NICS

Next - Generation Incident Command System

Update For The Unified Disaster Council

20 Feb 2014

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NICS Users' Group

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Helpful Info

NICS Homepage: http://nics.LL.mit.edu

Wildfire Today Article: http://wildfiretoday.com/2014/02/10/ new-communication-tool-enhances-incident-management/

YouTube Video: http://youtu.be/mADTLY0t_eM

SARApp: https://public.nics.ll.mit.edu/nicshelp/ ➡ Documents

✳✳ 3rd Annual NICS Users' Group Meeting - 2-3 April 2014
Ben Clark Public Training Center, Riverside

Jack Thorpe: *Jack@thorpe.net* (619) 459-8517

Bob Toups: cdfbob@gmail.com (951) 453-6513

Dave Schloss DSchloss@san-marcos.net (760) 594-2604

Marc Hafner Marc.Hafner@fire.ca.gov (619) 988-7234

NICS

- *Situational awareness and commander collaboration starting at the incident level and instantly available to all other authorized decision makers in the NICS community.*

- *Information sharing tightly controlled.*

- *Directly impacts decision making at all levels of command and control.*

- *An ICS/NIMS – based tool set; rooted in ICS/NIMS structure, processes, and procedures.*

- *"Compressing the decision cycle from 12 hours to 12 minutes."*

NICS is a Collaborative Project

Developer

MIT Lincoln Laboratory

Federally Funded Research & Development Center

Funded 2007-2010

Sponsor

Homeland Security

Science and Technology

Coordinator of Operational Participants

California Emergency Response Community

Tribal

Military

State

Local Govt

Federal

County

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Funded 2010-2014 *

* Also County of San Diego; San Diego Gas & Electric; USCG

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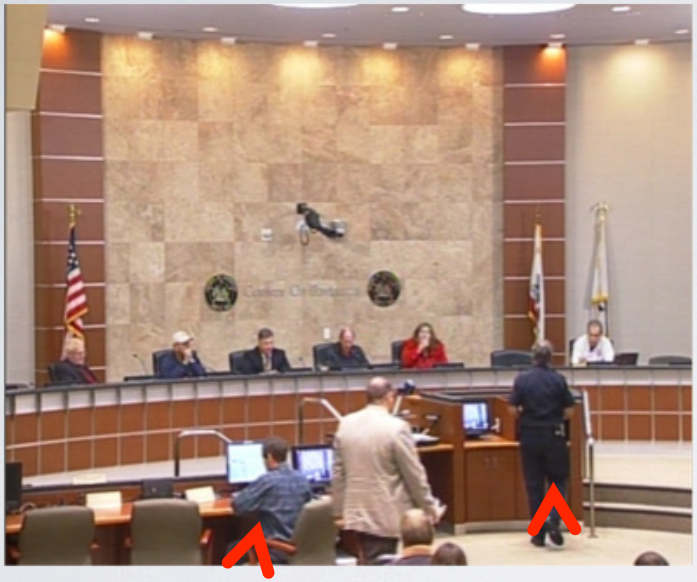
Substantial In Kind Contribution

