | 2.3 | 774 | 15 |
| 9 | 2.2 | 779 | 16 |
| 10 | 2.6 | 748 | 12 |




00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/19/2004 (Day of Year 140)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

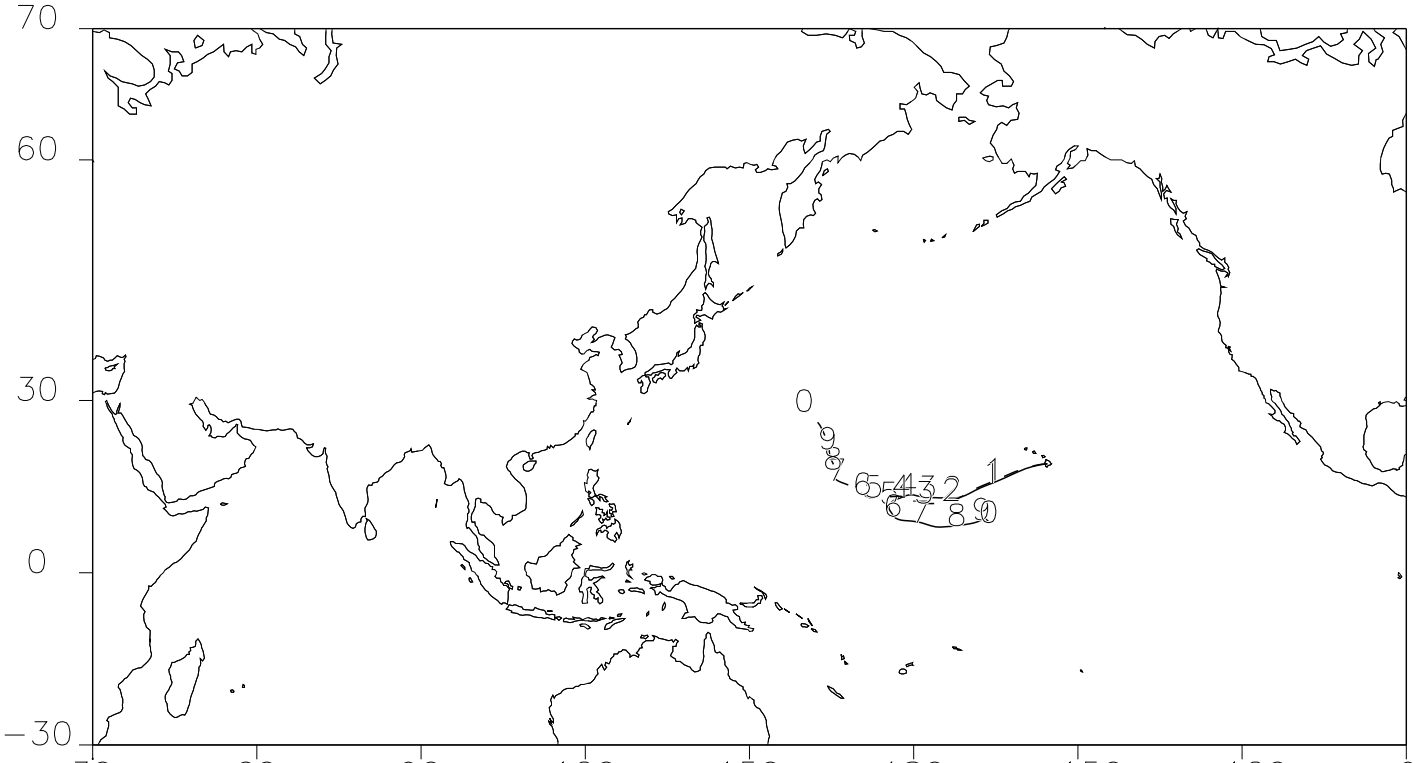
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 5.2 | 542 | −2 |
| 2 | 5.1 | 552 | −2 |
| 3 | 4.8 | 574 | 0 |
| 4 | 4.6 | 587 | 1 |
| 5 | 4.0 | 632 | 4 |
| 6 | 3.1 | 703 | 10 |
| 7 | 2.9 | 722 | 12 |
| 8 | 2.7 | 736 | 13 |
| 9 | 2.4 | 759 | 15 |
| 10 | 2.7 | 737 | 13 |

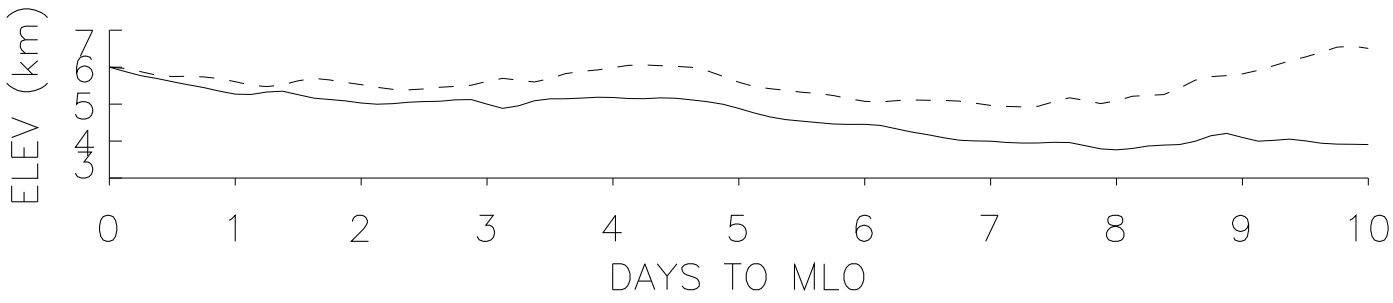
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 5.1 | 548 | −1 |
| 2 | 4.8 | 574 | 0 |
| 3 | 4.5 | 597 | 2 |
| 4 | 4.7 | 581 | 1 |
| 5 | 4.2 | 615 | 4 |
| 6 | 3.7 | 657 | 9 |
| 7 | 3.3 | 689 | 12 |
| 8 | 3.4 | 678 | 11 |
| 9 | 3.5 | 674 | 10 |
| 10 | 3.5 | 670 | 8 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/20/2004 (Day of Year 141)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

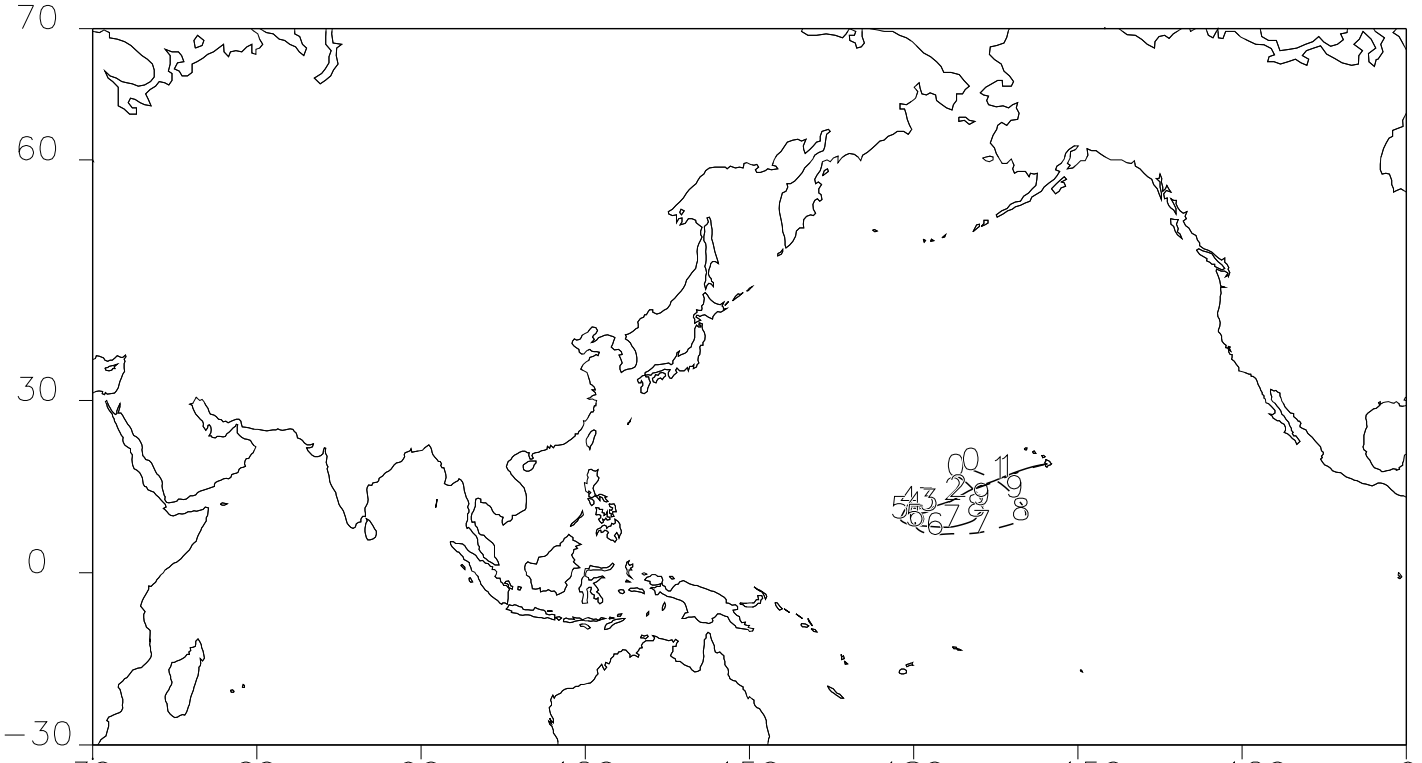
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 5.3 | 539 | −2 |
| 2 | 5.0 | 557 | 0 |
| 3 | 5.0 | 560 | 0 |
| 4 | 5.2 | 547 | −1 |
| 5 | 4.9 | 567 | 0 |
| 6 | 4.5 | 597 | 3 |
| 7 | 4.0 | 631 | 7 |
| 8 | 3.8 | 648 | 8 |
| 9 | 4.1 | 622 | 7 |
| 10 | 3.9 | 637 | 8 |

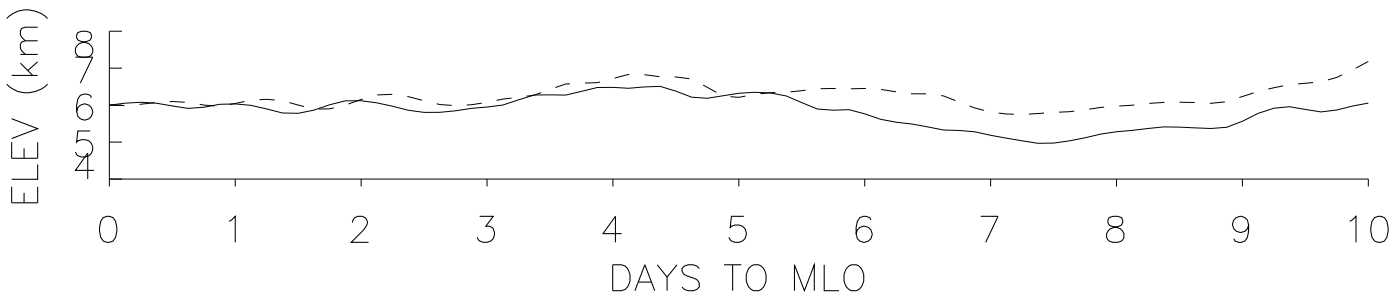
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 5.6 | 516 | −4 |
| 2 | 5.5 | 523 | −2 |
| 3 | 5.6 | 518 | −3 |
| 4 | 6.0 | 493 | −7 |
| 5 | 5.6 | 517 | −4 |
| 6 | 5.1 | 552 | 0 |
| 7 | 5.0 | 559 | −1 |
| 8 | 5.1 | 549 | −2 |
| 9 | 5.8 | 500 | −7 |
| 10 | 6.5 | 457 | −14 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/20/2004 (Day of Year 141)
NCEP/NCAR Reanalysis 1 Data Set




12UT

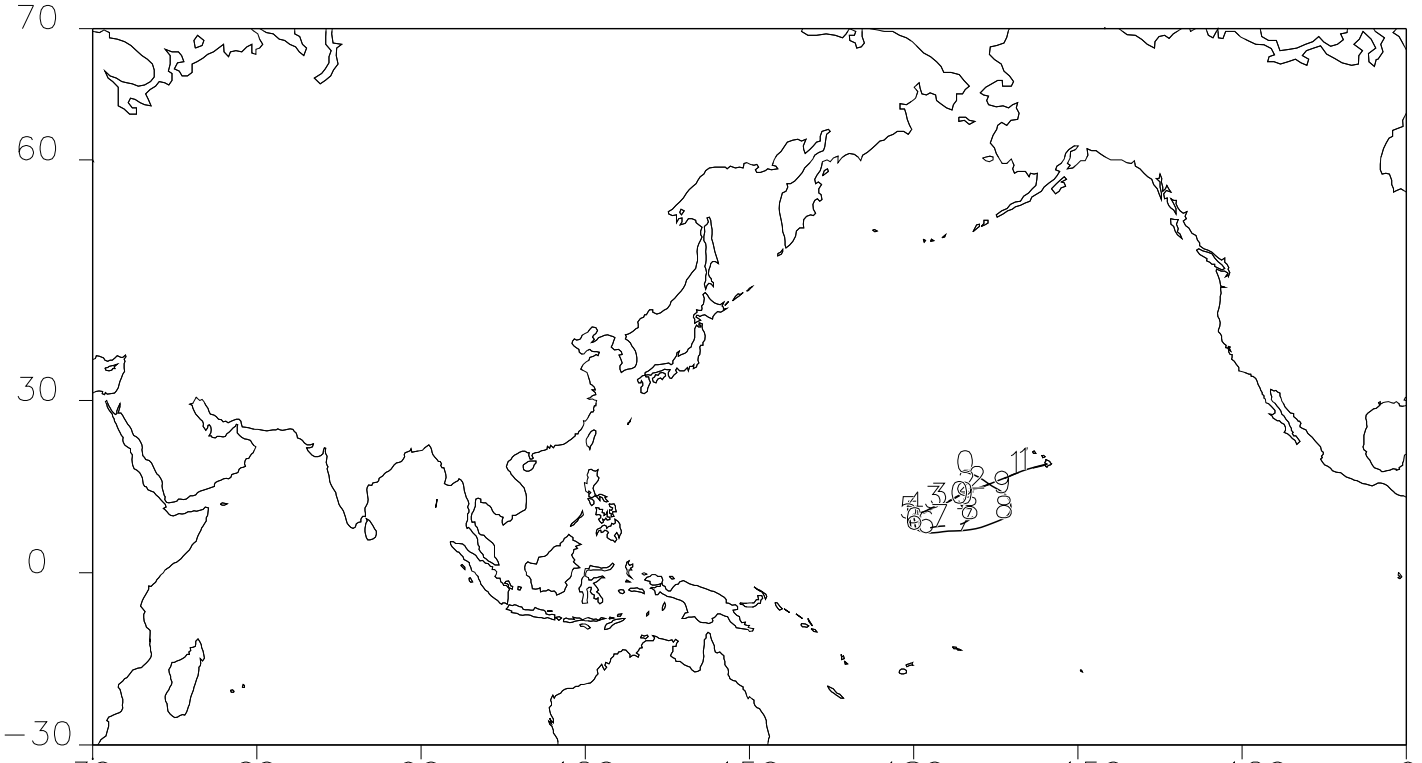
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −8 |
| 1 | 6.0 | 489 | −7 |
| 2 | 6.1 | 485 | −7 |
| 3 | 5.9 | 496 | −6 |
| 4 | 6.5 | 464 | −9 |
| 5 | 6.3 | 473 | −7 |
| 6 | 5.8 | 507 | −4 |
| 7 | 5.2 | 545 | 0 |
| 8 | 5.3 | 538 | −2 |
| 9 | 5.6 | 519 | −4 |
| 10 | 6.1 | 488 | −7 |

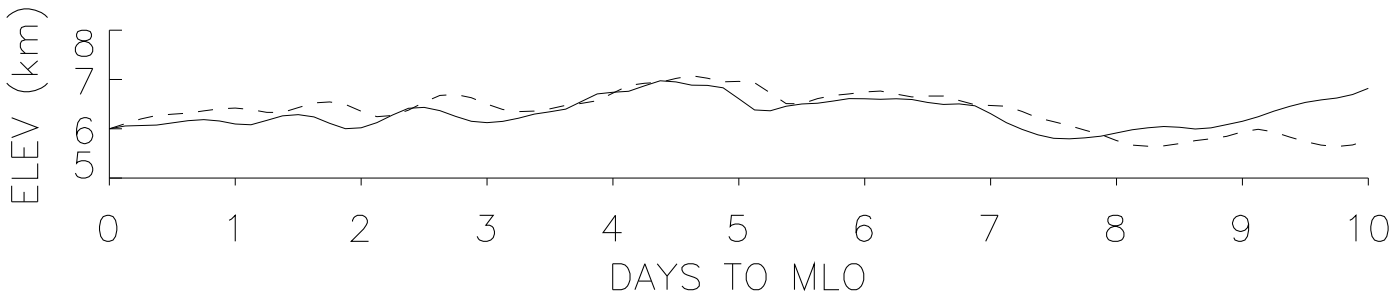
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −8 |
| 1 | 6.0 | 488 | −8 |
| 2 | 6.2 | 483 | −7 |
| 3 | 6.1 | 487 | −7 |
| 4 | 6.7 | 449 | −11 |
| 5 | 6.2 | 479 | −7 |
| 6 | 6.4 | 464 | −8 |
| 7 | 5.8 | 504 | −3 |
| 8 | 6.0 | 493 | −6 |
| 9 | 6.2 | 476 | −7 |
| 10 | 7.2 | 420 | −14 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/21/2004 (Day of Year 142)
NCEP/NCAR Reanalysis 1 Data Set



