



NATA Safety 1st® eSafety Toolkit

Welcome to the inaugural issue of the NATA Safety 1st® eSafety Toolkit, our monthly online safety newsletter, for the NATA Safety 1st® Management System (SMS).

This monthly newsletter will highlight known and emerging trends, environmental and geographical matters as well as advances in operational efficiency and safety. Flight safety has been enhanced and many accidents prevented because of shared experiences. It's high time ground operations did the same.



The NATA Safety 1st® Management System will raise the bar on ground safety by reducing ground handling accidents and resultant insurance claims by 50% over the next five years.

We will be sending further details on the SMS in the very near future. In the meantime, please feel free to email [Amy Koranda](mailto:Amy.Koranda@nata.org) or telephone (703) 845-9000, Director Safety Management, with any questions.

WHAT IS THE NATA SMS?

The NATA SAFETY 1st® MANAGEMENT SYSTEM is a comprehensive process by which to manage safety. The NATA SMS starts with a positive, strong safety philosophy and carries through to specific company policies and procedures. For the first time, aviation businesses will be able measure safety and monitor improvements.

- The NATA SMS consists of two basic components:**
1. Developing a customized Company Safety Program based on industry best practices and procedures.
 2. Continually monitoring risks, collecting and submitting accident and incident data for analysis, instituting recommended corrective action and measuring improvements.

No longer will safety be literally “hit or miss or just by luck.” The NATA SMS is the over-arching management process that puts the NATA SAFETY 1st® training and certification program in the context of an overall safety program. NATA Safety 1st® provides excellent line training. NATA SMS goes well beyond line service functions and raises NATA Safety 1st® to the next level.

Through a series of web teleconferences, designated company safety managers will be led through the process of developing a company safety management program based upon information provided by NATA and its Safety Management System blueprint allowing you to create a program unique to your operation. The manual, policies and procedures will be available to participants both in hard copy and securely online at the NATA Safety 1st® web site (password protected).

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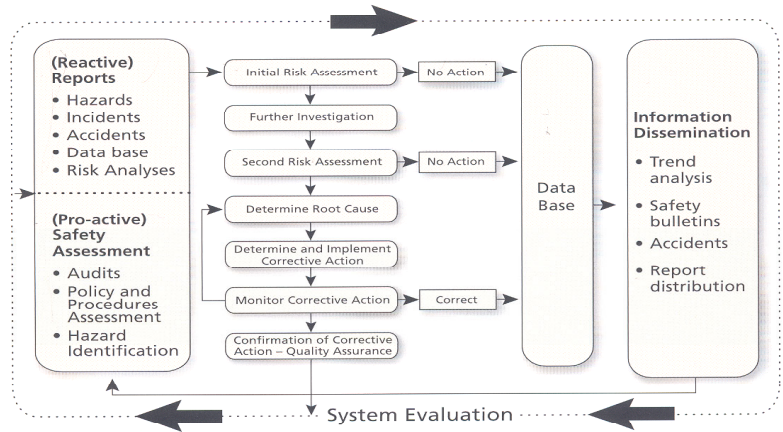
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The Company Safety Management System includes the following:

- **Senior Management Commitment**
 - Establishing a Safety Policy
 - Establishing Safety as a Core Value
 - Setting Achievable, Realistic Safety Goals
- **Safety Organization**
 - Roles and Responsibilities
- **SMS System Components**
 - Safety Management Plan
 - Proper Documentation of Policies, Procedures, Guidance Materials and Records
 - Hazard Identification and Risk Management Strategies
 - Accident, Incident and Near Miss Reporting and Investigation
 - Safety Investigation
 - Route cause process
- **SMS Components**
 - Safety Committee
 - Safety Communications
 - NATA eSafety Toolkit
 - Establishing a Safety Reporting and Data Management System
 - Safety Audit/Assessment
 - Safety Orientation and Recurrent Training
 - Quality Assurance
 - Emergency Response Coordination

Through the NATA Safety 1st® web site, participating companies will securely record accident, incident and near miss information. NATA's safety experts will, confidentially, analyze the root cause of all serious events and report back to the company with suggested corrective actions. In addition, anonymous, emerging trend information will be provided to all participants so that "lessons learned" can be quickly disseminated.

