

# UK to Trinidad and back in a Cessna 421

by John Shannon, TTCF Member

## Part 1

Please use the link below to a short video of the Caribbean part of our trip. The same link can be used to access a map of our UK to Trinidad and back route, additional maps of the East Caribbean part of our trip and other pictures, some of which are also included in the article and a previous article on a trip to Wichita and back made by me and Roy Hitchon in 2013. The numbers in the article refer to the numbers in the linked Dropbox folder.

<https://www.dropbox.com/sh/ol8sitc6tsz8qi5/AAAq4fjWqGbklPJ2uMtKZio9a?dl=0>

**Why did I want to do this? Why did I think I could do this?**

I was born in Trinidad, an island just off the coast of Venezuela and lived there with my father until I was 9 ½ years old and thereafter visited Trinidad during school holidays up until I was 18. I also worked in the West Indies in my twenties where I had the use of a Baron. I still have many West Indian friends. So part of my motivation was nostalgia. It would be fun to revisit, in a small plane, my youthful hunting grounds! Especially as I was going to be joined for the Caribbean part of the trip by my family.

I felt that I was sufficiently experienced as a pilot and had the appropriate aircraft to make the journey both safe and fun.

I am now retired and I have the time to take on these sorts of time consuming projects.

I flew across the Atlantic both ways in 2013 in the same aircraft that I planned to use for this trip - a C421C. (See article on previous trip 10). Some of the worries and concerns that I had held before that first transatlantic trip were either reduced or eliminated by what happened during that trip. What is more, I had thoroughly enjoyed the crossings, especially as the return journey across the Atlantic was with my younger son, Peter, who was 18 at the time, as 'co-pilot'; he held a private pilot's licence. (He got his PPL on his 17<sup>th</sup> birthday - before his driving licence!) Peter also greatly enjoyed that trip and perhaps it was a factor in his subsequent decision to become an airline pilot. He has been flying Airbus A320s (180 seat jets) as a first officer for EasyJet, the biggest UK airline, for the last two and a half years. (He is now, at 23 years old, a much more polished pilot than I could ever hope to be.)

Apart from the Atlantic, I did have some previous experience (although rather a long time ago) of flying along the East coast of the US. I had flown up from Trinidad to Dayton Ohio, Le Guardia and back in a Baron in the mid 1970's.

My total flying time is some 5,000 hours and I hold an ATPL licence. I have held a British twin and instrument rating continuously since 1973.

I also flew some 1500 hours in the West Indies in the 1970's, mostly in a Baron. During this period, I was able to visit nearly all the Eastern Caribbean Island. In those days, all we had for navigation were widely spaced NDB's and a very few VOR's. Now GPS makes navigation so much simpler.

Many of the airports on the trip are familiar to me - even if from many years ago. However quite a few would be new to me which I looked forward to visiting. Providenciales, in the Turks and Caicos Islands, has replaced the crushed coral strip that I used to land on with a modern airport, instrument approaches and ATC. Argyle St Vincent has, this year, replaced the old airport, which was one way only due to a hill at the East end of the runway. Downwind take offs at the old St Vincent airport from a reasonably short runway with the sea at the end, looming towards you, were always interesting. Canouan in the Grenadines is a newly expanded airport that can handle jets. Tortola BVI., is not a new airport but one of the very few older West Indian airports that I had never been to. I had also hoped to land at Union Island in the Grenadines which has a notorious hill on the approach, but I was told that a C421 nearly ran off the end of the runway this year and the local authorities had therefore banned C421's from Union.

I am presently in good health (touch wood); However, I am conscious that I do not, perhaps, have too much longer to do mad trips like this!

The C421 is a very good aircraft for the mission - see below.

With enough notice, my family said that they would all like to join me in the West Indies, at least for part of the trip.

Perhaps as important as any other of the above reasons, my friend Roy was game. Retired BA airline pilot, very experienced and suitably able, Roy Hitchon has the will power to restrain my 'continuation bias'. Roy had flown with me on my previous trip across the Atlantic to Wichita and back. Roy agreed to fly with me from the UK to Miami and then have a holiday with his wife. He would then re-join me in Miami for the return trip to the UK.

Finally, I had a look at my piggy bank and it had enough treasure to pay for the trip. Such adventures are not cheap and it is worthwhile having substantial financial reserves for a rainy day or technical hick ups!

## Preparations

I had a year's lead time. It is best to allow three months for making all the arrangements, at least for the first time that you undertake such a trip.

### Bureaucracy

American readers of this article should understand that I am looking at the bureaucracy largely from the point of view of a foreigner in a foreign registered aircraft visiting the US.

Thankfully the hassle factor has reduced somewhat from 2013 at the time of my last trip in the plane to the US. There is now no US requirement for non-US and non-Canadian aircraft to get approval, 5 days in advance, of the route to be taken in the US with applicable dates and all airports to be vis-

ited! There is now no requirement for all such flights to be IFR only with the approval number indicated on the IFR flight plan etc. Everyone knew all this bureaucracy was absolutely ridiculous, especially as none of it applied if the aircraft concerned was US registered, even if flown by a non-US citizen! It has all gone, thank goodness.

