

ICAO TRAINING REPORT

NEWS AND FEATURES ON CIVIL AVIATION-RELATED TRAINING DEVELOPMENTS - VOL. 6 - NO. 1

CAPACITY DEVELOPMENT FROM STRATEGY TO DELIVERY

IN THIS ISSUE:

NEW ICAO
TRAINING PROGRAMME
PERFORMANCE-BASED
NEEDS ASSESSMENT
TRANSITIONING TO eTRAINING
WELL-BEING IN THE
WORKPLACE



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Farid Zizi, *President of the Air Navigation Commission*

BUILDING CAPACITY WITH COMPETENCY

 Training is often seen as the solution to a number of capacity-building issues. Though it certainly solves a number of challenges that are faced by States in their quests to better manage the evolution of aviation in a safe and efficient way, training cannot be considered a magic tool that on its own, makes every objective reachable.

To improve practices in their operational and safety management fields, Organizations and States will incorporate training as an essential pillar in their evolutionary strategies. Since training is dependent from the general educational level of potential trainees and not every objective can be reached in a defined timeframe, a clear and realistic Human Resource Policy, with a training strategy incorporated within it, is very often the key to successful capacity-building. But other elements are also key: recruitment; the capacity to retain trained personnel in the positions and functions for which they were trained, to both accumulate experience and to allow them to then share their experience with the community; and the capacity to act in their functions in an organizational scheme that carries the values and principles according to which they were trained.

In my previous function as Director of Education and Research at Ecole Nationale de l'Aviation Civile (ENAC), when asked to develop or provide training, I always questioned the goals and how the trainees would be able to grow in their practical experience and evolve in the Organization. You would be surprised how rarely this question is accurately and appropriately answered.

A recurring training challenge occurs when defining objectives and timelines: do you train for the short term and the immediate challenges that are faced by the Organization, or do you train to be able to provide your personnel with the capacity to adapt to the long-term challenges faced by the Organization? Very often the second part of the problem statement is sacrificed for profitability or return on investment. The reality is that a short-term vision can only support focused or project-oriented training, and that ab-initio training should not omit the long term objectives. During some professional careers, particularly in the very evolutionary domain of Aviation, skills and competencies have to evolve to provide individuals and organizations the ability to adapt to future challenges which cannot always be anticipated.

Using a competency-based approach to build a training strategy is one of the most effective methodologies. It provides, in the same time, the means for better designing training while helping the Organization to reach another step of maturity by defining its expectations in relation to the environment it is operating in. Defining goals, clarifying the environment in which competencies will be exercised, and identifying the suitable performance or behaviour expected as a result of the training process, is far more efficient in terms of training, than reproducing a repetitive scheme measured in numbers of hours and composed of repetitive presentations, without any approach to the appropriate pedagogical tools to be used.

... I always questioned the goals and how the trainees would be able to grow in their practical experience and evolve in the Organization. You would be surprised how rarely this question is accurately and appropriately answered.

Last year ICAO defined the competency frameworks for Air Traffic Controllers (ATCOs) and Air Traffic Safety Electronics Personnel (ATSEPs), which were published in the last edition of the Procedures for Air Navigation Services (PANS) Training. The publication coincides with corresponding training manuals that help States and ANSPs around the world adapt their strategies to their own environments, to rethink their training schemes in a more efficient manner, and to look forward, with a sustainable framework for how they will adapt to the challenges of air traffic management modernization. This effort is essential today since the results of evolution in training and human resource policy will only be effective in the medium-term. It is my personal opinion that similar effort should be done within the pilot community, which is facing similar challenges and a wider spectrum of operational situations.

I would like to encourage States and all Aviation stakeholders, collectively and individually, to take a proactive attitude towards training and the management of training, by integrating it as part of their human resource policies and to adapt their training methodologies with a competency-based approach, targeting the sustainable evolution of human performance in the medium- and long-term. That is how training will contribute to capacity-building. ■

Farid Zizi
President of the Air Navigation Commission

PERFORMANCE-BASED TRAINING: ASSISTING STATE NEEDS



DR. JEAN-MARC GUILLEMETTE

As a Workplace Learning Architect, Dr. Guillemette helps organizations worldwide identify opportunities to leverage learning for better results. During this career, he has created numerous learning solutions that range from traditional classroom instruction to e-learning. Dr. Guillemette currently teaches a course on needs assessment at the University of Victoria, in Canada.

✈ INTRODUCTION

In its June 2015 meeting, the ICAO Council reviewed and discussed the training and capacity building challenges and opportunities that exist in civil aviation. During this meeting, participants determined what they considered to be the ten priority actions to be undertaken by ICAO, and then made specific recommendations to optimize assistance to States in training and capacity building. The initiative is in support of ICAO's mandate to ensure no country is left behind in implementing ICAO standards and recommended practices.

In a follow up action, ICAO has undertaken to create a mechanism through which Member States can more easily, effectively and efficiently identify and address their needs for performance-based training. This article introduces the new ICAO service and explains how it will help States optimize their training. More specifically, after briefly reviewing the role of needs assessments, it describes the tools being implemented to facilitate working with Member States to gather essential information on their training needs, and track the results of various projects to monitor the progress over time.

The article also represents the start of dialogue about training and capacity building that will continue as projects unfold. As ICAO undertakes to test its proposed Needs Assessment Service (NAS) during the coming months, it will seek more input from Member States to ensure it is a useful and well-honed tool.

PERFORMANCE-BASED TRAINING AND NEEDS ASSESSMENT

Workplace learning involves the integrated use of learning and other interventions for the purpose of improving individual and organizational performance at work, through acquiring and applying essential knowledge and skills. It is the umbrella term that encompasses all of the activities carried out in aviation and other fields that help people learn at work, whether through more traditional classes, or by using computer technology that makes learning more flexible and adaptable.

Performance is the result of all that we do to achieve goals or objectives; it is the yardstick by which we measure how well we achieve what we can and must do to remain viable and productive. Because an organization's ability to achieve its objectives depends directly on employee performance, successful organizations must continually ensure their employees have all that is needed to perform their best, including through performance-based training.

Recognizing the role and importance of workplace learning to achieve organizational objectives does not guarantee the effectiveness of training. Instruction that does not reflect organizational objectives or the need to improve job performance, wastes time, effort and money and because of this, training managers who fail to justify expenditures in terms of improved individual and organizational performance, also fail to meet the responsibilities of their position. Good decisions about training incorporate not only specific needs for knowledge and skills, but also consider how each job contributes to achieving organizational goals and objectives. As illustrated in **Figure 1**, effective training shows a direct link between improving employee performance and achieving organizational objectives.



Figure 1: Aligning Organizational and Individual Needs

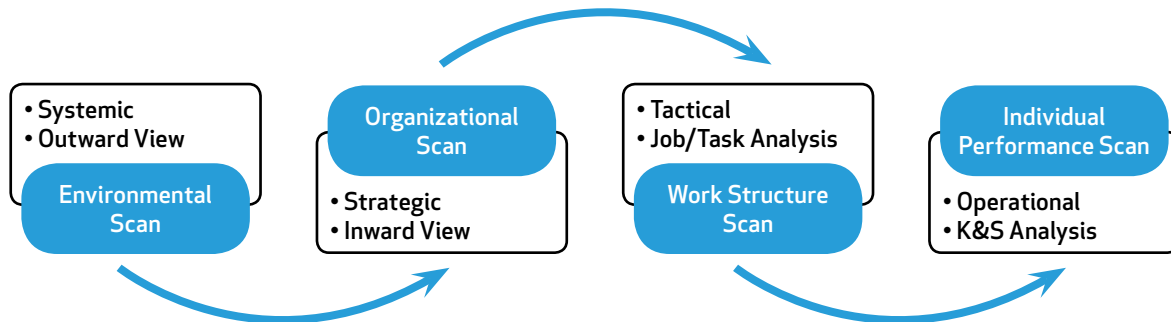


Figure 2: Focus of Different NA Levels

Understanding the links between organizational objectives and training for better job performance is not simple, since the problems that occur in organizations can involve the entire organization or be limited to a single job or occupation. Identifying performance-related problems therefore requires following a systematic process to identify gaps in performance and determine how training can help eliminate them. Needs Assessment (NA), the process used to investigate problem situations and options for correcting them, is an inclusive means that uses a zoom-in and zoom-out approach to alternately consider the whole organization and how it exists, and the more specific issues that affect jobs or positions.

NA can be performed at different levels that provide both macro and micro perspectives. It offers a more macro perspective when considering the entire organization and its environment; and a more micro one when focusing on specific job performance issues. With this in mind, the ICAO NAS addresses requirements at four organizational levels: environmental, organizational; departmental; and job performance levels.

Investigating needs at the environmental level involves understanding the organization's purpose and how it exists in its environment. It explores the structure of the organization from an outward looking perspective to identify the factors that influence its ability to perform as intended. The next level looks inwardly at how the organizational structure either supports or hinders operating effectively and efficiently. Both environmental and organizational levels address strategic issues and help determine how well the organization conducts its business.