Riverside Flooding
21-23 Dec 2010



Chief Hawkins briefs
Board of Supervisors
using NICS live

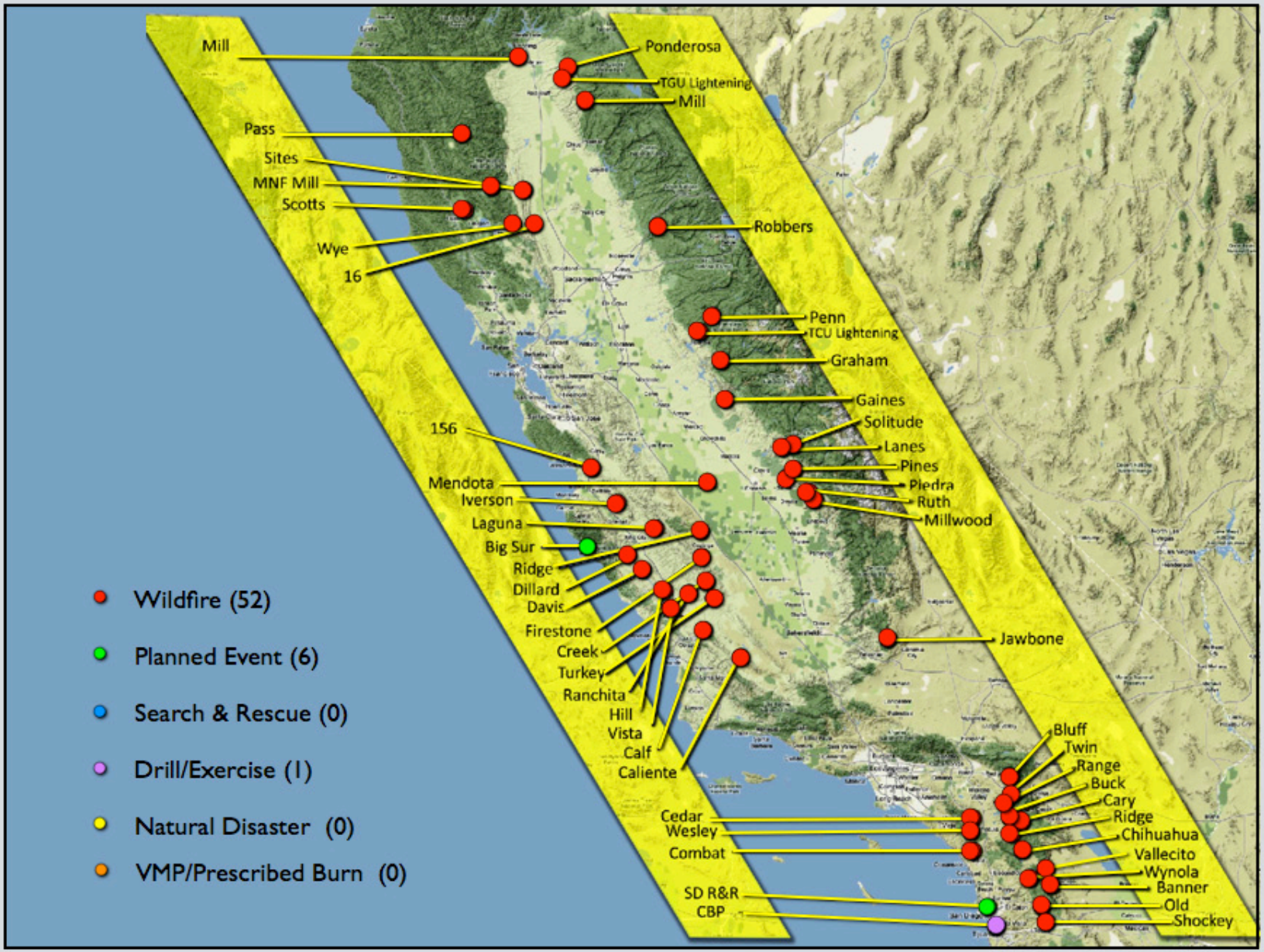
Chief Toups online
with NICS

NICS turned on Dec 2010

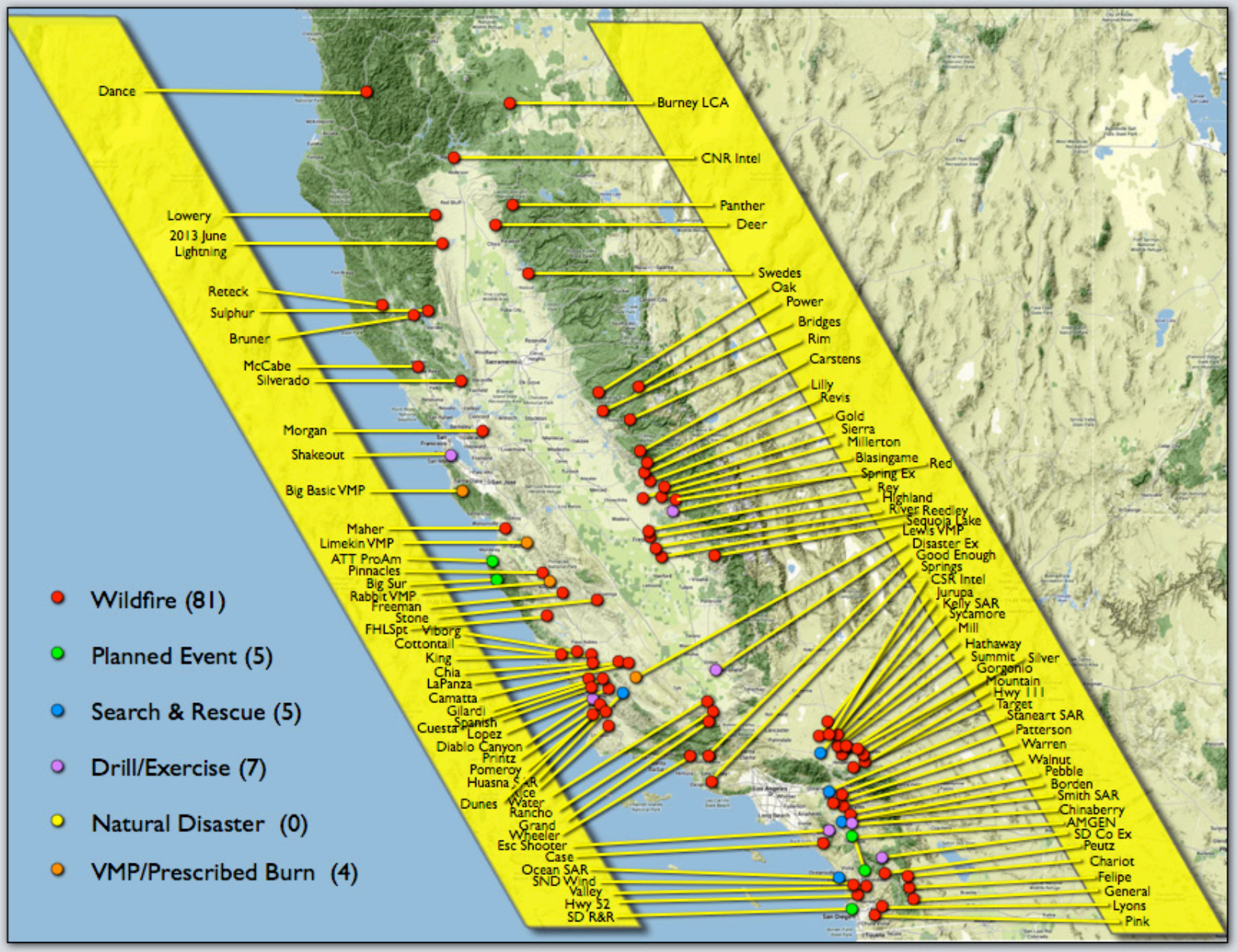
Used on 161 Incidents since

133 - Wildfires
11 - Planned Events
5 - Search & Rescue
7 - Exercises
0 - Natural disasters
4 - Prescribed Burns

NICS Uses 2011 - 2012



NICS Uses 2013



1,825 registered users
255 registered organizations

Federal - Tribal - Military - State - County
Local Government - non-govern org (NGO)
Commercial - Other.....

