CEAS
Council of European Aerospace Societies

BULLETIN

AEROSPACE EUROPE

AXIOM MISSION 4,

A HUMAN SPACEFLIGHT MISSION TO THE INTERNATIONAL SPACE STATION

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CEAS

The Council of European Aerospace Societies (CEAS) is an International Non-Profit Organisation, with the aim to develop a framework within which the major European Aerospace Societies can work together.
It was established as a legal entity conferred under Belgium Law on 1st of January 2007. The creation of this Council was the result of a slow evolution of the 'Confederation' of European Aerospace Societies which was born fifteen years earlier, in 1992, with three nations only at that time: France, Germany and the UK.

It currently comprises:

- 11 Full Member Societies: Czech Republic (CzAeS) – France (3AF) – Germany (DGLR) – Italy (AIDAA) – The Netherlands (NVvL) – Poland (PSAA) – Romania (AAAR) – Spain (AIAE) – Sweden (FTF) – Switzerland (SVFW) – United Kingdom (RAeS);
- 5 Corporate Members: ESA, EASA, EUROCONTROL, EUROAVIA, von Karman Institute;
- 9 Societies having signed a Memorandum of Understanding (MoU) with CEAS: AAE (Air and Space Academy), AIAA (American Institute of Aeronautics and Astronautics), CSA (Chinese Society of Astronautics), EASN (European Aeronautics Science Network), EREA (European association of Research Establishments in Aeronautics), ICAS (International Council of Aeronautical Sciences), KSAS (Korean Society for Aeronautical and Space Sciences), PEGASUS (Partnership of a European Group of Aeronautics and Space Universities) and Society of Flight Test Engineers (SFTE-EC).

CEAS is governed by a Board of Trustees, with representatives of each of the Member Societies. Its Head Office is located in Belgium: c/o DLR – Rue du Trône 98 – 1050 Brussels.

www.ceas.org

AEROSPACE EUROPE

Since January 2018, the CEAS has closely been associated with six European Aerospace Science and Technology Research Associations: EASN (European Aeronautics Science Network), ECCOMAS (European Community on Computational Methods in Applied Sciences), EUCASS (European Conference for Aeronautics and Space Sciences), EUROMECH (European Mechanics Society), EUROTURBO (European Turbomachinery Society) and ERCOFTAC (European Research Community on Flow Turbulence Air Combustion).
Together those various entities form the platform 'AEROSPACE EUROPE', the aim of which is to coordinate the calendar of the various conferences and workshops as well as to rationalise the information dissemination.
This new concept is the successful conclusion of a work which was conducted under the aegis of the European Commission and under its initiative.
The activities of 'AEROSPACE EUROPE' will not be limited to the partners listed above but are indeed dedicated to the whole European Aerospace Community: industry, institutions and academia.

WHAT DOES CEAS OFFER YOU ?

KNOWLEDGE TRANSFER:
- A structure for Technical Committees

HIGH-LEVEL EUROPEAN CONFERENCES:
- Technical pan-European events dealing with specific disciplines
- The biennial AEROSPACE EUROPE Conference

PUBLICATIONS:
- CEAS Aeronautical Journal
- CEAS Space Journal
- AEROSPACE EUROPE Bulletin

RELATIONSHIPS AT EUROPEAN LEVEL:
- European Parliament
- European Commission
- ASD, EDA, OCCAR

HONOURS AND AWARDS:
- Annual CEAS Gold Medal
- Medals in Technical Areas
- Distinguished Service Award
- CEAS Most Cited Paper Awards

YOUNG PROFESSIONAL AEROSPACE FORUM SPONSORING

AEROSPACE EUROPE Bulletin

AEROSPACE EUROPE Bulletin is a quarterly publication aiming to provide the European aerospace community with high-standard information concerning current activities and preparation for the future.
Elaborated in close cooperation with the European institutions and organisations, it is structured around five headlines: Civil Aviation operations, Aeronautics Technology, Aerospace Defence & Security, Space, Education & Training and Young Professionals. All those topics are dealt with from an overall European perspective.
Readership: decision makers, scientists and engineers of European industry and institutions, education and research actors.

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EDITORIAL

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Dear readers,

On the title page of this issue of the AEROSPCE EUROPE Bulletin, we have included a picture showing crew members of the Axiom Mission 4 (Ax-4) human spaceflight mission to the International Space Station. The Ax-4 lifted off on a SpaceX Falcon 9 rocket from launchpad 39A at NASA's Kennedy Space Center in Florida, USA, on 25 June at 02:31 EDT. This mission's research agenda comprised around 60 scientific studies and activities from 31 countries, including the US, India, Poland, Hungary, Saudi Arabia, Brazil, Nigeria, the UAE, and various European nations. This research enhanced global knowledge in the fields of human research, Earth observation, and life, biological, and material sciences. The Ax-4 mission represents a significant opportunity for India, Poland and Hungary, each of which is set to leverage the mission to further develop their national space programmes.

In this issue, you can read an interview with Dr Alisdair Wood, President of the Royal Aeronautical Society. Dr Wood answered questions about his primary goals as President, how the RAeS fosters international partnerships, which emerging technologies he believes will reshape aerospace most significantly over the next decade, how the RAeS supports innovation in sustainable aviation and space exploration, and much more. I invite you to read the full interview.

*Moreover, in this issue of the **AEROSPACE EUROPE Bulletin**, we are launching a new series of articles on the unique research infrastructure belonging to CEAS members that is used for research in the aerospace sector. The first article in this series focuses on the MARTA Center – Mediterranean Aeronautics Research & Training Academy is located in the new teaching and scientific center of the Faculty of Engineering and Architecture at the scientific and technological center of Santa Panasia, Enna. The Center hosts the teaching and research activities of the Degree Course in Aerospace Engineering and is the first laboratory in Europe equipped with flight simulators for research activities on the Aeronautical Human Factor.*

You will also find an article dedicated to EUROAVIA and its Mentoring Programme. EUROAVIA – The European Association of Aerospace Students was founded to bridge the gap between academia and the aerospace industry. Today, the association serves as a dynamic platform for engineering students to develop their technical and interpersonal skills, expand their networks, and contribute to the future of aerospace innovation. The EUROAVIA Mentoring Programme pairs aerospace professionals (mentors) with EUROAVIA members (mentees) based on shared interests, geographical proximity, and individual requirements. Over an eight-month period, each pair commits to approximately eight meetings, around one per month, designed to provide tailored guidance and mutual learning opportunities.

*Among the other information in this issue of the AEROSPACE EUROPE Bulletin, you will find a summary of Aerodays 2025, the leading event in the field of aviation research and innovation, which took place in Warsaw from 7–9 May. The event brought together experts from industry, politics, research institutions and academia, as well as young talent from Europe and beyond. Furthermore, I would like to remind you of the **10th CEAS Aerospace Europe Conference**, which will take place in Turin, Italy, from 1 to 4 December 2025. This conference will be hosted by the Italian Association of Aeronautics and Astronautics (AIDAA) and will be organised as a joint event with the **28th AIDAA International Congress**. It will also coincide with the 10th Aerospace & Defense Meetings, providing a unique stage for industry and academic collaboration. The conference will also host the 9th Moon Village Association Workshop and Symposium, further enriching the program with internationally relevant discussions on lunar exploration and development. The event will take place at the Centro Congressi Lingotto, a vibrant venue in the heart of Turin that perfectly combines modernity with historic charm. Once a renowned Fiat factory, this innovative space now hosts international conferences, offering state-of-the-art facilities and unique architectural features. We look forward to welcoming you to this conference.*

■

CONTENTS

• CEAS PRESENTATION
– Members and Partners 2-4
– Editorial 5
– CEAS President message 6

• LIFE OF CEAS
– President's report for year 2025 6-7
Dr. -Ing Cornelia Hillenherms, CEAS President 2025
– CEAS tribute to Sir Colin Terry, FRAeS 8-9
– Aerodays 2025: Key Insights from Warsaw 10-11

• PERSONALITY INTERVIEW
– Interview with Dr Alisdair Wood, President of the Royal Aeronautical Society 12-13
By Łukasz Kiszkowiak, Deputy Editor-in-Chief AEROSPACE EUROPE Bulletin and Emma Bossom, CEAS trustee

• AERONAUTICS TECHNOLOGY
– Human Factors in aeronautics 15-17

• SPACE
– Axiom Mission 4, a human spaceflight mission to the International Space Station 18

• EDUCATION AND TRAINING
– EUROAVIA: Connecting Aerospace Engineering Students Since 1959 19-21
By Athina Athanasaki, who is the Coordinator of the Communication Working Group at the European Association of Aerospace Students

• CEAS JOURNALS
– CEAS Space Journal 22-23
– CEAS Aeronautical Journal 24-29

• EVENT CALENDAR
– Among Upcoming Aerospace Events 30-32

PRESIDENT'S MESSAGE 2025

Dr.-Ing. Cornelia Hillenherms
President of CEAS 2025

Dear CEAS Society Members,
Interested Readers, and Friends,

With so many activities, this year has almost flown by and we are already approaching the end. However, our most important event is still to come: the **CEAS/AIDAA Aerospace Europe Conference 2025**, taking place from 1–4 December in Turin, Italy. Combining four parallel events, this is a truly significant conference that is essential for anyone in the European aerospace community. The 10th CEAS Aerospace Europe Conference coincides with the 28th AIDAA International Congress, the 10th Aerospace & Defense Meetings and the 9th Moon Village Association Workshop and Symposium. CEAS invites ten students, selected by its MoU partner PEGASUS as the best students of their spring conference, to participate in the event. Three more students are invited by the ESA Academy following an open application and selection process.
AIDAA as the host of this event carries the main workload, and I am very thankful to the organising team, namely AIDAA president Prof. Erasmo Carrera, Dr Matteo Filippi and Nicoleta Bors, who are all doing a fantastic job! More detailed information on this event is included in this Bulletin (and on the conference website https://www.aidaa.it/ceasaidaa2025/).

I am delighted to share some great news with you: the **CEAS Aeronautical Journal** has recently been accepted into the Web of Science! Like its companion journal, the CEAS Space Journal, it has been included in Clarivate's Emerging Sources Citation Index. This is a significant achievement for any journal, and we are very proud that both CEAS journals are now indexed by Scopus and WoS – the two most recognised platforms.

We can already look back on three successful conferences this year, organised by CEAS Technical Committees:

- The **31st AIAA/CEAS Aeroacoustics Conference** took place in Las Vegas, USA, during the AIAA Aviation and Aeronautics Forum and Exposition (2025 AIAA AVIATION Forum) from 21 – 25 July 2025. It included more than ten networking sessions and over 40 aeroacoustics-focused sessions, as well as the CEAS Aeroacoustics Award Lecture, delivered by Prof. Phillip Joseph from the University of Southampton on "Destructive interference for Aeroacoustic Noise Control: Methods and Applications". Phil Joseph was awarded the CEAS Aeroacoustics Award for 2025, which highlights outstanding contributions to the field of aeroacoustics and acknowledges individuals and teams who have significantly advanced the understanding and mitigation of aircraft noise. Congratulations!

- The **51st European Rotorcraft Forum ERF** took place in the historic Arsenale Militare of Venice, Italy, from 9 – 12 September with over 160 international speakers. A total of 170 papers were presented during the event, which is recognised worldwide for bringing together experts from industry, research, academia, and operators. This year, the event was organised in leadership of Leonardo, in collaboration with Marina Militare and Politecnico di Milano. I had the honour of giving a short welcome address at the opening of the conference. I emphasised the importance of this event for the community, highlighting that cooperation and openness are key European values that have led to, and will continue to lead to future success.
As in previous years, the best papers from about a dozen authors will be invited to submit to the CEAS Aeronautical Journal for publication in a Special Issue, provided they pass peer review.

- The **4th International Conference on High-Speed Vehicle Science and Technology HiSST** took place in Tours, France, from 22 – 26 September, attracting 300 participants and 175 papers that were presented. It was organised in leadership of the CEAS member society 3AF (Association Aéronautique et Astronautique de France) and the CEAS Technical Committee HiSST. This event brings together experts in high-speed vehicles from

around the World every 18 months - the last HiSST conference was held in April 2024 Busan, Korea.
All conference papers will be uploaded to the CEAS repository and receive a DOI (digital object identifier). As in previous years, the best papers will be invited to submit to the CEAS Space Journal for publication in a Special Issue, provided they pass peer review.

What happens after a conference? The next one! We are particularly looking forward to the following events next year:

- **CEAS EuroGNC**: Madrid (Spain), 5 - 7 May 2026, https://eurognc.ceas.org/
- **32nd AIAA/CEAS Aeroacoustics Conference**: Brussels (Belgium), 26 – 29 May 2026, https://www.aeroacoustics2026.eu/
- **21st International Forum on Aeroelasticity and Structural Dynamics IFASD**: Göttingen (Germany), 16 – 19 June 2026, https://ifasd2026.dglr.de/
- **52nd European Rotorcraft Forum ERF**: Amsterdam (The Netherlands), 1 - 4 September 2026, https://www.erf2026.org/

Besides preparing the CEAS/AIDAA Aerospace Europe Conference and supporting our Technical Committees, CEAS is actively collaborating with its different MoU partners, such as AAE, AIAA, EASN, ICAS and PEGASUS, for example. The **Aerodays 2025** in Warsaw, which took place from 7 – 9 May, were the perfect opportunity to meet some of our partners in the aeronautical sector and to follow up on joint activities. CEAS is also involved in discussions with several potential corporate members who have expressed an interest in becoming CEAS allies, which we are pleased about. We'll keep you up to date.