However, unless you are operating under an air operator's certificate, it is still a requirement for all Non-US and Canadian citizens, including the pilot(s), entering or exiting the US and Puerto Rico in a private aircraft to have a full US Visa. The Visa waiver program only applies to AOC operators. You must make an appointment, normally at least a month in advance, to visit the US embassy in your country. You have to fill out in advance a multi-page form online (the internet pages time out so keep saving) which is difficult to understand. For example, the application asks for considerable detail of your school career but only in terms of US type schools. To convert foreign school system attainments to equivalents in the US school system is no mean task! While not quite as difficult as a tax return (I am an accountant but I find all tax returns maddeningly obscure) the US visa application is still quite a job to complete, even for my daughter in law, Lexie, who is a lawyer and who was coming on the trip. In my case, after waiting over half a day in the London US Embassy to be called, I spent a mere 4 minutes in front of an assistant consul who, at first, found it difficult to understand why I needed a Visa at all, and once that was clarified with her superior, spent the balance of the four minutes talking about her last holiday in the West Indies. All of this palaver serves absolutely no purpose - security or otherwise. I would note that there are no equivalent requirements for US or Canadian passengers in US private aircraft visiting the UK or Europe.

Foreign aircraft must apply for a US Customs Decal which is sent by mail - allow a 4-week delivery time!

In the US and in the lower Caribbean you must fill out, in advance of each border crossing flight, an online Electronic Advance Passenger Information System form - EAPIS and Caribbean EAPIS. I find it easiest to get pictures of all passengers' passports which have all the details required.

General Declarations. I eliminated most of the hassle of filling out General Declarations and making multiple copies (required by all Bahamian and West Indian Islands) by using a handler wherever there was one available and emailing passenger and aircraft details in advance to the handler.

For completeness, I should mention that in Europe, you are required to arrive and depart at approved customs airports. Normally you will need to send pilot and passenger details in advance to Immigration or to your handler, if you have one. Unfortunately, each country has slightly different rules. Arriving and departing flights to the UK, for example, need to fill out a General Aviation Report - a 'GAR' - and send it by email to the Customs and Immigrations department normally 12 hours in advance. The form requires you to indicate the time and date you will either be arriving in or leaving the UK. There is also a telephone number to call if you should at the last minute need to change the times or details of the GAR, which is impor-

tant as customs and immigration may not be stationed at the airport of arrival or departure.

Pay particular attention to whether the details required by the various countries specify GMT/Z time or local time, IATA or ICAO airport descriptors, month day year or day month year etc. Why O why cannot these matters be standardised.

Insurance - By restricting the pilots to Roy and myself as the only pilots, we were able to reduce our insurance premium into something that was not too terrible. My insurance premium is \$3,000 a year for worldwide cover excluding the US. Coverage for the US came to about \$1,000.00 for the one month that we would be in the US! Be aware that many countries require third party insurance, often with the insured amounts of up to \$10 million. Discuss insurance with your broker very early on. It can be a show stopper. In some case, you may find that you will need to hire a professional ferry pilot for the trans-Atlantic flight to allow you to be insured.

Do not forget to print out conversion tables - all of which are available on the internet. Feet to meters. Inches to Hectopascals. Fahrenheit to Celsius.

## Weather

### North Atlantic weather and related planning matters

The least demanding months are Mid-April to Mid-September. At the edges of this period you may need engine heaters. Do not expect FBO's in Greenland to have engine heaters or heated hangers. Heated hangers, when available, are expensive! My aircraft has Tanis engine heaters.

### Greenland/North Eastern Canada

The Relatively warm ocean next to very cold land and a prevailing oceanic wind from the West and North West means that the West coast of Greenland is subject to sudden fog.

The Weather at Sondrestromfjord, which is quite a way inland, normally is better than that of coastal airports such as Nuuk and Narsarsuaq, and is less subject to sudden fog.

While not strictly a weather matter, it is relevant that there are very few airports in Greenland and northern Canada and nearly all are about 200 miles or more from each other.

There are no precision approaches in Greenland. At Narsarsuaq there are NDB/DME and LNAV approaches but, due to the proximity of high mountains (See Chart 12) all the approaches require very high minima with a state minimum of 6,000meters visibility and 1380' MDA for the LNAV approach with a 4% climb rate for Class B aircraft. Do not have an engine failure on go around in IMC; your chances of survival with all the high mountains so close by will be marginal! You should not consider going to Narsarsuaq unless the ceiling is forecast to be above 2,500' with 6,000 meters visibility.

Take all the time necessary to fully brief yourself on the applicable North Atlantic weather. As you will see, on our return journey, we decided against going via Narsarsuaq due to less than perfect forecast weather and took the northern route via Sondrestromfjord which added a day to our journey. Allow extra days in your planning so that you do not feel that you must depart because of some looming deadline. We allowed an extra day each way for our cross Atlantic planning so we could sit out bad weather or take a longer route.

Nova Scotia has a high incidence of freezing rain and severe freezing conditions.

Please note, you will not be allowed to take off from Reykjavik without a TAF for Greenland, if your flight plan includes a Greenland destination or Greenland sole alternative. However, unless you are willing to pay an overtime fee for the met officer to come to work early in Greenland, you are unlikely to get a TAF before about 8:45 GMT, which is 5:45 local in Greenland. Therefore, the earliest you can start from Reykjavik is about 9:00 GMT. This means that you will be probably arriving in Goose Bay via Narsarsuaq at about 17:30PM local time. Therefore, check the opening hours for Canadian customs!

