

GETTING AIRBORNE: CAFE FOUNDATION CONFERENCE

Although aviation is a hi-tech game, the industry is often slow to change. Engine technology used on private planes and commercial fleets is decades old and mostly reliant on fossil fuels; there's no Tesla of the sky just yet.

To address this, the Comparative Aircraft Flight Efficiency (Cafe) Foundation, a group that promotes advances in personal aviation, organised its ninth conference in Santa Rosa, California. Its focus: the present and future of electric flying. Called the "Woodstock of aviation" by an attendee, it's where garage innovation, corporate R&D, small university spin-offs and Nasa scientists can all be in the same room.

The biggest issue facing electric aviation is that batteries don't store energy as efficiently as fossil fuels; you need lots of them to have decent range. This forces engineers and pilots to be creative. "I use everything, absolutely everything," says Eric Raymond, designer and pilot of the Sunseeker Duo (pictured, below), the world's first twin-seater solar-electric aircraft. He explains that he

sometimes uses his plane's large carbon-fibre wings to hitch rides on updrafts to gain altitude, sparing batteries when he can.

At the conference, Airbus announced that it, along with its partners, will spend €50m on further development of the E-Fan 2.0 (pictured, bottom), a hybrid electric training aircraft. It says the plane should hit the market by 2017. Brien Seeley, Cafe Foundation president, offered a compelling vision for the future of transportation. He thinks future light aircraft will fly two people on short hops to and from a myriad of football-field-sized airfields scattered around cities. The system, called Sky Transit, will be fully autonomous. "The reality is we could implement this immediately and have a wonderful windfall when the new batteries come along," says Seeley; perhaps not a vision many city mayors would be willing to endorse.

Pipistrel, a Slovenian plane maker, exhibited the Alpha Electro an economical trainer for future pilots. Solar Stratos, meanwhile, says it will fly space tourists using a solar electric plane currently in development. It hopes to start flights in 2018. — MT



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