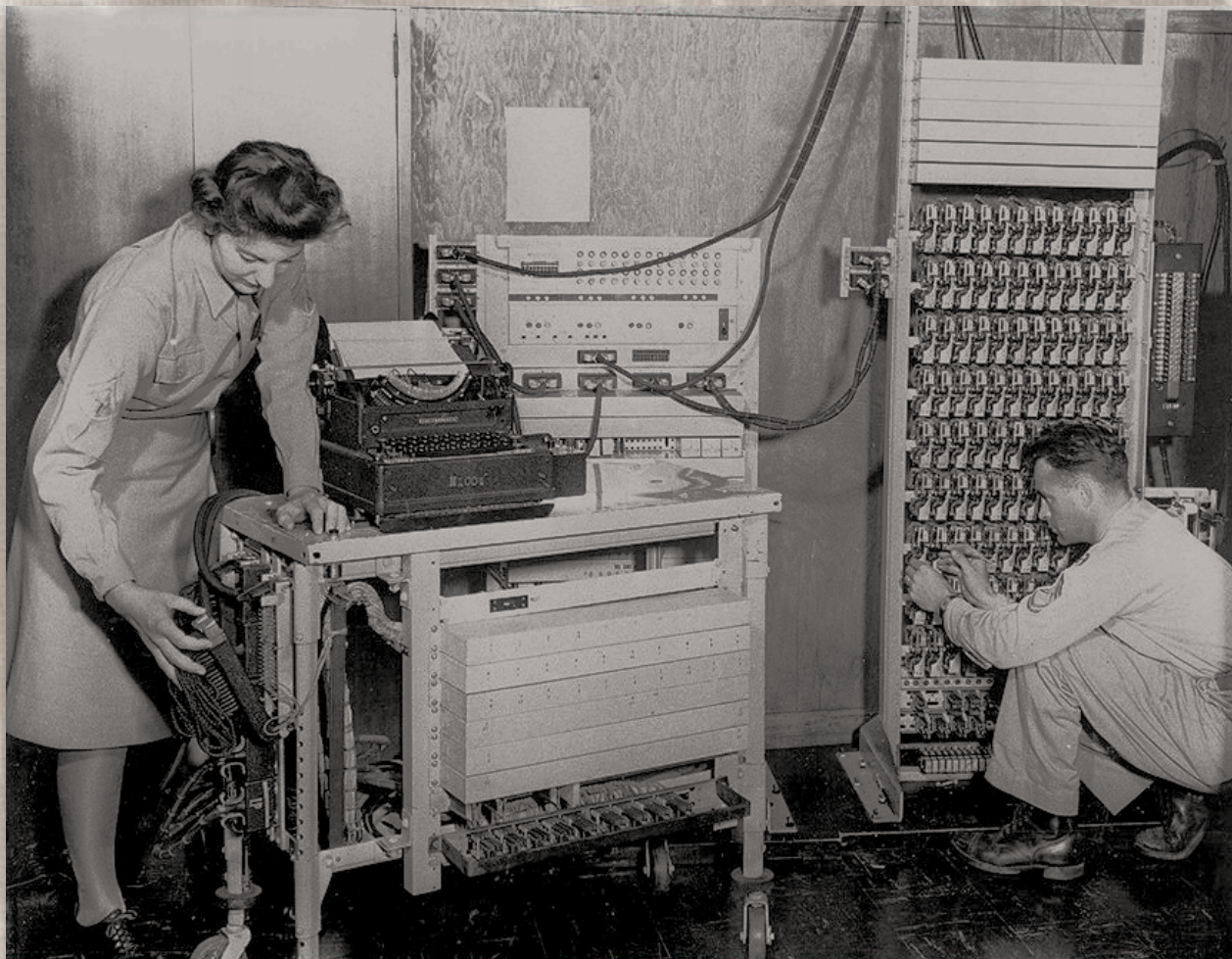# CCH 2021

The Center for Cryptologic History Calendar

The Autoscritcher was an attempt by the army during World War II to develop an electronic machine to replace the electromechanical *bombe* in analyzing communications enciphered on the German ENIGMA machine. The Autoscritcher, while a good concept and despite the use of electronic components, was still slower than the *bombe*.

Winter wonderland along Rockenbach Road, 2016. The road leads from the NSA buildings through Fort Meade. Normally, the road is lined with overflow parking spaces for Agency employees. However, in wintertime, it is one of the few convenient dumping sites for snow from the regular parking lots after heavy storms.

JANUARY 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Lt. Gen. Gordon Blake, USAF, became DIRNSA, 1962 U.S. Army Intelligence and Security Command (INSCOM) established, 1977 *New Year's Day*	**2** NSA Office of Policy first mandated use of term "Service Cryptologic Element," 1980
3 NARA assigned Record Group 457 (now "Records of the National Security Agency") to declassified NSA records, 1977	**4** Major General Gordon Blake named Commander, Air Force Security Service, 1957	**5** Lieutenant (later Captain) Laurance Safford named OIC, Navy Cryptographic Branch, 1924	**6**	**7**	**8**	**9** Jerzy Rozycki, a Polish Cipher Bureau mathematician who helped break ENIGMA, died in a ship sunk off France, 1942 Louis Tordella, longest serving D/DIR (1958-1974), died, 1996
10	**11**	**12**	**13** First *History Today* article on NSA Daily Page, 2003	**14** BRUSA Agreement–U.S.-UK COMINT relationships during World War II, 1944 Brigadier General Bernard Ardisana, USAF, NSA's first Assistant Deputy Director of Operations, died on active duty, 1978	**15**	**16** General Order No. 9 authorized publication of a new War Department Telegraphic Code, 1898 Operation DESERT STORM began, 1991
17	**18** Alfred Vail, co-inventor of the telegraph, died, 1859 *Birthday of Martin Luther King, Jr., Observed*	**19** Encoded Zimmermann Telegram sent by the Germans and intercepted by the British, 1917 U.S. cryptologic pioneer Abraham Sinkov died, 1998	**20**	**21**	**22** National Security Decision Directive 298 made DIRNSA responsible for interagency OPSEC training, 1988	**23** Intelligence chiefs of U.S. Army and Navy established list of eligible readers of "Magic" intercept, 1941 North Koreans captured USS *Pueblo*, 1968
24 Naval Battle of Dogger Bank, while a British cryptologic failure Germans sustained greater losses, 1914	**25** Navy EA-3B recon aircraft crashed, Mediterranean Sea, 1987	**26**	**27** Paris Peace Accords signed–end of U.S. involvement in Vietnam War, 1973 Church Committee began investigation of U.S. Intelligence Community, 1975	**28**	**29** New Zealand warship captured Japanese submarine I-1, seizing multiple copies of JN-25 codebooks, 1943	**30**
31 The *Federal Register* published details for the Secure Hash Algorithm (SHA), 1992						

During World War II, African Americans engaged in cryptanalysis or cryptology for the US Army but worked in segregated offices. Even after the war, African Americans struggled against de facto segregation and discriminatory practices. However, some after-hours activities were integrated, as this picture of NSA's Men's Chorus in 1953 shows.