Finally, I would like to make one comment on this "late" edition of the bulletin. I'm very grateful to Łukasz Kiszkowiak, who does his best as Acting Editor-in-Chief alongside all his other duties. We have once again been reminded of the huge contribution that our long-standing Editor-in-Chief, Jean-Pierre Sanfourche, made to the bulletin until his sad passing in November last year. Unfortunately, we have not been able to continue publishing the bulletin seamlessly after the first issue of this year. However, we are close to finding a new solution and hope to resume regular publication next year. Stay tuned!

Thank you for your continued commitment to advancing aerospace in Europe and beyond. I wish you peace and optimism for the months ahead, and I very much hope to see you in Turin!

Cornelia Hillenherms
Cologne, 14 October 2025

SIR COLIN TERRY, FRAES

Sir Colin Terry, FRAeS
1943-2025

The Council of European Aerospace Societies has been saddened to learn that Sir Colin Terry KBE CB DL FREng, past President of CEAS and leader in the fields of engineering and aerospace, has passed away. He was a figure of immense respect within the engineering community. CEAS is very grateful to Sir Colin Terry. His activities and initiatives have significantly strengthened CEAS. He remains in our memory as a great personality.

Sir Colin Terry was born on 8 August 1943 in Cleobury Mortimer, Shropshire, he was educated at Bridgnorth Grammar before joining the RAF in 1961. He subsequently completed a three-year BSc (Eng) course in Aeronautical Engineering at Imperial College, London.
After graduating from the RAF College at Cranwell in 1966, he held a spectrum of practical engineering appointments, including back-to-back Germany-based Senior Engineering Officer tours on McDonnell Douglas Phantoms and an OC Engineering Wing appointment at RAF Coltishall when it operated SEPECAT Jaguar aircraft.
During this period he also forged his long-term love affair with flying, which included an enabling operation on his eyes, award of his wings, completion of his advanced flying training on the Vickers Varsity and, whilst filling an engineering appointment at RAF Finningley, opportunities to fly the Varsity and Jet Provost.
During the 1980s, he filled a varied range of appointments, including OC Engineering Wing in the Falklands, Station Commander at RAF Abingdon and student at the Royal College of Defence Studies.
Following his promotion to Air Commodore rank in 1989, he spent four years in the vitally important sphere of strategic supply chain support and airworthiness control of the RAF's front-line forces. In 1996, he was promoted to the rank of Air Marshal and conjointly appointed C-in-C Logistics Command, Chief Engineer and Air Force Board Member
During this period, he masterminded a major cost reducing rationalisation of the RAF's Logistics organisation and supply chains, the provision of effective founding support for a range of new aircraft fleets and the introduction of intensive programmes to address the airworthiness challenges of ageing aircraft fleets. As a result, he enabled the RAF to meet its challenging operational tasks against a backdrop of savage funding reductions driven by the post–Cold War 'Peace Dividend.' In recognition of his achievements, he was knighted in 1998.
After leaving the RAF in 1999, Sir Colin held a number of senior appointments within industry, including Managing Director of Inflite Engineering and Chairmanships of Meggitt, AviaMediaTech, Remco, Centronic Group and BOXARR.
Throughout his working life he displayed a passionate commitment to the enhancement of engineering as a profession, in tandem with a dedicated pursuit of 'engineering excellence'.

This focus shaped his strategic objectives and tactical decision-making throughout his time in the RAF, particularly in the latter stages of his career when he held a direct line of accountability to the Secretary of State for underwriting operational capability by combating structural fatigue, corrosion and obsolescence with enhanced servicing and major structural replacement programmes, designed to extend the in service lives of ageing aircraft fleets. Furthermore, as a retired officer, he was selected in 2011 to be the Chairman of the MoD Military Aviation Safety Advisory Committee, following the Haddon-Cave Report into the fatal Nimrod accident.

Following his retirement from the RAF, Sir Colin Terry became more deeply involved, and influential, in the sculpting of the UK's engineering profession. As Chairman of the newly formed Engineering Council (UK) he worked with industry, academia, institutes and government to rationalise the UK Engineering accreditation and registration procedures.

This established an effective engineering regulatory regime covering the full spectrum of specialisations involving more than 300,000 worldwide registrants. He advised ministers and secretaries of state at the Department of Trade & Industry (DTI) and Energy Security on national and international issues affecting accreditation, sustainability, equal opportunities, diversity and, latterly with the

Home Office, on 'Refugees into Jobs'. He was a major advocate with the DTI for the further rationalisation of the 30+ professional engineering institutes, culminating in the formation of the Institute of Engineering and Technology. At the same time, he was a Member of the Prime Minister's Innovation Group.

In December 2002 Sir Colin featured in The Economist as one of the 100 most influential people in Britain.
As proof of his commitment to engineering and aerospace, he became President of the RAeS in 2005 – visiting Australia, New Zealand and Hong Kong, as well as attending international air shows during his year. With his themes of global reach, innovation, excellence and energy, he helped grow the Society towards the 20,000 membership mark during his Presidential Year, as well as launch the Hamburg Branch, the creation of a UAV Specialist Group and hosting a second Annual Conference that was held in 2006. In particular, he noted: "We must never forget our prime role as a Learned Society, not only in an engineering sense, but across the board spectrum of aerospace."
As a professional, he was unfailingly clear thinking, highly focused, determined, adventurous and totally steadfast when the going got tough. He had a rare talent for mastering essential detail, extracting the essence of complex situations and successfully driving strategic issues with 'big hand small map' clarity. He also consulted thoroughly, was a sympathetic listener and always open-minded in counter argument. Importantly, his good humour, energy, vibrancy and positivity were universally infectious, but particularly so amongst those who worked for him.

In his spare time, he was a keen sailor, skier, pilot and cook. He also undertook a number of parachute jumps, was a champion pistol shot and also excelled as a 12-bore shot who loved to watch the dogs work after the bustle of a pheasant drive.

Throughout his career, Sir Colin was a loyal friend and colleague to the many who have worked with him; an outstanding influence on the development of engineering within the RAF and at the national level; a major contributor to the operational effectiveness of the RAF; a wise and influential senior statesman in his latter years; and a man of great warmth and style that, with consummate ease, put a smile on the face of the world around him.

Sir Colin Terry married Gillian Grindley in 1966; she survives him with their two sons, Sarn and Leon, their daughter, Adrienne, and their six grandchildren.

AVM David Saunders MSc CBE CEng FRAeS
Łukasz Kiszkowiak, Deputy Editor-in-Chief, AEROSPACE EUROPE Bulletin

AERODAYS 2025: KEY INSIGHTS FROM WARSAW

The **Aerodays 2025** brought together experts from industry, politics, research institutions and academia, as well as young talent from Europe and beyond. This leading event in the field of aviation research and innovation took place from 7–9 May at the EXPO XXI in Warsaw and was organised under the auspices of the Polish Presidency of the Council of the European Union by the Łukasiewicz – Institute of Aviation (ILOT), one of the oldest European research institutes, on behalf of the European Commission. The programme included six thematic plenary sessions on topics such as trends and challenges in aviation, the new European aviation research agenda, 'Fly the Green Deal', digitalisation, AI and autonomy, building a solid aviation research and innovation ecosystem, and opportunities and challenges regarding competitiveness. All plenary sessions included panel discussions. Between these plenaries, parallel sessions on more specific topics took place, e.g. on education and how to attract new students and engineers. The exhibition showcased prominent global companies, including GE Aerospace, Honeywell, Lufthansa Technik, Pratt & Whitney, Raytheon, Rolls Royce, RTX-Collins, and Safran, along with representatives from Ukrainian aerospace businesses and European research institutes such as the German Aerospace Center (DLR) and the Łukasiewicz Research Network.

Furthermore, several side events took the opportunity to meet. One of these events was the IFAR (International Forum for Aviation Research) Early Career Exchange, to give just one example. ICAS (International Council of the Aeronautical Sciences) also used this event to hold its Executive Committee meeting on the day before in Warsaw. All major European organisations dealing with aeronautics were participating. I was delighted to be representing CEAS, which was a great opportunity for information and exchange.
The conference emphasised that the effective coordination of R&D activities and a closer international cooperation are essential for the future success of European activities in aviation and aeronautics. Furthermore, a reliable funding policy for aviation innovation under the new EU framework program is vital to further support the transformation towards sustainable and safe development in the context of the increasingly unstable geopolitical situation and growing climate challenges at the same time. The need to strengthen supply chain resilience, build European strategic autonomy and leverage the potential of aviation for national security and defence purposes, in line with the European Union's security policy, was also highlighted. Once again, it became clear that, alongside sustainability, resilience and competitiveness are the most important goals. In his opening address, Dr Sylwester Wyka, acting Director General of Łukasiewicz ILOT, underlined this when he said: "*Through Aerodays, we reaffirm our collective commitment to strengthening Europe's position as a global leader in aviation, not only in terms of technology, but in so important policy mix including economic prosperity, competitiveness, sustainability, and last but not least – safety and security, understood more deeply than ever, especially at the Eastern flank of EU and NATO*".

The latest trends in aviation were discussed in the first plenary session, focussing on the two branches of transformation, i.e. the parallel transition towards a low-carbon economy and digitisation on one hand, and the challenges related to the geopolitical situation on the other hand: mitigating cyber threats, maintaining the competitiveness of the European aviation market, decarbonisation, energy supply and Sustainable Aviation Fuels (SAF).

The second panel discussion focused on strategies to enhance the competitiveness of the European aviation market, along with the latest research directions. The plenary session was introduced by the executive director of the **Clean Aviation** Joint Undertaking and the **ARIS** (Aviation Research and Innovation Strategy) initiative, Axel Krein, and the executive director of the **SESAR** Joint Undertaking, Andreas Boschen. The panelists concurred on the pivotal function of the future research programme for European aviation. They emphasised the significance of a comprehensive and coordinated strategy to align research with industry requirements, EU policies and global

Cornelia Hillenherms, CEAS President
© Cornelia Hillenherms

trends. As the aviation sector is undergoing a significant transformation, there is a simultaneous need to reduce carbon emissions, digitise, maintain industry competitiveness, and accelerate aircraft deliveries, equipment and repairs, while ensuring national security.

The third plenary session commenced with an update on Europe's aviation decarbonisation goals and progress in implementing the **Fly the Green Deal** and achieving the 2050 targets, with reference also to the European Union's broader plan for competitiveness and decarbonisation (the so-called **Clean Industrial Deal**). The discussion highlighted the necessity for coordinated public policies in the areas of science, economy, industry, infrastructure, environmental protection and national defence, as well as the importance of adequate funding, including under the new EU Research and Development Framework Programme.

The transformation of the aviation sector towards sustainability and digitisation requires comprehensive measures in a number of areas, including aircraft design aimed at noise and emission reduction, the implementation of low- or zero-emission propulsion technologies such as electric, hybrid and hydrogen propulsion, and the provision of broad access to sustainable aviation fuels (SAF) as an alternative to traditional fossil fuels. It is equally important to modernise airport infrastructure, of course. This should include the installation of systems that enable aircraft charging, the handling of alternative fuels, and the implementation of solutions that support energy efficiency and low-carbon airports. In addition, it is essential to incorporate state-of-the-art digital tools into both the air traffic management and ground operations sectors to optimise operational processes, enhance energy efficiency and boost capacity. Achieving these goals requires close cooperation between the aviation industry, regulatory institutions, R&D centres and airport operators and carriers. Technological innovation must be supported by adequate legislation and financial resources to ensure the effective implementation of the green and digital revolutions in aviation.

During the fourth plenary session, speakers from **Airbus**, **ASD** (Aerospace, Security and Defence Industries Association of Europe), **SESAR** Joint Undertaking and **EASA** shared insights on the development of digital technologies, autonomy and artificial intelligence in aviation. They emphasised that the integration of artificial intelligence and autonomy is vital for enhancing efficiency, safety and sustainability in the aviation industry. Their implementation can optimise operations, improve air traffic management, enhance decision-making and contribute to decarbonisation objectives.

