CHAP VIDEO PLAY LIST

INTRODUCTION

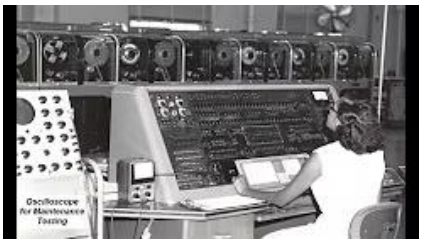
CHAP produces educational and historical content of Computer History, led by Director Mark Greenia. The VIP Club has contributed to some of these videos. Almost all images in this paper have been clipped from the internet, specifically https://vipclubmn.org/Legacy.html#CHAP and play list https://www.youtube.com/playlist?list=PLsMFdolQPga49bN2aZlOu6SbZj57uZpZl. Each YouTube video produced by CHAP includes credits to the source material, individuals, and organizations thus are not repeated hereunder. Mr. Greenia also created topical playlists to aid researchers**, the UNIVAC, ERA, … was his first play list.**

This playlist paper requested by the VIP Club board; supersedes the 2019 https://vipclubmn.org/Articles/CHAP_SummaryRev1.pdf, formatted by Club Historian, LABenson.

BACKGROUND

The VIP Club's March/April 2026 newsletter summarized the Club's relationship with CHAP, see page 3 of https://vipclubmn.org/Newsletters/Enews2603.pdf. A bit of trivia therein is that the **P** of CHAP's on-line icon resembles the UNIVAC magnetic tape reels of yesteryear. UNIVAC's Douglas Wendell, Jr. wrote about development of that magnetic tape, https://vipclubmn.org/Articles/EMCC-4.pdf. St. Paul's UNIVAC/Sperry/Unisys/ defense systems also used these tape reels on our types 1240 and 1540 magnetic tape units, https://vipclubmn.org/peripherals.html#MagneticTapes. The rest of the story – among the trinkets given to the Club's Legacy Committee was a metal tape measure that resembled UNIVAC magnetic tapes as well as the CHAP icon. Since we were neither storing nor cataloguing trinkets at the Lawshe Memorial Museum; we mailed it to Mark as a token of our appreciation for his inclusion of so much of our history in the CHAP YouTube videos. *LABenson*

#, Time	Title, Summary	Posted, Image, Views, …
1, 17:55 Click to play:	**1946 - Top Secret Computers, Engineering Research Associates ERA 1101 UNIVAC, Cryptology, 1946, Rand, NSA, CIA** This unique presentation introduces origin and history of ENGINEERING RESEARCH ASSOCIATES ("ERA") a pioneering and influential computer company founded in Minnesota in 1946. Formed and staffed by former members of the U.S. Navy's top secret communications intelligence organization known as OP-20-G, it was instrumental in creating the digital computer age. The history and legacy of ERA, continuing up to the present via UNIVAC, Sperry, and Unisys is a fascinating story of technological innovations and contributions to the computer industry.	2019, September 25th, 17k views, 24 comments.

#, Time	Title, Summary	Posted, Image, Views, …
2, 13:44. Click to play:	**1945 - Computer History: Early Vacuum Tube Computers Explained, Educational & Historical 1945-1960s** In this educational video we focus on Early Vacuum Tube Computers, and provide a brief, non-technical overview of several early vacuum tube computers. Early computers mentioned include Colossus, ENIAC, UNIVAC I, UNIVAC 120, Harwell Dekatron, LEO I, IBM SAGE, and Whirlwind. Intended as a very basic introduction to the topic, it also mentions specific tube types found in UNIVAC 1 and Whirlwind 1 computers.	2018, February 3rd 118k views, 114 comments.
3, 25:19 Click to play:	**1951 UNIVAC I Computer Basic System Components First Mass Produced Computer in U.S.** We created this explanatory, educational overview of the 1951 UNIVAC 1 to show in more detail many of its basic components. Intro segment includes higher quality images than are contained in the original 1953 film. The 1953 film begins at index 5:52, followed by brief photo gallery. UNIVAC was the first mass produced business computer in the U.S. and opened the door to a successful line of commercial computing machines. The historical data in the film is well worth preserving and the introductory images may help add some clarity.	2018, July 3rd  84,109 views, 114 comments.
4, 40:28 Click to play:	**1979 - Introducing Sperry Univac System 80 Computer History, Educational, Vintage Unisys,** Previously unpublished, this rescued vintage film has been edited, expanded and preserved for historical value. Some audio problems remain, but many have been fixed. Circa 1979-1980, it features the release of Sperry Univac's System 80 mid-range computer. Parts of the original film had sound issues, and these have been largely corrected, with a bit of new narration added and some photos. Lots of talking here, but great flavor of a late 1970's computer -promo-"pep-talk."	2017, June 8th 41k views, 88 people took time to make comments re' this video.

