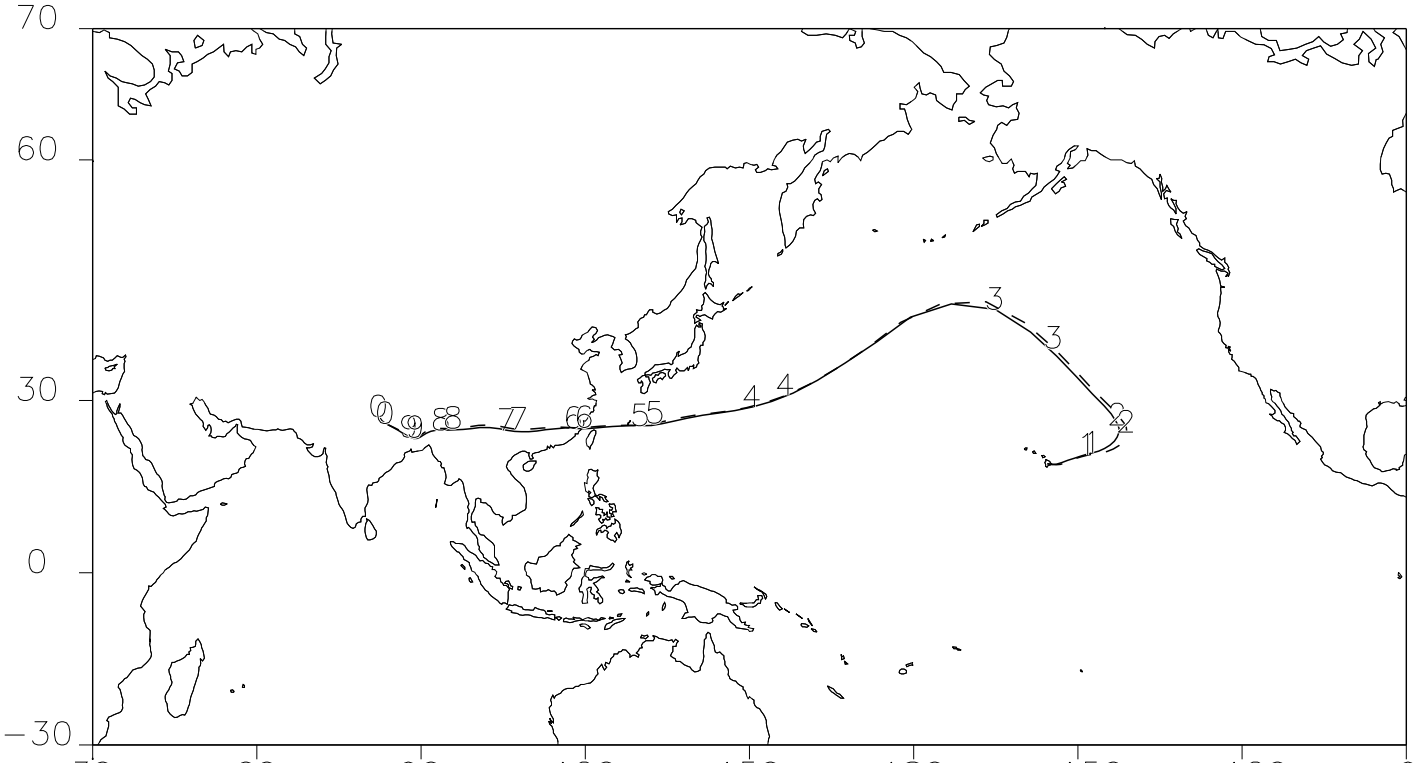
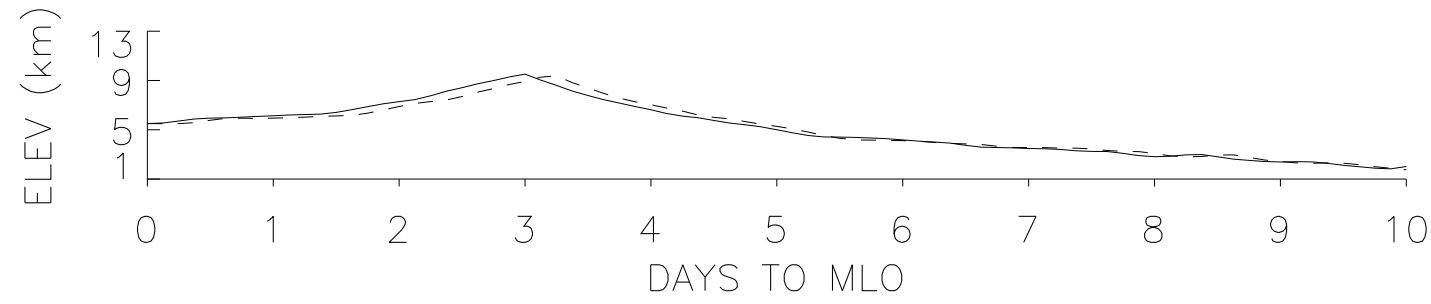
3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
4/1/2004 (Day of Year 92)
NCEP/NCAR Reanalysis 1 Data Set





00UT

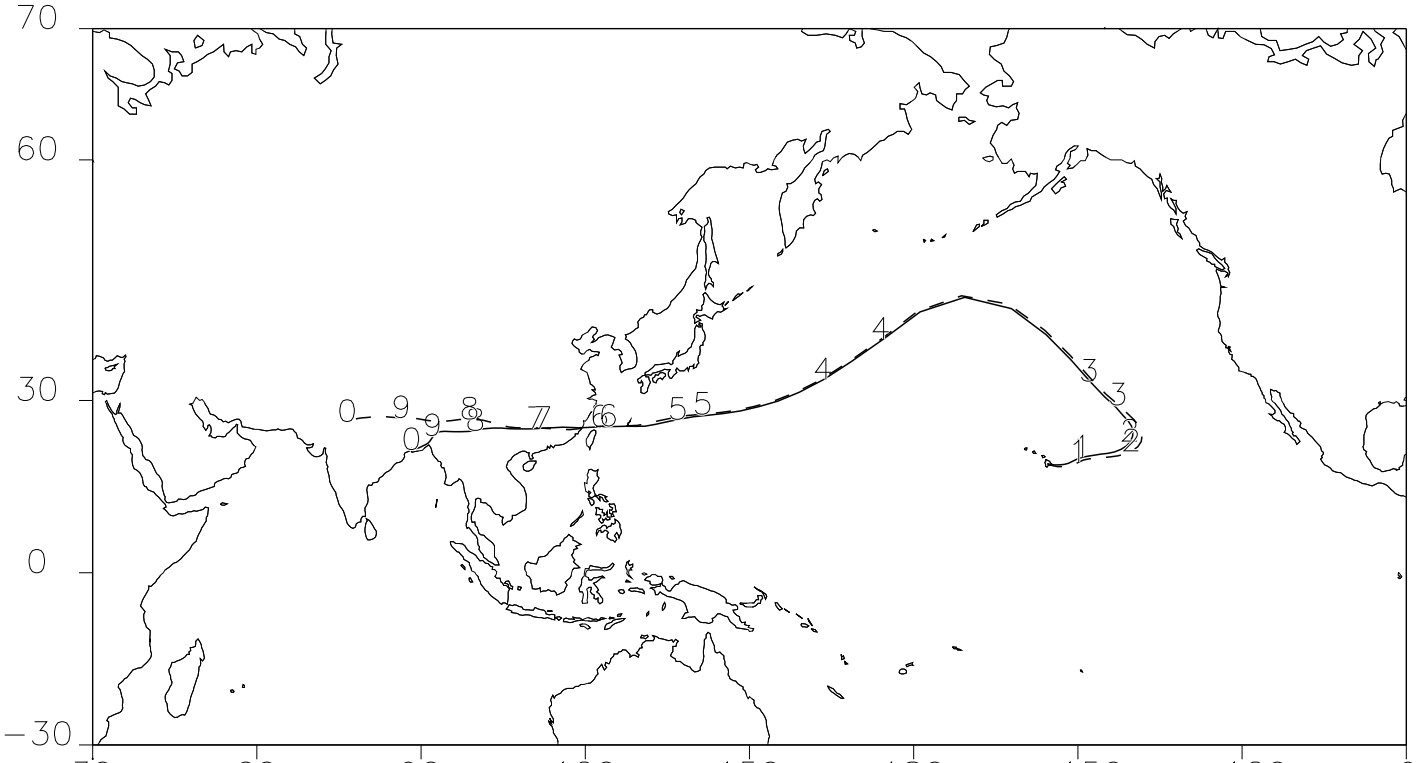
Day	km	hPa	C
0	5.5	523	−6
1	6.1	483	−10
2	7.3	413	−20
3	9.5	288	−44
4	6.6	445	−18
5	5.0	554	−6
6	4.2	612	1
7	3.5	668	4
8	2.8	724	10
9	2.4	763	15
10	2.0	799	15

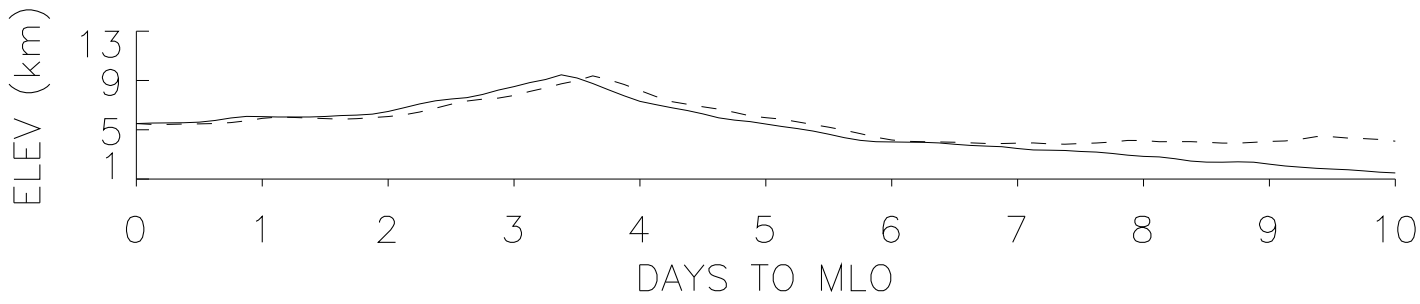
06UT

Day	km	hPa	C
0	5.5	524	−6
1	5.9	494	−8
2	6.9	437	−16
3	8.9	318	−38
4	7.0	418	−21
5	5.3	533	−8
6	4.1	617	1
7	3.6	662	3
8	3.1	705	9
9	2.4	763	16
10	1.8	826	21

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

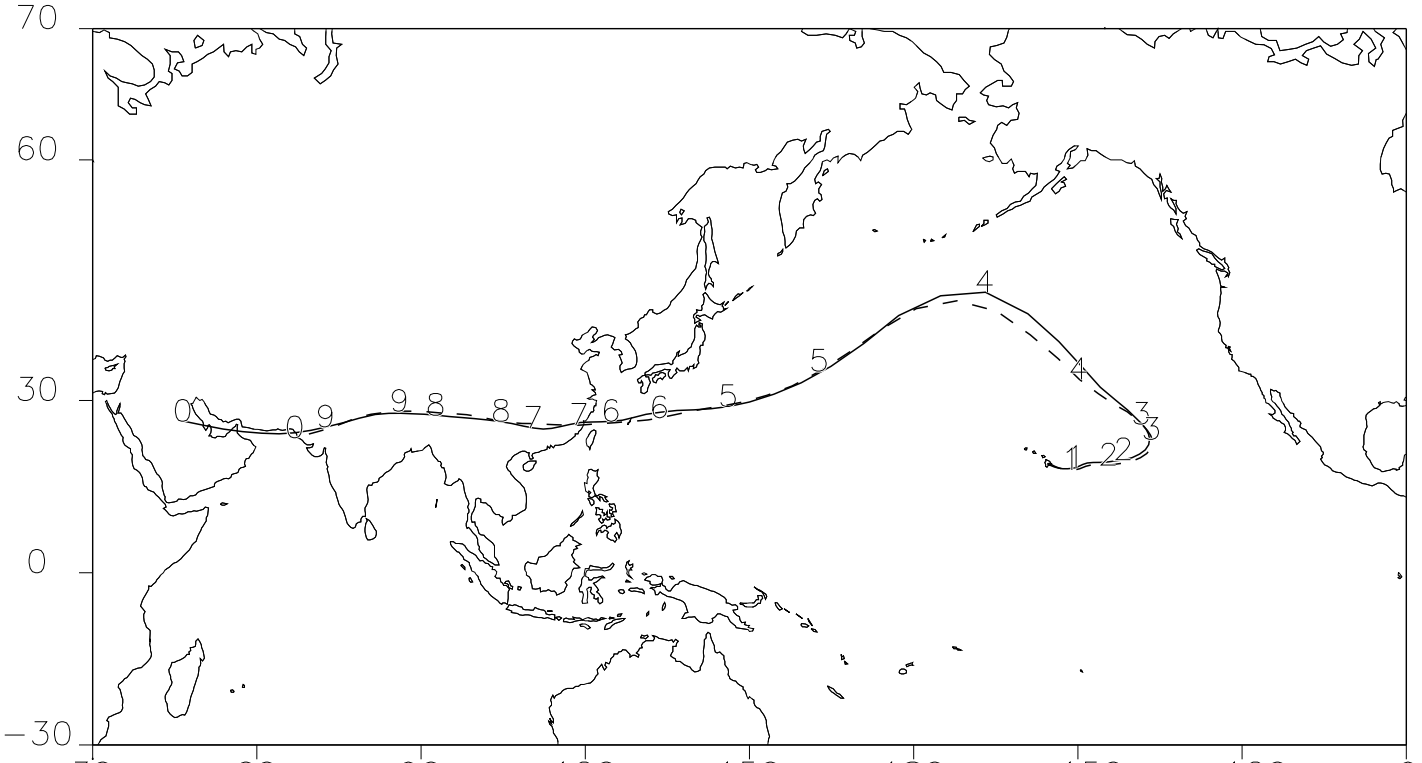
Day	km	hPa	C
0	5.5	522	−7
1	6.1	486	−10
2	6.5	460	−13
3	8.5	343	−33
4	7.3	401	−24
5	5.5	521	−9
6	4.0	627	2
7	3.5	666	4
8	2.8	720	12
9	2.2	778	16
10	1.5	847	24

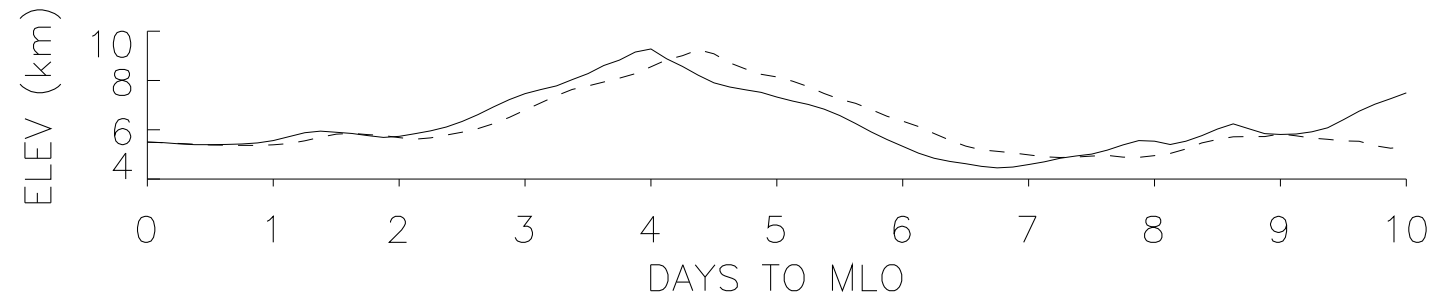
18UT

Day	km	hPa	C
0	5.5	524	−6
1	5.9	497	−8
2	6.1	487	−9
3	7.8	384	−25
4	8.2	349	−33
5	6.0	484	−14
6	4.2	614	0
7	3.9	632	1
8	4.1	616	1
9	4.1	625	2
10	4.1	626	3

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

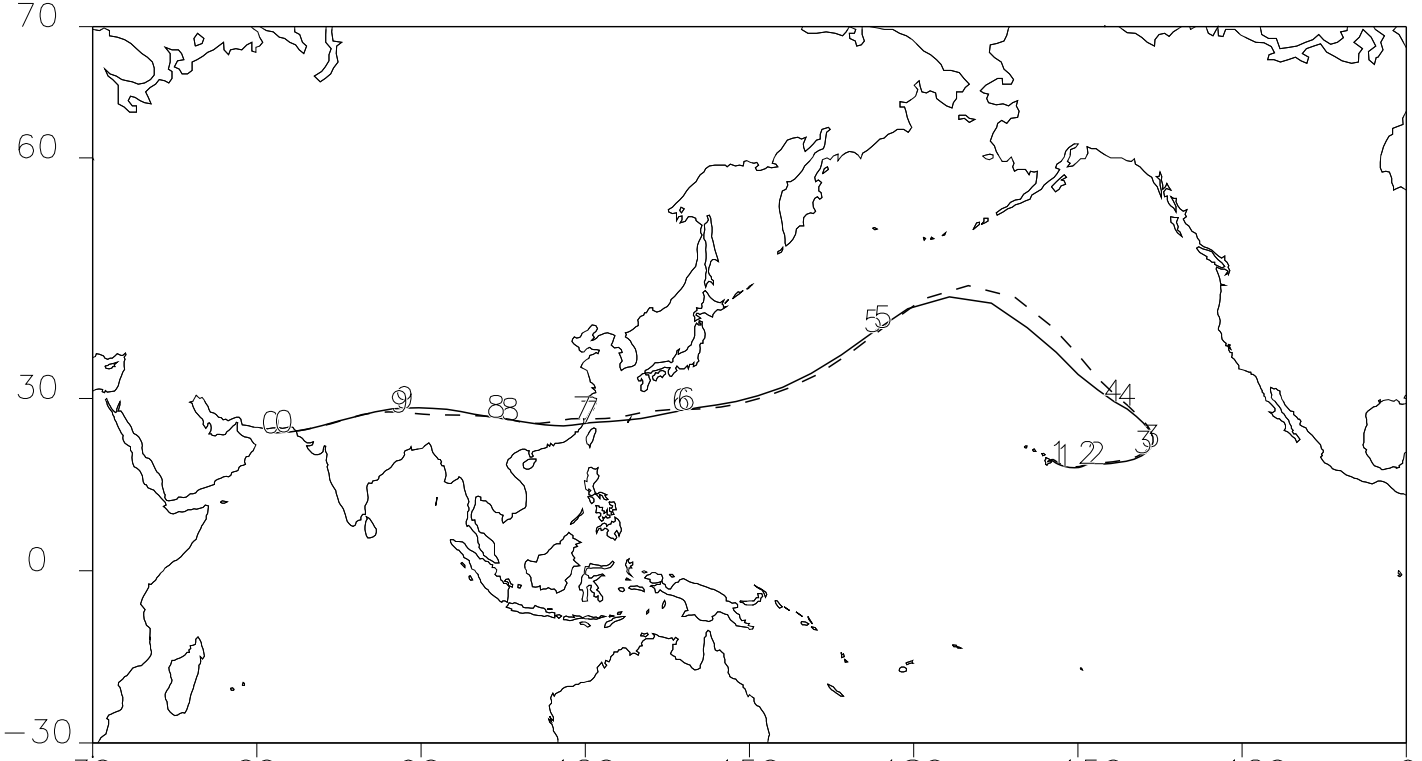
Day	km	hPa	C
0	5.5	522	−7
1	5.6	519	−6
2	5.7	507	−6
3	7.5	402	−22
4	9.3	295	−43
5	7.3	404	−24
6	5.3	530	−9
7	4.6	581	−1
8	5.5	515	−6
9	5.8	498	−8
10	7.5	397	−25

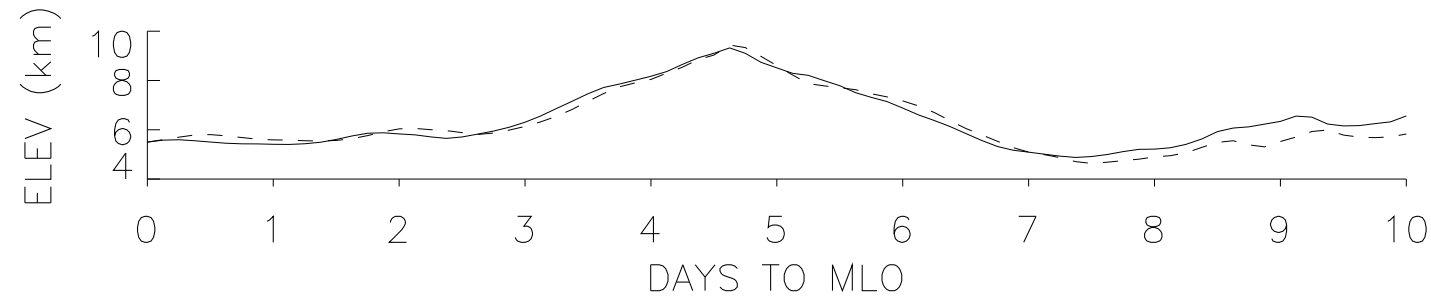
06UT

Day	km	hPa	C
0	5.5	523	−8
1	5.4	531	−5
2	5.7	511	−5
3	6.8	442	−16
4	8.6	339	−34
5	8.1	355	−32
6	6.3	463	−16
7	5.0	554	−3
8	5.0	556	−2
9	5.8	499	−8
10	5.3	536	−3

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

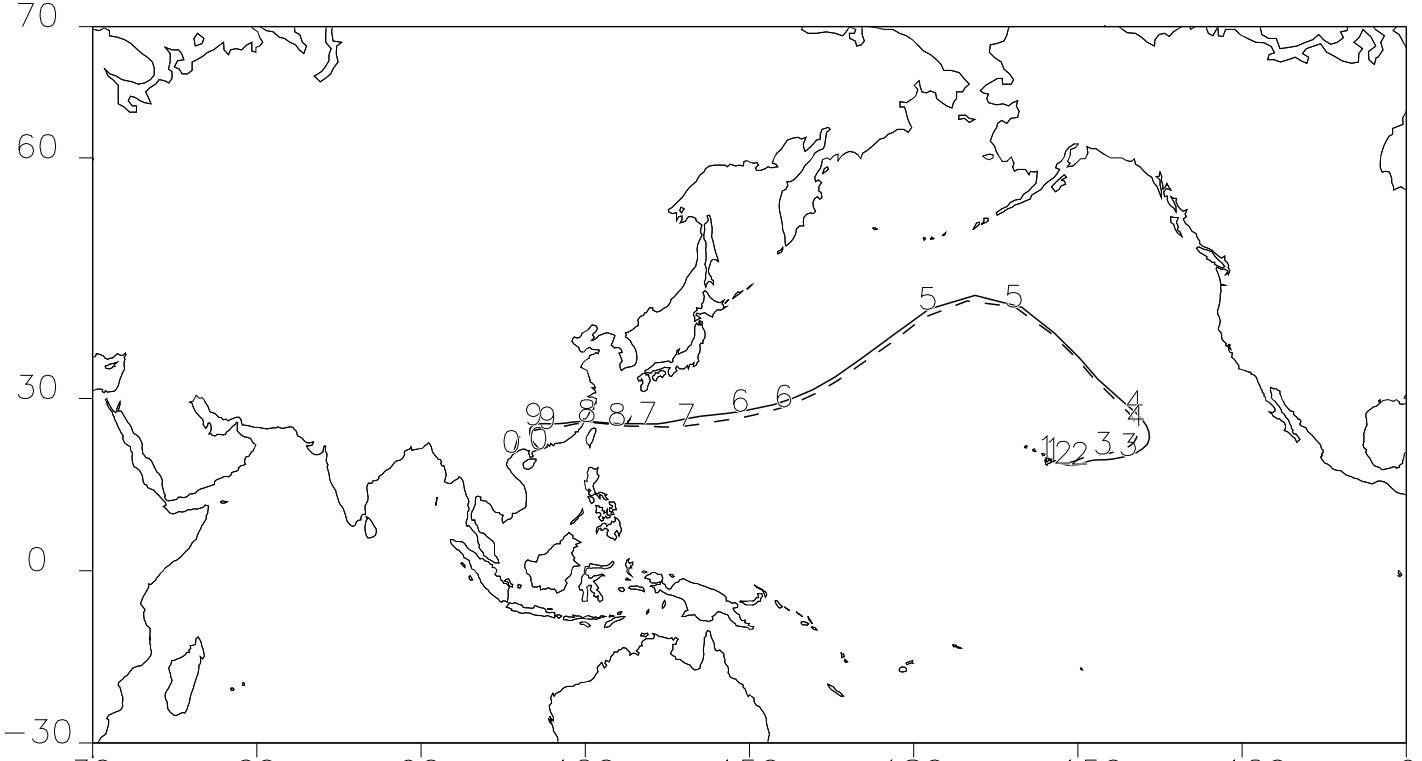
Day	km	hPa	C
0	5.5	522	−9
1	5.4	528	−7
2	5.8	500	−8
3	6.3	470	−12
4	8.2	362	−30
5	8.5	333	−35
6	6.9	431	−19
7	5.1	547	−5
8	5.2	536	−3
9	6.3	464	−11
10	6.6	453	−14

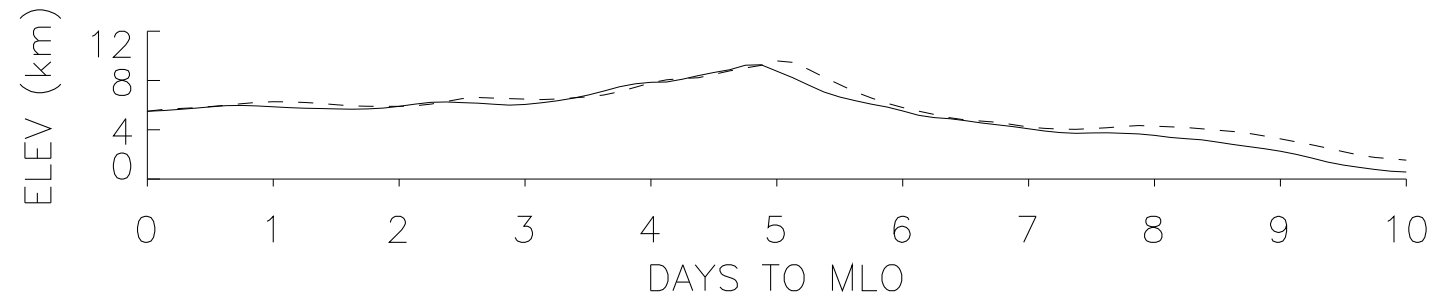
18UT

Day	km	hPa	C
0	5.5	522	−9
1	5.6	518	−7
2	6.0	489	−9
3	6.1	483	−10
4	8.0	371	−27
5	8.6	326	−38
6	7.2	412	−22
7	5.1	546	−6
8	4.9	559	−3
9	5.5	517	−8
10	5.8	499	−9

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

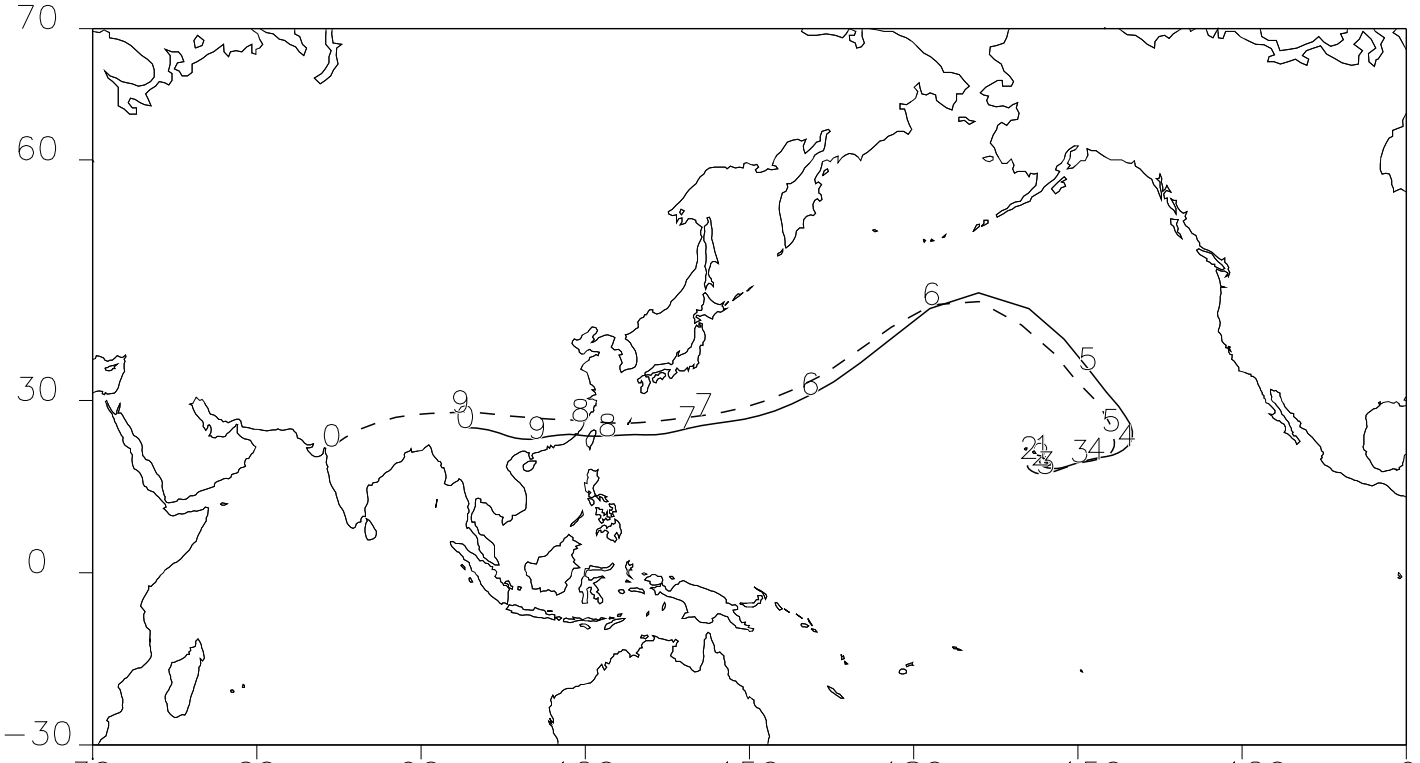
Day	km	hPa	C
0	5.5	521	−8
1	5.9	498	−9
2	5.9	497	−8
3	6.1	487	−9
4	7.8	381	−25
5	8.8	322	−38
6	5.5	515	−9
7	4.1	622	0
8	3.5	661	3
9	2.3	773	7
10	0.6	947	16

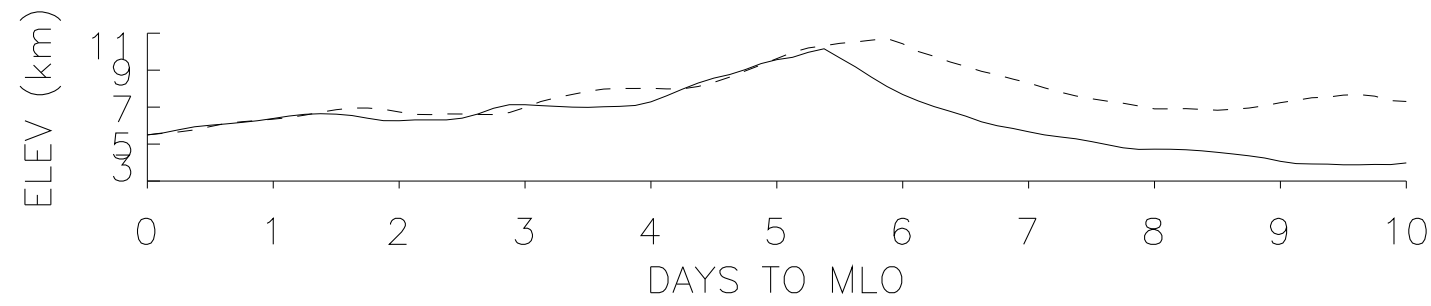
06UT

Day	km	hPa	C
0	5.5	522	−8
1	6.3	472	−14
2	5.9	497	−9
3	6.5	461	−12
4	7.8	386	−24
5	9.6	285	−44
6	5.8	497	−10
7	4.2	610	−1
8	4.3	604	0
9	3.3	686	6
10	1.5	845	19

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

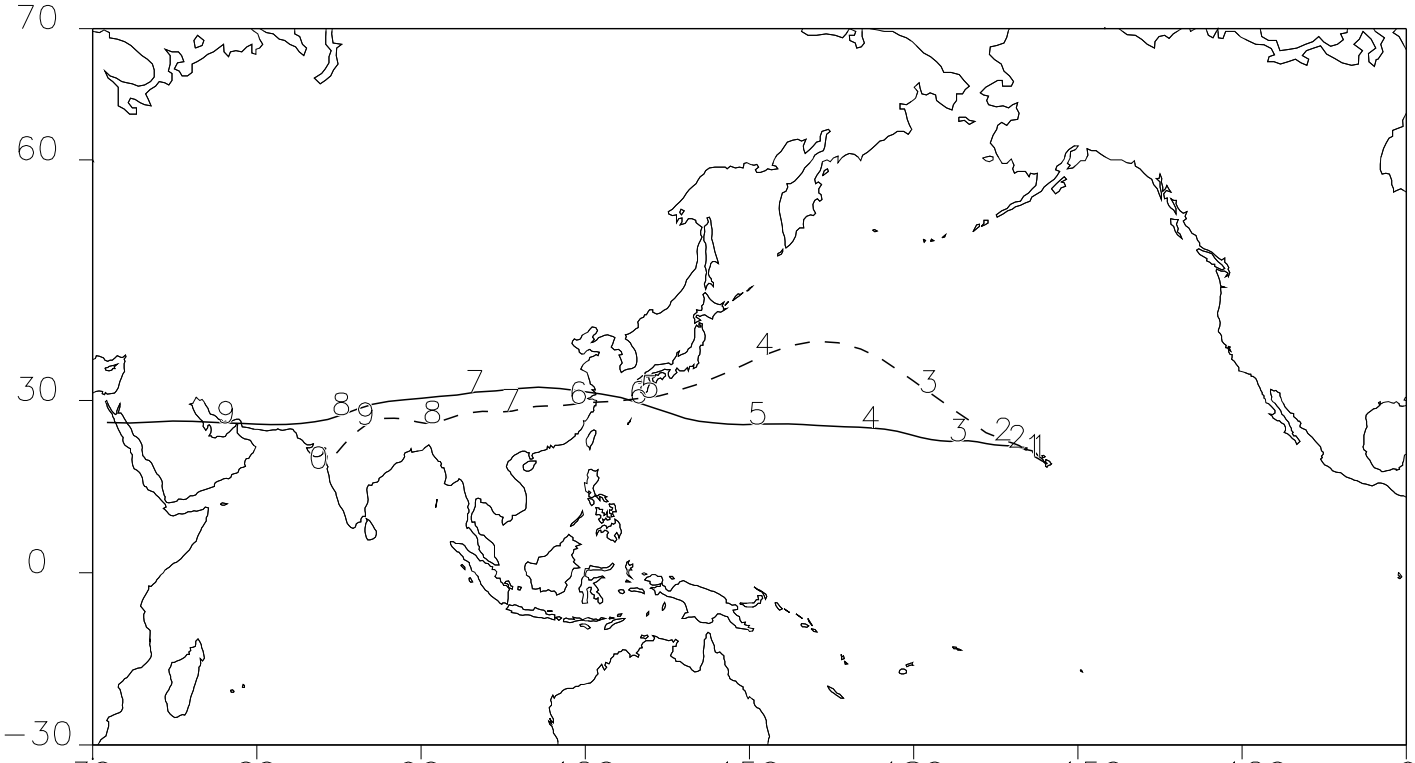
Day	km	hPa	C
0	5.5	522	−8
1	6.4	464	−15
2	6.3	473	−12
3	7.1	422	−18
4	7.3	414	−19
5	9.6	292	−43
6	7.7	384	−26
7	5.7	509	−9
8	4.7	575	−1
9	4.1	621	3
10	4.0	627	4

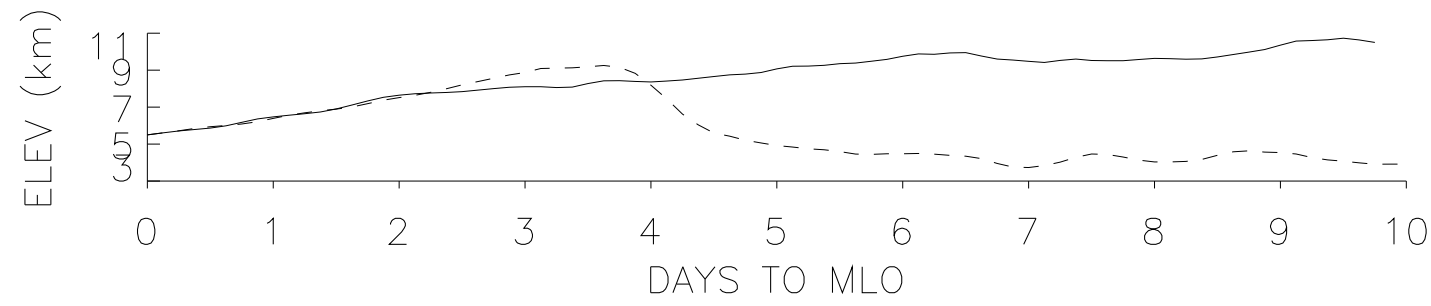
18UT

Day	km	hPa	C
0	5.5	522	−8
1	6.3	467	−15
2	6.7	446	−16
3	7.0	433	−16
4	8.0	376	−24
5	9.6	298	−40
6	10.4	251	−52
7	8.3	353	−30
8	6.9	431	−16
9	7.2	412	−18
10	7.3	413	−18

12UT − solid
18UT − dashed

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





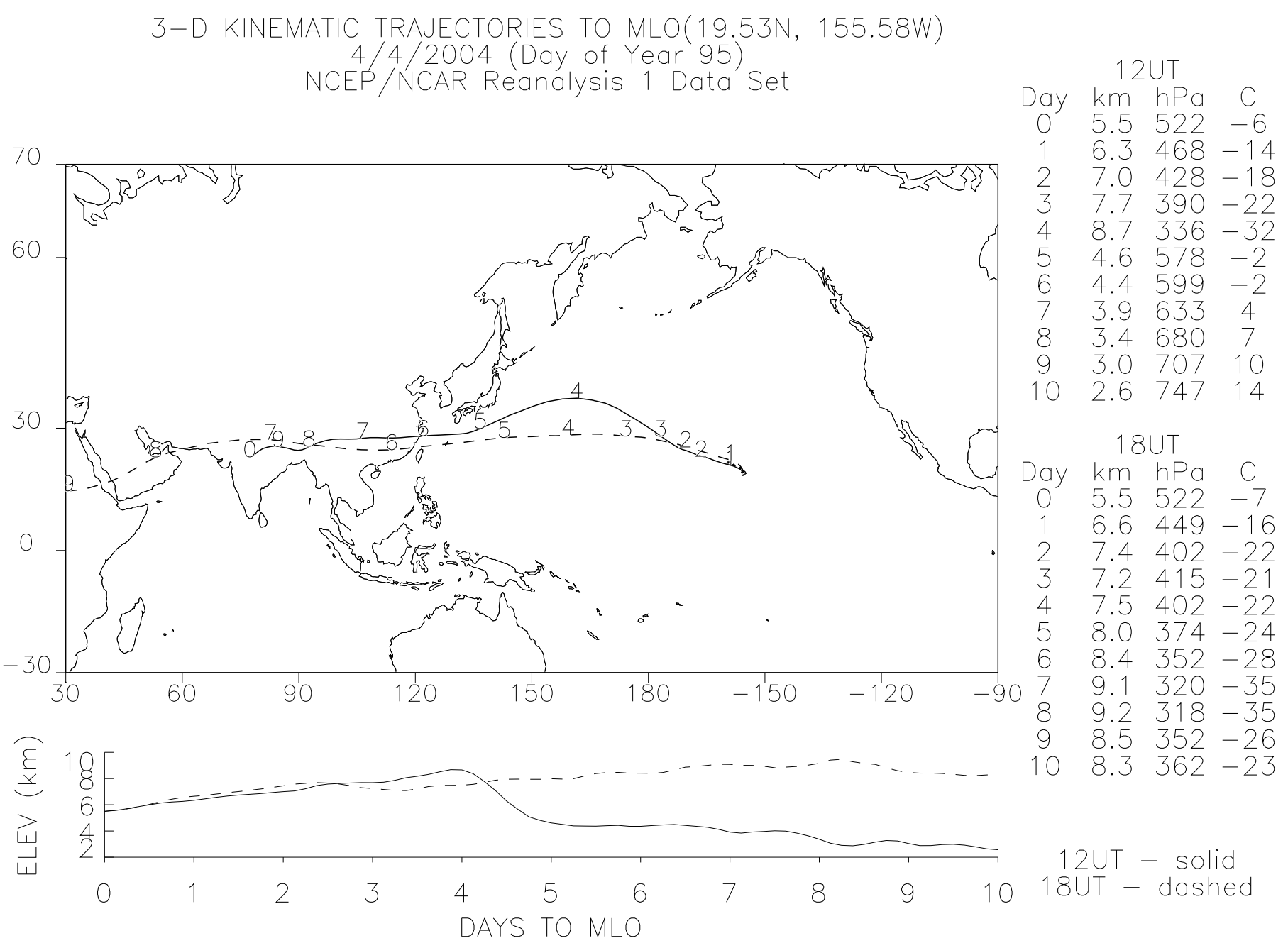
00UT

Day	km	hPa	C
0	5.5	521	−8
1	6.5	459	−15
2	7.6	393	−25
3	8.1	368	−28
4	8.4	356	−29
5	9.1	321	−34
6	9.8	288	−43
7	9.5	298	−40
8	9.6	292	−39
9	10.4	261	−44

06UT

Day	km	hPa	C
0	5.5	522	−7
1	6.4	465	−14
2	7.5	399	−22
3	8.9	326	−35
4	8.2	355	−31
5	4.9	554	−6
6	4.5	588	−4
7	3.7	646	3
8	4.0	629	2
9	4.5	589	−2
10	3.9	638	4

00UT − solid
06UT − dashed



12UT

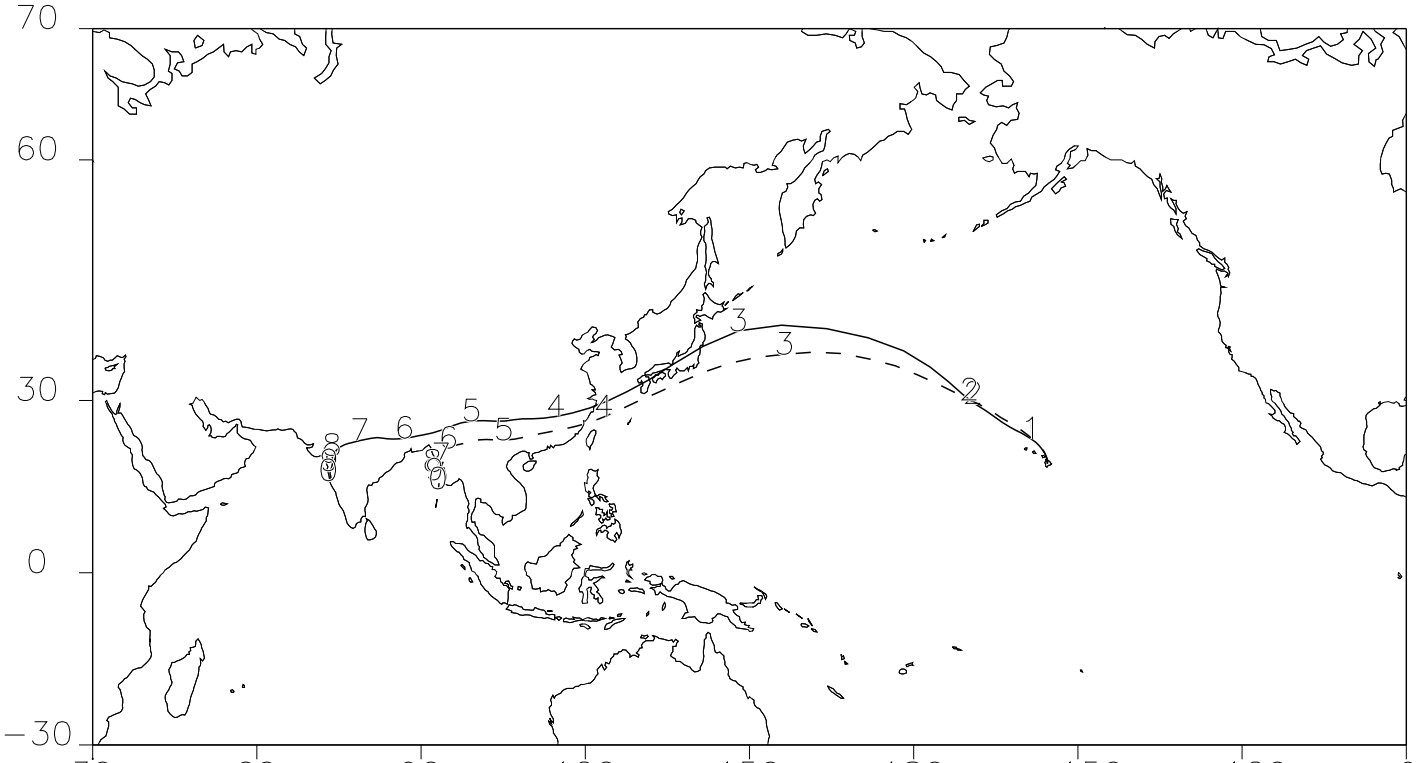
Day	km	hPa	C
0	5.5	522	−6
1	6.3	468	−14
2	7.0	428	−18
3	7.7	390	−22
4	8.7	336	−32
5	4.6	578	−2
6	4.4	599	−2
7	3.9	633	4
8	3.4	680	7
9	3.0	707	10
10	2.6	747	14

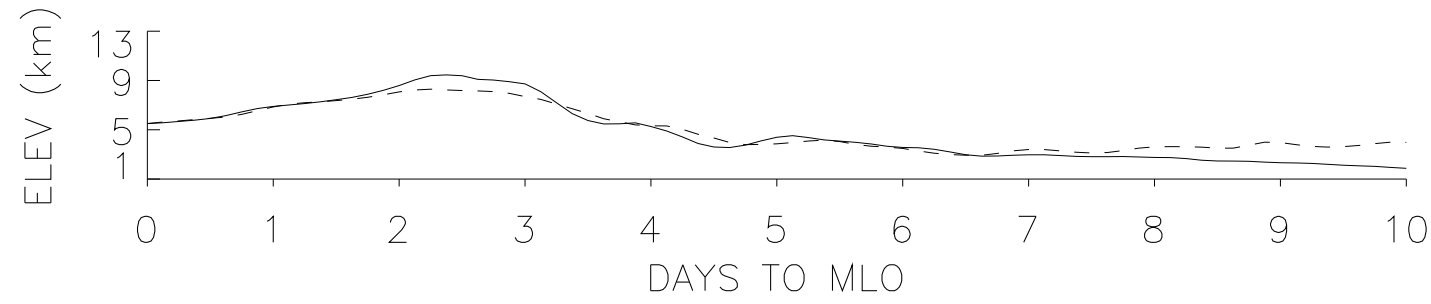
18UT

Day	km	hPa	C
0	5.5	522	−7
1	6.6	449	−16
2	7.4	402	−22
3	7.2	415	−21
4	7.5	402	−22
5	8.0	374	−24
6	8.4	352	−28
7	9.1	320	−35
8	9.2	318	−35
9	8.5	352	−26
10	8.3	362	−23

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

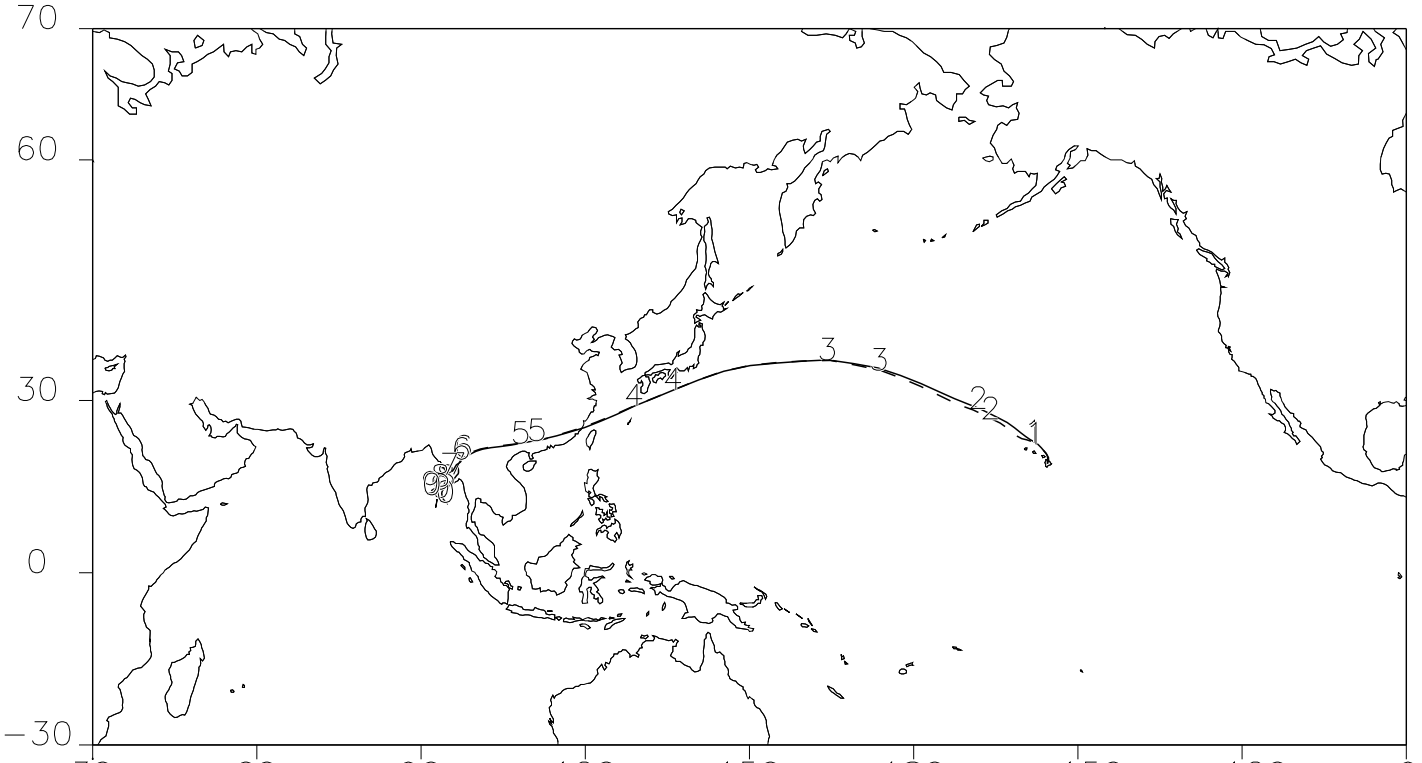
Day	km	hPa	C
0	5.5	522	−7
1	6.9	433	−19
2	8.6	340	−34
3	8.7	321	−37
4	5.3	533	−9
5	4.4	597	−4
6	3.6	664	4
7	3.0	715	9
8	2.8	734	11
9	2.3	771	14
10	1.9	812	18

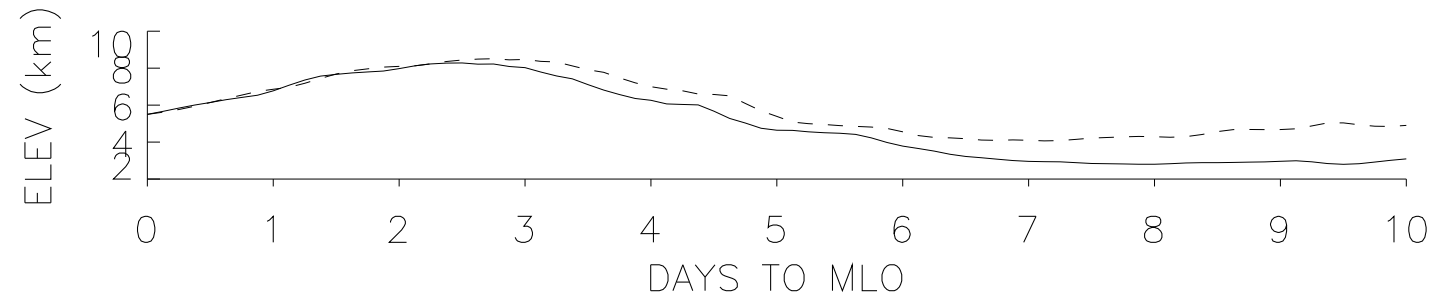
06UT

Day	km	hPa	C
0	5.5	523	−6
1	6.9	437	−18
2	8.1	367	−28
3	7.7	381	−26
4	5.3	531	−8
5	3.9	641	4
6	3.5	675	6
7	3.4	682	9
8	3.6	664	8
9	4.0	636	5
10	4.0	634	6

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

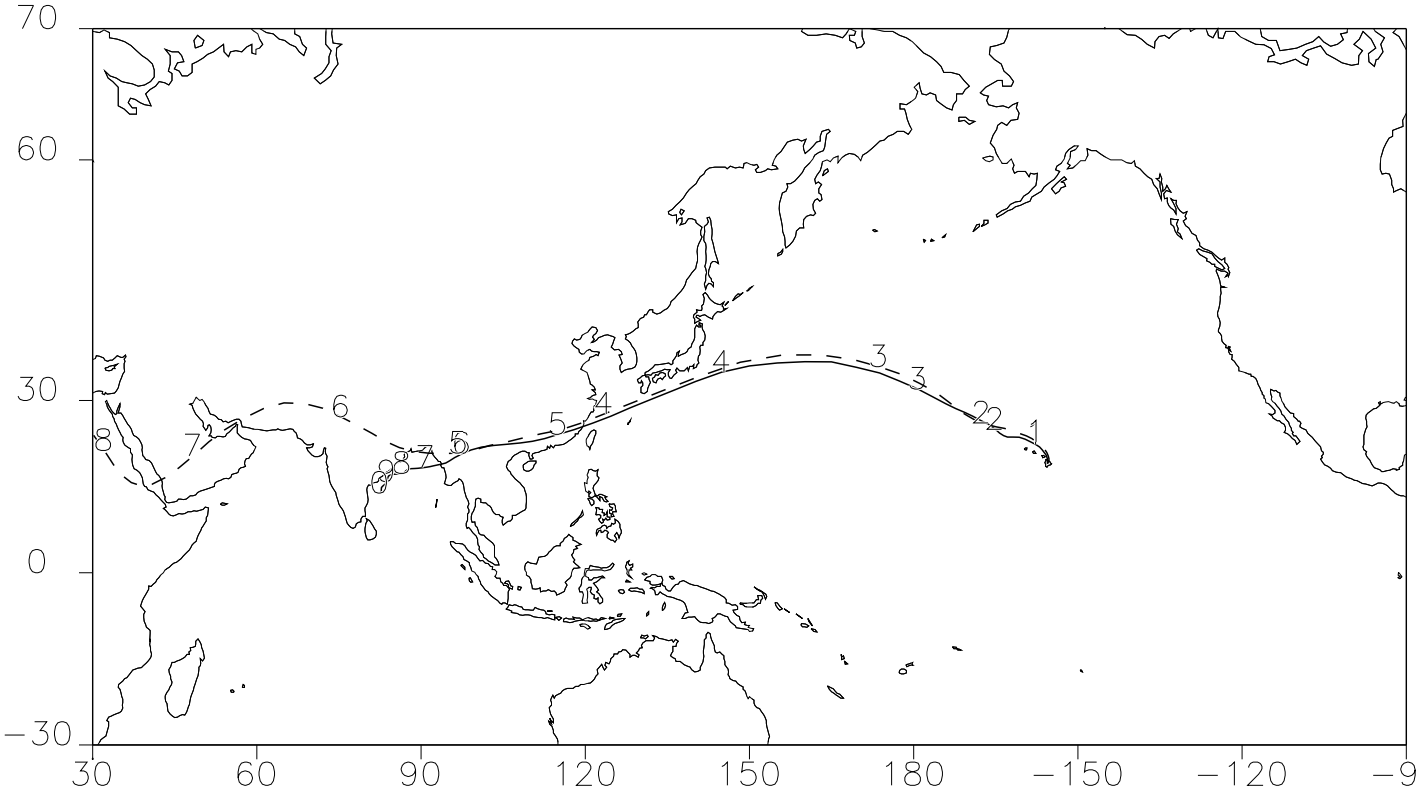
Day	km	hPa	C
0	5.5	523	-6
1	6.8	442	-17
2	8.0	374	-27
3	8.0	367	-28
4	6.3	469	-13
5	4.6	582	0
6	3.8	649	5
7	3.0	717	12
8	2.8	729	13
9	3.0	715	10
10	3.1	703	10

18UT

Day	km	hPa	C
0	5.5	524	-6
1	6.9	438	-17
2	8.1	368	-27
3	8.5	345	-31
4	7.0	422	-19
5	5.4	531	-8
6	4.6	590	-1
7	4.1	625	5
8	4.3	610	6
9	4.7	583	4
10	4.9	566	3

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

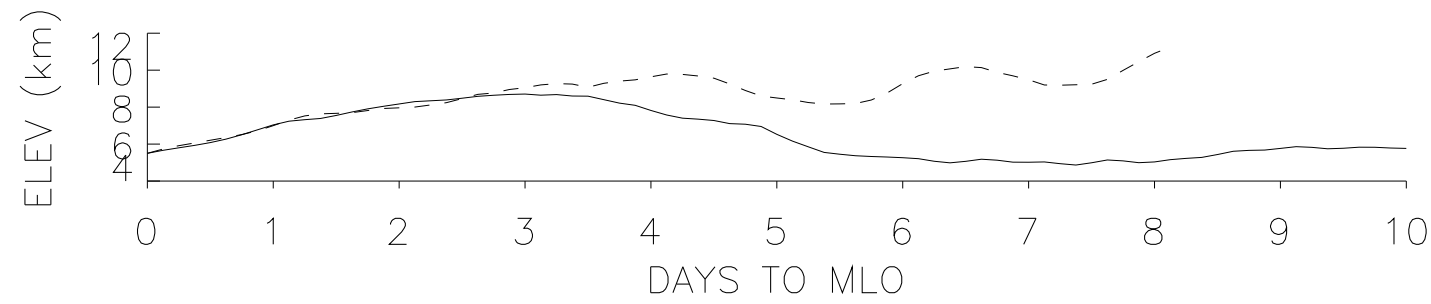


00UT

Day	km	hPa	C
0	5.5	523	−6
1	7.0	427	−18
2	8.2	365	−28
3	8.7	336	−32
4	7.8	377	−25
5	6.5	456	−14
6	5.3	538	−6
7	5.0	556	−2
8	5.0	556	−1
9	5.8	507	−5
10	5.8	506	−4

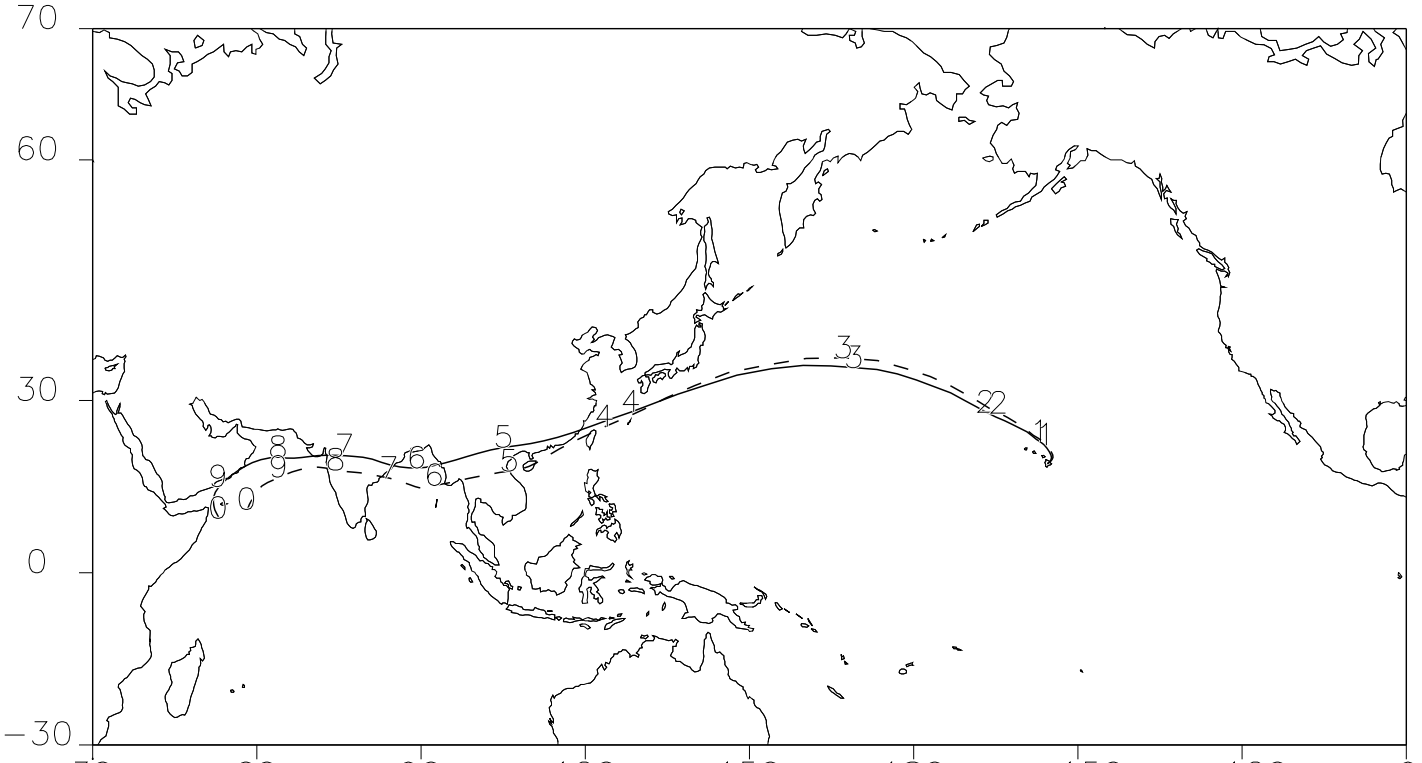
06UT

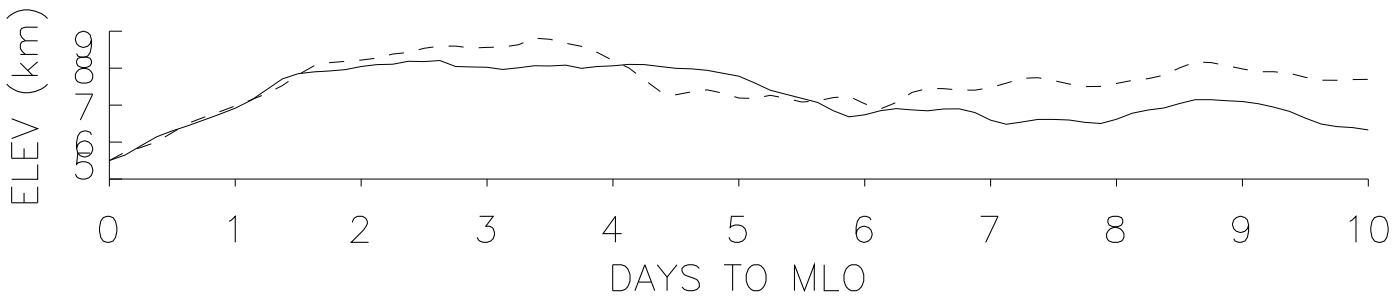
Day	km	hPa	C
0	5.5	524	−6
1	7.0	430	−17
2	8.0	376	−25
3	9.0	317	−34
4	9.6	293	−39
5	8.5	350	−29
6	9.3	312	−36
7	9.5	303	−36
8	10.9	245	−49



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





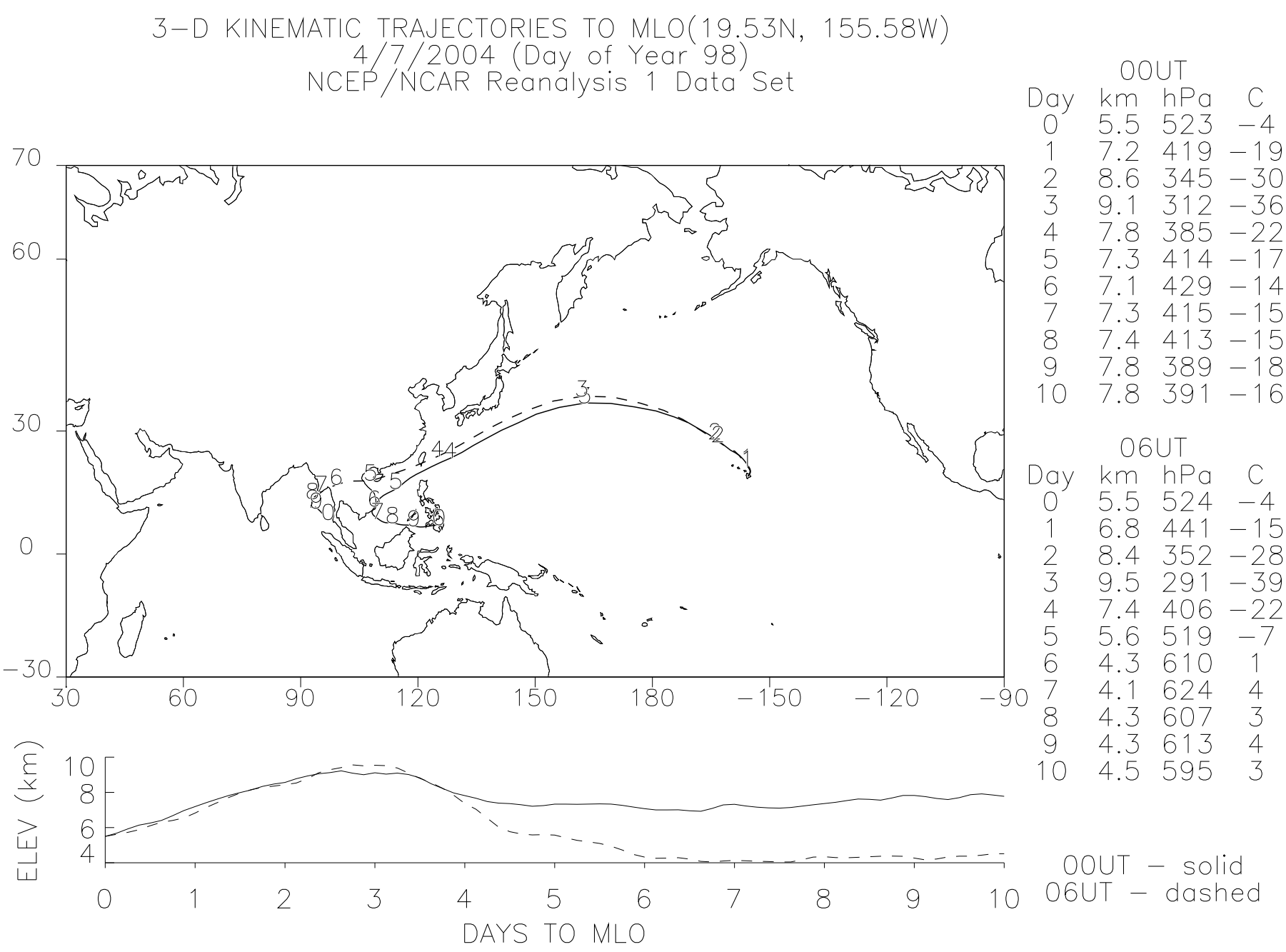
12UT

Day	km	hPa	C
0	5.5	523	−5
1	6.9	434	−16
2	8.0	371	−25
3	8.0	369	−26
4	8.1	368	−26
5	7.8	385	−24
6	6.7	445	−14
7	6.6	454	−13
8	6.6	452	−12
9	7.1	426	−15
10	6.3	471	−7

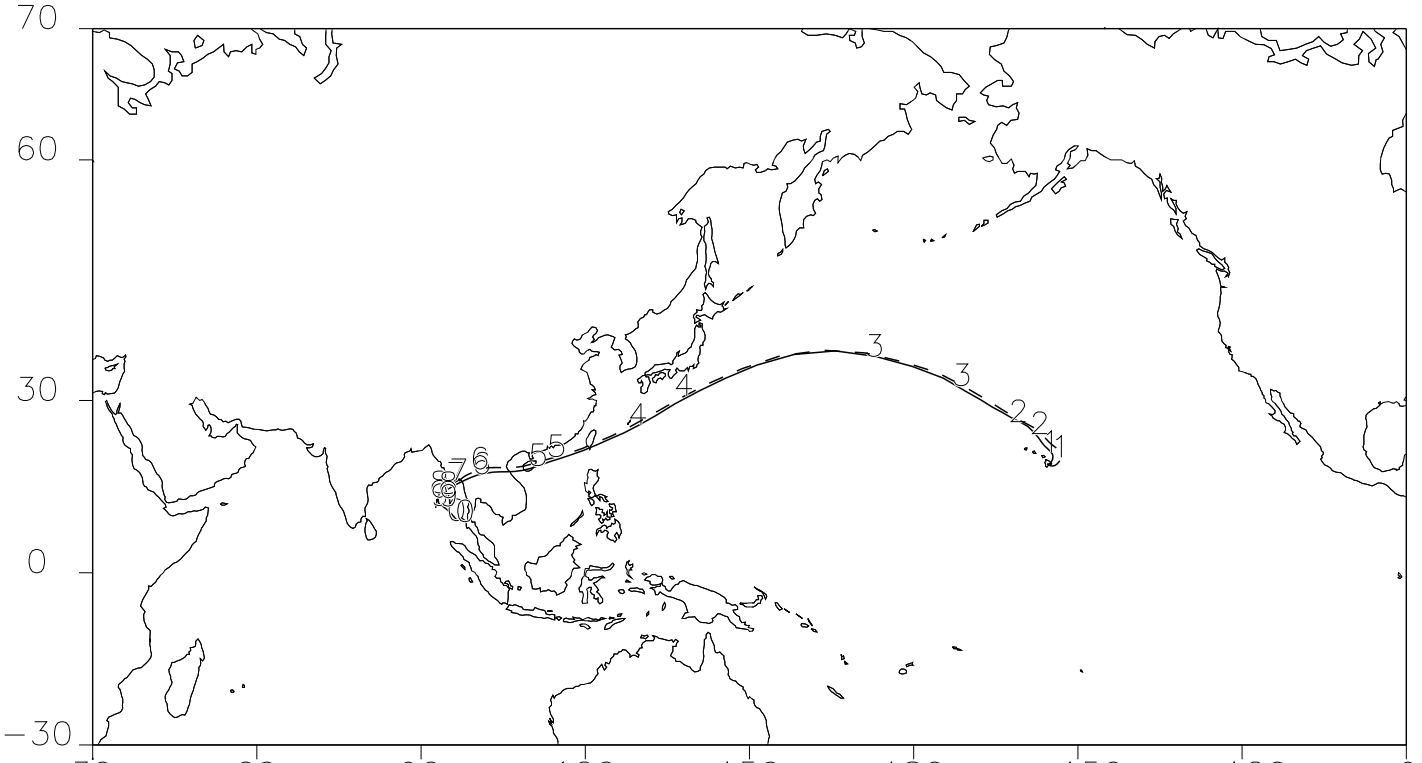
18UT

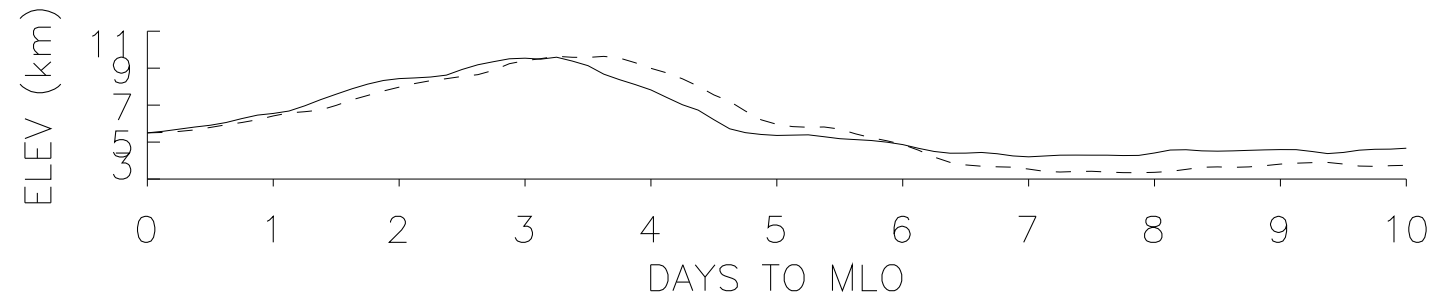
Day	km	hPa	C
0	5.5	524	−4
1	7.0	432	−17
2	8.2	362	−27
3	8.6	338	−31
4	8.2	361	−28
5	7.2	420	−17
6	7.0	431	−14
7	7.5	406	−16
8	7.6	400	−17
9	8.0	381	−20
10	7.7	395	−16

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
10
8
6
4
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
00UT
Day km hPa C
0 5.5 523 -4
1 7.2 419 -19
2 8.6 345 -30
3 9.1 312 -36
4 7.8 385 -22
5 7.3 414 -17
6 7.1 429 -14
7 7.3 415 -15
8 7.4 413 -15
9 7.8 389 -18
10 7.8 391 -16
06UT
Day km hPa C
0 5.5 524 -4
1 6.8 441 -15
2 8.4 352 -28
3 9.5 291 -39
4 7.4 406 -22
5 5.6 519 -7
6 4.3 610 1
7 4.1 624 4
8 4.3 607 3
9 4.3 613 4
10 4.5 595 3
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

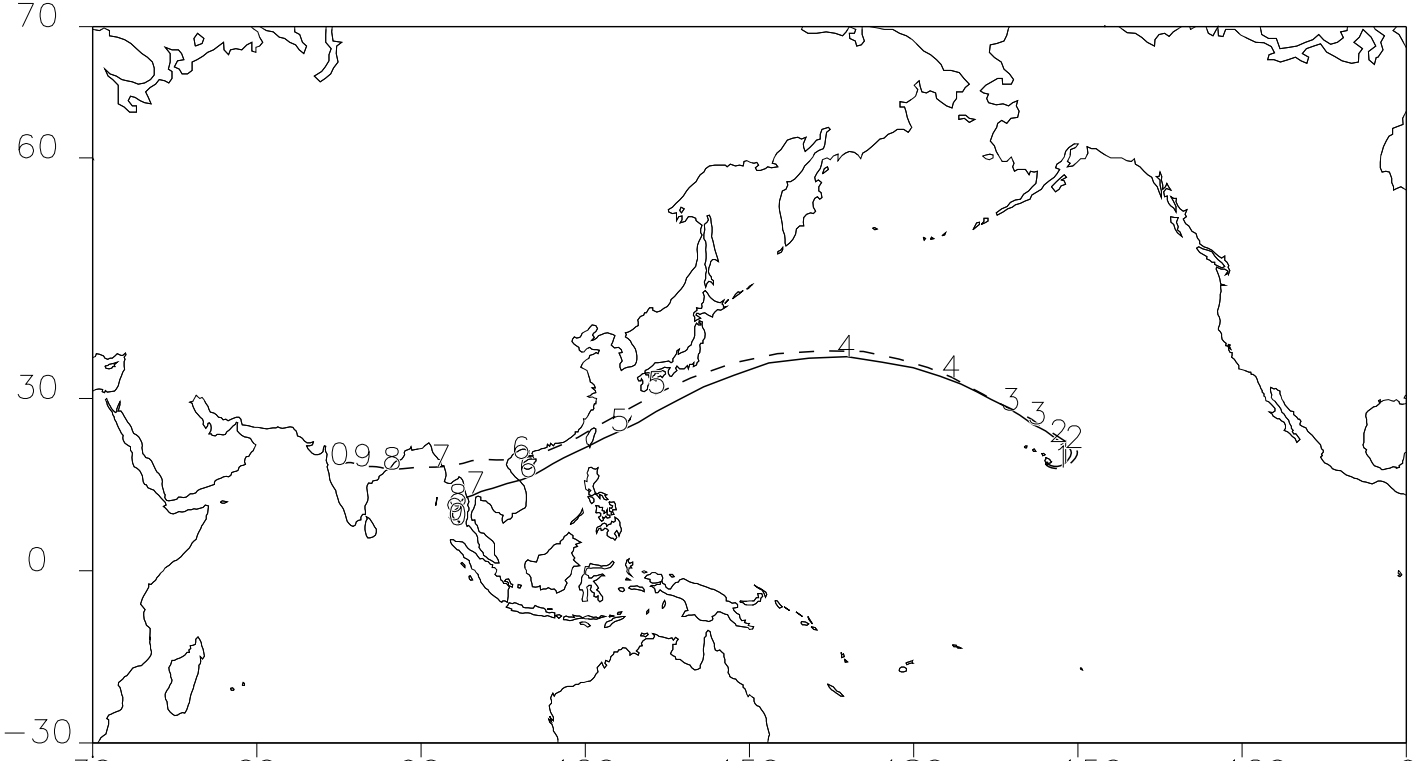
Day	km	hPa	C
0	5.5	523	−4
1	6.6	456	−13
2	8.4	353	−29
3	9.5	292	−40
4	7.8	382	−24
5	5.4	532	−6
6	4.9	568	−2
7	4.2	616	4
8	4.4	600	3
9	4.6	587	2
10	4.7	582	2

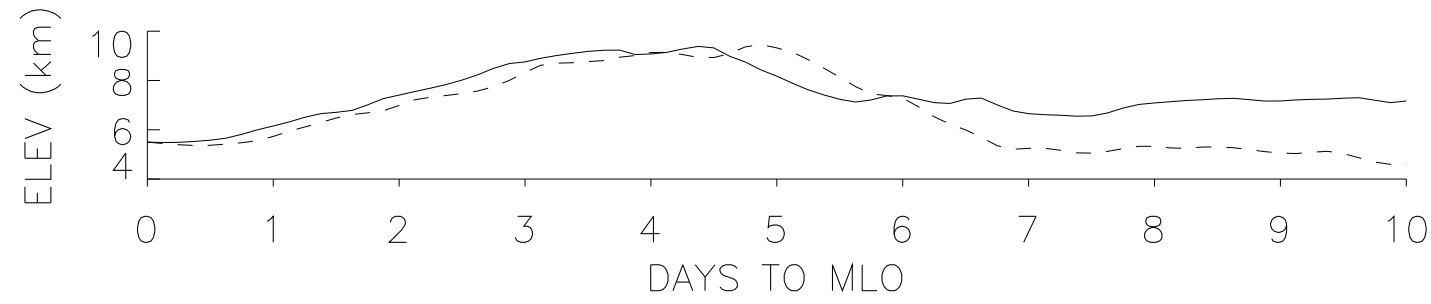
18UT

Day	km	hPa	C
0	5.5	523	−4
1	6.4	466	−11
2	8.0	377	−25
3	9.4	303	−37
4	9.0	319	−35
5	6.0	492	−11
6	4.9	568	−3
7	3.5	670	7
8	3.4	684	9
9	3.8	648	6
10	3.7	654	7

