Exhibit 1
Station KM2XRE
Item No. 4 of Form 442

Frequency (A)	**Power (ERP)*** (C-D)**	**Emission** (E)	**Modulating Signal***** (F)	**Necessary Bandwidth (kHz)** (G)
137 - 138 MHz	4W 4W	N0N 2K00A2N	N/A 27.8 kHz	1 kHz 2 kHz
148 - 150.05 MHz	4W 4W	N0N 2K00A2N	N/A 27.8 kHz	1 kHz 2 kHz
1030 MHz	400 kW	20K0P0N	1 ms pulse @ 100 kHz	20 kHz
1260.75, 1307.7, 1353.75, 1400 MHz	4W 4W	N0N 2K00A2N	N/A 27.8 kHz	1 kHz 2 kHz

*4(B) Output power for each frequency is 0 dBm, except for 1030 MHz, which is 10 kW.

**4(D) ERP for all frequencies is "mean," except for 1030 MHz, which is "peak."

***4(F) The value given is the maximum audio modulating frequency.

Revised Exhibit 1
COMSAT RSI/Arcola
Station KM2XRE
Item No. 4 of Form 442
August 18, 1997

Frequency (A)	Power (ERP)* (C-D)**	Emission (E)	Modulating Signal*** (F)	Necessary Bandwidth (kHz) (G)
136-216 MHz	100mW	80M0F0N	27.8 kHz	2 kHz
137 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
137.4 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
138 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
148 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
149.2375 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
150.05 MHz	4W	2K00A2N/ N0N	27.8 kHz N/A	2 kHz 1 kHz
1030 MHz	400 kW	20K0P0N	1 ms pulse @ 100 kHz	20 kHz
1260.75,1307.7, 1353.75,1400 – MHz	4W 4W	N0N 2K00A2N	N/A 27.8 kHz	1 kHz 2 KhZ

*4(B) Output power for each frequency is 0 dBm
**4(D) ERP for all frequencies is "mean"
***4(F) The value given is the maximum audio modulating frequency

Exhibit 2
Station KM2XRE
Item No. 6(a) of Form 442

Beamwidth at the Half-Power Point

Frequency (MHz)	**Half-Power Beamwidth**
137-138, 148-150.05	20°
1030	2.7°
1260.75, 1307.7, 1353.75, 1400	5.5°

Revised Exhibit 2
COMSAT RSI/Arcola
Station KM2XRE
Item No. 6 of Form 442
August 18, 1997

Beamwidth at the Half-Power Point

Frequency (MHz)	Half Power Beamwidth
136-216	20°
137, 137.4, 138, 148, 149.2375, 150.05	20°
1030	2.7°
1260.75, 1307.7, 1353.75, 1400	5.5°

Exhibit 3
Station KM2XRE
Item No. 10 of Form 442

At the Arcola, Virginia location, COMSAT RSI intends to assemble and fabricate antenna systems at the various frequency bands as described below. COMSAT RSI desires to use these frequencies to verify proper operation of the antenna system and/or components after the assembly process. The majority of the testing will be the verification of the antenna radiation pattern. These antenna systems are to be developed for a variety of applications and customers.

137.0 - 138.0 MHz	For UHF Satellite Communications antennas
148.0 - 150.05 MHz	For UHF Satellite Communications antennas
1030 MHz	For high power testing of IFF, air traffic control antennas
1260.75 MHz	For L-Band Radar antennas
1307.7 MHz	For L-Band Radar antennas
1353.75 MHz	For L-Band Radar antennas
1400.0 MHz	For L-Band Radar antennas

Revised Exhibit 3
COMSAT RSI/Arcola
Station KM2XRE
Item No. 10 of Form 442
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Testing at 136-216 MHz:

COMSAT RSI has been awarded a contract to produce a number of 16-element crossed-dipole arrays which will operate in a 28-foot radome. This antenna will be used in the ground segment in a communications system developed by ORBCOMM to provide wireless packet data services optimized for short message transfer via satellite links. The space segment will consist of 28 to 36 satellites referred to as ORBCOMM Space Vehicles in polar orbits of about 730 km. These orbits are considered "Low Earth Orbits" making the system a LEO-based system (in this case a little LEO-based system).

