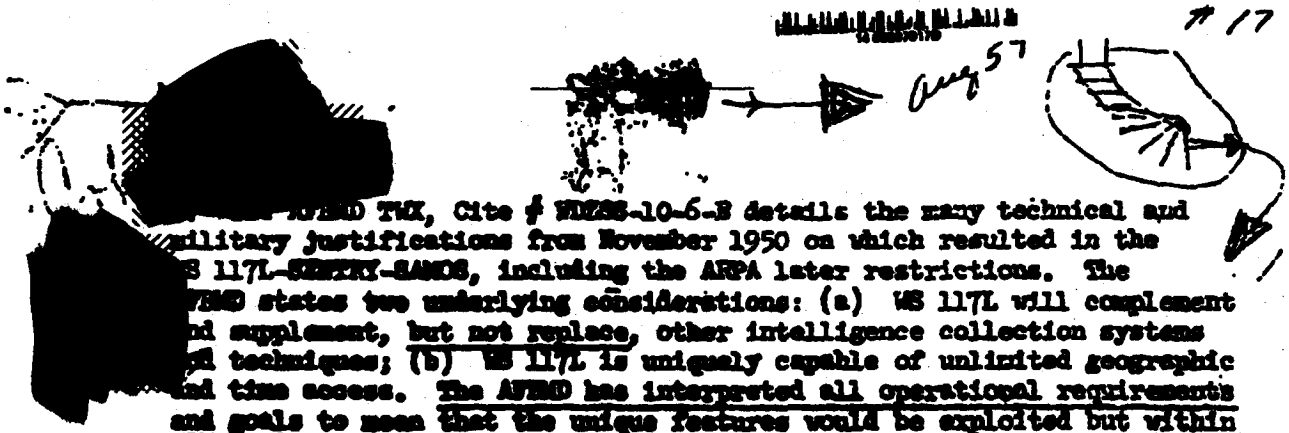


AFBMD TWX, Cite # WDZSS-10-6-E details the many technical and military justifications from November 1950 on which resulted in the WS 117L-SENTRY-SAMOS, including the ARPA later restrictions. The AFBMD states two underlying considerations: (a) WS 117L will complement and supplement, but not replace, other intelligence collection systems and techniques; (b) WS 117L is uniquely capable of unlimited geographic and time access. The AFBMD has interpreted all operational requirements and goals to mean that the unique features would be exploited but within the context of all sources of intelligence collection.

2. The AFBMD defines the subsystems as follows:

SUBSYSTEM E: Visual reconnaissance subsystem provides retrieval of data by electronic readout to ground stations (20 foot resolution) or by physical recovery of exposed film from the satellite (5 foot resolution).

SUBSYSTEM F: Electronic ferret subsystem to measure characteristics of emitters operating in USSR and to transmit the measured data to US ground stations.

SUBSYSTEM I: A ground data handling system for processing SAMOS reconnaissance data.

3. The TWX does not answer the basic question asked: What reason do we have for combating the opposition statement that the AFBMD plans call for R&D on many subsystem advances so that it is an R&D project for many years? The fact is the AFBMD has consistently fought against the ARPA restrictions on their original long range plan. The AFBMD TWX states the WS 117L is in an advanced state of development, but a few years are required to achieve the operational goal capability. Development consideration must be kept paramount during the development program if we are to achieve a true reconnaissance capability in the shortest overall period of time. In fact, the AFBMD has replied to USAF, 16 July 1959, that "the requirements of implementing a disarmament plan are more stringent than those to support SAC. Therefore, the development agency must retain operational control."

4. On the other hand, the ARPA Space Technology Review of 9-15 September 1959 gives their estimate of a completion of operational feasibility tests as SAMOS-ferret and visual readout-Jan 1962, visual recovery-July 1962. The issue is clear, if we want to promote an early transfer of SAMOS to USAF. We must change our insistence many years R&D to one of calling the extra R&D a follow-on improvement after feasibility is demonstrated by the first flights.

