

Go to www.thenational.ae/motoring for an interactive, GPS-based map of Paolo's route on Google Earth. Or, download the .kml file for your own GPS unit

off the beaten path
Paolo Rossetti

The looming shadows

Liwa is a gateway to great desert adventures, and the journey to get there is just the beginning

If you've been following Off The Beaten Path, you will have travelled to fantastic off-road destinations in the region, but in this issue we graduate to a different level.

The Rub al Khali, also known as the Empty Quarter, is the planet's largest continuous sand dune desert, spreading from Yemen in the south of the Arabian Peninsula to Saudi Arabia in the west and Oman in the east. At the highest north-eastern corner, it occupies a large area of the United Arab Emirates: Liwa.

You may have seen ranges of sand dunes elsewhere in the UAE, or even the world, but nothing is like the Liwa desert. It's like comparing a beach bungalow to a skyscraper.

A bit far-fetched you say? Well, if we assume a storey of a building is about three metres, then our destination is a 36-storey building of pure red sand.

In fact, Tal Moreeb is a sand mountain almost 110m tall, and just one of many to be found in the area north of the Saudi-UAE border up to a tarmac motorway that borders the north, known as the Liwa Crescent.

I've arranged for three routes, of differing difficulty levels, all starting from Tal Moreeb, which is reachable by a tarmac street – so, from first-timer to expert driver, this destination will be an unforgettable experience for all.

The BMW X5M is one of the most technically perfect cars I've driven – and this is why: let's take an average SUV, in fact, any of the most popular models you see on the roads. They are not built for the speeds routine in the Emirates – yes, they can easily manage to cruise at 120kph, but the suspension, the choice of tyres, the chassis, the entire car is a compromise.

You will realise this when a quick swerve is required: the car will sway, the traction is compromised, the brakes are soft. But just look at the disc brakes found on the BMW X5M, and you will see what I mean – they fill the entire 20-inch rims.

This car offers fantastic performance on the tarmac, equal to many sports cars. Plus, although not its finest point, it does offer at least some of the dual-purpose we expect from an SUV. Having said that, it is definitely not suited for dune bashing, with its low fascia and bumpers and lowered suspension. But that's OK for this trip, because it's all smooth tarmac to the Moreeb Dune.

We start from the outskirts of the city of Abu Dhabi, and join the E11 motorway, which leads to the Western Region, and is signposted Al Ghweifat (waypoint 2). Just before that, I fill up at the Adnoc that's on my way, in this case at waypoint 1 if you're coming from Al Ain.

The first major turn-off from the E11 is at waypoint 3 and is signposted Hameem, the town on the eastern-most corner of the Liwa Crescent. It is not the main route into Liwa, but it is a nice and fast motorway with no photo radars and with the added benefit of passing by H E Sheikh Hamad bin Hamdan Al Nahyan's National Auto Museum, which is graciously open to the public (waypoint 4).

I would rank this as a must-see: inside the pyramid structure, Sheikh Hamad, nicknamed The Rainbow Sheikh, has displayed a varied collection of his cars – including a selection of Mercedes painted in the colours of the rainbow. Along with this amazing collection, the *pièce de résistance* is a gigantic Dodge pickup truck, which was built to tow an enormous caravan that was built as the replica of the Earth and is now parked out front.

Once you've reached Hameem, you are in Liwa, and the enormous dunes greet your arrival. I again fill up at the Adnoc station, waypoint 5,

as it's always good to have a full tank when off the beaten path. Opposite the petrol station, at waypoint 6, there are a number of tracks that lead into the oases, and that is our first stop after the long drive.

Liwa is in fact an important agricultural area, and a large number of historical oases for centuries have made good use of the abundant groundwater. Further along as you travel westward, you may be surprised at the scale of the cultivations (waypoint 7, for example), and a visit into the privately owned oases is often possible if you announce your presence and ask for permission to enter the fenced areas.