The third level focuses on departments and how well they contribute to achieving organizational objectives. It investigates the breakdown of work into jobs and how well this distribution

serves the organization. The final level at the micro end of this continuum focuses on the ability of individual employees to perform assigned jobs. **Figure 2** summarizes the relationship between the proposed levels of needs assessment.

THE ICAO NEEDS ASSESSMENT SERVICE

Because needs assessment is the cornerstone of effective training and because it requires some expertise to prepare and conduct at the appropriate level(s), ICAO has established a service to help Member States assess their needs for performance-based training and develop appropriate activities. It reflects a NA process that progresses in five steps (**Figure 3**) that are adjusted to meet the requirements of each project.

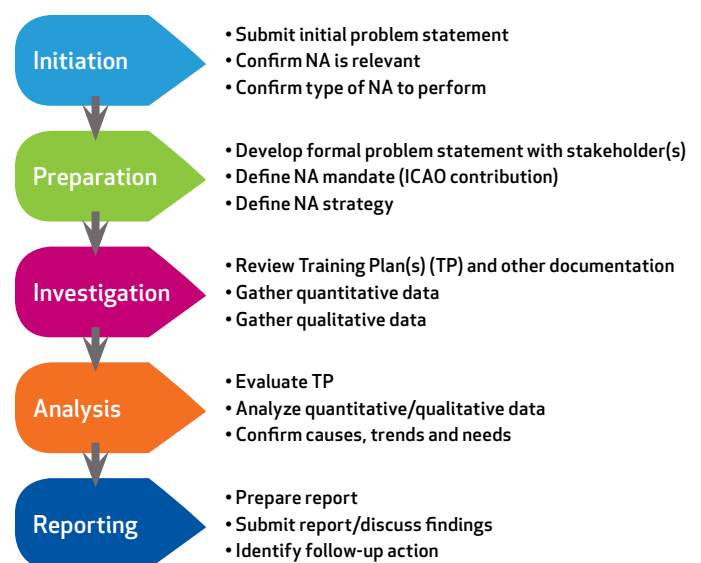


Figure 3: Needs Assessment Process

To facilitate working with Member States and better help them, ICAO will implement this service via a website designed to identify NA projects; confirm how best to assist States during these projects; conduct projects effectively and efficiently; and track the results achieved for each project and over time. While the website allows capturing and sharing information, completing the NA process will also involve working with NA specialists who will guide the process and transfer their expertise to States whenever possible.

While complete in itself, the NA process is part of a broader one to plan organizational activities and track results (Figure 4). The ICAO NAS therefore reflects two processes, one embedded in the other, to assess needs and track the results of training in terms of improved organizational performance.

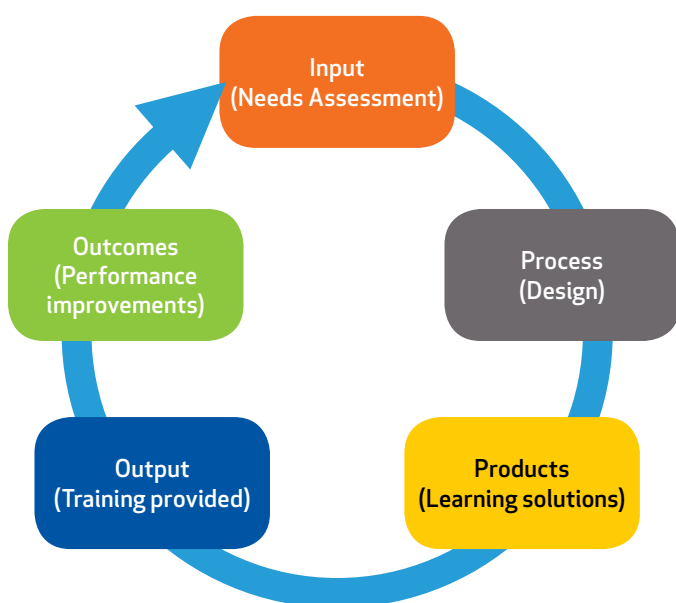


Figure 4: Organizational Performance Tracking

As shown in Figure 4¹, the data gathered during a needs assessment is part of the essential input that confirms what the organization is about and what it should achieve. This input can be gathered through NA activities like observations and interviews, or by reviewing existing documents such as training plans, which document the results of previous needs assessment and how they affect design decisions. Design then takes the results of NA and determines specifically what training to offer and how to offer it. The training activities (products) that are actually created and offered are identified in terms of numbers of courses and participants, and participant reactions to their training (levels 1 and 2 of the Kirkpatrick model²). Finally, the outcomes of training are

measured using established methodologies like those to calculate return on investment (levels 3 and 4 of the Kirkpatrick model). Tracked over time, the results of this process provides a much clearer understanding of the value of training to help improve individual and organizational performance.

Through its NAS, ICAO will assist Member States in four ways. First, it will receive and evaluate the training plans voluntarily submitted by Member States to confirm how well they reflect NA and design procedures. Second, ICAO will assist Member States with projects to assess the need for more comprehensive training programmes that may involve the whole organization. Third, it will assist Member States identify and address specific performance gaps in one or a few related jobs (or positions). Finally, the service will encourage participating Member States to track their efforts over time and evaluate how well they address their own needs through performance-based training.



Figure 5: The ICAO NAS is a gated and secure service

CONCLUSION

The ICAO Needs Assessment Service is an example of specific activities that are underway at ICAO to assist Member States make better use of performance-based training. By assisting States make sound decisions about training, and by tracking the results achieved over time, ICAO can better identify the key issues that affect civil aviation in the areas of recruiting and maintaining qualified employees and then work with Member States to eliminate them. ■

¹ Based on Roger Kaufman's Organizational Elements Model.

² From the Kirkpatrick Partners Website, <http://www.kirkpatrickpartners.com/OurPhilosophy/TheKirkpatrickModel>



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ICAO LAUNCHES THE NEW SAFETY MANAGEMENT TRAINING PROGRAMME (SMTP)

AN INTERVIEW WITH CAPT. GUSTAVO J. BARBA ROMÁN
ICAO SMS-SSP INSTRUCTOR
SUBJECT MATTER EXPERT FOR THE NEW ICAO SMTP



CAPT. GUSTAVO J. BARBA ROMÁN

He graduated from the Spanish Air Force Academy in 1987 and earned a Masters in High International Studies in 1989. Type rated on the B757, B767, MD80 and A320, Capt. Barba has 20 years of experience as a pilot and received the Spanish Air Force Flight Safety Award for Best Pilot Performance in 1994. He worked as a Safety Policy and Regulations Manager in the UAE from 2012 to 2015. He is currently an ICAO Standards and Procedures Officer and SME in Human Factors and Flight Safety, ICAO SMS/SSP OJT Instructor and CRM Facilitator and Accident Investigator.

✈ The International Civil Aviation Organization recently added the Safety Management Training Programme to its growing list of online courses for aviation professionals. The following is an interview with Capt. Gustavo Barba who was instrumental in development and validation of the training package in accordance with the ICAO TRAINAIR PLUS methodology.

The Standardized Training Package consists of computer-based training (CBT) covering two curricula – the State Safety Programme (SSP) and Safety Management Systems (SMS), as well as face-to-face workshops. It replaces conventional classroom Safety Management training and provides more consistent, comprehensive, reliable and cost-effective safety management learning activities to ensure that States and service providers are adequately prepared for the full implementation of their SSP and SMS.

ICAO's Global Aviation Training (GAT) Office interviewed Capt. Barba about this new way to approach Aviation Safety Management implementation. Here are his comments:

WHY DID ICAO FEEL THE NEED FOR A NEW APPROACH TO SAFETY MANAGEMENT?

While ICAO's Annex 19 is the cornerstone of safety improvements on a global scale and ICAO Standards and Recommended Practices (SARPs) are aimed at a safer aviation system overall, our research indicated a plateau in the level of safety as a whole. The rate of accidents per million departures has almost flattened out with very little discernable difference in a set of consecutive years. This is difficult to overcome using the same methodology for safety improvement. There was a need for effective safety management implementation where competency-based training is the foundation of the success.

As well, particularly in emerging markets that are leading the world in aviation growth, effective Safety Management Implementation has become a priority. Facilitating the free flow of knowledge and making it accessible to these markets is an important way that ICAO serves the global community. We decided to take a fresh look at how those involved in safety management should be trained.

HOW DID THE TRAINAIR PLUS METHODOLOGY PLAY A ROLE?

The programme concept fit very well with the TRAINAIR PLUS ISD methodology. We needed a more consistent and multidisciplinary learning solution that was



Capt. Barba Roman with Mekki Lahlou, Training Planning and Operations Officer for ICAO's Global Aviation Training Office

task-oriented and competency-based. The idea of creating a Standardized Training Package (STP) using the TPP system of course development and validation ensured that we were developing courses that offered a well-structured technical and managerial curriculum across all States and regions.

