CHRONOLOGY

1951- RAND study envisions TV-like pictures from space. Recognizes that technology is not currently available.

1957-Ike authorizes building of an imaging satellite

1957-Work begins on SAMOS, as part of WS-117L, a very ambitious Air Force constellation of recon satellites.

1962(?) Development Projects Division, DDP, CIA founded. Renamed Office of Special Activities (OSA) in 1962, pl-1, DS&T History.

April 1963- USIB study on reducing satellite vulnerability recommends NRT tasking and readout. CIA/OSA begins study on covert satellite. 5114.

Nov 1963- OSA, DST/SAS, and OSI conclude that time between collection and analysis critical to I & W intelligence. 5114

June 1964- CIA/OSA reports to DNRO on desirability of NRT satellite. 5114

July 1964- ZOSTER (CIA/OSA), study begun, to investigate various NRT-associated technologies. Four contracts let:
   1. reuseable photo-sensitive material
   2. vidicon tube
   3. video-transmitted photo simulation
   4. guidance system 5114

Mar 1965- ZOSTER had produced few conclusions. Reduced to a development planning exercise and assigned to Les Dirks' Design and Analysis Div. 5114

Oct 1965- OSP (Office of Special Projects) founded, including D&AD. 5114 OSA transitioned into aircraft operations only.
Dec 1965- OSP study begun; pursued NRT possibilities. 5114

Late 1965—given contacts to develop photo-sensitive elements: a solid-state device. 5114.

1965 & 66; Parallel efforts underway:
- CIA-NRT using new technology
- AF- NRT using GAMBIT 5114

15 Sep66- SAFSP briefed COMOR on FROG. 5114

22-23 Sep 66- OSP briefed COMOR on ZAMAN. 5114

23 Nov 66- EXCOM curtailed level of effort on FROG. 5114

Nov 66- Aug 67- Tidwell study on FROG vs NRT, directed by DCI Helms. 5114


June 67-Thomas Appleberry joined OSP. Appleberry interview.

Aug 67- ZAMAN created in OSP to develop various technologies to the point where a specific system design could be initiated. Two years funding at 5114. Frank Eliot and Thomas Appleberry joined ADV SYS BR. OSP phone book.

14 Feb 68-DCI Helms sent Tidwell Study to NRO for comment. 5114

15 May 68- Dirks "Blue Book" published. 91T-037

May 68- Land proposes a full-speed effort on EOI, with at least in funding. 5114 (May be 1969)

Nov 1968- given to ZAMAN by NRP EXCOM for NRT development. 5114
18 Dec 68 - Land Panel briefed by Frank Eliot, OSP, on solid-state technology. Panel endorses it as the most promising of the technologies under study. 5114

Jan 1969 - Technology development on relay satellite began 5112.

1969 - CIA study on the impact of a NRT system on intelligence production -- 91T-055.

Mar 1969 - NRO responded negatively to Tidwell study. 5114

Jun 1969 - DNRO McLucas sends USIB message favorable to Agency NRT work. 5114

Jan-Jun 1969 - Inlow study on effects on user community and NPIC of a NRT system. 5114

15 Jun 69 - DORIAN (MOL) cancelled. 5114.

Jul 1969 - USIB approved requirement for an NRT system. 5114

1 Aug 69 - Photo Systems Div formed in OSP, to merge CORONA and HEXAGON people. 5114

Aug/Sep 1969 - Project financing revamped: authorized to pursue solid-state effort with no system-level design work authorized. 5114.

Nov 1969-Jan 70 - Fubini Panel eventually threw cold water on NRT. 5114

1970 - Program B had a modest effort underway to develop an BYE 119558-78.

14 Feb 70 - Fubini Panel report-serious technical problems and uncertainties about solid-state devices. 5114.

27 Feb 70 - Dirks rebutts Fubini Panel with support from Dick Garwin, a Fubini Panel member. 5114. (some question about his being a Fubini panel member)
18 Mar 70- Joint meeting of Fubini and Land Panels, with Garwin chairing: results more favorable to EOI.

April 1970- Program Office formed in SD.

Late July 70- ZAMAN becomes a separate program in OSP, with Charles Roth as Project Director. Known internally as EOI Program.

