The 6th Annual Superintendent/Overseers Conference opened with a powerful and emotional speech by Big Island Mayor, Harry Kim. He thanked the county maintenance employees for all their efforts and acknowledged that working in the public is often difficult. He spoke of the unique qualities that Hawaii’s people possess and how we need to work and live together as a community regardless of our race and background. Mayor Kim shared personal experiences and stories about the special people that have influenced his life.

Stanley Nakasone, County of Hawaii, Highway Maintenance Superintendent, added that Mayor Kim often stops when he sees County workers on the road and personally thanks them for their perseverance.

Following Mayor Kim, County of Hawaii Public Works Director, Bruce McClure, also welcomed everyone to the conference and expressed his gratitude to the workers who, in his terms are, “where the rubber meets the road”.

Next, we welcomed everyone on behalf of the Hawaii Local Technical Assistance Program (HLTAP) and did a short presentation on our program. Then as an annual tradition, we presented the Better Mousetrap Award to the county that has shared information about an invention that would improve their operations. This year, the award went to a team led by Chadman Maio with the City & County of Honolulu for their “Wire Mesh Screen Basket” (see page 2.)

At the conference, participants also had an opportunity to gain the skills of a successful supervisor with a presentation by David Grouchy (former Louisiana LTAP Director). Mr. Grouchy expressed that an effective supervisor needs to be an excellent communicator, motivator, problem solver and a creative thinker. In order to motivate fellow employees he suggested the “Four R’s”: Recruit, Reward, Redirect

(Continued on Page 6 & 7)
In March 2003, while Lake Wilson was getting a lot of media attention on the Salvinia Molesta infestation, we were having our own battle on the Windward side in Kai_lua. The “Green Monster” had also taken over the ditches along Kapaa Quarry Road. We needed to think fast, and come up with new ideas on how we were going to control this problem. Should we spray herbicide or spend numerous man hours scooping it up by hand? So, District Superintendent Michael Pundyke and Supervisor Chadman Maio enlisted the support of Construction Operators, Lionel Haili Jr. and John Sablan, to come up with a design similar to the large floating Excavator that was being used at Lake Wilson.

While putting many ideas on the table, we came up with three simple rules:

1. It must be made with in-house supplies and materials.
2. It must be easy to install and taken off by the Equipment Operator.
3. It must be functional and easy to use.

We all came up with a simple plan of a wire mesh screen basket that could be easily installed by the operator on the extension bucket of the backhoe. Lionel and John did the fabrication of the frame, side rails, and the mesh screen. With Lionel’s numerous years of welding experience on race cars, it came very easy for him to put the puzzle together. While Lionel and John talked about additional ideas, the wire mesh screen basket started to come to life. Soon the end result became a reality, “THE WIRE MESH SCREEN BASKET”.

The next day, the wire mesh screen basket was to be used for the first time. John Sablan prepared his backhoe with the basket. He tested it out in the base yard to get a better feel for it. Then off he went to Kapaa Quarry Road ditches. He staged his equipment along the ditch and roadway, extended his back boom with the attached new wire mesh screen basket and started moving the Salvinia Molesta plants from the waterway.

After getting accustomed to the attached basket, John picked up speed on the removal process. Within days, both ditches in Kapaa Quarry Road were cleaned. The wire mesh basket has proven to be a useful tool in saving many manpower hours. What would have taken weeks, we can now do in a few days.

Editor’s Note: The Hawaii LTAP Director challenged our readers to submit descriptions of devices or machine modifications they invented for improved operations so that everyone can gain from the fruits of local creativity. Our feature for this quarter was submitted by the City & County of Honolulu. We look forward to the other counties submitting their devices to be featured in future issues.

Submitted by: Chadman Maio
Invented by: Lionel Haili Jr., Chadman Maio, Michael Pundyke and John Sablan
City & County of Honolulu, Department of Facility Maintenance

Winner of the 2005 Better Mousetrap Award
**WHAT’S NEW?**

**ATTSA’s Webucation Center**

A new form of interactive computer education is the ‘webinar’. A ‘webinar’ is short for Web-based seminar, a presentation, lecture, workshop or seminar that is transmitted over the Web.

