



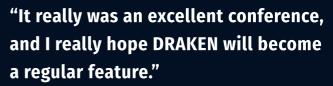
Shaping the Future of Air Power

# FLIGHT TRAINING IN THE INFORMATION AGE



### **FUTURE AIR FORCE** CONFERENCE 2025

BUILDING CAPABILITY FOR FUTURE COMBAT THROUGH HIGHER EFFICIENCY & AFFORDABILITY IN PILOT TRAINING



lan Gale Chief Growth Officer – 2024 Keynote Speaker

The Future Air Force 2025 Conference is a key event focused on innovation, the implementation of new technologies, and the development of military flight training in the future security environment. Our conference is poised to offer an unrivalled developmental opportunity for military and civilian subject-matter experts in military flight training, focusing on fixed-wing, rotary-wing, and remotely piloted aircraft training. Last year, over 120 attendees from around the globe joined us to share their expertise, discuss current and emerging technologies and capabilities, and explore challenges and opportunities.

### WELCOME FROM THE CZECH AIR FORCE COMMANDER

#### Ladies and gentlemen, distinguished guests,

I am honored to welcome you to the third annual Future Air Force Conference, which has become a fixture on our Air Force's fall calendar. This conference is a unique opportunity to bring together key Air Force leaders, decision-makers and subject-matter experts from around the world to share their experiences, insights, and visions for the future of military aviation – particularly in one essential area: the training of our Air Force personnel.

Today, we face rapidly changing security challenges and technological advances that are fundamentally affecting the way we conduct air operations – not only today but also in the future. Training future pilots and Air Force personnel in general must, therefore, reflect these new requirements, preparing them to operate fifth-generation aircraft and to fight in an increasingly complex and information-intensive operational environment. The Future Air Force Conference serves as an excellent platform for sharing insights that will help shape modern training programs and ensure that our Air Force remains effective and ready for future challenges.

Let me highlight one of the key concepts of future air warfare – the Future Combat Air System – which integrates state-of-the-art aviation technology, unmanned systems, and advanced command and control systems. While technology plays a dominant role in this system, equally important is the synergy of people – pilots, drone operators, and command and control officers – who must be prepared to effectively conduct operations in a multi-domain environment. Adapting training to these new requirements is essential, and this conference helps us find ways to best prepare our air forces for future conflicts.

Last but not least, I would like to thank the organizers of the conference and my staff, who spent many hours preparing this magnificent event.

I wish you all inspiring discussions, valuable new insights, and a successful conference, and I am looking forward to meeting you both during our conference and at the informal social event.

Major General Petr Čepelka Commander, Air Force

### A MESSAGE FROM THE CHAIRMAN

Let me warmly welcome you to the third annual Future Air Force 2025 Conference. Over the years, this event has become a key forum for the exchange of knowledge, experience, and vision in the field of military pilot training. We are very pleased that each of the previous editions has been attended by representatives from more than 30 foreign delegations, prominent representatives of industrial companies from the Czech Republic and abroad, colleagues from academia, and renowned experts on training issues from international organizations, all of whom have enriched us with their presence.

Our conference is a place where theory and practice, tradition and innovation merge. This year's event focuses on a fundamental challenge facing air forces worldwide – how to prepare young pilots for operations and combat deployment in fourth- and fifth- generation aircraft. Modern aviation today is primarily characterized by the information age, which brings not only new technologies, but also new methods of conducting combat and strategic decision-making.

Our debates and workshops will focus on both basic and advanced pilot training. We will explore how best to integrate new technologies, such as augmented reality simulators, artificial intelligence, and data analytics, into traditional training practices. At the same time, we will focus on developing young pilots' skills, not only in technical areas, but also in decision-making and teamwork – essential skills for success in modern air operations.

I believe that through the cooperation of experts from different countries, institutions, and sectors, we will be able to find new ways to ensure the safety and efficiency of our air forces. Your suggestions and ideas will be crucial for the further development of air training, and I am confident that the Future Air Force Conference 2025 will bring many inspiring discussions and concrete suggestions for improvement.

Thank you for being part of this important initiative, and I wish you all a successful and inspiring conference.

#### Chairman Major General (Ret.) Bohuslav Dvořák

Former Deputy Chief of the General Staff of the Czech Armed Forces, currently serving as Defence and Security Advisor to the Czech Defence Industries. His military career began in 1983 as a helicopter pilot. Over the years, he held various command positions, starting as a pilot, then Deputy Squadron Commander, Staff Officer at 3rd Tactical Air Force Corps, Head of the Air Force Department at the General Staff, Director of the Force Development Department, and finally, Deputy Chief of the General Staff. He served in one NATO tour at ACE Mobile Force (Land). MG Dvořák participated in two NATO missions, first in Albania and Kosovo as DACOS J3Air, and then from 2006 to 2007 in Afghanistan as Czech Contingent Commander and Military Commander of Kabul International Airport. After retiring from active military service, he served as Under Secretary of Defense for Acquisition.

