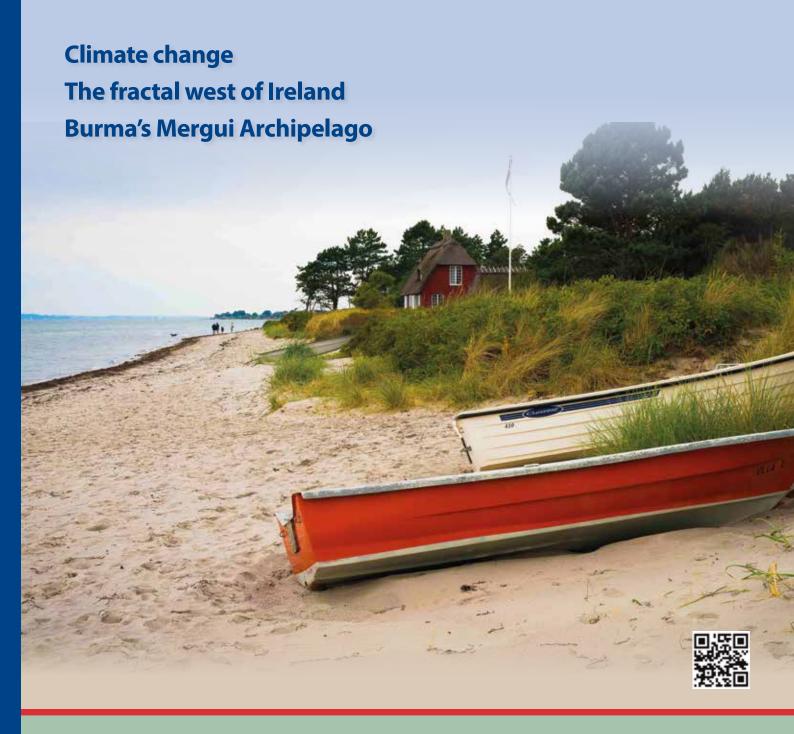
FOUNDED IN 1908 JUNE 2019





At last, time to go boating

CA President Julian Dussek looks forward to a summer of sailing after a winter and spring full of meetings, visits and commemorations for the Cruising Association

For production reasons I am writing this June edition of Cruising in early May and, at last, I'm thinking about getting to my boat. I know that we have many liveaboard members and world girdlers, but the majority of members start the season around now.

And what a relief it is to be contemplating boaty issues. Winter is a very busy time at Limehouse with Council, Finance Committee, CIDG and RATS meetings to name but some. There are the London section evening lectures, section meetings, the Christmas carol

concert which seems a very long time ago and the Flag Officers' Lunch. This year we had, in addition, the visit of HRH The Princess Royal whom we welcome as an honorary CA member, and then the fantastic reception in Falmouth for Sir Robin Knox-Johnston's 50th anniversary of his legendary solo circumnavigation of the globe.

The CA held a reception or "open house" at the Chain Locker pub in Falmouth on Easter Sunday and Monday at lunchtime, generously sponsored by MS Amlin. Sir Robin stayed there when he won



Above, Julian meets RK-J in Falmouth, and below, with Lesley Suddes after visiting the Bass Point NCI. The Lizard lighthouse is just visible in the background





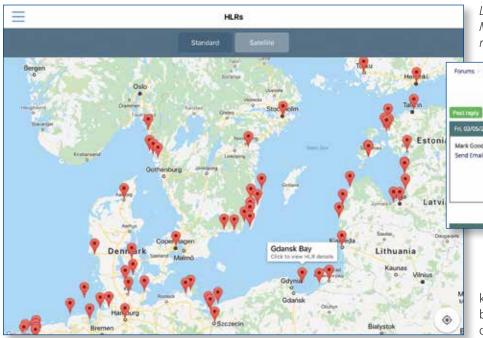
the Golden Globe 50 years ago and was staying there this time. Among the highlights for me were Sir Robin chatting merrily with all and sundry while drinking a beer named after him, and Mike Golding talking to James Wharram about the boat that James and Bernard Moitessier built together in the Caribbean.

I realise that this is a long way from the sort of cruising that many of us do but the opportunity to sit at the feet of such ocean conquering-gods was unique. We also had as guests members of the Little Ship Club, of which Mike Golding is the current President. The Royal Cornwall and St Mawes Yacht Clubs held parties on Sunday and Monday evening but otherwise the CA was the only other organisation to be represented there. Sarah Tresider, CEO of the RYA joined us, as did Lesley Suddes president of the National Coastwatch Institute.

It is gratifying that thanks to the work of members over the last few years the CA now has considerable stature in the yachting world. This stature is not just gloss, it gives us clout when representing members' issues. The success of these events was however entirely due to Lucy Gray and Sian Cantellow (general manager and PA/marketing officer respectively) who generously gave up their Easter weekend to run the stand at both events. I am very grateful.

Following this, Lesley Suddes took Vanessa and me out to Bass Point, one of the NCI watchpoints, near the Lizard. It has a commanding view out over the channel and is reached by a narrow path along the cliff top. The NCI is celebrating its 25th anniversary and HRH The Princess Royal followed, literally, in our footsteps a week later to celebrate the event – presumably climbing the nearvertical ladder to the look-out room.

President's report



Left, the new HLR map view on CAptain's Mate and below, the forum post that stirred rapid action

just been fined 500 euros for having pink diesel in our tank despite being able to prove the tax had been payed on it. Dover fuel attendant thought we were mad when we insisted on paying full price. So give it a miss it's not worth see

MEMBERS' FORUMS - Cruising Conversations - Pink diesel Pink diesel

> Pink diesel DON'T GO TO BELGIUN

know I am biased but I am continually being impressed by what the CA can offer to members. It's priceless.

The forums can be fascinating too, full of helpful advice and almost addictive if you find a topic that grabs you. One of the reasons the CA forums are so good is that all entries are attributable. You get to know regular contributors almost like old friends even if you have never met them.

