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UHIMI NEWS

Salt Lake City flyover a success! Next steps discussed

Call participants

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Call agenda

Virginia Gorsevski suggested that the call focus on the following topics: (1) the Salt Lake City flyover; (2) pilot city updates; (3) the upcoming side meeting on UHIMI/UHIPP during the October 26-28 Earth Technologies Forum; and (4) the Urban Heat Island Mitigation Guidebook.

Salt Lake City flyover

Camille Russell reported that the Salt Lake City flyover was well coordinated and well covered by the news media; she thanked everyone who provided advice. There were a few uncontrollable technical difficulties: (1) cloud cover; (2) surface winds (which may affect ambient air temperature readings); (3) lack of power supply to the visible instrument on the plane; and (4) loss of the thermal channel (the instrument that gives spectral readings). They may redo the ambient air temperature readings, and the loss of the power supply probably will make efforts to calibrate the data more difficult. The rooftop readings went well and the schools are just submitting the data they collected. NASA had advised not to bother with ozone readings because in the other pilot cities, the estimate produced was not reliable.

Camille spoke of the importance of developing a strategy for disseminating information on a wide scale and for handling the follow up from the flyover. Some of the topics mentioned include:

- Renee Gluch has been hired to act as a technical and community liaison — she coordinated with Jeff and has developed an understanding of the appropriate next steps. Her interests lie in projects involving urban planning, remote sensing, and GIS.

- Camille and Meryl Redisch had discussed setting up a "speakers bureau" to create a boilerplate presentation to be used in meetings with community councils, city councils, developers, etc. In light of Pat Downey's experience (see below, under Pilot City updates), many suggested developing several different presentations tailored for specific audiences.

- The Gateway district is an old, industrial area encompassing 700 acres west of downtown Salt Lake City. The area is ripe for revitalization, and has recently been rezoned for mixed-used residential development. Camille and others had spoken with urban planners, who have recently decided to implement urban heat island mitigation strategies into the master development plan. Their decision was related to a quick image of hot spots printed in the paper. Gateway will become a demonstration site for the cool roofs program and for strategic tree planting.

- Camille noted that during the flyover in Salt Lake City, Mr. Estes was recommended many times as the appropriate NASA contact to discuss how implementation could occur on

a policy/urban planning level.

Pilot city updates

- It was noted that in Salt Lake City, particular hot spots were found on brand new buildings. There may be a trend involving a certain type of (non-reflective) roof coating. It was noted that the State Courthouse was one such hot spot.

- Mark Guillory noted that a rooftop study in Atlanta indicated that at least in that city, there was a definite correlation between new roofs and cooler temperatures. Mark noted that the area studied was adjacent to the Georgia State campus, in an area using new white polymer-ply roofing that was part of the downtown area redeveloped prior to the 1996 Olympics. The Georgia State facilities did not use the new white polymer-ply roofs because it only lasts 5-7 years. Most decision makers consider durability and weathering, before even thinking about energy efficiency and albedo.

- Mark Guillory mentioned that Pat Downey (Merik Incorporated, 770-993-5360), an independent roofing consultant in Atlanta, is trying to improve roof quality in the State. There are at least six nationally known companies that supply a white, thermoplate, single-ply synthetic polymer which is an effective reflective roof. It works well for commercial (flat roofed) buildings. For steep slope roofs, people typically do not choose white roofs for aesthetic reasons (depending on the area of the country).

