



RON ROBERTS

CHAIRMAN
SUPERVISOR, FOURTH DISTRICT
SAN DIEGO COUNTY BOARD OF SUPERVISORS

AGENDA ITEM

DATE: September 25, 2012

12

TO: Board of Supervisors

SUBJECT: IN SUPPORT OF A NEXT-GENERATION RESPONSE TO EMERGENCIES
AND DISASTERS (DISTRICT: ALL)

SUMMARY:

Overview

For the past decade, this Board of Supervisors has worked diligently and successfully to improve our region's fire fighting capabilities and response. While improving public safety is an ongoing priority, we pride ourselves on being forward thinkers and utilizing modern technology.

On August 7, 2012, this Board of Supervisors, aware of the coming peak fire season, supported a \$100,000 sole source procurement for the San Diego County Fire Authority (SDCFA) in cooperation with our partner contracting agency, CAL FIRE, that allowed for the expedited purchase of a new camera and related hardware, software and equipment for the Operational Downlink Information Network (ODIN) system. The ODIN system is the result of a joint effort between the Massachusetts Institute of Technology, Lincoln Labs and CAL FIRE to develop a first of its kind system. Avwatch, Inc. was selected by Lincoln Labs for their expertise with the technology and developing a civilian application for a system that would otherwise only be available for military uses. The ODIN system was designed, integrated and installed by Avwatch. San Diego is the first County in the nation to utilize this innovative technology.

As you saw on August 7 in a brief video filmed with a prototype camera, the system will equip a CAL FIRE OV---10 Bronco AA330 airplane with a color video and infrared camera pod to assist Air Tactical Group Supervisors (ATGS) in better determining the dimensions and directionality of a fire by visually cutting through the smoke layer. Proving to be a successful and useful tool, work progressed to downlink the video feed and control of the camera to Battalion Chiefs. This allowed the ground commander and their aerial counterparts to share a common picture of the incident while at the same time enabling ATGS to pass control of the video sensor off so they

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can focus on flying.

When completed later this year, ODIN's final phases will increase the reliability and availability of the system, create a robust downlink network with CAL FIRE and County response vehicles and provide the overall framework for distribution of live full motion video from a remote emergency event to local and state Emergency Operation Centers (EOCs).

As it is phased in, the ODIN system will have the capability to stream images to the Next Generation Incident Command (NICS) technology platform. Amazingly sophisticated but operated in a manner similar to a common Web site, NICS has the potential to revolutionize emergency and disaster response capabilities at the local level by consolidating real-time information, and historical data, from multiple sources, onto an easily manipulatable inter-active map. Custom built with military technology, the extraordinarily nimble NICS technology platform is being fully embraced by emergency providers in San Diego County and is now being tested state-wide by CAL FIRE.

A generous \$100,000 donation from the San Diego Regional Fire and Emergency Services Foundation to the County of San Diego will be directed to the San Diego County Fire Authority to support and enhance the capabilities of the Airborne Video Camera System and the information sharing opportunities of the Operational Downlink Information Network.

In addition, I am seeking approval to transfer \$14,400 to the San Diego County Fire Authority to fund one year of hosting of the NICS platform at the San Diego Supercomputer Center operated by UC San Diego. While NICS is hosted today by MIT/Lincoln Labs, the popularity of NICS is causing a strain on the lab's storage system. Moving the site to San Diego as an interim step will insure near-term capacity while long-term storage, hot-backup and other issues are resolved in future years. Lincoln Labs will continue to provide technical support.

Recommendation(s)

CHAIRMAN ROBERTS

1. Waive the procedural portion of Board Policy A-112, which states that recommendations to approve or ratify acceptance of gifts and donations (in accordance with County Administrative Code Section 66) for County use be prepared by the Chief Administrative Officer.
2. Accept the donation of \$100,000 from the San Diego Regional Fire and Emergency Services Foundation on behalf of the County of San Diego and to be directed to the San Diego County Fire Authority.
3. Allocate \$14,400 from the District 4 Neighborhood Reinvestment Program unit (15665) to the San Diego County Fire Authority (14015). For hosting of NICS at

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the UCSD Supercomputer center.