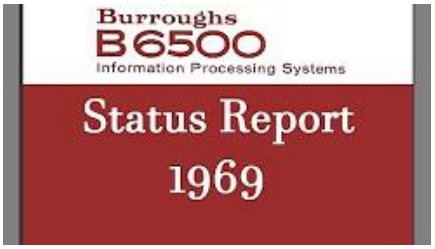
#, Time	Title, Summary	Posted, Image, Views, …
5, 29:13 Click to play:	**N1960 - ASA Computers 1957-1959 IBM 704 - VANGUARD SATELLITE Launch "Science in Space" (Burroughs/ Datatron)** 1960 film from the National Academy of Sciences focuses on the 1957 to 1959 period and the developments in the U.S. Space exploration activities especially the early Satellite Program and Vanguard Project. Project Vanguard was a program managed by the United States Naval Research Laboratory (NRL), established to launch the first artificial satellite into Earth orbit using a Vanguard rocket from Cape Canaveral, Florida. Burroughs "Datatron" computer (seen only very briefly in the film) was introduced in 1954 by Electrodata Corporation. Burroughs Corporation acquired Electrodata in 1966 and marketed the Datatron computer as part of the Burroughs line. Although initially successful, both the IBM 704 and the Burroughs Datatron computers were essentially becoming obsolete technology by 1960 when ==➔	2021, November 6th 53,749 views, 106 comments. this film was released. They continued to be used by many organizations into the 1960's, however soon obsolesced. (Note: Burroughs acquired Sperry Corporation in 1986 and formed Unisys, which now owns all Burroughs computer copyrights.)
6, 27:04 Click to play:	**1963 Burroughs Computer History Archives: Datatron, ElectroData, B5000, B270, UNISYS VIPclub** Three-Part Presentation: (1) Intro & 1963 film (19min) on B5000, B200, B270, ElectroData Div.; (2) 1962 film short on B270; 19:28 (3) Image Gallery of very early Burroughs Computers w/some rare pics (5mins). 21:51	2018, April 12 39,805 views, 82 comments.
7, 14:12 Click to play:	**1962 Sperry Rand UNIVAC FASTRAND Giant Magnetic Drum Mainframe Storage, Computer History, Unisys** A Brief Tribute to the Sperry Rand FASTRAND mass storage device of 1963-1970's. One of Sperry Rand's unique contribution to magnetic storage devices. The FASTRAND was a unique mass storage drum system developed and sold by Sperry Rand for the UNIVAC line of computers, such as the 1106, 1107, 1108, and later the UNIVAC III, 490, 494 and others. The FASTRAND was the successor to the UNIVAC RANDEX mass storage devices of the late 1950's. ➔	2018, March 23rd 34k views, 99 comments. UNIVAC improved and rebranded the RANDEX line then re-introduced them as the "FASTRAND" in 1962 followed by FASTRAND II a year later.