Fire-Rescue Law Enforcement
Emergency Management Utilities.....

1,825 registered users
255 registered organizations

Users:
1,425 - California
400 - Other (mostly MA National Guard & State Fire Service)

Outside California

Massachusetts
New York
Alaska
DC
Kentucky
West Virginia
Washington
Pennsylvania
Idaho
Montana

Georgia
Minnesota
New Jersey
Oregon
Connecticut
Rhode Island
Kansas
New Hampshire
Virginia
Virgin Islands

Arafura Sea
Solomon Sea
Timor Sea
Northern Territory
Coral Sea
Queensland
Australia
Western Australia
Brisbane
South Australia
Perth
New South Wales
Sydney
Great Australian Bight
Australian Capital Territory
Victoria
Melbourne
Tasmania

California Agencies

CAL OES

Coordination of resources via early awareness

CAL FIRE

Intelligence development

California National Guard

Support of large scale operations

CAL TRANS

Air Awareness & Coordination
Flood Prediction/Response

CHP

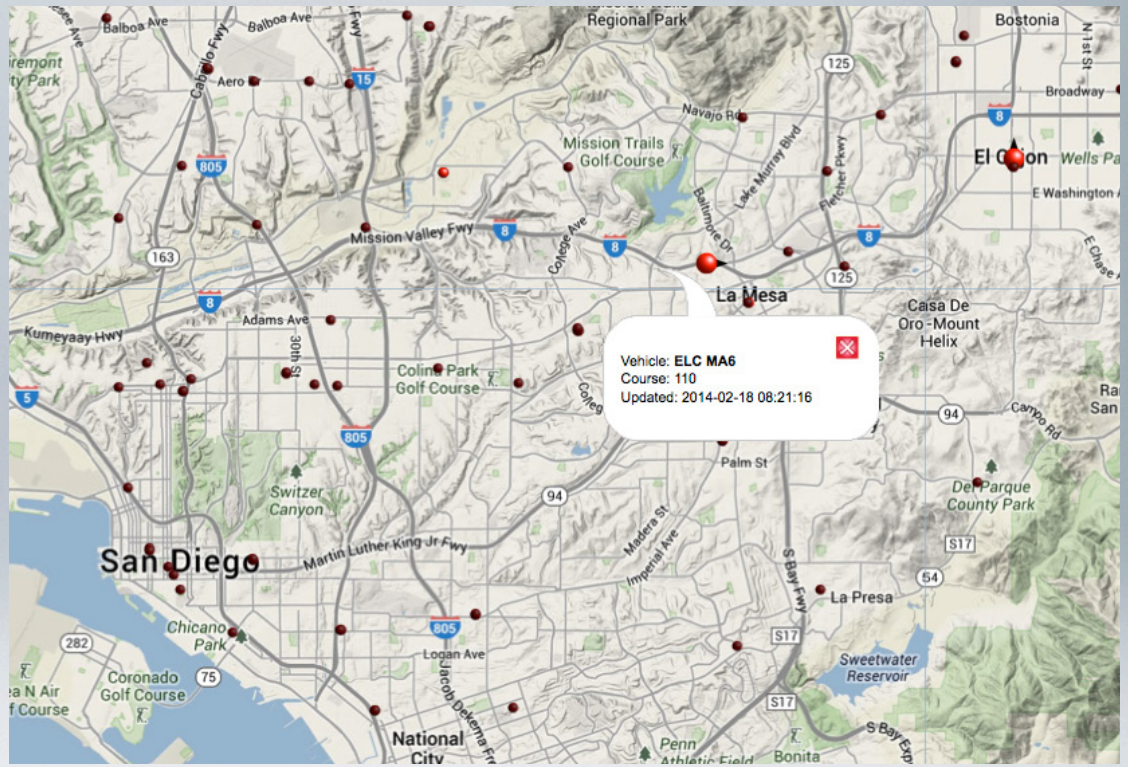
Planned events

San Diego Supercomputer Center
University of California at San Diego

NICS is hosted at the San Diego Supercomputer Center, UCSD
via the sponsorship of the San Diego County Board of Supervisors

