

THE FREQUENCY

INSIDE THIS ISSUE:

<i>COH 700 MHz Radio Project RFP</i>	1
<i>Contact Information</i>	1
<i>Radio Q & A's</i>	2
<i>Chris Grasso</i>	2
<i>Logo/Slogan Contest Winners</i>	3 & 4
<i>Meet the Radio Shops</i>	5



**CITY OF HOUSTON
700 MHZ RADIO
PROJECT RFP
UPDATE**

On December 7, 2007 the City of Houston received proposals for RFP / S29-T22459, CITYWIDE 700 / 800 MHz TRUNKED RADIO SYSTEM. A total of four proposals were received from two vendors, Motorola and TYCO – M/A-Com. Both vendors submitted a prime response as well as an alternate response to the RFP request.

The City's "Technical Workgroup" reviewed the proposal responses from December 10, 2007 through January 16, 2008, finishing up with an all day work session on January 17, 2008. As a result of this combined workshop a compliance matrix was developed along with questions to be included in the formal technical evaluation that is simultaneously being conducted by RCC Consulting.

During the weeks from January 22, 2008 through February 8, 2008 members of the City's Evaluation Committee reviewed the proposals. On February 11, 2008 members of the Evaluation Committee, the Technical Workgroup, and RCC Consulting conducted another workshop to review the technical evaluation to date and to provide input into the final list of questions and items to be demonstrated and discussed during sessions that will be held with each vendor during the month of March 2008.

The City is developing a detailed script along with a list of questions for clarification that will be provided to each vendor. This information will be provided to the vendors in preparation for the two - week long demonstrations and discussion sessions being set-up for the month of March. Our goal is to complete the evaluation process by the end of April 2008 as originally planned.

More updates to follow.

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**700 MHZ RADIO SYSTEM PROJECT
STRATEGIC PROJECTS OVERVIEW
KEY TASKS & TIMELINES**

- | | |
|---|------------------------|
| • Establish City/County Project Teams | July - October 2006 |
| • Develop Funding Plan | July - December 2006 |
| • Modify 700 MHz Regional | July 2006 - March 2007 |
| • Assess PD/FD UHF Systems and Acquire Spares | July - December 2006 |
| • Develop RFP for 700 MHz System | January - July 2007 |
| • Publish RFP | August 1, 2007 |
| • Apply for 700 MHz Channels (Estimated Need) | September 2007 |
| • Vendors Proposals Due | December 2007 |
| • Evaluate Proposals and Negotiate Contract | Jan 2008 - May 2008 |
| • Council Award and Project Kickoff | August - Sept. 2008 |
| • Finalize FCC licensing for 700 MHz Channels | September 2008 |
| • Implementation | TBD |

WELCOME ABOARD — CHRIS GRASSO



February 11 was Chris Grasso's first day as an official City of Houston employee. As you can see Tom didn't hesitate to pile on the work. You can send Chris a congratulating email at chris.grasso@cityofhouston.net but for the meantime no more work. Please!

RADIO PROJECT - Q & A'S

What is "Trunking"?

The concept of trunking (resource sharing) is actually quite old, and is taken from telephone company technology and practice. Consider two Telco central office exchanges, one in town "A" and the other in adjacent town "B". Each of these central offices has the theoretical capacity to handle ten thousand individual telephone numbers. (Central office "A", with prefix "123", has available 10,000 numbers from 123-0000 to 123-9999; central office "B", with prefix "124", the same.)

How many telephone lines are required to interconnect towns A & B? If all 10,000 subscribers in "A" were to simultaneously call 10,000 subscribers in "B", then 10,000 lines, (in Telco parlance "trunk lines", or simply "trunks") would be required between the two towns. However, the odds of that happening are remote. Telephone companies have well-proven formulas which predict the optimal number of trunk lines actually needed, under normal conditions, to interconnect two telephone exchanges.