#, Time	Title, Summary	Posted, Image, Views, …
8, 19:00 Click to play:	**1983 Computer History at Lawrence Livermore Nat's Labs, UNIVAC LARC, IBM, CDC, CRAY** A 1983 film by Lawrence Livermore National Laboratory ("LLNL"), gives a fascinating and concise history of its computer developments both as a purchaser of early computers and a co-designer of many early technologies, from the early 1950's up to 1983 (where the film ends). This film has been slightly restored and enhanced to improve viewability. Narrator, Dr. John Fletcher, provides a fascinating chronological walk-through history of computing technology, especially regarding Livermore's role in computer design, and the establishment of its "Octopus" computer network.	2018, September 7th 32,935 views, 83 comments.
9, 12:35 Click to play:	**1947-49 Binary Automatic Computer at the ECKERT-MAUCHLY COMPUTER CORPORATION (EMCC)** World's first computer company, created specifically to sell computers to the public was the "ELECTRONIC CONTROL COMPANY" later named the ECKERT-MAUCHLY COMPUTER CORPORATION (EMCC - 1946). This documentary describes development of BINAC (1949) by Dr. John Mauchly and J. Presper Eckert, inventors of ENIAC (1946) & UNIVAC (1951). This presentation reveals rare footage (some never seen) of the BINAC in operation and a "behind the-scenes" film courtesy of John William Mauchly Jr. showing EMCC engineers during the computer's construction in 1947-1948.	2018, September 16th 14,600 views, 23 comments.
10, 11:12 Click to play:	**1963 - Computer History RCA 3301, Spectra, PENTAGON 1960's-early '70's Underground Data Center IBM STRATCOM** RCA 3301 REALCOM Real-Time Computer at the PENTAGON's underground Data Center (1963-1971). Rare Color Film of the RCA 3301, IBM 360 Computer and the Army's STRATCOM telecommunications center and underground computer data center beneath the Pentagon. Government films give a unique tour of both facilities. Seen are RCA 3301, RCA Spectra 70 and IBM System/36, and other equipment.	2021, June 22nd 22k views, 110 comments.

#, Time	Title, Summary	Posted, Image, Views, …
11, 18:18 Click to play:	**1960's Sperry Rand Univac NASA Apollo Computer History 1230, 494, NASCOM, IBM, Australia, Unisys** NASA, Computers Apollo: Through vintage photos & film clips, we take a brief look at Sperry Rand computers supporting NASA's Apollo program. Shown are UNIVAC 1218, 1230, 490, 494, and others of that time. For those who worked in this area, hopefully this will bring back some fond memories.	2017, November 19th 22,797 views, 29 comments.
12, 6:53 Click to play:	**1951 - The Amazing Design of the UNIVAC's UNISERVO METAL TAPE DRIVES** The 1951 UNIVAC UNISERVO Metal Tape Drive, the first use of digital magnetic tape reel devices on computers. Tapes were made of a Nickel-Bronze alloy and weighed 4 pounds each! This film describes the drives in detail and shows the UNISERVOs in operation. An educational presentation from the Computer History Archives Project (CHAP). Narration: David Melvin.	2015, September 22nd 20,622 views, 40 comments.
13, 9:42 Click to play:	**1958 - Exploring UNIVAC I Components (with UNIVAC II vacuum tube module compared) 1951-58** Today we look at some of the UNIVAC I components and compare some of the UNIVAC II boards with UNIVAC I boards. High Resolution images highlight this informal compilation of UNIVAC I modules and components. Shown are various modules, board components, mercury memory tanks and other aspects of the machine, and a comparison of 1951 UNIVAC I circuit boards with those of the 1958 UNIVAC II (as seen in Jerry Seinfeld's movie "Unfrosted" 2024) and later models. If you like board-level components and early tech, you may find these images interesting. UNIVAC II was outdated by the early 1960's. =➔	2021, March 21st 30,601 views, 42 comments The UNIVAC III of 1960 was short lived, and IBM gained control of the large computer market by the time it was introduced.

