

Monitoring Elf Owls In and Near Saguaro National Park, 2000-2001

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and
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Introduction

Few endeavors will prove as valuable for guiding future decision about natural resources and conservation planning as will carefully designed population monitoring programs (Swann 1999, Steidl *In press*). Further, assessing natural and anthropogenic effects on natural resources depends fundamentally on reliable information about trends in those resources over time and space. Monitoring also can provide information needed to estimate the effects of unplanned perturbations or management manipulations.

One of the many decisions involved in the design of monitoring programs involves choosing an appropriate target species. Ideally, species with high densities and high detectabilities are preferred because collecting sufficient information on these species is easier and they respond quickly to environmental changes (Steidl *In press*). However, sampling variation for these species, which are typically small and short-lived, is higher than for larger, longer-lived species (Gibbs et al. 1998). Consequently, elf owls (*Micrathene whitneyi*) are an ideal candidate. They are the most abundant raptor in upland deserts of Arizona and Sonora, Mexico (Henry and Gehlbach 1999), are relatively easy to census, and possess other features that make them excellent candidates for monitoring. Further, because they are high trophic-level predators, their populations likely reflect changes to the system they inhabit. Lastly, in some regions of their range they are classified as endangered (White 1994), so assessing the status of their populations elsewhere may prove crucial to their continued persistence throughout their range.

In 2000, I initiated an effort to monitor populations of elf owls in southern Arizona, specifically in and near Saguaro National Park. Saguaro Park offers a history of research on elf owls (Goad and Mannan 1987, Boal and Bibles 2001) in a range of areas inhabited by the owls that are reasonably accessible to researchers. Further, several areas adjoining Saguaro National Park are threatened by development pressures. Establishing monitoring plots in the park and in these adjacent areas will provide an opportunity to understand the effects of these impacts on vertebrates and to provide an opportunity to educate Park visitors on the far-reaching effects of land-management decisions.

My objectives include establishing a long-term population-level monitoring program for elf owls that will allow quantitative assessment of their status and trends; assessing density and demographics in several different subpopulations; assessing the influence of land-use changes on elf owls by monitoring adjacent lands slated for development; and providing information about elf owls that can be used to develop educational opportunities for Park visitors.

Methods

I installed four 4.5-km transects, each with 18-19 survey points spaced at 250 m intervals, two in the Park near the eastern end of Speedway Boulevard (Speedway, Wentworth), one in the Expansion Unit of the Park (Expansion), and one adjacent to the park on the privately owned Rocking K ranch (Rocking K) (Appendix 1, Maps 1 and 2). In 2000, I surveyed each transect two or three times, once each month after they were installed, between May to July. In 2001, I surveyed each transect three times, once each month from April to June.

Beginning 30 minutes after sunset, I traversed each transect stopping at each station for approximately 10 minutes. During the first 1-2 minutes, I counted the number of owls vocalizing without solicitation, then I played a tape-recorded conspecific vocalization for the next 45 seconds, then listened for the next 5-8 minutes, counting the number of additional individuals responding. For each owl detected, I estimate its distance to the survey point and recorded the direction from which the owl responded.

Results and Discussion

I detected (mean $\pm$ SE) 2.42 ± 0.09 owls per survey point in 2000 ($n = 199$ survey points) and 2.60 ± 0.09 owls per survey point in 2001 ($n = 216$ survey points). I found no difference in number of owls detected per point between years ($F_{1,407} = 2.14$, $P = 0.14$), which averaged 2.51 ± 0.06 ($n = 415$) owls per survey point for both years combined (Figure 1). This estimate compares favorably with the actual density of 2.2 pairs/ km² recorded previously in Saguaro Park (Goad and Mannan 1987) and that reported for other areas of southern Arizona, which ranged from 2.4 pairs/ km² in the Chiricahua and Huachuca Mountains (Henry and Gehlbach 1999) and 2.7 pairs/ km² in the Santa Catalina, Pinaleno, and Huachuca Mountains in the 1950's (Marshall 1957). Detection in Saguaro Park are nearly four times that recorded on the Goldwater Air Force Range, Arizona, which ranged from 0.65 ± 0.06 to 0.71 ± 0.08 between 1994 and 1996 (Hardy et al. 1999).

For all routes and both years combined, an average of 1.06 ± 0.05 owls per point were vocalizing prior to broadcasting the conspecific recording, which represented 42% of the owls that responded after the solicitation (Figure 2). The number of owls per point that were vocalizing prior to broadcast was highest in May (1.25 ± 0.05 , $n = 73$), intermediate in May (1.13 ± 0.09 , $n = 127$) and June (1.05 ± 0.09 , $n = 145$), and lowest in July (0.75 ± 0.05 , $n = 73$).

There were differences in owl responses among survey transects ($F_{3,407} = 7.01$, $P = 0.0001$), with the highest detection rate along the Speedway transect and the lowest along the Rocking K transects (Table 1). Recognizing existing differences among areas is important, because each route will serve as its own baseline for assessing future trends in owl responses in these areas.

There were differences in owl responses among months ($F_{3,407} = 14.49$, $P < 0.0001$), which did not differ appreciably between years (year x month interaction: $F_{3,407} = 4.21$, $P = 0.10$). Owls responded most frequently in April and May and less so thereafter (Figure 1). The number of owls detected per survey point varied from a low of 1.33 ± 0.28 to a high of 3.63 ± 0.17 across all areas and months. Although a similar pattern in

intra-annual variation in owl responses had been described before in Saguaro Park (Boal and Bibles (2001), estimates from that study (interpolated from a figure) were considerably lower than what I recorded, and ranged from a high of 2.4 ± 0.1 responses in April and a low of 0.4 ± 0.1 in June.

Although I believe this seasonal reduction in owl responses reflected a genuine reduction in calling frequency, insect noise also increases later in the season and makes detecting the furthest individuals somewhat more difficult. Both of these factors suggest that surveys are most productive early in the nesting season (April and May) when owls are most vocal and therefore are most likely to be detected.

The distance from responding owls to the survey point averaged 182.2 ± 3.50 m ($n = 1061$).

Future Work

I plan to continue surveys in these four areas into the foreseeable future as well as to continue to expand the demographic aspects of this research when time and resources permit.

Acknowledgments

This work was supported by the Southwestern Parks and Monument Association and I appreciate their willingness to allow time to continue this work longer than anticipated. I appreciate the field assistance of Janis Koscielniak in 2000, and the continued support of Don Swann and Natasha Kline of the National Park Service.

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Table 1. Mean ($\pm$ SE) number of elf owls vocalizing and responding to playbacks per survey point (detections) by route, for months and years combined.

Area	No. Survey Points	Mean	SE
Expansion	108	2.56	0.12
Rocking K	108	2.09	0.13
Speedway	109	2.80	0.12
Wentworth	90	2.61	0.14

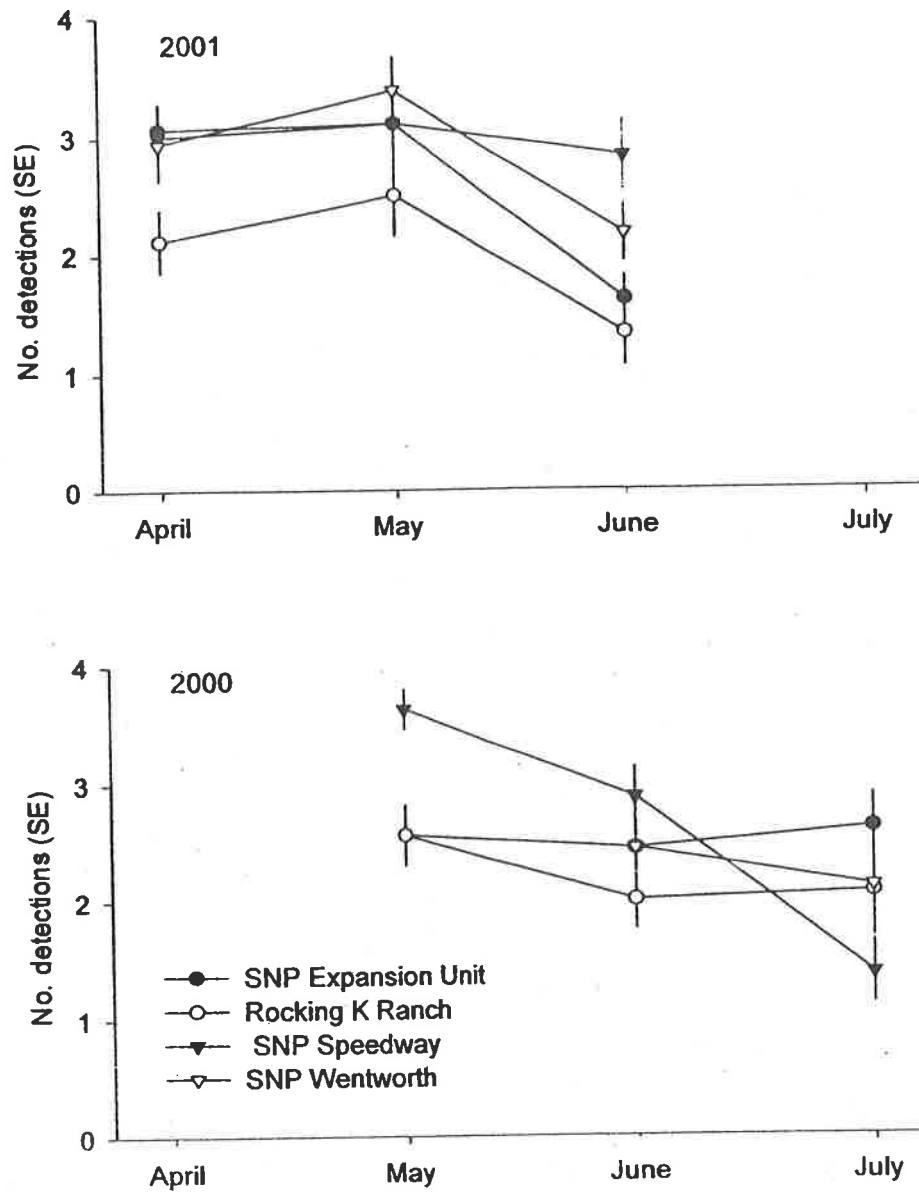


Figure 1. Number of detections of elf owls per station (mean $\pm$ SE) in and near Saguaro National Park, 2000 and 2001.