I wish everyone a wonderful sailing season. I can't wait!





HRH The Princess Royal showed great interest in the CAptain's Mate app when she visited CA House

The NCI was formed when two fishermen died off the Cornish coast in 1994. They would have been in sight of the Bass Point Coastguard station if it had not been decommissioned. The NCI is entirely voluntary and has 54 stations and 2,400 volunteers who man the stations in daylight hours. They are very happy to do a radio check on channel 65. It gives them good practice at radio technique. They also, as described in the RATS section (see page 24) will do an AIS check. They need all the support we can give.

Summer is coming. CAptain's Mate is blooming. Every day more and more Find My Friend flags blossom on my screen. It's very exciting. The latest version of CAptain's Mate now has a screen showing the ports served by our HLRs. Touching a pin will bring up their contact details. They provide a unique service and they welcome being contacted by our members. Also, Cruising Reports

will show latitude and longitude. We felt this was particularly important for anchorages: the name of a large bay, for example, might be too vague for safe anchoring.

The forums are another incredibly powerful tool in the CA's armamentarium. Over the May bank holiday a member posted that he had entered Nieuwpoort and met with a very hostile reception from the customs authorities, resulting in a €500 fine because they thought he had some red diesel in his tank. This was totally against the agreement brokered by RATS last year.

Colin Heywood took immediate action, contacted the appropriate Belgian authorities and within 24 hours had received an apology from them and our members were promptly reimbursed. They acknowledged that this was an error and would not happen again thus ensuring that it is safe for all UK sailors, not just CA members, to visit Belgium. I

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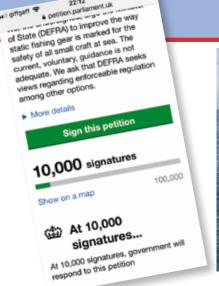
We would draw it to contributors' attention that material accepted for publication in Cruising will also appear on the CA website and may be used elsewhere within the organisation.

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LOBSTER POT CAMPAIGN

Our first objective achieved

Do you remember what we said in our Parliamentary petition on pot markers?

We, the undersigned, urge the Minister of State (DEFRA) to improve the way static fishing gear is marked for the safety of all small craft at sea. The current, voluntary, guidance is not adequate. We ask that DEFRA seeks views regarding enforceable regulation among other options.

We believe that the current, voluntary, arrangements and guidance have not been adequate and that the number of call-outs, by the RNLI and coastguard, to small craft disabled by fouled propellers and rudders shows the significance of the problem.

We hope that all stakeholders will work together, with DEFRA, to find a solution, particularly one that is cheap and practical for our fishermen.

Those words clearly struck a chord with many small craft users, enabling us to gain 10,747 signatures, and a ministerial response to our petition that did not rule out taking action.

Our video, our posters in yacht clubs, our careful lobbying of politicians, our constructive dialogue with civil servants, and the help of our partner organisations, have all contributed to getting this maritime safety issue back on the agenda.

So, imagine our delight when The Maritime and Coastguard Agency (MCA) having liaised carefully with the relevant government departments, convened a meeting in January 2019, hosted by ourselves at CA House, to start a process of exploration and consultation in search of a practical solution.

Since then, the multi-agency consultative body has been formally constituted as a sub-committee of the UK Safety of Navigation Committee, and the first formal meeting took place, hosted by the MCA, on 2 May.

Action plan

Encouragingly, an action plan has been agreed, which at a minimum should deliver:

- A review of existing powers, their strengths and weaknesses, and their implementation in practice
- 2. **Research** as to what is happening in other parts of the world including developments in new technology
- **3. Liaison** with both fishermen's bodies and the enforcement authorities, to find solutions that do not require primary legislation.
- **4.** Piloting **new approaches**.

Wherever possible, the Cruising Association is taking responsibility for real work, demonstrating our commitment to seeing this through.

The work of Ken Falcon, a CA volunteer, in pulling together and documenting the very complex legislative and regulatory position, would be a case in point.

We are also leading on the identification of the application of new technology, both in terms of the design of fishing gear to avoid entanglement, and the use of the internet to provide information about such hazards to small craft users.

The Royal Yachting Association and the Cruising Association are working closely together to represent the best interests of the boating community, and there is also strong representation from those statutory bodies with responsibility for fisheries and maritime safety. Most importantly, the National Federation of Fishermen's Organisations is fully involved.

So, there are grounds for cautious optimism. However, as a result of the Brexit fiasco, the statutory bodies, who have such an important role to play, have other pressing priorities at present. In that context our steady progress, to the current point, is quite an achievement.

Special thanks

At the end of this first phase of the Cruising Association's campaign it is timely to thank those who gave their time to get us here. In particular, Tom Cunliffe, Norman Keane, and Stephen Williams, whose contributions to our video undoubtedly made a difference. Also, Ken Falcon whose work and ongoing support is much appreciated. For those of you who missed it, the video is still available here: www.theca.org.uk/news/CA_lobster_pot_campaign_video



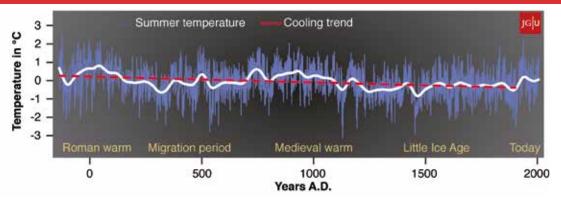
Please report fouling

Please remember if you get fouled this summer to report it on the RYA form at www.rya.org.uk/knowledge-advice/safe-boating/look-after-yourself/Pages/fishing-gear-incident-report-form.aspx and/or to us at lobsterpots@theca.org. uk. You can also report badly marked gear. Do send photos.

The numbers do matter: under-reporting hampers our efforts to force change.

Ian Wilson





Over the last two millennia, the climate has varied within relatively small limits. This graph shows temperatures over Northern Europe, reconstructed using tree ring data. The white line shows values smoothed by decades.

