

## Fire Away: Interviews with Fire Protection Leaders

Alan Brunacini – AB

Robert W. Grant - RG

### Part III – Alan Brunacini - The Fire Ground Command

**RG:** One of the most unique concepts, I think, to come out of your management style in the Phoenix Fire Department has been your concepts on fire ground management, and I think that your interest in this has really spurred on a whole new development in the fire service profession. Can we talk about fire ground management, which I know is of special interest to you?

**AB:** As I mentioned to you earlier, I've had an enduring interest in fire ground operations, starting out, of course, being directly involved in them as a firefighter and a driver and as a captain and then a Battalion Chief. I started teaching very early in my career as a firefighter, started out teaching the routine kinds of subjects like hydraulics and introduction to fire suppression and then went on to teach firefighting tactics and strategy and a couple of advanced things that we taught in our junior science program.

**Caption:** Alan V. Brunacini, Fire Chief, Phoenix, Arizona

**AB:** So I had the opportunity fairly early in my career to be able to take on firefighting perhaps from a little more of an academic approach while I was actively involved in it.

**Caption:** Robert W. Grant, President, National Fire Protection Association

**AB:** Really, the concept that I've been involved in, as far as fire ground management, really has started about that time ago, so it's over twenty years ago that I started thinking about maybe applying some of the more routine management principles to operating on the fire ground. And during my career I just had the opportunities, I was promoted [to attack] the problem, so to speak, from a different perspective of whatever position I was in, and when I became the Assistant Chief, at that time it was called the Head of the Firefighting Division, which was the way we were organized, I was in a position really to manage fire control as a regular program, and that's when I really started the Fire Ground Commander concept. But really the genesis of it started a good long time ago, and have been able to use the experiences in Phoenix on the fire ground just to continue to develop and refine the program.

**RG:** Okay, what would you say was the philosophy, what's the philosophy behind the whole concept, in your mind?

**AB:** Probably the objective is to somehow attain maximum utilization of the resources that you have on the fire ground. In other words, the personnel and the equipment, and hopefully as you integrate that you increase the collective capability. That requires a strong organization and some fairly straightforward and structured kinds of procedures that sort of provide the plays for the organization. Central to that is a strong single figure, who is the Fire Ground Commander, and we have looked at and done a great deal of work, I think, on the role and the function and the responsibilities of that individual which has been kind of an interesting project. So the Fire Ground Commander provides the central focus

as far as organizing and making decisions and causing action and somehow using those resources effectively. The training that's required to do that, for those individual Fire Ground Commanders, is a very practical part of that program, and part that we have had the opportunity, just as we have a laboratory, if you may, in Phoenix to have fires and have a fire department to be able to apply some of those principles in our own system.

**RG:** I notice in reviewing some of the concepts that information is a very important part of this whole system.

**AB:** We were able to take a giant leap in the management of information here about a year and a couple months ago when we brought up our computer aid dispatch system, and it's a state of the art approach to managing status keeping and dispatch in addition to the tactical information that's required on the fire ground, and basically what we have done is take a computer based approach to both status keeping and dispatch, which is fairly routine, but, also, there is a component to that system which is in effect management information for the fire ground. We have the ability in every fire department unit to visualize information on video screens, CRTs, that are in the front seat of every piece of apparatus. So we have about three thousand occupancies currently in that system where, in effect, when we dispatch an assignment to a particular structure, if that structure is in the pre-fire planning system, those companies that are responding will just routinely bring that up on their screens, and they would have the ability to manage about seven scroll pages of information on that structure. So the information, just as far as tactical intelligence, is improving a great deal because of that electronic capability.

**RG:** Now in that, on the CRT, do you have information such as line drawings, as well as detailed information on the building?

**AB:** You would have all of the pertinent, physical factors of that building, listed both graphically and listed [narratively]. You would also have such things as hazardous occupancies, any changes in the water supplies in the form of hydrants and other water sources.

**RG:** Now how do you keep something like that up to date? Because it's got to be changing constantly.

**AB:** We have the ability to input that, basically, from every terminal in the system. There's a little process that they go through on the other end of it, but you can actually list any kind of a change from those terminals and communicate with the management information system.

**RG:** Now who's updating it, the information?

**AB:** The fire companies are the ones who are entering that and keeping it current.

**RG:** Alright, so this is a part of their responsibility to go out in a pre-fire planning mode, and we're talking about, you say three thousand addresses?

