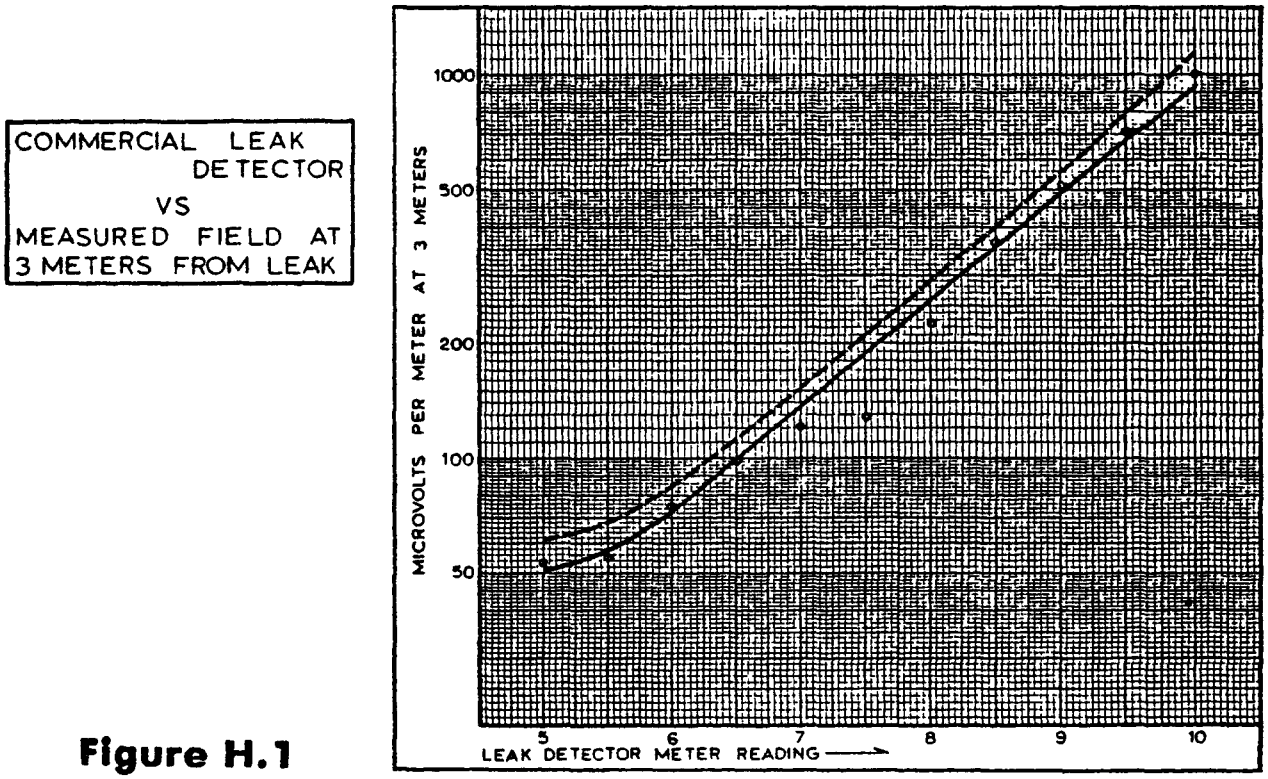

Figure H.1

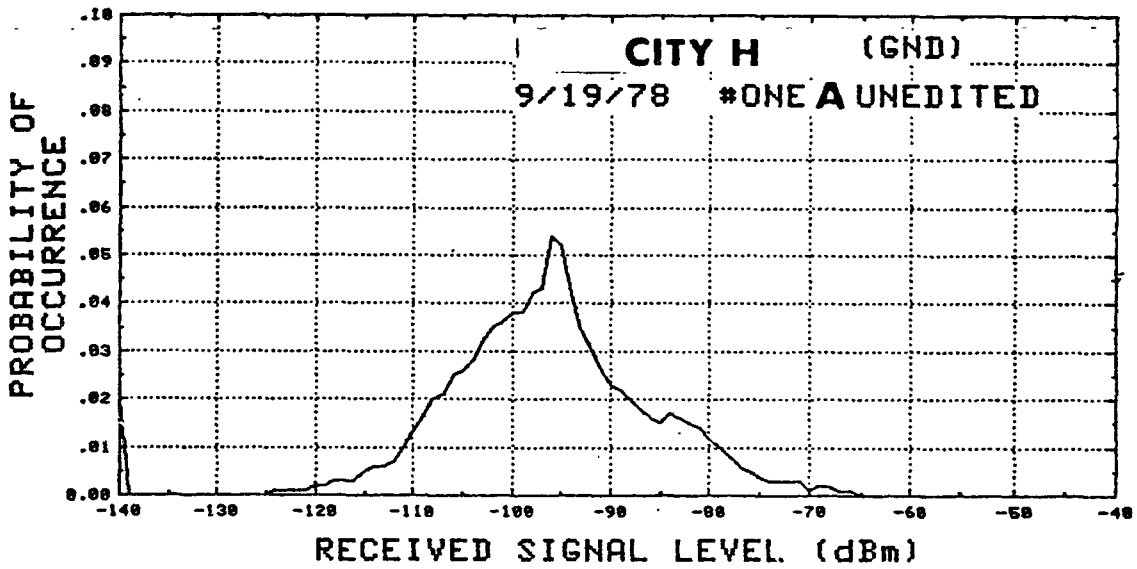

Figure H.2

Text: Section 3.4

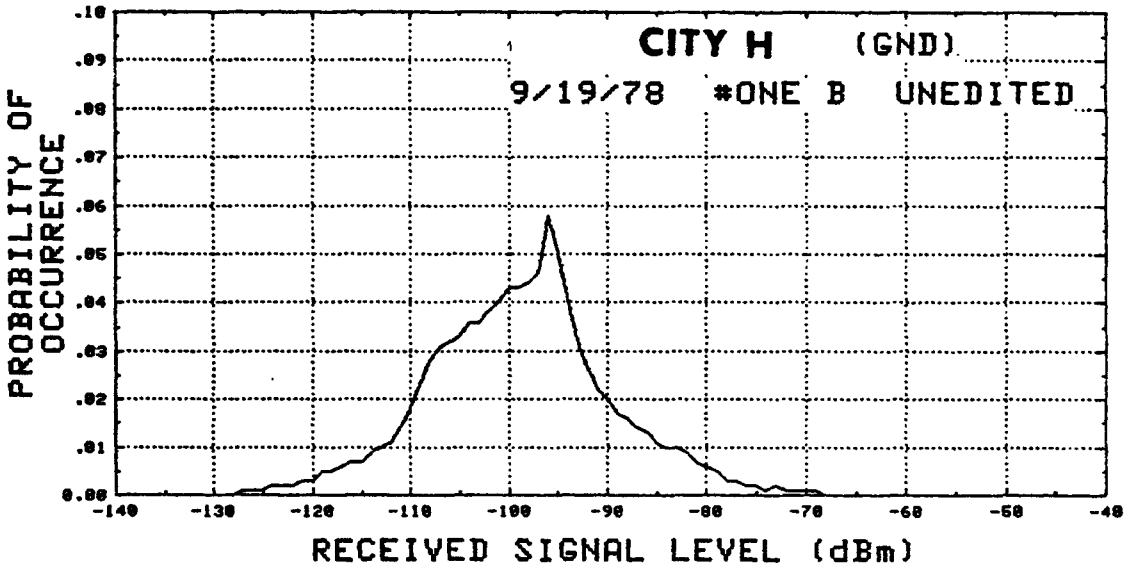

Figure H.3

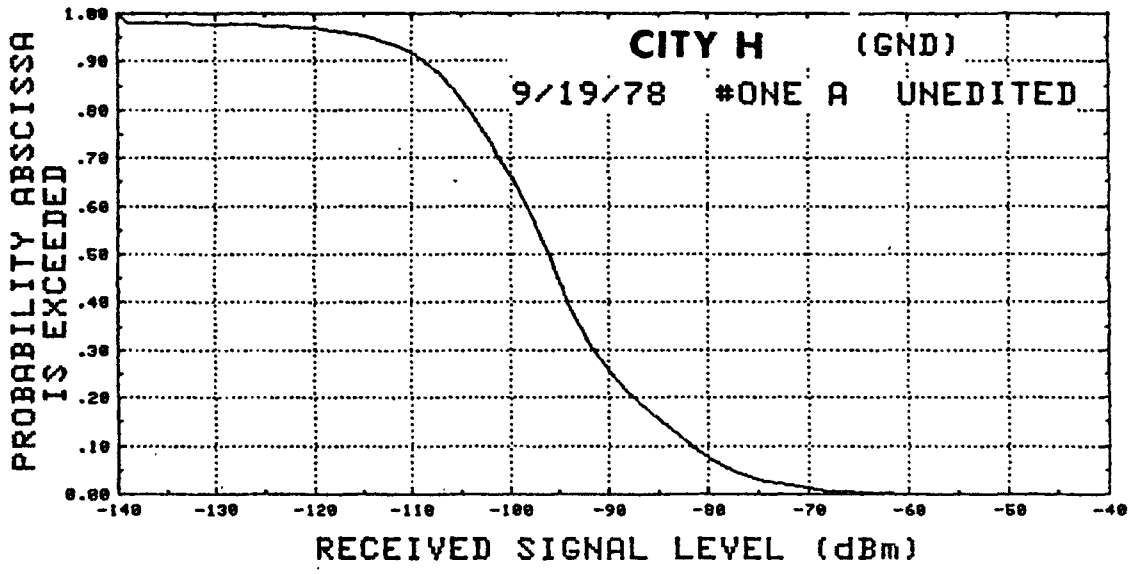

Figure H.4

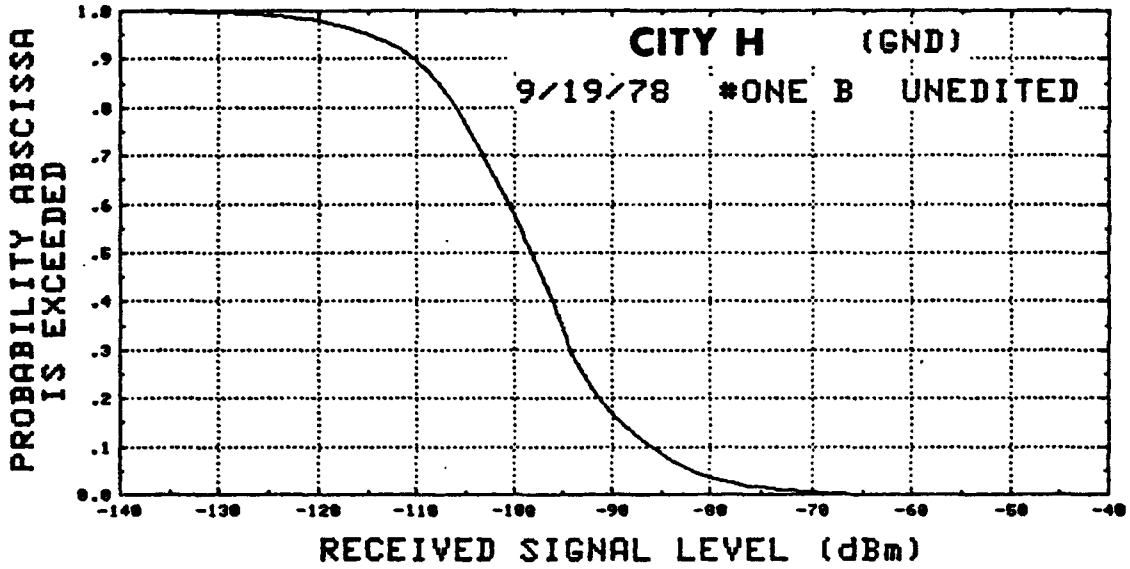

Figure H.5

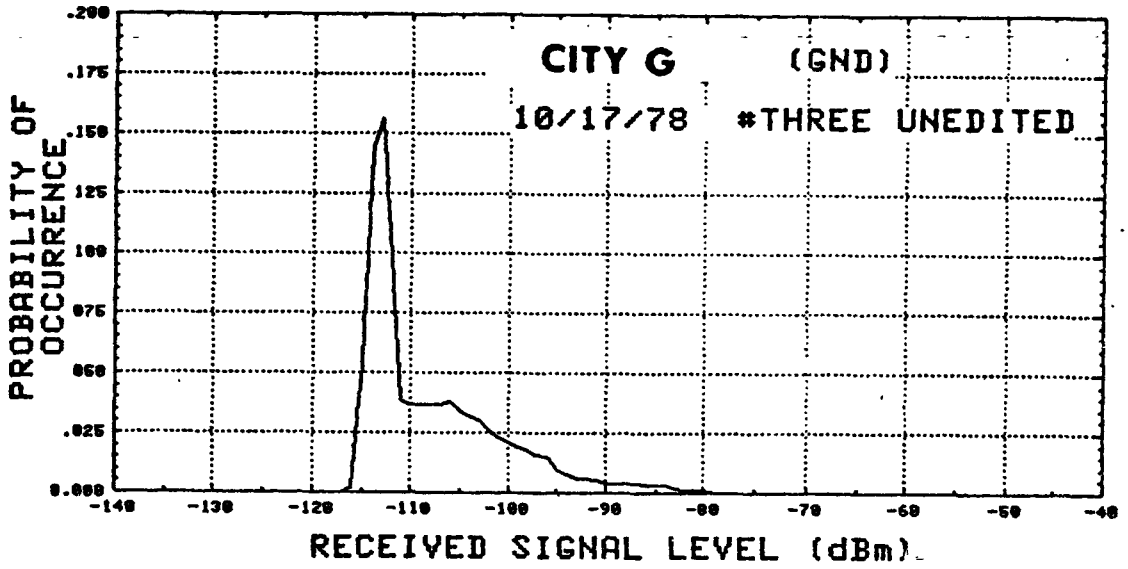

Figure H.6

Text: Section 3.4.5

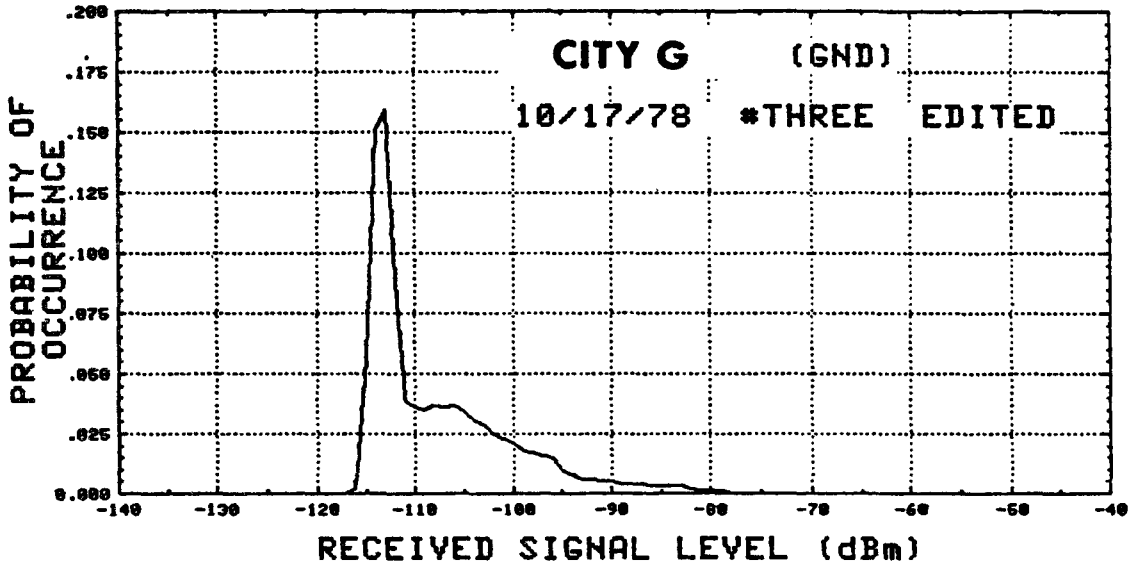

Figure H.7

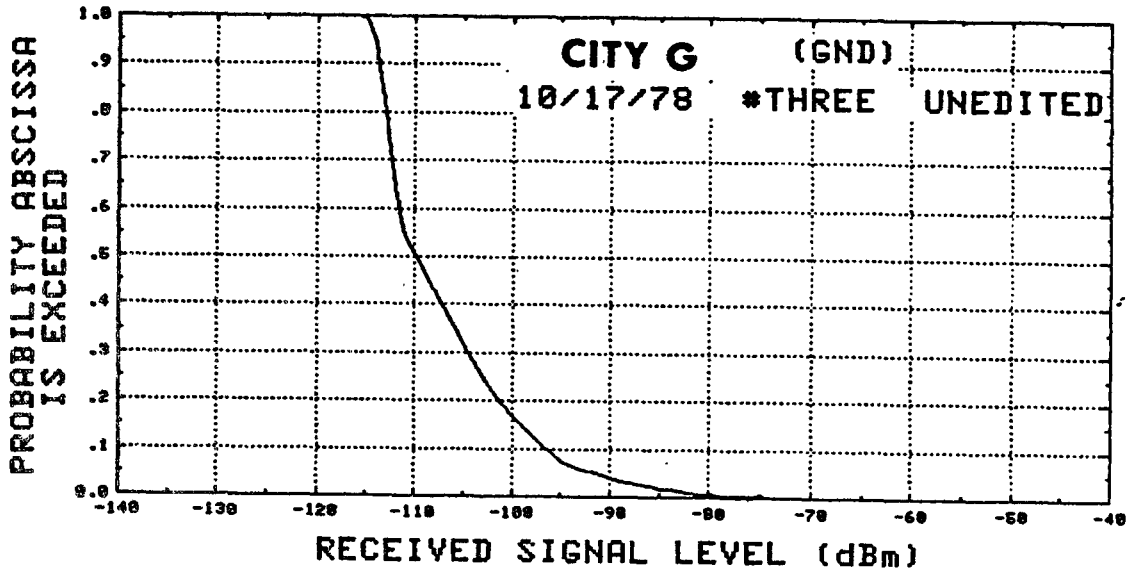

