Slide 1:

KEN CALVERT: Welcome everyone and good morning! We're glad you could join us for this webinar focused on the new Advanced Wireless Research Initiative and NSF's Platforms for Advanced Wireless Research (or PAWR). I'm Ken Calvert, the Division Director for the Computer Networks and Systems division in the CISE Directorate at NSF. On the webinar today, I also have with me, Dr. Thyaga Nandagopal from CISE/CNS, the lead Program Director for our investments under the White House Initiative.

Before we start, I want to discuss a few housekeeping guidelines: The webinar will be 2 hours long—we'll present for approximately the first 60 minutes, and then the remainder of the time will be dedicated to a question-and-answer session with participants. That said, please save your questions until the end of the presentation.

The Q&A session will be guided by the moderator, so please follow the instructions from the moderator for that part of the webinar. We have a large number of participants on the call today, so there may be some delays before you get an opportunity to ask a question. A summary list of the questions and answers will be published in a FAQ on the program within the next three weeks.

Slide 2:

So here's our agenda. To start off, I'll provide some context on the Advanced Wireless Research Initiative, and we'll spend some time going over all the core investments that are part of this broad effort. We'll then transition to discussing in more detail the single largest component of the program, which is the Platforms for Advanced Wireless Research, also called PAWR. In particular, we'll discuss the solicitation that is currently on the street, NSF 16-585, which is requesting proposals for a PAWR Project Office, or PPO. We'll talk more about the scope, requirements, and the review process for the PAWR Project Office solicitation. And finally, we will end with the Q&A session.

Slide 3:

We will cover the PAWR program in detail later in the presentation, but first let's look at all of NSF's investments associated with the White House Advanced Wireless Research Initiative, which was announced on July 15 by the Office of Science and Technology Policy, NSF, DARPA, FCC, NIST, and NTIA.

First, NSF announced a $400 million investment over the next 7 years in support of fundamental research on advanced wireless technologies. Included in that number is $50 million from NSF toward the design, development, deployment, and initial operations of 4 new city-scale wireless research platforms as part of the PAWR program, and up to $350 million to support fundamental wireless research that can utilize these new platforms. The PAWR program will also be supported by an additional $35 million in cash and in-kind contributions from industry partners.

In addition to the PAWR program, NSF also announced:

- Two NSF Prize Challenges each with $1M in prize money;

- $6M for a joint solicitation with Intel focused on Information Centric Networking for Wireless Edge Networks; (There's a webinar on that program today at 3pm Eastern time.)
- $4.5M for a US-Finland solicitation on wireless network research;
- A Research Coordination Network focused on millimeter-wave research;
- A collaboration with the DARPA Spectrum Collaboration Competition Challenge (also known as SC2) that will support the participation of NSF researchers in the Challenge; and finally
- Two workshops aligned with the PAWR effort.

Now, I'm going to turn it over to Thyaga Nandagopal to walk you through the details of each of these announcements.

Slide 4:

The two NSF Challenges are being administered through a grant to the Mozilla Foundation. Mozilla will run the two prize challenge competitions, which will be open to all, and each have $1 million in prize money. The first challenge, titled "Off-The-Grid Internet," seeks affordable and practical solutions that will restore communications and networking in the immediate aftermath of a disaster. And the second challenge, titled "Smart Community Internet," seeks low-cost solutions to help municipalities that don't have access to pervasive community-wide network infrastructure such as fiber, to help provide them with ubiquitous wireless access through Wi-Fi, supporting high-bandwidth data transfers for every connected user.

For each challenge, we'll be seeking solutions that use wireless technologies to provide anytime, anywhere connectivity that can support content and services. The model is for competitors to build their solutions and then demonstrate them to win the prizes, in the context of a two stage process, where up to 10 prizes will be awarded in the first stage and 3 prizes will be awarded in the second stage.

The competitions will start in January 2017, and you should be on the lookout for announcements from the Mozilla Foundation in October of this year.

Slide 5:

We're also very pleased to be working with Intel on a joint solicitation currently on the street. This solicitation is seeking innovative research to applying Information-Centric Networking principles to wireless edge networks, with the goal of enabling what we call "Beyond 5G" applications. You can check out the solicitation by following the link on the slide, but in brief, we are anticipating 2-3 large awards of up to $3 million each, and letters of intent are required and due on September 16. That's all I'm going to say here, but if you want more information, please check out the program page and also tune in to a Webinar on the ICN-WEN solicitation later TODAY at 3pm Eastern. Please sign up for the webinar using the program page link.

