

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
81	STONCK	Stone Creek	0	0	0	0	0	0	0	0	0	0
82	SUPVIL	Supai Village	0	5	0	0	0	0	5	0	0	0
83	SURPVA	Surprise Valley	1	0	0	0	0	1	0	0	0	0
84	TOROWP	Toroweap Overlook	0	17	0	0	0	0	20	0	0	0
85	TWPRS	Tuweep Ranger Station	8	7	0	0	0	17	10	0	0	0
86	UPDRCK	Upper Deer Creek	1	1	0	0	0	1	1	0	0	0
West End												
87	ADMIN	NPS Administration site	3	17	0	0	0	2	18	0	0	0
88	ANDRUS	Andrus Canyon	2	10	0	0	0	1	11	0	0	0
89	BATCAV	Bat Cave	88	47	59	24	4	83	46	57	23	3
90	BRNTSP	Burnt Springs Canyon	75	47	66	23	4	69	44	60	16	1
91	CASTLE	Castle Peak	1	12	0	0	0	1	13	0	0	0
92	DIACRK	Diamond Creek	0	0	0	0	0	0	0	0	0	0
93	GC018	Separation Canyon (warm desert scrub)	0	9	0	0	0	1	10	0	0	0
94	GCWEST	Grand Canyon West	91	34	13	1	0	85	32	10	1	0
95	GRAGOR	Granite Gorge	39	22	0	0	0	37	21	0	0	0
96	GRID27	Grid Location Point 27	28	36	16	3	0	35	38	23	4	0
97	GRID28	Grid Location Point 28	41	26	2	0	0	52	28	5	0	0
98	GRID29	Grid Location Point 29	18	15	0	0	0	14	17	0	0	0
99	GRID30	Grid Location Point 30	64	33	10	1	0	55	35	19	2	0
100	GRID31	Grid Location Point 31	19	17	0	0	0	14	17	0	0	0
101	GRID32	Grid Location Point 32	47	33	11	1	0	51	31	9	0	0
102	GRID33	Grid Location Point 33	75	42	43	10	0	65	40	45	5	0
103	GRID34	Grid Location Point 34	0	2	0	0	0	0	2	0	0	0
104	GRNTPK	Granite Peak	21	28	3	0	0	17	27	1	0	0
105	GUSPLT	Gus Plateau	53	41	18	6	1	62	38	16	5	0
106	HFCAN	Horse Flat Canyon	17	17	0	0	0	7	17	0	0	0
107	KELLPT	Kelly Point	1	10	0	0	0	1	10	0	0	0
108	MERIWHL	Meriwhitca	0	8	0	0	0	1	8	0	0	0
109	MTDELL	Mt. Dellenbaugh	2	17	0	0	0	1	18	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
110	NONAME	Jackson Canyon	26	26	3	0	0	17	27	4	0	0
111	PARWAS	Parashant Wash	7	23	1	0	0	11	26	2	0	0
112	PMPKIN	Pumpkin Springs	0	9	0	0	0	0	10	0	0	0
113	PSCNNO	Peach Spring Canyon North	0	4	0	0	0	0	4	0	0	0
114	PSCNSO	Peach Spring Canyon South	NA	0	0	0	0	NA	0	0	0	0
115	QMPNT	Quartermaster Point	71	42	27	10	0	69	43	27	12	0
116	SADMTN	Saddle Mountain	51	37	16	5	0	20	36	12	4	0
117	SANUP	Sanup	62	34	15	1	0	54	34	21	0	0
118	SCCORV	Separation Canyon, 1km N of Colorado River	1	9	0	0	0	1	9	0	0	0
119	SCMCIG	Spencer/Meriwhitca Canyons	0	4	0	0	0	0	5	0	0	0
120	SEPARC	Separation Canyon at Colorado River	0	8	0	0	0	0	8	0	0	0
121	SHWZFC	Shivwitz Fire Camp	1	15	0	0	0	2	16	0	0	0
122	SPENCA	Spencer Canyon	0	9	0	0	0	0	11	0	0	0
123	SUIPNT	Suicide Point	44	40	18	5	1	48	37	16	4	0
124	THRSPR	Three Springs	13	15	0	0	0	9	13	0	0	0
125	TWINPT	Twin Point	53	40	25	5	1	54	38	31	4	0
126	WESEND	West End	41	39	25	7	0	29	36	21	3	0
127	WHTRAP	Whitmore Rapids	9	33	9	2	0	16	37	21	6	0

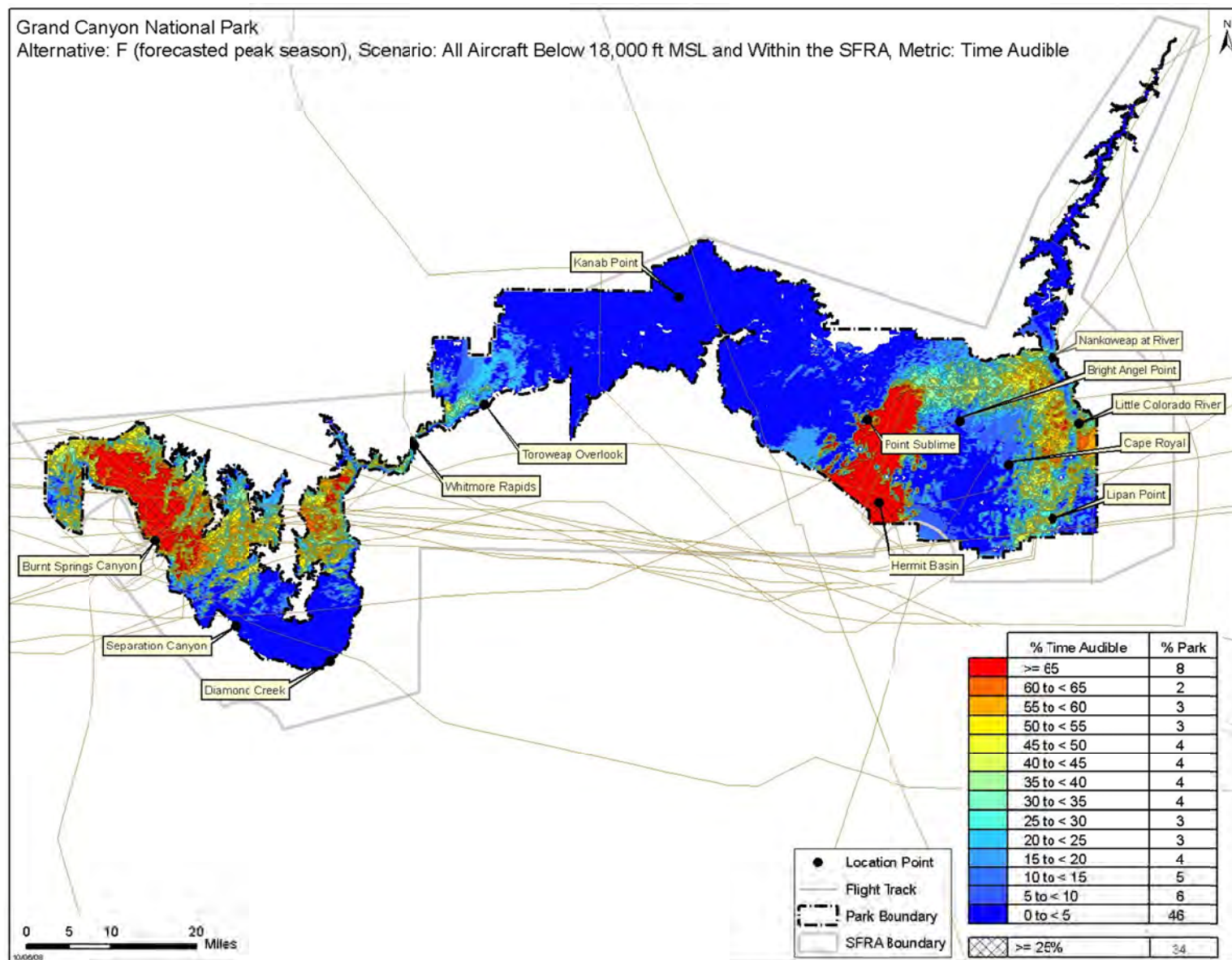


FIGURE 45 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

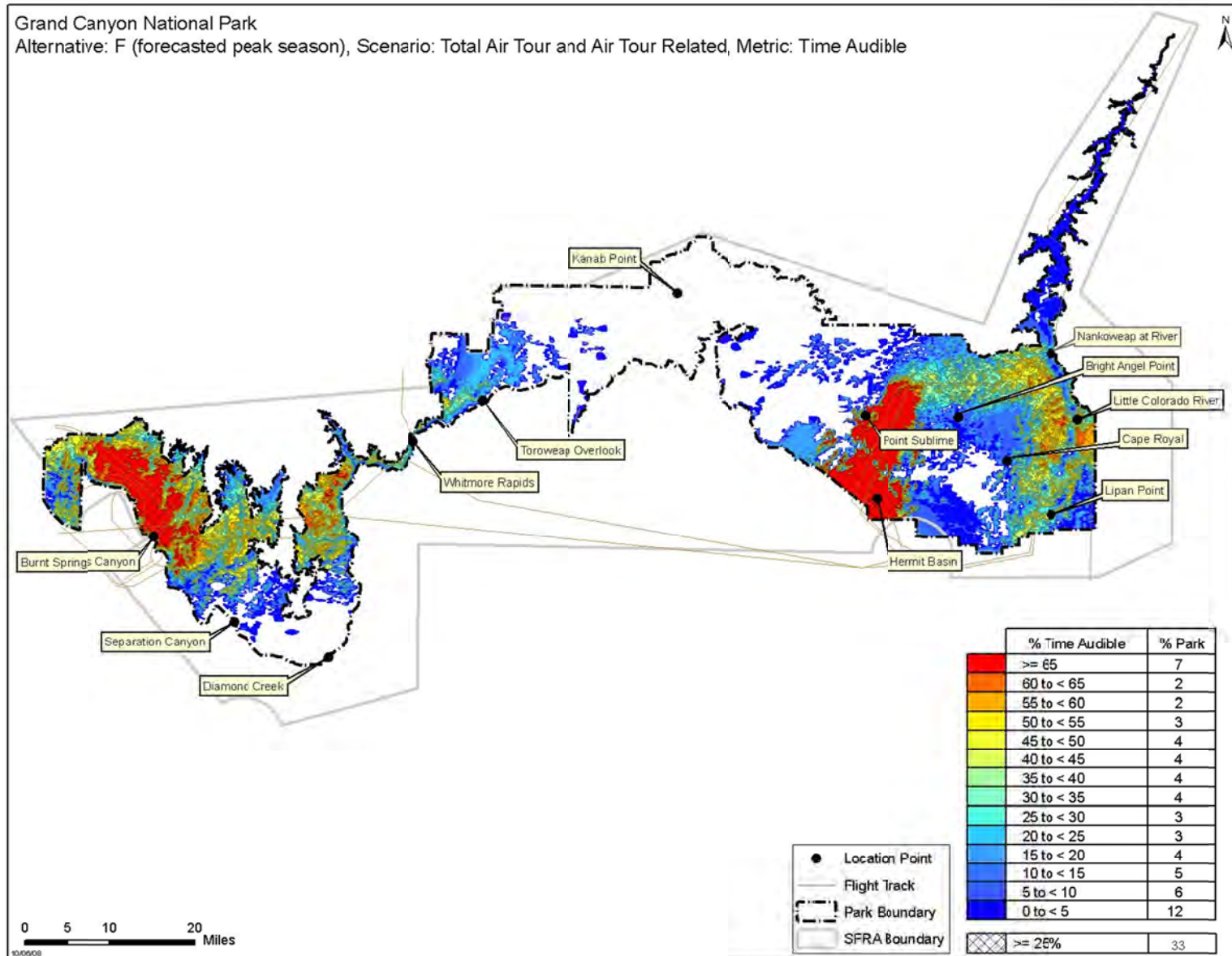


FIGURE 46 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

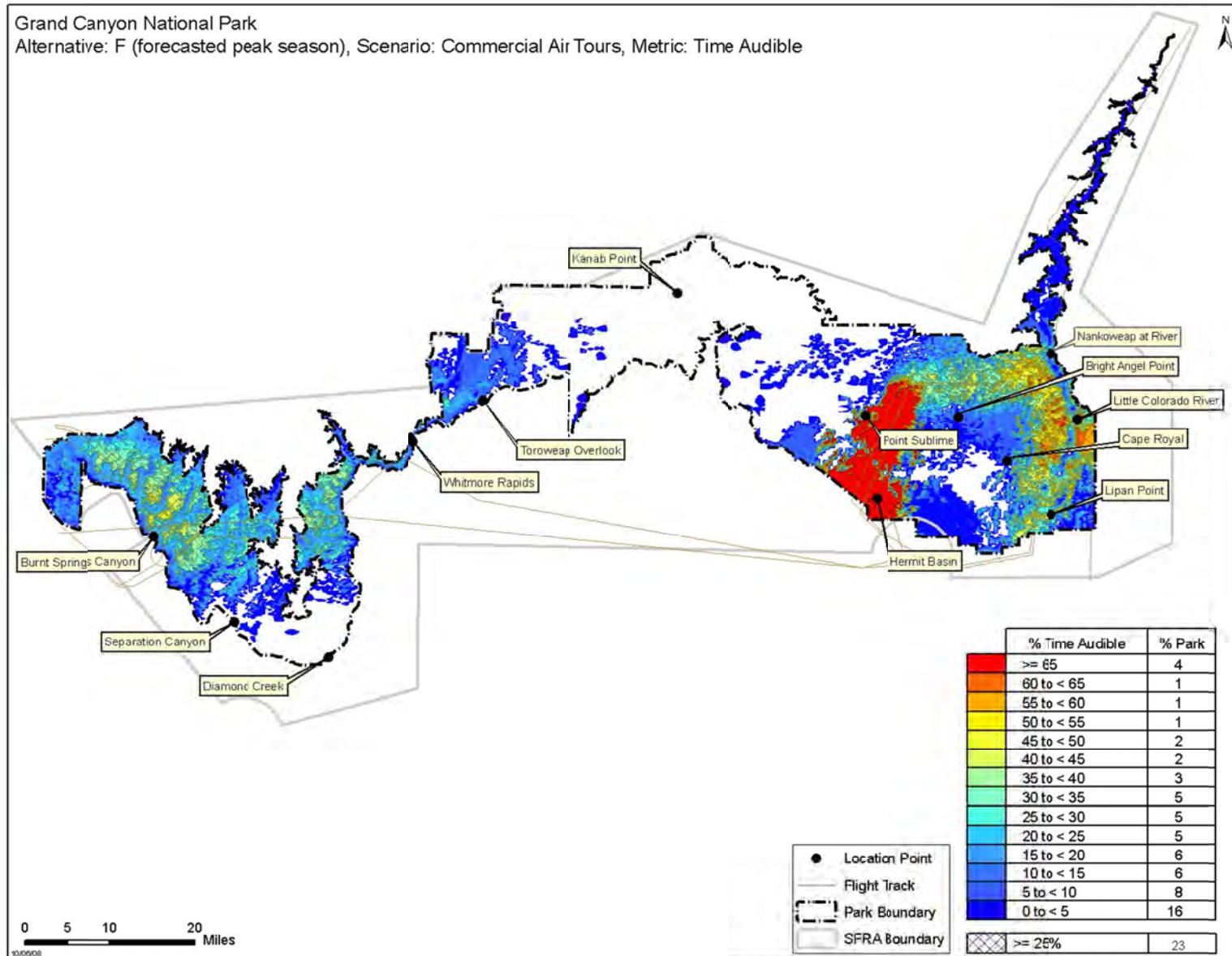


FIGURE 47 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – COMMERCIAL AIR-TOURS

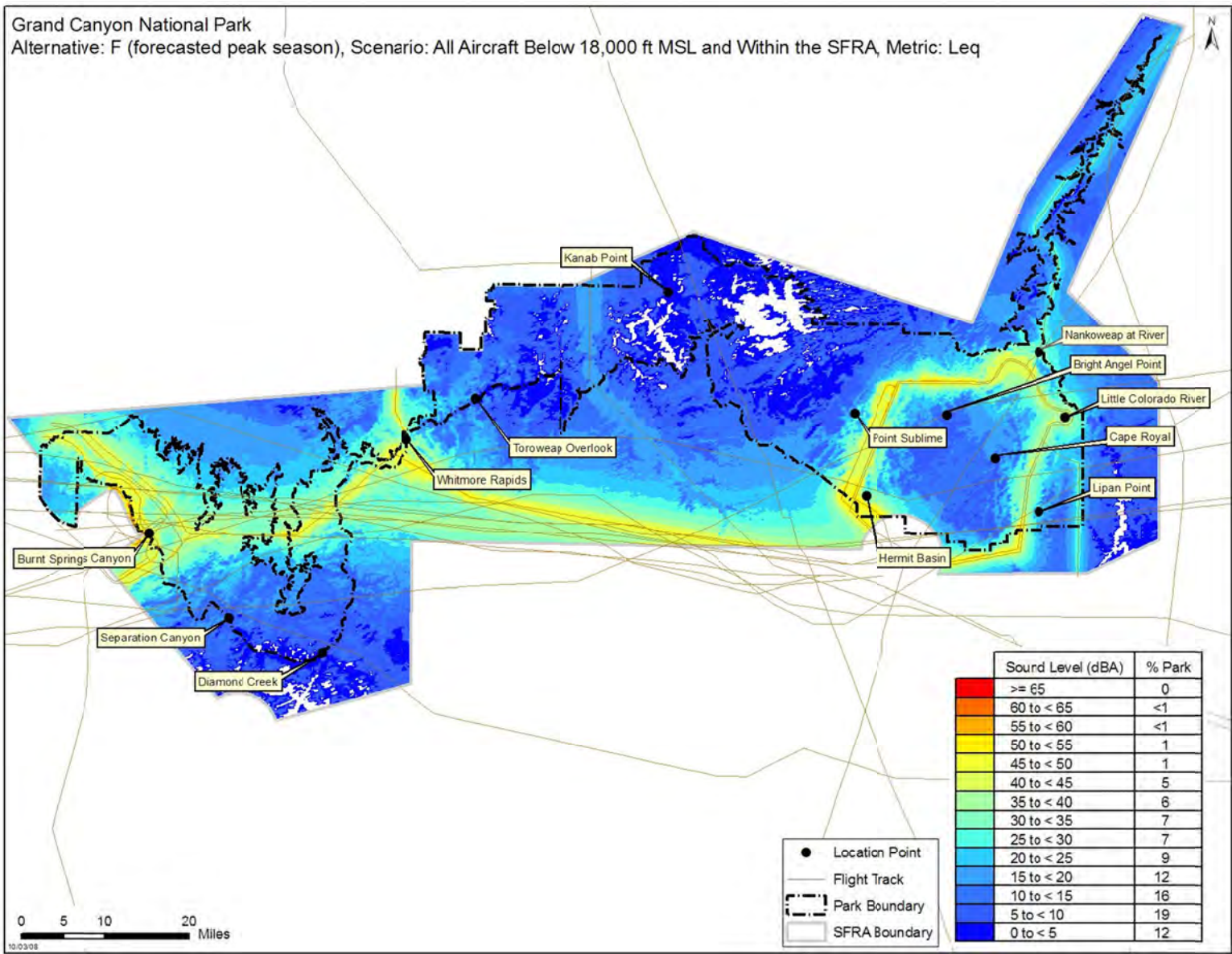


FIGURE 48 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – L_{AEQ12} CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