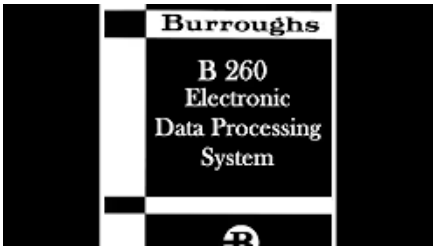
#, Time	Title, Summary	Posted, Image, Views, …
14, 20:51 Click to play:	**1968 - Building the UNIVAC 1108 Computer, Twin Cities (1965-1968) Sperry Rand, UNISYS** Late 1960's video showing the Sperry UNIVAC data processing facility in Twin Cities, Minnesota, manufacturing the UNIVAC 1108 computer. Great footage of creating a CORE Memory block, and manufacturing of Printed Circuit Boards (PCB), and the quality assurance lab in action. The original film was a bit rough but cleaned it up as much as possible. Hope you enjoy this inside look at creating UNIVAC 1108!	2020, October 11th 23,260 views, 109 comments.
15, 8:33 Click to play:	**1971 Remington Rand UNIVAC Computers Slideshow of Selected Machines; Sperry, Unisys Educational** One of our earliest uploads is this short, historical slide show featuring vintage photos of UNIVAC computers from 1951 to 1971. Set to music and some intermittent narration, this selection of views of early machines is provided for educational review and comment. If you used or worked on any early UNIVAC computers, please feel free to comment and share your experiences. We hope you enjoy this brief look back at these early machines. "UNIVAC" is a trade name owned by Unisys, Inc.	2015, January 11th 14,947 views, 33 comments.
16, 28:58 Click to play:	**1967 Navy Satellite Navigation training film (IBM 7094 data center, AN/UYK, IBM 1410, 7702)** IBM Computers: 1967 - U.S. Navy training film details Satellite Navigation technology. Excellent footage of IBM 7094 mainframe, AN/UYK, IBM 1410, IBM 7702 and explanation of the Navy's computer operation center. With special thanks to Naval History & Heritage Command for film preservation, and special thanks to IBM Archives for additional photos of the IBM 7094 mainframe.	2020, November 4th 16,796 views, 44 comments.

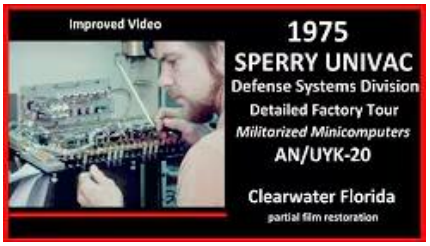
#, Time	Title, Summary	Posted, Image, Views, …
17, 10:34 Click to play:	**1962 - Vintage Computer: UNIVAC III Origin and History (UNIVAC, Remington Rand, Livermore Labs LARC)** An Introduction to the UNIVAC III Computer of 1962 and its relationship to the UNIVAC LARC (Livermore Advanced Research Computer) at Lawrence Livermore National Laboratory. Built by Remington Rand UNIVAC Division of Sperry Rand, these giant machines are part of the legacy ancestry of Unisys Corporation. Fascinating history and technology.	2020, August 7th 10,691 views, 39 comments.
18, 16:17 Click to play:	**1956 - Computer History: Origin of the UNIVAC 1103A Scientific Computer (1953, 1956) ERA, Sperry Rand** This presentation explores the history of the UNIVAC 1103A SCIENTIFIC COMPUTER, the most powerful scientific computer of its time. Used by the U.S. Navy, Air Force, National Security Agency, NASA and many others. Rare films and high-quality photos show the development of the machine from its early predecessors in 1950, to its first release in 1953. Designed to meet government cryptologic specifications, the 1103A was modified for commercial use as well as continued military use. ➔	2020, December 21st 9332 views, 17 comments. The 1103A was a product of **E**ngineering **R**esearch **A**ssociates, Division of Remington Rand UNIVAC.
19, 25:42 Click to play:	**1952 - UNIVAC I Computer Dr. John Mauchly TV talk 1952, RARE Kinescope! (ENIAC, UNIVAC co-inventor)** Dr. Mauchly was co-inventor of ENIAC, UNIVAC, BINAC, and co-founder of Eckert-Mauchly Computer Company, with J. Presper Eckert. This film is likely the earliest, most detailed talk on an early digital computer by its co-creator ever given on television. It provides a fascinating look at the inner workings of UNIVAC I, seldom seen. In 1952, many people were barely getting used to "television" and it must have been amazing to watch this demonstration of the first publicly broadcast documentary on a large-scale digital computer. UNIVAC I was a great technical advancement over their first computer, the ENIAC, which was made public in February 1946. ➔	2021, February 9th 6,515 views, 7 comments By 1952, the date of this film, Mauchly and his co-inventor, J. Presper Eckert, had become part of REMINGTON RAND, which had purchased their company ("Eckert-Mauchly Computer Company") in 1950. (REMINGTON RAND is one of the legacy companies of today's Unisys, Inc.)