Slide 6:

We also have an updated solicitation as part of NSF's ongoing collaboration with the Academy of Finland in the area of wireless networking, a program known as "WiFiUS"

which stands for Wireless Innovation between Finland and the US. This is the fourth such solicitation, and this year's focus is on research that can support and enable the emerging Internet of Things.

Now the way this program works is that US researchers receive funding from NSF and Finnish collaborators receive funding from the Academy of Finland for the purpose of pursuing joint projects. There's an NSF solicitation, and also a parallel solicitation from Finland. If you're interested, the full proposal deadline is October 17, and American and Finnish collaborators can find more details by following the links listed. If you have questions about WiFiUS, I encourage you to contact the lead program director, my colleague Wenjing Lou.

Slide 7:

Next, NSF recently made an award for a new Research Collaboration Network (or RCN) focused on mm-wave communication networks led by Professors Akbar Sayeed and Xinyu Zhang at the University of Wisconsin. The RCN is going to be a three-year effort with a kickoff meeting this winter – in December in Washington, D.C. As part of the effort, there will be a series of six workshops that will cover various thematic areas, all focusing on spectrum above 26 GHz. Objectives of the RCN include bringing together industry, federal, and academic researchers to share latest outcomes, prepare a research roadmap, and publish in to the community; to also conduct policy outreach with regulators and convey an unbiased view as a scientific entity; and finally to create synergy and pathways to tech transfer and standards formation.

Slide 8:

Some of you may be aware of DARPA's Spectrum Collaboration Challenge (or SC2), which is an attempt to address the current situation we face of increasing demand for wireless spectrum. The initiative aims to reward teams for developing smart systems that collaboratively, rather than competitively, adapt in real time to today's fast-changing, congested spectrum environment. The three-year Challenge will start in 2017, and is open to all, including academics and students. A "Proposer's Day" is being held on August 10 for those interested, and you can participate online.

Limited funds are available from DARPA to seed solution development by select teams, assuming they clear required technical hurdles at the various stages. NSF will be providing support for academic researchers participating in the SC2. These will be awards to support students for developing innovative solutions, up to 5-6 awards total for each phase, starting in March 2017. All the details are outlined in Dear Colleague Letter 16-114, which you can find at the included link.

Slide 9:

Finally, we'd like to bring to your attention two upcoming workshops NSF is funding. The first will focus on "Communities of Practice" for networking testbeds, taking a look at lessons learned from running large-scale testbeds. It will be held in late October 2016, and will be led by Professors Morley Mao from the University of Michigan and Ivan Seskar from Rutgers.

The second workshop is on Ultra-low latency networks, and will focus on the challenges associated with delivering ultra-low latency services via the wireless edge. This workshop will be held in early November, led by Professor Eytan Modiano from MIT.

Slide 10:
The remainder of the presentation is going to be devoted to discussing the Platforms for Advanced Wireless Research (or PAWR). What you see here is a quick summary of the key attributes of this program, and the approach. First, there are on the order of 400 university researchers whose efforts would benefit from at-scale testing capabilities to ensure successful validation of their research. And substantial NSF investments, along with Industry contributions of more than $35 million and growing, are being leveraged to create research platforms that will meet this critical need.

Early industry involvement has been key, leading to the current model of multi-use research platforms supporting "pre-competitive" research topic areas (or in other words research that will translate to societal impacts in 3-8 years and beyond), informed by a "bottom-up" process featuring input from university PIs and industry.

The platform scope shown on this slide is meant to be only an example. And one can conceive that a city-university collaboration with local industry partners can potentially increase the size of these platforms to suit the level of resources available to them.

In terms of flexibility and speed, we envision 1-2 platforms being deployed per year in years 1 and 2, followed by a 3rd or 4th platform in years 3-5.

Finally, we envision streamlined governance, deployment, and operations for the platforms. There will be a governance board focusing on upfront research and policy issues, not tactics; and city/university groups proposing to host each platform will propose how to streamline deployment and operation.

Slide 11:

So, why PAWR? In a nutshell, the $50 million that NSF invests annually in fundamental, pre-competitive wireless research can be greatly strengthened by giving academic researchers access to at-scale, end-to-end research platforms, and by engaging industry earlier in the research pipeline to help define and focus research questions. As it stands today, long-term wireless research experiences the well-established "valley of death," and industry may well be missing out on potential breakthroughs.

