



MINUTES

TECHNICAL ACTIVITIES COMMITTEE

2020 Virtual Annual Meeting

May 18, June 25, July 22, 2020

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May 18, June 25, July 22, 2020

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**PRINCIPAL MOTIONS
TECHNICAL ACTIVITIES COMMITTEE
May 18, June 25 & July 22, 2020**

No.	Motion	Status
1	TAC approve the merger of TC 7.3, <i>Operation and Maintenance Management</i> , and 7.8, <i>Owning and Operating Costs</i> , with the new title and scope as follows:	PASSED
2	minutes of the TAC 2020 Winter Meeting be approved as drafted	PASSED
3	TAC approve a new MTG.VIC Ventilation for Infection Control with the following scope:	PASSED
4	TAC approve proposed revisions to the TAC Reference Manual.	PASSED
5	TAC approve proposed revisions to the TC Manual of Procedures.	PASSED
6	TAC recommends that the TC 5.10 scope change be approved as shown below:	PASSED
7	TAC recommends that the TC 4.2 scope change be approved as shown below:	PASSED
8	TAC recommends that the TC 4.7 scope change be approved as shown below:	PASSED

ACTION ITEMS
May 18, 2020, June 25, July 22, 2020

Action No.	Responsibility	Summary of Action Items	Status
1	Staff	invite all of TAC to attend ExCom	Complete
2	Goldschmidt	send draft slides of virtual TC training presentation to JK by end of week (May 22)	Complete
3	Staff	send Kohler names of all TC chairs rolling off to be recognized in virtual breakfast slide [changed to have TCs recognized]	Not Completed
4	Goldschmidt	review TAC and TC MOP and develop guidance/procedures as appropriate for virtual meetings.	Complete
5	Staff	Annual Reports from Intersociety liaisons are due to TAC at Annual Meeting. Staff was asked to get list of current Intersociety liaisons	Complete
6	Staff	Staff would update TC scopes document on ASHRAE website	Complete
7	Smith	Smith would finalize document on <i>Process and Procedures for Basecamp projects</i> and sent to TAC	

ACTION ITEMS
February 1 & February 5, 2020

Action No.	Responsibility	Summary of Action Items	Status
1	Kohler	Appoint a TAC subcommittee to determine the specific changes to implement (with timeline, etc.) for TAC follow up to ad hoc reorganization recommendations	Complete
2	Mercer	Develop and share 1-page task checklist for TCs considering mergers	Complete
3	TAC	TAC should discuss what and how to use TC activity dashboard tool	Complete
4	Maston	Send a template of a program submission checklist	Complete
5	Kohler	Ask Tech Council for clarification on ROB 3.960.001 states the following:	Complete
6	Staff	Determine if roster web tool can allow for more than one submission before being locked out	Complete
7	TAC	Reevaluate PCM policy and implementation to consider limited access to contact information.	Complete
8	Staff	Look into errors with email alias system	Complete
9	TAC	Evaluate the basecamp structure to determine what basecamps they will have and use, and what documents/communications each would be used for	Complete
10	TAC	Review changes to TAC Reference Manual in preparation for the next meeting	Complete

LIST OF ATTACHMENTS

ATTACHMENT A:	Interim Meeting Notice
ATTACHMENT B:	TC 7.3, 7.8 merge information
ATTACHMENT C:	Section Head Tool
ATTACHMENT D:	2019-2020 TAC MBOs
ATTACHMENT E:	MTG.VIC proposal
ATTACHMENT F:	TAC Reference Manual revision
ATTACHMENT G:	TC MOP revision
ATTACHMENT H:	Goldschmidt FG Virtual Meeting guidance
ATTACHMENT I:	Possibility to use YouTube document
ATTACHMENT J:	TC Breakfast Reminders
ATTACHMENT K:	TC Breakfast Presentation
ATTACHMENT L:	There is Change in the Air
ATTACHMENT M:	TC Re-org Final Report
ATTACHMENT N:	Process and Procedures for Basecamp projects

LIST OF ACRONYMS

AI	Action Item
ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers
BOD	Board of Directors
CEC	Conferences & Expositions Committee
CIMA	Cellulose Insulation Manufacturers Association
CNV	Chair Not Voting
ETF	Epidemic Task Force
ExCom	Executive Committee
ExO	Ex-Officio
FG	Functional Group
HVAC&R	Heating, Ventilating, Air Conditioning & Refrigeration
IAST	Impact of ASHRAE Standards and Technology
MBO	Management by Objectives
MOP	Manual of Procedures
MTG	Multi-disciplinary Task Group

PES	Project Evaluation Subcommittee
PMS	Project Monitoring Subcommittee
RAP	Research Advisory Panel
ROB	Rules of the Board
RPM	Remote Participation Meeting
RSP	Research Strategic Plan
SH	Section Head
SY	Society Year
TAC	Technical Activities Committee
TC	Technical Committee
TG	Task Group
TRG	Technical Resource Group
UNESCO	United Nations Educational, Scientific and Cultural Organization
VIC	Ventilation for Infection Control

MINUTES
TECHNICAL ACTIVITIES COMMITTEE
May 18, June 25 & July 22, 2020

MEMBERS PRESENT:

Jay Kohler, *Chair*
Dustin Meredith, *Vice Chair*
Jennifer Leach, *Section 1*
Jon Cohen, *Section 2*
Barbara Minor, *Section 3*
James Bennett, *Section 4*
Larry Smith, *Section 5*
Dawen Lu, *Section 6*
Craig Messmer, *Section 7*
Kevin Mercer, *Section 8*
Vance Payne, *Section 9*
Charles Henck, *Section 10*
Carl Huber, *Section MTG*
Sarah Maston, *Membership Coord./CEC Liaison*
Victor Goldschmidt, *Training Coord.*
Marija Todorovic, *Operations Coord.*
Rick Hermans, *BOD Ex-O*
Dennis Knight, *Coord. Officer*

MEMBERS ABSENT:

None

GUESTS:

Brad Cochran, *Incoming Member*
Stuart Dols, *Incoming Member*
John Constantinide
Satheesh Kulankara, *Incoming Member*
Kevin Marple, *Incoming Member*
Tim McGinn, *Incoming Coord. Off*
Craig Wray

ASHRAE STAFF:

Steve Hammerling, *MOTS*
Stephanie Reiniche, *DOT*
Lilas Pratt, *MOSP*
Tara Thomas, *AA*

Virtual Pre-Annual TAC Meeting
Monday, May 18th

A. CALL TO ORDER & INTRODUCTIONS - KOHLER

Kohler welcomed all and called the meeting to order at 9 AM EDT. Commitment to the ASHRAE Code of Ethics: In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>)

B. VIRTUAL MEETING UPDATES

1) TAC Meetings

The following meeting schedule for TAC Annual meetings was verified:

- TAC pre-meeting (May 18th, 9-11 AM EDT)
- TC Chairs breakfast/TC Chairs Training (May 27, 8-10 AM EDT & May 28, 3-5 PM EDT)
- TAC ExCom (June 22nd, 10-11 AM EDT)
- TAC Part A 'Saturday Meeting' (June 25, 9am-12pm & 1pm-3pm EDT)
- TAC Part B 'Wednesday Meeting' (t.b.d. late July, after TC meetings)

Staff was asked to invite all TAC members to the ExCom Meeting (**AI #1**)

Goldschmidt was asked to send draft slides for the TC breakfast training before May 22 (**AI #2**)

Staff would send Kohler names of TC chairs rolling off to be recognized in virtual breakfast slides (**AI #3**).

2) TC Meeting Updates

Pratt described the TC virtual meeting scheduling process, timelines, requirements and limitations. Most TCs have been scheduled or are being worked out now. Section Heads were asked to attend TC meetings and to help them work out schedules. If you need a section meeting staff can help.

C. UPDATE & DISCUSSION ON TC RE-ORG EFFORT SINCE ORL - MASTON

Maston is preparing a draft final report for TAC to review before next TAC meeting. A subcommittee of TAC will take charge of implementation of recommendations.

D. INTERIM TC MEETINGS

A new procedure was described for a process to utilize interim TC meetings and notifications. The aim is to encourage TCs to meet more frequently in between face to face meetings and to streamline the process.

TAC would initiate a listing of the interim meetings on the Technical Committees webpage (www.ashrae.org/technical-resources/technical-committees), similar to the listing done for Standards. TC meetings would follow the Standards rules. TC interim meetings should be posted (by emailing the alias TCmeetings@ashrae.net) two weeks before an online meeting and four weeks before a face-to-face meeting and should include meeting call-in/link info. The preference would be for TCs to use ASHRAE's online resources, but cannot mandate this.

A notice would also be made in the in the ASHRAE Journal Newsletter (bimonthly) to remind our members to check the listing and to provide a link to the list. Suggested notice text is included in **Attachment A**.

Goldschmidt agreed to review TAC and TC MOP and develop guidance/procedures as appropriate for virtual meetings. (**Action Item #4**).

E. REVIEW DRAFT AGENDA WITH GROUP FOR ADDITIONS AND CHANGES - KOHLER

1) No changes were made to the proposed agenda for the TAC Annual Meeting.

2) Committee business that could possibly be completed at this meeting:

It was moved (CM) and seconded (SM) that,

(1) TAC approve the merger of TC 7.3, *Operation and Maintenance Management*, and 7.8, *Owning and Operating Costs*, with the new title and scope as follows:

NEW TITLE:

Operation, Maintenance and Cost Management

NEW SCOPE:

This TC is concerned with the operation, maintenance, and cost management of buildings and the use of life cycle cost analysis techniques for decision-making when considering investments in building performance.

BACKGROUND: The new title, scope and leadership are shown in **Attachment B**. Messmer

noted the TC votes to merge were unanimous.

MOTION #1: 14-0-0 CNV - PASSED

Virtual Annual TAC Meeting (Part A)
Monday, June 25th

A. CALL TO ORDER & INTRODUCTIONS

Chair, Jay Kohler, called the meeting to order at 9:00 am, EDT on Thursday, June 25, 2020.

Members and staff attended as recorded above. Kohler referred to the commitment to the ASHRAE Code of Ethics:

In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: www.ashrae.org/about-ashrae/ashrae-code-of-ethics)

B. ADDITIONS AND/OR CHANGES TO THE AGENDA

The current version of the agenda on Basecamp is revision 4 uploaded July 20. No additional changes were made.

C. ACTION ITEM TRACKING AND PRELIMINARY REVIEW OF ACTION ITEMS

Action Items from previous meetings were reviewed. [A status summary can be found on page iv of these minutes]

D. APPROVAL OF MINUTES

It was moved (VG) and seconded (JB) that,

(2) minutes of the TAC 2020 Winter Meeting be approved as drafted

BACKGROUND: The draft minutes from the 2020 Winter meeting were emailed/uploaded on February 28th.

MOTION #2: 11-0-0 CV - PASSED

E. CHAIR'S REPORT (Kohler)

a) Disposition of Motions from Last Meeting Requiring Higher Body Approval

- TAC Motions 3, 4, 6a to approve changes to TAC MOP were not passed by Operations Subcommittee of Technology Council in ORL
- TAC Motion 13 to approve changes to TAC MOP were approved by Technology Council in ORL.
- No other motions passed from Winter Meeting (ORL) required higher approval

b) New or Carryover Action Items Assigned to TAC by Tech. Council

There were no action items from Tech Council.

c) New Information Items:

1. Virtual Meeting Updates

TCs have started meeting. Bennett noted the Dashboard could more clearly differentiate present vs. remote attendees and all should be remote for these meetings.

Many chairs have asked for outgoing chair certificates to be mailed. Some wish to await face

to face in Chicago.

Members and guests noted that attendance to virtual TC meetings seemed higher than at a typical face to face meeting.

2. TC Re-org updates

Maston reported a draft re-org report was available on Basecamp and asked for feedback in next week.

3. New ASHRAE 2019-2024 Strategic Plan Approved by Board

TAC supports several activities related to the TC reorg that contribute to Initiative 3 of the Strategic Plan:

TABLE 3

FUTURE OF ASHRAE: Organizational Streamlining	
Resources	Financial contributions, which are expected to be minimal, from the operating budgets of the Councils and Standing Committees. The major resource needed will be time from our volunteer members/leaders at the grassroots and Society level, as well as staff.
Benefits	<u>To the Society:</u> A more flexible, efficient and effective operational framework allowing volunteer time, staff talent and other resources to be reinvested in targeted areas to drive this plan. <u>To the Member:</u> A more accessible association that is using resources to the highest and best use to advance the profession. Ability to move to market more rapidly will result in increased credibility and relevancy of the Society with members and the industry as a whole.
Desired Outcomes	<ol style="list-style-type: none">1. Evaluate the staff/volunteer support structure to optimize volunteer engagement, efficiency and effectiveness of the Society (e.g. volunteer time efficiency). Present and implement findings to support the delivery of key products and services (e.g. Guidelines, Standards, Research, Publications, and Programs) with less cost, reduced time to market and an advancement in market responsiveness.2. Redesign leadership/governance structure to support increased operational efficiency and effectiveness of the organization.3. Targeted streamlining for committee operational effectiveness through reduction of overlap and optimization of quantity, scopes, and process (e.g. merging of technical committees for cross communication, efficiency and effectiveness).4. Increase efficiency of Winter and Annual conferences by reducing volunteer time, staff time, and financial expenditures at Winter and Annual conferences by at least 20%.
Key Stakeholders	<ul style="list-style-type: none">• ASHRAE Membership• Industry• Leadership of the Board, Councils and Committees affected

4. CIMA complaint on bias in Handbook chapter development

Bennett noted this issue was resolved.

5. Training on new Activity Form and Dashboard for TAC Section Heads – Messmer

Messmer gave a presentation summarizing the latest features and updates of the Section Head tool (**Attachment C**). Now that this tool is up and running, TAC can discuss how to use or what to use it for. FG evaluation was suggested.

John Constantinide noted it was important to eventually show results to TCs to show why or how these reports are used and could encourage TCs to do reports. Craig Wray wished to get a metric on the impact TCs have on the HVAC&R industry. Constantinide replied that MTG.IAST is doing this sort of measurement with a research project and may be able to offer some insights for TAC.

6. Research Advisory Panel (RAP)

A RAP member will attend SH breakfast with a slide to discuss the latest status on the ASHRAE Research Strategic Plan (RSP).

d) MBOs

A final report on 2019-2020 TAC MBOs is included as **Attachment D**.

F. BOD EX-OFFICIO & COORDINATING OFFICER (Hermans & Knight)

Hermans would give his formal report with presentation at the next ASHRAE Meeting. Highlights included:

- ASHRAE Virtual Annual Conference is underway. Plan now is for a face to face Winter meeting in Chicago.
- Encouraged all to suggest and nominate people for position on TAC.

Knight thanked TAC members for their work over the course of the year and adjusting to the virtual meeting.

G. VICE CHAIR'S REPORT (Meredith)

a) Update & discussion on efforts to develop new online activity form & section head trend report template

Updates would be summarized later on agenda.

b) Develop a Document - Best Practices fore Section Heads – MBO 1

A draft of a best practices document was developed earlier and available on basecamp.

c) Summary of YEA/TAC mixer in ORL

Meredith noted the YEA/TAC mixer could continue at next face to face meeting.

d) MBOs for 2020-2021

Proposed MBOs for the next society year would be sent to Technology Council before their meeting later in July.

H. MULTIDISCIPLINARY TASK GROUP SECTION REPORT – (Huber)

a) Status of MTGs:

Huber summarized main activities of the current MTG's. Nothing was in need to TAC attention currently. The MTG section meeting would be held after the TAC meetings.

b) Proposed New MTGs

Huber noted there was a proposal for a new MTG.VIC on Ventilation for Infection Control. TAC previewed this proposal in May meeting.

It was moved (CH) and seconded (BM) that,

- (3) TAC approve a new MTG.VIC Ventilation for Infection Control with the following scope:

MTG.VIC will coordinate: efforts for the following TCs to support the work of The Epidemic Task Force (ETF) formed by the Environmental Health Committee: TCs 1.12, 2.1 2.4, 2.9, 4.3, TRG4, 5.3, 5.5, 5.11, 9.3, 9.6, 9.7, 9.8. One member of each of these TCs shall constitute a Ventilation Board from which panels are created to perform typical TC duties in support of the ETF. Panels may use the membership of their respective TCs to perform these duties. The voting members of the MTG will select a panel from the Ventilation Board to form PES and PMS teams for conducting research, or to prepare special publications.

BACKGROUND: The full proposal with a stated impact on other FGs and a proposed roster is included as **Attachment E**.

MOTION #3: 11-0-0 CNV - PASSED

I. POTENTIAL MOTIONS READY FOR TAC CONSIDERATION

Nothing was raised at this time for a consent agenda.

J. ROSTER COORDINATOR / CEC LIAISON – (Maston)

- a) Changes for Roster Update Process this Year?
No changes to the roster update process.
- b) Roster Update schedule and goals for 20-21 Rosters
Rosters for next SY will start after TAC's July 22 meeting in August.

K. OPERATIONS COORDINATOR (Todorovic)

- a) Proposed TAC or TC Procedure Motions for approval:
 - 1. Proposed changes to the TC MOP and TAC Reference Manual were sent ahead of the meeting.

It was moved (CH) and seconded (BM) that,

- (4) TAC approve proposed revisions to the TAC Reference Manual.

BACKGROUND: Proposed changes are shown in **Attachment F**.

MOTION #4: 11-0-0 CNV – PASSED

It was moved (CH) and seconded (BM) that,

- (5) TAC approve proposed revisions to the TC Manual of Procedures.

BACKGROUND: Proposed changes are editorial in nature and shown in **Attachment G**.

MOTION #5: 11-0-0 CNV - PASSED

- b) Summary of TAC ExCom interface
Leadership from CEC attended TAC's ExCom meeting on June 22 with a good exchange of information. No specific decisions were made but communication was good and suggested continuing in the future.
- c) TAC Inter-society Liaisons
Annual Reports from Intersociety liaisons are due to TAC at Annual Meeting. Staff was asked to get list of current Inter-society liaisons (**AI #5**).
- d) Public notice for off-line FGs meeting
Interim meeting guidance and requirements for FG meetings were discussed earlier on agenda. **Attachment H** was developed in response to Action Item 4 from the TAC May meeting.
- e) New Business

In response to an earlier action item Todorovic prepared and reviewed **Attachment I, Possibility to use YouTube for Science and Technology for CEC**

L. TRAINING COORDINATOR - (Goldschmidt)

- a) Recap of TC/TG/TRG Chair's Training Workshop plans at Annual Meeting

TAC led Chair Breakfasts on May 27 and 28. Two sessions were held to help assure all could attend. Both sessions were well attended. A list of TC reminders (**Attachment J**) was distributed ahead of the breakfast. A general presentation (**Attachment K**) was given followed by a question and answer period.

A leadership training session was titled 'There is Change in the Air' (**Attachment L**). The intent was to focus on TC operation or nuts and bolts training in Chicago. TAC was collecting feedback on the training to determine how effective it was and how to improve going forward.

Kohler adjourned Part A of the TAC meeting until July 22.

Virtual Annual TAC Meeting (Part B) Wednesday, July 22

M. CALL TO ORDER & INTRODUCTIONS

Kohler reconvened meeting, welcoming all attendees and reviewed the code of Ethics:
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: www.ashrae.org/about-ashrae/ashrae-code-of-ethics)

Kohler noted this second meeting was similar in nature to the typical Wednesday morning meeting at a face to face conference as TCs have now all met. No changes to the agenda for Part B meeting were suggested.

N. SECTION HEAD REPORTS

Section heads were reminded to present only highlights from their written reports submitted Tuesday night. Section Head reports and activity reports should be uploaded to basecamp (<https://3.basecamp.com/3106353/projects/389454>) .

General messages to TAC from the TCs included the following:

- Good attendance from TCs on virtual TC meetings. TCs seemed to adapt well to use of virtual meetings.
- Preference would be for shorter timeframe of allowable meetings (closer to 1 week vs. 1 month)
- Much interest in Hightower Award, so multiple nominations are expected.
- Several TCs noted problems with roster updates. These are being worked out by staff.
- A number of scope changes would be formally considered later on agenda.]
- Section Heads were asked to work with TCs to assure activity forms were filled out and input in to the Dashboard tool
- The following TCs mentioned possible merges as well:
 - TC 4.5 into TC 4.4 or TC 6.7
 - TC 10.1 with TC 10.3
 - TC's 10.2, 10.5 and 10.8
 - TC 3.8 into 3.1

a) New motions that TAC must consider at this meeting from TCs in section?

i. Proposed New TC/TG/TRGs, or Merges, or Disbands?

None

ii. Proposed Name and Scope Changes

It was moved (LS) and seconded (JB) that,

(6) TAC recommends that the TC 5.10 scope change be approved as shown below:

TC 5.10 is concerned with the design, construction, installation, commissioning, and sustainable operation of code-compliant ~~commercial~~ kitchens

BACKGROUND: Passed unanimously at TC. Aim to broader umbrella to cover residential and any kitchen application.

MOTION #6: 10-0-0 CNV - PASSED

It was moved (JB) and seconded (JCo) that,

(7) TAC recommends that the TC 4.2 scope change be approved as shown below:

TC 4.2 ~~identifies, researches, analyzes, and disseminates climatic data for design of sustainable built environments. is concerned with identification, analysis and tabulation of climatic data for use in analysis and design of heating, refrigeration, ventilation and air-conditioning systems. Promotion of effective use of weather information in these applications is also included.~~

BACKGROUND: Passed unanimously at TC.

MOTION #7: 10-0-0 CNV - PASSED

It was moved (JB) and seconded (BM) that,

(8) TAC recommends that the TC 4.7 scope change be approved as shown below:

Technical Committee 4.7 is concerned with ~~identifies~~ing, ~~evaluates~~ing, ~~develops~~ing, and ~~recommends~~ing procedures for calculating energy performance for the built environment.

BACKGROUND: Passed unanimously at TC.

MOTION #8: 10-0-0 CNV - PASSED

Staff would update TC scopes document on ASHRAE website (**AI #6**)

O. UNFINISHED BUSINESS

a) Re-org Final report

The final report from the TC reorg ad hoc (**Attachment M**) was submitted to TAC and Tech Council leadership. Maston noted she shared with Planning Committee as well as they're discussing streamlining. Larry Smith is heading up the implementation subcommittee.

b) Process and Procedure for Basecamp Projects

Smith drafted guidance (**Attachment N**) outlining how TAC and associated Functional Groups would communicate through Basecamp Projects. Smith agreed to review latest feedback and to send to TAC (**AI #7**).

- c) TAC support of ASHRAE Epidemic Task Force (ETF)
The ASHRAE ETF is meeting through next SY. TCs are encouraged to become familiar with the published guidance (www.ashrae.org/covid19) and to participate in review and development of relevant guidance.
- d) Discussion of meeting feedback
Section Heads were asked to summarize T feedback in their Wednesday reports. Section reports should be submitted by July 29th. It was noted at this time a face to face Winter Meeting in Chicago was planned but that a final decision would be made in September.

P. NEW BUSINESS

Outgoing TAC chair thanked other outgoing TAC members Barbara Minor, Marija Todorovic, Sarah Maston and Dennis Knight (CO).

Incoming TAC chair Dustin Meredith thanked Jay for his leadership on TAC and welcomed incoming TAC members Brad Cochran, Stuart Dols, Satheesh Kulankara, Kevin Marple, Bill McQuade.

EDITORIAL NOTE:

TAC assignments for SY 20-21 would be as follows:

Chair – Dustin Meredith	Section 3 Head – Stuart Dols
Vice Chair – Larry Smith	Section 4 Head – Jaime Bennett
Special Activity Coordinator – Victor Goldschmidt	Section 5 Head – Kevin Marple
Training Coordinator – Craig Messmer	Section 6 Head – Dawen Lu
Operations Coordinator – Vance Payne	Section 7 Head – Santheesh Kulankara
Section MTG Head – Carl Huber	Section 8 Head – Kevin Mercer
Section 1 Head – Jennifer Leach	Section 9 Head – Brad Cochran
Section 2 Head – Jon Cohen	Section 10 Head – Charles Henck

TAC Mentors:

Section	Incoming Member	2020	Mentor
Section 3	Stuart Dols	2020	Cohen
Section 5	Kevin Marple	2020	Smith
Section 7	Satheesh Kulankara	2020	Messmer
Section 9	Brad Cochran	2020	Payne

Q. REVIEW NEW ACTIONS

Action Items are included in minutes. TAC leadership will work with staff to schedule a fall meeting.

R. ADJOURN

TAC 2020 Virtual Annual Meeting adjourned at approximately 11:50 AM., Wednesday, July 22, 2020.

From: sarah@greenfootprintscx.com
To: "Jay Kohler"; "Dustin Meredith"; "Rick Hermans"
Cc: [Reiniche, Stephanie](#); [Hammerling, Steve](#)
Subject: TAC: List of interim TC meetings
Date: Friday, May 15, 2020 5:18:15 PM
Attachments: [image157254.png](#)

All,

As we continue to ask our TCs to meet in between conferences to continue to do the work of the TC, we would like to initiate a listing of the interim meetings on the Technical Committees webpage (<https://www.ashrae.org/technical-resources/technical-committees>), similar to the listing done for Standards (link below). It is our intention that the posting of the TC meetings should follow the Standards rules, so there is not two sets of rules out there to confuse everyone. So, TC interim meetings should be posted (by emailing the alias TCmeetings@ashrae.com) two weeks before an online meeting and four weeks before a face-to-face meeting. The person emailing should also include the meeting call-in info/ link for posting. We would like to recommend that TCs use ASHRAE's online resources, but obviously can't mandate it.

To keep our members apprised of the meetings, we would like to add a notice in the ASHRAE Journal Newsletter (bimonthly) to remind our members to check the listing and to provide a link to the list. So, we would like it to say something like this...

Attention TC Members!

As many of your know, TAC is recommending that TCs meet on an interim basis between society conferences, so that we can improve the efficiency of the TCs and continue the work of the society. TAC believes that these interim meetings should be announced society-wide to encourage any member with an interest in the TC's work to join the conversation. Soon, there will be a listing of these meetings available on the "Technical Committee" section of the ASHRAE website.

To post an interim meeting announcement, the TC secretary should email TCmeetings@ashrae.com with the name of the TC, the date and time of the meeting and the call-in information or meeting link, at least 2 weeks before the meeting time. Also, any face to face meeting should be posted at least four weeks beforehand.

If your TC needs assistance setting up an online meeting, contact....XXXXXXX.

To see the listing of interim meetings, click here (link, when live).

What does everyone think?

Regards,
Sarah

From: Reiniche, Stephanie <sreiniche@ashrae.org>

Hammerling, Steve

Subject: FW: Merger of TC 7.3 and 7.8

NEW TITLE:

Operation, Maintenance and Cost Management

NEW PURPOSE/SCOPE:

This TC is concerned with the operation, maintenance, and cost management of buildings and the use of life cycle cost analysis techniques for decision-making when considering investments in building performance.

OLD TC 7.3 TITLE: Operation and Maintenance Management

OLD TC 7.3 SCOPE: TC 7.3 is concerned with providing general guidance in the area of operation, maintenance and commissioning of air conditioning, heating, ventilating and refrigeration systems and equipment.

OLD 7.8 TITLE: Owning and Operating Costs

OLD TC 7.8 SCOPE: TC 7.8 is concerned with owning and operating costs, principally the understanding of comparative owning and operating costs and economic analysis techniques, relating to HVAC&R systems.

Leadership has also been proposed as follows:

	7.3	7.8	New Chair	New Vice Chair
Chair	Sonya Pouncy	Dave Meredith	Robyn	Keith Riehl
Vice Chair	Robyn Ellis		Keith Reihl	
Handbook	Orville Dillenebeck	Klas Haglad	Klas Haglad	Orville Dillenebeck
Program	Mina Agarabi		Matt Mullen	
Research	Michael Bobker	Matt Mullen	Michael Bobker	
Education & Training	Julia Day		Mina Agarabi	Julia Day
Standards	Steven Sill	Bruce Lindsey	Bruce Lindsey	Steve Sill
ALI Coordinator		Jim Poulous	Mina Agarabi	Jim Poulous
Secretary	David Norvell	Kevin Edstrom	David Norvell	
Webmaster			Kevin Edstrom	

The Vice chair for Handbook, Education & Training, Standards, aLI Coordinator are unofficial and meant to provide a transition for the first year.

Best regards,

Craig Messmer, P.E.

Section Head

7.0 – Building Performance

ASHRAE Technical Activities Committee

Email: SH7@ashrae.org

c/o Unico, Inc.

1120 Intagliata Drive

Arnold, MO 63010
T: +1 (314) 481-9000 | Direct: +1 (636) 333-6353 | M: +1 (314) 258-2519
craig@unicosystem.com | www.unicosystem.com



Not Using Sigstr Yet?

CONFIDENTIALITY NOTICE. If you received this notice in error, you should probably delete it since you won't know what it's all about. Of course, I'll never know if you do, so feel free to fill up your hard drive with useless messages if you want. Furthermore, you should not copy or distribute this email unless you first speak with me although, again, it's not likely I'll ever know. Just because you can doesn't make it legal. Certainly it is not very nice. Likewise, I would consider it a personal favor if you let me know I sent this message to you as I probably didn't realize I sent this message to the wrong person.

From: Sonya Pouncy <sonya.pouncy@gmail.com>
Sent: Tuesday, April 28, 2020 6:53 AM
To: Craig Messmer <craig@unicosystem.com>
Subject: Fwd: Vote Tally

See below...

Regards,
Sonya M. Pouncy, CEM, CMVP, LEED-AP
Ph. 313.729.0550 | Email sonya.pouncy@gmail.com

----- Forwarded message -----

From: Sonya Pouncy <sonya.pouncy@gmail.com>
Date: Fri, Feb 28, 2020 at 9:20 PM
Subject: Vote Tally
To: David Norvell <David.Norvell@ucf.edu>
Cc: Craig Messmer <craig@unicosystem.com>

Hi David,

I am not sure if the vote should be stated as 8-0-1 CNV or 8-0-0 CNV. Terrence Rollins was included on all the emails but never commented or responded. I'll leave it up to you to determine whether we should include him as an abstainer or treat him as if he were absent.

The official text is:

TITLE: Operation, Maintenance and Cost Management

PURPOSE/SCOPE: This TC is concerned with the operation, maintenance, and cost management of buildings and the use of life cycle cost analysis techniques for decision-making when considering investments in building performance.

