AAU — Used in conjunction with MINISID III, the *Acoustic Add-on Units* were auxiliary devices that detected and transmitted sounds within the sensor field back to the watch station.

Once the MINISID detected intrusions, the AAU was triggered with the resulting acoustic information transmitted to the watch station operator for identification. The type of intruder could be deduced from its sound pattern.

DIRID — *Directional Infra-red Intrusion Detectors* were employed to sense temperature differences between an intruder and the background. As a passive optical device, with two fields of view, DIRID were capable of confirming an intruding presence and reading the direction of movement.

Each sensor field, consisting of the sensor types described above, relayed data to a watch station where radio frequency transmissions from individual sensors were automatically received, decoded and displayed on a chart recorder. The order and rate of the activations along the sensor strings were monitored by an operator. By following the progress of an intruder through the sensor field, the observer could determine the location of the intrusion, the direction and speed of travel, the number of objects, and their approximate size. Final identification of the intruder was made in the watch station using visual aids. During daylight hours, observers used powerful wide-angle Zeiss 15 × 60 prism binoculars to confirm authorized movements or to identify the exact nature of unauthorized objects or movements.[13] For night operations, observers used terrestrial telescopes with high-powered wide-angle image intensifiers. These devices permitted watch station observers a range of 20 km during the day and 5 km at night.[14] At Gidi West, however, where the sensor field was only covered by an unmanned watch station, a remotely controlled imaging infra-red sensor was used to produce images similar to a television picture.

While sensor surveillance proved capable of producing timely information regarding the nature of intrusions, there were conditions under which the ability of the SFM to identify activity in the sensor fields deteriorated. In particular, conditions of poor visibility created by dust or ground fog often precluded optimum use of the optical and electro-optical equipment.[15]

[13] David Barton, "The Sinai Peacekeeping Experience", p. 547.

[14] *Ibid.*

[15] In order to overcome this problem, SFM technicians began working with thermal imaging devices. Similar to FLIR (forward-looking infra-red system), these devices detect infra-red energy emitted by objects within the field of view and are insensitive to visible light. Since thermal devices receive the longer wave length infra-red energy, dust and fog are less of a problem than for visible light equipment. See United States Sinai Support Mission, *Report to the Congress*, April 13, 1978, p. 12.