The other great advantage of this programme is that, because it is computer-based learning, we can offer instruction in SMS/SSP worldwide at a very reasonable cost compared to the classroom and instructor-based courses of the past. We regard this CBT course as an accessible and affordable introduction to SMS/SSP.

The complement to the CBT is the face-to-face workshop where the knowledge acquired during the CBT is implemented using the latest generation of IT tools that are being used by the international industry. This way we will ensure that students acquire the necessary skills and attitudes to successfully accomplish Safety Risk Management and Safety Assurance tasks.

IS THE SMTP ONLY AN INTRODUCTION TO SMS/SSP?

Don't get me wrong. The SMTP is a full-fledged training package for safety professionals. It is targeted towards State regulatory and administrative personnel involved in implementation and oversight of SMS as well as SSP safety and quality managers, regulatory managers, flight operations inspectors, airworthiness engineers and surveyors, ANS and aerodrome inspectors, and accident investigators – in short, all those who are involved in planning, developing and implementing SSP and/or SMS including industry safety professionals. Partnership between States and industry is an essential pillar of the SMTP.

“... Standards and Recommended Practices are aimed at a safer aviation system overall, our research indicated a plateau in the level of safety as a whole.”

THE SAFETY MANAGEMENT TRAINING PROGRAMME

The SMTP consists of a 40-hour online course and accompanying face-to-face workshops (approx. 24 hours) designed for those who work for a State regulatory body involved in the planning, development and implementation of State Safety Programmes, and for staff who work for an aviation service provider involved in the planning, development and implementation of Safety Management Systems.

The course will provide State regulatory and administrative personnel involved in State Safety Programme (SSP) implementation and/or operation with the basic knowledge, skills and attitudes to advocate safety management systems (SMS) requirements and guidance material, as well as the acceptance/oversight of service providers' SMS.

The course will provide service provider staff with the basic knowledge, skills and attitudes to implement, administer or participate in SMS operations.

After having successfully completed this programme, the participants will develop competencies necessary to:

- apply the fundamental concepts and principles of aviation safety management;
- participate in the SSP/SMS implementation plans based on the frameworks provided in ICAO safety management Standards and Recommended Practices (SARPs), Annex 19 and guidance material, such as the *Safety Management Manual, Third Edition – 2013*; and
- participate in the resolution of safety-related issues by applying the required skills and knowledge associated with the key SSP/SMS processes.

The ICAO GAT Office, established in January 2014, is the focal point of contact for all ICAO training related activities. It is responsible for the planning, management and coordination of all ICAO aviation training activities ensuring the efficient, effective and harmonized implementation of the ICAO Training Policy.

All STPs are validated by the TRAINAIR PLUS Programme to ensure that they have applied the TRAINAIR PLUS methodology, based on the ICAO *Training Development Guide, Competency-based Methodology* (Doc 9941).

For more information on enrolment in the Safety Management Training Programme visit www.icao.int/trainairplus or email the Programme at trainairplus@icao.int

As a stand-alone STP, the online SSP and SMS training course provides a comprehensive overview of Annex 19 and ICAO's Safety Management Manual (SMM) (Doc 9859), as well as practical tools to implement the principles of safety management. However, in terms of a career in safety management, we see this as the beginning of a much larger training programme.

THIS IS WHY YOU REFER TO IT AS A PROGRAMME RATHER THAN AN STP?

Yes. The online course and face-to-face workshops are the foundation for training a new generation of safety professionals. This fits with our long term vision of creating, motivating and continually updating career safety professionals on the latest tools and techniques in safety intelligence and safety management. We don't intend to forget the safety professionals who successfully complete the SMS and SSP course.

HOW DO YOU INTEND TO KEEP THESE SMS AND SSP PROFESSIONALS "IN THE LOOP"?

For one, we intend to keep in touch with them by offering them opportunities to participate in online and face-to-face workshops on safety intelligence and safety management. We'd like to create a community of safety professionals who share their knowledge and best practices within the community.

Second, we would like to enlist the active participation of States and industry. States can provide us with real case scenarios that will broaden the experience of our safety professionals while the industry can offer exposure to sophisticated, cutting edge technologies that otherwise might not be available to some States.

Ultimately, we would like to form partnerships with the academic community, bringing universities on board so that we can offer full curricula and degree programmes to safety professionals that allow the next generation of professionals to choose a career in aviation safety management.

SO, ESSENTIALLY YOU ARE CREATING A CAREER PATH FOR SMS AND SSP PROFESSIONALS?

Absolutely. As we all know, the aviation industry will continue to expand in the decades to come. It is extremely important that we attract the best people available and provide them with the knowledge, skills and attitudes necessary, not just to maintain the standards of safety in place today, but to bring sound, innovative solutions to the table.

We can do this by creating a career path for aviation safety professionals, by sharing knowledge and best practices, by inspiring lifelong learning, by continuously introducing our professionals to the latest state-of-the-art innovations and by ensuring that all States work in partnership to meet challenges and develop solutions.

The industry as a whole has an admirable safety record. But we can do better. This I know. **Thank you. ■**

WELL-BEING AND STRESS IN THE WORKPLACE: THE IMPORTANCE OF PSYCHOLOGICAL CONTRACTS



HEATHER STUBBS

With over 15 years of Aviation Experience and extensive management experience, Heather holds an academic background in psychology with further certifications in Teaching, Training and Assessment of Learning. She currently holds the position of Manager Training Standards (Safety and Emergency Procedures) with Etihad Airways. Previously she has held similar roles with both VVIP and Commercial Operators in both Europe and the Middle East. Her expertise includes all aspects of Safety Training - Crew Resource Management, non-legislative training and development which is complimented by extensive understanding of performance management and organizational strategy.

✈ In a world that increasingly uses performance management tools and development to evaluate employee productivity and engagement, how is it impacting how employees perceive and feel about their organization? What drives individuals to choose one organization over the other? What direct or indirect factors influence the loyalty of employees? Organizations need to identify the importance of the psychological contract that exists between employees and employers to understand the importance of well-being in the workplace.

Herriot and Manning¹ refer to the psychological contract as “the perception of mutual obligations and expectations to each other held by two parties in an employment relationship”. The difference between this and that of a legal contract is that there are no limited terms or details. The psychological contract encompasses the full reality of each party’s perception and is realistic about the full relationship. It can be considered a promissory note since each party will have a subjective view which may never be discussed but there is an explicit or implicit promise beneath. An organization should understand that this perception is built very early on in the relationship. Individuals choose companies based on reputation, financial benefits, opportunities and support for continued professional development amongst other reasons, but so often these illusions are scattered for various causes.

In recent years, many peers are discouraged from applying to organizations because the recruitment process is so complex. Passwords have to be setup and changed without auto-save features, JPEGs have to be uploaded and more often than not, no acknowledgement is received from the concerned organization. Once an individual has traversed this personal marathon and accepts an interview, the psychological contract truly begins to form. Individuals actively seek information and may even communicate with others who are already part of the organization. Perceptions may be affected by the interviewer as the selection process is undertaken, and once this perception is formed it is most resistant to change².

In general we, as individuals, compartmentalize our psychological contracts as either transactional or relational. Transactional refers to tangible or economic factors with short-term gain. Should the salary be gastronomical with the best benefits in the business? In short most individuals will say - YES! While high pay for performance may be suited to short term project work or the launch of a new initiative, these contracts are static and resistant to change. Healthy psychological contracts are those associated with important outcomes for both the individual and the organization³. When one examines relational contracts the dynamic and intangible must be appreciated, and for the individual, they must be socially satisfying.



HOW TO ESTABLISH VIGOROUS PSYCHOLOGICAL CONTRACTS:

- Maintain a credible reputation amongst peers and within the industry;
- Recruitment websites should be easy to access and complete;
- Selection process should be robust, ethical and objective;
- Reward pay for performance;
- Engage with employees to heighten job satisfaction;
- Encourage continued professional development;
- Support personal goal and objective setting;
- Establish work-life balance; and
- Reward loyalty

Unfortunately, even with the most robust procedures and effective organizational management, breaches and violations of psychological contracts are not uncommon⁴, and coping with these betrayals will depend on a number of factors. To understand how we cope, we must first identify the concept of employee well-being. Well-being is a general term used to describe both the positive and negative experiences that may be related to the workplace. While it is easy to invoke the negative aspects of well-being, it is equally as important to raise the positive aspects. Diener et al⁵ categorize the following as the four mechanisms of employee well-being:

- Positive well-being which encompasses mental health, joy and happiness;
- Psychological distress, which includes anxiety, anger, stress and depression;
- Life satisfaction; and
- Satisfaction which is specific to a particular domain or situation. In this context the most relevant is job or work satisfaction

If we are to examine our own industry, the four components can be applied to any of the various domains. From pilots, cabin crew, operations, ground and other non-shift workers, to the more traditional office domains of human resources, finance, and learning & development, the individual desire to have a healthy balance in all four mechanisms does not change, but how the organization acknowledges and addresses the balance will. A lack of financial security, supportive management, trust and limited opportunity for skill use, variety and progression can lead to negative consequences for both the organization and the individual.

