

Aerospace Technical Network Newsletter

Welcome to the 2022 edition of the Aerospace Technical Network newsletter, which highlights the activities of the last 12 months.

The Aerospace Technical Network (TN) brings together Aerospace professionals to inform about new commercial, and industrial developments.

The last 12 months have seen the TN organise key events and activities, which also included the first set of in-person events since the start of 2020. Furthermore, a lot of these events were organised as part of IET@150 years celebrations and saw the TN collaborate with a number of industry partners. See page 3 for photos.

IET Transport Policy Panel and Transport Sector Committee Merger (September 2021)

A proposal was put forward by the IET Transport Panels to combine the Policy and Sector interests, for the purpose of creating a single Transport Panel. The Transport Panels are critical to the IET's undertakings, and regularly influence Government through its engagement in consultations, media and all issues relating to the various transport modes. The new Transport Panel will focus on delivering the IET Societal Challenges and UN Sustainable Development Goals (SDGs) through the Transport Leadership Team and designated Challenge Groups. The Aerospace TN as a key stakeholder of the Transport Policy Panel, ratified these changes and were contributors within the various challenge groups. The themes of the challenge groups include: Decarbonisation, Autonomy, People-centric Infrastructure and Digitisation.

Sustainability in Aerospace – The Sky Ahead Seminar (September 2021)

The Sky Ahead seminar, which was organised by our Young Professionals Team, and supported by members of the Exec. Team took a retrospective/future outlook at the innovations in Aerospace/Aviation that have set the course for a sustainable future. Celebrating the IET@150 in an industry at the heart of engineering history, the event explored the emerging sectors in Aerospace. The speakers were from organisations such as Flight Crowd, BAE Systems, Reaction Engines and TEKtowr. In addition to lectures, breakout rooms sessions were set-up to facilitate networking and discussions. In total, there were 125 attendees at the event.

IET Decarbonisation in Transport 4-part Webinar Series (September & October 2021)

Decarbonising the Transport industry in order to hit the UK's net-zero target by 2050 requires urgent, clear and decisive actions. With the increasing interconnection and complexity of infrastructure, it is vital that a joined-up, whole-system approach is prioritised. Major decarbonisation pathways for transportation include switching to lower-carbon fuels; improving vehicle efficiency; improving system-wide efficiencies; exploring the use of autonomous vehicles and vehicle sharing.

This series, which was delivered through a multi-Technical Network engagement, including the Aerospace TN, provided a cross-industry platform to share ideas from Aerospace, Automotive and Road Transport, Railway and Marine on decarbonisation initiatives/programmes/workstreams and its impact to on our everyday lives. The event included a host of speakers from numerous UK and international organisations, and institutions. Details of the 4-part series including playback videos, can be found [here](#). In total, there were over 2000 attendees that attended the 4-part webinar series.

All-Electric Aircraft: Progress and Challenges (November 2021)

The overall aim of this web-based event was to promote experience and excellence in the all-electric aircraft field. The UK based industry has a number of key system developers in this activity, and during the event, two viewpoints were proposed by speakers from ZeroAvia and Vertical Aerospace on two key development programmes; one from short-to-medium range and one from the urban air mobility perspective. The event considered some key technical issues in the current developments on aircraft powered by electric propulsion systems and how they can contribute to declared targets on aircraft emissions and noise. Potential technical and operational barriers were discussed, with the event providing an opportunity for the audience to gain an insight into some of the detailed technical challenges and how they are being overcome. Further details including the playback video, can be found [here](#). In total, there were over 400 attendees from 28 countries at the event.

Careers in Future Flight – Networking Event (May 2022)

The Careers in Future Flight Networking event was a joint activity organised by Flight Crowd, an open Urban Air Mobility (UAM) community, and the Aerospace TN. This was a collaboration with Urban-Air Port (UAP), an innovative aerial infrastructure developer, and the Aerospace Partnership, composed of the Institution of Engineering and Technology (IET), the Royal Aeronautical Society (RAeS), and the Institution of Mechanical Engineers (IMechE). The event was held at the Air One facility – the world’s first fully operational vertiport (take-off & landing hub) for eVTOL (electric vertical take-off and landing) aircraft and drone technology, situated in Coventry, the 2021 UK’s City of Culture. The venue was designed as an immersive experience where guests were able to tour the Air One vertiport and learned about the promise of sustainable future air mobility solutions. The networking event brought together professionals of the future flight industry and those aspiring to start their careers in this field. This was an in-person event with 40 guests in-attendance

A Spotlight on Apprenticeships in Aerospace (June 2022)

As part of our 150 Legacy events and organised by the Aerospace TN, Young Professionals Group, this online event provided an insightful and informative evening for those who are considering, already undertaking, or simply interested in apprenticeships in the aerospace sector. The audience heard from IET’s President (2021-2022), Sir Julian Young, who delivered a keynote covering insights into what this exciting and varied sector could offer, and two former apprentices in the aerospace sector. The event playback video can be found [here](#).

