Skywards Series

MANAGING FLIGHT OPERATIONS

CREW | SAFETY | EFFICIENCY | SUSTAINABILITY

INSIGHTS FROM 45 YEARS OF LEADERSHIP

BY CAPT. ANDRE BERGER

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This book is dedicated to Werner Achten

Without *Werner Achten*, I might never have become a pilot, and I might never have understood the importance of supporting others in pursuit of their dreams.

Almost fifty years ago, when the barriers to becoming a pilot seemed impossible for me to overcome, he stepped in to help. He refused any payment or return favor. Instead, he asked me to make a pledge. I promised to always help others chasing their dream and, above all, to try to do the right thing, even when the path was hard, uncertain, frustrating, or likely to fail. That pledge has guided my choices ever since—as a pilot, an instructor, and a manager.

Werner wasn't a professional pilot, but he understood the power of a dream. My dream was commanding the big jets.

Whatever your dream may be, I hope you will also find someone who supports you and believes in you.

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Foreword

A moment of pure magic occurs nearly five thousand times each hour worldwide. A machine weighing hundreds of tons, carrying hundreds of souls, defies gravity and soars into the sky. This remains a marvel for most passengers, even in our technologically saturated era. Yet behind this seemingly routine miracle lies an intricate ecosystem of systems, protocols, decisions, and dedicated professionals that few ever glimpse.

In this remarkable book, you hold the key to understanding the hidden architecture of commercial aviation, not merely as a technical manual but as a living portrait of an industry that connects our world. Having spent four decades navigating every level of airline operations—from the cockpit to the boardroom, from scheduling logistics to crisis management, the author brings an unparalleled perspective that few could offer.

What distinguishes this book is its holistic view. While many other books and texts focus exclusively on aircraft technology, business models, or crew issues, this comprehensive exploration reveals how these components interlock to create the global transportation network we often take for granted. The pages ahead illuminate the delicate balance between rigorous safety protocols and commercial imperatives, technological innovation and human judgement, and regulatory compliance and operational efficiency.

For the public, this book transforms the mystery of air travel into an accessible narrative that will forever change how you experience your next flight. It invites readers behind the cockpit door, showing how flights operate and why airlines make the decisions they make. It explains the evolution of business models, the impact of global events, and the delicate balance between safety, efficiency, and profitability. Readers will discover the hidden choreography that gets millions of people to their destinations each day and the challenges airlines face in an ever-changing world. Personal anecdotes and real-life examples allow for easier understanding.

Aspiring aviators and those new to the industry receive training focused on technical skills or narrow operational roles. The broader context is often missing: how every department, from scheduling to revenue management, interlocks to keep the airline running smoothly. This book fills that gap, providing the overall perspective crucial for anyone hoping to build a long-

term, impactful career in aviation. It demystifies the business side of flying, offering insights that will serve readers well as they progress in their careers.

Transitioning from operational roles to management requires a shift in mindset and a more in-depth understanding of the airline as a system. This book is an invaluable resource for those making that leap. Drawing on the author's journey from the flight deck to the boardroom, it offers practical wisdom on leadership, decision-making, and navigating the complexities of a highly regulated, competitive industry. The comprehensive approach ensures that future leaders understand not just their departments, but how every decision reverberates throughout the organization.

The airline industry is at a crossroads, shaped by deregulation, technological change, and global challenges such as pandemics and climate concerns. Success now demands adaptability, innovation, and a willingness to learn from every corner of the business. This book equips readers with the knowledge and perspective to thrive in this dynamic environment, whether new to aviation or seasoned professionals seeking fresh insights.

The credibility and depth of this book stem from the author's remarkable career trajectory. Having started as an engineer, then a pilot, and risen to executive leadership, the author brings a rare blend of operational expertise and strategic vision. I enjoyed being part of this journey for several years. I witnessed his passion and commitment to excellence in distinct roles.

Whether you are a frequent flyer curious about what happens behind the scenes, a student pilot dreaming of your first command, or an airline professional charting your path to leadership, this book will broaden your horizons and deepen your appreciation for the airline industry's complexity and significance.

Prepare to embark on a journey that reveals the industry's beating heart – and perhaps, to see the skies with new eyes.

Capt. Jacques Drappier

Exec. Vice President of Operations SABENA (ret)
Vice President Flight Operations and Training, AIRBUS (ret)

Introduction

Congratulations on your purchase of *Skywards – Managing Flight Operations*. This book delves into the knowledge required to safely operate large commercial jets as part of an airline—insights not widely published but important for successful airline operations.

This book is for everyone who wants to understand how commercial flight operations are managed: business students, airline managers, pilots, cabin crew, pilot managers, instructors, flight schools, aviation enthusiasts and passengers. It offers insights into the critical factors that drive operational efficiency, safety and success. If you plan to lead flight operations at any level, this book will provide you with the insights you need.

Chapter one is dedicated to managing crew—pilots and cabin staff—by examining what's important to them and how to address their needs. In chapter two, we'll examine the exciting aircraft acquisition process, and we will explore why airlines sometimes end up with aircraft that aren't well suited to their needs.

In chapter three, we 'll discuss maintenance, because you want to understand how the interaction between flight operations and maintenance can go right or wrong and why. Ground operations in chapter four are about what happens when the aircraft is serviced prior to departure and during turnaround. Planning and crew control, in chapter five is the heart of the airline.

In chapter six we discuss how flight operations procedures are managed and published. You'll also learn about crew operating procedures and fuel efficiency, and how these factors impact airline culture, safety, and operational excellence. The cabin crew typically has, by far, the largest number of people working for the airline. Yet managing cabin crew effectively is not straightforward. Chapter seven explains how and why.

We'll discuss safety, security and compliance, analyzing how big data is reshaping safety protocols. We'll review the latest developments in enhancing airline safety, as well as compliance, and the regulator's role.

We close with a chapter on sustainability. We review why we need commercial aviation, what its mission is; how important that is and what the sustainability issues are. I did spend many hours looking at environmental studies and policy documents worldwide, but I'll focus on the EU because they have one of the

most stringent regulations. I was honored to lead the sustainability teams in a few airlines and explain what solutions are being implemented to reach the 2050 sustainability targets. Something we, as an industry, absolutely must do.

Do you need to read this book front to back, covering all chapters? Not really. You can just read chapters of interest to you; however, you should first read chapter one about how to manage crew. Chapter one clarifies the dynamics in an airline, it explains where an airline differs from other companies. All other chapters can be read as stand-alone.

With this knowledge, you'll be equipped to improve, innovate, and implement changes to make flight operations safer, more efficient and sustainable—and you will find insights applicable far beyond the airline industry.

More controversial issues are also discussed; the goal is to provoke your thinking. Not because my point of view is right and should be echoed, but because an open discussion leads to fascinating results.

To improve ease of reading, this is how the book is formatted:

Basic principles, well known to aviation professionals, have a grey background. These boxes are the building blocks for readers that are not familiar with the subject.

> Stories and anecdotes are idented like this to quickly identify them. They may be less of an academic interest but illustrate what is being discussed with real-life examples.
>
> All stories, examples and anecdotes are real, but unless it is public knowledge, names, precise dates and other details may be altered to protect individuals, flight schools and airlines. Just like in an accident investigation, the purpose of this book is to find out how to improve, and not to judge anyone or anything.

Technical or interesting subjects that are in these boxes can be read independently. These subjects are illustrative to the point being made and provide background information.

Figure 1: Happy crew

Chapter 1: Managing Flying Crew

What is Important in an Airline?

> More than 20 years ago, on a beautiful evening, a unique event took place: the launch celebration of a start-up airline. At that time, the industry was still reeling from the impact of 9/11, with many companies facing bankruptcy.
>
> The new general manager took the stage and said: “In a few moments, we’ll reveal our first beautiful aircraft, which will soon fly our clients to wonderful destinations. But an airline isn’t just about the impressive planes, destinations, buildings, or technology. It’s about people who work for it, who maintain it, and who fly it."

Reflect on that for a moment. Let it sink in because everything else is secondary. If you take away just one lesson from this book on how to operate a successful airline, let it be that **an airline is about people**.

Before I dive into more details on what people you will be looking for, whether you’re seeking a leader, a manager, or a captain for your company, look for someone who puts **other people** first. It may sound obvious, but I’ve seen it being overlooked countless times, both inside and outside the aviation industry.

No one wants to work for a boss running a one-(wo)man show. It’s unappealing and terribly inefficient. While today’s big tech companies may seem to operate as “CEO shows,” that’s largely for public perception only—it’s easier to market, and CEOs often love the attention. But if Apple had relied solely on Steve Jobs, it wouldn’t be here today. Running an airline, like any business, requires good managers, true team players who prioritize **other** people: clients, teammates, and the company itself.

The business model of airlines varies. Airlines can have efficient operations and healthy ticket sales that generate a profit. But the total stock value of other airlines is less than parts of their business (maintenance, loyalty program, ground handling activities, …), showing that their flight operations are loss-making. Flight operations may be part of a bigger business plan that makes money. Some airlines exist not for profit from ticket sales and flight operations, but to stimulate tourism or business in their home country or region. Their primary value lies in driving economic growth and wealth. But regardless of

the broader goals, airlines strive to operate their aircraft in the most efficient way possible

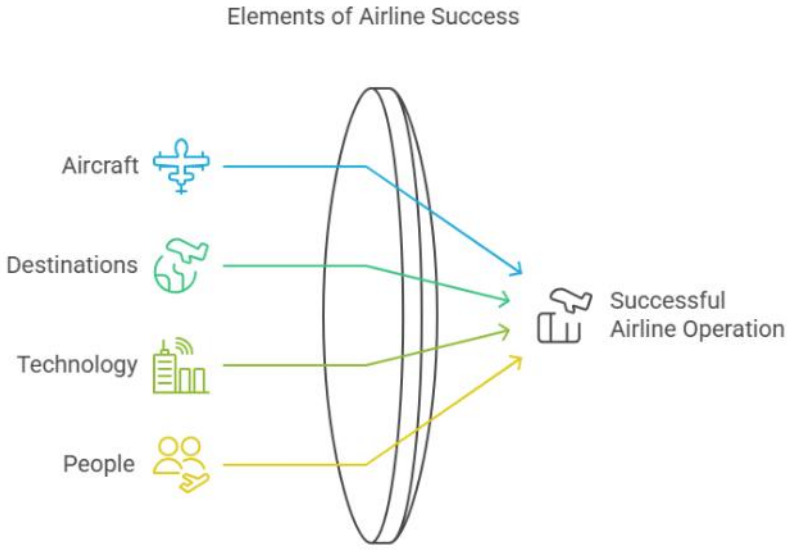

Figure 2: Airline operations

What is the Best People Strategy in an Airline?

There are many differences in how airlines operate depending on their region and market. Cultural differences are significant in aviation, where diverse backgrounds converge. What works well in the U.S. may not work in Europe, Asia, or Africa. I operated two airlines in Africa and flight schools in the USA and across Europe.

In 2020, COVID-19 devastated the airline industry, while virologists dominated the media. Many airlines in various regions laid off thousands of skilled, experienced employees in cost-cutting efforts. When the crisis subsided, airlines tried to rehire, only to find that many former employees had moved on to new opportunities outside the industry. This exodus included pilots, cabin crew, maintenance staff, and airport workers, leaving airlines and airports struggling to fill roles. It took years for the airline industry to recover,

with disruptions like flight cancellations and safety concerns due to lost experience.

Short-term thinking isn't a solution, **it's a disaster**.

Airlines, including start-ups, need a **long-term strategy** that attracts the right mix of experience, innovation, and talent with innovative ideas. This balance is essential across all departments, from flight operations to maintenance and ground operations. To succeed, an airline needs policies that retain core talent, encourage innovation, manage costs, and stay competitive with other industries as well.