STRESS

Stress is a psychological term which has entered popular vernacular. No one wants it, we all have it, and few understand

the full implications of stress in the workplace. Various physical stressors such as working hours, excessive noise and bad lighting are all issues that that can only be mitigated in a number of roles. For a flight crew, a 4am departure on a maximum capacity wide-body aircraft is systemic to their chosen career path, but layover times, per diems and sufficient annual leave can mitigate psychological distress and assist with life satisfaction.

For human resource personnel their role often involves conflict since their fundamental function conveys concern for the workforce, while loyalty and performance must be executed to a set standard to ensure organizational efficiency. An HR manager may be aware of a personal issue where under-performance is recorded, but must still represent the organization and as such, an inherent amount of stress may be created due to the contradictory nature of the role. A lack of job specifications, clear reporting lines and absent management can give rise to role ambiguity, which over time, threatens the reputation and survival of an organization because of low morale and employee engagement.

HOW STRESS MANIFESTS IN AN ORGANIZATIONAL ENVIRONMENT:

- Emotional Labour is an integral part of many roles: customer facing, training, HR, and management. How emotions are displayed in organizations and established as “the norm” are known as display rules⁶. Reverting to the psychological contract formed at the beginning of employment, the norms that were experienced in a previous organization may not be the norm in the new organization, so the individual will adapt one of two processes. **Surface Acting** – by displaying emotions we do not feel, or **Deep Acting** – by pretending or deceiving ourselves by modifying actual emotion. Research by Scott & Barnes⁷ demonstrates that the former is more damaging to employee well-being than the latter.
- Under/Unemployment is topical due to the recent economic crises and the impending workforce shortages that are discussed. While the negative impacts of unemployment should not be dismissed, equal attention should be given to underemployment. The 2011 Gallop Poll suggested that those who felt bored or monotonous due to a shortage of work or because little effort was required in their job, are more likely to demonstrate physiological symptoms of stress such a boredom and worry. This is supported by Friedland & Price⁸ whose academic research indicates underemployed individuals show lower levels of well-being and health.



Work related stress has a number of consequences for the individual, and where there is prolonged exposure to job stressors, individuals reach a state of burnout. Traditionally, burnout is measured using Maslach Burnout Inventory⁹ which assesses emotional exhaustion, depersonalization, and reduced personal accomplishment. In the last decade, emerging organizational psychologists are looking at the opposite of burnout, that is, of employee engagement.

“TIME FLIES WHEN YOU ARE HAVING FUN”

High engagement is a positive state for both the organization and the individual since the employee is fully engrossed in their work. By definition, employee engagement is described as a “positive, fulfilling work-related state of mind that is characterized by vigour, dedication and absorption”.¹⁰ To truly fulfill satisfaction specific to a particular domain/situation and to increase job satisfaction, one must invest energy and determination characterised by pride and enthusiasm.

Motivation, good psychological contracts and a positive organizational climate lead to high performance and employee engagement.

HOW CAN ORGANIZATIONS MINIMIZE STRESS, IMPROVE EMPLOYEE WELL-BEING AND ENSURE RESULTS ARE DRIVEN BY HIGH ENGAGEMENT?

- Clear organizational structure;
- Defined job descriptions and accountabilities;
- Goals set must be SMART (Specific, Measurable, Achievable, Realistic and Timely);
- Feedback to individuals about their performance within the organization must be adequate, and given as needed; and
- Be transparent with the information given to employees about all aspects of the organization’s functioning and those activities that affect them.

“Looking beyond the economic crisis: mobilizing the aviation community to recruit, educate, train and retain the next generation of aviation professionals”.

While ICAO continues working with the NGAP taskforce, how can organizations assist with the anticipated global shortage of aviation professionals? In summary, recruit the best talent and reward them to increase retention, job satisfaction and overall organizational performance. Establish, engage and encourage by

ensuring clear objectives, work/life balance and continued professional development. Always maintain credibility and transparency. If as an organization you can endeavor to achieve all of this, you can be satisfied that the psychological contract between you and your employees is solid. The goal is to have an organization supported by employees and employees supported by the organization. ■

“Train people well enough so they can leave, treat them well enough so they don't want to”

-Richard Branson, Founder Virgin Group

- ¹ B Herriot, P., Manning, W. E. G., & Kidd, J. M. (1997). The content of the psychological contract. *British Journal of Management*, 8, 151-162.
- ² Rousseau, D.M. (2001). Schema, promise and mutuality: The building blocks of the psychological contract. *Journal of Occupational and Organizational Psychology*, 31, 511-541
- ³ Guest, D.E. (2004). The Psychology of the Employment Relationship: An Analysis Based on the Psychological Contract. *Applied Psychology: An International Review*, 53, 541-555.
- ⁴ Robinson, S.L. (1996). Trust and Breach of the Psychological Contract. *Administrative Science Quarterly*, 41, 574-599.
- ⁵ Diener, E., Suh, E.M., Lucas, R.E. & Smith, H.L. (1999). Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin*, 125, 276-302.
- ⁶ Hochschild, A. (1983). *The managed heart: Commercialization of human feeling*. Berkeley: University of California Press.
- ⁷ Scott, B.A. & Barnes, C.M. (2011). A Multilevel Field Investigation of Emotional Labor, Affect, Work Withdrawal, and Gender. *Academy of Management Journal*, 54, 116-136.
- ⁸ Friedland, D.S. & Price, R.H. (2003). Underemployment: Consequences for the Health and Well-Being of Workers. *American Journal of Community Psychology*, 32, 33-45.
- ⁹ Maslach, C., Leiter, M. P., & Schaufeli, W. B. (2009). Measuring burnout. In C. L. Cooper & S. Cartwright (Eds.), *The Oxford handbook of organizational well-being* (86-108). Oxford UK: Oxford University Press.
- ¹⁰ Schaufeli, W.B., Martínez, I.M., Marques Pinto, A., Salanova, M., & Bakker, A.B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33, 464-481.

CALCULATING THE TRAINING ROI



KEVIN CARON

He joined ACI in 2010 and currently holds the position of Head, Global Training and Developing Nations Airport (DNA) Assistance Programme. In addition, he serves on the ACI-ICAO Airport Management Professional Accreditation Programme (AMPAP) Steering Committee as ACI Team Leader. Prior to ACI, Kevin spent eight years with the Montreal Airports Authority (Aéroports de Montreal) before joining IATA in 2003, where he held two training management positions in security and airports.

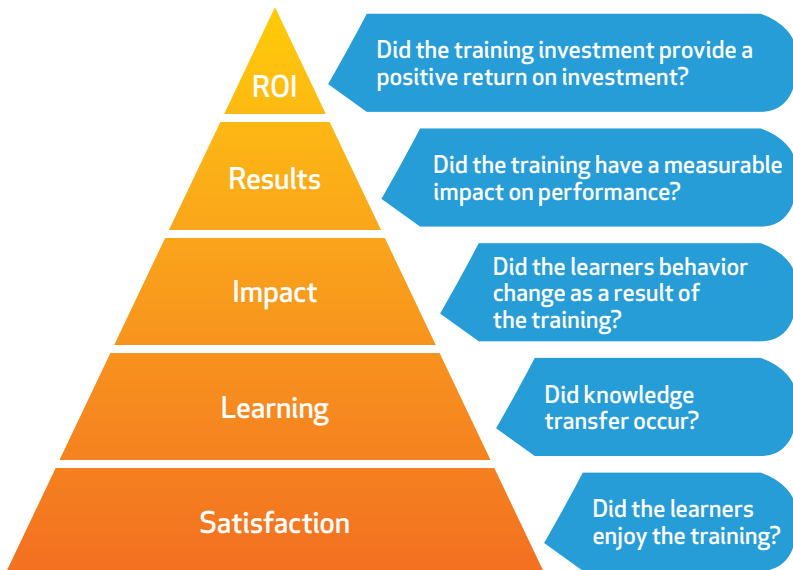
✈ In the previous issue of the Training Report, I discussed the four levels of the Kirkpatrick model: Reaction, Learning, Behavior and Results. In the view of many, an additional element can be added: Return on Investment (ROI). While ROI can be included in Kirkpatrick's original fourth level (Results), the challenge in doing this is that the ROI could foreseeably be ignored when focusing strictly on Results.

To that end, many authors on training effectiveness have proposed adding a fifth element to Kirkpatrick's model: How to examine the ROI. This allows us to effectively measure the impact that the training programme in question has had on the organization (e.g., happier customers, fewer airside incidents, etc.).

With that in mind, after a training activity has taken place, the students' performance needs to be measured again to determine if there was improvement. The good news is that ROI can be determined through a scientific method. The training ROI is the measure of the monetary benefits obtained by the airport over a specified period, in return for a given investment in education courses or programmes. So in simple terms, it is the extent to which the benefits of training exceed the costs (money invested).

