

AEROSPACE COUNCIL

of the SAE Technical Standards Board

Organization and Operating Procedures

*(R) symbol is for the convenience of the user in locating areas where revisions have been made to the previous issue of this guide. If the symbol is next to the title, it indicates a complete revision of the guide.

Issued July 1973
1st Revision - July 1998
2nd Revision - December 1999
3rd Revision - February 2002
4th Revision - January 2005
5th Revision - December 2005
6th Revision - February 2006
7th Revision - August, 2011
8th Revision - January 2015



TABLE	OF CONTEN	NTS	PAGE
1.	INTROD	<u>DUCTION</u>	10
	1.1	References	10
2.	AEROSP	PACE COUNCIL	11
	2.1	Aerospace Council Meetings	11
	2.2	Council Responsibilities	11
	2.3	Council Composition	12
	2.3.1	Council Officers	12
	2.3.1.1	Council Chairperson	12
	2.3.1.2	Council Vice-Chairperson	12
	2.3.1.3	Council Secretary	12
	2.3.1.4	Council Membership Chair	13
	2.3.2	Council Membership	13
	2.3.2.1	Membership Qualities	13
	2.3.2.2	Expected Commitment of the Aerospace Council Members	13
	2.3.2.3	Qualification and Condition of Council Members	14
	2.3.2.4	New Member Selection Process	14
	2.3.2.5	Reappointment of Members	14
	2.4	Council Groups	14
	2.4.1	Awards Group	14
	2.4.2	Rapid Response Review Group	14
	2.4.3	Chairperson Advisory Group	14
	2.4.4	Metrics Review Group	14
	2.5	Accountability	14
3.	SYSTEM	<u>IS GROUPS</u>	15
	3.1	Systems Group Responsibilities	15
	3.2	Systems Group Composition	15
	3.2.1	Systems Group Officers	15



TABLE OF CONTENTS		PAGE	
	3.2.1.1	Systems Group Chairperson	15
	3.2.1.2	Systems Group Chairperson Selection Process	15
	3.2.1.3	Expected Commitment of Systems Group Chairpersons	16
	3.2.1.4	Qualification and Condition of Systems Group Chairpersons	16
4.	<u>TECHNI</u>	CAL COMMITTEES	17
	4.1	Scope of Technical Committees	17
	4.1.1	Charter and Guidelines	17
	4.2	Technical Committee Composition	17
	4.2.1	Technical Committee Officers	17
	4.2.1.1	Technical Committee Chairperson	17
	4.2.1.2	Technical Committee Chairperson Selection Process	18
	4.2.1.3	Technical Committee Vice-Chairperson	18
	4.2.1.4	Technical Committee Secretary	18
	4.2.1.5	Training	18
	4.2.2	Technical Committee Participant Classifications	18
	4.2.2.1	Voting Member	18
	4.2.2.2	Liaison	19
	4.2.2.3	Consultant	19
	4.2.2.4	Mailing List Recipient	19
	4.2.3	Qualification and Condition of Voting Membership	19
	4.2.3.1	Becoming a Committee Voting Member	19
	4.2.3.2	Maintaining Voting Membership	19
	4.2.3.3	Technical Committee Voting Membership Balance	19
	4.3	Subordinate Technical Committee Structure	20
5.	MEETIN	<u>IGS</u>	21
	5.1	Meeting Logistics	21
	5.2	Meeting Notice/Announcement	21
	5.3	Meeting Agenda	21



TABL	E OF CONTE	ENTS	PAGE
	5.4	Mandatory Topics to be Covered During the Meeting	21
	5.5	Committee Code of Conduct During the Meeting	21
	5.6	Presentation Guidelines	22
	5.7	Preparation of Meeting Minutes	22
	5.7.1	Unconfirmed Meeting Minutes	22
	5.7.2	Confirmed Meeting Minutes	22
	5.7.3	Minutes as Business Records	22
	5.7.4	Content of Minutes	23
	5.7.5	Meeting Minutes Considerations	23
	5.8	Attendance at Meetings	23
	5.8.1	Virtual Attendance	23
	5.8.2	Alternates	23
	5.9	Voting at Meetings (other than Technical Report ballots)	24
	5.9.1	Proxy Voting	24
	5.10	Termination of a Meeting	24
	5.11	Electronic Communication	24
6.	TECHN	IICAL REPORTS	25
	6.1	Technical Report Types	25
	6.1.1	AMS – Aerospace Material Specification	25
	6.1.2	AS – Aerospace Standard	25
	6.1.3	ARP – Aerospace Recommended Practice	25
	6.1.4	AIR – Aerospace Information Report	25
	6.1.5	ARD – Aerospace Resource Document	25
	6.2	International Harmonization	25
	6.3	Technical Report Style/Format	25
7.	TECHN	IICAL REPORT DEVELOPMENT PROCESS	26
	7.1	Definitions	26
	7.2	Technical Report Initiation	26



TABLE	OF CONTEN	ITS	PAGE
	7.2.1	Selection of Projects	26
	7.2.2	Sponsor	26
	7.2.3	Intellectual Property Policy	27
	7.3	Technical Report Balloting	27
	7.3.1	Voting Method	27
	7.3.2	Types of Responses	27
	7.3.2.1	Approve	27
	7.3.2.2	Disapprove	27
	7.3.2.3	Waive	27
	7.3.3	Levels of Balloting	27
	7.3.4	Committee Level Ballot	28
	7.3.4.1	Committee Level Ballot Resolution	28
	7.3.4.2	Counting Waives in Ballot Tally	28
	7.3.4.3	Voice Vote at Committee Meetings	28
	7.3.4.4	Committee Ballot Summary	28
	7.3.4.5	Disposition of Committee Comments	28
	7.3.4.6	Approvals with Comments at Committee Level	28
	7.3.4.7	Disapprovals from Committee Voting Members	29
	7.3.4.8	Comments from Non-Voting Participants	29
	7.3.4.9	Comments from Other Interested Parties	29
	7.3.4.10	14-Day Affirmation Ballot	29
	7.3.4.11	Committee Subgroup Ballots	29
	7.3.4.12	Systems Group Chairperson Ballot	29
	7.3.4.13	Simultaneous Ballots between Two or More Committees	29
	7.3.5	Aerospace Council Level Ballot	29
	7.3.5.1	Council Level Ballot Resolution	30
	7.3.5.2	Disapprovals at the Council Level	30
	7.3.5.3	Unresolved Disapprovals	30



TABLE	OF CONTEN	NTS	PAGE
	7.3.5.4	Appeals	30
	7.3.6	Simultaneous Ballots between Multiple Levels	30
	7.3.7	Limited Scope Revision	30
	7.3.7.1	Balloting	30
	7.3.7.2	Conditions and Limitations	30
	7.4	Technical Report Status	31
	7.4.1	Active	31
	7.4.1.1	Issued	31
	7.4.1.2	Revised	31
	7.4.1.3	Reaffirmed	32
	7.4.1.4	Stabilized	32
	7.4.2	Cancelled	32
	7.5	Five-Year Review	33
	7.6	Formatting of Technical Report Status Information	33
	7.7	Rationale Statements	33
	7.8	Notice Pages	33
	7.9	Inactive for New Design	33
8.	STAFF R	RESPONSIBILITIES	35
	8.1	Recordkeeping	35
	8.2	Coordination	35
	8.3	Adherence to SAE Policy	35
	8.4	Communication	35
	8.5	Meeting Coordination	35
9.	AWARD	<u>s</u>	36
	9.1	Council Award Groups	36
	9.1.1	The Franklin W. Kolk Air Transportation Progress Award	36
	9.1.2	The Clarence L. (Kelly) Johnson Aerospace Vehicle Design and Development Award	36



TABLE	OF CONTE	NTS	PAGE
	9.1.3	The Marvin Whitlock Award	36
	9.1.4	James M. Crawford Technical Standards Board Outstanding Achievement Award	36
	9.2	Nomination Process	36
	9.3	Award Selection Process	36
10.	<u>LIMITA</u>	<u>TIONS</u>	37
	10.1	Responsibilities and Qualifications of Members of the Aerospace Council, Systems Groups and Committees	37
	10.2	Interpretations of Technical Reports	37
	10.3	Amendments	37
	10.4	Records	37
	10.4.1	Committee Minutes	37
	10.4.2	Committee Rosters	37
	10.4.3	Communications with Technical Committees or Individual Committee Members	37
	10.4.4	Committee Voting Records including Ballots with Comments	37
	10.4.5	Permitted Distribution	37
	10.5	Correspondence	37
	10.6	Limitation of Committee Statements and Presentations	38
	10.7	Test Materials	38
APPEN	DIX A – AE	ROSPACE COUNCIL RAPID RESPONSE PROCESS	39
	A.1	INTRODUCTION	39
	A.2	SCOPE	39
	A.3	PROCESS	39
	A.3.1	Requests	39
	A.3.2	Rapid Response Review Group	39
	A.3.3	Rapid Response Criteria	39
	A.3.4	Rapid Response Participation Form	39
	A.3.5	Task Group Operations	39
	A.3.6	Balloting	39



TABLE O	LE OF CONTENTS		PAGE
	A.3.7	Technical Report	39
	A.3.8	Timeline	39
	RAPID R	ESPONSE PROCESS FLOWCHART	40
	RAPID R	ESPONSE CRITERIA FORM	41
	AEROSPA	ACE COUNCIL RAPID RESPONSE PARTICIPATION FORM	42
APPEND	IX B - AEI	ROSPACE COUNCIL METRIC POLICY	43
	B.1	INTRODUCTION	43
	B.2	CONSIDERATIONS	43
	B.3	TRANSITION	43
		ROSPACE COUNCIL POLICY STATEMENT FOR THE ISO/TC 20 U.S. SORY GROUP (AIRCRAFT AND SPACE VEHICLES)	44
	C.1	SCOPE	44
	C.2	AUTHORITY	44
	C.3	U.S. TAG RESPONSIBILITIES	44
	C.4	SAE AEROSPACE COUNCIL RESPONSIBILITIES	44
		ANDARDS DEVELOPMENT ORGANIZATION (SDO) GUIDELINES FOR PREPARING ALIFIED PRODUCT LISTS (QPL) TO STANDARDS AND SPECIFICATIONS	45
	D.1	SCOPE	45
	D.2	PURPOSE OF QUALIFICATION	45
	D.3	REFERENCE DOCUMENTS	45
	D.4	DETERMINE THE NEED FOR QUALIFICATION	45
	D.4.1	Restrictions	45
	D.4.2	Justification	45
	D.4.3	Decision Matrix	45
	D.5	PREPARING A SPECIFICATION WITH A QUALIFICATION REQUIREMENT	46
	D.6	QUALIFICATION STATEMENTS FOR SPECIFICATIONS	46
	D.7	ESTABLISHMENT OF A QUALIFIED PRODUCTS GROUP	46
	D.8	APPLICABLE QPL SECTIONS	47
	QUALIFI	CATION FLOWCHART	49



TABLE OF CONTEN	TS	PAGE
	ORMATION CONTAINED IN TECHNICAL REPORT STATUS BLOCKS AND NO GUIDANCE FOR USE OF NOTICE PAGES	50
E.1	STABILIZED	50
E.2	CANCELLED	50



1. <u>INTRODUCTION</u>

The purpose of this document is to set forth the organization, objectives, and procedures of the Aerospace Council, its Systems Groups and Technical Committees. The Aerospace Council is a Council of the SAE Technical Standards Board (TSB). The rules set forth in this document are subordinate to the SAE Technical Standards Board Governance Policy. Where the rules of the Aerospace Council are defined to be more stringent than the TSB Governance Policy, the Aerospace Council rules will take precedence. All suggested changes to the Aerospace Council Organization and Operating Procedures should be sent in writing to the SAE Manager of Aerospace Standards. These suggestions will be saved and considered during the next major revision.

1.1 References

The following documents are incorporated into these procedures by reference and the latest version available shall apply. All referenced documents are available from SAE International.

