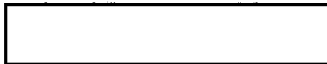


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IMAGERY
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DIVISION

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PHOTOGRAPHIC INTELLIGENCE REPORT



COMMUNICATION SCATTER ANTENNAS

MURMANSK, USSR

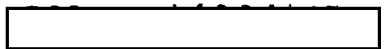
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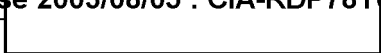
DATE Dec 1965

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COMMUNICATION SCATTER ANTENNAS

MURMANSK, USSR

This report is in response to two requirements. One requested a search of the area around 68-52N 33-07E and 69-03N 32-57E, near Murmansk, USSR, for large unusual antennas. The second was for a detailed analysis of antennas which were photographed [redacted] and identified from [redacted]. These antennas are at two locations in the Murmansk area (Figure 1).

Due to lack of details on available photography, the function of these antennas cannot be positively determined, although they could be used for troposcatter and/or ionospheric scatter communications.

A communication scatter antenna installation consisting of one antenna (Figures 2, 3, 4, 5) is located at 69-01-03N 32-58-00E, 4 nautical miles (nm) northwest of Murmansk, USSR.

This antenna is a horizontal parabolic cylindrical wire mesh reflector approximately 190 feet long, 160 feet high, and is oriented to the southeast on an azimuth of 140 degrees. Major structural components include three lattice-type vertical curved supports and five lattice-type horizontal cross members. No feeds or reflectors can be identified.

There are no buildings which are directly associated with the antenna.

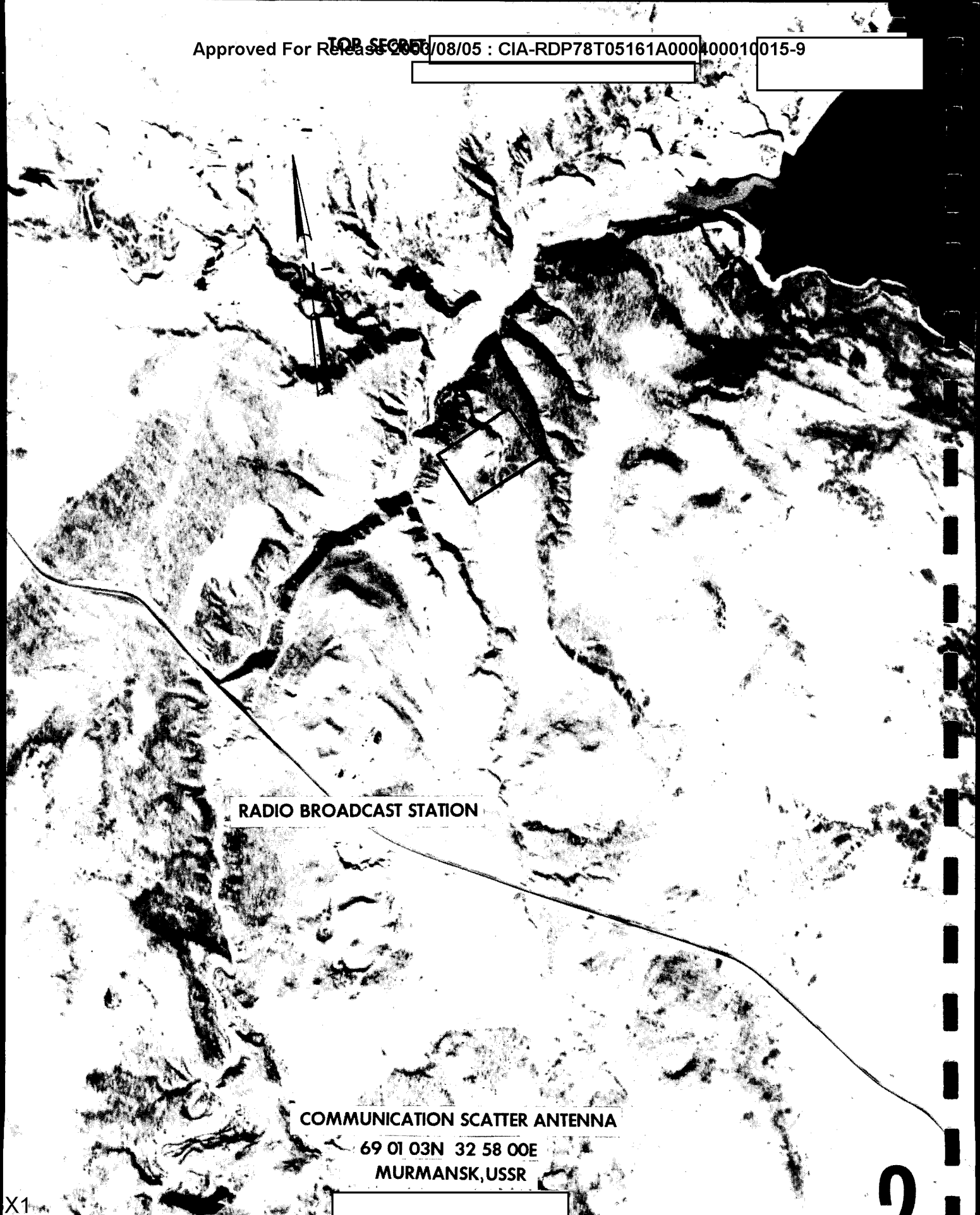
A radio broadcasting station is located 0.5 nm south of the antenna and consists of a control building, four support buildings, two cooling ponds, a vertical radiator and two rhombic antennas. This station is connected to the general area of the antenna by road.