The fresh, verdant oases will make a dramatic contrast to the stark reality of the open desert once you are in the dunes proper.

Continue westward along the tarmac, past the Liwa Hotel, until you arrive at waypoint 8, where you will turn left, following the signs for Moreeb.

The street will narrow and you will soon enter the dunes, while still driving along on tarmac. The road was built as access to Moreeb Dune (Tal Moreeb in Arabic, meaning Hill of Fear) which is the venue for the Hill-Climbing Championships, an official Liwa Festival event under the supervision of the Abu Dhabi Motors Club.

The dune formations along the way are spectacular, and a preview of what Tal Moreeb offers, at our waypoint 11 destination.

The beauty of the Liwa dunes is as immense as the landscape itself, and I have arranged for several route options, hopefully to match your off-road driving expertise.

The Empty Quarter is as tough as desert driving can get, and it is difficult for me to provide a route that will not take you above your level of comfort. Driving in Liwa is serious business, and all trip participants must be well-prepared for any eventuality. There is no walking out of Liwa.

Fortunately, there is a pattern to the dunes, and so navigation is both possible and extremely rewarding. I duly ended my trip in the BMW X5M at Tal Moreeb, lest I risk crushing the turbo intercoolers against a tight ledge – these three routes are for serious off-road vehicles only!

Having made my disclaimer, let us see what's ahead of us. First, if in any doubt, take the same tarmac road and return to civilisation. Take a walk up the dunes, enjoy a sunset picnic, but keep the car on tarmac. Moreeb is a wonderful destination even without getting sandy wheels.

If you and your group (never enter Liwa alone) decide to crown the trip with an off-road route, and you are experienced, well-equipped and carrying a GPS unit, here are three routes which can be downloaded from *The National* website:

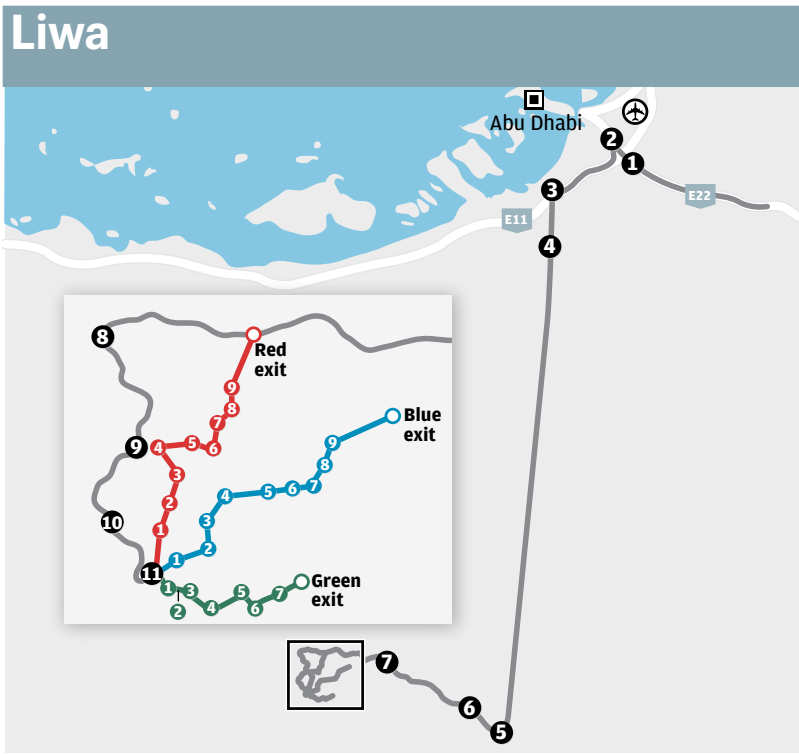
The Green Route is the easiest and it follows the layout of the dune ranges, mostly staying down in the long sabkhas (salt-encrusted desert flats), and requiring only three to four passages over dunes into the next sabkha. It is around 12km in length as the crow flies, and it exits to the east onto a large northerly sand track.

