

FROM: PILGRIM NP
TO : YUCCA MOUNTAIN

MA
NV

Leaving : 06/01/04 03:26
Arriving: 06/03/04 03:20

Miles	Hwy	Sign	City	Dir	Junction	State	Dist	Time	Date	Hour
0.0			PILGRIM NP			MA	0.0	0:00	06/01/04	
03:26										
3.7	S3A		PLYMOUTH	SE	S3 X4	MA	3.7	0:05	06/01/04	
03:31										
2.6	S3		PLYMOUTH	W	U44 S3	MA	6.3	0:08	06/01/04	
03:34										
16.4	U44		MIDDLEBOROUGH	W	I495X6	MA	22.6	0:27	06/01/04	
03:53										
42.8	I495		WOODVILLE	E	I495X22	MA	65.5	1:07	06/01/04	
04:33										
0.4	I90	XRAMP	WESTBOROUGH	E	I90 X11A	MA	65.9	1:07	06/01/04	
04:33										
27.7	I90 \$	TMAT\$	STURBRIDGE	NE	I84 I90	MA	93.6	1:33	06/01/04	
04:59										
1.4	I84		STURBRIDGE	N	I84 X3	MA	95.0	1:34	06/01/04	
05:00										
6.6	I84		crossing state border		CT/MA		101.5	1:40	06/01/04	
05:06										
94.1	I84		DANBURY	W	I84 X3	CT	195.6	3:24	06/01/04	
06:50										
3.7	I84		crossing state border		CT/NY		199.3	3:28	06/01/04	
06:54										
29.9	I84		BEACON	N	I84 X11	NY	229.2	3:57	06/01/04	
07:23										
2.4	I84 #		NEWBURGH	N	I84 X10	NY	231.6	3:59	06/01/04	
07:25										
			Rest 30 minutes							
38.2	I84		PORT JERVIS	S	I84 X1	NY	269.9	5:05	06/01/04	
08:31										
0.6	I84		crossing state border		NY/PA		270.5	5:06	06/01/04	
08:32										
49.8	I84		ELMHURST	W	I380I84	PA	320.3	5:52	06/01/04	
09:18										
4.4	I380	I84	DUNMORE	E	I380I81	PA	324.7	5:56	06/01/04	
09:22										
36.6	I81		DRUMS	N	I80 I81	PA	361.3	6:33	06/01/04	
09:59										
			Rest 30 minutes							
254.1	I80		WEST MIDDLESEX	NE	I80 X4	PA	615.4	10:58	06/01/04	
14:24										
4.0	I80		crossing state border		OH/PA		619.4	11:02	06/01/04	
14:28										
17.9	I80		NORTH JACKSON	NE	I76 I80	OH	637.3	11:22	06/01/04	
14:48										
			Rest 30 minutes							
76.0	I80 \$		ELYRIA	NW	I80 I90	OH	713.3	13:15	06/01/04	
16:41										
128.7	I80 \$	I90 \$	WEST JEFFERSON	N	I80 X13	OH	842.0	15:35	06/01/04	
19:01										
13.1	I80 \$	I90 \$	crossing state border		IN/OH		855.1	15:49	06/01/04	
19:15										
			Rest 30 minutes							
135.4	I80 \$	I90 \$	PORTAGE	W	I80 I90	IN	990.4	18:35	06/01/04	
21:01										
0.5	I80		LAKE STATION	NE	I80 I94	IN	990.9	18:35	06/01/04	

