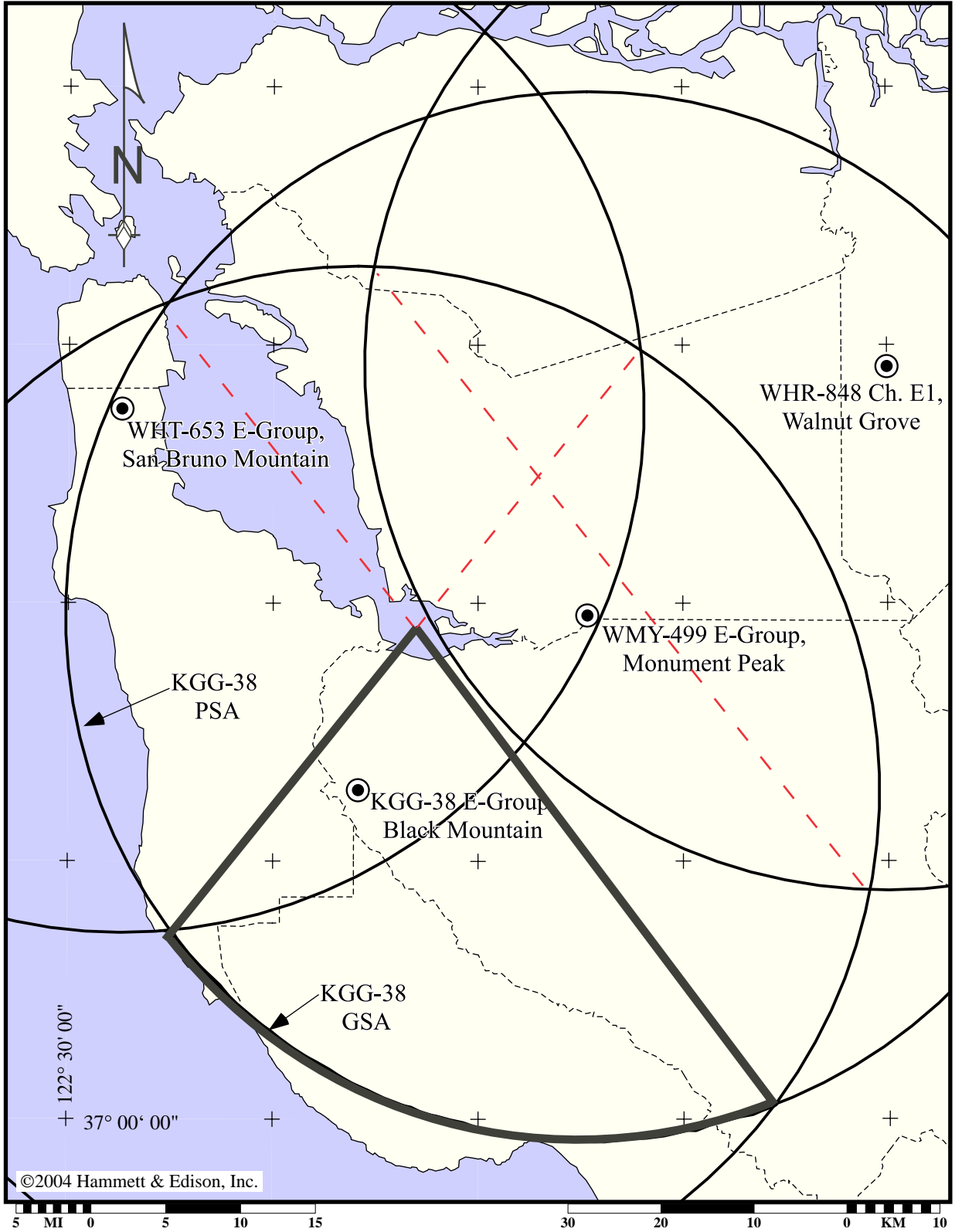


KGG-38 GSA

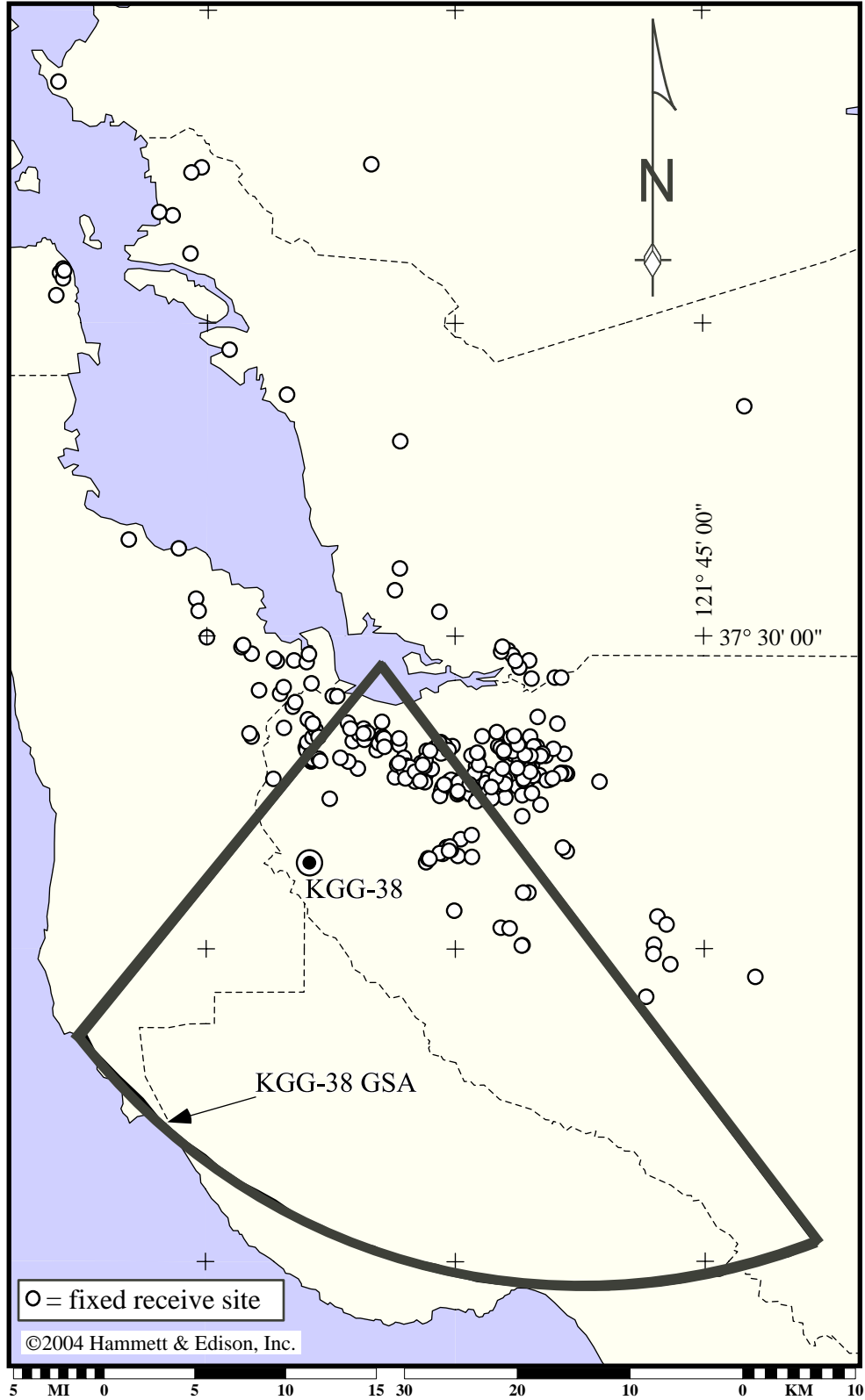


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Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 15-minute increments.

