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**PHOTOGRAPHIC
INTERPRETATION
REPORT**

**NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER**

**SELECTED PROBABLE NAVAL-ASSOCIATED
COMMUNICATIONS FACILITIES**



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APRIL 1971

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INSTALLATION OR ACTIVITY NAME

COUNTRY

Selected Probable Naval-Associated Communications Facilities

UR

UTM COORDINATES

GEOGRAPHIC COORDINATES

CATEGORY

BE NUMBER

COMIREX NO.

NIETB NO.

NA

See below

See below

See below

See below

See below

MAP REFERENCE

ACIC. USATC 200, Sheets M0291-1HL & M0194-17HL, scale 1:200,000. 2d RTS. USATC 200, Sheet M0250-25HL, scale 1:200,000. 8th RTS. USATC 200, Sheet M0051-18HL, scale 1:200,000

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NEGATION DATE (if required)

NA

REQUIREMENT

NPIC PROJECT

DIADC-2. D-025/71

NPIC/IEG/MSD/DMEB Project 250998

PACIFIC FLEET AREA

Installation

Geographic Coordinates

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Tavrishanka Probable Naval Radio Communications Station	43-20-00N 131-54-00E
Tavrishanka AM Broadcast Station East-Northeast	43-20-00N 131-55-00E
Tavrishanka Radio Communications Station 1	43-22-40N 131-54-10E
Tavrishanka Radio Communications Station 2	43-23-05N 131-55-30E
Koryaki HF Communications Facility*	52-13-50N 158-01-50E

BLACK SEA FLEET AREA

Probable Black Sea Naval Fleet Headquarters	44-36-50N 030-31-30E
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NORTHERN SEA FLEET AREA

Severomorsk Probable Naval Command and Control Facility	69-04-50N 033-29-35E
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MOSCOW AREA

Domodedovo Radio Communications Station	55-28-10N 037-45-30E
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*Reported on, in detail NPIC [redacted] RCA-03/0025/71, Koryaki HF Communications Facility, Mar 71 (TOP SECRET RUFF)

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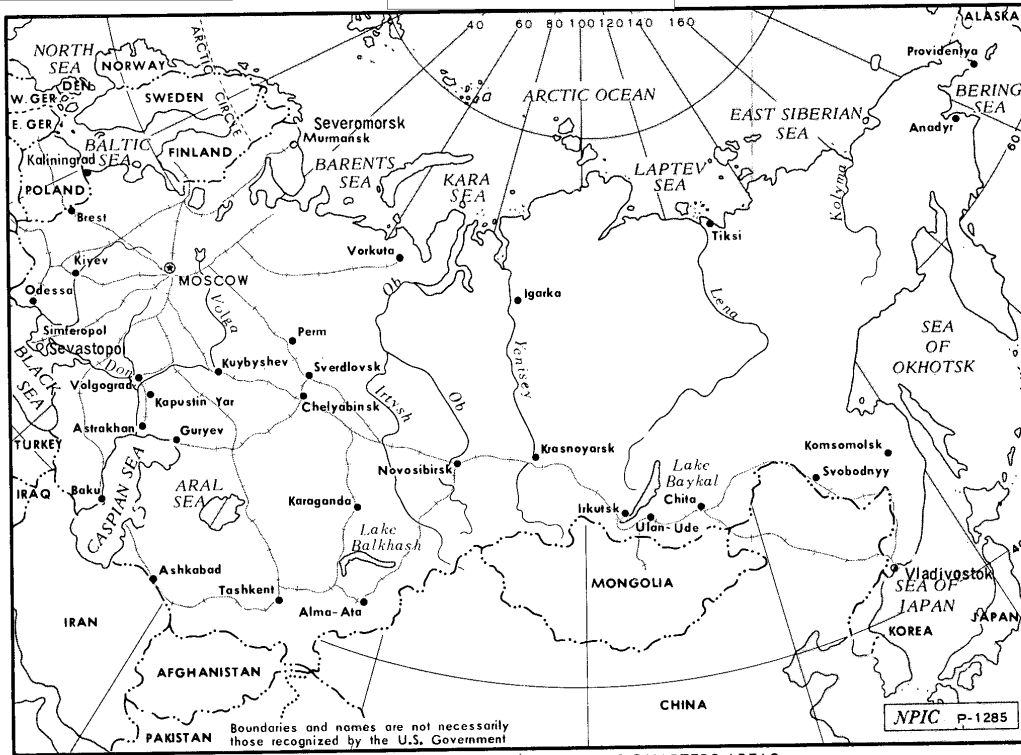


