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imagery analysis report

Upgrading of Communications Network Between USSR and Afghanistan (S)

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UPGRADING OF COMMUNICATIONS NETWORK BETWEEN USSR AND AFGHANISTAN (S)

1. (S/WN) Analysis of imagery of the Termez Troposcatter and Radio Communications Transmitter Station Northwest USSR, revealed two significant improvements in the radio communications network between strategic points in the USSR and Afghanistan (Figure 1). Three mobile TWIN PLATE (Figure 2) troposcatter sets had been replaced by three ground-mounted TWIN DISH troposcatter sets (Figure 3), and a high-frequency radio communications (HF radcom) antenna field was identified directly adjacent to the deployed troposcatter sets. These changes, along with improvements observed in Afghanistan, have greatly enhanced the permanency of this major communications line and its capability to handle increased message traffic and provide direct long-haul transmissions to Moscow. 25X1 25X1

2. (S/WN) Termez is a major border transshipment point between the USSR and Afghanistan (Figure 4). Since the 1979 Soviet invasion of Afghanistan, Termez has provided vital logistical support and rear services for Soviet military operations in Afghanistan. Recent improvements at Termez Troposcatter Station, 5.6 nautical miles (nm) northwest of Termez, reflect continued Soviet interest in maintaining Termez as a link between senior echelons in Moscow, the Soviet army headquarters in Afghanistan, and the Turkestan Military District headquarters in Tashkent. It is believed that the network established among these locations is used specifically in support of the Soviet forces in Afghanistan.

3. (S/WN) Termez Troposcatter Station, on the northern bank of the Amu Darya river, was first identified in January 1980. Since that time, equipment normally deployed there has included two R-409 CATS PAW and between three and six TWIN PLATE sets. Initially, six support tents provided the necessary administration/housing facilities. In late July 1980, the first construction activity was observed. Construction was finished in May 1981 with the completion of one single-story, rectangular, medium-sized probable control building and three smaller support buildings.

4. (S/WN) Between three of the six TWIN PLATE troposcatter sets normally deployed at the troposcatter station were replaced by three TWIN DISH sets. The remaining three TWIN PLATE sets (one modified) were not changed. Based on their azimuths (Figure 5), the troposcatter sets establish communication links between Termez and Dushanbe, USSR; Tashkent, USSR; Qonduz (Kunduz), Afghanistan; and Pol-e Khomri, Afghanistan. Because Kabul is beyond the normal range for troposcatter transmission (100 to 120 nm), Pol-e Khomri—at the optimum distance of 105 nm from Termez—probably serves as a relay point for the Termez–Kabul Communications line (Figure 6). 25X1

5. (S/WN) On imagery of an HF radcom station was identified northeast of the troposcatter equipment and support building at the Termez Station. The antenna field, which has been present since October 1981, consists of two double rhombic, four horizontal dipole, and two quadrant antennas (Figure 7). The HF antennas provide long-range transmission capability and are directely oriented toward Moscow, Tashkent, and Kabul. 25X1

6. (S/WN) Recent improvements in this Soviet main communications network have also been observed in Afghanistan. New TWIN DISH sets were identified at Pol-e Khomri Soviet Deployment Area (BE This deployment area consists ot two TWIN DISH sets and four TWIN PLATE antennas (three modified) oriented northwest toward Termez and two TWIN DISH sets and three TWIN PLATE antennas (one modified) oriented south toward Kabul. 25X1

Imagery Analyst's Comments

7. (S/WN) The Soviets have probably taken these measures to improve their strategic communications network in anticipation of a long, sustained involvement in Afghanistan. The TWIN PLATE and the more permanent TWIN DISH stations allow for an increased communications range capability to and from Afghanistan. The HF radcom station has further enhanced this communications network with its direct links to senior echelons in Moscow, Soviet army headquarters in Kabul, and Turkestan Military District headquarters in Tashkent.

