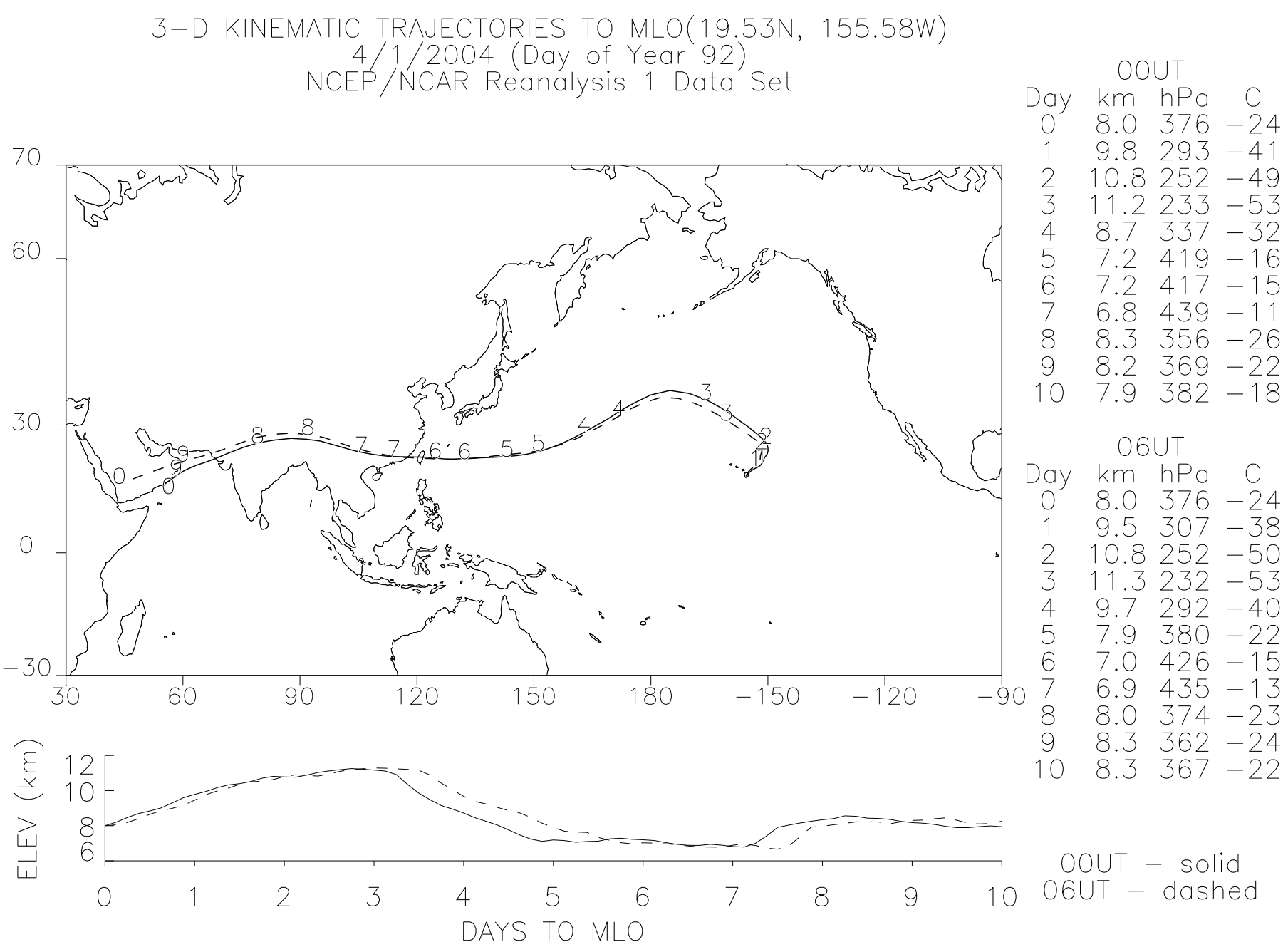
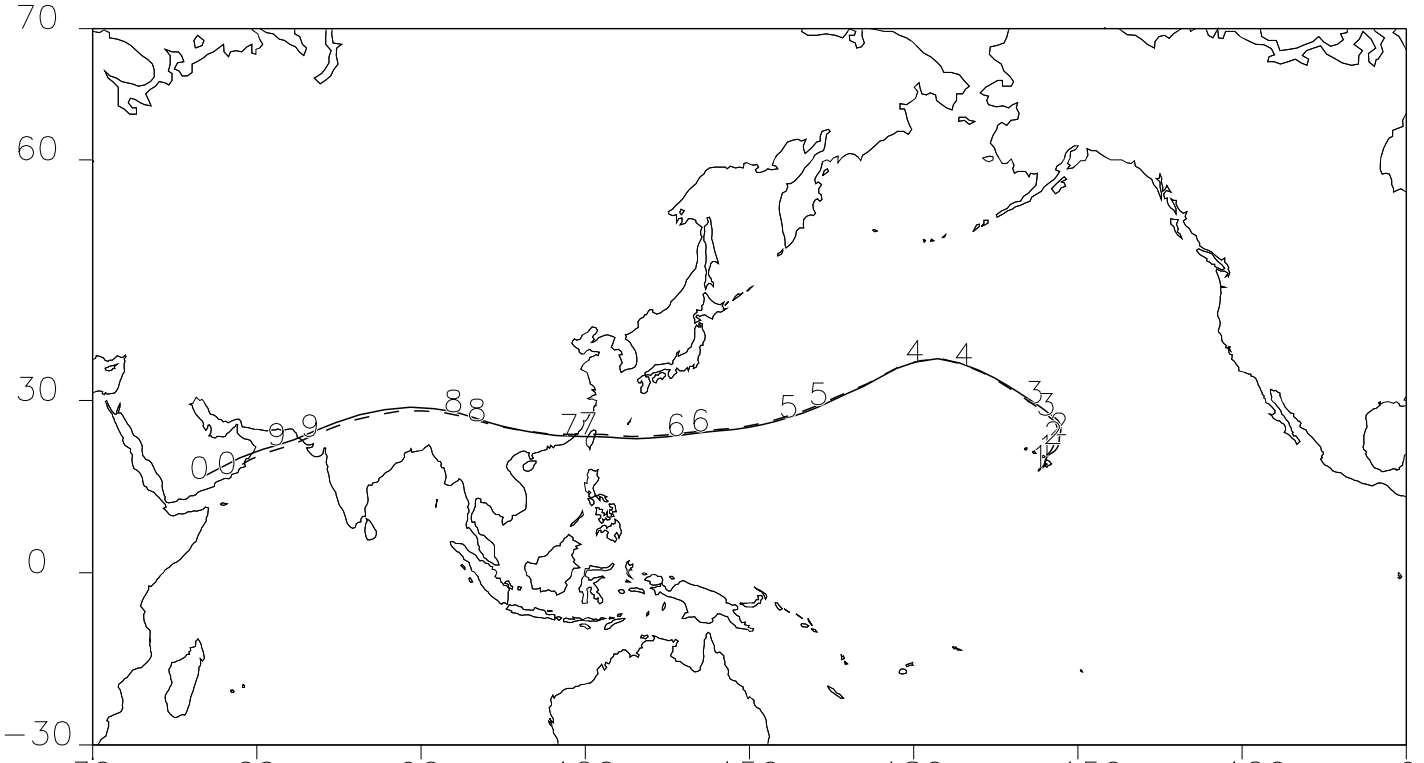
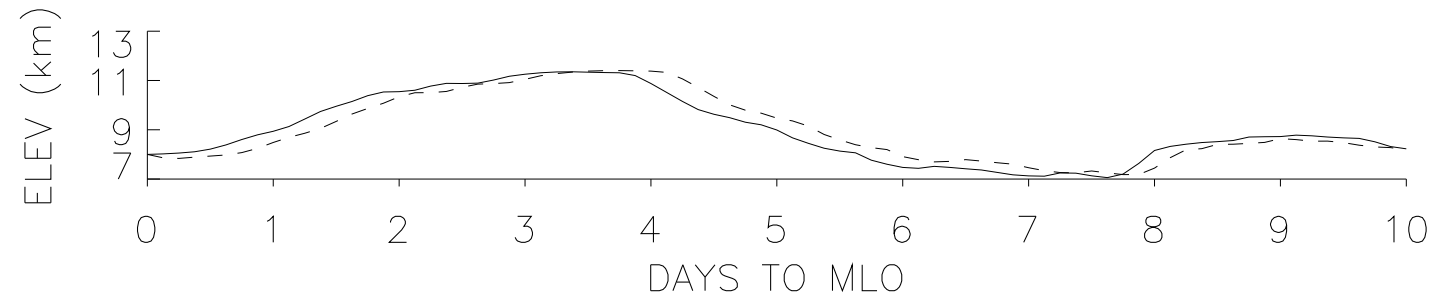

3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/1/2004 (Day of Year 92)
NCEP/NCAR Reanalysis 1 Data Set
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
12
10
8
6
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
00UT
Day km hPa C
0 8.0 376 -24
1 9.8 293 -41
2 10.8 252 -49
3 11.2 233 -53
4 8.7 337 -32
5 7.2 419 -16
6 7.2 417 -15
7 6.8 439 -11
8 8.3 356 -26
9 8.2 369 -22
10 7.9 382 -18
06UT
Day km hPa C
0 8.0 376 -24
1 9.5 307 -38
2 10.8 252 -50
3 11.3 232 -53
4 9.7 292 -40
5 7.9 380 -22
6 7.0 426 -15
7 6.9 435 -13
8 8.0 374 -23
9 8.3 362 -24
10 8.3 367 -22
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

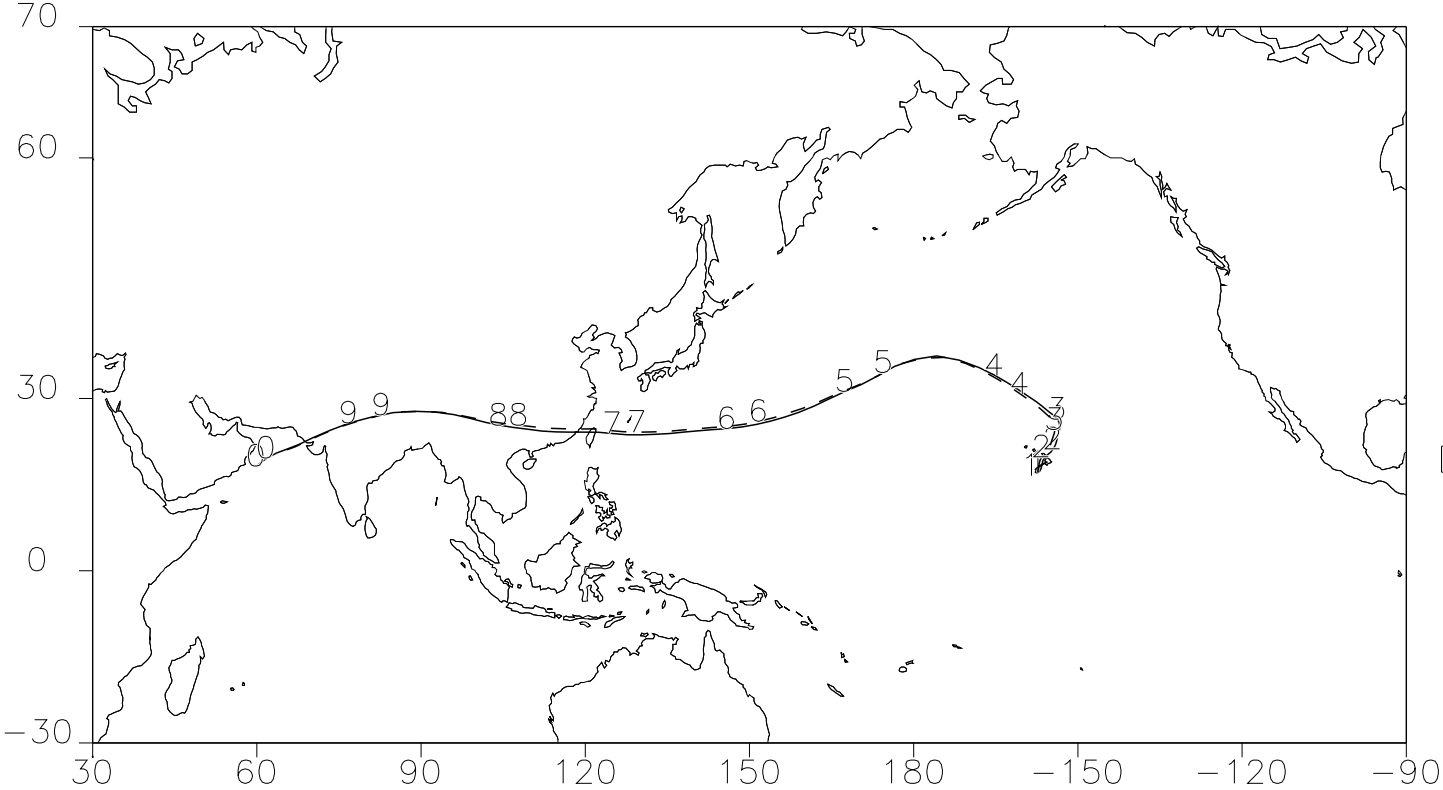
Day	km	hPa	C
0	8.0	375	−24
1	8.9	330	−32
2	10.5	261	−47
3	11.3	234	−53
4	10.9	244	−50
5	9.0	326	−32
6	7.5	403	−18
7	7.1	421	−14
8	8.2	365	−23
9	8.7	340	−27
10	8.2	369	−20

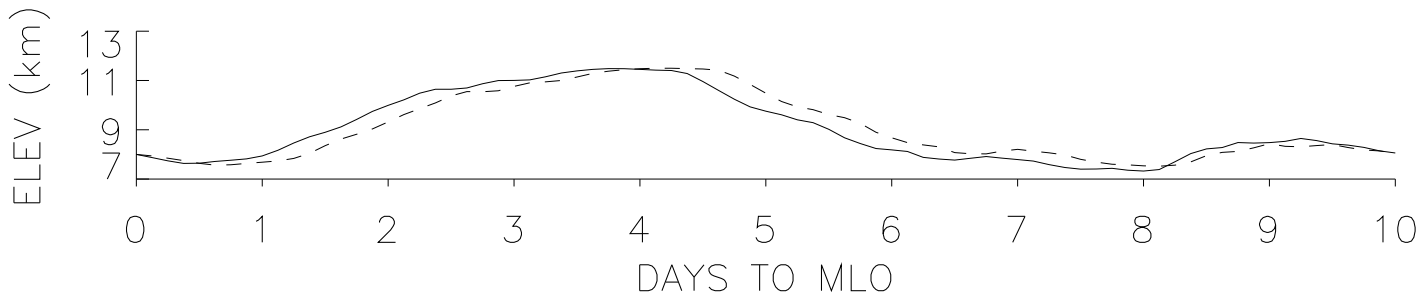
18UT

Day	km	hPa	C
0	8.0	376	−24
1	8.5	353	−27
2	10.3	271	−44
3	11.0	243	−50
4	11.4	226	−53
5	9.5	302	−36
6	7.9	379	−22
7	7.5	402	−17
8	7.4	403	−17
9	8.6	344	−27
10	8.2	370	−20

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

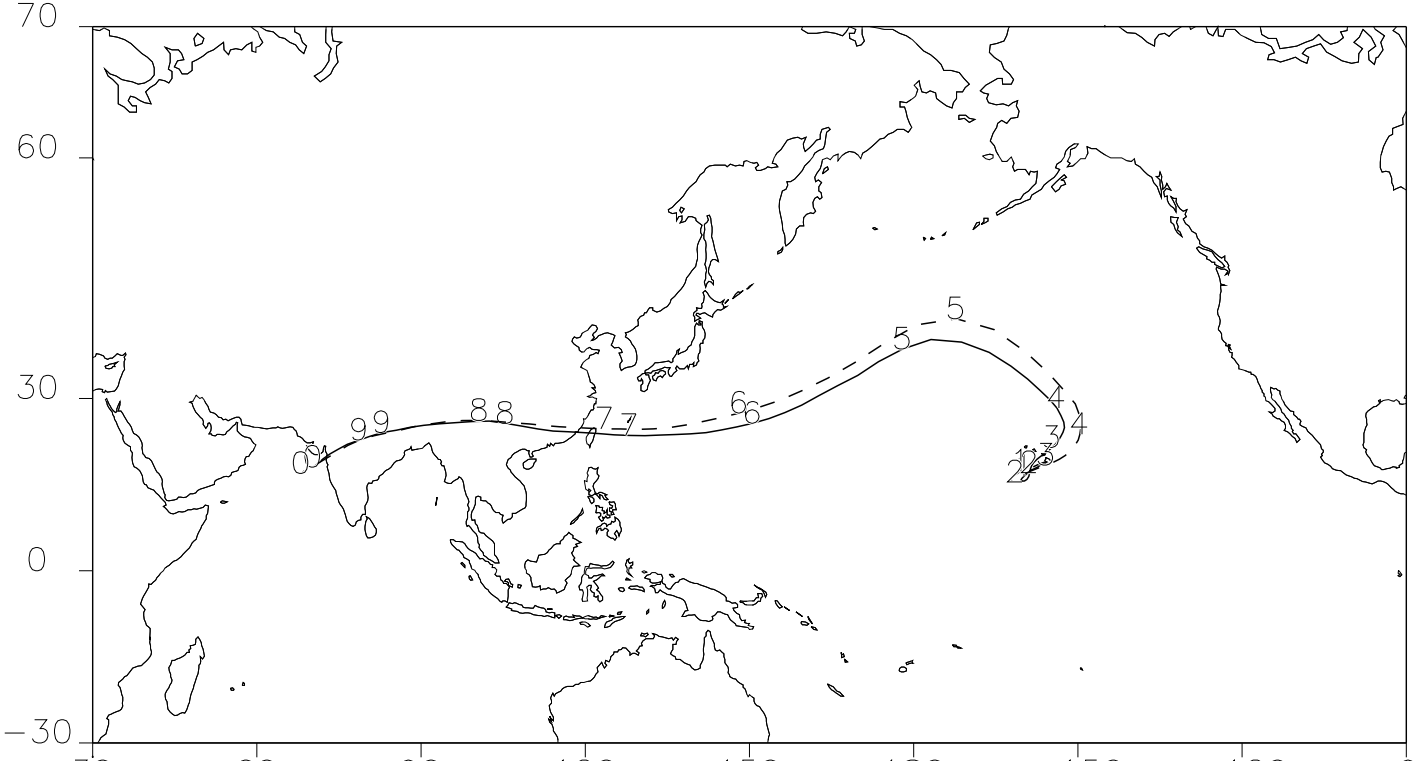
Day	km	hPa	C
0	8.0	375	-25
1	7.9	380	-22
2	10.0	284	-42
3	11.0	244	-50
4	11.5	226	-54
5	9.8	290	-39
6	8.2	366	-24
7	7.8	385	-20
8	7.3	410	-15
9	8.5	350	-26
10	8.1	375	-21

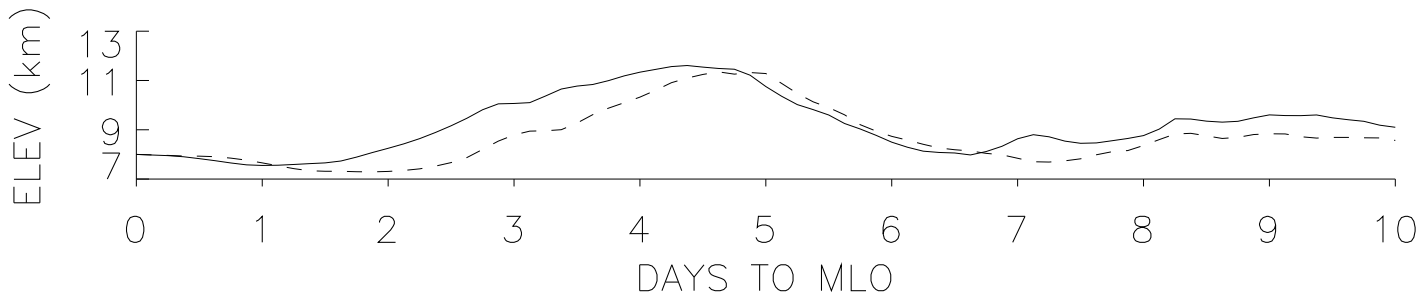
06UT

Day	km	hPa	C
0	8.0	375	-26
1	7.7	393	-19
2	9.3	313	-35
3	10.8	254	-49
4	11.5	226	-54
5	10.5	259	-46
6	8.7	341	-29
7	8.2	364	-23
8	7.5	399	-17
9	8.4	353	-26
10	8.0	376	-20

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





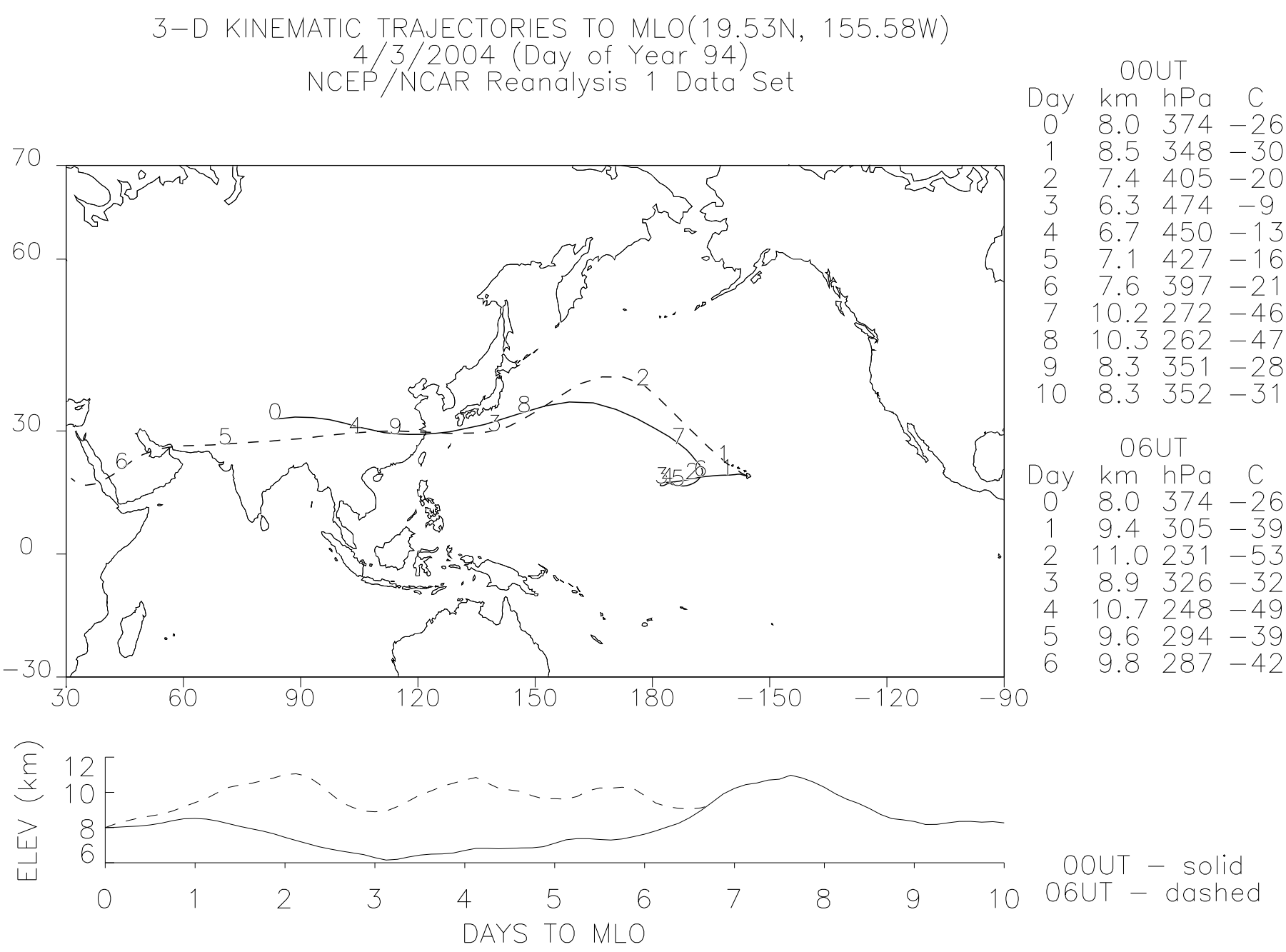
12UT

Day	km	hPa	C
0	8.0	374	−25
1	7.6	399	−19
2	8.2	364	−25
3	10.1	281	−42
4	11.3	231	−54
5	10.8	246	−50
6	8.5	349	−27
7	8.6	344	−27
8	8.8	337	−25
9	9.6	300	−33
10	9.1	325	−27

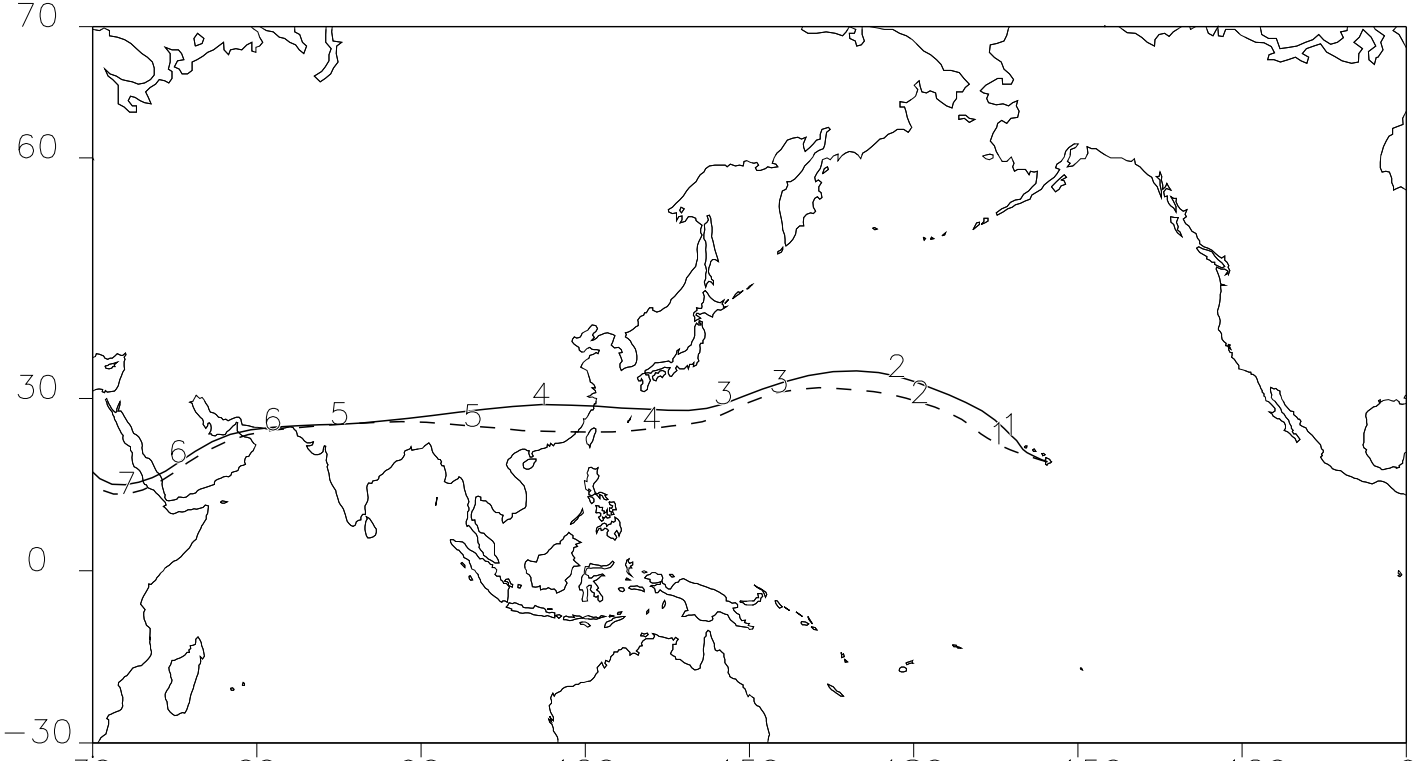
18UT

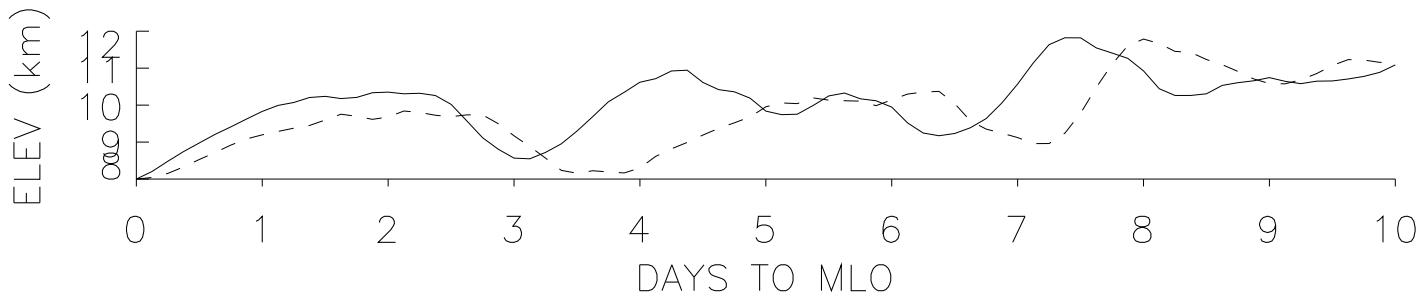
Day	km	hPa	C
0	8.0	374	−26
1	7.7	394	−22
2	7.3	414	−16
3	8.8	338	−31
4	10.3	270	−45
5	11.3	223	−57
6	8.7	334	−32
7	7.8	382	−21
8	8.4	356	−24
9	8.8	335	−28
10	8.6	351	−24

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 8.0 374 -26
1 8.5 348 -30
2 7.4 405 -20
3 6.3 474 -9
4 6.7 450 -13
5 7.1 427 -16
6 7.6 397 -21
7 10.2 272 -46
8 10.3 262 -47
9 8.3 351 -28
10 8.3 352 -31
06UT
Day km hPa C
0 8.0 374 -26
1 9.4 305 -39
2 11.0 231 -53
3 8.9 326 -32
4 10.7 248 -49
5 9.6 294 -39
6 9.8 287 -42
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
12
10
8
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)
4/3/2004 (Day of Year 94)
NCEP/NCAR Reanalysis 1 Data Set





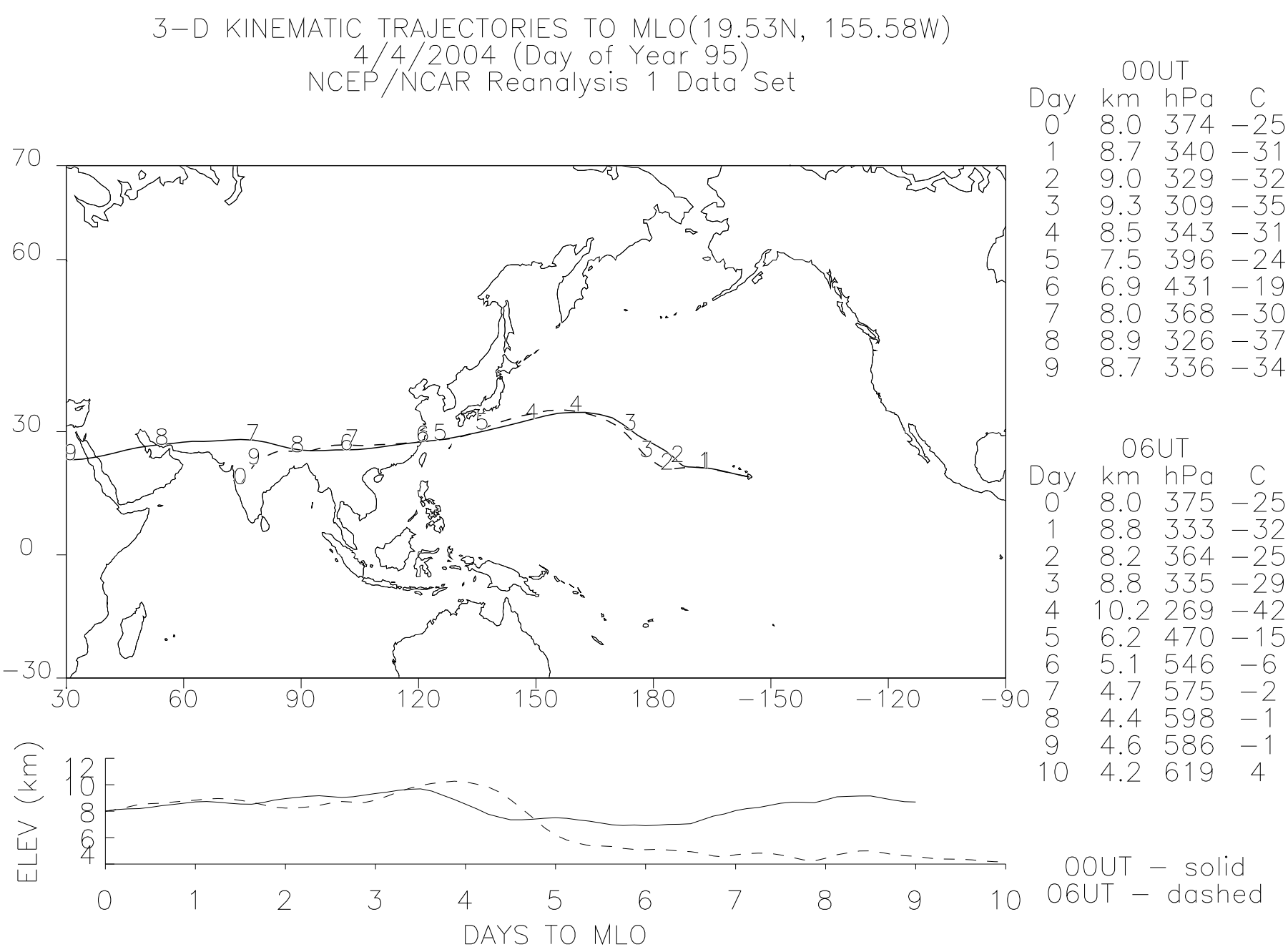
12UT

Day	km	hPa	C
0	8.0	374	−24
1	9.8	287	−42
2	10.4	264	−44
3	8.6	345	−28
4	10.6	252	−48
5	9.8	287	−40
6	9.9	284	−38
7	10.6	258	−44
8	10.9	241	−49
9	10.7	249	−48
10	11.1	236	−51

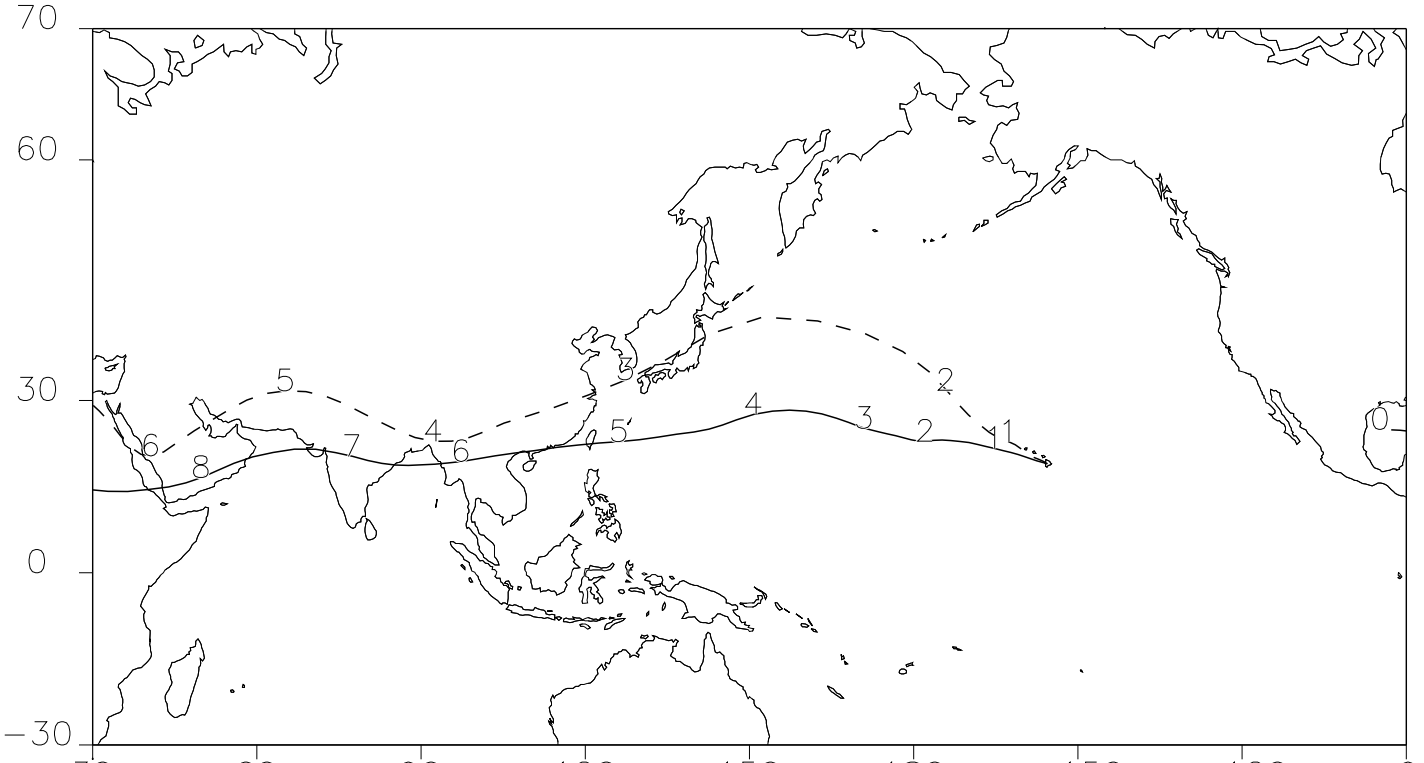
18UT

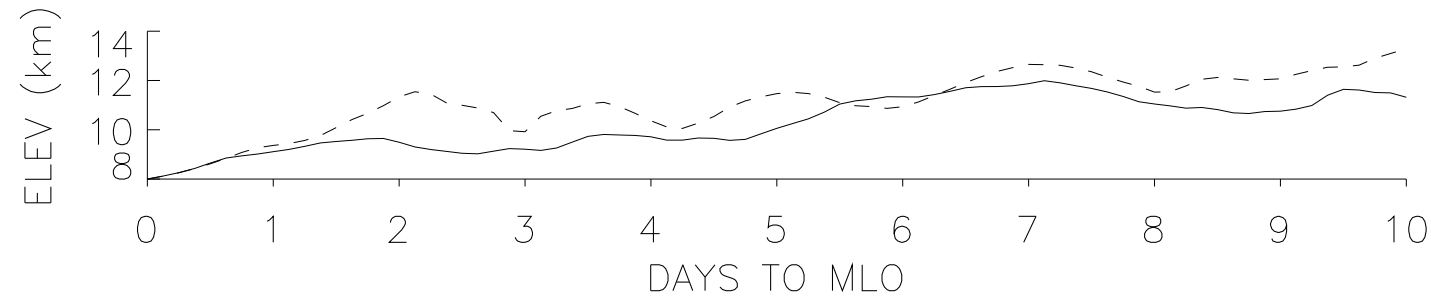
Day	km	hPa	C
0	8.0	375	−25
1	9.2	316	−36
2	9.7	294	−38
3	9.2	316	−33
4	8.3	358	−26
5	10.0	282	−41
6	10.1	276	−39
7	9.1	321	−29
8	11.8	210	−56
9	10.6	252	−46
10	11.2	233	−51

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
12
10
8
6
4
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
00UT
Day km hPa C
0 8.0 374 -25
1 8.7 340 -31
2 9.0 329 -32
3 9.3 309 -35
4 8.5 343 -31
5 7.5 396 -24
6 6.9 431 -19
7 8.0 368 -30
8 8.9 326 -37
9 8.7 336 -34
06UT
Day km hPa C
0 8.0 375 -25
1 8.8 333 -32
2 8.2 364 -25
3 8.8 335 -29
4 10.2 269 -42
5 6.2 470 -15
6 5.1 546 -6
7 4.7 575 -2
8 4.4 598 -1
9 4.6 586 -1
10 4.2 619 4
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

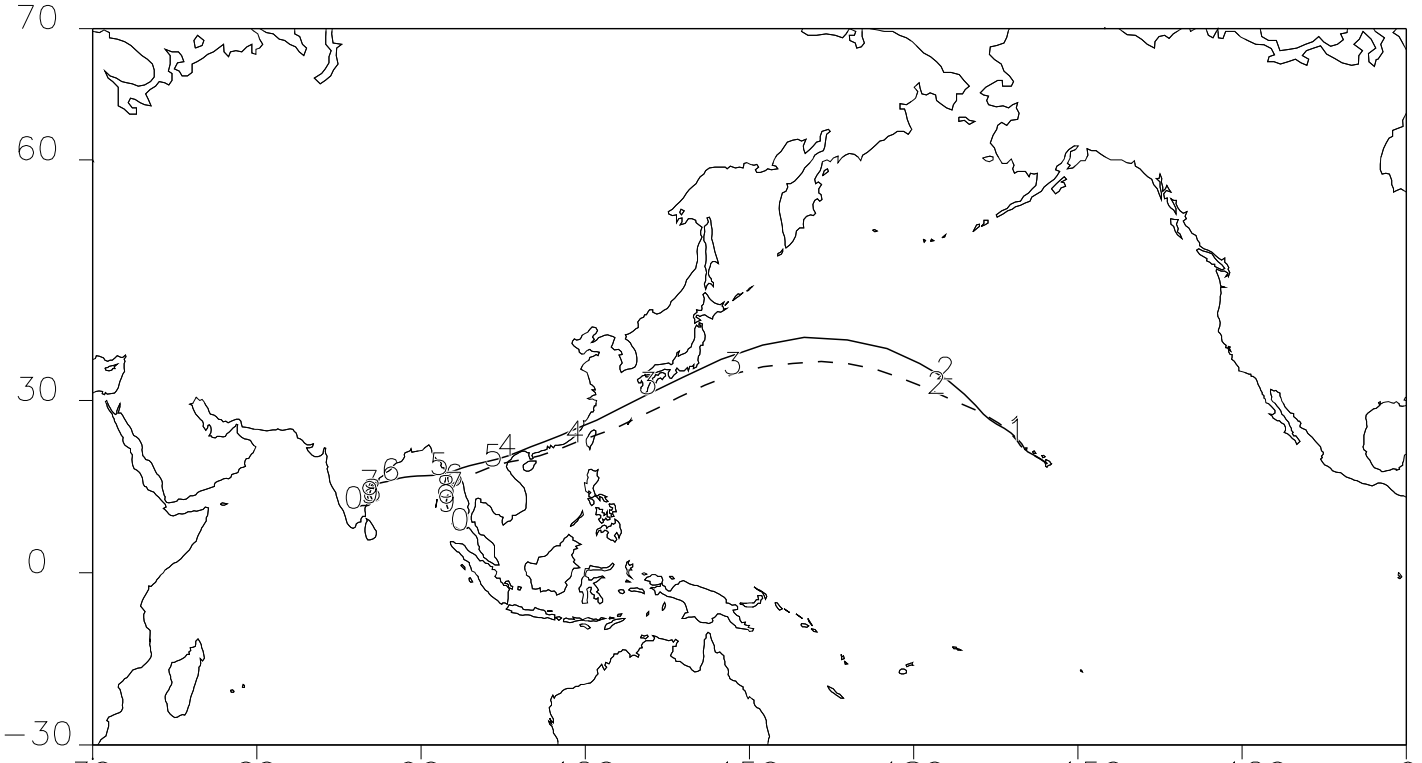
Day	km	hPa	C
0	8.0	375	−25
1	9.1	320	−35
2	9.5	304	−36
3	9.2	319	−31
4	9.7	296	−33
5	10.1	282	−36
6	11.3	234	−47
7	11.9	216	−49
8	11.0	244	−44
9	10.8	254	−41
10	11.3	230	−47

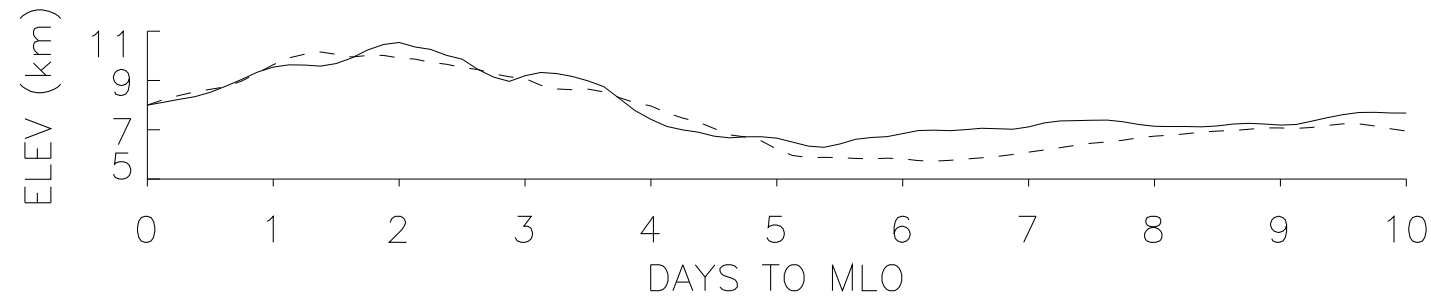
18UT

Day	km	hPa	C
0	8.0	375	−25
1	9.4	308	−38
2	11.3	225	−53
3	9.9	271	−42
4	10.4	265	−44
5	11.5	222	−52
6	10.9	242	−48
7	12.7	182	−58
8	11.5	217	−48
9	12.1	200	−54
10	13.3	170	−60

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

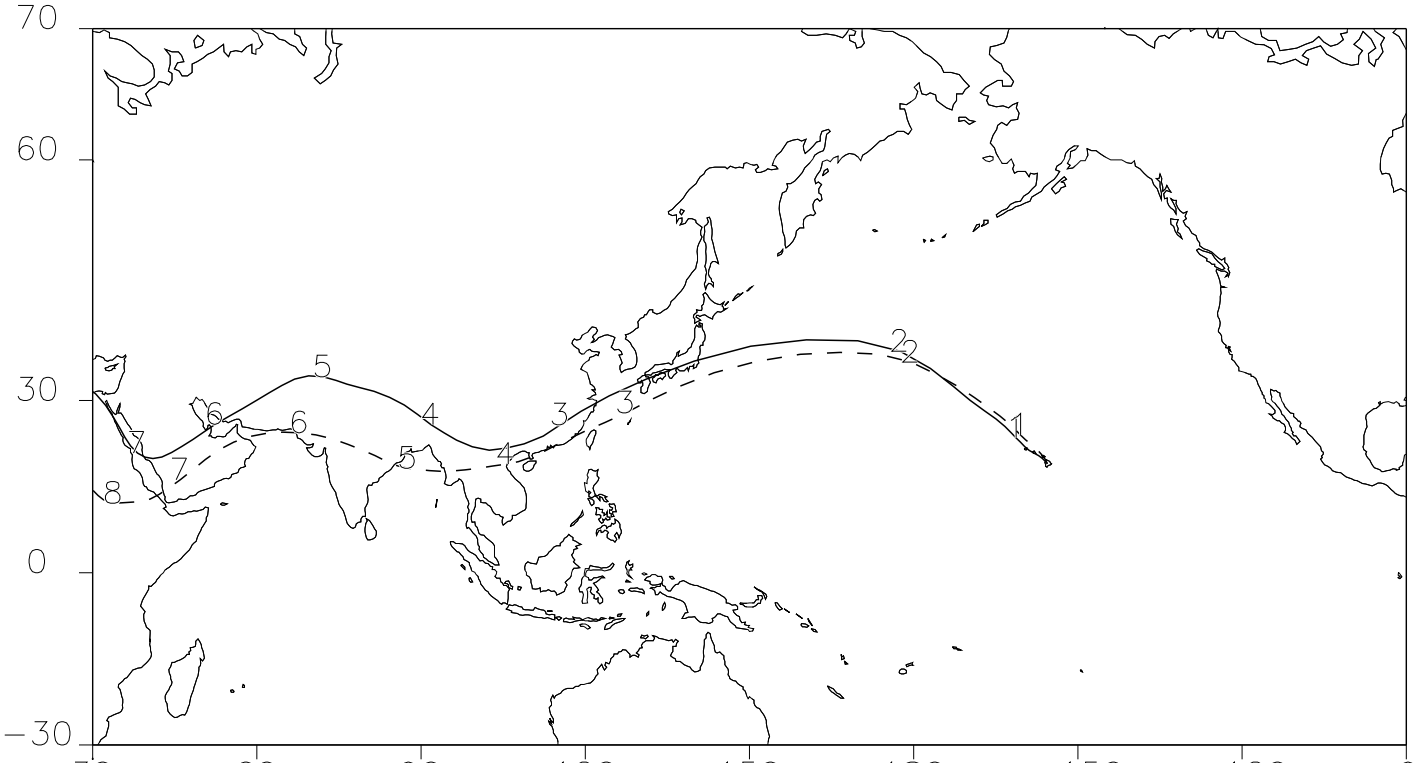
Day	km	hPa	C
0	8.0	375	−25
1	9.5	300	−40
2	10.5	253	−47
3	9.2	310	−36
4	7.4	406	−20
5	6.7	451	−13
6	6.8	440	−13
7	7.1	425	−13
8	7.1	424	−12
9	7.2	421	−12
10	7.7	394	−16

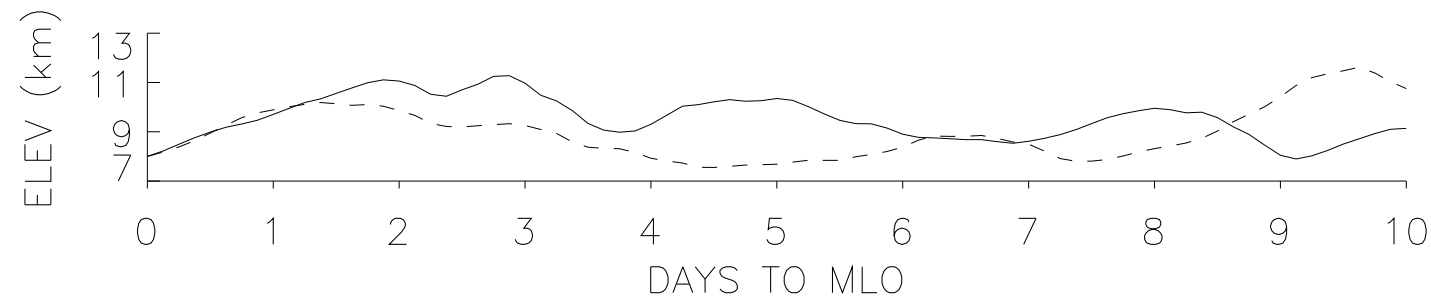
06UT

Day	km	hPa	C
0	8.0	376	−24
1	9.6	297	−39
2	9.9	282	−41
3	9.1	317	−33
4	8.0	378	−23
5	6.2	479	−10
6	5.8	505	−6
7	6.1	488	−7
8	6.7	449	−10
9	7.1	429	−12
10	6.9	436	−11

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

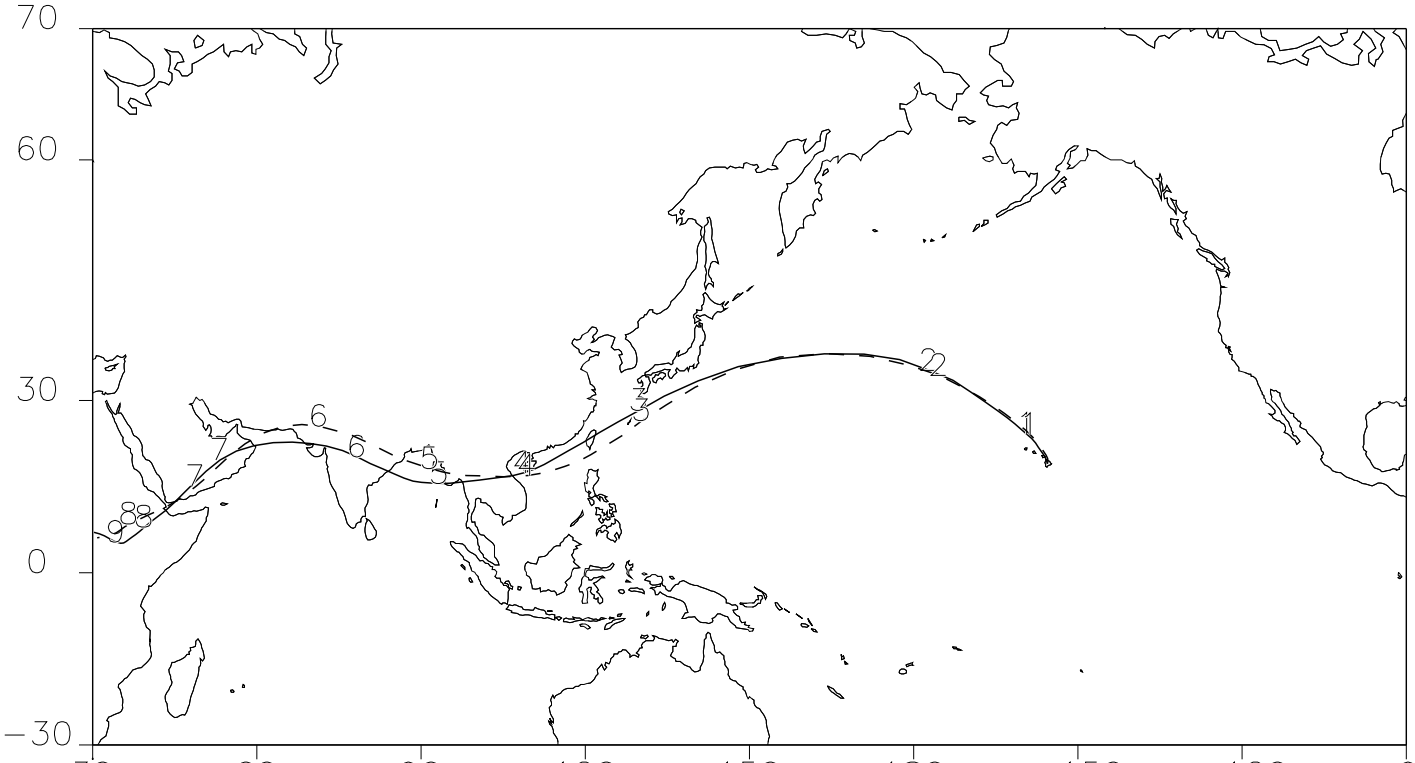
Day	km	hPa	C
0	8.0	376	−25
1	9.7	294	−39
2	11.1	233	−52
3	11.0	241	−51
4	9.3	308	−37
5	10.3	262	−49
6	8.9	326	−36
7	8.6	341	−34
8	10.0	277	−49
9	8.0	360	−30
10	9.1	314	−38

18UT

Day	km	hPa	C
0	8.0	377	−24
1	9.9	287	−41
2	9.9	281	−41
3	9.3	310	−35
4	7.9	380	−23
5	7.7	394	−20
6	8.4	356	−26
7	8.5	351	−28
8	8.3	361	−24
9	10.4	266	−43
10	10.8	250	−48

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

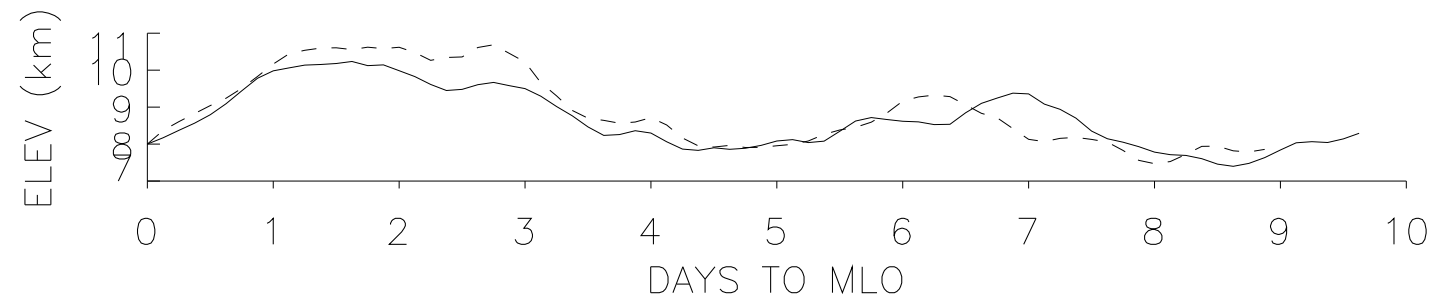


00UT

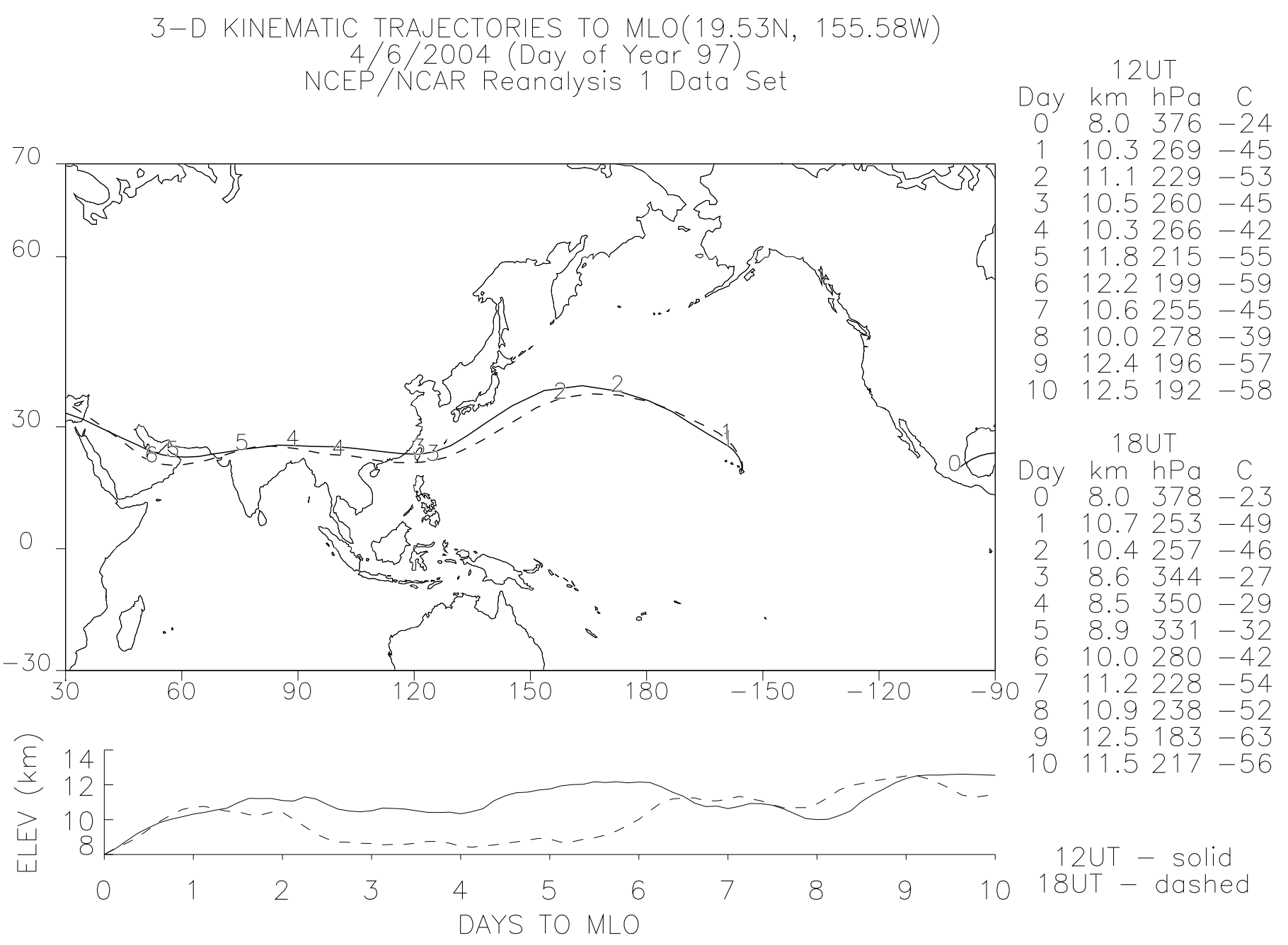
Day	km	hPa	C
0	8.0	376	−25
1	10.0	282	−42
2	10.0	277	−40
3	9.5	299	−38
4	8.3	362	−25
5	8.1	373	−21
6	8.6	345	−27
7	9.4	311	−33
8	7.8	388	−18
9	7.8	386	−18

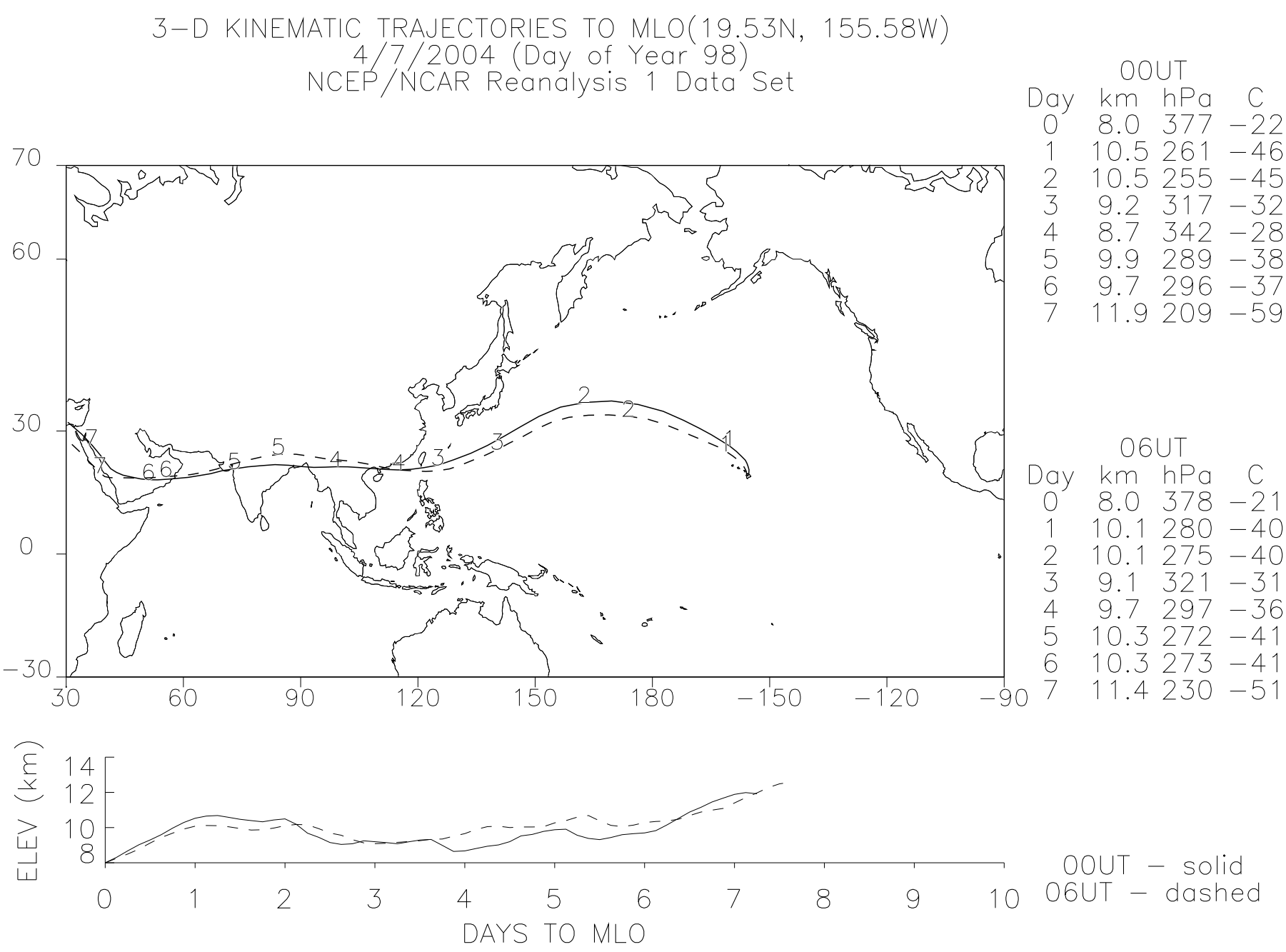
06UT

Day	km	hPa	C
0	8.0	377	−24
1	10.2	275	−44
2	10.6	253	−47
3	10.2	270	−42
4	8.7	342	−27
5	8.0	380	−21
6	9.2	319	−33
7	8.1	370	−22
8	7.5	405	−15

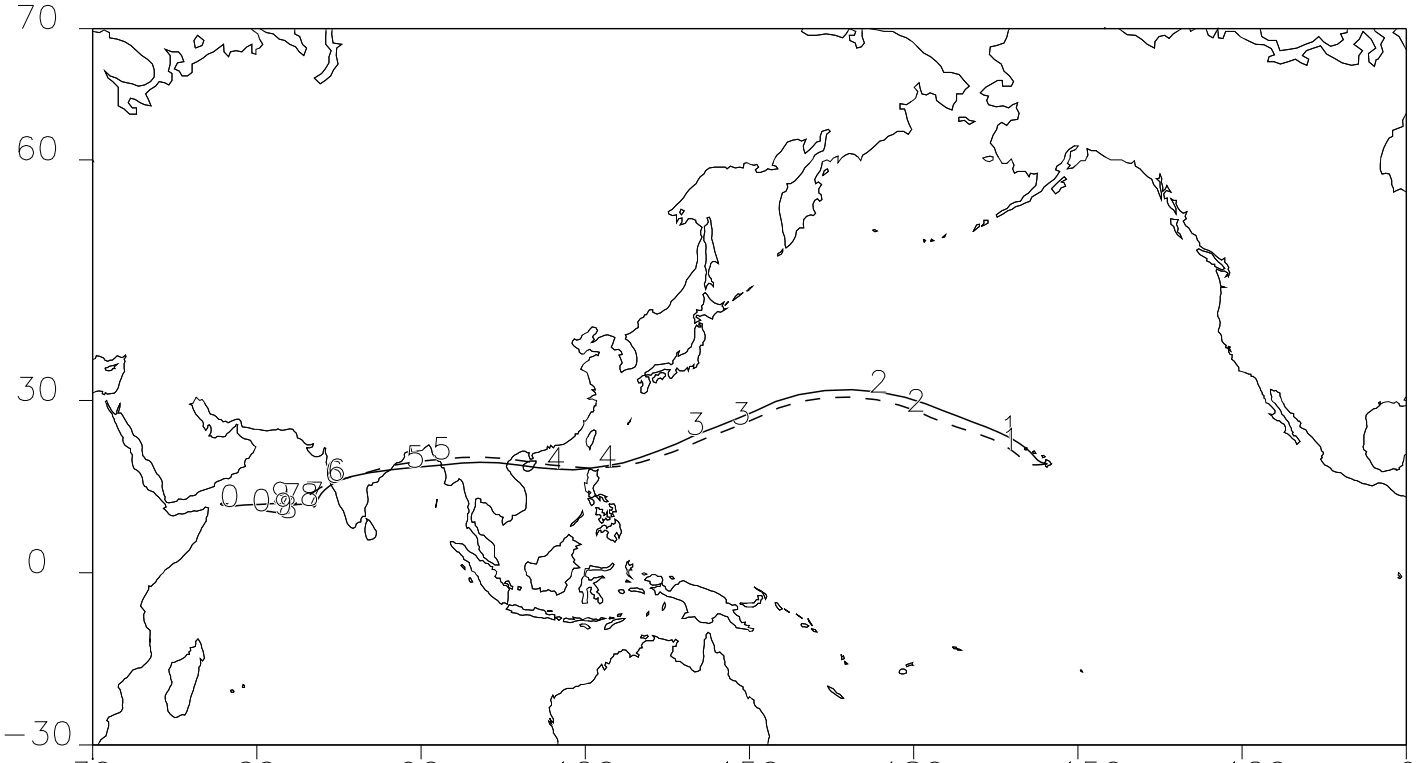


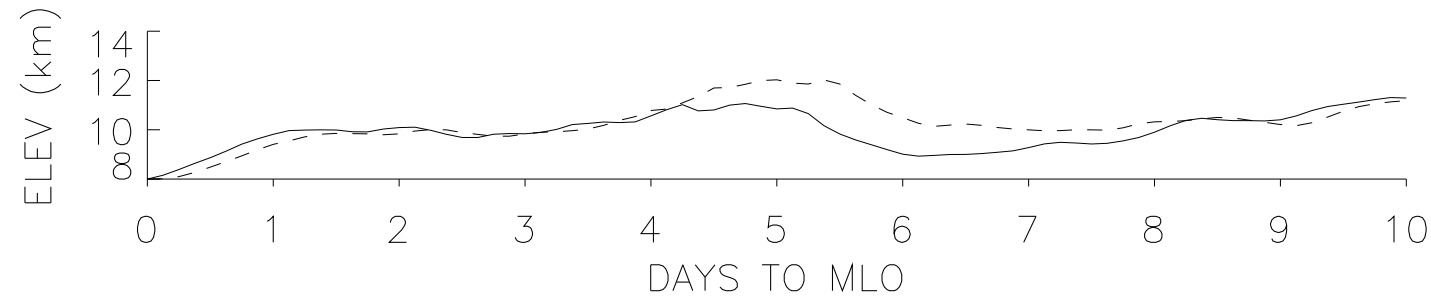
00UT – solid
06UT – dashed


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 8.0 376 -24
1 10.3 269 -45
2 11.1 229 -53
3 10.5 260 -45
4 10.3 266 -42
5 11.8 215 -55
6 12.2 199 -59
7 10.6 255 -45
8 10.0 278 -39
9 12.4 196 -57
10 12.5 192 -58
18UT
Day km hPa C
0 8.0 378 -23
1 10.7 253 -49
2 10.4 257 -46
3 8.6 344 -27
4 8.5 350 -29
5 8.9 331 -32
6 10.0 280 -42
7 11.2 228 -54
8 10.9 238 -52
9 12.5 183 -63
10 11.5 217 -56
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
14
12
10
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)
4/7/2004 (Day of Year 98)
NCEP/NCAR Reanalysis 1 Data Set
00UT
Day km hPa C
0 8.0 377 -22
1 10.5 261 -46
2 10.5 255 -45
3 9.2 317 -32
4 8.7 342 -28
5 9.9 289 -38
6 9.7 296 -37
7 11.9 209 -59
06UT
Day km hPa C
0 8.0 378 -21
1 10.1 280 -40
2 10.1 275 -40
3 9.1 321 -31
4 9.7 297 -36
5 10.3 272 -41
6 10.3 273 -41
7 11.4 230 -51
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
14
12
10
8
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)
4/7/2004 (Day of Year 98)
NCEP/NCAR Reanalysis 1 Data Set





12UT

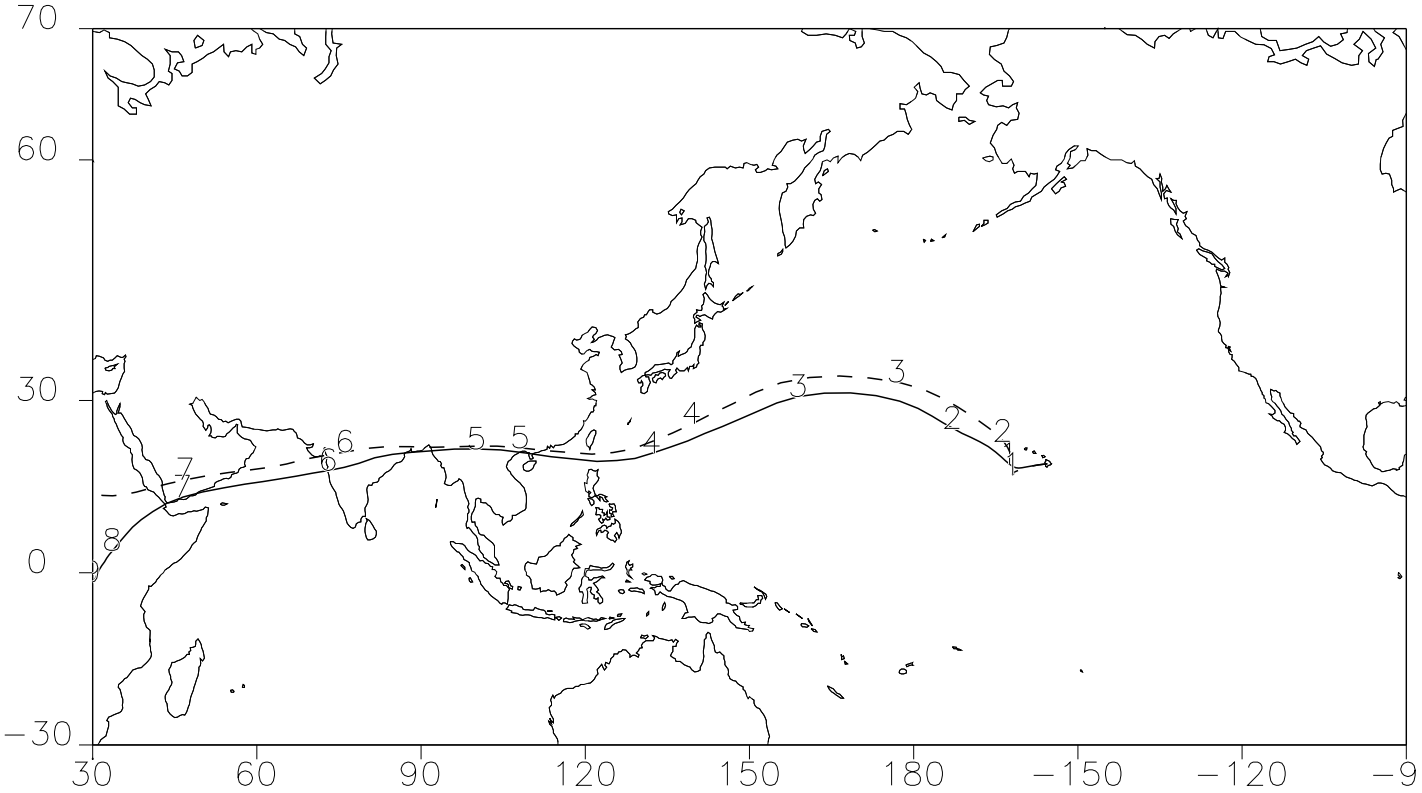
Day	km	hPa	C
0	8.0	377	−22
1	9.8	292	−38
2	10.1	279	−37
3	9.8	291	−35
4	10.6	263	−40
5	10.8	252	−43
6	9.0	330	−26
7	9.3	318	−27
8	9.9	291	−32
9	10.4	271	−36
10	11.3	239	−41

18UT

Day	km	hPa	C
0	8.0	377	−21
1	9.4	310	−33
2	9.8	291	−36
3	9.8	290	−35
4	10.8	255	−41
5	12.0	211	−52
6	10.5	268	−38
7	10.0	289	−31
8	10.3	276	−34
9	10.2	280	−34
10	11.2	243	−40

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

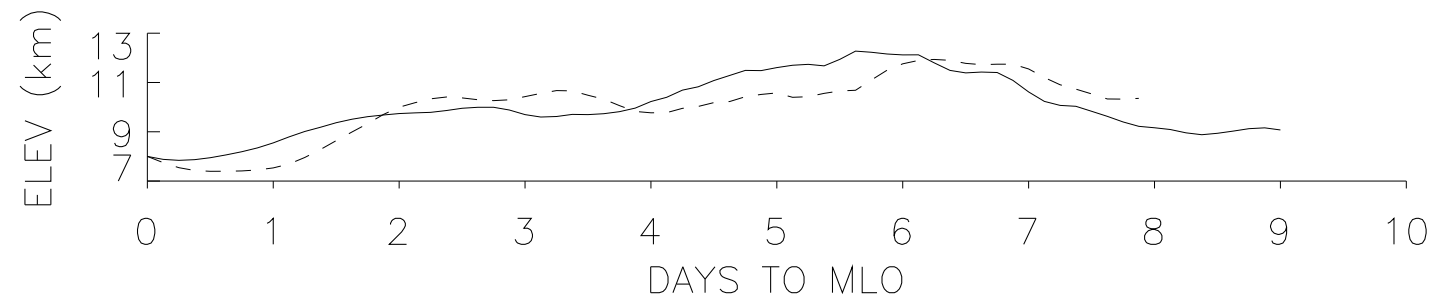


00UT

Day	km	hPa	C
0	8.0	377	−21
1	8.5	350	−25
2	9.7	296	−35
3	9.7	295	−35
4	10.2	276	−38
5	11.6	223	−50
6	12.1	208	−54
7	10.6	261	−40
8	9.2	323	−26
9	9.1	328	−24

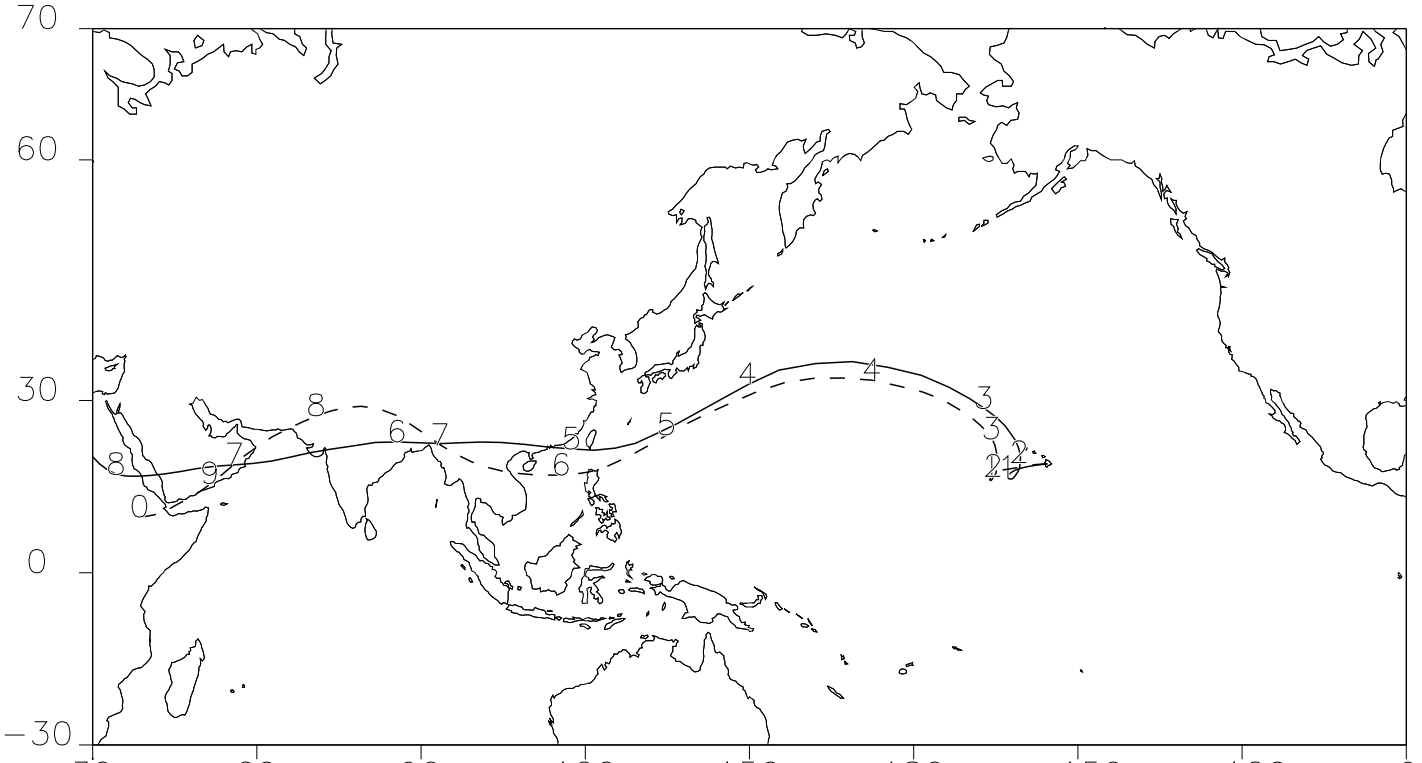
06UT

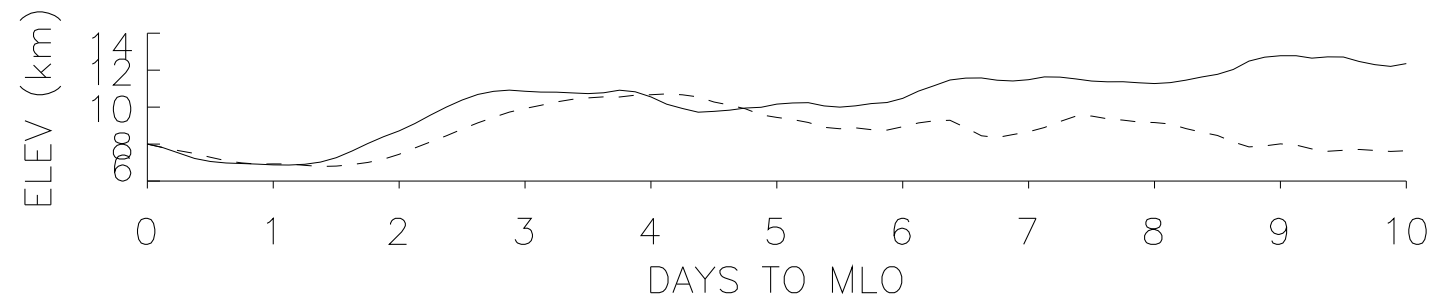
Day	km	hPa	C
0	8.0	376	−21
1	7.5	403	−16
2	10.0	285	−39
3	10.4	263	−42
4	9.8	291	−36
5	10.6	260	−42
6	11.8	219	−52
7	11.5	227	−49