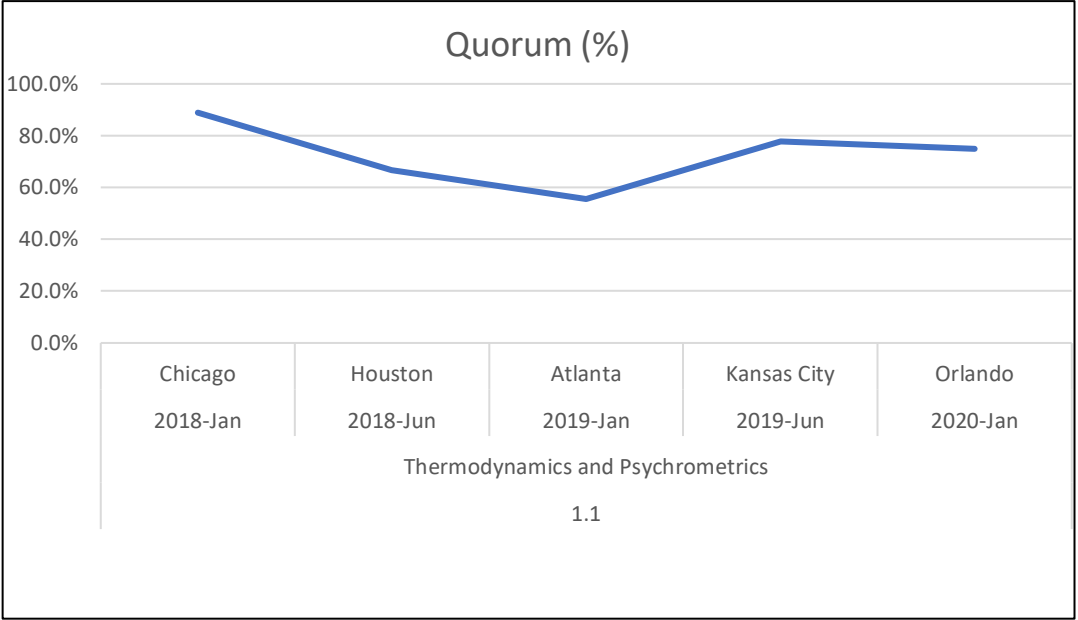
Thanks!!

Regards,

Sonya M. Pouncy, CEM, CMVP, LEED-AP

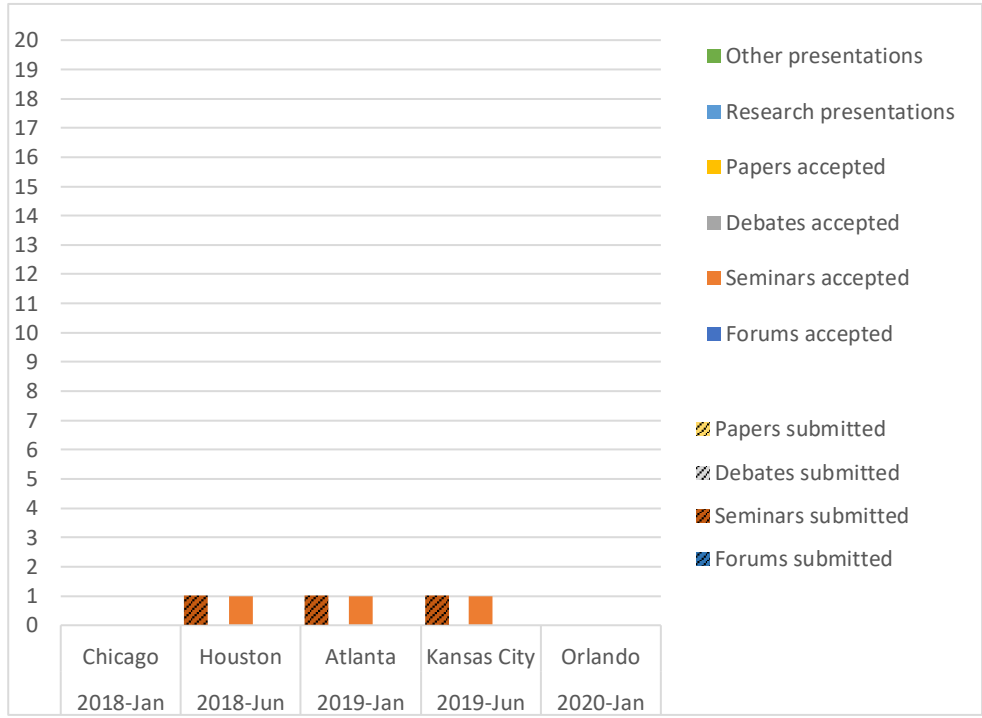
Ph. 313.729.0550 | Email sonya.pouncy@gmail.com

Training Meeting Attendance											
TC_Numb	Conference	City	TC_Chair	Minutes	Agenda_Q	Chair_Att	Vchair_At	Pchair_A	Hchair_At	Rchair_Attend	
1.1	2018-Jan	Chicago	Kashif Nawaz	YES	YES	YES	NO	NO	NO	YES	
	2018-Jun	Houston	Kasif Nawaz	YES	YES	YES	NO	NO	NO	YES	
	2019-Jan	Atlanta	Kashif Nawaz	YES	YES	YES	NO	YES	NO	YES	
	2019-Jun	Kansas City	Kashif Nawaz	YES	YES	YES	NO	YES	YES	YES	
	2020-Jan	Orlando	(blank)	YES	YES	YES	NO	NO	NO	YES	

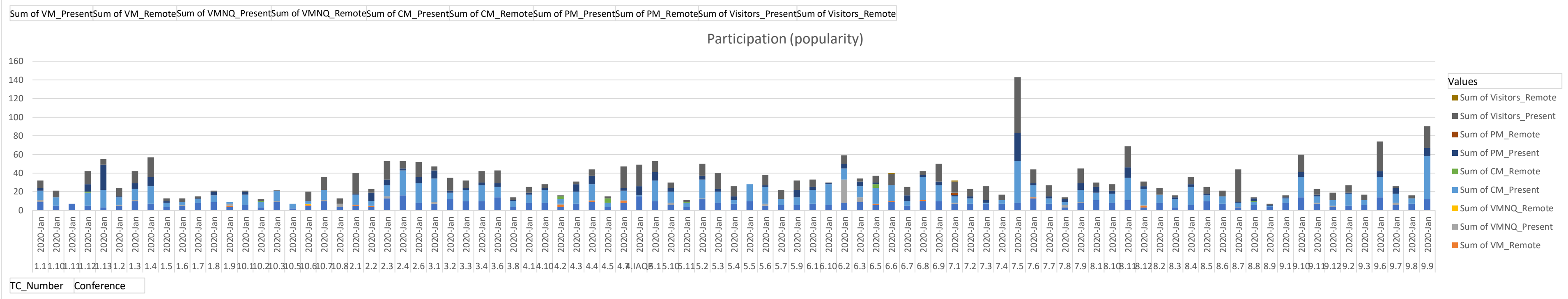
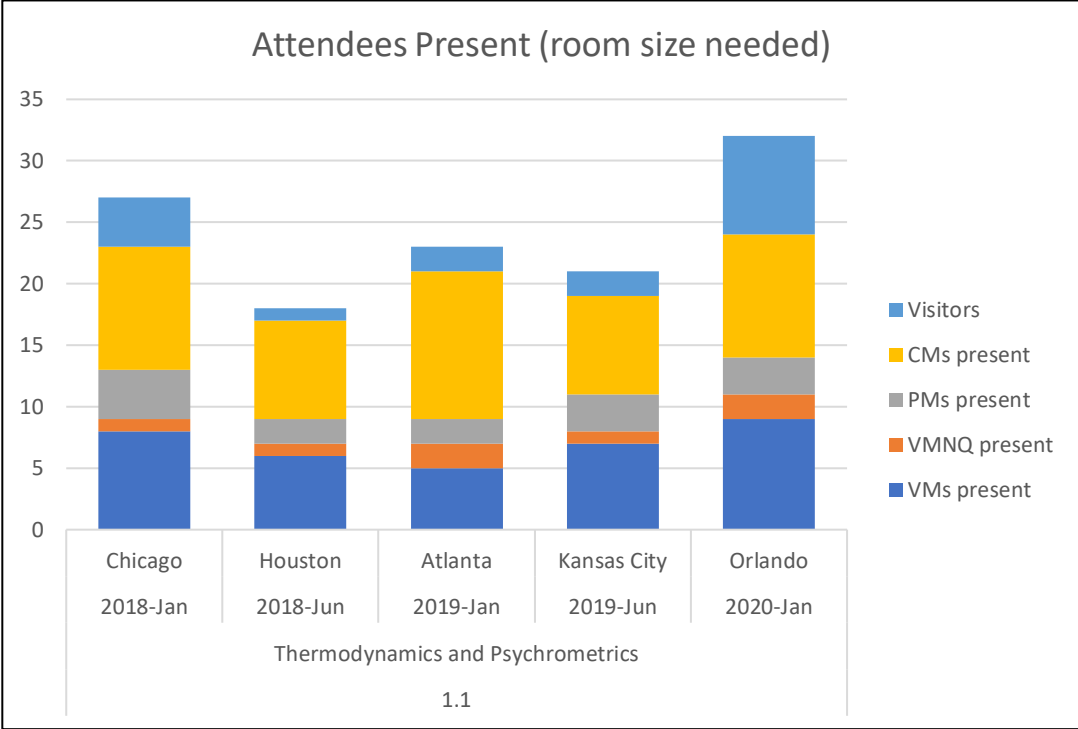
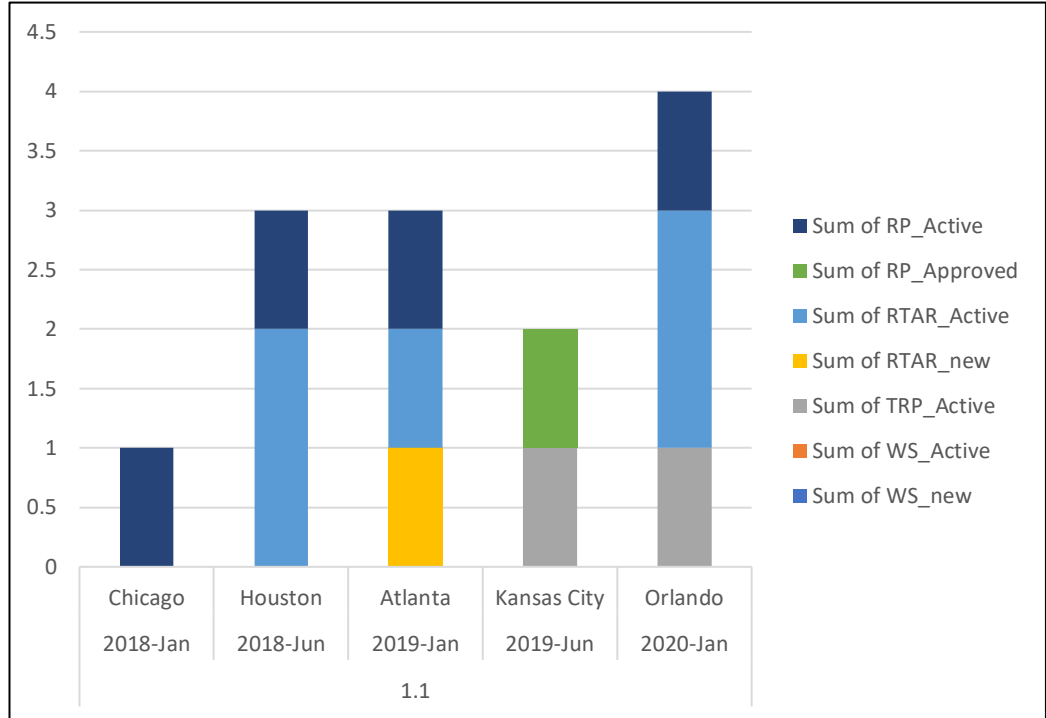


TC_Number			
1.1	1.10	1.11	1.12
1.13	1.2	1.3	1.4
1.5	1.6	1.7	1.8
1.9	10.1	10.2	10.3
10.5	10.6	10.7	10.8
2.1	2.10	2.2	2.3
2.4	2.5	2.6	2.7
2.8	2.9	3.1	3.2
3.3	3.4	3.6	3.8
4.1	4.10	4.2	4.3
4.4	4.5	4.7	4.1A...
5.1	5.10	5.11	5.2
5.3	5.4	5.5	5.6
5.7	5.9	6.1	6.10
6.2	6.3	6.5	6.6
6.7	6.8	6.9	7.1
7.2	7.3	7.4	7.5
7.6	7.7	7.8	7.9
8.1	8.10	8.11	8.12
8.2	8.3	8.4	8.5
8.6	8.7	8.8	8.9
9.1	9.10	9.11	9.12
9.2	9.3	9.6	9.7
9.8	9.9	TRG...	(bla...

Programs Submitted and Accepted



Research Activities



TC_Number	Conference
1.1	2018-Jan
1.10	2018-Jun
1.11	2019-Jan
1.12	2019-Jun
1.13	2020-Jan
1.2	2020-Feb
1.3	
1.4	
1.5	
1.6	
1.7	
1.8	
1.9	

<p style="text-align: center;">TAC SY 2019-2020 MBOs Jay Kohler, Chair and Dustin Meredith, Vice Chair Date: 2/1/2020</p>								
MBO #	MBO	Status	Date Due	Assigned To	Applicable initiative #	MBO Comments	Strategic Direction Specific Comments	Fiscal Impact
1	Develop a Document - Best Practices for Section Heads	<u>Complete</u>	20-Jun	Meredith	3	A draft was compiled and reviewed by TAC The document will be completed with feedback and added to the TAC reference manual.	Goal 3a, 3b	none
2	Establish expectations for notification regarding interim TC/TG/TRG/MTG conference calls so that all interested personnel receive notification of the call.	<u>Complete</u>	20-Jun	Smith	3	Interested parties to become provisional member will be on TC roster. Chairs are expected to announce all members of all interim meetings. These efforts will help to ensure openness of all TC meetings. TAC has developed procedures for TCs to schedule and post interim meetings to ASHRAE website and in ASHRAE Journal Newsletter. TAC will implement after Virtual Meeting to avoid confusion.	Goal 3a, 3b	none
3	Clarify the process for MTGs to transition to TC, TG, or TRG	<u>Complete</u>	20-Jun	Re-org	3	TAC's re-org subcommittee included this task within their larger effort to reorganize. Changes are proposed in MOP changes to clarify this process.	Goal 3a, 3b	none
4	Revisit the MTG expectations - temporary v permanent	<u>Complete</u>	20-Jun	Re-org	3	TAC's re-org subcommittee took this task on within their larger effort to reorganize TC structure. Changes are proposed in MOP changes to clarify this process.	Goal 3a, 3b	none
5	Clarify procedures for combining and/or dissolving FG's	<u>Complete</u>	20-Jun	Mercer	3	No MOP changes were suggested at this time. Mercer developed a one-pager of guidance on what needs to be done to merge TCs. A subcommittee was formed to finalize guidance and include in MOP.	Goal 3a, 3b	none

#1b Expand capabilities globally to create, aggregate and disseminate essential information and knowledge focusing on emerging market trends and transformative approaches

Goal 2: Maximize Member Value and Engagement

#2a Infuse enthusiasm, vitality and diversity throughout ASHRAE events and services

#2b Expand the impact of collaboration and partnerships with industry organizations, universities and government agencies

#2c Leverage technology to increase member engagement, awareness and value

Goal 3: Optimize ASHRAE's Organizational Structure to Maximize Performance

#3a Prototype and launch new approaches that will increase ASHRAE's relevance and speed to market for key offerings

#3b Optimize ASHRAE's organizational systems and structures to increase capacity, efficiency and effectiveness

#3c Cultivate industry and member philanthropy to extend ASHRAE's impact and reach

MTG PROPOSAL FORM

Return Form to:
Manager of Research & Technical Services
ASHRAE
1791 Tullie Circle, NE
Atlanta, Georgia 30329-2305
☎ 404-636-8400 • Fax 404-321-5478
E-mail: techserv@ashrae.org

Date:

June 24, 2020_____

* Turn in no later than 3 weeks prior to the meeting for consideration by TAC

MTG Name:

Ventilation for Infection Control_____

MTG Scope¹:

MTG.VIC will coordinate:

efforts for the following TCs to support the work of The Epidemic Task Force (ETF) formed by the Environmental Health Committee: TCs 1.12, 2.1 2.4, 2.9, 4.3, TRG4, 5.3, 5.5, 5.11, 9.3, 9.6, 9.7, 9.8.

One member of each of these TCs shall constitute a Ventilation Board from which panels are created to perform typical TC duties in support of the ETF. Panels may use the membership of their respective TCs to perform these duties. The voting members of the MTG will select a panel from the Ventilation Board to form PES and PMS teams for conducting research, or to prepare special publications.

¹Please see page 2 for an example of a MTG scope.

Impact on TC/TG/TRGs and Other MTGs: _____

The work of the ETF is wide ranging and crosses the scope of many TCs. The Society Executive Committee has tasked the ETF to coordinate the technical work of the Society to prepare a response to the COVID-19 pandemic. This MTG will centralize the coordination of technical committees for that response through research and special publications.

MTG Roster:

Requirements below apply to MTG Rosters Only:

- * Only one person from each TC/TG/TRG or non-TC group participating in MTG may serve as voting member.
- * The Chairs or leaders of participating TC/TG/TRG s or non-TC groups will designate the MTG member to represent their group with a vote on the MTG.
- * Alternate Members are nominated by the MTG Chair, and there are no restrictions on the number or affiliations of nominees
- * Alternate Members are expected to participate in MTG activities and attend meetings when possible.
- * An Alternate Member normally has no right to vote at the MTG level, but can vote at the MTG subcommittee level
- * An Alternate Member may be given proxy authority, however, by a MTG voting member to vote in his or her absence so that groups participating in the MTG are always represented in a MTG vote.
- * Chair & Vice Chair must be ASHRAE members

	<i>Position</i>	<i>Person's Name:</i>	<i>TC/TG/TRG or Non-TC Group Affiliation</i>	<i>ASHRAE Member #</i>
1	Chair:	Rick Hermans	EHC, TAC, ETF, BOD	
2	Vice-Chair:	Traci Hanegan	TC 9.6, ETF	
3	Voting Member:	Luke Leung	EHC, ETF	
4		Bill Bahnfleth	EHC, ETFchair	
5		Farhad Memarzadeh	SSPC 170, NIH	
6	Alternate Member:	Michael Pouchak	RAC	
7		Dustin Meredith	TAC	
8				
9				
10				

T A C U S E O N L Y :

Date Received: _____ Date Sent to TAC/FP: _____ Meeting Date: _____ Approved? Yes No

Scope***Multidisciplinary Task Group VIC, Ventilation for Infection Control***

MTG VIC will coordinate TC/TG/TRG technical activities to help support the technical basis of guidelines and recommendations of the Epidemic Task Force. Responsibilities include research and special publications, if necessary, detailing aspects of the ETF Guidelines.

Ventilation for Infection Control Panel Members

EHCchair@ashrae.net	Wei Sun
RL3@ashrae.net	Steve Kujak
Tc0201@ashrae.net	Marianne Touchle
Tc0204@ashrae.net	Zied Driss
Tc0209@ashrae.net	David Skelton
Tc0403@ashrae.net	Martin Stangl
Tc0503@ashrae.net	Kevin Gebke
Tc0505@ashrae.net	Matthew Friedlander
Tc0511@ashrae.net	Nicholas Lea
Tc0901@ashrae.net	Jay Eldridge
Tc0902@ashrae.net	Kevin Marple
Tc0903@ashrae.net	Donald Leblanc
Tc0906@ashrae.net	Traci Hanegan
Tc0907@ashrae.net	David Handwork
Tc0908@ashrae.net	William Artis
TRG4IAQP@ashrae.net	Marwa Zaatari



Shaping Tomorrow's
Built Environment Today

REFERENCE MANUAL

FOR

TECHNICAL ACTIVITIES COMMITTEE

REVISED: 12/11/2017

FOREWORD

The Technical Activities Committee (TAC) is a General Standing Committee of the Society and operates under the direction of the Board of Directors and Technology Council. The Rules of the Board (ROB) for the Technical Activities Committee are the constitution of the committee. Proposed changes to the ROB and their appendices must be approved by the Board of Directors.

This Reference Manual is a supplement to the TAC MOP and describes in detail the methods and procedures by which the committee accomplishes the duties and responsibilities assigned to it. The Reference Manual is an internal document of the committee for its own guidance and is maintained as described in the TAC MOP.

YOUR COMMENTS ARE WELCOME

Submit comments or suggestions about this document electronically to the ASHRAE Manager of ~~Research and~~ Technical Services (MORTS).

E-mail: MORTS@ashrae.net

The MORTS will consolidate comments for TAC. TAC intends to maintain this Reference Manual as a “living document” and update it as it is needed and practical.

RECENT REVISIONS

6/27/2020 Updated with editorial changes

12/11/2017 Updated to reflect the latest TAC Coordinator Positions and Responsibilities

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CHAIR AND VICE CHAIR

1. Chair Responsibilities

- 1.1. Preside over all meetings of TAC and the TAC Executive Committee.
 - 1.1.1. Responsible for the preparation of agendas for meetings of TAC and the TAC Executive Committee with the advice of the Manager of Research and Technical Services and TAC members.
 - 1.1.2. Responsible for ensuring that the Manager of Research and Technical Services provides minutes of the meetings of TAC and the TAC Executive Committee within 30 days of the meetings.
 - 1.1.3. Ensure that all draft minutes distributed by TAC include the following notice on the bottom of the cover page: "These draft minutes have not been approved and are not the official, approved record until approved by this committee."
- 1.2. Appoint committee Chairs as detailed in the TC/TG/TRG/MTG Manual of Procedures
 - 1.2.1. MTGs are expected to have a finite term within which to complete their assigned task. MTG Chairs and Vice Chairs are reappointed each year and there is no limit on the consecutive terms served, but the reappointment should only be made if it serves the best interest of the Society and the member is willing to serve.
 - 1.2.2. Voting members of an MTG shall be reappointed each year if willing to serve and endorsed by the chair/leader of the TC or non-TC group they represent, and there is no limit on the consecutive terms served. The reappointment, however, should only be made if it serves the best interest of the Society and the TC or non-TC group represented.
- 1.3. With the assistance of the Manager of ~~Research and~~ Technical Services (MORTS), the Chair prepares and submits to the Technology Council and the Board of Directors, through the Executive Vice President, a semi-annual report, an annual report, and such other reports as are required to be submitted to the Board.
 - 1.3.1. The Chair submits a written or an oral report at the fall meeting of Technology Council.
- 1.4. The Chair is responsible for providing information to Society members to publicize the activities of the Technical Committees, Task Groups, Multidisciplinary Task Groups, and Technical Resource Groups; and other items of current significant interest concerning the operation of TAC. The chair normally works with the ~~MORTS~~ to prepare and distribute relevant information. This is done at least 2 times per year in advance of the ~~winter~~ Winter and ~~annual~~ Annual meetings.

A status report on the objectives is included in the semi-annual report submitted to the Technology Council at the Society Winter meeting. A final report of the objectives is

included in the annual report submitted to the Technology Council at the Society Annual meeting.

- 1.5. Thank retiring TC/TG/TRG/MTG Chairs for their services.

2. Vice Chair Responsibilities

- 2.1. Responsible for seeing that the budget of TAC is prepared. Details of the budgeting process are in **Appendix C** (Calendar/Process for Budget/Four-Year Plan) of the Technology Council MOP.
 - 2.1.1. Periodically, the Vice Chair reviews, with the Manager of Research and Technical Services, expenditures and budget allocations and takes any action deemed necessary, in cooperation with the Executive Vice President and the director of Technology, to stay within the established budget.
- 2.2. Appoint mentors for all incoming TAC members and oversee the mentoring of new members according to the guidelines given in **Appendix A**.
- 2.3. No later than 30 days prior to the Annual and Winter Society meetings, prepare and distribute a draft list of reminders about upcoming activity deadlines and deliverables to Section Heads to edit and then distribute to TC, TG, MTG, and TRG Chairs.
- 2.4. Within 30 days after the Annual and Winter Society meetings, with assistance from Section Heads and TAC ExCom, prepares and distributes a TC Activities Summary Report to TAC members.
- 2.5. Perform other duties that may be assigned by the Chair.
- 2.6. Prior to the Society Annual meeting, prepare objectives for the committee for the next year using the format given in **Appendix B** and present these objectives to TAC for review and approval at the Society Annual meeting.
 - 2.6.1. Each objective should be measurable and should include a projected completion date, fiscal impact, and other information that would clarify the intent of the objective.
 - 2.6.2. The objectives will be included in the TAC annual report to the Technology Council at the Society Annual meeting as an information item, and a copy of the objectives will be sent to headquarters staff (Assistant to the BOD).
 - 2.6.3. Staff (Assistant to the BOD) will send copies of objectives to the BOD Ex Officio, TAC staff liaison and Technology Council staff liaison. Staff liaisons will send objectives to TAC and Technology Council members.

EXECUTIVE COMMITTEE (TAC EXCOM)**3. Membership**

- 3.1. The members of the Technical Activities Executive Committee are detailed in the TAC MOP.
- 3.2. The following Ex-Officio members of the Technical Activities Executive Committee may participate in the discussions but are not eligible to vote:
 - 3.2.1. Manager of ~~Research and~~ Technical Services (MORTS)
 - 3.2.2. Director of Technology
 - 3.2.3. Board Ex Officio
 - 3.2.4. Coordinating Officer

4. Meetings

- 4.1. The Technical Activities Executive Committee meets before the first scheduled meetings of TAC at the Annual and Winter Meetings of the Society.
 - 4.1.1. The Chair determines the time of meeting with consideration for the responsibilities and convenience of the members.
 - 4.1.2. The meeting may be held at the same location as the meeting of TAC or may be an electronic meeting held prior at the discretion of the Chair.
- 4.2. Executive Committee meetings are open to all members of TAC, all Society members, all registered guests at scheduled Society meetings, and those invited by the Chair and subject to Robert's Rules of Order. If an official 'Executive Session' is required, only members of the Executive Committee are allowed in the meeting and all others shall be asked to leave by the Chair for the duration of that portion of the meeting.
- 4.3. Meetings of the TAC Executive Committee are called by the Chair whenever appropriate to conduct the business of the committee between the ~~winter~~ Winter and ~~A~~annual meetings.
 - 4.3.1. Special face-to-face meetings of ExCom involving travel require approval from the President or the committee's Coordinating Officer when, in their opinion, an urgent action is required.
 - 4.3.2. The Chair designates the time and place of special meetings in coordination with MORTS.
 - 4.3.3. The Chair should consider 'wrap-up' meetings within 30 days of the ~~winter~~ Winter and ~~annual~~ Annual meetings to review the assigned action items and issues that need immediate attention.
- 4.4. The Chair is responsible for ensuring that a written notice of a meeting is sent to all members, ex-officio members, members of TAC and invited individuals and that proper notification is provided according to the rules for open meetings unless an executive session is specifically called.

- 4.5. The Chair shall report actions and recommendations of the Executive Committee at the next meeting of TAC.

COORDINATORS

5. Coordinator Selection

- 5.1. The TAC Chair currently appoints the following coordinators: Operations, Membership, and Training
- 5.2. If a member's term of service on TAC continues into the next Society year, they may be reappointed by the incoming Chair.
 - 5.2.1. Coordinators are members of TAC, however, the Chair may appoint Consultants to a Coordinator position when there is a need for members who have expertise and experience in certain areas that are of immediate importance and not available from TAC members.

6. Operations Coordinator (OC) Responsibilities

- 6.1. The TAC MOP and Reference manual have been extensively revised to bring them up to date with current practice. Items have been moved from the MOP to the Reference manual as appropriate and duplication between documents eliminated where possible.
 - 6.1.1. Standards Committee
 - 6.1.2. Electronic Communications Committee
 - 6.1.3. Handbook Committee
 - 6.1.4. Chapter Technology Transfer Committee
 - 6.1.5. Research Administration Committee
 - ~~6.1.6. Any councils? PubC – this is mostly Hbk, MemberC – mostly CTTC, TechC – covered by Chair. Probably these should be by specific invitation only when requested by the Council.~~
- 6.2. Prior to each ~~W~~winter and Annual Society meeting, provide a summary about TAC and its underlying committees with information that may be of interest to those committees and councils.
- 6.3. Coordinate activities involving technology transfer from, TC/TG/TRG/MTGs to the rest of the Society and the HVAC industry through members designated by those committees or councils. A report summarizing these activities shall be submitted to TAC at the Annual Society meeting.
- 6.4. Improve technology transfer from TCs to chapters through program, handbook, standards, research and other means as required.
- 6.5. Research continued improvements to electronic communications such as website enhancements and collaboration tools. With Electronic Communications Committee advice, review, recommend to TAC and oversee implementation of methods for

improving the conduct of the business of TAC, TC/TG/TRG/MTGs and the dissemination of information about their activities.

- 6.6. Review, recommend and oversee implementation of periodic updates and changes to the TC/TG/TRG website template
- 6.7. Annually review and recommend changes to ASHRAE website policies that apply to TAC and TC/TG/TRG/MTGs for the Electronic Communications Committee consideration and implementation.
- 6.8. Coordinate the identification, development, and maintenance of other resources as needed to assist TAC members and TC/TG/TRG/MTG Chairs in carrying out their responsibilities.
- 6.9. Review and propose changes to the TAC MOP, Reference Manual and ROB as directed.
 - 6.9.1. Maintain the reference manual procedures as described in the TAC MOP

7. Training Coordinator (TrC) Responsibilities

- 7.1. Work with ASHRAE staff to implement approaches which improve access to TC training
- 7.2. Develop and present training for incoming TAC members
- 7.3. The content of and material used for the training session is prepared by the TrC in cooperation with the OC and shall be reviewed by TAC
- 7.4. Identify training needs to support successful TC operations and conduct training sessions at the Annual and/or ~~W~~winter meetings for TC/TG/TRG/MTG Chairs and Vice Chairs.
- 7.5. The TrC or an individual appointed by the TrC leads the training sessions.
- 7.6. In cooperation with the Operations Coordinator and the affected committees, prepare information suitable for technology transfer.
- 7.7. Continued expansion and maintenance of new On-line training portfolio
- 7.8. In cooperation with the Director of Marketing and as appropriate, work with liaisons of other committees (and Operations Coordinator) to develop, maintain, and disseminate presentation material that describe the functions and responsibilities of the technical committees and addresses technical issues in response to inquiries by Society members and the public.
- 7.9. Coordinate the maintenance of the TAC website with the Manager of ~~Research and~~ Technical Services.