Position Location

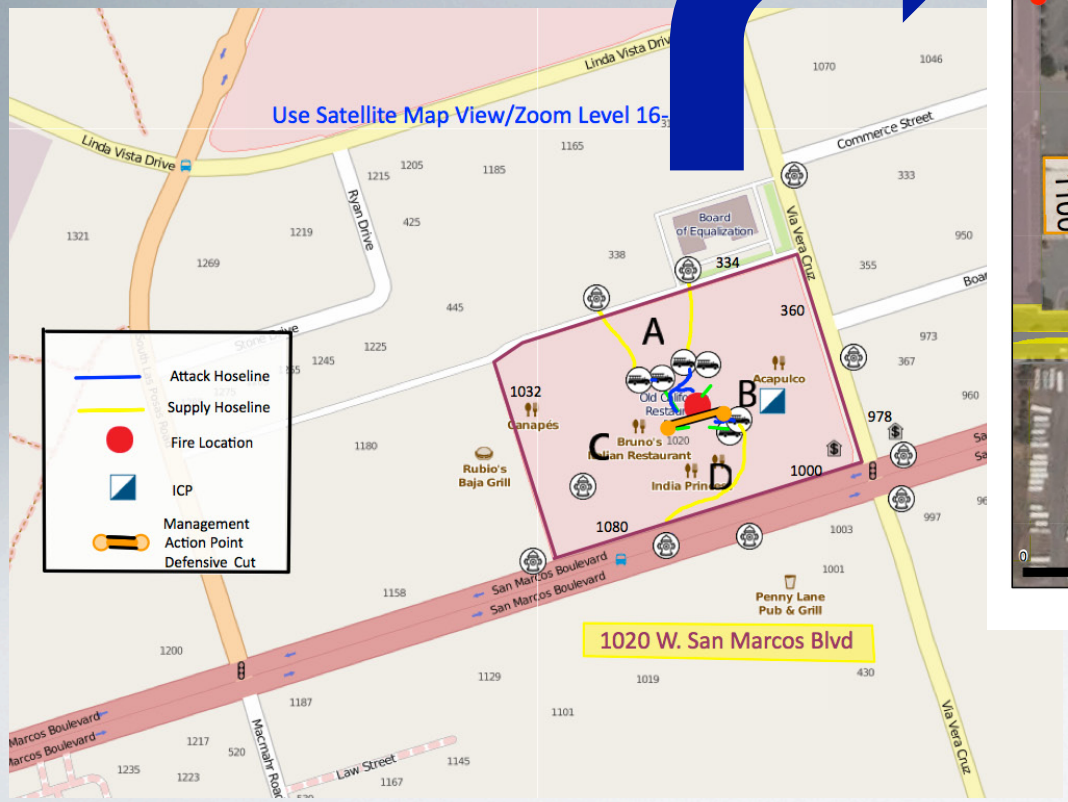
AVL via RCIP

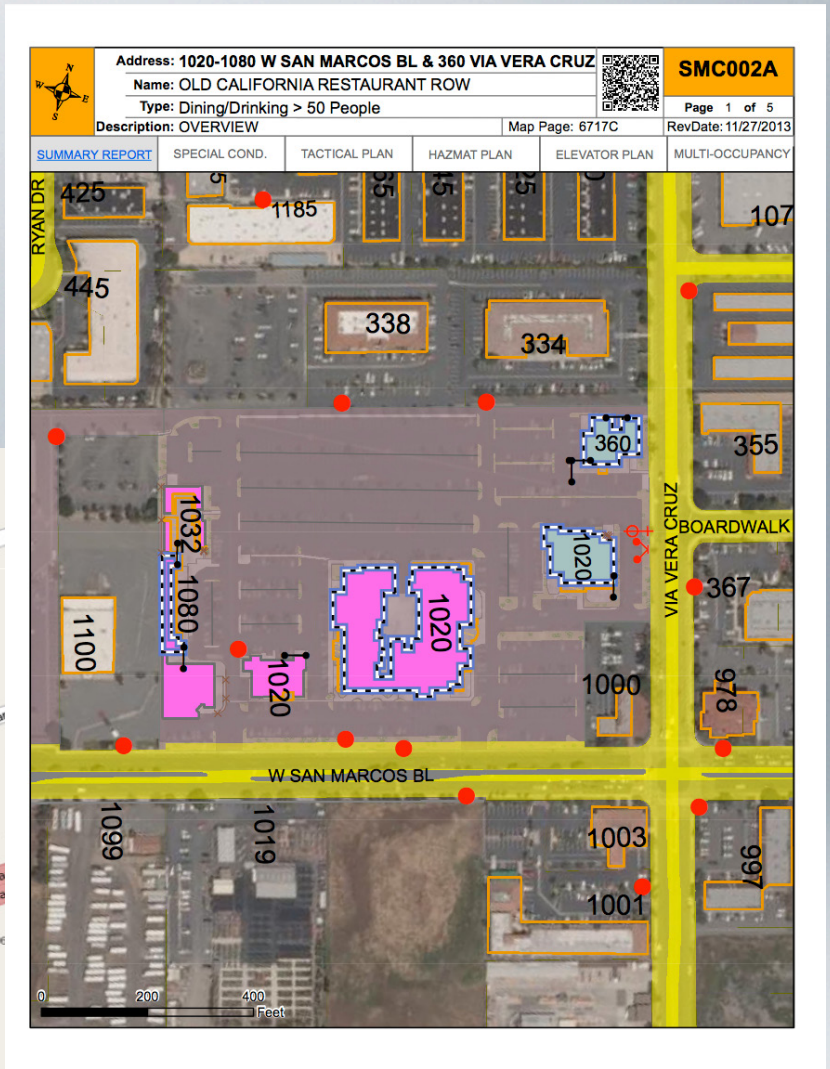


Back country tracking via satellite

Smart Phone via SARApp

Linked Data





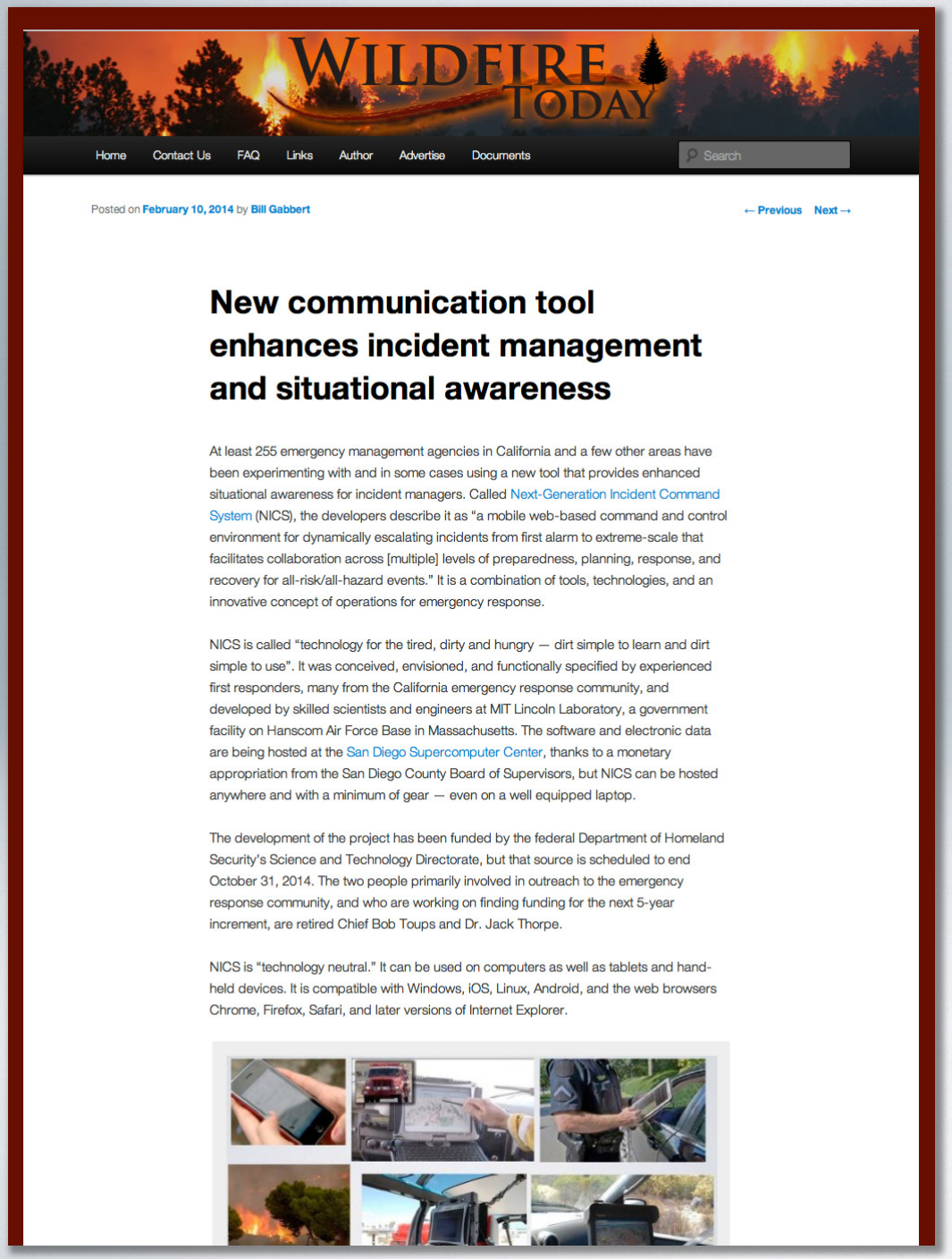
Product from the San Diego Regional Public Safety GIS Group

NICS Open Street Map View - 1020 W. San Marcos Blvd
Prepared by B/C Dave Schloss, San Marcos Fire

City of Carlsbad

- 91 Registered Users

- Google Chrome installed on Mobile Data Computers (MDCs) in coordination with North Comm



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Posted on February 10, 2014 by Bill Gabbert

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New communication tool enhances incident management and situational awareness

At least 255 emergency management agencies in California and a few other areas have been experimenting with and in some cases using a new tool that provides enhanced situational awareness for incident managers. Called Next-Generation Incident Command System (NICS), the developers describe it as "a mobile web-based command and control environment for dynamically escalating incidents from first alarm to extreme-scale that facilitates collaboration across [multiple] levels of preparedness, planning, response, and recovery for all-risk/all-hazard events." It is a combination of tools, technologies, and an innovative concept of operations for emergency response.

NICS is called "technology for the tired, dirty and hungry — dirt simple to learn and dirt simple to use". It was conceived, envisioned, and functionally specified by experienced first responders, many from the California emergency response community, and developed by skilled scientists and engineers at MIT Lincoln Laboratory, a government facility on Hanscom Air Force Base in Massachusetts. The software and electronic data are being hosted at the San Diego Supercomputer Center, thanks to a monetary appropriation from the San Diego County Board of Supervisors, but NICS can be hosted anywhere and with a minimum of gear — even on a well equipped laptop.