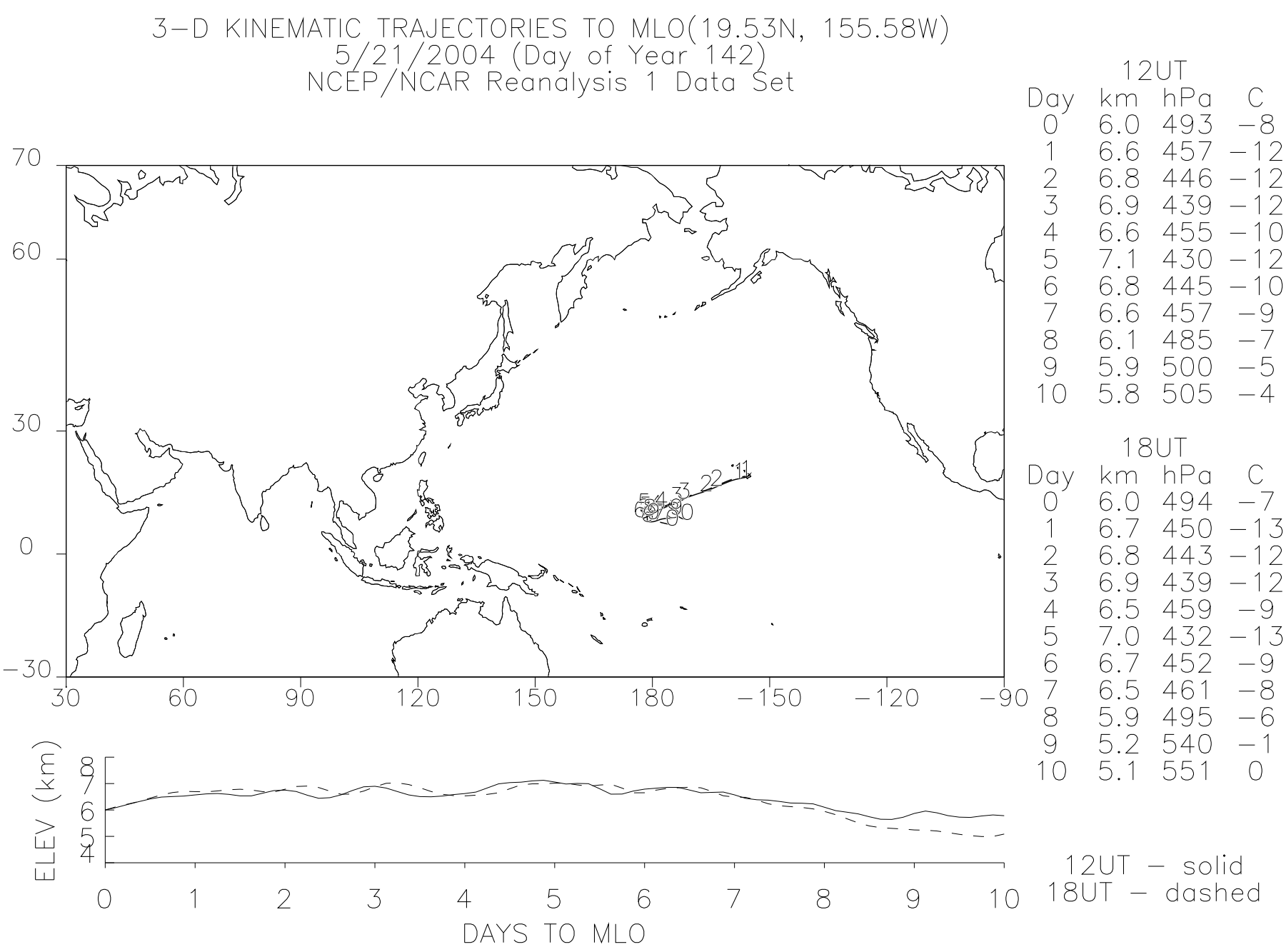

00UT

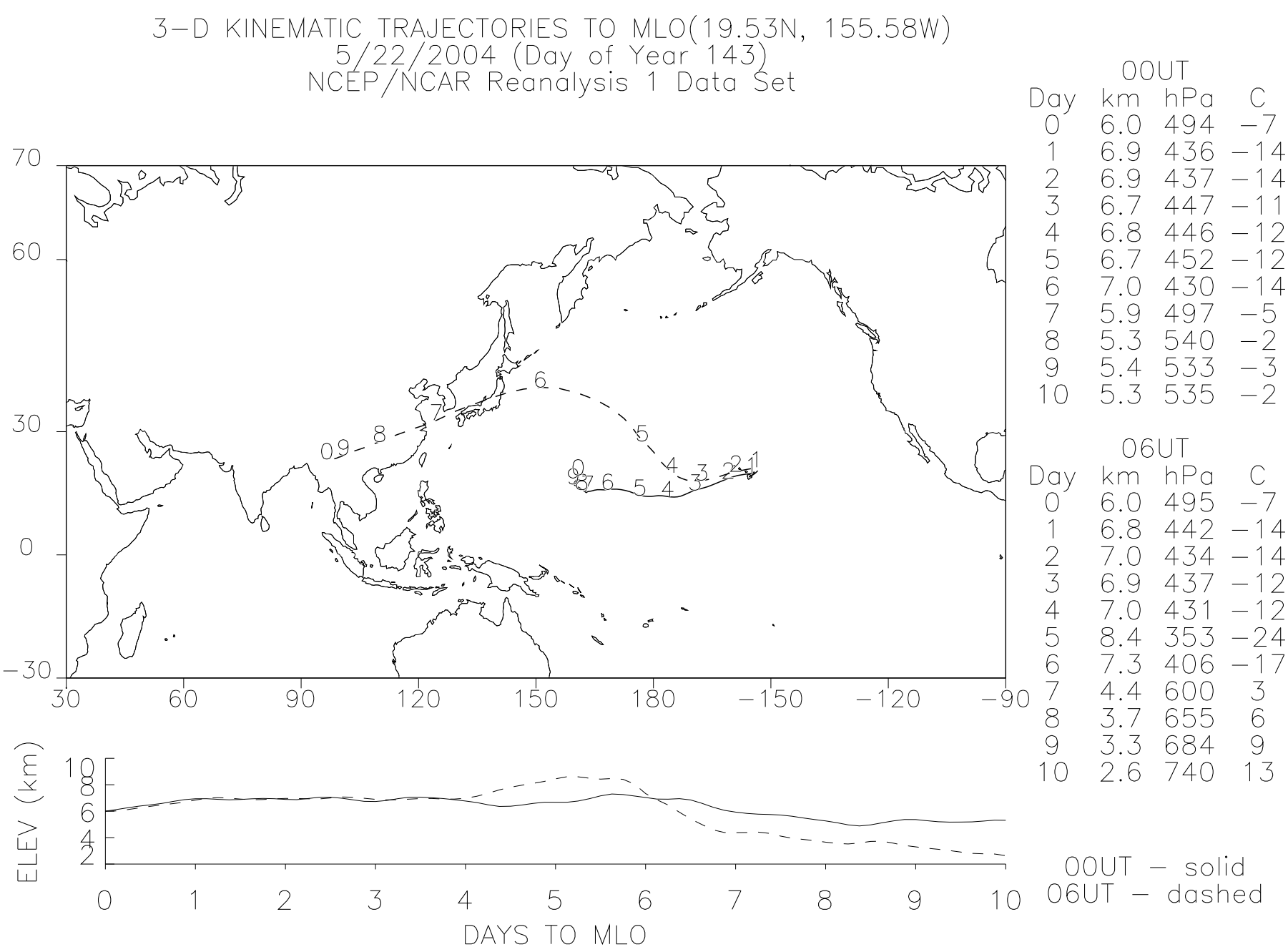
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −7 |
| 1 | 6.1 | 485 | −8 |
| 2 | 6.0 | 491 | −6 |
| 3 | 6.1 | 485 | −7 |
| 4 | 6.7 | 448 | −11 |
| 5 | 6.6 | 456 | −9 |
| 6 | 6.6 | 455 | −9 |
| 7 | 6.3 | 473 | −6 |
| 8 | 5.9 | 497 | −5 |
| 9 | 6.2 | 481 | −6 |
| 10 | 6.8 | 440 | −11 |

06UT

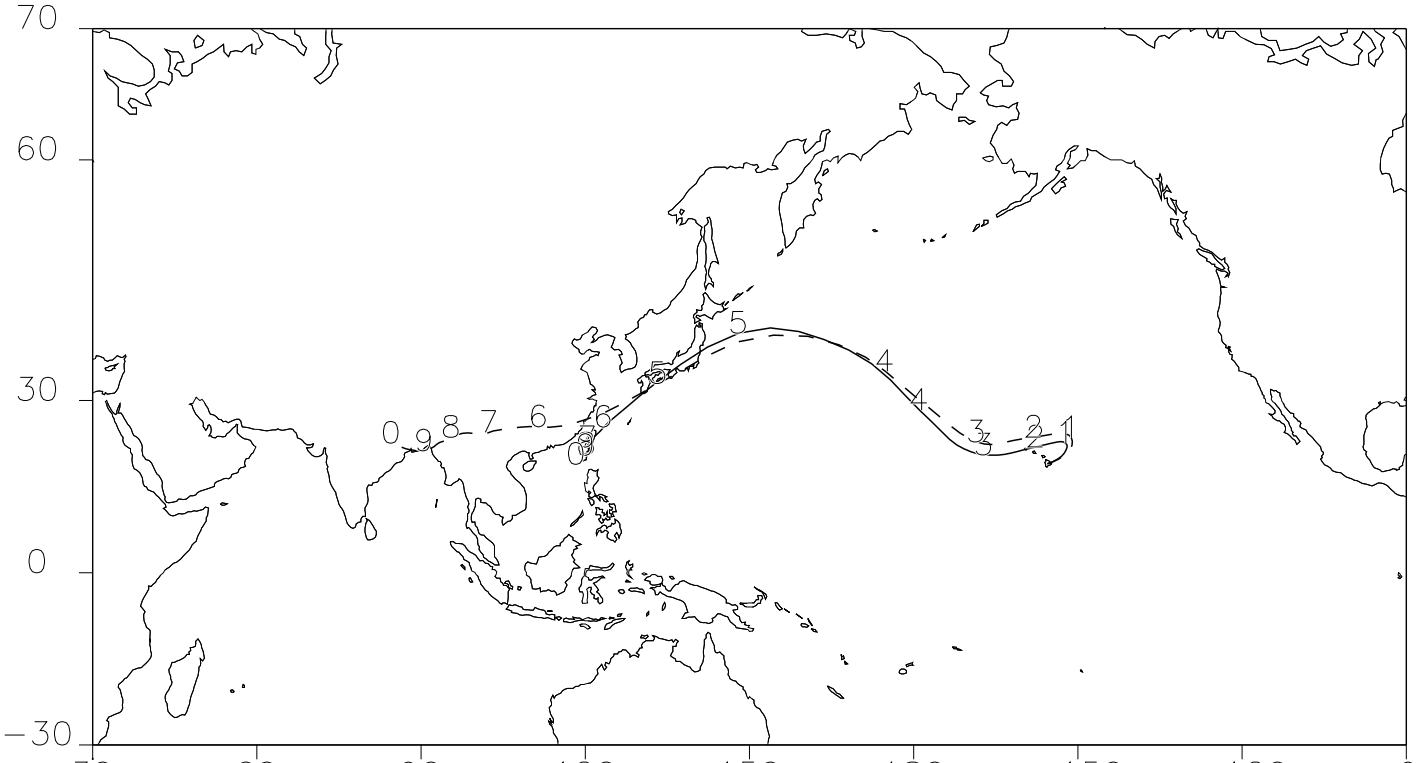
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −8 |
| 1 | 6.4 | 466 | −10 |
| 2 | 6.4 | 469 | −9 |
| 3 | 6.5 | 462 | −9 |
| 4 | 6.7 | 449 | −10 |
| 5 | 7.0 | 435 | −12 |
| 6 | 6.7 | 446 | −10 |
| 7 | 6.5 | 463 | −8 |
| 8 | 5.8 | 507 | −4 |
| 9 | 5.9 | 495 | −6 |
| 10 | 5.8 | 505 | −4 |

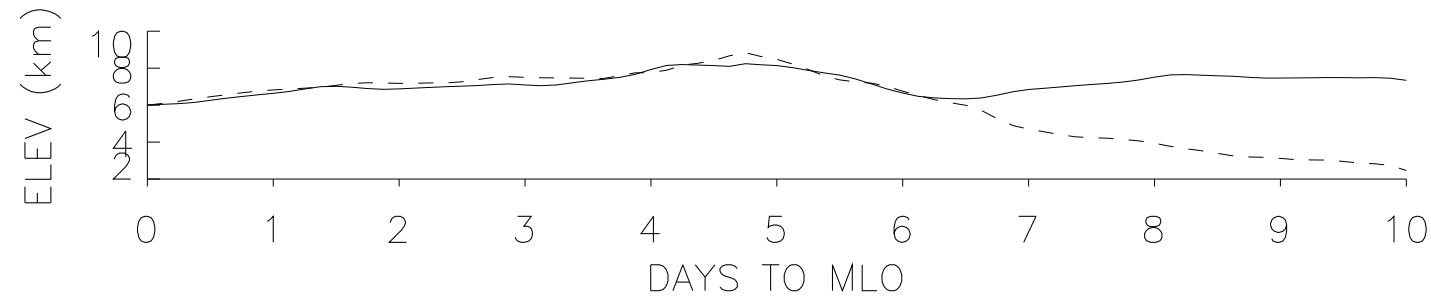
00UT − solid
06UT − dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/21/2004 (Day of Year 142)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
8
7
6
5
4
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 6.0 493 -8
1 6.6 457 -12
2 6.8 446 -12
3 6.9 439 -12
4 6.6 455 -10
5 7.1 430 -12
6 6.8 445 -10
7 6.6 457 -9
8 6.1 485 -7
9 5.9 500 -5
10 5.8 505 -4
18UT
Day km hPa C
0 6.0 494 -7
1 6.7 450 -13
2 6.8 443 -12
3 6.9 439 -12
4 6.5 459 -9
5 7.0 432 -13
6 6.7 452 -9
7 6.5 461 -8
8 5.9 495 -6
9 5.2 540 -1
10 5.1 551 0
12UT - solid
18UT - dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/22/2004 (Day of Year 143)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
10
8
6
4
2
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
00UT
Day km hPa C
0 6.0 494 -7
1 6.9 436 -14
2 6.9 437 -14
3 6.7 447 -11
4 6.8 446 -12
5 6.7 452 -12
6 7.0 430 -14
7 5.9 497 -5
8 5.3 540 -2
9 5.4 533 -3
10 5.3 535 -2
06UT
Day km hPa C
0 6.0 495 -7
1 6.8 442 -14
2 7.0 434 -14
3 6.9 437 -12
4 7.0 431 -12
5 8.4 353 -24
6 7.3 406 -17
7 4.4 600 3
8 3.7 655 6
9 3.3 684 9
10 2.6 740 13
00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/22/2004 (Day of Year 143)
## NCEP/NCAR Reanalysis 1 Data Set