It is useful to have an Airborne Weather receiver so that you can receive updated weather enroute on the Atlantic crossing. My C421 is equipped with an Inmarsat satellite based weather receiver which, amongst other things, gives in flight up to date TAF's and METARS. We found this useful and reassuring.

#### West Indian Weather

The hurricane season is from mid-June to the end of October. I therefore planned the trip for late April to mid-June. Very sadly, a number of Islands, either on or near our route, were damaged in September by hurricanes, about two months after the end of our trip. The Turks and Caicos, San Juan Puerto Rico and Tortola were all hit. I would avoid Florida and further South during August and September. It is not that you will encounter an unexpected Hurricane during a flight; weather reports can predict them well in advance. However, if you are stuck on an island in the eye of a Hurricane - perhaps due to the aircraft being un-airworthy - there is a very fair chance that your aircraft will be a write off. This summer's 150 knot hurricane winds are beyond the capability of any tie down rope. Insurance can also be a problem during the heart of the Hurricane season. Trinidad is below the hurricane belt (the weaker Coriolis force as you approach the equator does not provide enough spin to get the hurricane going.) and so is a safe bolt hole. It is where many of the yachts based in the Caribbean spend three months in the summer, during the hurricane season.

As you get nearer to the equator, the Tropopause gets higher - 45,000'+. Clouds can grow to quite enormous heights. Avoid flying in clouds with vertical development! The good news is that most days clouds are reasonably scattered, the visibility is sufficient to fly round the clouds and weather fronts are less frequent than further north.

## Transatlantic Flight planning for general aviation aircraft

Variation is as high as 30 degrees between Greenland and North Canada.

### Time Zones

Make yourself familiar with the applicable time zones. In the summer, there is a one-hour time difference between the UK and Iceland. There is 3 hours difference between Iceland and Greenland and four hours difference between Iceland and Goose Bay. You 'gain' time going west; you 'lose' time going east. Plan the flights in GMT and then convert to local time.

Iceland Greenland North Canada

See map picture 19

There are essentially two routes from Canada to Iceland. The southern route from Goose Bay or another Nova Scotia airport like Gander via what, in the 2<sup>nd</sup> World War, was called route Blue West 1, to Narsarsuaq in Southern Greenland and then to Iceland. The longest leg is between Goose Bay and Narsarsuaq which is about 700NM.

Or the northern route to Iqaluit in northern Canada and then Sondrestromfjord in northern Greenland and then Iceland. The longest leg between Sondrestromfjord and Iceland is also about 700nm, although if you have a shorter-range aircraft, Kulusuk airport on the north East of Greenland can cut the individual legs to Iceland down to approximately 400 nautical miles. Kulusuk has an NDB approach down to 890' feet. However, the runway is gravel.

On this trip we took the southern route outbound from the UK and the northern route on the return route eastbound. The choice of route depended on the weather. Our preferred route would be the southern route as it saves a day.

Calculate your point of no return before setting off! The northern route between Iqaluit and Sondrestromfjord is only about 450nm and therefore you may avoid having a point of no return on that section of the northern route.

Consider the northern route if the weather is forecasted to be anything other than good or better on the southern route. The southern route can only be used with aircraft that are HF radio equipped. However, if you can fly at 25,000' or above, you do not have to have HF radio on the southern route. There is no requirement for HF radio on the northern route and you can remain in VHF range for most of the time.

As temperatures can be very low at altitude, for turbine engines use antifreeze additives. While Avgas has a lower freezing point than Jet, given the low temperatures, consider the use of Isopropyl Alcohol at a 1% mix (or Prist at the appropriate mix) to reduce the likelihood of water freezing in the fuel.

Pay particular attention to enroute wind forecasts. Due to the proximity of the northern jet stream, winds can often be very strong - well in excess of

50 knots from the West to the North West. Remember that there is an approximately 30 degree magnetic variation between Canada and Greenland and enroute wind is given in true headings!

#### Avgas

Always check in advance that Avgas is available in Greenland and Northern Canada. Iqaluit has been known to run out and this also applies to all Greenland airports. In Iqaluit, avgas is only sold by the 50-gallon barrel. You do not get change for any leftover fuel that you do not use!

#### Safety equipment

The flights between Goose Bay, Iqaluit, Greenland and the Atlantic are over very deserted and rough terrain or oceans.

Even in a twin I would recommend you carry:

Survival suits/Covered life rafts/emergency water and food

ELT and we took two PLB's

#### Pilots

For transatlantic flights, unless you are a very experienced ferry pilot, I would recommend having two pilots. Roy and I flew alternate legs to and from Miami. I flew all the Caribbean legs.

A current instrument rating is a legal requirement for flying across the Atlantic and you have to file an IFR flight plan. Be sure that your instrument flying skills are current. If using the southern route, be current with flying an LNAV or NDB/DME approach. By the way, when I last looked at the Greenland Airman's Information Publication (You can read it online.) an ADF was required equipment for IFR flight!

#### The aircraft C421C

The performance specifications of the C421C with factory locker tanks is better than most general aviation aircraft. It has a particularly good IFR range of some 1,100nm (assuming an alternate within 100NM) or an absolute range to when the engines stop of some 1,700nm - both in still air and at 60% power lean of peak. The practical operational ceiling of 25,000' allows one to both fly above most freezing clouds and to avoid the need for HF radio on the southern Greenland route. All C421C's are approved for flight into known icing although one needs to be careful to avoid flight planning into moderate icings conditions for lengthy enroute section of a flight or into any severe icing. And of course, the aircraft has two engines which are particularly reassuring over the Atlantic! If your aircraft has less range, consider installing ferry tanks or only using the northern route.