Root Cause Analysis



SAFETY ALERT:

HEAT EXHAUSTION

The month of August can be conducive to heat exhaustion. OSHA created a reference card that describes the signs, symptoms and best response to heat exhaustion. Please feel free to print out a copy and post it where your employees can readily refer to it. Click on the card below.

Let us know how you used these cards at your aviation business by emailing [Amy Koranda](mailto:Amy.Koranda). The lucky winner will be announced in the next issue of the NATA Safety 1st® eSafety Toolkit and will receive a free pocket-sized copy of the Aircraft Ground Service Guide.

The Heat Equation

HIGH TEMPERATURE + HIGH HUMIDITY + PHYSICAL WORK = HEAT ILLNESS

When the body is unable to cool itself through sweating, serious heat illnesses may occur. The most severe heat-induced illnesses are heat exhaustion and heat stroke. If left untreated, heat exhaustion could progress to heat stroke and possible death.

U.S. Department of Labor, Bureau of Safety and Health Enforcement
OSHA 3175
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Heat Exhaustion

What are the symptoms?
HEADACHES, DIZZINESS OR LIGHtheadedNESS, WEARINESS, MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT, LIPS, STOMACH VOMITING, INCREASED OR DARK-COLORED URINE, FAINING, OR PASSING-OUT AND PALE, CLAMMY SKIN.

What should you do?

- Act immediately. If not treated, heat exhaustion may advance to heat stroke or death.
- Move the victim to a cool, shaded area to rest. Don't leave the person alone. If symptoms include dizziness or lightheadedness, lay the victim on his or her back and raise the legs 6 to 8 inches. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or applying a wet cloth to the person's skin.
- Call 911 for emergency help if the person does not feel better in a few minutes.

Heat Stroke—A Medical Emergency

What are the symptoms?
DRY, PALE SKIN WITH NO SWEATING; HOT, RED SKIN THAT LOOKS SUNBURNED; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; SEIZURES OR FIBS AND UNCONSCIOUSNESS WITH NO RESPONSE.

What should you do?

- Call 911 for emergency help immediately.
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- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) if alert enough to drink something, unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or wiping the victim with a wet cloth or covering him or her with a wet sheet.
- Place ice packs under the armpits and groin area.

How can you protect yourself and your coworkers?

- Learn the signs and symptoms of heat-induced illnesses and how to respond.
- Train your workforce about heat-induced illnesses.
- Perform the heaviest work during the coolest part of the day.
- Build up tolerance to the heat and the work slowly. This usually takes about 2 weeks.
- Use the buddy system, with people working in pairs.
- Drink plenty of cool water, about a cup every 15 to 20 minutes.
- Wear light, loose-fitting, breathable clothing, such as cotton.
- Take frequent short breaks in cool, shaded areas to allow the body to cool down.
- Avoid eating large meals before working in hot environments.
- Avoid alcohol or beverages with caffeine. These make the body lose water and increase the risk for heat illnesses.

What factors put you at increased risk?

- Taking certain medications. Check with your health-care provider or pharmacist to see if any medicines you are taking affect you when working in hot environments.
- Having a previous heat-induced illness.
- Wearing personal protective equipment such as a respirator or protective suit.



SAFETY CASE STUDY: VEHICLES ON THE RAMP

*The control and prevention of vehicle related incidents –
on the ramp, at the mall, on your street*



First and foremost, we must dispel the notion that damage resulting from vehicle use was caused by the vehicle. What we are really talking about is the human factors and the interplay between man and machine. Once this is understood by Management and those of your employees operating vehicles, awareness can be raised and incidents greatly reduced.

The Bottom Line – Accidents are inevitable but can be controlled, and even eliminated.

But first, our ramp vehicle case study...



