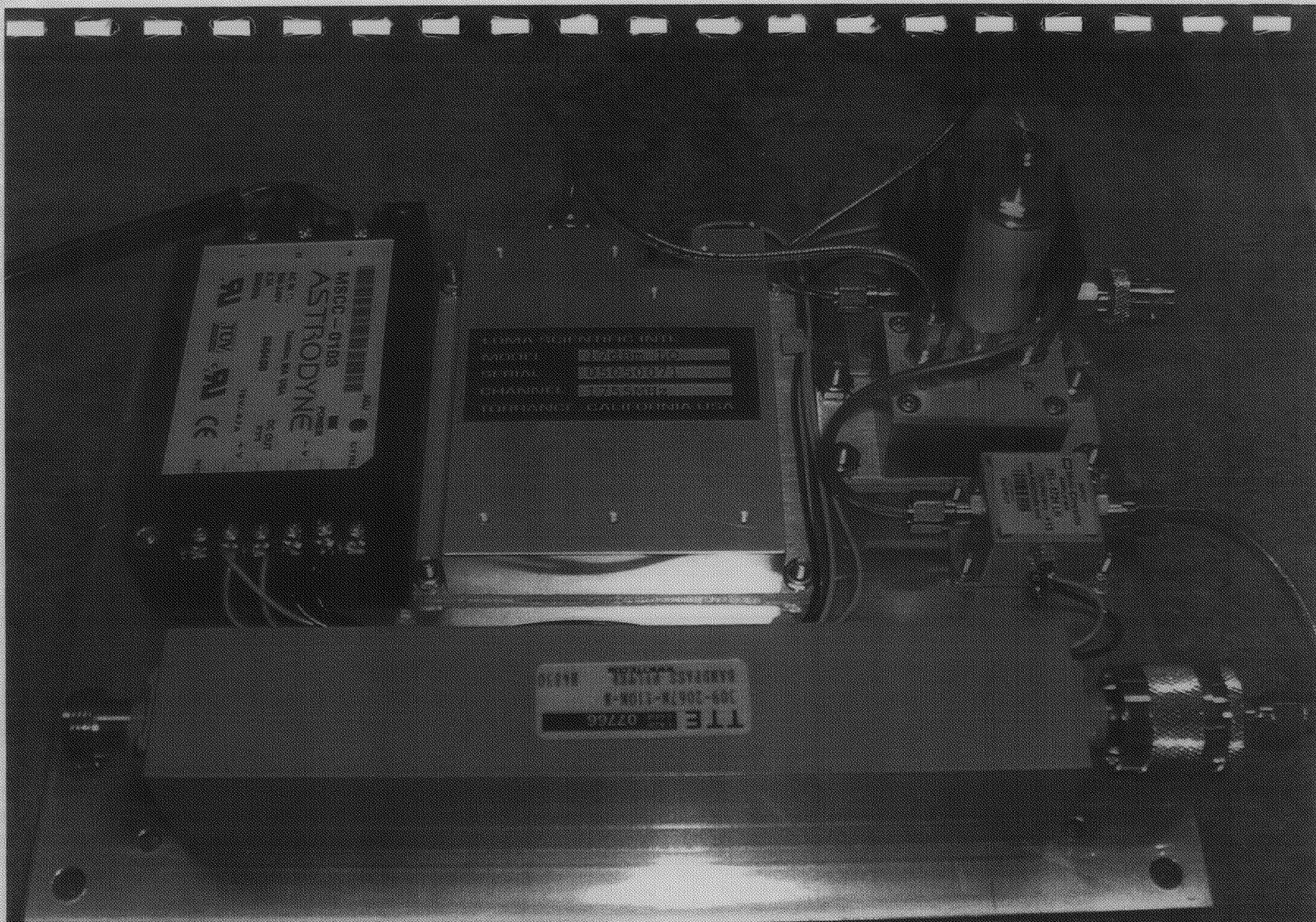




LABOATORY DOWN CONVERTER AND
ANTENNA MOUNTED ON NON-METALLIC
TRIPOD USING CHEVROLET HYBRID TRUCK
WITH 120VAC



LABORATORY DOWN CONVERTER

TELEPHONE

ASTRODYNE
MSCC-0103
TORRANCE, CA USA
100-240V
2.5A
050108
18V/37A
CE

LOMA SCIENTIFIC INTL.
MODEL 0103
SERIAL 05050071
CHANNEL 072531112
TORRANCE, CALIFORNIA USA

LABORATORY DOWN CONVERTER

LABORATORY DOWN CONVERTER

The image shows two identical electronic modules, identified as pre-production down converters, positioned side-by-side. Each module is a rectangular metal enclosure with a complex internal circuit board visible through a transparent window. The circuit board is populated with numerous electronic components, including integrated circuits, resistors, and capacitors. The modules are mounted on a dark, textured surface. The left module has a small, dark, rectangular component attached to its side. The right module has a similar component, but it is slightly larger and more prominent. The overall appearance is that of a technical or scientific instrument.

PRE-PRODUCTION DOWN CONVERTER

ATTACHMENT 3A

LIST OF PARTICIPANTS FOR FRAZIER PARK TESTS

BROADCAST REPRESENTATIVES:

<u>NAME</u>	<u>STATION/AFFIL.</u>	<u>TITLE</u>
JOHN RUSSELL	KTLA	ENGINEERING MANAGER
JODIE E. MENA	KNBC 4, ET AL.	MANAGER, NEWS OPERATIONS
JERRY KALKE	CBS, INC. -- NY	DIRECTOR, BROADCAST QUALITY
DANIEL HAIGHT	KCBS-TV/KCAL	ENGINEERING MANAGER
PAUL OEI	FCC ENFOR. BUR.	ELECTRONICS ENGINEER
HOWARD FINE	N/A	SO. CAL. FREQUENCY COORDINATOR FOR SBE
MARTY PETERS	KNBC 4	ENGINEER

CLARITY REPRESENTATIVES:

<u>NAME</u>	<u>AFFILIATION</u>
J. PATRICK LOUGHBORO	LOMA SCIENTIFIC
JEFF LOUGHBORO	LOMA SCIENTIFIC
IAN WILLIAMS	TON SERVICES/CLARITY

ATTACHMENT 3B

LIST OF PARTICIPANTS FOR NORTH SALT LAKE AND OGDEN, UT TESTS

BROADCAST REPRESENTATIVES:

<u>NAME</u>	<u>STATION/AFFIL.</u>	<u>TITLE</u>
BOB LYON	KTVX	CHIEF ENGINEER
ERNIE PENDERGRAFT	KTVX	ENGINEER
MIKE HANSEN	KTVX	MIS & SBE SEC'Y/TREASURER
DAVID BIRD	KTVX	P.O.S.
JERRY KALKE	CBS, INC. -- NY	DIRECTOR, BROADCAST QUALITY
CHRIS PETERSON	KUTV	ENGINEER & SBE REGIONAL CHAIRMAN
DAVE PETERSEN	KUTV	ENGINEER
KIPP GREENE	KUTV	ENGINEER
AL SCHULTZ	KSTU	ENGINEER
PAUL HANSEN	KSTU	ENGINEER
TOM PURDIE	MSL	ENGINEER
RANDY BATEMAN	KBYU	TRANSMISSION ENGINEER
KEN ENGLISH	KSL-TV	ENGINEER
SCOTT JONES	KUTV	ENGINEER
PATRICK GLEASON	CC RADIO	ENGINEER

CLARITY REPRESENTATIVES:

<u>NAME</u>	<u>AFFILIATION</u>
J. PATRICK LOUGHBORO	LOMA SCIENTIFIC
JEFF LOUGHBORO	LOMA SCIENTIFIC
IAN WILLIAMS	TON SERVICES/CLARITY
MIKE NICHOLS	TON SERVICES/CLARITY
KARL MATHESON	TON SERVICES/CLARITY
BRENDA NELSON	TON SERVICES/CLARITY

