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National Security Agency Satellite Identification System. NORAD's desire for a system augmenting SPADATS that would determine the purposes of satellites launched by the USSR took a step toward fulfillment in December 1961 when the Secretary of Defense approved a NSA program to set up a ring of ground stations around the Soviet Union to intercept the electro-magnetic emissions of Soviet space vehicles. Scientists expected that after some experience had been gained it would be possible to determine with a relatively high degree of accuracy the purpose of each Soviet satellite shortly after its launching.

The NSA system called for five surveillance stations ringing the USSR and three more equally spaced along the equator, plus gap fillers as required. NSA was to integrate the stations into a system controlled by a national center. The system would not only meet high-priority U.S. intelligence requirements, but it would also supplement NORAD's SPADATS. 1965 was the date set for the completion of the system.

The stations were to be manned by the three service cryptologic services (USASA, NAVSEGGRU, and AFSS). They would be supported in the site acquisition, personnel, logistics, and produrement areas by the appropriate military agency. In order to conserve funds, and possibly to speed up the program, DOD directed that sites be selected that already had facilities in place and required as little additional construction as possible.

The order to use existing facilities raised a question regarding the Alaska station. The use of existing facilities in Alaska for the NSA project would have required the deactivation of one of the Alaskan radar sites. After surveying the situation in Alaska, CONAD and USAF decided that early warning and weapons control capabilities in Alaska were already at a minimum level; the loss of a radar site would be intolerable

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from an air defense point of view. Consequently, USAF and CONAD concluded that the NSA facility should be located at other than an existing radar site. USAF recommended Nome. They said that building a new facility at Nome would be cheaper than refurbishing a present site at a cost of about \$7 million, plus paying out another \$7-\$10 million to build a replacement radar site.

MISSILE DEFENSE ALARM SYSTEM (MIDAS)

In the fall of 1961, the Secretary of Defenses set up a MIDAS Ad Hoc Group, chaired by Dr. J. P. Ruina (Director of the Advanced Research Projects Agency), to study the MIDAS program. In December, the Ruina group issued the following conclusions:

- a. MIDAS can probably be made effective against liquid fuel rockets, though this is not certain.
- b. There is doubt that MIDAS can be made effective against solid fuel missiles in the next few years, if ever.
- c. The present MIDAS design is so complicated that it probably will not be reliable enough to warrant deployment.
- d. The system's need for more research and technological development rules out an early operational date.
- e. MIDAS will not be available before 1966, and perhaps not even then.

Still, the Ruina group thought a MIDAS system would meet significant military and political needs. It thought, too, that it was probably possible to develop a re-designed, simplified MIDAS that would be effective against mass ICBM attacks. They recommended, therefore, the

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