**AB:** There's about three thousand occupancies in it now, yeah. We project that there will be about five thousand occupancies eventually. We have about twenty five thousand commercial occupancies in the city, and about twenty percent of those are tactically significant. So that's a, I think, gives us an

increased capability to manage that intelligence. As far as information on the fire ground in the form of communications, we have also updated the radio frequency system along with this dispatch system that we've gone into. So we have a fairly sophisticated set and system of radio communications that we use on the fire ground. We have 8 tactical channels that we use, that's on a VHF side. We have a UHF frequency that we use for just fire ground communications from portables. We have multiple EMS channels. So the communications capability, just practically on the fire ground, has increased a great deal. So all of those systems require a component of a procedure that involves training and preparation and the fact that people are familiar with the system and they get a chance to practice on it and then review how they've done once they've had an actual experience on it. So while it helps a great deal, it also adds to the challenge of somehow managing that and integrating that into the overall system. But it's a good position to be in because you do have that capability.

**RG:** Absolutely. Okay, let's look at the fire ground command system as it relates to Phoenix. Can we use that again as kind of a model here, and talk about, say, the typical Phoenix Fire Department Fire Ground Commander, and what that person's responsibilities would be, what the system is that's in place in Phoenix.

**AB:** Basically we would start that system off on the fire ground with the first officer who would arrive in most cases. That is, in most cases a Company Officer, a Captain, that person would be responsible to start that command system and initiate it, and basically what that involves is him identifying himself as the Fire Ground Commander and confirming that, initiating the radio, the communications process, making some command decisions with regard to the action that would be taken, and start to assign the remainder of that response group to carry out that action plan in the process. Typically, he would be relieved by a Command Officer, one of the responding Battalion Chiefs who would arrive in a command vehicle with an aid and would set up a stationary command post. He would continue to operate as the Incident Commander, in most cases, throughout the duration of the incident. The system requires that it starts from the very first person, as far as the officers are concerned, that you don't go for twenty five minutes on the fire ground without any kind of command, operating on what we call free enterprise as far as the action of those companies, and then attempt to wrestle command out of all that chaos. So central to that system is that the first officer who arrives assumes command and starts those command functions. It also requires that there is an agreement among everyone else who is responding, not only an agreement but an understanding, that the first officer will establish command, and that he is the Incident Commander, the quarterback, if you may, of that incident, and that he is going to, in fact, call the plays. The system actually supports, not only the Commander, but everyone on the fire ground being integrated into that attack plan so that you can be successful in that, and that those operations can be effective. So really the whole system is designed to facilitate the people on the bottom of that system. Now I mean that in the system, being able to achieve those tasks that actually rescue the people and control the fire and stabilize loss effectively, and that there's a fairly lean organization at the top that is directed toward coordinating those activities to help the people who are actually doing the work. So it's a very action-oriented kind of system.

**RG:** Yeah. That's a good sales point, I would think, to all the members of the department, just the statement that you have made.

**AB:** Indeed. And that everyone knows when they arrive on the fire ground that there will be a structure. There will be one person who is in command. There will be a flow of information. There will be a place for everyone in that system, and in effect, everyone supports everyone else in that process so that we can go through that fire ground effort and that we can achieve those objectives simply. And I think it's extremely important that those objectives are achieved on the bottom of that system. In other words, that you've got engine companies putting water on the fire, you have ladder companies supporting those operations, you have rescue companies doing special kinds of things.

**RG:** Because that's where it really is at.

**AB:** That's right, and from the standpoint of the way those people do their jobs, that really has not changed that much. In other words, that we still put fires out by putting an adequate amount of water on them, simply. That's just the manual labor that we started talking about.

**RG:** Okay, what about transfer?

**Caption:** Robert W. Grant

**RG:** Now you say that the first officer on the scene is the officer in charge then transferred to a Battalion Chief. How is that transfer made? That's sometimes difficult in departments.

**AB:** It is indeed.

**RG:** Going from one to the other, and especially transfer of information, and who's where on the fire ground, what the situation is. How is that handled in Phoenix?