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21:01	14.5	I80	I94	HAMMOND	W	I80 X1	IN	1005.4	18:51	06/01/04
21:17	0.9	I80	I94	crossing state border IL/IN				1006.3	18:52	06/01/04
21:18	3.0	I80	I94	LANSING	W	I294I94	IL	1009.2	18:55	06/01/04
21:21	4.9	I294\$	I80 \$	HOMEWOOD	NW	I294I80	IL	1014.2	19:00	06/01/04
21:26				Rest 30 minutes						
	144.5	I80		GREEN ROCK	SE	I74 I80	IL	1158.7	21:38	06/02/04
00:04	9.3	I74		MLI AIRPORT		I280I74	IL	1168.0	22:18	06/02/04
00:44	6.8	I280		ROCK ISLAND	SW	I280X11	IL	1174.8	22:26	06/02/04
00:52	1.4	I280		crossing state border IA/IL				1176.2	22:27	06/02/04
00:53	9.6	I280		DAVENPORT	NW	I280I80	IA	1185.8	22:37	06/02/04
01:03	151.5	I80		DES MOINES	N	I235I35	IA	1337.3	24:57	06/02/04
03:23	14.2	I35	I80	DES MOINES	W	I235I35	IA	1351.5	25:11	06/02/04
03:37				Rest 30 minutes						
	95.7	I80		MINDEN	NW	I680I80	IA	1447.2	27:10	06/02/04
05:36	16.5	I680		LOVELAND	SW	I29 I680	IA	1463.6	27:25	06/02/04
05:51	9.7	I29	I680	CRESCENT	W	I29 I680	IA	1473.4	27:34	06/02/04
06:00	3.0	I680		crossing state border IA/NE				1476.4	27:37	06/02/04
06:03	13.4	I680		OMAHA	SW	I680I80	NE	1489.8	27:51	06/02/04
06:17				Rest 30 minutes						
	422.7	I80		KIMBALL	S	I80 X20	NE	1912.4	34:01	06/02/04
11:27	20.6	I80		crossing state border NE/WY				1933.0	34:17	06/02/04
11:43				Rest 30 minutes						
	382.4	I80		EVANSTON	NE	I80 X18	WY	2315.4	40:23	06/02/04
17:49	18.2	I80		crossing state border UT/WY				2333.5	40:38	06/02/04
18:04	68.4	I80		HOLLADAY	N	I215I80	UT	2401.9	41:32	06/02/04
18:58	10.2	I215		MIDVALE		I15 I215	UT	2412.1	41:42	06/02/04
19:08				Rest 30 minutes						
	294.2	I15		SGU AIRPORT		I15 X6	UT	2706.4	46:11	06/02/04
23:37	6.4	I15		crossing state border AZ/UT				2712.8	46:16	06/02/04
23:42	20.6	I15		LITTLEFIELD		I15 X8	AZ	2733.4	46:32	06/02/04
22:58	8.6	I15		crossing state border AZ/NV				2742.0	46:39	06/02/04
23:05				Rest 30 minutes						
	73.6	I15		N LAS VEGAS	NE	I15 S215	NV	2815.6	48:09	06/03/04
00:35	14.8	S215		LAS VEGAS	NW	U95 S215	NV	2830.4	48:53	06/03/04

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01:19
 46.1 U95 MERCURY S U95 LOCL NV 2876.5 49:40 06/03/04
 02:06
 33.1 LOCAL YUCCA MOUNTAIN NV 2909.5 50:54 06/03/04
 03:20

Total elapsed time: 50:54
 Total trip mileage: 2909.5 Impedance: 6028.7

Routing parameters used to calculate the route-

Routing type: HRCQ Preferred Route with 2 driver(s)
 Preferred roads Time bias: 1.00 Mile bias: 0.00, Toll bias: 1.00
 Nonpreferred roads Time bias: 0.00 Mile bias: 1.00, Toll bias: 1.00, Penalty factor: 30.0

Constraints used on route:

Prohibit use of links prohibiting truck use
 Prohibit use of ferry crossing

Links Blocked:

H 321200227 1 N LAS VEGAS N I15 X48 , NV N LAS VEGAS NE I15
 S215, NV
 H 321200227 -1 N LAS VEGAS NE I15 S215, NV N LAS VEGAS N I15 X48
 , NV
 H 321200245 1 LAS VEGAS S I15 I215, NV PARADISE SW I15 X37
 , NV
 H 321200245 -1 PARADISE SW I15 X37 , NV LAS VEGAS S I15
 I215, NV

