



# Building a Safety Assurance Plan

Sabrina Blais – Trapeze Group

- The Role of Safety Assurance in your SMS
- Elements of a Safety Assurance Plan
- The Importance of Data for Safety Assurance




Agenda



Hello!

# Safety Management Systems



An iceberg floating in the ocean. The tip of the iceberg is visible above the water surface, while the much larger, jagged base is submerged underwater. The sky is blue with some clouds, and the water is a deep blue. The iceberg is the central focus of the image, symbolizing that visible accidents are only the tip of the iceberg, while the much larger, hidden part represents near-misses and rule violations.

Accidents  
Incidents

Near-Misses  
Rule Violations  
Practical Drift

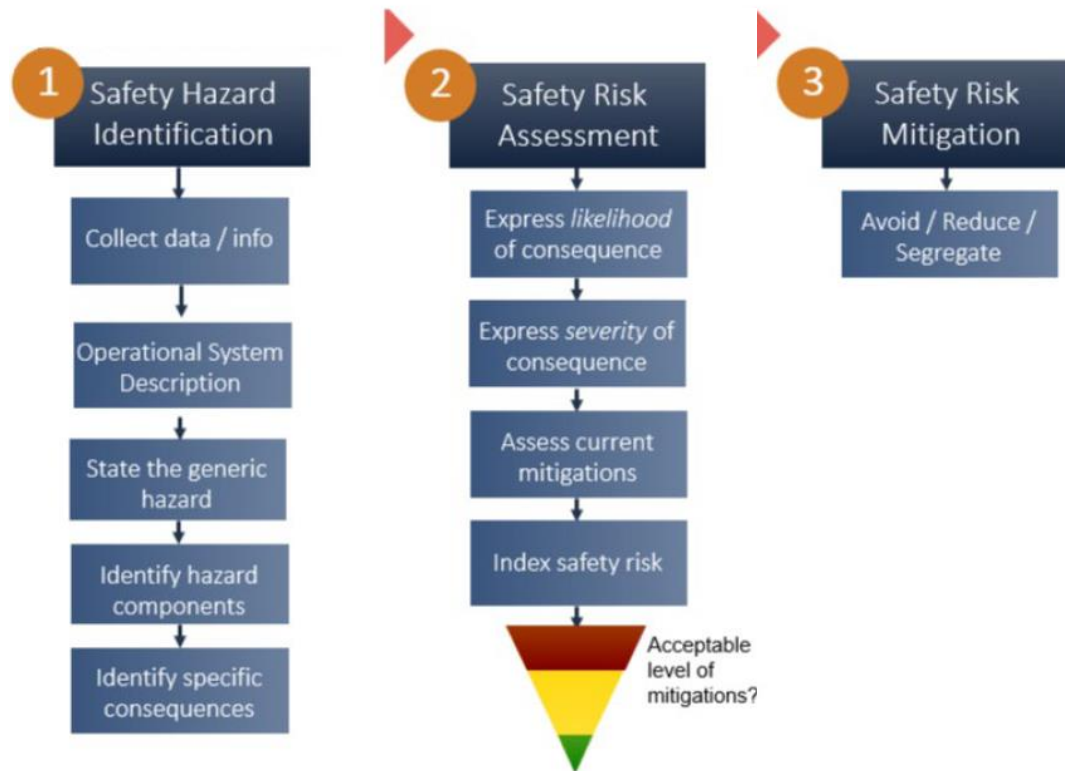
An effective Safety Management System should:

- Ensure learnings from past events are applied
- Identify proactive mitigation strategies
- Monitor and measure mitigation efficacy
- Allocate resources effectively

# Safety Risk Management Review

Key outcomes of the initial SRM process:

- Mitigations agreed to
- Monitoring strategy identified



# Adding Safety Assurance

## Goals:

- Update Risk Register
- Determine if mitigations are effective
- Continuous Improvement



# Key Elements of a Safety Assurance Plan

## 01: Performance Monitoring

Are corrective actions and safety risk mitigations actually being completed? If so, when?

## 02: Change Management

Have new hazards been introduced by a project or a mitigation?

## 03: Performance Measurement

Are mitigations and corrective actions having the desired impact?

## 04: Continuous Improvement

What changes can be made to the SMS to increase safety?



## Before PTASP/SSPP

Hazard Identification & Analysis are predominantly reactive:

- Investigations
- Audits
- Complaints

Focus is often on SOPs and individual employee performance



## After PTASP/SSPP

Hazard Identification is proactive:

- Regular agency-wide hazard identification
- Examining root cause of “practical shift”
- Measuring impact of mitigations

Focus is on building safety culture and improving overall agency performance

# Example 1: Using Data in Safety Assurance

During the course of an investigation you determine that a root cause of an incident was a rule violation.