Bottom left, schoolgirl climate activist Greta
Thunberg

Climate change

Despite the increasing consensus that climate change is happening, and that we need to take action, it's hard for a layman to know what's really going on. **Frank Singleton** lays out an overview of the scientific evidence

Hardly a day goes by without some mention of climate change – schoolchildren demonstrating at Davos, reports of rain in the Arctic when there should be snow, President Trump in denial mode, the Extinction Rebellion, David Attenborough on the BBC. We hear much about carbon dioxide (CO₂) in the atmosphere, but few really understand why such a small amount of gas, well under 0.1%, can cause so much concern.

In a complex science, if you understand the basics, the rest will follow. Weather and climate result from interactions between the physics, chemistry and biology of the atmosphere, oceanosphere, cryosphere and biosphere. These determine the ways in which carbon, the basic building block of all life on earth, moves between air, sea and land. So, back to basics.

Is the climate changing?

Changes in the earth's orbit affect the distance of the earth from the sun and the orientation of the land masses to the sun. These result in climate changing slowly over millennia through ice ages and inter-glacial periods. Over the last two millennia, the climate varied within relatively small limits.

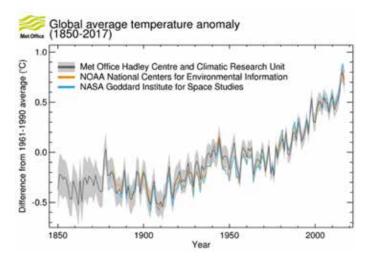
The diagram at the top of the page shows temperatures over Northern Europe reconstructed, using tree ring data, by a multinational team based at Johannes Gutenberg University Mainz, Germany. This shows the warm Romano-British era, cold spells in the Dark Ages (Migration period), the Mediaeval Warm Period (MWP) and the so-called Little Ice Age (LIA). Overall, this shows a cooling of 0.3°C per 1000 years, presumably due to a

Since the late 19th century, there are enough instrumental measurements to show more detail with more certainty. Overlapping with the Mainz diagram, the chart top right shows that, currently, the atmosphere is warming.

slow change in orbit of the earth around the sun.

How greenhouse gases affect weather and climate

Around 98% of the atmosphere is composed of nitrogen and oxygen, with a further 1% being argon. At normal atmospheric pressures these gases do not absorb either short-



With thanks to the UK Met Office, Hadley Centre. Several other compilations from other groups show similar features.

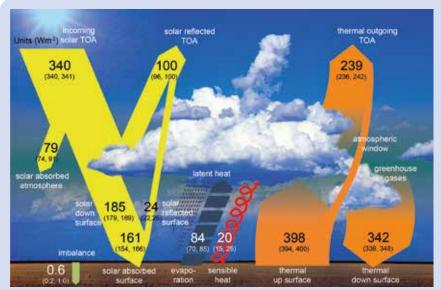
wave radiation from the sun (visible light and UV) or long-wave radiation going out from the earth (infrared). If there were no other gases in the atmosphere, then heat received from the sun would radiate directly out to space with no heating of the atmosphere at all. The surface would be very hot by day and very cold at night. Life would not exist as we know it.

The role of greenhouse gases is fundamental in driving day-to day weather. Better representation of their effects has improved numerical weather prediction. To know more than I can write here, search for a NASA web page *Climate and Earth's Energy Budget*. As Huck Finn said about *Pilgrim's Progress*, you might find "the statements interesting but tough."

The main natural gases that absorb outgoing infrared radiation are water vapour (H_2O), CO_2 and methane (CH_4). In addition to human-generated CO_2 and CH_4 , the main industrial absorbing gases are nitrous oxide (N_2O), and halocarbons (CFCs.) CFCs also create ozone (O_3) depletion in the stratosphere.

Water vapour is the most prevalent greenhouse gas, but without the others the earth would be much colder. Although concentrations of these other gases are far less, their effects are disproportionately greater. There is roughly 50-100 times as much water vapour as CO₂ but it only absorbs about 2.5 times as much infrared radiation. Molecule for molecule, CO₂

Understanding climate



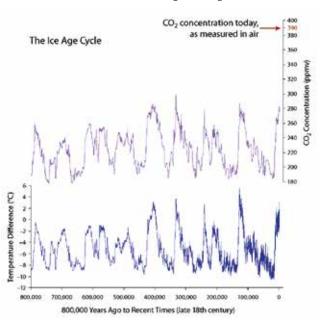
The earth's heat balance

On average, shown in **yellow**, the sun provides about 340 watts per square metre (W/m²) at the top of the atmosphere. A small amount heats the atmosphere directly and about 100 W/m² is reflected back to space, mainly by cloud, snow and ice. Some of the heat received by the earth evaporates water and heats the air by conduction.

Some of the heat radiated from the earth (shown in **orange**) escapes directly to space. Much is absorbed by greenhouse gases and then re-radiated back to earth, out to space or absorbed by clouds which then re-radiate.

From the International Panel on Climate Change AR5 Final Report, 2013.

absorbs much more heat than water vapour but much less than CH₄ or N₂O. These facts are not widely understood and are the cause of much misunderstanding of the greenhouse effect.



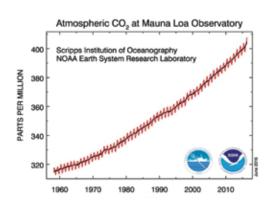
Ice core records from Vostok, Antarctica, showing temperature and CO₂ being closely related through several ice ages. Chart from the US National Research Council

Greenhouse gases			
Gas	Current level	Pre-20th century	GWP (Global warming potential)
Water vapour (H ₂ O) percentage	1% – variable	1% – variable	modest
Carbon dioxide (CO ₂) parts per million	410 ppm	180 to 280 ppm	gr <mark>eat</mark> er
Methane (CH4) parts per million	1.8 ppm	0.4 to 0.6 ppm	even greater but
Nitrous oxide (№0) parts per billion	330 ppb	220 to 300 ppb	shorter- lived
Halogenated gases including CFCs	Increasing, esp HCFCs	zero	huge

Amounts of CO2

Data from Antarctica show, first, a natural limit to air temperatures and, secondly, a natural limit to CO₂ concentration, never reaching 300 parts per million (ppm.) CO₂ has a long lifetime in the atmosphere, which means it is a well-mixed gas, and data from a single location provides a worldwide representation of concentration.