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

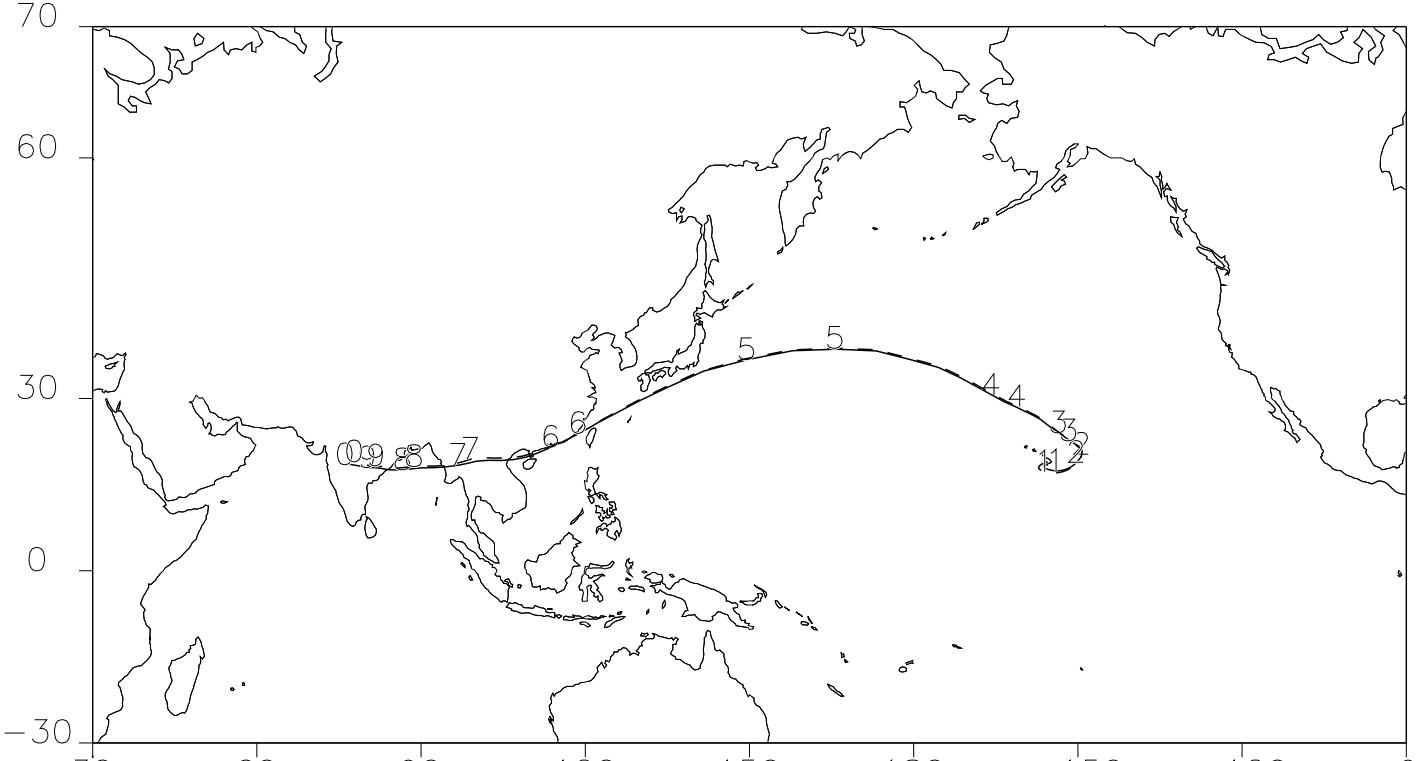
Day	km	hPa	C
0	5.5	523	-5
1	6.2	481	-9
2	7.4	406	-21
3	8.8	335	-32
4	9.1	313	-36
5	8.2	365	-26
6	7.4	411	-18
7	6.7	453	-11
8	7.1	427	-14
9	7.2	423	-14
10	7.2	423	-13

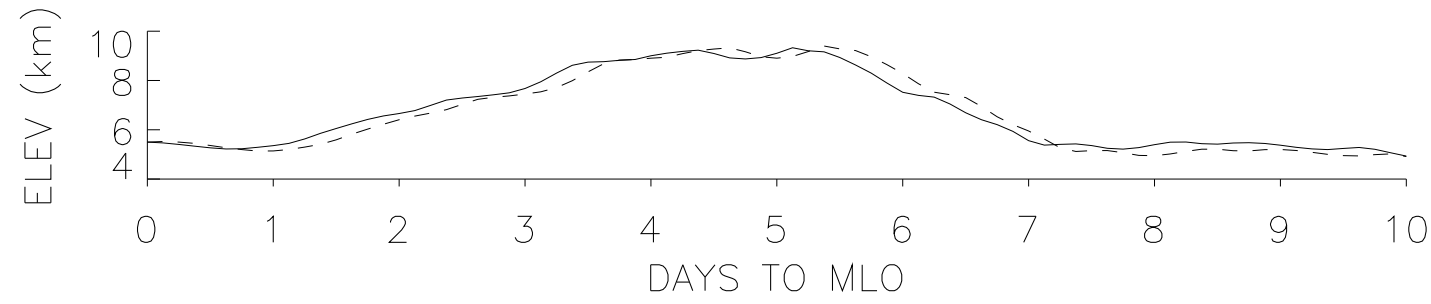
06UT

Day	km	hPa	C
0	5.5	523	-5
1	5.7	509	-6
2	7.0	431	-17
3	8.3	357	-28
4	9.1	314	-35
5	9.3	303	-39
6	7.3	413	-19
7	5.2	542	-5
8	5.3	536	-4
9	5.1	555	-1
10	4.6	588	0

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





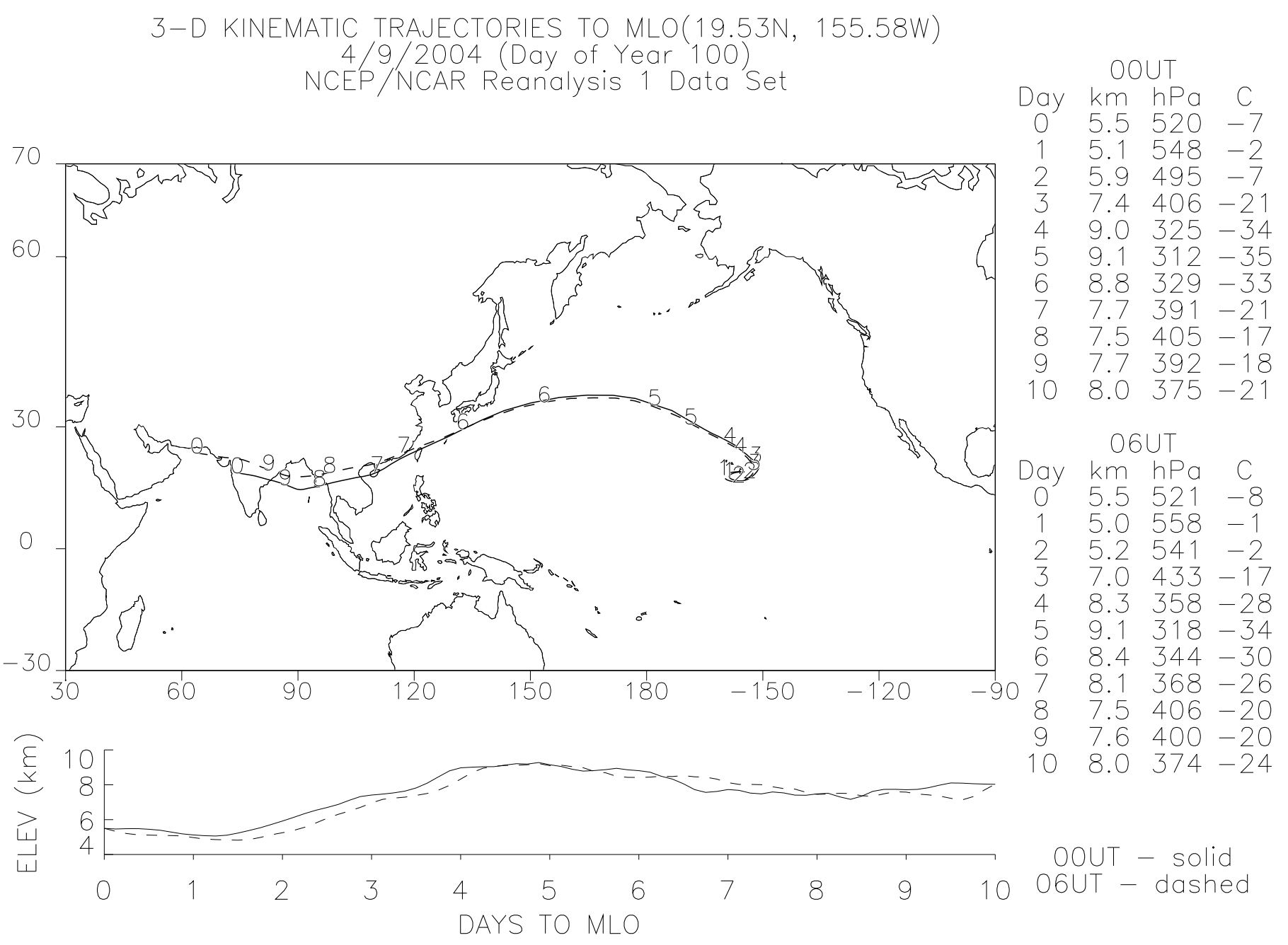
12UT

Day	km	hPa	C
0	5.5	521	−6
1	5.4	532	−3
2	6.7	449	−14
3	7.7	391	−22
4	9.0	322	−34
5	9.1	309	−36
6	7.5	399	−21
7	5.6	519	−7
8	5.4	530	−5
9	5.4	531	−5
10	4.9	562	−2

18UT

Day	km	hPa	C
0	5.5	522	−6
1	5.1	548	−1
2	6.4	466	−12
3	7.4	405	−20
4	8.9	328	−33
5	8.9	318	−34
6	8.3	358	−29
7	6.0	494	−12
8	4.9	563	−1
9	5.2	545	−4
10	4.9	565	−3

12UT − solid
18UT − dashed



00UT

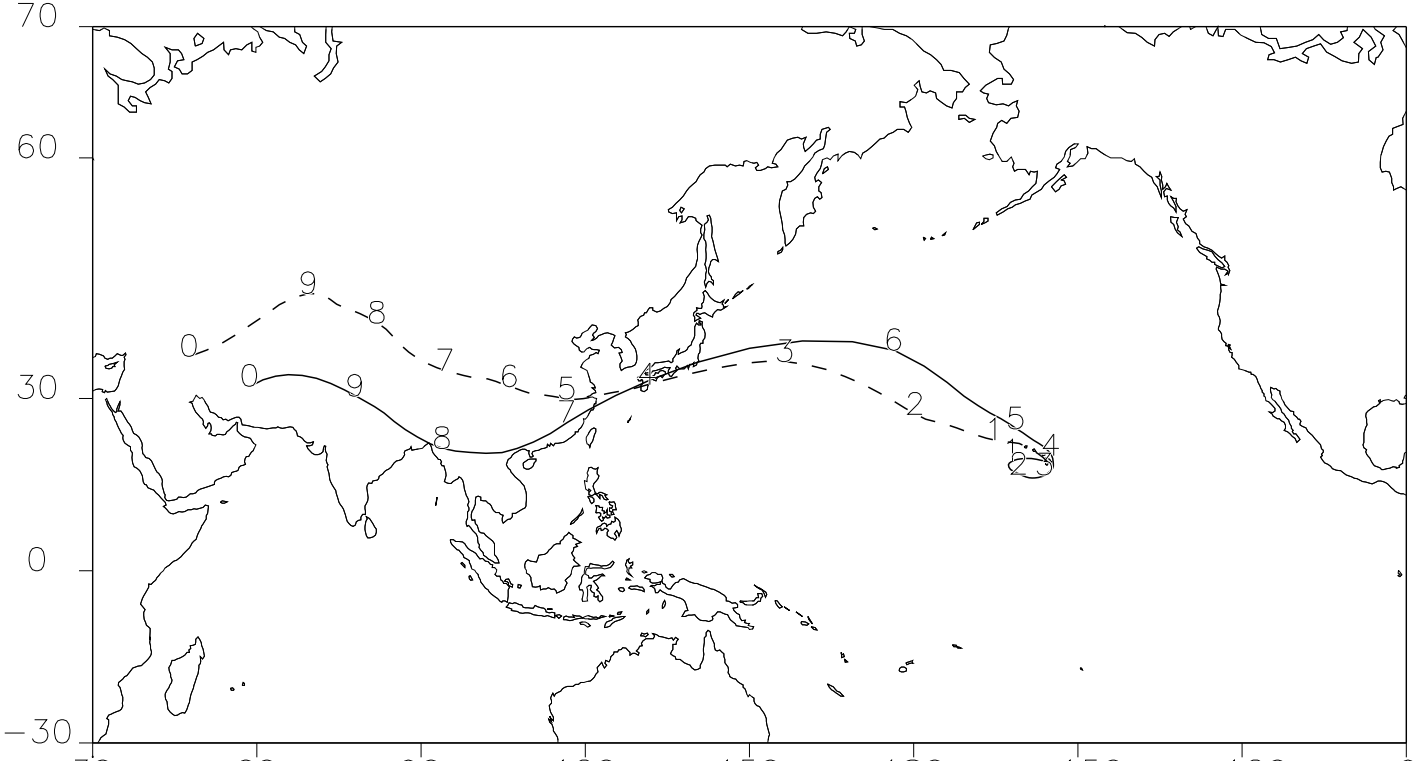
Day	km	hPa	C
0	5.5	520	−7
1	5.1	548	−2
2	5.9	495	−7
3	7.4	406	−21
4	9.0	325	−34
5	9.1	312	−35
6	8.8	329	−33
7	7.7	391	−21
8	7.5	405	−17
9	7.7	392	−18
10	8.0	375	−21

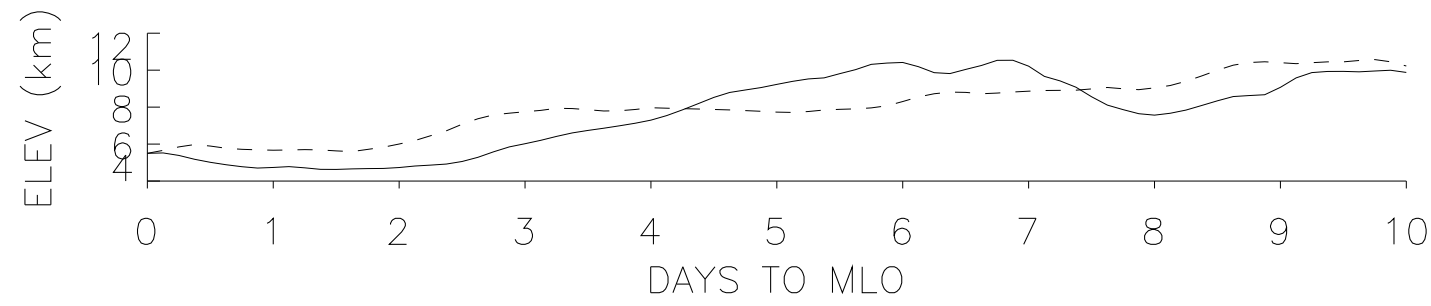
06UT

Day	km	hPa	C
0	5.5	521	−8
1	5.0	558	−1
2	5.2	541	−2
3	7.0	433	−17
4	8.3	358	−28
5	9.1	318	−34
6	8.4	344	−30
7	8.1	368	−26
8	7.5	406	−20
9	7.6	400	−20
10	8.0	374	−24

00UT – solid
06UT – dashed

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





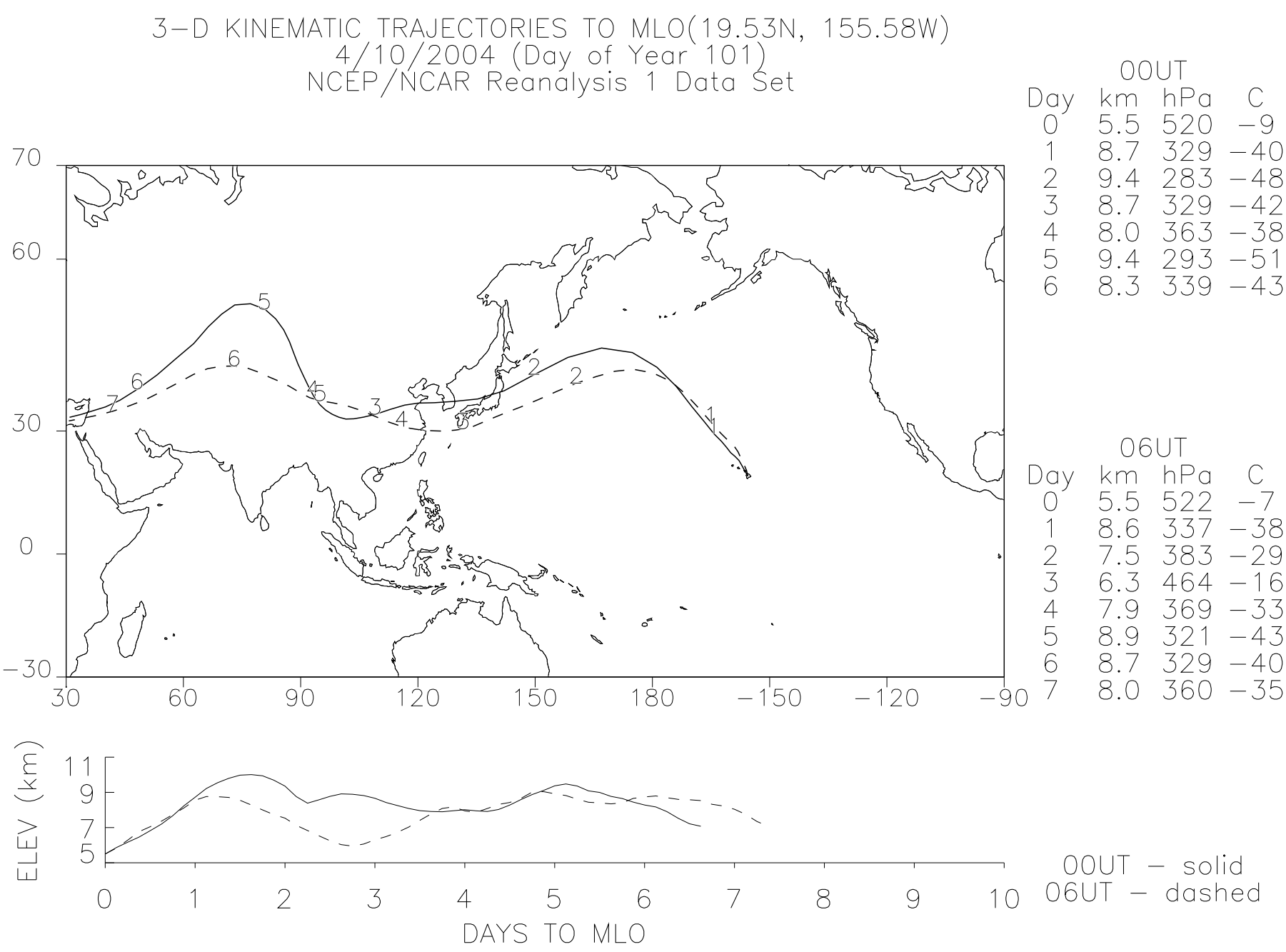
12UT

Day	km	hPa	C
0	5.5	519	−9
1	4.7	574	−2
2	4.7	576	1
3	6.0	489	−9
4	7.3	413	−19
5	9.2	314	−36
6	10.4	258	−47
7	10.2	270	−44
8	7.6	397	−21
9	9.1	318	−37
10	9.9	281	−46

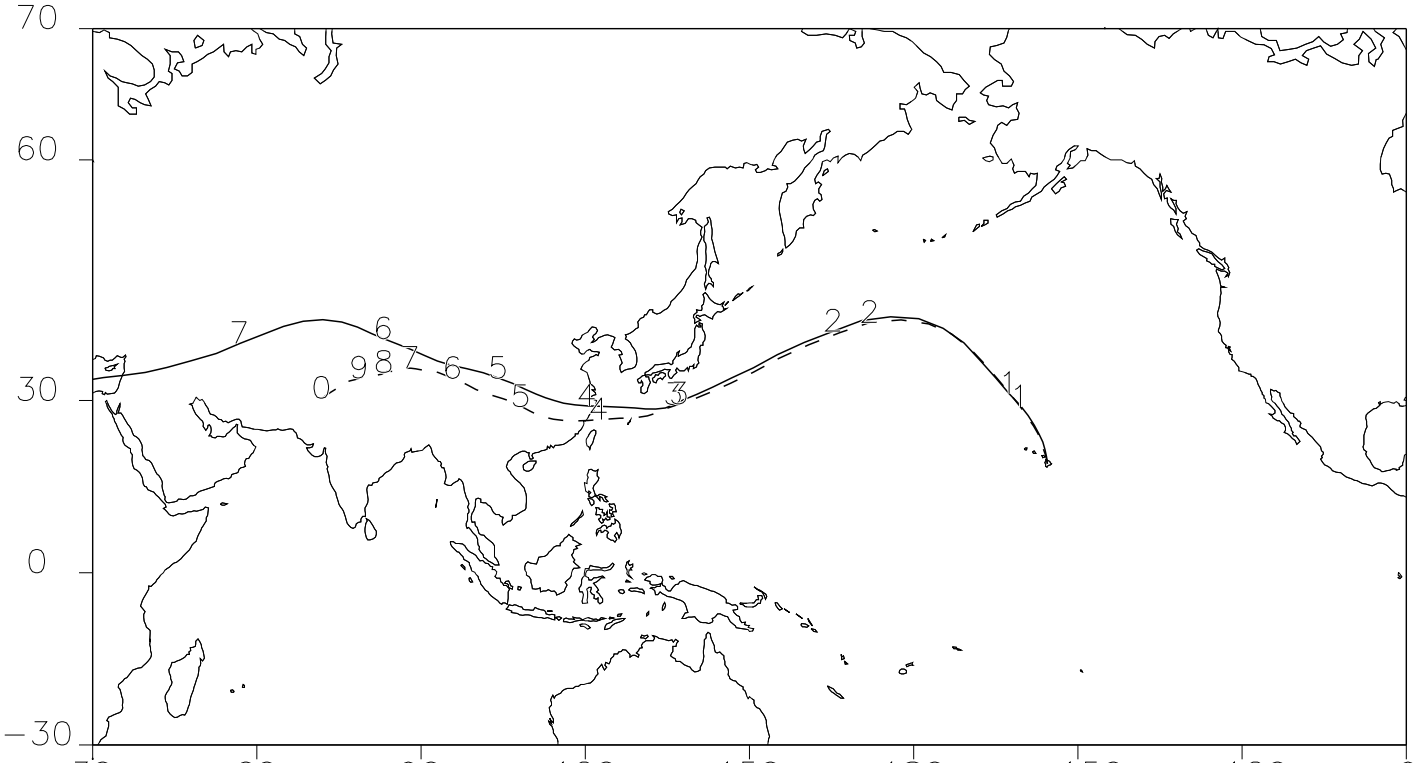
18UT

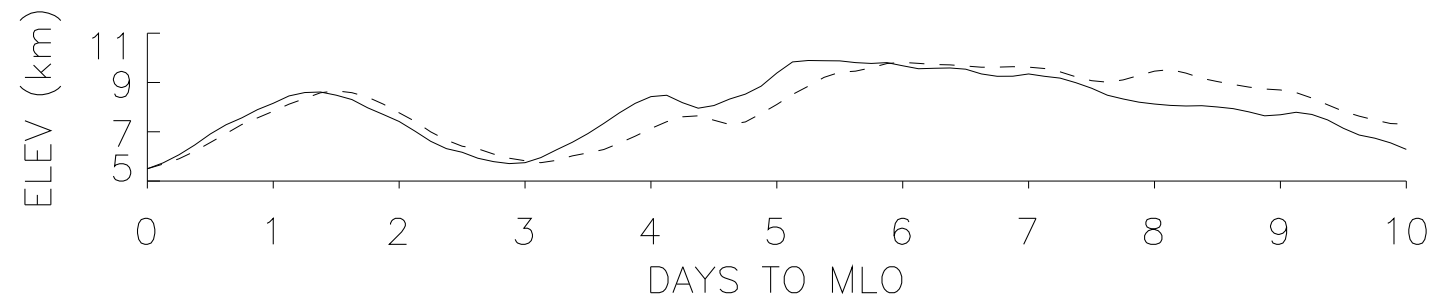
Day	km	hPa	C
0	5.5	520	−10
1	5.7	509	−10
2	6.0	486	−12
3	7.7	380	−30
4	8.0	368	−32
5	7.7	382	−30
6	8.3	354	−35
7	8.9	325	−40
8	9.0	314	−43
9	10.4	254	−57
10	10.2	260	−53

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 5.5 520 -9
1 8.7 329 -40
2 9.4 283 -48
3 8.7 329 -42
4 8.0 363 -38
5 9.4 293 -51
6 8.3 339 -43
06UT
Day km hPa C
0 5.5 522 -7
1 8.6 337 -38
2 7.5 383 -29
3 6.3 464 -16
4 7.9 369 -33
5 8.9 321 -43
6 8.7 329 -40
7 8.0 360 -35
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
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)
4/10/2004 (Day of Year 101)
NCEP/NCAR Reanalysis 1 Data Set





12UT

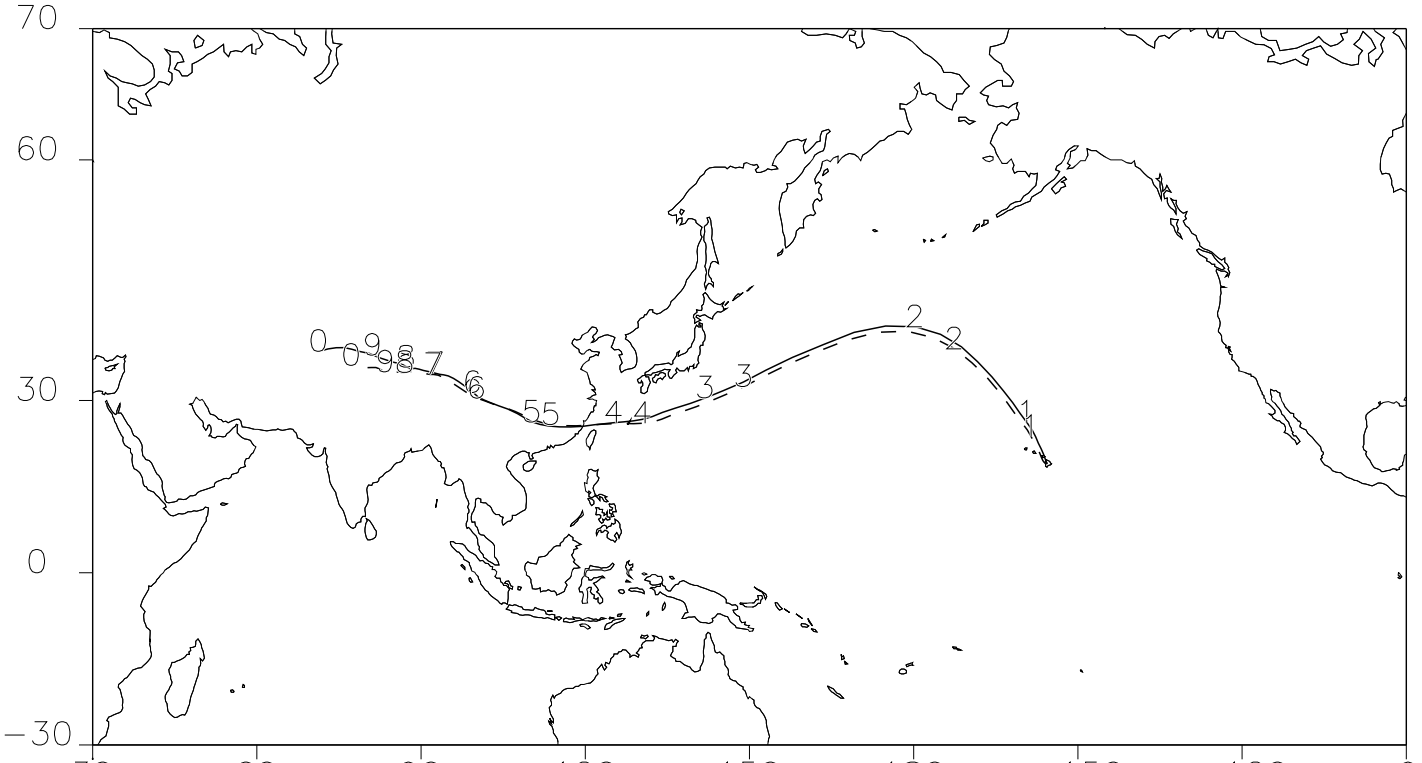
Day	km	hPa	C
0	5.5	521	−8
1	8.2	358	−34
2	7.4	390	−28
3	5.7	502	−9
4	8.4	346	−35
5	9.4	299	−46
6	9.7	289	−48
7	9.3	297	−46
8	8.1	360	−33
9	7.7	385	−28
10	6.3	470	−14

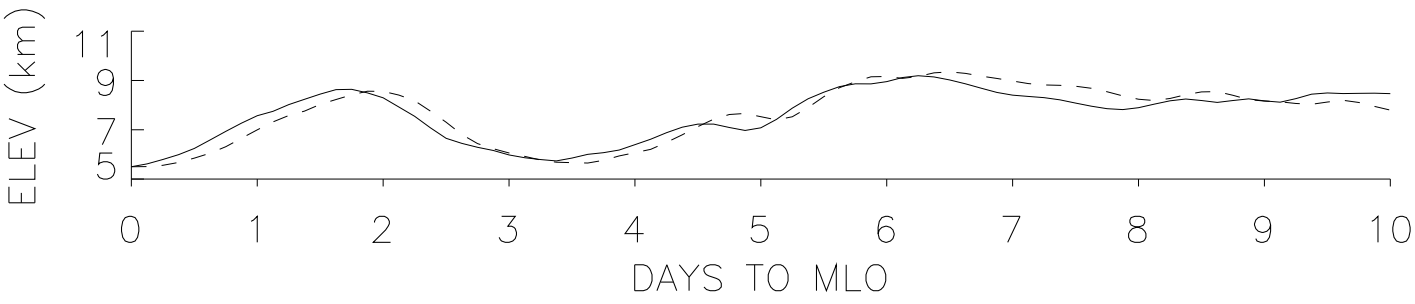
18UT

Day	km	hPa	C
0	5.5	523	−6
1	7.8	378	−28
2	7.8	370	−31
3	5.8	495	−9
4	7.1	418	−21
5	8.1	363	−32
6	9.8	283	−47
7	9.6	292	−45
8	9.5	298	−44
9	8.7	335	−37
10	7.3	410	−23

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

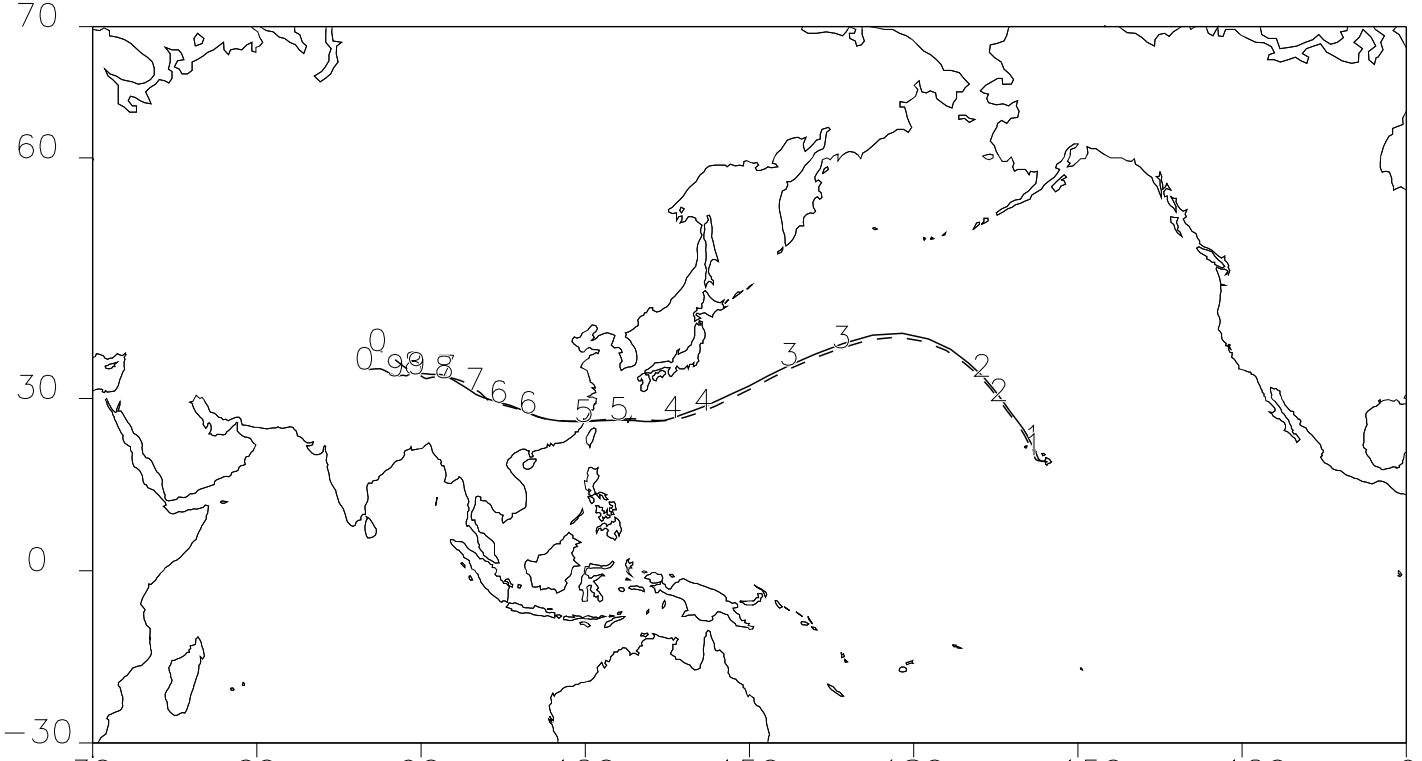
Day	km	hPa	C
0	5.5	522	-6
1	7.6	394	-25
2	8.3	345	-35
3	6.0	485	-10
4	6.4	462	-14
5	7.1	419	-22
6	9.0	322	-40
7	8.4	348	-35
8	7.9	374	-32
9	8.2	359	-33
10	8.5	344	-37

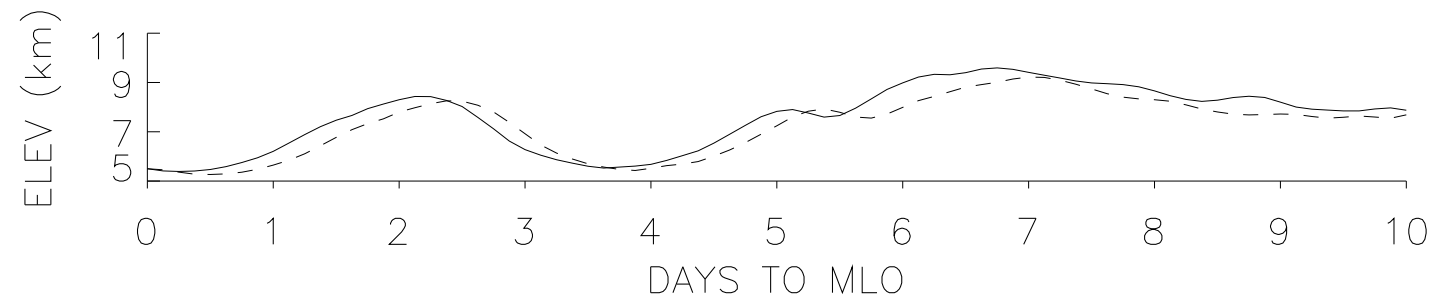
06UT

Day	km	hPa	C
0	5.5	524	-6
1	7.0	429	-19
2	8.6	335	-36
3	6.1	477	-14
4	6.1	483	-11
5	7.5	396	-24
6	9.2	313	-41
7	9.0	322	-40
8	8.2	358	-34
9	8.2	362	-33
10	7.8	381	-29

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

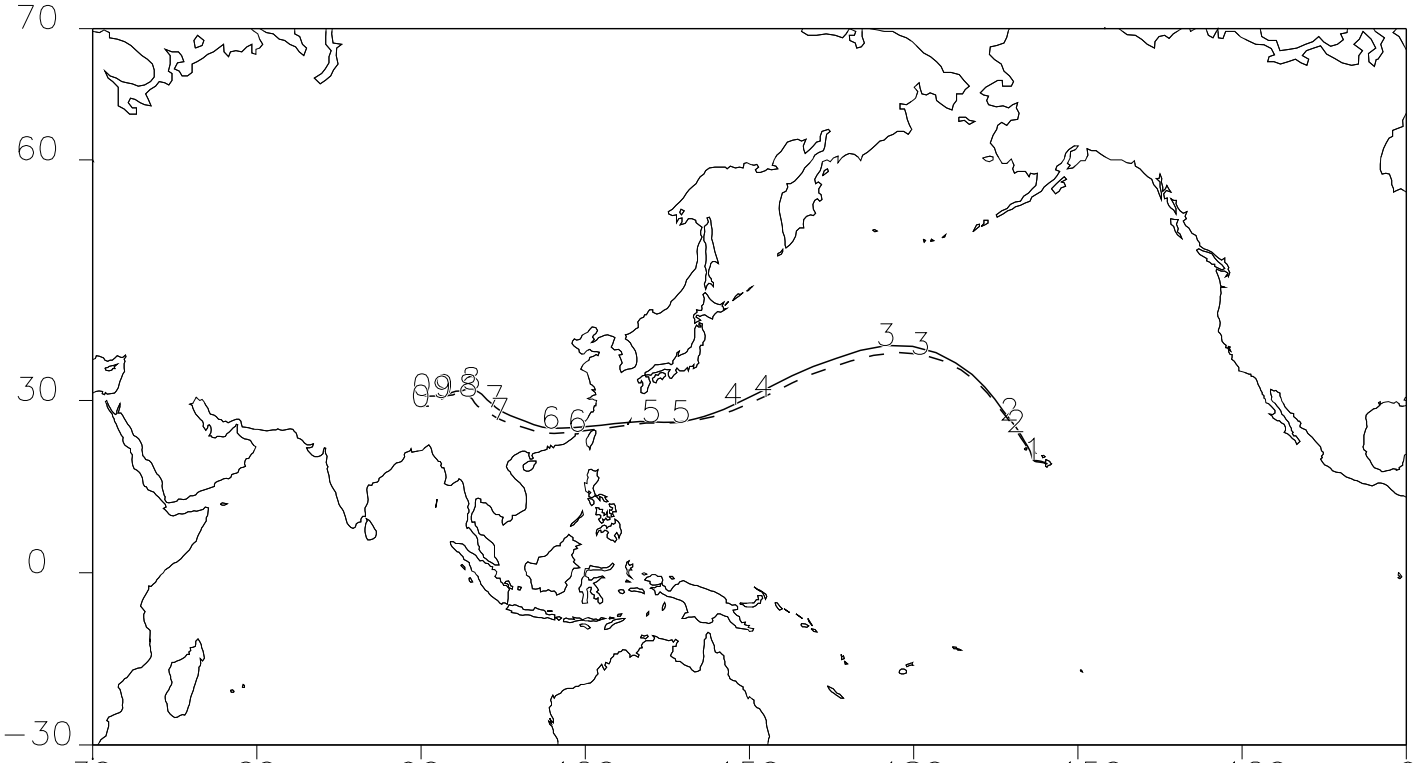
Day	km	hPa	C
0	5.5	522	−6
1	6.2	476	−12
2	8.3	351	−34
3	6.3	462	−17
4	5.7	509	−7
5	7.8	379	−27
6	9.0	320	−39
7	9.4	301	−42
8	8.7	337	−36
9	8.2	359	−33
10	7.9	376	−30

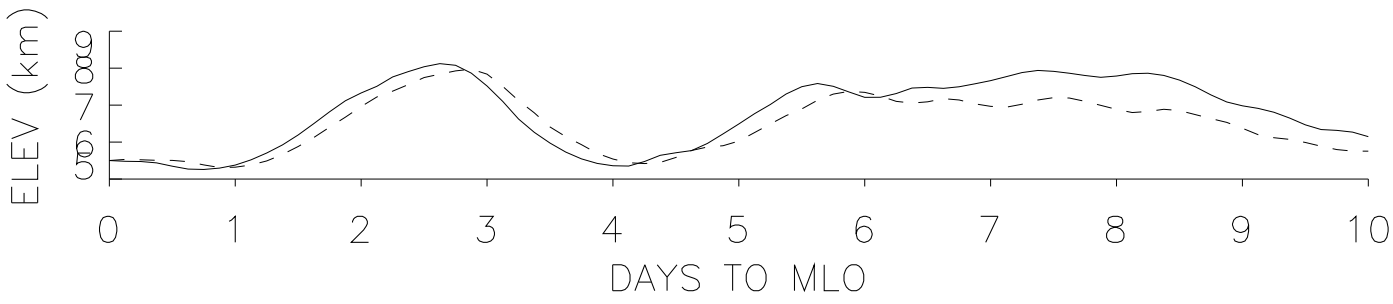
18UT

Day	km	hPa	C
0	5.5	523	−7
1	5.6	514	−8
2	7.8	381	−27
3	6.9	421	−22
4	5.5	517	−8
5	7.2	412	−22
6	8.0	369	−30
7	9.2	310	−41
8	8.3	354	−32
9	7.7	384	−29
10	7.7	384	−30

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

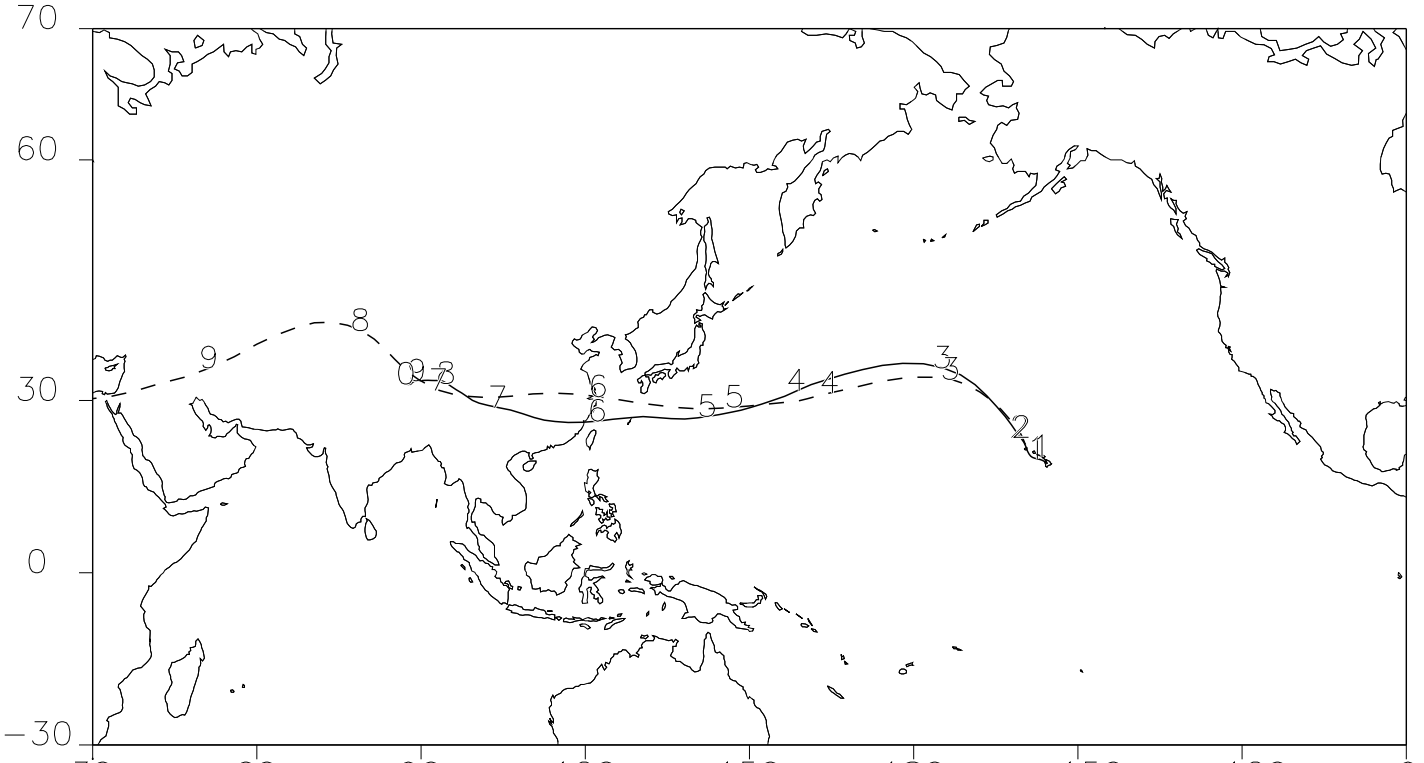
Day	km	hPa	C
0	5.5	522	−7
1	5.4	531	−5
2	7.3	408	−22
3	7.5	389	−26
4	5.4	529	−6
5	6.5	457	−15
6	7.2	412	−22
7	7.7	386	−27
8	7.8	380	−28
9	7.0	425	−21
10	6.1	475	−15

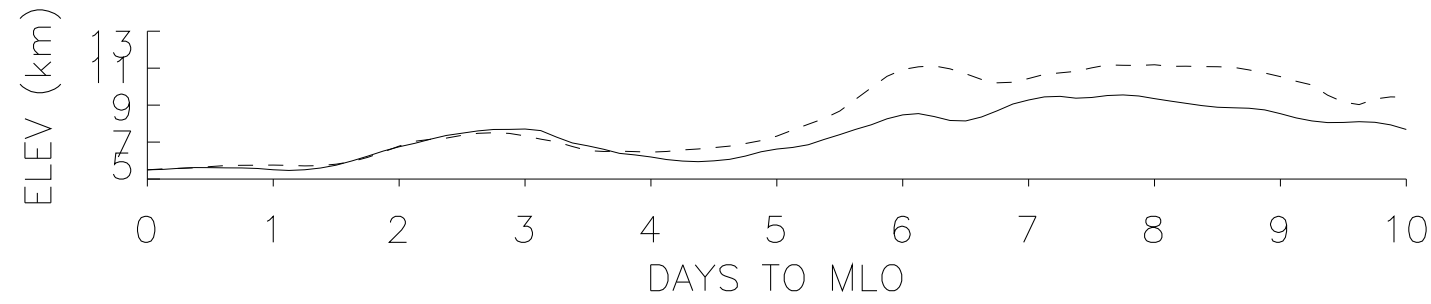
06UT

Day	km	hPa	C
0	5.5	522	−7
1	5.3	536	−5
2	7.0	431	−18
3	7.8	374	−28
4	5.5	514	−8
5	6.0	486	−11
6	7.3	405	−21
7	7.0	426	−20
8	6.9	432	−21
9	6.4	463	−17
10	5.8	503	−11

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

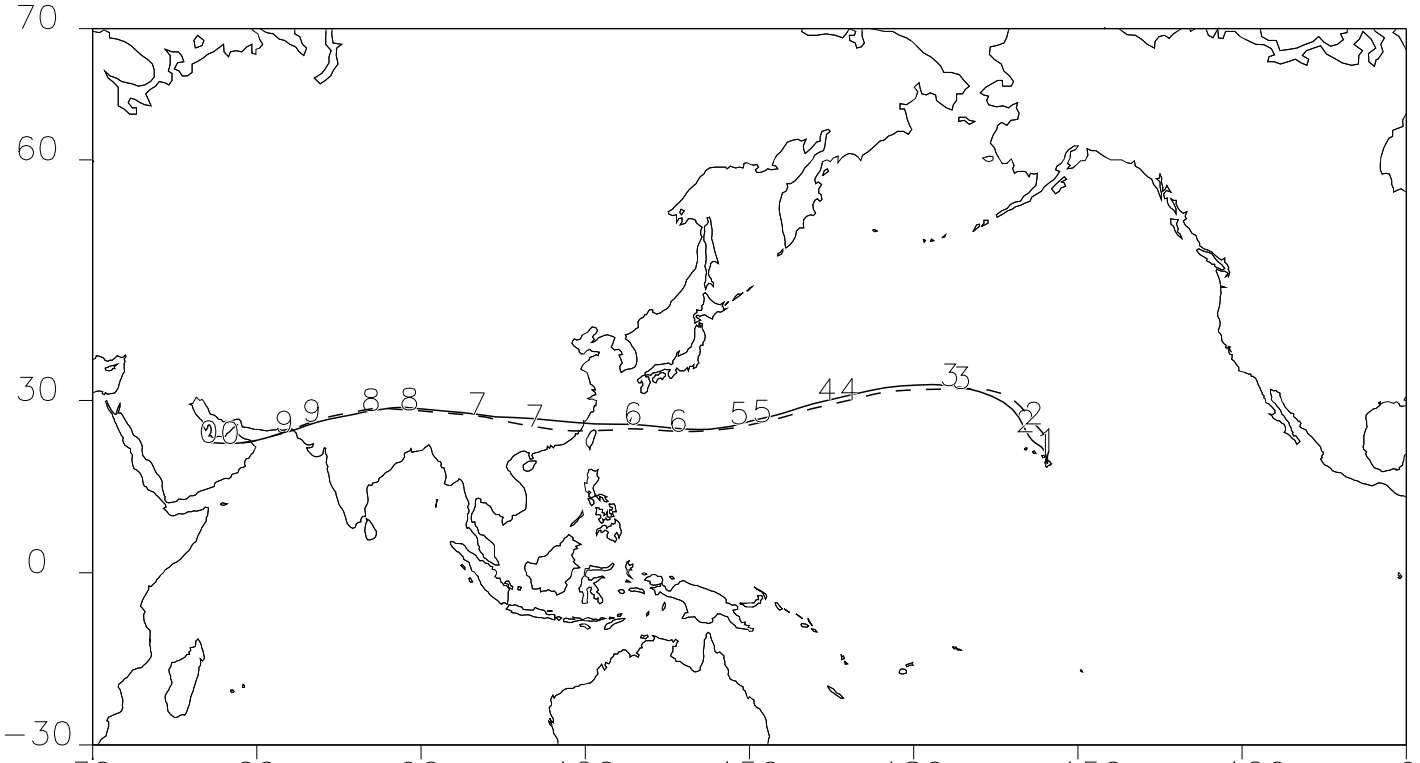
Day	km	hPa	C
0	5.5	521	−7
1	5.5	522	−7
2	6.7	443	−17
3	7.7	384	−27
4	6.2	474	−12
5	6.6	450	−15
6	8.5	346	−32
7	9.3	307	−40
8	9.4	304	−41
9	8.5	343	−34
10	7.7	386	−28

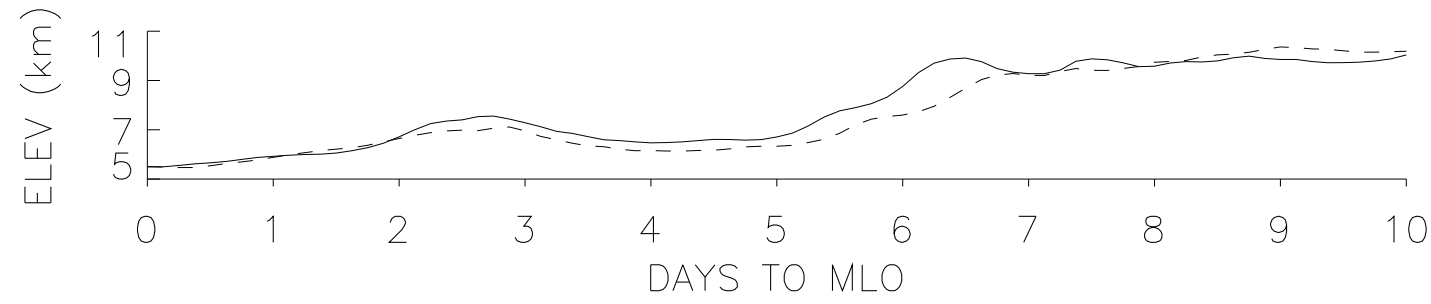
18UT

Day	km	hPa	C
0	5.5	522	−7
1	5.8	506	−9
2	6.8	443	−17
3	7.3	406	−23
4	6.5	458	−13
5	7.3	408	−21
6	10.9	238	−56
7	10.4	259	−51
8	11.2	229	−58
9	10.5	249	−54
10	9.4	302	−39

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

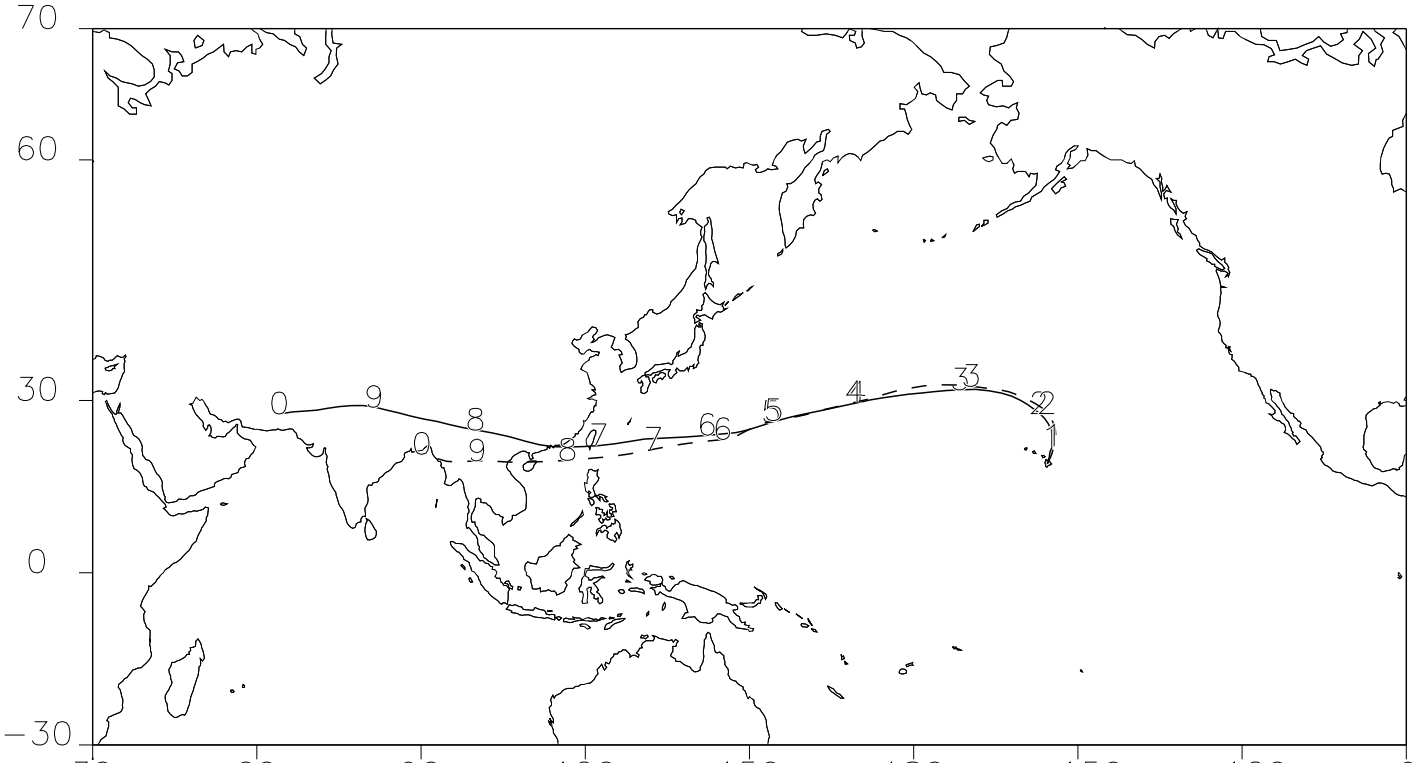
Day	km	hPa	C
0	5.5	522	-7
1	5.9	494	-10
2	6.7	445	-17
3	7.3	410	-22
4	6.5	459	-13
5	6.7	447	-13
6	8.8	336	-32
7	9.3	308	-38
8	9.6	296	-40
9	9.9	287	-43
10	10.0	279	-44

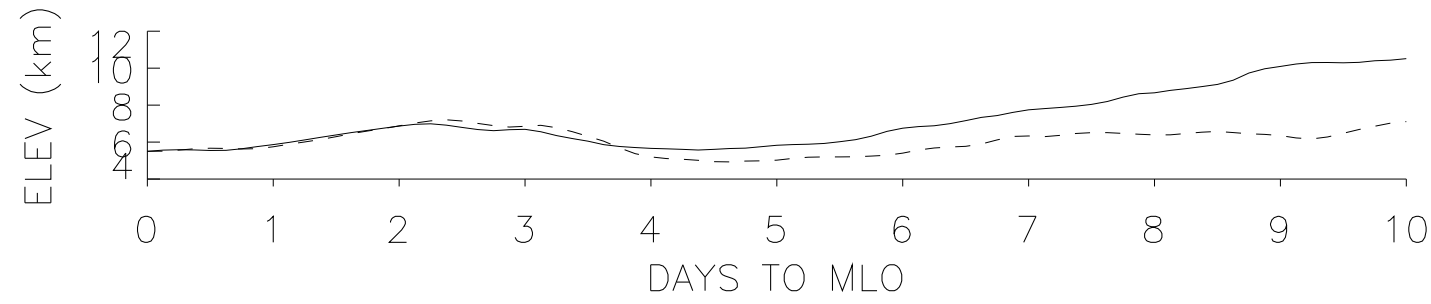
06UT

Day	km	hPa	C
0	5.5	522	-7
1	5.9	497	-10
2	6.6	449	-18
3	7.0	429	-20
4	6.2	478	-12
5	6.3	469	-10
6	7.6	396	-21
7	9.2	314	-35
8	9.7	291	-41
9	10.4	267	-47
10	10.2	275	-44

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

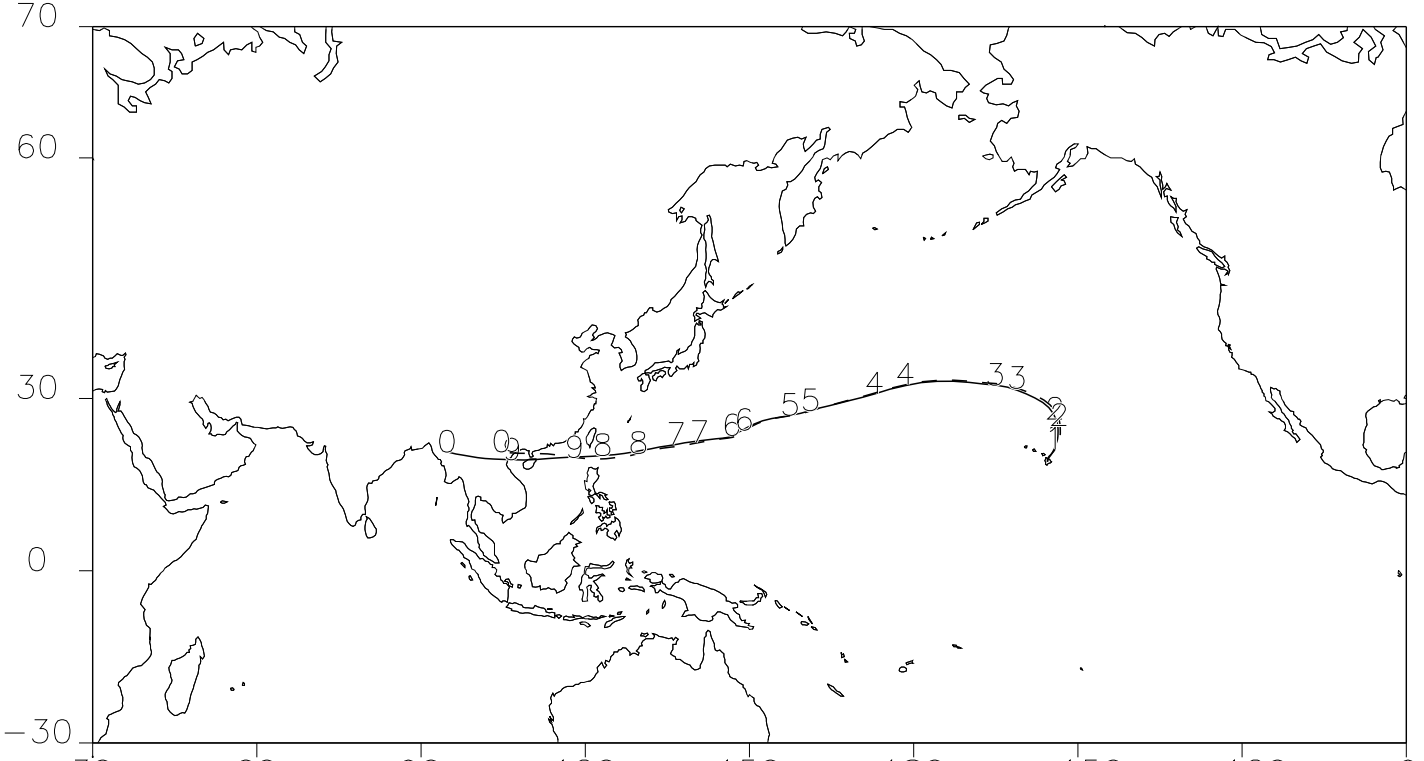
Day	km	hPa	C
0	5.5	522	−7
1	5.9	497	−11
2	6.9	435	−21
3	6.7	444	−19
4	5.7	511	−9
5	5.8	501	−6
6	6.8	445	−13
7	7.7	388	−21
8	8.7	339	−31
9	10.1	275	−44
10	10.5	259	−49

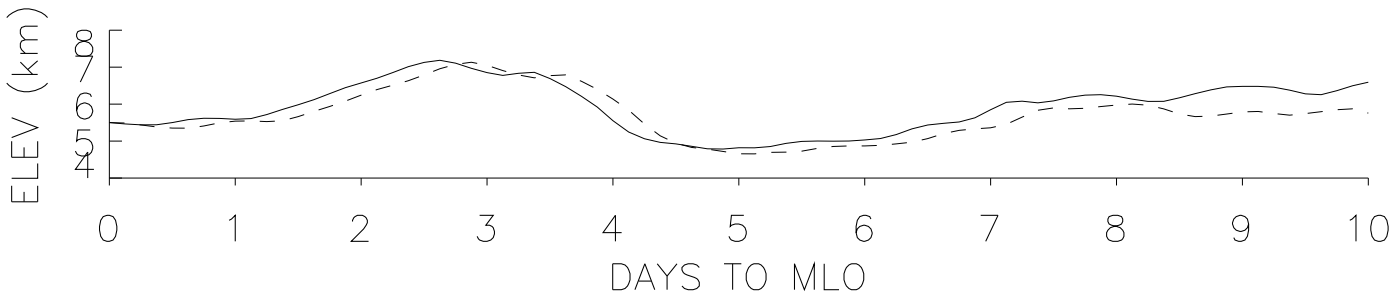
18UT

Day	km	hPa	C
0	5.5	522	−7
1	5.7	506	−10
2	6.9	435	−20
3	6.9	434	−20
4	5.2	540	−7
5	5.0	554	−4
6	5.4	529	−4
7	6.3	470	−10
8	6.4	465	−12
9	6.4	468	−11
10	7.1	425	−15

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

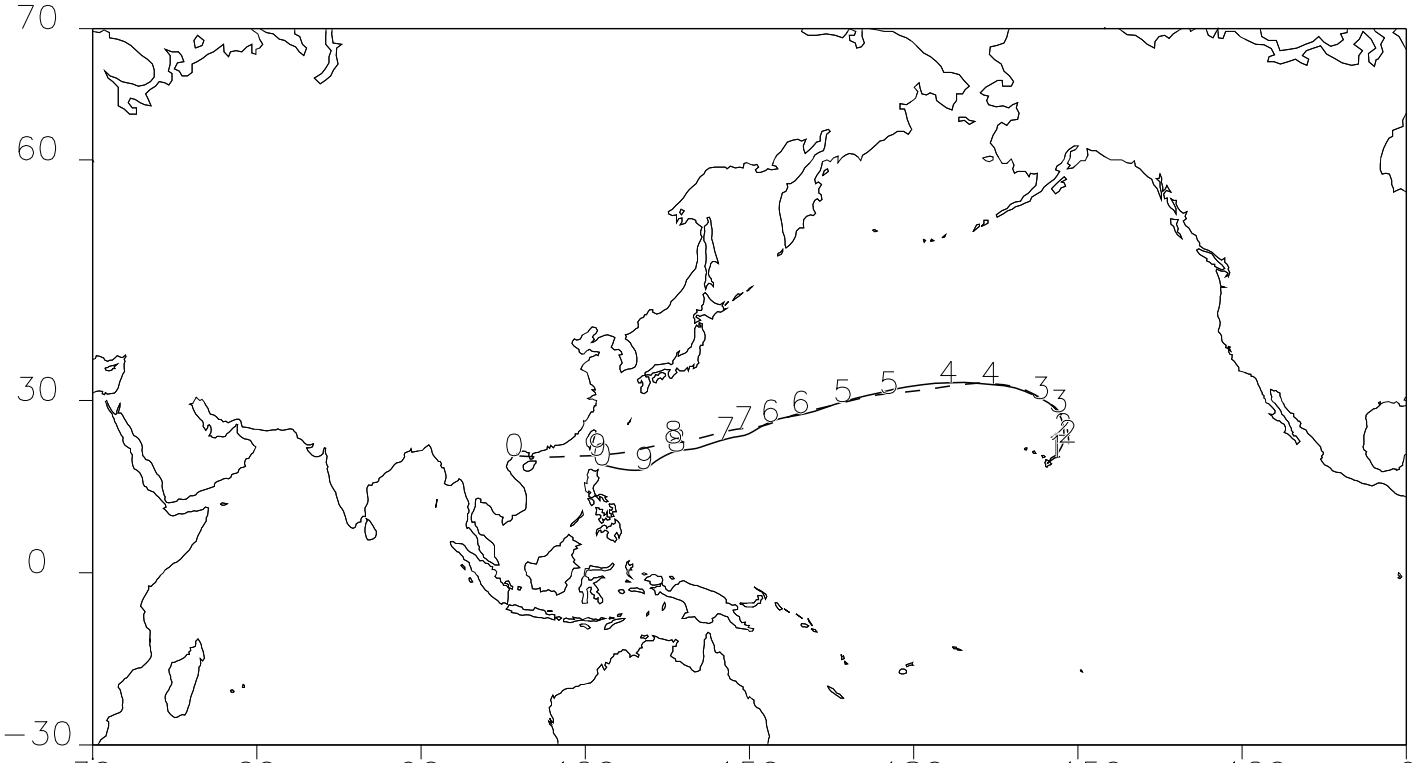
Day	km	hPa	C
0	5.5	522	−7
1	5.6	516	−8
2	6.6	452	−17
3	6.9	435	−21
4	5.6	516	−9
5	4.8	569	−3
6	5.0	556	−2
7	5.8	501	−6
8	6.2	476	−10
9	6.5	459	−12
10	6.6	454	−13

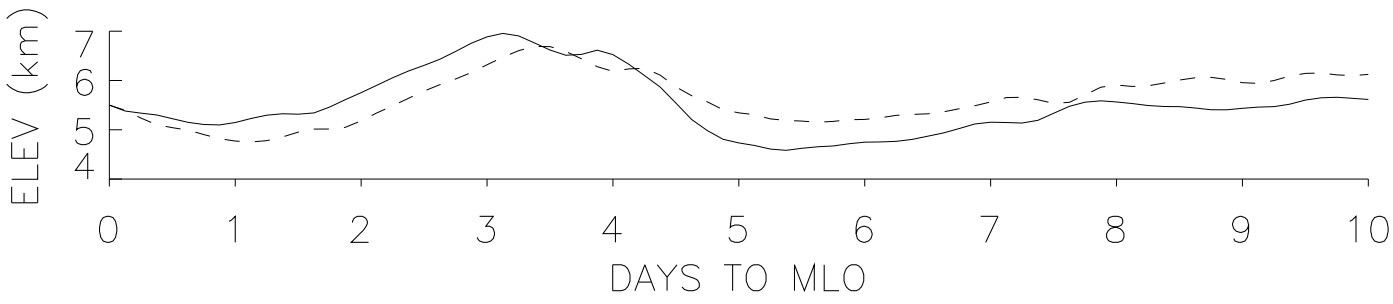
06UT

Day	km	hPa	C
0	5.5	522	−7
1	5.5	520	−8
2	6.2	473	−15
3	7.1	423	−23
4	6.1	477	−14
5	4.7	580	−4
6	4.9	565	−1
7	5.4	533	−3
8	6.0	491	−8
9	5.8	502	−8
10	5.8	506	−9

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

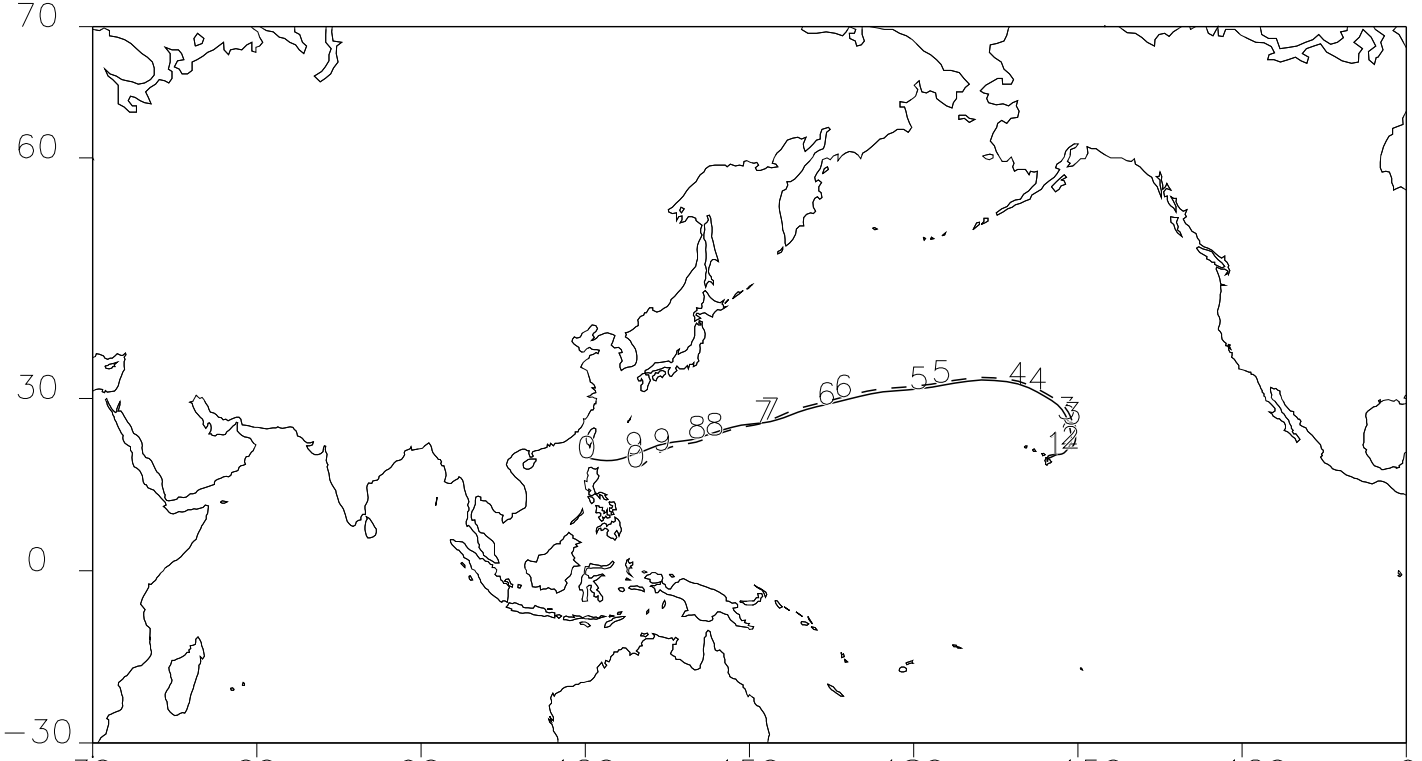
Day	km	hPa	C
0	5.5	522	−7
1	5.1	546	−5
2	5.8	504	−12
3	6.9	433	−22
4	6.5	453	−18
5	4.7	574	−5
6	4.7	575	−2
7	5.2	548	−3
8	5.6	519	−4
9	5.4	528	−3
10	5.6	515	−5

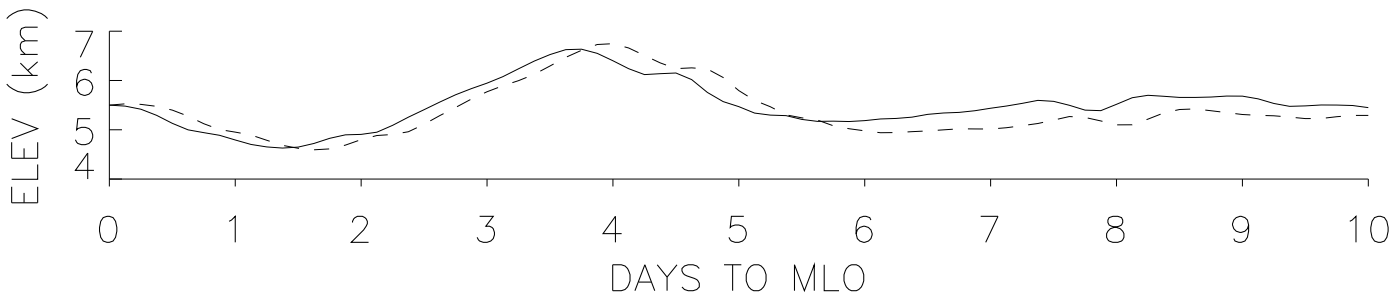
18UT

Day	km	hPa	C
0	5.5	523	−7
1	4.8	573	−3
2	5.2	544	−7
3	6.3	468	−17
4	6.2	475	−16
5	5.3	530	−8
6	5.2	540	−5
7	5.6	518	−6
8	5.9	496	−7
9	6.0	491	−8
10	6.1	481	−11

12UT – solid
18UT – dashed

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





00UT

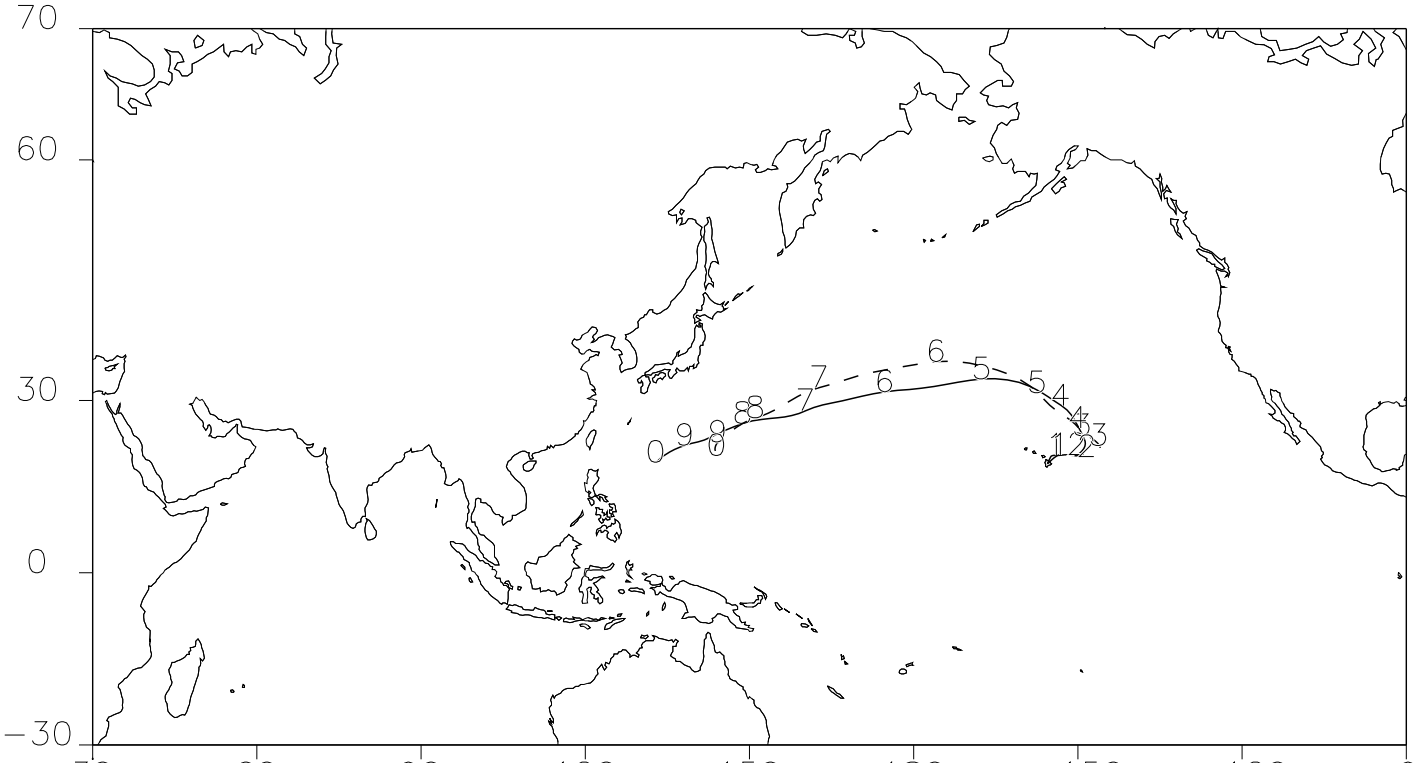
Day	km	hPa	C
0	5.5	522	-7
1	4.8	571	-4
2	4.9	563	-5
3	5.9	491	-14
4	6.4	462	-18
5	5.5	522	-9
6	5.2	543	-6
7	5.4	528	-5
8	5.5	523	-5
9	5.7	510	-6
10	5.4	525	-6

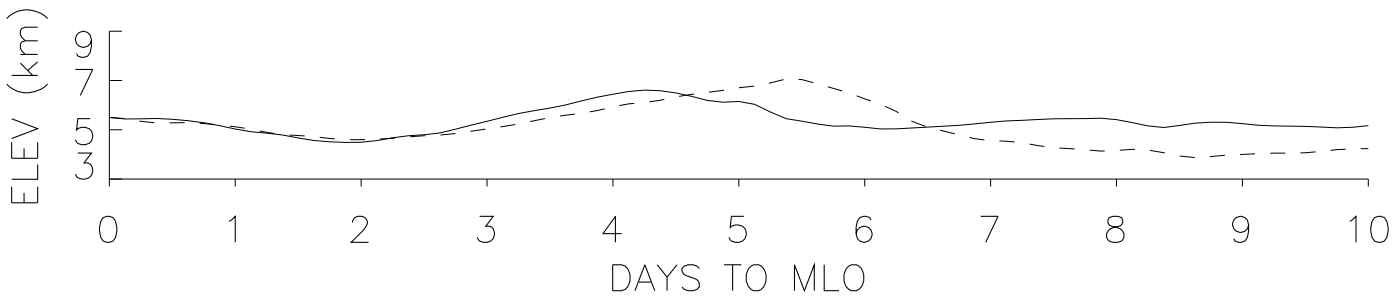
06UT

Day	km	hPa	C
0	5.5	522	-7
1	5.0	560	-5
2	4.8	571	-4
3	5.8	503	-12
4	6.7	440	-21
5	5.8	500	-12
6	5.0	556	-6
7	5.0	554	-3
8	5.1	550	-2
9	5.3	535	-4
10	5.3	536	-3

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





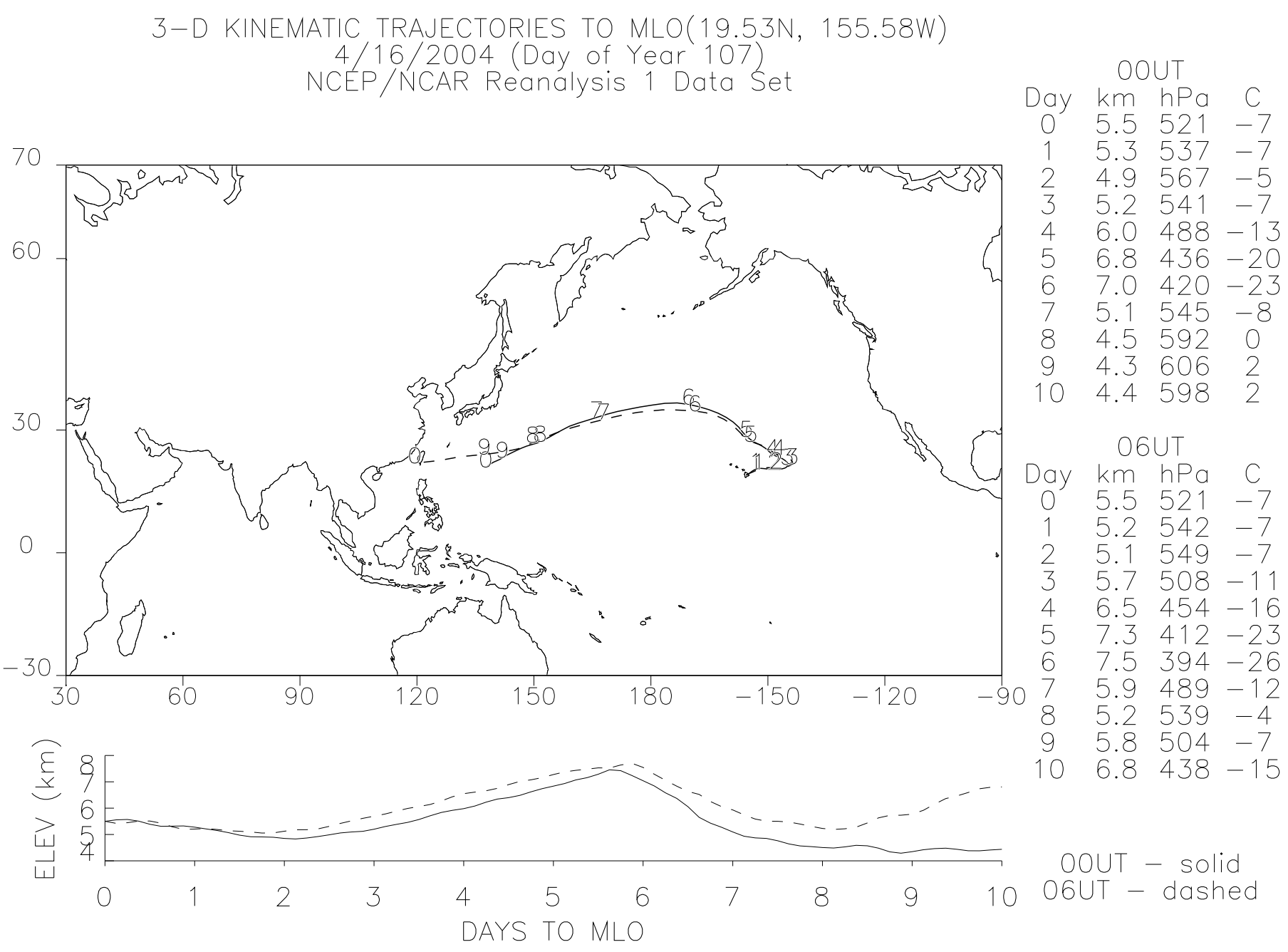
12UT

Day	km	hPa	C
0	5.5	521	−7
1	5.0	554	−5
2	4.5	592	−2
3	5.3	531	−9
4	6.4	459	−19
5	6.1	476	−16
6	5.1	547	−6
7	5.3	535	−5
8	5.4	529	−6
9	5.2	540	−3
10	5.2	546	−2

