

Leading a Safety Cultural Journey: Merging Culture and Performance

**J.J. DeGiovanni
Managing Director
United Airlines Inc.
Chicago, IL**

**Ronald D. Bowles
MoveSMART**

Introduction

Over the last 30 years the airline industry has been in a “boom or bust” business cycle. Deregulation of the industry in 1980 caused new market entrants bringing lower fares and more routes. In the 30 years since deregulation, 39 U.S. Airlines have entered into bankruptcy with iconic names such as Eastern, Pan Am, Trans World (TWA) and National disappearing. Many of these bankruptcies occurred based on the inability to recognize and/or implement change.

Emerging from bankruptcy has the airline industry getting back to the basics, including a renewed focus on occupational safety. Employee morale is impacted based on benefit and wage changes, along with the realization of shifts in pensions, retirement and modified medical benefit programs. This paper will focus on the revitalization effort of the safety program at United Airlines by aligning safety into all aspects of the business, while taking into account the direction of the business with the purpose of lowering injuries, enhancing work place morale, supporting operational goals, and improving overall performance of the airline.

Approach

“Leading a Safety Cultural Journey” requires a strategy that supports a framework for how an organization wants to operate and what it wants to achieve. A key to being successful is linking the strategy to the company principles and values which help sustain and support the cultural shift being pursued. This type of an approach can unify organizations to support change as long as that strategy has the resources and tools allocated along with defined objectives. Supporting this approach must include a communication network that reaches out to each level in the organization and communicates across boundaries. This type of structure, coupled with a clear definition of success, can align a company/organization to accomplish significant change in a relatively short period of time. United’s approach for Safety has been adopting John P. Kotter’s model from the book, *Leading Change*. This book defines an eight-stage process that starts with

the need for establishing urgency with the final phase being the “anchoring” the cultural shift or change. Exhibit 1, titled “Leading Change, United Safety Model” covers the eight-stage process and the attributes that were applied at United.

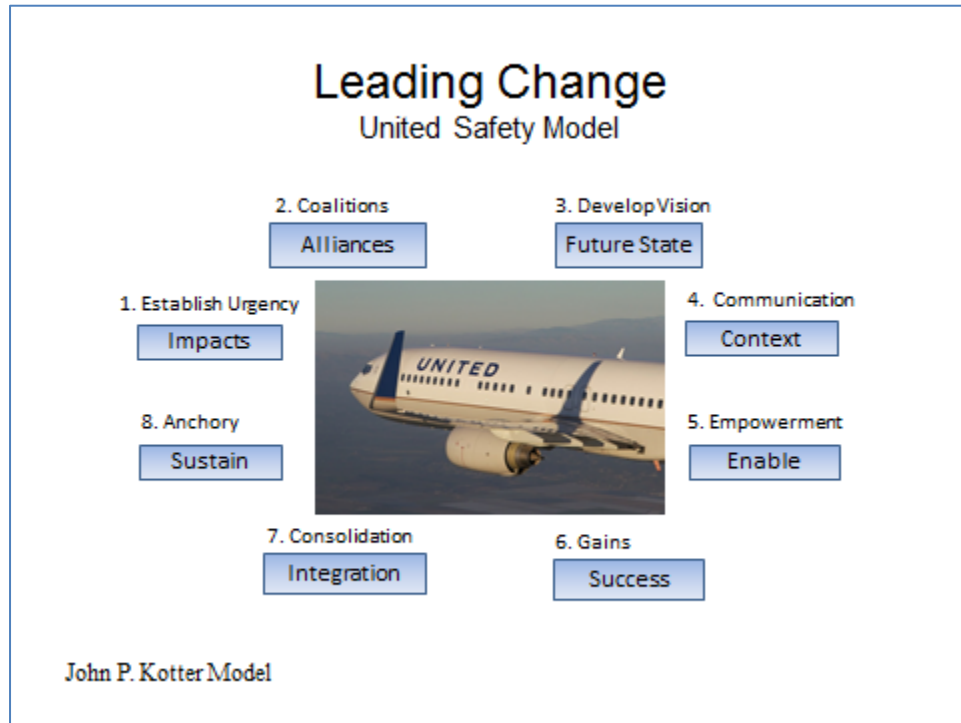


Exhibit 1. Eight-Stage Leading Change Model

This paper will discuss how each stage was developed and the tools used, including the strategy to create a dynamic change that applies to 80,000 people in a 24/7 operating environment.