The nearest group of buildings, other than those associated with the radio broadcasting station, are 1 nm north and do not appear to have any connection with the antenna installation. A power line from the Murmashi Hydro Power Plant passes within 300 feet of the antenna.

A dual communication scatter antenna installation (Figures 6, 7, 8) is located at 68-51-40N 33-06-00E, 6 nm south of Murmansk.

This installation consists of two horizontal parabolic cylindrical wire mesh reflectors placed in a line. The two antennas each measure 190 feet long and 160 feet high and are oriented southeast on an azimuth of 140

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RADIO BROADCAST STATION

COMMUNICATION SCATTER ANTENNA

69 01 03N 32 58 00E

MURMANSK, USSR

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COMMUNICATION SCATTER ANTENNA
69 01 03N 32 58 00 E
MURMANSK USSR

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degrees. Each antenna consists of three lattice-type curved vertical supports and five lattice-type horizontal cross members.

There are no buildings in support of these antennas. The nearest installation is a radio broadcasting station located 0.5 nm northeast, which consists of a vertical radiator and a control building. Power lines from the Murmashi Hydro Power Plant pass near the antennas and continue on to Murmansk.

Figure 9 is a perspective drawing showing only the general shape and structural support members of the communication scatter antennas.

The two communication scatter antenna installations can be negated on [redacted] photography in [redacted] missions between [redacted] and [redacted] were cloudy and no identification could be made.

All measurements have been made by the NPIC Technical Intelligence Division and are considered to be accurate within +5 feet in length, +10 feet in height, and +5 degrees in azimuth.

REFERENCES

PHOTOGRAPHY



CIA Ground Photos 1067883 and 1067889 (SECRET/ [redacted])

MAPS AND CHARTS

USATC 0051-18HL, Series 200, 3rd edition, April 1963, Scale 1:200,000 (SECRET)

DOCUMENTS

[redacted]
Cable - OSLO 6562, July 1965 (SECRET/ [redacted])

