

Welcome to the tenth issue of the NATA Safety 1st® eToolkit, our monthly online safety newsletter, supporting the NATA Safety 1st® Management System (SMS) Initiative.

This monthly newsletter will highlight known and emerging trends, environmental and geographical matters, as well as advances in operational efficiency and safety. Flight and ground safety have been enhanced and many accidents prevented because of shared experiences.



The NATA Safety 1st® Management System Initiative is now fully operational. Many of the tools discussed in this and other eToolkits will be provided as a part of the program.

The Dollars and Sense of Safety

The absence of an accident does not necessarily mean the presence of safety. An effective safety program requires a commitment to good business practices for your customer, your employees, and your bottom line.

During the course of performing hundreds of safety assessments and audits over the past 10 years, SH&E has examined dozens of companies (ground handlers, FBOs, charter companies) who believed that they were safe because they had no fatalities or major accidents and few memorable incidents over the course of their history. However, in auditing those companies one common thread became more and more evident: the absence of a well documented, widely distributed, and well-understood safety program.

In several instances, organizations had components of a safety program in place, but with varying degrees of effectiveness. In other instances, companies relied on



either a few paragraphs in their operations manuals or generic training provided by sources far from the reality of the apron. In many cases, these companies believed they were a safe company because they hadn't had any accidents. Others proudly offered their impeccable safety record as evidence of their



New SMS Participants		
Company Name	City	State
Corporate Wings	Cleveland	OH
DB Aviation	Waukegan	IL
JetCorp LLC	Chesterfield	MO
Mercury Air Center - Addison	Addison	TX
Mercury Air Center - ATL/Hartsfield	Atlanta	GA
Mercury Air Center - ATL/ PDK	Atlanta	GA
Mercury Air Center - Bakersfield	Bakersfield	CA
Mercury Air Center - Birmingham	Birmingham	AL
Mercury Air Center - Burbank	Burbank	CA
Mercury Air Center - Corpus Christi	Corpus Christi	TX
Mercury Air Center - Fresno	Fresno	CA
Mercury Air Center - Jackson	Jackson	MS
Mercury Air Center - Los Angeles	Los Angeles	CA
Mercury Air Center - Nashville	Nashville	TN
Mercury Air Center - Newport News	Newport News	VA
Mercury Air Center - Reno	Reno	NV
Mercury Air Center - Tulsa	Tulsa	OK
Million Air - Salt Lake	Salt Lake City	UT
Rochester Aviation	Rochester	MN

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efforts but could not provide any tangible evidence as to why they had performed so well, or really, why they had been lucky for so long. What each one of these companies was missing was a formal safety program driven by senior management's resolve and built into the organization's culture.

Many of these companies believed that the cost of developing a comprehensive safety management system would be prohibitive. They were operating in difficult times, and they already had a good record. Many of them questioned the benefits of a safety program and, more disturbingly, felt they needed some financial justification, such as an insurance premium reduction, to recognize their investment. What came to mind, time after time, was a quotation from one industry luminary that best described this phenomenon: "The absence of an accident does not necessarily mean the presence of safety."

Making Safety Mean Something

Unfortunately, we have found that even companies who have had accidents and experienced the trauma of dealing with distraught customers, complicated claims processes, and ultimately higher insurance and operating costs failed to see the obvious benefits to having a more formal safety program—what we call a safety management system. And this is an important point of distinction. This is not using safety as a common catchall that means everything and nothing at the same time. Safety, or the notion of a safety program, is not just a slogan, or mission statement that broadly states "We will be safe" and then fails to provide guidance, resources, tools, and management responsibility and accountability. A safety management system is a commitment to good business practices for your customer, your employees, and your bottom line.

What seems to be missing among many companies is a complete understanding of the core components of a safety program or a safety management system and its impact on daily operations—getting beyond the most basic moral and fiduciary responsibilities of providing a safe and healthy environment for employees and customers and protecting the company's assets (employees, facilities, brand equity, customers' aircraft) from harm.