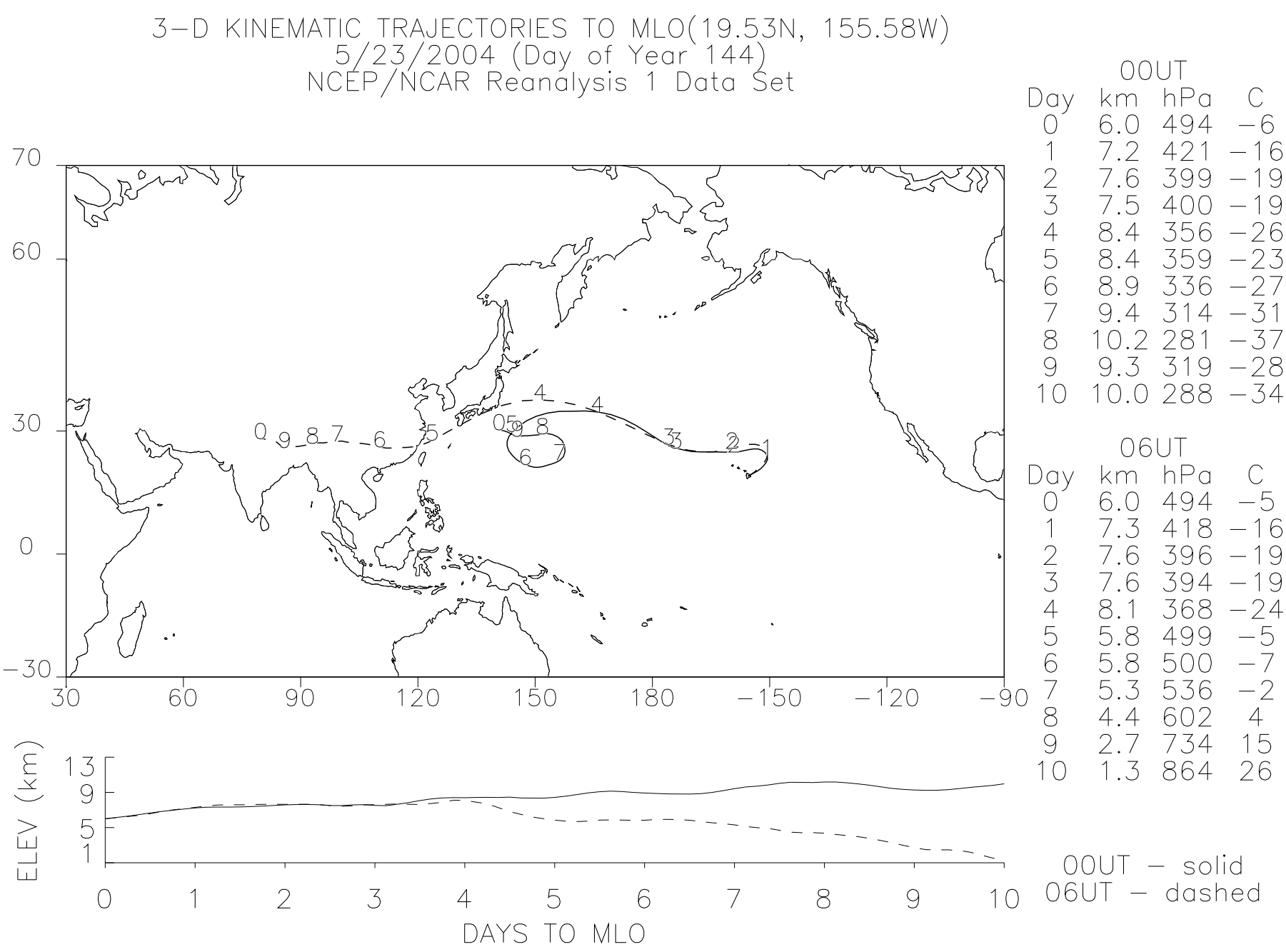

12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 494 | −7 |
| 1 | 6.6 | 454 | −12 |
| 2 | 6.9 | 438 | −14 |
| 3 | 7.1 | 424 | −14 |
| 4 | 7.9 | 378 | −20 |
| 5 | 8.1 | 363 | −22 |
| 6 | 6.7 | 452 | −9 |
| 7 | 6.8 | 443 | −10 |
| 8 | 7.5 | 405 | −14 |
| 9 | 7.5 | 407 | −14 |
| 10 | 7.3 | 413 | −14 |

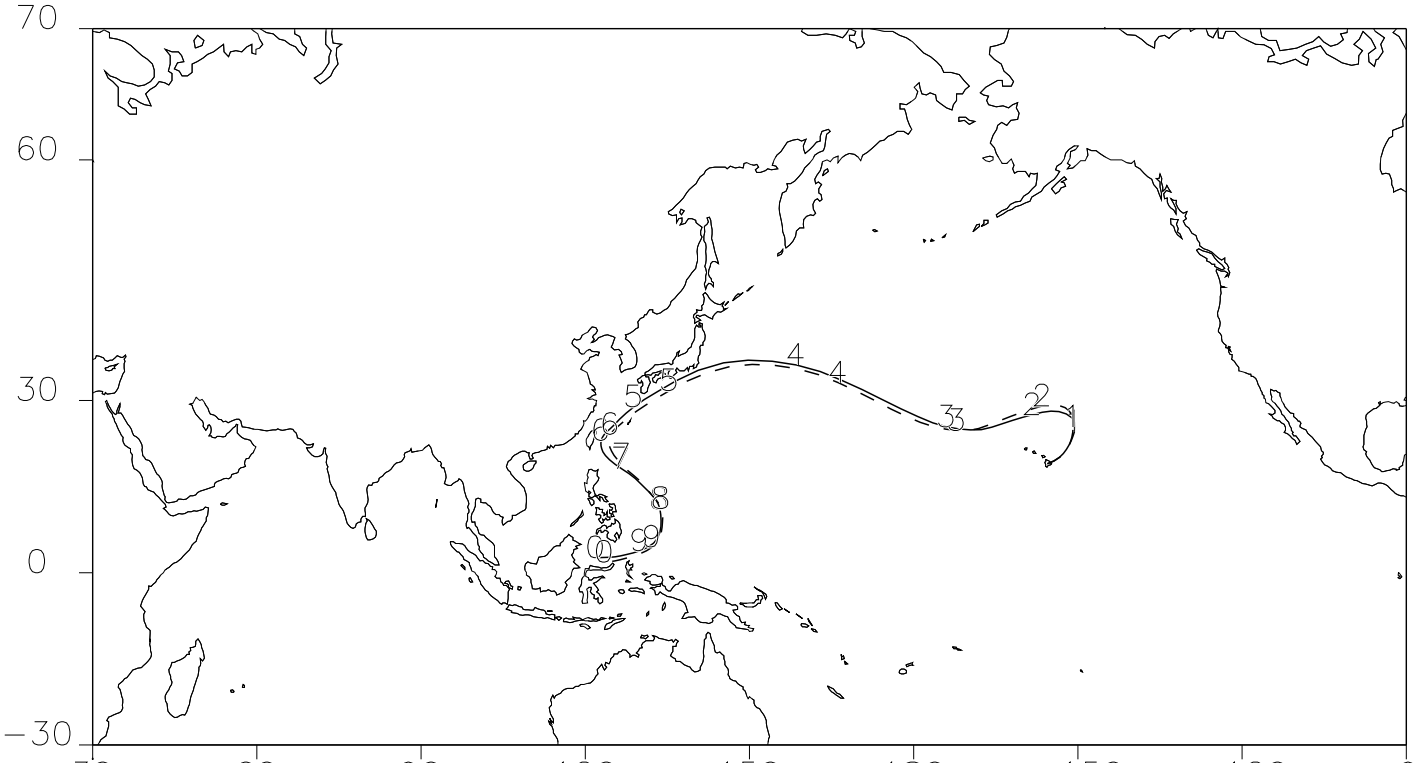
18UT

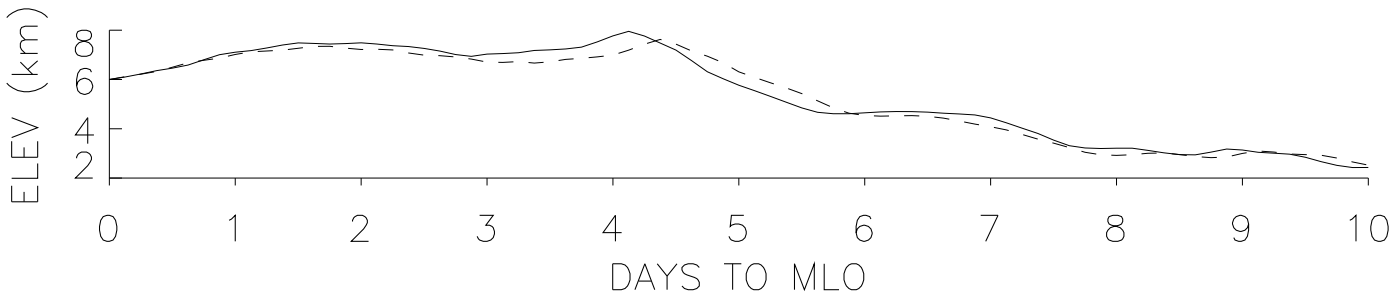
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 494 | −7 |
| 1 | 6.8 | 444 | −14 |
| 2 | 7.2 | 421 | −17 |
| 3 | 7.5 | 401 | −17 |
| 4 | 7.8 | 383 | −19 |
| 5 | 8.5 | 349 | −26 |
| 6 | 6.8 | 445 | −11 |
| 7 | 4.7 | 579 | 1 |
| 8 | 3.9 | 634 | 6 |
| 9 | 3.1 | 699 | 11 |
| 10 | 2.5 | 755 | 18 |

12UT – solid
18UT – dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/23/2004 (Day of Year 144)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
0 9 8 7 6 5 4 4 3 2 1
0 5 9 8 7 6
ELEV (km)
13
9
5
1
0 1 2 3 4 5 6 7 8 9 10
DAYS TO MLO
00UT
Day km hPa C
0 6.0 494 -6
1 7.2 421 -16
2 7.6 399 -19
3 7.5 400 -19
4 8.4 356 -26
5 8.4 359 -23
6 8.9 336 -27
7 9.4 314 -31
8 10.2 281 -37
9 9.3 319 -28
10 10.0 288 -34
06UT
Day km hPa C
0 6.0 494 -5
1 7.3 418 -16
2 7.6 396 -19
3 7.6 394 -19
4 8.1 368 -24
5 5.8 499 -5
6 5.8 500 -7
7 5.3 536 -2
8 4.4 602 4
9 2.7 734 15
10 1.3 864 26
00UT - solid
06UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/23/2004 (Day of Year 144)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

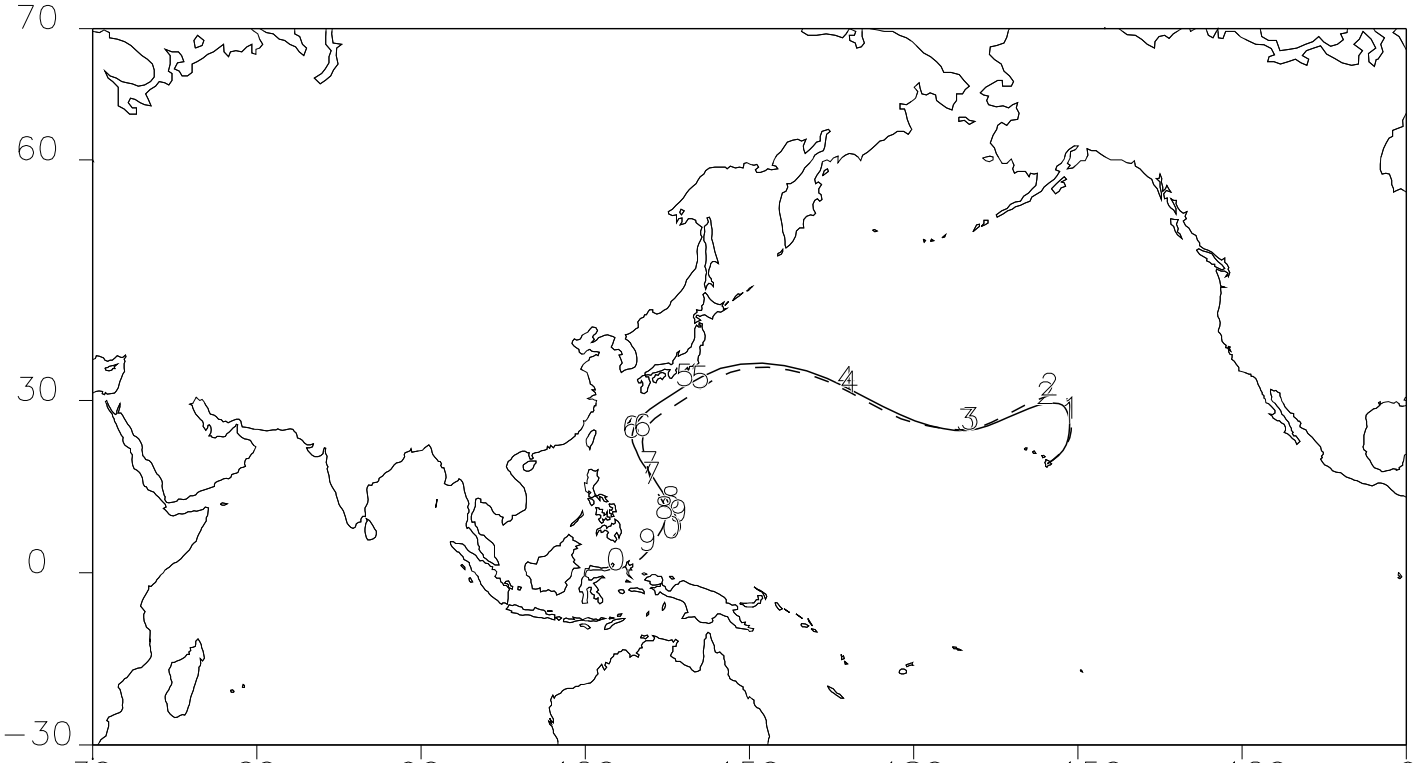
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −5 |
| 1 | 7.1 | 428 | −15 |
| 2 | 7.5 | 405 | −19 |
| 3 | 7.0 | 427 | −14 |
| 4 | 7.8 | 386 | −20 |
| 5 | 5.8 | 504 | −6 |
| 6 | 4.6 | 584 | 2 |
| 7 | 4.4 | 598 | 3 |
| 8 | 3.2 | 694 | 10 |
| 9 | 3.1 | 700 | 10 |
| 10 | 2.4 | 761 | 13 |

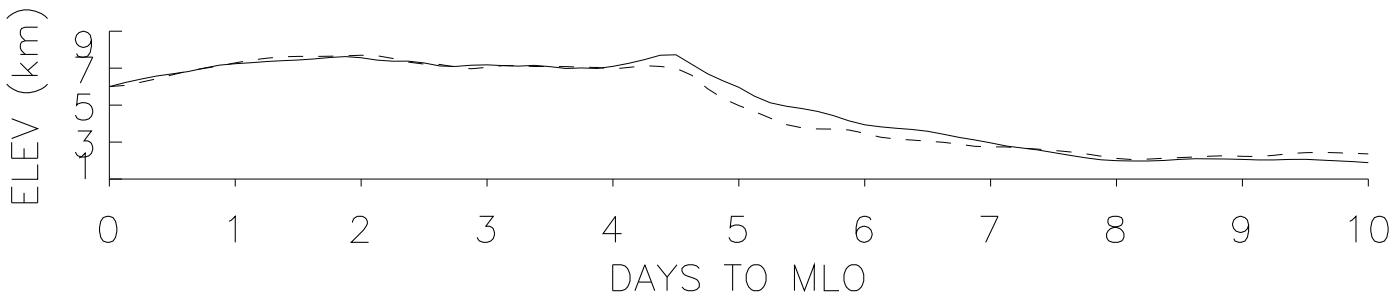
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 494 | −5 |
| 1 | 7.0 | 433 | −15 |
| 2 | 7.2 | 419 | −18 |
| 3 | 6.7 | 445 | −12 |
| 4 | 7.0 | 428 | −15 |
| 5 | 6.3 | 468 | −11 |
| 6 | 4.5 | 591 | 2 |
| 7 | 4.1 | 625 | 5 |
| 8 | 2.9 | 718 | 11 |
| 9 | 3.0 | 711 | 11 |
| 10 | 2.5 | 752 | 13 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/24/2004 (Day of Year 145)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

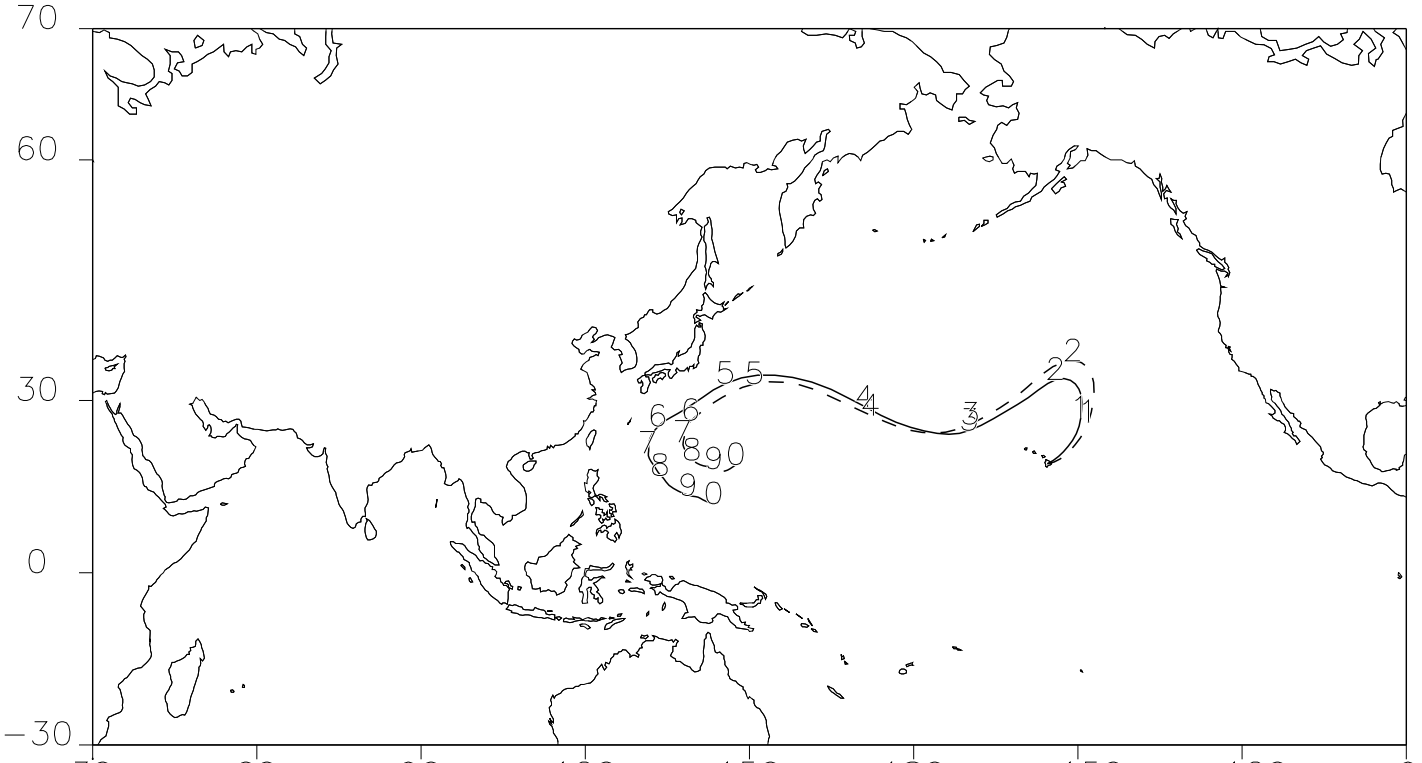
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −5 |
| 1 | 7.2 | 421 | −15 |
| 2 | 7.6 | 402 | −19 |
| 3 | 7.2 | 419 | −16 |
| 4 | 7.1 | 422 | −15 |
| 5 | 6.0 | 490 | −7 |
| 6 | 3.9 | 637 | 6 |
| 7 | 3.0 | 718 | 11 |
| 8 | 2.0 | 804 | 17 |
| 9 | 2.1 | 797 | 16 |
| 10 | 1.9 | 813 | 17 |