The American Traffic Safety Services Association (ATSSA) will host the following Webinar:

**October 2005**  
**MUTCD Part 6 - Session 3**  
The October 17 webinar is the third session of ATSSA’s continuing series on the MUTCD Part 6 and will focus on Sign Specifications and Materials.

For more information visit ATSSA’s website:


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**Updated Work Zone Rule Available**

FHWA has published a brochure and four fact sheets related to the recently updated work zone safety and mobility rule (23 CFR 630 Subpart J). These materials were developed by the FHWA Work Zone Team to raise awareness about the rule and support State DOTs, other transportation agencies, and their partners in their efforts to implement the rule. The brochure provides an overview of the rule and includes a flow diagram illustrating how the rule can be applied to the typical DOT program delivery process for road projects. The fact sheets cover the following topics:

* Rule Overview
* Work Zone Impacts Assessment
* Transportation Management Plans (TMPs) for Work Zones
* Public Information and Outreach Strategies for Work Zones.

These topics will be the focus of a set of four implementation guidance documents to be available later this year.

The brochure and fact sheets are available at:


If you would like to order printed copies of these materials, please send an email request to workzonepubs@fhwa.dot.gov and include the number of copies desired and shipping information.
The Cement and Concrete industry continues to make ‘concrete advances’ towards meeting the needs of our product users and owners. The concrete we use today is so vastly enhanced and improved from the years before.

In the past, concrete was treated as a simple, basic building material….like making a cake. [Main ingredients: Cement, aggregates, and sand. Add water. Mix thoroughly and place in form. After initial set, then apply finishing touches. Cure for a few days until completely hardened. Use as directed. [Note: For increase hardening strength, add more cement as desired.]

In more recent times, we have a ‘better understanding of concrete’, i.e. how it behaves and the complexity of the chemical reaction that occurs when water mixes with cement. This complexity is a good thing…it enables the industry to develop more types of cakes (concrete mixes) to suit the needs of the user. For example, we have concrete that is more flowable, self consolidating, low permeability, shrinkage reducing, fiber reinforced, water reducing, longer setting, fast setting, accelerated setting, high early strength, integral colors, and the list goes on as well as continues to grow.

It is important to realize that concrete is indeed different today than in the past. Understanding the material aspects and behavior of a particular type of concrete mix is vital to using the proper techniques when placing, consolidating, finishing, and curing of that particular type of concrete. To assure a successful project, the concrete contractor should meet with the ready mix supplier to establish a mutual understanding of the project requirements and the contractor’s placing methods.

“A Better Understanding of Today’s Concrete” was a featured seminar during the recent inaugural Masonry & Concrete Expo of the Pacific. Kenneth Hover, a premier speaker for several years at the World of Concrete and the ACI Conferences, treated the attendees to an outstanding presentation. Mr. Hover has established a reputable research program at Cornell University with an emphasis on the durability aspects of concrete.

“The inadequate understanding of materials technology in the design and construction industry is graphically demonstrated by the national ‘infrastructure crisis’. We need to expand our understanding of the fundamental nature and properties of concrete and other construction materials, and understand the relationship between those properties and environmental conditions. Furthermore, we must recognize the influence of construction operations and methods on those same material properties. While considerable attention has been given in the past to the strength of materials, research is now focusing on durability.”

For designers, contractors, and owners, we do have a better understanding of the importance of water to cement ratio and of proper concrete cover of reinforcing steel in relationship to concrete durability. With our resources and knowledge, there’s no doubt that we can provide extended service life in our infrastructures. For more information, feel free to contact CCPI at ph. 848-7100 or wkawano@ccpihawaii.org. Mahalo!
NEWS FROM OUR PARTNERS... (Continued from Page 4)

Hawaii Asphalt Paving Industry

By John Dupuis, HAPI President

Aloha to everyone from the Hawaii Asphalt Paving Industry (HAPI). Once again HAPI was proud to be a co-sponsor of the Steve Fong Scholarship Golf Tournament. The event was well attended and again we were able to award a full year’s tuition to a deserving undergraduate student at the University of Hawaii. This year’s event was even more special since Steve’s wife Yvonne and her two sons were also at the event. HAPI is looking forward to helping with next year’s tournament.

