ITL History Timeline

2010-1950

Updated as of October 20, 2010

ITL Milestones	Legislation and Computing History
2010 – NIST publishes approved testing procedures for electronic health records. http://www.nist.gov/itl/ssd/hit_20100817.cfm 2010 – ITL publishes cyber security guidelines for the Smart Grid. http://csrc.nist.gov/publications/PubsNISTIRs.html 2010 - ITL releases Digital Library of Mathematical Functions (DLMF). http://dlmf.nist.gov/ 2010 - ITL focuses on Cloud Computing. http://www.nist.gov/itl/cloud.cfm 2010 - ITL advances in Health Information Technology. http://www.nist.gov/itl/hit/index.cfm	
2009 – ITL team received the Department of Commerce Gold Medal for significantly improving U.S. computer security by creating the Security Content Automation Protocol and the National Vulnerability Database. http://scap.nist.gov/ and http://nvd.nist.gov/ 2009 – ITL researchers received the Department of Commerce Gold Medal for leadership in the design, standardization, test, and deployment of Domain Name System Security Extensions (DNSSEC) technologies for the Internet. http://snad.ncsl.nist.gov/dnssec/	2009 - American Recovery and Reinvestment Act

2009 – ITL leads task group developing Smart Grid cyber security strategy and requirements.

2009 - ITL issues Federal Information Processing Standard (FIPS) 186-3, Digital Signature Standard (DSS), which specifies stronger algorithms for digital signatures in the exchange of information among federal agencies.

2009 – ITL researchers demonstrated single photon level spectroscopy for elusive infrared (IR) region.

2009 – ITL's Cryptographic Algorithm Validation Program Validates 1,000th Advanced Encryption Standard (AES) Algorithm.

2009 - ARRA Legislation Codifies the Role of NIST/ITL in Health IT for the First Time

2008 – ITL voting team received the Department of Commerce Gold Medal for developing voting system guidelines for the nation.

2008 – ITL's Cryptographic Module Validation Program Validates 1,000th Cryptographic Module.

2008 – ITL's Computer Security Division received Governmentwide Initiatives Excellence Award.

2008 – ITL publishes roadmap to federal agencies on implementing Internet Protocol Version 6 (IPv6).

2008 – ITL Visualization Group won a Department of Energy Office of Advanced Scientific Computing Research Award for their visualization work.

2008 – ITL's Refreshable Scanning Tactile Graphic Display received U.S. Patent. The invention enables devices allowing users to "view" text, Braille, and imagery using the sense of touch.

2007 – American National Standard ANSI/NIST-ITL 1-2007, Data Format for the Interchange of Fingerprint, Facial, & Scar Mark & Tattoo (SMT) Information, approved. **2007** – ITL received the Department of Commerce Gold Medal for its Personal Identity Verification work. **2007** – ITL launched public competition to develop a new cryptographic hash algorithm to strengthen the security of federal information. **2007** – ITL delivered final voluntary voting system guidelines to U.S. Election Assistance Commission to improve the nation's voting systems. **2007** - ITL researchers received the R&D 100 Award for building the high-speed fiber Quantum Key Distribution (QKD) system.	**2007** - Energy Independence and Security Act **2007** - America COMPETES Act
2006 - Federal Information Processing Standard (FIPS) 200, Minimum Security Requirements for Federal Information and Information Systems approved.	**2006** - Patriot Act renewed by Congress.
2005 – Federal Information Processing Standard (FIPS) 201, Standard for Personal Identity Verification of Federal Employees and Contractors, approved. **2005** – Cryptographic Module Validation Program (CMVP) 500th validation certificate issued. **2005** – Draft voluntary voting guidelines delivered to the Technical Guidelines. Development Committee and the Election Assistance Commission **2005** - ITL Signs Formal Memorandum of Understanding with the Dept. of Health and Human Services Office of the National	

Coordinator to Collaborate on Health IT

2005 – ITL/industry-developed ISO/IEC Standard 25062 *Software Engineering-Software Quality and Requirements Evaluation - Common Industry Format for Usability Test Reports*, approved.

2005 – Under ITL leadership, five critical international biometric standards were approved.

2004 – ITL team received the Department of Commerce Gold Medal for smart card specifications.

