

ADDENDUM TO SUMMARY SHEET

OCT 8 1956

SIGCS-1b

SUBJECT: Acquisition of Additional Land, Fort Huachuca, Arizona

- 1. DCSLOG
- 2. Asst Sec of Army (FM)

DISCUSSION

1. The Army Electronic Proving Ground was established at Fort Huachuca, Arizona by Department of the Army, General Order Number 2, 14 January 1954. Since that time the major effort of the Command has been expended in formulating and organizing the technical program and in rehabilitating and establishing adequate post facilities to support this program.

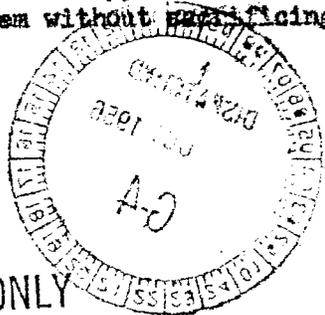
2. The success of military operations is largely dependent upon a commander's knowledge of the enemy. An accurate up-to-the-minute picture of the battlefield situation is vital to modern warfare. Modern weapons and other instruments of warfare have increased the battle area and the consequent information required and have decreased the time available for command decisions. However, methods of gathering, processing, and transmitting the information necessary to military operations have lagged.

3. The ranges of many weapons extend far beyond the front, allowing the engagement of the enemy at a distance. Modern vehicles provide means for rapid maneuver and shifting of personnel and material, but the methods for collecting, processing, and disseminating information remain essentially as they have been during the past. Current information-gathering is for the most part limited to line-of-sight, with little capability during darkness or bad weather.

4. The problem of Battle Area Surveillance is further complicated by the development of nuclear weapons. Targets of opportunity must be located and fire brought to bear before the target can be dispersed.

5. There are, in addition, the further requirements for continuous surveillance of the battlefield under all weather conditions; for gathering all information of military significance, not only on enemy forces but on friendly forces as well; and finally, for achieving a completely mobile and highly flexible system without sacrificing effectiveness.

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6. The urgent need for improving the information-handling functions of the Field Army has been recognized and a program for a Battle Area Surveillance System has been initiated by the Signal Corps at the Army Electronic Proving Ground. Two principal types of instrumentation are required by the Proving Ground to accomplish its mission in testing and evaluating surveillance devices and systems.

a. An area which can be used for maneuver and tactical testing of prototype Battle Area Surveillance Systems. An instrumented, drone aircraft range is of particular importance at this time because of the potentialities of the drone aircraft as an aerial vehicle to carry sensory devices over enemy territory, collect and record surveillance information, and return. Such a range must be instrumented for close control and monitoring of drone aircraft both for safety reasons and for purposes of close study of drone performance and operational technique.

b. An area of simulated and artificial targets which can be used for controlled field tests of surveillance devices, either from the ground or from the air.

7. The drone program requires instrumentation for launching, testing, controlling, telemetering, and navigating. Some of the equipment will be permanently sited for efficiency in routine or frequently repeated operations. For safe control of drone operations, monitoring stations located every ten miles and air surveillance radars located every 35 to 45 miles are required.

8. The area of simulated and artificial targets will contain various types of military targets including dummy moving targets, bivouac areas, dummy tanks, dummy troops, and decoy command posts. At one end of the area, provisions will be made for the siting of ground-type sensing devices such as radar and infrared. Other types of sensory devices can be tested from the ground and from the air against military targets in dummy or simulated form in this test strip. Silhouette targets representing personnel, tents, buildings, and vehicles -- under remote control from one end of the test strip -- will expedite comparative testing of surveillance devices under somewhat controlled conditions with a minimum of expenditure of man-hours of labor in constructing targets. Since some ground-based devices have ranges of more than 20,000 yards, the test strip must be this long. 1,000 yards is considered to be a reasonable width.

9. The success of ground combat forces in modern warfare depends to a very large and steadily increasing extent on the employment of electronic equipment and systems. We must be in a position to retain the use of the electromagnetic spectrum and at the same time deny its

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use to the enemy. In recent years electronics has been applied to weapons and weapons systems, greatly increasing their destructive capability by improving the accuracy of the weapon and by permitting optimum operation of the system with the use of radar by both air and ground forces.

10. Intelligent use of electronic countermeasures places an additional valuable and effective weapon in the hands of the field army commander since it is an effective defense against these electronic weapons systems.

11. In order to execute fully electronic warfare responsibilities, the Army Electronic Proving Ground requires two large firing ranges. Bankers will be constructed along the ranges to protect both the personnel and equipment used to test countermeasures against weapons and projectiles of varying calibers and timing.

12. Of necessity, the requirements of the Army Electronic Proving Ground are dependent upon performance characteristics and field test and employment of weapon systems still in the research and development stage. From the above comments, it is obvious that large land areas, unpopulated, are required to fulfill the mission in electronic warfare dictated by advancing techniques of warfare both of this nation and others. This request for additional land is necessary because of the percent of utilization of the present area (see table below) has approached the saturation point leaving no area available for required test sites.

a. Area contained in built-up area, existing or planned (including Libby Air Field) is 23%.

b. Forested area necessary for watershed and erosion control or unsuited for testing due to terrain is 40%.

c. Area presently in use for test sites is 22%.

d. Miscellaneous areas (cemetery, recreation area, ammunition storage, traffic flow, etc., is 15%.

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RECOMMENDATION

It is recommended the above justification be considered for approval of the request for re-acquisition of land, formerly the original Fort Huachuca site.

FINAL COORDINATION

None required.

SIGNED

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