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REQUIREMENTS

C-RR5-82,968

C-CI5-82,855

CIA/IAD PROJECTS

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30203-6

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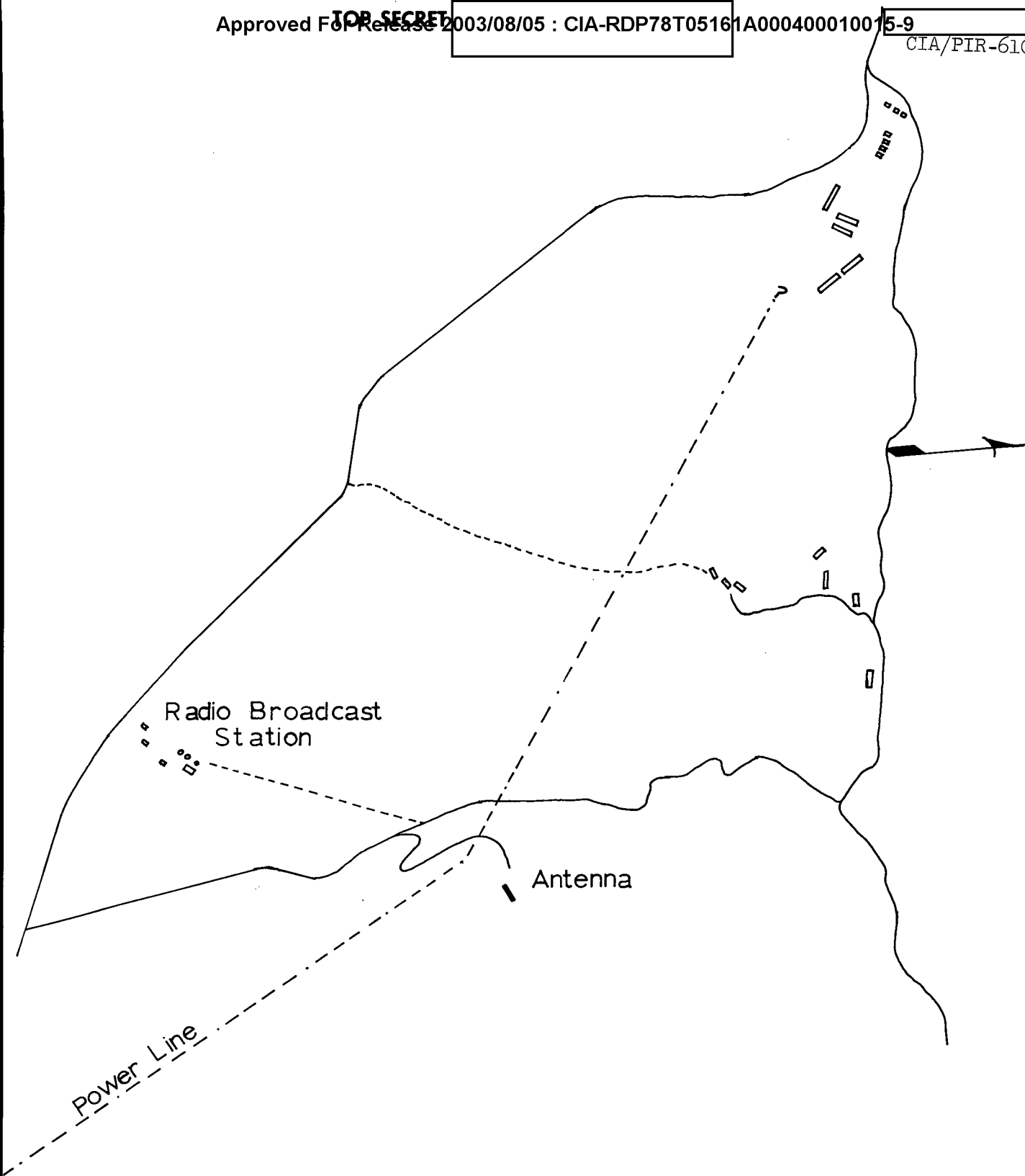
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COMMUNICATION SCATTER ANTENNA

69 01 03N 32 58 00E
MURMANSK, USSR

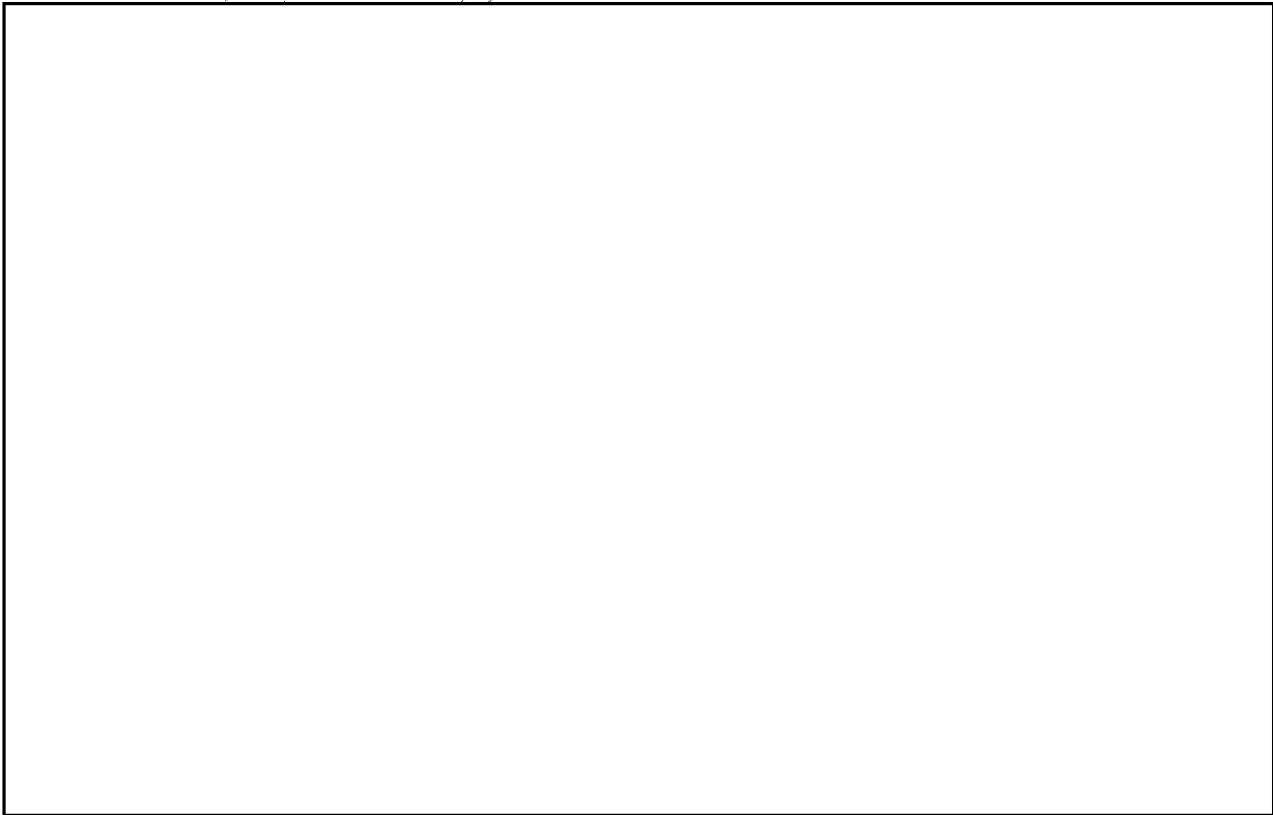
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USSR WAC 51D MURMANSK (NR). 68 58 N 33 05 E
PROB SINGLE TROPOSCATTER ANTENNA AT APPROX 69 01.3 N, 32 57.6 E. FOR STEREO PAIR
SEE CIA 1067888. MID-JULY 1965.