The PAWR effort provides industry and academia the opportunity to bridge this "valley of death" through a partnership for shaping, focusing, and testing fundamental wireless research at realistic scales (outside the lab environment).

Slide 12:

This effort has broad industry support, as you can see from the list of current PAWR Charter Members. These are members of the PAWR Industry Consortium who have already made cash and in-kind commitments to support the platforms. What you see here are over 20 wireless carriers, device manufacturers, and equipment vendors, across the wireless

industry, along with private-sector wireless associations, and this group is growing as we speak to include even more companies. For those who want to keep track, the latest member information can be found at http://www.advancedwireless.org/.

Slide 13:

The PAWR program stands to provide value to all the stakeholders involved.

For Industry, companies get to take advantage of 4 simpler, flexible, multi-use research platforms whose deployment is staged over 3-5 years, to shape fundamental wireless research by:

- Helping to select the best, most flexible research platforms needed to meet researcher and industry needs;
- Helping to shape research topics covered by at least 50% of research time funded by NSF and other agencies, plus gaining preferential access to those research results;
- Gaining preferential access to research time for proprietary company research on these large platforms covering the ~50% of remaining research time (with Founding Members getting more access times than others);
- Focusing research to increase the number of potentially disruptive research efforts and speed time-to-market;
- And expanding the pool of wireless experts through education, training, and nurturing of today's students.

The research community stands to benefit from the opportunity to gain feedback on research in line with industry trends and expressed topic areas of interest; and greater potential to speed up transition of university research to industry end users.

And Cities, who will host the platforms, will be able to:

- Build core wireless capabilities through creative university partnerships;
- Attract government and company research funding and local wireless jobs; and
- Utilize advanced wireless capabilities to enhance city services.

Slide 14:

So what will these Platforms look like? As an overview, we envision that:

- The locations will focus on small cities, campuses plus small cities, or select portions of a large city covering a campus within the city – so cities large and small could be quite competitive as prospective hosts for a platform;
- The research platforms will be built on software-defined radios – devices capable of operating across multiple radio frequencies and connected via a programmable back-end network infrastructure with access to high-speed network connectivity such as Internet2 or other backhaul (i.e., not production networks); and
- Researchers will be able to take advantage of the multi-use capability of the platform infrastructure by "plugging in" additional experimental technologies.

We'll talk about the process for designing and deploying the platforms in a few slides, but in brief—

- RFPs will seek proposed Platforms Enabling Advanced Wireless Research that have the capability to support a minimum number of research topic areas (e.g., mmWave, Dynamic Spectrum, Architecture) plus others as proposed by responders; and
- The proposed experimental research platforms will allow researchers to validate cutting-edge technologies, spectrum usage paradigms, application performance, and/or service behavior.

Slide 15:
In terms of the Scale and Technologies for the platforms, we envision that each platform will have:

- 10-20 Sites or radio/antenna locations;
- Will feature Software Defined Radios, capable of operating across multiple frequencies and technologies
- All will be connected via a programmable backhaul network infrastructure supporting SDN and NFV, with access to high-speed network connectivity such as Internet2 or other backhaul; and
- Will support approximately 100 SDR-based clients, across a variety of stationary and mobile (human/vehicle) platforms, **at a minimum.**

Slide 16:

Here's a sample architecture showing some of these features. The key take away is that the research platform will provide core infrastructure providing: SDR radio layer, a Wireless-Fiber backhaul, Software configurable infrastructure (SDN, NFV), the ability to add or swap components for projects, and time or geographical sharing of environment.

And it will be flexible enough to support multiple research areas, some of which are listed here.

Slide 17:

To reiterate, this is a bottom-up process, and we are not dictating what each specific platform will look like. Instead, we will seek proposals for specific platforms that have the capability to support a minimum number of research topic areas, plus others as proposed by responders.

Some examples of topic areas to be enabled by the research platforms include, but are not limited to:

- **mmWave**
- **Dynamic Spectrum**
- **Architectures**
- **Mobility-at-Scale**
- **Wide-area Whitespace**
- **Network Metrology**
- **Applications/Services**

The specifics of how much coverage within each of these topic areas will be left to the discretion of the proposers.

Slide 18:

Next, I want to go over, in broad strokes, how this is going to work. NSF will support a PAWR Project Office (PPO) to manage the design, development, deployment, and operations of the advanced wireless research platforms. Run by a non-profit organization or college/university with no policy agenda, the PPO will be selected through a competitive solicitation, which we'll talk about in the last part of this presentation.