From a passenger point of view, the C421, airconditioned, pressurised and spacious with a potty, has one particularly important feature. Due to its geared engines, it can run at low prop RPM's which make the aircraft, perhaps, the least noisy of any general aviation piston aircraft made to date.

## Maintenance

In my view, it is almost essential to have a good 100-hour inspection and service before flying the Atlantic. The maintenance provider should be made aware of the Atlantic flight in prospect. Apart from all the normal 100-hour inspections, I ask for the engines to be borescoped. Here I came up against my first major problem which emphasises that one should plan the Annual or 100-hour Inspection well before a long trip so that any problems can be sorted in good time! Seven weeks before our scheduled departure, a borescope inspection showed that the cam shaft hardened coating had worn through on the right engine (11 years old and 1300 hours). There was not enough time to split the engine and replace the cam shaft and certainly not enough time to overhaul the engine. I therefore bought an overhauled engine from RAM that arrived four weeks after the order - well done RAM for saving the trip. It took about two weeks to install the overhauled engine. We had one week to spare! We faced another maintenance problem that took a long time to resolve in the planning stage. My aircraft is UK registered and therefore comes under EASA (European Air Safety Authority) maintenance rules. As many readers will know, C421s' have to have their engine exhausts inspected every 50 hours in accordance with AD 2000-01-16; UK registered aircraft have to have this inspection carried out by an EASA approved maintenance organisation. This proved to be quite a difficulty at the planning stage of this trip as I could not identify an EASA approved maintenance organisation that could handle a C421 in the Eastern USA. There are many US based EASA approved organisations that cover propjets and Jets but few that would handle piston aircraft. Yingling in Wichita (who are EASA approved) came to the rescue and recommended Propel Aviation Services, an authorised Cessna service station and EASA approved, based in Miami Executive. They are a high-quality maintenance shop. Propel agreed to inspect our exhausts and change the oil in Miami on our way down to Trinidad and on our way back to the UK. The whole trip was planned not to exceed 100 flying hours and therefore we did not need to plan a 100-hour inspection while away from the UK.

Avionics and databases (including rather detailed information on the aircraft radio equipment) and other documentation. (See photo of panel 4).

The aircraft has no electronic flight displays. It still has its original, rather good, artificial Horizon with Flight Director, slaved HSI, digital altimeter, IVSI, Colour Radar, and 800B three axis autopilot, altitude warning and pre-select and radio altimeter. They all work! Just about everything else is new since I purchased the aircraft in 2010. GNS530W, GTN650. King KR 87 ADF (still an important piece of gear in less developed parts of the world), KN64 DME, GTX 330 mode S transponder with ADSB out, in flight weather receiver via Inmarsat, Roll steering, Avidyne Traffic Advisory System, JPI engine monitor and fuel flow indicator. Like most C421's the pitot system is independently duplicated for the co-pilot's panel which includes a complete set of flight instruments. The avionics are altogether more than adequate for crossing the Atlantic and probably exceed the capabilities of most transatlantic airliners that flew before the 1990's!

Jeppesen flight documentation is the easiest way of ensuring that you have all the necessary plotting charts, enroute charts and approach plates. Although now strictly unnecessary, I still plot my Atlantic routes to be absolutely sure of the position of the 10 degrees reporting points. (You need to report your position every 10 degrees of latitude over the Atlantic.) Jepp FD, with all the charts and plates on an IPAD, is easy to keep up to date via the internet. I used Jeppesen for the trip. However, it is expensive. Fore Flight does not yet work properly in Europe and is not kept up to date in the West Indies but is great in the US and the Bahamas. Be aware that Canada charges for state approach plates and that it is quite difficult to get state plates for some of the Eastern Caribbean islands. While it might be possible, with perseverance, to get free state plates for most airports, Jeppesen makes it all so easy.

I found the AOPA Caribbean Guide (ISBN 978-0-9904641-6-7) useful as a general guide. It is updated annually.

Navigation Databases for the aircraft GPS system - Be careful to ensure that they cover all your route. Jeppesen have a particularly confusing set of data cards to cover western Europe, the Atlantic and the eastern US and the Caribbean. Get advice from a knowledgeable Jeppesen sales representative; do not try to work it out for yourself.

It is very difficult to plan and file an acceptable IFR route in Europe manually. It is almost essential to use an automated route calculator/flight planner such as Rocket Route which will also confirm that the route has been accepted as a valid IFR flight plan by Eurocontrol. I used Rocket Route for the whole trip down to the Caribbean and had no problems with filing flight plans other than one should remember that, unlike the 5 days lead time available in Europe, you can only file a plan approximately 24 hours in advance in the Americas.

Note that SBAS/WAAS ends at Iceland and only starts again lower down east Canada. Therefore, it is necessary to check RAIM availability for transatlantic flights via Notams etc.

On a more minor note, make sure you have a high visibility jacket. On the larger airports in Europe the wearing of a high visibility jacket is mandatory.