8. Membership Coordinator (MC) Responsibilities

- 8.1. Identify and assist TC/TG/TRGs with difficulty getting/retaining membership to improve their breadth of membership and committee operation.
- 8.2. Assist TC/TGs in finding volunteers or groups to help maintain/update Handbook volume chapters that are not being properly maintained.
- 8.3. Monitor, evaluate and develop improvements to coordinate the annual TC/TG/TRG/MTG roster update process and improvements thereto. Testing and Roll-out of New On-line roster update system.
- 8.4. Identify and implement activities that improve the ability of TCs to attract and develop new membership not just recycle the old ones.
- 8.5. Maintain and refine the criteria and forms for the outstanding TC award so that they help the TCs to become better. Review the results in cooperation with the Section Head to identify and improve the performance of all committees under TAC purview.
- 8.6. Oversee improved quality, process efficiency, and expansion of RPMs (Remote Participation in Meetings) – Opens ASHRAE up to the world.
- 8.7. Liaison with Conferences and Expositions Committee (CEC) to coordinate improvements between the TC/TG/TRG/MTGs and CEC
- 8.8. Coordinate the maintenance/development of criteria and yearly award selection for the George B. Hightower Technical Achievement Award based on the procedures described in **Appendix E**.
- 8.9. Coordinate the development and application of procedures for reviewing technical content in Society publications in cooperation with other committees as appropriate.
- 8.10. On a regular basis, work with staff to quantify the impact that TCs have had within ASHRAE and to society as a whole by quantifying, for example, the amount of volunteer time that is devoted to TC work each year. Convert those estimates into a dollar amount when practical.

9. Other Responsibilities for All Coordinators

- 9.1. The Coordinators report their activities and make recommendations for action as needed at the appropriate point in the agenda of the TAC meeting.
- 9.2. Before each meeting, in cooperation with the Operations coordinator, staff will provide each liaison to TAC from another committee and all section heads a copy of the “Liaison speaking guidelines” found in **Appendix D**.

SECTION HEADS

10. Organization

10.1. Sections are groups of TCs, TGs, MTGs, and TRGs that have been formed and organized by TAC according to fields of interest or for administrative purposes.

10.2. The TCs, TGs, MTGs, and TRGs are currently grouped into eleven (11) Sections based on their technical scopes as follows:

SECTION 1.0, FUNDAMENTALS AND GENERAL

SECTION 2.0, ENVIRONMENTAL QUALITY

SECTION 3.0, MATERIALS AND PROCESSES

SECTION 4.0, LOAD CALCULATIONS AND ENERGY REQUIREMENTS

SECTION 5.0, VENTILATION AND AIR DISTRIBUTION

SECTION 6.0, HEATING EQUIPMENT, HEATING AND COOLING SYSTEMS
AND APPLICATIONS

SECTION 7.0, BUILDING PERFORMANCE

SECTION 8.0, AIR-CONDITIONING AND REFRIGERATION SYSTEM
COMPONENTS

SECTION 9.0, BUILDING APPLICATIONS

SECTION 10.0, REFRIGERATION SYSTEMS

SECTION MTG, MULTIDISCIPLINARY TASK GROUPS

11. General Responsibilities

11.1. Coordination and liaison

11.1.1. The Section Head advises TC/TG/TRG/MTG Chairs of operating policies and procedures of the Society and/or TAC as described in the Manual of Procedures for Technical Committees, Task Groups, Multidisciplinary Task Groups, and Technical Resource Groups.

11.1.2. The MTG Section Head is responsible for the coordination and development of the activities of the MTGs within their Section and shall provide liaison between them and TAC. The MTG scope may also involve interactions with other Standing Committees and Councils, and those interaction activities shall be managed by the MTG Section Head and reported through TAC to Technology Council.

11.1.3. The Section Head represents the interest of their Section to TAC and is responsible for ensuring that their opinions and views are made known.

11.1.4. The Section Head arranges for spokespersons, when requested, to represent TC/TG/TRG/MTGs before TAC.

11.1.5. The Section Head establishes and maintains contact with liaisons assigned by standing committees of the Society to the committees in their Section in order to strengthen and develop the TC/TG/TRG/MTGs.

11.1.6. The Section Head requires each TC/TG/TRG in their Section to have, as a minimum, subcommittees and subcommittee chairs on Research, Program,

Handbook, and Standards. MTGs are excluded from this requirement, unless their scope specifically includes one of these responsibilities.

- 11.1.7. Prior to August 1 of each Society Year, each Section Head should furnish the TAC Chair with a list of individuals that they recommend to be considered for appointment to TAC.

12. Specific Responsibilities

- 12.1. The MTG Section Head promotes interaction between identified technical groups outside ASHRAE and ASHRAE TC/TG/TRG/MTGs through members designated by those organizations. Attends meetings of these organizations at the Winter and Annual Society meetings when possible.
- 12.1.1. A list of organizations outside ASHRAE that we maintain contact with is kept by ~~MO~~~~R~~~~T~~~~S~~. Some of them are:
- 12.1.1.1. USNC/IIR
- 12.1.1.2. Nuclear HVAC Users Group
- 12.1.1.3. Building Smart Alliance
- 12.1.2. Prior to each Winter and Annual Society meeting, provide a summary of TAC and its underlying committees with information that may be of interest to the organizations.
- 12.2. As needed, the Section Head assists the TC/TG/TRG/MTG Chairs in their Section to carry out their assigned responsibilities.
- 12.3. No later than February 28 each year, using the roster update process described in the TC/TG/TRG/MTG MOP, the Section Head furnishes the Administrative Assistant for Research and Technical Services with a list of individuals that they recommend to be appointed as members of the TC/TG/TRG/MTGs in their Section.
- 12.3.1. Each Section Head, before finalizing their recommendations, considers all the factors associated with the position of member of a TC/TG/TRG/MTG to ensure that the persons they recommend will serve in the best interest of the Society. The MTG Section Head will also consult with the chairs/leaders of the TCs and TGs and non-TC groups that are represented on the MTG to confirm that the TC, TG or non-TC group endorses their designated representatives on the MTG.
- 12.4. Each year, the Section Head reviews rosters prepared by TC/TG/TRG/MTG Chairs in their section to verify that the rosters comply with the provisions of the TC/TG/TRG/MTG MOP. The importance of a correct roster cannot be overemphasized: no official committee work can be carried out without a roster, and much committee work could be invalidated if voted on by an improperly constituted committee. The roster update procedure is as follows:
- 12.4.1. Each year prior to the Winter Meeting, staff sends a "Roster Update Form" to each TC/TG/TRG/MTG Chair. The forms are to be completed and e-mailed to the Section Heads not later than 9:00 PM on Tuesday of the Winter Meeting.

- 12.4.2. The Section Head reviews the forms submitted by each Chair in their Section to ensure that the conditions for TC/TG/TRG/MTG membership given in the TC/TG/TRG/MTG MOP are met. If changes are required, the Section Head works with the TC/TG/TRG/MTG Chair to correct the information on the forms until both the TC/TG/TRG/MTG Chair and Section Head approve the information. The Section Head then sends the approved forms to the Administrative Assistant for Research and Technical Services no later than February 28.
- 12.4.3. Staff creates the rosters for the next Society year and send a first draft to the Section Head. The Section Head reviews the draft roster against the input that was provided in the approved Roster Update Form. Corrections are sent to staff within two weeks. If no changes are necessary, the Section Head must so indicate. These procedures are repeated until each Section Head has indicated that no further changes are necessary.
- 12.4.4. After each Section Head has indicated to staff that the roster has the correct information staff sends out appointment letters to each TC/TG/TRG/MTG member with a copy of the roster for the upcoming Society year. Roster changes after this time must be made using the Emergency Roster Change Procedures and be approved by the Section Head.
- 12.5. No later than 30 days prior to the Technology Weekend meeting of TAC, the Section Head reviews the title, scope, and activities of each TC, TG, MTG and TRG within their section and makes recommendations to TAC on continuing, merging, or disbanding existing committees, forming new committees, or altering scopes to fulfill the needs of the Society in the areas of responsibility of their Section.
- 12.6. For each TAC meeting, the Section Head prepares a written and oral Section Head report of actions, problems, and concerns from the TC/TG/TRG/MTGs in their Section to be included in the TAC meeting minutes.
- 12.7. The Section Head or designee presides over their Section meeting with TC/TG/TRG/MTG Chairs and Vice Chairs at the Annual and Winter Society meetings. The Section Head contacts the TC/TG/TRG/MTG Chairs and Vice Chairs at least 30 days before the Section meeting to remind them to attend. (Guidelines for conducting the Section Meetings are given in **Appendix C**).
- 12.8. The Section Head ensures that each TG/TG/MTG/TRG in their Section distributes its meeting agenda at least 30 days before each Annual and ~~W~~winter meeting, and that the minutes are distributed within 60 days following each meeting.
- 12.9. The Section Head periodically reviews TC/TG/TRG websites in their Section for violations of ASHRAE website policies and to ensure that the websites reflect current activities. The Section Head communicates website violations and needs for improvement to the TC/TG/TRG Chair.
- 12.10. Information on the current activities of MTGs will be posted to a section of the ASHRAE website and will be reviewed periodically by the MTG Section Head to ensure the information is up-to-date, accurate, and complete.
- 12.11. The Section Head presents a certificate of appreciation to each retiring TC/TG/TRG/MTG Chair in their Section at the Annual meeting. (see B2.6.2)

- 12.12. Each Section Head informs their committees and solicit nominations for the Hightower Award following the Annual meeting to be submitted to TAC for consideration before September 1 of each year as described in **Appendix E**.

ANCILLARY RESPONSIBILITIES

13. Review of Awards

TAC reviews all requests or suggestions for new awards, revisions to current awards, or award deletions according to the guidelines for awards outlined Appendix F. In order to minimize the entire committee time, it is suggested that a subcommittee of one or more TAC members be established by the TAC Chair to consider the request and report to TAC for a formal disposition of the request.

14. Broad Peer Review of Special Publications

- 14.1. When the publication requires a broader peer review by members of other TC/TG/TRG/MTGs per the broad peer review procedure described in Appendix F of the TC/TG/TRG/MTG MOP, the TAC Chair shall:
- 14.1.1. Ensure that all committees and members under TAC's purview are notified of the proposed publication through staff action.
 - 14.1.2. In consultation with the Section Heads, shall identify one or more TC/TG/TRG/MTGs who should participate and assign participation/review responsibilities to them if necessary.
 - 14.1.3. Arrange for a TAC vote on the proposed publication if recommended by the working group and the review committee.
- 14.2. The Section Head(s) involved work with the identified committees to obtain representation on the special publication working group from each identified committee.
- 14.3. The Section Head of the sponsoring committee works with the Chair of that committee to appoint the members of the working group from those identified.

APPENDIX A Mentoring Program

Based on ROB Mentoring program

Before or during the final meeting of the Fiscal Year (Annual meeting), the TAC Vice Chair:

1. Assigns an incumbent TAC mentor to each incoming new member prior to the first meeting.
2. Assures that time is allotted at the beginning of the first meeting sufficient for proper introduction of the new member by the assigned mentor.
3. Before the Annual meeting and in cooperation with the Chair, assesses effectiveness of the mentor/new member relationship and suggest changes and improvements.
4. Provides assistance that enhances the mentor/new member relationship.

The mentor has the following responsibilities:

- Insure that the new member has received a copy of the group Rules of the Board (ROB), Manual of Procedures (MOP), and a copy of the most recent meeting minutes to acquaint them with the functions and focus of the group.
- Contact their assigned new TAC member before the next Committee Meeting to introduce themselves and explain the relationship and its purpose.
- The mentor should make every effort to update the new member on:
 - ✓ Committee functions, focus and objectives.
 - ✓ Review the appropriate Rules of the Board and Manual of Procedures (MOP) with the new member.
 - ✓ Discuss the typical meeting format and member duties and responsibilities.
- The mentor should meet the new member before the respective meeting is scheduled to start.
- The new member should be encouraged to develop rapport with other members to effectively work with fellow members and maximize productivity.
- Since the new member will replace an existing section head or coordinator, help them to contact the outgoing member to insure that the new member is current on the activities and challenges of the position they will be representing.

The relationship terminates at the end of the new member's first year as a member of TAC.

APPENDIX B – Management by Objectives (MBOs)

The objectives are shown on an MS Word document that is provided to the Committee Chair and Vice Chair. The following is an example of the information currently required.

TAC MBOs **Technical Activities Committee MBOs 2015-2016**
 Tom Lawrence, Chair 1/23/2016

Item #	MBO	Status	Date Due	Assigned To	Applicable Strategy #	MBO Comments	Strategic Direction Specific Comments	Fiscal Impact
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- List objectives, **not action items or ongoing committee activities** such as updating the committee's MOP.
- State objectives in clear, concise, measurable language. If necessary, cite sub-tasks and interim steps as a means of measuring objective completion.
- Cite both the completion dates for the overall objective as well as individual sub-tasks.
- State fiscal impact in dollars, man-hours, or man-trips. State whether the program has been approved by the council and whether it is cost has been included in the budget.
- State the primary responsible individual, subcommittee, or body.
- Report a brief but complete statement of status. Cite completion date if objective is fulfilled.

APPENDIX C - OPERATIONAL GUIDELINES FOR SECTION MEETINGS

1. Each TC/TG/TRG/MTG chair and Vice Chair meets with their Section Head at each Annual and ~~winter~~ Winter meeting. The meeting ~~rooms-room is~~ are listed in the program, and ~~are-is~~ usually held from 6:30 AM to 8 AM on Sundays.
2. The purpose of the Section meeting is to provide an opportunity for personal communication between the TC/TG/TRG/MTG Chairs and their Section Head on technical and administrative issues facing their section and/or the Society. Liaison members of other standing general committees need an opportunity to distribute written announcements to address administrative matters relating to TC/TG/TRG/MTG activities.

Liaisons wishing to speak at the meeting may do so at the invitation of the Section Head and in accordance with the **Liaison Speaking Guidelines** (See Appendix D.).
3. The Section Head invites the TC/TG/TRG/MTG Chairs and Vice Chairs to the meeting.
4. The Section Head conducts the meeting in the same way that they would conduct a TC meeting, with the Section Head serving as Chair.
5. The Section Head sends out the Section meeting agenda at least 30 days before each Annual and Winter meeting, and the minutes (with attachments) within 60 days following each meeting.
6. The Section Head, in collaboration with the TC/TG/TRG/MTG Chairs and Vice Chairs, identifies Section MBOs for the upcoming year and introduced them at the Annual meeting.
7. Suggested agenda:
(The agenda and times estimated are for guidance only and should be modified to be sure the most important information is discussed and that there is adequate time to discuss things important to the committee chairs. Note that the time estimates shown allow for other important business to be conducted within the time frame allotted.)
 - a) Introduction of TC/TG/TRG/MTG Chairs, Vice Chairs, and guests (5 minutes).
 - b) Review and approval of agenda (2 minutes). (Note that you might want to solicit additions and corrections at the time the draft agenda is sent to the TC Chairs – it is almost impossible to do anything in only 2 minutes)
 - c) Review and approval of minutes (3 minutes).
 - d) Summarize discussion from last meeting and status of actions assigned (5 minutes).

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- e) Liaisons from other committees should each be given a chance to speak and distribute information pertinent to the section from their committee. An effort should be made to accommodate their schedules without major disruption of the Section meeting (15 Minutes).
 - a. Research Administration
 - b. Conference and Exposition Committee (CEC)
 - c. Handbook
 - d. Other Standing Committees
- f) Discuss the MBOs set for the year and how the section can work together to address them (10 minutes).
- g) Review summary report for the Section prepared from the TC/TG activity database and TAC (15 minutes).
 - a. Section activities and trends will be discussed relating to membership, research, programs, publications and new communication tools and services.
 - b. Identify shared opportunities and challenges for section (10 minutes).
 - c. Adjourn.

APPENDIX D - Liaison speaking guidelines.

Liaisons,

Whether you are attending ~~a-the~~TAC ~~Section-TC~~ Breakfast or a Technical Committee meeting, your primary task is to be sure that the committee understands what the most important information your committee wants this committee to know and to do it in the most effective way possible. The following guidelines will insure that you are successful and that you continue to have a cordial relationship.

1. INFORM the Section Head or Committee Chair in advance (if possible) that you will be attending and if you have specific time limitations for attending (such as you need to leave by XX:XX).
2. Before the meeting starts, BE SURE YOU TELL the Section Head or Committee Chair who you are, that you are available, wish to speak (if you do) and other responsibilities during the same time frame so that you can be recognized appropriately without interrupting the meeting as agendas are usually tight during the meeting. Committee Chairs recognize that you probably have other meetings you attend at the same time and they are always willing to make as much accommodation as they can without totally disrupting the meeting. However, you are probably not the most important thing on the agenda or your presence would have been requested in advance.
3. PROVIDE an electronic copy of the written material to the Committee Chair(s) and/or Secretary so that your information can be included in their documentation. You may also bring the written material to the breakfast or committee meeting.
4. DO NOT READ any written material you bring. All of our committee members can read.
5. BE PREPARED to summarize the **3** most important points. The rest can be read when the committee member gets a chance. This will keep your presentation brief, efficient and highlight the most important things you need to be sure everyone hears.
6. PLAN on your presentation taking no longer than 2 – 4 minutes exclusive of discussion or questions by the group. If the Section Head or Committee Chair wants to entertain discussion or questions, it is their choice.
7. If you are a new liaison to the section or committee, leave your contact information with the Section Head and Committee Chair(s) or Secretary.
8. Sign the attendance sheet.

APPENDIX E - PROCEDURE FOR GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD

1. PURPOSE.

The purpose of the George B. Hightower Technical Achievement Award is to recognize annually an individual for excellence in volunteer service in the area of TC/TG/TRG technical leadership and contribution, which includes all TC, TG MTG, and TRG activities except for research and standards. The award will serve to heighten general membership awareness of, and interest in, Society activities at the TC/TG/TRG level.

George B. Hightower was an exceptional ASHRAE member. A member since 1938, he regularly attended Society meetings until his health began to fail. No other person has received more Society level awards than George B. Hightower. He received the ASHRAE-Alco Medal for Distinguished Public Service in 1974; became an ASHRAE Fellow in 1977; received the Distinguished Service Award in 1984; the Distinguished 50-Year Member Award in 1988; the Andrew T. Boggs Service Award in 1997; and the Louise and Bill Holladay Distinguished Fellow Award in 2000.

2. AWARD PRESENTATION.

The George B. Hightower Technical Achievement Award is presented annually but may be omitted if a suitable candidate is not identified. The award will consist of an acrylic trophy with the recipient's name and the year of the award etched into the face of the trophy. The award will be donated by the Atlanta Chapter, to which Mr. Hightower belonged.

3. ELIGIBILITY.

The award is open to ASHRAE TC/TG/TRG voting and corresponding members who meet the minimum point requirement detailed in Section 7. Technical Activities Committee (TAC) and Technology Council members or current TC and TG chairs of the nominating committee(s) are not eligible for receipt of the George B. Hightower Technical Achievement Award during the terms they serve on the respective committees, or positions. Past recipients of the award are not eligible.

MTGs participate in the George B. Hightower award through one or more of the TCs/TGs that comprise the MTG.

4. NOMINATION.

A nomination for the George B. Hightower Technical Achievement Award is made by a TC/TG/TRG chair completing a nomination form that confirms the eligibility and outlines the special contribution that the nominee has made to the work of the nominating committee(s) during the most recent four years.

The chair submits the nomination to the lead nominating committee's TAC Section Head by September 1.

5. JUDGING

The TAC Section Head reviews all nominations received from their Section and forwards eligible nominees from that Section to TAC for its consideration at their Fall Meeting. Prior to the ASHRAE Winter Meeting, TAC shall recommend a candidate to the Honors and Awards Committee. The recommended candidate shall be chosen from all nominations that meet eligibility requirements as outlined under Section 7 Criteria for Selecting Recipients and approved by TAC. TAC shall consider award points and the explanation provided by the nominating TC/TG in its deliberations. TAC should also review the candidate's ASHRAE online bio for verification of points.

Because it is a 'pass through award', TAC reports the name of the recipient to Technology Council as an information item and sends the recommendation to H&A who in turn recommends the name to Members Council for approval.

All nominators (not just the winning nomination) are to be apprised of the person selected by the TAC chair no later than 60 days after the selection process has been completed.

6. PRESENTATION

At the ASHRAE Annual Meeting, the George B. Hightower Technical Achievement Award is presented during the recipient's TC/TG/TRG meeting.

7. PART I - ELIGIBILITY REQUIREMENTS

7.1 Nominees must have earned a minimum of 10 points **during their career** on TC/TG/TRG/MTGs as defined below to be eligible for the award.

7.2 If eligible, the award is given **based only on the most recent four years of service** on TC/TG/TRG/MTGs. This service must be detailed in the explanation for it to be considered and is the actual basis for receiving of the award.

Eligibility points are defined as follows:

A "tour" is an appointment for 1 year. Assignment to the same position for multiple years each count as a separate tour.

A. Program Subcommittee		
1.	Forum Moderator	½ point per forum
2.	Seminar Chair	1 point per seminar
3.	Conference Chair	2 points per session
4.	Technical Chair	3 points per sympos
5.	Subcommittee member	1 point per tour
6.	Subcommittee Chair	2 points per tour
B. Handbook Subcommittee		
1.	Chapter contributor/reviewer	1 point per chapter
2.	Chapter author	3 points per chapter
3.	Subcommittee member	1 point per tour
4.	Subcommittee Chair	2 points per tour

- | | | |
|----|--|------------------------|
| C. | Technical Inquiries | |
| | 1. Respond to Question from Headquarters | 1/4 point per question |
| | 2. Author Frequently Asked Question | 1 point per question |
| D. | Accept Special Assignment from Chair assignment at Chair's discretion. | Up to 3 points per |
| E. | TC/TG/MTG/TRG Officers | |
| | 1. ALI Coordinator | 2 points per tour |
| | 2. Webmaster | 2 points per tour |
| | 4. Secretary | 2 point per tour |
| | 5. Vice-Chair | 2 point per tour |
| | 7. Chair | 3 points per tour |
| F. | MTG member | 1 point per tour |
| G. | Inter-Society Liaison Appointed by TAC | 1 point per tour |

8. PART II – TECHNICAL LEADERSHIP AND CONTRIBUTION

This part determines the actual award winner.

Provide a one page explanation of the nominee's outstanding technical leadership and contributions to the committee(s) **during the past four years** including details on why you think this person deserves the award. (Research and standards activities are NOT to be considered even if done as part of a committee assignment.)

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SUBMIT NOMINATION FORM TO SECTION HEAD BY SEPTEMBER 1.

The form (ASHRAE GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD NOMINATION FORM) can be found on the ASHRAE website at <https://www.ashrae.org/TCs> under the heading "Procedures, Forms & Information for TCs/TGs/MTGs and TRGs"

APPENDIX F - GUIDELINES FOR AWARDS

All requests or suggestions for new awards, revisions to current awards, or award deletions shall be forwarded to the Honors and Awards Committee for review and recommendation before being forwarded to the BOD for review and approval.

ASHRAE awards are grouped into the following categories, each of which has their defined forms of award:

1. Personal Honors
2. Personal Awards for General Society Activities
3. Personal Awards for Specific Society Activities
4. Paper Awards
5. Society Awards to Groups or Chapters

Awards will normally carry the name of an ASHRAE activity (e.g., Distinguished Service Award, Fellow, Journal Papers Award) No business, product, or commercial name shall be used for an award. Only in very exceptional instances may consideration be given to naming the award for an individual member.

Proposers of awards shall submit a detailed description, including the name of the award, the suggested category for the award, the reason for establishing the award, and the proposed selection and awarding process to the Honors and Awards Committee.

Proliferation of awards that would tend to detract from the worth of existing awards must be avoided. The award must first be considered as applying to an important field of ASHRAE related activity; the name of the award would then add prestige.

The committee shall include in their supporting material for candidates only information pertinent to the requirements for the particular award for which the candidate is being recommended. (70-07-01-11)

It is the policy of the Society not to consider for approval any Society honors or awards posthumously, other than the Hall of Fame

**APPENDIX G - ASHRAE Outstanding Technical Committee Award
(OBSOLETE)**

IT WAS DECIDED THAT THIS AWARD IS SERVING NO REAL PURPOSE AND THE
OPERATIONS COORDINATOR WAS ASKED TO REMOVE IT. – KWC June 2017

Appendix H - REVISIONS TO RULES AND PROCEDURES

(This section is for informational purposes only and revisers should always look at the current information)

Part 1 Revisions to Rules of the Board (ROBs)

Proposed changes to Rules of the Board (ROBs) may be submitted by committees, councils, and Board members. Changes proposed by a committee shall be submitted through the body to which it reports; councils and Board members may submit proposed changes directly to the Board of Directors.

To propose a change to an existing ROB:

Present a two-column comparison showing the current ROB number and wording and the proposed ROB wording. A proposed change, at a minimum, shall include the ROB number the proposed change, and the reasons for the change.

To propose a new ROB:

Present the wording for the new rule and include a statement indicating a recommended placement of the new rule within the ROB framework. Examples:

It is recommended that this rule be placed in ROB, Book II, Publishing Council ROB.

It is recommended that this rule be placed in ROB, Book I, Section 300, Meetings of Members.

To propose rescinding an existing ROB, include in the recommendation the ROB book in which the rule is located, the rule number or other identification code, and the wording of the rule.

Appendices to the ROB are considered part of the ROBs; therefore, revisions to appendices shall follow the same procedure as revisions to ROBs.

Proposed changes to Society-wide policies and procedures (e.g., Travel Reimbursement Policy, Election and Appointment Procedures) shall follow the same procedure as for changes to ROBs.

Part 2 Revisions to Manual of Procedures

Revisions to the Manual of Procedures must be approved by the Technology Council or designated council subcommittee.

Revisions and additions to the TAC Reference Manual are made by the Operations Coordinator as suggested by TAC members and maintained by staff. TAC members shall be informed about additions, changes and revisions as described in the TAC MOP.



Shaping Tomorrow's
Built Environment Today

MANUAL OF PROCEDURES (MOP)

For ASHRAE

*TECHNICAL COMMITTEES (TC),
TASK GROUPS (TG),
MULTIDISCIPLINARY TASK GROUPS (MTG)
AND
TECHNICAL RESOURCE GROUPS (TRG)*

Approved 20160625
Revised 20170128
Revised 20181019
Revised 20190206

Forward

ASHRAE Technical Committees (TC), Task Groups (TG), Multidisciplinary Task Groups (MTG) or Technical Resource Groups (TRG) are committees that report to the Technical Activities Committee (TAC).

This Manual of Procedures (MOP) describes the methods and procedures by which the committees accomplish the duties and responsibilities assigned.

Other Society documents, including the reference appendices in this document such as the RAC Research Manual, are available for guidance as noted.

This Manual of Procedure supplements, but does not supersede the governing documents of ASHRAE such as the Certificate of Consolidation, Society Bylaws, Rules of the Board, and also higher level Manuals of Procedures for TAC and Technology Council.

Revision History

June 25, 2016 – Initial Release

January 28, 2017 – Spanish version created

October 19, 2018 – Revised to remove all references to Technical Bulletins and updated the Standards and Guidelines section for better clarity and agreement with PASA.

December 2018 Draft – Proposed addition of Section 7.4 Communications between TC/TG/MTG/TRG and other organizations.

June 27, 2020 – Proposed changes to 5.7.1 and 5.7.2 and made editorial changes throughout

ACRONYMS:

BOD = Board of Directors
CEC = Conferences and Expositions Committee
CTTC = Chapter Technology Transfer Committee
DOT = Director of Technology
FAQ = Frequently Asked Question
MORTS= Manager of Research and Technical Services
MOS = Manager of Standards
MTG = Multidisciplinary Task Groups
PASA = Procedures for ASHRAE Standards Actions
PDC = Professional Development Committee
PES = Proposal Evaluation Subcommittee
PMS = Project Monitoring Subcommittee
PUB = Publication Committee
StdC = Standards Committee
RAC = Research Activities Committee
ROB = Rule of Board
RTAR = Research Topic Acceptance Request
TAC = Technical Activities Committee
TC = Technical Committee
TG = Task Group
TRG = Technical Resource Group
TRP = Tentative Research Project WS
= Work Statement

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1. **General – Technical Committees**

1.1. Committees

1.1.1. The Technical Activities Committee (TAC) shall authorize the formation of Technical Committees (TC), Task Groups (TG), Technical Resource Groups (TRG) and Multidisciplinary Task Groups (MTG). All such committees shall be:

- a) under the administrative direction of TAC
- b) assigned to a Section Head

1.1.2. New Committees may be proposed to TAC using the procedure found in [Appendix A](#).

1.2. Purpose

1.2.1. A TC is a standing committee with a defined scope of activity which is constituted to provide the Society with technical expertise on subjects within that scope of activity. TC functions may include:

- a) Handbook Content Development
- b) Program Development
- c) Development of Publications
- d) Research
- e) Standards [Support Development](#)

1.2.2. A TG is formed when a field of interest is not covered in the scopes of existing TCs or when the field of interest encompasses the interests of more than one TC within the same Section. As required, TG functions include:

- a) Handbook Development
- b) Program Development
- c) Development of Publications
- d) Research
- e) Standards [Support Development](#)

1.2.3. A TRG is formed when ASHRAE or its members have identified a special purpose need of the Society or the industry as a whole. The principal activities of the group are generally limited to the preparation, review, or revision of technical material. Such materials may include:

- a) Handbook Development
- b) Program Development
- c) Development of Publications
- d) Standards [Support Development](#)

1.2.4. An MTG is formed when the Society has determined a need for a specific activity in a field of interest to the Society.