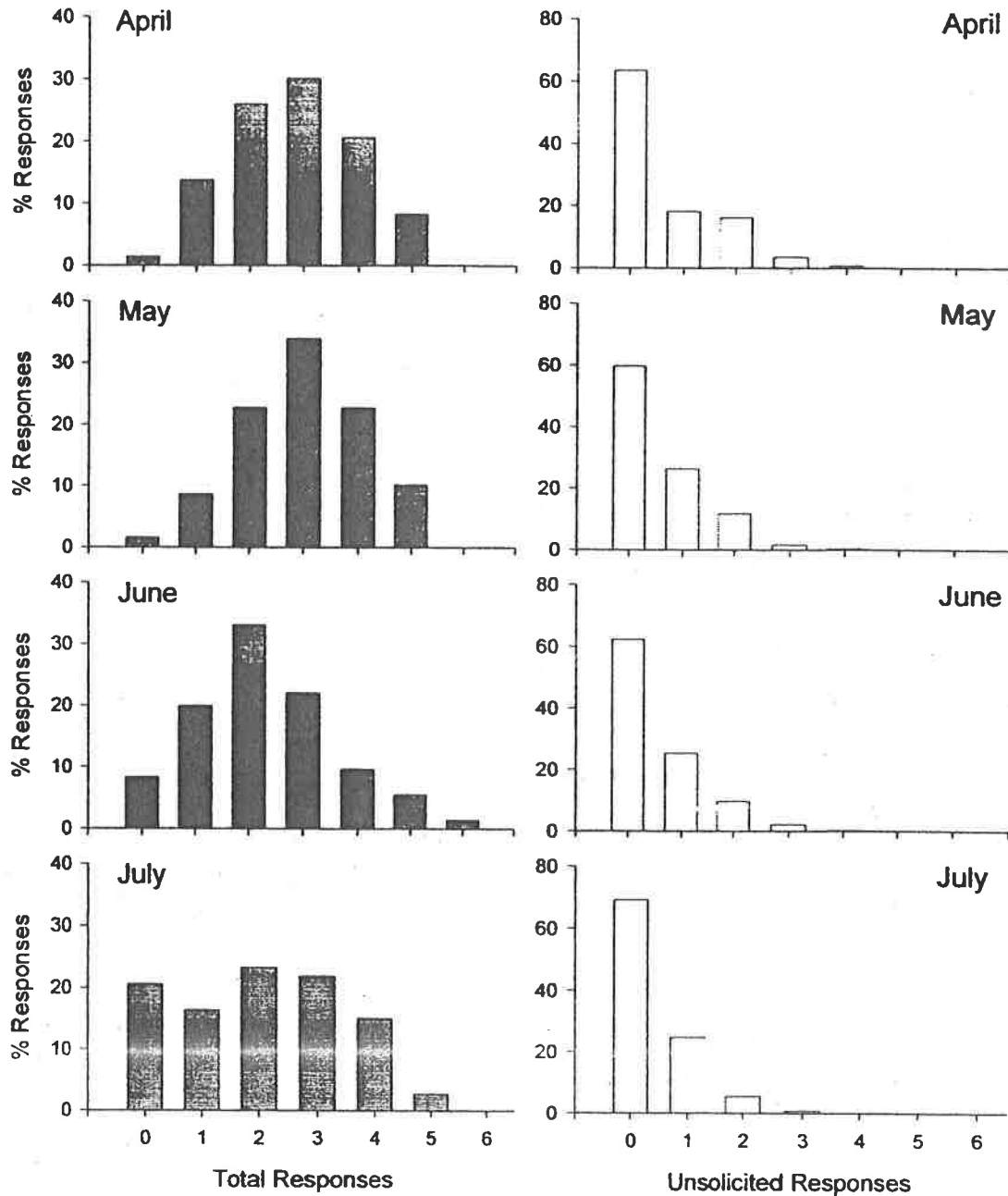
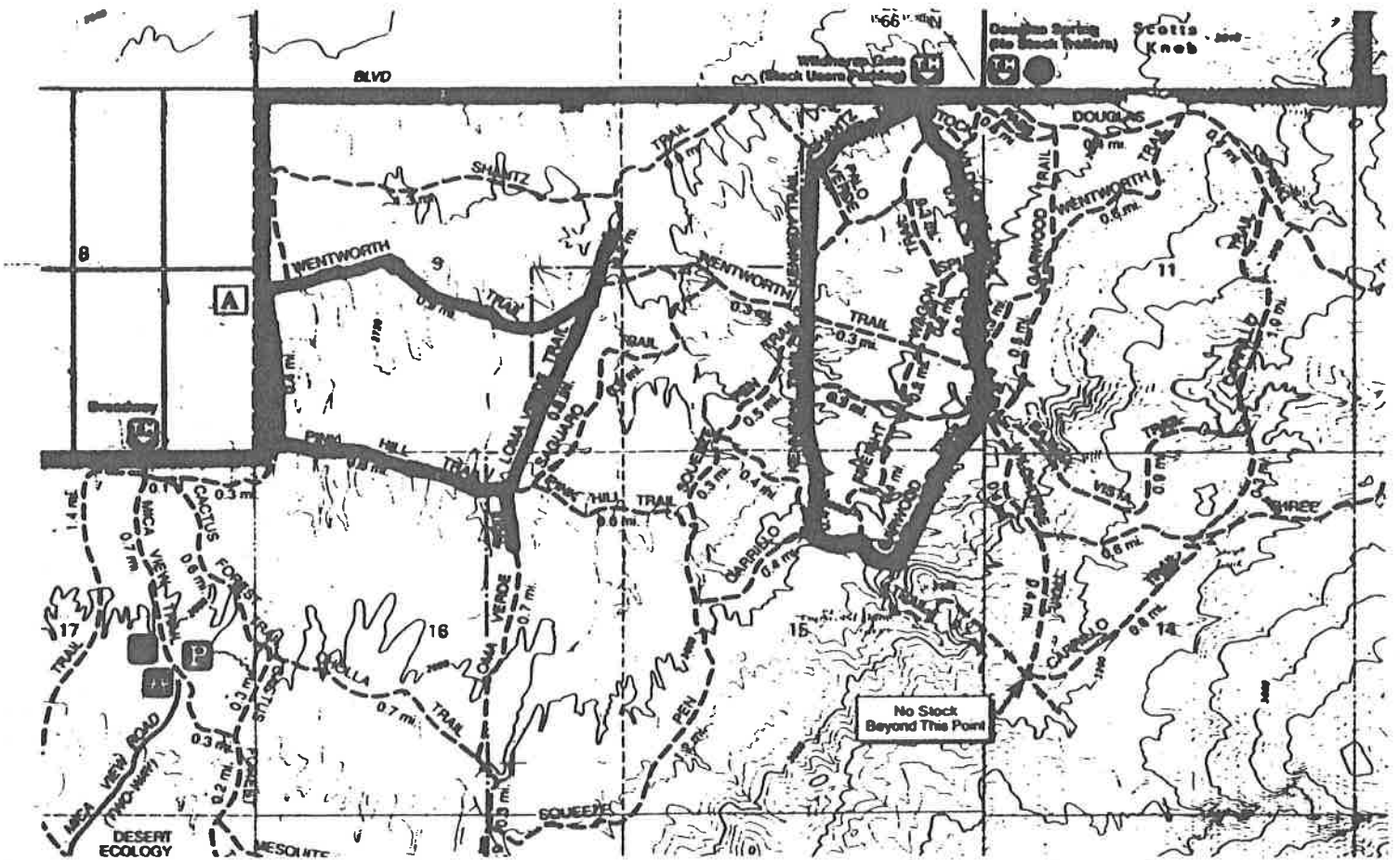


Figure 2. Distribution of total number of elf owl detections (gray) and number of unsolicited detections per point (white) in and near Saguaro Park, 2001.

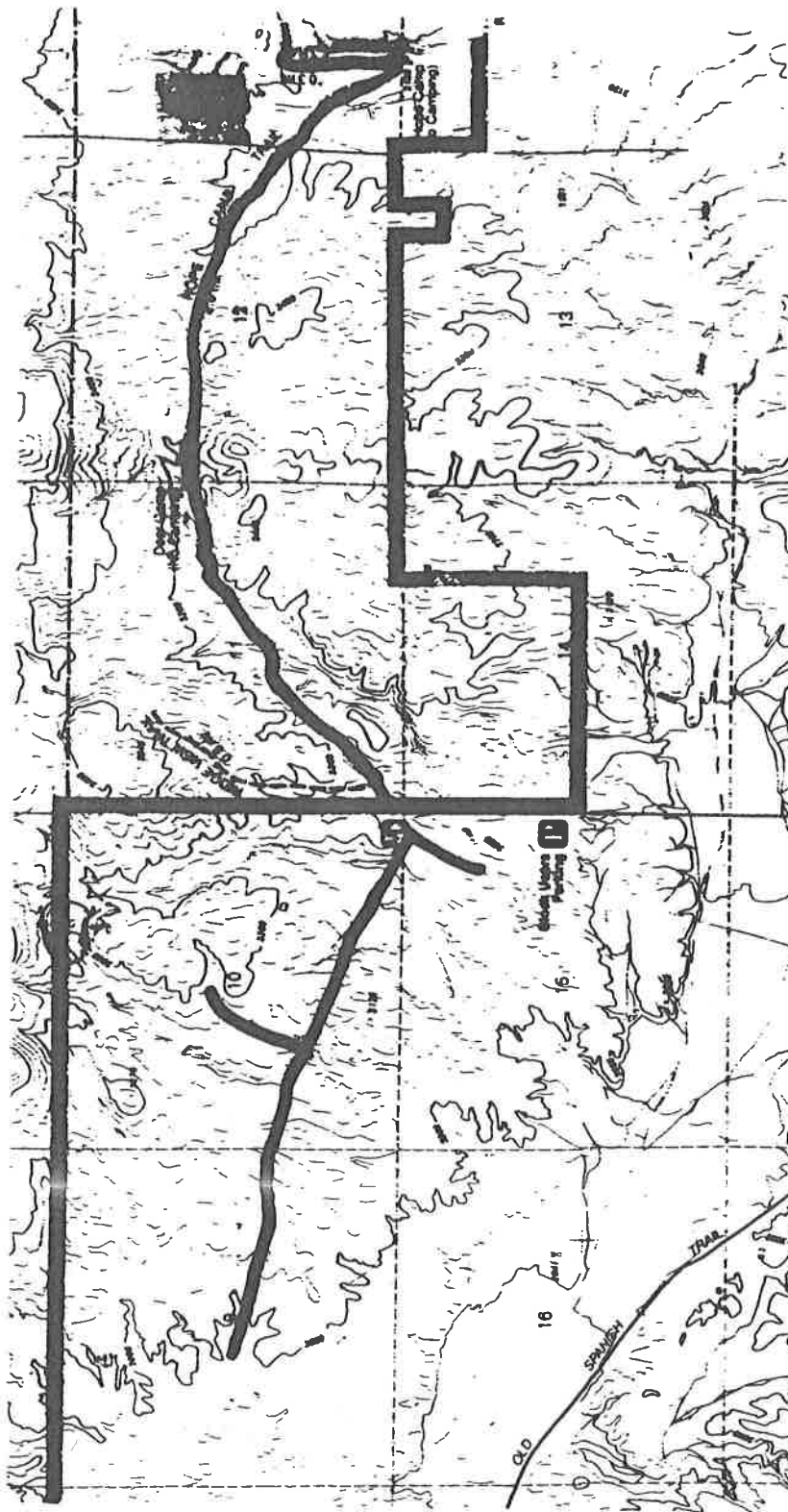
Appendix I. UTM locations for survey points on four elf-owl survey routes (WGS 84 base).