18UT

Day	km	hPa	C
0	5.5	522	−7
1	5.1	549	−6
2	4.6	586	−3
3	5.0	554	−6
4	5.9	493	−13
5	6.7	443	−21
6	6.3	466	−17
7	4.6	584	−5
8	4.2	618	1
9	4.0	632	3
10	4.2	612	2

12UT − solid
18UT − dashed



00UT

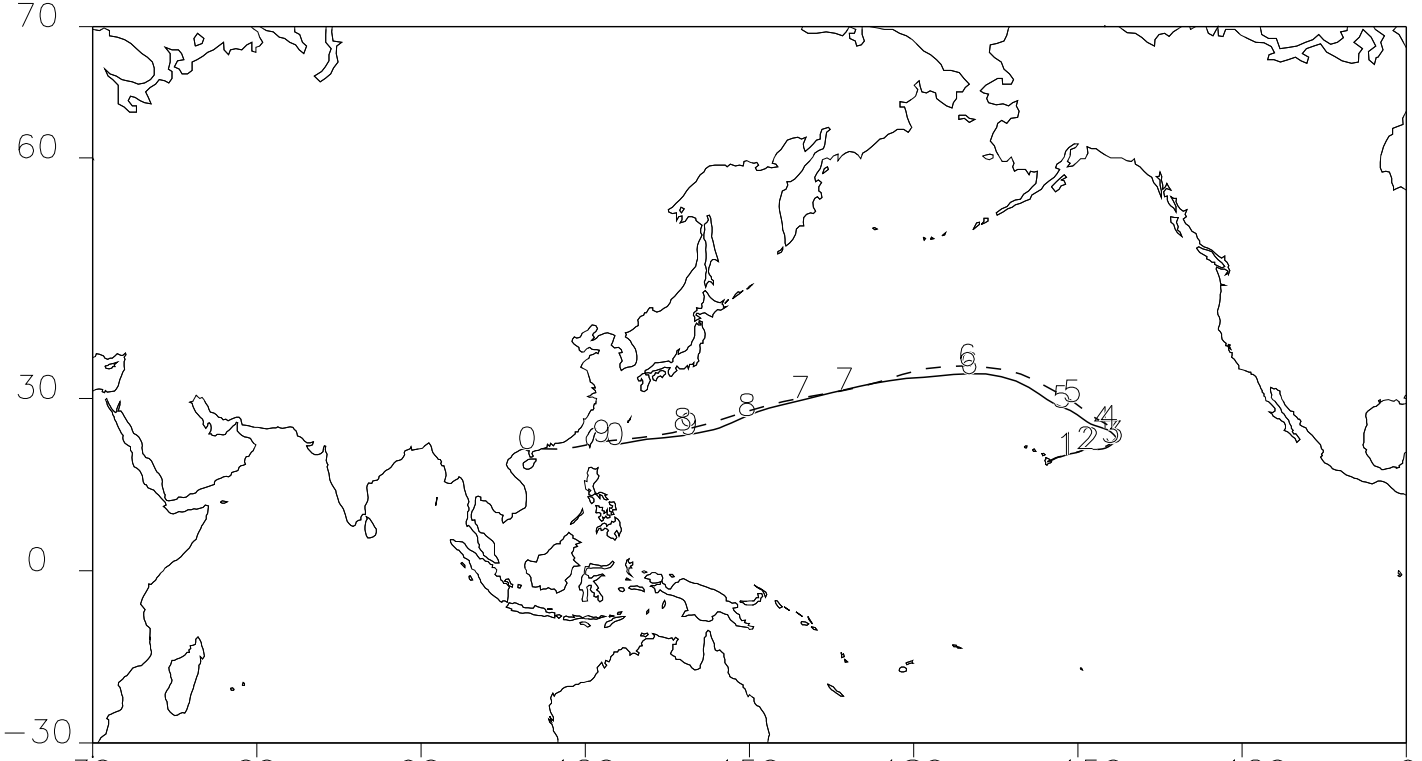
Day	km	hPa	C
0	5.5	521	−7
1	5.3	537	−7
2	4.9	567	−5
3	5.2	541	−7
4	6.0	488	−13
5	6.8	436	−20
6	7.0	420	−23
7	5.1	545	−8
8	4.5	592	0
9	4.3	606	2
10	4.4	598	2

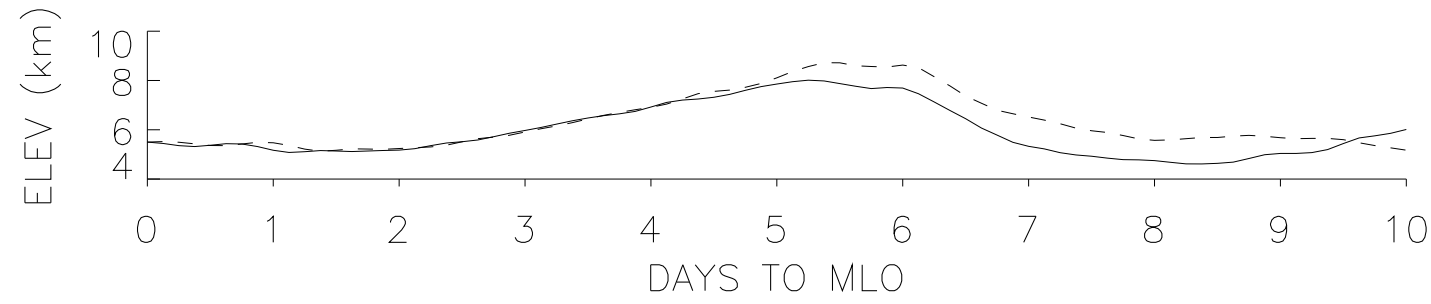
06UT

Day	km	hPa	C
0	5.5	521	−7
1	5.2	542	−7
2	5.1	549	−7
3	5.7	508	−11
4	6.5	454	−16
5	7.3	412	−23
6	7.5	394	−26
7	5.9	489	−12
8	5.2	539	−4
9	5.8	504	−7
10	6.8	438	−15

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





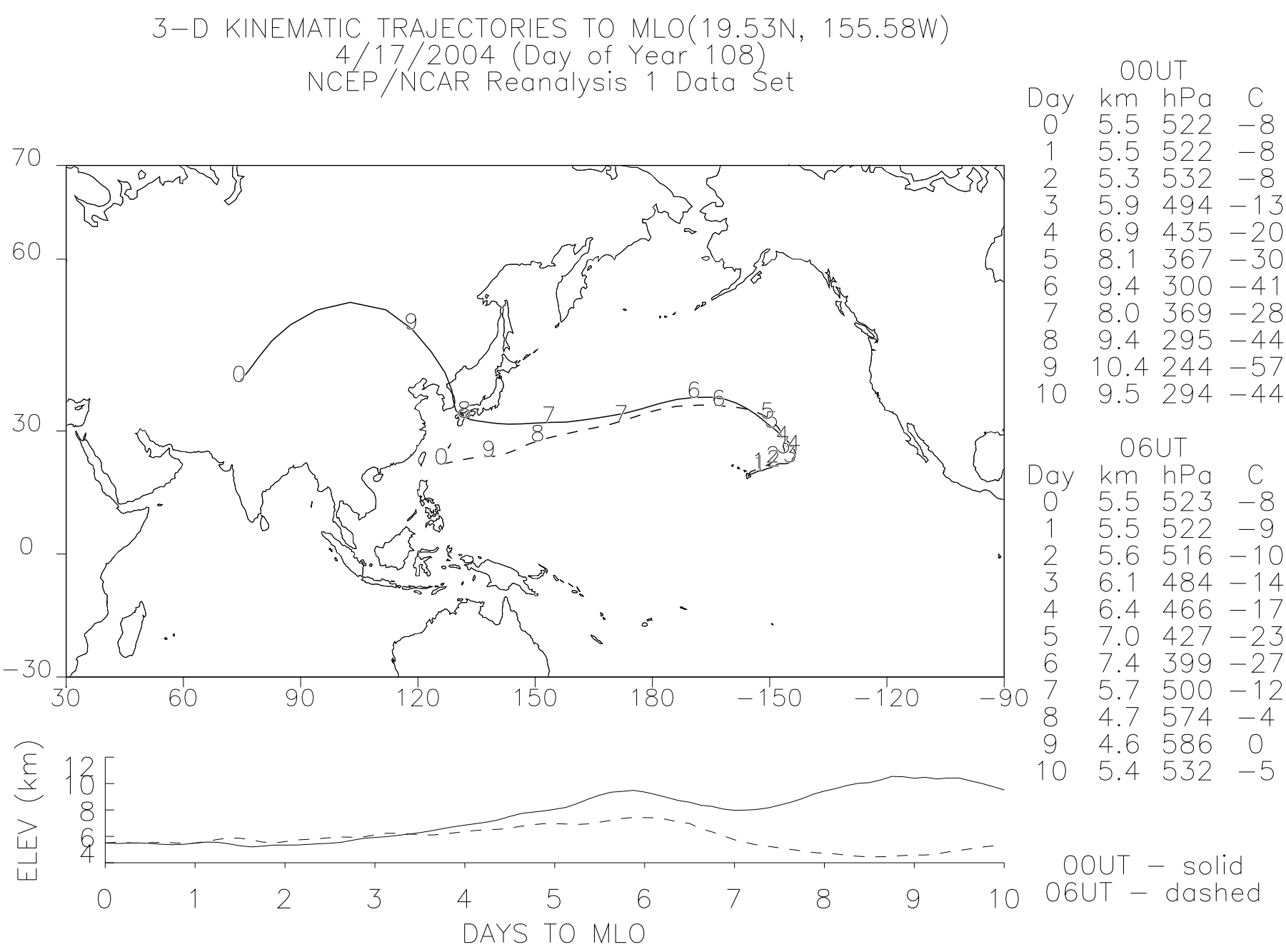
12UT

Day	km	hPa	C
0	5.5	521	−8
1	5.2	543	−7
2	5.2	544	−7
3	6.0	489	−13
4	6.9	430	−20
5	7.9	378	−28
6	7.7	386	−27
7	5.3	530	−9
8	4.7	574	−2
9	5.0	555	−2
10	6.0	488	−9

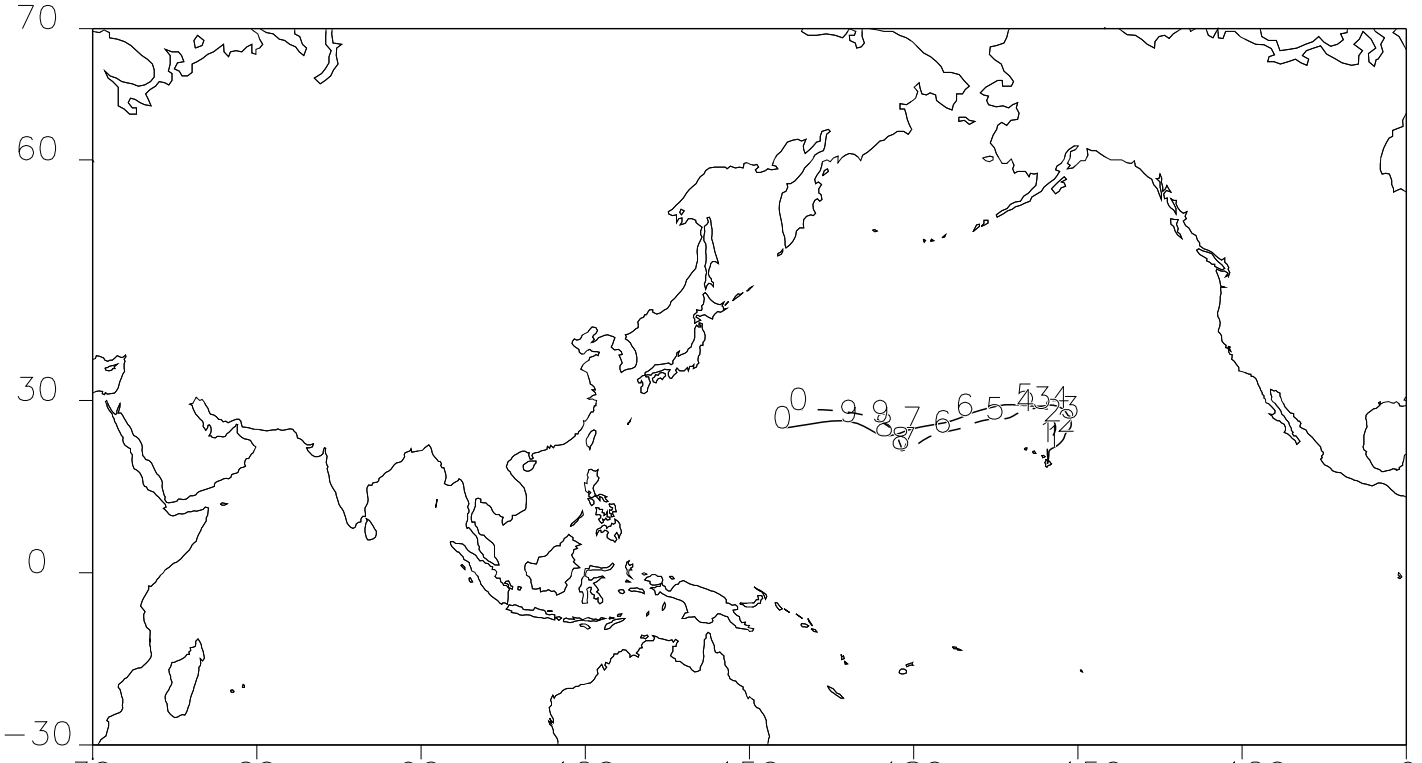
18UT

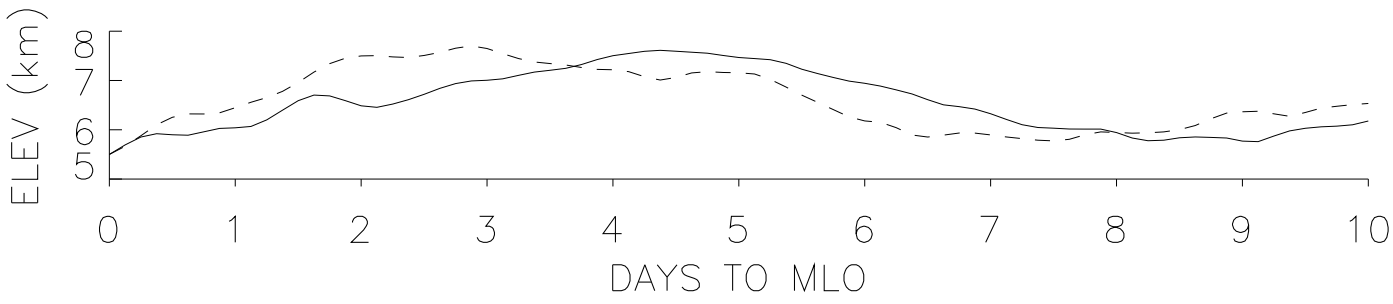
Day	km	hPa	C
0	5.5	523	−7
1	5.5	524	−8
2	5.2	540	−8
3	5.9	495	−13
4	6.9	432	−20
5	8.1	365	−30
6	8.6	337	−35
7	6.5	453	−16
8	5.6	515	−6
9	5.7	510	−6
10	5.2	543	−4

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
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 5.5 522 -8
1 5.5 522 -8
2 5.3 532 -8
3 5.9 494 -13
4 6.9 435 -20
5 8.1 367 -30
6 9.4 300 -41
7 8.0 369 -28
8 9.4 295 -44
9 10.4 244 -57
10 9.5 294 -44
06UT
Day km hPa C
0 5.5 523 -8
1 5.5 522 -9
2 5.6 516 -10
3 6.1 484 -14
4 6.4 466 -17
5 7.0 427 -23
6 7.4 399 -27
7 5.7 500 -12
8 4.7 574 -4
9 4.6 586 0
10 5.4 532 -5
00UT - solid
06UT - dashed

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





12UT

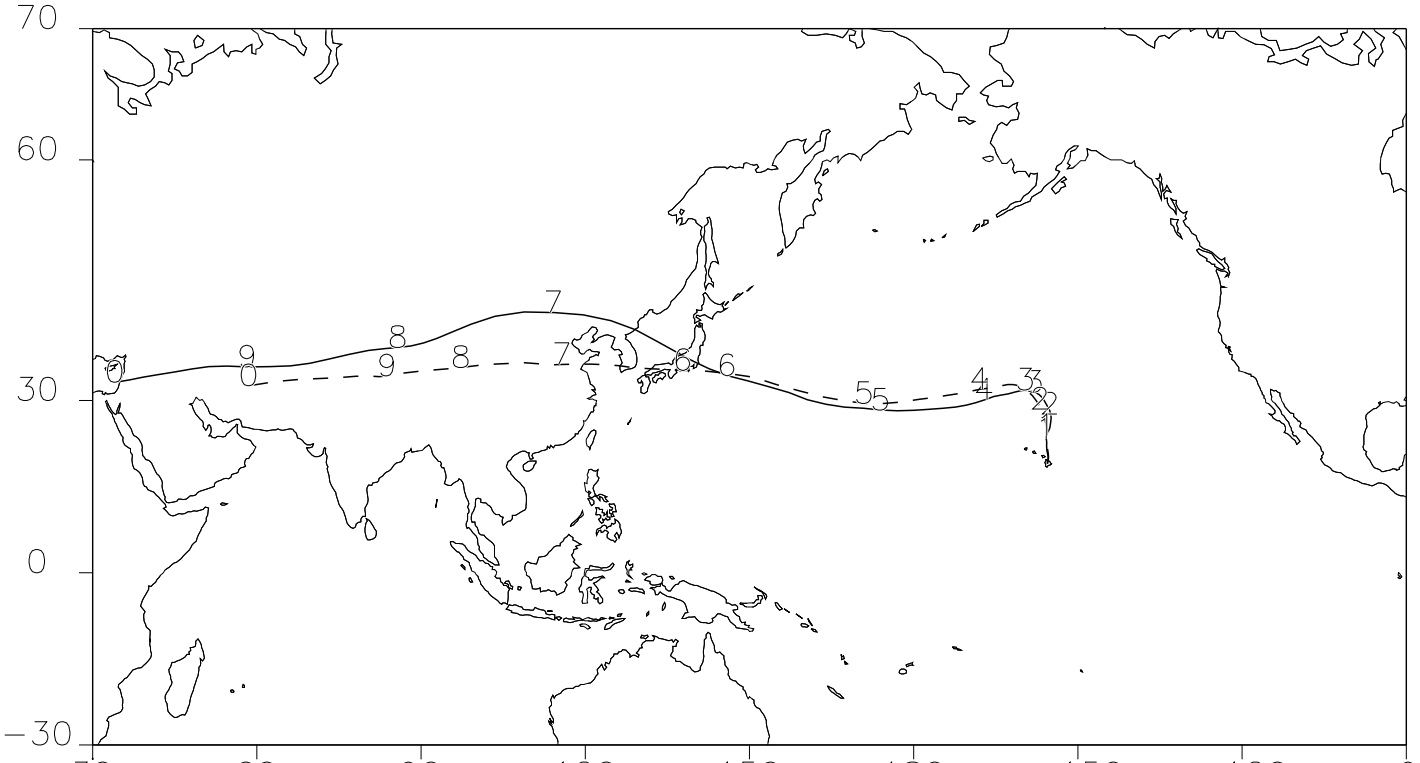
Day	km	hPa	C
0	5.5	522	−9
1	6.0	486	−14
2	6.5	458	−18
3	7.0	428	−22
4	7.5	399	−25
5	7.5	401	−25
6	6.9	433	−19
7	6.3	471	−11
8	5.9	496	−6
9	5.8	506	−6
10	6.2	481	−9

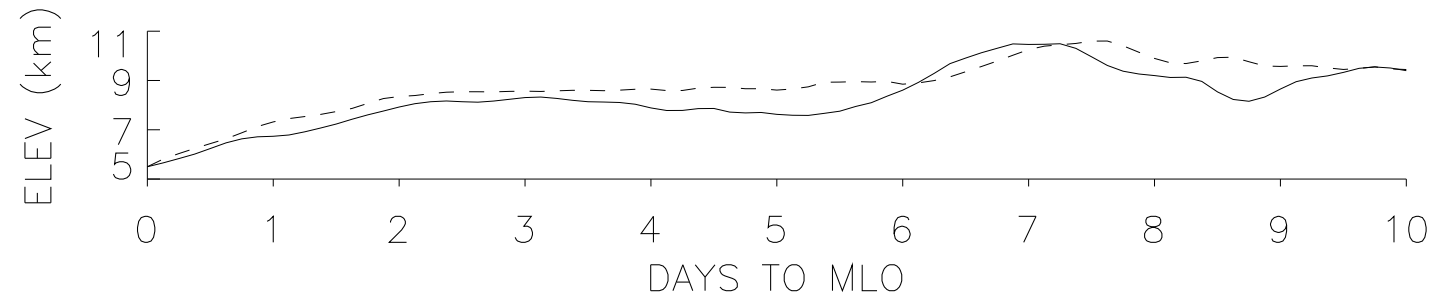
18UT

Day	km	hPa	C
0	5.5	524	−8
1	6.4	462	−17
2	7.5	400	−25
3	7.6	392	−27
4	7.2	416	−23
5	7.2	419	−22
6	6.2	478	−13
7	5.9	498	−7
8	5.9	495	−7
9	6.4	467	−12
10	6.5	456	−14

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

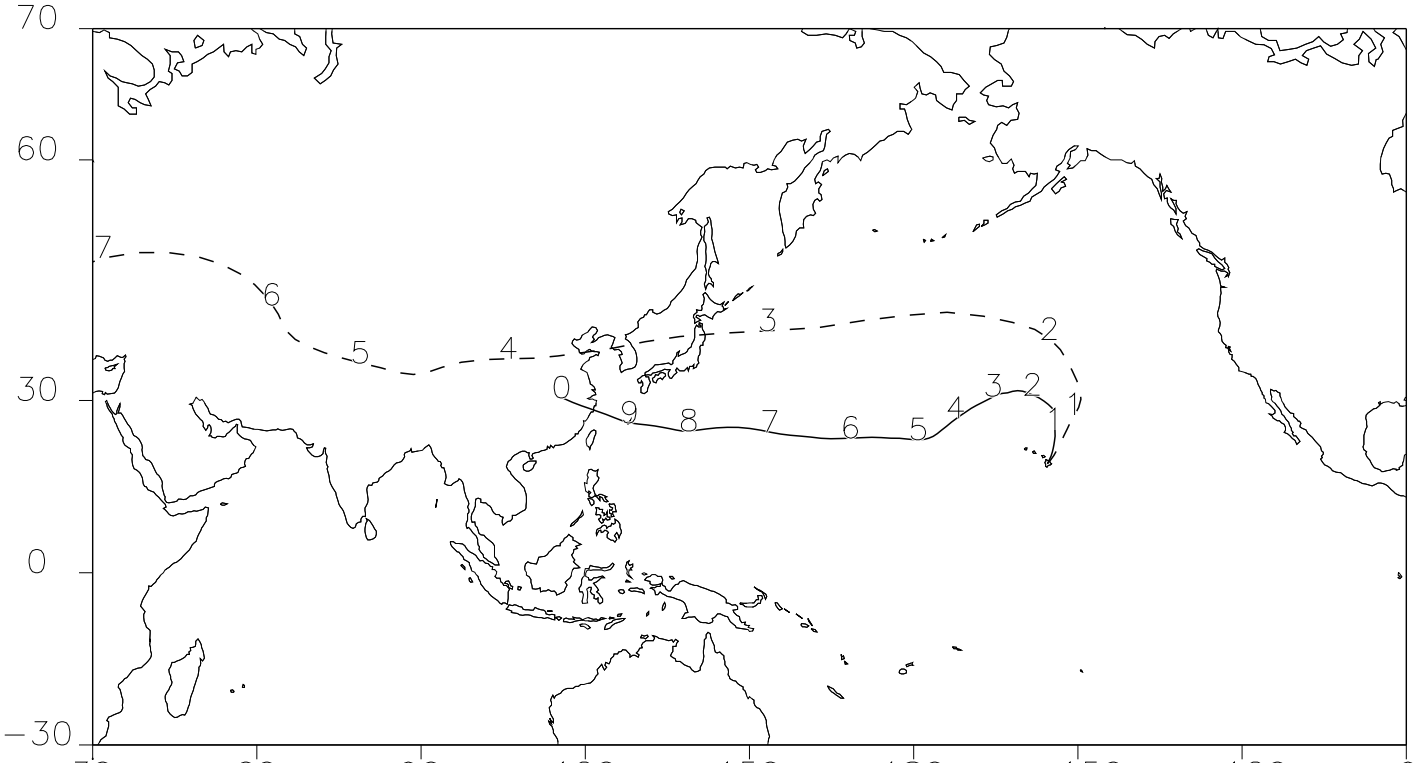
Day	km	hPa	C
0	5.5	522	−8
1	6.7	444	−19
2	7.9	378	−29
3	8.3	358	−32
4	7.9	377	−28
5	7.6	388	−27
6	8.6	334	−37
7	10.5	247	−57
8	9.2	305	−45
9	8.7	328	−42
10	9.4	295	−48

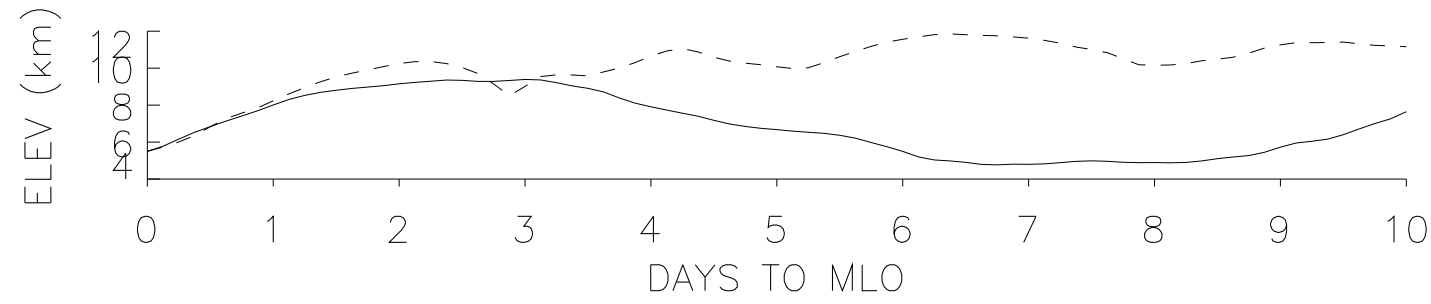
06UT

Day	km	hPa	C
0	5.5	524	−6
1	7.3	411	−22
2	8.3	356	−32
3	8.6	345	−33
4	8.7	338	−35
5	8.6	337	−33
6	8.8	325	−35
7	10.3	265	−48
8	9.9	278	−46
9	9.6	293	−41
10	9.4	296	−42

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

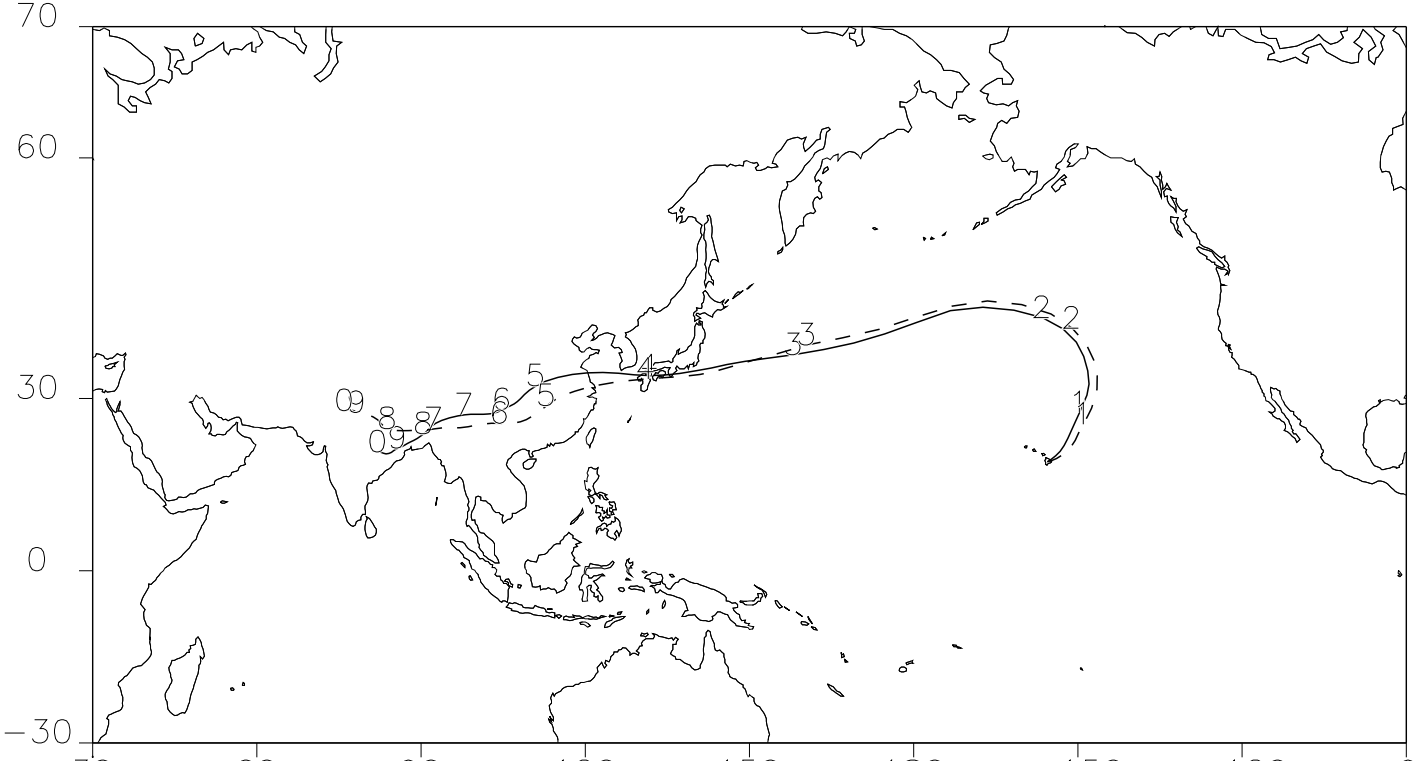
Day	km	hPa	C
0	5.5	523	−6
1	8.0	373	−29
2	9.2	316	−38
3	9.4	306	−39
4	7.9	377	−27
5	6.7	447	−16
6	5.5	522	−7
7	4.8	572	−1
8	4.9	565	−2
9	5.7	506	−7
10	7.6	387	−27

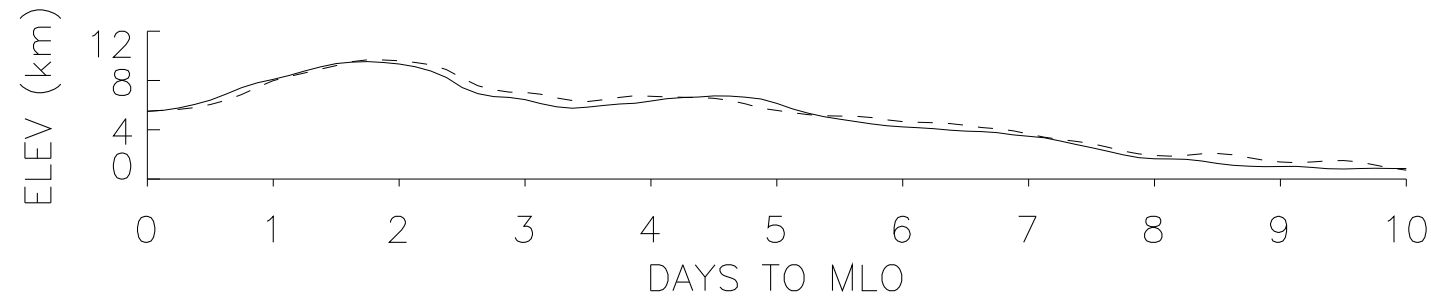
18UT

Day	km	hPa	C
0	5.5	524	−5
1	8.2	362	−31
2	10.2	265	−52
3	9.0	300	−43
4	10.7	243	−55
5	10.1	267	−49
6	11.6	211	−60
7	11.6	205	−60
8	10.2	258	−48
9	11.3	222	−56
10	11.2	220	−54

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

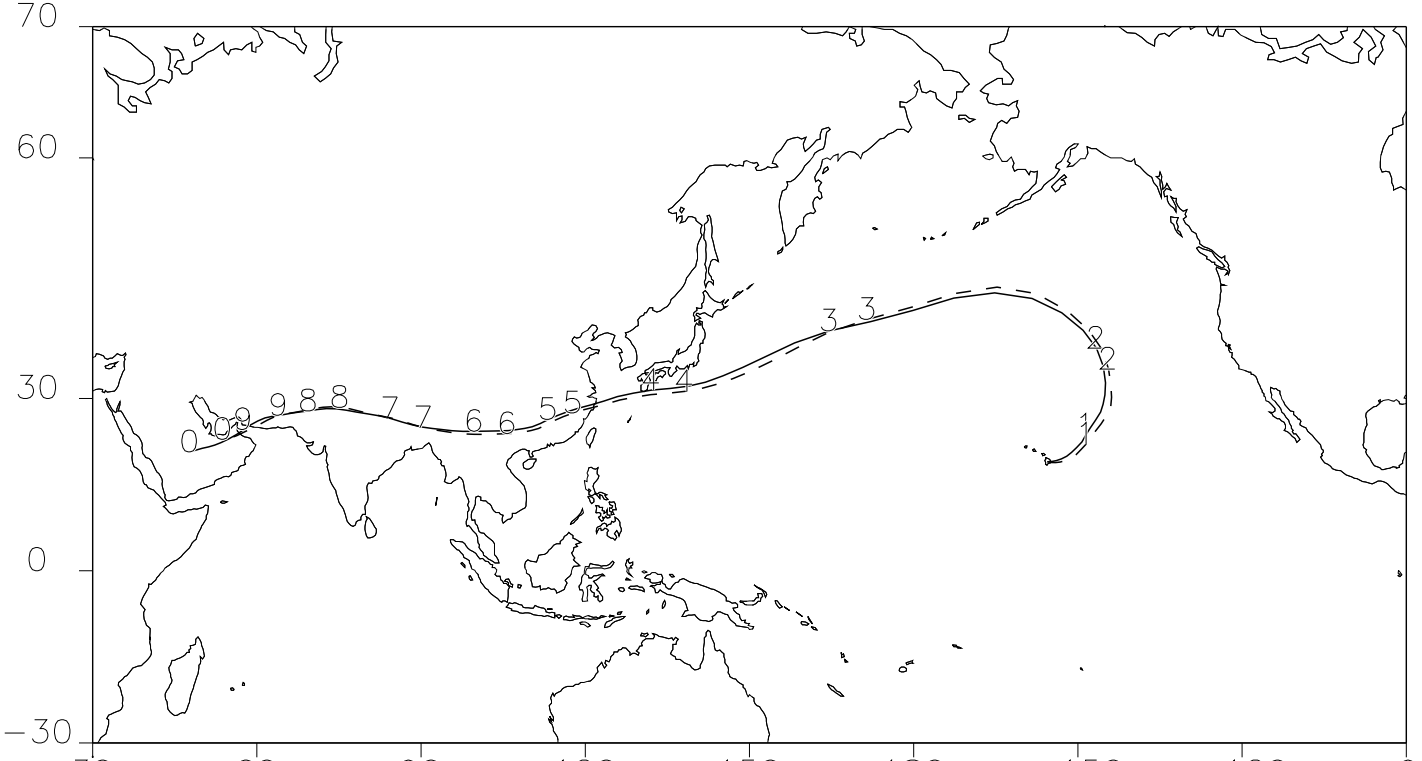
Day	km	hPa	C
0	5.5	525	-3
1	8.1	369	-29
2	9.3	302	-42
3	6.4	446	-21
4	6.3	460	-16
5	6.1	474	-16
6	4.2	607	-2
7	3.5	668	3
8	1.6	834	18
9	1.0	897	25
10	0.9	912	28

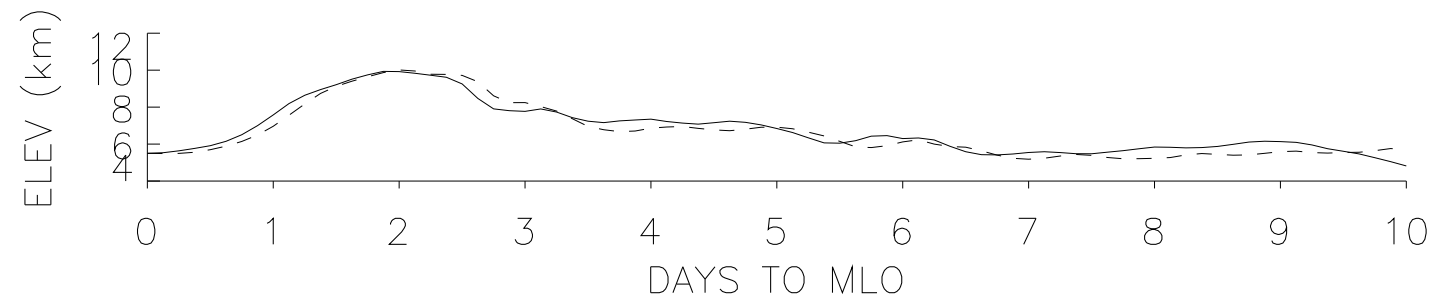
06UT

Day	km	hPa	C
0	5.5	525	-3
1	8.0	374	-27
2	9.6	291	-43
3	7.0	409	-24
4	6.7	437	-18
5	5.6	513	-10
6	4.7	577	-4
7	3.7	657	3
8	1.9	811	20
9	1.4	862	23
10	0.7	928	29

00UT - solid
06UT - dashed

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





12UT

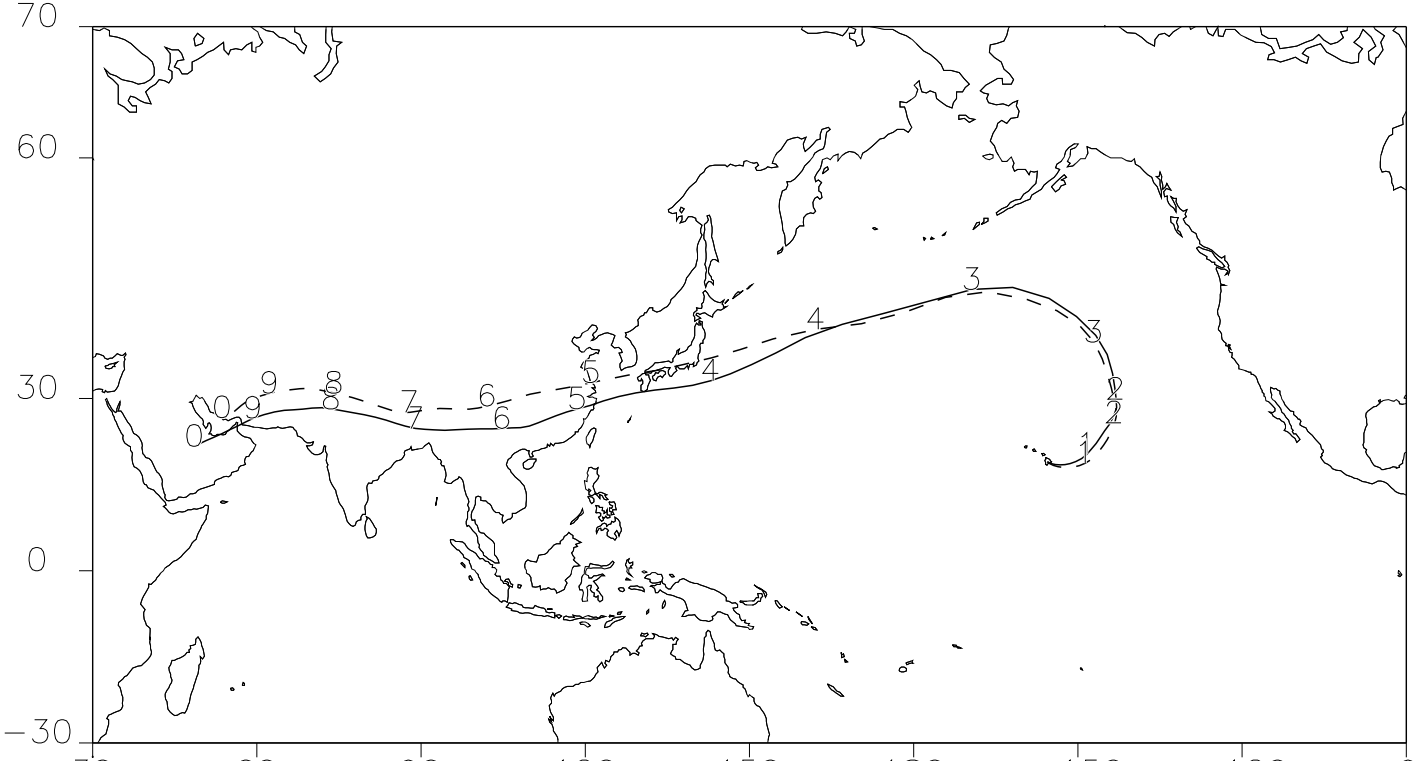
Day	km	hPa	C
0	5.5	524	−3
1	7.6	396	−23
2	9.9	278	−47
3	7.8	367	−30
4	7.4	403	−21
5	6.8	435	−16
6	6.3	467	−14
7	5.5	516	−7
8	5.8	499	−9
9	6.1	479	−13
10	4.8	569	−5

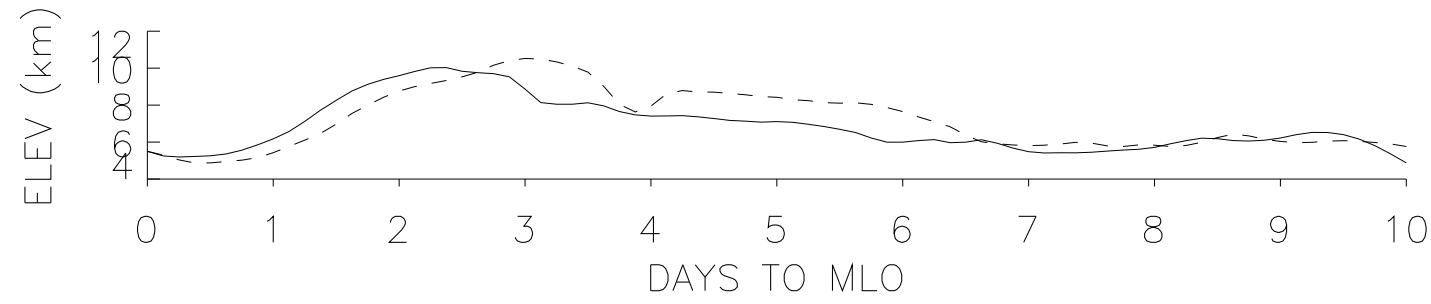
18UT

Day	km	hPa	C
0	5.5	524	−4
1	7.0	432	−17
2	10.0	276	−47
3	8.2	343	−34
4	6.9	429	−18
5	6.9	431	−17
6	6.1	479	−12
7	5.2	542	−5
8	5.2	540	−5
9	5.6	516	−8
10	5.7	507	−10

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

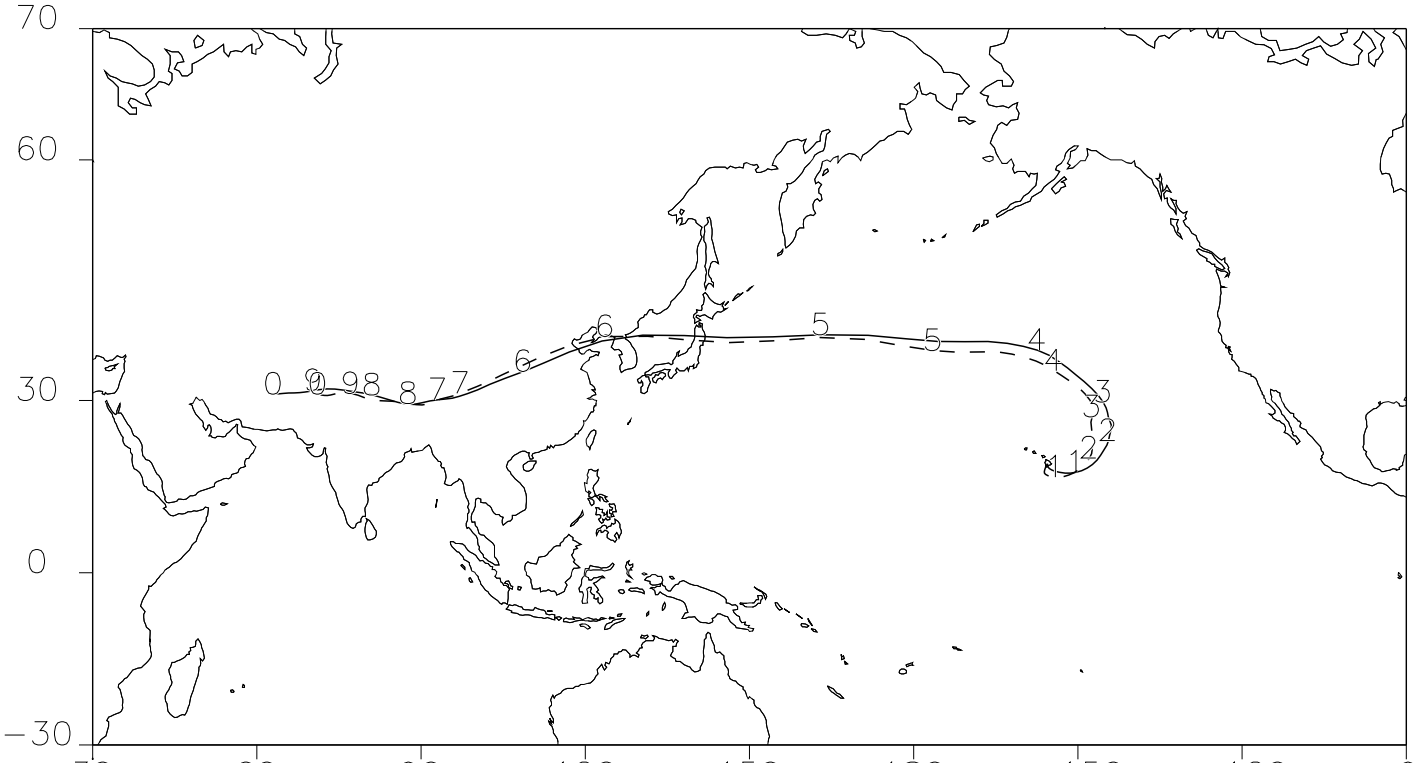
Day	km	hPa	C
0	5.5	524	−5
1	6.2	480	−11
2	9.6	295	−43
3	8.9	316	−40
4	7.4	396	−23
5	7.1	419	−19
6	6.0	486	−12
7	5.5	520	−8
8	5.7	505	−9
9	6.2	474	−14
10	4.9	562	−5

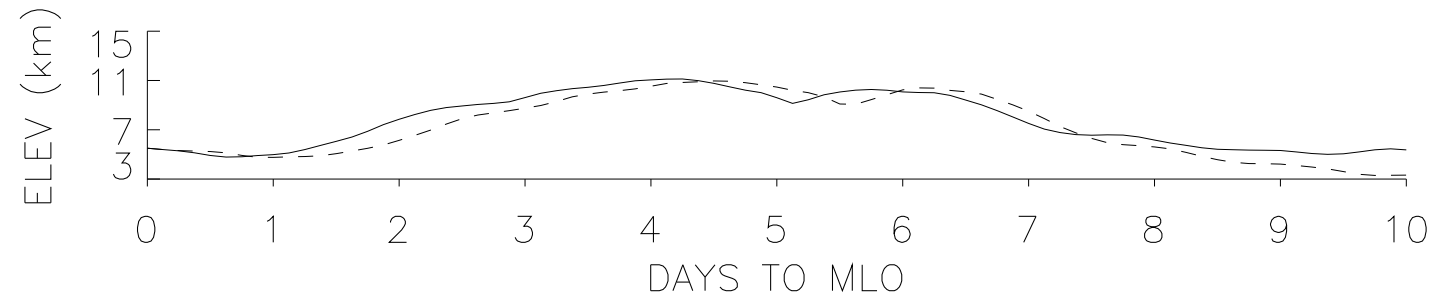
06UT

Day	km	hPa	C
0	5.5	524	−6
1	5.4	529	−5
2	8.8	334	−36
3	10.5	252	−55
4	8.0	353	−32
5	8.4	345	−31
6	7.7	387	−25
7	5.8	499	−9
8	5.8	498	−12
9	6.0	485	−14
10	5.8	501	−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





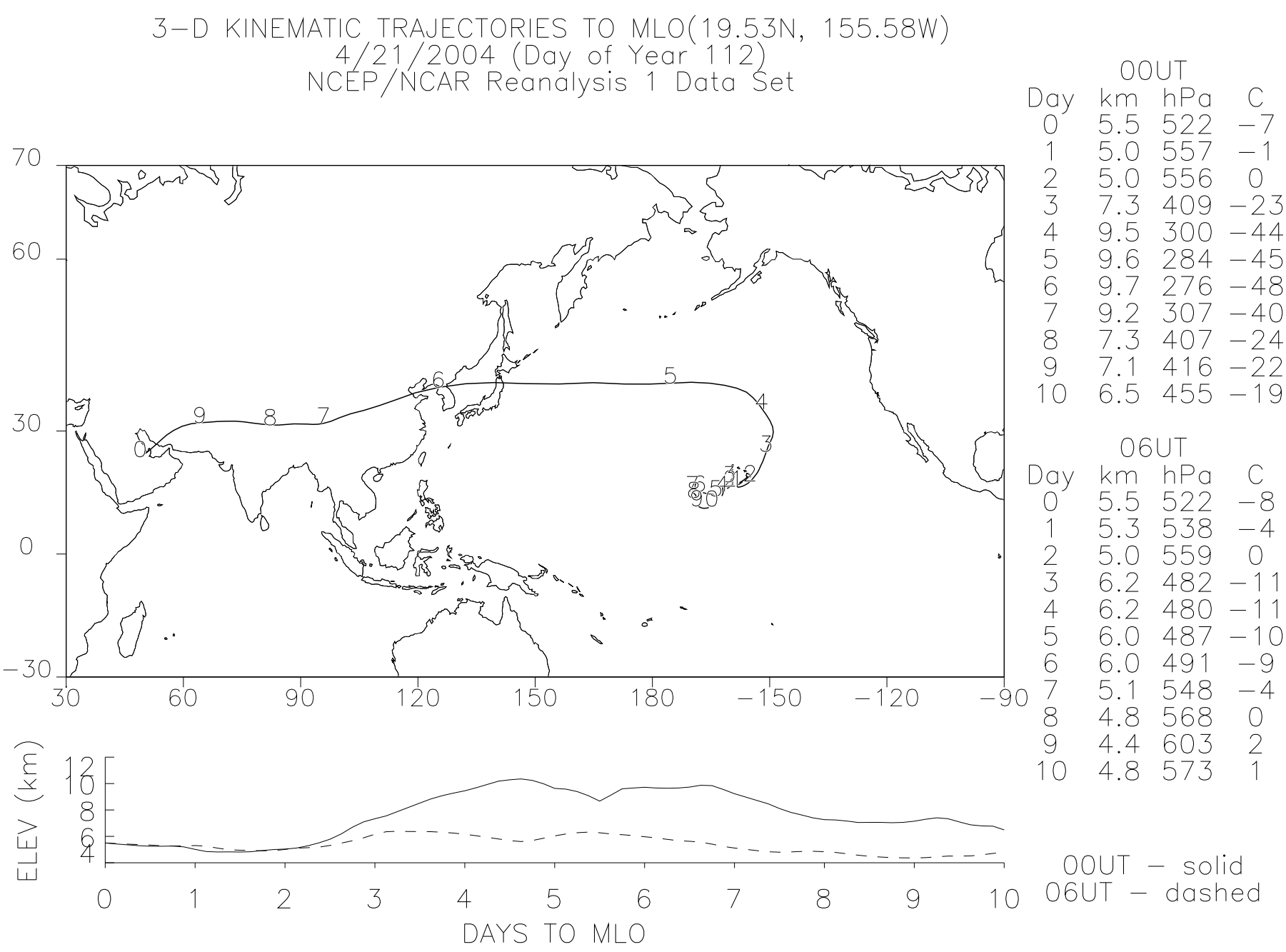
12UT

Day	km	hPa	C
0	5.5	522	−6
1	5.0	558	−2
2	7.9	380	−28
3	9.6	293	−45
4	11.0	234	−57
5	9.6	277	−46
6	10.1	270	−47
7	7.5	394	−23
8	6.2	474	−13
9	5.3	532	−8
10	5.4	528	−11

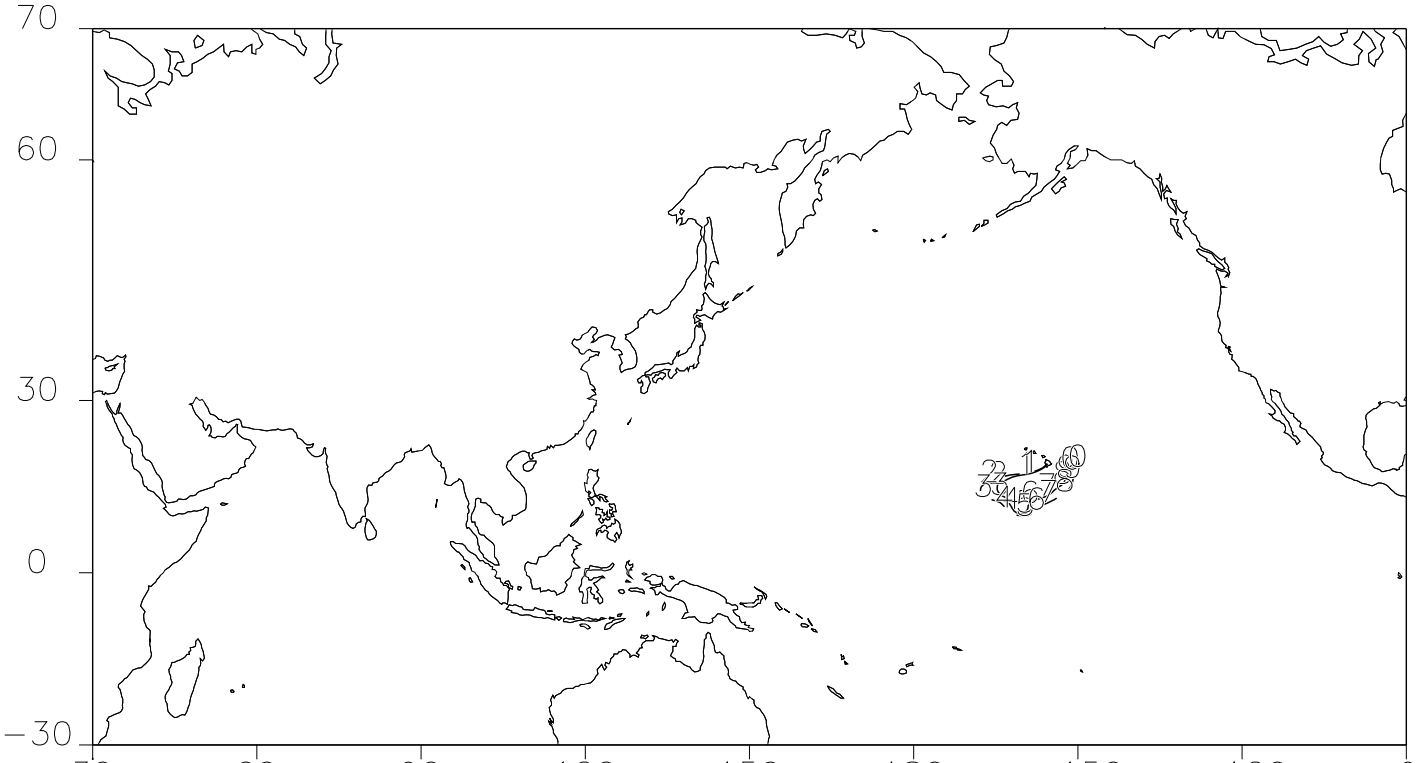
18UT

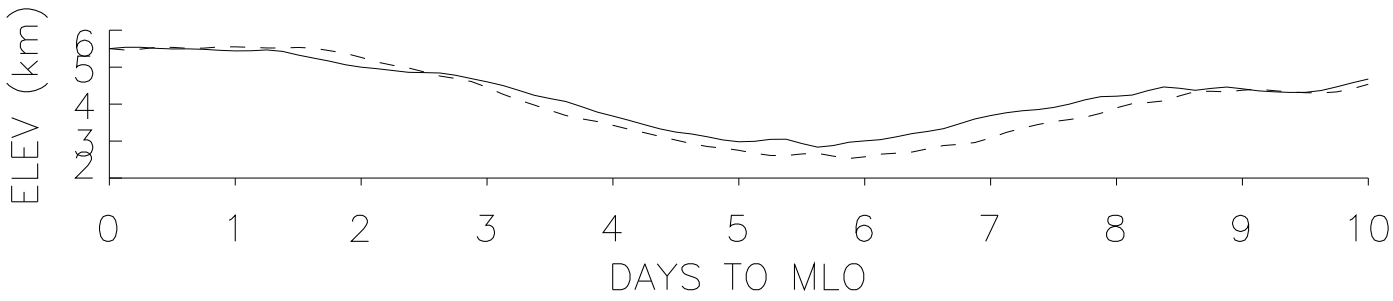
Day	km	hPa	C
0	5.5	523	−7
1	4.8	575	1
2	6.1	481	−11
3	8.8	334	−37
4	10.5	256	−53
5	10.5	252	−53
6	10.2	256	−51
7	8.5	341	−33
8	5.6	510	−9
9	4.2	612	0
10	3.3	685	6

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
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 5.5 522 -7
1 5.0 557 -1
2 5.0 556 0
3 7.3 409 -23
4 9.5 300 -44
5 9.6 284 -45
6 9.7 276 -48
7 9.2 307 -40
8 7.3 407 -24
9 7.1 416 -22
10 6.5 455 -19
06UT
Day km hPa C
0 5.5 522 -8
1 5.3 538 -4
2 5.0 559 0
3 6.2 482 -11
4 6.2 480 -11
5 6.0 487 -10
6 6.0 491 -9
7 5.1 548 -4
8 4.8 568 0
9 4.4 603 2
10 4.8 573 1
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

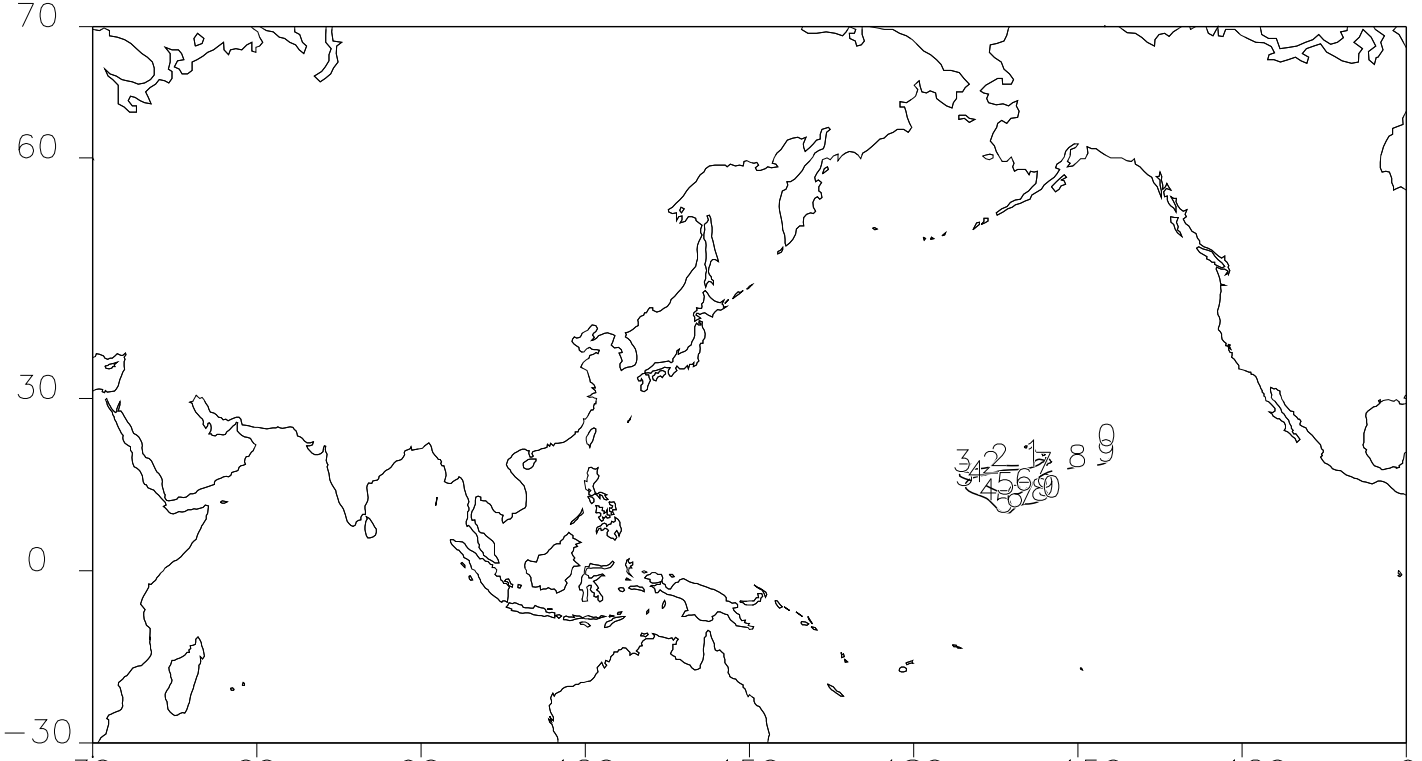
Day	km	hPa	C
0	5.5	521	−8
1	5.4	526	−6
2	5.0	558	−2
3	4.6	587	0
4	3.7	656	6
5	3.0	712	9
6	3.0	711	7
7	3.7	654	5
8	4.2	613	1
9	4.4	598	0
10	4.7	579	−1

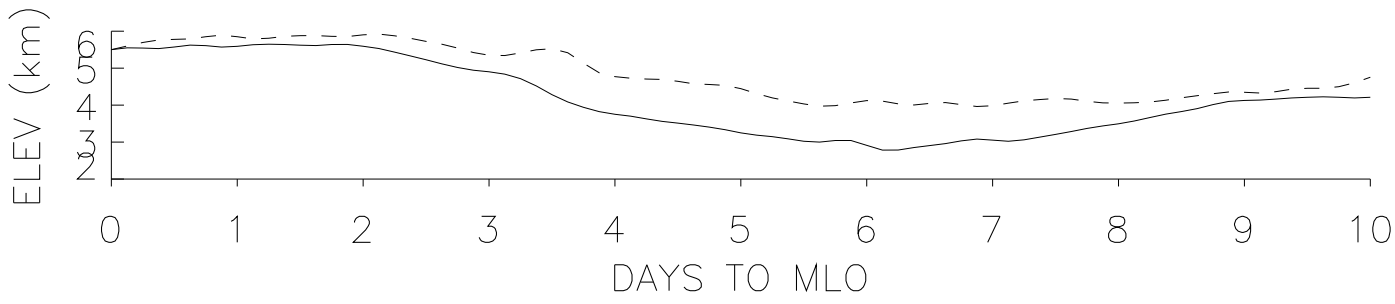
18UT

Day	km	hPa	C
0	5.5	522	−8
1	5.6	519	−7
2	5.3	540	−5
3	4.5	598	1
4	3.4	677	8
5	2.7	734	10
6	2.6	749	11
7	3.1	704	8
8	3.9	638	4
9	4.4	602	0
10	4.5	591	0

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





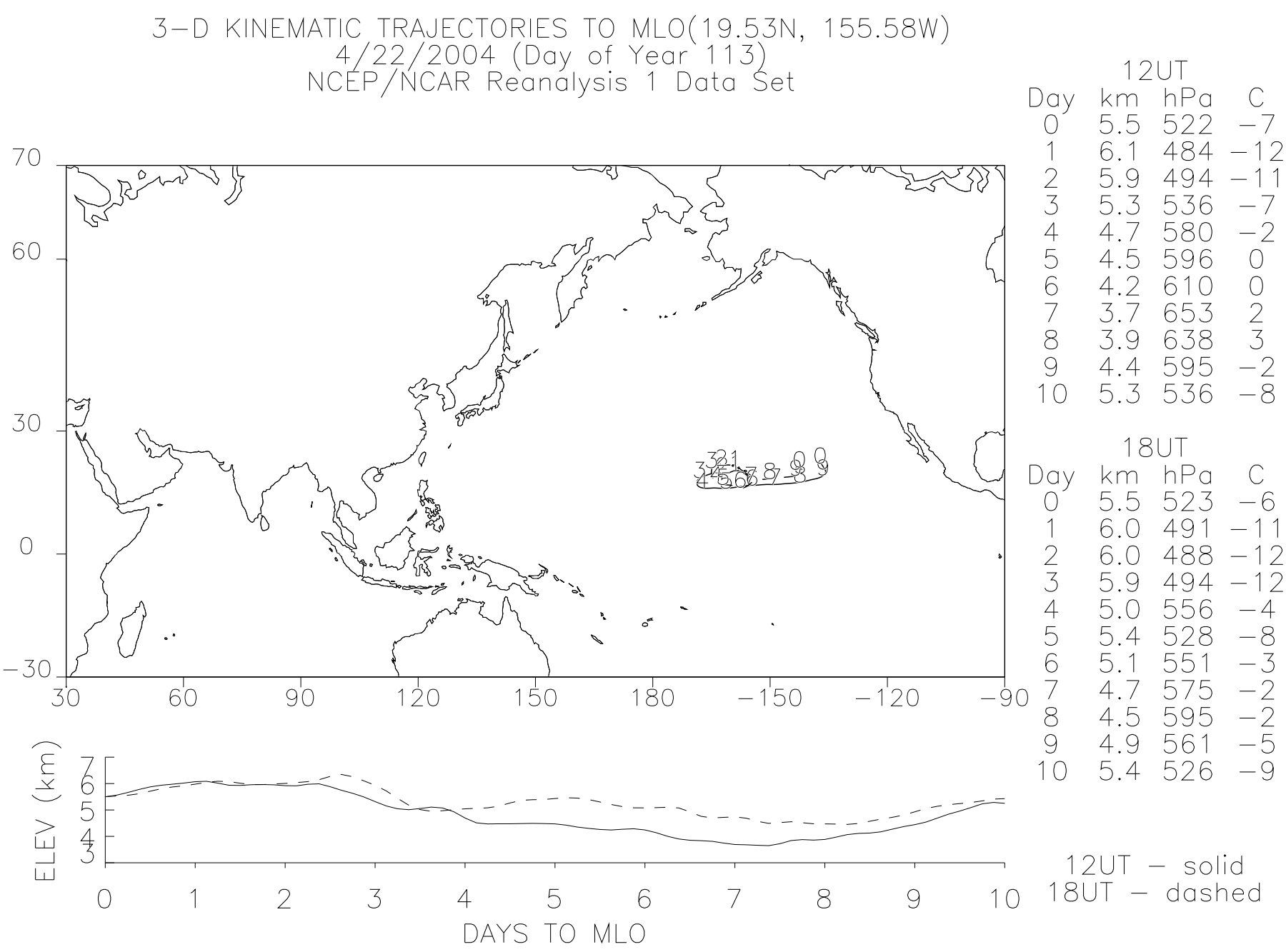
00UT

Day	km	hPa	C
0	5.5	522	−7
1	5.6	516	−8
2	5.6	517	−7
3	4.9	565	−2
4	3.8	650	6
5	3.2	689	8
6	2.9	719	9
7	3.1	707	8
8	3.5	670	6
9	4.1	620	3
10	4.2	614	3

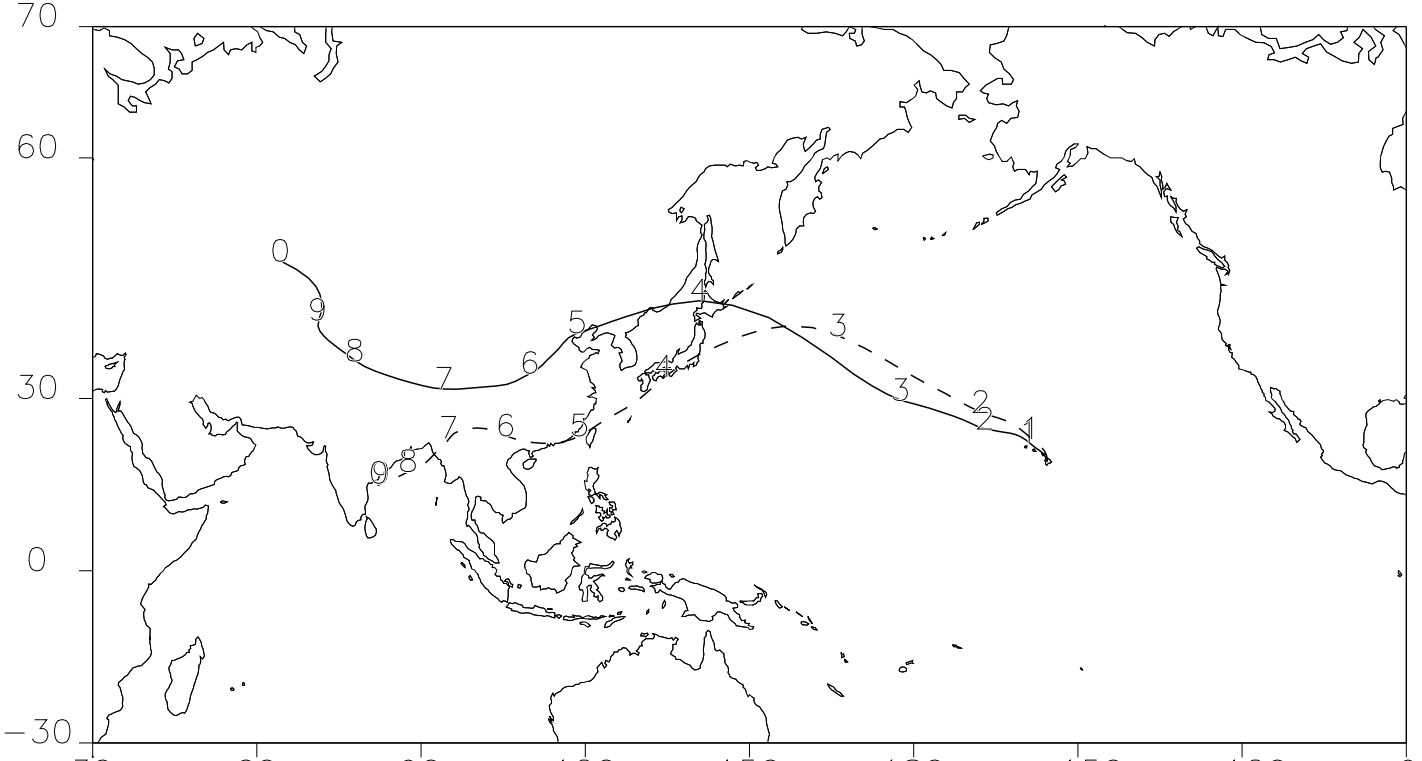
06UT

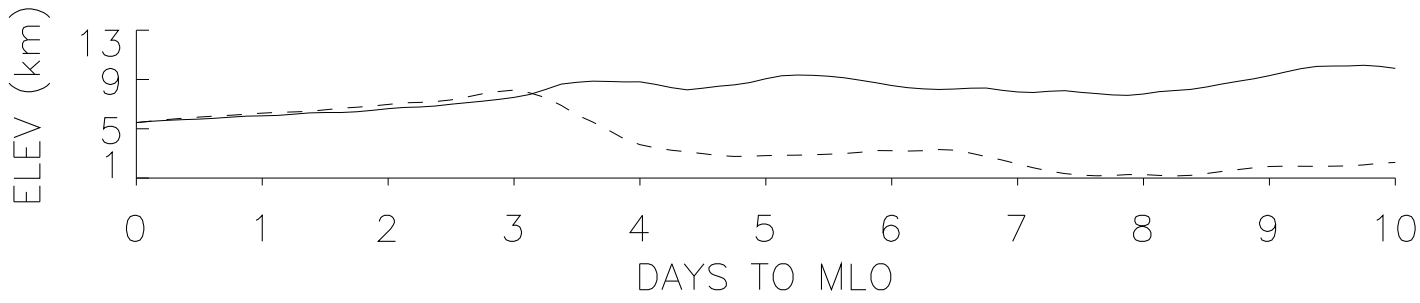
Day	km	hPa	C
0	5.5	522	−7
1	5.9	499	−10
2	5.9	497	−9
3	5.3	534	−6
4	4.8	575	−2
5	4.4	596	1
6	4.1	620	1
7	4.0	632	2
8	4.1	627	1
9	4.3	603	−1
10	4.8	573	−4

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
7
6
5
4
3
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 5.5 522 -7
1 6.1 484 -12
2 5.9 494 -11
3 5.3 536 -7
4 4.7 580 -2
5 4.5 596 0
6 4.2 610 0
7 3.7 653 2
8 3.9 638 3
9 4.4 595 -2
10 5.3 536 -8
18UT
Day km hPa C
0 5.5 523 -6
1 6.0 491 -11
2 6.0 488 -12
3 5.9 494 -12
4 5.0 556 -4
5 5.4 528 -8
6 5.1 551 -3
7 4.7 575 -2
8 4.5 595 -2
9 4.9 561 -5
10 5.4 526 -9
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





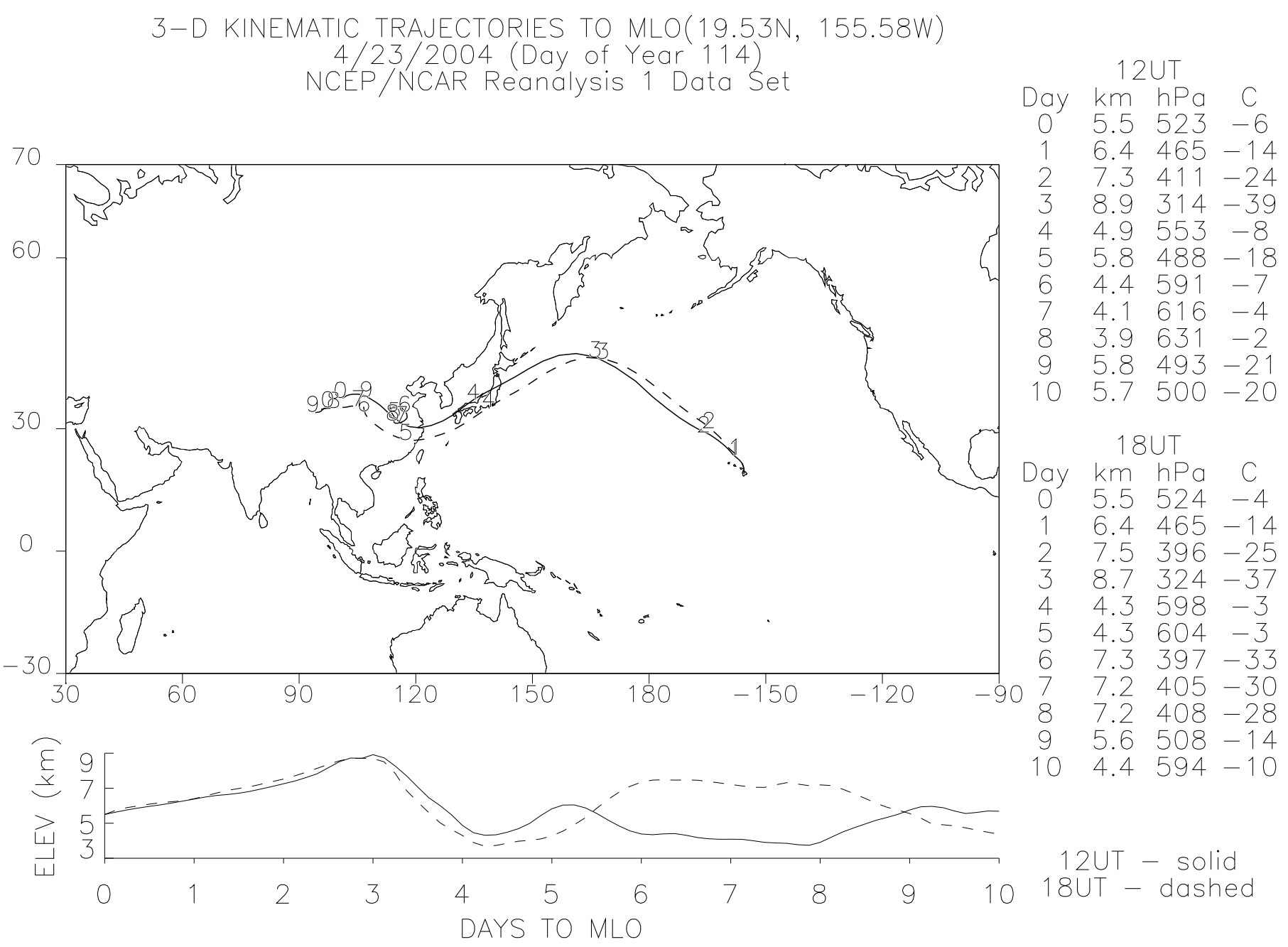
00UT

Day	km	hPa	C
0	5.5	523	-6
1	6.1	486	-12
2	6.6	449	-17
3	7.5	397	-22
4	8.8	320	-40
5	9.1	311	-42
6	8.5	336	-38
7	8.0	366	-34
8	7.8	372	-33
9	9.3	299	-47
10	9.9	271	-55