The observed variations within a year at Mauna Loa are due to the imbalance between the hemispheres in terms of land mass, plant life, animal life, human activity and population. In winter more CO₂ is generated by burning fossil fuels. In summer, more CO₂ is absorbed by vegetation.



Global concentrations of CO₂ reached 300 ppm around 1900, 400 ppm in 2016 and are now about 412 ppm, some 40% higher than at any time over the past 800,000 years. At the time of writing CO₂ is increasing at about 2.1 ppm per year. Calculations of the fossil fuels used since 1800 and isotope analysis show that the increases in atmospheric CO₂ are largely due to man. Clearly, we are in uncharted waters and, to use a well-worn phrase, we are disturbing the balance of nature.

Quantifying greenhouse gas effects

Infrared sensors on satellites measure the amount of heat absorbed individually by these various gases. For each gas, the amount of heat absorbed depends on the amount of gas. Using these measurements, the extra heat absorbed by the various gases since the start of the industrial revolution (c. 1750) can be estimated. Calculations take account of the effect of solar emission changes, O₃ reduction in the stratosphere, the effects of dust from volcanoes, industrial pollution, land use and outer space. The net effect is equivalent to the sun providing a little over 2 watts/m² more now than before the industrial revolution. Not surprisingly, CO₂ is the major single contributor but the total net effect of the other gases and pollutants is of

Have we had climate change before?

Mediaeval Warm Period: lasted from around 950 to 1250 CE. There is considerable uncertainty about the global extent. Proxy data show a period of below-normal volcanic activity and above-normal solar activity.

Little Ice Age: This period, roughly 1300 to 1850 CE, was longer lasting and more complex than the MWP. There were periods of excessive volcanic eruptions and low solar activity. One such is known as the Maunder Minimum, 1645 to 1715 CE, when sunspots were exceedingly rare.

A recent study has suggested that human effects might have been contributory factors. Before Columbus reached the New World, there had been around 60 million people in South America with about 600 million worldwide. About 100 years later there were only about 6 million in South America, largely because of diseases and massacres. Vast

similar magnitude. The increased greenhouse effect is similar to the sun emitting 1% more heat. To put that into context, the natural variability in solar emission throughout a sunspot cycle is about 0.1%.

Predicting the long-term future

Calculations of how much the world will warm up depend on a range of assumptions and use numerical modelling. This is not a statistical method but uses the same physical principles as routine weather prediction models. Climate models are run for long periods, not to predict climate for a particular year or period of a few years, but to establish a "model" climatology. Once a model can simulate observed climatology and its changes, it can then be run for many years under different scenarios including variations in CO₂, CH₄, N₂O, CFCs, emissions, land use, industrial pollution, solar emissivity, and volcanic eruptions. There can be no definitive answers, only a range of possibilities, and these depend on what we do regarding greenhouse gas emissions.

On time scales of a few years, perhaps even a decade or so, there are natural external and internal driving effects. Small cyclic and random changes in solar emissions and injections of volcanic dust affect how much heat reaches the system. If the long-term cooling effect over the past 2,000 years continues, then this could slow the warming a little.

Ozone

Ozone (O_3) is a natural gas that is subject to human effects. O_3 is formed in the stratosphere when ultraviolet radiation from one part of the solar spectrum causes disassociation of oxygen (O_2) at low stratospheric pressures, to create O_1 . These free molecules combine with O_2 to create O_3 . This gas blocks UV in another part of the spectrum and helps to protect us from skin cancer. CFCs, from aerosol cans for example, and other manmade gases reach the stratosphere and destroy some of the O_3 resulting in a triple whammie:

- Cancer risk is increased.
- More UV reaches the troposphere giving more heating.
- CFCs are also greenhouse gases in the troposphere.

areas of cultivated land were rapidly returned to forests. The consequent reduction in CO₂ might have added to and enhanced the naturally-occurring cooling. It sounds plausible but uncertain.

Orbital changes: The orbit of the earth round the sun changes slowly from being nearly circular to markedly elliptical. Gravitational effects of other planets and the moon cause the ellipse to swing around the sun, an effect known as precession. These result in global temperature changes on a time-scale of around 150,000 years. In addition, there are variations in the tilt of the axis of the earth to the ellipse from about 21.1° to 24.5°. These affect climate on a time-scale of around 100,000 years – this is the precession of the equinoxes. A "wobble" effect as the tilt changes occurs on, roughly, a 50,000-year scale.

Internal drivers, which are feedbacks between the different parts of the climate system, include the El Niño Southern Oscillation; this both drives and is driven by the atmosphere. Changing oceanic currents also have a two-way effect. Both redistribute heat; they cannot create long term climate change.

They can however show up in the assessments of global surface air temperatures. Normally, these drivers do not persist for more than a few years. If several happened at the same time and in the same direction, an extended or more marked warming or cooling might occur. Not surprisingly, these variations can lead to claims of a "pause" in global warming. Equally unsurprisingly, they can have the opposite effect.

In summary

Climate models give a "best endeavours" answer but are subject to inevitable caveats. In addition to the uncertainty of our various greenhouse gas emissions there are uncertainties due to natural effects that might enhance or decrease warming. Repeats of such events as the Medieval Warm Period or Little Ice Age (see above) could occur.