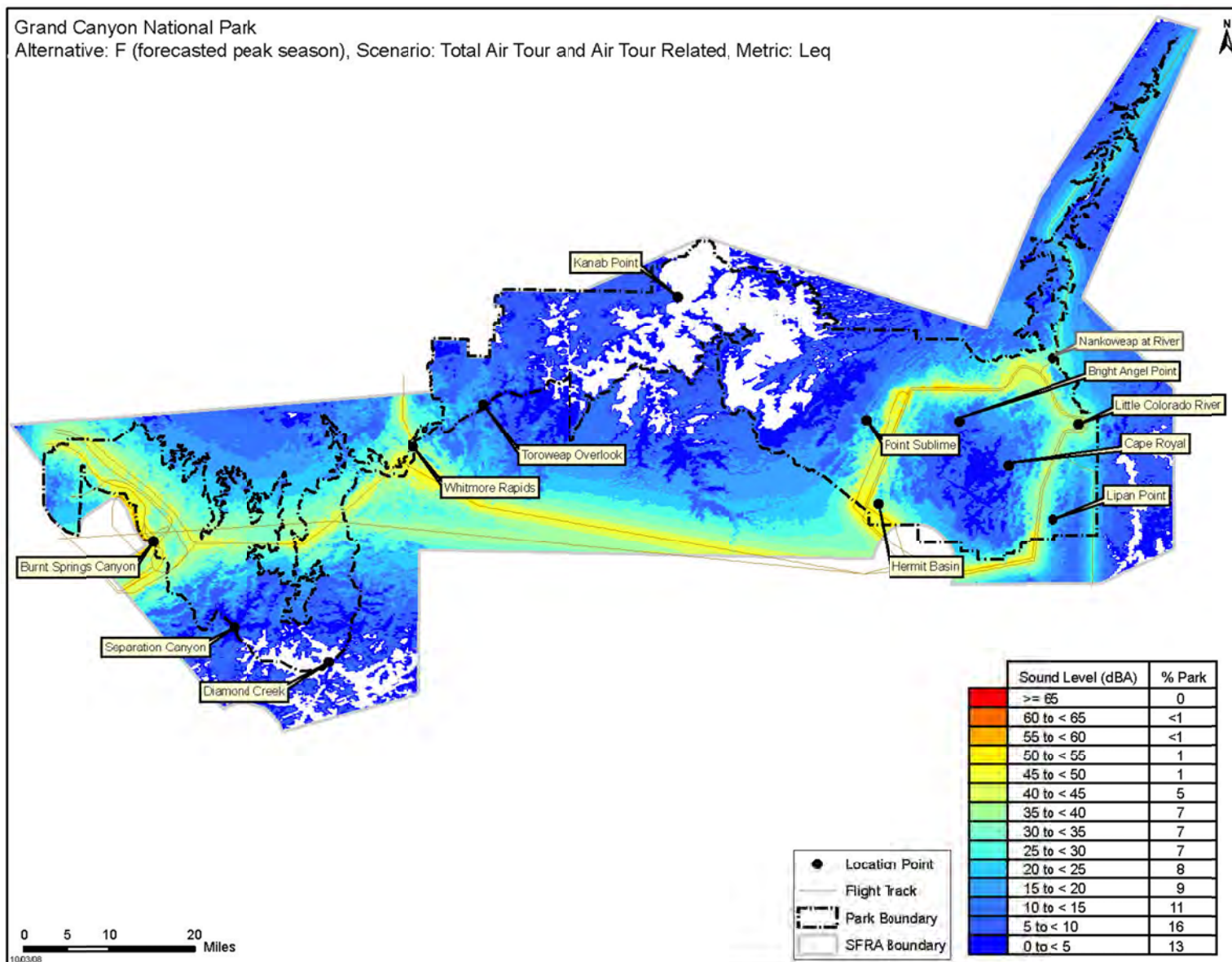


FIGURE 49 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – L_{AEQ12} CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

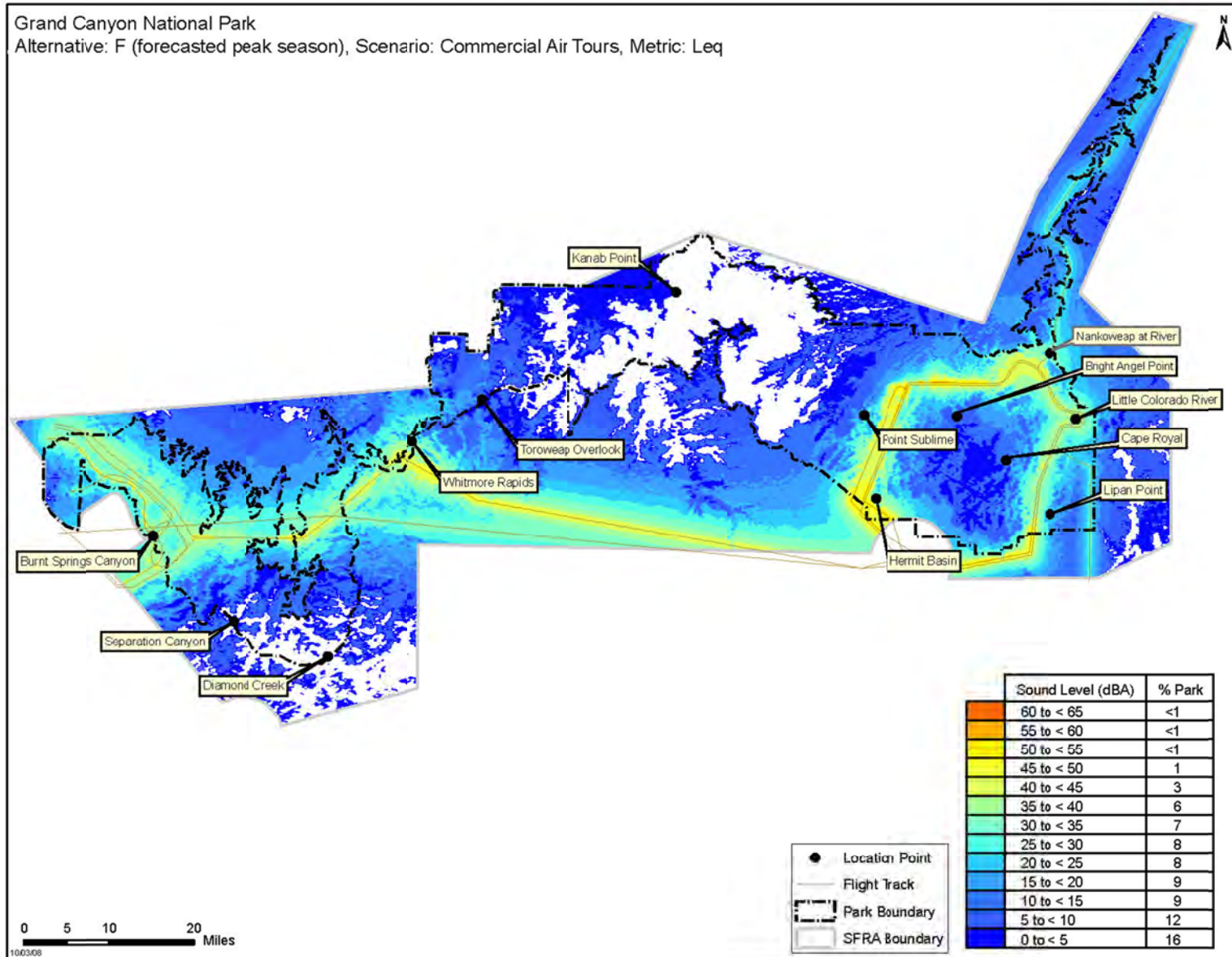


FIGURE 50 ALTERNATIVE F (TEN-YEAR FORECASTED PEAK SEASON) – L_{AEQ12} CONTOURS – COMMERCIAL AIR TOURS

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TABLE 26 DETAILED CONTOUR ANALYSIS RESULTS WITHIN GCNP- ALTERNATIVE F (PEAK SEASON) FOR THE TEN-YEAR FORECAST

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Developed		% Of Management Zone					
	>= 65	6	6	5	0	0	0
	60 to < 65	1	1	1	0	0	0
	55 to < 60	1	1	1	0	0	0
	50 to < 55	1	1	1	1	1	1
	45 to < 50	1	1	1	2	2	2
	40 to < 45	5	4	3	1	1	1
	35 to < 40	5	6	6	2	2	2
	30 to < 35	6	6	6	5	5	4
	25 to < 30	4	4	3	14	13	12
	20 to < 25	5	4	3	36	36	29
	15 to < 20	10	10	4	31	28	34
	10 to < 15	11	10	7	8	11	13
	5 to < 10	24	22	17	2	2	2
	0 to < 5	21	22	39	0	1	1
Non-Wilderness		% Of Management Zone					
	>= 65	9	9	9	0	0	0
	60 to < 65	1	1	1	0	0	0
	55 to < 60	1	1	0	0	0	0
	50 to < 55	1	1	1	2	2	2
	45 to < 50	1	1	1	4	4	4
	40 to < 45	3	2	2	3	3	3
	35 to < 40	5	4	4	4	4	4
	30 to < 35	6	6	6	8	8	7
	25 to < 30	5	5	5	15	15	13
	20 to < 25	4	4	3	19	17	16
	15 to < 20	6	6	5	17	17	19
	10 to < 15	9	8	7	17	13	13
	5 to < 10	19	17	9	10	13	9
	0 to < 5	31	25	37	1	2	7

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Proposed Wilderness		% Of Management Zone					
	>= 65	8	7	4	0	0	0
	60 to < 65	2	2	1	0	0	0
	55 to < 60	3	3	1	0	0	0
	50 to < 55	3	3	1	0	0	0
	45 to < 50	4	4	2	1	1	1
	40 to < 45	4	4	2	5	5	3
	35 to < 40	4	4	3	7	7	6
	30 to < 35	4	4	4	7	7	7
	25 to < 30	3	3	5	7	7	7
	20 to < 25	3	3	5	8	7	7
	15 to < 20	4	4	6	12	9	8
	10 to < 15	5	4	6	16	11	9
	5 to < 10	5	5	7	19	17	13
	0 to < 5	47	12	15	13	14	16
Entire Park		% Of GCNP					
	>= 65	8	7	4	0	0	0
	60 to < 65	2	2	1	0	0	0
	55 to < 60	3	2	1	0	0	0
	50 to < 55	3	3	1	1	1	0
	45 to < 50	4	4	2	1	1	1
	40 to < 45	4	4	2	5	5	3
	35 to < 40	4	4	3	6	7	6
	30 to < 35	4	4	5	7	7	7
	25 to < 30	3	3	5	7	7	8
	20 to < 25	3	3	5	9	8	8
	15 to < 20	4	4	6	12	9	9
	10 to < 15	5	5	6	16	11	10
	5 to < 10	6	6	8	19	16	12
	0 to < 5	46	12	16	12	13	15

1

TABLE 27 DETAILED CONTOUR ANALYSIS RESULTS WITHIN THE SFRA - ALTERNATIVE F (PEAK SEASON) FOR THE TEN-YEAR FORECAST

Results Within the SFRA		All Aircraft Below 18,000 ft MSL and Within the SFRA	%TAUD		All Aircraft Below 18,000 ft MSL and Within the SFRA	L _{Aeq12} (dBA)	
			Air-tour and Air-tour Related	Commercial Air-tours		Air-tour and Air-tour Related	Commercial Air-tours
	>= 65	N/A	N/A	N/A	0	0	0
	60 to < 65	N/A	N/A	N/A	0	0	0
	55 to < 60	N/A	N/A	N/A	0	0	0
	50 to < 55	N/A	N/A	N/A	0	0	0
	45 to < 50	N/A	N/A	N/A	2	2	1
	40 to < 45	N/A	N/A	N/A	4	4	3
	35 to < 40	N/A	N/A	N/A	7	7	5
	30 to < 35	N/A	N/A	N/A	7	7	7
	25 to < 30	N/A	N/A	N/A	7	7	8
	20 to < 25	N/A	N/A	N/A	10	9	8
	15 to < 20	N/A	N/A	N/A	16	12	11
	10 to < 15	N/A	N/A	N/A	17	15	14
	5 to < 10	N/A	N/A	N/A	17	16	15
	0 to < 5	N/A	N/A	N/A	10	12	13

