

ooney Aircraft developed what is probably the most drag-efficient single-engine airframe in the 1960s. In the 1990s, Rocket Engineering identified further potential for this superb aircraft by fitting several modifications, increasing fuel tanks, adding wing vortex generators, improving cooling, incorporating a full feathering three blade heated propeller, and installing a 305hp Continental turbo-assisted engine which truly earned it the designation of 'Mooney Rocket', capable of long-range fast touring at over 24,000 feet at speeds in excess of 230 kts, all with extra load carrying ability. The Rocket is the fastest and most desirable Mooney, but it is a rare machine to find. Dave Plange of Alpha2Bravo ferry services had already owned and delivered Mooney aircraft around the world, and was keen to find a Mooney Rocket for himself. Towards the end of 2010 he found the perfect example in Hampton Roads, Virginia. The timing was unfortunate as delivery would be in January 2011, increasing the VAT to 20%. He went ahead regardless.

Not only is January bad for VAT, it's also not a good time for ferrying an aircraft across the North Atlantic. It should be the best time of year to capture the westerly winds, but with the disadvantage of shorter daylight hours. On the day we flew to the US, headwinds had already started to develop for the journey from Canada to Iceland due to a deep low that was further south than usual. The winds were forecast to get very strong.

Even in Virginia the weather was unusual. We needed the oxygen tanks



Top: Mooney on ice – conditions at Goose Bay were bracing for man and aeroplane Right: author Alan Wood preparing to set out on a journey that will live in his memory forever

topping up so we took a 20-minute hop to Newport News airfield, where oxygen was available. No sooner were we in the air for the first flight than snow started to fall. The engineers at Rick's Aviation were quite excited to see snow falling in their part of the world. We weren't.

Our first leg was from Newport News to Bangor, Maine. We climbed to 15,000 feet – which took a little over 10 minutes – and admired the snow-covered scenery of the east coast. Crystal clear air remained with us all the way to Maine, allowing us to see all the famous landmarks en route – Atlantic City, New York, Boston and Cape Cod. The Mooney's performance was not











Top: snow-covered Boston and its harbour, famous site of the anti-British Tea Party Above: the Mooney at 13,000 feet and just clearing Chesapeake Bay en route to Bangor Above left: on finals for Bangor, Maine – snow everywhere, but excellent visibility Left: crossing the St Lawrence into Canada en route from Bangor to Goose Bay

disappointing; a cruise of 185 knots and fuel flow of 13 gph (US). My only complaint was a cold draught from the door seal, which made me wish I'd put on thermal underwear.

At Bangor we stayed at the Days Inn, which is popular with ferry pilots, and the engineers had a chance to look at the 12 volt supply socket which had been found to be disconnected, apparently due to an AD. Fitting a new one was not a problem, and it would greatly assist to power the Sony portable PC that gives a wealth of aviation information, including actual weather en route.

The situation did not look ideal for a crossing to Narsarsuaq in Greenland. Strong headwinds would make it difficult even though we had the range, with 102 gals useable. With limited alternates and in such remote territory and over icy water, it is a matter of life and death to make sure flight planning is accurate. The penalty for getting it wrong would very likely be fatal. The immersion suits buy you valuable time, and if you're lucky enough not to sustain injuries upon ditching and you manage to retain enough strength and

## Right, from the top: David Plange on a sightseeing tour of Goose Bay – this is the posh end;

Goose Bay snow blowers helpfully move aside for us as we taxi out at first light; over north east Canada – a frozen river, icy mountains and no sign of civilisation; the Mooney at sunset in Iqualit, where sunset comes not long after sunrise in January

composure to actually make the inside of the life raft, your chances increase substantially, but in all fairness the odds are heavily stacked against you. The importance of making the right decision takes on a whole new meaning.