We know from direct experience that off-the-shelf words cannot make a safety program. It takes work, specifically investment, commitment, communication, listening, listening some more, continuous support, patience, looking into all elements of your operation, conducting peer comparisons, incorporating feedback, and above all else, resolve to see it through. And it takes action from senior management.

Guidance For Aircraft Handlers

So what can the small, medium and large aircraft handlers do to reduce their insurance costs and uninsured expenses? After exhaustive field research conducted over the past four years,



NATA and its technical partner SH&E determined that the number-one causal factor of losses is the lack of a definitive, systematic, comprehensive process for the management of safety risks that integrates operations and technical systems with financial and human resource management for all activities related to aircraft ground operations.

The losses don't occur because a ground handler hasn't recognized the importance of chocking ground-service equipment on the ramp, received specific guidance for the operation of those vehicles on the ramp, or received training and coordinated aircraft handling instructions. The losses occur because the operator has not recognized the importance of a properly documented, well thought out, comprehensive safety program that provides the tools necessary for any company to analyze its current situation and determine the path it can take.

So to those of you who feel that they will only invest their hard earned dollars in a safety management system if they get an incentive (like a reduction in their insurance premiums), let's get one thing straight: You control your insurance costs by not having losses because you present a better underwriting risk to insurance companies. There is an ultimate minimum premium that your insurer expects to collect from your class of business, however, that is based on your company's profile within that class of business.

A Real-World Example

For example, let's look at the full-service fixed-base operator, with no aircraft charter or rental as a defined underwriting class of business. In this example, we are looking at an existing operation running a 40 percent loss ratio, or for every dollar paid to the insurance company for premium, your insurer pays out 40 cents on the dollar for your claims. Fuel costs are rising, and there is a new FBO on your field with new equipment, a new hangar, and more ramp space. Your employee cost has gone up because of workers' compensation experience over the past three years.

In preparing for your renewal, you are looking for any opportunity to reduce your operating costs, which all seem to be going up. You contact your insurance broker and ask for some insight into what to expect for this year's renewal. Your broker advises that your loss experience has been improving but has leveled off over the past two years. You discuss the losses of the previous year, look at open files, discuss claim reserves, and engage in discussions with your claims representatives about reducing reserves and closing some of the files that seem to have been forgotten. You remember that the insurance company works with the information you provide, so you keep the claims adjuster advised of developments.

Breaking Down An Incident

One claim continues to loom large in your memory and on the loss run—a Falcon 900EX transient tenant in for a five-day stay. Your line-service crew was instructed to use wing-walkers anytime they were near another aircraft or structure. There was a wing-walker, but on the wrong side of the aircraft. He was watching the right wing as it passed some 15 feet from another hangared aircraft. Unfortunately, the left wing struck the hangar door structure as the tug operator was temporarily blinded by the rising sun and glare from the ramp.

After the accident, the investigation revealed that on the day of scheduled departure, one of your four scheduled line-service technicians was late due to car trouble. The schedule indicated an 0830 departure, fuel, catering and limo access to the ramp for the 900 EX customer's clients. The Falcon was to be moved from the hangar to

spot one at 0700, approximately 30 minutes after shift change and just as the Falcon's crew was scheduled to arrive. The crew was dealing with the weather, catering was in-bound, and everything looked pretty standard.

The line crew assigned to move the aircraft was dealing with routine events, moving GPUs, running some ice to a hangar customer, and performing the morning fuel truck daily checks. When it came time to move the aircraft it seemed routine: the tug driver to watch the overall move and the wing-walker to watch the right wing as the aircraft was moved out of the hangar. What was assumed was that the tug driver would also watch the left wing. Well, with the glare, he really couldn't see it, but with the schedule they had for the morning, they continued on.



Costs Start Piling Up

Once the left wing struck the wall, the six-inch dent to the leading edge didn't look that bad, but the accident components were still developing. The Falcon's owners needed to move the now delayed passengers ASAP, so they chartered another aircraft and expected to be reimbursed. Soon thereafter, your broker and insurance company's claims adjuster were involved.