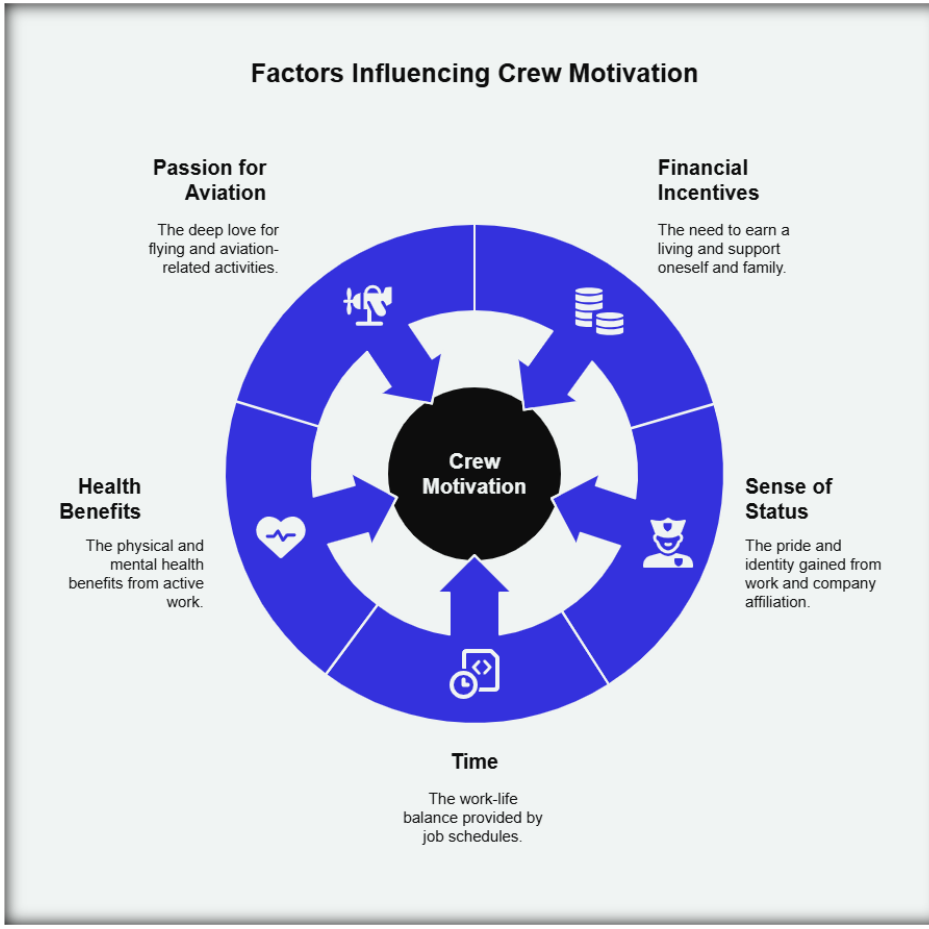

Figure 3: Crew motivation

MOTIVATE PEOPLE

As in all industries, airline managers need to understand what motivates people to come to work. There is already a score of books and complete university courses on this, but let's simplify and talk about the basics. People come to work (Burrage, 2023) for four main reasons, to which we add passion as a fifth motivator in aviation:

1. **Money**: Many people work to earn a living, pay bills, and support themselves and their families. Mind you, a small minority doesn't need the money, but most want more of it.

2. **Status**: Work can give a sense of purpose, identity, and pride. It's important to feel respected and valued for what you do. The company name and fame and the crew uniform play a key role in this. But also training and possibilities to upgrade.

3. **Time**: Some people work because it brings structure and routine to their day. A job gives them a way to spend their time meaningfully. Time spent at work cannot be spent with family and friends, the work-life balance is crucial from this point of view. Crew has variable work schedules and last-minute changes to their work schedule. That variability and uncertainty is not their choice; it is a burden that they are willing to take to live as a crew member. Airlines manage crew time with a crew rostering system.

4. **Health**: Working can benefit both physical and mental health. It keeps the mind active, the body moving, and provides social connections. The schedule and the associated lifestyle should be healthy. Compared to other employees, crews have much stricter health and fitness criteria to exercise their duties. For most of them, that is a concern.

5. **Passion** for flying. Crew members, pilots and cabin crew, have a strong passion for flying. This passion often starts early in life, perhaps with a childhood fascination with aircraft, airports, or travel. For many pilots, the idea of controlling an aircraft and experiencing the freedom and responsibility of flight is deeply satisfying. Cabin crew members also share this enthusiasm for aviation, as it offers them the chance to travel, meet people from various cultures, and handle challenging situations in a unique, dynamic environment.

Each person might have a different mix of these reasons, but most people work for a combination of money, status, time, health and passion.

The Limits of Airline Standardization

Each role in an airline is unique and needs a different approach. Managing flight crew (pilots and cabin crew) is quite different from managing 9-to-5 office staff. Crew members have unique schedules, needs, expectations and communication channels. Treating pilots like office staff can put the airline at risk.

Some airlines ignore these differences and "standardize" their approach.

> One airline, for example, conducted an annual survey to understand employee concerns, gather feedback, and assess leadership. The survey had good intentions and aimed to help the company learn and improve.
>
> But there was a major flaw: the survey was "standardized" with the same questions for every role—office staff, maintenance teams, ground operations, cabin crew, and pilots alike—to make results "easier to measure." The flawed mantra being "*We all work for the same company*."
>
> The questions did not make sense from a crew member's perspective. For instance, "How do you rate your manager?" left crew members confused. Who is my manager? Is it the senior purser, the flight commander, the chief pilot, my line manager, the head of cabin, or the director of flight operations? The questions were never clarified (some could not be clarified), leaving the crew puzzled about who or what was being rated.
>
> The timing was insensitive. The survey coincided with the end of many "temporary contracts" for crew members at the close of the summer season. How would someone about to lose their job feel about the company? Did anyone really need a survey to figure that out? An "exit poll," asking employees that are leaving the company what they think, is extremely useful, but that is an entirely different thing.

Figure 4: The company survey

This survey had to be filled out online. But during their work, the crew is not online.

Very quickly, the survey became a joke. For the crew, it was an annual reminder of managements disconnect.

The flawed results were presented to top management and then turned into "company policy." Mid-level managers were assigned "improvement targets" based on inaccurate data. These targets were impossible to meet. Mid-management, unfairly blamed for "not meeting targets," had no real choice but to ignore the results.

This led to hours of laughter among crew members as the policy repeatedly collapsed.

A successful airline needs a policy that considers the distinct reasons employees come to work, based on their passion, money, status, time, and health. Smaller airlines can address employees very specifically and should do so. Large airlines must work in a more generic way. KLM for example, a big player, regularly manages to come out on top in European Cockpit Association surveys (pilot representatives) as the most attractive airline to work for. They do so by cooperating with their unions and investing in systems and procedures (such as scheduling and part-time contracts) that matter most to the crew.

“Putting people first” should not be a slogan; it should mean genuinely understanding and meeting employees’ needs as the airline grows over the long term. To do this well, we need to explore these needs in greater detail. “Ignoring the differences” is not an acceptable policy.

The Need for a Transparent Crew Career Plan

A clear, transparent career plan (Burrage, 2023) is essential in managing crew. Since a pilot’s career is generally longer and more complex than that of cabin crew, I’ll focus on a typical pilot’s career. This can be adapted for cabin crew.

From an employee’s perspective, considering motivations like money, status, time, health and passion—it’s crucial to see how they can improve all of these motivators through their career. If they perceive flaws in the career plan that impact one or more of these areas, it risks creating a highly unmotivated employee, not just for a day but for their entire career.

This concept isn’t complicated, yet, looking at industry practices, it seems challenging to implement effectively.

When discussing pilot promotions with people outside the airline industry, most suggest a “performance-based” career plan, where employees advance faster if they better serve the company’s goals. A few airlines have tried this approach, but it typically fails. Pilots often find performance-based systems “unfair,” “unclear,” or “manipulated,” leading most of the crew to become highly unmotivated.

> A new start-up airline had contracts lined up, but no clear crew policy, no plan for managing training needs, and no strategy for attracting and retaining talent beyond promises of a good salary and schedule. Without a thoughtful, innovative approach to crew management and career planning, even a new airline risks falling into the same inefficiencies that hold back legacy carriers—ultimately threatening long-term success.

Where’s the innovation? How will you set yourself apart from competitors in managing people? What’s your strategy for attracting top talent, building the best crew concepts, and delivering exceptional service at the lowest cost? These are critical questions to address, and I’ll explore them further.

With crew costs making up about 10-15% of the operational costs, getting this right is essential.

SENIORITY BASED CAREER PLAN

Pilot careers typically progress based on seniority (ATP Flight School, 2025) and a bidding system. Seniority based on entry date severely limits mobility across airlines. This system, combined with strict scheduling rules, reduces productivity, as pilots will be tied in training schedules and spend less hours flying with clients. Pay (and career) is often based on aircraft size: the bigger the plane, the higher the pay. Workload however varies widely—flying short sectors on a narrow-body aircraft like an A320 or B737 is more intense than a single leg sector on a larger aircraft like an A350 or B787. Jet lag, associated with long haul operations, can be hard on the body (health) and the effects typically worsen with age.

Promotion through bidding creates a "training domino effect." When a senior pilot on a wide-body jet retires, it requires a series of replacements, each needing 2-3 months of training.

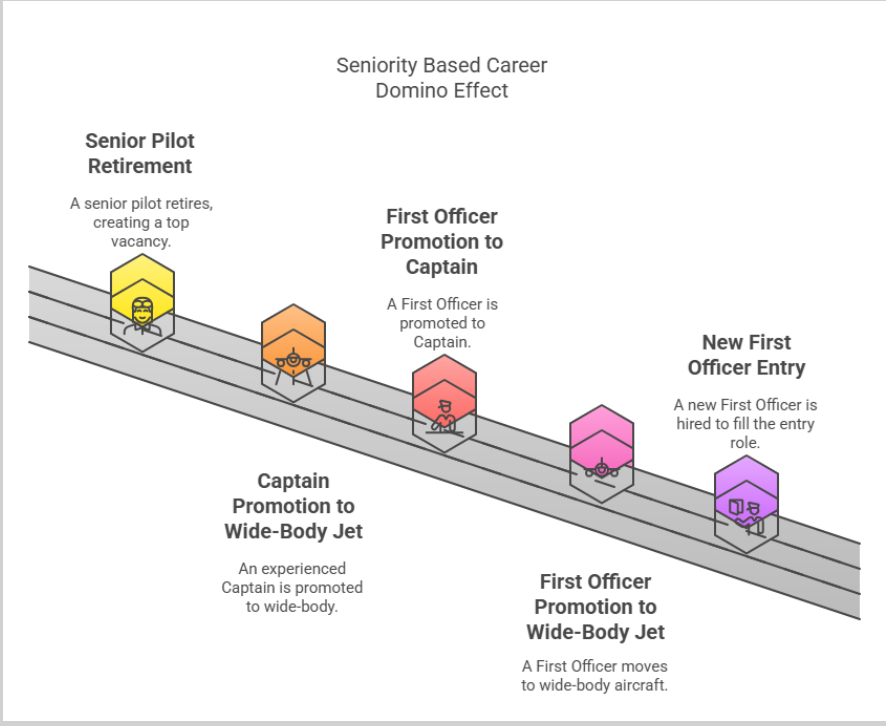

Figure 5: Seniority based pilot career

Because the bidding/seniority system will require the senior pilot replacement pilot to be trained, the replacement of the replacement pilot, the replacement of the replacement of the replacement pilot and the replacement of the replacement of the replacement of the replacement pilot. Which sounds crazy because it is. And to have continuity, you must train that last pilot first, starting about a year before the senior pilot retires. Good luck with that.

This timeline applies to airlines with only two aircraft types. Adding more aircraft types, complex rules, and multiple bases makes the system increasingly difficult to manage within the time and cost constraints of a fast-paced commercial market.

Each training cycle costs tens of thousands of dollars and disrupts staffing. This system complicates efforts to maintain the right number of pilots for each aircraft and base, leaving airlines to struggle with predicting staffing needs beyond the upcoming season (airlines typically operate on a 6-month cycle). There's a high chance of having the wrong pilots in the wrong locations at the wrong times.

Airlines use long-term plans, but as events like COVID-19, geopolitical crises, and market shifts show, flexibility is better than rigid five-year plans. A customer-focused, flexible airline can respond quickly to changing needs, reschedule flights, and pivot to new markets on short notice. However, the "training domino" makes this difficult, often leading to costly downtime for both planes and pilots.

To improve flexibility, management and unions can negotiate relief from the seniority system, hiring direct-entry pilots temporarily (or allow other deviations from the career plan). These negotiations typically start after the commercial contracts for a new fleet or route have already been signed, placing management in an extremely poor negotiating position. Due to the power of a pilot union, most airline management teams will find themselves then with the back against the wall.

It is better to have all negotiations regarding these deviations completed prior to signing a contract expanding the fleet or route network. If not, the numbers in the business case may not add up. Airlines may even face an idling new fleet if an agreement with their pilots is not reached in time on how these shiny new aircraft will be operated.

Pilot Unions

Unions negotiate according to their culture, anchored to the headquarters or home bases of the airline. As culture differs around the world, the airline industry is not a level playing field.

Pilot unions in regions like the US, EU (and beyond) are well-organized. Often, they are better organized and informed than airline management on specific topics such as pilot work and rest schedules, pay, promotions, and career planning.

Pilot unions dedicate more time and effort to issues affecting pilot productivity and costs. Managers, meanwhile, must keep a broader, general view. Rules about duty and rest periods are complicated, with large airlines managing hundreds of scheduling rules. For instance, Lufthansa had over 1,500 scheduling rules in 2024. Understanding how changes affect operations is a major challenge.

A union with thousands of pilots has experts who deeply understand how the rules impact pilots' daily lives. Airline management relies on scheduling teams and data specialists for similar insights. During negotiations, the side with better information can influence changes without the other side noticing. Mistakes in scheduling changes during negotiations can result in budget errors costing millions of dollars (or Euros). Airlines faced with such complexities should use AI to manage these rules.

