BY BRAD BRUGGER AND PETE SRUCEK

JUST POLICY

On June 15, the American Airlines Maintenance and Engineering Organization (known as M&E) implemented a new policy designed to enhance the company's ability to learn from errors and violations in the workplace, and to identify the most effective actions we can take to prevent their reoccurrence. Basically, our approach applies just culture philosophy and tools, and standardizes previously diverse investigative processes into one cooperative investigation that considers errors and violations as learning opportunities for everyone, not just our aviation maintenance technicians. The resulting document is titled *Just Policy for Maintenance Errors and Violations.*

The greatest benefit that we expected already is becoming a reality: preventing rash decisions by managers after a costly outcome that, in the past, would have focused their attention on "disciplining the last person who touched the airplane." We also are now setting up, as quickly as possible, a method of communicating internally the high-impact lessons we are learning. We expect this innovation to strongly complement, and even enhance, the tools in our aviation safety action partnership (ASAP) program for M&E personnel.
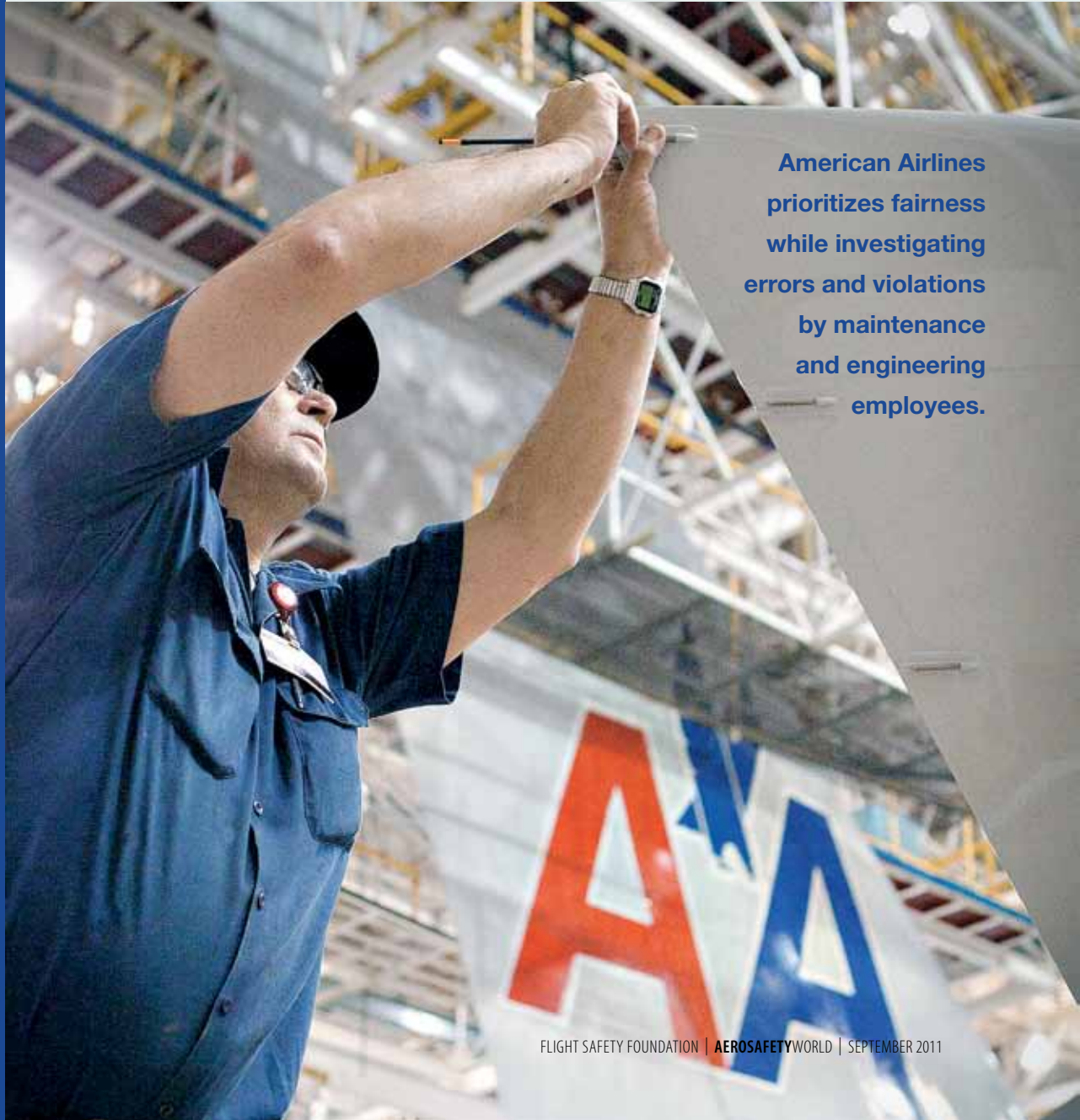
American Airlines prioritizes fairness while investigating errors and violations by maintenance and engineering employees.