ATTACHMENT 4A

FIELD TEST DATA – FRAZIER PARK, CALIFORNIA

Frazier Park 9-28-05
(Receiver) Downconverter Output ~ 900

REF 20.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

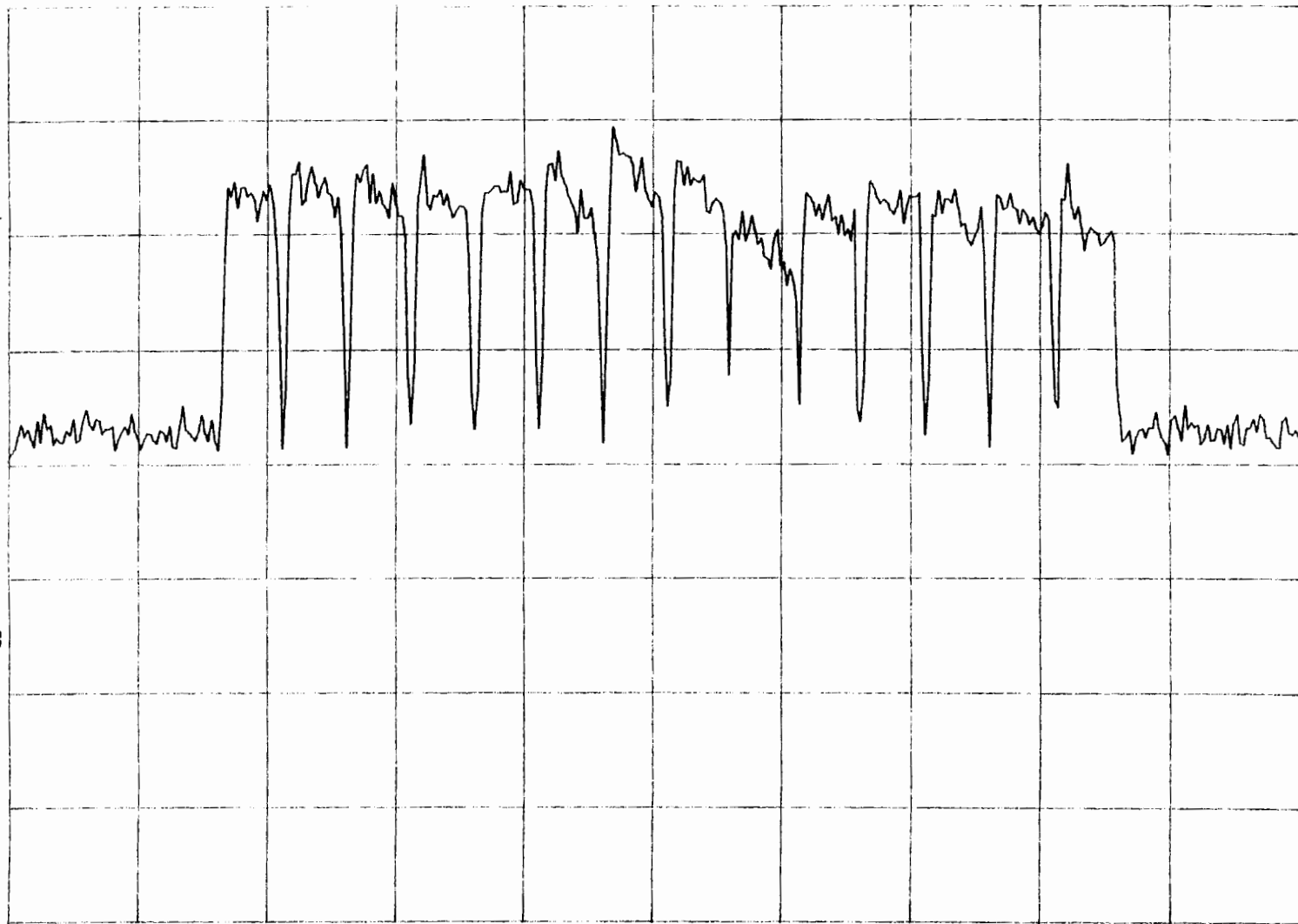
15.0

dB

WA SB

FC

CORR



CENTER 312.0 MHz

RES BW 100 kHz

VBW 30 kHz

SPAN 120.0 MHz

SWP 120 msec

Transmitter = ON

REF 30.0 dBmV ATTEN 10 dB

PEAK

LOG

10

dB/

OFFST

15. 0

dB

REF	LEVEL
30.0	dBmV

VA SB

FC

CORR

CENTER 2074 MHz

RES BW 100 kHz

OFFST 1755 MHz

VBW 30 kHz

SPAN 500.0 MHz

SWP 500 msec

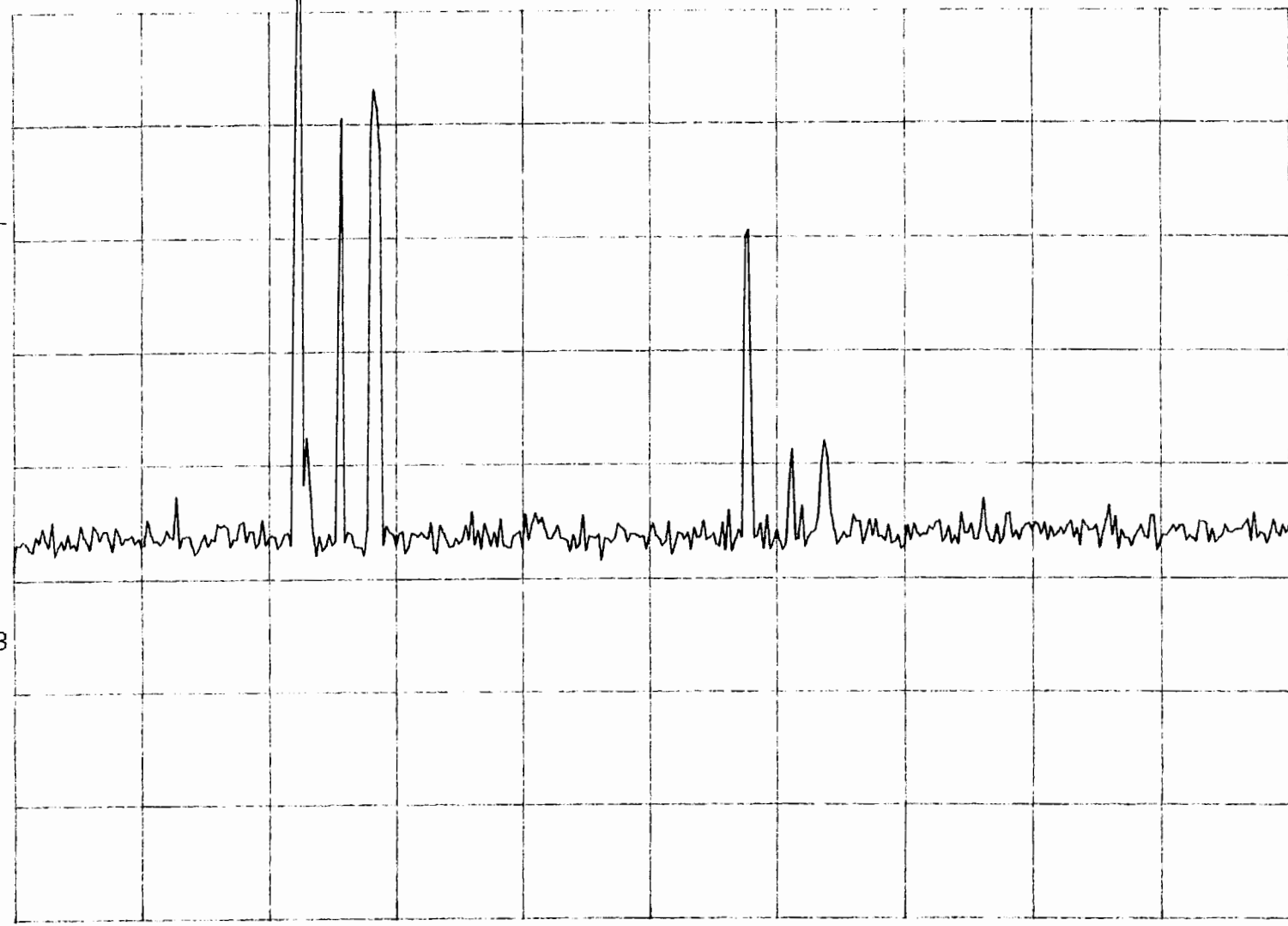
