



## Walking on Wings in Water: The Miraculous Impact of Safety Readiness

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**T**he forced landing of the Airbus in the Hudson on January 15, 2009 and the subsequent successful rescue of all 155 on board is a cause for celebration. First the lives of those 155 individuals were saved. Now all of their relationships can continue, all of the business connections will go forward, friends will continue to gather, and fathers will dance at their daughter's weddings. It so easily could have turned out differently; horribly; tragically. What contributed to this miraculous outcome?

**Safety expressed in dozens of behaviors by dozens of very critical individuals - behaviors that created the "Miracle on the Hudson."**

— Ashworth & Lattal

**Any design, whether it's for a ship or an airplane, must be done in anticipation of potential failures.**

— Henry Petroski

Aside from structural integrity of the plane that held up after losing two engines, and its ability to stay afloat during the rescue operation (positive factors connected to the original behaviors of those associated with its manufacture and testing) a number of human

behaviors contributed significantly to the outcome of events on the 15th.

First of all the pilot, Chesley B. “Sully” Sullenberger, III, is highly trained, well experienced and an expert in airplane safe practices. One may presume he thinks in terms of safety first most of the time, both on and off the job. He knows his stuff. He followed a plan from the point of emergency to his final (second) walk through the cabin to ensure that every single person was safely out of the plane.

Secondly, the crew on the plane had been trained to deal with a water landing. They certainly were aware of the odds of surviving such a catastrophe yet they were able to manage themselves, maintain order and keep people, including the elderly and a mother with infant and small child, moving out of the plane with remarkable and reassuring calm, given the urgency of the situation.

Third, the landing in that area of the Hudson River provided very close access to water vehicles. This alone would not guarantee a good outcome. However, the frequent practice of rescue operations on the Hudson prepared ferryboat captains, water taxi driv-

ers, and emergency watercraft drivers, to approach the plane, passengers, and crew with knowledge and well practiced procedures designed to facilitate a safe rescue. It worked.

Finally, land-based emergency medical personnel did their jobs; again, well trained professionals with consistent good practice completed the rescue through their personal patterns of highly fluent (fast and accurate) behavior.

This event brings safety to the fore-front—not just safety as a concept but safety as a practice; safety expressed in dozens of behaviors by dozens of very critical individuals - behaviors that created the “Miracle on the Hudson.”

Making safety a habit played out on the Hudson. The pilot could focus his attention on using his well honed skills to land the plane. The crew on the plane did not have go back to a training guide to review the procedures needed for evacuation. Those at the helm in the watercraft knew, by virtue of their good practice, how to participate effectively in the rescue operation. Perfect practice makes perfect. The “Miracle” occurred because a sufficient number of those involved from the initial response to engine failure to the final rescue of the last individual were fluent in their practice of behaviors that contributed to this excellent outcome.

The Airbus on the Hudson does not prove in absolute terms that well practiced safety procedures will successfully avert a tragedy, since decent weather, incredible in-water support, and that particular crew and their personal histories all came together perfectly at





that day and time. However, fluent patterns of behaviors needed during and following such events can be the difference between life and death.

While there are fundamental issues as yet unexplained in the accounts of this accident—most notably, airplane design that still allows birds to fly into engines all too frequently—the lessons we can take away from the amazing event have to do with behavioral readiness; the fluent applications by so many of safety-ensuring actions that averted waiting disaster.

### HOW TO CREATE READINESS FOR SAFETY SUCCESS

A fluent work force is developed, and most importantly, sustained from the top down. Fluency refers to high and steady rates of the right behaviors that are both timely and correct, occurring across situations of unexpected complexity. The decisions made by company leaders to understand and measure behavioral fluency in core aspects of their business determine many things about suc-

cessful safety outcomes. Leaders and their teams must ensure that what is intended is done in a way that protects, first, people, then assets and environmental concerns, and then, and only then, financial success.

Leadership determines many things about a safety-first culture, including the strategic business focus, resources that go into the purchase and maintenance of equipment, impact of training, forms of recognition, and policies to invest in the infrastructure that keep assets and people safe. Leaders determine whether or not they appoint a strategic partner in safety as a member of the executive team. They ensure that the consequences for serving in that role are understood and make a personal commitment to listen and act on sage advice. Leaders by their actions decide if the company safety record is based on luck or systematic attention directed toward constant improvement. Unexamined decisions with unexpected consequences for what people actually do often create a slippery slope from top to bottom that may well fly in the face of safety first.

A complex interplay occurs between behaviors and reinforcement systems. Understanding what drives behavior in your business environment is essential to moving from a haphazard approach to safety (worker, consumer, and environmental) to one that emphasizes an ongoing evaluation of executive decision making focused on creating a safe workplace and a workforce that is fluent in safe behaviors.

ADI helps companies to create such fluency—high and steady rates of successful behavior, from the executive room to the frontline; patterns of actions across situations and time anchored in an ethical framework for how we treat one another. We call those learned responses to situations requiring quick decision-making, good judgment



**There's no such thing as a natural-born pilot.**

— Chuck Yeager

and clear action, habits. Those habits are the lifesaving patterns we saw at work in the Hudson River. They sum to what is called the wisdom to know what to do and how to do it. The science of behavior is the most important skill set required for business success—while rarely taught in business school, you as business leaders, managers, and performers need to learn about this science, master the tools of effective behavior management, and invest in the power of positive reinforcement to do all you can to keep you, your colleagues, your company, and your community safe. We will all gain from your good efforts.

The Miracle on the Hudson would not have happened without the unique conditions of that time and day. Perhaps if the wind had been stronger, if the bird strikes happened later in the flight, or a different member of the crew had been present, the outcome would have been different. So it is easy to attribute this good outcome to fate or God's will, or something equally mysterious. But we know that without the engineering and mechanical skills that allowed the airbus to remain tight enough to float after impact, without the practice drills leading to fluent responding in a crisis, and without the integrity and focus demonstrated in the behaviors of the pilots and crew, this particular Miracle would never have occurred.



## [About the Author]

### DARNELL LATTAL, PH.D.



Darnell has been dedicated to supporting clients in areas such as strategy implementation, behavioral systems redesign, and leadership development, and is currently working to

help advance the mission of The Aubrey Daniels Institute. Darnell's greatest joy is in furthering the incredible power for bringing out the best that behavior analysis provides to others.

### CINDY ASHWORTH

As a staff writer for Aubrey Daniels International, Cindy Ashworth shares a unique perspective based on her clinical expertise and understanding of behavior in the workplace.

## [About ADI]

Regardless of your industry or expertise, one thing remains constant: People power your business. Since 1978 Aubrey Daniels International (ADI) has been dedicated to accelerating the business and safety performance of companies worldwide by using positive, practical approaches grounded in the science of behavior and engineered to ensure long-term sustainability. ADI provides clients with the tools and methodologies to help move people toward positive, results-driven accomplishments. Our clients accelerate strategy execution while fostering employee engagement and positive accountability at all levels of their organization.

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