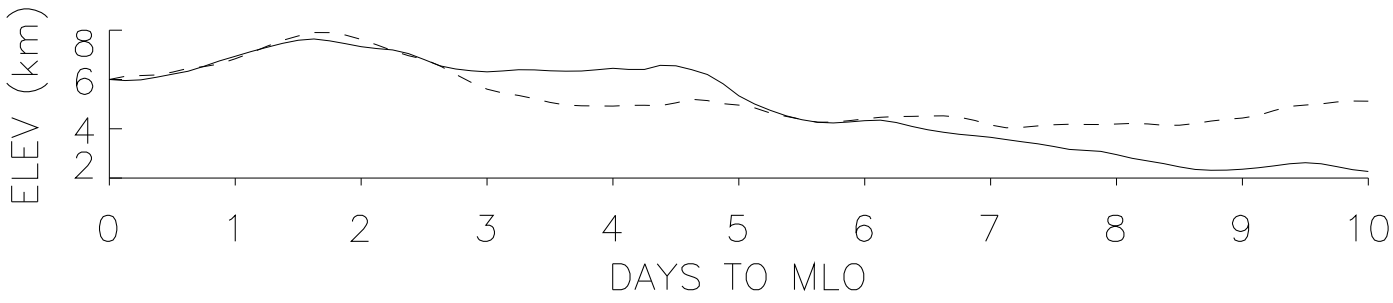
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −6 |
| 1 | 7.3 | 418 | −16 |
| 2 | 7.7 | 394 | −20 |
| 3 | 7.0 | 426 | −14 |
| 4 | 7.0 | 430 | −13 |
| 5 | 5.0 | 557 | −1 |
| 6 | 3.5 | 673 | 8 |
| 7 | 2.7 | 736 | 13 |
| 8 | 2.1 | 791 | 16 |
| 9 | 2.2 | 779 | 15 |
| 10 | 2.4 | 767 | 14 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/24/2004 (Day of Year 145)
NCEP/NCAR Reanalysis 1 Data Set




12UT

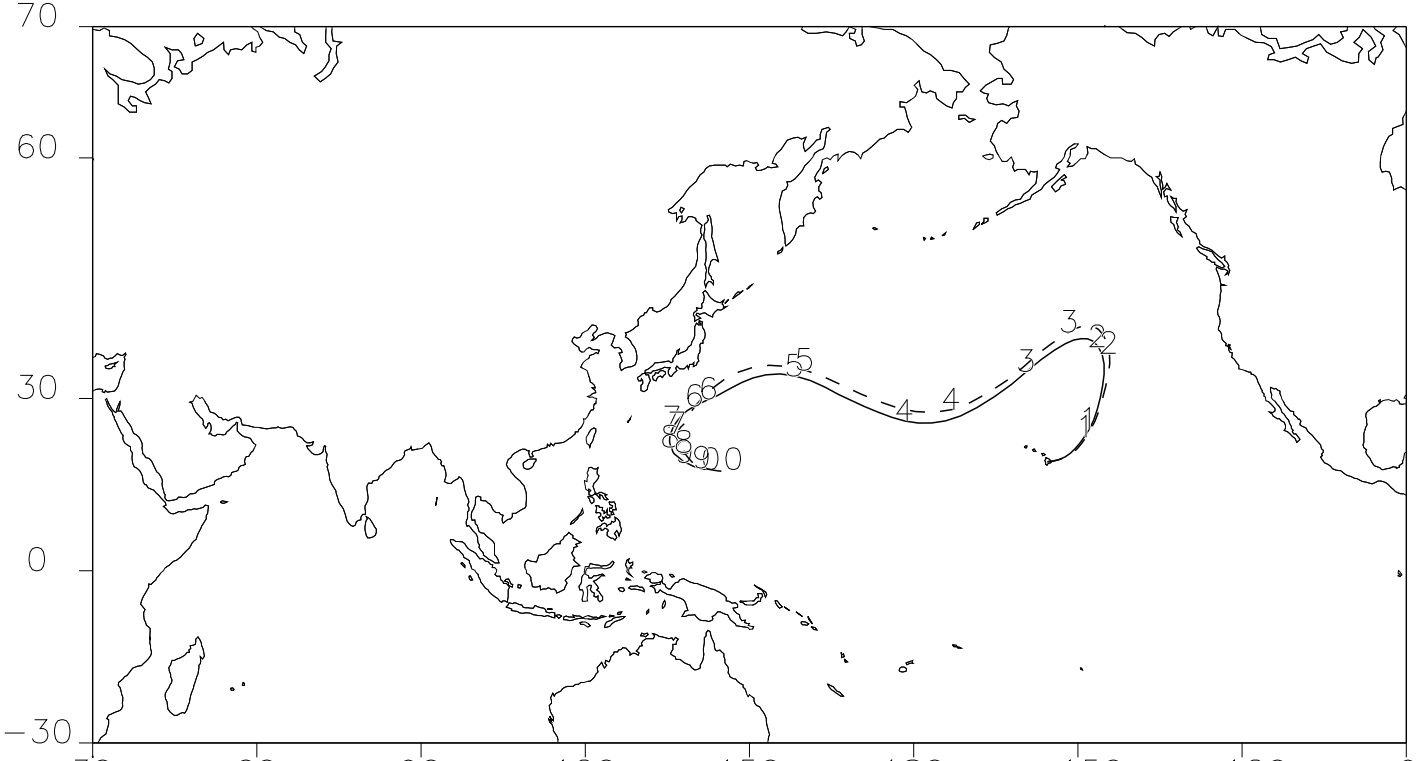
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −6 |
| 1 | 6.9 | 436 | −14 |
| 2 | 7.3 | 414 | −17 |
| 3 | 6.3 | 471 | −8 |
| 4 | 6.5 | 461 | −10 |
| 5 | 5.3 | 534 | −3 |
| 6 | 4.3 | 607 | 2 |
| 7 | 3.7 | 661 | 8 |
| 8 | 3.0 | 718 | 11 |
| 9 | 2.4 | 770 | 14 |
| 10 | 2.3 | 779 | 16 |

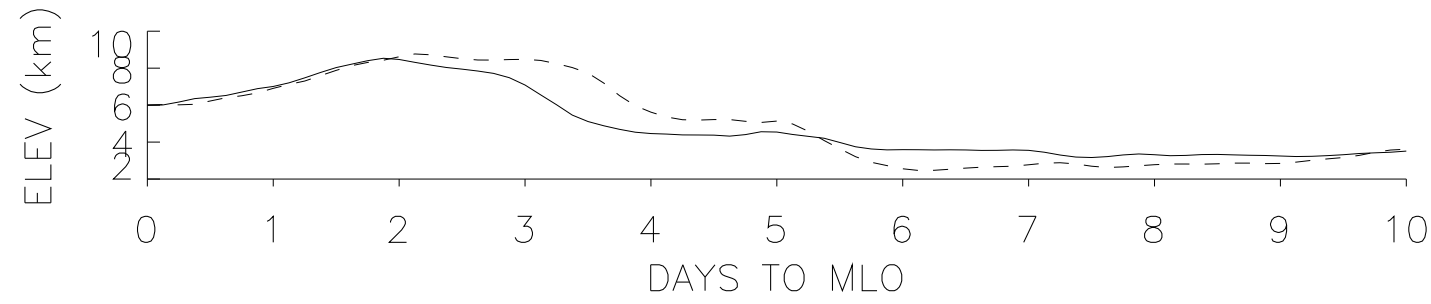
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −6 |
| 1 | 6.8 | 442 | −14 |
| 2 | 7.6 | 398 | −19 |
| 3 | 5.6 | 513 | −5 |
| 4 | 4.9 | 559 | −1 |
| 5 | 5.0 | 560 | −1 |
| 6 | 4.4 | 601 | 2 |
| 7 | 4.2 | 621 | 4 |
| 8 | 4.2 | 618 | 4 |
| 9 | 4.4 | 599 | 4 |
| 10 | 5.1 | 550 | −1 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/25/2004 (Day of Year 146)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

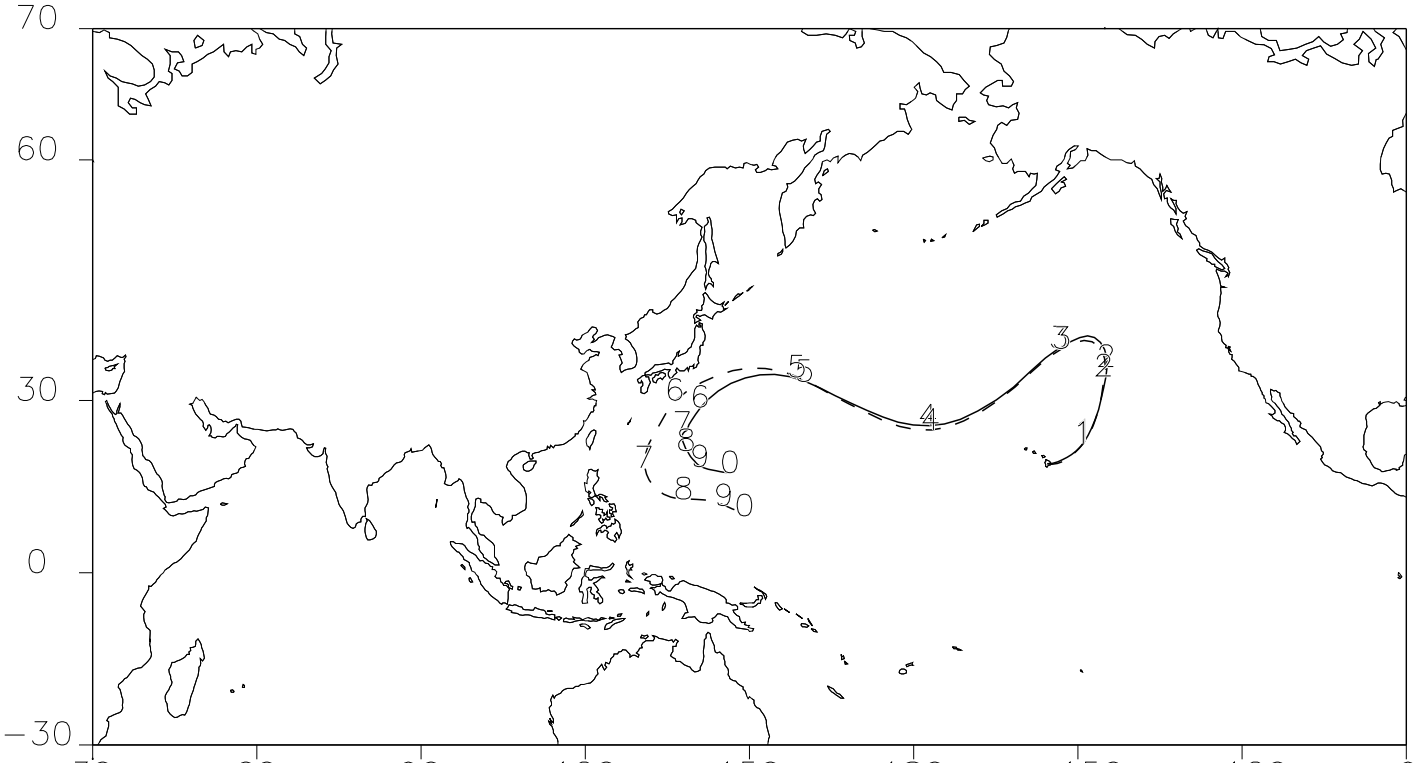
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | -5 |
| 1 | 7.0 | 431 | -15 |
| 2 | 8.5 | 354 | -27 |
| 3 | 7.1 | 422 | -17 |
| 4 | 4.5 | 592 | 0 |
| 5 | 4.5 | 589 | -1 |
| 6 | 3.6 | 664 | 6 |
| 7 | 3.6 | 670 | 7 |
| 8 | 3.3 | 689 | 8 |
| 9 | 3.2 | 694 | 10 |
| 10 | 3.5 | 673 | 8 |

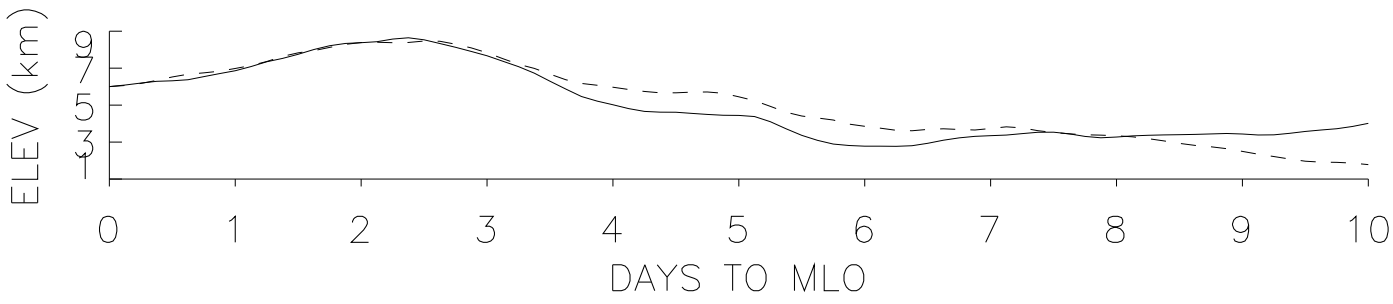
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | -5 |
| 1 | 6.9 | 438 | -13 |
| 2 | 8.6 | 346 | -28 |
| 3 | 8.5 | 351 | -26 |
| 4 | 5.6 | 507 | -8 |
| 5 | 5.1 | 543 | -4 |
| 6 | 2.6 | 751 | 13 |
| 7 | 2.8 | 734 | 12 |
| 8 | 2.8 | 736 | 12 |
| 9 | 2.8 | 726 | 12 |
| 10 | 3.6 | 663 | 7 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/25/2004 (Day of Year 146)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

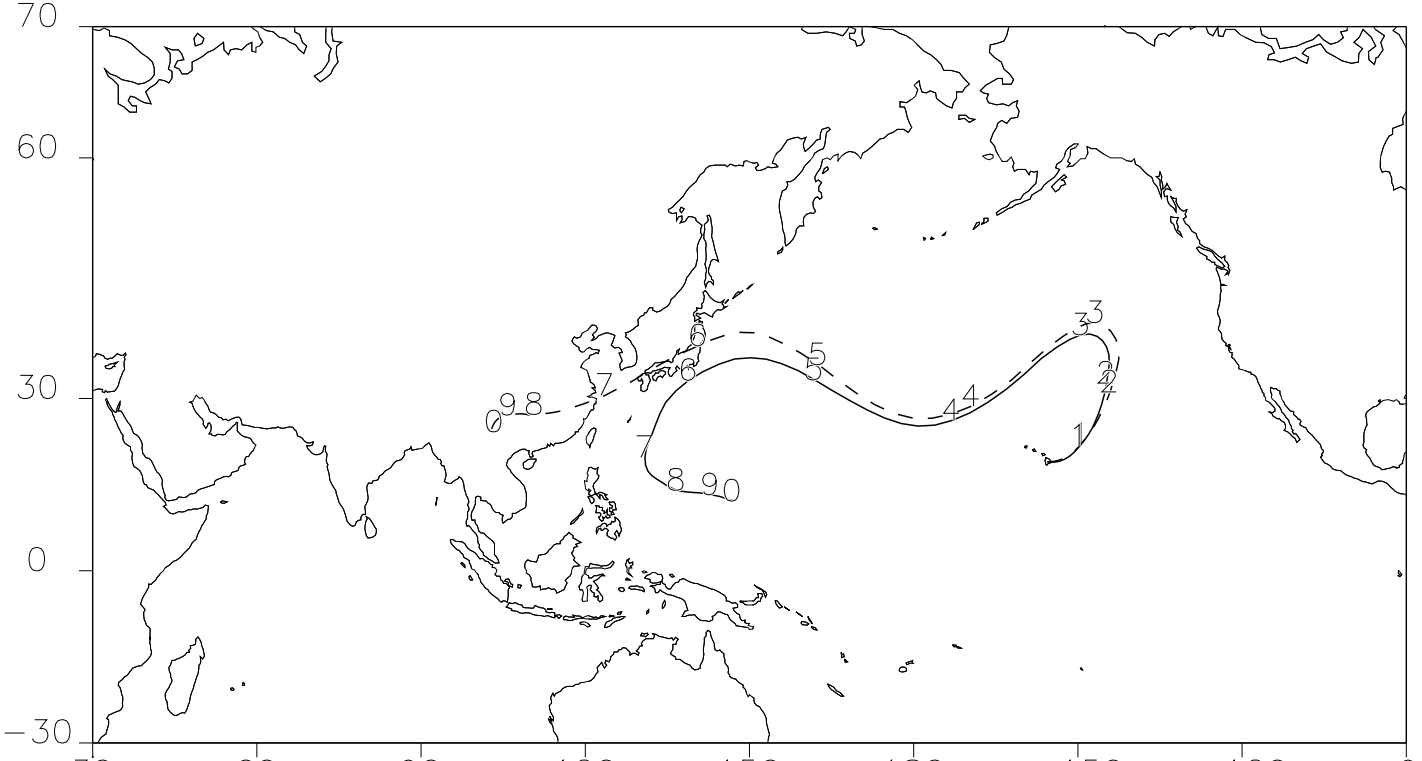
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −5 |
| 1 | 6.9 | 440 | −13 |
| 2 | 8.4 | 358 | −26 |
| 3 | 7.7 | 393 | −20 |
| 4 | 5.0 | 552 | −3 |
| 5 | 4.4 | 595 | 0 |
| 6 | 2.8 | 732 | 13 |
| 7 | 3.3 | 686 | 8 |
| 8 | 3.3 | 693 | 10 |
| 9 | 3.4 | 679 | 9 |
| 10 | 4.0 | 632 | 6 |