2004 – National Software Reference Library (NSRL) data set exceeded ten million Secure Hash Algorithm (SHA)-1 hashes.

2004 – FIPS 199, *Standards for Security Categorization of Federal Information and Information Systems*, approved.

2004 – ITL-developed Role Based Access Control (RBAC) standard approved as American National Standard INCITS 359-2004.

2004 – Five biometric data interchange format standards and two biometric profile standards approved as American National Standards.

2004 - Homeland Security Presidential Directive 12, *Policy for a Common Identification Standard for Federal Employees and Contractors*, issued.

2003 - ITL received the Department of Commerce Gold Medal for its biometrics work.

2003 – Extensible Markup Language (XML) conformance test suite released.

2003 – First test results published for Computer Forensics Tool Testing (CFTT) Project.

2002 - Role Based Access Control (RBAC) development team received the Department of

2002 – Voluntary voting guidelines project launched,

Commerce Gold Medal.

2002 – NIST quantum information program initiated.

2002 – Face Recognition Vendor Test Report published.

2002 – Online NIST/SEMATECH e-Handbook of Engineering Statistics issued.

mandated by the Help American Vote Act (HAVA) (P.L.107-252).

2002 – ITL tasked to develop standards and guidelines for improved agency management of secure information systems by Federal Information Security Management Act (FISMA) (Title III of E-Gov) (P.L.107-347).

2001 - ITL team received the Department of Commerce Gold Medal for development of the Advanced Encryption Standard (AES)

2001– FIPS 197, *Advanced Encryption Standard (AES),* approved.

2001 – National Software Reference Library (NSRL) released Reference Data Set version 1.0.

2001 – The E-Book/Braille Reader development team received the R&D 100 Award.

2001 – ITL's biometrics research focused on homeland security by the USA PATRIOT Act (P.L.107-056).

2001 – NIST celebrated its Centennial.

2000 – American National Standard ANSI/NIST-ITL 1-2000, *Data Format for the Interchange of Fingerprint, Facial, & Scar Mark & Tattoo (SMT) Information,* approved.

2000 – ITL team received the Department of Commerce Gold Medal for first global industry

standard for electronic books.

1999 – <u>Under ITL leadership, ISO/IEC 15408: 1999, Common Criteria for IT Security Evaluation, approved.</u>	**1999** – <u>Concerns about potential damages to computers from Y2K were widespread.</u>
1997 – <u>Digital Library of Mathematical Functions (DLMF) project initiated.</u>	
1997 – <u>ITL-developed S-Check received R&D 100 Award.</u>	**1996** – Information Technology Laboratory (ITL) formed through merge of NIST computing and applied mathematics laboratories.
1995 – <u>Multi-national Cryptographic Module Validation Program (CMVP) established.</u>	
1994 - <u>Guide to Available Mathematical Software (GAMS) premiers as first NIST publically accessible World Wide Web site</u>	**1996** – <u>Information Technology Management Reform Act (P.L. 104-106) replaced the Brooks Act and reaffirmed NIST's responsibilities to develop standards and guidelines for federal computer systems.</u>
1994 – <u>ITL team received Department of Commerce Gold Medal for research in cryptography.</u>	
1993 – <u>FIPS 182, *Integrated Services Digital Network (ISDN)*, approved.</u>	
1992 – <u>MultiKron developed to promote high-performance computing and flexible scalable systems.</u>	
1992 – <u>Text Retrieval Conference (TREC) and research program initiated.</u>	
1992 – <u>FIPS 151-2, *POSIX*, validation testing program initiated.</u>	
1992 – <u>Validation testing services initiated for FIPS 160, C.</u>	
1991 – <u>FIPS 160, *C*, approved.</u>	**1991** - NIST established

Computing and Applied Mathematics Laboratory.

1991 – Computer Systems Laboratory (CSL) renamed from National Computer Systems Laboratory (NCSL).

1988 - FIPS 140, *General Security Requirements for Equipment Using the Data Encryption Standard.*

1988 – FIPS 151, *Portable Operating System Interface (POSIX),* approved.

1988 – TIMIT Acoustic Phonetic Continuous Speech Database, first speech corpora CD, released to speech research community.

