

# 2021

## ICS TIPS AND TECHNIQUES



## BEST ICS RESEARCH AND READING

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Cover Photo: Tom Cox in the Operations Section of the Provincial Operations Centre in support of the 2016 Fort McMurray wildfire. The Province declared a Provincial State of Emergency as approximately 110,000 people from Fort McMurray and surrounding communities and workcamps were evacuated and 2400 homes, businesses and buildings were destroyed. Tom spends much of his free time researching Incident Command, disaster response, communications failures, public warning and emergency management to build better courses, provide better examples, and have more solid facts in emergency training.

## INTRODUCTION TO 2021

2020 will be remembered as the “Year of the Pandemic” but there were other disasters as well, with the record fires in California, record number of hurricanes in the Atlantic, the devastating fires in Australia, and a myriad of other maelstroms. My first article collected in 2020 covered the increasing numbers of supercell fire tornados that are occurring, especially in California and Australia. The last article of 2020 gives us another hazard and risk to worry about – one fifth of the world population is at risk of land subsidence [Tidbits – Page 32]. I have avoided articles on the pandemic as it is still ongoing and many articles lack a useful perspective; speculative or sensational rather than educational or predictive. As well, there is a tendency to prepare for the last disaster rather than the next disaster. I’m sure there will be excellent articles and numerous inquiries in 2021 to add to this list, but I will only put in a few COVID-19-related articles for now....

For 2021, I have added a number of articles from the last two or three years. The absolute highlight article for me was an article on the Australian Broadcasting Corporation site called “How to prepare yourself – and your brain – to face bushfires” [Other Disaster Topics – Page 28]. Covering the research of Danielle Every, this adds to Amanda Ripley’s book “The Unthinkable” and has several critical understandings for putting together your emergency plans and understanding why people respond the way they do. Both are thought-provoking.

Adding to our knowledge is what I intend. But in updating the links, 28 of the best articles I have ever seen are no longer available on the internet. It is heart-breaking to see snippets and tidbits that contribute to our understanding of ICS gone, but where does it leave us when entire After-Action Reviews, key research, and the examples of “getting it right” are forever gone? I have kept copies of the articles in my own files, but the intent of this paper is to provide direction to free public access so subscription and copyright issues don’t block learning and improvement. It is a total shame. Which is why I put my writing on the ICS Canada web page, in order to allow everyone to benefit.

Responder Safety is still a bee in my bonnet. Safety is a condition, not an absolute. We are knowingly and deliberately putting responders into unsafe conditions. We need to stop treating safety as a slogan or an Objective. Two Line of Duty Deaths (LODD) illustrate how it is impossible to prevent all LODDs but we still ignore the in-your-face safety issues. One firefighter died from something I have never heard of before – can we prevent all fatalities? A second one died driving home from a wildfire shift at one a.m. She rolled her vehicle and was ejected because she was not wearing a seatbelt. Her death is not a simply a failing of an individual or the Incident Management Team. It demonstrates the shortcomings of our attitudes, understanding, and adherence to safety. We pretend we can prevent the most unusual and rare responder fatalities and continue to ignore the most common and preventable causes of death. Safety of the Responders is not our first Priority judging by how we put in the IAPs “Responder Safety is our first Priority”. [Other Disaster Topics – Page 30]

Businesses sometime do better emergency management than emergency managers. I have included a couple of other articles on how businesses understand business continuity and how we all could learn

from their success. H-E-B grocery in Texas and The Waffle House show how a good company can respond to multiple disasters. [Other Disaster Topics – Page 30]

While doing research into the failures of lessons learned for a conference I will be speaking at, I came across a very thought-provoking article in wildfire today called “Chesterton’s Fence: A lesson in second order thinking.” This applies not only to lessons learned and setting Objectives, but almost every aspect of emergency management. We like simple solutions. We rarely think about the downside. As a result, emergency management is often knee-jerk reactions, bright and shiny solutions that don’t work, and failing to recognize that every decision has a downside and will have unintended consequences. Unless we build that thinking into our Planning Section Chiefs, Operations Section Chiefs, Incident Commanders, and emergency management researchers, we will continue to be hampered by short-sighted thinking, less effective solutions, and being sold another bright and shiny solution that the marketers and sales people present – implying that it never had any downside to start. [ICS Various Topics – Page 18]

I have hundreds of good articles I cannot share with you because they are locked behind paywalls. Therefore, I am grateful to government-sponsored open news sources like ABC, BBC, and CBC who provide so much information and make it accessible to everyone as well as all news organizations that provide at least a couple of articles free. Other regular sources include Eric Holdeman’s “Disaster Zone” blog at <https://www.govtech.com/em/> and Bill Gabbert’s regular updates (for years) at <https://wildfiretoday.com/>. I personally buy a subscription to The Guardian <https://www.theguardian.com/international> because they use the subscriptions to keep the news open-source for those who cannot afford to pay. By supporting The Guardian, I support the ability of everyone who wishes to learn about disasters and work to improving our response.

All new articles have been identified with a “[New 2021]” indicator.

## TOO LITTLE AND TOO MUCH

### **I want to save you some time!**

There are very few great articles to help ICS instructors get a real grasp of the subject. Without much support, instructors are tossed into the classroom and expected to provide an in-depth understanding to the students. How do you get more information to become a better instructor?

There are millions of pages of information on the internet; if you do a Google search and type in “ICS” you will get 88,000,000 results. But volume isn’t quality or targeted. Changing the search to “Incident Command System”, you only get 416,000 results, and “Understanding Incident Command” yields 813 results. “How to Teach Incident Command” yields two, just two, Google Search results and neither has anything to do with teaching ICS.

For ICS instructors, there is too little information on Incident Command instruction. Yet there is a ton of information on incidents, disasters, warnings, response, responder safety, social media, and the whole range of Emergency Management topics. I have found a copy of the first firefighting manual written, the inquiry into the sinking of the Titanic, the thousands of pages of official review for Hurricane Katrina and the 9/11 Attacks and the millions of pages of internet coverage on those two incidents alone. There is too much information available on the internet for anyone to go through.

This is a selection of some of the best ICS (and disaster) information I have come across. There are some qualifications you need to be aware of with this information.

### **There is just too much out there!**

I now have over 34,000 inquiries, articles, after-action reviews and incident news summaries in my personal files. Each one offers a lesson learned, observation, challenge or solution about disasters and disaster response. Unfortunately, in most the reports, it is only one paragraph out of a 188-page report or even one sentence. You must pour through a lot of material to find the gems. To be knowledgeable, you should *start* with my suggestions, find the gems, and then add your own. Even more challenging, some reports don’t mention the “elephant in the room”. Every major incident I have been involved with has left at least one major discussion point out rather than have the discussion. Everyone knew about it, it was discussed in the debriefings, but never found its way into the final report. There are two things that you must watch for when reading after action reports; what is being said between the lines and what has been left out because it makes someone (or everyone) look bad. If you think I am kidding, take a look at the two reports on New York States response to Hurricane Sandy. The contrast between the redacted and un-redacted versions is amazing. This is just one example of why we will never get good at emergency response; we won’t address the problems and challenges.

But that is only the start; in looking at some of the great researchers into disaster response, you will find extensive research references to thousands of books, reports and articles that are not on-line. And I’ve

only worried about reading English-language information. What gems are out there that I'm not aware of because they haven't been translated? There is way too much information out there and it is tough to cull it down to the really, really, good ones.

### **This reflects my personal bias.**

There is always a tendency to gravitate towards information that agrees with your point of view. The articles I have recommended agree with my point of view, for the most part. Still, I am interested in opposing points of view and alternatives. There is where you will find "ICS sucks" and "ICS doesn't work" but nothing on "Here is a better alternative to ICS". To say ICS doesn't work is perfectly acceptable to me but I am still looking for an article to offer any alternative.

### **You need to read.**

You can't rest on your laurels; you are only as good as your last incident, your last class, and the last article or report you read. By the time you teach your next class, there will have been another incident, another report, another inquiry and the students will have a more recent experience (incident or personal) that they will relate to more than events of weeks ago, months ago or years ago.

I was given an ICS student manual from the early 1980s. It is almost word-for-word what you teach today. Nothing has changed except the pictures were in black and white and the names of the incidents referenced were decades ago. Yet nobody would look at that manual today because every student wants to look at the latest picture and hear about the most recent incident. You need to keep on top of current events to have credibility with your students and provide examples and illustrations that will be relevant and engaging.

You can't be at all incidents, you often can't go to incidents outside of your agency or area of expertise, and once-in-a-lifetime events occur, well, once in a lifetime. If you can't go to incidents, how do you offer the ICS experiences needed to provide credibility to the students? Being well-read is one way.

I hope these suggestions help give you a fast start!

### **Tidbits**

The answers aren't always clear. While we love the comprehensive inquiries for their thoroughness (often forced on everybody) or the After-Action Reviews looking at the total response efforts, there is much to be learned from a sentence here and a note there. Patterns begin to emerge when you look at hundreds or thousands of reports. But as you go through the reports, you find contradictions and opposite conclusions. While researching this, I found a wildfire article lauding the 1st Minnesota Stand at the battle of Gettysburg: "A total of 262 Minnesotans engaged. Outnumbered 6 to 1, both Hancock

and the brave Minnesotans knew they were wading into a conflagration. Five minutes later 47 Minnesotans were left standing.” Five minutes after reading that, I see this comic on another web site:



10. ATTEMPTING FRONTAL ASSAULT ON FIRE

Mitigate or Change Tactics  
When Faced With:

- ⇒ Indirect Fireline
- ⇒ Lack of Anchor Points
- ⇒ Frontal Assault
- ⇒ High or Extreme Wind Conditions
- ⇒ Reburn Potential
- ⇒ Presence of Hazardous Materials
- ⇒ Lack of Communications With All Forces
- ⇒ Structural Protection
- ⇒ Spotting Becomes Common
- ⇒ Downhill Line Construction
- ⇒ Underslung Line
- ⇒ Fatigued Crews
- ⇒ Re-ignition Becoming Common

What are the similarities and differences between a frontal assault on Robert E. Lee’s Confederate Army at Gettysburg and attempting a frontal assault on a wildfire? Why is one heroic and one stupid? Why is one seen as heroic leadership in a crisis and one seen as a failure of leadership and command? Sometimes two little tidbits, side-by-side are so fascinating; both for what they tell us and what they leave us unanswered.

### **Paywalls and Dead Links**

I have tried to use only articles, news, and studies that are not behind paywalls. Unfortunately, even open access information may disappear as web sites or news organizations fold or are taken over by other entities. Each link was checked in December, 2020 as still being current.

### **Every Day this Becomes Outdated**

One last comment: Every year there are new reports and new incidents. I will update this as best I can each year. If you have something that I should consider including on the list, please email me at [mail@icstraining.ca](mailto:mail@icstraining.ca). I may not be able to include everything but it is up to you to convince me that your suggestion is better than the ones I have or fills in a gap. I will review your suggestions and include the best ones.