Successful management-union collaboration can avoid these issues. Maintaining a good relationship between management and unions is essential.

> One airline ordered over 50 wide-body jets and carefully planned pilot training to match the delivery schedule. The plan was perfect until the aircraft manufacturer missed delivery dates, causing significant disruptions. Effective communication between management and pilots proved essential to handle the resulting operational and training chaos.

PILOT UNION DEMOCRACY

In a pilot union, democracy works through voting by the union members. Critical issues are presented to all pilots, who then vote to decide. Decisions might involve changes in working conditions, salary scales, or retirement ages. The union leadership organizes the voting process and ensures members understand what they are voting about.

Optimizing voting systems in pilot unions means making sure all pilots can easily participate. Voting can be done electronically or by traditional methods such as paper ballots, depending on what is most accessible to union members. Clear and detailed explanations of each issue should be provided before voting. For instance, if the union considers changing the rules for rest periods, pilots need to fully understand the current rules, the proposed changes, and the potential impact of those changes on their work and lifestyle.

Voting outcomes should reflect the views of most members (majority rule), but this can lead to decisions that disadvantage minority groups. Minorities in pilot unions could include younger or older pilots, pilots of certain fleets, or groups with different career paths or interests.

To protect minorities, pilot unions need clear rules and systems that prevent unfair treatment. For example, establishing safeguards where certain fundamental rights cannot be changed by a simple majority helps. Another method is proportional representation within union committees. This allows smaller groups within the pilot community to have representation and ensures their concerns are addressed.

It is important to protect minority interests in pilot unions because it maintains fairness and unity among members. If minorities feel ignored or treated unfairly, this can lead to divisions within the union. Conflicts within a union cause dissatisfaction and mistrust, impacting on pilot morale and ultimately flight safety.

Pilot unions do not always protect minority interests, and these organizations may have flaws, putting other interests above those of their members.

Non-unionized airlines have advantages from a management perspective. However, airline employees, especially pilots, are very mobile. Even non-union airlines must treat their pilots well or risk losing them when pilots become scarce. Having planes and passengers but no pilots is extremely costly.

Crew management is challenging because misunderstandings between management and unions can create unrealistic expectations. Pilot unions have considerable power, though this varies by country and culture. A pilot strike

grounds the airline and costs a fortune, giving unions a high degree of control over the airline. A fact many airline managers don't really like, to say the least.

Some negotiators may have hidden agendas, aiming for negotiations to fail. In severe cases, changing the negotiation team may be necessary. Investing in good relationships between management and unions always pays off. A poor relationship with pilot unions has led to the downfall of more than one airline.

Management pilots and union representatives share many similarities; they come out of what could be labelled as "*the same pool of pilots*." Both are willing to dedicate many hours outside the cockpit, working at home or in hotels while colleagues relax. Their motivation comes from passion and ambitions beyond flying. In many cases, both are underpaid for the extra work they do. Those individuals may switch sides between union and management when career opportunities arise, surprising their colleagues. But such role reversals are quite common in airlines.

Managing staff pilots[1] is a crucial factor in how union relationships will turn out to be. While the union supervises the career planning of the standard pilots, once a pilot becomes instructor, fleet manager or flight operations director, that part of the person's career is usually managed by airline management outside an agreed career plan. Although there are airlines where becoming an instructor is managed by seniority rules, I still must find the first person who was happy with that. Including the instructors themselves.

The interaction with staff pilots is important. It can be that a person wants to become "Fleet manager" for example, fails the application but becomes the main negotiator for the union afterwards. If (s)he took up the union function out of frustration, which is possible, this will cause havoc at the negotiating table.

[1] A staff pilot is a licensed pilot employed by an airline or training organization who performs non-flying duties such as instruction, supervision, or administrative tasks related to flight operations.

Figure 6: Pilot vote

A lead union negotiator can become the director of flight operations or head of cabin crew. A mistreated chief pilot or manager can become the lead negotiator for the union. Managing the entry- and exit- path for staff pilots correctly is then key to avoid blockage during union negotiations. Airlines should keep an eye on pilots who are willing to work hard outside the cockpit and manage them by offering interesting opportunities.

Recently, ALPA, the largest pilot union in America, voted on whether to change the maximum age limit for pilots. At that time, there was a shortage of experienced pilots and instructors. Medical technology could already accurately detect age-related health issues that might affect pilot performance. Given these facts, an arbitrary age limit, such as the current one of 65 years, was unnecessary.

> Despite having no scientific basis, the union voted against changing the age limit. Most younger pilots supported keeping the limit because they wanted more senior pilots to retire. This allowed all younger pilots to move up faster in their careers and take the senior pilots' money and positions. This at a much faster rate than usual, creating pilot shortages and safety concerns.

Innovation

Innovation in crew management focuses on using recent technologies to enhance training, scheduling, and promotion. Artificial intelligence (AI) plays a leading role in future crew management systems (IBS Software, 2025). It enables the creation of schedules, training plans, and career paths tailored to crew members' financial, status, passion, time, and health needs, even for large airlines. By analyzing available data, AI can refine and optimize these processes.

Traditional seniority-based systems require crew members to follow a rigid step-by-step promotion structure, increasing costs at each level. Many crew members may not even be interested in these intermediate steps. Skipping a step, when possible, often results in a loss of money and status. Most seniority systems lead to additional costs, as they prioritize status and tenure over efficiency and flexibility. The solution is to add flexible temporary pilot assignment/hiring to the seniority-based system to create the required short-term flexibility that commercial planning teams need to cater for market demand.

Airline cost leadership requires a long-term strategy. A start-up may benefit from lower initial crew costs, but adapting the seniority system with individualized career paths is essential for managing training and progression efficiently. The key is to avoid designing a system that inflates airline crew costs over time. Eliminating seniority-based pay structures can help control long-term operational expenses, ensuring financial sustainability over decades.

Merit-based pay-schemes, as mentioned before, failed up to today in airline companies. A transparent system offering equal opportunities, in pilot language, is based on seniority. A pay scheme based on flexibility is something that most pilot communities will accept, but only if access to extra flexibility is well organized, pilot choice is involved, and if it is perceived as fair.

Investing in training ensures that crew members understand everything for safe operation. Good training is worth money, pilots know that. Good preparation allows them to carry out their tasks with confidence every day. Well-prepared, passionate pilots experience satisfaction in their roles, knowing they have received training that exceeds industry standards.

Command upgrade training is a key part of a pilot's career. It grants the title of Captain but also develops leadership skills. The training focuses on how the company expects captains to manage their responsibilities and represent the organization. At the beginning, many candidates find the process difficult and demanding. It requires effort and determination. However, by the end of the training, as they are passionate about their job, they appreciate the progress they have made. If a company structures a command upgrade in a modern, broad and engaging manner, pilots will recognize how much they have improved and how well the training has prepared them for their new role.

Pilots should be able to operate multiple aircraft types within an airline that has a diverse fleet. That creates flexibility. Regulations that once restricted this practice were eliminated years ago, yet many airlines still do not fully utilize this flexibility. Flexibility is crucial because disruptions are inevitable during fleet changes or growth phases. If pilots are not qualified to fly other aircraft, they may be left inactive. To prevent this, airlines must implement multi-type flying, also known as mixed fleet flying (MFF). Even if MFF is not always in use, having the system in place ensures that pilots remain operational. When sourcing aircraft from a single manufacturer, MFF can be integrated using the manufacturers procedures. MFF between Boeing and Airbus aircraft types, for example, is much more complex, has a different risk analysis and may not be worthwhile.

> We created MFF between the Embraer E1/E2 fleet and the Boeing fleet (B737 and B787), operating safely and efficiently for many years. We have proven that it is possible and safe, it is uncommon in the airline industry, however.

For long-term success, start-ups should plan for economies of scale, making a growth strategy essential. Vertical integration reduces dependence on third-party providers such as tour operators, hotel chains, maintenance firms, parts suppliers, airport infrastructure, ground handling, and commercial platforms. In terms of crew, owning or partnering with an ab initio pilot and cabin crew training program guarantees a steady pipeline of skilled personnel.

Continuous innovation in crew policies and management systems is critical for long-term sustainability. This approach enables the airline to develop new business models as it expands into different markets.

Regulatory and social considerations play a key role in crew management. The airline must convince regulators that operations are safe and, in many jurisdictions, also compliant with ethical guidelines. Working with policymakers to shape regulations that align with the airline's vision should be part of daily business. Only then can an airline build a lasting competitive advantage.

The Grey Zone and Level Playing Field

Some airlines push "innovation" in people policies into a legal grey area. I will not name specific cases (to avoid potential lawsuits), but if you look at ongoing legal proceedings in the EU and beyond related to "tax and social security" regulations, you'll see a pattern. For instance, flying routes between Asia and Europe become cheaper if crew are based in Asia. Some may call this tactic "innovation," but many strategies that work well in other industries are restricted or off-limits in aviation.

Just as in the maritime business, some small countries operate large shipping fleets because it's cheaper under their "flags," the same principle applies in aviation.

Airlines try to avoid high tax rates and social costs in certain countries. Authorities typically link these rates and costs to the airline's crew base or headquarters, which can result in substantial benefits. Contrary to other businesses, traffic rights in aviation are also linked to the location of the headquarters of the airline. To be authorized to fly certain city pairs, the home base of the airline must be in specific countries.

It's important to understand that aviation is not a "level playing field" when it comes to these regulations.

Multiple Airlines under the same “Umbrella”?

Consider a scenario where most of the flights are linked to Europe. One option might be to create multiple AOCs (Aircraft Operator Certificates—essentially separate airlines) (Kruger, 2025) under the same brand, based in countries with lower costs. While this can work, running multiple AOCs also comes with added expenses.

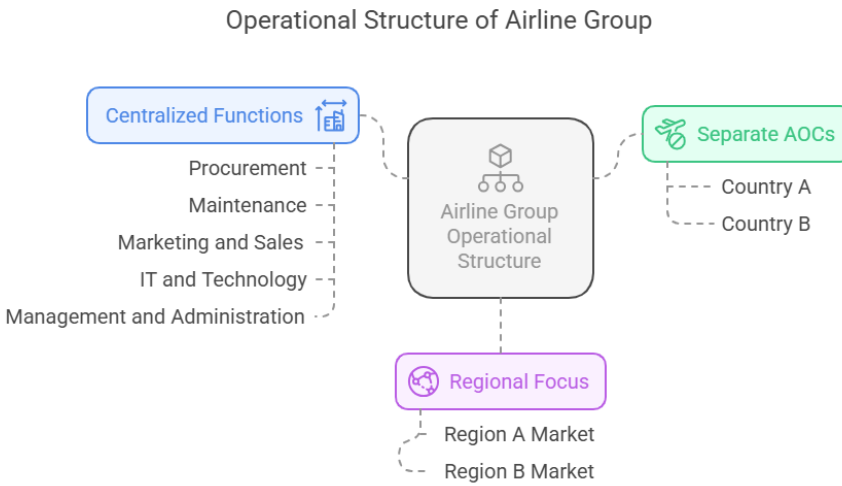

Figure 7: Airline Group Structure

In aviation, many costs are sensitive to the airline’s scale: the smaller the airline, the higher the seat-mile costs (or the lower the profit margin). You might try to achieve scale by combining multiple airlines with shared contracts (for ground handling, maintenance, aircraft leases, etc.), but this isn’t as simple as it sounds.

Starting a new AOC under the same brand works well initially—until differences emerge, gradually reducing the cost-effectiveness of the setup. The impact depends on the scale; small to medium-sized airlines are better off avoiding multiple AOCs.

Multiple AOCs come with unique challenges. There are efficient ways to manage these, but I rarely see these applied successfully in the airline industry. In fact, I’m more often asked to help merge existing AOCs for flight operations and crew training. Managing a merger is complex and can be done in hugely diverse ways. It should be well prepared and, once communicated, swift and

decisive with a balanced package to motivate the participants, using one or more of the five motivators.

Even 20 years after a merger, some employees still identify more with one of the regional companies rather than the merged group entity, which isn't ideal. Successful mergers require more than a financial incentive to the shareholders; they need a compelling vision and a strong narrative for the employees too. If the merged company can offer an exciting vision and communicates it well, it's possible to create a win. I've seen it done twice, but in both cases, we had to create a new, more appealing company culture without increasing costs.

Unfortunately, many managers consider mergers only during tough times when the merged entities are shrinking. Add poor people management, delayed or insufficient communication, and it's a recipe for disaster. Even if the merger is technically successful, many years later, the crew might still remember it negatively.

Mergers might attempt to cut costs by offering crew less money, less time, lower perceived status, no passion for aviation and increased stress—all motivators damaged at once! That's not just a challenge—it's the perfect formula for demotivation. Throughout my career, I've seen great ideas from charismatic CEOs fail completely because they broke that fundamental rule.