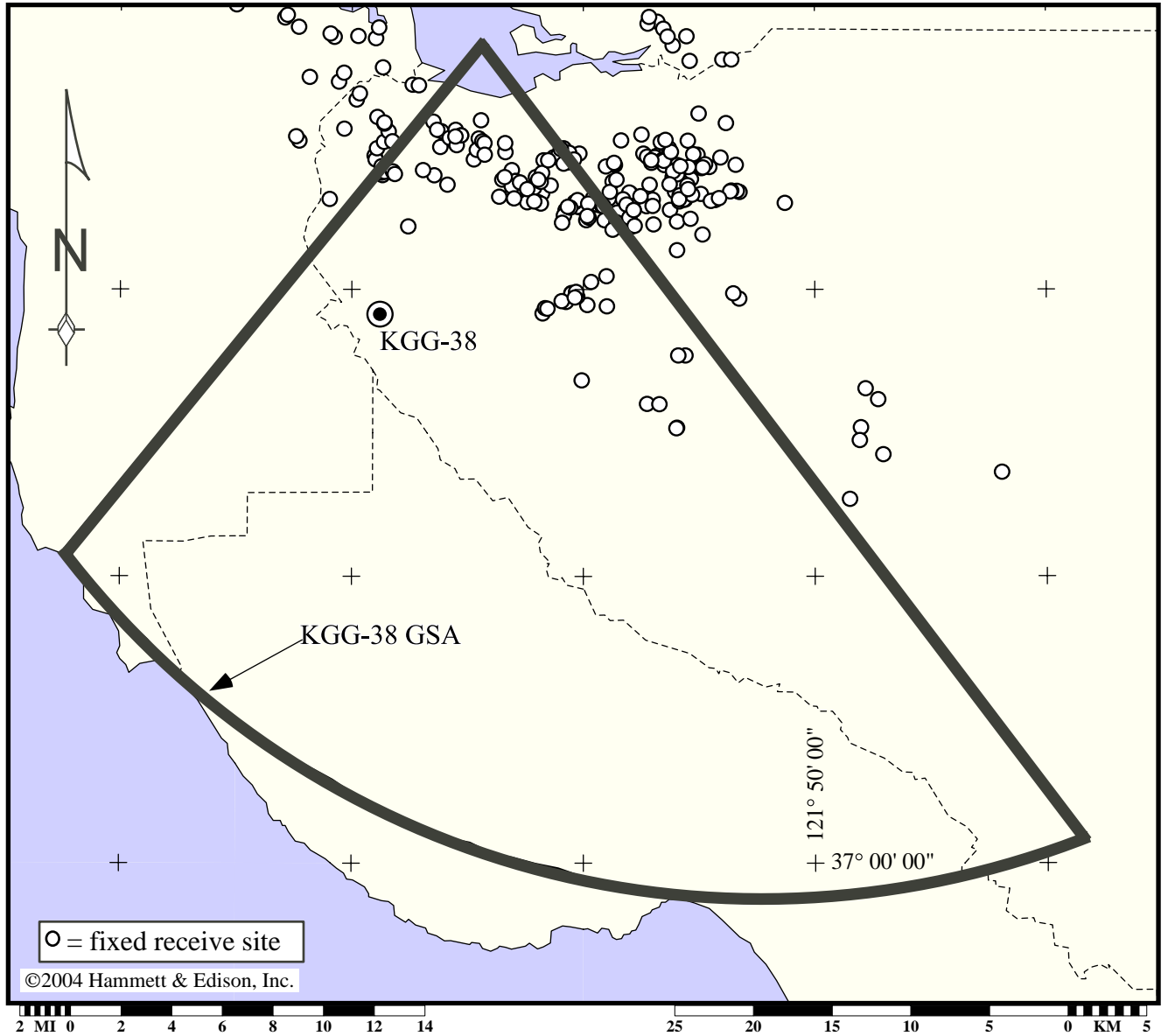


All 281 KGG-38 Fixed Receive Sites