SECRET

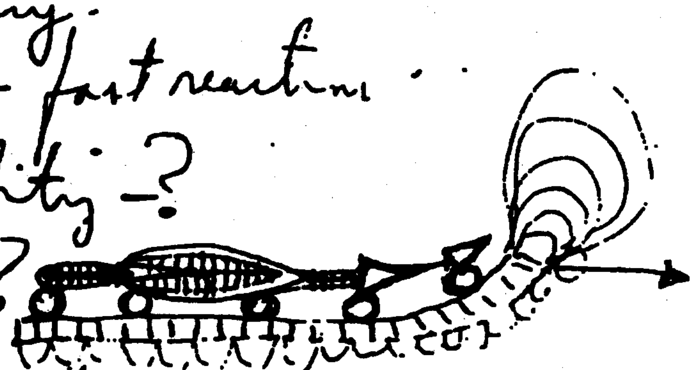
SAMOS CHRONOLOGY - 1956-1959

28 May 1956	USAF Scientific Advisory Board recommended vigorous support of evaluation of reconnaissance satellite.
1957	National Academy of Sciences (ARDC study group on R&D objectives for USAF). Recommended earliest possible development of reconnaissance satellite.
9 Oct 1957	Scientific Advisory Board to Chief of Staff. (Dr. Stever, Chairman) Recommended that satellite surveillance system be developed at earliest date.
14 Mar 1958	Air Force Ballistic Missile Committee: Decided to accelerate WS 117L to begin test vehicle launching by November 1958.
Apr 1958	USAF Scientific Advisory Board: Recommended that WS 117L program be re-oriented to place emphasis on faster data recovery for visual system.
1958	Summary report of the National Academy of Sciences (Committee on Reconnaissance and Intelligence): Recommended full support of WS 117L.
16 Feb 1959	ARPA Order No. 9-58, Amendment No. 8: Approved in general re-oriented SENTRY program presented 4 February 1959 by the AFBMD to ARPA.
3 Apr 1959	ARPA Order No. 9-58, Amendment No. 10: Approved. The AFBMD SENTRY readout plan of 30 Jan 1959 for visual readout, visual recovery and ferret readout.
26 May 1959	ARPA-directed deletion of SENTRY mapping program.
24 Jun 1959	ARPA limits SENTRY to $135 million and defers recovery program ($25 million) pending review.
10 Sep 1959	OSD approves recovery program within $148 million project total.

1- Requirement - ?
- Order of battle -
- State of economy.
- Surveillance - fast reaction.

2- Technical feasibility - ?

3- Other systems ?

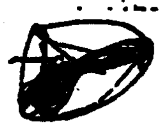


Capability -

June 1946 - Rand ⊲—

4. Operational cost ? • Contractors -

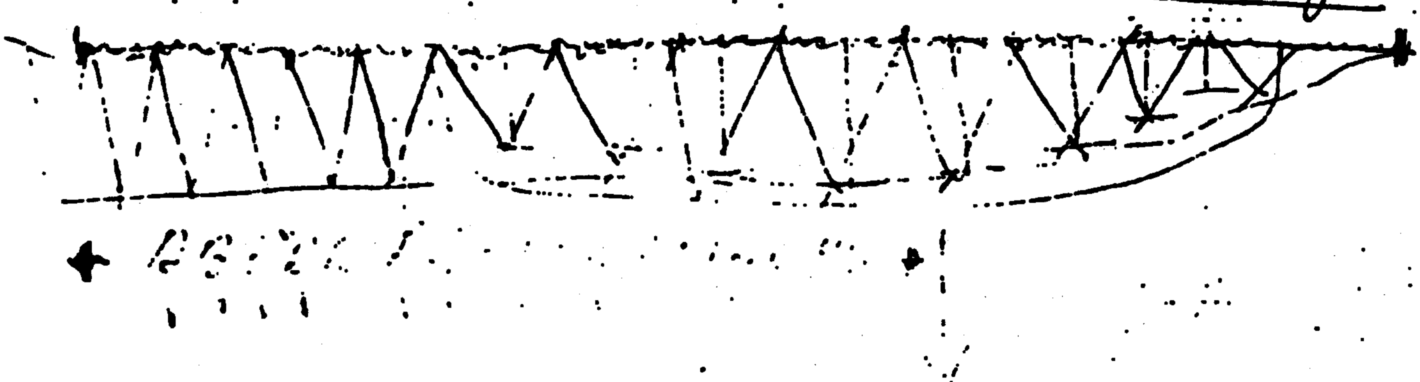
Ops. plan (R/st) . Scientists + Eng



anyone time - . Experts -

→ Every year - new shifts - new justification

1- Intelligence - We have never had enough -



~~How Dev. pl.~~ —

- Ground testing — emphasize —
- Operational survey — How much —
- $ — package —
- Recovery plan — back up
- Requirements (Warning) - Readout
  - Walsh -
  - Simplicity
- Pictures - simulated — during next 5 yrs —