Let's look at a theoretical example of airside at an airport. Over the past year there has been a noticeable increase in airside incidents causing both injuries to staff and damage to equipment (buildings, jet bridges, vehicles, etc.). To address the issues, both the airport training manager and the airport safety manager take action. One of the tools to used resolve this issue involves providing training courses to all airside staff. An analysis during the 12-months that follow the training indicates a decrease in the number of incidents, and consequently a decrease in injuries, damage and costs.

By putting into practice what has been learned, organizations may achieve significant cost savings and revenue generation as a result of such human resource investments. As can be seen above, in instances where safety is concerned, injuries and incidents may be reduced. Additionally, investing in education leads to returns at an individualized level (increased career opportunities) and for organizations as a whole (safety and operational enhancements).



Although the external benefit is sometimes hard to quantify (e.g., an increase in advertising revenues), it could nevertheless be estimated with effective monitoring systems. Of course, in order to ensure an accurate measurement of ROI, it is important to have detailed data before and after a training activity occurs.

Lastly, it is important to note that the measurement of training ROI is not a one-person show. Used properly, it is a powerful tool that enables HR and training managers to measure just how much a training activity contributes to achieving organizational effectiveness, and as such, requires the coordinated efforts of many members of the airport team to ensure an accurate measurement of its benefits. ■



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THE ADVANTAGES OF DISTANCE LEARNING FOR SMALL TO MIDSIZE AIRLINES



GREGORY DARROW

He has a long history of pilot training with South Pacific Island Airways, Wings West, American Eagle, Aloha Airlines and American Airlines. A pilot with over 19,000 hours of flight time, he has flown and been both an instructor on many regional and mainline aircraft and an FAA training centre examiner on Boeing 737 and 757/767 aircraft. He has assisted airlines around the world in recruiting, training and retaining flight crews and has held Vice President Positions at Flight Training International and Pan Am International Flight Academy. In 2015 he joined CPaT Global as Vice President of Sales and Marketing.

✈ The ways that airlines communicate with their pilots are changing rapidly in today's "information age". Technologies that were previously considered advanced are becoming commonplace and new technologies are continuously evolving. Distance learning has the capacity to deliver more effective, timely and cost effective pilot training than traditional airline classroom instruction.

Airlines are faced with the growing pressure to enhance curriculum quality while maintaining costs, and their training departments must find ways to accomplish this within the framework of extreme budget constraints. Many small and midsize airlines, operating under tight budget constraints and expanding pilot training requirements, must choose between continuing expensive traditional classroom training or embracing new distance learning technologies to enhance the effectiveness and efficiency of pilot training. For distance learning providers to meet the goals of training departments, they must be able to increase the comprehension and quality of training, while reducing or maintaining training costs.

For many years, the world's larger airlines, with extensive training budgets and technology resources, have utilized distance learning as a tool for increasing training value, reducing costs, and tracking pilot training data to increase safety and regulatory compliance. These same benefits have not been achieved by many small and midsize airlines because of costs restraints and limited communication technologies that restrict access from rural parts of the world where numerous of these airlines operate – yet when you look at the accident and incident rates of



For distance learning providers to meet the goals of training departments, they must be able to increase the comprehension and quality of training, while reducing or maintaining training costs.

several of these airlines, distance learning is exactly the tool they need to enhance the quality of their pilot training and improve airline safety. For these airlines, the benefits include an increase in pilot system knowledge where changes in safety and standard operating procedures is communicated to their pilots, and there is continuous access to training resources provided wherever in the world the pilot is located.

This ability to provide 24 hour-a-day pilot access to training and operational information is of special interest to airlines operating in remote areas of the world. New distance learning technologies, such as the ability to work offline on iPad or Android devices, can aid training departments of smaller airlines in overcoming the disadvantages of pilot operations in isolated geographic locations.

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Another advantage of distance learning to airlines operating in remote areas is the ability to connect the pilot with his instructors. This is accomplished by electronic access to pilot training courses, operational bulletins, and by connecting instructors and pilots through inquiry and feedback tools. For example, in all CPaT Aircraft and General Subject's training courses, a pilot, studying remotely, can post a question on each slide that will be sent to his instructor for follow-up. With access to distance learning training materials, pilots in distant and remote operating areas can now communicate with their instructors and training departments through all hours in the day and the training department can verify the amount of training a pilot has accomplished, the subjects the pilot is challenged on, and the results of the pilot's training quizzes and exams.

In a recent CPaT survey of small to midsize airline training managers, the majority of the respondents strongly supported distance learning. The challenge for these airlines has been to cull the benefits from distance learning, given their very tight training budgets. With advances in communications and software technology, many of the benefits of distance learning that were too expensive and out of reach to smaller airlines in the past, are now within their budgets. For example, by reducing initial or recurrent classroom training by even one or two days, the savings in hotel, travel and per diem costs can easily pay for many new distance learning products.

The success of distance learning in the airline sector is accelerating as more and more training departments are realizing the importance and power of interactive distance learning. How does a training manager make a case for new distance learning tools and curriculum? CPaT has recognized that once an airline manager is able to identify and quantify the benefits of increased training quality, enhanced safety and cost savings of distance learning, resources are made available. The investment in distance learning technology

turns into long term cost reductions by reducing travel, delivery and training expenses, while increasing effectiveness and providing the ability to track results.

In order to fund and implement a distance learning programme, airline managers and distance learning providers must consider their airline's unique circumstances, including:

- **Understanding the culture of the airline and pilot group:** Each airline has a unique set of problems, concerns, and assets which are reflected in the pilot staff and training philosophy which contribute to the culture and climate of the airline. By understanding the culture, validating the unique nature of each airline, distance learning providers can customize solutions to meet the airline's specific needs and goals.

- **Understanding the value the airline places on training.** Any effort to embrace distance learning should explore the value that the

airline places on the experience and professionalism of training. The growth of distance learning technologies will be dependent on the importance that the airline gives to training development.

- **Understanding that airline management must embrace new learning technologies, not to constrain them.** Collaboration between senior management and training departments is essential to the success of implementing a distance learning programme. All stakeholders must work with a shared purpose toward a shared vision. Furthermore, the capacity for promoting partnerships and alliances will create a need for using bureaucratic means to facilitate change, and not constrain the efforts of advocates of distance learning.

What is the future of distance learning technologies in airlines? Pilot training will look different than it does in most airlines today. Traditional classes will shrink or disappear to accommodate activities made possible by technology. A single subject approach towards pilot instruction and learning is being replaced by courses that combine subject matter of previously separate subject matters. Multiple choice tests will be replaced by new kinds of assessments that measure the achievement of higher-order skills. As an example, at CPaT we are pioneering gaming assessment tools that engage and challenge the pilot while measuring his comprehension. New and exciting delivery systems are being developed that will provide the pilot with exciting new ways to access training including Apps, on-line and off-line tools and many more. The ultimate goal of this new trend of pilot instruction is to foster pilots that are lifelong learners, where access to training material and communication tools is continuous and engaging instead of repetitive and tedious.

At CPaT Global, we believe this trend is about to accelerate dramatically. ■

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DELIVERING ATC TRAINING IN THE GLOBAL MARKET: NATS TACKLES CHALLENGES



CLARE MACDONALD

In her capacity as Head of Training for NATS' Operational ATCOs and Engineers, she must ensure that NATS is able to meet its current and future strategic and operational challenges in support of both regulatory and growth agendas. Her remit also includes Business Services, the Operational Resource Solutions team and the Airspace Service Line which covers their commercial strategy, governance and contract deliveries.

 *For more than 60 years, NATS has been proudly delivering top quality Air Traffic Control (ATC) Training to UK and international students. Maintaining solid professional standards through today's challenges calls for academic oversight and assurance that everything is in place so that student visa applications are processed smoothly. Head of Training at NATS, Clare MacDonald, tells their story.*

I was delighted to be asked to lead NATS training last year. In my 25-years with the company in various roles, I've seen first-hand the great job the NATS training team does to prepare air traffic controllers for their careers.

NATS delivers high quality and effective training to Air Navigation Service Providers around the world, as well as to our own operations. Though I was aware of our many offerings, I didn't appreciate all the ways we have transformed the design and delivery of our training over the years, or how we've created a learning environment where everyone takes ownership.

Training delivery seems to go in cycles. While in 2008 our team was delivering over 100 new controllers to NATS every year, those numbers decreased in recent years. The phenomenon has been seen many times over the decades and each time NATS has offered its available capacity to international students. Not only does this make good business sense for NATS, but it also gives Air Navigation Service Providers around the globe access to NATS' high quality training for their controllers.



NATS Corporate and Technical Centre, Whiteley, United Kingdom

Just as the role of an Air Traffic Controller has changed, Air Traffic Control training has evolved significantly over the years.

We have always worked hard to ensure our training is of the highest professional standards and we work closely with our UK and European regulators and ICAO, to maintain these levels. Just as the role of an Air Traffic Controller has changed, Air Traffic Control training has evolved significantly over the years; the challenges call for significant amounts of higher level learning.

In recent years, we made a point of demonstrating the value of our training using external academic standards, taking various approaches to satisfy both the requirements of our customers and our government, where there must be assurance before they will issue visas to students.