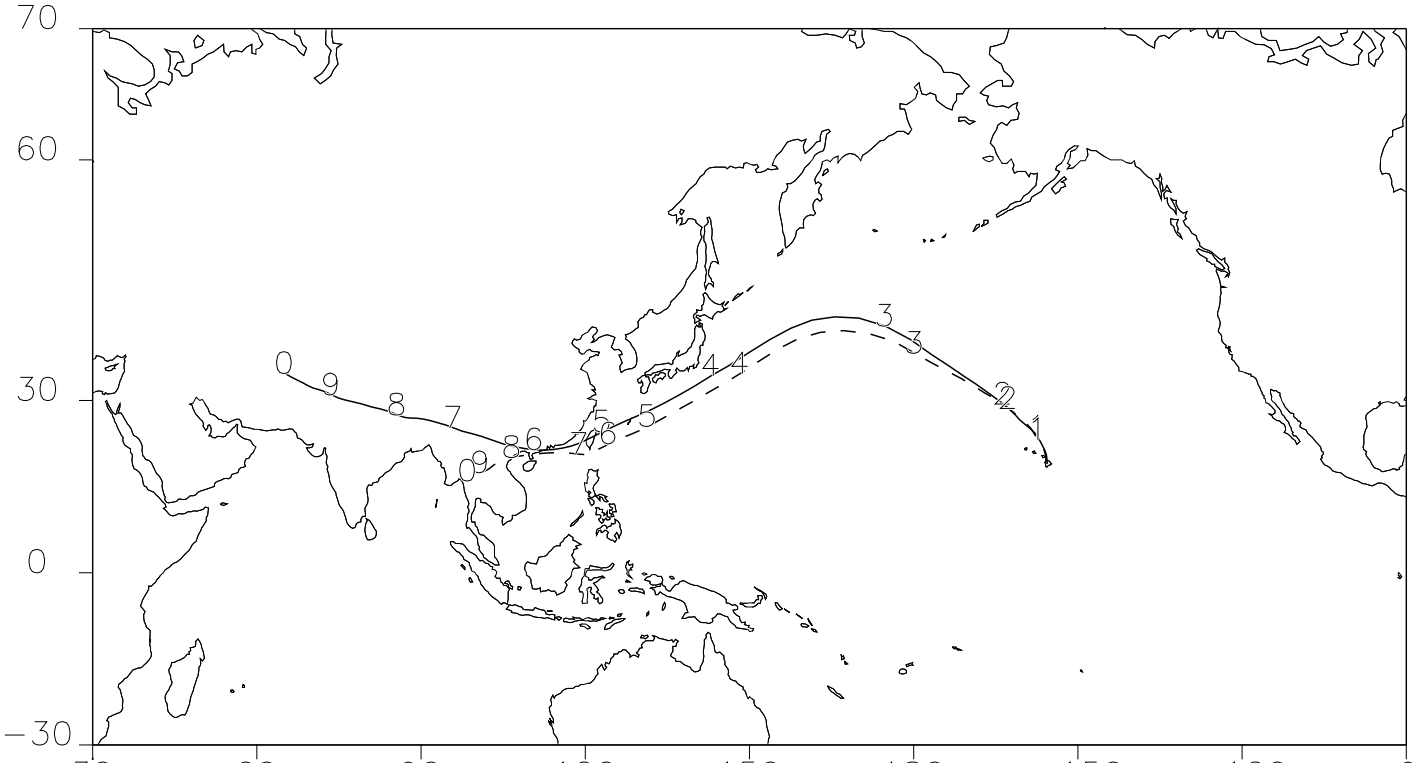
06UT

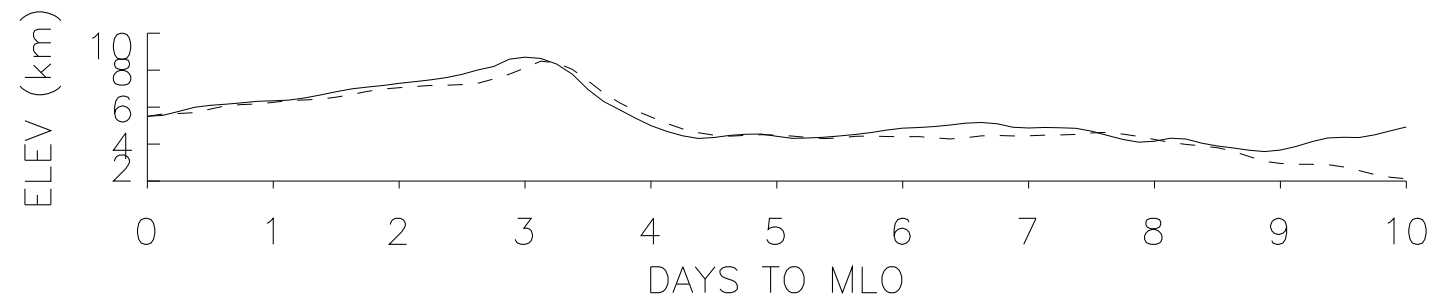
Day	km	hPa	C
0	5.5	523	-6
1	6.3	472	-14
2	7.0	427	-20
3	8.1	356	-31
4	3.7	647	2
5	2.8	724	9
6	3.2	689	5
7	2.1	787	15
8	1.3	872	25
9	1.9	811	20
10	2.3	779	17

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 5.5 523 -6
1 6.4 465 -14
2 7.3 411 -24
3 8.9 314 -39
4 4.9 553 -8
5 5.8 488 -18
6 4.4 591 -7
7 4.1 616 -4
8 3.9 631 -2
9 5.8 493 -21
10 5.7 500 -20
18UT
Day km hPa C
0 5.5 524 -4
1 6.4 465 -14
2 7.5 396 -25
3 8.7 324 -37
4 4.3 598 -3
5 4.3 604 -3
6 7.3 397 -33
7 7.2 405 -30
8 7.2 408 -28
9 5.6 508 -14
10 4.4 594 -10
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
9
7
5
3
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)
4/24/2004 (Day of Year 115)
NCEP/NCAR Reanalysis 1 Data Set





00UT

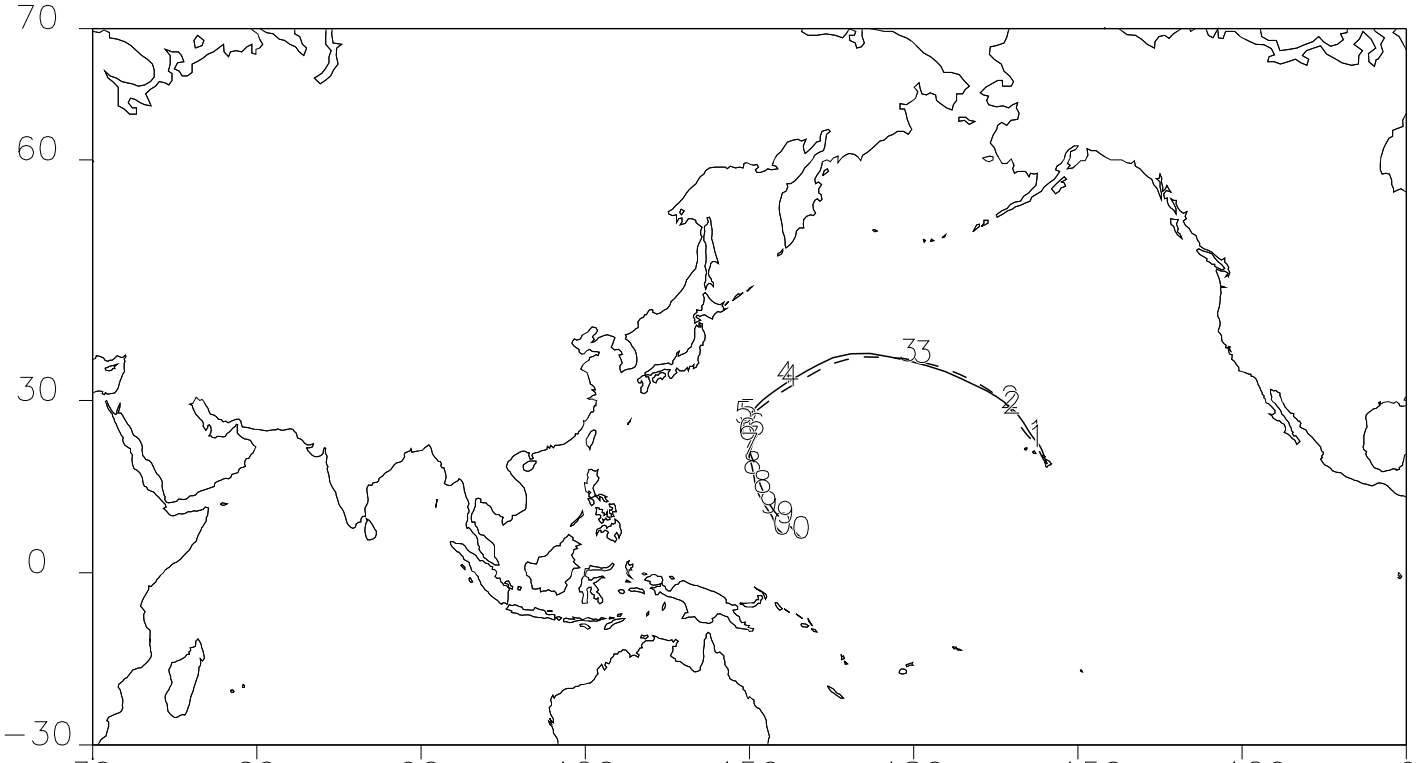
Day	km	hPa	C
0	5.5	524	−4
1	6.3	468	−12
2	7.3	411	−20
3	8.7	327	−36
4	5.0	550	−4
5	4.4	599	3
6	4.9	564	−1
7	4.9	561	−4
8	4.2	613	0
9	3.7	649	4
10	4.9	555	−7

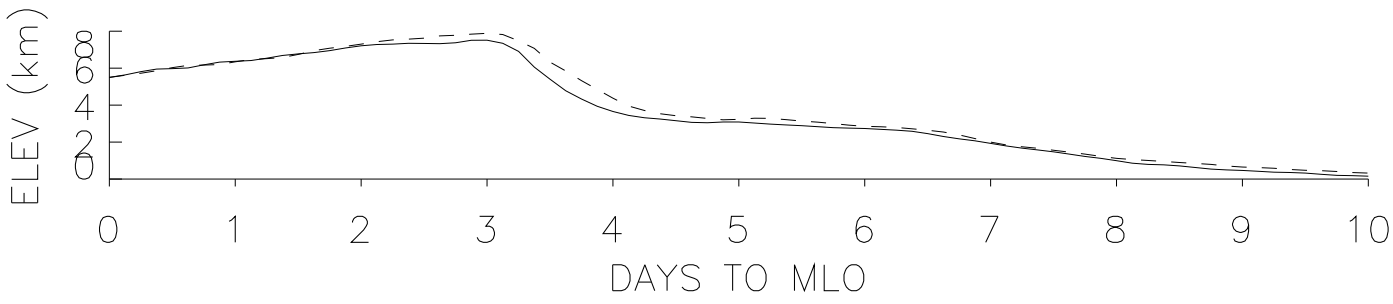
06UT

Day	km	hPa	C
0	5.5	524	−5
1	6.3	475	−11
2	7.1	424	−18
3	8.1	359	−30
4	5.5	517	−8
5	4.5	594	2
6	4.4	600	2
7	4.5	596	0
8	4.2	611	1
9	3.0	718	11
10	2.1	793	18

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

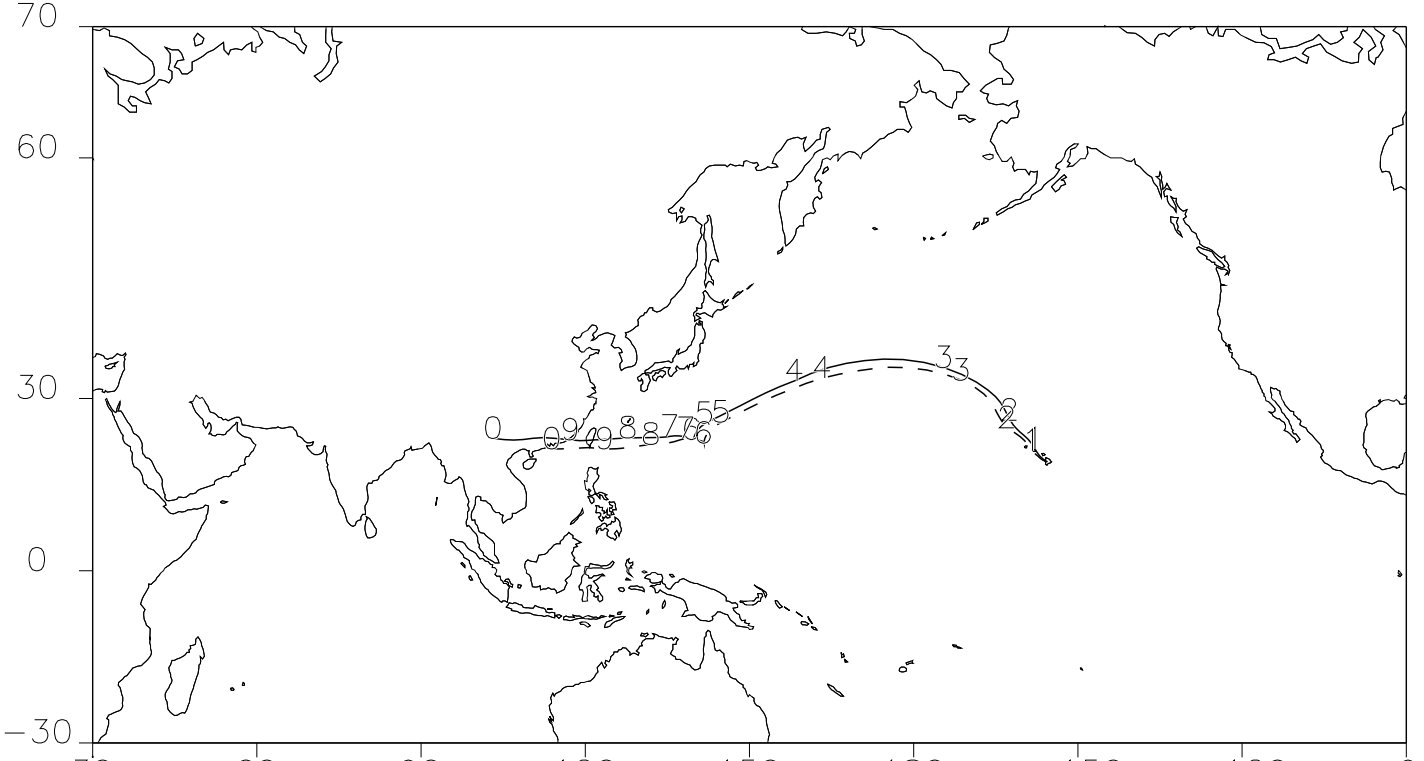
Day	km	hPa	C
0	5.5	523	−5
1	6.4	467	−12
2	7.2	416	−19
3	7.5	394	−23
4	3.7	658	3
5	3.1	709	9
6	2.7	738	10
7	1.9	810	15
8	1.0	901	22
9	0.5	958	25
10	0.2	992	27

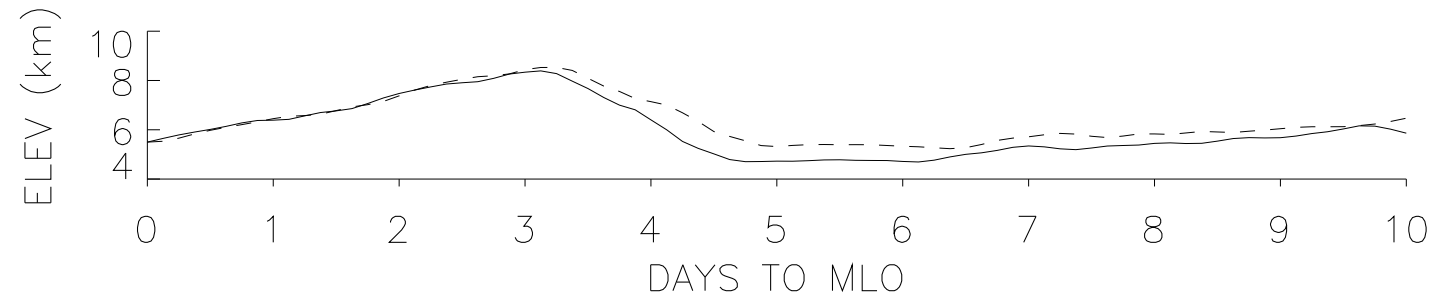
18UT

Day	km	hPa	C
0	5.5	523	−5
1	6.3	471	−10
2	7.3	411	−19
3	7.9	373	−26
4	4.4	599	−2
5	3.2	695	8
6	2.9	725	10
7	2.0	801	15
8	1.1	886	21
9	0.6	936	23
10	0.3	971	26

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





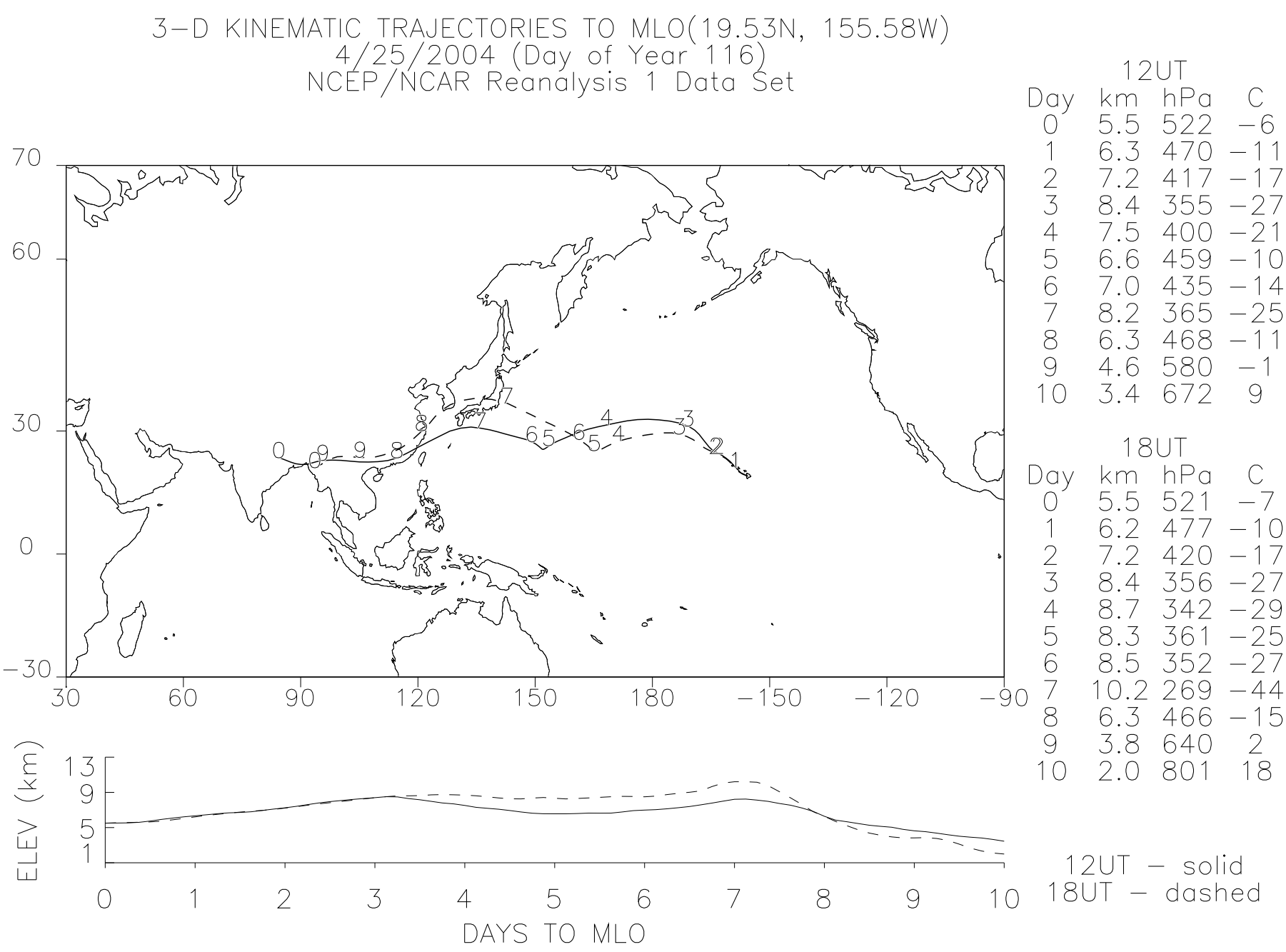
00UT

Day	km	hPa	C
0	5.5	523	−5
1	6.4	467	−10
2	7.5	404	−19
3	8.3	354	−28
4	6.4	461	−15
5	4.7	579	1
6	4.7	580	3
7	5.3	534	−3
8	5.4	524	−5
9	5.7	509	−7
10	5.9	496	−10

06UT

Day	km	hPa	C
0	5.5	522	−5
1	6.4	464	−11
2	7.4	410	−18
3	8.4	350	−28
4	7.1	417	−20
5	5.3	536	−2
6	5.3	537	0
7	5.7	509	−4
8	5.8	500	−6
9	6.0	487	−7
10	6.5	461	−10

00UT − solid
06UT − dashed



12UT

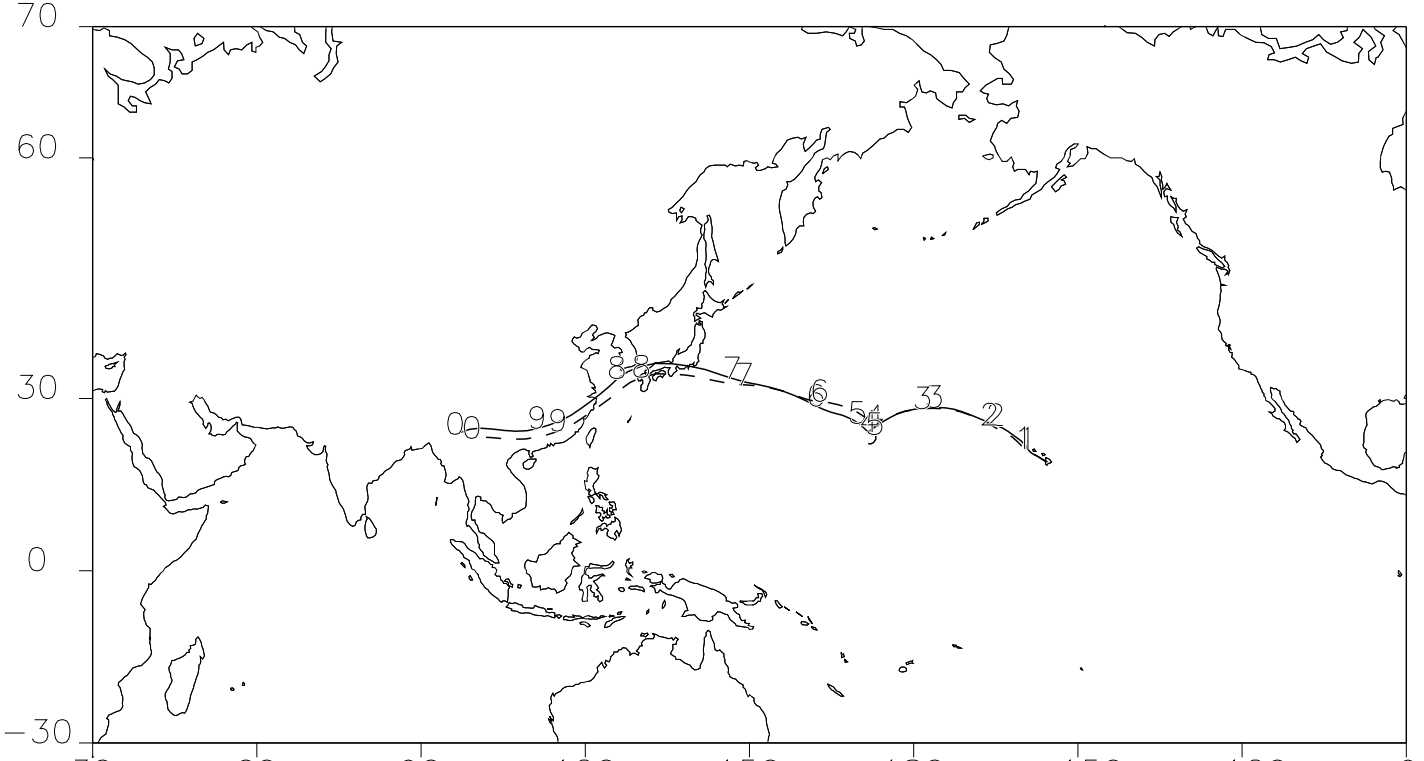
Day	km	hPa	C
0	5.5	522	−6
1	6.3	470	−11
2	7.2	417	−17
3	8.4	355	−27
4	7.5	400	−21
5	6.6	459	−10
6	7.0	435	−14
7	8.2	365	−25
8	6.3	468	−11
9	4.6	580	−1
10	3.4	672	9

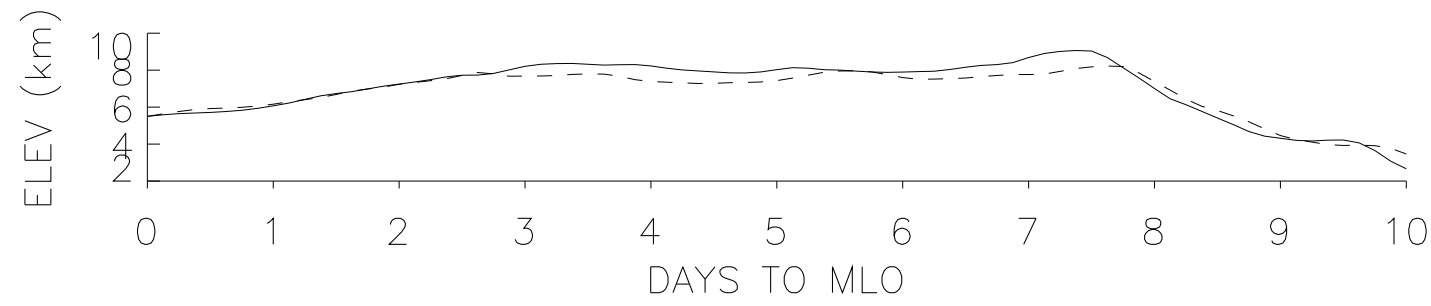
18UT

Day	km	hPa	C
0	5.5	521	−7
1	6.2	477	−10
2	7.2	420	−17
3	8.4	356	−27
4	8.7	342	−29
5	8.3	361	−25
6	8.5	352	−27
7	10.2	269	−44
8	6.3	466	−15
9	3.8	640	2
10	2.0	801	18

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

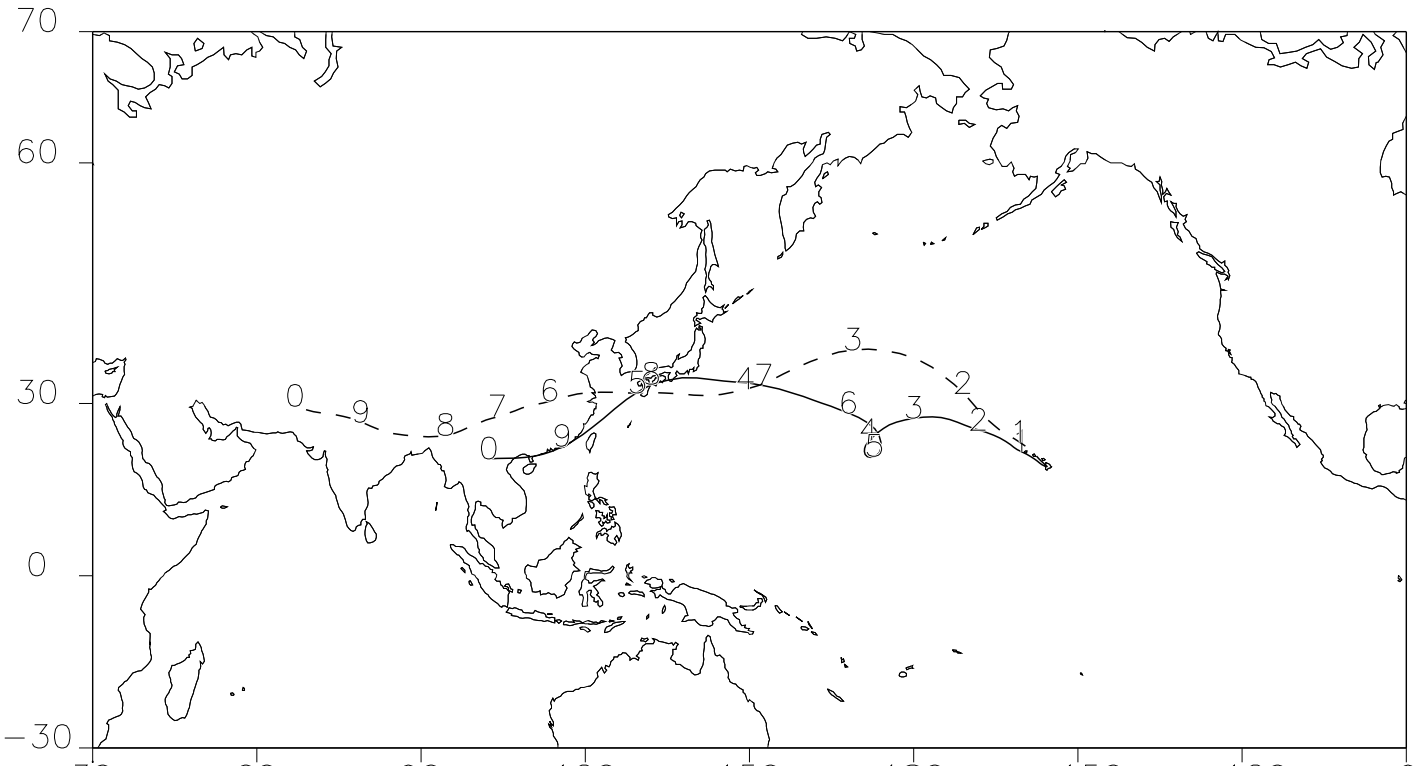
Day	km	hPa	C
0	5.5	521	-7
1	6.1	486	-9
2	7.2	417	-18
3	8.2	366	-26
4	8.2	366	-26
5	8.0	377	-23
6	7.9	383	-22
7	8.7	340	-30
8	7.0	422	-20
9	4.3	600	-1
10	2.7	737	11

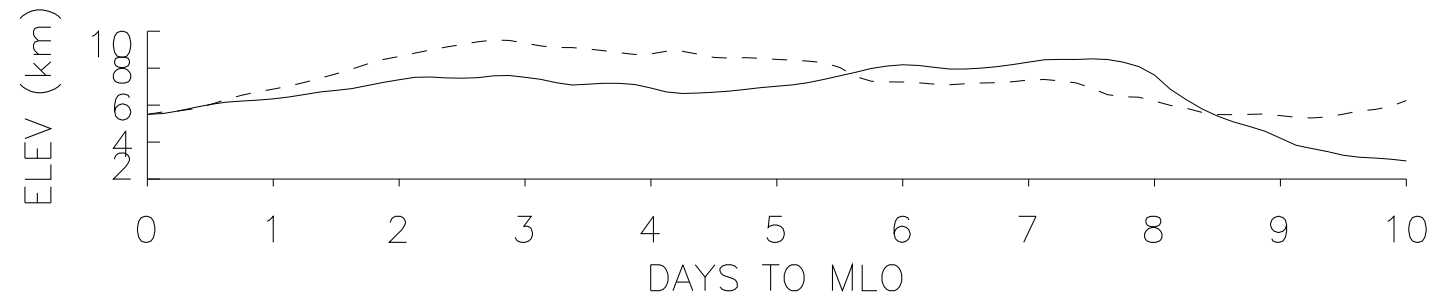
06UT

Day	km	hPa	C
0	5.5	521	-7
1	6.2	480	-11
2	7.2	418	-19
3	7.7	393	-23
4	7.4	410	-19
5	7.4	407	-19
6	7.6	399	-20
7	7.8	388	-22
8	7.4	403	-21
9	4.5	591	-1
10	3.5	673	5

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

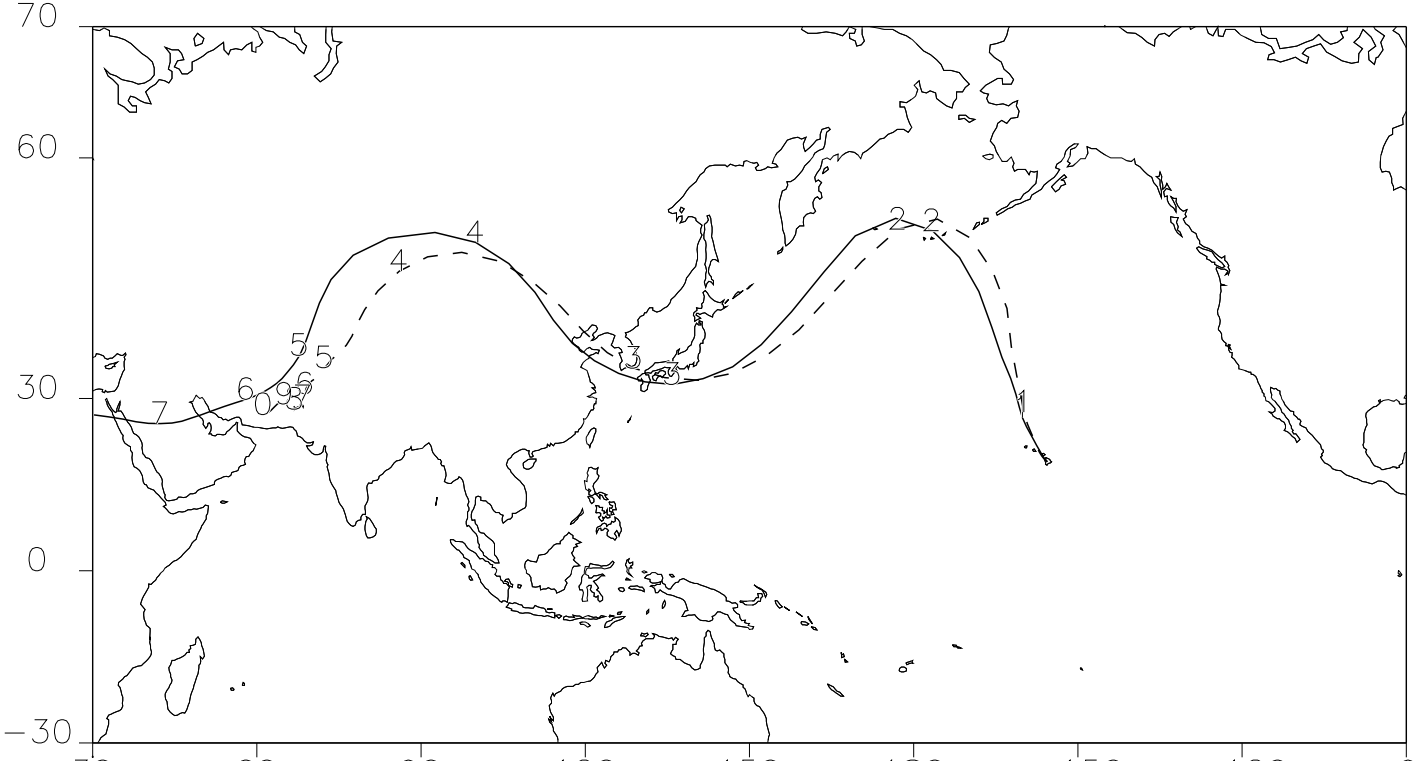
Day	km	hPa	C
0	5.5	519	−7
1	6.3	468	−13
2	7.4	410	−21
3	7.5	404	−22
4	6.9	437	−16
5	7.0	432	−16
6	8.2	369	−25
7	8.3	359	−26
8	7.6	393	−21
9	4.2	610	1
10	3.0	710	10

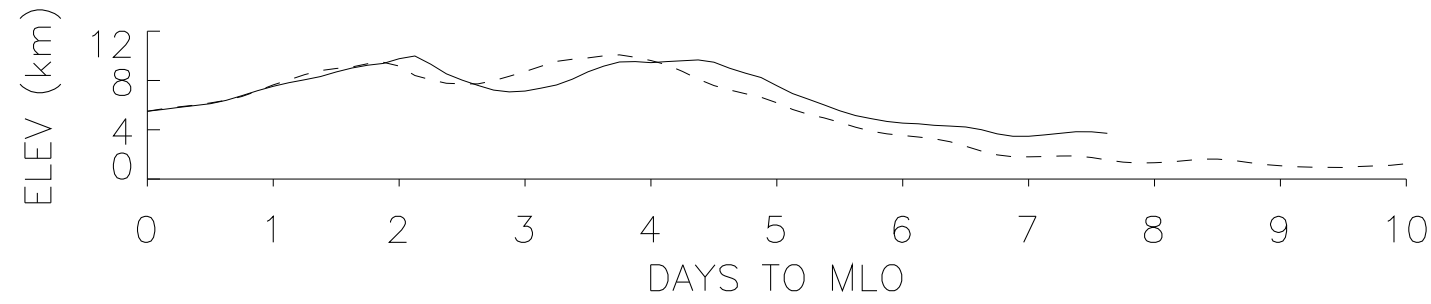
18UT

Day	km	hPa	C
0	5.5	520	−7
1	6.9	435	−18
2	8.6	342	−33
3	9.4	302	−40
4	8.8	329	−35
5	8.5	346	−31
6	7.3	413	−19
7	7.4	409	−19
8	6.2	473	−14
9	5.4	524	−7
10	6.3	471	−14

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

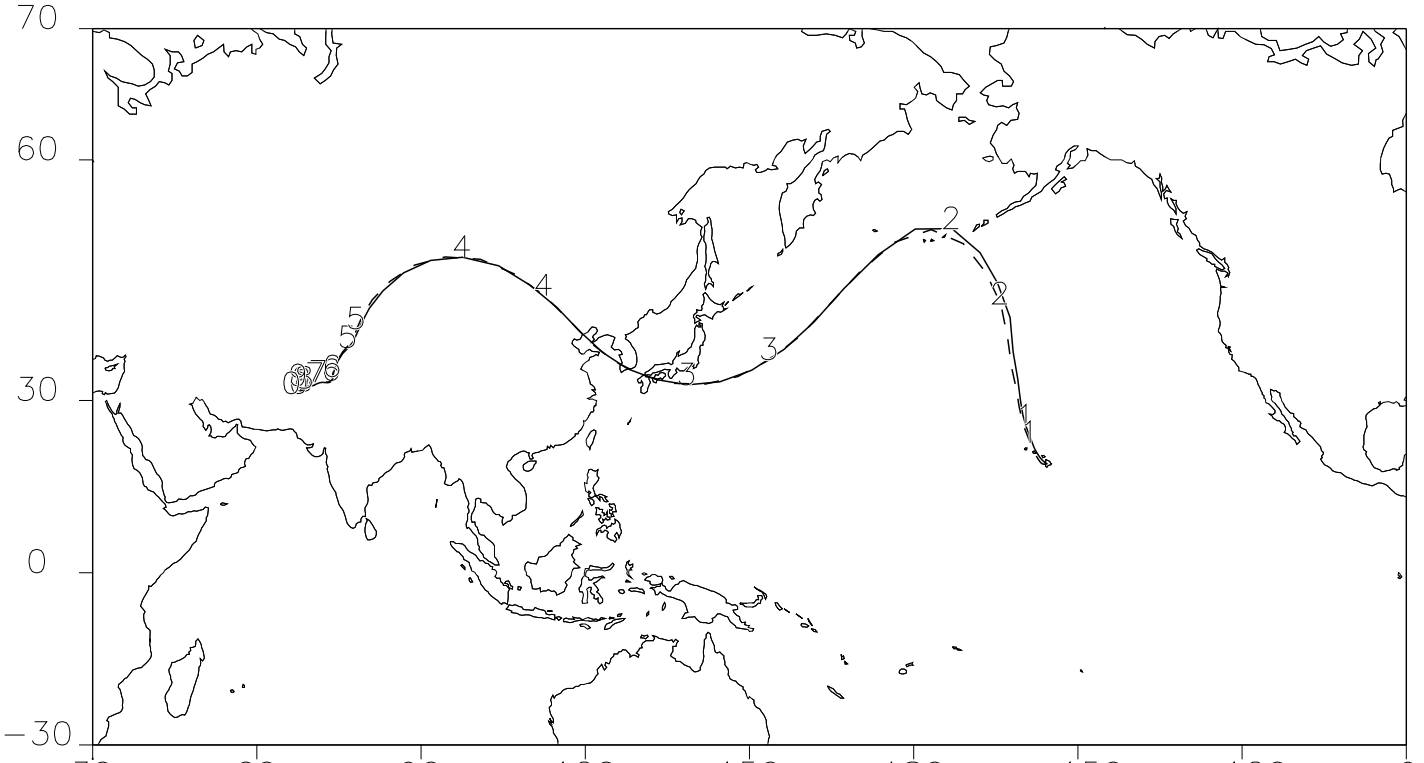
Day	km	hPa	C
0	5.5	519	−7
1	7.5	397	−25
2	9.8	275	−48
3	7.1	408	−25
4	9.4	286	−50
5	7.6	385	−31
6	4.5	587	−5
7	3.5	669	5

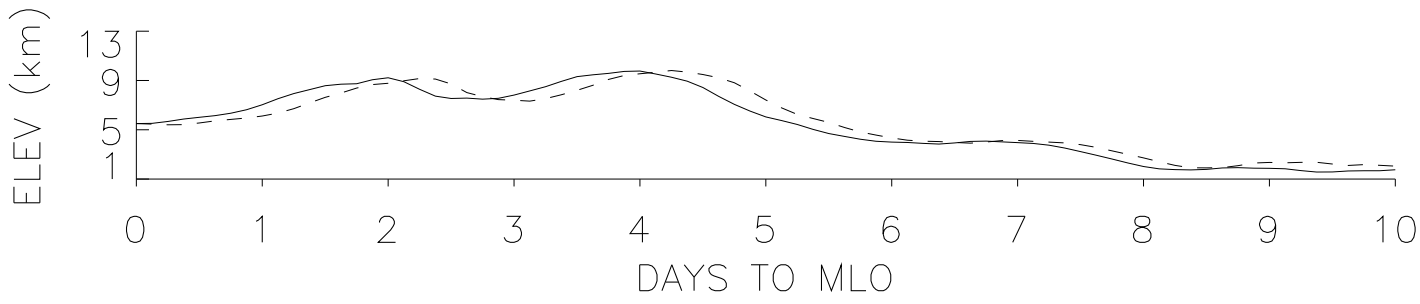
06UT

Day	km	hPa	C
0	5.5	520	−6
1	7.6	390	−25
2	9.2	301	−42
3	8.7	325	−39
4	9.6	285	−47
5	6.2	470	−17
6	3.5	668	6
7	1.8	822	22
8	1.3	865	26
9	1.1	889	29
10	1.2	874	24

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

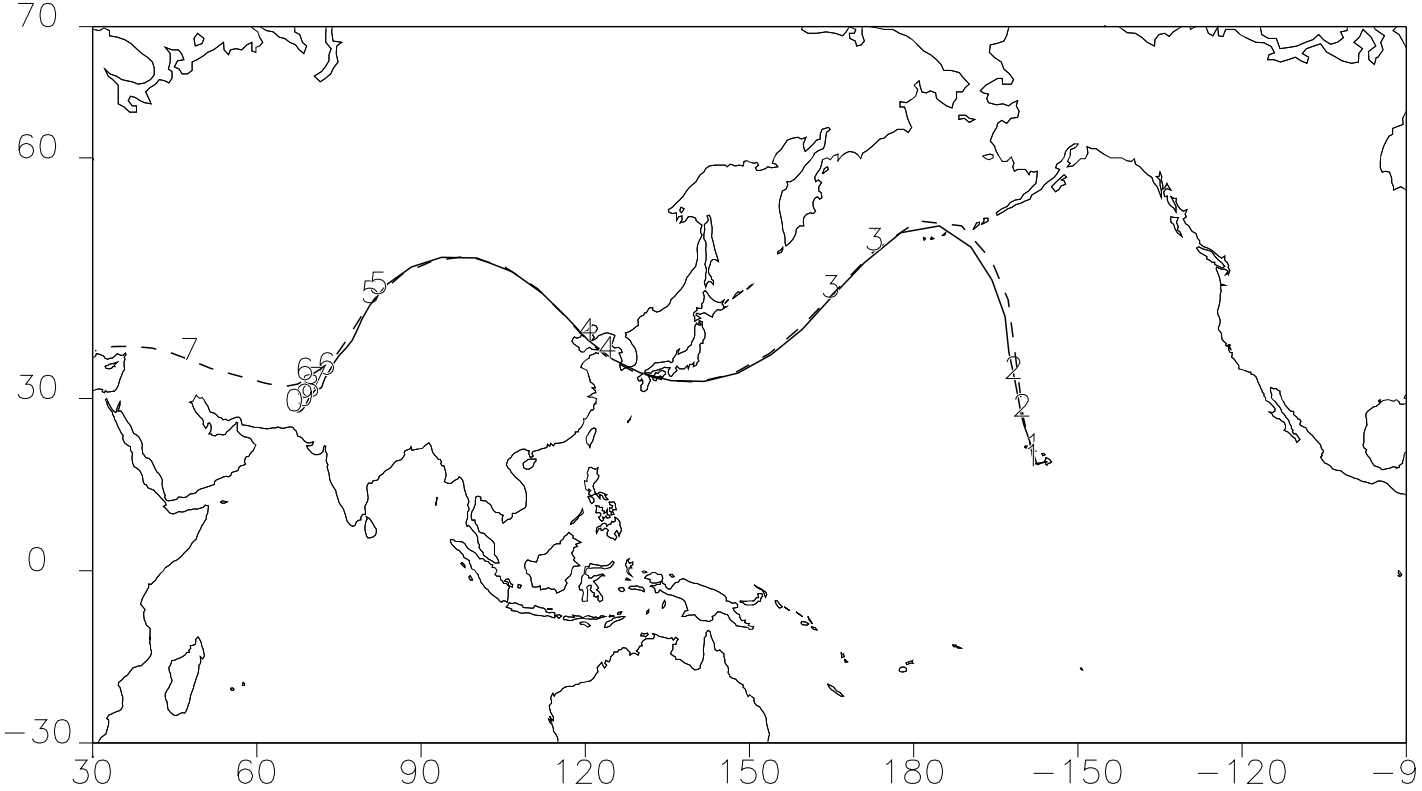
Day	km	hPa	C
0	5.5	520	−5
1	7.0	425	−19
2	9.2	302	−40
3	7.8	371	−30
4	9.8	277	−49
5	6.0	478	−15
6	4.0	628	1
7	4.0	633	3
8	2.0	796	22
9	1.9	807	23
10	1.8	819	24

18UT

Day	km	hPa	C
0	5.5	522	−5
1	6.1	480	−10
2	8.8	324	−37
3	7.4	390	−27
4	9.5	286	−48
5	7.4	397	−27
6	4.3	601	−2
7	4.1	621	1
8	2.7	735	13
9	2.3	765	14
10	2.0	792	19

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

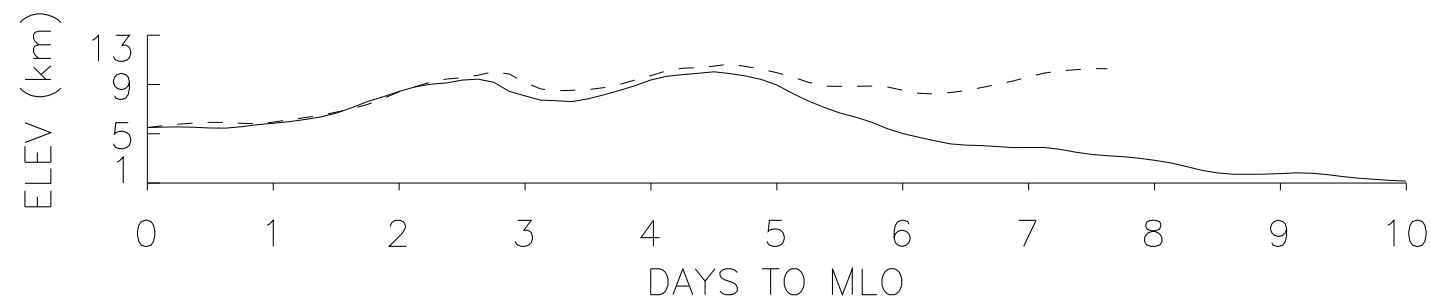


00UT

Day	km	hPa	C
0	5.5	521	-6
1	5.9	497	-8
2	8.4	347	-33
3	8.1	352	-33
4	9.4	294	-46
5	9.0	317	-41
6	5.0	548	-8
7	3.9	639	2
8	2.8	723	12
9	1.8	818	20
10	1.2	878	24

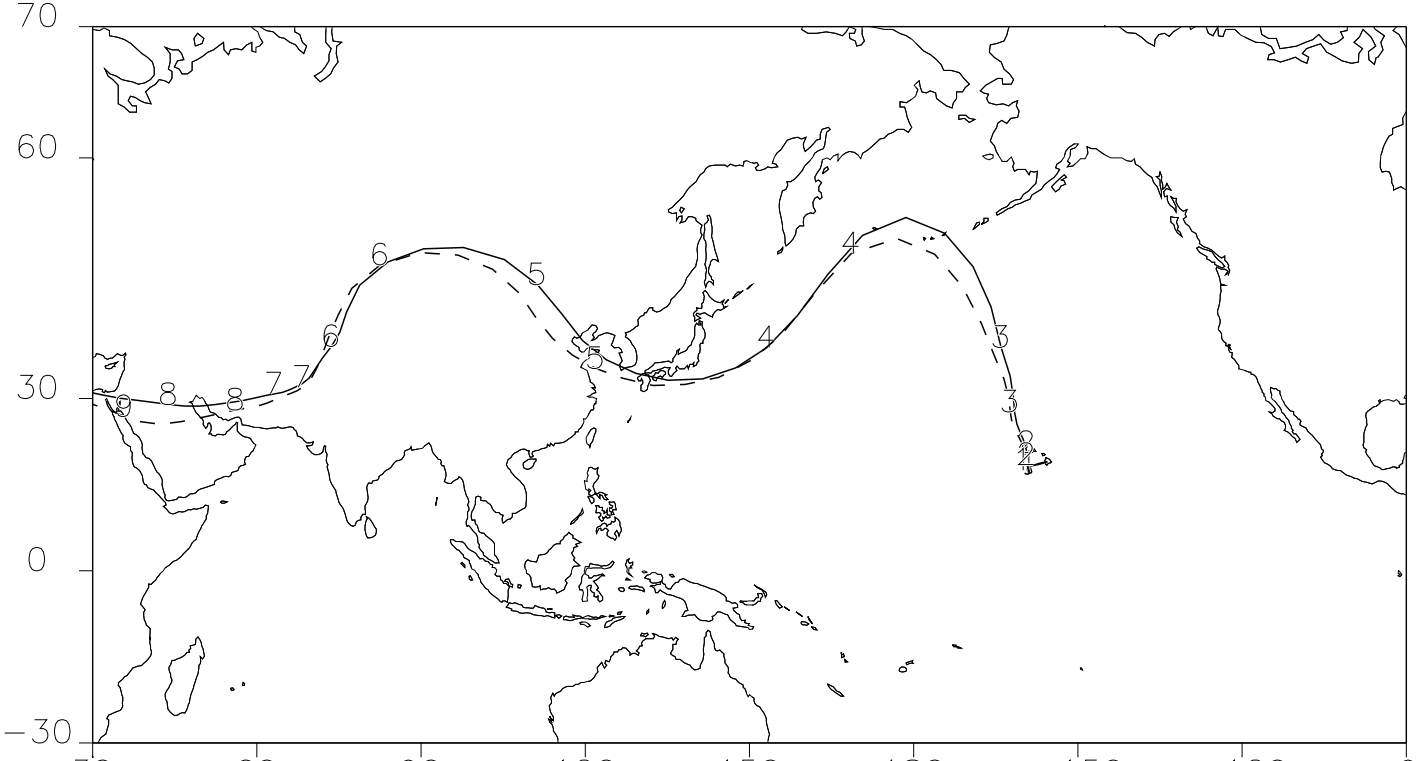
06UT

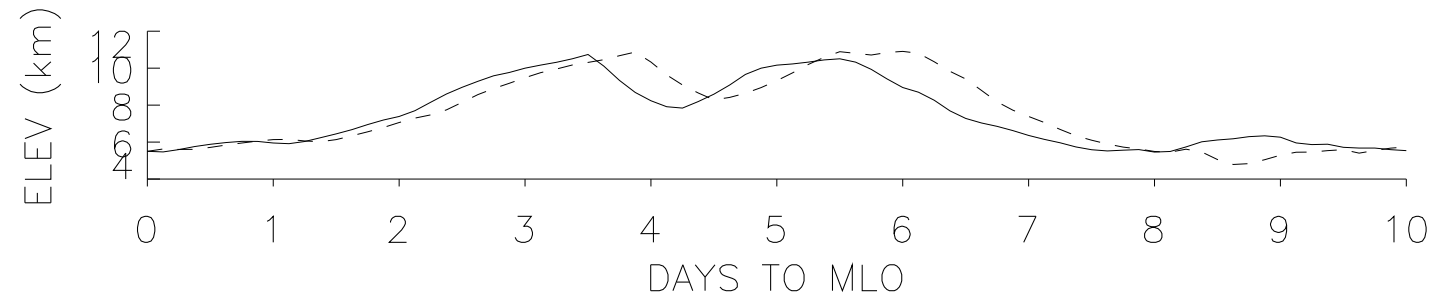
Day	km	hPa	C
0	5.5	521	-5
1	5.9	492	-8
2	8.4	352	-32
3	9.2	300	-40
4	9.7	282	-48
5	10.0	271	-49
6	8.5	340	-36
7	9.6	287	-47



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

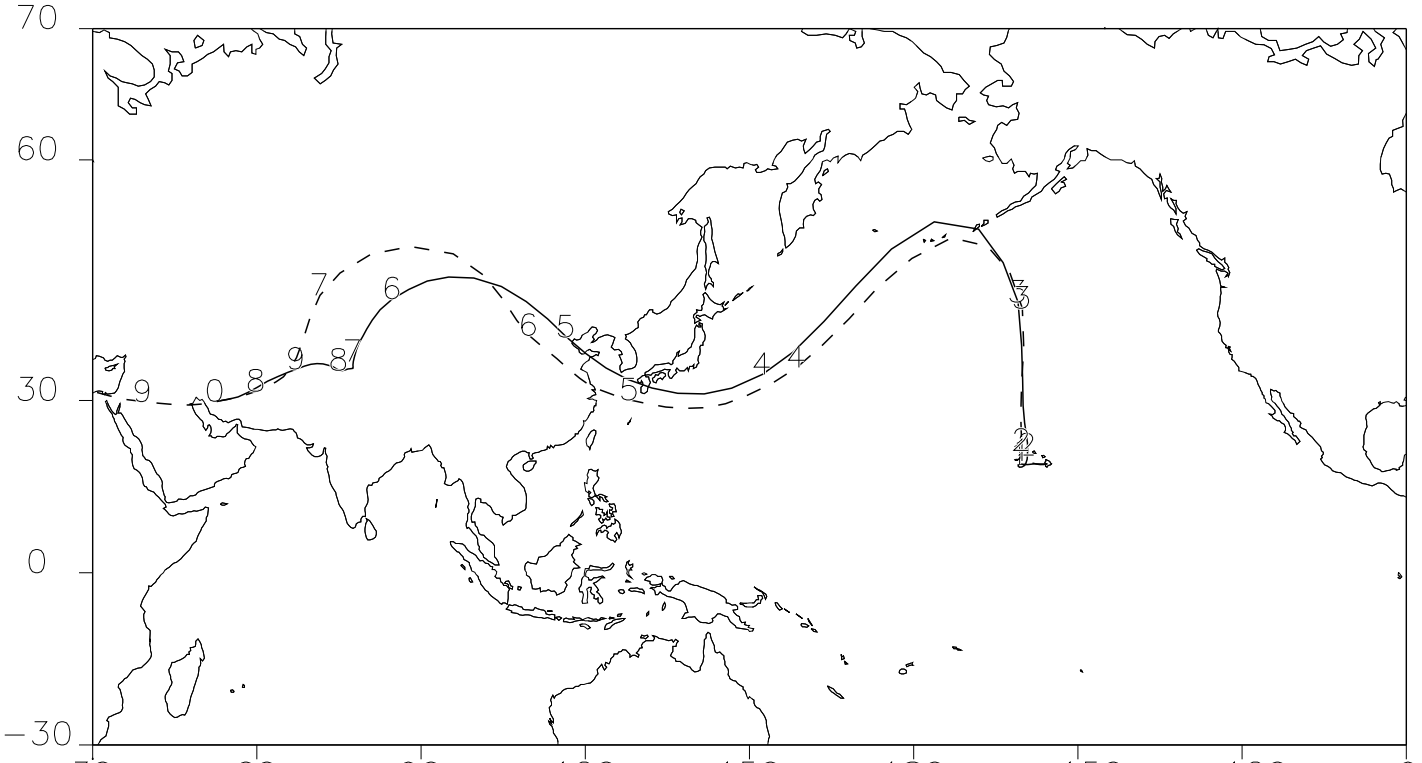
Day	km	hPa	C
0	5.5	521	-6
1	6.0	491	-9
2	7.4	406	-21
3	10.0	272	-46
4	8.2	345	-34
5	10.2	259	-54
6	9.0	318	-40
7	6.4	463	-17
8	5.5	519	-10
9	6.3	463	-18
10	5.5	515	-13

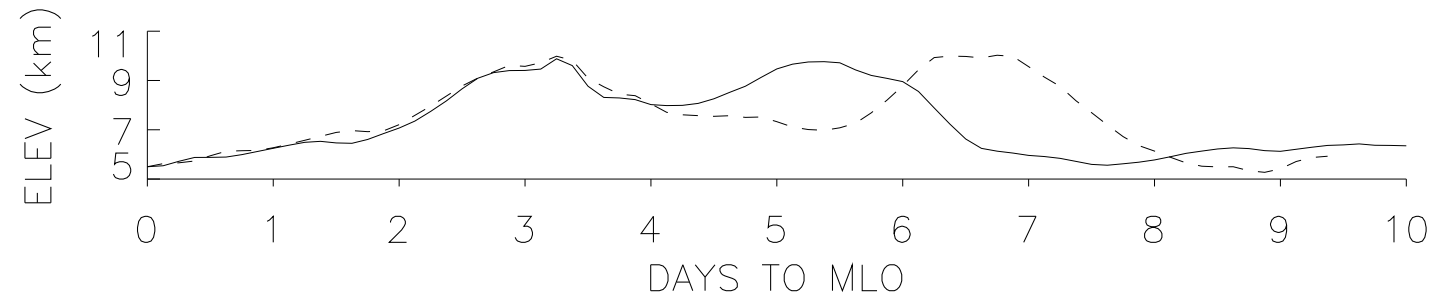
18UT

Day	km	hPa	C
0	5.5	523	-5
1	6.1	481	-10
2	7.1	425	-18
3	9.5	301	-40
4	10.3	252	-51
5	9.3	301	-41
6	10.9	232	-57
7	7.4	402	-25
8	5.5	522	-10
9	5.3	530	-9
10	5.7	497	-14

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

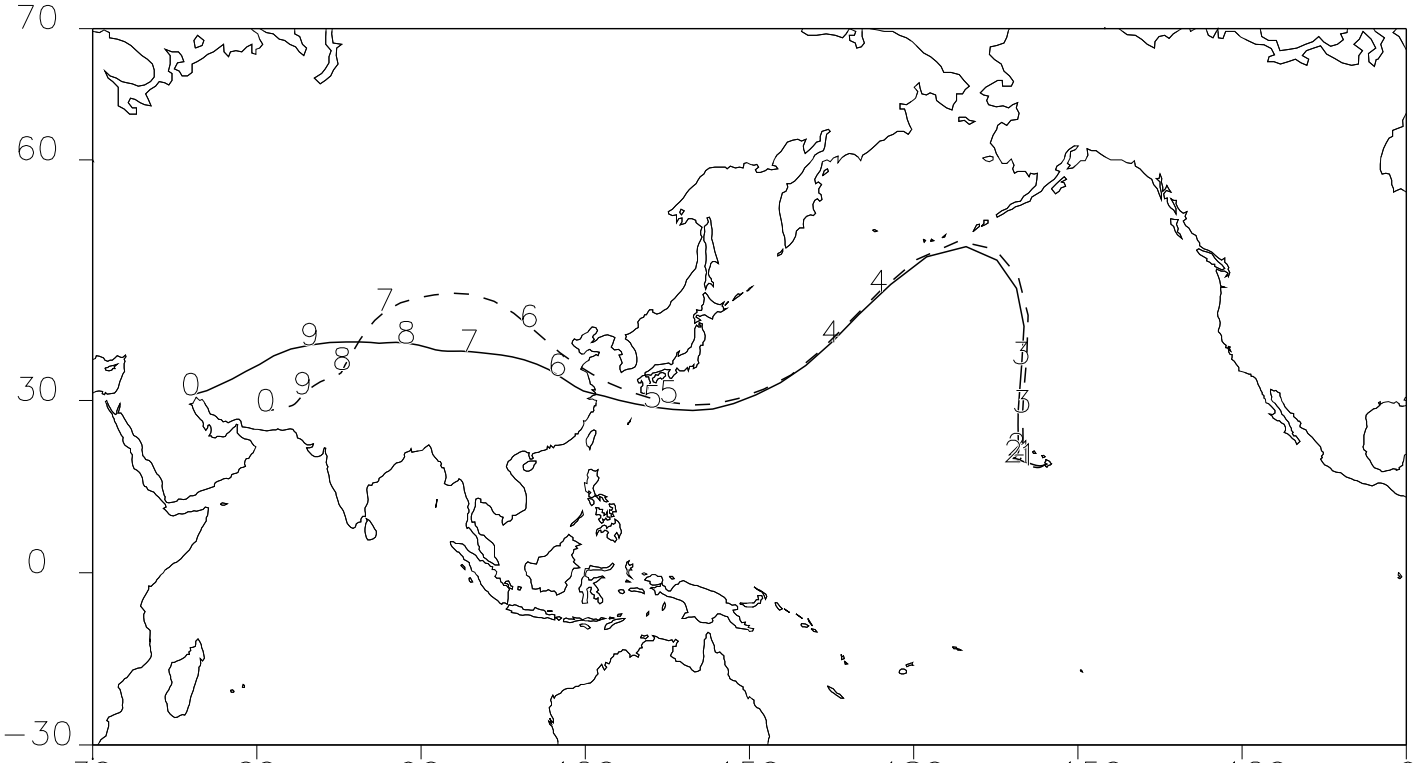
Day	km	hPa	C
0	5.5	522	-5
1	6.2	474	-11
2	7.1	423	-18
3	9.4	295	-43
4	8.0	362	-30
5	9.5	293	-45
6	9.0	318	-40
7	6.0	485	-13
8	5.8	501	-12
9	6.1	476	-18
10	6.3	459	-19

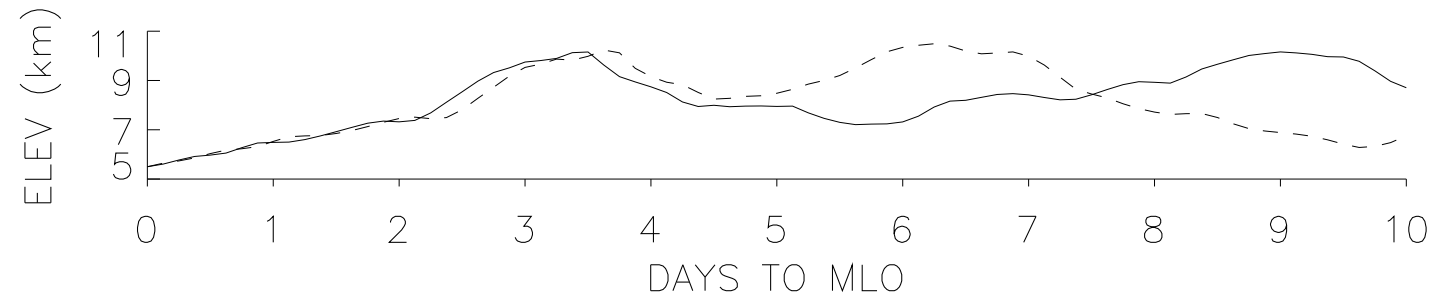
06UT

Day	km	hPa	C
0	5.5	523	-5
1	6.3	472	-10
2	7.2	416	-19
3	9.6	291	-43
4	8.1	364	-28
5	7.3	405	-22
6	8.8	327	-40
7	9.6	285	-49
8	6.1	476	-17
9	5.4	520	-9

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

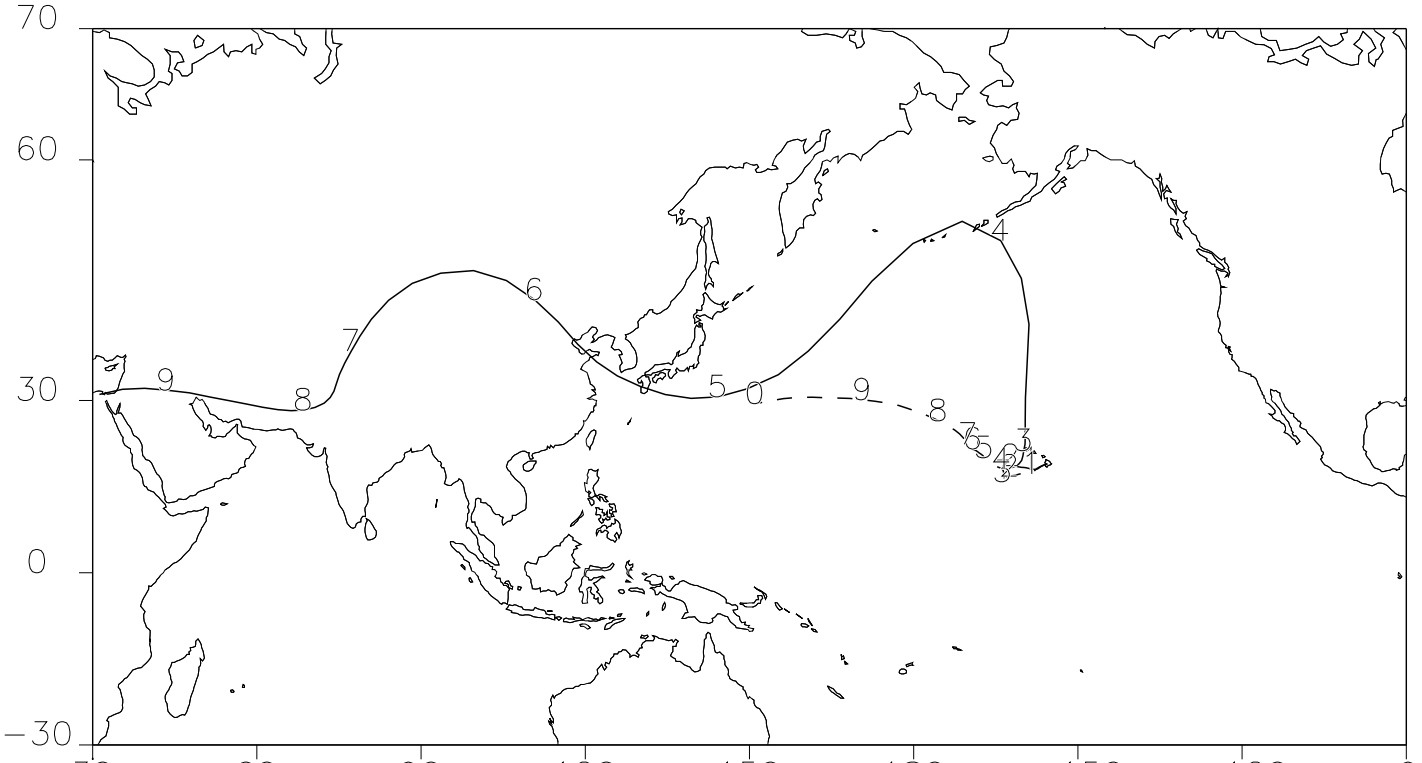
Day	km	hPa	C
0	5.5	523	-5
1	6.5	459	-12
2	7.3	410	-19
3	9.7	286	-43
4	8.7	330	-35
5	7.9	373	-26
6	7.3	406	-22
7	8.4	349	-32
8	8.9	324	-37
9	10.2	268	-50
10	8.7	330	-37

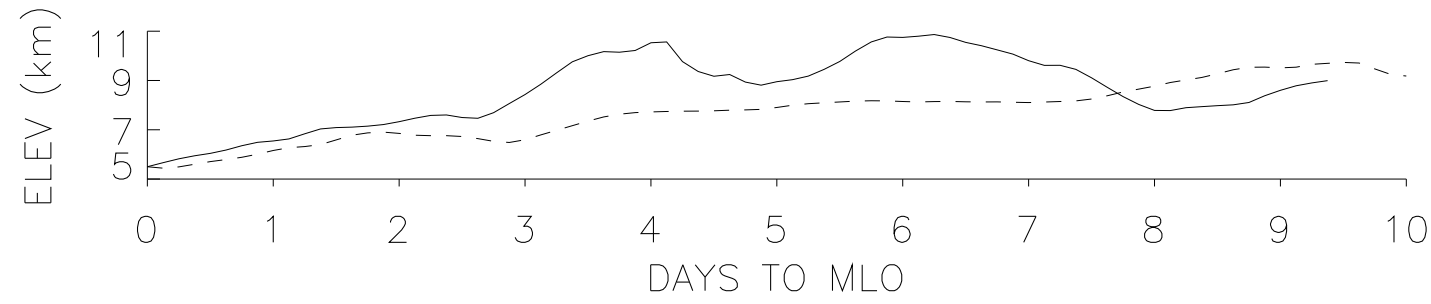
18UT

Day	km	hPa	C
0	5.5	524	-5
1	6.5	458	-12
2	7.5	404	-19
3	9.5	299	-40
4	9.2	305	-39
5	8.5	345	-31
6	10.3	260	-51
7	10.0	275	-47
8	7.7	385	-28
9	6.9	435	-20
10	6.8	441	-19

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





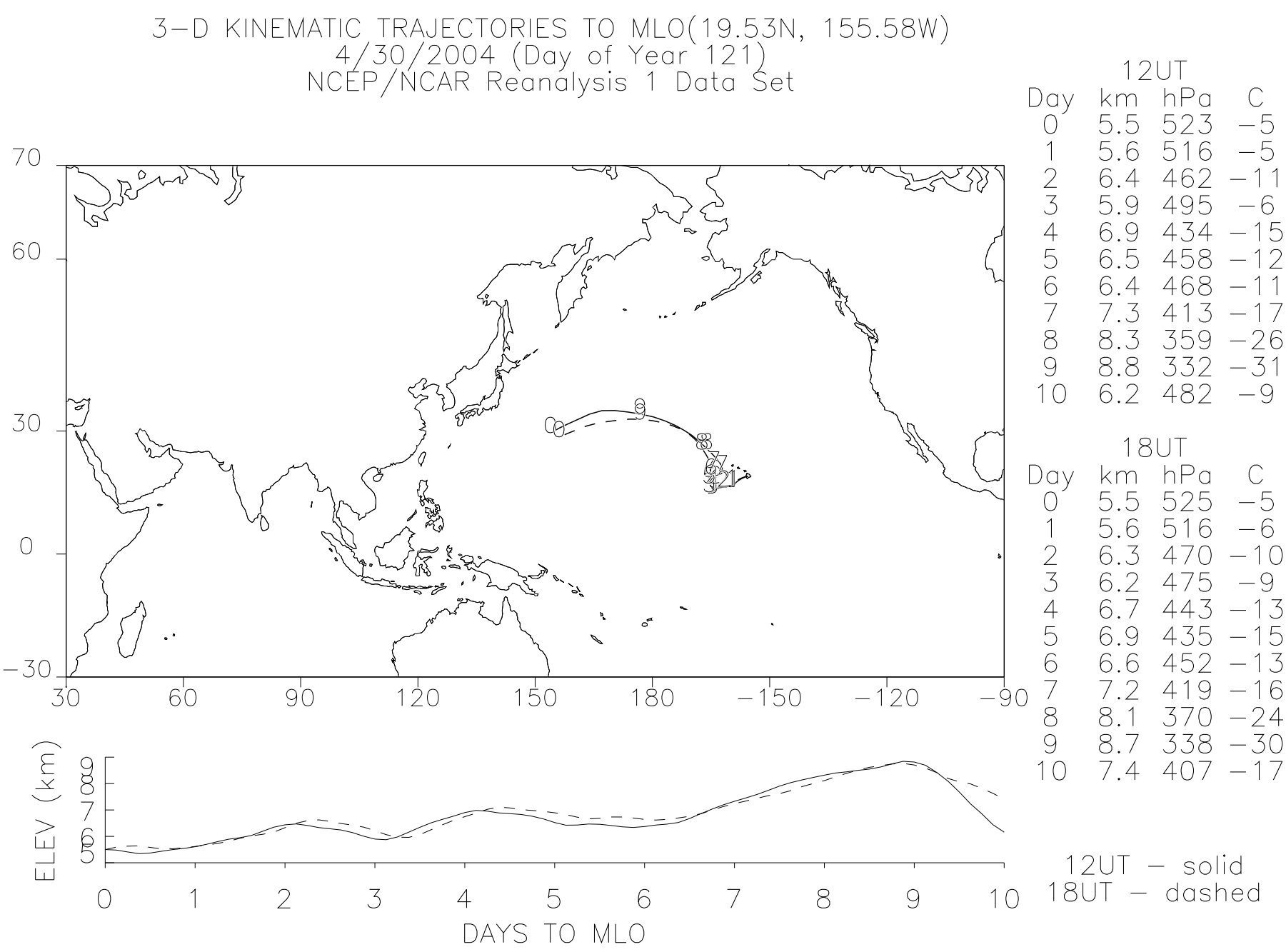
00UT

Day	km	hPa	C
0	5.5	523	-5
1	6.5	457	-12
2	7.3	411	-18
3	8.4	352	-29
4	10.5	248	-53
5	8.9	321	-36
6	10.7	240	-56
7	9.8	281	-45
8	7.8	381	-26
9	8.6	338	-35

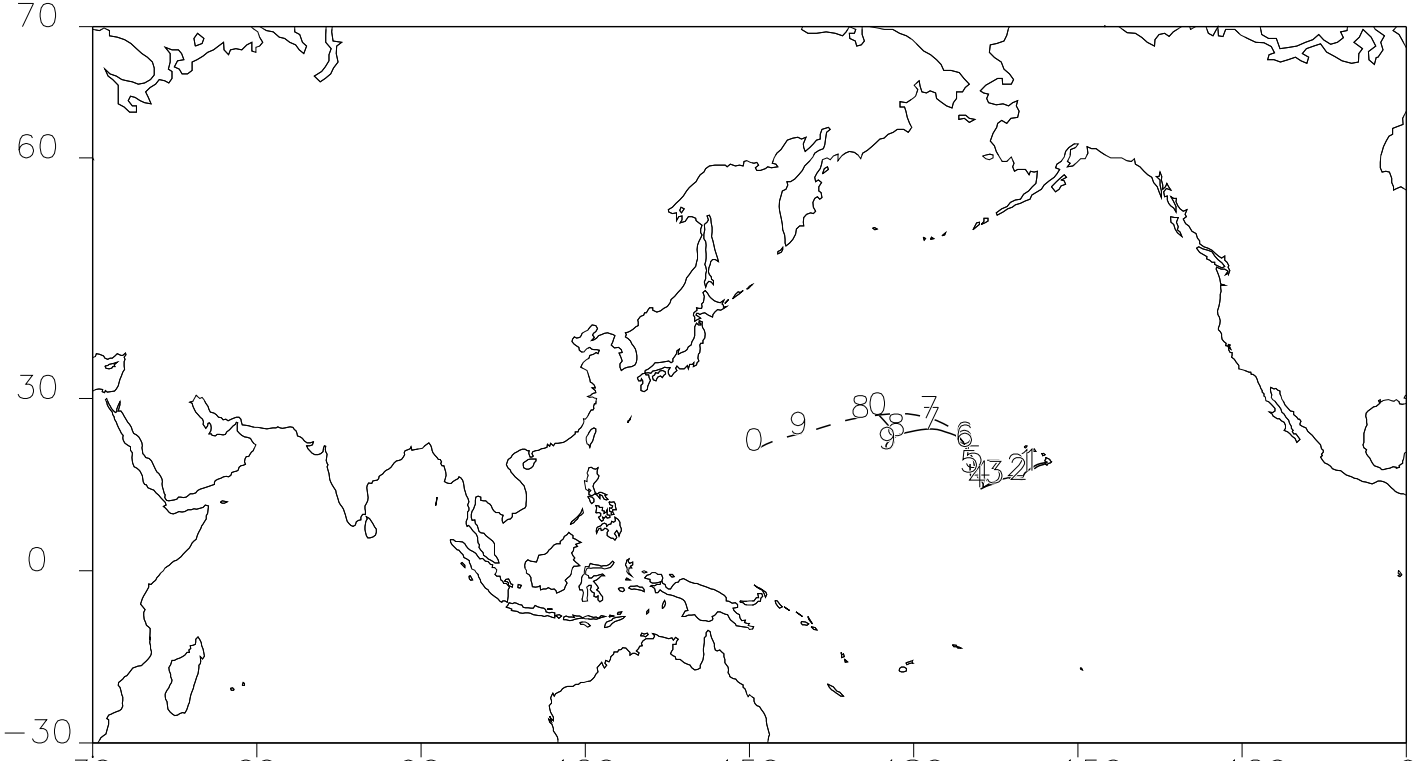
06UT

Day	km	hPa	C
0	5.5	524	-5
1	6.2	481	-9
2	6.9	438	-14
3	6.6	452	-12
4	7.7	389	-22
5	7.9	381	-23
6	8.1	371	-24
7	8.1	373	-23
8	8.8	339	-28
9	9.5	304	-35
10	9.2	320	-31

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
5
6
7
8
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 5.5 523 -5
1 5.6 516 -5
2 6.4 462 -11
3 5.9 495 -6
4 6.9 434 -15
5 6.5 458 -12
6 6.4 468 -11
7 7.3 413 -17
8 8.3 359 -26
9 8.8 332 -31
10 6.2 482 -9
18UT
Day km hPa C
0 5.5 525 -5
1 5.6 516 -6
2 6.3 470 -10
3 6.2 475 -9
4 6.7 443 -13
5 6.9 435 -15
6 6.6 452 -13
7 7.2 419 -16
8 8.1 370 -24
9 8.7 338 -30
10 7.4 407 -17
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

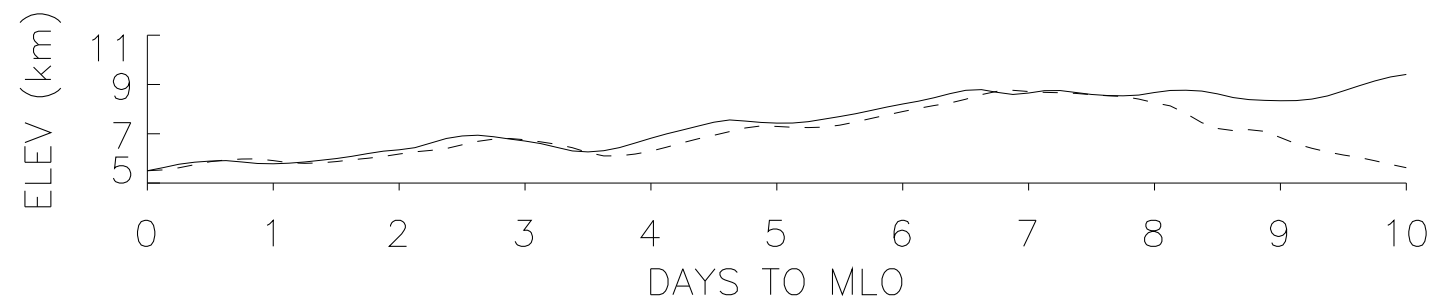


00UT

Day	km	hPa	C
0	5.5	524	-6
1	5.8	505	-7
2	6.3	469	-11
3	6.7	446	-13
4	6.8	439	-14
5	7.4	405	-20
6	8.2	367	-26
7	8.7	346	-29
8	8.7	345	-29
9	8.3	361	-25
10	9.4	310	-34