REFERENCES

IMAGERY

(S/WN) All relevant satellite imagery acquired from January 1980 through was used in the preparation of this report. 25X1

DOCUMENT

1. GTE Sylvania Contract/DIA. Carnahan, Kenneth R, et al, *Soviet High Frequency Communication Antennas*, 18 Dec 78 (UNCLASSIFIED)

RELATED DOCUMENT

DIA, DDB-1100-300-81, *Soviet Forces of the Turkestan Military District (U)*, Aug 81 (SECRET/ 25X1

(S) Comments and queries regarding this report are welcome. They should be directed to the following NPIC Imagery Exploitation Group personnel: USSR topics, or green extension Afghanistan topics, 25X1

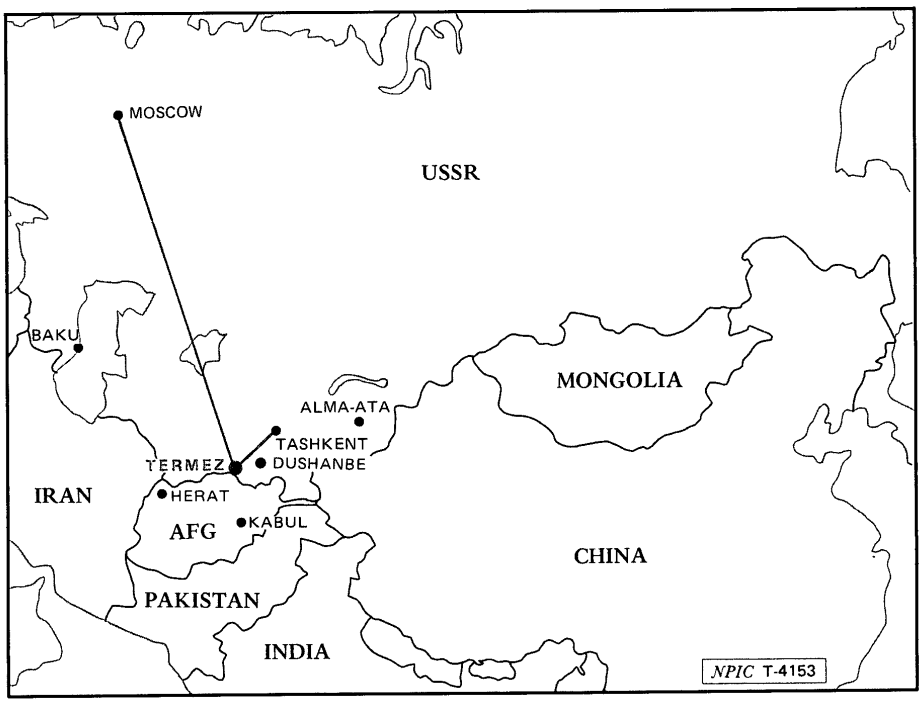

FIGURE 1. COMMUNICATIONS NETWORK BETWEEN USSR AND AFGHANISTAN

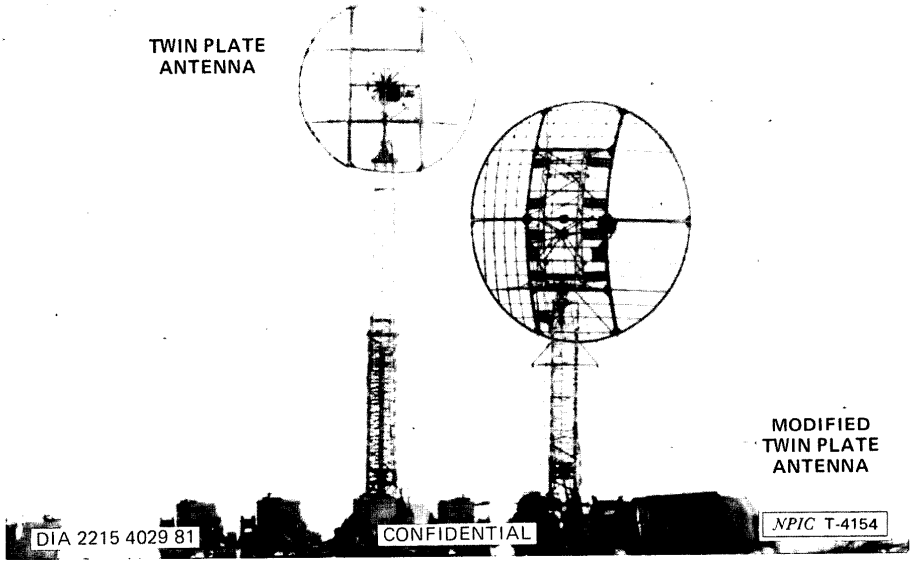

FIGURE 2. MOBILE TWIN PLATE ANTENNA SET

