

Introduction to Standards, Standards Developing Organizations, and the AAFS Standards Board (ASB)

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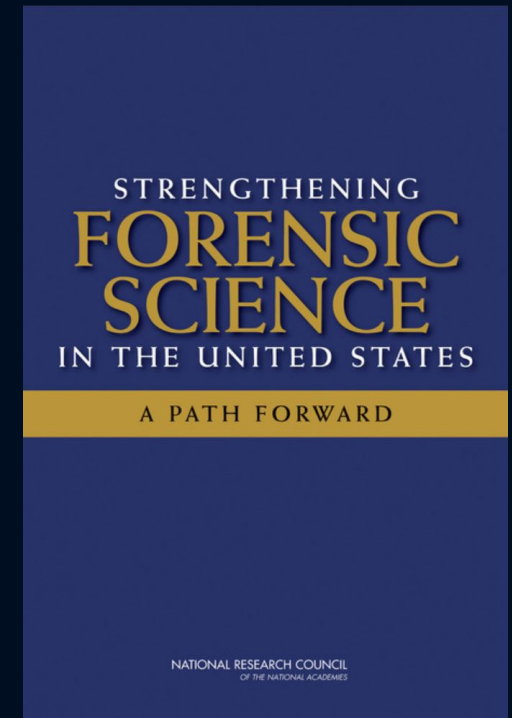
ASB Board of Directors and Staff

- Appointed by AAFS Board of Directors from AAFS membership
- Directors serve 3 years
- Chair: Julie Howe
- Vice Chair: Jennifer Limoges
- Directors include:
 - Kenneth Aschheim
 - Greg Berg
 - Lucy A. Davis
 - Pamela King
 - Linton Mohammed
- Staff:
 - Donna Grogan, AAFS Executive Director
 - Teresa Ambrosius, Secretariat
 - Linda Wilson, Technical Coordinator
 - Mary McKiel, ANSI and ISO Consultant



Background Leading to the ASB

- 2009 National Research Council report - *Strengthening Forensic Science in the United States: A Path Forward*
- February 4, 2014 announcement to National Commission on Forensic Science (NCFS) of Organization of Scientific Area Committees for Forensic Science (OSAC) launch
- January 2015 - first OSAC Subcommittee Meetings occurred.



AAFS – Standards Board (ASB)

- AAFS establishes Standards Developing Organization (SDO)
- Wholly owned subsidiary of AAFS
- Established and staffed – 2015/2016
- Accredited by the American National Standards Institute (ANSI) – December 2015
- Partially funded by a grant through the Laura and John Arnold Foundation
- Consists of Consensus Bodies (CB), a Board of Directors, and Staff



What is a Standard

- Standard: a document that tells you how to do or say or make or test or organize or design something
- Voluntary Consensus Standard (VCS): a private sector standard developed in a specifically defined open and fair environment with general agreement by stakeholders
- American National Standard (ANS): a Standard developed in accordance with the “ANSI Essential Requirements: Due process requirements for American National Standards” and subject to ANSI’s unique: 1) accreditation of consensus procedures; 2) neutral oversight; 3) approval process; 4) appeals process; and 5) procedural audit.*

- * “What is an American National Standard (ANS) anyway?” www.ansi.org

What is a SDO

- STANDARDS DEVELOPING ORGANIZATIONS (SDOs)
- Organizations focused on developing, publishing, or disseminating technical standards using a consensus-based standards development process.
- While ANSI coordinates U.S. voluntary standardization activities, the standards are written by hundreds of individual standards developing organizations (SDOs). If an SDO complies with ANSI's Essential Requirements—including openness, balance, due process, and consensus—they can apply to become an ANSI-accredited standards developer (ASD). More than 240 organizations are currently accredited as ASDs.
- To date, there are more than 11,000 American National Standards, comprising the work of thousands of experts from hundreds of ASDs representing practically every industry sector.

