

# Air Medical Accident/Incident Preparation, Response, and Recovery: Lessons from Crash Survivors

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*Experience: That most brutal  
of teachers. But you learn, my  
God do you learn.*

—C.S. Lewis



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*Human beings, who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so.*

*—Douglas Adams*

It seems an almost universal human sentiment: One of the primary concerns of people who survive a traumatic event is that future traumatic events be prevented so others will not have to endure similar trauma. Through sharing experiences and insights unique to survivors of such events, information can be shared so that others may learn and be spared from preventable physical and psychological trauma. Further, there are extensive resources available for managing fatalities in public service industries, but significantly less with regard to managing survivors.

In an effort to share the lessons from their experiences, this document is brought to you by those that have “been there,” the survivors of helicopter emergency medical services (HEMS) crashes: Krista Haugen, Jonathan Godfrey, Megan Hamilton, Teresa Pearson, Danny Kelly, David Duncan, & Mike Eccard; along with Tammy Chatman, Professional Relations for Flight For Life, WI. The primary goals of this group are to share their personal insights to aid in industry risk mitigation, accident/incident preparedness, accident/incident response, and long-term individual and program recovery.

The following also consists of issues to consider when formulating a Post-Accident/-Incident Policy (PAIP) and guidelines for preparation for timeframes both pre and post-accident/-incident with particular regard to survivors.

*Please note: These are suggestions & guidelines only—they will need to be tailored to specific program needs.*

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## PRE-INCIDENT/ACCIDENT

**Crew Resource Management (CRM)/Air Medical Resource Management (AMRM):** This should be taught to all existing crew members and as part of orientation for new hires, not simply to put a check in the CAMTS requirement box, but as a standard to be effective. Crews should understand how to communicate, and which words and tone to use to get the desired response. It is not appropriate to teach this solely online. This should be an interactive, scenario-based exercise in which pilots, medical crews, and communication specialists are instructed together and then role-play using the language and tone of voice appropriate for the situation. Use of AMRM should be an expectation within every program.

**“Organizational AMRM”:** Administrators and support staff benefit from learning the principles of AMRM and should be encouraged to participate in AMRM training. A key component of creating a culture of safety is effective communication. Ineffective communication can directly and adversely impact safety. Just as AMRM in the aircraft can help mitigate risk, organizational AMRM can be used to create effective systems and processes to help facilitate the non-punitive reporting and resolution of problems and issues on the flight line and within the organization, and thus help mitigate risk as well.

### Safety Culture

- Create processes that emphasize reporting of issues—non-punitive/non-threatening.
- Streamline and facilitate effective communication with completion of feedback loop/prompt resolution of issues.
- “Four to Go and One to say No” policy that everyone signs off on that they understand and are committed to following.

The most critical part of this is “walking the talk.” It is easy to have processes and policies—it is far more difficult to live that talk and make staff and management accountable to respond as they say they will.

### Risk Assessment, Decision-making Tools and Training

- Risk matrix
- Fatigue evaluation tools
- “Fit to Fly” assessment tool
- Random checks on pilots flight patterns
- Employ technology that allows detection of patterns of flying outside the SOP’s.

### Ground Crew Education (Repeat at Least Annually)

- Fire/EMS
- Law Enforcement
- Volunteers
- Hospital security/staff
- Dispatch
- All ground crew education should include steps for emergency shutdown of aircraft.

### Safety Drills and Checklists

- Aircraft orientation, walk-arounds, checklists.
- Emergency procedures review/training/education bi-annually.
- Familiarity with emergency egress, shutting down aircraft, rotor brake. Drill with multiple scenarios, ie. Incapacitated/unconscious pilot/injured crewmember/fire in the aircraft, etc.
- Tabletop, functional and full-scale drills should be conducted on at least a yearly basis. Different aspects of an incident/accident should be tested each time, i.e. EMS response and location



of downed aircraft, crew response to emergency procedures, crisis communications plan implementation and mock interviews of PIO/Director, for example. Exercises should be debriefed with all personnel to learn what went well and what needs to be improved upon.