Route	Station	Easting	Northing	Route	Station	Easting	Northing
Expansion	1	529692	3555412	Speedway	1	529314	3566288
	2	529875	3555617		2	529369	3566077
	3	530093	3555866		3	529375	3565830
	4	530357	3555996		4	529438	3565582
	5	530555	3556131		5	529482	3565331
	6	530743	3556233		6	529481	3565084
	7	530994	3556265		7	529316	3564902
	8	531253	3556304		8	529214	3564666
	9	531508	3556277		9	529085	3564497
	10	531762	3556287		10	528827	3564555
	11	532009	3556235		11	528709	3564780
	12	532232	3556154		12	528709	3565050
	13	532455	3556035		13	528712	3565302
	14	532653	3555905		14	528710	3565557
	15	532843	3555745		15	528709	3565794
	16	532979	3555523		16	528708	3566061
	17	533097	3555290		17	528770	3566269
	18	533076	3555785		18	528907	3566452
Rocking K	1	529290	3555164		19*	529154	3566524
	2	529434	3555406	Wentworth	1	526303	3565611
	3	529420	3555598		2	526509	3565740
	4	529200	3555644		3	526759	3565762
	5	528980	3555750		4	527009	3565714
	6	528757	3555817		5	527238	3565612
	7	528540	3555959		6	527487	3565610
	8	528300	3556029		7	527737	3565623
	9	528119	3556232		8	527846	3565847
	10	527880	3556132		9	527654	3565386
	11	527628	3556124		10	527555	3565152
	12	527377	3556194		11	527441	3564922
	13	527123	3556227		12	527407	3564682
	14	526892	3556109		13	527204	3564836
	15	528806	3556005		14	526963	3564914
	16	528922	3556219		15	526717	3564997
	17	529076	3556381		16	526467	3564955
	18	529115	3556626		17	526327	3565160
					18	526337	3565400

*Surveyed in 2000 but not in 2001.

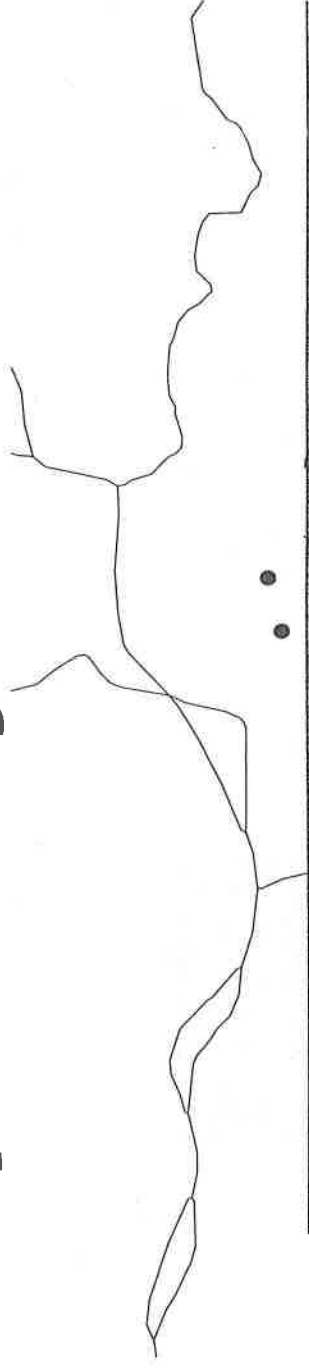


Map 1. Location of "Speedway" (eastern most) and "Wentworth" transects (western most) for elf owl surveys. Appendix I contains UTM coordinates for call stations.

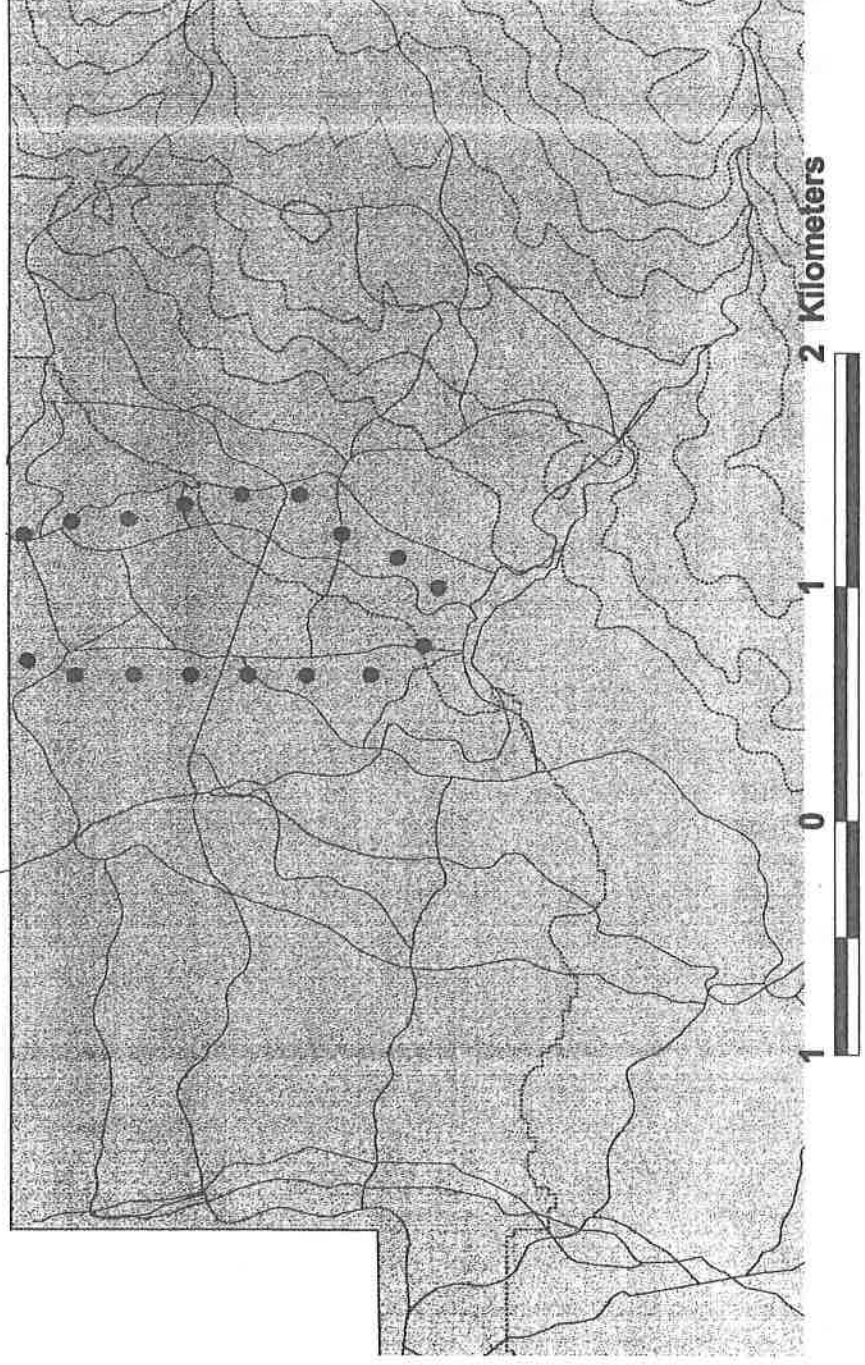
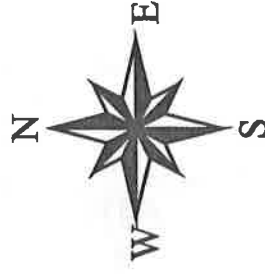


Map 2. Location of "Rocking K" (eastern most) and "Expansion" transects (western most) for elf owl surveys. Appendix I contains UTM coordinates for call stations.

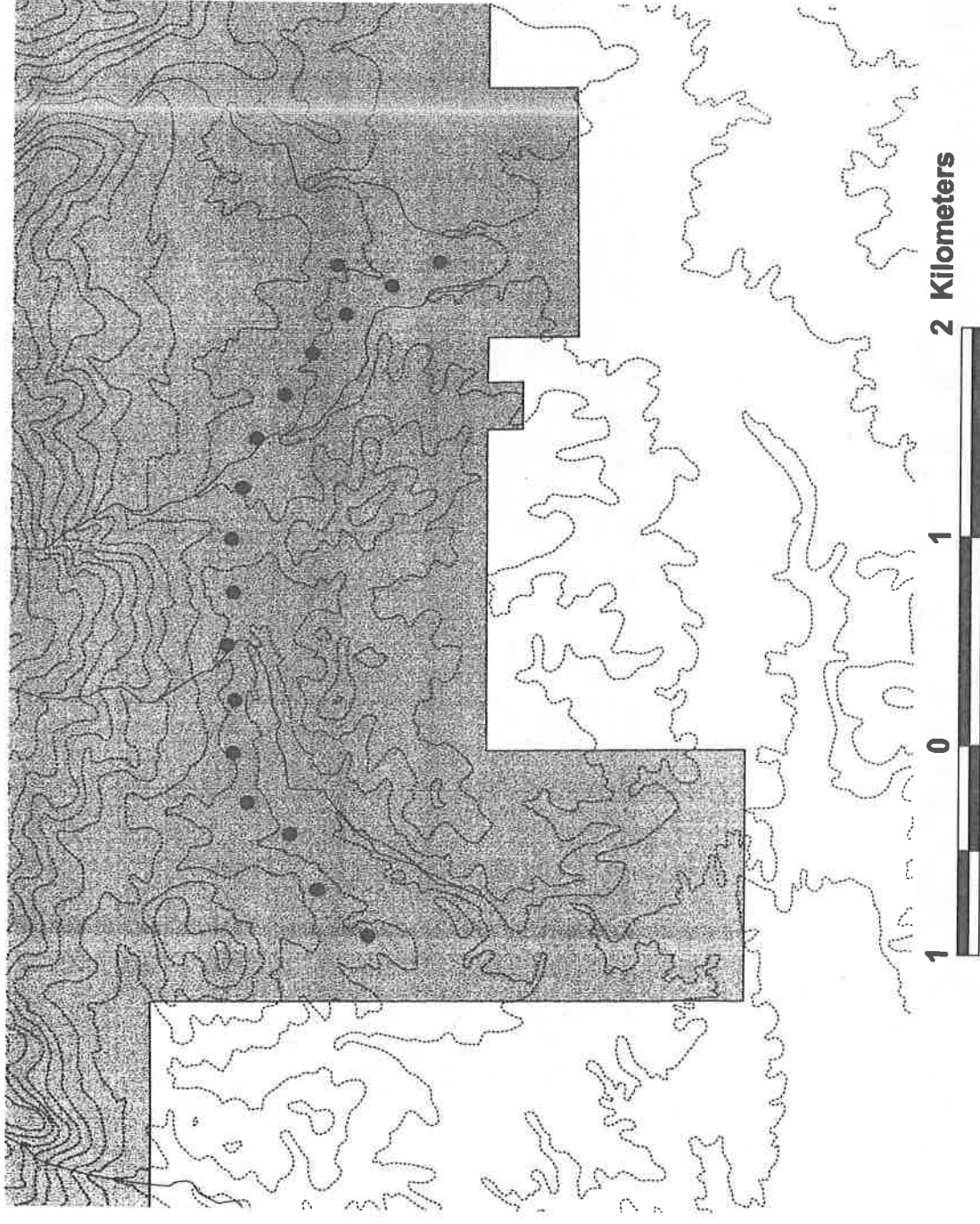
Speedway Elf Owl Points



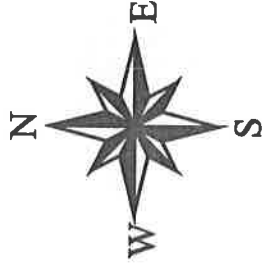
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- Eastrails.shp
- Hydro major.shp
- Speedwayelf.txt
- Boundary.shp