FIGURE 1. LOCATION OF THREE FLEET HEADQUARTERS AREAS

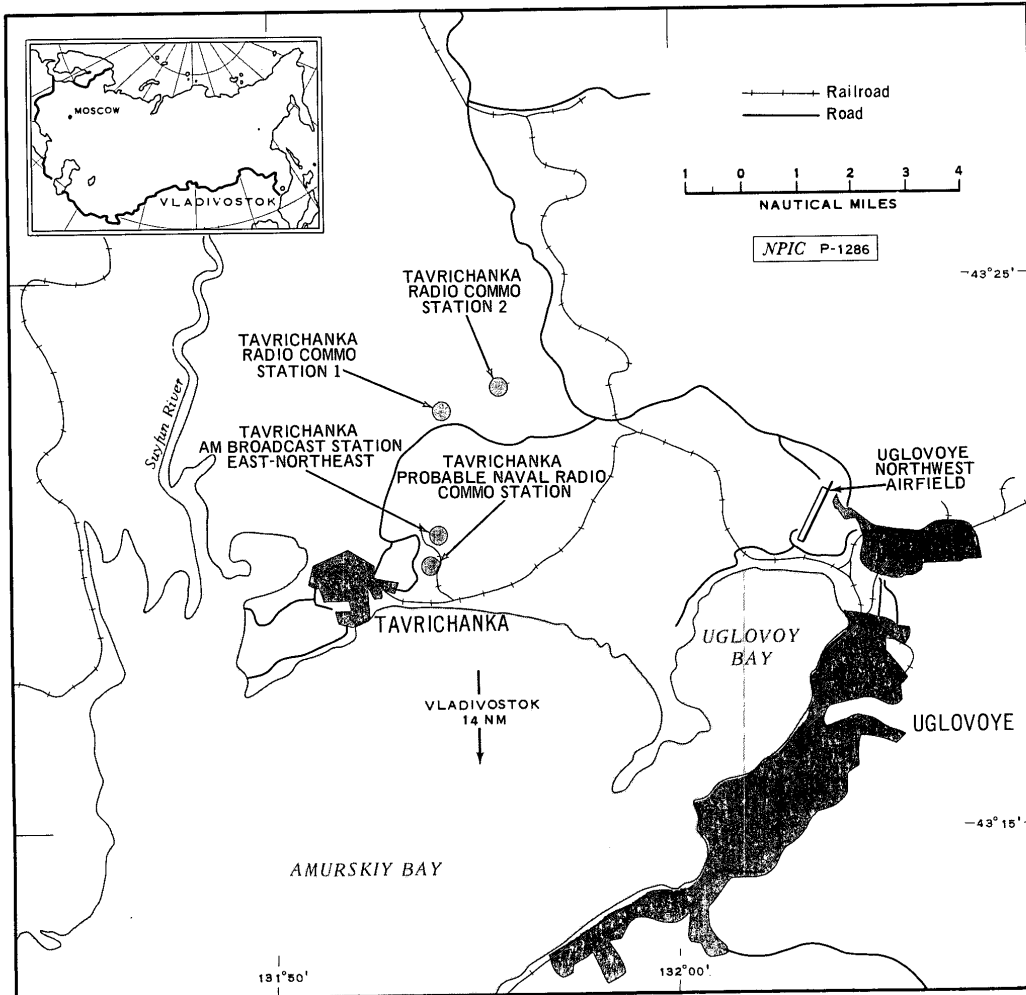


FIGURE 2. LOCATION OF HF COMMUNICATIONS FACILITIES NEAR TAVRICHANKA

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ABSTRACT

1. This report describes eight selected high-frequency (HF) communications facilities and microwave links which are available for use by the Soviet Naval Fleet Headquarters at Vladivostok, Sevastopol, and Severomorsk and the Soviet Naval Headquarters in Moscow. The report includes location maps, annotated photographs, and mensural data.

INTRODUCTION

2. The facilities described in this report are situated in three Soviet Naval Fleet areas and near Moscow (Figure 1). These facilities appear to be naval associated either because they contain antenna types and azimuths peculiar to Soviet naval communications facilities or because their locations suggest an association with such facilities.

BASIC DESCRIPTION**Pacific Fleet Area****Tavrighanka Probable Naval Radio Communications Station**

3. Tavrighanka Probable Naval Radio Communications Station is 2 nautical miles (nm) northeast of Tavrighanka (Figure 2) and 13 nm north of the Pacific Naval Fleet Headquarters [redacted] at Vladivostok. The facility contains seven tower-mounted probable cage dipole antennas, six dipole curtain arrays, a day/night pair of double rhombic antennas, a control building, and four small support buildings (Figure 3). The seven tower-mounted probable cage dipole antennas are the primary HF antennas at the facility. They are reported to be unique to the Soviet navy and appear similar to antennas identified at other probable naval-associated communications facilities at Koryaki, 1. Severomorsk, Sevastopol, and Uglovoye,² USSR.