> A focus on short-term financial results is an important business risk in aviation. Also for big manufacturers: Boeing for example faces many problems in the 2020's. While technical problems were an important part of this, many insiders pointed to the Boeing-McDonnell Douglas merger as the true cause. That merger marked a shift at Boeing from an "engineering-focused" culture to a "financial-focused" one. Short-term financial goals don't align with the long-term investments needed in engineering, which may or may not pay off in an uncertain future.

The same principle applies to airlines. Safety can be compromised during a merger if the focus is diverted away from it towards short-term financial results.

How to Develop People Policy in an Airline

Cultural differences are important, so an airline's people policy should be tailored to its country and region. This policy must be both innovative and cost-effective. For airlines with global operations, cultural values, costs, and

innovation should reflect what is feasible at the home base. Choosing the right home base is essential, as the airline industry is **not** a level playing field.

It is wise to develop a long-term plan that supports sustainable growth, especially if you envision operating multiple aircraft types across multiple bases. While many low-cost carriers operate a single aircraft type within a limited region, almost all eventually aim to expand into the long-haul market when the opportunity arises.

> Over two decades ago, Hainan Airlines received its first long-haul wide-body aircraft—a leased B767-300. I witnessed first-hand that this was a major event for them because it marked their entry into global operations.

Expanding to a long-haul, wide-body fleet transforms the "core character" of an airline, and it is crucial to plan for this from the outset. If you expand the airline without this foresight, you risk repeating the same mistakes others have made, such as struggling with training complexities (the "training domino") that have led many to fail. If you wait until long-haul operations begin to draw a people policy—especially in Western markets—crew will likely demand you follow the established path, including adopting rigid "industry standards" and managing training challenges. At that point, you may have no choice but to implement these difficult practices, even if they prove unflexible.

Presenting a clear career path and solutions to complex issues upfront, even before a crew member signs the contract, transforms the airline's dynamic. It shows that you genuinely care about people.

The Importance of Experience Levels

> I was the flight operations director during a challenging situation on one dark and stormy night. An experienced crew was flying into a secondary airfield in the mountainous region of Türkiye. This was years before GPS spoofing (Okta, 2024) became a common problem for commercial jets, but even then, the route between Brussels and Eskisehir had already seen a few such incidents.

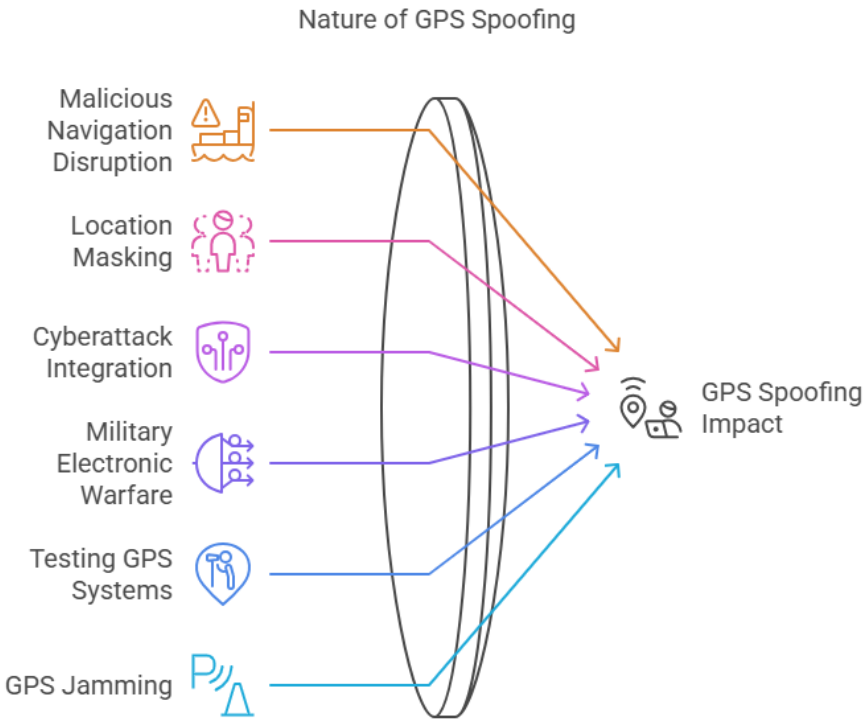

Figure 8: GPS Spoofing

GPS Spoofing

GPS spoofing is a form of cyber-attack where fake GPS signals are broadcasted to deceive GPS receivers. The aim is to make these receivers think they are at a different location than their actual one or disrupt their ability to track their position correctly. GPS spoofing can affect many systems that rely on GPS signals, such as aircraft navigation, ship routing, and car navigation systems.

This type of attack works by sending stronger false signals that overpower the real GPS signals. As a result, the GPS receiver begins to follow the fake signals, causing it to give incorrect information about its location, speed, or direction. For instance, an aircraft relying on GPS navigation could be tricked into thinking it is flying along the correct path while it deviates,

potentially leading to dangerous situations like collisions or entering restricted airspace.

When drones or unmanned aerial vehicles (UAVs) rely on GPS signals for guidance and control, spoofing attacks can redirect a drone away from its intended flight path, leading it into an unsafe area or causing it to crash.

GPS spoofing has become a growing concern for critical infrastructure, such as power grids and communication networks, as these rely heavily on accurate timing from GPS signals for synchronization. Spoofing attacks can cause significant disruptions, such as power outages or communication breakdowns.

To counteract GPS spoofing, systems can include anti-spoofing technologies. This may involve cross-checking GPS data with other navigational aids, using encrypted or authenticated signals, or employing receiver algorithms that detect anomalies in the GPS signals. For aviation, backup systems such as inertial navigation systems (INS) and ground-based navigational aids provide redundancy.

Recognizing and responding to GPS spoofing quickly is essential for maintaining safety.

We had procedures in place to deal with these issues, relying on "raw data" from ground-based navigational aids. However, using raw data is a more complicated procedure. It makes it harder for pilots to maintain situational awareness. The runway was difficult to locate in poor weather. Additionally, our fleet was performance-limited during a potential go-around, barely meeting the required limits to clear terrain in case of an engine failure during the approach.

Eskisehir Hasan Polatkan Airport (Eskişehir Teknik Üniversitesi, 2025), being also a military airfield, posed additional challenges. Air traffic control staff were less familiar with civil aviation procedures. If a squadron of fighters were coming in to land, commercial flights had to wait in holding patterns because these fighters often returned with little fuel. On this night, our crew received last-minute holding instructions and incomplete weather updates. They couldn't hear the fighter jets, as those aircraft used different radio frequencies. Frustrated, the crew believed air

> traffic control was incompetent since "no one" appeared to be landing. While an entire squadron of fighters were just below them coming to land.
>
> After several loops over the airfield (holding), the captain, a highly experienced Boeing B737 pilot, decided to abort the flight and divert to a larger civil airport nearby. While this was a safe decision, it caused significant disruptions for our clients.
>
> During a debrief with the crew, I realized they had never encountered these challenges before. They had no experience with GPS spoofing, raw data approaches, military prioritization, difficult terrain, limited civil infrastructure, or military style weather reports. Individually, these issues might not be important for a well-trained crew, but together, they created a complex situation.
>
> I asked the captain when he had last flown to a military airport with limited civil facilities. He stated that, in his 30-year career, he never had. I thanked him for his decision to divert, as it was likely one of the best options.
>
> The fault, however, was entirely mine. Although it was technically compliant to assign this crew to such an airport, I had violated my personal rule of never scheduling a crew to a secondary airport unless they had sufficient experience with similar routes and facilities. Flying into London Heathrow is not the same as flying into Eskisehir.

Route structure plays a critical role in pilot readiness. Large flag carriers typically operate flights to major airports in cities like New York, London, Dubai and Tokyo, where infrastructure and support are robust. Other airlines often focus on secondary airports, where support is minimal. Pilots at these smaller airports face more decisions during flights and turnarounds, often with incomplete information. This demands a different mindset. To ensure safety, an airline's culture, experience, and training must reflect these differences.

To operate safely and efficiently, you need to maintain a balanced experience level within your crew. This means aiming for a mix of one-third highly experienced, one-third moderately experienced, and one-third less experienced crew members on each fleet (where a fleet is one or more aircraft types/variants operated concurrently by the crew).

If your crew's experience level differs significantly from this ideal balance, additional measures are required to manage the risks, beyond what regulations require. Global regulators often overlook the impact of experience on an airline's risk profile, assuming the age of an airline reflects the experience of its personnel.

An airline with a long history but a new management team might lack experience. Well-established airlines do make "beginner" mistakes. Experience-related risks must be managed proactively, regardless of an airline's age or reputation.

Figure 9: Crew Skill and Experience Levels

I'd rather fly with an airline that prioritizes rigorous training standards and maintains a strong experience mix in maintenance and flight operations—regardless of the airline's longevity.

Training standards are so critical that they will be a dedicated focus in the next volume of "Skywards." For now, it's important to understand that "minimum legal training standards" are insufficient to operate safely, though many believe otherwise.

Too much experience can be equally risky. Taking two highly experienced instructors flying together—they may become complacent, putting safety at risk. Overconfidence can lead to neglecting vital cross-checks in favor of assumed "trust," creating a dangerous environment. During my four decades in aviation, I've seen highly skilled pilots make the gravest mistakes due to over-reliance on the other pilot's abilities. Everyone makes mistakes. In the flight deck, this means that a strict and unforgiving cross-check is necessary.

I also observed a manager from a "low-experience airline" struggle to apply the same management principles to a team of seasoned pilots. Experienced crews, prone to complacency, don't need detailed instructions on routine tasks, like *lowering the landing gear five nautical miles from touchdown*. Such micromanagement can be insulting, reinforcing the notion among pilots that management lacks understanding. Most pilots are skeptical of management's expertise anyway, so there's no need to confirm their suspicions.

Crew Pay Scheme and Scheduling

The crew pay scheme is one of the most critical elements. The objective is to match crew pay with what clients are willing to pay for a particular service. In simple terms, if a crew member generates more revenue for the company, their pay could increase accordingly—and vice versa.

This concept is widely used in fields like marketing and sales, where employees are compensated based on the value they bring to the business. However, in the airline industry, with variable ticket prices and yield management[2], this is not realistic.

Airlines do offer additional pay for crew flexibility (such as late roster changes or adjusting day-off schedules), but these "flexibility schemes" are often outdated and costly, which hinder the business's efficiency.

[2] Airline yield management is a pricing strategy that involves dynamically adjusting fares based on predicted demand and available capacity to maximize revenue for each flight.

THE SCHEDULING SYSTEM

An airline crew scheduling system is a sophisticated tool used to assign pilots and cabin crew to flights while adhering to regulatory requirements, operational needs, and crew preferences. This system must account for several factors, such as legal duty hours, rest requirements, and qualifications for specific aircraft and routes.

It automates the process of building rosters that ensure adequate staffing across all flights and minimizes disruptions from factors like weather delays or maintenance issues. The scheduling system balances efficiency with compliance to provide optimal crew use.

Crew scheduling systems often incorporate crew preferences. Crew members can submit preferences for routes, days off, or specific trips, which the system considers based on seniority and availability.

In the event of last-minute changes or unplanned absences, the system can quickly reassign the standby crew to maintain schedules, avoiding delays. By integrating automation with flexibility, crew scheduling systems aim to keep flight operations running smoothly while supporting crew well-being and regulatory compliance.

To create a successful crew pay scheme, an understanding of market dynamics is helpful. In the airline industry, the "market" refers to the connection between two cities, known as a "city pair." Each city pair represents a specific route that airlines operate to serve passengers traveling between those two locations. For example, New York to London is a city pair, just like Paris to Tokyo. Each pair has its own demand, competition, and pricing (read: yield management), which airlines monitor closely to determine flight schedules, aircraft allocation, and pricing strategies.

Since pilots fly multiple routes (or “city pairs”), creating a pay scheme based on these markets would not be transparent and overly complex. Instead, a more practical approach is to use a pay model that averages out the differences, making the system simpler and manageable.

From the crew’s perspective, the pay and scheduling scheme needs to consider various levels of flexibility. For simplicity, the best model is dividing crew members into three main types based on their flexibility needs:

1. Highly Flexible Crew: Less experienced crew members often like flying frequently and don’t mind limited advance notice for planning personal time.

Many will happily work in a scheme that reflects this lifestyle. By paying them above the market baseline to compensate for the extra flexibility, you can achieve a winning combination.

2. Least Flexible Crew: Crew members with family commitments or other obligations outside the airline need a predictable schedule. They are the least flexible and often struggle to balance an uncertain roster with the rest of their life. Although sometimes labeled "unmotivated" or "unfit," this is far from true. Many are excellent, dedicated crew members with valid constraints. Paying these individuals less due to their reduced flexibility is a reasonable approach.

3. Partially Flexible Crew: Part-time or semi-flexible crew members want planned time off well in advance and don't want to be called in during those periods. They value a healthy work-life balance and are willing to accept a simplified roster. What flights you schedule during their work time, typically bothers them less.