### Survival Training

- Water egress
- Winter
- Dry land
- Aircraft survival packs and personal survival gear

All are important regardless of geographic region as unique concepts are taught in each that can be

applied universally. This needs to be interactive, hands-on training and not solely video based. A Survival Day should be conducted by each program on a yearly basis that includes field survival training i.e. building fires, signaling, obtaining water and food, building a shelter, and survival pack utilization.

Programs should have resources and contacts with regional first responders who have the capability to locate and rescue crews immediately post-accident. Crews should have the tools and training to survive in whatever environments they are exposed to if they survive the impact of the crash. Many crews have had to wait for hours to be rescued. Consider the reasons for that to happen within program and region and address them proactively. For example, what if you have a fixed wing crash in a distant location? How do you get the injured or deceased back home with honor and dignity? (See the film “Taking Chance” as an example.)

### Outfitting

Helmets/clear visors/tight chinstraps. Each crew-member needs to have their own helmet. Helmets need to be inspected for integrity and fit quarterly. A repair/replacement system must be in place.

- Nomex uniform and gloves—emphasize natural fibers underneath and sleeves rolled down at all times.
- Steel or Kevlar toed high top leather boots
- Four point restraints worn tightly
- Survival gear ON person as well as in aircraft
- PFD’s/Rescue air bottles
- Secure ALL gear, all legs of flight
- Patient secured (shoulder straps)
- Crash simulators are helpful in drilling crash scenarios
- Checklists: Emphasis needs to be placed repeatedly on actually checking/inspecting the items on the checklist. When crewmembers become complacent, there can be a “Yeah, yeah, yeah... it’s fine,” attitude. For example, if an item on the checklist says, “Stretcher locked in place,” the crewmember should actually ensure the stretcher is secure.

*Under the circumstances, I feel that my mind was fairly clear. I was in absolute survival mode. The customary survival trainings, compounded by all the safety briefings and lectures I had received were no longer mundane, routine, or just procedural teachings. The memories of these classes inundated my mind and influenced my decisions. These simple lifesaving tactics should never be overlooked or downplayed. These recollections were my true First Responders. —Mike, HEMS crash survivor*

*Recalling my Survival Training...I was aware of my surroundings and noticed that my flight*



*suit resembled the terrain. I placed one of my arms across the barbed fence to create contrast. When EMS arrived, they initially passed me (I was 50 yards from the wreckage). The medic scanned the area because of a reported survivor (I had called 911), and was able to see me due to the contrast made by my flight suit up against the fence.*

*—Mike, HEMS crash survivor*

## PAIP in Place and Drilled Regularly

It is critical that the PAIP is not just for the first 24-48 hours. It should run for the entire first year after an accident right through the anniversary, and possibly beyond. It should be in segments and management team packets developed with responsibilities assigned within those packets based upon their position within the organization:

- First 24 hours/Notification Plan
- Crisis Communications Plan
- Funeral/Memorial Plan
- Hospitalization Plan
- Internal and External Customer Management Plan
- Family Care Plan
- CISM Plan for staff, affected crew and their families
- Anniversary/Release of NTSB findings Plan

Ensure personal information is up-to-date.

- Have a standardized form to use and review it on a yearly basis to make sure it does not need any additions.
- Update on a yearly basis at the very least or throughout the year if employment, address, cell phone number, marital or child status changes.
- Make sure this information is in a secure area but that can be accessed in case of an emergency.
  - Don't forget numbers
    - Day care providers, schools, babysitters, info on animals/pets, vets, etc.
  - Will—yes or no? Some states' Bar Associations offer Will preparation at a discounted rate for public servants.
  - Where is the Will located?
  - Dentist name and number for each staff

Consider the following issues. Who within the program will handle notifications in case of an incident or accident? Who else does the crewmember want to be involved in the notification if it is a fatal? Each crew member should assign a family liaison and backup on their personal information form for cases where crew members are injured. There should be a Crew Hospitalization section to your long term PAIP

that deals with survivors and caring for them and their families. This is easily emulated from what the fire service does for their members. Someone from the management team should go to the hospital if there are survivors, along with the family liaison for each team member who is hurt.