## CHALLENGES IN INSTRUCTING ICS

ICS Instruction is not about you. It's about the students. While you want to be a better instructor and give them the best you have, we need to focus on the student.

Listening to students describe their ICS learning experience, it is depressing! These are actual quotes I have heard from students about their ICS instructors and courses:

"I can't remember anything from my on-line course I took two weeks ago."

"The instructor read out of the book for two days"

"I couldn't see how any of this related to me"

"The instructor told too many war stories"

"The instructor was excruciatingly bad..."

"It was nothing but fire stories."

"None of it applied to me in my role."

What does this tell us? The curriculum and exercises are set; you can't change the course content. But that is only the framework for the material. The instructor has to add the examples, the illustrations, the context, and the meaning. A good story, example, or citation makes the point obvious, makes the point memorable, brings the dusty-dry theory to life. Most importantly, the right quote will make ICS usable when people are needing the knowledge the most. You need to read and research to find those quotes and examples that bring ICS to life, that make it relevant to everyone in the room, that show ICS can be done, and to make ICS usable every day and every incident for every person in the room. That's quite the challenge!

When you are looking at large volumes of information and limited time to absorb it, organize it, retain it, and make it usable, here are five key tips that has helped me:

1. Find a way to catalogue and retrieve the good information you find. If you can't retrieve it, it isn't usable. I wish I had done this from the start.
2. Look first for information that gives you a better understanding of ICS and its application. You need to be at least one step ahead of the students to have any credibility.
3. Look for recent incidents in the area or incidents in other parts of the world that would equally apply in your area. This makes your information current and fresh and shows these events are still occurring, almost daily, nearby and around the world.
4. Save the great articles. For the little tidbits, one-liners, and brief mentions, do a cut and paste rather than keeping the whole thing.
5. Share the best articles. Nobody has the time these days to look at every internet newspaper, read every after-action review, or scour through comment sections and blogs for the gems of information that are actually hidden there amidst the rants and uninformed opinions. When you find something good, share it with the other instructors.



## ICS INSTRUCTION

If you don't know what's broken, you aren't going to fix it. Generally, ICS instructors have already developed a love for Incident Command which may blind them to the problems and challenges in the classroom. Even a handful of great student evaluations at the end of your class may cloud you to the fact that some people are really struggling to find relevance and engagement with the ICS classroom training. Taking a look at the classroom from the down side should show you areas where we all could improve.

### ICS Training Sucks

<https://triecker.wordpress.com/2015/06/02/incident-command-system-training-sucks/>  
<https://triecker.wordpress.com/2015/09/09/ics-training-sucks-so-lets-fix-it/>

### ICS Training Still Sucks...One Year Later and ICS is Not Enough

<https://triecker.wordpress.com/2016/06/16/ics-training-sucks-one-year-later/>  
<https://triecker.wordpress.com/2015/03/06/the-need-for-practical-incident-command-training/>  
<https://triecker.wordpress.com/2014/10/30/training-eoc-personnel-ics-is-not-enough/>

In 2015, Tim Riecker said what needs to be said. Our ICS training sucks. Our students may give us good course evaluations, but they have nothing to compare it to; they've never seen the same course from another instructor so they have no idea whether you did a great job or a lousy job. Stepping away from your student evaluations, we see a huge problem in ICS application. People have forgotten virtually everything we teach them, ICS is applied unevenly, agencies give lip-service to teaching and using ICS, and people continue to make some of the most basic (and egregious) mistakes on incidents. Tim's article got a lot of feedback, mostly positive, for identifying that our ICS is not working. ICS instructors may be part of the problem.

It's one thing to complain, but you need to offer solutions. Tim followed up his ICS Training Sucks article with "ICS Training Sucks. So Let's Fix it." While recognizing that curriculum is a major part of the problem, we also need to realize that instructors and instruction may be other parts of the problem. A good instructor can overcome some of the challenges of curriculum. Not all problems, but some. Tim then continues with further discussion about the perishable nature of ICS training and the need for something more than just a classroom 300.

### Is 'Pretty Good' Enough?

<http://www.emergencymgmt.com/disaster/Is-Pretty-Good-Enough.html>

This article outlines a number of issues with ICS training and implementation worth considering as an instructor. One phrase really jumped out at me: "Poorly understood ICS is poorly implemented ICS." That says a lot about why we struggle to do good ICS in the field and why improving the understanding of ICS by the instructors is critical. Quick, but several interesting observations, from Adam Stone.

## **LESSONS LEARNED THE HARD WAY: INCIDENT COMMAND SYSTEM LEARNING AND TRAINING by Eva K. Wilson**

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.830.9700&rep=rep1&type=pdf>

Eva Wilson has some very interesting observations about training because she took a look at a number of instructors; not just one or two. This is an opportunity that few people have and a requirement for understanding the strengths and weaknesses of the curriculum, the instructor development, the instructors, and the outcomes for the students. This is a great look at the over-all teaching of ICS and some candid comments from those who have gone through our training about where it failed them.

### **Session 6: Perspectives on Incident Management Systems**

<http://slideplayer.com/slide/4899284/>

The original module isn't easily available on the internet, but this is the PowerPoint slide deck supporting the module and it gives the majority of the information I was looking for. The course describes some advantages and disadvantages to the Incident Command System, the critical issue of partial use/adaptation of the system, implications if the assumptions underlying ICS are not true, and training/practice issues. The PowerPoint does not provide the answers (that would come from the class discussion) but it does provide an excellent framework for any instructor to consider why it struggles to work.

### **Electric Utilities and the Incident Command System**

[http://www.electricenergyonline.com/show\\_article.php?mag=97&article=773](http://www.electricenergyonline.com/show_article.php?mag=97&article=773)

<http://www.westernenergy.org/news-resources/ics-its-not-just-for-outages/>

Unfortunately, the original survey of North American utilities using ICS, done by Macrosoft, has been taken down. Some of the key observations have been summarized in the first two web links above. They give a snapshot of some of the challenges that utilities are having adopting the Incident Command System and implementing it on incidents. I don't think utilities are much different from any other organization with the struggles of moving to a new system so it may give you an idea of challenges continuing today with organizations you are presenting to. On a positive note, the third article, by Ann Steeves, might get a bit more engagement with the utilities by illustrating that ICS isn't just for blackouts.

## ICS HISTORY

### **Countdown to Calamity: 1970 California Firestorm**

<https://archive.org/details/gov.archives.arc.13352>

This video is dated and doesn't discuss Incident Command, but it gives the atmosphere of the firefight and challenges of the 1970s fires and sets the context for the genesis of FIREScope and subsequently ICS. Hey, it's not another 182 page research paper; grab some popcorn and enjoy.

### **The Fires that created an Incident Management System**

<http://www.uninets.net/~dsrowley/The%20Fires%20that%20Created%20an%20IMS.pdf>

Dale D. Rowley's conclusion says it all: "Little did the California fire managers on September 22, 1970 expect that when a wildfire broke out on the Fish Ranch Road in the hills behind Oakland, a National Incident Management System that would link first responders and emergency managers from all levels of government and non-governmental entities would be born. From its roots in the Task Force on California's Wildland Fire Problem, which sought to learn from the lessons of the California Wildfires of 1970, to its development under the FIRSCOPE program and maturity through the National Interagency Incident Management System, the Federal program to develop a common incident management system for the entire nation would become a reality."

### **A WORKING HISTORY OF THE INCIDENT COMMAND SYSTEM**

<http://www.emsics.com/history-of-ics>

If you want to teach Incident Command, you should memorize the information on this website. I'd like to shake the hand of the person at EMSI that not only took the time to put this together and put it up on the web, but also to leave it there over the years. EMSI is a all-hazards, full-service, multi-discipline incident management and emergency management services specializing in incident management and emergency management, so they obviously have an interest in ICS. But what they have provided is one of the best publicly available summaries of the origin of ICS (FIREScope). It provides everything from the organizations that originally sat on the Task Force, the original fundamental principles, the original 1974 framework, MACS, T-Cards, the subsequent adoption by the U.S. Coast Guard, national and international. There are so many gems on this page, you need to read it line by line. You want to be a star in understanding the development of ICS? Read this website. If anyone has anything better than this, I want to know about it!

### **FIREScope: A New Concept in Multi-Agency Fire Suppression Coordination**

[http://ftp.fs.fed.us/psw/publications/documents/psw\\_gtr040/psw\\_gtr040.pdf](http://ftp.fs.fed.us/psw/publications/documents/psw_gtr040/psw_gtr040.pdf)

May 1980. Richard A. Chase was the assistant manager on the FIREScope research and development program. Here you can see some of the original work on ICS. Have fun with page 5, where there is one of the first ICS Organization Charts; you'll see that the essentials are almost all there, but there have been a couple of tweaks since the system was first designed. As well, this document is the source for my quote that ICS was deliberately and specifically intended to be "a Quantum jump in the capability" to respond to wildfires. This will also give a greater understanding into the role of MACs and the use of technology to assist in wildfire efforts. This is a great article for instructors to help understand the genesis of ICS.

**U.S. Department of Agriculture Forest Service Region Five History Project Interview with: [Robert L.] "Bob" Irwin**

[http://digitalassets.lib.berkeley.edu/roho/ucb/text/irwin\\_bob.pdf](http://digitalassets.lib.berkeley.edu/roho/ucb/text/irwin_bob.pdf)

Here is some of the history of FIRESCOPE from Bob's own mouth (and perspective). Although this will have limited use in the classroom, this gives an incredible "feel" to the issues confronting the team and the successes they had. You want to know ICS, you have to know where it came from. For example, this is just one paragraph, but isn't one of the reasons we have problems implementing ICS because our organization doesn't have a culture of ICS:

"The other thing: I just saw a young Army colonel who's responsible for turning Iraqi police people, and he said, 'You know, we can bring them all the organization models that we have in the United States about how to be a cop. We cannot bring them the culture, and they have to work together to develop their own culture.' And that's precisely what happened with the FIRESCOPE team."

**Technology Transfer – Law Enforcement Application of the Incident Command System**

<https://www.ncjrs.gov/pdffiles1/Digitization/111028NCJRS.pdf>

Jerome C. Ringhofer, Deputy Chief of the San Bernardino County Sheriff's Office wrote this paper about taking the success of the wildfire Incident Command System and using it for policing:

"There exists within the fire services, a technology - the Incident Command System (I.C.S.), that has provided an effective means of managing critical incidents of varying size, complexity, and multi-agency involvement. The System, tried and proven through years of use and refinement, has much to offer to law enforcement. This paper represents an effort to transfer that technology to law enforcement."

## LEADERSHIP

The on-line I-200 courses give lip-service to “leadership” and do not provide any substantive knowledge to assist the students. Even with the instructors, leadership is misunderstood and skimmed over in order to get to the next module. Students miss one of the most important aspects of the ICS 200 course: **You ARE going to be a leader.** Whether you are first on scene at a traffic accident or are a Strike Team Leader in the biggest disaster in your Province/State history, you ARE going to be a leader. You may only have ICS 200, but the people you are supervising, whether responders or bystanders, have ICS 100 or ICS “No Hundred”. They will be looking to you to give them direction, make them effective, and keep them safe. That is actually the whole purpose of ICS 200! Yet we fail to emphasize it or understand leadership in the context of teaching ICS. So, what is leadership? Most students can give you the basics. Here are some excellent examples of an ICS trained leadership to emulate.