**AB:** We start off the operation as quickly as we can on what we call a tactical worksheet, which is just simply a standard form that we use to record the basic action, the companies that have responded, the assignment that they have received, and where they're located on the fire ground. A lot of times they'll make a little diagram of the building or the fire area that describes that. We also have a formal transfer of command procedure where a ranking officer who is going to transfer command to himself for that process would go through a standard process of changing that command over by virtue of indentifying one another, finding one another, transferring that information, continuing the attack plan, deciding what that relieved officer is going to do, if he's going to stay with, let's say, a Battalion Chief and assist him, or if he's going to return to his company is he's moved his company up or if he's going to make a Sector Officer out of him, let's say. But it's a formal process, and I don't mean that in any strictly structured sense, but just the arrival of ranking officers on the fire ground does not transfer a command.

**Caption:** Alan V. Brunacini

**AB:** Because in the absence of that, you can have multiple Commanders in different places with different plans working at cross purposes. That's just one of the difficult parts of potentially operating on the fire ground as far as command is concerned.

**RG:** So there's a formal handoff from one to the other.

**AB:** Now they can do it, for example, over the radio if the Chief has copied everything, in other words, if he has a pretty good idea of where everything is and the basic attack plan. Sometimes they're very simple and straightforward. In fact, most of the time they are if they're effective. They can complete that process over the radio, but actually face-to-face transfer of command is probably the most comfortable because you can just communicate better in the process. We're beginning to see, because the system hasn't been in place long enough, that many, many times they don't transfer a command. In other words, a Company Officer is in command of the incident, he's in a good position to do that, he's in a stationary position, he knows where everything is, and he started that plan out. In those cases, the Battalion Chief, many times, will just join him and see if he needs any kind of support and stay with him and let the person continue command because it is good experience for a Company Officer or a younger person. We're beginning to see that a Fire Ground Commander is a Fire Ground Commander, and if you can't improve the quality of command, don't transfer it! But it has taken probably seven or eight years to get people comfortable with that, that it's no threat to a Command Officer. In fact, it's a compliment to him to be sitting next to some other younger person, who's a lower ranked person, who is in command, and doing an adequate job. That's no threat to a Command Officer's situation.

**RG:** As you say, it's a compliment because that person has probably helped train and develop the person below them.

**AB:** If I respond to a fire, and I see that, and I respond to a good many of them, I certainly have a positive feeling about that, and I'll compliment a Chief Officer for having the confidence in, not only the people under him, but also in himself to be able to sit in the back seat and watch the guy operate, and most of the time not say very much. Is that, when you describe that system and you describe the expectations in how that system works, it's amazing a full range of firefighters are able to do that. We see, for example, late at night, many times our paramedics get on the scene before any companies or command officers, and we've had major alarm fires that paramedics have been in that position, and they've let them operate, young kids. Guys in their early twenties have been on the fire department four or five years just do an outstanding job, and it's really a positive experience for them to be able to take on a big job like that and have the system support them and help them in the process. I mean, that doesn't happen every day, but occasionally it does, and I think that that's a good signal in the system that we're expecting those people to be able to do it very early in their careers.

**RG:** You know, I was interested going back into some of the articles you have written for Fire Service Today on fire command, Fire Ground Commander series, Tactical Guidelines, and one of the statements early on, well actually in number two. How many of these articles have you written now?

**AB:** I've been doing it almost four years now.

**RG:** So it's got to be up in at least the fifties?

**AB:** No, well I think it's forty four or forty five. Yeah, so we're almost at four years.

**RG:** Well I'm back in number two.

**AB:** Are you?

**RG:** That was February 1980, and one of the things that I got a kick out of, I would like you to comment on, you start out by saying, "The Fire Ground Commander soon learns the fire ground is a lousy management setting. Time is compressed, everyone is excited, it's difficult to communicate, no one can hear so everyone yells, and these troops generally have their own attack plans. You must begin operations with inaccurate and incomplete information. There is just one problem after another."

**AB:** That's understated, Bob. I think that a lot of the standard management processes and principles and approaches certainly apply on the fire ground, and I think that's the basis for the system that we have developed and that we've been able to teach around the country for the last couple years, but I think that we're kidding ourselves if we don't recognize that there are some very, very special requirements of management on the fire ground, and we attempted to set the stage there where we say it's a lousy management setting because it is, and that system has to understand the battlefield nature and the consequences of just operating on the fire ground and be able to take some sort of an effective response to those characteristics. A lot of that is the agreement among the participants that are going to go out and be engaged in that operation, and in the unmanaged world, I know that I lived in on the fire ground for a good many years in my own department, we had never come to that agreement. So we never agreed that one person was going to be in command, and I think that was fairly typical. To this day it's typical still in a lot of fire departments, I'm sorry to say.

