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BROUGHT TO YOU BY CANSO:

VIRTUAL TRAINING FOR ATC – ADAPTING TO A NEW NORMAL

Thursday 20 October 2022

08:00 – 09:30 CEST



Sharon Cooke

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Airways New Zealand



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Airways International



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ATC Instructor
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Today's agenda

1. The need for change – aviation industry challenges & drivers
2. Airways' journey to delivering virtual training via AKO
3. Experiences of our students, a customer, and their regulator
4. Instructors' key learnings and insights
5. Our future in training



Airways International Ltd

AIRWAYS
making your world possible

Commercial arm of Airways New Zealand supporting global air navigation service providers with cloud based digital solutions

FL600
Oceanic
Area

Aviation Services

Upper Airspace services
Pacific Island partners
Simulation piloting services
Aviation consultancy

FL245
Approach
Controlled

1500FT
Uncontrolled

Aeropath

AIM
Procedure Design
AIL Data Platform
PD Training

400FT
Low level

Products (Digital)

TotalControl – virtual simulation
FlightYield – revenue management
AirShare – airspace manager
SureSelect – ATS selection tools

Airways Training

ATS online learning community
AKO Virtual Academy
AirBooks – self directed learning
Offshore ANS partners

SBAS
Improved positioning with SouthPAN

Airways AKL
Sim Services
Upper Airspace Services

Rocket Launch
Services

Aeropath WLG
Airspace design, AIM

UAV (Drones)
Airspace management services

Airways CHC
Training
Products
Sim Services

Based in NZ and overseas
69 customers in 33 countries

Aviation industry challenges

- ▶ **Aviation training and development** has always been very important
- ▶ **The COVID-19 pandemic** has resulted in a huge cut in training and development budgets
- ▶ **According to an IATA* report:**
 - ▶ 70% of organisations have cut entire budgets for training or have reduced it to 50% to cope with the challenges faced by the pandemic.
 - ▶ 75% organisations have either postponed or cancelled classroom training until further notice.
- ▶ As ANSPs choose to **cancel or postpone** training programmes, larger organisations are more likely to transition to online learning
- ▶ This is much harder for smaller ANSPs

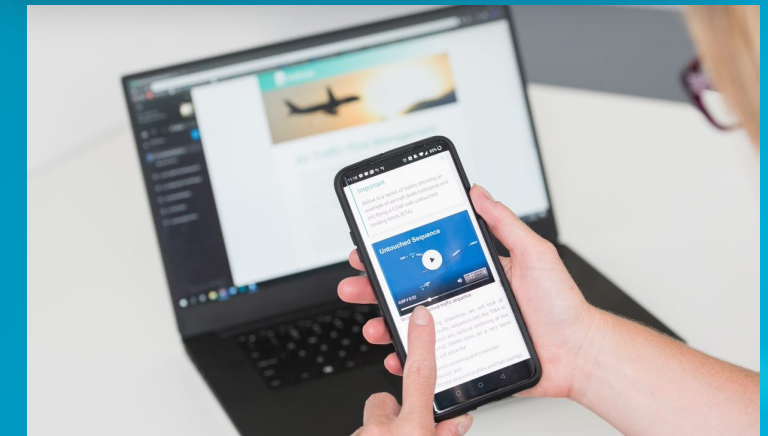
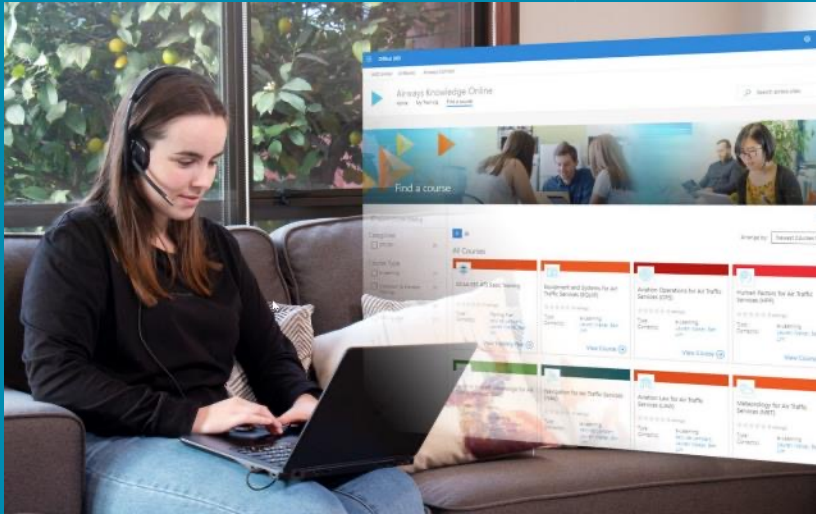


Airways' drivers for change

- ▶ Trainee demand
- ▶ Recognise the changing requirements of our ANSPs and associated cost reductions
- ▶ Better utilisation of new technologies
- ▶ The Covid-19 crisis has accelerated the need for preparedness in the face of global pandemics
- ▶ Enable swift recovery
- ▶ Reduces environmental impact



The many faces of e-learning...



