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## The President Wants to Use the Phone January 30

When Dwight Eisenhower became president he was the best informed Chief Executive on defense, security, and intelligence matters the country had ever had. He had learned to use SIGINT well as a senior officer in World War II and as commander of NATO, but he also had a strong sense of communications security (COMSEC, as information assurance was then known). His knowledge of the need for COMSEC helped drive development of the secure telephones of his day.

The Army Security Agency asked NSA in late July 1954 to procure 15 units of the new device AFSAY 801, then under development [later known as the KY-1] on behalf of the White House. The president's office required two units, his living spaces one, two each for the offices of the Secretaries of State and Defense and one for their homes, and one for the G-2 in the Pentagon.

In early August 1954 BG Carroll, a permanent staff officer on the National Security Council, in reminding ASA that the president wanted secure telephone communications with the Secretary of State, noted that the president was certain about what he did and did not want. Eisenhower would be satisfied with a single point-to-point unit and did not need a communications network, but would be interested in any successor equipment.

On the other hand, there was one major requirement: the president did not want anything larger than a desk-top telephone, any equipment that required guarding, or anything that would mean "installation inconveniences" to either living or office spaces.

General Ralph Canine, director of NSA, based on the clarification from General Carroll, informed the Commander of ASA that the number of engineering models for the AFSAY 801 had to be increased by ten in order to meet the White House need. Canine reminded him that development of AFSAY 801 had not been completed nor had a formal procurement contract been concluded. Until then, NSA would keep the current White House equipment under observation to see whether it needed replacement with the 801.

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As its development progressed, the AFSAY 801 was redesignated "KY-1." The KY-1 was a half-duplex wide band speech security device designed to provide secure voice communications point-to-point and through a switchboard. It used a desk unit similar in appearance and performance to an ordinary dial telephone, but was a push-to-talk device.\* NSA had given CIA a number of units for testing in May 1955 and was making test models available for the military services in the summer.

Two of the three units installed at the White House operated on a 24-hour basis. After observation, in July 1955, the machines required minor adjustments, including trimming the key cards that controlled them, and realignment of a locking pin on the card reader.

The early deployment of an experimental model of an advanced device stimulated requests for more units by government organizations in the know.

NSA began to resist as the demand for KY-1 units increased. When, in October 1955, the Army Security Agency applied to NSA to obtain a unit for the CIA, which would then have been responsible for protection of classified materials in the White House, NSA replied that a unit would not be available until early January. All NSA's KY-1 equipment was committed to testing or engineering studies, NSA explained, and any diversion would delay actual procurement in quantity. The program would be reviewed early in February to see what could be spared for these requirements.

As with many occupants of the White House, the president's expectations and demands increased over time. And, presidential-level requests were difficult, if not impossible, to deny.

By October 1955, the White House Signal Agency asked the Army Security Agency to provide four KY-1 units for use at the president's home in Gettysburg. ASA provided these units out of five it had on hand for testing, and applied to NSA for equipment replacement.

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Later, the White House required two additional KY-1 units for use between Washington and Gettysburg, and four units to be used between the White House and Camp David, the presidential retreat in western Maryland. This extra equipment was needed to convert the KY-1 circuits to duplex operation. The president was dissatisfied with "push to talk" communications and ordered full duplex operation. This required two KY-1 sets in each direction, but wired together into one desk telephone set.

Some of the needed equipment was loaned to the White House by CIA, diverted from a consignment shipped by NSA in March 1956.

\* A communication unit in which the speaker has to keep a button pressed while talking; when the other communicant is talking, the button is let go. The most common example of a push-to-talk device is a walkie-talkie. But, this was also a characteristic of military field telephones and, as the article notes, some early COMSEC devices.

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