#, Time	Title, Summary	Posted, Image, Views, …
20, 21:03 Click to play:	**1964 Burroughs Computers Computer History (B5000, B280, BUIC D825; Unisys, Mainframe) Educational** A 1964 Burroughs film showcasing customers using its computers in multiple government and private sector applications. Portions of the film have been slightly restored, as it contains valuable historical information, including RARE footage of the BUIC military computer (D825) built for the U.S. Air Force. This is one of five Burroughs related computer history videos we have posted on CHAP site.	2018, April 18 15,673 views, 35 comments.
21, 21:31 Click to play:	**1961 Sperry UNIVAC computer history: What Do You Want? BINAC LARC Athena Solid-State** A restored version of the Remington Rand UNIVAC film "What do you want?" ~ Vintage material highlighting computer advances from 1946 through 1961, including BINAC, UNIVAC I, UNIVAC Solid State computer, Athena and others. An original marketing film, courtesy of Hagley Museum and Library, digitally enhanced for easier viewing. Original 1961 narration has been maintained, including a fascinating talk by J. Presper Eckert, co-creator of the ENIAC, BINAC and UNIVAC. Photo Gallery included.	2018, October 24th 8,528 views, 7 comments.
22, 13:50 Click to play:	**1969 Burroughs B6500 Computer Vintage Mainframe History (Unisys, Data Processing, Pasadena))** A vintage 1969 Burroughs Corporation briefing on the status of the B6500 Electronic Data Processing System. With very minor restorations, this clip provides a historical view of this early machine's creation. Burroughs Corporation was bought Sperry Corporation in 1986 to form Unisys Corporation. Information courtesy of Unisys Archives, Charles Babbage Institute, and Bitsavers.org. Provided for non-commercial use only.	2016, July 5th  14,177 views, 43 comments.