This concept has simply been applied to radio user groups, to determine the optimal number of channels needed, under normal conditions, to accommodate a given number of users. In the event of a widespread emergency, such as a major earthquake, many more users than normal will attempt to access both the telephone and radio systems. In both cases, once the trunking capacity of the systems is fully used, all subsequent users will receive a busy signal.

HOW DO TRUNKED RADIO SYSTEMS DIFFER FROM CONVENTIONAL TWO-WAY RADIOS?

"Trunked" radio systems differ from "conventional" radio systems in that a conventional radio system uses a dedicated channel (frequency) for each individual group of users, while "trunking" radio systems use a pool of channels which are available for a great many different groups of users.

For example, if police communications are configured in such a way that twelve conventional channels are required to permit citywide dispatch based upon geographical patrol areas, during periods of slow dispatch activity much of that channel capacity is idle. In a trunked system, the police units in a given geographical area are not assigned a dedicated channel, but instead are members of a talk-group entitled to draw upon the common resources of a pool of channels.

The Advantages of Trunking?

Trunked radio takes advantage of the probability that in any given number of user units, not everyone will need channel access at the same time. Therefore with a given number of users, fewer discrete radio channels are required. From another perspective, with a given number of radio channels, a much greater number of user groups can be accommodated. In the example of the police department, this additional capacity could then be used to assign individual talk groups to specialized investigative, traffic control, or special-events groups who might otherwise not have the benefit of individual private communications.

To the user, a trunking radio looks just like an "ordinary" radio: there is a "channel switch" for the user to select the "channel" that they want to use. In reality though, the "channel switch" is NOT switching channels at all: when changed, it refers to an internal software program which causes a talk-group affiliation to be broadcast on the control channel. This identifies the specific radio to the system controller as a member of a specific talk-group, and that radio will then be included in any conversations involving that talk-group.

This also allows great flexibility in radio usage. The same radio model can be used for many different types of system users (i.e. Police, Public Works, Animal Control, etc) simply by changing the software programming in the radio itself.



RADIO PROJECT LOGO / SLOGAN CONTEST



**City of Houston
Radio Project
Logo Contest**

Contest Rules:

1. Develop a Logo and Slogan for the COH - Radio Project
2. Submit to Chris Grasso by the End-of-Business December 21, 2007
(Submissions can be made via email at chris.grasso@cityofhouston.net or via mail at 611 Walker, 9th Floor - Suite 939, 77002)
3. One First Prize and Two Honorable Mentions Will Be Awarded
4. City of Houston Radio Shop Personnel Can Enter

* If you need additional info contact Chris at 832-393-9613.

AND THE
WINNERS
ARE...



*The art of
communication is
the language of
leadership.*

– James Humes

Wireless Communications



1st Place
Robert Stagg
Houston
Fire
Department



RADIO PROJECT LOGO / SLOGAN CONTEST



Transmitting thru Houston...

LOUD & CLEAR



Honorable
Mention
Jose Mireles
Houston
Police
Department



**TOM's
TIP**

" It's 3
o'clock...

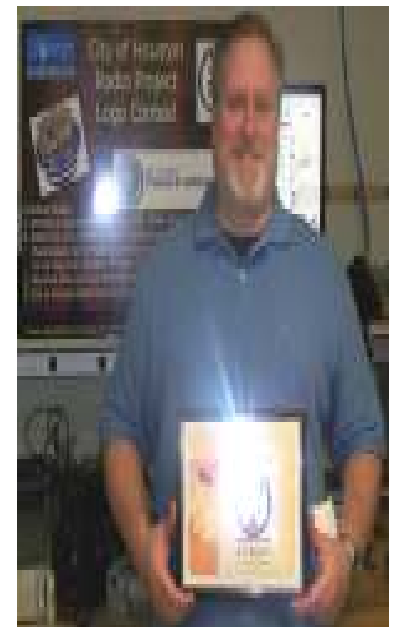
**Coffee
Time ! "**



Honorable
Mention
Eric Bennett
Houston Fire
Department

THERE WHEN YOU NEED US MOST

We're on the Web!
www.houstontx.gov/it/radio/index.html



MEET THE COH RADIO SHOPS - SPOTLIGHTING HPD, HFD, & PWE

*"The Frequency" will proudly
spotlight different*

COH – Radio Shop Employees

This issue spotlights

*Jose Rey (HPD), James Roberson
(HFD), and Jeffery Havies (PWE)*



What is your full name?