## Hotels

We booked hotel rooms in advance for Goose Bay, Iceland and Wick for all transatlantic routes, and for Iqaluit for the northern route. This is because hotel rooms are sometimes in very short supply, and in Reykjavik it is very convenient to use the Icelandair Hotel (which also gets booked up); the hotel is right next door to the airport FBO. Otherwise we did not book hotels in advance for the flights down to and back from Miami so as to avoid charges arising from delayed flights. However, all our West Indian holiday hotels were pre-booked by my wife.

## **UK to Trinidad and back in a Cessna 421 aircraft**

### **Part 2**

#### **Route**

**See Route plan picture 19**

#### **Gloucester/Cranfield**

Roy and I left the home base of the aircraft, Gloucester in Southern England, on Saturday morning, 29<sup>th</sup> of April, for Wick airport in north Scotland, a three-hour flight. However, the heater did not work at altitude. It had been overhauled at the annual but we had not been able, in the time after the completion of the annual, to check the heater out at altitude! We soldiered on to Wick in the hope that we could fix the heater on the ground. However, no luck. Monday was a public holiday and the maintenance shops were all shut. On the Monday evening, we flew back from Wick to Oxford airport nearby where I have a house. Early on Tuesday morning, we flew to Cranfield, north of London where the aircraft is maintained at IAE Ltd., a maintenance organisation experienced in pressurised planes including small jets and King Airs. The heater problem was identified as probably due to a cracked ceramic cover on the igniter plug; the plug was replaced. By lunchtime we were flying back to Wick with a working heater to recommence our journey. We were however, now three days behind our timetable. Thank goodness, I had allowed some 5 days allowance for problems.

#### **Wick**

While in Wick, we stayed in a romantic castle by the sea called the Ackergill Tower Hotel. It has a very good restaurant and there are beautiful walks in the rather bare surrounding countryside which helped somewhat to reduce the stress associated with the delay.

Andrew Bruce of Far North Aviation, the local Wick FBO, is a very experienced specialist in providing survival gear for rent to ferry pilots, as well as fuel and anti-freeze additives. (He also can help with the paper work (including import tax) related to importing aircraft to the European Union. Apart from the normal survival equipment, we rented a second PLB from him. Please note that there are limited opening hours at Wick Airport. However, through Andrew, we obtained an out of hours indemnity which allowed us to land when there is no ATC. To get the indemnity you need to provide a copy of your aircraft Insurance together with a filled-out application form to forward to Andrew a few days in advance of your arrival. Andrew can also get a significant discount on the hotel booking; I would recommend doing the hotel booking through Andrew.

## **Reykjavík**

Wednesday, the next morning, we were off to Iceland. The weather was fine and we cruised at F180; the flight takes about three and a half hours. Reykjavík airport is the old civil airport which is next to the town and was built by the British during the 2<sup>nd</sup> world war. Its future is doubtful as most airlines now fly to the newer Keflavik airport which is several miles further to the west. However, use Reykjavík while you can as it is more convenient for general aviation than Keflavik.

The Icelandair Hotel is situated right in the middle of Reykjavík airport. It is comfortable and has a reasonable restaurant. Of greater importance, it is right opposite the airport FBO which, by the way, is most efficient. However, there is no bowser for avgas and you need to taxi to a fixed pump nearby. Allow a little extra time to get avgas.

## **Narsarsuaq**

We made an early start for Iceland leaving at about 9:00 local (which is also GMT). We were fortunate that we could get the necessary TAF for Narsarsuaq that early as another aircraft had paid for an early TAF to be issued. The weather was good en route at F180 although most of eastern and central Greenland was covered by medium cloud. The cloud started to break up as we approached Narsarsuaq. (See photo 7)

Narsarsuaq airport is enclosed by high mountains and approaching from the East over the high central plateau means that you have to stay at 10,000' or so until almost over the airport and then let down to the west. There is no controlled airspace in southern Greenland below about f180 However the airfield has a good Aerodrome Flight Information Service (no control service). The airport fuel service is very efficient via a bowser. Don't let your flight be spoilt by the high fuel prices. Transporting fuel to Greenland is not a cheap process! While the airport does not have WiFi, the flight office will help with flight plans and weather. It also provides a phone to call Canadian Customs which you must do before leaving Narsarsuaq.

## **Goose Bay**

We were off again within an hour and a half of landing at Narsarsuaq. At F250 the headwind was not so bad at about 40 knots. (On my previous trip, three years previously, across the Atlantic we had faced headwinds of approaching 80 knots at times.) We were in VHF range for nearly the whole flight of about 4 hours. The Weather at Goose Bay was good and our arrival was uneventful at about 18:30 local.

At Goose Bay you should wait in the plane for Canadian Customs, who have always arrived promptly. We were able to arrange engine heating from Woodward Aviation, the FBO that can supply avgas. We were also able to drop off our survival suits and survival raft etc. at Irving Aviation, another FBO, who have an arrangement with Andrew Bruce to look after his survival equipment until our return flight to the UK. (We carried a light life raft and normal life jackets for the flights below Goose Bay.) We stayed at the Royal Inn and Suites, a small hotel with very good internet; nice rooms, simple breakfast but no restaurant. There are one or two restaurants in town.

That evening we filed our EAPIS online and, the next morning, we called US customs at Bangor to verify they had our EAPIS. We ran the FBO's engine heater for an hour on both the aircraft engines as the temperature overnight was about minus 2 degrees centigrade. Then off to Bangor.