The authors say that implementing their *Just Policy*; communicating the benefits of its principles and tools; and, in the future, sharing lessons learned are opportunities to give back to other airlines that have been generous with best practices.

The *Just Policy* first lays out our organization's commitment to four core principles: the recognition that not every system is perfect, to err is human, to drift from what we know to be safe or compliant is human, and that risk is everywhere; we are most interested in learning as much as possible after an error or event to understand risk at the individual level and the organizational level; we are willing to investigate, to learn from our mistakes and to share what we have learned; and we are determined to balance accountability with justice.

This philosophy encourages our employees to be open, forthright and honest and, psychologically, to "get to a place of comfort" where they are willing to talk about what happened or what they did; to help identify the root causes and all the contributing factors; and to learn from the factors. The policy also establishes clear personal accountability for at-risk behavior and reckless behavior (see "*Just Policy* Definitions," p. 30).

The *Just Policy* requires a strong sense of "shared accountability" at all levels of M&E. This means that M&E management is responsible for designing a reliable system — processes, procedures, resources, facilities and incentives necessary to produce the desired outcomes (for example, quality, safety and regulatory compliance) — and for managing employees in a fair and just manner. In turn, each employee is responsible for making good choices and for reporting safety concerns, near-misses or errors/violations when they are identified.

Writing the policy led us to reconsider M&E values, rejecting the past punitive approach in which judgments could take place too quickly, and instead fostering a fair and consistent process that stresses learning. Our goal is to truly understand why something happened and to share the accountability. For example, we no longer want any M&E manager to become hung up on the bad outcome — the U.S. Federal Aviation Administration (FAA) finding, the damage or whatever it was.

Neither management nor the union can sit back if that occurs, only to realize later that known errors or violations, or a bigger systemic problem, were not being reported or were being tacitly approved. It's especially unfair in such cases to treat one unlucky mechanic — the one who got caught — as a scapegoat when we should have identified the bigger problem.

If the system is the issue, the first task is to fix the relevant process. If the mechanic made a poor choice but the process is fine, the mechanic likely just drifted away from what he or she was taught. But, in reality, what we most often find is that an error, violation or event involved a little bit of both aspects.

As in the past two years of the M&E ASAP program, at-risk behaviors remain the most common issue while reckless behaviors are rare. So addressing at-risk behaviors provides us the best opportunity for making good systemic changes and focusing on coaching, mentoring and role modeling.

Technically, the policy only guides M&E management. It does not require anything new of non-management personnel: They are still responsible for reporting hazards and safety concerns when they see them. The major difference has been the safe avenue for the reports of an error, violation or event — especially one not submitted voluntarily to the ASAP program by the employee — to be received, accepted and acted upon by management in our just culture environment.

Writing the *Just Policy* also opened an opportunity to standardize and consolidate several investigative processes. Disjointed processes and poor results previously had inhibited M&E efforts to learn from them, incorporate sound fixes to the system, and respond consistently.

Now, the initial (preliminary) investigations are conducted by representatives of M&E management; the initial investigations are then forwarded to our maintenance event assessment aid (MEAA) investigation group. The MEAA investigation group then coordinates the investigation with the ASAP event review committee if an associated ASAP report has been filed. Standardized processes that have been designed to improve their cooperation ensure that the representatives are all working

towards, and achieving, desired quality results that enhance a robust safety culture and align M&E with the American Airlines safety management system (SMS).