- SAE International Technical Standards Board Governance Policy
- SAE International TSB 003, Rules for SAE Use of SI (Metric) Units
- SAE Technical Report Style Manual



2. AEROSPACE COUNCIL

The role of the Aerospace Council is oversight and management of the SAE Aerospace Standards program as defined by the TSB. The Council has three primary roles in managing the Aerospace Standards work of SAE:

- Dealing with the standardization impacts of strategic issues confronting the aerospace industry, responding
 appropriately to needs for Technical Standards for reference in regulation, in acquisition, in safety, and many
 other areas;
- Responding to direction from the TSB, the SAE Board of Directors, and the SAE Aerospace Vice President in areas dealing with Technical Standards or other Technical Reports;
- Responsible for management and oversight of the Systems Groups and Technical Committees including improving processes, improving products, ensuring industry needs are addressed and that the Technical Committees and Systems Groups are being responsive to aerospace industry concerns.

2.1 <u>Aerospace Council Meetings</u>

The Chairperson of the Aerospace Council shall preside at meetings of the Aerospace Council and, if not present, the Vice Chairperson or a member designated by the Chairperson shall preside.

No meeting shall be conducted where an agenda has not been sent to the Aerospace Council members at least five (5) days before its scheduled date. No action by the Aerospace council shall take place at such meeting on items not on the meeting agenda. Minutes shall be taken of each meeting.

One-half (50%) of the members of the Aerospace Council shall constitute a quorum. If there is not a quorum, the business of the meeting can be conducted, but the actions taken shall not become Aerospace Council actions until approved by ballot of the Aerospace Council members.

Action by the Aerospace Council shall be by majority vote of those present at which there is a quorum, except for Council approval of Technical Reports which is governed by the Approval of Technical Reports Section of these Procedures.

2.2 Council Responsibilities

The primary responsibilities of the Aerospace Council are:

- Manage the overall health and performance of the SAE Aerospace standards system by providing strategy, policy and guidance for its activities
- Ensure Aerospace Council activities are consistent with SAE policy
- Carry out the aims and objectives of the Technical Standards Board in a responsive and accountable manner
- Provide technical advisory assistance to the aerospace industry
- Oversee and approve the processes and tools used in the development and maintenance of SAE Aerospace Technical Reports
- Approve or disapprove submitted standards based on the adherence to SAE processes and rules of consensus, need, and the effect that the document may have on the public and the industry
- Approve the establishment of Systems Groups and Committees including the appointment of Chairpersons and Members
- Provide aerospace candidates for the SAE Board of Directors to the Executive Nominating Committee, nominate
 individuals to receive awards in recognition of exceptional service, and select the recipients of the Aerospace
 Council sponsored awards.



2.3 <u>Council Composition</u>

The Aerospace Council is composed of no more than 30 voting Members who serve as technical experts/leaders from the aerospace industry, government and academia. The Aerospace Council body shall include:

- · Representation from various product/service/technology lines
- Diversity in race, age and gender
- Academia representation
- Global perspective
- Mixture of aerospace military, commercial and government

2.3.1 Council Officers

The Aerospace Council Officers are the Chairperson, Vice Chairperson and Secretary.

2.3.1.1 <u>Council Chairperson</u>

The Chairperson serves a two-year term of office, which is renewable two times (not to exceed a total service of six years). The incoming Council Chairperson is nominated by the outgoing Council Chairperson and presented to the Aerospace Council for concurrence and forwarded to the Technical Standards Board for approval. The Aerospace Council Chairperson:

- · Provides strategic leadership and vision for the Council
- Approves agendas and presides over the Aerospace Council meetings
- Determines the course of action on any issues raised by Staff or Council Members between meetings
- Serves as a Member of the Technical Standards Board and as such is required to be an SAE Member according to the TSB Governance Policy.
- Appoints a Council Liaison to the TSB to ensure consistent and cohesive communication between the Council
 and the TSB
- Serves as a Member of the SAE Aerospace Vice President's Executive Advisory Group
- Appoints a Vice Chairperson for the Aerospace Council
- Appoints a Membership Chairperson who is responsible for reviewing the Council Membership to ensure a proper balance of representation and who oversees the nomination of new Members
- Appoints Chairpersons of advisory and task groups as needed
- Appoints the members of a Chairperson's Advisory Group (CAG)
- Approves draft Council meeting minutes prior to circulation

2.3.1.2 <u>Council Vice-Chairperson</u>

The Aerospace Council Vice-Chairperson is responsible for fulfilling the obligations listed in 2.2.1.1 in the absence of the Chairperson. The Vice Chairperson serves a two-year term of office, which is renewable two times (not to exceed a total service of six years).

2.3.1.3 Council Secretary

The role of the Aerospace Council Secretary is fulfilled by SAE Staff. The secretary:

- Records and distributes Council meeting minutes. These records will be maintained in accordance with the TSB Governance Policy.
- Coordinates all Council correspondence



- Arranges Council meeting logistics
- Ensures that the Council adheres to SAE and TSB Policies

2.3.1.4 <u>Council Membership Chair</u>

The Aerospace Council Membership Chair serves a two-year term of office, which is renewable two times (not to exceed a total service of six years). The Membership Chair's responsibilities include:

- Maintaining a balanced membership
- Reporting additions to and deletions from the membership roster
- · Recruiting new members based on specific need as determined by the Council
- Renewing current members in good standing
- Send notifications to approved new members and those accepting membership renewal

2.3.2 Council Membership

Aerospace Council Members serve three-year terms and may be reappointed based upon the level of contribution made during their previous term of service.

2.3.2.1 <u>Membership Qualities</u>

The desired qualities of an Aerospace Council Member are:

- Broad understanding of the aerospace industry and its future directions
- Understanding of standards development (both industry and corporate/organizational)
- Global perspective
- Broad industry contacts and links to other organizations
- Knowledge or experience in SAE and the technical standards program
- Leadership skills including:
 - ability to achieve consensus
 - team building and facilitation
 - ability to think outside the box
- Willingness and authority to assume responsibility
- Accountability, sponsorship and support from Member's home organization

2.3.2.2 Expected Commitment of the Aerospace Council Members

All Members of the Council are expected to:

- Attend two Council meetings per year
- Respond to ballots and other correspondence in a timely manner
- Participate in the Council through active involvement
- Have a computer, an e-mail address and internet access.



2.3.2.3 Qualification and Condition of Council Members

In discharging their responsibilities, Members of the TSB, Councils, and Committees function as individuals and not as agents or representatives of any organization with which they may be associated. Governmental employees participate in accordance with government regulations.

2.3.2.4 <u>New Member Selection Process</u>

The Membership Chairperson will solicit nominations from the existing Council Membership and outside sources for potential new Council Members, and contact prospective Members to determine their interest in participating. He or she will present nominations to the Aerospace Council for their approval and subsequent formal appointment by the TSB. Upon approval, the Membership Chairperson informs the new Members of their appointment and provides materials/orientation to fulfill their role.

2.3.2.5 Reappointment of Members

The Membership Chairperson, in concert with SAE Staff and the Aerospace Council Chairperson, will review appropriateness and willingness of Members to serve additional terms. The Membership Chairperson will forward names to the Aerospace Council for approval and subsequent formal appointment by the TSB.

2.4 <u>Council Groups</u>

The Aerospace Council may form groups to address specific tasks or needs. These groups are composed of subsets of the existing Council Membership and additional experts as deemed necessary and may be ad hoc or standing. The following is a list of existing groups.

2.4.1 Awards Group

The Council has established a Group to oversee and manage the selection process for those awards assigned to the Council in accordance with Section 9 of this guide.

2.4.2 Rapid Response Review Group

The Aerospace Council has recognized a need for the rapid development of standards due to a national/international emergency related to safety or security. The Rapid Response Review Group is responsible for reviewing the requests received from government/regulatory agencies to determine whether the request meets the criteria for the Rapid Response process. The Aerospace Council Chairperson will appoint three to five Aerospace Council Members to serve on this group when a need is identified. The process is defined in Appendix A.

2.4.3 Chairperson Advisory Group

The Chairperson may establish a Chairperson Advisory Group to address specific operational issues such as agenda and meeting planning. The Group will consist of three to five Members appointed by the Chairperson and include the Aerospace Council Chairperson and Secretary. The term of office coincides with the Chairperson's term.

2.4.4 <u>Metrics Review Group</u>

The Aerospace Council has established a Group to review collected metrics relating to the health and performance of the Aerospace Standards program and to recommend changes as needed to ensure timely, relevant, and quality standards.

2.5 <u>Accountability</u>

The Aerospace Council is accountable to the SAE Technical Standards Board, the SAE Board of Directors, and the public at large for the integrity of the standards process and the technical reports that result from that process.



3. SYSTEMS GROUPS

The Systems Groups are established by the Council and are responsible for oversight and management of the standards activities assigned to their technical domains. Systems Groups report to the Aerospace Council and are subject to the TSB Governance Policy and the Aerospace Council Organization and Operating Procedures.

3.1 <u>Systems Group Responsibilities</u>

Systems Groups are accountable to the Aerospace Council and responsible for implementation of Council strategies and programs at the Technical Committee level. Systems Groups are to provide coordination of Technical Committee issues and concerns and to communicate these to the Aerospace Council.

3.2 <u>Systems Group Composition</u>

Systems Groups consist of two or more Technical Committees with similar or common technologies.

3.2.1 Systems Group Officers

Systems Group Officers include the Systems Group Chairperson and the Chairpersons of the reporting Technical Committees.

3.2.1.1 Systems Group Chairperson

Systems Group Chairpersons serve a two-year term of office, which is renewable two times (not to exceed six consecutive years). System Group Chairpersons are responsible for:

- Raising major issues that require Aerospace Council attention or decision by requesting time on Council
 agendas for discussion
- Responding to Technical Report ballots for Committees within their Systems Group
- Monitoring the health of the Technical Committees within their Systems Group and reporting to Council
- Coordinating work items/projects between Technical Committees within the Systems Group, across Systems Groups and with external organizations as applicable
- Meeting at a minimum twice a year with all other Systems Group Chairs to facilitate coordination of Technical Committee activities, share best practices, and discuss issues related to the health of Technical Committees
- Selection of one Systems Group Chairperson to attend, actively participate in, and vote at each Aerospace Council meeting. All Systems Group Chairs are encouraged to attend and actively participate in Aerospace Council meetings as non-voting Members

3.2.1.2 Systems Group Chairperson Selection Process

Systems Group Chairpersons are appointed by the Aerospace Council. Systems Group Chairpersons who are completing their term of office will typically provide the Aerospace Council with a recommendation for a new Systems Group Chairperson based upon their interaction with the various Technical Committee Chairpersons, Members and industry experts. Systems Group Chairpersons serve as the bridge between the Aerospace Council and the Technical Committees. Systems Group Chairpersons should retain the desired qualities of the Aerospace Council Members and Technical Committee Members as listed below:

- Significant industry experience and technical expertise
- Knowledge of the technical domains inherent in the Systems Group
- Knowledge of the SAE structure and standards process and the TSB Governance Policy and Aerospace Council
 Operating Guide
- Global perspective of the aerospace industry
- Demonstrated leadership and communication skills



- Supportive of teaming approaches
- Accountability, sponsorship and support from Systems Group Chairperson's home organization.

3.2.1.3 <u>Expected Commitment of Systems Group Chairpersons</u>

The primary role of the Systems Group Chairperson is coordination. To fulfill this role, the Systems Group Chairperson may conduct a meeting of their Systems Group Technical Committee Chairpersons on a regular basis or at the discretion of the Systems Group Chairperson. In order to carry out their work, Systems Group Chairpersons are expected to have a computer, an email address and internet access.

3.2.1.4 Qualification and Condition of Systems Group Chairpersons

In discharging their responsibilities, Members of the TSB, Councils, and Committees function as individuals and not as agents or representatives of any organization with which they may be associated. Governmental employees participate in accordance with government regulations.



4. TECHNICAL COMMITTEES

Technical Committees are responsible for the preparation, development, maintenance, and promotion of all relevant Technical Reports within their scope. Technical Committees are established and approved by the Aerospace Council. Proposals for creating new committees shall include a committee title, proposed charter, roster, officers, and may be accompanied by proposed operating guidelines. This information is submitted to the Aerospace Council for their review and approval. The committees function in accordance with SAE, TSB, Aerospace Council and Committee policies and procedures.