Delivery through an online learning management system [AKO] which may include but is not limited to use of AirBooks, webinars / virtual lectures (recorded or live), online tutorials and discussions (synchronous or asynchronous), individual and group work.

CANSO APC3 Digital Learning Project

October 2019-February 2020

We offered free Airways AirBooks digital learning resources to Asia Pacific ANSPs, and gained feedback around their e-learning needs and pain points.

We published the results from our project findings in a [White Paper](#) and shared it across our industry to enhance knowledge of e-learning in ATC.

We gave ANSPs globally free access to an AirBooks library focused on Covid-19 recovery training.

SMS 101

Duration: 30 – 60 minutes - Category: Compliance - Audience: All staff



By completing this AirBook you will understand:

- ✓ What a Safety Management System (SMS) is
- ✓ Why an SMS is important as an Air Navigation Service Provider
- ✓ How to contribute to the successful implementation of Safety Management

PBN 101

Duration: 4 x 1 hour modules - Category: Refresher - Audience: ATC Operations



The four modules covered in this Airbook are:

- ✓ Principles and benefits of area navigation
- ✓ Introduction to Performance Based Navigation
- ✓ PBN applications
- ✓ Future developments

ATC 101

Duration: 30 – 60 minutes - Category: Induction - Audience: All staff



By completing this AirBook you will be able to:

- ✓ Discuss the functions and role of air traffic control
- ✓ Understand types of airspace
- ✓ Define the basic types of separation and principles of flight
- ✓ Identify technologies and tools used in air traffic management



Travel restrictions and the need for social distancing during the Covid-19 pandemic has brought a renewed focus on digital learning in the aviation industry. With this in mind, Airways International is offering ANSPs the opportunity to experience our AirBooks digital learning platform free of charge.

This offer follows the successful CANSO APC3 digital learning project, where 330 staff members from 10 ANSPs across Asia Pacific gained access to AirBooks resources for three months and shared their experience via surveys.

For further information, [click here to read the Digital Learning Research Report](#) – an assessment of the application of e-learning in ATC training.

About this opportunity

Airways is offering a free subscription to our 'ATC Covid-19 Recovery Training' AirBooks digital learning library to all ANSPs for a period of three months, for up to 50 users per ANSP.

▶ ATC Covid-19 Recovery Training



Offer details

- Target audience** – suitable for ATCs who wish to refresh their knowledge or learn something new.
- Free subscription** available for up to 50 users per ANSP. Additional subscriptions USD\$50 per user.
- Subscription period:** offer valid until 31 January 2021 and available for three months from date of signing. Time extensions by negotiation on a case by case basis.
- Dashboard analytics for managers*** included for minimum of 25 users.
*Limited numbers available.
- Completion certificate templates.**
- Preferential rates** negotiated for ongoing subscriptions, additional titles or customised digital libraries.

Three good reasons to take up this offer:

1. A free no obligation opportunity to experience an engaging digital learning environment
2. AirBooks are a proven highly effective digital learning platform that delivers successful learning outcomes
3. To fulfill compliance requirements and improve safety and efficiency of air navigation services, through high standards of training and competency of aviation personnel.

CANSO APC3 Digital Learning Project

Key findings from 2019/20 research



Themes

- Some e-learning happening in a traditional capacity – e.g. uploaded ppt and pdfs
- Mostly face-to-face, instructor-led delivery
- Desire to embrace more expansive digital training
- Types of training varied widely (e.g. compliance, induction, ATM/ATC refresher).



Challenges

- Challenges in arranging time off the roster to attend training
- Meeting students' expectations and maintaining engagement
- Consistent and reliable information



Opportunities

- Increased used of e-learning to provide flexibility and minimize time off the roster
- Higher levels of engagement and consistency to meet expectations of learners
- Collaboration to reduce costs and achieve better learning outcomes

The Covid-19 pandemic accelerated the uptake of virtual training in the aviation industry. ANSPs have realised the need for more flexible, accessible training.