The role of the ground segment is to process message traffic within a specific geographic territory (such as a country or region), and to provide interconnection between the system and the various public and/or private data networks within the territory. The ground segment will consist of a number of ORBCOMM Gateways, to be located strategically throughout the world. The Gateway Earth stations (GES) consist of medium gain tracking antennas, RF and modem equipment, and communications hardware to send and receive packets. The GES are fully redundant and designed for unattended operation. The GES use two (separate) radome-enclosed VHF antennas which will be supplied by COMSAT RSI. The system is designed to operate in the 137-138 MHz and 148-150.05 MHz frequency bands. The downlink from the satellites to the GES is in the 137-138 MHz band. The transmissions to the satellites occur within the 148-150.05 MHz band. COMSAT RSI has received an approval for an STA for low power testing of these antennas to determine their radiation patterns at single specified frequencies (call sign KK2XFV, File No. S-2776-EX-97).

However, there are sufficient reflections from the surrounding environment (trees, ground, etc.) that can cause significant errors in the patterns. Continued authority to use a different technique whereby a signal is swept over a large frequency band (136 to 216 MHz) is requested in order that the reflections can be gated out of the measurement and hence improve the accuracy of the measurement. In essence, the larger the frequency span the more resolution there is to the gating of the range reflection. This allows gating of reflections from objects that are located close to the test area. A low level RF carrier is swept from 136 to 216 MHz at approximately a 100 ms rate to allow time domain gating out of the range reflections. This procedure, operated pursuant to a modification to the STA referenced above and dated May 9, 1997, has allowed demonstrably more accurate antenna pattern and gain measurements to be made on the ORBCOMM antenna.

Testing at 137.0, 137.4, 138.0, 148.0, 149.2375, and 150.05 MHz:

COMSAT RSI is currently carrying out antenna design and testing for various projects under special temporary authority Call Sign KK2XFV, File No. S-2976-EX-97. Under this license, COMSAT RSI tests new antennas in receive-mode only. Testing will verify proper operation after assembly. The principal tests involve verification of the antenna radiation patterns.

Testing at 1030, 1260.75, 1307.7, 1353.75, and 1400 MHz:

COMSAT RSI is currently assembling and fabricating antenna systems at the various frequency bands as described below, under license Call Sign KK2XFV, File No. 5449-EX-ML-96. COMSAT RSI desires to continue to use these frequencies to verify proper operation of the antenna system and/or components after the assembly process. The majority of the testing is the verification of the antenna radiation pattern. These antenna systems are to be developed for a variety of applications and customers.