Transmitter = OFF

77

REF 30.0 dBmV ATTN 10 dB

PEAK
LOG
10
dB/
OFFST
15.0
dB

WA SB
FC
CORR



CENTER 2074 MHz

OFFST 1755 MHz

SPAN 500.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 500 msec

ATTACHMENT 4B

FIELD TEST DATA – NORTH SALT LAKE, UTAH

10-26 N7

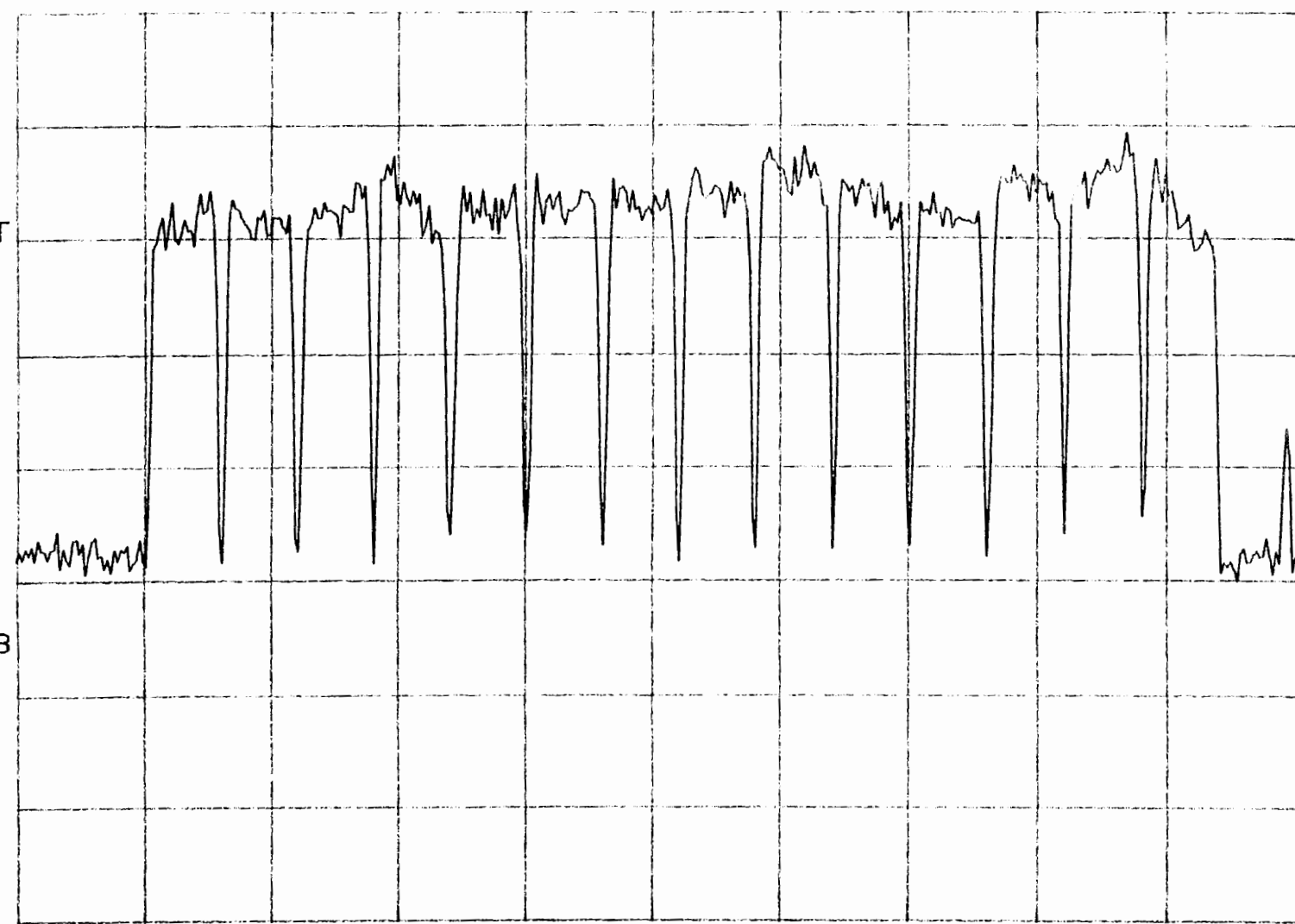
50mw ERP

hp

REF 30.0 dBmV ATTEN 10 dB

PEAK
LOG
10
dB/
OFFST
15.0
dB

WA SB
FC
CORR



CENTER 2067 MHz OFFST 1755 MHz SPAN 100.0 MHz
RES BW 100 kHz VBW 30 kHz SWP 100 msec

1076 AM

5W ERP

reset auto/GAM 120
out, TRIG 29 (a/b 65)