### **Bangor**

Again, the weather was kind and the three-and-a-half-hour flight was straightforward. The land below is punctuated by thousands of lakes and shows very few signs of habitation until one gets to the St Lawrence river. No wonder the Canadians like their float planes. Traffic on the radio is largely in Canadian French, which, in my view, is a dialect with a very uncomfortable accent!

At Bangor there is a designated parking area for customs. Like Canada, after landing you should stay in the plane until Customs turns up. However, the pilot can leave the plane to go to a phone that is near the parking area to call customs if they do not arrive after a few minutes. Customs will make an initial check of the aircraft, decal and passenger details. The handler will then take pilot and passengers over to the main terminal where the passports, visas, entry forms and baggage are checked. If you are lucky, and there are no airline passengers queuing for entry, the process is quite quick. We then organised fuelling the plane, booked a hotel and took a taxi into town which is about a 15 minutes' drive.

Our hotel did not have a restaurant and so we went out and had a good steak meal.

### **Harrisburg**

The next morning, the weather along the east coast to Norfolk Virginia, our intended destination, was forecast to be poor with low ceilings and very strong headwinds. The weather inland was a bit better. So, we rerouted to Harrisburg and landed to low minima. The airport has an interesting instrument approach with the Susquehanna river running right by the side of the runway.

### **Raleigh Durham**

After a quick refuel, in the drizzle, we continued to Raleigh Durham, which had better weather, to overnight. The part of Raleigh Durham that we stayed in is modern, and thriving. Our hotel was surrounded by the offices of many major corporations.

### **Miami Executive**

The next day, we flew to Miami Executive in typical Florida weather - mostly good with the occasional thunderstorm, which we could fly around. Jimmy Lockhart, the General Manager of Propel Aviation Services, was there to greet us and arrange for the aircraft to go to his hanger.

Propel carried out an oil change and exhaust inspection. Cecilio Periera, a very experienced Portuguese mechanic, took the opportunity to tidy up some minor oil seal leaks on the newly overhauled right engine and reroute a fuel line on the left engine that was a bit near the exhaust.

My wife, Rosemary and my younger son, Peter, the airline pilot, arrived in Miami on the Tuesday. Roy left with his wife Maggie for a well-earned rest and his holiday in Florida.

### **Providenciales, Turks and Caicos Islands**

Wednesday morning and the beginning of our family holiday. (See Photo 15 at Miami Executive of Rosemary, me and my son Peter in front of the plane.) We flew for three hours (560NM) south east in perfect weather down along the Bahamas chain to Providenciales, Turks and Caicos. See the video which shows an approach to Providenciales.

Here I encountered the first surprise of the trip. The last time I had stayed in Providenciales had been in the 1970's. At that time, there was one very modest small hotel and deserted white coral beaches. The airstrip was merely crushed coral and had no ATC. Now there are a number of hotels; the beaches, while not crowded are no longer empty, and there is a 'proper' airport that has regular scheduled airline flights from the US. However, I suppose that is 'progress'. The beaches are still beautiful and our hotel was quite a step up from the glorified hut of the 1970's.

### **Isla Grande, San Juan, Puerto Rico**

After a three day stay in Providenciales, we flew on Friday afternoon the 12<sup>th</sup> of May to Isla Grande (Fern. Luis Ribas Dominicci) Airport, San Juan, Puerto Rico near Old San Juan, a two-hour flight (340NM). The airport started as a seaplane airport. PAA/PanAm's first international route in the mid-1930's was from Miami via Isla Grande to Trinidad using a seaplane. (See photo 9 showing the approach to the present runway) The airport is very near the old part of San Juan, and is surrounded by high - mostly hotel - buildings. It does have instrument approaches and the International airport is a convenient nearby alternate. The historic very old town, was founded in the 1520's! (Columbus had only stopped in what was to become San Juan in the 1490's.) The Old Town is beautifully preserved with fine buildings, a graceful cathedral and evocative narrow streets. (See photo 13) It is the second oldest colonial town in the Western Hemisphere, after Havana. We were joined in San Juan by my daughter Lizzie and her boyfriend Will (see photo 21) and we all stayed in an atmospheric hotel converted from a Convent founded in the 1530's. Old San Juan is well worth a visit.

### **Argyle Airport, St Vincent**

On Sunday at midday we left for Argyle airport, the brand-new airport in St Vincent. (See picture 20 Map of the Eastern Caribbean.) The flight is about 3 hours (450NM). Given that the airport is still bedding in, I found the handler to be very efficient and we were able to get our fuel via bowser quite quickly. One problem that the airport does, at present, suffer from is flocks of sea birds. Apparently, the airport authorities hope to bring in trained birds of prey to frighten the sea birds away but for the moment, make sure you have all your headlights and taxi lights on for landing and take-off. Within an hour and a half, we had dealt with customs and refuelled and were on our way to Canouan.

### **Canouan/PSV**

The short flight to Canouan (15 minutes) was VFR at 2,000' down the Grenadine islands passing by Bequie and Mustique, (See Map Picture 8)

Canouan now has an extended runway of 5,910'x98' and it has an instrument approach. It also has a very 'tropical' terminal with a palm leaf roof. (See photo 3) The only shortcoming is that, while it has Jet fuel, it does not have Avgas.

We were met by a boat from our hotel at Petit St Vincent, or PSV for short, which whisked us down past the beautiful Tobago Cays to PSV. (See Photo 3)

PSV is an Idyllic tiny tropical island which is dedicated to one hotel. (See photo 14). I can sum it up with the following comment; - Wonderful food, beautiful beaches. great staff. Our stay in PSV for three days was certainly a highlight of the whole trip.