FEBRUARY 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 German spy Lothar Witzke arrested carrying a coded message, 1918 German Navy introduced 4-rotor ENIGMA for U-Boats, 1942 SIS began VENONA project, 1943 USAFSS received its first cryptologic units from the ASA, 1949	2 USAFSS began operations in South Vietnam with the arrival of Team 1A, 6920th Security Wing, at Da Nang, 1962	3 Intercept operations began at Phu Bai. Became the largest U.S. site in South Vietnam, 1963	4	5 Colossus activated by Bletchley Park, 1944 USAF EC-47 (callsign Baron-52) shot down over Laos. Eight crew members, including four cryptologic technicians, perished, 1973	6 Sir Charles Wheatstone, inventor of the Playfair cipher, born, 1802 Genevieve Young Hitt, early U.S. female cryptologist, died, 1963
7 Dr. David Kahn, noted cryptologic historian, born, 1930 The U.S. Navy's OP-20-G moved to Nebraska Avenue, 1943	8 First Americans visit Bletchley Park, begins U.S.-UK cryptologic cooperation during World War II, 1941	9 ENIGMA introduced into German Navy as Radio Key C, 1926	10 Establishment of the 805th Signal Service Company for operation of the SIGSALY, 1943 Edward Hebern, developer of an electric coding and decoding machine, died, 1952	11	12 Signing of King-Marshall Agreement—established role of Army/Navy COMINT liaison officers in Pacific theater, 1944	13
14	15 The ENIAC computer began operating, 1946 *Washington's Birthday*	16	17 National Security Council Intelligence Directive 6 established Central Security Service (CSS), 1972	18	19	20 Government seizure of cryptologist Herbert O. Yardley's tell-all memoir, *Japanese Diplomatic Secrets*, 1933 Japanese first use of the PURPLE machine-generated diplomatic cryptosystem, 1939
21 Sarah G. Bagley became first female telegrapher, Lowell, MA, 1846 Ribbon-cutting ceremony for National SIGINT Operations Center (NSOC), 1973	22 Dedication of Memorial Wall in OPS2B, honoring those cryptologists who sacrificed their lives, 1996	23 Radio Act of 1927 prohibited radio intercept in U.S. Lieutenant General Kenneth Minihan, USAF, became DIRNSA, 1996	24 Captain Thomas Dyer, USN, became first NSA Historian, 1954 Claude Shannon, pioneer in cryptologic theory and father of the digital revolution, died, 2001	25	26 Major General Joseph Mauborgne, USA, expert on codes and ciphers and World War I Army Signal Corps Officer, born, 1881 NSA-sponsored exhibit opened at Smithsonian, 1981	27
28 President Wilson informed of the contents of the Zimmermann telegram, 1917						

African American/Black History Month

Inprocessing for new NSA employees, 1957. Note the inkwells and ashtrays on nearly every desk.

MARCH 2021

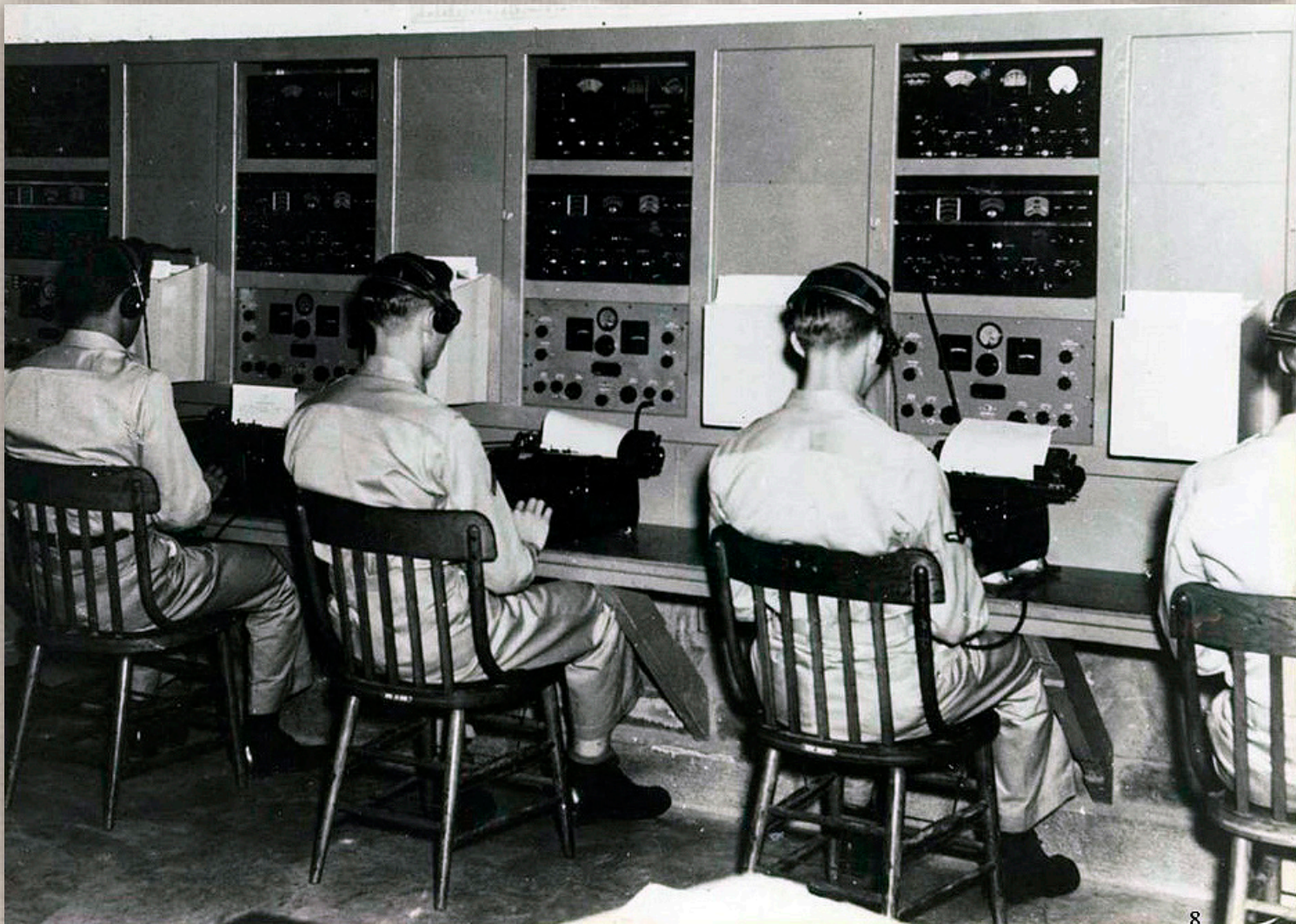| Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 German ADFGVX cipher first used, 1918 First hire at SIS, Annie Louise Newkirk, cryptographic clerk, 1930 U.S. Army aerial reconnaissance UH-1 loss, Vietnam, 1971	**2** Cryptologic pioneer Colonel Parker Hitt, USA, died, 1971	**3**	**4** U.S. Army aerial reconnaissance RU-8 shot down, Vietnam, 1971 STONEHOUSE site in Ethiopia officially closed, 1975	**5** Station HYPO began reading Japanese system JN-25, 1942 BRUSA Communications Intelligence Agreement continues U.S.-UK partnership after World War II, 1946	**6** William Friedman testified before a Senate committee investigating the Teapot Dome scandal, 1924
7 509th Radio Research Group was resubordinated, ending ASA's 12-year presence in South Vietnam, 1973	**8** "Direct" SIGINT support to tactical air control center began on Cho Do (island) during the Korean War, 1953 Lieutenant General Ralph J. Canine, USA, first DIRNSA, died, 1969	**9** USAF aerial reconnaissance EC-47 loss, Vietnam, 1967	**10** The first successful voice transmission over Alexander Graham Bell's telephone, 1876 Establishment of Radio Intelligence Service, Mexican border, 1918	**11** U.S. Navy cryptologic organization redesignated OP-20-G, 1935 Evacuation of Station CAST from Manila Bay, 1942	**12** AFSA Training Branch established, 1951	**13** DIRNSA approved a barbershop and drug store for NSA Fort Meade, 1957
14 Seoul, South Korea, recaptured by UN forces, 1951	**15** CREAM replaced ULTRA as the codeword for top secret cryptologic material, 1946 USAF aerial reconnaissance RC-135 crashed at Shemya AFS, AK, 1981	**16**	**17** The details of the block encryption algorithm Lucifer were published in the *Federal Register*, 1975	**18**	**19** Horst Feistel received a patent for "Block Cipher Cryptographic System," an encryption scheme that laid the foundation for the Data Encryption Standard, 1974 Operation Iraqi Freedom began, 2003	**20** SIS started receiving messages from PURPLE (a Japanese cipher machine), 1939
21	**22** ASA flew first airborne radio direction finding mission in Vietnam, 1962	**23** The director of U.S. naval communications and the director of AFSA (both rear admirals at the time) signed an agreement regarding direction and support of COMINT operating activities of the U.S. Navy, 1951	**24**	**25**	**26** Lieutenant General Michael Hayden, USAF, became DIRNSA, 1999	**27** Most NSA professionalization programs terminated, 2000
28 Griffith Air Force Base found packet-sniffing malware in its Rome, NY, labs' network, 1994	**29**	**30** Chief Signal Officer Major General Joseph Mauborgne, Army Signal Corps, permitted to perform intercept and cryptologic services for peacetime training and national defense, 1938	**31** Presidential Review Group member Geoffrey Stone spoke at NSA (group created in the wake of Snowden leaks), 2014			