Safety Champions

The role of Outcome Engineering, our consultant in this evolving field of aviation safety, has been to transform theoretical principles of just culture into practical guidance and tools that also draw principles from safety engineering, human factors and law. Their trademarked tool, called the Just Culture Algorithm, enables neutral M&E employees trained and certified in its use (called *safety champions*) to easily identify system deficiencies and to objectively assess the quality of choices made by individuals.

The algorithm, associated definitions and training previously had been used and tested for effectiveness within our four ASAP programs as part of an 18-month coordinated study for the FAA Aviation Flight Standards Division for Voluntary Reporting (AFS-230).

The study provided a unique opportunity to address the U.S. airline industry's concern about undefined or inadequately defined report-rejection criteria in ASAP programs. When the study concluded, leaders of all our airline's ASAP programs agreed to indefinitely continue using this tool, which clearly defines "where the line is drawn" and limits the range of allowable actions to be taken by M&E and the FAA.

With respect to errors, our intent is to support the erring employee by conducting a "learning conversation" about why the error occurred and what can be done to prevent a reoccurrence. Resulting nonpunitive actions also focus on correcting system deficiencies to meet this objective.

With respect to at-risk behaviors, our intent is to coach the employee about the behavior during a supportive discussion that reinforces safe behavioral choices. The MEAA process identifies for managers the typical reasons why employees engage in at-risk behavior, and frames nonpunitive solutions that balance positive and negative incentives that influence employees. Often,

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Just Policy Definitions

At-risk behavior: A behavioral choice that increases risk where this risk either is not recognized, or is mistakenly believed to be justified.

Human error/error: An inadvertent action; unintentionally doing something other than what should have been done; a slip, lapse or mistake.

Just culture: The American Airlines Maintenance and Engineering Organization's (M&E's) philosophical mindset and management method, focused at all levels on learning, fairness and consistency, safe system design, and making/managing quality choices.

Just Culture Algorithm: A trademarked algorithm developed by Outcome Engineering, applied during the consistent process of investigating an error or violation, to assess the quality of behavioral choices and duty breaches.

Just Policy for Maintenance Errors and Violations: The document that states the M&E's commitment to enhance safety culture and specifies company management actions to respond to errors, violations and events (i.e., accidents, incidents or other reportable actions/occurrences).

Maintenance event assessment aid (MEAA): The M&E process used as a nonpunitive, system-focused investigative tool that identifies the root causes and contributing factors of an error, violation or event.

Reckless behavior: An employee's behavioral choice to consciously disregard a substantial and unjustifiable risk.

Safety management system: The M&E-wide approach to managing safety risk and assuring the effectiveness of safety risk controls.

Violation: An infraction or breach of a work-related regulation, company policy/procedure/rule, professional standard or training.

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at-risk behaviors evolve into "norms." In these cases, the investigation expands to identify and coach employees and management regarding at-risk behaviors at the system level (maintenance crew, maintenance station, region, etc.).

ASAP Tool Refinement

In the context of the FAA's forthcoming regulation on SMS in aviation maintenance, M&E had envisioned the *Just Policy* as an opportunity to expand just culture beyond our ASAP. We hoped this would ensure a strong foundation before implementing the SMS.

Safety engineering and human factors aspects of just culture had been incorporated into American Airlines operating departments since the 1990s. Prior to writing the *Just Policy*, just culture had been applied in the "vacuum" of the M&E ASAP process. So the "legal" aspects of just culture — shared accountability and defined behaviors — are new. The successful, formal incorporation of just culture into ASAP in 2009 therefore brought a deeper awareness of the benefits of applying these principles to the management of risk.

In practice, except for refining tools, the *Just Policy* has not changed significantly our ASAP program. The prime example of refinement the policy has brought about has been application of the Outcome Engineering definition of reckless behavior to better understand the ASAP term "intentional disregard for safety" as the rejection criterion — that is, the reason that an event review committee would decline to accept an employee's voluntarily submitted report of an error or violation for nonpunitive consideration under the ASAP process.