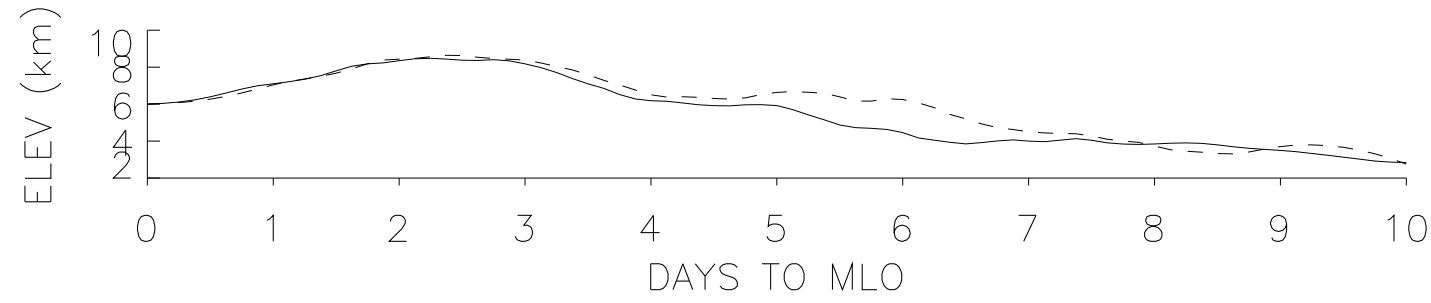
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −5 |
| 1 | 7.0 | 433 | −14 |
| 2 | 8.4 | 358 | −26 |
| 3 | 7.8 | 385 | −21 |
| 4 | 6.0 | 490 | −7 |
| 5 | 5.4 | 522 | −4 |
| 6 | 3.9 | 639 | 6 |
| 7 | 3.7 | 651 | 6 |
| 8 | 3.3 | 685 | 9 |
| 9 | 2.5 | 757 | 13 |
| 10 | 1.8 | 822 | 17 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/26/2004 (Day of Year 147)
NCEP/NCAR Reanalysis 1 Data Set




00UT

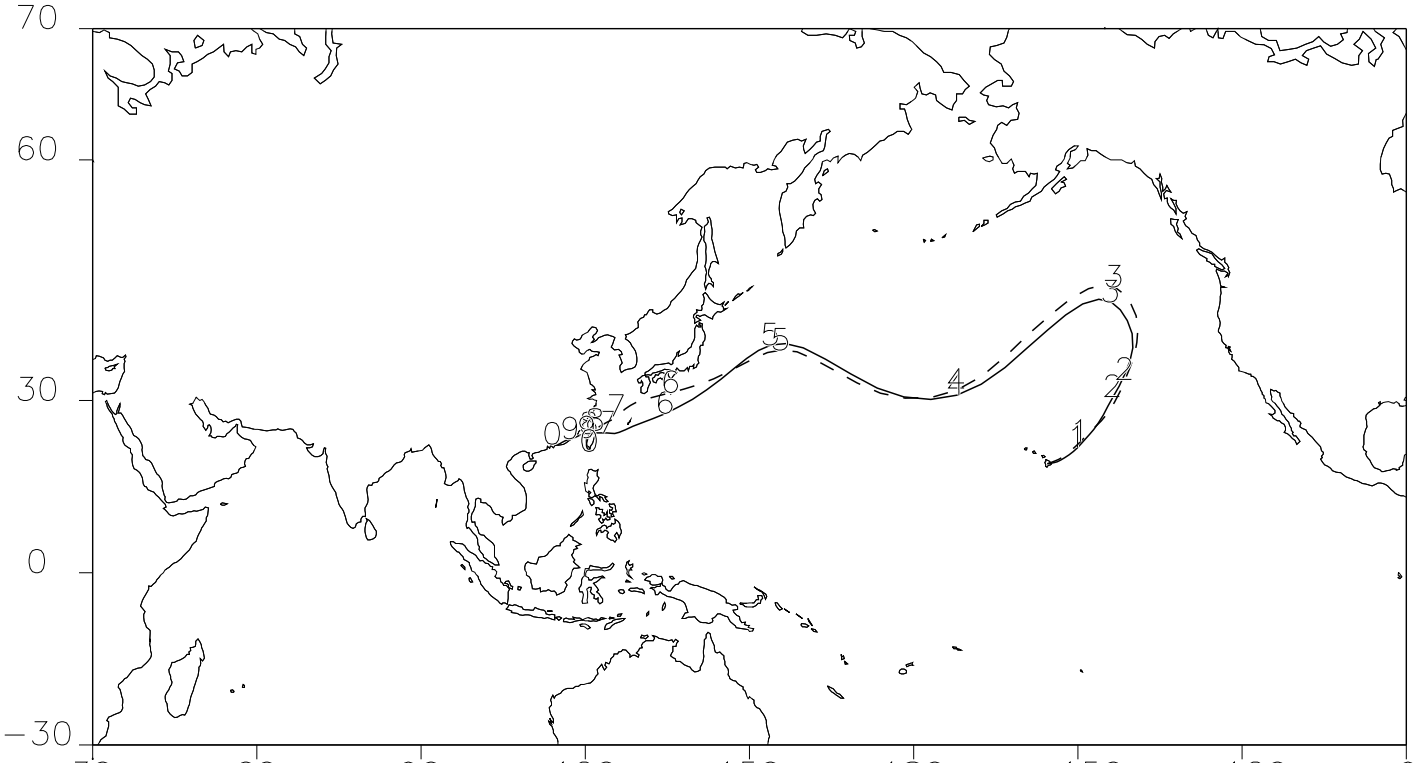
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −6 |
| 1 | 7.1 | 427 | −14 |
| 2 | 8.4 | 359 | −25 |
| 3 | 8.2 | 369 | −24 |
| 4 | 6.2 | 476 | −10 |
| 5 | 5.9 | 492 | −8 |
| 6 | 4.5 | 592 | 1 |
| 7 | 4.0 | 631 | 5 |
| 8 | 3.8 | 646 | 7 |
| 9 | 3.5 | 674 | 8 |
| 10 | 2.8 | 728 | 12 |

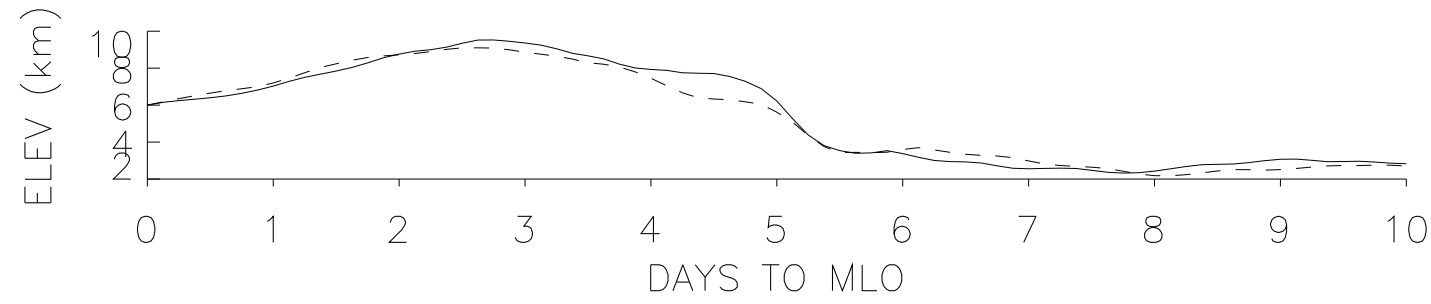
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −7 |
| 1 | 7.0 | 430 | −14 |
| 2 | 8.4 | 355 | −26 |
| 3 | 8.4 | 357 | −26 |
| 4 | 6.5 | 454 | −12 |
| 5 | 6.6 | 445 | −14 |
| 6 | 6.3 | 465 | −11 |
| 7 | 4.5 | 583 | −2 |
| 8 | 3.7 | 648 | 4 |
| 9 | 3.7 | 653 | 4 |
| 10 | 2.8 | 734 | 11 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/26/2004 (Day of Year 147)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

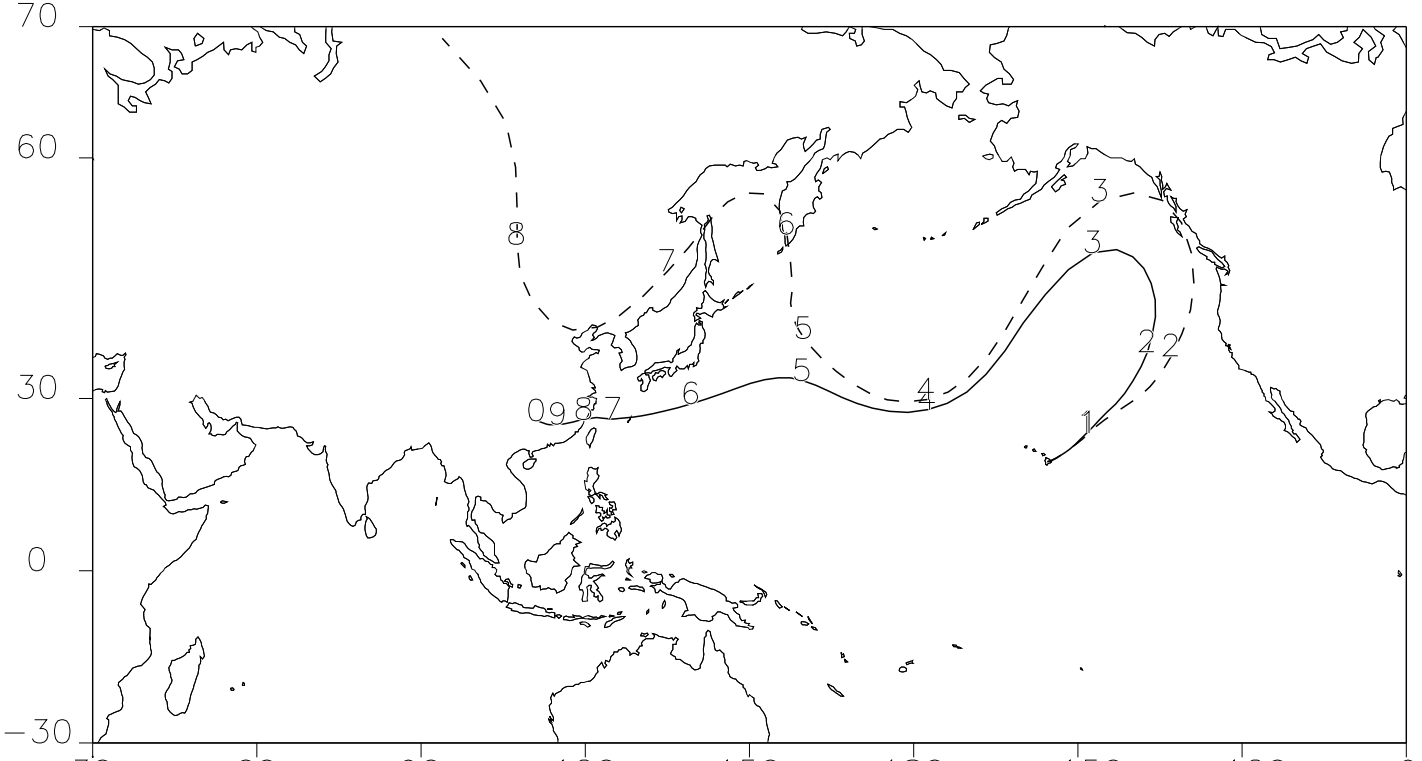
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 7.0 | 430 | −14 |
| 2 | 8.8 | 339 | −29 |
| 3 | 9.4 | 309 | −34 |
| 4 | 7.9 | 371 | −22 |
| 5 | 6.2 | 470 | −9 |
| 6 | 3.4 | 673 | 9 |
| 7 | 2.6 | 744 | 13 |
| 8 | 2.4 | 759 | 13 |
| 9 | 3.1 | 705 | 10 |
| 10 | 2.8 | 726 | 11 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 494 | −6 |
| 1 | 7.2 | 422 | −15 |
| 2 | 8.7 | 341 | −29 |
| 3 | 8.9 | 332 | −31 |
| 4 | 7.5 | 394 | −20 |
| 5 | 5.6 | 507 | −6 |
| 6 | 3.6 | 649 | 6 |
| 7 | 3.0 | 705 | 9 |
| 8 | 2.2 | 780 | 14 |
| 9 | 2.5 | 754 | 13 |
| 10 | 2.7 | 738 | 13 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/27/2004 (Day of Year 148)
## NCEP/NCAR Reanalysis 1 Data Set

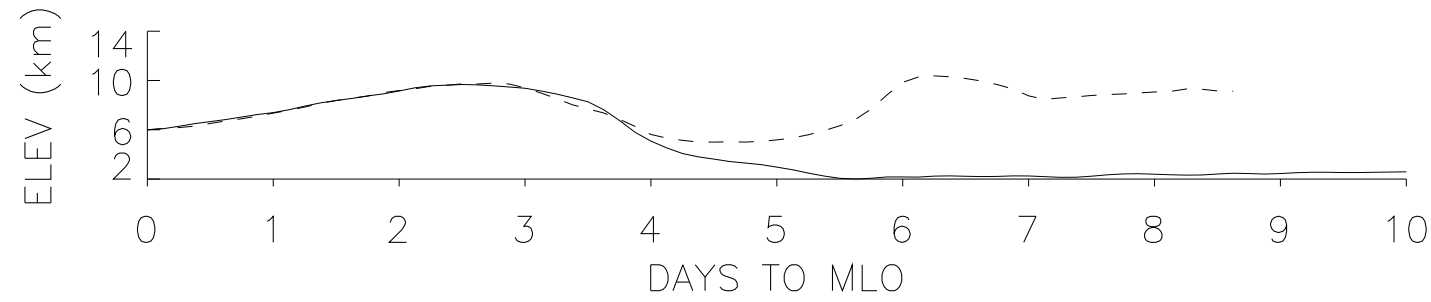



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | -6 |
| 1 | 7.4 | 410 | -18 |
| 2 | 9.1 | 320 | -33 |
| 3 | 9.4 | 306 | -34 |
| 4 | 5.1 | 544 | -4 |
| 5 | 3.0 | 709 | 8 |
| 6 | 2.2 | 779 | 14 |
| 7 | 2.3 | 770 | 12 |
| 8 | 2.4 | 760 | 10 |
| 9 | 2.4 | 760 | 12 |
| 10 | 2.6 | 748 | 9 |