On the third and final day, representatives from academia, science and industry emphasized that cooperation is needed to effectively and efficiently meet the global challenges currently facing European aviation. A substantial part of the discussion centred on the significance of education, the alignment of plans for technological development and teaching methods, and the content that underpins university curricula. In light of the rapid transformation within the aviation industry, there is an increasing demand for skilled professionals. Further discussion is required on the question of which skills the aviation industry needs as it transitions to cleaner, more digital and autonomous aviation technologies, and how this should affect university curricula. It is clear that universities have a pivotal role to play in shaping the aviation industry's future workforce. In addition, it was discussed how to make sure that regional collaboration is used to address skills gaps and to establish pathways for young talent so that they can enter the aviation workforce quickly without having to undergo lengthy adjustment programmes. In addition, the focus was on national and EU initiatives, including the creation of skill development programmes that address local competency gaps and promote mobility within the EU.

Altogether, Aerodays 2025 was an informative and inspiring event, offering a comprehensive look at the challenges and opportunities shaping the future of aviation. The conference reaffirmed that the future of aviation will be driven by continued innovation and collaboration.

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More information: https://aerodays2025.eu/

INTERVIEW WITH DR ALISDAIR WOOD, PRESIDENT OF THE ROYAL AERONAUTICAL SOCIETY

By Łukasz Kiszkowiak, Deputy Editor-in-Chief AEROSPACE EUROPE Bulletin and Emma Bossom, CEAS trustee

Dr Alisdair Wood, President of the Royal Aeronautical Society

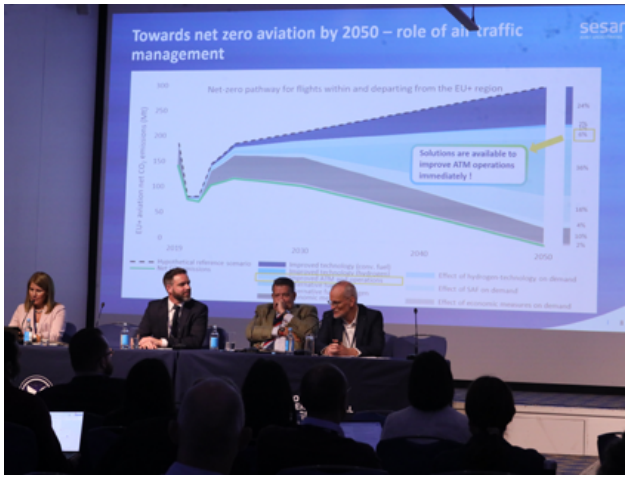
What are your primary goals during your tenure as President of the Royal Aeronautical Society?
My primary goal is to provoke a discussion on how safety management can be utilised to reduce the time taken for innovation to reach the market, 'safety enables'. Too often safety management is seen as a barrier to rapid development; however, utilising safety and risk management techniques we can understand and mitigate the risks quickly. A natural extension to this paradigm is that by understanding the risks we can achieve stretch targets with confidence and prevent anecdotal concerns hinder programmes.
Alongside safety enables, I am passionate about the development of our people in aerospace, which in this context includes aviation and space. With rapidly changing technology not only do we need to develop our career entrants but also our mid-career employees. This group will have left education 15-20 years ago and looking back 20 years the sector has changed immensely. Keeping this generation 'match fit' is a challenge, which will never cease. Therefore, I will be hosting a two day Presidential conference on 7-8 October entitled People in Aerospace to continue those discussions and develop a better understanding on how, as a community, we can address our current and future needs.

How do you see the Society's role evolving within the global/European aerospace community?
The Society's role has remained essentially the same throughout its 159 year history; to be an impartial, authoritative source of fact-based information at the centre of the debates on how to resolve some of the critical issues facing our sector. Our founders, who had the foresight to form the Society before the Wright brothers were born, could not have imagined the advances that have been made and the challenges overcome. Whilst the subject matter and technical issues have varied beyond all recognition, the Society's role has been and remains to be at the centre of the discussion bringing often disparate parties together. The European aerospace community is vital as part of the Society's efforts to develop partnerships across the world. We have over 25,000 members around the globe, with over 60 branches, and divisions in Australia, South Africa, Pakistan, and New Zealand. Our Society branch network is well established across Europe supporting lectures, events and conferences.

How does RAeS foster international partnerships, and what role does global collaboration play in its mission?
The Society has 4 Divisions and 14 Branches around the world; hence we consider ourselves to be represented globally. With increasing complex programmes, it has become the norm for major programmes to have an international dimension and collaboration is imperative. Therefore, it is important that the Society actively contributes to the debates that shape the future of international aerospace. A notable example is the Society engagement at the ICAO General Assembly as an official observer, where we continue to support discussions and initiatives on talent generation. Three years ago we did that and gained international support for our working paper, which has been bolstered by the formation of the Global Aerospace and Aviation Skills Taskforce. This year at the 42nd Assembly in Montreal we have collaborated with the UK Department for Transport, the International Air Transport Association, the Airports Council International and other international aerospace organisations with papers to address key challenges facing the current and future workforce in our sector.

What emerging technologies do you believe will most significantly reshape aerospace over the next decade?
For me, the emerging technology with the highest reward and potential risk is Artificial Intelligence (AI). This is hugely exciting in all the engineering, maintenance and operational elements of our sector. The ability to use AI in areas such as the optimisation of design, rapid decision making or determining optimal air traffic routing is a paradigm shift. Our challenge is to harness that power without compromising safety and ensure there is no detrimental impact on the public with any associated loss of confidence in aerospace.

In a similar vein, another exciting area is the use of computer modelling and simulation to stretch further our ability to synthetically certify products, reducing our reliance on costly, time consuming and environmentally damaging physical testing. This has the additional advantage of reducing risk to life of test crews, who traditionally would have to explore the unknown ahead of the simulation.



How is RAeS supporting innovation in sustainable aviation and space exploration?

The unique aspect of the Society is the ability to bring people with different perspectives together and develop pathways to solutions. Being a membership organisation and impartial, the Society can occupy the neutral ground and allow all sides of the debate fair representation, striving for the right solution to the problem. Whilst being sensitive to the commercial and political environment, the Society can also help the sector understand some of the 'uncomfortable truths' that we and broader society face.

The Society hosts a fantastic programme of conferences. In summer 2025, we held our Sustainability Week featuring events, publications and content around sustainability in the aerospace sector; the flagship event being the two-day Sustainability Conference. The Society's Greener by Design Specialist Group was formed in 1999 and has evolved from a design focussed group to the broader environmental concerns, an example being the detailed research and articles covering contrail management and their impact on global warming.

The Society's Space specialist group holds conferences and lectures each year on topics such as Space Tourism, Satellites Robotic Exploration, and Environmental Sustainability in Space. At our headquarters No.4 Hamilton Place in London, we were honoured to host ESA's Director General earlier this year, who shared the very latest developments on space exploration and the importance of international collaboration. Government engagement continues to develop in this field for the Society with key international agencies including NASA, ESA, and the United Nations Office for Outer Space Affairs.

On a broader front, for the last two years we have hosted the Chair and Chief Executive of the UK CAA for their annual address at 4 Hamilton Place. This year's review included discussions on the international regulatory and safety environment in the sector including space.

With growing demand for aerospace skills, how is RAeS helping to address the talent gap in the sector?

There is a broad recognition amongst industry leaders and politicians that an untapped rich seam of talent exists, but we need to find it and foster its development. This is particularly true in regions far from aerospace hubs and within city centres where aerospace does not immediately feature amongst students, parents and teachers.

The Society has professional development programmes to attract, retain and support talented young persons and professionals and continues to urge other organisations in this area to collaborate more closely on their various initiatives to maximise impact in addressing the skills gap.

The Society's papers for the ICAO General Assembly have been mentioned previously and the latest paper goes further to support the ICAO Next Generation of Aviation Professionals (NGAP) programme and highlight the need to expand the NGAP's scope beyond youth and licensed professionals to encompass all aviation workers, including mid-career professionals and unlicensed roles. The paper also addresses the risk that workforce shortages pose to the safety, security and resilience of the global aviation system and calls for strengthened collaboration between states, educational institutions and industry.

Within the Society, the annual RAeS Careers in Aerospace and Aviation Live event attracts major industry players and remains hugely popular with university students embarking on a career in our international sector.

What initiatives are in place to encourage young people to pursue careers in aerospace?

As I have touched on previously the Society has an extensive outreach programme, engaging with schools and colleges to attract young talent into our sector. Also, we are engaged with universities to encourage the graduate community to take up careers in aerospace. The competition for graduates is intense and we need to maintain our presence in further education, providing credible arguments on how and why a career in aerospace is rewarding.

The power of social media and the ability to share experiences instantly plays a key role in young peoples' lives. In addition, we cannot forget their parents – too often I have heard of young people being held back because their parents did not realise their children's potential and the opportunities available.

However, we recognise that resource is limited and by co-ordinating our efforts with other like-minded organisations we can multiply our effect. To harness the talent in our young people, too often unaware of the opportunity for a viable career in our sector, a change is needed with national/international intervention. Therefore, the Society provides written and verbal briefs to political leaders to get aerospace careers onto the national agenda.

A few years ago, the Society recognised that our early careers people were not represented in the Society as much as desired. To address the gap the Next Generation Board has been formed and, whilst the Board is in its formative phase, it has proven to be an enormous success. A number of events have become regular features in the Society's calendar such as the Young Persons Conference, Aerotube (a vehicle for young people to promote a subject of their choice via a video link) and social events such as quiz nights.

What do you see as the biggest challenges facing the aerospace industry today?

The aerospace industry faces numerous challenges; some are societal such as environmental pressures; others are political such as the military utilisation of aerospace and unilateralism. Whatever the driver, the aerospace community has been incredibly adept at finding technical and operational solutions in a heavily regulated environment such we meet the public demand for low cost without compromising safety. Conflicts especially that in Ukraine have seen a fundamental shift in the way modern warfare with innovative technologies is fought and deployed in the air and cyberspace. The pace of change has increased significantly, adapting and evolving in an unpredictable and dynamic environment.

Outside our atmosphere we have a collective responsibility to manage space, especially in the short term low earth orbits. The lack of international regulation, co-operation and enforcement in this area will have far reaching and detrimental impacts for all of us. We cannot continue our current path without agreeing the regulated use of space which will become increasingly cluttered and weaponised. The management of space is now critical to our everyday lives. Ignore it at our peril.

What inspired your own journey in aerospace, and how has your experience shaped your approach as President?

When I grew up, my parents lived abroad and I came back to the UK for schooling. At the time the airlines had young fliers clubs and I joined the Lufthansa and British Airways versions. With my logbook, I was invited up to the cockpit and watched the action at the sharp end. I recall thinking that I wanted to be a part of it. I am saddened that this opportunity is not available anymore and generations of children will never experience life beyond the security door. In the end I chose the engineering / design route but had the fortune to spend 7 years in a flight test department with many hours airborne testing prototype helicopters. As with all prototype aircraft, there is a risk that the unexpected will occur and for me an emergency parachute descent has instilled a passion for aviation safety and managing aviation risk that has always been present during my career.

What advice would you give to the next generation of aerospace leaders?

My advice for all who work in our sector is look for roles that you are passionate about. With passion comes enthusiasm and with enthusiasm comes success.

HUMAN FACTORS IN AERONAUTICS

By M.A.R.T.A. Director: Prof. Andrea Alaimo , andrea.alaimo@unikore.it
Laboratory Manager: Prof. Antonio Esposito, antonio.esposito@unikore.it

UNIVERSITÀ DEGLI STUDI DI ENNA "KORE"

MARTA Research Center

The MARTA Center – Mediterranean Aeronautics Research & Training Academy is located in the new teaching and scientific center of the Faculty of Engineering and Architecture at the Science and Technology Hub of Santa Panasia, Enna. The Center hosts the teaching and research activities of the Degree Course in Aerospace Engineering and is the first laboratory in Europe equipped with flight simulators for research activities on the Aeronautical Human Factor.

Inside the MARTA center there is a Full Motion level "D" flight simulator that replicates the CESSNA Citation C560 XLS aircraft and a static FNPT- MCC II simulator of the EC-135 twin-engine rotary wing aircraft. The Center's facilities also include classrooms and teacher offices for the Aerospace Engineering degree course and the four reference laboratories for the course: LIMA laboratory – Aerospace Mechanical Engineering Laboratory, HFA laboratory – Aeronautical Human Factor, MAN laboratory – Modeling and Numerical Analysis, materials laboratory.