Sep 70- System definition RFP issued.

Oct 70- Completed testing of I/S to R/S antenna.

Nov 70- Contract Review Committee begins looking at system concepts.

9 Dec 70- EXCOM still not satisfied, put off considering system development until Jan 71.

Jan 1971- OSP asked for new bids; program divided into 5 segments: relay, IS, C & C, PF and SI.

15 Jan 1971- Memo from Wm. Rogers, SECSTATE, to DCI Helms on the benefits of FROG over EOI.

Spring 71- USIB examines alternatives to ZAMAN, because of concern over the time it would take to IOC (late 75).

Spring 71- Created after DIA simulation cast doubt on area coverage capability in frame mode during crisis. Brownman tape.

3 April 1971- EXCOM decides to put... 92T-121.

22 April 1971- Memo from Geo Shultz, OMB, to David Packard, which requests NRT be flown in Nixon's last term.

23 Apr 71- EXCOM considers FROG.

2 Summer 71- David memo to President- to be signed by Packard as C/EXCOM. Gave options to President and let him decide. 91T-039
Summer 1971- NRP EXCOM changed directions, decided to develop both FROG and ZAMAN with primary funding to FROG. 5114

June 1971- Duckett lobbies to have FROG decision overturned. pIV-5, DS&T History.

June 1971- Duckett meets with Senator Ellender and his AA, Wm. Woodruff. pIV-5, DS&T History.

13 July 1971-Memo from D/OSP to DNRO, on Alternative EOI Configurations which could ultimately replace GAMBIT and HEXAGON. 92T-121.

9 August 1971-Memo from DCI Helms to President Nixon, urging that EOI be built over FROG and QRS. 92T-124.

17 Aug 1971-Memo from SECDEF Laird to President on EXCOM decision to fund EOI at the level of per year, noting disagreements between Packard, Helms, and David. 92T-120.


Mid-71- John Hicks replaced Art Lundahl as D/NPIC. pI-5, DS&T History.

1971-Kerr Special Study Group 91T-039.

Late August 1971- Sid Drell and Dick Garwin gave a secret briefing to Henry Kissinger on desireability of building ZAMAN. pIV-6, DS&T History.

Sep 1971- Kissinger letter giving go-ahead to ZAMAN and cancelling FROG. 5114

30 September 1971 EXCOM-stated that Kissinger intended to limit spending on EOI to per year, with first launch in 1976. 92T-134.


Nov 1971- authorized by DNRO and assigned to AF for development. Work began in July 72. 5114.
Late 1971- optics to do guidance and the TWTA got C & C and SI., PF to the LIR. did the antennas and built the recorders.

Jan 1972- Now renamed KENNEN 5114

April 1972- NRO approved procurement of the relay satellite for KENNEN. 5112.

June 1972- HAC gets contract for RS 1, 2, 3. 5112

Sep 1972- HEXAGON transferred to AF, primarily so that ZAMAN could be retained entirely within CIA. 5114

Late 1972- area search requirement given to ZAMAN., at instigation of Dr. Edward E. David, Jr., Presidential Science Advisor 5114 (check for date)

Spring 1973- Bye-119558-78.


1974- OSA disbanded and assets transferred to Air Force. pI-1, DS&T History.

1974- imaging systems mix study, led up to Summer 1974 EXCOM decision for the 1976-80 time frame. 91T-050.

Sep 75- R. P. Hazzard became Program Director, vice Charles Roth. pVIII-4, DS&T History.

Late 1975- terminated by DNRO. Bye 119558-78. Continued in Program B at a very low level in 1976 & 77.
Feb 1976- RS-1 completed system test-5112

June 1976- 5112

Aug 1976- 5112

Sep 1976- 5112.

19 Dec 1976- launched from VAFB.5114

21 Dec 76- first I/S to R/S acquisition.

29 Dec 76- 91T-054.

1977- Bye 119558-78.

Jan 1977- declared operational, 20 Jan 77. pIV-11, DS&T History.

1977- Imagery Requirements Document, 91T-051

Feb 77- 91T-054.

7 May 77- 91T-054

Aug 77- History. pII-20, DS&T

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