Applying the eight stage process model was a two-year endeavor. In formulating the strategy, aspects of the plan required knowledge of the following:

- Espoused and practiced values to align the safety strategy
- A baseline of Employee morale
- Defining company principles/values to support the safety strategy
- Identifying the stakeholders to support and create alliances
- Alignment of safety with key performance factors of the airline
- Determining current and needed tools and capabilities (enablement and people focus)

Establishing a Call for Urgency

Before leading a change, one must understand the current state of affairs by reviewing performance data, seeing how work is actually performed, as well as the behaviors that are exhibited internally and externally to organizations. For an airline, key performance data is on-

time arrival, performance of the first flights of the day (based on them pacing the day), customer satisfaction, and fuel prices (which drive 36% of all expenses). Safety data is captured in OSHA recordable injuries, lost-time injury rate and aircraft damage metrics. Secondary measures include citations, employee safety concerns, and industry injury and aircraft damage rates. In the airline industry, aircraft damages are included in safety, based on the heavy use of equipment supporting aircraft arrival, processing and departure. The safe operation of equipment is an essential aspect in keeping people safe. A high damage rate indicates process issues related to the safe operation of equipment. Aircraft damages are measured by a rate of takeoff per 10,000 aircraft departures.

In developing a call for urgency, this data was expanded to make injury reporting people centric and damage reporting linked to the cost impacts to the business. These added measures created a framework for fellow organizations to be involved with safety. The context in how data was presented went graphically showing outliers and success locations. These new, expanded measure included:

- Severe injuries and impacts to people
- Costs and total days out of work (full-time equivalent)
- Proactive measures/effectiveness
- Near-miss events; employee self-disclosures
- Interaction of people; positive and negative behaviors
- Timeliness to involving people
- Discussing aircraft damage by adding customer impacts/lost revenue
- Transparency of data and at various levels

These new measures expanded safety's purview to a holistic approach on impacts to our people, teams and business. Moving from data to analytics enabled people to see hidden impacts to the business. For example, moving towards predictable data allowed the team to identify trends on preventing injuries and flowing down injury costs drove awareness to the severity of our injuries by injury type and the length of time out. A correlation to days away from work drove awareness that soft tissue injuries were the highest frequency by volume, time out and medical expense. This drove a "call to action" to address soft tissue injuries. Changes in data processing created alliances between quality assurance to review safety practices. Additional changes were made to workers' compensation data for increased transparency linking medical department engagement for preventive programs, along with the need to align divisional safety advocates for common approaches.

Alliances

Retired Senator Chuck Hagel said "Alliances...should be understood as opportunities for leadership and means to expand our influence...." This quote puts into perspective the need to build coalitions to gain consensus in shaping the direction of our future. The same approach is pertinent to safety in shaping a safer work environment.

An example of this was on aircraft damages in which our performance at United needed attention. Once we created transparency on the data and the impact to our business a "call to action" was initiated involving multiple divisions. Being an industry laggard compared to our peers, the context of aircraft damage was often discussed in terms of events compared to prior months or years. Linking the data with days out of service and comparing them with industry data showed we were an outlier impacting the reliability of the operation with cancelations or flight delays. Based on this increased transparency, alliances were created with the following: Tech Ops on repair costs, Revenue Management on lost revenue, Finance for cost incurred

(repair/ferry), Customer Service for passenger feedback scores, and Reliability for cancelled and delayed flights. Changes implemented included: expanded vehicle equipment training, improved root cause analysis and weekly communication on lessons learned. General awareness and understanding the integrated costs all supported a cohesive effort on driving damage down 67% over three years.

Similar steps were taken to link injuries to workers' compensation and bottom-line indirect costs by providing transparency allocating costs to each division and site location. Providing the proper analytics to the data can provide a renewed interest to what the data means and, more importantly, how it supports the success of the enterprise.

Developing the Vision

When developing a vision, it is essential to define the end state with a phased plan. The opportunity we wanted at United was how to address a positive change on improving our safety performance by implementing a "working together" mindset. This required aligning people and resources across four operating divisions geographically located throughout the world. A "Force Field" analysis was developed, looking at our performance, strengths and needs. Force fields are a simple tool by design and provide insight to strengths that can be capitalized on while also identifying forces that could work against a change. Exhibit 2 titled, "Force Field Analysis" shows the relationship of "forces for" and "forces against" a change.