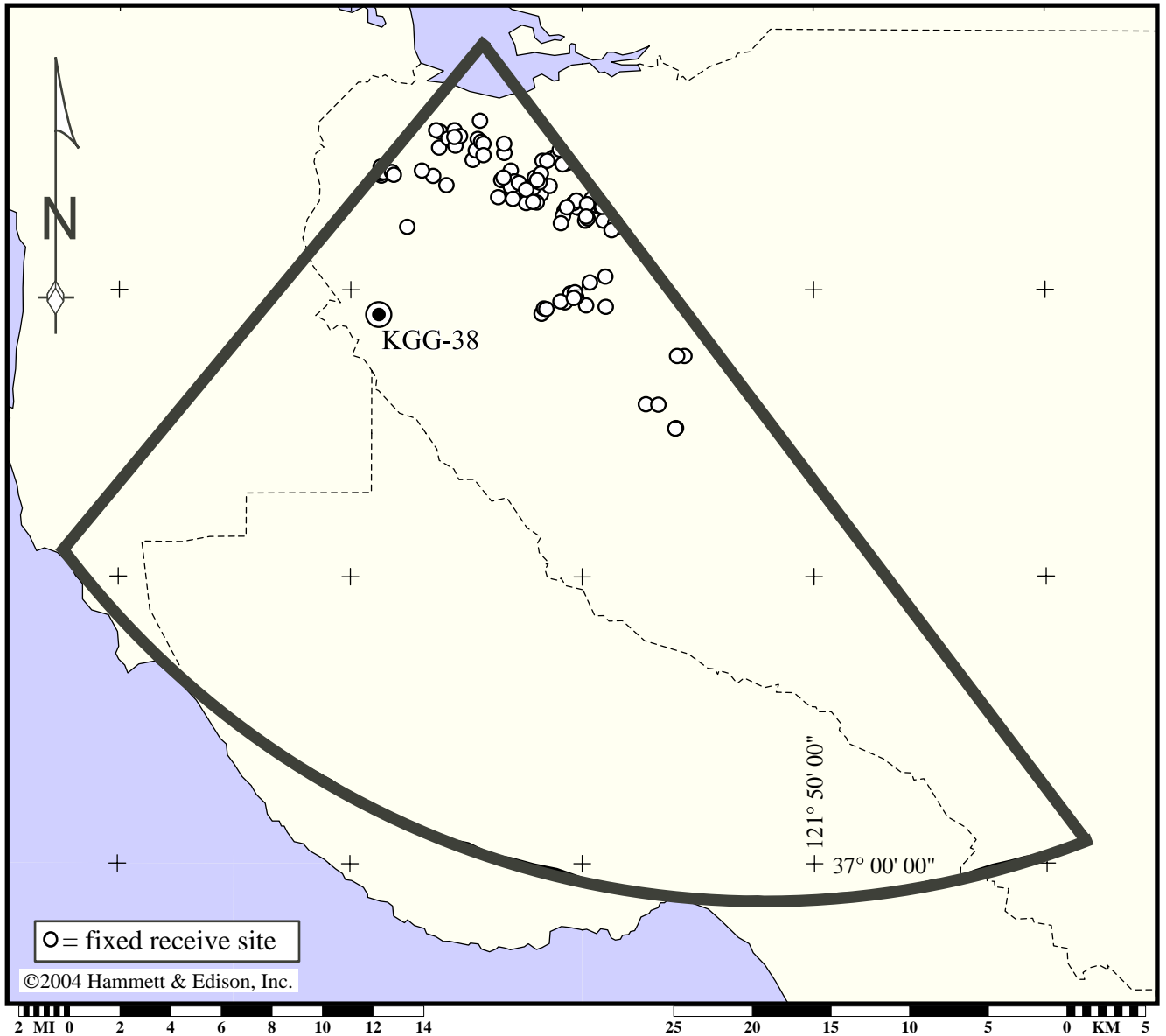
Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 15-minute increments.