Figure H.8

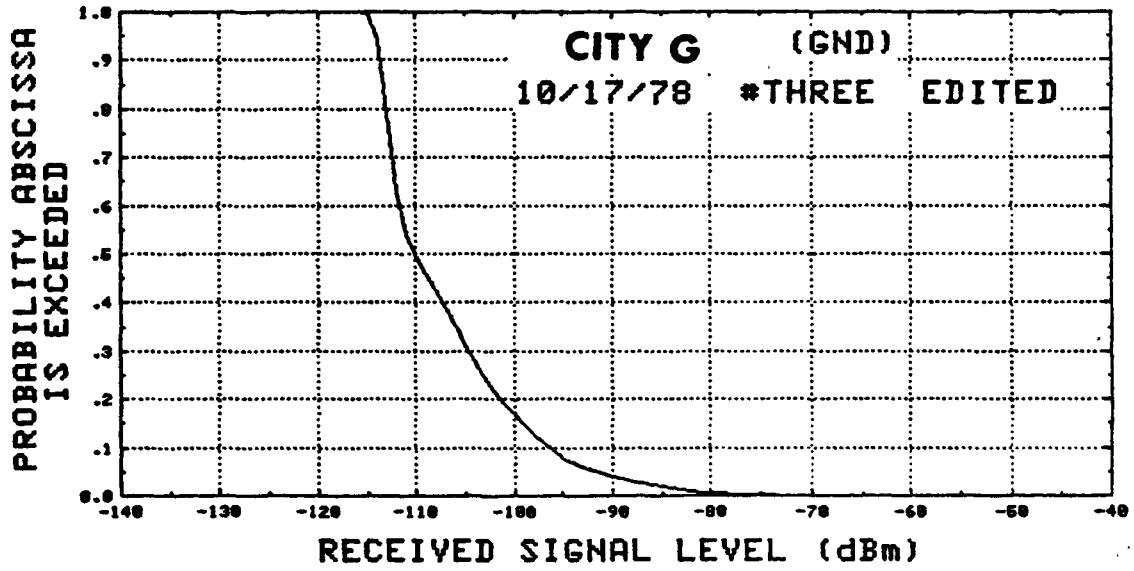

Figure H.9

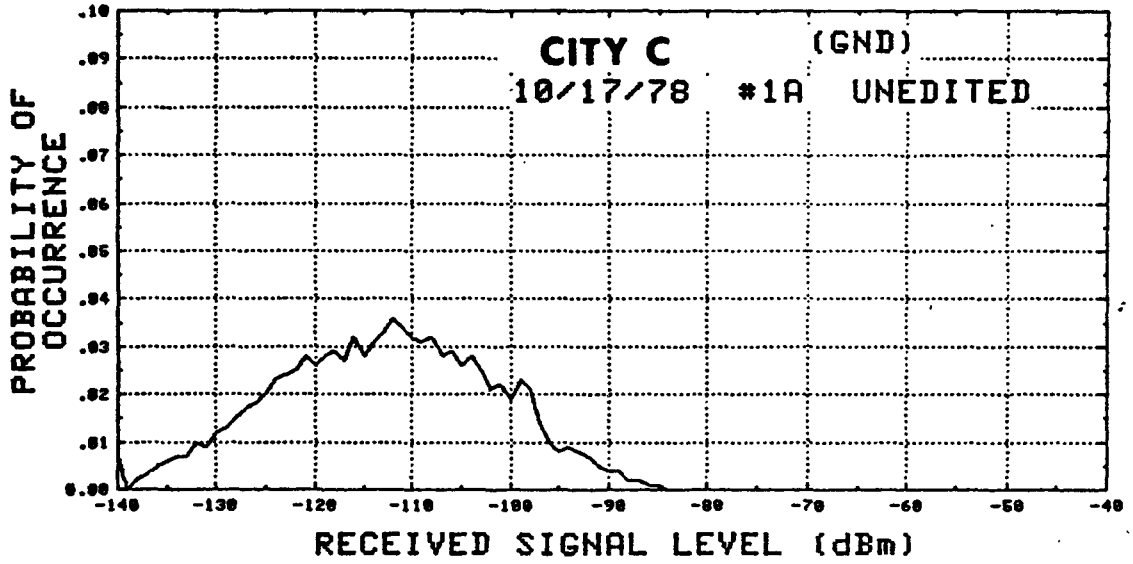

Figure H.10

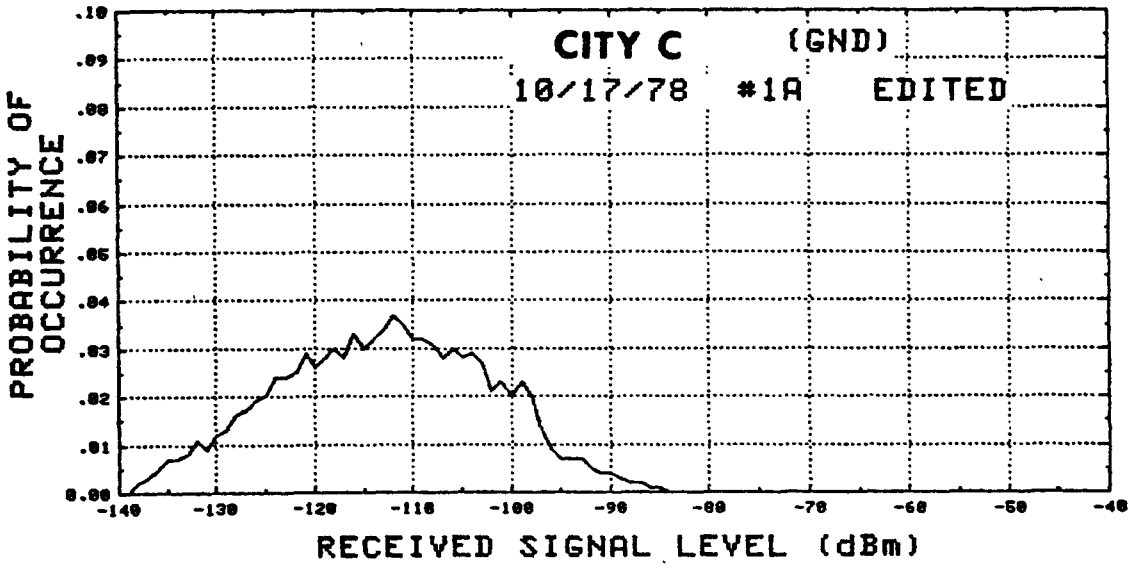

Figure H.11

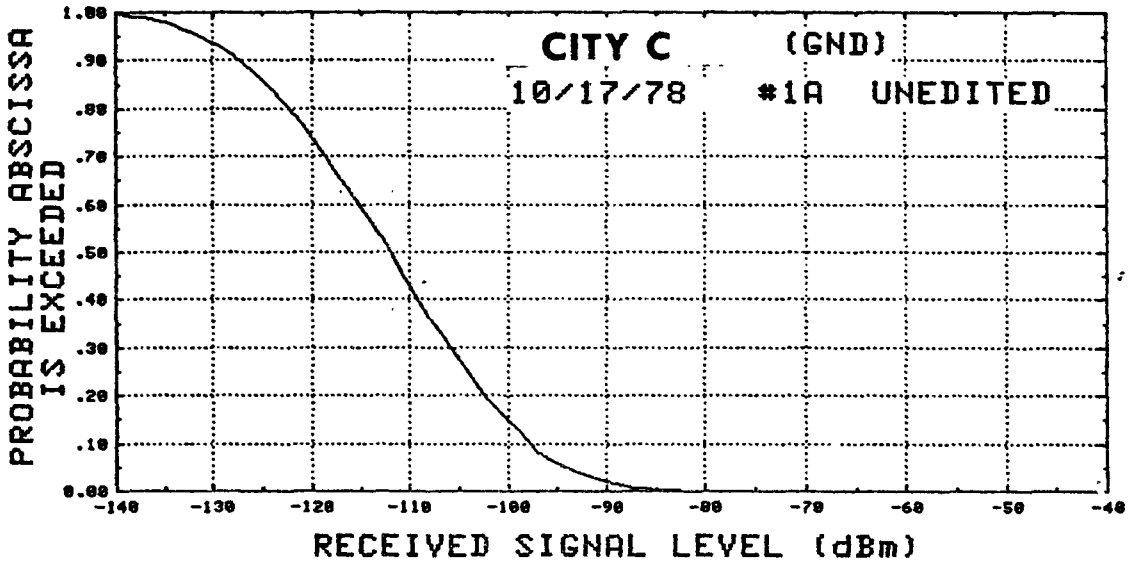

Figure H.12

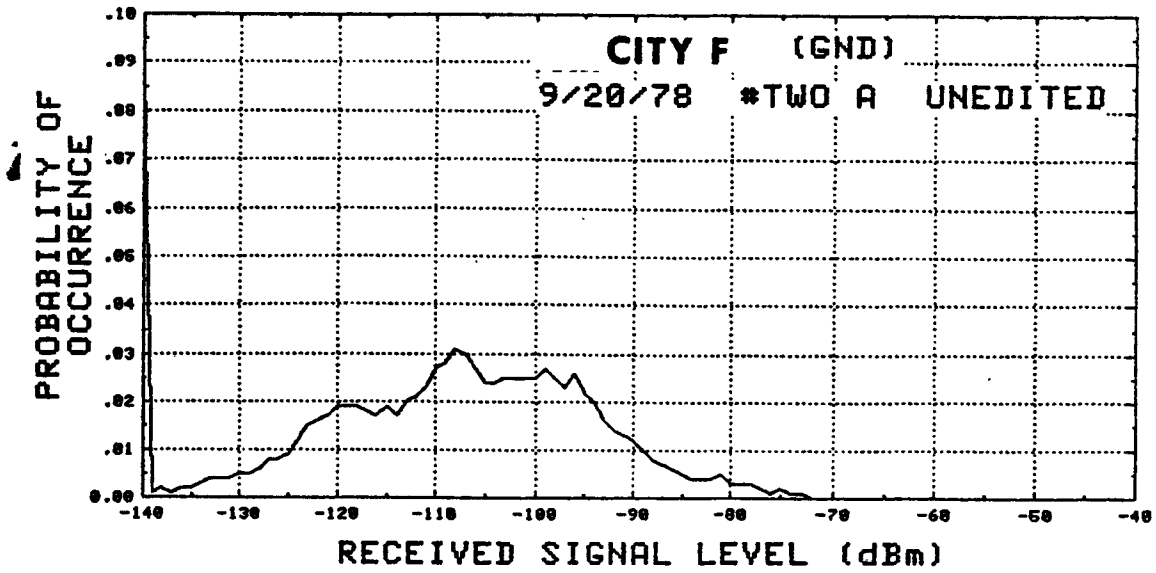

Figure H.13

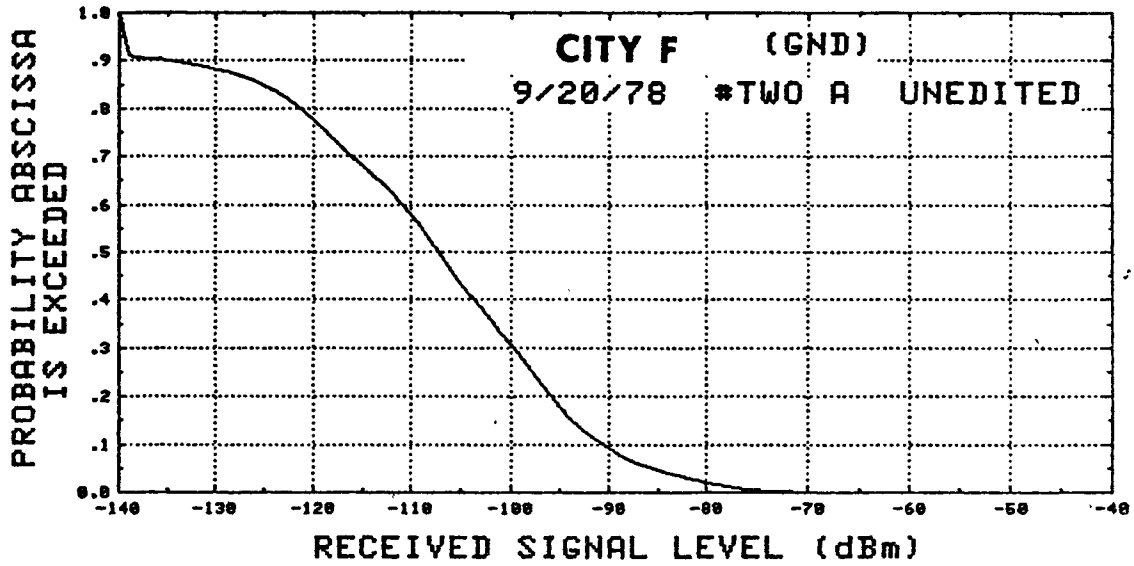

Figure H.14

H.15 may be found following
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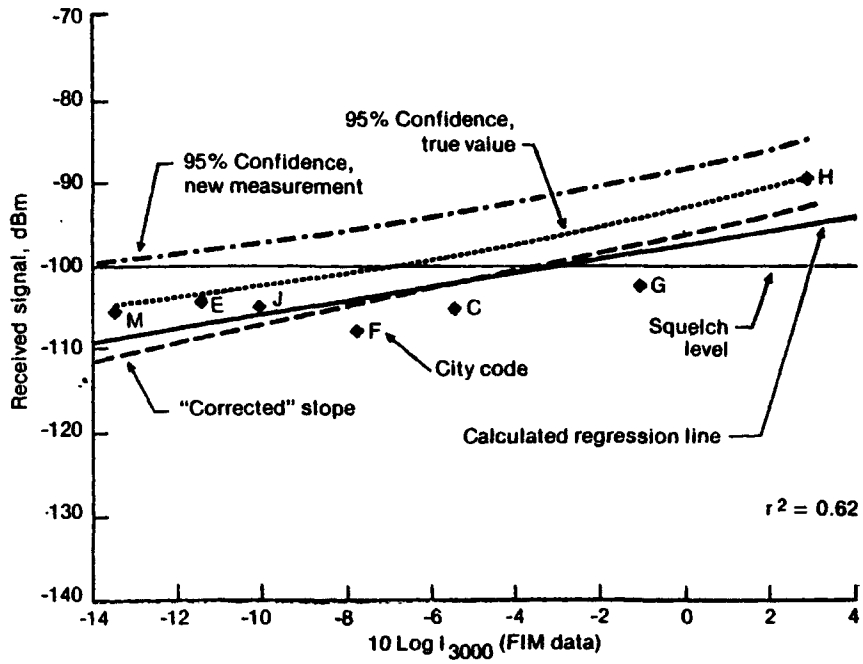


