How to write a successful Research Topic Acceptance Request (RTAR)

- You can do it! It's easy but not painless.
- Clearly Identify research topic
  - From TC Subcommittee research list and discussion with Research Subcommittee Chair
  - From discussion with other relevant TCs
  - From discussion with research community outside of ASHRAE
  - Have a brief discussion with research liaison
- Quantifiable justification and state-of-the-art
- Provide all required information on RTAR form
- If you need help, don't hesitate to contact Research Subcommittee Chair, other members of TC, or research liaison.
- Make the time to think
- Make the time to write

Relate to ASHRAE research

- **Focus on the ASHRAE Strategic Plan for Research**
  - RTARs that identify with the specific Strategic Plan goals get accepted
    - http://www.ashrae.org/technology/page/39
  - Once topic is selected, discuss briefly with Research Subcommittee Chair and research liaison.

Clearly Identify research topic and its value

- Review key literature - RTARs that demonstrate a firm grasp of relevant prior work get accepted.
- Clearly define the State-of-the-Art and highlight gaps - do not leave RAC wondering if it's been done before
- Define a valuable and achievable objective – will the make a significant contribution show RAC that the work is well conceived.
- Coordinate with other relevant TCs – this minimizes the chance that there is overlap with other RTARs and allows for more thorough evaluation of topic.
- Discuss topic and objective with research subcommittee chair and liaison
- Actively solicit co-funding - RTARs that have been reviewed by another funding organization that express support get extra consideration.

It pays to do your homework!

Make your case

- **Clearly Identify the Research Strategic Plan goals served –** RTARs get accepted that identify specific ASHRAE goals and how research achieves them.
- **Clearly define the Advancement to the State-of-the-Art -** RTARs that provide quantitative estimates of the improvement expected get accepted.
- **Clearly define the Justification and Value to ASHRAE**
  - Identify by number, profession or industry the ASHRAE members impacted.
  - State the likelihood that the improvement developed through the research would be adopted.
  - Quantify the anticipated time period over which widespread adoption would take place.
  - Indicate likelihood of ASHRAE intellectual property.
- **Provide realistic estimated costs and duration**

Work with your Research Liaison

- Make sure your research liaison is informed!
  - Liaisons present arguments for your RTAR to the entire RAC. A liaison knowledgeable about your project is better able to persuade RAC to approve it.
- Briefly discuss topic with liaison before starting RTAR
- Have your liaison review the RTAR before the TC vote!
  - Liaisons can identify reasons the RTAR might be returned before you vote it and submit it to MORTS/RAC, saving you at least 6 months!
- If your project is unusual, controversial, or urgent (or if you happen to have free time) attend the relevant RAC meeting to speak for RTAR and answer questions.

Use the RTAR form!!

http://www.ashrae.org/technology/page/39

(EXAMPLE)

Unique Tracking Number Assigned by MORTS _____
RESEARCH TOPIC ACCEPTANCE REQUEST (RTAR) FORM
(2 pages suggested, 3 pages maximum)
TC/TG: _____

Title:
(Concise as possible)

Applicability to ASHRAE Research Strategic Plan:
Indicate which specific goal(s) on the ASHRAE Research Strategic Plan 2005-2010 (Navigation for a Sustainable Future) this topic will address, to what degree, and why. (NEW!)

Research Classification:
(Basic/Applied Research; Advanced Concepts; or Technology Transfer)

TC/TG Priority:
(1, 2, or 3)

TC Vote:
(For –Against-Abstentions-Absent-Total)

Reasons for Negative Votes and Abstentions:
(Negative Votes)
(Abstentions)

Estimated Cost:
(Estimate total dollars)

Estimated Duration:
(Months to complete)

Other Interested TC/TGs:
(List only those TC/TGs that have reviewed this RTAR and expressed support)

Possible Co-funding Organizations:
(List only those organizations, which have reviewed this RTAR and expressed support)

Application of Results:
(Handbook chapters/special publications etc. to be affected by results of this project)

State-of-the-Art (Background):
(Briefly describe the amount and quality of past research, and quantify existing gaps)

Advancement to the State-of-the-Art:
(Provide a quantitative estimate of the improvement expected from this research [i.e. x% energy reduction in product y or building type z, x% increase in heat transfer coefficient between y and z, or x% reduction in design time to do y, etc.])

Justification and Value to ASHRAE:
(Identify by number, profession, or industry the ASHRAE members impacted. State the likelihood and how the improvement would be adopted by industry. Quantitatively estimate the timeframe over which x% of society in total would be impacted. Indicate the likelihood of ASHRAE obtaining any intellectual property rights form this project.)

Objective:
(Succinctly state how this project will accomplish its intended advancement to the state-of-the-art [i.e. a computer simulation will be used to do x, a computer simulation will be developed for x and verified using laboratory data from tests y and z, field test data will be obtained from x and used to do y])

Key References:
(List references cited in the state-of-the art section.)

Adobe Acrobat Document

RTAR Outline

Title:

Executive Summary

Research Need

- Applicability to ASHRAE Research Strategic Plan
- State-of-the-Art (Background):
- Advancement to the State-of-the-Art:

Project Objectives

Expected Approach

Relevance and Benefits to ASHRAE

- Applicability to ASHRAE Research Strategic Plan:
- Advancement to the State-of-the-Art:
- Application of Results:

Anticipated Funding Level and Duration

References

Examples of actual past reasons for returns

- Linkage to ASHRAE Strategic Research plan missing or not explicit.
- Poor cost estimates
- Recommend other TCs be involved
- Co-funding should be available from outside.
- No reason for ASHRAE to obtain this information because it is available.
- Lack of, or minimal references
- How does the proposed work relate to work by another source?
- Disappointing discussion of state of the art. Hard to believe that we don't already know this!
- No real indication of how the research will add to current understanding.
- Is there evidence that the current methods are causing problems? Can you quantify the impact of any problems? How will this work solve these pbs?
- The TC should do some of this literature search and develop a more focused RTAR and research approach.
- Weak justification and value to ASHRAE.
- Objectives for research are much too vague. Specific details are needed.
- More detail needed in research approach and intermediate steps, probable models to be used.

At Last - Final comments

- Think about the researcher who will bid on the project.
  - Will they understand what you want from the research?
  - Will they have all the information they need to put together a successful bid?
- Use **common sense** *and* the Research Manual
- Brainstorming, discussion, and gathering information take time – **Plan for it**.
- Remember RTAR deadlines:
  - August 15 (for Fall Meeting),
  - December 15 (for winter Meeting),
  - May 15 (for Summer Meeting)
- And lastly - **You can do it!**