4.1 <u>Scope of Technical Committees</u>

Each Technical Committee shall have a current scope that clearly defines the technology area covered by the committee's activities. The Aerospace Council, Systems Group Chairpersons, and SAE Staff will resolve any overlaps between committee scopes.

4.1.1 Charter and Guidelines

Each Technical Committee shall have a charter which shall address scope, committee purpose and program of work. Technical Committees may also have guidelines that define any specific operating procedures. Guidelines may include membership requirements, participation requirements, specific balloting procedures, committee balance, etc. The purpose of guidelines is to supplement the TSB Governance Policy and the Aerospace Council Organization and Operating Procedures, and is subordinate to them and may not contradict them. Technical Committees shall undertake periodic review and updates of their charters and guidelines. All new and revised Technical Committee charters and guidelines must be approved by Aerospace Council.

4.2 <u>Technical Committee Composition</u>

Technical committees consist of technical experts from government, industry, regulatory agencies and academia.

4.2.1 Technical Committee Officers

Each Technical Committee shall have a Chairperson and may have a Vice-Chairperson and a Secretary.

4.2.1.1 <u>Technical Committee Chairperson</u>

Committee Chairpersons serve a two-year term of office, which is renewable two times (not to exceed a total service of six years). Re-nomination of chairpersons who have served the six-year service maximum requires review and approval by Aerospace Council. Chairperson responsibilities include:

- Plan and conduct meetings in conjunction with SAE Staff
- Manage and assign projects in order to balance and expedite the committee's work
- Review the membership annually to maintain an active and balanced committee
- Manage the five-year review process
- Recommend revisions of committee charter and guidelines as needed and submit all changes/additions to the Aerospace Council for review and approval
- Establish subcommittees, appoint their chairperson and supervise their operation
- Ensure the Technical Committee operates within its defined scope and according to SAE policies and procedures
- Coordinate with other committees on related projects
- Ensure that a quorum of Members is present when a voice vote on committee business is taken during a meeting
- Elevate issues, concerns, problems or opportunities to the Aerospace Council in a timely manner as needed
- Provide SAE with timely minutes of each meeting



- Ensure approval of minutes from the previous meeting
- Monitor Technical Committee ballots
- Actively collect, monitor and utilize Aerospace Council approved metrics to continuously improve the health and operation of the Technical Committee

4.2.1.2 <u>Technical Committee Chairperson Selection Process</u>

Technical Committee Chairpersons are nominated by the Committee and their nominations are forwarded to Aerospace Council for review and approval. The desired qualities of a Technical Committee Chairperson are:

- Significant industry experience and technical expertise
- Demonstrated leadership skills
- Commitment to serving
- Responsible and accountable
- High level of integrity
- Strong communication skills
- Willingness to make decisions yet lead through consensus
- Supportive of teaming approaches
- Global perspective of the aerospace industry
- One or more years of active committee participation, such as sponsoring draft Technical Reports or fulfilling the role of vice-chairperson or secretary
- Knowledge of the SAE processes

4.2.1.3 <u>Technical Committee Vice-Chairperson</u>

The Vice-Chairperson is appointed by the Technical Committee Chairperson to assist him/her in the management duties of the committee. The Vice-Chairperson is responsible for fulfilling the obligations of the Chairperson in his/her absence.

4.2.1.4 Technical Committee Secretary

Appointed by the Technical Committee Chairperson, the Secretary is responsible for recording all meeting minutes and such other functions as may be directed by the Technical Committee Chairperson.

4.2.1.5 Training

SAE will provide training materials for both Chairpersons and Members that will assist them in fulfilling their roles on the Technical Committees. These materials may be provided either electronically, in hard copy or as formal training sessions.

4.2.2 <u>Technical Committee Participant Classifications</u>

The primary classifications of participants include: Voting Member, Liaison, Consultant, and Mailing List Recipient.

4.2.2.1 <u>Voting Member</u>

Voting Members are to contribute to the work of the Technical Committee, vote on all Technical Report ballots in a timely manner, and maintain active participation on the respective Technical Committee. Balance among the different interest groups of voting members (user, producer, general interest) shall be maintained in accordance with 4.2.3.3.



4.2.2.2 Liaison

Liaisons coordinate with parallel activities occurring in the government, other associations, and related SAE Technical Committees and may serve in an advisory capacity on specific projects. Liaisons receive Technical Report ballots and may provide comments; however, they do not have an approval/disapproval vote.

4.2.2.3 <u>Consultant</u>

Consultants are under contract to SAE and serve in an advisory capacity on specific projects. Consultants receive Technical Report ballots and may provide comments; however, they do not have an approval/disapproval vote.

4.2.2.4 Mailing List Recipient

Mailing List Recipients receive information on Technical Committee meetings. They do not receive information related to Technical Report ballots.

4.2.3 Qualification and Condition of Voting Membership

Technical Committee voting members must be competent and authoritative in the field(s) outlined by the committee scope/charter. In discharging their responsibilities, Members of the TSB, Councils, and Committees function as individuals and not as agents or representatives of any organization with which they may be associated. Governmental employees participate in accordance with government regulations. In order to carry out their work, Technical Committee Members are expected to have a computer, an e-mail address and internet access.

4.2.3.1 <u>Becoming a Committee Voting Member</u>

Individuals who have interests and expertise in the activities of a committee can request voting membership. Requests should be submitted to the Committee Chairperson, who determines the voting membership interest group (see 4.2.3.3) and notifies SAE Staff. Names are forwarded to the Aerospace Council for approval. Membership in SAE is encouraged of all Technical Committee Members.

4.2.3.2 Maintaining Voting Membership

Each Chairperson shall review their Committee Roster at least once annually for the purpose of retaining only those who actively contribute to the effectiveness of the committee work. Unless specified in the Committee charter or guidelines, Voting Members who are absent without alternate representation from three consecutive committee meetings may be dropped from Voting Membership unless the Chairperson determines that other circumstances warrant retention. Failure to respond to three ballots or as specified within the Committee's charter/guidelines may also be considered cause for revoking Voting Membership. The chairperson should notify any Voting Member of a change in their Participant classification and direct SAE Staff to make the appropriate roster change. Liaison and Mailing List participants should also be reviewed and those who are not active or who fail to respond to participation surveys should be removed.

4.2.3.3 Technical Committee Voting Membership Balance

To ensure a competent and authoritative stature, the Technical Committee Chairperson shall continuously aim to achieve an equitable balance of representation by interest. Members on committees shall be classified into one of three classifications based on the organization from which they come, or the industry interest from which they will most draw their technical basis. The goal is that the members from no one classification dominate the others. The three classifications are:

- Producer: A member whose technical views are drawn from an organization that produces or sells materials, products, systems, or services covered in the committee or subcommittee scope.
- User: A member whose technical views are drawn from an organization that purchases or uses materials, products systems, or services, other than for household use, covered in the committee or subcommittee scope, provided that the member would not also be classified as a producer as it relates to the work of the committee.
- General Interest: A member whose technical views are drawn from an organization that cannot be classified as
 either a Producer or a User. Examples include members whose technical views are drawn from consumer
 interest, academic, regulatory, or laboratory communities, or who are individuals whose participation is not
 being sponsored in any way by any other interest.



4.3 <u>Subordinate Technical Committee Structure</u>

Working groups such as Technical Sub-Committees, task groups, panels or other groups may be organized under a Technical Committee. The Technical Committee Chairperson appoints the Chairperson of the subordinate group. The subordinate group Chairpersons recommend Members for appointment to the group or as defined in the Committee charter/guidelines. The work of all such subordinate groups shall be subject to review and approval by the parent Technical Committee.



5. MEETINGS

Meetings of Technical Committees shall be conducted in accordance with all applicable SAE governing policies and procedures. It is recommended that committees use Roberts Rules of Order to facilitate the conducting of business. All meetings shall be open, but the Chairperson shall have discretion as to the number of non-members who may be permitted to address the committee.

5.1 <u>Meeting Logistics</u>

Technical Committees work with SAE Staff to plan future meeting locations and dates in compliance with Aerospace Council and SAE policies. All logistics related to the meeting planning, including hotel selection will be conducted by the SAE Staff. Committee Members are not permitted to enter into any type of negotiations with hotels/meeting facilities, nor enter into any legally binding agreements, nor act as agents of SAE.

5.2 <u>Meeting Notice/Announcement</u>

Notices of meetings (including date, time and location) should be issued no later than 8 weeks prior to the date of the meeting. When requested SAE Staff will send invitations to non-committee personnel (interested parties).

5.3 <u>Meeting Agenda</u>

Detailed agendas should be provided to the committee a minimum of 6 weeks prior to the meeting.

5.4 <u>Mandatory Topics to be Covered During the Meeting</u>

Topics to be covered at the beginning of each meeting include:

- Self Introductions
- Disclaimer Announcement "SAE Technical Committee Members act as individuals and not as agents or representatives of their employers."
- Disclaimer Announcement "Audio or video recording of meetings is not permitted."
- Agenda Approval
- Circulation of Attendance Roster which shall include a statement of commitment to the SAE IP policies
- Approval/confirmation of minutes from the previous meeting

5.5 <u>Committee Code of Conduct During the Meeting</u>

Following are general items for committee conduct:

- No Commercialism Stick to the Technical Issues and never endorse or belittle specific products.
- Only one person speaking at any given time (presenter has the floor)
- Attack the issue, not the person
- Be on time ... returning from breaks/lunch
- Set all pagers and cellular phones on silent mode
- Respect all ideas and comments
- No silent skepticism, be candid
- Do not dominate discussions
- Stay focused on the meeting



- Avoid unauthorized or "private" meetings. Discussions should be open and follow the agenda or other legitimate
 direction agreed upon by consensus of the committee.
- Never participate in discussions of cost, pricing plans, pricing policies, product usage surveys, marketing plans
 or any related topics. Be aware of and follow ITAR and EAR rules and regulations governing export control.
- Participate as individuals and not as agents or representatives of any organization.
- Secure staff advice as well as legal counsel when necessary
- Strive for an open atmosphere that promotes a free-flowing interchange of technical information.
- Follow the processes, rules, and guidelines of the TSB Governance Policy, Aerospace Council Organization and Operating Guide, and the respective Technical Committee Charter/Guidelines.
- Strive for high-quality standards that benefit all stakeholders

5.6 <u>Presentation Guidelines</u>

Following are general items to consider when developing or permitting a presentation to a committee:

- No commercialism
- No discussion of cost, pricing plans, pricing policies, product usage surveys, marketing plans or any related topics.
- Presentations must focus on technical issues (not on marketing aspects of products)
- Presentations should be related to or support the development or maintenance of SAE Technical Reports
- All presentations should be submitted in electronic format to the Chairperson prior to the meeting and a copy
 provided at that time for inclusion in the minutes. All presentations should be cleared by the presenter for
 public release and marked as such.

5.7 Preparation of Meeting Minutes

The minutes of the meeting shall be prepared by the Committee Secretary or an individual designated by the Committee Chairperson. The minutes will be released promptly and shall be subject to confirmation, with corrections if necessary, at the following meeting.

5.7.1 Unconfirmed Meeting Minutes

The standard note "Unconfirmed Minutes" will be above the title and date of each set of minutes. The following standard note will be located on the first page of each set of minutes:

"These minutes are for the use of the committee. Unless authorized by SAE, they should not be published or further circulated. Requests for corrections should be provided to SAE Headquarters within three weeks after receipt."

5.7.2 <u>Confirmed Meeting Minutes</u>

After meeting minutes have been distributed to the Committee Membership, a vote is taken at the next meeting to note any corrections to the Unconfirmed Minutes and declare them Confirmed noting any changes or corrections.