### AIM OF THE CONFERENCE

The first large-scale use of aircraft for military purposes dates back to World War I. Although aviation is the youngest branch of the military, it has played a decisive role in determining the outcome of past armed conflicts and will continue to do so in the increasingly complex and unpredictable security environment.

The level and quality of the Air Force are built on three fundamental pillars: well-trained personnel, modern equipment, and leadership. The aim of the Future Air Force Conference is to bring together key experts on an annual platform to address the main trends in the development of Air Force capabilities and to share these insights with the public.



The organizers aim to bring together subjectmatter experts from around the world, including military personnel, defense industry leaders, and academia. We believe the Future Air Force Conference is the ideal platform for exchanging experiences and building new and valuable relationships that will benefit all participants.

### REASONS TO ATTEND THIS CONFERENCE

- Learn how newly emerging technologies can help improve training for next-generation aircraft, making it more effective and costefficient
- Stay informed about the latest trends, training doctrines, and standards impacting the quality of military pilot training
- Network with top military air force leaders, decision-makers, industry leaders, academic experts, and subject-matter experts from around the world
- Gain key insights into emerging technologies and innovative approaches to pilot training, designed to drive future requirements for multi-domain operations



### **WHY PARTICIPATE**

Establish new strategic contacts with air force decision-makers

**Discover new opportunities** 

Gain access to the latest trends and cutting-edge technologies

Network with the worldwide air forces representatives.

Develop long-lasting business relationships

- + 150 military and industry participants;
- + 15 leading global aerospace and defence companies;
- + 15 presentations from senior air force leaders, industry executives and academia representatives on emerging trends;
- + 2 major social events for networking;
- + 35 national delegations



### 16 September

### **ICEBREAKER FOR CONFERENCE ATTENDEES**

Start your Future Air Force Conference experience on a high note by joining us for the informal Icebreaker on 16 September 2025, hosted by LOM Prague, from 19:00 to 21:00 on the 14th floor of Hotel International, offering a magnificent view of the historic center of Prague. This is your chance to unwind in an elegant setting while connecting with industry leaders, sharing ideas, and building valuable relationships – the perfect start to the Conference.

This event is more than just an evening of drinks—it's a launchpad for innovation, collaboration, and meaningful conversations with professionals shaping the future of aviation and aerospace industries. Whether you want to reconnect with familiar faces or forge new partnerships, this reception provides the perfect environment to make it happen.



### Day One, 17 September

### FLIGHT TRAINING IN THE INFORMATION AGE

### **End User's Perspective**

The first session focuses on the training of Air Force personnel. Each air force has its own organizational structure, which corresponds to the size and tasks it performs. Accordingly, the pilot and aviation specialist training system is adapted to meet these needs.

The first block of the Future Air Force Conference will cover a wide range of topics aimed at enhancing military aviation training from the end user's perspective. Here are some of the key topics:

#### 1. Training Challenges and Opportunities:

Addressing the evolving training needs for fixed-wing, rotary-wing, fast jet, and multi-engine aircraft, including 5th and 6th generation fighter aircraft.

#### 2. Simulation and Embedded Training:

Upgrading simulation, embedded training, and ground-based training systems to ensure seamless pilot transition into next-generation combat aircraft.

#### 3. Integrated Live, Virtual, and Constructive (LVC) Training:

Enhancing readiness for multi-domain warfare, high-intensity operations, and counterinsurgency (COIN) through integrated LVC and high-fidelity synthetic environments.

#### 4. Capability Requirements and Program Updates:

Providing insights into the latest capability requirements, training model updates, and program insights.

#### 5. Interoperability and Common Architectures:

Discussing software compatibility, international training standards, and procurement plans for multinational operations.

#### 6. Revolutionizing Training Models:

Establishing new coaching cultures and contributing to discussions on enhancing the pilot training pipeline, mitigating pilot shortages, accelerating pilot graduation, and ensuring affordability.



### Day One, 17 September

### **FUTURE MILITARY TRAINING**

### **New Opportunities for Industry**

Industry undoubtedly plays a crucial role in the development of Air Force capabilities. The advancement of new technologies is a driving factor, influencing not only the development of new platforms (currently fifth- and especially sixth-generation aircraft), but also the development of command-and-control systems, planning, and the creation of new training platforms and systems. One of the major trends in the industry is the gradual shift from live flight training to virtual or synthetic training, aimed not only at reducing its environmental impact but also at saving costs.