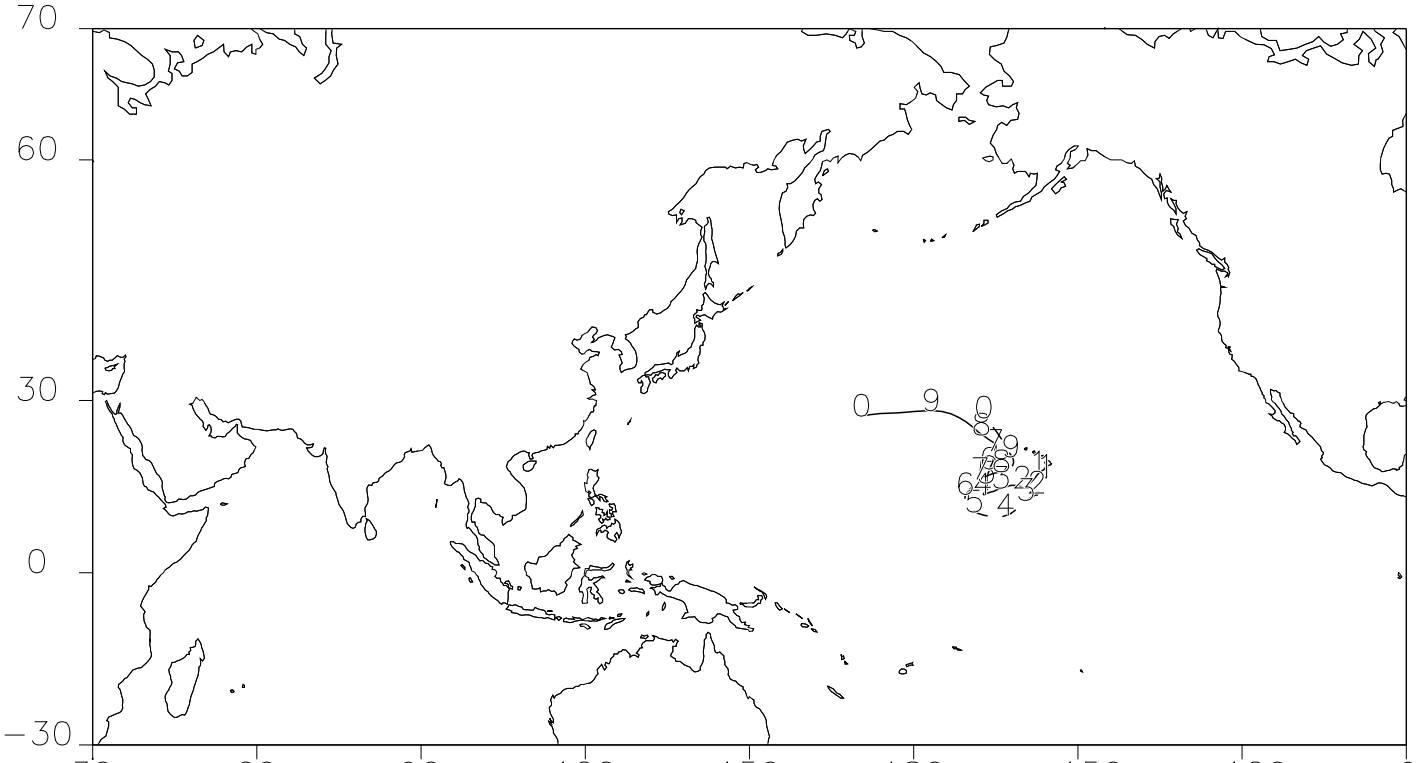
06UT

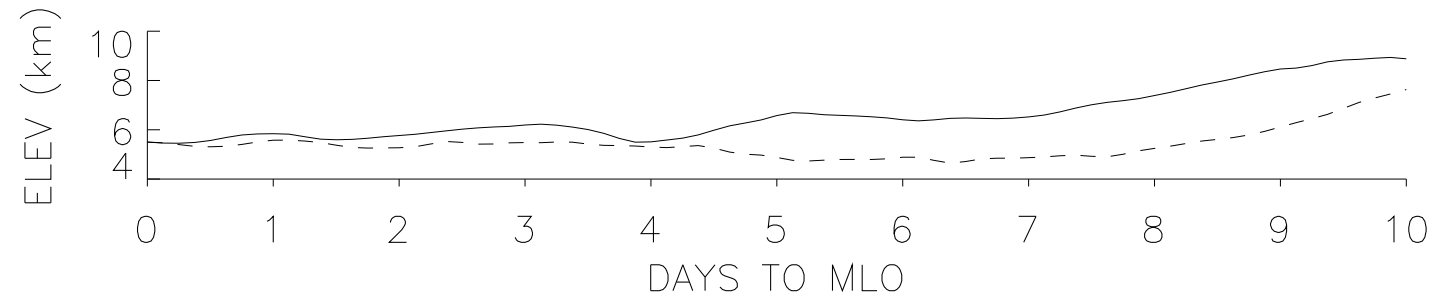
Day	km	hPa	C
0	5.5	524	-6
1	5.9	497	-7
2	6.2	480	-9
3	6.8	444	-13
4	6.3	470	-10
5	7.3	412	-19
6	7.9	382	-23
7	8.7	342	-30
8	8.3	362	-27
9	6.8	439	-15
10	5.6	516	-4



00UT – solid
06UT – dashed

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





12UT

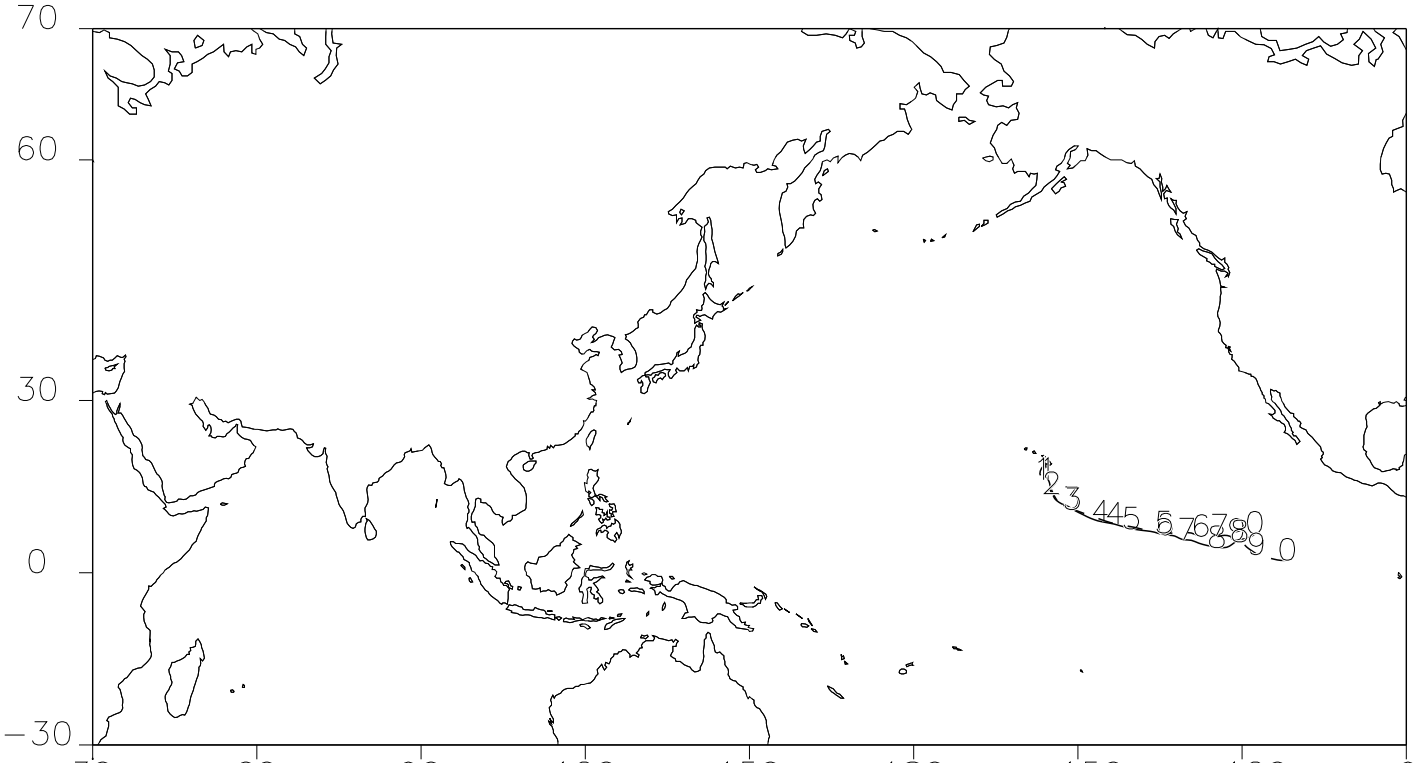
Day	km	hPa	C
0	5.5	523	−6
1	5.8	501	−7
2	5.8	505	−6
3	6.2	478	−8
4	5.5	520	−4
5	6.6	453	−12
6	6.4	465	−11
7	6.5	460	−13
8	7.4	411	−18
9	8.5	354	−27
10	8.9	334	−30

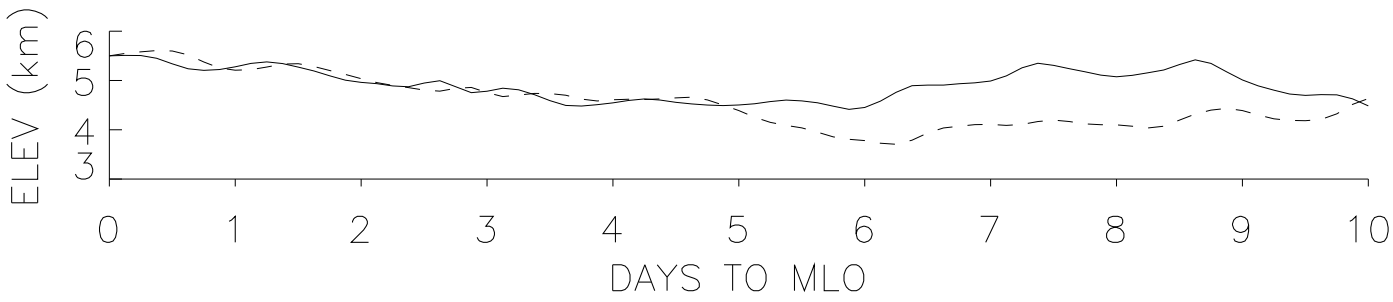
18UT

Day	km	hPa	C
0	5.5	524	−7
1	5.6	520	−6
2	5.3	540	−3
3	5.5	525	−3
4	5.3	535	−2
5	4.9	564	−1
6	4.9	564	−2
7	4.9	567	−1
8	5.2	542	−2
9	6.1	484	−9
10	7.6	393	−23

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

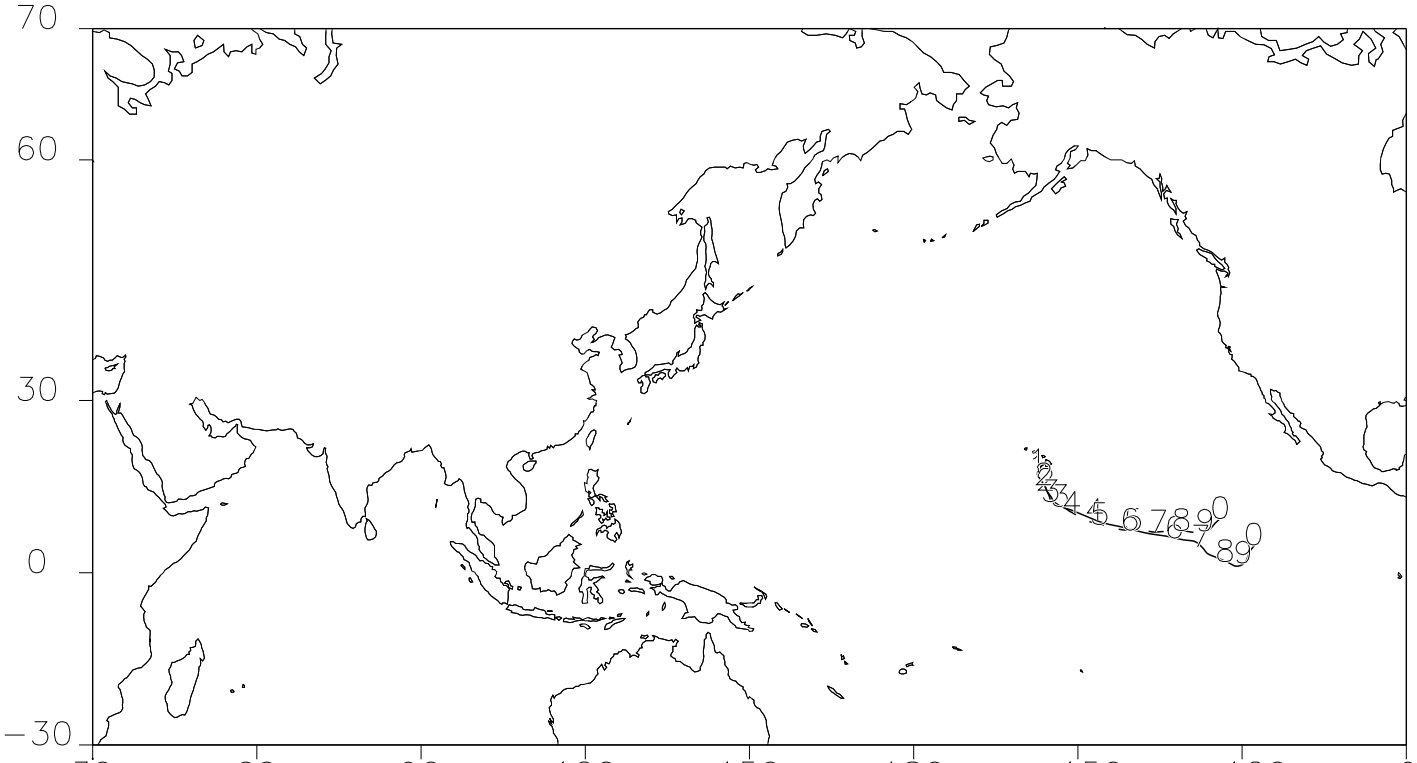
Day	km	hPa	C
0	5.5	523	−8
1	5.3	539	−4
2	5.0	560	−1
3	4.8	573	1
4	4.5	589	2
5	4.5	591	3
6	4.5	594	4
7	5.0	557	0
8	5.1	551	0
9	5.0	556	1
10	4.5	595	4

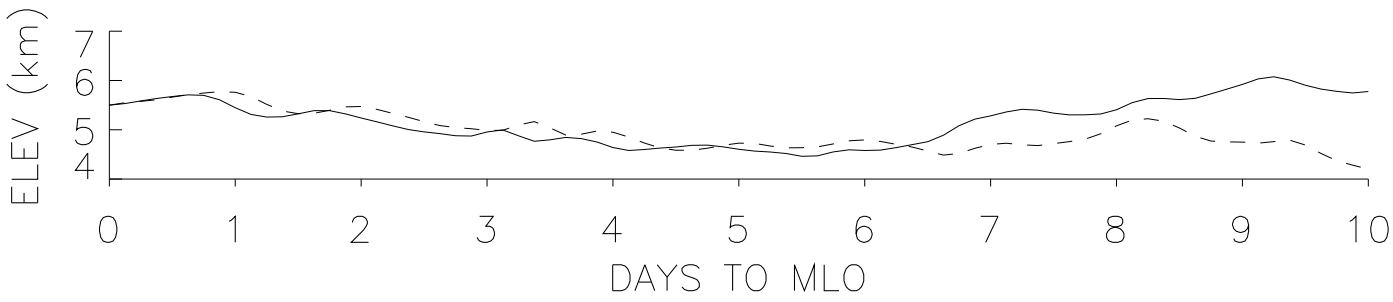
06UT

Day	km	hPa	C
0	5.5	524	−8
1	5.2	544	−3
2	5.0	556	−1
3	4.8	576	1
4	4.6	586	2
5	4.4	601	3
6	3.8	648	8
7	4.1	623	6
8	4.1	624	5
9	4.4	603	4
10	4.6	585	2

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

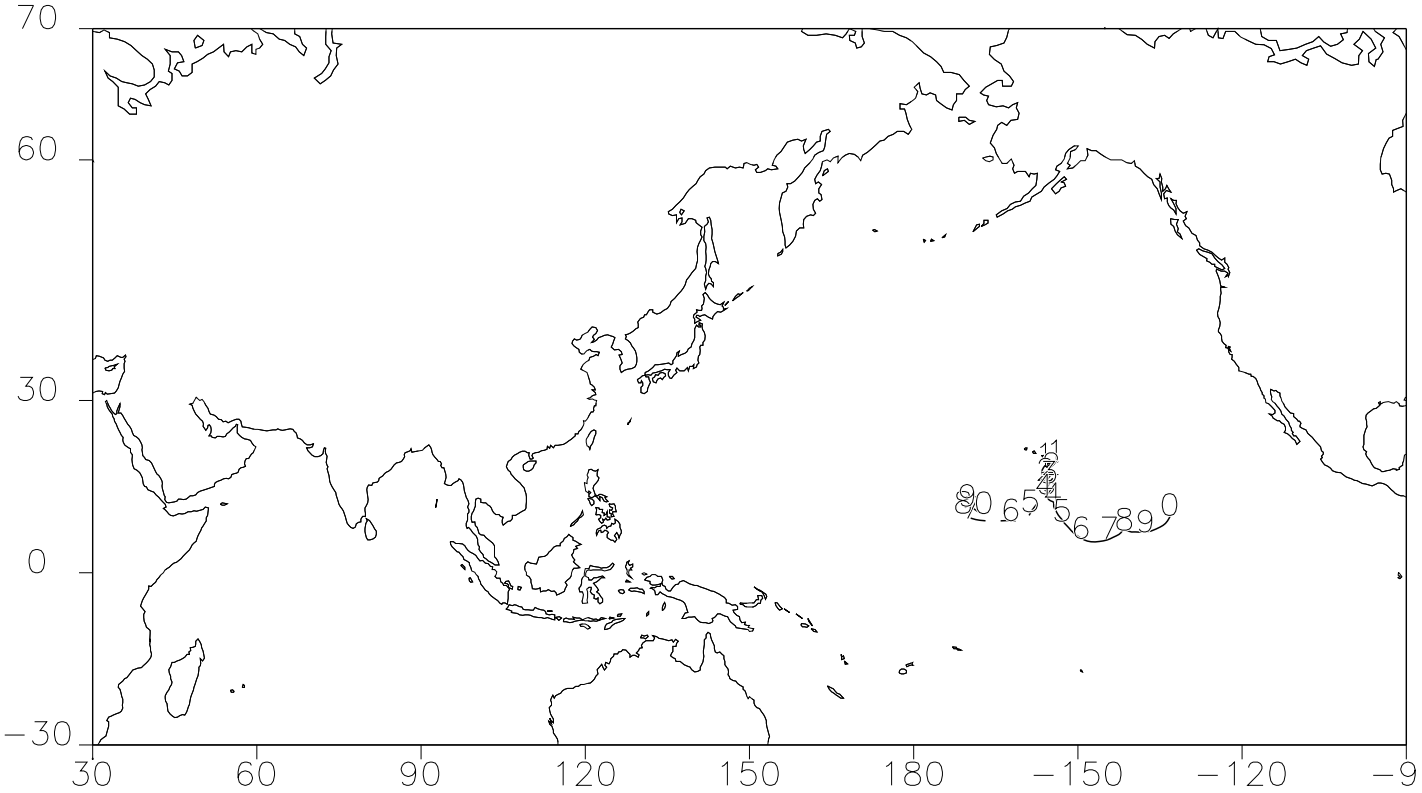
Day	km	hPa	C
0	5.5	524	−8
1	5.4	527	−6
2	5.2	541	−4
3	5.0	561	−1
4	4.6	582	1
5	4.6	584	2
6	4.6	586	3
7	5.3	537	−3
8	5.4	528	−3
9	5.9	495	−6
10	5.8	505	−4

18UT

Day	km	hPa	C
0	5.5	524	−8
1	5.8	506	−9
2	5.5	527	−5
3	5.0	560	0
4	5.0	562	0
5	4.7	577	2
6	4.8	571	1
7	4.7	579	2
8	5.1	553	−1
9	4.7	577	3
10	4.2	617	6

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

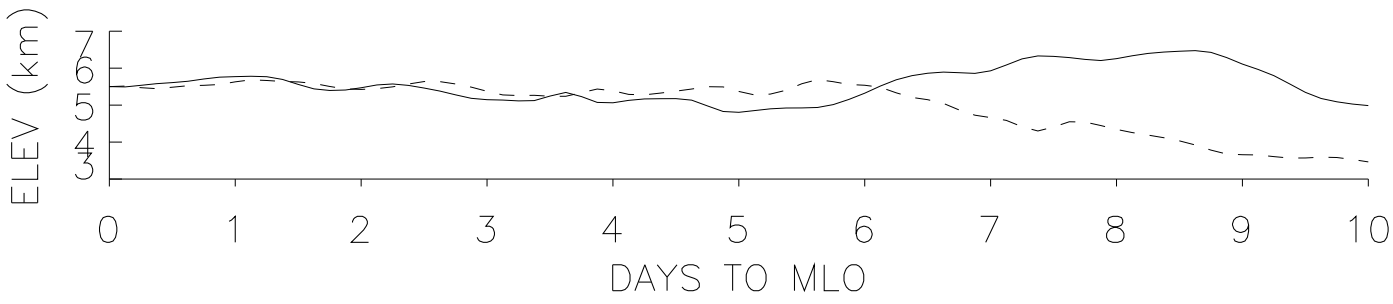


00UT

Day	km	hPa	C
0	5.5	524	-8
1	5.8	505	-9
2	5.5	526	-5
3	5.1	547	-2
4	5.1	553	0
5	4.8	570	2
6	5.3	533	-2
7	5.9	494	-5
8	6.3	475	-8
9	6.1	483	-8
10	5.0	558	1

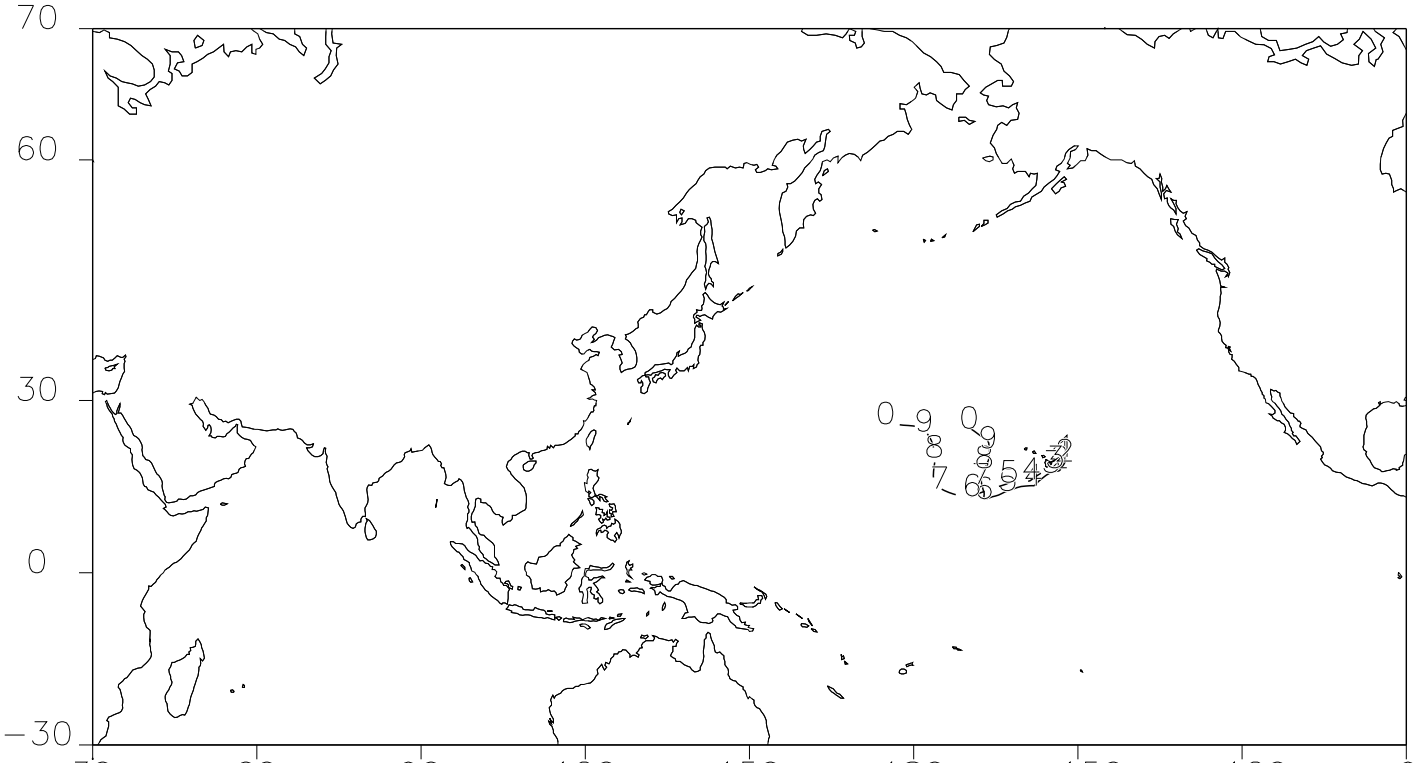
06UT

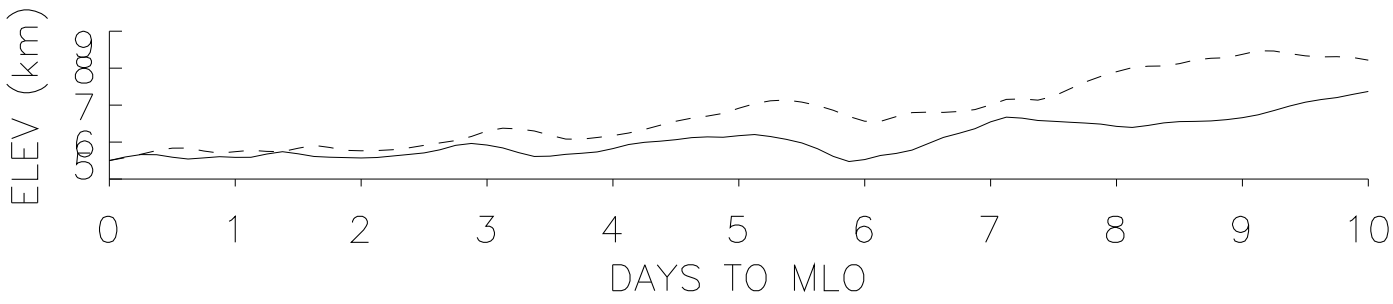
Day	km	hPa	C
0	5.5	524	-8
1	5.6	515	-9
2	5.4	529	-5
3	5.4	533	-4
4	5.4	532	-3
5	5.4	531	-2
6	5.5	519	-3
7	4.7	580	0
8	4.3	604	2
9	3.7	659	7
10	3.5	674	9



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





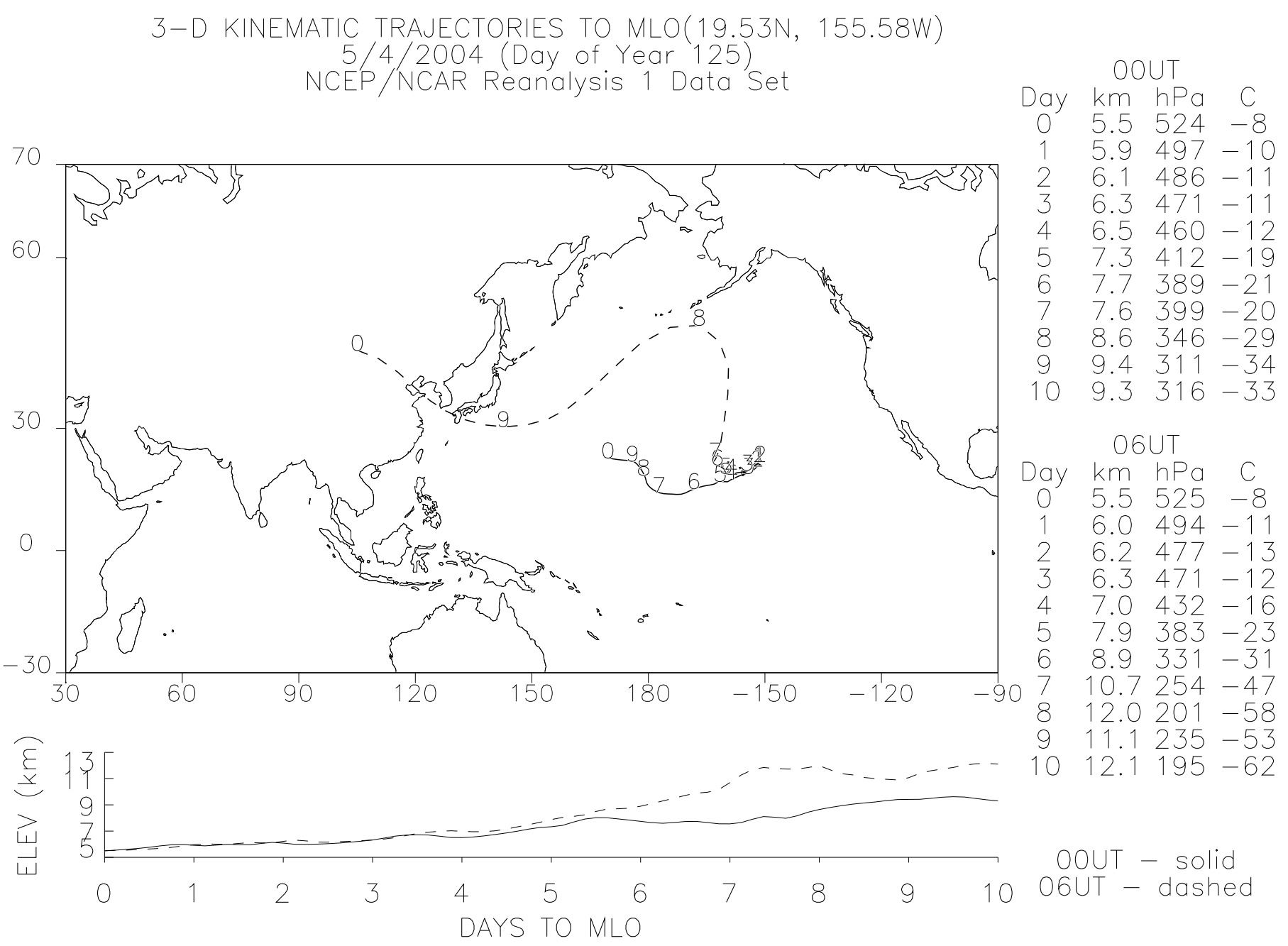
12UT

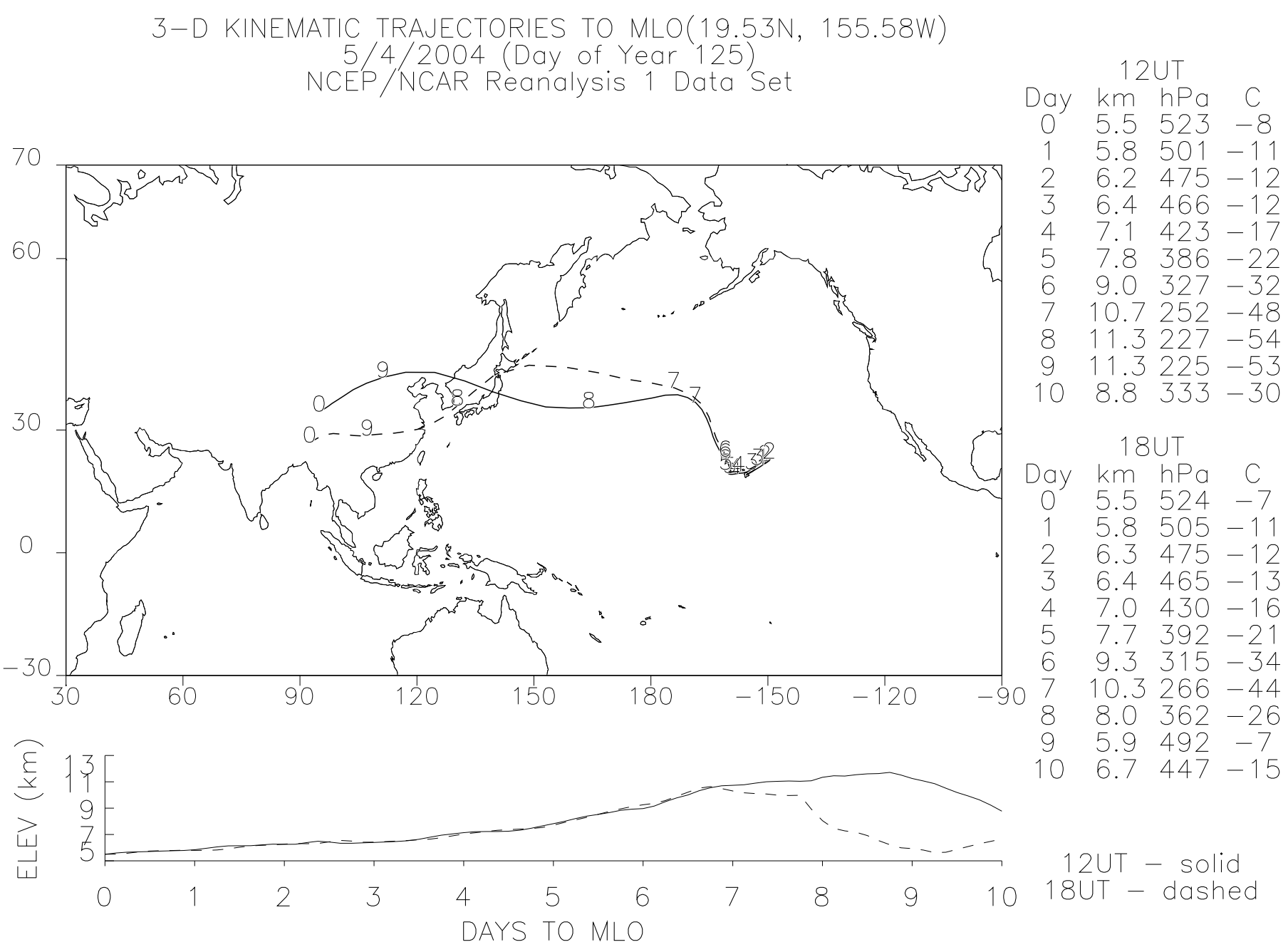
Day	km	hPa	C
0	5.5	523	−7
1	5.6	518	−8
2	5.6	519	−7
3	5.9	496	−8
4	5.8	502	−7
5	6.2	479	−8
6	5.5	519	−4
7	6.5	455	−12
8	6.4	464	−11
9	6.7	452	−14
10	7.4	412	−18

18UT

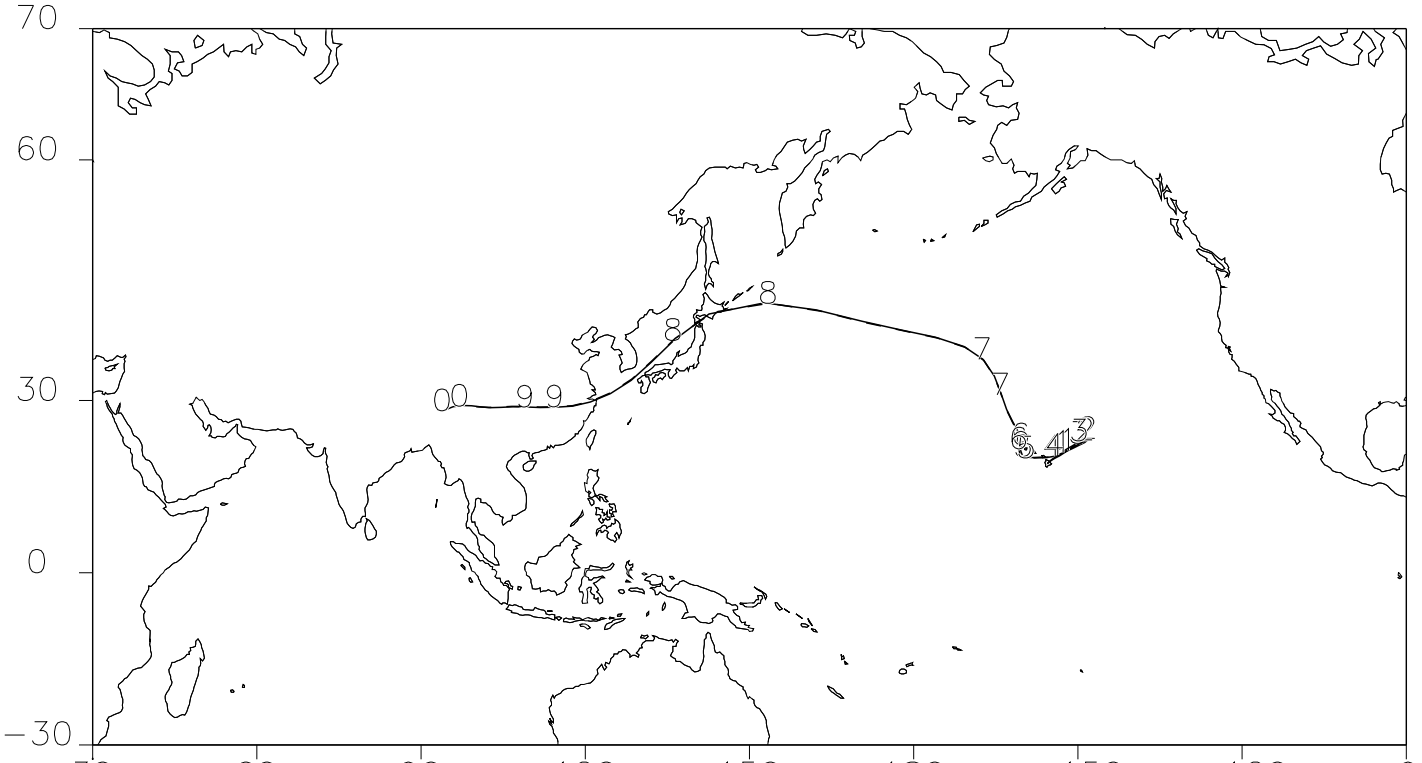
Day	km	hPa	C
0	5.5	524	−8
1	5.7	508	−9
2	5.8	507	−9
3	6.3	474	−11
4	6.2	481	−10
5	6.9	436	−15
6	6.6	455	−11
7	7.0	429	−16
8	7.9	381	−24
9	8.4	359	−27
10	8.2	366	−26

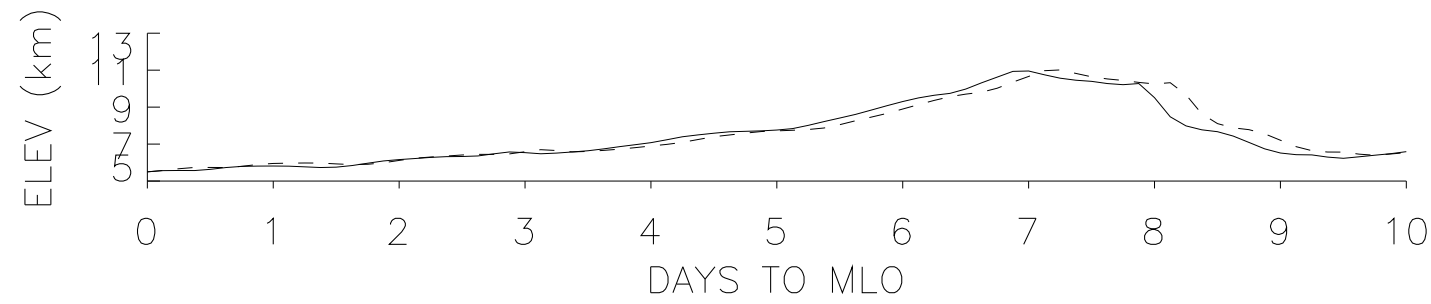
12UT − solid
18UT − dashed


3-D KINEMATIC TRAJECTORIES TO MLO(19.53N, 155.58W)
5/4/2004 (Day of Year 125)
NCEP/NCAR Reanalysis 1 Data Set
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
Day km hPa C
0 5.5 524 -8
1 5.9 497 -10
2 6.1 486 -11
3 6.3 471 -11
4 6.5 460 -12
5 7.3 412 -19
6 7.7 389 -21
7 7.6 399 -20
8 8.6 346 -29
9 9.4 311 -34
10 9.3 316 -33
06UT
Day km hPa C
0 5.5 525 -8
1 6.0 494 -11
2 6.2 477 -13
3 6.3 471 -12
4 7.0 432 -16
5 7.9 383 -23
6 8.9 331 -31
7 10.7 254 -47
8 12.0 201 -58
9 11.1 235 -53
10 12.1 195 -62
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 5.5 523 -8
1 5.8 501 -11
2 6.2 475 -12
3 6.4 466 -12
4 7.1 423 -17
5 7.8 386 -22
6 9.0 327 -32
7 10.7 252 -48
8 11.3 227 -54
9 11.3 225 -53
10 8.8 333 -30
18UT
Day km hPa C
0 5.5 524 -7
1 5.8 505 -11
2 6.3 475 -12
3 6.4 465 -13
4 7.0 430 -16
5 7.7 392 -21
6 9.3 315 -34
7 10.3 266 -44
8 8.0 362 -26
9 5.9 492 -7
10 6.7 447 -15
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
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

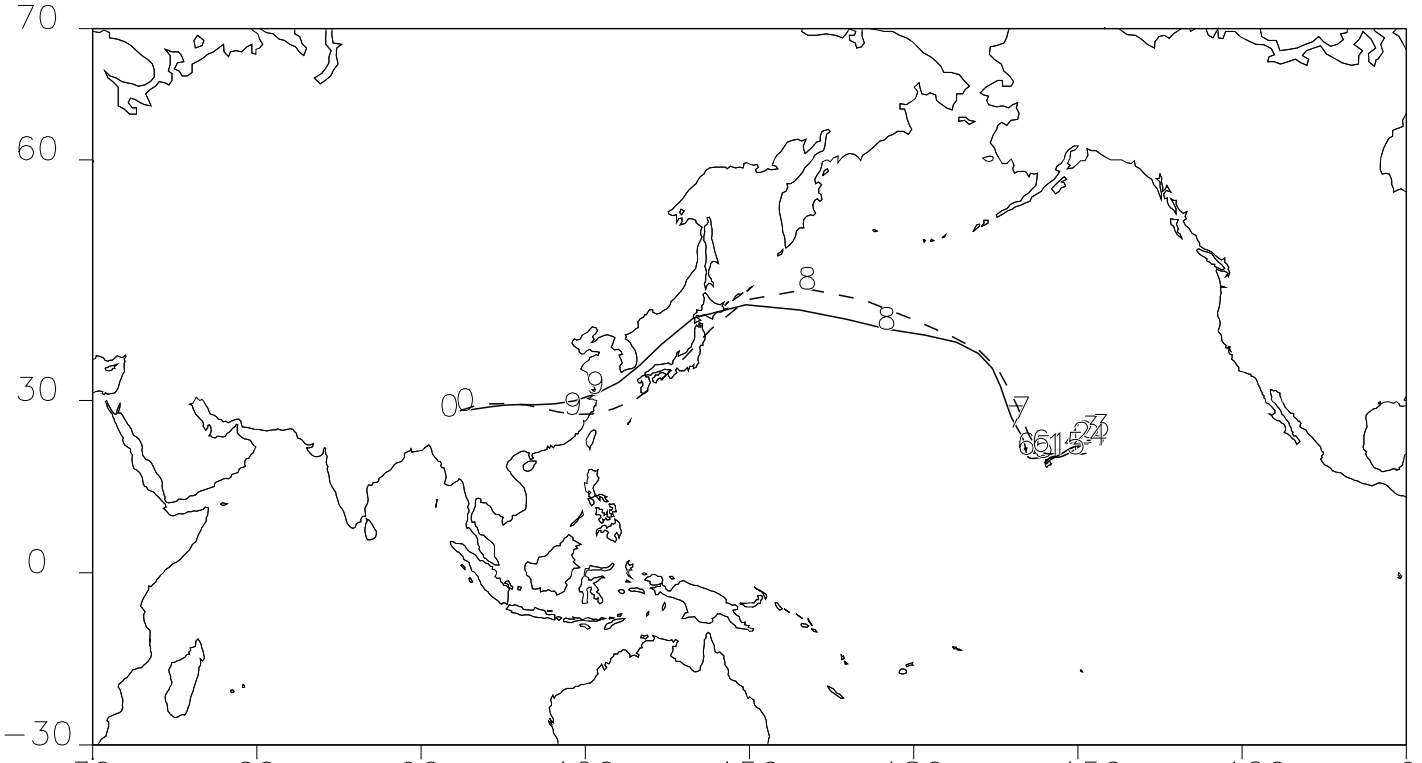
Day	km	hPa	C
0	5.5	524	-7
1	5.8	503	-11
2	6.2	481	-12
3	6.5	458	-14
4	7.1	426	-17
5	7.8	389	-21
6	9.3	313	-35
7	11.0	242	-50
8	9.5	290	-38
9	6.5	455	-12
10	6.6	449	-15

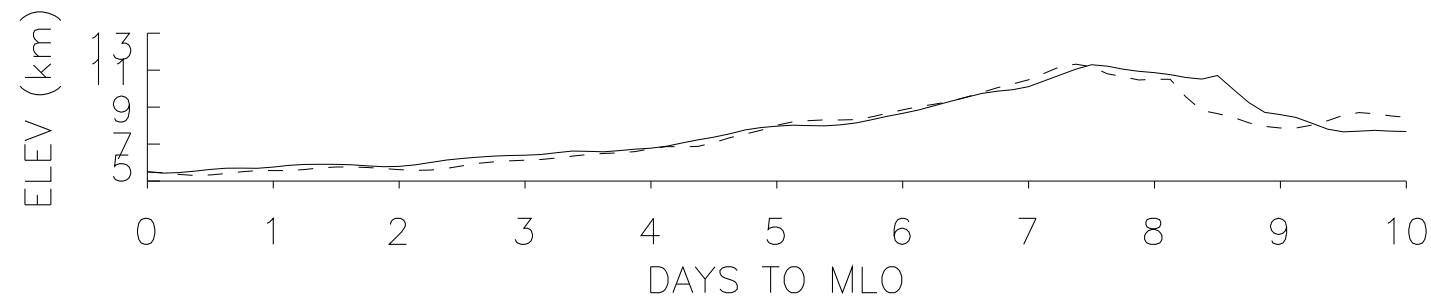
06UT

Day	km	hPa	C
0	5.5	523	-7
1	6.0	495	-12
2	6.1	484	-13
3	6.6	455	-15
4	6.9	437	-16
5	7.7	391	-21
6	8.9	332	-31
7	10.7	254	-47
8	10.3	255	-46
9	7.2	415	-16
10	6.5	454	-14

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

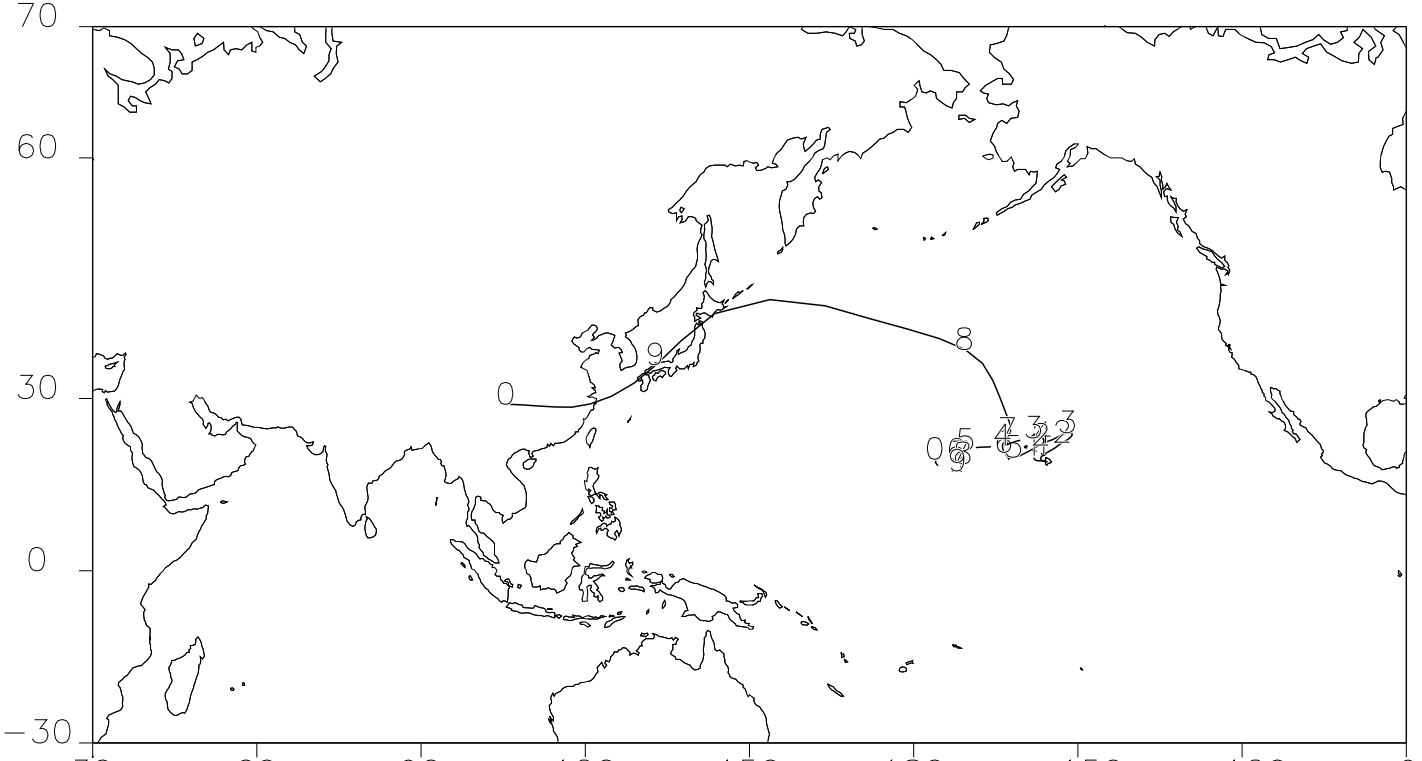
Day	km	hPa	C
0	5.5	521	−8
1	5.8	506	−11
2	5.8	504	−11
3	6.4	466	−13
4	6.8	443	−15
5	8.0	377	−24
6	8.7	343	−29
7	10.1	276	−42
8	10.9	242	−50
9	8.6	340	−28
10	7.7	390	−20

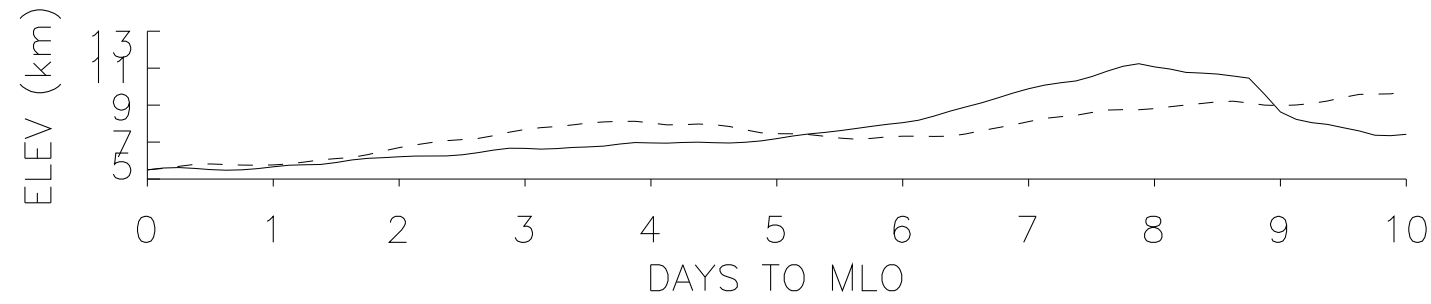
18UT

Day	km	hPa	C
0	5.5	522	−7
1	5.6	520	−9
2	5.6	517	−10
3	6.1	484	−11
4	6.8	446	−15
5	8.0	376	−24
6	8.9	334	−31
7	10.5	263	−45
8	10.5	246	−48
9	7.9	379	−23
10	8.5	352	−26

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

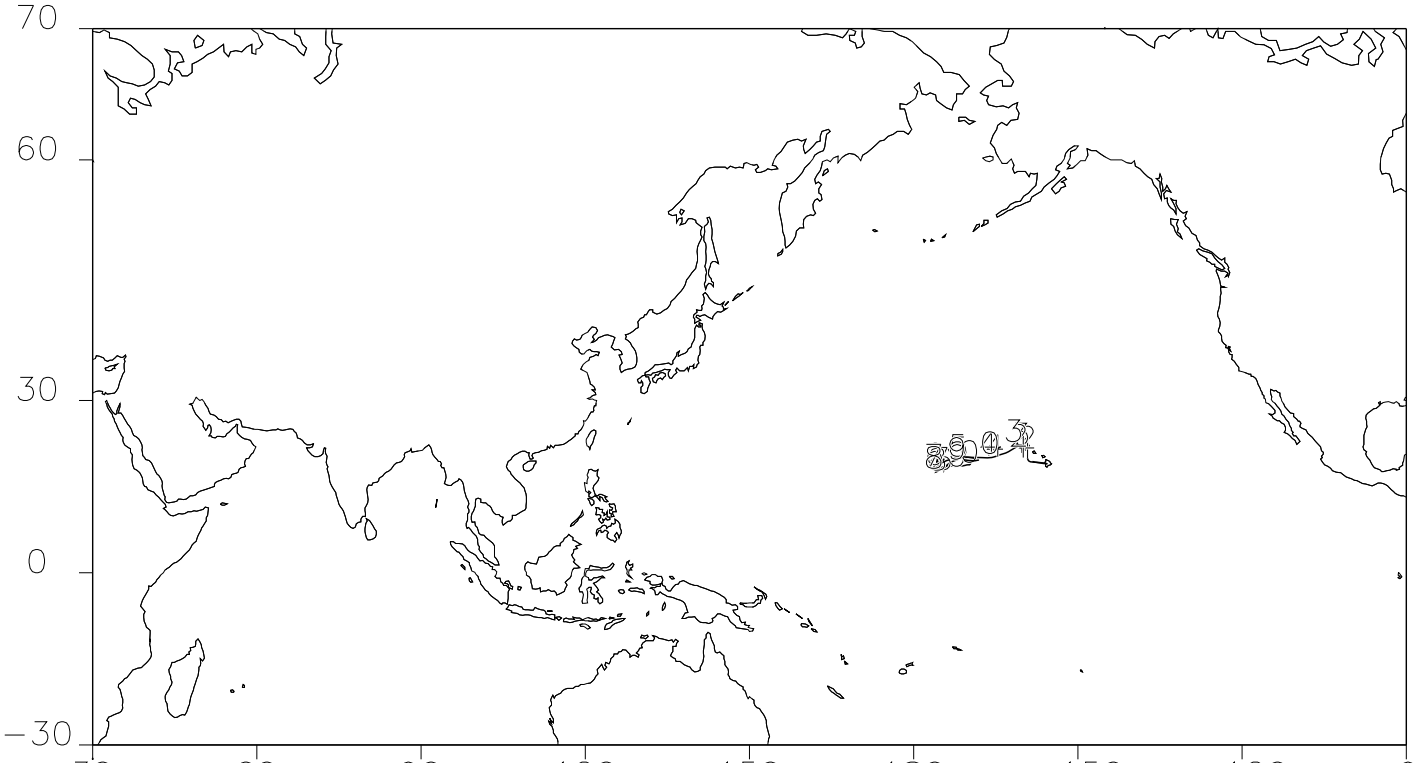
Day	km	hPa	C
0	5.5	521	−8
1	5.7	513	−9
2	6.2	478	−14
3	6.7	450	−17
4	7.0	432	−18
5	7.2	420	−18
6	8.1	374	−24
7	9.9	288	−39
8	11.1	239	−50
9	8.6	332	−30
10	7.4	404	−18

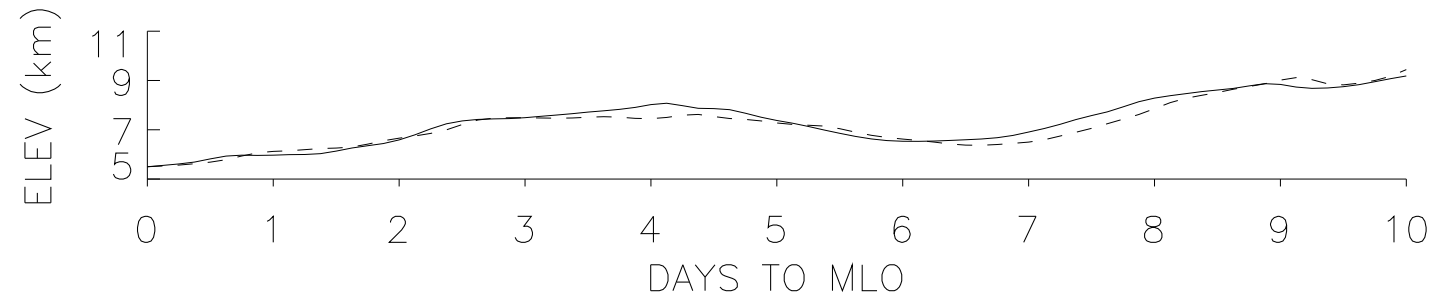
06UT

Day	km	hPa	C
0	5.5	520	−9
1	5.8	505	−10
2	6.7	449	−17
3	7.7	392	−24
4	8.0	373	−26
5	7.5	405	−20
6	7.3	413	−17
7	8.1	371	−24
8	8.8	335	−30
9	9.0	327	−31
10	9.7	294	−38

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

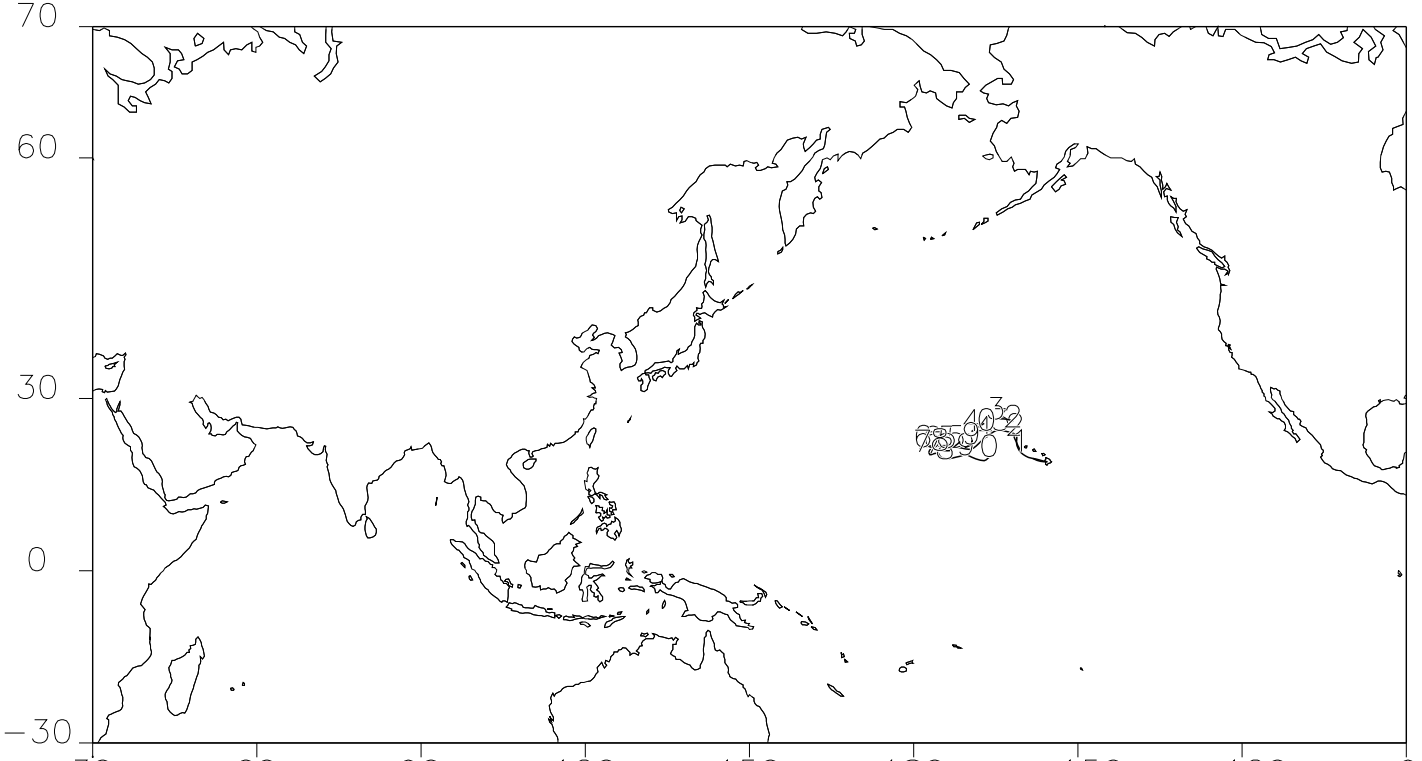
Day	km	hPa	C
0	5.5	520	−8
1	6.0	491	−12
2	6.6	455	−16
3	7.5	402	−22
4	8.0	374	−26
5	7.4	409	−20
6	6.5	458	−12
7	6.9	437	−15
8	8.3	361	−26
9	8.8	334	−31
10	9.2	318	−35

18UT

Day	km	hPa	C
0	5.5	520	−9
1	6.1	482	−13
2	6.7	451	−16
3	7.5	403	−23
4	7.5	404	−21
5	7.3	414	−19
6	6.6	453	−13
7	6.5	460	−13
8	7.9	384	−23
9	9.0	325	−33
10	9.4	306	−37

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

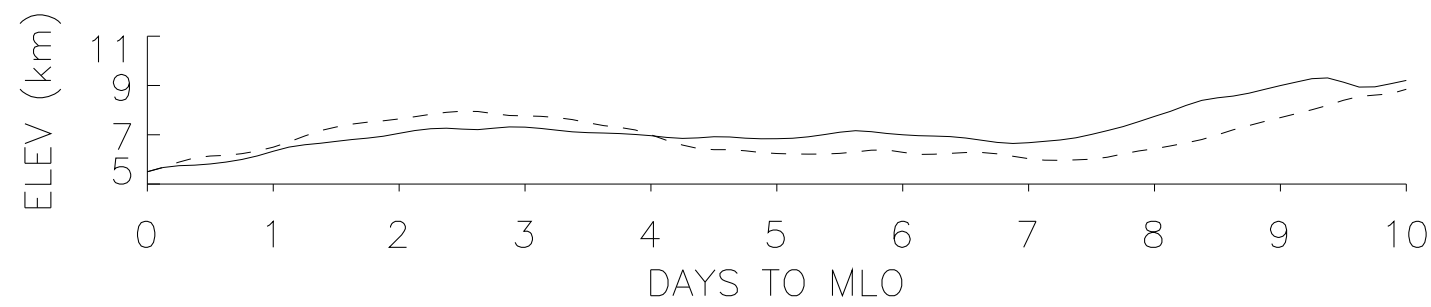


00UT

Day	km	hPa	C
0	5.5	520	−7
1	6.3	467	−15
2	7.1	427	−20
3	7.3	413	−23
4	7.0	432	−19
5	6.8	439	−16
6	7.0	431	−17
7	6.7	450	−14
8	7.7	390	−23
9	9.0	327	−32
10	9.2	316	−34

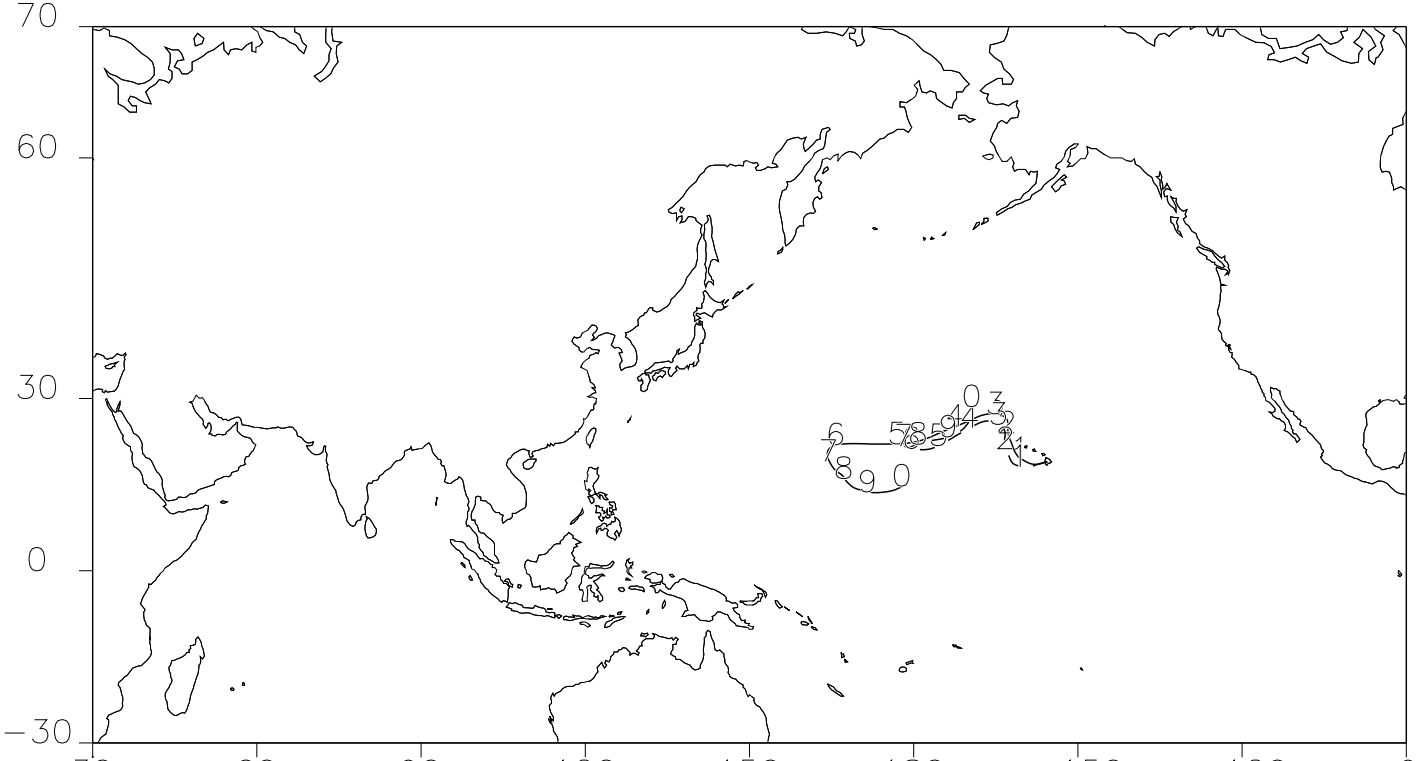
06UT

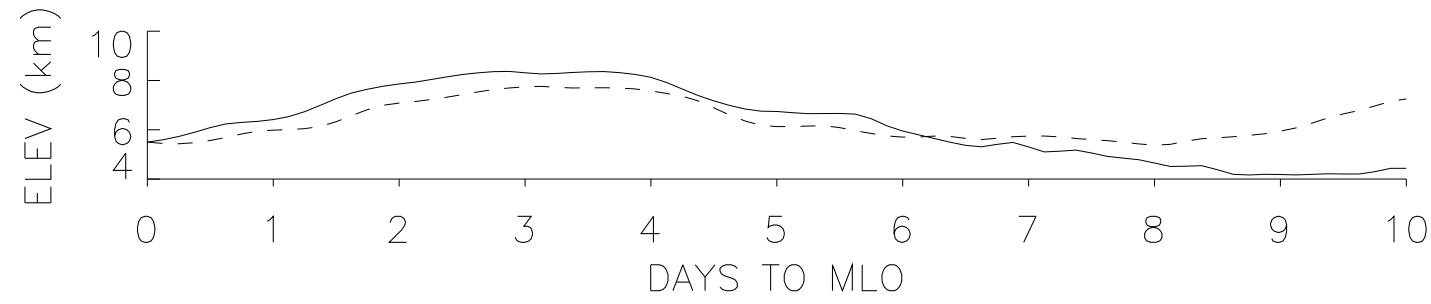
Day	km	hPa	C
0	5.5	521	−7
1	6.5	456	−16
2	7.6	394	−25
3	7.8	388	−26
4	7.0	429	−19
5	6.2	475	−11
6	6.3	472	−12
7	6.0	489	−9
8	6.4	464	−13
9	7.7	391	−21
10	8.8	333	−32



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

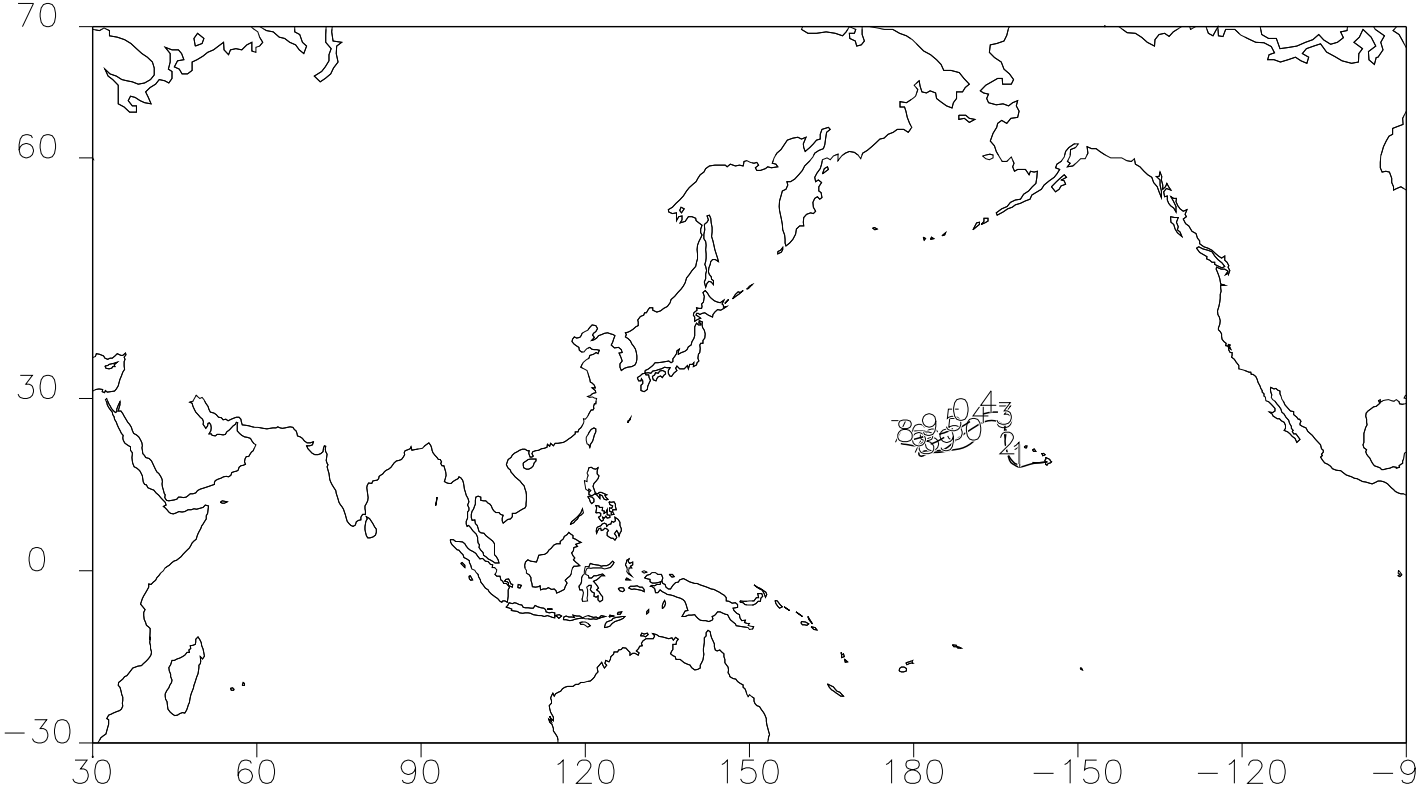
Day	km	hPa	C
0	5.5	520	−7
1	6.4	462	−14
2	7.9	381	−27
3	8.3	359	−31
4	8.1	367	−29
5	6.7	444	−16
6	5.9	495	−9
7	5.3	538	−3
8	4.6	583	0
9	4.2	616	3
10	4.4	597	1

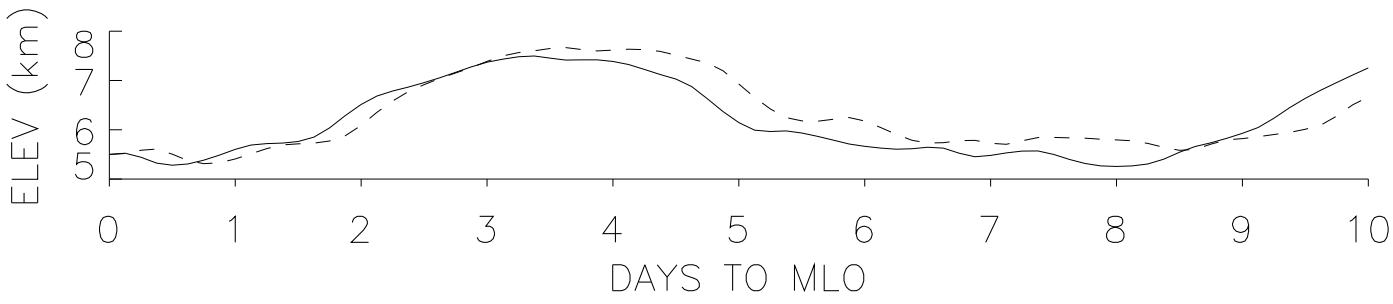
18UT

Day	km	hPa	C
0	5.5	520	−7
1	6.0	489	−11
2	7.1	424	−20
3	7.7	389	−26
4	7.6	397	−24
5	6.1	480	−11
6	5.7	509	−7
7	5.7	508	−8
8	5.4	533	−6
9	5.9	495	−9
10	7.3	415	−19

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

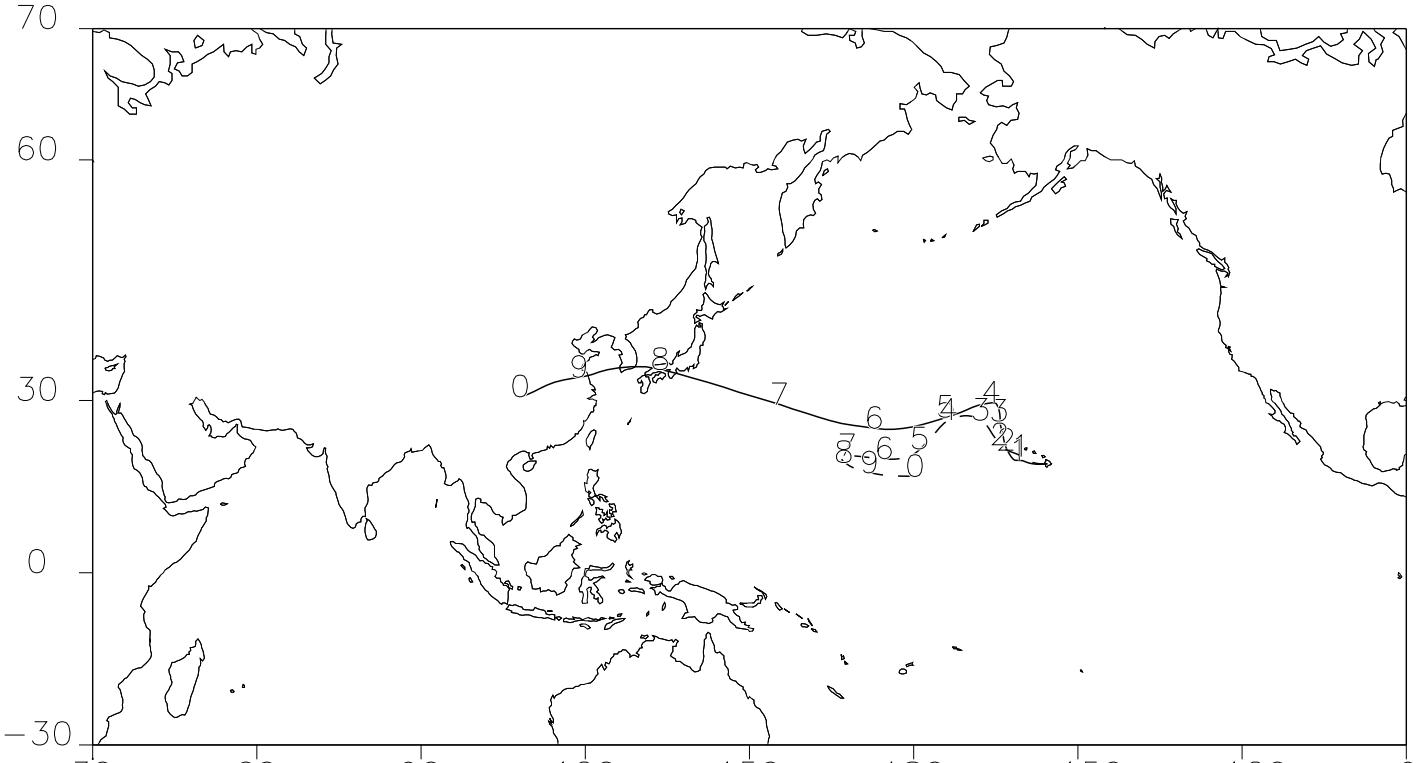
Day	km	hPa	C
0	5.5	521	−7
1	5.6	514	−8
2	6.5	457	−16
3	7.4	409	−23
4	7.4	408	−24
5	6.1	480	−12
6	5.7	512	−7
7	5.5	526	−6
8	5.3	541	−4
9	5.9	497	−9
10	7.3	416	−18

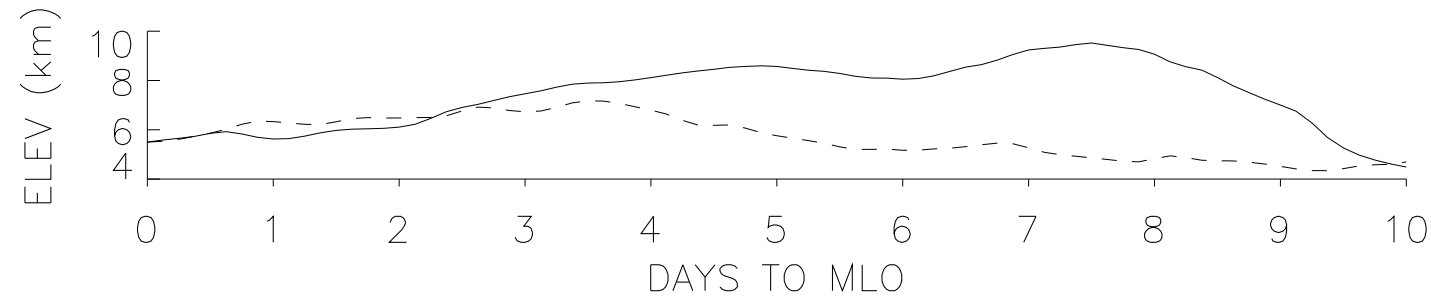
06UT

Day	km	hPa	C
0	5.5	521	−7
1	5.4	527	−7
2	6.1	482	−13
3	7.4	408	−24
4	7.6	396	−25
5	6.9	432	−19
6	6.2	478	−10
7	5.7	508	−8
8	5.8	504	−9
9	5.8	503	−9
10	6.7	450	−14

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

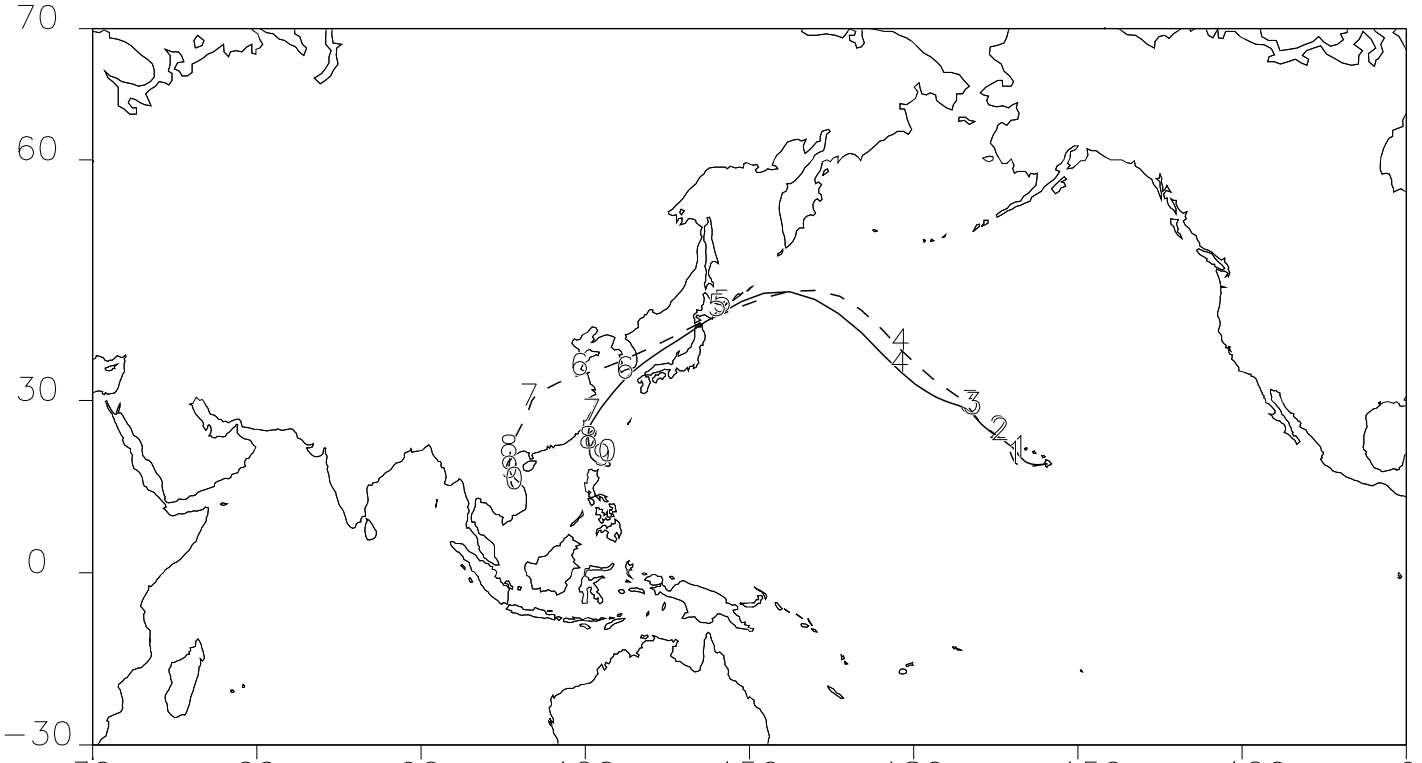
Day	km	hPa	C
0	5.5	520	−8
1	5.6	512	−9
2	6.1	481	−12
3	7.5	403	−24
4	8.1	369	−30
5	8.6	344	−32
6	8.1	369	−27
7	9.2	313	−35
8	9.1	319	−33
9	7.0	424	−17
10	4.5	589	1