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4. The probable cage dipole antennas have orientations permitting signal propagation seaward over a large area and appear to serve as ship-to-shore communications. An analysis of the approximate azimuths of the dipole curtain arrays and the rhombic antennas at this facility indicates probable land-based correspondents in areas of naval activity.

5. A review of older photography suggests that the dipole curtain arrays and the double rhombic antennas were probably complete by May 1968. The tower-mounted probable cage dipole antennas were in final stages of construction in November 1970, the date of the latest available KEYHOLE photography of the facility.

Tavrighanka AM Broadcast Station East-Northeast

6. Tavrighanka AM Broadcast Station East-Northeast is adjacent to Tavrighanka Probable Naval Radio Communications Station (Figures 2 and 3). The facility is separately secured and contains two vertical radiators, one control building, one square cooling pond, and four support buildings. The AM broadcast station was probably operational by June 1963, at least four years before construction began on Tavrighanka Probable Naval Radio Communications Station.

7. A probable buried communications cable appears to connect these two facilities, and a centrally located electric power substation is the source of external electric power for both facilities.

Tavrighanka Radio Communications Stations 1 and 2

8. Two other apparently related HF communications facilities are Tavrighanka Radio Communications Stations 1 and 2, situated approximately 4 nm north of Tavrighanka, with station 2 1.1 nm northeast of station 1 (see Figure 2). These two facilities were built during the same period that the later construction at the Tavrighanka Probable Naval Radio Communications Station took place and apparently derive their external electric power from the substation which serves it and the AM broadcast station.

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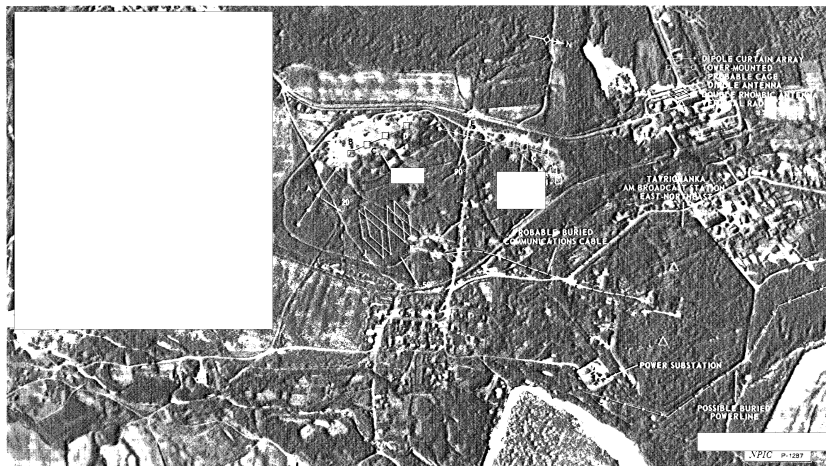


FIGURE 3. TAVRICHANKA PROBABLE NAVAL RADIO COMMUNICATIONS STATION AND TAVRICHANKA AM BROADCAST STATION EAST-NORTHEAST

9. Station 1 is the smaller and more recently completed facility and contains an undetermined number of HF rhombic and dipole antennas and two control buildings. No obvious support for this facility is observed in the immediate area.

10. Station 2 is a more extensive HF communications facility, containing, in addition to an undetermined number of HF rhombic and dipole antennas, two probable feeder buildings, one control building, three support buildings, and a large earth-covered bunker. The bunker, one of the later structures to be completed, may serve a command and control function.

11. Because of a lack of high-resolution photography, neither azimuths nor dimensions could be determined for antennas at stations 1 or 2 and no photography of the stations has been included in this report.

Koryaki HF Communications Facility

12. The Koryaki HF Communications Facility, located 25 nm northeast of Petropavlovsk, has been identified as a probable naval-associated command and control facility. A recent NPIC report¹ provides photographs, mensural data, and a detailed functional analysis of the facility. Its primary HF antennas are tower-mounted probable cage dipole antennas similar to those at Tavrishanka Probable Naval Radio Communications Station. Like those, the Koryaki antennas have orientations permitting signal propagation seaward over a large area.

Black Sea Fleet Area

Probable Black Sea Naval Fleet Headquarters

13. The reported² Probable Black Sea Naval Fleet Headquarters (Figure 4) consists of a building in Sevastopol with two R-400 microwave dishes mounted on its roof. The dishes have propagation [redacted] and appear to form communications links both with Sevastopol Radio Communications and Broadcast Transmitter Station 9 [redacted] and Bakhchisaray Radio Communications Station Naval [redacted].

Probable R-400 microwave dishes appear at both facilities. The limited interpretability of available photography of these two facilities precludes a determination of the back azimuths of antennas at these facilities.