The UK was the first European State to organize regular training courses for Air Traffic Controllers. In 1949, the School of Air Traffic Control was established at Hurn, in the South of England, to train the Air Ministry's controllers and assistants.

From 1959 other nations began sending students to the UK for ATC training and today, most of NATS' air traffic controllers are educated at our training school, alongside students from States worldwide. Some client brands we have recently worked with include LPS (Slovakia), CAD (Hong Kong), Avinor (Norway), Brunei Shell Petroleum and Jersey Airport.

In August 2011, NATS relocated to a purpose-built training facility at the NATS Corporate and Technical Centre. This is where we continue to provide NATS with all of its Tower, Approach and En-Route training requirements, as well as training for all NATS Engineering staff.

We're extremely proud of our state-of-the-art training facility. While we deliver external training globally, because our

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simulator and part-task training facilities are so advanced, our preference is for students to come to us so they can fully benefit from our offerings. Whilst this is straightforward for our European clients, students travelling to us from outside Europe need a visa, and for these to be granted we had to demonstrate that we met certain academic and educational requirements. Given the selective and highly-specialized nature of our training, and the nature of the licensing assessments, this was not a straight forward journey! An added challenge was to facilitate the process so that it did not extend the training time for students or add unnecessary administration and workload.

When we mapped out the process required to ensure compliance, we were surprised at how many steps were involved. In essence, to ensure our international students were able to get visas from the UK Home Office, NATS Training had to achieve formal external educational oversight accreditation and prove that we offered recognised educational qualifications.

Educational oversight was obtained from both the British Accreditation Council (BAC) for Independent Further and Higher Education, and the Independent Schools Inspectorate (ISI) for private further education. This involved on-site audit inspections where we provided evidence of all the scenarios the students would experience. The inspectors assessed how strong our systems and processes were from course design and delivery to health and safety. They also wanted to understand how we respond to student feedback and how we envisioned future development.

To support the process of obtaining educational oversight, our courses had to be developed into recognised educational qualifications. Not only that, we had to become a recognised centre, with the ability to teach these recognised qualifications, since the same obligations were also required by the UK Home Office in order to grant student visas.

We achieved this status and proved that we met recognised external standards that our students and customers can measure

us against. We further instituted change tracking processes, which allow us to maintain this accreditation with minimal ongoing administrative requirements.

Since many customers want their students to earn university credits, a Foundation Degree in Air Traffic Management was developed in partnership with Kingston University to allow NATS to join a number of other prestigious organizations in the aviation sector that are linked with the university.

This closed degree programme forms the first two years of a BSc in Aviation Studies and is only available to NATS trainees or trainees of NATS' customers. The programme has been designed to meet the academic standards required by Kingston University and the strict professional requirements of rating courses by NATS and the regulator. It is an integrated programme with Kingston University and NATS teaching specific modules of the degree programme that combine academic rigour with workplace learning.

The programme will give students external recognition of their professional qualifications and an excellent grounding for becoming controllers of the future. It is an attractive proposition all round because it also leads to a wider range of opportunities for the students. It is a further step in the evolution of our training – because of its flexibility, it will continue to evolve with the industry.

Being an associate with Trainair for the past three years has allowed us to appreciate the need for structured training and analysis and the benefits it provides. As a result we have been progressively training our delivery team to allow these principles to be incorporated in our training course development. Through our current commercial activities we are now looking forward to obtaining our full membership, enabling our courses to be incorporated in the full Trainair course catalogue. ■

For more information on the courses NATS delivers, please visit: <http://www.nats.aero/services/consultancy/training/>



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ONLINE TRAINING: THE CHALLENGES AND BENEFITS



CHRISTIAN SIVIÈRE

Following an international freight forwarding career of over 30 years in Europe and in Canada, Christian Sivière started an import-export consultancy in May 2010, Import Export Logistics Solutions/Solimpex to offer consulting to help SMEs grow internationally as well as training on topics related to international trade, logistics, international trading terms and customs compliance. A CPMT accredited trainer (Québec designation), Christian lectures for the Canadian International Freight Forwarders Association (CIFFA), for Collège Marie-Victorin and gives seminars and webinars for other trade organizations.

✈ Founded in 1948 in Montréal, the Canadian International Freight Forwarders Association (CIFFA) represents some 250 international freight forwarders who are involved in air cargo, ocean freight, land transportation and related activities in Canada. The association is managed by an executive director and supported by a staff of ten employees at the Secretariat office in Toronto. While volunteer regional committees in Montreal, Toronto and Vancouver, each headed by a director on the national board, plan and host networking events that build the community, the volunteer national board of directors, who are elected at the association's annual general meeting, oversee the activities of the association on a national level. Association members must adhere to recognized standard trading conditions and have adequate liability insurance, including errors and omissions. Having qualified, trained staff is a fundamental key to its success, something that has been enabled by the training tools offered by the CIFFA education programme.

Over the last three years CIFFA's education programme has gradually transformed from a classroom environment to an on-line webinar platform. The core of the programme is the Certificate Programme, which includes two courses: *International Transportation and Trade* (taught from September to December) and *Essentials of Freight Forwarding* (taught from January to April). This module deals with air cargo, ocean freight, land transportation, customs, geography, packaging, Incoterms, letters of credit, i.e. the broad knowledge of the tools available and of the regulations applicable to international transportation, both import and export. A second-year module, taught under the same time-frame, leads to the *Advanced Certificate Programme*, introducing students to more complex topics of international freight forwarding and the global supply chain, with two courses: *Specialized Freight Services* and *Supply Chain Management and Marketing*. For years, these have been taught by CIFFA professional freight forwarders in classroom environments in Montréal, Toronto and Vancouver, one evening a week from September to April.

Depending on the location, a typical certificate programme class may have between thirty and ninety students, while an advanced certificate class generally has fewer. Three years ago, the decision was made to move the *Advanced Certificate Programme* on-line, while the Certificate Programme continued in a classroom environment.

The first major step in the transition involved the selection of the appropriate software. So many products were available on the market, ranging from basic to sophisticated, and with varied costs. Allowing the instructor to present slides on screen and connect with students through sound and webcams was basic, but using whiteboards, with the option of running interactive polls and recording the sessions, so that the students could access them afterwards, was an essential add-on. Other decisive factors included audio quality and the number of participants the software could accommodate.

After selecting the software, three groups had to be convinced: the board, the instructors and the students. The first group that had to be brought on-board was the Directors of CIFFA, most of whom were big fans of the traditional classroom setting,



since that is how they themselves had learned. They worried that students would lose the interaction, which is often where the “real” learning takes place, or so it is sometimes perceived.

The lecturers were the group that needed to be convinced. Skeptical instructors didn’t know what to expect, they were used to the interaction of the live environment and they weren’t all at ease delivering classes via webinars. From a lecturer’s perspective, on-line instruction is more demanding, because you can’t give approximate information or talk your way out of things as you sometimes can in class. Nor can the lecturer turn the tables on a student by asking “what do you think?”, when asked a challenging question. Before switching to on-line learning, training the trainer became a priority, and it became a key element to its success. On-line courses are very practical for students, and the lecturers discovered they would enjoy more freedom as well, since with high-speed internet, they could deliver classes from their home or office or when travelling. The buy-in from instructors was not difficult to obtain in the end, and training the trainers on the new delivery method and software became essential.



The third and last group, the students, were easily convinced thanks to the convenience of the new delivery method. Although some students do prefer traditional in-class learning, the vast majority of students were very enthusiastic and provided positive feedback. CIFFA was able to test this when surveys were conducted during graduation events held every June in Montréal, Toronto and Vancouver.

In September 2015, the *Certificate Programme* moved to a virtual classroom as well. The same challenges had to be overcome, with the exception of selecting the software, but it was a much easier process, thanks to the positive experience of the *Advanced Certificate Programme*. Another tool successfully launched by CIFFA is a new e-learning on demand course, which enables students to take the course on their own schedule and at their own pace. The new tool gained a lot of popularity because of its flexibility.

In 2014, CIFFA enrolment totalled 777 students for all its in-class and on-line programmes, and of those, 292 students were enrolled in courses leading to the basic CIFFA certificate. Overall, from the students’ perspective, the vast majority of them were very happy with the online experience, since it delivered the same material in a much more convenient way. The classroom environment remains more demanding, since it involves getting to and sitting in a class for four hours after a work-day, and then a commute home afterwards.

From CIFFA’s perspective, there are many benefits to providing the courses online. One is to be able to satisfy a national audience that lives outside of the Montréal, Toronto and Vancouver metropolitan areas. Another benefit is that there is uniformity coupled with more efficiency. Since each topic can be taught by an expert teaching in his or her area of expertise, putting the courses online has allowed CIFFA to employ subject matter experts in every area of the courses, enabling a uniform and highly focussed education for students across the country.

