

ITAC Conference Call
December 2, 2014

Attendance:

Michael Lewis
Terri Moore
Bob Avery
Gary Krammes

Kate Flynn
Kris Lund
John Bumgarner
David Boldt

Joe Nielsen
Daniel Pearson
Eric Smith
Kim Martz

Agenda:

- Summary of the issues we identified as appropriate for ITAC action
- Identifying next steps for the identified issues.
- Prioritizing the issues (we don't want to bite off more than we can chew)

Minutes:

Michael opened the meeting and introduced Eric Smith. Eric will act as an HDAC liaison to ITAC. The aim of today's call is to discuss and scope out ITAC's activities for the next few months. Michael referenced the list of ITAC initiatives developed at the San Diego face-to-face meeting.

ITAC Initiatives 2015

1. What is the issue or need?
2. Where is the issue/need experienced?
3. Who is working on the issue/need? USGS? Others?
4. Is there a role for ITAC? Communication, training/webinars, facilitating the conversation, formal initiative?
5. Priority?

Supergages – IT challenges to establishing a supergauge network. Supergage defined as an advanced monitoring site that includes an autosampler, two-way communication, multiple parameters.

1. Challenges include data management, data delivery/telemetry, instrumentation, automated records processing tools.
2. Nationwide.
3. USGS and other agencies (NEON, LTER, etc.).
4. ITAC's role – establish an online forum for exchange of ideas, webinars, whitepaper on conceptual framework, identifying the technologies that can make it affordable.
5. 5. 9

Michael – Nate values this topic. The idea is to pull together folks who have knowledge about and are working with supergages to create a forum to address the challenges associated with running a supergauge. Michael added that there is overlap with what the HDAC is doing. He asked the group for their thoughts on next steps. Kris commented that there are existing supergages and other gages that are on their way to becoming supergages. Put together a web page for these gages, and inform people about what a supergauge is. How do we determine a threshold for what is included in the initial list of supergages? Michael commented that the definition of supergauge is broad. Can it be narrowed down? Do we need an autosampler? In Nate's view, autosampling is important. It opens up functionality with sampling and the two-way communication allows reaching out to the gage to tell it what to sample. It was commented that it would be good to have a list of locations where the specified parameters are met in addition to locations that are close. Michael added that the goal is to create an inventory of these gages.

A comment was made that it is important to find out why these gages are successful; to understand the relationships/projects needed to support these types of gages. Michael agreed that it would be good to talk to folks who work with these gages to glean best practices, applications, identify challenges and needs with operations, and where they would like to go as technology advances. Bob Avery commented that much is driven by cooperators and another component is the high price tag. Bob added that he will ask his colleague about the initial cost numbers. Michael asked if ITAC should consider looking to other organizations (like those Nate mentioned – NEON, LTER) or keep our focus internal. The group concurred that internal focus is best. Couch this under discovery – identify scope, challenges, needs, identify what is out there. Gary suggested that we determine exactly what we are looking at – surface water, groundwater sites, etc... -- as some sampling is only done seasonally. Michael

responded that he envisions it starts with surface water gages but could have meteorological equipment or groundwater. Do we focus on surface water? Are surface water gages the common component? John responded yes, he thinks so. We need to be careful to not bite off more than we can chew. Michael added that at this point, we are trying to inventory existing supergages and those close to being supergages and understand them better.

SMART – SMART capabilities will be included in future releases of AQUARIUS.

This is being removed for now.

Field Computing – Important to meet needs of CRP.

1. Need to continue to develop and enhance tools for field data collection, to identify equipment that best meets our needs, to develop new ways of uploading data to the database from the field.
2. Data program.
3. FCIS (software development), WSCs (hardware testing), CARP/NWIS (field communication)
4. ITAC's role – Facilitate development of a forum for documenting hardware options, pros/cons of various laptops/tablets. Solicit information from Terry Kenney, Linda Debrewer, and Pat Rasmussen about future needs for software development. CARP/NWIS to address field communications.
5. 8.5

Focus on hardware testing. This type of activity is being done across Centers. This is an ongoing need due to rapid changes in technology. There is a potential role for ITAC in facilitating field experiences. Pull experiences together. Is there commonality in efforts across the agency? Also, sponsor more standardized testing of equipment.

Additionally, there is a need for more resources with respect to software development. A potential role for ITAC may be to scope what is needed to develop a software development team.

Question – Is ITAC prepared to take on that role? Response – Terri responded that California and Florida are equipped to do this. It would be difficult to stay on top of this type of activity. It was suggested that ITAC should facilitate development of a forum; not run the process. Terri added that ITAC can provide available information and contacts.

Bob Avery commented that with the list of initiatives, all of the items have a “who is going to do what” component. ITAC can gather and share this information to centers. Michael responded that this is a dead-on observation. There is the potential to collaborate with HDAC; not limit to ITAC.

Michael asked the group if they feel there is a role for ITAC with future software development. During the San Diego meeting, we discussed the possibility of fleshing out what resources are needed or do we leave that to SWUG? Joe responded that he doesn't think there is a role for ITAC. Michael added that if ITAC takes on some role with this, it will be important to make sure folks from SWUG, etc... are involved.

The focus should be the act of discovery, and facilitating identification of who is doing what on the landscape.

Webcams –

1. Synthesize information from WSC experiences and distribute nationwide. Technologies to replace commercial vendors for data capture.
2. Data program.
3. Individual WSCs.
4. ITAC's role – Forum for exchange of ideas, webinars.
5. 5

Some folks are using local solutions. There may be some benefit to identifying experts across the country. This is an important but easy initiative. ITAC agrees that other centers could benefit.