**RG:** Yeah that makes for a very tough situation as far as fire ground management, no question.

**AB:** It is, and for a person in that unmanaged situation to really be able to take command he almost has to be Attila the Hun. In other words, he really has to be a man on a white horse to get in there to yell loud enough and scare people enough to say, "What do you want me to do, boss?" because in the absence of that, if you have not come to that agreement, it is just so difficult, many times, for a Commander to get his hands around that operation in effect. That you can't ever do it in any effective time frame.

**RG:** And unfortunately the people that would suffer the most in that situation would be the victims themselves and the firefighters.

**AB:** Indeed. So we try to condition that management system in very practical terms to the problems that they actually face on the fire ground, particularly from the standpoint of the Commander, and I think if we talk about that to begin with, and I don't mean to overstate it or to scare anybody because firefighters appreciate that and understand it, I think that what we begin to do is build a system that actually fits those circumstances and that we can say that there's times that that Fire Ground Commander overloads, for example, on information. There's so many things going on that are so chaotic. So we attempt, in that system, to give him the capability and put him in the position where he can sort that out, and he can begin to delegate those in the system because under those conditions where you move time so quickly, and again the consequences are so severe, that when you overload, many times that can be disastrous in the process. Well, if there's not a game plan to do that between

the quarterback and the coach and all the players you just can't get through that part of the game. So it's an interesting place to try to apply some very simple and basic management principles.

**RG:** And apply them in a standardized format so that people can learn what those steps are so they're going through a logical sequence.

**AB:** Absolutely. We spent fifty years saying that all fires are different. Therefore you can't manage them. Well, there's a great deal of sameness. In other words, there's a lot of common elements to every fire, really. Now, it may occur in a different building or it may occur in a different stage or whatever, but we can build that into fire ground factors. If we begin to take a standard approach to fire ground, to extending fire ground operations, then we can begin to refine that. We can review that. We can critique that. We can improve that. We can train people in that. You begin to build predictability into those fire ground operations, but if we approach everyday like we have never gone to that kind of fire before, it's really exciting, but we sure burn up a lot of property.

**RG:** Yeah, I was interested, for example, in one of your other articles where you're talking about information management, and here you divided, really, into three kinds of information management: visual, reconnaissance as a second one, pre-fire planning, and just being familiar with the particular property.

**AB:** What those three do is they also provide a framework of methods and an understanding of not only the advantages but the disadvantages of each method. For example, firefighters tend to inform themselves by looking at things. In other words, we're very visual in the way we deal with evaluation. From the standpoint of the Fire Ground Commander, there are advantages to that, but there is also a dark side to that because if that's the only way he's going to use to communicate or to keep himself informed and to communicate, what happens is he leaves that stationary command post and he begins circling the fire. In other words, if he wants to know something he has to go look at it. If we divide the fire ground up into manageable sectors, that's not only a sector as far as operations and directions is concerned, it's also a sector from the standpoint of information. So if I'm in the front of the building at my command post, and I want to know what's going on in the rear of the building, I assign you to the rear of the building, and you not only manage that area for me and for the system, you also inform me and keep me current on what's the status of that area. So again, there are advantages and disadvantages and capabilities and limitations to all three of those. The more he knows the earlier, necessarily, the better job he's going to do. So we attempt to put him in a position, not only from the standpoint of how he organizes, we train him to be more visual, and we try to build a pre-fire planning or an information system that arms him with that information beforehand. So it does require the combination, some permutation, of all three of them based on whatever is going on.

**RG:** Yeah, and sector management now is very important in your concept of fire ground management as I understand.

**AB:** Yes, particularly in large, complicated, widespread kinds of situations, or situations that have the potential to escalate. The Fire Ground Commander very quickly overloads himself as far as his span of control is concerned. In most larger cities, you will send enough apparatus on the first alarm to almost

exceed his ability to manage that number of units under those conditions. So what we do, simply, is he just takes on command partners, and he divides the fire ground up both geographically and functionally, creates an organization based on the needs that he has in that particular situation using that common system, and he maintains control of that situation by virtually building an effective organization. It's a simple process, but in the absence of it...