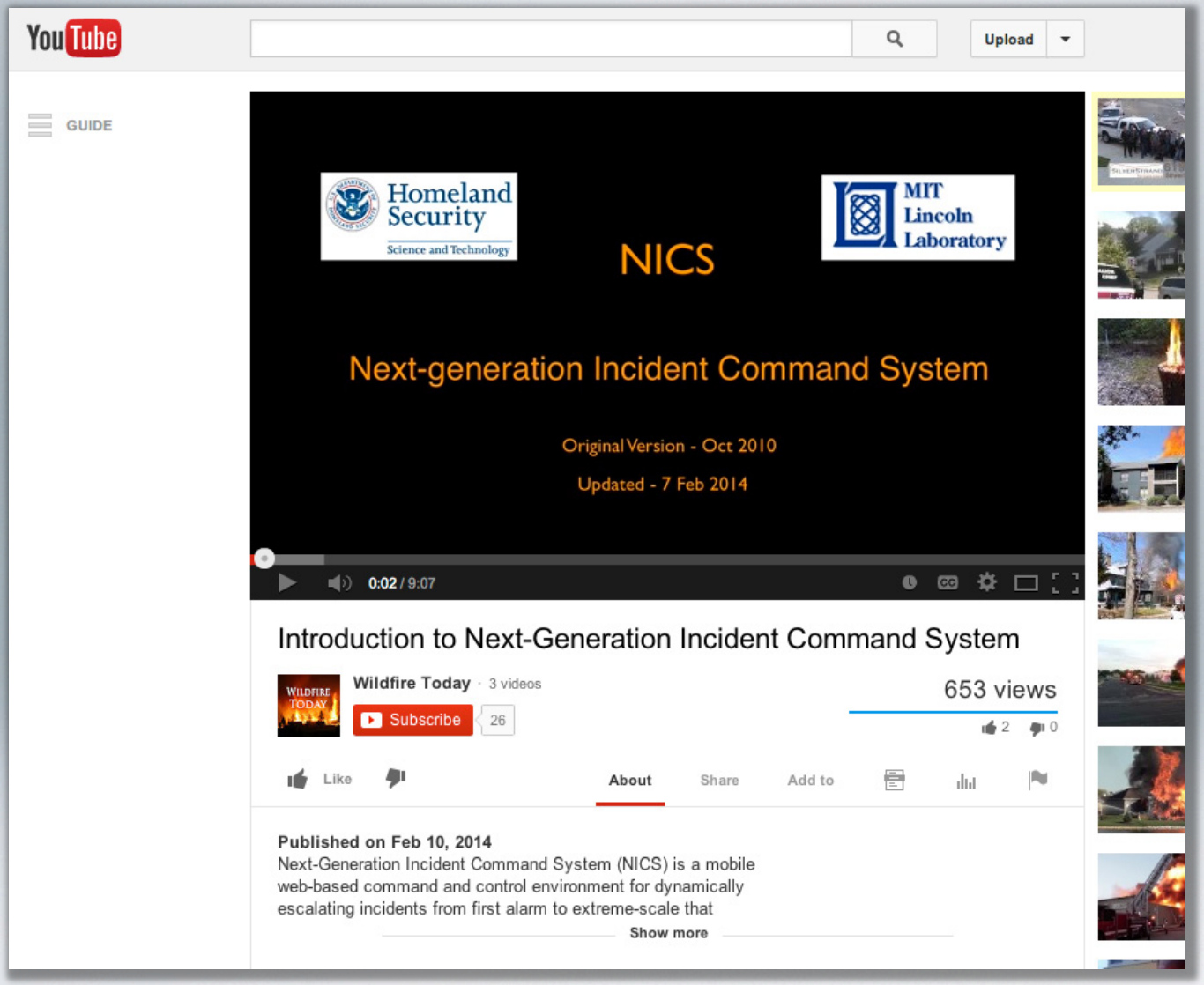
The development of the project has been funded by the federal Department of Homeland Security's Science and Technology Directorate, but that source is scheduled to end October 31, 2014. The two people primarily involved in outreach to the emergency response community, and who are working on finding funding for the next 5-year increment, are retired Chief Bob Toups and Dr. Jack Thorpe.

NICS is "technology neutral." It can be used on computers as well as tablets and hand-held devices. It is compatible with Windows, iOS, Linux, Android, and the web browsers Chrome, Firefox, Safari, and later versions of Internet Explorer.

Wildfire Today Article

10 Feb 14

http://wildfiretoday.com/2014/02/10/new-communication-tool-enhances-incident-management/