Where is the data housed that could answer these questions:

1. Is that rule being broken regularly?
2. If so, is there a practical reason why the SOP or rule isn't being followed?
3. What data do you need to track this, and where are you tracking it?
4. Are rule violations a leading cause of incidents?

# What does it mean to be “Data-Driven”?



Data



Data

2	1/6/15	East	Jones	Pencil	95	1.99	189.05	1/6/15	East	Jones	Pencil	95	1.99	189.05
3	1/23/15	Central	Kivell	Binder	50	19.99	999.50	1/23/15	Central	Kivell	Binder	50	19.99	999.50
4	2/9/15	Central	Jardine	Pencil	36	4.99	179.64	2/9/15	Central	Jardine	Pencil	36	4.99	179.64
5	2/26/15	Central	Gill	Pen	27	19.99	539.73	2/26/15	Central	Gill	Pen	27	19.99	539.73
6	3/15/15	West	Sorvino	Pencil	56	2.99	167.44	3/15/15	West	Sorvino	Pencil	56	2.99	167.44
7	4/1/15	East	Jones	Binder	60	4.99	299.40	4/1/15	East	Jones	Binder	60	4.99	299.40
8	4/18/15	Central	Andrews	Pencil	75	1.99	149.25	4/18/15	Central	Andrews	Pencil	75	1.99	149.25
9	5/5/15	Central	Jardine	Pencil	90	4.99	449.10	5/5/15	Central	Jardine	Pencil	90	4.99	449.10
10	5/22/15	West	Thompson	Pencil	32	1.99	63.68	5/22/15	West	Thompson	Pencil	32	1.99	63.68
11	6/8/15	East	Jones	Binder	60	8.99	539.40	6/8/15	East	Jones	Binder	60	8.99	539.40
12	6/25/15	Central	Morgan	Pencil	90	4.99	449.10	6/25/15	Central	Morgan	Pencil	90	4.99	449.10
13	7/12/15	East	Howard	Binder	29	1.99	57.71	7/12/15	East	Howard	Binder	29	1.99	57.71
14	7/29/15	East	Parent	Binder	81	19.99	1,619.19	7/29/15	East	Parent	Binder	81	19.99	1,619.19
15	8/15/15	East	Jones	Pencil	35	4.99	174.65	8/15/15	East	Jones	Pencil	35	4.99	174.65
16	9/1/15	Central	Smith	Desk	2	125.00	250.00	9/1/15	Central	Smith	Desk	2	125.00	250.00
17	9/18/15	East	Jones	Pen Set	16	15.99	255.84	9/18/15	East	Jones	Pen Set	16	15.99	255.84
18	10/5/15	Central	Morgan	Binder	28	8.99	251.72	10/5/15	Central	Morgan	Binder	28	8.99	251.72
19	10/22/15	East	Jones	Pen	44	8.99	575.36	10/22/15	East	Jones	Pen	44	8.99	575.36
20	11/8/15	East	Parent	Pen	15	19.99	299.85	11/8/15	East	Parent	Pen	15	19.99	299.85
21	11/25/15	Central	Kivell	Pen Set	96	4.99	479.04	11/25/15	Central	Kivell	Pen Set	96	4.99	479.04
22	12/12/15	Central	Smith	Pencil	67	1.29	86.43	12/12/15	Central	Smith	Pencil	67	1.29	86.43
23	12/29/15	East	Parent	Pen Set	74	15.99	1,183.26	12/29/15	East	Parent	Pen Set	74	15.99	1,183.26
24	1/15/16	Central	Gill	Binder	46	8.99	413.54	1/15/16	Central	Gill	Binder	46	8.99	413.54
25	2/1/16	Central	Smith	Binder	87	15.00	1,305.00	2/1/16	Central	Smith	Binder	87	15.00	1,305.00
26	2/18/16	East	Jones	Binder	4	4.99	19.96	2/18/16	East	Jones	Binder	4	4.99	19.96
27	3/7/16	West	Sorvino	Binder	7	19.99	139.93	3/7/16	West	Sorvino	Binder	7	19.99	139.93
28	3/24/16	Central	Jardine	Pen Set	50	4.99	249.50	3/24/16	Central	Jardine	Pen Set	50	4.99	249.50
29	4/10/16	Central	Andrews	Pencil	66	1.99	131.34	4/10/16	Central	Andrews	Pencil	66	1.99	131.34

## Question for the attendees

How many in attendance have spreadsheets, paper logbooks, or various disparate reporting systems for safety data collection in their agencies?

How are these data sources compiled and coordinated to drive mitigation insights?