- a) It encompasses the expertise of TCs and is made up of members from two or more sections and/or from non-TC groups such as Standing Standards Project Committees (SSPC) or outside organizations.
- b) Each participating TC, whose field of interest falls within the MTG defined scope, and participating non-TC group shall have a voting representative on the MTG.
- c) The customary function of the MTG is to coordinate activities between the TCs and TGs represented on the MTG. However, as required by their specific charge, the functions of an MTG may include:
 - i) Handbook Development
 - ii) Program Development
 - iii) Development of Publications
 - iv) Research
 - v) Standards [Support Development](#)

- a) When the MTG scope involves interactions with other Councils, those interaction activities shall be managed by the MTG Section Head and reported through TAC to Technology Council.

1.3. Scope

- 1.3.1. The scope of each TC/TG/MTG/TRG is defined generally by its title but a detailed scope shall be developed by the committee and submitted to TAC for approval. Each committee shall be responsible for monitoring of their title and scope and suggesting changes for approval.
- 1.3.2. An MTG scope shall also identify the purpose for which the committee was formed and its specific responsibilities with regard to the underlying committees
- 1.3.3. Approved scopes shall be posted on the committee website and on the ASHRAE website

1.4. Committee Organization

- 1.4.1. Each committee shall have a Chair and Vice Chair
- 1.4.2. TC voting Membership shall be comprised of individuals (See section 2 for qualifications):
 - a) Who, in the opinion of the Committee Chair, have recognized proficiency in the field of interest or have the expressed desire to gain proficiency in that field.
 - b) Who represent segments of the industry such as users, contractors, product manufacturers, academicians, consulting engineers, and research organizations. The committee chair should work to develop and maintain a balance of these interests, but in some situations a balance may not be possible, therefore, this is not a formal requirement.
- 1.4.3. TG, TRG and MTG committee composition shall be approved by TAC based on the group's defined title, purpose and scope.

1.5. Review

- 1.5.1. Once a year, preferably at, or prior to, each Annual meeting, the Committee Chair and Committee Membership shall evaluate their progress in accomplishing the purpose for which they were constituted and recommend one of the following actions to their Section Head:
 - a) Continue as a TC, TG, MTG, or TRG
 - b) Convert from a TG to a TC
 - c) Convert from a TRG to a TG or TC
 - d) Merge with a TC/TG/TRG and submit a revised scope for the merged committee
 - e) Dissolve the TC, TG, MTG, or TRG.
 - i) If a TC/TG/TRG/MTG votes to disband, it must establish whether any current responsibilities should be continued and, if so, recommend existing TC/TRG/MTG(s) to assume responsibility and obtain those committee's written concurrence

1.6. Reimbursement

- 1.6.1. TC/TG/TRG/MTG members are expected pay their own expenses to attend meetings, unless agreed to by ASHRAE under special arrangements

2. Members

2.1. TC/TG/TRG Chair

- 2.1.1. Appointed by the TAC Chair after consultation with the Section Head
- 2.1.2. Must be an ASHRAE Associate Member grade or higher for a TC or TG (but not TRG)
- 2.1.3. Shall preferably have served at least one term as Vice Chair and Secretary
- 2.1.4. May be appointed for one or more one-year terms, but not normally to exceed two consecutive terms.
- 2.1.5. An exception for additional consecutive terms may be granted by the TAC Chair provided the committee makes a written request with justification and that request is approved by

the Section Head. Such an exception will be only approved if it serves the best interest of the Society.

2.2. MTG Chair

- 2.2.1. Appointed by the TAC Chair after consultation with the MTG Coordinator and the interested parties
- 2.2.2. Reappointed each year
- 2.2.3. No limit on the consecutive terms served
- 2.2.4. Reappointment only made if the member is willing to serve and it serves the best interest of the Society
- 2.2.5. Has voting rights

2.3. TC/TG/TRG/MTG Vice Chair

- 2.3.1. Is appointed by the TAC Chair from nominations made by the current TC/TG/MTG/TRG Chair and endorsed by the Section Head.
- 2.3.2. Must be an ASHRAE Associate Member grade or higher for a TC or TGTC/TG/TRG Vice Chair may be a corresponding member or may be a voting member
- 2.3.3. MTG Vice Chair has voting rights

2.4. Members

- 2.4.1. For a TC/TG/TRG, members are appointed as individuals and NOT as representatives of any group, organization, or employer
- 2.4.2. An MTG shall consist of a Voting Member for each TC, TG or non-TC group represented on the MTG
- 2.4.3. Members shall be willing to attend meetings of the committee at no expense to the Society unless specific other arrangements are made in the case of representative from organizations outside of ASHRAE
- 2.4.4. Members shall be appointed by the TAC Chair from nominations made by the current TC/TG/MTG/TRG Chair and endorsed by the Section Head. See [Appendix B](#) for the procedure
- 2.4.5. Each Voting Member, Corresponding Member and Provisional Corresponding Member may be assigned to a Subcommittee of the Committee and shall perform the duties that may be assigned by the Subcommittee Chair.

3. Membership Categories

3.1. General

- 3.1.1. Prospective Committee members shall complete an online biographical record (available at <http://www.ashrae.org/>).
- 3.1.2. A TC/TG/TRG shall consist of approximately 12 Voting Members, with a minimum of six (6) and a maximum of eighteen (18).
 - a) If the committee would have only 5 Voting Members (VM), one Voting Member – Non Quorum (VMNQ) may be counted as a Voting Member in establishing the minimum number of voting members (see section 3.2.7)

3.2. TC/TG/TRG Voting Members

- 3.2.1. Have full voting privileges
- 3.2.2. Other than the TC/TG/TRG Chair, shall be appointed annually for not more than four consecutive one-year terms.
- 3.2.3. An exception for additional consecutive terms may be granted by the TAC Chair if the TC/TG/TRG makes a written request and that request is approved by the Section Head. The extended appointment shall be made only if it serves the best interest of the Society.
- 3.2.4. Only one person from any employer, organization, university, or specific government agency may serve as a Voting Member on the same TC/TG/TRG at one time

- a) A consultant to any category in this subsection who is contracted to that organization is considered to be an employee for the purposes of determining voting status on the TC/TG/TRG if the contract provides substantially all of their consulting activity.
- 3.2.5. Voting Members should serve at least one term previously as an active Corresponding Member. This does not apply to voting members who have previously served as a Voting Member of this same committee
- 3.2.6. While there may be circumstances when a Voting Member may be appointed without previously having served on the committee, preference should be given to those who have served on the committee in a prior year as a corresponding member of that committee.
- 3.2.7. Voting Members have two subcategories
 - a) Voting Member - Quorum (VM)
 - i) Regular member and always counts towards the determination of quorum for a committee meeting.
 - ii) Includes all Voting Members of the committee other than those in the Voting Member - Non-Quorum category in 3.2.7 b).
 - b) Voting Member - Non-Quorum (VMNQ) is a special category for TC/TG/TRG members who are not able to attend every meeting due to travel costs and constraints.
 - i) No more than two non-quorum voting members are allowed in each TC/TG/TRG.
 - ii) A Voting Member-Non Quorum has identical responsibilities, privileges, and constraints as a Voting Member-quorum with two exceptions:
 - 01) A Voting Member-non-quorum is not counted against the maximum number of Voting Members cited in Paragraph 3.1.2
 - 02) The absence of a Voting Member-non-quorum does not affect the determination of quorum as described in section 5.
- 3.3. TC/TG TRG Corresponding Members
 - 3.3.1. Nominated by the TC/TG/TRG Chair
 - 3.3.2. No restrictions on the number or affiliations of nominees
 - 3.3.3. Expected to participate in TC/TG/TRG activities and attend meetings when possible
 - 3.3.4. May not vote on TC/TG/TRG business
 - 3.3.5. May serve on and chair TC/TG/TRG subcommittees, including Proposal Evaluation and Project Monitoring Subcommittees
 - 3.3.6. May vote at the subcommittee level subject to voting restrictions in Section 5
 - 3.3.7. May serve as Vice Chair or Secretary of a TC/TG/TRG as approved by the Chair and if they attend meetings regularly.
- 3.4. TC/TG TRG Provisional Corresponding Members
 - 3.4.1. Temporary additions to the TC/TG/TRG roster made by ASHRAE staff between roster update cycles, usually at the request of someone wanting to participate in the technical committee activities.
 - 3.4.2. The TC/TG/TRG Chair shall decide whether to add Provisional Corresponding Members to the roster as one of the other member categories.
 - 3.4.3. If the Chair takes no action on a Provisional Corresponding Member, they are dropped from the roster after two years.
 - 3.4.4. For purposes of committee assignments and other work "Provisional" status does not limit an individual's active involvement in the work of the committee
 - 3.4.5. Have the same voting privileges as a regular Corresponding Member (Section 3.3)
- 3.5. MTG General
 - 3.5.1. TCs and Non-TC groups may be added after the MTG formation if their area of interest is later determined to also be covered by the MTG scope.
 - 3.5.2. The MTG Section Head will consult annually with the Chairs of the groups that are represented on the MTG to confirm that they endorse their designated representatives on the MTG

3.6. MTG Voting Members

- 3.6.1. Only one person from a TC, TG or non-TC group may serve as a Voting Member representing that particular TC, TG or non-TC group on the MTG at one time
- 3.6.2. Shall be reappointed each year if willing to serve and endorsed by the chair/leader of the TC or non-TC group they represent via the Society's annual roster update process and there is no limit to the consecutive terms served. The reappointment, however, should only be made if it serves the best interest of the Society and the TC or non-TC group represented.
- 3.6.3. Outside groups wishing to be represented on an MTG with a Voting Member must provide a formal Letter of Introduction to TAC for that member to be added to the roster and shall notify ASHRAE staff when this assignment must change.
- 3.6.4. TC, TG, or non-TC groups shall designate their MTG Voting Member on their roster by position title; e.g., MTG.XYZ LIAISON

3.7. MTG Alternate Members

- 3.7.1. Are expected to participate in MTG activities and attend meetings when possible
- 3.7.2. May serve on and chair MTG subcommittees as defined in Section 1.2.4 and may vote at the subcommittee level as defined
- 3.7.3. Only have voting privileges in the main committee in the absence of the MTG Voting representative for their TC or organization
- 3.7.4. Nominated by the chair/leader of the TC or non-TC group they represent via the annual roster member update process
- 3.7.5. No restrictions on the number of alternates, however, only one person from any employer, organization, university, or specific government agency may serve as an alternate member from the same TC/TG/TRG or non-TC group at one time
- 3.7.6. TC, TG or non-TC groups that designate more than one alternate for an MTG will indicate on their roster the succession order of their alternates by position title; e.g., MTG.XYZ Alternate #1, #2.

3.8. Ex Officio. The following are all ex-officio members of all TC/TG/MTG/TRGs.

- 3.8.1. Chair of TAC
- 3.8.2. Section Head
- 3.8.3. Manager of ~~Research~~ and Technical Services (MORTS)
- 3.8.4. An ASHRAE standing committee member with duties related to the TC/TG/TRG/MTG (eg. Conferences and Expositions Committee), selected by the Chair of the standing committee
- 3.8.5. Ex-officio members may participate in discussions of the TC/TG/TRG/MTG but do not have voting rights

4. Responsibilities of Committee Leadership

4.1. Chair

- 4.1.1. Agenda
 - a) At least 30 days in advance of any official meeting, prepare an agenda of the business to be conducted at the meeting and distribute a copy to those receiving a notice of the meeting
- 4.1.2. Minutes
 - a) Ensure that draft minutes are distributed to all Committee members, guests, Section Head and MORTS **no later than 60 days following any meeting**. Minutes may be physical or electronic, and must be distributed whether there is a quorum or not and may be distributed by mail, email, electronic means or posting the minutes to the appropriate website or webpage and notifying all applicable parties

- b) All draft minutes distributed shall include the following notice on the bottom of the cover page: *“These draft minutes have not been approved and are not the official, approved record until approved by this committee.”*

4.1.3. Committee membership

- a) Recommend members according to [Appendix B](#)
- b) Develop and maintain list of prospective committee members who have indicated willingness to serve if appointed.

4.1.4. Attend Section Meeting and training sessions sponsored by TAC

4.1.5. Assign duties to Vice Chair and committee members as appropriate

4.1.6. Chair and member subcommittee appointments (Examples: Handbook, Research, Program)

4.1.7. Is the initial contact for Committee and shall have an ASHRAE email alias provided by the MORTS

4.1.8. Activities Report

- a) Prepare and submit to the Section Head electronically by 9:00 pm on Tuesday at the Annual and Winter Society meetings
- b) Use spreadsheet distributed by Section Head prior to meeting

4.1.9. Additional Responsibilities as required

- a) Each year prepare and transmit a list of members that can normally serve as technical reviewers grouped by technical specialty
- b) Recommend names for Awards as instructed by TAC ([Appendix C](#))
- c) Committee objectives (5.1) as appropriate

4.2. Vice Chair

4.2.1. In the absence of the Chair, assume the Chair at any scheduled or called meeting of the committee

4.2.2. A vice chair, who is a corresponding member, does NOT assume the chair’s voting rights when they assume the chair position

- a) The vice chair runs the meeting only and cannot vote on motions.
- b) Tie votes or quorum problems are handled by letter or electronic ballot votes after the meeting (Section 6).

4.2.3. At least 30 days prior to the Annual and Winter Society meetings prepare and distribute a draft list of reminders about upcoming activity deadlines and deliverables to committee members.

4.2.4. Attend Section Meetings and training sessions sponsored by TAC

4.2.5. Committee objectives (5.1) as appropriate.

4.3. Subcommittee Chairs

4.3.1. Chairs or their representatives, in addition to their subcommittee responsibilities, shall attend training and information meetings sponsored by related standing committees (Handbook, Program-CEC, Research, and Standards) at the ASHRAE Winter and Annual meetings

5. Committee Task Requirements

5.1. Committee Objectives

5.1.1. Prepared by next year’s Committee Chair and included as an attachment to the Committee Activities Report to the Section Head at the Annual Meeting

5.1.2. Objectives should be within the committee scope and derived from:

- a) The assignments and requests referred to it by authorized committees and individuals
- b) The needs of the Society, as made known to them by other committees, officers of the Society, chapters, the current society strategic plan, and members in general
- c) Investigations and deliberations of the Committee itself.

5.1.3. Each objective should be measurable and should include a projected completion date and other information that would clarify the intent of the objective.

5.2. Meetings

5.2.1. TC/TGs/MTGs shall hold a meeting at the Society's Annual and Winter meetings each year, unless granted an exception by their Section Head.

- a) TC/TG/TRG/MTG meetings held during Society meetings will usually be scheduled in the same time slot as the previous Society meeting, if one was scheduled for the prior meeting.
- b) Subcommittee meetings will not be automatically scheduled and meeting room assignments must be requested every meeting.

5.2.2. Meeting room assignments except as noted in 5.2.1 must be requested of the ASHRAE Meetings Department at least 90 days in advance of that meeting.

5.2.3. TRG/TG meetings shall be held at the discretion of the Chair.

~~5.2.4. MTGs should meet at least four times per year (preferably just before and after the Society Annual and Winter meetings).~~

- ~~a) Meetings can take place via conference call and/or the web with assistance from ASHRAE staff so that MTG members are free to attend their respective TC/TG meetings to discuss MTG coordination plans for feedback and direction~~

5.2.5.2.4. Attendance at Committee and subcommittee meetings, except as allowed for by executive session procedures, is open, on a space-available basis, for observation by directly and materially interested persons who are not members of the committee

- a) Executive session may be invoked after a request to do so from a committee (or subcommittee) member is made in an open session, and approved by a majority vote.
- b) Any member or guest who is the principal investigator, or whose institution, organization, or company is the research agency for a proposed project shall be absent during the final deliberations and voting on that proposal or on other proposals which are in direct competition

5.2.6.5.2.5. Interim meetings may be held outside of the two Society meetings at the discretion of the Chair. Meetings can take place via conference call and/or the web with assistance from ASHRAE staff.

- a) Subcommittees are encouraged to have interim meetings as needed subject to the same rules and constraints

5.2.7.5.2.6. Notice of meetings

- a) Committee Chair must advise the full committee roster and the MORTS of all committee and subcommittee meetings, web meetings or teleconferences that take place between Society Meetings.
- b) The MORTS must be notified at least 30 days before in-person meetings and 14 days before web meetings and teleconferences to permit the MORTS time to notify interested persons who may want to participate.
- c) Information provided should include the date, time, location, principal purpose of the meeting, and the person to contact for further information.

5.2.8.5.2.7. If it is not possible to schedule meetings during Society meetings, the Chair is permitted to call meetings, with the permission of the Section Head, at other times and places.

- a) Any expense for meeting rooms provided at times other than Society meetings must be borne by the members unless authorized by TAC or the Director of Technology (DOT).
- b) TC/TG/TRG/MTGs that make a practice of holding their meetings at times other than Society meetings shall provide representation during the Society meetings at functions as requested by the Section Head.

5.2.9.5.2.8. Research projects consideration, either solicited or unsolicited, at regular Committee meetings

- a) Each proposer present should be allowed to speak on behalf of his proposal, if they

desire.

- b) The time allotted for such presentations shall be at the discretion of the Committee Chair

5.3. Minutes of official meetings

- 5.3.1. Must include votes and results of all motions in areas of responsibility.
5.3.2. Negative voters shall be given a chance to explain their negative votes and have them included in the minutes
5.3.3. Generally, do not include detailed discussion of topics but include decisions and action items
5.3.4. Subcommittee minutes and reports may be included in the main committee minutes or may be separate at the discretion of the committee secretary

5.4. Technical Responsibility

- 5.4.1. To advise, assist, and carry out assignments from TAC on technical matters and emerging technologies related to its scope
5.4.2. Respond to requests for assistance with technical matters, review technical papers, develop information, or prepare technical material or special publications by any of:
a) Research Administration Committee (RAC)
b) Handbook Committee
c) Standards Committee (StdC)
d) Conferences and Expositions Committee (CEC)
e) Chapter Technology Transfer Committee (CTTC)
f) Publications Committee (PUB)
g) Director of Technology (DOT)
h) Manager of Research and Technical Services (MORTS)
i) Manager of Standards (MOS)
5.4.3. Technical inquiries shall be handled expeditiously.

5.5. Handbook

- 5.5.1. Each TC/TG/TRG is charged with the responsibility of reviewing Handbook chapters within its field of interest and with making appropriate recommendations to the Handbook Committee and the responsible TC, TG, or TRG for a specific chapter(s).
5.5.2. The TC/TG/TRGs are responsible for the technical content of these chapters, but review and revision must be coordinated with the publication schedule established by the Handbook Committee. The most authoritative reference for TC/TG/TRG handbook responsibilities and procedures is the Handbook Authors and Reviser's Guide
5.5.3. MTGs review Handbook chapters within its field of interest and make appropriate recommendations if this responsibility is part of its scope.

5.6. Conferences and technical meetings

- 5.6.1. TC/TG/TRGs shall encourage the preparation and submission of technical materials for presentation at meetings.
5.6.2. TC/TG/TRG/MTGs shall may propose to the Conferences and Expositions Committee suggestions for
a) program tracks
b) Specialty conferences
c) if requested, shall assist in the development of such items
d) subjects for technical and conference papers, seminars, forums and other programs
5.6.3. MTGs shall also make these suggestions if this responsibility is part of its scope.

5.7. Standards and Guidelines

- 5.7.1. TC/TG/TRG/MTGs may request the development of and support the need for a particular Standard or Guideline through the Standards Committee.

- 5.7.2. MTGs may request the development of and support the need for a particular Standard or Guideline through the Standards Committee, if this responsibility is part of its scope.

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~~5.2.4.5.7.2~~ A TC/TG/TRG/MTG may recommend a potential Project Committee Chair of a new Standard or Guideline for consideration by the Standards Committee, if it is the cognizant TC/TG/TRG/MTG.

~~5.2.4.5.7.3~~ A TC/TG/TRG/MTG may recommend potential Project Committee members of a new Standard or Guideline for consideration by the Standard or Guideline Chair, if it is the cognizant TC/TG/TRG/MTG.

~~5.2.4.5.7.4~~ A TC/TG/TRG/MTG may recommend a potential non-voting TC/TG/TRG/MTG liaison to a Standard or Guideline Project Committee for consideration by the Chair of that Standard or Guideline Project Committee, if it is the cognizant TC/TG/TRG/MTG for that Standard or Guideline or if the TC/TG/TRG/MTG has relevant expertise in the subject matter.

~~5.2.4.5.7.5~~ During Advisory or Publication Public Review of a Standard or Guideline, a TC/TG/TRG/MTG may submit a review comment that it has developed and endorses.

~~5.2.4.5.7.6~~ A TC/TG/TRG/MTG may submit a change proposal to recommend changes to a Standard or Guideline on continuous maintenance.

~~5.2.4.5.7.7~~ The consensus body solely responsible for the technical content of a Standard or Guideline is the Standard or Guideline Project Committee. A TC/TG/TRG/MTG is not empowered to initiate a draft of a Standard or Guideline for the Society nor does it have approval rights over the work done by Standard or Guideline Project Committees.

~~5.2.4.5.7.8~~ TC/TG/TRG/MTGs shall review and recommend Standards or Guidelines related actions stated in Section 6.2 when requested by the Manager of Standards. All other TC/TG/TRG/MTG actions that are related to Standards and Guidelines, as described in Sections 5.7.3 through Section 5.7.7, shall be approved by the TC/TG/TRG/MTG using a simple majority vote, as stated in Section 6.4.

~~5.2.4.5.7.9~~ The most authoritative reference for TC/TG/TRG/MTG Standard and Guideline responsibilities and procedures is the Procedures for ASHRAE Standards Actions (PASA).

5.8. Research

5.8.1. Responsibility

- a) TC/TGs shall, in general, be responsible for research arising or related to their respective areas of interest, including emerging technologies and shall develop and recommend to RAC specific topics for research within its scope that are needed to provide new information or to improve or expand existing information.
- b) TRGs shall report the need for research to the RAC Liaison assigned to their section.
- ~~b)c) MTGs shall report the need for research and help coordinate the development of this research through the TCs and TGs that comprise the MTG, if the scope allows for this responsibility. If appropriate, MTGs may also manage their own research projects.~~

5.8.2. Approval of Project Evaluation Subcommittee (PES) and Project Monitoring Subcommittee (PMS) as recommended by the Chair of the TC/TG and approved by the Section Research Liaison

5.8.3. The TC/TG must approve the project's final report for publication by a 2/3 affirmative vote.

- a) Results of vote must be included in minutes for that meeting.

5.8.4. ~~MTGs shall report the need for research and help coordinate the development of this research through the TCs and TGs that comprise the MTG, if the scope allows for this responsibility.~~

5.8.5. The most authoritative reference for TC/TG research responsibilities and procedures is the RAC Research Manual found on the ASHRAE Website under the "Research" tab. (See [Appendix D](#) for procedures overview and deadlines)

5.9. Chapter Technical Programs and Publications

- 5.9.1. Cooperate with local chapters in planning and developing chapter technical programs, and in developing Chapter Technical Publications when requested to do so by the Section Head.
- 5.9.2. MTGs shall support these types of requests through the TCs and TGs that comprise the MTG, if the scope of a MTG allows for this responsibility.

5.10. Written Material

- 5.10.1. ~~Committees~~ TC/TG/TRG/MTGs are responsible for all written material that results from activities carried out under its authority.
- 5.10.2. Review and evaluate submitted technical and conference papers in a timely manner upon request
- 5.10.3. When such material is distributed to individuals or committees, they shall be informed that the material is:
 - a) The property of ASHRAE
 - b) Not to be reproduced or otherwise used prior to publication
 - c) To be returned upon request
- 5.10.4. Recommend to liaison (copy to Section Head) special publications where material is unsuited for Regular Society publications.
- 5.10.5. Include the statement in Appendix E on all **draft documents** including special publications, position documents, handbook chapters, technical papers, and research reports
- 5.10.6. A final copyright notice will be added to any documents offered for sale by the Publications Department.
- 5.10.7. Once a document has been published, the TC must destroy/delete any draft review versions.

5.11. Website

- 5.11.1 TC/TG/TRG/MTGs shall maintain current information about its activities on its website and is responsible for the content of all material on its website
- 5.11.2 TC/TG/TRGs/MTGs must ensure that all materials posted on their website meet the policy outlined in the ASHRAE document titled "ASHRAE Policy and Procedure for Format, Activity, and Content of Web Sites for ASHRAE Groups" that is posted on the Electronic Communications Committee website (<https://www.ashrae.org/society-groups/committees/electronic-communications-committee>). **This policy covers all material that is posted on the committee website including presentations, papers and documents produced by the committee. This policy includes the directive: "Statements and presentations may not appear on web sites that state, purport, or imply that they present ASHRAE positions, policy, or opinions".**
- 5.11.3 Posting presentations
 - a) Seminar presentations that have previously been presented at ASHRAE meetings must be approved for website posting by a simple majority vote of the sponsoring committee
 - b) Seminar presentations shall not be posted until the TC/TG/TRG Chair receives written/electronic permission from the presentation author
- 5.11.4 MTGs shall report information about its current activities to ASHRAE staff for posting on a page of the ASHRAE website, if the scope of a MTG allows for this responsibility.

5.12 Frequently Asked Questions (FAQ)

- 5.12.1 As requested, members of a TC/TG/TRG shall compose answers to or review FAQ assigned to their committee.
- 5.12.2 Each FAQ should be annually reviewed to ensure that references and technologies are current

5.13 Special Publications

5.13.1 Broad based publications peer review is described in [Appendix F](#)

5.14 Professional Development Course

5.14.1 TC/TGs may contribute to the professional development activities of the Society through a TC/TG Professional Development Committee (PDC) Liaison appointed by the committee Chair

5.14.2 The duties of a PDC Liaison are described in [Appendix G](#)

6. Voting

6.1. Quorum

6.1.1. Physical meetings and Remote Participants in Meetings (RPM)s

- a) When a Voting Member-Non Quorum is absent, their position is not included in the number of voting members when determining quorum.
- b) A member must be actually or personally present in a Physical meeting or participating in a Remote meeting session (RPM) setup by the committee through ASHRAE for that meeting to vote or count towards quorum.
- c) Quorum to conduct business at meetings is established when the number of voting members present is four (4) or exceeds 1/2 of the number of total voting members of the committee, whichever is larger, subject to the section 6.1.1.a exception.

6.1.2. Letter or Electronic Ballots

- a) The number of voting members (quorum and non-quorum) responding must exceed one-half of the total number of voting members (quorum and non-quorum) and approvals shall be as described in the following sections.
- b) Shall be distributed by the TC chair to all voting members and shall specify the response deadline, which must allow a reasonable time period for responses (1 week minimum – 2 weeks preferred).

6.2. Approval of Work Statements, Research Proposals, Final Reports, Handbook Chapters, Special Publications, and recommendations to the Standards Committee concerning the need to initiate reaffirmation, revision (based on updated references or adding a second system of units to a standard, thereby making the standard useable in either SI or IP units), or withdrawal of an existing Standard or Guideline for which it is the cognizant TC/TG/TRG/MTG, or to request the development of a new Standard or Guideline:

6.2.1. The number of affirmative votes required for approval is four (4) or at least 2/3 of the voting members expressing a preference, whichever is larger (For or against the motion – Abstentions or non-responses don't count.)

6.2.2. The motion and results of the vote shall be recorded in the minutes. If electronic ballot, results shall be reported and recorded at the next meeting of the committee.

6.2.3. The reasons for negative votes and abstentions on these types of motions shall be recorded and transmitted along with the motion to the next approving body (RAC, StdC) as part of the background information.

6.3. Parliamentary procedure motions:

6.3.1. The number of affirmative votes required for approval shall be based on the voting members expressing a preference (For or against the motion – Abstentions don't count) and the *Parliamentary Motion Guide* (Appendix J)

6.4. Other motions

6.4.1. The number of affirmative votes required for approval is three (3) or more than 1/2 of the voting members expressing a preference, whichever is larger (For or against the motion – Abstentions or non-responses don't count.)

6.4.2. The motion and results of the vote shall be recorded in the minutes. If electronic ballot, results shall be reported and recorded at the next meeting of the committee.

6.5. Conflict of interest

6.5.1. In the event a TC/TG/MTG/TRG is unable to meet voting requirements due to conflicts of interest, the issue shall be referred to TAC or another appropriate standing committee that has a direct interest in the matter (RAC, Handbook, Standards) for action.

6.6. Proxy votes

6.6.1. Absent voting member are not permitted to vote by proxy except for MTG voting members.

6.7. Negative Letter/electronic ballot Committee and Subcommittee Votes

6.7.1. Members casting negative votes shall be requested to comment on reasons for their negative votes and if no reasons are provided the ballot is final.

6.7.2. If the ballot passes with one or more negative votes with comments:

- a) The results shall be held in abeyance until comments, Chair's rebuttal (if any), and letter ballot results are transmitted to all eligible voters.
- b) Voters are given an opportunity, not to exceed two weeks, to change their votes or to vote for the first time. When this opportunity to vote has expired, the results shall be final.
- c) The final letter ballot results and all negative vote comments received shall be provided to the voting members and included when submitting for subsequent approval steps.

6.8. Subcommittee vote

6.8.1. Any person can serve at the subcommittee level, but only one person from any employer, organization, university, or specific government agency is eligible to vote on the same TC/TG/TRG subcommittee at one time.

6.9. Guests

6.9.1. Guests may participate in the discussion at the discretion of the Chair, but none shall have voting rights.

7. **Contacts outside the Society between ASHRAE and other organizations**

7.1. Official Liaisons

7.1.1. Official Liaison appointments to represent the Society in a specific technical area (except standards) shall be made by the TAC Chair with the advice of the TC/TG/MTG/TRG at interest, with the advice of the Director of Technology, and with the approval of the Coordinating Officer.

7.1.2. Official liaisons shall be known as TAC Inter-Society Liaisons. TAC Inter-Society Liaisons are required to submit a status report to the TAC Liaison Coordinator at least 30 days prior to the Annual meeting.

7.1.3. Instructions for voting as a TAC Intersociety Liaison shall be given to them by TAC and their committee with the proviso that, if there is a new activity, this will first be reported to TAC and the Board for its consideration so that the Board will not be giving blanket delegation of authority, but will have approved in advance the character, scope and general contents of this activity. Thereafter, it will be the duty of TAC and the committee involved to instruct the TAC Intersociety Liaison as to how to vote to accomplish this.