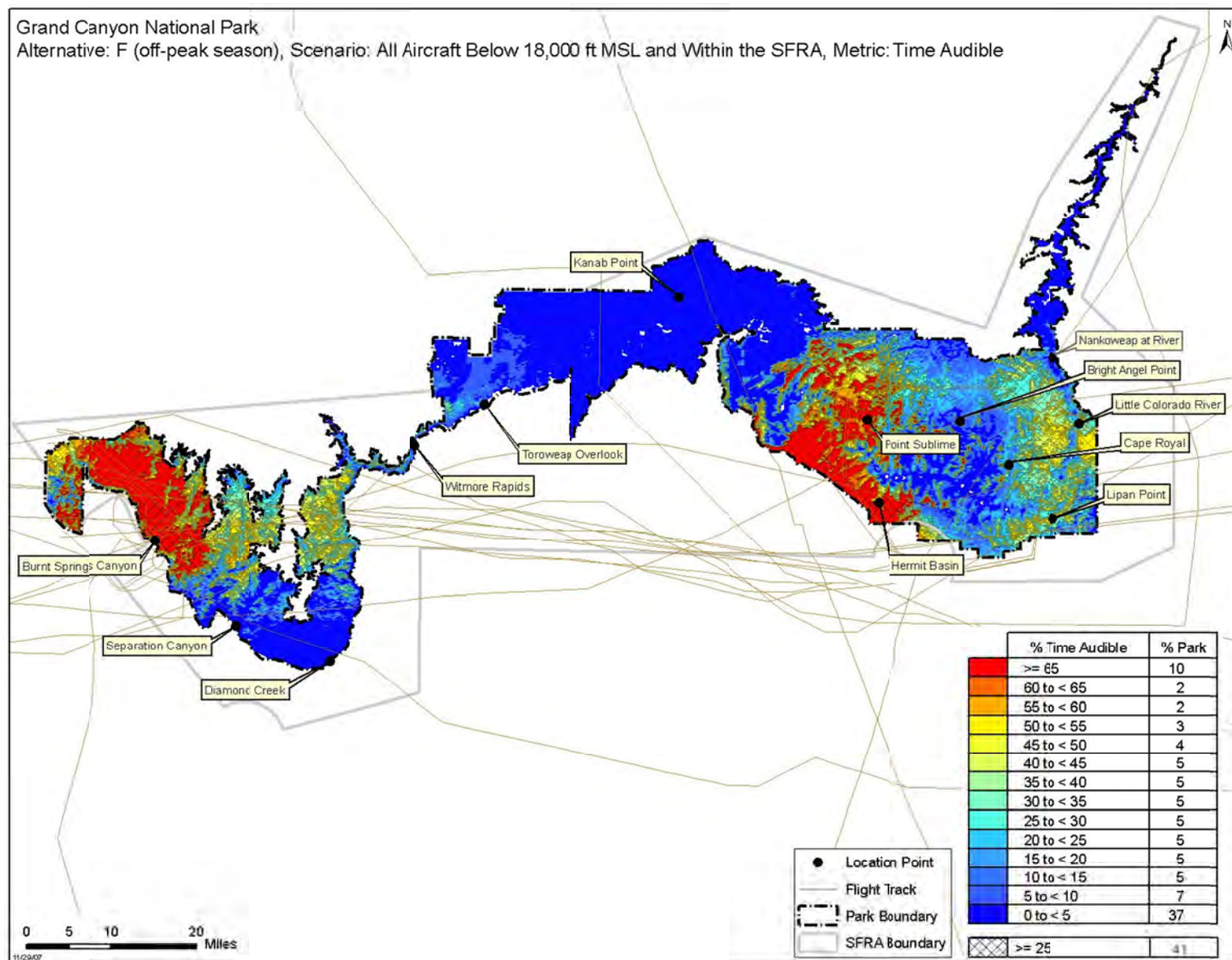


FIGURE 51 ALTERNATIVE F (OFF-PEAK SEASON) – %TAUD CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

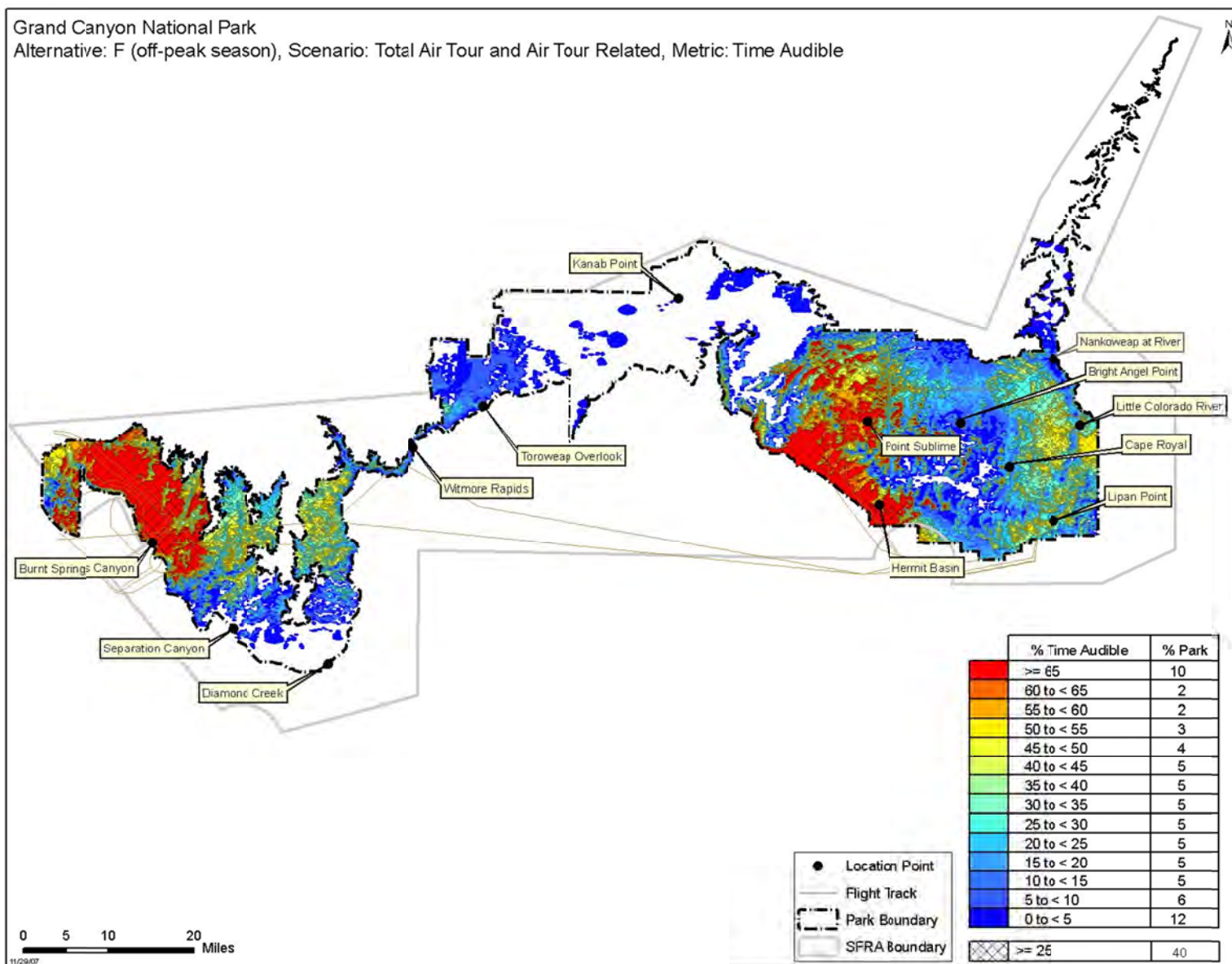


FIGURE 52 ALTERNATIVE F (OFF-PEAK SEASON) – %TAUD CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

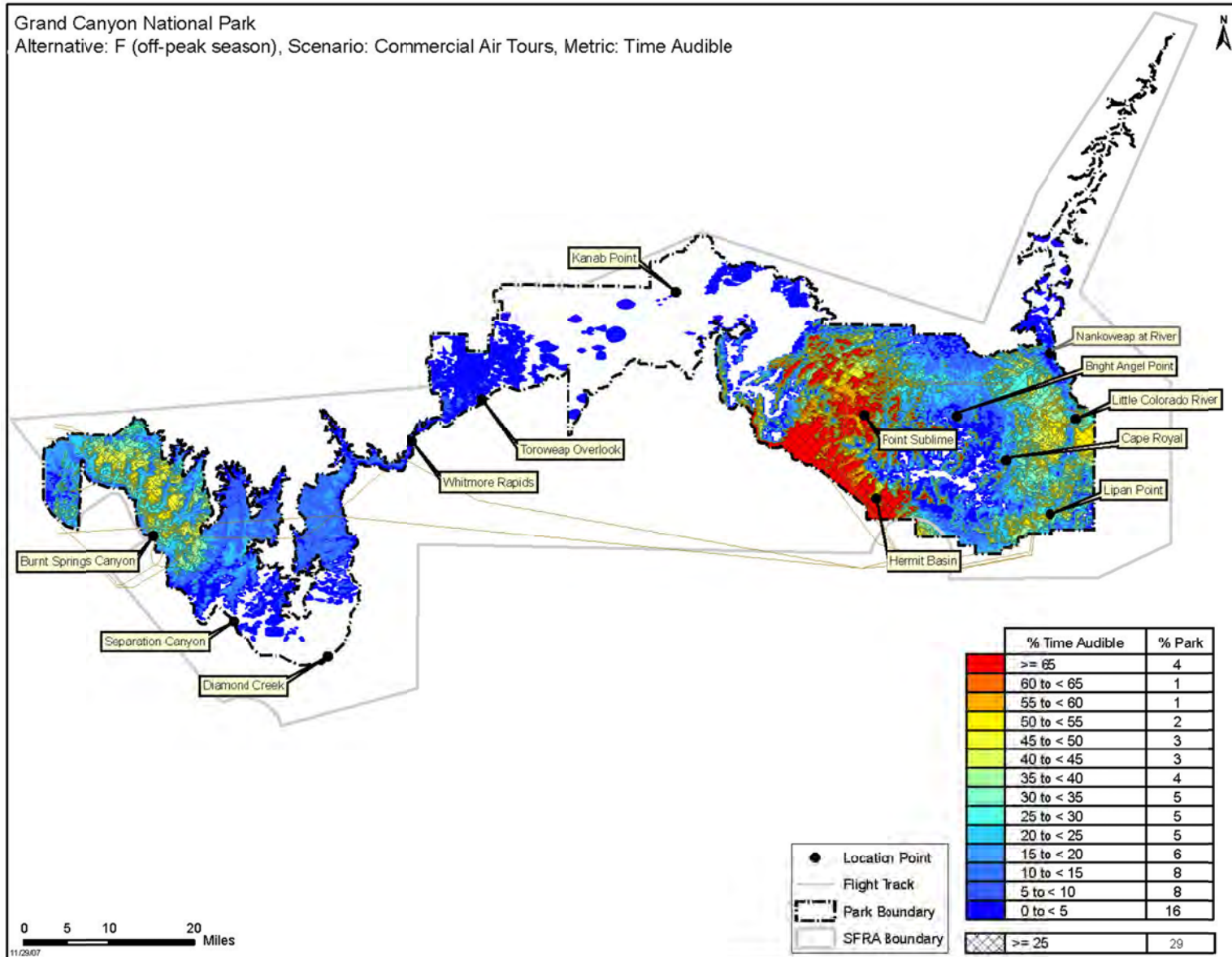


FIGURE 53 ALTERNATIVE F (OFF-PEAK SEASON) – %TAUD CONTOURS – COMMERCIAL AIR-TOURS

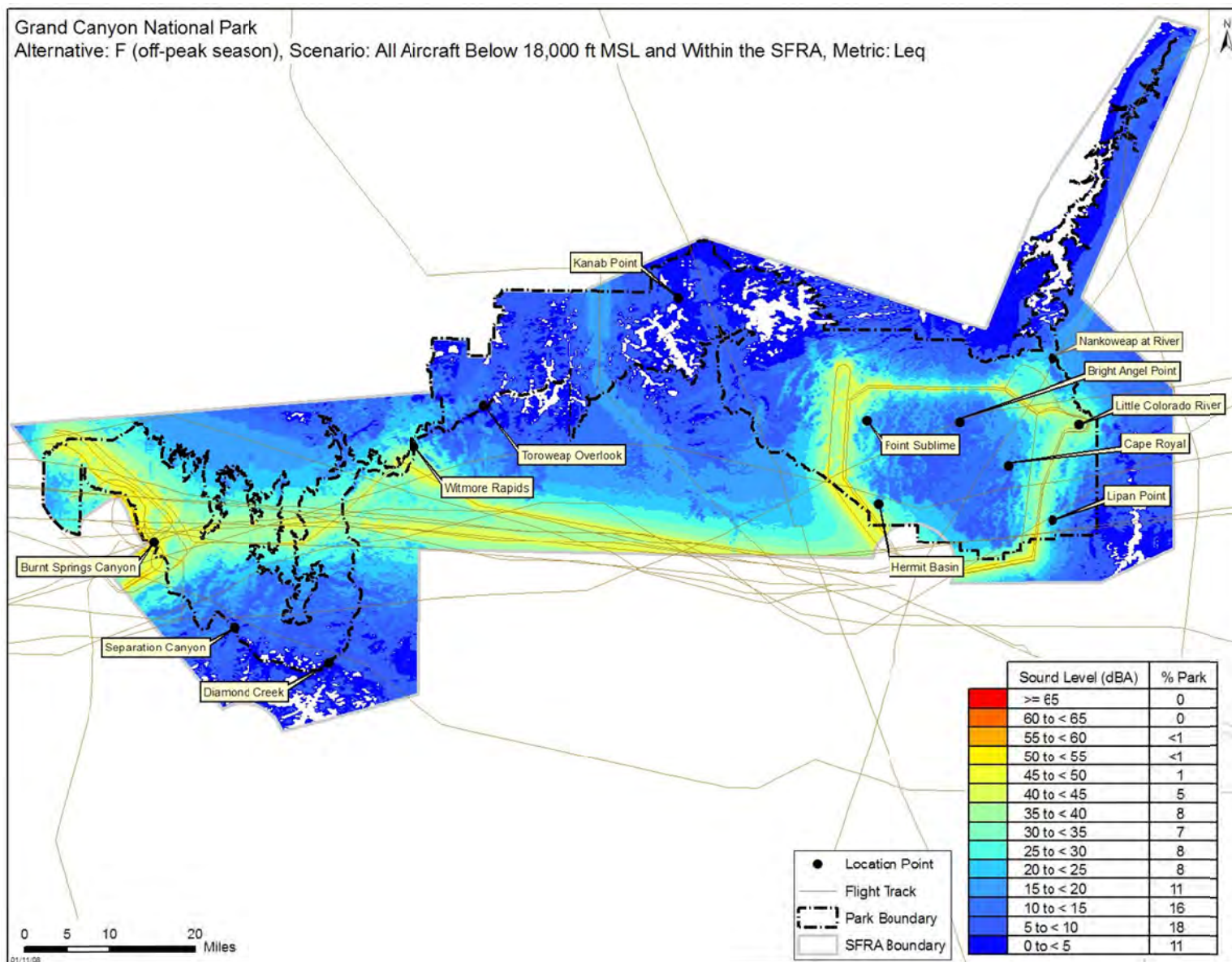


FIGURE 54 ALTERNATIVE F (OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

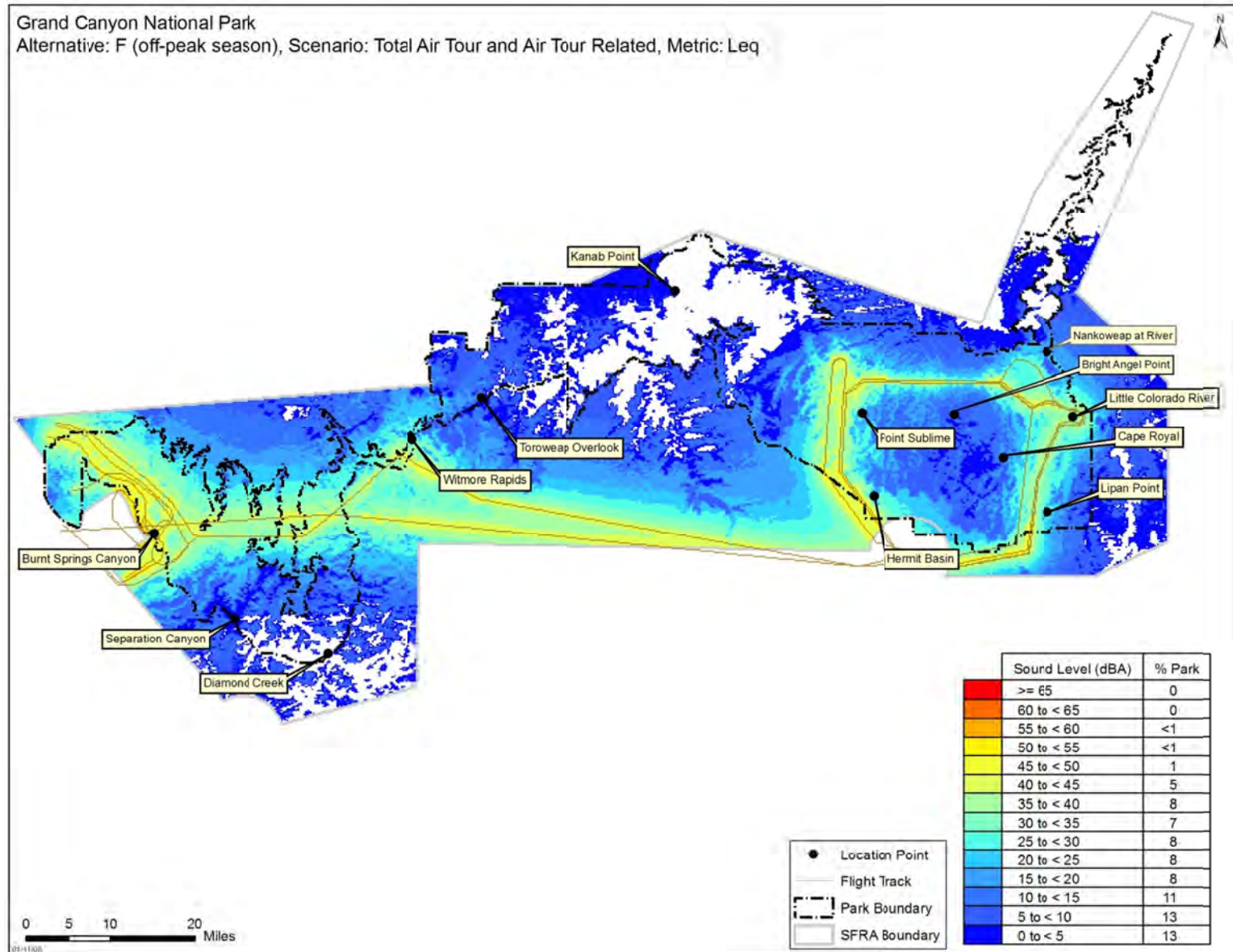


FIGURE 55 ALTERNATIVE F (OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

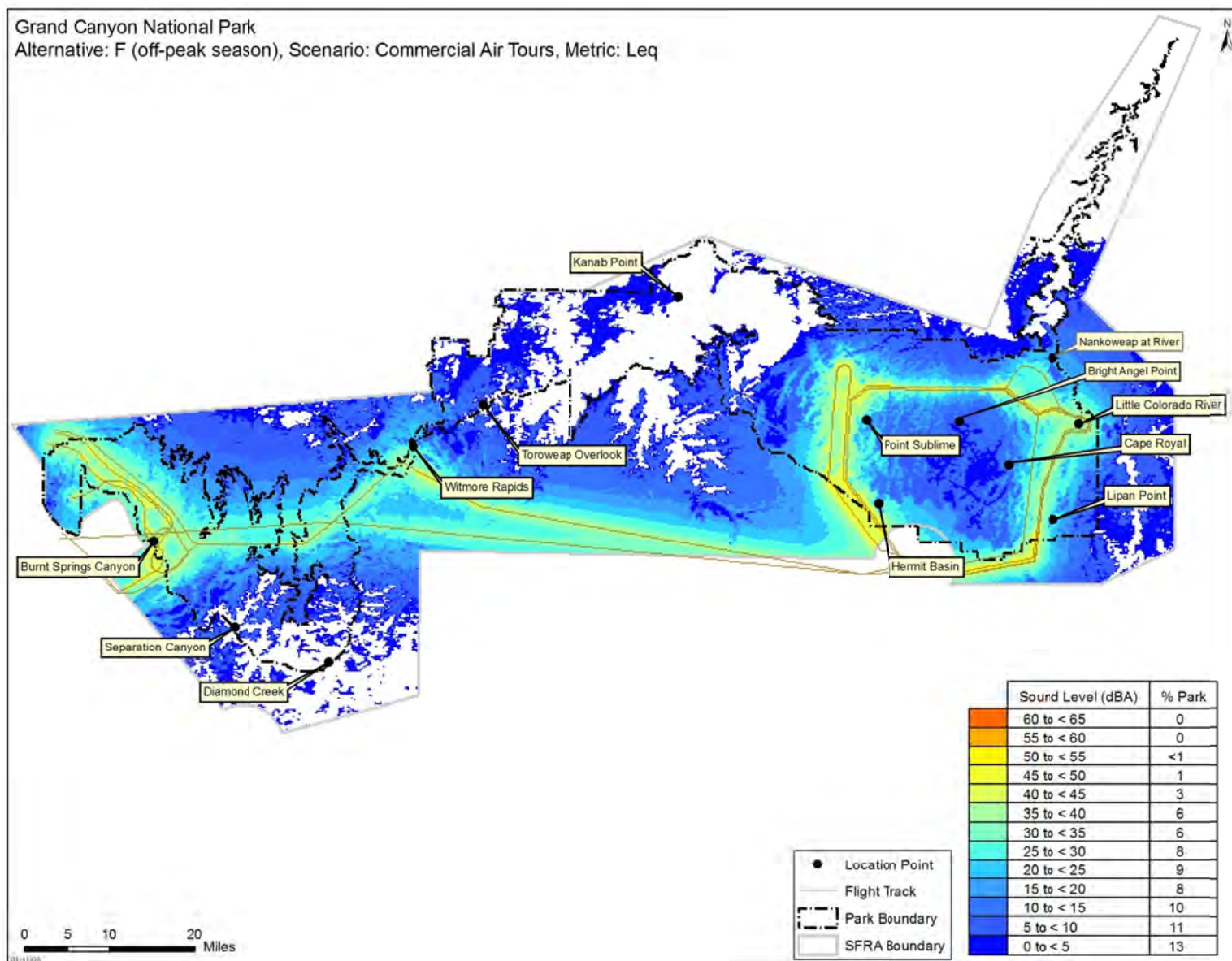


FIGURE 56 ALTERNATIVE F (OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – COMMERCIAL AIR-TOURS

1

TABLE 28 DETAILED CONTOUR ANALYSIS RESULTS WITHIN GCNP- ALTERNATIVE F (OFF-PEAK SEASON)

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Developed		% Of Management Zone					
	>= 65	14	14	10	0	0	0
	60 to < 65	2	2	4	0	0	0
	55 to < 60	3	3	2	0	0	0
	50 to < 55	4	4	3	0	0	0
	45 to < 50	4	4	4	1	1	1
	40 to < 45	6	6	5	1	1	1
	35 to < 40	7	7	8	1	1	1
	30 to < 35	6	6	5	6	6	6
	25 to < 30	6	6	5	11	11	9
	20 to < 25	8	8	8	39	36	25
	15 to < 20	8	8	8	25	25	37
	10 to < 15	11	11	11	12	14	15
	5 to < 10	11	11	6	2	4	4
	0 to < 5	10	10	19	0	0	2
Non-Wilderness		% Of Management Zone					
	>= 65	12	12	12	0	0	0
	60 to < 65	1	1	1	0	0	0
	55 to < 60	1	1	1	0	0	0
	50 to < 55	2	2	1	0	0	0
	45 to < 50	2	2	2	2	2	2
	40 to < 45	4	4	3	2	2	2
	35 to < 40	6	6	6	3	3	3
	30 to < 35	6	6	7	8	8	8
	25 to < 30	9	8	7	14	14	11
	20 to < 25	11	11	11	23	23	23
	15 to < 20	12	12	12	11	10	13
	10 to < 15	11	11	12	17	13	12
	5 to < 10	10	9	9	16	18	17
	0 to < 5	12	10	13	2	5	7

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Proposed Wilderness		% Of Management Zone					
	>= 65	10	9	4	0	0	0
	60 to < 65	2	2	1	0	0	0
	55 to < 60	3	2	2	0	0	0
	50 to < 55	3	3	2	0	0	0
	45 to < 50	4	4	3	1	1	0
	40 to < 45	5	5	3	5	5	3
	35 to < 40	5	5	4	8	8	7
	30 to < 35	5	5	4	7	7	6
	25 to < 30	5	5	5	8	8	8
	20 to < 25	4	4	5	7	7	8
	15 to < 20	4	4	6	11	7	8
	10 to < 15	4	4	7	16	11	10
	5 to < 10	7	6	8	18	13	10
	0 to < 5	39	13	17	12	14	13
Entire Park		% Of GCNP					
	>= 65	10	10	4	0	0	0
	60 to < 65	2	2	1	0	0	0
	55 to < 60	2	2	1	0	0	0
	50 to < 55	3	3	2	0	0	0
	45 to < 50	4	4	3	1	1	1
	40 to < 45	5	5	3	5	5	3
	35 to < 40	5	5	4	8	8	6
	30 to < 35	5	5	5	7	7	6
	25 to < 30	5	5	5	8	8	8
	20 to < 25	5	5	5	8	8	9
	15 to < 20	5	5	6	11	8	8
	10 to < 15	5	5	8	16	11	10
	5 to < 10	7	6	8	18	13	11
	0 to < 5	37	12	16	11	13	13

