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## CHAPTER 5

### NUDET, BOMB ALARM AND B/C REPORTING SYSTEMS

#### NUDET REPORTING SYSTEM

Early in 1960, DOD instructed USAF to develop, procure and install an automatic nuclear detonation reporting system. An Air Force development plan was approved by the Secretary of Defense for implementation in October 1960.

The NUDET System (477L) Program was divided into two phases. Phase I (prototype) was to be designed to provide positive information of a nuclear detonation within the Washington, D.C. target area. Phase II was to be designed to provide a capability for determining the occurrence of a nuclear detonation within specified target areas of the United States and Canada, and to furnish burst data required for attack assessment, fallout warning and damage assessment.

The Secretary of Defense directed that Phase I of 477L be put into operation as soon as practicable. On 5 February 1962, the Air Force awarded a contract to General Electric for installation and testing of a prototype system and for development of the basic design for the final system. On 8 August 1962, Headquarters USAF advised that ADC was designated using USAF command of the NUDET System. It was to be operated by ADC and to be responsive to and under the operational control of CINCNORAD.

The Phase I installation was to consist of four sensor sites (seismic, optical and electromagnetic sensors) and one Regional Data Processing Center (RDPC) located in the Washington, D.C. area. The sites recommended for this experimental system were: P-30, Benton AFS, Pennsylvania (RDPC and sensors); P-55, Manassas AFS, Virginia (sensors);

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[ 47 ]

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P-55B, Hermanville, Maryland (sensors); and P-55F, Thomas, West Virginia (sensors). Readout points would be at NORAD, SAC, CINCLANT, High Point, Presidential Site "X," and four additional unspecified locations. The 477L experimental system was scheduled to have an initial operational capability by 1 April 1963 and final operational capability by 31 December 1963.

The Phase II 477L System Program was returned to the SPO for re-study. The SPO was directed to provide back-off positions, commensurate with the state-of-the-art, cost/effectiveness, and systems in being or to be implemented the same as bomb alarm and Phase I 477L. The Phase II 477L System was being restudied.

#### BOMB ALARM SYSTEM

A bomb alarm system was developed for the Air Force by the Western Union Telegraph Company which would automatically report the time and location of nuclear detonations to Headquarters NORAD and other key military and civilian agencies. Following completion of tests in August, the system was declared operational at 0800Z, 1 September 1962. The system consisted of sensors at 98 locations in the continental U.S. and at the BMEWS sites at Thule and Clear.

Headquarters NORAD confirmed a requirement to instrument BMEWS Site 3 with Bomb Alarm Detection equipment when it became operational in 1963. However, it was recommended that a firm decision be held in abeyance pending further investigation of a means to reduce the estimated high cost of leased circuitry.

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