1987 – FIPS 127, *Database Language SQL,* approved.

1986 – Staffer received the DoC Gold Medal for automating fingerprint identification processes.

1984 – NBS/ICST accredited as American National Standards developer.

1981 – Validation testing services initiated for FIPS 68, *Minimal BASIC,* and FIPS 69, *FORTRAN*; see historical paper.

1980 – FIPS 68, *Minimal BASIC,* and FIPS 69, *FORTRAN,* approved.

1988 – National Computer Systems Laboratory (NCSL) renamed from Institute for Computer Science and Technology (ICST).

1988 - Center for Computing and Applied Mathematics established.

1988 – National Institute of Standards and Technology Act (P.L.100-418) renamed NBS to National Institute of Standards and Technology (NIST).

1987 – Computer Security Act (P.L.100-235) formally assigned to NBS responsibility for computer security for

	unclassified federal systems.
1979 – FIPS 60, *I/O Channel Interface*, approved. 1979 – NBS campus-wide local area network (LAN) implemented. 1977 – FIPS 46, *Data Encryption Standard (DES)*, approved; see historical paper. 1976 – Standard Reference Materials 1901, 1902, 1903, and 1904 issued for optical character recognition (OCR) characters. 1975 – NBSIR 75-687, *Effective Use of Computer Technology in Vote-Tallying*, published. 1973 – Validation testing services for FIPS 21, *COBOL*, initiated. 1972 – FIPS 21, *COBOL*, approved. Early 1970s – NBS developed one of five nodes of ARPAnet. Early 1970s – Efforts initiated to develop standards and guidelines for the protection of unclassified data in federal computer systems. Early 1970s - First NBS publication in area of computerized scientific data management; see historical paper.	1978 - NBS established Center for Applied Mathematics. 1972 – Institute for Computer Sciences and Technology (ICST) renamed from Center for Computer Science and Technology.
1969 – Standard Reference Material 3200,	1969 - NBS

Secondary Standard Magnetic Tape-Computer Amplitude Reference, issued.

1968 – **FIPS 1, *Code for Information Interchange (ASCII)*, approved, inaugurating the Federal Information Processing Standards (FIPS) series; see historial paper**.

Mid 1960s – MAGIC, one of the first intelligent computer graphics terminals, developed for federal agencies.

Mid 1960s – Projects initiated to assist the Federal Bureau of Investigation in automating its fingerprint identification system.

1964 – **Classic mathematics reference compendia, *Handbook of Mathematical Functions,* published; see historical paper**.

1963 – ***Experimental Statistics Handbook* published; see historical paper**.

1958 - **SEAC used to process and identify structural diagrams of chemical compounds.**

1957 - **SEAC used for NBS research in processing**

established Center for Computer Science and Technology

1965 - **Automatic Data Processing (ADP) standards development at NBS mandated by Brooks Act (P.L. 89-306)**

1965 - Jack Edmonds published seminal paper in the mathematical theory of combinatorial algorithms; **see historical paper**.

1961 - Churchill Eisenhart published seminal paper on precision and accuracy of instrument calibration systems; **see historical paper**.

1951 – **U.S. Bureau**

[scanned images.](#)

1950 - Standards Electronic Automatic Computer (SEAC), designed and built at NBS, begins operation; [see historical paper](#).

[of the Census began using the UNIVAC I, the first commercial computer.](#)

1951 - Hestenes and Stiefel developed the method of conjugate gradients; [see historical paper](#).

1950 - National Applied Mathematics Laboratories renamed as Applied Mathematics Division.

1950 - Cornelius Lanczos developed first Krylov subspace method for the solution to eigenvalue problems; [see historical paper](#).

Late 1940s – NBS funded to develop first stored-program electronic computer to assist Bureau of the Census in 1950 census.

1947 - NBS established the National Applied Mathematics Laboratories (NAML) with branches for numerical analysis, computation,

machine development, and statistical engineering.

1947 - [John Curtiss, Director of NAML, is elected the first President of the Association for Computing Machinery (ACM)](#)

1938 - [NBS launched the Math Tables Project in New York City on behalf of the Works Projects Administration (WPA).](#)

1901 – Congress created the National Bureau of Standards as the federal government's first physical science research laboratory.