The exchange leading edge was secured in lieu of repairing the damaged one at a cost of \$115,000 rather than the new one at \$225,000. The charter for the first flight cost approximately \$110,000 for 20 hours to and from the Falcon's original European destination. Less direct operating costs for the Falcon EX, the net cost of the charter was \$70,000. The claims adjuster was successful in negotiating the exchange leading edge and negotiated with the owners not to pursue a diminution of value claim.

Your investigation revealed the employees performing the move were trained and responsible people. You advised all of your employees in 2002 that wing walkers were required anytime an aircraft was moved in or out of any of the hangars or on a congested ramp. There was a memo floating around somewhere. It turned out that the employee who was late was your senior man, the two employees assigned were newly hired in the fall of 2003 and, you later surmised, never got the memo. You

couldn't understand how the employees could disobey your "If you're not sure, stop!" edict, but that too was distributed in a memo in 2002 after that last accident.

If you are not routinely discussing open claims and, in particular, the reserves established by your insurance company to cover the loss, both direct and indirect expenses, then you really don't know the full extent of the accident. This is the best way to learn what the true cost of an accident really is.

Help is Available

NATA is offering membership in the Safety 1st Management System as the industry's most readily effective means to reduce incidents and accidents all while improving employee morale, safety communications, and company performance both financially and from a quality perspective.

And why does the Safety 1st Management System make good business sense? If you don't have the losses, your loss experience improves (loss ratio declines), your company becomes more attractive to your underwriter, your insurance premiums decline over time as your performance proves you have embraced this industry-supported safety product, your customers recognize the difference, employee performance improves, and generally, you are associated with a more professional, quality operation.

How Safety 1st Helps

Your actions that would have prevented this event

So how would the NATA Safety 1st Management System have helped you prevent the accident discussed in this article, saving you \$42,330 and your insurance company the \$160,000 in recorded losses to add to your history?

- ▶ First and foremost, it would have provided you a central documented system to contain all items related to safety. This document would be constructed around the NATA Safety 1st Management System manual that addresses all of the relevant components applicable to ground operations.

- ▶ Next, you would have assigned specific safety and hazard identification duties to an employee who would be trained, over time, in the art and science of loss reduction and control, employee health, hazard identification, and risk management, and could become a candidate for a promotion to management.
- ▶ Once this manual is in place and representative duties, responsibilities, policies, and procedures are established, the foundation of your own quality program is now in place.
- ▶ You and your safety coordinator would have the ability to learn from past experiences and apply simple hazard identification principles before the loss occurs (e.g., recalling what you learned about the glare problem at hangar two when you had that little Baron mishap back in '97). You also learn simple data management and trending skills to evaluate your losses and the losses of the industry, for your class of business.
- ▶ You would be provided industry loss and specific root cause analysis of significant or common types of events (near misses, incidents, and accidents) in a management report so you can see what others have experienced by viewing historical loss evaluations. Your safety coordinator could learn from them as well, rather than learning first-hand as you did with the Falcon.
- ▶ You would be provided NATA's Safety 1st eToolkit, a monthly safety news bulletin addressing timely safety issues, industry best practices, lessons learned, and tips to improve safety performance.
- ▶ Next, you would have access to NATA's staff safety and risk management experts to provide guidance and real-time solutions to safety issues that crop up from time to time.

Presented by Lou Sorrentino, SH&E Vice President and Managing Director of Safety, Security & Operations

Assessing Safety Practices

As a supervisor, you need to be aware of and assess safety practices at your facility. Remember though, being aware of problem areas is only the first step. It's just as important to assess what safety practices are not being followed.

The best way to eliminate unsafe work practices is to regularly monitor your employees' equipment, work habits and work areas. Be sure to draw up a checklist of conditions to observe. Make sure to follow the checklist as you walk around the work site so that you don't overlook anything.

As a start, you might want to ask the following questions when developing your checklists:

- ▶ Are employees paying attention to their tasks?
- ▶ Are they following recommended procedures when performing their duties?
- ▶ Are they using personal protective equipment?
- ▶ Are they using the proper equipment for the job?
- ▶ Is the equipment being used working properly?
- ▶ Are there noticeable hazards in the work area?