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





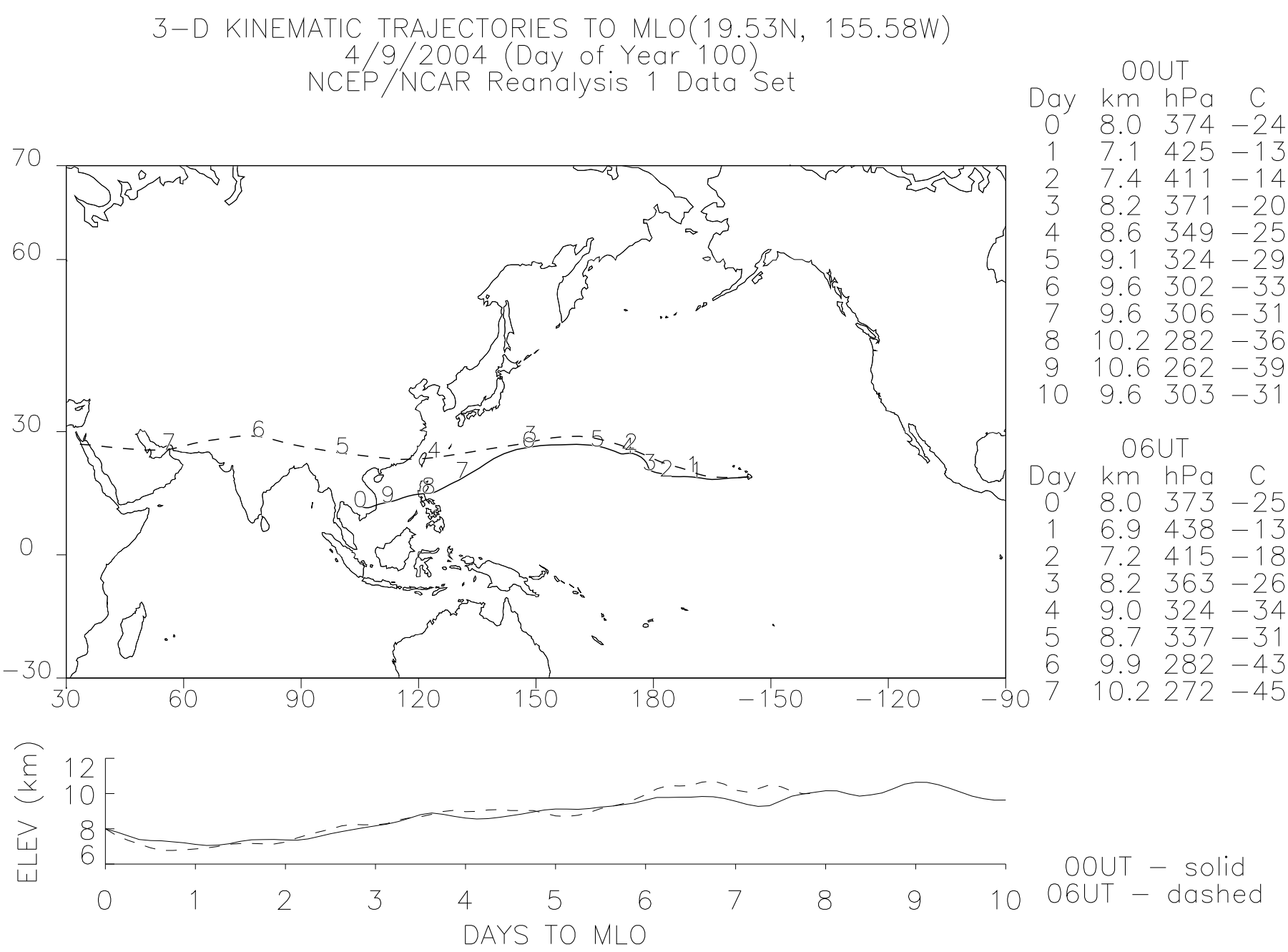
12UT

Day	km	hPa	C
0	8.0	375	−22
1	6.9	438	−11
2	8.7	342	−29
3	10.9	248	−48
4	10.6	256	−45
5	10.2	276	−40
6	10.5	263	−42
7	11.5	227	−51
8	11.3	236	−46
9	12.8	184	−59
10	12.4	194	−55

18UT

Day	km	hPa	C
0	8.0	375	−23
1	6.9	436	−11
2	7.4	407	−15
3	9.9	287	−40
4	10.7	253	−44
5	9.4	306	−33
6	8.9	332	−29
7	8.7	342	−29
8	9.2	317	−35
9	8.0	376	−23
10	7.6	397	−18

12UT − solid
18UT − dashed



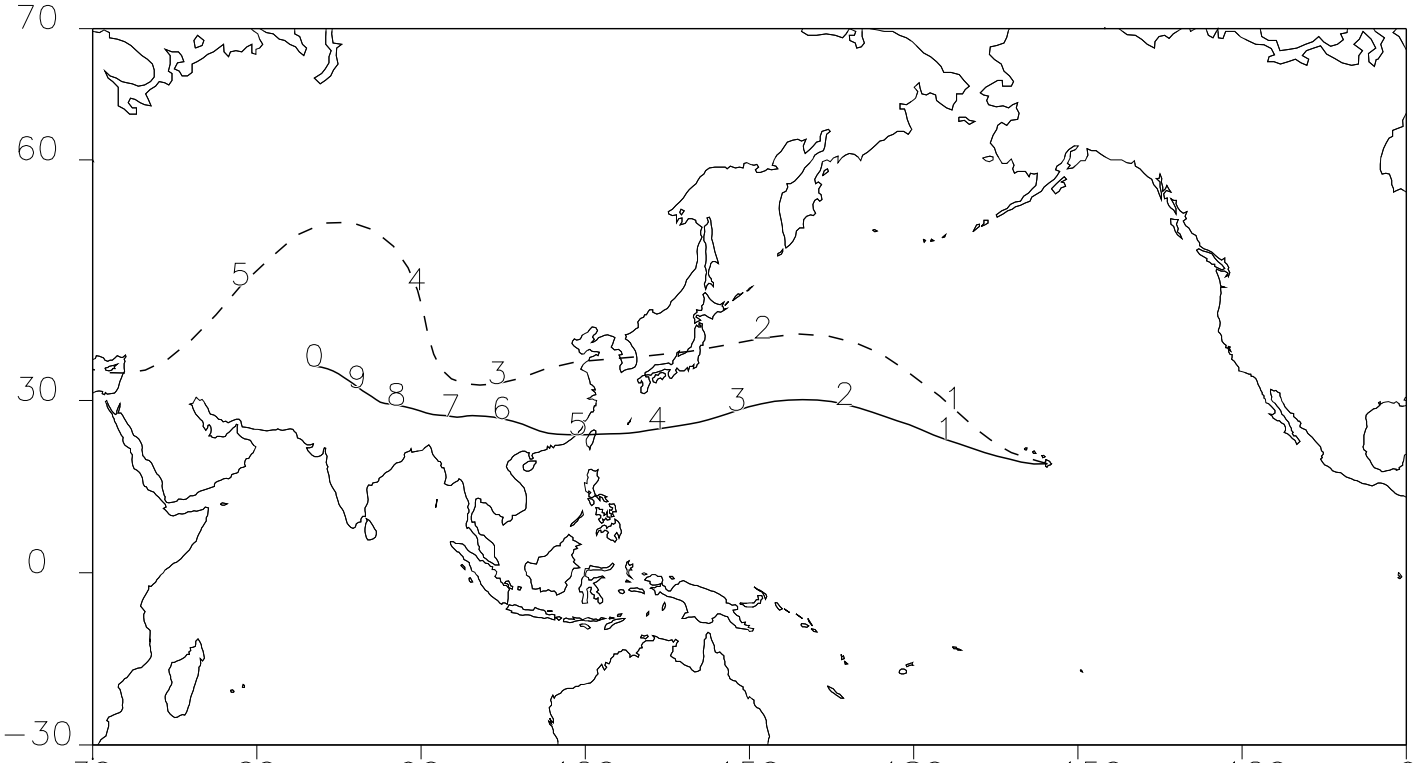
00UT

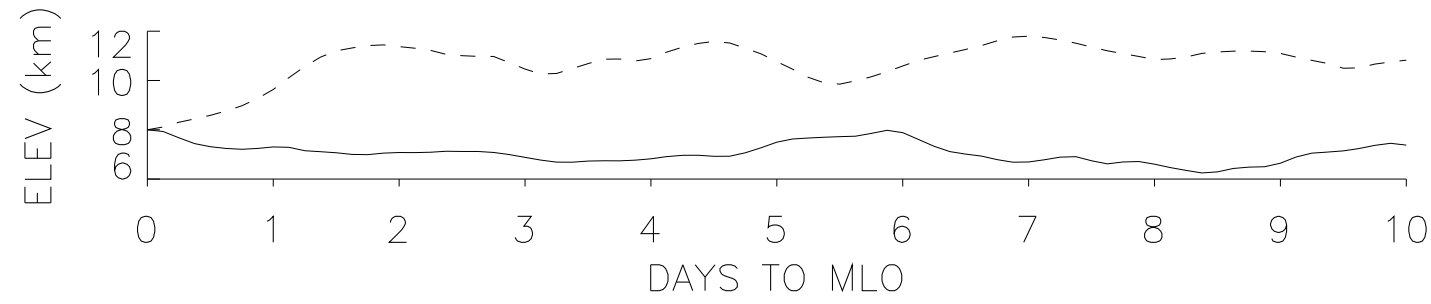
Day	km	hPa	C
0	8.0	374	-24
1	7.1	425	-13
2	7.4	411	-14
3	8.2	371	-20
4	8.6	349	-25
5	9.1	324	-29
6	9.6	302	-33
7	9.6	306	-31
8	10.2	282	-36
9	10.6	262	-39
10	9.6	303	-31

06UT

Day	km	hPa	C
0	8.0	373	-25
1	6.9	438	-13
2	7.2	415	-18
3	8.2	363	-26
4	9.0	324	-34
5	8.7	337	-31
6	9.9	282	-43
7	10.2	272	-45

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





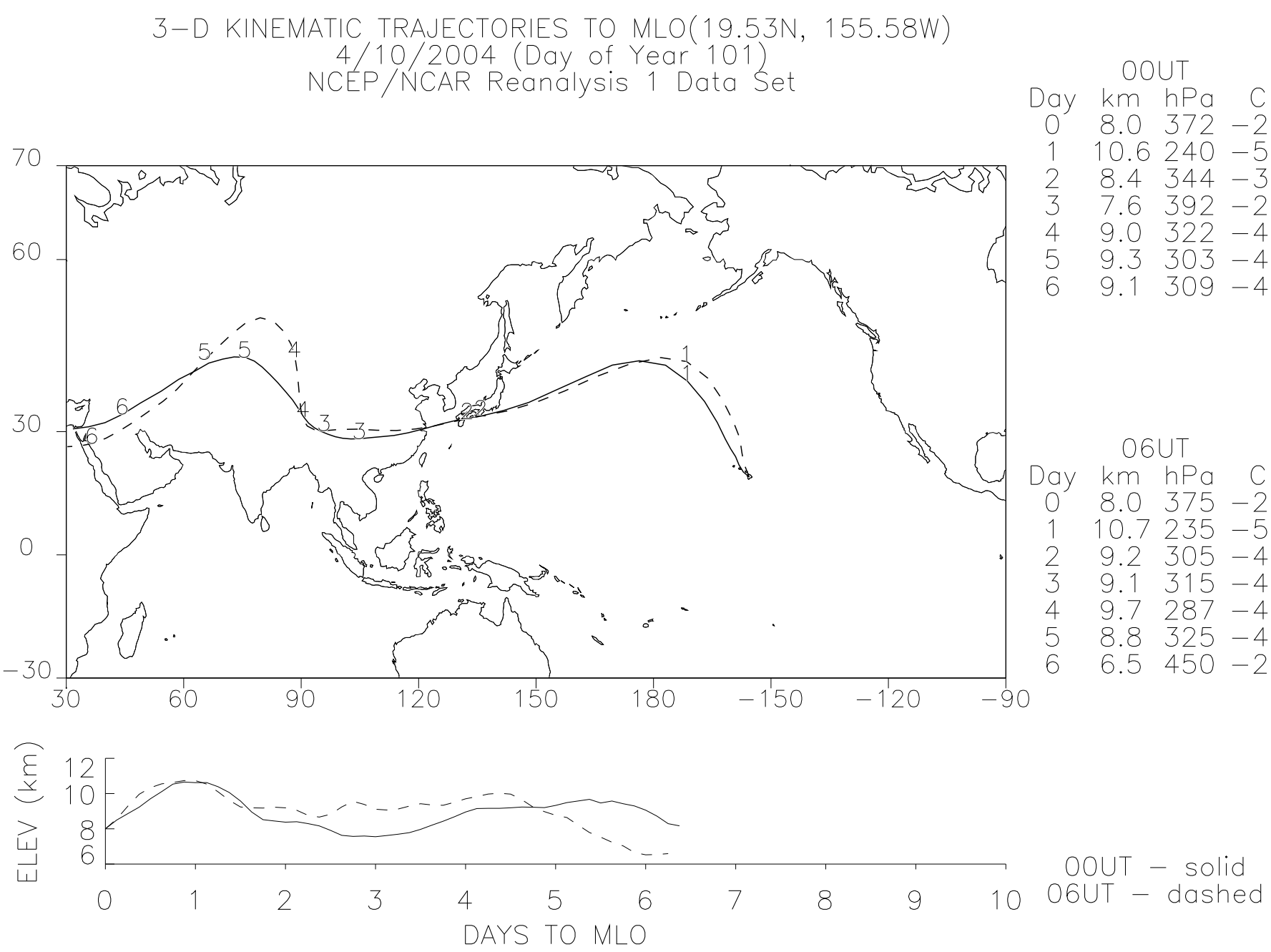
12UT

Day	km	hPa	C
0	8.0	372	−26
1	7.3	412	−20
2	7.1	424	−18
3	6.9	436	−17
4	6.8	438	−18
5	7.5	399	−23
6	7.9	378	−27
7	6.7	443	−18
8	6.6	450	−17
9	6.6	445	−20
10	7.4	402	−28

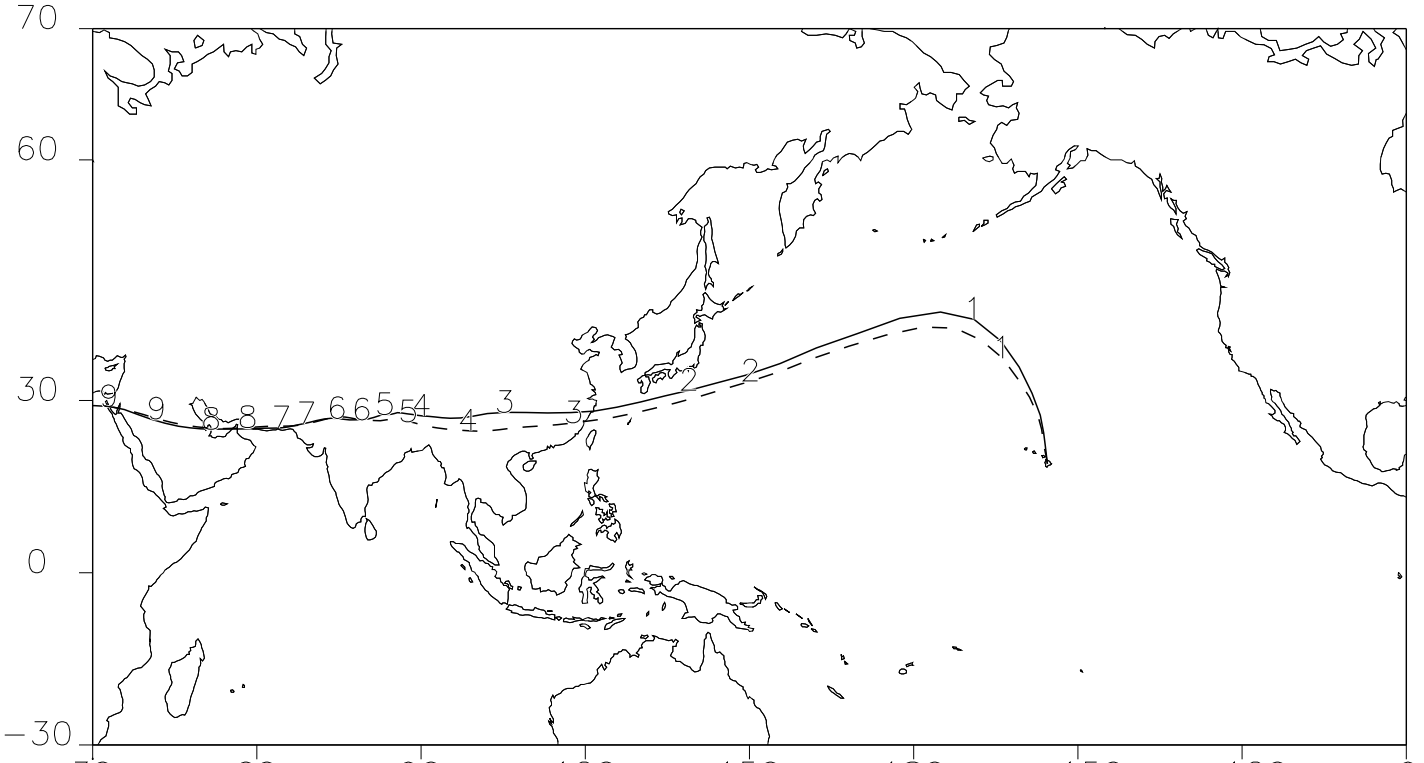
18UT

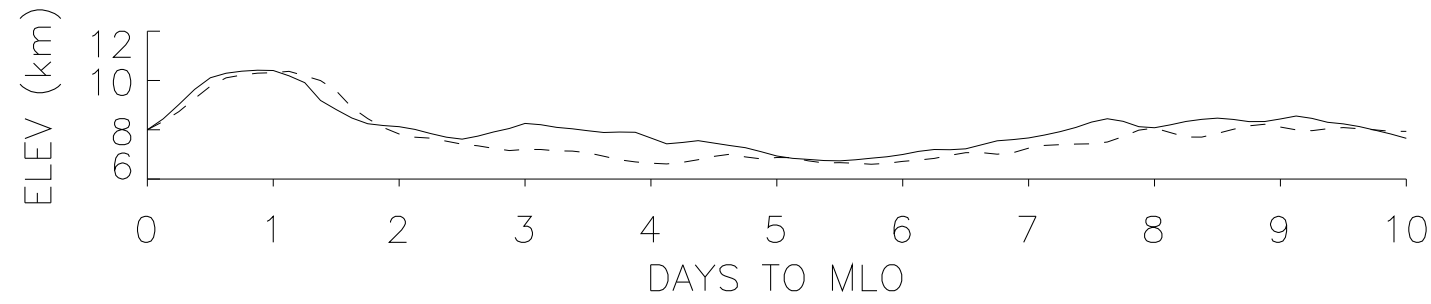
Day	km	hPa	C
0	8.0	372	−27
1	9.6	291	−42
2	11.4	215	−61
3	10.5	252	−55
4	10.9	234	−57
5	10.8	231	−55
6	10.6	242	−52
7	11.8	200	−64
8	10.8	230	−56
9	11.1	216	−59
10	10.8	233	−56

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 8.0 372 -28
1 10.6 240 -56
2 8.4 344 -33
3 7.6 392 -26
4 9.0 322 -41
5 9.3 303 -44
6 9.1 309 -45
06UT
Day km hPa C
0 8.0 375 -27
1 10.7 235 -56
2 9.2 305 -40
3 9.1 315 -40
4 9.7 287 -46
5 8.8 325 -40
6 6.5 450 -20
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
12
10
8
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)
4/10/2004 (Day of Year 101)
NCEP/NCAR Reanalysis 1 Data Set





12UT

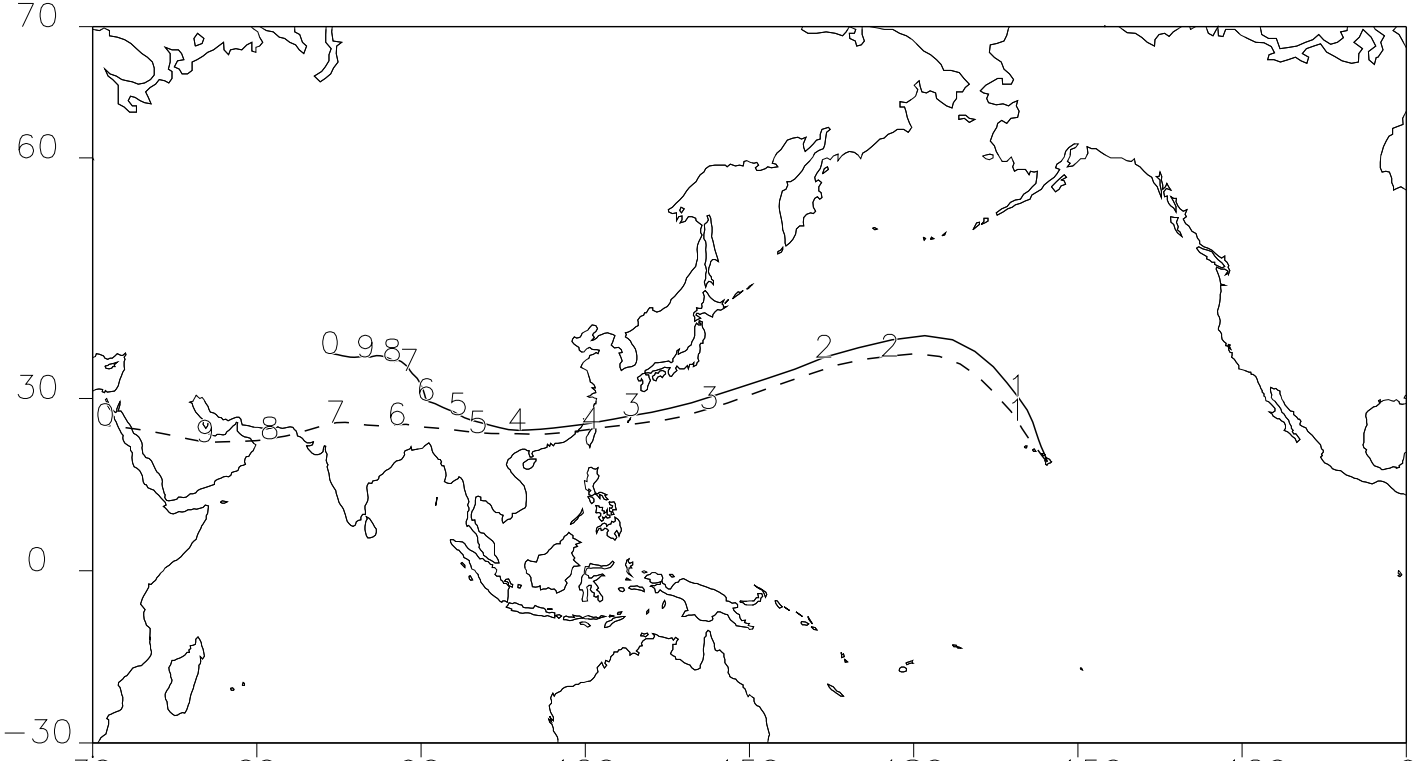
Day	km	hPa	C
0	8.0	374	-27
1	10.4	251	-52
2	8.1	359	-29
3	8.3	356	-29
4	7.7	389	-25
5	6.9	430	-20
6	7.0	428	-20
7	7.7	391	-25
8	8.1	369	-28
9	8.4	350	-31
10	7.7	394	-24

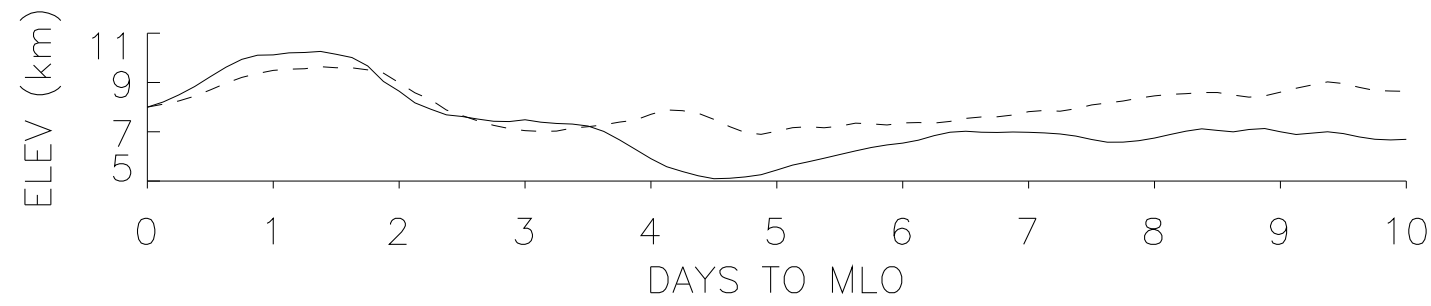
18UT

Day	km	hPa	C
0	8.0	376	-26
1	10.3	260	-50
2	7.8	373	-27
3	7.2	415	-18
4	6.6	448	-16
5	6.9	435	-18
6	6.7	445	-18
7	7.3	415	-21
8	8.1	371	-28
9	8.1	366	-28
10	7.9	377	-27

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

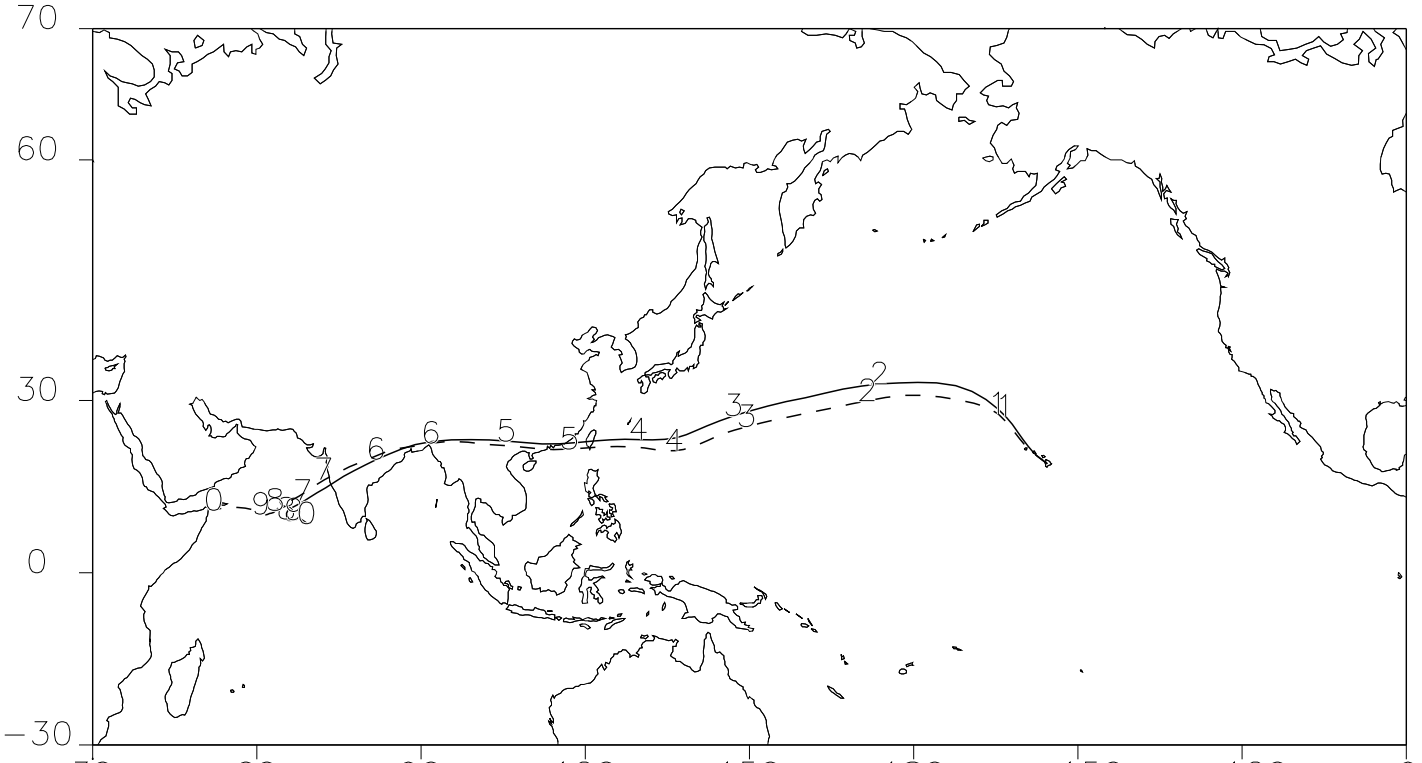
Day	km	hPa	C
0	8.0	375	−26
1	10.1	272	−45
2	8.6	331	−34
3	7.5	399	−19
4	5.9	492	−10
5	5.4	521	−10
6	6.5	453	−18
7	7.0	426	−23
8	6.7	438	−22
9	7.0	423	−23
10	6.7	442	−21

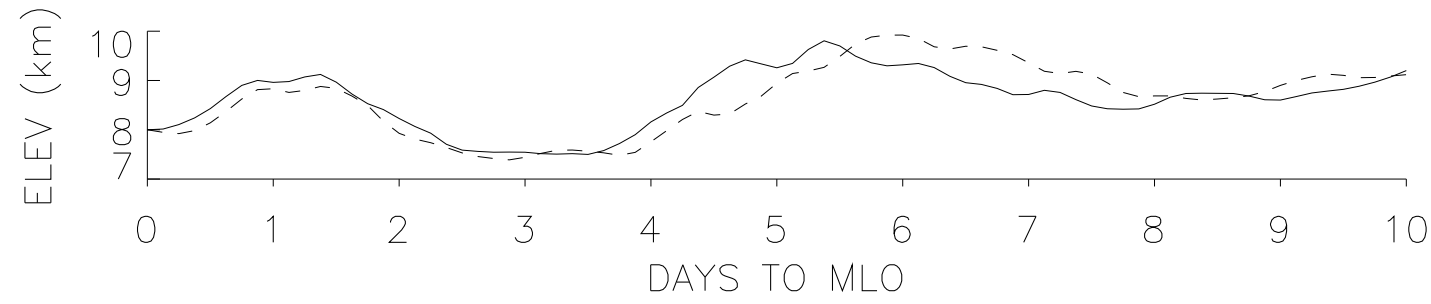
06UT

Day	km	hPa	C
0	8.0	376	−25
1	9.5	303	−38
2	9.0	318	−36
3	7.0	423	−16
4	7.7	389	−20
5	7.0	426	−17
6	7.4	409	−21
7	7.8	386	−25
8	8.5	353	−30
9	8.6	345	−31
10	8.6	343	−30

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

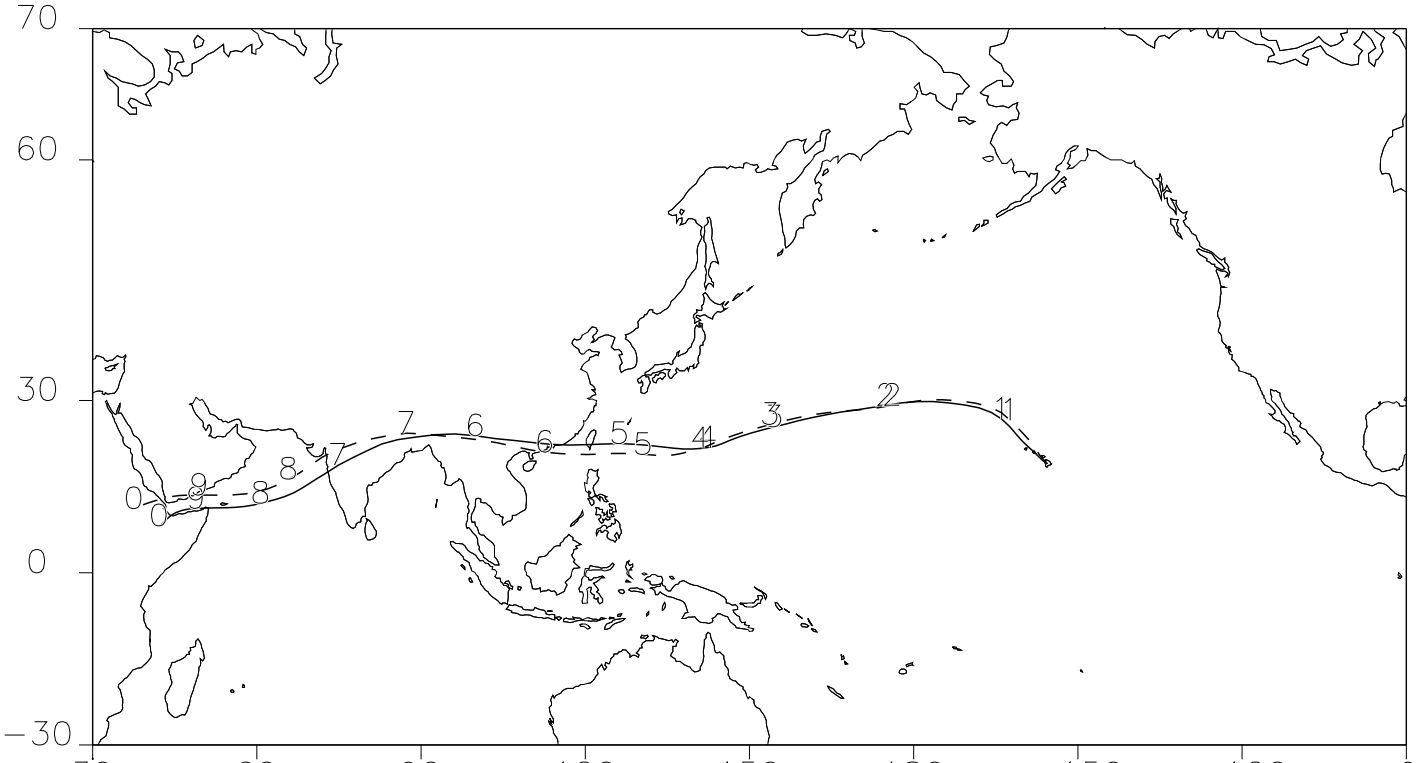
Day	km	hPa	C
0	8.0	375	−25
1	9.0	326	−33
2	8.2	360	−28
3	7.5	399	−18
4	8.2	369	−22
5	9.3	314	−31
6	9.3	312	−32
7	8.7	343	−26
8	8.5	353	−23
9	8.6	349	−23
10	9.2	321	−26

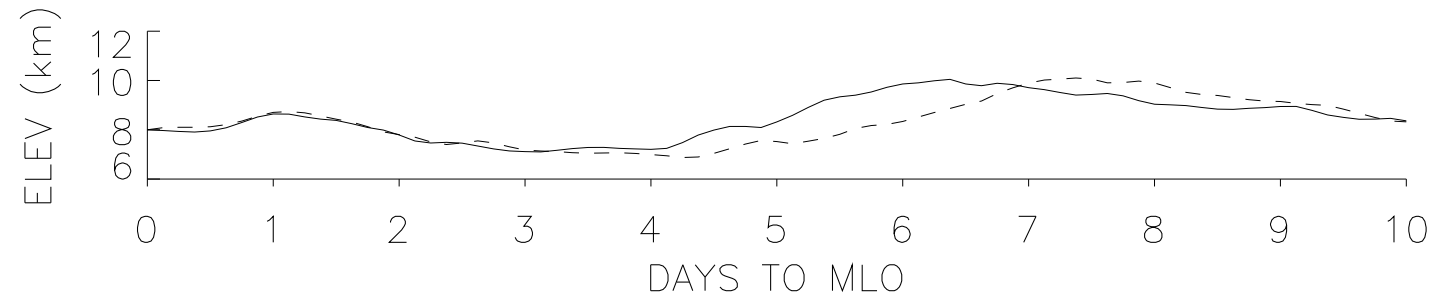
18UT

Day	km	hPa	C
0	8.0	376	−24
1	8.8	334	−33
2	7.9	377	−24
3	7.4	405	−17
4	7.8	390	−18
5	8.9	329	−29
6	9.9	287	−38
7	9.4	314	−33
8	8.7	346	−25
9	8.9	336	−26
10	9.1	326	−29

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

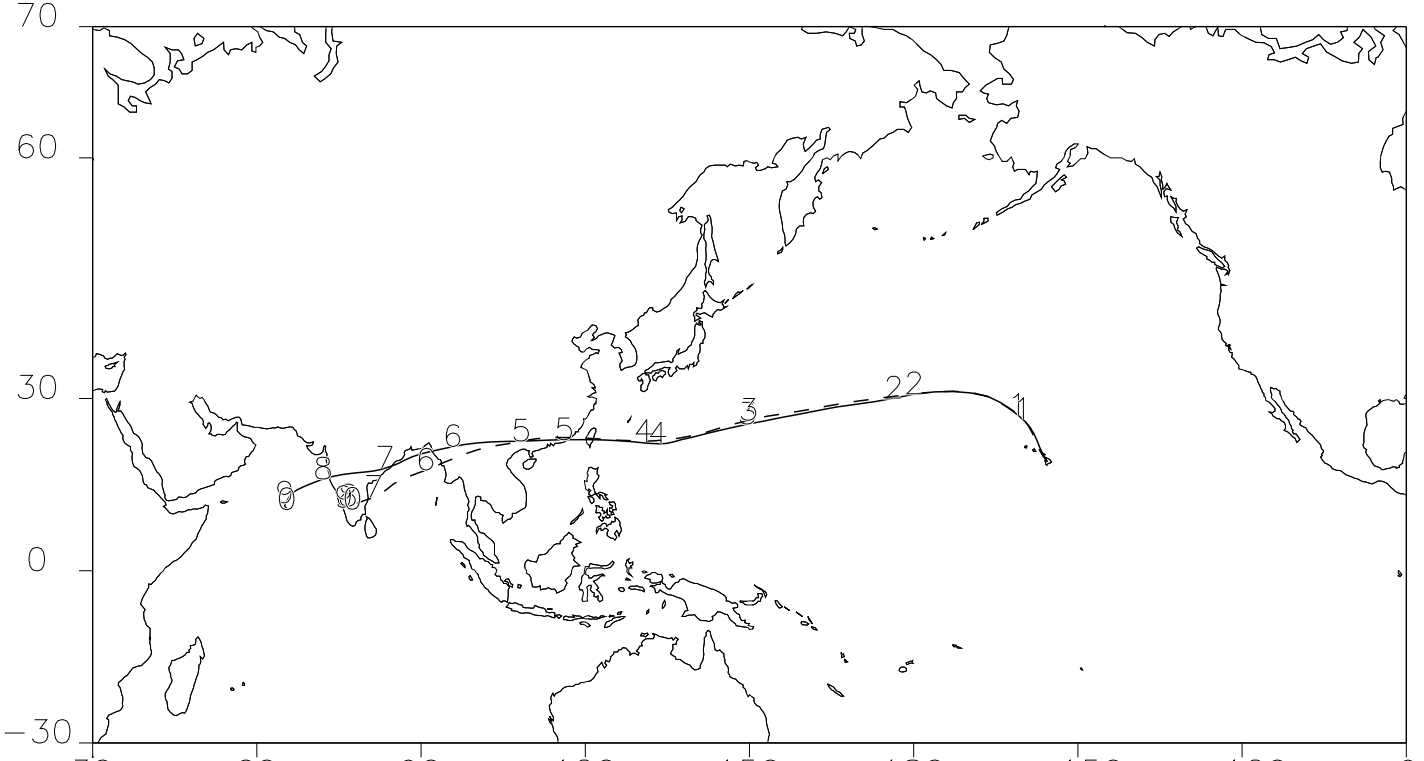
Day	km	hPa	C
0	8.0	375	-25
1	8.6	342	-31
2	7.8	386	-23
3	7.1	425	-14
4	7.2	421	-14
5	8.3	360	-24
6	9.9	287	-38
7	9.7	295	-37
8	9.0	328	-30
9	8.9	332	-28
10	8.4	361	-22

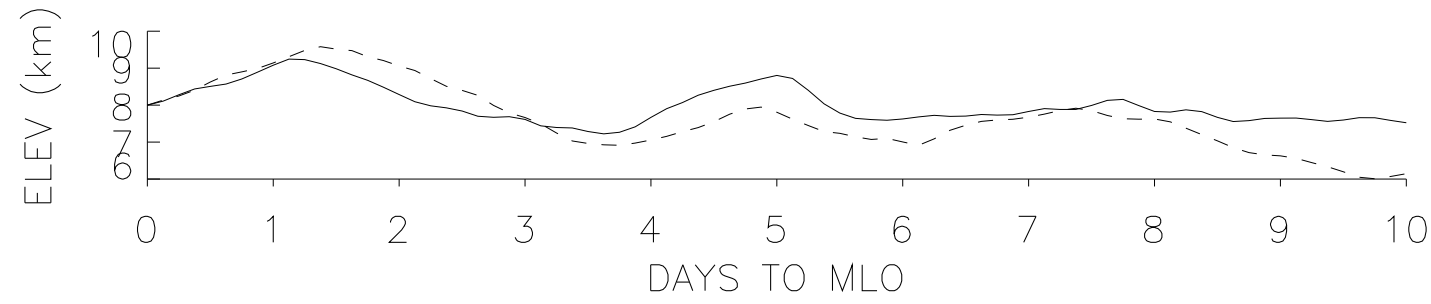
06UT

Day	km	hPa	C
0	8.0	375	-24
1	8.7	339	-32
2	7.8	384	-23
3	7.2	419	-16
4	7.0	432	-13
5	7.5	402	-17
6	8.3	358	-24
7	9.9	287	-39
8	9.9	290	-38
9	9.1	323	-31
10	8.3	362	-21

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

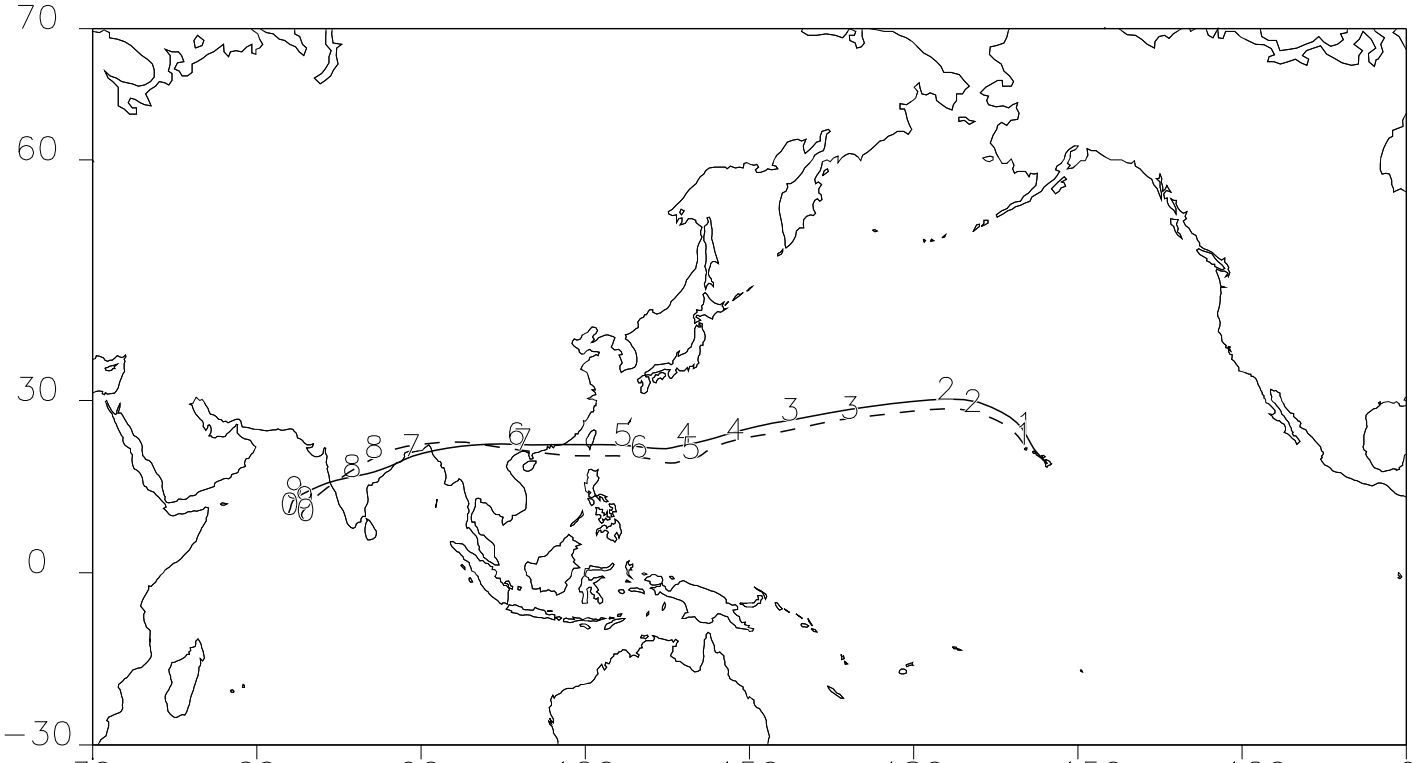
Day	km	hPa	C
0	8.0	375	-24
1	9.1	321	-35
2	8.3	358	-29
3	7.6	396	-19
4	7.7	395	-17
5	8.8	337	-27
6	7.6	394	-19
7	7.8	385	-20
8	7.8	387	-20
9	7.6	397	-18
10	7.5	403	-16

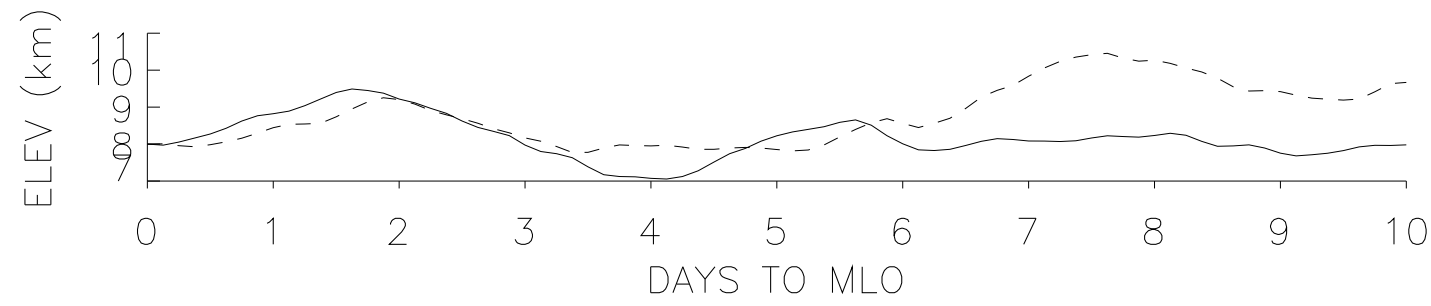
18UT

Day	km	hPa	C
0	8.0	376	-23
1	9.1	319	-35
2	9.1	320	-36
3	7.7	391	-21
4	7.1	426	-14
5	7.8	385	-20
6	7.0	431	-15
7	7.7	396	-18
8	7.6	400	-17
9	6.6	456	-10
10	6.1	485	-7

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

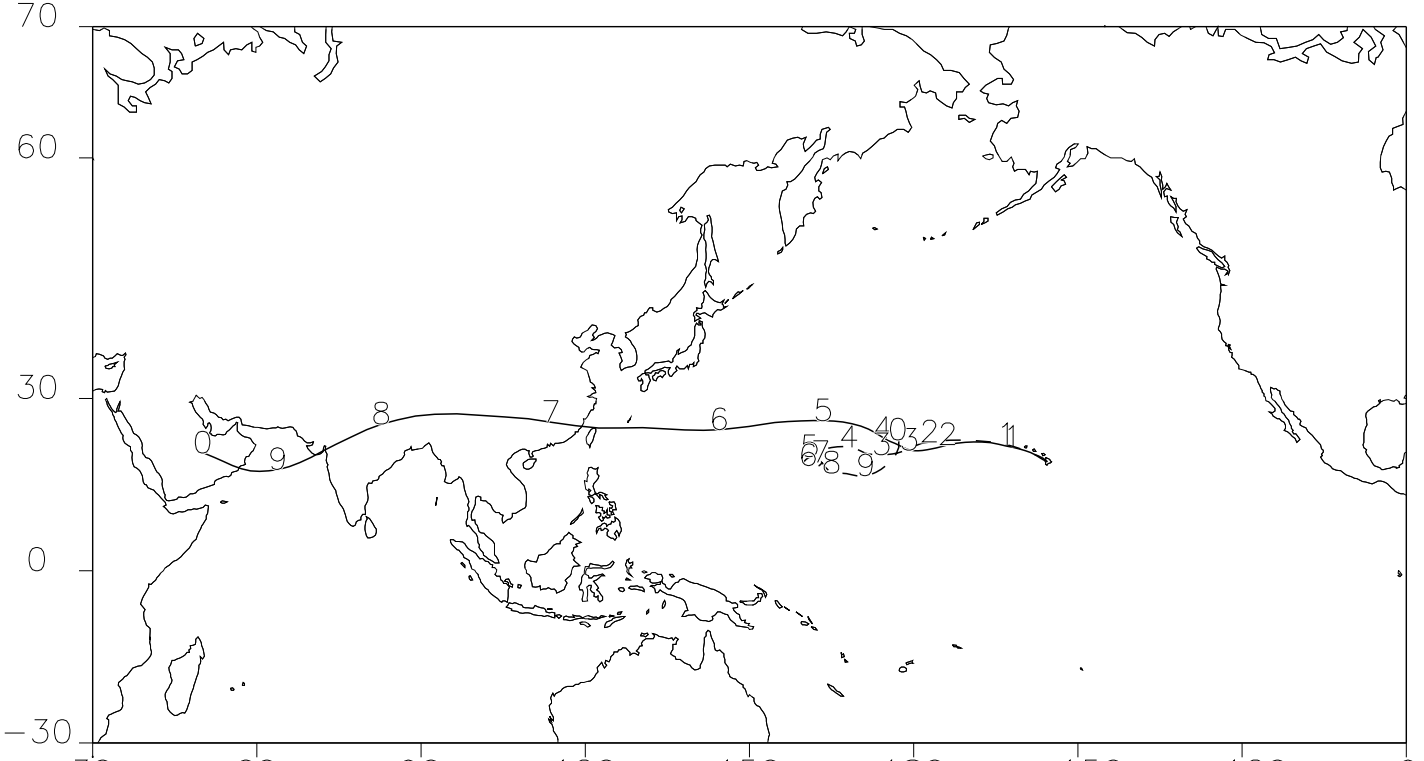
Day	km	hPa	C
0	8.0	376	-24
1	8.8	334	-32
2	9.2	314	-36
3	8.0	376	-23
4	7.1	427	-13
5	8.2	365	-22
6	8.0	375	-22
7	8.1	371	-23
8	8.2	365	-25
9	7.8	392	-19
10	8.0	379	-19

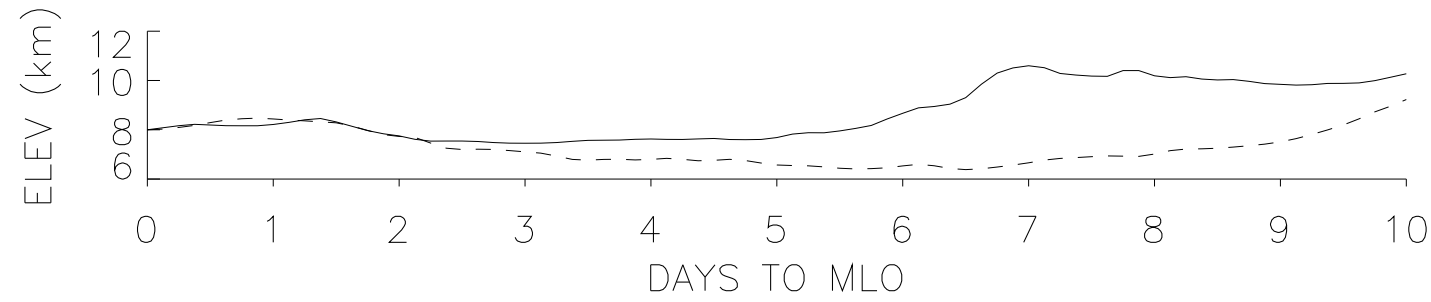
06UT

Day	km	hPa	C
0	8.0	376	-24
1	8.4	353	-28
2	9.2	316	-35
3	8.2	366	-25
4	8.0	379	-19
5	7.9	386	-18
6	8.6	350	-24
7	9.8	291	-35
8	10.3	273	-40
9	9.4	313	-30
10	9.7	302	-31

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

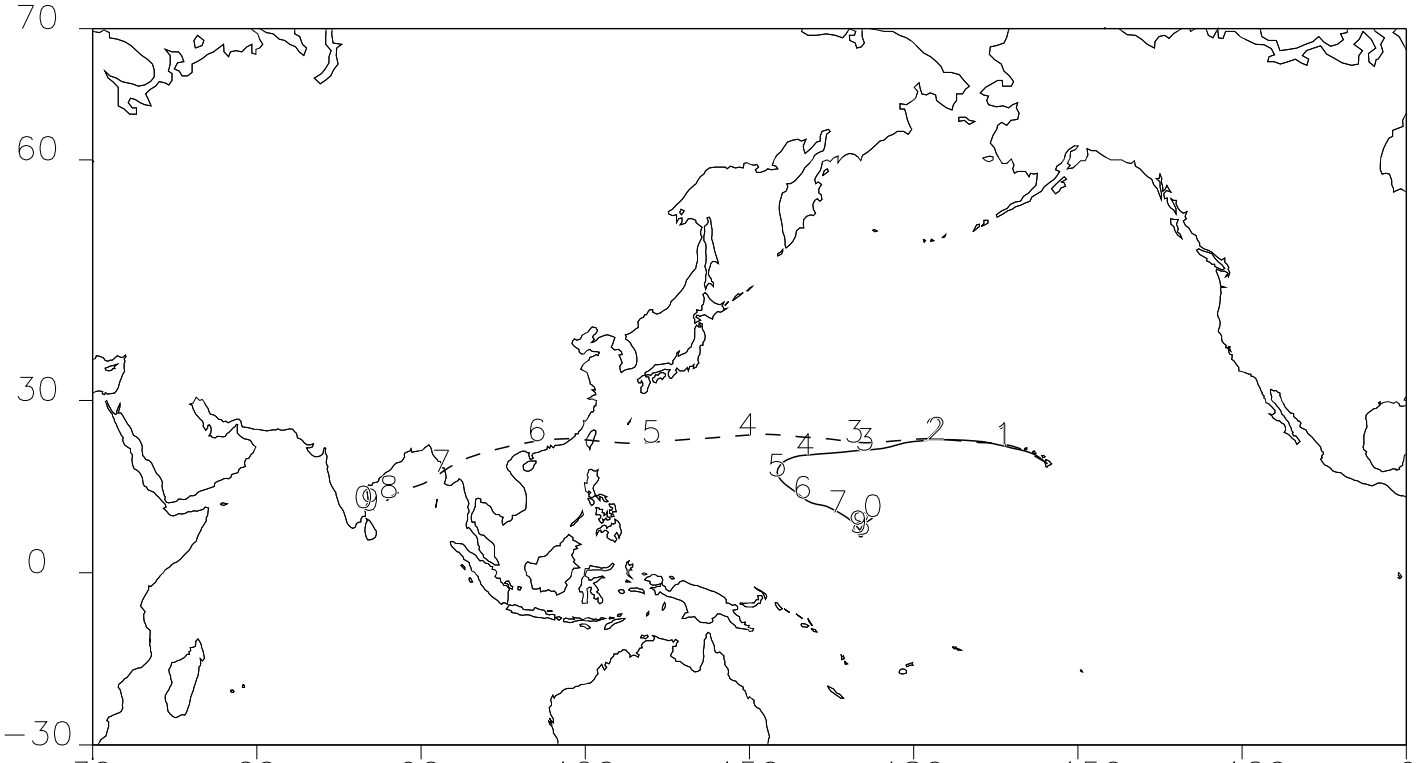
Day	km	hPa	C
0	8.0	375	−25
1	8.2	364	−27
2	7.8	390	−21
3	7.5	407	−16
4	7.6	398	−18
5	7.7	394	−19
6	8.7	344	−27
7	10.6	254	−47
8	10.2	272	−44
9	9.8	290	−38
10	10.3	271	−42

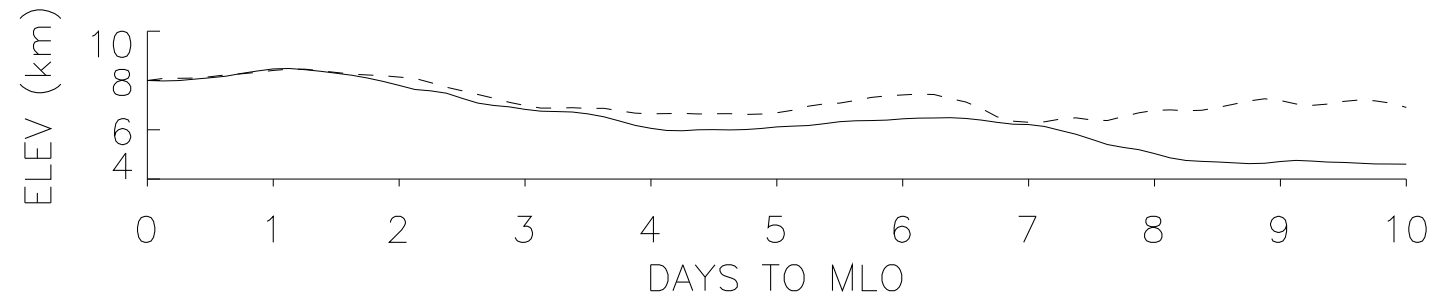
18UT

Day	km	hPa	C
0	8.0	375	−25
1	8.4	353	−30
2	7.7	389	−22
3	7.1	426	−14
4	6.8	444	−12
5	6.6	457	−9
6	6.5	459	−9
7	6.7	453	−8
8	7.0	432	−11
9	7.5	404	−14
10	9.2	318	−31

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

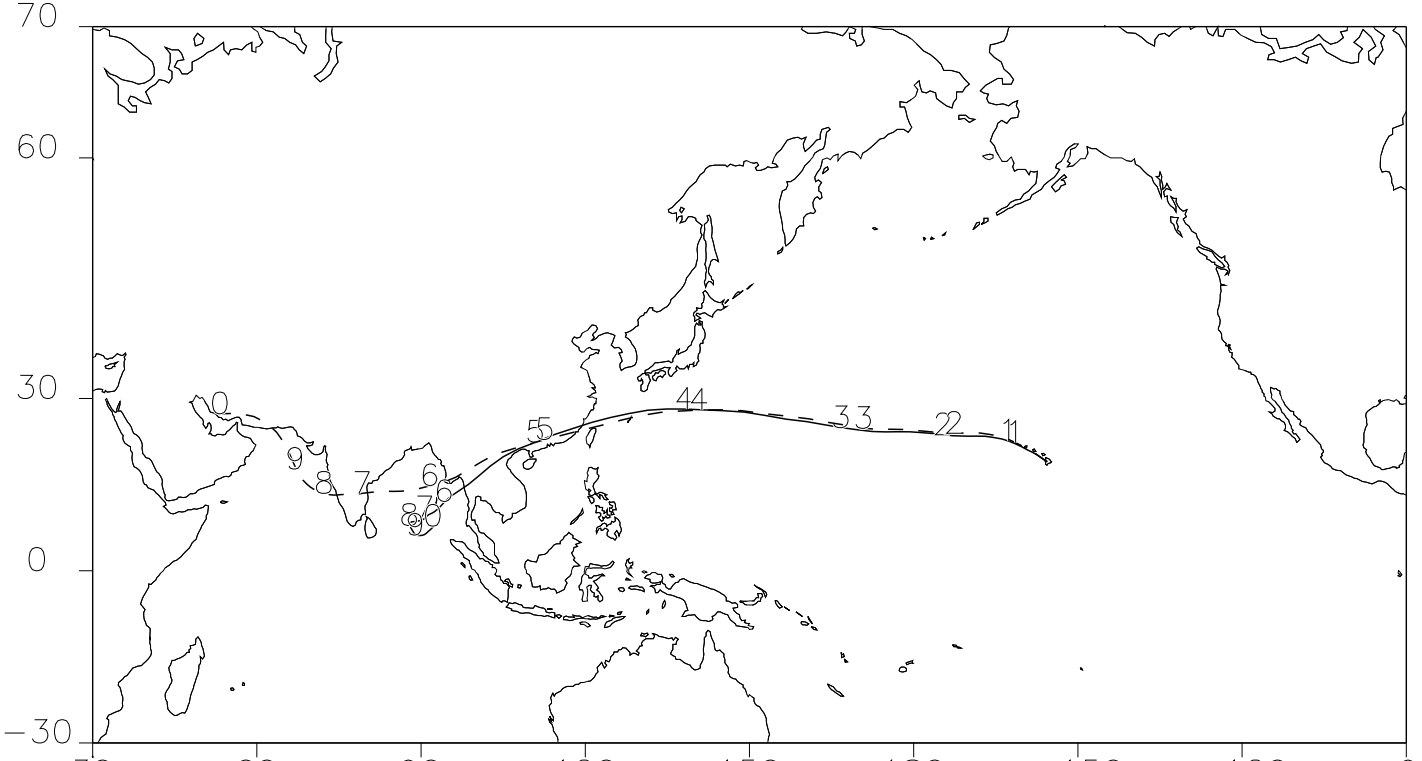
Day	km	hPa	C
0	8.0	375	-25
1	8.5	351	-30
2	7.8	385	-23
3	6.8	442	-12
4	6.1	490	-5
5	6.1	486	-6
6	6.4	465	-7
7	6.2	479	-5
8	5.0	555	-1
9	4.7	578	0
10	4.6	585	1

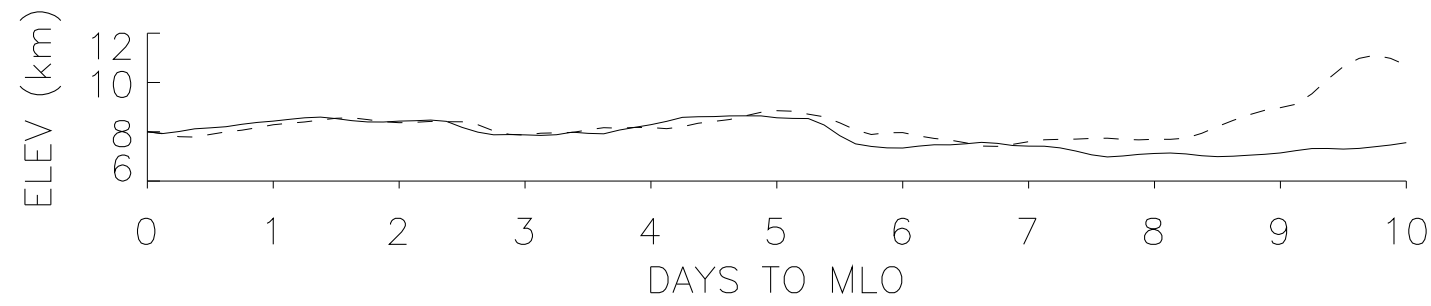
06UT

Day	km	hPa	C
0	8.0	375	-25
1	8.4	354	-28
2	8.1	367	-26
3	7.0	431	-14
4	6.6	450	-13
5	6.7	447	-11
6	7.4	406	-18
7	6.3	473	-10
8	6.8	445	-12
9	7.2	423	-14
10	6.9	440	-12

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





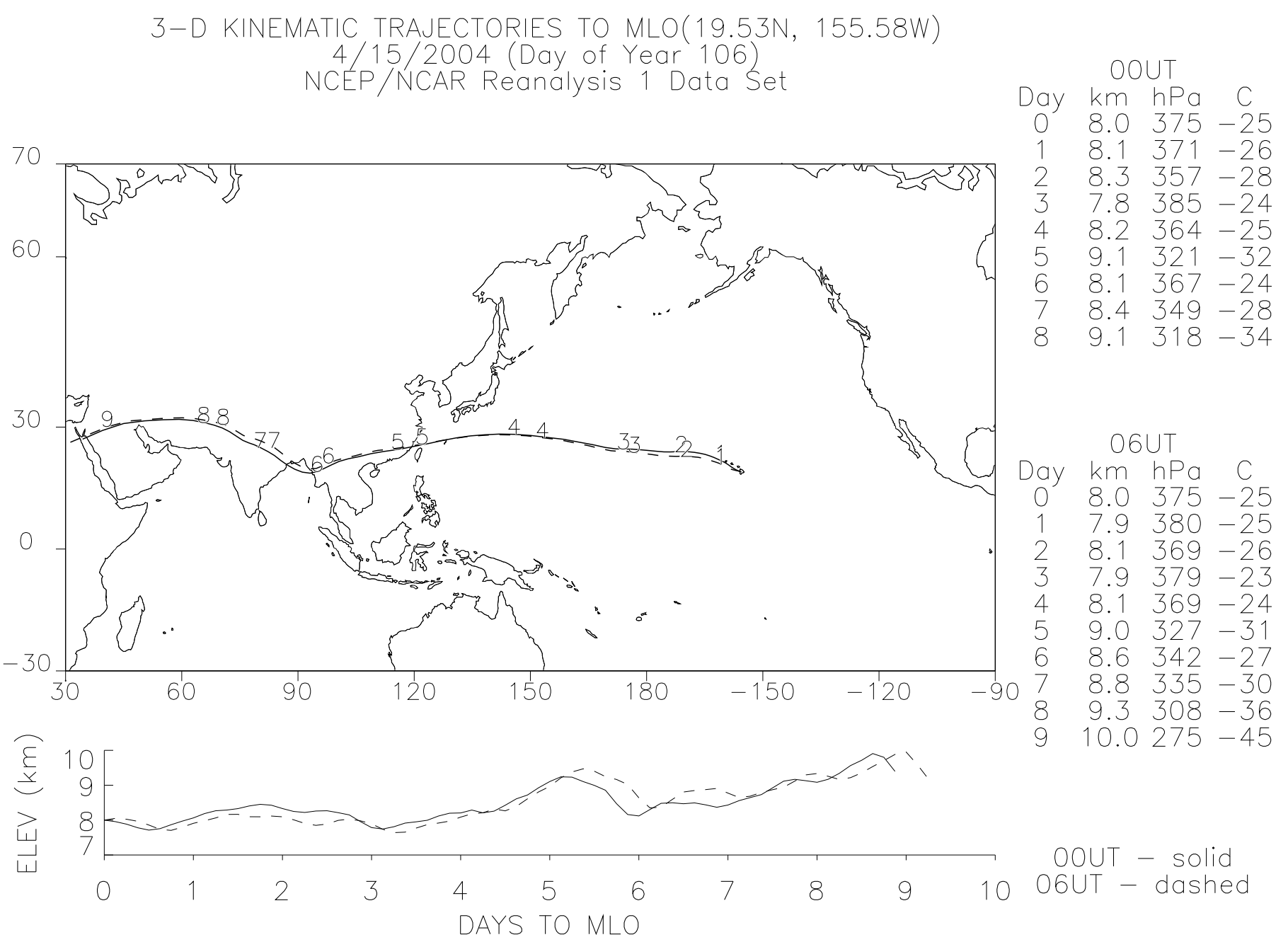
12UT

Day	km	hPa	C
0	8.0	375	−25
1	8.4	353	−30
2	8.4	352	−29
3	7.9	382	−22
4	8.3	360	−25
5	8.6	347	−26
6	7.3	412	−15
7	7.4	409	−15
8	7.1	425	−14
9	7.1	424	−14
10	7.6	401	−15

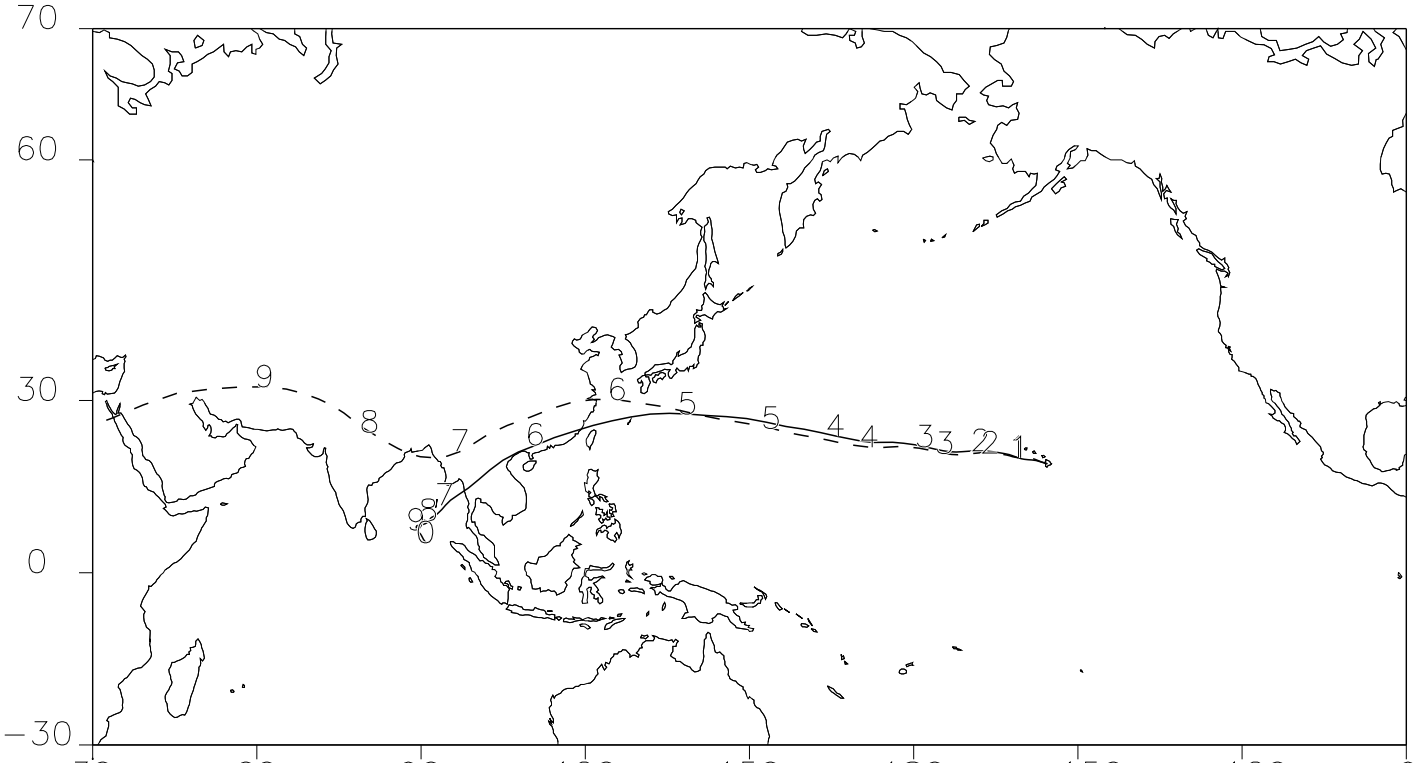
18UT

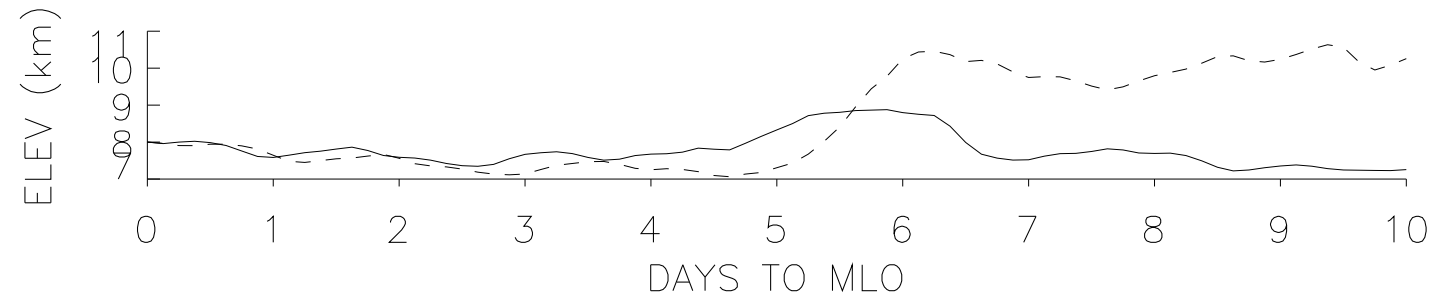
Day	km	hPa	C
0	8.0	376	−25
1	8.3	360	−28
2	8.4	355	−28
3	7.9	380	−24
4	8.2	364	−25
5	8.9	333	−29
6	8.0	379	−21
7	7.6	399	−17
8	7.7	394	−19
9	9.0	330	−30
10	10.7	254	−45

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 8.0 375 -25
1 8.1 371 -26
2 8.3 357 -28
3 7.8 385 -24
4 8.2 364 -25
5 9.1 321 -32
6 8.1 367 -24
7 8.4 349 -28
8 9.1 318 -34
06UT
Day km hPa C
0 8.0 375 -25
1 7.9 380 -25
2 8.1 369 -26
3 7.9 379 -23
4 8.1 369 -24
5 9.0 327 -31
6 8.6 342 -27
7 8.8 335 -30
8 9.3 308 -36
9 10.0 275 -45
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
10
9
8
7
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)
4/15/2004 (Day of Year 106)
NCEP/NCAR Reanalysis 1 Data Set





12UT

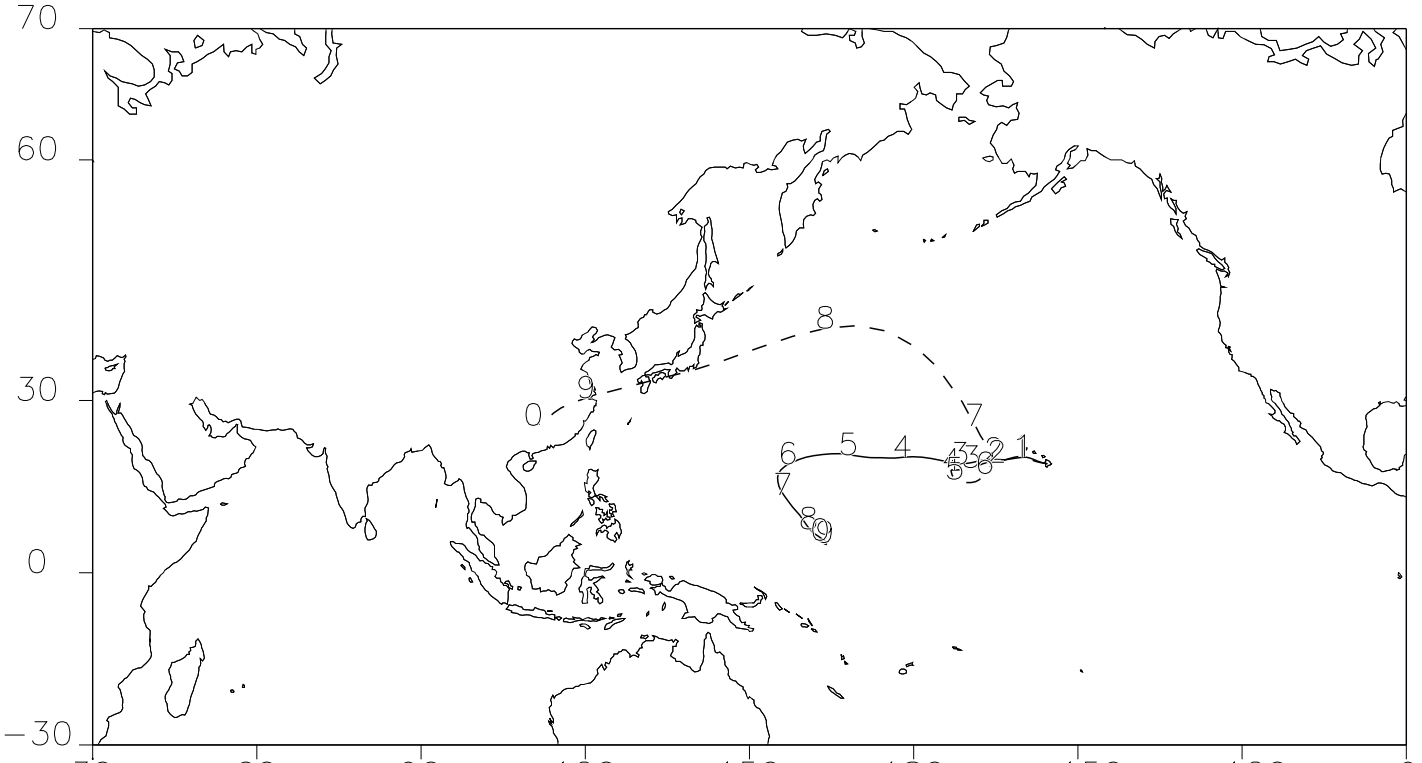
Day	km	hPa	C
0	8.0	374	−25
1	7.6	397	−21
2	7.6	397	−22
3	7.7	393	−22
4	7.7	393	−19
5	8.3	359	−25
6	8.8	336	−28
7	7.5	403	−16
8	7.7	394	−16
9	7.4	412	−15
10	7.3	417	−14

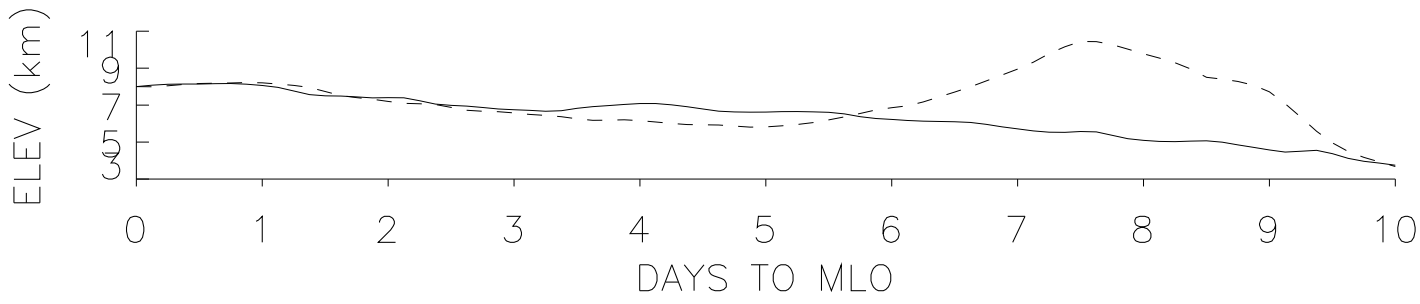
18UT

Day	km	hPa	C
0	8.0	375	−25
1	7.6	394	−22
2	7.6	398	−21
3	7.1	422	−18
4	7.3	416	−17
5	7.3	412	−16
6	10.3	270	−43
7	9.7	291	−37
8	9.8	289	−36
9	10.2	268	−41
10	10.3	267	−44

