

Secret
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
DIRECTORATE OF REQUIREMENTS

GOR NO. 80-2

DATE Sep 26, 1958

(S) AN ADDENDUM TO A
GOR FOR
A RECONNAISSANCE SATELLITE WEAPON SYSTEM

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VII. OPERATIONAL PERFORMANCE.

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K. Electronic Reconnaissance Subsystem

1. General

a. The electronic reconnaissance subsystem must provide the ability to intercept electromagnetic emissions from potential enemies, to return the intercepted information in a secure manner, to an appropriate location, and to record this information in a form suitable for further processing.

b. Development of the electronic reconnaissance satellite will involve maximum equipment progression, utilizing state-of-the-art equipment without inhibitions of past techniques and custom on intercept, recording, and processing. The most advanced equipment possible must be employed as early in the program as is permissible within operational considerations and equipment availability.

c. Operational Characteristics

a. The electronic reconnaissance subsystem should provide electronic reconnaissance intercept equipment in the band of frequencies between 30 mcs and 40 kmc in easily substituted modular form.
30 mcs to 50 kmc

b. Emphasis will be placed on the interception of new or unusual signals for technical intelligence as opposed to the requirements set forth in Part I of Volume III of the USAF ELINT Objectives and Requirements List, 4 Dec 1957.

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The capability of interception of not only pulse
AM, FM and unusual modulations will be provided.
should be preserved to the greatest extent possible

The system or systems should have the capability
to deviate from the known. On detection of
signals should be made for stop-start receiver scan
and record such signals as long as possible.

It is desired that the direction finding
accuracy be to within five miles. However, this
accuracy is a high order technical collection, not
a capability.

The system should be developed to allow pro-
grammable equipments to select areas of interest versus
time concern during any given orbit. This includes
the capability, if desired, when the satellite is over areas

A capability of storing intercepted data from
the satellite to facilitate the readout during a later
readout station should be provided.

A system to continually provide calibration data
to the communications subsystem and to the data processing
subsystem. This calibration data is necessary for
the most reliable intelligence information possible

Appropriate ground support equipment must be
provided and calibrate all elements of this subsystem.

JAMES FERGUSON
Major General, USAF
Director of Requirements
DCS, Development