Document Development



- ASB has a strong collaborative relationship with the Organization of Scientific Area Committees (OSAC) for Forensic Science
- Most documents start with a draft developed within OSAC.
- Documents may also be created within ASB or submitted from other sources
- The ASB CB is ultimately responsible for the content of the document
- All ASB Standards and Best Practice Recommendations are put through the ANSI process to become American National Standards



What OSAC Really Does



- The OSAC is a collaborative body of more than 550 forensic science practitioners and other experts who represent all levels of the government, academia and industry.
- Establishing OSAC to strengthen the nation's use of forensic science by supporting the development and promulgation of forensic science consensus documentary standards and guidelines.
- OSAC evaluates existing standards published by SDOs for placement on the OSAC Registry

AND

- OSAC introduces draft documents into existing SDOs for formal development – drafts go through SDO's consensus process
- SDO publishes the new or revised standard
- OSAC evaluates if standard meets OSAC technical & process requirements
- OSAC approves standard for placement on the OSAC Registry

NOTE: OSAC does not publish Standards



What is ANSI?

- As the voice of the U.S. standards and conformity assessment system, the American National Standards Institute (ANSI) empowers its members and constituents to strengthen the U.S. marketplace position in the global economy while helping to assure the safety and health of consumers and the protection of the environment.
- The Institute oversees the creation, promulgation and use of thousands of norms and guidelines that directly impact businesses in nearly every sector: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution, and many more. ANSI is also actively engaged in accreditation - assessing the competence of organizations determining conformance to standards.

What is ANSI?

- ANSI facilitates the development of American National Standards (ANS) by accrediting the procedures of standards developing organizations (SDOs). Accreditation by ANSI signifies that the procedures used by the standards body in connection with the development of American National Standards meet the Institute's essential requirements for openness, balance, consensus and due process.
- The National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law 104-113) and its implementation directive, Office of Management and Budget Circular A-119, direct federal agencies to utilize voluntary consensus standards where feasible and to participate as appropriate in voluntary consensus standards development activities. Standards developed in accordance with ANSI's accreditation requirements satisfy obligations incumbent on federal agencies to use or adopt voluntary consensus standards.

Why American National Standards?

- All ASB Standards and Best Practice Recommendations are put through the ANSI process to become American National Standards
- Provides for due process based on openness, balance, and consensus
- All interested and affected parties can participate
- Recognized world-wide
- Protects the public interest
- Often adopted into regulations

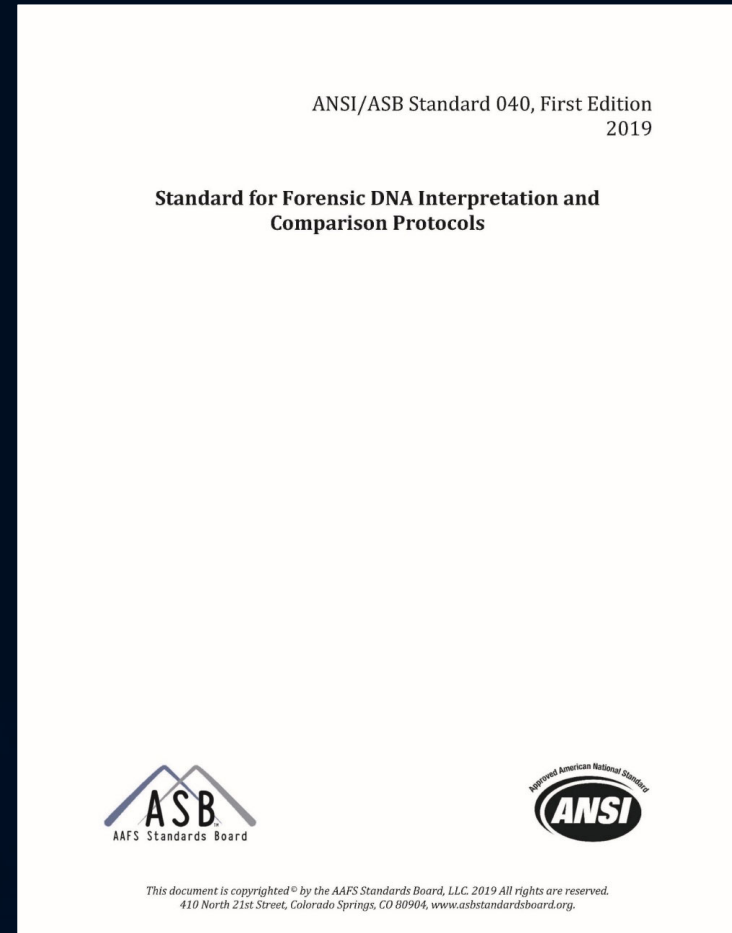
Active Consensus Bodies

The ASB current has 13 active Consensus Bodies

- Anthropology
- Bloodstain Pattern Analysis
- Crime Scene Investigation
- Disaster Victim Identification
- DNA
- Dogs and Sensors
- Firearms and Toolmarks
- Footwear and Tire
- Forensic Document Examination
- Friction Ridge
- Medicolegal Death Investigation
- Toxicology
- Wildlife Forensics