1

TABLE 29 DETAILED CONTOUR ANALYSIS RESULTS WITHIN THE SFRA - ALTERNATIVE F (OFF-PEAK SEASON)

Results Within the SFRA		All Aircraft Below 18,000 ft MSL and Within the SFRA	%TAUD		All Aircraft Below 18,000 ft MSL and Within the SFRA	L _{Aeq12} (dBA)	
			Air-tour and Air-tour Related	Commercial Air-tours		Air-tour and Air-tour Related	Commercial Air-tours
	>= 65	N/A	N/A	N/A	0	0	0
	60 to < 65	N/A	N/A	N/A	0	0	0
	55 to < 60	N/A	N/A	N/A	0	0	0
	50 to < 55	N/A	N/A	N/A	0	0	0
	45 to < 50	N/A	N/A	N/A	1	1	1
	40 to < 45	N/A	N/A	N/A	5	5	2
	35 to < 40	N/A	N/A	N/A	7	7	4
	30 to < 35	N/A	N/A	N/A	6	6	6
	25 to < 30	N/A	N/A	N/A	7	7	7
	20 to < 25	N/A	N/A	N/A	8	7	7
	15 to < 20	N/A	N/A	N/A	13	9	8
	10 to < 15	N/A	N/A	N/A	16	12	11
	5 to < 10	N/A	N/A	N/A	18	14	14
	0 to < 5	N/A	N/A	N/A	12	14	14

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1 TABLE 30 RESULTS FOR 127 POINT LOCATIONS - ALTERNATIVE F (OFF-PEAK SEASON) - ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
Marble Canyon												
1	CLDWEL	Cliff Dwellers Lodge	0	0	0	0	0	0	0	0	0	0
2	GRID01	Grid Location Point 1	0	3	0	0	0	0	3	0	0	0
3	GRID02	Grid Location Point 2	1	13	0	0	0	1	13	0	0	0
4	GRID03	Grid Location Point 3	1	7	0	0	0	1	7	0	0	0
5	GRID04	Grid Location Point 4	0	0	0	0	0	0	0	0	0	0
6	GRID05	Grid Location Point 5	0	0	0	0	0	0	0	0	0	0
7	MARBDM	Marble Canyon Dam Site	0	0	0	0	0	0	0	0	0	0
8	NOCANY	North Canyon	0	0	0	0	0	0	0	0	0	0
9	SOCAN	South Canyon	0	0	0	0	0	0	0	0	0	0
East End												
10	96MILE	96 Mile Camp	1	13	0	0	0	0	10	0	0	0
11	BASCMP	Bass Camp	37	33	13	0	0	20	29	8	0	0
12	BASIN	The Basin	26	30	4	1	0	16	26	3	0	0
13	BRTANG	Bright Angel Point	2	13	0	0	0	2	11	0	0	0
14	CAPROY	Cape Royal	31	21	0	0	0	7	16	0	0	0
15	CEDRIG	Cedar Ridge	20	14	0	0	0	5	12	0	0	0
16	DSRTVW	Desert View	46	24	1	0	0	19	18	0	0	0
17	ELTOVR	El Tovar	19	11	0	0	0	8	8	0	0	0
18	GC008	Pasture Wash (pinyon-juniper)	90	25	0	0	0	58	20	0	0	0
19	GC011	South Rim (ponderosa pine)	13	21	0	0	0	5	19	0	0	0
20	GC015	Rainbow Plateau (ponderosa pine)	24	13	0	0	0	2	10	0	0	0
21	GC031	Eremita Mesa	95	49	37	14	5	83	47	36	11	4
22	GC032	1.5 km SE of Moran Point	38	36	15	3	0	22	33	9	2	0
23	GRID06	Grid Location Point 6	12	8	0	0	0	3	4	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
24	GRID07	Grid Location Point 7	17	11	0	0	0	2	7	0	0	0
25	GRID10	Grid Location Point 10	66	32	10	1	0	16	29	5	0	0
26	GRID11	Grid Location Point 11	16	11	0	0	0	7	9	0	0	0
27	GRID12	Grid Location Point 12	1	12	0	0	0	1	12	0	0	0
28	GRID13	Grid Location Point 13	1	9	0	0	0	1	8	0	0	0
29	GRID14	Grid Location Point 14	43	30	7	0	0	27	24	2	0	0
30	GRID15	Grid Location Point 15	33	38	16	5	0	17	35	12	2	0
31	GRID16	Grid Location Point 16	37	15	0	0	0	21	13	0	0	0
32	GRID17	Grid Location Point 17	38	15	0	0	0	7	8	0	0	0
33	GRID18	Grid Location Point 18	57	39	20	5	0	32	35	11	4	0
34	GRID19	Grid Location Point 19	21	38	12	4	0	10	34	9	2	0
35	HBASIN	Hermit Basin	60	23	1	0	0	32	19	0	0	0
36	LIPAN	Lipan Point	45	29	6	0	0	22	24	0	0	0
37	LITCOL	Little Colorado	0	3	0	0	0	0	0	0	0	0
38	LTCORV	Little Colorado River	17	38	21	6	0	12	33	14	1	0
39	NANMES	Nankoweap Mesa	53	29	4	0	0	33	25	2	0	0
40	NANRIV	Nankoweap at River	0	20	1	0	0	0	17	0	0	0
41	NAVA1	Navajo 1	1	9	0	0	0	1	7	0	0	0
42	NAVA2	Navajo 2	0	6	0	0	0	0	3	0	0	0
43	PHANTM	Phantom Ranch	1	7	0	0	0	1	6	0	0	0
44	PTIMPR	Point Imperial	28	18	0	0	0	2	14	0	0	0
45	PTSUBL	Point Sublime	89	19	0	0	0	24	17	0	0	0
46	RANCH	The Ranch	85	33	11	0	0	61	30	6	0	0
47	TEMBUT	Temple Butte	37	31	9	1	0	23	27	4	0	0
48	TENMED	Ten X Meadow	38	42	13	5	1	18	39	12	4	1
49	TOWER	Tower of Ra	17	15	0	0	0	6	13	0	0	0
50	TUSAYN	Tusayan	36	29	6	0	0	15	24	1	0	0
51	ZUNALF	Zuni Alpha	22	41	14	5	1	11	38	12	4	0
52	ZUNCHR	Zuni Charlie	32	23	1	0	0	14	17	0	0	0
Central												
53	COYCAN	Coyote Canyon	0	16	0	0	0	0	16	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
54	DOME	The Dome	1	12	0	0	0	1	13	0	0	0
55	GC009	Tuweep (warm desert scrub)	8	18	0	0	0	17	21	0	0	0
56	GC010	Tuweep (cold desert scrub)	4	9	0	0	0	9	11	0	0	0
57	GC016	Hancock Knolls (pinyon-juniper)	2	9	0	0	0	2	10	0	0	0
58	GC017	1 km W of Kanab Point (cold desert scrub)	2	7	0	0	0	2	8	0	0	0
59	GC033	Fossil Canyon	18	11	0	0	0	3	10	0	0	0
60	GRID08	Grid Location Point 8	25	10	0	0	0	3	10	0	0	0
61	GRID09	Grid Location Point 9	1	6	0	0	0	1	4	0	0	0
62	GRID20	Grid Location Point 20	0	4	0	0	0	0	4	0	0	0
63	GRID21	Grid Location Point 21	2	14	0	0	0	2	14	0	0	0
64	GRID22	Grid Location Point 22	1	8	0	0	0	1	10	0	0	0
65	GRID23	Grid Location Point 23	2	9	0	0	0	2	10	0	0	0
66	GRID24	Grid Location Point 24	2	6	0	0	0	2	8	0	0	0
67	GRID25	Grid Location Point 25	2	6	0	0	0	2	7	0	0	0
68	GRID26	Grid Location Point 26	1	11	0	0	0	1	11	0	0	0
69	GRID35	Grid Location Point 35	0	1	0	0	0	0	1	0	0	0
70	GRID36	Grid Location Point 36	0	2	0	0	0	0	2	0	0	0
71	HAVAPT	Havasupai Point	0	0	0	0	0	0	0	0	0	0
72	HAVCAN	Havataagvitch Canyon	1	7	0	0	0	1	7	0	0	0
73	KANAPT	Kanab Point	3	8	0	0	0	3	8	0	0	0
74	MOHAWK	Mohawk Canyon	0	8	0	0	0	0	9	0	0	0
75	MOHCAN	Mohawk Canyon	0	6	0	0	0	0	7	0	0	0
76	MTSINY	Mt. Sinyala	1	0	0	0	0	1	0	0	0	0
77	NATCAN	National Canyon	1	7	0	0	0	1	8	0	0	0
78	PROCAN	Prospect Canyon	0	8	0	0	0	0	10	0	0	0
79	PRSPCT	Prospect Canyon	6	17	0	0	0	11	20	0	0	0
80	SOSUPC	South Supai Canyon	7	24	2	0	0	7	26	3	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
81	STONCK	Stone Creek	0	0	0	0	0	0	0	0	0	0
82	SUPVIL	Supai Village	0	5	0	0	0	0	5	0	0	0
83	SURPVA	Surprise Valley	1	0	0	0	0	1	0	0	0	0
84	TOROWP	Toroweap Overlook	0	16	0	0	0	0	19	0	0	0
85	TWPRS	Tuweep Ranger Station	7	6	0	0	0	14	9	0	0	0
86	UPDRCK	Upper Deer Creek	1	1	0	0	0	1	1	0	0	0
West End												
87	ADMIN	NPS Administration site	2	17	0	0	0	2	18	0	0	0
88	ANDRUS	Andrus Canyon	0	9	0	0	0	1	11	0	0	0
89	BATCAV	Bat Cave	88	46	59	23	3	81	45	54	21	3
90	BRNTSP	Burnt Springs Canyon	73	46	68	23	4	66	44	62	16	1
91	CASTLE	Castle Peak	1	12	0	0	0	1	13	0	0	0
92	DIACRK	Diamond Creek	0	0	0	0	0	0	0	0	0	0
93	GC018	Separation Canyon (warm desert scrub)	0	9	0	0	0	1	9	0	0	0
94	GCWEST	Grand Canyon West	90	33	11	1	0	81	32	8	0	0
95	GRAGOR	Granite Gorge	36	22	0	0	0	32	21	0	0	0
96	GRID27	Grid Location Point 27	27	36	15	3	0	31	37	20	3	0
97	GRID28	Grid Location Point 28	39	25	2	0	0	47	28	4	0	0
98	GRID29	Grid Location Point 29	20	15	0	0	0	13	17	0	0	0
99	GRID30	Grid Location Point 30	64	33	11	1	0	52	34	17	1	0
100	GRID31	Grid Location Point 31	21	17	0	0	0	13	16	0	0	0
101	GRID32	Grid Location Point 32	46	34	11	2	0	46	31	8	0	0
102	GRID33	Grid Location Point 33	77	43	47	13	1	66	40	46	6	0
103	GRID34	Grid Location Point 34	0	2	0	0	0	0	2	0	0	0
104	GRNTPK	Granite Peak	22	29	4	0	0	16	27	1	0	0
105	GUSPLT	Gus Plateau	51	43	17	6	1	57	37	15	4	0
106	HFCAN	Horse Flat Canyon	16	17	0	0	0	6	17	0	0	0
107	KELLPT	Kelly Point	1	10	0	0	0	1	10	0	0	0
108	MERIWH	Meriwhitca	0	7	0	0	0	1	8	0	0	0
109	MTDELL	Mt. Dellenbaugh	2	16	0	0	0	1	17	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
110	NONAME	Jackson Canyon	27	26	3	0	0	17	27	4	0	0
111	PARWAS	Parashant Wash	8	23	1	0	0	9	25	2	0	0
112	PMPKIN	Pumpkin Springs	0	9	0	0	0	0	9	0	0	0
113	PSCNNO	Peach Spring Canyon North	0	4	0	0	0	0	4	0	0	0
114	PSCNSO	Peach Spring Canyon South	NA	0	0	0	0	NA	0	0	0	0
115	QMPNT	Quartermaster Point	68	41	22	8	0	64	42	22	9	0
116	SADMTN	Saddle Mountain	12	19	0	0	0	2	15	0	0	0
117	SANUP	Sanup	64	36	15	2	0	52	34	18	0	0
118	SCCORV	Separation Canyon, 1km N of Colorado River	1	9	0	0	0	1	9	0	0	0
119	SCMCIG	Spencer/Meriwhitca Canyons	0	4	0	0	0	0	4	0	0	0
120	SEPARC	Separation Canyon at Colorado River	0	8	0	0	0	0	8	0	0	0
121	SHWZFC	Shivwitz Fire Camp	1	15	0	0	0	2	16	0	0	0
122	SPENCA	Spencer Canyon	0	9	0	0	0	1	10	0	0	0
123	SUIPNT	Suicide Point	44	41	17	5	1	43	36	15	4	0
124	THRSPR	Three Springs	14	14	0	0	0	8	13	0	0	0
125	TWINPT	Twin Point	55	42	22	5	1	49	37	27	4	0
126	WESEND	West End	43	39	28	7	0	30	37	24	4	0
127	WHTRAP	Whitmore Rapids	5	32	7	2	0	12	36	17	5	0

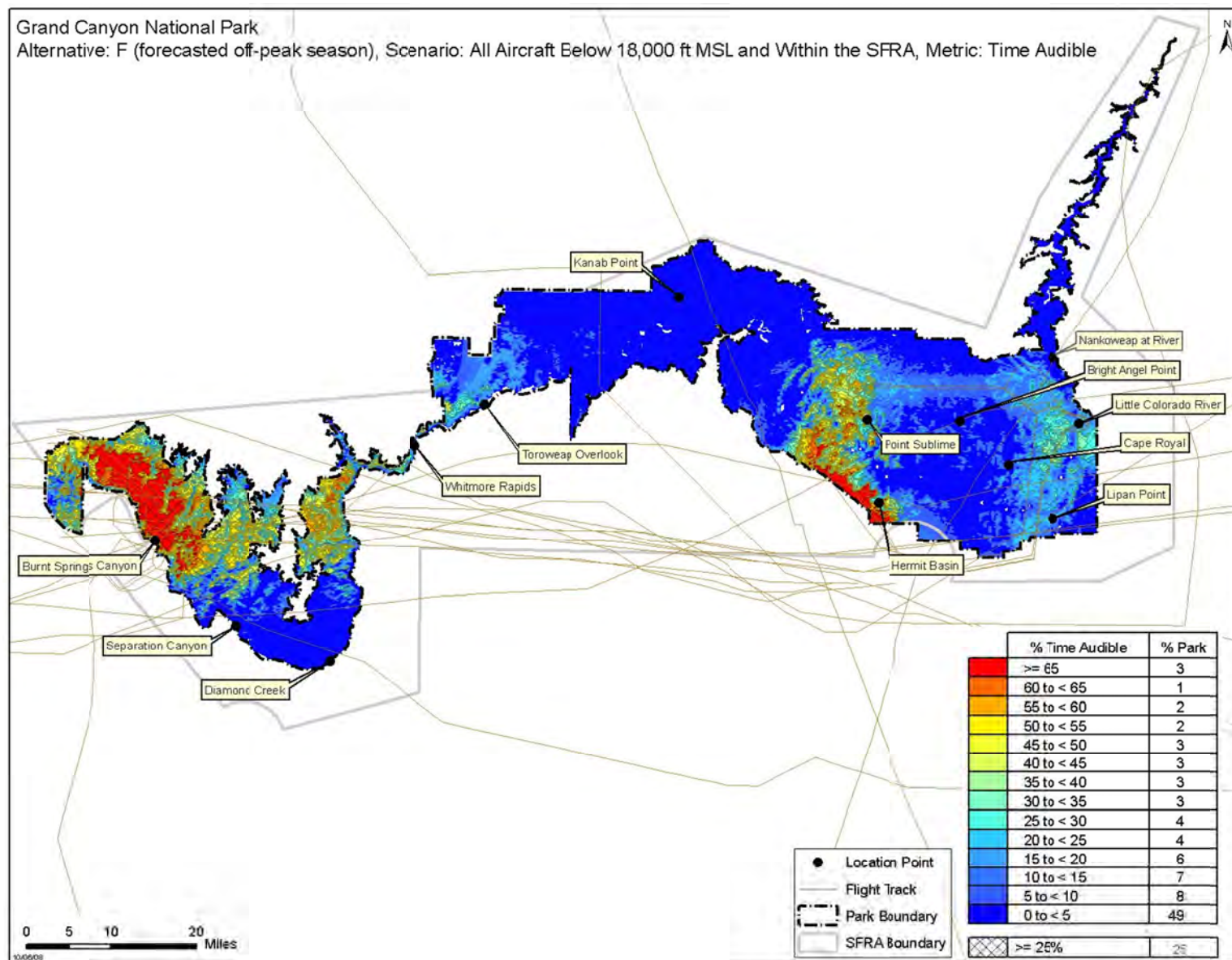


FIGURE 57 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – %TAUD CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

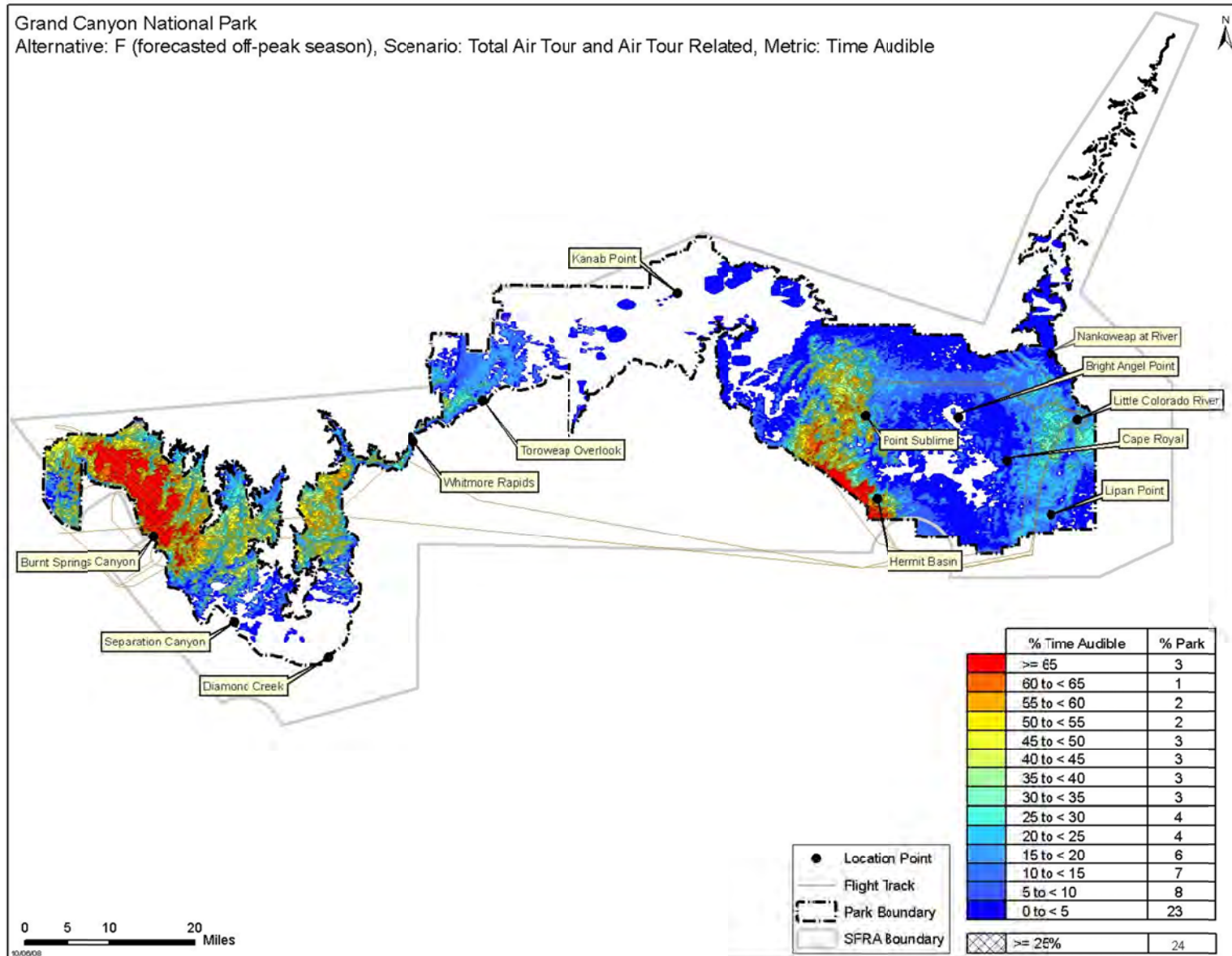


FIGURE 58 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – %TAUD CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