5.7.3 <u>Minutes as Business Records</u>

The minutes of the Technical Committee are considered business records of SAE and copies are not made available for public release. Copies of minutes will be provided only to: 1) Committee Voting Members, 2) non-voting participants on the committee roster and 3) the SAE administrative bodies to which the committee reports. SAE Technical Committee minutes are open for public inspection and may be examined during business hours at SAE's offices at 400 Commonwealth Drive, Warrendale, PA 15096. Persons examining committee minutes may not make photo copies or scan the documents. Minutes and other Business Records of the Technical Committees shall not be distributed beyond the committee membership without prior approval from SAE Staff.



5.7.4 <u>Content of Minutes</u>

The committee should elect a secretary to record minutes. Minutes should contain the following 'minimum' information:

- Name of committee
- · Date and place of meeting
- Name of Chairperson or Acting Chairperson
- Presence of a quorum of Members (the name of the voting Members in attendance)
- Approval of previous meeting minutes
- Reports given
- Status of Technical Report Works in Progress
- Committee Decisions
- Committee Actions
- Adjournment

5.7.5 <u>Meeting Minutes Considerations</u>

The following items must be considered when preparing minutes:

- Committee Members participate as individuals and should not be affiliated with any company in the minutes. Examples of where it is permissible to use company names include presentations, providing test data, and recognizing company hosts.
- Copyrighted material or trademarks should not be included without written permission from the respective company or trademark/copyright holder.
- Minutes are to be submitted in an editable electronic format to the SAE Staff Representative for review and posting on SAE StandardsWorks.
- Any attachments need to be provided to the secretary in an electronic format.

5.8 <u>Attendance at Meetings</u>

Physical attendance at face to face meetings is the preferred method of attendance and committee participants are encouraged to attend all meetings in person. Committees may determine the level of face to face participation needed to maintain voting status.

5.8.1 <u>Virtual Attendance</u>

In order to promote the greatest participation, committees are encouraged to provide the option for those participants unable to attend a meeting in person to participate via electronic means (which shall include both teleconference and internet meeting participation). A participant who is attending a meeting virtually shall be counted towards quorum for any votes or actions taken during the meeting.

5.8.2 Alternates

Committee members who are unable to attend a meeting in person and are unable to participate virtually may send an alternate in their place if:

- The participant has notified the committee chair in advance of the meeting, providing all contact information for the alternate
- The participant has pre-briefed the alternate on all topics, documents, and actions planned to be covered during the meeting so that the alternate is prepared to act in the participant's stead
- The alternate is only representing the committee member who made the appointment (i.e., a committee member may not ask another committee member to represent both himself/herself and the member unable to attend)

Alternates are counted towards committee quorum and allowed to vote in the original member's place



5.9 <u>Voting at Meetings (other than Technical Report ballots)</u>

Decisions are reached by a majority (at least 51%) of the Voting Members in attendance, providing a quorum (50%) is present (voting on Technical Reports is covered elsewhere in these guidelines).

5.9.1 <u>Proxy Voting</u>

No granting of Proxies or participation in any committee meeting decisions, actions or votes by proxy is allowed. Members unable to attend in person have the option of attending virtually or sending an alternate. A strict one person – one vote policy shall be followed.

5.10 Termination of a Meeting

SAE Staff or the Chairperson may immediately terminate a Technical Committee meeting at any time if the discussion or actions violate SAE policy.

5.11 <u>Electronic Communication</u>

All communication between SAE and Technical Committees under Aerospace Council will be conducted via SAE StandardsWorks which provides the ability to share files and send e-mail. This includes meeting notices, agendas and minutes.



6. TECHNICAL REPORTS

The Aerospace Council coordinates and uses the knowledge, experience, and skill of engineers and other qualified individuals on technical problems within the scope of its activities to develop Aerospace Technical Reports. A Technical Committee shall be responsible for a field of endeavor, as defined by its scope. It is the responsibility of the Technical Committees to review Technical Reports periodically and revise as necessary in order to maintain content abreast of the latest technology.

6.1 <u>Technical Report Types</u>

The following types of Aerospace Technical Reports are developed under the authority of the Aerospace Council.

6.1.1 <u>AMS – Aerospace Material Specification</u>

These Technical Reports contain specific performance requirements and are used for material and process specifications conforming to sound established engineering and metallurgical practices in aerospace sciences and practices. AMSs are written in Standard English units while MAMs (Metric Aerospace Material Specification) are written in metric units per TSB 003 Rules for SAE use of SI (Metric) Units. TSB 003 is located under the Resources section of each committee's StandardsWorks area.

6.1.2 <u>AS – Aerospace Standard</u>

These Technical Reports contain specific performance requirements and are used for: (1) design standards, (2) parts standards, (3) minimum performance standards, (4) quality, and (5) other areas conforming to broadly accepted engineering practices or specifications for a material, product, process, procedure, or test method. ASs are written in Standard English units while MAs (Metric Aerospace Standards) are written in metric units per TSB 003. TSB 003 is located under the Resources section of each committee's StandardsWorks area.

6.1.3 ARP - Aerospace Recommended Practice

These Aerospace Technical Reports are documentations of practice, procedures, and technology that are intended as guides to standard engineering practices. Their content may be of a more general nature, or they may offer data that have not yet gained broad acceptance. The recommended practice should emphasize the capabilities and limitations of the information contained therein. A Technical Committee preparing such a report may add an introductory note stating, "This SAE Recommended Practice is intended as a guide toward standard practice and is subject to change to keep pace with experience and technical advances." ARPs are written in Standard English units while MAPs (Metric Aerospace Recommended Practice) are written in metric units per TSB 003. TSB 003 is located under the Resources section of each committee's StandardsWorks area.

6.1.4 <u>AIR – Aerospace Information Report</u>

These Aerospace Technical Reports are compilations of engineering reference data, historical information, or educational material useful to the technical community.

6.1.5 <u>ARD – Aerospace Resource Document</u>

These Aerospace Technical Reports provide the reader with technical and non-technical information which may support a Technical Report. ARDs are issued for a limited time. Examples of ARDs include rationale reports, results of round robin or field testing, field data or experimental data, and compilations of industry research results, but may also report on state-of-the-art technology or be a technology needs-assessment. These documents shall have a maximum life of two years from adoption and cannot be revised or reaffirmed. The sponsoring Technical Committee can cancel this report by ballot at any time. Unlike the other Aerospace Technical Reports, ARDs are considered non-consensus documents and require only one level (Committee) approval.

6.2 International Harmonization

Each committee, when developing a new document, shall review other nationally or internationally recognized standards on the subject topic and, whenever possible, adopt or harmonize with these existing standards.

6.3 Technical Report Style/Format

SAE Aerospace Technical Reports (AS, ARD, ARP, and AIR) and SAE Aerospace Material Specifications (AMS) shall be written in accordance with the editorial and technical requirements defined by the SAE Technical Report Style Manual. The SAE Technical Report Style Manual is located under the Resources section of each committee's StandardsWorks area.



7. TECHNICAL REPORT DEVELOPMENT PROCESS

SAE Aerospace Technical Reports (AMS, AS, ARP, AIR, and ARD) are consensus reports developed in accordance with the Technical Standards Board Governance Policy.

7.1 Definitions

The Aerospace Council provides the following definitions for voting agreement:

- <u>Consensus</u> means existence of a substantial agreement but at least fifty percent (50%) must respond with an approval or disapproval and at least seventy-five percent (75%) of the respondents must approve.
- <u>Full agreement</u> means that dissenting or objecting viewpoints have been considered and resolved to the mutual satisfaction of the members and participants.
- <u>Substantial agreement</u> means much more than simple majority, but not necessarily unanimity.
- Majority means an affirmative or negative vote of at least fifty-one percent (51%) of those voting on an issue.
- <u>Formal Vote</u> votes related to the approval of Technical Reports are cast by electronic ballot, or by voice or written ballot at a meeting. Use of StandardsWorks shall be the preferred method of polling Technical Committees or Council for a vote on a Technical Report.
- Resolution/Addressing of Comments means that comments received during balloting shall be dispositioned so
 that it's clear that the comments were either accepted or rejected, and if rejected that a reason was provided.
 Every attempt should be made to resolve all comments to the satisfaction of both the Technical Committee and
 the commenter but it is recognized that for any number of reasons, not all comments may be incorporated.

7.2 <u>Technical Report Initiation</u>

SAE Aerospace Technical Reports are prepared by a committee when needed to accomplish a project within its scope. Projects may come from committee members, industry, regulatory agencies, etc. The committee may delegate the preparation of a draft Aerospace Technical Report to one of its subcommittees or an individual project sponsor.

7.2.1 <u>Selection of Projects</u>

In determining the need for a new Technical Report, the following should be considered: a) new technologies being developed; b) compatibility with new and existing technologies; and c) foreseeable difficulties concerning adaptability to current technologies. Technical Reports attempt to accomplish the following:

- Enhance safety
- Create common language
- · Facilitate trade through reduced regulations
- Harmonize global markets
- Improve or protect the environment
- Increase productivity of processes
- Permit common interfaces
- Promote uniform testing or performance
- Reduce costs

7.2.2 Sponsor

Prior to the development of a new Technical Report, or revision of an existing Technical Report, the committee (or sub-group) shall appoint a sponsor to serve as the focal point for all activities associated with document development. These tasks include, but are not limited to:

- Complete New Project Request Form to obtain document number
- Prepare all drafts of the report
- Submit all drafts electronically to SAE for ballot
- Ensure that a sufficient number of ballots have been received for consensus
- Review ballot summary
- Resolve all comments received from ballots



Make all changes to the draft necessary to achieve consensus

7.2.3 <u>Intellectual Property Policy</u>

All committee participants shall familiarize themselves with SAE's Intellectual Property Policies related to Copyrights, Patents and Trademarks which are found in SAE International's Technical Standards Board Governance Policy. Document sponsors and technical committee participants must acknowledge SAE International's IP Policy and the fact that all material, minutes, draft and released technical reports become the copyrighted property of SAE International through one or more means:

- Completion of a signed Copyright Agreement acknowledging that the Technical Report is a work made for hire pursuant to the US Copyright Act
- Signing the committee attendance roster at meetings which contains a copy of the copyright policy acknowledgement statement
- Acknowledging SAE International's Copyright Policy through selection of the acknowledgement statement option when accessing the SAE StandardsWorks web pages
- Following the SAE policies and procedures for disclosure of patented technology as soon as any member believes that standard underdevelopment might infringe on any patented or licensed technology
- Following the SAE policies and procedures for avoiding, if at all possible, the use of or listing in any standard any trademarked product or material

7.3 Technical Report Balloting

Aerospace Council ballot rules are more stringent than the TSB Governance Policy as follows:

- Two levels of balloting are required
- Minimum amount of approved ballots received at the Technical Committee level is 75%.

7.3.1 <u>Voting Method</u>

The SAE provided online balloting tool in StandardsWorks shall be used as the preferred method of balloting Technical Committees or the Aerospace Council for their vote on a Technical Report.

7.3.2 <u>Types of Responses</u>

The three types of responses to Technical Report Ballots are approve, disapprove, and waive.

7.3.2.1 Approve

Approve means that the respondent has reviewed and agreed with the draft Technical Report. Minor editorial comments can be made with approval ballot, however, the sponsor is not required to incorporate or resolve any comments submitted with an Approve response. Technical comments are not to be made with an Approval ballot nor will they be considered.

7.3.2.2 Disapprove

Disapprove means that the respondent has reviewed and disagreed with the draft Technical Report. Disapproval ballots may contain editorial and/or technical comments. Disapproval ballots must include the rationale for the disapproval along with alternative language. A disapproval without accompanying rationale will not be considered.

7.3.2.3 Waive

Waive means that the respondent has reviewed the draft Technical Report and determined that the subject matter is outside of his/her area of expertise. This type of response is not applicable to Aerospace Council ballots.

7.3.3 Levels of Balloting

The two levels of required balloting are:

- <u>Committee Level Ballot</u> Approval by the Technical Committee(s) with ownership of the document. The Committee Members will review SAE Aerospace Technical Reports for technical content. The Systems Group Chairperson will receive a simultaneous ballot.
- <u>Council Level Ballot</u> Aerospace Council Members will review SAE Aerospace Technical Reports for technical content, adherence to SAE policies, and the overall impact to the aerospace community and the public.