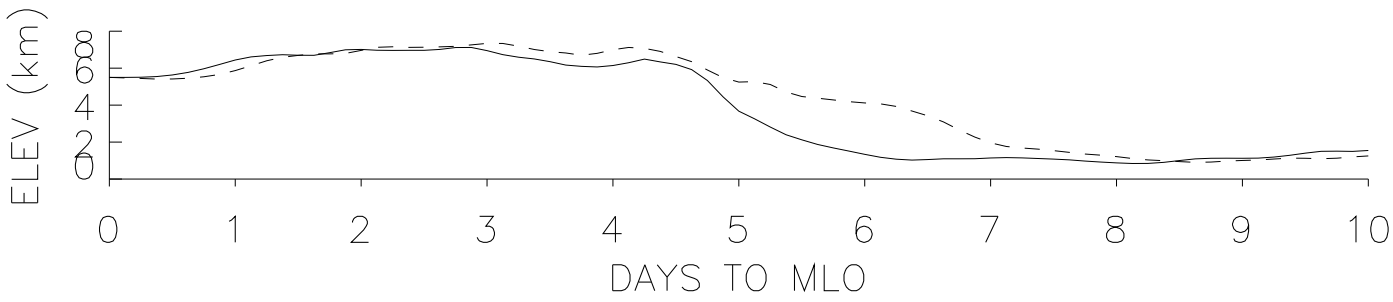
18UT

Day	km	hPa	C
0	5.5	521	−7
1	6.3	467	−14
2	6.5	458	−14
3	6.7	445	−17
4	6.8	442	−17
5	5.8	505	−9
6	5.2	543	−4
7	5.3	539	−4
8	4.8	570	−1
9	4.5	592	1
10	4.7	579	0

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





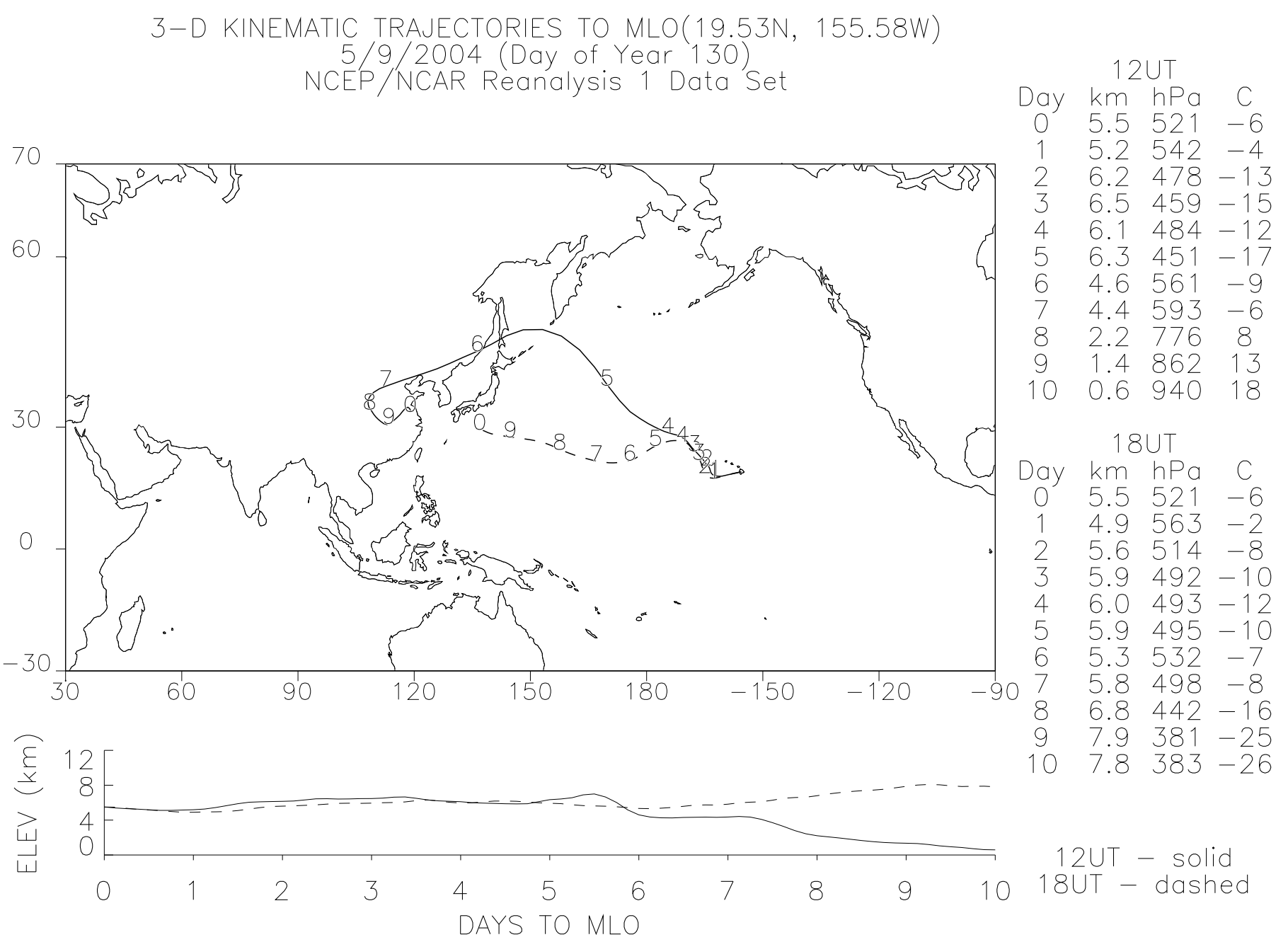
00UT

Day	km	hPa	C
0	5.5	521	-6
1	6.4	461	-14
2	7.0	427	-19
3	6.9	431	-19
4	6.1	475	-13
5	3.7	636	1
6	1.3	864	16
7	1.1	889	19
8	0.9	916	22
9	1.1	889	20
10	1.5	849	18

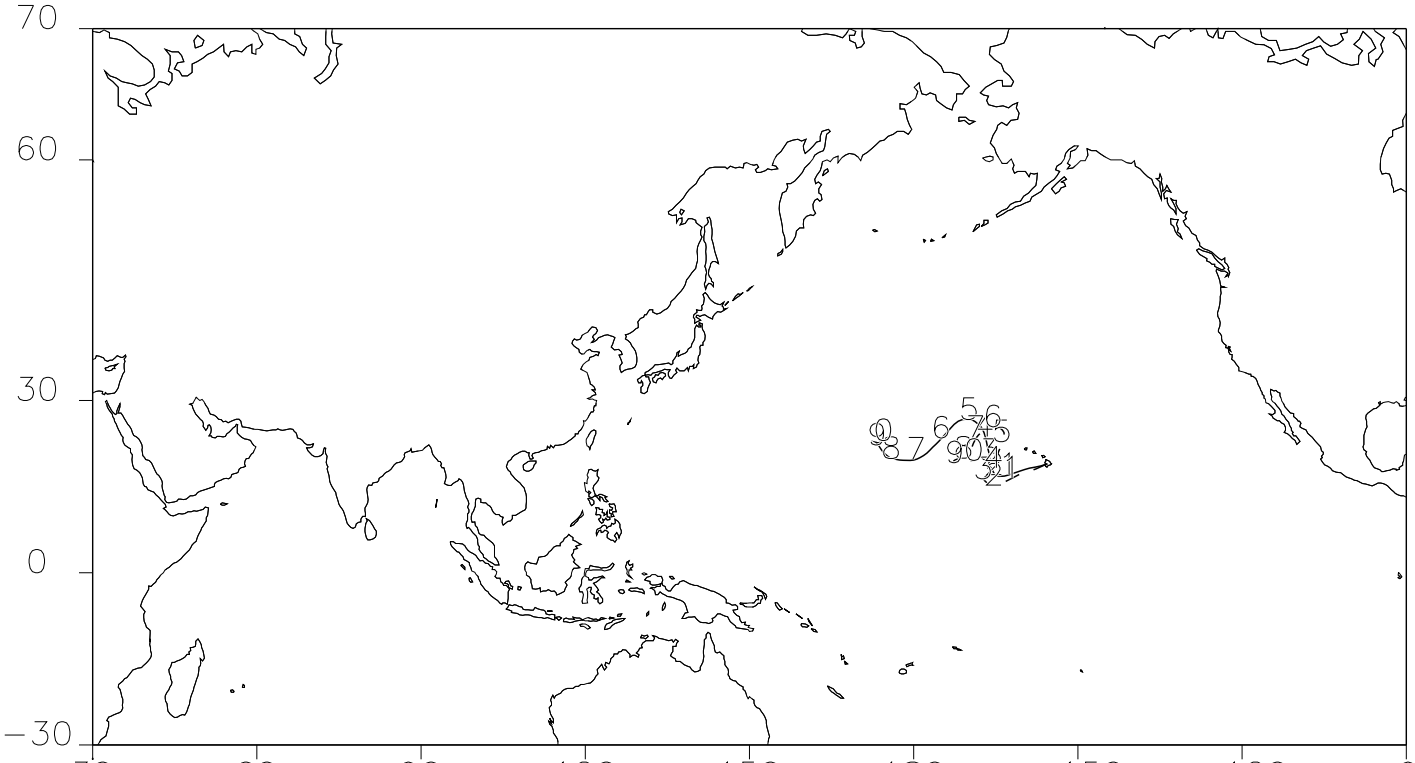
06UT

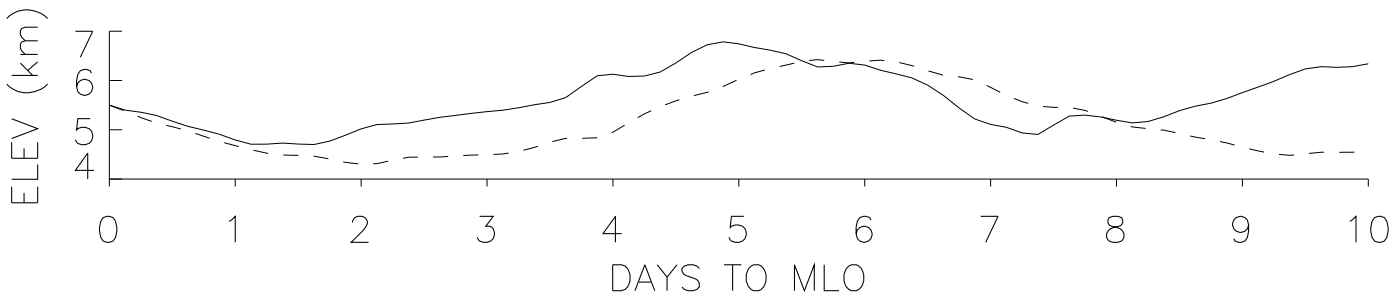
Day	km	hPa	C
0	5.5	521	-6
1	5.9	497	-8
2	7.0	429	-19
3	7.3	408	-21
4	7.0	421	-19
5	5.2	521	-6
6	4.1	613	0
7	2.0	800	14
8	1.2	877	23
9	1.0	900	23
10	1.3	875	21

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
12
8
4
0
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 5.5 521 -6
1 5.2 542 -4
2 6.2 478 -13
3 6.5 459 -15
4 6.1 484 -12
5 6.3 451 -17
6 4.6 561 -9
7 4.4 593 -6
8 2.2 776 8
9 1.4 862 13
10 0.6 940 18
18UT
Day km hPa C
0 5.5 521 -6
1 4.9 563 -2
2 5.6 514 -8
3 5.9 492 -10
4 6.0 493 -12
5 5.9 495 -10
6 5.3 532 -7
7 5.8 498 -8
8 6.8 442 -16
9 7.9 381 -25
10 7.8 383 -26
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

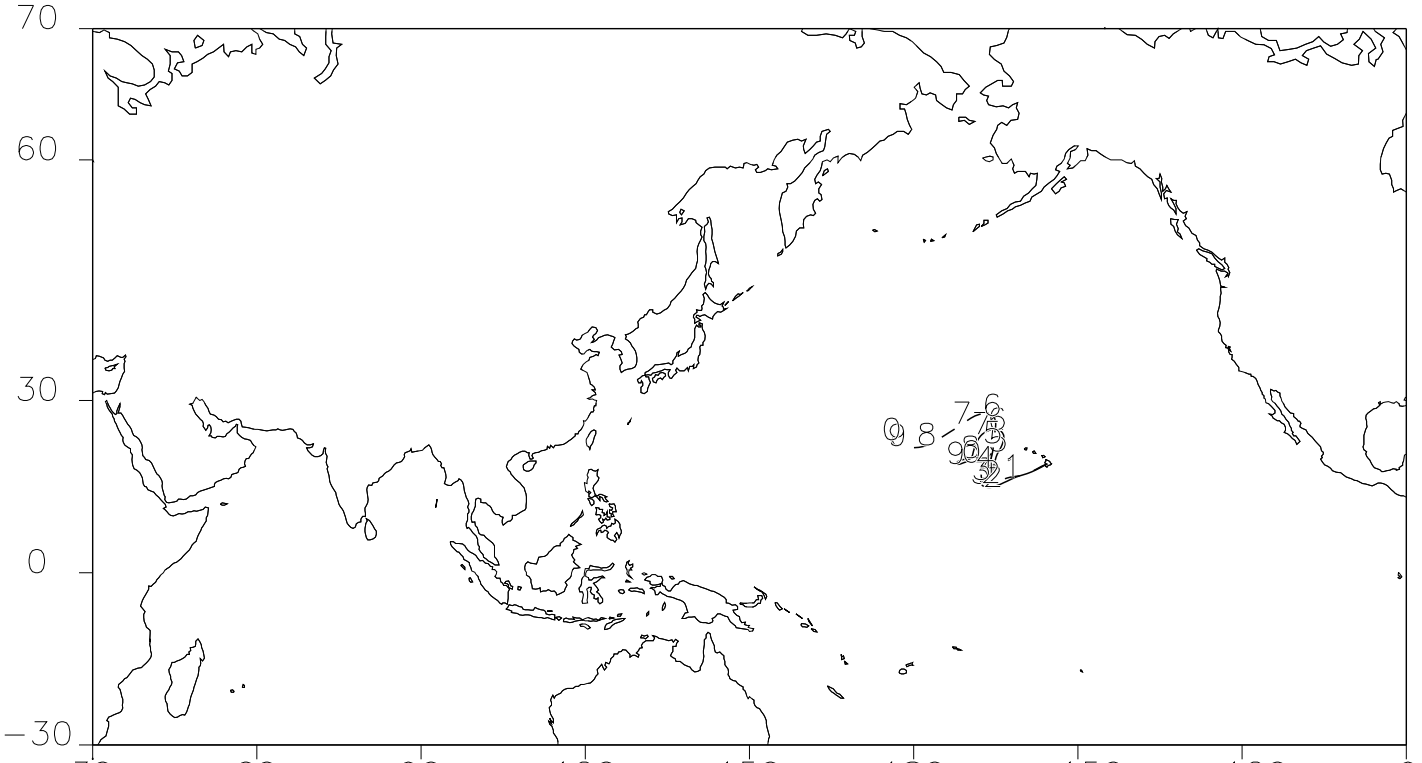
Day	km	hPa	C
0	5.5	521	−6
1	4.8	570	0
2	5.0	555	−2
3	5.4	530	−6
4	6.1	481	−13
5	6.7	446	−18
6	6.3	471	−14
7	5.1	548	−4
8	5.2	544	−3
9	5.8	508	−7
10	6.3	471	−12

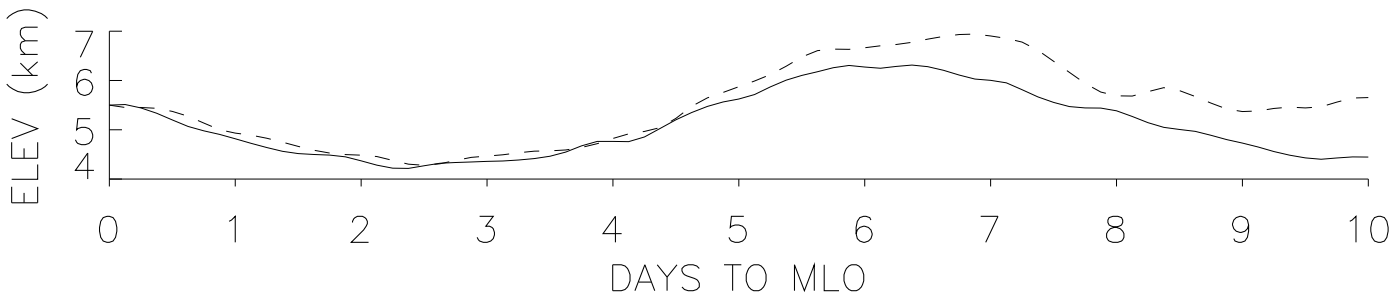
06UT

Day	km	hPa	C
0	5.5	521	−7
1	4.7	579	0
2	4.3	606	3
3	4.5	592	1
4	5.0	559	−4
5	6.0	490	−13
6	6.4	468	−16
7	5.9	499	−11
8	5.1	546	−4
9	4.6	582	1
10	4.6	589	2

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

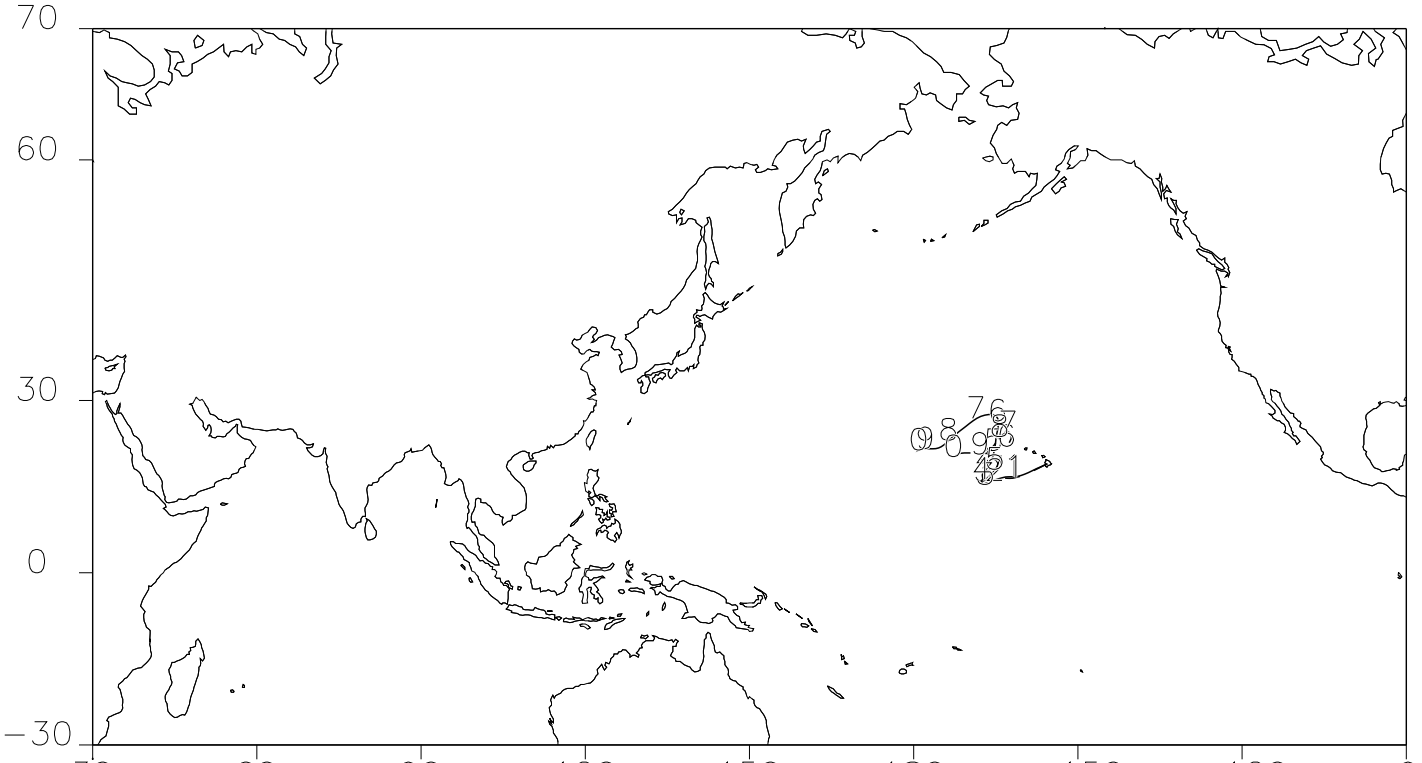
Day	km	hPa	C
0	5.5	521	−7
1	4.8	569	−1
2	4.4	601	3
3	4.4	602	2
4	4.8	573	−1
5	5.6	515	−9
6	6.3	475	−15
7	6.0	491	−13
8	5.4	530	−6
9	4.7	577	0
10	4.4	597	2

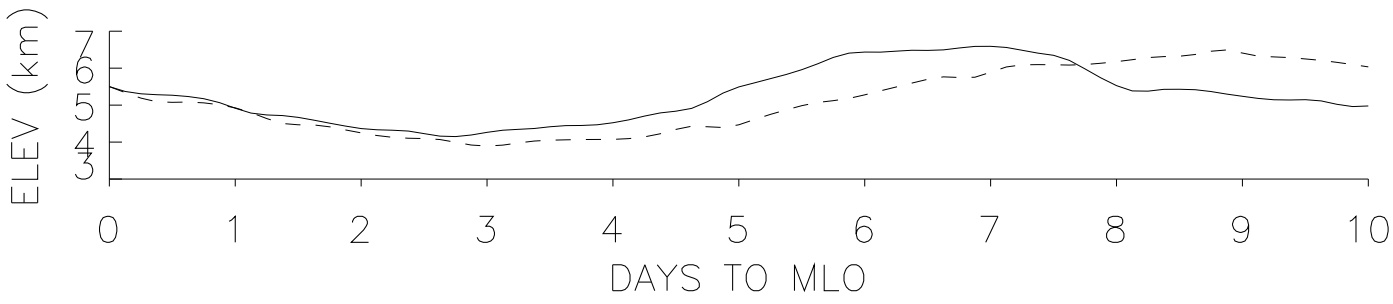
18UT

Day	km	hPa	C
0	5.5	522	−7
1	4.9	561	−3
2	4.5	593	2
3	4.5	594	1
4	4.8	568	−2
5	5.9	498	−11
6	6.7	450	−19
7	6.9	435	−19
8	5.7	508	−8
9	5.4	531	−5
10	5.7	513	−8

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

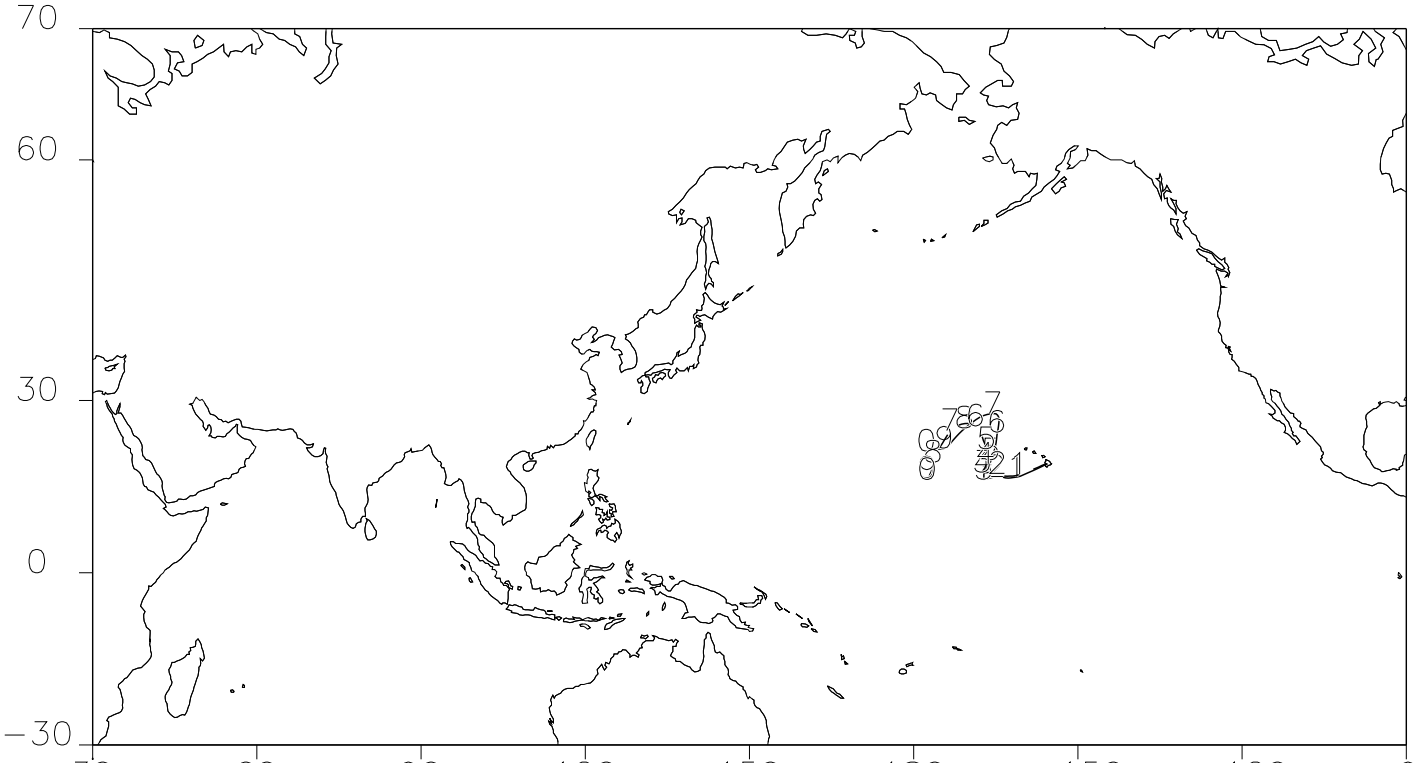
Day	km	hPa	C
0	5.5	521	−7
1	4.9	561	−1
2	4.4	601	3
3	4.3	609	3
4	4.5	590	0
5	5.5	522	−8
6	6.4	464	−17
7	6.6	454	−18
8	5.5	520	−7
9	5.2	540	−4
10	5.0	560	−3

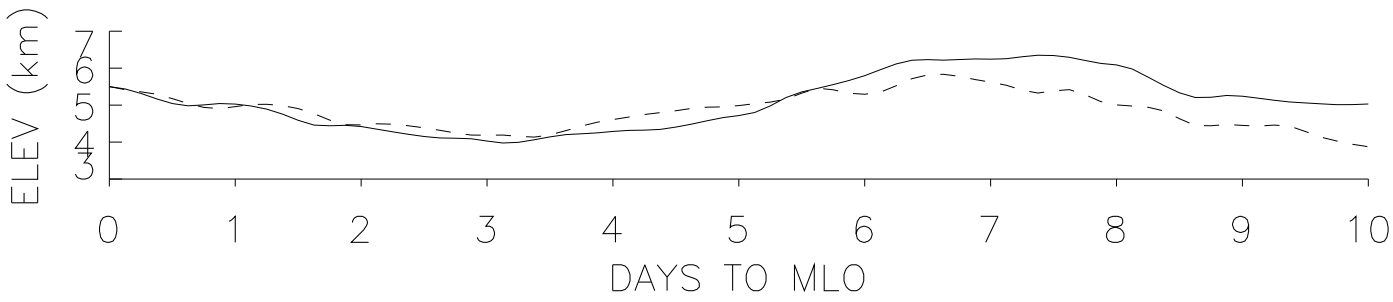
06UT

Day	km	hPa	C
0	5.5	521	−7
1	4.9	561	−2
2	4.2	610	3
3	3.9	637	6
4	4.1	623	4
5	4.5	594	0
6	5.3	539	−7
7	5.9	500	−12
8	6.2	479	−14
9	6.4	464	−13
10	6.0	489	−9

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

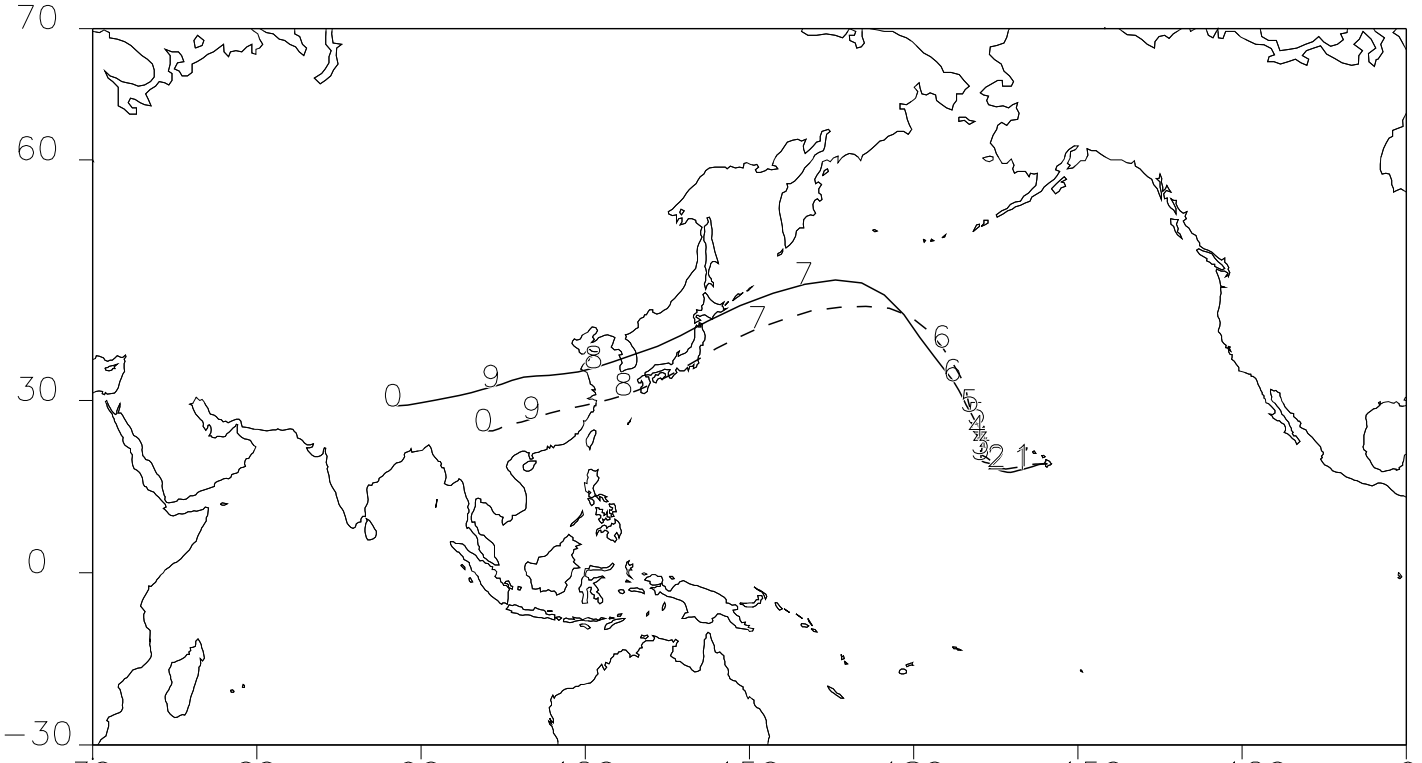
Day	km	hPa	C
0	5.5	521	−8
1	5.0	553	−3
2	4.4	598	1
3	4.0	627	4
4	4.3	607	2
5	4.7	576	−1
6	5.8	504	−11
7	6.2	476	−15
8	6.1	485	−13
9	5.2	539	−5
10	5.0	556	−3

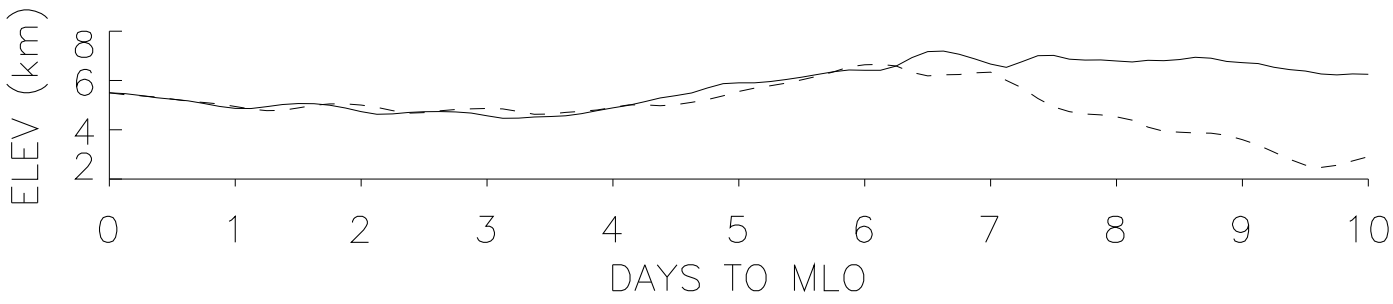
18UT

Day	km	hPa	C
0	5.5	522	−7
1	5.0	559	−3
2	4.5	595	1
3	4.2	615	3
4	4.6	583	−1
5	5.0	556	−3
6	5.3	537	−7
7	5.6	516	−10
8	5.0	557	−4
9	4.5	596	1
10	3.9	640	6

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

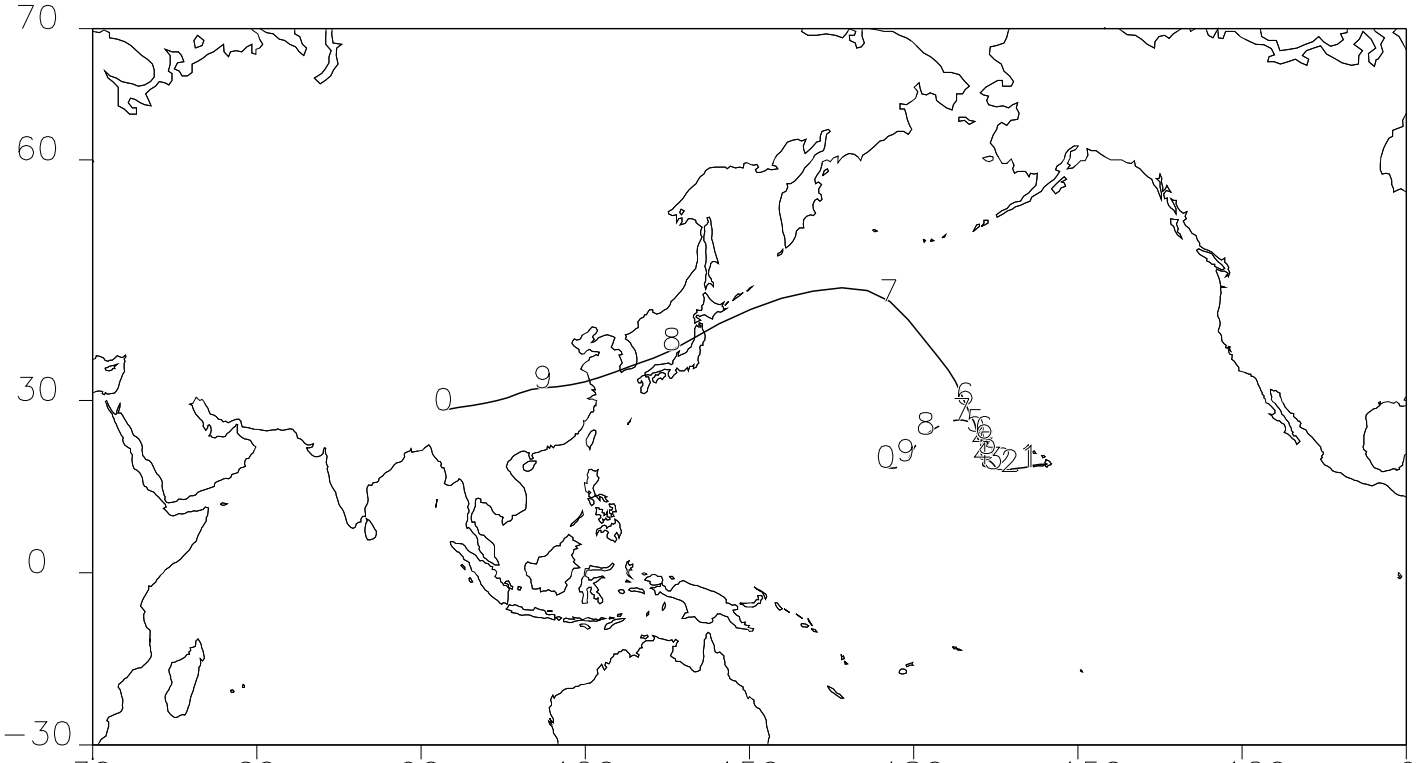
Day	km	hPa	C
0	5.5	522	−6
1	4.9	564	−2
2	4.7	574	0
3	4.6	587	1
4	4.9	564	−2
5	5.9	495	−10
6	6.4	462	−15
7	6.7	431	−17
8	6.8	430	−19
9	6.7	439	−17
10	6.3	467	−15

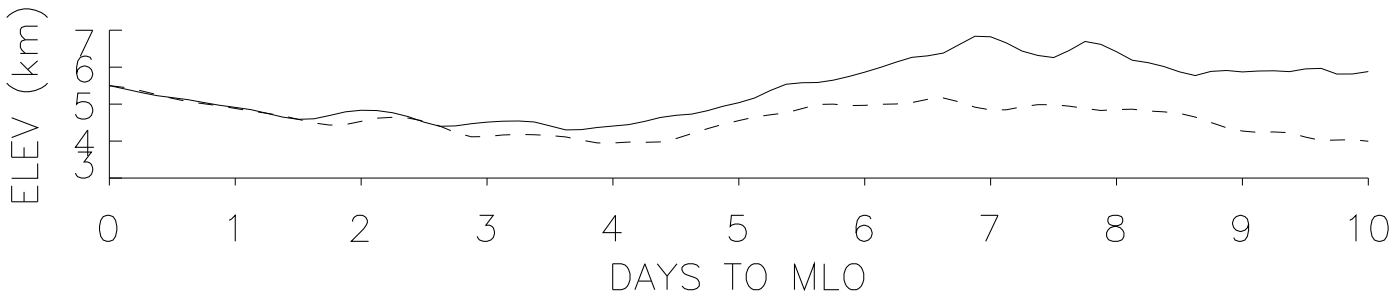
06UT

Day	km	hPa	C
0	5.5	523	−6
1	4.9	559	−3
2	5.0	555	−2
3	4.9	564	−2
4	4.9	562	−1
5	5.6	517	−7
6	6.6	446	−17
7	6.3	460	−14
8	4.5	585	0
9	3.6	661	5
10	2.9	718	13

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

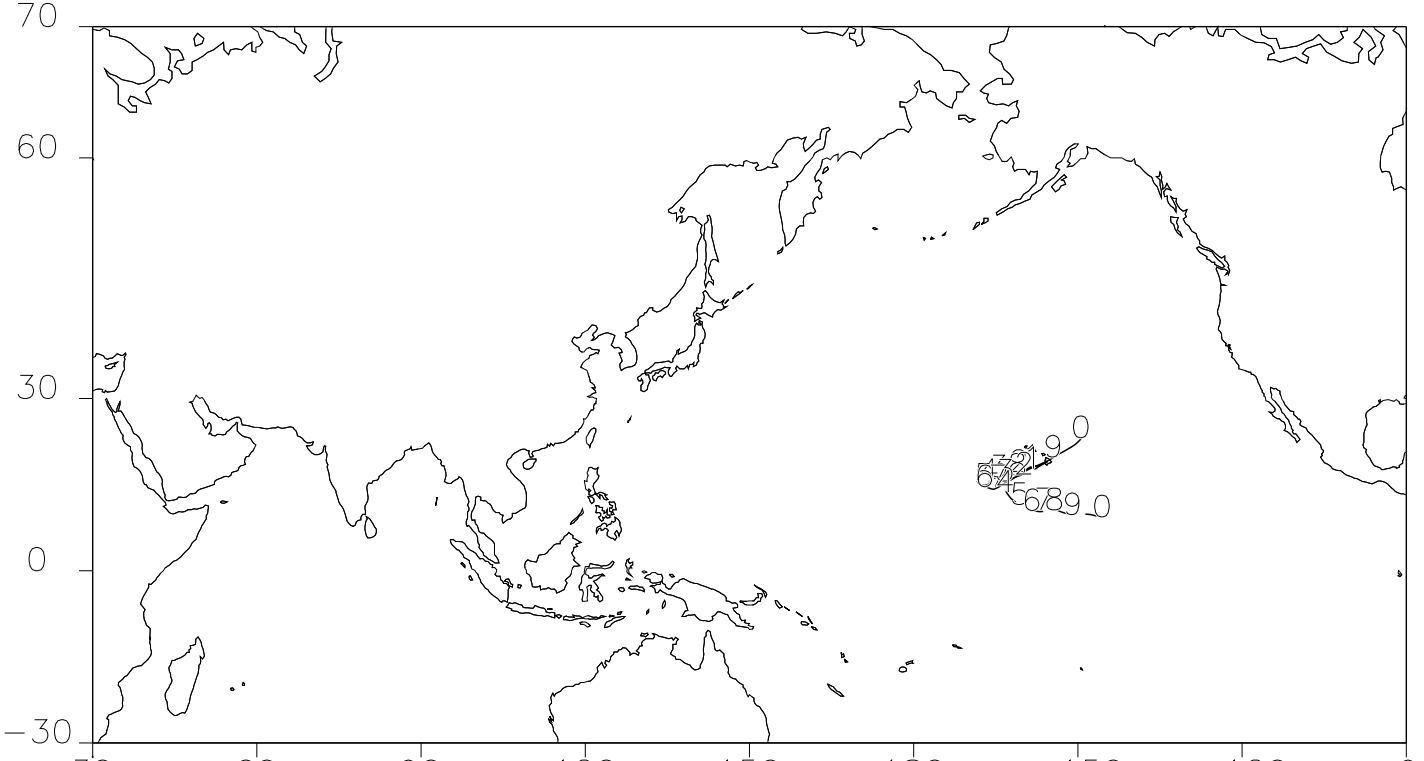
Day	km	hPa	C
0	5.5	522	−6
1	4.9	561	−4
2	4.8	567	−1
3	4.5	590	0
4	4.4	599	2
5	5.0	553	−4
6	5.9	497	−10
7	6.8	429	−18
8	6.4	451	−15
9	5.9	491	−9
10	5.9	493	−8

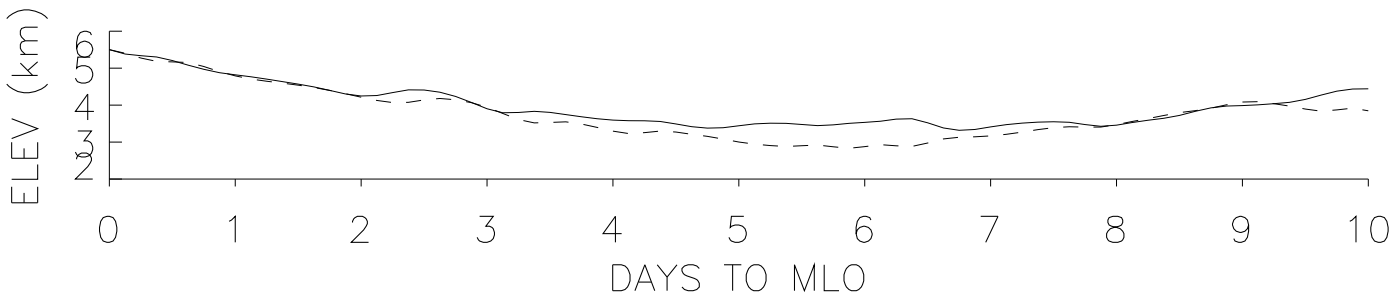
18UT

Day	km	hPa	C
0	5.5	523	−5
1	4.9	564	−3
2	4.5	590	0
3	4.1	620	3
4	3.9	633	4
5	4.6	587	−1
6	5.0	558	−4
7	4.8	569	−4
8	4.9	569	−4
9	4.3	610	0
10	4.0	629	4

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





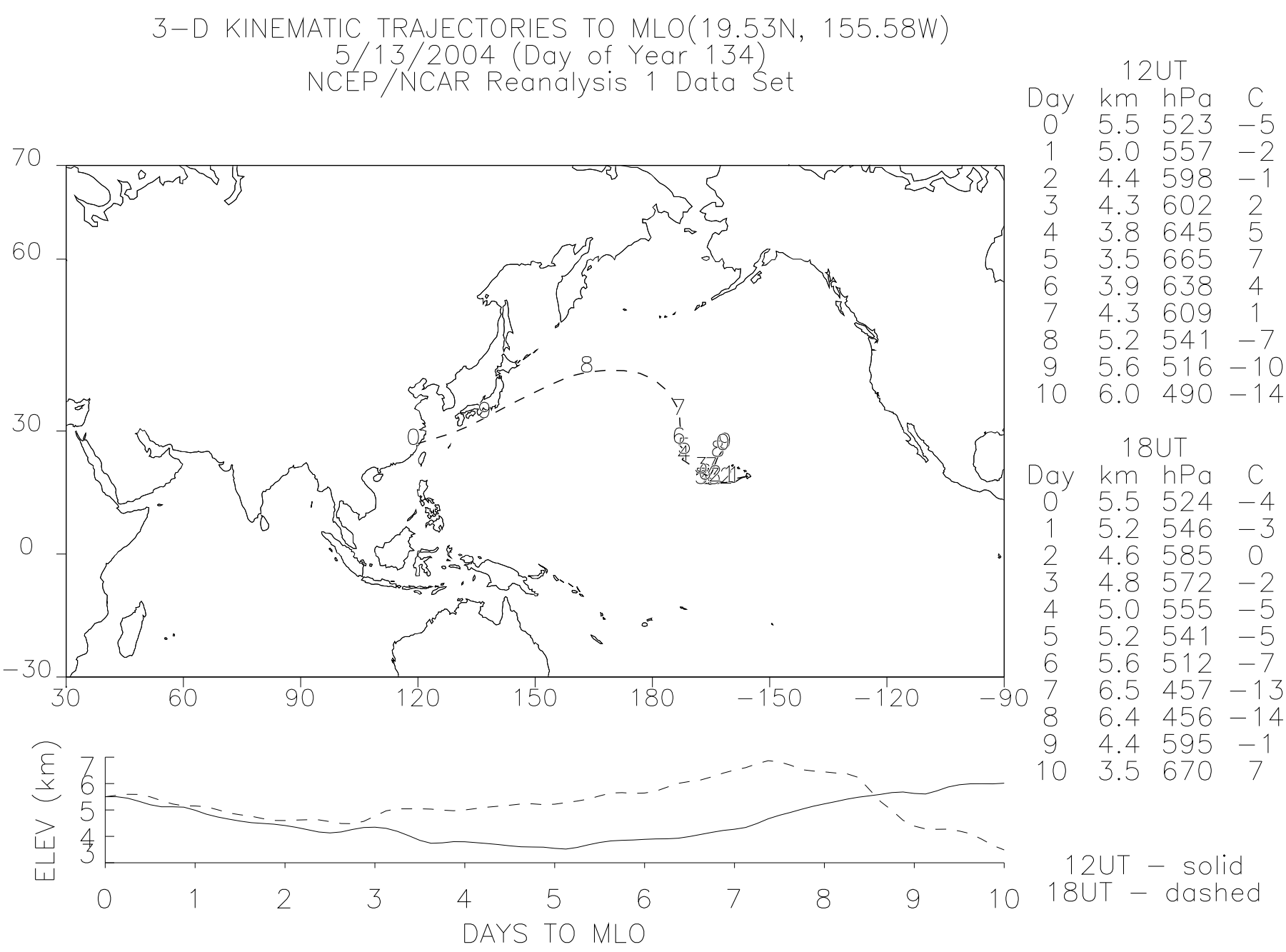
00UT

Day	km	hPa	C
0	5.5	523	-4
1	4.8	569	-2
2	4.2	610	1
3	3.9	636	5
4	3.6	661	7
5	3.4	674	8
6	3.5	666	6
7	3.4	677	7
8	3.5	676	6
9	4.0	634	2
10	4.4	600	-1

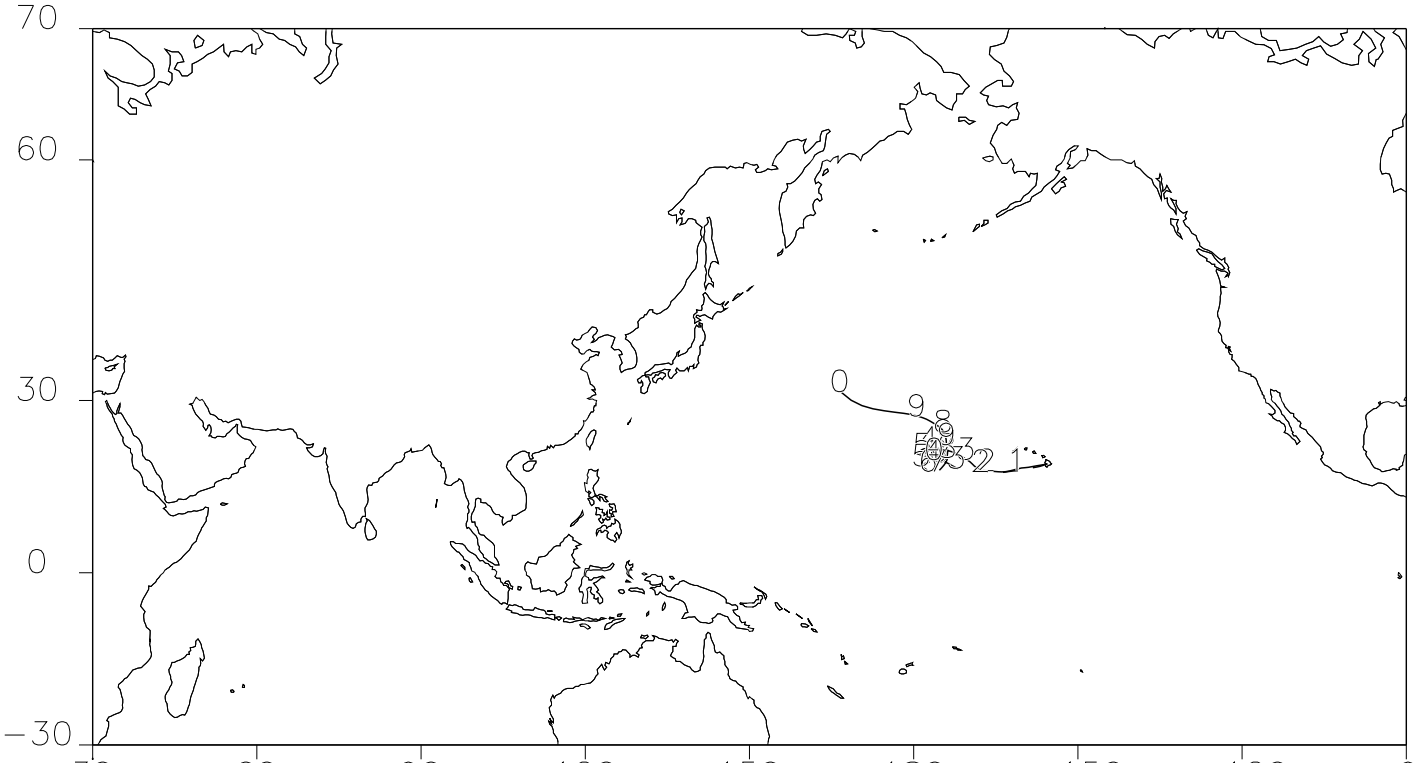
06UT

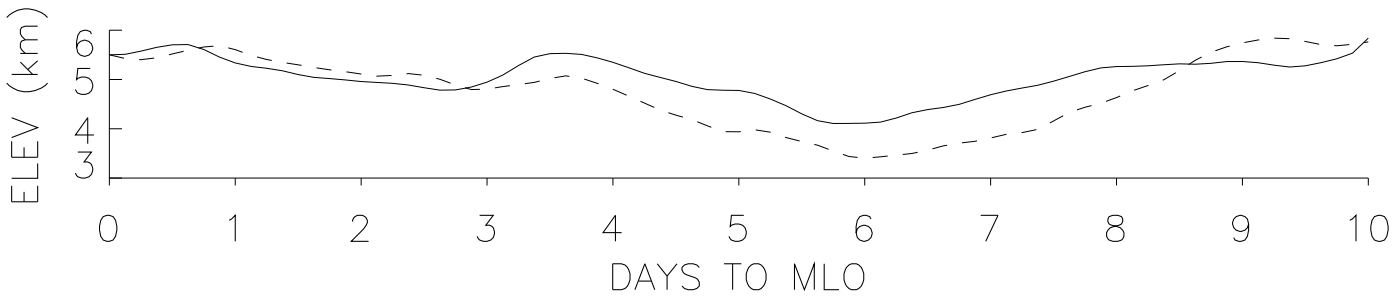
Day	km	hPa	C
0	5.5	524	-4
1	4.8	572	-2
2	4.2	613	1
3	3.9	634	4
4	3.3	686	9
5	3.0	710	11
6	2.9	721	12
7	3.2	697	11
8	3.5	673	10
9	4.1	624	5
10	3.8	644	7

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
70
60
30
0
-30
30
60
90
120
150
180
-150
-120
-90
ELEV (km)
7
6
5
4
3
0
1
2
3
4
5
6
7
8
9
10
DAYS TO MLO
12UT
Day km hPa C
0 5.5 523 -5
1 5.0 557 -2
2 4.4 598 -1
3 4.3 602 2
4 3.8 645 5
5 3.5 665 7
6 3.9 638 4
7 4.3 609 1
8 5.2 541 -7
9 5.6 516 -10
10 6.0 490 -14
18UT
Day km hPa C
0 5.5 524 -4
1 5.2 546 -3
2 4.6 585 0
3 4.8 572 -2
4 5.0 555 -5
5 5.2 541 -5
6 5.6 512 -7
7 6.5 457 -13
8 6.4 456 -14
9 4.4 595 -1
10 3.5 670 7
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

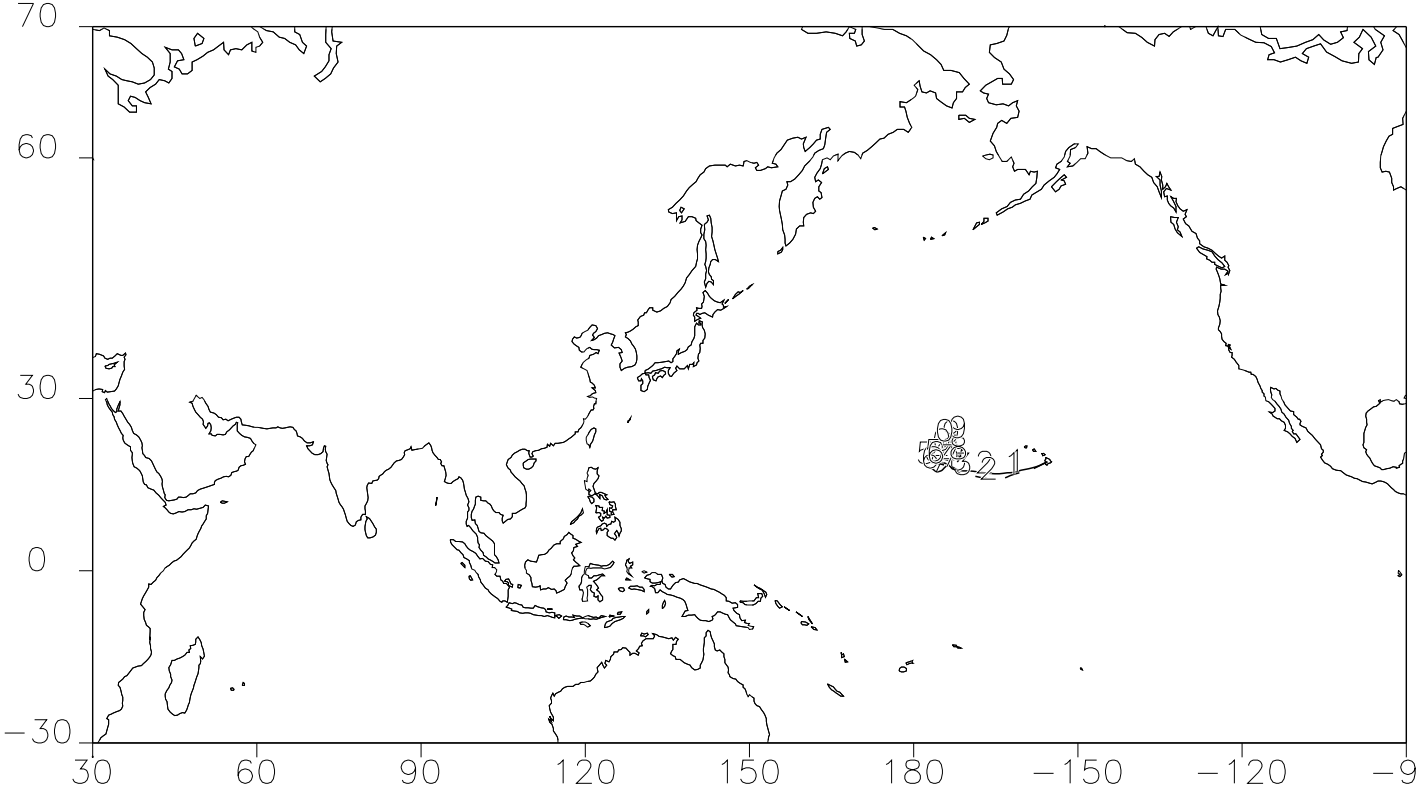
Day	km	hPa	C
0	5.5	524	-3
1	5.3	534	-4
2	5.0	559	-2
3	4.9	560	-3
4	5.3	533	-6
5	4.8	573	-2
6	4.1	621	4
7	4.7	579	1
8	5.3	540	-5
9	5.4	533	-6
10	5.8	491	-11

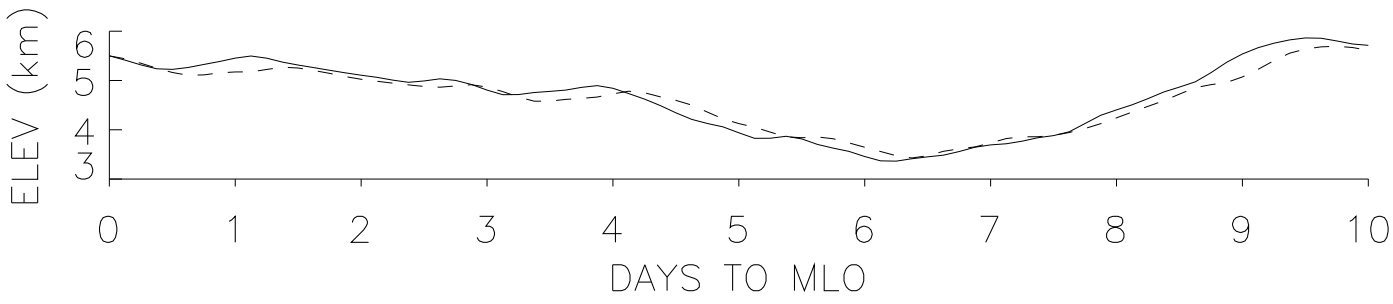
06UT

Day	km	hPa	C
0	5.5	524	-4
1	5.6	516	-5
2	5.1	548	-3
3	4.8	570	-2
4	4.8	571	-1
5	3.9	633	5
6	3.4	676	9
7	3.8	643	5
8	4.6	583	-1
9	5.7	509	-10
10	5.8	506	-8

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





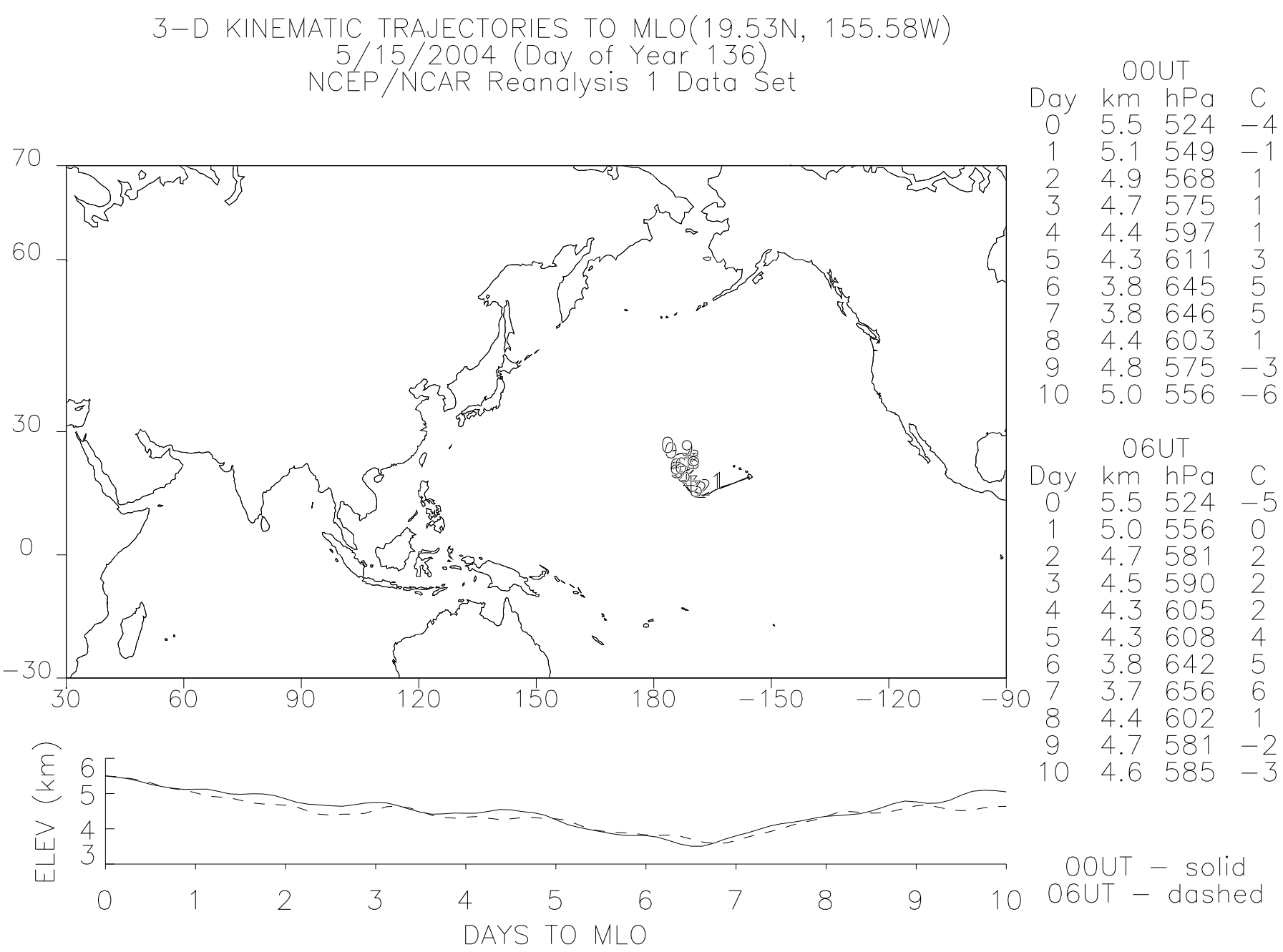
12UT

Day	km	hPa	C
0	5.5	524	−4
1	5.5	526	−5
2	5.1	549	−3
3	4.8	570	−1
4	4.8	568	−1
5	3.9	635	5
6	3.5	673	8
7	3.7	655	7
8	4.4	600	1
9	5.5	522	−8
10	5.7	511	−9

18UT

Day	km	hPa	C
0	5.5	524	−4
1	5.2	545	−2
2	5.0	555	−1
3	4.9	566	−1
4	4.7	576	−1
5	4.1	620	3
6	3.6	657	6
7	3.7	650	6
8	4.2	611	3
9	5.1	553	−5
10	5.6	517	−9

12UT − solid
18UT − dashed



00UT

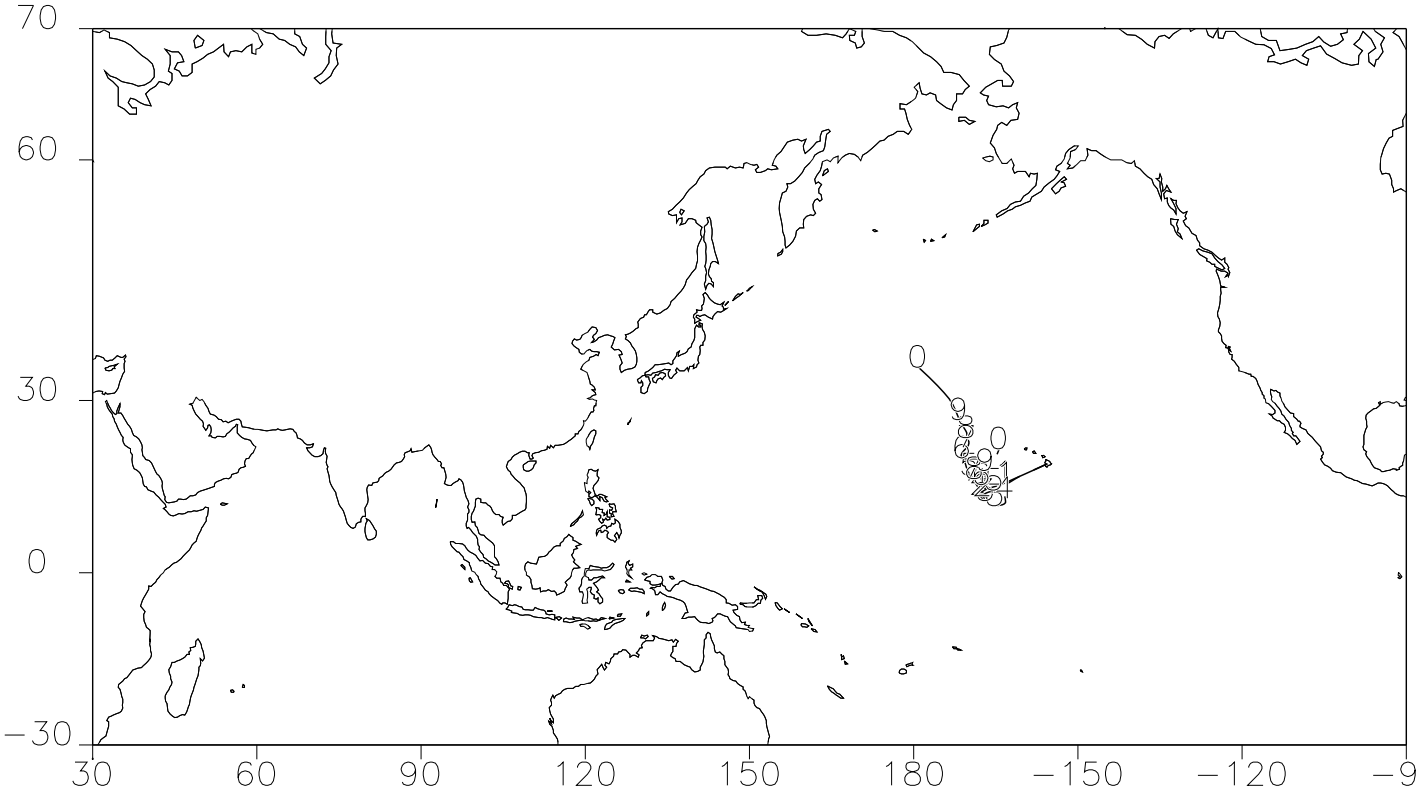
Day	km	hPa	C
0	5.5	524	-4
1	5.1	549	-1
2	4.9	568	1
3	4.7	575	1
4	4.4	597	1
5	4.3	611	3
6	3.8	645	5
7	3.8	646	5
8	4.4	603	1
9	4.8	575	-3
10	5.0	556	-6

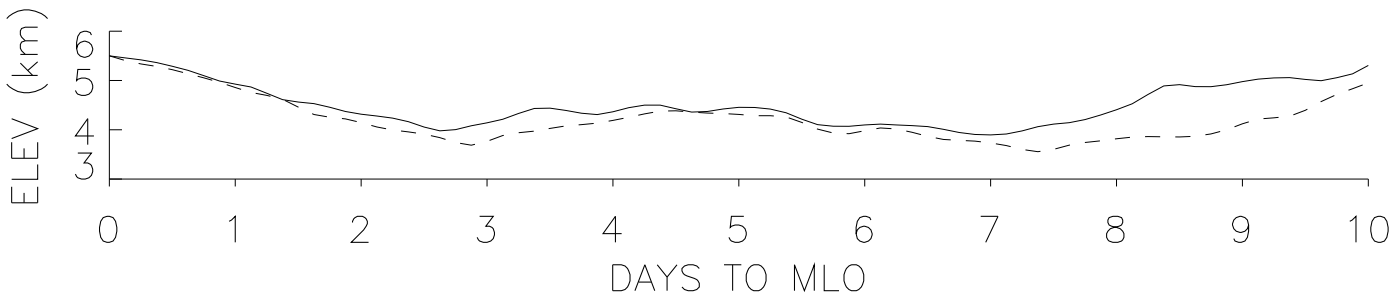
06UT

Day	km	hPa	C
0	5.5	524	-5
1	5.0	556	0
2	4.7	581	2
3	4.5	590	2
4	4.3	605	2
5	4.3	608	4
6	3.8	642	5
7	3.7	656	6
8	4.4	602	1
9	4.7	581	-2
10	4.6	585	-3

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

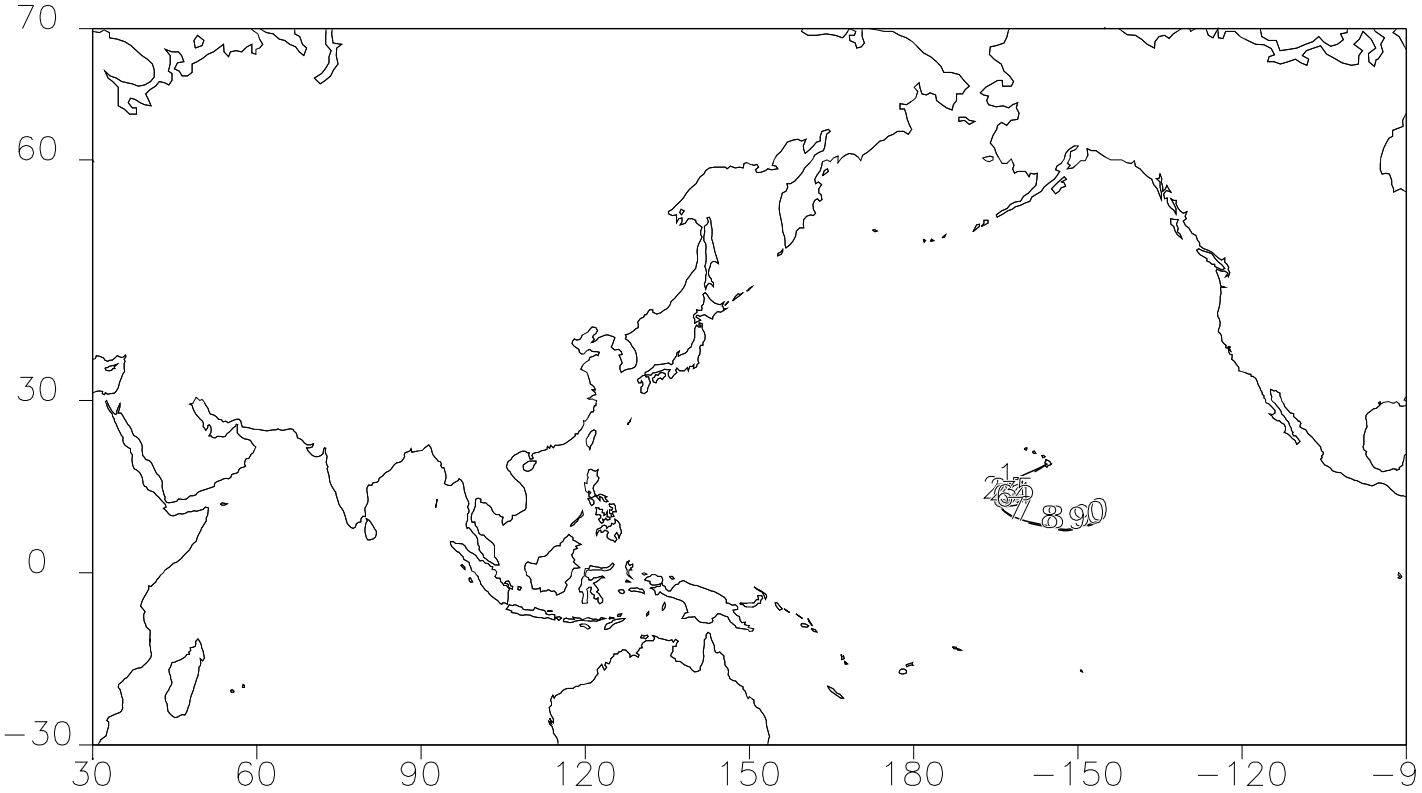
Day	km	hPa	C
0	5.5	524	-5
1	4.9	563	0
2	4.3	606	5
3	4.1	620	4
4	4.4	602	3
5	4.5	596	3
6	4.1	622	4
7	3.9	638	4
8	4.4	599	1
9	5.0	558	-3
10	5.3	532	-6

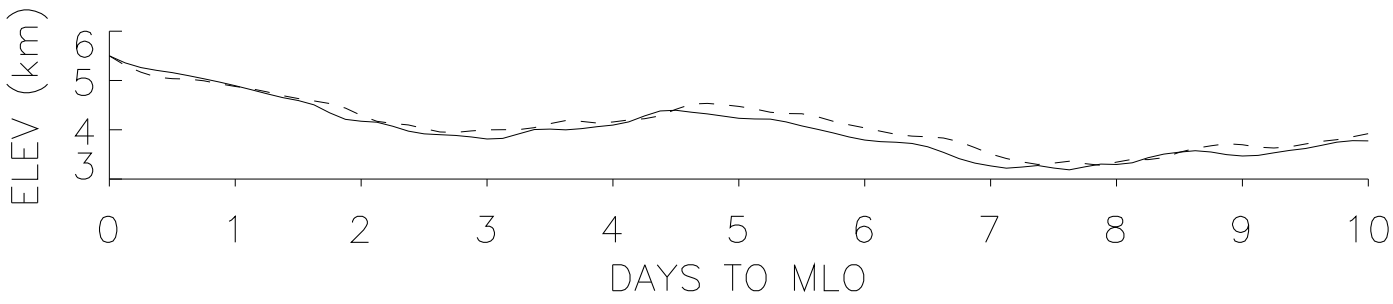
18UT

Day	km	hPa	C
0	5.5	525	-5
1	4.9	568	0
2	4.1	620	5
3	3.8	649	8
4	4.2	616	4
5	4.3	606	3
6	4.0	631	5
7	3.7	650	6
8	3.8	643	5
9	4.1	619	3
10	5.0	560	-4

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

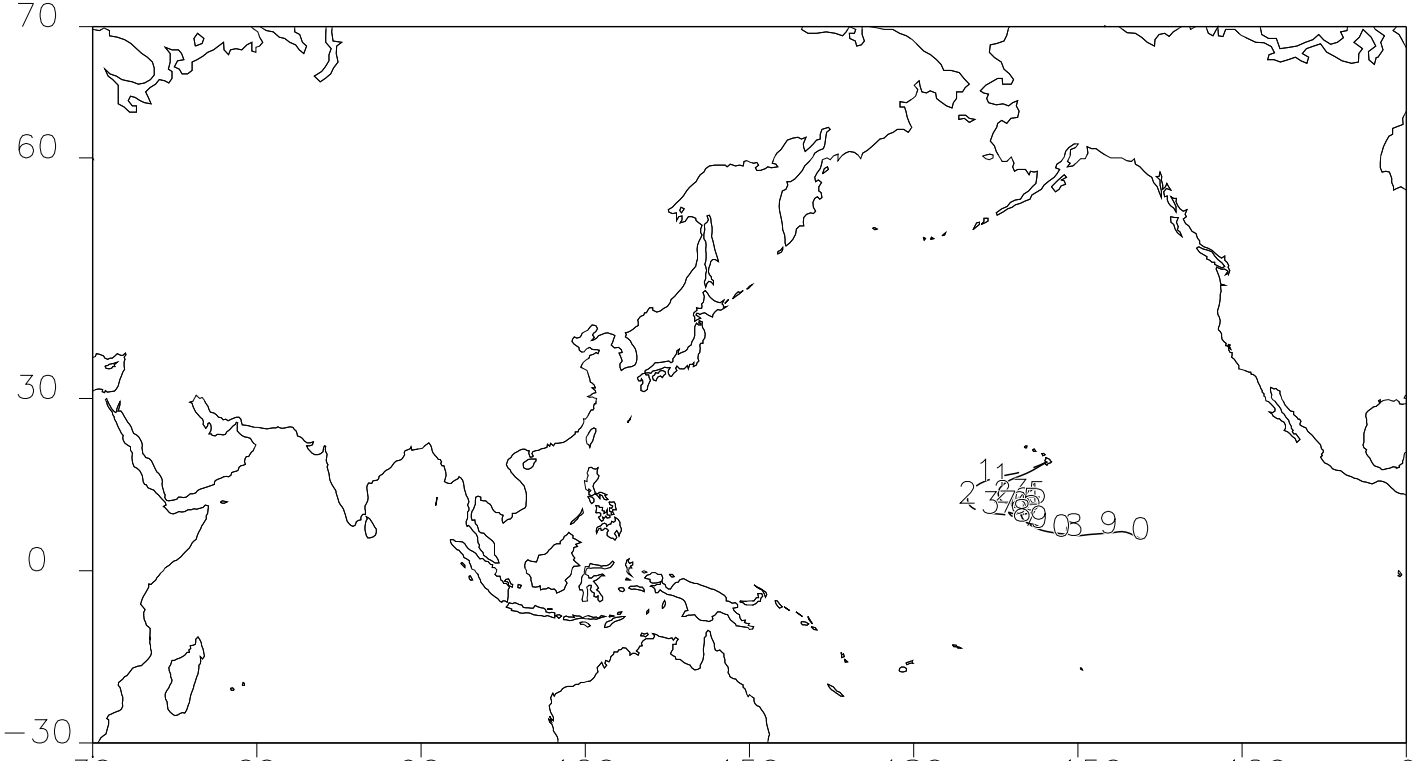
Day	km	hPa	C
0	5.5	524	−4
1	4.9	566	0
2	4.2	618	5
3	3.8	645	8
4	4.1	622	5
5	4.2	611	4
6	3.8	646	8
7	3.3	689	11
8	3.3	686	12
9	3.5	672	11
10	3.8	646	8

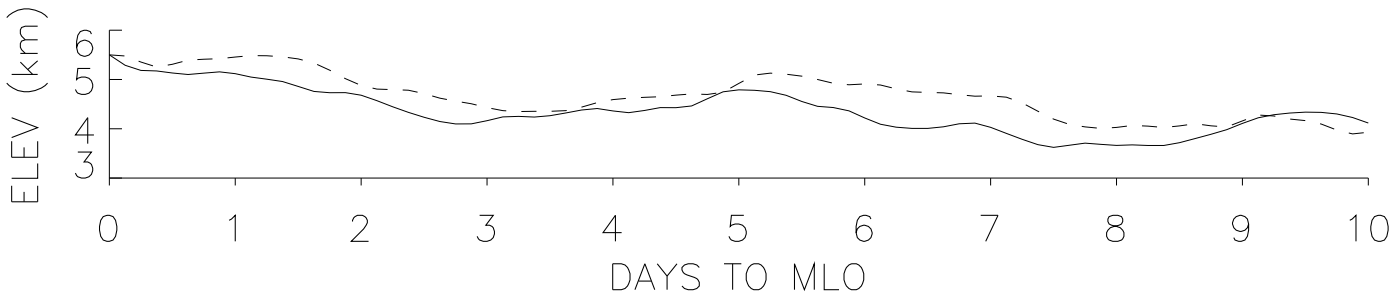
06UT

Day	km	hPa	C
0	5.5	525	−5
1	4.9	567	0
2	4.3	609	4
3	4.0	631	7
4	4.2	618	5
5	4.5	594	2
6	4.0	627	6
7	3.5	668	9
8	3.3	683	11
9	3.7	654	8
10	3.9	636	7