### The Thad Allen No-Frills Leadership Primer

<http://www.marinelink.com/news/leadership-nofrills365682.aspx>

To me, Thad Allen is the epitome of Leadership. Anything I have ever seen or heard about him reeks of Leadership. The fact that he has successfully implemented ICS for some of the biggest disasters in the modern world (Katrina and BP Deepwater Horizon) shows both that Incident Command works when applied as taught, but also the importance of leadership when coming into a mess. Thad Allen didn't inherit an incident with a well-oiled ICS management already working. He took a complete mess, imposed his will on it, forced the Incident Command System on it while the chaos continued, and demonstrated how great leadership and great Incident Command can help fix the biggest disasters. I wish every instructor could work with Thad Allen to watch him in action.

### You have to Lead from Everywhere

<https://hbr.org/2010/11/you-have-to-lead-from-everywhere>

One example of an Incident Commander coming into sort out the mess of an existing response gone wrong:

I was in the huge command post in Baton Rouge, which was this Dillard's [department store] warehouse that we had taken over, and we had about 4,000 people assigned to this place. My military aide asked, “What do you want to do?” I said, “I want to have an all-hands meeting.” She looked at me like I was crazy, because there wasn't a place in the building where we could put 4,000 people. I said, “Well, find the biggest open space you can and get as many people there as you can.” And we found a space on the bottom floor and crowded about 2,000 people into it.

How's this for leadership:

And I said, “If you do that, two things are going to happen. Number one, if you make a mistake, you're going to err on the side of doing too much, and that's okay. Number two, if somebody has a problem with what you've done, their problem's not with you; their problem's with me.” After I said that, a cheer broke out, because there had been so much stress from the pressure that had been exerted on the response and the perception that it wasn't going well.

Who were the responders cheering for? Thad Allen.

### **In Command and Out of Control**

<http://www.lesc.net/blog/command-and-out-control>

*CATO news*, the official publication of the California Association of Tactical Officers. Complex and chaotic events require adaptive interaction and an adaptive response - An organization that tries to be in control of everything will not be successful in crisis.

### **Lessons from a Wildfire**

<http://www.strategy-business.com/blog/Lessons-from-a-Wildfire?gko=7879c>

A shorter article directed at business, but is interesting for the advantages it sees in Incident Command and the importance of making sense out of an incident, perhaps by moving a few feet.

### **LAX Active Shooter Incident and Resulting Airport Disruption**

[https://www.firestorm.com/wp-content/uploads/2014/03/www.lawa.aero\\_uploadedFiles\\_LAX\\_LAWA%20T3%20After%20Action%20Report%20March%2018%202014.pdf](https://www.firestorm.com/wp-content/uploads/2014/03/www.lawa.aero_uploadedFiles_LAX_LAWA%20T3%20After%20Action%20Report%20March%2018%202014.pdf)

I like how the title conveys the two phases of the response. Should the police be in charge of the resulting airport disruption? Good article for thinking about who is in charge, who should be in charge, unified command, role of the EOC, and transfer of command.

### **Leadership on Black Saturday: what the Royal Commission said**

<http://www.abc.net.au/local/stories/2010/08/01/2970122.htm>

When 174 people die, your leadership is going to be questioned. This is a synopsis of the 2009 inquiry observations on leadership higher levels, such as the State of Victoria.

### **Timeless Truths**

<http://enviroemerg1.jimdo.com/2009/09/06/timeless-tactical-truths/>

This is a quick list of observations and statements about leadership in Emergency Management but many of the adages could apply to the Incident Commander. I especially love "Keep working on the basics – most of us are not advanced enough to make advanced mistakes."

### **Paul Gleason: Standing Accountable - Lessons Learned From Cerro Grande**

<http://www.youtube.com/watch?v=kRJTNpq4mQA>

Leadership and accountability – when a prescribed fire escapes and causes a billion dollars in damages, could you stand up in front of a crowd and say "Here's what I did and why it went wrong"?

**Five emotional and social intelligence skills of outstanding Incident Commanders [New - 2021]**

<https://wildfiretoday.com/documents/IncidentCommandersEmotionalAndSocialIntelligence.pdf>

<https://wildfiretoday.com/2019/03/26/five-emotional-and-social-intelligence-skills-of-outstanding-incident-commanders/>

A fascinating study of rating Type 1 and Type 2 Incident Commanders (ratings OSCs and ICs) and then comparing the qualities of the seven highest rated leaders to eight “average” leaders. The top qualities were identified as “emergent themes” and they were statistically significant despite a relatively small sample size.

## OBJECTIVES

If you don't understand PPOST and SMART, you don't understand ICS. ICS is not the organization chart and never has been the organization chart; ICS works because of Management by Objectives. If the Incident Commander is the driver, MBO is the engine that moves ICS forward. Yet most instructors don't fully understand Management by Objectives; you can't do a good job of teaching if you don't understand yourself. In order to help, I wrote ICS Tips and Techniques Part 2 – Understanding PPOST and SMART. There is little other than that to offer you, aside from an excellent study from Australia on Objectives and the struggles people have with them.

### **The Implementation of the Incident Control System in NSW: Span of Control and Management by Objectives**

[AJEM The implementation of the incident control system in NSW: Span of Control and Management by Objectives \(infoservices.com.au\)](http://ajem.infoservices.com.au) [2021 New Link]

Along with the history of the Incident Command System from EMCI, this study by Jennifer Bean should be mandatory reading for all ICS Instructors. Both depressing and educational, the study shows how difficult people find understanding and creating Objectives as well as providing a challenge to instructors with "Knowing they struggle, what are YOU going to do to help them?"

What can you do in your classes, in your examples, in your presentations, and in your attitude to overcome these observations from Jennifer's report:

'Did you use the IAP to carry out your role?' 13% Said never. 'Why wasn't the incident action plan useful?' 56% Felt the IAP didn't reflect the field operations. The majority of objectives (34%) were generic statements that do not convey the incident specific goal. 11% of the objectives weren't objectives at all, but strategies.

This report looked at 927 situation reports/incident action plans for the period of the study. This is not a small problem. People can only fix what they know is wrong. This study clearly shows that everyone, up to and including the Incident Commanders, is struggling with Principles, Priorities, Objectives, Strategies, and Tactics. We have a lot of work to do yet.

### **Goal-oriented decision-making**

<http://wildfiretoday.com/documents/GoalOrientedDecisionMaking.pdf>

This is a bit of a tough read, but worth looking at after you have understood the challenges in the above study. This report supports the need for formulating and communicating a plan of action:

Goal-oriented training can change the balance between reflective and reflexive processes. Emergency responders have all been there — they rush to get to an incident, very quickly size it up, and take action. But award-winning research looks at incident managers that include a third step, actually formulating a plan of action. It has been argued that the development of explicit plans enables shared situational awareness and goals to support a common operating picture.

### **Why SMART Objectives don't work**

<https://rapidbi.com/why-smart-objectives-dont-work/>

This is one of those little tidbits I love; another perspective, some background information I didn't realize, and an outside view (not even talking about ICS) that gives me additional insight. Mike Morrison isn't talking about Incident Command. He is talking about Management by Objectives in the business sense. He points out that Management by Objectives was created before Drucker, who was



given the credit, started talking about it. And Mike Morrison gives a slant that may be a huge plus in teaching ICS or a huge rabbit hole: Having the “A” in SMART mean “Assignable” rather than “Achievable”. I don’t agree that SMART Objectives don’t work but I love considering his viewpoint and using it to improve my understanding and ability to teach ICS and discuss SMART with other instructors.

### **The Hierarchy of Objectives in Business**

<http://s3-eu-west-1.amazonaws.com/tutor2u-media/subjects/business/diagrams/objectives-hierarchy1.png>

I was talking with Mark Eckley (ICS Instructor Trainer and one of the most experienced Type 1 responders in Alberta) about the Objective of building an Ice Road in warm winter weather as an Objective. He immediately responded that that was a Strategy; the Objective would be to supply food/water/fuel for a community. Mark is a “big picture” thinker who has dealt with big incidents. For him, he is looking at it from a very high level. For the poor fool out in the field, the Objective might be “Find a broom” to sweep the snow off the ice to let it freeze faster. Sometimes one persons’ objective is another person’s strategy. This little chart illustrates some of the challenges with creating Objectives and explaining SMART when it depends where on the pyramid you are standing. I would never discuss this willingly for an ICS course, but over a drink with other Incident Command Instructors, this would be a great discussion. Mark would be wrong and I would be right, but what a great discussion! Okay, Mark is right more times than I am, but it is still fun.

### **Setting Objectives in Unified Command**

<https://www.hsd.org/?view&did=455065>  
<http://ioscproceedings.org/doi/pdf/10.7901/2169-3358-1997-1-855>

Two versions of this great read. Setting Objectives is tough enough – then try it in Unified Command! This read takes a look at many of the challenges of simply setting good SMART Objectives, and then adding in the difficulties of making Unified Command work. “Under the UC concept, the leaders need to set good objectives to drive the organization in the desired direction” the report states, but if we struggle to set good Objectives on our own, how difficult do you think it will be when you get a group of Incident Commanders all struggling? As well, the example Objectives and Strategies for an oil spill on water are excellent alternatives to your typical Fire/Police/EMS examples used in the classroom.

## ICS VARIOUS TOPICS

### **Take a good hard look at yourself [New - 2021]**

<https://www.cnn.com/2019/06/07/politics/fema-feel-good-reports/index.html>

<https://www.thedailybeast.com/watchdog-praised-fema-response-in-feel-good-reports-wapo>

<https://weather.com/news/news/2019-08-20-fema-unprepared-for-disasters>

FEMA, especially under the leadership of Craig Fugate, had a good grasp of many of the issues of emergency management. That has slipped in recent years. Many of the articles with further information on this are behind paywalls or have been removed from the web, but this will give you a sense of organizations trying to paint a good picture of themselves rather than doing an honest assessment.

### **Wildfire Safety – The Big Lie**

<http://wildlandfireleadership.blogspot.ca/2016/06/the-big-lie.html>

<http://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=d3835538-b011-d685-0e2a-51f3b9672931&forceDialog=0>

“Nearly 19 firefighters a year are dying because they are operating, even after mitigation, in an inherently high risk environment.” Read this before you attempt to list “Ensure the Safety of all Responders” as an Objective. The second link is from “Two More Chains” 2016 Fall Edition where they discuss the issue in greater detail. It’s about time we had this discussion. Then take a look at the next three articles.

### **Fatal Echoes - In a tragic loop, firefighters continue to die from preventable mistakes**

<http://www.kansascity.com/news/nation-world/national/article118921298.html>

“Ensure the Safety of the Responders” has gone from doctrine to dogma; a belief that is accepted by the members of a group without being questioned or doubted. Yet, we have failed in many cases to get the number of responder fatalities down. This is an interesting and excellent analysis of lessons not learned in the fire service, despite the “Ensure the Safety of the Responders” mantra.