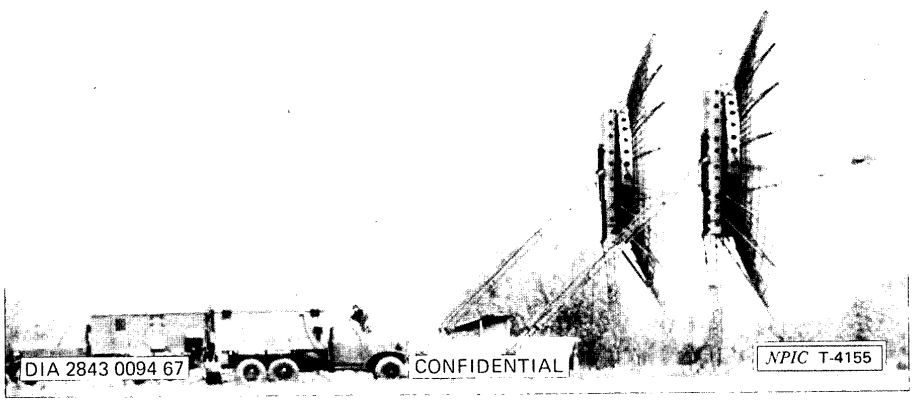

FIGURE 3. GROUND-MOUNTED TWIN DISH ANTENNA SET

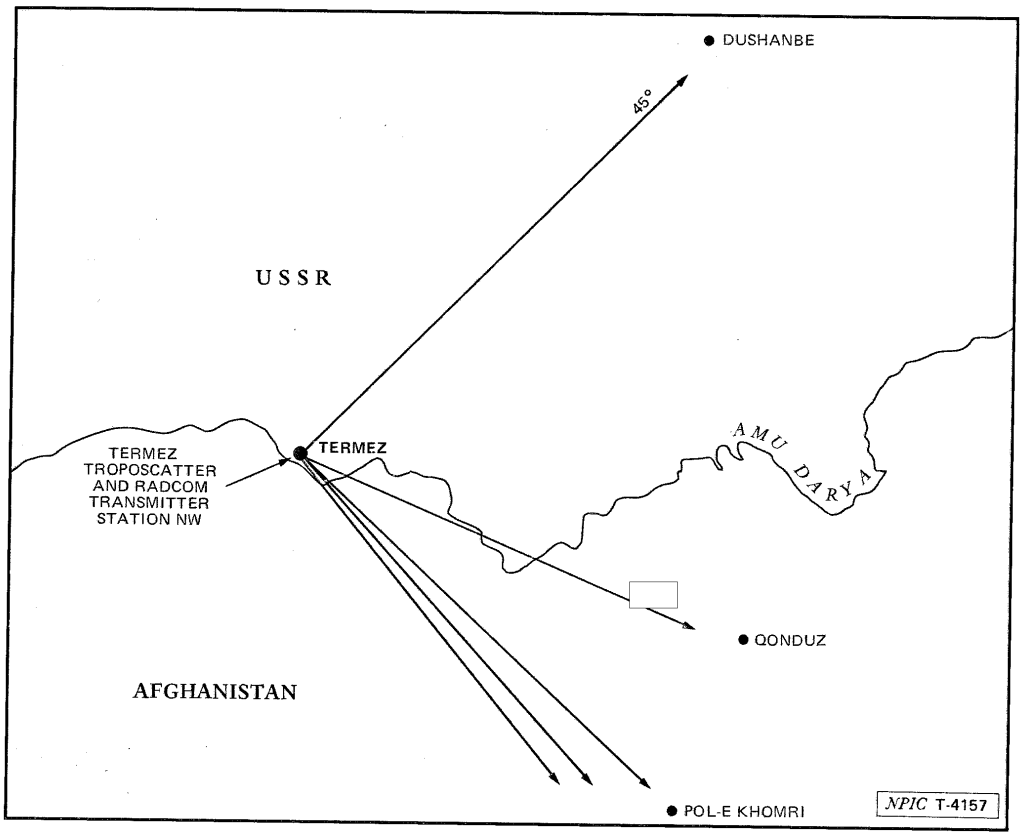

FIGURE 5. ORIENTATIONS OF TROPOSCATTER ANTENNAS AT TERMEZ

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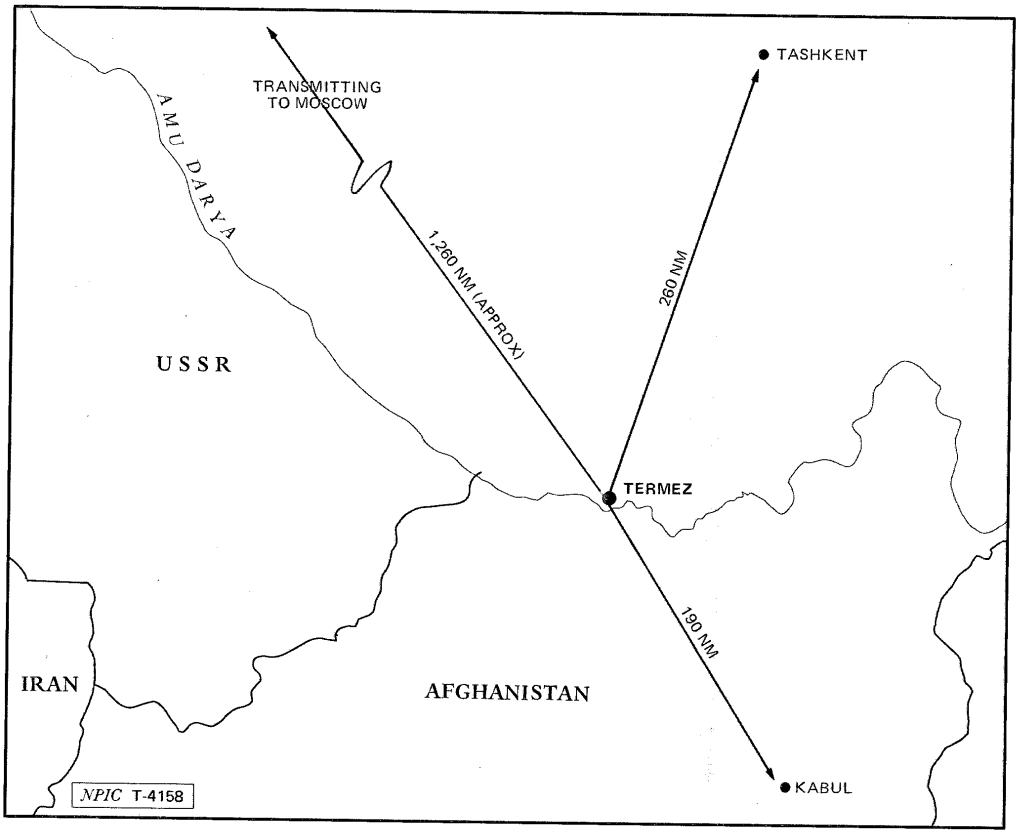

FIGURE 6. TRANSMITTING DISTANCES OF HF ANTENNAS AT TERMEZ

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