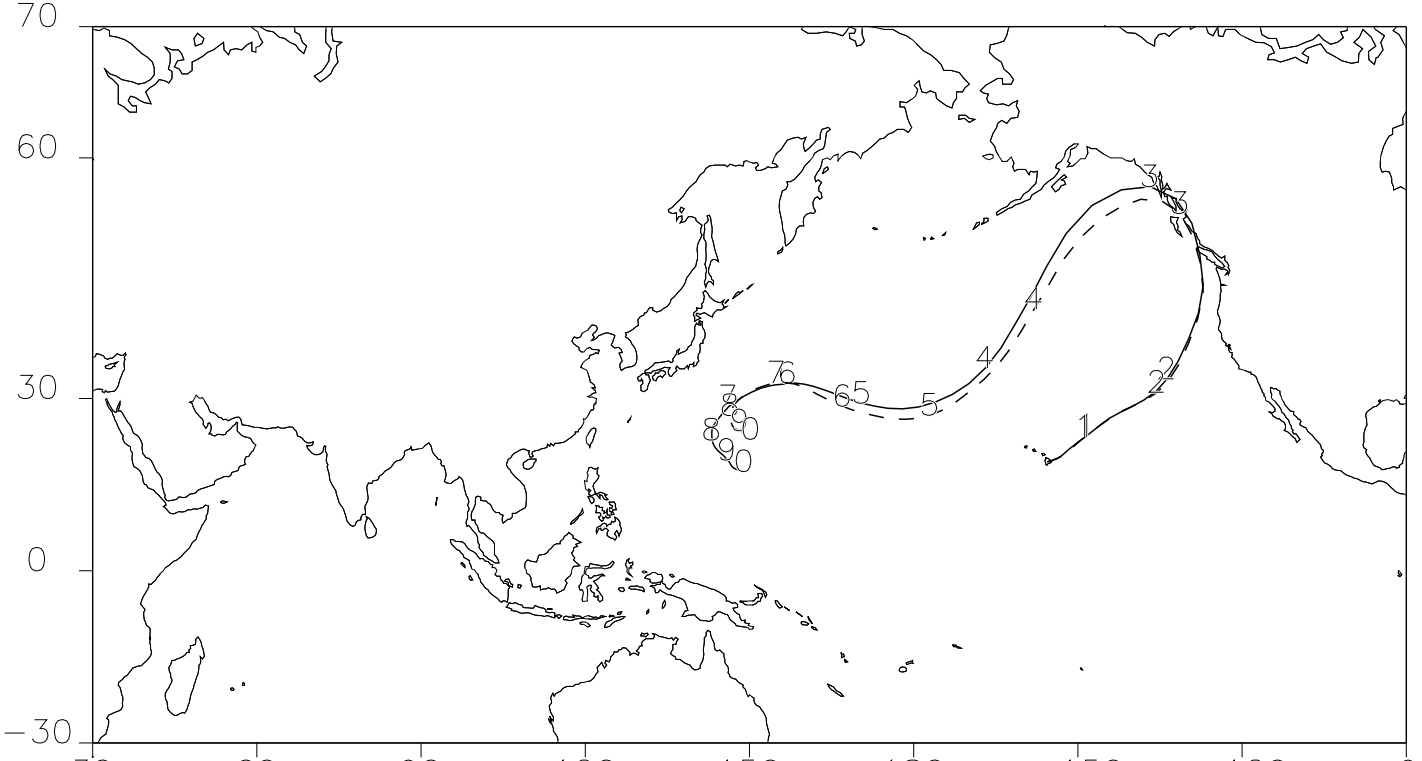
06UT

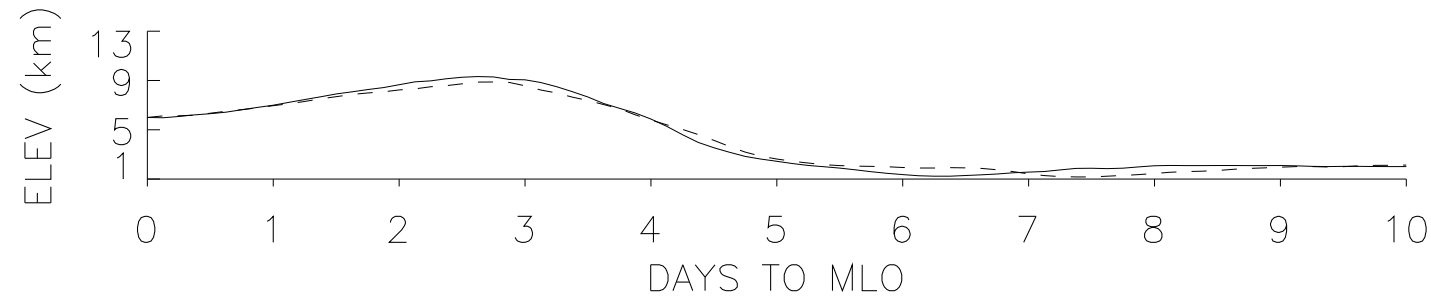
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | -6 |
| 1 | 7.4 | 412 | -19 |
| 2 | 9.2 | 316 | -35 |
| 3 | 9.4 | 299 | -38 |
| 4 | 5.6 | 503 | -12 |
| 5 | 5.2 | 534 | -7 |
| 6 | 9.8 | 277 | -51 |
| 7 | 8.8 | 314 | -43 |
| 8 | 9.1 | 301 | -47 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/27/2004 (Day of Year 148)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

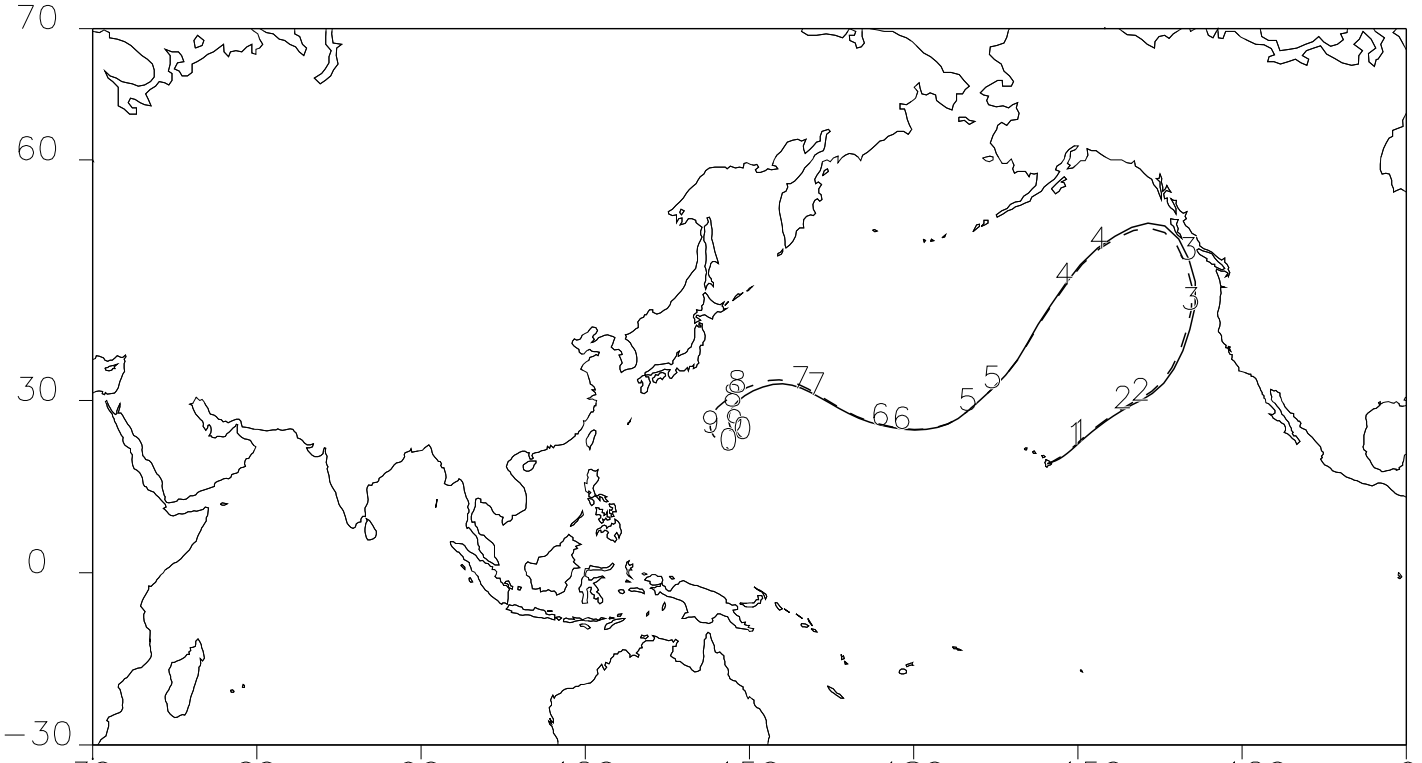
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −7 |
| 1 | 7.0 | 432 | −16 |
| 2 | 8.7 | 341 | −31 |
| 3 | 9.1 | 316 | −35 |
| 4 | 5.9 | 488 | −13 |
| 5 | 2.4 | 754 | 9 |
| 6 | 1.4 | 862 | 16 |
| 7 | 1.6 | 846 | 20 |
| 8 | 2.1 | 798 | 15 |
| 9 | 2.1 | 797 | 15 |
| 10 | 2.0 | 805 | 16 |

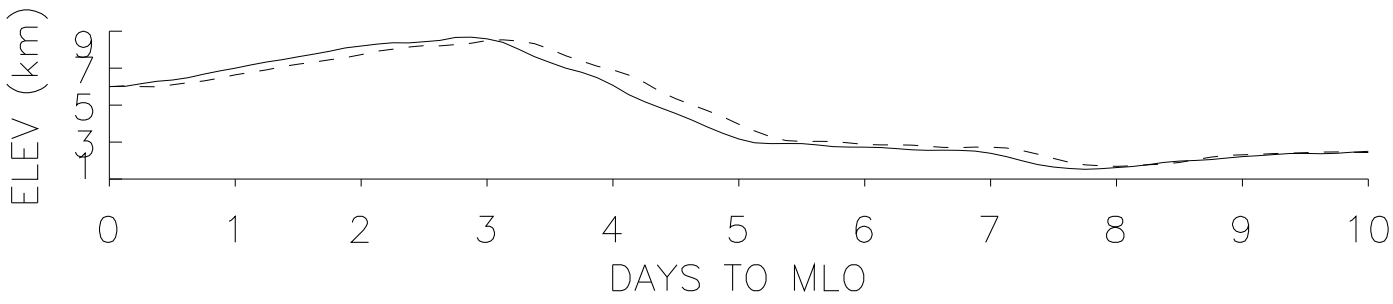
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −5 |
| 1 | 7.0 | 435 | −15 |
| 2 | 8.2 | 364 | −27 |
| 3 | 8.6 | 341 | −31 |
| 4 | 5.8 | 494 | −12 |
| 5 | 2.6 | 738 | 8 |
| 6 | 1.9 | 804 | 13 |
| 7 | 1.4 | 856 | 16 |
| 8 | 1.5 | 857 | 19 |
| 9 | 2.0 | 809 | 15 |
| 10 | 2.1 | 793 | 14 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/28/2004 (Day of Year 149)
## NCEP/NCAR Reanalysis 1 Data Set




00UT – solid
06UT – dashed

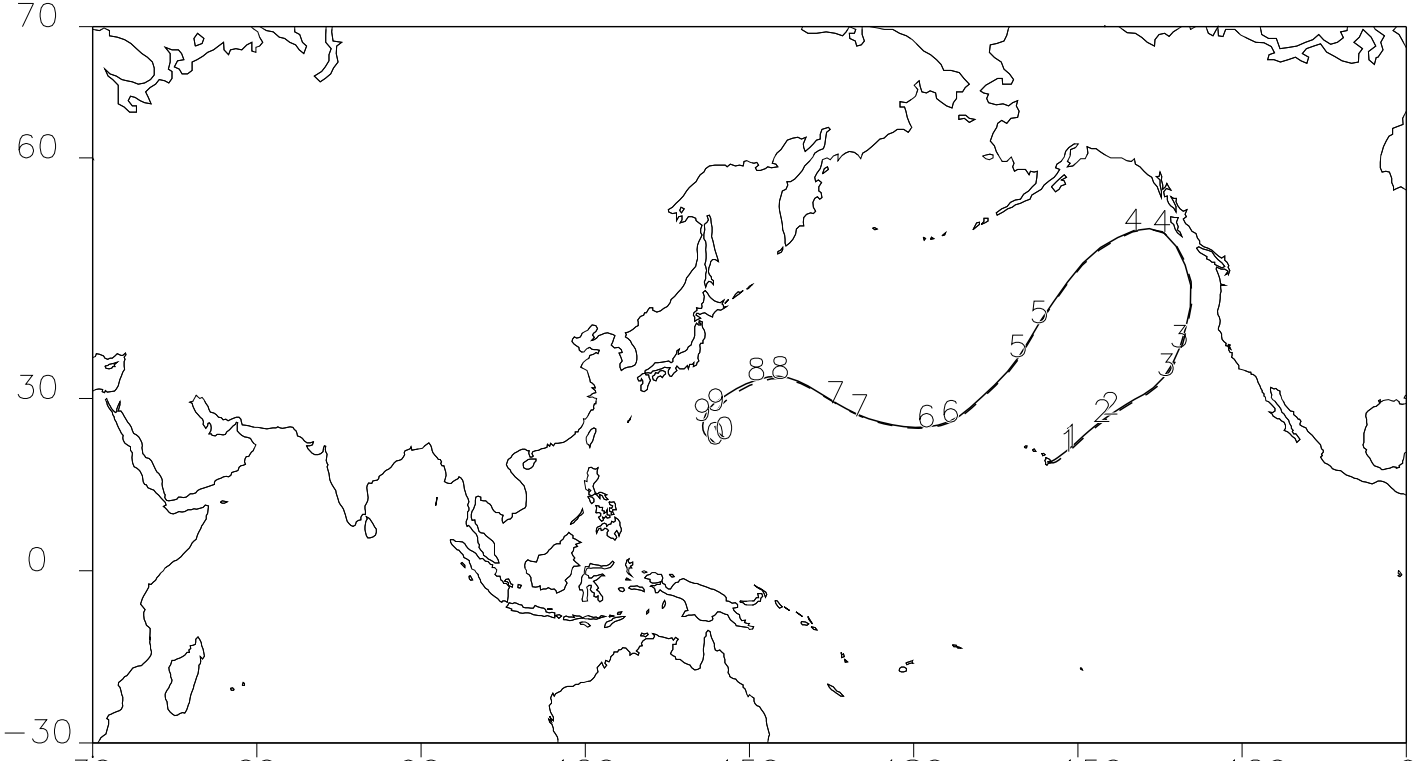
00UT

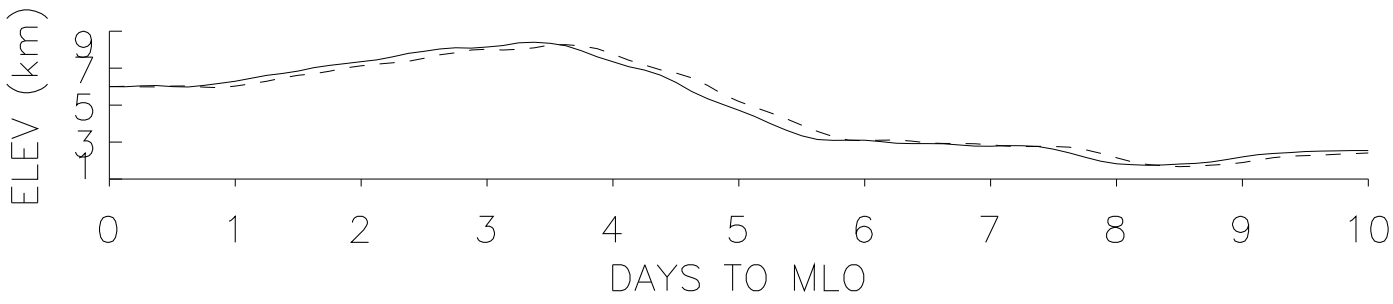
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −6 |
| 1 | 7.0 | 432 | −15 |
| 2 | 8.2 | 366 | −26 |
| 3 | 8.6 | 342 | −31 |
| 4 | 6.1 | 479 | −12 |
| 5 | 3.2 | 696 | 6 |
| 6 | 2.7 | 734 | 10 |
| 7 | 2.4 | 763 | 11 |
| 8 | 1.6 | 841 | 19 |
| 9 | 2.2 | 787 | 15 |
| 10 | 2.5 | 761 | 13 |

06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −7 |
| 1 | 6.6 | 454 | −12 |
| 2 | 7.7 | 392 | −20 |
| 3 | 8.5 | 347 | −30 |
| 4 | 6.9 | 429 | −18 |
| 5 | 4.0 | 628 | 2 |
| 6 | 2.9 | 720 | 9 |
| 7 | 2.7 | 732 | 10 |
| 8 | 1.7 | 831 | 19 |
| 9 | 2.3 | 775 | 15 |
| 10 | 2.4 | 764 | 14 |

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/28/2004 (Day of Year 149)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

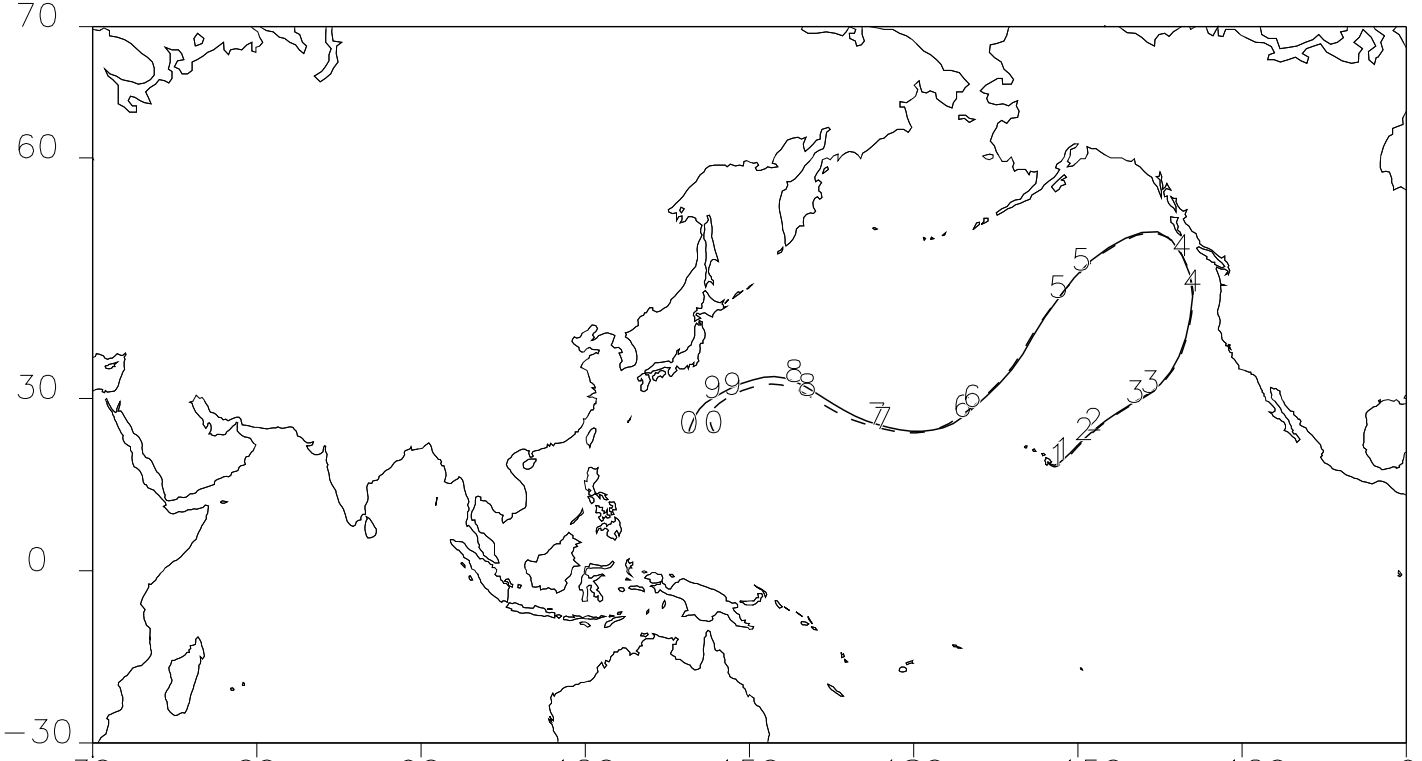
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −7 |
| 1 | 6.3 | 473 | −9 |
| 2 | 7.4 | 412 | −18 |
| 3 | 8.1 | 365 | −26 |
| 4 | 7.3 | 406 | −21 |
| 5 | 4.7 | 572 | −3 |
| 6 | 3.1 | 701 | 7 |
| 7 | 2.8 | 729 | 10 |
| 8 | 1.8 | 817 | 17 |
| 9 | 2.2 | 786 | 16 |
| 10 | 2.5 | 756 | 13 |