4. Authorize the Chief Financial Officer to transfer funds from the Neighborhood Reinvestment Program to the San Diego County Fire Authority for the hosting of NICS.
5. Authorize the Chair of the Board of Supervisors to sign a letter of appreciation on behalf of the Board of Supervisors and the County of San Diego to San Diego Regional Fire and Emergency Services foundation.
6. Find that the grant award described above has a public purpose.

Fiscal Impact

Funds associated with the donation from the San Diego Regional Fire and Emergency Services Foundation are not included in the Fiscal Year 2012-13 Adopted Operational Plan for the San Diego County Fire Authority. The Chief Administrative Officer will return to the Board of Supervisors to appropriate these funds. There will no change in net General Fund costs and no additional staff years.

Business Impact Statement

N/A

Advisory Board Statement

N/A

BACKGROUND:

For the past decade, this Board of Supervisors has worked diligently and successfully to improve our region's fire fighting capabilities and response. While improving public safety is an ongoing priority, we pride ourselves on being forward thinkers and utilizing modern technology.

Spending more than \$250 million since 2003, San Diego County has come a long way. Before the 2003 wildfires, our region did not own a single fire fighting helicopter, did not have a mass notification system to alert residents of approaching danger and our regional emergency response agencies could not communicate with each other in an effective way because their radios were not cross-compatible.

Now, at our direction, the County of San Diego owns two medium-lift helicopters that are available 365 days a year. Also, at the direction of Supervisor Cox and my office, the County has implemented a mass notification system that can reach upwards of 750,000 residents in an hour. Our region's communication system also has vastly improved, with virtually every responding agency being on, or able to patch into, the same frequency.

In 2008, at the recommendation of Supervisor Horn and me, this Board approved approximately \$3.2 million available in one-time dollars to lease two Bombardier CL-415 Superscooper™ fixed-wing amphibious aircraft for a three-month period. During this period, these highly

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effective planes dropped thousands of gallons of water on fires on Camp Pendleton, in the city of San Diego and elsewhere.

In 2010, my office worked with San Diego Gas & Electric on an agreement to utilize its \$30 million dollar heavy-lift helicopter for fire fighting, should it be needed. As we found out during the Cowboy Fire, it was a welcome addition. This helicopter, coupled with the region's other aerial assets, helped keep the fire controlled while fire fighters on the ground advanced through the rough terrain. In partnership with the city of San Diego, we have retained that relationship with SDG&E for use of the helicopter, with the most recent agreement starting at the first of this month.

On the prevention and preparedness side, this board put in place some of the nation's strictest building codes for new developments. For years now, the County has required precautionary measures such as fire sprinklers inside of homes, closed eaves, limitations on type and location of vents leading inside of homes and adequate defensible space around structures. The County also has spent millions of dollars on removing dead, dying and diseased trees throughout its jurisdiction as well as buying new equipment and apparatus for the various fire districts.

Through the consolidation process, which was initiated by Supervisor Jacob more than a decade ago and which she continues to successfully steer today, our first responders from the unincorporated area now go through unified medical evaluations and standardized training so they are all working together in the same way. Consolidation also has turned volunteer fire fighters into stipend paid fire fighters, resulting in better coverage for the unincorporated area year-round. This consolidation has resulted in a more unified, less fractured, more efficient fire agency.

Employing modern technology for early fire detection is another key component to our region battling fires, large or small. Being a hi-tech hub, the County has many resources it can tap into, one being the Institute for Telecommunications and Information Technology (Calit2) at UC San Diego, which my office has been working with since 2007. Through discussions and meetings between Calit2, CalFire, the San Diego County Fire Authority, and my office, it was determined that while we explore long term solutions to early detection (a partnership with the University of Melbourne started last month) immediate improvements also can be achieved.

Out of these discussions came the need to enhance the Calit2 High Performance Wireless Research and Education Network (HPWREN) early fire detection and remote monitoring system. The HPWREN is a cyberinfrastructure created by UCSD for wireless research, education and emergency first responder activities. The network is broadly deployed in San Diego County and existing assets include 20-plus mountaintop cameras. Various meteorological stations have supported wildfire response since 2003. The network also has provided critical wireless connectivity to various Incident Command Posts and other firefighting assets such as fire stations/camps, the air-and helitak bases, and even experimental connectivity for the Cal Fire Air Attack 330's FLIR system.