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





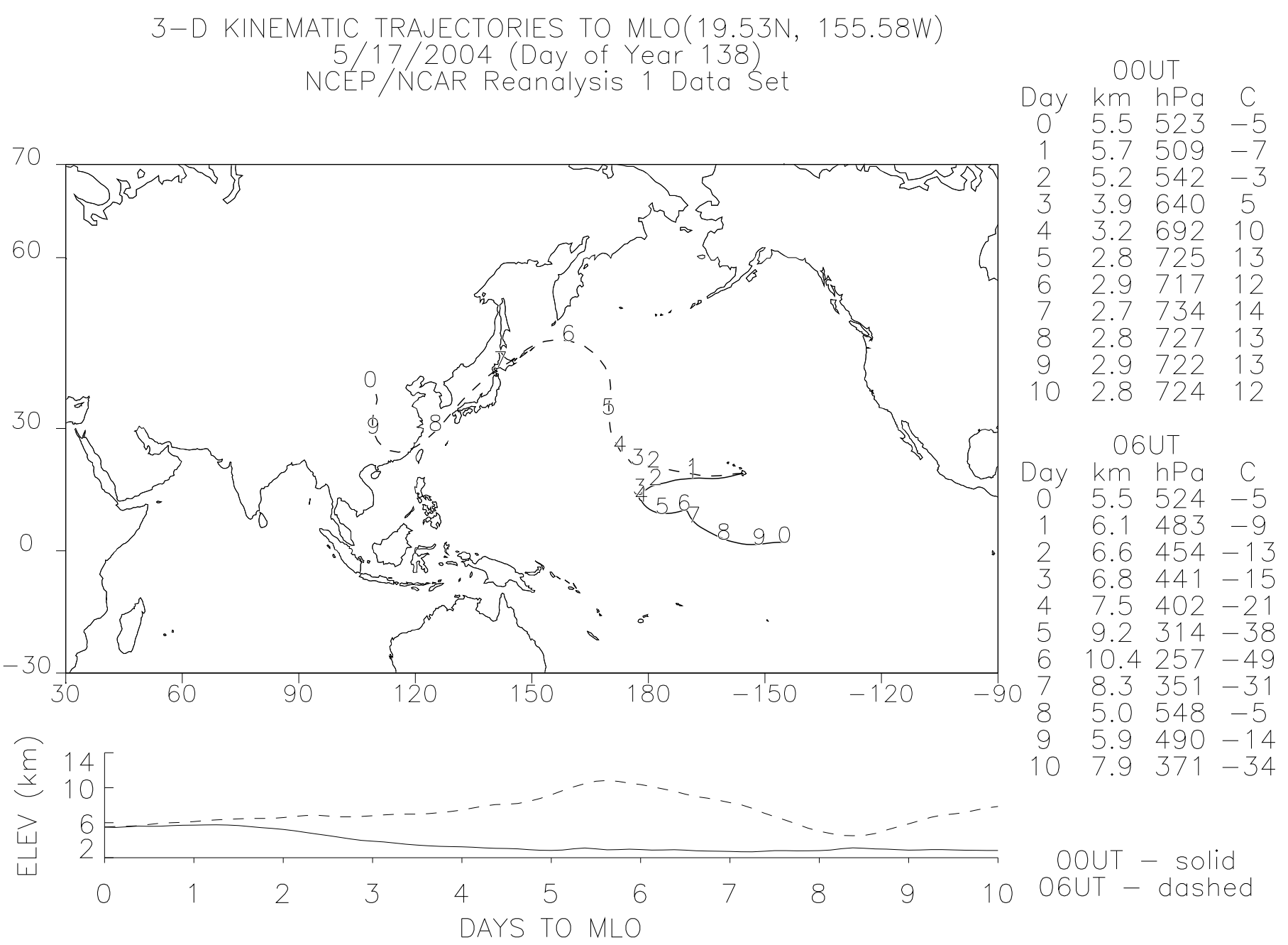
12UT

Day	km	hPa	C
0	5.5	524	-6
1	5.1	551	-2
2	4.7	581	2
3	4.2	618	6
4	4.4	603	3
5	4.8	571	0
6	4.2	613	5
7	4.0	628	7
8	3.7	656	9
9	4.1	622	6
10	4.1	619	5

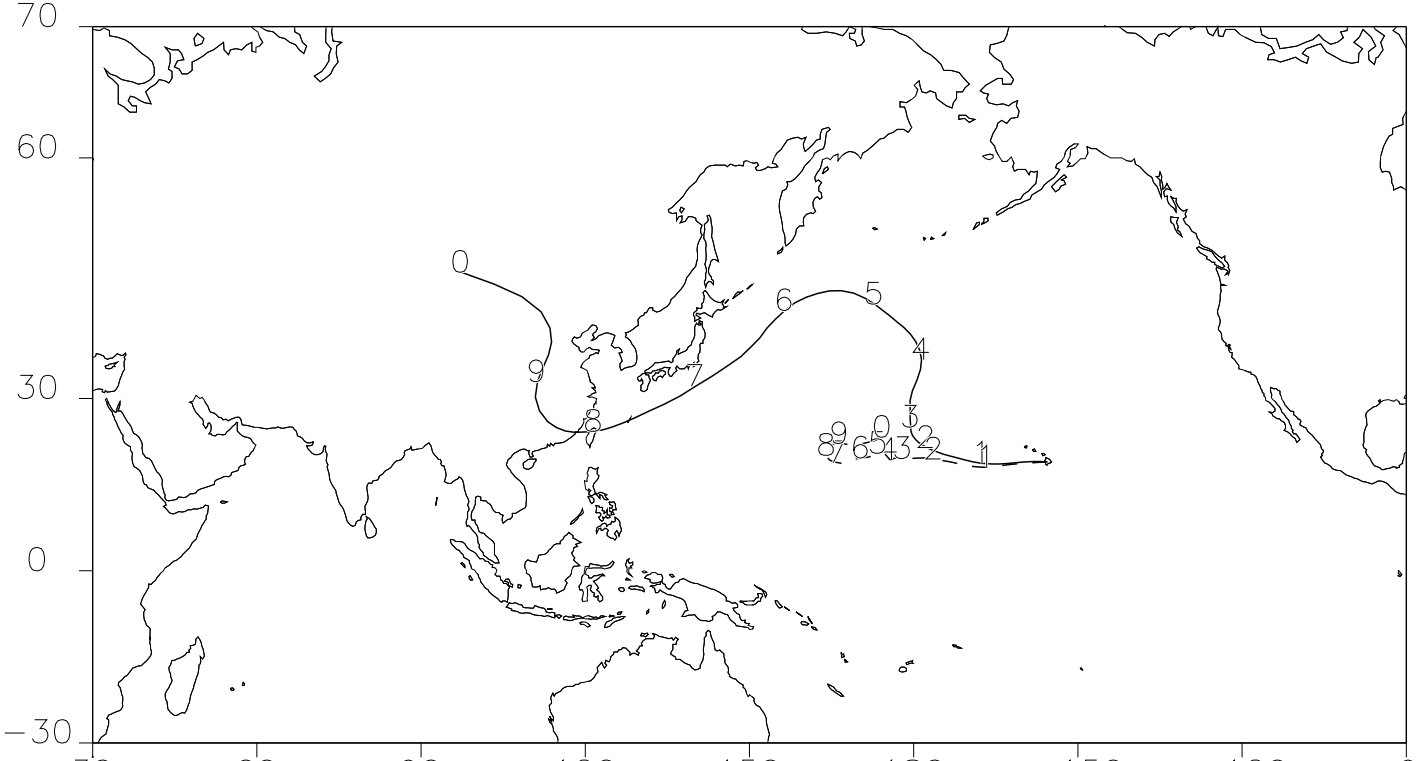
18UT

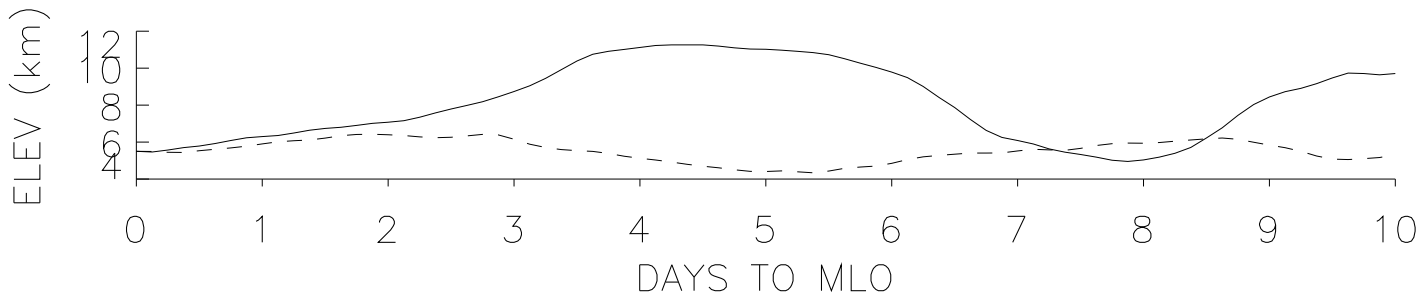
Day	km	hPa	C
0	5.5	523	-6
1	5.5	527	-4
2	4.9	567	0
3	4.4	599	4
4	4.6	586	3
5	4.9	563	1
6	4.9	564	2
7	4.7	581	3
8	4.0	628	7
9	4.2	619	6
10	3.9	635	7

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 5.5 523 -5
1 5.7 509 -7
2 5.2 542 -3
3 3.9 640 5
4 3.2 692 10
5 2.8 725 13
6 2.9 717 12
7 2.7 734 14
8 2.8 727 13
9 2.9 722 13
10 2.8 724 12
06UT
Day km hPa C
0 5.5 524 -5
1 6.1 483 -9
2 6.6 454 -13
3 6.8 441 -15
4 7.5 402 -21
5 9.2 314 -38
6 10.4 257 -49
7 8.3 351 -31
8 5.0 548 -5
9 5.9 490 -14
10 7.9 371 -34
70
60
30
0
-30
30 60 90 120 150 180 -150 -120 -90
ELEV (km)
14
10
6
2
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)
5/17/2004 (Day of Year 138)
NCEP/NCAR Reanalysis 1 Data Set





12UT

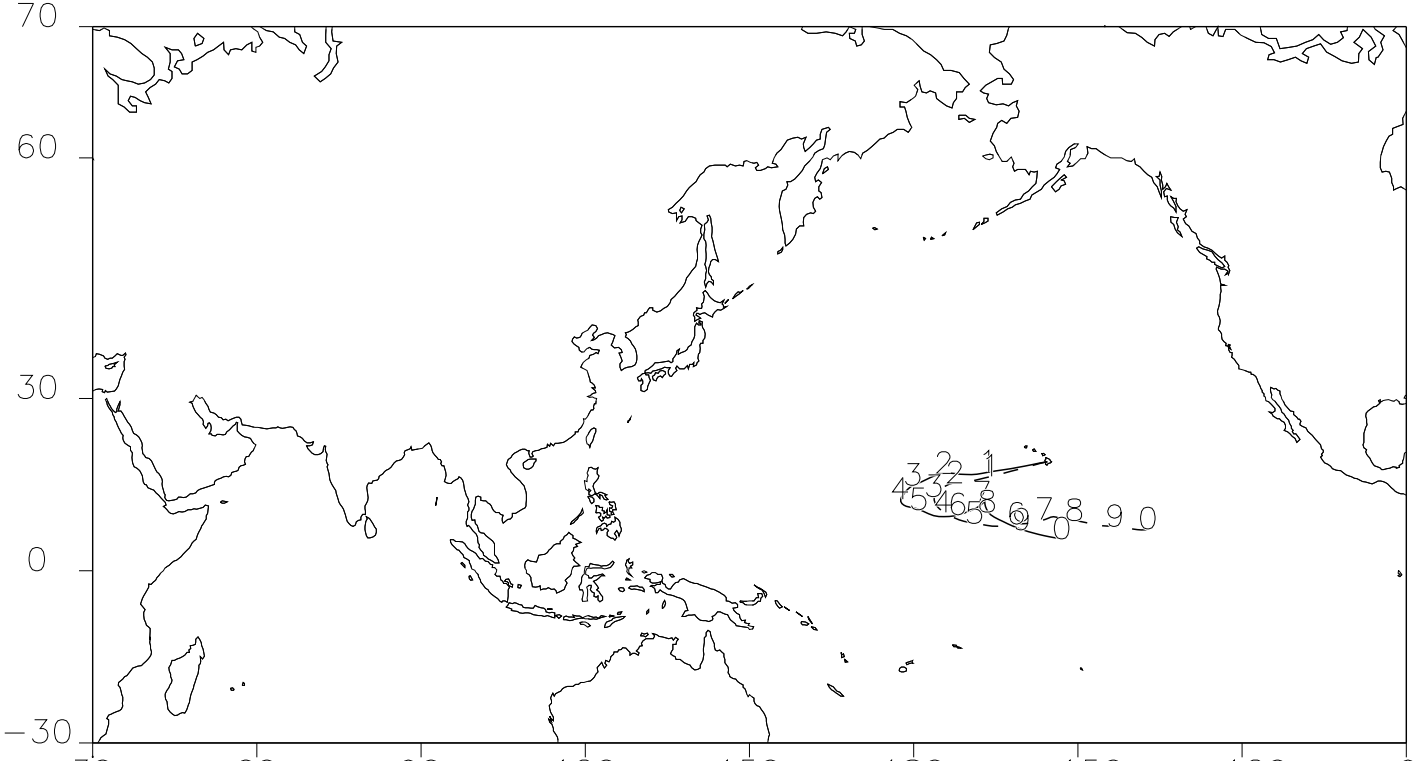
Day	km	hPa	C
0	5.5	523	−5
1	6.3	473	−10
2	7.1	426	−17
3	8.7	338	−32
4	11.1	235	−54
5	11.0	237	−53
6	9.8	284	−42
7	6.1	481	−10
8	5.0	554	−1
9	8.4	344	−34
10	9.7	279	−48

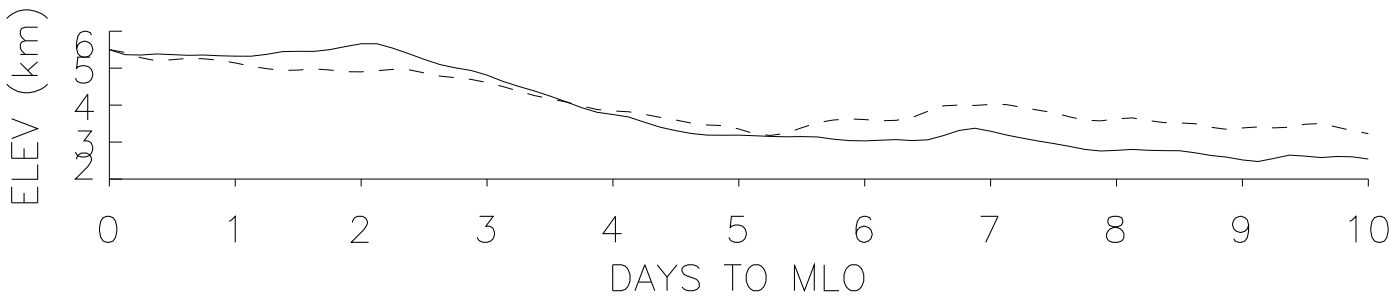
18UT

Day	km	hPa	C
0	5.5	524	−3
1	5.9	497	−8
2	6.4	465	−12
3	6.2	480	−10
4	5.1	547	−4
5	4.4	597	−1
6	4.8	565	−2
7	5.5	519	−7
8	5.9	491	−12
9	5.8	499	−10
10	5.3	535	−3

12UT − solid
18UT − dashed

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





00UT

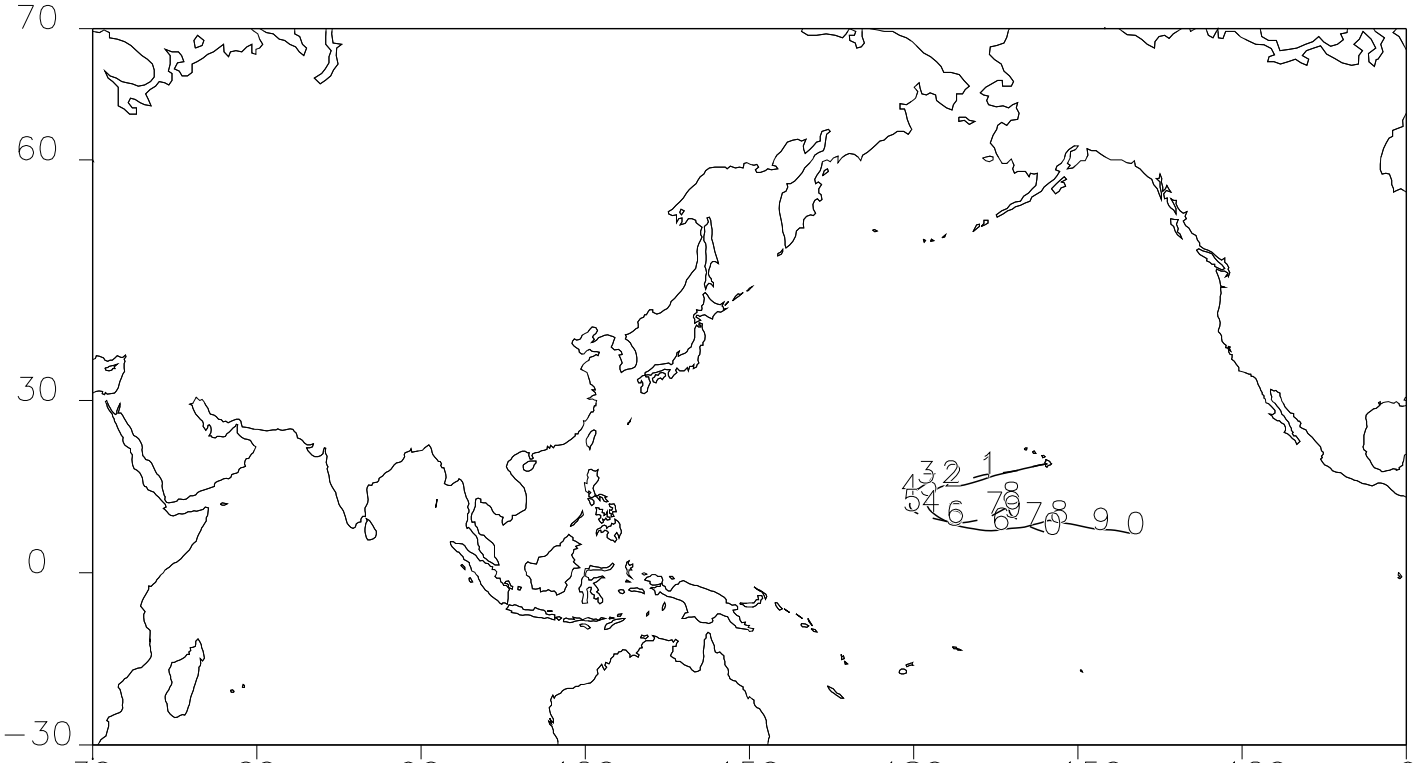
Day	km	hPa	C
0	5.5	523	−5
1	5.3	536	−3
2	5.7	514	−6
3	4.8	572	0
4	3.7	651	7
5	3.2	696	11
6	3.0	708	12
7	3.3	686	10
8	2.8	729	13
9	2.5	753	14
10	2.5	750	14

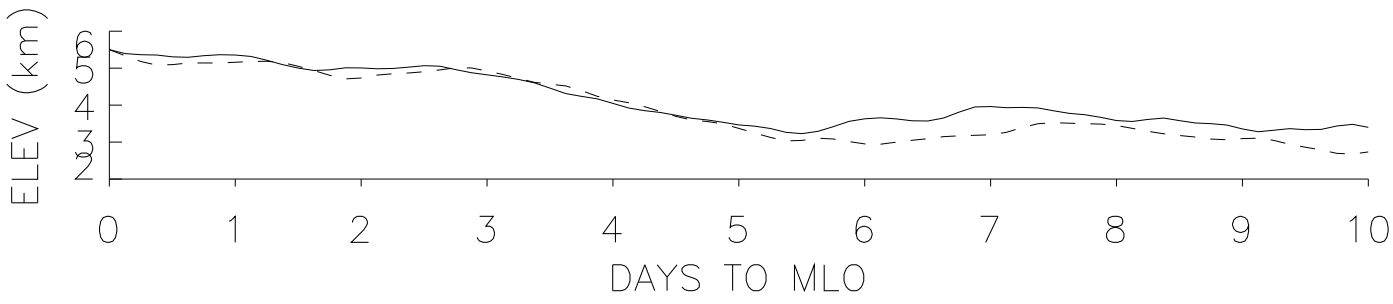
06UT

Day	km	hPa	C
0	5.5	523	−6
1	5.1	549	−2
2	4.9	566	0
3	4.6	586	1
4	3.8	643	7
5	3.4	682	11
6	3.6	660	9
7	4.0	628	7
8	3.6	659	8
9	3.4	680	10
10	3.2	694	10

00UT − solid
06UT − dashed

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





12UT

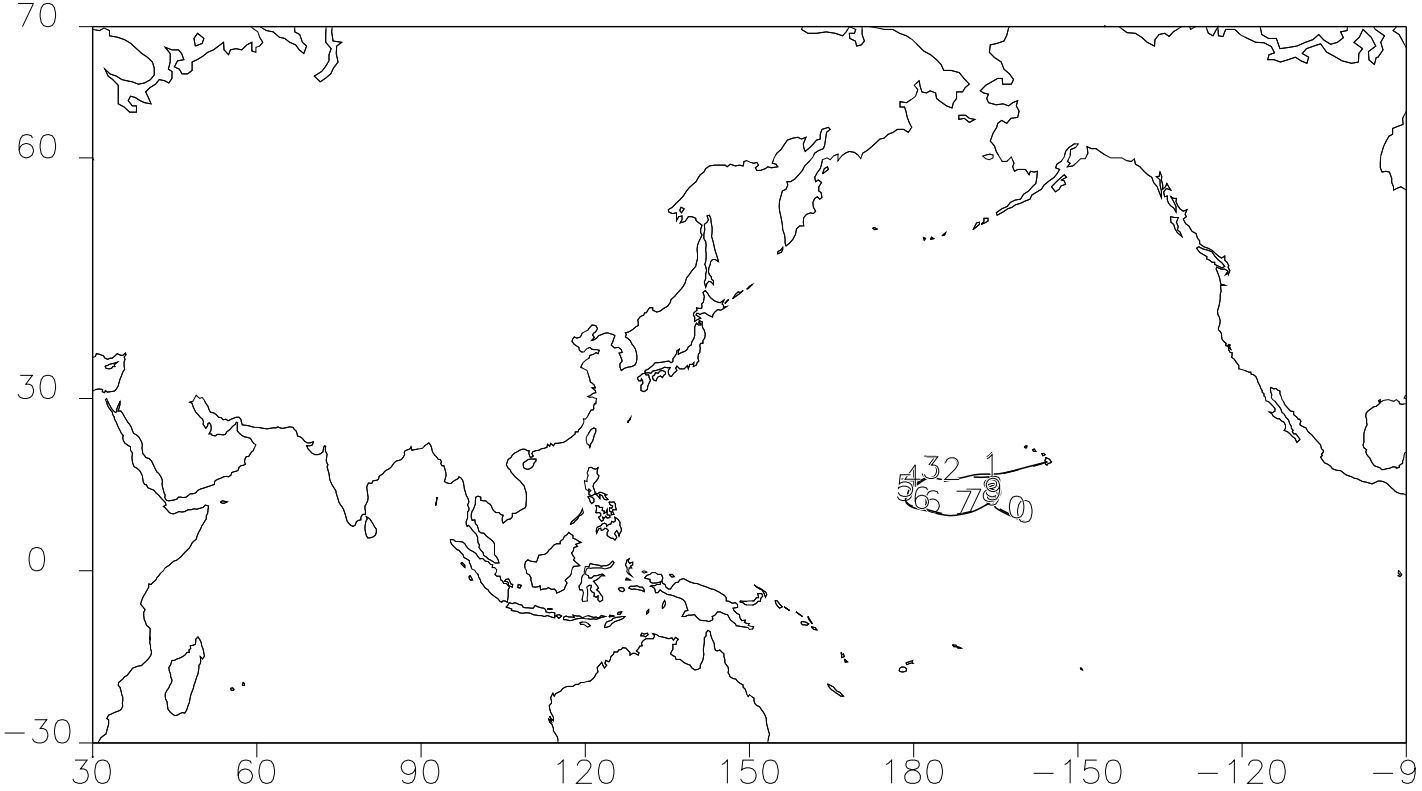
Day	km	hPa	C
0	5.5	523	-6
1	5.4	534	-3
2	5.0	559	-1
3	4.8	571	1
4	4.0	628	6
5	3.5	672	10
6	3.6	659	9
7	4.0	632	7
8	3.6	662	8
9	3.4	681	9
10	3.4	677	8

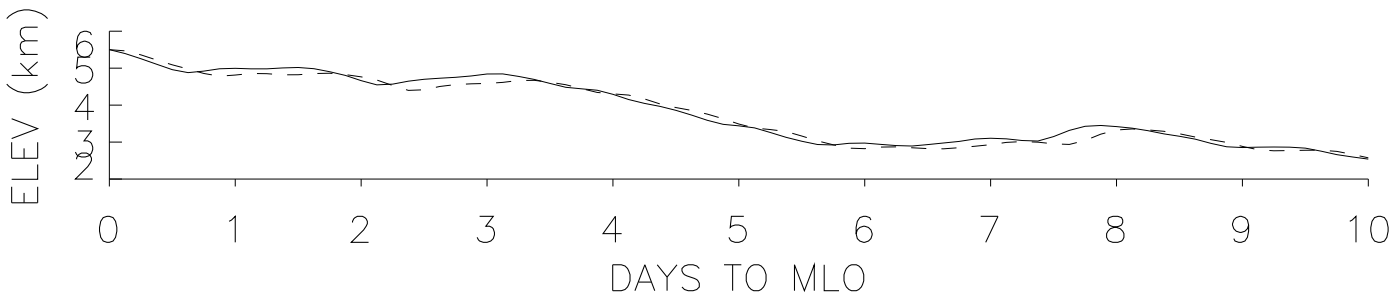
18UT

Day	km	hPa	C
0	5.5	524	-5
1	5.2	546	-2
2	4.7	577	1
3	4.9	563	-1
4	4.1	620	4
5	3.4	681	11
6	3.0	715	13
7	3.2	695	12
8	3.4	674	9
9	3.1	703	11
10	2.7	735	12

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

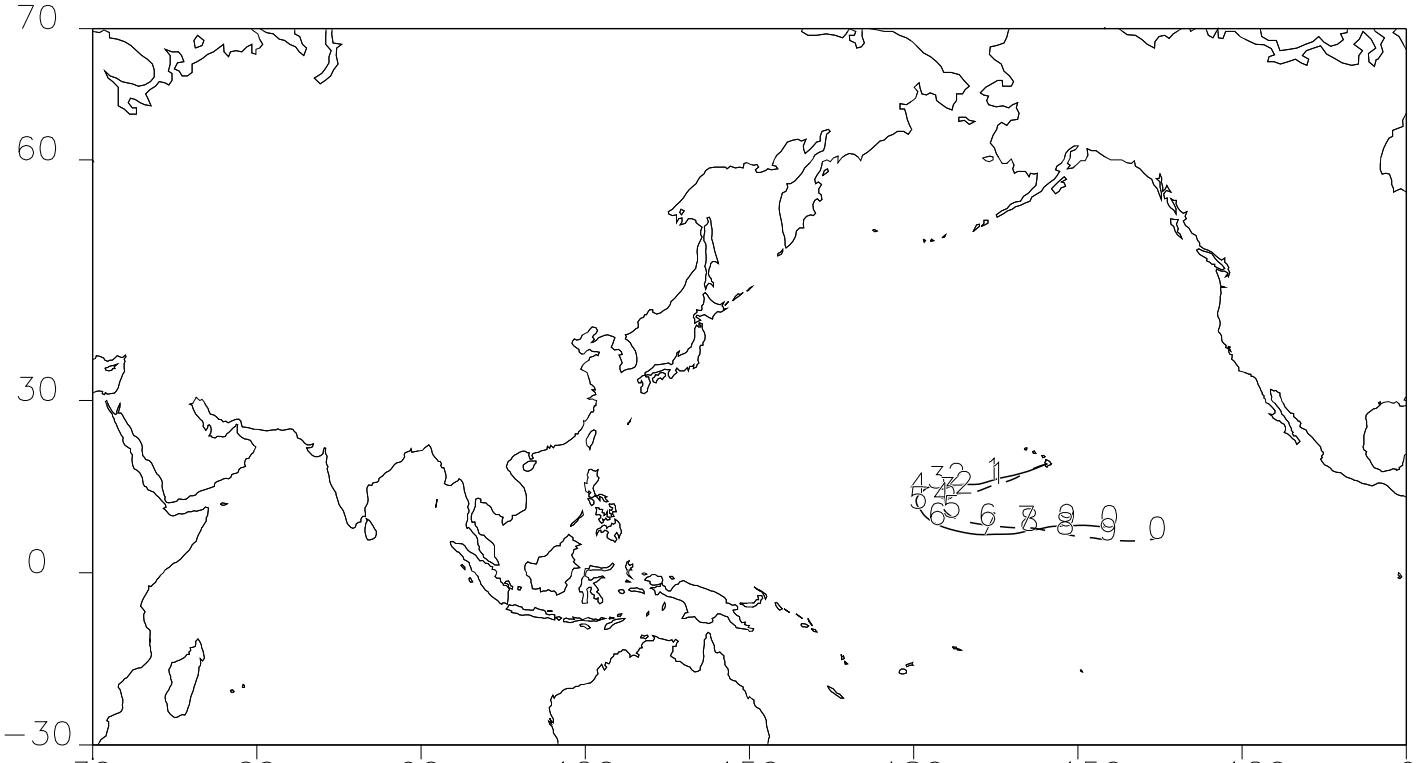
Day	km	hPa	C
0	5.5	524	-6
1	5.0	557	-1
2	4.7	583	1
3	4.8	570	0
4	4.3	609	3
5	3.4	676	9
6	3.0	713	12
7	3.1	702	11
8	3.4	675	9
9	2.9	723	13
10	2.5	751	14

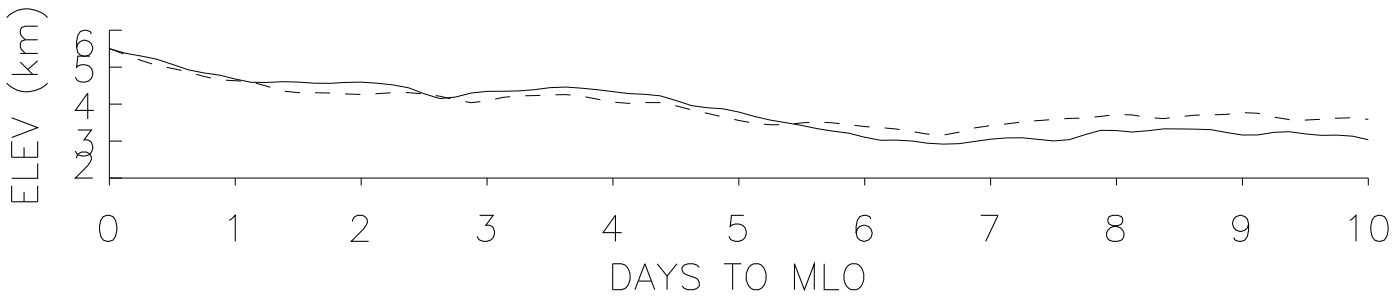
06UT

Day	km	hPa	C
0	5.5	524	-6
1	4.8	571	1
2	4.8	576	0
3	4.6	588	2
4	4.3	608	2
5	3.5	671	9
6	2.8	726	13
7	2.9	716	13
8	3.3	684	9
9	2.9	721	12
10	2.6	748	13

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

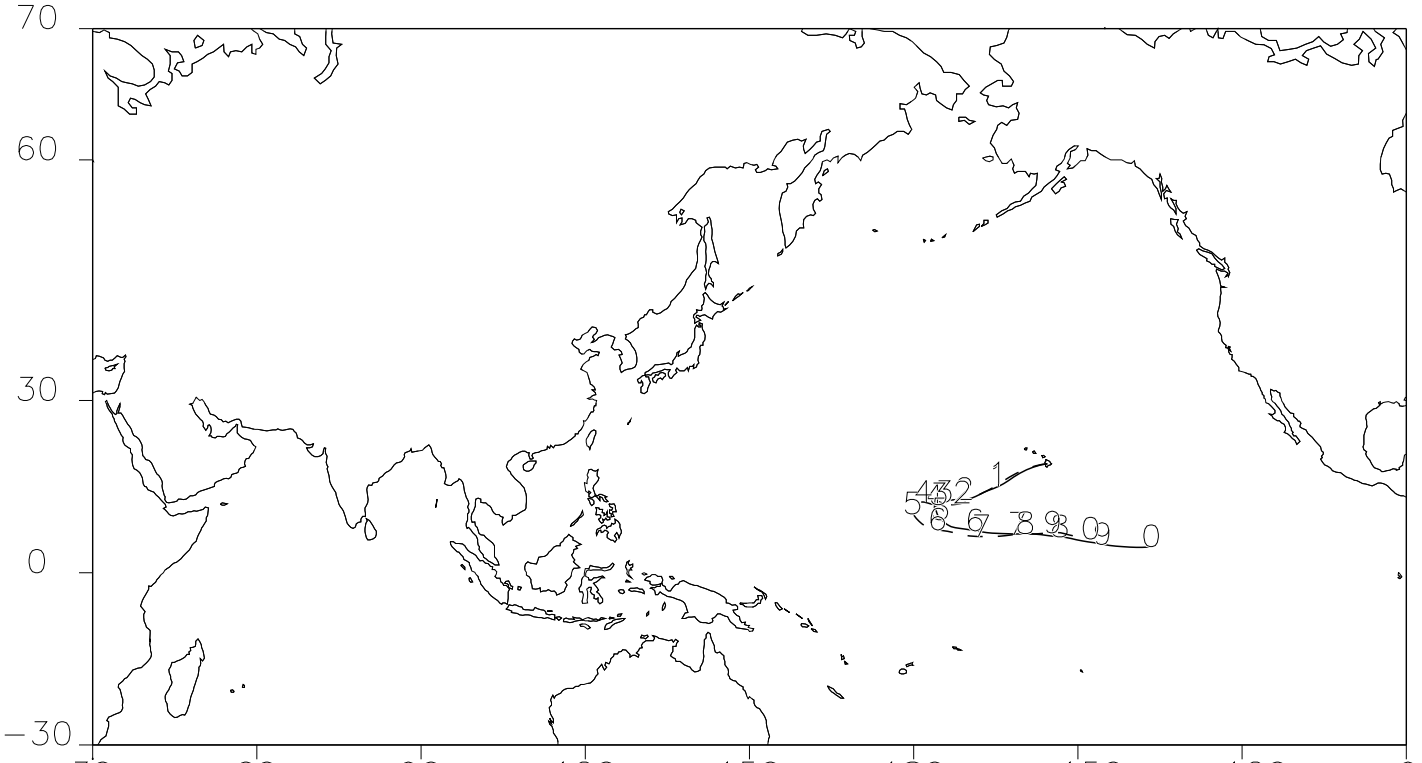
Day	km	hPa	C
0	5.5	524	-6
1	4.7	580	1
2	4.6	588	1
3	4.3	607	4
4	4.3	606	3
5	3.8	648	7
6	3.1	702	12
7	3.1	706	12
8	3.3	686	11
9	3.2	696	10
10	3.0	707	11

18UT

Day	km	hPa	C
0	5.5	524	-5
1	4.6	585	2
2	4.3	611	3
3	4.1	625	6
4	4.1	628	5
5	3.6	666	8
6	3.4	679	9
7	3.4	676	10
8	3.7	651	9
9	3.8	647	8
10	3.6	663	9

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

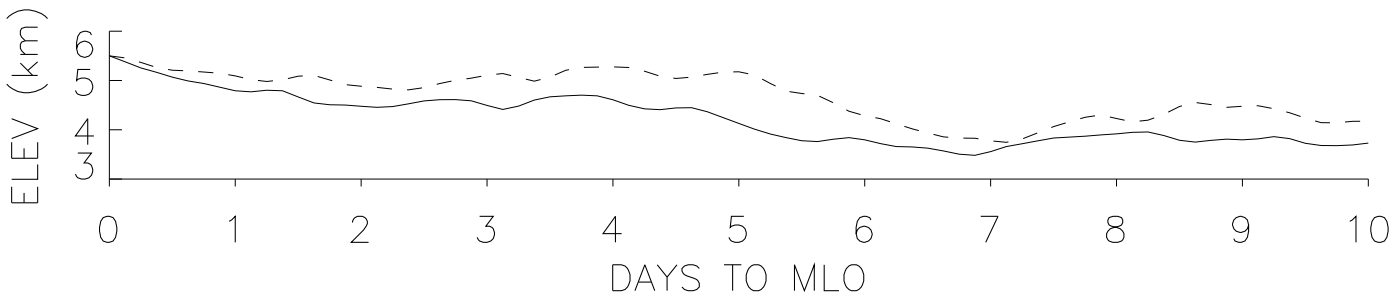


00UT

Day	km	hPa	C
0	5.5	524	−5
1	4.8	573	1
2	4.5	596	3
3	4.5	596	3
4	4.6	588	3
5	4.1	622	5
6	3.8	646	7
7	3.6	665	10
8	3.9	635	9
9	3.8	644	8
10	3.7	650	8

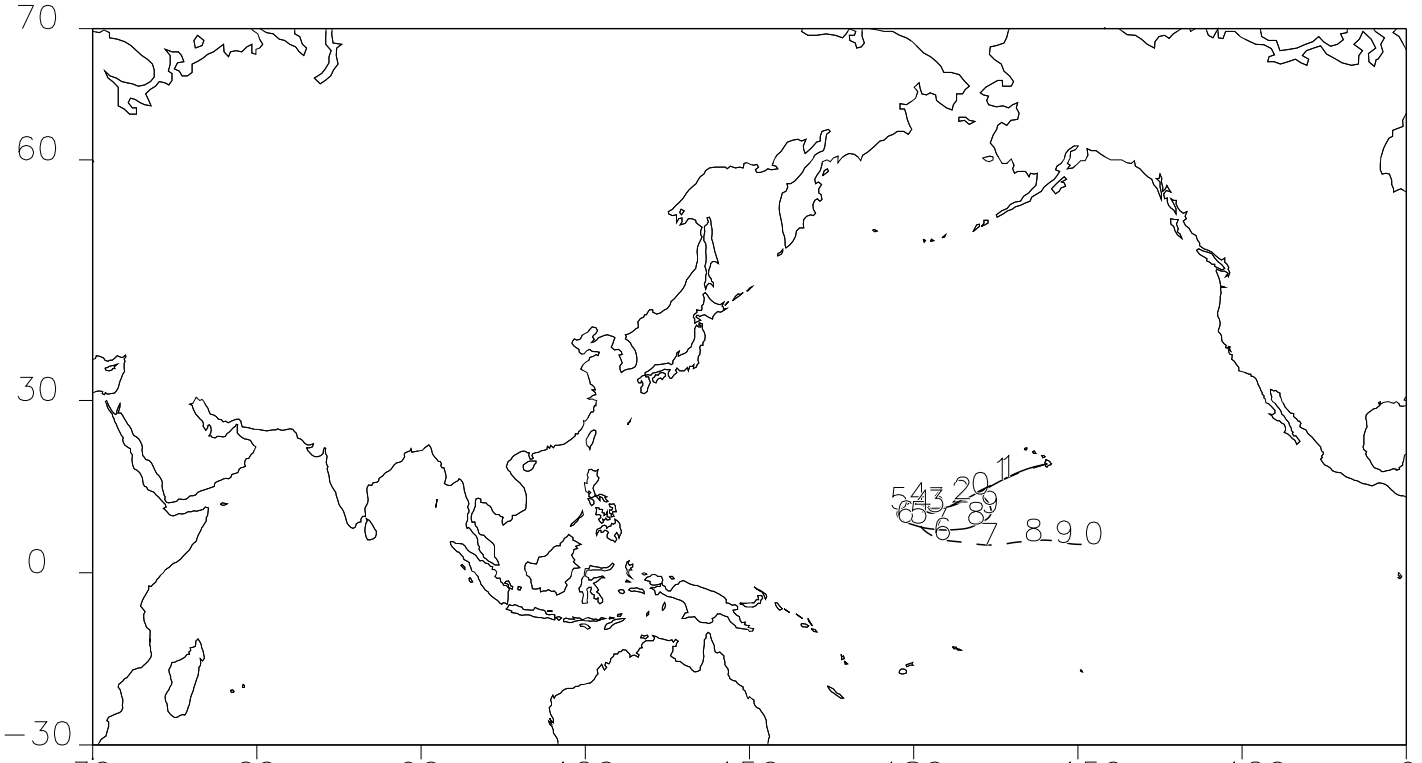
06UT

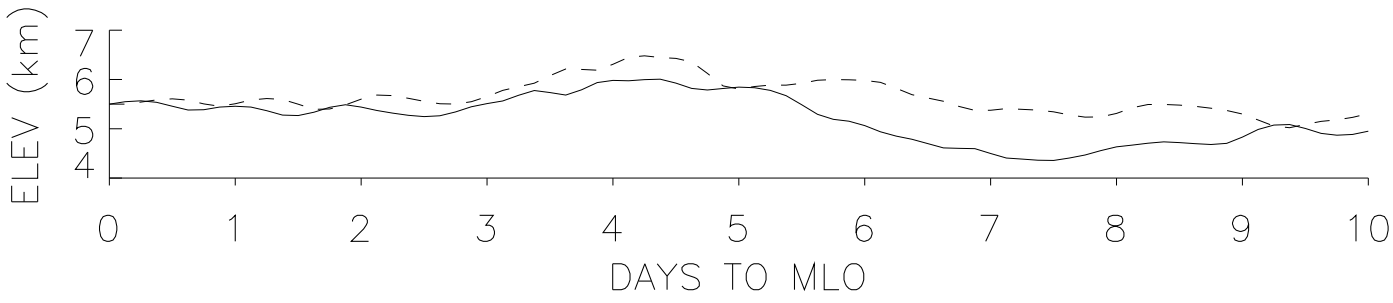
Day	km	hPa	C
0	5.5	525	−5
1	5.1	551	−1
2	4.9	567	2
3	5.1	552	−1
4	5.3	540	−2
5	5.2	546	−2
6	4.3	609	5
7	3.8	648	9
8	4.2	612	7
9	4.5	595	6
10	4.2	616	7



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

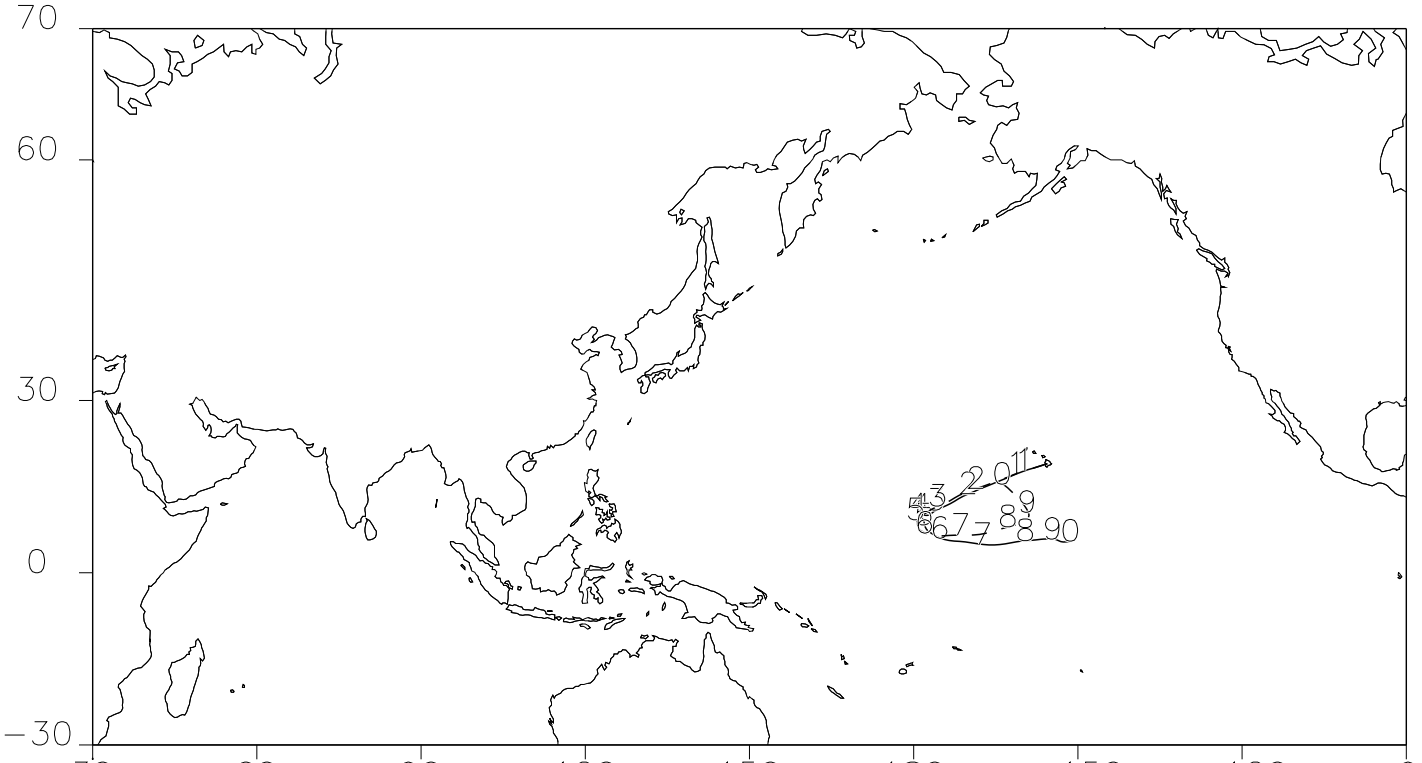
Day	km	hPa	C
0	5.5	524	−5
1	5.5	527	−4
2	5.4	529	−2
3	5.5	525	−3
4	6.0	495	−6
5	5.8	502	−5
6	5.1	554	0
7	4.5	594	5
8	4.6	584	3
9	4.8	569	1
10	5.0	561	1

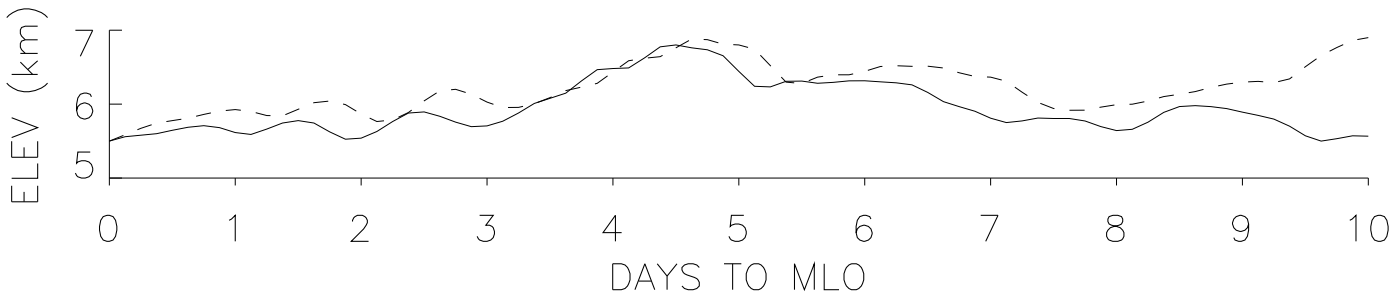
18UT

Day	km	hPa	C
0	5.5	525	−5
1	5.5	523	−4
2	5.6	518	−4
3	5.7	514	−4
4	6.3	474	−8
5	5.8	504	−4
6	6.0	492	−6
7	5.4	532	−1
8	5.3	536	−1
9	5.3	537	0
10	5.3	536	1

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

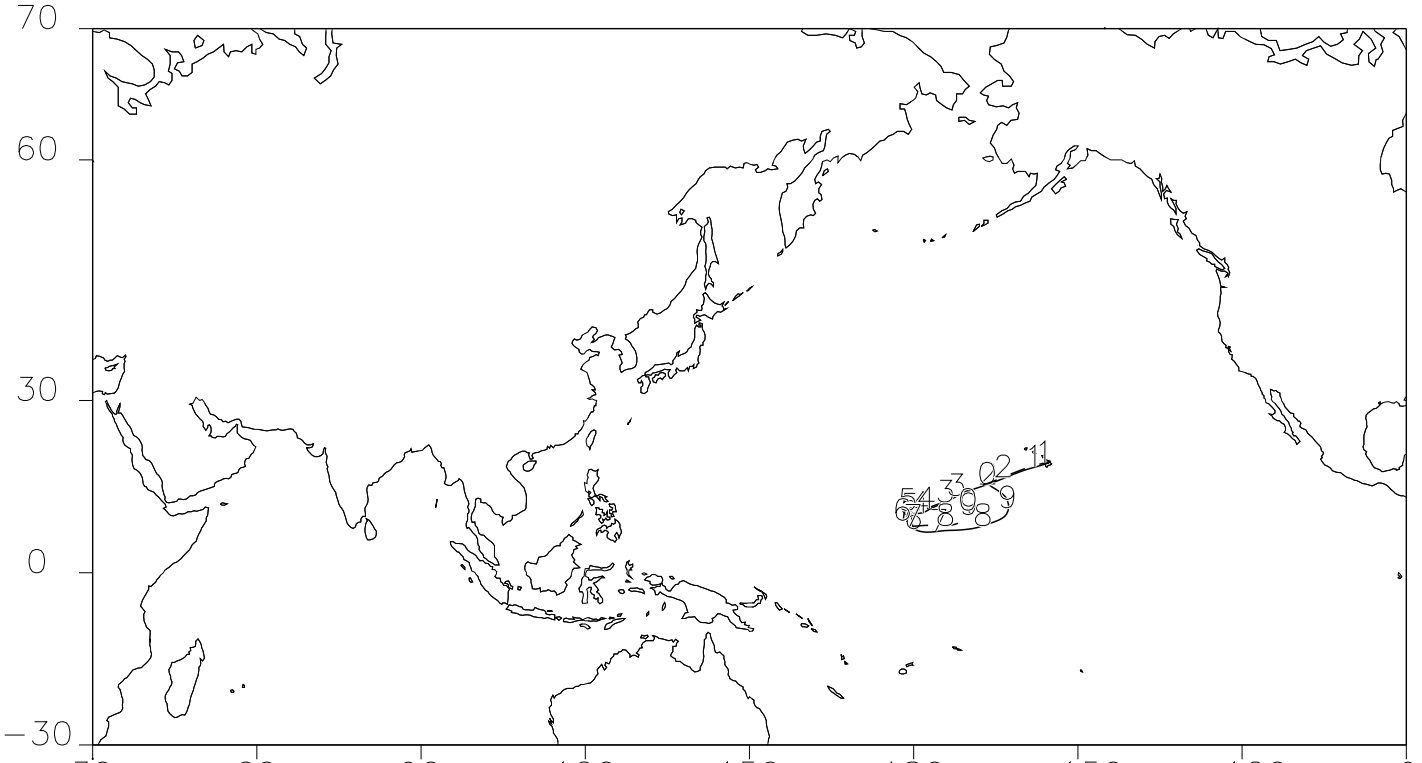
Day	km	hPa	C
0	5.5	525	-5
1	5.6	516	-5
2	5.5	521	-3
3	5.7	512	-4
4	6.5	464	-10
5	6.4	466	-8
6	6.3	472	-8
7	5.8	504	-3
8	5.6	514	-3
9	5.9	498	-5
10	5.6	518	0

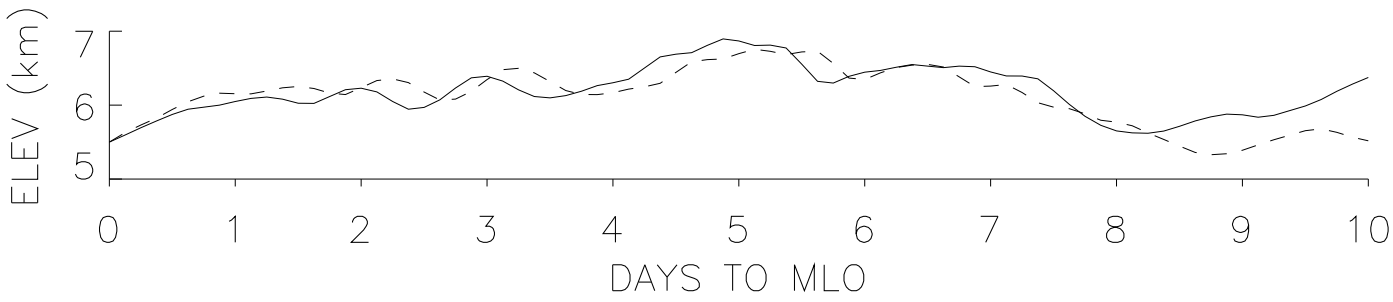
06UT

Day	km	hPa	C
0	5.5	526	-5
1	5.9	497	-7
2	5.9	500	-5
3	6.0	491	-6
4	6.4	466	-8
5	6.8	444	-11
6	6.4	464	-8
7	6.4	470	-7
8	6.0	493	-5
9	6.3	473	-8
10	6.9	436	-11

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

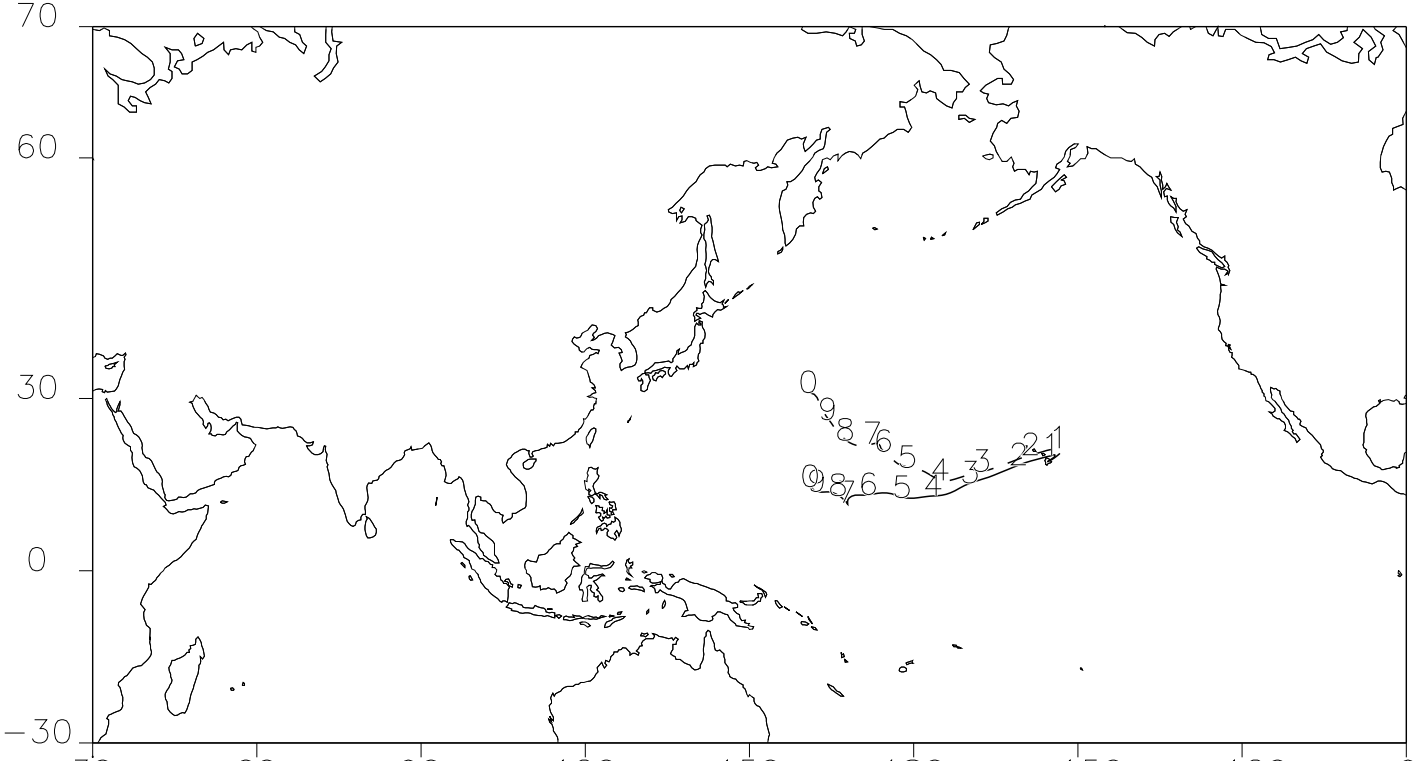
Day	km	hPa	C
0	5.5	526	-5
1	6.0	489	-9
2	6.2	477	-8
3	6.4	469	-9
4	6.3	475	-8
5	6.9	441	-11
6	6.4	465	-8
7	6.4	465	-8
8	5.7	513	-3
9	5.9	499	-6
10	6.4	467	-9

18UT

Day	km	hPa	C
0	5.5	526	-4
1	6.2	483	-9
2	6.2	476	-9
3	6.3	471	-8
4	6.2	481	-7
5	6.7	450	-10
6	6.3	471	-8
7	6.3	475	-7
8	5.8	506	-5
9	5.4	531	-3
10	5.5	522	-3

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

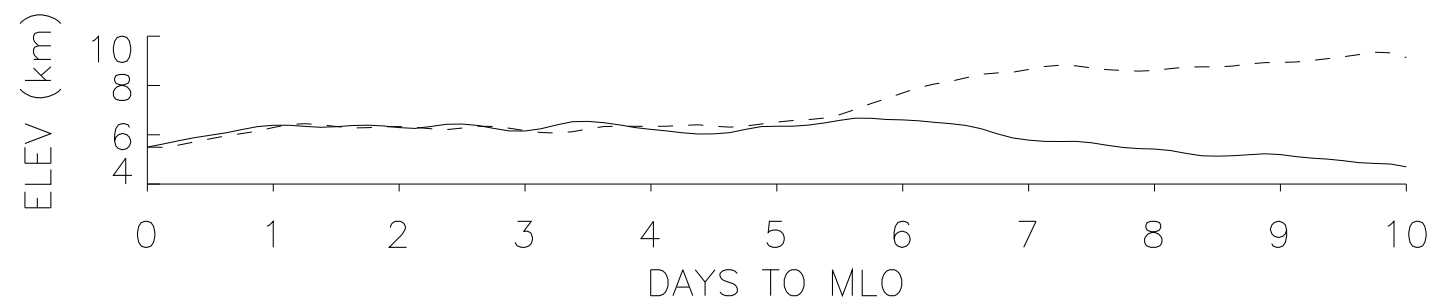


00UT

Day	km	hPa	C
0	5.5	527	−4
1	6.4	469	−10
2	6.3	473	−10
3	6.2	482	−7
4	6.2	479	−8
5	6.3	472	−9
6	6.6	456	−10
7	5.8	506	−3
8	5.4	529	−2
9	5.2	544	−2
10	4.7	578	0

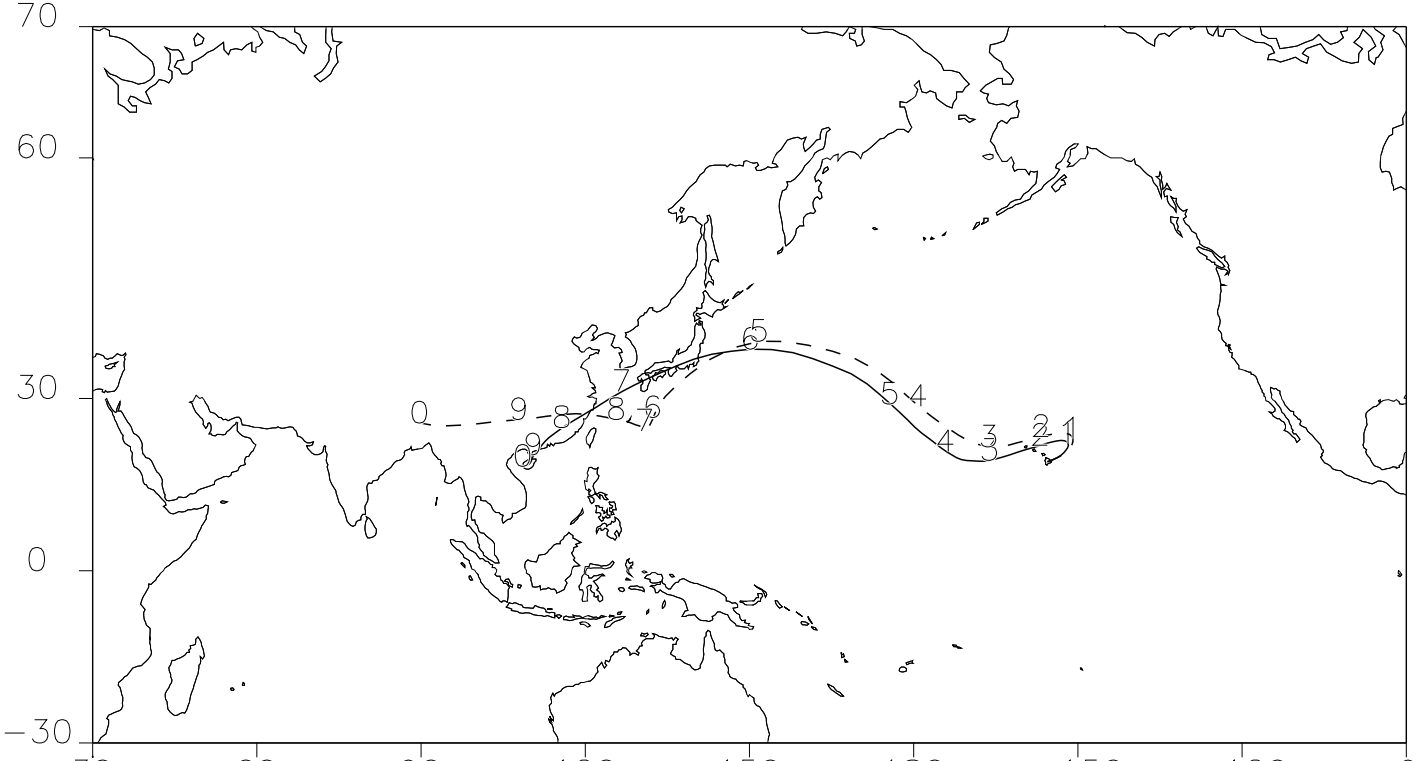
06UT

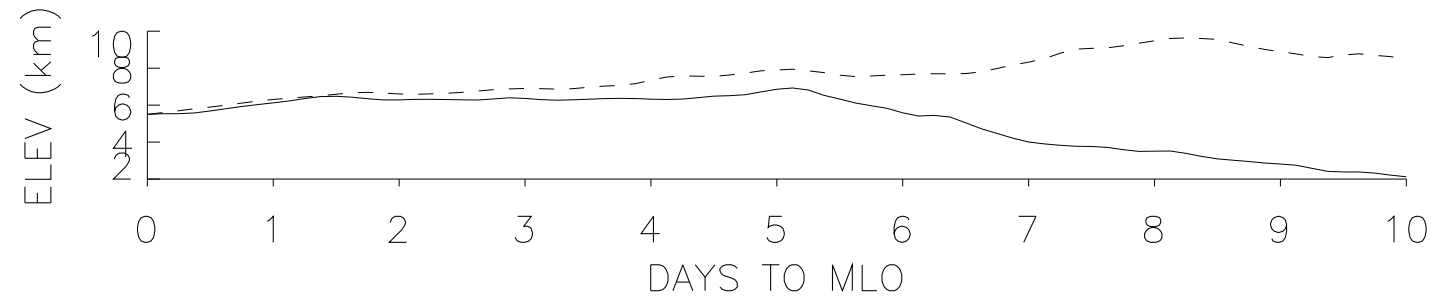
Day	km	hPa	C
0	5.5	527	−4
1	6.3	475	−10
2	6.3	471	−10
3	6.2	480	−7
4	6.3	470	−8
5	6.5	460	−12
6	7.7	393	−21
7	8.7	343	−29
8	8.6	344	−30
9	8.9	329	−32
10	9.1	318	−35



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

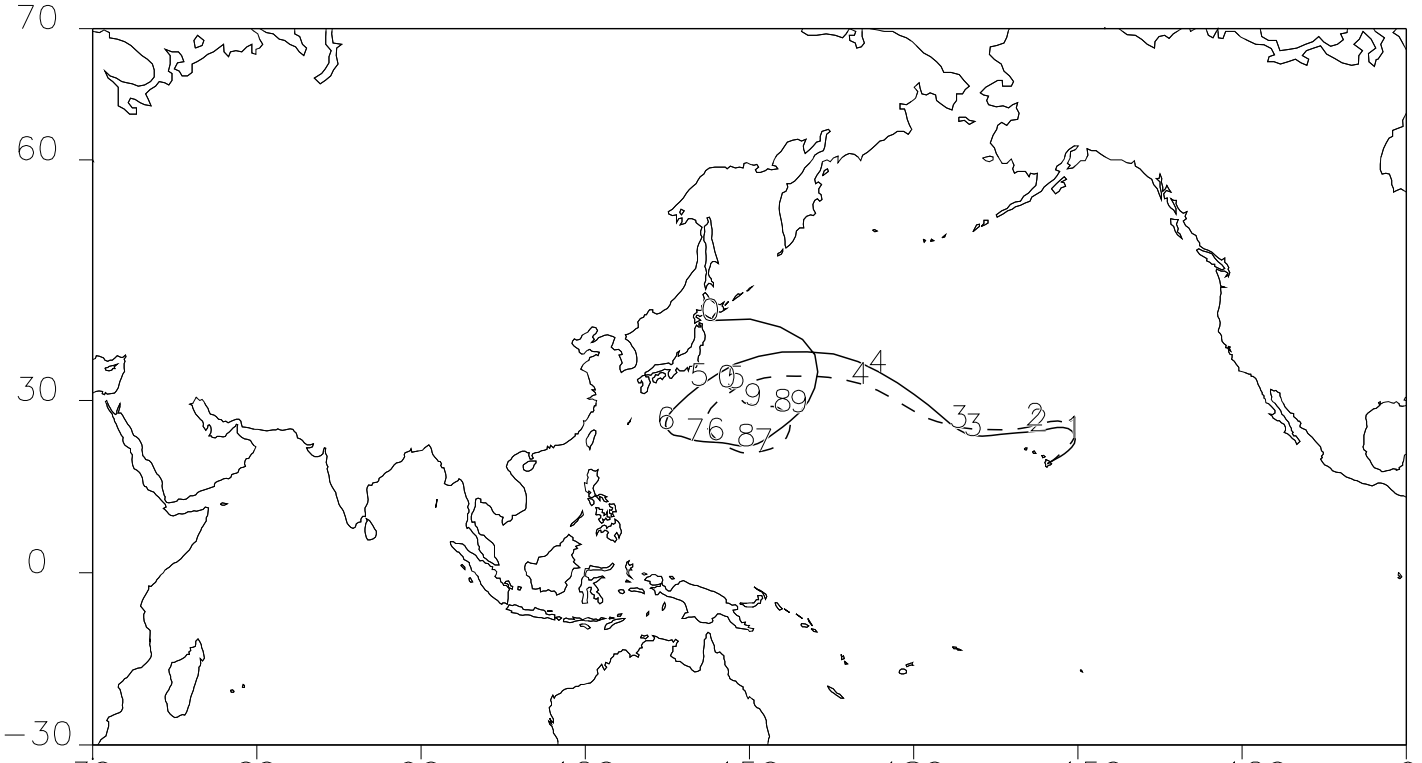
Day	km	hPa	C
0	5.5	526	-4
1	6.1	486	-9
2	6.3	473	-10
3	6.4	467	-9
4	6.3	470	-10
5	6.9	437	-14
6	5.6	514	-6
7	4.0	629	4
8	3.5	670	8
9	2.8	725	13
10	2.1	786	19

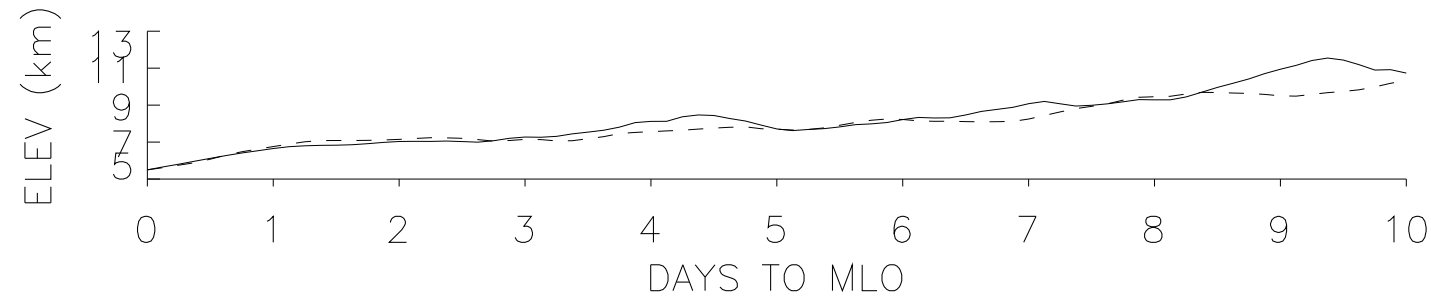
18UT

Day	km	hPa	C
0	5.5	527	-4
1	6.3	475	-10
2	6.6	454	-13
3	6.9	435	-13
4	7.3	408	-16
5	7.9	377	-20
6	7.6	397	-17
7	8.3	363	-21
8	9.5	310	-30
9	8.9	334	-24
10	8.5	352	-20

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

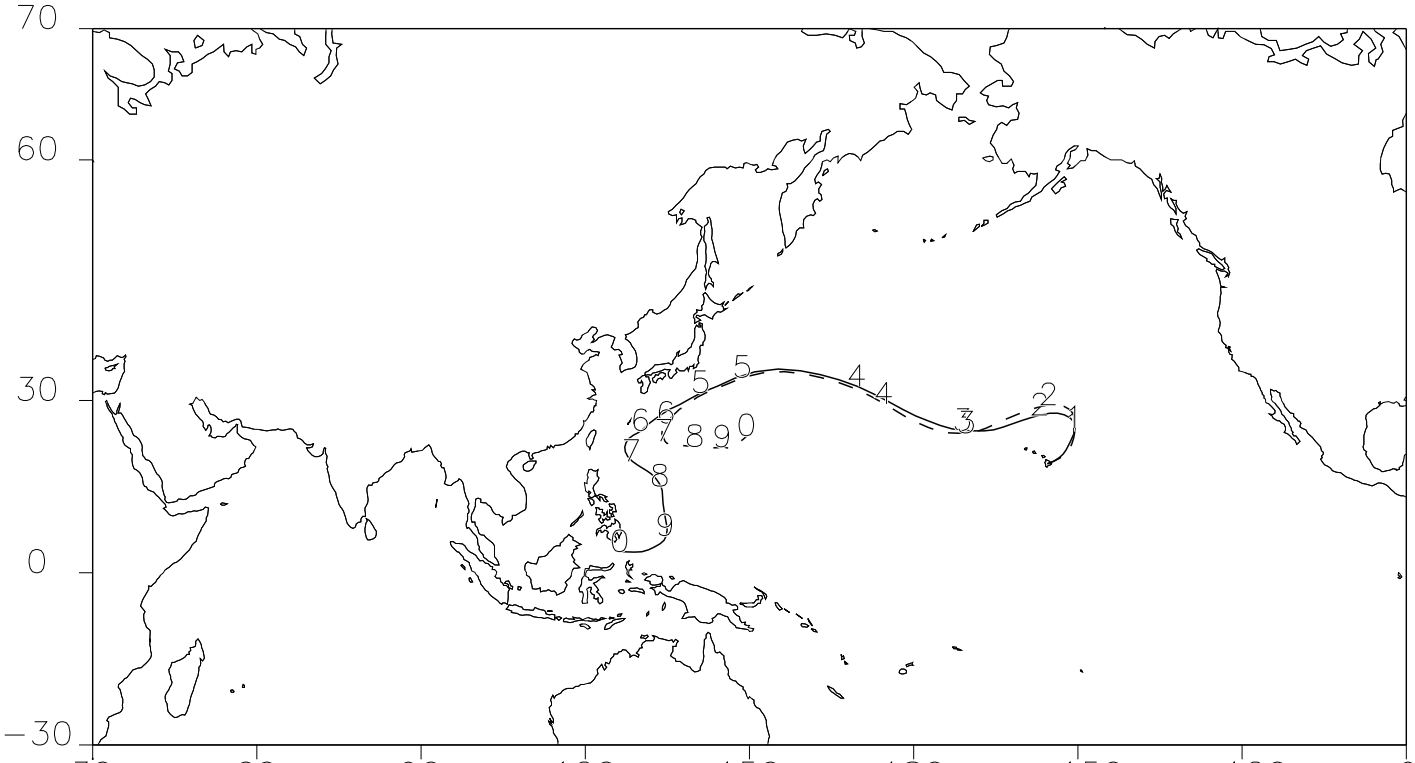
Day	km	hPa	C
0	5.5	526	−3
1	6.6	455	−12
2	7.0	430	−15
3	7.3	414	−16
4	8.1	366	−24
5	7.7	392	−19
6	8.2	369	−21
7	9.1	328	−29
8	9.3	319	−30
9	10.9	249	−45
10	10.7	246	−46

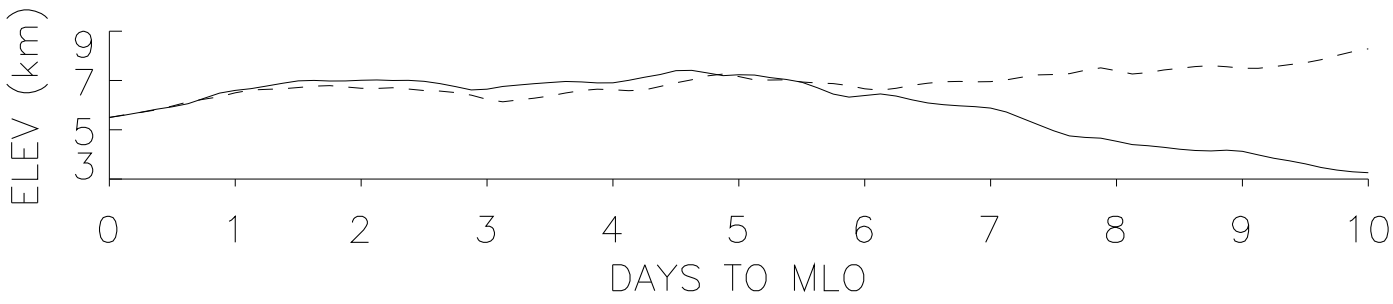
06UT

Day	km	hPa	C
0	5.5	526	−3
1	6.8	449	−12
2	7.1	423	−16
3	7.1	420	−16
4	7.6	398	−19
5	7.7	393	−19
6	8.2	370	−22
7	8.2	368	−21
8	9.5	310	−32
9	9.5	308	−31
10	10.3	273	−37

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

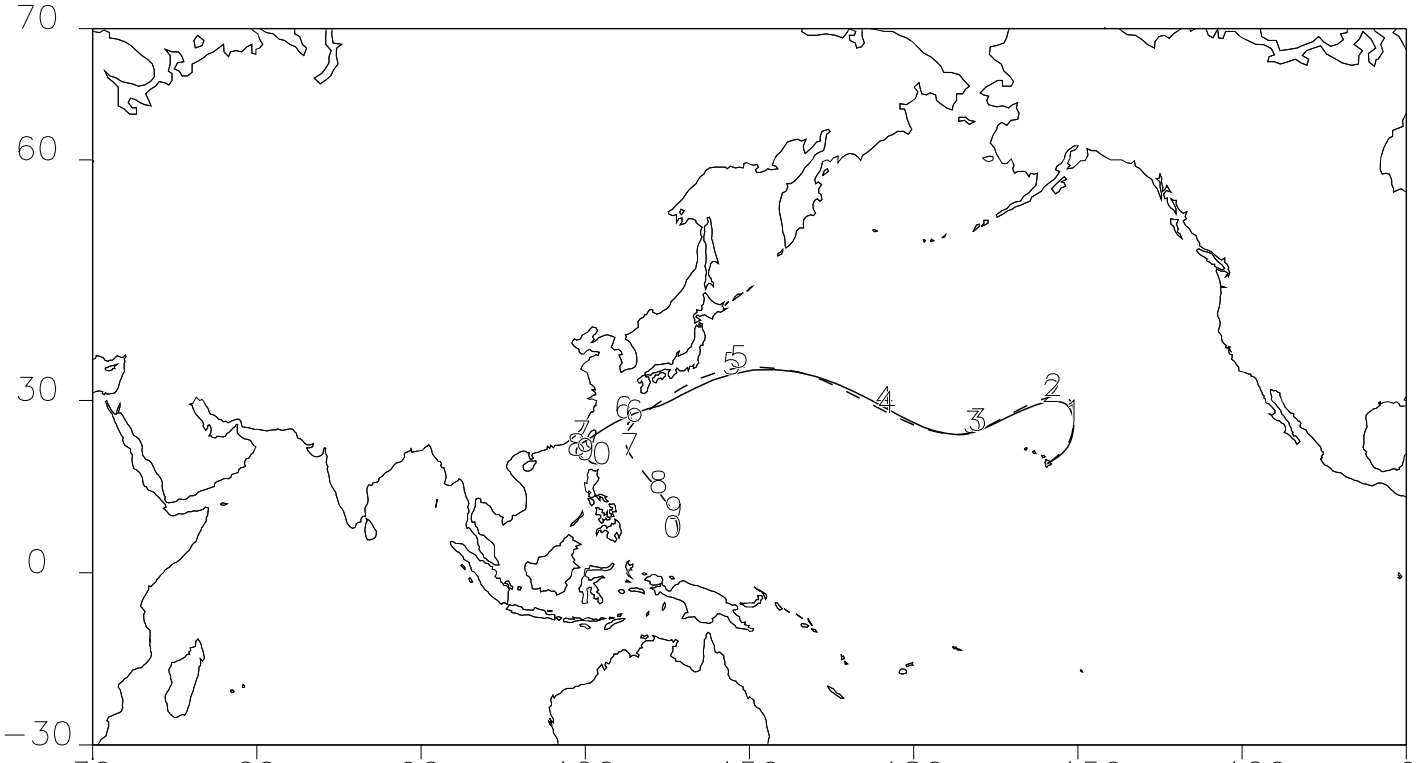
Day	km	hPa	C
0	5.5	525	−3
1	6.6	457	−12
2	7.0	432	−15
3	6.6	449	−12
4	6.9	434	−13
5	7.2	418	−15
6	6.4	469	−8
7	5.9	501	−4
8	4.5	592	3
9	4.1	622	4
10	3.3	690	9

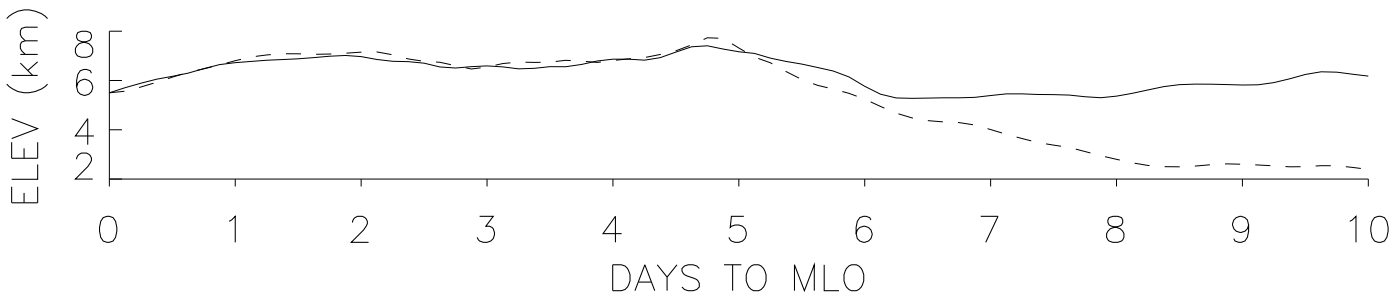
18UT

Day	km	hPa	C
0	5.5	526	−2
1	6.5	464	−11
2	6.7	450	−14
3	6.2	474	−9
4	6.6	450	−11
5	7.2	420	−16
6	6.7	452	−11
7	7.0	436	−13
8	7.4	412	−16
9	7.5	405	−16
10	8.3	364	−23