HFA LABORATORY EQUIPMENT

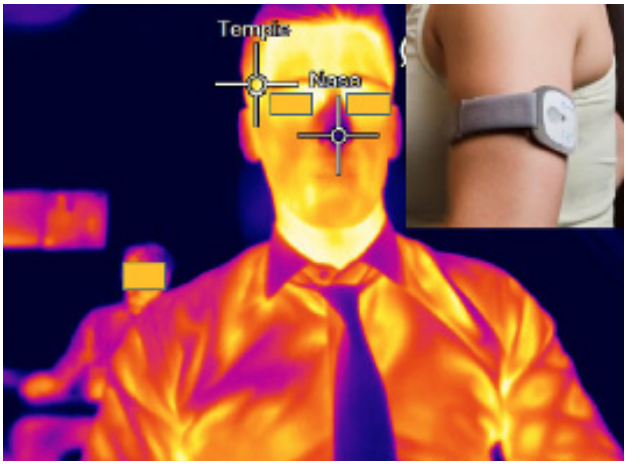
Full motion flight simulator CESSNA CITATION C560 XL
The Full Motion flight simulator of the University of Enna "Kore" reproduces the CESSNA Citation C-560 XLS aircraft and is characterized by the highest level of fidelity currently provided for by the European EASA regulations. The simulator was created by the Austrian company Axis Flight Training Systems, which relied on the American company "RSI Visual Systems" and the Dutch company "E2M Technologies" for the creation of the visual system and the motion system respectively. The simulator boasts the use of cutting-edge technologies that simplify its operational activities as well as drastically reduce the energy consumption of the entire system. Among all, an electromechanical motion system capable of moving a maximum payload of 14 tons and a visual system based on LED projectors for the collimated projection of images. As for the cockpit, the simulator includes a glass cockpit layout that reproduces the CESSNA Citation XLS aircraft with absolute fidelity, equipped with Pratt & Whitney PW545B engines. Analogous to the real aircraft, the cockpit is equipped with two lateral EFIS displays and a central multifunction EFIS display. All the on-board avionics are from Honeywell Primus 1000 while the two Flight Management Systems – FMSs installed are produced by Universal.

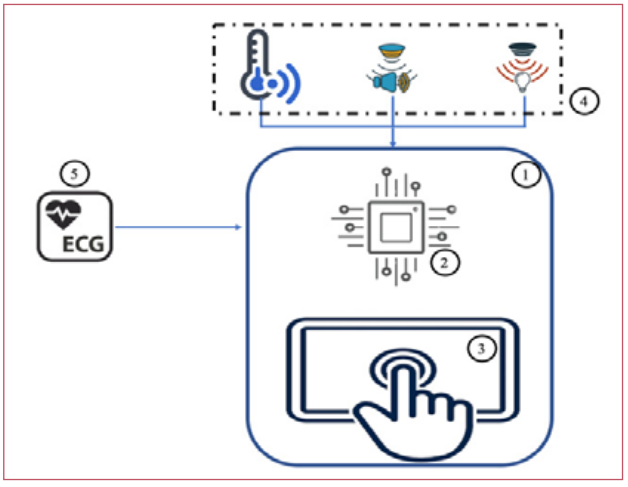
EC-135 Helicopter static flight simulator

The static flight simulator of the University of Enna "Kore" reproduces the EC-135 rotary-wing aircraft and allows training activities in instrument flight conditions on twin-engine helicopters. The simulator was built by the Spanish company Entrol – Entrenadores Olarte and belongs to the FNPT – II MCC certification class. In order to study the stress of pilots engaged in special missions, the simulator was equipped with a hardware and software package capable of simulating SAR – Search And Rescue missions. The simulator cabin features a glass cockpit configuration while the flight systems include a 3-axis autopilot, 1 flight management system and a meteorological radar. The on-board avionics also allow for VOR, ILS and NDB navigation aids useful for the following types of training: ATPL, MCC, CPL, IR. In addition to these, there are the Human Factors and Pilots Decision-Making courses: CRM (Crew Resource Management), TEM (Threat and Error Management), EC-135 Cockpit Familiarization, LOFT (Line Oriented Flight Training), Systems Training, Initial Pilot Evaluation, Normal & Emergency Procedures Refreshment. The instructor station – IOS has two 24" touch screen monitors as well as a third monitor for managing the winch during SAR missions.

Sensors supplied with the laboratory

- Wearable ECG sensors from several commercial brands.





- Wearable EDA sensors.
- Non-contact temperature measurement for R&D.
- Accelerometers for human body research activity.
- Inertial Measurement Unit for Human Activity Recognition problems, Tracking and navigation problems

HFA Research

The study of Human Factor is based on the understanding and correlation of human behavior in relation to the activities performed. The Aeronautical Human Factor Laboratory hosts some of the teaching and research activities related to the Degree Course in Aerospace Engineering and primarily the flight simulators for research activities on Human Factor in the aeronautical field.

The research activities carried out at the HFA laboratory range from the characterization and analysis of the objective and subjective behavior of flight personnel, to that of passengers or ground personnel such as air traffic controllers. Experiments are carried out on non-invasive and contactless platforms and sensors for real-time monitoring of the human body response as a function of the workload experienced.
Alongside the research activities conducted through the use of flight simulators, the laboratory's research activities also focus on the study of the behavior of pilots of remotely piloted aircraft. In fact, although recent technological developments in the field of artificial intelligence and smart mobility are progressing towards an increasing use of autonomous aircraft, the currently existing remotely piloted aircraft include, in the flight management and control loop, the pilot as an active part of the process. Therefore, also for these aircraft, monitoring of the human factor is an element to be analyzed.

Further research activities of the laboratory concern the comfort of the human being, both in the aeronautical context and by extension in other fields. These researches focus not only on the comfort related to vibrations in terms of amplitude and frequency, to which the human body can be subjected, but through the instruments provided to the laboratory it is possible to analyze the comfort related to noise, light intensity and temperature both in real and simulated contexts.

The results of the research described and conducted in the aeronautical field can find wide application in other contexts related to mobility, medical sciences and energy saving.

Research products

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AXIOM MISSION 4, A HUMAN SPACEFLIGHT MISSION TO THE INTERNATIONAL SPACE STATION

The Axiom Mission 4 (Ax-4) crew lifts off to the International Space Station on a SpaceX Falcon 9 rocket from launchpad 39A at NASA's Kennedy Space Center in Florida, USA, on 25 June at 02:31 EDT local time (07:31 BST/08:31 CEST).

The AX-4 mission crew consisted of:

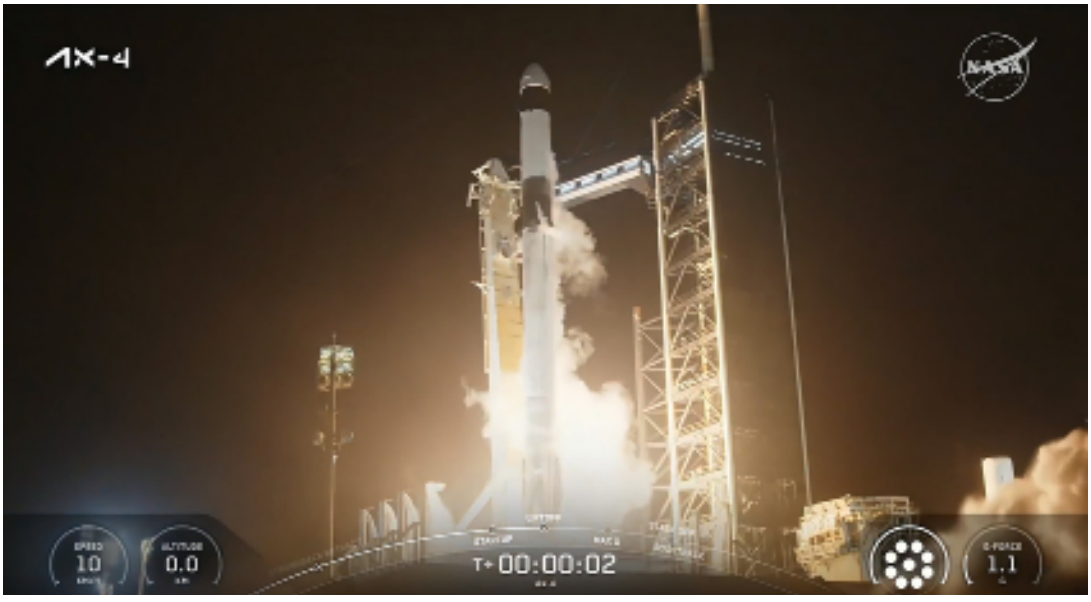
- Peggy Whitson (commander, former NASA astronaut, and current Axiom Space Director of Human Spaceflight);
- Shubhanshu Shukla (pilot, Indian Space Research Organisation astronaut);
- Sławosz Uznański-Wiśniewski (project astronaut, European Space Agency, Poland);
- Tibor Kapu (project astronaut, Hungary).

The Ax-4 research agenda comprised around 60 scientific studies and activities from 31 countries, including the US, India, Poland, Hungary, Saudi Arabia, Brazil, Nigeria, the UAE and various European nations. These were the largest number of research and science-related activities ever conducted on an Axiom Space mission aboard the International Space Station, highlighting the mission's global significance and collaborative nature in advancing microgravity research in low Earth orbit (LEO). The mission emphasised scientific portfolios led by the US, India, Poland (in partnership with the European Space Agency (ESA)) and Hungary. The aim is to increase participation from these countries by engaging a variety of stakeholders, demonstrating the value of microgravity research and encouraging international collaboration. The research conducted enhanced global knowledge in the fields of human research, Earth observation, and life, biological, and material sciences.

The AX-4 mission included the Ignis mission, the first Polish technological and scientific mission to the International Space Station. The Ignis mission is a breakthrough not only for Polish space sector. Thirteen Polish experiments in technology, biology, medicine, and psychology, prepared by Polish scientists and engineers, will open up new opportunities for Polish research and, in the long run, increase Poland's international competitiveness. Polish ESA project astronaut Sławosz Uznański-Wiśniewski became the second Pole in space and thus the best ambassador for Polish science and industry.

The Ax-4 mission stands as a beacon of opportunity for India, Poland, and Hungary, each poised to leverage this mission to advance their national space programs.

Axiom Mission 4 highlights:
LAUNCH: June 25, 2025 2:31 AM
SPLASHDOWN: July 15, 2025 5:31 AM
DURATION: 18 Days | 320 Orbits | 8.4M Miles
RESEARCH & OUTREACH: Over 60 Research Activities | 23 Outreach Events



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EUROAVIA: CONNECTING AEROSPACE ENGINEERING STUDENTS SINCE 1959

BRIDGING TALENT AND INDUSTRY THROUGH COMMUNITY, EVENTS, AND COLLABORATION.

By Athina Athanasaki, who is the Coordinator of the Communication Working Group at the European Association of Aerospace Students

Since its founding in 1959, **EUROAVIA – The European Association of Aerospace Students** has played a major role in uniting aspiring aerospace engineers across the continent. Born out of a shared vision among students from Germany, France, and the Netherlands, EUROAVIA was founded to bridge the gap between academia and the aerospace industry. Today, the association serves as a dynamic platform for engineering students to develop their technical and interpersonal skills, expand their networks, and contribute to the future of aerospace innovation.

Now active in **44 Local Groups across 19 countries**, EUROAVIA represents thousands of students passionate about aerospace. The association's mission is to inspire the next generation of engineers and leaders, pushing the boundaries of collaboration, education, and innovation across Europe and beyond. Through a variety of activities and international events, EUROAVIA shapes the future leaders of the aerospace sector by empowering students to explore career paths, develop real-world skills, and grow together as a community.

ACTIVITIES

EUROAVIA's impact is best seen through its comprehensive and inclusive calendar of events, each carefully designed to foster learning, international exchange, and professional growth among aerospace students.

A highlight of the EUROAVIA calendar is its series of **Engineering Competitions**, where students apply their skills to solve real-world challenges. **The Airbus Sloshing Rocket Workshop (ASRW)** invites teams to design a low-cost reusable rocket affected by internal fluid dynamics. The **IDEATHON** challenges students to develop creative solutions to aerospace problems proposed by sponsoring companies. Finally, the **PACE Contest**, organized in collaboration with PACE Aerospace & IT, allows students to experiment with industry tools and provide to the company with a fresh and innovative approach to current issues.

Complementing the technical learning are the **association's Workshops**. These events provide hands-on experience in aerospace disciplines such as rocket design, drone building, and RC aircraft development. In addition, internal training events, like **Formation Workshops** and **Train New Trainers**, help members enhance soft skills including leadership, communication, and team management, contributing to well-rounded personal and professional development.

EUROAVIA also values cultural exchange and informal networking, which are central to its **Fly-In** events. These gatherings give participants the opportunity to visit other Local Groups, explore different cities and universities, and take part in technical company visits and social activities. Fly-Ins foster strong cross-cultural bonds and help reinforce the sense of a united

European aerospace community. it allows to have an European perspective of the aerospace sector / raise awareness over the whole European sector.
Through this diverse range of activities, EUROAVIA continues to offer students unique opportunities to grow both technically and personally, preparing them to become the next generation of aerospace professionals.

THE EUROAVIA MENTORING PROGRAMME

In its **4th edition**, the EUROAVIA Mentoring Programme continues to serve as a vital bridge between students and professionals in the aerospace, space, and broader engineering sectors. This yearly initiative not only connects EUROAVIA members with experienced mentors from industry but also strengthens ties with EUROAVIA Alumni, as many mentors are former members of the Association. First launched in 2022, the programme has grown in popularity and impact with each edition.
The Mentoring Programme pairs aerospace professionals (mentors) with EUROAVIA members (mentees) based on shared interests, geographical proximity, and individual requirements. Over an eight-month period, each pair commits to approximately eight meetings, around one per month, designed to provide tailored guidance and mutual learning opportunities.