After the conclusion of HAPI’s four-part seminar series, presented by “local boy” Dr. Steve Muench from The University of Washington, in partnership with LTAP we have decided to ask Dr. Steve to come back for an encore performance of his “Hot Mix Asphalt Pavement Maintenance and Rehabilitation Workshop”. Arrangements are being made through LTAP and they will let everyone know when the date is established. HAPI and LTAP are also looking forward to future seminars, the content of which are yet to be established. We are always looking for topics so if any of our readers have any particular subjects they would like to see “seminared” please contact Gail or Juli at the LTAP office.

Remember school is back so drive safely.

Better Mousetrap?

Have you or one of your co-workers built a better mousetrap recently? A modified gadget? An improved way to do a job?

Please let us know about it. The best entries will be featured in a future issue of Hawaiian Connections.

Your name and phone number:

Inventor’s name and phone:

Invention:

Please fax this form to (808) 956-8851.
and Respect. This could also be applied to all aspects of our lives.

On the second day of the conference, each county was given an opportunity to share information on their operations and other issues that affected them. The City & County of Honolulu expressed their concerns on the shortage of manpower and how challenging it is to “do more with less” or even “the same with less”. They also contributed to the conference with a short presentation of their better mousetrap, “The Wire Mesh Screen Basket.”

Leonard Costa from the County of Maui followed with a slideshow of their many projects within the last year. A few of the challenges that Maui encounters are the overgrowth of seaweed and water lilies, the root intrusion on sidewalks and the disposal of dead sharks that have washed ashore.

Ken Morikawa from the County of Kauai raised concerns on union issues that would affect Hawaii Government Employees Association (HGEA) Bargaining Unit 2 (Supervisory employees in blue-collar positions). He is also on the Board of Directors representing HGEA Bargaining Unit 2 and encouraged the participants to be more actively involved in the union.

The final county presentation was made by Kelly Gallones of the Big Island on their new Geographic Information System (GIS) which was worked in with the State’s GIS system to save costs. The Big Island also shared their latest equipment that was purchased to help them with their operations. After watching the video of the equipment, participants were able to see them in a live demonstration. The first was a multipurpose watering truck that can be used for cleaning debris off the roadway, extinguishing small brush fires and dust control. The second machine, a truck mounted boom mower, is used to cut brush and branches from the roadway. One of the advantages of the mower has been the reduction of equipment vandalism because it can be driven to and from the baseyard.

The best part of the conference has always been the informal evening gathering where participants are able to “talk story” (share information). This is where everyone casually exchanges information and can offer solutions to some of the problems that were presented during the day. The county that hosts the conference usually prepares and shares their favorite food and everyone has a great time. We would like to thank the County of Hawaii employees and their families for their wonderful hospitality.

The final day of the conference featured Jiro Sumada, Deputy Director of Public Works for the County of Hawaii, with an interactive presentation on “Communicating in the Field”. He discussed the three basic communication styles: aggressive, passive and assertive. The key to any relationship is understanding your communication style. As supervisors, it is important to be aware of your communication style and perfect it as time goes by. This will help you become successful in business and in life.

To demonstrate positive communication Mr. Sumada asked for eight volunteers to practice what they learned. They were asked to participate in skits that featured...
typical problems faced by supervisors. The challenge was to deal with the problem utilizing the communication skills that were discussed earlier. The participant was critiqued and given suggestions on how to handle the situation better. Each volunteer discovered that role playing could help them prepare for real life conditions.

The last presentation was made by Dan Meyers and Lincoln Gayagas, of the US Army Corps of Engineers. They discussed some of the projects they were involved in around the state, such as the Big Island flood in 2000. They also presented two awards to the County of Maui for the “Best Maintained Project” and “Most Improved Project”.

This year’s conference was extremely successful! The exchange of ideas and information between the counties and the networking has always been an important part of the conference. We would like to express our sincere gratitude to Stanley Nakasone, Lori Shikuma, Ben Casuga and all the County of Hawaii staff for their countless hours of organizing this conference.

Jiro Sumada demonstrating positive communication.
WHAT IS SECTION 4(f)?

Information taken from FHWA Project Development & Environmental Review website.

Section 4(f) has been part of Federal law since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 and set forth in Title 49 United States Code (U.S.C.), Section 1653(f). A similar provision was added to Title 23 U.S.C. Section 138, which applies only to the Federal-Aid Highway Program. The wording in the two provisions was somewhat different; therefore, the Federal-Aid Highway Act of 1968 amended the wording in both sections to be consistent. In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C. Section 303 but Section 138 was not. The Substantive provisions of Section 4(f) apply only to agencies within the U.S. DOT and are generally referred to as 49 USC 303.