Gary Hamel in his book, *Leading the Revolution*, discusses the mental models organizations have representing choices and decisions about components of the business. "Force Fields" can help bring those conscious and unconscious mindsets to the forefront for shaping the safety strategy. This step was foundational in identifying a rule-based safety mindset and the need to design a people-based strategy. On the "force for" side of Exhibit 2, emphasis was placed on changing leadership messaging from an OSHA rate and lost-time injury focus, to one on people impacted and top drivers. More importantly, we needed to shift from an injury focus to one of prevention. This tool identified resources and tools that we needed to develop for our strategy.

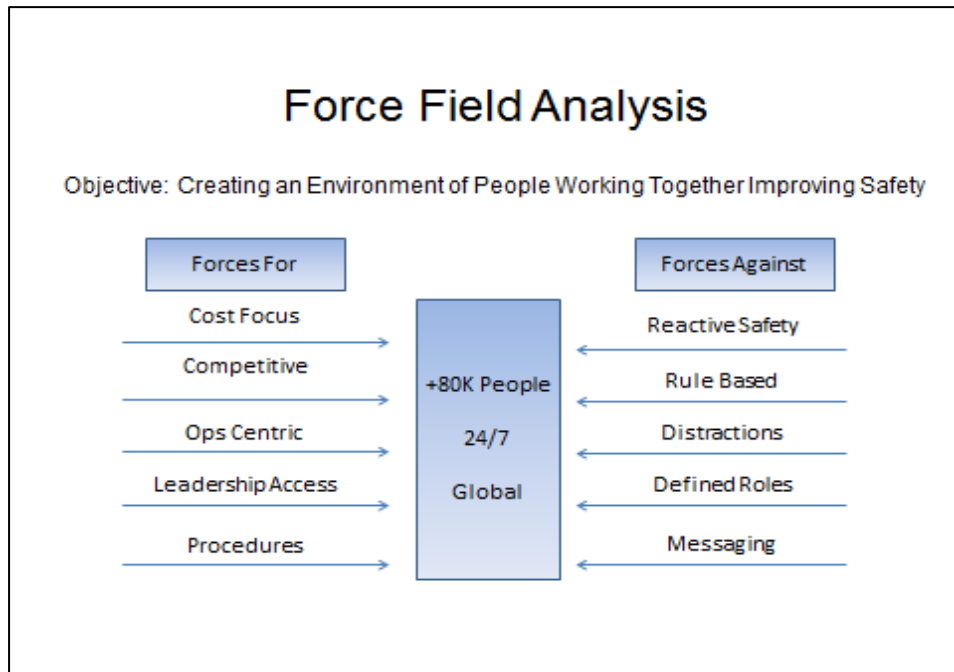


Exhibit 2. Force Field positively improves our Safety Performance.

Identifying “Strengths, Weakness, Opportunities and Threats” (SWOT) is a critical process in developing a robust strategy. Michael Porter in his book, *Competitive Strategy*, puts into perspective the need to identify strengths and weaknesses in formulating a strategy. In addition, the strategy needs to identify the desired values the organization wants to strive towards. These values provide a framework for people to operate and for individuals to align around. From an organizationally safety perspective, we targeted divisional strengths to capitalize on and weaknesses that need to be addressed. Opportunities and threats were viewed from the perspective of safety services provided to our internal customers. Exhibit 3 titled, “Strength Weakness, Opportunity and Threats,” shows the primary elements that were used in designing our strategy.

S.W.O.T. Analysis

(Strength, Weakness, Opportunity & Threats)

STRENGTH	WEAKNESS	OPPORTUNITY	THREATS
Operational Focus	Rule Based	People Based	People Impacts
Competitive	Safety Knowledge	Practical Messaging	Morale
Leadership Access	Reactive	Proactive	Growing Costs
Procedures	Confusing Roles	Advocates	Regulatory Review
Cost Focus	Distractions	Risk Training	Legacy

Exhibit 3. SWOT Analysis

Outputs of the SWOT model indicated weaknesses in safety knowledge with the opportunity being a safety advocate program. This concept would address employee morale by providing needed knowledge, which is credential-based. This further enhanced our ‘working together’ focus by providing the first OSHA 10/30 hr training designed around airline specific operations.