Figure I.1 90th Percentile, 450 meters

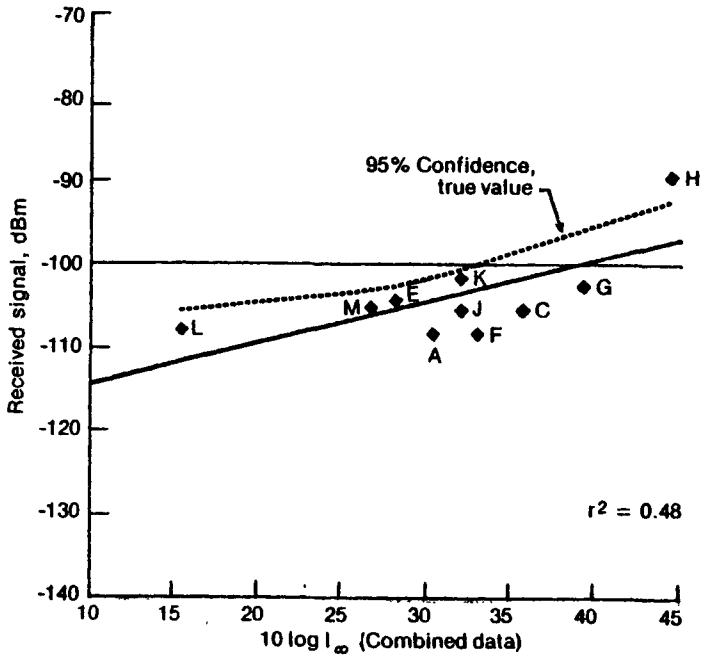


Figure I.2 90th percentile, 450 meters

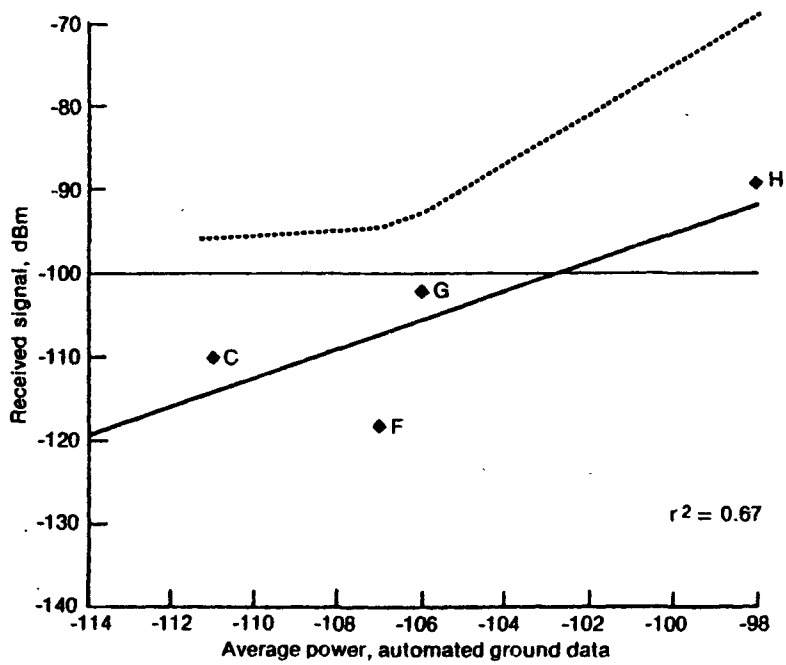


Figure I.3 90th percentile, 450 meters

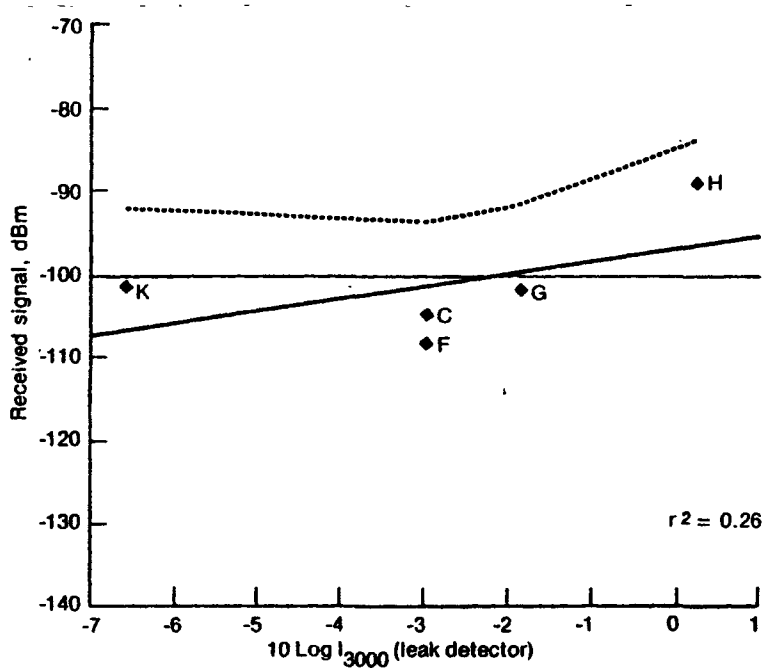


Figure I.4 90th percentile, 450 meters

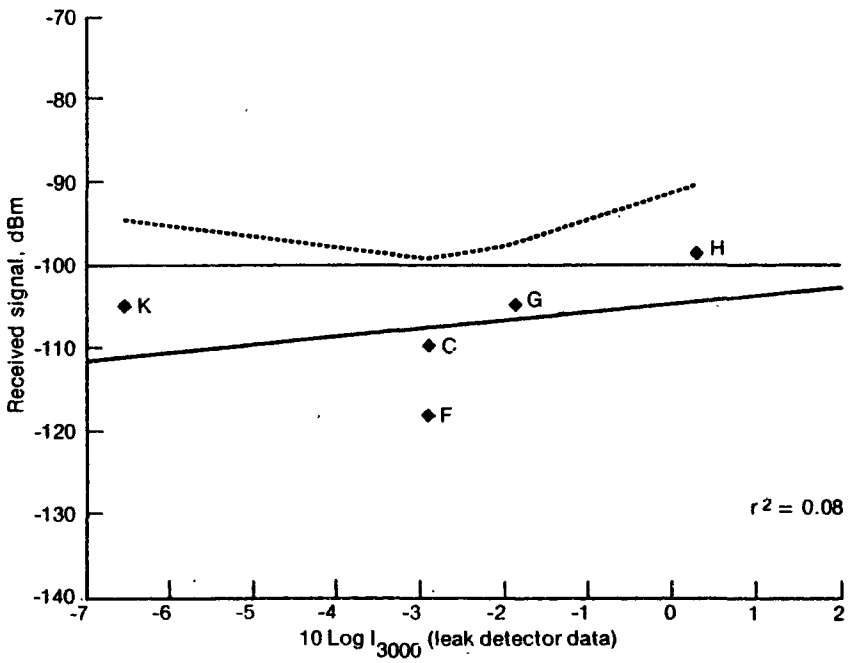


Figure I.5 90th percentile, 3000 meters

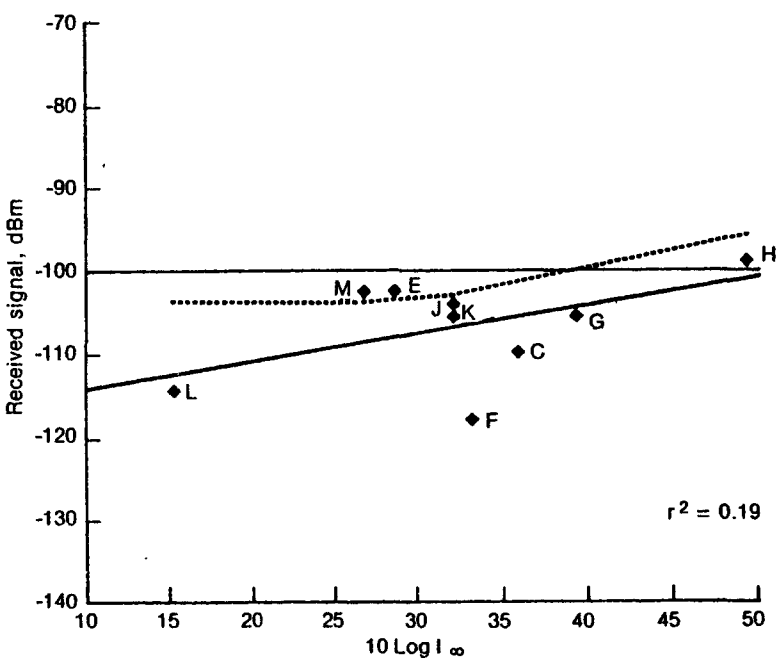


Figure I.6 90th percentile, 3000 meters

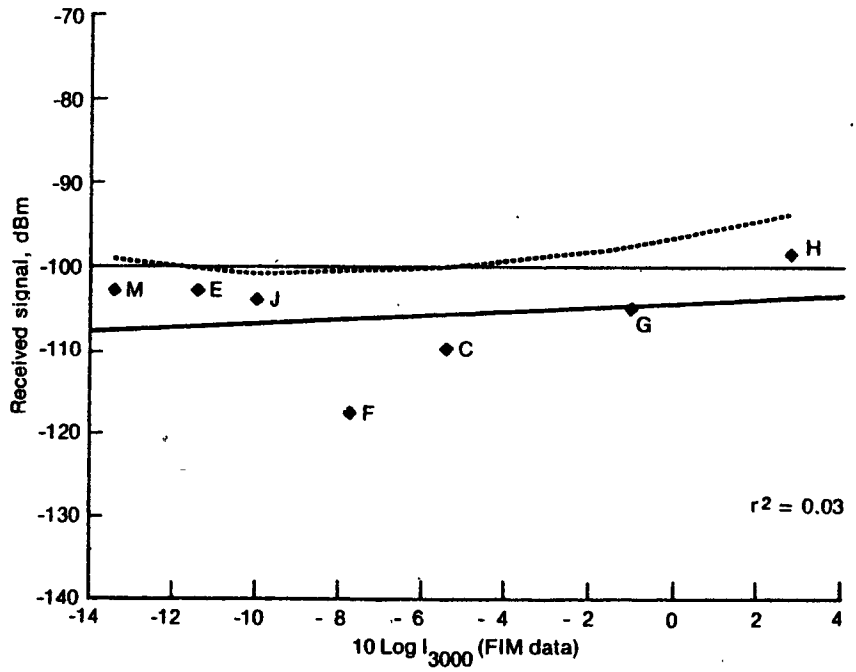


Figure I.7 90th percentile, 3000 meters

