Postcard from Arizona

*AOPA member **Steve Payne** samples a pair machines from opposite ends of the light aviation spectrum, and decides that Arizona really has a great deal to offer the British private pilot*

Crystal clear blue skies, distant red mountains and I should, really I should, be working on a presentation that I'm giving on behalf of my employer. A significant distraction exists, however, in the personage of Bill Unternaehrer (pronounced Unterneer) who has suggested an alternative and far, far superior way of spending the morning—we could dust off Bill's Steen Skybolt on a pre-breakfast tour of the local area. I've just arrived in Phoenix and it takes me a second or two to ponder the options…

I get myself over to the airfield.

We start the Lycoming 0-360 at 7.30 sharp disturbing the early morning stillness and taxy to the holding point for Deer Valley's Runway 07, following a dusty-brown Piper Apache being flown by a well-spoken Brit. I have not flown a Skybolt before, so Bill hands me the aeroplane once we're airborne and I track outbound to the north at 110 knots, quickly clearing the busy pattern. The little yellow-and-red aeroplane flies sweetly and Bill encourages me to stay close to the mesa ridgeline as we depart low level. I enjoy hugging the ridge looking at the forest of saguaro cactus before climbing away and flying a couple of tight 360s.

Bill has the only turn-and-slip indicator and encourages me to pull a little harder as I slice the horizon with our steeply banked yellow nose. The harmonised controls provide an immediate response to the lightest of inputs without being twitchy. The aircraft also turns out to be fairly comfortable which is good news as I was cautioned that, at six foot something, I would need to 'scrunch up' to fit the front seat.

We fly over a working gold mine and Bill explains that people toil away on lonely, arid claims making a tidy if somewhat erratic living. I cannot bring myself to say "there's gold in them thar hills" so the moment passes without embarrassment as we fly on. We track back and forth over the lunar landscape until we're about 20 miles out from Deer Valley. Here, we turn around a lone radar station and head south-west towards sparkling Lake Pleasant, passing Carefree Sky Ranch where one can buy a house and a hangar on the strip if you've a spare $700,000 laying around. Man-made Lake Pleasant appears on the nose and after some gentle aerobatics and inverted flight and we tour its rocky bluffs at low level. One corner of the lake is a Bald Eagle breeding area so we keep clear and head back to Deer Valley for breakfast—I'm starving.

I'm soon picking juicing-oranges in Bill's hillside garden (it's tough work, but someone has to do it) and mention that I really don't want to disturb any black widow spiders. Bill explains dryly that the poisonous spiders don't live up here but the "hangar's full of 'em"—which is nice.

Bill explains, over breakfast, that Phoenix is expanding at quite a pace, threatening to become another sprawling Los Angeles. The gleaming modern city grew from humble 'wild west' origins and has an interesting history. The Spanish arrived in Arizona in search of gold during the 16th century with little success, turning instead to the religious conversion of the native population. The Mexicans followed before losing the American-Mexican war of 1848. Then the cattle ranchers and cotton farmers turned up, enjoying a short lived agrarian prosperity disturbing indigenous Navajo and Apache Indians who had been minding their own business for 500 years. We end the day with a barbecue and I depart to get some sleep—I'll work on the presentation in the morning…

Come fly the Duke

The telephone rings at 0600 sharp. It's not my alarm call, its Bill asking if I want to fly again as he's planning to fly the 'Duke' following an oil change. I um and ah for about ten seconds considering the options in detail. Frankly, I'm not too sure what a Beech Duke is but I never, ever, say no to the chance to fly a new type so we drive out to the airfield and open the hangar doors (opposite the Skybolt's) to reveal a fairly serious lump of aeroplane.

The Beech Duke first flew in 1966 with this particular aircraft rolling from the factory in Salina during February 1983, just before production ended. (Actually, Beech produced just two more Dukes after this one). Since then the aircraft has been modified by the addition of vortex generators, winglets, inter-coolers, better brakes and a comprehensive avionics suite. The aircraft has been based in Arizona since new so Bill reckons that there's no 'rust'.

We use a neat little one-man tug to extract the Duke from the hangar, close the hangar doors and climb aboard. I start the TIO-541-E1C4 engines and, after completing the taxy checks, steer us from the hangar line onto the ramp. The aeroplane exudes quality and I feel quite at home in the plush left seat, behind curved tinted windscreens. It is an over-used cliché but Lycoming's six cylinder engines really are smoother than silk and, thanks to the pressurised hull, one can just about hear the engines purring away in the background. The nose-wheel steering is controlled through the rudder pedals which makes tracking the yellow line straightforward with no tendency to wander.

Another advantage of the Duke is the air conditioning. It's hot and dusty out on the ramp, even at 7.20 am, but we're sitting in shirtsleeve comfort as I take us out to the hold for Runway 07. We run through standard pre-flight checks before joining the queue to line up. The lady in the Tower is providing an appropriately relaxed service and wants us to call when we're ready to go so we wait for the same Brit as yesterday to line up and roll in his Apache. We're soon cleared 'with the departing traffic in sight' etc to take off.