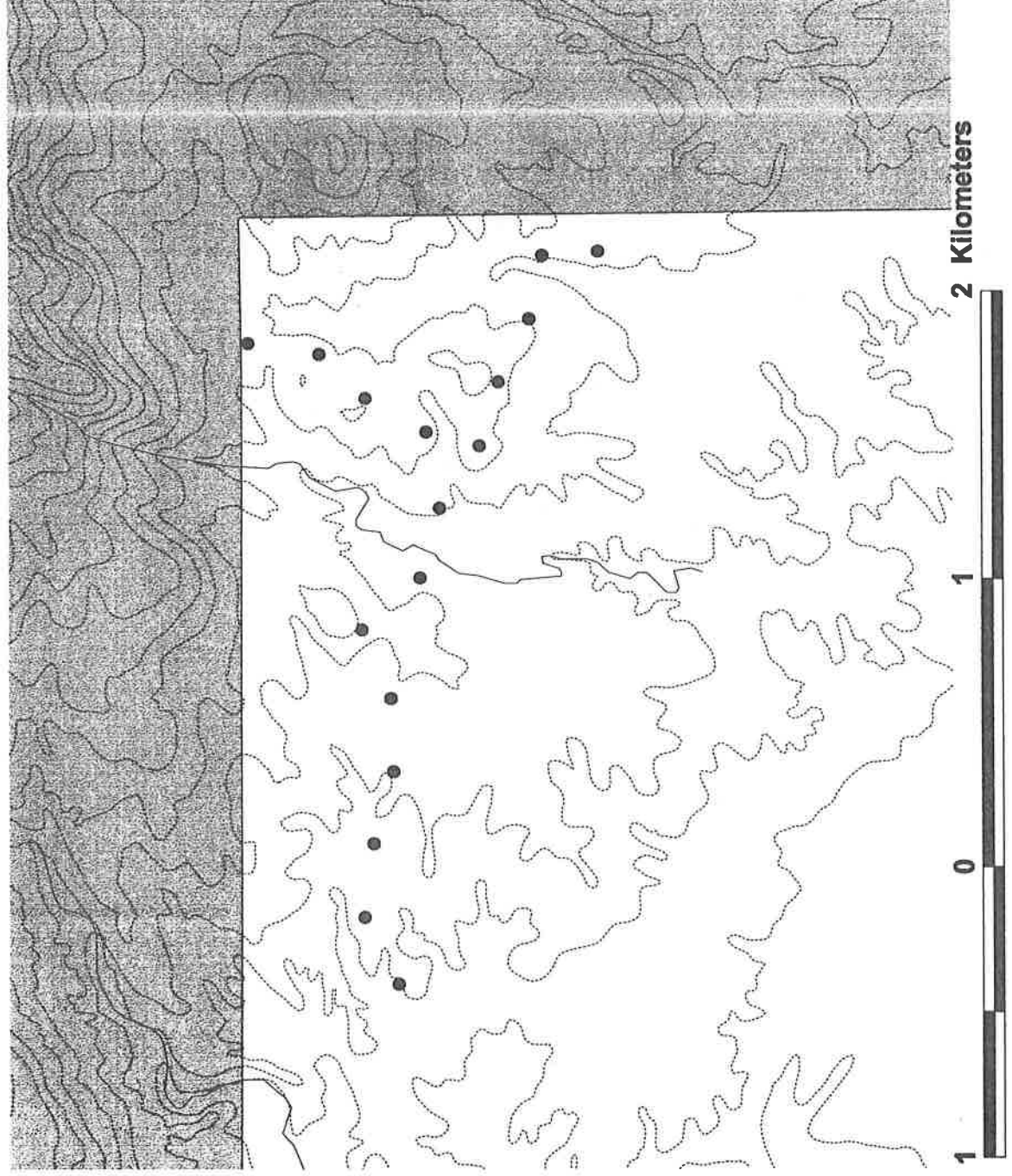
Expansion Area Elf Owl Points



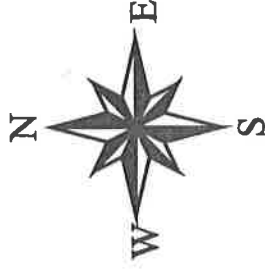
- Ea topography.shp
- Hydro major.shp
- Expansionelf.txt
- Boundary.shp



Rocking K Elf Owl Points



Ea topography.shp
Hydro major.shp
Rkelf.txt
Boundary.shp



Expansion
Rocking K
Speedway
Wentworth

Survey #	Date	Surveyor	Location
1	17-May-00	Bob Steidl	Rocking K
2	18-May-00	Bob Steidl	Speedway
3	20-May-00	Bob Steidl	Expansion
4	15-Jun-00	Bob Steidl	Speedway
5	16-Jun-00	Bob Steidl	Rocking K
6	16-Jun-00	Bob Steidl	Expansion
7	18-Jun-00	Bob Steidl	Wentworth
8	20-Jun-00	Bob Steidl	Wentworth
9	11-Jul-00	Bob Steidl	Expansion
10	12-Jul-00	Bob Steidl	Rocking K
11	13-Jul-00	Bob Steidl	Speedway
12	14-Jul-00	Bob Steidl	Speedway
13	14-Jul-00	Bob Steidl	Wentworth
14	06-Apr-01	Bob Steidl	Speedway
15	07-Apr-01	Bob Steidl	Wentworth
16	08-Apr-01	Bob Steidl	Expansion
17	09-Apr-01	Bob Steidl	Rocking K
18	05-May-01	Bob Steidl	Expansion
19	06-May-01	Bob Steidl	Speedway
20	07-May-01	Bob Steidl	Wentworth
21	08-May-01	Bob Steidl	Rocking K
22	02-Jun-01	Bob Steidl	Rocking K
23	04-Jun-01	Bob Steidl	Speedway
24	05-Jun-01	Bob Steidl	Expansion
25	06-Jun-01	Bob Steidl	Wentworth

Expansion	1	just out of wash + up /bit
Expansion	10	over crest of highest hill
Expansion	11	mesquites on left
Expansion	12	open, wash bottom
Expansion	13	large mesq. (last) before opening (opposite side)
Expansion	14	just before dropping steeply
Expansion	15	in twists, mesquite bosque
Expansion	16	st. stretch, mid-way
Expansion	17	e entry to hope camp
Expansion	18	end of N. hope trail (closed sign)
Expansion	2	at beginning of open, wash area
Expansion	3	around bend, mid-way
Expansion	4	up, out of ravine, past wash out
Expansion	5	into creek @ corner
Expansion	6	in creek @ very dense Saguaro stand or on road next to "trail closed" marker
Expansion	7	on road, before Deer camp
Expansion	8	on road, after Deer camp, rocky area on piles of exposed bedrock
Expansion	9	2/3 up hill
Rocking K	1	towards Sp. Trail (South), 100m in from road
Rocking K	10	around corner on top before decline
Rocking K	11	short straight stretch
Rocking K	12	flat, straight, no trees (dead Palo Verde)
Rocking K	13	after turn to SW
Rocking K	14	at clearing around turn overlooking wash
Rocking K	15	open area
Rocking K	16	flat, level spot, bit low
Rocking K	17	bottom of hill (nearly)
Rocking K	18	end of loop/spur
Rocking K	2	first rise landing out of TH Lot
Rocking K	3	at next intersection
Rocking K	4	just out of CW wash, on tight curve
Rocking K	5	rise on hill
Rocking K	6	4-way intersection

<u>Expansion 1</u>		
Pt		
10	529692	3555412
11	531762	3556287
12	532009	3556235
13	532246	3556170
14	532455	3556035
15	532653	3555905
16	532842	3555745
17	532979	3555523
18	533097	3555290
19	533075	3555785
20	529875	3555617
21	530093	3555866
22	530357	3555996
23	530504	3556203
24	530740	3556274
25	530994	3556265
26	531253	3556304
27	531508	3556277
28	529290	3555164
29	527880	3556132
30	527628	3556124
31	527377	3556194
32	527123	3556227
33	526892	3556109
34	528806	3556005
35	528922	3556219
36	529076	3556381
37	529115	3556626
38	529434	3555406
39	529420	3555598
40	529200	3555644
41	528980	3555750
42	528757	3555817

Rocking

Rocking K	7	on new S - W road (1/2 way down hill to wash)
Rocking K	8	begin descent into wash
Rocking K	9	top of 1st rise on ridge, overlooking wash
Speedway	1	200m up trail, 40m past Freight Wagon trail
Speedway	10	70m after next T-intersection
Speedway	11	Big, lone mesquite on left; wall of dirt on Rt (onto Kennedy trail/cross exposed bedrock)
Speedway	12	go thru rocky wash to high straight stretch
Speedway	13	at beginning of downhill, rocky section, 30m past Bajada Vista sign
Speedway	14	Squeeze Pen trail marker
Speedway	15	20m after erosion gully
Speedway	16	in gully betw. 2 high spots, past Creosote trail sign(marker on right)
Speedway	17	Palo Verde TH
Speedway	18	at unmarked trail intersection, after joining major trail
Speedway	19	top of rise
Speedway	2	just before wash
Speedway	3	50m out of wash
Speedway	4	before turn to left
Speedway	5	90 m after intersection w/ Wildhorse
Speedway	6	after 3-way intersection, ~50m (take middle trail which is Garwood)
Speedway	7	hard right after open area (marker on right)
Speedway	8	on left handle, ~70m after wash
Speedway	9	at intersection w/Carillo (no tape)
Wentworth	1	at reg stand; no marker (to continue to #2, go straight at Wentworth trail sign, Across wash onto Wentw. Trail
Wentworth	10	mesquite on right w/young saguaro growing thru
Wentworth	11	20m past large PV on left; tape in bush on right
Wentworth	12	cont. past Pink Hill T.H., tape on lg. mesq. on left, then return
Wentworth	13	cross wash, in lg. bushy PV on left
Wentworth	14	part way up rise, in PV on right
Wentworth	15	after sharp turns, in creosote on left
Wentworth	16	open area, big mesq. on left (to box on upper right)
Wentworth	17	cont. from #16, @ 130m hit Shantz, go right; marker in big PV on right
Wentworth	18	past tall cholla (do point there), tape 10m ahead in creosote on left (220m from pt. #1)
Wentworth	2	in small group of mesq., P.V. on left