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Thanks to action by this board in 2010, and at the recommendation of my office, Neighborhood Reinvestment Grant funding was provided to purchase new cameras and meteorological weather stations that Calit2 installed and deployed in the unincorporated area of the county. Today, this HPWREN system also is being utilized in a partnership with SDG&E and the San Diego County Fire Authority to bring broadband Internet access to 70 CAL FIRE stations in the backcountry. On August 7, 2012, this Board of Supervisors, aware of the coming peak fire season, supported a \$100,000 sole source procurement for the San Diego County Fire Authority (SDCFA) in cooperation with our partner contracting agency, CAL FIRE, that allowed for the expedited purchase of a new camera and related hardware, software and equipment for the Operational Downlink Information Network (ODIN) system. The ODIN system is the result of a joint effort between the Massachusetts Institute of Technology, Lincoln Labs and CAL FIRE to develop a first of its kind system. Avwatch, Inc. was selected by Lincoln Labs for their expertise with the technology and developing a civilian application for a system that would otherwise only be available for military uses. The ODIN system was designed, integrated and installed by Avwatch. San Diego is the first County in the nation to utilize this innovative technology.

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When completed later this year, the ODIN system upgrade will increase the reliability and availability of the system, create a robust downlink network with CAL FIRE and County response vehicles and provide the overall framework for distribution of live full motion video from a remote emergency event to local and state Emergency Operation Centers (EOCs).

As it is phased in, the ODIN system will have the capability to stream images to the Next Generation Incident Command (NICS) technology platform. Amazingly sophisticated but operated in a manner similar to a common Web site, NICS has the potential to revolutionize emergency and disaster response capabilities at the local level by consolidating real-time information, and historical data, from multiple sources, onto an easily manipulatable inter-active map. Custom built with military technology, the extraordinarily nimble NICS technology platform is being fully embraced by emergency providers in San Diego County and is now being tested state-wide by CAL FIRE.

A generous \$100,000 donation from the San Diego Regional Fire and Emergency Services Foundation to the County of San Diego will be directed to the San Diego County Fire Authority to fund the next phases and capabilities of the Airborne Video Camera System and the information sharing opportunities of the Operational Downlink Information Network. The

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acceptance and use of these funds have been reviewed and meet the criteria as outlined in Board Policy A-112 and County Administrative Code Section 66.

In addition, I am seeking approval to transfer \$14,400 to the San Diego County Fire Authority to fund one year of hosting of the NICS platform at the San Diego Supercomputer Center run by UC San Diego. While NICS is hosted today by MIT/Lincoln Labs, the popularity of NICS is causing a strain on the lab's storage system. Moving the site to San Diego as an interim step will insure near-term capacity while long-term storage, hot-backup and other issues are resolved in future years. Lincoln Labs will continue to provide technical support.

With today's action, this Board of Supervisors will once again be demonstrating its strong and innovative commitment to public safety.

I urge your support for the recommendations in this letter.

Respectfully submitted,

RON ROBERTS
Supervisor, Forth District

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AGENDA ITEM INFORMATION SHEET

REQUIRES FOUR VOTES: Yes No

WRITTEN DISCLOSURE PER COUNTY CHARTER SECTION 1000.1 REQUIRED
 Yes No

PREVIOUS RELEVANT BOARD ACTIONS:

August 7, 2012 (21) - SOLE SOURCE PROCUREMENT FOR UPGRADES TO THE OPERATIONAL DOWNLINK INFORMATION NETWORK TO IMPROVE FIRE RESPONSE IN SAN DIEGO COUNTY

BOARD POLICIES APPLICABLE:

A-112, Acceptance and Use of Gifts and Donations

BOARD POLICY STATEMENTS:

The requested action to accept the donation meets the criteria outlined in Board Policy A-112 and County Administrative Code Section 66, Acceptance of Gifts.

MANDATORY COMPLIANCE:

N/A

ORACLE AWARD NUMBER(S) AND CONTRACT AND/OR REQUISITION NUMBER(S):

N/A

ORIGINATING DEPARTMENT: District 4, Board of Supervisors

OTHER CONCURRENCE(S): N/A

CONTACT PERSON(S):

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