The PAWR program is a true public-private partnership, and the PPO will integrate support from both the Industry Consortium and NSF (along with other federal agency partners if applicable). And it will also establish and support the PAWR Steering Council, which will advise the PPO in all aspects of the deployment and operations of the research platforms.

Slide 19:

Here's another look at the proposed governance process.

- **There's selection of the impartial managing office (the PPO) and a single PAWR Steering Council**
    - The PPO will be based at a nonprofit or academic organization with no policy agenda, selected through competitive solicitation process
    - The PAWR Steering Council will include members of the Industry Consortium, wireless research leaders, and NSF (as an *ex officio* member). **The PAWR Steering Council will be responsible for setting the research agenda for private partners, addressing policy issues and standards for governance, and maximizing return on investment for all public and private partners.** It will be constituted by early 2017.

- **The PPO then integrates contributions from government and corporate partners**
- RFPs will be created, challenging respondents to achieve PAWR goals (e.g., minimum number of research topic areas)
- **The RFPs will be issued and proposers will submit proposals**
    - Focus will be on joint responses from local coalitions made up of universities, municipalities, and/or companies
- **Next, the proposals will be evaluated and awards made.**
    - PAWR Steering Council plus other experts will evaluate responses and select winners, using a model similar to NSF's traditional peer review process; and
    - Awards will be made to local coalitions to create and manage research platforms with oversight from the PPO and PAWR Steering Council.
- **Finally, research will be conducted on platforms.**
    - We aim for the platforms to host a 50/50 split between government-funded, pre-competitive research and private, possibly competitive research. Research results and IP ownership for publicly funded activities will be governed by agreed-upon principles, including the Bayh-Dole Act, while private research results will be owned by the sponsors of that research.

Slide 20:

It's important to note that not all of the platforms will come on line at the same time. This will be a staged process with opportunities to integrate lessons learned from initial platforms into the RFPs and development of subsequent platforms.

This graphic shows one possible timeline for the program – but this may vary as we learn more through the process. The solicitation for the PAWR Project Office (or managing organization) is on the street now and will be discussed more shortly. The PPO will be awarded in early 2017, and will drive the proposed platform design process and release RFPs for the first one to two PAWR platforms starting in mid-2017. We envision one-two platforms being deployed per year in years 1 and 2, followed by a 3rd or 4th platform in years 3-5.

And plans for the sustainability and adaptability of these platforms over the long term will be important review criteria in evaluating platform proposals.

SLIDE 21
I want spend the rest of the presentation talking about the solicitation for the PAWR Project Office.

I will start by noting information that you should have readily available.
First the program solicitation is NSF 16-585, Platforms for Advanced Wireless Research (PAWR): Establishing the PAWR Project Office (PPO), which you can easily find with a web search. It is also linked off of the CISE home page.

As we have discussed, the PPO is being established to manage and run the 4 city-scale platforms of the PAWR Program. Specifically: the PPO, working closely with wireless research community and industry consortium, will assume responsibility for the advanced wireless research platforms through:

- Design
- Development
- Deployment
- Operations

Second the proposal deadline is 5:00 your local time on November 23, 2016.
NSF expects to award 1 project. This project may request up to 5 million dollars over 5 years.

We expect the awards to be made early spring 2017.

I am next going to talk about the solicitation. Specifically the roles and responsibilities of the PPO in the PAWR Program and key proposal sections and what we expect to see in each section. I will then talk about the review and award selection process and we will end the webinar with Questions and Answers.

SLIDE 22
The PAWR Project Office requires:

- Dedicated project staff with expertise in collaborative research with and ability to provide services to wireless research community

- Effective management of advanced networking infrastructure projects with a large wireless communication component (including planning, deployment, & operations)
- Effective management of large-scale wireless & software intensive projects (including planning, deployment, implementation & lifecycle management)
- Technical report editing and web-based publications
- Communication and outreach to broader scientific community & general public

SLIDE 23
The PAWR PPO Management includes:
A Lead Principal investigator (PI) who will serve as "Project Director" of PPO
- This individual will work full-time on this project
- The PI will have direct day-to-day involvement in program