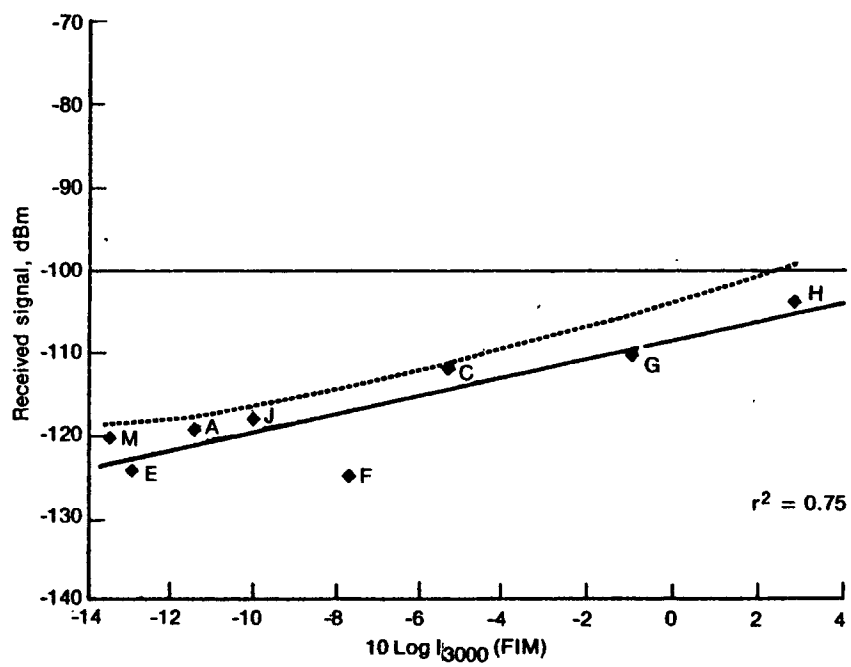


Figure I.8 50th Percentile, 450 meters

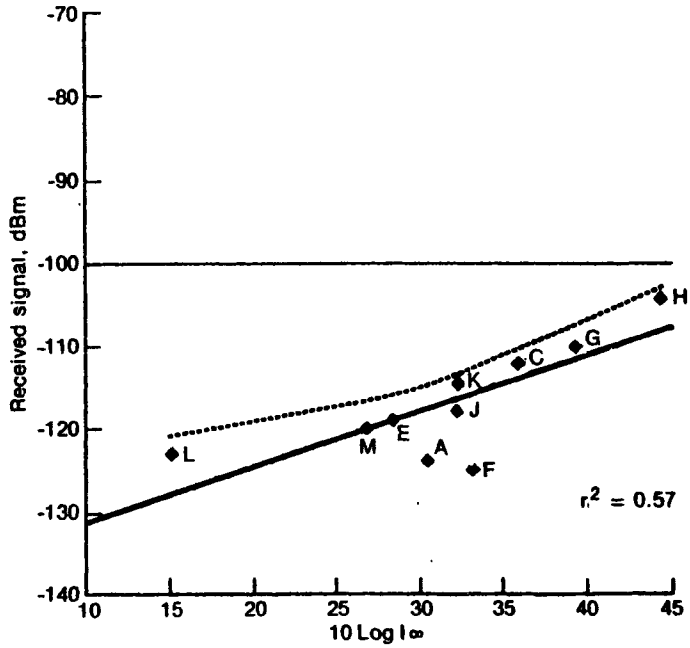


Figure I.9 50th percentile, 450 meters

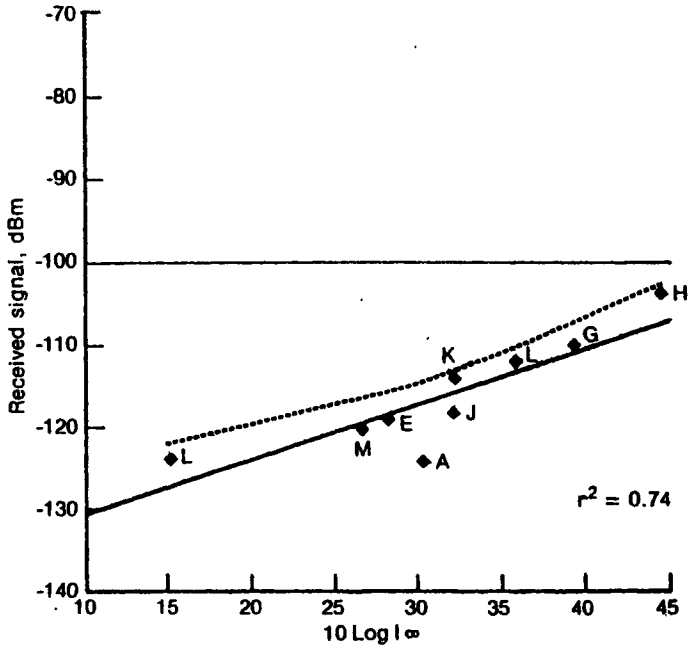


Figure I.10 50th percentile, 450 meters w/o City F

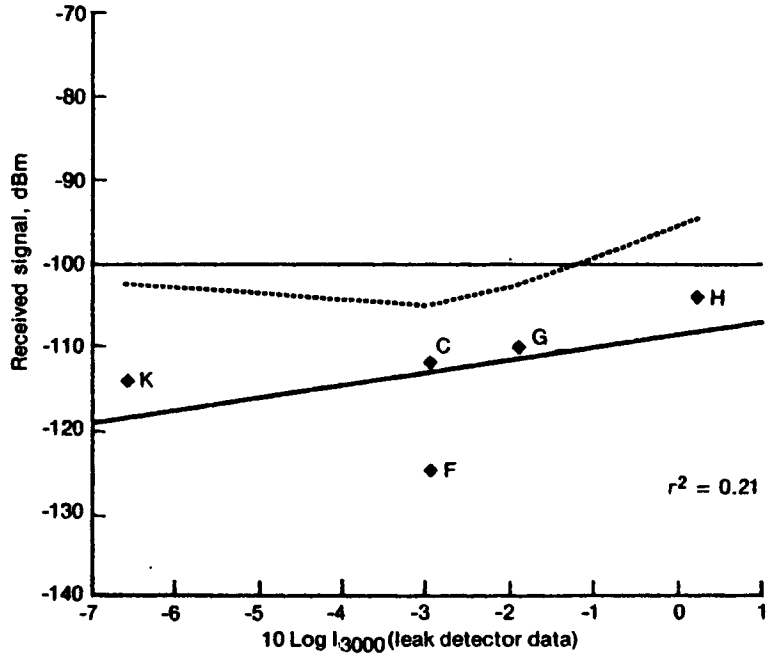


Figure I.11 50th percentile, 450 meters

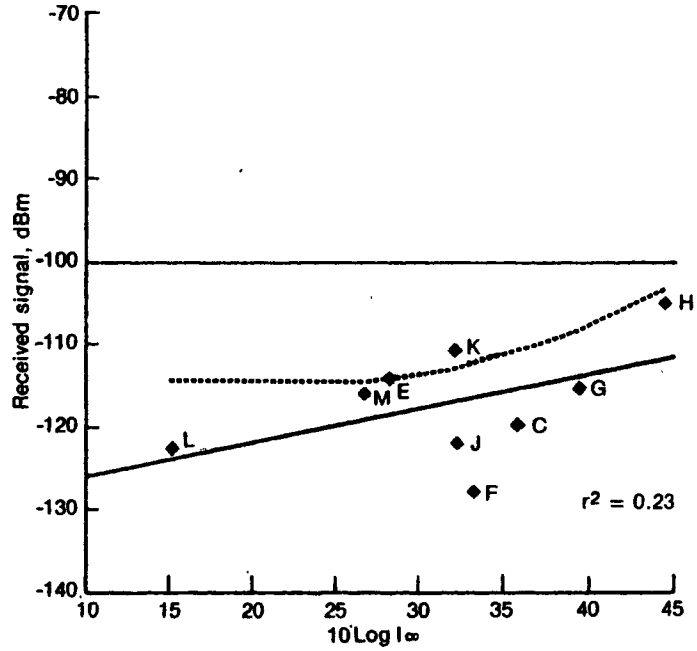


Figure I.12 50th percentile, 3000 meters

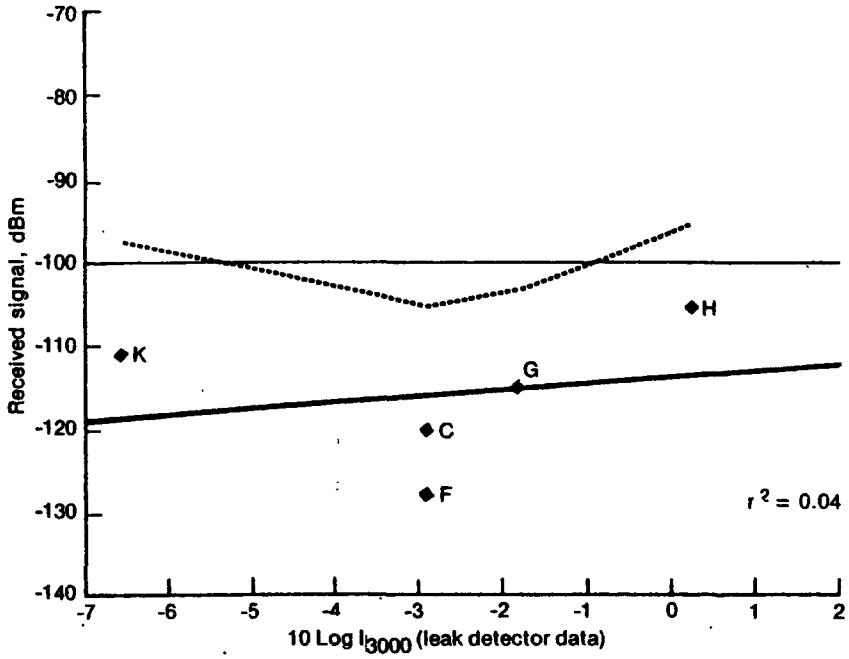


Figure I.13 50th percentile, 3000 meters

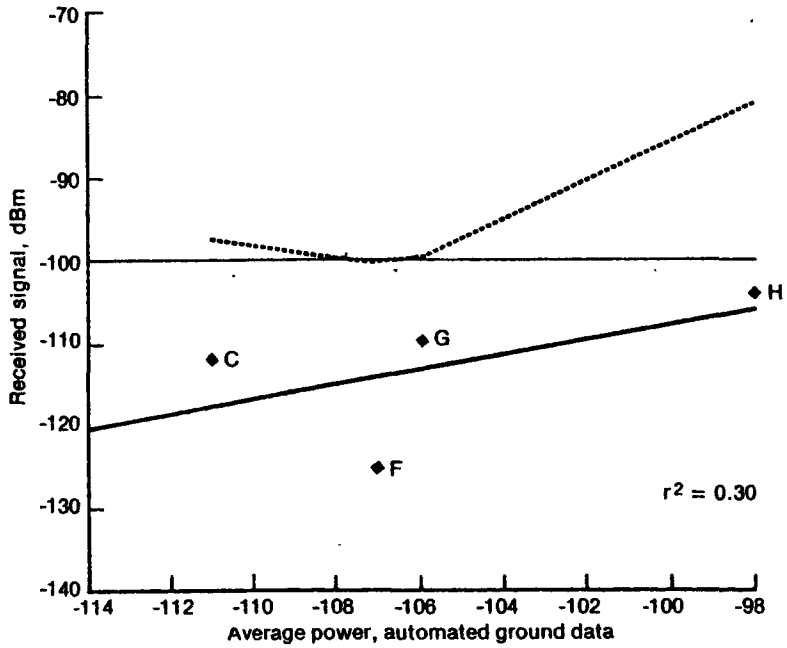