## Financial and Legal Preparation

- Staff should have Wills, Financial Powers of Attorney, Health Care POA when they start flying. If there is no Will in place, families may have to go through probate post-accident for most or all of their loved ones possessions/property/etc. That process can take years, which can exacerbate grief and stress and delay recovery.
- After an incident/accident there needs to be an option for administrative leave with pay for employees, as employees should not be required to use sick time immediately.
- Some States' Bar Associations will provide estate planning/Will services to public servants for a discount or gratis.
- Staff should have at least six months, preferably a year's full salary in savings (dual income if they are a dual income family.)
- Personal disability policies/Organizational disability policies/Short & long term disability (Do they understand their policies? When it kicks in, etc?)
- Needs on time off will vary greatly—establish plan for Leave/educate on FMLA—be flexible with each crewmember
- It is also advisable for the employee to know what their program provides in the way of incident/accident insurance. The program should have their insurance provider come in and address the staff on these issues so that everyone knows what to expect and what their benefits are and what their family will need to do. After an incident or accident is not the time to figure out what you will be getting to pay your bills.
  - Do you have travelers insurance? What are the limits?
  - Do you have short term disability?
  - What is your long term disability and when does it kick in?
  - Deductibles on insurance?





*I remember my wife picking up her third job. That still hurts. We were lucky...we didn't have to sell anything, live without food or anything like that, still it just killed me. Falling behind on things was the norm. I know I am not the same person I used to be. I have "stuff" I must deal with—I walk with a cane and deal with this damn intermittent double vision. Concentration is gone but I can deal with that. I had to apply for Disability. In this state, it is illegal to actually sue your employer. You are given a "score" and paid for your score. Mind you, the score is done by Workman's Comp doctors so you can see how the scoring goes. I was turned down by Disability for 3 years. I was finally given a hearing with a judge. She could only scratch her head and say, "Why has this taken so long?" I was approved. Now I am paying the price of receiving the "score" money as this is considered "income" by Disability! I now have to wait one year before it starts.*

—Danny, HEMS crash survivor

- Workman's compensation: Administration and staff should be educated on workman's comp and establish a plan with Human Resources ahead of time. Paperwork should be submitted immediately—an expert should be designated to guide the survivor through this process.
- In cases where there are one or more fatalities, someone from the organization should be assigned to each family to assist with the large amount of complicated paperwork that will be required to be submitted.
- It is advisable to establish a relationship with an attorney. Some crash survivors have been forced to file lawsuits because of the financial devastation post-accident and inadequate compensation/support. Additionally, each crewmember needs someone to protect their interests post-crash.

## Media

- You must have a clear and concise Crisis Communications plan that incorporates social media in it. It may not be possible to get to the families before news of an accident shows up on Twitter, Facebook or YouTube and you have to be prepared for that reality and your staff and their families have to be prepared for that. You might get lucky and it happens on a busy media day or in the middle of the night in a remote area but don't count on it. You must come out with an initial statement within an hour or the media will find someone who will.
- Public information officer—it cannot be emphasized enough how important it is that there are at least two trained media person and a backup in case one is unavailable. The media wants the top person to talk to, ie--CEO/Director within the first few hours and that person should be prepared for the tough questions.
- PIO #1 should go to the scene of the accident to work in the JIC (Joint Information Center) with the other agency PIOs on scene or at the hospital. You should all be saying the same message and you want to make sure that the information disseminated is accurate. PIO #1 will report back to PIO #2 who should be at the headquarters along with the CEO/Program Director. Once the injured/deceased are removed PIO #1 should go to the program headquarters.

- Financial plan for families of fatalities—cash immediately available/insurance policy (no time lapses)
- Financial plan for crash survivors/families—cash immediately available/assistance with workman's comp. Employer should consider bridging the gap between workman's comp and previous salary.
- Consider paid time off with continued benefits to cover counseling/medical/dental expenses.
- Plan for covering flights for families, hotels, childcare, etc.