### **Safety and Decision Making [New - 2021]**

Safety requires people to speak up. We sometimes ignore people when they speak up. This selection of articles looks at issues of speaking up, from being ignored and punished to group think and peer pressure. Each article, on its own, is interesting. As a collection, it points to a serious problem within how we make decisions regarding safety. The Mendocino Entrapment Facilitated Learning Analysis (FLA) specifically mentions how refusal to do unsafe work was perceived to be punished, and how this may have contributed to six firefighters being burned (See bottom of page 5/top of page 6).

<http://www.castanet.net/news/Kelowna/179883/Fatal-wildfires-examined>

<https://www.psychologytoday.com/blog/seeing-what-others-dont/201511/dont-decide-martians>

<http://www.abc.net.au/news/2018-04-12/cognitive-bias-in-cockpit-risk-for-plane-crashes/9644148>

<https://wildfiretoday.com/2020/09/02/wildfire-officials-call-for-a-safety-related-tactical-pause/>

[https://wildfiretoday.com/documents/Mendocino\\_Complex\\_Entrapment\\_FLA.pdf](https://wildfiretoday.com/documents/Mendocino_Complex_Entrapment_FLA.pdf)

<https://www.govtech.com/em/emergency-blogs/disaster-zone/a-conspiracy-of-silence--why-we-dont-speak-up.html>

### **Chesterton's Fence: A lesson in second order thinking. [New - 2021]**

<https://wildfiretoday.com/2020/03/16/chestertons-fence-a-lesson-in-second-order-thinking/>

Slow down! The fastest response is not always the best response. We need the best response. This is a great article understanding strategies and why things don't always work the way we think they should. From emergency managers buying new technology to Incident Commanders setting Objectives and strategies to ICS instructors trying to improve the curriculum; think things through. If it was that simple, we would have done it already. Too often we don't think about the consequences, the downsides and the knock-on-effects.

### **Lessons from the Aviation Industry**

<http://www.firehouse.com/article/12249720/the-fire-service-and-the-aviation-industry-firefighter-safety-crew-resource-management>

<http://www.firehouse.com/article/12109412/firefighter-safety-the-normalization-of-deviance>

<http://www.firehouse.com/article/12170764/aviation-like-accountability>

Learn from success. The aviation industry has taken an inherently dangerous activity when it was first created and turned it into one of the safest methods of travel. The aviation industry has put a number of key pieces in place to reduce the risks significantly. While these articles focus on the fire fighting implications, I think they would equally apply for utilities, police, fish and wildlife officers, hospitals...

### **Us and Them**

<http://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=3ca4065f-c781-012e-4ca7-9a15081c4e6c&forceDialog=0>

"Two More Chains" is produced and distributed quarterly by the Wildland Fire Lessons Learned Center. It has repeatedly looked at "Why we don't learn" and repeatedly come up with some very interesting observations. But this one is brilliant as it takes a look at blame. When we get fire and police and EMS and volunteers and government bureaucrats and regulators all at the same incident, we have a consistent tendency to nitpick and blame. I'm guilty too, which is why I love the quote "Why do we do that? Why do we hunt for faults and try to be intimidating? I'm just as guilty. I've done my share of circling-up with the other Hyenas to verbally nip away at targets of opportunity— the helitack kid who got our crew name wrong, the trainee from a different region who mispronounced a local feature, or the engine crew who drove over their own chalk block. Point, pounce, and crucify." If we want incident command to be successful, it can't just be at the Unified Commander level. When it is "WE" that are responding, we need to "Be Nice" to all other responders.

### **A Model Assessment Tool for the Incident Command System: A Case Study of the San Antonio Fire Department**

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.2780&rep=rep1&type=pdf>

What is "Good ICS"? If we don't understand this, then we have no standard to judge ANY response. When ICS is used by all disciplines in all jurisdictions for all types of incidents of all sizes, it is hard to come up with a definitive list of "This is good ICS". I have a chapter discussing the issues of assessing ICS in Tips and Techniques Part 6 Advanced ICS as this is a subject near and dear to me. Brian O'Neill's Model Assessment Tool doesn't quite do it for me, but it does have some interesting insights and recommendations to get the discussion started.

### **Incident Command System: Perishable If Not Practiced**

<https://www.domesticpreparedness.com/preparedness/incident-command-system-perishable-if-not-practiced/>

Stephen Grainer summarizes a few incidents (Baltimore Riots, West Texas Explosion) to provide an overview of some of the challenges with ICS. This paper has a number of interesting observations: *Training for ICS is not a one-time occurrence, but should be an ongoing process of expanding knowledge, exercising skills, and passing on these abilities for the benefit of future generations.*

there appear to be shortcomings or constraints in these efforts, which include: limited training for sufficient numbers of personnel; atrophy of knowledge, skills, and abilities; lack of succession planning; and ongoing distrust for ICS.

even after receiving good training, many individuals' knowledge, skills, and abilities atrophy from lack of application. In many cases, opportunities for review or practice (exercises) must be "manufactured" in order to maintain or improve an individual's abilities in using the ICS.

*Ongoing Distrust for ICS*

### **From Forest Fires to Hurricane Katrina: Case Studies of Incident Command Systems**

<http://www.businessofgovernment.org/sites/default/files/MoynihanKatrina.pdf>

**The Network Governance of Crisis Response: Case Studies of Incident Command Systems Donald P. Moynihan University of Wisconsin–Madison**

[https://www.researchgate.net/publication/28627503\\_The\\_Network\\_Governance\\_of\\_Crisis\\_Response\\_Case\\_Studies\\_of\\_Incident\\_Command\\_Systems](https://www.researchgate.net/publication/28627503_The_Network_Governance_of_Crisis_Response_Case_Studies_of_Incident_Command_Systems)

Two variations on a theme by Moynihan. This is a bit of a heavy slog to go through, but one of the key discussions is the effectiveness of command versus coordination. I don't necessarily agree with the analysis (I love the early statement "As a result of its perceived success in situations like Oklahoma...") but we sometimes learn more from those we disagree with than articles or opinions that agree with our own. I believe there is more coordination in ICS than meets the eye or is taught in the classroom and I believe that when coordination fails, command will be imposed, so I read this article with that in the back of my mind.

### **A Critical Evaluation of the Incident Command System and NIMS**

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.2780&rep=rep1&type=pdf>

This paper is interesting because it looks at a selection of large-scale and notable incidents in its analysis of what works and what doesn't work. This paper is useful for the fact that it looks at a wide variety of incidents with different causes and effects. As well, for all the concerns expressed about ICS, especially for large incidents, it does state "However we agree with responders that the deficiencies identified are not inherent in ICS but rather are related to inadequate implementation."

### **"Law, Lawyers and the Incident Command System"**

<http://digitalcommons.law.seattleu.edu/cgi/viewcontent.cgi?article=2189&context=sulr>

"Law, Lawyers and the Incident Command System" by Clifford J. Villa is one of those wonderful, well-researched, obscure papers you come across that gives a completely different understanding of ICS. When would you ever want a lawyer as part of your response? As well as giving some good reasons, it provokes a good instructor to be asking "How do we fit it in, where do we fit it in, how and when, and if we let the lawyers in, then who will want to come in next?"

### **CRITICAL ISSUES IN DISASTER SCIENCE AND MANAGEMENT: A Dialogue Between Researchers and Practitioners**

<https://training.fema.gov/hiedu/docs/critical-issues-in-disaster-science-and-management.pdf>

This covers a wide-range of issues, some which will be of direct interest to ICS instructors (Planning vs. Improvising in EM, After Action Reviews, NIMS, unmet needs and persistent problems), and some tangents but still within the realm of emergency management (academic/practitioner divide, volunteers, social media).

### **Beating the System to Death – A Case Study in Incident Command and Mutual Aid**

<http://www.fireengineering.com/articles/print/volume-152/issue-10/departments/fire-service-court/beating-the-system-to-death-a-case-study-in-incident-command-and-mutual-aid.html>

One of my personal observations on disaster characteristics is “Things Go Wrong.” Here, rather than a disaster, we have an example of what can go wrong in a smaller incident (an emergency). As usual, when there is a responder death, we take a look at the minutia of a response and what went wrong. Here’s how small things can add up.

### **Too Close to Judge – Determining which helmet an incident command safety officer should wear**

Safety of Responders and Role of the Safety Officer. How far should we take safety and who has the final say at the incident – the Incident Safety Officer or the Incident Commander. Have a look at these articles to see how important the question can become:

<http://www.dailymail.co.uk/news/article-2062590/Alison-Hume-inquiry-Mother-left-die-shaft-chiefs-wouldnt-use-winch.html>

## INQUIRIES AND REVIEWS

Very rarely does anyone do a full report on a Type 5 incident. Therefore, most of the reports available on the internet are the Type 1 and Type 2 incidents. This gives a distorted impression of Incident Command; it appears only to be used during disasters and it obviously never works. When using disaster reports, consider a few things:

- 1) Some of the biggest successes on disasters has been when Incident Command was applied at the start of the Incident rather than trying to switch response management systems in the middle or trying to apply Incident Command when the response is already a mess. The response at the Pentagon is one of the most prominent examples.
- 2) If incident command is applied immediately at the beginning, even a “challenged” Incident Command response will be more effective than having no incident command whatsoever. The High River Flood of 2013 is an example, where every organization arriving to assist integrated almost immediately and seamlessly due to the Incident Command System already being in place.
- 3) The introduction of “pure” ICS (with clear leadership) was the key factor in restoring order to a disorganized response with both Hurricane Katrina and the BP Deepwater Horizon oil spill.
- 4) It’s called a “disaster” for a reason. If it was a perfect response, it wouldn’t have subsequently become a disaster. Nobody gets a disaster “right” and they invariably involve good people trying to do good things – with varying degrees of success.

### 2009 Victorian Bushfires Royal Commission Final Report

[http://www.royalcommission.vic.gov.au/finaldocuments/summary/PF/VBRC\\_Summary\\_PF.pdf](http://www.royalcommission.vic.gov.au/finaldocuments/summary/PF/VBRC_Summary_PF.pdf)

<http://www.royalcommission.vic.gov.au/Commission-Reports/Final-Report/Volume-1/Print-Friendly-Version.html>

Australia’s bushfires have been legendary, but the 2009 fires in Victoria were devastating. When 174 people died, almost every facet of emergency management and incident management were examined. A Royal Commission isn’t an After-Action Review where uncomfortable truths might not be included. Australia uses a version of ICS called the Australasian Inter-Agency Incident Management System. I have included the link to the witness statements to get an idea of what they went through.



Russell Eryl Glenn’s view of one fire. Many did not survive this.