Any balloting at levels below the Technical Committee which has ownership of the document shall be informal ballots conducted outside of the formal balloting process which is conducted via StandardsWorks per 7.3.4.11 below.

7.3.4 <u>Committee Level Ballot</u>

Technical committee members will review SAE Aerospace Technical Reports for technical content, adherence to SAE policies, and the overall impact to the aerospace community and the public. A draft Technical Report will be considered approved when all of these conditions are met:

- 28-day circulation
- Minimum of 50% response from the total Voting Membership
- Minimum of 75% of the 50% response must vote Approve
- Resolution of comments and disapprovals

7.3.4.1 Committee Level Ballot Resolution

Ballots must be resolved before they can move on to the next level of approval.

7.3.4.2 <u>Counting Waives in Ballot Tally</u>

The number of waives received on a ballot shall be subtracted from the total Voting Membership when applying the fifty percent (50%) voting response rule to achieve a valid ballot. The total Voting Membership may not be reduced by more than 20%.

Example (50% response required, 75% must be approvals):

- Voting Members on a Committee = 26
- Less two (2) waive ballots received = 24
 - o 50% of 24 = 12 ballots required
 - o 75% of 12 = 9 ballots must be approvals for a valid ballot

7.3.4.3 Voice Vote at Committee Meetings

Voice votes at Technical Committee Meetings can be taken if the ballot is submitted electronically to all Members at least 28 days prior to the meeting. Voice votes must meet the same response criteria as electronic ballots. The results of the voice votes must be recorded in the meeting minutes. All Voting Members must have the opportunity to review and vote on any changes made or agreed to at the meeting.

7.3.4.4 Committee Ballot Summary

At the close of the 28-day ballot period, the ballot summary is reviewed by the sponsor.

7.3.4.5 Disposition of Committee Comments

All comments must be addressed in accordance with the policy listed above. Every effort shall be made to obtain the unanimous approval of all voting Members of the preparing group. All changes resulting from the disposition of comments must be re-balloted, with the exception of minor editorial errors.

7.3.4.6 <u>Approvals with Comments at Committee Level</u>

Minor editorial changes can be made by the sponsor and may include:

- Instances where there are duplicate words 'the the'
- Instances where words are run together 'runtogether'
- A simple spelling error 'errar'

All other editorial changes after the committee level ballot will require committee re-ballot (28-day or 14-day affirmation). This includes:

- Removing proposed drafts from the reference section. (Proposed drafts are not to be listed in the reference section.)
- Inserting a missing rationale statement. (All documents must have a rationale statement defining the need for developing a standard or the factor(s) which prompts a revision.)



7.3.4.7 <u>Disapprovals from Committee Voting Members</u>

It is the Sponsor's responsibility to resolve all disapprovals. Resolutions of disapprovals must be documented and reported to the Committee by the Sponsor. If a Voting Member changes their response from a disapproval to an approval, they must notify the sponsor and SAE Staff. If a disapproval vote cannot be resolved, it shall be circulated to Council for final review along with the Committee's position. The Committee's position is established by the Chairperson and approved by the Committee.

7.3.4.8 <u>Comments from Non-Voting Participants</u>

Liaisons and consultants may comment on ballots, however, they do not have a formal approval/disapproval vote. Comments from non-voting participants must be reviewed and considered.

7.3.4.9 <u>Comments from Other Interested Parties</u>

Other interested parties may request the opportunity to review a draft document and comment. They do not have a formal approval/disapproval vote. Their comments must be reviewed and considered.

7.3.4.10 14-Day Affirmation Ballot

A 14-Day Affirmation ballot provides a means to inform all members of additional changes to a document that has already gone through a 28-day Technical Committee ballot. The conditions for a 14-Day Affirmation ballot are:

- The document has already gone through the 28-day Technical Committee Ballot process.
- All technical comments from disapprovals must be discussed and resolved between the sponsor and the person(s) disapproving the document.
- Technical changes resulting from comment resolution and discussion must be few in number (typically fewer than five changes) and of sufficient clarity to communicate directly in a "Change From Change To" fashion.

For this type of ballot:

- Only the changes need to be posted; not the entire document.
- Members are to respond with a disapproval if they have a concern with the proposed changes.
- At the end of the 14 days, the ballot summary is reviewed by the sponsor. If no comments are received, the
 document will proceed to the next level of ballot. If there are comments, these will then need to be resolved
 and/or taken back before the committee.

7.3.4.11 <u>Committee Subgroup Ballots</u>

Committees may choose to conduct document ballots at the subgroup level. These guidelines only recognize one level of Committee voting. The Committee charter/guidelines must define any processes for handling ballots at the subgroup level.

7.3.4.12 Systems Group Chairperson Ballot

The Systems Group Chairperson is balloted on all Technical Reports developed by all committees within their Systems Group. The Systems Group Chairperson ballot takes place simultaneously with the committee level ballot. A response from the Systems Group Chairperson is encouraged but not required. Comments from the Systems Group Chairperson must be reviewed and considered.

7.3.4.13 <u>Simultaneous Ballots Between Two or More Committees</u>

Technical Reports that are of direct concern to more than one committee can be simultaneously balloted. In the event of a simultaneous ballot, the vote from the sponsoring committee will determine moving the document forward. The response from the secondary committee will be for information only.

7.3.5 <u>Aerospace Council Level Ballot</u>

Aerospace Council Members will review SAE Aerospace Technical Reports for technical content, adherence to SAE policies, and the overall impact to the aerospace community and the public. The Aerospace Council will not alter the technical content of a Technical Report without returning it to the responsible Systems Group and Committee.



7.3.5.1 <u>Council Level Ballot Resolution</u>

Aerospace Council ballots must be resolved before the document can move on to publication. Unresolved disapprovals will be handled according to the process outlined in 7.3.5.3.

7.3.5.2 <u>Disapprovals at the Council Level</u>

It is the Sponsor's responsibility to resolve all disapprovals. If a Council Member changes their response from a disapproval to an approval, they must notify the sponsor and SAE Staff. Minor editorial changes, in accordance with the Technical Standards Board rules, are permitted without re-ballot to the Committee level and the document can proceed to publication. If in order to resolve the Council disapproval, technical or editorial changes (other than those previously defined) are required, the sponsor must send the draft Technical Report back to the Committee for resolution and re-balloting.

7.3.5.3 <u>Unresolved Disapprovals</u>

If the sponsor is unable to resolve a Council disapproval, the Committee may decide to resubmit the Technical Report to Aerospace Council for a second ballot. The second ballot is accompanied by the original Council disapproval along with the Committees position. A vote of 75% of the Committee Voting Membership is required to forward the Technical Report to Aerospace Council. If 75% approval is not reached, the Committee will discuss the future of the project. Disapproval by two Aerospace Council Members will be sufficient to preclude publication. In this case, the project will be returned to the committee accompanied by the Aerospace Council comments. Disapproval by one Council Member will not preclude publication.

7.3.5.4 <u>Appeals</u>

Any person having a procedural complaint or substantive disapproval or whose dissenting view on a Technical Report remains unresolved shall have the right to appeal to the Technical Committee from a subgroup decision or to the Council from a Technical committee decision. An appeal shall be in accordance with the TSB Governance Policy. For further information on appeals, refer to TSB Governance Policy.

7.3.6 Simultaneous Ballots Between Multiple Levels

To expedite the ballot process, the Technical Report can be circulated to more than one level of the organization at one time. Simultaneous balloting must be pre-approved by the highest level being balloted.

7.3.7 Limited Scope Revision

In order to expedite the revision process so that necessary technical changes in a document can be made efficiently, a limited scope revision may be performed upon Committee approval. A limited-scope revision will result in a new revision letter for the document. Limited scope revisions will be conducted in accordance with the process outlined in the TSB Governance Policy.

7.3.7.1 Balloting

Limited scope revisions require two levels of balloting (Committee and Aerospace Council) using the 28-day ballot process outlined in Section 7 of the Aerospace Council Organization and Operating Procedures. In cases where the procurement process is impacted, a simultaneous (committee and Council) 14-day affirmation ballot process may be used with approval from the Aerospace Council and submittal of a business case. However, all votes and corresponding comments are confined to the proposed changes indicated on the ballot. For comments outside the scope of the proposed changes, the committee participant may request the committee to begin a full revision of the document.

7.3.7.2 <u>Conditions and Limitations</u>

The following are the conditions and limitations of the limited scope revision process:

- Proposed changes must be of sufficient clarity to communicate directly in a "Change From Change To" fashion.
- The Sponsor must note in the document rationale that the current revision is limited in scope. The changes to the document must also be listed in the rationale.
- All references will be updated in limited scope revisions (does not apply to Limited Scope for Procurement Need).
- Committees will be limited to one limited scope revision per standard before a full technical revision is required.
- A limited scope revision will reset the five-year review clock.
- The Aerospace Council reserves the right to send the document back to the Committee for a Full Revision.
- The Aerospace Council will consider the number of limited scope revisions as a measure of the technical committee's quality of work.



A chart follows indicating when to use the Limited Scope process.

	Full Revision	Limited Scope	Limited Scope for Procurement Need
Changes to add new requirements to a document	Yes	No	No
Changes to update a document	Yes	No	No
Changes to expand the scope of a document	Yes	No	No
Quick changes required to correct editorial/technical errors	Yes	Yes	No
Quick changes required to fulfill procurement need	Yes	No	Yes
Changes that do not impact form, fit, function, or interchangeability	Yes	Yes	Yes
Requires updates be made to references	Yes	Yes	No
28-day ballot process	Yes	Yes	No (14-day ballot)
Entire document balloted	Yes	No	No
Document gets new revision letter	Yes	Yes	Yes
Resets the five-year review cycle	Yes	Yes	Yes

7.4 Technical Report Status

There are two basic status categories for Technical Reports – Active and Cancelled. There are additional subcategories under the Active category documenting the administrative status of the Technical Report which do not impact the usability of the Technical Report.

The last reported action a committee takes on a document determines its status.

7.4.1 <u>Active</u>

The Active status refers to the latest version of a standard available to the public for use. There are four types of standards which can be considered Active, the first three of which are subject to a five-year review to determine currency:

7.4.1.1 Issued

This is the first time a Technical Report is published. Release for publication of a new Technical Report requires Committee and Council level ballot. New standards are identifiable by the lack of any revision letter and just the Issued date (no dates pertaining to a revision or reaffirmation).

7.4.1.2 Revised

A Revised status indicates that an Active standard has been updated or modified and re-published. The revision level is indicated by a letter designator. It is understood that the later revision supersedes the previous revision. Revising a Technical Report requires Committee and Council level ballot. A revised document is identifiable by the addition of the revision letter indicator and the addition of the Revision date below the original Issued date.



7.4.1.3 Reaffirmed

A Reaffirmed status is given to Technical Reports (new or revised) that have been reviewed by the Technical Committee and deemed to be current with no need for immediate revision. A Reaffirmed document can be revised if users or producers express a need for revision. After revision, the Technical Report no longer carries the Reaffirmed status but rather the new revision level and date. A Reaffirmation occurs at the Committee level only (no Council action required). Reaffirmation is indicated by a Reaffirmation date applied to the last active revision level.

7.4.1.4 Stabilized

Stabilized status is given to a Technical Report that has been frozen at the last active revision level. Stabilized status may be given to a Technical Report for several different reasons:

- The Technical Report covers technology, products, or processes which are mature and not likely to change in the foreseeable future. The Technical Committee makes a conscious decision not to maintain the document any longer.
- 2. The Technical Report covers technology, products, or processes for which a Technical Committee no longer exists or for which technical expertise no longer resides in the owning committee. Before "stabilizing" the Technical Report, the owning committee should attempt to find a new home for the document where technical expertise does exist. Failing that, the committee makes a conscious decision not to maintain the document any further.
- 3. The Technical Committee can find no users for the Technical Report. Since it is not possible to determine with great assurance whether a Technical Report is being used, how often it may be used, or by whom it may be used, stabilization is a way to alert potential users that the owning Technical Committee will no longer be maintaining the Technical Report and that users should employ the standard at their own risk and discretion.
- 4. The Technical Committee determines that the using community is moving towards newer technology and would like to alert users that this newer technology exists which may want to be considered for new design. However, because the Technical Committee has no complete visibility of where and how a standard is being used, and because a standard may be necessary to support legacy platforms or design reuse, the standard should not be cancelled but rather stabilized with a Rationale statement that alerts users to new technology.