7.1.4. Procedures:

- a) TC/TG/MTG/TRGs shall cooperate with the TAC Liaison Coordinator to make him/her aware of other organization activities, which are of interest to ASHRAE. When the TC/TG/MTG/TRG believes it is in the best interest of ASHRAE to liaise with another organization, the TC/TG/MTG/TRG shall recommend to the TAC Liaison Coordinator, that such an official liaison be established.
- b) In cooperation with the TAC Liaison Coordinator, the TC/TG/MTG/TRG Chair shall recommend a liaison to another organization from the membership to the TAC chair for consideration.

- c) The TC/TG/MTG/TRG shall identify in writing the organization and the TC/TG/MTG/TRG member who they recommend liaise with that other organization to the TAC Liaison Coordinator. The complete organization name and its location must be used to identify the organization.
- d) Changes in participants may be made by the TC/TG/MTG/TRG Chair in consultation with the TAC Liaison Coordinator and approval of TAC chair and others noted above.

7.2. Unofficial Liaison appointments

7.2.1. May be made by a TC/TG/MTG/TRG, at its discretion, for one or more of its members to act as liaison to other organizations for the purpose of gathering and disseminating information between the two organizations.

7.2.2. Duties and Responsibilities of Unofficial Liaisons

- a) The designated participant is an individual member of the TC/TG/MTG/TRG and, in this capacity, expresses individual opinion, not that of ASHRAE, TAC or the TC/TG/MTG/TRG.
- b) The Liaison shall advise the organization, in writing, as follows:
 “I have been appointed as the ASHRAE TC/TG/MTG/TRG Liaison to your organization. My participation will be based on my professional opinion and will not necessarily be reviewed by the Society or constitute a position or a standard in the matter being discussed.”

7.3. Liaison Expense reimbursement

7.3.1. Both Official and Unofficial Liaisons shall have cognizance of their particular subject areas and pay their own expenses.

7.4. Communications between a TC/TG/MTG/TRG and other organizations

7.4.1. Contacts between a TC/TG/MTG/TRG and organizations outside of ASHRAE, wherein an opinion or position is stated, and without Society endorsement must make it clear that the TC/TG/MTG/TRG is speaking on behalf of that TC/TG/MTG/TRG only. There shall not be any implication of Society endorsement. A disclaimer such as the following shall be included: *This information is the consensus opinion of TC/TG/MTG/TRG only and does not represent an ASHRAE position.* An ASHRAE letterhead shall not be used for such communications as it may imply Society endorsement.

7.4.2. If one or more TC/TG/MTG/TRG's wish to communicate with organizations outside of ASHRAE, and imply ASHRAE Society endorsement or express an ASHRAE position that is not already covered in an ASHRAE approved position document, then the following approvals are needed: TAC, TechC Doc. Review Subc., TechC, BOD ExCOM, and the ASHRAE President. Only the ASHRAE President speaks for ASHRAE.

Appendix A - Procedure for Proposing New Technical Committee or Multidisciplinary Task Group

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1. Complete the TAC *TG/TRG Proposal Form* or *MTG Proposal Form*
2. Return completed forms to the Manager of Research and Technical Services (MORTS).

The electronic forms may be downloaded from

<https://www.ashrae.org/standards-research--technology/technical-committees/tc-forms-and-documents>

MTGs may be proposed by the BOD or Technology Council to address a Society need.

1. TAC works in consultation to develop the MTG scope and roster.

Appendix B - Procedure for TC/TG/TRG Membership Update

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1. Roster Update Workbook
 - 1.1. At least three weeks prior to the start of the Society Winter Meeting, the Administrative Assistant for Research and Technical Services sends each TAC Section Head a Roster Update Workbook for each committee in their section. The Section Head distributes them to each TC/TG/TRG Chair in the section.
 - 1.2. The Workbook contains information on all current members of the committee and leadership positions.
 - 1.3. The Committee Chair reviews the Workbook, making changes and additions as required (See Section 2 below).
 - 1.4. The updated Roster Update Workbook must be emailed to the appropriate Section Head
 - a. TC/TG/TRG - no later than 9:00 pm on Tuesday of the Winter Meeting.
 - b. MTG - no later than May 15th
 - c. An alternative submittal method may be used if approved by the Section Head in advance.
2. Roster Update Workbook Review and Update
 - 2.1. Instructions for updates and changes are included in the workbook. Please follow them and if you don't understand something, contact your Section Head for help.
 - 2.2. Add new members and liaisons in the designated area
 - a. Provide the name of the person and
 - b. Either the person's ASHRAE member number or complete address and telephone number
 - 2.3. Make changes and corrections to the current membership as required
 - a. Officers Liaisons and subcommittee chairs
 - b. Member voting status changes – mark the change as instructed
 - c. Member deletions – mark the change as instructed, **do not delete** the name from the worksheet
 - 2.4. Approve the update by entering your name and date in the worksheet
3. Section Head Approval
 - 3.1. Review and approve the Roster Update Workbook or return it to the Committee Chair for corrections
 - a. For MTG - ensure that the conditions for MTG membership described in the TC/TG/MTG/TRG MOP are met
 - b. For MTG - confirming, with the help of staff, that each voting member is endorsed via the TC roster by the chair/leader of the TC or non-TC group they represent on the MTG.
 - c. When correct, the Section Head approves the workbook by entering their name and date in the worksheet
 - 3.2. After approval, send the Roster Update Workbook to the Administrative Assistant for Research and Technical Services no later than February 28.
4. Draft Roster for the next Society year
 - 4.1. Staff creates the draft roster and sends a first draft to the Section Head.
 - 4.2. Section Head reviews the draft roster against the input that was provided in the approved Roster Update Workbook.

- a. If no changes are necessary, the Section Head approves the draft and informs staff
 - b. Corrections shall be sent to staff within two weeks.
 - c. Repeat until the Section Head has approved the draft roster.
- 4.3. Roster changes after the final roster has been approved shall be made using the Emergency Roster Change Form (<https://www.ashrae.org/standards-research--technology/technical-committees/tc-forms-and-documents>) and are subject to approval by the Section Head.
- 5. Final Roster for the next Society year
 - 5.1. Staff prepares the final roster for each committee in PDF and MS-Excel format.
 - 5.2. The Section Head reviews the final roster.
 - 5.3. Staff posts the documents as appropriate and distributes them to each committee member prior to July 1.
- 6. Roster distribution outside committee
 - 6.1. Complete Roster information shall not be posted on publicly-accessible areas of TC/TG/TRG/MTG websites subject to items 6.2 and 6.3.
 - 6.2. For more than the following information to be included on the TC/TG/TRG public website, the TC/TG/TRG Chair shall solicit and receive approval in writing from the affected member(s):
 - a. Name
 - b. Position on Committee
 - 6.3. The Committee Chair must approve the distribution of any other roster information to anyone who is not listed on the roster of the TC/TG/TRG subject to the written permission of the affected member(s).

Appendix C – Awards

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1. **THE RALPH G. NEVINS, JR. PHYSIOLOGY AND HUMAN ENVIRONMENT AWARD**

- 1.1. The award shall be presented for significant accomplishment in the general area of man's response to the environment, which may include thermal, moisture, visual, acoustical, toxic, allergic, olfactory, vibrational, and microbiological effects on man's health, comfort, and well-being.
- 1.2. The award shall be made to a promising investigator, preferably less than 40 years of age, whose accomplishments are represented by significant papers published by ASHRAE or by Journals of an ASHRAE International Associate for the five year period previous to the award.
- 1.3. The form of the award shall be a certificate and an honorarium of \$300.00. The certificate shall be suitably inscribed with the awardee's name, the area of accomplishment, and the name of the award.
- 1.4. Recommendation for a receipt of the award shall be made by a Selection Subcommittee of TC 2.1, Physiology and Human Environment, or its successor committee, approved by TC 2.1 and forwarded to the Honors and Awards Committee for final approval during the ASHRAE Winter Meeting. Presentation of the award shall be made once each year at the Plenary Session of the ASHRAE Annual Meeting if a qualified candidate is identified.
- 1.5. Soliciting funds for the award is the responsibility of TC 2.1. Income shall be the source, without use of the principal, to fund the award including the honorarium. The amount may be adjusted from time to time by TC 2.1 with the administrative approval of the Honors and Awards Committee.

2. **THE GEORGE B. HIGHTOWER AWARD**

- 2.1. The purpose of the award is to recognize each year an individual for his/her excellence in volunteer service to the area of TC/TG/MTG/TRG technical leadership and contribution, which includes all TC, TG, MTG and TRG activities except for research and standards. The award will serve to heighten general membership awareness of, and interest in, technical activities at the TC/TG/MTG/TRG level.
- 2.2. Candidates for this award are nominated by a TC/TG/TRG in which they have demonstrated exceptional service excluding research and standards activities. TAC and Technology Council members, and TC/TG/TRG Chairs, are not eligible during the terms they serve on the respective committees. Past recipients of the award are not eligible.
- 2.3. Applications are due from TC/TG/TRG Chairs to their Section Head by September 1 each year. Details and an application form can be found On the ASHRAE website under the Technical Committees page. <https://www.ashrae.org/technical-resources/technical-committees/tc-forms-and-documents>
- 2.4. The recipient will be selected at the fall TAC meeting and the award will be presented at the Winter Meeting.
- 2.5. A MTG will participate in the George B. Hightower award through one or more TCs/TGs that comprise the MTG.
- 2.6. ELIGIBILITY REQUIREMENTS

- 2.6.1. Nominees must have earned a minimum of 10 points **during their career** on TC/TG/TRG/MTGs as defined to be eligible for the award.
- 2.6.2. If eligible, the award is given **based only on the most recent four years of service** on TC/TG/TRG/MTGs. This service must be detailed in the explanation for it to be considered and is the actual basis for receiving of the award.

3. THE SERVICE TO ASHRAE RESEARCH AWARD

- 3.1. The purpose of the award is to recognize each year an individual for his/her excellence in volunteer service to the area of Society research. The award will serve to heighten general membership awareness of, and interest in, research activities at the TC/TG level.
- 3.2. Candidates for this award are nominated by a TC/TG in which they have demonstrated exceptional service in the area of research. RAC members, TC/TG Chairs, and researchers on the project in question are not eligible.
- 3.3. Applications are due from TC/TG Chairs to their Research Liaison by September 30th each year. Additional details on the award and an application form can be found in the RAC MOP. <https://www.ashrae.org/technical-resources/research/research-grants-awards>
- 3.4. The recipient will be selected at the fall RAC meeting and the award will be presented at the Winter Meeting.
- 3.5. A MTG will participate in the ASHRAE Research award through one or more TCs/TGs that comprise the MTG.

4. THE STANDARDS ACHIEVEMENT AWARD

- 4.1. The purpose of the award is to recognize excellence in volunteer service to the area of Standards. It will serve to heighten general membership awareness of, and interest in, standards activities.
- 4.2. The award is open to ASHRAE members who have demonstrated outstanding achievement in the ASHRAE standards development process. The nomination form can be found on the ASHRAE website at: <https://www.ashrae.org/membership/honors-and-awards>. Standards Committee and Technology Council members are ineligible for receipt of the Standards Achievement Award during the terms they serve on the respective committees.
- 4.3. Nominations are solicited during the first half of the Society year. The Standards Committee will select the recipient and notify the Honors and Awards Committee of its selection at the ASHRAE Winter Meeting.

A typical award application will include a letter of nomination outlining eligibility and a nomination form. Additional details on the award and an application form can be found in the Standards Committee MOP.

A MTG will participate in the Standards Achievement award through one or more TCs/TGs that comprise the MTG.

Appendix D- Overview of Research procedures

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1. **Procedures, forms and evaluation criteria** are described in detail in the *Research Manual* found on the ASHRAE website (<https://www.ashrae.org/standards-research--technology/research>)
2. Seek guidance from the MORTS in the development and execution of a research project when needed
3. **Research Topic Acceptance Request (RTAR)**
 - 3.1. Must be submitted to the MORTS for consideration by RAC by:

Approval To MORTS	RAC Consideration
No later than March 15	Spring Meeting of RAC (usually in April)
No later than May 15	Saturday Meeting of RAC at Annual Meeting
No later than Aug. 15	Fall Meeting of RAC (usually early October)
No later than Dec. 15	Saturday Meeting of RAC at Winter Meeting

4. **Work Statements (WS)**

- 4.1. Accepted and Prioritized RTARs are developed by the TC/TG/MTG into work statements. Prioritized RTARs should be developed as quickly as possible.
- 4.2. New or revised work statements and coversheets for research projects recommended by a Committee must be submitted to the MORTS by:

Approval To MORTS	RAC Consideration
No later than March 15	Spring Meeting of RAC (usually in April)
No later than May 15	Saturday Meeting of RAC at Annual Meeting
No later than Aug. 15	Fall Meeting of RAC (usually early October)
No later than Dec. 15	Saturday Meeting of RAC at Winter Meeting

5. **Tentative Research Projects (TRP)**

- 5.1. Proposal evaluation
 - 5.1.1. TRPs are work statements that have been approved by RAC for bid
 - 5.1.2. The deliberation of research bids must be held in executive session (Only individuals listed on the Committee roster should be present).
- 5.2. In general, members who are principal authors of work statements or (RTARs) are not encouraged to bid for the resulting project.
 - a. If they do, they must identify themselves as such in their proposals
 - b. The evaluators will satisfy themselves that these preparers did not gain an unfair advantage.
- 5.2.1. **Include reasons for all negative votes and abstentions on the *Summary Sheet for Reporting Evaluation of Proposals* form along with the committee vote.**
- 5.2.2. **All information concerning the bids is to remain confidential until the project has been approved for funding by Research Administration Committee (RAC), and depending upon the project's funding level Technology Council (\$100k to \$200k) and the Board of Directors (BOD) (all projects <\$200k)**

5.2.3. In order for action to be taken on that project at that meeting, a *Summary Sheet for Reporting Evaluation of Proposals* must be completed for each project bidding and placed in the MORTS' lockbox outside the headquarters room

- a. by Tuesday 11:59 pm at a Society's Annual or Winter meeting
- b. or transmitted via e-mail (MORTS@ashrae.net)
- c. or sent to the MORTS via e-mail at least one week prior to the Fall or Spring RAC meetings.

53. TRPs are released for bid when adequate funding is available.

6. Proposal Evaluation Subcommittee (PES)

- 61. Appoint when the work statement is submitted
- 62. Recommended by the Chair of the TC/TG/MTG and approved by the Section Research Liaison

6.2.1. Minimum of 3 and maximum of 5 members including the PES Chair

- 63. The PES is responsible for evaluations of all proposals received and contractor recommendation

64. The MORTS and Section Research Liaison shall be ex-officio non-voting members

7. Project Monitoring Subcommittee (PMS)

- 71. The PES shall change to the Project Monitoring Subcommittee (PMS) once the project has been awarded and a contract finalized with the selected contractor

- a. It is desirable, but not required, that PMS members should have been members of the PES.
- b. Recommended by the Chair of the TC/TG/MTG and approved by the Section Research Liaison
- c. No individual who bid on a project, or who is a member of an organization that bid on a project (whether successfully or unsuccessfully), may serve on the PMS of that project

72. The MORTS and Section Research Liaison shall be ex-officio non-voting members

73. Provides guidance and direction to the research project contractor

74. Critically reviews progress of each project to establish validity of data and conformance with the project schedule

75. Notifies RAC through its Research Liaison of any problems relating to scope, performance, and schedule

76. The PMS shall respond to requests of the Contractor within 30 days.

77. The Principal Investigator shall be required to attend at least one meeting of the sponsoring TC/TG/MTG each contract year.

78. Complete the Disposition of ASHRAE Sponsored Research Results form, at the completion of the project (see the RAC Research Manual)

8. Approval

- 81. The responsible TC/TG/MTG shall critically review and evaluate any reports (interim or final) submitted by the Contractor and inform the MORTS in writing as to its acceptability within 90 days or the time limit stated in the contract.

82. The TC/TG/MTG must approve the project's final report for publication by a 2/3 affirmative vote.

9. Research Results

- 91. Research results contained in quarterly progress reports or delivered by the contractor in semi-annual presentations to the TC/TG/MTG should be considered interim and tentative

and shall be kept confidential. Results shall not be released or discussed outside of the cooperating TC/TG/MTG(s) until the final report is delivered and approved.

92. The Society owns all rights in any reports, papers, and other data resulting from its sponsored research, and even after publication, such information may be published by others only with the written approval of the Society.
93. Papers prepared to report the results of research by the Society shall be reviewed and approved by one or more responsible members selected from the PMS prior to presentation and/or publication.
94. The Society shall publish the results of research which it sponsors. Every effort must be made to obtain a paper and final report which can be published, even if the paper is not presented on a program. In such event, written comments of the responsible TC/TG/MTG and/or others shall be published with the report to support or question its conclusions.
 - 9.4.1. When a report of Society research has been approved by a TC/TG/MTG or at other appropriate times, RAC may request through the MORTS that an article suitable for publication in the ASHRAE Journal/Insights be prepared by the research contractor. Following preparation, the normal Journal/Insights review process shall be followed.

10. Unsolicited Research Proposal (URP)

101. Unsolicited Research Proposals are received by MORTS and the Research Administration Committee (RAC) and assigned to a TC for evaluation when appropriate.
102. If the RAC liaison determines that the URP addresses a topic already contained in the ASHRAE Research Implementation Plan or an RTAR under development within a TC, then the liaison should recommend to RAC that the proposal be rejected and returned to the proposer unless the interests of the Society are better served by its consideration.
103. If the URP is assigned to a TC/TG/MTG, the Chair of that committee shall form a project evaluation committee, headed by the Committee Research Subcommittee Chair, as described in appendix D, section 6 to evaluate the URP and make a recommendation to the Research Liaison and MORTS.
104. Evaluation criteria are found in the Research Manual.

Appendix E – Copyright for Draft Documents

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“Copyright symbol [current year] ASHRAE. All rights reserved. This is a draft document intended for review only by the cognizant ASHRAE groups and other designated reviewers and is not for distribution to any private interests, individuals, or third parties that are not designated as ASHRAE reviewers for this document. This document may not be distributed in whole or in part in either paper or digital form without the express permission of the chair of the committee originating this document. The appearance of any technical data or editorial material in this draft document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design, or the like, and ASHRAE expressly disclaims same.”

Appendix F - Broad Topic Special Publications Peer Review Procedure

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1. When the TAC Chair, in consultation with TAC members, determines that a newly proposed special publication requires a broader peer review by members of other TC/TG/MTG/TRGs.
 - 1.1. the Chair of the TC/TG/MTG/TRG sponsoring the publication shall be notified in writing to implement the following procedure for broad peer review:
 - 1.1.1. Transmit to all TC/TG/MTG/TRG Chairs and members of TAC through ASHRAE staff the working title, purpose, and scope of the proposed new special publication.
 - 1.1.2. Request in the transmittal message that interested TC/TG/MTG/TRGs recommend a candidate to possibly serve as a TC/TG/MTG/TRG representative on the subcommittee developing and/or reviewing the special publication.
 - 1.1.3. The sponsoring TC/TG/MTG/TRG Chair shall appoint the subcommittee for the special publication with the approval of the Section Head.
 - 1.1.4. Transmit to all TC/TG/MTG/TRG Chairs and members of TAC through ASHRAE staff a list of dates when a draft copy of the special publication will be available from the sponsoring TC/TG/MTG/TRG for open review comments consistent with the following development milestones:

% Completion	Purpose of Open Review
50	Major conceptual concerns
80	Errors and omissions
100	Factual errors
 - 1.1.5. The window of opportunity for open review of the drafts and comment submissions shall be two weeks.
2. The subcommittee for the special publication shall collect, group (where possible), and summarize comments that are received during the open review periods and issue a document listing the summarized comments and the subcommittee's responses to them to all TC/TG/MTG/TRG Chairs and members of TAC through ASHRAE staff.
3. TAC may reject the draft and direct changes by the sponsoring subcommittee to insure broad Society acceptance of the proposed publication.

Appendix G - Duties of the TC/TG Professional Development Committee (PDC) Liaison

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1. Coordinate with the TC/TG Handbook, Research, Standards, and Program Subcommittees to solicit ideas for and coordinate the development of new professional development courses related to the current activities of the TC/TG.
2. In cooperation with the TAC Liaison Coordinator, investigate the feasibility of developing joint courses or of combining existing similar courses with other TC/TGs and institutions. As needed to facilitate this activity and support the PDC Liaison, the TC/TG Chair shall assign TC/TG members to act as course reviewers.
3. At least 30 days prior to each Annual and winter meeting, the PDC Liaison shall submit an activities summary report to the TC/TG/MTG Chair with a copy to the PDC Chair.
4. Attend PDC meetings upon invitation and provide a detailed report on specific topics if requested.
5. Unless the scope of a MTG allows for this responsibility, MTGs shall propose the development of Professional Development Courses through the TCs and TGs that comprise the MTG.

Appendix H - Parliamentary Motions Guide

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Based on *Robert's Rules of Order Newly Revised (10th Edition)*

The motions below are listed in order of precedence (top to bottom). Any motion can be introduced if it is lower on the chart than the pending motion.

You Want to	You Say:	Interrupt?	Second?	Debate?	Amend?	Vote?
Bring business before the assembly (a main motion)	<i>I move that ...</i> OR <i>I move to ...</i> (The lowest rank of motions)	No	Yes	Yes	Yes	Majority
Kill the main motion	<i>I move that the motion be postponed indefinitely</i> (May be applied only to main motions)	No	Yes	Yes	No	Majority
Amend wording of a motion	<i>I move to amend the motion by ...</i> (Amend by insert, strike out, strike out and insert, substitute [a whole paragraph or section])	No	Yes	Yes	Yes	Majority
Refer to a committee	<i>I move to refer the motion to ...</i> (Places business in the hands of a few)	No	Yes	Yes	Yes	Majority
Postpone definitely	<i>I move to postpone the motion to ...</i> (If passed, the subject cannot be taken up before the set time except by 2/3 vote)	No	Yes	Yes	Yes	Majority
Limit or extend debate	<i>I move that debate be limited to ...</i> (Not allowed in committees)	No	Yes	No	Yes	2/3
Close debate / stop discussion	<i>I move the previous question or I move to stop discussion and vote</i> (Requires a second and a 2/3 vote. A member calling out "question" does not require action by the chair. Previous Question is not allowed in committee)	No	Yes	No	No	2/3
Lay aside temporarily	<i>I move to lay the question on the table</i> (Allows more urgent business to be acted on. Is not used to "kill" a motion or to delay action on the motion)	No	Yes	No	No	Majority
Follow agenda	<i>I call for the order of the day</i> (Forces a meeting to return to the order of business or agenda)	Yes	No	No	No	None

Register a complaint	<i>I rise to a question of privilege</i> (To get the attention of the chair on a matter of business that cannot wait, such as "I cannot hear the speaker.")	Yes	No	No	No	None
Take a break	<i>I move to recess for</i> (amount of time)	No	Yes	No	Yes	Majority
Close meeting	<i>I move to adjourn</i>	No	Yes	No	No	Majority

Notes:

1. A majority vote is a majority of those present and voting (an abstention is not a vote), assuming that a quorum is present. 2/3 vote is 2/3 of those present and voting (an abstention is not a vote).
2. There may be only one amendment to the Main Motion pending at one time. This 1st degree amendment may have only one amendment (2nd degree) pending at one time. As each is voted, other amendments may be offered in succession. A substitute motion is an amendment. Amendments must be germane to the subject matter to be amended. After all amendments are voted on, the Main Motion as Amended must be voted on.
3. When a committee is to be appointed, nominations for members of the committee may be made from the floor. Chair puts vote, beginning with first named in succession. When the chairman is responsible for naming committee members, before the committee can act, the names must be announced to the assembly, unless permission is granted the chairman to do otherwise. Whoever appoints the committee has power to appoint the chairman and fill vacancies.

Parliamentary Motions Guide

Based on *Robert's Rules of Order Newly Revised (10 Edition)*

Incidental Motions: No order of precedence. These motions arise incidentally and are decided immediately.

You Want to	You Say:	Interrupt?	Second?	Debate?	Amend?	Vote?
Play by the rules	<i>Point of order</i>	Yes	No	No	No	None
Ask the assembly to decide on a ruling by the chair	<i>I appeal for the decision of the chair</i>	Yes	Yes	Varies	No	Majority
Suspend the rules	<i>I move to suspend the rules</i>	No	Yes	No	No	2/3
Avoid main motion altogether	<i>I object to the consideration of the question</i>	Yes	Yes	No	No	2/3
Divide a motion into 2 or more parts	<i>I move to divide the question by ...</i>	No	Yes	No	Yes	Majority
Demand a rising vote (counted vote)	<i>I call for a division</i>	Yes	Yes	No	No	None
Parliamentary procedure question	<i>Parliamentary inquiry</i>	Yes	Yes	No	No	None
Request information	<i>Point of information</i>	Yes	Yes	No	No	None

Motions That Bring a Question Again before the Assembly: No order of precedence. These motions can be introduced only when nothing else is pending.

You Want to	You Say:	Interrupt?	Second?	Debate?	Amend?	Vote?
Take motion from the table	<i>I move to take from the table the motion ...</i>	No	Yes	No	No	Majority
Cancel or change a previous action	<i>I move to rescind the motion to ...</i> <i>I move to amend the previously adopted motion to ...</i>	No	Yes	Yes	Yes	2/3 or majority with previous notice
Reconsider motion	<i>I move to reconsider the vote ...</i>	No	Yes	Varies	No	Majority

ACTION ITEM - Review and recommend MOP changes to enable more virtual meetings.200618 vg

* **Purpose:** To encourage the use of virtual meetings and enable them via changes in the MOPs

The handwriting is on the wall. The advantages of virtual over co-located meeting are notable, furthermore the loss in effectiveness (social and related opportunities while co-located) is fairly compensated with the savings in time, travel, and meal costs of a virtual meeting, particularly one with good audio and visual equipment.

* **Different groupings:** Groupings supported by TAC which could be engaged in virtual group settings:

- a) The entire Functional Group
- b) Formal subcommittees appointed by individual FG chairs
- c) Ad-hoc working groups (appointed by the chair of the FG, or of the Section, or a Subcommittee)

		Functional Group		FG Sub-committees		ad-hoc workgroup
Appoint		Section Head		FG Chair		Sub.Cm.Chair
Voting		Full authority		Recommendations		No authority
Virtual		Under Conditions		Encouraged		Expected
First Convener		Section Head		FG Chair		Sub.Cm.Chair

* **What could be proposed:**

a) Functional Groups: Meet co-located at the Annual Meeting; and Virtually one month before the "Winter" Meeting. (staff coordinating together with Section Heads). A virtual meeting would demand announcement (with an agenda) and provision for access by virtual visitors. While meeting, quorum and balance have to be of concern. Visitors would not need to have voice, but it would be good to allow visitor comments at the start and end of the meetings.

b) Subcommittees:: First meeting with the FG chair; thereafter all meetings virtual and as needed, no formal motions but reports and recommendations for the FG to act upon; Minutes to be kept together with staff support. Should always assure balance when making recommendations to FG. Meetings should be announced, and agendas posted,

c) This opens up the opportunity for virtual and informal settings where creativity and discernment are needed while attacking a problem or overcoming a need. They would be short-term assignments (less than 18 months) with limited staff support. No minutes, just a written recommendation to the parent sub-committee, FG, or TAC.

* **Equipment for virtual setting**

Conditions for effective virtual meetings: good visuals, good acoustics, defined host, and participants able to see one another, preferably able to see body language of each one., and easy access into the meeting.

Marija S. Todorović TAC

Possibility to use YouTube for SCIENCE & TECHNOLOGY¹ for CEC

This document is prepared for CEC and PubEd with an aim to explain the need for possible new procedures and disclaimers covering Society program presentations held in TC meetings and/or prepared by TC for presentation via YouTube. It describes technical possibility to increase number of seminars and other technical sessions in normally healthy conditions as well as in CORONA conditions.

Some TCs are recording and posting such presentations to YouTube now, which can then be modified by others without any control from ASHRAE?

All ASHRAE TC members, particularly those engaged on SC Programs activities can testify how frustrating is receiving mails of the type:

Dear,... On behalf of the Conferences and Expositions Committee (CEC), I wish to thank you for your Seminar submittal "....." (24..) for consideration for the technical program for the ASHRAE Conference in ,... For this conference, there were numerous programs rated highly by the track chairs ,... **I regret to inform you that the submitted program proposal listed above was not selected for presentation...**

HOWEVER SOME TIMES THERE IS ADDITIONAL EXCUSE - THAT THERE IS NOT ENOUGH SPACE IN CONFERENCE BUILDING,...If this is true and quality of proposed work is fine then here is a proposal for solution.

PROPOSAL FOR POTENTIAL TECHNICAL SOLUTION ON USING INTERNET AND YOUTUBE TO INCREASE VOLUME/NUMBER OF SESSIONS AND VOLUME/DISTRIBUTION TO AUDIENCE OF TC'S SESSIONS OF THE ASHRAE CONFERENCE TECHNICAL PROGRAM WORLDWIDE USING RECORDED P-POINT PRESENTATION OR CAPTURED WITH CAMERA AND PRESENTED VIA YOUTUBE FOR SPREADING ITS DISTRIBUTION AND ACCESSIBILITY.

Follows as an Example of the YouTube use for the 50th KGH - HVAC Congress and Exhibition in Belgrade 2019 program (<http://kgk-kongres.rs/index.php/en/event-program/congres-program>).

11.00–13.00 h Sesija 1 • Plenarna predavanja

Session 1 • Plenary lectures

Chairpersons: **B. Todorović, B. Blagojević, M. Živković**

1. Neki pravci u hlađenju, klimatizaciji i toplotnim pumpama u SAD
Some trends in refrigeration, air-conditioning and heat pumping in the USA
Predrag Pega HRNJAK, University of Illinois, Urbana, USA



2. Poređenje efikasnih sistema u različitim klimatskim uslovima
Efficient systems compared in different climates

¹ In Atlanta in her Address at the President's Luncheon *Building Our New Energy Future* Sheila Hayter did outline importance and satisfaction with the growing appearance of ASHRAE on Internet.

Alexander Cohr PACHAI, Sabroe Factory by Johnson Controls, Denmark



3. Integrisano održivo projektovanje zgrada

Integrated Sustainable Building Design

Zoltan MAGYAR, Budapest University of Technology and Economics, Hungary



4. Daljinsko grejanje i hlađenje kakvo nam treba

The District Heating and Cooling We Need

Paul VOSS, Euroheat & Power, Belgium

IF PRESENTATIONS ARE NOT FILMED AND RECORDED THEN PRESENTER PHOTO AND RECORDED POWERPOINT PRESENTATION PREPARED BY THE RELATED TC CAN BE EXCELLENT SOLUTION.