As we prepared to leave for Goose Bay in Canada on Monday January 10th we met the pilots of two aircraft that had arrived from Europe. We heard that weather en route was not good, but with everything in place we taxied out. It was a clear, cold day with only light cloud, allowing a climb to 19,000 feet for the four-plus hours leg. As we got closer to our destination the cloud began to build and we arrived at a very snow-covered Goose Bay airport. A former RAF base, it is now a hive of activity - we parked near a civilian Dash-8, a DH6 Twin Otter and a USAF Globemaster. The handlers, Woodward Aviation, also seem to also 'handle' just about everything else in Goose Bay – we stayed in a Woodward hotel, the North 2. The weather at Narsarsuag the following day was not promising, so we looked at the alternative of going further north to Iqaluit in Frobisher Bay. Dave had asked for the Mooney to be pushed into the very expensive hanger for the night, which would be cheaper than de-icing and preheating in the morning. Next day the Narsarsuag weather was unacceptable -040/40G54 PK-WND 64, and a significant crosswind component. We heard that a German ferry pilot in a Cessna had attempted the route the previous day, only to turn back 300 miles into the crossing. 600 miles round trip to get back to same point, not cheap! I wonder what the owner thought about picking up that tab? Dave knew full well that the combination of strong winds in the fjords and mountains make for very uncomfortable flying; we decided to stand









down and booked into another of the Woodward hotels. After a long lunch we went to Mulligan's Irish Bar – there is one everywhere, and they always seem to have their locals, in this case two British guys who work at air traffic control.

Next morning we arrived at the airport at 07:00 when it was very dark and very

cold. There had been a misunderstanding and the Mooney had been left standing on the icy apron overnight. It was covered with 'pebbles' of ice droplets that had to be removed. The cost of de-icing is substantial, but given the misunderstanding the agents agreed to provide a bucket of de-icer and a mop. It





trucks that kindly pulled to one side for us. The runway was clear but the ice could be heard to be 'cracking' as the wheels started to roll. Even fully loaded the Mooney had no problem getting off the ground with its 305hp engine. When the time came to level out the aircraft, the nose would not come down! It was apparent that there was a tail control surface problem that required both of us to push the yoke at the same time as reducing throttle and propeller. The trim control would not move, and we decided it must have frozen during

Top left: don't touch the metal; even gloved skin will stick to super-cold surfaces Left: Alan Wood in Iqualit, colder than he has ever been or hopes ever to be again Below: approaching Kangerlussuaq – the nearest alternate is 100 nm away Right: when you're this cold you don't care how you look – Alan and David at minus 30



was to be the first day with a lengthy water crossing, so we got out the immersion suits and laid them by the radiator to warm up. We had two types of immersion suit; the expensive one that Dave uses also has some buoyancy to act as a lifejacket. It is bulky but comfortable and is RAF surplus. Although the second suit, made by Beaufort, is a quality item, it has no buoyancy so a life jacket must be worn over it. The problem with the Beaufort is its ability to act like a sweat suit. With all the warm clothing worn under the suit, the cold air on the outside creates condensation, giving a 'hot and cold' sweat feeling to the wearer. This problem is aggravated when the time comes to take off the suit - the damp clothes freeze on your body, a very uncomfortable feeling. The taxied out past the snow blower

the climb. A return to the airfield was inevitable – but that meant going back through the cloud with hard-to-handle controls and a windscreen that was showing ice cover. But once through the cloud the runway lights were easily visible as we joined right downwind for a faster than usual landing.

Back at the Woodward apron the elevator and trim were inspected by the engineer, who confirmed our diagnosis that ice was the problem. Once again, out came the mop and bucket of de-icer. We finally climbed to our transit altitude at 11am for flight over some of the most spectacular landscapes of north east Canada and over Hudson Bay to Iqaluit, the former Frobisher Bay RAF base, which along with Goose Bay was famous in WW2 for the ferrying of military aircraft to Europe. I thought of those young men and the difficulties they must have faced in these conditions, without the navigation aids that were on board this Mooney.

The sky was displaying some beautiful sunset colours, and these were being 'decorated' by snake-like flashes that looked like dancing jet streams. As the sun went down this phenomena changed colour and we realised we were seeing the Northern Lights.

All airfields are windy places, and all are cold in this winter landscape, but this was cold like I had never experienced before. The Mooney had to be refuelled, and the handler came with his pump to transfer avgas from 200 litre drums that stood in a pile of snow. He warned us not to assist him as our gloves were not substantial enough to touch the cold metal, and we could be injured.

lqaluit was built in 1942, and it remains a very small and remote outpost mainly populated by indigenous people. The



Navigator Hotel was about a mile's walk from the airfield on packed ice and snow, carrying our luggage and equipment and fighting the wind. I did not expect the Navigator to be 5-star but I also did not expect it to be like a Wild West saloon, complete with boardwalk! The rooms were warm but the restaurant left a lot to be desired. I guess the cost and availability of materials in this remote arctic region is the big factor. It was the worst food at the almost the highest cost we ate on the trip, but they have the monopoly in the town, and a man has to eat!