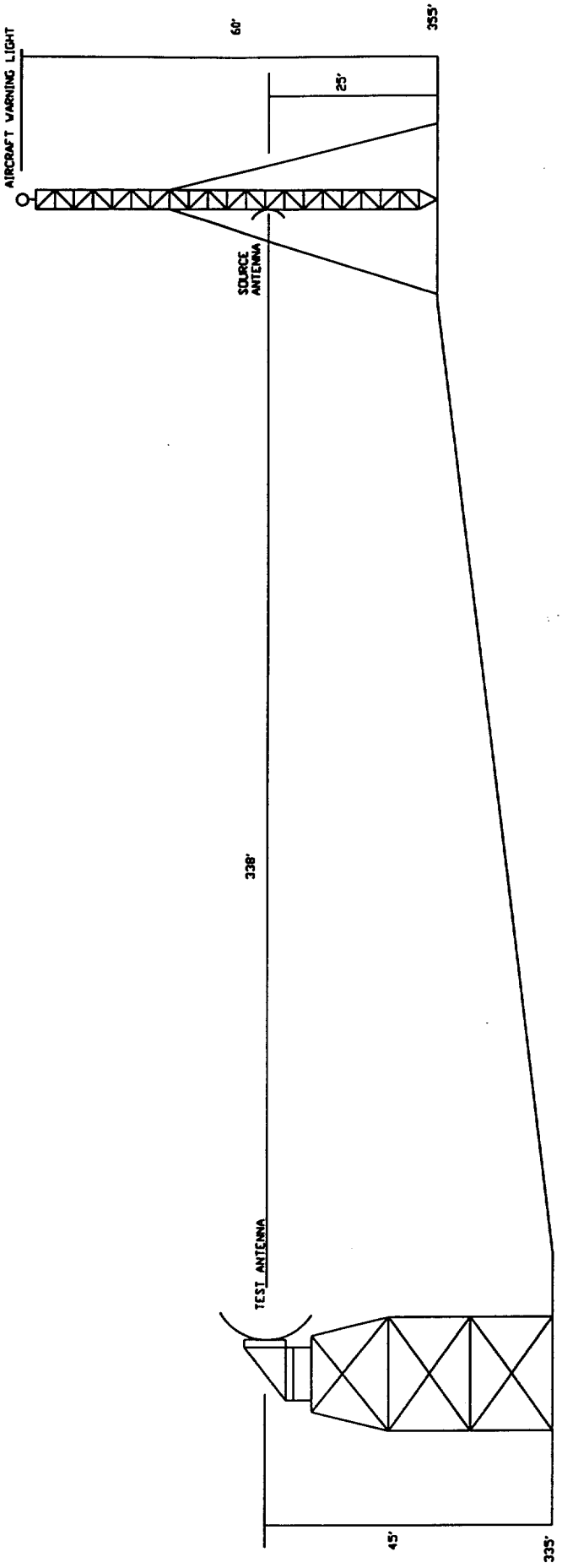
1030 MHz	For high power testing of IFF, air traffic control antennas
1260.75 MHz	For L-Band Radar antennas
1307.7 MHz	For L-Band Radar antennas
1353.75 MHz	For L-Band Radar antennas
1400.0 MHz	For L-Band Radar antennas

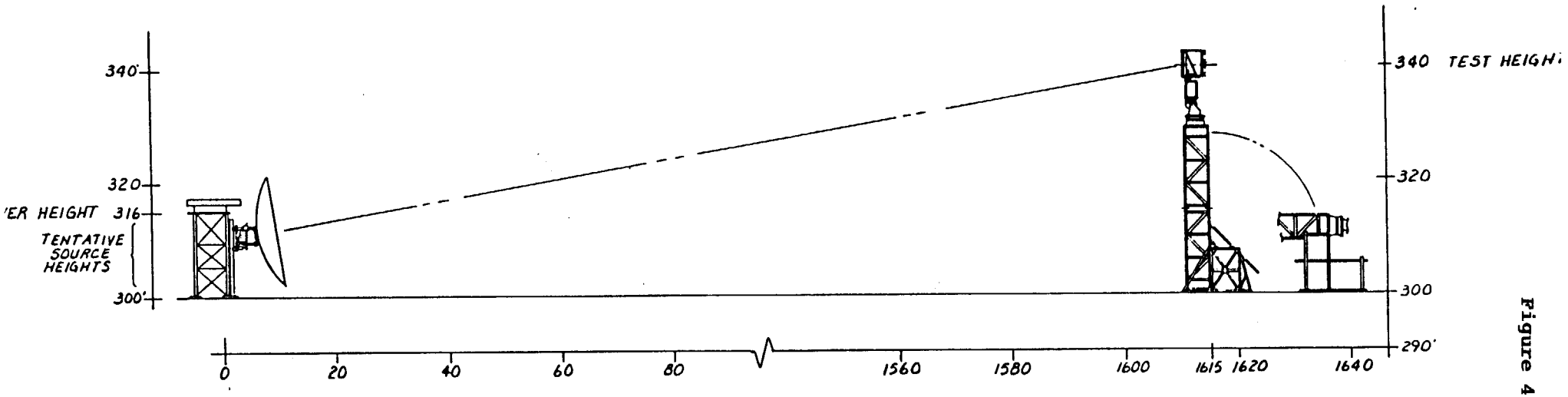
Exhibit 4
Station KM2XRE
Item No. 15 of Form 442

Different portions of the Arcola test range will be used to conduct the experimental operations for which modified authority is sought. In response to subparts 15(a) and (b), the overall height above ground to tip of the antenna (HAAG), and the elevation of the ground at the antenna site (HGAMSL), respectively, are given below. In response to 15(c), the distance to the nearest aircraft landing area for all three sites is at least 2.2 kilometers. Finally, in response to 15(e), site profiles are provided as Figures 4-a to 4-c, and relate to operations at the different frequencies as indicated below.