REF 50.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

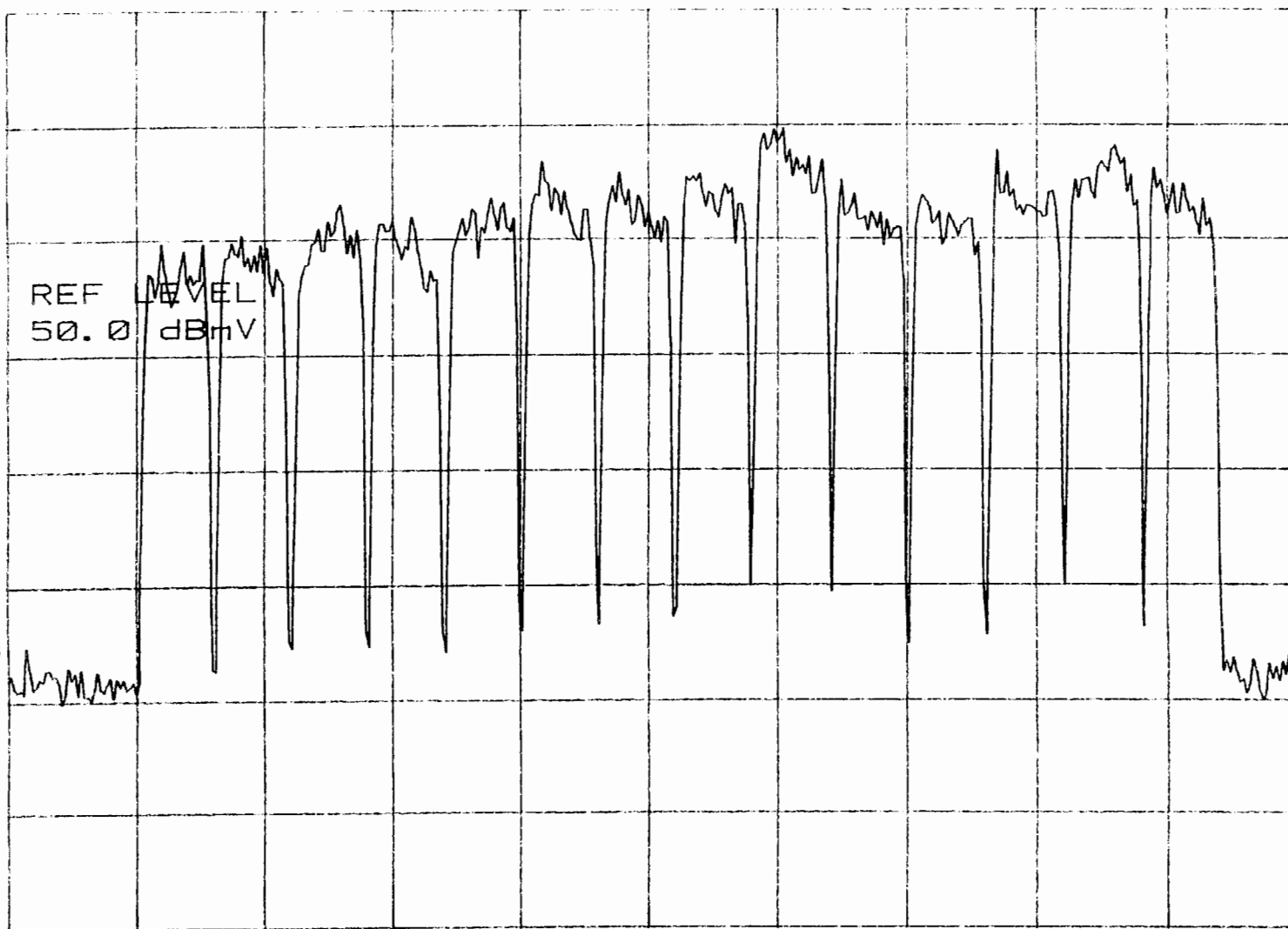
dB

REF LEVEL
50.0 dBmV

WA SB

FC

CORR



CENTER 2067 MHz

OFFST 1755 MHz

SPAN 100.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 100 msec

10

REF 30.0 dBmV ATTEN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

dB

SPAN
500.0 MHz

WA SB

FC

CORR

CENTER 2000 MHz

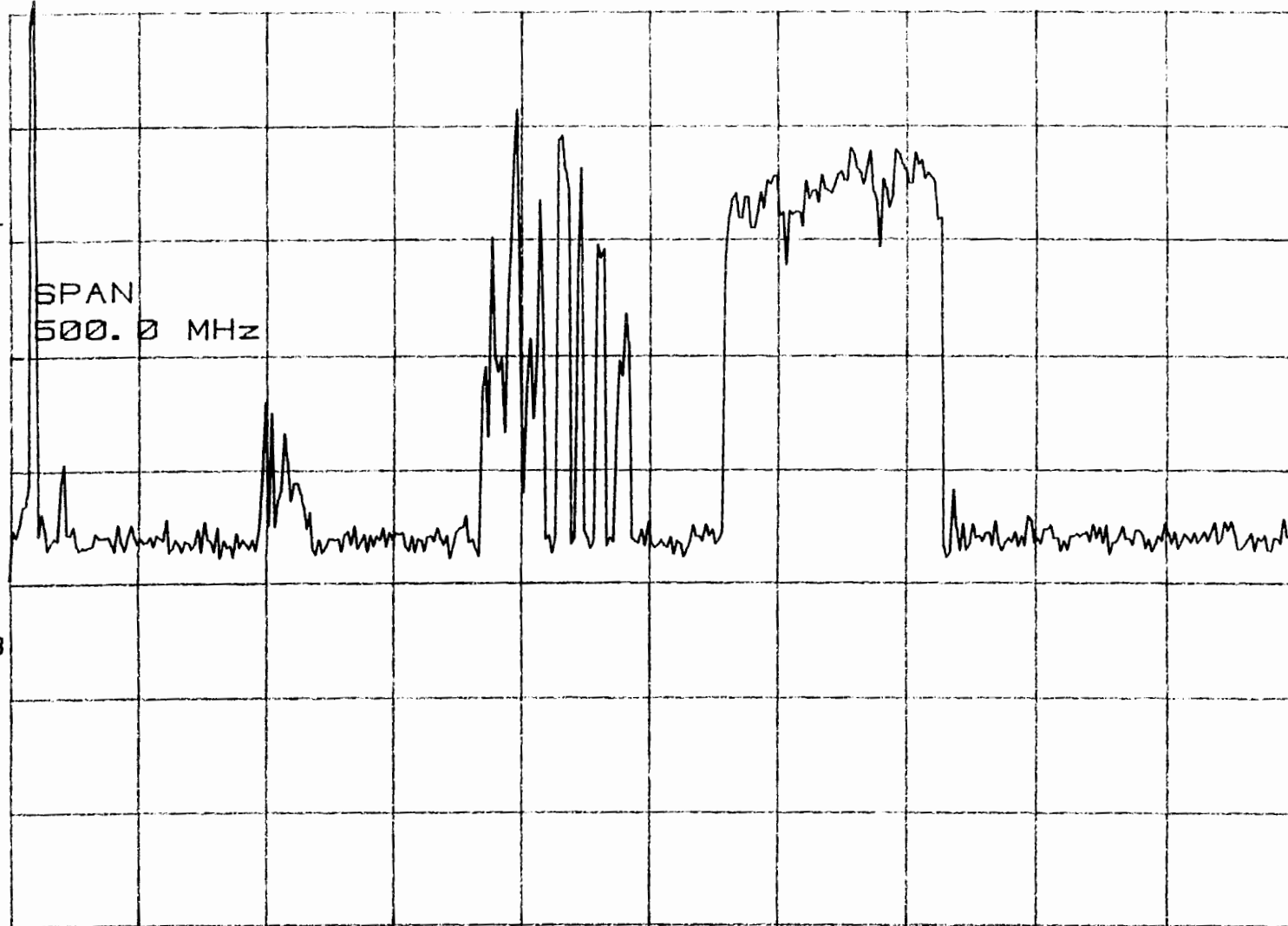
RES BW 100 kHz

OFFST 1755 MHz

VBW 30 kHz

SPAN 500.0 MHz

SWP 500 msec