We use a neat little one-man tug to extract the Duke from the hangar

The engines develop 380 hp at 2,900 rpm/41.5 inches and are turbocharged so I wind the power up gently against the brakes to 35 inches before letting go and applying the remaining six inches of power. The Duke really cracks away from the blocks, quickly reaching the V_R of 85 knots. Bill's cautioned me to watch the take-off roll as the Duke's long, curved nose tends to hold the front end down. The technique, in practice, seems pretty normal to me—one progressively off-loads the nose leg as the aeroplane accelerates before rotating at 85 knots and flying away at 90 knots. Blue line (single-engine best rate of climb) is 110 knots so we try to get there as soon as possible before climbing away.

This manoeuvre is great fun as one holds the aircraft down to accelerate, aiming for blue line before climbing around a small conical peak which sits in line with the end of the runway. We are quickly catching the Apache so I bend us further right to turn outside him before reversing the turn to streak north into the higher blue, passing a couple of colourful hot air balloons.

Taking advantage of the pressurised cabin, we climb in comfort at 130 knots to FL120 in a little over ten minutes for some general handling. You will, I'm sure, remember from school that turn radius can be calculated simply enough (something like radius =

Skybolt sports a closely-cowled Lycoming 0-360; accomodation (right) is purely functional

Only for fun

Bill Unternaehrer fills Steve Payne in on the history and capabilities of his personal Steen Skybolt, an American homebuilt design in the mould of the well known Pitts S-2:

"I bought the aircraft in December 1996 and flew it from Boston to Phoenix over the Christmas holidays. That was quite an interesting trip. The engine is a Lycoming O-360 with 180 hp. It has a pressure carburettor with a flop tube in the 29 gallon tank. The back up fuel pump is electric. A Christen inverted oil system is used for continuous oil pressure.

"The propeller is not an aerobatic prop but rather a standard variable pitch prop from a Mooney. The difference being an aerobatic prop goes to high pitch (low RPM) with the loss of oil pressure and mine goes to low pitch (high RPM) with the loss of oil pressure. So, in a very slow roll or knife-edge, the prop speed will increase while the inverted oil system ball valve tries to find the centre of the earth during my less than perfectly co-ordinated manoeuvres.

"Most Skybolts today are built using the more powerful IO-540, which gives 260 HP. I use this aeroplane only for fun—the only cross-country I've taken in the 'Bolt is last summer back to Missouri to visit my family where my brother has a 1,500-foot grass strip on the family farm".

Vs/g.CL max/CL). Preferring the *Flight Without Formula* approach myself, it just means that bigger, faster aeroplanes consume more track miles to turn than one's favourite light single. My usual handling trials include a couple of reversed 360s but I was forgetting the speed and mass of the Duke so a 'quick 360' takes forever at 150 kts and covers around ten track miles. I give up after one turn, thankful for the electric trim to off-load the fairly heavy pull.

We sit at FL120 for a while and play with the GPS and autopilot before heading downhill at speed to get to work—ah yes, I remember work—and who really needs breakfast when one has a presentation to write.

I'm picking out the local landmarks by now and take us past the Sky Ranch and head for Lake Pleasant's sparkling blue to join downwind. The tower asks us to call at the dam which throws me slightly as we're sitting over the bone dry Sonoran desert. Apparently there are several large dams basking in the desert sun waiting to protect Phoenix from the run-off when the rains, as they do, come. I locate the dam in time to save any embarrassment and make the call.

The dust-brown Apache is also out there, early downwind and plummily English as we rejoin. We fly a mutually agreed wider (and faster) circuit around him which works out well, leaving me with a neat and enjoyable S-turn onto final. Bill coaches me through the approach, which brings me to blue line with landing flap at about 150 feet before slowing to 85 knots at the flare with the throttles closed.

The old Indian Gods are with me and the aircraft settles into a very nice groove on the approach, leading, as good approaches generally do, to a pretty good landing. The elevators remain effective right down to about 55 knots if one fancies some aerodynamic braking. Overall, the Beech Duke flies very, very nicely if somewhat outside my normal price range even at US prices, burning, as she does, around 40 gallons per hour.

Arizona really has a great deal to offer the British private pilot. The flying rates are unbelievably low compared to the UK and there are numerous flying schools and FBOs to choose from. There is good soaring up the road at Maricopa and Peoria should gliding take your fancy—there is plenty of hot air ballooning too. I'll be heading back to Phoenix as soon as I can and already have the Grand Canyon and a cruise over the Painted Desert on my itinerary. *www.landing.com* is a really good web site if you are looking to fly in the USA.

The presentation, incidentally, went well: who needs technology when you can wing it with some coloured pens and a flipchart. ■

Man-made Lake Pleasant appears on the nose

Grand Canyon state

The Grand Canyon state of Arizona is in the south west and is the sixth largest of the 48 adjoining states of the continental USA. The geography is a fascinating mix of mesa plateau, canyons (including the Grand Canyon), extinct volcanoes and desert with a mean altitude above sea level of around 4,000 feet. The area was a wilderness until the Spanish (1540), Mexicans (1820) and Anglo-Americans (1860) arrived on the scene. Native Americans now live, in the main, on reservations.

The city of Phoenix was named by an early British settler, Bryan Duppa. Nowadays the area is a Mecca of resort hotels and golf courses catering to people seeking the sun. Industry now has moved on from agriculture to tourism, aerospace (why I was in town), the health industry and cosmetics. The area has more mountains than Switzerland and the land-locked residents own more boats per head than the residents of any other US state.