Women's History Month

Air Force intercept operators at Brooks Air Force Base, San Antonio, Texas, in 1949. The cryptologic unit in the Air Force was then less than a year old.

APRIL 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Days of Remembrance (Holocaust)				**1** Frank Rowlett reported to work for William Friedman, 1930 Lieutenant General Lincoln D. Faurer, USAF, became DIRNSA, 1981 Admiral Michael S. Rogers, USN, sworn in as Director, NSA and Commander, USCYBERCOM, 2014	**2** Samuel Morse, developer of telegraph code, died, 1872	**3** Cryptologic pioneer Solomon Kullback, one of William Friedman's early hires, born, 1907 Bell Labs completed the first cell-phone call, 1973
4 Secretary of War transferred cryptologic functions from the Military Intelligence Division to the Signal Corps; created the Signal Intelligence Service with William Friedman as its head, 1929	**5** Captain George Painvin of the French Cipher Bureau solved the first key for the ADFGVX cipher, 1918	**6** The United States entered World War I, 1917 First break into the Japanese Water Transport Code, 1943	**7** The *Yamato*, a 72,000-ton Japanese battleship, sunk off Okinawa in large part because of SIGINT tipoffs, 1945 IBM introduces the System/360 mainframe computer, which developed from NSA's HARVEST computer, 1964	**8** Navy PB44-2 shot down, Baltic Sea, 1950	**9**	**10**
11 Abraham Sinkov reported to SIS to work for William Friedman, 1930	**12**	**13** Cryptologic pioneer Herbert O. Yardley born, 1889 FRUPAC intercepted encoded itinerary of Admiral Yamamoto Isoroku's upcoming tour of the Solomon Islands, enabling his shootdown five days later, 1943	**14** *Der Spiegel* reported on what might have been the first case of computer espionage, an operation run against IBM's West German affiliate from East Germany, 1969	**15** Central Bureau established in Australia to provide General Douglas MacArthur's Southwest Pacific Theater with COMINT, 1942 Navy EC-121 shot down by North Korean MiGs, Sea of Japan, 1969	**16** Clinton administration proposed "Clipper Chip" key escrow method for telephone security, 1993	**17** Intercepts by Station HYPO revealed Japanese plans to attack Port Moresby, allowing Allied defense, 1942 Bay of Pigs landing in Cuba, 1961
18 Shootdown of Admiral Yamamoto by U.S. forces, 1943 NSA experts spoke in public on computer security at the Spring Joint Computer Conference in Atlantic City, 1967	**19** Confederate Signal Corps established, 1862	**20**	**21** Louis Tordella retired as D/DIR, 1974	**22** Solomon Kullback reported to SIS to work for William Friedman, 1930 General Douglas MacArthur, USA, based on COMINT reports, attacked Hollandia, New Guinea, deep behind enemy lines, 1944	**23** Edward Hebern, designer of cryptologic machine, born, 1869	**24**
25 Radio pioneer Guglielmo Marconi born, 1874	**26** U.S. Senate issued the Church Committee report, 1976	**27** Samuel Morse, inventor of Morse Code, born, 1791 DEFSMAC (originally the Defense Special Missile and Astronautics Center) established, 1964 Estonia suffered mass cyber attack, 2007	**28**	**29** SECAF approved women for duty on EC-130 aircraft, 1985	**30** SecDef authorized the establishment of a National Cryptologic School at NSA, 1965	

In April 1962, General John Davis got his second star. The staff members who joined him were current and former NSA senior leaders who had been in the cryptologic services in World War II.