Further In Annex of this document are presented details on specific YOUTUBE feattures and procedures (https://www.youtube.com/t/contact_us).

Annex - Details on specific YOUTUBE feattures and procedures.

https://www.youtube.com/t/contact_us

If you need help, please visit our [Help Center](#). There you'll find answers to many common questions about creating an account, watching and uploading videos, and maintaining your channel.

If you're unable to find what you're looking for in the Help Center, we suggest visiting our [Community Help Forum](#). Experiencing a bug? Take a look at our [Current Site Issues](#) page to see a list of known issues we're working to fix.

Media Relations

Press Room

[This area](#) contains media contact information, press releases, b-roll footage, FAQs, and our interactive timeline.

Advertising

Whether an AdAge 100 advertiser or a local retailer, everyone can broadcast their ad campaign on YouTube and tap into the world's largest online video community. Learn the basics to advertising on YouTube.

Security

Abuse Issues

For any abuse issues on the site, please contact us through the

Legal

Copyright Issues

If you are the copyright owner of a video and feel it has been uploaded without your permission, please [follow these directions](#) to submit a copyright infringement notice

Inappropriate Content

To report an inappropriate video on YouTube, please click the "Flag" link under the video. For details on our policy, please [read the Terms of Service](#).

Additional Contact Information

Developers

If you're a developer or interested in our APIs, please visit the [Developer area](#).

Our Address

You can contact YouTube at the address below.

YouTube, LLC

901 Cherry Ave.

San Bruno, CA 94066

USA, Fax: +1 650-253-0001

Partner Program

If you're interested in joining the YouTube Partner Program, visit our information page to learn more about it.

Site Security Issues

If you want to report a security issue with the YouTube site, please [visit us here](#).

Content ID Program

When you search for well-known people, organizations and things on Google, you'll often come across a Knowledge Panel on the results page—a box with an overview of key information and links to resources to help you go deeper.

Individuals and organizations with Knowledge Panels can use our verification process to claim their panels and provide authoritative feedback on the information and images presented. Now we're updating that process as well as extending verification eligibility to more entities.

Any person, organization, sports team, event and media property with a Knowledge Panel is eligible to get verified and suggest edits to the information shown. Simply search for your name or organization on Search and click or tap the prompt below the Knowledge Panel to begin the verification process.

Once you're verified, you can suggest factual changes to information in your Knowledge Panel and suggest a featured image. You can learn more about how to provide this feedback in our help center.

We're always working on ways to improve Search to ensure you find the most relevant, accurate information possible. We hope that by giving individuals and entities an improved way to help us get it right if something's off, we get closer to that goal.

POSTED IN: SEARCH

YouTube <https://en.wikipedia.org/wiki/YouTube>

YouTube, LLC is an American video-sharing website headquartered in San Bruno, California. Three former PayPal employees—Chad Hurley, Steve Chen, and Jawed Karim—created the service in February 2005. Google bought the site in November 2006 for US\$1.65 billion; YouTube now operates as one of Google's subsidiaries.

YouTube allows users to upload, view, rate, share, add to favorites, report, comment on videos, and subscribe to other users. It offers a wide variety of user-generated and corporate media videos. Available content includes video clips, TV show clips, music videos, short and documentary films, audio recordings, movie trailers, live streams, and other content such as video blogging, short original videos, and educational videos.

Most of the content on YouTube is uploaded by individuals, but media corporations including CBS, the BBC, Vevo, and Hulu offer some of their material via YouTube as part of the YouTube partnership program. Unregistered users can only watch videos on the site, while registered users are permitted to upload an unlimited number of videos and add comments to videos. Videos deemed potentially inappropriate are available only to registered users affirming themselves to be at least 18 years old.

YouTube earns advertising revenue from Google AdSense, a program which targets ads according to site content and audience. The vast majority of its videos are free to view, but there are exceptions, including subscription-based premium channels, film rentals, as well as YouTube Premium, a subscription service offering ad-free access to the website and access to exclusive content made in partnership with existing users.

As of February 2017, there were more than 400 hours of content uploaded to YouTube each minute, and one billion hours of content being watched on YouTube every day. As of August 2018, the website is ranked as the second-most popular site in the world, according to Alexa Internet.^[1]

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Video technology

YouTube primarily uses the [VP9](#) and [H.264/MPEG-4 AVC](#) video formats, and the Dynamic Adaptive Streaming over HTTP protocol.^[*citation needed*]

User features

Community

On September 13, 2016, YouTube launched a [public beta](#) of Community, a [social media](#)-based feature that allows users to post text, images (including [GIFs](#)), live videos and others in a separate "Community" tab on their channel.^[121] Prior to the release, several creators had been consulted to suggest tools Community could incorporate that they would find useful; these [YouTubers](#) included [Vlogbrothers](#), **[AsapScience](#)**, [Lilly Singh](#), [The Game Theorists](#), [Karmin](#), [The Key of Awesome](#), [The Kloons](#), [Peter Hollens](#), [Rosianna Halse Rojas](#), [Sam Tsui](#), [Threadbanger](#) and [Vsauce3](#).^[122]

ASAPSCIENCE, STYLIZED AS **ASAPSCIENCE**, IS A [YOUTUBE](#) CHANNEL CREATED BY CANADIAN YOUTUBERS MITCHELL MOFFIT AND GREGORY BROWN. THE

CHANNEL PRODUCES WEEKLY VIDEOS THAT TOUCH ON MANY DIFFERENT TOPICS OF SCIENCE.^[1]

The two creators have a secondary channel, *Greg and Mitch* (formerly *AsapTHOUGHT*), which contains videos discussing several issues (not all pertaining to science).

Content partnerships

In 2016, YouTube introduced a global program to develop creators whose videos produce a positive social impact. Google dedicated \$1 million to the this Creators for Change program.^[246] The first three videos from the program premiered at the 2017 Tribeca TV Festival.^[247] YouTube expanded the program in 2018.^[248]

Revenue

Google does not provide detailed figures for YouTube's running costs, and YouTube's revenues in 2007 were noted as "not material" in a regulatory filing.^[296] In June 2008, a *Forbes* magazine article projected the 2008 revenue at \$200 million, noting progress in advertising sales.^[297] In January 2012, it was estimated that visitors to YouTube spent an average of 15 minutes a day on the site, in contrast to the four or five hours a day spent by a typical US citizen watching television.^[28] In 2012, YouTube's revenue from its ads program was estimated at \$3.7 billion.^[298] In 2013 it nearly doubled and estimated to hit \$5.6 billion according to eMarketer,^{[298][299][300]} while others estimated \$4.7 billion.^[298] The vast majority of videos on YouTube are free to view and supported by advertising.^[56] In May 2013, YouTube introduced a trial scheme of 53 subscription channels with prices ranging from \$0.99 to \$6.99 a month.^[301] The move was seen as an attempt to compete with other providers of online subscription services such as Netflix and Hulu.^[56] In 2017, viewers on average watch YouTube on mobile devices for more than an hour every day.^[302]

Censorship and filtering

<https://www.youtube.com/user/ScienceChannel>



Science Channel

1,750,783 subscribers
SUBSCRIBE 1.7M



Science - Topic

316,000 subscribers

SCIENCE AND TECHNOLOGY - YouTube

<https://www.youtube.com/watch?v=xFLZYH7QkYA>

Get on Google

Do you have content that you want on Google? Here are a few ways to submit it to us.

What content do you have?

A website

Google doesn't require you to take any special steps to appear in search results, but you can help us find new or changed pages faster by letting us know when you make changes.

Search Console – Submit a Sitemap of your website to Google.

Structured data – Label your structured content to help users find pages relevant to their search.

Google Discover – Pages from your site can appear in Google's Discover stream, a scrollable list of topics shown on Android mobile devices.

A business or person

Google for Retail – Promote your products on Google Shopping, Google Offers, and other properties; submit your product catalogs digitally to Google Search.

Google My Business – Get your business on Google Maps.

Street View – Invite customers on a virtual tour of your business.

Knowledge panel – If you want to manage your identity as a person, business, or organization on Google, you can suggest changes to your knowledge panel entry.

Digital content

Google Books and eBooks – Promote your books online and sell your titles through our eBook store.

Google News – Share timely reporting on matters that are important or interesting to our audience.

Scholar – Include scholarly works in Google's academic index.

Google Play Newsstand – Publish your content in Google's app for fresh, beautiful news and magazine editions.

Local information

Base Map Partner Program – Simplify navigation of your community by improving and enriching our base map.

Google Indoor Maps – Upload floor plans or blueprints of your business to Google Maps.

Imagery Partner Program – Offer users a sharper aerial view of your community's landscape and built environment.

Local Enhanced Content – If you're an aggregator of local content, publish it through Google.

Photo Sphere – Photograph and share the world with 360° pictures.

Street View – Provide a panoramic virtual tour of your property.

Transit Partner Program – Encourage use of public transit by making it easy to locate routes, schedules and fares.

Media

Video Search – Publish and syndicate online video content to make it searchable on Google.

YouTube – Upload, distribute, and monetize your videos.

Video on own hosting has advantage of maintaining full control of posted material = low risk of malicious or only unwanted adds. Disadvantage: increasing hosting costs for higher storage usage.

Video on YouTube or similar free service = free. But: there is no control of malicious or only unwanted adds, and no control on service life-time – can be interrupted at any time and all material may be lost.

Recorded PPT may be hosted before the meeting, and participants should view it, and post questions to be answered at the meeting – to make it as short as possible.

Or, PPT may be presented on-line, in real time (both recorded or live), with Q&A, but it expands the meeting time-slot.

Announcements and Reminders for TC/TG/TRG & MTG Chairs Virtual Annual Meeting 2020

A. **NEW!**

1. **Discuss and confirm that TGs, TRGs, and MTGs in section will continue in 20-21 Society Year**

From TC MOP:

1.5. Review

- 1.5.1.** Once a year, preferably at, or prior to, each Annual meeting, the Committee Chair and Committee Membership shall evaluate their progress in accomplishing the purpose for which they were constituted and recommend one of the following actions to their Section Head:
- Continue as a TC, TG, MTG, or TRG
 - Convert from a TG to a TC
 - Convert from a TRG to a TG or TC
 - Merge with a TC/TG/TRG and submit a revised scope for the merged committee
 - Dissolve the TC, TG, MTG, or TRG.
 - If a TC/TG/TRG/MTG votes to disband, it must establish whether any current responsibilities should be continued and, if so, recommend existing TC/TRG/MTG(s) to assume responsibility and obtain those committee's written concurrence

2. **TC Meeting schedule and protocols**

TC committee meeting schedules posted at www.ashrae.org/conferences/ashrae-2020-virtual-conference. Access to virtual committee meetings will be sent to committee members from either their staff liaison or committee chair.

If you wish to join a committee as a guest, please contact meetings@ashrae.org no later than the close of business the day before the scheduled meeting with the name of the committee, date and time and log-in information will be sent to you.

3. **20-21 Roster Rollover**

Remember, the current 2019-2020 roster for your TC, TG or MTG is in effect until after they meet for the ASHRAE Virtual Conference. Rosters will roll over to 2020-2021 at that point.

4. **Interim TC Meeting Procedures**

TAC is encouraging TC's to meet in between ASHRAE Meeting. TAC will implement the following:

- Maintain a listing of the interim meetings on the Technical Committees webpage (www.ashrae.org/technical-resources/technical-committees), similar to the listing done for Standards.
- TC interim meetings should be posted (by emailing the alias TCmeetings@ashrae.net) two weeks before an online meeting and four weeks before a face-to-face meeting. The person emailing should also include the meeting call-in info/ link for posting.
- To keep our members apprised of the meetings, we will add a notice in the ASHRAE Journal Newsletter (bimonthly) to remind our members to check the listing and to provide a link to the list.

5. New Section Head/TC leadership Basecamp

A new Basecamp (<https://3.basecamp.com/3106353/projects/15520814>) is set up to communicate and transfer documents between TAC Section Heads and TC leadership (Chairs, Vice Chairs, Secretary) at TC members can participate at <https://3.basecamp.com/3106353/join/8MHSs5gveaLg>.

6. TC Re-Org update

TAC has a subcommittee to implement recommendations of TC Re-Org Ad Hoc final report.

For those TC's that have decided to merge, you need to:

- Vote on the revised Title & Scope. Any combining TC's need to be voting on the same TPS.
- Proposed leadership and voting roster need to be completed.
- Please work closely with your Section Head.
- So far, TAC has approved 4 TC mergers – 3.2 & 3.3, 8.10 & 8.12, 9.4 & 9.8, 7.3 & 7.8.

For those TC's still in the discussion phase, please keep your Section Head aware of your discussion status.

7. MTGs that have been formed since Orlando

- **MTG.CYB** (Cybersecurity for HVAC Systems and Related Infrastructure)

8. How to Import Your TC Roster Information into MS-Outlook

Detailed instructions on how to import your TC roster information into MS-Outlook has been created and an e-mail announcement will be issued to all TC chairs, vice chairs, and secretaries once these instructions and the restructured TC MOP are posted to the TC page of the website (www.ashrae.org/TCs)

B. VIRTUAL ANNUAL MEETING

1. Training Options

i. TC/TG/TRG/MTG Chair's Training Topic - "There is Change in the Air "

The training is part of TC Chair's Breakfast virtual meeting. Draft slides sent via email.

ii. RAC's Research Subcommittee Chair's Breakfast

RAC has scheduled section Research Subcommittee Chair Breakfasts in July. See www.ashrae.org/conferences/ashrae-2020-virtual-conference for schedule details or below for details. Contact meetings@ashrae.org to request access to this meeting as a guest by close of business the day prior to the meeting.

Please encourage your Research Subcommittee Chair or another representative from the TC to attend this meeting so that your RAC Research Liaison (RL) can get an update on the TC's research activities and so that your RL can help resolve issues & questions that TC may have concerning their research program.

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Annual Meeting 2020

iii. **TC Program Subcommittee Chair Training**

Tuesday, July 7th, 1:00 PM – 2:00 PM EDT. Contact meetings@ashrae.org to request access to this meeting as a guest by close of business the day prior to the meeting.

A few things you might learn in training are as follows:

- Incomplete program submissions is the biggest reason for rejection now. All information is needed up front for CEC selection process.
- A packaged session on a similar topic is the best way to greatly improve your chances for acceptance.
- There is no difference in how CEC handles 60 and 90 minute program slots. 60 minute slots are just as good as 90 minute slots if complete.

C. **UPCOMING DEADLINES**

1. **TC Activity Forms for the 2020 Virtual Annual Meeting are due to Your Section Head before Tuesday 7/21/2020**

TC/TG/TRG Activity Feedback Form (Excel) can be downloaded from the TAC Section and TC Leadership Basecamp - www.ashrae.org/standards-research--technology/technical-committees/tc-forms-and-documents. Section heads can also provide an electronic copy of the form if requested.

2. **Seminar and Forum proposals for Chicago are due by Monday, August 3, 2020.**

Please visit the following site to submit your proposal:

For more information, go to: www.ashrae.org/chicago

3. **2020-2021 Hightower Award Nominations by Tuesday, September 1st**

TAC wishes to encourage TCs to make nominations for the 2020-2021 *George B. Hightower Technical Achievement Award*. Nominations are due to Section Heads by September 1, 2020 or sooner. The award recognizes outstanding technical leadership and contributions on a TC/TG/TRG during the past four years, excluding research and standards activities. Please go to the Technical Committee page of the ASHRAE website at the following link under the "Procedures, Forms..." heading:
<http://www.ashrae.org/tcs>

D. **REMINDERS**

1. **20-21 Roster Rollover**

Remember, the current 2019-2020 roster for your TC, TG or MTG is in effect until after they meet for the ASHRAE Virtual Conference. Rosters will roll over to 2020-2021 at that point.

2. Useful TC/TG/TRG/MTG Chair Information and forms on ASHRAE website

Information for TC/TG/TRG and MTG chairs can be found on the Technical Committee page of the ASHRAE website at the following link: <http://www.ashrae.org/tcs>

3. Request for each TC to briefly review ASHRAE Code of Ethics at start of meeting

See the following link for the latest version of the ASHRAE Code of Ethics:
www.ashrae.org/about-ashrae.

4. Make a Special Effort to welcome new Members, and Visitors to TC meeting

Potential new members for your committee have been encouraged to drop-by your meeting. As a result, please make a special effort to recognize and warmly welcome all visitors to your meeting – A TC can never have too many willing and able volunteers.

5. Is Your Committee Website up to Date?

If not, please ask your webmaster to at least post the latest minutes and the Kansas City meeting times and agenda. If your website has been neglected, add an action item for this meeting to appoint a responsible member of the TC/TG/TRG who will bring it back to life. The new TC website template has greatly simplified the duties of the TC webmaster and this form of communication is critical to the efficient operation of your committee, and for attracting new members. Please note a listserv is available to TCs to communicate with rostered members and all interested in keeping track of TC activities.

The recent conversion to a new TC website platform highlighted a couple areas where a refresher of the ASHRAE rules on website maintenance is warranted. First be aware that ASHRAE Products (i.e., handbook chapters, journal articles, final reports from research projects, etc.) cannot be published on your TC's website. It is very appropriate to post the title and scope of the product and then link the reader to the ASHRAE bookstore or other location on the ASHRAE site where the product may be purchased. Any possible exceptions to this rule must be sent through Mark Owen for review and approval (mowen@ashrae.org). The second issue involves timely posting of the draft minutes. Draft minutes (and final, approved minutes from the prior meeting) should be posted to your website (or otherwise distributed to the members) within 60 days after the meeting. Please ensure that your secretary and webmaster are aware of this deadline. To assist your secretary in understanding the procedures for taking and reporting minutes, a video has been developed and posted on the Technical Committees' Training page <http://www.ashrae.org/tcs>). On the same page, a video has also been posted for use by webmasters to learn about the procedures and schedule to maintain the new websites.

6. TC Master Calendar – Now Available through Google - The Technical Committee Master Calendar is now available through Google. In order to access this calendar you need to have a Google account.

Once you log into your Google account, follow the instructions below:

To add a friend's calendar, just follow these steps:

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Annual Meeting 2020

- At the bottom of the calendar list on the left, click Add and select Add a friend's calendar.
- Enter the appropriate email address (techservices1791@gmail.com) in the field provided, then click Add.

This calendar is public and will appear under 'Other Calendars' in the left column.

To set up Google Calendar Sync to your Outlook:

- Make sure you're using a supported operating system and Outlook version.
- Download Google Calendar Sync (version 0.9.3.6) at
- http://dl.google.com/googlecalendarsync/GoogleCalendarSync_Installer.exe
- Once a dialog box appears, click Save File. The downloaded file should open automatically. If it doesn't, manually open it from your browser's download window.
- Click OK to confirm that you're aware this is an executable file.
- Read through the Google Calendar Sync Terms of Service, and click I Agree.
- Follow through the Installation Options and click Install to finish the set-up process.

Once Google Calendar Sync is installed on your computer, the Google Calendar Sync Settings window will appear:

In the Settings window, enter your email address and password and select the Sync Option you prefer. Read about each Sync Option.

You'll also be able to set the time interval for syncing to occur. Please keep in mind that 10 minutes is the minimum time interval allowed.

After the initial set-up, you can access the Google Calendar Sync Settings window again by double-clicking the calendar icon in your Windows System Tray.

9. TC E-mail Position Aliases available

SY 19-20 TC Position e-mail alias addresses for the mandatory positions of the Technical Committee management team (Secretary, Standards Sub. Chair, Program Sub. Chair, Handbook Sub. Chair, and Webmaster) will stay in effect until July 22nd. The 19-20 E-mail Alias list with these position aliases is posted on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

10. Restructured TC MOP (Manual of Procedures)

TAC has restructured the TC MOP so that it is easier to navigate and find information. The new TC MOP can be found on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

11. Distribution of TC minutes changed in TC MOP

The TC MOP and *TC/TG/MTG/TRG Minutes Cover Sheet* form have both been updated and you are no longer required to send the TAC chair a copy of your minutes after each meeting. The new minutes cover sheet can be found on the ASHRAE website

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Annual Meeting 2020

www.ashrae.org/TCs under the headings *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs – Routine Forms for TC/TG/MTGs/TRGs*.

12. Updated TAC Presentation Template Available for TC members to use with local Chapter

TAC recently updated the standard presentation and presentation notes that TC members can use, without a lot of effort, to explain what TCs do for the Society and how that work benefits members in your local ASHRAE Chapter.

The new presentation and presentation notes files are posted now at the following link www.ashrae.org/tcs under the heading *General TC Information* at the top of the page in case you prefer to direct others to these files posted online. The presentation material is now also available in both English and Spanish.

13. Basecamp Information from ECC

More and more TCs and standing committees are making use of ASHRAE's subscription to Basecamp3 to better organize, store, and distribute on-line committee files that are needed for their meetings through a dedicated committee Basecamp site. If you would like to learn more about Basecamp and how to request a site for your particular committee, please go to the Electronic Communications Committee (ECC) web page: (<https://www.ashrae.org/communities/committees/standing-committees/electronic-communications-committee>) and scroll down to the section titled *Basecamp Guidance*

E. RECENT ANNOUNCEMENT

1. CEC's Standing Request for Future Society Meeting Program Track Suggestions

The Conferences and Expositions Committee (CEC) oversees ASHRAE's annual and winter conferences and other specialty conferences and expositions globally. The CEC continually works to improve the conference experience for all attendees. To help keep a "pulse" on the technical issues facing professionals in the HVAC&R marketplace, and to create meetings that reach all of ASHRAE's constituencies, the CEC seeks ideas for tracks for the Chicago 2021 Winter meeting and annual and winter conferences beyond as well as topics for specialty conferences from TC members.

Please submit your suggestions to ASHRAE Staff member Tony Giometti (Giometti@ashrae.org). You can also add your track suggestion in the "Comment" section of the TC Activity form for the Orlando meeting.

2. CEC Always Seeks TC Volunteers willing to Support Content Development and Quality Control for Society Technical Program at Society Meetings

Provide to your Section Head after each Society meeting a list of qualified volunteers from your TC that are potential Technical Session chairs and reviewers of session papers that are related to TC's scope for use by the Conferences & Expositions Committee (CEC) in developing technical content for future technical programs.

3. The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses.

The Professional Development Committee (PDC) is actively seeking ideas for new ASHRAE Learning Institute (ALI) courses. We need practical courses of broad interest to be presented as face-to-face seminars or short courses, instructor-led online courses and self-paced courses. Examples include courses with a focus on new technologies that need to be shared, fundamentals for engineers new to the discipline, standard applications that need explanation, and courses based on new design guides. Does your TC have a potential course idea?

Contact Karen Murray (ASHRAE staff) kmurray@ashre.org or PDCchair@ashrae.net with your course ideas.

4. ASHRAE Certification Committee seeking ideas from TCs for possible professional certification programs

Certification Committee seeking ideas from TCs for possible professional certification programs related to 1) support adaptability, resilience and recovery of buildings and communities, 2) promote understanding of indoor environmental quality (IEQ) among practitioners). Representatives from the Certification Committee will meet with TCs in Orlando that expressed an interest or had ideas.

F. CURRENT & UPCOMING ASHRAE CONFERENCE PROGRAMS

1. Austin Annual Conference - June 27 – July 1, 2020

Conference Website: www.ashrae.org/austin

Conference Program Chair: Bing Liu

Program Focus at Austin Annual Conference:

- i. Track 1: Fundamentals and Applications
- ii. Track 2: HVAC&R Systems and Equipment
- iii. Track 3: Research Summit
- iv. Track 4: Professional Development
- v. Track 5: Grid-Interactive Efficient Built Environment
- vi. Track 6: Multifamily and Residential Buildings
- vii. Track 7: Resilient Buildings and Communities
- viii. Track 8: Zero Energy Buildings and Communities: Opportunities and Challenges

2. Chicago Winter Conference – Jan. 23 – Jan. 2, 2021

Conference Website: <https://www.ashrae.org/chicago>

Conference Program Chair: Maggie Moninski

Program Focus at Chicago Winter Conference

- i. Track 1: HVAC&R Fundamentals and Applications
- ii. Track 2: Systems and Equipment
- iii. Track 3: Refrigeration & Refrigerants
- iv. Track 4: Environmental Health through IEQ
- v. Track 5: Building Performance and Commissioning for Operation and Management
- vi. Track 6: Energy Conservation
- vii. Track 7: International Design
- viii. Track 8: Standards, Guidelines and Codes
- ix. Track 9 (mini-track) based on Chuck Gullledge's Presidential Theme (to be announced and not accepting papers).

G. OTHER UPCOMING WORKSHOPS, CONFERENCES AND EVENTS

1. 2020

- i. 2020 Building Performance Analysis Conference & SimBuild Co-organized by ASHRAE and IBPSA-USA – August 12-14, 2020 – Chicago, IL - www.ashrae.org/conferences/topical-conferences/2020-building-performance-analysis-conference-simbuild (Virtual Conference)
- ii. IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ – September 14-16, 2020 – Athens, Greece - www.ashrae.org/iaq2020
- iii. 4th International Conference on Efficient Building Design: Materials and HVAC Equipment Technologies – October 1-2, 2020 – Beirut, Lebanon – www.ashrae.org/beirut.
- iv. Indoor Air 2020: Creative & Smart Solutions for Better Built Environments – November 1-5, 2020 Coex, Seoul, Korea - <http://indoorair2020.org/>.

2. 2021

- i. AHR Expo 2021 – January 25-28, 2021 – Chicago, IL - <https://ahrexpo.com/>

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Annual Meeting 2020

- ii. Ventilation 2021: 13th International Industrial Ventilation Conference for Contaminant Control – August 15-18, Toronto, Canada - www.ashrae.org/conferences/topical-conferences/ventilation-2021.



TAC



TC Chair - Vice Chair Breakfast

1

In all your interactions at these meetings,
please remember...

Code of Ethics


"As members of ASHRAE or participants in ASHRAE activities, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct. We will avoid conflicts of interest and behavior that is discriminatory and/or harassing."

2

Welcome and Introductions


- I am skipping introductions.
- Note that in the presentation, the abbreviation of TC is also applied to TG, TRG, and MTG. In TAC, we often refer to these groups collectively as Functional Groups (FG's).
- GoToWebinar –
 - Participants are on mute
 - Use chat feature to submit questions. Dustin Meredith will monitor.
- We will make this presentation available as a pdf and post on the Basecamp site
- All times in this presentation are US Eastern Time Zone



3

What is different for this "breakfast" meeting


- Breakout meeting with your Section Head is being held separately
- Steve Hammerling has forwarded to the TC Chairs the normal handout. Some of that information will be covered by the liaisons later. Other topics can be covered during your Section Head meeting.



4

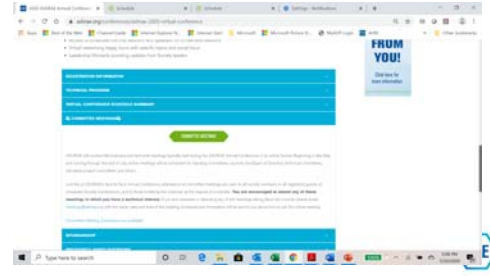

Agenda

Topic	Presenter	Time
Information for TC Leadership	TAC Chair	30 mins
Liaison Reports <ul style="list-style-type: none"> Tech Council (Dennis Knight) if available CEC (Michael Collarin) REF-CPCC (Rajan Rajendran) EHC including ETF update (Wade Conlan) RAP (Reinhard Radermacher) RAC (David Yashar) RBC (Paul Francisco) 	Liaison Reports	30 mins
TC Chairs Training - There is Change in the Air	Victor Goldschmidt	60 mins



5

Committee Meeting Schedule is Available

6

Virtual Meeting

- TC/TRG/MTG Meetings from June 1 to July 21
 - TC members should receive the invite/log in information from the TC chairs. TC chairs are receiving this information this week.
 - If you are interested in attending any of the meetings taking place this summer please email meetings@ashrae.org with the name, date and time of the meeting of interest no later than close of business the day before the meeting and information will be sent to you about how to join the online meeting.
- TAC - June 25, 9 AM to noon and 1 to 3 PM
- TAC – July 22, 9 AM to noon
- TC and TAC Roster rollover date is August 1

All times are US Eastern Time Zone



7

ASHRAE 2020 Virtual Conference Event Planning

Following are events of importance to TC Leadership

TC Chairs / V-Chairs Breakfast + Training Wed, May 27 8:00 – 10:00 AM
or Thurs, May 28 3:00 – 5:00 PM

For Subcommittee Chairs:

• Handbook Training Workshop Friday, June 5 10:00 – 11:00 AM
• TC Program SubC Training Tuesday, July 7 1:00 – 2:00 PM

All times are US Eastern Time Zone



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ASHRAE 2020 Virtual Conference Event Planning

Research Subcommittee Chairs

Recording PPT for Breakfasts	7/8/2020	9:00am	11:00am
Research Subcommittee Chairs Sec #1	7/13/2020	8:00am	10:00am
Research Subcommittee Chairs Sec #2	7/13/2020	10:00am	12:00pm
Research Subcommittee Chairs Sec #3	7/14/2020	8:00am	10:00am
Research Subcommittee Chairs Sec #4	7/14/2020	10:00am	12:00pm
Research Subcommittee Chairs Sec #5	7/15/2020	8:00am	10:00am
Research Subcommittee Chairs Sec #6	7/15/2020	10:00am	12:00pm
Research Subcommittee Chairs Sec #7	7/16/2020	8:00am	10:00am
Research Subcommittee Chairs Sec #8	7/16/2020	10:00am	12:00pm
Research Subcommittee Chairs Sec #9	7/17/2020	8:00am	10:00am
Research Subcommittee Chairs Sec #10	7/17/2020	10:00am	12:00pm



9

ASHRAE Virtual Conference TC Chairs Deliverables

By the end of the day, Tuesday July 21, you should have entered or submitted to your Section Head:

- TC Activity Form

Download the current TC Activity Form from the *TAC Sections & TC leadership* Basecamp site



10

Other 2020 Virtual Conference Topics

- Certificates of Appreciation to outgoing TC Chairs
 - Your choice for receipt:
 1. Virtually, during your TC meeting,
 2. In person during the Chicago meeting, or
 3. From your Chapter president, during an upcoming, in-person Chapter meeting

Coordinate with your Section Head



11

TC Reorg

- The TC ReOrg committee was organized as an ad hoc committee, led by Sarah Maston.
- An update was distributed to TC Chairs in late December
- Since then, the TC ReOrg committee held their final meeting in January. They are preparing a report and recommendations to deliver to TAC.
- Going forward, the TC ReOrg will be handled by a new team within TAC, led by Larry Smith.