- Virginia suggested inviting Mr. Downey to the side meeting on UHIMI/UHIPP to be held during the October 26-28 Earth Technologies Forum. Over the course of three years, Mr. Downy was able to change a building code in the State of Georgia that provides or the use of highly reflective roofing materials as a tradeoff with insulation requirements. Downey headed up a task force that used information provided by LBNL and others to prepare and deliver presentations before the Department of Community Affairs and the Codes Advisory Committee in Georgia. He found that people who live in buildings or who benefit from increased comfort levels are not interested in the reflective roofing issue, because they are not the ones who pay the bills. Absentee owners are only worried about the up-front cost. However, when reflective material is used on a roof, one can save on insulation costs so that the overall cost is the same, but by using reflective roof products, the community as a whole can benefit from reduced ambient air temperature. Mr. Downy has found that 1). it is best to tailor presentations to the particular audience (i.e., the community, the utility, the average consumer) and 2). to anticipate the questions before they are asked in order to have the correct answer on hand and be more convincing.

- All agreed that information on roofing materials should be included in the Urban Heat Island Mitigation Guidebook. Mark noted that his tree commission is charged with advising the Mayor and City Council on all issues involving trees, including how to educate the general public on the importance of trees. The Mayor and the Council have agreed to be the Commission's cosponsor in the implementation of Baton Rouge's action plan. Any information that will help sell the project to the city planning folks would be useful.

- Camille asked whether the University of Louisiana was helping to interpret the Baton Rouge flyover data. Dr. John Pine (in the LSU geophysical science department) is sponsoring a graduate student this summer to begin analyzing some of the data. Dr. Nina Lamm who is working in Huntsville with NASA this summer, is also helping with interpreting some of the Baton Rouge data. Camille noted that Utah had worked to identify local institutions/scientists to help in the analysis; however, there is no funding available for that type of assistance.

- Virginia noted that, apart from the interpretation of the NASA data, Haider Taha of LBL has already begun to run the MET and UAM models; these results will be available shortly and can begin to provide useful information for the city prior to the interpretation of the ATLAS data which might take a long time, depending on the capabilities of each city.

- Maury Estes recommended that the cities develop a strategy that would match what they hopes to accomplish to a given resource. Part of successful implementation is having a good plan with which to start. This involves sitting down with the appropriate individuals in the community and developing a strategy.

Maury stressed the fact that the people who will accomplish the most will not be funded by the Federal government; they are the workers who are actually building and planting trees at the community level.

- Maury noted the benefits of having a demonstration area like Gateway involved in selling the program.

October side meeting

Virginia noted that EPA would be holding a side meeting on UHIMI/UHIPP to be held during the October 26-28 Earth Technologies Forum. During the Forum, EPA will host a 90-minute panel (tentatively scheduled for October 28); the Energy Star Roof Products Program will be launched, roofing manufacturers and paving folks will participate, and Camille has been invited to discuss the pilot project. After a lunch break, EPA will sponsor a private meeting of 50-75 people, such as roofing manufacturers, individuals involved in the pavement industry, individuals involved in the tree planting industry, state and local representatives with ideas, etc. EPA hopes to obtain feedback on its current project, hear suggestions on next steps from the State and local representatives and from manufacturers. Virginia asked each pilot city representative to develop a short list of individuals who would be able to attend the side meeting, and who would provide useful input to the discussion.

Camille mentioned that Mr. Boyer is a major developer in the Gateway district, and would provide useful input to the side meeting. It would seem that the best participants are policymakers, and individuals with access to people who can effect change, win over decision makers, and spread the word.

Camille and Meryl promised to provide a list of possible attendees to Virginia by Tuesday, July 21. Virginia stated that the invitation letters for the side meeting will likely be sent out by the end of July or early August.

Update of the guidebook

Ms. Gorsevski noted that EPA is in the process of updating the Urban Heat Island Mitigation Guidebook. The update will attempt to incorporate more recent data on reflective surfaces. It has been roughly five years since the first edition of the guidebook, and much more is now known about surfaces. She hopes to incorporate case studies from different cities about potential energy savings, more information on smog, a description of UHIMI and UHIPP, etc. More technical appendices will be developed geared towards air quality modelers.

The next EPA/Pilot City biweekly conference call has been scheduled for August 5 at 4:00 pm EDT. The call in number is (202) 260-7280 and the access code is 5376#.