NICS Video

YouTube Video

http://youtu.be/mADTLY0t_eM

Road Ahead – Next 5 Years

DHS S&T funding ends 2014

NICS Program Imperatives

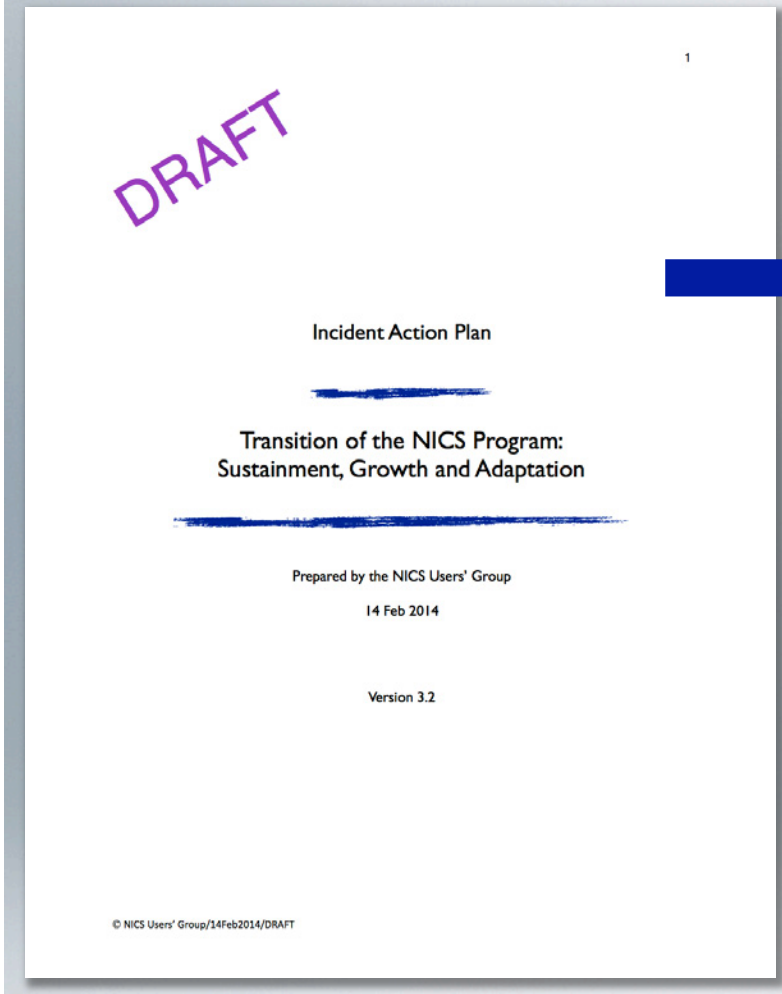
NICS has to be open, free, and scalable:

- NICS will continue to be ***free*** to all emergency response organizations

- NICS will continue to be easy to learn & easy to use for the ***Tired - Dirty – Hungry***

- NICS will be ***resilient***

- Growth and adaptivity will be via ***Apps***



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DRAFT

Incident Action Plan

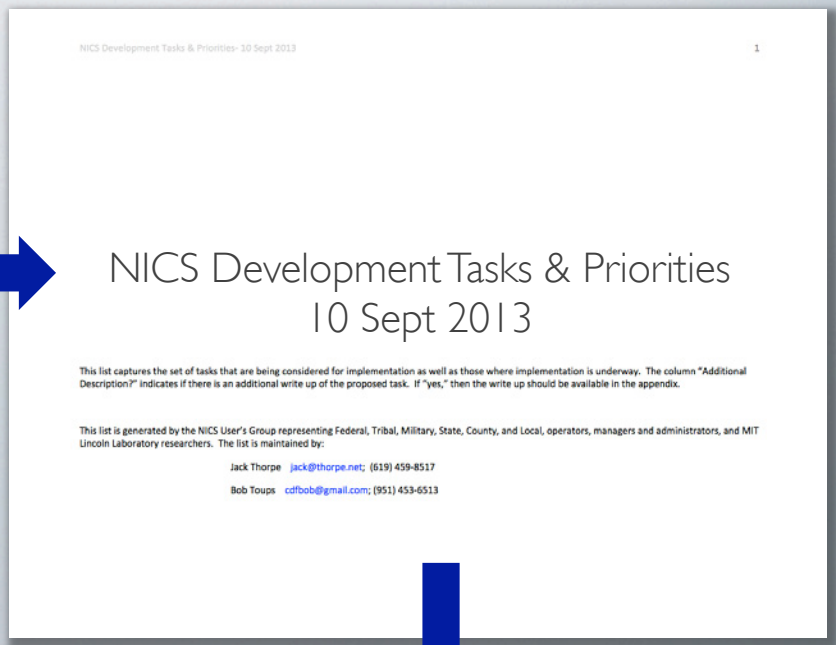
Transition of the NICS Program:
Sustainment, Growth and Adaptation

Prepared by the NICS Users' Group

14 Feb 2014

Version 3.2

© NICS Users' Group/14Feb2014/DRAFT



NICS Development Tasks & Priorities- 10 Sept 2013 1

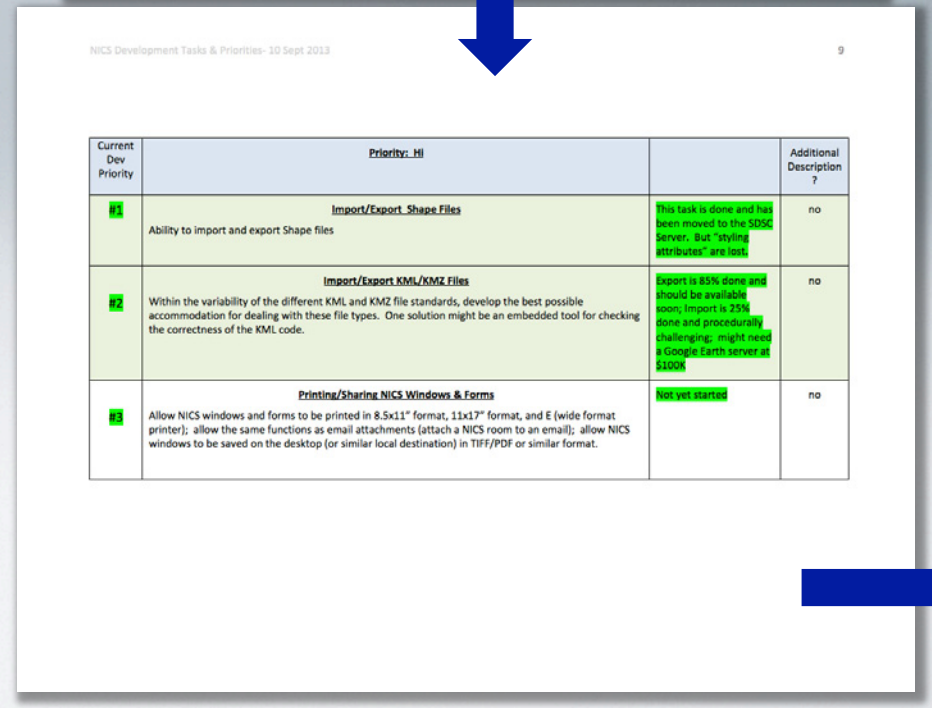
NICS Development Tasks & Priorities
10 Sept 2013

This list captures the set of tasks that are being considered for implementation as well as those where implementation is underway. The column "Additional Description?" indicates if there is an additional write up of the proposed task. If "yes," then the write up should be available in the appendix.