### **Piarco, Trinidad**

On the late afternoon of the 17 May, we took the boat back to Canouan and flew down to Piarco Airport, Trinidad. (About a one-hour flight.) The weather was satisfactory but there were a few rain clouds over Trinidad.

Piarco, an airport founded in the early 1930's, is rather infamous for being a bureaucratic nightmare for general aviation aircraft. However, Signature has opened a new FBO in the old south terminal. Signature has been allocated dedicated customs and immigration officers and security staff. Signature has been able to tame the bureaucratic tiger. They could also deal with the credit card reader at the fuel station - no bowser for avgas- which did not work; the fuel company representative wanted to be paid in cash! In the end, the fueller was authorised to charge the bill to Signature who in turn charged the bill to me via my card which, of course, worked.

We all stayed in Trinidad for several days and met up with many old friends. Then, on Sunday 21<sup>st</sup> May, Lizzie, Will and Peter went back to London by airline.

### **Grantley Adams Airport, Barbados**

Rosemary and I left Trinidad on Monday, 22May and flew to Grantley Adams Airport, Barbados (about an hour's flight). The local handler was able to get us through customs quickly and we were then joined by my eldest son, Michael and his wife Lexie. We were off to Tortola with less than an hour and a half turnaround.

### **Terrance B Lettsome airport, Tortola**

We flew up the island chain passing over Martinique and by Dominica. The total flight (about 500NM) was about 3 hours. Terrance B Lettsome airport at Tortola is one of the two Caribbean airports on this trip that I had never landed at before. It proved quite tricky. There is a published RNAV approach which I planned to follow. Unfortunately, I was given a visual by a remote approach controller - who I think is based in the island of St Thomas in the US Virgin Islands. Now the MSA is 3,000' (high hills on the nearby islands). There was a cloud which blocked my view of the airport and so I had to stay at 3,000'. I was transferred by ATC to the Aerodrome flight information officer at Tortola (not a controller) and I explained my problem to her. She suggested using a break cloud NDB DME approach to the east of

the island - which I had not prepared for! Shortly afterwards I became visual with the field (see photo 17) but was much too high. (See also photo 16) I flew over the field visually descending to circuit height and then went right downwind. However, there was a hill between me and the runway and I turned into the base leg too soon, partly influenced by the hill on the next island which is aligned with the final approach. As a result, I was again too high on finals. By the way, I realised rather late on turning finals that I had not put my gear down! I now understand why Cessna recommends that one should retract the gear on an instrument go around but leave the gear down on a visual go around. It is too easy to get caught up with the visual flying, especially if it is a busy approach, and not hear the gear warning horn. Hearing is the first sense to go when one is otherwise preoccupied. I went around again. The third approach was, although I say it myself, impeccable! Phew.

The handler was very helpful. I spent nearly an hour trying to get the credit card reader of the fueller to work. As in Trinidad, the fueller wanted cash! I again paid for the fuel through the handler who had no problem with my card. Rosemary, Michael, Lexie and I stayed at the hotel on Peter Island for three days which was very pleasant.

### **Providenciales**

On Thursday, 25 May, we flew back to Providenciales to stay for three days at the same very comfortable hotel that Rosemary, Peter and I had stayed at on the way down. Rosemary found out that it was possible to borrow for a morning a puppy which was one of a number due to be sent to the States for re-homing. There is a shot of Lexie with a puppy in the video; Rosemary also enjoyed borrowing a puppy.

### **Miami Executive**

On the afternoon of Saturday 27 May, we flew back to Miami Executive. We spent a day with Roy and Maggie who had returned from their holiday and then everyone, other than Roy and me, went back on the Monday to the UK by airline

While the aircraft was having an oil change and exhaust inspection at Propel, Roy and I went to Simcom in Orlando for a 3-day simulator training session. Both of us think that the C421 is complicated enough to need annual simulator sessions to encounter those challenging type problems (engine failures soon after take-off etc.) that one could not safely practise in the air.

### **Norfolk**

After returning to Miami, Roy and I set off on Friday 9<sup>th</sup> June for Norfolk International on our way home. Unfortunately, during the flight we noticed oil coming through the top vents on the right engine. After we landed at Norfolk, we could see that we had a problem as there was more oil on the bottom of the engine. Jimmy Lockhart of Propel arranged for Michael Schur, a senior mechanic and inspector to come up to Norfolk to help solve the problem. He found a crack in the sump which he thought had happened in flight due to an over tightening of the sump plug. Jimmy Lockhart of Propel took complete responsibility for the problem (the work had been done by an apprentice mechanic that had since left the firm). Jimmy said he would cover all the costs of the replacement sump and other parts and the costs of Michael Schur and any help he needed from other mechanics. Re-

placing the sump entailed taking the engine off the wing to gain access to the sump! Michael, with the help of a local mechanic, was able to complete the job by Friday 17<sup>th</sup>, a virtuoso achievement which required Michael to work well into the evening on two successive nights. I am very grateful to Michael and to Jimmy of Propel for getting the aircraft back into order so quickly and for dealing with the problem so honestly and promptly. While the repair work was going on, Roy and I stayed at the Norfolk Hilton, a very lively and comfortable hotel. As a history buff, I was pleased to be able to visit the US Navy Museum, the battleship USS Missouri and drive past Fort Monroe and Yorktown up to the colonial town of Williamsburg. This small area of Virginia was the scene of important battles both in the Revolutionary War and the US Civil War.