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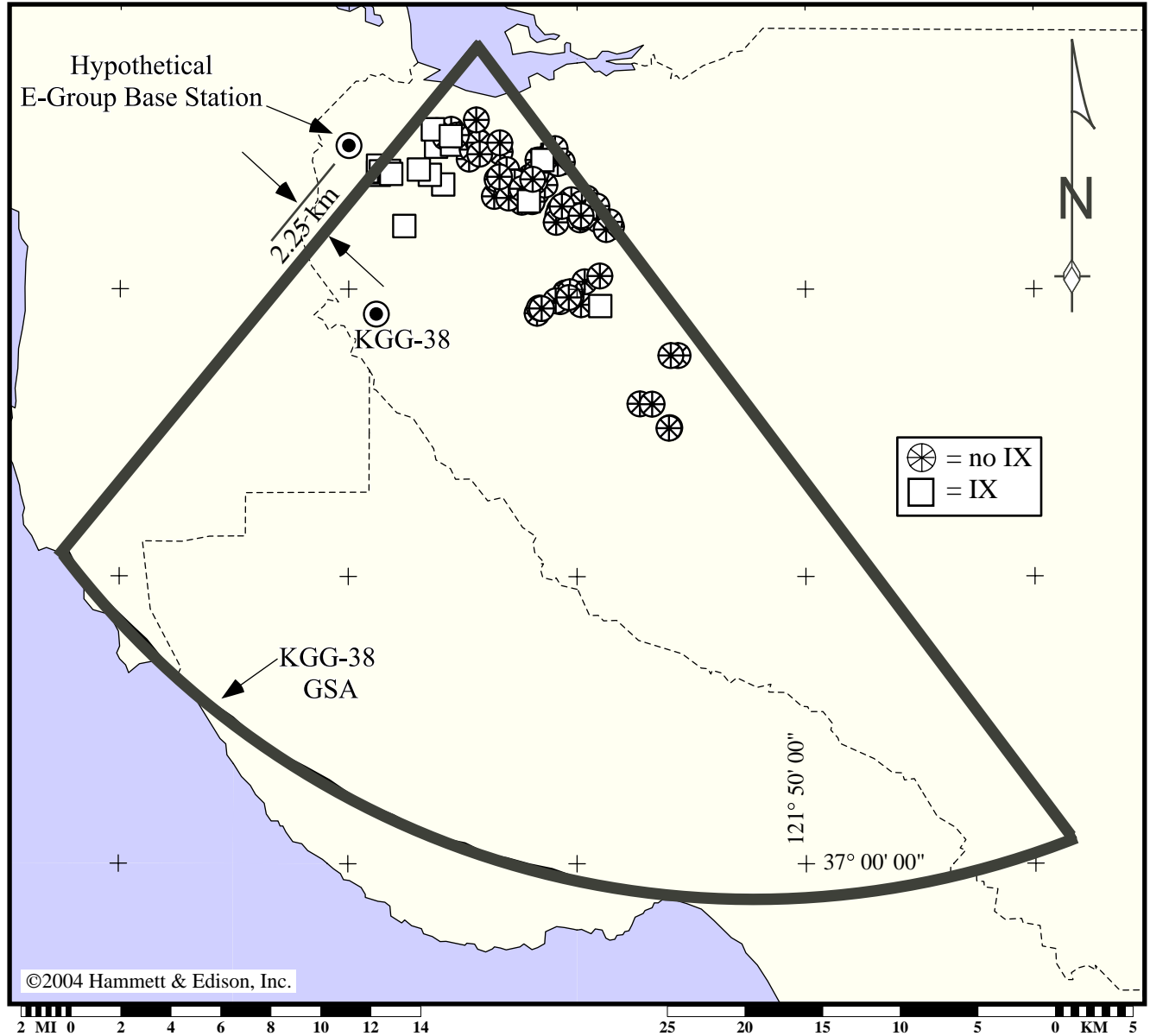
Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 10-minute increments.

**KGG-38 Inside-GSA Protected
Receive Sites**



Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 10-minute increments.

Interference Study for Hypothetical E-Group Base Station
Located 2.25 km Outside KGG-38 GSA
3.19 W EIRP OMNI
C.O.R. = 50 ft AGL, 245 ft AMSL



Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 10-minute increments.

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**Interference Study for Hypothetical E-Group Base Station
Located 2.25 km Outside the KGG-38 GSA**

Tx ID	Licensee	Location	Type
ST1	Stanford, main cardioid KGG-38 ITFS E-Group	Black Mtn.	ITFS
ST2	Stanford, 10 ft/Livermore RT-30 dish	Black Mtn.	ITFS
ST3	Stanford, 8 ft/Gilroy RRT-1 dish	Black Mtn.	ITFS
ST4	Stanford, 10 ft/SF R-16/R-44 dish	Black Mtn.	ITFS
ST5	Stanford, 10 ft/Richmond RT-29	Black Mtn.	ITFS
HYPO_E	Hypothetical E Group base stn	2.25 km from GS	MMDS

Tx ID	Latitude	Longitude	Ofs	Pol	Power	Loss	Antenna	Gain	Azim	Etilt	Mtilt
ST1	37-19-08	122-08-47	+	H	10.0	3.3	63020	16.0	30.0	0.0	2.0@ 30.0
ST2	37-19-08	122-08-47	+	H	10.0	13.1	P10F25	35.9	43.5	0.0	0.9@ 43.5
ST3	37-19-08	122-08-47	+	H	10.0	13.1	P8F25	33.9	111.2	0.0	0.8@111.2
ST4	37-19-08	122-08-47	+	H	10.0	12.1	P10F25	35.9	337.0	0.0	1.0@337.0
ST5	37-19-08	122-08-47	+	H	10.0	16.6	P10F25	35.9	342.1	0.0	0.8@342.1
HYPO_E	37-25-00	122-10-00	n	V	0.3	1.5	HMD80	11.5	0.0	1.0	0.0@ 0.0