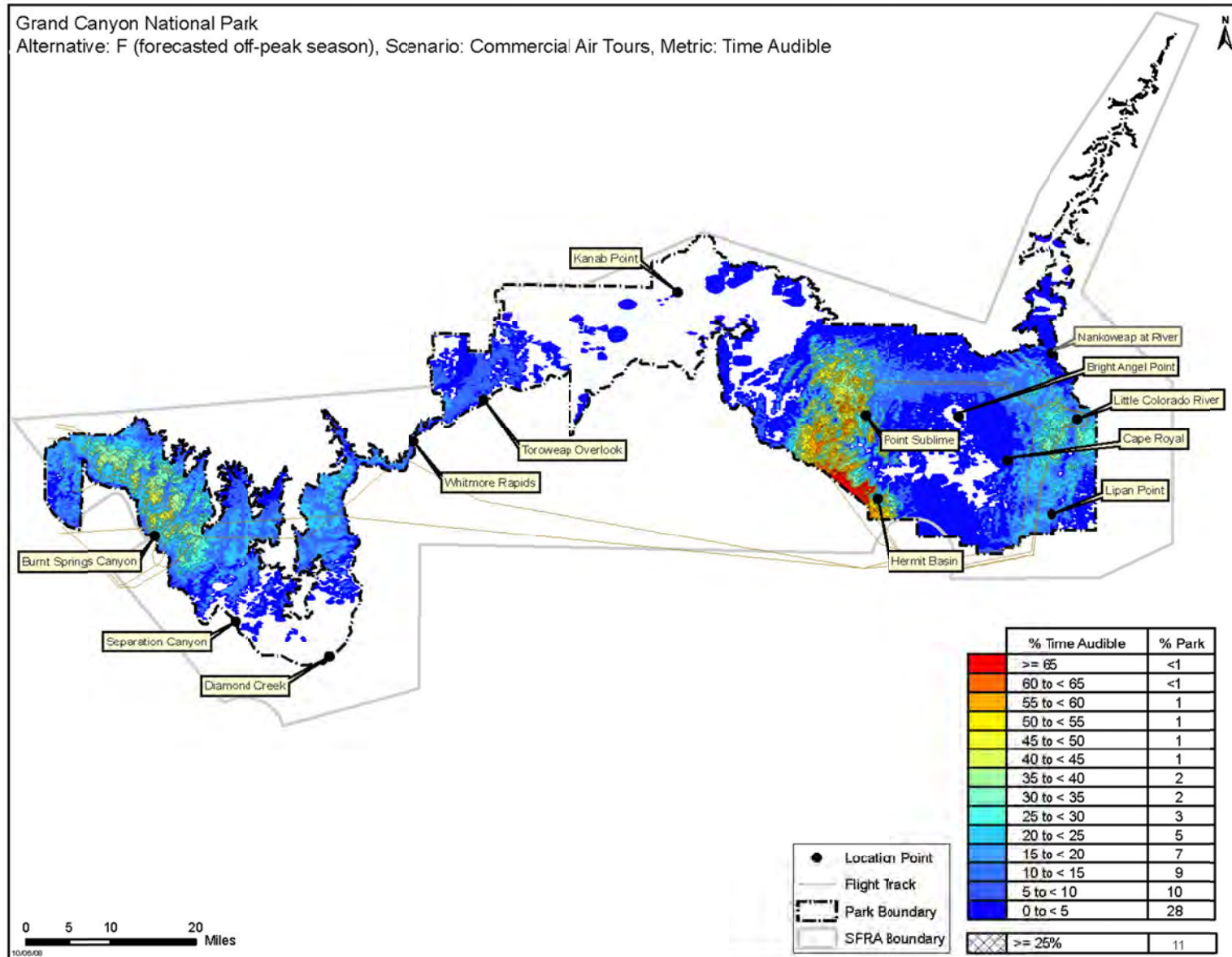


FIGURE 59 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – %TAUD CONTOURS – COMMERCIAL AIR-TOURS

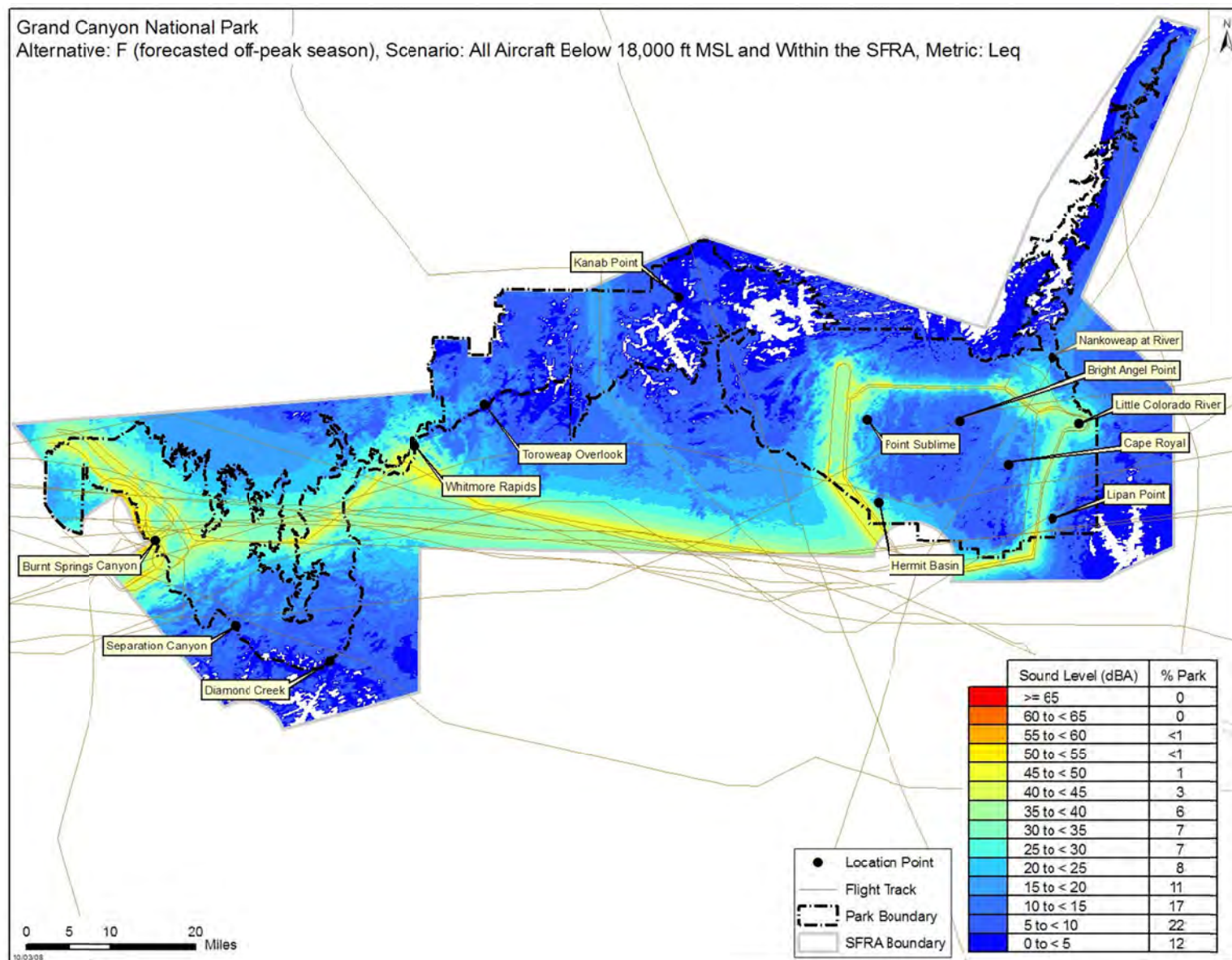


FIGURE 60 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

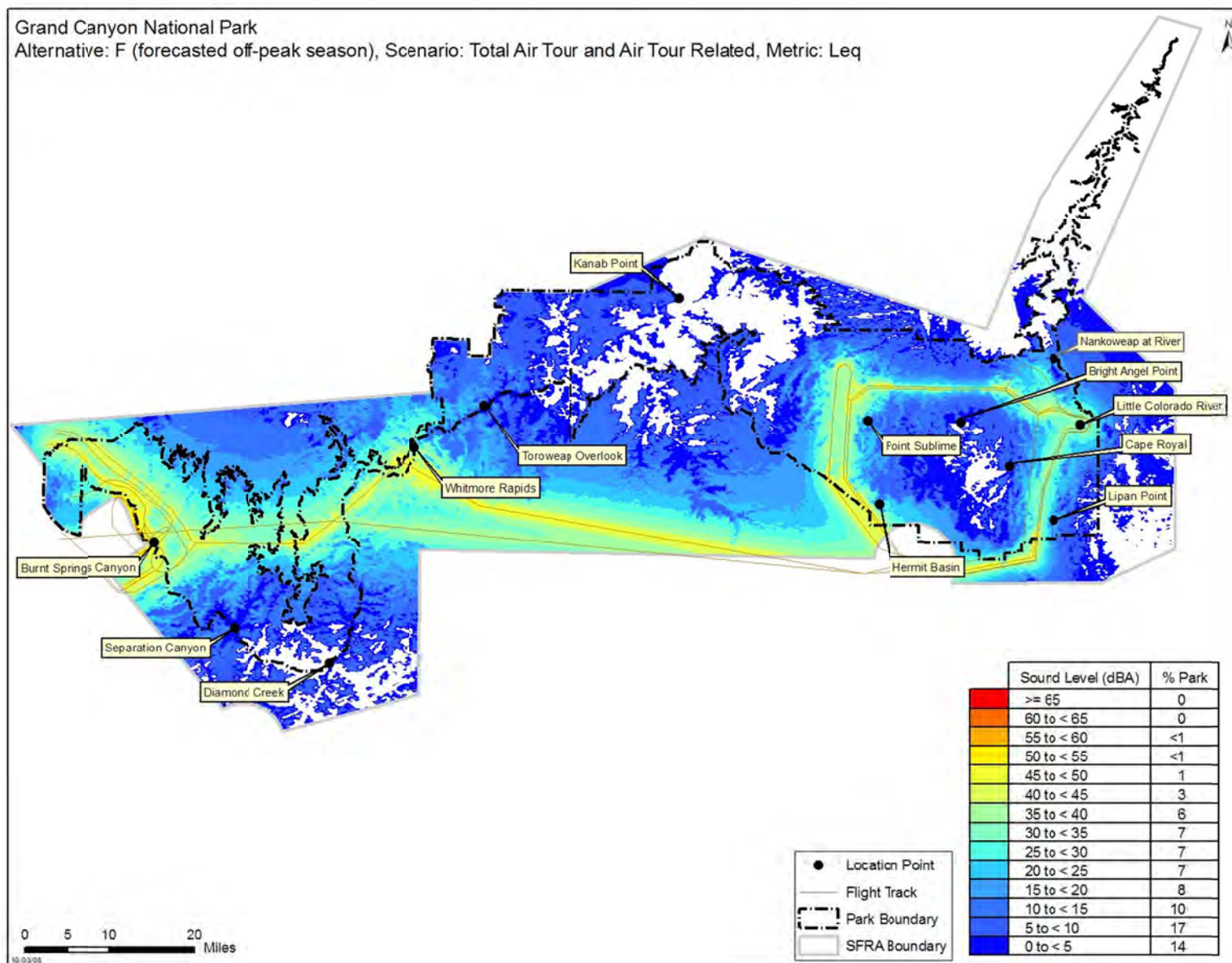


FIGURE 61 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

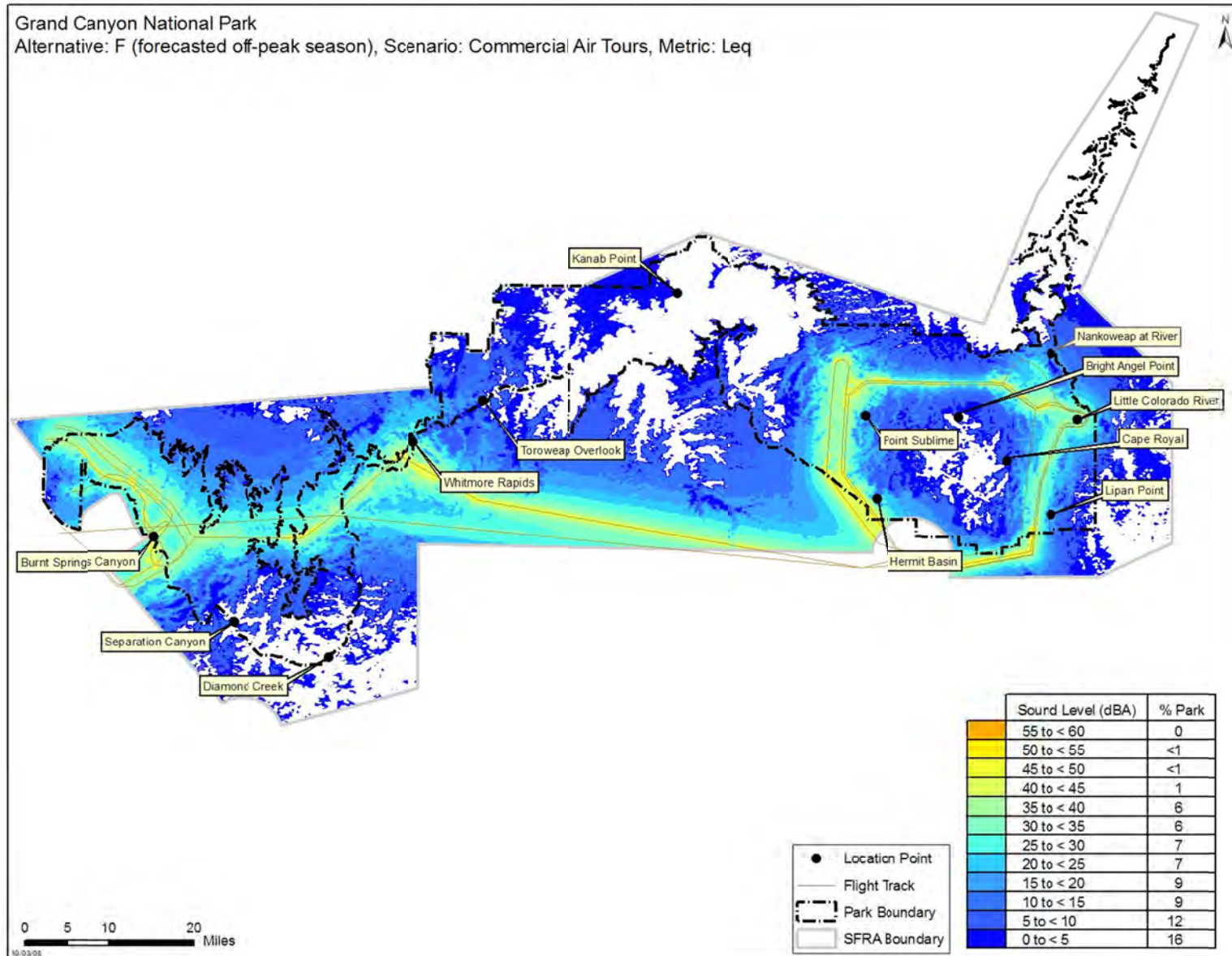


FIGURE 62 ALTERNATIVE F (TEN-YEAR FORECASTED OFF-PEAK SEASON) – L_{AEQ12} CONTOURS – COMMERCIAL AIR-TOURS

1

TABLE 31 DETAILED CONTOUR ANALYSIS RESULTS WITHIN GCNP- ALTERNATIVE F (OFF-PEAK SEASON) FOR THE TEN-YEAR FORECAST

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Developed		% Of Management Zone					
	>= 65	0	0	0	0	0	0
	60 to < 65	0	0	0	0	0	0
	55 to < 60	0	0	0	0	0	0
	50 to < 55	0	0	0	0	0	0
	45 to < 50	0	0	0	1	1	1
	40 to < 45	0	0	0	1	1	1
	35 to < 40	1	0	0	1	1	1
	30 to < 35	1	1	0	1	1	1
	25 to < 30	1	2	1	6	5	4
	20 to < 25	5	4	2	18	16	11
	15 to < 20	14	10	9	43	38	23
	10 to < 15	16	18	6	23	22	38
	5 to < 10	28	27	12	6	11	15
	0 to < 5	32	32	64	1	4	5
Non-Wilderness		% Of Management Zone					
	>= 65	2	2	0	0	0	0
	60 to < 65	1	1	0	0	0	0
	55 to < 60	1	1	2	0	0	0
	50 to < 55	1	1	2	0	0	0
	45 to < 50	1	1	1	1	1	1
	40 to < 45	1	1	1	1	1	1
	35 to < 40	1	1	1	2	2	2
	30 to < 35	1	1	2	3	3	3
	25 to < 30	1	1	1	10	10	8
	20 to < 25	3	2	1	19	18	12
	15 to < 20	5	5	4	21	19	20
	10 to < 15	11	9	6	12	9	14
	5 to < 10	23	21	12	24	18	13
	0 to < 5	48	46	60	7	14	17