Figure I.14 50th percentile, 450 meters

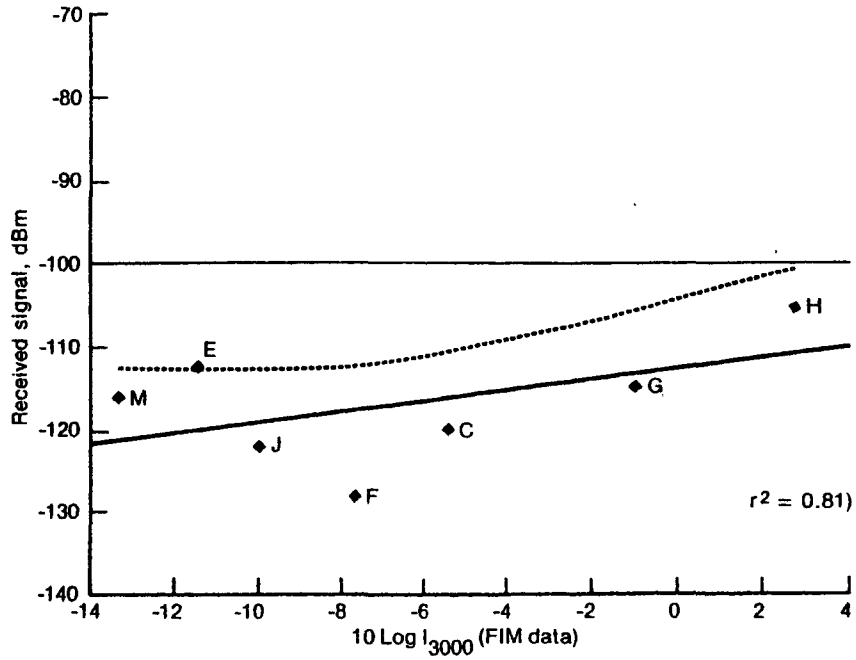


Figure I.15 50th percentile, 3000 meters

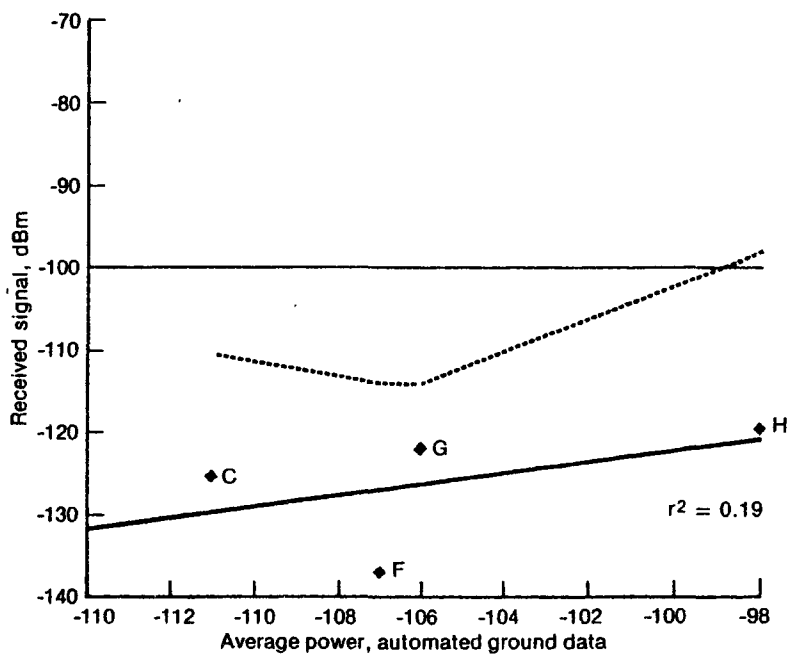


Figure I.16 10th percentile, 450 meters

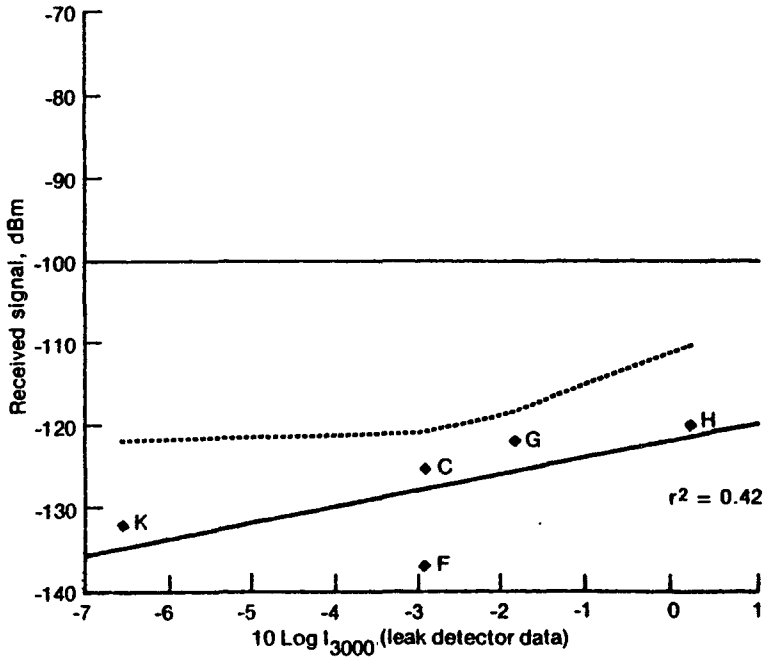


Figure I.17 10th percentile, 450 meters

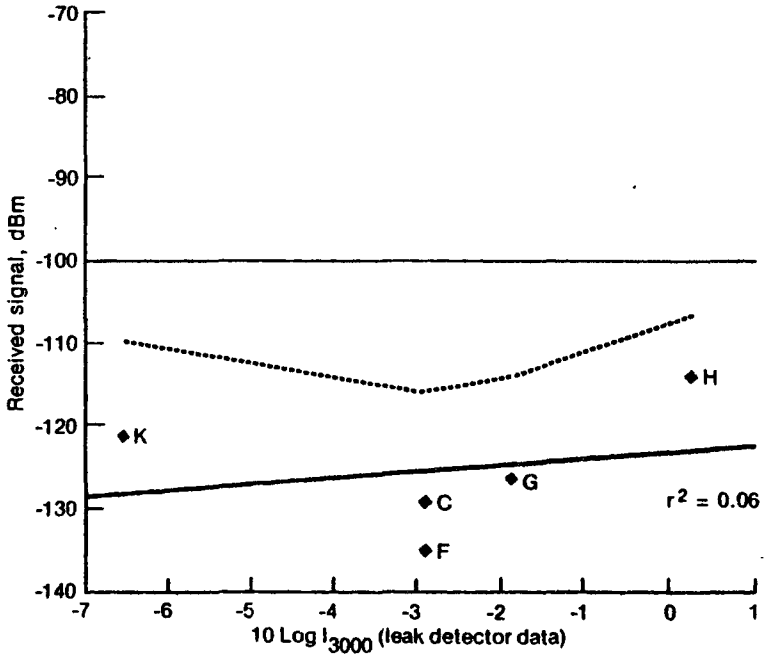


Figure I.18 10th percentile, 3000 meters

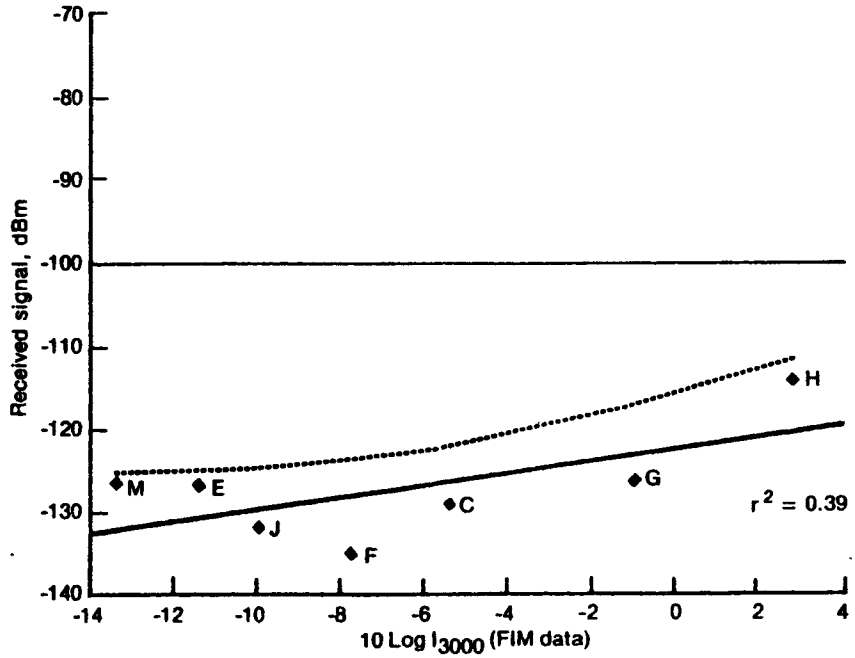


Figure I.19 10th percentile, 3000 meters

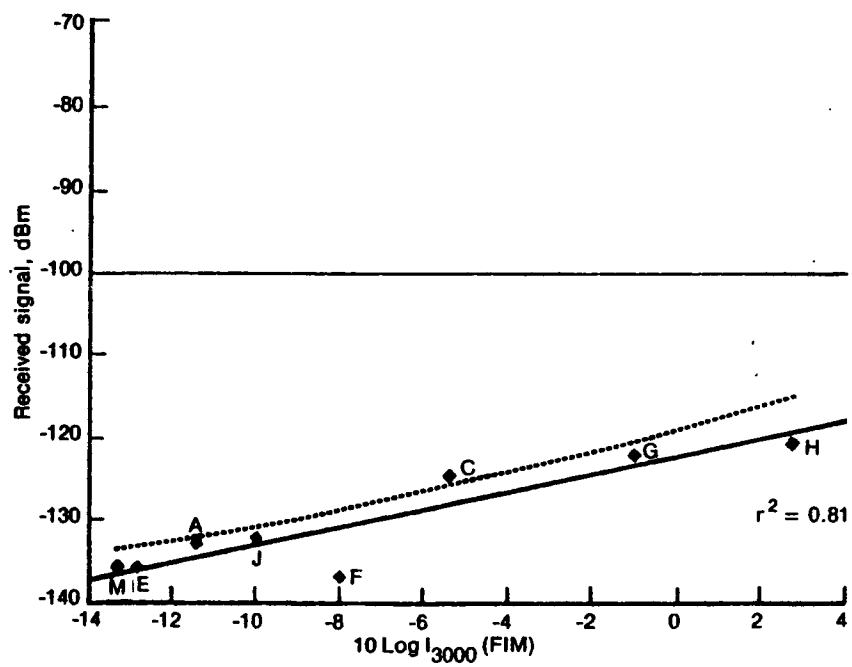


Figure I.20 10th percentile, 450 meters