Moreover, adapting the Just Culture Algorithm to the M&E ASAP has ensured standard and consistent criteria for determining the specific behaviors involved in any event, error or violation. This became a means to more accurately assess, and effectively respond to, behavioral choices that may increase risk, and to more clearly identify system design flaws.

The *Just Policy* states that, for identified reckless behaviors, some level of corrective

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action by the company — that is, measures beyond nondisciplinary remedial action per guidelines of American Airlines' Peak Performance Through Commitment policy — is appropriate to cause an individual to refrain from undesirable behavioral choices.

Decision Algorithm

The purpose of the algorithm in our ASAP and non-ASAP processes is to objectively allocate responsibility — to identify what role the organization played in system design and to assess the quality of choices made by individuals working within that system. Then the process clearly defines when it is appropriate to support the employee, to coach the employee or, in the rare cases typically indicated, to take disciplinary action against the employee.

The *Just Policy* specifies use of the MEAA, our version of Boeing Commercial Airplanes' Maintenance Error Decision Aid (MEDA) and the Just Culture Algorithm as the tools for investigating human factors and root causes. The policy also places the ownership (i.e., responsibility for the MEAA and just culture processes and tools) on a small group of neutral, trained and qualified personnel.

If this group concludes that an error or violation involved reckless behavior, the policy requires a joint ratification of the conclusion by

Plans call for developing an investigation training package, designed to enhance the quality of that process, including root-cause analysis.

the company's director of maintenance and the safety of flight and compliance coordinator of the Transport Workers Union of America. The director of maintenance also has been designated as the responsible person for directing training and communications activities for all aspects of M&E.

Training covers preliminary steps that local managers or supervisors must take when they become aware of a maintenance-related error or violation. The steps were designed to ensure that all subsequent fact-gathering is conducive to learning as much as possible about the error or violation and preventing reoccurrence, to improving system design and to managing employees fairly.

The insidious aspect of at-risk behavior is that past success in deviating from a rule with no bad outcomes — or, more typically, with apparently positive incentives or reinforcements — leads to false confidence about the safety of the behavior.

A typical time that at-risk behavior occurs in M&E is when a group of employees become confident in taking a shortcut or otherwise develop their own unapproved "standard practice." Often, these behavioral choices are made by well-intentioned employees

just trying to get the job done with limited time or resources. The coaching leads to improving the system by removing the incentives that drive the at-risk behavior.

M&E also recognizes from experience that it is rare for an employee to act recklessly. We therefore believe that disciplinary action is only appropriate in the case of a reckless choice, to discourage the reckless choice. M&E, through our *Just Policy* and sharing lessons learned, identifies and clearly communicates the difference between an at-risk behavior and a reckless act.

Front Line Challenges

"Road show" presentations about the policy to M&E personnel, which began before it was finalized, and our later training discussions have been invaluable. Discussions and questions from the management and union personnel who attended the road shows allowed us to fine-tune the *Just Policy* before it was officially implemented.

Despite joint management-union leadership in writing the policy and early communication, the biggest challenge we face appears to be earning the trust of all employees. For the most part, management and union personnel

say they agree with the policy, but some union personnel are skeptical that the company will remain committed to it and apply it consistently.

In fact, one initial response from M&E management personnel has been that, even without the policy, a "good manager" already should have been treating employees according to its basic principles. At the organization level, however, management had struggled to fairly and consistently apply — regardless of the severity of the outcome involved (costs of injuries, damage, delays, production time, rework, etc.) — just culture principles to all cases of errors and violations.

We are optimistic that gaining acceptance of the policy will not be as difficult once everyone affected understands the personal implications and sees the policy in practice. Union personnel have said they appreciate the policy's commitment that they will be treated fairly if they ever face these circumstances. So far, the implementation of the *Just Policy* has met M&E values and expectations.

As of September, the *Just Policy* implementation team is pushing into the field detailed training on roles and responsibilities of management and labor union leaders across the system. Upcoming reinforcement training for all other M&E employees will focus on basic principles, risk recognition and especially the individual employee's role and responsibility for reporting hazards within the M&E SMS. ⌐

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