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Proposed Wilderness		% Of Management Zone					
	>= 65	3	3	0	0	0	0
	60 to < 65	1	1	0	0	0	0
	55 to < 60	2	2	1	0	0	0
	50 to < 55	2	2	1	0	0	0
	45 to < 50	3	3	1	1	1	0
	40 to < 45	3	3	1	3	3	1
	35 to < 40	3	3	2	6	6	6
	30 to < 35	3	3	2	7	7	7
	25 to < 30	4	4	3	7	7	7
	20 to < 25	4	4	5	7	7	7
	15 to < 20	6	6	7	11	8	8
	10 to < 15	7	7	9	18	10	8
	5 to < 10	7	7	10	22	17	12
	0 to < 5	50	22	27	12	15	16
Entire Park		% Of GCNP					
	>= 65	3	3	0	0	0	0
	60 to < 65	1	1	0	0	0	0
	55 to < 60	2	2	1	0	0	0
	50 to < 55	2	2	1	0	0	0
	45 to < 50	3	3	1	1	1	0
	40 to < 45	3	3	1	3	3	1
	35 to < 40	3	3	2	6	6	6
	30 to < 35	3	3	2	7	7	6
	25 to < 30	3	4	3	7	7	7
	20 to < 25	4	4	5	8	7	7
	15 to < 20	6	6	7	11	8	9
	10 to < 15	7	7	9	17	10	9
	5 to < 10	8	8	10	22	17	12
	0 to < 5	49	23	28	12	14	16

1

TABLE 32 DETAILED CONTOUR ANALYSIS RESULTS WITHIN THE SFRA - ALTERNATIVE F (OFF-PEAK SEASON) FOR THE TEN-YEAR FORECAST

Results Within the SFRA		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
	>= 65	N/A	N/A	N/A	0	0	0
	60 to < 65	N/A	N/A	N/A	0	0	0
	55 to < 60	N/A	N/A	N/A	0	0	0
	50 to < 55	N/A	N/A	N/A	0	0	0
	45 to < 50	N/A	N/A	N/A	1	1	0
	40 to < 45	N/A	N/A	N/A	3	3	2
	35 to < 40	N/A	N/A	N/A	6	6	4
	30 to < 35	N/A	N/A	N/A	7	7	6
	25 to < 30	N/A	N/A	N/A	7	6	7
	20 to < 25	N/A	N/A	N/A	8	7	7
	15 to < 20	N/A	N/A	N/A	14	9	8
	10 to < 15	N/A	N/A	N/A	15	11	10
	5 to < 10	N/A	N/A	N/A	19	14	13
	0 to < 5	N/A	N/A	N/A	13	15	16

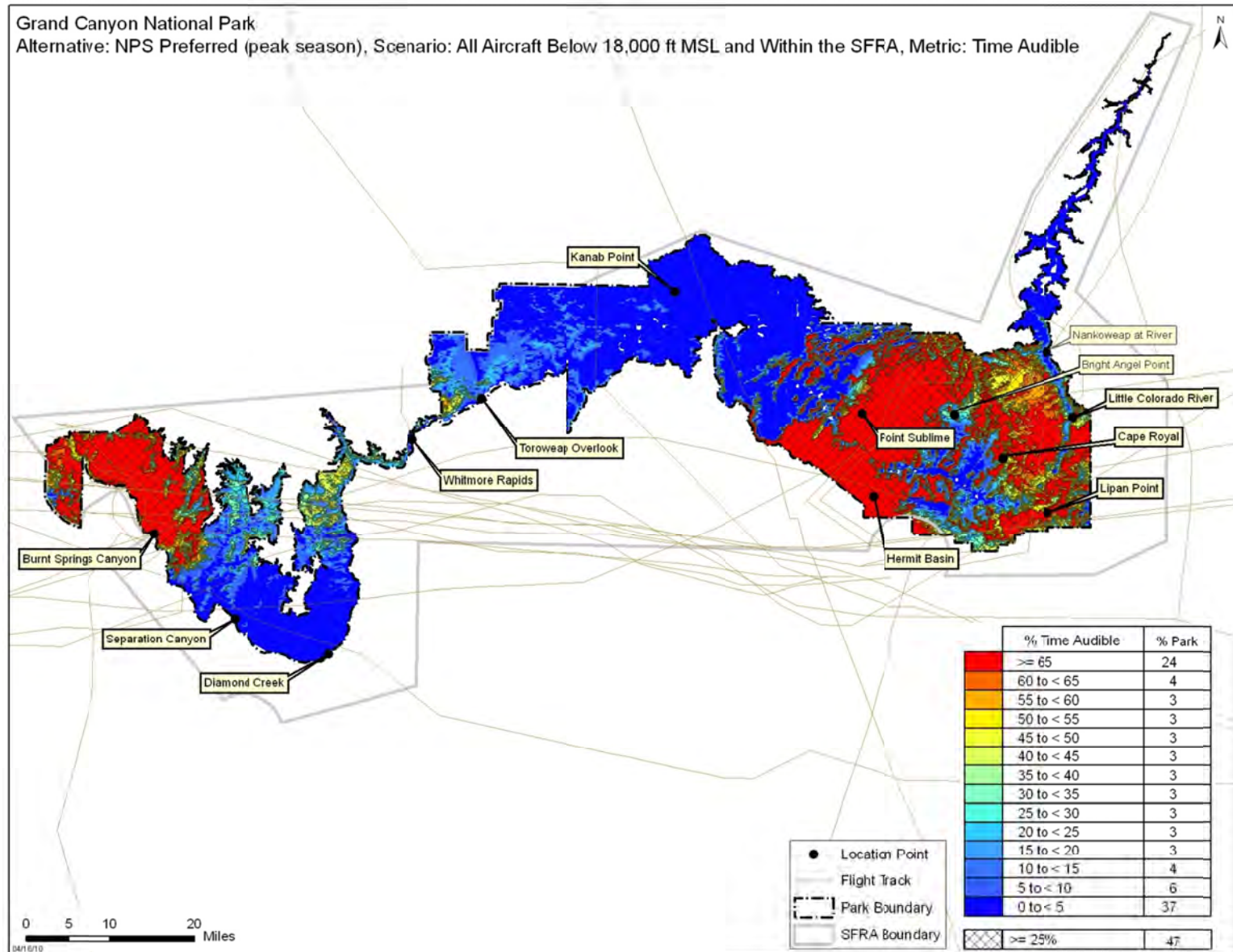


FIGURE 63 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – %TAUD CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

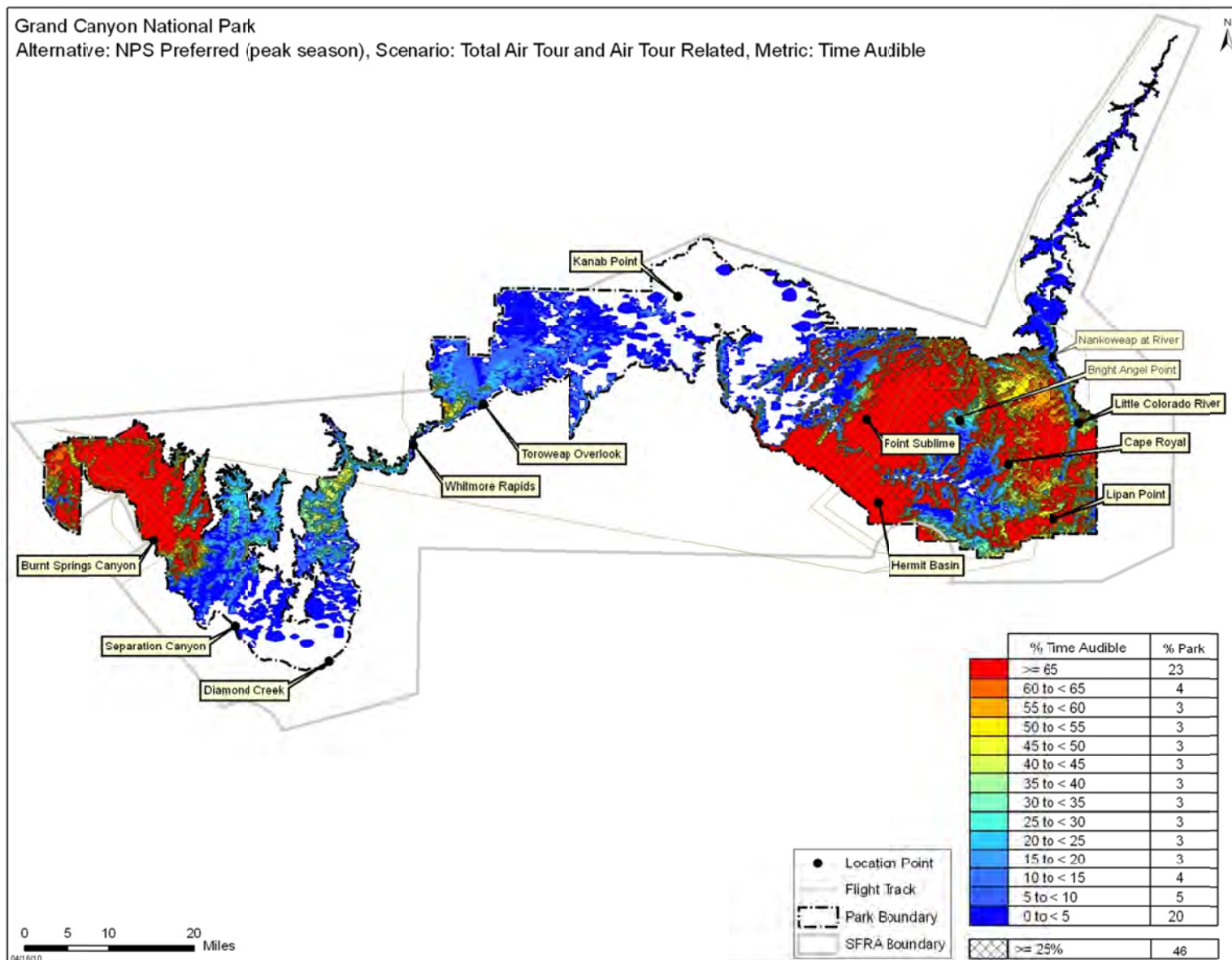


FIGURE 64 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – %TAUD CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

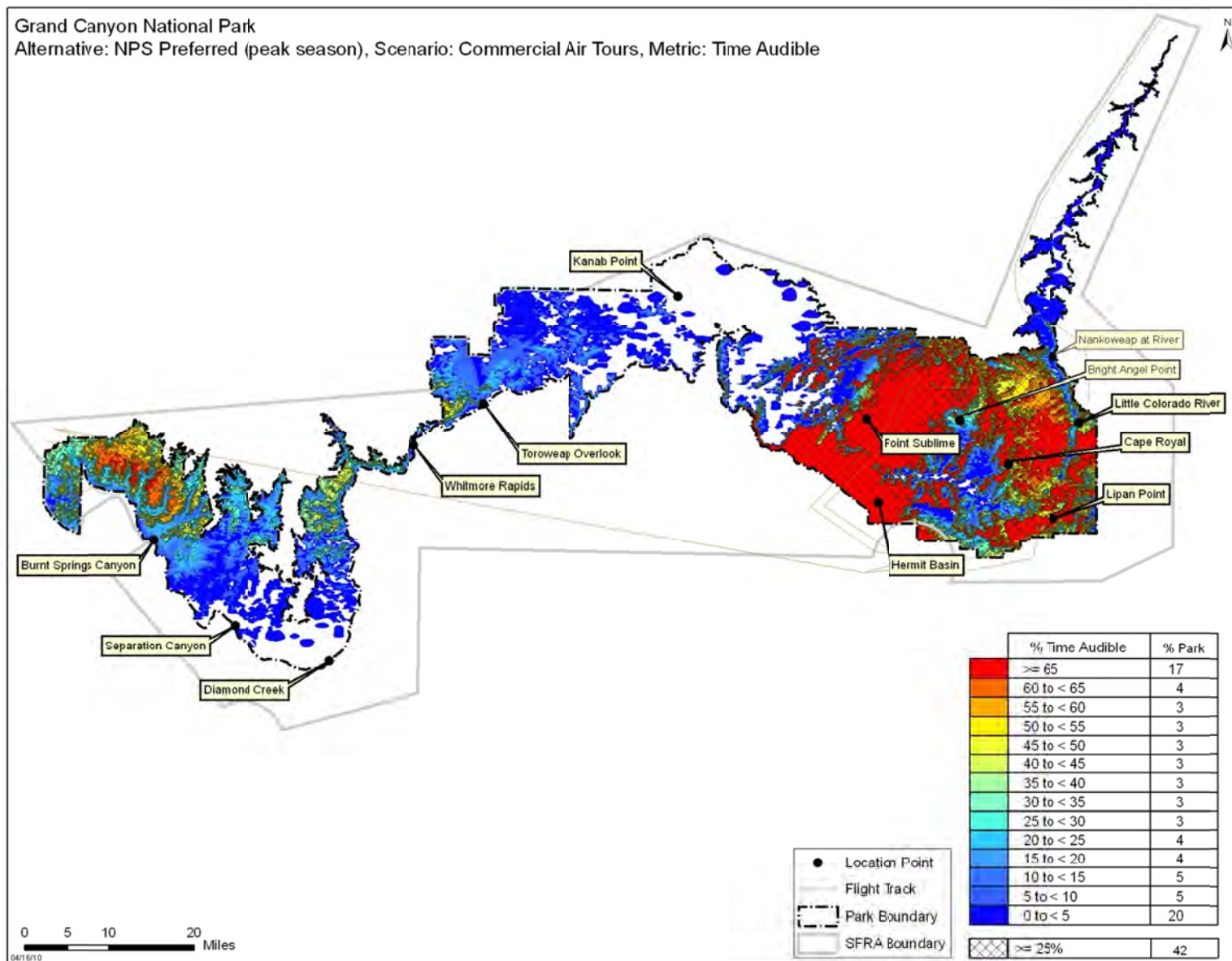
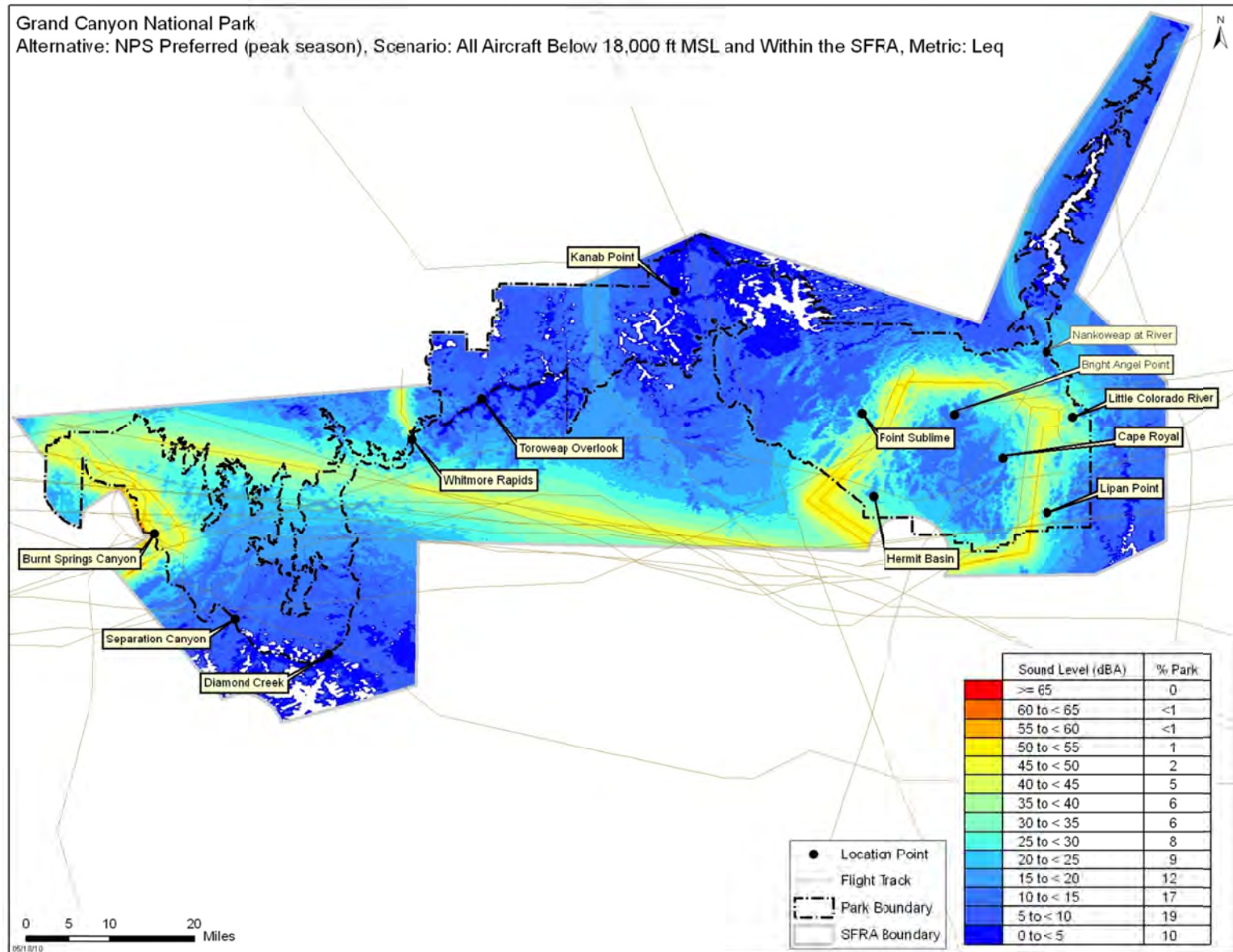


FIGURE 65 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – %TAUD CONTOURS – COMMERCIAL AIR-TOURS



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FIGURE 66 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – L_{AEQ12} CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA