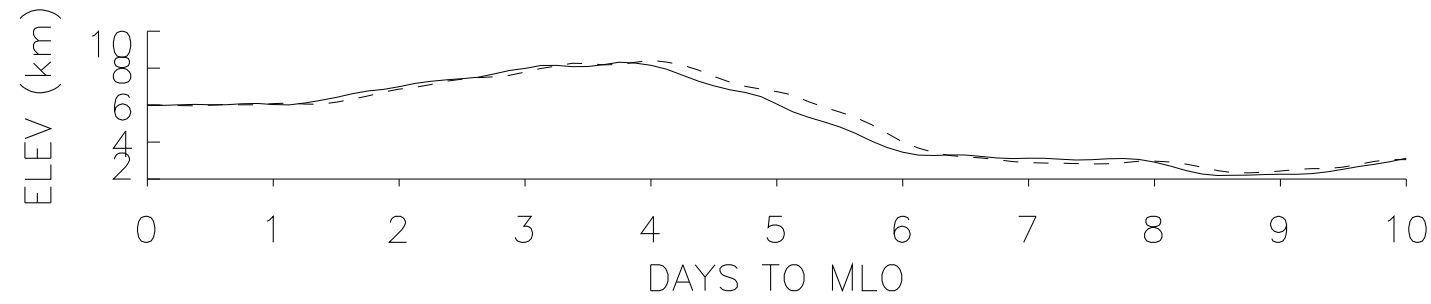
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.0 | 490 | −7 |
| 2 | 7.1 | 425 | −16 |
| 3 | 8.0 | 374 | −24 |
| 4 | 7.8 | 384 | −23 |
| 5 | 5.2 | 537 | −7 |
| 6 | 3.1 | 703 | 7 |
| 7 | 2.9 | 721 | 9 |
| 8 | 2.2 | 784 | 12 |
| 9 | 1.9 | 814 | 17 |
| 10 | 2.4 | 767 | 13 |

12UT − solid
18UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/29/2004 (Day of Year 150)
## NCEP/NCAR Reanalysis 1 Data Set




00UT

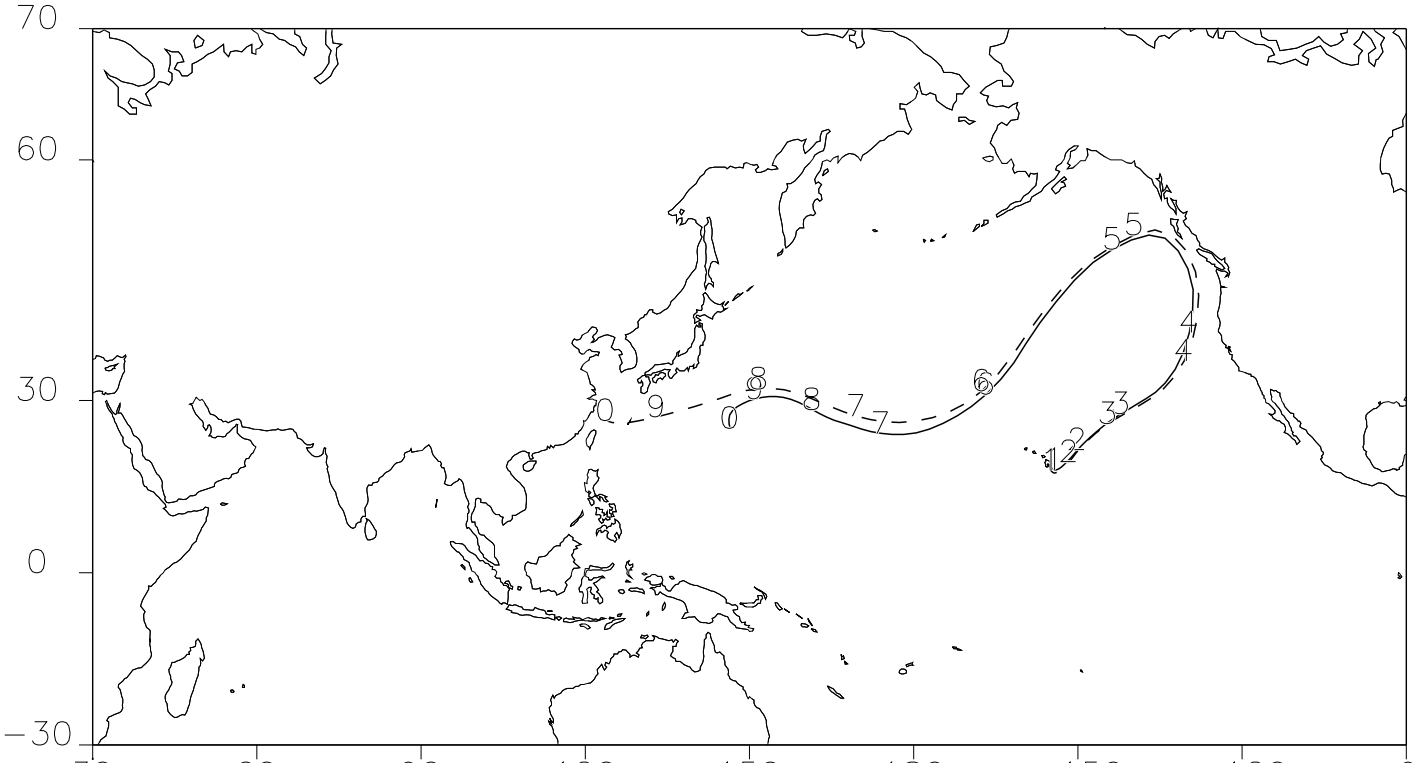
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −7 |
| 1 | 6.0 | 489 | −7 |
| 2 | 7.0 | 432 | −15 |
| 3 | 8.0 | 377 | −25 |
| 4 | 8.2 | 364 | −28 |
| 5 | 6.1 | 481 | −12 |
| 6 | 3.5 | 673 | 5 |
| 7 | 3.1 | 700 | 8 |
| 8 | 2.9 | 717 | 9 |
| 9 | 2.3 | 778 | 16 |
| 10 | 3.1 | 703 | 10 |

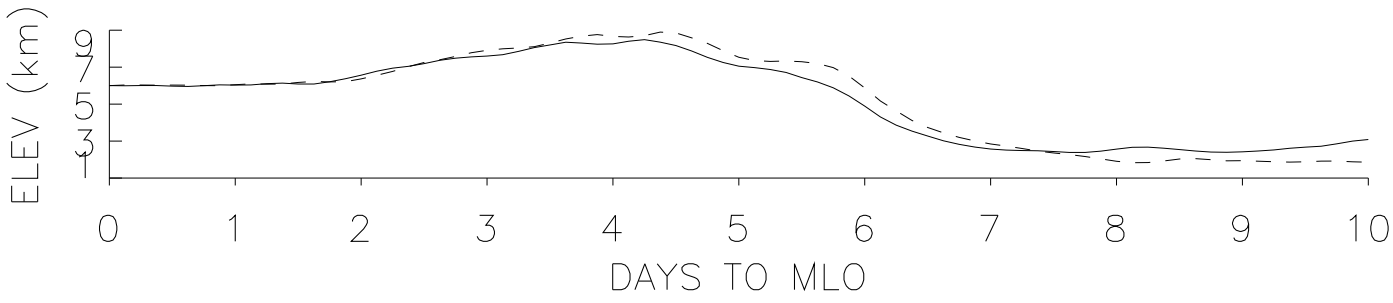
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 490 | −8 |
| 1 | 6.1 | 486 | −8 |
| 2 | 6.9 | 440 | −14 |
| 3 | 7.8 | 389 | −21 |
| 4 | 8.4 | 351 | −30 |
| 5 | 6.7 | 440 | −16 |
| 6 | 4.0 | 626 | 2 |
| 7 | 2.9 | 720 | 10 |
| 8 | 3.0 | 712 | 10 |
| 9 | 2.4 | 762 | 15 |
| 10 | 3.1 | 709 | 12 |

00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/29/2004 (Day of Year 150)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

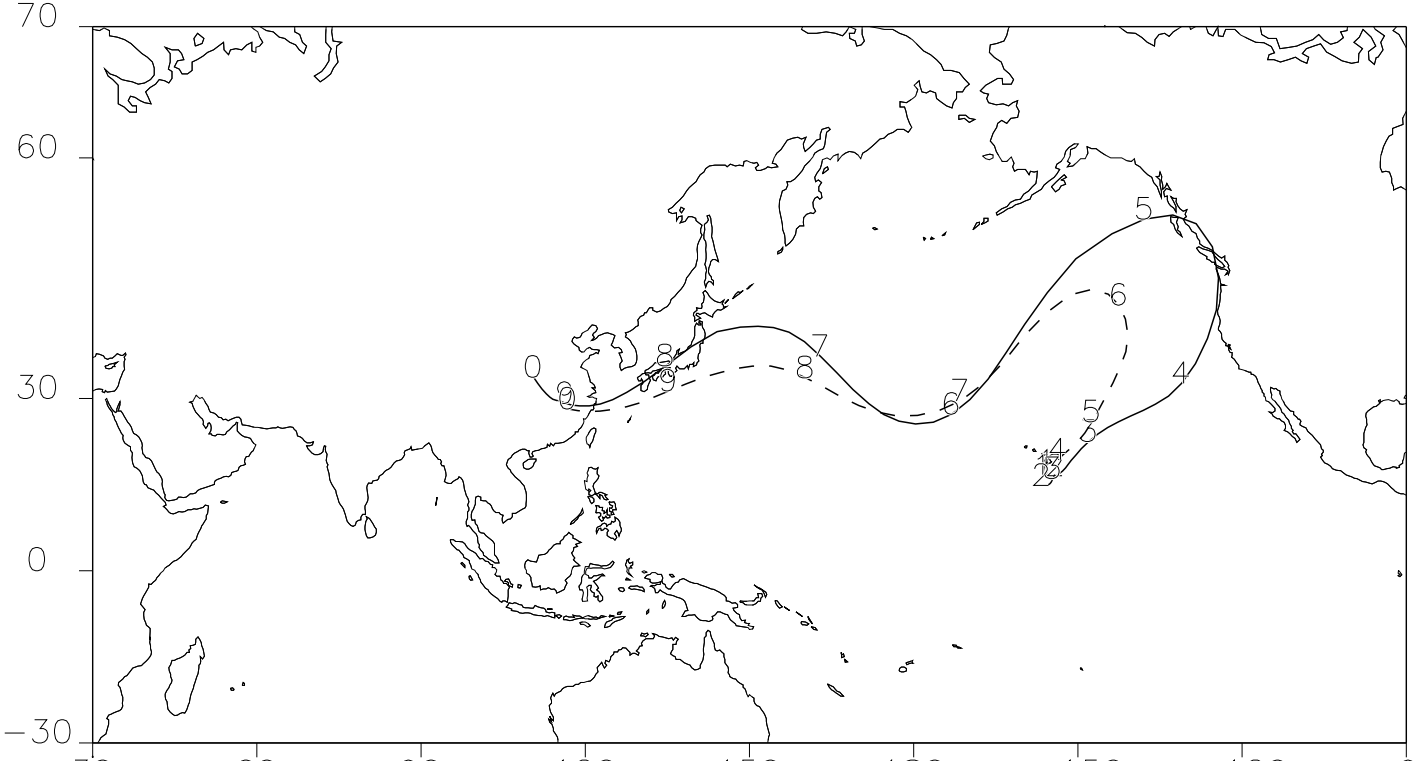
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −8 |
| 1 | 6.0 | 488 | −8 |
| 2 | 6.6 | 456 | −12 |
| 3 | 7.6 | 398 | −20 |
| 4 | 8.3 | 359 | −27 |
| 5 | 7.1 | 422 | −18 |
| 6 | 4.9 | 560 | −3 |
| 7 | 2.6 | 749 | 12 |
| 8 | 2.6 | 750 | 14 |
| 9 | 2.4 | 765 | 15 |
| 10 | 3.1 | 709 | 12 |

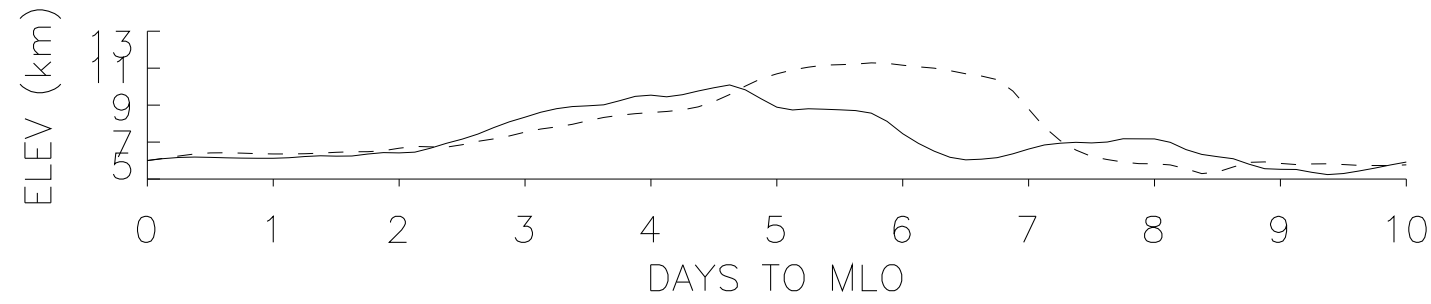
18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.1 | 487 | −8 |
| 2 | 6.4 | 469 | −9 |
| 3 | 7.9 | 382 | −22 |
| 4 | 8.7 | 340 | −29 |
| 5 | 7.5 | 395 | −20 |
| 6 | 5.9 | 490 | −10 |
| 7 | 2.8 | 720 | 10 |
| 8 | 1.9 | 807 | 15 |
| 9 | 1.9 | 799 | 14 |
| 10 | 1.9 | 807 | 14 |

12UT – solid
18UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/30/2004 (Day of Year 151)
NCEP/NCAR Reanalysis 1 Data Set