-----Receiver data-----								-----Undesired signals-----				
Tx ID	Rx ID	Antenna	Bear	Dist	FSpace	TLoss	St	Tx ID	FSpace	TLoss	D/U	Rq
ST1	R1	P25A48GH	37.3	8.2	-46.8		OK	HYPO_E	-97.8		51.0	45
ST1	R8	P25A48GH	46.3	8.9	-46.1		OK	HYPO_E	-99.8		53.6	45
ST1	R9	P25A48GH	18.1	7.7	-46.5		OK	HYPO_E	-93.2		46.7	45
ST1	R24	P25A48GH	0.9	5.6	-47.5		IX	HYPO_E	-87.5		39.9	45
ST1	R38	P25A48GH	87.3	8.2	-49.0		OK	HYPO_E	-103.3		54.2	45
ST1	R53	P25A48GH	60.3	8.5	-45.7		OK	HYPO_E	-101.1		55.4	45
ST1	R54	P25A48GH	59.7	8.9	-45.7		OK	HYPO_E	-101.4		55.7	45
ST1	R55	P25A48GH	81.1	8.5	-47.8		OK	HYPO_E	-103.0		55.2	45
ST1	R60	P25A48GH	61.3	8.3	-45.7		OK	HYPO_E	-101.1		55.4	45
ST1	R64	P25A48GH	62.4	9.3	-45.9		OK	HYPO_E	-101.9		55.9	45
ST1	R68	P25A48GH	61.4	9.0	-45.8		OK	HYPO_E	-101.6		55.8	45
ST1	R71	P25A48GH	47.4	9.3	-46.1		OK	HYPO_E	-100.2		54.1	45
ST1	R73	P25A48GH	86.1	7.4	-49.2		OK	HYPO_E	-102.7		53.4	45
ST1	R74	P25A48GH	30.8	7.2	-47.2		OK	HYPO_E	-95.9		48.7	45
ST1	R75	P25A48GH	48.4	7.1	-46.2		OK	HYPO_E	-98.7		52.6	45
ST1	R89	2536	48.2	8.3	-49.0		OK	HYPO_E	-100.2		51.3	45
ST1	R91	2536	0.6	5.7	-50.2		IX	HYPO_E	-87.1		36.9	45
ST1	R99	P25A48GH	83.4	7.6	-48.7		OK	HYPO_E	-102.6		54.0	45
ST1	R106	2536	23.1	7.5	-49.9		OK	HYPO_E	-95.5		45.5	45
ST1	R116	2536	89.6	6.5	-54.3		OK	HYPO_E	-102.6		48.3	45
ST1	R124	2536	27.2	5.8	-51.4		IX	HYPO_E	-95.5		44.1	45
ST1	R125	2536	83.6	7.6	-51.8		OK	HYPO_E	-102.9		51.1	45
ST1	R130	2536	19.5	7.1	-49.9		IX	HYPO_E	-94.5		44.6	45
ST1	R131	2536	21.2	7.6	-49.9		OK	HYPO_E	-95.0		45.2	45
ST1	R132	2536	22.0	8.0	-49.9		OK	HYPO_E	-95.4		45.5	45
ST1	R134	PT2521	23.9	7.4	-53.9		IX	HYPO_E	-84.7		30.8	45
ST1	R135	2536	28.9	8.1	-50.2		OK	HYPO_E	-97.0		46.8	45
ST1	R137	2536	30.1	7.6	-50.2		OK	HYPO_E	-97.0		46.8	45
ST1	R138	2536	30.2	8.0	-50.2		OK	HYPO_E	-97.2		47.0	45
ST1	R142	2536	46.7	7.2	-49.3		OK	HYPO_E	-99.5		50.2	45
ST1	R143	2536	47.4	7.4	-49.1		OK	HYPO_E	-99.7		50.5	45
ST1	R146	2536	52.8	8.0	-48.7		OK	HYPO_E	-100.7		51.9	45
ST1	R148	2536	54.1	7.7	-48.7		OK	HYPO_E	-100.7		51.9	45
ST1	R150	2536	59.9	8.6	-48.7		OK	HYPO_E	-101.7		52.9	45
ST1	R151	2536	61.0	9.6	-49.0		OK	HYPO_E	-102.2		53.2	45
ST1	R152	2536	61.0	8.9	-48.8		OK	HYPO_E	-101.9		53.1	45
ST1	R154	2	62.9	8.1	-53.8		OK	HYPO_E	-104.8		51.0	45
ST1	R169	2536	84.8	7.8	-52.0		OK	HYPO_E	-103.0		51.0	45
ST1	R170	2536	87.8	6.6	-53.6		OK	HYPO_E	-102.6		49.0	45
ST1	R171	2536	97.7	12.2	-54.7		OK	HYPO_E	-105.7		51.0	45
ST1	R190	2536	30.9	8.0	-50.2		OK	HYPO_E	-97.4		47.2	45