ATTACHMENT 4C

FIELD TEST DATA – OGDEN, UTAH

10.00 0.00

5W ERP

no External BPF 60.00

17

REF 60.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

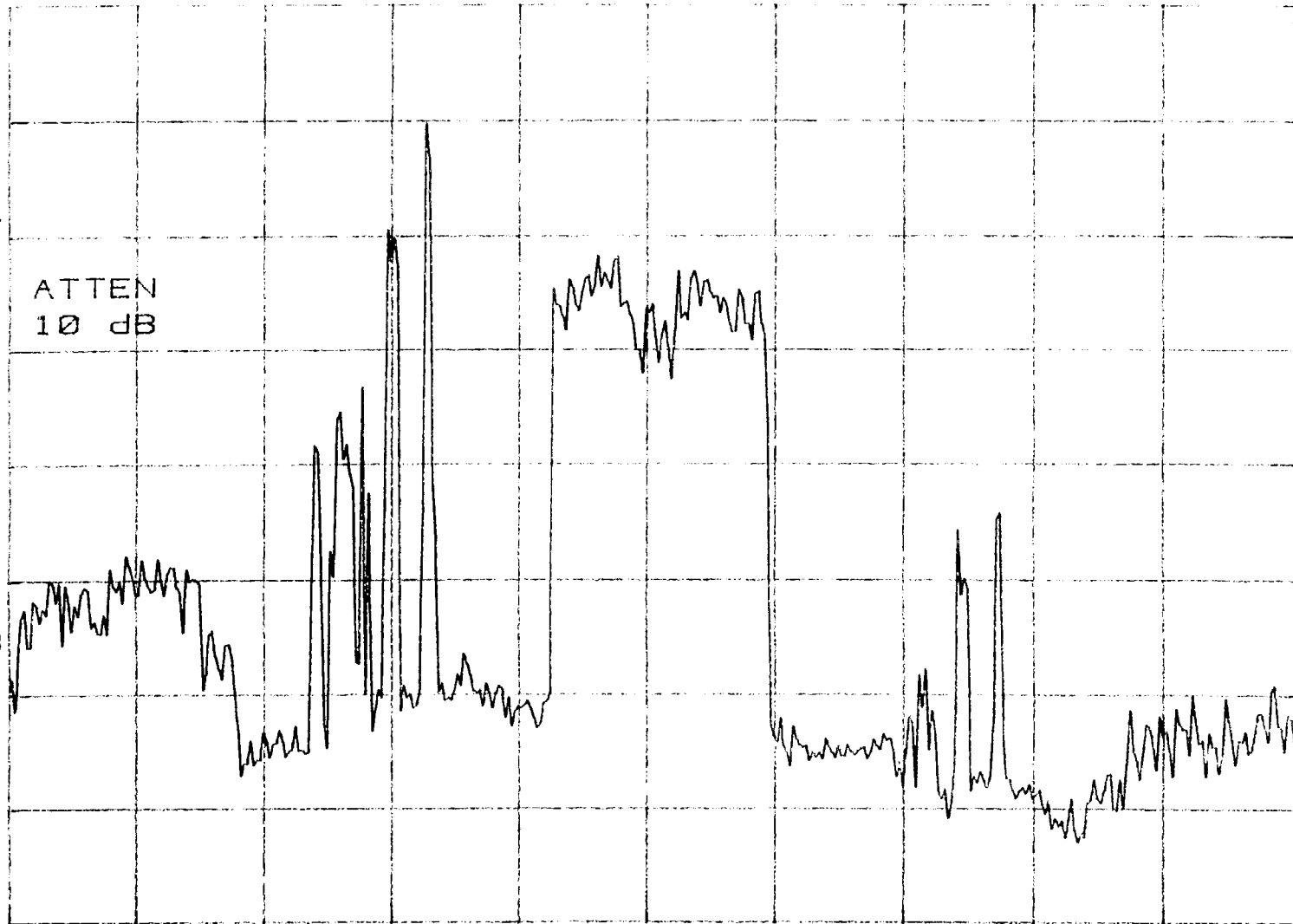
dB

ATTN
10 dB

WA SB

FC

CORR



CENTER 2067 MHz

OFFST 1755 MHz

SPAN 500.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 500 msec

10 - 30

50 mW ERP

hp

REF 60.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

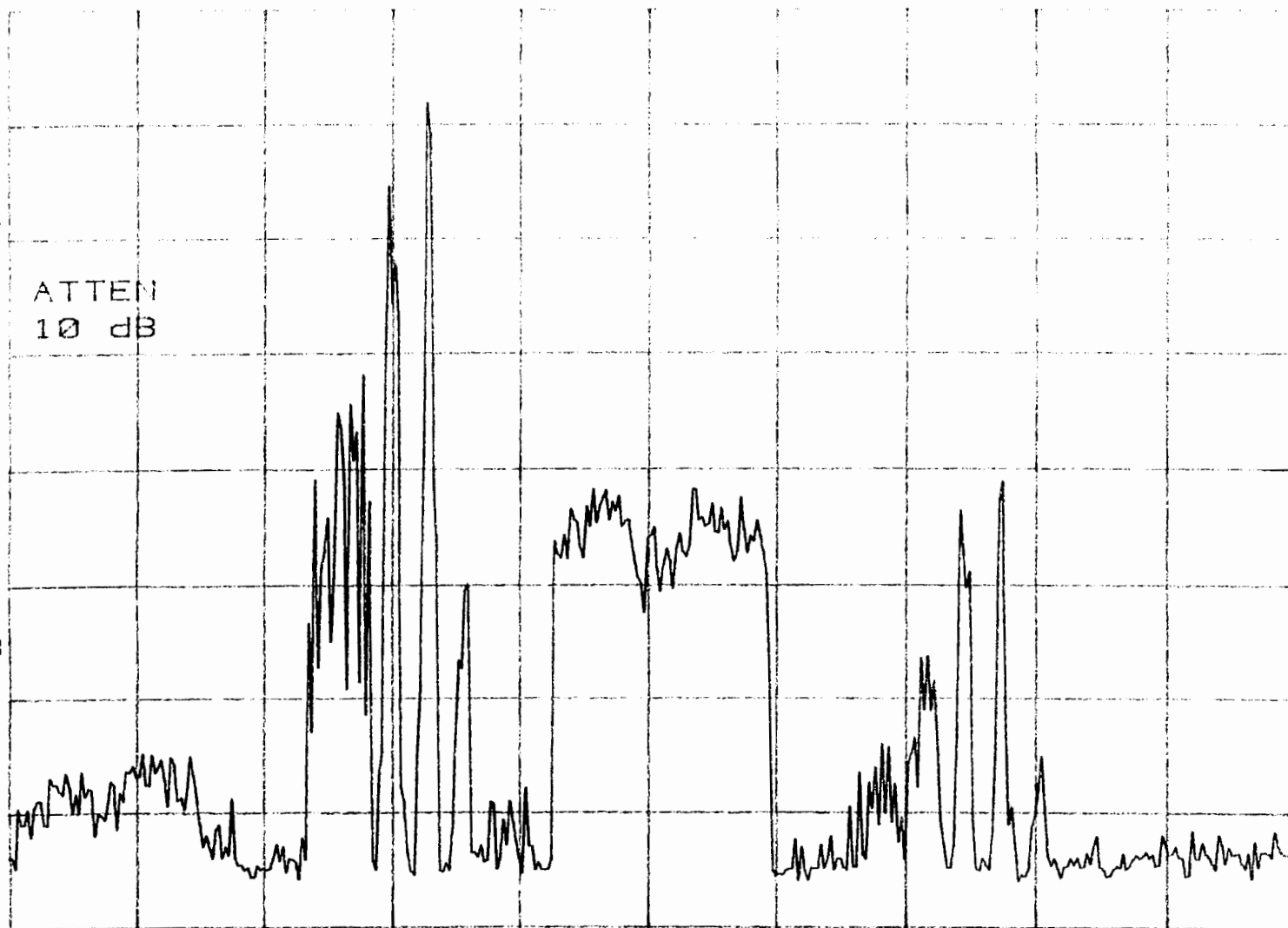
dB

ATTN
10 dB

WA SB

FC

CORR



CENTER 2067 MHz