Current Status of ASB

- Over 160 New Work Proposals submitted
- 42 Standards/Best Practice Recommendations and 4 Technical Reports published
- Over 45 additional posted for public comment



Governing Documents

Academy Standards Board Procedures for the Development of American National Standards

- ANSI Approved in 2019, currently going through a revision
- Contains ANSI approved Interest Categories
- Responsibilities of ASB Board, Staff, and Consensus Bodies
 - Approval and review of membership
 - Meeting procedures
- Sets processes for standards development
 - PINS
 - Voting
 - Disposition of Views and Objections
 - Appeal Procedures



Governing Documents

ASB Manual for Standards, Best Practice Recommendations, and Technical Reports

- Used by the working group to prepare the draft document to be presented to the consensus body
- The purpose is to ensure consistency in format, and to maximize usability of the documents
- Developed to provide guidance for preparing documents that will be published by the Academy Standards Board (ASB) and submitted to the American National Standards Institute (ANSI)
- PDF can be downloaded from [Documents & Forms](#) site
- Each standard (S), technical report (TR) and best practice recommendation (BPR) prepared for approval by consensus bodies of the ASB shall conform to this manual

ASB Consensus Body: Membership

- 7 to 25 voting members
- Administered by the Secretariat with the Officers (Chair, Vice-Chair, and Secretary) selected directly by the Consensus Body
- Open to all materially interested and affected individuals, companies, and organizations
- Applications reviewed, and members appointed by the Academy Standards Board
- Membership balance and interest categories conform to ANSI *Essential Requirements* for balance, lack of dominance, due process
- Over 300 industry volunteers on ASB Consensus Bodies and Working Groups



ASB Interest Categories

ASB's seven ANSI approved interest categories

- Academics and Researchers
- General Interest
- Jurisprudence and Criminal Justice
- Organizations
- Producer
- User - Government
- User - Non-Government



ASB Consensus Body: Functions

- Creating and approving by consensus Forensic Standards, Best Practice Recommendations, and Technical Reports
- Considering comments, views, and objections to ballots and resolving all negative comments received in connection with the development of documents
- Responding to requests for interpretations of Forensic Standards published by the ASB
- Consensus body meetings are open to the public. All meetings are posted on the public calendar which can be found on the Consensus Bodies page of the ASB website.

Working Group Functions

- Working subsets of CBs
- Work on document or issue assigned by CB
- Develop draft documents to be considered and voted upon by the full CB
- Meetings do not have to be open
- No specific limitation on number of participants
- Participants do not need to be members of the CB
- CB members may participate in Working Groups
- Working Group members are approved by CB and WG Chair