Wentworth	3	in curvy section of trail, just past bushy PV on left (marker in creosote)
Wentworth	4	10m after large group of bushy PV, very close to trail (on left in creosote)
Wentworth	5	up rise before turn to right, in PV on left
Wentworth	6	in creosote area (on left, low in bush)
Wentworth	7	at intersection (sign for Wentw.) w/Loma Verde trail (no tape)
Wentworth	8	60 m left to point 8, in creosote; then return and pass the WW sign (stay on L.V. trail)
Wentworth	9	30m before dead Saguaro that looks like a fountain; past lg. barrel on left (in bush on right)

1	14	1	1920	112	180	U
2	14	1	1920	148	300	B
3	14	1	1920	246	300	S
4	14	1	1920	350	280	S
5	14	2	1932	140	240	U
6	14	2	1932	282	320	B
7	14	2	1932	194	80	B
8	14	2	1932	208	300	S
9	14	3	1945	310	350	U
10	14	3	1945	86	175	U
11	14	3	1945	172	325	S
12	14	3	1945	32	400	S
13	14	3	1945	180	60	S
14	14	4	1957	78	50	U
15	14	4	1957	234	100	U
16	14	4	1957	331	350	U
17	14	4	1957	180	40	S
18	14	4	1957	280	50	S
19	14	5	2008	300	140	U
20	14	5	2008	29	160	U
21	14	5	2008	78	230	S
22	14	6	2020	88	350	S
23	14	7	2031	76	270	U
24	14	7	2031	4	80	U
25	14	7	2031	18	10	S
26	14	7	2031	240	300	S
27	14	7	2031	18	10	S
28	14	8	2045	314	280	U
29	14	8	2045	40	40	U
30	14	8	2045	232	120	U
31	14	9	2103	302	300	S
32	14	9	2103	278	370	S
33	14	10	2125	290	140	S
34	14	10	2125	324	60	S
35	14	11	2140	34	165	U
36	14	11	2140	253	90	U
37	14	11	2140	308	80	S
38	14	11	2140	124	190	S
39	14	12	2151	58	320	U
40	14	12	2151	264	45	S
41	14	12	2151	20	145	S
42	14	13	2003	112	70	U
43	14	13	2003	168	130	U
44	14	13	2003	0	150	S
45	14	14	2213	120	90	U
46	14	14	2213	104	195	U
47	14	14	2213	160	90	S

48	14	15	2225	262	110	U
49	14	15	2225	320	60	S
50	14	15	2225	116	390	S
51	14	16	2235	130	80	S
52	14	16	2235	320	295	S
53	14	17	2246	114	300	S
54	14	18	2259	156	340	U
55	14	18	2259	62	60	S
56	14	19	2314	126	360	U
57	14	19	2314	72	250	U
58	14	19	2314	324	160	S
59	15	1	2236	60	370	U
60	15	1	2236	130	400	S
61	15	2	1914	160	70	S
62	15	3	1925	222	85	U
63	15	3	1925	158	140	U
64	15	3	1925	352	200	S
65	15	3	1925	254	150	S
66	15	4	1937	194	315	U
67	15	4	1937	286	380	U
68	15	4	1937	162	400	S
69	15	4	1937	330	360	S
70	15	5	1948	40	220	U
71	15	5	1948	252	390	S
72	15	6	2002	308	375	U
73	15	6	2002	254	60	U
74	15	7	2014	220	250	U
75	15	7	2014	148	310	U
76	15	7	2014	60	225	U
77	15	7	2014	124	100	S
78	15	7	2014	300	300	S
79	15	8	2029	14	400	U
80	15	8	2029	350	65	S
81	15	8	2029	160	390	S
82	15	8	2029	10	375	S
83	15	9	2043	102	140	U
84	15	9	2043	87	170	U
85	15	9	2043	44	75	U
86	15	9	2043	202	120	U
87	15	9	2043	306	60	S
88	15	10	2053	302	160	B
89	15	10	2053	118	360	S
90	15	10	2053	150	400	S
91	15	11	2103	284	15	U
92	15	11	2103	10	370	U
93	15	11	2103	148	400	S
94	15	11	2103	120	380	S

Counter	Room	Room	Room	Room	Room	Room
95	15	12	2115	130	240	U
96	15	12	2115	230	260	S
97	15	13	2126	192	180	U
98	15	13	2126	182	250	U
99	15	13	2126	115	230	U
100	15	13	2126	352	130	S
101	15	14	2120	330	400	U
102	15	14	2120	144	330	S
103	15	14	2120	50	320	S
104	15	14	2120	301	265	S
105	15	15	2153	82	40	U
106	15	15	2153	183	250	U
107	15	15	2153	324	80	S
108	15	16	2202	338	200	U
109	15	16	2202	156	400	S
110	15	17	2214	234	110	S
111	15	18	2225	90	150	S
112	16	1	2218	160	200	U
113	16	1	2218	224	380	U
114	16	1	2218	44	400	S
115	16	1	2218	322	260	S
116	16	2	2208	98	140	U
117	16	2	2208	59	340	S
118	16	3	2157	146	180	U
119	16	3	2157	26	190	S
120	16	4	2145	340	25	S
121	16	4	2145	16	250	S
122	16	4	2145	16	240	S
123	16	5	2134	0	45	U
124	16	5	2134	246	90	U
125	16	6	2123	40	55	U
126	16	6	2123	286	190	U
127	16	6	2123	40	60	U
128	16	7	2110	312	375	U
129	16	7	2110	42	390	S
130	16	7	2110	280	380	S
131	16	8	2100	2	200	U
132	16	8	2100	290	290	S
133	16	8	2100	50	350	S
134	16	9	2049	8	300	S
135	16	9	2049	310	330	S
136	16	9	2049	286	250	S
137	16	9	2049	12	370	S
138	16	10	2040	16	320	U
139	16	10	2040	76	270	S
140	16	11	2027	322	85	U
141	16	11	2027	4	320	U

Case Number	County	City	Year	Value 1	Value 2	Unit
142	16	11	2027	340	380	S
143	16	12	2018	10	100	U
144	16	12	2018	352	270	U
145	16	12	2018	20	320	S
146	16	12	2018	98	220	S
147	16	13	2007	208	85	U
148	16	13	2007	308	140	U
149	16	13	2007	140	290	S
150	16	13	2007	340	50	S
151	16	13	2007	0	400	S
152	16	14	1956	138	22	U
153	16	14	1956	302	70	U
154	16	14	1956	210	60	S
155	16	14	1956	36	400	S
156	16	15	1946	322	300	U
157	16	15	1946	16	350	U
158	16	15	1946	196	350	S
159	16	16	1937	180	350	U
160	16	16	1937	76	400	U
161	16	16	1937	342	280	S
162	16	17	1925	310	80	U
163	16	17	1925	44	200	U
164	16	17	1925	176	275	S
165	16	18	1910	280	60	S
166	16	18	1910	16	340	S
167	17	1	2234	263	275	U
168	17	1	2234	330	290	S
169	17	2	2218	290	185	U
170	17	2	2218	283	300	S
171	17	2	2218	120	280	S
172	17	3	2208	228	300	U
173	17	3	2208	60	175	S
174	17	3	2208	346	320	S
175	17	4	2158	252	200	U
176	17	5	2148	0	0	N
177	17	6	2042	325	380	S
178	17	7	2031	234	270	U
179	17	7	2031	312	290	S
180	17	8	2021	348	425	S
181	17	8	2021	30	270	S
182	17	9	2009	32	350	S
183	17	9	2009	23	260	S
184	17	10	1956	316	400	U
185	17	10	1956	94	315	S
186	17	10	1956	6	260	S
187	17	11	1947	30	425	S
188	17	12	1935	34	310	S

Count	Day	Month	Year	Count	Day	Month	Year
189	17	12	1935	333	375	S	
190	17	13	1925	300	270	U	
191	17	13	1925	344	360	S	
192	17	13	1925	0	340	S	
193	17	14	1915	282	120	S	
194	17	14	1915	194	330	S	
195	17	14	1915	312	70	S	
196	17	14	1915	22	300	S	
197	17	15	2054	240	410	S	
198	17	16	2105	208	280	S	
199	17	17	2115	12	240	U	
200	17	17	2115	256	200	S	
201	17	17	2115	340	145	S	
202	17	18	2126	210	35	U	
203	17	18	2126	21	40	U	
204	17	18	2126	20	300	S	
205	17	18	2126	78	325	S	
206	19	1	1938	270	15	S	
207	19	1	1938	12	300	S	
208	19	1	1938	88	400	S	
209	19	2	1950	202	20	B	
210	19	2	1950	152	140	U	
211	19	2	1950	22	370	S	
212	19	3	2001	134	380	B	
213	19	3	2001	46	3	S	
214	19	4	2012	116	100	B	
215	19	4	2012	194	50	B	
216	19	4	2012	118	70	B	
217	19	4	2012	106	240	U	
218	19	4	2012	180	200	S	
219	19	5	2025	38	129	B	
220	19	5	2025	24	90	S	
221	19	5	2025	246	190	S	
222	19	5	2025	140	220	B	
223	19	6	2037	32	340	S	
224	19	6	2037	14	65	S	
225	19	6	2037	120	280	S	
226	19	7	2049	316	220	S	
227	19	7	2049	234	180	S	
228	19	7	2049	336	320	S	
229	19	8	2101	182	160	B	
230	19	8	2101	262	80	S	
231	19	8	2101	224	50	S	
232	19	8	2101	62	55	S	
233	19	9	2112	276	275	U	
234	19	9	2112	228	340	S	
235	19	10	2124	248	90	B	