The content of each session is left to the discretion of the mentor and mentee, ensuring that discussions respond to the specific goals and interests of both parties. The programme emphasizes reciprocity: mentors share professional insights, while mentees offer fresh perspectives, fostering a truly collaborative exchange.
Although the official Kick-Off Meeting for this year's edition took place on 13 February 2025, preparation for the 4th edition began as early as November 2024. The project was coordinated directly by EUROAVIA President Ángeles Fuentes, with targeted support from the Communication Working Group, the Design Working Group, and the EUROAVIA Training System.

The calls for participation closed with strong engagement:

- 12 responses to the Call for Mentors, resulting in 11 mentors, collectively willing to support 19 students.
- 29 responses to the Call for Mentees, resulting in 28 confirmed mentees.

The edition will conclude with the Closing Ceremony in the first quarter of September 2025, providing an opportunity for mentors and mentees to share experiences. Participants will also complete a feedback form to guide future improvements and certificates of Participation will be awarded, formally closing the programme for the year.
The initiative addresses several key challenges faced by students entering the aerospace industry. One of its primary goals is bridging the skills gap between academic training and industry expectations, ensuring that young engineers are better prepared for the realities of their future careers. It also plays a crucial role in clarifying career pathways within the vast aviation and aerospace sectors, providing mentees with valuable insights into opportunities they might not otherwise encounter. At the same time, the programme helps reduce anxiety and uncertainty during the early stages of career planning, offering guidance and reassurance at a critical moment in students' professional journeys.

Beyond technical knowledge, the Mentoring Programme emphasizes the development of essential soft skills such as communication, leadership, and adaptability, competencies that are increasingly valued in today's workplace. It also provides mentees with opportunities to expand their professional networks, creating connections that can offer long-term career benefits. Importantly, the programme maintains strong ties with EUROAVIA Alumni, reinforcing the Association's community spirit and continuity across generations. Furthermore, reverse mentoring is fostered, allowing professionals to gain a better understanding of the needs and concerns of young engineers and, in turn, adapt strategies within their companies to address them more effectively.

Each edition of the Mentoring Programme has provided valuable insights, and the 4th edition reflects several important adjustments. For instance, communication between mentors and mentees has been made more flexible. In earlier editions, mentees were expected to initiate contact for their sessions, but this unwritten rule

has now been lifted, allowing each pair to manage their interactions in the way that best suits them. Another significant improvement is the better alignment with the academic calendar. Whereas the 3rd edition began in April, the 4th edition commenced in February to coincide with the start of the second university semester. This adjustment ensures that the programme concludes in September, neatly aligning with the academic year and making it possible for participants to use the summer period for meetings.

Further refinements were made to improve mentor-mentee matching. It became clear that mentoring needs vary depending on the stage of study the mentee is in, so the application forms were updated with additional questions to help align expectations more effectively. Finally, greater transparency was introduced in the pairing process. The updated method for mentor-mentee matching was explained to all participants, fostering clarity and trust in the system.

With consistently positive feedback from both mentors and mentees, the EUROAVIA Mentoring Programme has proven its value as a cornerstone initiative for professional and personal development. As this 4th edition progresses toward its conclusion in September 2025, the Association looks forward to building on its success and continuing the programme in the next Business Year.

PRESENCE IN CONFERENCES

Beyond its own events, EUROAVIA actively participates in major aerospace conferences and exhibitions, ensuring that the voice of students is present and impactful at the highest levels of the industry.

In recent years, EUROAVIA has proudly represented its community at events such as **Airspace World**, organized by CANSO, where students contribute to forward-looking discussions on air traffic management. At prestigious gatherings like the **Paris Air Show**, the **Farnborough International Airshow** and the **AERO Friedrichshafen**, EUROAVIAns have attended high-level panels, presented student projects, and engaged with stakeholders on the future of aerospace talent development. The association has also been present at the **Sustainable Skies World Summit**, which promoted student-driven sustainability initiatives, and at the **European Space Conference**, participating in strategic dialogues on Europe's role in global space exploration and innovation. In the rotorcraft sector, EUROAVIA has been active at **European Rotors**, connecting with key players in vertical flight technologies, while also collaborating closely with PACE Aerospace & IT during **PACEdays**, where students gain hands-on exposure to cutting-edge digital aviation tools.
Through these contributions, EUROAVIA not only strengthens its ties with the aerospace industry but also ensures that the perspectives of young engineers will shape the future of aviation and space. Through these engagements, EUROAVIA serves not only as a student association but as an active stakeholder in advocating for the next generation of engineers, and forming lasting links between students, academia, and industry.

LOOKING AHEAD

From its roots as a student initiative to its current role as Europe's leading aerospace student association, EUROAVIA continues to thrive thanks to its community-driven spirit and international outlook. With every project, event, and collaboration, the association upholds its motto: ***"Building the wings of our future."***

Whether by organizing an international workshop, mentoring the next engineer, or showcasing student innovation at a global conference, EUROAVIA remains committed to one goal: empowering young minds to shape the aerospace world of tomorrow. Looking forward, the association aims not only to continue these efforts but also to expand them, becoming a recognized stakeholder in the aerospace field and standing as one of the only organizations capable of truly bridging the gap between students and the industry in aerospace and aviation.

For more information, visit www.euroavia.eu or follow

OUTLINE OF THE LATEST ISSUES OF THE CEAS SPACE JOURNAL AND THE CEAS AERONAUTICAL JOURNAL

The journals were created under the umbrella of the Council of European Aerospace Societies (CEAS) to provide an appropriate platform for excellent scientific publications submitted by scientists and engineers. The German Aerospace Centre (DLR) and the European Space Agency (ESA) support the Journals, which are published by Springer Nature.

The **CEAS Space Journal** is devoted to excellent new developments and results in all areas of space-related science and technology, including important spin-off capabilities and applications as well as ground-based support systems and manufacturing advancements.

The **CEAS Aeronautical Journal** is devoted to publishing new developments and outstanding results in all areas of aeronautics-related science and technology, including design and manufacturing of aircraft, rotorcraft, and unmanned aerial vehicles.

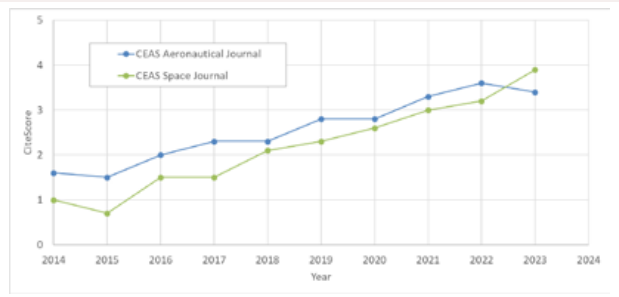
Both journals play an increasingly important role in representing European knowledge in aerospace research. Nevertheless, the biggest challenge is still to attract an acceptable number of high caliber scientists and engineers to submit articles for publication. Therefore, we invite you and your colleagues to contribute to the development of these journals by publishing your hard-earned results.

Papers which are considered suitable will be subjected to a comprehensive blind peer-review process for potential publication in the CEAS Journals.

A list of articles published in the latest issues of both CEAS Journals is attached.

The Managing Editors:

– Andrea Dieball
– Cornelia Hillenherms
– Wilhelm Kordulla
– Janko Kreikemeier
– Johan Steelant



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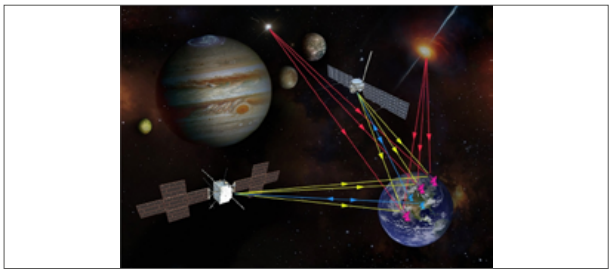
CEAS SPACE JOURNAL

Volume 17, Issue 3, May 2025

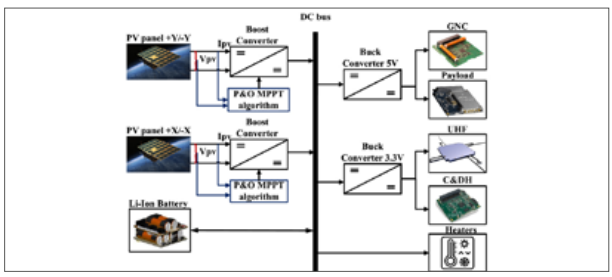
[CEAS MOST CITED PAPERS AWARD 2024 - EDITORIAL -]
Franco Bernelli Zazzera, Hansjörg Dittus, Andrea Dieball, Wilhelm Kordulla & Johan Steelant / Published online: 13 March 25 (Open Access)

[PLANETARY RADIO INTERFEROMETRY AND DOPPLER EXPERIMENT AS AN OPERATIONAL COMPONENT OF THE JUPITER ICY MOONS EXPLORER MISSION]

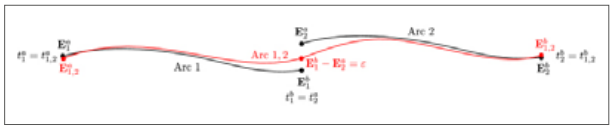


Vidhya Pallichadath, Dominic Dirkx, Marie S. Fayolle, Sándor Frey, Leonid I. Gurvits, Paul Boven, Giuseppe Cimò, Judit Fogasy, Guifré Molera Calvés, Krisztina Perger, N. Masdiana Md Said & Bert L. A. Vermeersen / Published online: 09 September 2024 (Open Access)

[DESIGN OF AN ELECTRICAL POWER SYSTEM FOR A 1U NANOSATELLITE USING MODIFIED G3PCX]
Amina Daghouri, Chaymae Makri & Soumia El Hani / Published online: 13 September 2024

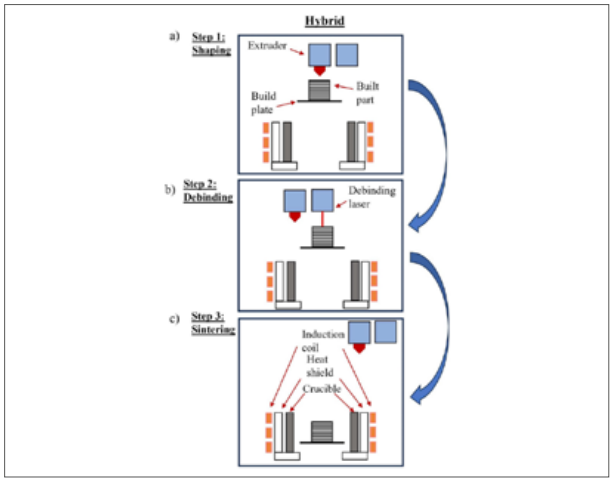


[COMBINING MULTIPLE ORBITAL ARCS FOR ORBIT DETERMINATION USING NORMAL EQUATIONS IN GINS]
Shambo Bhattacharjee & J. L. G. Pallero / Published online: 25 September 2024



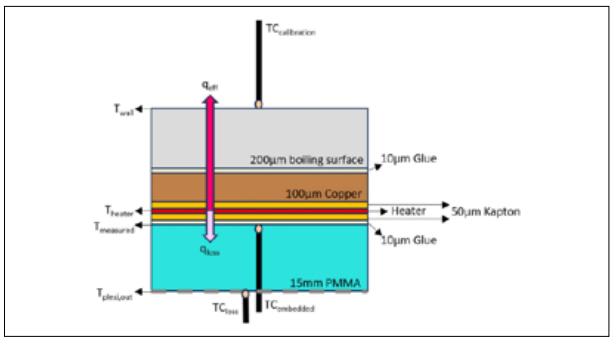
A NOVEL ROUTE TO PRODUCE METAL OR CERAMIC PARTS IN SPACE: LOCAL DEBINDING AND SINTERING OF POWDERED FILAMENTS

Manuel Ortega Varela de Seijas, Andreas Bardenhagen, Thomas Rohr & Enrico Stoll / Published online: 08 October 2024



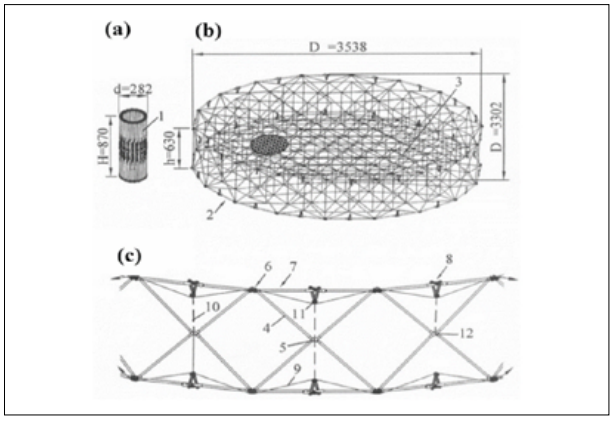
NOVEC 7000 FLOW BOILING HEAT TRANSFER ENHANCEMENT VIA FEMTOSECOND LASER TEXTURING: IMPACT OF FLUID DEGRADATION