### From Forest Fires to Hurricane Katrina: Case Studies of Incident Command Systems

<http://www.businessofgovernment.org/sites/default/files/MoynihanKatrina.pdf>

Donald P. Moynihan provides an excellent look at Incident Command in disasters with one caveat; these are the Type 1 and potentially Type 0 Incidents. While it is good to know how ICS applies in these

cases, bringing this to the classroom will give the impression that ICS only applies to big events and never works perfectly. While this will aid in your understanding of ICS, you need to make ICS “usable” in the classroom.

#### **Aurora theater shooting report: Breakdown between police and fire caused chaos**

##### **Aurora theater shooting report: Emergency response timeline**

[http://www.denverpost.com/data/ci\\_26692660/aurora-theater-shooting-report-response-timeline?source=pkg](http://www.denverpost.com/data/ci_26692660/aurora-theater-shooting-report-response-timeline?source=pkg)

[http://www.denverpost.com/news/ci\\_26686299/aurora-theater-shooting-report-gives-80-recommendations](http://www.denverpost.com/news/ci_26686299/aurora-theater-shooting-report-gives-80-recommendations)

[http://www.denverpost.com/news/ci\\_26715814/much-learn-and-adopt-aurora-theater-shooting-report](http://www.denverpost.com/news/ci_26715814/much-learn-and-adopt-aurora-theater-shooting-report)

The Denver Post does an extensive job of looking at the Aurora Theatre shooting of 2012. The two articles and the timeline provide extensive detail on the challenges with the response and areas where ICS instructors might be spending a little more time in the classroom or providing better explanations for. The official after action report can be found at:

[https://www.courts.state.co.us/Media/Opinion\\_Docs/14CV31595%20After%20Action%20Review%20Report%20Redacted.pdf](https://www.courts.state.co.us/Media/Opinion_Docs/14CV31595%20After%20Action%20Review%20Report%20Redacted.pdf)

#### **Chair-Initiated Complaint and Public Interest Investigation into the RCMP's Response to the 2013 Flood in High River, Alberta**

<https://www.cccc-cetp.gc.ca/en/chair-initiated-complaint-and-public-interest-investigation-rcmps-response-2013-flood-high-river>

<https://www.cccc-cetp.gc.ca/en/chairpersons-final-report-after-commissioners-response-regarding-rcmps-response-2013-flood-high>

Probably the single best report I have ever read about Emergency Management Legislation in Canada. Two caveats; it specifically refers to Alberta and the legislation there so it may not apply to every Province. On the other hand, most provincial legislation is very similar in flavour to the Alberta Emergency Management Act and numerous analogies and inferences can be made. Secondly, the report is about the securing (not seizure) of guns from homes in High River when rescuers had kicked in the doors and some people with criminal records refused to leave the town. There is much more to this story than “The police took our guns...”. That is the problem; in getting to the context of the RCMP securing the guns, the RCMP Complaints Commissioner takes a step-by-step look at the legislation, the context, the incident, and the command of the disaster in the Town of High River. If you strip out the gun issue, this is the single best case study on Emergency Management in Canada that I have ever seen. What a shame it has been essentially ignored across Canada in Emergency Management courses and discussions. Not too applicable in jurisdictions outside Canada, but even the methodology might be an eye-opener if you had to trace “How EXACTLY does emergency management work in your jurisdiction?”

### **Yarnell Fire - Arizona Department of Occupational Safety and Health Worksheet**

<http://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=e6d9bd61-beef-4c42-a875-47b1d029ca9a&forceDialog=0>

The 19 deaths of the Prescott Hotshots at the Yarnell fire in 2013 and the \$559,000 fine to the Arizona State Forestry Division should be a heads-up for any organization, Incident Commander, or ICS Instructor. Staffing, Planning meetings, and ICS details are going to be scrutinized now. It is no longer sufficient to do the 14 principles. Litigation is going to go to the next level of detail now; if ICS represents “best practices” and Incident Complexity, transfer of command, and the Planning meeting agenda are part of the training, then why didn’t you do ICS as taught? While there is still some leeway in trying to get your feet on the ground (or nobody would ever respond), after the first hour or two, you had better be aiming for not just the 14 principles, but all aspects of “ICS by the book”.

### **SoCal Gas appeals gas leak-related safety violations**

<http://www.scpr.org/news/2016/07/06/62386/socal-gas-appeals-gas-leak-related-safety-violatio/>

Cal OSHA issued a number of citations and fines for the Porter Ranch methane leak. Like the Yarnell OH&S fines, this isn’t about the 14 principles themselves. The key paragraph in this article says it all: “Inspectors found that the SoCal Gas incident commander overseeing the response to the ruptured natural gas well did not have the minimum 24 hours of first responder training that state work safety laws require. The incident commander also didn't know how to implement the company's incident command system, according to the citation. That shortcoming drew a, \$8,100 penalty.”

### **Errors Plagued Carson City Wildfire Fight**

<http://www.firehouse.com/news/10516669/errors-plagued-carson-city-wildfire-fight>

An example of how a whole bunch of little things can contribute to big things going wrong. As an ICS instructor, I would look at every item listed and ask myself, “Exactly who or what would fix this?” If you can’t answer that in a few seconds, you don’t know your ICS well enough to be teaching it in front of the class. This is one of the reasons why ICS works – there is an ICS position or procedure in place deliberately and specifically in place to deal with the typical failures of responders. This exercise of walking through “who deals with it?” should be a no-brainer for an ICS instructor. Hold it! It should be an exercise for all ICS instructors!

### **Arlington County After Action Report on the Response to the September 11<sup>th</sup> Terrorist Attack on the Pentagon**

[http://permanent.access.gpo.gov/lps21127/after\\_report.pdf](http://permanent.access.gpo.gov/lps21127/after_report.pdf)

[http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/21/2014/04/2012-ARCO\\_Conf\\_Report.pdf](http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/21/2014/04/2012-ARCO_Conf_Report.pdf)

Arlington County had a lot of successes, especially with ICS, in the response to the attack on the Pentagon. They also put together a very extensive report to review how they did. For added flavour, the second report has the observations from a conference held in 2012 on local response to terrorism.



### **FEMA Summary of Post 9/11 Reports "Lessons Learned"**

[https://www.usfa.fema.gov/downloads/pdf/publications/operational\\_lessons\\_learned\\_in\\_disaster\\_response.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/operational_lessons_learned_in_disaster_response.pdf)

This report shows, by functional category, where key recommendations appear repeatedly in each of the nine reports with command and control, strategic planning, communications, and training and exercises being the most common areas identified as needing improvements.

### **Report rips state handling of Superstorm Sandy response**

**By James M. Odato Updated 2:16 pm, Monday, February 10, 2014**

<http://blog.timesunion.com/capitol/archives/205669/read-two-versions-of-unreleased-report-on-states-sandy-response/>

<http://www.timesunion.com/local/article/Report-rips-state-handling-of-Superstorm-Sandy-5217760.php>

Here are the two reports:

<https://www.scribd.com/document/205727357/Sandy-Draft-After-Action-Report>

<https://www.scribd.com/document/205726386/Sandy-Notes-After-Action-Report>

One report gives a very broad and generally favourable view of the response by New York State to Hurricane Sandy. But it was the unreleased report that got the attention as it detailed numerous problems, faults and challenges that were not addressed in the released report. This is exactly why we are not learning; if you can't face the problems head-on, they'll never be fixed. This is not the only report that has tried to cover up the flaws; as a matter of fact, most of the reports I have seen on major incidents deliberately left out some of the most important challenges or problems; mostly because it made people look bad. Failing to warn the public they are about to die, political interference, mistakes in the response, inadequate preparation and training, the list goes on with the things we don't want to discuss. Consider these two reports next time you read an after-action review.

### **Voice of Experience – Slave Lake Chief Recounts Day 1 in Fort McMurray**

<http://www.cdnfirefighter.com/wildland/voice-of-experience-in-fort-mcmurray-40439>

Alberta has recently had three of the costliest disasters in Canadian history; the 2011 Slave Lake Wildfire, the 2013 Southern Alberta Floods, and the 2016 Fort McMurray Wildfire. At this time the Fort McMurray reports are not written or released (the Regional Municipality of Wood Buffalo isn't even doing one!<sup>1</sup> What makes this interesting is the report is a description by Jamie Coutts, the Fire Chief for Slave Lake, providing an account of going through a disaster a second time.

### **Grenfell Tower Inquiry: Phase 1 Report [New 2021]**

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<sup>1</sup> <http://www.cbc.ca/news/canada/edmonton/fort-mcmurray-s-next-6-priorities-in-wildfire-recovery-1.3834001> News report mentions the Province is doing a wildfire review and states "Wood Buffalo Regional Municipality said it has no plans to conduct a similar review."

<https://assets.grenfelltowerinquiry.org.uk/GTI%20-%20Phase%201%20full%20report%20-%20volume%202.pdf>

<https://www.dw.com/en/grenfell-tower-report-criticizes-london-fire-brigade-response/a-51040916>  
[Fewer people would have died in Grenfell Tower fire if 'stay-put' strategy was called off - Irish Mirror Online](#)

72 people died in a relatively modern high-rise town in London in 2017. Part 2 of the report is still in progress, but delayed because of the pandemic, so I have included two news articles summarizing the serious issues with the London Fire Brigade. Unfortunately, there are dozens of news articles outlining issues with command, experience, policy, and communications failures. There will be more to come, but the two news articles summarize how organizational policy sometimes over-rides saving lives.

Other reviews

### **2018 Mendocino Complex Facilitated Learning Analysis [New 2021]**

[Mendocino Complex Entrapment FLA.pdf \(wildfiretoday.com\)](#)

<https://wildfiretoday.com/2019/02/09/lessons-learned-after-the-entrapment-on-mendocino-complex-of-fires/>

The Mendocino Complex was one of the largest fires in California history (largest in 2018 but surpassed multiple times in 2020). Six firefighters were burned after the fire cut-off their escape route. The facilitated learning analysis looks at a number of contributing factors. But in the report is a rare gem for ICS 400 instructors; a look at why two Type 1 IMTs should never be put on the same fire and why unique organization chart configurations (in this case, the use of multiple “deputy branches” rather than creating smaller or more Branches. It is rare to put two teams in charge of one fire, and rarer yet to try to combine the two teams on the one fire, rather than split the fire into two. This covers the issues that arose when unique structures are created.

### **2013 Black Forest Fire, Colorado**

[http://mediad.publicbroadcasting.net/p/krcc/files/201406/061014EPSO Black Forest Fire AA Report.pdf](http://mediad.publicbroadcasting.net/p/krcc/files/201406/061014EPSO%20Black%20Forest%20Fire%20AA%20Report.pdf)

[http://www.na-businesspress.com/JABE/FanY\\_Web17\\_2\\_.pdf](http://www.na-businesspress.com/JABE/FanY_Web17_2_.pdf)

Here is an After-Action Review from the El Paso County Sheriff’s Office along with a report looking at resource deployments.

### **Esperance Fires**

<https://www.dfes.wa.gov.au/publications/MajorIncidentReports/DFES-MIR-Esperance-District-Fires-Final-Report-March-2016.pdf>

Four deaths and widespread damage, but some positives as well as negatives in the review.