Is the current warming definitely caused by increased greenhouse gas emissions? Nobody has yet been able to provide a viable alternative cause. The elephant in the room is methane (CH₄). More CO₂ leads to more vegetation and, therefore, more CH₄. There is also CH₄ locked in the tundra of Siberia. More warming could release vast amounts of the gas with resultant warming. Its potential for even more heating is significant. However, CH₄ has a shorter lifetime in the atmosphere than CO₂, so that it is not possible to give a good estimate of the CH₄ effect at this stage. It is just another cause for concern.

The elephant hidden away under the stairs is the eventual long-term cooling as we turn the corner and head for the next ice age. But this could be many thousands of years away, and realistically we can only think and plan ahead on scales of tens or a hundred years or so rather than the millennia associated with changes in the earth's orbit.

After a career as a professional forecaster Frank set up his respected weather site at weather.mailasail.com/Franks-Weather. He is also the author of Reeds Weather Handbook.



This extract covers two years of a continuing cruise, squeezed in the gaps left by work, in our gaff ketch Betty Alan. She is a genuine fake, mahogany on mahogany, designed with slide-rules, drafting paper and love. Launched in 1998, she is a boat of beauty and charm. These were our sixth and seventh seasons with her, and our initial target was a year in South West Ireland, to revisit 1980s sailing holidays with my mum Betty, the boat's eponymous godmother. At the time of writing the cruise has extended to two summers of holidays, and it looks as if we may be trying to set a record for the slowest circumnavigation of the British Isles.

2017: West by North-East

We finally got to Crosshaven in Cork Harbour after a full 12 days' delivery, and met with Betty and in-laws. We had only a few days with Mum in the end, but what an idyllic time, with proper sailing breezes, sunshine and flat water. Highlights included tacking out of Oyster Haven, a favourite anchorage, with tricky breezes making each tack a challenge. Bere Island, at the mouth of Bantry Bay, was our base for the year. In August I returned for a bit of a sail with old friend Rolfe Kentish; we gave ourselves a present of a boy's holiday before our ladies, Frances and Frances, joined us. Then Fran and I went on northbound via Darrynane, Sneem, the Skelligs and the Blaskets and Dingle, before returning to Bere for the winter.

I was reminded tactfully that we were on holiday, and there was no need to rush. Ergo, we had a short fortnight of harbour-hopping in largely pleasant weather, with only one fright, but it was the closest we've come to catastrophe as we dragged our anchor and went all the way across Blasket Sound to come up just short of Beginish island. Our huge anchor, branded in rather bad taste the Manson Boss, works very well, and on the sandy bottom here in the moderate weather, it shouldn't have been a problem. We anchored first at the N end of the strand so as not to intrude on a yacht anchored at the more favoured S end, and put down some 35 metres of cable in about seven metres of water. We set to relaxing, but then noticed the other yacht moving away, and we upgraded our view by moving to the South end.

The next morning began with Frances volunteering for coffee duty, and coming

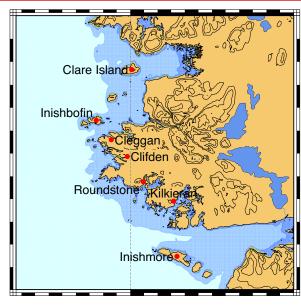
back quickly with the news that the rocks were on the wrong side of the boat. My patronising "yes dear" was followed by getting into oilies very quickly indeed, and an intense collaboration between us, me on the foredeck and she at the helm. It transpired that I had miscounted the cable markers on re-anchoring, and as I wound the anchor up in the horrible near-panic of that morning, all but shipwrecked, I realised that I'd only put down 15 metres, not 35. Drink had contributed to this folly, for while we are sober under sail, we do have



Idyllic sailing with Betty, Ed's mother



Photograph of Betty Alan taken by Tim Cooke from his own-built lugger. Other photos by members of the crew. Below, negotiation resulted in some memorable meals: langoustines from Bantry and chanterelles from Derreen. Bottom, the charismatic cliffs of Inishmore







a beverage if securely at anchor. Just one glass had been enough to knock my concentration over. We didn't stop shaking till we were tied up in Dingle: I'm not sure we've yet stopped shaking.

2018: Picking up where we left off

We returned at Easter 2018 and took *Betty Alan* to Oldcourt, half way up the River Ilen, for a scrub and some little bits of shipwrighting that were beyond my time and ability. With the help of our wonderful friends Paul and Susan we got away from Oldcourt roughly on schedule at the beginning of June, and spent the opening night at anchor in the creek at the north of Sherkin Island, sheltered from the ocean by a reef which covers at high water. It takes a good sleeper to surrender consciousness when at anchor in ear-shot of the surf. Our

delivery back north to pick up where we left off, had us spending a night at anchor in the harbour at Castletownbere, and then towards Portmagee. The sail to Portmagee was one of the few brisk sails we had all summer, as we charged out at nine knots under the lee of the Beara peninsula to meet fairly horrible seas off Dursey Island. We decided to cut the passage short by heading for West Cove in the Kenmare River, which proved an idyllic and prosperous little settlement.

Conditions were much quieter for Blasket Sound and Sybil Head and her three sisters, although after the headland we found a very wearing corrugated sea that denied the boat any chance of finding a rhythm. The hazy light on the cliffs was beautiful, but ominous, as if it were auditioning for the role of Mordor in a remake of the Lord of the Rings, and

the jagged outline of the Three Sisters made me appreciate my three own elegant siblings. Like most forebodings, those created by the sisters and the sea state foretold nothing at all, and the day settled down to a pleasantly bland motor-sail passage.

This leg was our longest on the Irish coast, of some 85 miles, and we beetled by Tralee Bay and the Shannon estuary, trying not to make eye contact, feeling guilty at spurning their hospitality as we made towards Inishmore, principal of the Aran Islands. The landfall is deceptive because as Inishmore rises above the horizon it looks like two islands: as usual I chose to believe my deceitful eyes rather than the honest and trustworthy GPS and chart, but as ever clarity descended and our mercilessness in motoring early in the day meant that we could





sail the last ten miles and close in slowly on these most charismatic of cliffs.