49 USC 303 Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites

(a) It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

(b) The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities.

(c) The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance (as determined by the Federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if-

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Fabulous Four Flowers into Fantastic Five for 4(f)

By Jodi Chew, FHWA Hawaii Division

The most recent addition to the programmatic 4(f) family is a programmatic 4(f) evaluation for transportation projects that have a net benefit to Section 4(f) properties. Prior to this addition, there were four nationwide programmatic agreements. One covered work on historic bridges. The second covered minor amounts of land from public parks, recreation areas, and wildlife and waterfowl refuges. The third addressed projects that used minor amounts of land from historic sites. The fourth applied to independent bikeway or walkway construction projects.

Some key points to remember about 4(f) are that Section 4(f) applies only to the action of agencies within the USDOT. Agencies within the USDOT are responsible for applicability determinations, evaluations, and findings. Also, Section 4(f) applies to any significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or land from any significant historic site. Lastly, the policy of the USDOT is to avoid the use of 4(f) properties unless there is no feasible and prudent alternative to the use of this land.

The programmatic 4(f) for transportation projects that have a net benefit to Section 4(f) properties does change the intent of the Section 4(f) statute. However, the programmatic 4(f) does identify criteria such that, if a project meets these conditions it will satisfy the requirements of 4(f) without preparation of an individual 4(f) evaluation. All documentation of analysis and determinations used to arrive at the programmatic 4(f) should be kept in the project file.

More detailed guidance about the newest programmatic 4(f) can be found on FHWA’s environmental website at www.environment.fhwa.dot.gov/projdev/PDsec4f.htm. If you are interested, FHWA’s Section 4(f) policy paper, revised in March 2005, can also be accessed via this web address.
**FREE PUBLICATIONS**

1. **FHWA-NHI-04-158** - Traffic Monitoring Guide
2. **FHWA-JPO-96-0014** - Shared Resources; Sharing Right-of-Way for Telecommunications
6. **FHWA-IP-83-4** - A Procedure for Determining Frequencies to Inspect and Repair Highway Safety Hardware
8. **FHWA-IP-90-017** - Evaluating Scour at Bridges
9. **FHWA-HPR-NM-87-03** - Polymer Verification In Asphalt Binders
10. **FHWA-HPR-NM-88-03** - A Pavement Rehabilitation Expert System (Pares) For Preliminary Design
11. **FHWA-HEP-99-007** - Guidebook on Statewide Travel Forecasting
15. **FHWA-RD-94-121** - Laboratory Development of Third/Fourth Generation
18. **FHWA-RD-96-180** - Determination of Pile Driveability and Capacity From Penetration Tests Volume II: Appendixes
20. **FHWA-RD-96-208** - Pavement Treatment Effectiveness, 1995 SPS-3 and SPS-4 Site Evaluations, National Report

We are cleaning and reorganizing the Transportation Library! Please take the time to review this list. Any remaining copies will be discarded by DECEMBER, 2005.
Director's Note  
by C.S. Papacostas

Much has happened since the last issue of our newsletter. After a series of delays and continuing resolutions, the U.S. Congress passed and the President signed into law H. R. 3, the surface-transportation reauthorization bill. Named SAFETEA-LU, or the “Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users,” the new law imparts predictability to the national program, including the LTAP, until 2009. Transportation-related associations (and there are hundreds of these) are busy interpreting the new law, each from its own perspective. We hope to provide highlights that are relevant to you, our associates, in a future newsletter.

In July, we helped organize a session of the executive board of the National Association of County Engineers (NACE) during the annual conference of the National Association of Counties (NACO) at the Hawai‘i Convention Center. Whereas the four counties of Hawai‘i are NACO members, it turns out that our county engineers are not officially associated with NACE. Our program manager Juli Kobayashi and I gave a presentation about LTAP at the national and local levels. We are also grateful to Hawaii FHWA Division Administrator Abe Wong for his excellent presentation on programmatic highway initiatives.

Also in July, the national meeting of LTAP/TTAP was held in Dubuque, Iowa, on the banks of the Mississippi, which, I learned, was named by the Chippewa tribe; It means “Big Water” or “Father of Water” in Algonquian. Incidentally, the TTAP in our national group stands for “Tribal Technical Assistance Programs” because eight centers in the constellation serve native governments.