On the evening of Friday 17<sup>th</sup>, having been able to finalise all the aircraft repair airworthiness paperwork with Michael, Roy and I set off to Bangor; we arrived rather late at about 8PM and it proved quite difficult to find a restaurant that was still open!

### **Goose Bay and Iqaluit**

On the Saturday morning there was a question as to whether to fly to Goose Bay or stay in Bangor as the transatlantic weather looked difficult for the next two or three days. About midday, we decided to fly to Goose Bay, so that we could take advantage of any opportunity, should the weather improve. On Saturday night in Goose Bay we worried over what to do, as the weather on the northern route was only a little better than that on the Southern route. Should we wait in Goose Bay or take the extra day and go the Northern Route. Deciphering dubious weather is one of those occasions where two heads are three times better than one. In the end we decided to go North to Iqaluit as the weather at Iqaluit looked reasonable and, we could go to Sondrestromfjord with the option that, if the weather was not good enough, we would have enough fuel to return to Iqaluit which, by the way, has a good instrument approach.

Neither Roy nor I had been on the northern route before. We were a bit concerned about the avgas arrangements. Avgas is only sold by the barrel in Iqaluit. In the event, the flight up to Iqaluit was in good weather and the fueller was very efficient; we wasted hardly any fuel from the last barrel that we used. Avgas in Iqaluit is subsidised by the Canadian Government as a form of development assistance and therefore the fuel price was not as outrageous as we were expecting. The handler was efficient and proudly showed a picture in his office of the prototype A380 which he had handled for Airbus while they were carrying out icing tests. By the way, there was snow on the ground and the temperature was about 0 degrees centigrade. Quite a change from the West Indies. We were also pleasantly surprised by the Ice Hotel in the town. Although a prefabricated building, the room and the bed was comfortable and the restaurant, run by a gentleman from India, was very good. I chose the Arctic char, a type of Salmon but, as it is wild, a much finer fish in taste and texture than farmed salmon. When you next find yourself in Iqaluit try the char.

### **Kangerlussuaq/Sondrestromfjord**

(See photo 5 of the aircraft panel on this part of the journey) The next morning we took off early at 07:10 local. In the summer, Iqaluit is 5 hours behind GMT, the time

in Iceland. Therefore, you have to add 5 hours to your flights from Iqaluit to calculate the local time in Iceland. By taking off at 07:00 local in Iqaluit (when I think the airport opened), we could plan to arrive at about 19:00 local time in Iceland. We flew to Sondrestromfjord in good weather at F200 to take advantage of the strong tailwinds. Sondrestromfjord is the only airport in Greenland with a control zone, full ATC and a reasonable Localiser/DME approach. There is no arrival procedure and one must manage the descent from cruising altitude to the height at the final approach fix without any intermediate fixes other than distance provided by DME or GPS. I was a little passive in managing the descent and the controller was obviously more accustomed to the higher rate of descent of jets. Despite the use of some rather heroic rates of descent, I was too high at the final approach fix and so I went around and then circled and landed visually. I recognise that I can get too lazy about descent management; polished European and North American controllers normally give us descent clearances in reasonable time. So my advice is plan your descent, especially if you are going into Sondrestromfjord.

The parking area for general aviation and the avgas fuel bowser are all on the south side of the runway. The handler's office is on the north side - quite a way from the main terminal. You have to move around places in the handler's vehicle. While fuelling was quite quick, we were pleased that we had filed our flight plan in advance to Iceland as the handling office were rather preoccupied with airline matters. Also, take your lunch with you from Iqaluit. If you don't, you will need some time to get transport from the handling office to the main terminal to get food.

### **Reykjavik, Iceland**

Despite my quibbles with the handling at Sondrestromfjord, we took off for Iceland within an hour and a half from landing. The weather again was mostly good and we cruised at F200. We arrived at the Reykjavik FBO at about 19:00 and we were walking to the Icelandair hotel about 20 minutes later, having dealt with customs. Iceland had the most efficient handler/customs set up of any country on our trip.

### **Wick, Scotland**

The next morning, we were off to Wick, timing our arrival for when ATC would be available. The cruise was at F200 and again we were blessed with good weather. The airport has LNAV approaches to each runway end but it seems that they are hardly ever allocated by ATC and three hours prior notice is required to use them! While I had prepared an LNAV approach to runway 31, I was cleared for a VOR/DME approach. I think I have learnt my lesson about being too high after my approach at Sondrestromfjord. On arriving over the VOR at Wick at about 4,000', I requested a descent in the VOR hold until I reached 2000'; this made the approach straight forward and I was able to use sensible speeds! Roy and I had our last night of the trip where we had started seven weeks earlier at the Ackergill Tower hotel, enjoying a fine meal in their restaurant.

### **Gloucester, England**

The next morning, we flew down to Gloucester. It was a fine summers day and I was glad that the air-conditioning worked well on our arrival. We put GCGSG back home in its hanger. It had served us well. The pressurised Cessna cabin twins are

excellent, very capable aircraft and allow old pilots like me to indulge our dreams and, for a moment, to return nostalgically to when we were young. I think the trip will remain as an outstanding memory for all those who came on it. It has been the highlight of my flying career.