12

TC Reorg

For those TC's that have decided to merge, you need to:

- Vote on the revised Title & Scope. Any combining TC's need to be voting on the same Title & Scope.
- Proposed leadership and voting roster need to be completed.
- Please work closely with your Section Head.
- So far, TAC has approved 4 TC mergers – 3.2 & 3.3, 8.10 & 8.12, 9.4 & 9.8, 7.3 & 7.8.

For those TC's still in the discussion phase, please keep your Section Head aware of your discussion status.



13

TC Reorg

Section 1.5 of the TC MOP calls for an annual review of each TC:

1.5.1 Once a year, preferably at, or prior to, each Annual meeting, the Committee Chair and Committee Membership shall evaluate their progress in accomplishing the purpose for which they were constituted and recommend one of the following actions...

For TC's, those actions are to continue, merge, or dissolve.



14

George B Hightower Technical Achievement Award

• ASHRAE GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD NOMINATION FORM

- In recognition of exceptional service in the area of technical leadership and technical contribution **in the past four years.**
- Eligibility Points: While this award is given on the basis of service **in the past four years** as described in the nominator's statement, nominees must have earned a minimum of 10 points for career service on the nominating TC/TG. Eligibility points are defined in the form.
- Due date – September 1



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George B Hightower Technical Achievement Award History

- | | |
|---------------------------------------|--|
| • 2003-2004 Richard L. Hall – TC 8.1 | • 2012-2013 Lucas Hyman – TC 1.10 |
| • 2004-2005 <i>No nomination</i> | • 2013-2014 Gursaran Mathur – TC 5.7 |
| • 2005-2006 George Briley – TC 10.1 | • 2014-2015 John Carter – TC 4.3 |
| • 2006-2007 <i>No nomination</i> | • 2015-2016 Steve Duda – TC 4.3 & TC 9.1 |
| • 2007-2008 Howard J McKew – TC 9.1 | • 2016-2017 Paul Lindahl – TC 3.6 & TC 8.6 |
| • 2008-2009 Paul Miclea – TC 5.9 | • 2017-2018 Art Halstrom – TC 1.6 |
| • 2009-2010 Dharam Punwani - TC 1.10 | • 2018-2019 David Moss – TC 9.9 |
| • 2010-2011 Gary Phetteplace – TC 6.2 | • 2019-2020 Devin Abellon – TC 6.5 |
| • 2011-2012 Don Beaty – TC 9.9 | |



16

TC Manual of Procedures (MOP)

- Latest update available on ASHRAE website
- Outlines membership Categories & Requirements
- Summarizes the responsibilities of the executive committee
- Defines TC purpose & scope
- Lists the ASHRAE acronyms
- Guide to parliamentary motions in Appendix H



17

Reminders

- TC meetings are open, with the exception of Executive Session
- Accommodate time for your Section Head during your meeting
- You may have quite a few attendees at your virtual meeting. Develop a plan for providing them the floor. Remember, as Chair, you control the meeting.



18

Equipping Yourself to Serve as TC Chair

- Take advantage of all training opportunities
- Recruit strong sub-committee chairs
- Read ASHRAE's TC MOP
- Study Robert's Rules of Order
- Establish and Maintain a Vision
- Recognize Extra Efforts



19

Interim Meetings – New Announcement Procedure

- We will initiate a listing of the interim meetings on the Technical Committees webpage (<https://www.ashrae.org/technical-resources/technical-committees>), similar to the listing done for Standards.
- TC interim meetings should be **posted** (by emailing the alias TCmeetings@ashrae.net) **two weeks before an online meeting** and **four weeks before a face-to-face meeting**. The person emailing should also include the meeting call-in info/ link for posting.



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Interim Meetings – New Announcement Procedure (Cont)

- To keep our members apprised of the meetings, we will add a notice in the ASHRAE Journal Newsletter (bimonthly) to remind our members to check the listing and to provide a link to the list.



21

2019–2024 ASHRAE Strategic Plan

- Mission - To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.
- Vision - A healthy and sustainable built environment for all.
- Values – Excellence, Commitment, Integrity, Collaboration, Volunteerism, Diversity



22

2019–2024 ASHRAE Strategic Plan

Goals:

1. Position ASHRAE as an Essential Knowledge Resource for a Sustainable, High-Performance Built Environment
2. Maximize Member Value and Engagement
3. Optimize ASHRAE's Organizational Structure to Maximize Performance



23

2019–2024 ASHRAE Strategic Plan

Strategic Plan Areas and Initiatives:

Initiative Area: Built Environment of the Future

1. Resilient Buildings and Communities
2. Indoor Environmental Quality

Initiative Area: Future of ASHRAE

3. Organizational Streamlining
4. Improve Chapter Engagement, Capacity and Support



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Thank You

Thank you for all you do for ASHRAE! Your contributions to society are important and appreciated.



25



TAC

TC Chair - Vice Chair Breakfast
2020 Virtual Annual Meeting

Conferences & Expositions Committee (CEC)

26

2020 Virtual Conference

What to Expect

80 on-demand sessions • 12 live sessions • 82 technical sessions
at your fingertips for 18 months.

On-demand Technical Program: Available Monday, June 22

- 80 sessions accessible on your terms for 18 months
- Conference proceedings, Download the technical papers, conference papers and extended abstracts.

Live Four Day Event: Monday, June 28 - July 2

- 12 featured technical sessions presented live and available for download
- Sessions addressing the latest information relating to the COVID-19 pandemic
- Live forum for Q&A with speakers
- Access to scheduled live chat sessions with speakers for on-demand sessions
- Virtual networking happy hours with specific topics and social hours
- Leadership Moments providing updates from Society leaders

- TC Program Subcommittee Training - Tuesday, 7/7/2020 1:00-2:00 PM EDT



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2021 Winter Conference - Chicago

Track #	Track	Track Chair
1	HVAC&R Fundamentals and Applications	Robert Cox bob.cox@jacobs.com
2	Systems and Equipment	Dr. Marianna Vallejo marianna.vallejo@jacobs.com
3	Refrigeration and Refrigerants	Gary Debes gary.debes@comcast.net
4	Environmental Health Through IEQ	Stephen Idem sidem@trintech.edu
5	Building Performance and Commissioning for Operation and Management	Lee Ribick lee.ribick@gmail.com
6	Energy Conservation	Nivedita Jadhav niv2307@gmail.com
7	International Design	Farhan Mehboob farhan.mehboob@smehboob.com
8	Standards, Guidelines and Codes	Kyle Inge klinge@burns-group.com



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2021 Winter Conference - Chicago

Deadlines:

Monday, June 15, 2020: Website Opens for Seminar, Workshop, Forum, Debate, and Panel Proposals

Wednesday, July 8, 2020: Final Conference Papers Due - Submitted for Review (Includes Bio, Learning Objectives and Methods of Assessment); Request for Conference Paper Sessions Due

Monday, July 27, 2020: Conference Paper Accept/Revise/Reject Notifications

Monday, August 3, 2020: Website Closes for Seminar, Workshop, Forum, Debate, and Panel Proposals

Monday, August 10, 2020: Revised Conference Papers/Final Technical Papers Due

Monday, August 24, 2020: Conference and Technical Paper Final Accept/Reject Notifications

Monday, October 5, 2020: Seminar, Workshop, Forum, Debate, and Panel Accept/Reject Notifications



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Upcoming Topical Conferences

Date	Conference	Location
August 12 – 14, 2020	2020 Building Performance Analysis Conference & SimBuild Co-organized by ASHRAE and IBPSA-USA	Chicago, IL
September 14 – 16, 2020	IAQ 2020: Indoor Environmental Quality Performance Approaches	Athens, Greece
October 1 – 2, 2020	The Fourth International Conference on Efficient Building Design	Beirut, Lebanon
August 15 – 18, 2021	Ventilation 2021: 13th International Industrial Ventilation Conference for Contaminant Control	Toronto, Canada

<https://www.ashrae.org/conferences/topical-conferences>



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TAC

TC Chair - Vice Chair Breakfast


2020 Virtual Annual Meeting

Refrigeration Technology Committee Comfort – Process – Cold-Chain

31

New REF-CPCC Subcommittee Structure

- New REF-CPCC Subcommittees:
 - In order to better collaborate with TCs & others 7 new subcommittees were created as follows:
 - Awards Subcommittee – Chair: Ayman Eltalouny
 - Cold-Chain Subcommittee – Chair: Dustin Lilya
 - HVAC Subcommittee – Chair: Walid Chakroun
 - Program Subcommittee – Chair: Steven Gill
 - Research Subcommittee – Chair: Yunho Hwang
 - R in ASHRAE Subcommittee – Chair: Didier Coulomb
 - Ref. Tech Report Subcommittee – Chair: Martin Dieryckx
 - All subcommittee meetings will be held via web meetings and held between Society meetings in order to allow for easier participation.




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Refrigeration Technology Committee for Comfort – Process – Cold-Chain – REF CPCC

It is our hope that these new subcommittees will bring a greater focus on the R in ASHRAE issues and opportunities and provide a new communication and collaboration vehicle between Society level TC members, Regions, and Chapters.

More information on each new REF-CPCC subcommittee, their scope, objectives, and upcoming meetings dates and times can be obtained from REF-CPCC staff liaison – Mike Vaughn via e-mail at MORTS@ashrae.net



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TAC

TC Chair - Vice Chair Breakfast


2020 Virtual Annual Meeting

ENVIRONMENTAL HEALTH COMMITTEE (EHC)

34

EHC - Update


- Re-Organizing EHC to the following sub-committees
 - <https://www.ashrae.org/communities/committees/standing-committees/environmental-health-committee-ehc>
 - Policy
 - Identify major environmental health trends impacting HVAC&R
 - Create Recommend policies for Emerging Issues Briefs, Position Documents and RP
 - Education
 - IEQ column in the ASHRAE Journal
 - Handbook chapter
 - Coordination and Outreach
 - Interaction – internal to ASHRAE committees
 - Interaction - external societies
 - ExCom



35

EHC - Update

- Issued the following documents this past year;
 - EIB: Pandemic COVID-19 and Airborne Transmission (April 17, 2020)
 - <https://www.ashrae.org/file%20library/technical%20resources/covid-19/eiband-airbonetransmission.pdf>
 - PD: Infectious Aerosols (April 14, 2020)
 - https://www.ashrae.org/file%20library/about/position%20documents/pd_infectiousaerosols_2020.pdf
 - Handbook: 2021 Fundamentals Chapter 10
- Documents being worked on currently
 - PD: Indoor Air Quality
 - PD: Environmental Tobacco Smoke
 - PD: Indoor Carbon Dioxide
- To be considered
 - EIB: 3D Printers
 - EIB: Indoor Environmental Impact of Climate Change



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Epidemic Task Force (ETF) - Update

- EHC Cognizant to Epidemic Task Force (ETF) per of ASHRAE ExCom
 - ETF was established to help deploy ASHRAE's technical resources to address the challenges of the current pandemic and future epidemics as it relates to the effects of heating, ventilation, and air-conditioning systems on disease transmission in healthcare facilities, the workplace, home, public and recreational environments.
- Primary role is for the ETF to communicate with those involved in the built environment:
 - Review all technical questions/requests for technical guidance submitted
 - Coordinating activities of ASHRAE's internal resources
 - Partnering with and monitoring the activities of external organizations, including the more than 60 members of the [ASHRAE Associate Society Alliance \(AASA\)](#) of organizations related to the HVAC&R industry around the world
 - Reviewing, organizing, consolidating and publishing clear and concise summaries with citations of the most relevant information available to the built environment



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Epidemic Task Force (ETF) - Update

- Supported expedited update of [Position Document on Infectious Aerosols](#). Board Approved April 14, 2020. (First published in 2009)
- ASHRAE statements on SARS-CoV-2
- Expedited the EIB "Pandemic COVID-19 and Airborne Transmission"
- COVID-19 resources/guidance page [ashrae.org/covid19](#)
- Answers to over 350 questions to web site ([COVID-19@ashrae.org](#))
- Meetings with AIA, NYSEDA, DOE, IEA
- Partnership with government on HVAC for alternate care facilities (USACE, USAF, USN, NIOSH)
- Reviewed/commented on state guidance (Florida, Michigan)
- Working on...
 - Immediate guidance for current COVID-19 Pandemic
 - Near term guidance for 2nd wave
 - Long term guidance to future proof



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Epidemic Task Force (ETF) - Update

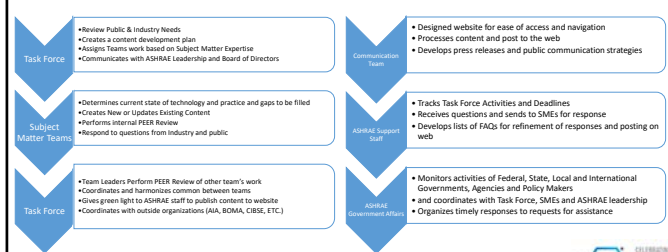
Focus Areas as of May 18, 2020

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Healthcare (including long-term care) • Residential • Commercial / retail • Schools • Transportation • Building Readiness | <ul style="list-style-type: none"> • Resource inventory • Science / literature review • Filtration and disinfection | <ul style="list-style-type: none"> • Communications • Grassroots • Advocacy / developing economies • External partnerships |
|--|--|--|



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Epidemic Task Force (ETF) - Update



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Epidemic Task Force (ETF) - Update

Representation on the ETF Teams:

- Section 1: 1.4, 1.5, 1.8, 1.9, 1.12
- Section 2: 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 2.9, 2.10
- Section 3: 3.3, 3.6
- Section 4: 4.1, 4.2, 4.3, 4.4, 4.7, 4.10
- Section 5: 5.3, 5.5, 5.6, 5.10
- Section 6: 6.1, 6.2, 6.5, 6.7, 6.9
- Section 7: 7.1, 7.3, 7.5, 7.6, 7.7, 7.8, 7.9
- Section 8: 8.3, 8.6, 8.10, 8.12
- Section 9: 9.1, 9.2, 9.3, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 9.12
- Section 10: 10.2, 10.6



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Epidemic Task Force (ETF) - Update

Voting

- Bill Bahnfleth – Chair, (External Contacts)
- Wade Conlan (Bldg. Readiness, Resources)
- Jason DeGraw (Transportation)
- Traci Hanegan (Healthcare)
- Rick Hermans (Schools, Grassroots)
- Luke Leung (Commercial, Retail)
- Steve Martin (Filtration)
- Jim Ridenhour
- Max Sherman (Residential)
- Stephanie Taylor (Science)

For technical guidance, visit
[ashrae.org/covid19](#)

Non-Voting

- Walid Chakroun (Advocacy, GAC)
- Dennis Knight (Communications, ExO)
- Jay Kohler (TAC)
- Wayne Stopplemoor (Stds)

Society Staff

- Vanita Gupta (Director of Marketing)
- Steve Hammerling (Manager or Technical Resources)
- Stephanie Reiniche (Director of Technology)
- Alice Yates (Director of Government Affairs)



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TAC

TC Chair - Vice Chair Breakfast

2020 Virtual Annual Meeting

Research Advisory Panel

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ASHRAE Research Strategic Plan Development

- Research Advisory Panel kick-off November 2019
- Update to coordinate with ASHRAE Strategic Plan
- 4 Meetings held
- Survey conducted and evaluated
- Survey had 700+ responses, ran mid January through mid February


RAP Membership	
Reinhard Radermacher (Chair)	Chris Wilkins (RAC VC)
Larry Markel (past RAP)	Pawel Wargocki (Intl)
Eckhard Groll	Kishor Khankari
Allen Chad Kirkwood	Dawen Lu
Chun-cheng Piao	Agami Reddy



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Current Status

- Derived 7 Initiatives (Working Titles)
 - Understanding IEQ and Impact on Productivity, HVAC airborne pathogen transmission and control
 - Education and Outreach
 - Sustainability – Energy and Resources
 - Resilience for buildings and communities
 - Tools and Standards
 - HVAC Components including new refrigerants
 - Leveraging ASHRAE Research
- Drafting in Progress



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TAC

TC Chair - Vice Chair Breakfast


2020 Virtual Annual Meeting

Research Administration Committee

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Research Budget



- Typically \$2.6M - \$2.7M per year
 - Donations
 - Research Promotion sponsored events
 - AHR Expo contribution
- Funds collected in a given SY becomes RAC budget in next SY
- Funds:
 - Research Projects – 12-15 new projects per year
 - Grants and Awards
 - Innovative Research Grants (\$125k over 3 years)
 - New Investigator Award (\$125k over 3 years)
 - Grant in Aid – Typically 20-25 per year @ \$11,500



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Fiscal Impact from Covid-19

- Reduced revenue from closures, cancellations, austerity
- Top Priority: Ensure continuity of core function
 - TC developed research addresses members most direct needs
- Unsolicited Research Projects (URPs) will not be considered for now
- Grants and awards will be delayed until budget is approved, may be suspended
- Encourage your members to donate to ASHRAE research!

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TAC


TC Chair - Vice Chair Breakfast

Residential Buildings Committee

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Residential Buildings Committee


- Currently in its 5th year as a standing committee under Tech Council
- Mission is to help ASHRAE have a greater impact in the residential space
 - Internally – help coordinate and facilitate residential activities that help stakeholders
 - Externally – communicate with stakeholders to identify needs and disseminate ASHRAE products



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Residential Buildings Committee

- In the process of analyzing input from external stakeholders regarding priority needs of the residential sector
 - Identify those suited to ASHRAE
 - Prioritize
- In the process of identifying priority TCs for residential activities but which do not have current RBC member – will seek formal liaison



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There is Change in the Air

ASHRAE TAC
FG Chair Training
May 27,28 2020

Victor Goldschmidt
(email: creating2@earthlink.net)
231 386 9058

Clarification:

- training
- educating

Clarification:

■ Training

- ...prepare for a contest...
- ...prepare for a sport...
- ...teach, as an animal, to do tricks



Clarification:

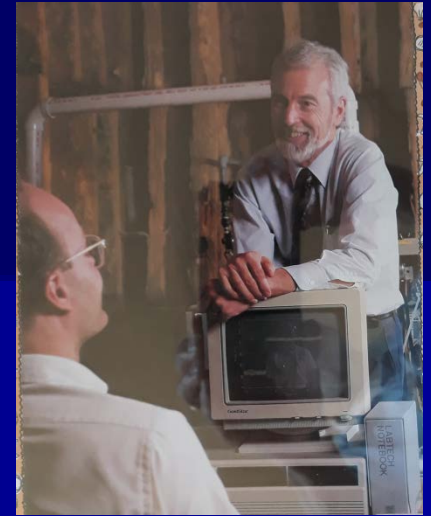
■ Training



.....XXXXXXXXX.....



Clarification:

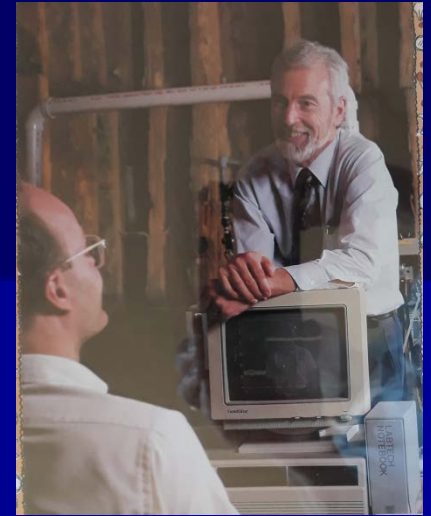


- Educating

- ...preparing for a special profession or vocation...
- ... develop or train the mind

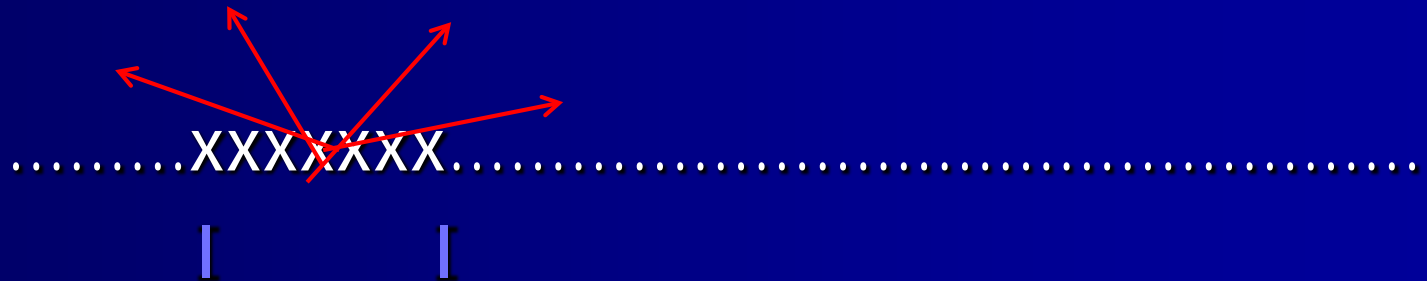
Webster's New American Dictionary 1939

Clarification:



■ Educating

- ...preparing for a special profession or vocation...
- ... develop or train the mind



"TARGETS"

- Change is inherent
- Path is unknown
- Ultimate purpose

An example of "change"

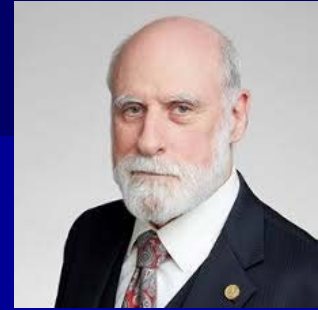
- 1971, Ray Tomlinson, first email; related to ARPANet



- 1975 The first commercially successful personal computer
In 1975, Ed Roberts coined the term "personal computer" when he introduced the Altair 8800.



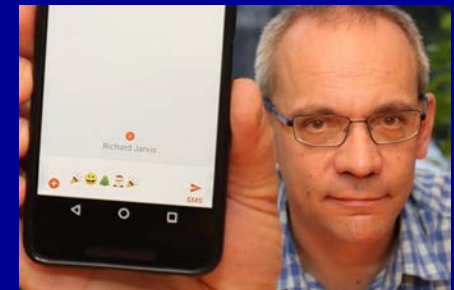
- 1978 credited as internet originators: Bob Kahn and Vint Cerf



- 1989, Sir Tim Berners-Lee invented the www



- 1992, December first text message by Neil Papworth



- February 2005 Youtube
Chad Hurley, Steve Chen,
and Jawed Karim (at that
time all employees with
PayPal)

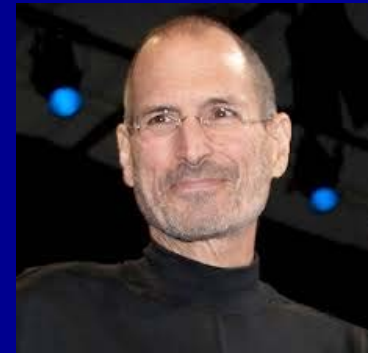


- April 2011 ZOOM Eric Yuan
(formerly Cisco Webex)



"SMARTPHONES"

- 1992 first true , Simon, created by Frank J. Canova Jr, & Jerry Merckel of at the IBM Florida Research Labs
- 2007 first i-phone, Steve Jobs, Apple
- 2018 Google Android, Andy Rubin





SHAKEY

CHANGES

Financial

Divorces

Domestic Violence

*SHAKEN
CHANGES*

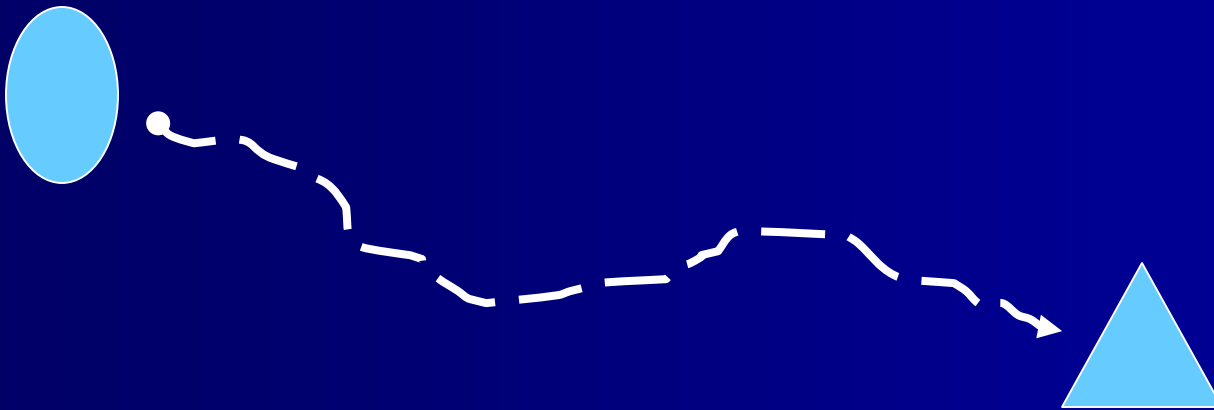
Suicides

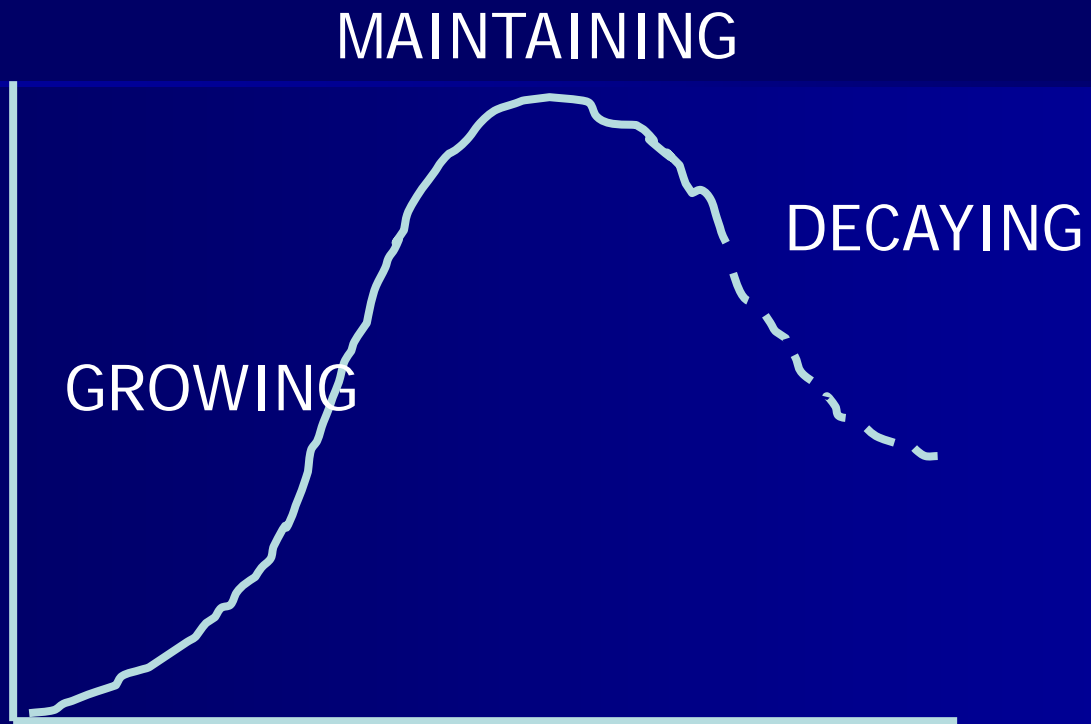
Mental Health



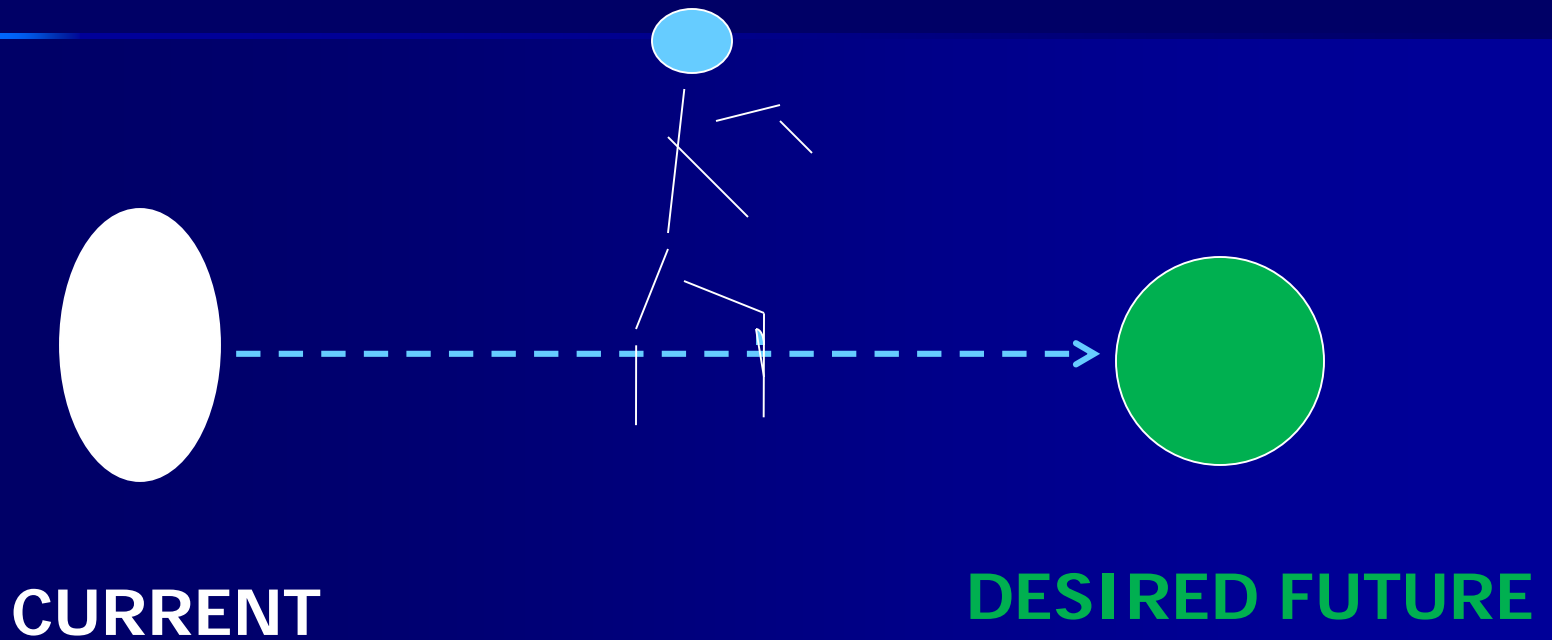
CHANGE

"Going from one state to another"






Change!