Another important advantage provided by this technology is that the on-line method enables students to receive their grades upon completion of the on-line exams, and CIFFA has better tools to monitor the students’ progress, to see how many are viewing which lessons, how they are doing on their exercises and tests, and it allows them to make adjustments, if needed, at an earlier stage. A last point and a non-negligible one is that the costs of running the programme have gone down (running an on-line webinar is cheaper than running several classrooms), making it possible to shift resources to update the course content and create new materials. This has enabled CIFFA to reach a wider audience, with a more flexible way of delivering its training programme, improving the students experience, something that will eventually attract more students. ■



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BUDDHIKA HEWAWASAM

He is Deputy General Manager of the Sri Lankan Aviation College, the largest aviation training academy in Sri Lanka, which is owned by Sri Lankan Airlines, the national airline. Under his leadership, the airline's professional training arm (then known as the International Aviation Academy) won the prestigious IATA Global Top Ten Airline Training Center Award in 2013 and became a Regional Training Partner of IATA. He holds an MBA in Marketing from the University of Colombo, and is also a graduate in Management Disciplines from the University of Sabaragamuwa.



"With our sector set to double in capacity by 2013, there is simply no room for complacency where aviation's need for skilled personnel is concerned."

- Dr. Olumuyiwa Bernard Aliu, President of the Council, ICAO

"For many of us in aviation, interest in the industry began at a young age. Most would agree that a young person's awareness of available aviation careers is too often focused on the most visible and seemingly glamorous jobs. It is our responsibility to shine a light on the many lesser-known job opportunities as well."

- Victor De Barrena, Director of IATA Training and Development Institute

"Not only should teens know that there are promising career paths in the field of aviation, they should know that they have what it takes to follow these paths."

- Mark R. Baker, President and CEO of Aircraft Owners & Pilots Association (AOPA)

Key authorities in our industry continuously remind us of the critical importance of developing quality human resources in aviation. While this is indicative of the potential of our industry, it also highlights global aviation's human resource problem. As an industry we are facing the most challenging human resource demands of the new millennium as baby boomers reaching the retirement age create a vacuum in many aviation professions.

We are facing increasing global competition among aviation stakeholders in attracting professionals as future employees. As economically prosperous regions and stakeholders increase compensation for professionals and extend their invitations worldwide, the cost of human resources in our industry increases negatively. This doesn't just contribute to the bottom lines of commercial aviation, the inability to attract quality human resources in one region can challenge the quality and the safety of our industry.

THE EFFECT ON THE SRI LANKAN AVIATION INDUSTRY

The human resources demand in aviation is a universal phenomenon. The economic growth of Middle Eastern hubs and airlines made them global recruiters of aviation professionals, resulting in tremendous migration of aviation professionals from South Asia to the Middle East.

Sri Lanka has been in commercial aviation for more than half a century and has made its mark as a State with high performing aviation professionals in demanding fields. We have strong ties with some of the world's largest commercial aviation organizations and the high quality of our training platforms has resulted in increased demand for our aviation professionals around the world.

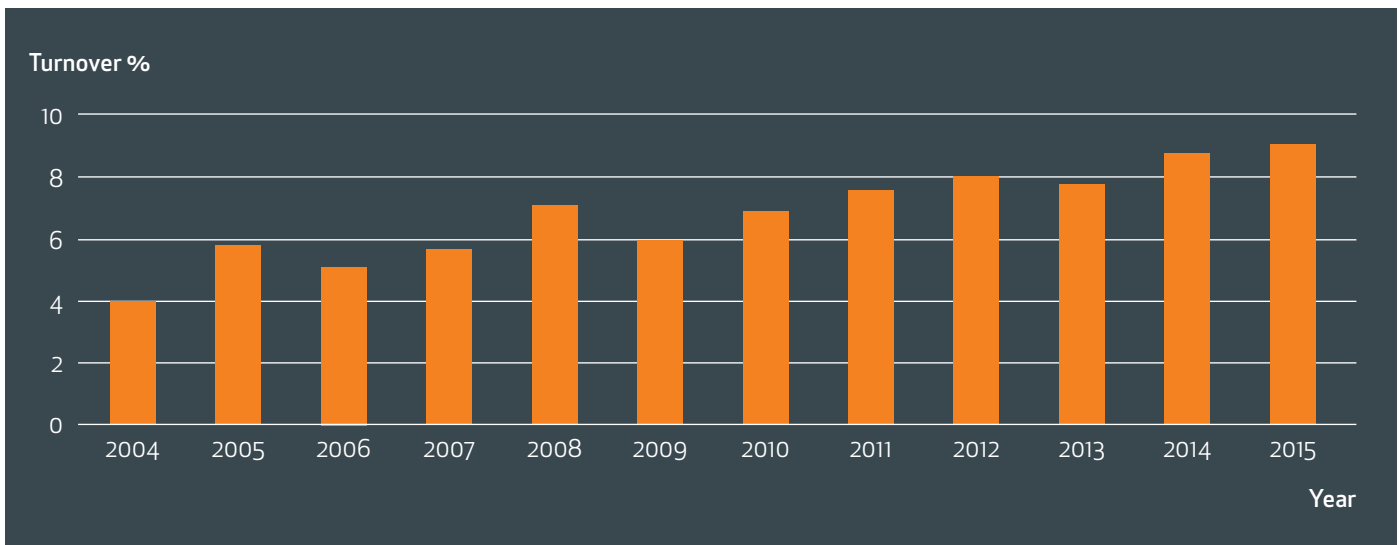


Figure 1: Annual turnover of Aviation professionals from year 2004 – 2015, Source: Internal report, SriLankan Airlines, 2015

SriLankan Airlines, the State's national carrier, with an unblemished track record in quality and performance, became one organization critically affected by turnover (Figure 2). If labor market economics applied to this situation, the increased demand for local and international aviation jobs should proportionately increase the growth of supply/attraction of youth in the industry. Eventually this would create a natural equilibrium and there would be no worry about the future. Except that contrary to labor economics, aviation is far from being the most attractive industry for the next generation in Sri Lanka. This created alarming signs about future human resource demand for the industry in Sri Lanka.

SRILANKAN AVIATION COLLEGE: FACING THE CHALLENGE OF ATTRACTING THE NEXT GENERATION

After considering the increase in global demand and the challenge of rising professional turnovers, SriLankan Airlines launched its integrated aviation training academy: the SriLankan Aviation College.

The SriLankan Aviation College is committed to delivering a career-focused, innovative and comprehensive portfolio of aviation training courses that prepare students for professional and personal success. The college is maximizing its efforts in attracting youth to the aviation industry to fill the local vacuum created by turnover and subsequently support the global aviation industry by facilitating the migration of these professionals. We took the challenge of converting global aviation human resource demands from a problem to an opportunity by attracting the next generation for aviation in Sri Lanka.

Despite massive communication efforts, promotional campaigns and attractive job opportunities, the results of

our initial efforts were not promising; enrollment was below capacity. In 2010 we carried out an aviation job market survey with the next generation. Choosing 5000 respondents from around the country, using local university students and a few enthusiasts in Aviation, we designed an in-house survey to explore the current demand for jobs among the next generation and their perception about aviation. Our target group consisted of high school students, university students and graduates. The survey provide valuable insight into the attitudes and knowledge about the next generation of aviation on the aviation industry as a potential employer.