Per the TSB Policy Guidelines, when moved to the Stabilized status, Technical Reports which have been submitted to the ANSI American National Standards process are subject to a 10-year review cycle in accordance with ANSI's rules for Stabilized standards. Stabilized Technical Reports not designated American National Standards require no further review. Note: SAE International Aerospace Standards are considered global standards and therefore are not submitted to ANSI to become American National Standards and therefore once stabilized, require no further review.

A Stabilized Technical Report may be revised if users or producers express a need for it. Once revised, the Technical Report no longer carries the Stabilized status but rather the new revision level and date. A Stabilized action occurs at the Committee level only (no Council action required). Stabilization is accomplished by issuing a new revision which contains a Stabilization Notice (see Appendix E) along with a Rationale statement which may contain any recommendations for use that the Technical Committee feels are necessary accompanied by the full text of the standard as it appeared at the last active revision level. Stabilization is indicated by a Stabilization date applied to the new Revision level. A Stabilization action requires Committee level ballot only (no Council level action required).

7.4.2 <u>Cancelled</u>

A Technical Report shall be cancelled when it is deemed to be "not fit for use" due to technical reasons or when its technical requirements are totally superseded by another document. A Technical Report shall not be cancelled based only on administrative reasons such as no identified users, no committee expertise, newer technology exists, etc. Determination that a document is not fit for use may be made when there is a clear safety issue with continued use, or when there is a government requirement that can only be accommodated by elimination of the document. Cancellation should be rare and the notice of cancellation should carry a clear Rationale statement and, if at all possible, should direct users to alternative Technical Reports. A Cancellation action requires Committee and Council level ballot. Cancellation is accomplished by issuing a new revision which contains a Cancellation Notice along with a Rationale statement and any supersession information as the first page of the document. The remaining pages contain the last active revision of the document.



(R) When a Committee determines there is a need to cancel a Technical Report, the Chair of the Committee shall alert the Chair of the Aerospace Council of the intent to cancel the Technical Report and the rationale for the decision, to allow a determination to be made by the Aerospace Council Chair of the appropriateness of the cancellation intent prior to start of any Committee ballot.

7.5 <u>Five-Year Review</u>

Every Technical Report that has not been stabilized or cancelled requires an action to be taken within five years. The committee can decide to Reaffirm, Revise, Stabilize, or in very rare cases to Cancel the Technical Report. The committee should commence review of the document early enough to complete action within the five-year period.

7.6 <u>Formatting of Technical Report Status Information</u>

All status information shall be recorded with the number of the Technical Report so that it forms a chronological history of the latest dates for each type of status a document may have gone through and so that the current status is apparent. For examples of how to format New, Revised, Reaffirmed, Stabilized, and Cancelled documents, refer to the SAE Technical Report Style Manual.

7.7 <u>Rationale Statements</u>

All documents shall carry a Rationale statement. New Technical Reports shall contain Rationale Statements which outline why the standard was needed. Technical Reports which are revised, reaffirmed, stabilized or cancelled should carry a clear rational statement for why the change was made. The Rationale statement can also carry additional recommendations regarding the use of the standard.

(R) If any restrictions on use have been applied, the statement 'Restrictions on use have been clarified' should be included in the Rationale

7.8 Notice Pages

All Stabilized or Cancelled documents shall carry a cover Notice Page as the first page of the document. This page is used to clearly indicate the status of the document (stabilized or cancelled), the Rationale for the change in status (e.g., why the Technical Report is being stabilized or cancelled), and provides a place for any additional guidance for users. Additional Instructions and examples for Notice Pages are contained in Appendix E.

7.9 <u>Inactive for New Design</u>

(R) The words "Inactive for New Design" shall not be used in SAE Standards.

"Inactive for New Design" has been eliminated because once a standard is released, a standards organization cannot mandate how or where that standard is used. Only an OEM or Design Authority for the system in which the standard is being used can determine if something is no longer suitable or desirable for use.

Restrictions on the use of a particular type, material, class, etc. within an SAE Standard <u>can</u> be included under certain, specific circumstances.

The restrictions will be applied typically in SAE Standards that have been converted from Mil Specs, but can be applied in other SAE standards, and <u>shall only</u> address usage restrictions applied by the US Department of Defense.

The statement "Restrictions on use have been clarified" shall be included in the Rationale when these have been applied to the standard.

Where usage of the Standard is to be eliminated both in Design and Procurement for US Department of Defense contracts, the following wording <u>shall</u> be used for the restriction of use Note:

"For US Department of Defense contracts, (Standard in question or specified elements e.g. material type or code letter) shall not be used"

Where usage of the Standard is to be eliminated in Design, but procurement for existing designs is permitted for US Department of Defense contracts, the following wording <u>shall</u> be used for the restriction of use Note: "For US Department of Defense contracts, (Standard in question or specified elements e.g. material type) shall only be used for existing designs"



For all restricting notes, the words "Inactive for New Design" shall no longer be used

Where there is a valid safety or health concern with the use of a particular material code in a parts standard (for instance a batch of parts in that material code could marginally pass qualification requirements but some parts would not be fit for purpose), then the following wording shall be used:

"Due to concerns about the ability of parts manufactured in (material type) to meet qualification requirements or meet health and safety regulations, items coded (material code) in previous issues of this standard shall not be purchased; unless otherwise specified by the procurement activity with the appropriate revision level. Alternative part codes (with e.g. alternate material types) can be purchased when specified by the OEM or Design Authority in lieu of (material type) coded parts"

Note: Only an OEM or Design Authority for the system in which the standard is being used can determine if something is no longer suitable or desirable for use.

It is permissible for guidance to be given to Standards users where later technology exists which might be considered, together with pointers to the appropriate Standards that define this technology. However, it is important that the wording is clear and does not confuse suppliers. Where the Committee wishes to point to Standards based on later technology, the following wording shall be used:

"See (New Standard) as a suggested replacement for (Existing Standard) at the point of design. Designers are cautioned to evaluate (New Standard) for their particular application."



8. <u>STAFF RESPONSIBILITIES</u>

SAE Staff is responsible for the overall management and well-being of the SAE Technical Standards program. This oversight includes the preparation of the final copy for all SAE Aerospace Technical Reports. The Staff also ensures compliance with this procedure and its appendices. When circulated for approval at the Systems Group and Aerospace Council levels, Staff will ensure the inclusion of appropriate background information concerning the projects development and prior coordination.

8.1 Recordkeeping

SAE Staff will maintain committee records including meeting minutes and charters. Staff will also advise committees on procedures, organization and operation. Records will be maintained in accordance with the TSB Governance Policy.

8.2 <u>Coordination</u>

SAE Staff will work with the Technical Committee to maintain an awareness of the scope and activities of other committees and encourage cooperation between activities to minimize duplication of effort.

8.3 Adherence to SAE Policy

(R) The SAE Staff representative has authority to suspend any committee or group activity that operates in violation of TSB Governance Policy, the SAE International Board of Directors' Governance Policy Manual, or any laws or order. The suspended activity may only recommence upon affirmation vote of the Aerospace Council.

8.4 <u>Communication</u>

SAE Staff will advise Technical Committee Officers and Members on SAE policies, procedures, and practices. SAE Staff will distribute all meeting notices, correspondence, agendas and minutes, and serve as a focal point for information contacts and act as a clearinghouse for all inquiries.

8.5 Meeting Coordination

SAE Staff handles logistics related to Technical Committee meetings. Exceptions may include hosted functions or committee sponsored activities.



9. AWARDS

The Aerospace Council manages three awards under the SAE Foundation:

- The Franklin W. Kolk Air Transportation Progress Award
- The Clarence L. (Kelly) Johnson Aerospace Vehicle Design and Development Award
- The Marvin Whitlock Award

Additionally, the Aerospace Council reviews candidates for the James M. Crawford Technical Standards Board Outstanding Achievement Award.

9.1 <u>Council Award Groups</u>

The Award Groups consist of Aerospace Council Members selected on a rotating basis and appointed by the Aerospace Council Chairperson. An Award Group is established on an annual basis for each Award.

9.1.1 The Franklin W. Kolk Air Transportation Progress Award

This award recognizes an individual each year for unique and outstanding contributions to air transportation related to the work of the Aerospace Technical Committees in developing aerospace standard specifications, Technical Reports, and data through cooperative research.

9.1.2 The Clarence L. (Kelly) Johnson Aerospace Vehicle Design and Development Award

This award recognizes an individual for distinguished contributions during their career in the innovative design and development of advanced aircraft and/or spacecraft, especially those vehicles which perform military missions.

9.1.3 <u>The Marvin Whitlock Award</u>

This award recognizes an individual for outstanding management accomplishment which has resulted in superior aviation maintenance integrity of airline, fixed base, corporate, or military aircraft operations.

9.1.4 <u>James M. Crawford Technical Standards Board Outstanding Achievement Award</u>

This award recognizes individuals for outstanding service in the Technical Committee activities of the Society. This includes valuable contributions to the work of SAE technical committees, unusual leadership in the activities of an SAE technical committee, significant contributions as a representative of the Society to the accomplishments of technical committees of other organizations or of government agencies, and outstanding contributions to SAE technical committee work in the form of research, test methods and procedures, and/or development of standards. The Aerospace Council is responsible for reviewing all candidates from Aerospace Technical Committees and forwarding appropriate nominees on to the Technical Standards Board for final selection.

9.2 <u>Nomination Process</u>

Each year the SAE Staff seeks nominations for the awards by openly requesting nominations. Nominations are solicited through SAE publications and communication tools. Once the nomination period closes, SAE Staff submits the received nominations to the Aerospace Council Award Groups for review and selection. Nomination forms and complete details including award criteria/past recipients can be found on the SAE website.

9.3 <u>Award Selection Process</u>

The Aerospace Council Award Groups review the nominations and compare them to the award criteria. The Chairperson of each Award Group communicates with the other Members to reach consensus on a recipient. The recipient is contacted by SAE Staff and the award is typically presented at an SAE aerospace conference or appropriate venue. Detailed procedures for conducting the selection process are maintained by the SAE Foundation.



10. <u>LIMITATIONS</u>

10.1 Responsibilities and Qualifications of Members of the Aerospace Council, Systems Groups and Committees

In discharging their responsibilities, Members of the Aerospace Council and its Systems Groups and Committees function as individuals and not as agents or representatives of any organization with which they may be associated. Governmental employees participate in accordance with government regulations. Members are appointed to Committees on the basis of their individual qualifications which enable them to contribute to the work of the Committees. Committee Members or Officers do not represent SAE nor speak on behalf of SAE; only the SAE President or his/her delegate is permitted to do so. SAE Staff will handle all inquiries from the media.

10.2 <u>Interpretations of Technical Reports</u>

No Member or participant of a Committee, Systems Group, Council, or SAE Staff representative shall make any interpretation of a Technical Report in the name of SAE. For information on the handling of requests for interpretation refer to the TSB Governance Policy.

10.3 Amendments

Amendments to these Aerospace Council Guidelines shall be approved by formal vote by not less than 75% of the Aerospace Council Members.

10.4 Records

The records of the Aerospace Council, its Systems Groups and Committees, shall be maintained in accordance with the TSB Governance Policy.

10.4.1 Committee Minutes

The minutes of the Aerospace Council, its Systems Groups and Committees are considered Business Records of SAE and are addressed under the TSB Governance Policy.

10.4.2 <u>Committee Rosters</u>

Technical Committee Membership rosters constitute SAE Business Records unless they have been published for public release. The release of rosters is governed by SAE policy and determined by SAE Staff. Committee rosters are internally classified as mailing lists and their release is governed in part by SAE Policy.