Frequency (MHz)	**HAAG (m)**	**HGAMSL (m)**	**Site profile**
137-138, 148-150.05	7.6	108.2	Fig. 4-a
1030	6.1	91.4	Fig. 4-b
1260.75, 1307.7, 1353.75, 1400.0	24.4	89.9	Fig. 4-c
	or	or	
	6.1	91.4	Fig. 4-b

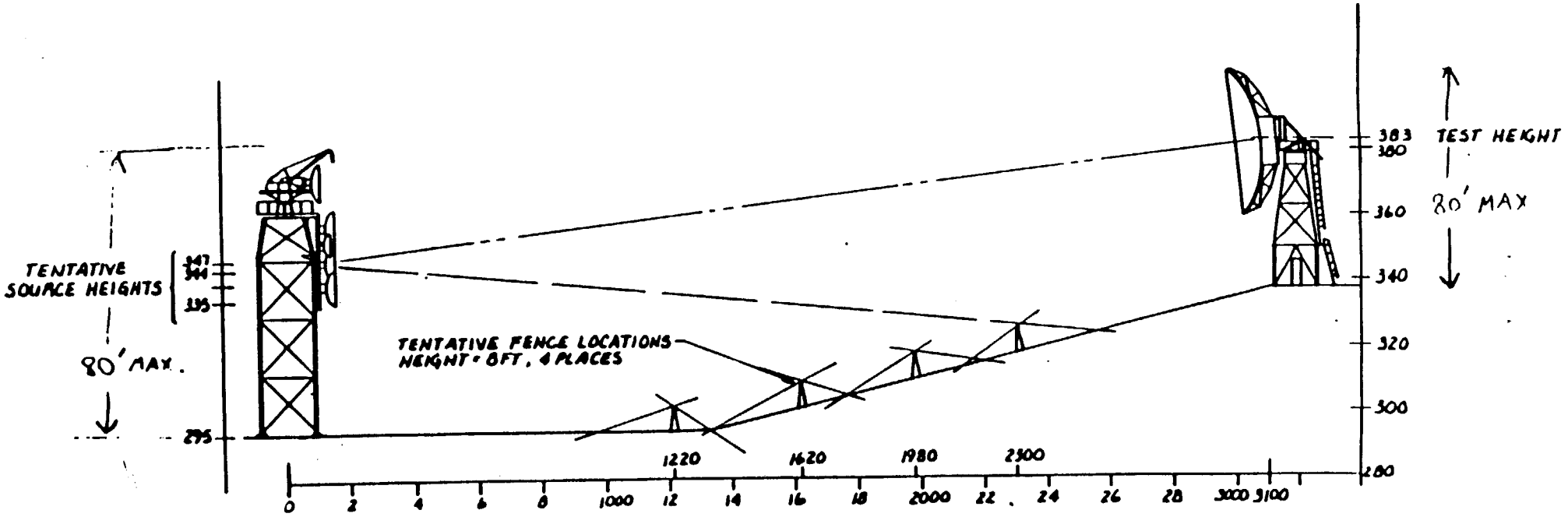
Figure 4-a


AIRCRAFT WARNING LIGHT
60'
353'
25'
SOURCE ANTENNA
338'
TEST ANTENNA
45'
335'
ORBCOMM RANGE



RANGE NO. 1 (FAA) CONFIGURATION

Figure 4-b



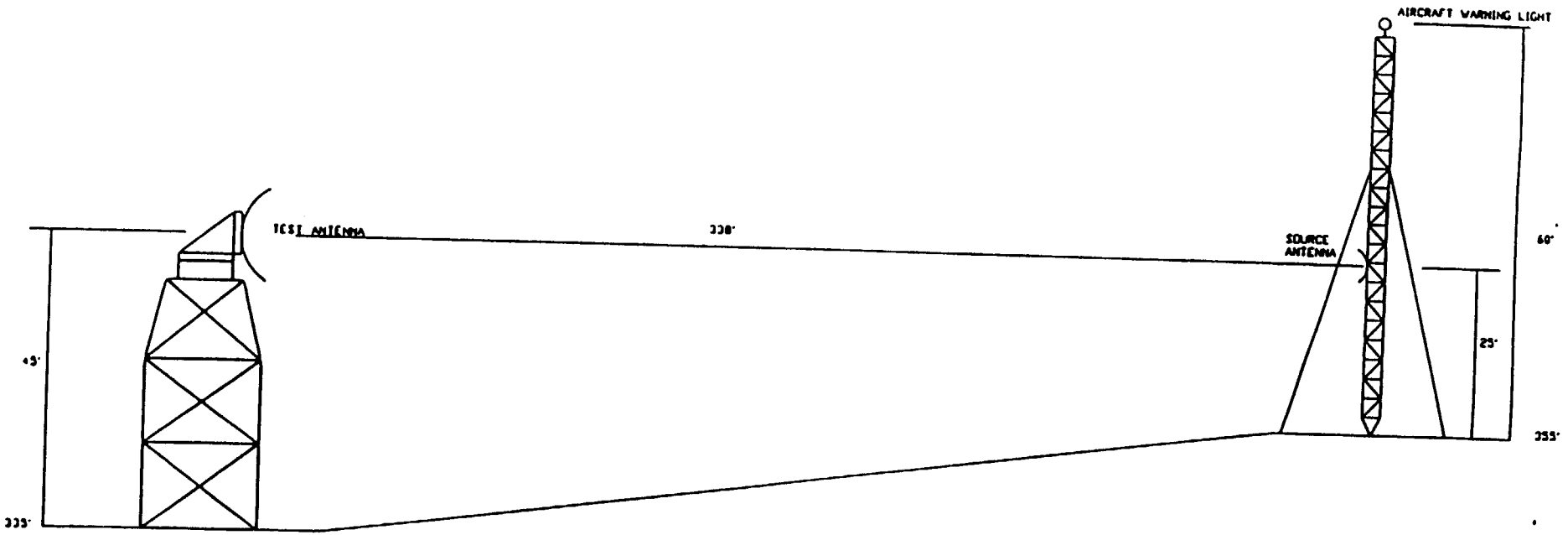
Vertical Profile **CONFIGURATION**

Figure 4-c

Revised Exhibit 4
COMSAT RSI/Arcola
Station KM2XRE
Item No. 15 of Form 442