OFFST 1755 MHz

SPAN 500.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 500 msec

10-27 0.15M

D/C External BPF

50 MHz BPF

17

REF 60.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

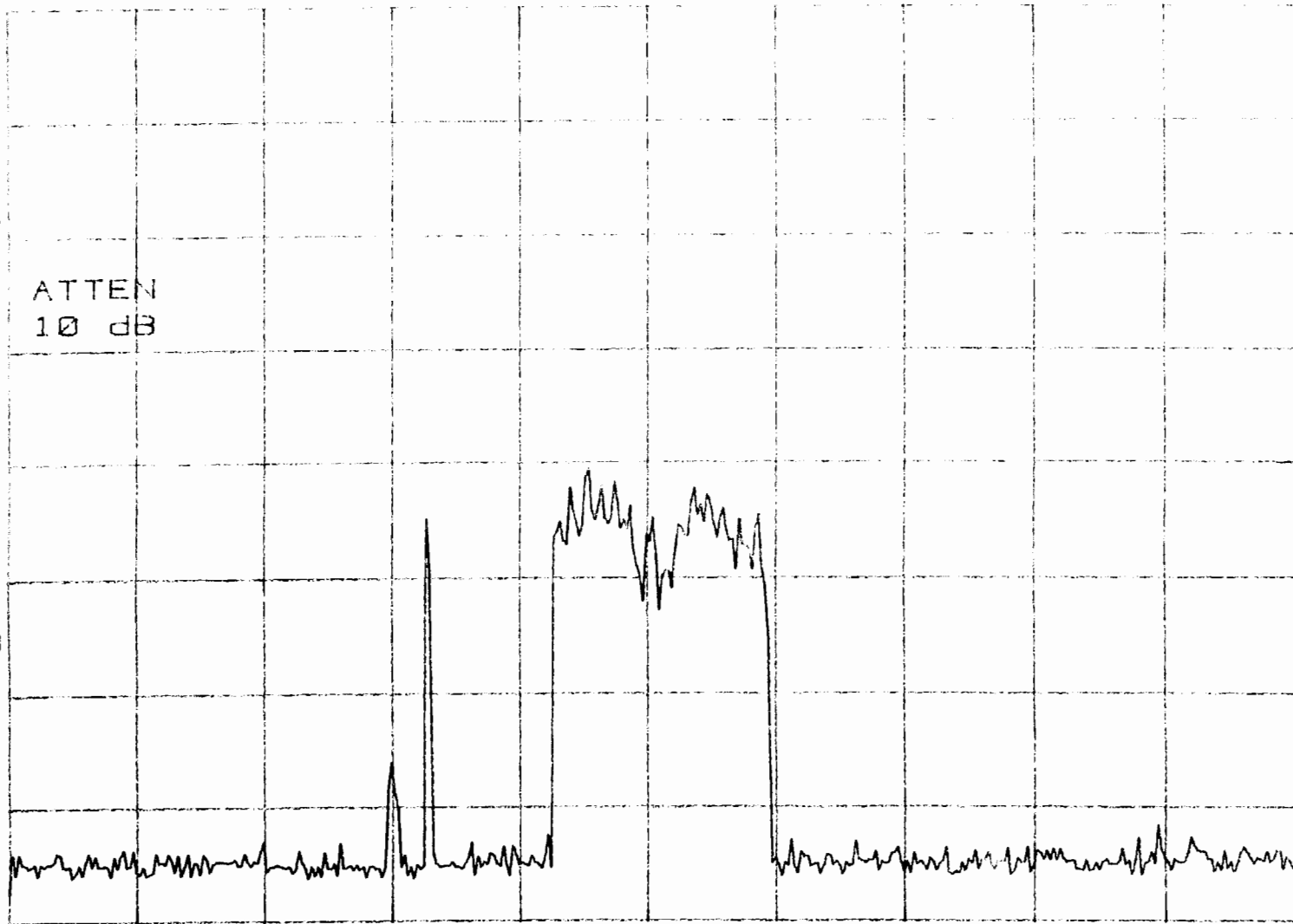
BP

ATTN
10 dB

WA SB

FC

CORR



CENTER 2067 MHz

OFFST 1755 MHz

SPAN 500.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 500 msec

10-27-6

hp

REF 30.0 dBmV ATTN 10 dB

PEAK

LOG

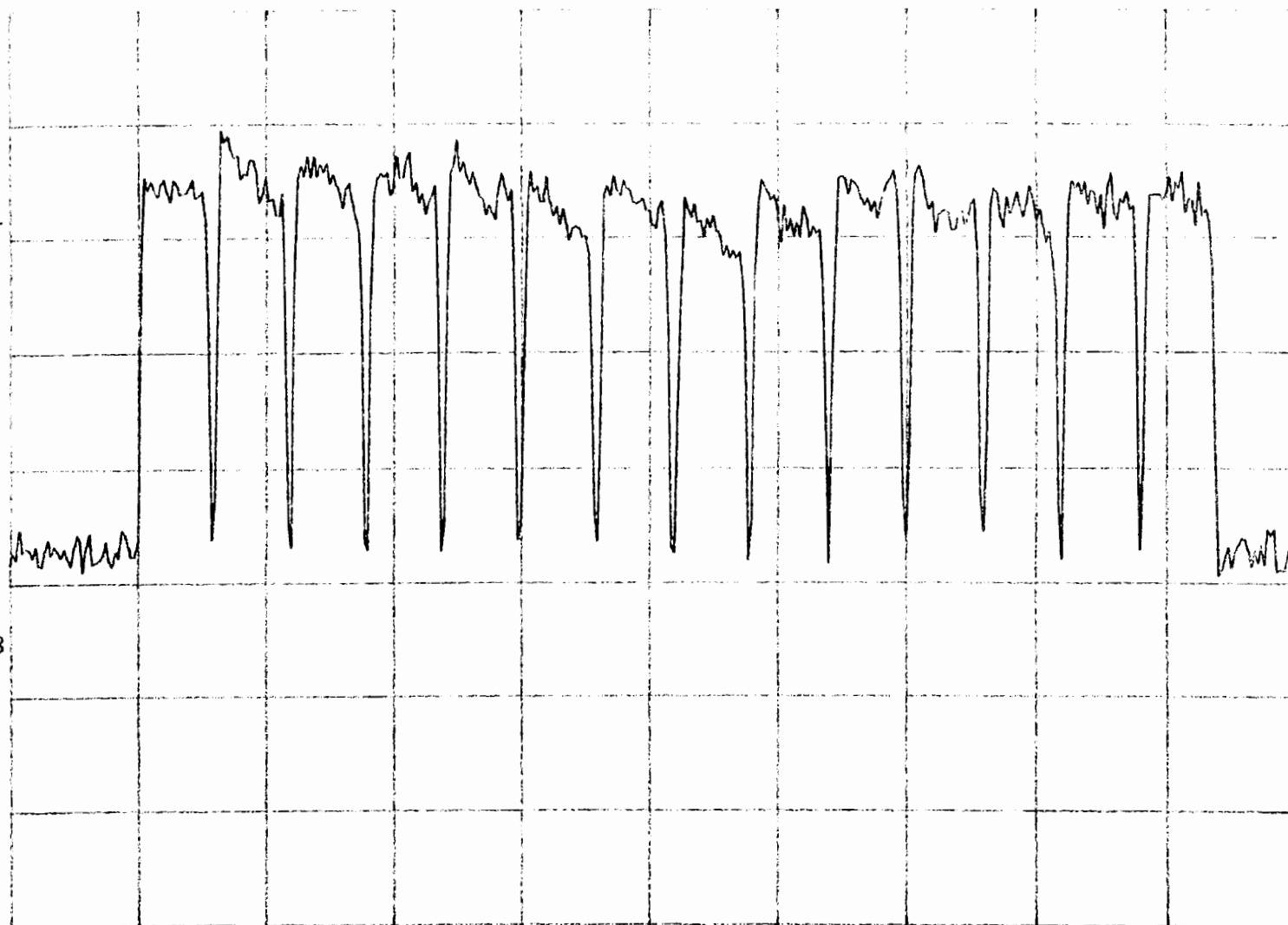
10

dB/

OFFST

15.0

dB



WA SB