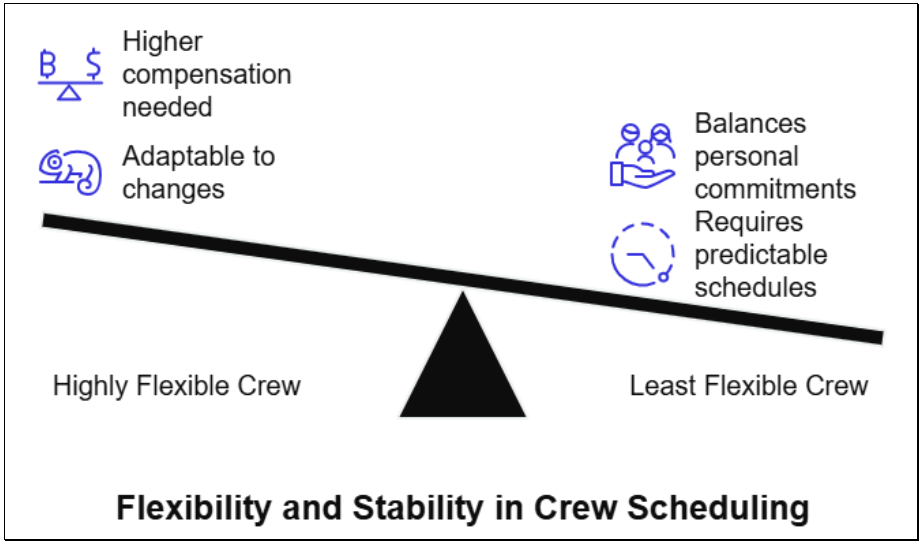

Figure 10: Balancing crew flexibility

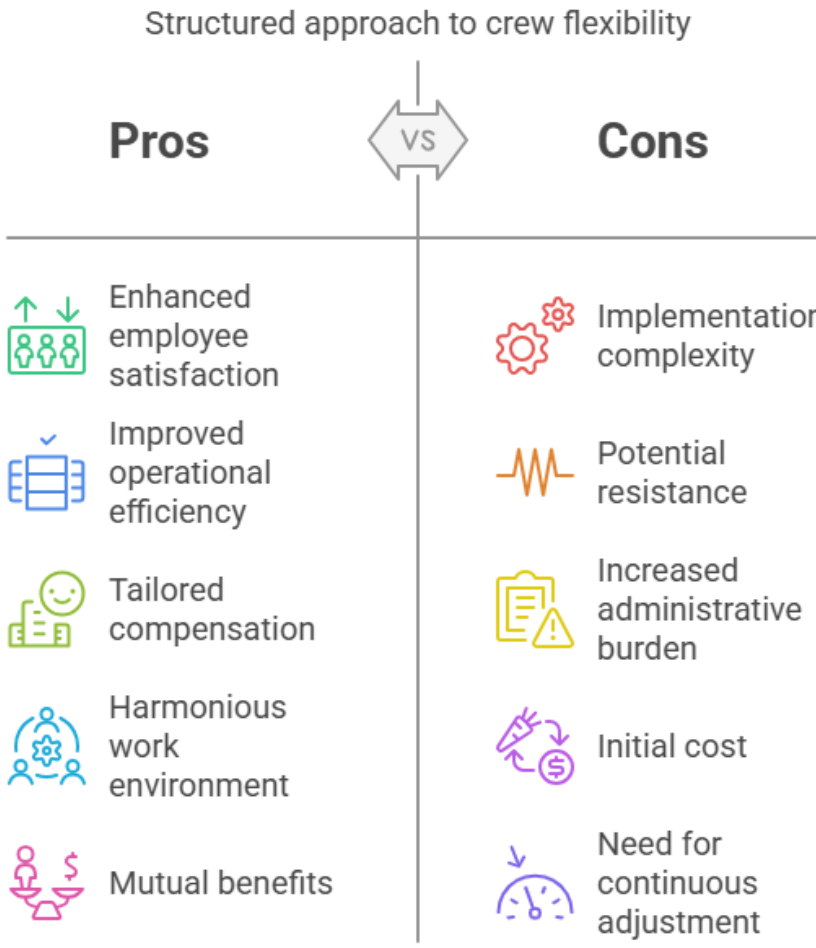

Figure 11: Crew Flexibility

You could increase granularity in the scheduling system, but if your scheduling system caters well to these three basic types, you'll find that overall crew costs decrease because employees are often willing to trade some income for a better quality of life (time). It cannot be overstated that a balance of passion, money, time, health, and status drives their commitment to work.

In an ideal scenario, you want to hire high-quality crew affordably. The best way to do that is to offer status, time, passion and health benefits. Otherwise, you'll end up paying more for less talented and less motivated staff. Most airlines don't operate in an ideal scenario.

The crew policy should allow crew members to select their rostering system based on their phase of life. Early in their career, crew members may opt for maximum flexibility. As they start a family, they probably require a stable schedule, shifting back to partial flexibility later in their career.

Motivated by their passion for aviation, pilots may want to switch back to maximum flexibility within five years of retirement, relishing the chance to fly more before their career ends. It may also be their spouse who encourages them to take on more flights, not always for the right reasons… 😉.

Management pilots, those involved in training and operations, can present another scenario. As they are near retirement, they may prefer to fly full-time again, putting their management duties aside. I saw a couple of times that their bosses underestimated their passion for flying, couldn't fully understand it and in one case didn't even believe it. No action was taken and when the experienced pilot manager left the desk to go full-time flying, no one was ready to take over his responsibilities.

While a 1/3 split of less experienced, experienced, and highly experienced crew maintains system stability, outliers with specific rostering needs may arise. I would recommend managing these crew members within the "partly flexible" group. Special arrangements, while beneficial, can sometimes create jealousy, so transparency is crucial to maintaining fairness.

Most airlines shy away from accommodating specific crew needs, but if done right, it fosters a highly motivated, loyal workforce.

> Anyone passionate about aviation gets excited hearing a Merlin engine roar from a Spitfire or P-51 Mustang. We had a captain deeply involved in the airshow business, maintaining, and flying these historic planes as mechanic and pilot instructor.
>
> Airshows peak during the summer, the busiest flying season, but the airline granted him leave for airshows. While not ideal for the airline, it paid off. Outside the days of the airshows, he flew with pride as a captain. On many of these flights, he inspired young colleagues for hours during cruise with stories of aviation history and shared his passion for it. What is being said on the flight deck during the hours of cruise is important to an airline. Filling it with passion for aviation is a smart thing to do.

Crew pay still relies heavily on seniority in an airline. Let me challenge you to show that a senior pilot consistently adds more client value than a less senior colleague. Aside from extreme cases, the difference in client value is probably zero. A crew pay scheme linked to seniority increases crew costs when the airline ages, making the airline less attractive to investors. A reality many pilots tend to deny. It requires skillful stakeholder management and excellent communication with pilots to navigate this paradox.

Larger aircraft command higher pay even though workload is often less on long-haul flights than on multi-sector days flying smaller aircraft. In that sense, the airline industry is paying more for … a lower workload.

Here's what can be done:

1. Crew pay schemes should better reflect client value.

2. Crew pay schemes should represent crew workload, based on working hours (time of day and duration, jet lag), productivity, flexibility, and efficiency.

A good pay scheme considers both principles with fairness. Surprisingly, many HR departments in the airline industry overlook this.

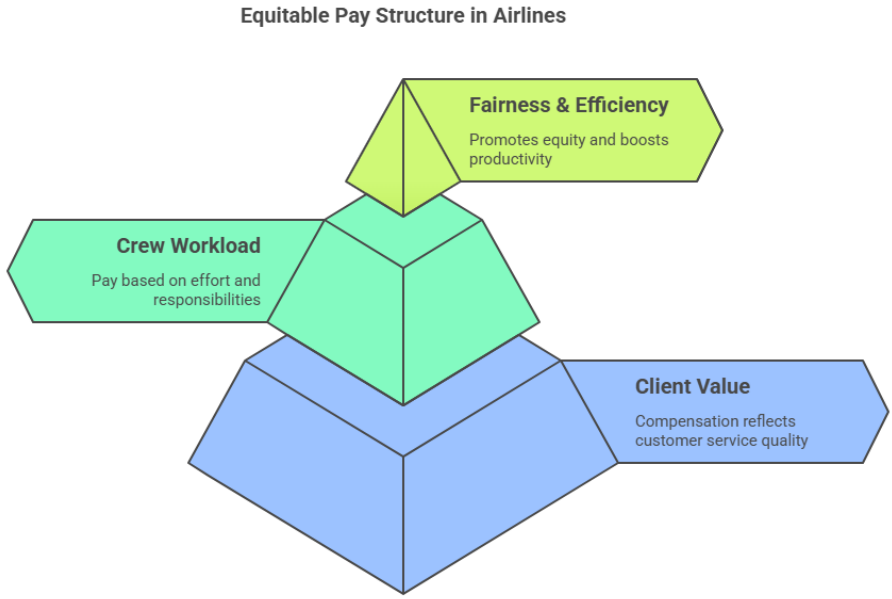

Figure 12: Crew Pay Structure

Once, I attended an HR workshop on crew pay. The team presented beautiful worksheets and tables, with all financial data, risk management plans, timelines, negotiation strategies, and communication plans. It was all meticulously prepared. I asked two questions:

1. "Can you show me the correlation between client value, and this pay scheme?"

2. "Can you show me a correlation between crew workload, and this pay scheme?"

Both times, I was met with blank stares. No one in the room had any idea of the crew's value to the client or the crew workload. So, I stopped for the day and returned to my own "world"—one where, at the very least, we got the basics right.

Top-Down Management Style and "Just Culture"

A top-down management style is characterized by decisions and directives flowing from senior management down through the organization, with employees expected to carry out tasks with little to no input in the decision-making process. In large airline companies, a top-down management style is probably the only option, the challenge is to allow employee input to improve the business. While a top-down management style offers clarity and streamlines processes, it often reduces the adaptability of the airline if it is not balanced with input from various organizational levels.

Airlines can be extremely strict, particularly in managing cabin crew (and managing expat pilots), adopting a top-down approach, summarized as "we make all decisions, and you follow them without question." These airlines also enforce a simple exit policy: employees who voice concerns or challenge directives risk termination, or at least see their careers curtailed.

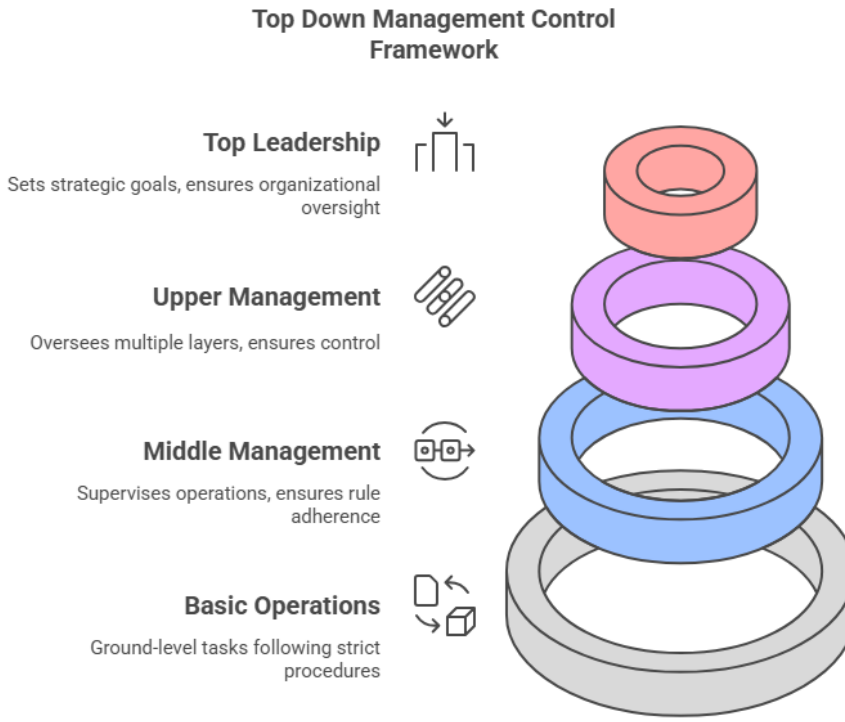

Figure 13: Top-Down Management

Lack of feedback disregards the potential of crew members to contribute valuable insights that enhance airline performance. Excluding crew feedback can also compromise safety, necessitating superficial measures and separate reporting systems to meet regulatory requirements. Installing a “Just culture” for safety may collide with a “top-down management” approach, so you need to be incredibly careful in such an environment.

In many board meetings during my career, I was the only person in the room who had regular contact, face-to-face, with the client. I was astonished by how many hours were spent on topics of no interest at all to the client, and even more by the fact that prominent issues for our clients were simply not discussed at all. Although the commercial directors and salespeople all thought they were doing an excellent job.