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

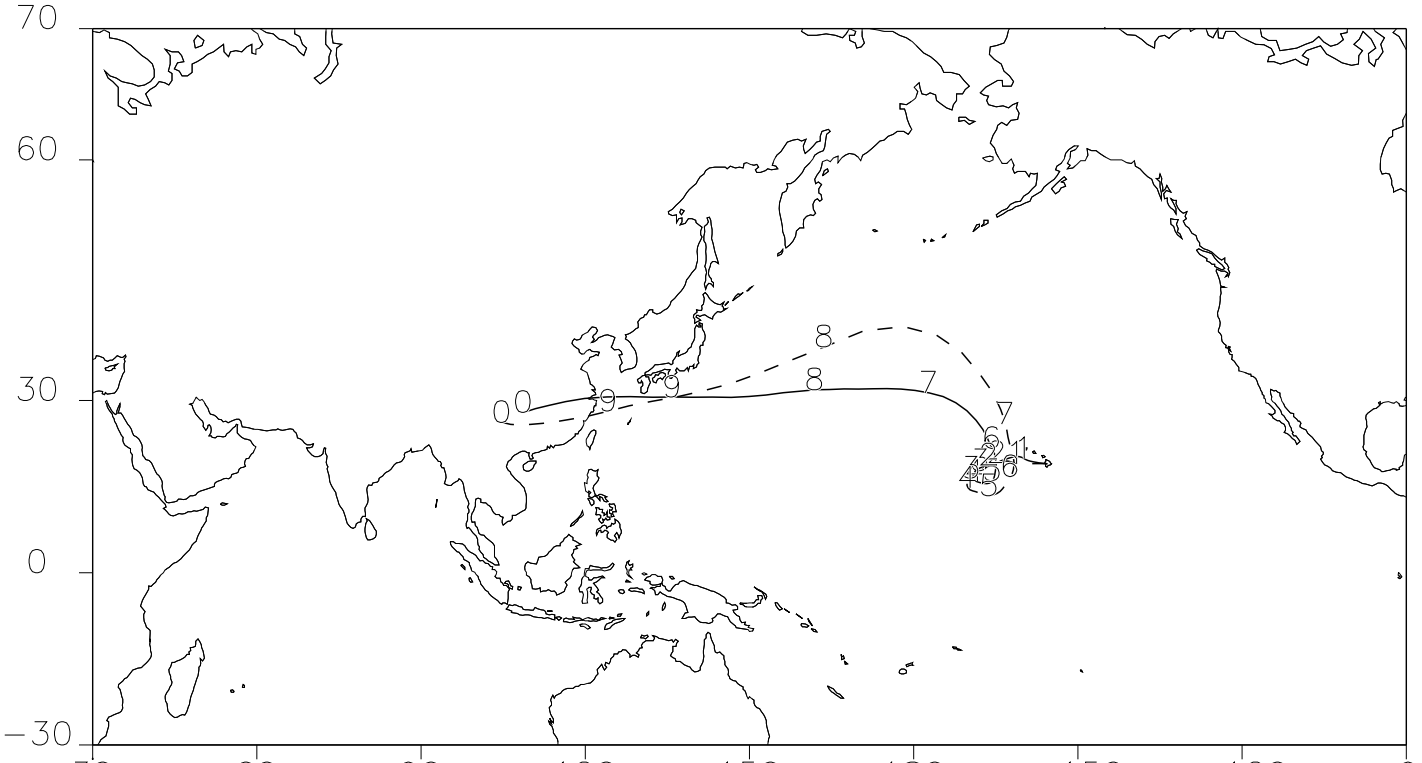
Day	km	hPa	C
0	8.0	374	−25
1	8.1	372	−26
2	7.4	407	−20
3	6.8	445	−15
4	7.1	426	−16
5	6.6	455	−10
6	6.2	480	−6
7	5.7	511	−4
8	5.1	552	0
9	4.6	588	2
10	3.7	651	7

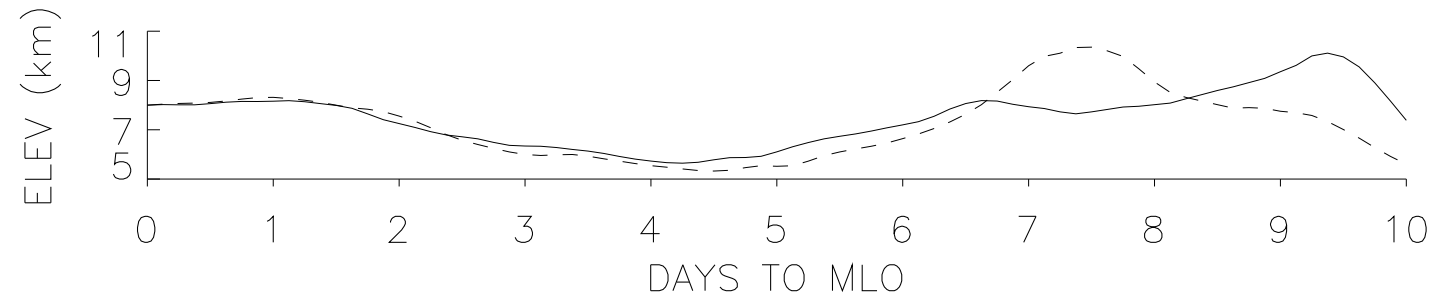
06UT

Day	km	hPa	C
0	8.0	375	−25
1	8.2	364	−27
2	7.2	418	−19
3	6.6	455	−13
4	6.2	481	−9
5	5.8	504	−5
6	6.9	439	−15
7	9.0	325	−37
8	9.8	277	−46
9	7.7	382	−27
10	3.7	651	4

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





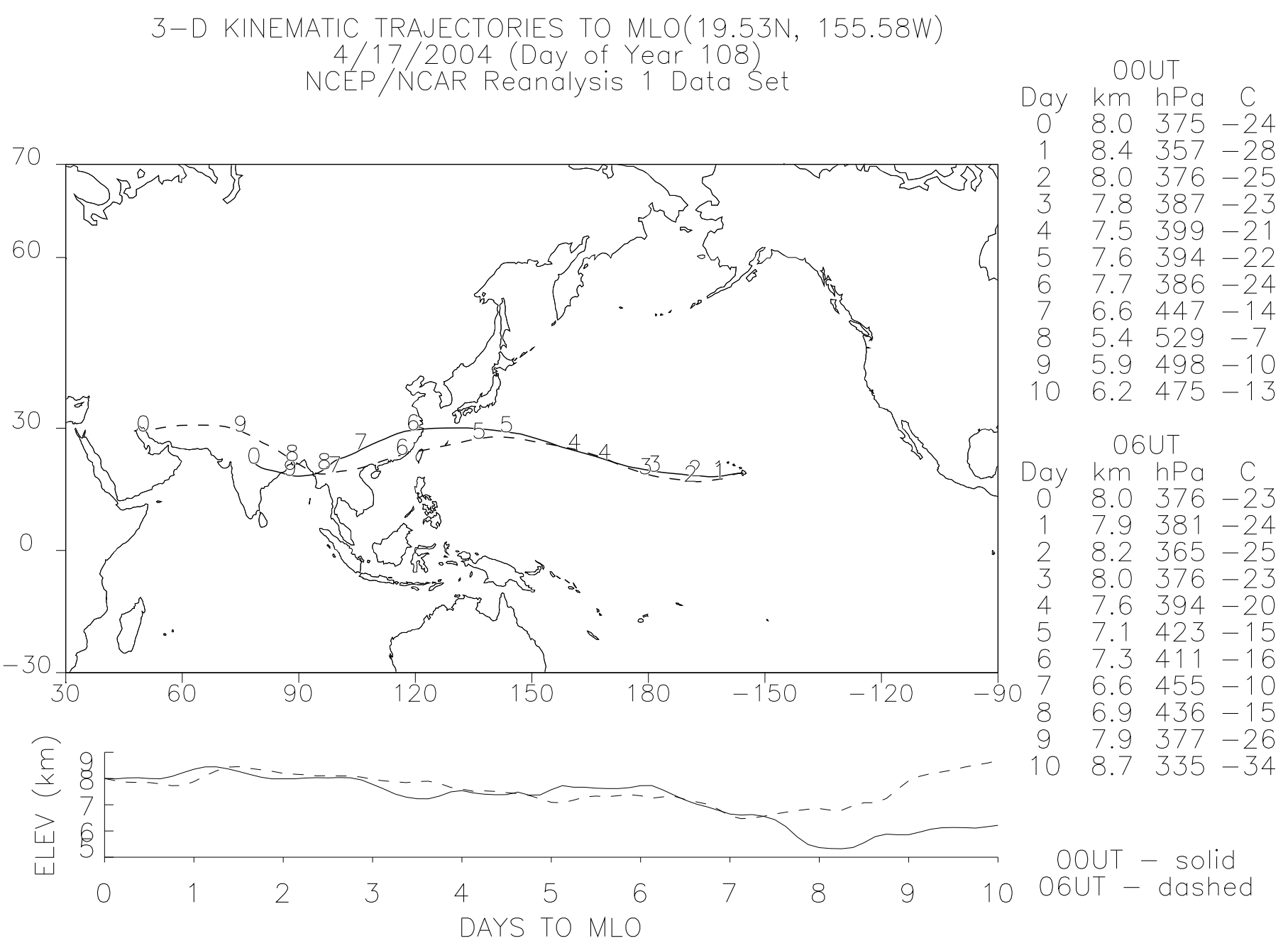
12UT

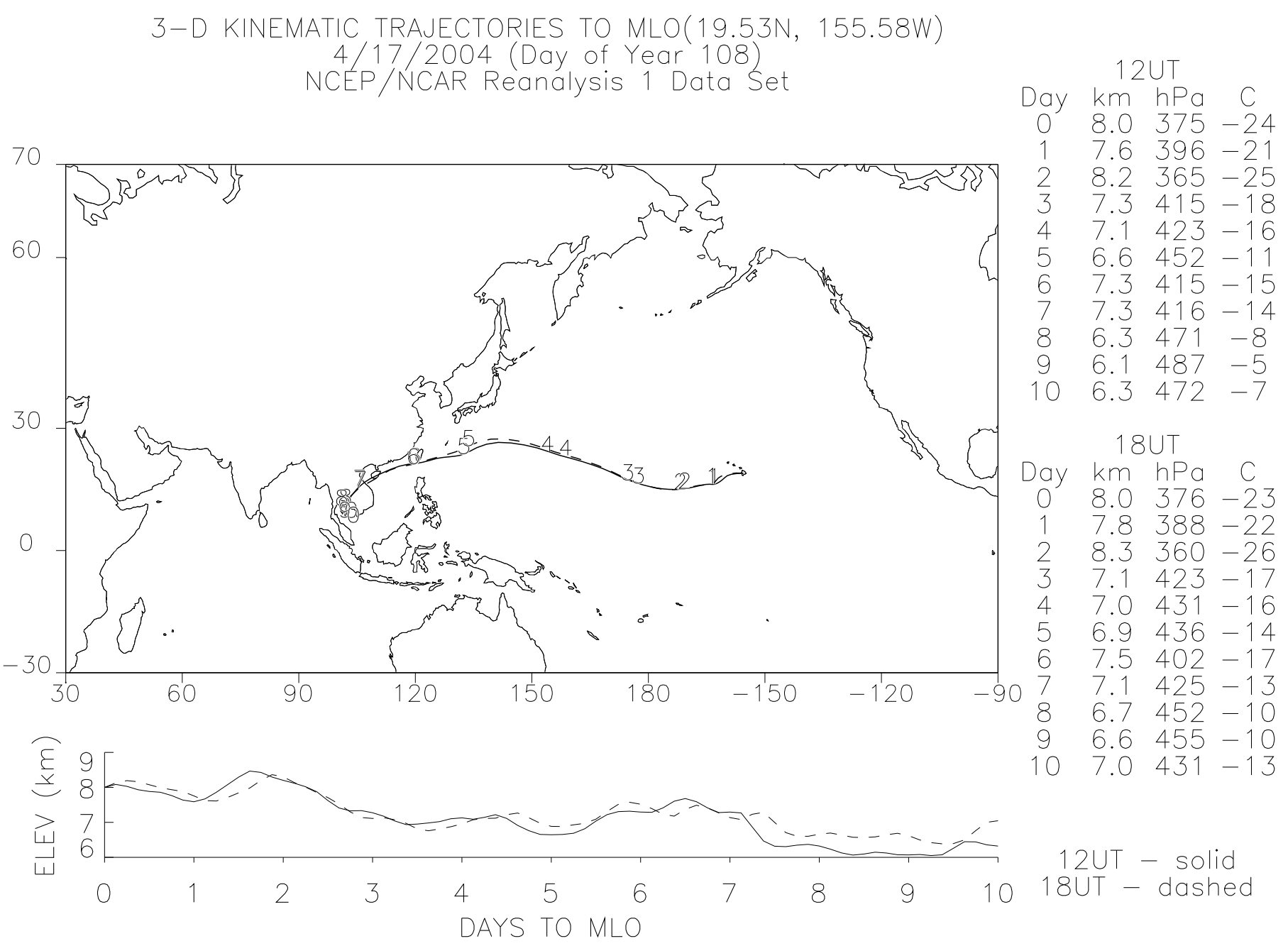
Day	km	hPa	C
0	8.0	374	−25
1	8.2	366	−26
2	7.3	415	−19
3	6.3	469	−11
4	5.7	508	−5
5	6.1	486	−7
6	7.2	419	−18
7	7.9	376	−26
8	8.0	372	−24
9	9.4	306	−38
10	7.4	402	−23

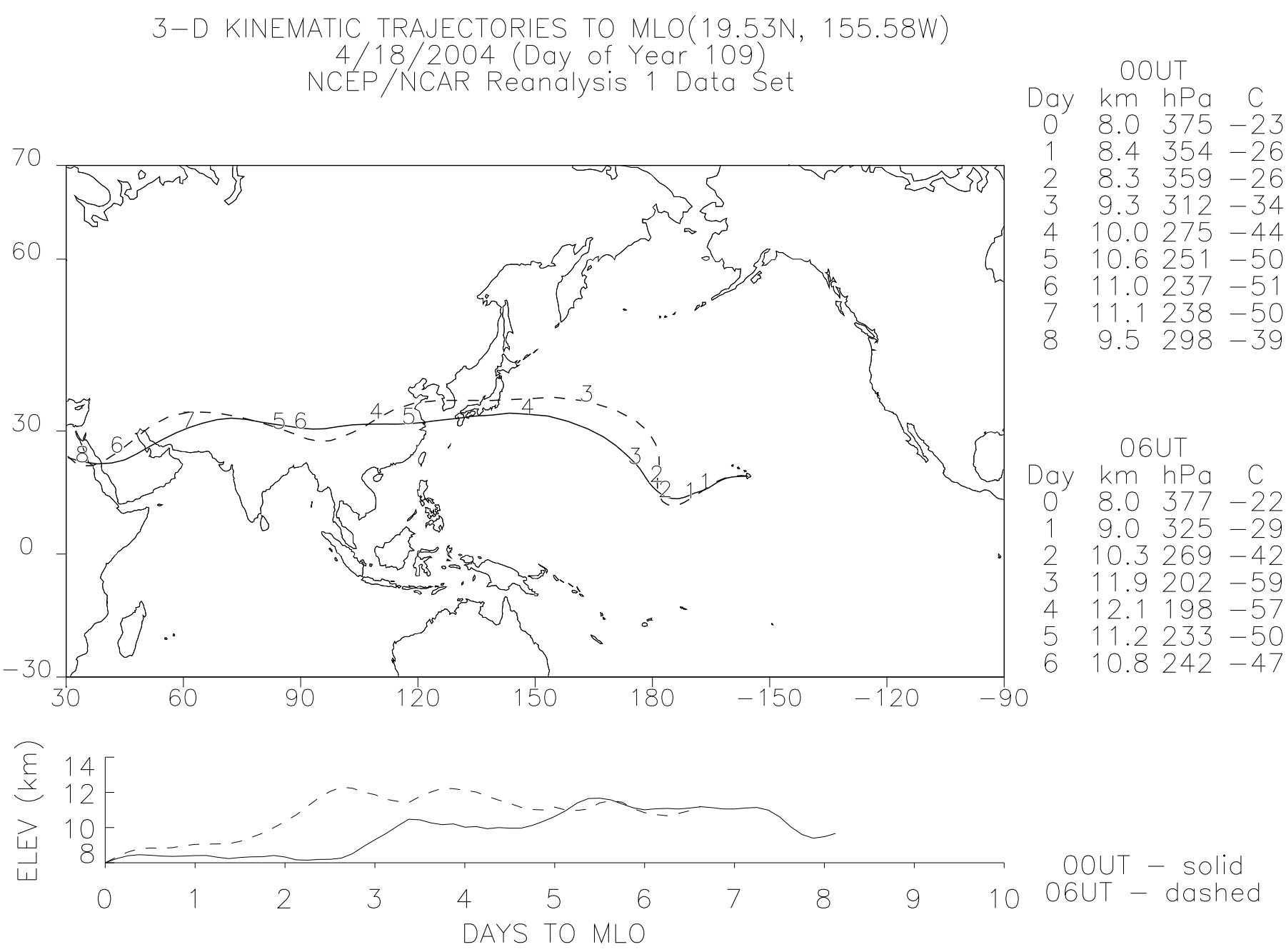
18UT

Day	km	hPa	C
0	8.0	376	−24
1	8.3	359	−27
2	7.6	399	−22
3	6.0	490	−8
4	5.5	520	−4
5	5.5	522	−3
6	6.6	453	−13
7	9.6	297	−40
8	8.9	315	−37
9	7.8	383	−22
10	5.6	511	−11

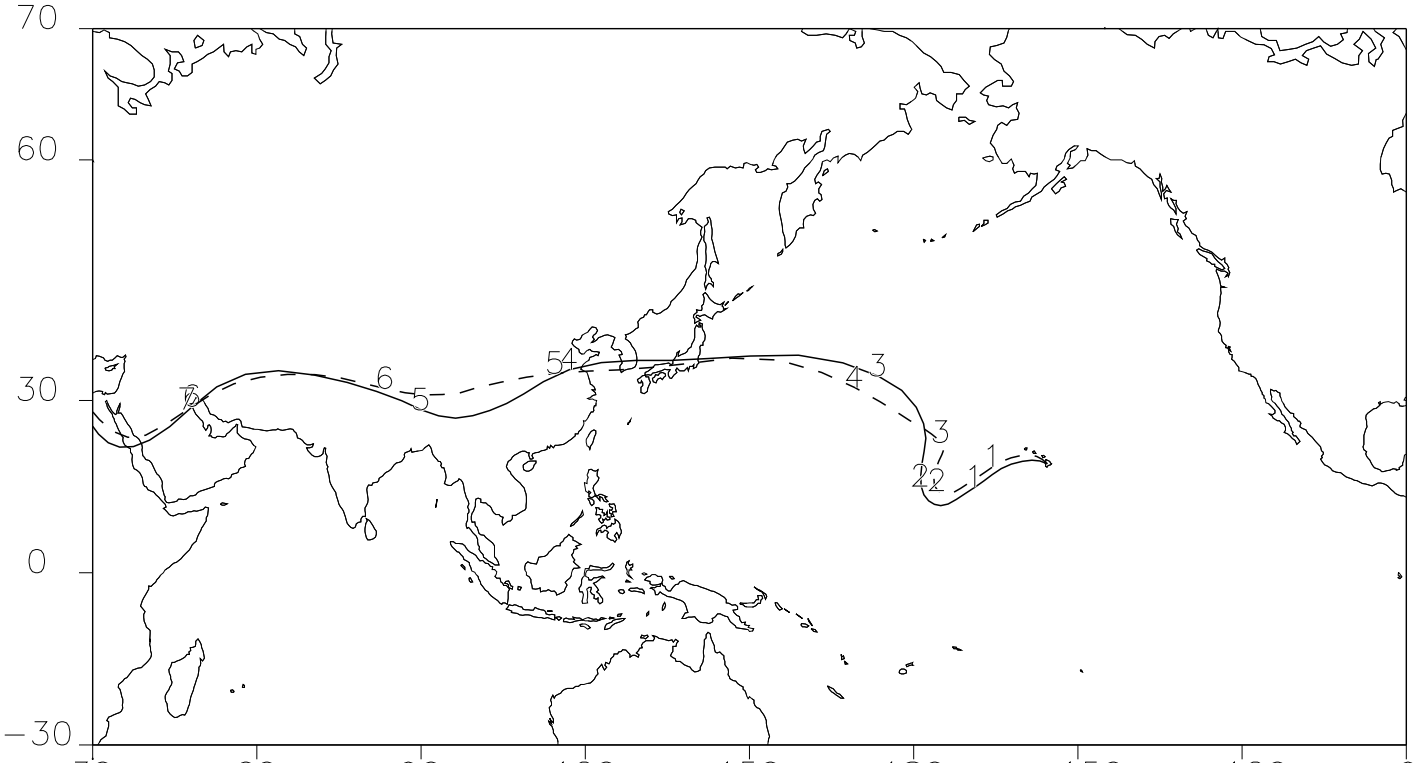
12UT − solid
18UT − dashed

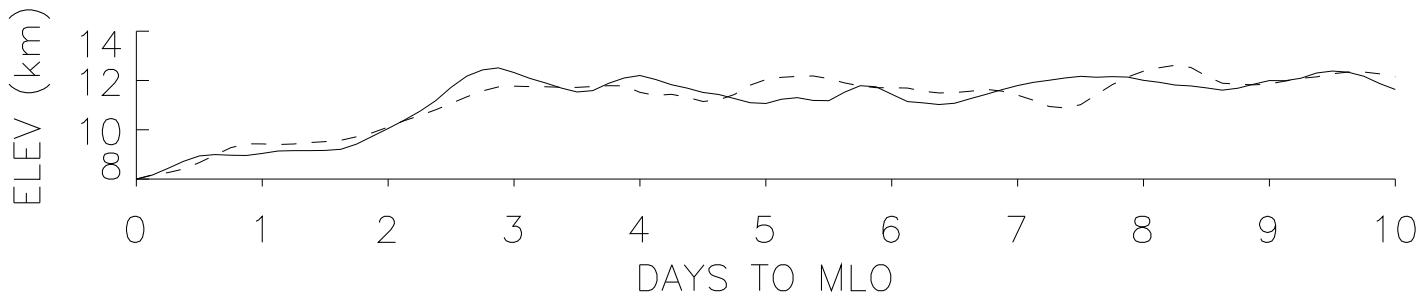

3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/17/2004 (Day of Year 108)
NCEP/NCAR Reanalysis 1 Data Set
00UT
Day km hPa C
0 8.0 375 -24
1 8.4 357 -28
2 8.0 376 -25
3 7.8 387 -23
4 7.5 399 -21
5 7.6 394 -22
6 7.7 386 -24
7 6.6 447 -14
8 5.4 529 -7
9 5.9 498 -10
10 6.2 475 -13
06UT
Day km hPa C
0 8.0 376 -23
1 7.9 381 -24
2 8.2 365 -25
3 8.0 376 -23
4 7.6 394 -20
5 7.1 423 -15
6 7.3 411 -16
7 6.6 455 -10
8 6.9 436 -15
9 7.9 377 -26
10 8.7 335 -34
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
DAYS TO MLO
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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
9
8
7
6
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 8.0 375 -24
1 7.6 396 -21
2 8.2 365 -25
3 7.3 415 -18
4 7.1 423 -16
5 6.6 452 -11
6 7.3 415 -15
7 7.3 416 -14
8 6.3 471 -8
9 6.1 487 -5
10 6.3 472 -7
18UT
Day km hPa C
0 8.0 376 -23
1 7.8 388 -22
2 8.3 360 -26
3 7.1 423 -17
4 7.0 431 -16
5 6.9 436 -14
6 7.5 402 -17
7 7.1 425 -13
8 6.7 452 -10
9 6.6 455 -10
10 7.0 431 -13
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 8.0 375 -23
1 8.4 354 -26
2 8.3 359 -26
3 9.3 312 -34
4 10.0 275 -44
5 10.6 251 -50
6 11.0 237 -51
7 11.1 238 -50
8 9.5 298 -39
06UT
Day km hPa C
0 8.0 377 -22
1 9.0 325 -29
2 10.3 269 -42
3 11.9 202 -59
4 12.1 198 -57
5 11.2 233 -50
6 10.8 242 -47
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
14
12
10
8
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)
4/18/2004 (Day of Year 109)
NCEP/NCAR Reanalysis 1 Data Set





12UT

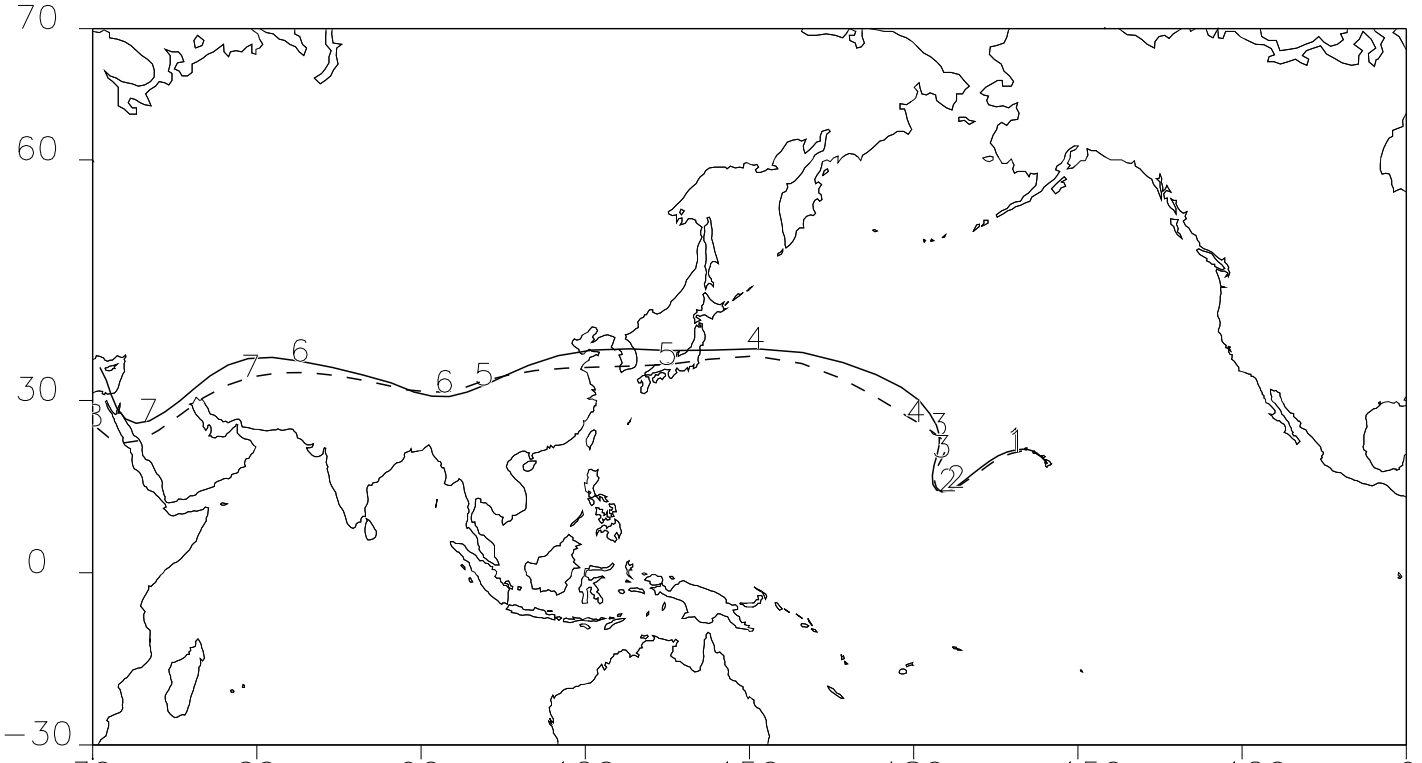
Day	km	hPa	C
0	8.0	377	-21
1	9.0	325	-29
2	10.1	282	-38
3	12.3	192	-60
4	12.2	195	-59
5	11.1	236	-47
6	11.4	221	-51
7	11.8	211	-54
8	12.0	202	-53
9	12.0	208	-52
10	11.6	220	-49

18UT

Day	km	hPa	C
0	8.0	378	-20
1	9.4	308	-33
2	10.1	279	-39
3	11.8	215	-55
4	11.5	217	-55
5	12.0	200	-57
6	11.7	213	-55
7	11.4	221	-50
8	12.4	190	-61
9	11.9	202	-55
10	12.1	196	-59

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

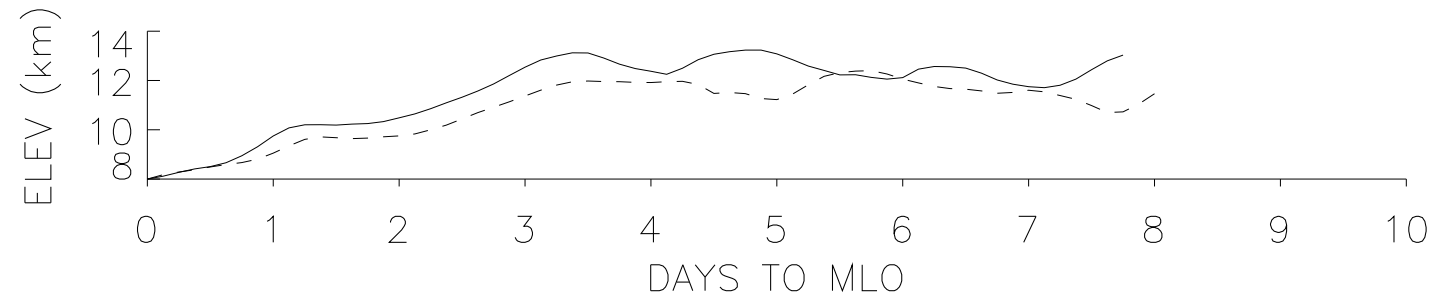


00UT

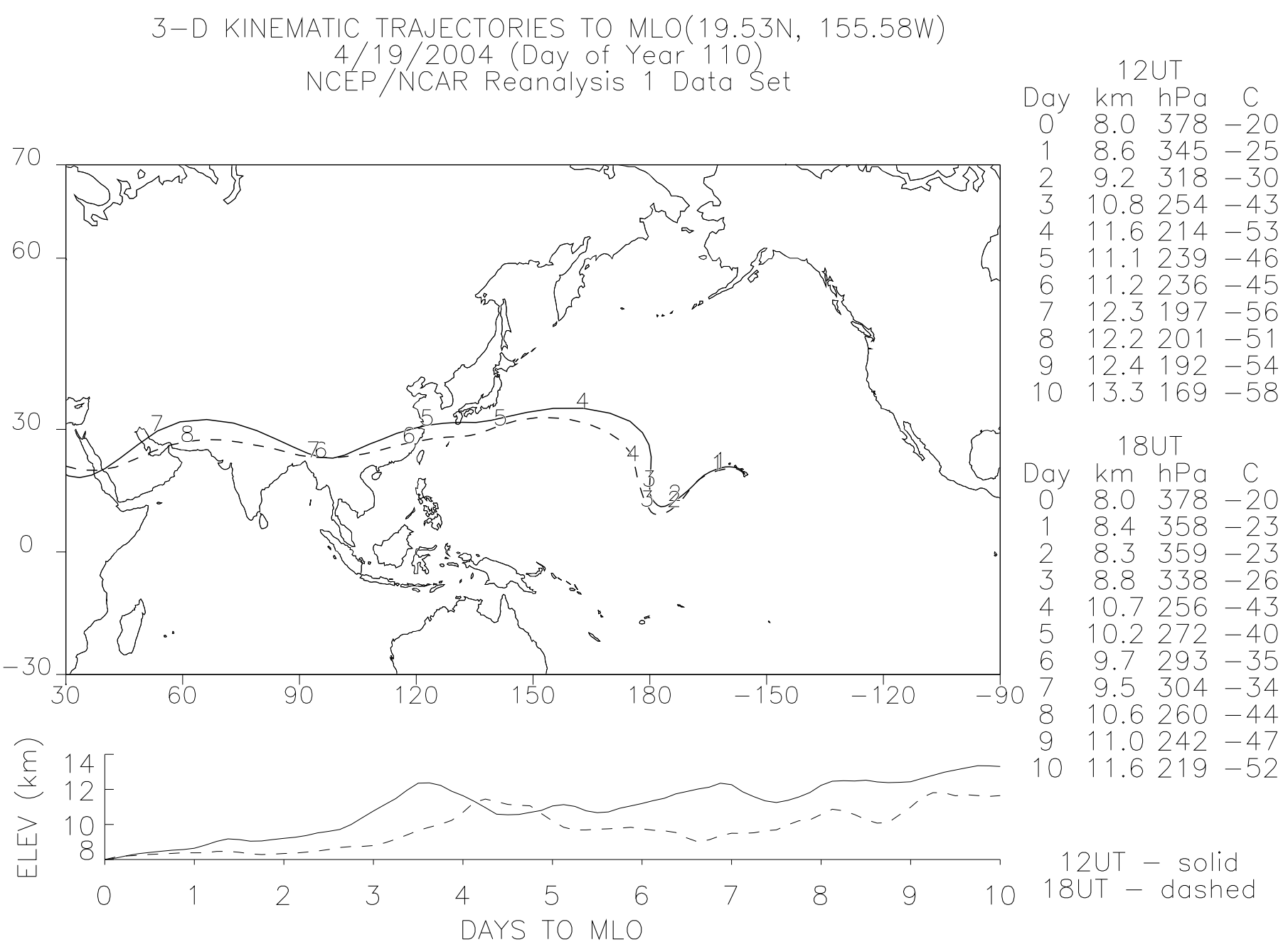
Day	km	hPa	C
0	8.0	379	-20
1	9.7	294	-35
2	10.5	264	-41
3	12.5	190	-59
4	12.4	183	-59
5	13.1	169	-59
6	12.1	196	-54
7	11.7	208	-50

06UT

Day	km	hPa	C
0	8.0	379	-20
1	9.1	326	-28
2	9.8	293	-36
3	11.4	229	-52
4	11.9	209	-56
5	11.2	225	-52
6	12.1	201	-58
7	11.6	216	-54
8	11.5	222	-50



00UT – solid
06UT – dashed



12UT

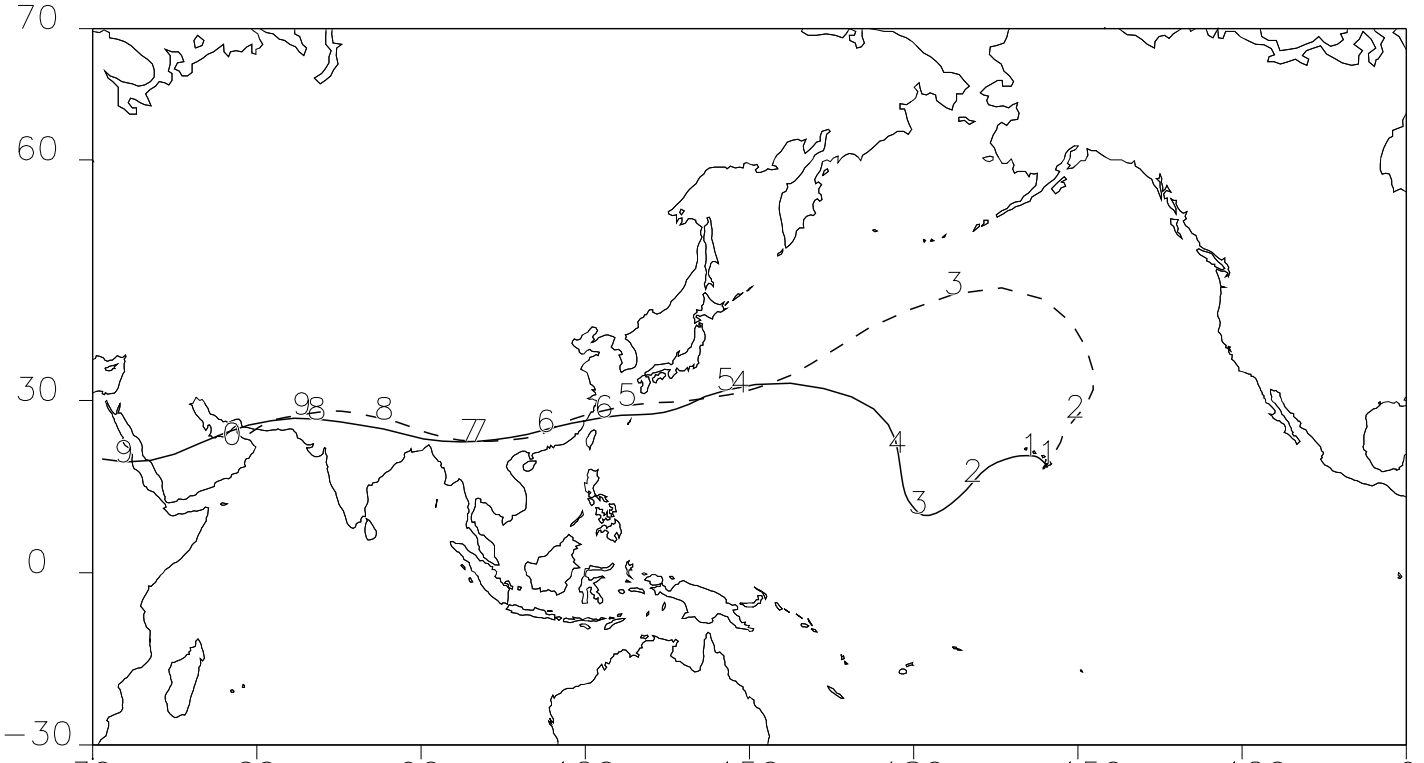
Day	km	hPa	C
0	8.0	378	−20
1	8.6	345	−25
2	9.2	318	−30
3	10.8	254	−43
4	11.6	214	−53
5	11.1	239	−46
6	11.2	236	−45
7	12.3	197	−56
8	12.2	201	−51
9	12.4	192	−54
10	13.3	169	−58

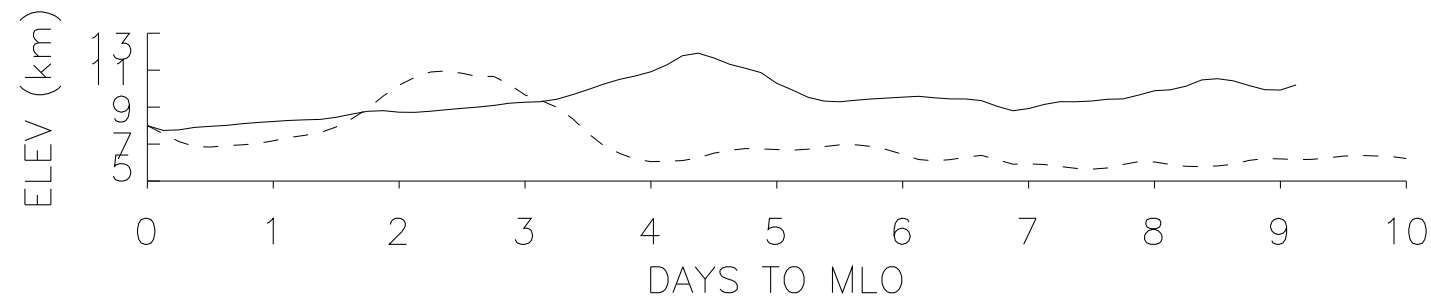
18UT

Day	km	hPa	C
0	8.0	378	−20
1	8.4	358	−23
2	8.3	359	−23
3	8.8	338	−26
4	10.7	256	−43
5	10.2	272	−40
6	9.7	293	−35
7	9.5	304	−34
8	10.6	260	−44
9	11.0	242	−47
10	11.6	219	−52

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

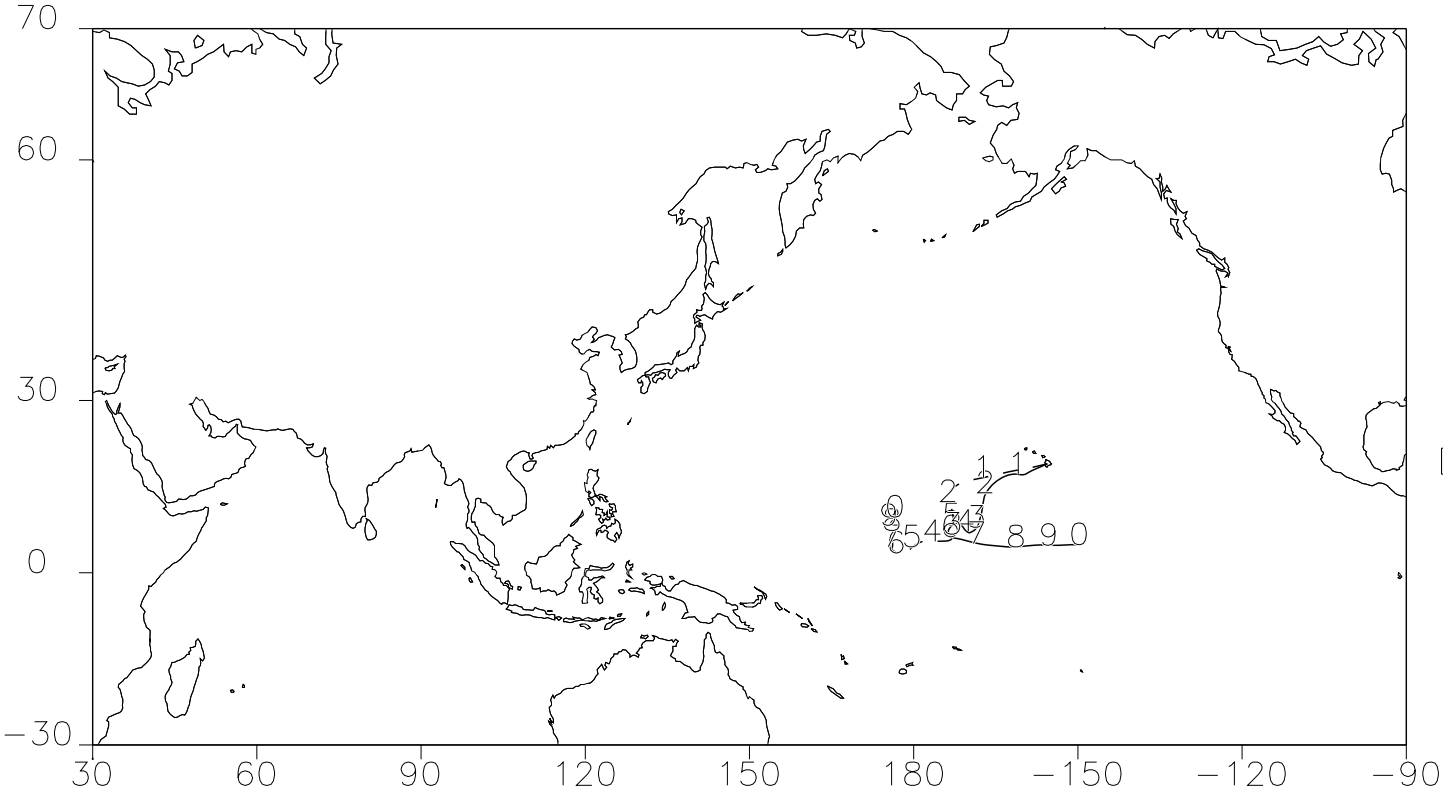
Day	km	hPa	C
0	8.0	377	−21
1	8.2	368	−22
2	8.7	340	−26
3	9.3	317	−30
4	10.9	249	−45
5	10.3	268	−40
6	9.5	301	−33
7	8.9	329	−29
8	9.9	287	−37
9	9.9	283	−38

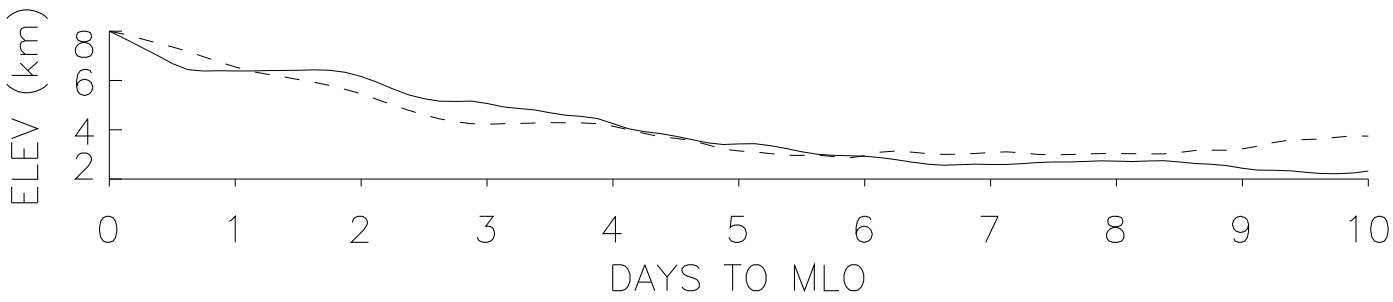
06UT

Day	km	hPa	C
0	8.0	377	−23
1	7.2	423	−15
2	10.2	274	−45
3	9.7	283	−43
4	6.0	476	−11
5	6.7	442	−16
6	6.4	460	−12
7	5.9	494	−10
8	6.0	487	−11
9	6.2	478	−11
10	6.2	474	−14

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

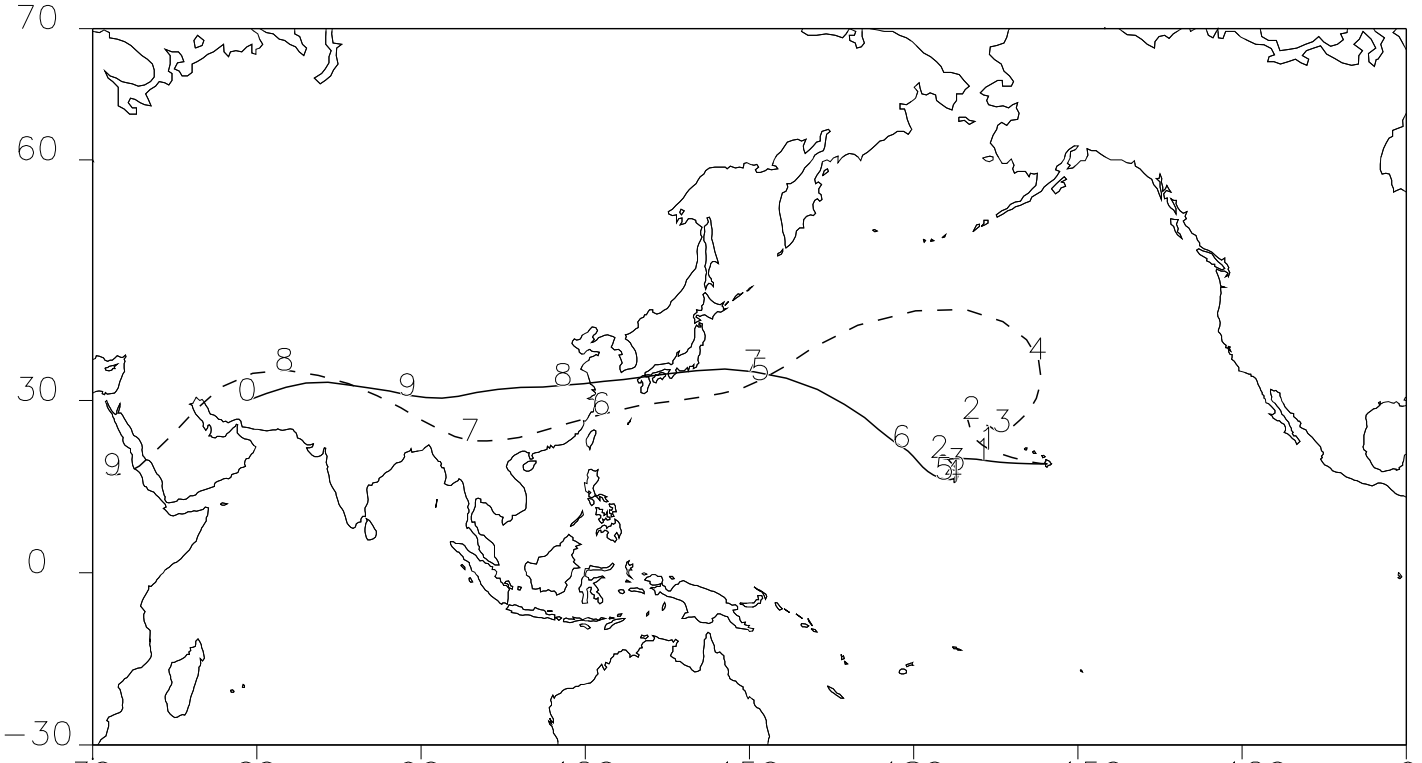
Day	km	hPa	C
0	8.0	375	−24
1	6.4	468	−10
2	6.2	481	−10
3	5.1	552	−2
4	4.3	611	3
5	3.4	677	8
6	2.9	719	11
7	2.6	747	13
8	2.7	735	11
9	2.4	761	13
10	2.3	771	12

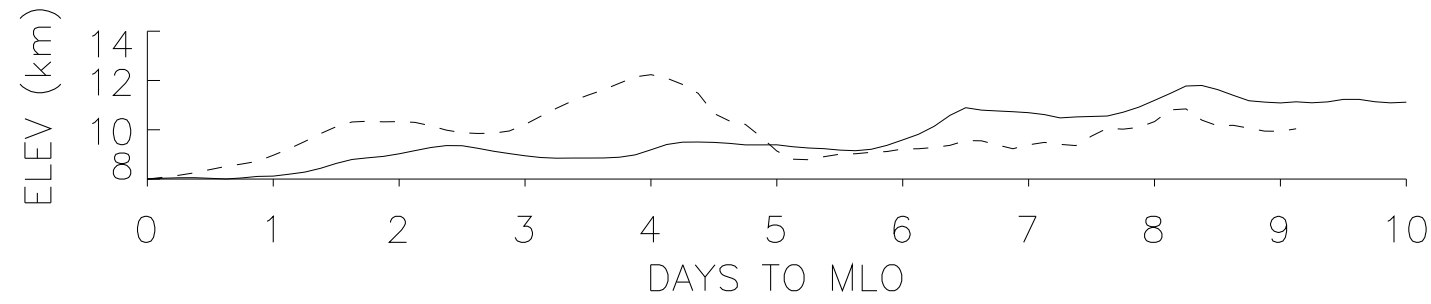
18UT

Day	km	hPa	C
0	8.0	375	−26
1	6.5	458	−12
2	5.5	526	−6
3	4.2	613	3
4	4.1	619	4
5	3.1	699	9
6	2.9	715	11
7	3.1	705	11
8	3.0	709	10
9	3.2	694	10
10	3.7	651	7

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

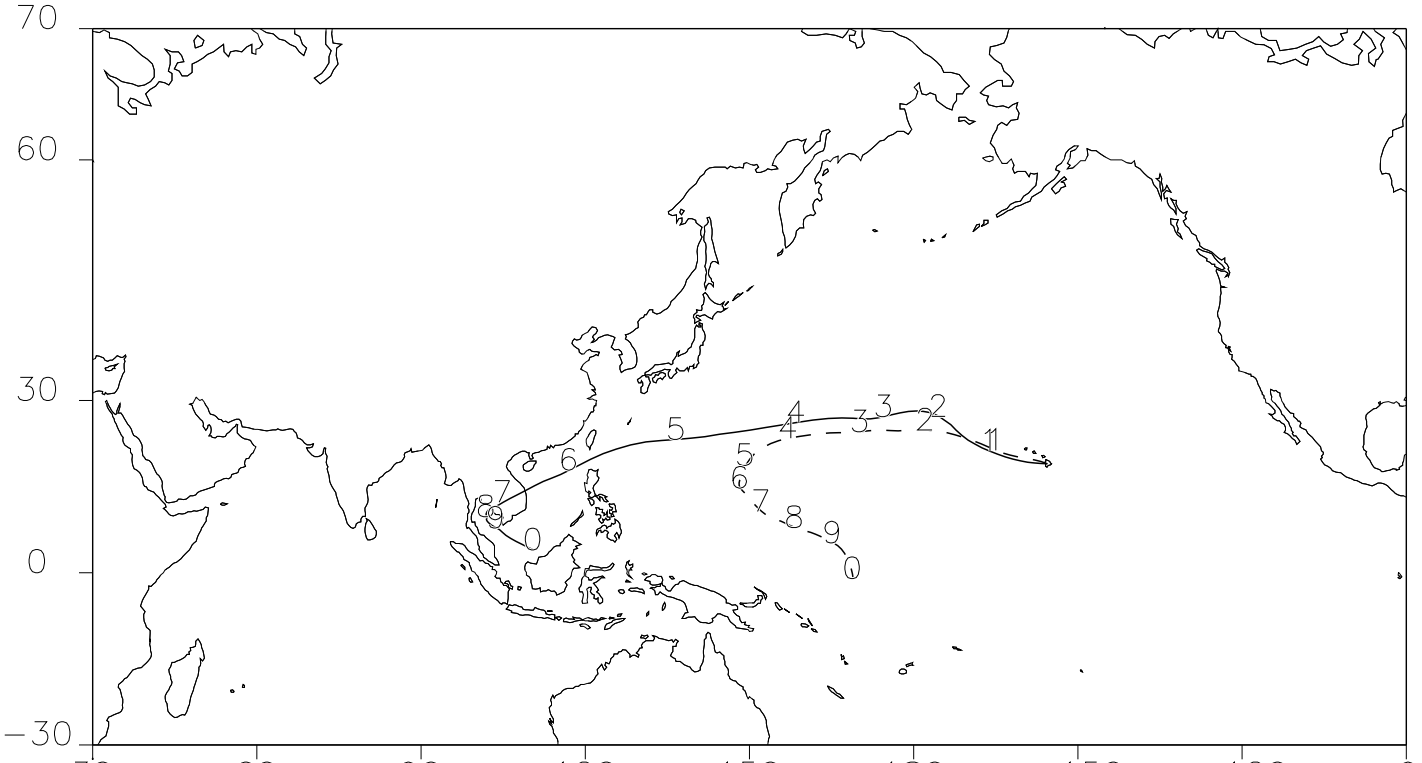
Day	km	hPa	C
0	8.0	375	-25
1	8.1	370	-23
2	9.0	326	-31
3	8.9	329	-31
4	9.2	318	-33
5	9.4	308	-36
6	9.6	299	-37
7	10.7	246	-50
8	11.2	229	-54
9	11.1	234	-51
10	11.1	235	-50

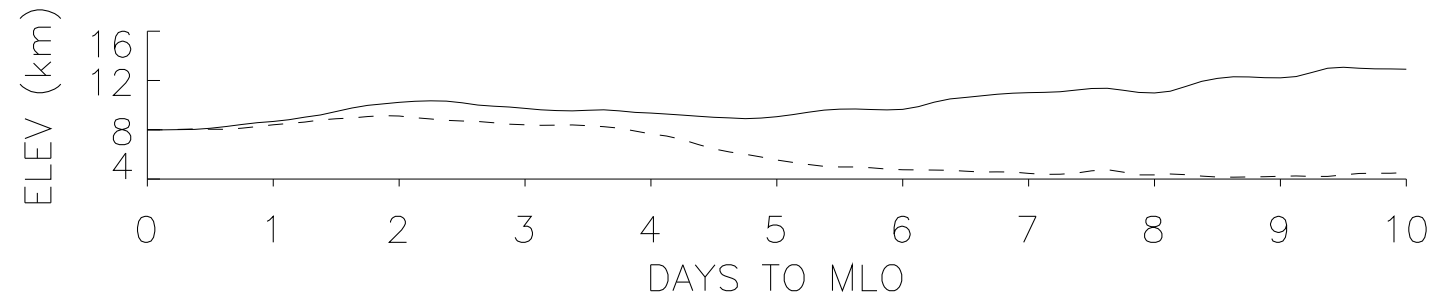
06UT

Day	km	hPa	C
0	8.0	374	-24
1	9.0	328	-30
2	10.3	270	-42
3	10.2	276	-40
4	12.2	198	-60
5	9.1	312	-34
6	9.2	314	-32
7	9.4	308	-32
8	10.3	263	-45
9	9.9	284	-39

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

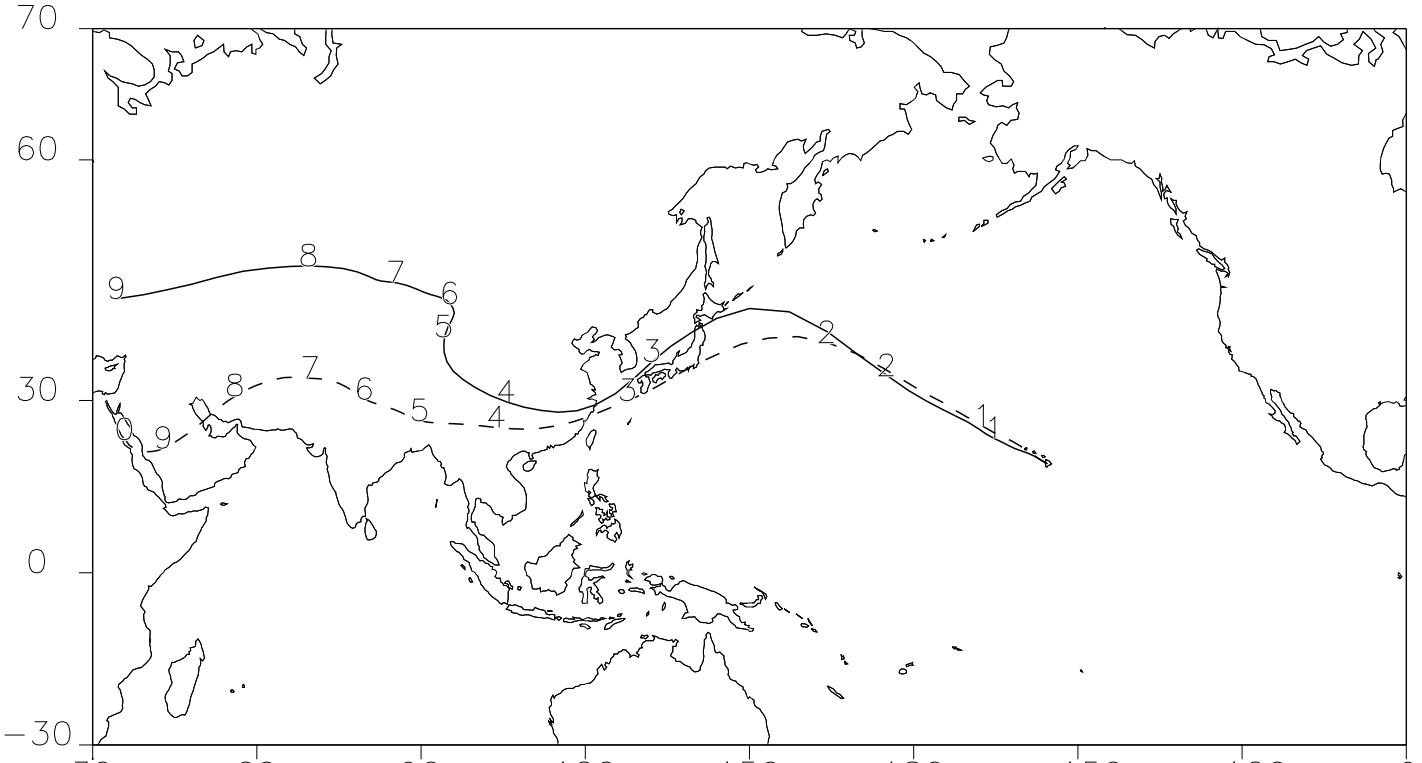
Day	km	hPa	C
0	8.0	374	-24
1	8.7	342	-28
2	10.2	275	-41
3	9.7	298	-35
4	9.4	313	-30
5	9.1	326	-26
6	9.7	301	-30
7	11.0	249	-39
8	11.0	250	-40
9	12.2	208	-50
10	12.9	187	-55

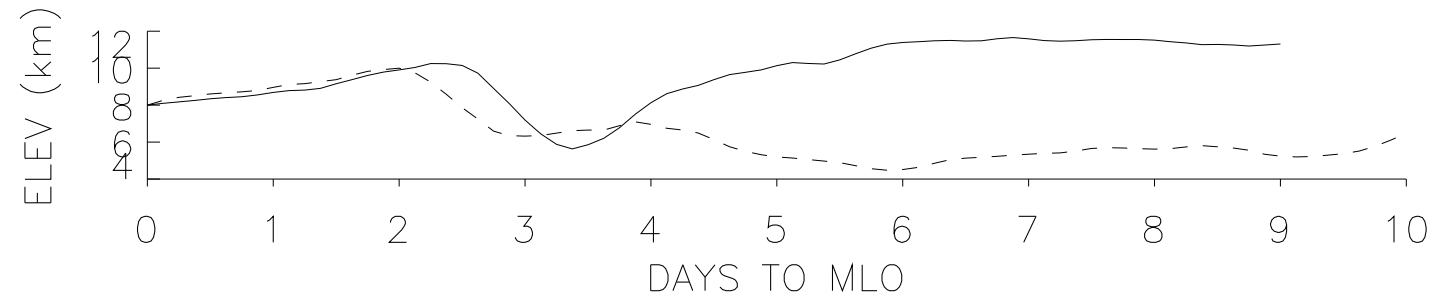
18UT

Day	km	hPa	C
0	8.0	375	-24
1	8.4	354	-27
2	9.1	322	-31
3	8.4	358	-24
4	7.7	395	-18
5	5.5	519	-2
6	4.8	574	1
7	4.5	596	3
8	4.3	605	4
9	4.2	613	4
10	4.5	590	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

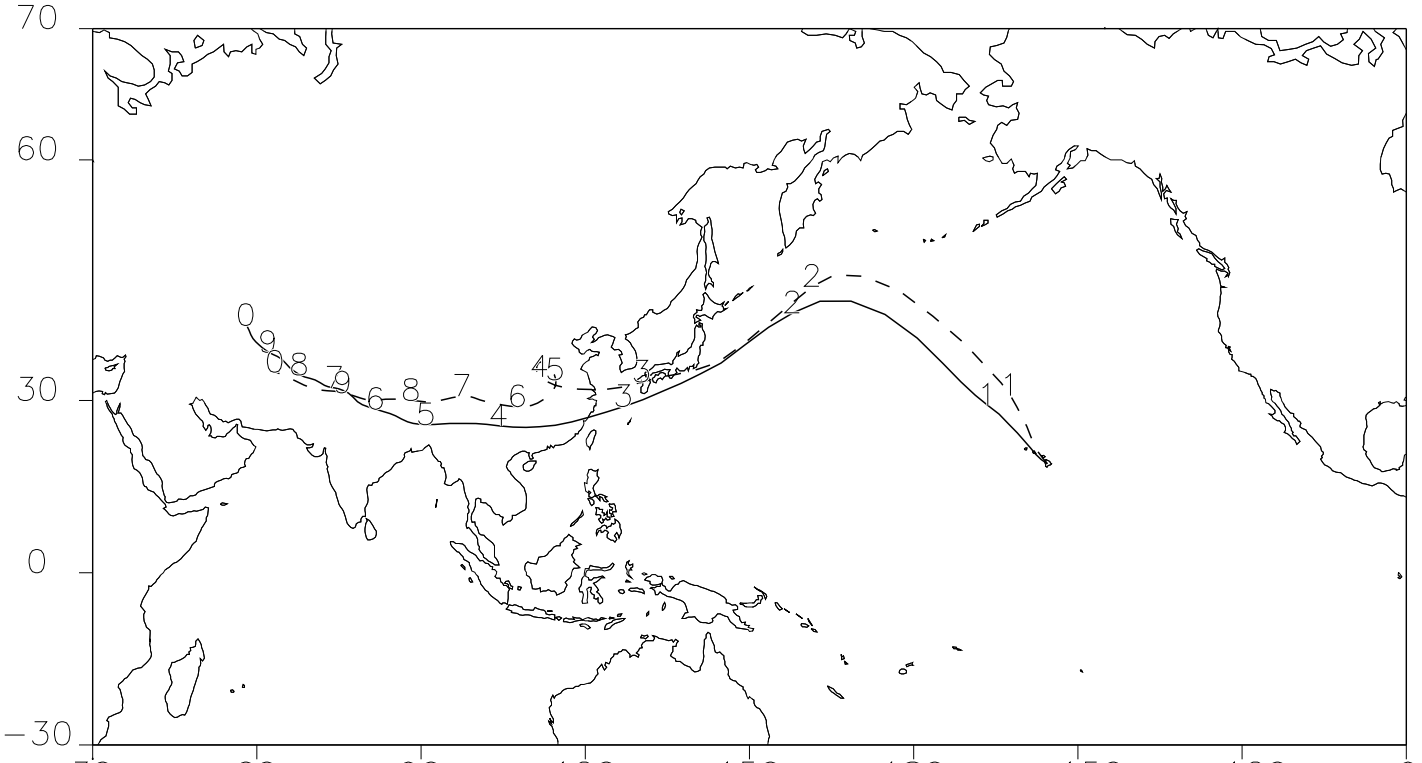
Day	km	hPa	C
0	8.0	375	-25
1	8.7	340	-31
2	9.9	279	-43
3	7.2	409	-21
4	8.1	358	-33
5	10.1	263	-52
6	11.4	214	-64
7	11.6	206	-66
8	11.5	209	-65
9	11.3	220	-59

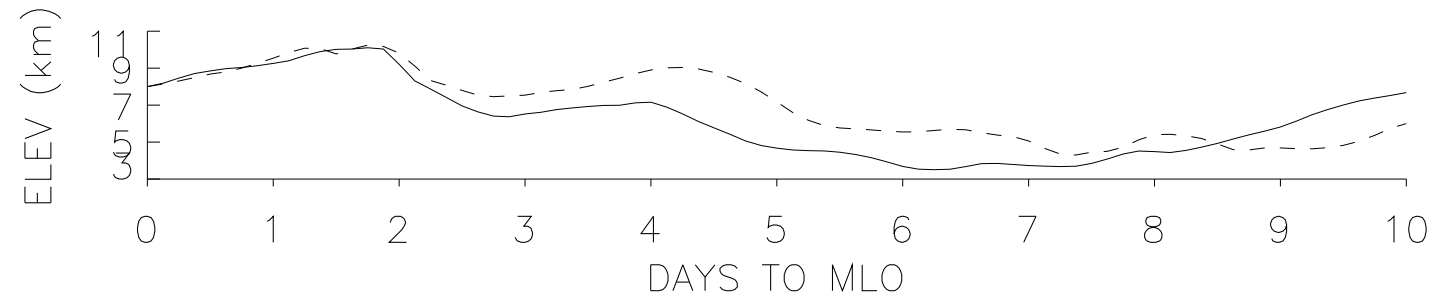
06UT

Day	km	hPa	C
0	8.0	375	-25
1	9.0	326	-33
2	10.0	275	-42
3	6.3	464	-11
4	7.0	428	-17
5	5.2	541	-3
6	4.5	589	1
7	5.3	529	-8
8	5.6	510	-10
9	5.2	536	-9
10	6.5	455	-20

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

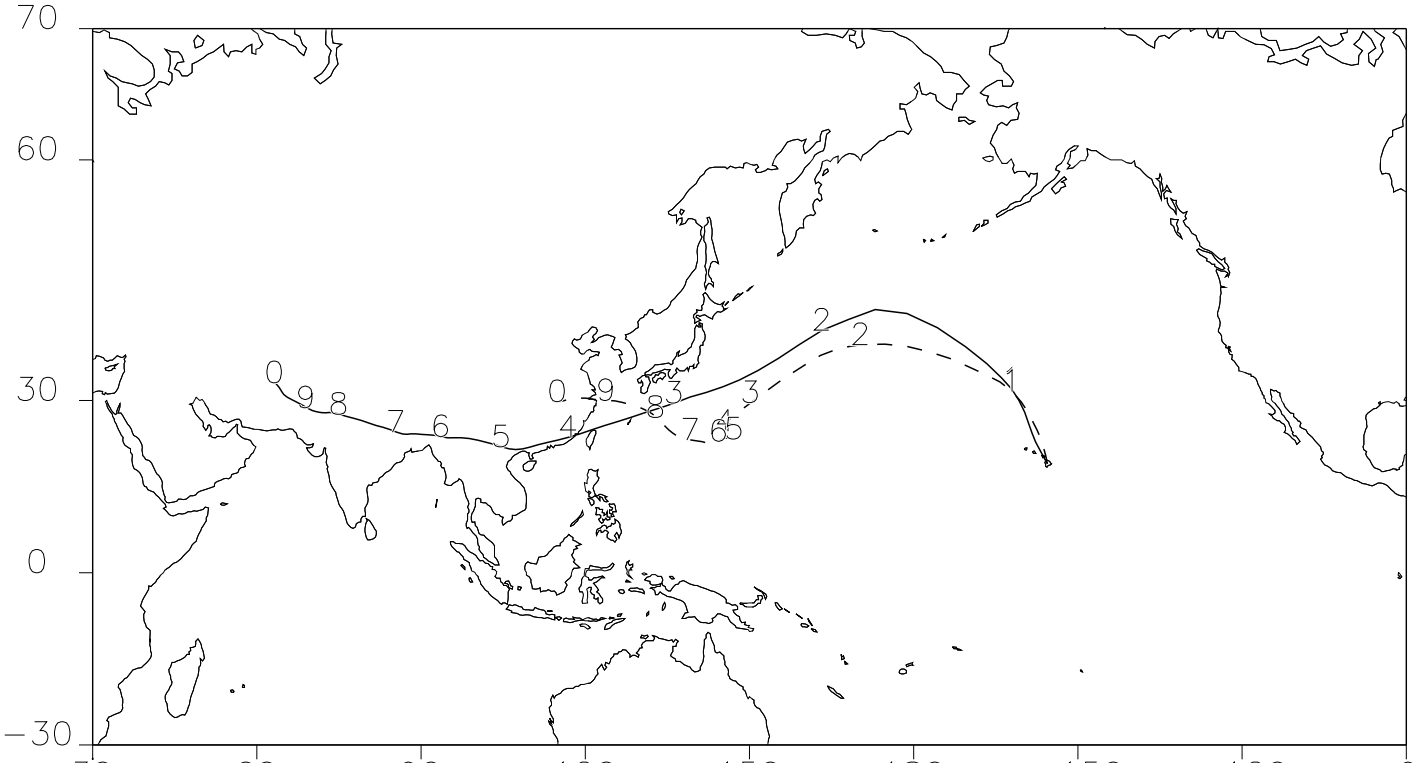
Day	km	hPa	C
0	8.0	375	−25
1	9.3	310	−38
2	9.2	304	−39
3	6.5	455	−13
4	7.2	416	−18
5	4.7	575	0
6	3.7	651	8
7	3.7	647	5
8	4.5	589	−4
9	5.8	495	−18
10	7.7	383	−32

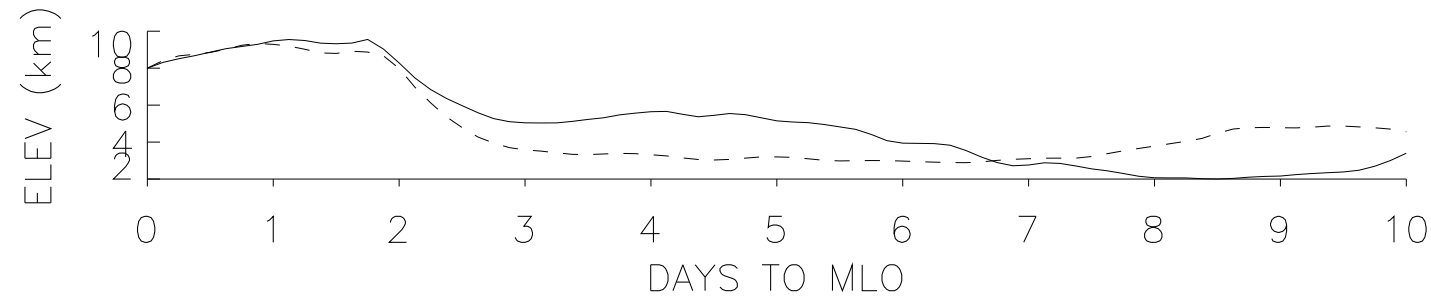
18UT

Day	km	hPa	C
0	8.0	376	−25
1	9.5	296	−42
2	9.8	272	−48
3	7.5	391	−24
4	8.9	319	−41
5	7.2	407	−26
6	5.5	510	−12
7	5.1	544	−10
8	5.4	521	−10
9	4.7	575	−4
10	6.0	485	−17

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

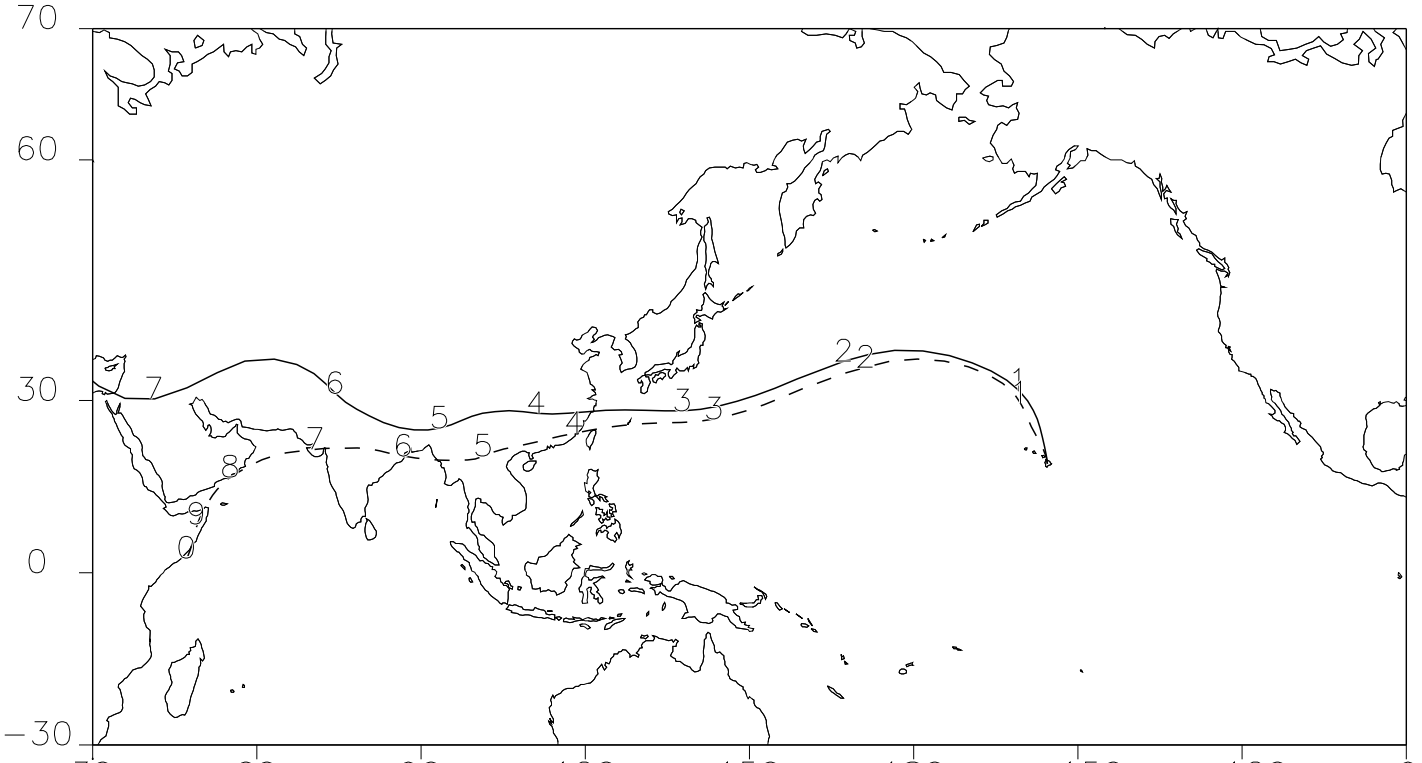
Day	km	hPa	C
0	8.0	376	−25
1	9.5	300	−38
2	8.3	349	−33
3	5.0	551	−3
4	5.6	512	−7
5	5.1	543	−5
6	3.9	631	4
7	2.8	728	13
8	2.1	789	18
9	2.2	781	16
10	3.4	675	3

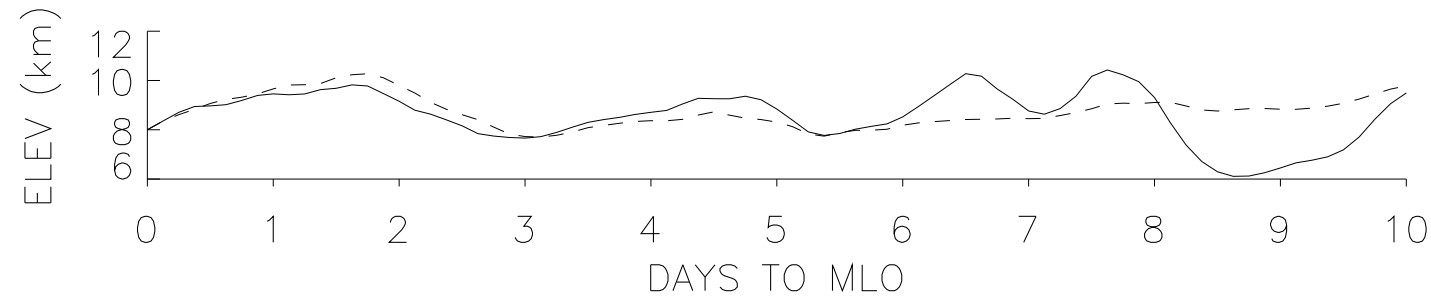
06UT

Day	km	hPa	C
0	8.0	377	−23
1	9.3	310	−34
2	8.0	367	−28
3	3.6	664	5
4	3.3	688	9
5	3.2	696	8
6	3.0	712	10
7	3.1	700	10
8	3.8	642	5
9	4.8	568	−4
10	4.6	584	−4

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

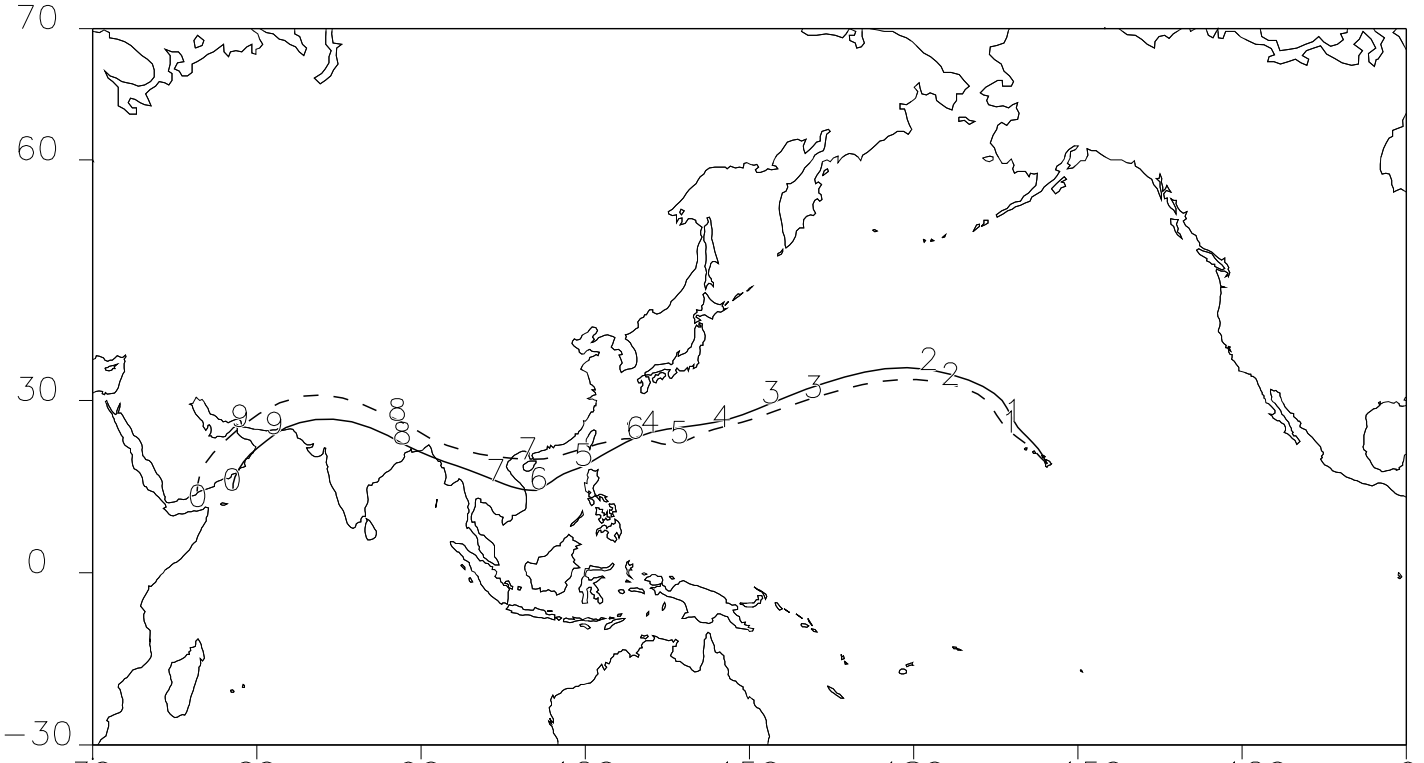
Day	km	hPa	C
0	8.0	377	−23
1	9.5	302	−35
2	9.2	313	−35
3	7.7	392	−20
4	8.7	339	−29
5	8.8	330	−31
6	8.5	344	−31
7	8.8	327	−34
8	9.3	304	−40
9	6.5	460	−13
10	9.5	297	−44