Evening saw us tied up in the recentlybuilt fishing harbour at Kilronan, the main settlement on Inishmore, where vachts and fishing boats compete for space, with not much harbour-mastering going on. We successfully met up with Vic, freshly arrived from Singapore with his wife Michelle and sailing friend Clare, originally of Sligo. He's an old university friend of Fran and was on the first leg of his not-dead-yet celebration tour, slowly recovering from hideous cancer treatment. I remember his look of disbelief when, after an epic journey he arrived at his destination, to look down on our deck twenty feet below. But he got down the ladder, and was a trooper all through his trip.

The congestion in the harbour later led to a bit of a shouting match with a fishing boat over parking rights, which was joyously made up the next day with

a water-borne purchase of lobsters. This involved me boarding the fishing boat while our two vessels pivoted around their sterns, held together only by the delicate figure of Michelle holding on to a backstay, later aided by a burly fisherman.

Inishmore is astonishing, a great slab of limestone, tilted so the Atlantic side is up to 80 metres above the sea, the Connemara side gently shelving. We anchored in Portmurvy, a fragile little harbour on the lee side of the island, and walked up to Dun Aengus, the fort-like structure high on the cliffs, with brave Vic, first thing in the morning, before the main crop of visitors came to its daily maturity. We spent only a short week in this ultimate sailing playground, reason enough to return. The whole of this part of the cruise was a light air affair, and we had one of the most memorable sails of the summer in almost no wind, tacking out of Greatman's Bay under topsails. It took us a couple of hours to go the few

miles to the sea, but we succeeded.

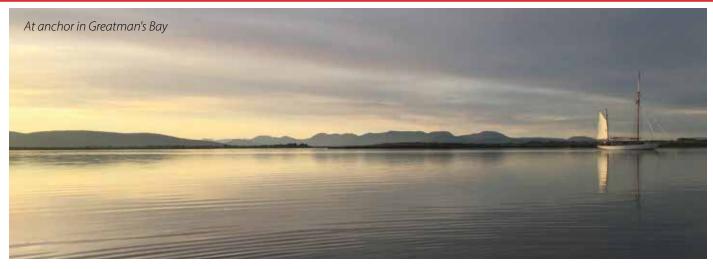
From Kilkieran to Roundstone, dipping into the bay off St. MacDara's Island but carrying on, and then anchoring off and visiting this perfect little harbour, one of the masterpieces of Alexander Nimmo's harbour-building enterprise. A pleasant sail took us to anchor off Omey, a low lying island, where to my surprise (the bottom being sandy) we caught the first lobster in our pot. Normally the pot offers up lots of shore crabs, and the odd conger and dogfish, but this was the only money capture we've got yet. It was extremely handsome and more than typically flavoursome.

From there to Inishbofin, for good reasons one of the most famous of the offshore islands of the West. Its uncommonly good harbour lies behind a huge and beautiful natural breakwater and the inner quay has a celebrated pub where the music went on into the small hours. In the pub I was initially baffled by a large party of women, with one or two token men. It turned out they were here for a yoga camp, and late that night one of the token men was doing a reel on one leg, while holding the Tree Pose.

Crew change at Clifden, and after a gusty night in Ardbear Bay we took up a mooring off the Clifden Boat Club, a short distance out of town, and did stores and farewells and hellos. Clifden is a slightly unreal place, very pretty, but not really at one with its landscape, a model town built by a cultured landlord. Its air of unreality is emphasised by the name of its last landlord, Hyacinth d'Arcy, whose father John largely built it.

We scratched an itch by going up to Clifden quay itself, although we were not really sure what we were doing was safe or wise. In the end we decided not to dry out there, since our berth was definitely a bit shonky, with great





boulders missing from the wall (and therefore likely to be under part of our keel at low water). I was scared witless as I took her out on a falling tide, and one of the rocks must have sensed my fear as it clonked us on the way – our only contact in the whole cruise. Then a pot nobbled us outside, about a half mile off the Doolick reef. It's the first time we've got caught up on this boat. Our keel shape doesn't attract hook-ups, but somehow we ended up caught by the stern with a fresh breeze pressing us downwind, though we managed to get the sails down. We could see the line holding us, and could get a boathook on to it, but it was far too tight to pull up to the surface. The sea was bouncy enough to dissuade me from going in the water with a breadknife, and I very gingerly started the engine and was surprised and delighted when I pushed it into gear and after a moment's hesitation it did cut the rope. Later I invested €13 in a stainless steel grapnel, of the sort that the fishermen use, with which we could have winched the line up to the surface.

We went back to Bofin for more hospitality, followed by a brief visit to Cleggan to have our lives saved by the amiable Joe Rogan who magicked up a bottle of Camping Gaz for us. We were also able to bargain for some tremendous crabs, which produced the crab salad of all crab salads. Again, the visit to Cleggan, brief, unplanned and unheralded, produced one of those periods of perfect balanced happiness: planning is important, but so often the unplanned bits offer the richest memories.

Clare island was pleasant, including a cycle ride up to the Abbey, a modest and moving building. Northward beckoned us, and we had a utilitarian passage towards Sligo, partly motorsailing. We were making for Killala, and had an extraordinary sail past the anthropomorphic cliffscapes leading up to Downpatrick Head.

The town of Killala is at the head of a largely drying bay, protected by a long and large sand dune, with the town half a mile away up a dredged channel. It is a magnificent landform, with something of the air of myth about it. We're still tyros at bar entrances, and my heart is always in my mouth as the depth ticks down, but as always the ICC were right, and the entrance is perfectly straightforward as long as you don't believe your eyes.

The Fractal Shore

The charts of the Galway shore facing the Aran Islands are intoxicating. They show an archipelago from one's dreams formed by four principal bays, within which is an endless complexity of creeks, rocks, bays, islets, reefs, shallows, quays, mud and rock. The area has been extensively explored and described by Tim Robinson, whose five books on Connemara and the Aran Islands are works of the deepest topography. Robinson is a mathematician, among

other identities, and one of his favourite themes is the fractal nature of the Connemara landscape.