Frederik Mertens, Balasubramanian Nagarajan, Sylvie Castagne, Johan Steelant & Maria Rosaria Vetrano / Published online: 10 October 2024



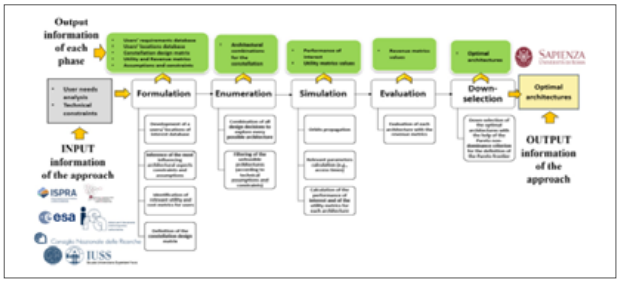
STRUCTURE, STRUCTURAL FEATURES, ASSEMBLING, AND BENCH TESTING OF THE DEPLOYABLE SPACE REFLECTOR

E. Medzmariashvili, S. Tserodze, A. Sushko, S. Khoroshylov, S. Martyniuk, M. Janikashvili, M. Nikoladze & G. Bedukadze/ Published online: 14 November 2024



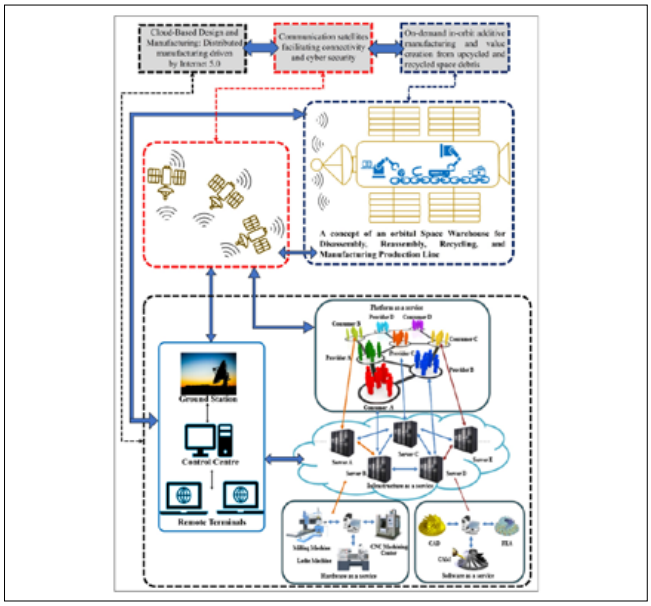
A MODEL-BASED APPROACH FOR THE PRELIMINARY DESIGN OF THE SAR UPSTREAM ELEMENT FOR THE ITALIAN IRIDE EO CONSTELLATION BASED ON USERS' DEMAND

Federica Conti, Marco Eugeni, Marco Bove, Paolo Marzioli, Leonardo Marini, Michele Pasquali, Emma Schiavon, Alessandra Nguyen Xuan, Antonella Tornato, Serena Geraldini, Fabrizio Piergentili, Andrea Taramelli & Paolo Gaudenzi/ Published online: 15 November 2024



ROBOTIC UPCYCLING AND RECYCLING: UNRAVELING THE ERA OF SUSTAINABLE IN-SPACE MANUFACTURING

Mini C. Rai, Manu H. Nair, Dirk Schaefer, Renaud Detry, Mithun Poozhiyil, Justyna Rybicka, Shan Dulanty, Josie Gotz, Maximo A. Roa, Roberto Lampariello, Shashank Govindaraj & Jeremi Gancet/ Published online: 26 November 2024 (Open Access)



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Volume 16, Issues 1, January 2025 & Volume 16, Issues 2, April 2025

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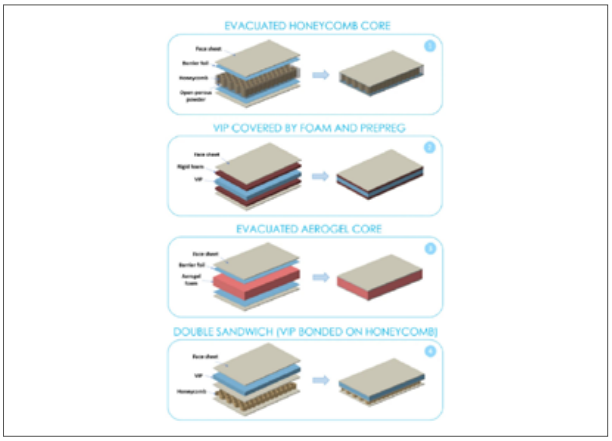

AERODYNAMIC CHARACTERISTICS OF AIRFOILS WITH FRACTAL STRUCTURES IN LOW-REYNOLDS-NUMBER REGIME

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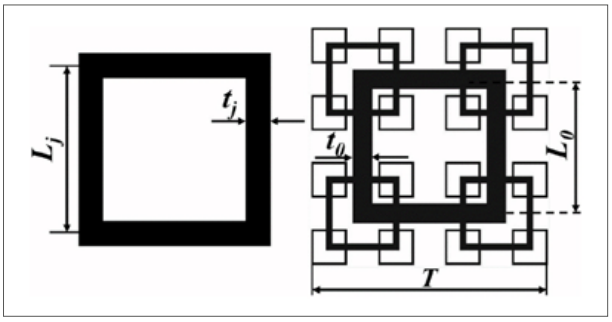

MODEL-DRIVEN DEVELOPMENT FOR FUNCTIONAL CORRECTNESS OF AVIONICS SYSTEMS: A VERIFICATION FRAMEWORK FOR SYSML SPECIFICATIONS

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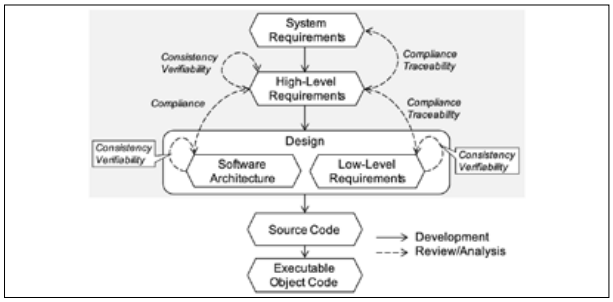

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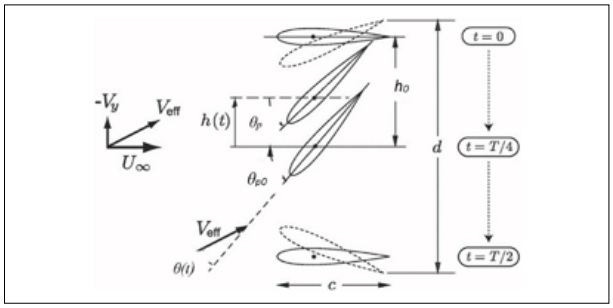

SOLVING TRANSPORT EQUATIONS ON QUANTUM COMPUTERS—POTENTIAL AND LIMITATIONS OF PHYSICS-INFORMED QUANTUM CIRCUITS

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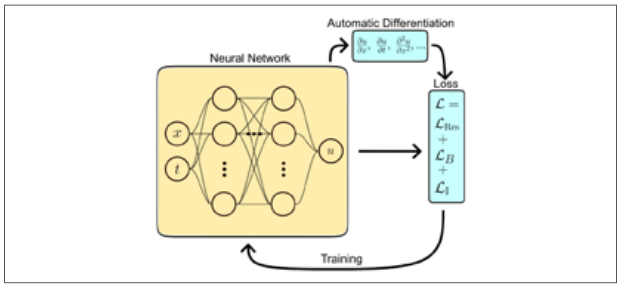

EVALUATION OF LANDING PROCEDURES FOR A HIGH-ALTITUDE PLATFORM WITH SKID-TYPE LANDING GEAR BASED ON PILOT-IN-THE-LOOP SIMULATIONS

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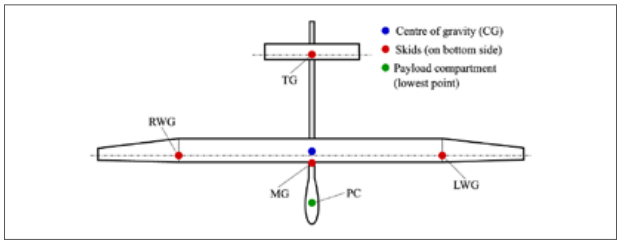

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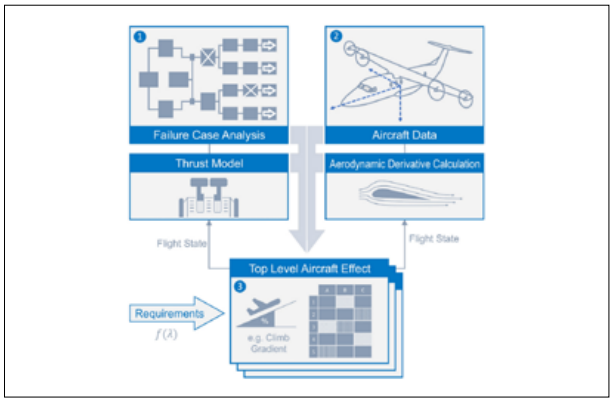

SEE IT, HEAR IT, FEEL IT: AN EXPLORATIVE VIRTUAL REALITY STUDY TO IDENTIFY FACTORS DETERMINING PUBLIC ACCEPTANCE OF DRONES IN DIFFERENT CITY ENVIRONMENTS

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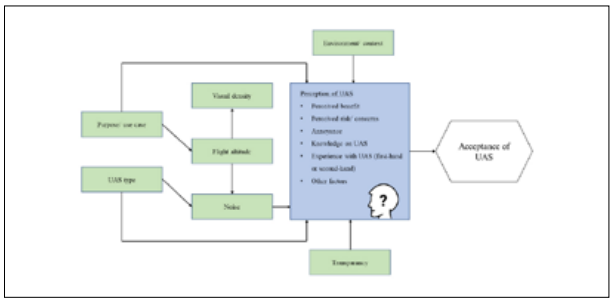

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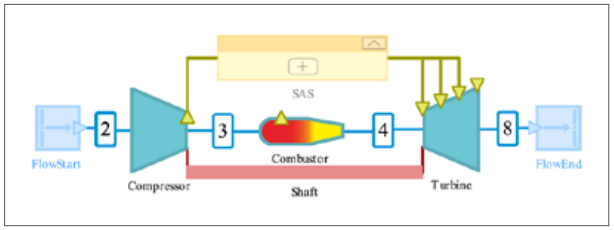

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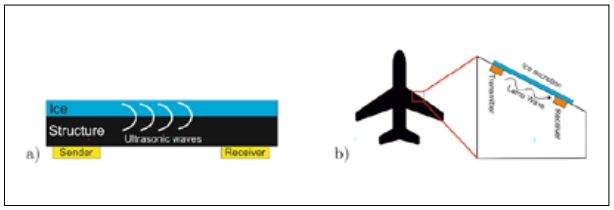

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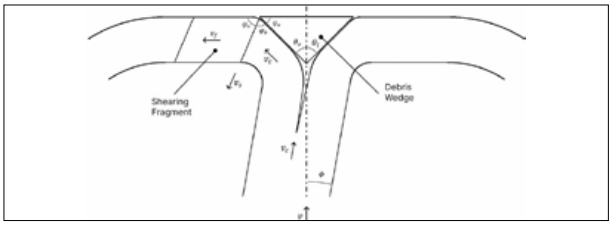

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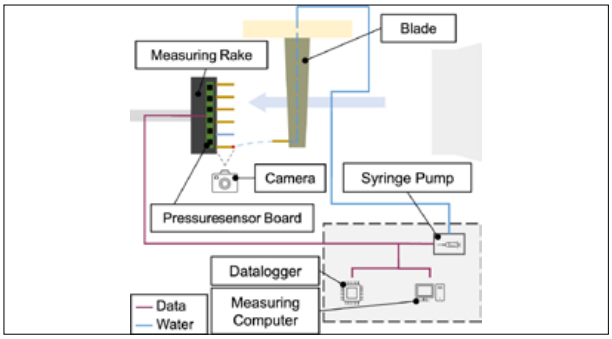

AUTOMATED SCENARIO GENERATION FROM OPERATIONAL DESIGN DOMAIN MODEL FOR TESTING AI-BASED SYSTEMS IN AVIATION

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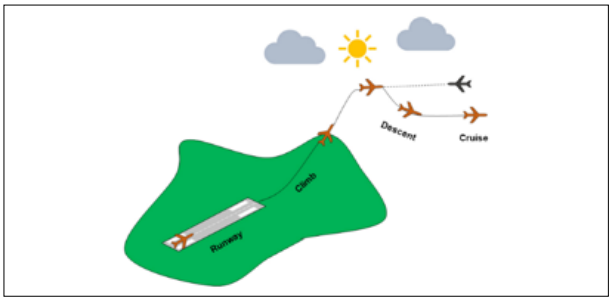