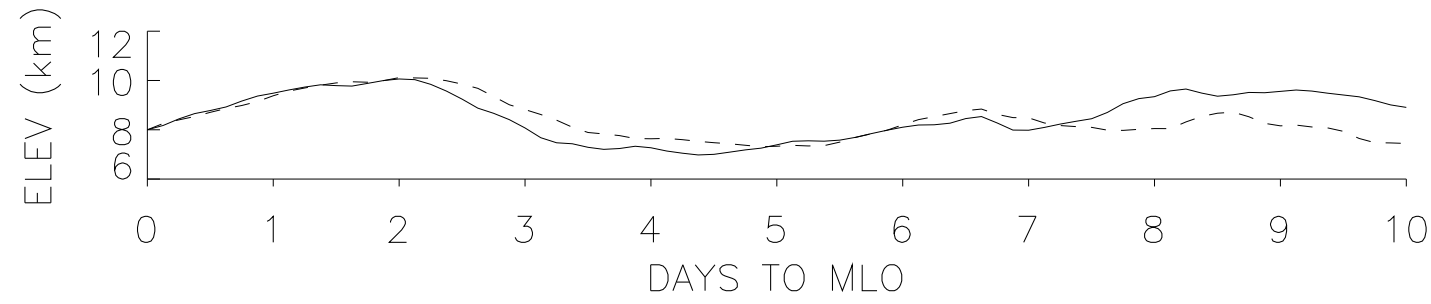
18UT

Day	km	hPa	C
0	8.0	378	−22
1	9.7	296	−36
2	9.8	286	−40
3	7.7	389	−20
4	8.4	359	−23
5	8.3	360	−23
6	8.2	368	−21
7	8.4	356	−23
8	9.1	326	−27
9	8.8	339	−24
10	9.8	297	−29

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

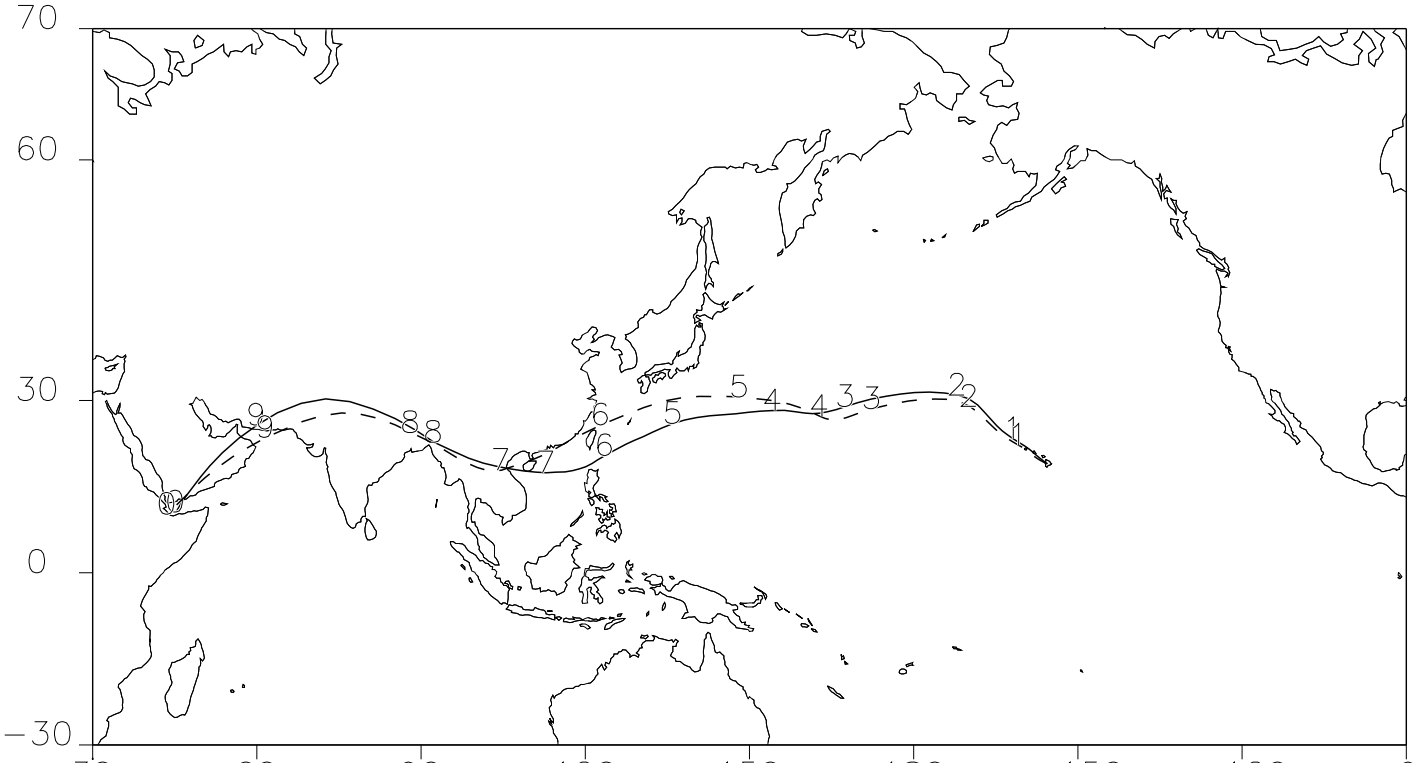
Day	km	hPa	C
0	8.0	378	-23
1	9.5	306	-35
2	10.1	277	-40
3	8.1	371	-24
4	7.3	418	-14
5	7.4	411	-15
6	8.1	373	-19
7	8.0	378	-20
8	9.3	312	-31
9	9.6	304	-32
10	8.9	335	-25

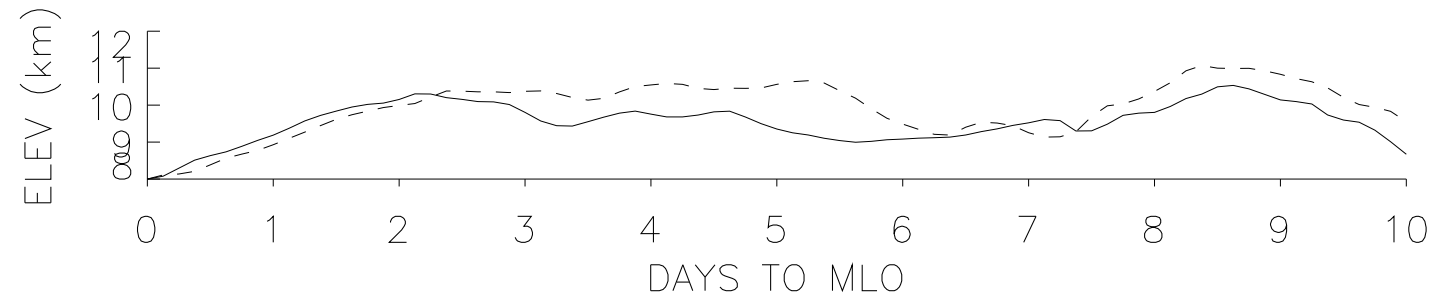
06UT

Day	km	hPa	C
0	8.0	377	-22
1	9.4	311	-33
2	10.1	277	-39
3	8.8	334	-30
4	7.6	398	-17
5	7.3	416	-12
6	8.2	367	-21
7	8.5	351	-24
8	8.0	372	-23
9	8.2	367	-24
10	7.4	408	-16

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

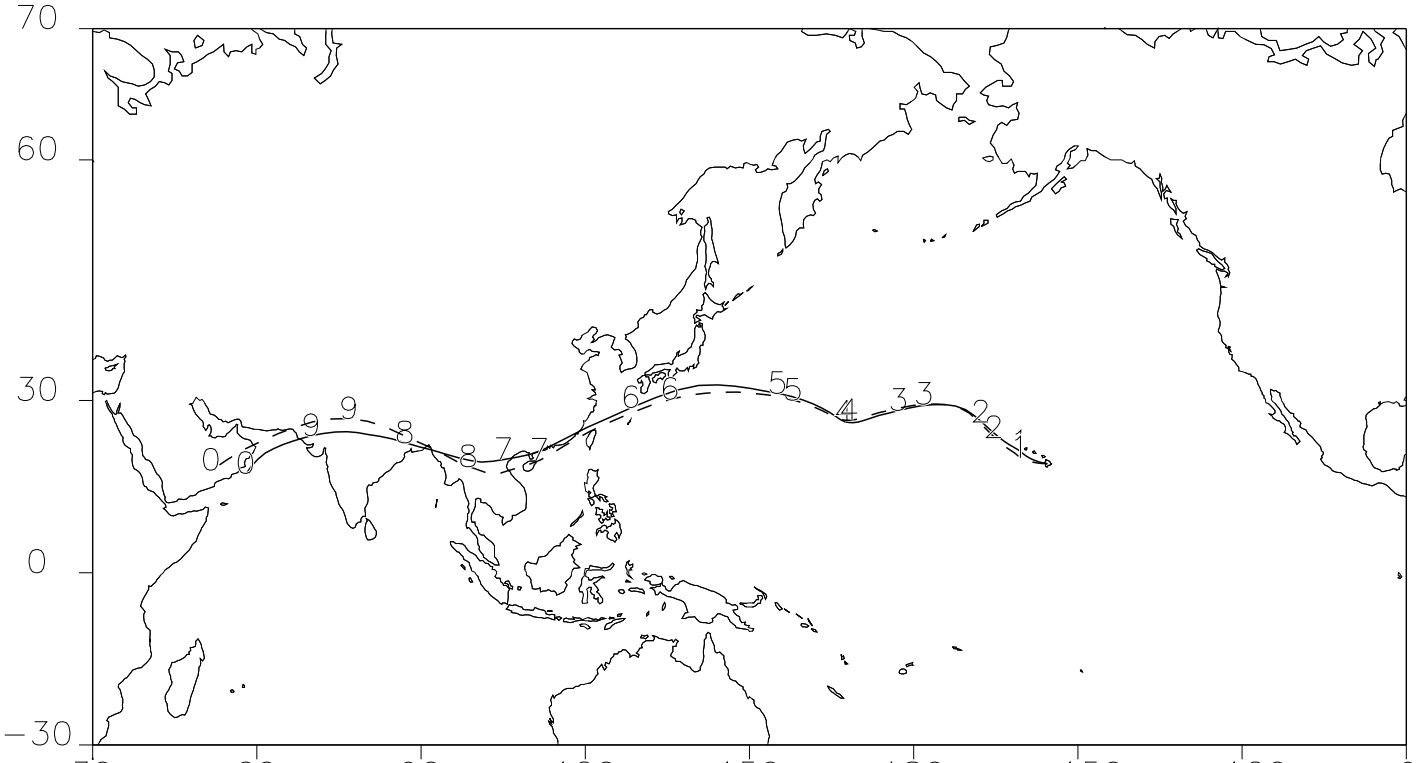
Day	km	hPa	C
0	8.0	376	-23
1	9.2	320	-32
2	10.2	277	-39
3	9.8	292	-37
4	9.8	297	-36
5	9.4	316	-30
6	9.1	327	-26
7	9.5	307	-30
8	9.8	291	-34
9	10.1	278	-38
10	8.7	344	-24

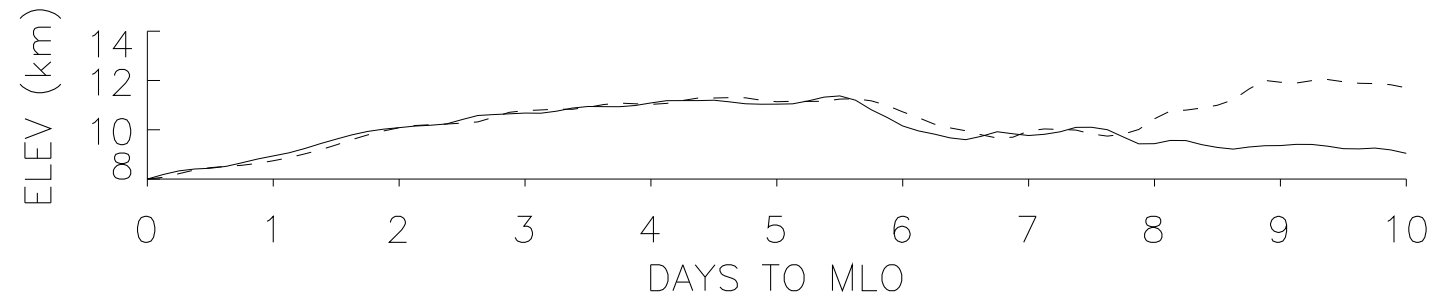
18UT

Day	km	hPa	C
0	8.0	377	-22
1	8.9	332	-30
2	10.0	284	-38
3	10.4	268	-42
4	10.5	263	-42
5	10.6	263	-42
6	9.5	306	-31
7	9.3	317	-29
8	10.4	269	-39
9	10.8	253	-42
10	9.6	306	-30

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

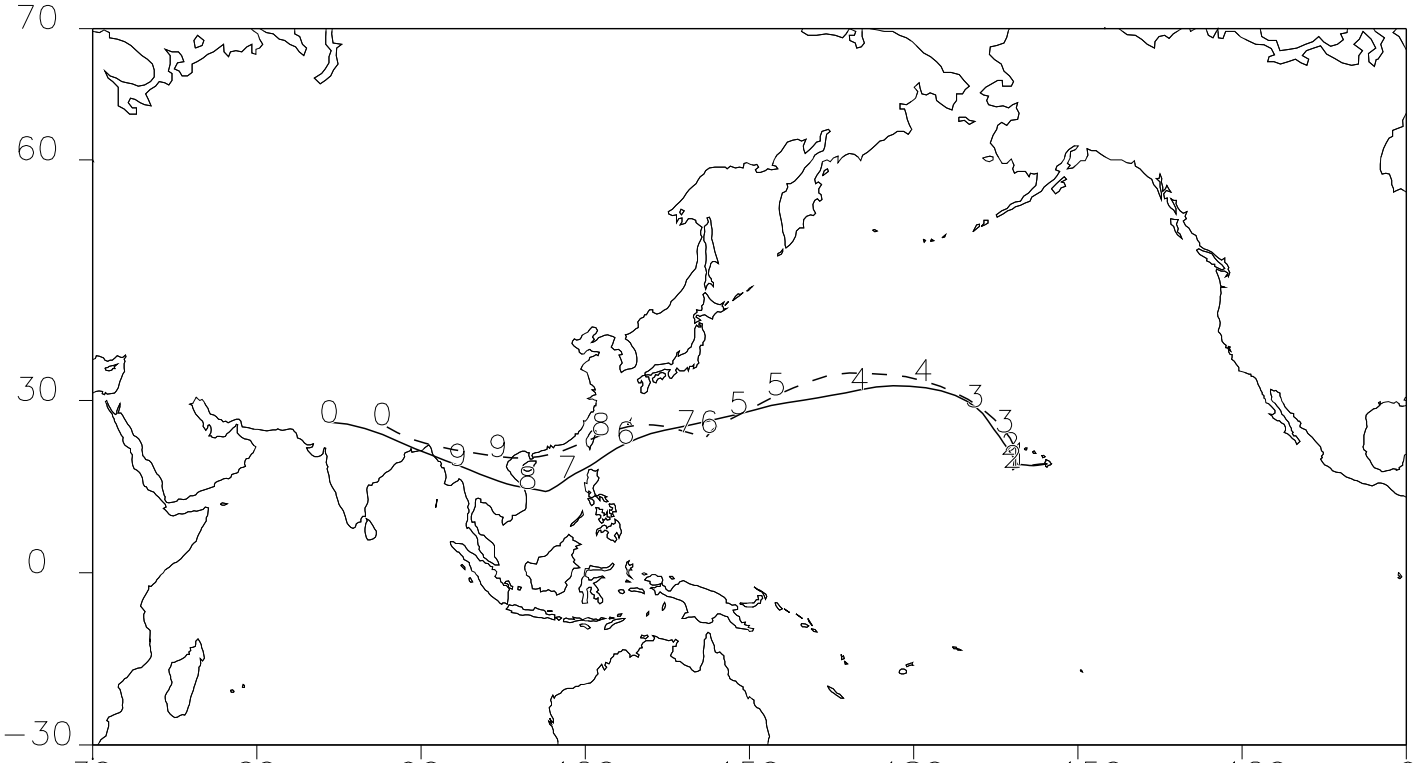
Day	km	hPa	C
0	8.0	376	−22
1	8.9	332	−30
2	10.1	282	−39
3	10.7	258	−44
4	11.1	243	−46
5	11.0	244	−46
6	10.2	277	−37
7	9.8	294	−34
8	9.4	308	−32
9	9.4	312	−30
10	9.0	328	−27

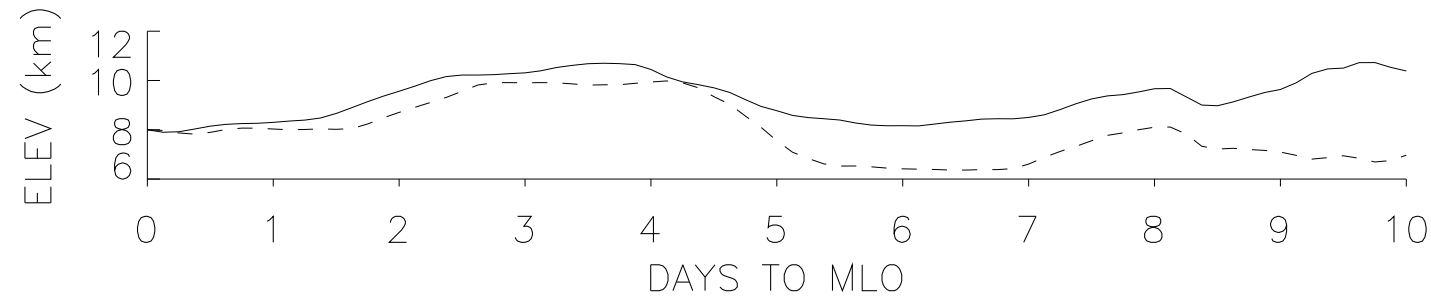
06UT

Day	km	hPa	C
0	8.0	376	−23
1	8.7	341	−28
2	10.1	282	−38
3	10.8	253	−44
4	11.0	245	−45
5	11.1	241	−46
6	10.7	255	−42
7	10.0	288	−34
8	10.4	269	−38
9	11.9	214	−51
10	11.7	223	−48

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

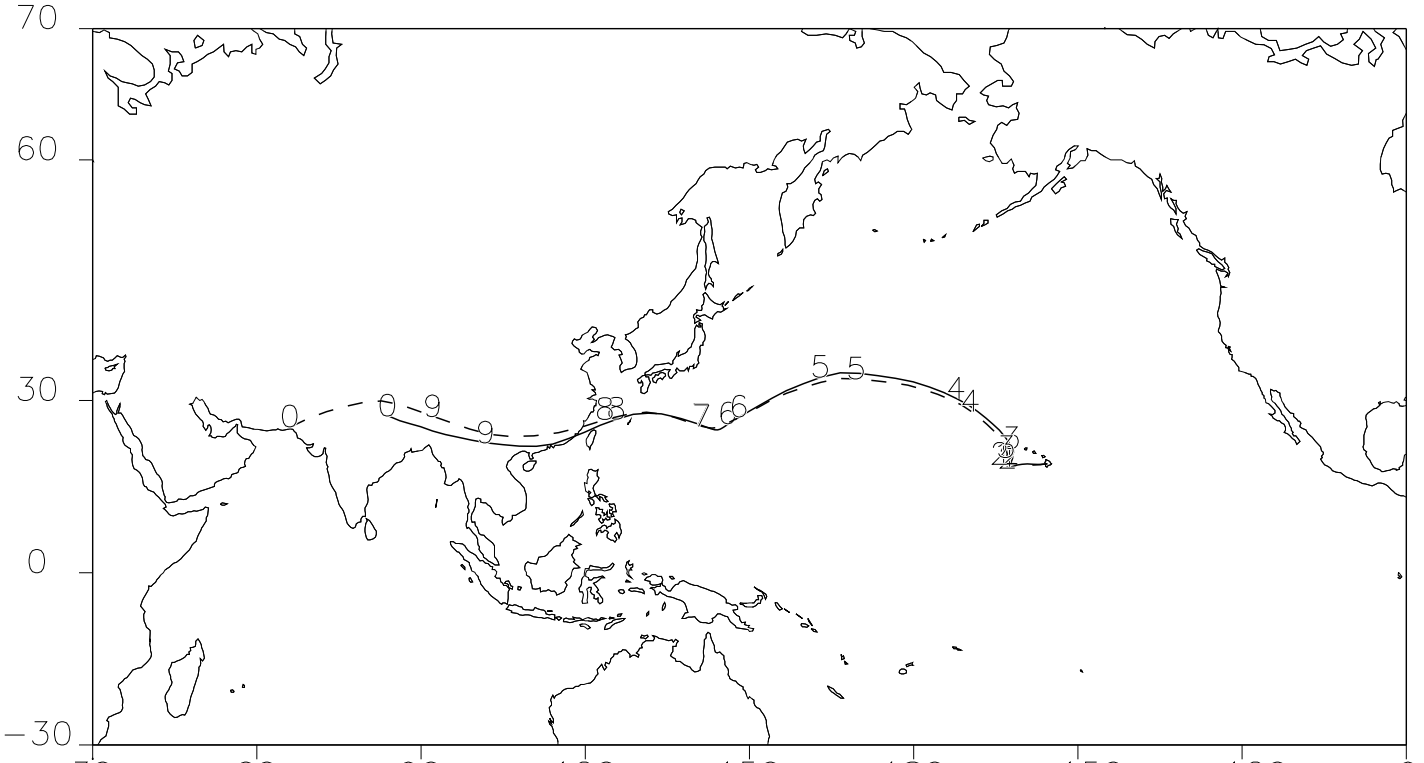
Day	km	hPa	C
0	8.0	375	−24
1	8.3	362	−25
2	9.6	304	−35
3	10.3	271	−40
4	10.4	264	−42
5	8.8	340	−26
6	8.2	372	−20
7	8.5	354	−21
8	9.7	301	−31
9	9.6	301	−32
10	10.4	270	−39

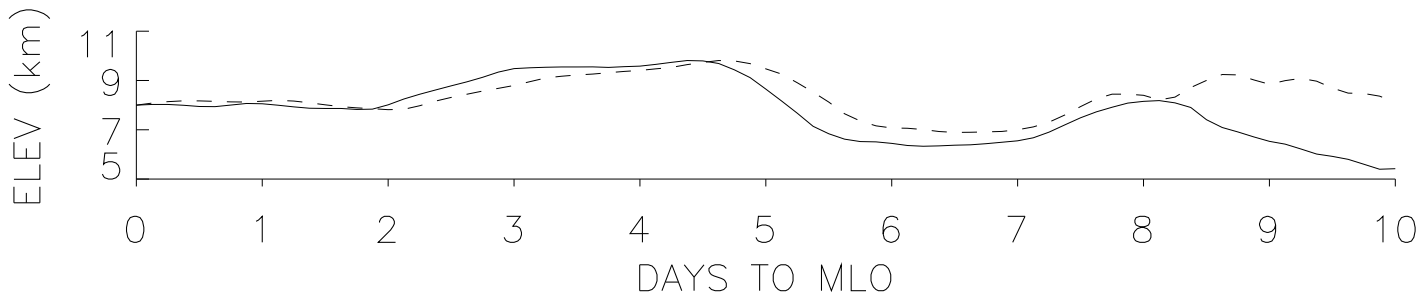
18UT

Day	km	hPa	C
0	8.0	374	−25
1	8.0	376	−22
2	8.7	344	−27
3	9.9	288	−37
4	9.9	283	−38
5	7.6	397	−19
6	6.4	468	−7
7	6.6	455	−9
8	8.1	369	−23
9	7.1	424	−16
10	7.0	432	−15

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

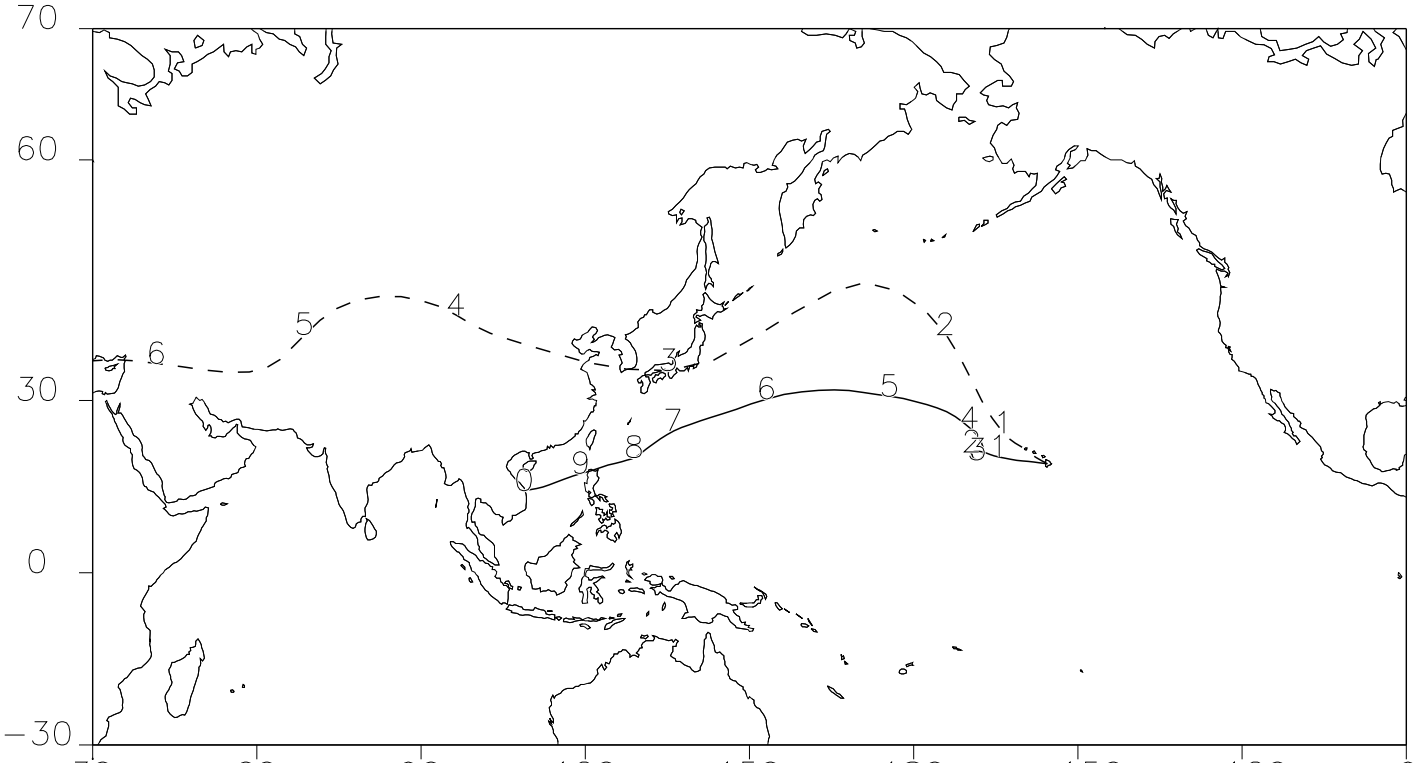
Day	km	hPa	C
0	8.0	374	-25
1	8.1	374	-23
2	8.0	378	-22
3	9.5	307	-34
4	9.6	300	-34
5	8.6	340	-30
6	6.4	466	-9
7	6.6	459	-9
8	8.2	367	-24
9	6.5	453	-15
10	5.4	523	-6

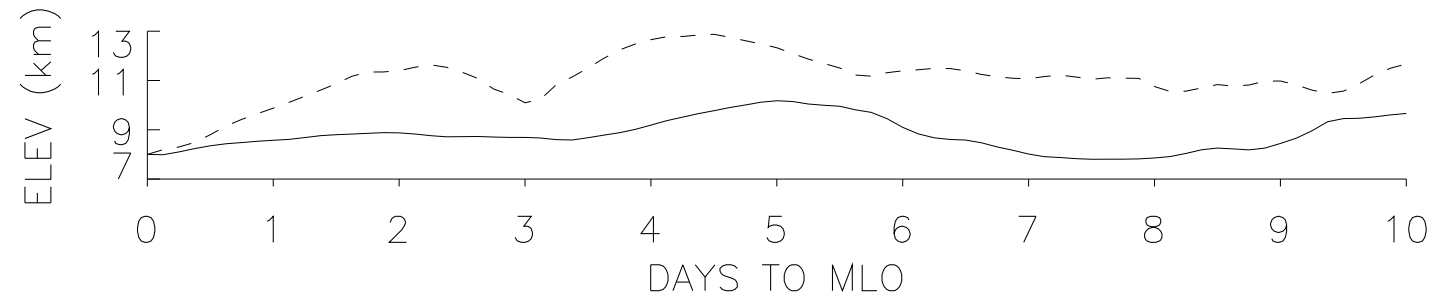
06UT

Day	km	hPa	C
0	8.0	374	-25
1	8.2	368	-24
2	7.8	388	-20
3	8.8	339	-28
4	9.4	308	-33
5	9.5	303	-36
6	7.1	428	-13
7	7.0	433	-11
8	8.4	353	-25
9	8.8	332	-30
10	8.1	371	-22

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





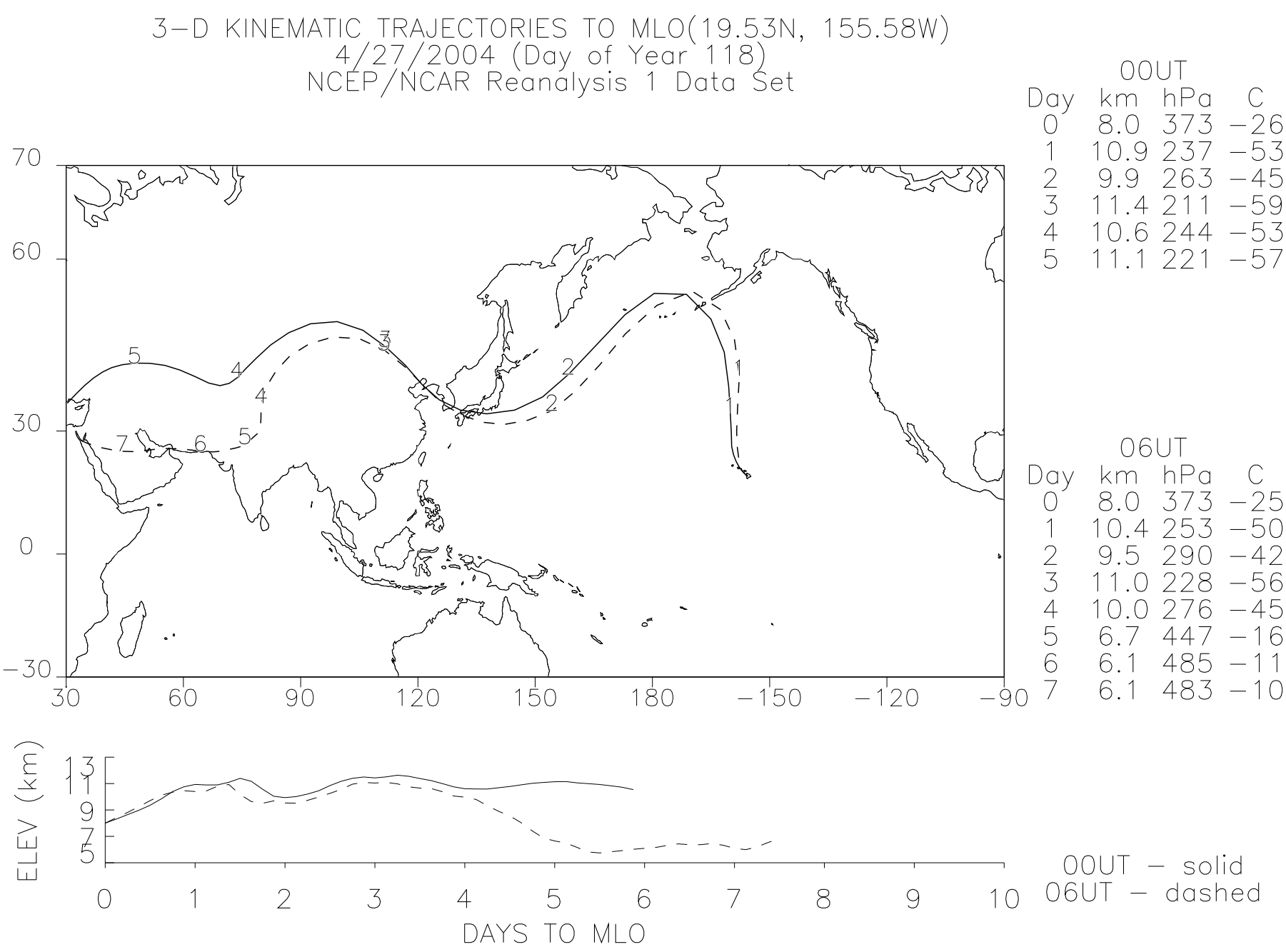
12UT

Day	km	hPa	C
0	8.0	373	−26
1	8.6	347	−29
2	8.9	335	−30
3	8.7	344	−27
4	9.2	319	−31
5	10.2	276	−40
6	9.1	324	−31
7	8.0	380	−18
8	7.9	387	−16
9	8.4	356	−21
10	9.7	301	−30

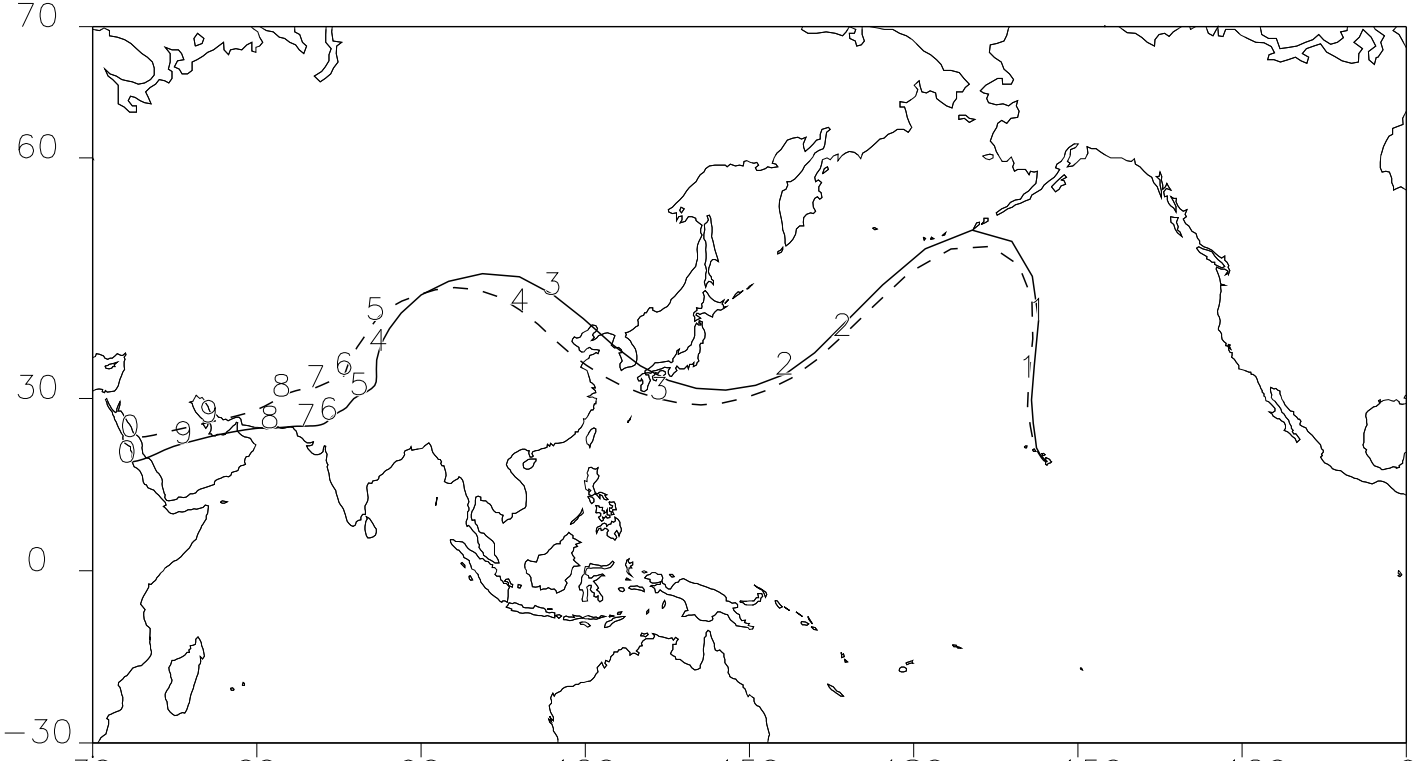
18UT

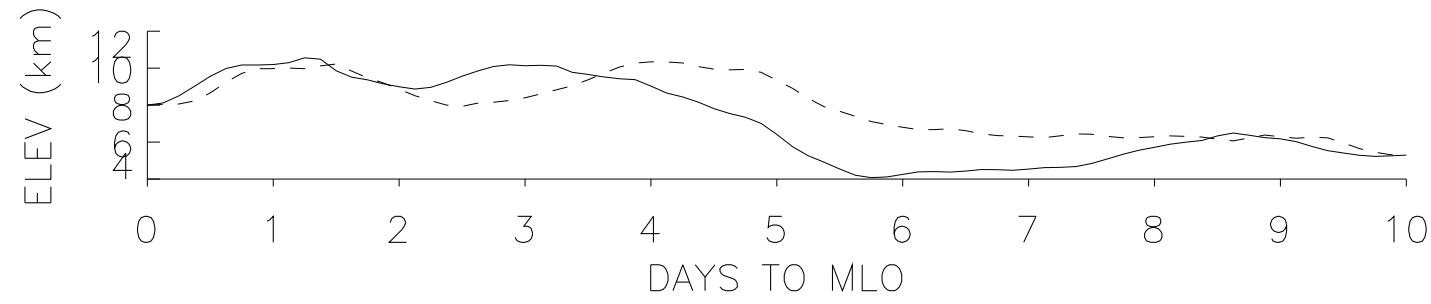
Day	km	hPa	C
0	8.0	373	−26
1	9.9	286	−41
2	11.4	221	−57
3	10.1	261	−45
4	12.7	180	−61
5	12.3	188	−58
6	11.4	216	−55
7	11.1	228	−55
8	10.8	236	−51
9	11.0	235	−54
10	11.7	209	−59

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 8.0 373 -26
1 10.9 237 -53
2 9.9 263 -45
3 11.4 211 -59
4 10.6 244 -53
5 11.1 221 -57
06UT
Day km hPa C
0 8.0 373 -25
1 10.4 253 -50
2 9.5 290 -42
3 11.0 228 -56
4 10.0 276 -45
5 6.7 447 -16
6 6.1 485 -11
7 6.1 483 -10
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
13
11
9
7
5
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)
4/27/2004 (Day of Year 118)
NCEP/NCAR Reanalysis 1 Data Set





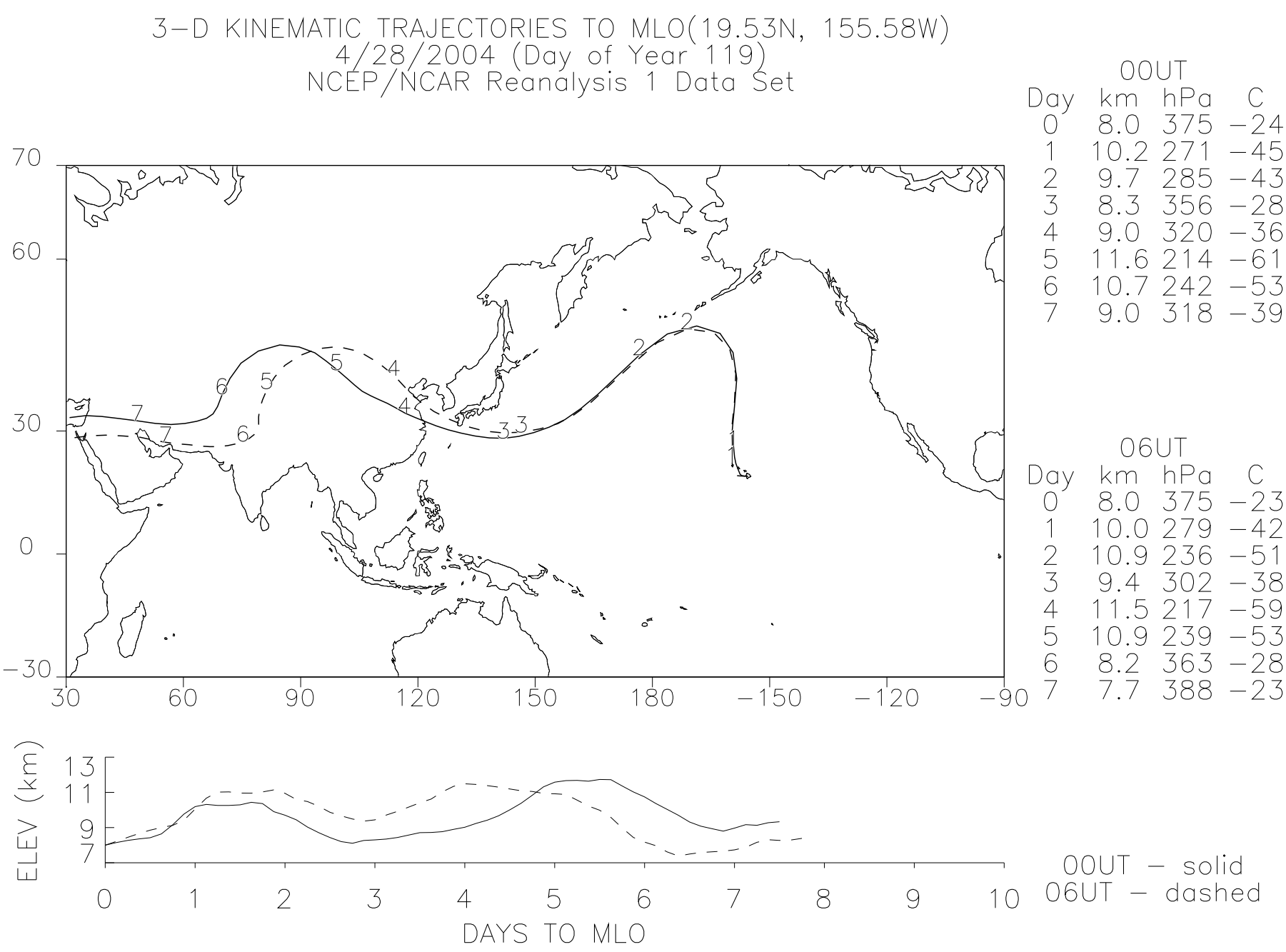
12UT

Day	km	hPa	C
0	8.0	374	−25
1	10.2	263	−47
2	9.0	318	−37
3	10.1	263	−50
4	9.0	318	−37
5	6.4	460	−16
6	4.3	609	1
7	4.5	590	0
8	5.7	506	−10
9	6.2	477	−13
10	5.3	538	−2

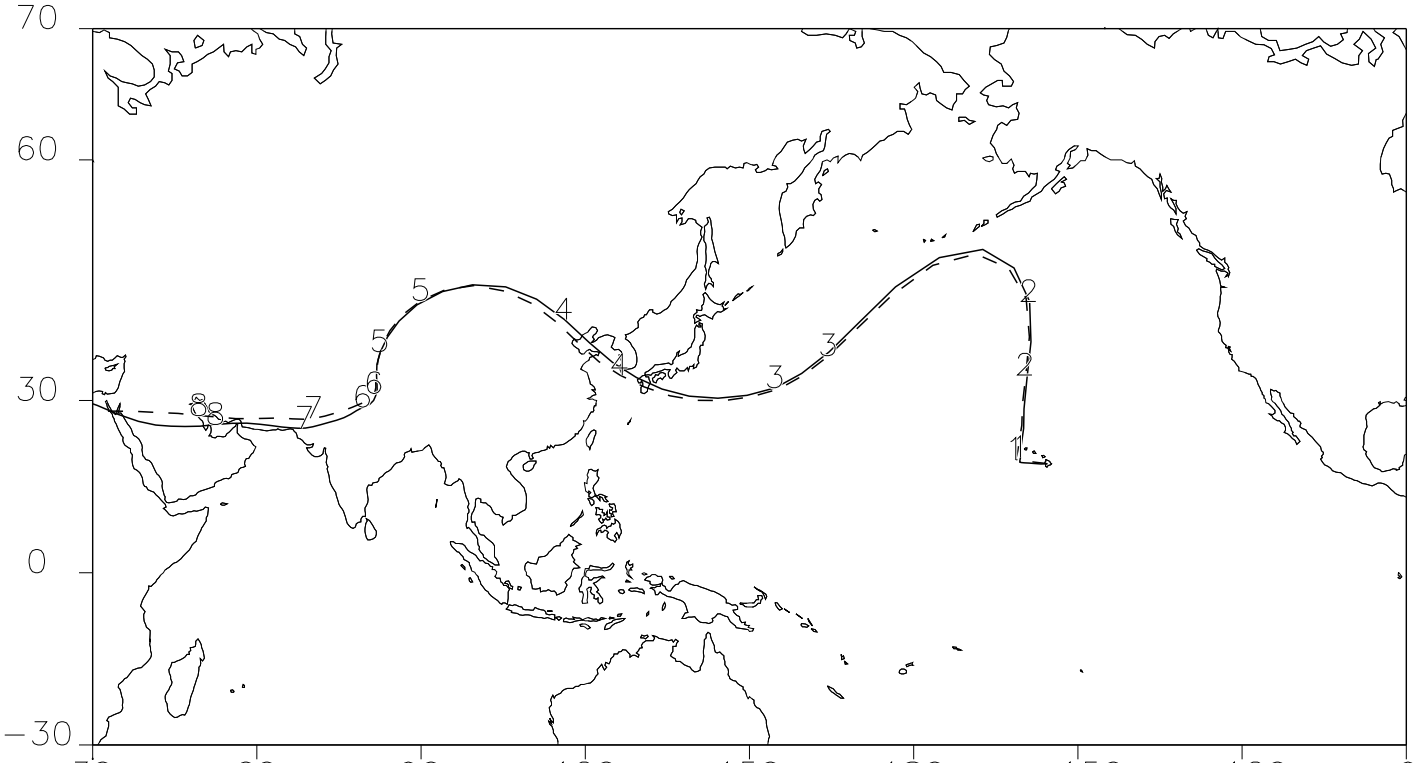
18UT

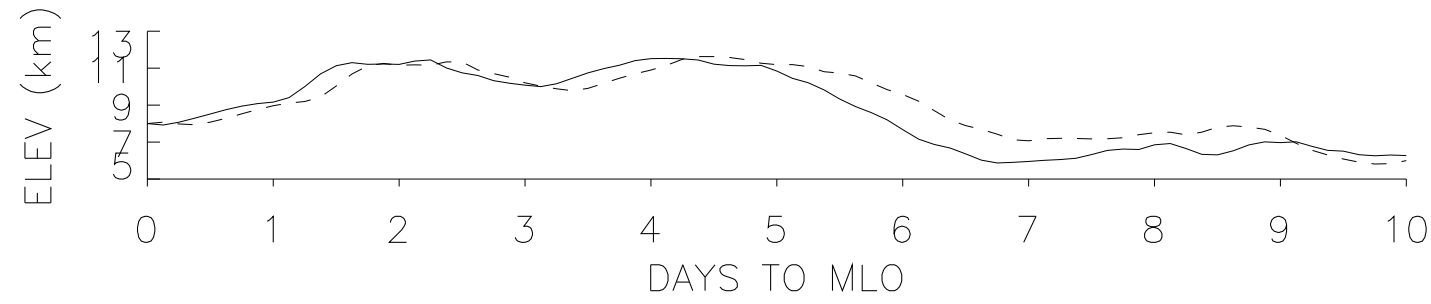
Day	km	hPa	C
0	8.0	375	−25
1	10.0	276	−45
2	8.9	323	−36
3	8.4	349	−30
4	10.3	259	−51
5	9.3	302	−42
6	6.8	436	−21
7	6.3	472	−16
8	6.3	469	−16
9	6.3	467	−15
10	5.3	536	−5

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 8.0 375 -24
1 10.2 271 -45
2 9.7 285 -43
3 8.3 356 -28
4 9.0 320 -36
5 11.6 214 -61
6 10.7 242 -53
7 9.0 318 -39
06UT
Day km hPa C
0 8.0 375 -23
1 10.0 279 -42
2 10.9 236 -51
3 9.4 302 -38
4 11.5 217 -59
5 10.9 239 -53
6 8.2 363 -28
7 7.7 388 -23
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
13
11
9
7
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)
4/28/2004 (Day of Year 119)
NCEP/NCAR Reanalysis 1 Data Set





12UT

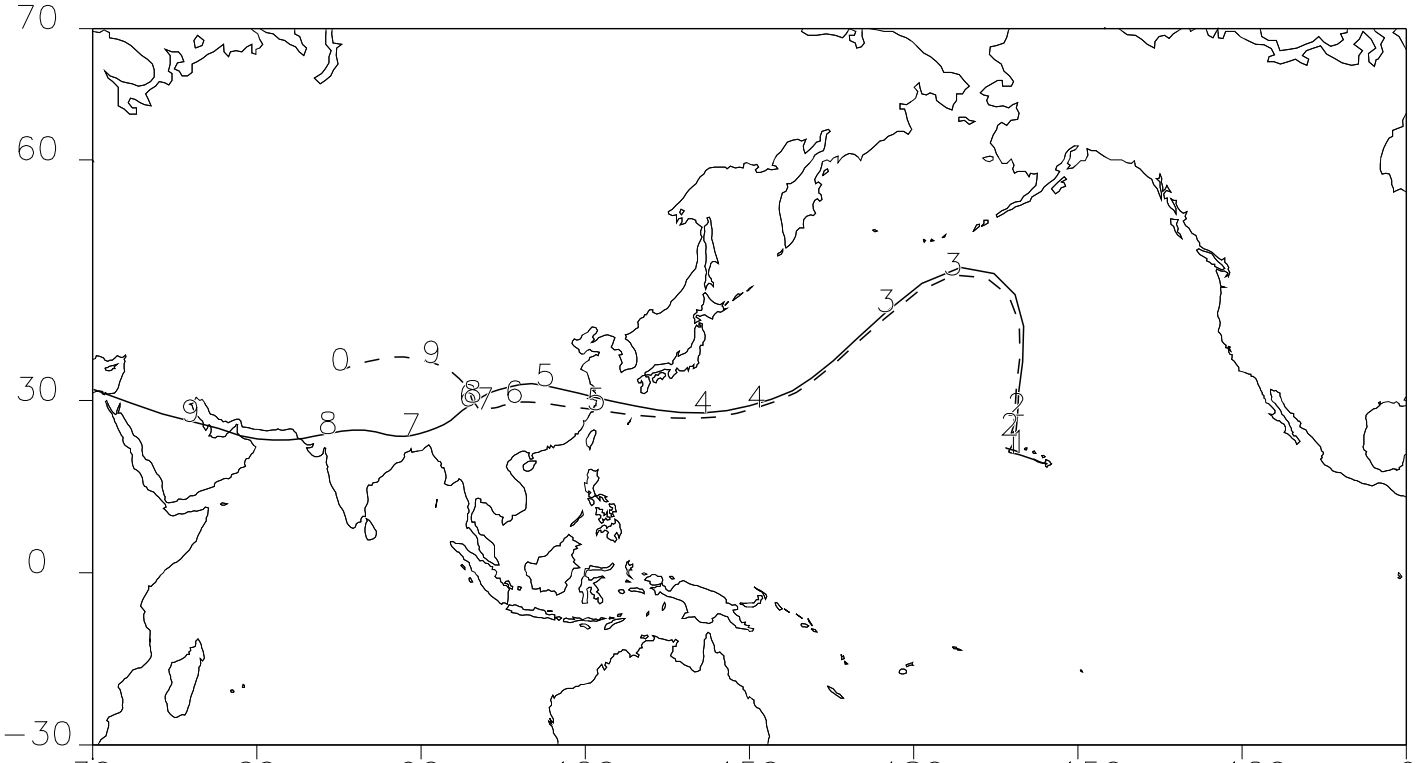
Day	km	hPa	C
0	8.0	375	−24
1	9.2	318	−34
2	11.2	228	−54
3	10.1	274	−44
4	11.5	214	−60
5	10.8	243	−51
6	7.7	389	−25
7	6.0	491	−10
8	6.9	436	−17
9	7.0	422	−20
10	6.3	467	−16

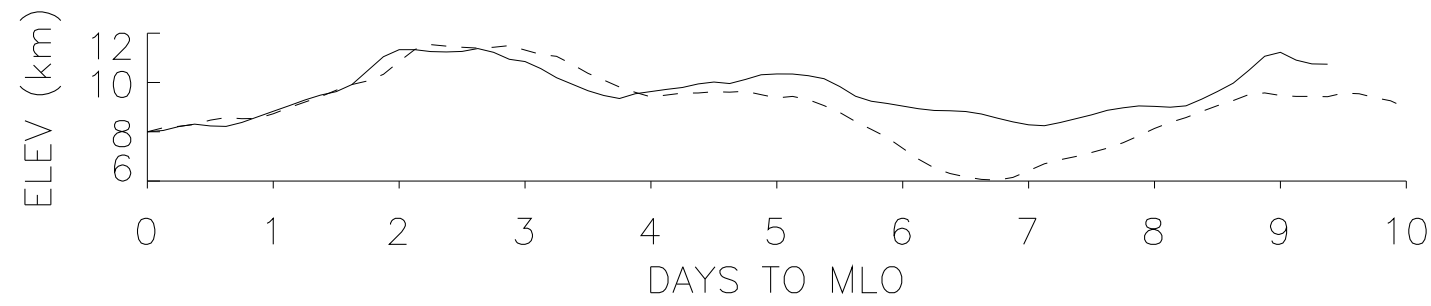
18UT

Day	km	hPa	C
0	8.0	376	−24
1	9.0	328	−31
2	11.2	231	−53
3	10.2	267	−45
4	10.9	239	−54
5	11.2	228	−57
6	9.6	297	−40
7	7.1	424	−19
8	7.5	400	−21
9	7.4	404	−21
10	6.0	493	−6

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

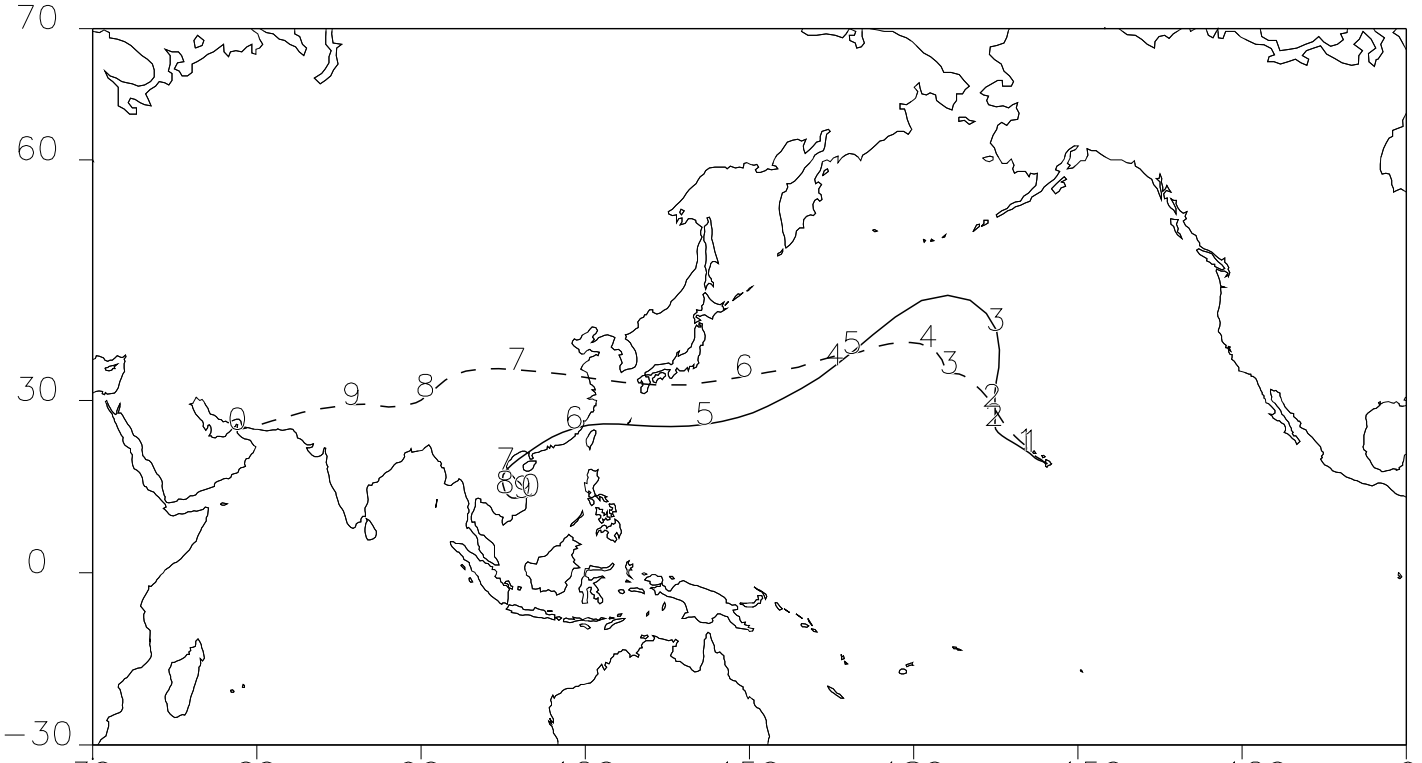
Day	km	hPa	C
0	8.0	376	-24
1	8.8	334	-31
2	11.3	229	-53
3	10.9	241	-50
4	9.6	296	-37
5	10.3	266	-43
6	9.0	322	-31
7	8.3	359	-26
8	9.0	326	-32
9	11.2	230	-54

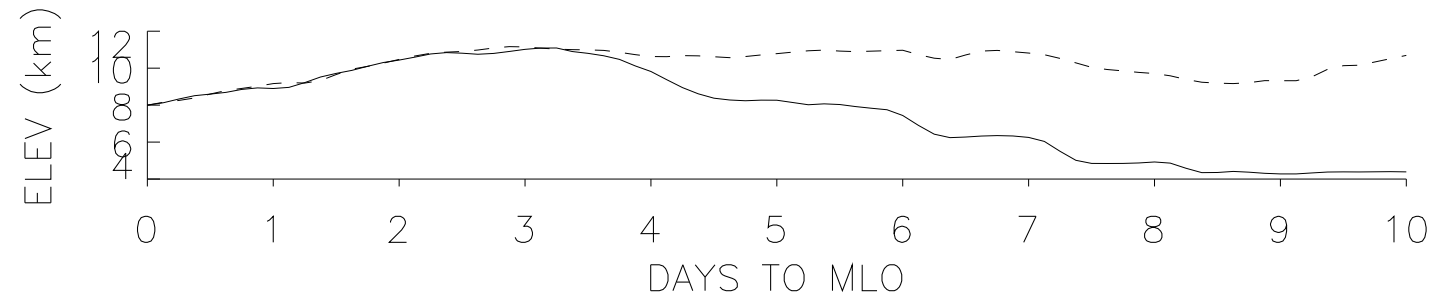
06UT

Day	km	hPa	C
0	8.0	377	-24
1	8.7	339	-29
2	10.8	248	-48
3	11.3	225	-53
4	9.4	306	-35
5	9.4	308	-33
6	7.3	409	-17
7	6.4	463	-11
8	8.1	369	-26
9	9.5	304	-39
10	9.0	325	-34

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

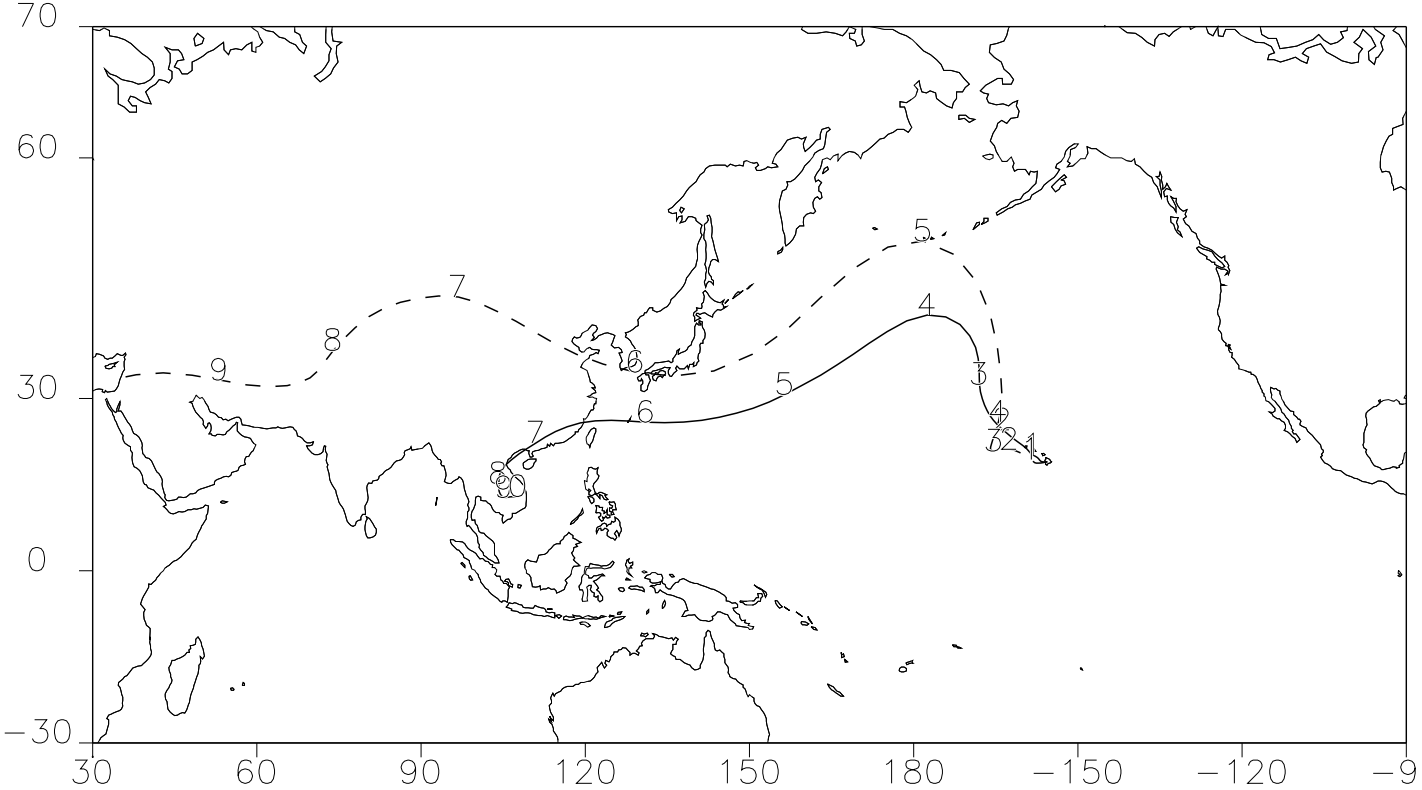
Day	km	hPa	C
0	8.0	376	-24
1	8.9	330	-31
2	10.4	265	-45
3	11.0	240	-50
4	9.8	289	-38
5	8.3	361	-25
6	7.4	405	-17
7	6.3	475	-10
8	4.9	564	1
9	4.3	611	5
10	4.4	602	4

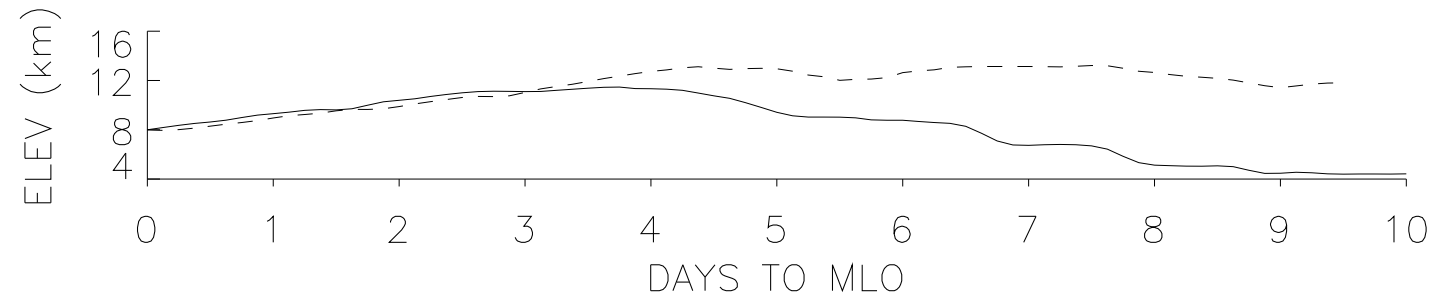
18UT

Day	km	hPa	C
0	8.0	377	-24
1	9.2	320	-33
2	10.5	262	-44
3	11.1	239	-49
4	10.6	257	-45
5	10.8	249	-46
6	11.0	238	-51
7	10.8	247	-49
8	9.7	293	-38
9	9.3	312	-35
10	10.7	253	-49

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

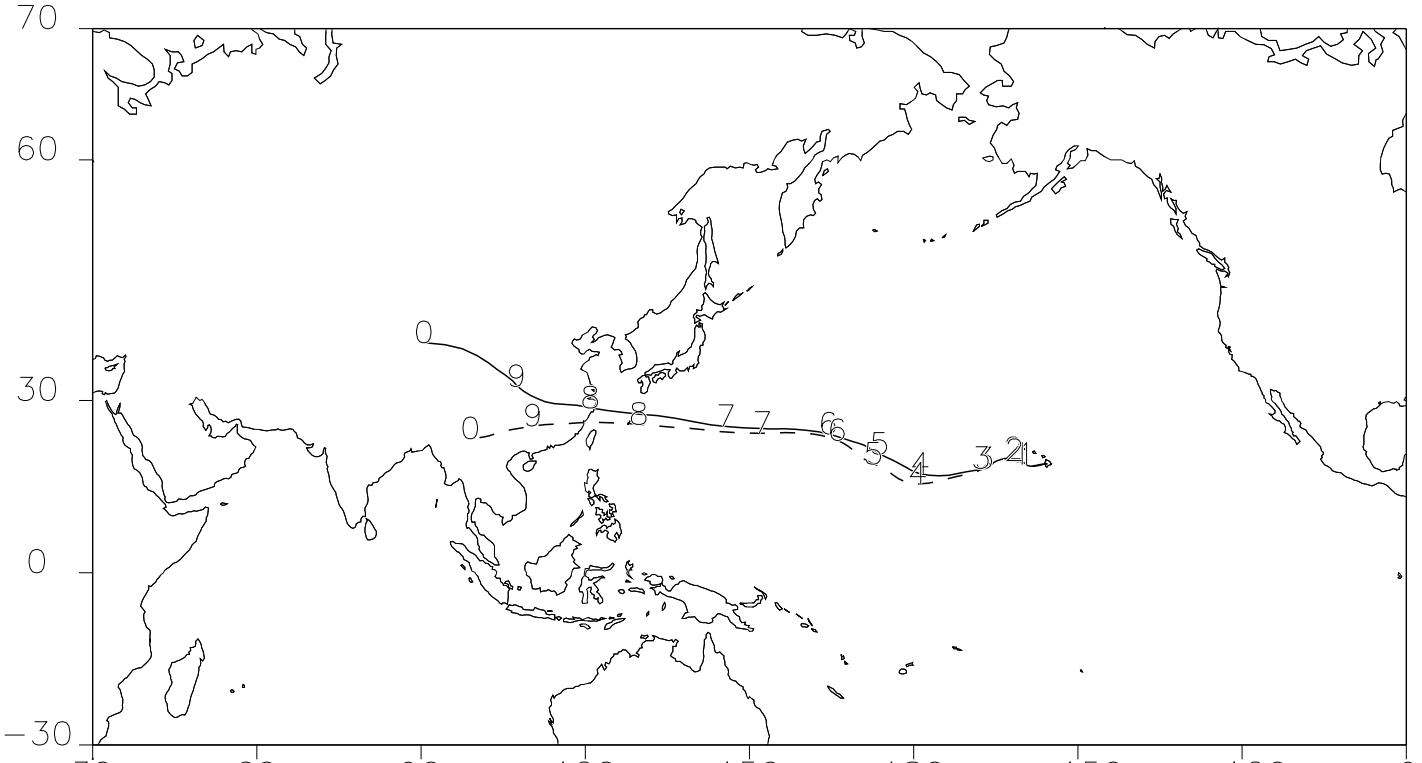
Day	km	hPa	C
0	8.0	376	-24
1	9.3	313	-34
2	10.4	266	-43
3	11.1	240	-49
4	11.3	230	-50
5	9.4	307	-33
6	8.8	337	-28
7	6.7	445	-13
8	5.1	549	-2
9	4.5	597	4
10	4.4	601	3

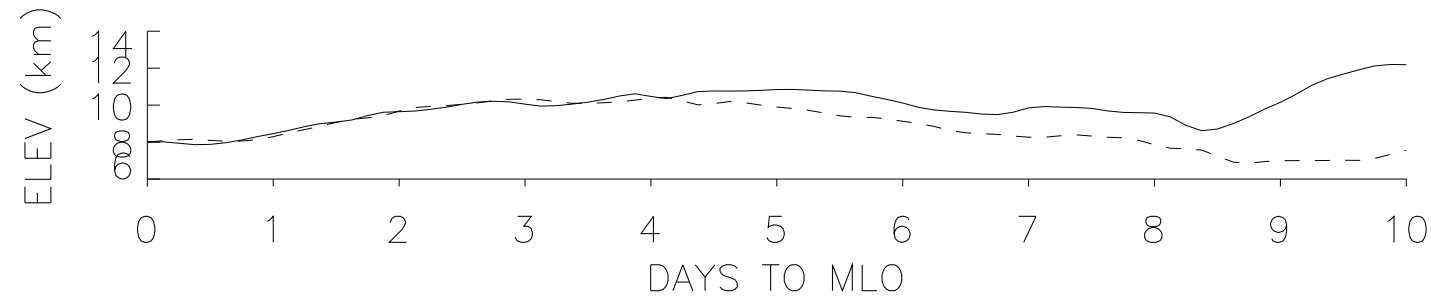
06UT

Day	km	hPa	C
0	8.0	377	-24
1	9.0	329	-31
2	9.9	287	-39
3	11.0	242	-48
4	12.7	184	-60
5	12.9	170	-60
6	12.6	179	-57
7	13.1	167	-63
8	12.6	181	-58
9	11.4	220	-53

00UT - solid
06UT - dashed

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





12UT

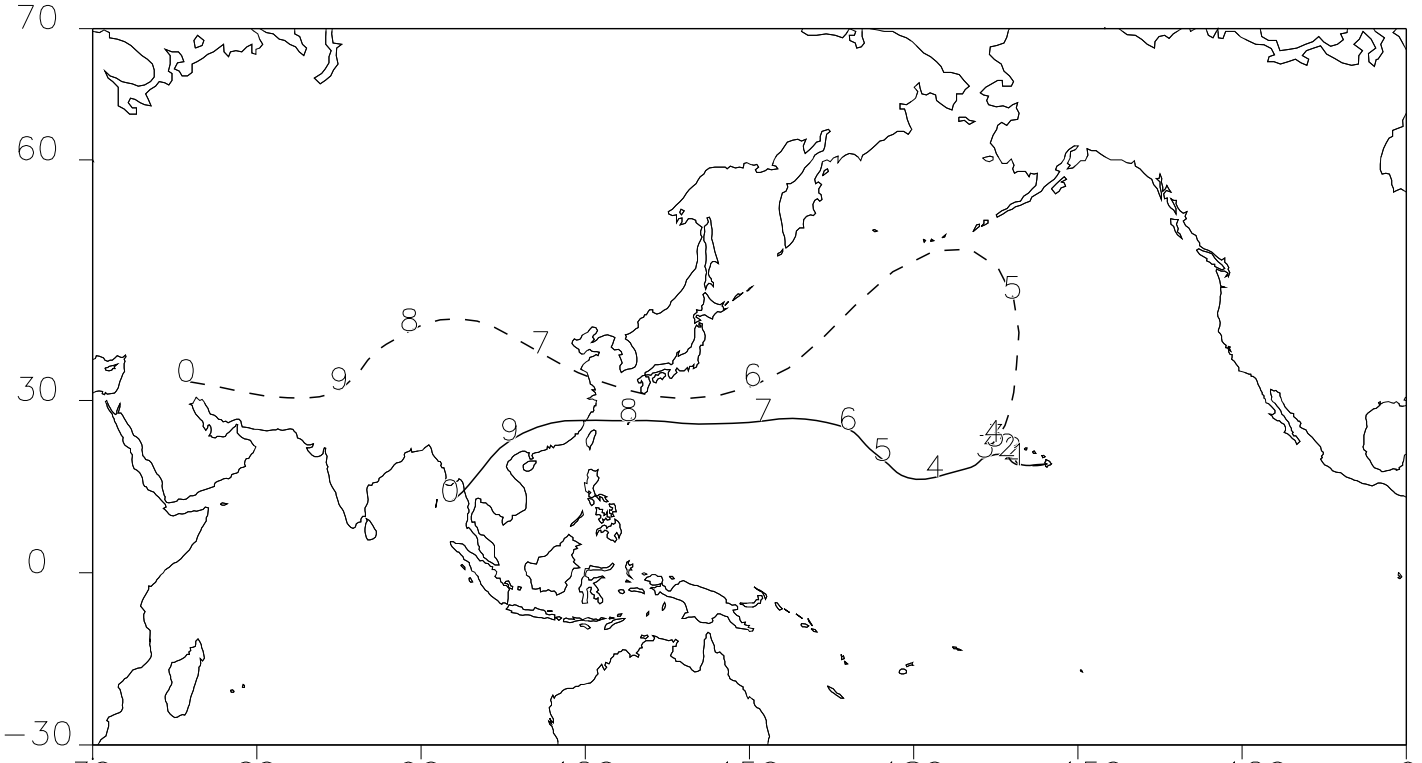
Day	km	hPa	C
0	8.0	376	−24
1	8.5	353	−27
2	9.6	297	−37
3	10.1	280	−40
4	10.5	265	−41
5	10.8	252	−45
6	10.1	281	−39
7	9.9	289	−36
8	9.6	299	−35
9	10.2	273	−44
10	12.2	199	−58

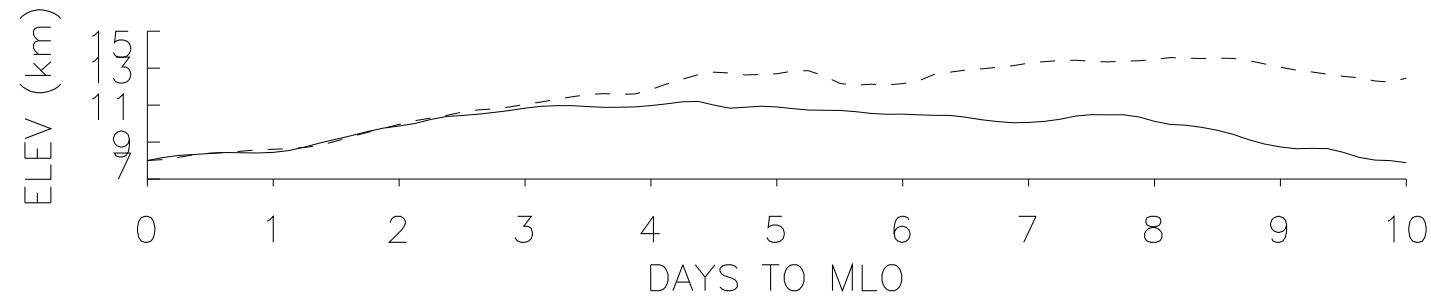
18UT

Day	km	hPa	C
0	8.0	378	−24
1	8.3	362	−26
2	9.7	297	−37
3	10.3	270	−41
4	10.4	268	−40
5	9.9	289	−38
6	9.1	323	−32
7	8.3	362	−25
8	7.9	381	−21
9	7.0	429	−14
10	7.6	399	−19

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





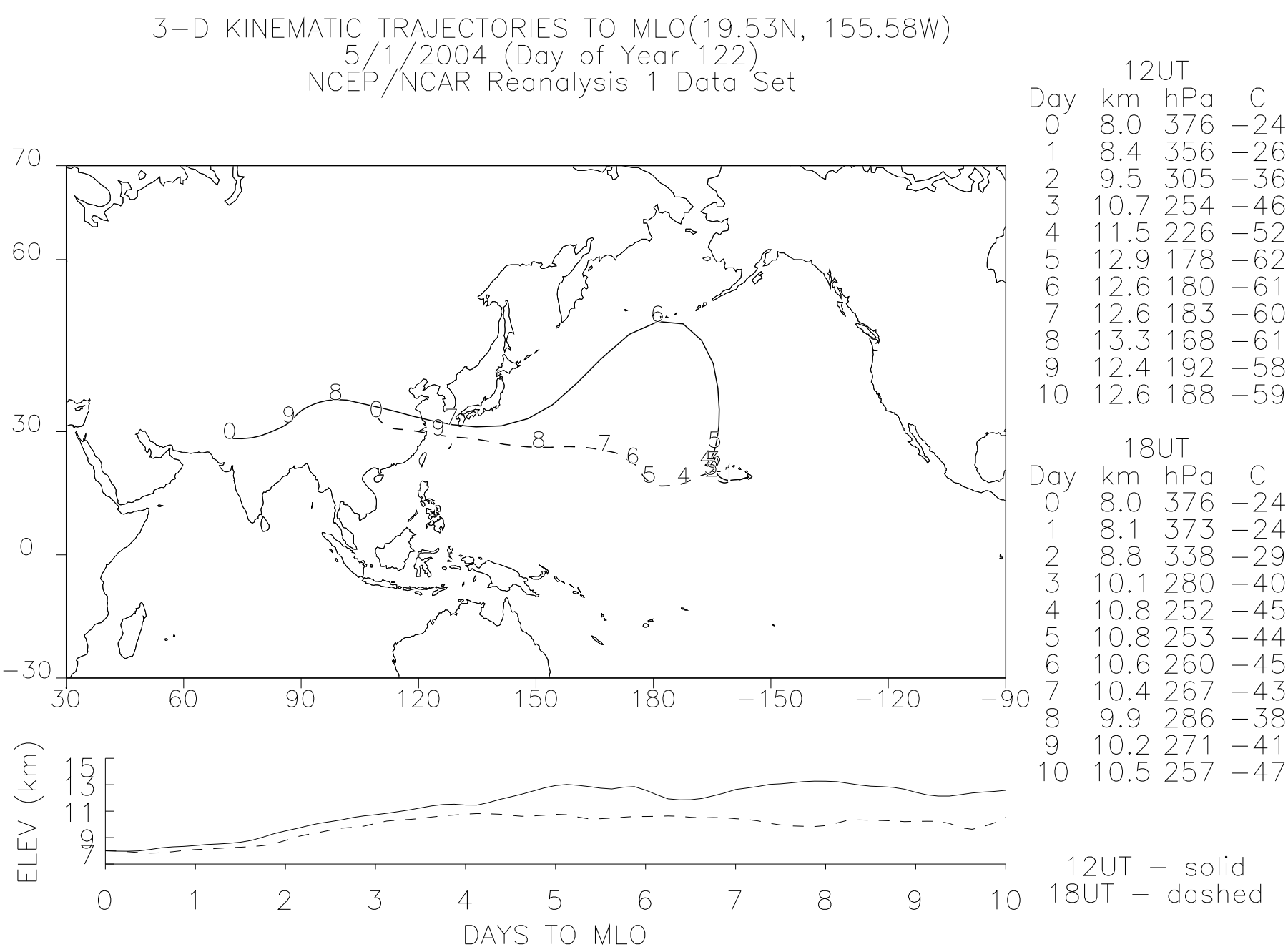
00UT

Day	km	hPa	C
0	8.0	377	−24
1	8.4	354	−27
2	9.9	289	−39
3	10.8	250	−46
4	11.0	245	−45
5	10.9	250	−45
6	10.5	265	−42
7	10.1	281	−39
8	10.1	278	−38
9	8.7	340	−27
10	7.9	384	−20