The Airways journey

AIRWAYS
making your world possible



AKO

Airways Knowledge Online

Virtual Academy

- ▶ Collaborative learning community
- ▶ Lower costs, flexible training options
- ▶ Pay only for what you use

Training options



AKO Classroom **Real-time training**

- ▶ Instructor-led courses
- ▶ As a cohort, start together
- ▶ Virtual classroom



AKO AirBooks **Interactive digital learning**

- ▶ Self-directed learning
- ▶ Anytime, anywhere
- ▶ Online, offline 24/7



AKO Flexi **Your time, your pace**

- ▶ Learner-led courses
- ▶ Anytime start
- ▶ Virtual/online 24/7



AKO Sim Training **Self directed sim training**

- ▶ Part task trainer
- ▶ Refresher courses
- ▶ Remote piloting
- ▶ Remote assessments

Your AKO

Customers/
partners



AKO Gateway **Training your way**

- ▶ Your Virtual Academy
- ▶ Online or face-to-face
- ▶ Use what you need

Supported by



AKO Studio **Connecting you digitally**

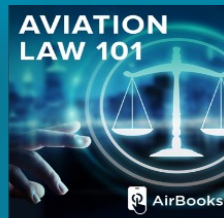
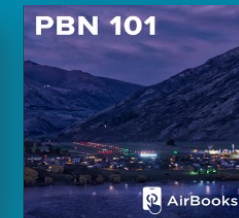
- ▶ Live event production
- ▶ Design and build
- ▶ Technical support



AKO Resources **Supporting learning**

- ▶ Certification
- ▶ Courseware
- ▶ Instructors
- ▶ Remote piloting

- **Digital interactive content**, online knowledge checks
- Mobile **self-directed learning**
- **Any time, anywhere** Online/Offline 24/7
- **Available on Shopify** – individually or as a bundle
- **Flexible learning**, reusable, bite-sized chunks at your own pace
- **Library** – 60+ books
- **Analytics** - AirBooks Dashboard



AKO Classroom & Flexi training

Ab initio ICAO approved courses

- ▶ 051 ATS Licensing Subjects
- ▶ 052 Aerodrome Control
- ▶ 054 Area Control Surveillance
- ▶ 054 Approach Control Surveillance



ICAO

Short courses

- ▶ Air Traffic Services Assessor
- ▶ ATSEP Basic
- ▶ Aviation English Rater
- ▶ Aviation English for Aviation Professionals
- ▶ Human Factors in ATS
- ▶ Incident Investigation
- ▶ OJT Instructor
- ▶ Watch Supervisor



AKO Classroom
Real-time training



AKO Flexi
Your time, your pace



The AKO Studio



- ▶ **Your own branded virtual training academy** including images, logos and other unique graphics
- ▶ **Host your own virtual classroom** with either your own or our resources, or a combination
- ▶ **Create your own interactive content** by utilising our latest online learning technologies and methods
- ▶ Can be created for both **instructor-led and self-directed** or self-paced learning

AIRWAYS SharePoint Search across sites

AIR NAVIGATION SOLUTIONS
Student Portal Course Catalog My Training Course Management

Getting started with Air Navigation Solutions

My training

Find a course

My upcoming classroom sessions See all

Month	Session	Day	Time
May 03	051 ATS Licensing Subjects	Monday 03/05/2021	10:00 AM - 3:00 PM
June 07	052 Aerodrome Control	Monday 07/06/2021	10:00 AM - 3:00 PM
July 05	053 Approach Control	Monday 05/07/2021	10:00 AM - 3:00 PM

News and updates

Air Navigation Solutions
Welcome to Air Navigation Solutions
March 01, 2021

Latest FAQs

- How to submit an assignment?
- How to progress through my learning tasks?
- How to complete my online quiz?
- How to view my grades?
- How to participate in a discussion forum?

AKO Sim training



Now:

- ▶ Remote sim pilots
- ▶ Remote assessments
- ▶ Can deliver surveillance training remotely
- ▶ Part task trainers



The future:

- ▶ Remote simulation of Aerodrome training
- ▶ Adaptation of current physical simulation to a VR (virtual reality) platform



Hear from two of our students

AIRWAYS
making your world possible



Lyndsey Morrison-Barnes

Air Traffic Control trainee
Airways New Zealand



Isaac Keenan

Air Traffic Control trainee
Airways New Zealand

- Click here to watch the video -

Learners' insights & experiences

- ▶ Accommodates their individual needs
- ▶ **Flexibility and adaptability** – recorded sessions
- ▶ **Consistency** and equal opportunity
- ▶ **Less time** required
- ▶ **Many experts** can be involved
- ▶ **Reducing** environmental impact
- ▶ Similar experiences – **collaborative learning**, interactive whiteboards, quiz tools