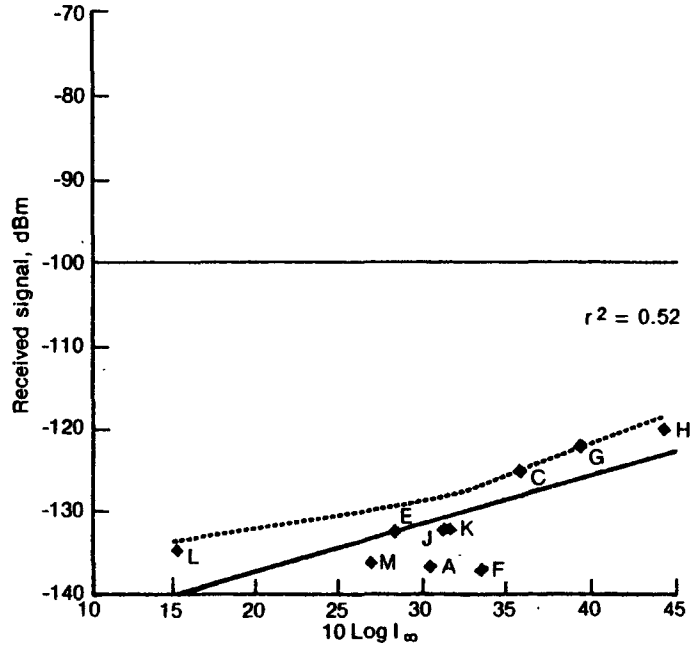


Figure I.21 10th percentile, 450 meters

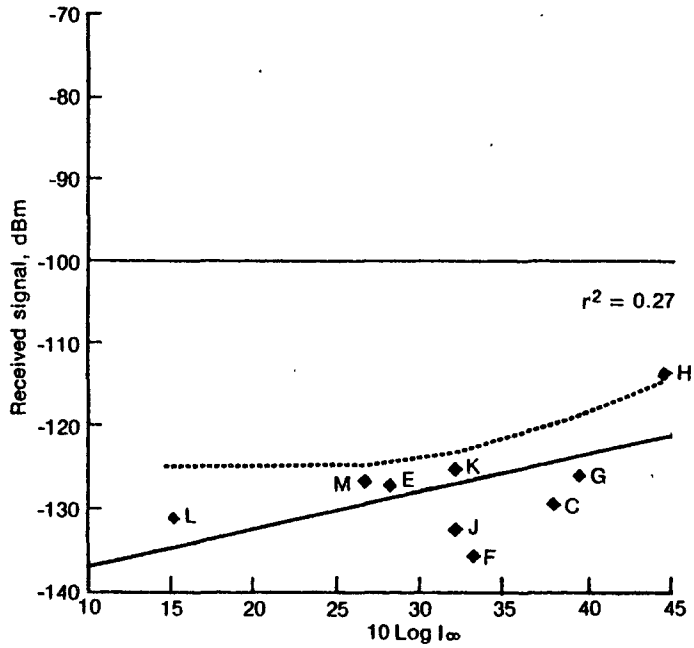


Figure I.22 10th percentile, 3000 meters

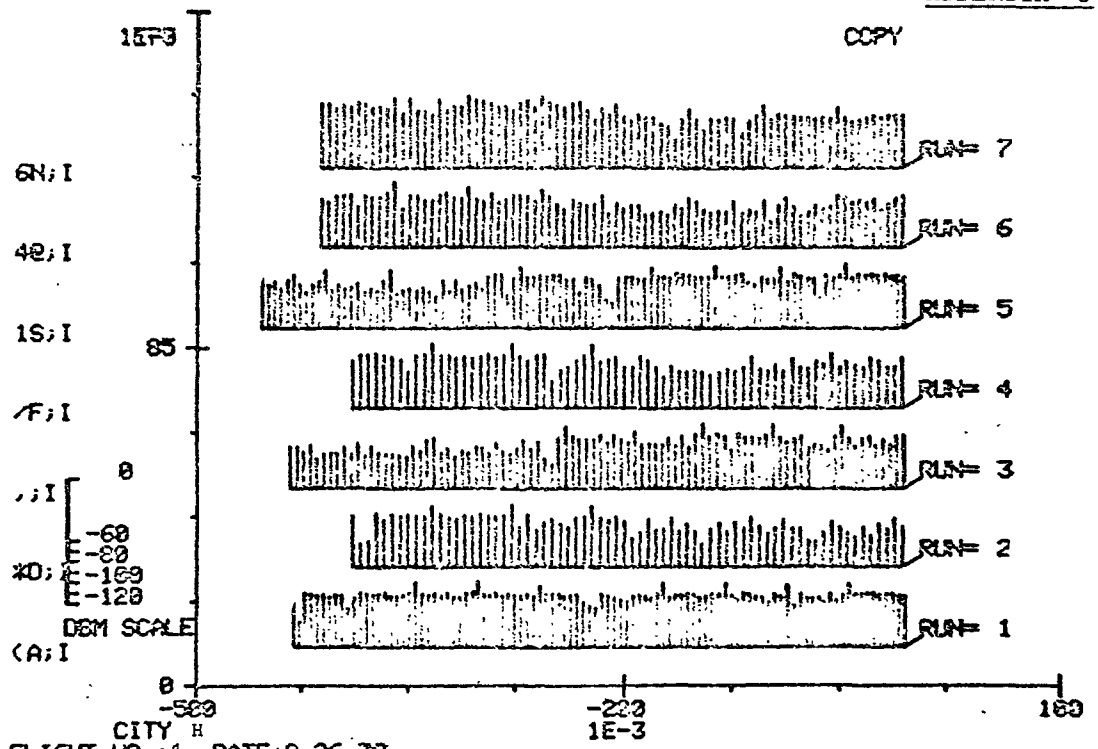


Figure J.1

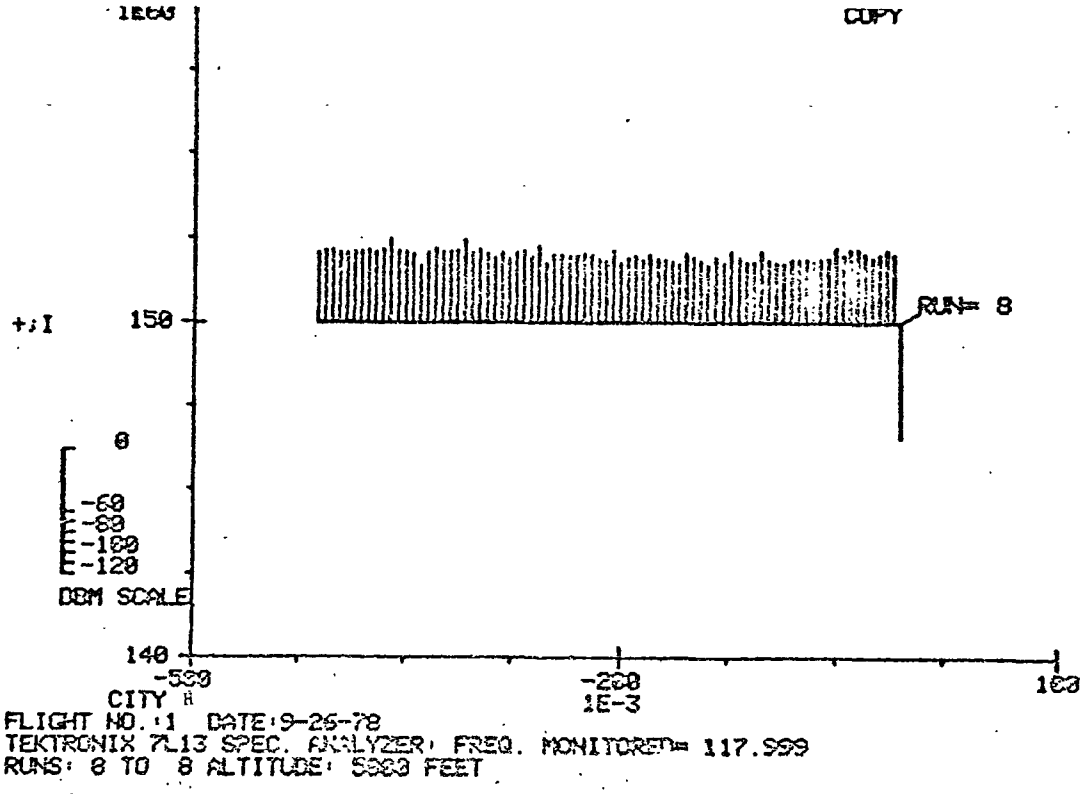


Figure J.2

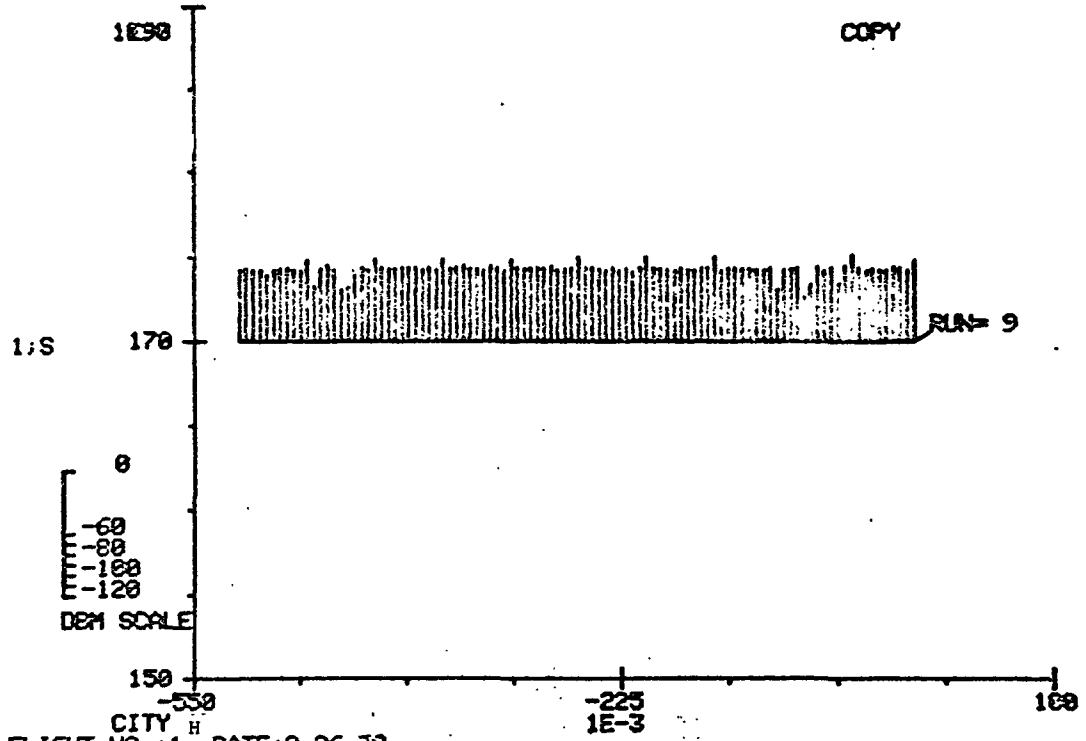


Figure J.3

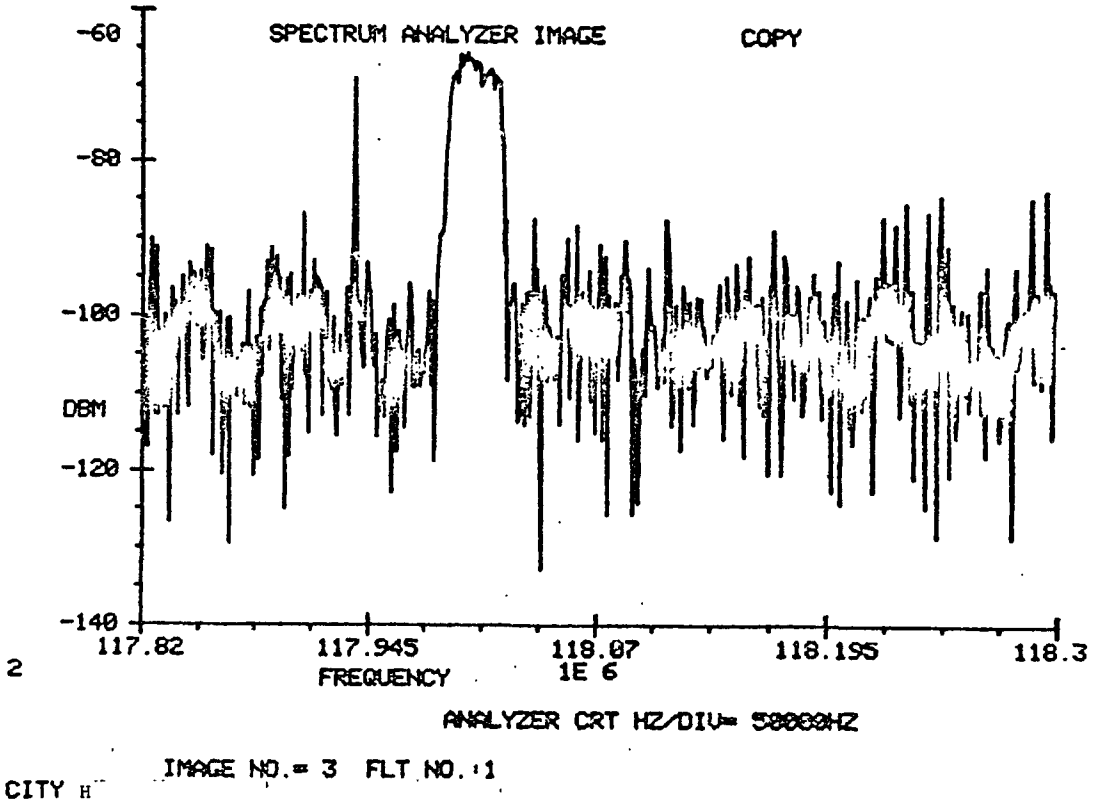


Figure J.4

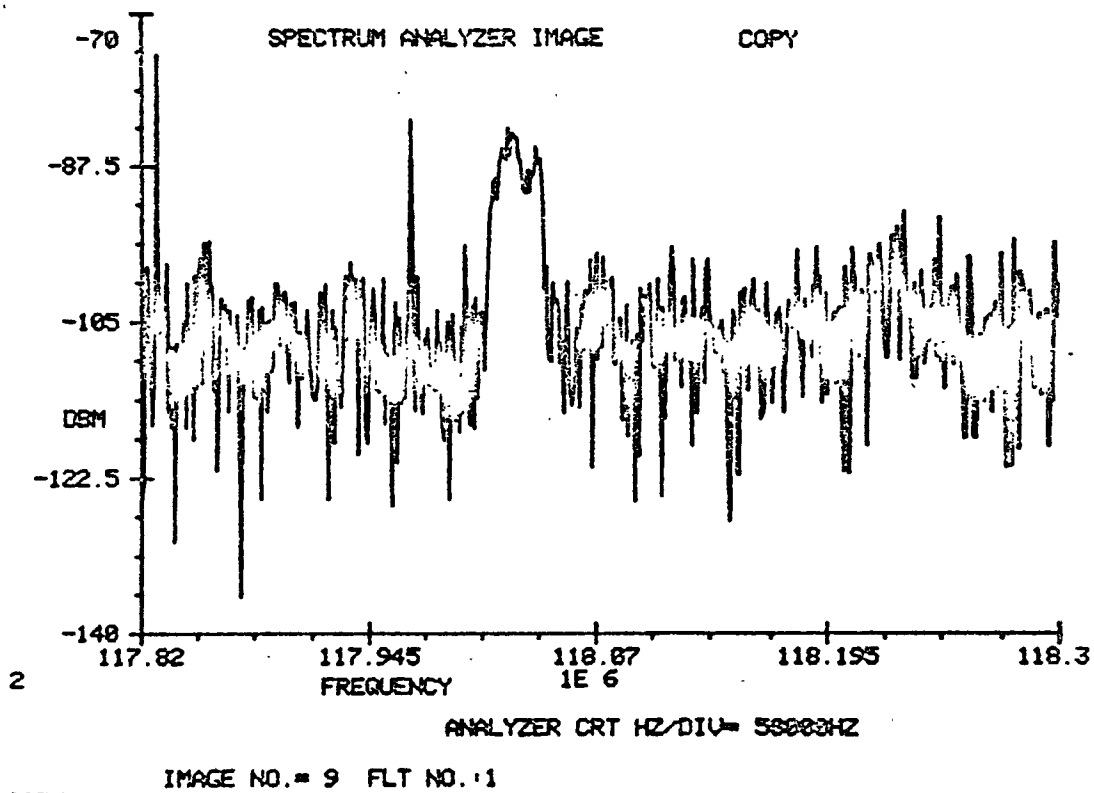


Figure J.5

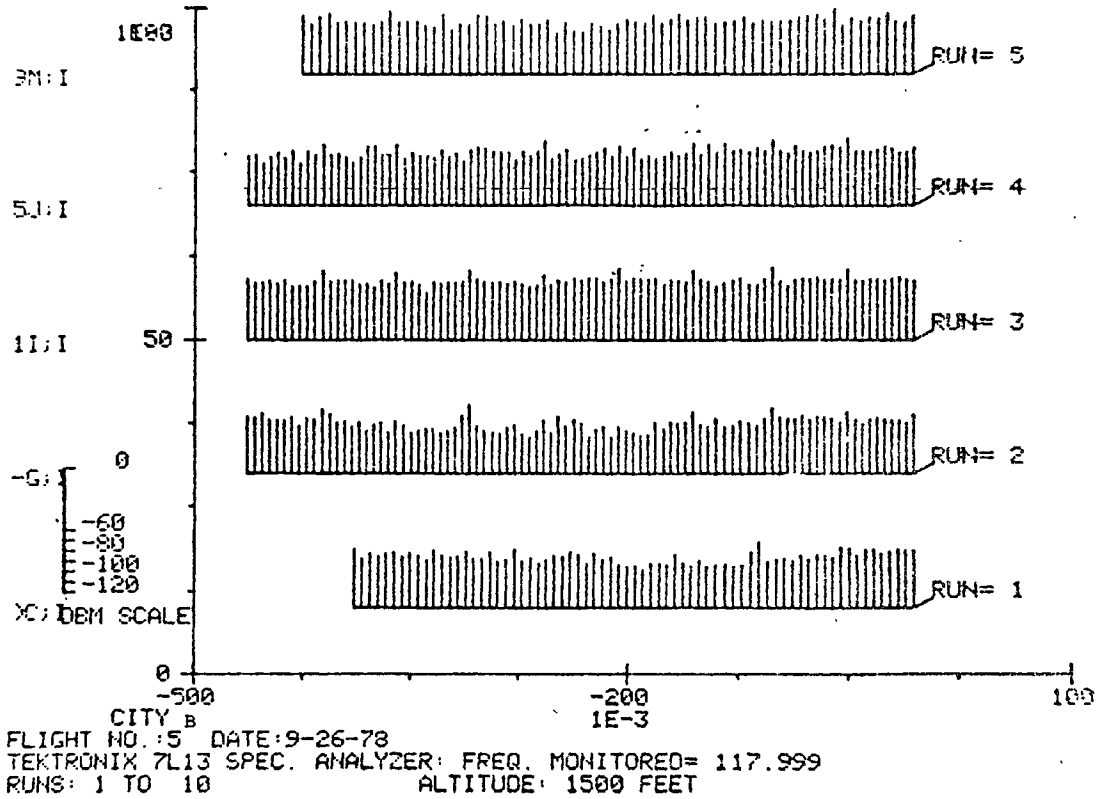
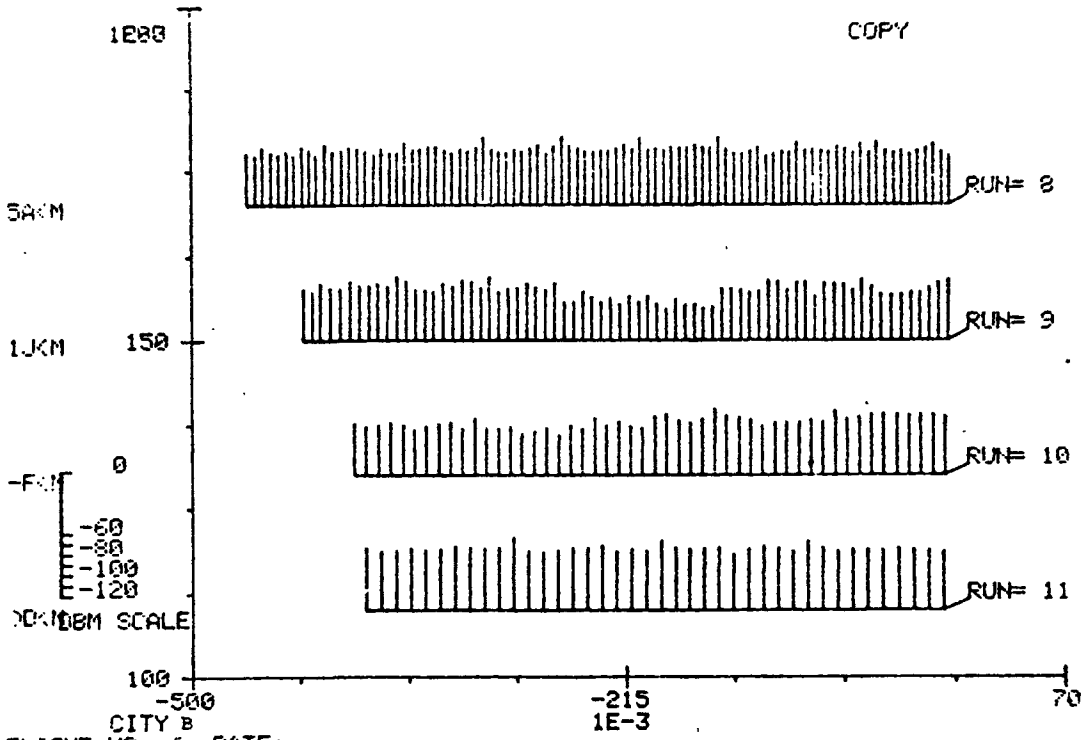
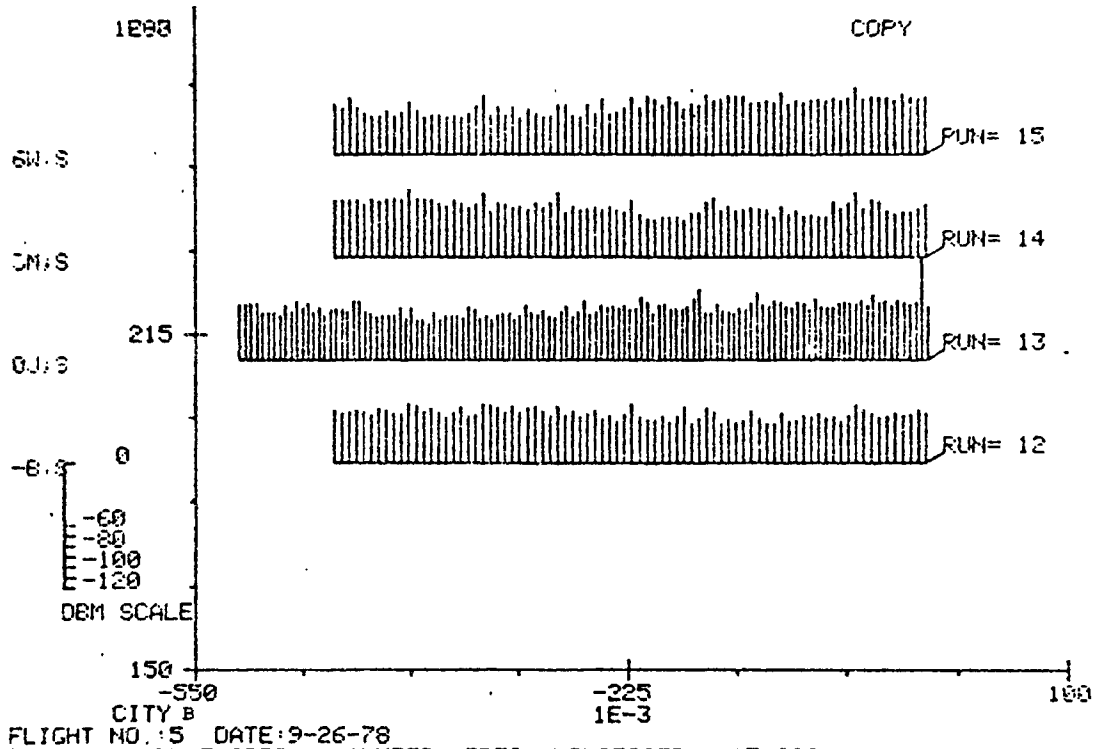