10.4.3 <u>Communications with Technical Committees or Individual Committee Members</u>

Individuals who wish to communicate with a Technical Committee may do so only through the SAE Staff representative. Such correspondence should be sent to the SAE Staff representative who will forward the material to the appropriate Committee member. Contact information for the individual Committee Members may not be released without the permission of that Member.

10.4.4 <u>Committee Voting Records including Ballots with Comments</u>

Technical Committee ballots, ballot comments and voting results are Business Records of SAE and not made available for public release. Individual ballots, ballot comments and voting results identifying individual Committee Members are not retained after publication of the Technical Report.

10.4.5 <u>Permitted Distribution</u>

During the period in which a document is in the balloting process, ballots, ballot comments and voting tallies may be provided to Voting Members of the committee and document sponsors.

10.5 <u>Correspondence</u>

Copies of Technical Committee correspondence should be sent to the Chairperson and SAE Staff Representative. Members shall only use Technical Committee correspondence paper, which is available, upon request, from the SAE Staff Representative. Members shall not use stationery with company letterhead or SAE letterhead.



10.6 <u>Limitation of Committee Statements and Presentations</u>

Systems Group and Technical Committee Chairpersons are to make no statements or presentations to any government agency or other organizations or individuals purporting to indicate the opinion or position of their Technical Committee except where such statements are:

- (1) in fact based upon a coordinated review by the Committee Members and at least a majority of the committee support the statement,
- (2) generally within the committee's authorized area of technical interest, and
- (3) clearly within any other limitations prescribed in the TSB Governance Policy. In any instance where a committee statement appears advisable and it appears impractical to comply with these requirements, the matter shall be referred to the Systems Group Chairperson or Aerospace Council Chairperson.

10.7 <u>Test Materials</u>

A particular product or material may be identified by name when it is essential to uniformity and testing. In such cases, an "or equivalent" statement should be added to the company product or material referenced.



APPENDIX A

AEROSPACE COUNCIL RAPID RESPONSE PROCESS

A.1 INTRODUCTION

This appendix outlines the process for handling all requests from government and regulatory agencies for the rapid development of a Technical Report based upon an immediate national/international emergency related to safety or security.

A.2 SCOPE

The Rapid Response Process is outlined in the TSB Governance Policy. This appendix details the specific requirements from the Aerospace Council for implementing the process as stated by the TSB.

A.3 PROCESS

The process for conducting a rapid response is outlined in the flowchart within this appendix.

A.3.1 Requests

While it is anticipated that requests would generally be made by government or regulatory agencies (national or international), it is possible requests could come from other organizations based on military or civil authority needs.

A.3.2 <u>Rapid Response Review Group</u>

The Aerospace Council Chairperson will appoint three to five Aerospace Council Members to serve on this Group when a need is identified.

A.3.3 Rapid Response Criteria

The Rapid Response Review Group will use the Rapid Response Criteria Form included in this appendix to evaluate and respond to requests.

A.3.4 Rapid Response Participation Form

The Aerospace Council Members, when notified that the Rapid Response Review Group has approved a request for the Rapid Response process, will be asked to identify participants to serve on a Task Group to draft the needed Technical Report. Aerospace Council Members shall complete and return the Rapid Response Participation Form included in this appendix.

A.3.5 Task Group Operations

The task group will use electronic means to communicate to the extent practical. If a face-to-face meeting is required, the preferred venue is SAE Headquarters.

A.3.6 Balloting

The rapid response process requires a simultaneous ballot of the Aerospace Council and the Task Group. No minimum level of responses would be required for approval at the Task Group ballot. The existing Council balloting rules apply. Any negative responses from Council Members or Task Group Members must be addressed by the Task Group. The ballot time period allotted has been shortened to approximately 48 hours to meet the overall process timeline.

A.3.7 <u>Technical Report</u>

The Technical Report will carry the normal AS, AMS, ARP or AIR prefix with a disclaimer statement on the cover of the document. The Technical Report is to be reviewed within two years by appropriate Technical Committee for possible further action.

A.3.8 Timeline

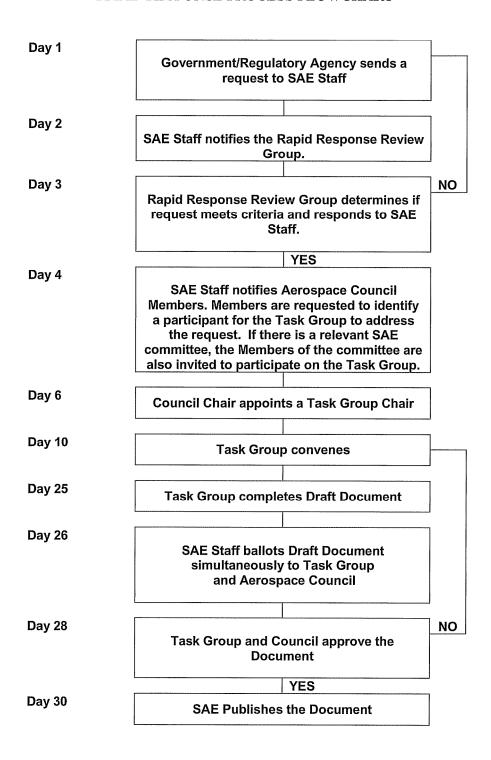
The process flowchart has targeted the rapid response process for 30 days, from receipt of the request until publication of the document. While the duration for each step of the process is not mandatory, it should be adhered to as much as possible.



APPENDIX A (Continued)

AEROSPACE COUNCIL RAPID RESPONSE PROCESS

RAPID RESPONSE PROCESS FLOWCHART





APPENDIX A (Continued)

AEROSPACE COUNCIL RAPID RESPONSE PROCESS

RAPID RESPONSE CRITERIA FORM

To:	SAE Aerospace Council Rapid Response Review Group			
From:	Manager, Aerospace Standar	ds		
Date:				
Subject: Re	quest for Rapid Response Proce	ss Authorization		
Information/details on request				
	And the second s			
To qualify v	vith the rapid response procedu	e, the document must meet all of the following cri	iteria	
☐ Pres ☐ Rela	nest from regulatory or governmesing issue—immediate national ted to safety or security within the scope of SAE's tech	international emergency or need		
Does the red	quest meet the above criteria?			
	☐ YES	□ NO		

RETURN TO:

SAE Aerospace Standards 400 Commonwealth Drive Warrendale, PA 15096-0001 PHONE: (724) 772-8586 FAX: (724) 776-0243

E-MAIL: manns@sae.org



APPENDIX A (Continued)

AEROSPACE COUNCIL RAPID RESPONSE PROCESS

AEROSPACE COUNCIL RAPID RESPONSE PARTICIPATION FORM

To:	Manager, Aerospace Standards			
From:	SAE Aerospace Council Member			
Date:				
Subject:	Rapid Response Project			
The SAE Aerospace Council Rapid Response Review Group has approved the use of the Rapid Response process for the following project:				
Information/details on request				
☐ I am appointing the person listed below to serve on this task group from within my organization: Name of Representative to Serve on Task Group				
NAI				
ORG	GANIZATION:			
TEL	EPHONE NUMBER:			
EM	AIL ADDRESS:			
☐ My organization will not participate.				
COUNCIL MEMBER NAME:				

RETURN TO:

SAE Aerospace Standards 400 Commonwealth Drive Warrendale, PA 15096-0001 PHONE: (724) 772-8586 FAX: (724) 776-0243 E-MAIL: manns@sae.org



APPENDIX B

AEROSPACE COUNCIL METRIC POLICY

B.1 <u>INTRODUCTION</u>

The Aerospace Council of SAE International recognizes several factors impacting the aerospace industry with regards to the use of metric units in Technical Reports. Safety, global markets, engineering reuse, and interoperability with existing aerospace products and platforms factor into the engineering decision regarding the best applicable system of measurement to use. When needed, SAE Technical Reports are written in metric units per TSB 003. TSB 003 is located under the Resources section of each committee's StandardsWorks area.

B.2 <u>CONSIDERATIONS</u>

The SAE Aerospace Council and its Technical Committees will consider the impact of these factors on their work and will initiate metric projects as needed which will be as follows:

- a. In harmony with provisions of the U.S. Metric Conversion Act of 1975.
- b. Compatible with metric conversion trends in the aerospace industries.
- c. Consistent with the requirements of the Department of Defense, NASA, FAA and the domestic and international air carriers.
- Recognize the safety implications to altimetry and other aspects of air operations.
- e. Are in harmony with the development and issuance of other international standards.
- Encourage using the conversion to SI as an opportunity to simplify and reduce variety of product standards.
- g. Are in full cooperation with other standardization activities.
- h. Avoid the use of dual dimensioning (i.e., both metric and inch pounds) on SAE Aerospace Technical Reports unless it is determined in specific instances, that such use will be beneficial.

B.3 TRANSITION

The Aerospace Council further recognizes that the transition to the metric system will happen only when market forces drive it and changes can be implemented without jeopardizing safety. Accordingly, the SAE Aerospace Council will continue the development of SAE Aerospace Technical Reports required for support of the inch/pound system items in design, development, manufacture, and/or field service.



APPENDIX C

AEROSPACE COUNCIL POLICY STATEMENT FOR THE ISO/TC 20 U.S. TECHNICAL ADVISORY GROUP (AIRCRAFT AND SPACE VEHICLES)

C.1 SCOPE

This statement defines the responsibility of the SAE Aerospace Council regarding the administration of the U.S. Technical Advisory Group for ISO/TC 20, Aircraft and Space Vehicles.

C.2 <u>AUTHORITY</u>

ANSI (American National Standards Institute) has authorized the formation of the U.S. Technical Advisory Group for ISO/TC 20, Aircraft and Space Vehicles, herein referred to as the TAG, for coordination with the International Organization for Standardization (ISO). SAE International has been appointed as Administrator. The Aerospace Council has authority pertaining to the supervision of the TAG including its operation and the appointment of the Chairperson of the TAG, its Members, and the Chairpersons of its subcommittees.

C.3 <u>U.S. TAG RESPONSIBILITIES</u>

The U.S. TAG will be responsible for the following:

- a. Operating the TAG according to the policies and procedures of SAE. Such operation shall be consistent with ANSI rules on the operation of Technical Advisory Groups.
- b. Maintaining a TAG charter and operating procedures. These will be approved by the Aerospace Council.
- Representing the U.S. Aerospace Industry in matters pertaining to the U.S. technical input to ISO/TC 20.

C.4 SAE AEROSPACE COUNCIL RESPONSIBILITIES

The Aerospace Council will oversee the operation of the U.S. TAG to ensure that:

- a. The TAG has adequate industry support in forming U.S. Subcommittee Advisory Groups and in fielding delegates to meetings of ISO/TC 20 and its subcommittees.
- b. The TAG fulfills its responsibilities as stated above.

Any change of this policy statement must be approved by the SAE Aerospace Council.



APPENDIX D

STANDARDS DEVELOPMENT ORGANIZATION (SDO) GUIDELINES FOR PREPARING MANDATORY QUALIFIED PRODUCT LISTS (QPL) TO STANDARDS AND SPECIFICATIONS

D.1 SCOPE

This document provides guidelines for preparing mandatory qualification to requirements in standards and specifications. Mandatory qualification requires the manufacturer to be listed or approved for listing on the applicable QPL.

D.2 PURPOSE OF QUALIFICATION

Qualification is a process by which a manufacturer's or distributor's products are examined, tested, and evaluated for conformance with specification requirements. Qualification is intended to reduce risk that qualified products will fail to conform to specification requirements and reduce procurement time, but since it takes place independent of procurement, it is not a guarantee of quality or conformance.

D.3 REFERENCE DOCUMENTS

EN9133:2004 Aerospace Series, Quality Assurance, EN Aerospace Products, Qualification Procedure PD2000 Procedures for an Industry Qualified Product Management Process

D.4 <u>DETERMINE THE NEED FOR QUALIFICATION</u>

D.4.1 Restrictions

The Technical Committee shall not include qualification in a specification when any one of the following conditions apply:

- a. When only one manufacturer has the ability to qualify and restriction of trade is intended.
- b. When the previous editions of a specification did not include a qualification requirement, unless requirements for such qualification can be justified.