Share the responsibility for safety with your employees. They are the ones directly affected by unsafe work practices. Make sure to involve them in identifying and correcting problems. Have open conversations about your safety concerns in safety meetings as well as informal conversations.

Encourage your employees to report dangerous conditions. The NATA Safety 1st Management System provides participants with forms for this specific purpose. Gather all the information possible about near misses or unsafe practices by interviewing those involved. Practice being a good listener as you and your employees examine why such incidents or near misses occurred. Keep an open mind and don't assume your employees are negligent.

Try to understand what went wrong by asking pertinent questions. Were they paying attention to their job? Were they at risk because of their working conditions? Were they stressed about work or personal problems? Were they hurrying or cutting corners? Did they feel bored because of repetitious routines?

After you discuss and understand all the safety scenarios, develop practices and procedures to address them. Your employees will be motivated to change if they are involved in suggesting corrective actions. Be sure to schedule or plan to follow-up on how well the practices and procedures are working.

You may find training is necessary to supplement your safety practices. As a supervisor, your role is to provide appropriate training to strengthen your employees' safety skills. Again, use a checklist and make sure a safe job analysis has been conducted to assist with tasks performed.

Make sure to discuss safe work practices at your monthly/quarterly safety meetings. Don't forget to invite upper management to attend your meetings. It shows their concern for safety and provides an opportunity to listen to workers' issues.

The safety of your workers reflects upon your supervisory skills. Because of this, it is essential that you keep all lines of communication open. Think of yourself as the safety link between management and your employees.

Talk the talk. Walk the walk. Promote safe work practices everyday. As the supervisor, you play an important role in accident prevention at your facility.

The Pros and Cons of Training Methods and Media

Method	Pros	Cons
Lecture	<ul style="list-style-type: none"> Can cover lots of information Used with large and small groups Total control of information by lecturer 	<ul style="list-style-type: none"> Doesn't encourage participation One-way communication limits understanding of learner needs Inappropriate for teaching skills No way of measuring whether learners comprehend
Discussion	<ul style="list-style-type: none"> Involves learners actively Instructor gets valuable feedback on learner needs Learners can discover new concepts Class is more relaxed 	<ul style="list-style-type: none"> Can go off on tangents Requires skill in maintaining class control Open-ended questions must be carefully structured for discovery to occur Extra instructor assistance is needed to help when class is broken down into small groups
Demos	<ul style="list-style-type: none"> Relates information to the real world Attention-getting. Can be geared to learners' capabilities Excellent for skills training when accompanied by learner practice 	<ul style="list-style-type: none"> Requires thorough preparation Should be limited to small groups or one-on-one (Closed circuit TV can be used for some demonstrations)
Small group activities	<ul style="list-style-type: none"> Can be used to break up large groups Builds group rapport Excellent opportunity to apply new knowledge Can simulate many real-world problems/situations 	<ul style="list-style-type: none"> Practice activities must be structured in detail Dominant personalities may overwhelm less aggressive Group size may be restrictive - should be limited to 3-7 learners per small group
Independent study, Computer Assisted Instruction, Interactive Video, Distance Learning	<ul style="list-style-type: none"> Learners can proceed at their own speed Learner gets feedback on level of mastery Eliminates negative peer pressure CAI can be remote, yet connected to a central source Can interact without a keyboard 	<ul style="list-style-type: none"> Highly dependent on quality of media used Absence of human interaction More effective for teaching knowledge than teaching skills Hardware/software can become outdated quickly