Count	Year	Month	Day	Time	Location	Event
236	19	10	2124	320	140	B
237	19	10	2124	300	40	B
238	19	10	2124	90	250	B
239	19	10	2124	160	130	S
240	19	11	2137	126	400	U
241	19	11	2137	242	375	S
242	19	12	2148	205	220	U
243	19	12	2148	90	90	S
244	19	12	2148	61	110	S
245	19	13	2200	157	45	B
246	19	13	2200	306	190	S
247	19	13	2200	132	110	S
248	19	14	2212	164	235	B
249	19	14	2212	240	300	S
250	19	14	2212	80	270	S
251	19	15	2228	258	180	U
252	19	15	2228	342	300	S
253	19	16	2242	346	135	B
254	19	16	2242	330	160	S
255	19	16	2242	306	150	S
256	19	17	2252	305	90	B
257	19	17	2252	120	310	S
258	19	18	2304	50	40	S
259	19	18	2304	50	40	S
260	19	18	2304	276	250	B
261	19	18	2304	12	375	S
262	20	2	1940	192	80	B
263	20	2	1940	290	300	S
264	20	2	1940	64	140	S
265	20	2	1940	192	30	S
266	20	2	1940	56	180	S
267	20	3	1955	222	230	U
268	20	3	1955	6	150	S
269	20	3	1955	306	190	S
270	20	4	2005	82	300	S
271	20	4	2005	216	75	S
272	20	4	2005	216	75	S
273	20	4	2005	335	55	S
274	20	5	2016	308	260	S
275	20	5	2016	640	115	S
276	20	6	2026	306	20	B
277	20	6	2026	24	375	U
278	20	6	2026	134	230	B
279	20	6	2026	174	260	B
280	20	6	2026	320	150	S
281	20	7	2038	44	65	B
282	20	7	2038	4	360	B

Courtier	Survey	Panel	Time	Event	Time	Event
283	20	7	2038	54	130	B
284	20	7	2038	190	110	S
285	20	7	2038	226	90	S
286	20	8	2050	216	400	B
287	20	8	2050	356	60	B
288	20	8	2050	342	390	S
289	20	9	2105	904	220	B
290	20	9	2105	343	65	U
291	20	9	2105	5	295	B
292	20	9	2105	50	105	S
293	20	9	2105	170	50	S
294	20	10	2017	334	60	B
295	20	10	2017	316	310	B
296	20	10	2017	60	250	S
297	20	10	2017	80	14	.
298	20	10	2017	155	350	S
299	20	11	2129	102	300	B
300	20	11	2129	37	310	U
301	20	11	2129	286	140	S
302	20	12	2140	118	165	U
303	20	12	2140	300	100	B
304	20	12	2140	64	270	B
305	20	12	2140	20	240	S
306	20	13	2134	44	60	S
307	20	13	2134	73	380	S
308	20	13	2134	190	95	B
309	20	14	2206	286	400	S
310	20	14	2206	94	290	S
311	20	15	2218	110	50	B
312	20	15	2218	350	250	S
313	20	16	2228	154	350	S
314	20	16	2228	220	240	S
315	20	16	2228	40	380	S
316	20	17	2240	115	130	B
317	20	17	2240	150	190	S
318	20	18	2251	106	340	S
319	20	18	2251	305	300	S
320	20	1	2302	156	350	S
321	20	1	2302	68	120	S
322	20	1	2302	318	392	S
323	18	18	1755	82	320	B
324	18	18	1755	182	220	B
325	18	18	1755	182	220	S
326	18	18	1755	7	140	S
327	18	17	2010	22	80	B
328	18	17	2010	312	100	B
329	18	17	2010	38	160	S

Counter	1	2	3	4	5	6
330	18	17	2010	214	260	S
331	18	16	2023	90	170	B
332	18	16	2023	10	360	B
333	18	16	2023	240	195	S
334	18	16	2023	250	225	S
335	18	15	2033	114	310	U
336	18	15	2033	18	240	B
337	18	15	2033	162	30	U
338	18	14	2044	110	375	B
339	18	14	2044	16	250	S
340	18	14	2044	212	15	S
341	18	13	2100	4	380	B
342	18	13	2100	318	290	S
343	18	13	2100	88	400	S
344	18	13	2100	228	60	S
345	18	13	2100	334	120	S
346	18	12	2112	19	135	S
347	18	12	2112	32	250	S
348	18	12	2112	158	270	S
349	18	11	2126	54	160	B
350	18	11	2126	54	90	S
351	18	11	2126	326	145	S
352	18	10	2135	336	65	S
353	18	9	2143	285	260	B
354	18	8	2152	50	185	U
355	18	8	2152	60	350	U
356	18	8	2152	280	310	B
357	18	8	2152	10	110	S
358	18	7	2204	60	275	B
359	18	7	2204	293	280	B
360	18	7	2204	8	100	B
361	18	7	2204	268	325	S
362	18	6	2215	300	280	B
363	18	6	2215	274	165	B
364	18	6	2215	321	340	S
365	18	6	2215	76	350	S
366	18	5	2223	270	140	B
367	18	5	2223	0	70	B
368	18	5	2223	40	370	S
369	18	5	2223	330	180	S
370	18	4	2233	2	65	B
371	18	4	2233	214	190	S
372	18	4	2233	22	240	B
373	18	3	2245	153	270	B
374	18	3	2245	232	155	S
375	18	3	2245	51	230	S
376	18	2	2256	21	300	B

Counter	Damage	Value	Year	Count	Value	Count
377	18	1	2307	168	140	B
378	18	1	2307	168	1	B
379	21	14	1938	36	300	B
380	21	14	1938	118	130	S
381	21	14	1938	18	200	S
382	21	13	1949	14	90	B
383	21	13	1949	358	275	B
384	21	13	1949	304	350	S
385	21	13	1949	205	300	S
386	21	13	1949	42	390	S
387	21	12	1959	288	320	B
388	21	12	1959	34	190	S
389	21	12	1959	247	80	S
390	21	12	1959	172	300	S
391	21	12	1959	332	275	S
392	21	11	2011	304	295	B
393	21	11	2011	0	340	B
394	21	10	2021	143	200	S
395	21	10	2021	342	390	S
396	21	9	2033	40	210	B
397	21	9	2033	70	230	S
398	21	9	2033	4	250	S
399	21	9	2033	24	275	S
400	21	9	2033	146	250	S
401	21	8	2045	3	400	B
402	21	8	2045	34	60	S
403	21	7	2056	322	380	S
404	21	7	2056	318	380	U
405	21	6	2105	336	340	S
406	21	15	2115	0	0	N
407	21	16	2125	22	210	S
408	21	17	2135	10	250	B
409	21	17	2135	300	60	S
410	21	17	2135	46	60	S
411	21	18	2145	330	90	B
412	21	18	2145	160	30	S
413	21	18	2145	12	180	S
414	21	18	2145	172	300	S
415	21	5	2208	119	400	S
416	21	4	2219	190	150	B
417	21	4	2219	355	390	B
418	21	3	2232	45	190	B
419	21	3	2232	250	135	S
420	21	2	2294	238	80	U
421	21	2	2294	187	240	U
422	21	2	2294	270	275	S
423	21	1	2300	330	245	S

Count	Score	Year	Value	Value	Value	Value
424	21	1	2300	353	280	S
425	23	1	1956	96	45	S
426	23	1	1956	314	120	S
427	23	1	1956	252	160	S
428	23	1	1956	166	260	S
429	23	1	1956	286	220	S
430	23	2	2007	238	400	S
431	23	3	2019	197	320	U
432	23	3	2019	82	290	S
433	23	3	2019	128	380	S
434	23	4	2030	320	140	B
435	23	4	2030	98	100	B
436	23	4	2030	140	220	S
437	23	4	2030	22	300	S
438	23	5	2041	146	80	S
439	23	5	2041	260	295	S
440	23	5	2041	156	130	S
441	23	6	2052	24	90	B
442	23	6	2052	274	130	B
443	23	7	2102	340	12	B
444	23	7	2102	349	260	B
445	23	8	2113	56	100	U
446	23	8	2113	160	60	U
447	23	9	2124	255	275	U
448	23	10	2133	252	140	B
449	23	10	2133	192	50	B
450	23	11	2146	192	370	S
451	23	11	2146	308	240	S
452	23	12	2156	120	45	U
453	23	12	2156	240	90	B
454	23	12	2156	70	220	S
455	23	12	2156	300	90	S
456	23	13	2207	356	240	B
457	23	13	2207	318	70	B
458	23	13	2207	174	50	B
459	23	13	2207	36	130	B
460	23	13	2207	120	180	S
461	23	14	2220	156	145	B
462	23	14	2220	268	220	S
463	23	14	2220	140	300	S
464	23	15	2231	282	140	U
465	23	15	2231	121	180	U
466	23	15	2231	346	170	B
467	23	15	2231	310	90	S
468	23	16	2242	182	390	B
469	23	16	2242	340	310	B
470	23	17	2252	282	130	B

Count	Value	Value	Value	Value	Value	Value
471	23	17	2252	68	65	S
472	23	18	2303	268	200	U
473	23	18	2303	274	240	B
474	23	18	2303	218	90	U
475	23	18	2303	186	25	B
476	23	18	2303	20	45	S
477	25	2	1955	201	55	U
478	25	2	1955	70	220	B
479	25	2	1955	300	295	U
480	25	3	2007	194	360	B
481	25	3	2007	356	120	S
482	25	4	2019	240	190	U
483	25	4	2019	182	110	B
484	25	4	2019	324	240	S
485	25	5	2030	136	160	B
486	25	6	2043	338	260	B
487	25	6	2043	358	280	B
488	25	7	2054	174	240	B
489	25	7	2054	34	115	S
490	25	8	2104	306	160	B
491	25	9	2117	114	100	B
492	25	9	2117	256	210	B
493	25	10	2128	357	150	B
494	25	10	2128	120	300	B
495	25	11	2137	140	370	B
496	25	11	2137	310	280	S
497	25	12	2149	134	180	B
498	25	12	2149	162	140	S
499	25	12	2149	300	290	S
500	25	13	2200	12	30	B
501	25	13	2200	316	40	B
502	25	13	2200	292	60	U
503	25	13	2200	142	90	S
504	25	13	2200	38	180	S
505	25	14	2212	0	0	N
506	25	15	2124	190	185	B
507	25	15	2124	332	35	U
508	25	16	2135	140	200	U
509	25	16	2135	10	80	B
510	25	16	2135	64	70	U
511	25	17	2147	104	250	U
512	25	18	2156	112	120	S
513	25	18	2156	304	230	S
514	25	1	2207	342	190	B
515	25	1	2207	66	140	S
516	25	1	2207	142	270	S
517	24	18	2002	20	300	B