From the left: Ann Caracristi; Solomon Kullback; Abraham Sinkov; Juanita Moody; unidentified man in the back; also in the back, NSA Director Vice Admiral Laurence Frost; Major General John Davis, USA, the assistant director for Production (ADP); in the back, Dr. Louis Tordella, NSA's deputy director; the man whose glasses only are visible probably is Benson Buffham, a future deputy director; second unidentified man in the back; Wilma Davis, cryptologist and wife of the ADP; Paul Neff; Frank Rowlett; Richard Kern; and Francis Raven.

MAY 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 GC&CS activated Heath Robinson Machine (predecessor to Colossus), 1943 U-2 recon plane shot down over Soviet Union, 1960 President George H.W. Bush visited NSA, 1991
2 American cryptologic pioneer, Frank Rowlett, one of William Friedman's early hires, born, 1908	**3** Colonel Ralph H. Van Deman became Chief, Military Intelligence Branch, 1917	**4** The first 29 Navajos of roughly 400 to be trained as codetalkers reported to Fort Defiance, AZ, 1942 GEN Paul M. Nakasone, USA, sworn in as Commander, US-CYBERCOM, and Director, NSA/Chief, CSS, 2018	**5** Battle of the Coral Sea, set up by Station HYPO COMINT, began, 1942	**6**	**7** The 837th Signal Security Detachment, the first U.S. SIGINTers sent to Australia, arrived, 1942	**8** VE Day, end of war in Europe, 1945 Lieutenant General William Odom, USA, became DIRNSA, 1985
9	**10** Elizebeth Friedman appointed as cryptanalyst in the Bureau of Prohibition, 1927 U.S. Senate established information security as U.S. government responsibility, 1933	**11** Colony 7 complex, site of the National Cryptologic Museum, acquired for NSA, 1990	**12** Captain Joseph Rochefort, USN, naval cryptologist who led Station HYPO, born, 1900	**13** First Japanese linguist, John Hurt, hired by SIS,1930 Army Security Agency began its service in South Vietnam with the arrival of the Third Radio Research Unit at Tan Son Nhut Air Base in Saigon, 1961	**14** Center for Computer Assistive Technology opened, 1992	**15** National Bureau of Standards (in cooperation with NSA) began solicitation for a government-wide data encryption standard, which was adopted 3½ years later, 1973
16 Dr. Ivan Sutherland, American pioneer in computer graphics, born, 1938 WAAC (Women's Army Auxiliary Corps) established, 1942 Captain Laurance Safford, USN, father of U.S. naval cryptology, died, 1973	**17** System Development Corp. in Santa Monica, CA, convened private, academic, and DoD experts to discuss problems in computer security, 1965 Electronic Security Command took over USAF COMSEC mission, 1985	**18**	**19** U.S. State Department approved creation of Cipher Bureau ("Black Chamber"), 1919	**20** Armed Forces Security Agency (AFSA) created, 1949 Sergeant Trista L. Moretti Complex at NSA Texas dedicated, 2011	**21** William Friedman and Elizebeth Smith married, 1917 U.S. Cyber Command established at Ft. Meade, with DIRNSA dual-hatted as its commander, 2010	**22** Death of Friedrich W. Kasiski; developed solution for polyalphabetic ciphers, 1881 Vice Admiral J. Michael McConnell, USN, became DIRNSA, 1992
23 The NSC requested implementation plan for Washington Protected Communications Zone and Executive Secure Voice Network in response to the Soviet intercept threat, 1975	**24** "What hath God wrought," first telegraph message, sent from Baltimore to Washington, 1844	**25** British Brigadier John H. Tiltman, first foreign citizen inducted into Cryptologic Hall of Honor, born in London, 1894	**26**	**27**	**28**	**29** Cryptologic pioneer Genevieve Young (Hitt) born, 1885
30 SecDef delegated authority to the DIRNSA to accept gifts of documents, records, and equipment for research, display, or museum purposes, 1980	**31** Rum-running trial against Consolidated Exporters Corp. began with Elizebeth Friedman's cryptanalysis of company's encoded messages, 1933 *Memorial Day*					

Asian/Pacific American Heritage Month

General William Westmoreland, commander of US forces in Vietnam, paid a visit to Davis Station, the main army cryptologic unit in country.

JUNE 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Jargon code message announcing impending D-Day invasion intercepted and recognized by the German 15th Army but ignored at higher headquarters, 1944 Lieutenant General Marshall Carter, USA, became DIRNSA, 1965	**2** Travis Trophy presented to the United States, 1948 NSA's Marine Guards awarded the Meritorious Unit Citation, 1970 Judith A. Burgin Building dedicated, 1984	**3**	**4** Battle of Midway began, 1942 U-505, with trove of German cryptographic material and devices intact, became first enemy warship, since the War of 1812, captured by a U.S. Navy boarding party, 1944 President George W. Bush's first visit (of four) to NSA, 2002	**5** Brigadier General Marlborough Churchill, USA, became Chief, Military Intelligence Division, 1918 USAF aerial reconnaissance RC-135 lost, Bering Sea, 1969
6 D-Day, 1944 Six-Day War began in the Middle East, 1967	**7** Death of Alan Turing, famed British mathematician and cryptologist, 1954 Major General Joseph Mauborgne, USA, expert on codes and ciphers and World War I Army Signal Corps officer, died, 1991	**8** The USS *Liberty*, a Navy/NSA SIGINT collection ship, attacked by Israeli forces during the Six-Day War, 1967	**9** Canada established "Examination Unit," now known as Communications Security Establishment (CSE), 1941 ELIGIBLE RECEIVER exercise shows DoD's vulnerability to cyber attacks, 1997	**10** Establishment of U.S. Army Code and Cipher Section, MI-8, 1917	**11** Herbert O. Yardley hired by Canada's National Research Council, 1941	**12** Radio Intelligence Service of 1st Army, AEF, formed at Toul, France, 1918
13 Publication of Brownell Committee Report; laid foundation for establishment of NSA, 1952	**14** Signal Intelligence Service took possession of Arlington Hall, 1942 NRO established, 1962 NSA Family Day, 1975	**15**	**16**	**17** Systems Development Corporation (SDC) hosted conference of private and government experts on computer security, 1965	**18**	**19** Communications Act of 1934 signed by President Franklin D. Roosevelt, 1934 USSR and United States agreed on hotline between Moscow and Washington, 1963
20	**21** Publication of first of several installments of the influential cryptologic story "The Gold Bug" by Edgar Allan Poe, 1843	**22** GRAB, first SIGINT reconnaissance satellite, launched, 1960	**23** Diffie and Hellman present their idea for public-key exchange encryption at a conference in Sweden, 1976 John J. Whitelaw Building dedicated at NSA Georgia, 2010	**24** The "Potomac Code," first of the AEF "River" series of field codes, issued, 1918	**25** Letters by Hernán Cortés while in Mexico are first known use of cryptography in New World, 1532 New NSA Headquarters building dedicated, 1966	**26**
27 Albert J. Myer, developer of flag signaling system code, appointed signal officer with rank of major, 1860	**28** USS *Liberty* decommissioned,1968 Commissioning of Coast Guard Cryptologic Group at NSA Fort Meade, 2007	**29** Allies realized the U.S. diplomatic code had been broken by the Germans, 1942 Frank Rowlett, American cryptologic pioneer, died, 1998	**30** Two Rock Ranch, one of the West Coast monitoring stations during World War II, closed, 1971			