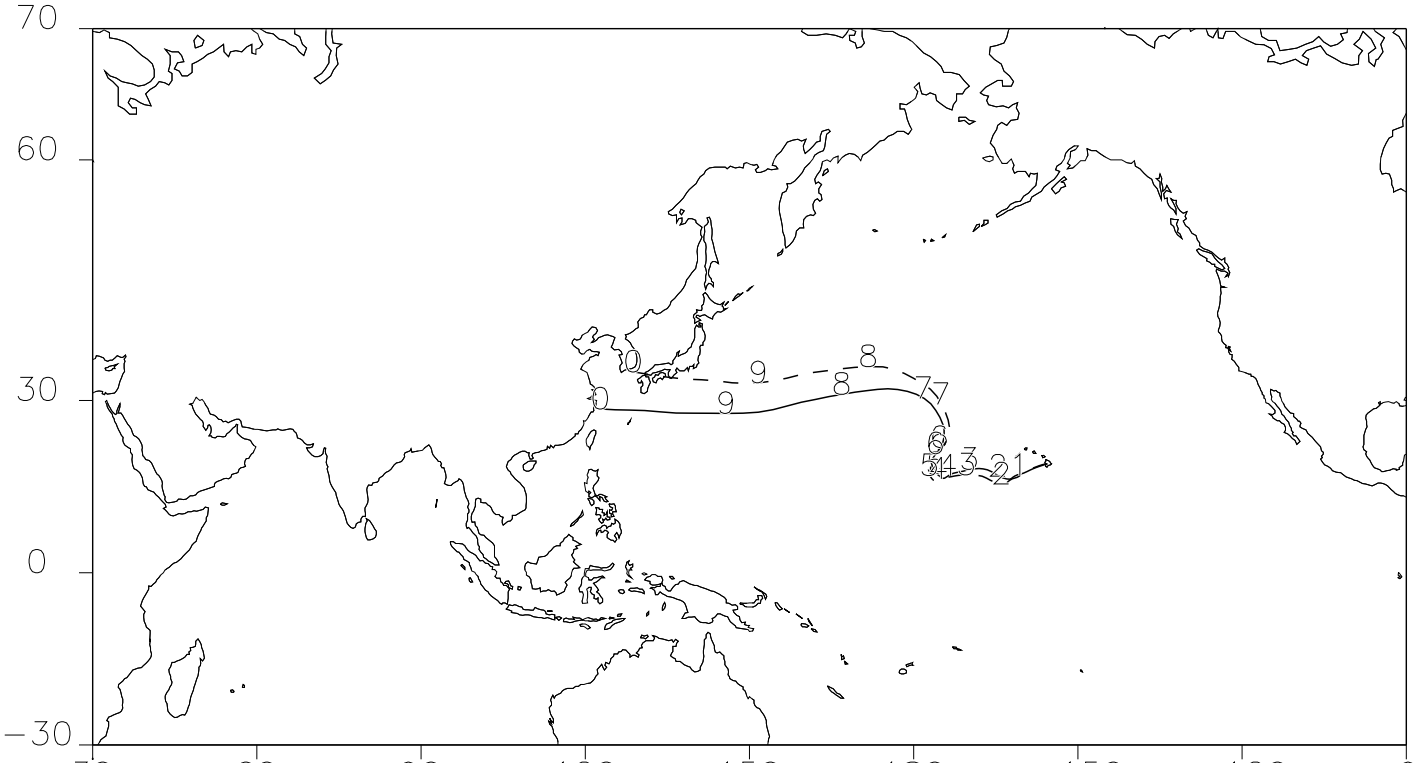
06UT

Day	km	hPa	C
0	8.0	377	−23
1	8.6	346	−27
2	10.0	285	−39
3	11.0	242	−48
4	11.8	213	−54
5	12.7	180	−60
6	12.2	196	−57
7	13.3	166	−62
8	13.5	160	−61
9	13.1	172	−59
10	12.5	187	−57

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
15
13
11
9
7
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 8.0 376 -24
1 8.4 356 -26
2 9.5 305 -36
3 10.7 254 -46
4 11.5 226 -52
5 12.9 178 -62
6 12.6 180 -61
7 12.6 183 -60
8 13.3 168 -61
9 12.4 192 -58
10 12.6 188 -59
18UT
Day km hPa C
0 8.0 376 -24
1 8.1 373 -24
2 8.8 338 -29
3 10.1 280 -40
4 10.8 252 -45
5 10.8 253 -44
6 10.6 260 -45
7 10.4 267 -43
8 9.9 286 -38
9 10.2 271 -41
10 10.5 257 -47
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

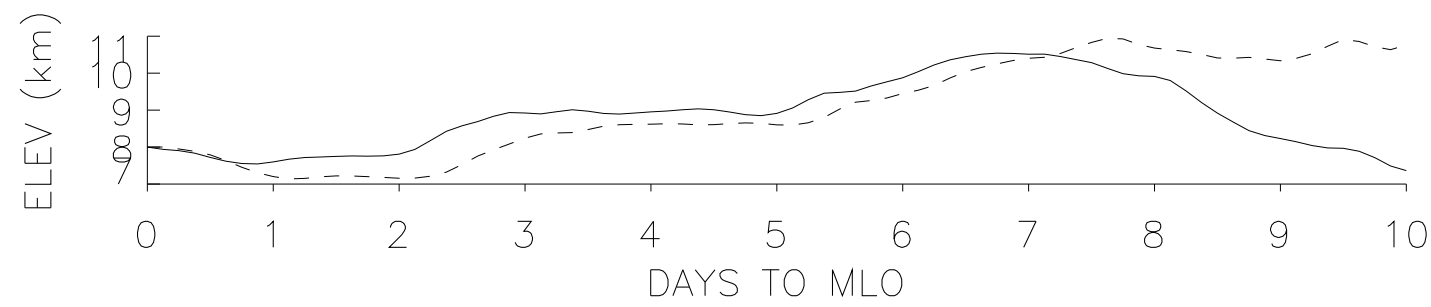


00UT

Day	km	hPa	C
0	8.0	376	-24
1	7.6	398	-20
2	7.8	387	-20
3	8.9	331	-30
4	9.0	329	-30
5	8.9	330	-31
6	9.9	289	-40
7	10.5	263	-46
8	9.9	286	-41
9	8.2	360	-28
10	7.4	406	-19

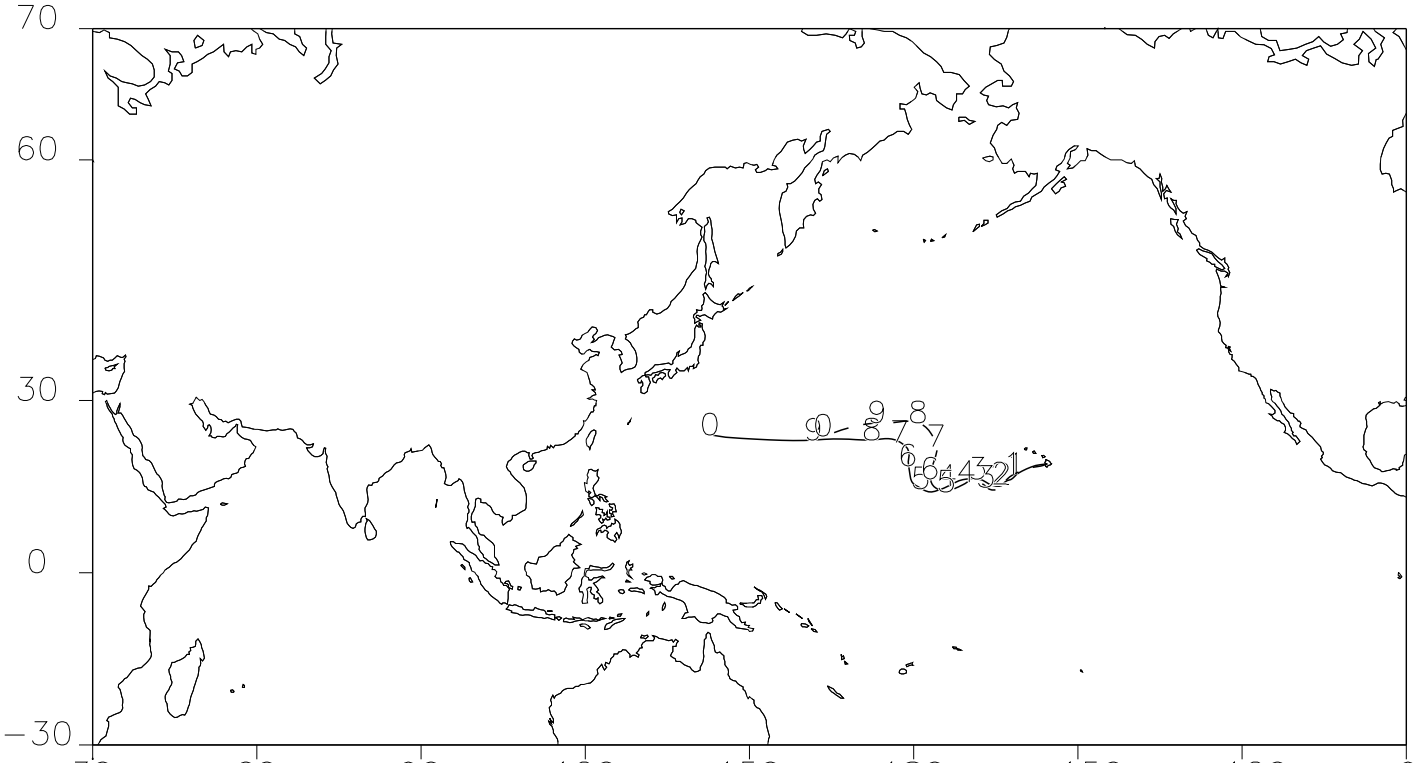
06UT

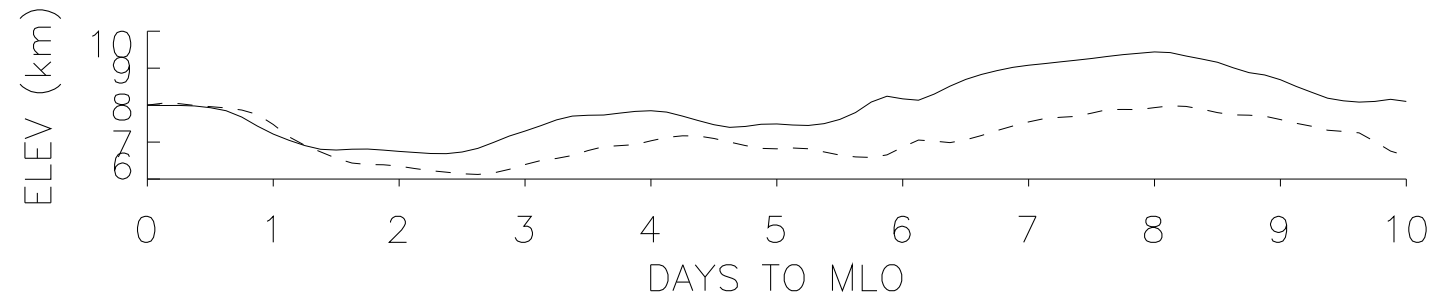
Day	km	hPa	C
0	8.0	376	-25
1	7.2	420	-17
2	7.2	422	-15
3	8.2	364	-24
4	8.6	344	-28
5	8.6	344	-29
6	9.5	306	-36
7	10.4	267	-44
8	10.7	253	-48
9	10.3	261	-47
10	10.8	245	-52



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

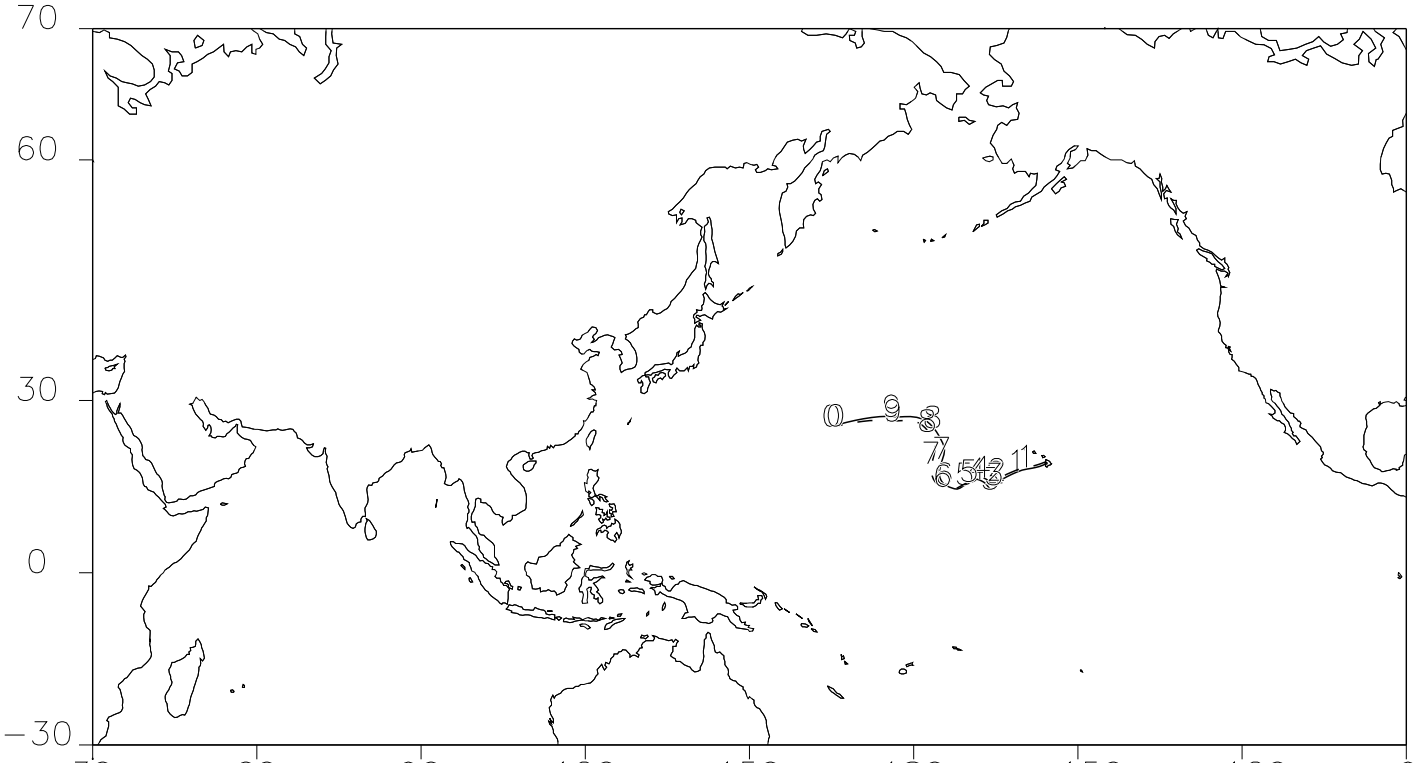
Day	km	hPa	C
0	8.0	376	-24
1	7.2	418	-17
2	6.7	445	-13
3	7.3	414	-17
4	7.8	384	-22
5	7.5	402	-20
6	8.2	368	-25
7	9.1	325	-33
8	9.4	310	-34
9	8.7	344	-28
10	8.1	370	-23

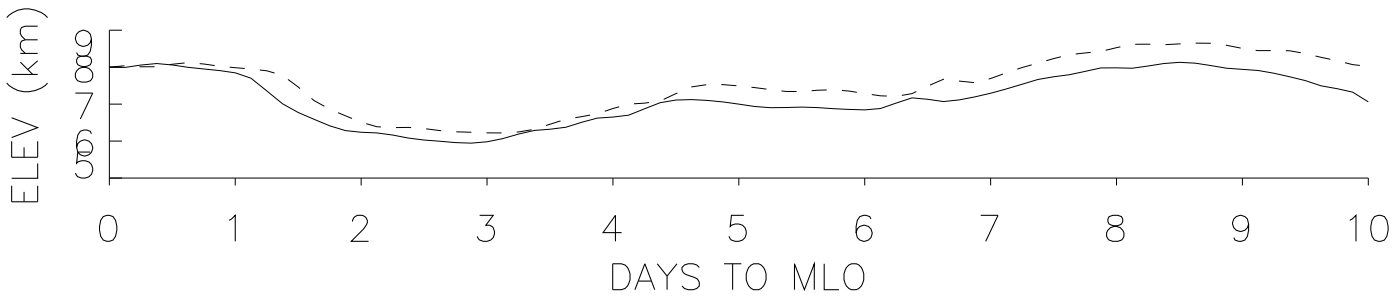
18UT

Day	km	hPa	C
0	8.0	376	-25
1	7.5	404	-19
2	6.3	470	-10
3	6.4	467	-10
4	7.0	428	-17
5	6.8	439	-15
6	6.9	437	-16
7	7.5	400	-21
8	7.9	381	-24
9	7.6	397	-22
10	6.6	451	-14

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

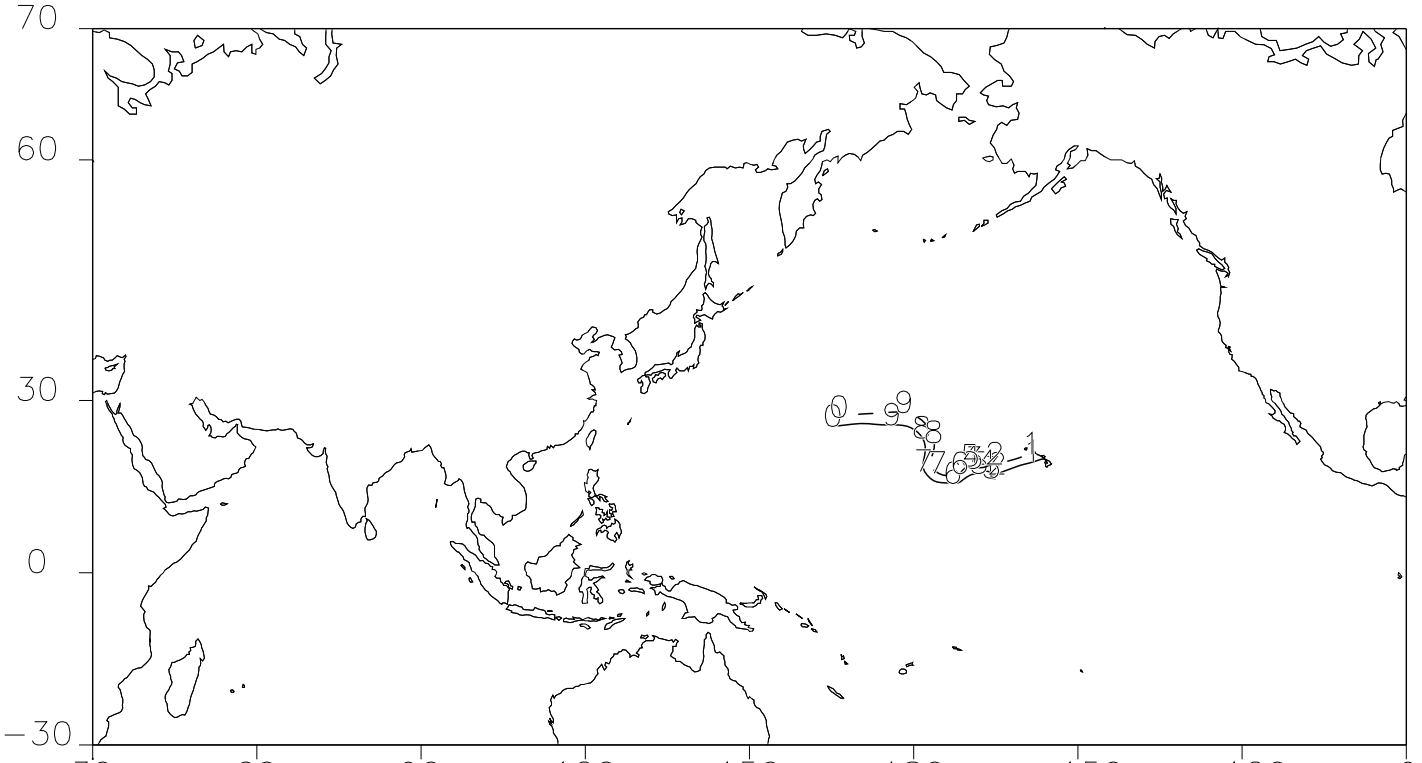
Day	km	hPa	C
0	8.0	376	-25
1	7.8	384	-23
2	6.2	476	-9
3	6.0	492	-7
4	6.6	451	-13
5	7.0	429	-16
6	6.8	437	-15
7	7.3	414	-20
8	8.0	379	-24
9	7.9	381	-24
10	7.1	427	-18

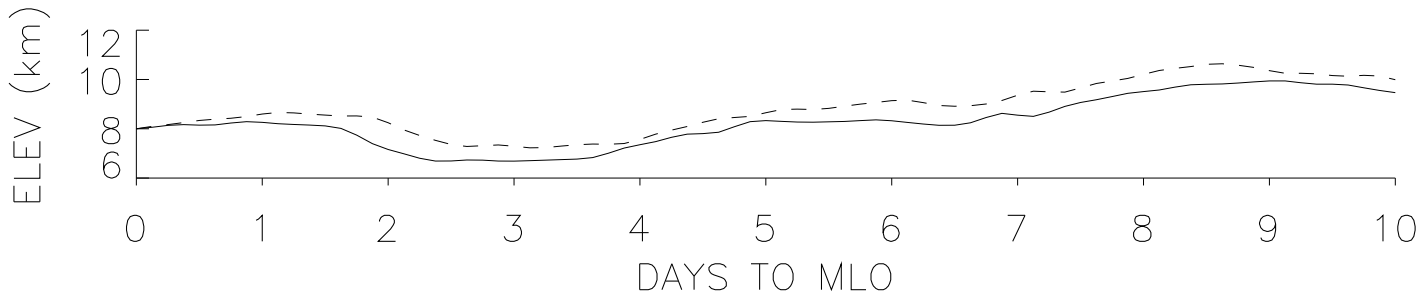
06UT

Day	km	hPa	C
0	8.0	377	-25
1	8.0	377	-24
2	6.5	459	-12
3	6.2	477	-8
4	6.9	438	-15
5	7.5	402	-20
6	7.3	412	-19
7	7.7	392	-22
8	8.5	351	-28
9	8.5	352	-28
10	8.0	375	-25

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

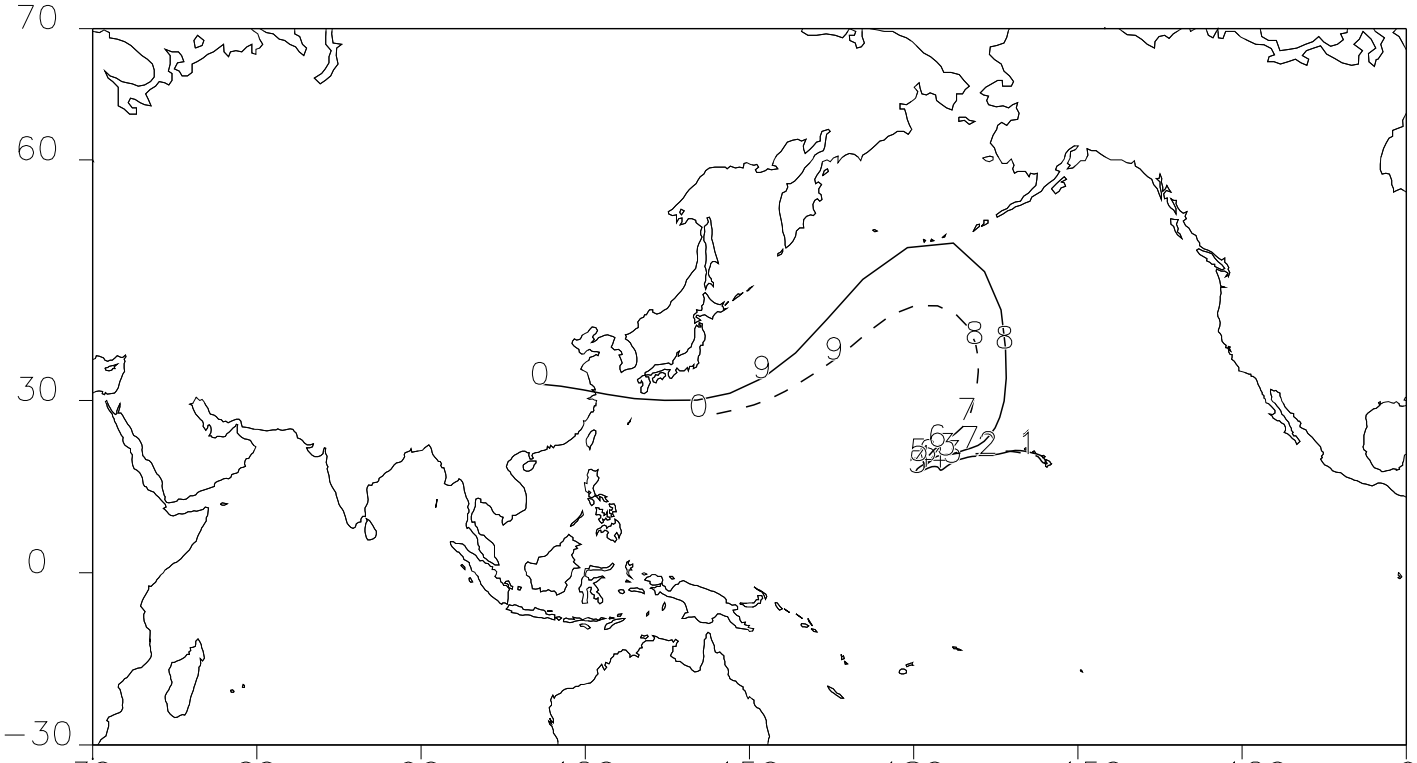
Day	km	hPa	C
0	8.0	376	-25
1	8.3	363	-27
2	7.2	421	-17
3	6.7	449	-13
4	7.4	411	-18
5	8.3	359	-26
6	8.3	359	-26
7	8.6	349	-28
8	9.5	306	-36
9	9.9	288	-39
10	9.5	307	-36

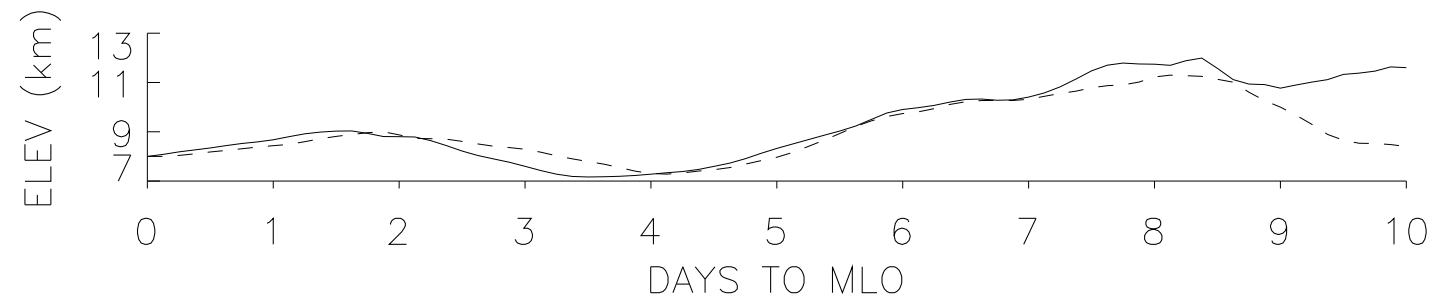
18UT

Day	km	hPa	C
0	8.0	376	-25
1	8.6	346	-30
2	8.2	363	-26
3	7.3	415	-17
4	7.6	400	-20
5	8.6	343	-29
6	9.1	319	-32
7	9.4	310	-34
8	10.2	275	-42
9	10.4	269	-43
10	10.0	283	-40

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

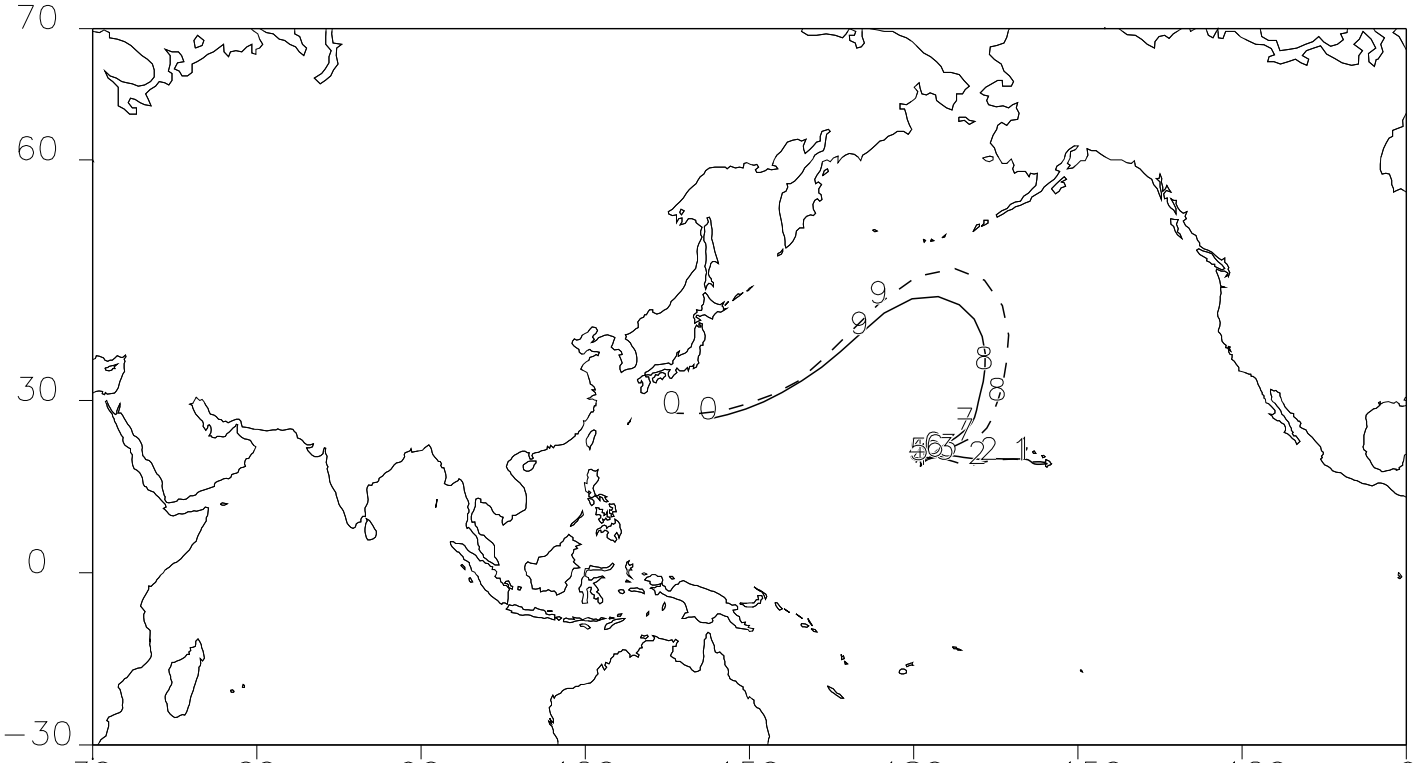
Day	km	hPa	C
0	8.0	376	−25
1	8.7	342	−31
2	8.8	336	−31
3	7.6	398	−21
4	7.3	416	−17
5	8.3	361	−25
6	9.9	287	−39
7	10.4	266	−44
8	11.7	211	−57
9	10.8	244	−49
10	11.6	220	−53

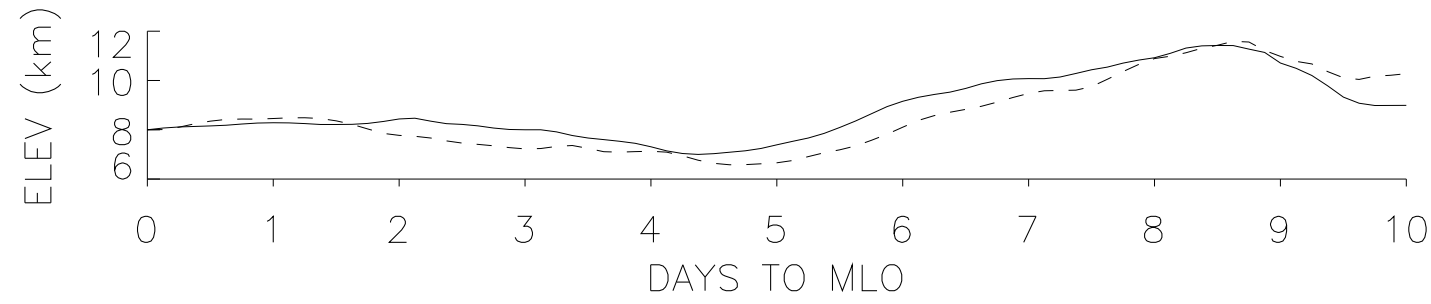
06UT

Day	km	hPa	C
0	8.0	377	−24
1	8.4	354	−29
2	8.9	332	−31
3	8.3	361	−26
4	7.3	414	−17
5	8.0	378	−23
6	9.7	294	−39
7	10.3	270	−43
8	11.2	234	−50
9	10.0	280	−39
10	8.4	352	−26

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

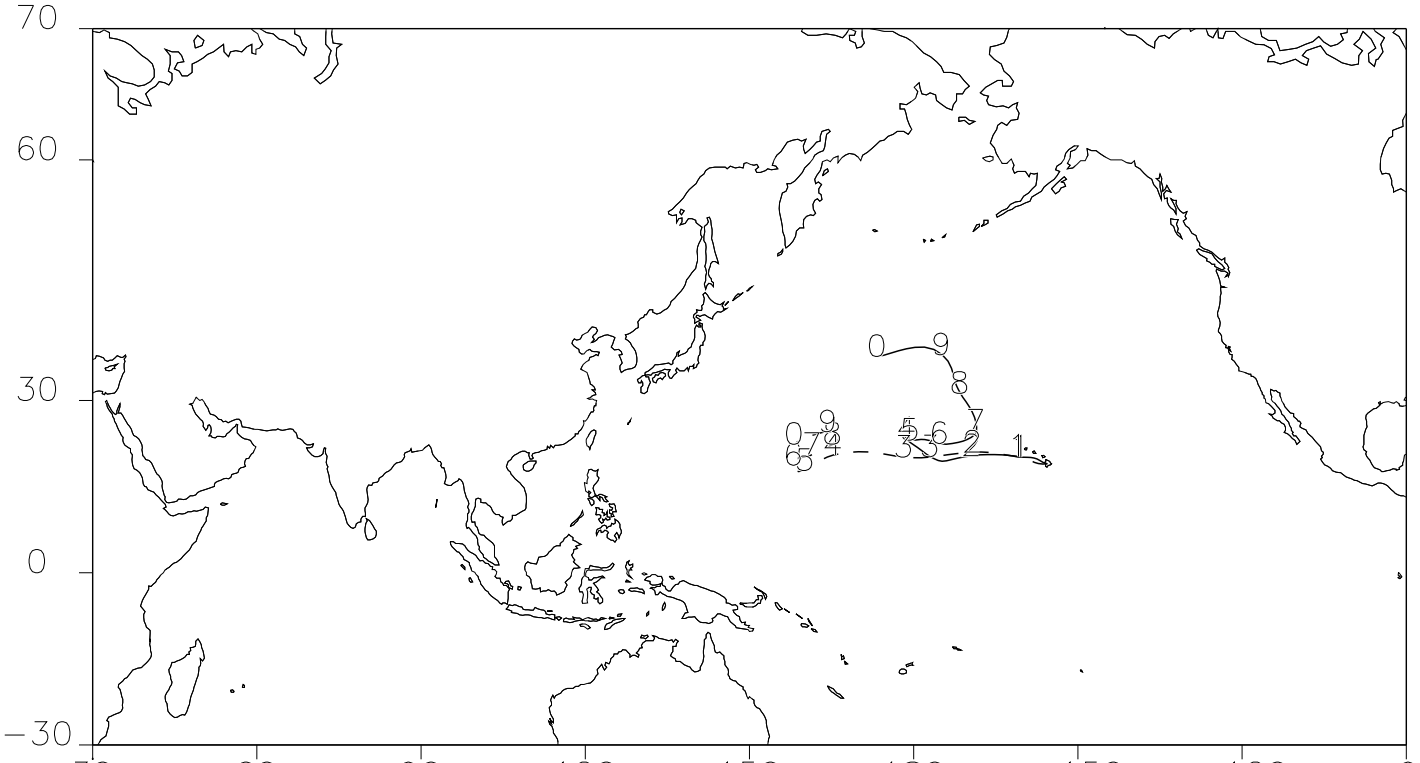
Day	km	hPa	C
0	8.0	375	-25
1	8.3	362	-27
2	8.4	353	-28
3	8.0	376	-25
4	7.3	414	-18
5	7.4	410	-20
6	9.2	320	-33
7	10.1	280	-42
8	10.9	245	-48
9	10.7	251	-46
10	9.0	326	-30

18UT

Day	km	hPa	C
0	8.0	376	-25
1	8.5	353	-28
2	7.8	387	-22
3	7.2	417	-18
4	7.1	423	-17
5	6.7	450	-14
6	8.1	371	-26
7	9.5	305	-37
8	10.9	246	-49
9	11.0	235	-50
10	10.3	268	-42

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

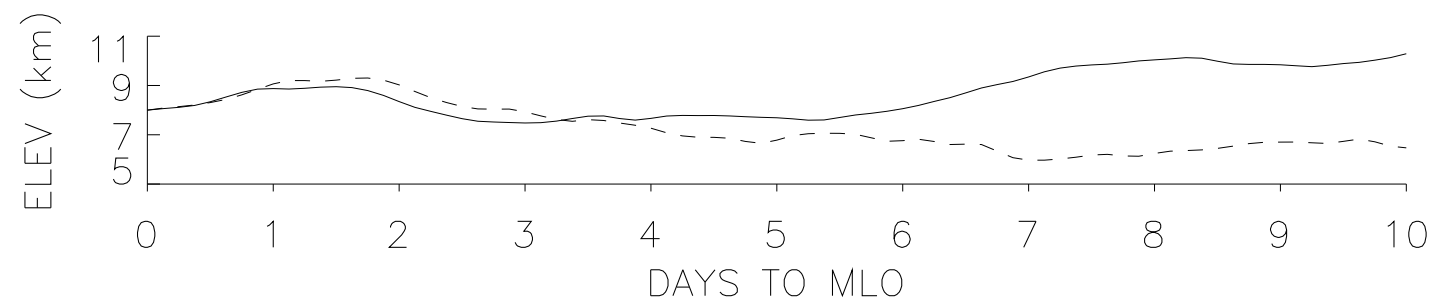


00UT

Day	km	hPa	C
0	8.0	376	−25
1	8.9	333	−32
2	8.3	358	−26
3	7.5	404	−19
4	7.7	394	−22
5	7.7	394	−21
6	8.1	375	−25
7	9.3	311	−35
8	10.0	283	−40
9	9.8	291	−38
10	10.3	270	−43

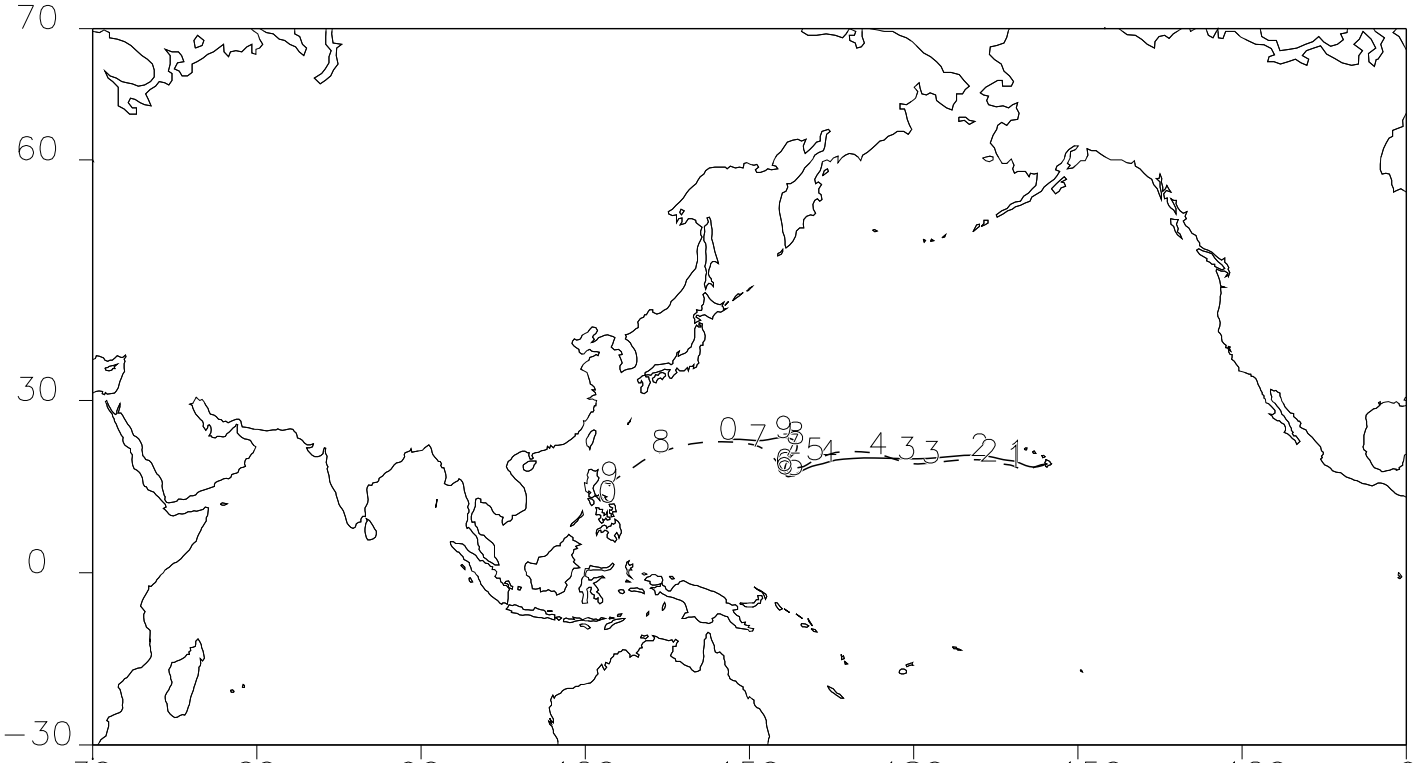
06UT

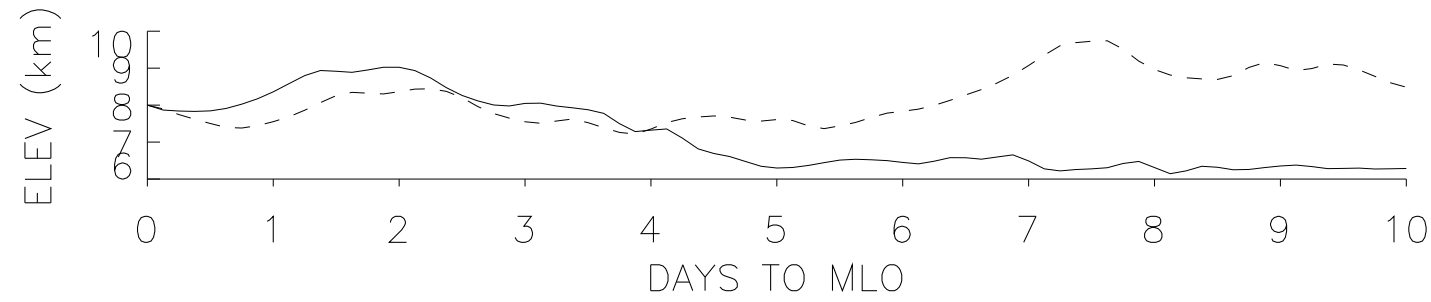
Day	km	hPa	C
0	8.0	375	−25
1	9.1	324	−33
2	9.0	325	−31
3	7.9	380	−22
4	7.3	416	−16
5	6.8	443	−11
6	6.8	444	−13
7	6.0	493	−9
8	6.2	477	−10
9	6.7	449	−14
10	6.5	463	−11



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

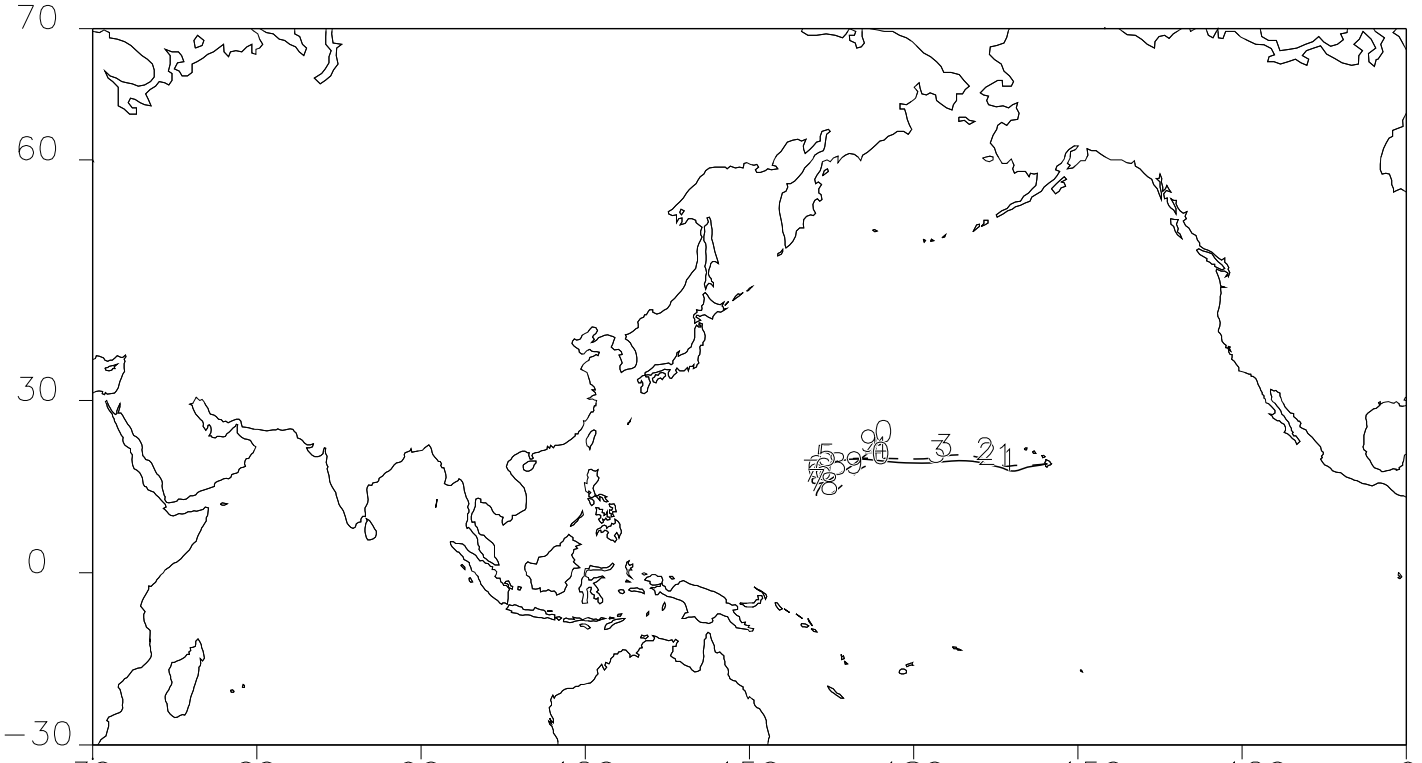
Day	km	hPa	C
0	8.0	374	−25
1	8.4	358	−28
2	9.0	325	−32
3	8.0	374	−24
4	7.3	414	−16
5	6.3	474	−8
6	6.4	464	−10
7	6.5	462	−13
8	6.3	474	−11
9	6.4	471	−10
10	6.3	474	−10

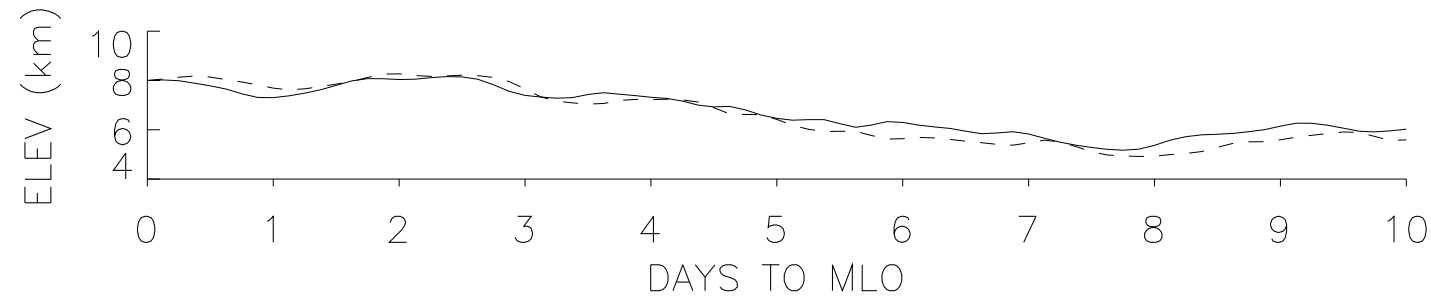
18UT

Day	km	hPa	C
0	8.0	375	−26
1	7.6	400	−21
2	8.4	358	−27
3	7.6	399	−20
4	7.4	411	−17
5	7.6	398	−17
6	7.8	385	−18
7	9.1	325	−29
8	9.0	332	−27
9	9.1	328	−27
10	8.5	355	−21

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

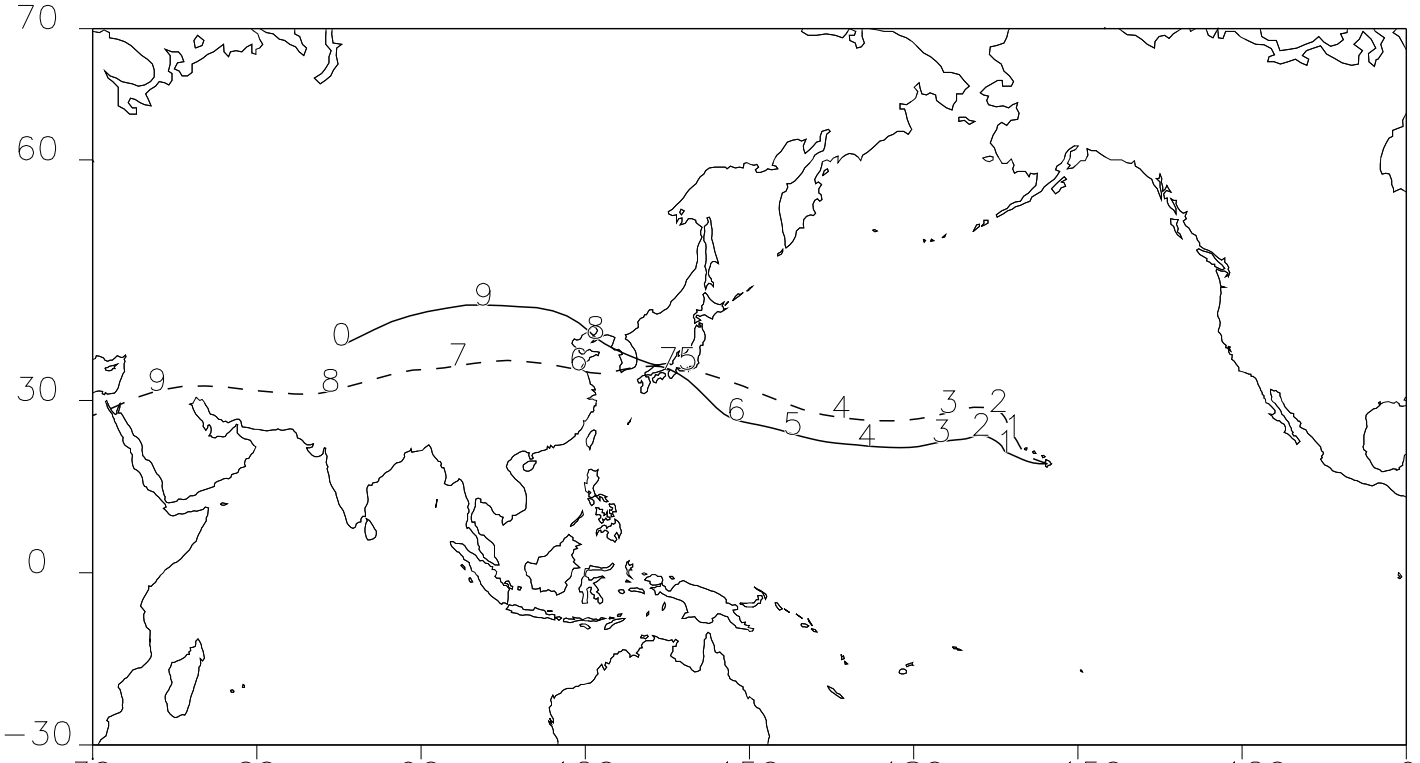
Day	km	hPa	C
0	8.0	373	-26
1	7.3	414	-19
2	8.0	374	-25
3	7.4	407	-19
4	7.3	413	-17
5	6.5	464	-9
6	6.3	473	-9
7	5.8	502	-6
8	5.4	532	-3
9	6.1	483	-10
10	6.0	492	-10

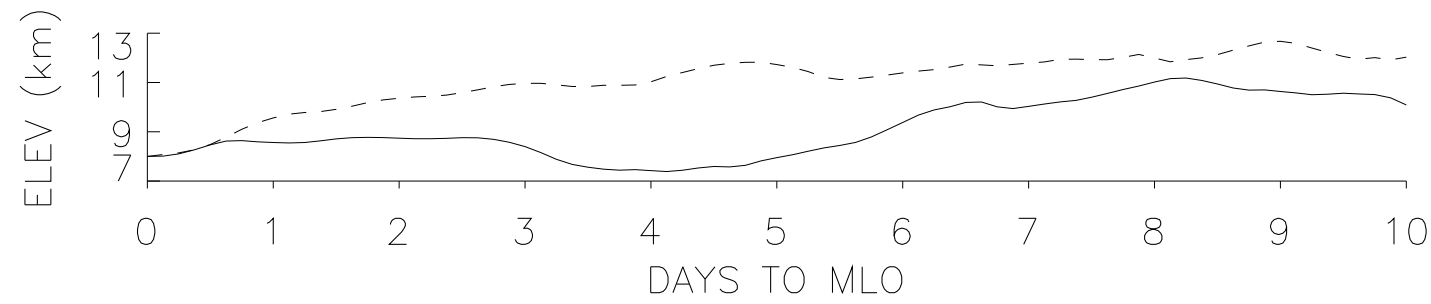
06UT

Day	km	hPa	C
0	8.0	373	-27
1	7.7	392	-23
2	8.3	363	-27
3	7.7	393	-22
4	7.2	417	-18
5	6.4	465	-9
6	5.6	514	-4
7	5.5	523	-4
8	4.9	560	-1
9	5.6	517	-5
10	5.6	518	-6

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

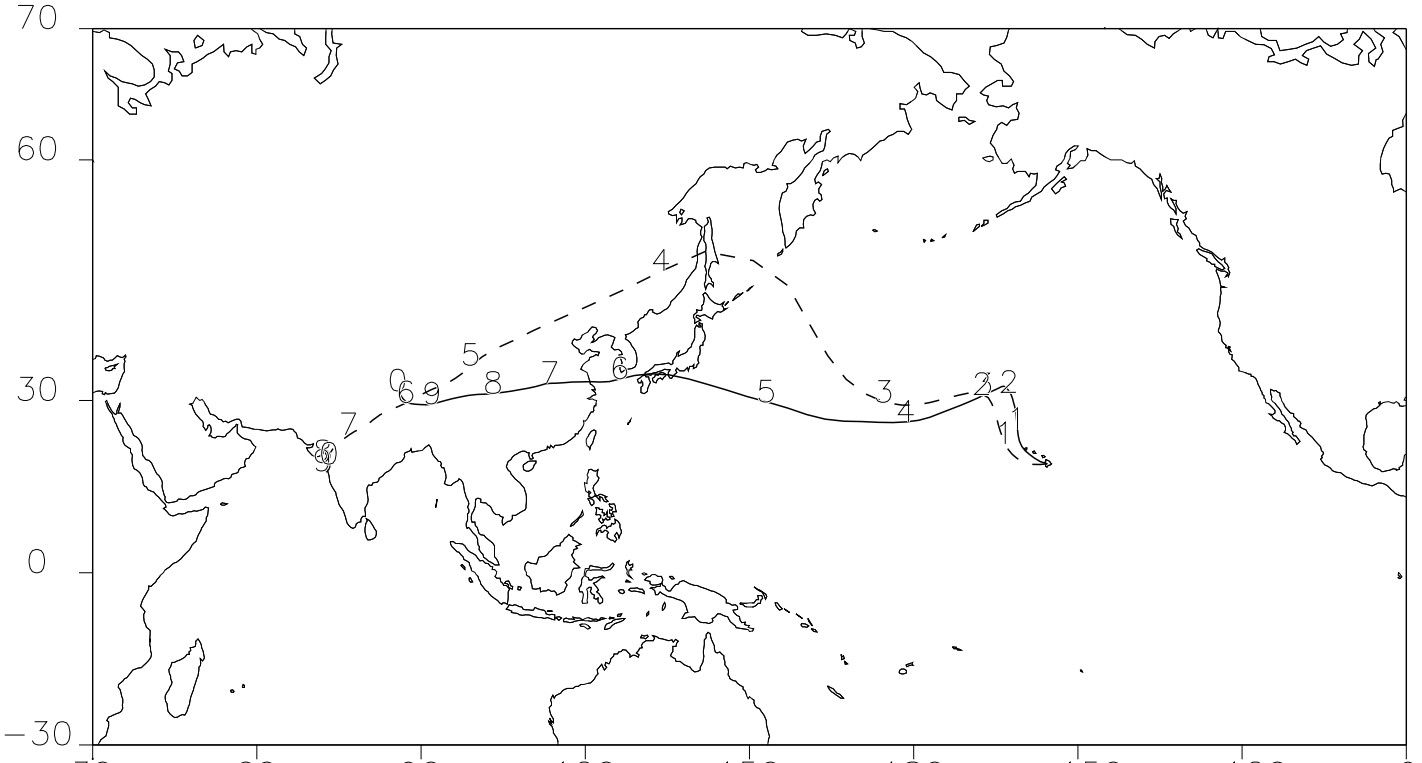
Day	km	hPa	C
0	8.0	372	−27
1	8.6	346	−31
2	8.7	339	−32
3	8.4	354	−29
4	7.4	405	−21
5	8.0	379	−24
6	9.4	308	−39
7	10.0	277	−45
8	11.0	237	−54
9	10.6	249	−50
10	10.1	276	−44

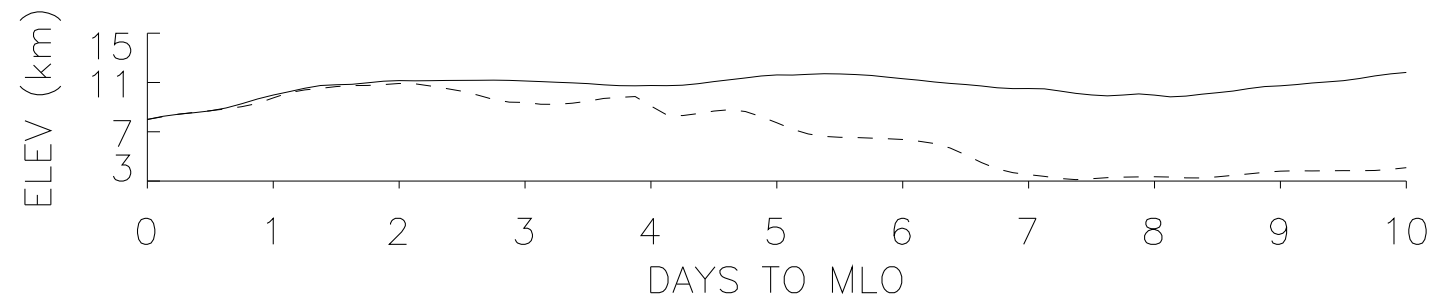
18UT

Day	km	hPa	C
0	8.0	373	−26
1	9.6	299	−40
2	10.4	267	−46
3	11.0	242	−51
4	11.0	237	−52
5	11.7	215	−56
6	11.4	227	−52
7	11.8	212	−51
8	12.0	204	−50
9	12.7	183	−56
10	12.0	203	−55

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

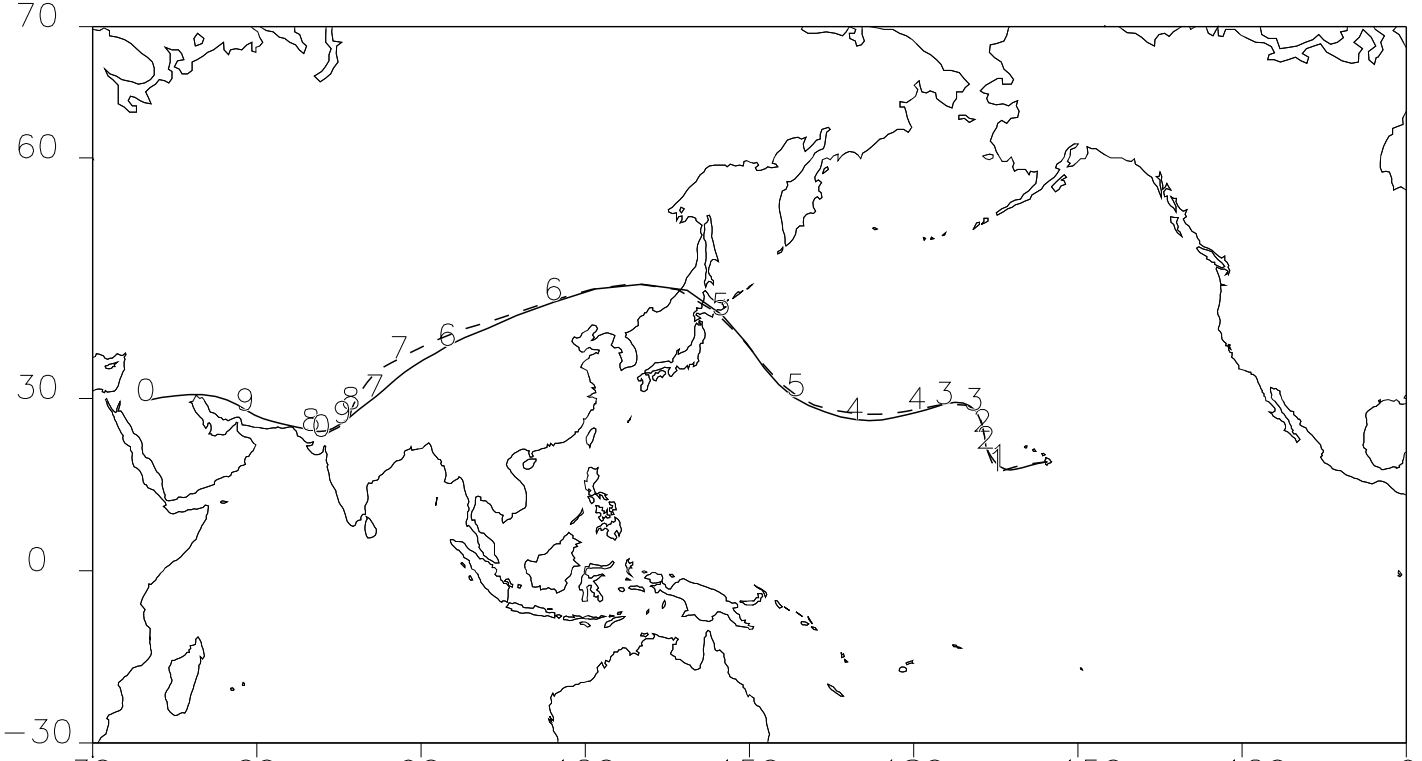
Day	km	hPa	C
0	8.0	373	−25
1	10.0	280	−44
2	11.2	236	−51
3	11.1	237	−52
4	10.8	249	−47
5	11.6	220	−55
6	11.3	231	−51
7	10.5	259	−45
8	10.0	280	−40
9	10.7	250	−45
10	11.8	213	−53

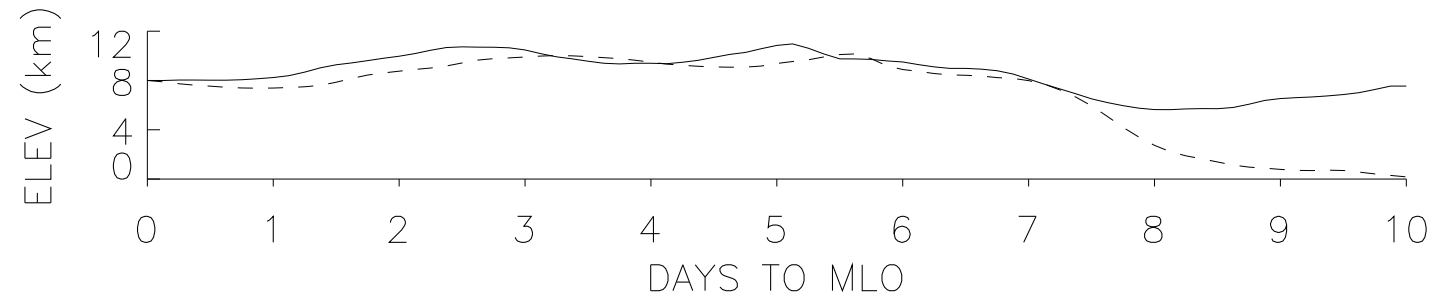
06UT

Day	km	hPa	C
0	8.0	374	−24
1	9.7	291	−40
2	10.9	245	−50
3	9.4	304	−36
4	9.1	301	−39
5	7.7	381	−24
6	6.4	463	−14
7	3.5	668	8
8	3.3	684	8
9	3.8	648	5
10	4.1	628	4

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

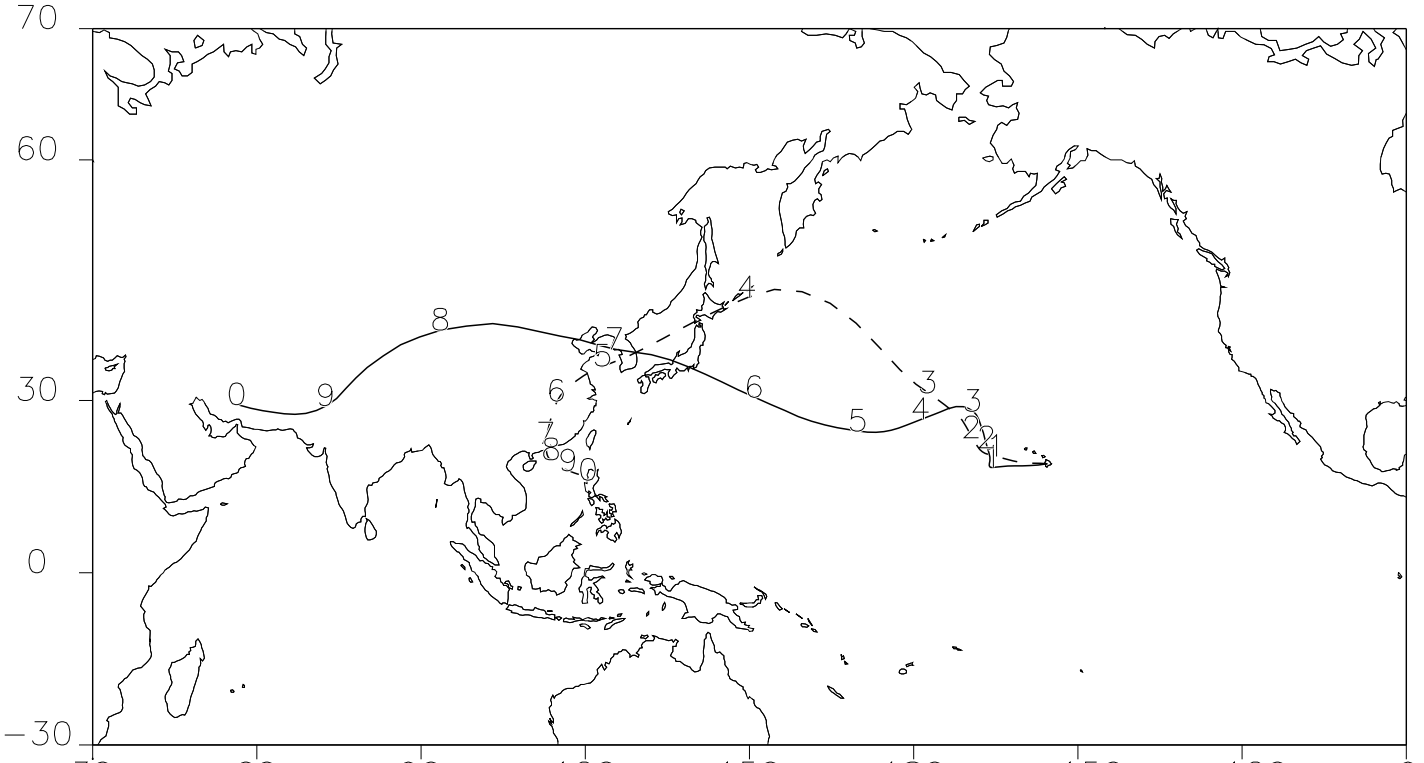
Day	km	hPa	C
0	8.0	373	−25
1	8.2	362	−26
2	10.0	283	−42
3	10.5	262	−46
4	9.4	304	−37
5	10.8	239	−53
6	9.5	296	−38
7	8.1	364	−30
8	5.6	510	−8
9	6.5	455	−16
10	7.5	397	−26

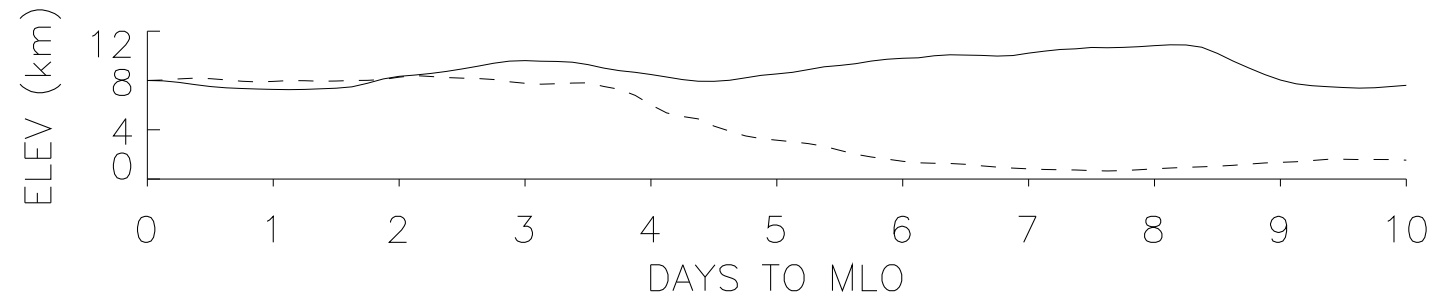
18UT

Day	km	hPa	C
0	8.0	373	−26
1	7.4	407	−19
2	8.8	337	−32
3	9.9	286	−41
4	9.5	301	−40
5	9.4	302	−39
6	8.9	317	−36
7	8.0	369	−28
8	2.7	733	13
9	0.8	918	32
10	0.2	987	32

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

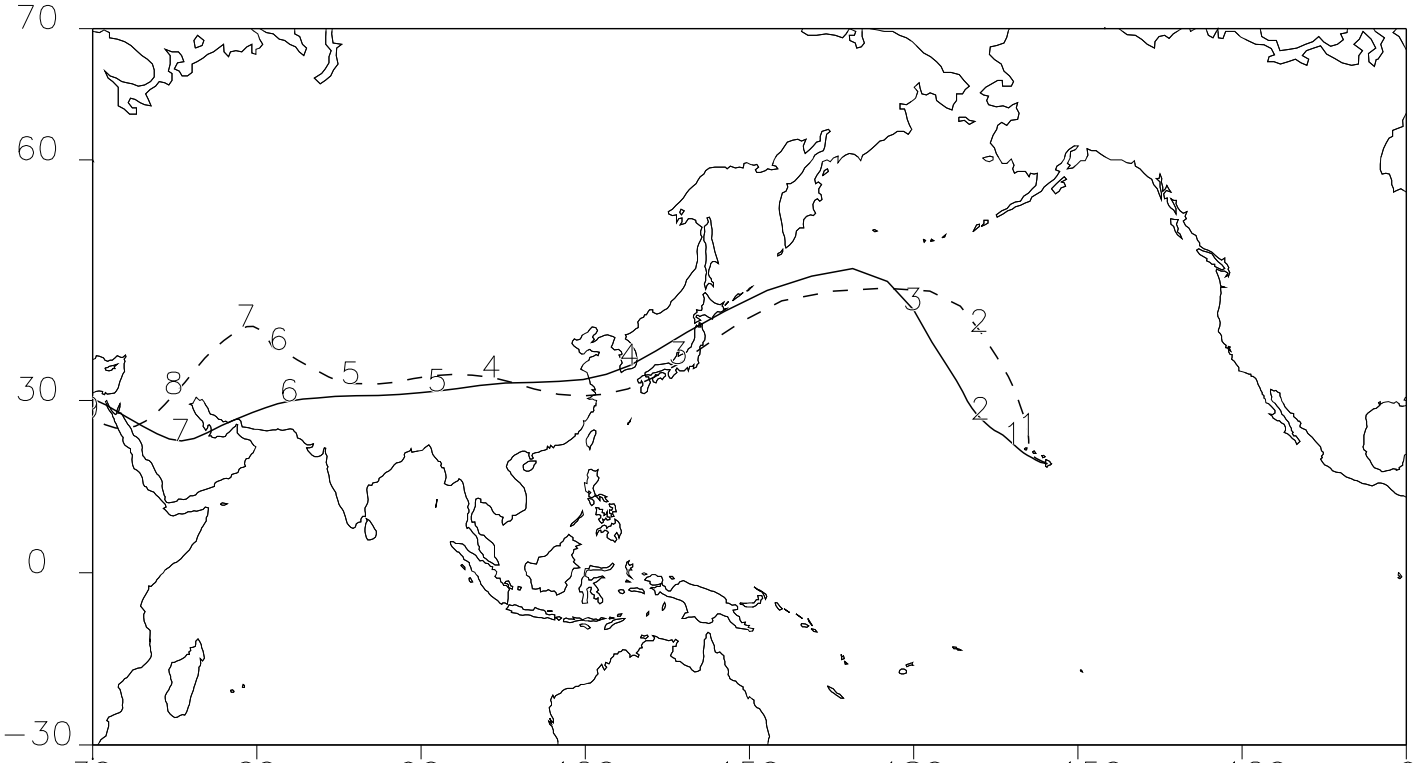
Day	km	hPa	C
0	8.0	374	−25
1	7.3	413	−19
2	8.3	357	−29
3	9.6	299	−39
4	8.5	349	−30
5	8.5	345	−30
6	9.8	290	−41
7	10.2	268	−46
8	10.8	242	−52
9	8.0	368	−28
10	7.6	394	−24

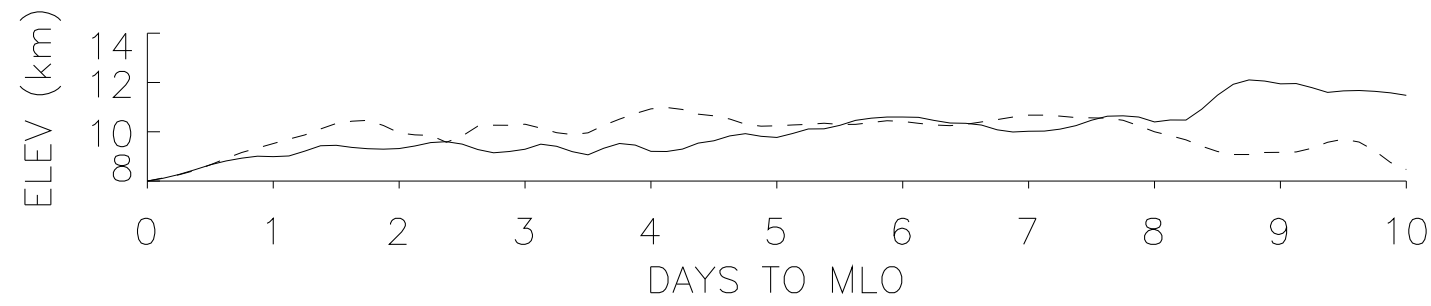
06UT

Day	km	hPa	C
0	8.0	374	−26
1	7.9	377	−25
2	8.3	360	−27
3	7.8	386	−23
4	6.0	470	−12
5	3.1	690	5
6	1.4	853	17
7	0.8	918	23
8	0.8	919	22
9	1.4	865	20
10	1.5	849	20

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

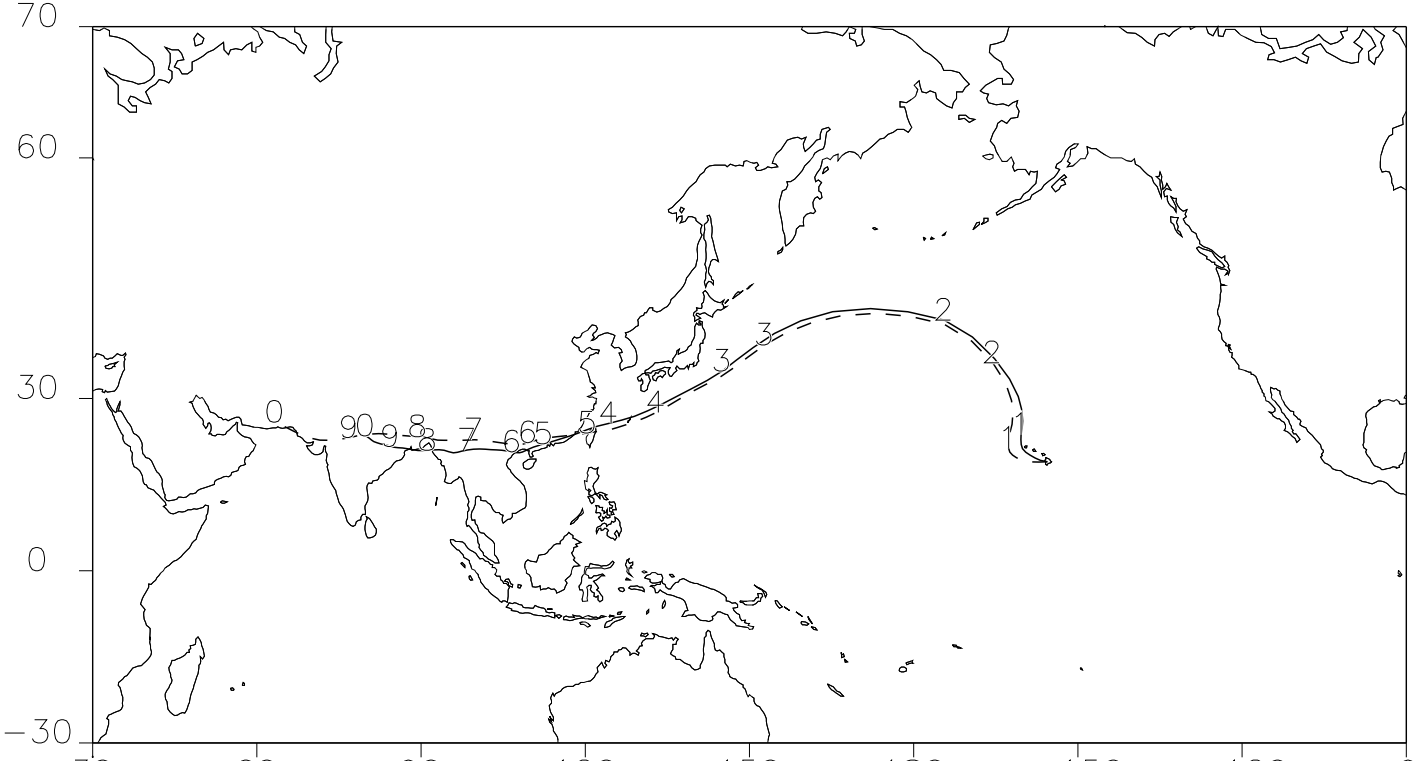
Day	km	hPa	C
0	8.0	373	−26
1	9.0	324	−34
2	9.3	309	−36
3	9.3	301	−38
4	9.2	307	−37
5	9.8	288	−39
6	10.6	256	−46
7	10.0	280	−40
8	10.4	257	−42
9	11.9	204	−58
10	11.5	221	−54

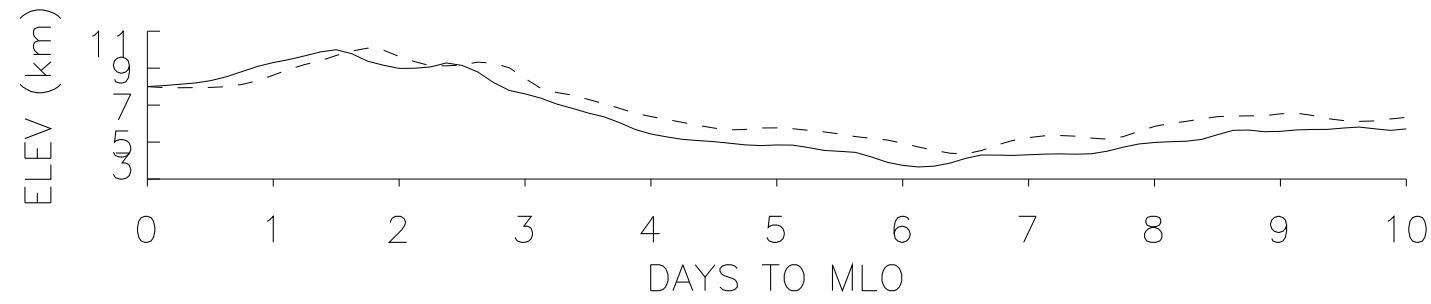
18UT

Day	km	hPa	C
0	8.0	374	−25
1	9.5	300	−38
2	10.0	274	−45
3	10.3	261	−47
4	10.9	240	−50
5	10.2	266	−44
6	10.4	260	−48
7	10.7	251	−51
8	10.0	277	−45
9	9.2	313	−38
10	8.5	340	−32