It was important to get an early start next morning as daylight was limited to less than four hours, and with easterly travel we were going to lose an hour before reaching Greenland. We left the Navigator at 04:00 to walk to the airport - clear skies, minus 24degC and a wind chill factor of minus 36 whilst we hauled our luggage over ice-covered roads. If that doesn't wake you up, I don't know what will. The Mooney had been standing on the apron; we covered it with its heating shroud and left it for an hour to warm up. Flight plans were organised, and just as daylight was appearing we climbed to a transit altitude of 13,000 feet; later we were able to go to 19,000. Once again the rugged, ice-covered landscape looked

splendid but forbidding; we listened closely to the sound of the engine as we set out over the Davis Strait to Greenland. The winds were more favourable than those further south, and just over two and a half hours later we were approaching Kangerlussuaq, (Sondrestrom Fjord). Accuracy is vital; there is very little room for error. The nearest alternate is more than 100 miles away in the capital Nuuk, so it is important that you reach your planned destination after going past the point of no return. Again it wasn't so critical in this aircraft as we had the range to continue to Kulusuk on the east coast. but that's not usually the case unless you are tanked, in which case you can bypass

Right: the Mooney's airbrakes were useful on final approach to Varga in the Faeroes Below: short finals at Varga, which clearly has a very interesting go-round in IMC

Greenland, with its \$18 per gallon avgas. Formerly known as Bluie West Eight, Kangerlussuag was also used in WW2 for ferrying. The approach fits very neatly between hills at the end of the fjord; however, we could not see the ground due to cloud cover. As the instructions to descend came late due to a departing Cessna Grand Caravan on a reciprocal climb out, the Danish controller advised that we would appear through the cloud a little high for a direct approach; however it would not be a problem to arrive overhead and make a 360 turn to finals. This gave me an opportunity to get the video camera set up and film the 360 turn and the landscape, finished off nicely with a superb

landing just as the sun was setting behind



the nearby hills. The hotel was quite good and the restaurant amazing. In one of the remotest places in the world, we found some fine dining and excellent Danish service. Dave enjoyed a Musk ox steak that would match any beef fillet steak, while I had the veal steak – a complete surprise after the basic food in Igaluit.

An early start was needed for the next leg to Keflavik, Iceland. Dave decided that the winds at 19,000ft would give us our best flight time. Again the Mooney had been out on the cold apron all night and needed a pre-heat. The engine was not using much oil but we decided to top it up anyway. The cold had made the oil like thick treacle and it was very slow to go in. It was not a very comfortable position to be in, on this cold apron, watching oil dripping down the pipe. As they didn't have a heat cart fitment for small aircraft, Dave had to stand for an hour in minus 18 cold holding the tubing close enough to the cowl intakes for the warm air to be effective.

We took off at first light and after an hour the cloud cleared and we got a chance to see the vast expanse of white snow and ice on the Greenland ice cap. The surface is extremely rugged with sharp pinnacles of ice and glaciers with deep crevasses; it would not be a friendly place to have survived in. There have been instances of aircraft landing on this terrain and the crew surviving, but there are also tales of how the polar bears find the site



and trash the aircraft. It gave me a slight shiver, and I hoped that we did not have to experience similar circumstances. The Mooney was flying at 20,000feet and at speeds of up 200knots in economy cruise, a fantastic performance – but at this height it was very cold, showing minus 30degC OAT. As we headed for Keflavik the weather got warmer and the clouds arrived. Daylight started to fade and we approached Iceland in the dark. With 20 minutes to run Dave called the South Air handling agent's frequency for someone to meet him at the avgas pumps. The flight from Kangerlussuag had taken just 4.5 hours, with three hours' fuel in reserve. The Mooney's tanks were refilled by the handling agent in preparation for the next leg to the UK.

