

STCC Conference Call Notes
Oct. 14, 2009
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Assignment:

Produce a 5-page input on the U.S. ST R&D priorities for the next 5-7 years, accounting for the strengths of the U.S. and the world ST Programs (Deadline: December 11, 2009)

Agenda:

>1:00 - STCC members and agenda
>1:05 - DOE comments and discussion
>1:25 - Select nearer term and longer term goals for U.S. ST Program
>1:40 - Select major R&D topical areas to include in assessment
>1:55 - Update Measures of Criticality, relative to each ST goal 2:10 -
>Suggest agenda items for STCC meeting/conference call on 10/24, 12:00
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>3:00, U. Wisconsin - Madison, following the ISTW2009 2:20 - List of
>action items 2:30 - Adjourn

Notes:

Attendees: Allain, Tritz, LaHaye, Eckstrand, Nermille Potter, SAS, Fonck, Baylor, Sontag

DOE Comments and Discussion:

Steve E.:

- Since the last conference call, the ReNeW report is in hand, and the fusion/fission hybrid workshop. STCC can't give advice, but can state the scientific goals. How can the ST program respond to the ReNeW Thrust / Theme chapter. Int'l collaboration (incl. new consideration, e.g. QUEST starting up), what could be done with a modest cost in collaborative work?
- Begin to sort out the research options and opportunities using the ReNeW Thrusts as input

Fonck:

- Are we asking for a shopping list of opportunities? We should have a hard-hitting discussion of what we really need to do, for focus, instead of a long list. Following along from ReNeW, what do we really need to do for an FNSF, or an ST-DEMO?

SE: OK, but don't want STCC to advise a certain focus – shouldn't specify a priority list

RF: Sure, don't need to prioritize the research, just what we need more specifically in the key research areas

SE: This is ok, don't need to have an all-inclusive list, should follow what was in the ReNeW document.

JPA: A clear technical roadmap is a good goal, e.g. what's the importance of PMI in ST?

SAS: Take ReNeW (SE's comment) and add quantitative assessment in the physics areas (RF's comment) – this is the next logical step

SE: Using the ReNeW report as a starting document – doesn't preclude new research such as Li wall (SAS comments that this is part of ReNeW, so it is included).

Options for nearer and longer-term ST goals

- nearest, longer-term, and longest term defined in MP's slide. The "longer-term" bullet mentioned two specific devices, plus FESAC TAP.

SAS: nearest is very well-defined (by device 5 year plans, or proposals for smaller machines), "longer term" – this group needs to discuss specifics if they go beyond ReNeW, since ReNeW was guided not to be so specific. Longest-term – shapes the near term, but need to be so specifically and quantitatively defined.

Tritz: what do we do regarding the nearest-term in connection to the large machine short-term plans (e.g. 5 year plans of NSTX, MAST; perhaps more flexibility with international program)

MP: STCC work is not to pick out any given plan, but stick with comments on scientific and technical program.

SE: Need to continue to make a strong technical case for the ST.

SAS: (asked to comment) Use the ReNeW timeline and fill in what the specific needs are (as suggested by RF). The strawman ReNeW timeline should be filled in, now with further STCC discussion.

MP: Mentions measures of criticality

RF: About the timeline – how do we come to closure on what facilities are needed?

Major R&D topical areas to include in assessment

MP: Use ReNeW topics (which was an update of TAP)

RF: Not just the capabilities that exist, or planned, but what is actually possible

SAS: Start from the ReNeW topics, - it's not a laundry list – it was well thought out by two committees (TAP and ReNeW); leave open the possibility of new ideas. We need to address all of the topics mentioned, and we can spell out what resources can address them,

and suggest new resources (devices) as we see fit as a group. ReNeW Thrust 16 was ~ 7 pages, and covered 20 years, we can address the 5 – 7 year timescale in ~ 5 pages.

RLH: Topics help leverage tokamak research

MP: If there is a topic like this, would RLH be willing to report this to tokamak

RLH: MAST/ AUG/ JET also have this connection

Measures of criticality

RF: Still a bit confused on the way to approach this. MOCs perhaps was useful before, but taking the issues defined in ReNeW is really what we need. Take the ReNeW topics and work from them to determine.

SAS: Already alluded to – I suggest to throw out the MOCs. I suggest it's not needed, based on Steve Eckstrand's guidance that the STCC is not an advisory committee. It was not such a welcome process in the past, and was somewhat of a distraction. I don't think we need it to complete our task.

KT: Agrees with SAS and RF.

MP: Clear consensus to drop the MOCs, so we will do that.

Agenda items for next meeting (Sat., at ISTW)

RF: You need a work plan at this point – we have the ReNeW topics, and new breakout ideas, and you should assign leaders for each of the topics.

MP: At next meeting – decide on the topical leaders.

RF: You could at this point identify the topical leaders, so that they can come to the ISTW with some bullets.

All others agree

SAS: You might want to add a deputy to each of the leaders chosen

KT: Should iterate the topics of the agenda for the next meeting.