Experts Assert Soviet Monitors Capital Phones

By NEIL A. LEWIS Special to The New York Times

WASHINGTON, May 2 — The Soviet Union maintains an elaborate system for eavesdropping on sensitive United States Government communications from Soviet-bloc embassies here, according to intelligence authorities.

The authorities, who include both present and former officials, say the Russians are using embassies and residences on high points in and around Washington to intercept communications, particularly those from microwave relay stations. These stations carry long-distance telephone traffic from Government offices.

It Works Both Ways

The interception of communications works, of course, both ways. The United States has a secret agency, the National Security Agency, charged with the interception of foreign communications, including those of the Soviet Union. There have been reports that listening equipment on top of the American Embassy in Moscow is being used for that purpose.

Several members of Congress are urging the Reagan Administration to scrap a 1969 agreement that allowed the United States and the Soviet Union to build new embassies in each other's capitals.

In Washington, the Soviet Union was given a parcel of land on Mount Alto, one of the highest points in the city. In addition to having a clear view of the Pentagon, the State Department and the White House, the Mount Alto compound also has a good view of the Naval Security Station in northwest Washington, a center for secret naval communications.

Legislators who want to remove the Russians from Mount Alto also favor razing the new American Embassy

building under construction in Moscow, on the ground that it is filled with Soviet listening devices.

Intelligence experts say that even if the Russians were forced to move from Mount Alto, they would still be able to intercept from embassies and residences in the region.

"One should not think that just by depriving the Soviets of Mount Alto they would not be able to intercept our communications," a Government authority on security said. East European Activity Noted

Another official, referring to the other Soviet-bloc missions, said, "They are surrogates of the Soviets in intelligence gathering."

Several officials mentioned as prime listening posts an East German residence on a ridge in Arlington, Va., overlooking Washington, and the Cuban interest section in the Czechoslovak Embassy, two miles from the White House.

The East German residence is onethird of a mile from the Pentagon. the Polish Embassy, like the Czechoslovak Embassy, is on a hill known as Mount Pleasant overlooking the White House. Moreover, the two diplomatic missions, are between the White House and a microwave relay point in northwest Washington near Tenley Circle.

The Russians use diplomatic compounds elsewhere in the United States to collect intelligence in a similar fashion, the officials said. Microwave traffic along the East Coast is reportedly

collected by listening stations at Sovieti residential compounds in Glen Cove, L.I., and on the Maryland shore. The officials said a Soviet residence in the Riverdale section of the Bronx and the Soviet Consulate in San Francisco were ideal for microwave interception because of their elevation.

Issue of Microwave Interception

Telephone transmissions travel by microwave or by satellite, as well as by land lines. The Russians are able to intercept much of that, officials say, from an electronic complex at Lourdes, Cuba.

But the Cuban installation cannot intercept microwave transmissions that travel close to the earth. An expert on intelligence, James Bamford, said the

interception of microwave beams required receivers near the relay or repeater stations, which are placed every 30 miles or so to account for the curvature of the earth.

"Microwaves travel mostly in a straight line between the stations," he said. Mr. Bamford and other experts said interception devices did not have to be within a direct line of sight of a relay tower. The beams have side lobes that extend a half a mile or more outside of the direct beam and can be detected.

A former American official said the present Soviet Embassy in Washington was surrounded by taller buildings that made eavesdropping difficult.

"Mount Alto lets them do a large vol-

"Mount Alto lets them do a large volume uninterrupted by lots of interference," he said.

Reagan Pledge Held Meaningless

An American University professor who has written on electronic intelligence, Jeffrey T. Richelson, said of the 350-foot Mount Alto, "It is electronically quieter up there."

Because of the reports that the new American Embassy being built in Moscow is riddled with bugging devices. President Reagan has pledged that the Russians will not be allowed to move into the new embassy on Mount Alto until the United States is satisfied it has a secure embassy in Moscow. But State Department officials say this is meaningless since the Russians already occupy residences on the Mount Alto site, as do the Americans on the Moscow site.

The National Security Agency, which is also responsible for protecting American communications, has been trying to foil Soviet eavesdropping. Among plans being considered are encoding the signals that travel through the atmosphere or using telephone cables or fiber optics.

"The way it works now," a former official said, "is that when you pick up a telephone in the Pentagon to make a call, you have no idea how it is going to be transmitted."

Calls Switched Automatically

Automatic switching equipment routes the call by land line, satellite or microwave, depending on which method is most efficient at the time.

Even if a call is sent by land line, it may eventually be transferred to a microwave relay tower at either Tenley Circle or Waldorf, Md., another center for microwave transmission.

To counter this problem, the National Security Agency has developed a secure telephone that it hopes to place in Government offices and those of military contractors. The device, which encodes a conversation at the sending end and decodes it at the receiving end, is said to be cheaper and less unwieldy than its predecessors. The National Security Agency would like the Government to buy 500,000 such phones.

But for now, the growing sentiment on Capitol Hill is merely to expel the Russians from Mount Alto. Representative Richard Armey, Republican of Texas, who is sponsoring legislation to scrap the 1969 agreement that designated Mount Alto as the site, has distributed more than 500 lapel buttons' saying, "Reclaim Mt. Alto."

Some security officials said it would be better to allow the Russians to remain at Mount Alto and use the money to protect sensitive communications.