



**TRUCKEE TAHOE AIRPORT DISTRICT  
BOARD OF DIRECTOR STAFF REPORT**

**AGENDA TITLE: Safety Management & Consulting Services**

**MEETING DATE: February 24, 2016**

**PREPARED BY: Hardy Bullock**

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**RECOMMENDED ACTION:** Move to accept the Truckee Tahoe Airport Safety Assessment provided on behalf of the District by Convergent Performances LLC in support of the District's continued commitment to promote safety in all of its affairs.

**DISCUSSION:** Safety and risk management are broad, program level initiatives common among commercial service, part 139 airports, collectively known as Safety Management Systems (SMS) which include four principal elements.

- Safety Policy
- Safety Risk Management
- Safety Assurance
- Safety Promotion

**The FAA makes no mandatory requirements of airports who do not possess an Airport Certification Manual under Title 14, Code of Federal Regulations (CFR), Part 139. This means that Truckee Tahoe Airport is in no way mandated to undertake the work associated with the Safety Management & Consulting Services contract or the installation of an SMS. The District undertook this task of its own accord in an effort to improve safety at every level within the organization.**

The airport Board of Directors and staff have taken the lead both locally and nationally to undergo a comprehensive and exhaustive Safety Management System implementation at a general

aviation airport. The Truckee Tahoe Airport works in support of Federal Regulation designed to standardize airfield aeronautical conduct. The airport has direct control of attributes that contribute to occupational and public safety. Some of these include:

1. Employee conduct, training, reporting, and documentation. *(Safety Policy)*
2. Protective equipment. *(Risk Management)*
3. Facility and equipment maintenance. *(Risk Management)*

The airport has influential control over aeronautical attributes that contribute to flight safety in support of Federal Regulation. Some of these include:

1. UNICOM operations. *(Safety Policy / Safety Assurance / Risk Management)*
2. Airfield conduct of airport personnel, contractors, and service providers. *(Safety Policy / Safety Promotion)*
3. Standard operating procedure for airport users with agreements such as Soar Truckee, Sierra Aero, Surf Air and others. *(Safety Policy Risk Management, Assurance, Promotion)*

The SMS project was designed to give Airport leadership a basis on which to develop a lasting, program level approach to managing risk, both those under direct control and those on which the airport exerts influence. It should be mentioned that the inherent risk associated with aeronautical activity and airports is ever present, and like our national road or train system, the Truckee Tahoe Airport is one element in the entire system – it plays a role.

The District selected a vendor to provide Safety Management System consulting services in February 2015. Convergent Performances LLC of Colorado Springs, Colorado was the selected vendor. The project goals for this contract were as follows:

1. Undertake a comprehensive and thorough safety audit of the Truckee Tahoe Airport, this includes all aspects of use such as occupational, public, and aeronautical. The end product of the safety audit is the **Gap Analysis and Safety Assessment**.
2. Form a KTRK safety roundtable comprised of airport uses, airport tenants, contractors, SASO's, EMS personnel, FAA and airport management, this is called the **Safety Roundtable**. This group meets periodically to discuss topics of significance affecting safety and emergency response.
3. Install an electronic records content management system, traditionally described as a Safety Management System (SMS). This is called Vortex, it is our airport wide **SMS system**.
4. Annual emergency safety drills and table top exercises. These are group activities that involve complex role playing and scenario based response. These are referred to as the **Table Top Exercises**.

Below is a summary of the gap analysis and some identified areas of needed improvement including the activity that has been undertaken by staff to mitigate or correct the deficiency.

1. Safety Coordinator needs definition and alignment with communication directly to the General Manager. Create an implied delegation of authority so that the Chief Safety Officer is empowered to act on behalf of the General Manager.
2. Utilize an iSMS system to disseminate information, safety reports, records, and risk within the organization to all users.
3. Control access to the aircraft operating area and movement area.
4. Install a risk management training tool to all staff members.
5. Enhance and elevate the safety culture at KTRK.
6. Enhance and unify training with UNICOM, new hires, incident response, and snow plow operations and on field driving.
7. Install formal Safety assessment protocol to ensure procedural compliance.