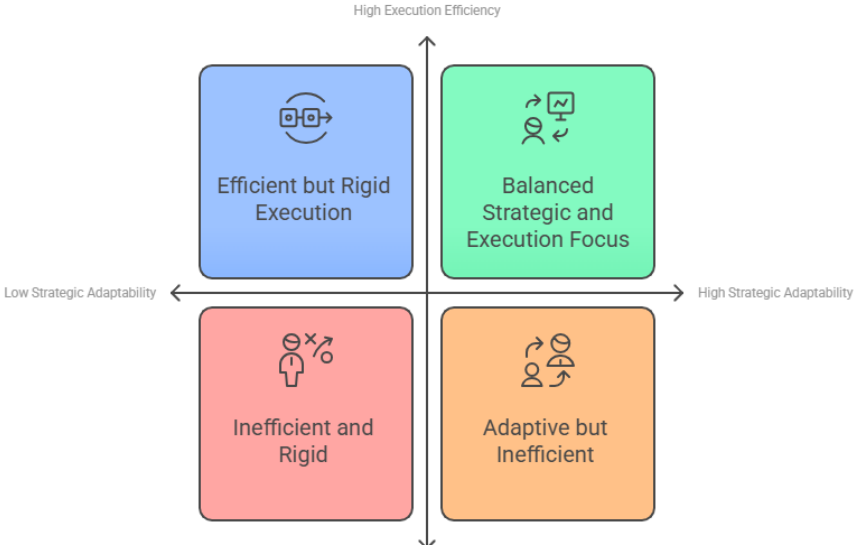

Figure 14: Management Dynamics

Having logged thousands of hours in the air across distinct roles, I have rarely experienced a flight without gaining valuable insights into improving operational and commercial efficiency.

Crew members feel that management is "out of touch" when numerous operational issues go unresolved, despite their obvious impact. These issues cover a wide range—from seat assignments and cabin luggage to turnaround and boarding procedures, ground operation, fuel efficiency, catering issues, flight planning, electronic flight bag and software problems, untapped commercial opportunities, in-flight entertainment, flight scheduling... Addressing these challenges requires management to act on frontline insights.

Crew management should involve crew while addressing their needs regarding health, status, and scheduling. Doing this, you motivate crew to provide insights in day-to-day efficiency.

Not too many years ago, by implementing this strategy, we successfully forced a major competitor with a rigid top-down approach out of a sizeable number of city-pair markets. Key insights came from our cabin crew, who quickly realized that our boarding procedures had to be adapted to accommodate certain markets. To this day, the competition struggles to understand how we achieved our competitive edge.

The Mazda case

In mid-1970, Japanese car maker Mazda was in trouble as they focused on the rotary engine technology that didn't gain traction in the market. Their high-performance rotary engines were less fuel efficient and lost their appeal during the 1973 oil crisis (Schreffer, 2006). One of the pillars of their successful turnaround strategy in 1975 was a cultural shift. The crisis exposed the limitations of the company's top-down, family-dominated management style. This realization prompted a move towards a more inclusive approach, valuing employee input and fostering a collaborative environment.

Mazda's initiatives underscore the importance it placed on employee involvement (Regan, 2018). Its human resources strategy emphasizes:

Maximizing people's contributions: Creating an environment where employees feel valued and empowered to contribute their ideas and expertise.

Active contribution by management: Encouraging open communication and collaboration between management and employees.

Nurturing an open corporate culture: Fostering a culture of trust and respect where employees feel comfortable sharing their suggestions and concerns.

People at Mazda provide ideas to improve and innovate, not so much for the reward the company might give them, but much more for pride when an idea is implemented. Mazda has a score of about 60% of implementing ideas coming from their employees. That score outperforms any other reward system.

Mazda recognizes the value of employee involvement in driving innovation and continuous improvement. By creating a space for employees to share their ideas, Mazda could tap into a valuable source of knowledge and insights, leading to improvements in production processes, cost-saving measures, and new product ideas.

Installing a “Just culture” is important, including for airlines that choose to implement a “top-down management” approach.

"Just Culture" refers to an environment that promotes safety by encouraging employees to report mistakes, safety concerns, or incidents without fear of punishment, provided their actions were not due to gross negligence or intentional misconduct. This approach balances accountability with an understanding that human error is a natural part of complex operations. By fostering open communication, a Just Culture allows airlines to identify and address systemic issues, learn from errors, and continuously improve safety protocols. It creates a foundation of trust, where employees are supported in raising concerns, ultimately enhancing safety outcomes across the organization.

This is true for safety, as widely recognized in the industry. However, it is also true for operational efficiency. In an airline with a repressive culture, employees who voice concerns or challenge directives risk termination. An airline must strike a balance allowing for employee input (and innovation) and be firm about violations of its policy. This balance may vary in function of its size and operating culture.

> Years ago, I raised this paradox with a board member of an airline known for its rigid hierarchy. I was impressed by his detailed response, outlining the structures, reporting lines, and procedures in place to ensure safety reports were managed in line with “Just Culture.”
>
> However, the approach was complex, and the boundary between “safety” and “other issues” was blurred. Upon his explanation, I responded, “I can appreciate that, but if I ask the same question to a crew member, would I get the same answer?” He admitted, “Probably not.” And that is the core issue.

If crew members do not fully understand, embrace, and practice “Just Culture” in their daily work, issues will go unnoticed until it’s too late. An adaptive approach to crew management—sensitive to cultural differences, aligned with basic motivators, and supporting “Just Culture”—is the insight to efficient and safe flight operations.

Communicating with Pilots

PILOT COMMUNICATIONS

Any high-quality airline employs a structured communication system to ensure effective interaction with its pilots, focusing on operational efficiency, safety, and regulatory compliance.

An airline maintains comprehensive Standard Operating Procedures (SOPs) that outline protocols for various flight operations. SOPs are not communication tools but are documented and regularly updated. SOPs are the heart of airline flying and the core of the operational manuals.

Digital Platforms: An airline utilizes digital platforms to disseminate essential information, including scheduling details, company announcements, and policy updates. These platforms facilitate timely communication and allow pilots to access necessary information efficiently.

Training and Briefings: Regular training sessions and briefings are conducted to keep pilots informed about new procedures, safety protocols, and regulatory changes. These sessions provide opportunities for pilots to engage with management and discuss operational matters.

Feedback Mechanisms: An airline encourages pilots to provide feedback through structured channels, promoting a culture of continuous improvement. This approach aligns with industry's best practices, emphasizing the importance of open communication between pilots and management.

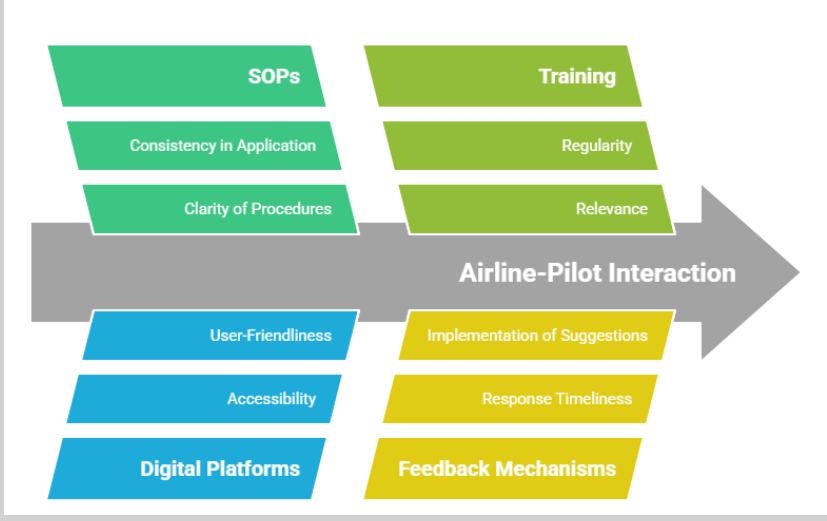

Figure 15: Airline-Pilot Interactions

Radio Crew

The most meaningful communication with pilots happens through what I call "Radio Crew." "Radio Crew" has two distinct components: "Radio Cockpit" for the pilots and "Radio Galley" for the cabin crew. "Radio Cockpit" refers to informal conversations that take place in the cockpit during cruise or when the crew has downtime to discuss topics beyond immediate flight operations. "Radio Galley" is similar for cabin crew as they chit-chat in the cabin or during layovers. For simplicity, let's call the combination of both informal conversations "Radio Crew."

"Radio Crew" is the most powerful crew communications tool, second to none.

The content of the "Radio Crew" can vary widely. Typical topics include casual, social discussions, like destinations or activities to do during layovers, which, while interesting, aren't especially important from the airline's perspective. Some topics on "Radio Crew" may need censoring in the scope of this book. More relevant topics from a company standpoint often involve "flight schedules" (rostering) and potential new destinations, particularly when these involve new layover opportunities.

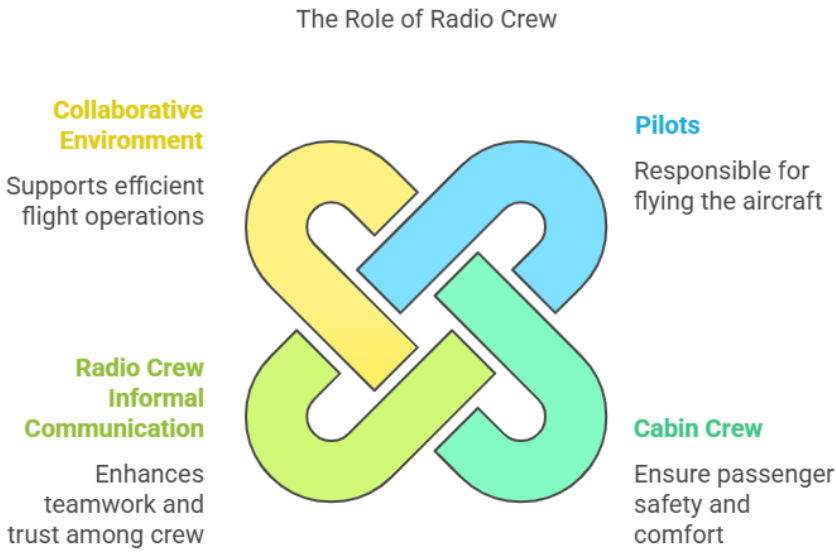

Figure 16: Radio Crew

Crew conversations also cover company-related issues, and I've had the chance to observe how these conversations shift during distinct phases in an airline's life—such as expansion, mergers, new destinations, downsizing, and even bankruptcy. The informal "Radio Crew" *often diverges significantly* from the messages shared through official channels.

This gap between formal communication and what resonates with the crew is striking. I often joke that "*if there's something I want to ensure 75% of the pilots will never know, I'll publish a note on it*." Formal messages, despite the best intentions, often fail to engage the crew effectively.

> As a young first officer, I learned this firsthand. Before becoming a co-pilot on the B737-200, I worked in various airline roles, which gave me a broader view of the company than what most colleagues conveyed to me. At that time, the "authority gradient"—or the power difference between senior and junior staff—was steeper than it is in Western airlines today. In such settings, junior staff, like a young co-pilot, might hesitate to speak up, even if they notice an error.

In the eighties, airlines introduced training on speaking up when safety was at stake. This training worked well; open communication helped prevent many safety issues. However, when discussions shifted to topics like bidding systems, seniority, career paths, and other issues impacting *money, status, health, passion and time*, the dynamic usually changed. Often, these conversations became a one-way dialogue from the captain to the first officer. A smart first officer prioritized operational efficiency and safety over "Radio Cockpit," so they didn't speak up when fantasies were presented as truth.

Better to have "*a peaceful conversation*" and terminate the flight safely than risking a conflict with the captain (or purser). That is a constant balance you are looking for as first officer or cabin crew. As junior crew, you might not agree with what is being said, but what are the risks if you speak up in a jet full of passengers travelling at close to the speed of sound? The smartest action most probably is not to react at all.

Captains would often share opinions or information that directly *contradicted* official company policies. A two-hour conversation explaining a captain's perspective could easily override a brief, inconveniently timed note from the company. If you repeat something often enough, people tend to believe it. Including stories that are untrue.

I still remember how challenging it was as a new first officer to resist "Radio Crew," even when the information was clearly inaccurate. That is when I realized how powerful it is.

If you want to communicate effectively with the crew, you need to understand "Radio Crew". If your message deviates from it, or worse, opposes “Radio Crew,” you must figure out what your best option is for the crew to understand your message. Carefully adapt content, format and timing and verify that it resonates the way you want. You will have to depend on reliable feedback. Don’t be surprised if your message comes back distorted and inaccurate. Instead, figure out what is going on and adjust accordingly.

Airline managers must fully grasp how “Radio Crew” works in their airline. Those who don’t should not address the crew.

Flight Safety and other Information

The rules (Ref. EASA, FAA) require that all operational communications be managed by Flight Operations, and it is there for a good reason. The regulations only mandate safety-related communications; anything beyond that isn’t their concern.

If HR, Communications, or any other department wants to use operational channels to reach the crew, the answer should always be “**no**.” They should create their own channels that are clearly separate from Flight Operations, from the crew’s perspective.