A scenic photograph of a winding asphalt road on a mountain. The road curves through a lush green forest and rocky terrain. A white car is visible in the distance on the upper curve, and a red car is on the lower curve. A stone wall runs along the edge of the road in the foreground. A green rectangular box with white text is superimposed over the center of the image.

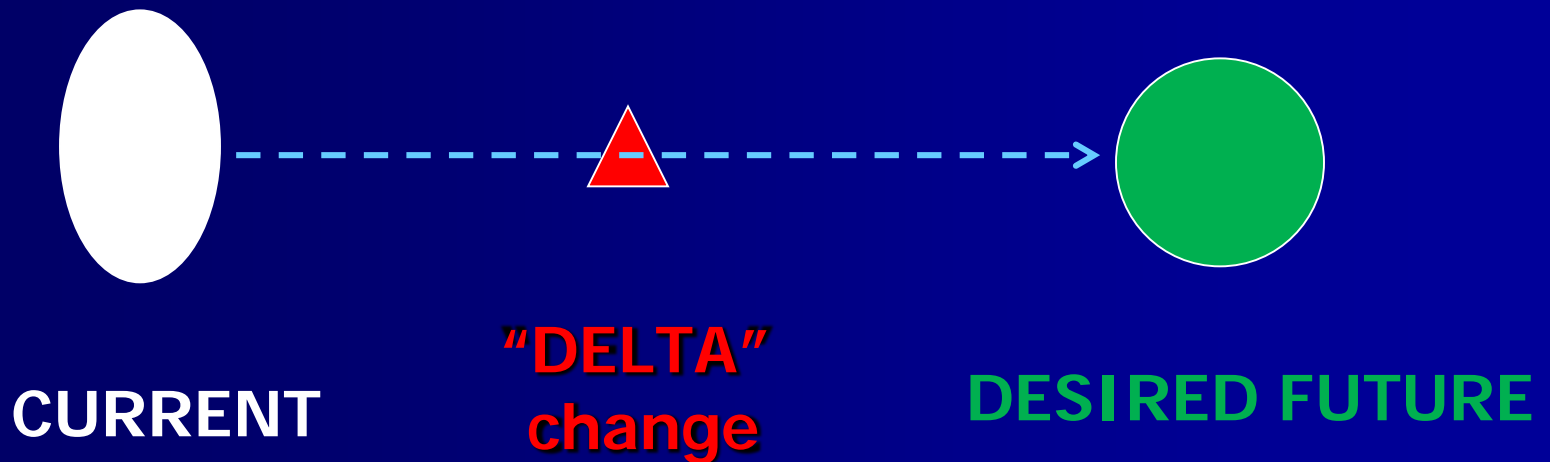
WITH A CLEAR FUTURE
NEVER LOOK BACK

The image shows a winding asphalt road with yellow double lines, curving through a lush green forest on a hillside. A red car is visible on the road. A stone wall runs along the edge of the road in the foreground. A green rectangular box is superimposed over the center of the image, containing white text.

NEVER EXTRAPOLATE
(creativity is irrational and
revolutionary)

Defining Change

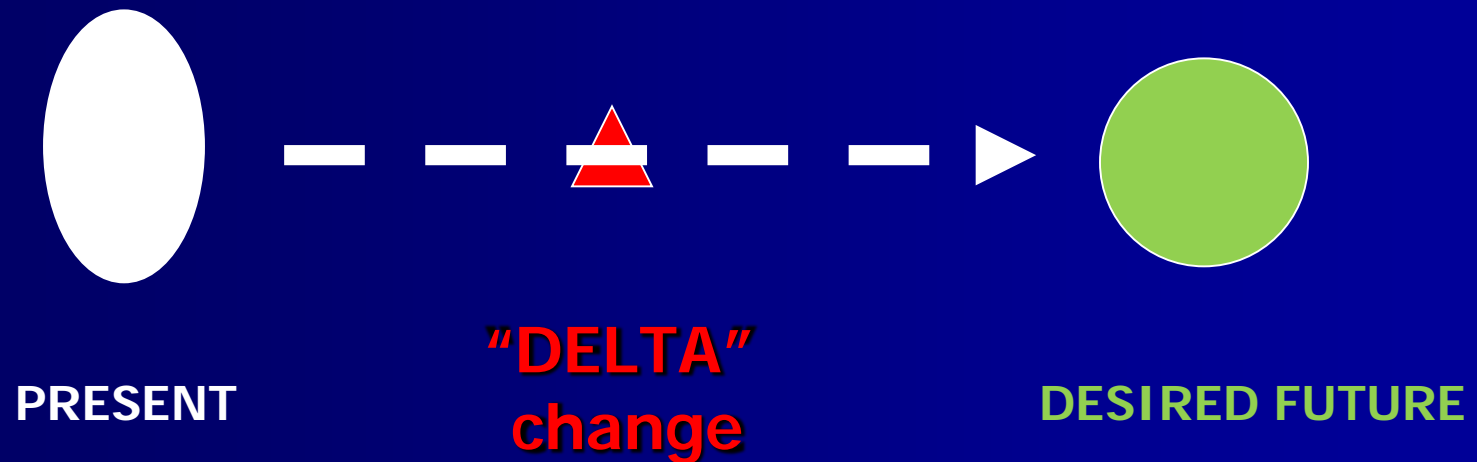
- Change is the “delta”



Implications:

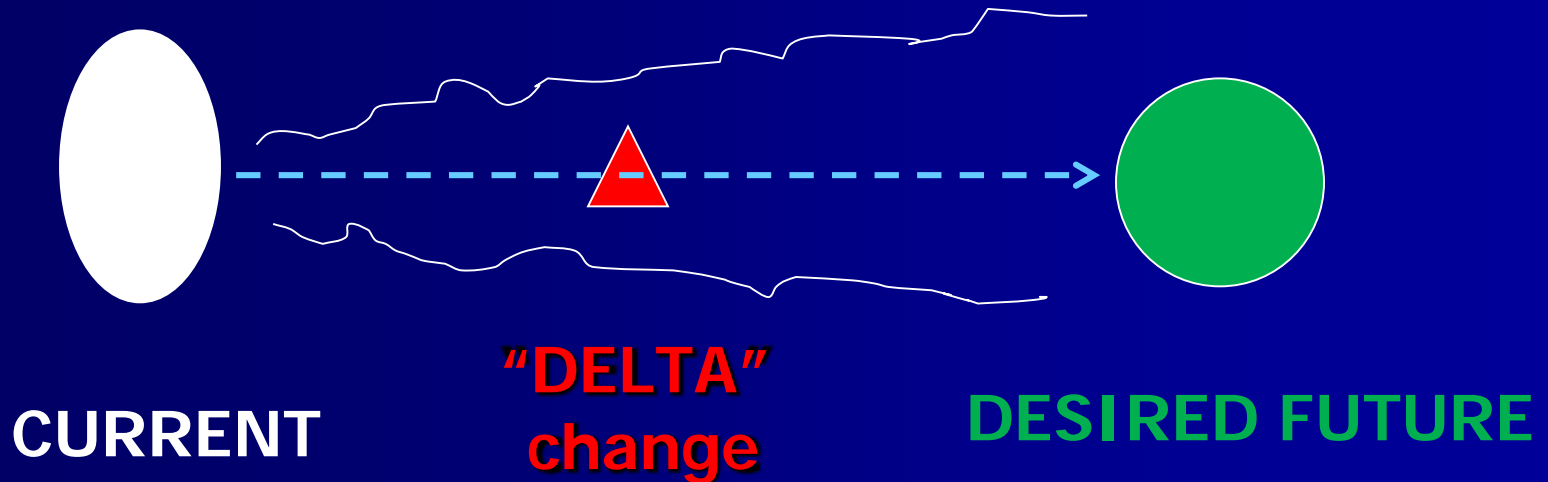
Define the Future

don't look back!



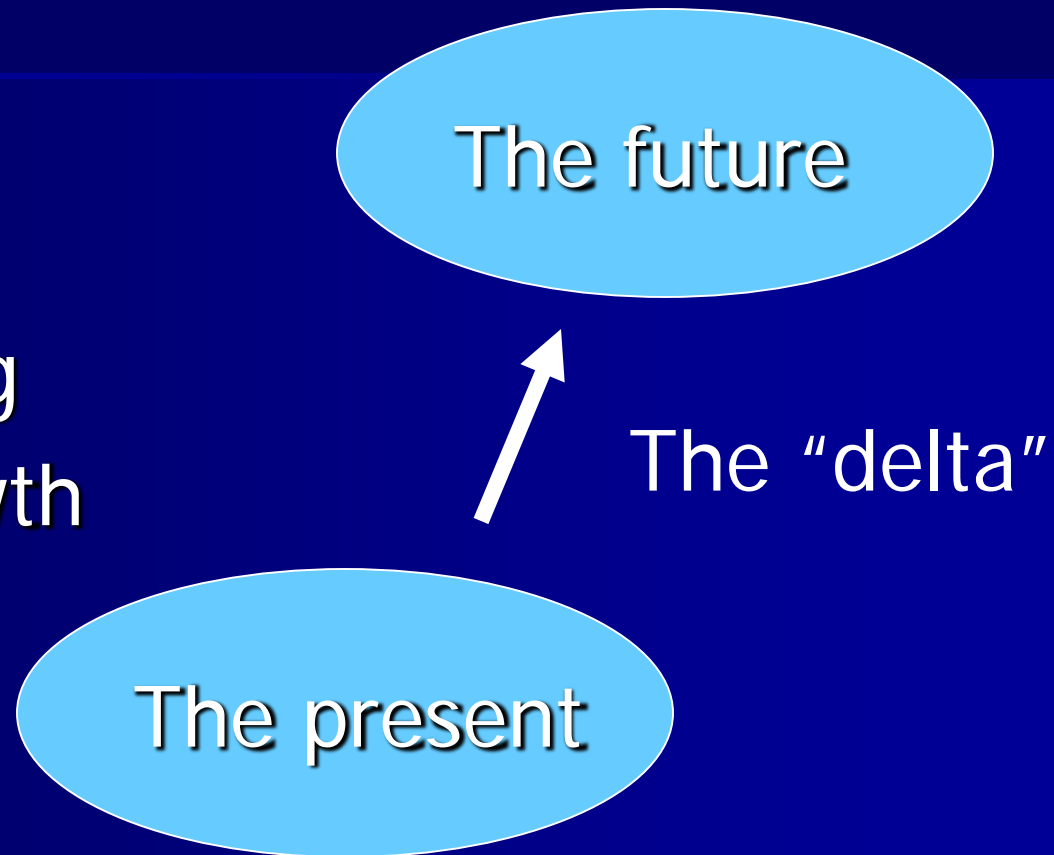
Defining Change

- Define the Boundaries
- Clear Vision



The "delta"

- Exciting
- Energizing
- New growth



The "delta"

- Neither the present or the future.
- Unfamiliar, uncomfortable
- Costly
- Not safe

The future

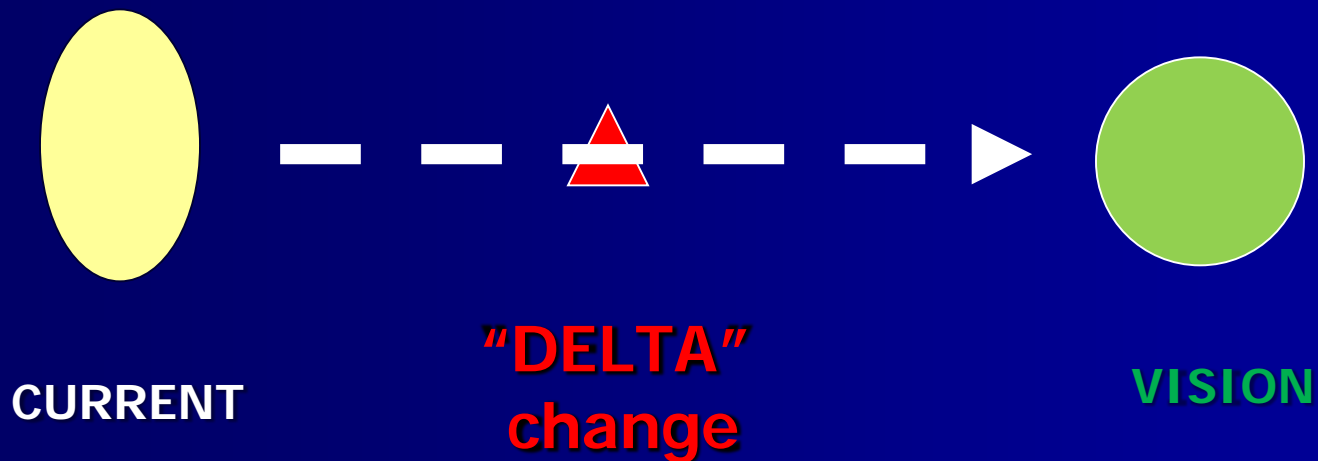
The "delta"

The present



In the presence of change...

30% supportive
50% observers
20% blockers



CHANGE: WOW

- "Only wet babies like change" (anon.)

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- "Growth without change is impossible"

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- "Change without vision is of waste"
- "Changing others without changing self is hypocrisy"
- "Change will always cause waves"
- "Can manage change or be managed by change"

ENVISION

EVALUATE

The
5 E's

EQUIP

EDIFY

EMPOWER

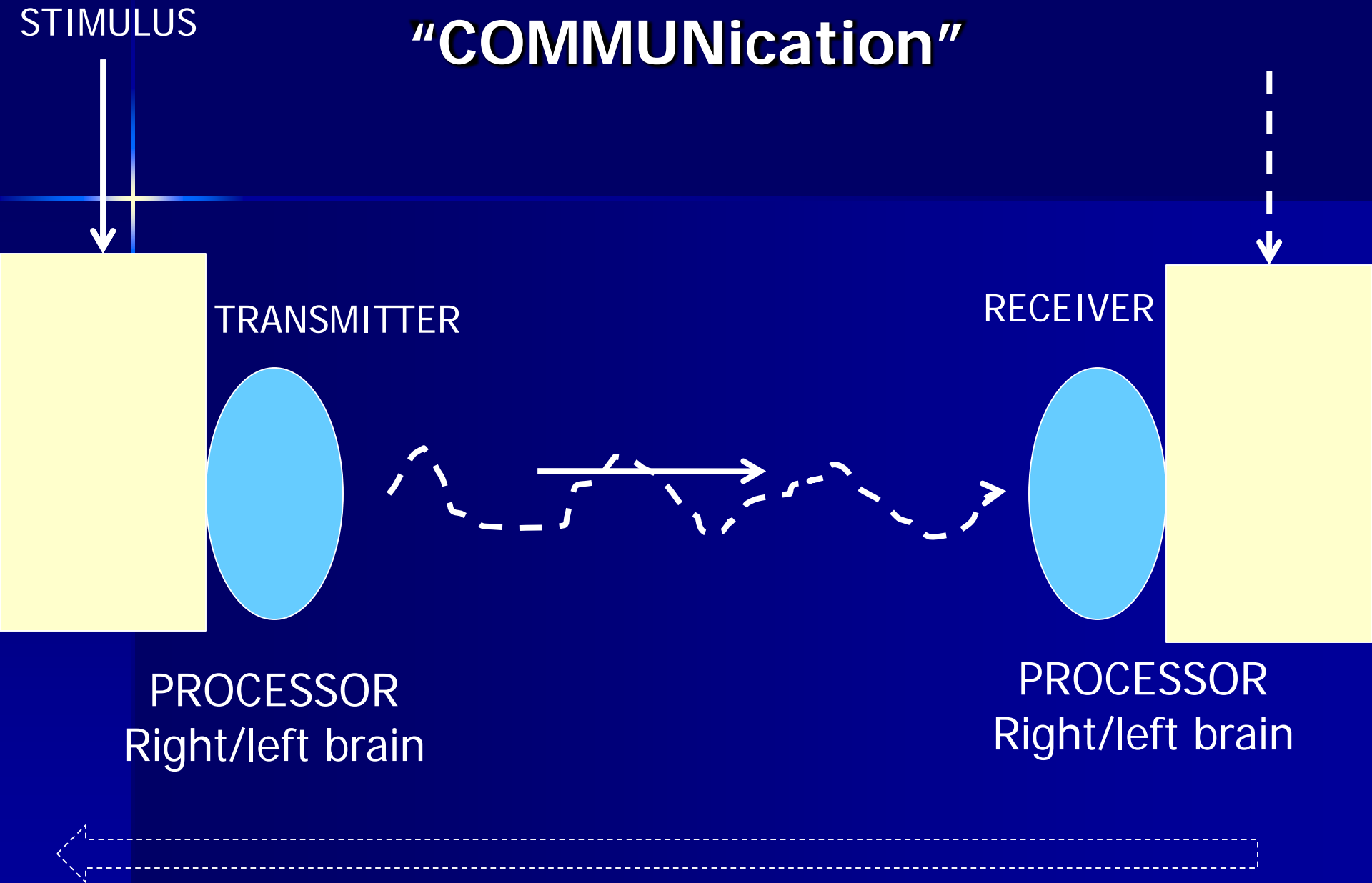
There is change in the air

- Do you have a vision for your FG?
- Prepared to manage the change?

There is change in the air

- Do you have a vision for your FG?
- Prepared to manage the change?
- How best to communicate?

"COMMUNication"



How many sensors in use?



Clarification:

- effectiveness
- efficiency

Clarification:

- **Effectiveness** - the degree to which something is successful in producing a desired result; success.
- **Efficiency** - achieving maximum productivity with minimum wasted effort or expense.

Clarification:

- Effectiveness - focus on hitting target
- Efficiency – focus on cost and time

Examples: conflict resolution: by email or by phone?

- Effectiveness - focus on hitting target
- Efficiency – focus on cost and time

Examples: new product development: by co-located group, email, or virtual meeting?

- Effectiveness - focus on hitting target
- Efficiency – focus on cost and time

Examples: project review of funded research: by co-located group, email, or virtual meeting?

- Effectiveness - focus on hitting target
- Efficiency – focus on cost and time

Examples: annual strategic planning: by co-located group, email, or virtual meeting?

- Effectiveness - focus on hitting target
- Efficiency – focus on cost and time

Examples: review and update of action items: by co-located group, email, or virtual meeting?

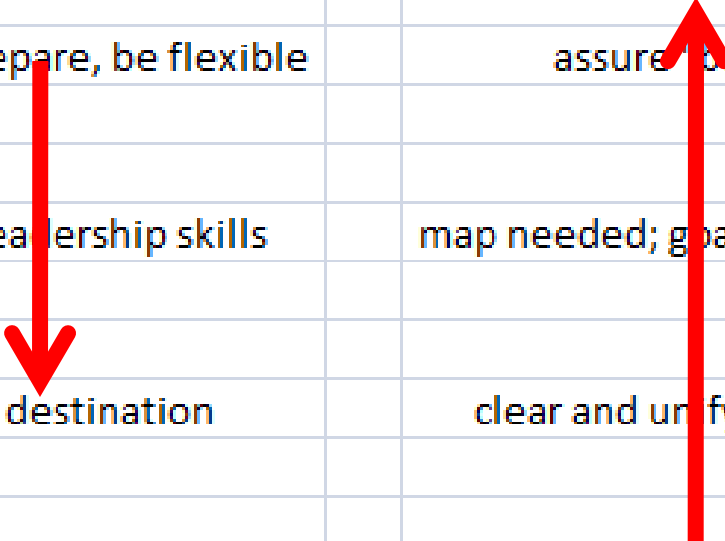
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- Efficiency – focus on cost and time

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	CHANGE IS INHERENT		anticipate, prepare, be flexible		assure "buy-in"	
	PATH IS UNKNOWN		apply 5 Es leadership skills		map needed; goals/objectives	
	ULTIMATE PURPOSE		ultimate destination		clear and unifying vision	

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Random off-the-cuff thoughts

- The mystique of two meetings/year

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- Virtual: timeliness/participation

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- Relationship to trade show might not be a big issue

What I Might do if...

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- Appoint an oversight team for personal follow-up with the ad-hoc groups.
- Celebrate all accomplishments with objectives met.

In the form of Summary

- * Change is inherent and inevitable**
- * We can master the change with new paradigms**
- * Changes in the way we communicate could be an asset**
- * Not all will embrace the mechanics of change, but all should embrace an energizing vision of what our Functional Groups can accomplish**

Change brings stress and the pathway might feel like quicksand, we can always find a Rock on which to stand



Questions?

Thanks!

Victor Goldschmidt

Email: creating2@earthlink.net

231 386 9058





Shaping Tomorrow's
Built Environment Today

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<http://www.ashrae.org>

Final Report of the TC Reorganization Adhoc

History

Back in June 2018, this adhoc was created on TAC's authority, to review ideas for making Functional Groups (FGs), that include TCs, TGs, MTGs & TRGs, more effective and efficient. The idea of a reorganization had been reviewed by a previous Presidential Adhoc, which had completed some research, but they fell short of developing an implementation plan. This adhoc started with the research that was done previously and worked to move forward. We started by surveying the TC Chairs and Vice Chairs, to glean their thoughts and ideas about our structure and effectiveness. This was done as a S-W-O-T (Strengths/ Weaknesses/ Opportunities/ Threats) analysis, which was based on the previous adhoc's research. We received over 85 responses, and from these, the following issues rose to the top:

- Non-Disciplinary; working in silos; too specific; need wider perspective
- Management of stagnant TCs and membership
- Meeting and working only at the meeting; don't meet often enough
- Takes too long to change things; get discouraged
- Maintain industry leadership
- Do better job of sharing best practices
- Declining leadership

To implement sustainable change, we believe that it needs to come from within. This adhoc consisted mostly of TAC members, and TAC will continue to implement this effort as it evolves. We have a lot of duplicate work going on, so we need to try to streamline efforts and improve communication. Over the course of our efforts, we looked at the TC Section structure and Handbook structure to see if we should change our structure and decided that we did not gain much on the above points. In addition, we investigated the definitions of TC/ TG/ TRG/ MTG and decided we needed all four.

Steps that have been taken

Activity Forms: As one can imagine, some FGs were excited about change and some, not so much. The first step after organizing information gained from the survey, was to gather additional data. It was then that we realized that not all FGs were handing their Activity Forms into their Section Head in a timely manner, and without that information, the Section Heads really did not know about the TC's functions. Now, TAC and the new Reorganization subcommittee will have complete and timely information on FG functions to make informed decisions on FG functionality. This form provides solid feedback and it is in TAC's best interest to push for it. The Reorganization subcommittee can continue to use this information to assist Section Heads in determining if FGs should be merged or otherwise reorganized.

Annual Review: Also, as part of this adhoc, we reviewed the FG documentation, including the FG MOP and Reference Manual. It was determined that the MOP stated that each FG should review its operations on an annual basis, which was not happening. Again, TAC stepped up, and with Section Head help, will encourage

FGs to review their progress/ purpose each year to determine if the current structure is effective or if it should be changed.

Definition of an MTG: When MTGs (Multi-Disciplinary Task Group) were originally created, they were to exist for a defined period of time, and had a specific goal to accomplish, such as a design or user's guide, such that once that product/ goal was achieved, the group would disband. Over time, however, TAC has noted that most MTGs are thriving- they are doing exactly what we want other FGs to do, including breaking down communication silos, creating timely products, and providing strong programs. They have carved out a niche for themselves within the FG system. Lately, many MTGs have applied to be TCs, as a bid to be more permanent, because the currently MOP says MTGs are definitive. This is causing an overlap of scope, or an adjustment in scope to validate their existence. Maybe MTGs that continue their scope will form a multi-disciplinary technical committee (MTC). Similar to having a fundamental and a systems handbook, we think all functional groups can co-exist and improve members' technical experience. We will continue to investigate this group structure, to best meet the needs of our members.

FG Chair Breakfast Reformation: As part of the adhoc's research, it was determined that the individual section breakfast rooms were inefficient. Not all section heads were imparting the same information, and liaisons were having a difficult time getting to all the breakfasts. So, we looked to see what other ASHRAE groups were doing, and found that RAC held one breakfast for everyone, with sections seated at individual tables. With one main presenter, everyone was hearing the same message, and liaisons only had to attend one big meeting. Members also like the opportunity to hear "best practices" and "recognitions". This has generally been well received, though some tweaking of logistics maybe required. Confirm that tables seat at least 20, so all members have a seat. In the 90-minute meeting, at least 30-40 mins should be allotted for section discussion time. Also, the chair training was moved, such that it immediately follows the breakfast.

Virtual/ Online Meetings: In an effort to better utilize our members' time at the biannual conferences and in an effort to increase the "speed" of ASHRAE, FGs should continue to hold online/ virtual meetings in between conferences to continue ongoing work and/ or have an online meeting before each conference to share information and reports. Subcommittees could also meet online to share updates on program planning or handbook/ research updates.

Meeting Announcements: In an effort to make sure that all online/ virtual meetings respect the concept of an "open" meeting, TAC must remind FGs that the following process is required:

At a minimum of 2 weeks before a virtual meeting is scheduled, someone from the FG's leadership must email the meeting day, time, and link to join the FG meeting to TCmeetings@ashrae.net. This will allow staff the opportunity to add the meeting information to the TC portion of the website (www.ashrae.org/technical-resources/technical-committees). This will also allow other ASHRAE members who are not members of the FG, to be informed of the meeting, and possibly join in if interested. There will be a reminder of this process and a link to the meeting listing, in the ASHRAE Journal Newsletter, which is emailed to all members on the second and fourth Tuesdays of each month.

Meeting Logistics: Our bi-annual conferences are a great opportunity for members to share ideas, best practices, and news relevant to our industry. Participating in the technical conference and involvement in technical committees are two of the many ways to engage in this sharing of information. So, to best utilize our members' time, and society's resources, we suggest moving all TC meetings to a block schedule, Sunday-Tuesday. TC meetings will be slotted for just under 2-hour slots- 1-2:50pm, 3-4:50, and 5-6:50 time slots will be available to start (some variation due to the President's Lunch on Monday and other functions). Most FGs will be able to utilize the technical program rooms, which have AV setups, making the hosting of technical sessions during the FG meeting, logistically possible.

We also recommend that FGs consider holding their subcommittee meetings jointly with other FGs with similar interests to encourage joint programs and/or research projects. If an FG is not holding a joint subcommittee meeting, they should consider holding any face-to-face subcommittee meetings on the same day or day before/after their main meeting, in case members cannot stay for the entire conference.

TC Collaboration Area for small meetings: In Orlando, we worked with staff to offer a large meeting room (like Atlanta) which was setup with different small meeting configurations. There will also be a quiet area if members need to get work done. Smaller TCs or subcommittees (10 people or less) are encouraged to utilize this area instead of taking up multiple meeting rooms, and/or cancelling last minute. This will most likely continue in future meetings, depending on feedback in Orlando. (General feedback was good, except not many people knew it was there. Many people just “squatted” in this area.) Need to continue to get the word out, maybe have listing of meetings “scheduled” per day?

TCs that have merged as of 7/1/20 include:

- TCs 3.2 & 3.3
- TCs 7.3 & 7.8
- TCs 8.10 & 8.12
- TCs 9.4 & 9.8
- Ongoing- Section 10 is talking of combining down to 3-4 TCs.

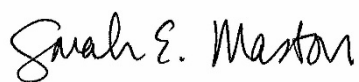
Documents Created/ Updated as part of Adhoc Scope:

- FG MOP
- FG Reference Manual
- TC Merger How-To
- Updated Activity Form & SH Dashboard
- Extended use of BaseCamp

To Do:

- Continue to train Section Heads/ TC Chairs on meeting best practices- online business meetings, possibly utilize TC meeting time at bi-annual conference for topical presentation or other interactive session- not just reports.
- Create guidelines for SH use on whether a TC is high-performing, average performing, or potential for merge/ restructure.
- Publicize process for online meeting announcements.
- Publicize TC Collaboration Area.
- Maybe help Section Heads provide guidance to their FGs on how to do their own strategic plan... to create a list of actionable items that FG plans to accomplish over the next five (5) years, including timelines, champion, and fiscal impact (if any).

Best Regards,



Sarah E. Maston, TC Reorganization Adhoc Chair
sarah@greenfootprintscx.com

DRAFT

Functional Group (FG) Basecamp Projects – Process and Procedures

Last Updated: 7/9/2020

Prepared By: Larry Smith, TAC Vice-Chair, in collaboration with the Communications Committee

This procedure outlines how the Technical Activities Committee (TAC) and the associated Functional Groups (FG) will communicate through Basecamp Projects.

1. Reference documents for using Basecamp Projects can be found at the following website:
<https://www.ashrae.org/basecampguidance> (scroll to bottom of the page for “Basecamp” link)
2. All FG’s will have a Basecamp Project.
 - 2.1. If a FG does not have a Basecamp Project, ASHRAE staff will set up a Basecamp Project for the FG under TAC’s oversight.
 - 2.2. A new Basecamp Project will be populated with the current chair, staff liaison, and TAC section head using the email address registered with ASHRAE. ASHRAE positional email alias’s will not be used.
 - 2.3. The FG Chair will assign responsibility of Basecamp Project maintenance to a FG committee person (Basecamp Project Editor). That person will enter and maintain the names of all people on the current ASHRAE roster plus all listed staff and liaisons.
 - 2.4. Each FG Chair will maintain the organization of their individual Basecamp Project with the guidance of the above referenced documents.
 - 2.5. Each Section Head is responsible for verifying that Basecamp Projects for FG’s that they oversee are current and organized.
 - 2.6. A Basecamp Project is not a substitute for the official ASHRAE FG website for posting upcoming meetings, meeting minutes, and agendas.**
3. All Sections will have a Basecamp Project.
 - 3.1. If a Section does not have a Basecamp Project, ASHRAE staff will set up a Basecamp Project for each Section.
 - 3.2. The Section Head is responsible for populating their Section’s Basecamp Project with the current chair, vice-chair, and secretary for the FG.
 - 3.3. ASHRAE staff, with TAC’s approval, will post relevant documents to all Section Basecamp Projects.