00UT

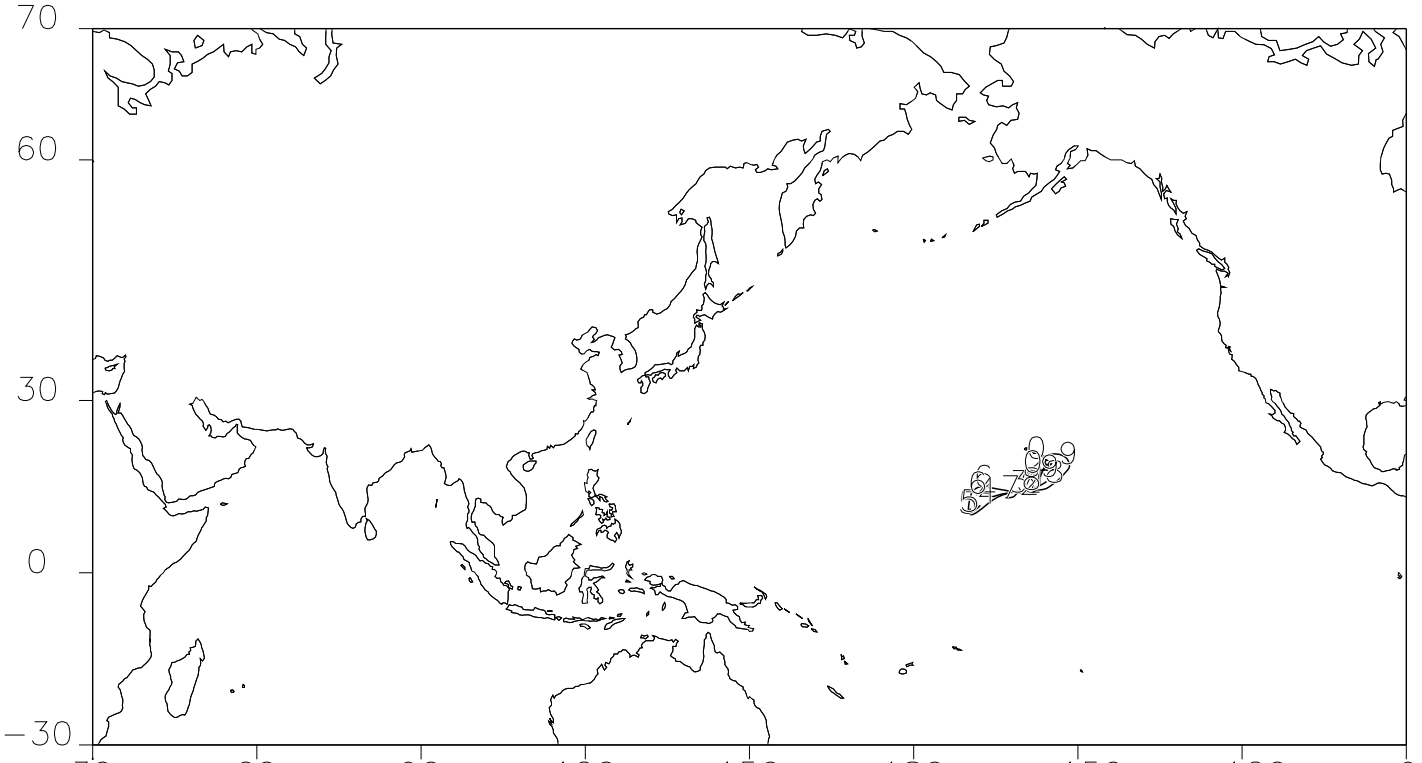
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −9 |
| 1 | 6.1 | 482 | −8 |
| 2 | 6.4 | 465 | −9 |
| 3 | 8.4 | 360 | −26 |
| 4 | 9.5 | 301 | −36 |
| 5 | 8.9 | 326 | −31 |
| 6 | 7.5 | 401 | −19 |
| 7 | 6.6 | 446 | −14 |
| 8 | 7.2 | 408 | −19 |
| 9 | 5.5 | 513 | −11 |
| 10 | 5.9 | 487 | −15 |

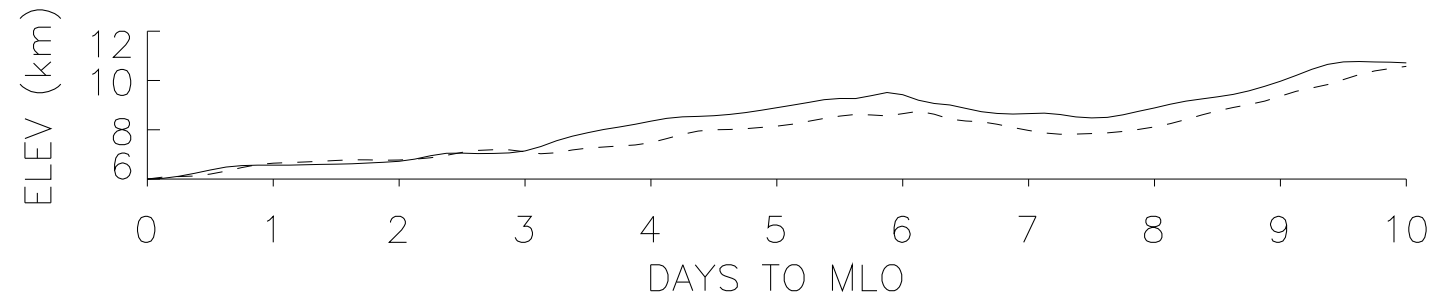
06UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 491 | −9 |
| 1 | 6.4 | 468 | −10 |
| 2 | 6.7 | 451 | −11 |
| 3 | 7.5 | 403 | −16 |
| 4 | 8.6 | 349 | −25 |
| 5 | 10.7 | 259 | −43 |
| 6 | 11.2 | 239 | −48 |
| 7 | 8.8 | 333 | −28 |
| 8 | 5.8 | 497 | −5 |
| 9 | 5.8 | 494 | −8 |
| 10 | 5.8 | 498 | −8 |

00UT − solid
06UT − dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/30/2004 (Day of Year 151)
NCEP/NCAR Reanalysis 1 Data Set




12UT

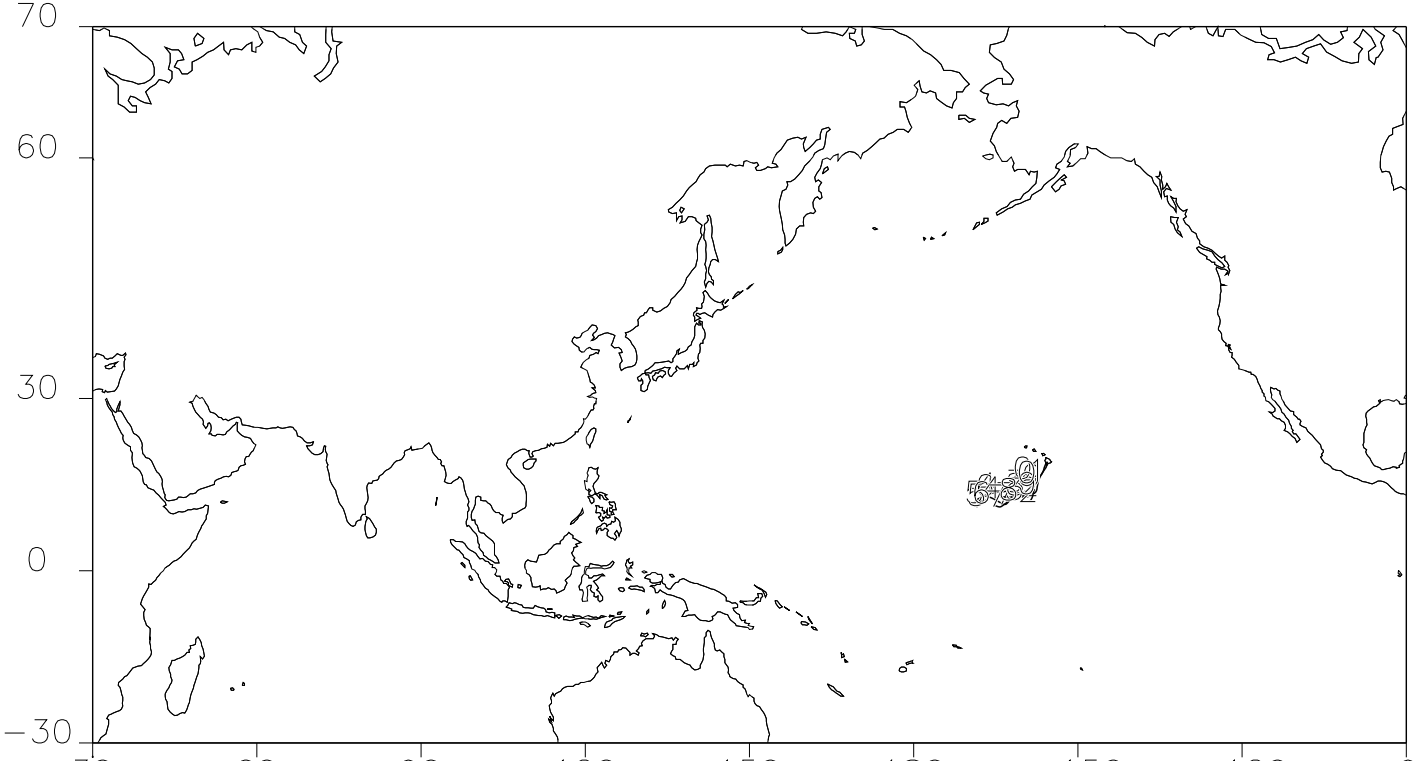
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -10 |
| 1 | 6.6 | 456 | -12 |
| 2 | 6.7 | 446 | -11 |
| 3 | 7.1 | 423 | -13 |
| 4 | 8.3 | 361 | -23 |
| 5 | 8.9 | 334 | -26 |
| 6 | 9.4 | 310 | -31 |
| 7 | 8.7 | 346 | -26 |
| 8 | 8.9 | 335 | -29 |
| 9 | 10.0 | 288 | -37 |
| 10 | 10.7 | 257 | -43 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -10 |
| 1 | 6.6 | 452 | -13 |
| 2 | 6.8 | 444 | -12 |
| 3 | 7.1 | 426 | -12 |
| 4 | 7.5 | 406 | -16 |
| 5 | 8.1 | 370 | -21 |
| 6 | 8.7 | 345 | -26 |
| 7 | 8.0 | 380 | -21 |
| 8 | 8.1 | 373 | -22 |
| 9 | 9.4 | 314 | -32 |
| 10 | 10.6 | 263 | -42 |

12UT - solid
18UT - dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/31/2004 (Day of Year 152)
NCEP/NCAR Reanalysis 1 Data Set

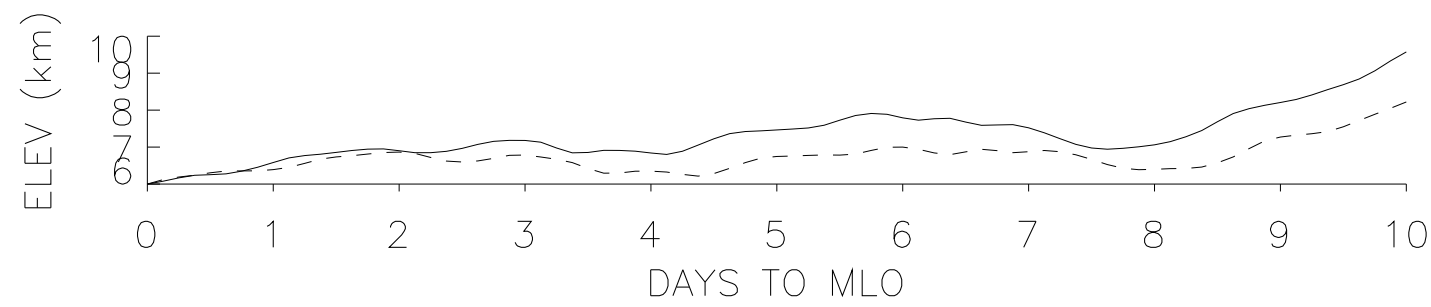



00UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | −10 |
| 1 | 6.6 | 456 | −12 |
| 2 | 6.9 | 436 | −13 |
| 3 | 7.2 | 421 | −13 |
| 4 | 6.8 | 441 | −11 |
| 5 | 7.5 | 406 | −17 |
| 6 | 7.8 | 388 | −20 |
| 7 | 7.5 | 403 | −18 |
| 8 | 7.1 | 430 | −13 |
| 9 | 8.2 | 369 | −23 |
| 10 | 9.6 | 305 | −34 |

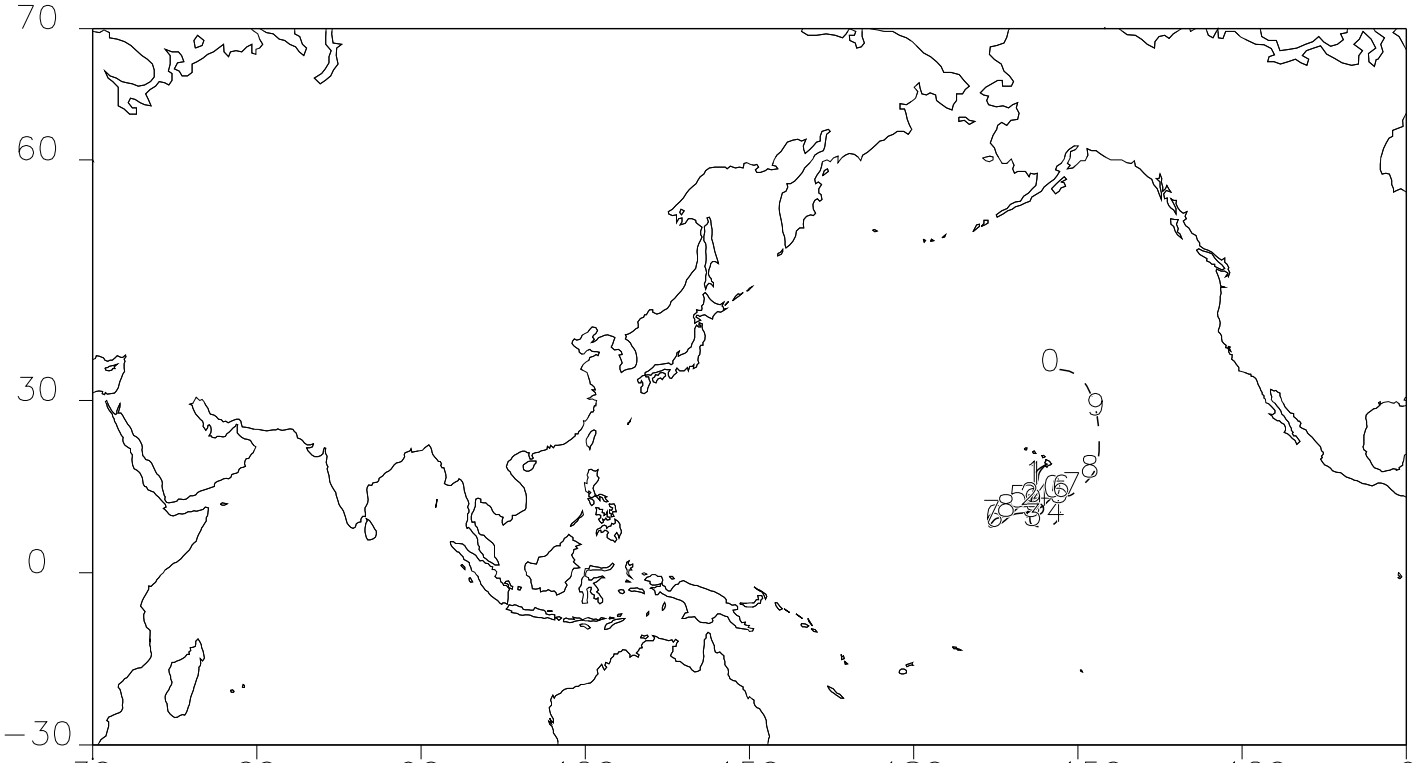
06UT

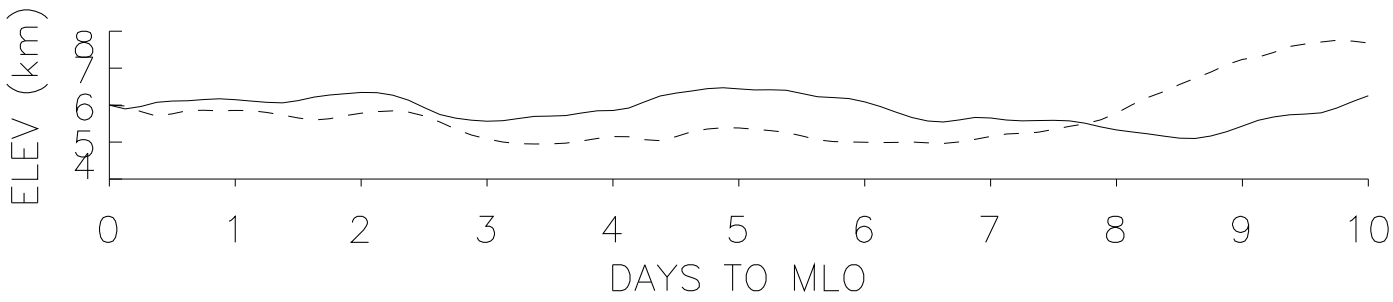
| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 493 | −9 |
| 1 | 6.4 | 467 | −11 |
| 2 | 6.9 | 438 | −13 |
| 3 | 6.8 | 444 | −10 |
| 4 | 6.3 | 470 | −7 |
| 5 | 6.7 | 446 | −11 |
| 6 | 7.0 | 431 | −15 |
| 7 | 6.9 | 439 | −13 |
| 8 | 6.4 | 468 | −9 |
| 9 | 7.3 | 418 | −15 |
| 10 | 8.2 | 368 | −23 |




00UT – solid
06UT – dashed

# 3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
## 5/31/2004 (Day of Year 152)
## NCEP/NCAR Reanalysis 1 Data Set




12UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -9 |
| 1 | 6.1 | 482 | -10 |
| 2 | 6.3 | 469 | -9 |
| 3 | 5.6 | 518 | -3 |
| 4 | 5.9 | 500 | -5 |
| 5 | 6.4 | 464 | -9 |
| 6 | 6.1 | 486 | -6 |
| 7 | 5.7 | 514 | -4 |
| 8 | 5.3 | 535 | -2 |
| 9 | 5.4 | 529 | -3 |
| 10 | 6.3 | 477 | -9 |

18UT

| Day | km | hPa | C |
|---|---|---|---|
| 0 | 6.0 | 492 | -10 |
| 1 | 5.9 | 501 | -9 |
| 2 | 5.8 | 505 | -5 |
| 3 | 5.1 | 550 | -1 |
| 4 | 5.1 | 547 | 0 |
| 5 | 5.4 | 533 | -2 |
| 6 | 5.0 | 559 | 0 |
| 7 | 5.2 | 547 | -1 |
| 8 | 5.8 | 506 | -5 |
| 9 | 7.2 | 418 | -17 |
| 10 | 7.7 | 391 | -22 |

12UT - solid
18UT - dashed