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**Interference Study for Hypothetical E-Group Base Station
Located 2.25 km Outside the KGG-38 GSA**

-----Receiver data-----								-----Undesired signals-----				
Tx ID	Rx ID	Antenna	Bear	Dist	FSpace	TLoss	St	Tx ID	FSpace	TLoss	D/U	Rq
ST1	R191	2536	24.0	7.9	-50.0		OK	HYPO_E	-95.8		45.8	45
ST1	R196	CAL24H	59.7	8.9	-49.7		OK	HYPO_E	-98.7		49.1	45
ST1	R210	2536	42.0	7.8	-49.6		OK	HYPO_E	-99.1		49.5	45
ST1	R213	PT2521	45.0	7.6	-53.2		IX	HYPO_E	-87.9		34.7	45
ST1	R217	2536	83.3	7.8	-51.7		OK	HYPO_E	-102.9		51.2	45
ST1	R226	PT2521	17.5	3.7	-65.2		IX	HYPO_E	-91.6		26.4	45
ST1	R230	2536	52.4	8.5	-48.8		OK	HYPO_E	-100.9		52.1	45
ST1	R231	PT2521	45.0	7.6	-53.2		IX	HYPO_E	-87.9		34.7	45
ST1	R236	4336	65.1	9.0	-49.8		OK	HYPO_E	-112.1		62.4	45
ST1	R238	2536	44.9	6.7	-49.8		OK	HYPO_E	-99.2		49.3	45
ST1	R240	PT2521	47.8	9.5	-53.1		IX	HYPO_E	-88.3		35.2	45
ST1	R243	2536	64.8	9.1	-49.2		OK	HYPO_E	-102.3		53.1	45
ST1	R247	2536	50.6	9.6	-49.0		OK	HYPO_E	-101.2		52.2	45
ST1	R248	4336	41.8	7.3	-50.3		OK	HYPO_E	-106.2		55.8	45
ST1	R250	2536	49.1	7.7	-48.9		OK	HYPO_E	-100.1		51.2	45
ST1	R252	2536	45.4	7.3	-49.4		OK	HYPO_E	-99.4		50.0	45
ST1	R253	P4F25	51.7	7.6	-45.7		OK	HYPO_E	-94.9		49.2	45
ST1	R254	2536	85.7	7.2	-52.3		OK	HYPO_E	-102.8		50.5	45
ST1	R257	PT2521	87.9	9.0	-55.9		IX	HYPO_E	-91.1		35.2	45
ST1	R258	2536	50.1	7.9	-48.8		OK	HYPO_E	-100.3		51.5	45
ST1	R263	2536	16.9	7.7	-49.5		IX	HYPO_E	-93.9		44.4	45
ST1	R274	2536	0.6	5.9	-50.0		IX	HYPO_E	-86.4		36.4	45
ST1	R279	2536	88.0	6.6	-53.4		OK	HYPO_E	-102.6		49.2	45
ST1	R282	2536	20.9	6.0	-51.0		IX	HYPO_E	-94.0		42.9	45
ST1	R283	2536	46.2	7.7	-49.2		OK	HYPO_E	-99.7		50.5	45
ST1	R285	2536	62.9	9.7	-49.1		OK	HYPO_E	-102.4		53.3	45
ST1	R301	CAL24H	59.5	9.1	-49.7		OK	HYPO_E	-98.8		49.1	45
ST1	R306	CAL24H	50.0	8.3	-49.7		OK	HYPO_E	-97.1		47.4	45
ST1	R310	CAL24H	1.7	5.7	-51.7		IX	HYPO_E	-84.1		32.5	45
ST1	R316	CAL24H	63.7	9.8	-50.1		OK	HYPO_E	-99.6		49.6	45
ST1	R322	CAL24H	61.6	9.4	-49.9		OK	HYPO_E	-99.2		49.3	45
ST1	R323	CAL24H	59.8	8.6	-49.6		OK	HYPO_E	-98.5		48.9	45
ST1	R326	CAL24H	48.4	8.6	-49.9		OK	HYPO_E	-97.1		47.2	45
ST1	R330	CAL24H	50.2	9.5	-49.9		OK	HYPO_E	-98.0		48.1	45
ST1	R331	CON	69.5	10.1	-50.6		OK	HYPO_E	-106.8		56.2	45