### **Lower Hotham and O’Sullivan Fires**

<https://www.dfes.wa.gov.au/publications/MajorIncidentReports/DFES-MIR-LowerHothamandOSullivanFinalReport.pdf>

This Australian report is unique because it looks at two fires side-by-side and contrasts what worked and what didn’t.

### **SR 530 LANDSLIDE COMMISSION FINAL REPORT December 15, 2014**

[http://www.governor.wa.gov/sites/default/files/documents/SR530LC\\_Final\\_Report.pdf](http://www.governor.wa.gov/sites/default/files/documents/SR530LC_Final_Report.pdf)

This report takes a look at the Oso Landslide in Washington State. This huge landslide killed 43 people and the response was unique, overwhelming and challenging.

### **Why was “Boston Strong”? Lessons from the Boston Marathon Bombing**

<https://www.hks.harvard.edu/content/download/67366/1242274/version/1/file/WhyWasBostonStrong.pdf>

Harvard Kennedy School states “The research points strongly to the fact that the emergency response following the bombing in Boston and the events in Cambridge and Watertown at the end of the week were shaped to a substantial degree by the multi-dimensional preparedness of the region. The research also suggests that the major contributing factors to much of what went well – and to some of what went less well – were command and coordination structures, relationships, and processes through which responding organizations were deployed and managed.”

### **"We're Lucky" LAX Shooting Didn't Take More Lives: Mayor**

<https://www.nbclosangeles.com/news/national-international/after-action-report-lax-shooting-response/127661/>

Shortcomings and lessons learned from the Los Angeles airport shooting in 2013. The comment “But it details lapses in coordination and technology between police and fire departments, which set up multiple command posts at different locations that didn't unify for 45 minutes. The first meeting among commanders didn't occur until more than 1 1/2 hours after the shooting began.” Tells a lot about how the tactical response worked better than the command response.

### **2013 Tasmanian Bushfires Inquiry Volume One**

[http://www.dpac.tas.gov.au/\\_data/assets/pdf\\_file/0015/208131/1.Tasmanian\\_Bushfires\\_Inquiry\\_Report.pdf](http://www.dpac.tas.gov.au/_data/assets/pdf_file/0015/208131/1.Tasmanian_Bushfires_Inquiry_Report.pdf)

I harp in my courses that if you don't know who is in charge and you don't have clear (SMART) Objectives, it doesn't matter how good the rest of your ICS is, the response will be a mess. But clarity of command and clarity of Objectives is not as simple as we make it out in the ICS courses. The Tasmanian bushfires of 2013 point out that without proper and clear legislation, command can easily become confused. As well, what does it mean to be “in command”? Do you have to be paying attention or just be responsible? There is a ton of stuff in this report to ponder.

### **Organizing Response to Extreme Disasters; the Victorian Bushfires of 2009**

[http://ash.harvard.edu/files/organising\\_response.pdf](http://ash.harvard.edu/files/organising_response.pdf)

In Alberta and British Columbia, we've seen the Lost Creek Fire of 2003, Kelowna Firestorm of 2003, the Slave Lake fires of 2011 and the Fort McMurray fire of 2016 force the evacuation of tens of thousands of people. But these aren't the extreme events we soon may be facing. The Washington Fires of 2015 and the Australian Fires of 2009, along with the 2003 and 2007 California fires foreshadow the next challenge to Incident Command; what happens when you have multiple communities on fire in your Province or State? At one point during the Australian fire, 9 communities were on fire, 15 were about

to be on fire and hundreds of people are dead and dying or burned while the warning system was completely overwhelmed. This is why I call ICS 400 “Ugly ICS”.

#### **EMS Response To Columbine: Lessons Learned**

<http://ispub.com/IJRDM/5/1/12573>

This report has a ton of details that you may not have realized from the news reports. Fairly extensive and a good challenge for any ICS Instructor – to formulate how you would organize the response and then to go through the report and see the curveballs thrown at you. You think you are good at ICS? Prove it to yourself by trying anticipate what is coming next.

#### **The 2003 San Diego County Fire Siege – Fire Safety Review**

[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5297020.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5297020.pdf)

This one is important because it specifically looks at the issues of safety associated with the 2003 fire siege. A number of specific topics are addressed, including training, work/rest guidelines, radio communications, evacuations, airbase security and airspace management. As well, it has chapters on leadership, coordination, and MACs. There is a lot to chew on here. This may give some thoughts for presenting the role of the Safety Officer in your courses.

#### **Command Decisions During a Catastrophic Urban Interface Fire – 1993 Laguna Fire**

<https://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=df90eab7-47d0-49e9-942f-cd0f2898b9bd&forceDialog=0>

This report provides a detailed analysis of a number of issues that you might not be aware of or were aware of but didn't realize the impact on the response. For example, just the choice of location for your Incident Command Post can have cascading effects on the response. A fascinating discussion on whether the Operations Chief and Incident Commander should be co-located or not. This is getting down to the fine detail.

## OTHER DISASTER TOPICS

### **How to prepare yourself — and your brain — to face bushfires [New 2021]**

<https://www.abc.net.au/news/science/2020-10-28/how-to-plan-and-prepare-your-brain-for-bushfires/12796906>

This is a must-read for everyone who might have to deal with people during a disaster. You don't know how you will react or what you might face until a disaster is upon you. This applies to both the public and responders. Dr. Danielle Every, has interviewed people in Australia who experienced bushfires. As a psychologist, she looks at why people under-estimate the risks, why people suffer "disaster-brain" and how we fail to plan for when plans fail. This is a short news article, but has many eye-opening and thought-provoking points. One of the best articles I read in 2020.

### **20 Minutes in May: Lessons Learned from Joplin's catastrophic tornado**

<https://www.youtube.com/watch?v=kFJaNuR-MB4>

An excellent overview provided by Keith Stammer, the Emergency Management Director for Joplin and Jasper County, Missouri. There are huge "lessons learned" when looking at the difference between emergencies and disasters. This hour and a half talk provides a great overview of the challenges of managing a disaster and understanding the difference between managing and trying to control. While specifically looking at the impacts of an F5 tornado through a city, the talk has many applications for understanding the challenges of catastrophic events and understandings to make a better response and recovery in an overwhelming situation.

### **The Missing Piece of NIMS: Teaching Incident Commanders How to Function in the Edge of Chaos**

<https://www.hsaj.org/articles/221>

Cynthia Renaud discusses the challenges facing an Incident Command upon arrival at an incident. The Abstract states: "The NIMS failure point, however, is that it offers limited help to those first-arriving responders who must deal with the initial chaos inherent at the outset of every scene. This article explores the dynamics of the initial edge-of-chaos that characterizes the first phase of every large-scale incident and offers recommendations for additions to NIMS that will better prepare first-responding incident commanders to work their way through that chaos and later apply the NIMS process with purpose."

### **Lessons We Don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them**

<https://www.hsaj.org/articles/167>

"In fact, responders can readily predict the problems that will arise in a major incident and too often their predictions are borne out in practice. Even a casual observer can spot problems that recur: communications systems fail, command and control structures are fractured, resources are slow to be deployed. We know these are the problem areas. We knew they would be before Katrina ever hit the Gulf coast. Why? Because we identify the same lessons again and again, incident after incident."

### **Lots of fires = Lots of reports = Lots of...?**

<http://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=cc116dce-baa8-4265-58c0-b4c45ca24b57&forceDialog=0>

A wonderful look at “Lessons Learned” and “Lessons Not Learned” and the possibility of safety message overkill. Take a look at the other publications as well.

### **Lessons Learned or Lessons Forgotten: The Canadian Disaster Experience**

[https://www.iclr.org/images/The\\_Canadian\\_disaster\\_experience.pdf](https://www.iclr.org/images/The_Canadian_disaster_experience.pdf)

Scanlon takes on some of the biggest myths in Emergency Management; from panic, to looting, to role abandonment and misunderstandings of convergence and political involvement in the response. Lots of interesting observations here.

### **OPINION: Preventing 'lessons lost': is evidence-based dynamic doctrine the answer?**

<https://ajem.infoservices.com.au/items/AJEM-30-03-04>

Steve Glassey takes a look at how lessons are being lost. Just as a couple of dozen links were broken and removed for this update, Steve found 44% of New Zealand’s After-Action Reports and Inquiries were no longer available. How can you learn the lessons if the lessons aren’t there?

### **Better response to disasters needed, panel on Oso told**

<http://www.heraldnet.com/news/better-response-to-disasters-needed-panel-on-oso-told/>

Short and sweet, this news article shows how the Oso landslide was a complex incident for the response and how challenged the responders were in things like command and resourcing. After nearly fifty years of ICS, we still face the same challenges on incidents.

### **Convergence Revisited: A New Perspective on a Little Studied Topic**

<http://hermes.cde.state.co.us/drupal/islandora/object/co%3A22056/datastream/OBJ/view>

Trust a Canadian to come up with some interesting research. Okay, trust the Americans to help make it available. You have no idea what convergence is until you deal with a Type 2 or Type 1 Incident. For incident command, it has huge implications for information flow, command, briefings, safety, coordination, and resource management. For an instructor, you need to understand you can never use the word “Convergence” alone when dealing with disasters. I always say “Massive Convergence” and show the pictures and studies to show students that there is rarely small convergence. This study by Scanlon is a groundbreaker. You are first Incident Commander on a tire dump fire – as an instructor, how many organizations will show up to a Type 3 incident? Have fun!

### **Organising for Effective Incident Management**

[http://www.bushfirecrs.com/sites/default/files/managed/resource/organising\\_for\\_effective\\_incident\\_management\\_final\\_report.pdf](http://www.bushfirecrs.com/sites/default/files/managed/resource/organising_for_effective_incident_management_final_report.pdf)

This looks at higher-level coordination, strategic management, and information flows. “Failure in emergency incident management coordination in major events has long been recognised in both the national and the international literature. In large events, breakdowns of information flow and coordination are both common and always problematic.”

## Media Coverage of Disasters

<http://dartcenter.org/blog/report-bushfire-coverage-raises-ethics-questions>

<https://griffithreview.com/articles/informed-consent/>

This is an example of how information disappears – grab it when you first see it and still can save it.

The original 111 report from the Centre for Advanced Journalism is now unavailable. The two articles here simply augmented a great report.

## What we can learn from companies that are good at disaster response. [New 2021]

<https://www.linkedin.com/pulse/inside-story-what-took-keep-texas-grocery-chain-running-chip-cutter>

<https://www.texasmonthly.com/food/heb-prepared-coronavirus-pandemic/>

<https://www.ehstoday.com/emergency-management/article/21906815/what-do-waffles-have-to-do-with-risk-management>

<http://wildfiretoday.com/2017/08/27/waffle-house-responds-to-disaster-areas-with-incident-management-teams/>

[https://finance.yahoo.com/news/waffle-houses-hurricane-response-team-prepares-disaster-184844452.html?soc\\_src=social-sh&soc\\_trk=tw](https://finance.yahoo.com/news/waffle-houses-hurricane-response-team-prepares-disaster-184844452.html?soc_src=social-sh&soc_trk=tw)

<https://www.govtech.com/em/disaster/Hurricane-Preparation-and-Recovery-by-the-Waffle-House-Jump-Team.html>

<https://www.govtech.com/em/safety/Waffle-House-Closing-in-Key-Largo-Location-Suggests-its-Serious-.html>

H-E-B grocery in Texas is not a one-time-lucky company when it comes to emergency planning and execution of the plan. Most emergency managers should be copying what they do because they are repeatedly demonstrating their competence and agility.