Figure J.6



FLIGHT NO :5 DATE:
TEKTRONIX 7L13 SPEC. ANALYZER: FREQ. MONITORED= 117.999
RUNS: 11 TO 11 ALTITUDE: 1500 FEET

Figure J.7



FLIGHT NO.:5 DATE:9-26-78
TEKTRONIX 7L13 SPEC. ANALYZER: FREQ. MONITORED= 117.999
RUNS: 12 TO 15 ALTITUDE: 5000 FEET

Figure J.8

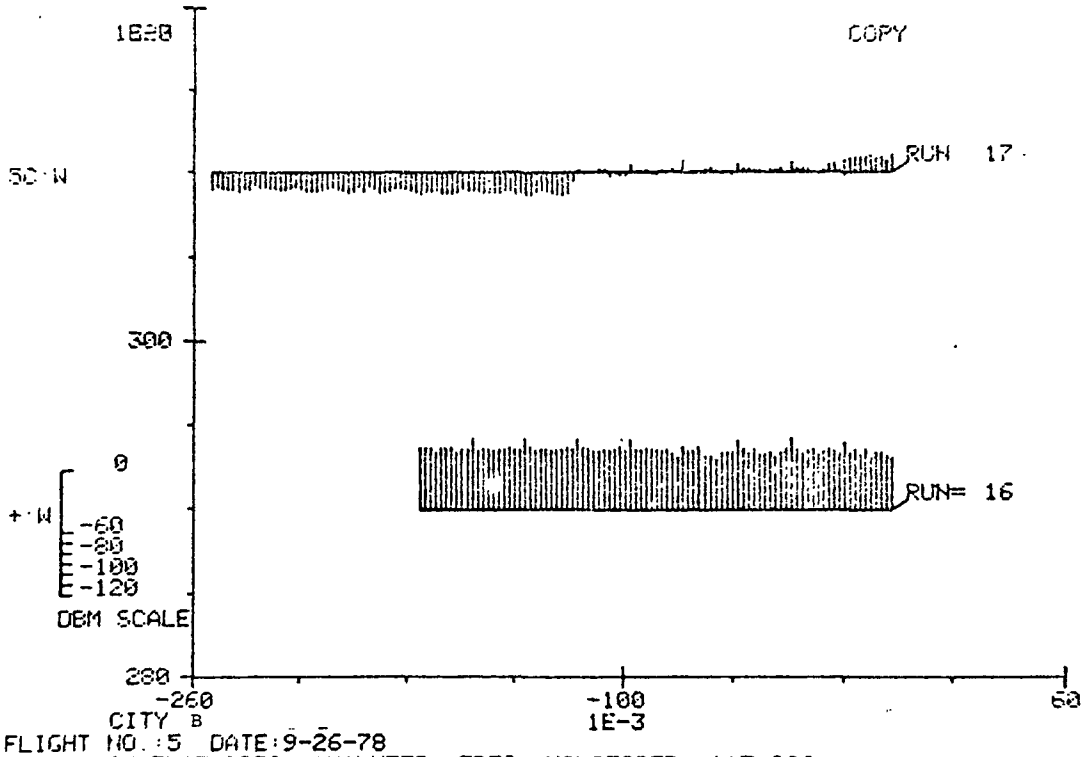


Figure J.9

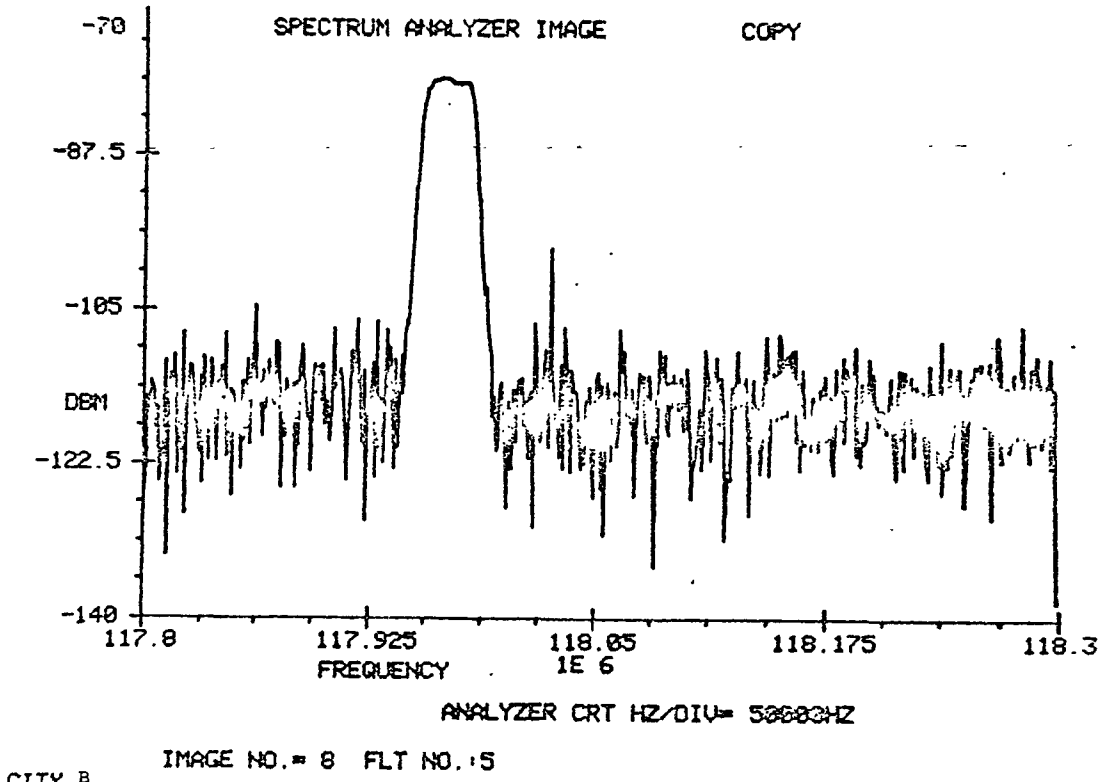


Figure J.10

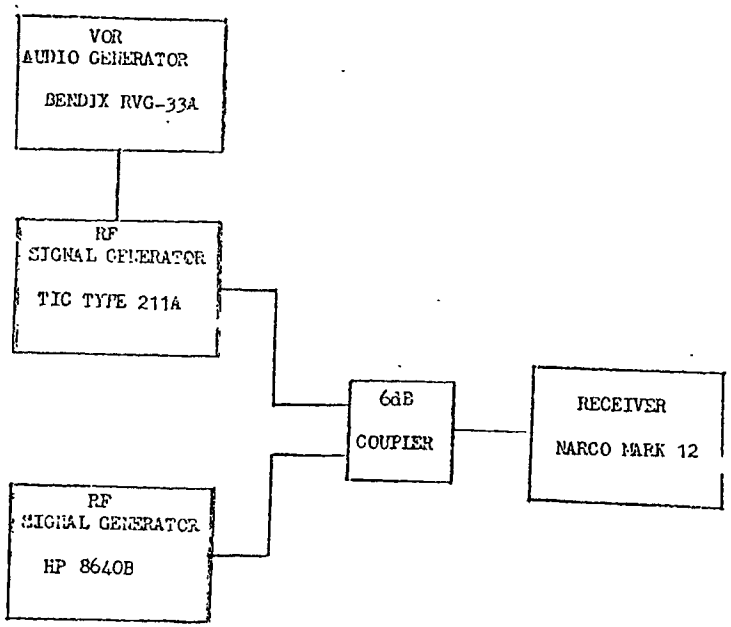
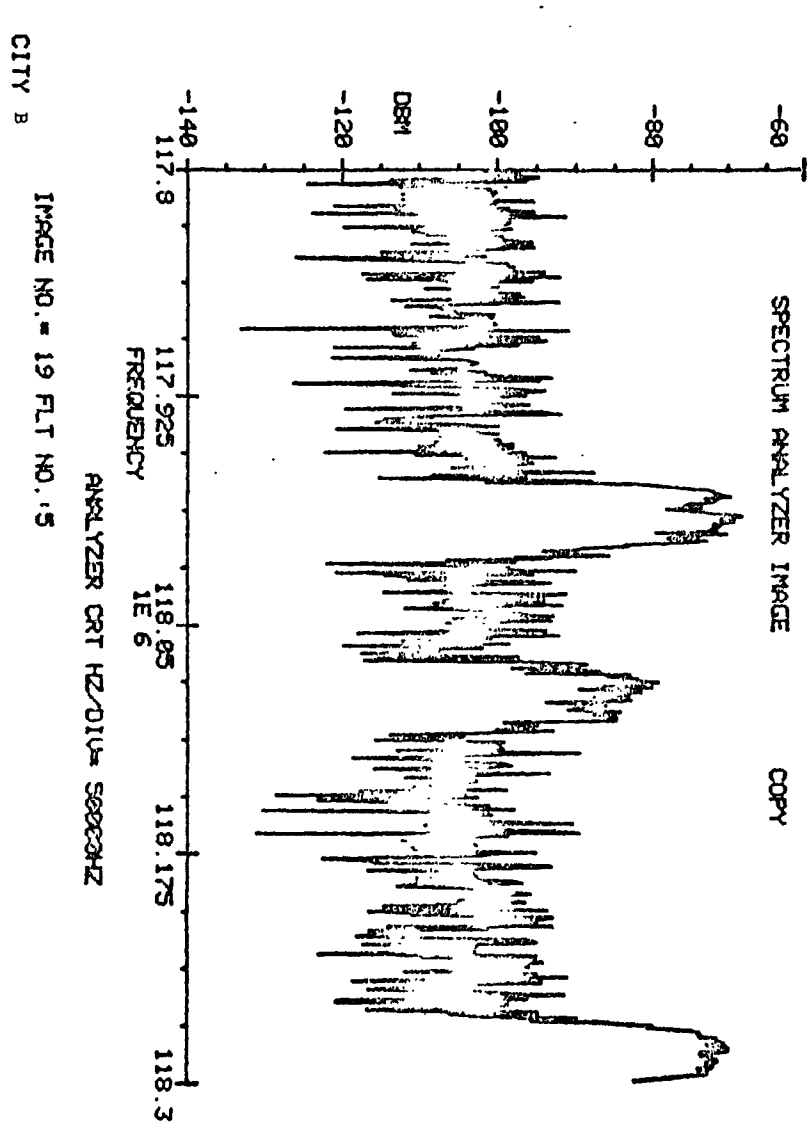


Figure J.12
EQUIPMENT CONFIGURATION



CITY B

IMAGE NO.= 19 FLT NO.:5

Figure J.1[illegible]