Lesbian, Gay, Bisexual, & Transgender Pride Month

On February 11, 1946, General of the Armies Dwight D. "Ike" Eisenhower (second from left), then army chief of staff, visited Arlington Hall Station (AHS) in Virginia for discussions. He remained on post until after the ceremony of retreat. Shown leaving one of Arlington Hall's operational buildings are Brigadier General Preston Corderman, AHS commander, right; directly behind Eisenhower, Lieutenant General Hoyt Vandenberg, the Army's G-2; and Colonel Frank Rowlett, who directed SIGINT operations at AHS. This was Eisenhower's first visit outside the Pentagon after becoming chief of staff.

JULY 2021

| Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 At Elizabeth Friedman's urging, U.S. Coast Guard established a cryptanalytic section, 1931 USAF activated Air Force Cryptologic Office at Ft. Meade, 1994 CIA public ceremony for VENONA declassification, 1995	**2** Boris Hagelin, inventor of Converter M-209 cryptodevice, born, 1892	**3** Cryptographic Security Board established, 1945
4 *Independence Day*	**5** General Order 8 issued by AEF in France, establishing headquarters organization that included a cryptographic and cryptanalytic branch, 1917 Vice Admiral Bobby Ray Inman, USN, became DIRNSA, 1977	**6**	**7**	**8** Arthur Scherbius received a patent for a cipher machine, now known as the ENIGMA, 1918 Arlington Hall Station made an official military intelligence post, 1942	**9** First official public acknowledgment of NSA, 1957 The renovated, state-of-the-art Friedman Conference Center reopened, 2018	**10** NSA Civilian Welfare Fund established at NSA Fort Meade, 1956
11 First U.S. patent granted for a cipher device to Edward Hawley, for multiple alphabetic device, 1865 Signal Corps began first communications security monitoring in France, 1918	**12** Lieutenant William Friedman reported to AEF G2A6, Chaumont, France, 1918	**13** National Cryptologic Museum opened to NSA/CSS personnel, 1993 Washington Wong Building at NSA Hawaii dedicated, 2016	**14** NSA/CSS Cryptologic Archival program and position of NSA/CSS Archivist formally established by DIRNSA Inman, 1978	**15** AFSA formally activated; RADM Earl E. Stone, USN, first Director, 1949 MG Ralph J. Canine, USA, named director, AFSA, 1951 House of Representatives established Permanent Select Committee on Intelligence, 1977	**16** First WAAC personnel arrived at Arlington Hall Station, 1943	**17** Mary, Queen of Scots, sent treasonous enciphered response to the Babington letter, 1586 American cryptologic pioneers Parker Hitt and Genevieve Young married, 1911
18 First current TUNNY traffic read at Bletchley Park, 1942	**19** Army Signal Corps conference about establishing the Signal Intelligence Service, 1929	**20** Captain Joseph Rochefort, USN, who led Station HYPO early in World War II, died, 1976	**21** CRITIC reporting program initiated, 1958	**22** Aaron Burr's "cipher letter" to General Wilkinson, leading to charges of treason against Burr, 1806 Patent issued to Gilbert Vernam for concept of machine encipherment, 1919	**23** The GUNMAN Project discovered implants hidden in typewriters used in the U.S. embassy in Moscow, 1984	**24** Agnes Meyer Driscoll, pioneering American cryptologist, born, 1889
25 Meeting at Pyry, outside Warsaw, where Poland shared its successes against the ENIGMA with Britain and France, 1939	**26** National Security Act passed, 1947 U.S. Congress opens hearings on computer threats to privacy and the need for data encryption, 1966	**27** Office of Management and Budget Circular A-71, "Security of Federal Automated Information Systems," directed federal agencies to create computer security programs, 1978	**28** First use of transatlantic telegraph cable, generating upsurge in commercial cryptography, 1866 U.S. Navy Code & Signal Section established, 1916	**29** William Friedman received a patent for a device to transmit telegraphic messages quickly, the first of his eventual 30 patents, 1924 The Soviets shot down an RB-50G-2 near Vladivostok, Russia, 1953	**30** WAVES (Women Accepted for Voluntary Emergency Service) established, 1942	**31** The "Wabash" field code issued, 1918 Agnes Meyer Driscoll discharged from U.S. Navy, 1919; retired from NSA, 1959