The Blue Route is of medium difficulty (in relation to the three routes; all Liwa trips are to be considered difficult) and it meanders both along sabkhas and across dune ranges. It is around 22km in waypoint-to-waypoint length and it takes you through some spectacular scenery and tricky dunes, finally exiting at a farm track, which will lead you north to tarmac.

The Red Route is the most challenging, heading mostly north against the dunes, and requiring you to navigate up and over and around large dune formations. It is also around 22km but the going will be slow. It exits to the north.

Lastly, and most importantly, please heed my warnings – Liwa is an incredible destination to which I wanted to bring you, but at the same time I want to be clear that the Empty Quarter is unforgiving desert, even if it is criss-crossed by many UAE residents on weekends.

In the next article in the series, we will travel back to the Al Wagan area for a deeper exploration.



(Top) It is possible to drive any vehicle to Liwa, but a good 4x4 is needed to tackle the dunes. (Above right) On the way to Liwa is the car museum of HE Sheikh Hamad bin Hamdan, which features the enormous Dodge pickup truck. Photographs by Paolo Rossetti for The National; map by Jun de la Cruz / The National



how to: drive on desert sand

Less air, less speed and float across the sand

Last issue we looked at negotiating beach sand – now for the real thing: deep desert sands.

There are several techniques which will help a 4x4 travel through sand dunes, and the first one is to deflate the tyres to increase the footprint so that, instead of fighting through sand, the car floats on top.

Some tyres are more suitable than others. The ideal features of a good sand tyre are a high, soft sidewall and a wide, non-aggressive tread.

Tyres sizes are specified as 275/60R16, for example, and that means the width of the tread is 275mm, the height of the sidewall is 60 per cent of that (165mm) and the rim diameter is 16 inches. Basically, the largest tyre that will fit into the wheel well without rubbing at full spring compression is what you're aiming for.

Many dedicated off-roaders will lift

their vehicle suspension specifically to be able to fit larger tyres.

The soft sidewall makes the tyre deflate down to a nice balloon shape; if you imagine trying to push a balloon into soft sand, you'll see the effect you're after.

The kind of tread which is ideal for muddy terrain is unsuitable to sand, as the aggressive lugs will dig down.

A medium-sized SUV's tyres would probably deflate to around 15 to 18psi, while a large, heavy mastodon would go down to just 18psi. In difficult dunes, usually after getting stuck repeatedly, one may go lower to around 12 to 13psi for the lighter cars and 15psi for the heavyweights. Go too low and you risk the tyre popping off the rim.

Once aired down, it's much easier to keep your vehicle's momentum, the next technique for driving successfully over desert sand.

As long as the vehicle is moving,

there is sufficient momentum to carry the aired-down car through even the softest sand, but once stopped the situation is trickier.

If on the flat, a gentle acceleration is preferred, trying not to let the wheels spin and dig, until enough momentum is regained and the vehicle can travel forwards comfortably.

If facing uphill, forget it: reverse. Your advantage is perhaps the most important technique for a smooth, controlled drive.

While on the subject of "controlled", please note that it is neither necessary nor advisable to fight the sands, revving at redline, and compensating for lack of technique with

brute force. Sit with any experienced driver, and the ride will be smooth and effortless, and those powerful bursts are reserved for when really needed.

When momentum ends, you will most probably be stuck. Absolutely normal; in fact, it's to be expected.

Do not fight it by digging yourself in further, but jump out and have a good look at the situation. Where is the uphill? Which wheels are dug in, and which are spinning with no traction? What is the best direction to recover the vehicle?

For the purposes of this article, recovery will be a buddy giving you a gentle pull with a tow rope, probably back along your track. But in the following instalment of How To, we will get a little more technical about how to recover stuck vehicles.

★ Paolo Rossetti