- Developing on-going relationships and educating the local media is more difficult now than ever before due to the dramatic changes that have occurred in the media industry. Beat reporters have been replaced by young, inexperienced reporters who may have to function as their own cameraman or photographer. This makes relationship building and professional courtesy almost impossible to achieve. Convincing them to consider the detrimental effects of certain types of coverage on survivors, families, crews, the program, and the industry will be difficult at best. It is difficult to get news to peoples' families post-accident before the print, television, radio or social media releases info. That is a terrible way for people to hear about their loved ones so intensive efforts must be made to contact families/staff before the media does.
- Crewmembers should pre-establish a trusted point-of-contact person to field phone calls for spouses/family members as they will be inundated.
- Survivors, families, and crews need to be prepped on dealing with the media when they call or just show up at their house or place of employment. This is where the family liaison can be of assistance. If designated, they can speak for the family, relieving the family of this burden. Local law enforcement can also assist in helping control the media depending upon the region.

### Balancing PR and the Needs of Survivors and Crews

This needs to be addressed ahead of time to avoid inadvertently causing more harm to crews by minimizing an event for the sake of public perception and service recovery.

## Preparedness

### Use Available Resources

- Constantly re-evaluate risk mitigation strategies & seek to improve.
- Create a regional air medical provider list with numbers that you can call for assistance.
- Pay attention to industry efforts—ie. Vision Zero Toolbox industry best practices, Digital Safety Stories, AAMS Survivors Network, Vision Zero/ Survivors Network challenge coin.
- Learn from the experiences of others.

### Stress Education and Training

- Staff (including administration) should be educated at regular intervals on secondary trauma, cumulative stress, self-care, compassion fatigue, critical incident stress, post-traumatic stress, and PTSD.
- Employ a fitness program that includes stress reduction techniques/education.
- Employee Assistance Program may be useful but is limited.

Families should also have an opportunity to be educated in this regard as well, and should be educated on the risks of this profession so that they can be as prepared as possible. Implement a Family Safety Day that is done once a year where you bring families in and show them what the program does in regards to safety and discuss any fears or concerns they may have. Spouse/family could be included in a segment of the orientation of new employees so that they know what safety means in the organization.

### Establish Resources Ahead of Time

Develop relationships with professionals—counselors/psychologists/psychiatrists—who specialize in trauma, especially in emergency services. Introduce them to flight medicine and to the staff. Establish relationships (find one you “click” with) before you actually need them in a crisis. Have them do ride-alongs, spend time with crews so that they understand the nature of the people and the work, and they develop a rapport with the crews. Consider having a flight program chaplain who does all of the above including coming to monthly crew meetings if possible at least every other month.

Develop relationships with outside emergency services or hospital services that can step in and help in a crisis if the whole organization is overwhelmed, ie—fire services, who are often experts at the logistics of a memorial service, and who have fire chaplains/ or other professionals trained in crisis intervention. Most states have a state fire chiefs association—you can contact them and get them involved in your PAIP.

Prior to an event, have a free-standing lab or emergency department chosen as the site for survivors to have DOT lab work obtained, if required. There should be no delay in obtaining these labs because of confusion over where to send the survivors.

## POST-INCIDENT/ACCIDENT

Planning ahead is paramount. This industry is 24/7 365. Events/incidents can occur on a Friday night or a holiday. When an event occurs during a holiday time period resources need to be as readily available as they would be on a non-holiday.



*No one tells you how to deal with the after-effects, the post accident fallout and the immense ripple effect on those directly involved in the incident, our families, our friends, our co-workers. It doesn't matter what type of accident, incident, near miss, precautionary landing or other unscheduled departure from altitude it is. It doesn't matter the color of flight suit you wear. Sometimes it is the unseen emotional scars that run deeper...*

*—Megan, HEMS crash survivor*

## Personalities of Flight Crews

Flight crewmembers typically are not ones to readily ask for help. They are the caregivers. According to a clinical psychologist who has worked with flight crews, they typically “under-report” their symptoms (versus the general population he deals with who tend to “over-report.”) Flight crewmembers are usually self-motivated professionals who have a passion for their work. These traits make them great at their job, but often not so great at caring for themselves or being able to identify their own needs. This is why the organization needs to be educated ahead of time, so crews, as well as management, know what to expect, where to find resources readily, and not have to figure that all out in the midst of a crisis.