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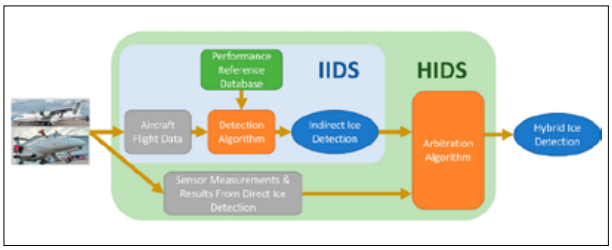

FLIGHT TESTING OF LASER-OPTICAL TECHNIQUES FOR FUTURE OPTICAL AIR DATA SENSORS

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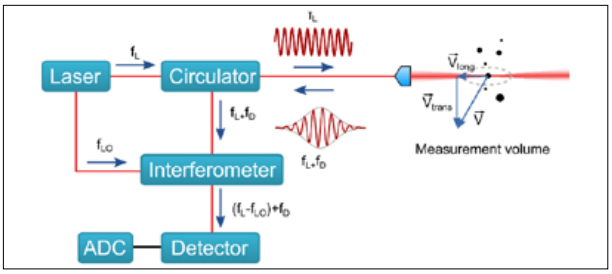

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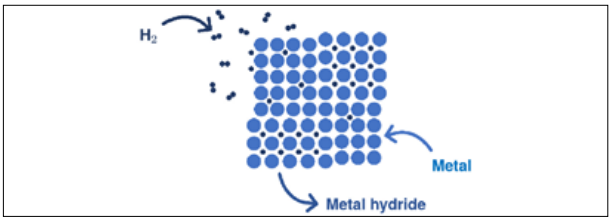

DESIGN AND INVESTIGATION OF AN AEROELASTICALLY SCALED DELTA-WING WIND TUNNEL MODEL FOR DYNAMIC LOAD ANALYSIS

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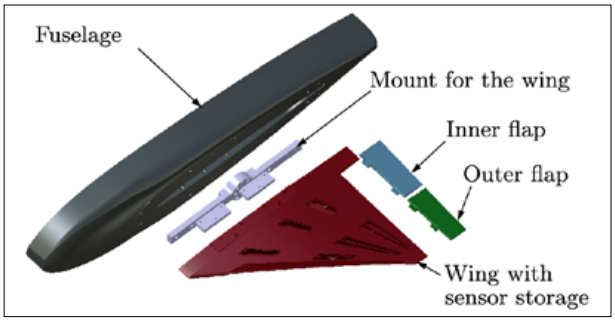

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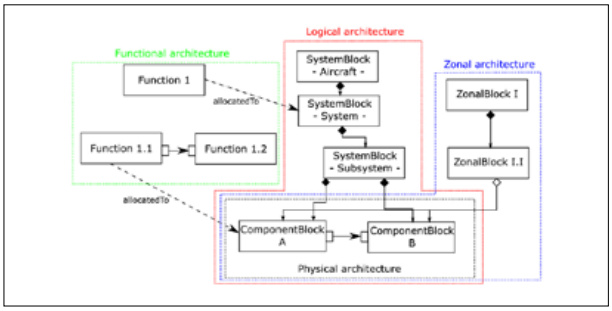
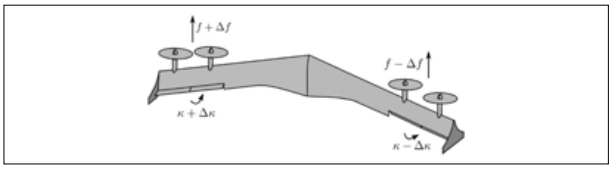


STARTING PROCEDURE OF A FLYING WING FOR AN AIRBORNE WIND ENERGY SYSTEM

Hendrik Fuest, Dominik F. Duda, Tobias Islam & Dieter Moormann/ Published: 04 January 2025 (Open Access)



PROPELLER-ROTOR AERODYNAMIC INTERACTION IN HELICOPTER AIR-TO-AIR REFUELING: AN ANALYTICAL SOLUTION FOR ROTOR TRIM, INCLUDING A SENSITIVITY STUDY

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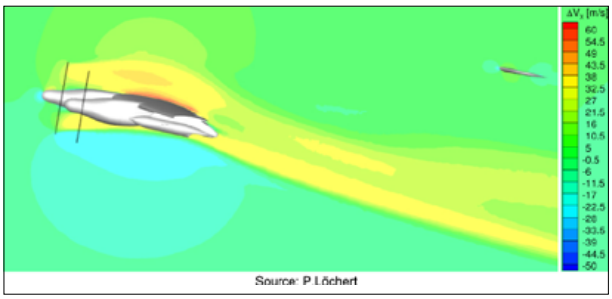
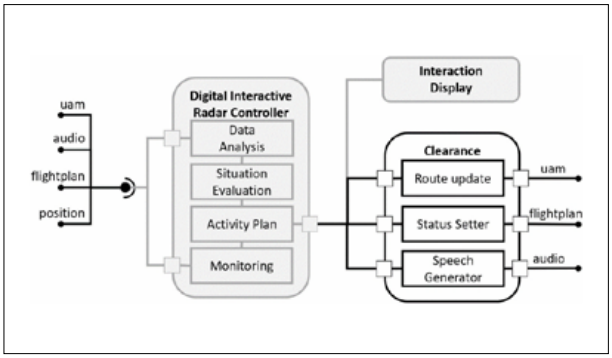


INTRODUCING DIGITAL AIR-TRAFFIC CONTROLLERS FOR URBAN-AIR MOBILITY TO ENSURE SAFE AND ENERGY-EFFICIENT FLIGHT OPERATIONS

S. Schier-Morgenthal, R. Abdellaoui & I. C. Metz / Published: 18 January 2025 (Open Access)



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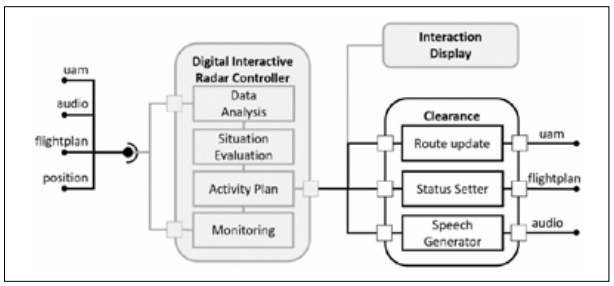
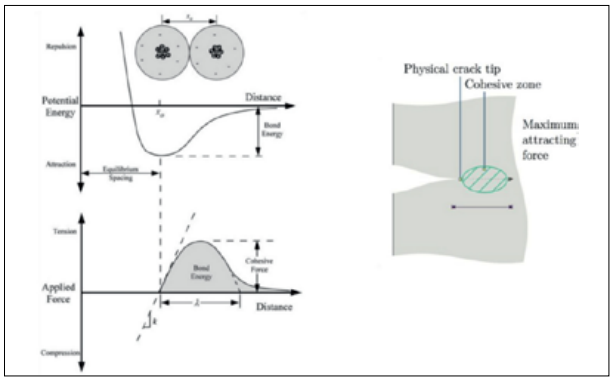


INSIGHTS INTO IMPACT SIMULATION AND FATIGUE ANALYSIS OF THERMOPLASTICALLY JOINTED LAPSHEAR SPECIMENS

Janko Kreikemeier, Cem Erdogan & Steffen Opitz/ Published: 16 January 2025 (Open Access)



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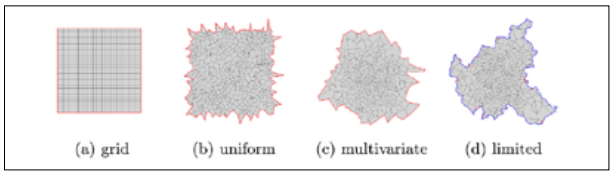

TOWARDS THE VALIDATION OF MANUFACTURING SIMULATIONS BY MEANS OF DIGITAL TWINS: CONCEPTION, IMPLEMENTATION AND DATA ACQUISITION FOR A COMPOSITE AIRCRAFT MOVEABLE MANUFACTURING PROCESS

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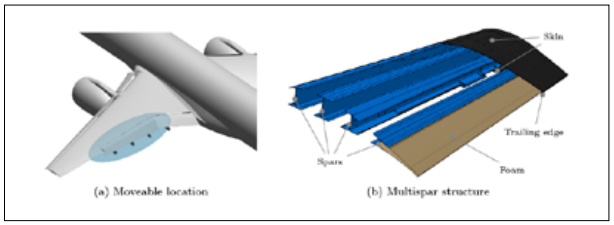

REDUCTION OF FLUID NOISE IN MODERN AIRCRAFT HYDRAULICS BY INTEGRATED BROADBAND ATTENUATORS

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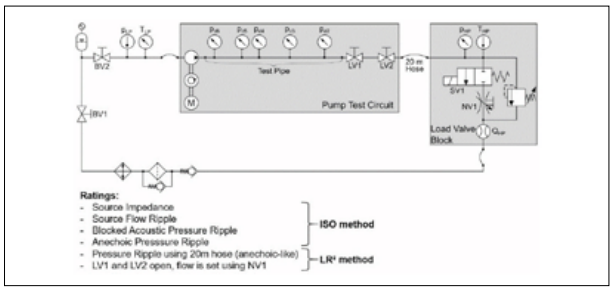

VOLUME 16, ISSUES 2, APRIL 2025

AIRBORNE SARS-COV-2 IN AIRCRAFT CABINS: NEW INACTIVATION DATA SIGNIFICANTLY INFLUENCES INFECTION RISK PREDICTIONS

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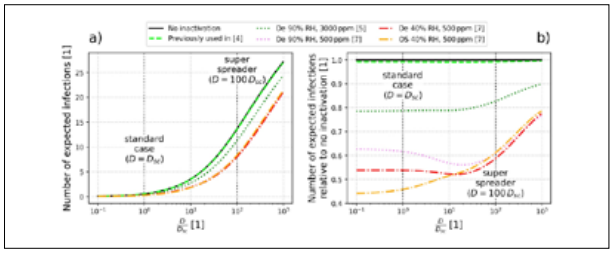

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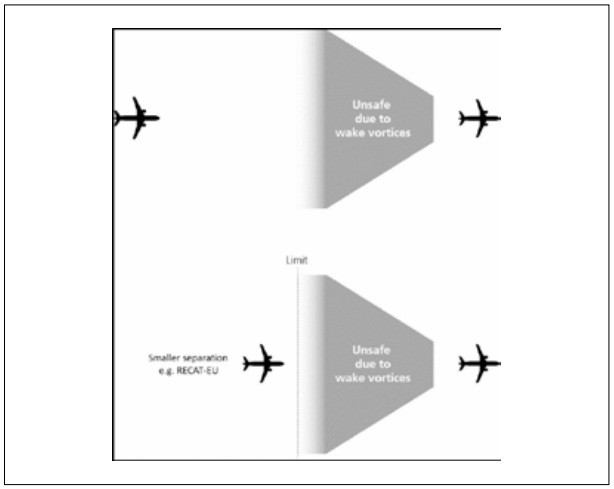

LOAD MONITORING OF A HELICOPTER INCEPTOR THROUGH EFFICIENT FBG SENSORS PLACEMENT

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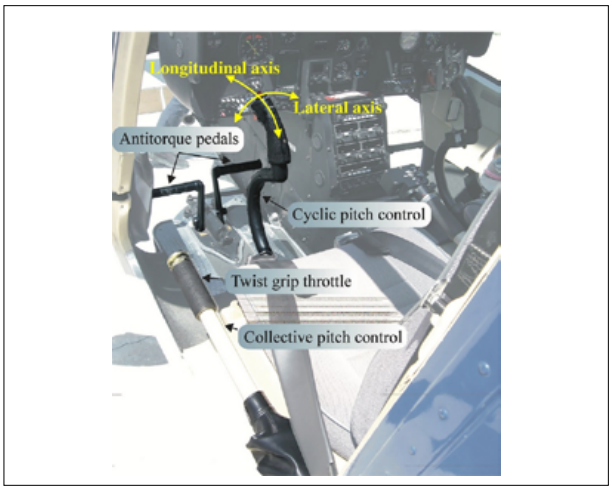

REINFORCEMENT-LEARNING-BASED AIRCRAFT HANDLING QUALITIES TESTING WITH UNCERTAINTY MODELING

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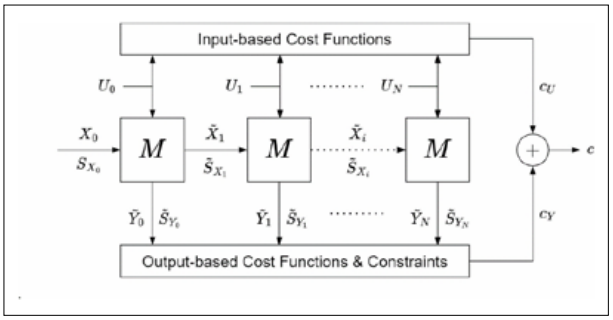