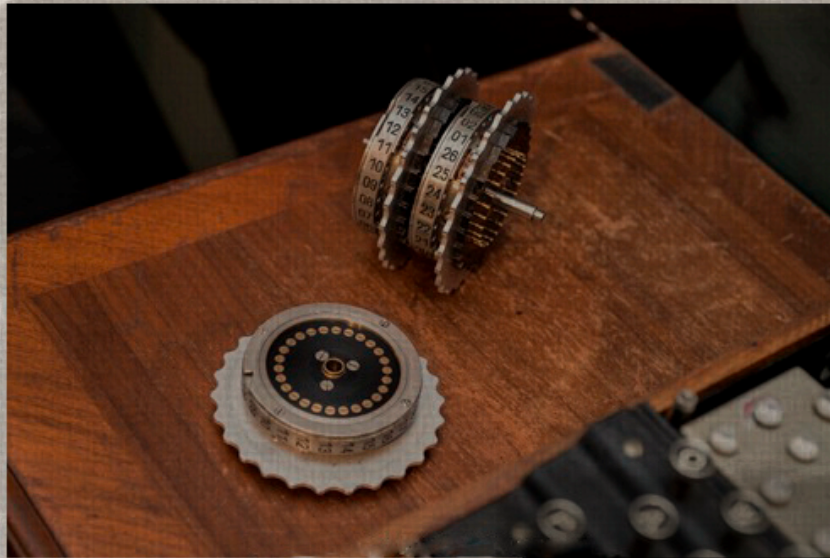
The ENIGMA machine, the Germans' most widely used cryptographic device in World War II, depended on a combination of rotating wheels and wired plugs to scramble messages. This internal construction of ENIGMA wheels is on display at the National Cryptologic Museum.
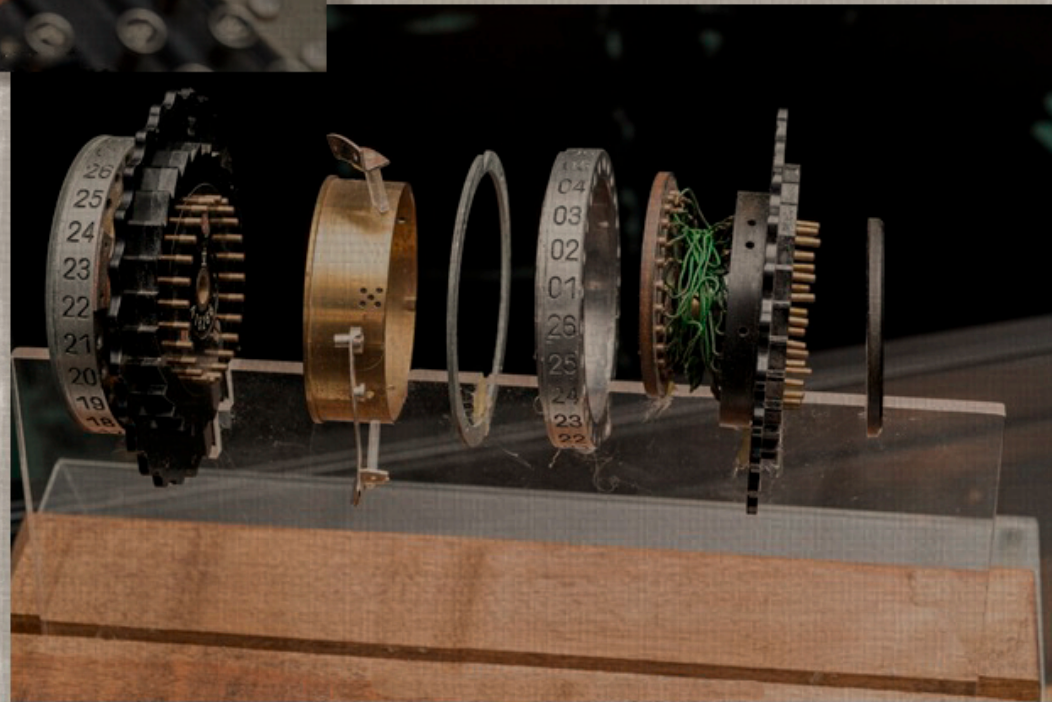
AUGUST 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Louis Tordella became D/DIR, 1958 New DIRNSAs: VADM Noel Gayler, USN, 1969 Lt. Gen. Sam Phillips, USAF, 1972 VADM William Studeman, USN, 1988 LTG Keith Alexander, USA, 2005	**2** Australian Coastwatchers sent coded message noting sinking of John F. Kennedy's PT-109, 1943 Iraq invaded Kuwait, 1990	**3** The "Mohawk" field code issued, 1918	**4** Prototype U-2 made its first test flight, 1955	**5** Representatives of U.S., UK, and USSR signed Limited Nuclear Test Ban Treaty, 1963 American cryptologic pioneer Solomon Kullback died, 1994	**6** The United States dropped atomic bomb on Hiroshima, 1945 World Wide Web was launched, 1991	**7** American cryptologic pioneer Herbert O. Yardley died, 1958
8 First public appearance of DIRNSA before Congress. Lieutenant General Lew Allen testified before the House's Pike Committee, 1975 The nation of Georgia suffered massive cyber attacks in conjunction with its border dispute with Russia, 2008	**9** The United States dropped atomic bomb on Nagasaki, 1945	**10** SecDef set the terms of reference for the Stone Board, which considered cryptologic reorganization after World War II, 1948	**11** Hedy Kiesler Markey (better known as actress Hedy Lamarr) and George Antheil received a patent for a secret frequency-hopping communication system, 1942	**12** The "Allegheny" field code issued, 1918 IBM introduced the IBM PC, 1981	**13**	**14** Spy Velvalee Dickinson sentenced to ten years for providing intelligence to Japan via "Doll Code" steganography in messages, 1944 President Reagan declared this day Navajo Codetalkers Day, 1982
15 Japan announced its surrender to the Allies, 1945	**16** First transatlantic exchange of telegraph communications occurred with congratulatory messages between Queen Victoria and President Buchanan, 1858	**17** NSA Far East (Tokyo) established, 1953	**18**	**19**	**20**	**21** Birthday of Étienne Bazeries, developer of "cylindrical cipher device," 1846 "House of 4 Hats" dining facility for NSA military opened (later, House of 5 Hats), 1974
22 American cryptologic pioneer Abraham Sinkov born, 1907 Chinese fighters shot down U.S. Navy reconnaissance plane over Shengsi Islands, killing all 16 crew members, 1956	**23**	**24** President Eisenhower approves the development of the GRAB satellite system, 1959	**25** First meeting of the Stone Board; led to establishment of AFSA, 1948	**26** American cryptologic pioneer Elizebeth Smith (Friedman) born, 1892 Russian Navy seized an undestroyed codebook from grounded German ship *Magdeburg*; given to the British government, 1914	**27** American cryptologic pioneer Parker Hitt born, 1878	**28** U.S. Navy establishes collection site at Otter Cliffs, ME, 1917
29	**30**	**31** Key intercepts of Russian radio traffic allowed German Generals von Hindenberg and Ludendorff to encircle and crush Russian forces at Tannenberg, 1914				