The friendly guys at South Air offer coffee and biscuits, a comfortable lounge and access to the computer for flight planning before providing a shuttle service to the Flug Hotel in Keflavik. Just a short walk from the hotel is a Thai restaurant that Dave recommends; the Royal Thai Lobster Panang curry is second to none, even better than anything I have experienced in my Far Eastern expatriate days of Thailand and Malaysia. The Icelandic owner's Thai wife is one of the best cooks you could find.

Next day the weather did not look promising. The southerly winds in excess of 50 knots wouldn't in themselves present a problem for an aircraft with over 1,000 nm range, but we simply couldn't find a UK airport that didn't have surface winds gusting to less than 40kts. This, combined with a sigmet for turbulence below 6,000ft made it a relatively easy no-go decision. Next day, Saturday January 15th, there

was no change. Finally, on the Sunday the winds were forecast to drop to 10 kts at Humberside. We submitted our flight plan, but as we were preparing to take off we discovered that another route had been substituted - direct to the Western Isles of Scotland, down to the Isle of Man before turning east to Humberside. This was not acceptable, so the Mooney was shut down and the original flight plan resubmitted. This time it was accepted, and we once again taxied to the runway in the rain. Once we had reached our initial altitude of 15,000 feet we settled down for the long sea crossing, but as we reached coast of Iceland Dave suddenly passed some strong words. The port outer fuel tank gauge was showing lower than it should be! I had checked the fuel drains in the dark and my first thought was whether it had closed properly - but I had double-checked the drain, it couldn't be that. The only answer was that the tank had not been completely filled in the dark of the Friday night.

The Mooney could still reach the UK. but if we met strong winds we may have had to land at Wick. We did not want a diversion because while the VAT had been sent, it could not be confirmed that it had arrived as it was a weekend. Therefore the Mooney would have to be left at the first airport at which it touched down in the UK, and we did not want to be stranded at Wick. Dave quickly decided to fly to Varga in the Faroes and refuel at the Danish airfield. We didn't know that back home at Sturgate, Lincoln Aero Club members had just returned from their pub lunch and switched on the club computer to track the Mooney; they were surprised to see it flying north, before it turned for Varga. They managed to access a webcam on



Varga airfield and watched the next aircraft come over the hill, a BA146 from Copenhagen, side-slipping to finals.

Dave knew from past experience that landing at Varga would test all his skills. Situated at the end of a fjord and nestled between the hills, if clouds are present and they usually are - the full approach pattern would need to be followed. We approached overhead before turning north to the outer beacon. From the marker we turned beacon outbound for the approach. and once inbound followed the steep published descent profiles, threading the needle between the looming mountains as we descended through the clouds. No room for error, but as we reached the cloud base the runway was visible ahead. A steep decent with the Mooney airbrakes assisting and the aircraft was lined up for final approach. Welcome to Varga.

At 14:30 we departed Varga for a direct flight to Humberside, taking us initially over Sumburgh in the Shetlands. Once handed over to the Scottish controller we were allowed to track direct to Wick, which we reached as the sun was setting. From there we followed the east coast and could easily make out all the cities, Aberdeen, Edinburgh, Newcastle, Teeside, and now the Yorkshire coast and Flamborough Head. It all seemed to pass in slow motion, with only a 155 knots ground speed, but still - it was getting us home. Humberside gave us a direct approach to runway 21. Dave replied, but it became apparent that ATC was not hearing him. I tried using the P2 transmit button and the controller could hear me, so for the last few minutes of the flight I relayed the conversation. It was as though the Mooney was having the last word on the flight;

## Left: home and dry, almost – Garmin has the Mooney over Kirkwall in the Orkneys

after landing we discovered Dave's PTT button had come loose. It simply needed putting back on. The flight from Varga had taken 3 hours 45 minutes, which was not bad considering the headwinds we'd experienced.

Overall the trip had a flight time of 33 hours 35minutes and had taken eight days to complete. Due to the bad weather and diversions this had been four days and 8 hours 30 minutes more than anticipated, but at no time had safety been compromised. This really was a first hand insight into what seems like a glamorous job, and in fairness the experience will rank up there for the rest of my days. But it's also a stark reminder of just how close you are to the edge of the envelope on a winter ferry flight in the high latitudes. All pilots who fly think that planning is paramount, but some situations are far more forgiving than others. In these parts, there really is no room for grey areas or guesstimations.