Overview of Event

The FBO in this scenario controlled the access gate to the ramp at an international airport and escorted this van onto the ramp. The private van company was delivering passengers to board a corporate aircraft. The escort vehicle left the van at the aircraft to offload passengers and baggage. Unfortunately, when the van operator was ready to depart, the FBO did not have personnel in position, prepared to control the vehicle. The driver, unfamiliar with the airport, looking for a way to exit the ramp, drove into the right wing of a parked corporate aircraft.

The Safety Case Study can be printed in its standard format and used as a tool to facilitate a Supervisor/Employee Daily/Weekly Safety Briefing and as a posting for your Line Shack and Safety Information Board!

Consequences

Repair cost (splicing of lower plank)	\$250,000
Loss of Use	\$70,000
TOTAL DIRECT COST:	\$320,000

(Wing Plank replacement was an estimated \$1 million!)

Event Analysis

- ✈ The FBO was issued a fine for violating airport regulations.
- ✈ The FBO received a hangar keeper's claim for the care, custody and control of the aircraft.
- ✈ The van operator had \$100,000 insurance coverage.
- ✈ The aircraft sustained loss of value, commonly referred to as diminution.

Note: this was not included in the consequences above.

To prevent this event from occurring on your ramp, NATA has identified the following Core Components of an Effective Vehicle Control Program.

Vehicle Preventive Maintenance – You should have an implemented vehicle preventative maintenance program which is designed to provide a foundation for vehicle and equipment quality control. All rolling stock and ground support equipment should be routinely inspected in accordance with your company's Vehicle Preventive Maintenance Program. Any and all discrepancies regarding the safe operation of the equipment must be notified immediately to the Shift Supervisor and GSE Maintenance personnel. NATA is developing a standard checklist series for commonly used GSE.



SAFETY CASE STUDY: VEHICLES ON THE RAMP



Minimum Equipment List – should be developed for each piece of rolling stock to enable the operator to determine, after a standard vehicle inspection, that the vehicle meets minimum operational safety criteria.

Vehicle Inspection – should be performed prior to the operator taking the vehicle for use. The operator shall have available a minimum equipment list comprised of OEM required items as well as Airport and Company required operational, safety and identification requirements.

Vehicle Traffic – on the ramp shall be strictly controlled through written policy and procedures. Oversight of the company's vehicle traffic rules shall be enforced by Supervision and Management. Enforcement makes it real. Failure to enforce, (read: failure to properly manage) – is managements fault!

Approaching an Aircraft – All ramp vehicles /equipment shall be required to perform a **mandatory full stop** fifty (50) feet from the aircraft perimeter to ensure that the vehicle braking system is fully operational. From this full stop position, the vehicle will proceed to its initial servicing position (approximately **ten (10)** feet from the aircraft) at a speed at or below **5 MPH**. Once the ramp vehicle is approximately **ten (10)** feet from the aircraft, another full stop shall be performed.

The vehicle operator, if pulling nose first into the servicing position, shall proceed at a dead slow pace to the final servicing position. Only hydrant carts, portable airstair, lav/water vehicles, cargo loader and belt loader vehicles are permitted to position within ten (10) feet of the aircraft surfaces.

All others must remain at a minimum of ten (10) feet from the aircraft perimeter.

No ground service equipment will be positioned within 10 feet of an aircraft without a guideman to control the progress and communicate the clearances to the ramp vehicle operator.