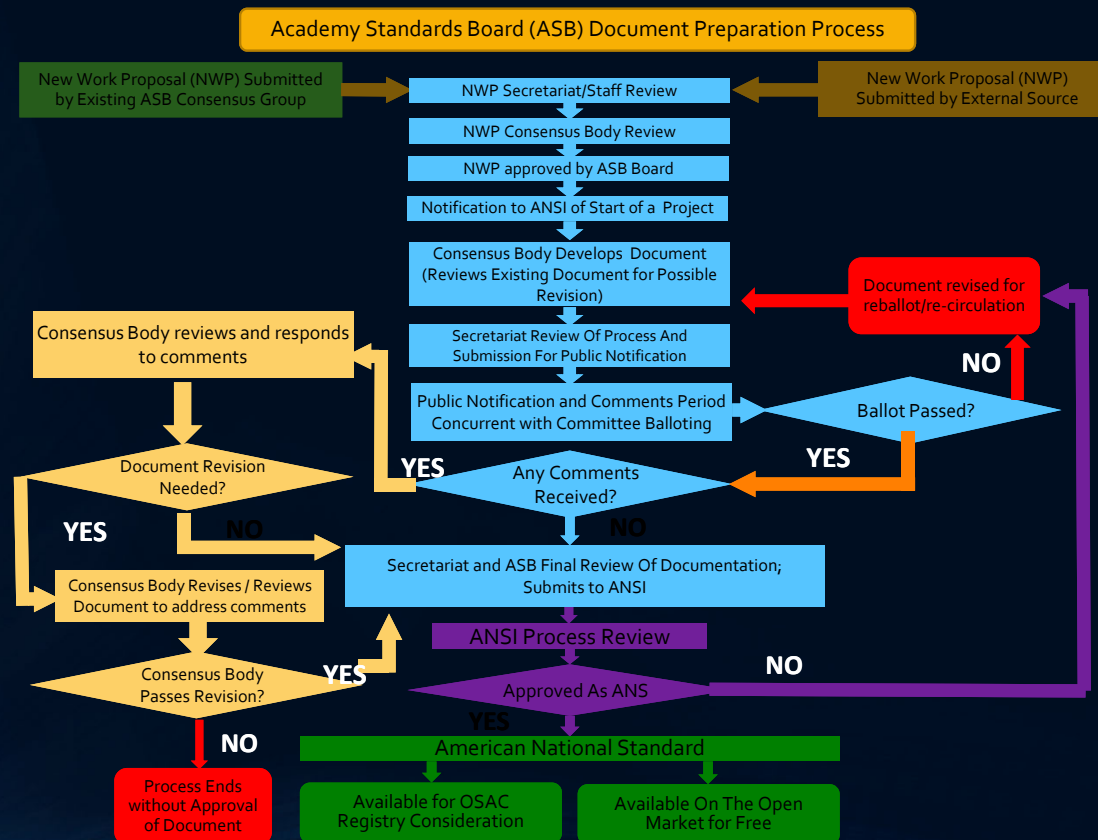
Types of Documents

- **Standard (Std)**
Established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context (ISO 3). Standards set objectively verifiable requirements expressed in “shall” language.
- **Best Practice Recommendation (BPR)**
The purpose of the document to provide guidance on practices or procedures by recommending optimal approaches or options? Use a BPR format in this case and do not include requirements. Express the content of the document in ‘should’ statements (‘shall’ statements are permitted, but should be used sparingly).
- **Technical Report (TR)**
A TR differs from a standard in that it does not set requirements, it is an explanatory or informational document. A TR may be used to describe the scientific and operational underpinnings of a standard, or to explore industry areas that are still undergoing research, or be a terms and definitions document.

Overall ASB Document Process

- ASB Document Process follows ANSI accredited procedures.
 - New Work Proposal (NWP) submitted to, and approved by consensus body
 - NWP approved by ASB to ensure alignment with overall mission of the organization, then submitted to ANSI
 - Consensus Body (CB) develops document with support of Working Groups (WG)
 - Document given public review and voted on by CB members
 - Consensus body or working group review all comments
 - If no unresolved negative comments, document forwarded to ANSI for approval as an ANS
 - Document publicly available on ASB website (www.asbstandardsboard.org)

Overall ASB Document Process



ASB New Work Proposal

- Requires ASB board approval prior to Consensus Body work
- Reviewed by the CB, and the ASB, then submitted to ANSI for publication in *Standards Action* for 30 day notification of proposed action
- If no objections or changes, ASB work commences
- Form is available on the [Documents and Forms section of the ASB website](#).

PINS to ANSI

- Scope from NWP approved by CB and ASB submitted to ANSI on PINS Form.
- From the *ANSI Essential Requirements: Due process requirements for American National Standards*

Project Initiation Notification (PINS)

At the initiation of a project to develop or revise an American National Standard⁵, notification shall be transmitted to ANSI using the Project Initiation Notification System (PINS) form, or its equivalent, for announcement in *Standards Action*. Comments received in connection with a PINS announcement shall be handled in accordance with these procedures.

A statement shall be submitted and published as part of the PINS announcement that shall include:

- (a) an explanation of the need for the project, including, if it is the case, a statement of intent to submit the standard for consideration as an ISO, IEC or ISO/IEC JTC-1 standard; and
- (b) identification of the stakeholders (e.g., telecom, consumer, medical, environmental, etc.) likely to be directly impacted by the standard.