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

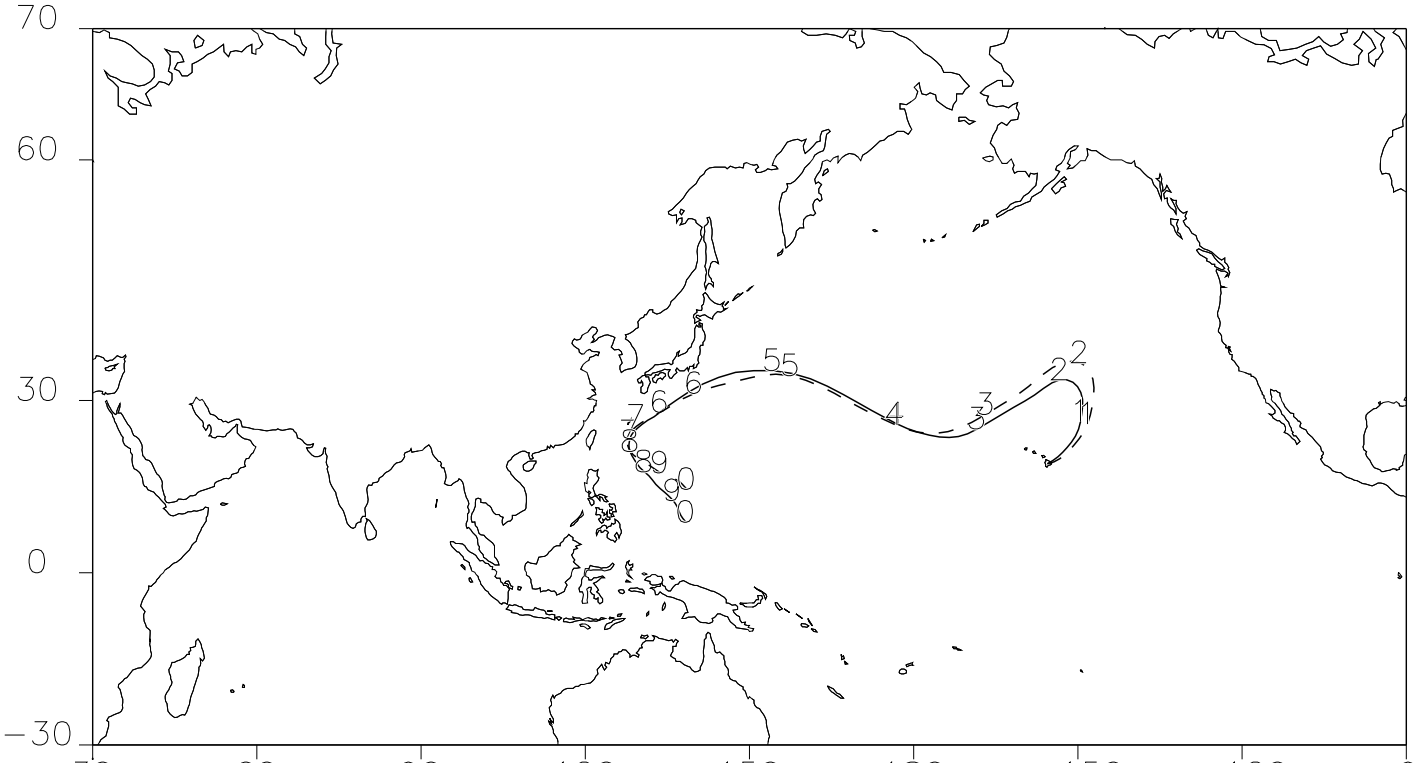
Day	km	hPa	C
0	5.5	525	−2
1	6.7	451	−12
2	7.0	435	−15
3	6.6	454	−12
4	6.9	437	−13
5	7.2	419	−16
6	5.8	506	−5
7	5.4	532	−2
8	5.4	535	−2
9	5.8	506	−4
10	6.2	482	−6

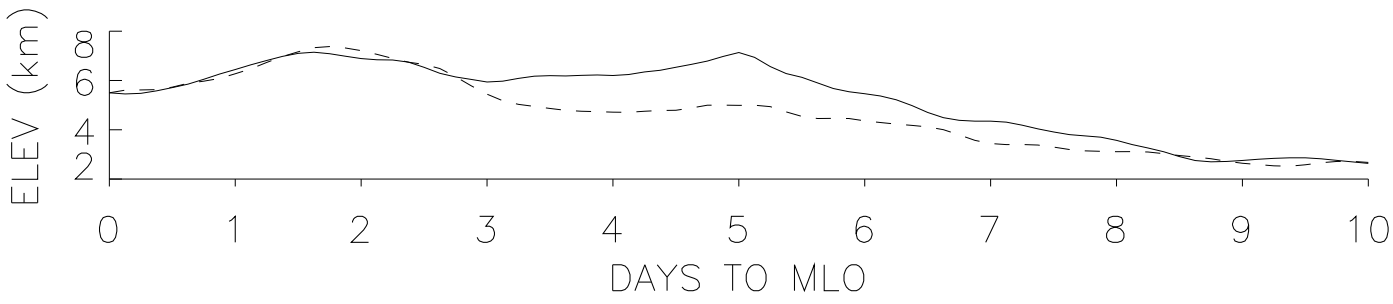
06UT

Day	km	hPa	C
0	5.5	525	−3
1	6.8	445	−13
2	7.2	425	−16
3	6.5	456	−11
4	6.8	439	−12
5	7.3	410	−17
6	5.2	540	−3
7	4.0	632	5
8	2.8	729	12
9	2.6	747	13
10	2.4	763	14

00UT − solid
06UT − dashed

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





12UT

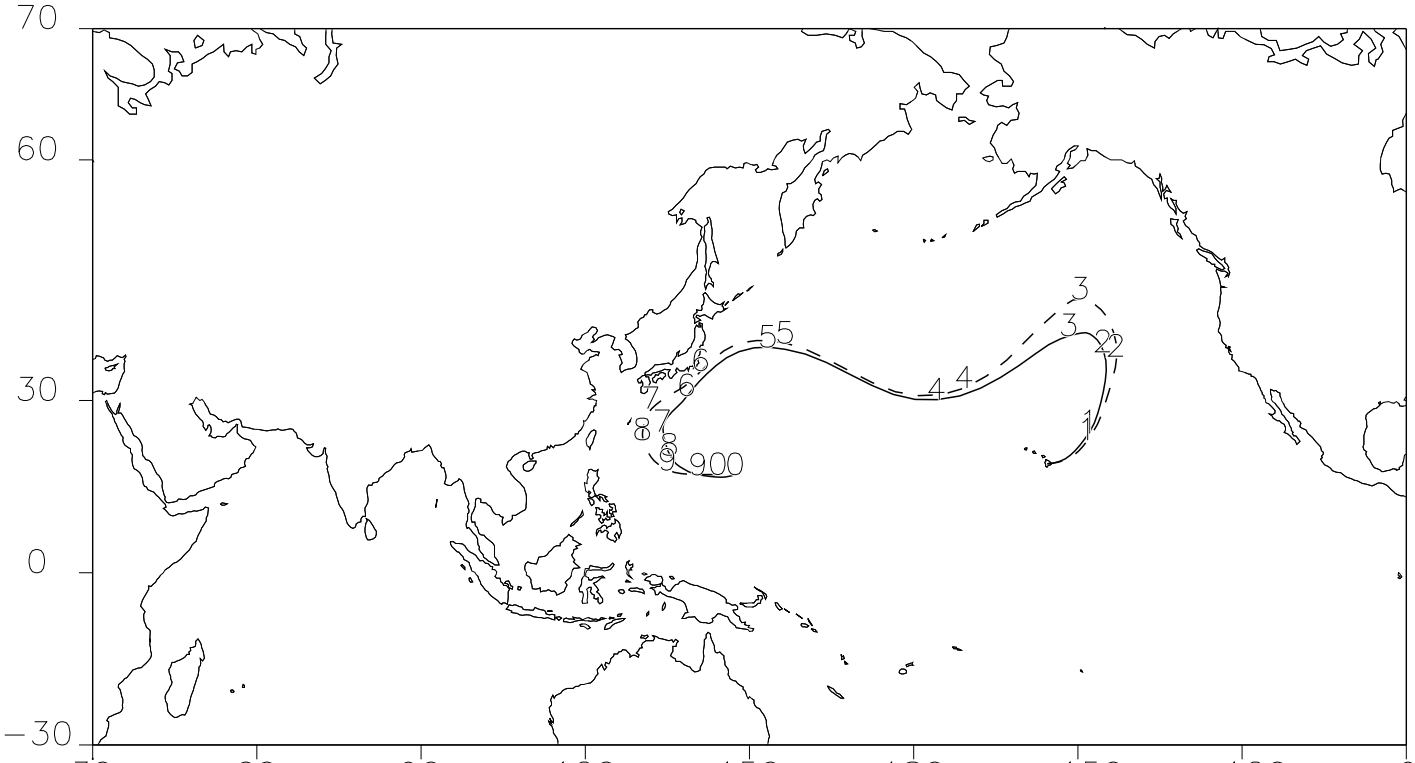
Day	km	hPa	C
0	5.5	524	−3
1	6.4	466	−11
2	6.9	439	−14
3	5.9	494	−6
4	6.2	476	−8
5	7.1	422	−16
6	5.5	526	−4
7	4.3	607	4
8	3.6	666	8
9	2.8	734	12
10	2.6	745	13

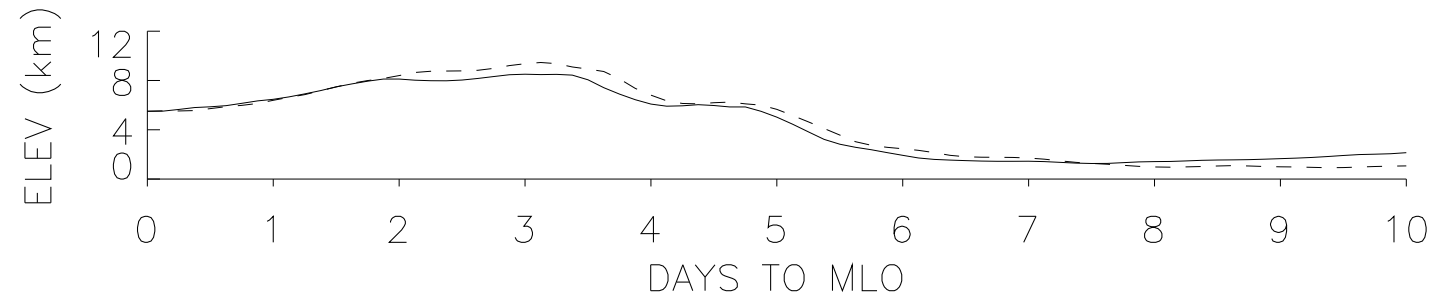
18UT

Day	km	hPa	C
0	5.5	525	−3
1	6.3	476	−11
2	7.2	420	−17
3	5.4	523	−4
4	4.7	573	−1
5	5.0	557	−3
6	4.4	602	1
7	3.4	676	7
8	3.1	704	11
9	2.6	744	12
10	2.7	741	11

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

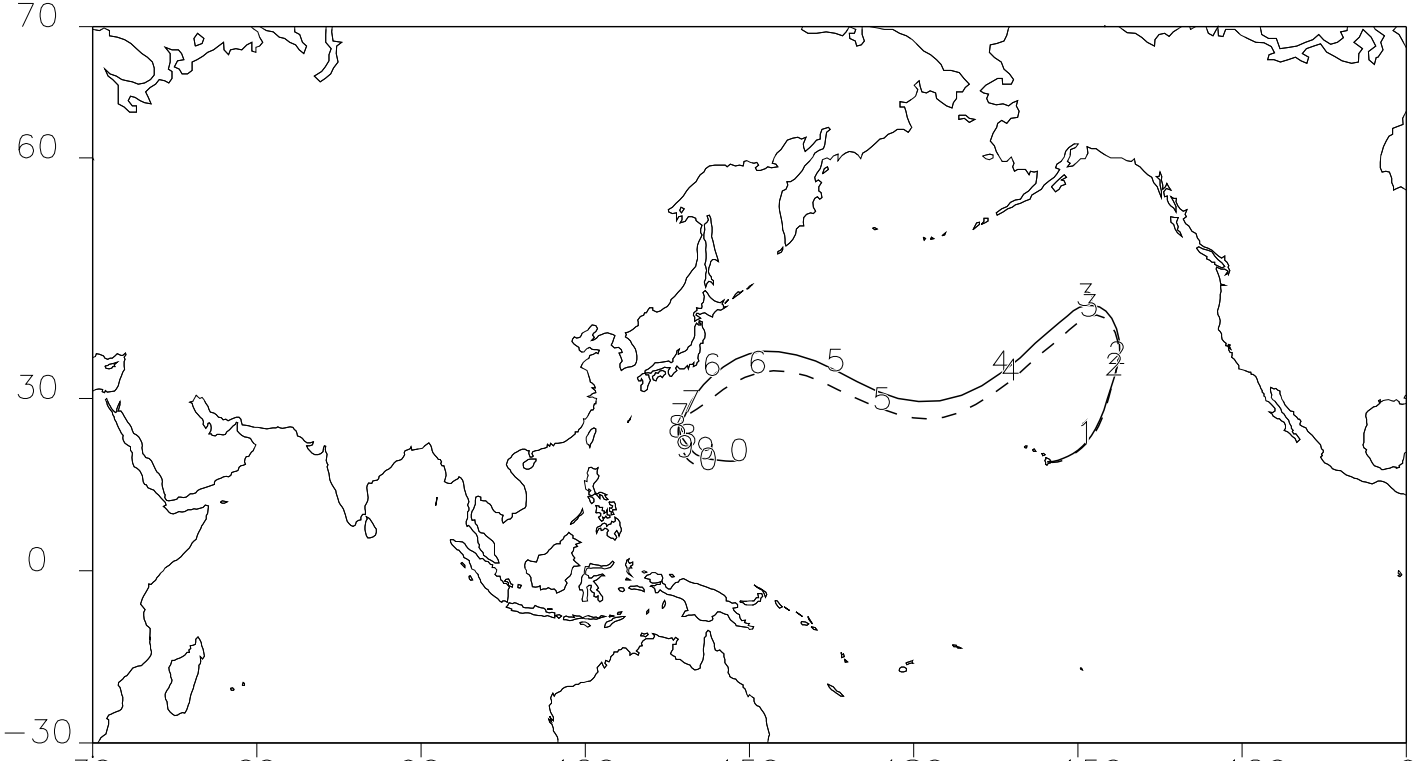
Day	km	hPa	C
0	5.5	525	−3
1	6.5	462	−11
2	8.1	372	−24
3	8.5	349	−28
4	6.1	474	−12
5	5.0	548	−7
6	1.9	808	13
7	1.4	860	18
8	1.4	863	18
9	1.7	838	17
10	2.1	792	15

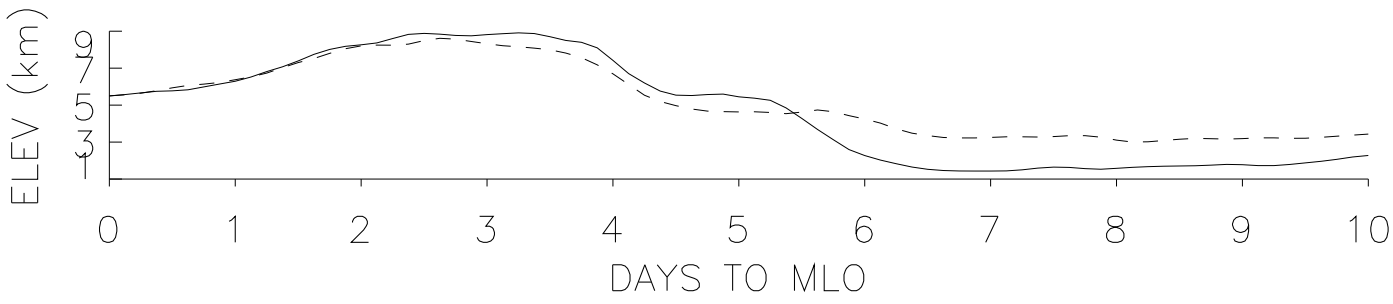
06UT

Day	km	hPa	C
0	5.5	525	−2
1	6.4	468	−9
2	8.4	357	−27
3	9.4	309	−35
4	6.8	428	−19
5	5.7	503	−10
6	2.5	755	8
7	1.7	831	16
8	1.0	907	22
9	1.0	903	20
10	1.1	896	21

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

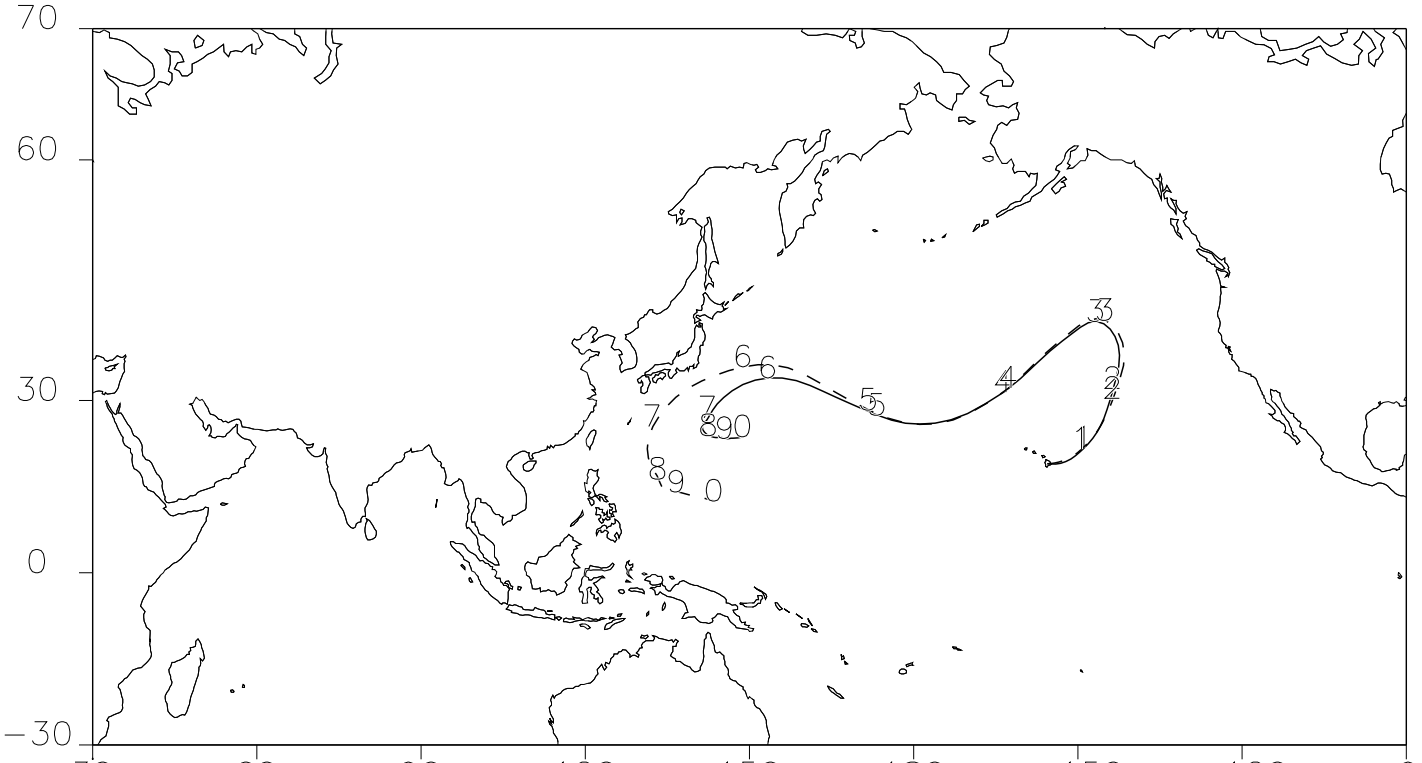
Day	km	hPa	C
0	5.5	524	−3
1	6.3	473	−9
2	8.3	363	−26
3	8.8	335	−29
4	7.4	398	−21
5	5.5	517	−7
6	2.3	774	11
7	1.4	861	19
8	1.6	848	18
9	1.8	828	16
10	2.3	780	14

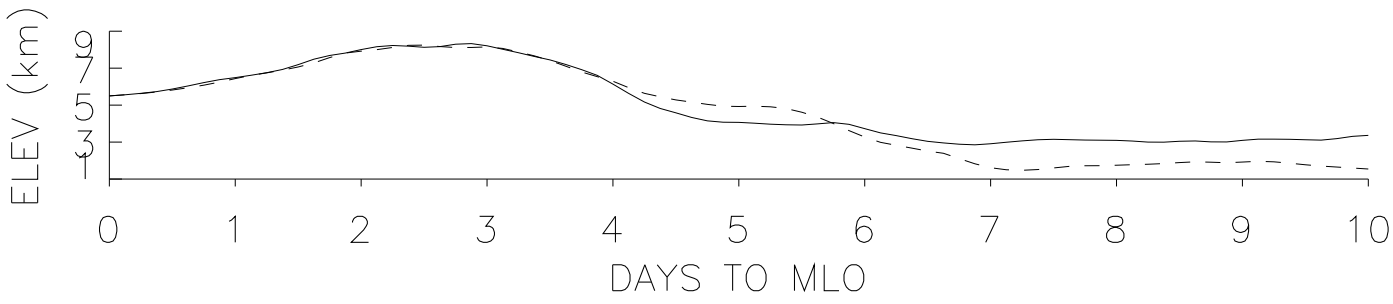
18UT

Day	km	hPa	C
0	5.5	525	−3
1	6.4	469	−10
2	8.2	366	−25
3	8.3	360	−25
4	6.7	442	−15
5	4.6	577	−2
6	4.2	611	1
7	3.3	692	8
8	3.1	705	9
9	3.2	699	9
10	3.4	677	9

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

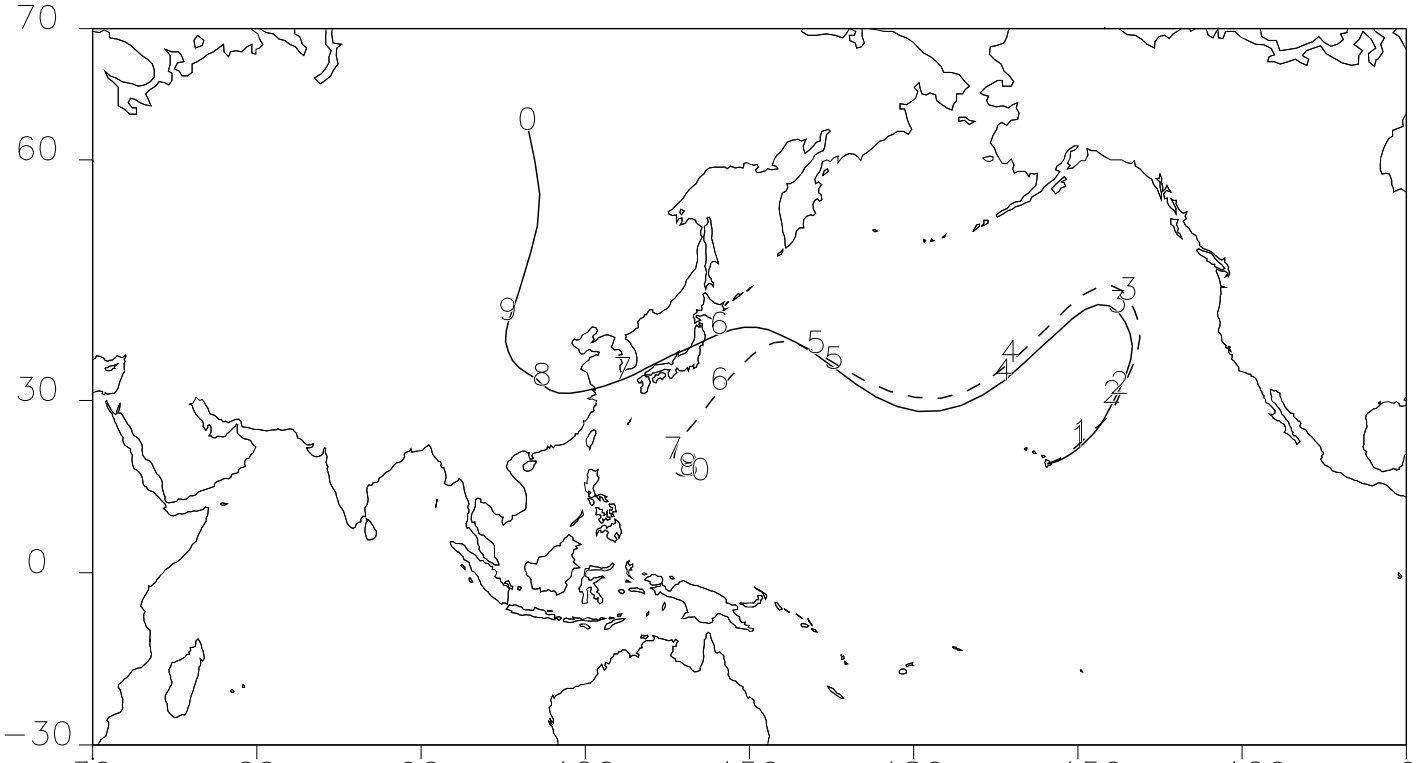
Day	km	hPa	C
0	5.5	525	-3
1	6.5	462	-10
2	8.0	376	-24
3	8.2	366	-25
4	6.1	478	-10
5	4.1	621	2
6	3.7	652	3
7	2.9	723	11
8	3.1	709	10
9	3.1	709	11
10	3.4	687	9

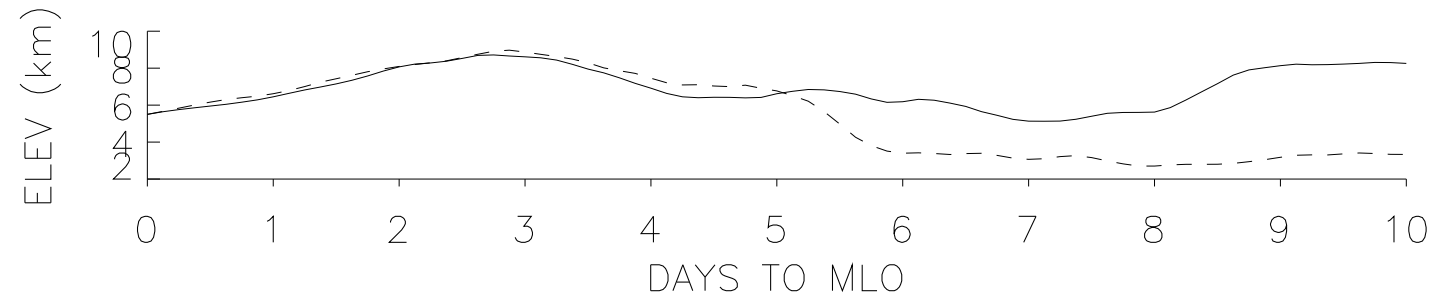
06UT

Day	km	hPa	C
0	5.5	525	-4
1	6.4	465	-10
2	7.9	380	-23
3	8.1	369	-24
4	6.3	468	-12
5	4.9	556	-2
6	3.3	684	7
7	1.6	837	20
8	1.7	827	18
9	1.9	812	17
10	1.5	845	18

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

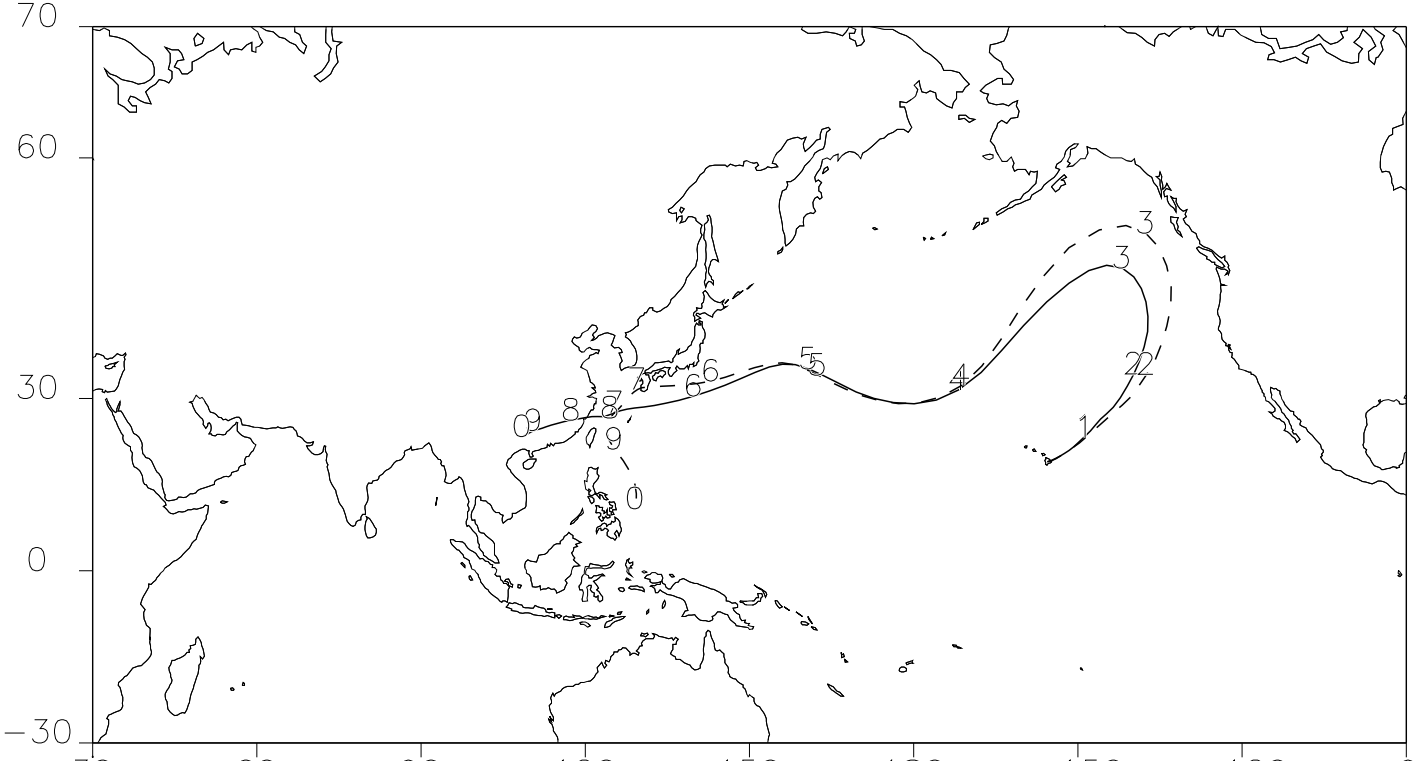
Day	km	hPa	C
0	5.5	524	-4
1	6.5	464	-10
2	8.1	373	-24
3	8.6	344	-29
4	6.9	429	-16
5	6.6	444	-14
6	6.2	470	-11
7	5.1	537	-6
8	5.6	505	-14
9	8.1	356	-37
10	8.3	339	-41

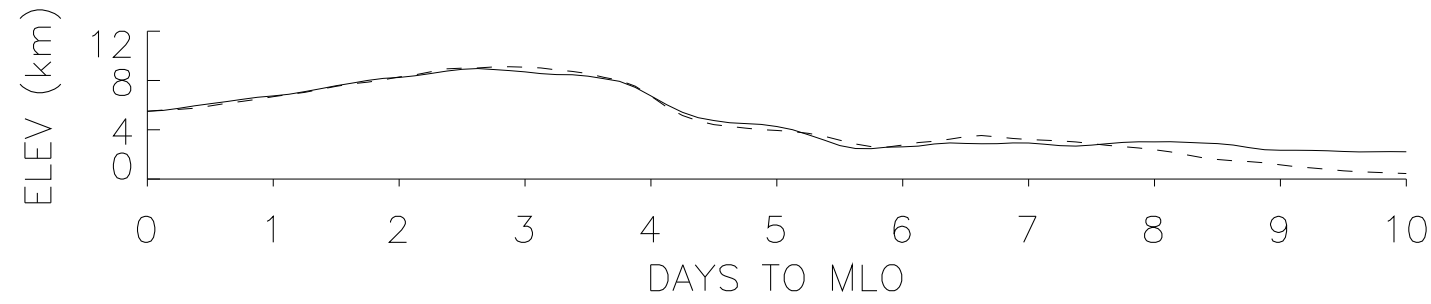
18UT

Day	km	hPa	C
0	5.5	526	-3
1	6.6	455	-11
2	8.1	372	-24
3	8.9	331	-31
4	7.5	396	-20
5	6.8	434	-14
6	3.4	673	9
7	3.1	705	12
8	2.7	739	13
9	3.2	700	10
10	3.3	686	9

12UT – solid
18UT – dashed

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





00UT

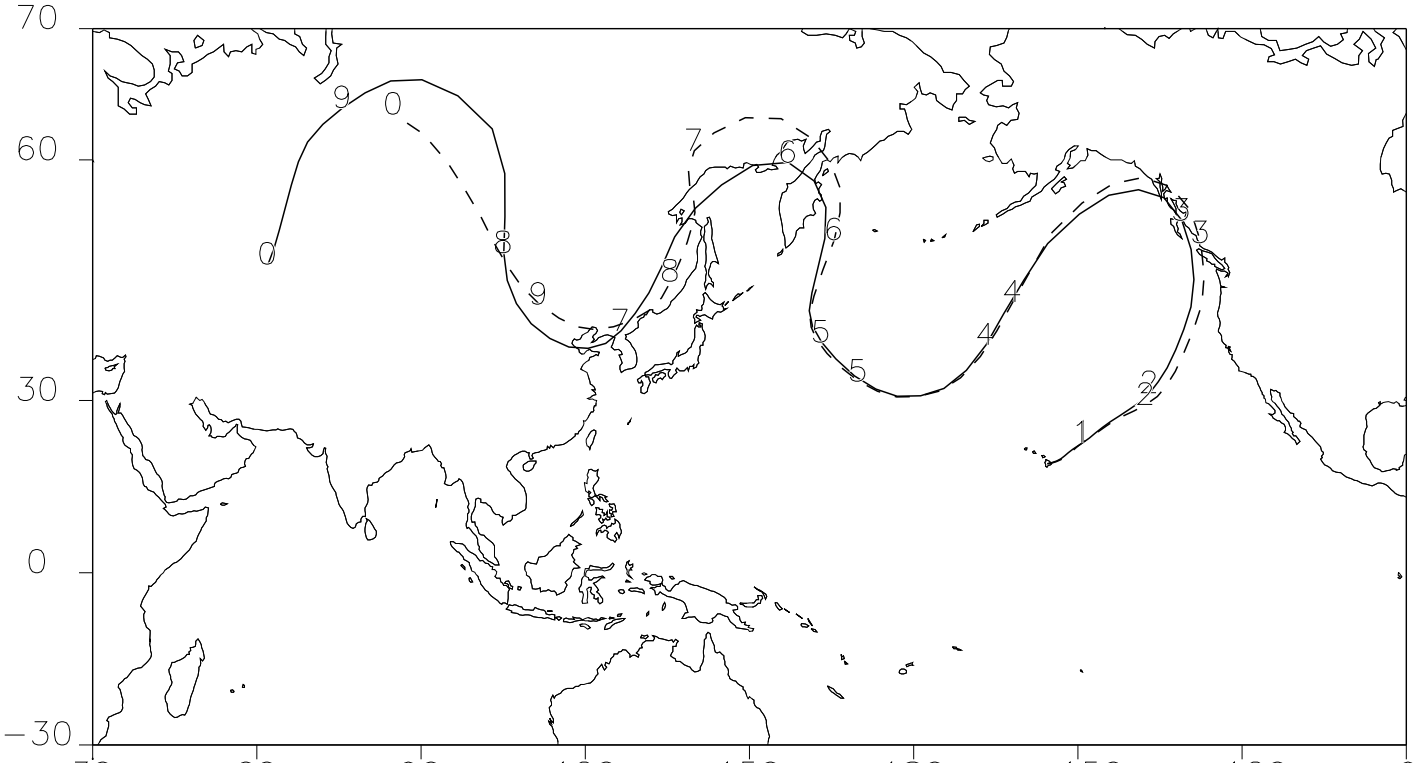
Day	km	hPa	C
0	5.5	525	-3
1	6.7	447	-13
2	8.2	364	-26
3	8.7	339	-30
4	6.7	435	-17
5	4.3	603	1
6	2.6	736	13
7	2.9	709	8
8	3.0	704	7
9	2.3	769	12
10	2.2	782	11

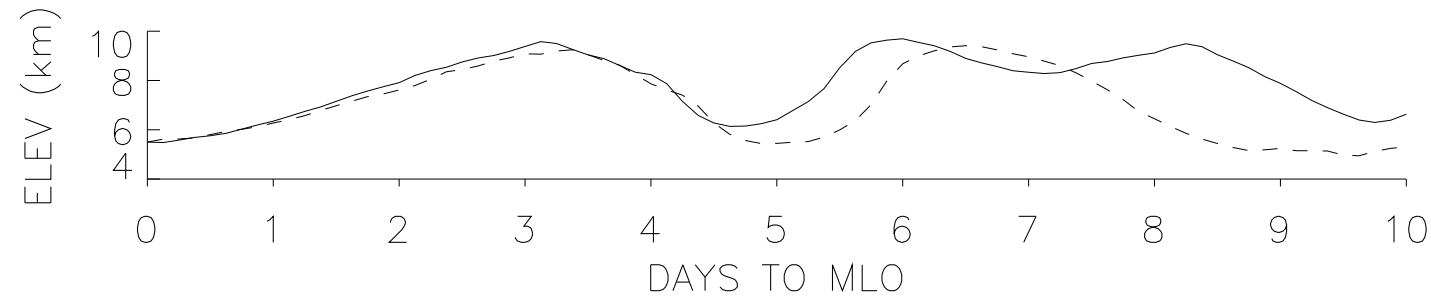
06UT

Day	km	hPa	C
0	5.5	525	-3
1	6.7	450	-14
2	8.3	361	-27
3	9.1	318	-34
4	6.7	434	-18
5	3.9	627	2
6	2.8	722	12
7	3.2	683	5
8	2.4	760	12
9	1.2	881	21
10	0.4	959	26

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

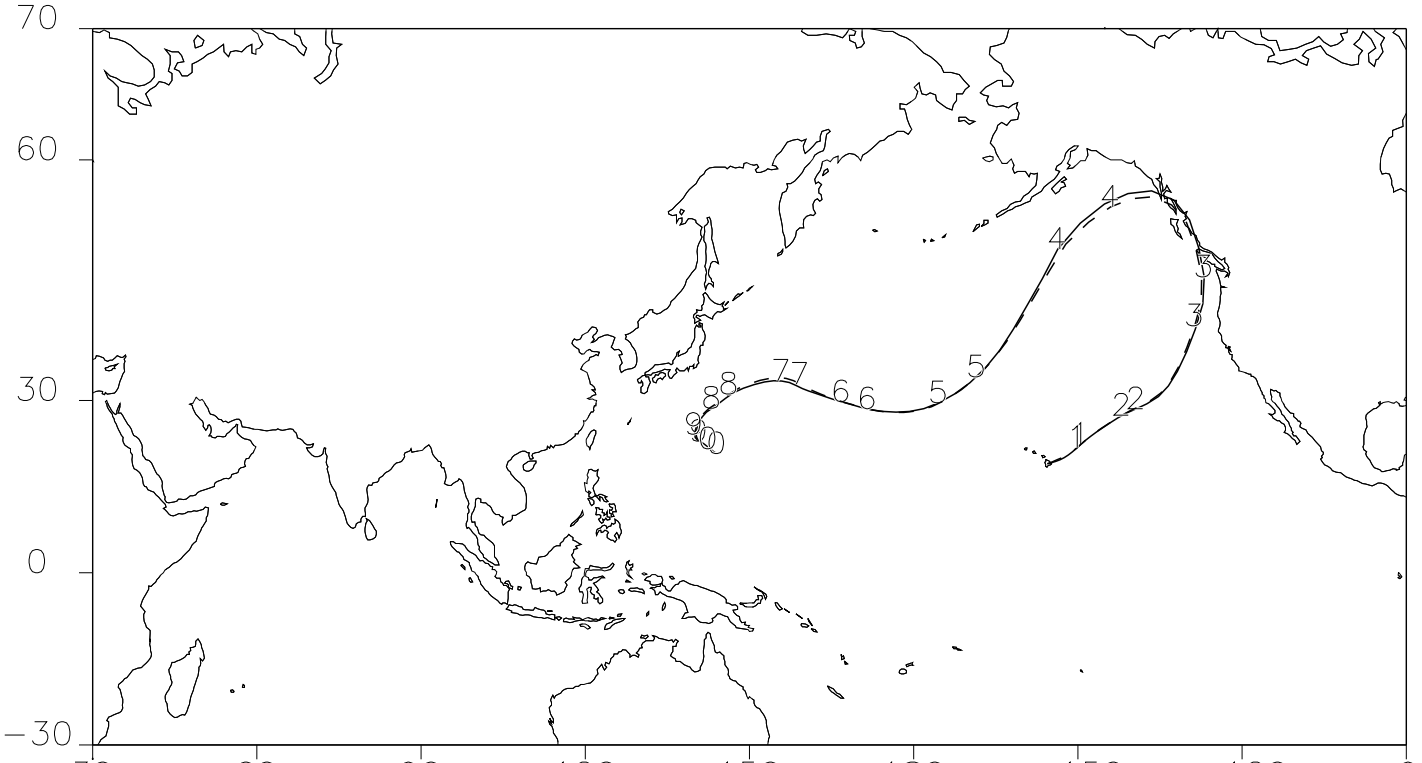
Day	km	hPa	C
0	5.5	524	−4
1	6.3	470	−11
2	7.9	379	−25
3	9.4	301	−39
4	8.2	348	−32
5	6.4	452	−16
6	9.7	281	−51
7	8.3	338	−38
8	9.1	304	−45
9	7.9	366	−33
10	6.6	442	−22

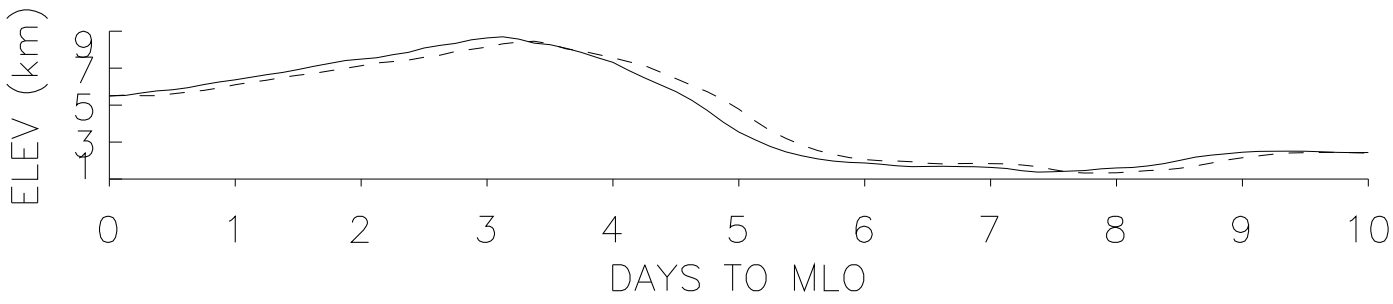
18UT

Day	km	hPa	C
0	5.5	524	−3
1	6.3	476	−10
2	7.6	396	−23
3	9.1	314	−37
4	7.9	365	−31
5	5.4	512	−10
6	8.7	324	−44
7	9.0	307	−48
8	6.4	441	−25
9	5.2	522	−16
10	5.3	523	−14

12UT − solid
18UT − dashed

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





00UT

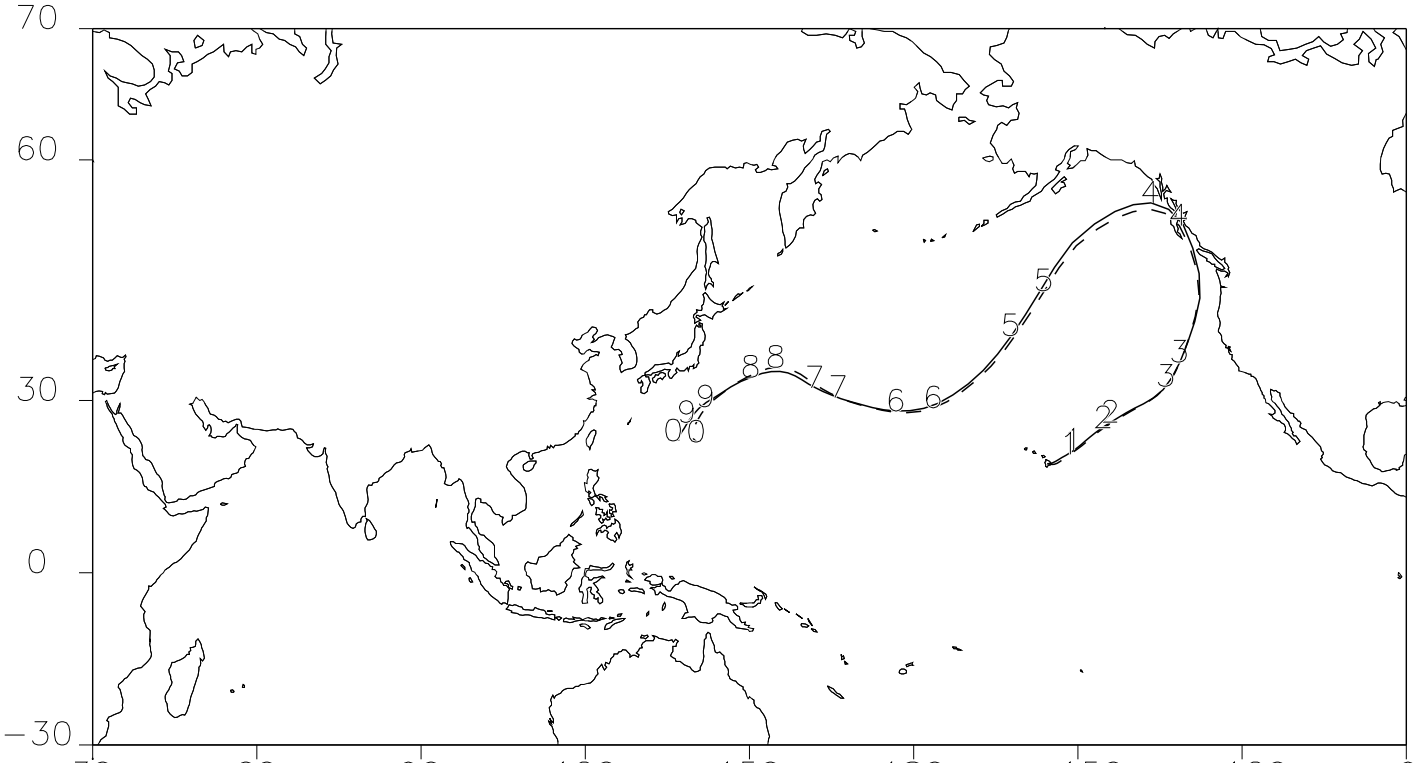
Day	km	hPa	C
0	5.5	524	−3
1	6.4	469	−11
2	7.5	403	−22
3	8.6	337	−33
4	7.3	400	−24
5	3.5	658	1
6	1.9	810	11
7	1.6	836	15
8	1.6	842	19
9	2.4	763	14
10	2.4	766	14

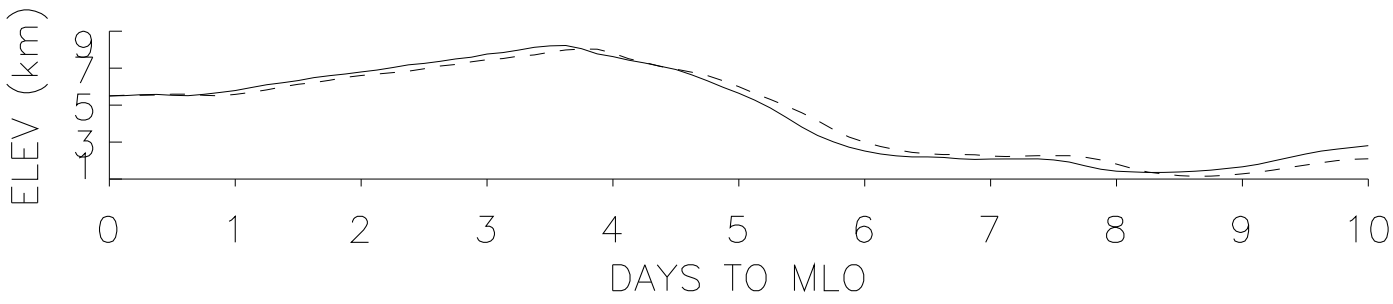
06UT

Day	km	hPa	C
0	5.5	524	−4
1	6.1	486	−8
2	7.1	424	−17
3	8.1	364	−28
4	7.6	389	−24
5	4.8	561	−6
6	2.1	790	10
7	1.8	814	14
8	1.3	865	21
9	2.2	789	16
10	2.4	767	13

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

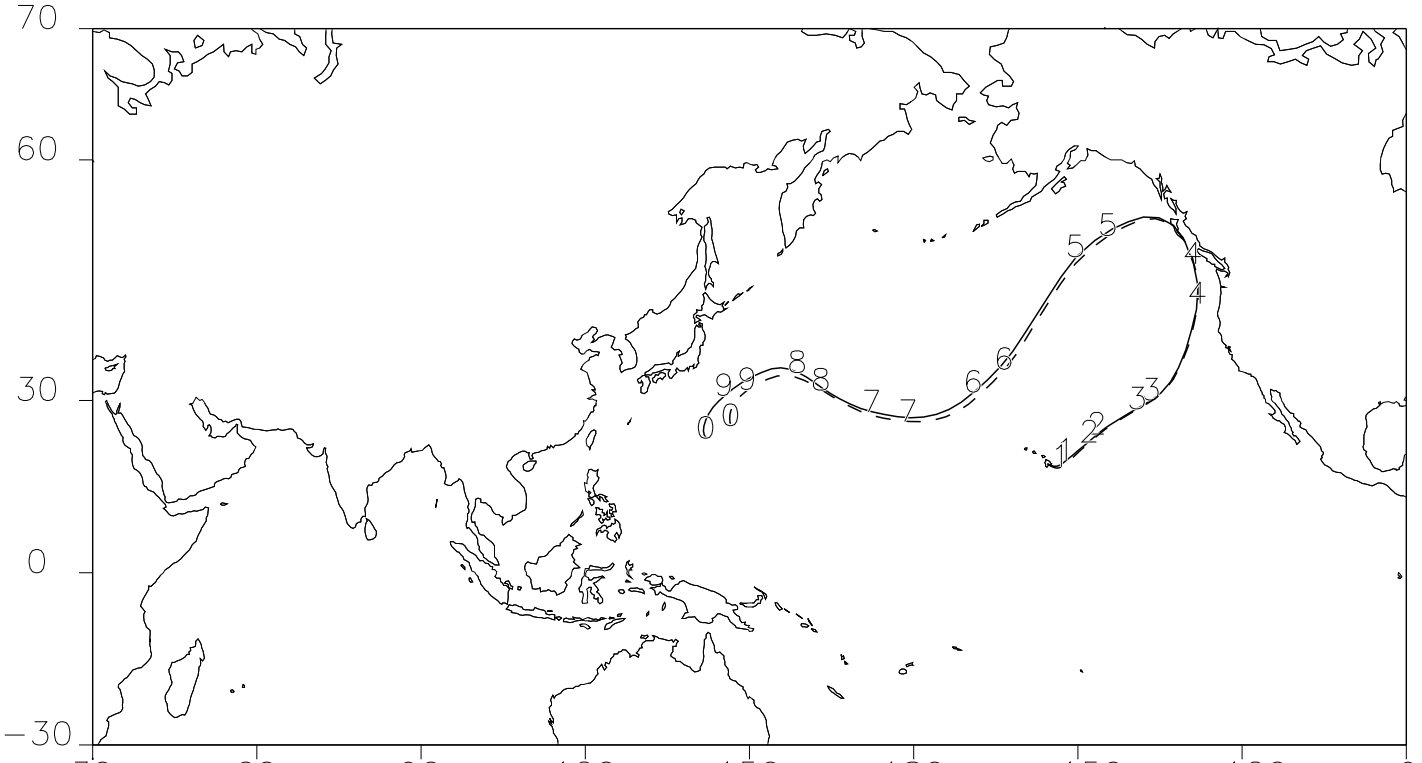
Day	km	hPa	C
0	5.5	523	−4
1	5.8	504	−6
2	6.8	443	−15
3	7.8	384	−24
4	7.6	388	−24
5	5.6	502	−12
6	2.5	747	7
7	2.1	791	13
8	1.4	855	19
9	1.7	835	19
10	2.8	732	12

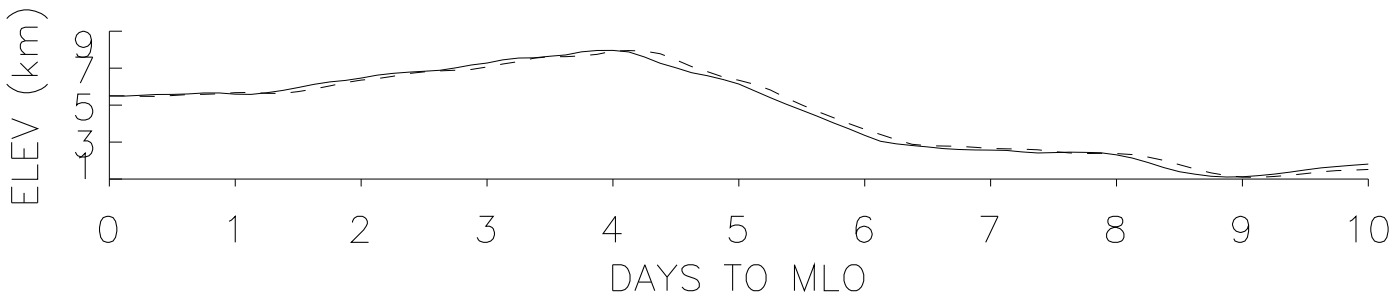
18UT

Day	km	hPa	C
0	5.5	523	−4
1	5.6	519	−4
2	6.6	455	−13
3	7.5	404	−21
4	7.8	379	−25
5	6.0	480	−15
6	3.0	703	4
7	2.2	773	10
8	1.8	815	12
9	1.3	873	19
10	2.1	795	15

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

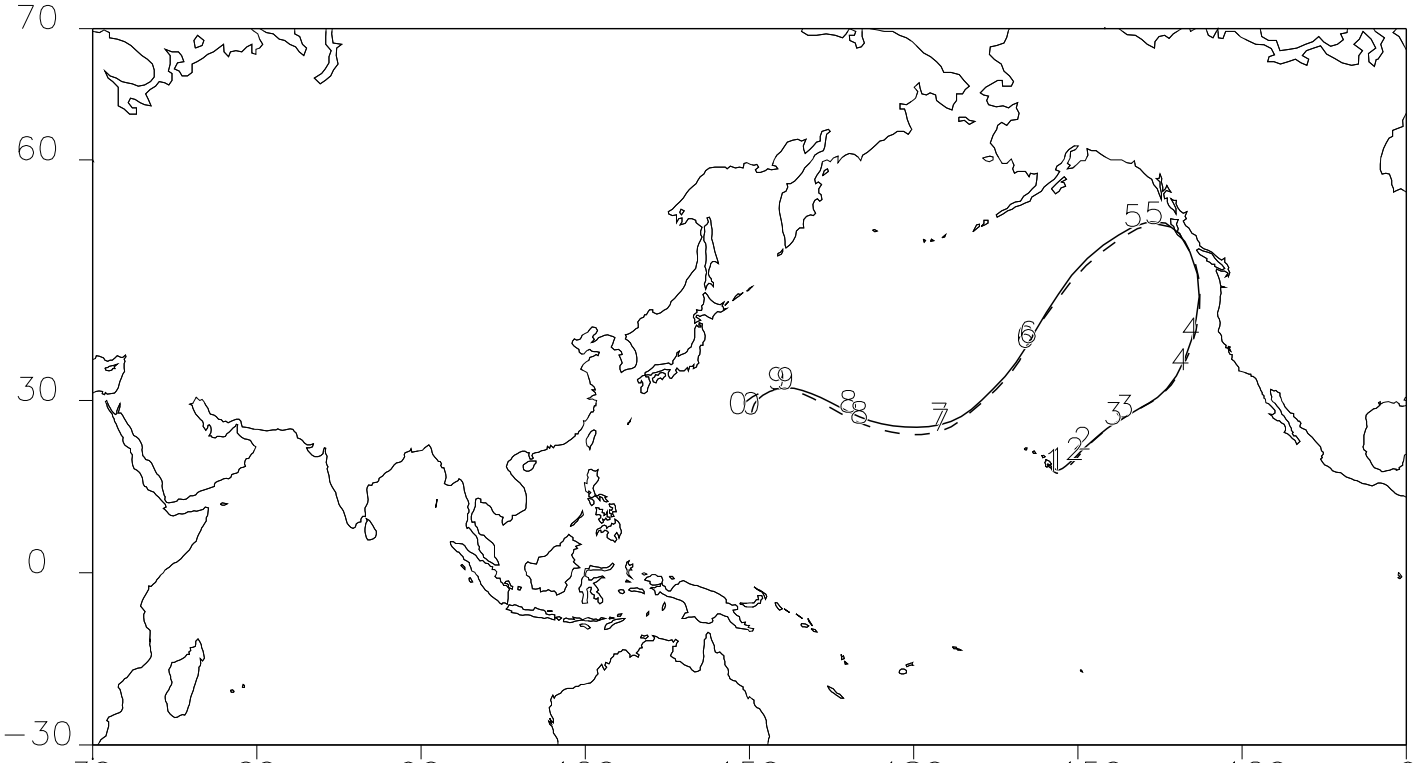
Day	km	hPa	C
0	5.5	523	-4
1	5.6	517	-4
2	6.5	463	-12
3	7.3	415	-20
4	8.0	372	-27
5	6.1	474	-14
6	3.4	675	2
7	2.6	745	9
8	2.3	769	10
9	1.1	889	20
10	1.8	824	16

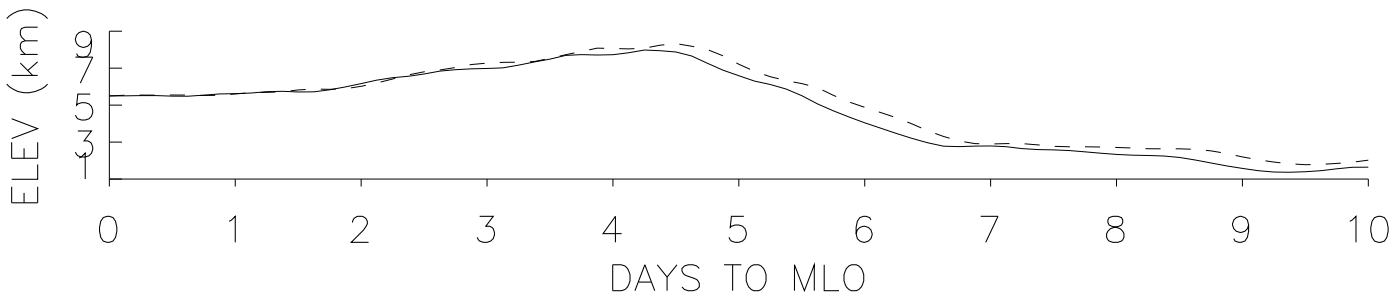
06UT

Day	km	hPa	C
0	5.5	523	-4
1	5.7	512	-5
2	6.4	470	-11
3	7.1	428	-16
4	7.9	375	-26
5	6.3	462	-15
6	3.7	648	2
7	2.7	737	9
8	2.4	762	10
9	1.1	889	20
10	1.5	851	19

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

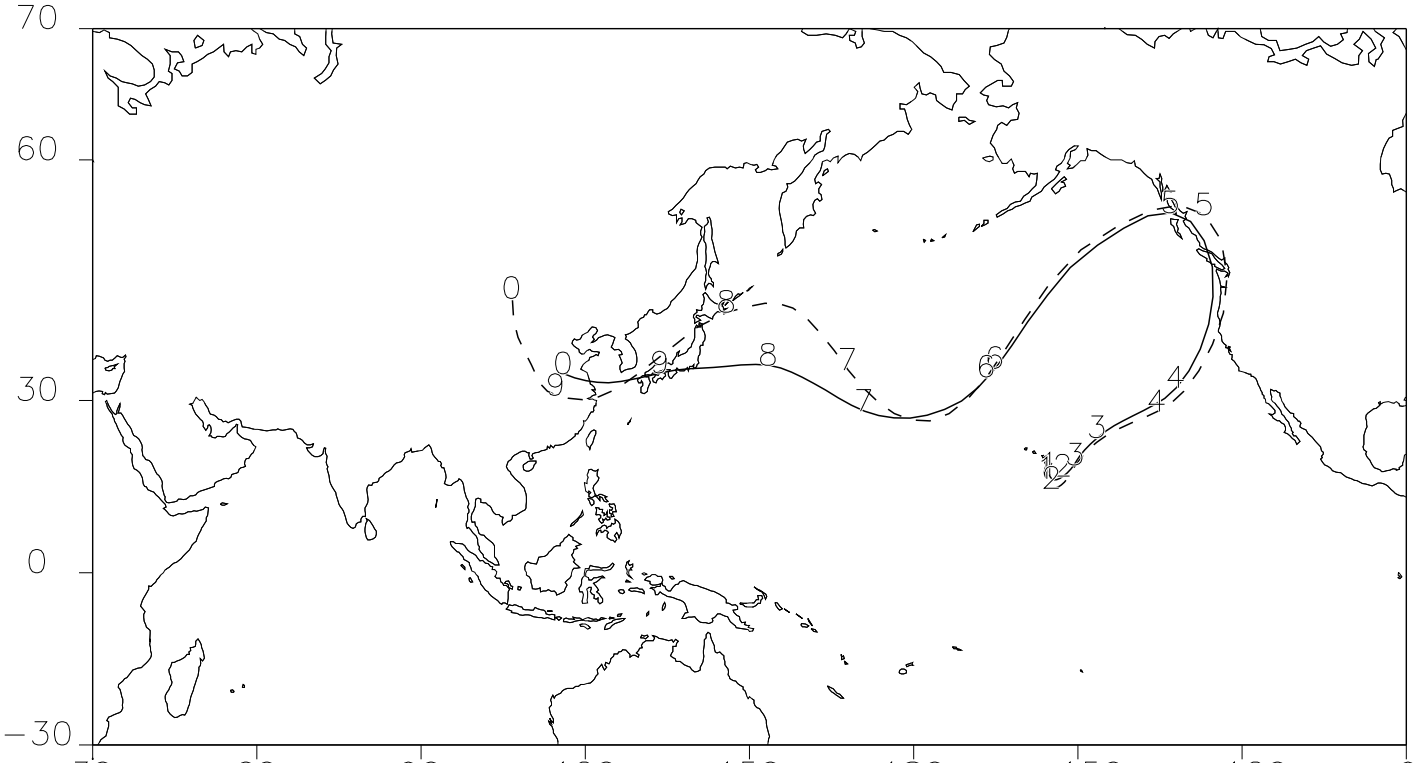
Day	km	hPa	C
0	5.5	523	−5
1	5.6	515	−5
2	6.2	480	−10
3	7.0	432	−17
4	7.7	385	−24
5	6.6	448	−16
6	4.0	622	0
7	2.8	728	8
8	2.3	769	11
9	1.6	844	17
10	1.6	842	18

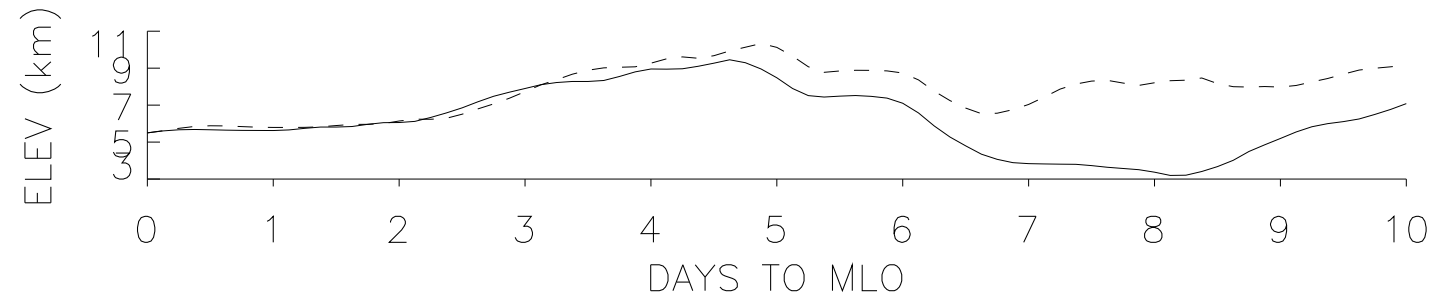
18UT

Day	km	hPa	C
0	5.5	524	−5
1	5.6	516	−5
2	6.0	491	−7
3	7.3	416	−18
4	8.1	370	−25
5	7.2	412	−19
6	4.9	559	−4
7	2.9	719	9
8	2.7	734	10
9	2.2	781	13
10	2.0	803	16

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

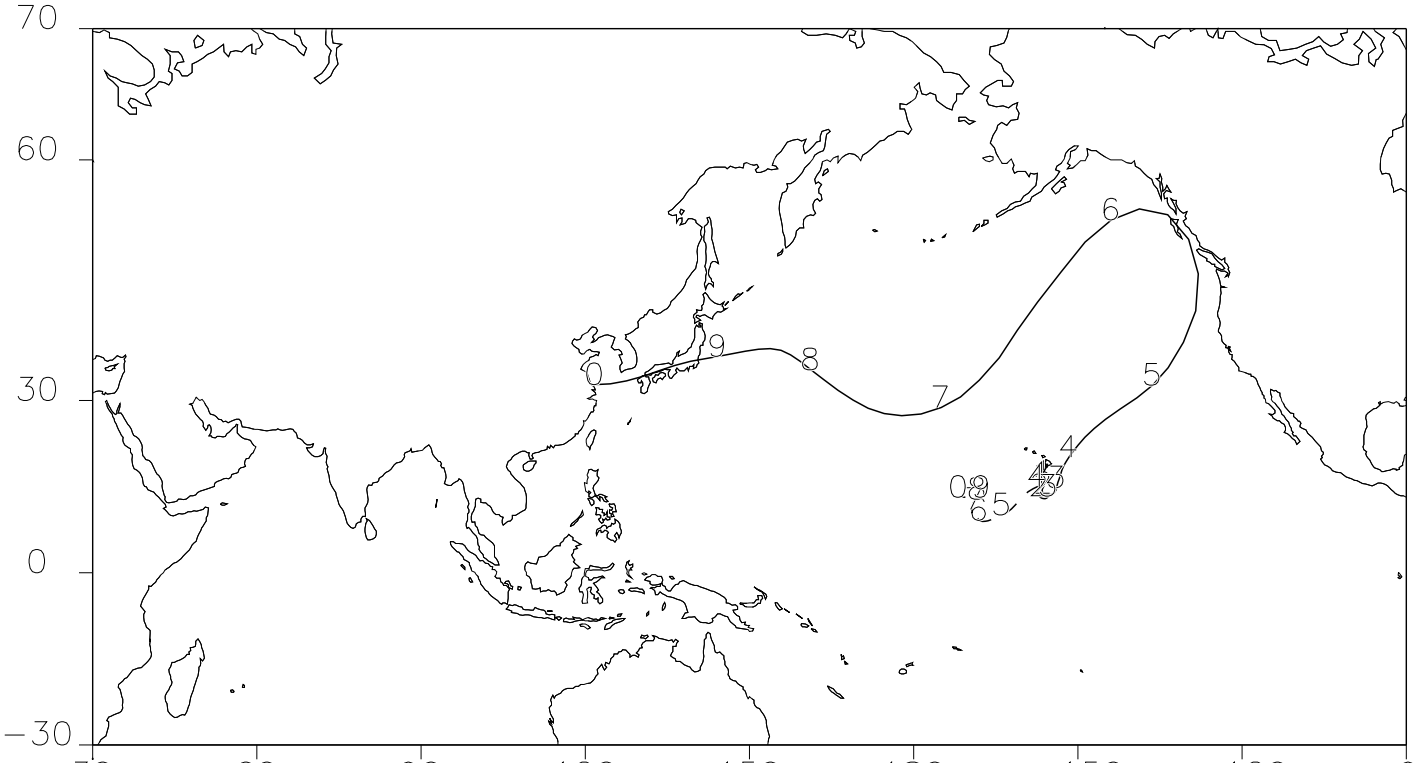
Day	km	hPa	C
0	5.5	524	-5
1	5.6	514	-5
2	6.1	487	-7
3	7.9	382	-23
4	9.0	327	-32
5	8.5	346	-29
6	7.1	416	-19
7	3.8	638	4
8	3.4	674	9
9	5.2	531	-7
10	7.1	413	-25

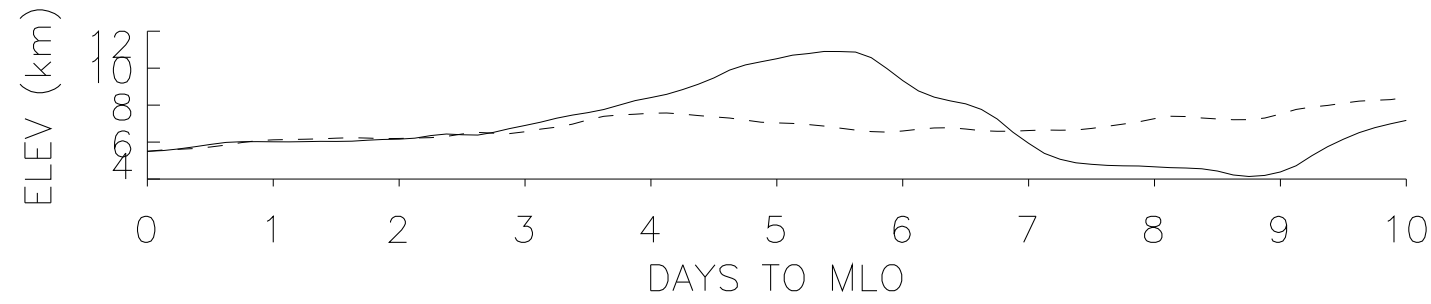
06UT

Day	km	hPa	C
0	5.5	524	-6
1	5.8	504	-6
2	6.1	483	-7
3	7.7	392	-19
4	9.3	315	-34
5	10.1	271	-43
6	8.7	331	-31
7	7.0	418	-17
8	8.2	353	-27
9	8.0	369	-29
10	9.2	306	-43

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

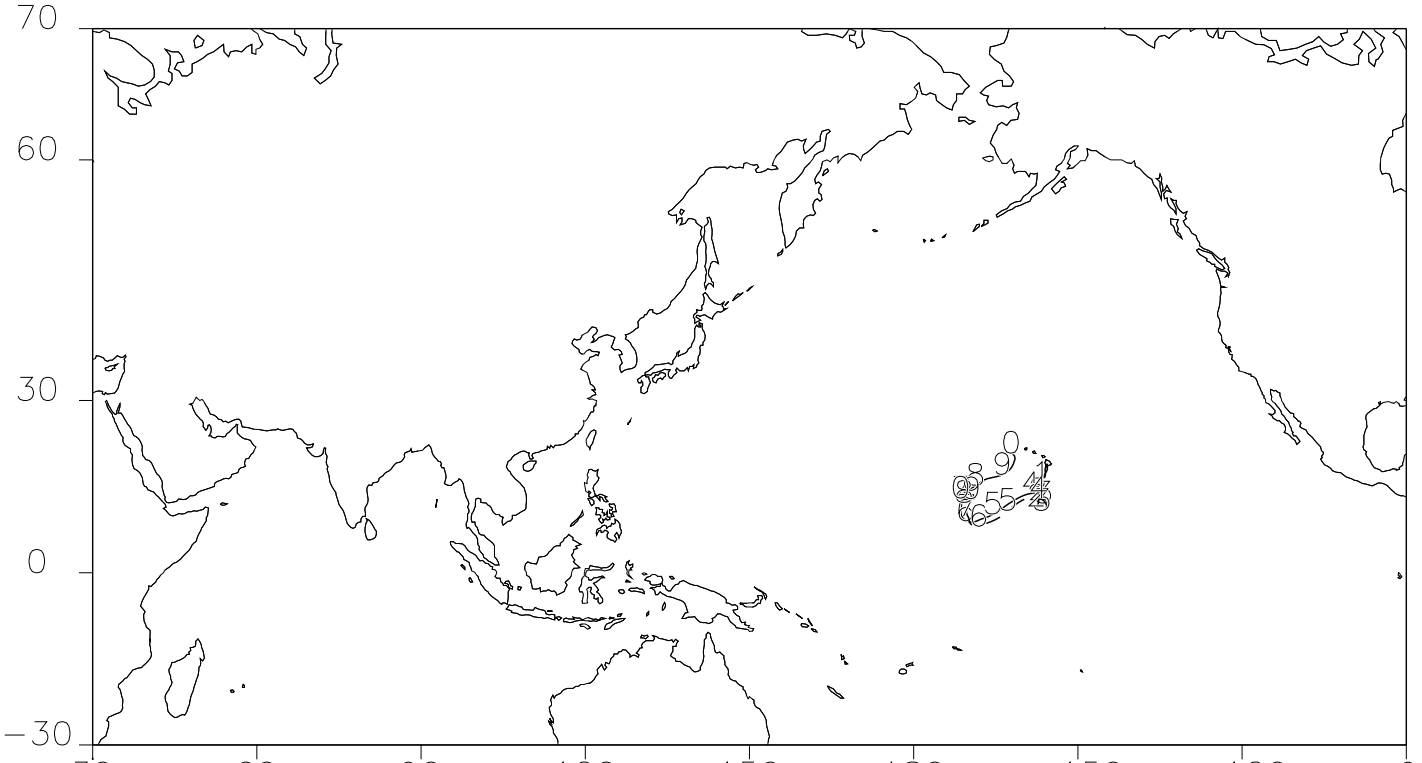
Day	km	hPa	C
0	5.5	524	-6
1	6.0	490	-8
2	6.2	480	-7
3	6.9	437	-12
4	8.4	357	-25
5	10.5	262	-44
6	9.3	305	-33
7	5.9	486	-11
8	4.7	574	0
9	4.4	591	4
10	7.2	409	-24

18UT

Day	km	hPa	C
0	5.5	525	-7
1	6.1	484	-9
2	6.2	478	-8
3	6.6	457	-9
4	7.6	402	-16
5	7.0	430	-13
6	6.6	455	-11
7	6.6	454	-11
8	7.3	418	-14
9	7.5	404	-16
10	8.4	358	-23

12UT – solid
18UT – dashed

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

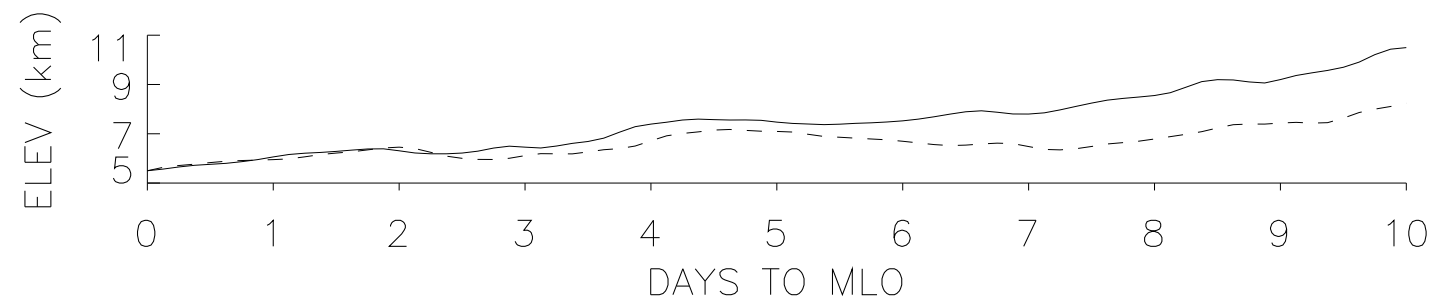


00UT

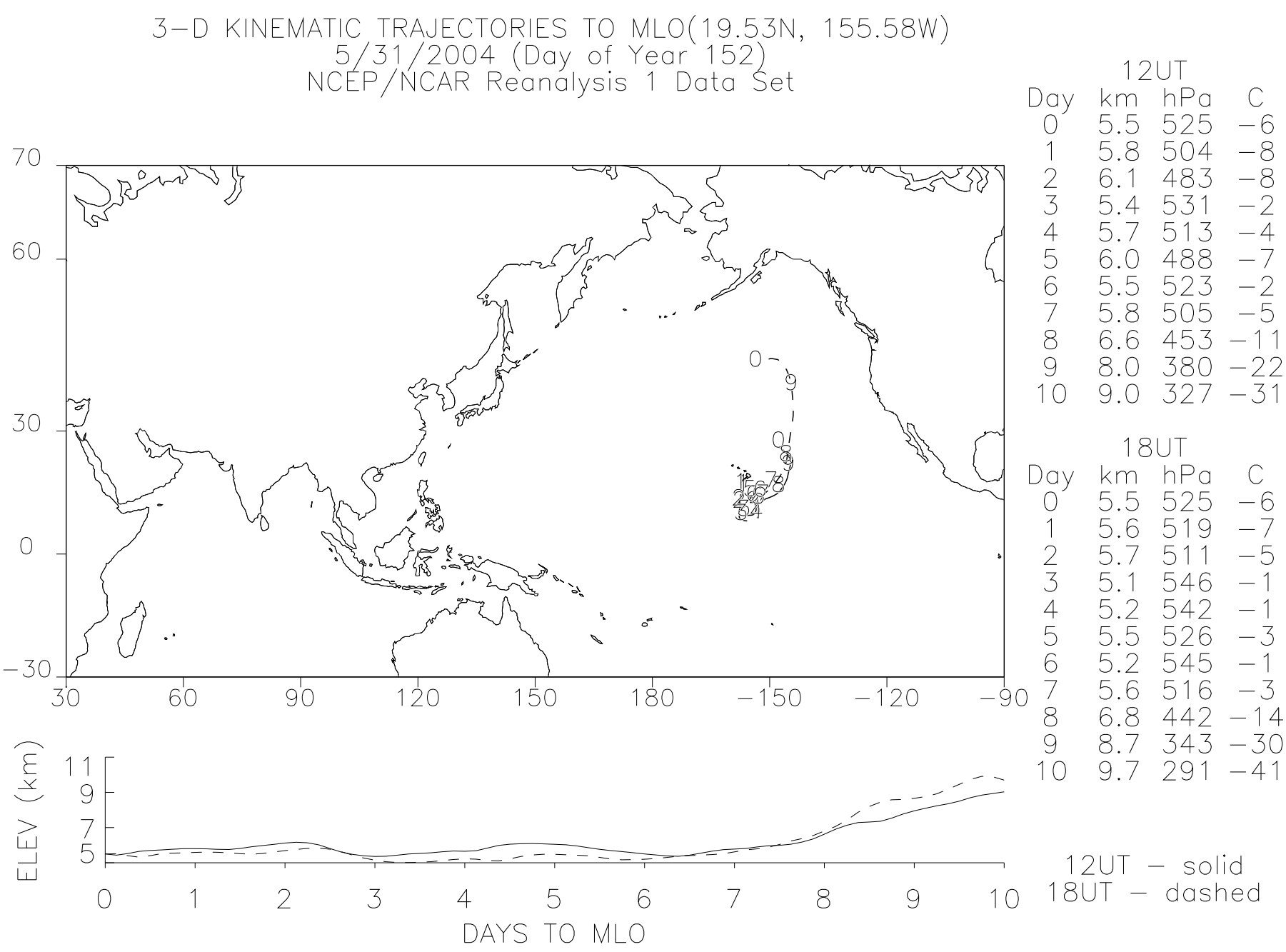
Day	km	hPa	C
0	5.5	525	−6
1	6.1	488	−8
2	6.3	471	−9
3	6.5	463	−8
4	7.4	410	−16
5	7.5	406	−16
6	7.5	403	−17
7	7.8	389	−18
8	8.6	353	−24
9	9.2	322	−30
10	10.5	266	−41

06UT

Day	km	hPa	C
0	5.5	526	−6
1	6.0	495	−8
2	6.5	462	−10
3	6.1	484	−6
4	6.7	449	−10
5	7.1	426	−13
6	6.7	449	−11
7	6.5	462	−10
8	6.8	445	−11
9	7.4	409	−16
10	8.2	366	−22



00UT – solid
06UT – dashed



12UT

Day	km	hPa	C
0	5.5	525	−6
1	5.8	504	−8
2	6.1	483	−8
3	5.4	531	−2
4	5.7	513	−4
5	6.0	488	−7
6	5.5	523	−2
7	5.8	505	−5
8	6.6	453	−11
9	8.0	380	−22
10	9.0	327	−31

18UT

Day	km	hPa	C
0	5.5	525	−6
1	5.6	519	−7
2	5.7	511	−5
3	5.1	546	−1
4	5.2	542	−1
5	5.5	526	−3
6	5.2	545	−1
7	5.6	516	−3
8	6.8	442	−14
9	8.7	343	−30
10	9.7	291	−41

12UT − solid
18UT − dashed