FC

CORR

CENTER 2067 MHz

OFFST 1755 MHz

SPAN 100.0 MHz

RES BW 100 kHz

VBW 30 kHz

SWP 100 msec

10-21 Dguel

5W ERP

U/C: External BPF

hp

REF 60.0 dBmV ATTN 10 dB

PEAK

LOG

10

dB/

OFFST

15.0

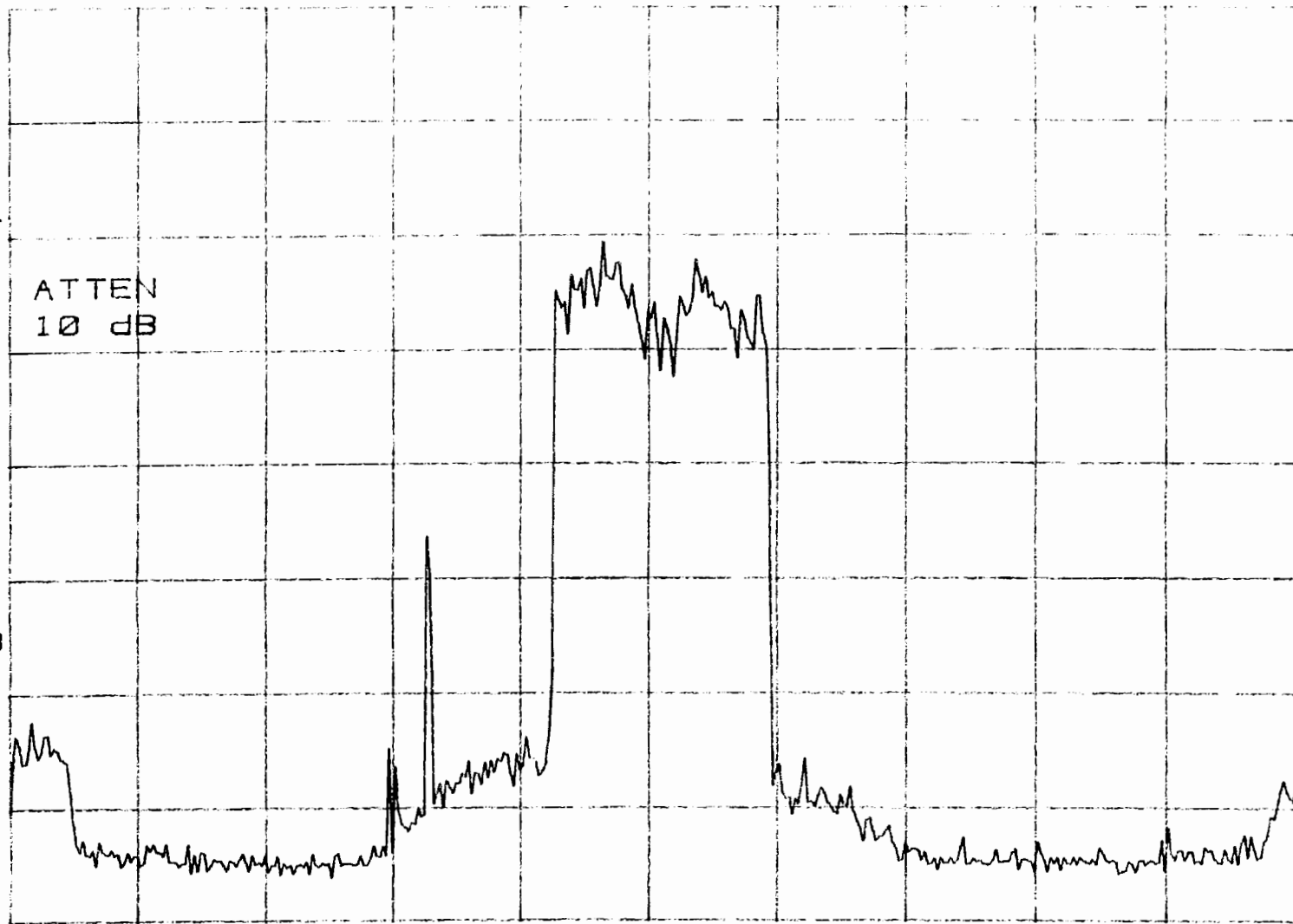
dB

ATTN
10 dB

WA SB

FC

CORR



CENTER 2067 MHz

RES BW 100 kHz

OFFST 1755 MHz

VBW 30 kHz

SPAN 500.0 MHz

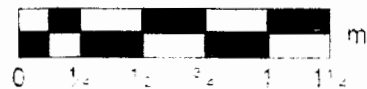
SWP 500 msec

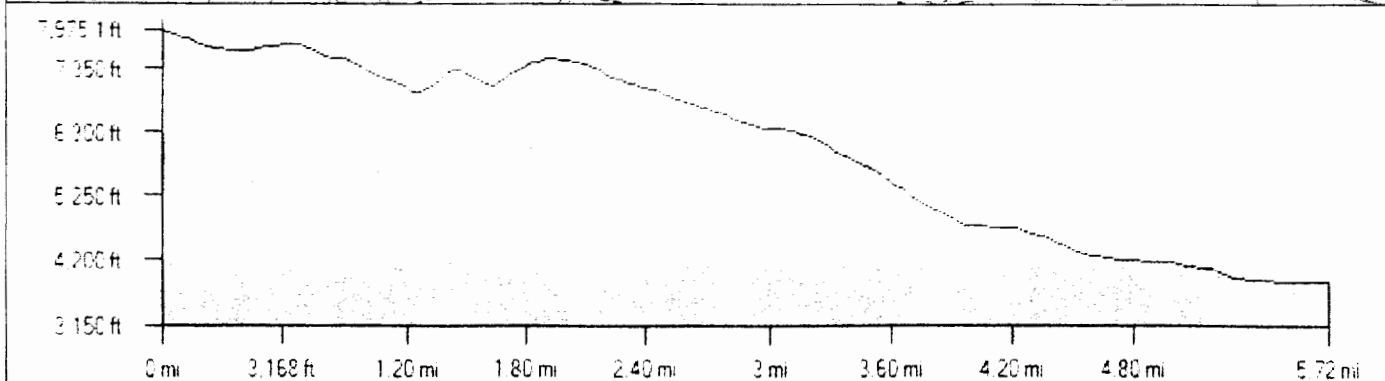
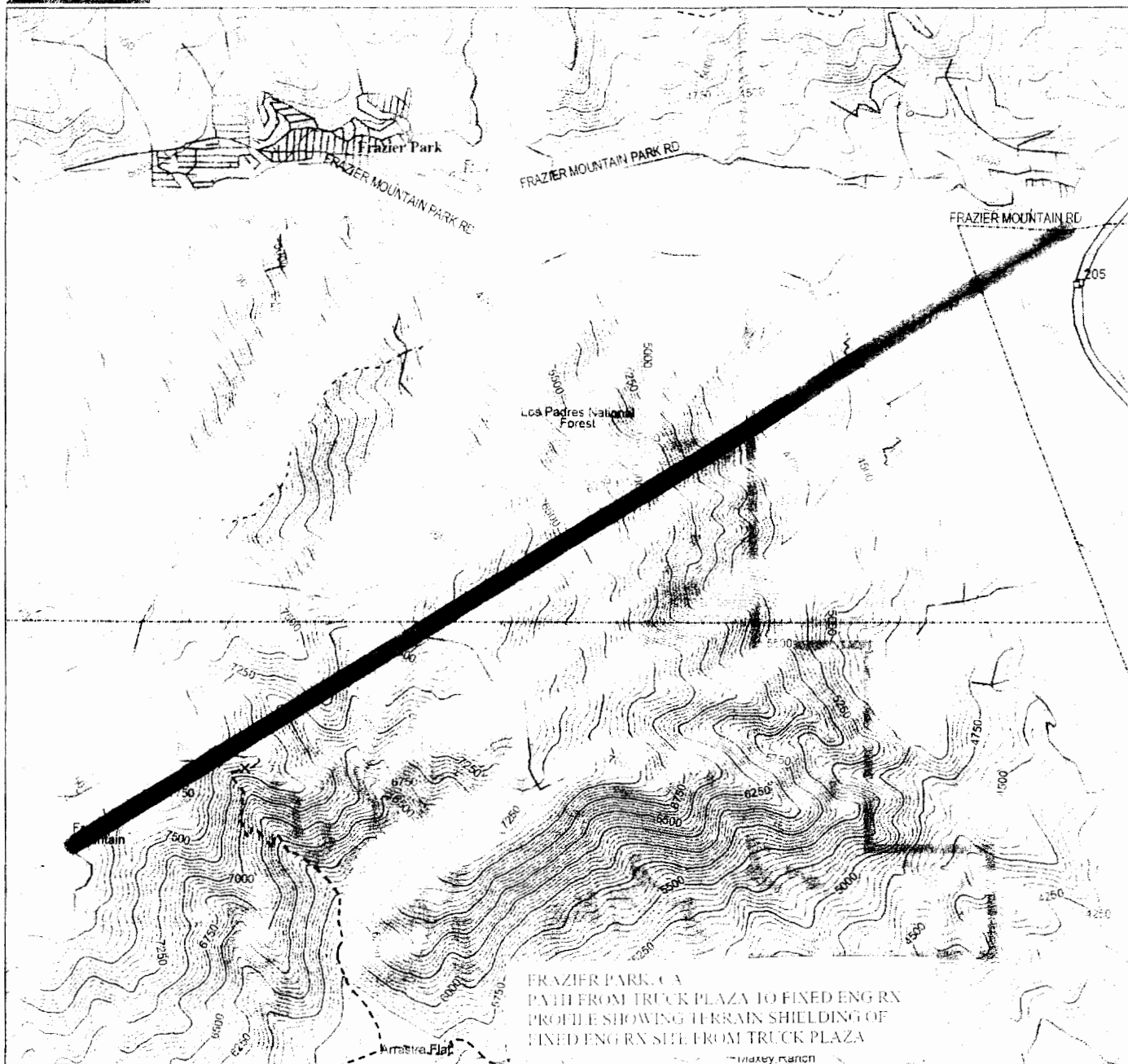
ATTACHMENT 5A