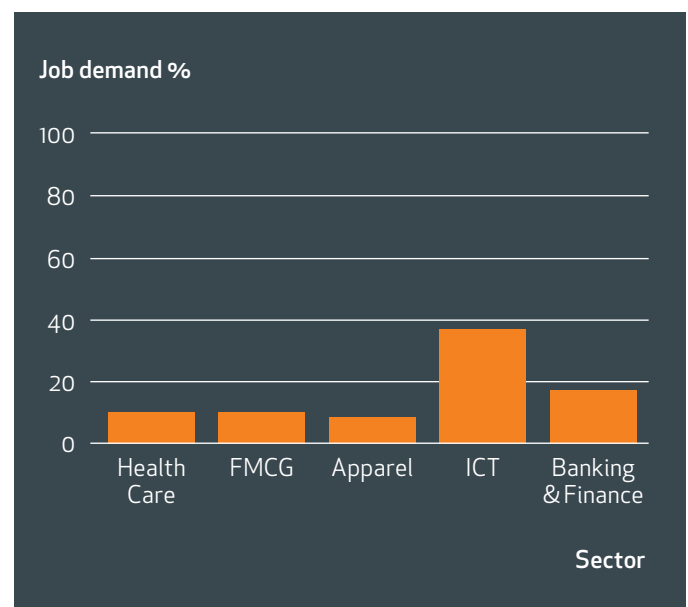


Figure 2: Demand for jobs among next generation, Source: SLAC, 2010

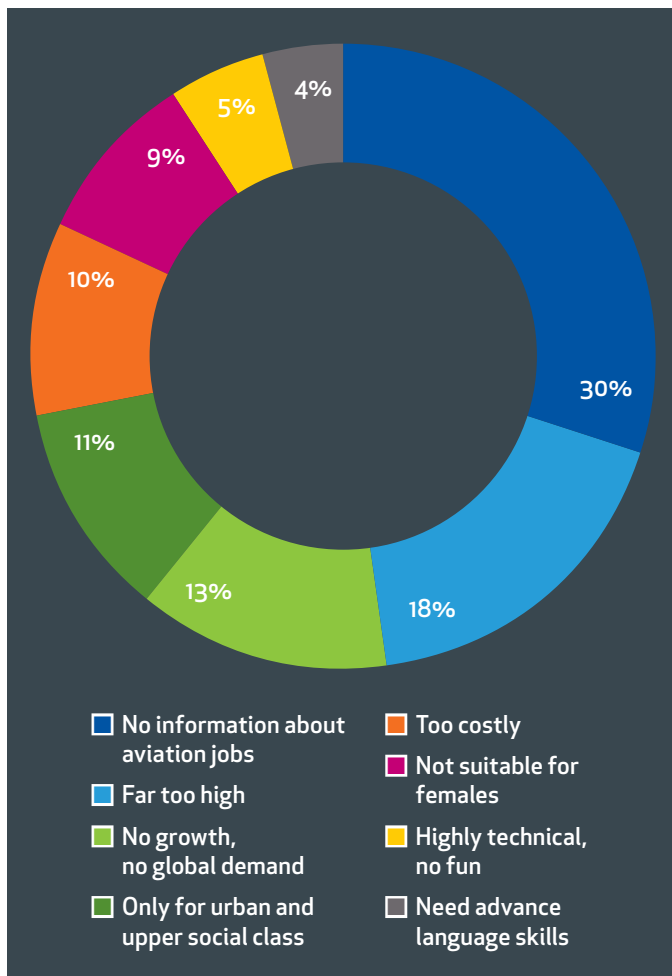


Figure 3: Attitudes of the new generation of aviation, Source: SLAC, 2010

We understood that most of the next generation thought of aviation careers as being a pilot, engineer or cabin crew. They linked the increased number of news reports about financial losses in aviation to job demands and shrinking prospects. Furthermore, the advertising and promotions in aviation target consumers primarily in English, so local youth were not being enticed to enter the aviation industry because they were not aware of it.

Based on our findings, we derived our macro and micro problems in attracting the next generation for aviation in Sri Lanka:

- **Macro problem** – The industry in Sri Lanka did not attract the next generation
- **Micro problem** – The industry is more concerned with air transport than attracting and training human resources for aviation. Both industry and organizational focus is on creating customer brands and not an employer one.

UNDERSTANDING EMPLOYER BRANDING

As identified by the survey, the most important issue faced by the Aviation Industry of Sri Lanka was its inability to create attraction



Figure 4: Picture of Aviation Camps

and awareness among the next generation. Contrary to the common belief that this was an HR management problem, we found this to be an issue of marketing management, and more specifically, an issue of branding the industry. So we approached the HR problem from a Branding perspective...

Creating an image as a great industry to work in by providing a package of functional, economic and psychological benefits that are identified with the employing industry.

When we analyzed our industry in Sri Lanka using this definition, we found that aviation’s “package” already includes attractive elements, but we were lacking the communication, engagement and overall brand image that other industries have with the new generation. Our focus then turned to creating an ideal aviation employer brand image for the next generation in Sri Lanka.

CREATING THE IDEAL EMPLOYER BRAND FOR AVIATION: OUR STRATEGY

Focused on employer branding, we established strategic objectives for building aviation’s brand in Sri Lanka:

- We needed to build a clear, focused and understandable brand image for the industry;
- We needed to build a reliable and attractive brand promise that is different from other industries; and
- We needed to find more suitable means for communicating with the next generation.

RE BRANDING: FROM PLANNING TO IMPLEMENTATION

From 2010, we worked on building a better image for aviation with an initial focus in creating a simple, clear and attractive image of aviation for the next generation. We targeted high-school students and established aviation clubs in schools to support the initiatives of the Civil Aviation Authority of Sri Lanka by taking aviation to a grass root level. We reached the outlying areas of the country with attractive and simple presentations and created



Figure 5: Conducting sessions at local universities

unique one-day aviation camps that provided holistic tours through the airline's main functional areas. The programme became extremely popular with schools; we are currently fully booked every week in 2016.

While creating the brand image of existing, progressive and rewarding future employers, we promoted our industry and its benefits in expanded segments of the next generation. We became training partners for image consultancy and customer service for the State university system. Today we use this platform to build the brand image of aviation among undergraduates, conducting more than 15 workshops nationwide annually for universities on a complimentary basis.

Furthermore, we actively engage with next generation aviation enthusiasts and sponsor their events and efforts where possible. These efforts have brought together a network of volunteers and enthusiasts who love aviation and promote it among the next generation.



Figure 6: Supporting aviation events island-wide

We strengthened our marketing communication, re-launched our website and expanded our media coverage. We also became regular participants at job fairs and education exhibits. Traditional but integrated marketing communication became part of our brand building exercise.

Our efforts started producing results! Though there was growing demand for aviation programmes, growth was not as fast and steady as we hoped. Employer branding was lagging. We began evaluating and revisiting the success of our strategies and finding solutions for strategic issues.

REVISITING THE "NEXT GENERATION"

The effectiveness of our communication and power of our message was less than expected. With the exception of face-to-face communication efforts like the aviation camps and familiarization programmes, our media efforts and advertising went largely unnoticed by the next generation. This challenged our conventional marketing and called for us to analyze the next generation further.



Figure 7: Participating in education events

Though the aviation industry was by and large governed by *Baby Boomers* and *Generation X*, we were trying to attract *Millennials* as the next generation in Aviation. There were marked differences in the aspirations, expectations and values of these three generations.

These comparisons provided valuable insight to us. Social media is an integral part of millennials' communication, given that they actively engage with groups through technology and value their opinion. Our conventional, non-engaging impersonal communication was not attracting them. We needed to revisit our approach towards the next generation.

In 2013, we found a school aviation club that had formed a group called *Aviation Voice* and published a magazine and a website. Initially we became their sponsors, we understood their potential as a next generation media partner. Though we had reservations, we made a decision to work with this unconventional, informal youth group and made them our social media partner. The group was able to bridge the communication gap, creating an effective social media platform.



Figure 8: Facebook of Aviation Voice

SYNERGIZING THE REBRANDING WITH THE NEXT GENERATION: SUCCESS

After our synergy with *Aviation Voice* in 2013, we achieved comparatively higher growth rate and expansion and received numerous regional and global accolades.

Our accolades

- 2015 - South Asia Top Performing IATA Authorized Training Center (ATC)
- 2014 - South Asia Top Performing IATA Authorized Training Center (ATC)
- 2013 - IATA Premier Circle Member (Worldwide Top 10)
- 2012 - South Asia Top Performing IATA Authorized Training Center (ATC)

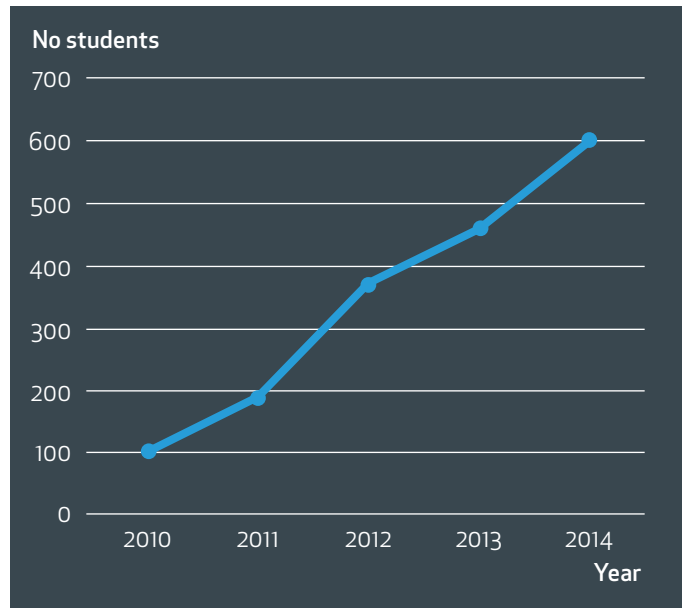


Figure 9: Student growth for last five years in SLAC

SRILANKAN EXPERIENCE AS A UNIVERSAL REALITY

Our industry is worldwide so global employment mobility is an inevitable reality. While this might be perceived as a risk because of the inability to retain quality human resources within organizations, we see this as an opportunity for regional youth to enter the global aviation industry. We think the problem is less about the turnover and migration of our employees to greener pastures, and more about the inability of us to attract the next generation to fill the openings. We attribute this to poor employer branding of aviation and feel the solution is in building ideal brand image and promise in the aviation industry, with a focus on the next generation. But this was not a simple task of applying traditional means of branding because we needed to focus on the reality of the generation gap. In finding a new approach, we engaged partners who are part of the next generation. We consider this to be a regional (if not global) reality of rebuilding the employer brand in aviation. ■



Figure 10: Aviation for the next generation



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Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares, Ingeniero Roberto Kobeh González

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MIDDLE EAST (11)

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