### Post Incident/Accident CISM, CISM and Psychological First Aid

- Critical incident stress debriefings/management is controversial. There is no doubt that some form of intervention/assistance is necessary but the most effective means of doing that has yet to be determined. (This is a current project of the AAMS Survivors Network.)

It cannot be emphasized enough that each individual responds differently to trauma. There is no “cookbook” method of dealing with people who have endured trauma.

- Psychological assistance/support should be provided immediately after the accident and also for the long term for survivors, crews, and families.
- If there is a flight crew debriefing, it should be with a trained counselor/psychologist who specializes in trauma/CISM/PTSD.
- There will be a lot of emotions that will arise after an event, and frustration and anger will be present at one point or another. There needs to be preparation for this. Develop appropriate ways to deal with it so it does not destroy the individuals or the organization.
- You may need to plan on several debriefings, including the crew directly involved, the whole team, families, hospital/fire/EMS, dispatch, management team, etc. It is essential that confidentiality be maintained.
- Consider how debriefings will occur if the crew is hospitalized.



- Management may or may not need to be included in initial debriefings, depending on the situation. If the crew involved requests their own debriefing without management, that should be respected.
- Management will need their own debriefing and care as well. There is no down time for the management personnel so they must have a means of grieving and “dumping their emotional backpack.” They too can become a casualty of the incident or accident.
- Don’t forget that people peripheral to the incident/accident may be significantly impacted and need attention, ie. Communication specialists, mechanics, co-workers, administration, families, etc. They are “survivors” in their own right.
- Many survivors would appreciate an opportunity to speak with all of the flight crews about the accident and allow them to ask questions.
- It is important to allow and encourage survivors to speak with the managers and the safety committee about what went right, what went wrong, lessons learned, and how things could be changed for the better.
- Employee Assistance Programs may be helpful initially IF the provider specializes in this type of trauma, but four visits will probably not be adequate.
- People may need years of counseling. Some people may benefit from medications until they can process their thoughts and feelings.
- Assign someone to follow up with crew for the long haul with leadership checking in periodically as well.

*It is very helpful immediately following an incident to have someone to talk to...especially someone who has survived an event/incident as well. If a critical incident team is deployed one member of that team should be an HEMS survivor. Someone who truly does understand.*

—Anonymous HEMS crash survivor

*The lack of memory for those few moments remains bitter sweet. Bitter because I want to fill the gap and put this puzzle together, sweet because if I did have the memory, I probably would never fly again. It is the lack of knowledge that gives me the mental freedom to return to this inherently dangerous job.*

—Jonathan, HEMS crash survivor



## Physical Injuries

After a hard landing, run on landing, collision, etc, even if employees do not have an obvious physical injury they should be transported to the nearest appropriate ER and fully evaluated for potential “non visible” injuries.

Survivors may require multiple surgeries, which presents a whole new set of issues.

- Pain control—don’t be surprised if survivors develop issues with addiction. They may have prescription pain medications for their multiple surgeries, most of which have addictive properties.
- Further, addictions often go hand-in-hand with PTSD, as people try to “numb” the constant pain/anxiety PTSD presents. Don’t judge them for becoming addicted, have resources readily available and help them through it. Nobody plans to or wants to be addicted.

Survivors face many unique obstacles both physically & mentally.

## Survivor's Guilt

*I had never even heard of survivor's guilt. It was a concept that introduced itself to my heart and mind without mercy. It rivals the impact of the crash itself and over time is proving to be the bigger impact. There is no way to prepare an individual for this mental torture.*

—Jonathan, HEMS crash survivor

There is no way to fully prepare anyone for any of this, but if they are at least educated and aware of these issues, it will lighten their burden a little at least.

## PTSD

*While I was SO grateful to have survived the crash without serious physical injuries, I had NEVER experienced anything like this in my life. It was as if my spirit, or light...that thing that makes you YOU...had disappeared.*

—Krista, HEMS crash survivor

There are scientific, physiologic explanations for PTSD on a brain/neuroendocrine/biochemical level. It is advisable to learn about the physiology of PTSD. It helps, not only simply for the education on it, but it also helps to decrease the stigma that is sometimes attached. It is like a biochemically mediated traumatic brain injury and should be treated as such.