Gary Krammes commented that there is a field computing web page, but he is not sure if it's for webcams. What is ITAC's role? Michael commented that there was reference made to Scott Horvath's page (gallery.usgs.gov/webcams/) during the San Diego

meeting; however, the page needs to be updated. Bob commented that he feels ITAC's role is to communicate out this information. David Boldt commented that he started a page at one time but abandoned it because it was not thought to be a science-oriented mission. Kate added that this initiative is much simpler than the others ITAC has identified. She suggested using webcams as a prototype/starting point for what ITAC can do. This topic has fewer issues associated with it. Michael agreed that this is a good idea – build on this for ITAC's additional efforts.

GIS

1. Lack of a user community, decentralized support, lack of training opportunities and collaboration.
2. GIS community.
- 3.
4. ITAC's role – Forum.
5. 6

Michael addressed this initiative to Daniel with Daniel asking if there was further discussion about this after he left the face-to-face meeting. Michael noted that Nate was complimentary of Daniel's grassroots efforts. Daniel commented that he will be meeting with the water community of use and NGP on Thursday. After that meeting he will have an opportunity to respond to comments and continue to seek commitment from CSS, OWI, and NGP. Daniel suggested that we need to think about technology – stand up a forum; think about standing up a framework needed to stand up a committee. ITAC also discussed surveying folks at the Study Chiefs meeting. Daniel commented that there is no central place to have a conversation. Shane Wright and Steve Char are the only remaining funded staff from the previous EGIS effort. John Bumgarner suggested that Daniel contact Joel Galloway to ask about time during the Study Chiefs meeting. Daniel added that this needs to be broader than just GIS. We will probably reframe it to capture a broader community. Daniel commented that he may be able to frame something by February.

Software Innovation and Collaboration, Data Visualization

Need to setup a forum, webinars.

Nate was to talk to CIDA and set up webinars (reference from San Diego notes). John commented that data visualization is within the same umbrella, but is not the same topic.

Michael commented that it would be good to educate the water community on the capabilities of R. This topic could expand.

ArcGIS Server

Possible to have a single cloud solution for ArcGIS mapping applications, rather than development within individual WSCs. How many servers currently setup?

Couched for now. **ACTION** – Terri was to get answers for Marijke's questions.

.csi template

Communicate availability when it's ready to go. Approximately two weeks of time required to develop at CIDA.

NWISWeb vision

How to incorporate project-related information into NWISWeb. Link between data, projects, publications, etc. Geographic search tools. Provide feedback to NWISWeb users group.

This is not a big initiative for ITAC.

Next Steps:

Michael commented that there is a common role for ITAC in facilitating communication – identify who is doing what, bring that information together, and share it through SharePoint, a web page, webinars, or in a forum. The group agreed to 'cut their teeth' on the webcam initiative. Michael suggested the group discuss how to do this – take an inventory and ask about folks'

experiences. Terri asked if Bob Avery could take the lead. Bob responded that he will touch base with his contacts and SAs to ask about their experiences with webcams. Bob added that there are many things to consider – hosting, hardware, software, near and far-end stuff, need broader definitions. Gary Krammes volunteered to help with this and asked if ITAC is going to put up a web page to collect this information. Bob responded that we can use the SP site. Kris added that a webinar would be good and also follow-up with a tip sheet and best practices. Michael commented that for anything we stand up, we need to think about the life expectancy of the topic. For webcams, we can probably address this in a reasonably short time frame.

Do we want to think about pushing ahead with other topics at the same time? Terri recommended doing the webcams first with concurrence from ITAC. Bob suggested that the initial discovery component (“who is doing what”) can be done now as this does not require a large amount of effort. Kate suggested that ITAC also go to mid- to upper-level managers for input. Bob commented that there is a third part – how do we market it? What can be offered as incentive to get participation? How do we get it out so that it becomes self-managing? Michael responded that the self-management aspect will be more difficult.

Michael – regarding field computing and supergages, are there folks willing to help with the initial discovery phase? Michael offered to work on field computing. He noted that Marijke was not on the call, but he may reach out to her to help with this topic. Eric added that he sees field computing as an area of interest and will bring it up on the next HDAC call. Michael agreed that HDAC can play a role here. Kate recommended identifying a brief format that can provide the information (for example, the 3 NRP regions put out a newsletter). This may be a way to get the information out to others.

Michael asked for any/all topics, if we host a web and/or SP page off of ITAC, would it be beneficial to direct traffic to the broader SP page? Kris responded yes, it is better to have the information on one site. Kate added that this will also help promote sunsetting.

For supergages, Michael asked Kris if she can help with this topic. Kris agreed to do so, but reminded the group that she will be rotating off of ITAC soon. She can still help afterwards. John added that he is interested in the topic, but it is hard to find the time to commit. He will help Kris as time permits. Bob Avery will send Kris information for California contacts.

Wrap-Up

Michael wrapped up the call by identifying the three issues ITAC will push. Webcams will be done first and pushed to completion as it can be done in a reasonable amount of time. Discovery needs to happen for all of the issues identified. Regarding a prototype, Kate suggested finding someone who is a leader and a center that is getting started to help with this. Michael asked if ITAC should further define the process or work it point-to-point. Bob responded that he thinks/hopes that from what we learn from the process, we will learn what needs to be presented. Michael noted that we should see some progress by the end of January/early February.

ACTION – Michael will work with Terri and Nate to find a replacement for Kris and identify a new co-Chair. Terri asked Kris for nominees. Kris agreed that she can stay on until a replacement is identified.

Michael will pull together brief descriptions of each issue. Kris suggested that these ideas be posted to SP with the description and identify which are being worked on and which are not in the scope of ITAC. Refer back to the initial list that was posted. Kris suggested composing the document as a Google Doc so that ITAC can review and comment.

Next Call

A Doodle will be sent out to identify a date for our next call. The call will be set up for mid-late January.