518	24	18	2002	94	60	S
519	24	18	2002	2	280	S
520	24	17	2020	262	250	S
521	24	17	2020	46	300	S
522	24	16	2031	90	260	S
523	24	15	2044	286	140	U
524	24	15	2044	292	170	U
525	24	14	2058	212	20	U
526	24	13	2111	28	200	B
527	24	13	2111	302	280	S
528	24	13	2111	136	300	S
529	24	12	2125	146	90	B
530	24	12	2125	336	230	S
531	24	11	2136	40	210	B
532	24	11	2136	18	190	S
533	24	10	2147	342	95	B
534	24	10	2147	88	380	S
535	24	10	2147	64	340	S
536	24	9	2158	10	270	U
537	24	8	2212	0	0	N
538	24	7	2223	38	65	S
539	24	6	2234	264	190	U
540	24	6	2234	350	370	S
541	24	5	2245	50	210	B
542	24	5	2245	256	70	B
543	24	4	2258	70	200	U
544	24	3	2310	182	300	S
545	24	2	2322	154	310	B
546	24	1	2332	154	120	U
547	22	14	2000	268	350	S
548	22	14	2000	298	300	S
549	22	14	2000	358	350	S
550	22	13	2010	7	140	B
551	22	13	2010	242	350	S
552	22	13	2010	282	325	S
553	22	12	2022	188	175	S
554	22	12	2022	308	380	S
555	22	12	2022	185	260	S
556	22	11	2035	296	265	B
557	22	11	2035	2	220	B
558	22	10	2048	68	20	U
559	22	10	2048	212	170	B
560	22	10	2048	344	200	U
561	22	9	2058	280	300	B
562	22	9	2058	68	260	U
563	22	8	2110	0	0	N
564	22	7	2122	121	190	B

Counter	Runway	Direction	Distance	Time	Speed	Altitude
565	22	7	2122	348	380	S
566	22	6	2137	0	0	N
567	22	15	2150	0	0	N
568	22	16	2200	268	160	U
569	22	17	2208	54	340	S
570	22	18	2221	318	140	S
571	22	5	2246	0	0	N
572	22	4	2258	0	0	N
573	22	3	2312	0	0	N
574	22	2	2322	106	150	S
575	22	1	2340	310	280	S
576	22	1	2340	10	300	S
577	1	1	1948	278	400	B
578	1	1	1948	332	150	S
579	1	2	2006	305	250	B
580	1	2	2006	314	300	S
581	1	3	2021	288	175	S
582	1	4	2032	14	350	B
583	1	4	2032	240	140	U
584	1	4	2032	272	200	B
585	1	4	2032	170	175	S
586	1	5	2046	322	150	U
587	1	5	2046	103	250	B
588	1	5	2046	279	200	S
589	1	6	2059	110	300	S
590	1	7	2427	16	60	S
591	1	7	2427	270	180	S
592	1	7	2427	32	200	S
593	1	8	2416	30	35	B
594	1	8	2416	30	75	B
595	1	8	2416	116	350	S
596	1	8	2416	240	85	S
597	1	9	2406	54	75	S
598	1	9	2406	222	125	S
599	1	9	2406	82	175	S
600	1	10	2352	206	40	B
601	1	10	2352	162	30	S
602	1	11	2340	98	140	S
603	1	11	2340	196	250	S
604	1	12	2330	180	400	B
605	1	12	2330	324	200	S
606	1	12	2330	354	220	S
607	1	13	2319	352	300	B
608	1	13	2319	20	300	S
609	1	13	2319	332	80	S
610	1	13	2319	153	175	S
611	1	14	2056	324	80	S

Count	Count	Count	Count	Count	Count	Count
612	1	14	2056	248	100	S
613	1	14	2056	200	170	S
614	1	14	2056	86	170	S
615	1	15	2112	262	200	B
616	1	16	2128	266	200	B
617	1	16	2128	94	175	S
618	1	16	2128	359	150	S
619	1	17	2144	178	225	B
620	1	17	2144	178	70	S
621	1	18	2200	336	300	B
622	1	18	2200	148	50	S
623	2	1	1950	178	150	B
624	2	1	1950	350	180	B
625	2	1	1950	288	240	S
626	2	1	1950	286	175	S
627	2	1	1950	350	200	S
628	2	2	2003	220	80	S
629	2	2	2003	312	140	S
630	2	3	2016	114	200	B
631	2	3	2016	115	230	S
632	2	3	2016	294	90	S
633	2	3	2016	322	200	S
634	2	4	2029	244	325	B
635	2	4	2029	80	65	S
636	2	4	2029	68	130	S
637	2	4	2029	152	275	S
638	2	4	2029	248	250	S
639	2	5	2042	290	150	B
640	2	5	2042	4	150	B
641	2	5	2042	210	130	S
642	2	5	2042	68	280	S
643	2	6	2100	33	80	B
644	2	6	2100	328	140	S
645	2	6	2100	268	350	S
646	2	7	2112	220	10	B
647	2	7	2112	0	10	U
648	2	7	2112	0	100	B
649	2	8	2126	186	70	U
650	2	8	2126	336	300	B
651	2	8	2126	286	400	S
652	2	9	2141	24	400	B
653	2	9	2141	330	350	B
654	2	9	2141	214	250	S
655	2	9	2141	0	250	S
656	2	10	2155	270	200	B
657	2	10	2155	342	250	B
658	2	10	2155	192	225	S

Grantee	Agency	County	Time	Amount	Amount	Amount
659	2	10	2155	280	250	S
660	2	11	2209	90	200	B
661	2	11	2209	28	100	S
662	2	11	2209	130	90	S
663	2	11	2209	254	200	S
664	2	12	2222	338	200	B
665	2	12	2222	340	200	U
666	2	12	2222	211	240	B
667	2	12	2222	224	180	S
668	2	13	2235	340	400	B
669	2	13	2235	40	400	U
670	2	13	2235	222	380	S
671	2	13	2235	228	220	S
672	2	14	2252	144	90	B
673	2	14	2252	188	300	B
674	2	14	2252	274	10	S
675	2	14	2252	246	180	S
676	2	15	2305	326	170	B
677	2	15	2305	250	140	S
678	2	15	2305	112	120	S
679	2	15	2305	250	160	S
680	2	16	2318	155	200	S
681	2	16	2318	60	175	S
682	2	16	2318	266	220	S
683	2	17	2330	110	110	S
684	2	17	2330	10	75	S
685	2	17	2330	68	140	S
686	2	18	2342	126	90	S
687	2	18	2342	126	100	S
688	2	18	2342	258	140	S
689	2	19	2358	2	90	U
690	2	19	2358	72	275	S
691	2	19	2358	70	250	S
692	3	1	2044	0	0	N
693	3	2	2034	75	210	B
694	3	2	2034	75	220	B
695	3	2	2034	140	185	S
696	3	3	2024	54	160	B
697	3	3	2024	154	190	S
698	3	4	2010	340	40	S
699	3	4	2010	200	240	S
700	3	4	2010	322	80	S
701	3	5	2200	110	40	S
702	3	5	2200	275	320	S
703	3	6	2146	264	90	S
704	3	6	2146	310	70	S
705	3	6	2146	216	300	S

Case	Age	Sex	Year	Count	Category
706	3	6	2146	354	400 S
707	3	7	2134	38	80 S
708	3	7	2134	280	380 S
709	3	7	2134	350	340 S
710	3	8	2123	54	60 B
711	3	8	2123	284	140 S
712	3	8	2123	0	300 S
713	3	8	2123	42	50 S
714	3	9	2113	320	380 S
715	3	10	2103	82	240 U
716	3	11	2053	66	100 B
717	3	11	2053	322	140 B
718	3	11	2053	76	280 S
719	3	12	2043	324	250 S
720	3	12	2043	28	220 S
721	3	12	2043	58	350 S
722	3	13	2033	260	25 S
723	3	13	2033	200	80 S
724	3	13	2033	56	230 S
725	3	13	2033	16	290 S
726	3	14	2022	90	350 B
727	3	14	2022	206	40 B
728	3	14	2022	182	300 S
729	3	15	2012	220	250 S
730	3	15	2012	310	300 S
731	3	15	2012	14	320 S
732	3	16	2003	60	200 S
733	3	16	2003	188	300 S
734	3	16	2003	100	400 S
735	3	17	1954	38	190 S
736	3	17	1954	310	250 S
737	3	18	1940	3	175 S
738	3	18	1940	20	280 S
739	4	1	2009	268	220 U
740	4	1	2009	60	130 S
741	4	1	2009	112	175 B
742	4	1	2009	184	220 S
743	4	2	2021	214	40 B
744	4	3	2032	84	200 B
745	4	3	2032	194	220 B
746	4	3	2032	64	240 S
747	4	4	2046	192	75 B
748	4	4	2046	157	220 B
749	4	4	2046	94	75 S
750	4	5	2103	176	130 S
751	4	5	2103	93	180 S
752	4	5	2103	42	220 S

Count						
753	4	6	2120	315	60	S
754	4	6	2120	288	200	S
755	4	7	2133	24	20	S
756	4	7	2133	96	150	S
757	4	8	2151	224	80	B
758	4	8	2151	230	100	B
759	4	8	2151	232	140	B
760	4	9	2205	230	250	B
761	4	9	2205	235	270	B
762	4	9	2205	50	175	S
763	4	9	2205	344	200	S
764	4	9	2205	4	80	S
765	4	9	2205	240	250	B
766	4	10	2218	200	140	U
767	4	10	2218	176	90	U
768	4	10	2218	60	100	U
769	4	10	2218	322	270	S
770	4	10	2218	306	240	S
771	4	10	2218	20	250	S
772	4	11	2233	260	280	S
773	4	12	2244	324	220	B
774	4	12	2244	192	75	U
775	4	12	2244	100	120	S
776	4	13	2255	90	140	B
777	4	13	2255	260	200	S
778	4	13	2255	295	275	S
779	4	13	2255	240	240	S
780	4	14	2308	246	100	U
781	4	14	2308	106	60	B
782	4	14	2308	8	300	S
783	4	14	2308	178	200	S
784	4	15	2321	216	150	B
785	4	15	2321	300	100	U
786	4	16	2335	248	80	B
787	4	16	2335	286	120	B
788	4	16	2335	94	100	B
789	4	17	2346	70	35	B
790	4	17	2346	64	140	B
791	4	17	2346	42	250	B
792	4	17	2346	182	80	S
793	4	17	2346	104	175	S
794	4	18	2358	262	150	S
795	4	18	2358	141	220	S
796	4	18	2358	63	200	S
797	4	19	2408	218	80	B
798	4	19	2408	96	150	B
799	4	19	2408	192	220	S