Prompt, clear, accurate, honest, & genuine communication is essential to avoid exacerbating PTSD. Survivors want information. One of the primary concerns of survivors is that no one else experience what they're going through. They want to be assured that a root cause analysis of the accident is done and that actions take place to help prevent future accidents. It

is essential that they be given a venue to share what they've learned. The AAMS Survivors Network is one option for that.

It is also reassuring to survivors to have continual re-examination of practices and continued improvements.

Some NTSB reports fall short in accuracy. This can exacerbate PTSD for survivors. Survivors/crews may need debriefings after NTSB reports are released. Scheduled debriefings before and after the NTSB releases the info to the general public may be helpful for those who are interested. Talking with the NTSB/Vendor prior to the release can be helpful as the content of the report can be digested and a plan for dealing with the findings can be developed for the organization and its personnel as well as for the questions that will come from the media, the general public and customers. The NTSB report can be devastating to all involved.

It may be beneficial to survivors to keep the damaged aircraft offsite, to prevent unnecessary exposure and PTSD exacerbations.

*You and I employ a lot of denial to get through the world. For instance, when we are driving down the freeway weaving in and out of traffic at 75 mph and we actually believe we are safe. But if I have been exposed repetitively to death and I know I can die at any moment, it changes my world view. You can't employ that kind of denial. It's actually one of the reasons I really enjoy and appreciate and feel honored being able to work with people with PTSD because to be honest with you, they have a more realistic view of the world, in my opinion.*

—Dr. Steven Southwick, Professor of Psychiatry at Yale, Director of Clinical Neuroscience Division of the National Center for PTSD in Boston



*On 9/11 last year I watched a program about a one of the many heroic NYC firemen. He said, "I can handle anything when I know my brothers are beside me." I would fully agree with his statement as would many people on the flight line.*

—Krista, HEMS crash survivor

## Timelines

It is imperative to remember that people all heal on different timelines.

Social support is one of the primary predictors of resilience.

- Allow injured team member to remain involved with team in some capacity, if possible. Do not define them by their accident. Many survivors have extensive and valuable experience in EMS/transport. Make frequent contact with employee and family, while respecting their privacy at the same time.
- Include employee in team news...don't isolate—they already will feel isolated/alone.
- Allow them to explore return to flight at their own pace, if at all. Support whatever decision they make as much as possible.

Recovery from trauma can, conversely, become more difficult if social support is not present.

*I think it's the 'wild animal rule'...you run in a pack until one gets hurt and can't keep up. Then they are left behind...*

—Danny, HEMS crash survivor

Reorientation flights: Survivors may want to explore returning to flying. Allowing them to just take a flight with a pilot/close co-workers may help them determine if they will be able to continue.

Anniversaries: Anniversaries of accidents may be difficult, even many years later. Keep track of anniversary dates. Plan ways to acknowledge and support survivors, crews, & families at these times. Even a simple, sincere acknowledgement can make a world of difference.

## Integration for Others Affected

### Helping Co-workers Respond

Fellow crewmembers and the general public will respond to survivors/families differently. All of the survivors contributing to this document have personally have experienced everything from complete embracement to total disconnect from fellow crewmembers/administrators.

*I decided I would just make the memory of the accident go away...push it down and not let it out...this proved to be a bad plan. As the months went on, and our service recovered and moved forward and the smoke cleared...I found myself getting worse instead of better. A few months after our accident...it really came home to roost...while everyone else had moved on, I found myself awaking in the middle of the night reliving the last 30 seconds of that flight. I knew I had to do something...I just was not sure what or where to turn.*

—Teresa, HEMS crash survivor



People must remember that even though someone may not have physical scars often the emotional scars from an event are raw and unhealed, and therefore should refrain from saying things such as “it’s not like you were hurt.”

To help administrators/colleagues learn how to respond, read the stories of crash survivors to get an idea of what people go through. These can be accessed through the AAMS Survivors Network, as well as through some of the Digital Safety Stories found at

The Center for Medical Transport Research website (tcmtr.org).