Vehicle Access to the Ramp – may be allowed only when your Company's Management is assured that the

vehicle operator (such as a limo service, delivery service or anyone else wishing to access the ramp or hangar area) is:

- ✈ Properly insured,
- ✈ Properly licensed (State) and Airport (if applicable)
- ✈ Provided a written briefing card on ramp hazards
- ✈ Acknowledges your Company's vehicle access policies and procedures
- ✈ Agrees to submit to a vehicle inspection (safety and security)
- ✈ Agrees to follow your direction (escort) at all times

Parking of Vehicles – on the ramp shall be done by:

- ✈ Placing the vehicle so it cannot roll in the direction of an aircraft, building, etc
- ✈ Never under the aircraft or wings
- ✈ Applying the operating - parking brake (if available)
- ✈ Transmission in Park or, if manual transmission, in Neutral
- ✈ Chocks placed on a non steering wheel
- ✈ Engine **TURNED OFF !**
 - **Running and Unattended is PROHIBITED**



Hazardous Weather Operations – shall be reviewed when considering if a new employee or customer/vendor wishes to access your ramp. The ramp is a dangerous place – usually unmarked for vehicle traffic, 360 degrees



SAFETY CASE STUDY: VEHICLES ON THE RAMP



of activity, oily patches, active taxiways – there's a lot going on. Add in rain, drizzle, fog, - even some ice, and this flat open area transforms itself into a very hazardous place.

Equipment - Vehicle Abuse – shall not be tolerated and your Company is encouraged to implement a policy and procedure to communicate the concern to employees as well as procedures to enforce should abuse be determined. Equipment abuse costs the industry untold amounts.

Policies and Procedures need to be in place to handle vehicles on the ramp at your operation. The BEST practice is not to allow un-necessary vehicles on the ramp. The next best practice is to provide a dedicated company van driven by trained personnel from your operation. In very rare cases, aviation businesses have designed ramp familiarization videos or courses that all drivers must pass/comply with before having access to

the airport ramp. If you have a high level of vehicle traffic on your ramp, you may want to consider this type of program.

Make sure your FBO assumes total responsibility for maintaining and operating the airport access gate. Escorting vehicles includes both directions --- on and off the airport premises. Many accidents/incidents happen when unescorted vehicles are looking for a way off the airport premises.

Don't get caught up in the claim, "We've never had a problem with vehicles on the ramp." Vehicle accidents /incidents on the ramp have a direct impact on your insurance cost that ultimately impacts the financial performance and viability of your FBO.



NATA Safety 1st[®] eSafety Toolkit

CONTINUING EDUCATION

Through continuing education, you and your team can enhance the professional skills needed to maximize personal and professional contributions to the day-to-day efficiency of your operation. We will provide learning opportunities in each monthly issue that may be of interest to you and your team.

Aircraft De/Anti-Icing Training

September 1, 2004 from 9 am – 3 pm

The New England Air Museum
Bradley International Airport
Windsor Locks, CT 06096

September 22, 2004 from 9 am – 3 pm

Doubletree Hotel, Detroit Metro Airport
31500 Wick Road
Romulus, MI 48174

Line Service Supervisor Training

September 23 & 24, 2004 from 8 am – 5 pm

Doubletree Hotel, Detroit Metro Airport
31500 Wick Road
Romulus, MI 48174

Four easy ways to register!

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

Fax: (703) 845-8176

Phone: (703) 845-9000, ext 106

Mail: NATA
4226 King Street
Alexandria, VA 22302

The NATA Safety 1st[®] eSafety Toolkit 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.

SH&E

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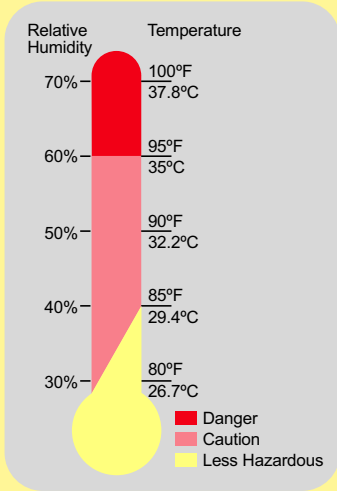
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+ PHYSICAL WORK = HEAT ILLNESS**

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Heat Exhaustion

What are the symptoms?

HEADACHES; DIZZINESS OR LIGHTEADEDNESS; WEAKNESS; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; UPSET STOMACH; VOMITING; DECREASED OR DARK-COLORED URINE; FAINTING OR PASSING OUT; AND PALE, CLAMMY SKIN

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