A METHOD TO DETERMINE THE AVAILABILITY AND PERFORMANCE OF FIXED-WING AIR TAXIS IN REAL WEATHER CONDITIONS FOR REGIONAL AIR MOBILITY WITHIN GERMANY

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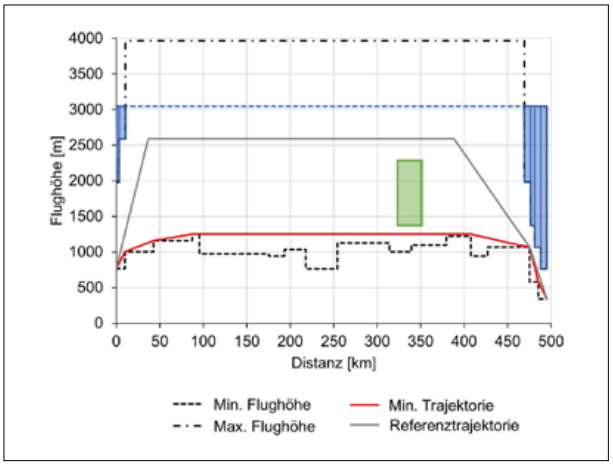

MODELING AND IDENTIFICATION OF A SMALL FIXED-WING UAV USING ESTIMATED AERODYNAMIC ANGLES

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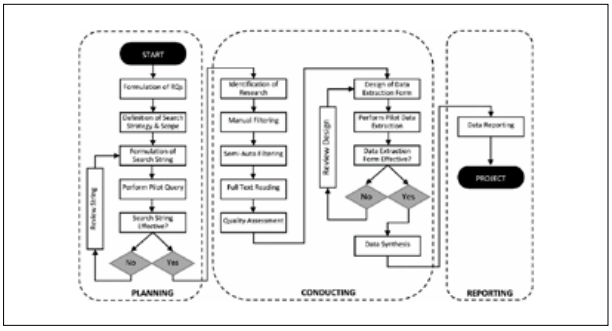

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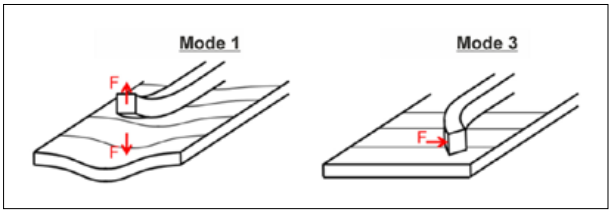

MULTI-DISCIPLINARY OPTIMIZATION OF A DISTRIBUTED ELECTRIC PROPULSION AIRCRAFT UNDER AERO-PROPULSIVE EFFECTS

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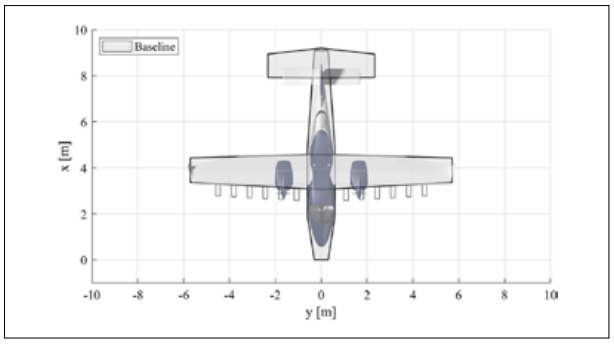

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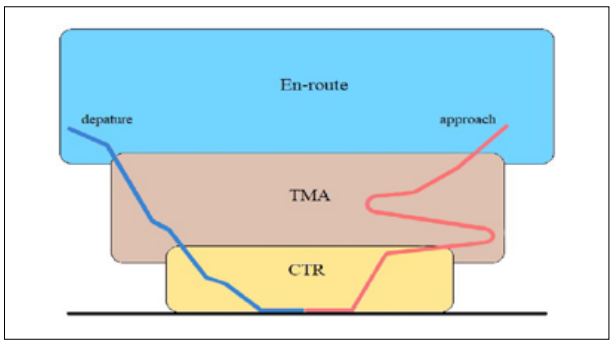

TRIALS FOR QUIET AND EFFICIENT FLIGHTS IN ADVANCED CONTINUOUS DESCENT APPROACH USING THE LOW-NOISE AUGMENTATION SYSTEM LNAS

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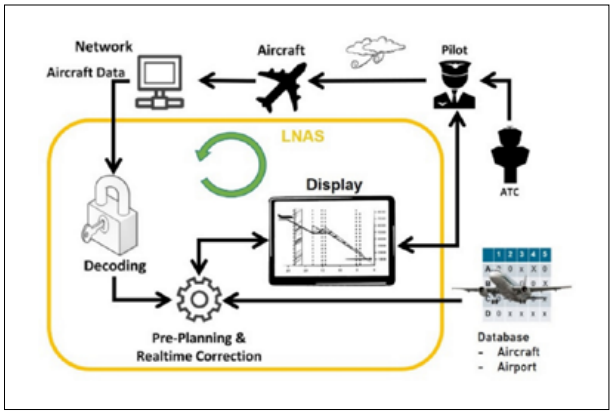

ROBUST DISTURBANCE OBSERVER-BASED CONTROL OF UNMANNED HELICOPTER

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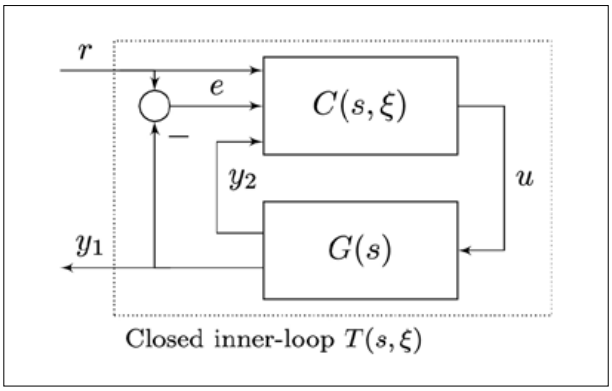

PERFORMANCE EVALUATION APPROACH FOR DESIGN SPACE EXPLORATIONS OF PROPULSIVE FUSELAGE AIRCRAFT CONCEPTS

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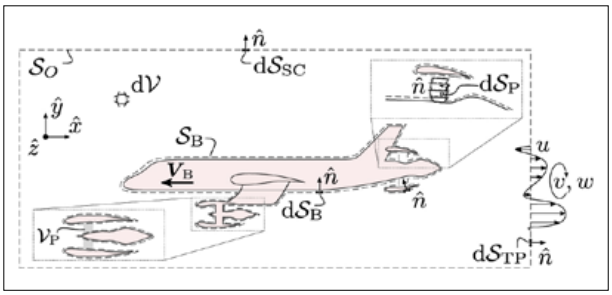

CORRECTION: VIRTUAL FLIGHT DECK CREW ASSISTANCE UTILIZING ARTIFICIAL INTELLIGENCE METHODS TO INTERPRET NOTAMS: A USER ACCEPTANCE STUDY

Michelle Dieter, Eric Sprenger, Otilia Pasnicu, Josefine Staudt & Nils Ellenrieder / Published: 04 March 2025 (Open Access)

The Original Article was published on 18 September 2024 and has been updated. Correction: CEAS Aeronautical Journal (2024) 15:1137–1144
https://doi.org/10.1007/s13272-024-00767-1

AMONG UPCOMING AEROSPACE EVENTS

2025

NOVEMBER

12-13 November – RAeS 2025 Research – **Innovation, and Tech Conference, Royal Aeronautical Society Headquarters** – London, UK https://www.aerosociety.com/events-calendar/

17-18 November – DLR - **5th Innovative Air Mobility Symposium** – Goettingen (Germany) - https://iam-sym2025.dglr.de

18-20 November – **Space Tech Expo Europe** – Bremen Germany – https://www.spacetechexpo-europe.com/

DECEMBER

01 December – **EREA Annual Event** – Brussels (Belgium)

01-04 December – CEAS/AIDAA – **CEAS/AIDAA Aerospace Europe Conference AEC 2025 – 10th Aerospace & Defense Meetings - 9th Moon Village Association Workshop and Symposium** – Turin (Italy) - https://www.aidaa.it/ceasaidaa2025/

10-11 December – **15th Aviation Forum 2025** – Hamburg, Germany https://www.aviation-forum.com

2026

JANUARY

12-16 January – **The AIAA SciTech Forum** – Orlando, Florida

FEBRUARY

03-08 February – **Singapore Airshow** – Changi Exhibition Centre, Singapore – https://www.singaporeairshow.com/trade

19-21 February – **Congress on Mechanical and Aerospace Engineering (EUROMAE2026),** Paris, France https://euromae2026.synergiasummits.com/

24 February – **8th Workshop on Avionics Systems and Software Engineering (AvioSE)** – Bern (Switzerland) - https://aviose-workshop.github.io/

MARCH

07-14 March **– The international IEEE Aerospace Conference,** Big Sky, Montana USA - https://www.aeroconf.org/

APRIL

03-16 April – **4st Space Symposium** – The Broadmoor, Colorado Springs, CO USA – https://www.spacesymposium.org/

22-25 April – **AERO Friedrichshafen EXPO** – Friedrichshafen , Germany – https://www.aero-expo.com/

28-29 April – **Aerospace Tech Week Europe** – Munchen, Germany

MAY

05-07 May – **CEAS EuroGNC 2026** – Madrid, Spain – https://eurognc.ceas.org/

18-21 May – **TRA BUDAPEST 2026 Regeneration in transport –** Budapest, Hungary – https://traconference.eu/index.html

26-29 May – **The 32nd AIAA/CEAS Aeroacoustics Conference (Aeroacoustics 2026) –** Brussels, Belgium – https://www.aeroacoustics2026.eu/

JUNE

10-14 June – **ILA Berlin** – https://www.ila-berlin.de/en

16-18 June – **The International Forum on Aeroelasticity and Structural Dynamics (IFASD)** – Goettingen, Germany

JULY

20-24 July – **Farnborough International Airshow** – Farnborough, UK – https://www.farnboroughairshow.com/

20-23 July – **The International Conference on Aeronautical and Aerospace Engineering (ICAAAE) –** Rome, Italy

AUGUST

20-24 August – **The 46th COSPAR Scientific Assembly –** Florence, Italy – https://www.cospar-assembly.org/assembly.php

SEPTEMBER

01-04 September – **52nd European Rotorcraft Forum ERF 2026** – Amsterdam (The Netherlands) - https://www.erf2026.org

06-07 September – **International Conference on Aerospace Sciences and Aviation Technology (ICASAT)** – Prague, Czech Republic

13-17 September – **The 35th Congress of the Internatio-**

AMONG UPCOMING AEROSPACE EVENTS

nal Council of the Aeronautical Sciences (ICAS 2026) – Sydney, Australia – https://icas2026.com/

16-17 September – **ESA/ESTEC** – https://isd.esa.int/

20-21 September – **International Conference on Aerospace and Aviation Engineering (ICAAE)** – Lisbon, Portugal

OCTOBER

13-16 October – ESA/ESTEC – **6th SPACE PASSIVE COMPONENT DAYS - SPCD 2026** – Noordwijk, The Netherlands – https://www.spcd.space/

NOVEMBER

04-05 November – **International Conference on Aerospace and Aviation Engineering" (ICAAE)** – New York, USA

INTERNATIONAL CONFERENCE

MANAGING THE IMPACT OF WEATHER ON AIR AND SPACE LAUNCH OPERATIONS

12-13 NOVEMBER 2025 / EUROCONTROL – BRUSSELS

The Air and Space Academy is organising an international conference on 'Managing the impact of wether on Air and Space Launch Operations', to be held at Eurocontrol headquarters in Brussels on November 12 and 13, 2025.
At a time when weather conditions are increasingly influencing strategic air and space operations, the Air and Space Academy (AAE) is organising a major event to address these crucial issues.

Weather conditions have a considerable impact on air operations and space launches, affecting safety, costs and punctuality. The aim of this conference is to analyse this impact, looking at operational costs as well as weather-related incidents and accidents. It will also explore innovative solutions to improve the management of these phenomena, study the associated decision-making processes and responsibilities, and finally, discuss current research and future prospects for weather impact management in these sectors.
The conference will be structured around four main sessions:

- Data and statistics on weather impact: Analysis of traffic disruption, weather-related accidents and associated costs.
- Improving weather management using innovative tools: Presentation of solutions such as artificial intelligence, advanced radar and real-time dashboards.
- Decision-making processes and responsibilities: Discussion of the legal and regulatory aspects of weather-related decisions, including cross-sector collaboration.
- Research for the future of weather management: Exploration of next-generation forecasting systems and research into the risks associated with climate change.

This event is aimed at stakeholders from a wide range of sectors, including airlines, air navigation service providers, airports and spaceports, general aviation, meteorological services, weather instrument manufacturers, research institutions, aircraft, launch vehicle and equipment manufacturers, and regulators.

For more information :
academieairespace.com/meteopsconference/