Cryptologic Critter

Life's embarrassing moments: A high-ranking visitor is being escorted into the headquarters building at Arlington Hall Station, the US Army's main cryptologic post, for a special event to sell war bonds during World War II. A pooch, possibly the pet of a senior officer quartered on the station, is attempting to crash the event.

(HIST - 65) - (2)

SEPTEMBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 The War Department Telegraph Code of 1919 was first used, 1921 First Bombe shipped to Nebraska Avenue, 1943	**2** Belligerents sign Japanese surrender aboard USS *Missouri*, 1945 RC-130 shot down while on recon mission, Armenia, 1958 Vigilance Park dedicated at NSA Ft. Meade, 1997	**3**	**4** First broadcast of the *Star Trek* episode "The Enterprise Incident," loosely based on the capture of the *USS Pueblo*, 1968
5 Palestinian terrorists killed 11 Israeli Olympic athletes and a German policeman in Munich, 1972	**6** Winston Churchill visited Bletchley Park, 1941 *Labor Day*	**7** Boris Hagelin, inventor of Converter M-209 cryptodevice, died, 1983	**8** A "computer bug" was first identified and named by Lieutenant Grace Murray Hopper, USN, 1947	**9** The "Electronic Disruption Theater" mounted a denial-of-service attack on the Pentagon's DefenseLink website, 1998	**10** Lieutenant Colonel Frank Moorman, USA, chief of AEF's Radio Intelligence Section (G2A6), born, 1877 USAFSS-crewed RB-50 lost during a typhoon, 1956	**11** al-Qaida attack on the Pentagon and World Trade Center, 2001 President Obama visited NSA and USCYBERCOM, 2015
12 U.S. offensive on the St. Mihiel salient, France, begins, 1918 Elizebeth Friedman departed the Coast Guard, 1946	**13**	**14**	**15** The Signal Security Agency reorganized as the Army Security Agency, 1945	**16** First U.S. Intelligence Board meeting at NSA Fort Meade, 1966 American cryptologic pioneer Agnes Meyer Driscoll died, 1971	**17** President Reagan's National Security Decision Directive-145 briefly gave NSA a role in securing data on federal computer systems, 1984	**18** USAF Security Group established, 1947
19 Joseph Ream hired, first civilian deputy director of NSA, 1956	**20** Rivest, Shamir, and Adleman received a patent for the encryption algorithm RSA, 1983	**21** First NSA open house, 1957	**22**	**23** British Major John Andre captured with treasonous ciphered letter from Benedict Arnold, 1780	**24** American cryptologic pioneer, William Friedman born, Kishinev, Russia (now Chisinau, Moldova), 1891 The "Colorado" field code issued, 1918	**25** Alfred Vail, co-inventor of the telegraph, born, 1807
26 Hubert H. Humphrey visited NSA; first vice-presidential visit, 1967 President Reagan dedicated Operations Buildings 2A and 2B; first presidential visit to NSA, 1986	**27**	**28** Department of Defense and Intelligence Community closed the Information Operations Technology Center (IOTC), 2004	**29** USMC turned over responsibility for guarding NSA Fort Meade to Federal Protective Service, 1978	**30** Edward Hebern received a patent for an electric coding machine, the first U.S. cipher machine to use a rotor, 1924 Lieutenant Colonel Frank Moorman, USA, chief of G2A6 during World War I, died, 1953	*National Hispanic Heritage Month* September 15 – October 15	

Allied forces in Italy in World War II battled their way up the peninsula, fighting an enemy that always held the high ground and had a series of well-prepared defensive lines.

The Allied commander, Lieutenant General Mark Clark, USA, received ULTRA, decrypts of high-level German messages. Subordinate commanders in the field had access to tactical SIGINT from frontline units that intercepted and analyzed low-level enemy communications.

General Clark commended one of these units for its support activities, writing, "The excellent intelligence produced by your detachment has assisted materially in determining the enemy's strengths …." Members of one unit are shown working in a van that traveled just behind the front lines to provide immediate support to the warfighters.

OCTOBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	National Disability Employment Awareness Month				**1** The American "Black Chamber" began operations, 1919 Major General Doyle Larson, USAF, born, 1930 AFSA assumed operational control of cryptologic activities, 1949	**2** Signing of Holden Agreement regarding U.S.-UK naval COMINT responsibilities, 1942
3 U.S. Army and Navy agreed to "odd/even" day division of effort on Japanese diplomatic cipher, 1940	**4**	**5** U.S. Army transferred Cryptographic Division School from Ft. Monmouth to Vint Hill Farms, VA, 1942	**6** Yom Kippur war in Middle East began, 1973	**7** USAF aerial reconnaissance RB-29 shot down by Soviet fighters over Sea of Japan, 1952 Operation ENDURING FREEDOM began, 2001	**8**	**9** The FBI arrested Joseph Petersen, "NSA's first spy," at his home, 1954
10	**11** Researchers use 400 linked computers to factor a 100-digit number, 1988 *Columbus Day*	**12** William Friedman awarded National Security Medal by Director of Central Intelligence Allen Dulles, 1955	**13**	**14** DIRNSA Hayden conducted first NSA "Seniors' Day" meeting, 2000	**15** World War I trench code "Huron" issued, 1918 School at Vint Hill Farms renamed ASA School, 1946 Pendergrass report on use of computers in cryptology, 1946	**16** President George W. Bush's Executive Order 13231 creates the Committee on National Security Systems with NSA as a member, 2001
17 First commercial transatlantic wireless service began, 1907	**18** Howard Engstrom appointed D/DIR, 1957	**19** Charles Wheatstone, inventor of the Playfair cipher, died, 1875 Robert Lamphere, FBI, began collaboration with Meredith Gardner on VENONA-related material, 1948	**20** USAFSS established, 1948 NSC Directive 168 designates DoD as executive agent for all government COMSEC matters (DoD further delegates this duty to NSA), 1953 President's Foreign Intelligence Advisory Board reestablished, 1981	**21** President Kennedy ordered naval quarantine of Cuba after intelligence discovered offensive missile sites on island, 1962	**22** Captain Laurance Safford, USN, father of American naval cryptology, born, 1893 USAFSS deployed Emergency Reaction Unit to Key West, FL, for Cuban Missile Crisis, 1962	**23** Terrorists destroyed the Marine compound in Beirut, killing 254, 1983
24 Influential Killian report on defense and intelligence submitted to President Eisenhower, 1957 **31** Elizabeth Friedman died, 1980	**25**	**26** First combat employment of Native American codetalkers, 1918 National Cryptologic Museum recognized Dr. David Kahn for contributing his collection to the museum library, 2010	**27** Senator Daniel Patrick Moynihan introduced bill that would create the Public Interest Declassification Board, 1999	**28** President Lincoln approved establishment of Military Telegraph Department, 1861 Lambros Callimahos, noted NSA cryptanalyst and teacher, died, 1977	**29** First U.S. intercept in France in World War I, 1917 First message sent on DoD-funded ARPANET, forerunner of modern Internet, 1969	**30** Center for Cryptologic History published *The Friedman Legacy*, containing transcripts of the famed "Friedman Lectures," 1992

The callsign recovery section of the Fleet Radio Unit Pacific, located on Oahu in Hawaii in World War II. Navy personnel were trying to recover Japanese Navy callsigns in support of cryptanalysis and traffic analysis.

NOVEMBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Britain's GC&CS established, 1919 COMINT station established on Guadalcanal, 1942 First *NSA Newsletter*, 1953 National Cryptologic School becomes operational; first commandant is Frank Rowlett, 1965	**2** William Friedman died, 1969	**3**	**4** NSA established, 1952, Lieutenant General Ralph J. Canine, USA, became first DIRNSA	**5** The Android mobile operating system debuts, 2007	**6** The "Seneca" field code released, 1918 Captain Joseph Wenger, USN, became head of OP-20-G, 1944
7	**8**	**9** Lieutenant General Ralph J. Canine, USA, first DIRNSA, born, 1895 Center for Cryptologic History established, 1989	**10** First NSA Field Chiefs Conference, 1975 NSA designated a Combat Support Agency, 1988 DIRGRAM 00 began the "100 Days of Change," 1999	**11** Armistice signed ending World War I, 1918 First fixed U.S. field station at Houlton, ME, began operation, 1918 *Veterans Day*	**12** AEF Radio Intelligence Section opened intercept site at Souilly, France, 1917	**13** First World Wide Web page written, 1990
14	**15** President Clinton's Executive Order 13026 eased exports of encryption products, 1996	**16** Herbert O. Yardley hired as State Department code clerk, 1912	**17**	**18**	**19**	**20** Attempt to rescue POWs from Son Tay, North Vietnam; tactical SIGINT was superb, but the POWs were moved before the raid, 1970
21 First permanent ARPANET link established, 1969	**22** Herbert O. Yardley fired by Canada's National Research Council, 1941	**23** The Data Encryption Standard approved as federal standard for all unclassified government communications, 1976 Lieutenant General John Samford, USAF, officially opened the OPS 1 building, 1957	**24** Lieutenant General John Samford, USAF, became DIRNSA, 1956 Vice Admiral Laurence Frost, USN, became DIRNSA, 1960	**25** Ronald Pelton, former NSA analyst, arrested for spying for Soviets, 1986 *Thanksgiving Day*	**26** OPS 3 (now the Frank B. Rowlett Building) dedicated, 1968	**27**
28	**29**	**30** Charles Chibitty of the Comanche Nation received Knowlton Award for codetalking contributions during World War II, 1999				

