

## SYNOPSIS

# ***LIFTOFF***

## ***An Astronaut Commander's Countdown for Purpose-Powered Leadership***

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**Foreword by General Duane Cassidy**

**Preface: The Compelling Need for You to Lead**

**Introduction: Using This Book, Your Flight Data File**

This book's mission is to empower each reader to purposefully lead their teams for execution excellence to accomplish missions that matter. Although the principles are universal, the examples come from unique personal experiences in the dynamic environment of human spaceflight. These lessons are relevant for anyone to use, regardless of their own particular setting. Content is delivered within the 4 P Leadership Performance Balance incorporating Purpose, People, Perspective, and Program. With focus on leadership at the point of action, the Program section is longest and employs its own dedicated model, though emphasis on purpose is infused throughout the book. The PAPA Effective Execution System emphasizes the correct pacing of Preparation, Awareness, Persistence, and Accountability all aligned with focused objectives to produce execution excellence. The introduction lists twelve specific Purposeful Execution Principles, each of which in turn leads off a chapter. This list and the chapters themselves are numbered in reverse, countdown order.

## **PART I: PURPOSE - THE WHY**

### **12. Choose the Hard**

Purposeful Execution Principle 12: Actively seeking and embracing difficult challenges gives powerful initial direction, informs the vision, and encourages the team.

This chapter opens with President John F. Kennedy's uplifting rationale issuing the call to historic action for the United States to go to the moon. It then relays personal examples of not only the difficulty of the human space venture, but the keys to accepting that challenge, gathering courage, embracing risk, pushing through the difficulties, and energizing one's team through purpose. Great leaders are able to not only lay out a vision, but awaken the courage within people to relish risk and difficulty for the sake of pursuing a purpose of great worth beyond themselves.

## **11. Make the Mission Matter**

Purposeful Execution Principle 11: A meaningful cause in service to others inspires team members to deeply commit to mission accomplishment.

An on-orbit experience I and my crewmates shared while floating in space shuttle *Columbia*'s middeck shows cheerful dedication to a mission beyond oneself and leads off this chapter. A mission that matters requires service to others and strengthens the team-binding power of attempting difficult challenges. Teams not only need to be good, they need to be good for something. Furthermore, individuals respond to the inspiration of serving a cause greater than themselves. The best leaders incorporate that response into an organization that truly will make a positive difference for customers and stakeholders.

## **PART II: PEOPLE - THE WHO**

### **10. Work the Matrix**

Purposeful Execution Principle 10: Constant care of the matrix of both internal and external relationships amplifies team unity and leverages effective collaboration.

This chapter starts in a mundane office setting down here on Earth with a deep leadership philosophy conversation between my veteran commander and me as we prepared for our upcoming launch, my first. That mentoring and the subsequent witness to its value under the intense performance pressure once in space affirmed the need to constantly build relationships. "Working the matrix" comprises respect, recognition, strengthening, and training for individuals while pushing for unity through forging robust links. Not just within the team, but with all the external and support groups with which you interact, this approach pays off in better results that support achieving the ultimate purpose.

### **9. Build Total Trust**

Purposeful Execution Principle 9: More than any single factor, a high-trust culture enables capturing people's best efforts and contributions to meet the most challenging commitments.

Poignant goodbyes prior to launch open this chapter. Few experiences focus the heart and mind more powerfully than saying goodbye to your children knowing that you might not see them again. Yet that concern and poignancy was turned to deep assurance through the confidence that my crewmates and I could trust our lives to one another. Unquestionably the most powerful unity generating team factor is absolute trust. A trust culture requires all team members, but particularly leaders, to consciously choose to be trustworthy. High-integrity, competent leaders model the way, and their trust-filled teams in turn will consistently align with their purpose and perform magnificently.

### **PART III: PERSPECTIVE - THE HOW**

#### **8. Balance the Orbit**

Purposeful Execution Principle 8: A positive yet reality-grounded perspective sets the stage for highest team member engagement, productivity, and results.

Back in space, this chapter begins as I reflect with a crewmate while we gaze down literally on nearly a billion people while passing over eastern Asia. Our unique privilege of seeing the home planet that way is life-changing. For me that change manifested most strongly in perceiving a crucial need for seeking balance in all things. Leaders with balanced perspectives set the proper tone through the right mix of humor, resiliency, and stress relief. Fitness, confident but not too serious self-concept, and realistic optimism all contribute to team balanced effectiveness as well.

#### **7. Tether to Principles**

Purposeful Execution Principle 7: Adherence to values-based principles contains drift and systematically keeps execution on track during preparation, action, and follow-through.

This chapter opens by sharing with the reader an actual spacewalk, emphasizing the life-protecting requirement to always stay tethered to the spacecraft. The tether metaphor carries through the entire chapter, showing how leaders must follow and teach correct principles to avoid drifting away from mission accomplishment. Starting and ending with first principles, establishing clear team standards, valuing the on-scene person, and owning up to mistakes all limit execution errors. It requires discipline, constant attention, and astute prioritization but keeps teams tethered to the path for high performance results.

### **PART IV: PROGRAM - THE WHAT, WHERE, AND WHEN**

#### **6. Create Objective-Centric Operations**

Purposeful Execution Principle 6: Achieving correctly defined, well developed, and suitably emphasized objectives empowers the team to fulfill the mission, turning vision into reality.

Initially carrying the reader back over a hundred years, this chapter shares the sweeping vision, phenomenal genius, and hard work of Dr. Robert Goddard, the inventor of the liquid fueled rocket engine. Using his dreams to hopes to reality outlook, it zeroes in on the central aspect of the PAPA Effective Execution System: Objective-Centric Operations. Every execution action should align with and focus on accomplishing key objectives. Teams should craft wise, detailed objectives meeting the STARS criteria: specific, timelined, actionable and accounted for, realistic, and sensed. Leaders then must prioritize accomplishing those crucial objectives to lead their teams to tangible results and mission success.