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

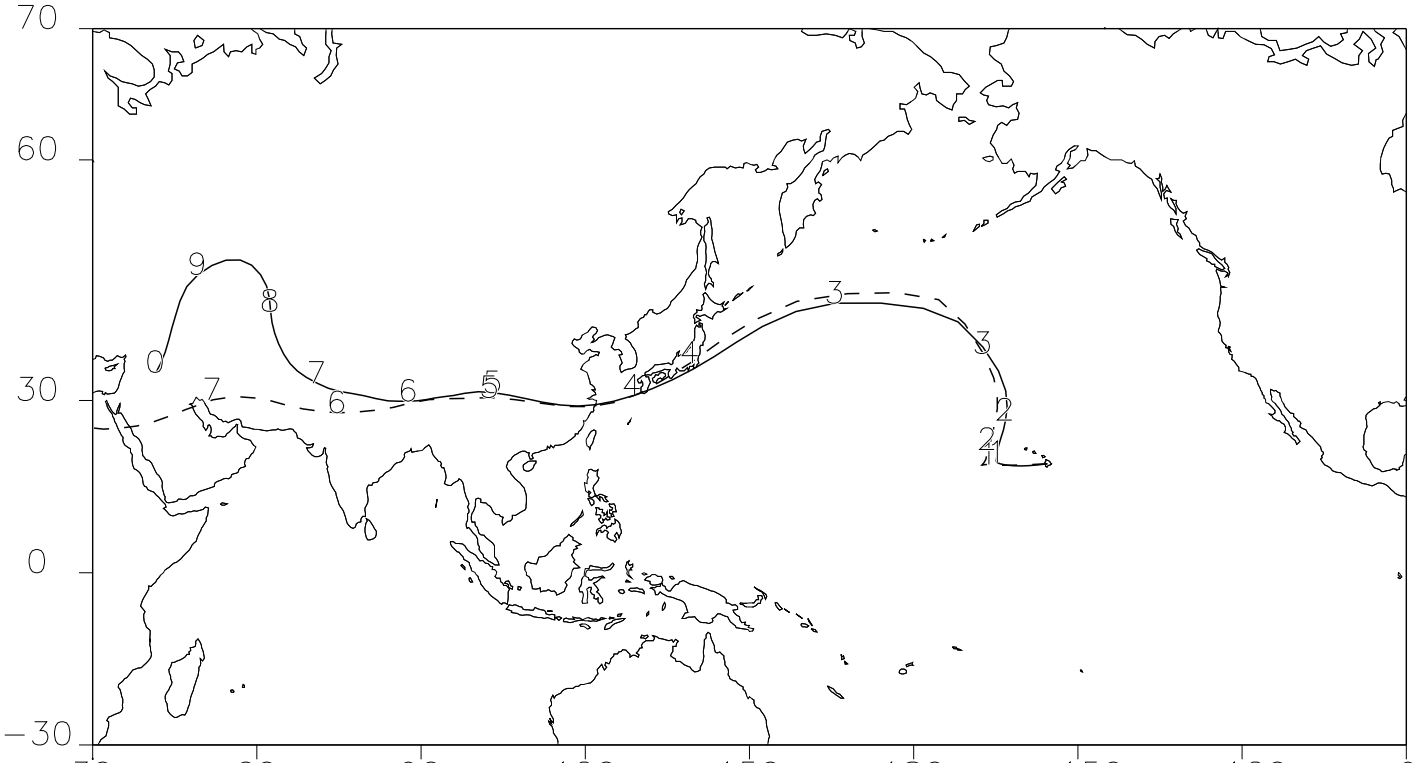
Day	km	hPa	C
0	8.0	375	−24
1	9.3	311	−36
2	9.0	319	−33
3	7.6	394	−20
4	5.4	525	−5
5	4.8	570	0
6	3.7	652	8
7	4.3	606	4
8	5.0	556	−2
9	5.6	515	−8
10	5.7	506	−11

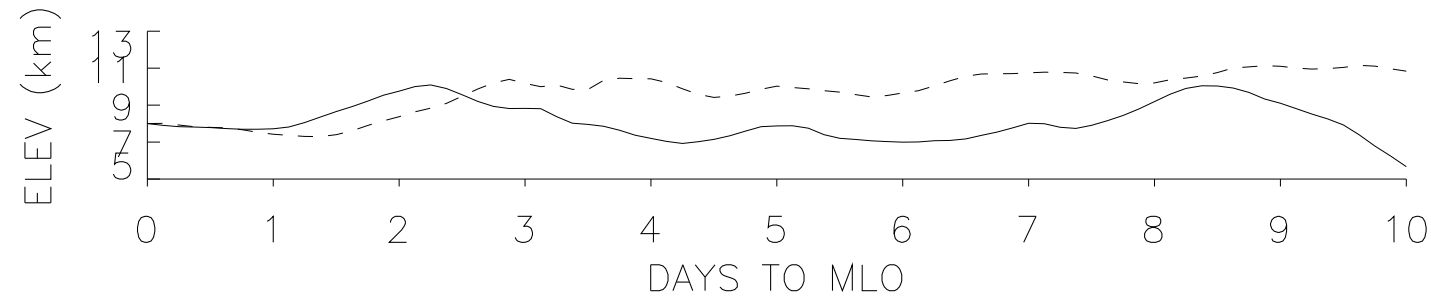
06UT

Day	km	hPa	C
0	8.0	375	−24
1	8.6	344	−29
2	9.6	293	−38
3	8.4	351	−27
4	6.4	465	−12
5	5.8	505	−8
6	4.9	562	0
7	5.2	541	−2
8	5.9	499	−8
9	6.5	457	−15
10	6.3	467	−14

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

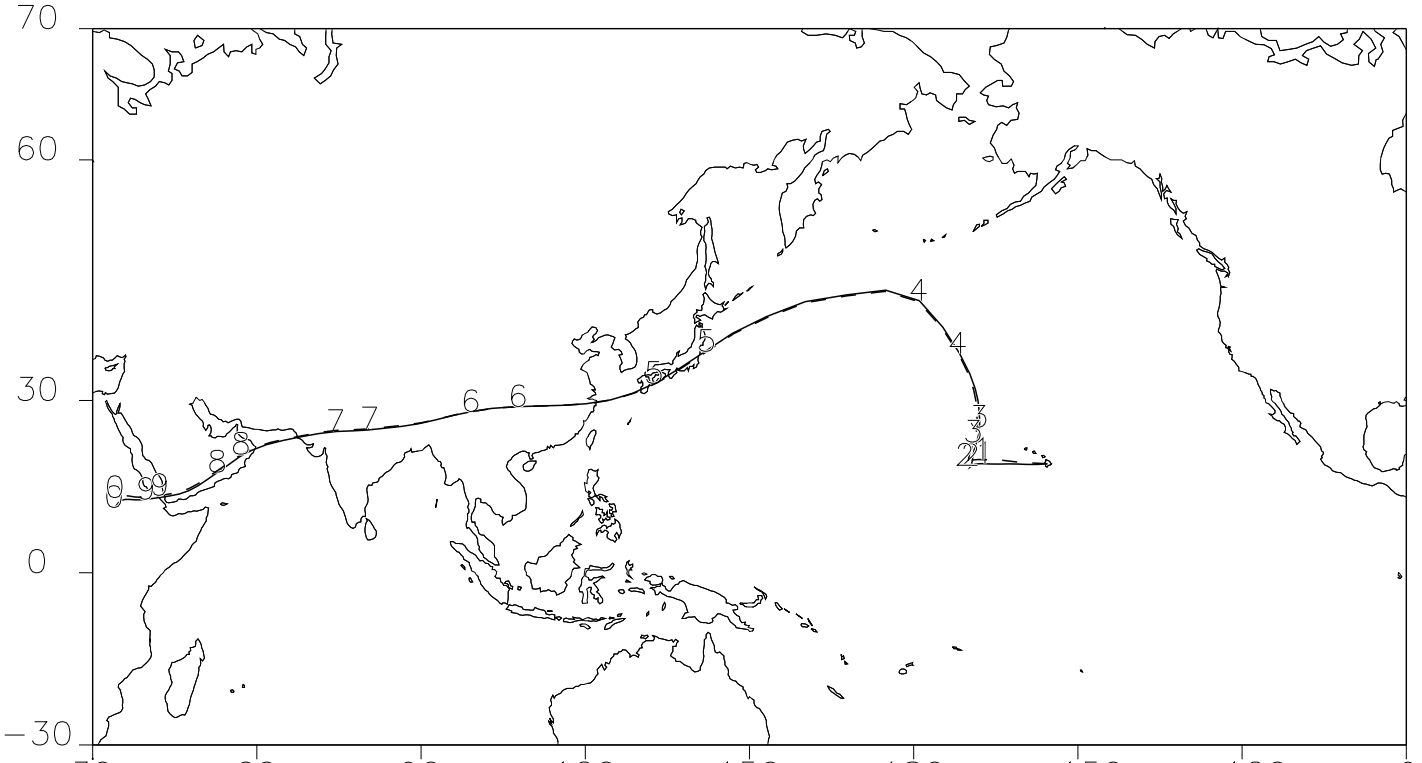
Day	km	hPa	C
0	8.0	374	-25
1	7.7	390	-21
2	9.8	290	-40
3	8.8	324	-33
4	7.2	412	-21
5	7.9	376	-26
6	7.0	425	-17
7	8.0	370	-28
8	9.2	310	-40
9	9.1	311	-41
10	5.7	505	-14

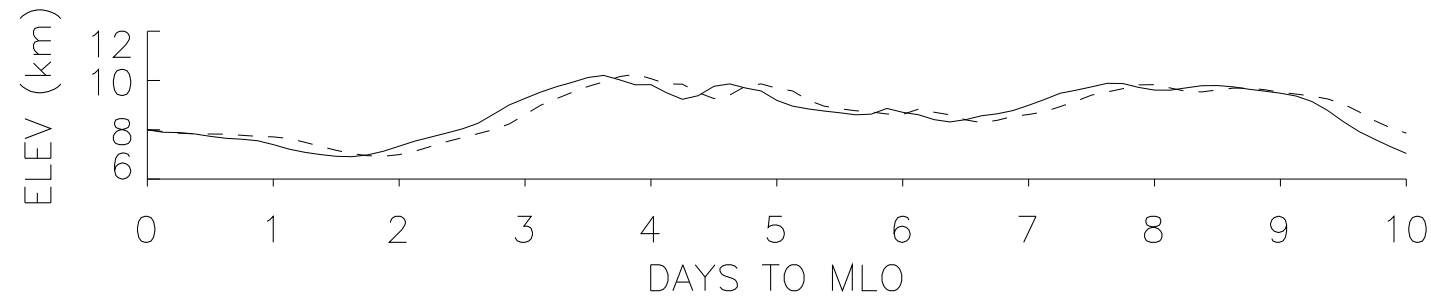
18UT

Day	km	hPa	C
0	8.0	374	-25
1	7.4	405	-19
2	8.4	355	-27
3	10.2	268	-46
4	10.4	258	-46
5	10.0	278	-40
6	9.7	295	-35
7	10.7	251	-49
8	10.2	272	-40
9	11.1	235	-50
10	10.8	249	-45

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

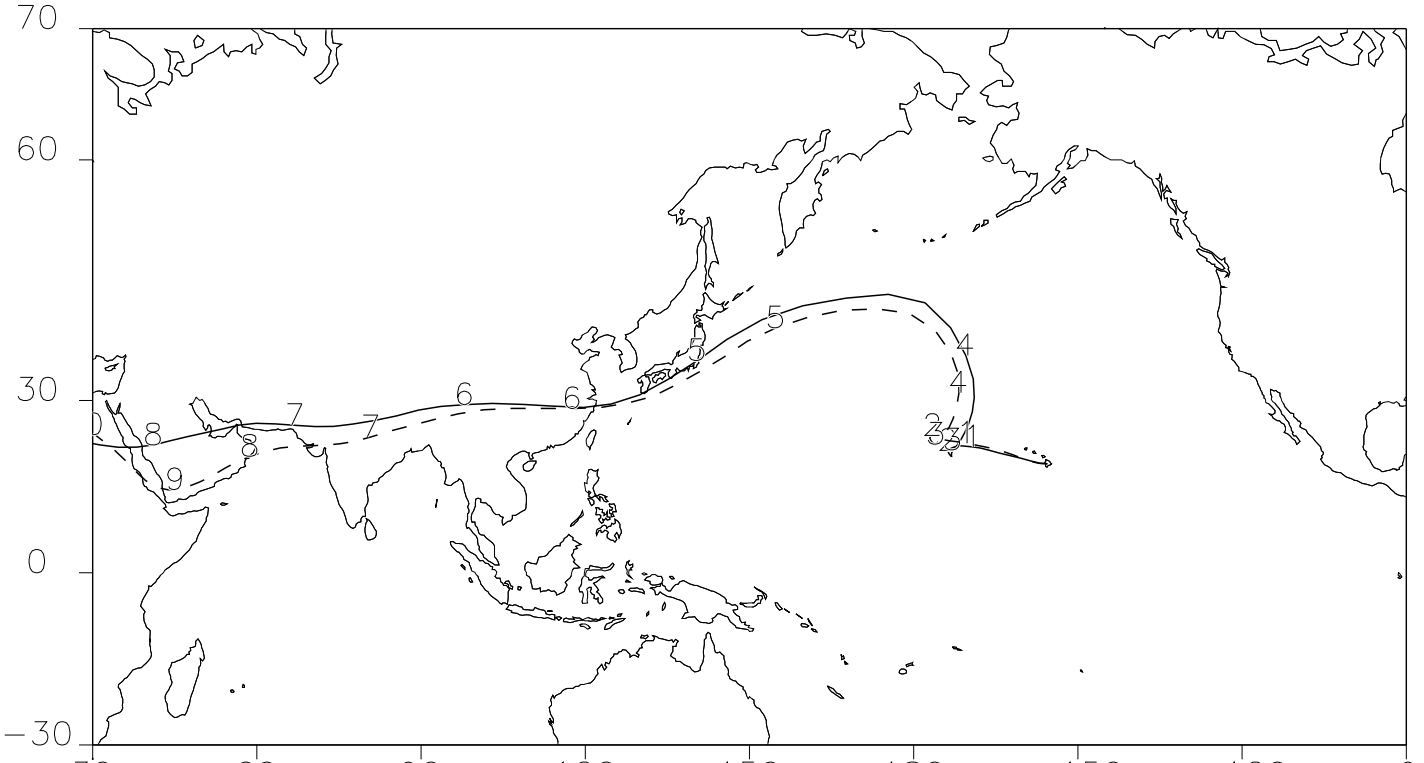
Day	km	hPa	C
0	8.0	374	−25
1	7.4	407	−18
2	7.3	411	−17
3	9.3	312	−36
4	9.8	282	−41
5	9.2	313	−34
6	8.7	338	−27
7	9.0	328	−29
8	9.6	302	−33
9	9.5	308	−30
10	7.0	429	−13

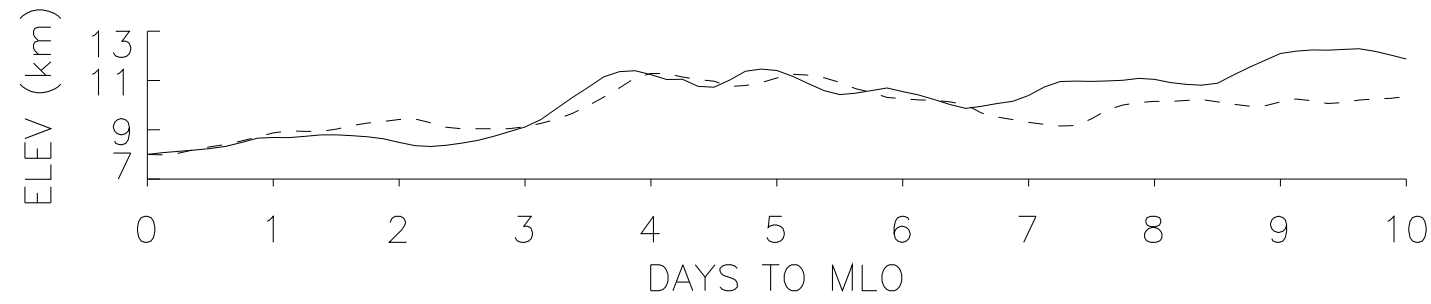
06UT

Day	km	hPa	C
0	8.0	374	−25
1	7.7	389	−22
2	7.0	430	−15
3	8.6	343	−30
4	10.1	274	−42
5	9.7	290	−38
6	8.6	342	−27
7	8.6	346	−26
8	9.8	292	−35
9	9.5	307	−30
10	7.9	385	−19

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

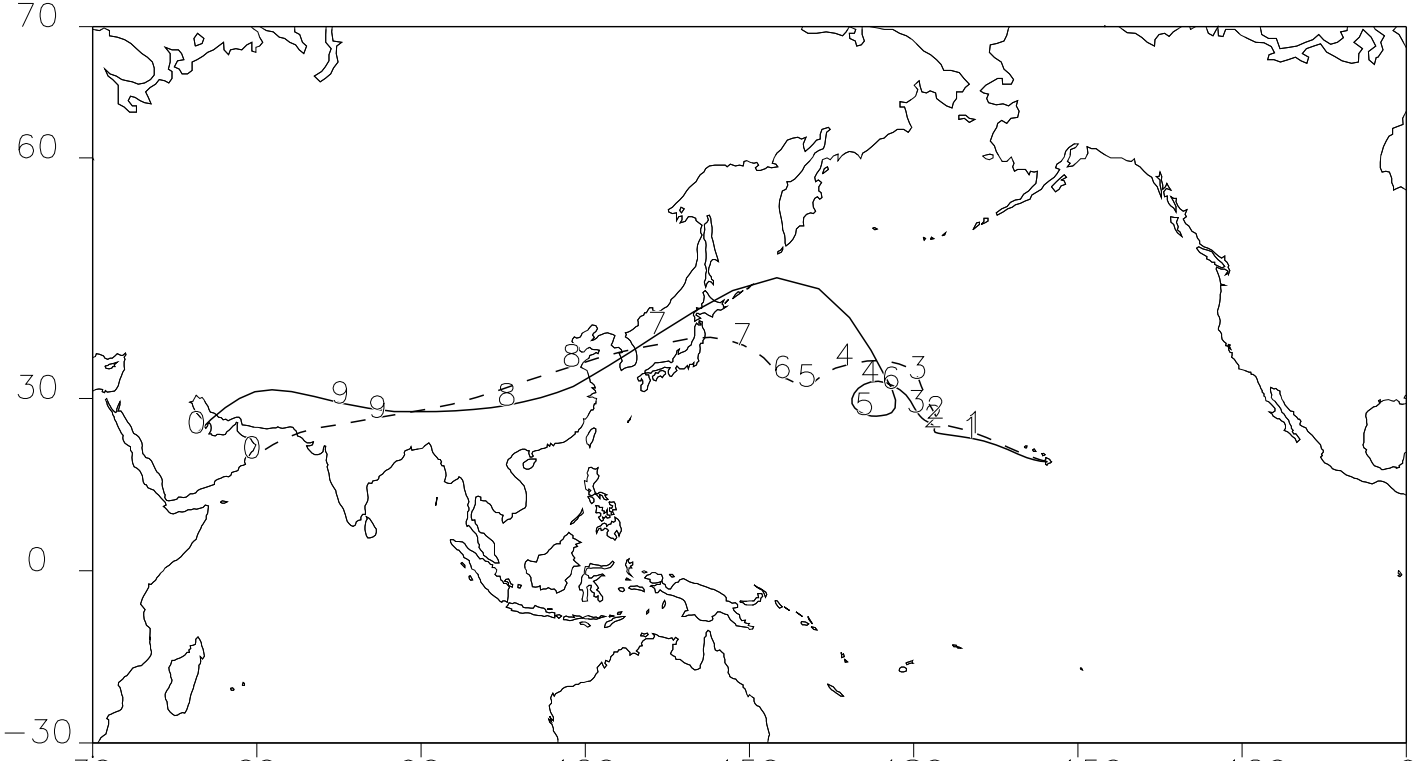
Day	km	hPa	C
0	8.0	374	−25
1	8.7	340	−30
2	8.5	351	−28
3	9.1	322	−32
4	11.2	231	−51
5	11.4	224	−51
6	10.5	259	−40
7	10.4	267	−36
8	11.0	242	−43
9	12.1	204	−52
10	11.9	212	−50

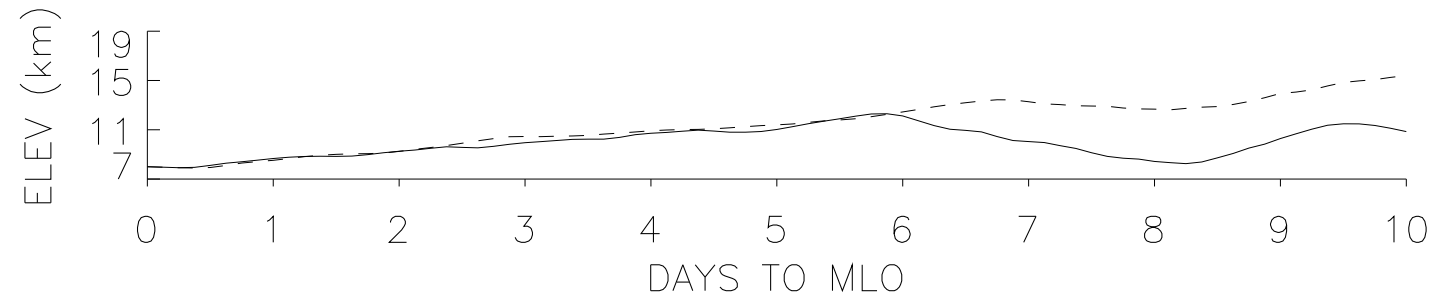
18UT

Day	km	hPa	C
0	8.0	375	−25
1	8.9	330	−32
2	9.4	307	−36
3	9.1	321	−32
4	11.3	232	−52
5	11.1	236	−49
6	10.3	270	−38
7	9.3	315	−27
8	10.2	280	−36
9	10.1	282	−35
10	10.3	268	−38

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

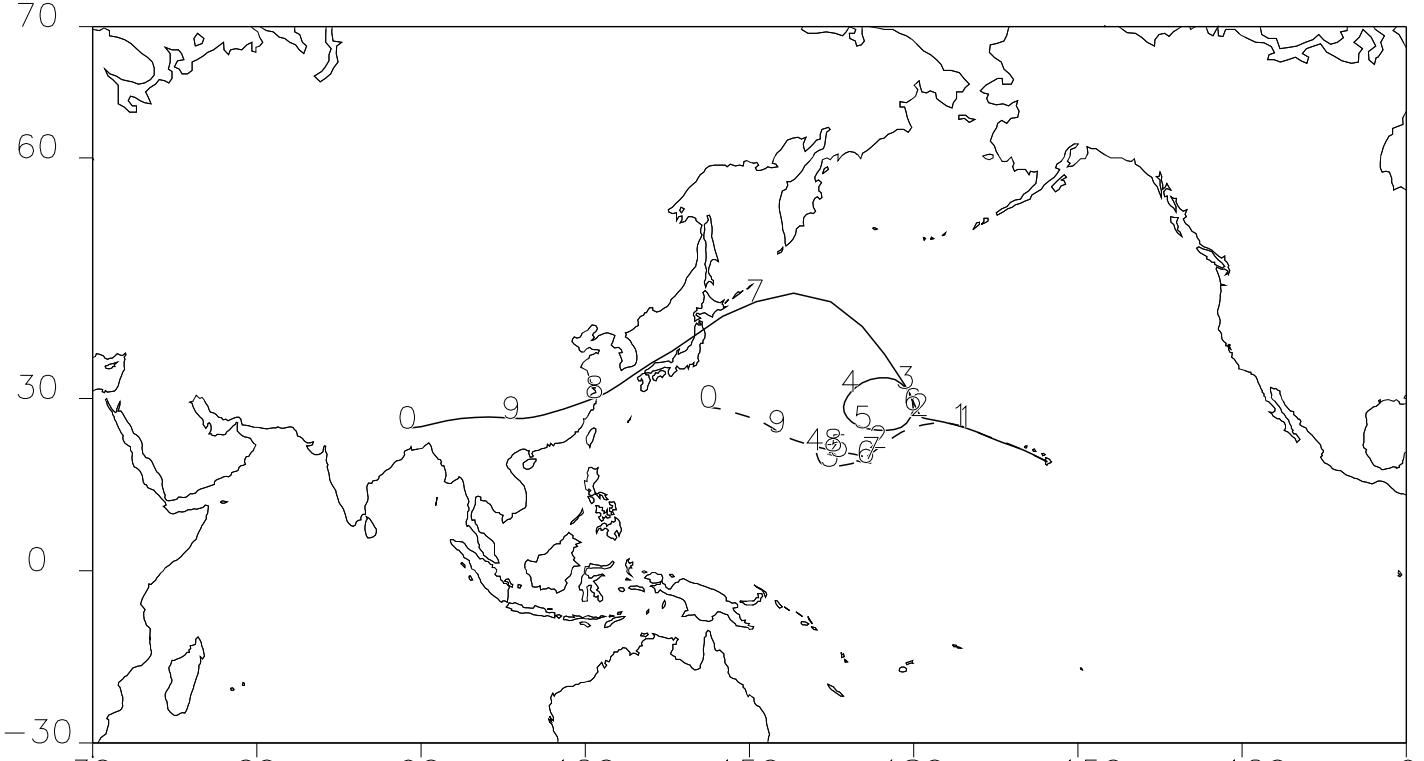
Day	km	hPa	C
0	8.0	374	−24
1	8.7	341	−29
2	9.3	314	−35
3	9.9	286	−39
4	10.7	257	−45
5	11.0	246	−47
6	12.1	205	−58
7	10.0	271	−41
8	8.4	352	−24
9	10.3	267	−41
10	10.8	248	−47

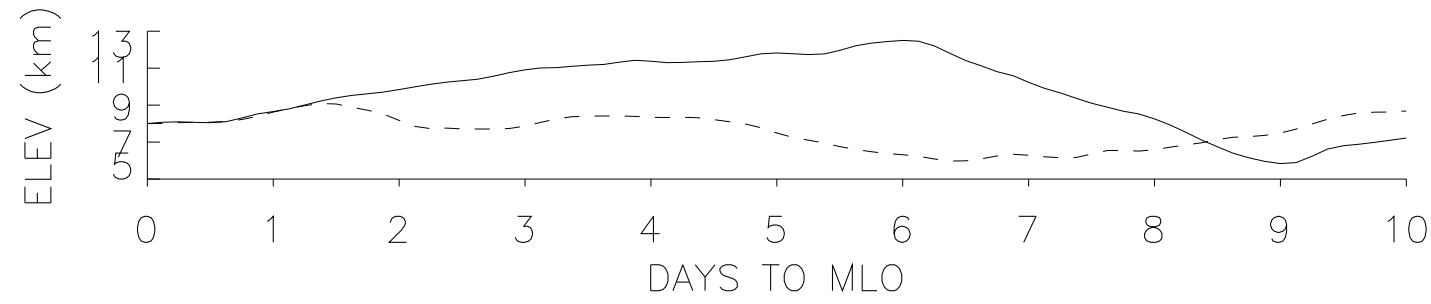
06UT

Day	km	hPa	C
0	8.0	375	−22
1	8.5	347	−27
2	9.2	314	−35
3	10.5	263	−44
4	10.9	246	−47
5	11.4	231	−47
6	12.4	197	−52
7	13.3	169	−59
8	12.7	188	−50
9	14.0	155	−60
10	15.4	124	−71

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

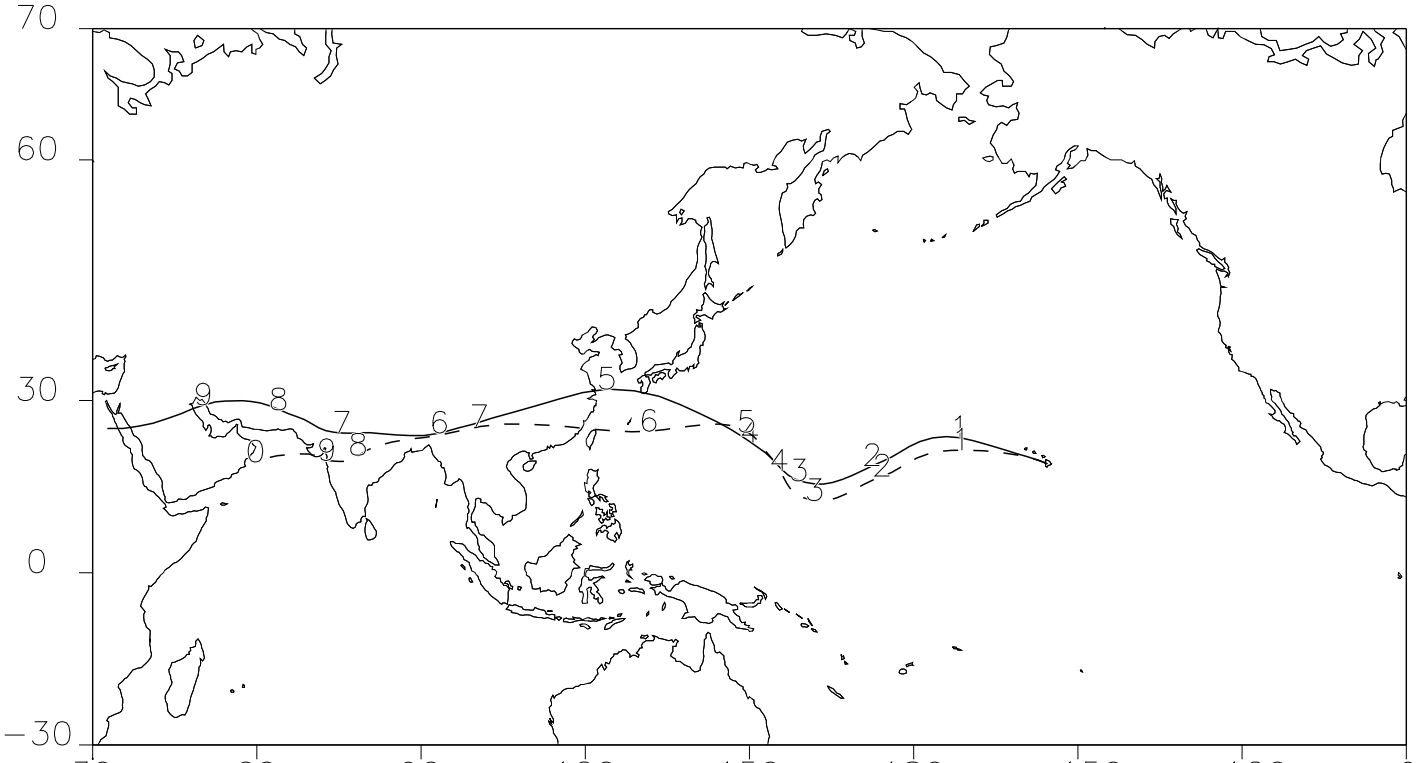
Day	km	hPa	C
0	8.0	374	−22
1	8.7	341	−28
2	9.8	289	−39
3	10.9	246	−47
4	11.4	231	−49
5	11.8	217	−53
6	12.5	195	−59
7	10.2	264	−42
8	8.3	362	−22
9	5.8	499	−5
10	7.2	415	−16

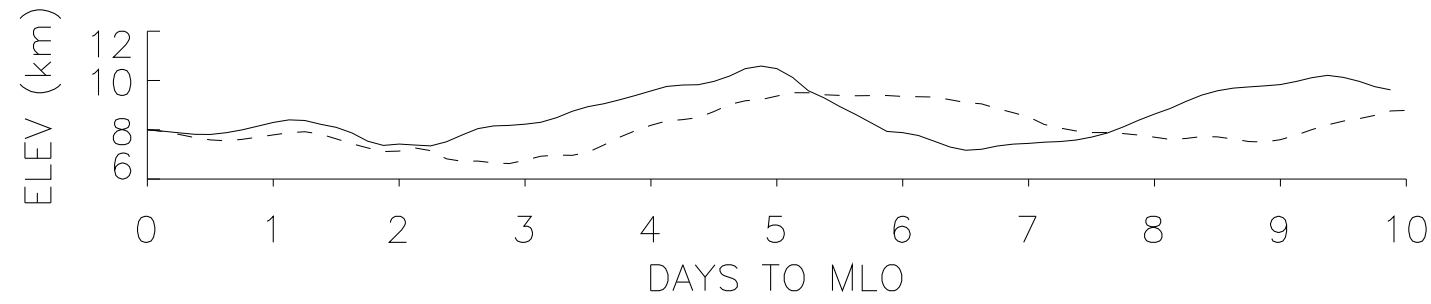
18UT

Day	km	hPa	C
0	8.0	376	−20
1	8.6	342	−27
2	8.2	365	−24
3	7.9	381	−21
4	8.3	357	−26
5	7.5	402	−20
6	6.3	471	−12
7	6.3	473	−11
8	6.6	452	−14
9	7.5	400	−21
10	8.7	341	−29

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

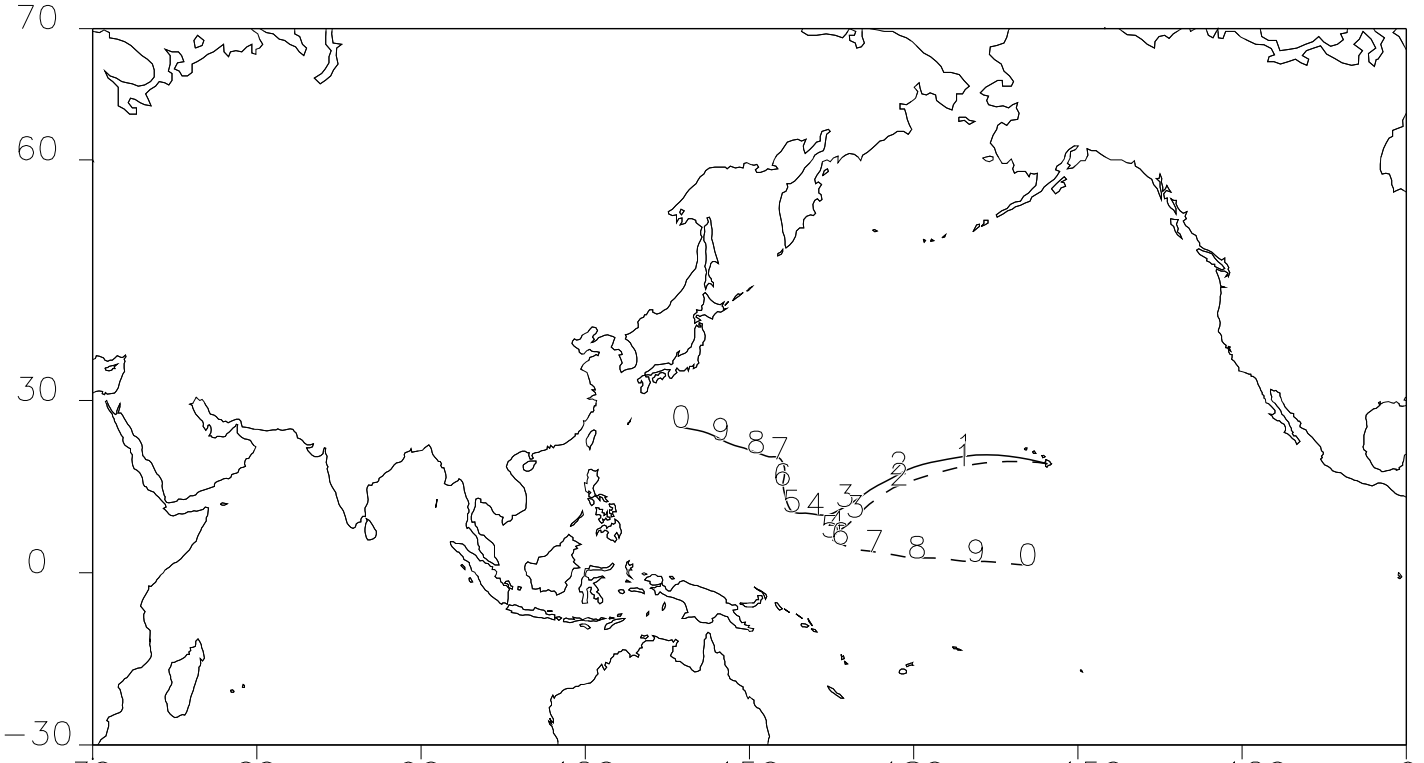
Day	km	hPa	C
0	8.0	376	-20
1	8.3	360	-23
2	7.4	406	-17
3	8.2	365	-23
4	9.6	303	-34
5	10.5	260	-45
6	7.9	380	-21
7	7.4	403	-16
8	8.6	342	-30
9	9.8	286	-41

06UT

Day	km	hPa	C
0	8.0	377	-20
1	7.8	386	-19
2	7.1	422	-15
3	6.8	444	-12
4	8.2	368	-22
5	9.4	312	-32
6	9.4	313	-31
7	8.5	350	-24
8	7.7	394	-17
9	7.6	401	-16
10	8.8	340	-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

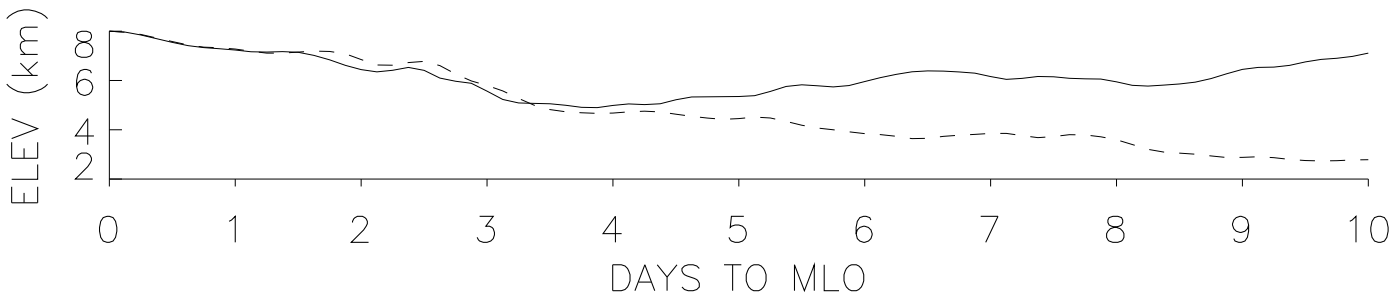


12UT

Day	km	hPa	C
0	8.0	377	−20
1	7.2	416	−16
2	6.4	464	−10
3	5.6	519	−4
4	5.0	558	0
5	5.3	534	−1
6	6.0	496	−6
7	6.2	484	−10
8	5.9	496	−7
9	6.5	463	−13
10	7.1	425	−17

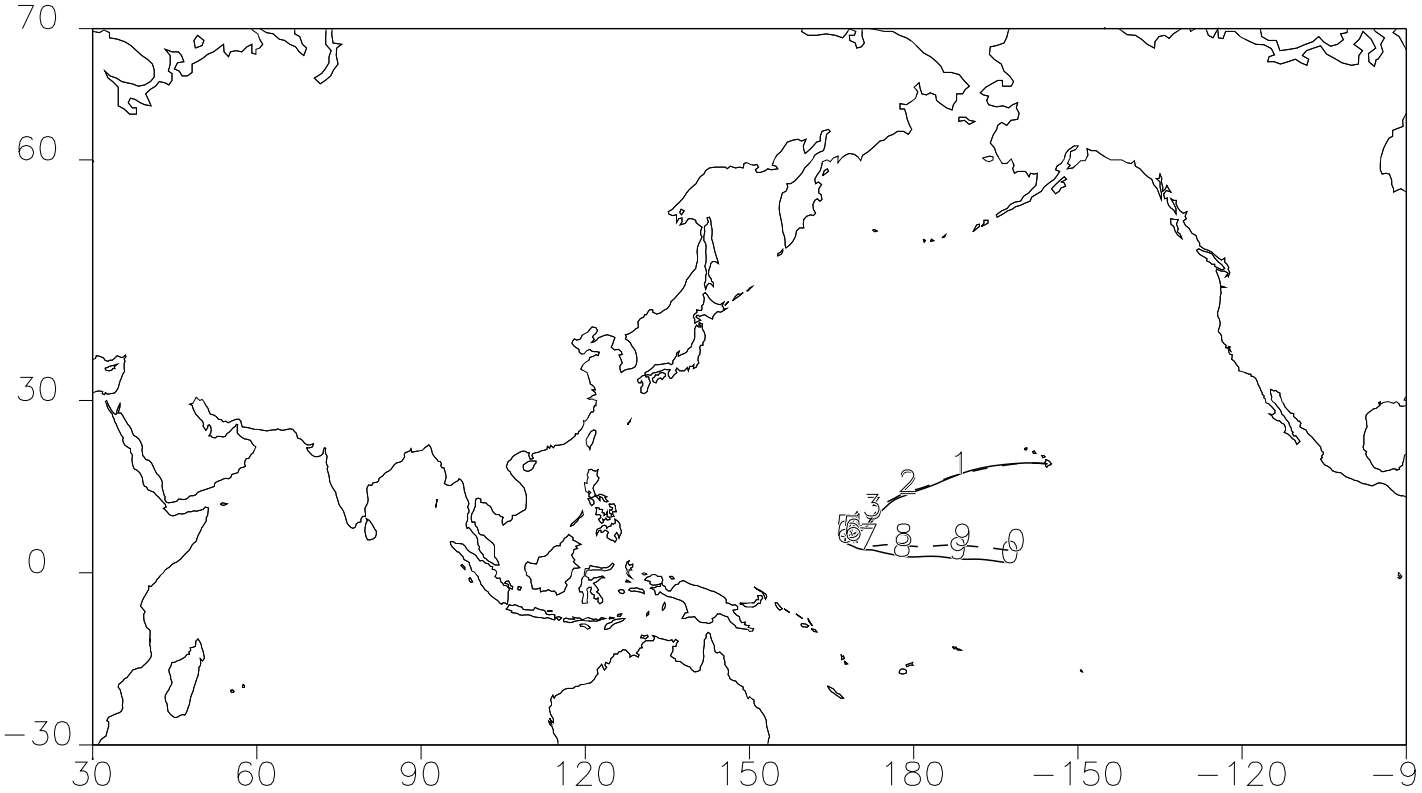
18UT

Day	km	hPa	C
0	8.0	378	−19
1	7.3	414	−16
2	6.8	439	−13
3	5.8	502	−5
4	4.7	579	2
5	4.5	595	3
6	3.8	641	7
7	3.9	642	6
8	3.6	662	8
9	2.9	720	13
10	2.8	730	12



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

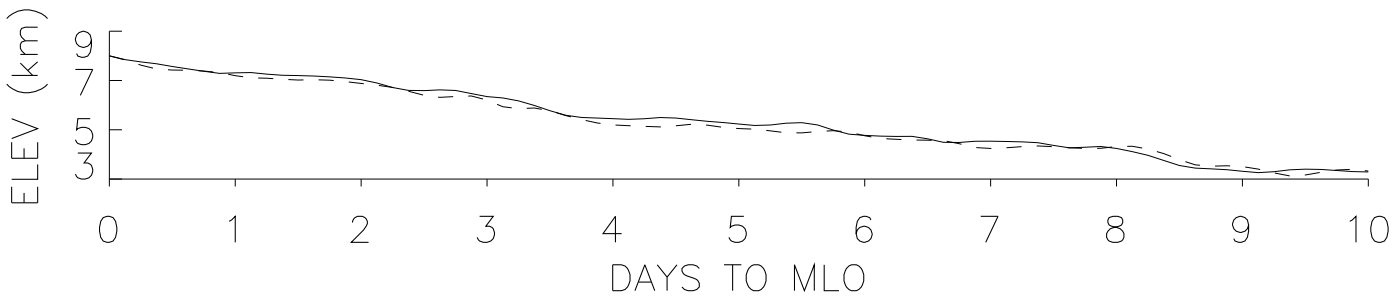


00UT

Day	km	hPa	C
0	8.0	378	−19
1	7.3	413	−15
2	7.0	430	−13
3	6.3	471	−8
4	5.5	528	−1
5	5.2	541	0
6	4.8	574	2
7	4.5	592	3
8	4.2	613	4
9	3.3	685	10
10	3.3	686	10

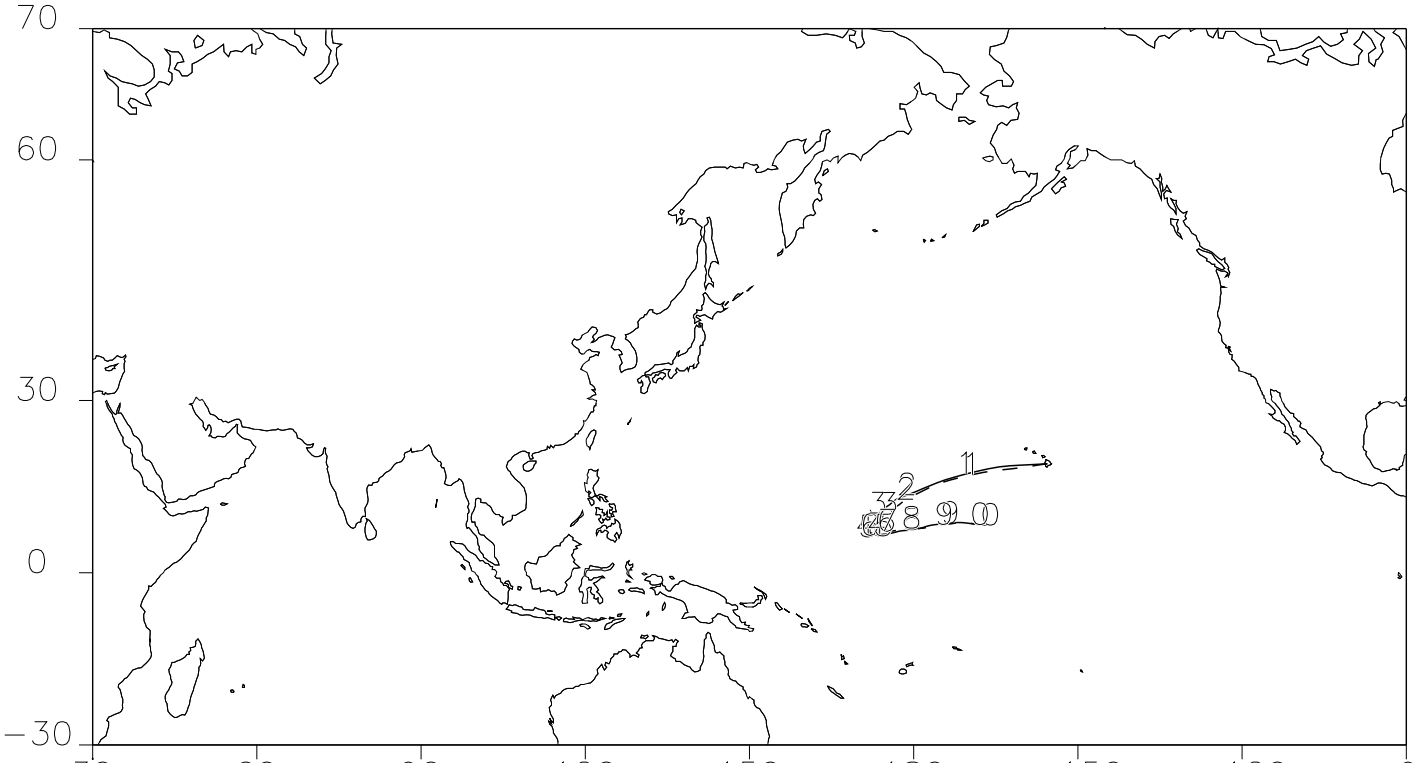
06UT

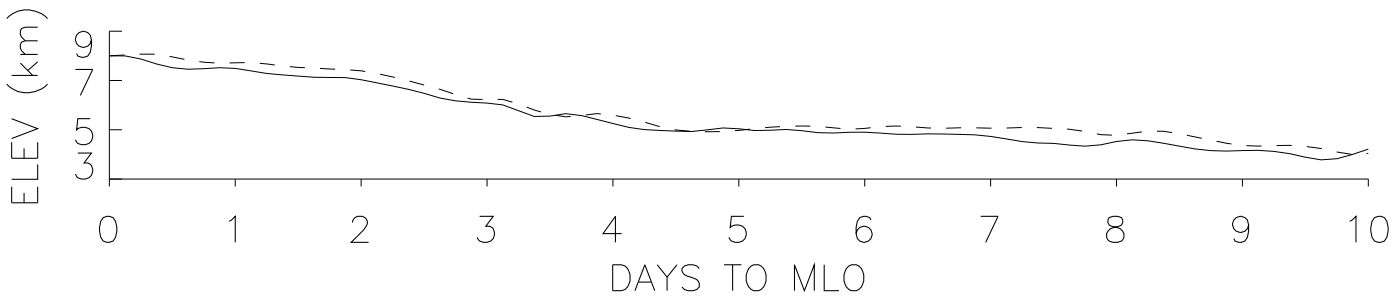
Day	km	hPa	C
0	8.0	378	−20
1	7.2	419	−15
2	6.9	438	−12
3	6.2	478	−7
4	5.2	543	0
5	5.1	553	0
6	4.8	573	2
7	4.2	612	4
8	4.3	606	4
9	3.5	669	9
10	3.3	685	9



00UT – solid
06UT – dashed

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





12UT

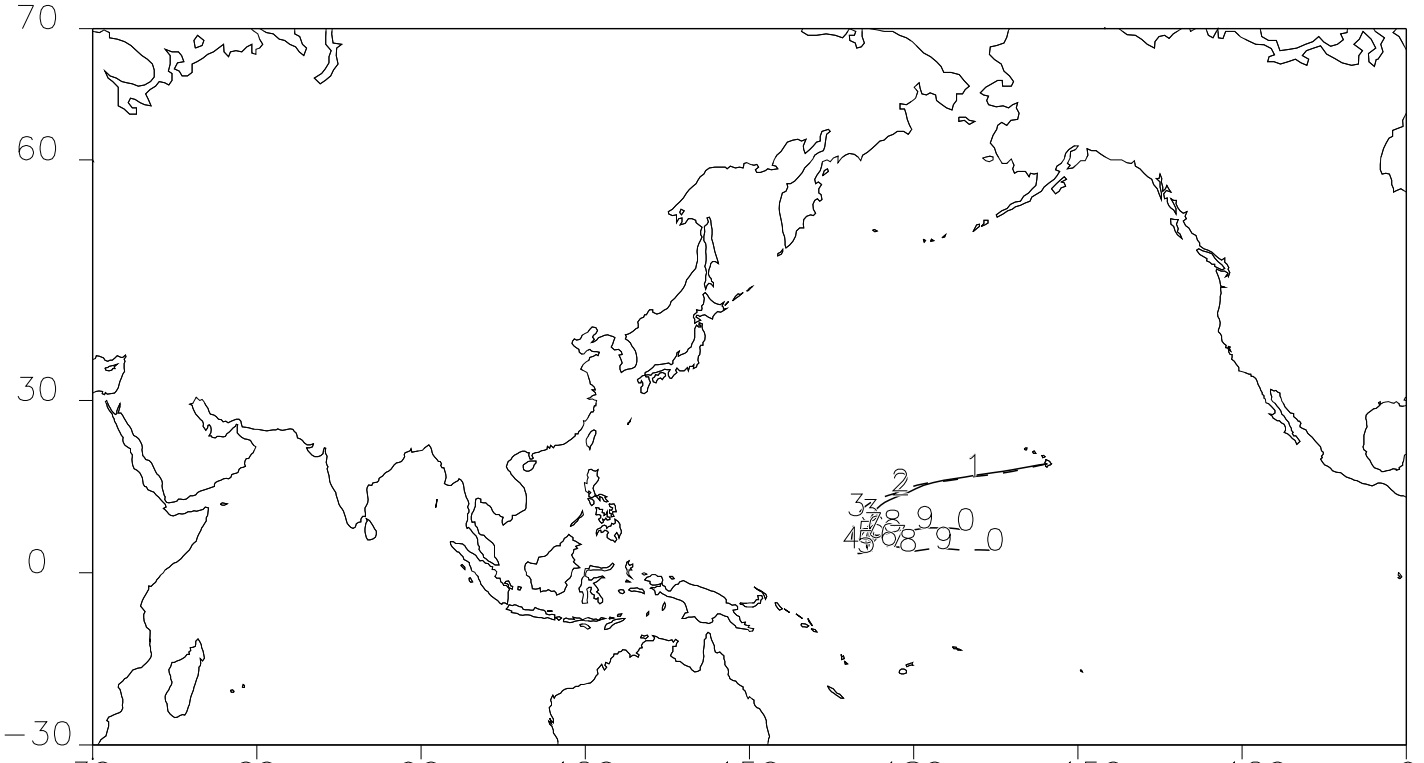
Day	km	hPa	C
0	8.0	377	-21
1	7.5	403	-16
2	7.0	430	-13
3	6.1	486	-7
4	5.3	541	-1
5	5.0	555	1
6	4.9	564	1
7	4.7	578	2
8	4.5	594	3
9	4.2	619	5
10	4.2	615	4

18UT

Day	km	hPa	C
0	8.0	378	-19
1	7.7	391	-17
2	7.4	409	-15
3	6.2	477	-8
4	5.6	516	-4
5	5.0	558	1
6	5.1	552	0
7	5.1	552	0
8	4.8	573	2
9	4.4	604	3
10	4.0	627	6

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

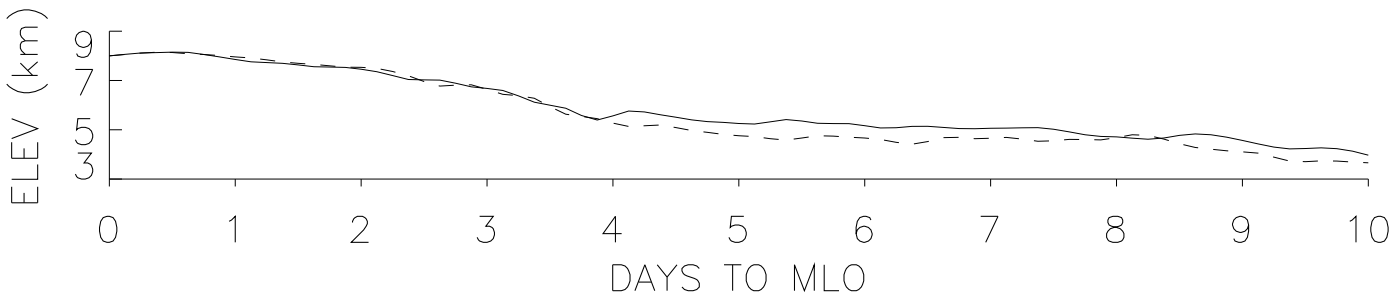


00UT

Day	km	hPa	C
0	8.0	379	−20
1	7.9	385	−19
2	7.5	406	−16
3	6.7	451	−10
4	5.6	520	−2
5	5.3	541	0
6	5.2	546	0
7	5.1	553	0
8	4.7	579	2
9	4.6	590	2
10	4.0	633	7

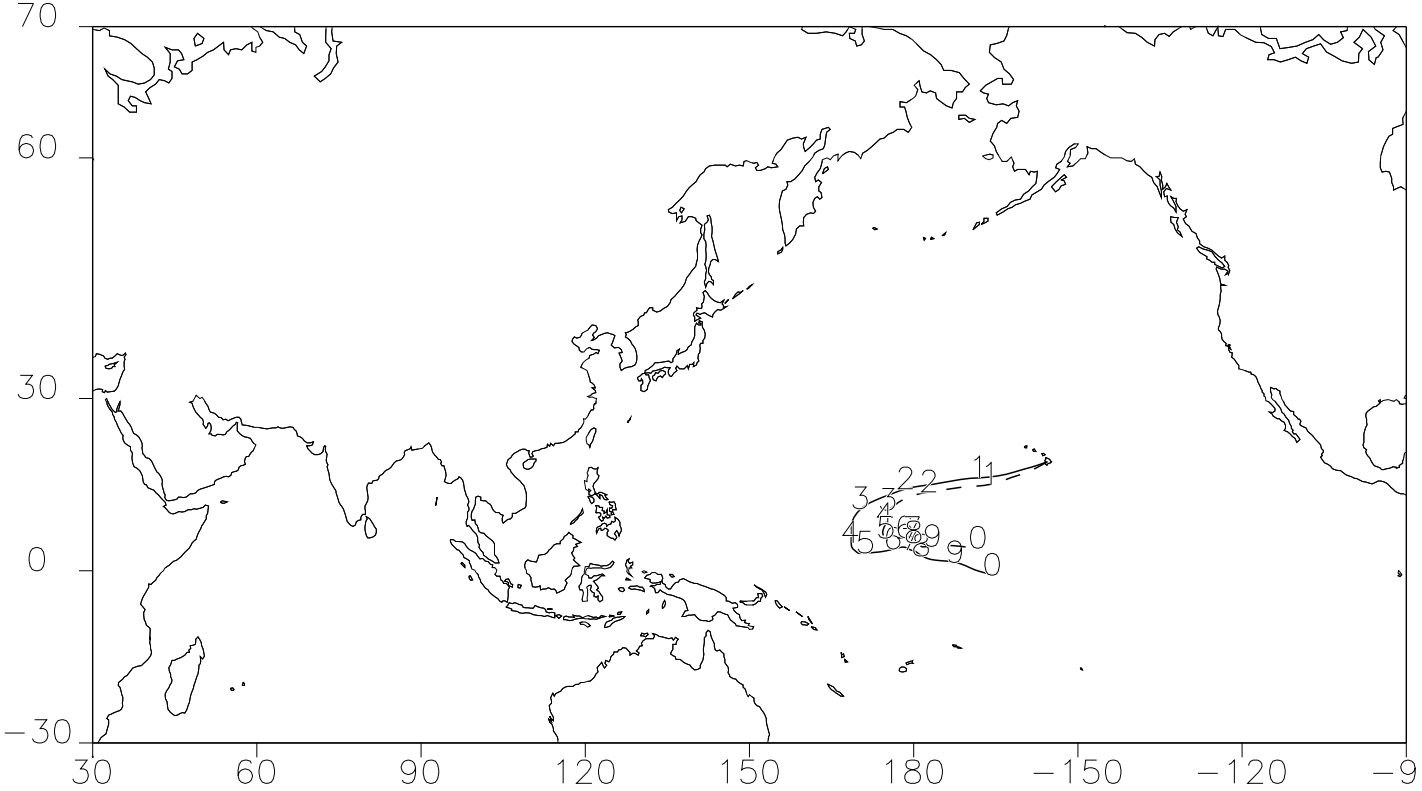
06UT

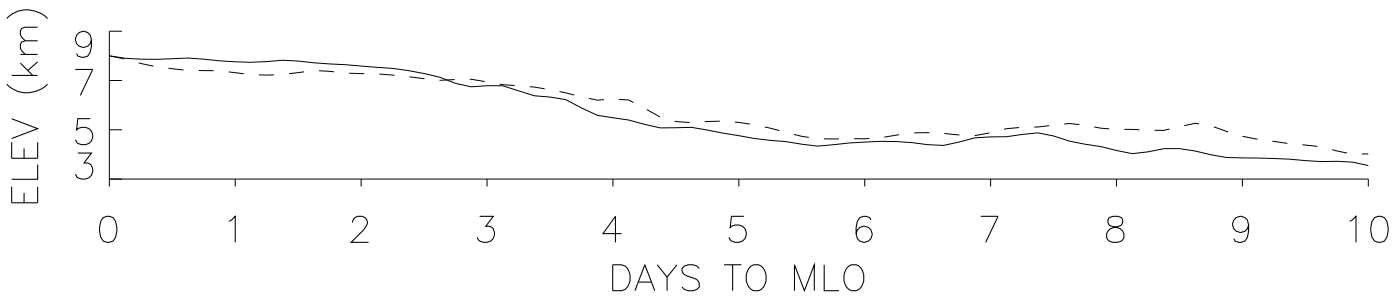
Day	km	hPa	C
0	8.0	379	−20
1	8.0	380	−20
2	7.5	402	−16
3	6.6	451	−10
4	5.3	538	−1
5	4.8	573	2
6	4.7	580	3
7	4.7	580	2
8	4.7	580	2
9	4.1	622	6
10	3.7	657	7



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

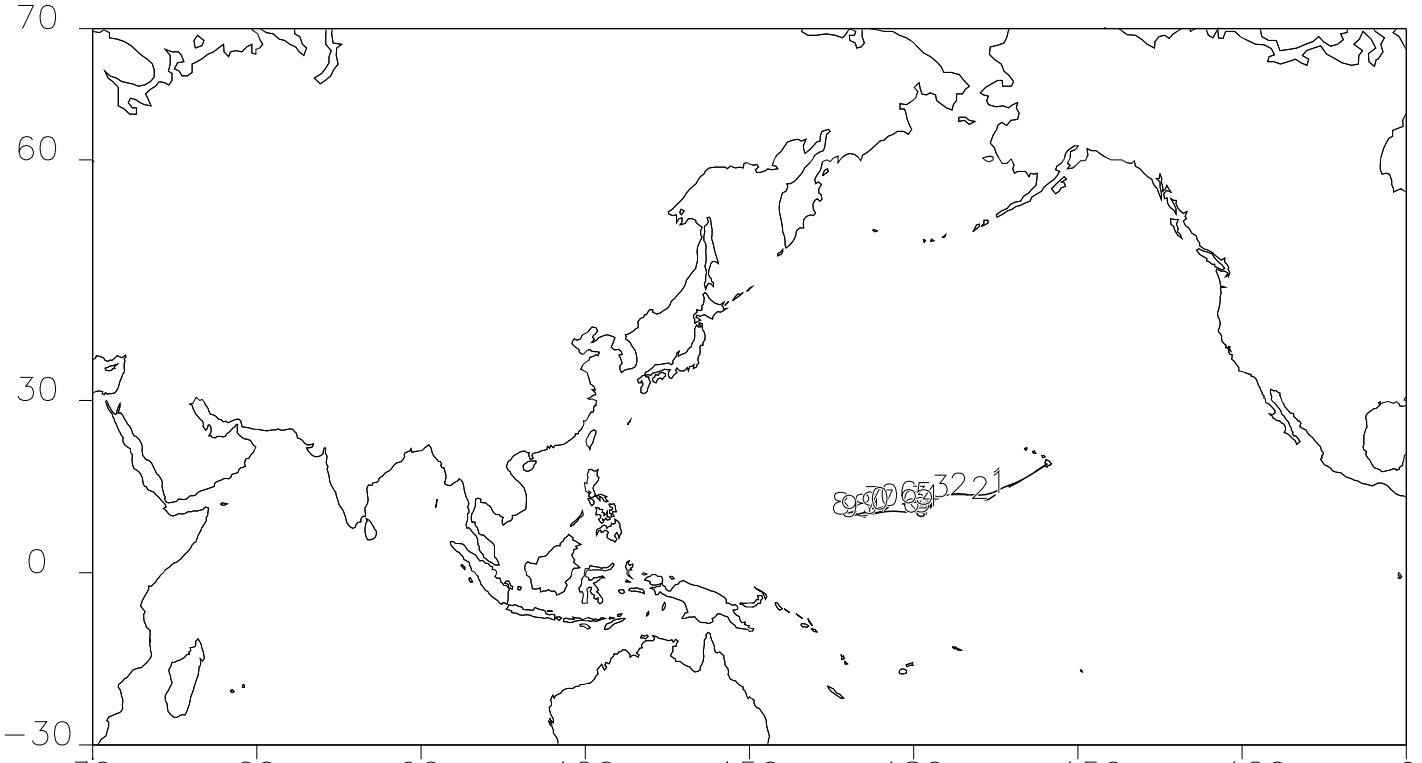
Day	km	hPa	C
0	8.0	378	−21
1	7.8	390	−18
2	7.6	399	−16
3	6.8	444	−11
4	5.5	524	−1
5	4.8	575	3
6	4.5	593	4
7	4.7	578	2
8	4.2	619	5
9	3.9	642	7
10	3.5	666	9

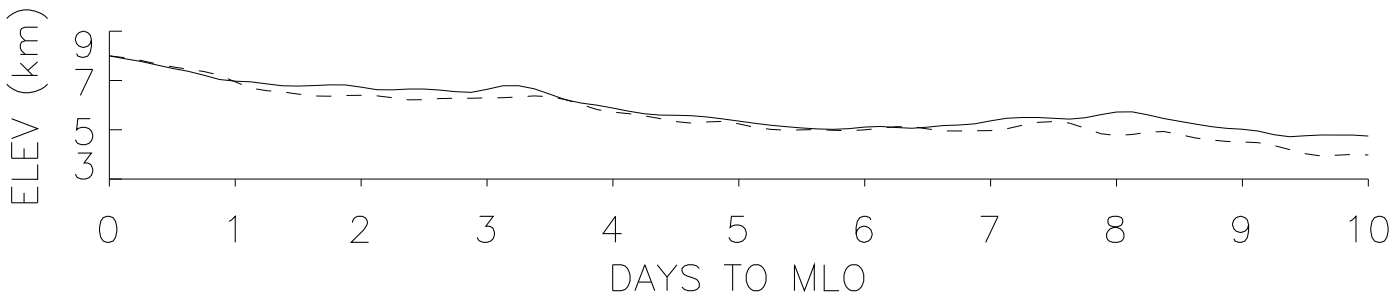
18UT

Day	km	hPa	C
0	8.0	378	−21
1	7.3	414	−15
2	7.3	415	−15
3	6.9	435	−12
4	6.2	476	−7
5	5.3	536	−2
6	4.6	582	3
7	4.9	565	1
8	5.0	555	0
9	4.7	576	2
10	4.0	629	7

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

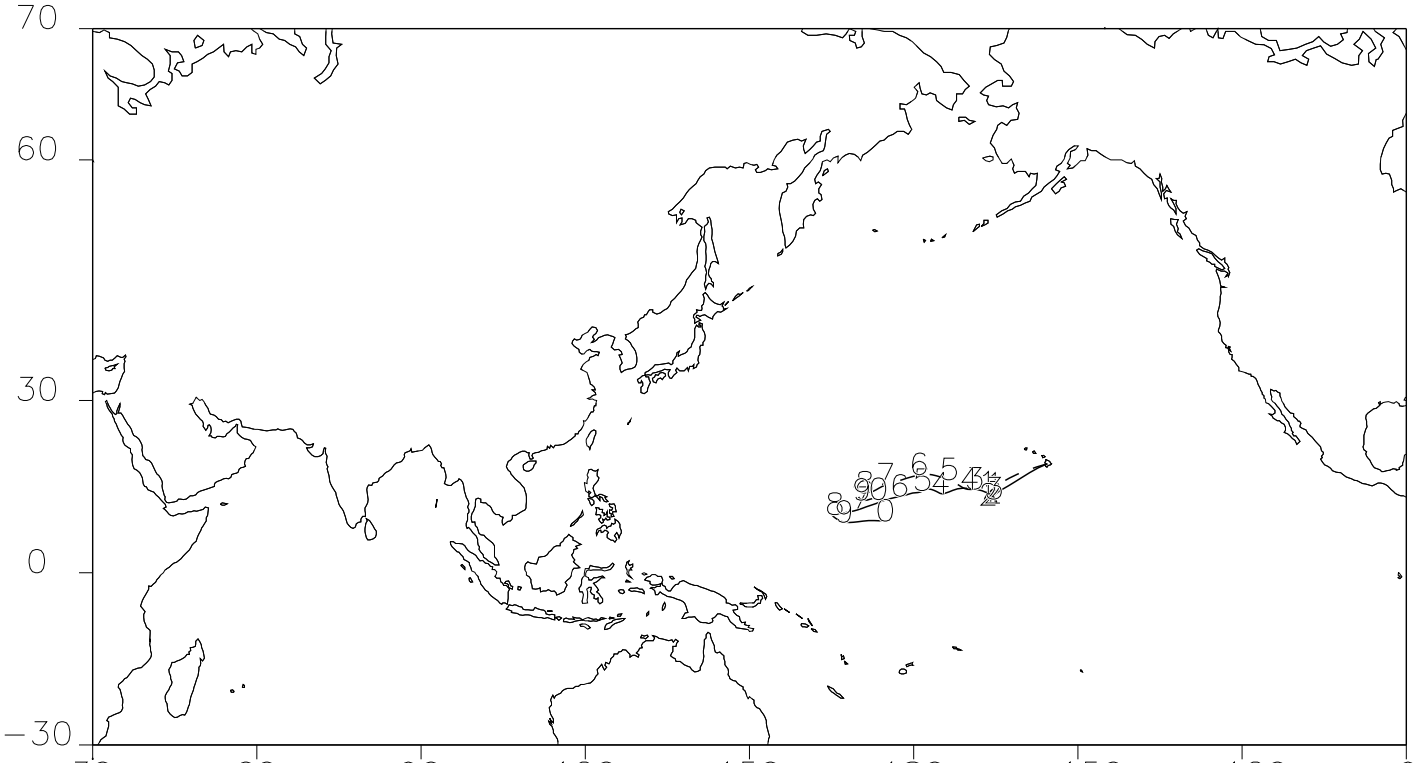
Day	km	hPa	C
0	8.0	378	−20
1	7.0	434	−12
2	6.7	447	−11
3	6.6	453	−10
4	5.9	499	−5
5	5.4	534	−1
6	5.1	551	0
7	5.4	533	−2
8	5.7	509	−4
9	5.0	557	−1
10	4.7	578	0

06UT

Day	km	hPa	C
0	8.0	378	−21
1	6.9	436	−12
2	6.4	467	−8
3	6.3	473	−8
4	5.7	509	−4
5	5.2	542	−1
6	5.0	556	0
7	5.0	558	0
8	4.8	572	1
9	4.5	592	1
10	4.0	633	5

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

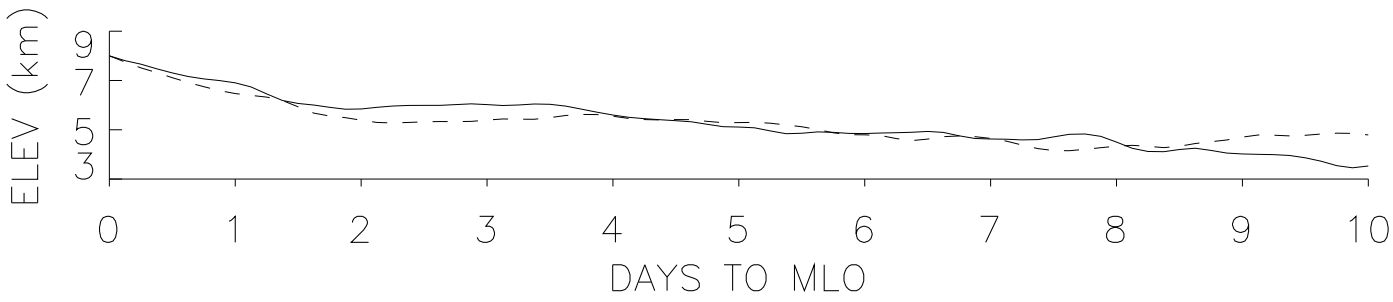


12UT

Day	km	hPa	C
0	8.0	378	−22
1	6.9	438	−12
2	5.8	501	−4
3	6.0	490	−7
4	5.6	517	−4
5	5.1	550	−1
6	4.8	568	0
7	4.6	584	1
8	4.5	593	2
9	4.0	630	5
10	3.5	670	9

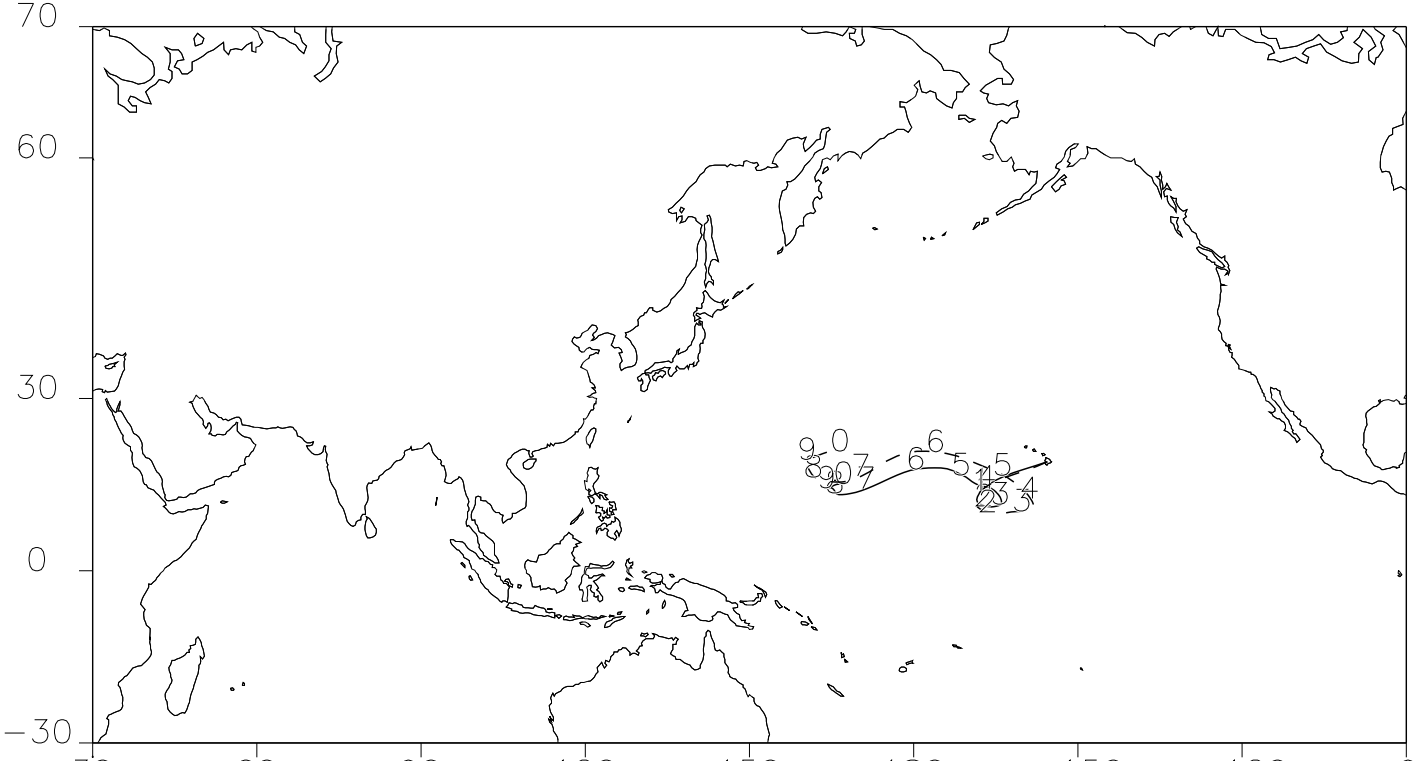
18UT

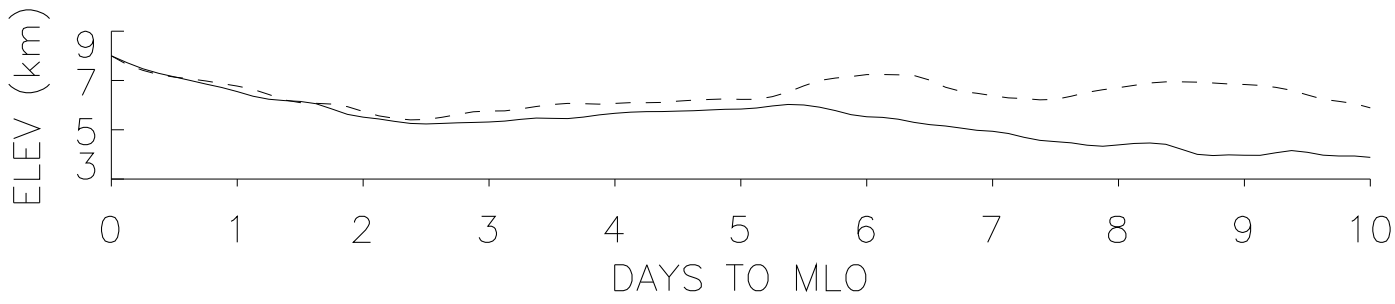
Day	km	hPa	C
0	8.0	378	−22
1	6.5	463	−10
2	5.4	532	−1
3	5.4	530	−3
4	5.5	520	−4
5	5.3	537	−3
6	4.8	570	−1
7	4.7	580	−1
8	4.3	603	1
9	4.7	577	−1
10	4.8	572	0



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

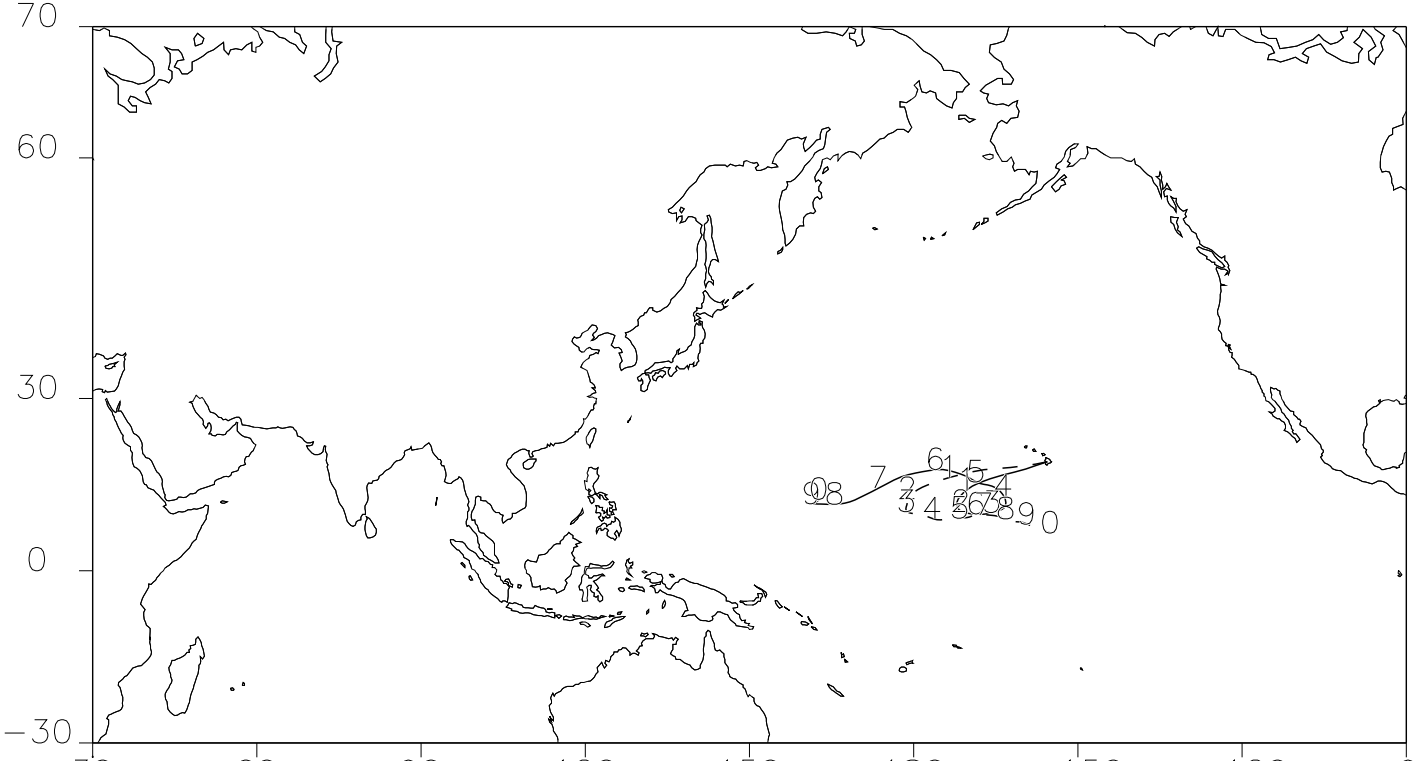
Day	km	hPa	C
0	8.0	378	−21
1	6.5	458	−10
2	5.5	523	−2
3	5.3	536	−1
4	5.7	512	−4
5	5.8	500	−7
6	5.5	521	−4
7	4.9	561	−2
8	4.4	601	1
9	4.0	634	3
10	3.9	643	4

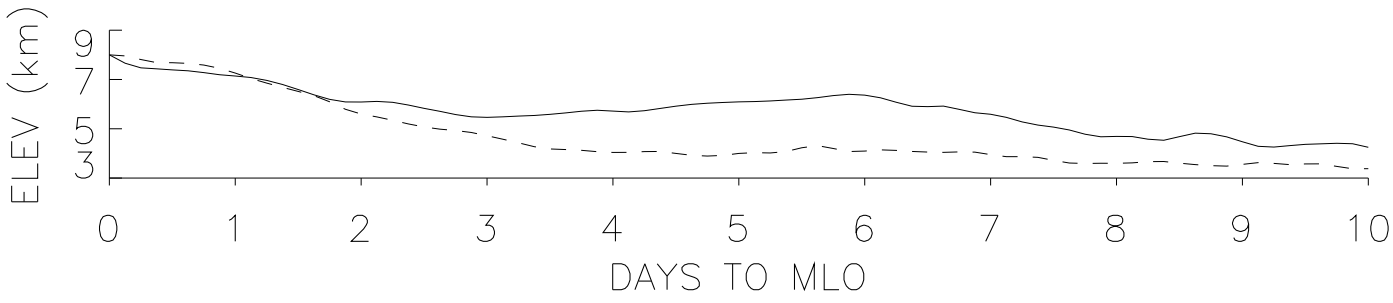
06UT

Day	km	hPa	C
0	8.0	378	−21
1	6.8	445	−12
2	5.7	509	−4
3	5.8	508	−4
4	6.1	487	−7
5	6.2	475	−9
6	7.2	416	−16
7	6.4	464	−11
8	6.7	446	−13
9	6.8	438	−16
10	5.9	498	−9