**RG:** It's very logical.

**AB:** That's right, it isn't anything complicated.

**Caption:** Robert W. Grant, President, National Fire Protection Association

**RG:** Now in a fire ground situation, how would you as the Fire Ground Commander determine how many sectors that you would want to have?

**AB:** First of all, the size of the fire area, so just the geography of the fire ground, how remote are those areas that might be affected by the fire, the type of fire that you had, the structural conditions, the need that you had not only to divide that area up geographically but also the functional kinds of things like public information, police liaison, water supply, medical sectors, rehabilitation sectors, and that kind of thing. So really there's a fairly standard evaluation that that Fire Ground Commander would go through. Most of the time would build a, in most cases, a fast attack organization to attempt to stabilize the fire, and then he would put himself in a position that he could expand that organization based on management information on how effective, let's say, that initial attack was. And the duration of the fire is good. In other words, if that fire goes out very quickly, offensively, on the inside of the building then he would probably short cut the need for a larger organization. If that organization begins to escalate then he would be trained, and that system would accommodate him very naturally, expanding that organization. So that's the approach that we take to the whole organizational issue on the fire ground that we start from the very smallest basic operation that we would extend, and then we put that Commander in the position that he can escalate that into a major disaster if he needs to. In other words, he can divide it up even operationally where he could operate a hazardous materials operation, a fire operation, a medical operation. In effect, what we do is that we practice that system every time we go out and operate so it isn't like that disaster plan that you use every six years that you have an earthquake or a tornado or a flood or something that nobody knows what in the world is in it.

**RG:** That's right. That you fall off the shelf, and dust it off, and it's out of date.

**AB:** That's right, is that you use the first part of that system basically every time we respond three units or more. We use the same system for fire control, emergency medical services, for hazardous materials, for structural collapse, for any time that we would go out and conduct field operations we use, basically, this same system. So it's just second nature to the people in the organization and it's instinctive that that is the way you operate.

**RG:** Talk about tactical priorities. You list them as rescue, fire control, property conservation. And certainly they are prioritized. Can you talk a little bit about those?

**AB:** Sure. What that begins to do for the Fire Ground Commander and the whole attack team is that it provides an agenda for, not only the things that you do on the fire ground, but it presents the order that you do them in, and it provides some benchmarks that provide a trigger to indicate that we have not only completed that priority, but we are ready to go on to the next priority.

**Caption:** Alan V. Brunacini, Fire Chief, Phoenix, Arizona

**AB:** So what it begins to do is provide a structure and a framework for everyone who is operating on the fire ground, that is well known to everyone, that says when we arrive on the fire ground, categorically, we are going to cover life safety to begin with. When we have done that, and we have a standard way that we would indicate that we have done that, we would then go on to attempt to stabilize the forward progress of the fire and bring it under control. When we have declared that fire under control, we would automatically turn to what we call property conservation, which is an attempt to stabilize all the loss that is going on. This is practiced. It is used, in effect, every time you would conduct fire ground operations, and it begins to build predictability into the process. So as we can predict, we can begin to control loss, and we can control our resources, and we can maximize the use of those resources. So it's a very simple kind of a thing, but it can be a problem if those get out of balance. You simply do not rescue people effectively. You do not control the fire effectively. You're just not able to manage the loss in a way that's as effective as it could be.

**RG:** Okay, another term that you use is standard fire ground procedures. Again, you have these steps that you go through. Can you talk about those?

**AB:** Sure. The procedures provide an organizational plan. In other words, it's a set of organizational directives that establishes a standard course of action on the fire ground, and it describes the way we command, the way we [sectorize], the standard company functions of every different kind of unit, the safety procedures that we use, and that's a high priority that we have, the way we communicate with one another, and the basic organization that we're going to assume. And they're written very specifically for our own organization. Although, I think that there's a lot of common elements in them. We started that development six or seven years ago now. I think it has just really had a dramatic impact on the effectiveness of our ability to go out and extend those services in the field.

**RG:** Alan, it's been great talking to you about your field here, your specialty, your fire ground command. Thank you very much.

**AB:** Thank you, Bob.