If the response to sub-section (b) **changes substantively as the standard is developed, a revised PINS shall be submitted and published.**

Ballot and Public Comment

- Essential part of the standards development process
- Documents and comment template are available on the ASB website.
- 45 day period for public comment
- 30 day ballot to consensus body runs concurrently with public comment period
- Each CB member votes: Yes; Yes with comment; No with comment; Abstain with comment
- ASB procedures require approval by a two-thirds majority, excluding abstentions to publish a document

Comment Adjudication and Publication

- Working Group resolves comments from CB Ballot and Public Comments – All comments given same consideration
- WG presents proposed resolutions to comments to CB for approval
- If document had substantial and/or technical changes based on comments, document goes for re-circulation (new comments can only be made on revised sections)
- Once process has been completed (as many re-circulations as necessary) ballot results, comment resolutions, and proof of outreach are submitted to ANSI for final approval to publish as an American National Standard (ANS)

ASB Documents in the Future

- All ANS documents must be revised, reaffirmed, or withdrawn after 5 years.
 - Revised – updated content
 - Reaffirmed – all content stays exactly how it is and can remain that way for 5 more years
 - Withdrawn – document is no longer applicable to the field and is no longer supported by the consensus body
- Document revisions and reaffirmations both need to go through the same voting and public comment process.
- Documents CAN be revised or withdrawn earlier than 5 years.
- If the revision process goes past 5 years, a 2-year extension on the ANS approval can be requested.

ASB Manual for Standards, Best Practice Recommendations, and Technical Reports

- *General Guidance Concerning ASB Document Deliverables* which includes definitions of each deliverable and guidance on when to develop each type. Part I also includes a section on policies regarding copyrights, trademarks, and patents.
- *Detailed Instruction on Formatting ASB Documents* includes templates for each ASB deliverable along with more specific requirements.
- **Annexes** – References and additional requirements such as format for graphics, mathematical expressions, dimensions, and other elements.

ASB Manual for Standards, Best Practice Recommendations, and Technical Reports

- **Conformity Assessment in ASB Documents**
 - Conformity assessment for requirements are written in accordance with the neutrality principle such that conformity can be assessed by a first party (manufacturer or supplier), a second party (a user or purchaser) or a third party (independent body).

ASB Manual for Standards, Best Practice Recommendations, and Technical Reports

- **Inclusion of Patents in American National Standards**
 - There is no objection in principle to drafting an American National Standard (ANS) in terms that include the use of an essential patent claim (one whose use would be required for compliance with that standard) if it is considered that technical reasons justify this approach.
- **Copyright**
 - All ASB documents are protected by a variety of federal and state copyright laws, the ASB disclaimer shall appear on all ASB published and draft documents

International Standards

- ISO – The International Organization for Standardization is one of the major international standards developing bodies. ISO standards, technical reports, guidance, best practices and other documents are adopted by governments, industries and organizations world-wide.
- ISO membership is composed of the national standards bodies of countries around the world. ANSI is the U.S. national standards body and is this country's member to ISO.
- ISO documents are developed through Technical Committees (TCs) composed of volunteers from member bodies.
- The U.S. participates in the work of ISO through ANSI accredited Technical Advisory Groups (TAGs). A TAG is formed for each ISO TC where there is sufficient U.S. interest.

ASB and ISO Forensic Standards

- ISO Technical Committee 272 develops international standards for forensic sciences. 24 of ISO's 164 national body members participate on TC 272 along with 19 international and non-voting observer organizations
- ASB participates in the ANSI U.S. TAG for ISO TC 272, providing language and comments on documents progressing from working drafts to committee drafts to the final drafts that are balloted across all ISO members.
- To date, ISO TC 272 has completed the following documents:
 - ISO 18385: Minimizing the risk of human DNA contamination in products used to collect, store, and analyze biologic material for forensic purposes –Requirements (prior to ASB involvement)
 - ISO 21043-1:2018: Forensic sciences—Part 1: Terms and definitions
 - ISO 21043-2:2018: Forensic science—Part 2: Recognition, recording, collecting, transport and storage of items.

ASB Workspace

- Rosters
 - Consensus bodies and working groups
- Email listserv
- Ballots
- Events
- Document storage

Questions?



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www.asbstandardsboard.org

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