All coastlines are unmeasurable, but Connemara's convoluted shores are more unmeasurable than most. This is not the matter of whether coasts are longer at high or low water (it varies), nor how far you go up the inlets, but that the measured length is dependent on the scale used for the measuring. Imagine measuring a coastline off



Images Google Earth.
Data SIO, NOAA, US Navy, NGA, Gebco.
Image Landsat/Copernicus.
Images © 2019 Digital Globe

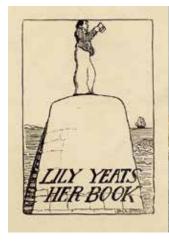
a chart with a pair of dividers: the closer together the points when measuring, the finer the detail, and the longer will be the measurement. Norman Kean, editor of the Irish Cruising Club's wonderful sailing directions, can scare the stuffing out of you by showing how vector charts attempt to simulate detail when zoomed in past their (undeclared)

comfort zone. These charts have no more data when over-zoomed, and rely on interpolation which can be misleading.

Connemara is also fractal in the sense that the pebble and the mountain are similar in all but size, the only difference being the

level of zoom. We realised this when we began to have pilotage issues based on an inability to judge distances. When it's not raining, the air is very clear here, and it is hard to know the range of something if you don't know its size. As we approached Inishmore the hills of Slieve League behind Sybil Head were still in view although hull-down. I guessed they were maybe 20 miles off but in

they were maybe 20 miles off, but in fact they were a good 65 miles away.





If you do the obvious thing, you will end up entering at the East end, which looks much more attractive from sea, but is apparently a poor idea.

We spent a couple of days in the pool just inside the entrance, and made a couple of excursions to the very pleasant, modest town by dinghy. We found it a place of great decency, of self-respect without arrogance, with a very well preserved round tower.

We were in a good mood, for the seas were at last mackerel-crowded and we were eating well. The river was also full of sea-trout but we had to resort to buying one from the wonderful fishmonger on the quay. Half of it we ate raw, skinned and sliced thin, with a little soy sauce, and half we pan-fried with a sauce made from lobster shells, shore crabs (big ones from our pot, which took a long time picking, but gave such flavour), and dulse, the seaweed that gives a rich fat overtone.

We were now coming up to the opportunity to shake hands with the metal man of Sligo, which must be the most remarkable navigation mark in the world. It is one of three cast in the late 19th century, and the one in Sligo is majestic, comical, cheering and functional, gesturing rather lackadaisically towards the deep water. Jack Yeats used

it as the inspiration for the bookplate for his sister Lily, and from first seeing the bookplate, it's been my ambition to sail past the original on my own bottom: for once, the achievement of an ambition of years wasn't followed by disappointment.

I'd not been to Sligo before, and I regret we didn't have time to get to know it better. It is hard now to imagine it as the significant port it once was. The long guay is unresolved, with the only functioning part a short but welcome pontoon for visiting yachts, managed by the very likeable harbourmaster John Cartron. The town itself seems to have been bashed about a bit during the tiger years, with unsympathetic riverside development and a bypass over the river. The town's identity has retreated to the back streets a little, but it's still there. It also has good transport links, including a train station.

Our last short leg was to Killybegs, pearl of the west, past the island of Inishmurray, famous as a center for poitín. Killybegs has a brilliant harbour, and is a good sensible town, with lots of fish processing plants, a large and excellent boatyard in Mooney Boats, who are happy to work on yachts as well as the big fishing vessels that are its core business. There's always something going on (and generators always running on

The Lily Yeats bookplate and the Iron Man of Sligo, which formed the Primum Mobile (prime mover) of the trip. Bottom, a memorable last sail

the big ships, despite shiny new mains electricity being laid on).

The non-marina (or "small craft harbour") is expensive, but newly installed with good quality kit, although no loos or showers yet. Gerard, the very nice "supervisor", apologetically explained that for health and safety, or was it insurance, reasons, he wasn't allowed to touch our lines if they needed adjusting. Having done his duty with this nonsense, he then sotto voce said that of course he would.

We had two last sailing weekends before laying her up. The first with my aged mother, the Betty of the boat's name, her wheelchair lashed to the mizzen, and the second on our own, partly to let Frances have a couple of days at anchor to work on a big project. Both outings saw us in Donegal harbour, in the idyllic mooring behind Green Island, named on the charts as Ship Ride.

Our return from the second visit to the harbour was the last sail of the season. We motored down the first part of the channel, raised full plain sail off the quay at Salt Hill and sailed out of the harbour, laying Mullaghmore head with the sheets just cracked. We could metaphorically stand and watch as the wind and sea built until we had one of those maximum power sails that Betty Alan just loves, charging along at 7-8 knots in 25 knots of wind and 3-metre swells. Under these conditions the waves take a look at her coming and cower, as she first buries her bowsprit in them and then shoulders them away; first jousting knight, then quarter-back. The sense of controlled and balanced power is moving: the works of man and nature in equipoise.



Ed Maggs is an antiquarian bookseller, keen sailor of classic yachts, and owner of Betty Alan, a 50ft wooden topsail ketch, launched in 1998 and bought by Ed & Frances in 2011. The elegant online version of this log, with numerous illustrations and discursions, can be accessed from the CA

Magical Smystery Tour

Charles Hay took his Jeanneau 45 DS Smystery to the Mergui Archipelago in the south of Myanmar. With two other boats they spent a month in these lovely and little-visited islands

There are about 800 islands in the Mergui Archipelago, which lie in the Andaman Sea to the north of Phuket. They became Burmese in a war with Thailand many years ago and have remained under their control ever since. British, Dutch and French traders have all left their mark but since 1948 when the British left, the islands have remained largely untouched by mass tourism and so are one of the few places yet to be discovered. I had often flown over these Islands and looked down hoping that one day I would cruise around them at 6 knots instead of 600.