B-SCI Defence Conference Brunei (June 2022)

In collaboration with the IET Brunei Darussalam Local Network (LN), EGB Engineering UK, and The Brunei Darussalam Ministry of Defence, the inaugural B-SCI 2022 conference was held in June 2022 with the theme “Defence Science and Technology Innovation for Future Sustainment”. EGB Engineering in collaboration with The IET Aerospace TN delivered a presentation titled “Opportunities to employ green technologies in developing and sustaining defence capabilities”. The visit coincided with IET Brunei LN celebration of IET@150 as the Brunei PM’s office only relaxed Covid-19 restrictions in May 2022. A visit was also paid to the Society for the Management of Autism Related issues in Training Education and Resources (SMARTER) Brunei, with EGB Engineering and the IET LN Brunei network donating BND1,000.00 (£600.00) to fund their causes. More on the visit to SMARTER Brunei can be found [here](#). Information on the IET Brunei Darussalam Network as part of IET@150 can be found [here](#).

Royal International Air Tattoo (RIAT) Air Show (July 2022)

The world’s largest military air show was back after a 2-year physical hiatus due to Covid-19. The air show as usual, featured modern military and classic aircraft, static and flying, from many continents. Special guests included Tom Cruise (Top Gun Maverick), Tim Peake, Col. Charles M. Duke (former USAF Fighter Pilot and Luna Module Pilot on Apollo 16), and the IET’s President Sir Julian Young. The Aerospace TN was supported by the Satellite TN, in collaboration with the Swindon LN and a range of IET industry partners including Flight Crowd, DSTL and the British Gliding Association. The IET’s presence this year saw numerous engagements with young and experienced professionals, and school kids. In total, there were over 200,000 visitors and hosts, 266 aircraft, 1,00 crew members and the Kingdom of Bahrain became the 57th RIAT participant.

Farnborough International Air Show (FIA) (July 2022)

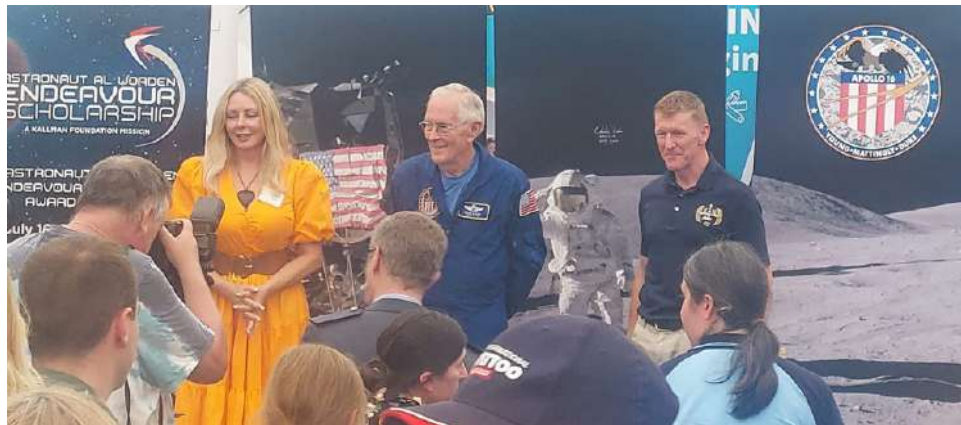
The IET Aerospace TN in collaboration with the Satellite TN, Swindon LN and Flight Crowd participated in the FIA Pioneers of Tomorrow (previously known as the Farnborough Friday) public day. Pioneers of Tomorrow event saw numerous engagements with students, young professionals and career movers, with the key aim being to explore the many opportunities within aviation and aerospace. The themes this year were around space, defence, sustainability, innovation, future flight and workforce. In addition to Pioneers of the Future, the Aerospace TN had the opportunity to engage with numerous organisations with the future flight and space themes, to support potential activities for 2023.



Careers in Future Flight 2022 (Courtesy Flight Crowd)



Vertical Aerospace VX4 eVTOL (FIA,2022)



Tim Peake & Charles Duke at RIAT 2022



IET Aerospace TN at Brunei B-SCI 2022
(Courtesy EGB Engineering)



IET Aerospace TN & Julian Young at RIAT 2022



Tom Cruise at RIAT 2022



RIAT 2022