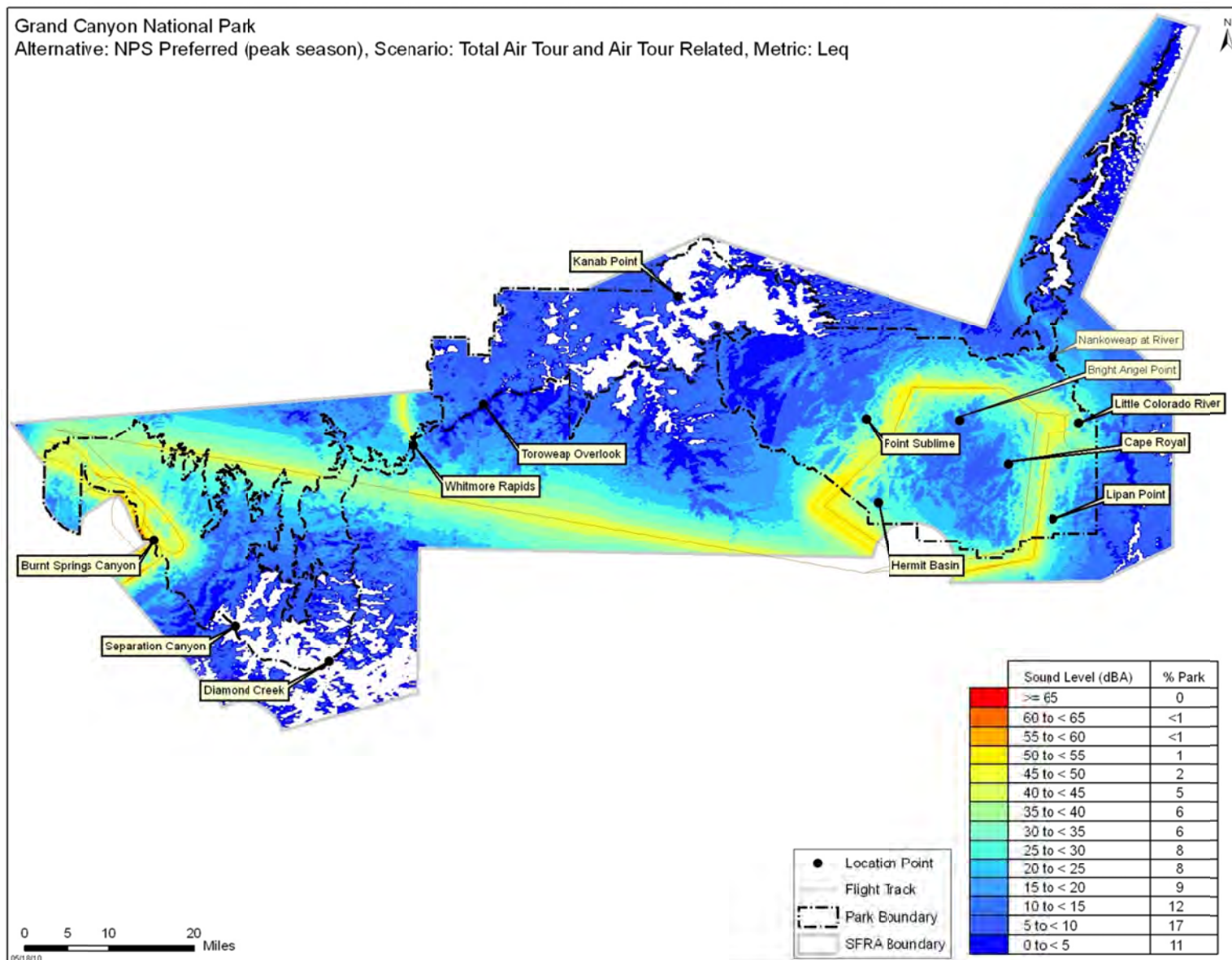


FIGURE 67 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – L_{AEQ12} CONTOURS – AIR-TOUR AND AIR-TOUR RELATED

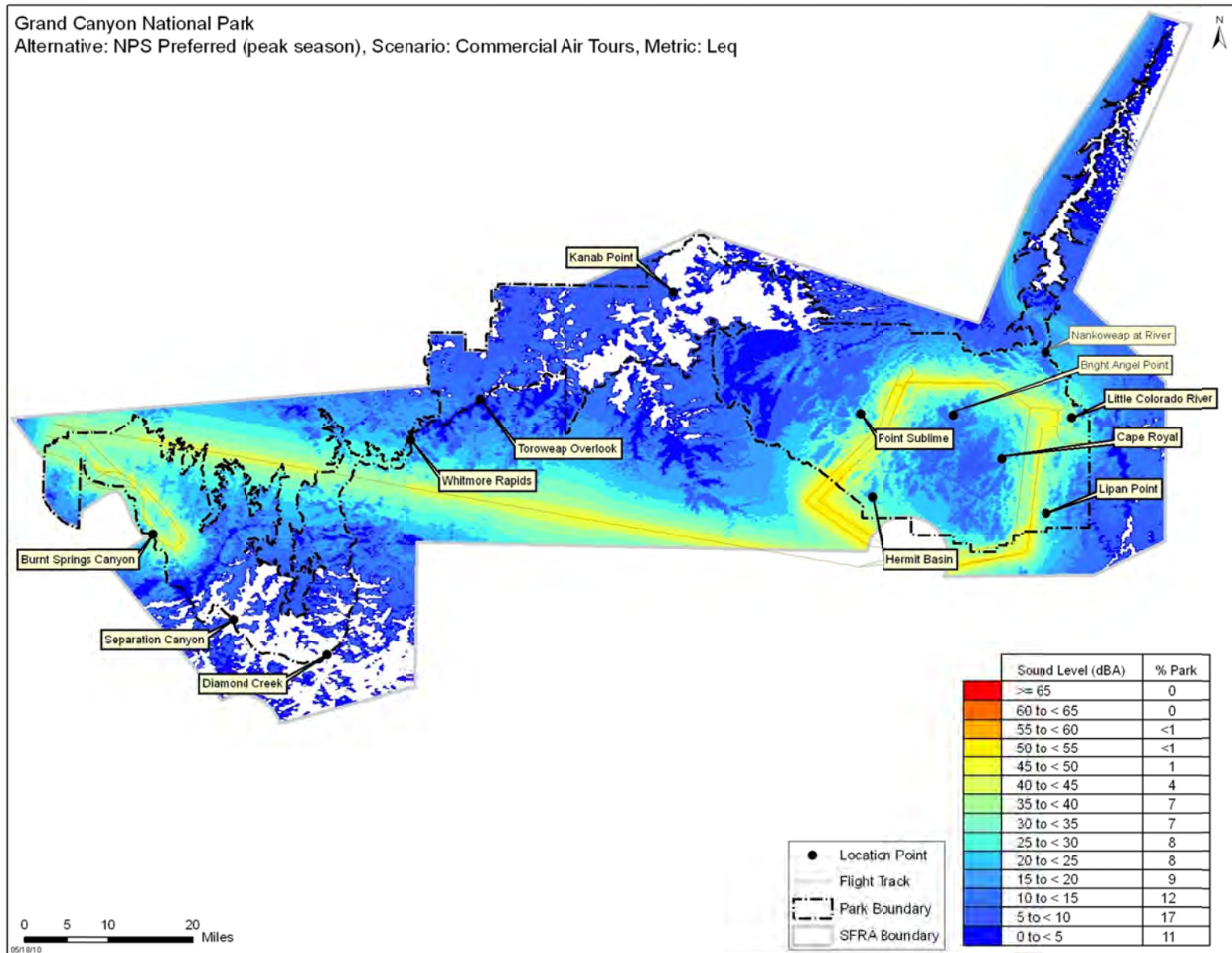


FIGURE 68 NPS PREFERRED ALTERNATIVE (PEAK SEASON) – L_{AEQ12} CONTOURS – COMMERCIAL AIR-TOURS

1

TABLE 33 DETAILED CONTOUR ANALYSIS RESULTS WITHIN GCNP- NPS PREFERRED ALTERNATIVE (PEAK SEASON)

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Developed		% Of Management Zone					
	>= 65	40	40	40	0	0	0
	60 to < 65	5	5	5	0	0	0
	55 to < 60	4	4	4	0	0	0
	50 to < 55	3	3	3	1	1	1
	45 to < 50	3	3	3	1	1	1
	40 to < 45	5	5	5	3	3	3
	35 to < 40	3	3	3	4	4	4
	30 to < 35	5	5	5	7	7	7
	25 to < 30	5	4	4	21	20	20
	20 to < 25	4	4	4	53	53	53
	15 to < 20	2	3	3	6	7	7
	10 to < 15	2	2	2	2	1	1
	5 to < 10	3	3	3	1	2	2
	0 to < 5	17	16	16	0	0	0
Non-Wilderness		% Of Management Zone					
	>= 65	33	33	32	0	0	0
	60 to < 65	7	7	7	0	0	0
	55 to < 60	5	5	5	0	0	0
	50 to < 55	5	5	5	1	1	1
	45 to < 50	5	5	5	2	2	2
	40 to < 45	6	6	6	5	5	5
	35 to < 40	5	5	5	6	6	6
	30 to < 35	6	6	6	9	9	9
	25 to < 30	5	5	5	24	24	24
	20 to < 25	4	4	4	20	21	21
	15 to < 20	3	3	3	13	11	12
	10 to < 15	2	3	3	14	13	13
	5 to < 10	3	3	3	4	6	6
	0 to < 5	11	8	8	1	1	1

Results Within GCNP		%TAUD			L _{Aeq12} (dBA)		
		All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours	All Aircraft Below 18,000 ft MSL and Within the SFRA	Air-tour and Air-tour Related	Commercial Air-tours
Proposed Wilderness		% Of Management Zone					
	>= 65	23	23	16	0	0	0
	60 to < 65	3	3	3	0	0	0
	55 to < 60	3	3	3	0	0	0
	50 to < 55	3	3	3	1	1	0
	45 to < 50	3	2	3	2	2	1
	40 to < 45	3	2	3	5	5	4
	35 to < 40	2	2	3	6	6	7
	30 to < 35	3	2	3	6	6	7
	25 to < 30	3	2	3	7	7	7
	20 to < 25	3	3	4	9	7	7
	15 to < 20	3	3	4	12	9	9
	10 to < 15	4	4	5	17	12	12
	5 to < 10	6	5	6	20	18	17
	0 to < 5	38	20	21	11	12	12
Entire Park		% Of GCNP					
	>= 65	24	23	17	0	0	0
	60 to < 65	4	4	3	0	0	0
	55 to < 60	3	4	4	0	0	0
	50 to < 55	3	3	3	1	1	0
	45 to < 50	3	3	3	2	2	1
	40 to < 45	5	3	3	5	5	4
	35 to < 40	3	3	3	6	6	7
	30 to < 35	3	3	3	6	6	7
	25 to < 30	1	3	3	8	8	8
	20 to < 25	2	3	4	9	8	8
	15 to < 20	3	3	4	12	9	9
	10 to < 15	4	4	5	17	12	12
	5 to < 10	6	5	5	19	17	17
	0 to < 5	37	20	20	10	11	11

1

TABLE 34 DETAILED CONTOUR ANALYSIS RESULTS WITHIN THE SFRA – NPS PREFERRED ALTERNATIVE (PEAK SEASON)

Results Within the SFRA		All Aircraft Below 18,000 ft MSL and Within the SFRA	%TAUD		All Aircraft Below 18,000 ft MSL and Within the SFRA	L _{Aeq12} (dBA)	
			Air-tour and Air- tour Related	Commercial Air- tours		Air-tour and Air- tour Related	Commercial Air- tours
	>= 65	N/A	N/A	N/A	0	0	0
	60 to < 65	N/A	N/A	N/A	0	0	0
	55 to < 60	N/A	N/A	N/A	0	0	0
	50 to < 55	N/A	N/A	N/A	1	1	1
	45 to < 50	N/A	N/A	N/A	2	2	1
	40 to < 45	N/A	N/A	N/A	5	5	4
	35 to < 40	N/A	N/A	N/A	7	7	7
	30 to < 35	N/A	N/A	N/A	7	7	7
	25 to < 30	N/A	N/A	N/A	8	7	7
	20 to < 25	N/A	N/A	N/A	10	9	9
	15 to < 20	N/A	N/A	N/A	14	11	11
	10 to < 15	N/A	N/A	N/A	18	14	14
	5 to < 10	N/A	N/A	N/A	18	16	15
	0 to < 5	N/A	N/A	N/A	9	11	11

2

1 **TABLE 35 RESULTS FOR 127 POINT LOCATIONS – NPS PREFERRED ALTERNATIVE (PEAK SEASON) - ALL AIRCRAFT BELOW 18,000 FT MSL AND**
 2 **WITHIN THE SFRA**

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
Marble Canyon												
1	CLDWEL	Cliff Dwellers Lodge	1	18	0	0	0	1	18	0	0	0
2	GRID01	Grid Location Point 1	0	3	0	0	0	0	3	0	0	0
3	GRID02	Grid Location Point 2	1	13	0	0	0	1	13	0	0	0
4	GRID03	Grid Location Point 3	1	7	0	0	0	1	8	0	0	0
5	GRID04	Grid Location Point 4	1	14	0	0	0	1	15	0	0	0
6	GRID05	Grid Location Point 5	1	15	0	0	0	1	15	0	0	0
7	MARBDM	Marble Canyon Dam Site	0	2	0	0	0	0	1	0	0	0
8	NOCANY	North Canyon	1	5	0	0	0	1	5	0	0	0
9	SOCAN	South Canyon	1	0	0	0	0	1	0	0	0	0
East End												
10	96MILE	96 Mile Camp	59	39	47	5	0	41	37	29	0	0
11	BASCMP	Bass Camp	0	8	0	0	0	0	3	0	0	0
12	BASIN	The Basin	77	44	29	11	2	37	40	26	7	0
13	BRTANG	Bright Angel Point	58	24	0	0	0	18	17	0	0	0
14	CAPROY	Cape Royal	72	27	1	0	0	40	23	0	0	0
15	CEDRIG	Cedar Ridge	89	19	0	0	0	6	14	0	0	0
16	DSRTVW	Desert View	74	29	6	0	0	46	24	0	0	0
17	ELTOVR	El Tovar	93	20	0	0	0	16	14	0	0	0
18	GC008	Pasture Wash (pinyon-juniper)	99	27	0	0	0	68	21	0	0	0
19	GC011	South Rim (ponderosa pine)	15	24	0	0	0	1	19	0	0	0
20	GC015	Rainbow Plateau (ponderosa pine)	0	9	0	0	0	0	5	0	0	0
21	GC031	Eremita Mesa	100	36	32	0	0	98	32	6	0	0
22	GC032	1.5 km SE of Moran Point	65	40	34	6	0	54	41	24	3	1

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
23	GRID06	Grid Location Point 6	64	19	0	0	0	26	11	0	0	0
24	GRID07	Grid Location Point 7	3	8	0	0	0	1	6	0	0	0
25	GRID10	Grid Location Point 10	93	28	0	0	0	28	22	0	0	0
26	GRID11	Grid Location Point 11	47	20	0	0	0	18	13	0	0	0
27	GRID12	Grid Location Point 12	2	13	0	0	0	3	12	0	0	0
28	GRID13	Grid Location Point 13	1	13	0	0	0	1	10	0	0	0
29	GRID14	Grid Location Point 14	67	39	33	7	0	61	37	31	1	0
30	GRID15	Grid Location Point 15	58	39	33	9	0	42	37	21	4	0
31	GRID16	Grid Location Point 16	47	32	9	1	0	24	24	1	0	0
32	GRID17	Grid Location Point 17	68	20	0	0	0	24	16	0	0	0
33	GRID18	Grid Location Point 18	91	19	0	0	0	47	17	0	0	0
34	GRID19	Grid Location Point 19	43	39	26	7	0	28	38	22	2	0
35	HBASIN	Hermit Basin	96	20	0	0	0	50	16	0	0	0
36	LIPAN	Lipan Point	78	35	19	1	0	57	30	5	0	0
37	LITCOL	Little Colorado	0	7	0	0	0	0	6	0	0	0
38	LTCORV	Little Colorado River	8	27	2	0	0	5	27	3	0	0
39	NANMES	Nankoweap Mesa	78	31	8	0	0	57	29	6	0	0
40	NANRIV	Nankoweap at River	0	15	0	0	0	0	13	0	0	0
41	NAVA1	Navajo 1	1	13	0	0	0	1	12	0	0	0
42	NAVA2	Navajo 2	6	11	0	0	0	7	11	0	0	0
43	PHANTM	Phantom Ranch	2	10	0	0	0	1	6	0	0	0
44	PTIMPR	Point Imperial	48	18	0	0	0	11	16	0	0	0
45	PTSUBL	Point Sublime	100	35	19	0	0	94	28	0	0	0
46	RANCH	The Ranch	99	52	100	42	11	94	50	100	33	8
47	TEMBUT	Temple Butte	58	37	12	4	0	45	37	16	3	0
48	TENMED	Ten X Meadow	60	52	29	13	5	33	51	33	14	5
49	TOWER	Tower of Ra	96	42	50	15	0	88	38	34	5	0
50	TUSAYN	Tusayan	67	36	19	3	0	47	31	9	0	0
51	ZUNALF	Zuni Alpha	44	49	36	15	5	33	47	40	14	3
52	ZUNCHR	Zuni Charlie	67	28	4	0	0	50	26	3	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
Central												
53	COYCAN	Coyote Canyon	0	16	0	0	0	0	16	0	0	0
54	DOME	The Dome	1	15	0	0	0	1	16	0	0	0
55	GC009	Tuweep (warm desert scrub)	12	15	0	0	0	1	16	0	0	0
56	GC010	Tuweep (cold desert scrub)	14	11	0	0	0	14	12	0	0	0
57	GC016	Hancock Knolls (pinyon-juniper)	2	10	0	0	0	2	9	0	0	0
58	GC017	1 km W of Kanab Point (cold desert scrub)	2	10	0	0	0	2	9	0	0	0
59	GC033	Fossil Canyon	2	13	0	0	0	1	10	0	0	0
60	GRID08	Grid Location Point 8	21	14	0	0	0	1	8	0	0	0
61	GRID09	Grid Location Point 9	1	6	0	0	0	1	3	0	0	0
62	GRID20	Grid Location Point 20	0	4	0	0	0	0	4	0	0	0
63	GRID21	Grid Location Point 21	2	14	0	0	0	2	14	0	0	0
64	GRID22	Grid Location Point 22	17	12	0	0	0	23	13	0	0	0
65	GRID23	Grid Location Point 23	2	10	0	0	0	2	10	0	0	0
66	GRID24	Grid Location Point 24	3	7	0	0	0	2	8	0	0	0
67	GRID25	Grid Location Point 25	10	9	0	0	0	13	10	0	0	0
68	GRID26	Grid Location Point 26	1	13	0	0	0	1	11	0	0	0
69	GRID35	Grid Location Point 35	0	3	0	0	0	0	4	0	0	0
70	GRID36	Grid Location Point 36	0	1	0	0	0	0	0	0	0	0
71	HAVAPT	Havasupai Point	0	0	0	0	0	0	0	0	0	0
72	HAVCAN	Havataagvitch Canyon	1	7	0	0	0	1	7	0	0	0
73	KANAPT	Kanab Point	1	9	0	0	0	1	6	0	0	0
74	MOHAWK	Mohawk Canyon	1	11	0	0	0	0	12	0	0	0
75	MOHCAN	Mohawk Canyon	2	11	0	0	0	2	11	0	0	0
76	MTSINY	Mt. Sinyala	1	0	0	0	0	1	0	0	0	0
77	NATCAN	National Canyon	3	13	0	0	0	4	14	0	0	0
78	PROCAN	Prospect Canyon	4	14	0	0	0	0	14	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
79	PRSPCT	Prospect Canyon	21	22	0	0	0	25	22	0	0	0
80	SOSUPC	South Supai Canyon	6	27	4	0	0	7	27	5	0	0
81	STONCK	Stone Creek	0	0	0	0	0	0	0	0	0	0
82	SUPVIL	Supai Village	0	5	0	0	0	0	5	0	0	0
83	SURPVA	Surprise Valley	1	0	0	0	0	1	0	0	0	0
84	TOROWP	Toroweap Overlook	0	13	0	0	0	0	14	0	0	0
85	TWPRS	Tuweep Ranger Station	1	3	0	0	0	1	4	0	0	0
86	UPDRCK	Upper Deer Creek	1	2	0	0	0	1	1	0	0	0
West End												
87	ADMIN	NPS Administration site	42	31	10	1	0	47	31	12	0	0
88	ANDRUS	Andrus Canyon	20	16	0	0	0	20	17	0	0	0
89	BATCAV	Bat Cave	93	49	77	31	9	88	48	77	29	6
90	BRNTSP	Burnt Springs Canyon	71	48	67	25	5	68	46	62	20	4
91	CASTLE	Castle Peak	26	18	0	0	0	26	19	0	0	0
92	DIACRK	Diamond Creek	0	0	0	0	0	0	0	0	0	0
93	GC018	Separation Canyon (warm desert scrub)	0	9	0	0	0	1	9	0	0	0
94	GCWEST	Grand Canyon West	94	32	11	0	0	87	31	6	0	0
95	GRAGOR	Granite Gorge	57	33	7	2	0	52	31	9	0	0
96	GRID27	Grid Location Point 27	19	26	2	0	0	22	26	2	0	0
97	GRID28	Grid Location Point 28	13	17	0	0	0	7	18	0	0	0
98	GRID29	Grid Location Point 29	6	12	0	0	0	5	13	0	0	0
99	GRID30	Grid Location Point 30	54	31	6	1	0	32	32	5	1	0
100	GRID31	Grid Location Point 31	35	42	24	8	1	40	41	35	12	0
101	GRID32	Grid Location Point 32	42	27	2	0	0	47	27	1	0	0
102	GRID33	Grid Location Point 33	87	42	32	8	1	80	39	34	4	0
103	GRID34	Grid Location Point 34	0	1	0	0	0	0	1	0	0	0
104	GRNTPK	Granite Peak	2	17	0	0	0	2	18	0	0	0
105	GUSPLT	Gus Plateau	39	25	1	0	0	44	26	1	0	0
106	HFCAN	Horse Flat Canyon	2	13	0	0	0	1	12	0	0	0
107	KELLPT	Kelly Point	1	10	0	0	0	1	10	0	0	0