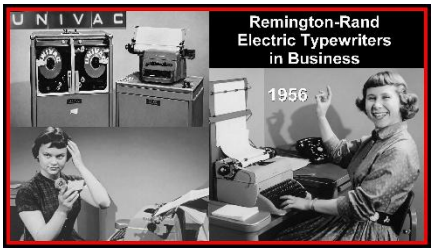
#, Time	Title, Summary	Posted, Image, Views, …
23, 12:56 Click to play:	**1972 Computer History: DATA PROCESSING Introduction (IBM 360, Burroughs, CDC, MICR, punch cards)** Computer History & Data Processing: An excellent 1972 educational film introduces "Data Processing" with scenes of adding machines, IBM System/360-65 mainframe, IBM 2401 magnetic tape reel machines, Control Data Corporation (CDC) image scanner; Burroughs Punch Tape Reader and MICR/OCR, Control Data Corporation's CDC 160 computer, Office Automation, Viatron, Unisys, and much more equipment.	2021, May 21st 25,137 views, 70 comments.
24, 12:27 Click to play:	**1966 - Vintage Sperry-Rand UNIVAC 1050 U.S. Air Force Computer Automation AFLC Base Supply (Vietnam)** Vintage Computer History, Air Force Automation: AFLC, Vietnam. An expanded version of our mini-documentary on the large-scale Sperry UNIVAC 1050-II implementation conducted by the U.S. Air Force Logistics Command ("AFLC") in 1963 to 1966. One of the largest computer acquisitions and installations ever made, installing over 100 UNIVAC 1050 systems in bases throughout the world. Part of the creation of the Standard Base Supply System (SBSS), which remained in use for decades. Includes 1966 film clips from Da Nang, Vietnam and computer data center. (Historical Note: This is the same Base that was attacked during the Tet Offensive, in 1968.) ➔	2020, July 8th 5,727 views, 32 comments. This film is Dedicated to members of United States Air Force and former employees of Sperry-Rand (UNIVAC).
25, 27:55 Click to play:	**1956 - History of Burroughs Corporation Computers, Adding, Calculating and Accounting** An excellent Burroughs promotional film showing early adding machines, calculators, accounting & printing machines and brief very rare footage of early Burroughs digital computers, the UDEC II and E 101. The UDEC ("Unitized Digital Electronic Computer") was an enhanced version of the 1951 "Burroughs Laboratory Computer" built in Philadelphia. -- This film stops around 1956, the year that Burroughs acquired ElectroData Corporation of Pasadena, California. The acquisition of ElectroData greatly expanded Burroughs potential growth into the digital computer marketplace. ➔	2019, January 6th 14,327 views, 27 comments. Burroughs, founded in 1886 as the American Arithmometer Company, acquired Sperry Corporation in 1986 to form Unisys Corporation.

#, Time	Title, Summary	Posted, Image, Views, …
26, 4:23 Click to play:	**1956 - Remington Rand UNIVAC Commercial 1956 Feb 5 "What's My Line?" excerpt** UNIVAC I Computer commercial: Remington-Rand UNIVAC was the sponsor of this February 5, a 1956 Episode of "What's My Line?" a very popular TV panel show in which a celebrity panel question various guests to try to guess their jobs. It aired on CBS from 1950 to 1967, with over 755 episodes. Includes intro and exit UNIVAC spots and the "UNIVAC weather prediction" commercial in full.	2021, February 24th 4,147 views, 12 comments.
27, 7:44 Click to play:	**1979 - Sperry Univac 1100/60 Mainframe Computer announcement (Unisys history)** Sperry Univac's 1100/60 Mainframe Announcement of 1979. Univac's first Multiprocessing Mainframe Computer is described by Sperry Rand's Vice President, Bob Vernon. Original rare footage and photos! Billed by Sperry as their most important announcement of all time. Part of Sperry's 1100 family, it's CPU included sets of nine Motorola 10800 microprocessors combined with high-speed emitter-coupled logic circuitry for high-speed processing. Called "Micro execution units," they could concurrently execute different parts of the same micro-instructions, for improved throughput and speed. It was designed to compete with competitor machines from Burroughs, Control Data Corporation, IBM, Honeywell, and Digital Equipment Corporation. ➔--	2021, January 30th 7,516 views, 35 comments. Adapted from 1979 presentation by Sperry Rand Corporation, by the Computer History Archives Project (CHAP).
28, 3:06 Click to play:	**1977 Electronic Funds Transfer (EFT) using "AMCAT 1" Computer Terminal (Banking, Burroughs mainframe)** Vintage 1977 consumer report on "Electronic Funds Transfer" or EFT, showing an early AMCAT 1 machine in a grocery store and a Burroughs mainframe computer system at a bank, on the back end processing the EFT request. Narrator explains and woman consultant shares her security concerns about the EFT process.	2021, February 15th 3,107 views, 9 comments.

