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AUTHOR Douglas Wilson

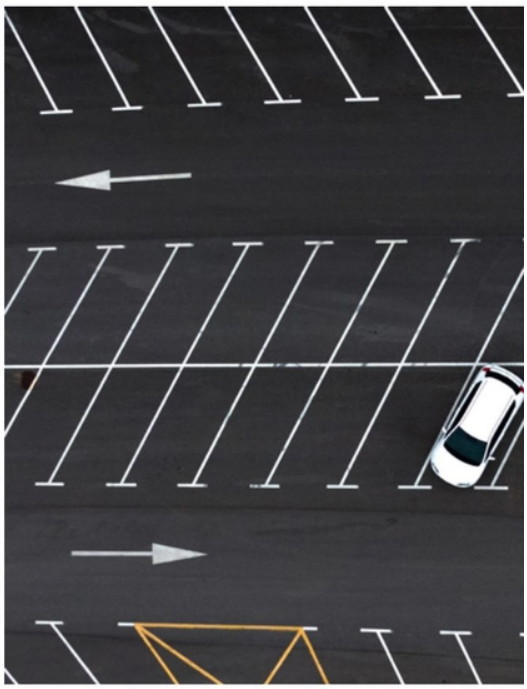
Ground Transportation:

THE PARKING LOT AND THE WHITE ELEPHANT

PREDICTIONS MADE a decade in advance of technological maturation are notoriously difficult, occasionally embarrassing those who may seem Nostradamus-like at the time. The Brabazon Committee, set up amid a war-torn England at the behest of Winston Churchill in December of 1942, is a classic example.

With peace still some two and a half years away, Churchill and other planners were already looking to a prosperous, post-war England in which transatlantic passenger travel by aircraft would be the norm. He leaned on Lord Brabazon to head a committee to create the specifications for a massive aircraft capable of carrying passengers in sumptuous luxury on transatlantic flights. By 1944, as war raged on, the Brabazon Committee recommendation for a transatlantic airliner capable of non-stop London to New York service was provided to the British Air Ministry, who in turn issued specification 2/44 for would-be-bidders. The Bristol Aeroplane Company answered the call, yet it would not be until September of 1949 that the massive Type 167 Bristol Brabazon took to the air in pursuit of the award of specification 2/44. With a 230-foot wingspan, and eight radial engines driving four counter-rotating propellers via complex gearbox, it was a marvel of post-war engineering. It was also a white elephant. Unfortunately for Bristol, a slightly smaller jet airliner, called the de Havilland Comet flew three months earlier, in July of 1949. The jet age had arrived. And, exactly 10 years after the Air Ministry specification 2/44 was released, Boeing's 367-80, the forerunner to the Boeing 707 flew in 1954. Sadly, the Bristol Brabazon wasn't around to see it, having been scrapped in 1953.

Lord Brabazon's specifications for a transatlantic airliner were largely correct, unfortunately the technology didn't mature until some 10 years later. Aviation faces similar issues today. Unmanned Aerial Systems (UAS) – the generic parlance for virtually any form of aircraft without a human on board - are already plying navigable airways alongside manned aircraft. Airports are likewise considering how to integrate both UAS and electric vertical lift aircraft (eVTOLs) with existing aircraft operations. Landside, FBOs across the country are adding electric vehicle charging stations in parking lots, consistent with the trend in consumer adoption of greener technologies. Yet like Lord Brabazon, who apparently didn't consider the jet-powered Messerschmitt Me 262 or the Gloster Meteor - both of which flew well before his committee's transatlantic airliner recommendation to the Air Ministry - the most likely autonomous vehicle scenario to affect FBOs and airports in the coming decade is virtually ignored: Self-driving Cars.