## **5. Pace It Perfectly**

Purposeful Execution Principle 5: Pushing ahead diligently with a long-range view, opportunities orientation, and optimal pace fosters the responsiveness to stay ahead of problems and competitors.

To begin this chapter, the reader joins us aboard the space shuttle as we make the fiery plunge through the atmosphere and I as the commander land *Columbia* at Kennedy Space Center. That hour-long evolution required exquisite pacing and second-by-second perfect performance to accomplish. For such success, leaders must demonstrate both a strong sense of urgency and the seemingly contradictory ability to look ahead, thinking and planning long-term. Execution focus requires the right sense of pace, pushing beyond the status quo, and driving change as needed. Creative ideation, seeing opportunities in every situation, and rapid development leverage leader-inspired optimum pace for results that count.

## **4. Prepare Diligently and Constantly**

Purposeful Execution Principle 4: Deep preparation and guarding against complacency in planning, training, and briefing accelerate the team into effective action.

This chapter's opening true personal story takes the reader on a short flight aboard a burning, multimillion dollar attack jet from gut-wrenching alarm and initial response all the way through safe recovery. Importantly, it highlights the absolute criticality of unremitting preparation to effective execution in any dynamic environment. Preparation begins with active ongoing planning using another STARS acronym: Scenario, Tasks, Assess, Resources, and Steps. It then proceeds to development, training, and "C 4" communications: clear, complete, concise, and concrete. Leaders must fight complacency and inspire team members

to continually prepare. It takes dedicated diligence, willpower, and a desire to keep getting better.

### **3. Drive Awareness and Learning**

Purposeful Execution Principle 3: Peak productivity requires superb knowledge and competence, strong situational awareness, and a relentless drive to improve.

This chapter opens in Oshkosh, Wisconsin at AirVenture, the world's largest annual aviation event. There, as test pilot for the innovative "New Space" company XCOR Aerospace, I was privileged to fly three airshow demo flights in front of 100,000 people to dramatically showcase XCOR's one-of-a-kind rocket-powered prototype racing airplane. A world-class Learning-Plus Team, XCOR epitomizes the execution power from strong awareness and world-class skills. Constantly questioning, learning, and expanding capabilities set apart high performing leaders and teams. Such teams enjoy competitive advantages of higher competence and versatility. Integral to such a culture is the almost compulsive desire to continually push for better results.

### **2. Persist to Prevail**

Purposeful Execution Principle 2: Leading all the way to successful completion requires tenacious persistence, acting in alignment with objectives, wisely mitigating risks, and patiently adjusting operations.

The lead story for this chapter highlights the amazing persistence exemplified in the ten-million dollar Ansari X Prize, for which I was the Chief Judge, and the burgeoning new private, entrepreneurial space industry. Persistence adds the will to overcome to the capability developed via preparation and awareness. Leaders need to demonstrate wise and patient persistence towards accomplishing mission objectives. The MARS approach will lead to persistence during execution: Mindset, Act Aligned, Risk Mitigate, and Steps (process adjustments). As they additionally build a robust culture of diligent, steady improvement, teams will overcome the most difficult obstacles.

### **1. Propel Accountability for Results**

Purposeful Execution Principle 1: Execution excellence requires dedicated, real-time, and total accountability, principled adaptability, and a disciplined debriefing mindset.

The final chapter opens with the most dramatic story of the book, a real event that happened during launch of my second mission, STS-76. Without perfect execution this predicament could have ended with the loss of Space Shuttle *Atlantis* and a crew of six. I take the reader with me in the right front seat of *Atlantis* as we deal with one of the most serious space shuttle ascent emergencies ever, a massive hydraulic leak while screaming along at 12,000 miles per hour. Resolving

this emergency was the fruit not only of accountability, but every element of the PAPA model. Operations in any dynamic environment dictate immediate, accountable responses to solve problems and make progress. Leaders should build a team ethos of voluntary, no-excuse acceptance of responsibility. Such a culture requires principled adaptability for making wise changes consistently aligned with values and objectives. Finally, a disciplined execution communication and debriefing mindset powerfully promotes accountability. Using the down-to-EARTH debriefing framework of Execution (the what), Accountability (why and who), review (how), Timeline and Timely (when), and Highlight (summary and improvement focus going forward) will produce effective, results-oriented debriefings.

### **Summary: Liftoff to Success**

The summary starts with a short metaphor of the reader having just lifted off on their own mission to execution success. Within the 4 P Leadership Performance Balance organizational pattern, all the key points are then restated and reviewed, with particular emphasis in again highlighting the PAPA Effective Execution System. Getting further up off the planet conceptually, the book winds down with a purpose-minded and somewhat philosophical treatment connecting leadership, teamwork, and execution. It includes an oft-quoted but stirring tribute from President Teddy Roosevelt to those who are “actually in the arena,” making things happen, executing daily, and pushing for success. Finally, the book closes as I wish the readers well in finding their own powerful purpose, executing effectively, and triumphing together with their teams.

### **About the Author: A Funny Thing Happened on the Way to the Launch Pad**

This section begins with a typical author biography. However, it also offers more extensive personal insight into the major influences that have driven my own sense of purpose, leadership philosophy, and execution orientation. I’ve placed this narrative after all the content on which I hope the readers will act because it is not directly supportive to the book’s mission of empowering them to lead for purposeful execution excellence. However, in addition to relating a bit more of my personal background for the space buffs who enjoy such things, it does provide context and texture for how I came to my approach and models for leadership and execution. As such, it offers additional insight for any reader.

### **References**

### **Glossary**