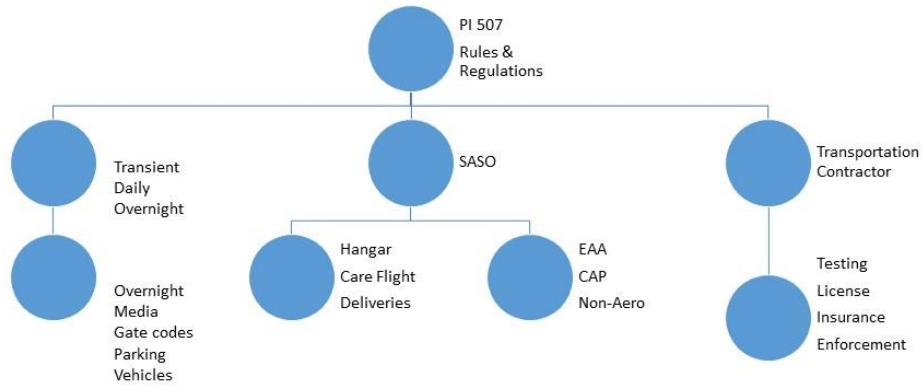
Finding 1: The two major safety roles, aviation safety and occupational safety report directly to the General Manager. Hardy Bullock is the Aviation Safety Officer and Mike Barret is the Safety Coordinator for all aspects of occupational safety. Through the Vortex system the General Manager has direct visibility and access to all safety related reports in real time. In addition to this the General Manager employs an open door policy with respect to safety and often weighs in directly when a safety threat is recognized. Two recent examples of this include an aircraft incident response and an occupational safety discussion centered on high lift OSHA compliance. To codify the authority of the Safety Roles on behalf of the General Manager a memorandum is being developed. Inclusion within the current policy instruction structure is postponed while the District undergoes the Primary Management and Compliance Document revision.

Finding 2: The District now utilizes an electronic records keeping system (iSMS) called Vortex.

The screenshot displays the Vortex iSMS Safety Dashboard. At the top, there is a navigation bar with dropdown menus for 'Safety', 'Library', 'Training', 'Hardy', and 'Admin'. Below this, a breadcrumb trail shows 'Safety > Dashboards > Safety Dashboard' and a 'Create Report' button. The dashboard is organized into several sections:

- Reports:** A bar chart showing 40 Closed, 3 Open, and 1 Pending reports.
- Assignments:** A pie chart showing 84.2% Completed, 16.8% Pending, and 0% Accepted assignments.
- Date Filter:** Fields for Start Date and End Date, both set to 9-Feb-2016, with 'Apply' and 'Reset' buttons.
- Controls:** A bar chart showing 1 Disabled and 1 In Force control.
- Memos:** A bar chart showing 1 memo for All U, 1 for Mgt, 1 for Mtn, and 1 for Ops.
- User Participation:** Two gauges showing participation levels for 24 hours and 72 hours.
- Who's Online:** A list showing Hardy Bullock is online.
- What's New:** A list of recent safety report updates by Mike Barrett.
- Human Factors: Unsafe Supervision:** A list showing 1 Supervisory Violation and 1 Planned Inappropriate Operation.
- Human Factors: Unsafe Acts:** A list showing 2 Decision Errors.
- Risk Assessments:** A list showing 3 Medium risk assessments.
- Tags:** A list showing 7 Unicom, 5 Glider, 5 Soar Truckee, 4 runway, and 3 Incursion tags.

Finding 3: The District is in the process of restricting access to the aircraft operating area (AOA) and movement areas through the use of the vehicle access gates. The entire process of completing the vehicle access policy, use permit, fee structure, pass, and driving test are 50% complete including provisions in the recently updated Airport Rules and Regulations.



Finding 4: Installing a comprehensive risk management training tool is the goal of this finding. It is the goal of staff to develop a Flight Risk Assessment Tool (FRAT) that can be used to accomplish this goal. In the near term Convergent Performances and Staff are working to install a FRAT for use. This will allow certain risk to be assigned to operations or specific daily activity. Eventually this will be used to train each staff member in recognition of specific threats. In addition to this the District needs to undertake a more general risk management training specific to a general aviation airport. The use of, or model of, an airport certification manual may help us achieve this goal.

Finding 5: In the past year it is our belief that the safety culture of the Airport has been elevated through multiple methods. The principal method is the deployment of the Vortex system which provides daily reminders on the significance of safety awareness. Additionally the weekly, open forum safety meetings reiterate the culture of awareness. The meetings often take between 45-90 minutes. Documentation is kept in a master safety file. Additionally pending agreements with airport users have specified safety language or even specific safety assessments that are enforced through the use of the agreement such as a lease or operating permit. The District does have a safety reward program that consists of a \$150 bonus if the employee has exhibited a culture of safety and has completed the year without injury.

Finding 6: Below is the training outline currently in use. UNICOM specific procedures are being developed and this has proven to be the greatest challenge absent guiding regulation outlining general aviation UNICOM procedures.