August 18, 1997

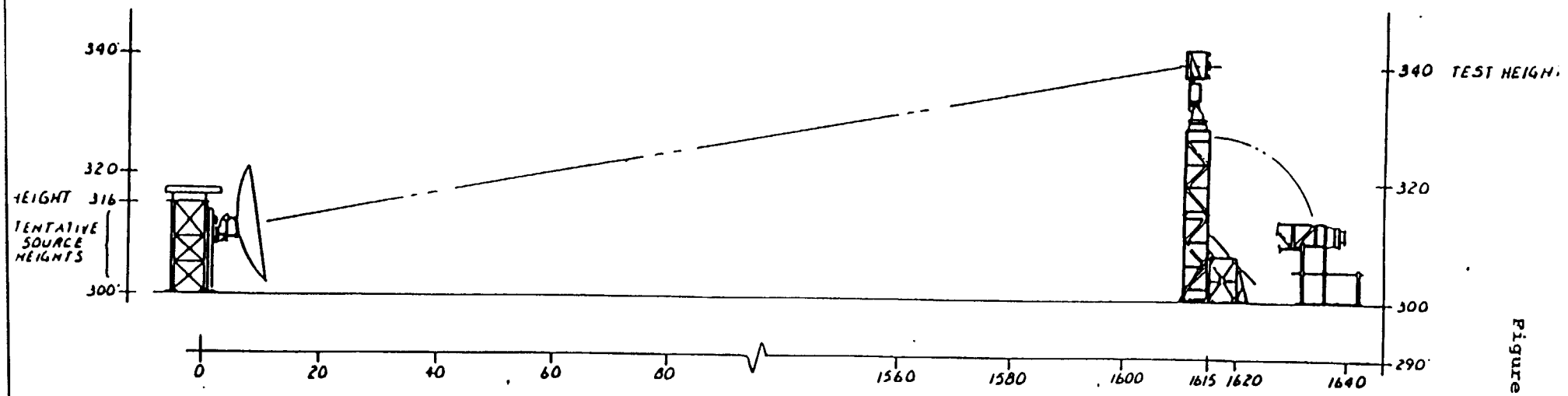
Different portions of the Arcola test range will be used to conduct the experimental operations for which modified authority is sought. In response to subparts 15(a) and (b), the overall height above ground to tip of the antenna (HAAG), and the elevation of the ground at the antenna site (HGAMSL), respectively, are given below. In addition, in response to 15(e), site profiles are provided as Figures 4-a to 4-c, and relate to operations at the different frequencies as indicated below.