Developing our strategy incorporated five elements: culture, systems, tools, people and capability, and performance. Each element is interdependent on the other. When developing a strategy, defining the cultural shift needed and the framework necessary can be the difference between laying the ground work for transformational success or failure. The specifics of each element are defined below:

Culture: Define the desired behaviors and how they support the success of our people. These behaviors need to be reinforced at all levels by engaging by positively reinforcing them by impromptu recognition. Just as important is to address the negative behaviors working against the change with real-time intervention. At United we adopted multiple tiers to enforce the change including the “Go Forward Plan” which is anchored to how United operates.

Systems: Identify gaps and needs to be addressed by providing resources to support a change. At United we adopted a system of non-punitive self-disclosures for near misses and damage events. As part of “working together” a Safety Awareness Program (SAP) was implemented providing our people a self-disclosure process in creating a “just culture”. Sidney Dekker describes a “just culture” as one in which people are trying to be successful and do not recognize a system barrier or constraints in which non-desired outcomes can occur. Self-disclosure allows people to come forward so these conditions can be addressed before a significant event occurs. This allows for getting information and facts to make system adjustments in an environment that builds trust and ownership.

Tools: Looking at our systems we realized a specific tool set was needed to support a transformational shift. This tool set included, how to enable people to see risk and make good

decisions. One tool that was incorporated was Threat and Error Management (TEM) at each level of the organization. Teaching people risk identification and how to manage that risk provides a common framework which is proactive in preventing injuries.

People and Capability: Providing the knowledge and forums to share information and make good decisions was needed. Getting people actively involved with managing the performance of the organization and building the communication network that shares information allowed us to empower people. These forums will be discussed in section 8 of this paper titled “Anchoring.”

Performance: Clearly defining success helps people understand what we are trying to accomplish. For example creating a safer work environment will reduce injuries, more importantly it allows people to enjoy their livelihood and families.

Exhibit 4 titled, “Tools and Capabilities” pictorially represents the major elements of our strategy. This chart is an anchoring chart on how we want to operate, behave and empower our people. Defining the methodology aligns our people and establishes a common framework for the 377 destinations we fly too. Tools and capabilities are reviewed annually for their effectiveness. Over a three-year period, minimal changes have been made to the tool set since these tools are foundational to the behaviors we want to operate too.

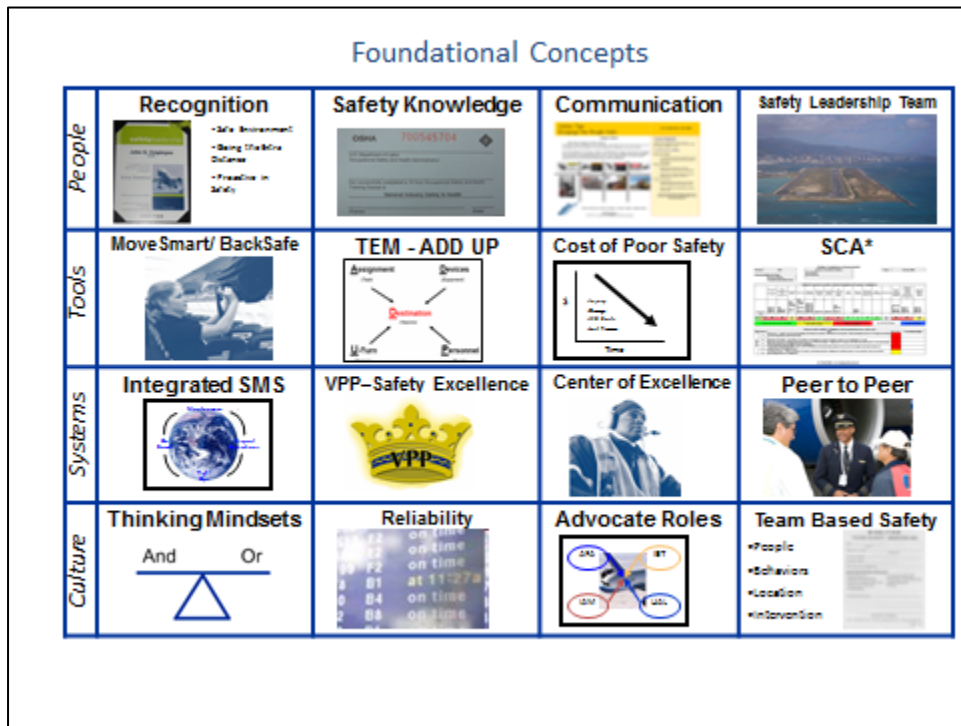


Exhibit 4. Tools and Capabilities

Communicating the Vision

Communicating a vision requires clear and concise messaging on the direction of the organization and the steps to get there. Our approach has been to align the divisions and senior leadership utilizing integration forums such as the Corporate Safety Review Board (CSRB) and forums such as the Safety Round Tables (SRT) which are supported by labor and senior leaders. At the

station level, Safety Leadership Teams (SLT) provides the oversight of the safety program to ensure rigor. This approach allows for a collaborative environment for implementing changes and aligning resources with labor, management and suppliers.

