By Thomas O'Toole Washington Post Staff Writer

Two things the Japanese tried desperately to acquire during World War II were the blueprints for the jet fighter plane being developed by their German allies and the formula for penicillin being developed by their Allied enemies.

The Japanese wanted the secret of penicillin so badly they tried to steal it from the Soviet Union, with whom they still had diplopatic relations. The Japanese also sent agents to sift through the debris of a German laboratory outside Frankfurt that was attempting to make penicillin and which had just been bombed. The Japanese finally bought or stole some pencillin from a Spanish laboratory outside Barcelona in 1944.

These nuggets of fact are in once-secret documents just turned over to the National Archives by the National Security Agency, whose World War II predecessor broke the Japanese diplomatic code before the war began and systematically decoded Japanese cables throughout the war.

The importance the Japanese attached to acquiring the penicillin formula was underlined in a coded cable sent April 21, 1944 by Japan's foreign minister to his ambassador in Moscow. The cable read:

"The Soviet Union, England and America are manufacturing an extremely powerful drug called penicillin, which is making a tremendous contribution to the curing of wounded soldiers. The military authorities sent me word the other day that it is im-

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perative that we get for them the best formula for the manufacture of this medicine.

"The Soviet Union is developing the product to a high degree of excellence," the cable went on. "Although I know it will be very difficult, I wonder if you could not secretly get me some data which would enable us to reproduce this product.

Japan was unsuccessful in acquiring penicillin secrets everywhere it tried until it turned to Spain, with whom it had friendly diplomatic relations through most of the war. On May 7, 1944, Japan's minister to Madrid cabled Tokyo that he had "obtained samples" of unrefined and refined pen-icillin from a laboratory in Barcelona.

"Together with research results," the am-

bassador cabled Tokyo, "I am sending these samples as soon as possible by submarine,"

It is unclear from the documents whether Japan was able to profit from its penicillin coup, just as it is unclear what transpired from the Japanese attempts to secure the German blueprints for the jet fighter plane.

As early as Feb. 25, 1944, the Japanese military attache in Berlin cabled Tokyo that the Messerschmitt Co. was testing a jet fight-

er plane.

"It is of immediate importance that we negotiate an agreement with the Messerschmitt Co.," that cable said. "I have it from a secret source at Messerschmitt that the end of 1944 will see the appearance of a practical jet-propelled fighter."