According to a JD Power report of 2019, while autonomous taxis may find commercial acceptance as early as 2025, by 2034, it is predicted some 10 percent of consumer vehicle will be self-driving. In a mere 10 to 15 years, a significant number of passenger vehicles will no longer need to park at the airport or FBO but will drive "home" instead - without their owner. How does that affect airports and FBOs? The same way the jet age dashed the Bristol Aeroplane Company's hopes. Driverless cars will eventually relegate FBO and airport parking lots to the scrap heap of

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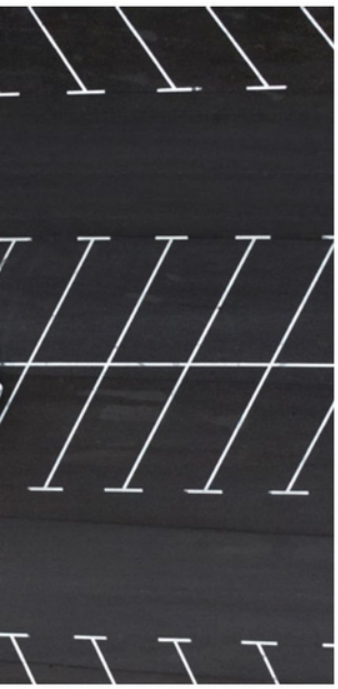
infrastructure development. It is not a question of if, but when, Lord Brabazon.

The conundrum is multi-faceted. FBO ground leases are often 35-year instruments and often require capital investment in the form of improvements shortly after lease inception. As a for-profit going concern, it makes little sense for an FBO to invest in improvements that do not provide a return on capital employed. By definition then, that means hangars, related office and an FBO terminal will be constructed. And here's where it gets tricky: City, county or municipality planning departments require that vehicle parking spaces be constructed as well - usually as a formula of the total square footage of office, shop, hangar or FBO space. Let's be clear though- virtually no local planning department have FBO construction guidelines. FBO construction often falls under commercial building ordinances that require a certain number of parking spaces per a given amount of square footage of occupied improvements constructed. While the specifics vary by locale, generally, that number is one vehicle parking space per every 200-500 square feet of commercial building space. Hence, if your FBO is about to sign a lease with a 35-year term, those parking lots you will need to build per local building code to serve the FBO, hangar and offices may see more tumbleweeds than cars in the coming decades.



To be sure, one hopes every local planning office is already paying attention to this issue. It affects all ground transportation infrastructure going forward - not just airports and FBOs. However, it is the intermodal nature of airports which will make them among the first to be affected. How might FBOs plan for these sentient cars?

First, airport land already carries with it several development restrictions as a result FAR Part 77, which restricts building height at airports. While a local building code might allow for a 10-story commercial building within city limits, one doesn't tend to see high rises at airports due to the incompatibility of aviation use. In such cases, federal restrictions trump local building code. On a recent FBO development project in the Pacific Northwest, local building code required that trees were planted in the required greenspace surrounding an FBO's parking lot. A brief meeting with the airport during the early stages of the FBO's architectural planning led to a letter from that airport director to the county planning office, educating them as to the general incompatibility of trees at an airport. A variance was immediately issued by the planning office. Likewise, if the same notion of incompatibility can be demonstrated with vehicle parking, leaning into the special nature of aviation use land may prove fruitful.

An altogether different approach shared by one construction firm is to designate a portion of parking spaces airside next to hangars - which fulfills the formula calculation for required parking. During the construction process, while the stripes are indeed painted per the drawings for designated parking, there is no intention of ever using them for their intended purpose. Instead of automobiles, the FBO uses it for GSE parking.

Finally, a somewhat unrelated issue for FBO and airport alike could be a win-win to address the reduced need for automobile parking spaces in the future. As stated previously, many airports require significant capital expenditure by a lessee in the immediate years following lease inception, but there is no capital requirement thereafter for the remaining term of the lease. This has two overtly negative effects. For an FBO, far more capital is deployed upfront than may be necessary due to meet a lease covenant. For an airport, that means that an FBO has little motivation to deploy additional capital into the leasehold later, meaning those improvements tend to deteriorate prematurely. This is one of the reasons one can find airports with brand new lessee improvements next to lessee's improvements that stem from the 1970s- or beyond. Instead, airports could reduce the capital requirement at lease inception for a 35-year lease by a given amount- say 25 percent - and require that difference to be deployed 15 years into the lease, which still allows time for amortization of improvements prior to lease termination. After all, if planned correctly upfront, that parking lot may just make a great spot for a new hangar 15 years from now.