PHOTOGRAPHS – FRAZIER PARK, CALIFORNIA



FRAZIER PARK, CA
PATH FROM TRUCK PLAZA TO FIXED ENGINE





Lin Dist: 5.55 mi	Terr Dist: 5.72 mi	Elev Gain: -4,135.9 ft	Avg Grade: 20
Grade: 20	Latitude: N34° 49' 2.61"	Longitude: W118° 53' 7.73"	Elev: 3,839.2 ft
Climb Elev: 948.2 ft	Desc Elev: 5,084.1 ft	Max. Elev: 7,975.1 ft	Min. Elev: 3,839.2 ft
Climb Dist: 5.154 2 ft	Desc Dist: 4.74 mi		



LEFT TO RIGHT
1. FCC ENFORCEMENT
2. LSI ENGINEER
3. NBC ENGINEER



LEFT TO RIGHT

1. CHEVROLET HYBRID TRUCK WITH 120VAC
2. RECEIVE ANTENNA/DOWN CONVERTER
MOUNTED ON NON-METALLIC TRIPOD
3. TEST AND MINTORING EQUIPMENT
4. LSI AND CLARITY REPRESENTATIVES



LEFT TO RIGHT

1. ISI ENGINEER
2. NBC ENGINEER
3. NBC ENGINEER
4. NBC ENGINEER
5. CBS ENGINEER



LEFT TO RIGHT

1. FCC ENFORCEMENT

2. KTLA CHANNEL 5, LA ENGINEER

3. FSI ENGINEER



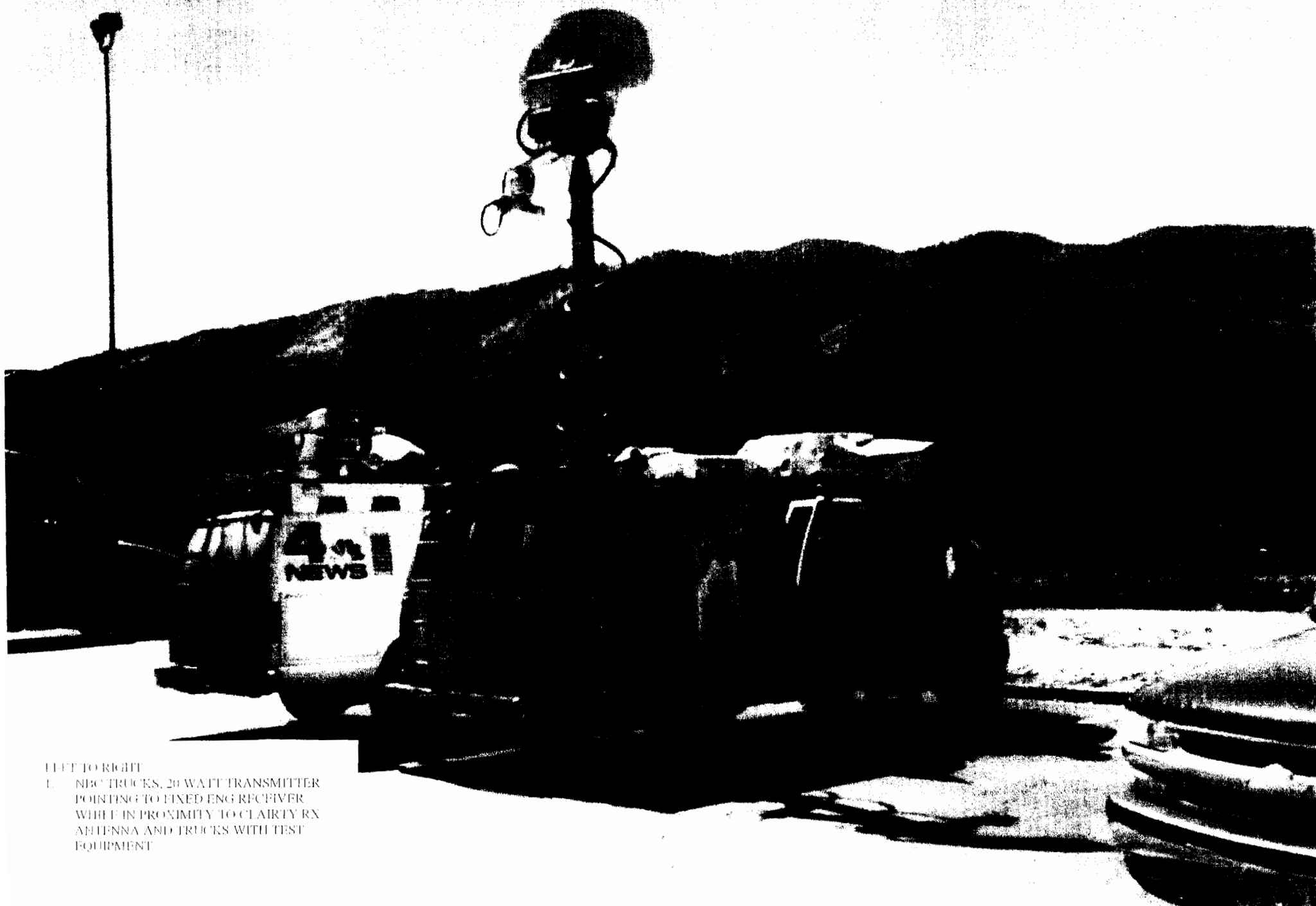
LEFT TO RIGHT

1. SBE COORDINATOR, SOUTHERN CALIFORNIA
2. SBE RX ANTENNA/ANRITSU ANALYZER
3. KTLA CHANNEL 5, LA ENGINEER

LEFT TO RIGHT

1. NBC TRUCKS, 20 WATT TRANSMITTER
2. PROXIMITY TO CLARITY RX ANTENNA
AND TRUCKS WITH TEST EQUIPMENT





LEFT TO RIGHT

1. NBC TRUCKS, 20 WATT TRANSMITTER
POINTING TO FIXED ENG RECEIVER
WHILE IN PROXIMITY TO CLAIRTY RX
ANTENNA AND TRUCKS WITH TEST
EQUIPMENT