The Project Director/PI qualifications & duties include:
- Having an established track record of leadership & management of teams and projects of this scale & scope
- Someone who will work closely with NSF program officers and PAWR Industry Consortium to keep all parties informed of PPO activities
- Someone who will serve as an *ex officio* member of PAWR Steering Council

SLIDE 24
The PAWR program is being carried out in three phases, this solicitation refers to the creation of the PPO who will work on the Design and Development phase of the advanced wireless research testbeds

The PAWR Program Office will be responsible for developing a Request for Proposals (RFP) and run subsequent merit review, comparable to NSF for sub awardees

Specifically: the PPO will issue the RFP for the advanced wireless research testbeds within 6 months of PPOs establishment and will:
- Fund no more than **four** advanced experimental wireless research platforms across the country
- Articulate the desired capabilities of these research platforms
- Describe the contributions that the PAWR Industry consortium will offer to selected awardees
- Describe the deployment & operational support and oversight that PPO and PAWR Steering Council will provide to awardees
- Re-issue the RFP annually on an as-needed basis to reflect the nature of contributions from Industry Consortium (annual deadlines anticipated for submission for the first 3 years)

SLIDE 25
The Pre-Deployment phase covers requirements that should be met by sub-awardees before a test bed can be launched.

During this phase, the PPO will work closely with sub-awardees organization(s) to support the design, development, deployment, and operations of corresponding research platforms and will provide:
  - Common guidelines
  - Management structures
  - Operational interfaces

Proposers for the PPO solicitation should address how they will help sub-awardees with the pre-deployment phase.

Once PPO identifies potential awardees following steps must be taken, prior to deployment, constituting the final design baseline for that advanced wireless research platform (next slide).

SLIDE 26
The specific steps the PPO must take prior to deployment of test bed are listed here. I will not read them all, but the aspects related to planning and operational capabilities for handling these tasks must be included as part of the proposal. The PPO proposal must address the capabilities of the PPO team to address these tasks.

SLIDE 27
The NSF will approve final design baseline for each advanced wireless research platform and PAWR deployment activities will begin!

Contingent upon the successful performance of PPO during design stages, it is expected the PPO will assume all responsibly for PAWR deployment and operations

- *Separate sub awards will be issued by the PPO for PAWR deployment and operations for each advanced wireless research platform*
- *NSF will provide guidance to the PPO on each advanced wireless platform deployment and operations as that platform progresses through its lifecycle.*

SLIDE 28
Now we will go over the specifics of the proposal submission and review process. Note that the Preliminary Proposal Due Date is Sept 20, 2016, and that the Full Proposal Deadline is November 23, 2016
(by 5pm submitter's local time)

This will be a cooperative agreement, and exactly one award will be made. The project management operations costs are not to exceed $1 million/year for 5 years, and all proposals submitted should provide a framework for pursuing design, development, deployment, and operational activities. In this proposal, proposers should not identify specific activities or associated sub awardees for the platforms.

SLIDE 29

Those who can submit are in one of two groups: Universities and two- and four-year Colleges (including community colleges) acccredited in and having a campus located in the US acting on behalf of their faculty members can apply. Non-profit, non-academic organizations can also apply. Sub-awardee institutions have the same restrictions.

SLIDE 30

An individual may participate as PI, co-PI, or senior personnel in **no more than one proposal** submitted in response to this solicitation. If any individual is found to be on two proposals, the proposal with the earliest submission date will be accepted and all others will be returned without review.

Make sure that individuals on your team have consented to participate on a project and are not listed on another proposal.

The solicitation requires that the inclusion of each team member be justified and show how this person will contribute to the overall vision of the program and the specific goals of the proposal.

SLIDE 31
I am first going to talk about the Preliminary Proposal, which is required and due by 5pm on September 20, 2016

This proposal must have 3 components: (1) a cover sheet that includes an indication of PI & Co-PIs and affiliations, the overall total budget with the project title prefixed by the words "PAWR Pre-proposal"

The second component is a brief Project Description of up to 4 pages with clearly labeled sections that include the project title, investigator information, a concise description of program management activities that are key to the goals & milestones of PAWR program including description of management needs and significant costs, along with the organizational & management structure, as well as qualifications of PPO staff.

The third component is a biographical sketch of the PI and co-PIs (not senior personnel) of up to 2 pages. Please note the brevity of the pre- proposal!