To maintain control over the “Radio Crew,” there needs to be a clear separation between essential information for safe and efficient flight execution and everything else. Unnecessary information can create a lot of “noise,” which can become distracting—and even risky—if transmitted on the same channel as safety information.

> One day, the Communications department sent out a “*mandatory to read*” note about the appointment of a new managing director in an affiliated company. While this was important to the company, it wasn’t particularly relevant to the crew, who didn’t know the person and wouldn’t interact with him. As you know by now, if it doesn’t affect the crew’s *pay, status, work hours, passion or health*, it isn’t likely to be of much interest to them.

With most of the flights departing early in the morning, the crew was required to read this lengthy, two-page announcement—full of the new director's accomplishments—at around 4:30 a.m. while preparing for their early morning flight.

I was in the crew room at the time, and everyone was busy preparing for the flight, checking the latest weather (which was poor), NOTAMs, commercial information, and other essentials, all within a short timeframe. Most crew members would have preferred a few extra minutes of sleep rather than reading about the new director.

It's puzzling that anyone would think *a mandatory reading two-pager* is an effective way to introduce a new manager to the crew. Yet, many airlines repeatedly use this approach and then wonder why the crew is "so difficult to communicate with."

I've had numerous board discussions on how crew communication should be handled. Often, the other board members couldn't understand my objections because they didn't grasp the concept of the most influential factor in crew communication: "Radio Crew."

Only urgent safety information should be marked as "*mandatory to read*" before a flight. Everything else should go through less urgent channels. Otherwise, the message will be overshadowed by "Radio Crew," and the intended communication will be lost.

What matters to airline management may not always be relevant or interesting to the crew. "Other" crew communication should focus on crew *pay scheme; work schedule, status, passion or health* or factors related to these.

When Speed is Important

The IT department was enormously proud. They were developing a new synchronization tool to update company data on pilots' laptops, back and forth. At the time—before tablets like the iPad were common on the flight deck—laptops were the preferred tool for providing pilots with preflight information, performance calculations, pilot reports, electronic manuals, and company communications.

The IT team was eager to explain the technical details and new features, but the head of IT, knowing me well, cut to the point:

> "*OK, Andre, it's a bit slower than the previous version but still manageable*."
>
> "I understand. Show me," I said.
>
> He took a laptop out, woke it from sleep mode, and started the new software while I started the timer. A menu popped up, asking the pilot to select from a few options. "*Why is that?*" I asked, as he continued the standard synchronization process that a pilot would need to complete before each flight. Everything went smoothly, and I stopped the timer.
>
> Five minutes and 12 seconds. "*That's not okay*," I told him. "*We can't use this.*"

Before computers, I could grab preflight information from the dispatcher's desk in seconds and start my preparation immediately. If I needed more information, I could ask the dispatcher face-to-face and get immediate, professional answers about weather, aircraft, routes, or fuel—perfect!

Then came the laptop. The printed preflight file was gone, and so were the people nearby who could help. Now, instead of a quick grab-and-go, it took me over five minutes just to access the basic information needed to start my prep.

On medium-haul flights, doing up to 200 flights a year, that's over *17 hours annually* spent just waiting in front of a computer screen, watching a load bar.

Today, with faster internet and tablets, some airlines struggle with multiple apps. Each app must be launched individually, then "synchronized" with the server. Tapping icons, waiting for apps to synchronize—some take seconds, others take minutes. That's when the Wi-Fi connection is perfect; when it's not—good luck. I saw an airline where it took nearly **20 minutes** to get all the required data on the crew tablet. Any procedure that requires opening multiple apps or takes more than three minutes to access standard preflight data should be scrapped.

> In another airline, the crew became so frustrated with this so-called "progress" that they formally requested *reimbursement for charging the tablet at home*. Management was outraged by such "*unreasonable*" demands, unaware of the frustration that drove them. Later, managers inside and outside the company used this example to criticize the crew, without grasping the reason behind it.

It is about *crew time*, one of the four basic motivators. If you ask the crew to spend more *time*, they expect something in return, in this case *money*.

Preflight data for crew should be accessible through a single app that takes no more than three minutes to synchronize before a flight. If you can provide that, no one will be asking you to cover the electricity bill. If you think that much longer also works, you will frustrate the crew every single day. That is not good for the content broadcasted on "Radio Crew." This radio station will start broadcasting bad stories, most of them probably untrue, because of the daily frustration.

THE CREW WORKDAY

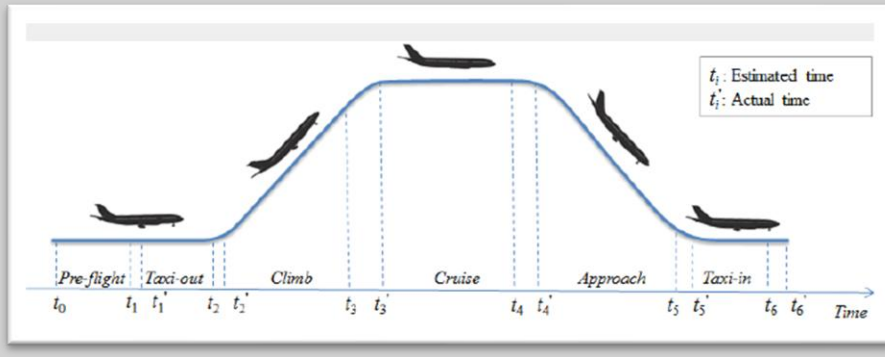

Figure 17: The flight sequence

A standard workday for an airline crew flying a medium-haul route without a layover begins an hour or so before departure. The pilots and cabin crew arrive at the airport, where they first meet.

To maximize flight duty time, the time allocated to flight preparation is kept to the minimum, so this is, except for waiting for the last crew member to arrive, a rather busy period. During the briefing, the crew discusses the flight route, expected weather and general conditions, passenger numbers, and any unique requirements or circumstances that might affect the flight.

Pilots move on to review the detailed weather reports, flight plan, airport and route notices (NOTAM's) calculate performance figures, and verify fuel requirements. They also update themselves on the latest local weather and perform preflight checks on the aircraft. Meanwhile, the cabin crew is busy ensuring that the cabin is fully prepared, stocked, and ready for passengers, checking the safety equipment and organizing anything specific for this flight.

This is a particularly busy phase, leaving little time for anything else. Airlines need to minimize time spent on the ground, as time spent before takeoff reduces the maximum allowable flight duration for the crew, as required by regulations.

The longer the preflight time, the shorter the permitted flight time. Under considerable time pressure, the crew needs to read and apply procedural changes (if any) and safety notes, so the last thing they want is having to read on how well the company is doing.

As boarding begins, the cabin crew assists passengers, helping them find their seats, storing luggage, and making necessary safety announcements. The pilots complete pre-takeoff checks, finalize any performance adjustments, and communicate with air traffic control regarding departure time and slot, ensuring all systems and paperwork are ready. Once everyone is seated, they prepare for takeoff. Taxi and take-off are terribly busy in the flight deck, requiring full-time attention and the coordination of both pilots.

After initial climb out, with gear and flaps retracted, the cabin crew and later the passengers are "released" which means they can leave their crew seat and start the service, or in case of the passengers, go to the restroom.

In cruise, the pilots monitor the aircraft's instruments, make altitude adjustments as needed, and stay in communication with air traffic control to review route and altitude optimizations. At all times, the pilots verify the weather and traffic situation to make sure that alternate and escape routes and airports are available for diversion should an emergency require immediate action.

When spare time is available the "*Happy, happy, happy*" notes of a manager feed straight into "Radio Crew." However, not the original version, but the *"Unhappy, skewed, stupid"* version.

Therefore, only publish a "*Happy, happy, happy*" note if you are confident that the *"Unhappy, skewed, stupid"* version of it will sound ok.

In cruise, the cabin crew serves meals, attends to passengers' requests, and ensures the cabin remains secure. If there are no automated displays for the passengers, the crew keep passengers updated on the flight's progress, estimated arrival time, and any changes in weather. During extra time, notes may resonate (or not) on "Radio Galley." "Radio Galley" might even be worse than "Radio Cockpit."

As the flight nears its destination, the pilot's workload starts to rise significantly when they prepare to begin the descent and perform the required checks. "Radio Cockpit" is switched off. The cabin crew ensures passengers are ready for arrival by checking seatbelts, securing the cabin, and answering any last-minute questions.

For the pilots, descent, approach and landing in a commercial jet require careful energy management with mental calculations and anticipation and planning in function of air traffic control restrictions. Concentration of both pilots is required to verify the route, speed and altitude being flown, aircraft performance and configuration changes. But "Radio Galley" has some time to broadcast.

Depending on weather, terrain and approach requirements, the procedures change considering ground-, aircraft- and space-based aids (radio beacons, GPS, and inertial navigation systems) to ensure a safe approach and landing. After landing, braking procedures and taxi-in remain a remarkably busy phase of the flight until the aircraft arrives at the gate with the chocks in place.

After the aircraft is stopped, the crew helps passengers disembark, while, on jets with a longer fuselage, stability concerns may cause restrictions during disembarkation. When stability concerns interfere with the normal deboarding process (typically, passengers are temporarily blocked at the front of the aircraft), most passengers think the crew is playing games with them and are in disbelief.

One day I had a client challenging me: "Do you really think this aircraft will fall on its tail if we disembark?" "No sir," I replied, "I don't think so, I know it will."

Figure 18: United Airlines B737-900 tail sitting in Pullman WA, Sep 18, 2021

The crew performs a post-flight inspection of the aircraft, and completes any required reports on the flight, including maintenance notes or incident reports. After the debrief, the crew's duty ends, and they are free to go home.

After a short duty, you might think that crew can now easily do some extra work. After all, the duty was not that long. You are mistaken. Crew probably planned something with their friends or kids or have an urgent task to adhere to. A minority may want to spend some time with the crew afterwards, and in one company I worked for, that was the norm.

Asking crew to digest company information after the flight is like asking a 9-5 office worker to do the same … at 0505pm.

On a workday with a layover, the routine starts the same way, with pre-flight preparation and a briefing on the outbound flight. The crew completes boarding and in-flight duties as usual, guiding passengers, monitoring systems, and ensuring a smooth journey.

Once they arrive at their layover destination, however, there are some key differences. The crew completes their post-flight checks and assists passengers with disembarking before passing through customs and immigration, if required. Then they switch on "Radio Crew" and they head to their designated hotel, transported by the airline, where they check in for a mandatory rest period to recover from the first leg of their trip.

The length of this layover rest depends on regulations and can vary from ten to twenty-four hours minimum up to a couple of days if the airline schedule dictates this. During this time, crew members can sleep, eat, and relax, and—if the layover is long enough, have the option to explore the city, dine out, or unwind as they choose. They also listen to "Radio Crew" much of the time.

As their return flight approaches, the crew prepares much like they did before the first flight. They return to the airport, recheck their flight plans, weather updates, and aircraft systems, then conduct another briefing to prepare for the journey back. The return flight mirrors the outbound routine, with pilots managing the aircraft and cabin crew serving and ensuring passenger comfort and safety.

When they land at their home base, the crew completes a final round of post-flight duties, checks, and debrief. With all tasks completed, they are then free to leave, having completed a full workday with a layover.

The layover provides crew members with essential time to rest, recharge, and listen to "Radio Crew" while the flight duties themselves are nearly the same on both outbound and return legs, following a structured routine to ensure every aspect of the flight runs smoothly.

Do you realize how many hours "Radio Crew" broadcasts? You need to take this into account when you decide how to best communicate with the crew.

Client satisfaction on a flight after a crew layover

We once did a study regarding client satisfaction comparing the outbound and the inbound flights after crew layover. While the crew rated the return above the outgoing flight, citing crew familiarity and crew spirit as enablers, the passenger surveys showed the opposite. As this was a holiday carrier, we could expect the flight home after the vacation to be less pleasant for our clients than the departure at the beginning of the vacation, nevertheless we found the contradiction striking. Passenger and crew perception of the flight was the opposite; there was no correlation between the two. Both indicators should always be measured independently.

How to Handle Crew Communication

A successful airline conducted a study to determine the best way to communicate company information to its crew. The team concluded that information was best received when crew checked their rosters. Crew typically check their rosters from home while planning personal activities with family or friends, or as soon as the rosters are published. The system was designed so that crew members had to read company notices before they could access their roster.

> This approach practically guaranteed that company information was read, at least according to the system's automated tracking statistics. When I spoke with the managers, they seemed confident that they'd found the perfect solution. However, when I spoke to crew members, their perspective was quite different. Many felt the system was flawed, seeing it as a reflection of the company's top-down management style. And if that's the company's vision, this system is an uncomplicated way to enforce it.
>
> The main reason this approach was unpopular with the crew was that it invaded their free time. By delivering company updates during their personal time, the company effectively hijacked family time to deliver messages that often-held little interest to the crew. This understandably led to frustration and impacted on their motivation to work. Imagine the impact this has on the "Radio Crew"—the informal conversations that shape crew opinion.