Northern Sea Fleet Area

Severomorsk Probable Naval Command and Control Facility

14. The Severomorsk Probable Naval Command and Control Facility (Figure 5) is associated with the Northern Fleet Headquarters at Severomorsk.³ The facility contains a probable command bunker, two microwave antenna towers each with two R-400 microwave dishes, six possible R-401 (MERCURY GRASS) antennas, and two R-122 (FORK REST) antennas. One R-400 microwave antenna is oriented in the general direction of the naval-

associated Severomorsk Radio Communications Transmitter Station West [redacted],⁴ situated 2.5 nm to the west. The transmitter station contains an R-400 microwave antenna with a reciprocal azimuth, which confirms this communications link. Because of the limited interpretability of available KEYHOLE photography of the Severomorsk Probable Naval Command and Control Facility, the azimuths of the remaining antennas cannot be determined.

Moscow Area

Domodedovo Radio Communications Station

15. The Domodedovo Radio Communications Station is 17 nm south of Moscow. Its location make it the most likely candidate for a reported⁵ naval communications facility in this area. The facility reportedly⁵ contains three rhombic antennas, two R-400 microwave dishes, two R-401 (MERCURY GRASS) antennas, and a 947-meter-(3,000-foot-) long array of vertical cages. Antenna guy anchors indicating the presence of rhombic antennas can be observed on KEYHOLE photography of the station, but limited interpretability precludes identification of other antenna types. (Because of the limited interpretability, no photography of the Domodedovo station has been included in this report.)

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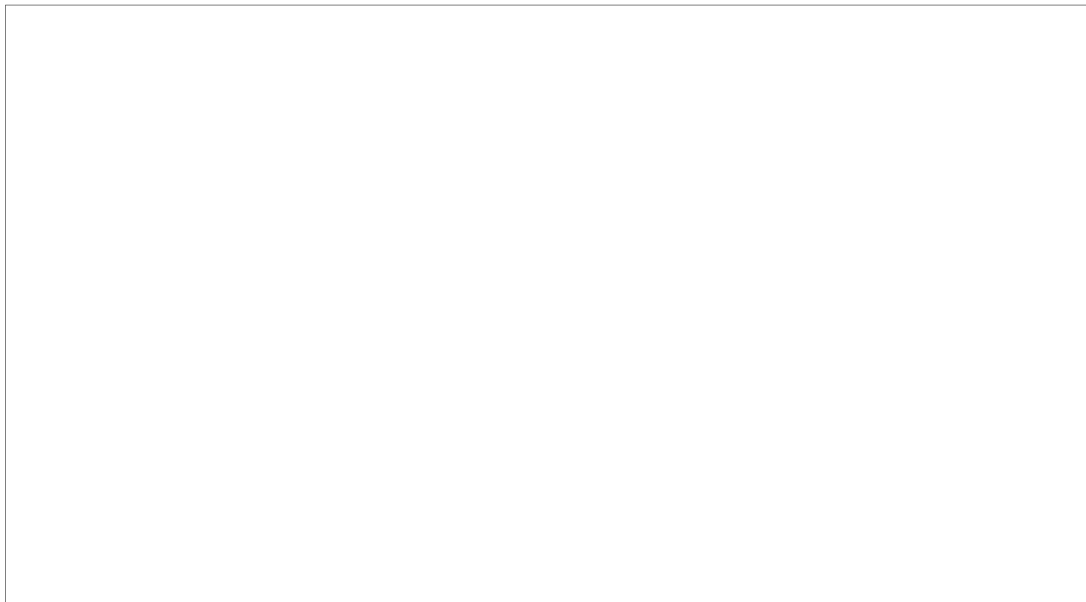
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REFERENCES

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MAPS OR CHARTS

- ACIC. US Air Target Chart, Series 200, Sheets M0291-1HL and M0194-17HL, scale 1:200,000
- 2d RTS. US Air Target Chart, Series 200, Sheet M0250-25HL, scale 1:200,000
- 8th RTS. US Air Target Chart, Series 200, Sheet M0051-18HL, scale 1:200,000

DOCUMENTS

- 1. NPIC. TCS-22083/71, RCA-03/0025/71, *Koryaki HF Communications Facility*, Mar 71 (TOP SECRET RUFF)
- 2. EDL. [redacted] *Project Yellow Tag No. 4* (U), Nov 69 (TOP SECRET RUFF [redacted])
- 3. EDL. [redacted] *Project Yellow Tag No. 5* (U), Feb 70 (TOP SECRET RUFF [redacted])
- 4. NPIC. [redacted], PIR-012/71, *Severomorsk Radio Communications Transmitter Station West*, April 71 (TOP SECRET RUFF)

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REQUIREMENT

- DIADC-2. D-025/71
- NPIC/IEG/MSD/DMEB Project 250998

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