Preliminary proposals are required and must be submitted via the NSF FastLane system

Submitters will receive feedback from NSF Program Officers indicating either **encourage** or **discourage**. An **encourage** finding generally indicates that the proposal appears to be responsive to the program guidelines and is a candidate for further development.
A **discourage** finding generally indicates that the project is not responsive to this solicitation, or has serious conceptual flaws that would not benefit from further development as a full proposal submission.

The feedback provided pursuant to the preliminary proposal is advisory only; submitters of both "encouraged" and "discouraged" preliminary proposals are eligible to submit full proposals. Responses will be provided within a month of the submission deadline.

SLIDE 32

Let's now move on to the Full PAWR PPO Proposal: This proposal must include an updated title with the prefix of "PAWR Full Proposal" and a Project Description that must not EXCEED **30 pages** including charts, figures, graphs, maps, and photographs

Supplementary Documents include a list of Project Personnel and Partner institutions

SLIDE 33
The Project Description in the full PPO proposal should have two main components:

Section 1 should describe the contributions of key personnel in the past 5 yrs (up to 3 pages)

- Please note the qualifications and contributions made by personnel that demonstrate ability to work effectively with US wireless research community, experience with advanced networking infrastructure, and effective management of large projects

Section 2 should provide detail of the PPO Project Development Plan.
The Project Development Plan (PDP) is the document that describes activities, budget, and schedules for all design, development, deployment, and operations activities relating to the advanced wireless research platforms (up to four platforms total). Specifically the Plan must address:
In the scope of work, you will describe in detail the scope of work necessary to go through the design, development and deployment phases, including the process of selecting the research platforms, in conjunction with NSF and the PAWR Industry Consortium, given the information provided in the Project Description section of this solicitation. Proposers should identify and discuss all project goals and associated milestones.

Proposals should contain a comprehensive, concise description of project management activities, aligning these activities with the goals and milestones, and the methods/metrics that will be used to evaluate the PPO's effectiveness in realizing them.

The Risk Mitigation part is an key section where proposals should discuss any risks associated with completing the PAWR design, development, and deployment activities, including technical and organizational risks. Proposers can also discuss lessons learned by the proposing team from past experiences to demonstrate risk mitigation abilities.

Proposals must include a schedule that shows the sequencing of all major activities to be conducted in sufficient detail to justify the proposed budget. It is currently envisioned that the PPO will be prepared to host a concept design review within two months of the award, and a Preliminary Design Review (PDR) within the subsequent four-month period. Definitions of concept design review and preliminary design reviews are in accordance with Six Sigma processes for project management.

The management plan describes the PPO's organizational and management structure. Proposals should describe the structure and processes to be used to provide effective governance for PAWR, including ensuring productive, collaborative interactions with the PAWR Steering Council, and the anticipated PAWR research community. Describe the approach to be used to identify and prioritize development activities, and the competitive process to be used in the selection of development and deployment sub-awardees and consultants

Lastly, the description should describe office and meeting facilities that will be available for the project, including office equipment, communications capabilities, and institutional meeting space necessary to conduct project business.

SLIDE 34
I will cover the review process performed to select the PPO. The NSF review process will be run like other peer review panels with ad hoc reviews, site visits and/or reverse site visits as necessary.

Proposals will be evaluated for:

- Intellectual Merit & Broader Impacts
  - Note that **Intellectual Merit** encompasses the potential to advance knowledge, while **Broader Impacts** encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes
  - Please See the NSF Proposal and Award Policies and Procedures Guide (PAPPG) for more information
  - Additional Review Criteria will be addressed on the next slide

SLIDE 35
PAWR PPO **Solicitation-Specific Review Criteria**
The following review criteria should also be addressed in the proposal:

a. Capabilities of the proposing team: experience in managerial, technical, and administrative aspects
b. Do the goals, milestones, and activities proposed in the Project Development Plan cover all the essential aspects of PAWR design and development?
c. Does the submitting organization provide a reasonable plan for risk mitigation? Are some foreseeable risks not adequately addressed?
d. Does the project schedule appear reasonable? Were the key milestones identified?
e. Does the submitting organization provide an adequate management plan?

SLIDE 36
Once again, here are important reminders about the PAWR Program Office solicitation.
Preliminary Proposal Due Date is Sept 20, 2016
Full Proposal Deadline is November 23, 2016
(by 5pm submitter's local time)

SLIDE 37
PAWR FAQ

- Formal FAQ will be posted on solicitation website in late August.
- Questions answered today are informal and serve to clarify. The solicitation is the official word. The Formal FAQ is an advisory document, and is not binding.