Counter	Summary					
800	5	1	2418	50	170	S
801	5	1	2418	148	150	S
802	5	2	2401	152	100	S
803	5	3	2348	172	40	S
804	5	3	2348	220	60	S
805	5	4	2335	202	150	B
806	5	4	2335	264	250	S
807	5	5	2323	160	120	S
808	5	5	2323	342	200	S
809	5	6	2311	0	0	N
810	5	7	2146	302	70	S
811	5	7	2146	66	50	S
812	5	8	2131	24	25	S
813	5	9	2116	200	70	S
814	5	9	2116	304	200	B
815	5	10	2101	238	260	S
816	5	10	2101	346	90	S
817	5	11	2046	38	160	B
818	5	11	2046	268	100	S
819	5	11	2046	22	70	S
820	5	11	2046	74	80	S
821	5	12	2029	108	150	U
822	5	12	2029	208	75	S
823	5	13	2014	204	170	B
824	5	13	2014	328	60	B
825	5	13	2014	50	80	U
826	5	13	2014	10	120	S
827	5	14	2000	226	150	S
828	5	15	2206	286	110	S
829	5	15	2206	6	200	S
830	5	16	2221	326	70	S
831	5	17	2234	96	80	U
832	5	17	2234	20	95	B
833	5	18	2249	252	15	U
834	5	18	2249	204	20	B
835	5	18	2249	170	100	S
836	5	18	2249	20	150	S
837	6	1	2234	304	90	S
838	6	1	2234	40	160	S
839	6	2	2222	314	140	B
840	6	2	2222	240	220	S
841	6	3	2309	290	180	S
842	6	3	2309	274	290	S
843	6	4	2251	310	200	U
844	6	4	2251	270	25	U
845	6	5	2238	0	0	N
846	6	6	2221	13	175	S

Counter						
847	6	6	2221	302	300	S
848	6	7	2211	0	0	N
849	6	8	2159	355	95	U
850	6	8	2159	300	275	S
851	6	9	2148	352	160	S
852	6	9	2148	30	200	S
853	6	9	2148	330	275	S
854	6	9	2148	60	200	S
855	6	10	2137	10	200	B
856	6	11	2126	60	300	B
857	6	11	2126	14	280	U
858	6	11	2126	324	50	S
859	6	11	2126	230	170	S
860	6	12	2117	50	60	B
861	6	12	2117	335	190	B
862	6	12	2117	18	210	B
863	6	12	2117	290	240	S
864	6	12	2117	64	230	S
865	6	13	2105	334	160	B
866	6	13	2105	320	175	B
867	6	13	2105	120	170	S
868	6	13	2105	254	90	S
869	6	13	2105	20	190	S
870	6	14	2053	180	70	B
871	6	14	2053	130	180	S
872	6	14	2053	270	250	S
873	6	14	2053	348	280	S
874	6	14	2053	36	250	S
875	6	15	2040	210	90	B
876	6	15	2040	290	140	S
877	6	15	2040	330	250	S
878	6	16	2029	88	200	U
879	6	16	2029	292	175	S
880	6	16	2029	252	160	S
881	6	17	2019	30	300	B
882	6	18	2005	140	260	S
883	7	1	2000	82	70	S
884	7	1	2000	134	85	S
885	7	1	2000	180	40	S
886	7	2	2010	342	100	S
887	7	2	2010	30	160	S
888	7	3	2021	274	160	S
889	7	4	2034	190	60	S
890	7	5	2046	0	0	N
891	7	6	2057	116	170	B
892	7	6	2057	164	65	B
893	7	6	2057	48	120	S

894	7	7	2114	272	80	U
895	7	7	2114	224	40	B
896	7	7	2114	246	60	S
897	7	7	2114	16	70	S
898	7	8	2130	348	30	S
899	7	8	2130	206	50	S
900	7	9	2256	68	70	B
901	7	9	2256	350	30	S
902	7	9	2256	156	110	S
903	8	10	2245	270	90	B
904	8	10	2245	148	110	S
905	8	10	2245	240	120	S
906	8	11	2234	176	70	S
907	8	11	2234	330	100	S
908	8	11	2234	6	100	S
909	8	12	2222	326	50	S
910	8	12	2222	260	240	S
911	8	12	2222	86	110	S
912	8	13	2209	84	30	B
913	8	13	2209	76	60	B
914	8	13	2209	254	40	S
915	8	14	2155	290	100	B
916	8	14	2155	24	170	S
917	8	15	2142	208	80	S
918	8	15	2142	264	200	S
919	8	16	2129	134	50	U
920	8	16	2129	352	60	B
921	8	16	2129	320	120	S
922	8	16	2129	250	40	S
923	8	17	2113	324	75	U
924	8	17	2113	124	50	U
925	8	17	2113	278	60	S
926	8	17	2113	172	120	S
927	8	18	2106	208	230	S
928	9	1	2040	212	40	B
929	9	2	2055	70	110	S
930	9	3	2108	334	75	S
931	9	3	2108	8	100	S
932	9	4	2120	248	90	S
933	9	4	2120	140	120	S
934	9	5	2136	24	50	S
935	9	5	2136	90	40	S
936	9	5	2136	264	100	S
937	9	5	2136	14	75	S
938	9	6	2458	140	40	U
939	9	6	2458	120	30	S
940	9	6	2458	240	100	S

Count	Count	Count	Count	Count	Count
941	9	7	2202	38	130 U
942	9	7	2202	104	170 B
943	9	7	2202	354	80 S
944	9	8	2214	184	40 U
945	9	8	2214	24	50 B
946	9	8	2214	326	180 S
947	9	9	2225	250	70 U
948	9	9	2225	306	50 B
949	9	9	2225	222	30 S
950	9	9	2225	340	130 S
951	9	9	2225	190	40 S
952	9	10	2237	158	30 S
953	9	10	2237	50	25 S
954	9	11	2247	206	30 S
955	9	11	2247	298	200 S
956	9	12	2258	270	100 B
957	9	12	2258	160	60 U
958	9	12	2258	40	60 S
959	9	13	2307	166	25 B
960	9	13	2307	106	125 S
961	9	14	2319	288	60 B
962	9	14	2319	20	90 U
963	9	14	2319	190	25 S
964	9	14	2319	92	40 S
965	9	15	2331	222	75 B
966	9	15	2331	240	30 S
967	9	15	2331	16	120 S
968	9	15	2331	300	50 S
969	9	16	2340	4	60 U
970	9	16	2340	298	75 U
971	9	16	2340	34	25 B
972	9	16	2340	134	170 S
973	9	17	2351	64	150 S
974	9	18	2403	216	60 S
975	10	1	2000	0	0 N
976	10	2	2012	304	175 S
977	10	3	2021	32	60 S
978	10	3	2021	346	100 S
979	10	4	2038	78	80 S
980	10	5	2050	0	0 N
981	10	6	2103	0	0 N
982	10	7	2219	334	100 S
983	10	7	2219	40	125 S
984	10	7	2219	306	80 S
985	10	8	2231	60	100 U
986	10	8	2231	182	50 B
987	10	8	2231	298	150 B

County	Sample	Count	Observation	Count	Observation
988	10	8	2231	18	80 B
989	10	8	2231	350	90 S
990	10	9	2245	38	120 U
991	10	9	2245	156	70 U
992	10	9	2245	350	15 S
993	10	9	2245	72	110 S
994	10	10	2300	40	40 S
995	10	10	2300	4	50 S
996	10	10	2300	300	80 S
997	10	11	2311	154	150 B
998	10	11	2311	346	100 S
999	10	11	2311	286	150 S
1000	10	11	2311	200	80 S
1001	10	12	2322	22	80 B
1002	10	12	2322	342	130 S
1003	10	13	2333	344	160 B
1004	10	13	2333	26	50 S
1005	10	13	2333	108	160 S
1006	10	14	2345	220	70 U
1007	10	14	2345	270	130 S
1008	10	14	2345	32	200 S
1009	10	14	2345	104	60 S
1010	10	15	2114	296	75 U
1011	10	15	2114	252	50 S
1012	10	16	2126	0	0 N
1013	10	17	2137	0	0 N
1014	10	18	2149	346	150 S
1015	10	18	2149	276	15 S
1016	10	18	2149	330	70 S
1017	12	1	2351	22	90 S
1018	12	2	2402	134	25 B
1019	12	2	2402	186	35 B
1020	12	3	2413	310	125 U
1021	12	3	2413	126	60 S
1022	12	3	2413	290	150 S
1023	12	4	2424	56	120 S
1024	12	4	2424	320	80 S
1025	12	4	2424	288	35 S
1026	12	5	2436	0	0 N
1027	12	6	2447	0	0 N
1028	12	7	2459	62	70 B
1029	12	7	2459	84	25 S
1030	12	7	2459	298	100 S
1031	12	8	112	320	115 S
1032	12	9	125	0	0 N
1033	12	10	136	0	0 N
1034	12	11	148	0	0 N

1035	11	12	2134	12	50	S
1036	11	12	2134	270	70	S
1037	11	13	2120	146	200	B
1038	11	13	2120	230	60	S
1039	11	13	2120	174	80	S
1040	11	14	2108	182	60	S
1041	11	14	2108	38	75	S
1042	11	15	2054	190	60	B
1043	11	15	2054	290	90	S
1044	11	16	2042	0	0	N
1045	11	17	2031	126	100	B
1046	11	18	2016	106	90	S
1047	11	18	2016	150	70	S
1048	11	19	2002	162	200	S
1049	13	1	1949	0	0	N
1050	13	2	1959	0	0	N
1051	13	3	2009	0	0	N
1052	13	4	2020	260	70	S
1053	13	4	2020	352	100	S
1054	13	4	2020	182	125	S
1055	13	5	2031	50	200	U
1056	13	5	2031	92	70	B
1057	13	5	2031	180	80	B
1058	13	5	2031	216	40	S
1059	13	6	2042	120	75	U
1060	13	6	2042	26	110	B
1061	13	6	2042	324	50	S
1062	13	7	2056	278	150	B
1063	13	7	2056	218	45	S
1064	13	7	2056	120	150	S
1065	13	8	2111	74	30	B
1066	13	8	2111	140	95	U
1067	13	8	2111	336	125	S
1068	13	8	2111	240	60	S
1069	13	9	2127	272	120	U
1070	13	9	2127	116	80	S
1071	13	10	2137	44	90	B
1072	13	10	2137	320	75	B
1073	13	10	2137	166	45	S
1074	13	11	2148	40	105	B
1075	13	11	2148	288	75	B
1076	13	12	2159	114	120	B
1077	13	12	2159	244	90	S
1078	13	13	2210	220	120	S
1079	13	14	2222	0	0	N
1080	13	15	2234	38	130	S
1081	13	15	2234	300	220	S

Cowid	Owner	Age	Sex	Weight	Height	Color
1082	13	16	2245	208	70	U
1083	13	17	2259	318	100	U
1084	13	17	2259	348	140	U
1085	13	17	2259	266	45	S
1086	13	17	2259	272	80	S
1087	13	18	2311	198	130	B
1088	13	18	2311	260	80	B
1089	13	18	2311	2	55	U
1090	13	18	2311	68	180	S