According to the Military Flight Training global market study, the global flight training market is expected to grow from US\$3.1 billion in 2023 to US\$4.4 billion in 2028, at a CAGR of 7 %. This growth is primarily driven by the robust acquisition of next-generation fixed-wing aircraft and rotorcraft, and the resultant procurement of new training systems and the upgrade of existing ones. Here are some of the key topics:

#### 1. New Emerging Technologies:

The industry is integrating new technologies such as augmented reality simulators, artificial intelligence, and data analytics into traditional training practices. These innovations help enhance the technical skills, decision-making, and teamwork abilities of young pilots.

#### 2. Virtual and Synthetic Training:

There is a significant trend towards reducing live flight training in favor of virtual or synthetic training. This shift is driven by the need to save costs and reduce environmental impact. The global flight training market is expected to grow significantly, driven by the acquisition of next-generation aircraft and the procurement of new training systems.

#### 3. Simulation and Embedded Training:

The industry is upgrading simulation, embedded training, and ground-based training systems to ensure seamless pilot transition into next-generation combat aircraft.

#### 4. Integrated Live, Virtual, and Constructive (LVC) Training:

Enhancing readiness for multi-domain warfare, high-intensity operations, and counterinsurgency through integrated LVC and high-fidelity synthetic environments.

#### 5. Capability Requirements and Program Updates:

The industry is continuously updating training models and programs to meet the latest capability requirements. This includes upgrading simulation, embedded training, and ground-based training system.

### **AIR FORCE GALA EVENT**

Military History Institute Prague



### Day Two, 18 September

### **COMMANDERS' VIEW**

#### **Panel discussion**

The panel discussion with commanders and aviation training experts has become a firm and very popular part of the conference. Although each Air Force is unique in its own way, the field of effective and quality training is a unifying factor in this regard. Once again, this year, we will focus on the following areas of Air Force capability development and the related training requirements for military personnel:

#### 1. Adapting to Rapidly Changing Security Challenges:

Commanders must ensure that training programs reflect the new requirements and prepare personnel to operate fifth-generation aircraft and fight in increasingly complex and information-intensive operational environments.

#### 2. Integration of Advanced Technologies:

The Future Combat Air System integrates state-of-the-art aviation technology, unmanned systems, and advanced command and control systems. Commanders need to ensure effective cooperation between pilots, drone operators, and command and control officers to conduct operations in a multi-domain environment.

#### 3. Training Adaptation:

Adapting training programs to prepare pilots and UAV operators for these new requirements is essential. This includes developing skills in operating fifth-generation aircraft and unmanned systems, as well as enhancing decision-making and teamwork abilities.

#### 4. Multi-Domain Operations:

Ensuring that pilots, UAV operators and other air force personal are prepared to effectively conduct operations in a multi-domain environment is vital. This involves integrating live, virtual, and constructive (LVC) training to enhance readiness for high-intensity operations and counterinsurgency.

#### 5. Command and Control Systems:

Advanced command and control systems are a key component of the Future Combat Air System. Pilots and UAV operators must be trained to work seamlessly with these systems to ensure effective coordination and execution of missions.

### Day Two, 18 September

### **FUTURE COMBAT AIR SYSTEM**

### Synergy Between Pilots and UAV Operators

In the third block, we focus on the most pressing issues related to the use of airpower in the near future, as well as on sharing lessons learned from current conflicts. Therefore, this year we will address the complexity of training UAV operators and military pilots. Here are some of the key topics:

#### 1. Synergy of People and Technology:

The Future Combat Air System integrates state-of-the-art aviation technology, unmanned systems, and advanced command and control systems. While technology plays a dominant role, the synergy between pilots, drone operators, and command and control officers is equally important. Effective cooperation is crucial for conducting operations in a multi-domain environment.

#### 2. Training Adaptation:

Adapting training programs to prepare pilots and UAV operators for these new requirements is essential. This includes developing skills in operating fifth-generation aircraft and unmanned systems, as well as enhancing decision-making and teamwork abilities.

#### 3. Multi-Domain Operations:

Ensuring that pilots and UAV operators are prepared to effectively conduct operations in a multi-domain environment is vital. This involves integrating live, virtual, and constructive (LVC) training to enhance readiness for high-intensity operations and counterinsurgency.

#### 4. Command and Control Systems:

Advanced command and control systems are a key component of the Future Combat Air System. Pilots and UAV operators must be trained to work seamlessly with these systems to ensure effective coordination and execution of missions.