PERSONAL QUALIFICATION SHEET, PQS				
Employee:	Start Date	Pract. Time	Date Comp.	Sup'r Init.
Supervisor:				
<b>ORIENTATION:</b>				
Job description, tasks, PQS orientation, evaluation - 1 hour				
Airport safety policy and risk management process - 1 hour				
Employee Handbook-1 hour; incl. harassment, discrimination, and complaint procedure review				
AOA orientation, signage, markings - 1 hour				
Motor vehicle operation and mobile radio training - 2 hours				
AOA Daily Checks and Ops duty log - 4 hours				
Site Security orientation - 1 hour				
Noise Abatement program - 1 hour				
District information/technology & security orientation - 1 hour				
<b>UNICOM:</b>				
Monitoring UNICOM station, radios, telephones - 8 hours				
Customer service expectations - 1 hour				
Processing POS sales - 8 hours				
<b>RAMP SERVICES:</b>				
Marshalling aircraft - 2 hours				
GPU and Kawasaki training - 2 hours				
Tug and battery jump services - 10 hours				
Lav cart, potable water - 2 hours				
<b>FUEL:</b>				
Hands-on aircraft refueling and checkride - 10 hours				
Fuel farm and mobile fuel storage cart checks - 4 hours				
Transferring fuel, topping trucks - 4 hours				
Receiving bulk fuel - 4 hours				
Monthly fuel storage/fuel equipment checks - 4 hours				
<b>MAINTENANCE:</b>				
Hangar checks and maintenance training - 6 hours				
Vehicle checks and maintenance training - 6 hours				
Generator, pressure washer, water cart - 4 hours				
Crack filling, crock pot, vacuum equipment - 4 hours				
<b>HEAVY, AERIAL, LIFT, EQUIPMENT:</b>				
Fork lift certification - 2 hours				
High lift certification - 2 hours				
950 loader, 416 loader/backhoe checks & operation - 6 hours				
6070 bi-directional tractor checks & operation - 4 hours				
Western pro plow installation, operation - 4 hours				
<b>SHIFT:</b>				
Opening shift orientation - 2 shifts; incl. fuel truck checks, self-serve checks, opening UNICOM, terminal, weather obs.				
Closing shift orientation - 2 shifts; incl. fuel sales, closeout, aircraft tagging, terminal close				
Months end procedures - 2 shifts				
<b>TRAINING:</b>				
NATA Safety First Professional Line Service Training - 10 hours				
AvFuel Quality Assurance Training Seminar - offsite, 2 days				

Finding 7: It is the goal of the District to complete a gap analysis annually. Other entities periodically inspect and offer potential areas of improvement. These entities includes SDRMA our insurance carrier, the FAA, the State of California Division of Aeronautics, and the Nevada County Health Department.

## **Safety Roundtable**

On July 1, 2015 a Safety Roundtable was convened at the airport. The group was comprised of airport leadership, and representatives from Truckee Fire, Town of Truckee, Truckee Police Department, Cal Fire, FAA, Reno Flight Standards District Office, local pilots, airport users and public participants. The goal was to discuss how the airport fits within the local emergency response area and understand concerns of each participating member. The values of the meeting was the communication and shared knowledge regarding the interplay between the airport and other responding personnel. Access, response time, location, reporting protocol and alike were discussed. The summer of 2016 will include another Safety Roundtable meeting.

## **Install an electronic records content management system, traditionally described as a Safety Management System (SMS)**

This system is called Vortex. Reports are generated on all safety and risk topics. Each staff member has a login and can file a report. The system tracks who reads each report, what actions were taken, and what is the final outcome or solution. The system is also designed to track trends of risk through use of keywords and reporting algorithms. This feature brings long term value for decision makers as well as function as the primary tool to communicate, in real time, safety risk and mitigation.

## **Annual emergency safety drills and table top exercises:**

This took place prior to the 2015 Airshow. The Safety Drill Plan is attached here for your reference. The comprehensive nature is designed to test the participants and stretch the capacity of staff resources. Concepts for the upcoming drill include single pilot, turbo prop decision making scenarios.

**WHAT'S NEXT:** Item identified within the gap analysis are being addressed. Items outside the scope of the gap analysis and SMS are also being addressed. These items include concepts such as a temporary tower, certified surveillance, airspace utilization, and controlling authority agreements like those between Oakland Center and the Truckee Tahoe Airport. It is staffs belief that these important initiatives contribute greatly and influence aeronautical safety in a positive way.

**FISCAL IMPACT:** \$80,000 for the entire two year effort.

**PUBLIC COMMUNICATIONS:** Website and Facebook promotion.

**SAMPLE MOTION(S):** I move to accept the Truckee Tahoe Airport Safety Assessment provided on behalf of the District by Convergent Performances LLC in support of the District's continued commitment to promote safety and in all of its affairs.

## **ATTACHMENTS:**

Truckee Tahoe Airport Gap Analysis and Safety Assessment 2015