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COMMUNICATION SCATTER ANTENNA

69 01 03N 32 58 00E

MURMANSK,USSR



RADIO BROADCAST STATION

COMMUNICATION SCATTER ANTENNAS

68 51 4 ON 33 06 00E

MURMANSK, USSR

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Radio Broadcast
Station

Antennas

Power Lines

COMMUNICATION SCATTER ANTENNAS

68 51 40N 33 06 00E

MURMANSK, USSR

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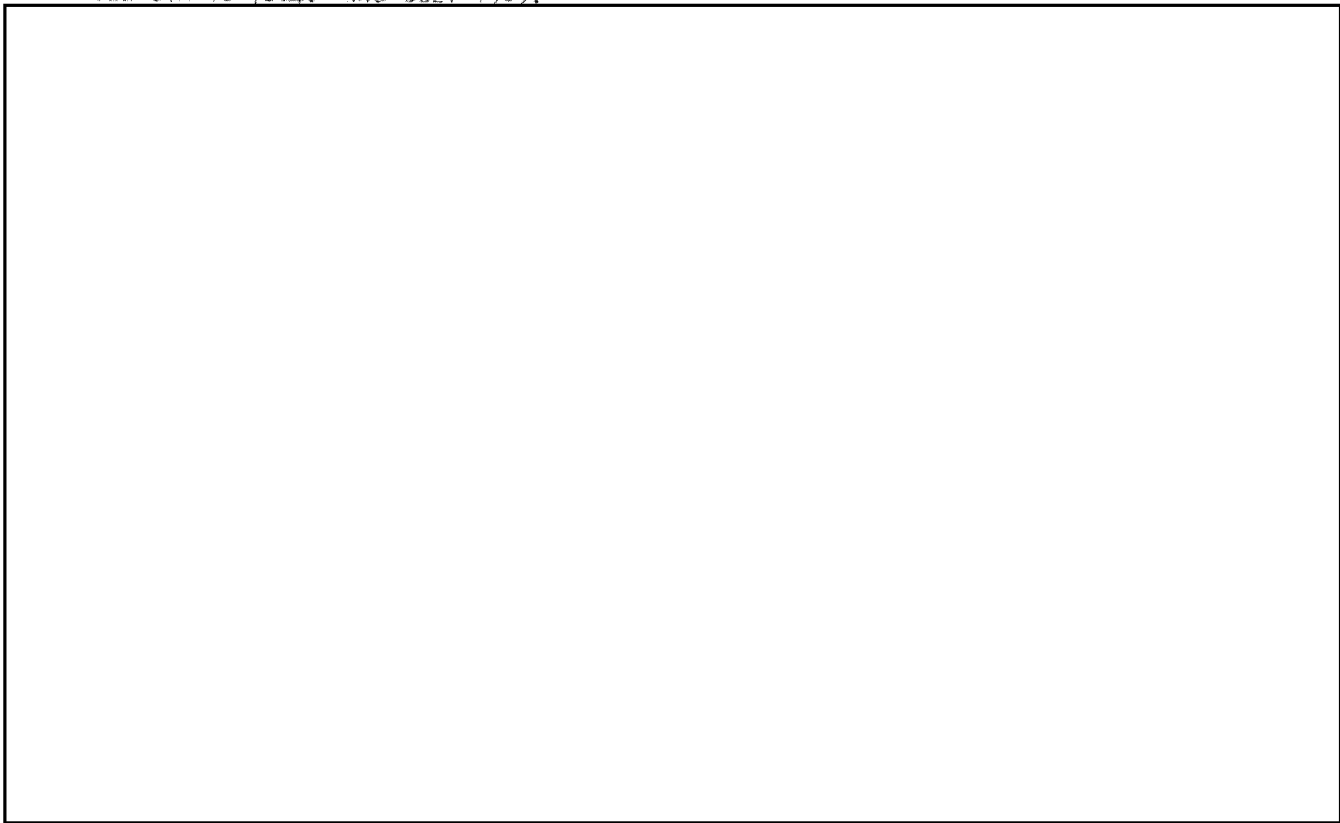
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USSR: WAC 51D MURMANSK (NR) 68 58 N 33 05 E
PROB DUAL TROPOSCATTER ANTENNAS AT APPROX. 68 51.7 N, 33 06.1 E. PT 1 OF 2 FT PAN.
SEE CIA 1067331, MID-JULY 1965.