State Mileage:

AZ: 29.2 CT: 97.8 IA: 300.2 IL: 169.9 IN: 151.2 MA: 101.5
 NE: 456.6 NV: 167.5 NY: 71.2 OH: 235.7 PA: 348.9
 UT: 379.2 WY: 400.5

Mileage by Sign Type:

1-INTERSTATE: 2793.0 2-US: 62.5 3-STATE: 21.0
 6-LOCAL: 33.1

Mileage by Lane Type:

1-Multi-Lane Controlled Access: 2795.5 3-Multi-Lane Divided Highway:
 46.1
 5-Principle Road: 31.2
 6-Through Road: 3.7
 7-Other: 33.1

Mileage within Tribal Lands:

Outside Tribal Lands : 2895.6
 Cedar City Reservation : 1.4 Kanosh Reservation
 : 0.5
 Las Vegas Colony : 2.8 Moapa River Reservation
 : 9.2

Mileage within Nevada Counties:

Clark: 130.1 Nye: 37.4

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POPULATION DENSITY within 800 meter Buffer Zone:
 FROM: PILGRIM NP MA
 TO : YUCCA MOUNTAIN NV

ST	MILES	0	>0.0	22.7	59.7	139	326	821	1861	3326	5815
>9996			-22.7	-59.7	-139	-326	-821	-1861	-3326	-5815	-9996

AZ	29.2	16.21	10.81	1.58	0.33	0.13	0.21	0.00	0.00	0.00	0.00
CT	97.8	0.84	3.17	6.51	11.17	14.89	17.85	18.78	11.05	6.77	4.00
IL	169.9	20.49	37.06	30.19	25.64	18.89	14.12	10.91	5.92	3.91	2.30
IN	151.2	1.73	19.97	37.40	25.85	28.69	17.16	8.92	5.71	3.55	1.89
IA	300.2	26.40	71.62	91.20	51.29	24.67	17.99	10.28	3.79	2.22	0.59
MA	101.5	1.10	2.97	10.56	16.41	22.30	24.12	15.29	5.89	2.64	0.31
NE	456.6	167.07	80.87	107.72	49.64	24.69	10.77	7.27	4.24	2.75	1.02
NV	167.5	108.64	21.20	17.69	9.50	3.95	3.63	1.23	0.76	0.52	0.40
NY	71.2	4.42	8.91	9.27	9.66	10.39	10.26	10.94	4.52	2.20	0.46
OH	235.7	5.72	33.46	51.15	42.00	37.13	29.21	17.55	10.23	6.65	1.89
PA	348.9	31.84	70.84	69.95	65.58	49.24	36.12	16.14	5.12	2.54	1.22
UT	379.2	117.87	69.94	66.59	38.46	23.83	17.47	14.45	10.59	10.40	8.11
WY	400.5	207.08	105.56	52.54	12.14	6.48	6.02	4.33	4.26	1.86	0.22

TOTALS
 2909.5 709.41 536.38 552.35 357.67 265.28 204.93 136.09 72.08 46.01 22.41
 6.98
 PERCENTAGES
 24.38 18.43 18.98 12.29 9.12 7.04 4.68 2.48 1.58 0.77
 0.24

BASIS: 2000 Census data

RADTRAN Input Data	RURAL	SUBURBAN	URBAN
WEIGHTED POPULATION			
People/sq. mi.	30.5	808.8	6156.9
People/sq. km.	11.8	312.3	2377.2

DISTANCE				TOTALS
Miles	2155.8	678.4	75.4	2909.5
Kilometers	3469.3	1091.7	121.3	4682.3
Percentages	74.1	23.3	2.6	

BASIS (people/sq mi.) <139 139-3326 >3326

Population within 800 meter Buffer Zone by State:

AZ 287	CT 150349	IL 78442	IN 79041	IA 56670	MA 58906	NE 59486	NV 12582
NY 44216	OH 123201	PA 82185	UT 159595	WY 32573			

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Total Population within 800 meter Buffer Zone: 937533