### Families of Survivors

- Crew members should choose a family liaison and a backup. This should be listed on the Personal Information form. This person will be the liaison to the family and convey the family's needs and wishes to the program as well as function in any way to assist the family.
- A check should be provided by the program for a predetermined amount to the family within a week of the incident/accident to assist them with expenses.

The toll on the families of survivors is immeasurable.

- Assign someone to stay with family/spouse until close family/friends arrive.
- It would be helpful if this person remains accessible (within reason) for the duration.
- Assistance for family caregivers: Emotional, financial, physical, spiritual, practical, & logistical support.
- Stress management for families.
- Develop support & resources ahead of time.

*I remember looking at my peers as they flew me knowing they could see my fear...how could I show them my fear? I was a manager, I had to somehow pull it together, for me, for them and knew at that moment I could not.*

—Teresa, HEMS crash survivor/manager

### Management

Administration is in a difficult position in trying to rebuild a program, ensuring that those impacted are cared for, as well as caring for themselves. There will undoubtedly be conflicts—financial, legal, and emotional, as the ripple effect post-accident makes itself apparent. It is important to survivors and families of fatalities that senior management communicates with them. If the organization “owns” its issues,

keeps communication with survivors/crews/families open, and has plans in place ahead of time—this can help make dealing with an accident less painful. Administrators need to make sure they take care of themselves and allow themselves to deal with their own emotions throughout what is a terribly taxing experience. Further, survivors may be difficult to deal with, for good reasons—issues with PTSD may not make people easy to communicate with. Please be patient. Survivors may have great perspectives/ideas to share from “the eye of the storm.” It is extraordinarily important for them to share what they've learned. Don't let their message get lost in their delivery. If you aren't able to communicate with them, get a mediator, like a clinical psychologist, who can translate through psychological distress and facilitate communication. That way, the following scenario can be avoided:

*I have good days and bad. Just like other survivors I have ideas on how we as an industry can improve our response to events/incidents and take better care of our own. I also know which parts of AMRM worked for me on our day. I would love to share my story, however I am afraid to speak up. We teach in AMRM and countless other classes for crews to speak out openly and not be afraid. However...I was told by my colleagues not to open my mouth and to stop talking about how things were being handled because they were afraid I would lose my job. I have been labeled as a “trouble maker” by management for speaking about the handling of events. So I go to work and do my job. No one ever asks how I am doing. No one from management has “checked on me” in months. I take care of myself through discussion with close friends, a therapist, my family and involving myself in activities outside of the industry but not a day goes by that I do not think about what happened, and those that I have lost.*

—Anonymous, HEMS crash survivor



*At work, I sometimes feel like an outsider and the one remaining reminder of what never should have happened. I feel some look at me and want me to disappear thinking my absence will make our program whole. I feel any attempt I make at improving not just the safety of our mission, but the aftermath should we fail again, is viewed as the overreaction of a scared and baggage carrying medic.*

—David, HEMS crash survivor

Survivors of incidents and accidents have unique insights that can help with industry risk mitigation. Don't let this valuable information be lost because of misperceptions, assumptions, or other barriers. **We, as an industry, can't fix what we won't face.**

**Compassion fatigue:** Post-crash fallout can last many years. Administrators/managers may experience compassion fatigue when it comes to dealing with survivors/families. Have a plan in place so that you can "share the burden." Don't lose patience. You cannot fathom what the survivor/families are going through unless you've been there. If you put the effort into helping recover these people to their fullest ability early on, they may return to a productive life, even if it takes years. Otherwise the losses are massive.

Base and program manager should reassess team health at regular intervals.