COMMUNICATION SCATTER ANTENNAS

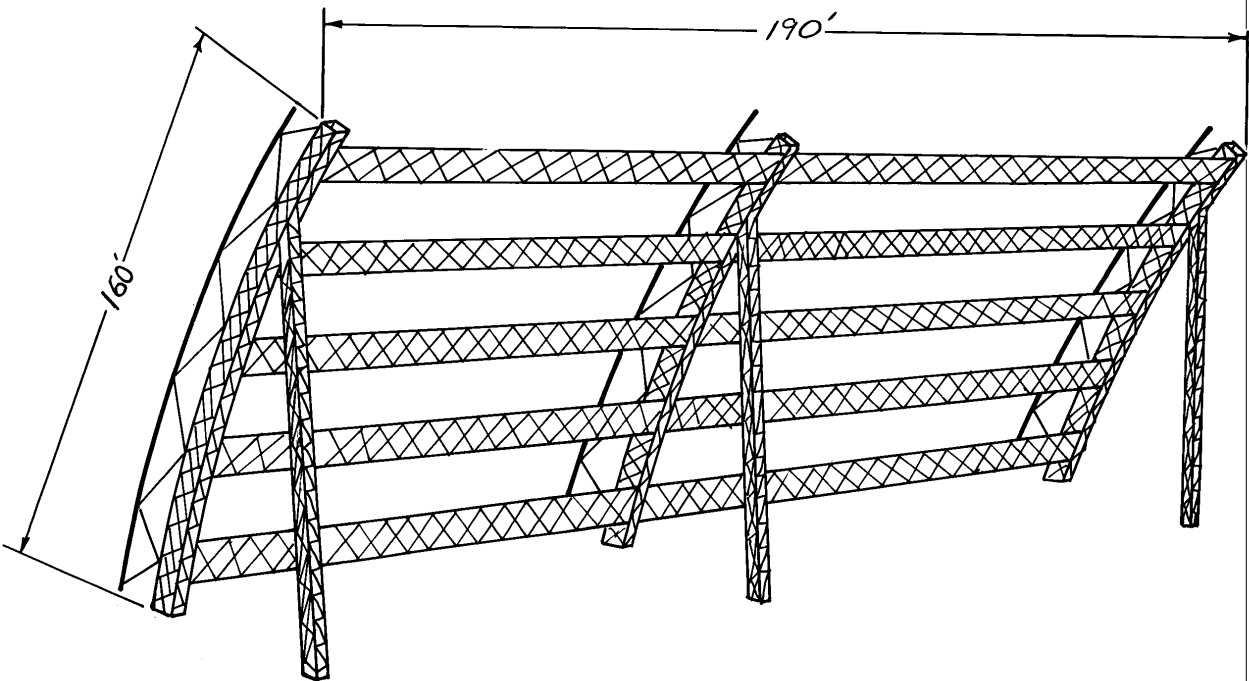
68 51 40N 33 06 00E

MURMANSK, USSR

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GENERAL SHAPE AND CONSTRUCTION
COMMUNICATION SCATTER ANTENNA
MURMANSK, USSR

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