# Example 2: Using Data to Evaluate Hazards

While reviewing the daily incident report, a safety team member puts a new hazard on the agency's risk register and assigns the likelihood/frequency as "often" because they've seen the same incident happen 4 times this month.

Where is the data housed that could answer these questions:

1. What does "often" mean for your agency?
2. How will you determine if this hazard merits investment in mitigations before other hazards?
3. How would you determine if a mitigation for this hazard is having the desired effect?

# The Role of Data in your SMS

★ Is the output from the 4 elements of SRS aligned?

★ Is there a single source of truth from which the relationship between risk and safety assurance can be drawn?



# Data for Performance Monitoring

**General**

Title\*  
Employee Injury

Status\*  
ACTIVE ARCHIVED

Severity\*  
Critical



Likelihood\*  
Occasional


Risk Index **Medium**

Description  
Employee injuries are occurring too frequently today and both lower morale and reduce our ability to


Files & Media

**Associated Mitigations**

Record ID	Title	Status	Due Date	Date Completed
<a href="#">23041700013</a>	Job Shadowing	In Progress	05-17-2023	 





[ADD MITIGATIONS](#) 

**Associated Record Types**

Name	Expected Occurrence Rate	Occurrences Last Year	Occurrences Year-To-Date	
Rule Violation	50	0	0	 

[+ ASSOCIATE RECORD TYPE](#)

**Associated Record Elements**

Name	Expected Occurrence Rate	Occurrences Last Year	Occurrences Year-To-Date	
Employee Days Mi...	20	0	2	 
Employee Injury	5	0	1	 

# Data for Performance Monitoring

RISC | Risk Register

ALL RISKS (3) ACTIVE (2) ARCHIVED (1)

Risk ID	Risk Title ↑	Risk Index	Risk Status	Date Created	Open Mitigations
<a href="#">R0021</a>	Employee Injury	Medium	Active	04-17-2023	1 records
<a href="#">R0020</a>	Non-Revenue Vehicle Accide...	Low	Active	03-02-2023	1 records
<a href="#">R0019</a>	Service Vehicle Breakdown	High	Archived	02-13-2023	1 records



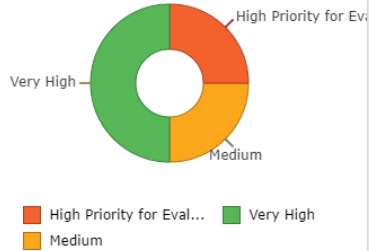
# Data for Performance Monitoring

RISC | Dashboard

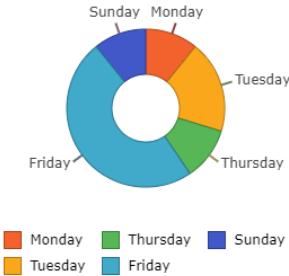


AGENCY DASHBOARD PERSONAL DASHBOARD

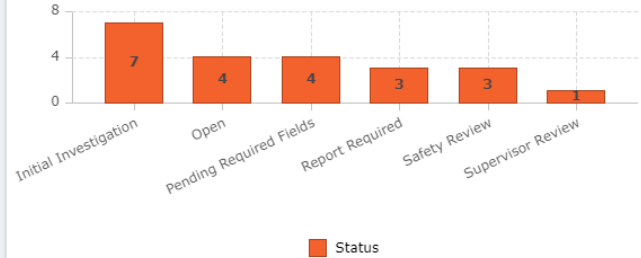
Risks by Index



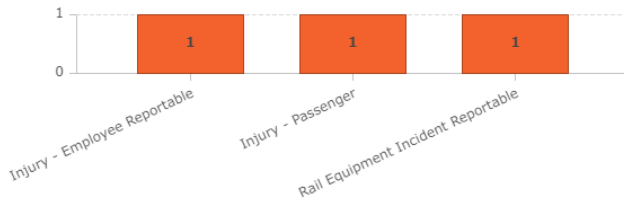
YTD Events by Day of Week



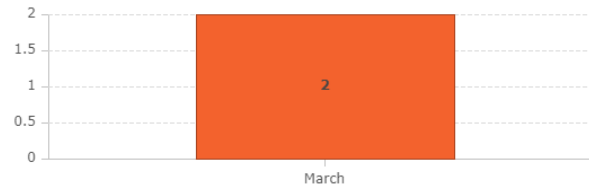
Overdue Events by Status



Incidents with a Report Due



Open Corrective Actions



*Want to know more?*

Sabrina Blais

Product Manager, New Product Initiatives

Trapeze Group

813-373-3587

[Sabrina.blais@trapezegrp.com](mailto:Sabrina.blais@trapezegrp.com)

[trapezegrp.com/safety](https://trapezegrp.com/safety)