## Preventable and Unpreventable Deaths/ Injuries [New 2021]

<https://www.sfgate.com/news/bayarea/article/Firefighter-Suffers-Critical-Injuries-In-Fall-15695934.php>

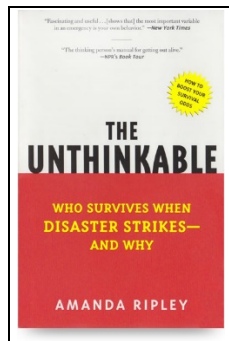
<https://wildfiretoday.com/2020/09/05/firefighters-family-killed-in-structure-fire/>

<https://wildfiretoday.com/2020/02/14/report-released-for-spring-coulee-fire-fatality-in-washington/>

I don't know if the first injury could have been prevented by anyone. We can spend a lot of time trying to prevent a once-in-a-lifetime type of accident. But the two fatalities in the second and third reports illustrate how even basic safety is not done sometimes. Driving home at 1 a.m.? No seatbelt? No turnout jacket on a fire? Safety is not always our Priority.

## TIDBITS

While quality beats quantity most time (I'll give you the best reports and research I know rather than trying to impress you with volume), the fact is that much of what I know from ICS is a sentence here, a footnote there, and years of pouring through boring reports, news articles, and fluff. Yet sometimes you learn some incredible things or get that perfect example or gain important understanding from ten seemingly unrelated articles when put together. I've tagged those files on my computer as "GEM"s (Great Emergency Management). Here are some of those little gems:



### **The Unthinkable – Who Survives When Disaster Strikes and Why**

You'll have to order this book as the content isn't available on-line, but it is well worth taking the time to find for two reasons; first, it is an amazingly easy and compelling read and second, it has some very interesting observations on how small steps can make a big difference as for improving our survivability, our plans, and even our training. "In every disaster, buried under the rubble is evidence that we can do better...[on] 9/11, there was Rick Rescorla. Rescorla was head of security for Morgan Stanley Dean Witter in the Trade Center."<sup>2</sup> Rick Rescorla should be a legend in Emergency Preparedness and if you don't know the Morgan Stanley story, this should be mandatory reading. Thanks to Pat Johnson KJ4AVE for having me

down to the Southwest Florida Emergency Communications Symposium in 2014 and giving me this book. I have given almost 30 copies out as gifts since then. As an instructor, you should also check out Amanda Ripley's "The Smartest Kids in the World – And How they Got That Way" which has a lot to say about the importance of great teachers.

### **Wildland Fire Lessons Learned Centre**

<http://www.wildfirelessons.net/communities/community-home/librarydocuments?LibraryKey=b24ff967-c0f0-4cb2-baeb-12ee7f5f74e8>

There is a TON of stuff here from the Wildland Fire Lessons Learned Centre. Along with a myriad of reports and After Action Reviews, start off with the "Two More Chains" quarterly for an overview of challenges with getting lessons learned. An amazing collection that many ICS instructors don't know about. Don't think that the commentary only applies to wildland fire fighting. Like ICS, they just saw it first but it applies to all organizations.

### **Why We Don't Learn – Organizational Amnesia [New 2021]**

<https://onlinelibrary.wiley.com/doi/10.1111/gove.12364>

"Many texts have been written about 'organizational learning', but few about organizational forgetting" says Christopher Pollitt. This excellent article by Alistair Stark looks at the four major reasons organizations forget the lessons learned. With a reference to SARS in Canada, you will be nodding because you will recognize all four reasons in your current organization and every organization you have worked with in the past. This may not solve the problem, but these are important to remember as you go through any post-Incident review or lessons learned process. In many ways, this paper is a strategy for reducing organizational amnesia.

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<sup>2</sup> The Unthinkable, Amanda Ripley. Page 203.



Land subsidence 'will affect almost fifth of global population' **[New 2021]**

<https://www.theguardian.com/world/2020/dec/31/land-subsidence-will-affect-almost-fifth-of-global-population>

Not necessarily directly from climate change, but this is a significant world issue if it will be affecting up to one fifth of the world's population. California's Central Valley has seen huge drops in the land as aquifer water supplies have been depleted.

### **Fatal Wildfires Explained**

<https://www.castanet.net/news/Kelowna/179883/Fatal-wildfires-examined>

How transition from initial attack to extended attack affects wildfire safety. Can anyone argue that ANY command transition doesn't decrease efficiency and increase safety issues temporarily?

### **Preventing medical communication errors**

[https://www.eurekalert.org/pub\\_releases/2016-12/uoia-pmc121916.php](https://www.eurekalert.org/pub_releases/2016-12/uoia-pmc121916.php)

This article follows up on "Fatal Wildfires Explained" with an important observation from another field which can have direct application when teaching ICS briefings and transfer of command. In it, it states "data from the U.S. Agency for Healthcare Research and Quality show that approximately 70 percent of deaths caused by medical errors are related to communication breakdowns during handoffs." Wow! Now apply that to increased risk to responders if the same number of errors is occurring during briefings or transfers of command. The solution also has an interesting implication in that a briefing agenda and/or 201 Briefing Form both may be an effective tool in reducing communication errors.

### **Importance of Local Leadership**

<http://www.abc.net.au/news/2016-10-26/disaster-leadership-research-finds-local-leaders-admired/7964774>

Disaster leadership research shows the importance of people who can take action.

### **The Costs of Poor Implementation**

<http://vancouversun.com/opinion/columnists/vaughn-palmer-it-failures-are-common-tracking-those-expenses-in-b-c-arent>

Vaughn Palmer: IT failures are common, tracking those expenses in B.C. aren't. Completely unrelated to ICS until you realize that poor implementation of ICS is very similar to the poor implementation of IT. Rather than identify the costs of poor implementation and make an informed decision, we would prefer not to address poor implementation and hope that the costs of failure don't get addressed either.

### **Emergency Management Support to a Terrorist Incident**

<https://www.govtech.com/em/emergency-blogs/disaster-zone/emergencymanagementsroleinaterroristattack.html>

Emergency Management's Role in a Terrorist Attack. Includes a list of problems that might be addressed by the EOC.

### **World Health Organization Ebola Response Bungled**

<http://www.cbc.ca/news/health/who-bungling-of-ebola-crisis-in-africa-revealed-in-e-mails-1.3236918>

WHO bungling of Ebola crisis in Africa revealed in e-mails. You could apply this in your town/state or use this as a case study to exercise your AHIMT's agility in using ICS.

### **Stay or Go – Australian Bushfire Policy**

<http://www.bushfirecrc.com/projects/c6/evaluation-stay-or-go-policy>

<http://www.bushfirecrc.com/news/news-item/100-years-stay-or-go>

<http://insidestory.org.au/the-disturbing-logic-of-stay-or-go>

<http://www.theage.com.au/federal-politics/history-backs-stay-or-go-early-policy-20090212-85xt.html>

<http://www.theage.com.au/national/confusion-over-bushfire-stayorgo-policy-20090514-b4g5.html>

<http://www.canberratimes.com.au/act-news/safety-expert-slams-advice-to-leave-at-first-sign-of-danger-20130111-2clsm.html>

<http://www.wsws.org/en/articles/2009/05/royc-m28.html>

<http://www.latimes.com/local/la-me-wildfires3-2008aug03-story.html#page=1>

The 2009 Black Saturday bushfires in Australia exposed a huge gap in any emergency policy or procedure; will the policy/procedure work every time? In this case, a recommendation that had worked well for decades directly contributed to numerous deaths in the 174 people who died in the February 7, 2009 fires. These articles give an extensive example of the questions asked when people die. Do we change our successful policies for a one-off disaster? Is the policy change an example of officials trying to avoid blame by putting the decisions on individuals? Is telling everyone to leave the State on a catastrophic fire day realistic? By looking at numerous articles rather than one, you see how creating a simple public safety policy and message is more complex than first seems. I love this example because it could apply to any emergency management or Incident Command or emergency response policy/procedure: Will it always work or does it bind our hands when we need them the most?

### **Why We Weren't Warned**

<http://www.themonthly.com.au/monthly-essays-robert-manne-why-we-weren-t-warned-victorian-bushfires-and-royal-commission-1780>

Public warning is not public information or crisis communications. People die when we don't get warnings out. This seems to be a constant failing; we treat public warning as an afterthought rather than the first Objective.

### **Analysis: Missteps, omissions led to lack of fire warnings for devastated Yarloop**

<http://www.abc.net.au/news/2016-06-25/missteps-omissions-led-to-yarloop-getting-no-fire-warning/7543240>

Out of the 20 emergency warnings issued in the 21 hours before the fire hit Yarloop, not one warning mentioned Yarloop. "Why were we not warned?" is the question from residents of the town that was decimated by a massive bushfire. More importantly, "Why have we not learned?"

### **Questions linger about wildfire alerts during Gatlinburg fire**

[http://www.usatoday.com/story/news/nation-now/2016/12/18/questions-linger-wildfire-alerts-during-gatlinburg-fire/95601436/?utm\\_source=dlvr.it&utm\\_medium=twitter](http://www.usatoday.com/story/news/nation-now/2016/12/18/questions-linger-wildfire-alerts-during-gatlinburg-fire/95601436/?utm_source=dlvr.it&utm_medium=twitter)

With 14 people dead, questions are being raised about the warning systems and procedures in place and why they weren't used. This report provides a few answers on why, in the age of modern communications and alerting, alerts and communications still fail. If we are not seeing a systemic problem with warnings by now, then when will we? What is the role of the Incident Commander in ensuring alerts are issued, especially when the first priority of the response is to "Save Lives".

### **Review into death of Albany firefighter Wendy Bearfoot finds fire agencies errors repeated**

<http://www.perthnow.com.au/news/western-australia/review-into-death-of-albany-firefighter-wendy-bearfoot-finds-fire-agencies-errors-repeated/story-fnhocxo3-1226738904630>

Sad to say, here is an example where a Finance Section might have helped and lessons weren't learned. What is the cost of when we don't do things right?

### **Fatal Echoes – When Fire Departments fail to learn from each other's mistakes, firefighters pay the price.**

Part 1 - <http://www.kansascity.com/news/nation-world/national/article118921298.html>

Part 2 - <http://www.kansascity.com/news/nation-world/national/article119119633.html>

Part 3 - <http://www.kansascity.com/news/nation-world/national/article119120943.html>

<http://projects.kansascity.com/2016/firefighters/>

"In a tragic loop, firefighters continue to die from preventable mistakes". An outstanding series by the Kansas City Star on the issues of responder safety, lessons listed, and the culture of firefighting.

