



Hazard Identification – If You See Something . . . Say Something

Contact: Bryan Smith
Phone: (239) 938-6144
Email: safety@alea.org

Hazard identification is the act of classifying any condition with the potential of causing injury to personnel, damage to equipment or structures, loss of material, or reduction of the ability to perform a prescribed function. This includes any condition contributing to the release of a non-airworthy aircraft or to the operation of aircraft in an unsafe manner.

Any safety concern an employee has should be reported. Some examples include:

- High workload
- Rushing critical tasks
- Missing checklist items
- Parts issues
- Inadequate tool control
- Feeling fatigued
- Unsafe ground movement
- Improper equipment or tools
- Poorly developed or outdated procedures

A functioning SMS helps to identify hazards and develops processes to manage the associated risks. This can be achieved through several internal reporting mechanisms. Some key elements of hazard identification programs include:

- Incident/Event/Near Miss Reports
- Safety Surveys
- Inspection/Audits
- FDM Systems
- Training Programs
- Maintenance Interruption Reports
- Crew/Mission Pre-Flight Briefing (FRAT)
- Flight and Maintenance Logs
- Employee Interviews

The identification of a hazard provides an opportunity to learn how to prevent accidents and incidents it might cause. Procedures need to be in place for internal reporting of hazards. Timely collection of information allows the organization to react to the information. A hazard reporting form should be simple, convenient and available to all employees.

Important hazard reporting elements include:

- Feedback to the reporting person.
- A non-punitive discipline policy for individuals who report hazards (i.e. “Just Culture” or treat those who report issues fairly)
- Provisions for anonymous reporting of hazards
- All personnel know their primary contact for safety related matters.
- There is a process for the dissemination of safety information throughout the organization.
- Communication processes are commensurate with the size and scope of the organization. (Written documents, meetings, electronic, etc.)
- Reported issues are acted upon by management and corrective actions are disseminated to all employees.

REPORTING SYSTEMS

- ✎ Keep it simple and accessible.
- ✎ Re-active and pro-active processes can overlap.
- ✎ Ensure people submitting reports get feedback.
- ✎ Find a simple way to file and track reports.

- Ongoing monitoring to confirm the effectiveness of corrective action
- Ongoing monitoring to identify hazardous trends
- A process for analyzing data, safety reports and related information
- There is a process for sharing safety related information with outside sources impacted by this information.

Example Reporting Form:

OCCURRENCE & HAZARD IDENTIFICATION REPORT				
The purpose is to assure that intervention prevents reoccurrence				
<input type="checkbox"/> Occurrence Report		<input type="checkbox"/> Hazard Identification Report		
Date:	Time:	Location:		
Employee Name:				
Event or unsafe act(s) observed:				
Injuries/illnesses experienced:				
Corrective action(s) taken:				
Occurrence:	First	Second	Third	
Distribution:	Employee	Base Manager	VP Safety	B.S.C.
Comments/recommendations:				
Safety Officer's Signature:			Date:	

During the hazard identification process, do not confuse 'Hazards' with 'Consequences of Hazards'. 'Hazards' are situations, conditions, elements, environments that naturally exist, which we normally work with, which are a source of danger but do not necessarily result in incidents or accidents. They can nevertheless lead to negative outcomes called 'Hazard Consequences'.

Examples of Hazards and Their Effects

Workplace Hazard	Example of Hazard	Example of Hazard Consequence (Harm Caused)
Tools	Knife	Cut
Substances	Benzene	Leukaemia
Materials	Asbestos	Mesothelioma
Sources of Energy	Electricity	Shock, electrocution
Conditions	Wet Floor	Slip, falls

The hazard identification process associates different approaches:

- The **reactive approach** consists of analyzing accidents and incidents that have occurred and trying to understand why.
- The **proactive approach** consists of analyzing the conduct of operations to identify potential hazards and assess and mitigate the associated risks before they result in an accident or incident.
- The **predictive approach** consists of conducting a predictive analysis using for example data extrapolation (such as estimating the future risk level based on the data collected over the past 3 or 5 years) or statistical modelling.

This document is a peer reviewed publication by an expert panel of the USHST SMS Committee. More information about the USHST/IHST, their reports, safety tools, and presentations can be obtained at the web site: www.IHST.org.

Also refer to:

IHST SMS Toolkit, 2nd Edition for more SMS reference material (pages 32-34):
http://www.ihst.org/Portals/54/2009_SMS_Toolkit_ed2_Final.pdf
 EHST Safety Management Manual for non-Complex Operators (pages 18-19)
<http://easa.europa.eu/essi/ehst/2013/12/ehst-publishes-safety-management-toolkit-for-non-complex-operators/>