Instrumental for success is executive buy-in with the incorporation of safety objectives in the United “Go Forward Plan.” Key aspects of the plan include: “working together,” “fund the future” and “making reliability a reality.” Preventing injuries by creating a safer work environment and preventing aircraft damage supports all 3 of these objectives. The Board of Directors is briefed quarterly on safety goals and objectives which includes our Safety Excellence program.

To enhance communication Safety developed an annual targeted strategy based on the Malcolm Baldrige criteria. Exhibit 5 titled, “2012 Safety Plan” captures the safety plan which has the elements of: Customer Focus, Leading Effectively, Performance Management and Performing Flawlessly. This strategy is a tiered approach building upon the force field and S.W.O.T. analysis.



Exhibit 5. Safety Plan.

Empowerment

One can never underestimate the power of the human spirit, energized with the knowledge and capability to tackle tough objectives. Developing our safety strategy, we recognized several gaps holding us back from the next level of safety. Listed below are several items that needed attention:

Safety Training: 10/30 hr. training was developed using an airline approach on the basics of machine guarding applied to a passenger loading bridges and baggage systems. This tailoring provided the practical knowledge while anchoring people to a common safety framework.

Safety Action Program (SAP): A self-disclosure program for people to participate in that is non-punitive in order to provide information on events and near misses that were often not disclosed. The program captures thousands of disclosures for action to be taken in preventing injuries.

Body mechanics training is intended to address the manual lifting that results strains and sprains to our people. The typical checked bag is physically lifted seven times driving our strains and sprains. In the 2008, United adopted a body mechanics program named "MoveSMART." Over the nine-month test period we experience a 42% reduction in soft tissue injuries. Based on this level of success we tailored the program to our maintenance and flight attendants.

Line Observation Safety Assessments (LOSA) - Is an assessment program that has line employees trained to make observations on work being accomplished per procedures in a safe manner. LOSA personnel are assigned and trained on a rotational basis to be observers in the operation. This program expands individual knowledge and imbeds expertise back in to the line operation for bias to take action is something is not right.

The 4 items (listed above) discussed are examples of developing the tools and systems for a common framework to operate. We discovered that expanding the role of people to participate increased ownership, pride and personal engagement. More importantly, by building trust through empowering people, we created a safer work place and a better place to work.

Gains

Having success perpetuates success. Compared to other airlines United was above the industry mean in aircraft damages. The industry leader was 2.5 times better than United's performance. Based on the programs discussed in this paper a 52% reduction was seen in 24 months and a 73% improvement occurred over 36 months. Over the same period we had a decrease of 1100 injuries over a 36 month period.

Supporting these transformational results was a concentrated communications program focusing on 24/7 safety. Emphasis was placed on safe behaviors both at work and at home. Making people aware of events inside and outside of work, discussing industry and non-industry related events supported increased safety awareness. Mini-safety stand downs positioned supervisors in the role of having interactive safety discussions with their teams on, "What if scenarios?" This allows people to share their thoughts in making good decisions.

This strategy has helped shift a mindset of being results focused on injury rates, to one focused on prevention.

Consolidation/Integration

Primary efforts initially focused on the Airport Operation divisions which are responsible for customer service, ramp processing, and cargo operations. Having success in this division provided the visibility for other divisions to be involved creating a similar framework.

Expanding on the framework from Airport Operations, we replicated the following to other divisions:

Safety Basics, targeting the impacts to our people their families, coworkers and United. This session covers injury trends as well as how injuries occur. Part of this session concentrates on what you can do to have a safer work environment.

Body Mechanics is tailored to specific needs of each division. Examples of this include: how to lift and move bags in a cargo pit of an aircraft for our ramp employees, to the proper techniques of pushing a 200 lb. service cart for flight attendants. This customized approach provides the techniques to be prevention focused.

Human factors' training is being provided to all divisions in order to recognizing risks and assessing options to take action. Part of this training is discussing the "help network" for people to recognize the places and people to go to for when they need assistance. This network supports the "working together" focus we are striving to achieve.