"The rate of on-duty firefighter deaths and injuries is nearly as high as it was 40 years ago." Is an indication that we are not ensuring the safety of the responders, especially when the research found "In the 201 fatalities analyzed by the Kansas City Star, 157 firefighters died in unoccupied buildings" and "only 11 died while trying to rescue civilians in a burning building."

### **Terrorism ranks above flooding in city's emergency planning**

<http://www.cbc.ca/news/canada/hamilton/news/terrorism-ranks-above-flooding-in-city-s-emergency-planning-1.1931746>

Should you plan for something that has never happened? Should it rate higher than something that always happens? Hamilton, Ontario takes a look at risk, probability and consequences. They "analyzed a list provided by the provincial government as a starting point and tossed out the ones that would almost never happen – like 'space object crash,' McCracken said." Remember this:

<http://www.bbc.co.uk/news/world-europe-21468116>

<http://www.abc.net.au/news/2013-02-15/russians-panic-as-meteor-shower-rains-down/4521958>

<http://www.abc.net.au/news/2014-05-23/asteroid-samples-analysed-after-earth-collision/5472798>

<http://www.independent.co.uk/news/science/catastrophe-looms-as-toxic-13tonne-mars-probe-falls-to-earth-6278357.html>

### **Why we need to throw out the script in large-scale incident training**

<https://www.policeone.com/active-shooter/articles/186514006-Why-we-need-to-throw-out-the-script-in-large-scale-incident-training/>

I love an alternate viewpoint that makes me think. This is a great observation from the policing perspective. Do you agree? Can we get command to speed up instead of moving at the speed of government?

### **The Costs of Relief in International Disasters**

<http://emergency-planning.blogspot.ca/search?updated-min=2011-01-01T00:00:00Z&updated-max=2012-01-01T00:00:00Z&max-results=6>

An interesting article looking at the effectiveness of sending international rescue teams.

### **Timeless Tactical Truths for Emergency Mangers [and Incident Commanders]**

<http://enviroemerg1.jimdo.com/2009/09/06/timeless-tactical-truths/>

One of those fun lists of observations with a few real gems included.

### **Department of Defense Utilization of the Incident Command System - LCDR Spencer T. Schoen, MSC, USN**

<http://www.dtic.mil/dtic/tr/fulltext/u2/a491386.pdf>

"The Department of Defense (DoD) is expected to utilize ICS during defense support to civil authorities operations. However, the use of ICS by DoD is contradictory to the very reason ICS was developed and is likely to decrease the speed and efficiency of DoD response. Therefore, the issue of whether or not DoD must truly use ICS to remain in compliance with federal policy requiring its use, must be examined. Conclusion: The Department of Defense does not and should not utilize the Incident Command System in execution of defense support to civilian authorities operations and can still operate within the requirements of the National Incident Management System." Long read!

### **A Model Assessment Tool for the Incident Command System: A Case Study of the San Antonio Fire Department by Brian O'Neill**

<https://digital.library.txstate.edu/bitstream/handle/10877/3759/fulltext.pdf?sequence=1>

How do you know if you are effectively applying and using ICS? I don't think holds all the answers, but it begins the conversation. Too many organizations hide behind the "ICS is flexible" and "We use a modified version of ICS" as a way to avoid using ICS and having any accountability after an incident go wrong. But how do we assess "good" ICS when it applies to any incident of any size for any organization. I have strong feelings about that, but that's for another paper!

### **The Importance of Evidence-Based Disaster Planning Erik Auf der Heide**

[https://www.atsdr.cdc.gov/emergency\\_response/importance\\_disaster\\_planning.pdf](https://www.atsdr.cdc.gov/emergency_response/importance_disaster_planning.pdf)

Focusing on the assumptions of hospital and EMS response to disasters, Erik Auf der Heide challenges the assumptions and points out the limitations of the previous studies. This should challenge all our assumptions on emergency response; what we assume to be true may be our weakness in ICS.

### **Australia – Lindt Siege Inquiry News Coverage**

<http://www.news.com.au/national/nsw-act/courts-law/lindt-cafe-siege-why-it-all-went-wrong/news-story/24fda726b31754f5625bed2b94f85dda>

<http://www.dailytelegraph.com.au/news/nsw/lindt-siege-police-furious-over-inquest-show-trial/news-story/2b0b3b9abd11a6f29f7d30849bf14612>

<http://www.smh.com.au/nsw/there-is-a-crisis-of-leadership-in-the-nsw-police-20160818-gqw8f5.html>

This Australian terrorist incident has led to Australians questioning the effectiveness of the police in a terrorist incident. While we wait for the Inquiry report, the news coverage offers some observations on how a response can go wrong or how the public perceive a response has gone wrong – which are two very different things. As an ICS instructor, what lessons can you learn?

### **Firefighter suspended for saving a life [New 2021]**

<https://www.cnn.com/2020/02/12/us/firefighter-suspended-atlanta-fire-department-trnd/index.html>

<https://www.firechief.com/fire-chief/articles/atlanta-fire-chief-responds-after-captain-suspended-for-solo-rescue-pnGhjt9TUCtkXmnt/>

<https://www.ajc.com/news/local/opinion-why-punish-firefighter-for-not-waiting-attempt-rescue/z2USTCuw4g2XN1MmV8ePUL/>

This is an example of when “Save Lives” conflicts with “Responder Safety”. The classroom can provide the principle, but the incident will provide the reality. Making a choice between saving lives and responder safety is always going to be difficult.

### **A name lost in the flames [New 2021]**

<https://www.sfchronicle.com/california-wildfires/article/Mystery-in-Paradise-Did-the-last-unidentified-14812373.php>

84 people died in California’s Camp Fire in 2018. Everything seems simple in emergency management until you have to do it. For Incident Commanders and IMTs who focus so much training and energy on Saving Lives, it is time to look at what needs to be done when lives could not be saved. An incredible report on the challenges, numbers, and heartbreak of finding and identifying fatalities.

### **The science of panic-buying [New 2021]**

<https://www.bbc.com/worklife/article/20200304-coronavirus-covid-19-update-why-people-are-stockpiling>

We have spent decades and tens or hundreds of millions of dollars for families and individuals to get prepared for emergencies. The evidence has been that the level of preparedness has not change one bit in the decades except in communities that have experienced a disaster, and then only for a few years. Yet when hundreds of millions of people around the world suddenly rush to the stores to pick up what they perceived to be supplies necessary to ride out a disaster, we complained about it! Yes, they were doing exactly what we had asked them to do only when confronted by a threat, but when they do what we ask them to do and then we complain, what does that say about us?

### **Nova Scotia Massacre RCMP Response [New 2021]**

<https://www.halifaxexaminer.ca/featured/an-epic-failure-the-first-duty-of-police-is-to-preserve-life-through-the-nova-scotia-massacre-the-rcmp-saved-no-one/>

<https://edmonton.ctvnews.ca/strathcona-county-should-have-released-information-about-explosions-sooner-report-1.4724479>

<https://www.crc-cetp.gc.ca/en/chairpersons-final-report-after-commissioners-response-regarding-rcmps-response-2013-flood-high>

The problems with the RCMPs coordination with municipalities during emergencies and disasters has been around for a long time. From setting up a completely separate command post during the 2013 floods in High River to the lack of information on the bombing of the Strathcona Municipal Building, the silo of excellence even prevents them talking to the municipal partners who might assist.

### **Fire Tornadoes and Pyrocumulonimbus [New 2021]**

<http://www.abc.net.au/news/2012-11-19/researchers-document-world-first-fire-tornado/4380252>

[http://www.theregister.co.uk/2012/11/21/australian\\_fire\\_tornado/](http://www.theregister.co.uk/2012/11/21/australian_fire_tornado/)

<https://wildfiretoday.com/2020/09/25/meteorologists-determine-the-creek-fire-created-two-fire-tornados/>

<https://www.usatoday.com/story/weather/2018/08/03/fire-tornado-california-carr-fire-143-mph-winds/897835002/>

<https://www.nationalgeographic.com/science/2018/12/how-weird-fire-vortex-sparked-meteorological-mystery/>

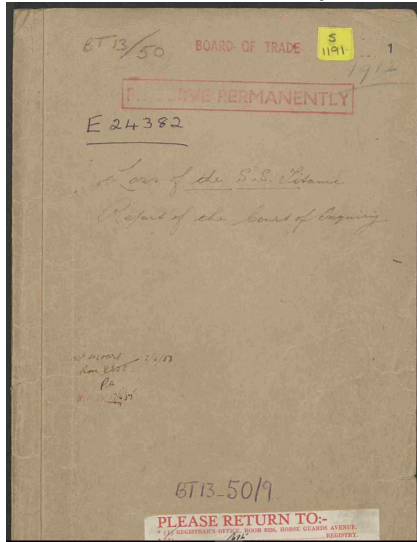
<https://www.chicoer.com/2018/12/08/what-caused-californias-fire-tornado/>

<https://www.cnn.com/2020/08/16/weather/california-fire-tornado-trnd-wx/index.html>

<https://time.com/5369959/fire-tornado-california-death-report/>

A rank six firestorm is bad enough. But a tornado of fire? The extreme fires in California are creating not just huge fire whirls, but rotating pyrocumulonimbus clouds are creating tornadoes rather than whirls. The National Weather Service even issued an alert on a tornado in a PyroCB!

## Loss of the SS Titanic – Report of the Court of Inquiry



Unfortunately, some of the links I have no longer work. This is one of them. I do have the inquiry into the Titanic (you can't trick me – I have both the British and the United States inquiries!), along with the 1607 Bristol Tsunami, the 1666 Great Fire of London, the 1755 Lisbon Earthquake and Tsunami, Robert Peel's Nine Commandments of Policing in 1829, an 1854 report on the first weather forecast, accounts of both the Chicago fire and the Great Peshtigo Fire of 1871, and the first-ever fire manual of 1876. Whether it be the Halifax Explosion of 1917, an 1891 tornado touchdown in Brooklyn, New York, the 1942 Coconut Grove Fire, or the Haifa wildfire/Iranian Train Crash/New Zealand Earthquake/Sydney Thunderstorm Asthma Crisis of 2016, there's always another report and another incident to learn from – if we have the time.

If an article is good, then save it. Eventually links go down and the information will be lost. As well, there is a ton of information that has never made it to the internet. I love books and reports and inquiries, but if they aren't on the internet these days, they are limited in their use. Two of the best reports in Alberta are the Hage paper on "Tornados in Alberta and Saskatchewan" and the official report (and lessons learned") for the 1987 Edmonton F4 tornado. Because they aren't on the internet, everyone in Alberta seems to have forgotten them.

All the links were last tested December 10, 2020.



Tom Cox is an ICS Canada instructor trainer. He has been involved with the 2016 Fort McMurray fire, the 2014 Southern Alberta flood, the 2013 High River flood, the 2011 Slave Lake wildfire, the 2010 Airdrie train derailment, the 2005 Alberta floods, and the 2003 Kelowna wildfire. He has written seven other papers on ICS training and provides workshops for existing ICS instructors in Basic Concepts and Advanced Concepts.