This list is generated by the NICS User's Group representing Federal, Tribal, Military, State, County, and Local, operators, managers and administrators, and MIT Lincoln Laboratory researchers. The list is maintained by:

Jack Thorpe jack@thorpe.net; (619) 459-8517

Bob Toups cdfbob@gmail.com; (951) 453-6513



NICS Development Tasks & Priorities- 10 Sept 2013 9

Current Dev Priority	Priority: Hi		Additional Description ?
#1	**Import/Export Shape Files** Ability to import and export Shape files	This task is done and has been moved to the SDSC Server. But "styling attributes" are lost.	no
#2	**Import/Export KML/KMZ Files** Within the variability of the different KML and KMZ file standards, develop the best possible accommodation for dealing with these file types. One solution might be an embedded tool for checking the correctness of the KML code.	Export is 85% done and should be available soon; Import is 25% done and procedurally challenging; might need a Google Earth server at $100K	no
#3	**Printing/Sharing NICS Windows & Forms** Allow NICS windows and forms to be printed in 8.5x11" format, 11x17" format, and E (wide format printer); allow the same functions as email attachments (attach a NICS room to an email); allow NICS windows to be saved on the desktop (or similar local destination) in TIFF/PDF or similar format.	Not yet started	no

Strategic Planning

DRAFT 1

Candidate NICS Apps - 7 Aug 2013

This is a continually evolving list of notional applications ("Apps") that could be developed for the NICS program. It includes some simple, easy to implement functions (low hanging fruit) as well as some very complicated or poorly described functions. These are largely the result of brainstorming on the part of the NICS participants, including deliberations by breakout groups at the 28-29 Feb 2012 NICS Conference & Workshop at the Ben Clark Training Center, Riverside, and discussions since then.

The term "Apps" is used here as shorthand. These candidates could be functions, mashups, new capabilities, etc.

These are the current groupings, an attempt to group similar Apps together. It is a very rough attempt, to be sure. Also you will find some duplicates or very similar descriptions in different categories. We will continue to purge and clean the list.

1 - Tracking / Routing	14 - Chat
2 - Viewing	15 - Training & Rehearsal
3 - Personnel Management	16 - NGO/PVO
4 - Resource Management	17 - Screen Saver/Slide Show
5 - Data Management	18 - Finance
6 - Weather	19 - Safety
7 - Imagery	20 - Archiving
8 - Terrain Appreciation	21 - Forms
9 - Timers & Counters	22 - vUSA (Virtual USA)
10 - Notification	23 - Comms
11 - Threat Forecasting	24 - NICS Offline
12 - Preplans	25 - WebEOC/UICDS
13 - User Interface (UI)	26 - PIO

Notation on following forms:
Draft: The candidate app has been described in a written or video draft for user review
Final: The user group responsible for the app category has agreed upon and finalized the specification. It is ready for programming implementation
Done: The app is a functional, working app in NICS, shown as X

Grow, Expand, & Tailor NICS Via Apps

103 Candidate Apps

Task	FY14	FY15	FY16	FY17	FY18
1. Maintain current code					
2. Enhance/expand core architecture & infrastructure					
3. Assess network requirements					
4. Implement secure data & communications					
5. Integrate with existing systems					
6. Universal adaptivity for BYOD (bring your own device)					
7. Enhanced usability for Tired - Dirty - Hungry					
8. Grow, expand, and tailor via Apps					
9. Active community development					
10. 24x7 response					
11. Conduct operational assessments for all hazard/risk					
12. Create & nurture needed organizations					
Budget					

12 Major Thrusts Next 5 Years

Proposed Funding FY14 – FY18

Task	FY14	FY15	FY16	FY17	FY18
1. Maintain current code					
2. Enhance/expand core architecture & infrastructure					
3. Assess network requirements					
4. Implement secure data & communications					
5. Integrate with existing systems					
6. Universal adaptivity for BYOD (bring your own device)					
7. Enhanced usability for Tired - Dirty - Hungry					
8. Grow, expand, and tailor via Apps					
9. Active community development					
10. 24x7 response					
11. Conduct operational assessments for all hazard/risk					
12. Create & nurture needed organizations					
Budget	8.0 M	8.0 M	6.0 M	5.6 M	4.8 M

Entries for each cell have been summed to provide totals below

FY14	FY 15	FY 16	FY 17	FY18
8.0	8.0	6.0	5.6	4.8

- Leverage progress to date
- Grow organizations
- Expand application areas
- Strengthen operational support

FY14	FY 15	FY 16	FY 17	FY18
8.0	8.0	6.0	5.6	4.8

- Federal Govt (e.g., FEMA)
- Military
- State Govt (CAL OES, CAL FIRE, Other)
- CPUC & Utilities
- Public Venues

- Political Sponsorship