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

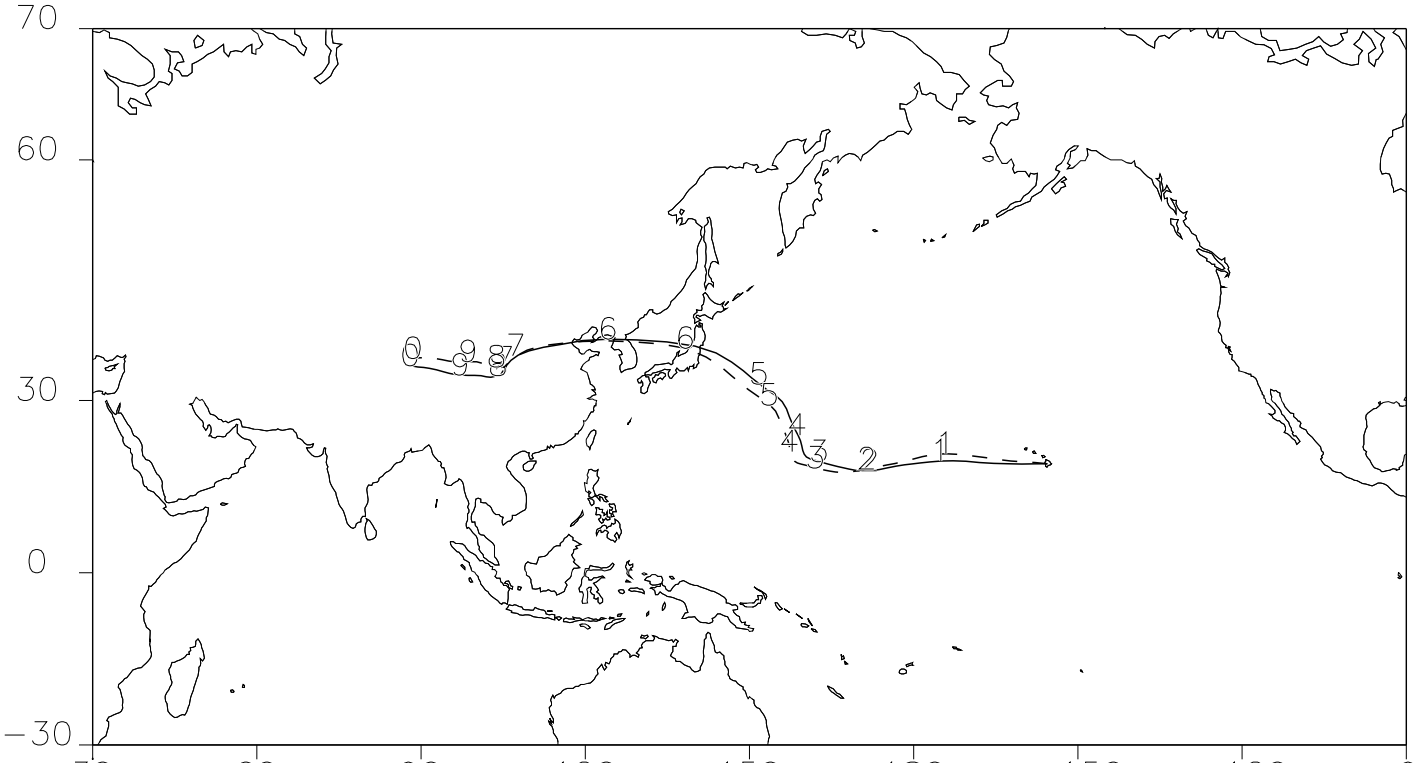
Day	km	hPa	C
0	8.0	377	-21
1	7.1	425	-14
2	6.1	487	-6
3	5.5	526	-2
4	5.7	509	-5
5	6.1	484	-7
6	6.4	469	-10
7	5.6	517	-4
8	4.7	579	1
9	4.5	595	2
10	4.2	613	2

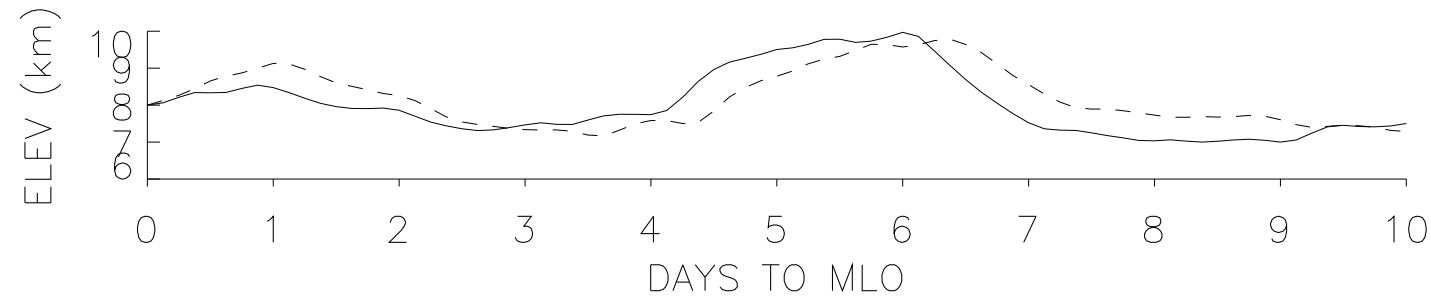
18UT

Day	km	hPa	C
0	8.0	377	-22
1	7.3	417	-16
2	5.6	517	-4
3	4.7	578	2
4	4.0	626	6
5	4.0	631	6
6	4.1	623	6
7	4.0	634	7
8	3.6	662	9
9	3.6	666	9
10	3.4	679	10

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

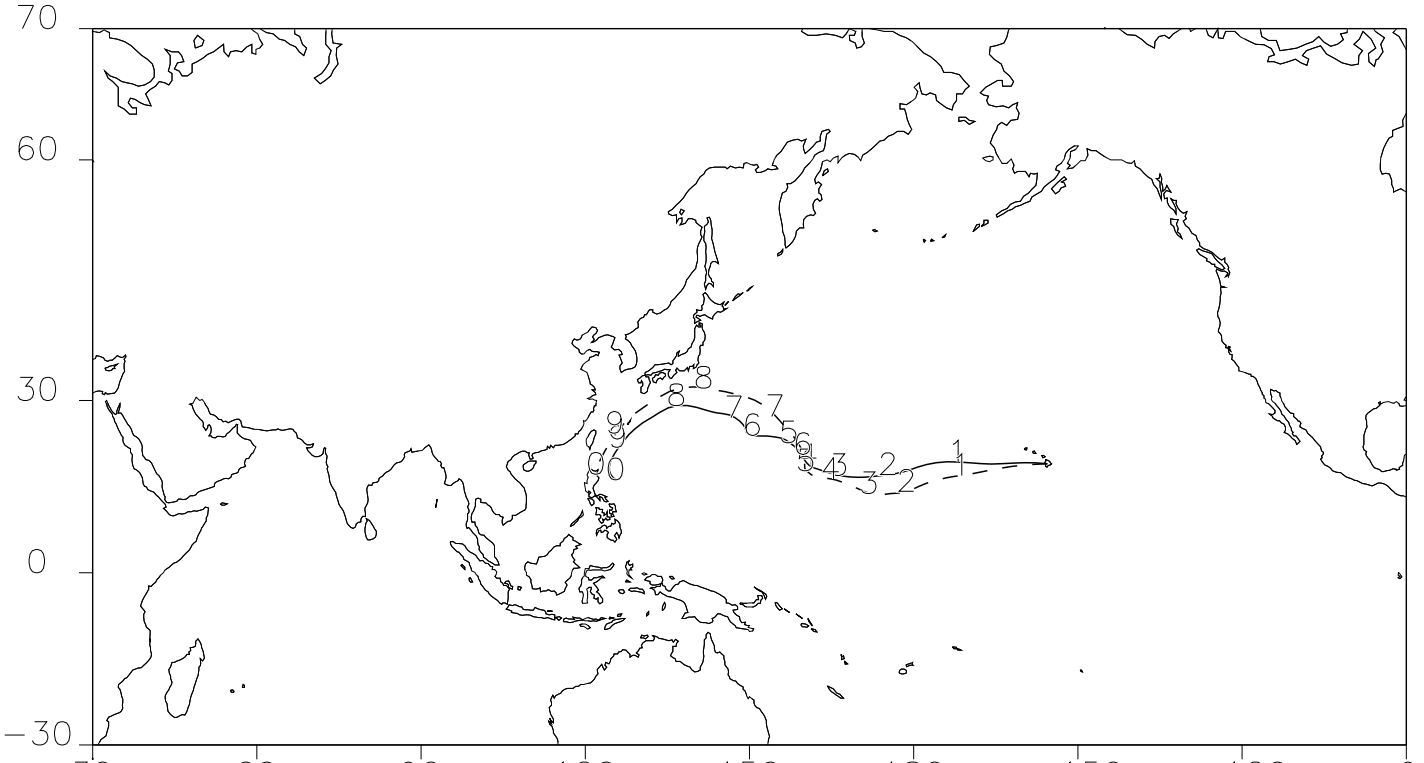
Day	km	hPa	C
0	8.0	377	−21
1	8.5	354	−25
2	7.9	384	−21
3	7.5	405	−19
4	7.7	391	−20
5	9.5	301	−38
6	10.0	276	−45
7	7.5	396	−22
8	7.0	423	−20
9	7.0	426	−18
10	7.5	399	−22

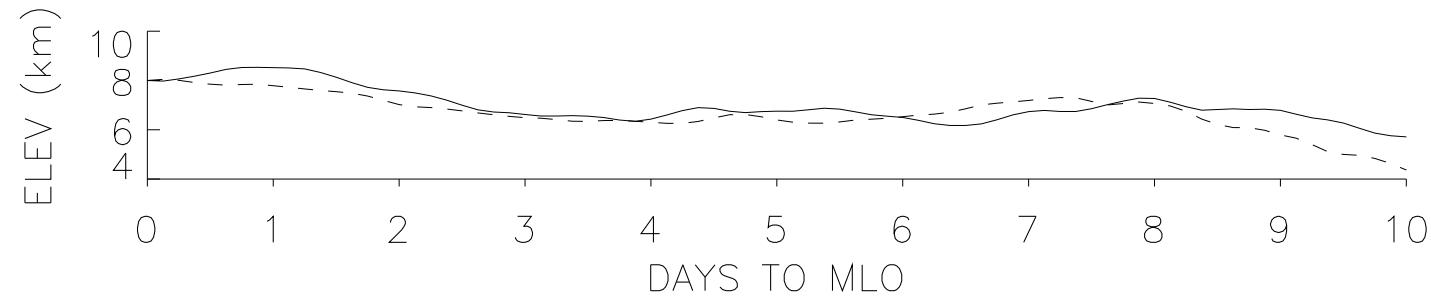
06UT

Day	km	hPa	C
0	8.0	378	−21
1	9.1	322	−30
2	8.3	363	−23
3	7.3	412	−17
4	7.6	399	−18
5	8.8	336	−31
6	9.6	294	−40
7	8.6	343	−32
8	7.7	385	−26
9	7.6	392	−24
10	7.3	412	−20

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





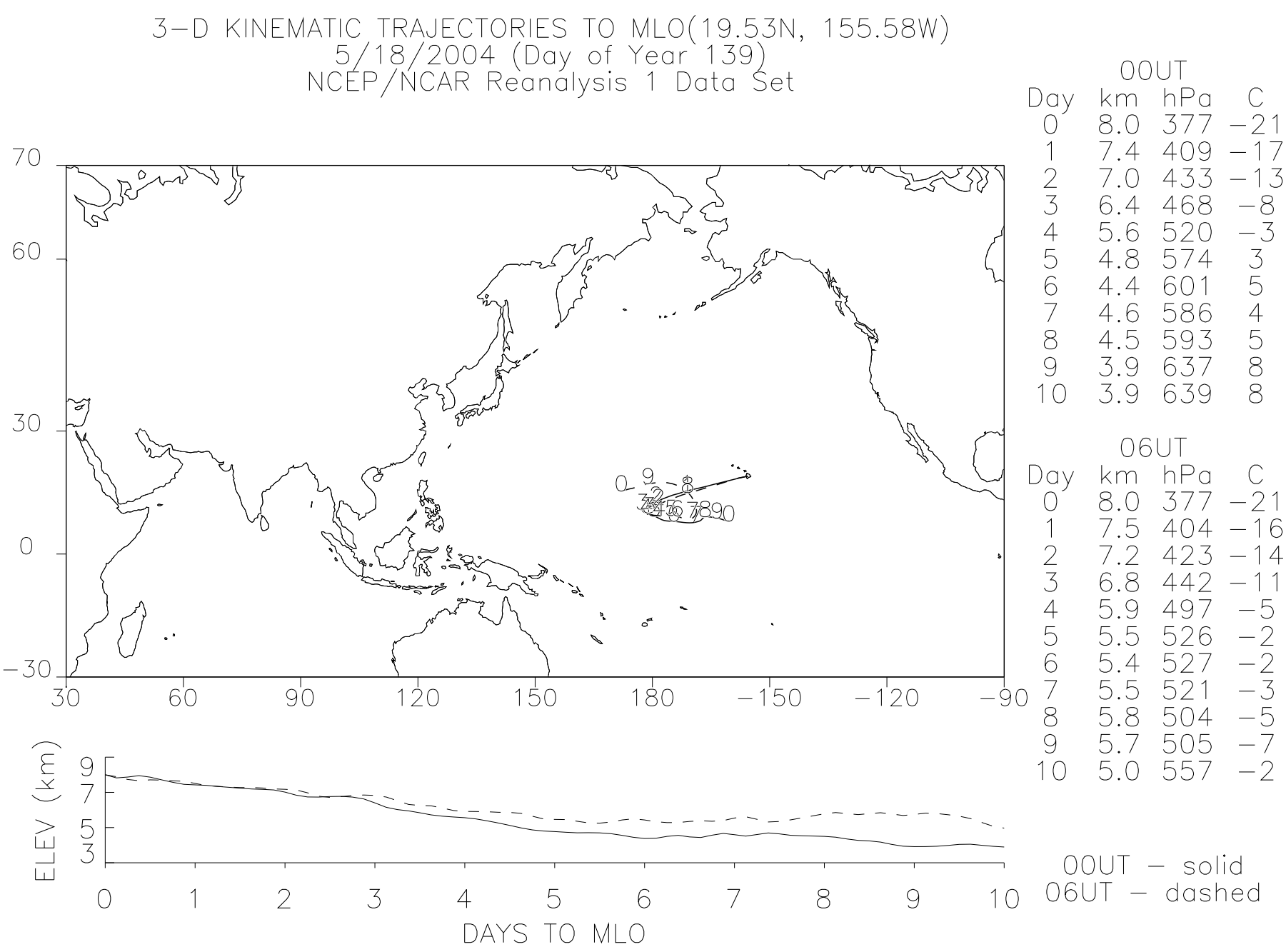
12UT

Day	km	hPa	C
0	8.0	377	-22
1	8.5	352	-25
2	7.6	399	-18
3	6.6	454	-11
4	6.4	465	-9
5	6.8	445	-12
6	6.5	461	-10
7	6.7	448	-12
8	7.3	418	-14
9	6.8	445	-10
10	5.7	512	-2

18UT

Day	km	hPa	C
0	8.0	378	-21
1	7.8	389	-20
2	7.0	430	-13
3	6.5	461	-9
4	6.3	472	-8
5	6.4	465	-9
6	6.5	458	-9
7	7.2	419	-16
8	7.1	426	-15
9	5.8	504	-6
10	4.4	604	4

12UT - solid
18UT - dashed



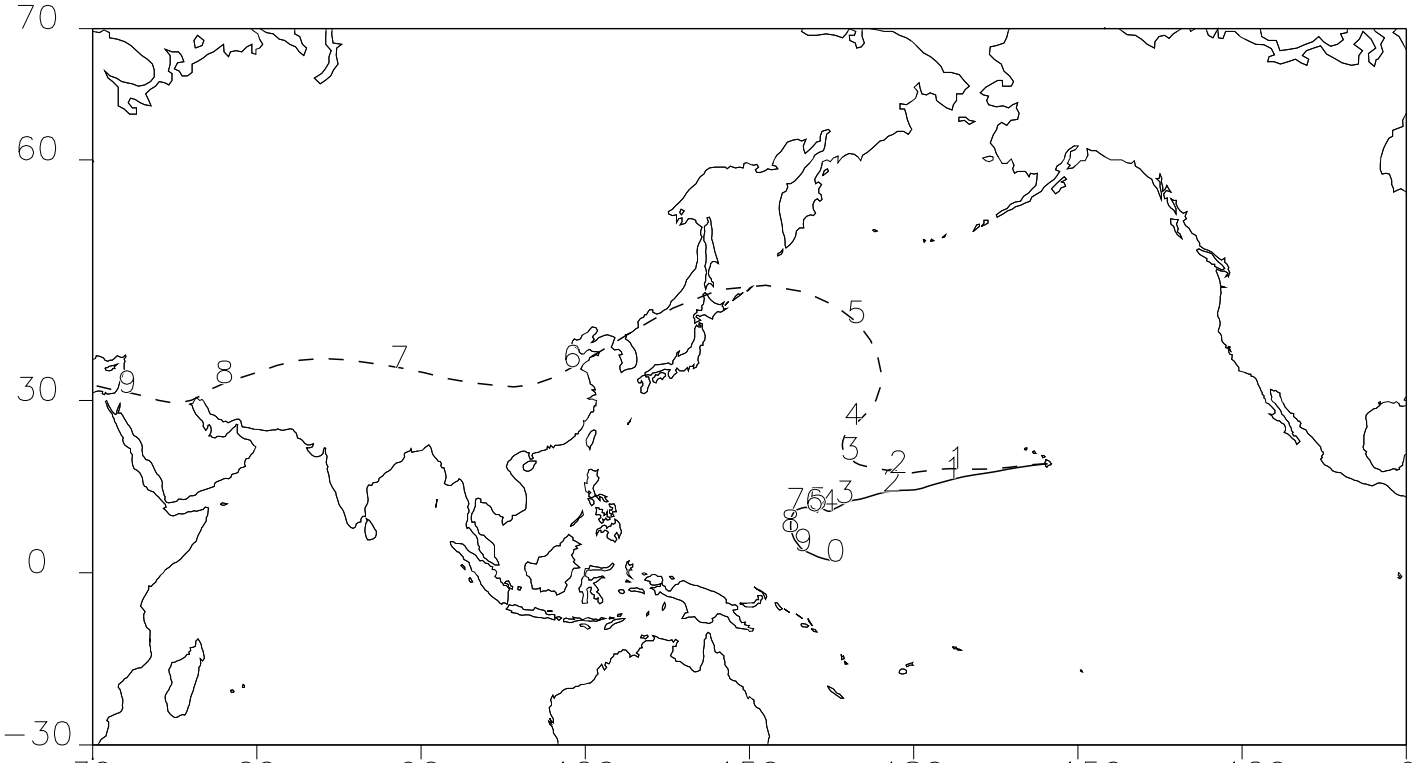
00UT

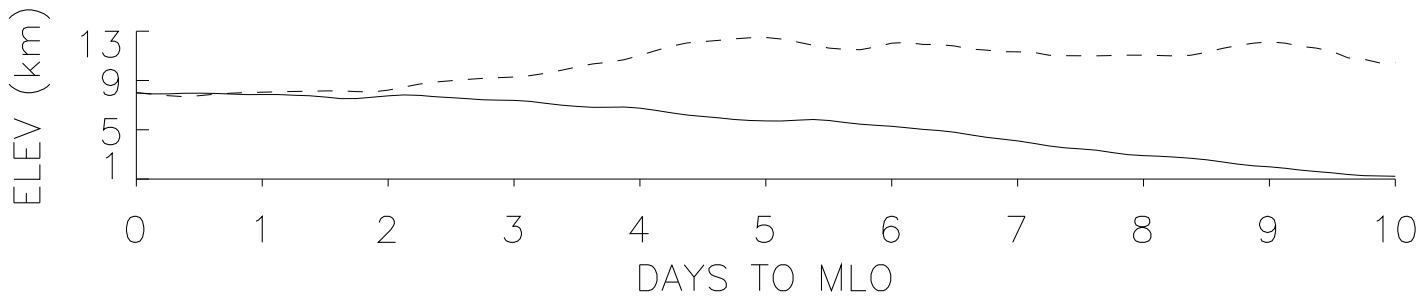
Day	km	hPa	C
0	8.0	377	-21
1	7.4	409	-17
2	7.0	433	-13
3	6.4	468	-8
4	5.6	520	-3
5	4.8	574	3
6	4.4	601	5
7	4.6	586	4
8	4.5	593	5
9	3.9	637	8
10	3.9	639	8

06UT

Day	km	hPa	C
0	8.0	377	-21
1	7.5	404	-16
2	7.2	423	-14
3	6.8	442	-11
4	5.9	497	-5
5	5.5	526	-2
6	5.4	527	-2
7	5.5	521	-3
8	5.8	504	-5
9	5.7	505	-7
10	5.0	557	-2

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





12UT

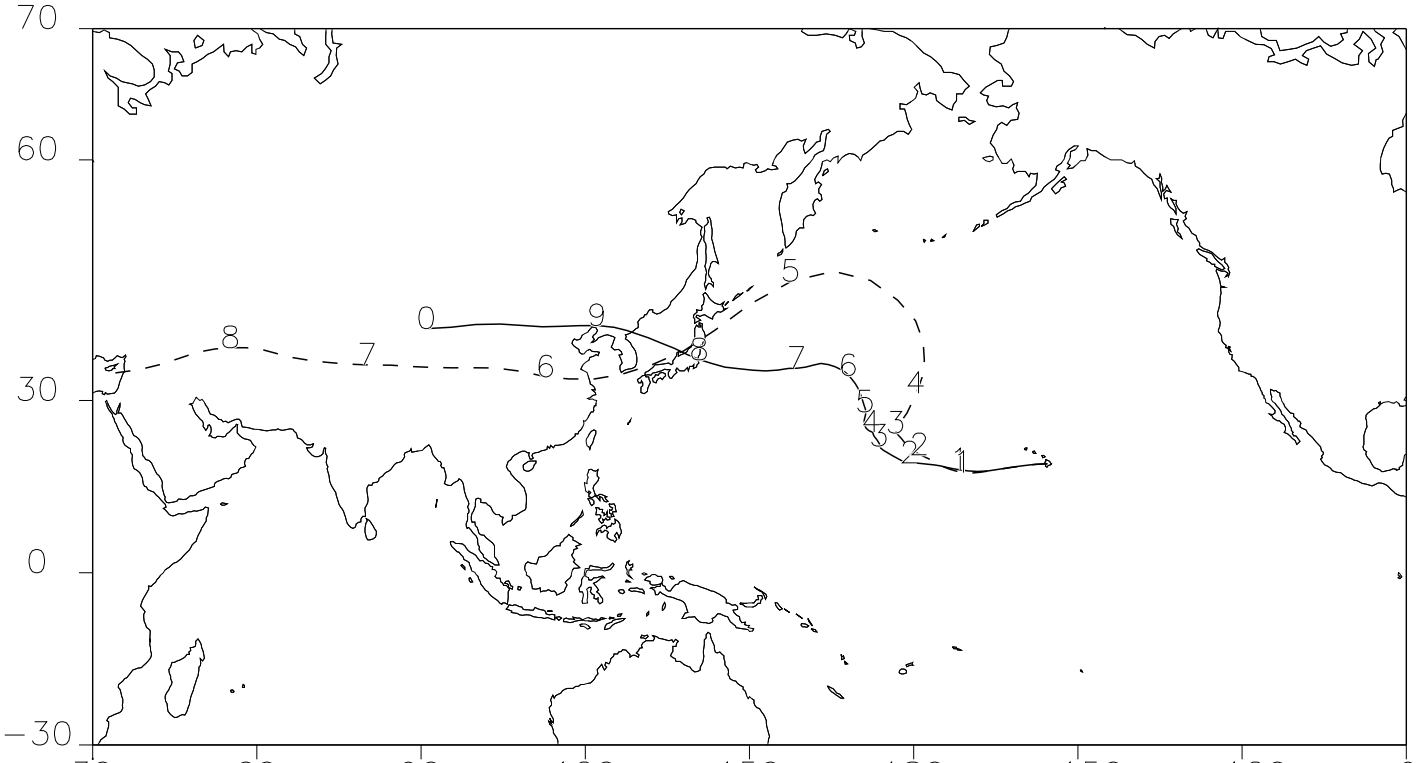
Day	km	hPa	C
0	8.0	376	−21
1	7.9	385	−20
2	7.8	392	−19
3	7.4	412	−14
4	6.8	447	−9
5	5.7	510	−4
6	5.3	539	−2
7	4.1	624	4
8	2.9	719	13
9	2.0	801	17
10	1.2	876	20

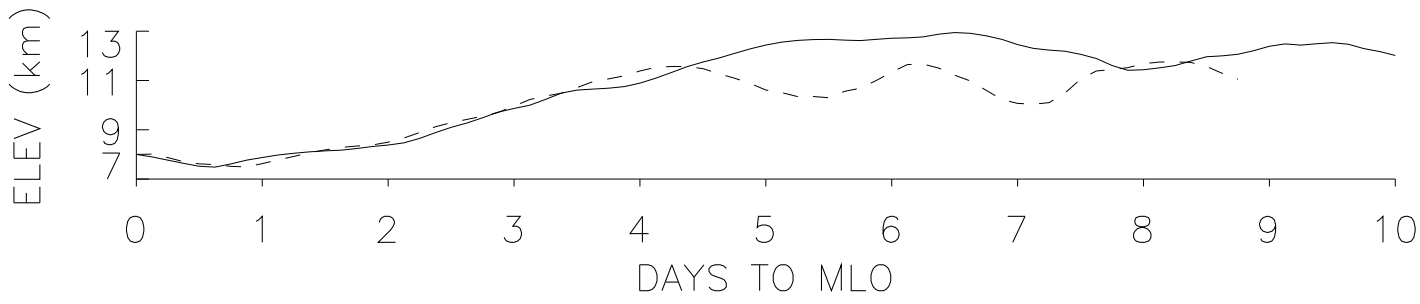
18UT

Day	km	hPa	C
0	8.0	378	−20
1	8.0	375	−21
2	8.2	366	−23
3	9.3	315	−31
4	11.0	242	−47
5	12.5	189	−58
6	12.0	201	−57
7	11.3	228	−50
8	11.1	240	−50
9	12.1	202	−58
10	10.4	259	−44

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

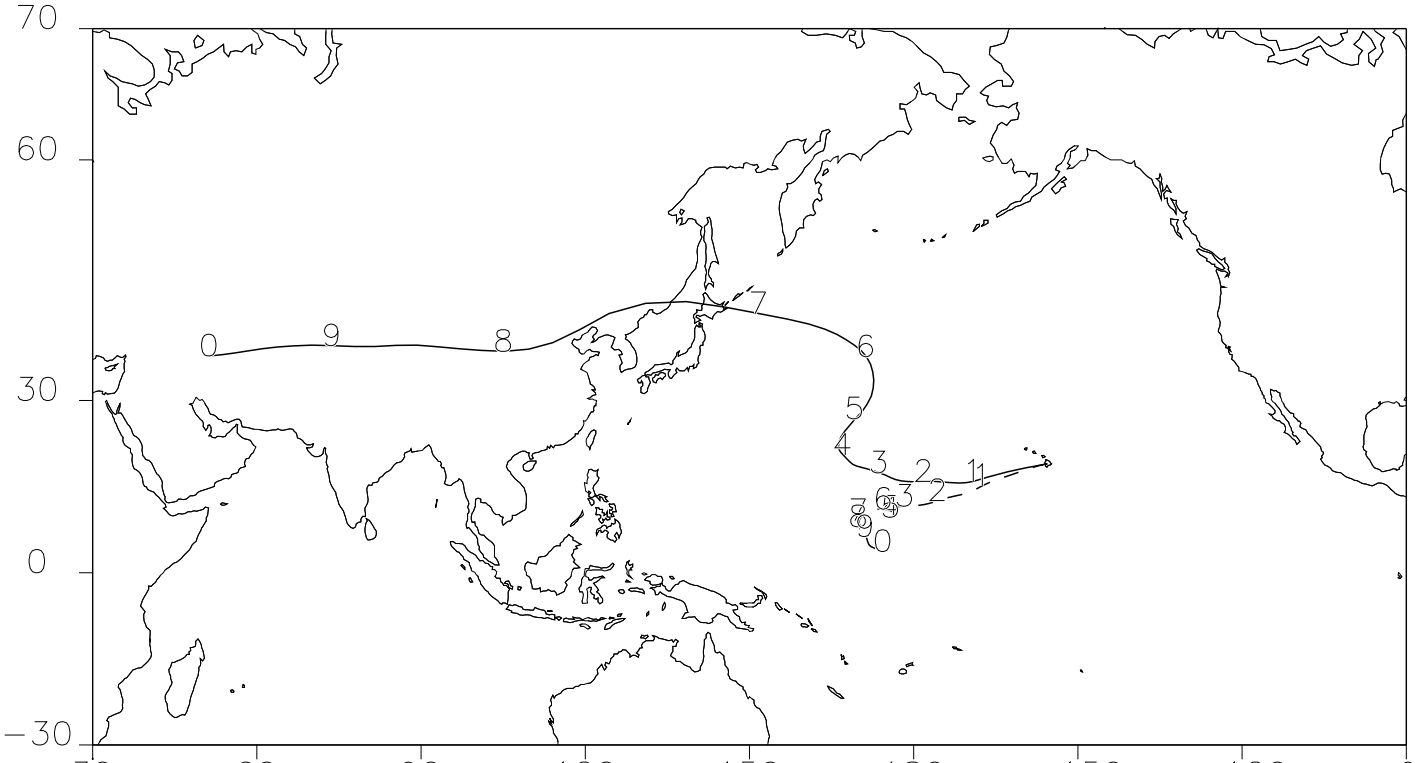
Day	km	hPa	C
0	8.0	378	-20
1	7.9	384	-20
2	8.4	358	-25
3	9.9	290	-38
4	10.9	247	-46
5	12.4	193	-59
6	12.7	183	-61
7	12.5	190	-59
8	11.4	221	-52
9	12.4	187	-61
10	12.0	199	-58

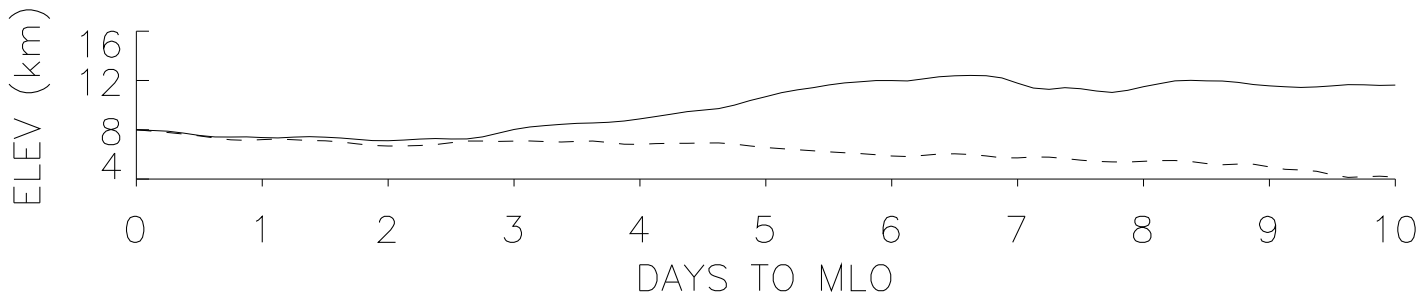
06UT

Day	km	hPa	C
0	8.0	378	-20
1	7.6	397	-17
2	8.5	352	-26
3	10.0	286	-39
4	11.4	228	-51
5	10.6	248	-46
6	11.3	227	-54
7	10.1	274	-41
8	11.7	214	-56

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

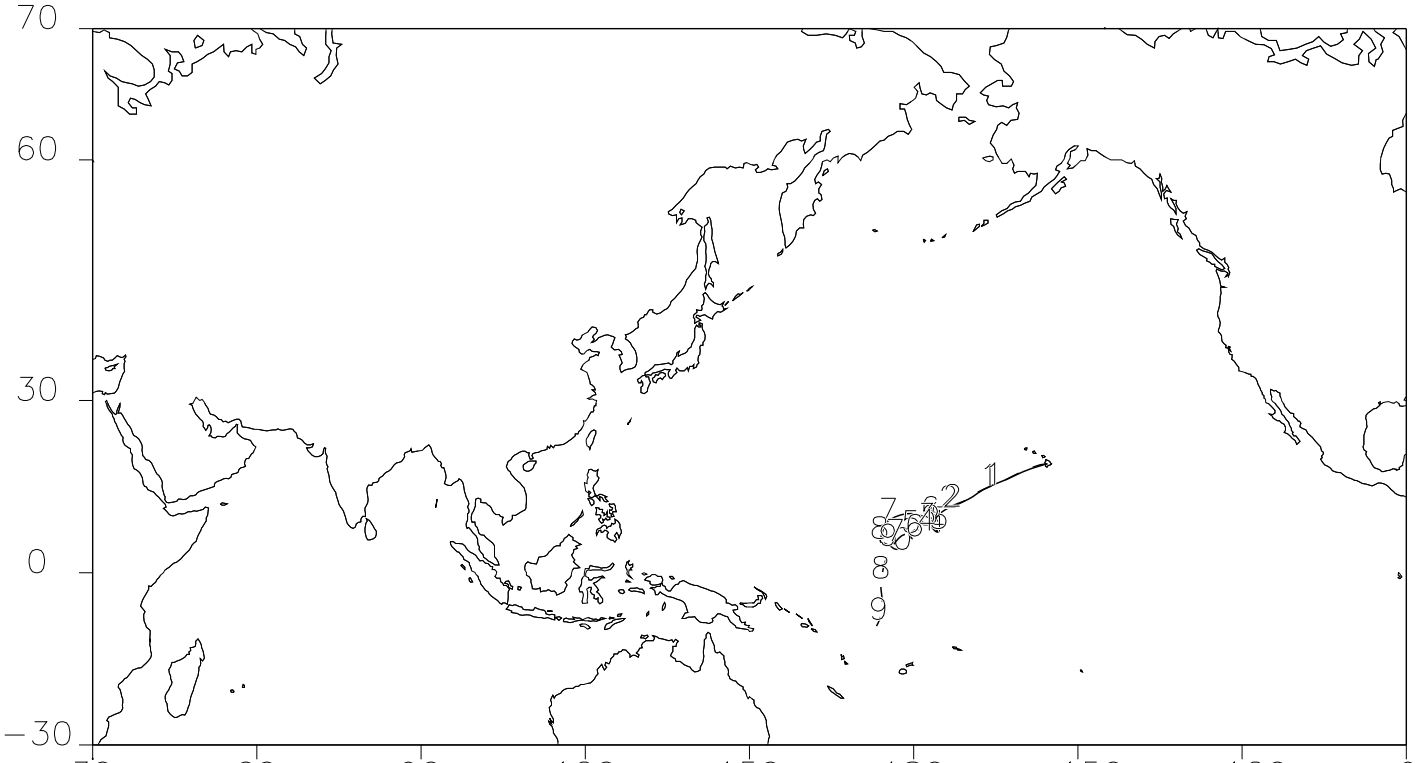
Day	km	hPa	C
0	8.0	377	−21
1	7.4	411	−15
2	7.1	426	−15
3	8.0	378	−22
4	8.9	334	−29
5	10.7	255	−46
6	12.0	206	−58
7	11.8	207	−58
8	11.5	217	−55
9	11.6	217	−55
10	11.6	215	−55

18UT

Day	km	hPa	C
0	8.0	378	−20
1	7.2	421	−14
2	6.7	450	−10
3	7.1	428	−13
4	6.8	443	−10
5	6.6	457	−9
6	5.9	499	−5
7	5.7	508	−5
8	5.4	527	−3
9	5.0	557	0
10	4.2	617	5

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

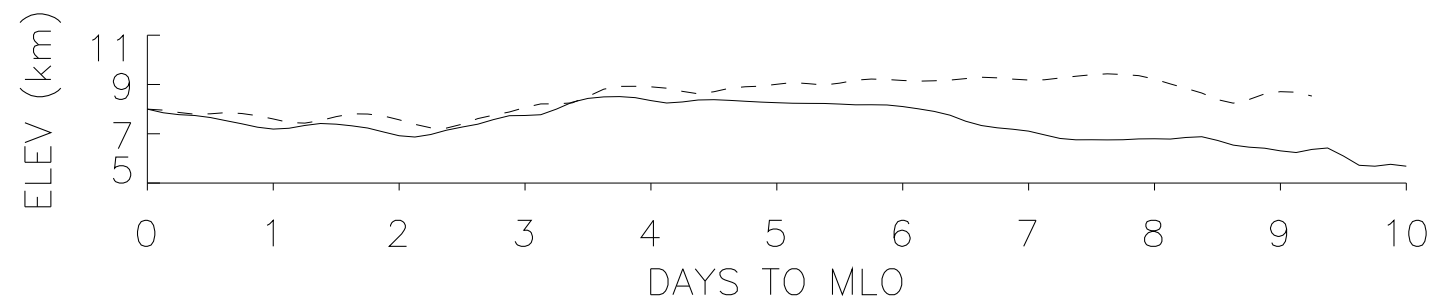


00UT

Day	km	hPa	C
0	8.0	378	−21
1	7.2	422	−13
2	6.9	438	−12
3	7.7	393	−17
4	8.3	363	−20
5	8.3	367	−19
6	8.1	374	−18
7	7.1	427	−11
8	6.8	444	−9
9	6.3	473	−6
10	5.7	512	−3

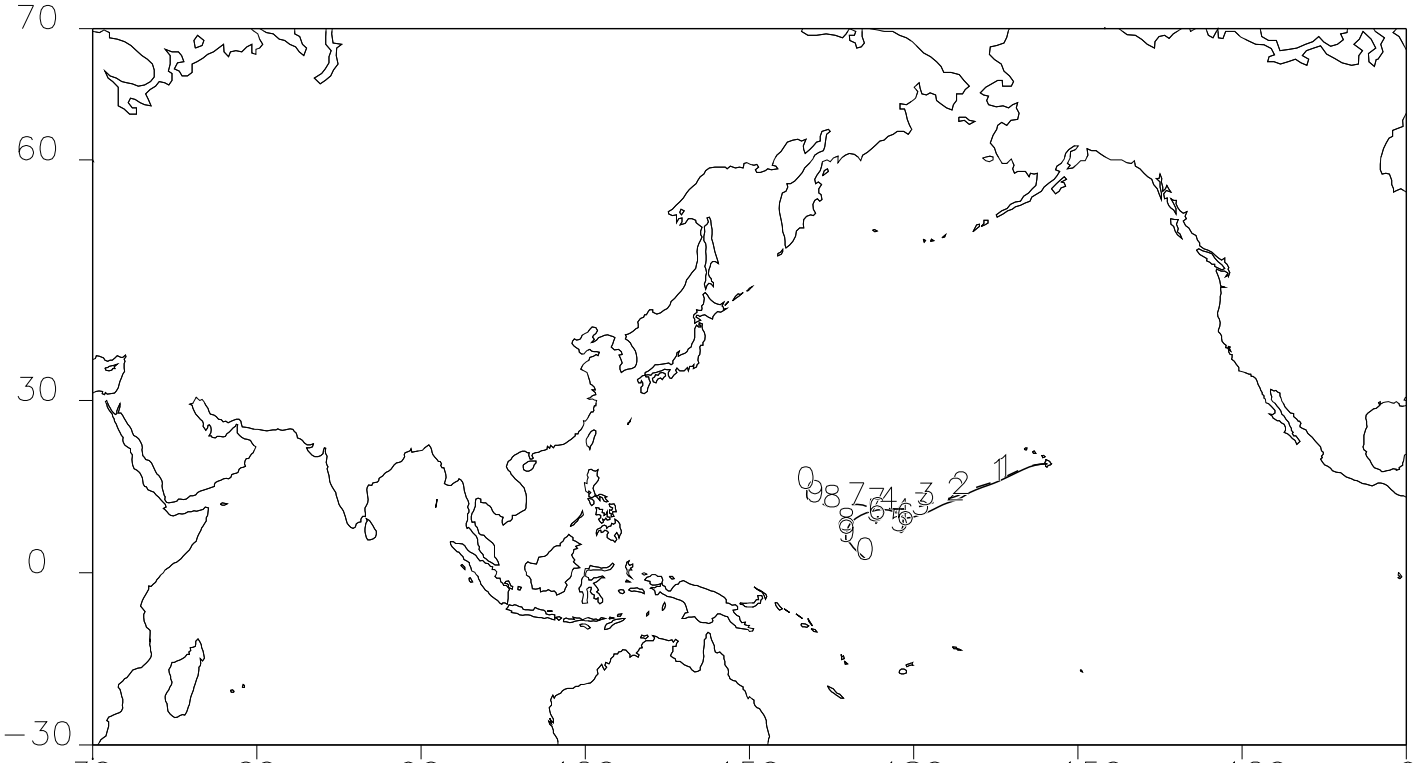
06UT

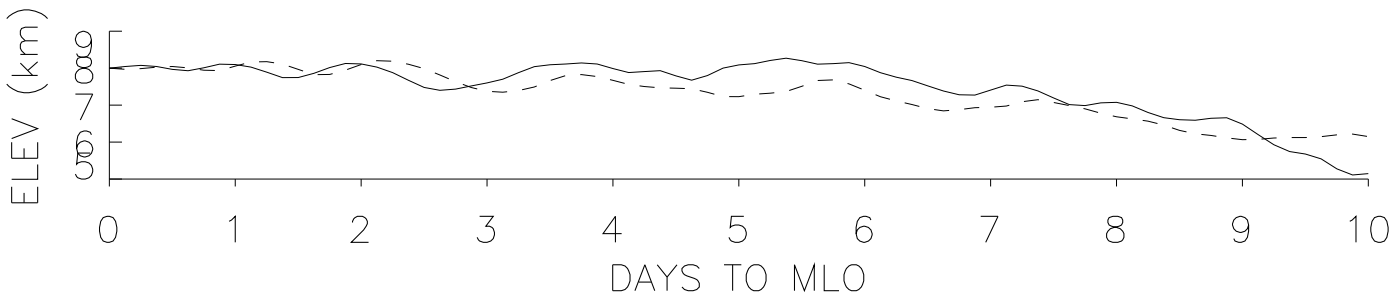
Day	km	hPa	C
0	8.0	379	−21
1	7.6	399	−16
2	7.6	402	−16
3	8.1	376	−18
4	8.9	336	−24
5	9.0	331	−25
6	9.2	324	−25
7	9.2	323	−24
8	9.2	321	−24
9	8.7	344	−23



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

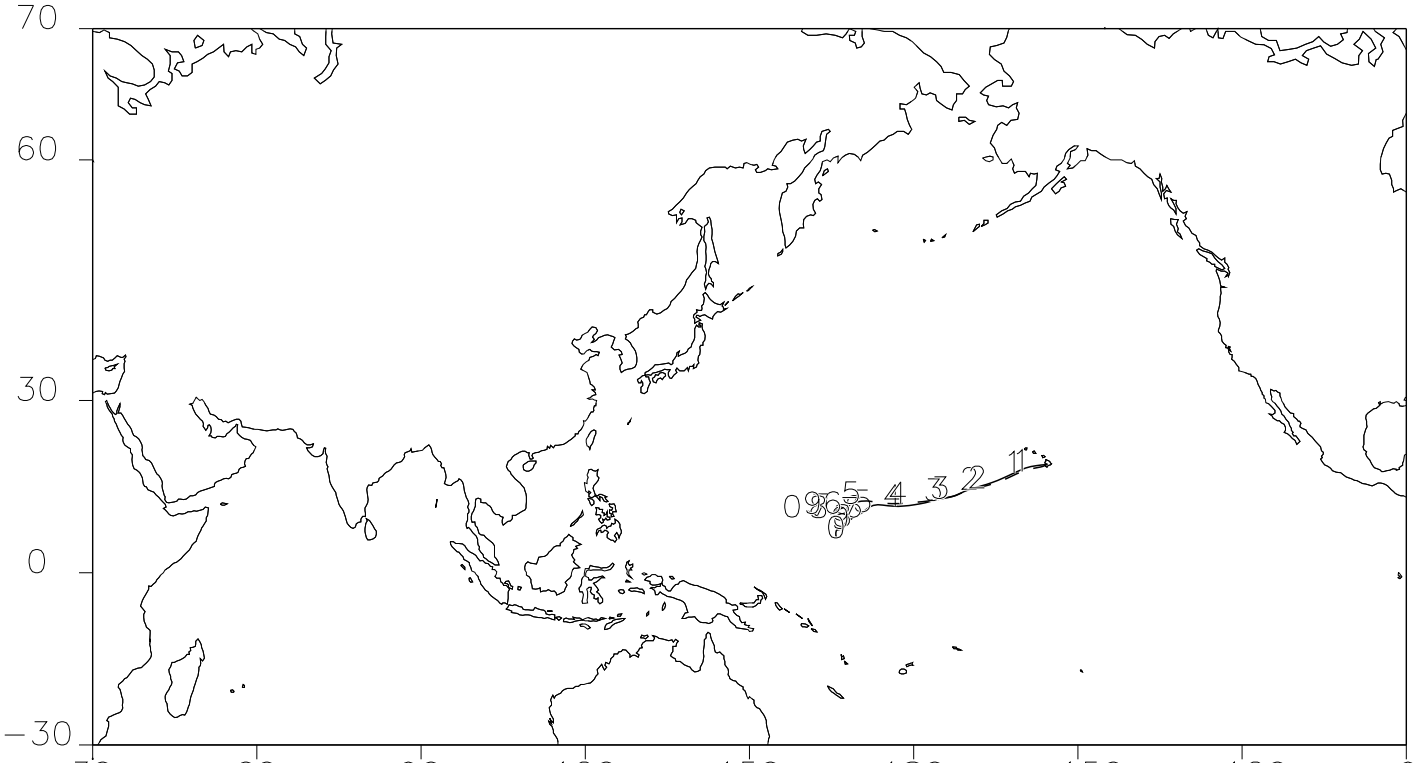
Day	km	hPa	C
0	8.0	378	-22
1	8.1	373	-21
2	8.1	373	-21
3	7.6	400	-16
4	8.0	381	-18
5	8.1	375	-18
6	8.0	377	-18
7	7.4	410	-13
8	7.1	428	-11
9	6.5	462	-8
10	5.1	547	1

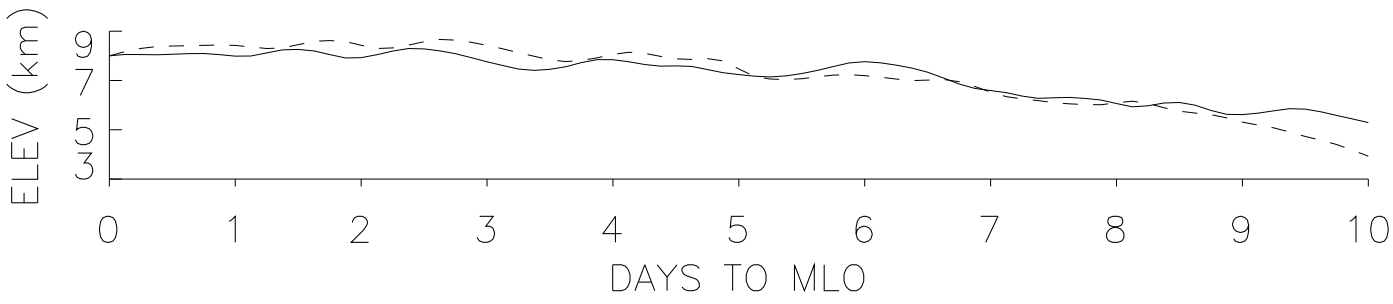
18UT

Day	km	hPa	C
0	8.0	379	-22
1	8.1	375	-21
2	8.1	374	-21
3	7.4	411	-14
4	7.7	396	-17
5	7.2	419	-12
6	7.4	410	-14
7	6.9	435	-10
8	6.7	448	-10
9	6.1	485	-6
10	6.1	480	-9

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

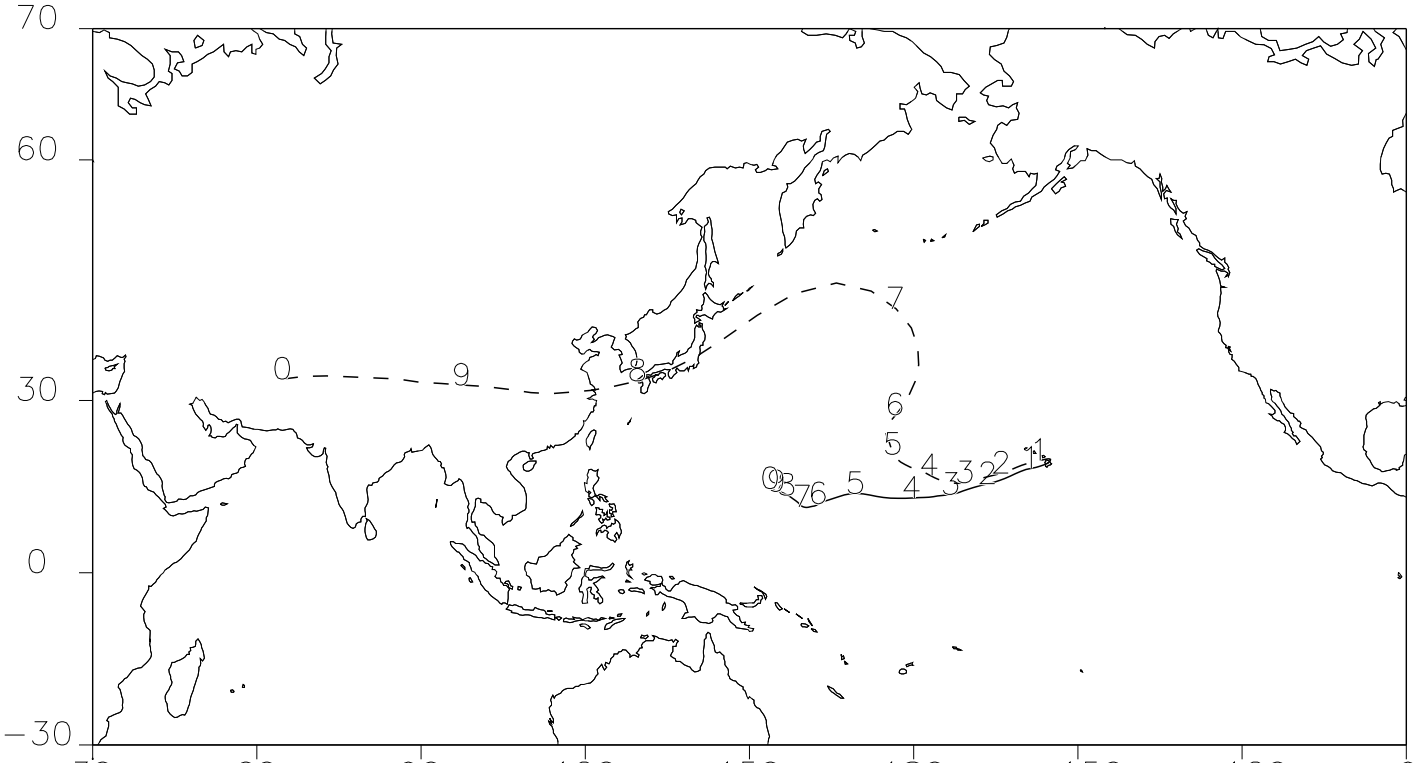
Day	km	hPa	C
0	8.0	379	−22
1	8.0	378	−21
2	7.9	382	−19
3	7.8	392	−18
4	7.8	388	−19
5	7.2	420	−13
6	7.8	392	−16
7	6.6	456	−8
8	6.1	488	−6
9	5.6	516	−4
10	5.3	538	−1

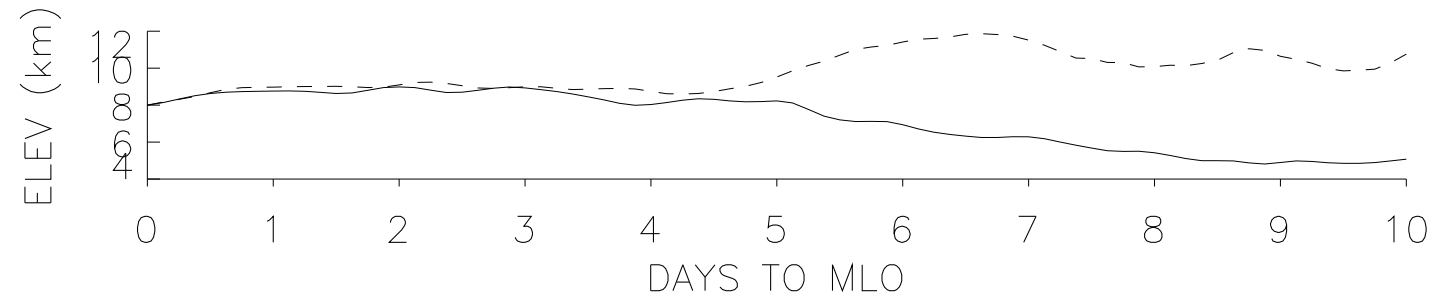
06UT

Day	km	hPa	C
0	8.0	379	−22
1	8.4	357	−24
2	8.4	357	−23
3	8.4	358	−22
4	8.1	377	−20
5	7.5	407	−15
6	7.2	421	−13
7	6.5	459	−8
8	6.1	485	−7
9	5.3	535	−3
10	3.9	634	5

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





12UT

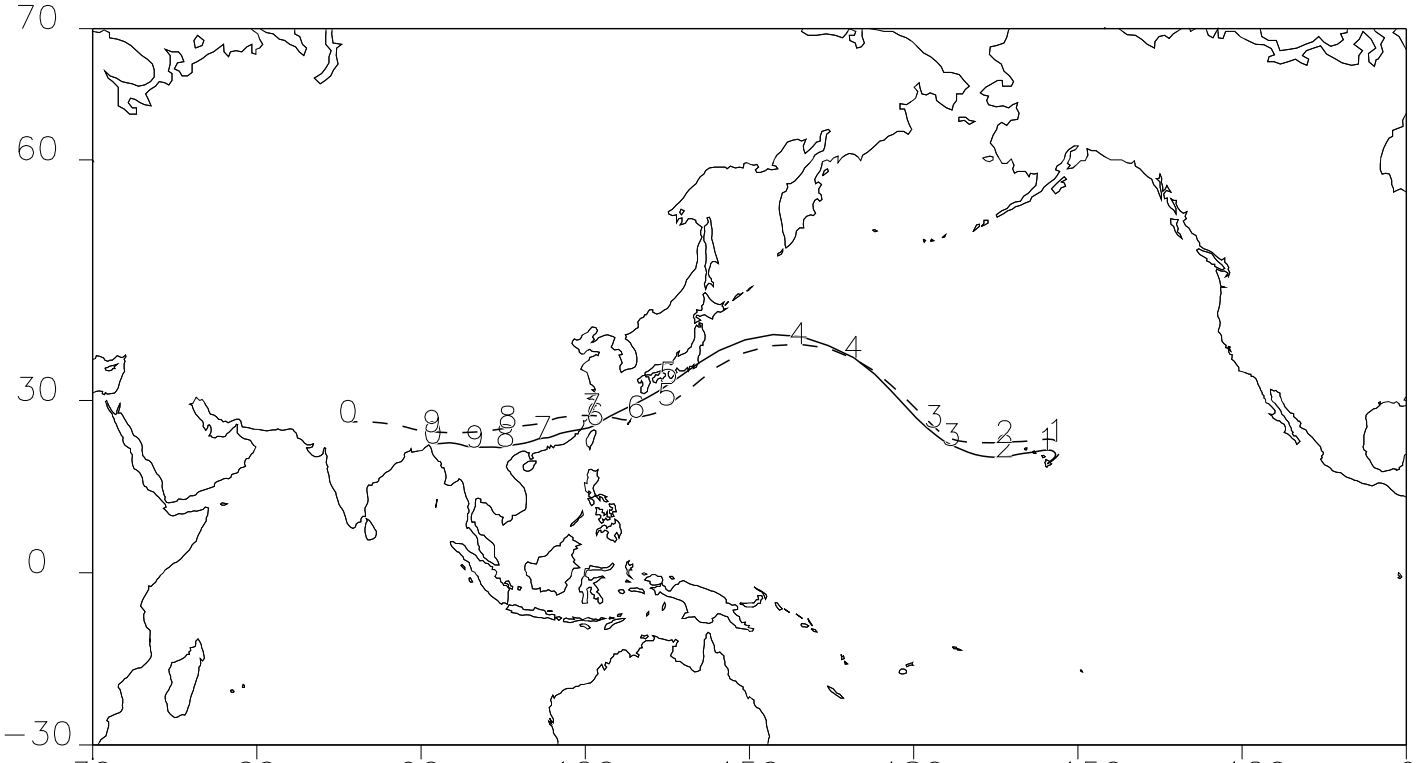
Day	km	hPa	C
0	8.0	379	-22
1	8.8	340	-28
2	9.0	330	-28
3	8.9	333	-26
4	8.0	378	-20
5	8.2	369	-21
6	6.9	436	-11
7	6.3	475	-6
8	5.4	529	-2
9	4.9	565	1
10	5.1	552	1

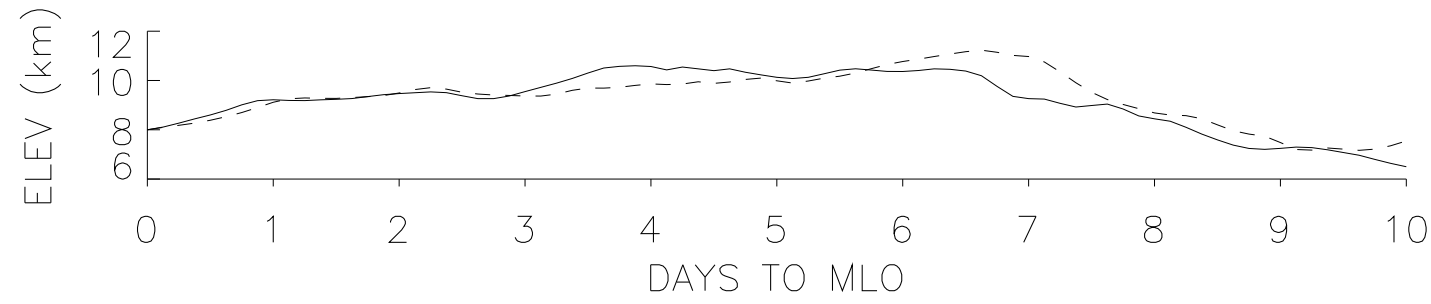
18UT

Day	km	hPa	C
0	8.0	379	-22
1	9.0	331	-30
2	9.1	324	-29
3	9.0	331	-27
4	8.7	341	-26
5	9.5	304	-35
6	11.4	229	-50
7	11.5	220	-51
8	10.1	278	-39
9	10.6	253	-44
10	10.8	252	-42

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





00UT

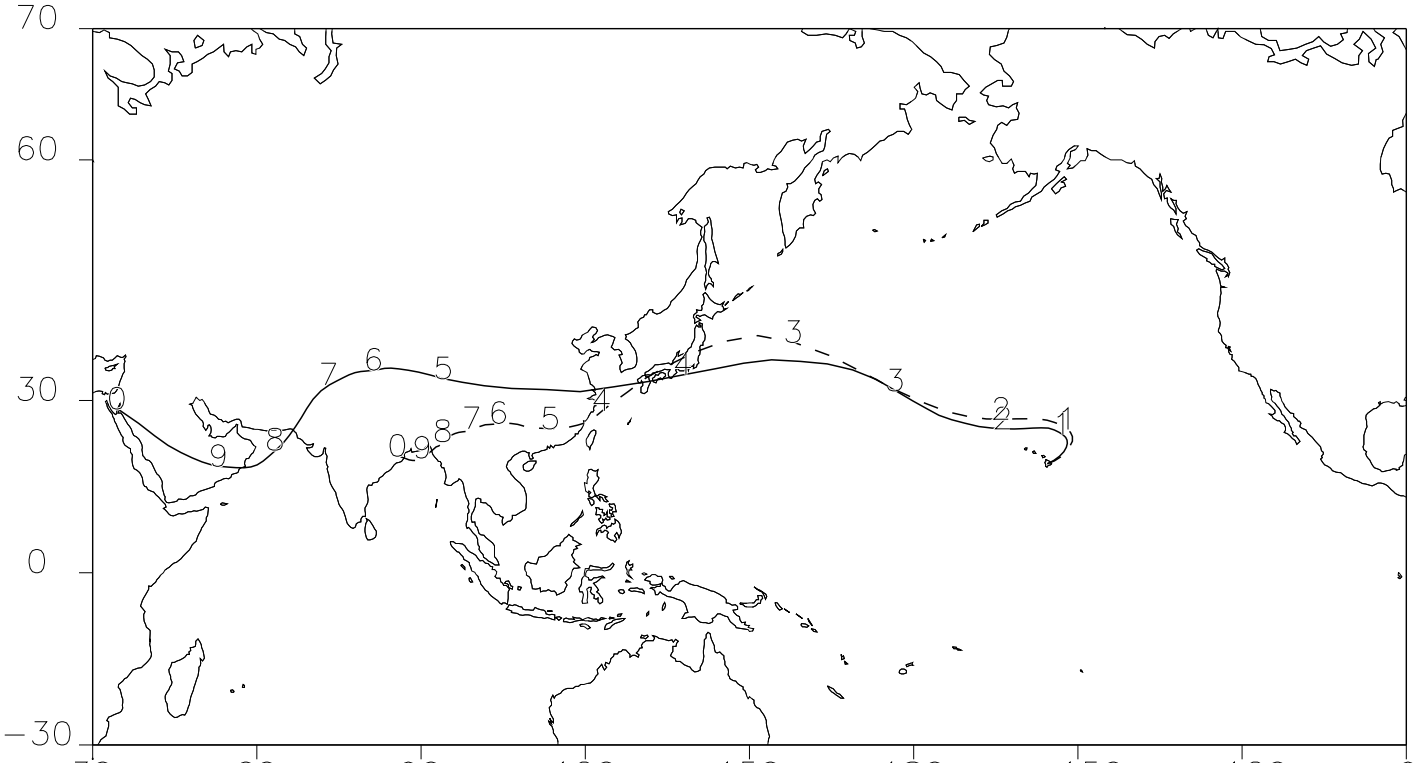
Day	km	hPa	C
0	8.0	380	-22
1	9.2	320	-32
2	9.5	307	-33
3	9.5	304	-31
4	10.6	259	-40
5	10.1	281	-34
6	10.4	273	-35
7	9.3	320	-26
8	8.4	357	-19
9	7.2	416	-12
10	6.5	459	-7

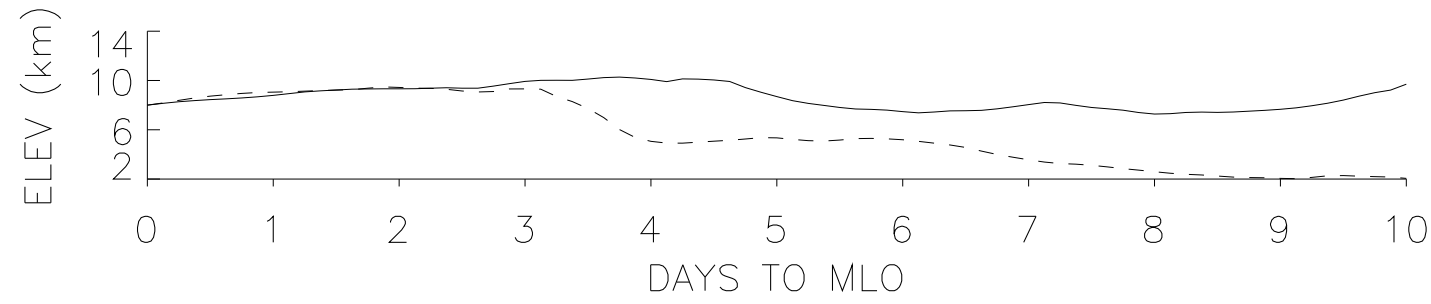
06UT

Day	km	hPa	C
0	8.0	380	-21
1	9.1	324	-30
2	9.5	306	-33
3	9.4	311	-32
4	9.9	286	-35
5	10.0	288	-33
6	10.8	258	-38
7	11.0	251	-39
8	8.7	345	-21
9	7.5	403	-12
10	7.5	401	-14

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

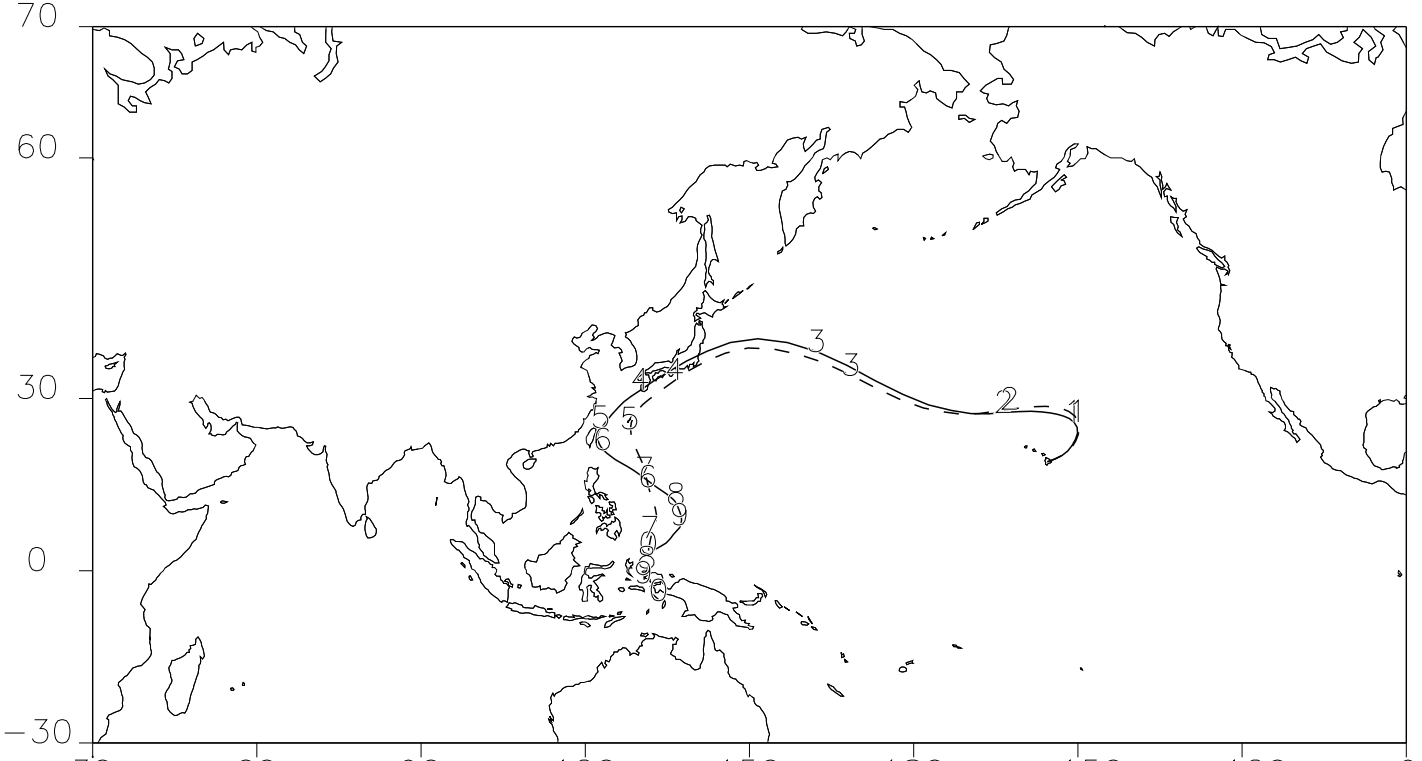
Day	km	hPa	C
0	8.0	379	−21
1	8.8	340	−28
2	9.3	312	−31
3	9.9	285	−38
4	10.1	276	−40
5	8.7	340	−27
6	7.5	405	−17
7	8.0	374	−22
8	7.3	415	−15
9	7.7	394	−19
10	9.7	295	−37

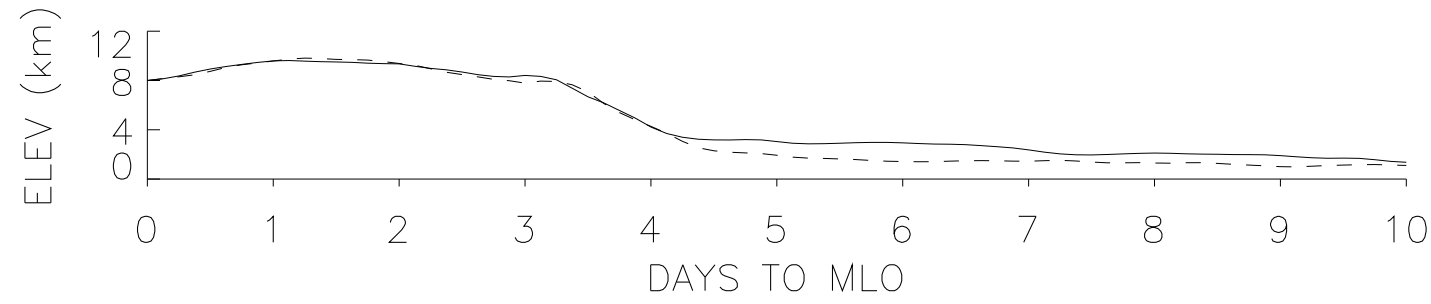
18UT

Day	km	hPa	C
0	8.0	380	−21
1	9.1	327	−30
2	9.4	306	−33
3	9.3	306	−33
4	5.1	548	−4
5	5.3	533	−3
6	5.2	544	−2
7	3.6	664	8
8	2.6	744	14
9	2.1	793	19
10	2.1	793	21

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





00UT

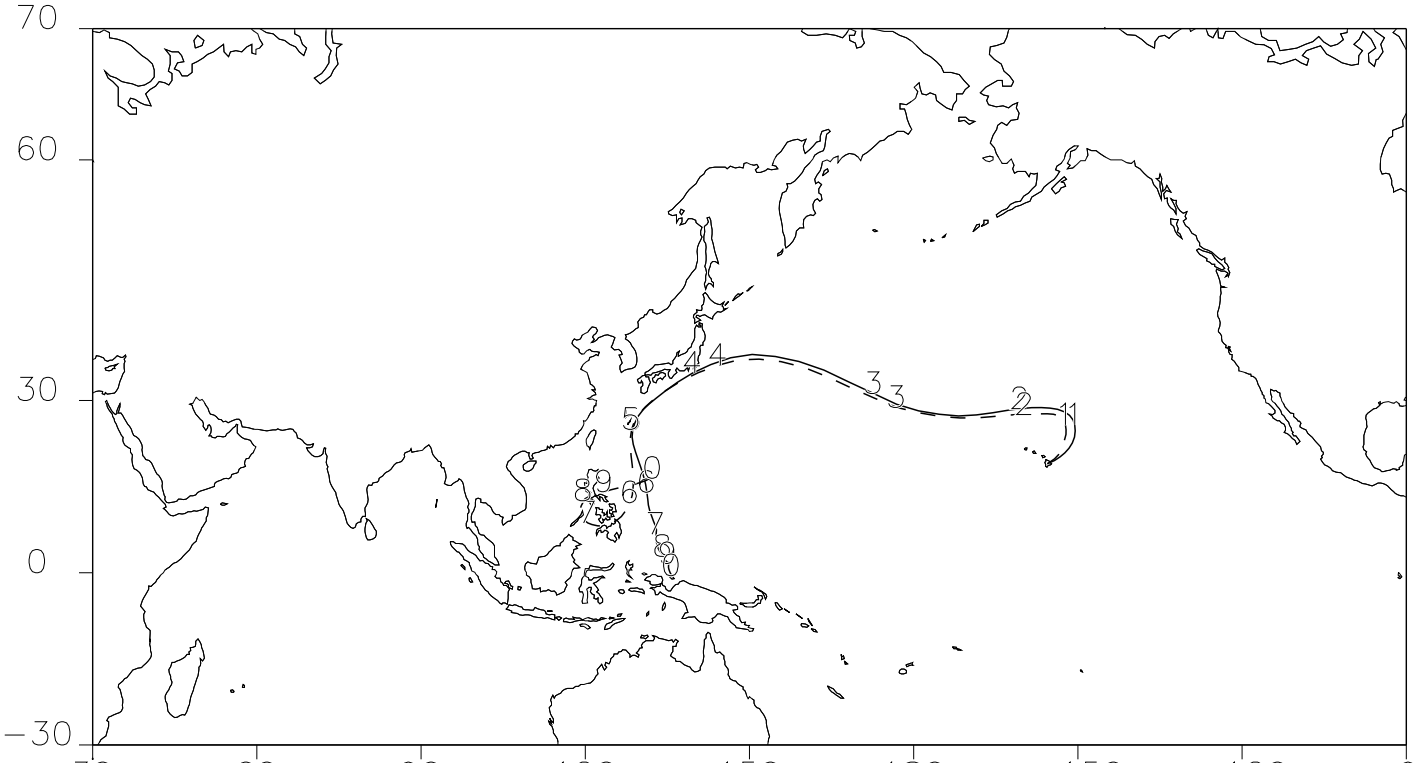
Day	km	hPa	C
0	8.0	380	-20
1	9.6	304	-33
2	9.3	311	-32
3	8.4	348	-26
4	4.2	607	0
5	3.0	708	10
6	2.9	718	11
7	2.4	768	13
8	2.1	793	15
9	1.9	812	17
10	1.4	862	20

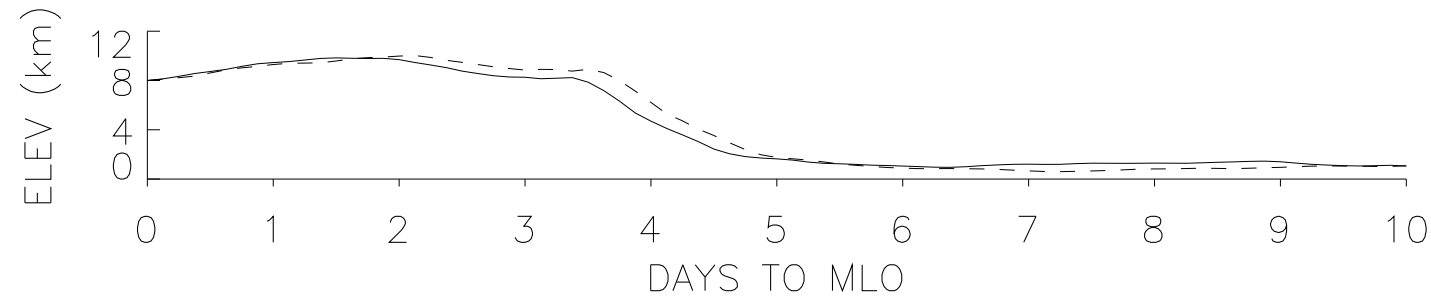
06UT

Day	km	hPa	C
0	8.0	380	-20
1	9.6	305	-33
2	9.4	310	-30
3	7.8	381	-19
4	4.3	603	1
5	1.9	808	17
6	1.4	859	19
7	1.4	854	19
8	1.3	868	20
9	1.0	898	22
10	1.1	887	19

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

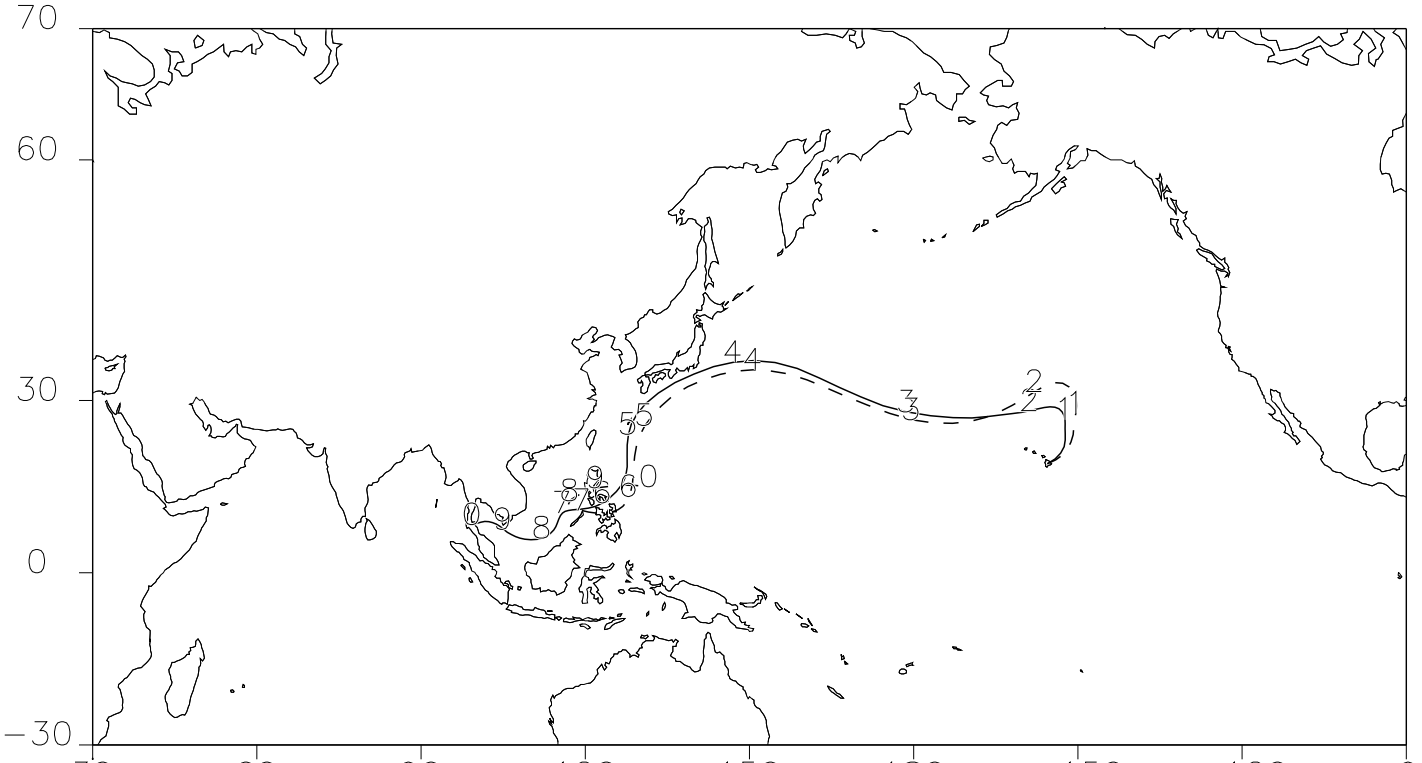
Day	km	hPa	C
0	8.0	379	-21
1	9.5	310	-32
2	9.7	297	-34
3	8.3	358	-23
4	4.7	573	0
5	1.6	836	18
6	1.1	898	22
7	1.2	881	21
8	1.3	871	20
9	1.4	860	19
10	1.1	894	21

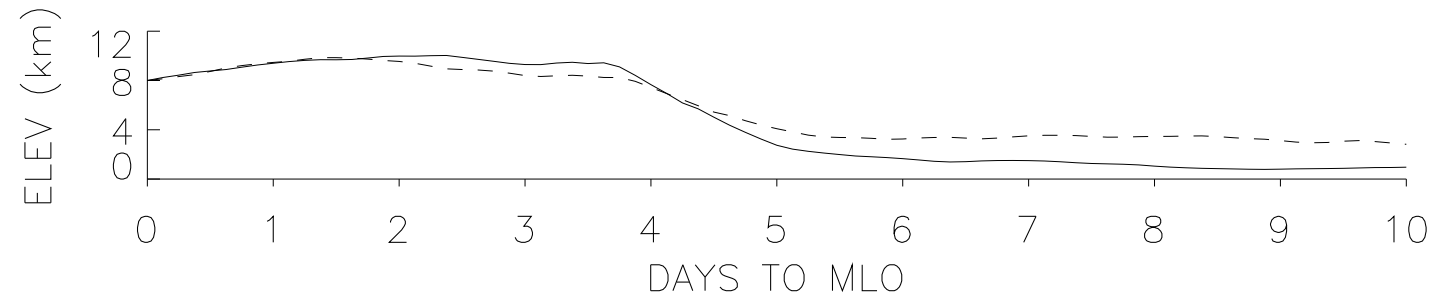
18UT

Day	km	hPa	C
0	8.0	380	-21
1	9.3	318	-31
2	10.0	286	-36
3	8.8	330	-27
4	6.2	474	-8
5	1.8	822	17
6	0.9	912	23
7	0.7	935	24
8	0.8	920	22
9	0.9	906	19
10	1.1	895	19