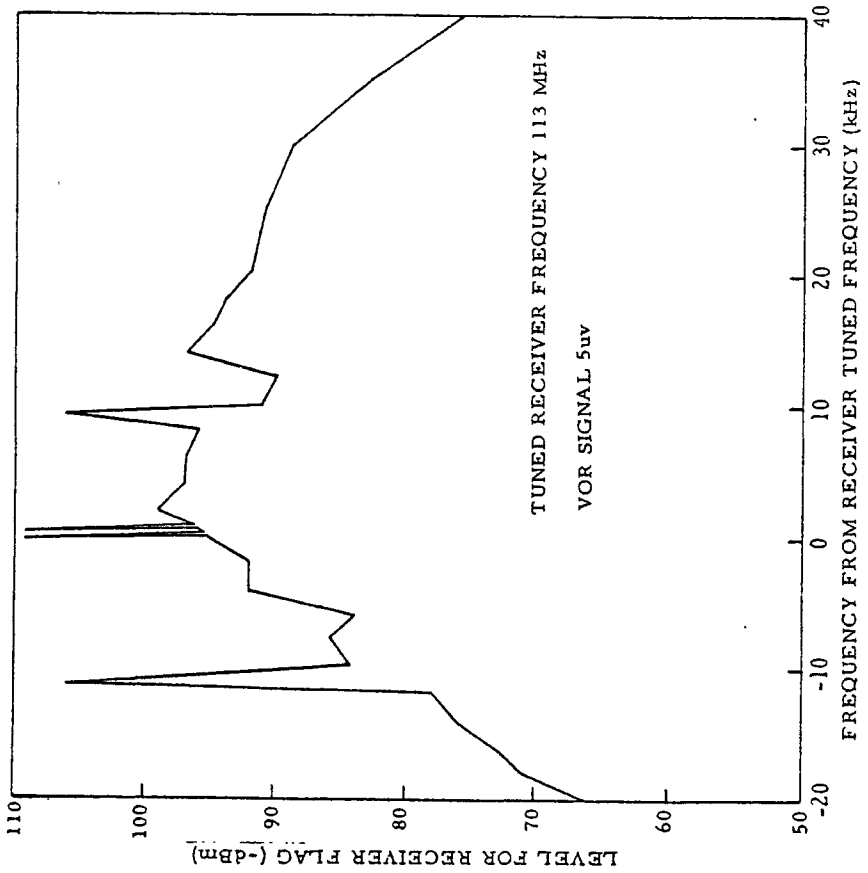


Figure J.13

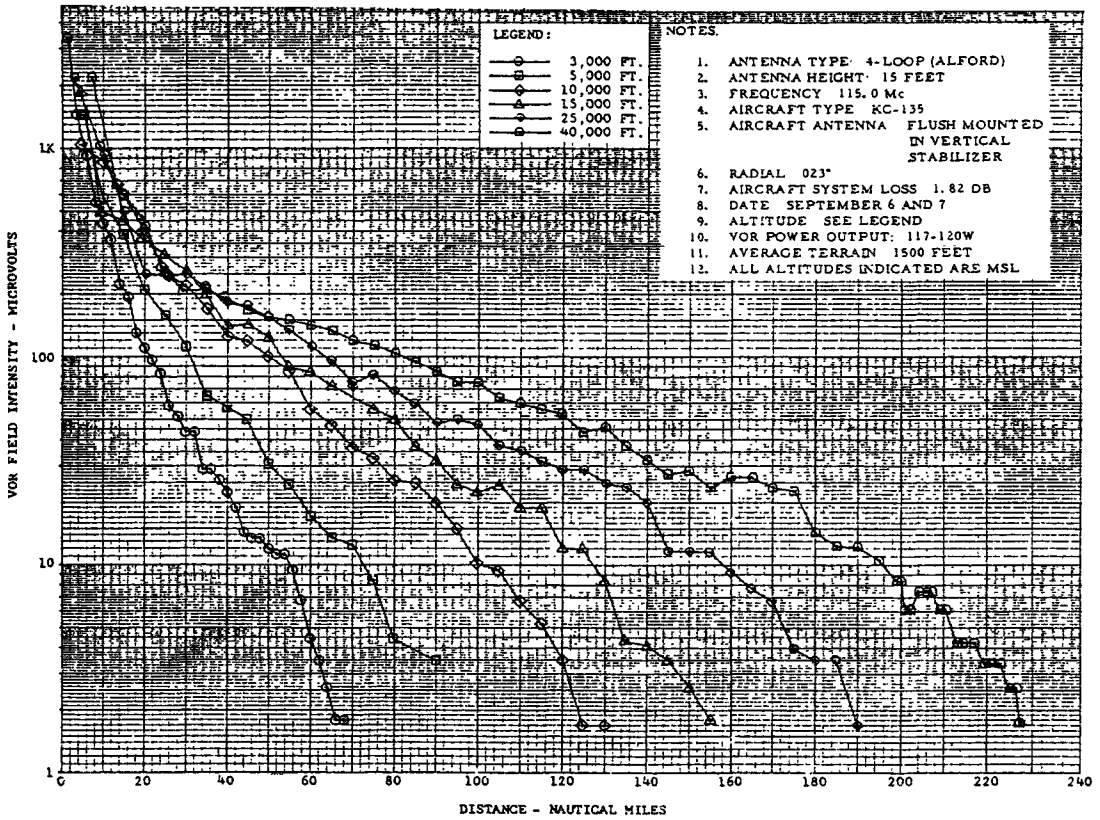


Figure J.14

COMPOSITE VOR RELATIVE FIELD INTENSITY
(AIRCRAFT FLIGHT INBOUND)

ANALYSIS OF DATA FOR CITY H
FLIGHT NO.:1 DATE:9-26-78 COPY
ALTITUDE=1500

RUN	MEAN	DEGREES OF FREEDOM
1	-71.5758	109
2	-78.4631	76
3	-77.9723	98
4	-76.5772	76
5	-75.4439	109
6	-77.7959	87
7	-76.5192	87

REFERENCE DISTRIBUTION= 1.31633 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 41.3985
SUM OF SQUARES: ST= 3361.5 SD= 29930.8 SR= 26619.3 SA=
3.76159E+05
SUM OF Y^2: 3.79158E+05 G=-49409.3 N= 649
F RATIO WITH 6, 643 DEGREES OF FREEDOM= 13.5331

Table J.1

ANALYSIS OF DATA FOR CITY H
FLIGHT NO.:1 DATE:9-26-78 COPY
ALTITUDE=5000 TO 10000 FEET

RUN	MEAN	DEGREES OF FREEDOM
8	-80.602	87
9	-91.748	109

REFERENCE DISTRIBUTION= 3.62105 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 334.49
SUM OF SQUARES: ST= 6073.63 SD= 71968.2 SR= 65894.6 SA=
1.49158E+05
SUM OF Y^2: 1.56355E+06 G=-17185.3 N= 198
F RATIO WITH 1, 197 DEGREES OF FREEDOM= 18.1578

Table J.2

ANALYSIS OF DATA FOR CITY B
FLIGHT NO.:5 DATE:9-26-78 COPY
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
1	-91.7581	76
2	-91.6349	98
3	-83.0559	98
4	-88.4113	98
5	-87.7351	76

REFERENCE DISTRIBUTION= .952916 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 21.0845
SUM OF SQUARES: ST= 4765.5 SD= 14190.3 SR= 9424.75 SA=
3.52431E+06
SUM OF Y^2: 3.53850E+06 G=-39358.1 N= 451
F RATIO WITH 4, 447 DEGREES OF FREEDOM= 56.5049

Table J.3

ANALYSIS OF DATA FOR CITY B
FLIGHT NO.:5 DATE:9-26-78 COPY
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
8	-86.5647	98
9	-92.3935	76
10	-88.8246	54
11	-81.1674	43

REFERENCE DISTRIBUTION= 1.20707 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 25.6958
SUM OF SQUARES: ST= 3769 SD= 10758.3 SR= 6989.25 SA=
2.11921E+06
SUM OF Y^2: 2.12997E+06 G=-24140.9 N= 275
F RATIO WITH 3, 272 DEGREES OF FREEDOM= 48.8926

Table J.4

ANALYSIS OF DATA FOR CITY B
FLIGHT NO.:5 DATE:9-26-78 COPY
ALTITUDE=5000 FEET

RUN	MEAN	DEGREES OF FREEDOM
12	-93.2657	87
13	-90.7022	131
14	-92.0395	87
15	-92.0051	87

REFERENCE DISTRIBUTION= 1.23217 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 38.7309
SUM OF SQUARES: ST= 355.75 SD= 15577 SR= 15221.3 SA=
3.34145E+06
SUM OF Y^2: 3.35702E+06 G=-36376 N= 396
F RATIO WITH 3, 393 DEGREES OF FREEDOM= 3.06172

Table J.5

ANALYSIS OF DATA FOR CITY B
FLIGHT NO.:5 DATE:9-26-78 COPY
ALTITUDE=10000 FEET

RUN	MEAN	DEGREES OF FREEDOM
16	-82.98	98
17	75.0799	10

REFERENCE DISTRIBUTION= .771989 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 8.37729
SUM OF SQUARES: ST= 247331 SD= 248244 SR= 913.125 SA=
496358
SUM OF Y^2: 744602 G=-7389.14 N= 110
F RATIO WITH 1, 109 DEGREES OF FREEDOM= 29524

Table J.6

ANALYSIS OF DATA FOR CITY K
FLIGHT NO.:2 DATE:9-26-78 COPY
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
1	-99.614	142

REFERENCE DISTRIBUTION= .582356 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 12.5358
SUM OF SQUARES: ST= 0 SD= 1792.63 SR= 1792.63 SA= 1.41898E+06
SUM OF Y^2: 1.42077E+06 G=-14244.8 N= 143
F RATIO WITH 0, 143 DEGREES OF FREEDOM= 1.35724E+37

Table J.7

ANALYSIS OF DATA FOR CITY K
FLIGHT NO.:2 DATE:9-26-78 COPY
ALTITUDE=1500

RUN	MEAN	DEGREES OF FREEDOM
11	-102.327	153
12	-94.2395	153
13	-94.2803	87
14	-92.671	76
15	-92.7945	98
16	-92.9183	76
17	-94.1385	65

REFERENCE DISTRIBUTION= 1.45624 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 54.7182
SUM OF SQUARES: ST= 9545 SD= 48334.5 SR= 38789.5 SA= 6.51497E+06
SUM OF Y^2: 6.56338E+06 G=-68251 N= 715
F RATIO WITH 6, 709 DEGREES OF FREEDOM= 29.0775

Table J.8

ANALYSIS OF DATA FOR CITY K
FLIGHT NO. 2 DATE: 9-26-78 COPY
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
17	-94.1386	65
18	-92.7486	54

REFERENCE DISTRIBUTION= .558484 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 4.63958
SUM OF SQUARES: ST= 58 SD= 614.75 SR= 556.75 SA=
1.05796E+06
SUM OF Y^2: 1.05858E+06 G=-11314.3 N= 121
F RATIO WITH 1, 120 DEGREES OF FREEDOM= 12.5011

Table J.9

GRAND MEANS COMPARISON

(GRAND MEAN IN dBm)

Location	Altitude - Feet		
	1500	5000	10,000
City K	-94.6		
City B	-88.2	-91.9	-83.0
City H	-76.1	-80.6	-91.7
City C	-86.9		
City I	-73.2	-73.7	
City G	-85.4	-85.8	-69.0
Forbes Field	-94.8		

Table J.10

ANALYSIS OF DATA FOR CITY C COPY
FLIGHT NO.:12 DATE:9-7-78
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
1	-86.9335	54
2	-86.3646	120
3	-87.0148	76
4	-87.0332	98
5	-86.7776	76
6	-86.8892	87
7	-86.3166	43
8	-86.9922	109
9	-87.1478	87
10	-87.0072	76
11	-87.024	120
12	-86.8981	87
13	-86.8423	76

REFERENCE DISTRIBUTION= .358783 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 2.77297
SUM OF SQUARES: ST= 59 SD= 3137 SR= 3078 SA=
8.46833E+05
SUM OF Y^2: 8.47146E+06 G=-97475.4 N= 1122
F RATIO WITH 12, 1110 DEGREES OF FREEDOM= 1.77307

Table J.11

ANALYSIS OF DATA FOR CITY C COPY
FLIGHT NO.:12 DATE:9-7-78
ALTITUDE=1500 FEET

RUN	MEAN	DEGREES OF FREEDOM
21	-86.6	76
22	-86.9258	87
23	-87.153	76
24	-86.7535	76
25	-86.7338	65
26	-86.7897	87
27	-86.717	54

REFERENCE DISTRIBUTION= .39154 FOR 95% PROBABILITY
POOLED VARIANCE OF ONE ALTITUDE= 2.86686
SUM OF SQUARES: ST= 15 SD= 1511.5 SR= 1496.5 SA=
3.97972E+06
SUM OF Y^2: 3.98123E+06 G=-45839.8 N= 528
F RATIO WITH 6, 522 DEGREES OF FREEDOM= .872035

Table J.12

APPENDIX K

COMMENTS FROM COMMITTEE MEMBERS

A number of Committee members supplied editorial and substantive comments, and in some cases dissents, to the semi-final draft of this Committee report. With the exception of the letter from Charles Cram, included in this Appendix, those comments are not reprinted here because all comments (including those in the attachments to Mr. Cram's letter) were incorporated into the final draft to the satisfaction of their authors.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20591

October 3, 1979

Dr. Robert Powers
Secretary, FCC Advisory Committee
on Cable Television
Federal Communications Commission
Cable Television Bureau
2025 M Street, N.W.
Washington, D.C. 20554

Dear Bob:

As a member of the CATV Advisory Committee, I concur (with the enclosed comments) with the draft final report of the Committee except for the proposed regulatory approach. Since proposed regulations are questions of policy rather than the technical aspects of the research project, I do not have the authority to approve or disapprove. The Federal Aviation Administration will present its position on proposed regulations during the IRAC Review of the NPRM. Attachments 1 through 4 are my comments on the report. They include general comments on the report as a whole, comments on specific sections with recommended changes, my own comments on the proposed regulatory approach, and a response to Bob Dickenson's proposal.

Sincerely,

Charles V. Cram

CHARLES CRAM
Spectrum Management
Branch, ARD-450

Enclosures

*U.S. GOVERNMENT PRINTING OFFICE: 1979 633-568/423 1-3