This airline seemed unaware of "Radio Crew" and its importance in conveying messages that resonate with the crew.

People in office roles, especially in 9-to-5 positions, often underestimate the power of hours spent listening to stories or rumors in the cockpit, stories that usually contradict what the company tries to convey.

Office workers also have informal channels; we could call it "Radio Rumors." But the time spent listening to these rumors is only a fraction of what the crew does, and the manager, is not that far away either. Issues can be clarified at once, face-to-face. The fact that crew rarely interacts with its managers in person, means that the impact of informal communications is much greater.

Effective communication begins with timing.

> I once had an HR team who didn't grasp this concept, so I called the head of HR on a Sunday morning (a definite "day off" for them) to inform him about an important meeting scheduled for 5:30 a.m. the next day. His reaction was to say: "Why are you calling me during my day off, and why would you schedule a meeting outside office hours?" Exactly.

During COVID, many airlines held online meetings using Zoom, Teams, or Webex to keep crews updated. With many crew members grounded, these sessions on company updates were exceedingly popular, with attendance levels we'd never seen before. Buoyed by this success, companies thought they had

found a lasting solution. Yet, once the crew returned to their regular schedules and "challenging" rosters, attendance rates plummeted. During idle times, crew members were eager to learn about the company's direction, but once their schedules filled up, keeping up with meetings held little appeal.

> Some board members later asked me, *"Why isn't the crew motivated anymore?"* But this question missed the mark. Attendance at company virtual meetings isn't a measure of crew motivation. A much better gauge is the crew's resilience in flying heavy schedules and solving unfamiliar problems (such as airport staffing issues post-COVID). From that perspective, their motivation was extremely high.

The question itself showed how disconnected management had become from the crew's reality, and that was reflected on "Radio Crew" at the time. If management wants to go beyond a top-down approach, it must win the crew's trust.

The industry leaders take an adaptive approach, carefully balancing the five key motivators: *money, time, status, health and passion*. They don't overwhelm the crew with too many notes—an excellent indicator of how well they understand their team.

You need in-person meetings, because **"Radio Crew" is in-person all the time**. In a larger airline, this means splitting up crew in manageable groups and delegating communication tasks.

A dedicated support system also includes accessible "line managers" for crew to address personal concerns. Ideally, disciplinary functions should remain separate from social or supportive roles, to foster trust.

Regulations, especially under EASA, require airlines to separately manage issues related to alcohol, drugs, or personality concerns that could impact safety. Throughout my career, I've seen the value of this approach; in many cases, we were able to address and resolve such issues, allowing crew members to return to work with renewed trust in the company.

Timing and format certainly matter for general company communications. Use engaging formats, such as regular newsletters, fun visuals, or short videos, and track their reception to adapt for cultural or regional differences. A monthly five-minute video update can be amazingly effective. While social media formats like Facebook, Instagram, TikTok, or YouTube sometimes have

limited success with cabin crew, they tend not to engage pilots as much. It probably isn't worth the investment.

For optimal results, timing and communication strategies should be aligned for both pilots and cabin crew, though the content should differ based on their roles.

Most airlines are unionized and need to agree at least part of the communication plan with the unions. Much depends on how the relationship with the union is, however, this should not preclude the roll out of an effective communication plan in collaboration with the union. When carefully prepared and presented, considering the airline's culture, a modern communication plan will be supported by the crew,

To handle crew communications, other than the safety and procedures updates you need to have the following components – adapted to the size of the airline:

- **Regular In-Person Meetings**: Meeting with management and staff at least every six months (in line with the commercial airline seasons, ideally more frequently) to understand and influence informal conversations shaping crew opinions.

- **Tailored Meeting Content**: Meetings should clearly distinguish between topics for *pilots* (operational flying) or *cabin crew* (service), also covering *safety materials* and discussions on *compensation, scheduling, status, passion and health* (social part).

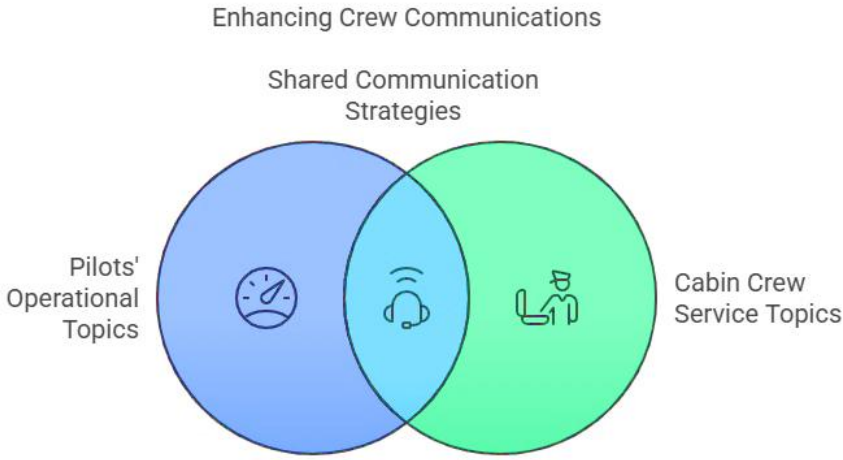

Figure 19: Tailored meeting content

- **Annual Safety Meetings with Key Suppliers**: For pilots, annual safety meetings with essential suppliers (aircraft and engine manufacturer, key avionics companies, …) provide additional insights, sharing critical background information on efficiency and safety protocols. The top safety risks of the airline company should be discussed in depth with information on mitigating actions.

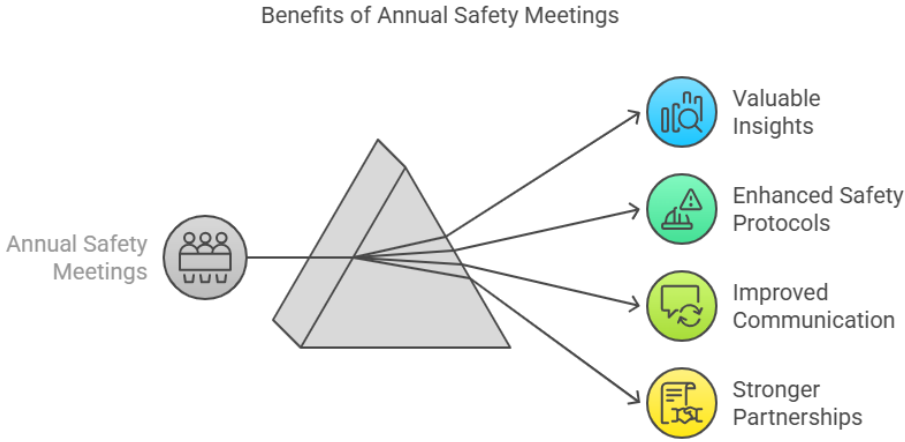

Figure 20: Annual safety meeting

- **Product Introduction Meetings**: For cabin crew, when significant changes are made to onboard products, meetings with product suppliers will motivate

the cabin crew to learn about and promote the new offerings, leading to higher sales and enthusiasm among the crew. Providing the opportunity to buy products at a "crew discount' is a great motivator.

- **Regular Digital Newsletter**: A visually engaging, possibly interactive, digital newsletter published at least once a month will keep crews informed about company updates. The newsletter should cater to each group's specific needs:

    - For **Pilots**: Include flight technical and safety topics and background details for each fleet, along with company updates, *pay schemes, career paths, scheduling information, and health resources* for pilots.

    - For **Cabin Crew**: Feature service and safety insights specific to each region or route, along with company updates, *pay schemes, career paths, scheduling, and health resources* for cabin crew.

The newsletter's engagement should be closely monitored, with prompt adjustments if readership declines. Remember**, it must be more engaging than "time off"**, as crew members may choose simply not to read it in favor of personal activities. The challenge is huge.

Figure 21: Digital Newsletter

- **Short, Engaging Videos**: Create short (3-5 minute) videos with a clear format, rich visuals, skippable sections, and subtitles to allow viewing without sound. Avoid “talking heads” and, if possible, regularly invite individual crew members to participate in the videos. We all know the CEO wants to figure in the video, but it usually is more powerful to have the message of the CEO delivered by a normal crew member in a video because it closely mimics an informal conversation.

- **Instant Messaging System**: Use an instant messaging platform (like WhatsApp, Signal, Telegram, …) to immediately reach all or most crew members with brief, critical updates, especially in the event of an incident. Quick communication from the company ensures the message is delivered first and accurately, preventing third parties from controlling the narrative.

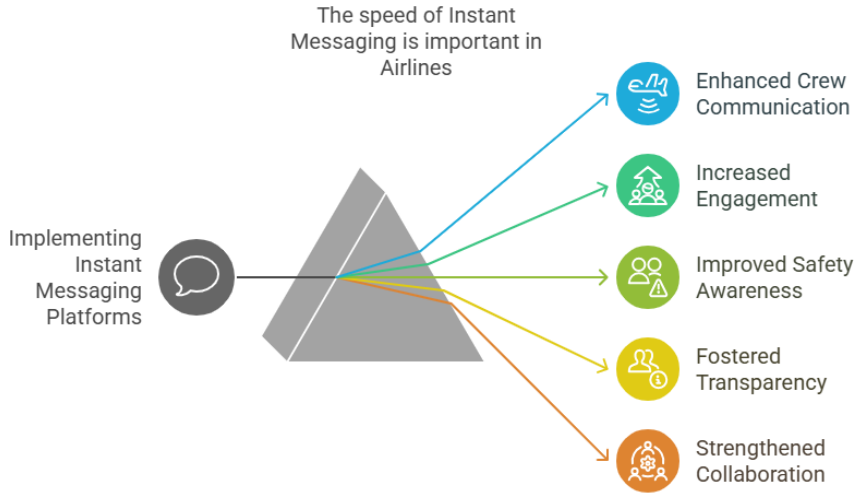

Figure 22: Instant messaging

A robust company crew communication system, while costly, is cheaper than not having one. Effective communication with the crew demands skilled professionals who understand the crew's culture and needs. If crew meetings aren’t tailored to align with the airline’s culture and crew interests, the entire system risks becoming a target for “*assassination*” by “Radio Crew.”

An airline company should always take action to avoid informal conversations to control crew opinion.

An Example on how Not to Handle Crew Communication

At the time, the company planned to roll out a new, company-wide communication system. It was state-of-the-art, fully digital, featuring interactive screens and all the functionality anyone could hope for.

Employees could log in to view company news, watch short, engaging videos, learn about new projects, and access messages from the CEO and other executives. They could also send and receive messages, set up video calls, review emails, and receive summaries. For added engagement, it included:

- A Facebook-like feature for sharing fun and informal content—but it wasn't Facebook.

- An Instagram-style section where users could post photos, encouraging crew members to share snapshots from layovers—but it wasn't Instagram.

- A WhatsApp-like messaging tool for instant messages and images—but it wasn't WhatsApp.

The main problem? While every crew member had a smartphone—and likely 99.9% used Instagram and WhatsApp—this system required users to be online during work hours, something possible for desk-based employees but **impossible for crews**.

- Management: "We're rolling this out next month, including for the crew. The crew will love logging in and accessing all this information."

- Crew Lead: "No, they won't. They simply won't log in."

Six months later, the "*Wonder Communication Tool*" was discontinued. Out of thousands of crew members, **almost no one had ever logged in**.

Lesson Learned: Never design a communication tool that requires actions—like staying online—that crew members can't or won't do.

Ironically, using the in-flight internet, crew members can now go online in-flight. However, companies had to limit crew use to essential safety and operational data (*a video from the CEO likely doesn't qualify*). If internet access is left unchecked, platforms like Instagram and Netflix would probably beat out any corporate communication tool.

How to Listen to "Radio Cockpit" and "Radio Galley"

Many airline managers dream of accessing the informal communication channels used by crew members. After more than forty years and thousands of hours listening closely to "Radio Crew"—with extensive (open and agreed) recordings from different airlines and during all phases of the airline lifecycle—I'd like to share some insights on how it really works.

What does it *really* take to keep a multi-billion-dollar airline running safely and on time? The answer is far more complex than any passenger can see.

For the first time, a veteran captain and senior manager breaks down the critical components of operational success. Explore the unwritten rules of managing crew, the tough calls, and the innovative strategies that drive efficiency. This book reveals not just how airlines function, but **where things can go wrong**—and how the best leaders prevent it.

Gain the insider knowledge and leadership principles you need to navigate the high-stakes world of airline management.

Master the intricate balance of safety, efficiency, and sustainability. After reading this book, you won't just understand the airline industry—you'll be equipped with the insights to lead it.

Capt. André Berger has commanded the skies for 45 years, logging over 23,000 flight hours in aircraft like the B787 and B737MAX. A visionary leader, he has shaped the industry by:

- Creating innovative and world-leading (ab initio) training programs.
- Future oriented flight operations philosophy and training for industry giants like TUI Airlines.
- Consulting on pilot training, flight operations, the future of AI and aviation technology."