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

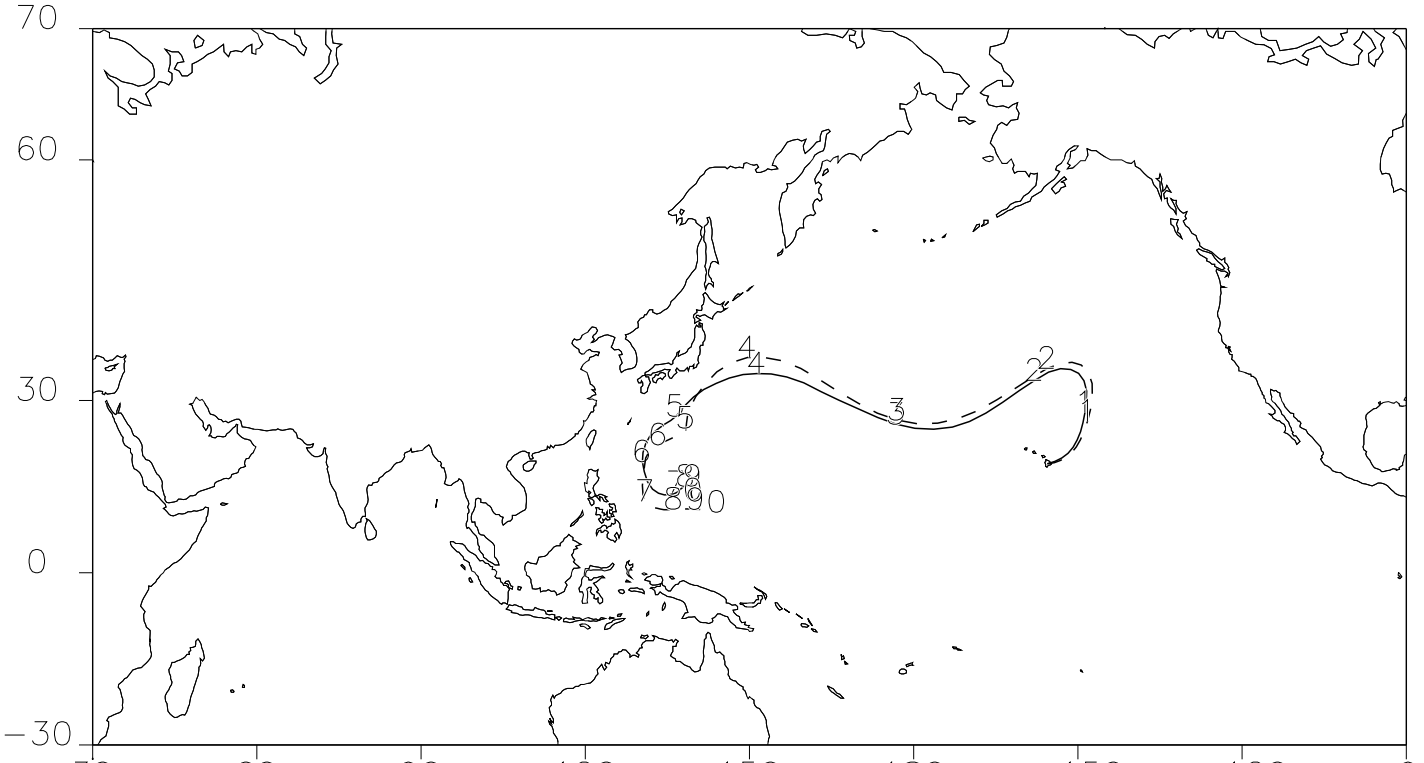
Day	km	hPa	C
0	8.0	379	−20
1	9.4	314	−31
2	10.0	288	−35
3	9.3	312	−29
4	7.7	392	−16
5	2.7	731	13
6	1.7	833	18
7	1.5	850	19
8	1.1	894	21
9	0.8	921	24
10	1.0	903	23

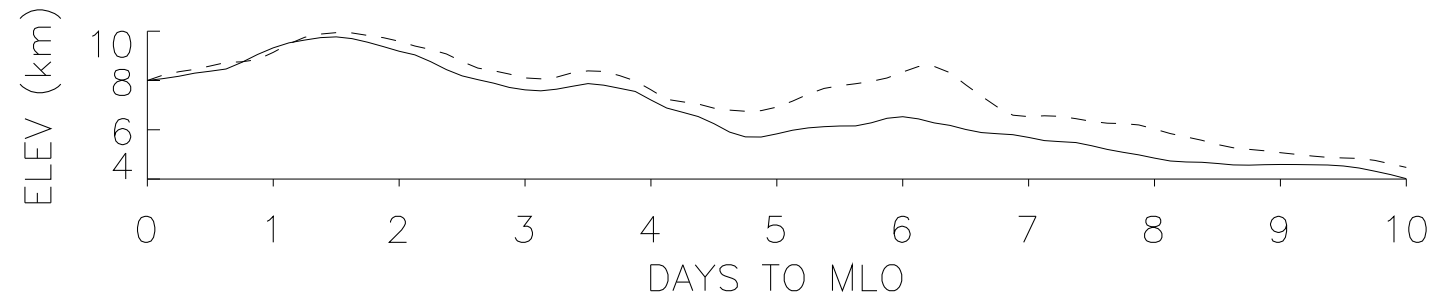
06UT

Day	km	hPa	C
0	8.0	379	−20
1	9.5	310	−32
2	9.5	305	−32
3	8.4	354	−22
4	7.4	405	−15
5	4.1	622	4
6	3.3	691	10
7	3.5	670	7
8	3.5	674	9
9	3.1	701	11
10	2.8	728	13

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

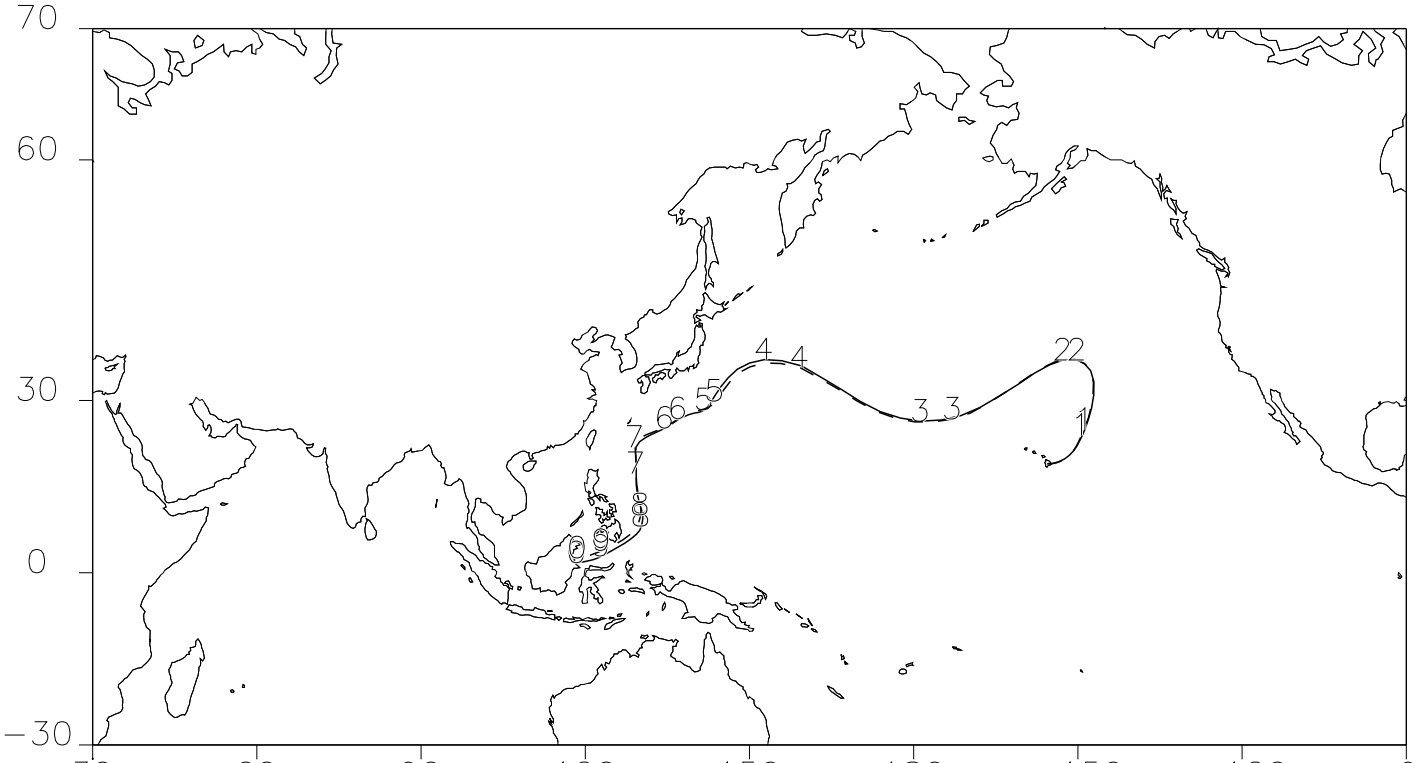
Day	km	hPa	C
0	8.0	379	−20
1	9.3	315	−31
2	9.2	320	−31
3	7.6	395	−15
4	7.2	419	−14
5	5.8	502	−5
6	6.5	459	−9
7	5.7	514	−3
8	4.8	570	1
9	4.6	588	3
10	4.0	632	7

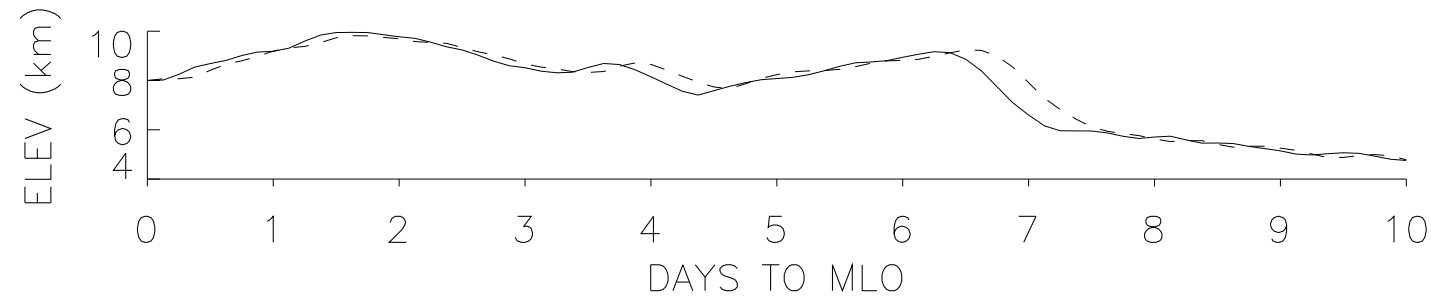
18UT

Day	km	hPa	C
0	8.0	380	−19
1	9.1	323	−30
2	9.6	302	−34
3	8.1	368	−20
4	7.6	394	−18
5	6.9	437	−11
6	8.3	362	−20
7	6.5	460	−9
8	6.0	491	−7
9	5.1	554	−1
10	4.5	596	2

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

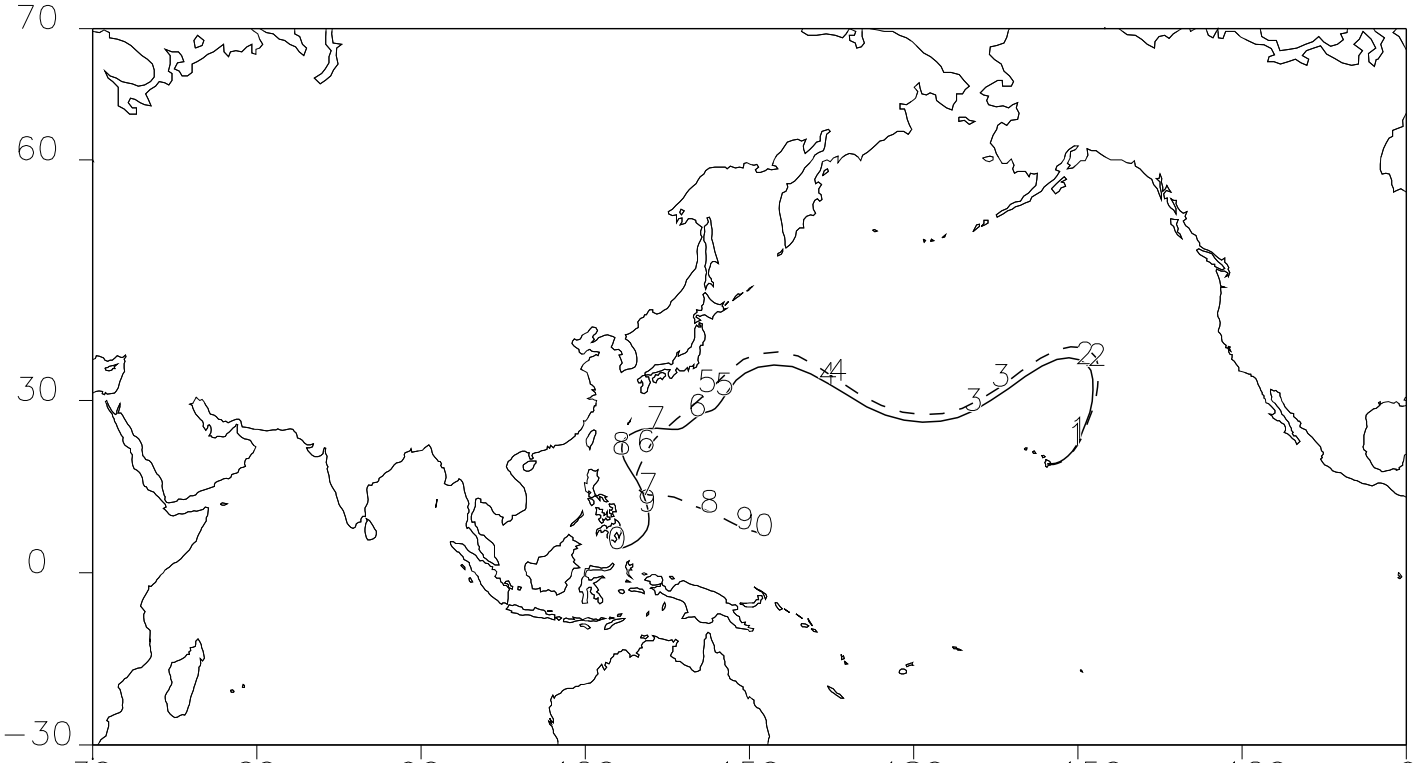
Day	km	hPa	C
0	8.0	380	-19
1	9.2	321	-30
2	9.8	296	-35
3	8.5	348	-23
4	8.2	367	-21
5	8.1	375	-19
6	8.9	333	-25
7	6.6	455	-10
8	5.7	512	-4
9	5.1	547	-1
10	4.8	575	2

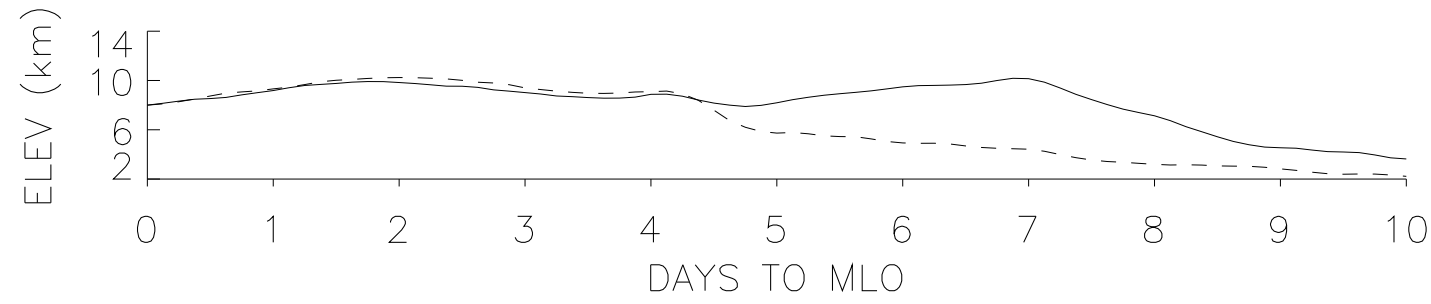
06UT

Day	km	hPa	C
0	8.0	379	-20
1	9.2	322	-30
2	9.7	299	-34
3	8.7	342	-24
4	8.7	342	-25
5	8.2	366	-20
6	8.8	338	-24
7	7.9	383	-17
8	5.6	516	-3
9	5.3	539	-2
10	4.8	571	2

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

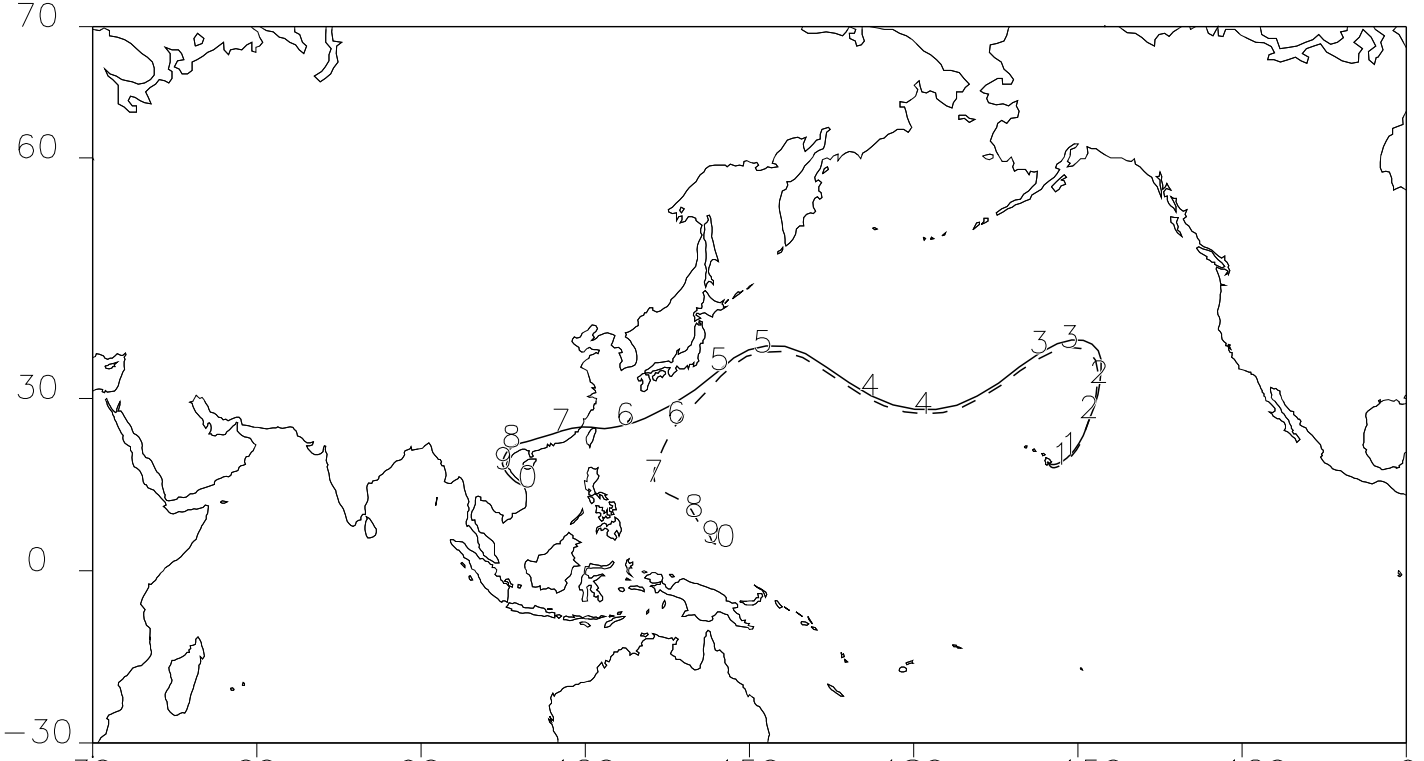
Day	km	hPa	C
0	8.0	379	−20
1	9.2	322	−30
2	9.8	293	−35
3	9.0	326	−28
4	8.9	332	−25
5	8.2	369	−20
6	9.5	309	−29
7	10.1	281	−35
8	7.1	426	−11
9	4.5	591	4
10	3.6	659	8

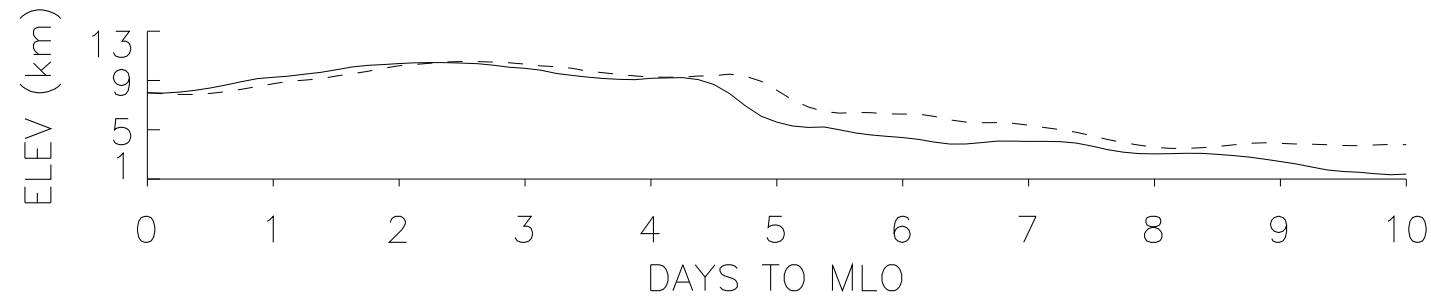
18UT

Day	km	hPa	C
0	8.0	379	−20
1	9.3	316	−31
2	10.2	276	−39
3	9.4	307	−32
4	9.1	319	−28
5	5.7	503	−4
6	4.9	559	−1
7	4.4	599	2
8	3.2	697	11
9	2.8	727	12
10	2.2	781	15

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

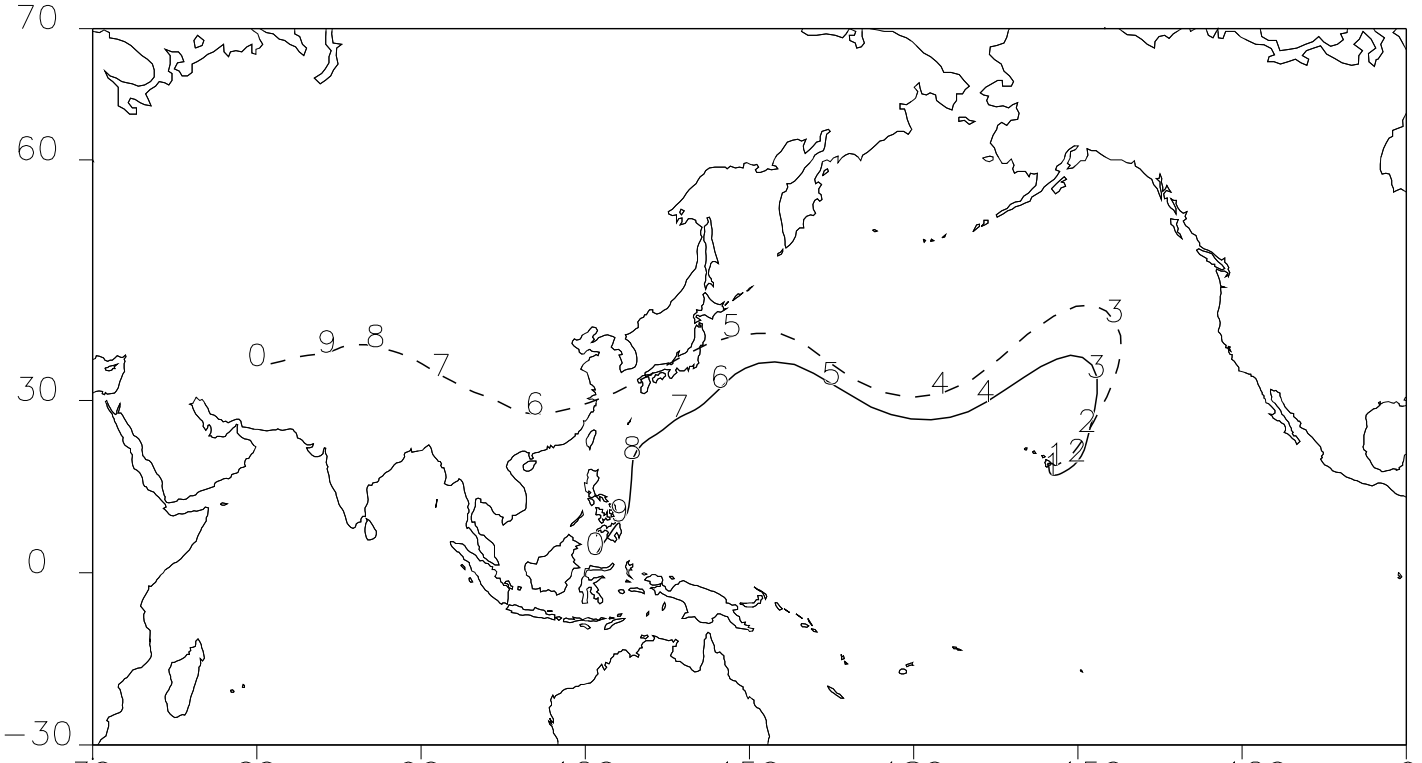
Day	km	hPa	C
0	8.0	379	-20
1	9.3	319	-31
2	10.4	270	-40
3	10.0	284	-37
4	9.2	316	-28
5	5.6	508	-3
6	4.4	597	3
7	4.1	622	5
8	3.0	707	10
9	2.4	762	14
10	1.4	858	21

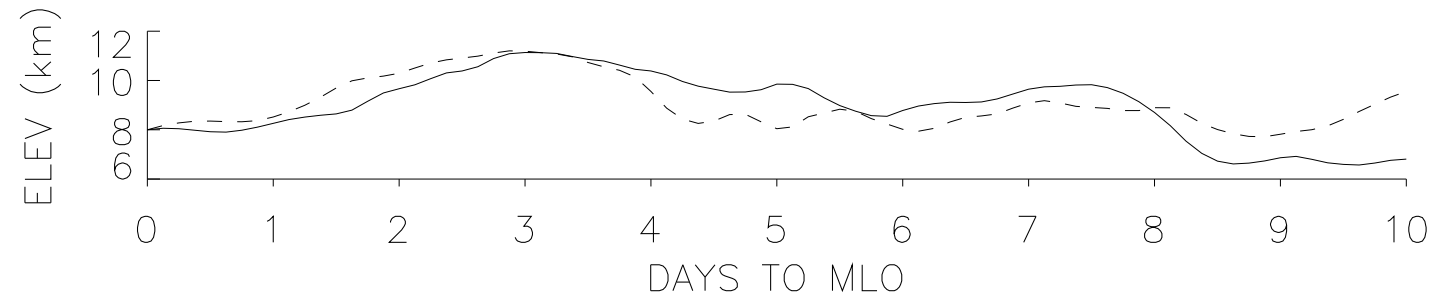
06UT

Day	km	hPa	C
0	8.0	379	-21
1	8.7	343	-26
2	10.2	278	-38
3	10.3	272	-39
4	9.3	313	-29
5	8.2	362	-22
6	6.3	472	-7
7	5.4	532	-3
8	3.6	664	10
9	3.9	639	5
10	3.8	647	7

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





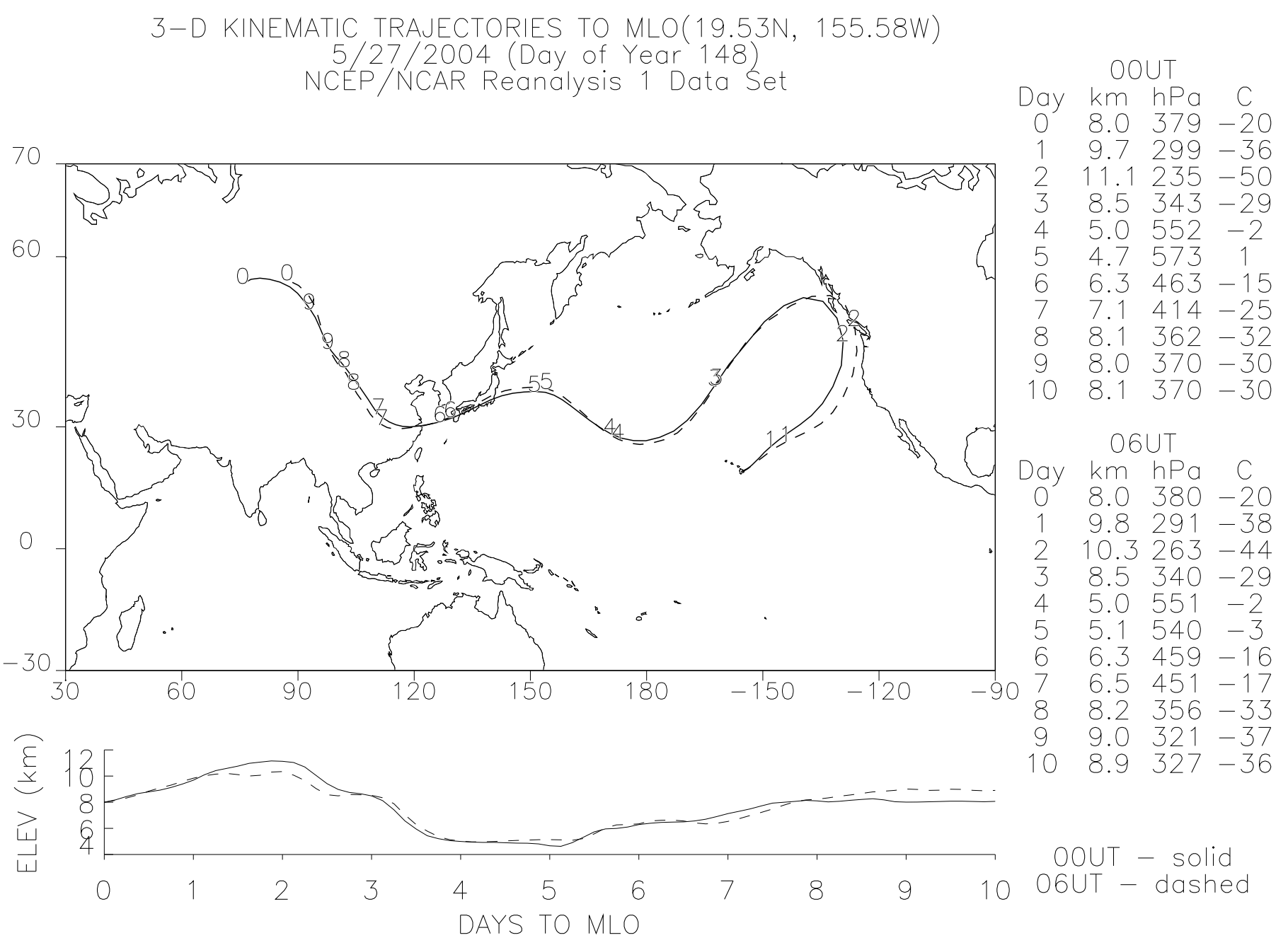
12UT

Day	km	hPa	C
0	8.0	378	-21
1	8.3	365	-22
2	9.7	300	-34
3	11.1	242	-46
4	10.4	268	-39
5	9.9	290	-32
6	8.8	340	-24
7	9.6	302	-30
8	8.7	344	-21
9	6.9	442	-10
10	6.8	443	-10

18UT

Day	km	hPa	C
0	8.0	380	-20
1	8.5	354	-24
2	10.3	274	-39
3	11.2	238	-49
4	9.6	294	-34
5	8.0	366	-21
6	8.0	370	-22
7	9.1	320	-31
8	8.9	330	-30
9	7.8	384	-22
10	9.6	297	-38

12UT - solid
18UT - dashed



00UT

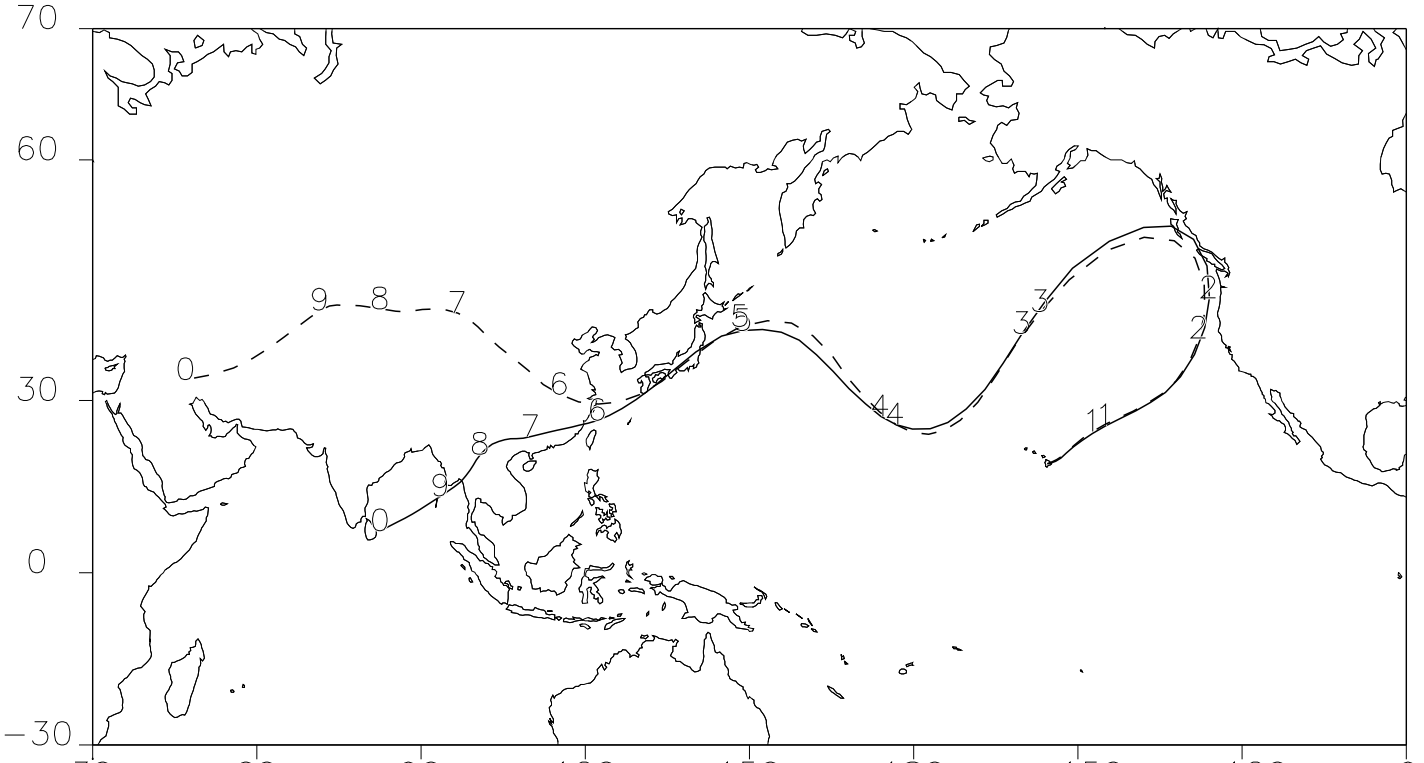
Day	km	hPa	C
0	8.0	379	−20
1	9.7	299	−36
2	11.1	235	−50
3	8.5	343	−29
4	5.0	552	−2
5	4.7	573	1
6	6.3	463	−15
7	7.1	414	−25
8	8.1	362	−32
9	8.0	370	−30
10	8.1	370	−30

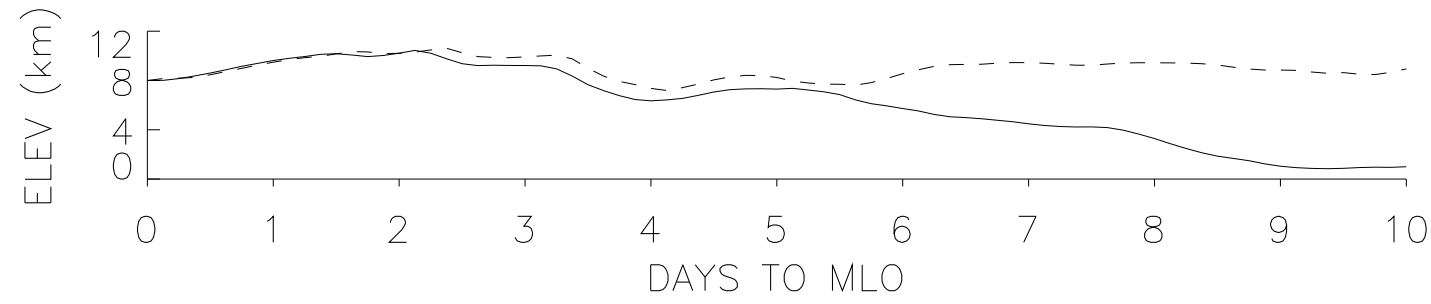
06UT

Day	km	hPa	C
0	8.0	380	−20
1	9.8	291	−38
2	10.3	263	−44
3	8.5	340	−29
4	5.0	551	−2
5	5.1	540	−3
6	6.3	459	−16
7	6.5	451	−17
8	8.2	356	−33
9	9.0	321	−37
10	8.9	327	−36

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

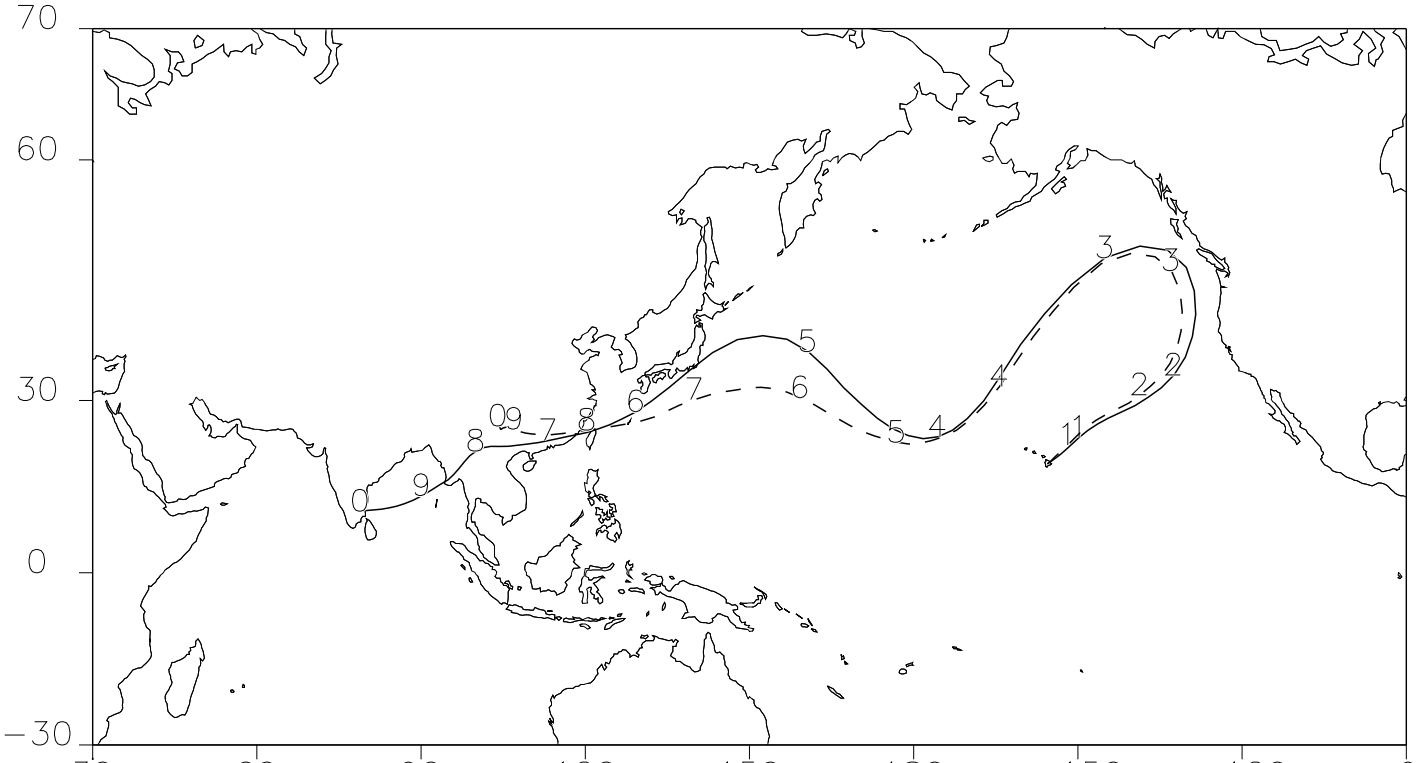
Day	km	hPa	C
0	8.0	378	−20
1	9.6	300	−37
2	10.2	269	−42
3	9.2	310	−32
4	6.4	465	−8
5	7.3	406	−16
6	5.7	501	−7
7	4.5	588	3
8	3.3	683	8
9	1.0	891	22
10	1.0	898	23

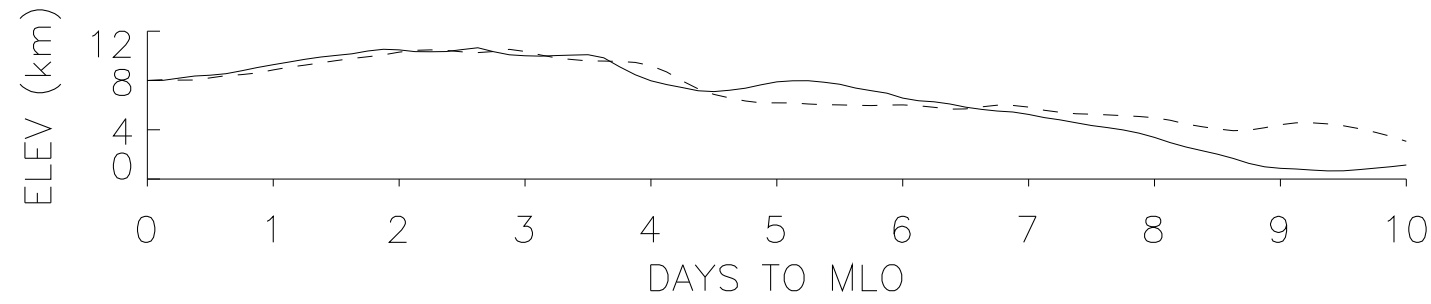
18UT

Day	km	hPa	C
0	8.0	379	−20
1	9.5	308	−34
2	10.2	272	−41
3	9.9	280	−39
4	7.4	407	−14
5	8.2	355	−25
6	8.6	341	−30
7	9.5	299	−41
8	9.4	301	−39
9	8.8	328	−35
10	8.9	322	−36

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

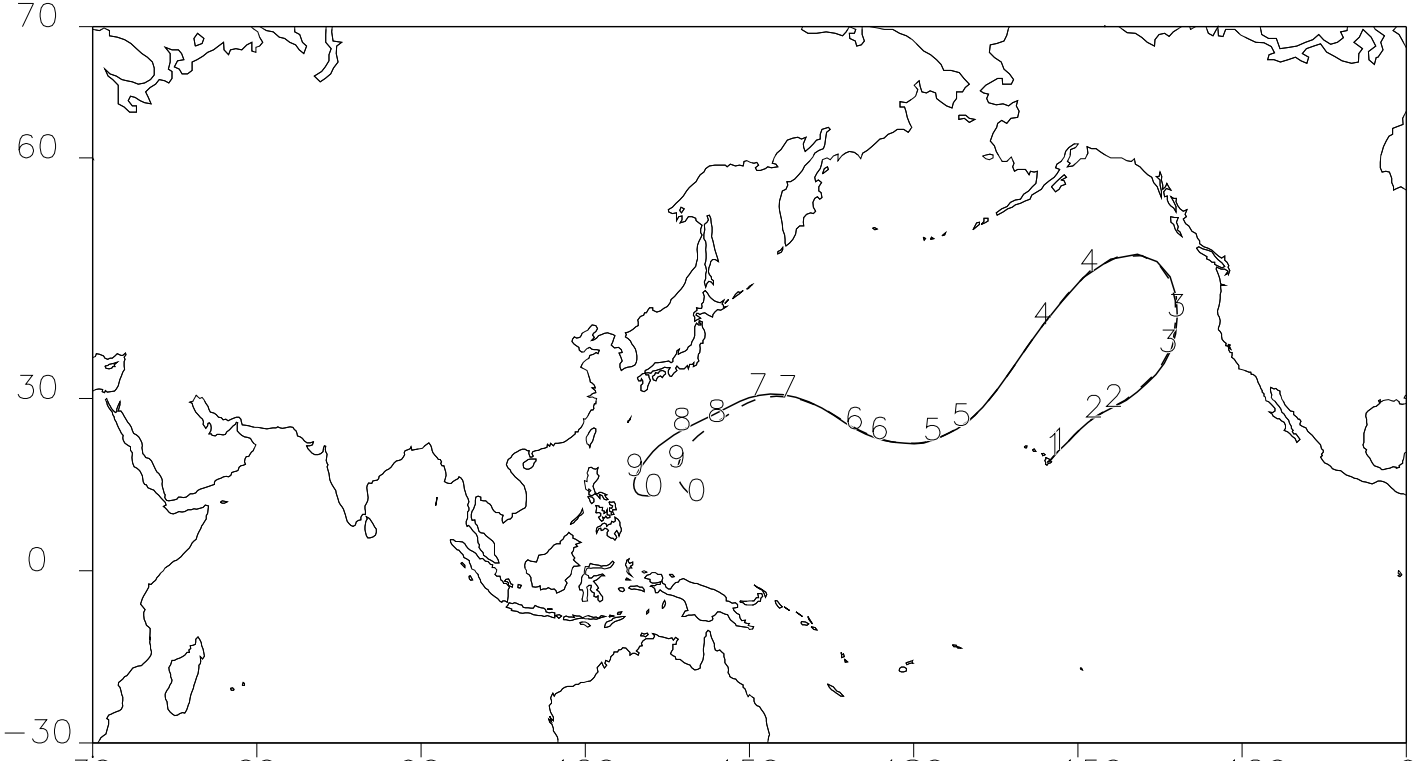
Day	km	hPa	C
0	8.0	378	-21
1	9.3	317	-32
2	10.5	264	-42
3	10.0	280	-39
4	8.0	378	-20
5	7.9	378	-20
6	6.6	451	-11
7	5.2	535	-2
8	3.4	674	7
9	0.9	907	24
10	1.1	883	21

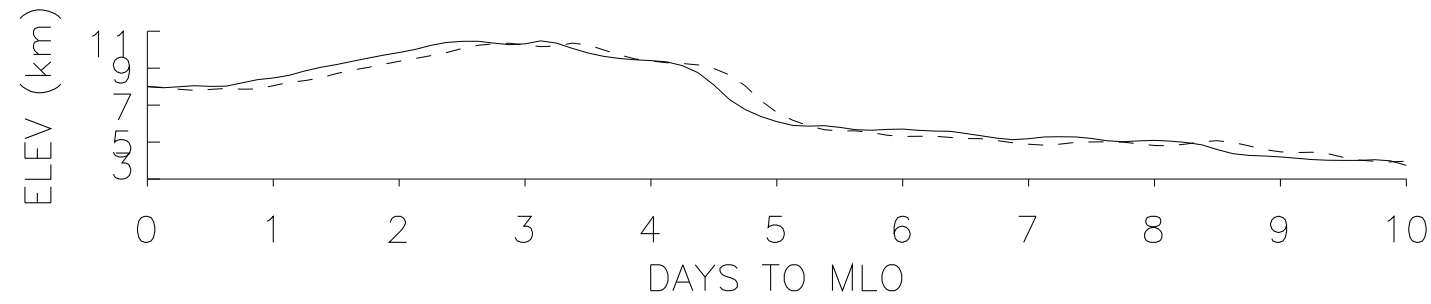
06UT

Day	km	hPa	C
0	8.0	378	-22
1	8.9	337	-28
2	10.3	274	-40
3	10.4	268	-41
4	9.2	315	-30
5	6.2	480	-7
6	6.0	489	-5
7	5.8	497	-5
8	5.0	553	1
9	4.4	596	1
10	3.1	705	8

00UT - solid
06UT - dashed

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





12UT

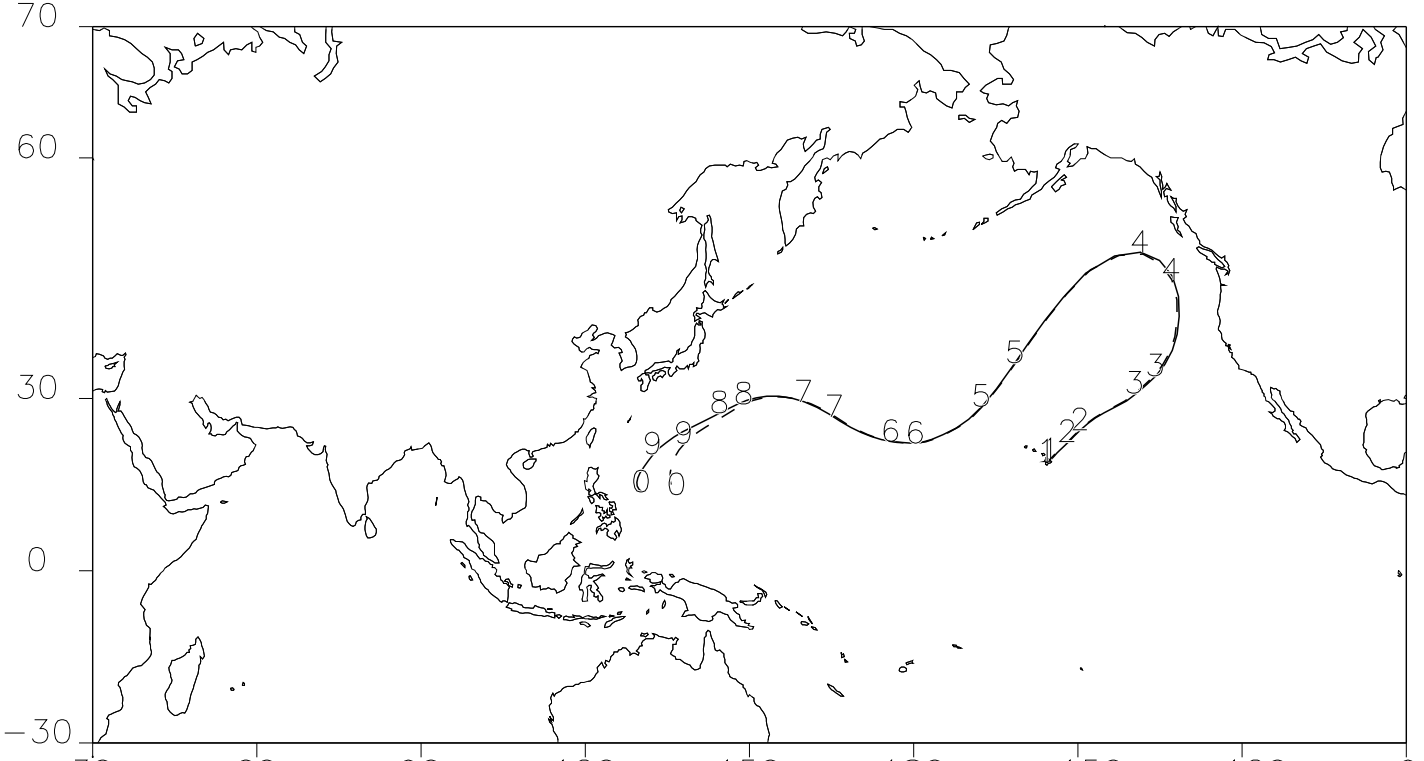
Day	km	hPa	C
0	8.0	377	-22
1	8.5	355	-25
2	9.8	292	-37
3	10.3	269	-41
4	9.4	305	-32
5	6.1	485	-7
6	5.7	511	-4
7	5.2	546	-1
8	5.1	551	0
9	4.2	615	4
10	3.7	652	6

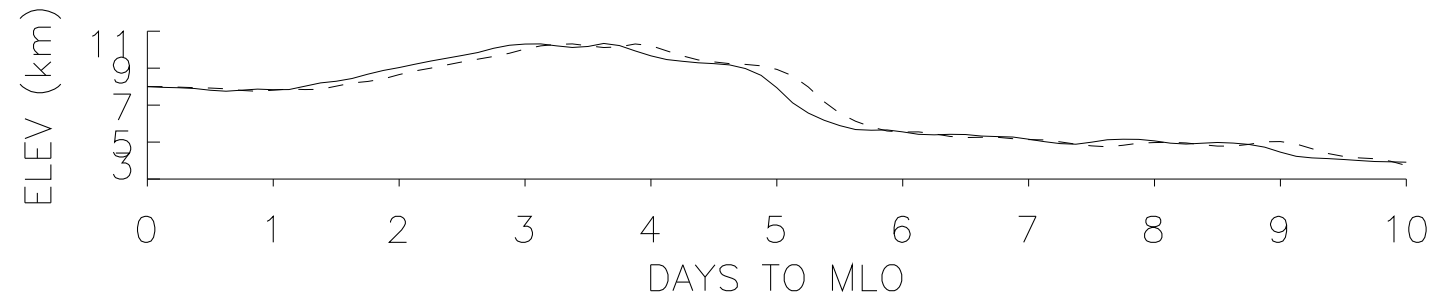
18UT

Day	km	hPa	C
0	8.0	377	-23
1	8.1	376	-21
2	9.4	313	-32
3	10.3	274	-39
4	9.4	307	-31
5	6.6	452	-11
6	5.3	536	-3
7	4.9	565	0
8	4.8	570	0
9	4.5	596	3
10	4.0	634	6

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

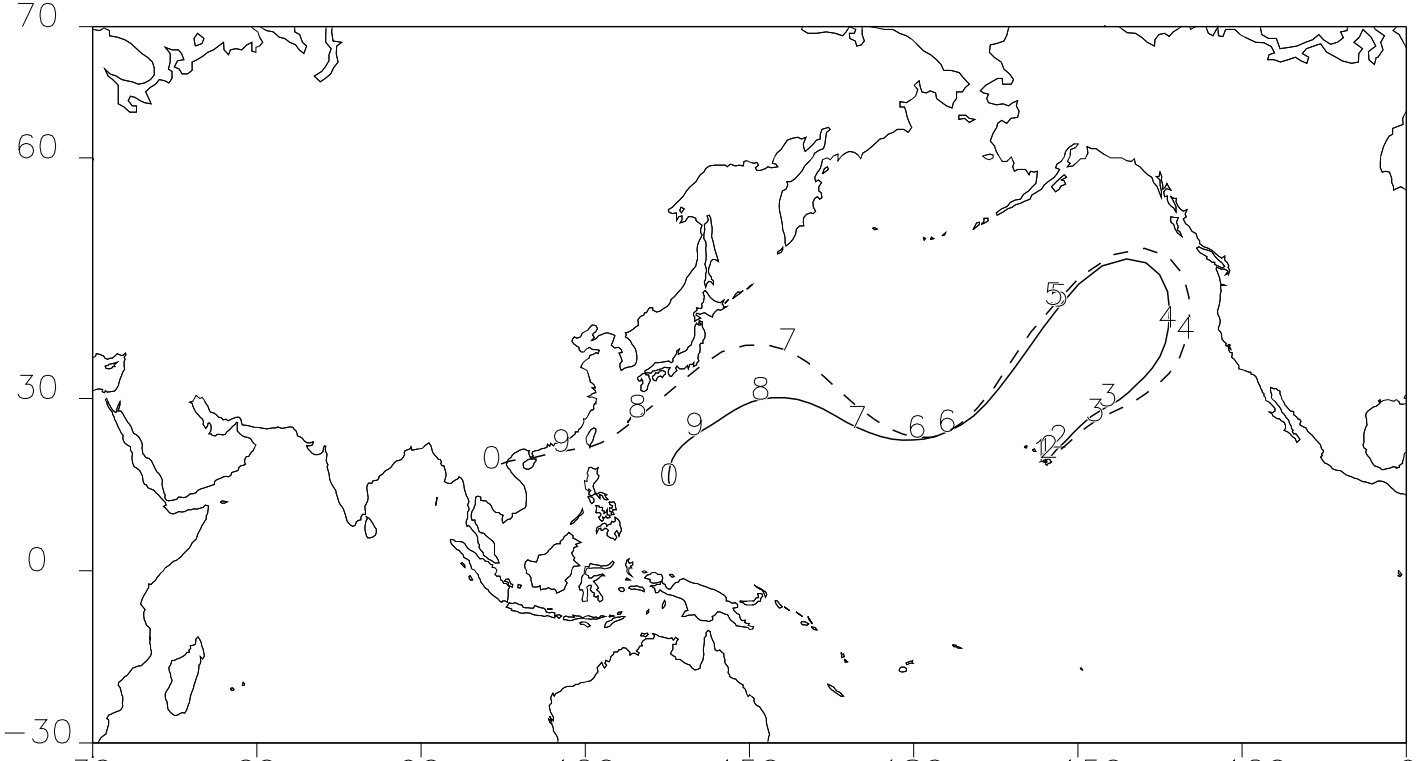
Day	km	hPa	C
0	8.0	376	−23
1	7.8	387	−20
2	9.0	329	−30
3	10.3	272	−40
4	9.7	296	−35
5	7.9	378	−21
6	5.6	521	−4
7	5.2	547	−1
8	5.1	553	−1
9	4.5	595	1
10	3.9	638	5

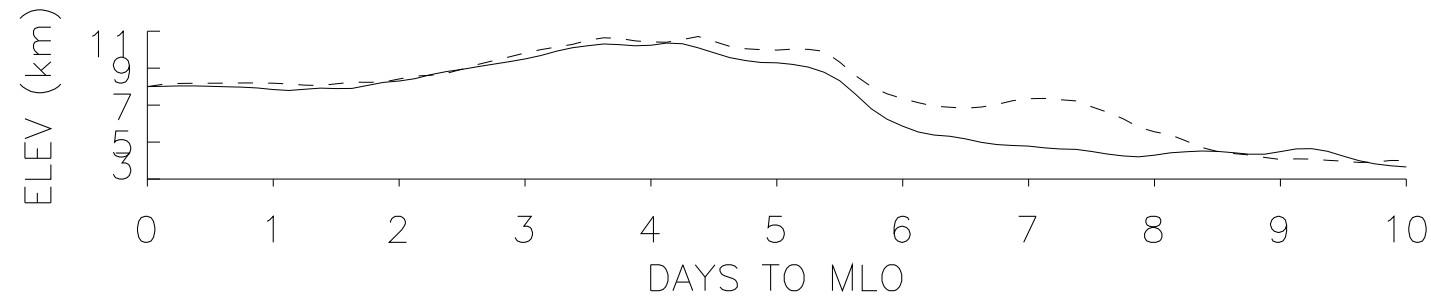
06UT

Day	km	hPa	C
0	8.0	376	−23
1	7.8	388	−20
2	8.7	347	−26
3	10.0	285	−37
4	10.2	273	−40
5	8.9	327	−28
6	5.5	521	−4
7	5.1	548	−1
8	5.0	559	−1
9	5.0	556	−1
10	3.7	652	7

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

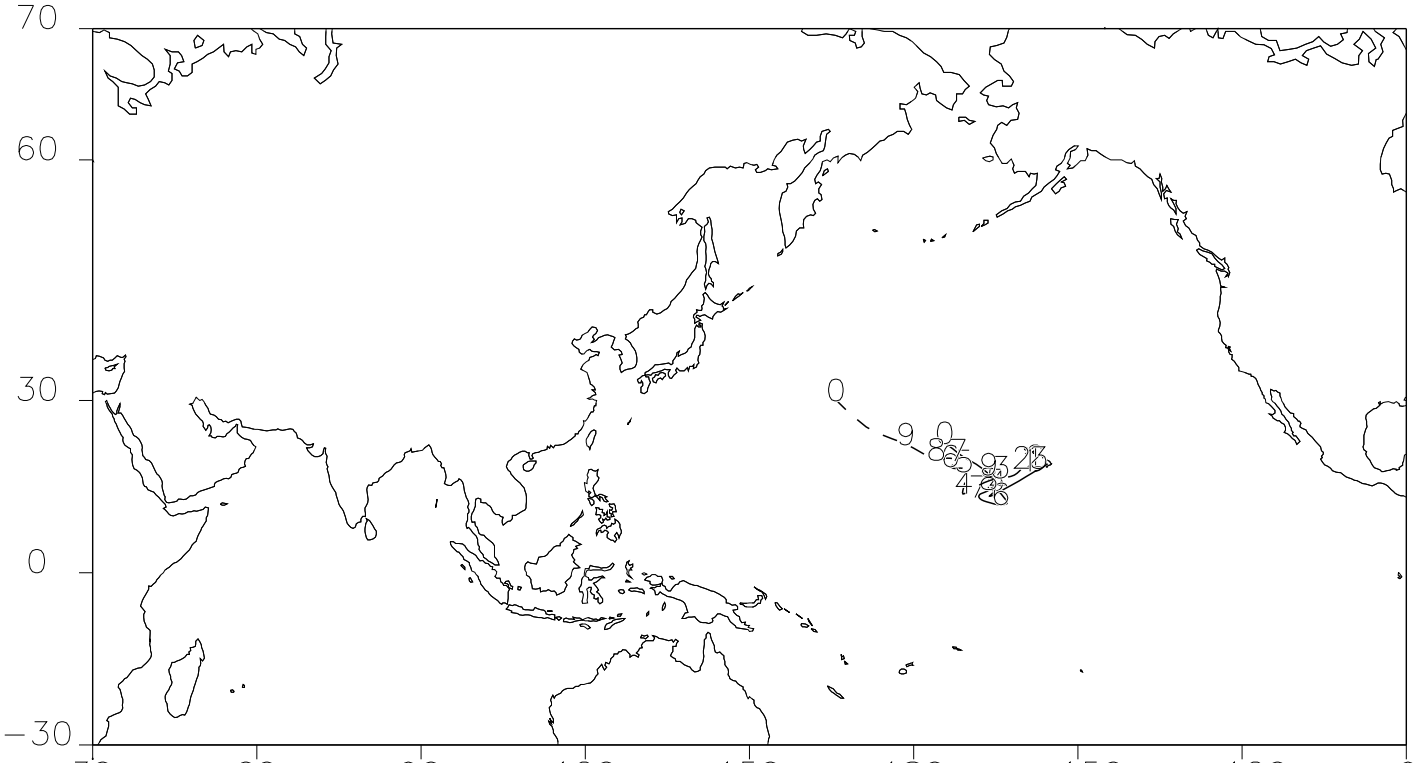
Day	km	hPa	C
0	8.0	376	-24
1	7.8	385	-21
2	8.3	363	-23
3	9.5	306	-34
4	10.2	273	-40
5	9.3	311	-30
6	5.9	500	-6
7	4.8	573	1
8	4.3	610	4
9	4.5	597	3
10	3.7	659	8

18UT

Day	km	hPa	C
0	8.0	376	-24
1	8.2	367	-24
2	8.4	358	-23
3	9.8	294	-36
4	10.4	265	-41
5	10.0	280	-38
6	7.4	410	-14
7	7.3	407	-15
8	5.6	515	-4
9	4.1	623	6
10	4.0	629	6

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

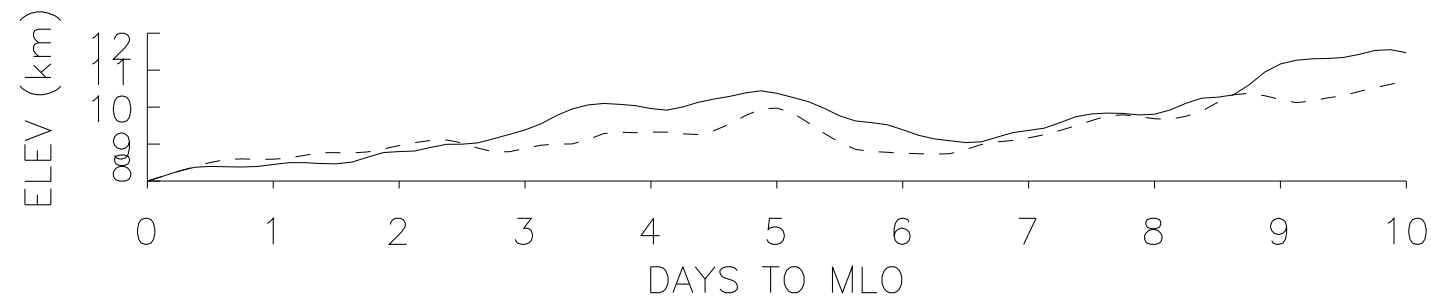


00UT

Day	km	hPa	C
0	8.0	377	-23
1	8.4	354	-26
2	8.8	339	-27
3	9.4	313	-31
4	10.0	287	-35
5	10.4	270	-38
6	9.4	312	-30
7	9.4	315	-30
8	9.8	295	-35
9	11.2	241	-45
10	11.5	229	-47

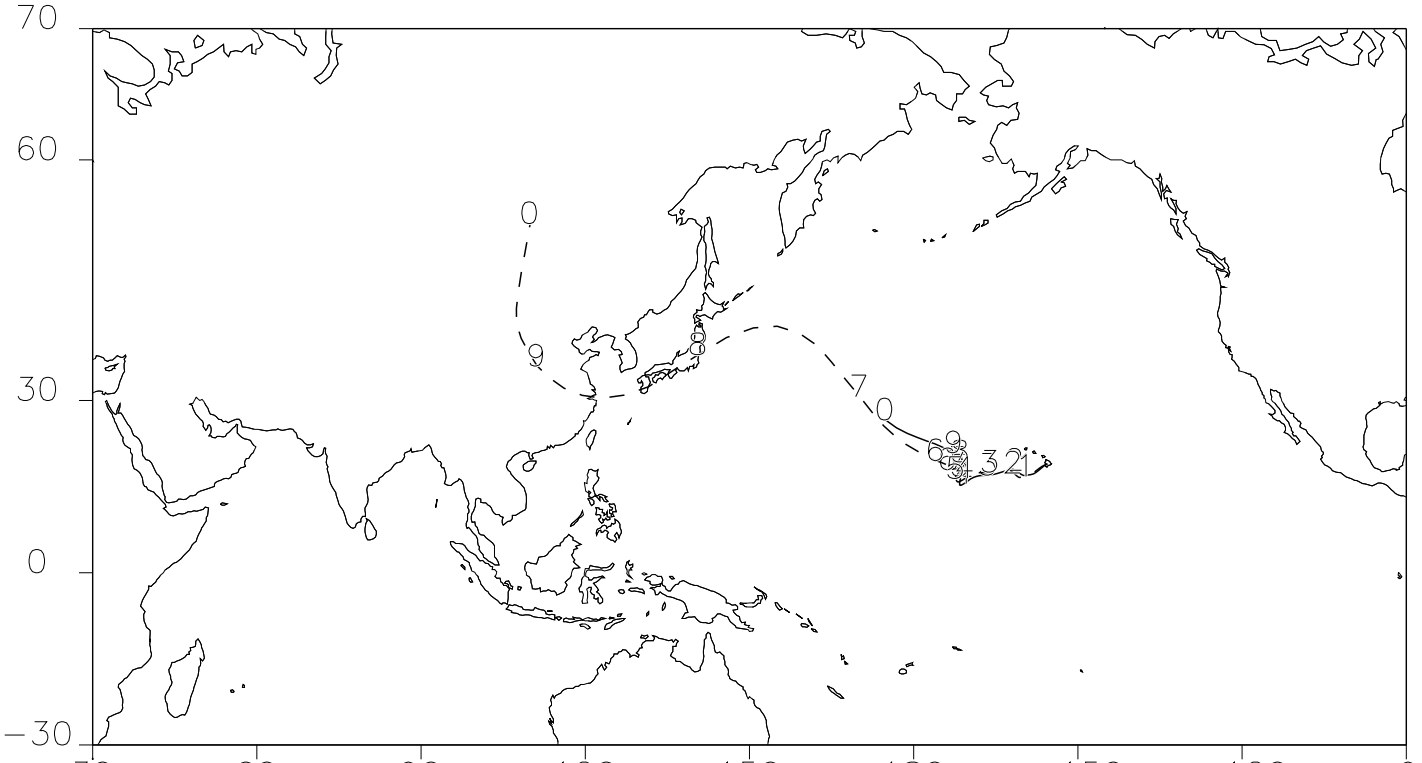
06UT

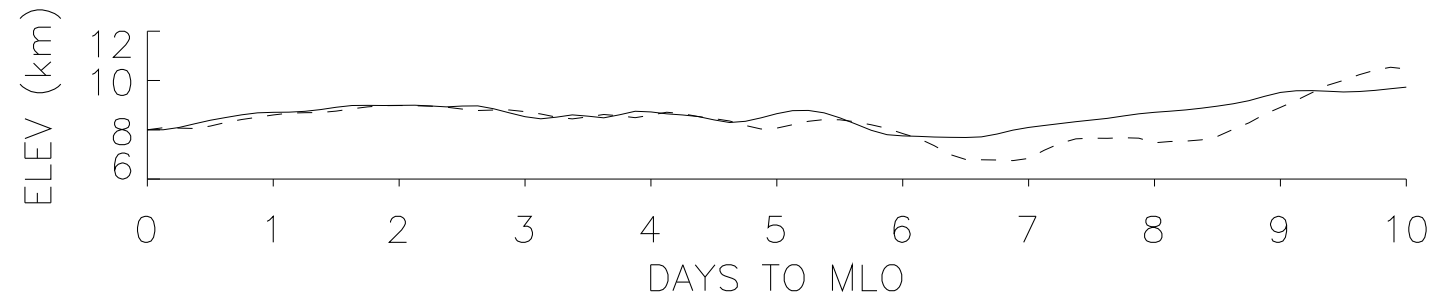
Day	km	hPa	C
0	8.0	377	-23
1	8.6	347	-27
2	9.0	331	-30
3	8.9	336	-26
4	9.3	315	-30
5	10.0	288	-35
6	8.8	342	-25
7	9.2	324	-28
8	9.7	301	-31
9	10.2	278	-36
10	10.7	258	-39



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





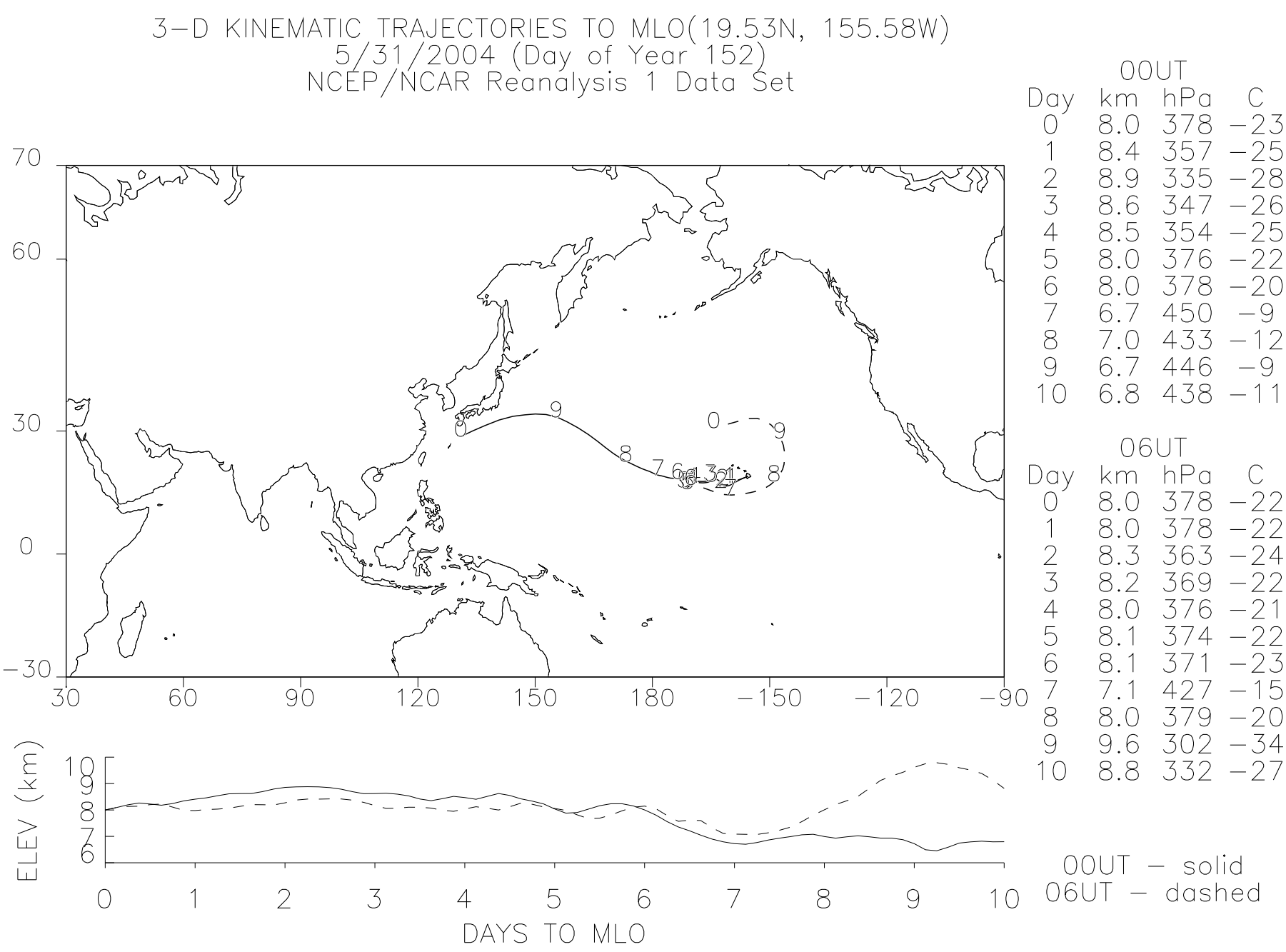
12UT

Day	km	hPa	C
0	8.0	377	-23
1	8.7	341	-28
2	9.0	329	-30
3	8.5	351	-25
4	8.7	342	-28
5	8.7	346	-26
6	7.8	392	-17
7	8.1	375	-20
8	8.7	345	-25
9	9.5	307	-31
10	9.7	297	-33

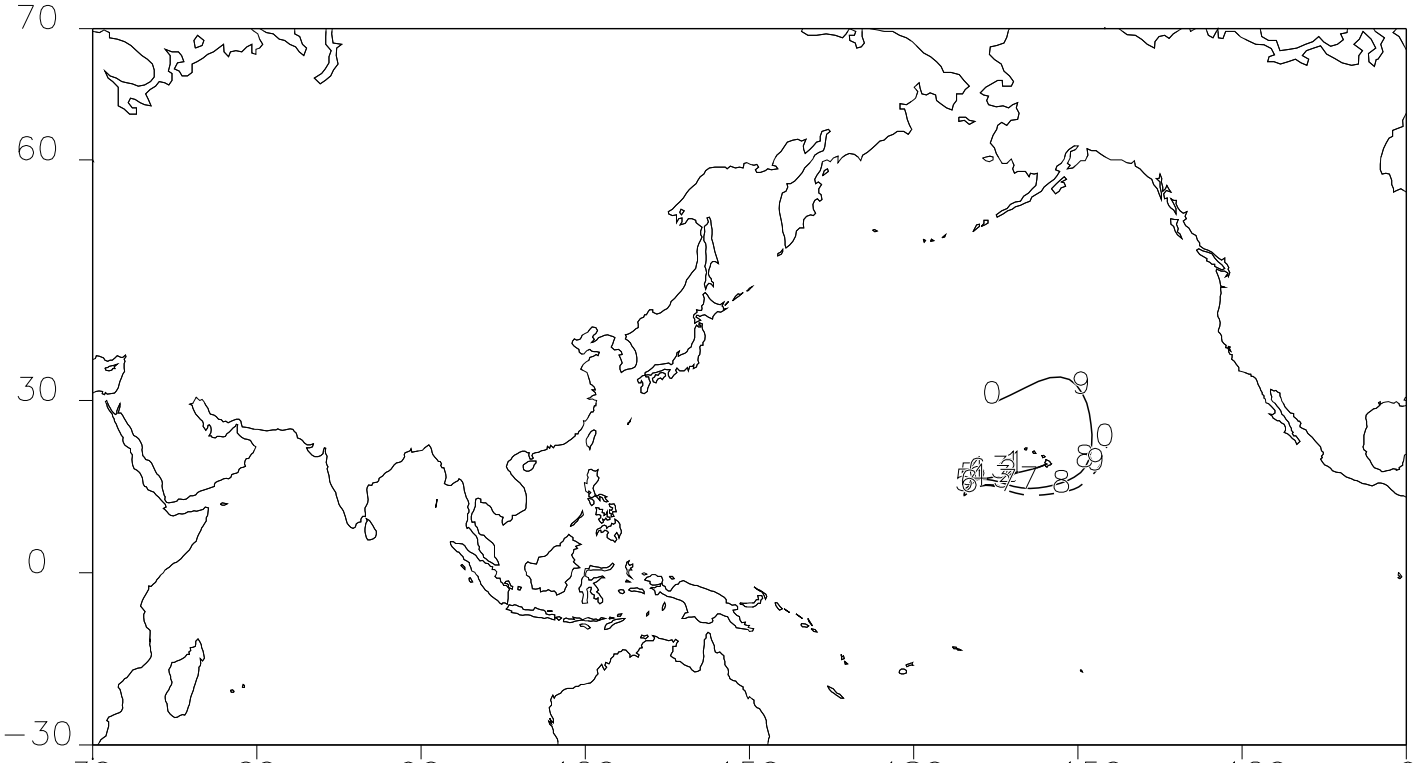
18UT

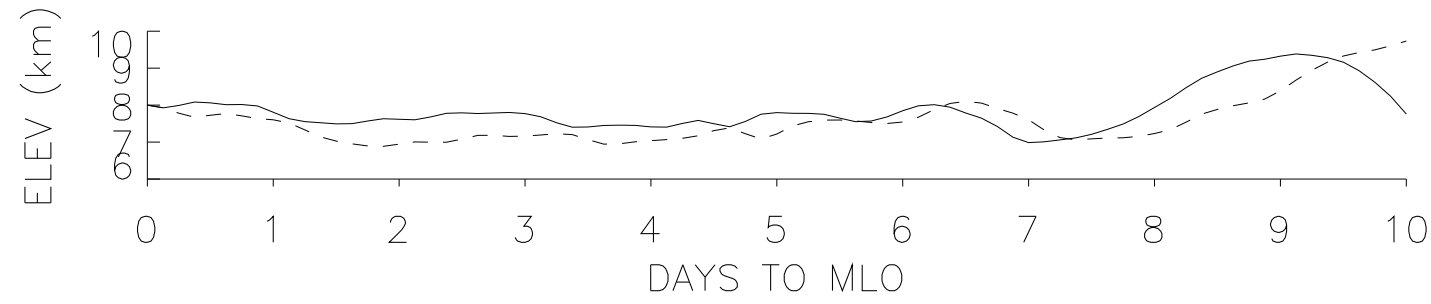
Day	km	hPa	C
0	8.0	377	-23
1	8.6	347	-27
2	9.0	329	-30
3	8.7	341	-27
4	8.6	348	-27
5	8.1	375	-22
6	7.8	386	-19
7	6.8	436	-11
8	7.5	394	-22
9	8.9	322	-37
10	10.5	249	-53

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
10
8
6
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
00UT
Day km hPa C
0 8.0 378 -23
1 8.4 357 -25
2 8.9 335 -28
3 8.6 347 -26
4 8.5 354 -25
5 8.0 376 -22
6 8.0 378 -20
7 6.7 450 -9
8 7.0 433 -12
9 6.7 446 -9
10 6.8 438 -11
06UT
Day km hPa C
0 8.0 378 -22
1 8.0 378 -22
2 8.3 363 -24
3 8.2 369 -22
4 8.0 376 -21
5 8.1 374 -22
6 8.1 371 -23
7 7.1 427 -15
8 8.0 379 -20
9 9.6 302 -34
10 8.8 332 -27
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	8.0	378	-23
1	7.8	387	-21
2	7.6	397	-19
3	7.8	389	-20
4	7.4	408	-16
5	7.8	388	-21
6	7.8	386	-21
7	7.0	432	-14
8	7.9	381	-20
9	9.3	315	-32
10	7.8	386	-20

18UT

Day	km	hPa	C
0	8.0	377	-23
1	7.6	398	-19
2	6.9	434	-14
3	7.2	422	-14
4	7.0	429	-13
5	7.2	419	-16
6	7.5	402	-18
7	7.6	398	-19
8	7.2	420	-15
9	8.4	359	-24
10	9.7	297	-36

12UT - solid
18UT - dashed