Now with the recent opening up of Myanmar we were at last able to explore these magical places before they are overtaken by the 21st century. The government in Yangon have decided that having fewer boats is better, so to ensure this, the visa and boat fees for a one-month cruise amounted to more than £2,000, which included the cost of a guide who must accompany each vessel.

We normally cruise these waters with two other yachts for sociability and safety, and we managed to get the authorities to allow us to take one Burmese guide for all three boats, provided that we cruised in company. Our guide Luke joined us at Kawthaung, when we entered the country, and although he was there to keep an eye on us, he proved to be very amiable, spoke reasonable English, and allowed us to communicate with the

locals in a way that would not otherwise have been possible.

There were no generally available weather forecasts for this area but this is not much of a problem. From November to April the north-east monsoon prevails, giving dry conditions and light to moderate winds. This is the best time to visit as for the other half of the year the south-west monsoon takes over giving rougher seas and stronger winds.

The visa and boat fees for a month were more than £2,000, including the cost of a guide

We provisioned in Phuket for a six-week cruise and had to plan on being selfsufficient, as we would be well off any beaten tracks. There are no cruising guides yet for the area, so much of our planning was done using Google Earth before we left. We did, however, manage to refuel and re-water in Myeik, where there was also a market.

So it was mid-February when the Andaman Adventurer fleet, comprising Smystery, Rascal and Rusalka, left Phuket for a three-day sail north through Thai waters to Kawthaung. After a day clearing into Myanmar we were finally free to set sail for Barwell Island, the first of our delightful stops. With so many beautiful, sheltered and empty bays available, it



Smystery, Rascal & Rusalka anchored off Swinton Island. Above, Moken fishing boat with six canoes on deck. Below, giving new fishing hooks to young Mokens



was easy to choose a destination each morning and then sail at our own pace before meeting up for the evening.

Navigation was straightforward, mostly line of sight between the islands with good visibility and moderate currents. The paper charts were fairly small-scale and based on British surveys made many years ago, so a good look-out was important, and more than once we spotted uncharted rocks close to the surface. We would try to find an anchorage by mid-afternoon to make it easy to see the coral which allowed time for a swim before meeting for sundowners.

Each boat took it in turns to host supper. and with three excellent and experienced cooks, the catering bar was set very high. Luke showed us where we could prize oysters off the rocks and we became good at whisky fishing – exchanging "Scottish wine" for fish from the Moken fishermen.

Cruising in south-east Asia



A fishing boat sank in front of us, leaving nothing but the crew and floating barrels; this boat helped with the rescue. Below, original 1948 Land-Rover

There was a dramatic incident one day when we were passing rather an old fishing boat which abruptly sank in front of our eyes. We went to the rescue and were soon followed by other fishing boats, but all we could do was help gather the few possessions that floated. The crew were all recovered safely, though Luke told us that the skipper was more afraid for their jobs and what he was going to tell the owner of the boat.

We pressed on, sailing about 20 miles each day, and soon adapted to the relaxed and remote lifestyle. We daysailed in easy stages towards the thriving trading and fishing port of Myeik which was the furthest north that we went. We stayed there for three days while we explored, provisioned and had our permits checked. It was very rare to have three foreign boats visit at the same time, so each yacht was visited in turn by an eight-man team of Government officials, dressed in their finest white uniforms. However it was all done with good humour and much photo-taking.

The British administered the area before independence in 1948 and the District Officer's residence remains complete with flagstaff and high-ceilinged rooms with chandeliers, though now it looks a bit shabby. We were intrigued when we were told that last occupant's car was still parked behind the house and Land Rover would be proud that the bodywork is still





in reasonable condition, though the tyres and engine need some attention.

Some 350 years ago Myeik (formerly Mergui) was an important link in the trade from Europe up the Tanassarim River into Siam and beyond to Japan, brought vividly to life in the book Siamese White. This is the true story of Samuel White, a one-time employee of the British East India Company in Madras, who came to Myeik in 1676 and became its Governor and also an admiral in the Siamese Navy. He proceeded to enrich himself through piracy in the Bay of Bengal, until in 1687 the British sent HMS James and HMS Curtana to challenge him. There followed a battle in which one of the British ships was sunk in the harbour, but White managed to escape by the shallow passage to the south by which we had arrived.

After a few days there we set off, via the Iron Passage with its strong currents, for the voyage south, this time visiting the more seaward islands with sparklingly clear waters. We met several Moken families on the way and without fail they would approach us first. The children in particular would paddle their canoes over to us in the hope of some snacks, or better still some new fishing hooks. At quite a young age they are given a dugout and are expected to fish and contribute to the family food supply. They roam the islands freely and only return to their homes occasionally, when they replace the ladder up against their front door to show everyone that they are home - no need for locked doors here!

We had hoped to see Burmese pythons hanging from trees but were disappointed. However there was much else to see from monkeys to hornbills,



and we sailed briefly in the company of a whale and her calf. One of the many highlights for us was a day spent at the most beautiful bay fringed by five golden beaches, all deserted. We felt that we could happily have spent a week there and have now renamed it Smystery Bay.

All too soon our 30 days were coming to an end and there is no allowance for staying for longer than that. So we made our way back to Kawthaung to clear out and say farewell to Luke. During the cruise he had become engaged to his girlfriend, and as we bade him farewell he invited us all back for his wedding the following year. So should we need it, we have the perfect excuse for a return visit.

Charles has sailed around the South Coast since the 1960s and joined the CA in the early 1970s. He was a pilot for BOAC and Cathay Pacific. Following voyages across the Atlantic and Pacific, he has sailed Smystery, his Jeanneau 45DS, around Thailand, Malaysia, Indonesia, Myanmar and India with his wife Susie since 2008. The yacht's name comes from the film Shakespeare in Love, 'I don't know, It'S a MYSTERY'...