Jose R. Rey

What department do you currently work for?

Houston Police Department – Radio Shop

What is your current position?

Senior Communication Technician

What do you like about your job?

Jose likes working with electronics, computers, and RF.

How long have you worked for the City of Houston?

Since February 2001

Tell us about your education/ training/ certification background?

Jose has an Associates Degree in Electronic Technology, is FCC certified, and has experience working with electronics since 1995. In addition, he has worked on multiple projects in New York in the private sector.

Tell us about your family.

Jose has no kids and is not married.

What are your hobbies?

Jose likes outdoor activities including fishing and sports. In addition, he enjoys keeping up-to-date and playing with the latest electronic gadgets.

Tell us an interesting fact about yourself.

Jose is always open-minded, willing to learn, and able to adapt. He is patient to reading and researching for a solution to resolve any problem at hand.



What is your full name?

James M. Roberson

What department do you currently work for?

Houston Fire Department - Communications

What is your current position?

Sr. Communications Technician

What do you like about your job?

James enjoys that he is relied on heavily to provide up-to-date technology for executive HFD staff which entails extensive research and the knowledge of the communications inside the fire stations.

How long have you worked for the City of Houston?

Since April 1993

Tell us about your education/ training/ certification background?

James received training from the Military (United States Navy) and worked on the guided missile radar.

Tell us about your family.

James has a wife and 2 kids. James' daughter is a junior at Sam Houston State and is majoring in Forensic Biology. His son is a sophomore at Lamar University and is majoring in Fire Science.

What are your hobbies?

James builds patio furniture.

Tell us an interesting fact about yourself.

James is an only child.

What do you hope to see come out of the COH-Radio Project?

James hopes to see a system that the City of Houston can use and doesn't have a lot of glitches.

Anything you would like to add?

James is part of the CMC—1% Above & Beyond.



What is your full name?

Jeffery "Jeff" Havies

What department do you currently work for?

Public Works & Engineering - ITD

What is your current position?

Communications Technician / Service Coordinator

What do you like about your job?

Jeff enjoys the opportunity to service employees, working with co-workers and learning from them, being exposed to the diversity and the levels of experience and knowledge. He especially enjoys the coordinating part of his job duties.

How long have you worked for the City of Houston?

Since April 2006

Tell us about your education/ training/ certification background?

Jeff attended MTI - Microcomputer Technology Institute. He has installed everything from radios to Interlock devices (breathalyzers) for DUI/ DWI offenders to GPS Tracking Systems.

Tell us about your family.

Jeff has been married for 8 years and has 3 kids. Jeff's eldest daughter works with Council Member Jarvis Johnson on a special team called the Mayor's Youth Council. She was 1 of the 11 picked from 350 applicants. Jeff's son loves basketball and is a freshman on the Atascocita High School basketball team. Jeff's baby-daughter is in the 4th grade and is the cheer-leader captain for the second consecutive year.

What are your hobbies?

Repairing computers, restoring vehicles (Jeff just restored a 72 Oldsmobile Cutlass) , and fishing.

Tell us an interesting fact about yourself.

Jeff is meticulous about following up on anything that has his name on it and likes to finish the job no matter what. He is an advocate of teamwork and staying on top of a project.

What do you hope to see come out of the COH-Radio Project?

Jeff hopes to see it followed through with and to gain from everything it has to offer (especially knowledge). He hopes the radio project puts the COH into the next level of technology.

Anything you would like to add?

Jeff loves his job and has learned so much from the group at the PWE—Radio Shop. He is grateful for the knowledge & inspiration he's gained. Great Interviewer! (Thanks Jeff! - Sandra)