These points highlight the importance of cooperation between pilots and UAV operators in the future air combat system, ensuring they are well-prepared for the challenges of modern warfare.

### **OPTIONAL ACCOMPANYING PROGRAM**

### 19 September – 21 September

Every year, we strive to make the program more interesting and expand the range of activities available to conference participants. This year, we have once again included a visit to NATO Days in the program, and for the first time, we are organizing LOM Industry Day at the Pardubice airport in cooperation with representatives of the ministry and the state-owned company LOM.

08.30 Departure from the Hotel
09.45 Arrival to Pardubice Airport
10.00 Welcome by Director of the (LOM/CLV)
14.00 Departure to Prague /Ostrava



#### **Industry Day Pardubice**

Industry Day will take place at Pardubice Airport on September 19 from 10:00 a.m. to 2:00 p.m. The organizers will provide transportation to Pardubice Airport and then back to Prague or, for those interested, to Ostrava.

The aim of this event is to give representatives of the defense industry the opportunity to present their product portfolios and capabilities in real life. We are confident that the event will attract participants from the conference and enhance the quality of cooperation between industry and users.

#### **NATO Days**

NATO Days is one of the most important events in the field of defense and security in Central Europe. This weekend festival, which takes place regularly at the airport in Ostrava, is focused on showcasing the capabilities of the armed forces of not only the Czech Republic but also allied countries. The event usually includes air and ground demonstrations, interactive presentations of technology, expert discussions, and many other activities for the general public. NATO Days thus offers a unique opportunity to meet soldiers and experts from the field of defense.

The event is organized by the JAGELLO 2000 civic association, which is dedicated to promoting defense issues and strengthening cooperation between civilian and military authorities. JAGELLO 2000 was founded with the aim of supporting information and educational activities focused on defense and security. Thanks to its many years of experience and partnerships with military and state institutions, it has become a key player in the organization and implementation of NATO Days, contributing to the development of awareness of international security and cooperation between states.





### **ORGANIZERS**

### **UNDER THE PATRONAGE OF**





Future Forces Forum is a not-for-profit organisation that is an integral part of the European defence community, organising trade fairs, conferences, and seminars for the defence and security sector. Its activities are based on in-depth research and the expertise of in-house specialists and external collaborators in the fields of defence policy, acquisition policy and strategy, and armed forces capability development.



**DEFCON** 

DEFCON s.r.o. specializes in the supply of spare parts, modernization, service activities, and the training of pilots and ground personnel. An integral part of its operations is organising exhibitions and conferences for Czech entities both in the Czech Republic and abroad.



**DALI Consulting** 

DALI Consulting provides a wide range of consulting, training, and organizational services. Our goal is to offer clients comprehensive and professional support across various disciplines. DALI Consulting is your trusted partner for effective solutions, growth support, and project implementation, with an emphasis on quality and professionalism.

PLATINUM PARTNER









DIAMOND PARTNER



## ORGANIZING COMMITTEE OF FUTURE AIR FORCE CONFERENCE

The conference is prepared by an organizing committee of experts with many years of experience in the field of Air Force capability development.



Chairman

Major General ret. **Bohuslav Dvořák** 

former Deputy Chief of the General Staff of the Czech Armed Forces, currently serving as Defence and Security Advisor to the Czech Defence Industries.



**Executive Director** 

Mr. Petr Markvart

Czech lawyer, enterpreneur and business executive in defence and aerospace industry. He is the owner of DEFCON company, supporting international trade and industrial cooperation.



**Program Director** 

Colonel ret. Petr Tichý

former MiG-29 pilot, who, as Deputy Director of the Force Development Section, participated in the preparation of the Czech Air Force for NATO, the NATINADS system, and the reform of the Armed Forces after the Czech Republic's accession to the Alliance.



**Marketing Manager** 

Ms. Marika Přinosilová

marketing and communication professional with extensive experience on international programs in leading aerospace and defence corporations.

#### **Members**



Brigadier General ret. **Libor Štefánik** 

former MiG-21 aircraft pilot and Commander of the Air Force from 2013 to 2016. He capped his military career in military diplomacy as the military and air attaché in Sweden.



Mr. Adam Drnek

executive Director of the Future Forces Forum, responsible for organising the 15th edition of the Defence and Security Fair in 2025.



Mr. **Matthieu Szelag** 

consultant in the field of the defence industry, Matthieu works mostly as a facilitator. His background in hospitality and event businesses makes him the perfect event coordinator for the Future Air Force Conference.

### FUTURE AIR FORCE CONFERENCE VENUE



### **EVENT DRESS CODE**

All active military personnel **Uniform of the day** 

All other participants **Business formal**