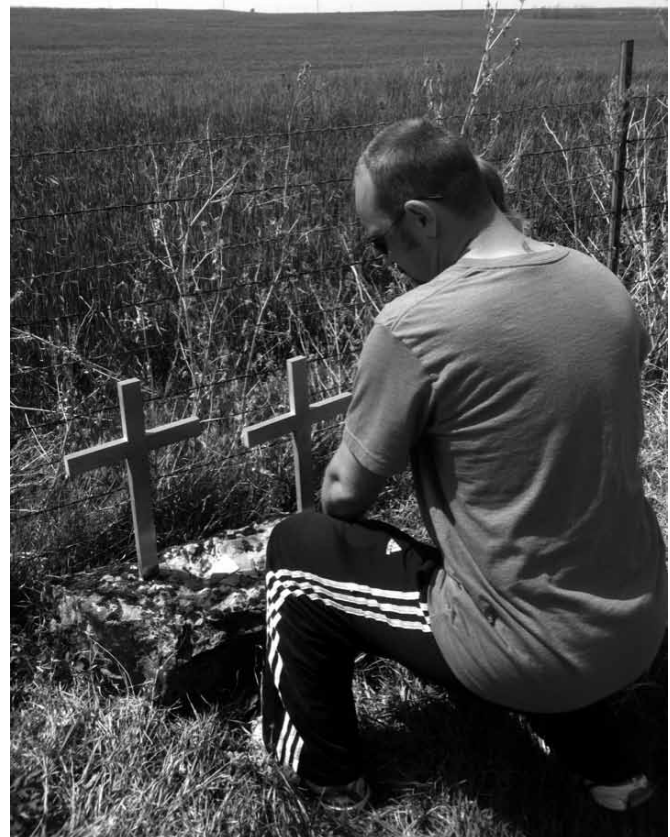
It may be helpful to distribute an anonymous survey to the entire team to evaluate the program's response to date, to evaluate the team's health, and to collect ideas as to how to improve the program. (This may be painful for leadership but may be one way to gain better insight for addressing needs and assessing program healing.)

All programs are vulnerable to an accident or incident. To try to hide, minimize, cover up, or otherwise be less than transparent inevitably creates a plethora of problems in the long run. While that event cannot be undone, the program can embrace the facts, remain transparent, learn, and teach others. Follow the motto, "Go ugly early:" Get out in front of your issues and address them head-on with a plan to deal with each one. It will make all the difference in the world to your staff, your customers and the community.

Remember, every team member and their families want to know that the incident/accident reasons

*But what would help me most is peace of mind...reassurance that my crewmembers didn't die without reason, without something good coming from this; hope that what my family and I continue to go through each day and night isn't for nothing; guarantee that assets are not in danger and all parties involved in a crash are properly compensated. Never forget, it is us the crew, that is ultimately connected with the public relations during each mission in this field.*

—Mike, HEMS crash survivor



and risks have been exposed and corrected. Honest disclosure (like a sentinel event meeting in a hospital) and an openly disseminated corrective action plan will go a long way in giving peace to the internal safety culture.

Being proactive in mitigating risk and being prepared to respond to incidents and accidents in ways that effectively promote resilience will help to create a safer and healthier air medical industry.



## FINALLY

*We recognize an incident or an accident impacts far more people than just those directly involved. There are flight crew members, communication specialists, pilots, mechanics, administrators, programs, support staff, families, friends, and communities who are “survivors” in their own right as well. Further, the cumulative stress, secondary or vicarious trauma, and compassion fatigue that air medical and EMS professionals may experience over the course of their career make them “survivors” too. Our future work will hopefully impact all survivors in a positive way, as well as the air medical industry as a whole, so that the invaluable mission of air medicine can be carried out in a way that promotes resilience for all.*

The AAMS Survivors Network for Air & Surface Medical Transport, Vision Zero, and the Air Medical Memorial/Behind the Wings programs are working diligently to help develop tools/resources for all of the above.

*What I need the most is to know that lessons from preventable accidents are learned, collaborative solutions are developed and applied, and the information is shared industry-wide, because we are all connected.*

—Krista, HEMS crash survivor



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## Resources

[survivors-network.org](http://survivors-network.org)

[facebook.com/survivornetwork](https://facebook.com/survivornetwork)

[aams.org](http://aams.org)

[medevacfoundation.org](http://medevacfoundation.org)

[aamsvisionzero.org](http://aamsvisionzero.org)

[airmedicalmemorial.com](http://airmedicalmemorial.com)

[tcmtr.org](http://tcmtr.org)



Contact the AAMS Survivors Network at

[info@survivors-network.org](mailto:info@survivors-network.org).



Risk mitigation...Preparation...Response...Recovery