<p>Overheads / Transparencies</p>	<p>CD-ROM adds realistic pictures and movement</p> <p>Employees increasingly familiar with computers</p> <p>Very versatile</p> <p>Easy to produce on copy machine</p> <p>Simple to control and operate, inexpensive</p>	<p>Requires extensive development time</p> <p>Requires computer literacy</p> <p>Are large; require storage arrangements</p> <p>Information must be brief, or will be too difficult to read</p>
<p>35mm Slides</p>	<p>Easily handled and stored</p> <p>Flexible, adaptable</p> <p>Can be combined with taped narration for repeatability</p>	<p>Loose slides easily disorganized</p> <p>Requires photographic skills</p> <p>Commercially available programs not always relevant to your operations</p>
<p>Power Point/ Computer Projection</p>	<p>Extremely versatile -all</p> <p>Advantages of 35mm slides</p> <p>Can be easily modified/adapted</p> <p>Can be used in conjunction with distance learning</p>	<p>Requires computer literacy</p> <p>Equipment can be expensive initially</p>
<p>Videos</p>	<p>Permits same image to be played to large numbers of people at many locations</p> <p>Can be shot in-house to reflect site-specific operations</p>	<p>Image display limited to size of monitor</p> <p>Equipment standards not uniform worldwide</p> <p>Commercially available programs not always relevant</p>
<p>Blackboard, Chart Pad</p>	<p>Flexible for controlling discussion</p> <p>Excellent for emphasis</p> <p>Inexpensive</p>	<p>Not good for complicated topics</p> <p>Not good for keeping permanent records</p> <p>Possible loss of consistency from one group to the next</p>

SMS Participants

Please remember to report any accidents, incidents or near miss events to SH&E. Your EVENT REPORTING FORM is located in Appendix C of your NATA Safety 1st® Management System (SMS) manual. If you have specific questions call SH&E Safety First Toll-Free at 1-877-287-7896 or email us at Safety1st@sh-e.com.

SMS participants have been given User ID and Password information to access Members Only materials online at www.natasafety1st.org. If you did not receive this information, please email safety1st@nata.aero and let us know.



ONLINE TRAINING RESOURCES

General Education Offerings from NATA:

Line Service Supervisor Seminar

Website: <http://www.nata.aero/events/index.html>

Aviation Safety and Security Offerings:

Embry-Riddle Aeronautical University's Center for Aerospace Safety/Security Education (CASE)

Website: http://www.avsaf.org/case/programs_events.html

Phone: 386/226-6928

Email: case@erau.edu

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Phone: 901/751-5400

Southern California Safety Institute

Website: <http://www.scsi-inc.com/>

Phone: 310-517-8844 ext. 5

The GW Aviation Institute

Aviation Safety and Security Certificate Program

Website: http://www2.gwu.edu/~aviation/safetyandsecurity/ss_courses.html

Phone: 703/726-8334

Transportation Safety Institute

Website: <http://www.tsi.dot.gov/divisions/Aviation/aviation.htm> Phone: 405/954-3614

University of Southern California

AVIATION SAFETY COURSE

Website: http://viterbi.usc.edu/pdfs/unstructured/aviation/Course_Schedule.htm

Phone: 310/342-1345

OSHA eTools

OSHA eTools are "stand-alone," interactive, Web-based training tools on occupational safety and health topics. They are highly illustrated and utilize graphical menus. Some also use expert system modules, which enable the user to answer questions, and receive reliable advice on how OSHA regulations apply to their work site. Many modules are pertinent to the aviation industry at

<http://www.osha.gov/dts/osta/oshasoft/index.html#eTools>

We have listed a few that may be of interest. Be sure you go to the link above and look at all the eTools available. Listings are continually updated so be sure to check back periodically.

[Lockout/Tagout](#)

[Noise and Hearing Conservation](#)

[Safety Pays](#)

[Baggage Handling](#)

Safety Training Tip

Do you want to make sure you're finding out about your employees' safety concerns? Try to spend some time in the areas they congregate during breaks. If they view you as one of them, they'll be more likely to speak up about safety problems.

The NATA Safety 1st® eToolkit is brought to you by NATA Safety 1st® SMS and SH&E. SH&E is the leading expert in safety and operational integrity evaluations and safety management consulting. SH&E has developed a proprietary evaluation methodology, called Safety Architecture, which is unique within the industry as it focuses on systemic surveillance and process evaluation. This is a systems and controls look at how an operator manages those technical functions that support aviation operations.

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