AKO Virtual Academy in action

General Civil Aviation Authority in the UAE

The challenge

- ▶ To **develop a virtual training environment**, providing GCAA (UAE) with a cost effective 051 remote training program from New Zealand
- ▶ A **high-quality teaching and learning experience** that met the needs of students, training managers and the regulator was a key requirement

Our solution

- ▶ **AKO Classroom** – bringing the classroom experience into a virtual environment, maintaining high student interaction and engagement
- ▶ **AKO AirBooks** interactive learning resources to supporting students learning anytime, anywhere
- ▶ **Online secure assessment**, providing an intuitive exam experience to keep students on track
- ▶ **AKO Studio**, bringing learning to life by leveraging immersive technologies.

The Results

- ▶ **All students passed their exams** with excellent results
- ▶ Supported, **cost effective** remote training delivery
- ▶ **Student centric** interactive learning environment that provided **quality experience**

Hear from the GCAA



Asim Mairaj

Senior Inspector - Aircrew Licensing

▶35479 Aviation Safety Affairs Licensing
General Civil Aviation Authority, UAE



Ahmed Al Ketbi

Senior Specialist - ATS Training

Sheikh Zayed Air Navigation Centre
General Civil Aviation Authority, UAE

- Click here to watch the video -

Instructors' learnings & insights

- ▶ Need to **rapidly adapt** and incorporate evolving technologies
- ▶ Need to be able to **readily create and or customise** systems-based training
- ▶ Receive **high quality analytical data**
- ▶ Continue to **allow for individual learning styles** and recognise the generational changes to how we learn and interact with the world around us.
- ▶ **Anywhere, anytime** availability
- ▶ **Flexibility** and connectivity



What are the challenges?

- ▶ Lacks “real” **social interaction**
- ▶ Access to **technology** in some states
- ▶ **Time zones**
- ▶ **Dishonest practice** difficult to eliminate
- ▶ Practical training needs **further development** including part task training platforms, and gaming technologies
- ▶ Student **motivation** and **feedback**
- ▶ High fidelity **remotely operated simulation** is possible but not widely utilised today



Gamification: Is it the future?

Gamification is the application of game-design elements and game principles in non-game contexts.

It can also be defined as a set of activities and processes to solve problems by using or applying the characteristics of game elements.



Summary – what have we learned?



Students

- Require **high levels of self-motivation** and time management skills
- Teamwork and collaboration is key in a virtual environment
- Like the **flexibility** to learn anywhere, any time
- Need **interactive content** to keep them engaged



Customers

- **Huge cost savings** in e-learning– greater efficiencies for theory, leaving more time for practical embedding
- **Regulatory approvals** can be done

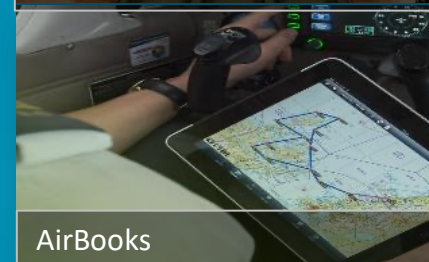
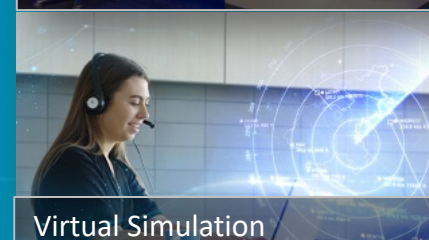


Training academy

- **Easy to update** resources for latest regulations
- **Improved technical skills** of staff and students
- **Great tools** to support online learning combined with “Tried and “Tested” conventional training
- Content and delivery needs to be just as **interactive**

Our future in training

- ▶ Our industry is ready to **engage differently and in more innovative ways**.
- ▶ **COVID19 has changed the way we work** and our team at Airways keeps striving to be match fit and ready to go.
- ▶ We are **evolving into our new normal** and starting to embed our new products and offerings.
- ▶ Remote and face-to-face delivery of training can and will **co-exist together**.
- ▶ **Actively engaging** with internal and external customers is still key.
- ▶ **Digital communities** - It is important to keep learning, collaborating and sharing lessons as we navigate our new way of working.



What's next?



Want to work with us to enhance e-learning in our industry?



- ▶ **We're looking for partners** to collaborate in a proof of concept to deliver an online course
- ▶ **Participate in a trial using AKO Gateway** – trialling a collaborative approach to online course delivery

Contact us at international@airways.co.nz

THANK YOU





QUESTIONS AND ANSWERS



Sharon Cooke

Airways International CEO

Airways New Zealand

THANK YOU