Frequency (MHz)	**HAAG (m)**	**HGAMSL (m)**	**Site profile**
136-216	18.9	108.2	Fig. 4-a
137-138, 148-150.05	7.6	108.2	Fig. 4-a
1030	6.1	91.4	Fig. 4-b
1260.75, 1307.7, 1353.75, 1400.0	24.4	89.9	Fig. 4-c
	or	or	
	6.1	91.4	Fig. 4-b



ORBCOMM RANGE

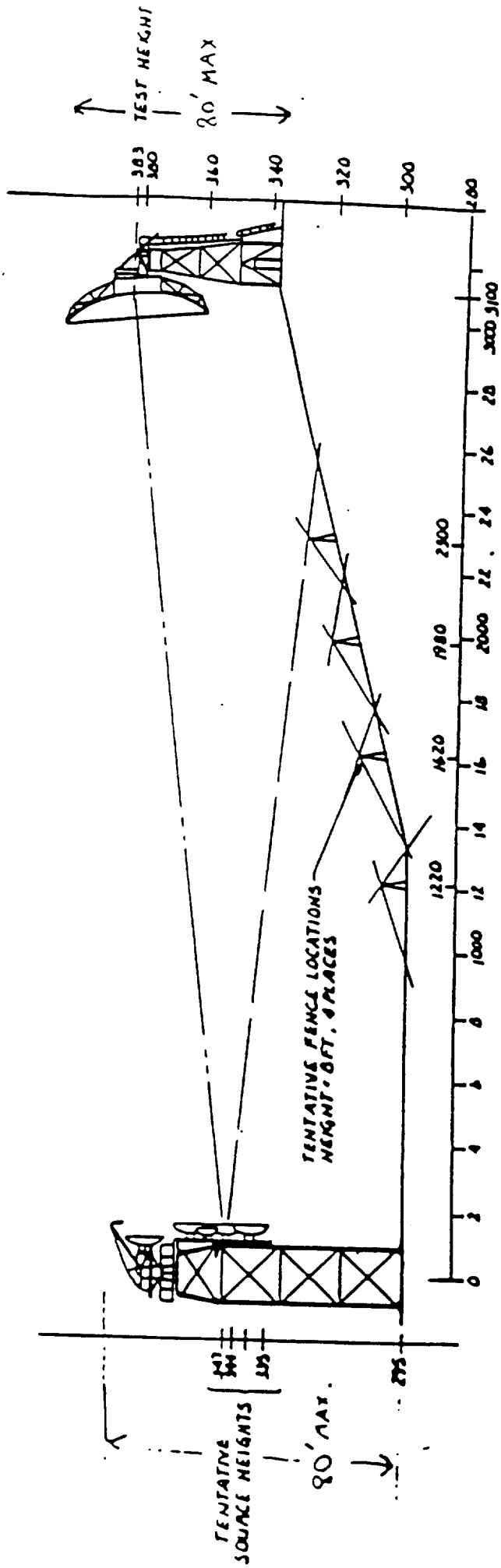
Figure 4-a



RANGE NO. 1 (FAA) CONFIGURATION

Figure 4-b

Figure 4-c



Vertical Profile CONFIGURATION