National American Indian Heritage Month

Lights in NSA's headquarters building on Ft. Meade used to be turned on to spell out a holiday greeting in December. Unlike today, at that time religious symbols such as the rooftop star were sometimes displayed. "Joy" and "Pax" were used several times, and the pictured configuration was popular in the early 1970s when Vice Admiral Noel Gayler was NSA's director.

DECEMBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Polish Cipher Bureau first solved ENIGMA message, 1932 JN-25B code was introduced by the Japanese Navy, 1940 ATLAS operational, first U.S. cryptologic computer, 1950	**2**	**3** First "Muzak" in NSA spaces, 1964	**4** Executive Order 12333 issued on intelligence community roles and activities, 1981
5	**6** Pre-employment polygraph became mandatory at NSA, 1952	**7** Japanese attacked Pearl Harbor in Hawaii, 1941	**8** SecDef announced that the Global Positioning System (commonly known as GPS) was complete. The system was accurate to 100 meters, 1993	**9** The Sperry Rand Corp. unveiled the Univac 1107, the first electronic computer to use thin-film memory, 1960	**10** Official end of Spanish-American War, 1898	**11** Germany and Italy declared war on the United States, 1941
12 Panay Incident; U.S. Army decrypts of Japanese RED code informed U.S. response to incident, 1937	**13** USAF launched the POPPY 1 satellite into orbit, 1962	**14** First NSA holiday party, 1958 Three MIT researchers filed for a patent for what came to be known as the RSA public-key encryption algorithm, 1977	**15** Death of Johannes Trithemius, author of first book on cryptography published in Europe, 1516 NSA Georgia fully operational, 1995	**16** NSOC inaugurated in 1972; the official ribbon cutting ceremony was held in February 1973	**17** Guglielmo Marconi proved radio messages could cross the Atlantic, 1902 National Cryptologic Museum opened to the public, 1993	**18** DoD Directive 5200.28, "Security Requirements for ADP Systems," established the first computer security regime for DoD, 1972
19 Robert Patterson's 1801 letter to Thomas Jefferson included a challenge message in code not broken until 2007 by Dr. Lawren Smithline, mathematician at CCR-Princeton. Decrypt turned out to be the Declaration of Independence	**20** Meredith Gardner solved KGB message containing list of scientists working on Manhattan Project, an important development in the VENONA project, 1946	**21** Terrorists sponsored by Libya blew up Pan Am flight 103 over Lockerbie, Scotland, 1988	**22** Specialist James Davis, USA, became first American cryptologist killed in Vietnam, 1961 Astronauts aboard NASA's Apollo 8 spacecraft transmitted the first live telecast from outer space, 1968	**23** USS *Pueblo* crew released by North Korea, 1968	**24**	**25** Arlington Hall Station Civilian Welfare Fund began serving AFSA members, 1949 *Christmas Day*
26	**27** Stone Board report on centralizing U.S. cryptologic organizations issued, 1948	**28** Brownell Committee established, which led to the creation of NSA, 1951	**29**	**30**	**31** William Friedman became the first civilian cryptanalyst with the Office of the Chief Signal Officer, 1921	

Glossary

ADFGVX: A cipher comprising the six letters identified, which Germany began using in 1918

AEF: American Expeditionary Forces, World War I

AFSA: Armed Forces Security Agency (predecessor to NSA)

ARPANET: The Advanced Research Projects Agency Network. Developed by the Department of Defense, was first operational switching network, precursor of the Internet

ASA: Army Security Agency

Bombe: Electromechanical device used by the Allies during World War II to decrypt messages generated by the German ENIGMA machine

BRUSA: British-U.S. agreement to partner on SIGINT matters

CAST: U.S. intercept site on Corregidor, World War II

COLOSSUS: Machine developed at Bletchley Park to break high-level German cipher; the world's first programmable, electronic, digital computer

COMINT: Communications Intelligence

COMSEC: Communication Security

DEFSMAC: Defense Special Missile and Aerospace Center

DIRNSA: Director, National Security Agency

DIA: Defense Intelligence Agency

DoD: Department of Defense

D/DIR: Deputy Director, National Security Agency

ENIGMA: German cryptographic device, World War II

FRUPAC: Fleet Radio Unit Pacific, World War II

G2A6: Organization that conducted battlefield communications intelligence support for AEF units in World War I

GC&CS: Government Code and Cypher School (predecessor to UK's GCHQ)

GCHQ: Government Communications Headquarters, the UK cryptologic organization

HoH: Cryptologic Hall of Honor

INSCOM: U.S. Army Intelligence and Security Command

NARA: National Archives and Records Administration

NGA: National Geospatial-Intelligence Agency

NRO: National Reconnaissance Office

NSOC: National Security Operations Center (formerly National SIGINT Operations Center)

RSA: Public key cryptographic algorithm, named after Rivest, Shamir, and Adleman, its co-inventors

SECAF: Secretary of the Air Force

SecDef: Secretary of Defense

SIGABA: Highly secure U.S. cryptographic machine used to encipher communications from World War II to the 1950s

SIGINT: Signals Intelligence

SIGSALY: Secure Digital Voice Communications machine used in World War II

SIS: Signals Intelligence Service (forerunner of Army Security Agency)

USAFSS: U.S. Air Force Security Service

WAAC: Women's Army Auxiliary Corps

WAVES: Women Accepted for Volunteer Emergency Service, U.S. Navy

VENONA: U.S. program from 1943 to 1980 that discovered Soviet diplomatic communications and dealt with espionage matters as well

NOTES

The NSA Fort Meade headquarters campus in 1984. Construction had begun on the OPS 2A building. Note the absence of a perimeter fence or vehicle checkpoints. Access to the campus was open to employees, visitors, and pizza delivery folks.

For more information on the historical references in this calendar, please contact the *Center for Cryptologic History* 301.688.2336 or history@nsa.gov

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