#, Time	Title, Summary	Posted, Image, Views, …
29, 5:32 Click to play:	**1962 Burroughs B260 Computer announcement, History, Unisys, Mainframe** Very short film clip of Burroughs B 260 being announced to the public at the National Machine Accounting Association show in New York City, June 1962.	2018, March 30th  1,818 views, 0 comments.
30, 3:47 Click to play:	**1977 Computer History; SPERRY UNIVAC Disk Exerciser Diagnostic Unit (DEDU)Magnetic Analyzer** Sperry Univac Drive Exerciser (DEDU). The Woman in Red in red is from a 1977 Information Systems advertisement. This video describes high-tech, portable DEDU diagnostic unit for magnetic disc storage drive testing and maintenance. We explore the insides of this vintage field engineer testing machine. The few of these machines that survived are in the hands of collectors and museums.	2021, May 9th 4,665 views, 32 comments.
31, 19:07 Click to play:	**1978 - SPERRY UNIVAC Systems: CEO Lyet talk to Employees 1978 Rare original film (Unisys)** Sperry CEO talks to Employees 1978; J. Paul Lyet, Sperry Chairman & CEO gives a high-level overview of Sperry Univac products and computer systems used in defense, business, medicine, aviation, agriculture industry, maritime applications and more. A rare film not seen for 45 years. Provided for historical review and comment.	2023, June 1st 10,082 views, 24 comments.

#, Time	Title, Summary	Posted, Image, Views, …
32, 21:35 Click to play:	**1966 Using the LEO III Computer, UK Computing History: A FILM RESTORATION - British Lyons** Today we share unique historical films: the 1966 LEO III, ("Lyons Electronic Office") computer, part of the LEO UK computer family. This rare full color film is the only one of its kind of the 1966 LEO III machine that we know of. History: LEO I was developed in1951 by J. Lyons & Co. in London as variation of the EDSAC of University of Cambridge Mathematical Laboratory. J. Lyons & Co. developed the original LEO I as an internal business computer. Based on its success, Lyons formed LEO Computers Ltd. in 1954, with the intent to manufacture and sell LEO machines broadly with the LEO II and later the LEO III. LEO III was a transistorized version of the LEO Computer line, which became a groundbreaking computer in the UK during the 1960's. The film shows how the LEO III was integrated into the British Oxygen Company's daily operations. ➔	2025, December 22nd 7,195 views, 42 comments. LEO III was completed in 1961 and introduced as a solid-state system suitable for high-volume commercial processing. At least 61 LEO III computers were made, plus several variations. LEO computers became part of ICL (International Computers Ltd., UK), which was later acquired by Fujitsu.
33, 12:22 Click to play:	**1970s - Have you seen Gold UNIVAC Circuit Boards? 1960-70 mainframe computer IC PCB chips 4K** Explore and De-Mystify some of the variations of UNIVAC's 5 x 7-inch Printed Circuit Boards: including GOLD plated Integrated Circuits (ICs), {DIP: dual inline package} discrete components, hybrid logic boards, integrated circuits, etc. HIGH-Res images variations, components, transistors, resistors, capacitors, diodes, and possible board functions. These boards were found in many early systems from 1967 through the early 1980's, in systems including Univac 1108, 1106, 1110, 9200, 9300 and 9400. High-resolution images of vintage board components; how they were made; 20 variations. ➔	2026, March 18th 3,971 views, 28 comments. Special Circuit Board Collection from Computer History Archives Project.
34, 16:27 Click to play:	**1975 - Sperry UNIVAC FACTORY TOUR - Clearwater Florida NAVY AN/UYK-20** Behind the scenes factory tour showing detailed production processes of Sperry UNIVAC militarized minicomputer, AN/UYK-20 for U.S. Navy. Highly ruggedized, 16-bit, standardized computer for harsh environments, protected to minimize vibration, weather, moisture and EMI (electromagnetic interference). Full color original narration shows how the machines were created back in 1975.	2026, March 30th  3150 views, 30 comments.