Congratulations go to our Program Assistant Gail Ikeda whose improvements to our newsletter following last year’s meeting received praise from many participants.

Unexpectedly, looking at the map of the area, I discovered a Waikiki Street in the vicinity of the historic Ice Harbor, the Port of Dubuque. For baseball fans, it is noteworthy that the 1988 “Field of Dreams” movie site has been preserved nearby and is open to visitors.

Program Manager’s Note  
by Juli Kobayashi

This summer, the Hawaii LTAP staff had the opportunity to attend the National LTAP-TTAP Conference held in Dubuque, Iowa, on the banks of the Mississippi River. It was an extremely successful conference and we were able to share our knowledge of how our program cooperates with our partners as well as our experience of updating our newsletter and website.

At the conference, we really enjoyed the presentation made by the World Humor Organization, who use laughter to achieve success in staff development. They cover topics such as creative thinking, communication, teamwork, stress control, customer service, change and transition, motivation, and other areas of professional and personal development.

An important part of the national conference is the networking. We have learned so much from our fellow LTAP Centers and come back with many ideas on how we can improve our program. We would like to thank the members of Region 7 for their amazing hospitality and all the effort it took to make the conference so successful.

In our free time, Gail and I went to visit the Field of Dreams which is the actual site that the movie was filmed. We even had an opportunity to stand in the corn stock where the baseball spirits appeared. Iowa is a beautiful state and we are so thankful that we are given the opportunity to visit a different state each year for the National Conference.

Field of Dreams

*Hawaiian Connections features scenic pictures from various locations in Hawaii.

In this issue, we are featuring the Big Island, home of the most active volcano on earth. Kilauea is the youngest of five volcanoes and is located on the south-east side of the Big Island. It’s current eruption started in January 1983 and continues to this day. This eruption has added over 500 acres to the Big Island’s shoreline.
In the month of June, the Federal Highway Administration (FHWA) Office of Asset Management, in cooperation with FHWA Division Office and the Hawaii Department of Transportation (HDOT) offered a one-day workshop entitled: “Highway Economic Requirements Systems State Version”. The hands-on workshop allowed participants an opportunity to learn step-by-step utilization of the Highway Economic Requirements System – State Version (HERS-ST) software. The HERS-ST software can be customized and used for areas such as: Highway Needs Assessment (Investment Requirements) for Long & Short Range Plans, Pavement Management Systems, Congestion Management Systems, Safety Management Systems, Asset Management Systems, Operation Performance Measurements, State Transportation Plans and Corridor Plans. The workshop generated a great deal of interest and a third half-day session was added to accommodate a waiting list.

Ending the second quarter was the last of the very successful four-part HAPI asphalt seminar series, “Hot Mix Asphalt Pavement Structural Design”. Instructor, Steve Muench, an Assistant Professor at the University of Washington’s Department of Civil and Environmental Engineering, returned home to Hawaii to share his knowledge about the various methods for structural design of new pavements. These methods included the 1993 AASHTO ‘Design of Pavement Structures’ method, California method (as modified by HDOT), Asphalt Institute method, PerRoad and the NCHRP 1-37A mechanistic method. We hope to partner with HAPI in the future to have more asphalt workshops.

Sunny skies and a bit of rain greeted the participants to Keauhou, Hawaii for the 6th Annual Superintendent/Overseers Conference. See pages 1, 6 & 7 for a summary of another successful conference. Hawaii LTAP would like to express our appreciation to the County of Hawaii for all their efforts in hosting this very special event. We hope to see everyone again next year.

For more information on any of these workshops please contact us at (808) 956-9006.

WEB UPDATE

View our new look at:

http://hltap.eng.hawaii.edu/
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The Hawaii Local Technical Assistance Program (LTAP) is a cooperative program of the University of Hawaii Department of Civil and Environmental Engineering, the Hawaii Department of Transportation, Highway Division, State of Hawaii and the U.S. Department of Transportation Federal Highway Administration, Hawaii. The LTAP program provides technical assistance and training programs to local transportation related agencies and companies in order to assist these organizations in providing cost-effective improvements for the nation’s highways, roads and bridges. Our office is located at:

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