#	Location ID	Location Point Name	Base Year					Ten-Year Forecast				
			TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)	TAUD (%)	L _{Aeq12} (dBA)	TALA35 dBA (%)	TALA45 dBA (%)	TALA55 dBA (%)
108	MERIWH	Meriwhitca	0	7	0	0	0	1	7	0	0	0
109	MTDELL	Mt. Dellenbaugh	27	41	21	7	1	31	40	31	10	0
110	NONAME	Jackson Canyon	18	21	1	0	0	11	21	1	0	0
111	PARWAS	Parashant Wash	11	32	12	1	0	14	32	16	0	0
112	PMPKIN	Pumpkin Springs	0	7	0	0	0	0	8	0	0	0
113	PSCNNO	Peach Spring Canyon North	0	4	0	0	0	0	4	0	0	0
114	PSCNSO	Peach Spring Canyon South	NA	0	0	0	0	NA	0	0	0	0
115	QMPNT	Quartermaster Point	68	42	27	10	0	66	43	28	12	0
116	SADMTN	Saddle Mountain	36	22	0	0	0	11	20	0	0	0
117	SANUP	Sanup	79	37	22	3	0	68	37	31	3	0
118	SCCORV	Separation Canyon, 1km N of Colorado River	1	8	0	0	0	1	8	0	0	0
119	SCMCIG	Spencer/Meriwhitca Canyons	0	4	0	0	0	0	4	0	0	0
120	SEPARC	Separation Canyon at Colorado River	0	7	0	0	0	0	7	0	0	0
121	SHWZFC	Shivwitz Fire Camp	33	37	21	3	0	38	37	31	4	0
122	SPENCA	Spencer Canyon	0	6	0	0	0	0	7	0	0	0
123	SUIPNT	Suicide Point	16	22	1	0	0	12	23	1	0	0
124	THRSPR	Three Springs	1	8	0	0	0	2	9	0	0	0
125	TWINPT	Twin Point	29	24	1	0	0	17	24	1	0	0
126	WESEND	West End	58	41	43	11	0	45	38	34	3	0
127	WHTRAP	Whitmore Rapids	12	21	0	0	0	12	21	0	0	0

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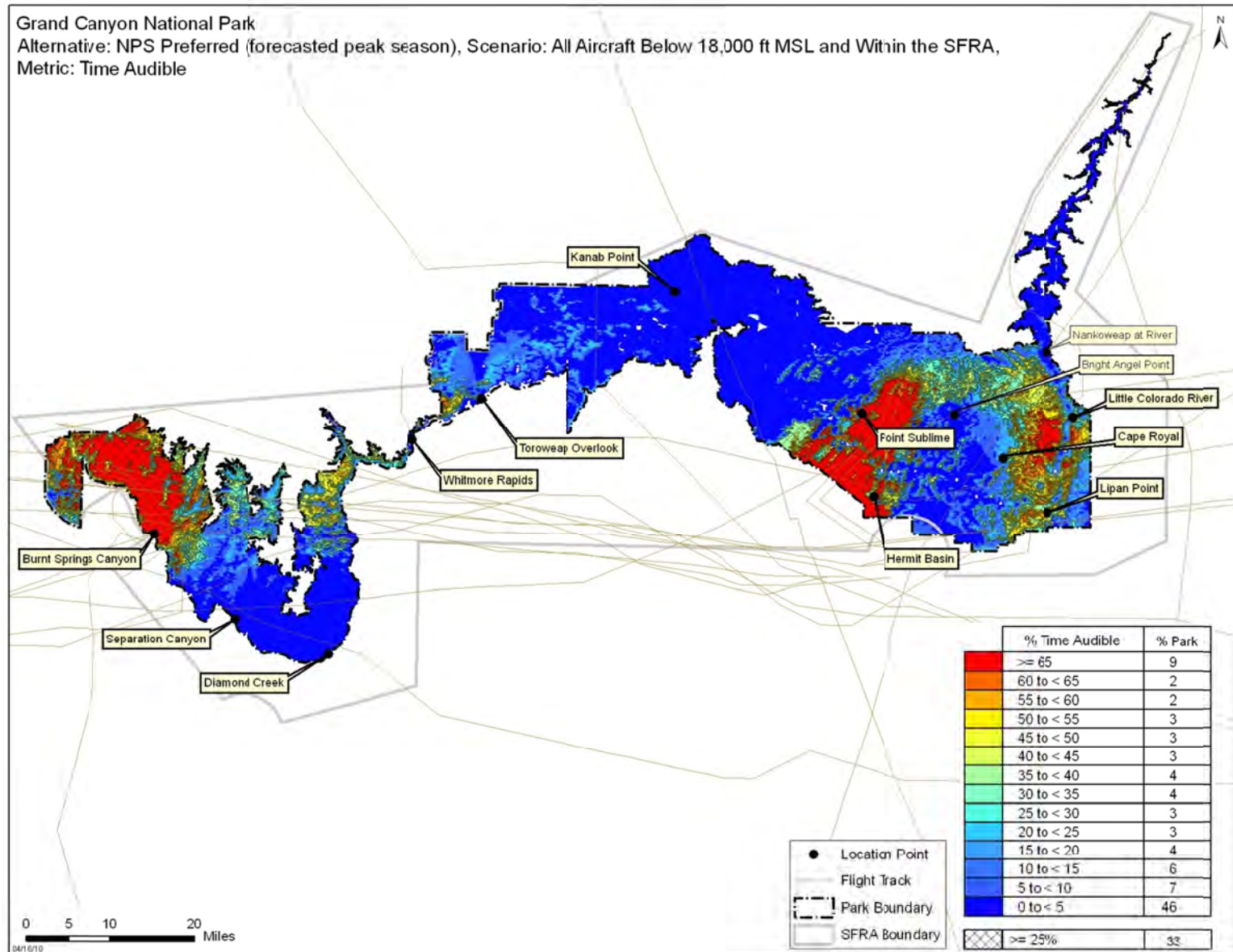
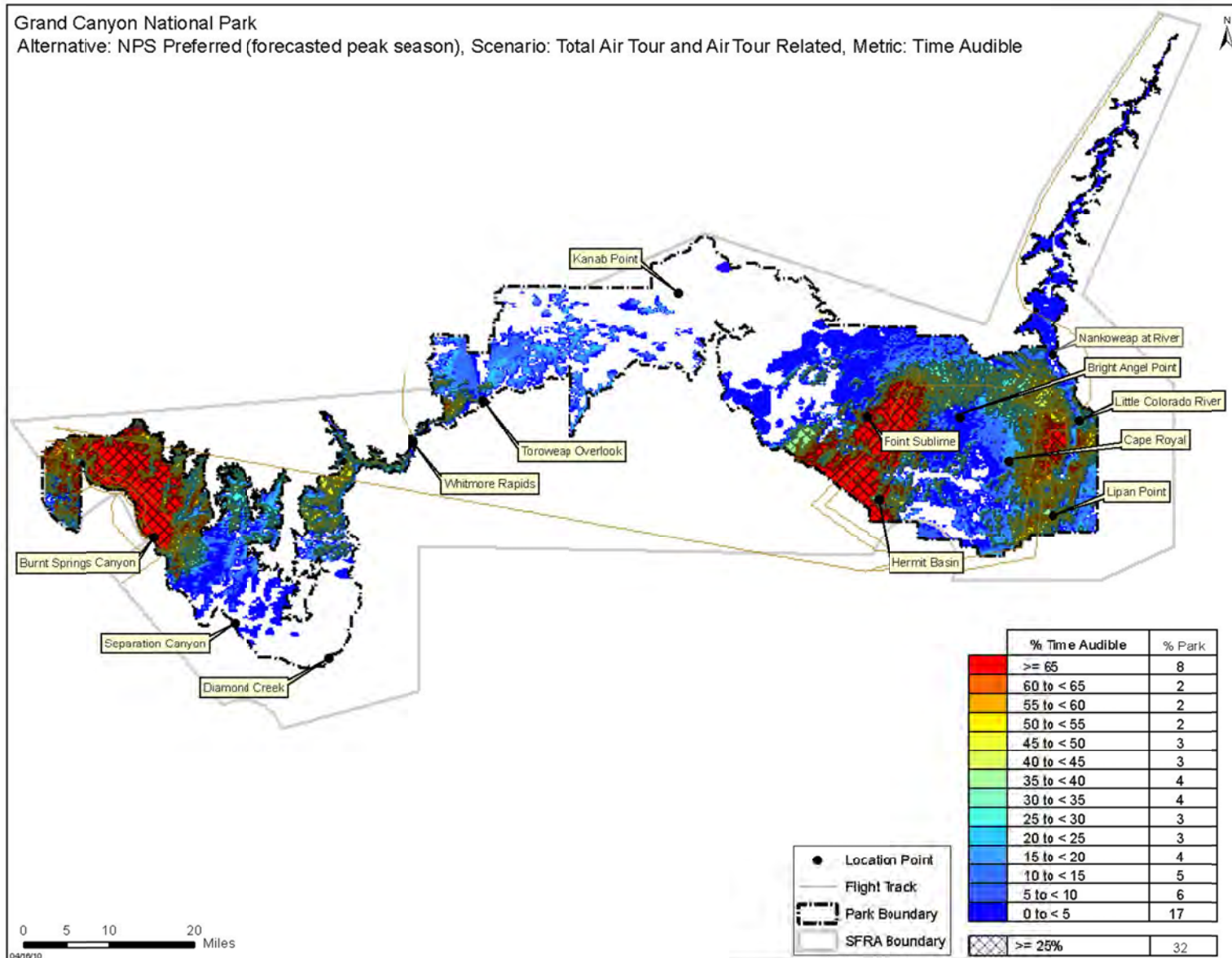


FIGURE 69 NPS PREFERRED ALTERNATIVE (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA



1

2 **FIGURE 70 NPS PREFERRED ALTERNATIVE (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – AIR-TOUR AND AIR-TOUR RELATED**

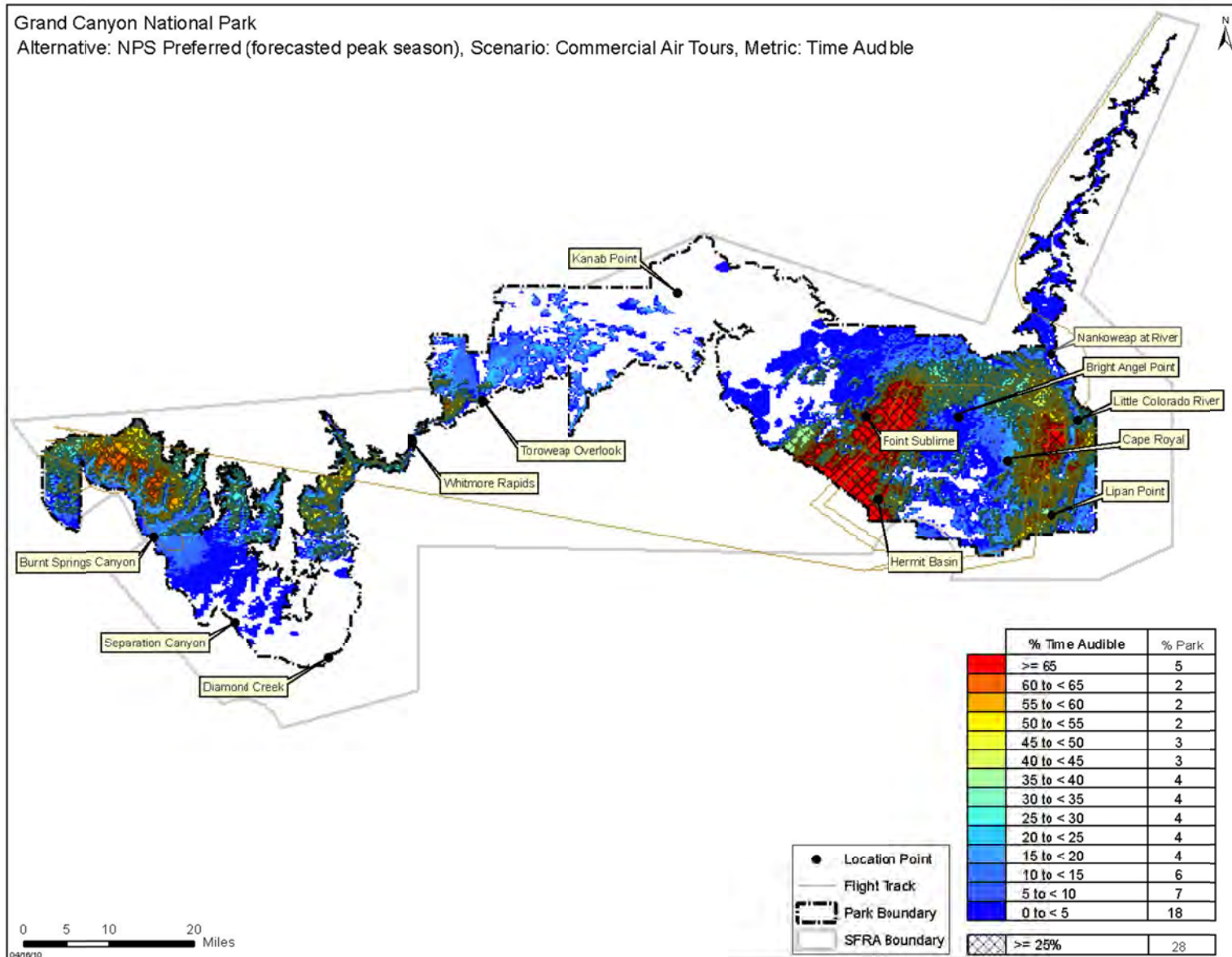
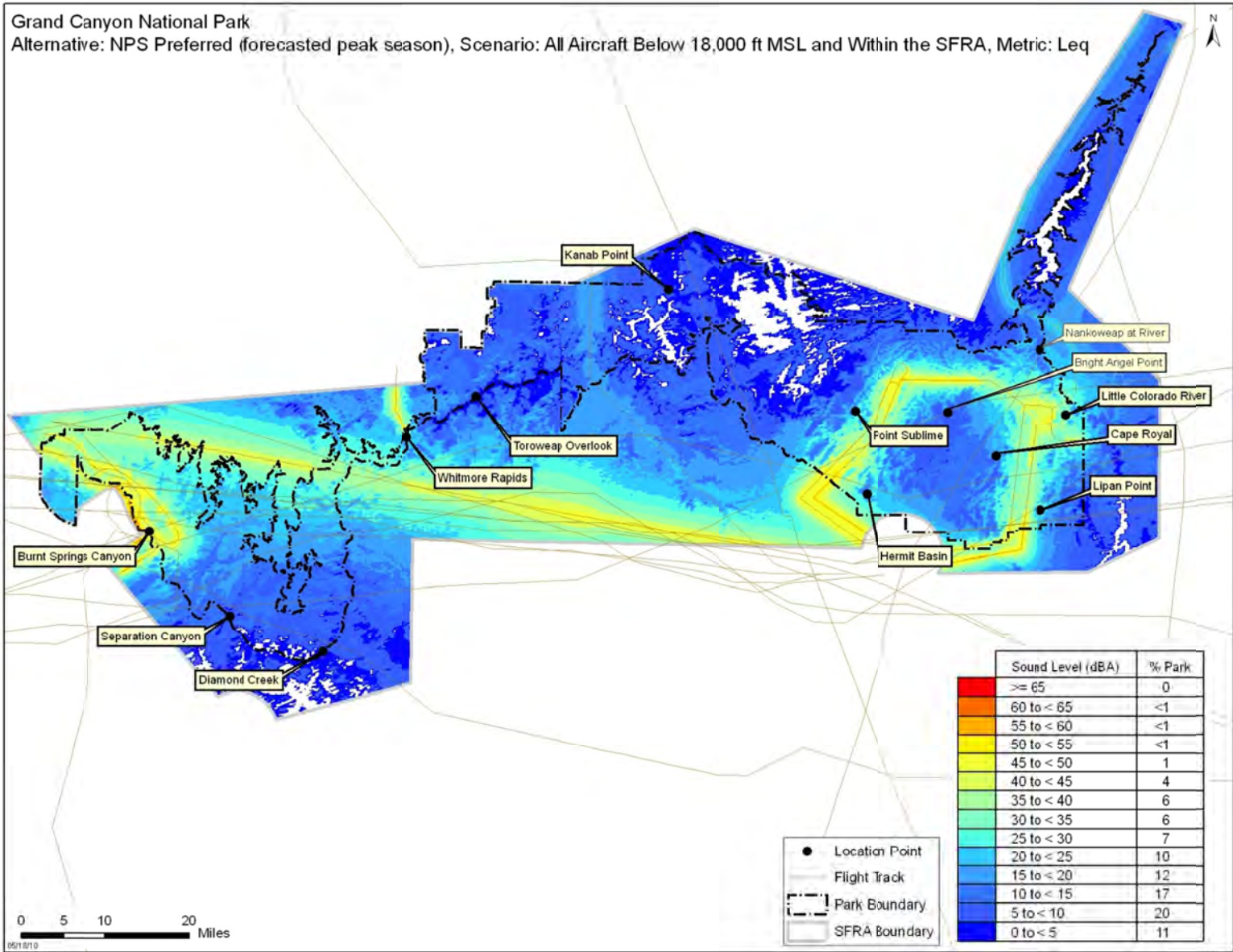


FIGURE 71 NPS PREFERRED ALTERNATIVE (TEN-YEAR FORECASTED PEAK SEASON) – %TAUD CONTOURS – COMMERCIAL AIR-TOURS



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2

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FIGURE 72 NPS PREFERRED ALTERNATIVE (TEN-YEAR FORECASTED PEAK SEASON) – L_{AEQ12} CONTOURS – ALL AIRCRAFT BELOW 18,000 FT MSL AND WITHIN THE SFRA