ST1	R332	CAL24H	97.9	11.9	-55.6		OK	HYPO_E	-103.2		47.7	45
ST1	R334	CAL24H	52.4	7.4	-49.8		OK	HYPO_E	-96.8		47.1	45
ST1	R336	CAL24H	48.6	7.1	-50.1		OK	HYPO_E	-96.1		46.0	45
ST1	R341	CON	66.9	9.7	-50.4		OK	HYPO_E	-106.1		55.7	45
ST1	R342	CON	32.8	7.6	-51.1		OK	HYPO_E	-100.6		49.6	45
ST1	R344	CON	27.1	8.7	-51.2		OK	HYPO_E	-100.3		49.1	45
ST1	R345	PT2521	22.6	7.7	-53.8		IX	HYPO_E	-84.2		30.4	45
ST1	R358	CON	5.0	5.7	-51.6		IX	HYPO_E	-91.9		40.4	45
ST1	R360	CON	16.3	6.0	-51.6		IX	HYPO_E	-95.9		44.2	45
ST1	R362	CAL24H	63.8	9.9	-50.1		OK	HYPO_E	-99.7		49.6	45
ST1	R365	CON	80.2	9.1	-51.7		OK	HYPO_E	-107.1		55.5	45
ST1	R366	CON	85.0	7.8	-53.0		OK	HYPO_E	-106.4		53.3	45
ST1	R368	CON	49.2	7.7	-49.9		OK	HYPO_E	-103.2		53.4	45
ST1	R369	CON	35.7	8.5	-51.0		OK	HYPO_E	-101.7		50.6	45
ST1	R370	CON	47.1	9.8	-50.3		OK	HYPO_E	-104.0		53.7	45
ST1	R371	PT2521	53.4	7.6	-52.6		IX	HYPO_E	-88.7		36.1	45
ST1	R372	CON	68.3	10.1	-50.5		OK	HYPO_E	-106.7		56.2	45
ST1	R376	CAL24H	69.7	9.8	-50.5		OK	HYPO_E	-100.2		49.7	45
ST1	R382	PT2521	47.1	9.1	-53.1		IX	HYPO_E	-88.2		35.1	45
ST1	R387	CAL24H	64.2	9.1	-50.0		OK	HYPO_E	-99.3		49.2	45
ST1	R390	CON	49.1	8.3	-49.9		OK	HYPO_E	-103.5		53.6	45
ST1	R391	CON	41.8	7.4	-50.7		OK	HYPO_E	-102.1		51.4	45
ST1	R392	CON	5.9	5.6	-52.0		IX	HYPO_E	-92.5		40.5	45
ST3	R275	2548H	108.7	11.2	-48.9		OK	HYPO_E	-104.6		55.6	45



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Interference Study for Hypothetical E-Group Base Station
Located 2.25 km Outside the KGG-38 GSA

-----Receiver data-----							-----Undesired signals-----					
Tx ID	Rx ID	Antenna	Bear	Dist	FSpace	TLoss	St	Tx ID	FSpace	TLoss	D/U	Rq
ST3	R287	2548H	111.1	12.6	-41.7		OK	HYPO_E	-105.3		63.6	45
ST3	R340	CON	108.0	11.7	-56.1		OK	HYPO_E	-106.5		50.5	45
ST3	R346	CON	111.2	12.6	-45.5		OK	HYPO_E	-108.5		63.0	45

Summary of fixed ITFS receivers for transmitter group ST:

Receivers with status OK: 83
Receivers with status OS: 0
Receivers with status IX: 20
Total: 103

+++++

Definition of codes used in the preceding tabulation:

- OK - All undesired signals meet the required D/U values.
- OS - Same as OK but offset-frequency operation is required.
- IX - One or more undesired signal(s) exceed the required D/U values.