Alliances were reinforced based on success with keeping people safer and running a more reliable operation. Divisions such as Reliability, Customer Satisfaction, and Revenue Management are taking an interest in safety based on positive shifts in the performance of the airline. Creating synergies and dependencies around safety supports common platforms and camaraderie to excel as team.

Anchoring

Sustainment must be part of the strategy for instilling a cultural change. United's approach has been the development of a "Safety Excellence Program" modeled based on the OSHA Voluntary Protection Program (VPP). This program develops mentors that are trained in safety that are embedded into their operating divisions. Mentors are responsible to instill a proactive safety program while working at their station and sponsoring a fellow stations. This practice helps share lessons learned, adopting best practices and providing consistency for safety. When a mentor determines a station has achieved a safety level a trained peer group from outside the station will perform an assessment.

Safety Excellence has three levels, which are: silver for operating structure, gold for sustained performance and platinum for industry leading. In the book, *Great Workplace*, authors Burchell and Robin discuss the need for having camaraderie, hospitality and community. Safety excellence at United is anchored in these principles by incorporating a community help network in fostering safety. Celebrations are held for each level achieved by recognizing people at the station level.

Safety action teams (SATs) instill personal ownership and enable peer-to-peer self-management. People are rotated in to the SAT program on a six month basis. Staffed by line employees people are trained in OSHA training and Threat and Error Management. Their coaching capability is continued when the return back to their assigned teams, growing the safety advocate base. Two key highlights of the SAT process are:

Mentors are anchored in OSHA Airline 10/30 hr. training supported by "Threat and Error Management" (TEM). TEM training is based on recognizing threats, the risks associated with them and the process used to reduce/eliminate the risk. Common training provides a baseline for understanding safety, common systems and the framework to operate in. This approach develops advocates aligned with a common tool set.

SATs members are involved with the Line Observation Safety Assessment (LOSA) in which we assess work to our standards. Members are trained in observation techniques and then provide feedback to the crew on positives as well as gaps observed. Again this emphasis is on teams working together providing objective feedback on quality and safety processes.

Safety excellence is anchored as part of United's "Go Forward Plan" that supports the "Working together culture". Essential to this objective has been to grow and enable divisions to have the knowledge with the capability to manage safety at their site. Over a 3 year period we have trained a network of over 1500 people in safety. These safety advocates are part of the management system for managing site safety by: performing area assessments, participation in safety forums and communicating best practices and lessons learned.

Case Specific Example : Reducing Soft tissue Injuries

One of the organization's biggest safety challenges was to develop a strategy to reduce the significant numbers of soft tissue injuries. As mentioned earlier, these injuries were the highest frequency type of injury in terms of frequency, lost time and costs. Reducing these injuries would not only improve employee health, safety and morale, it would also free up resources so that other issues could be tackled.

After thorough research and benchmarking, United decided to form an alliance with Strategic Safety Associates in order to implement their MoveSMART process. MoveSMART is a sophisticated, yet simple, process for reducing strains and sprains, while boosting safety involvement. United decided that MoveSMART's demonstrated strategy for increasing individual skills, while simultaneously improving organizational effectiveness, was the ideal solution for the problem.

In addition to MoveSMART's demonstrated success in helping other organizations significantly reduce soft tissue injuries, several other factors influenced this decision. One key factor was the synergy between United's overall strategy and MoveSMART's approach.

Critical areas of alignment between United's strategy and the MoveSMART system were:

Urgency – United knew it had to see significant improvement, quickly. MoveSMART was able to assess, customize and begin its implementation in less than one month after the project was initiated.

The first step of the implementation was for MoveSMART to customize their approach to United's unique and fast paced work environment. In February of 2009 representatives of United and MoveSMART assessed several United jobs. Together they identified the most significant challenges, decided on the focus tasks to be addressed, and then tailored the strategy and training to fit. In March of that same year, the first group of United employees was trained as MoveSMART Instructor-Catalysts.

Reductions in injuries followed almost immediately in the pilot areas. The response and the results were so positive, that the timing for the next wave of the implementation was accelerated and the scope of the pilot was quickly broadened.