#, Time	Title, Summary	Posted, Image, Views, …
35, 24:16 Click to play:	**1968 - UNIVAC FACTORY TOUR Mainframe Film Restored "Electronic Servants" Twin Cities Minnesota (No AI)** "Electronic Servants" (1968) a behind-the-scenes look at the high-precision manufacturing and assembly processes at the UNIVAC "Twin Cities" facilities in Minnesota during the peak of the mainframe era. This full color film was shot largely at the Roseville facility, Sperry Univac's Commercial Computer facility at that time. It highlights skilled workers involved in the creation of the massive UNIVAC 1108 and UNIVAC 494 and 418 systems. Original narration shows numerous technically skilled employees at work, clean room operations, component manufacturing of both discrete components to integrated circuits, core memory assembly including threading tiny ferrite cores onto copper wires by hand and machine, printed circuit boards, the Uniscope© video terminal, large magnetic drum storage units and more. ➔	2026, May 26th 10,862 views, 76 comments. This original film served as both a public relations piece and a detailed technical overview of how the massive computer systems were built. Thanks to the Charles Babbage Institute for the film digitization and thanks to the Lawshe Memorial Museum for gallery images after the digitized film.
36, 8:54 Click to play:	**1951 - Secret Origin of Remington 409 & UNIVAC 60 Vacuum Tube Cage Plugboard Programming** The secret origin of the Remington Rand 409 computer and Tube and Cage technology of UNIVAC 60 - 120. In 1943, under absolute secrecy, Remington Rand initiated development of a revolutionary commercial computing machine in Rowayton, Connecticut. Under the direction of former Manhattan Project director General Leslie Groves, two independent engineering teams constructed the prototype Remington Rand 409, between 1949 and 1951. That 409 was a key evolutionary link bridging mechanically punched card tabulators and stored-program electronic computers.	2026, July 28th 2,549 views, 28 comments.

#, Time	Title, Summary	Posted, Image, Views, …
37, 22:11 Click to play:	**1956 - Remembering REMINGTON RAND's early Typewriters for business & UNIVAC Computer Printers.** Restored 1956 film by REMINGTON RAND UNIVAC "TYPEWRITERS in BUSINESS." Original footage of many different Remington Rand Typewriters from 1950s shows specialized typing methods and technologies. Excellent video and original narration. Includes brief scenes of UNIVAC I computer console, printer, tape drive units and attached Univac Printers. Topics include Electric Typewriter history, office automation, typing instruction, formatting, and data processing. In the late 1860s, American inventors Christopher Sholes, Carlos Glidden, and Samuel Soule developed an early practial typewriter, patented in 1868. ➔	2026, July 18th.  1,667 views, 11 comments. In 1873, E. Remington & Sons agreed to manufacture the machine.
38, 25:42 Click to play:	**1958 - AGENA Space Satellite Vandenberg: Lockheed UNIVAC 1103AF Scientific Computer** Film Restoration: Lockheed History 1959, Computers: Two UNIVAC 1103AF SCIENTIFIC Computers were installed in 1958 to track the AGENA satellite telemetry data and launches for CORONA "photo spy" satellites (Code Name: "Discoverer") during the Cold War with Soviet Union. This original 1959 Lockheed film partially restored shows full color footage of building and launching of AGENDA satellite with USAF "THOR" rocket booster from Vandenberg Air Force Base, California. The additional APPENDIX included shows specs and gives background of the UNIVAC 1103AF Scientific Computer and its variant 1950's models. ➔	2026, September 28th 16,240 views, 27 comments. A fascinating bit of computer history that holds a vital place in U.S. Space Exploration history, defense and communication systems.
39,	**AN/USQ-17 Naval Tactical Data Systems** A 30-bit Instruction Set Architecture in government use from the late 1950s into this century	In the development mill at CBI and CHAP.

EPILOGUE

Speaking for our VIP Club's Legacy Committee, we are very thankful for Mark Greenia and CHAP for their continuing work documenting the history of the computer industry. We also appreciate the Charles Babbage Institute at the U of MN, i.e. Archivist Amanda Wick, for cooperating with Mr. Greenia digitizing selected old Sperry Films, https://vipclubmn.org/Articles/OldFilms.pdf.

I, Lowell, consider it to be a great privilege and honor to be able to help record the history of the computer industry as it grew from ERA and the state of Minnesota.

Lowell A. Benson