D.4.2 Justification

Prior to inclusion in the applicable specification, the Technical Committee shall use these guidelines to establish the necessity for a qualification requirement, which results in the establishment of a QPL. Any one of the following situations may be used to justify the qualification requirement:

- a. The specification invokes unique technical requirements which must be satisfied at the time of qualification, but which are not repeated as acceptance tests during routine production.
- b. The time required to conduct one or more of those tests identified in the applicable specification as exclusive to qualification exceeds 30 days (720 hours).
- c. Qualification tests are expensive or require special equipment not commonly available.
- d. Qualification tests for survival or emergency life-saving equipment.
- e. Changes to material formulations and process will impact the product performance.

D.4.3 <u>Decision Matrix</u>

The restrictions and justifications for qualification inclusion in specifications are summarized in Figure 1. This figure combines the process flow and the decision matrix.



APPENDIX D (Continued)

STANDARDS DEVELOPMENT ORGANIZATION (SDO) GUIDELINES FOR PREPARING MANDATORY QUALIFIED PRODUCT LISTS (QPL) TO STANDARDS AND SPECIFICATIONS

D.5 PREPARING A SPECIFICATION WITH A QUALIFICATION REQUIREMENT

Once the requirement for a qualification has been justified, the Technical Committee should include all of the following within the body of the specification:

- State the qualification requirement in the requirements section of the document.
- Define qualification tests and evaluation criteria
- Specify who performs the tests, i.e. supplier, user or independent laboratory
- Set forth criteria for retention of qualification status including the time interval for requalification during which one of the following should occur:
 - o Supplier letter certifying that the product has not been changed and meets all qualification requirements
 - o Partial requalification (specify tests)
 - o Full requalification
- (R) An activation notice for the QPL which reads "This QPL requirement shall be in effect for purchase orders placed on or after (QPL effective date). Suppliers seeking listing on the initial QPL must apply to (QPL Agency) for approval no later than (TBD prior to QPL effective date). Until the QPL is in effect, users of this standard are advised to control source approvals by standard supplement sheet or similar means. Transition to the QPL shall be completed by (QPL effective date)."

D.6 QUALIFICATION STATEMENTS FOR SPECIFICATIONS

A template of qualification statements to be included into each specification is proposed to avoid confusion and achieve standardization. The section numbers refer to those used in the SAE AMSs (Aerospace Materials Specification).

D.7 ESTABLISHMENT OF A QUALIFIED PRODUCTS GROUP

- D.7.1 The Requesting Organization is to provide the following information to the Qualified Products Management Council (QPMC):
 - a. Background information regarding the establishment of the Qualified Products Group for a PRI-QPL;
 - b. An explanation of the structure and relationship between the applicable Organization, the Nadcap Task Group (if applicable) and the yet to be developed QPG membership [minimum of three primes is required];
 - c. Number of suppliers anticipated;
 - d. Current specification numbers and list of potential specifications;
 - e. Number of organization members required to participate in the QPL project review;
 - f. Number of Potential QPL Projects (workload);
 - g. Timeline for Completion/Publication of the Specification, the testing and publication of the QPL, and the Nadcap Audit;
 - h. Explanation of the Quality System required;
 - i. Explanation of the accreditation requirements of the testing facility (i.e., ISO17025 accredited laboratory with applicable scope).

The Requesting Organization is to contact the Performance Review Institute to request time on the agenda for the next QPMC Meeting to present the above information.



D.7.2 <u>Approval of a Qualified Products Group</u>

Once the Requesting Organization has provided the above Potential QPG information, the QPMC shall review and approved QPG as appropriate. Additional assessment information includes:

- a. Is this listing for an aerospace product?
- b. Have the approving data sources been defined?
- c. Has an evaluation matrix been prepared?
- d. Have two suppliers (minimum) been identified?
- e. Have organization members been identified to participate in the QPL project review?
- f. Has a Nadcap Audit Checklist been identified that will be used in a Nadcap Audit in conjunction with the QPL requirement?
- g. Has the required quality system been identified?
- h. Have the accreditation requirements of the testing facility (if required) been identified.

D.8 APPLICABLE QPL SECTIONS

- D.8.1 <u>Section 3 Qualified Product/Materials List</u>:
- 3.X.1 Materials <u>or Products (Or generic name of item*)</u> that qualify are placed on a Qualified Product or Material list maintained by the QPL publisher. To qualify, the product or material shall meet the tests specified in section X.XX performed in accordance with the provisions of section 8.X.
- 3.X.2 Qualification shall be in accordance with the provisions of 3.X.4.
- 3.X.3 Recertification of qualification is required every (specify) year(s).

(Choose one of the following statements for insertion):

- a) Recertification consists of a letter certifying that there have been no changes in the material ingredients, manufacturing processes or site of production since (generic name of item*) qualification and that the product meets all of the requirements of this specification.
- b) Recertification consists of a letter certifying that there have been no changes in the material ingredients, manufacturing processes or site of production since the (generic name of item*) meets all of the requirements of this specification together with a test report (specify testing source if applicable) showing compliance with the following requirements (specify the tests to be conducted).
- c) Recertification consists of a complete qualification test in accordance with the provisions of 3.X.6.
- *i.e. fluid system components, sealants, seals, etc.
- 3.X.4 Qualification testing, review of test results, approval, re-approval and recertification of qualification for QPL listing shall be in accordance with PD2000 or equivalent and the instructions from the responsible QPL agency.

NOTE: The Qualifying Activity will include the following verbiage on communications to the Supplier regarding approval of a test plan: "Although the [Individual Title] QPG has reviewed and approved your test plan, your company is still ultimately responsible to ensure that, throughout the qualification process, all of the technical, performance and testing requirements are met to gain qualification to the QPL."

3.X.5 Materials <u>or Products (Or generic name of item*)</u> furnished to this specification will be listed or approved for listing on the qualified products list (QPL) in accordance with the provisions of section 8.X.

Changes in product formulation raw material, basic methods of manufacturer, or plant site, for qualified (<u>generic name of item*</u>), listed or approved for listing on the QPL are not permitted without first notifying the responsible QPL agency to assess the need for regualification and/or revision to the QPL.



APPENDIX D (Continued)

STANDARDS DEVELOPMENT ORGANIZATION (SDO) GUIDELINES FOR PREPARING MANDATORY QUALIFIED PRODUCT LISTS (QPL) TO STANDARDS AND SPECIFICATIONS

MANDATORT COALITIED TRODOGT EISTS (CFE) TO STANDARDS AND STESTITIONS

D.8.2 <u>Section 4 - Quality Assurance Provisions</u>

4.4 Approval

The manufacturer shall use ingredients, manufacturing procedures, and methods of inspection on production (generic name of item*) which are the same as those used on the qualification sample. If it is necessary to make changes in ingredients, type of equipment for processing, or manufacturing procedures, the manufacturer shall submit a statement of the proposed changes for re-approval. When requested, a sample of the (generic name of item*) shall be submitted in accordance with the provisions of section 3.X.4. Product manufactured using the revised procedure shall not be shipped prior to re-approval of qualification in writing.

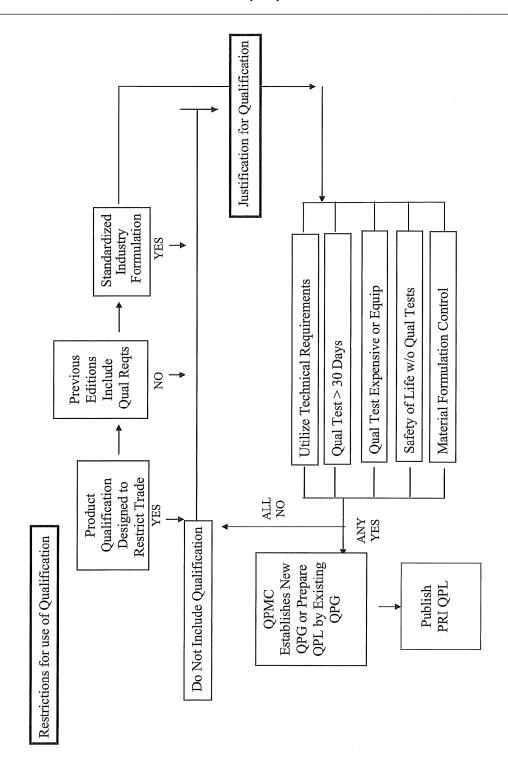
- D.8.3 <u>Section 8 Notes</u>:
- 8.X Qualification of (generic name of item*):
- 8.X.1 Contract awards requiring qualification to this specification will be made only for <u>(generic name of item*)</u> which are approved for inclusion in the applicable qualified products list (QPL). Manufacturers are urged to arrange to have their product tested by (specify testing source, i.e. user, independent laboratory, etc.) for qualification so they may be eligible to be awarded contracts or orders for <u>(generic name of item*)</u> covered by this specification. Information pertaining to qualification may be obtained from the responsible QPL agency identified in Section 8.Y.
- 8.Y Oualified Product List
- 8.Y.1 The Qualified Products List for this specification is (Insert proper organization identification for the agency selected to maintain the QPL.).
- 8.Y.2 A responsible agency for the QPL is the Performance Review Institute, 161 Thorn Hill Road, Warrendale PA 15086-7527, phone +1 724-772-1616, Fax +1 724-772-1699. The On-Line QPL is available at www.eAuditNet.com.

 Additional information regarding the QPL Program is located at www.pri-network.com / Qualified Products / Qualified Products List.



APPENDIX D (Continued)

STANDARDS DEVELOPMENT ORGANIZATION (SDO) GUIDELINES FOR PREPARING MANDATORY QUALIFIED PRODUCT LISTS (QPL) TO STANDARDS AND SPECIFICATIONS





APPENDIX E

INFORMATION CONTAINED IN TECHNICAL REPORT STATUS BLOCKS AND INSTRUCTIONS AND GUIDANCE FOR USE OF NOTICE PAGES

E.1 <u>STABILIZED</u>

When a Technical Report is Stabilized, a Notice Page is created as the first page of the document. This Notice should clearly indicate that the document is considered "frozen" at the last active revision level and that no periodic maintenance will be carried out. The Notice Page shall also include a Rationale statement for why the Technical Report is being moved into the Stabilized category. Documents may be Stabilized when the technology is mature and the committee makes a conscious decision not to revise any further or when technical expertise to maintain the document no longer exists, or it has been determined by the committee that there is no longer any customer pull for further maintenance, review or revision to the standard

Example of a Stabilization Notice:

Stabilization Notice

This Technical Report has been Stabilized by the Technical Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

Examples of Stabilization Rationale Statements:

Rationale

This document has been determined to contain basic and stable technology which is not dynamic in nature.

Rationale

The Technical Committee which originally created this document no longer exists.

Rationale

The committee recommends that AMS 5678 be considered as an alternate process as it reflects more current industry practice.

E.2 <u>CANCELLED</u>

When a Technical report is Cancelled, a Notice Page is created as the first page of the document. This Notice should clearly indicate that the Standard is being cancelled and whether or not the standard is being superseded by another document or documents. Every effort should be taken to provide users with alternatives to the cancelled document. If the replacement document is technically equivalent or superior to the superseded Technical Report, the cancellation notice may directly refer readers to the replacement document. If a document is a suggested replacement, the cancellation notice shall include a statement that cautions users before applying the replacement document. The Notice Page shall also include a Rationale statement for why the Technical Report is being Cancelled which shall indicate why the technical data contained in the document is no longer safe or legal to use.



Example of a Cancellation Notice with Supersession:

Cancellation Notice

This document is Cancelled and Superseded by AS 1234.

Rationale

The document contained a material which has been banned for use in the EU.

Example of a Cancellation Notice with No Supersession:

Cancellation Notice

This document is Cancelled without replacement.

Rationale

The document contained a material which has been banned for use in the EU. Because this material had numerous applications for which there is no single substitution material, users must determine their own substitution for this document.