Employee morale – One component of the United strategy was to focus on improving morale. The stresses created by the considerable changes to the business over the last several years had led to deteriorating employee morale. Improved morale was reportedly an

additional benefit of MoveSMART training. In fact, feedback from companies as diverse as Amtrak, Avon and Detroit Edison reported that employees not only benefited from MoveSMART training, they enjoyed it, and even asked to participate in future MoveSMART training. One safety director even stated that despite the significant reduction in injuries following their implementation, the positive impact on their organization's culture and morale was possibly even more significant.

United employees also enthusiastically embraced the MoveSMART methods and training. As the information spread throughout the organization, morale did improve.

Create and identify stakeholders – Another critical strategy was to create stakeholders for each challenge and proposed resolution. Participants in the MoveSMART Instructor-Catalyst training were chosen from all levels of the organization. These employees become advocates and positive catalysts for using MoveSMART, and also for safety in general.

Protect yourself both at work and at home – As the focus became more and more about prevention, the importance of an around the clock approach to safety became even more apparent. United's experience was that the cumulative wear and tear of many at-home activities added to the workplace stresses, often contributing to workplace injuries. MoveSMART training focused not only on at-work applications, but also on away-from-work activities.

Provide a set of "tools"– United knew that it wasn't enough to just demand results or mandate rules. With the ever-changing demands of their work and environment, United employees needed tools and resources that they could use to help take control of their own safety.

The MoveSMART tools and principles were easily learned and applied, and the positive results could be felt instantaneously. Employees reported immediate increases in strength with corresponding reductions in stress and strain. Participants immediately reported increases in balance, usable strength, hand-eye coordination, leverage and attention.

Empowerment - There was also a need to empower employees to become more engaged in safety and to take a more ownership of their own safety. The MoveSMART plan for taking personal control of your own safety matched up well with this element of the strategy.

Working together – A key aspect of the United vision is the concept of "Working Together." The immediate and tangible improvements seen from this implementation has helped improve communication and our teamwork. MoveSMART has played a critical role in moving us closer to the fulfillment of this vision.

Three years down the road, this alliance has proven to be a successful one. Soft tissue injuries have been reduced dramatically, despite the challenges of merging and integrating two large organizations. This success has led to the implementation of MoveSMART in both United's Maintenance and InFlight divisions. As United's cultural journey continues, the focus and strategy will continue to shift and adjust. In fact, in April of this year, United began the process of training experienced MoveSMART Instructor-Catalysts in the advanced process. Together, United and MoveSMART look forward to a continued alliance and to continuously improving safety results.

Summary

Implementing any strategy resulting in a cultural change requires a phased approach in developing and implementing to be successful. At United, we utilized a model for leading change designed by the author John P Kotter. Supporting the “Leading Change model” was a series of tools to assess the internal operation as well as the desired end state. Tools used for the strategy development and rollout included:

- Kotter’s eight-stage model for ‘Leading Change’
- Force Field analysis
- Strengths, Weakness, Opportunities and Threats (SWOT)
- Tools and Capabilities
- Strategy Plan

Over a three-year period, a transformational shift occurred with instilling a working together proactive safety focus. Year one’s concentrated on defining the safety, customers and company needs. In addition, we defined the desired end state based with the values we were going to operate too. Year two was the development of a common tool set along to expand capabilities. We needed to define the way we wanted to operate which was to enable people to act with the knowledge to keep people safer. Year three, we targeted the enabling processes for divisions to have safety ownership for the day to day aspects of safety by taking accountability. Since the start of the journey we have accomplished the following:

- 1,100 Less injuries over three years
- 50,000 Less lost time days over two years
- 63% reduction in aircraft damages saving over \$11 million annually in direct repair costs
- 59% improvement in safety compliance over 2 years

Bibliography

Burchell, M. and Robin 2011. *The Great Workplace: How to build it, How to Keep It, and Why it Matters*. San Francisco, CA: Jossey-Bass.

Davenport, T., and J. Harris. 2010. *Analytics at Work*. Boston, Massachusetts: Harvard Business School Publishing.

Fox Business News. 2011, *History of U.S. Airline Bankruptcies*.(retrieved Jan.24,2012) (<http://www.foxbusiness.com/travel/2011/11/29/history-us-airline-bankruptcies/>).

Hamel, Gary. 2002. *Leading the Revolution*. Middlesex,England: Penguin Group.

Katzenbach, Jon. 2004. *The Wisdom of Teams*. New York: Harper Business Book.

Kotter, John. 1996. *Leading Change*. Boston, Massachusetts: Harvard Business School Press.

Porter, Michael. 1998. *Competitive Strategy*. New York: Free Press.