



Ridgeway Repeater Group. Newsletter for the First Quarter of 2018.

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As this is our first quarter newsletter for 2018, Very Happy New Year to all, and hope everyone has had a good Christmas and an enjoyable one.

Future plans for the RRG going forward in 2018.

GB3WH – now that the new repeater is been installed and working well, a spare repeater will be sourced and made ready so we have a fully working “plug and play” spare. The battery backup for GB3WH has been installed but requires a battery charger to be tested and installed.

The work was completed by Andy G0UWS and team for which we must give them a large thank you for their hard work in getting GB3WH back on air and back in service.

GB3TD – New antenna to be installed for both GB3TD and GB7TC repeaters. Reorganising the rack space at site.

GB7TC is now back to normal operation after some issues, a site visit was required to resolve these issues. The work was completed by Andy G0UWS and Rob G4XUT we must say thank you to them for taking the time to fix the issues.

Further work to improve the internet reliability and to cut costs in providing a point to point 5Ghz link is in progress.

MB7UR – To source a commercial standard radio to replace the on loan amateur radio. Possible changes to the antenna installation.

So, quite a few items to work on for the coming year but with your help we think this can be achieved, that is with either with physical help or donations. If you would like to get involved, please contact any of the committee listed on our website www.rrg.org.uk

A note for regular users of the repeater's that we try to keep maintained and on the air, if you think a regular user you talk to is not member of the repeater group or has not contributed in anyway, could you invite them to join the RRG please.

Stop Press.

It is with regret that we pass on sad news that Mike, M3MTG passed away in December 2017. Users of TD will have known and spoken Mike since he and his family returned to Swindon from Milton Keynes. He was a very keen Amateur Radio and electronics enthusiast and greatly loved playing music. The funeral will be at 10:15 on Wednesday 17th January at Kingsdown Crematorium – any donations to the British Heart Foundation.

ARTICLES

We have two articles for you to peruse one by Rob G4XUT and one by Richard G4MUF with a quick snippet from Rob G4XUT.

First the snippet from Rob.

This is a quick snippet from Rob G4XUT, of his encounter with an old friend and fellow radio amateur in France this year.

The photo shows L to R Rob, G4XUT, Serge, F6CMO and Ian, G3YBY/F5VKT after a good lunch hence the smiles all round.



Rob has known Serge for 25 years after /M contacts on 2 metres when visiting Bergerac in the Dordogne area of Southwest France. They have kept in contact over the years with help from Rob's French speaking XYL!

Rob suggested to Ian and Serge that a lunchtime meeting would be a good way to get everyone together and this happened in July 2017. They were joined by their XYL's, Fran, Françoise and Janet and Ian's Cousin and his wife, so quite a party!

Serge is QRV on 80M and 40M as well as 2 and 70cms.

Thanks Rob, this just shows us that amateur radio is a big happy world wide family.

Morning Glory



If there is one thing which would get me to Australia it would be to see the “Morning Glory” cloud formations. In October it is the season for them on the south coast of the Gulf of Carpentaria (the big gulf on the N coast). A picture is worth a thousand words, so a video must be worth a million at least:-

<https://www.youtube.com/watch?v=RzurOLMD1BM>

<https://www.youtube.com/watch?v=pit10DeZQ44>

<https://www.youtube.com/watch?v=KixDfJvuuqY>

<https://www.youtube.com/watch?v=SIB7tMLXt1w>

The first video is of hang-gliding on a Burkestown, Australia, cloud, which is the best place to see them and where they are seen most often and most regularly in the world. The town has become a Mecca for glider pilots who soar as though they are surfing the cloud. The other three videos were in fact shot by Lake Michigan, USA but are excellent examples. The latter are best viewed at double-speed, and the leading edge of the cloud clearly shows ascending air going up into the cloud and the trailing edge less clearly shows descending air leaving the cloud. The cloud moves across the landscape or sea and it ‘ingests’ air through the cloud, condensing during uplift then evaporating in descent.

What causes the Morning Glory? The mechanism seems to start late-morning the

previous day on the plains of the western side of the York peninsula, the long peninsula east of Carpentaria. Day-time heating, the Sea Breeze effect, of the plain sucks a sheet of cool moist air eastwards off the sea and onto the land, undercutting warmer dryer air above. Also, a return-flow mechanism causes the dryer layer above to move westwards above the east-going moist air below it. Overnight cooling due to radiation from the land under clear skies then cools the sea-breeze layer further, and the low-level flow reverses direction as a katabatic wind. A gravity flow of cool air back westwards (i.e. an easterly wind) sets in. It gets substantial enough to act like an avalanche, i.e. a sheet of cooler air slides towards the coast. An inversion (planar, near horizontal boundary with cooler moister air below, warmer drier air above) forms as it passes out to sea and a leading-edge develops, like a tidal bore on the Severn estuary. This air sheet gets moistened by contact with the sea and shoves into and undercuts the drier air above. The Morning Glory cloud forms on this ruction line, then advances down-wind to the southwest across the Bay of Carpentaria. It gets to Burkestown after dawn the next day.



The Morning Glory is a particular type of wave-cloud. Comparing with sea waves might be of interest. Water waves on the sea also occur at an “inversion” but in that case the inversion is the sea surface. The denser layer is water of course. A swimmer experiences a circular movement but the wave passes him leaving them



The Morning Glory clouds have a kind of rotation, and are sometimes called roll-clouds, and it has been suggested that they roll along the underside of the inversion layer. But, in most cases a parcel of air is only temporarily within the cloud, having been waiting ahead of the cloud, involved within it, then left behind it, like the swimmer on the sea wave. Some reports say the wind drops as the cloud passes over but others say a squall occurs at that moment. A squall may occur in the downdraft behind the wave, instead of under it. Snorkelling on the sea bed is a better analogy to surface wind during a Morning Glory event. The snorkeler experiences drifting forward and back as the wave passes overhead.

The rising air's moisture condenses into cloud, and dries out back into clear air, as it descends. It's a mental exercise in relative motion because the cloud is moving within an airstream which itself is often moving. The Lake Michigan videos show streamers of vapour ascending obliquely up the face of the oncoming cloud. This may mean the cloud's direction of movement (i.e. a direction at right-angle to the cloud's axis) is at an angle to the overall airflow. If the air is too dry, there will be no visible cloud, yet the phenomenon is still passing through as air parcel gyrations. The term "Soliton" is often used to describe single- or few-in number

waves like this.

It would be useful to arrange a neutral-buoyancy balloon carrying a radiosonde package, to be placed at cloud-base level ahead of an approaching morning glory. That would record both the hygrometric data and the movement of the air parcel surrounding it. Sondes have been ground-launched to pass rapidly upwards, hopefully through the cloud.

A foundational requirement for many if not all wave-cloud types is an inversion. That is a horizontal planar surface in the atmosphere with denser air (ie cooler) below and less dense (ie warmer) above it. When parcels of air in the lower denser air get forced upwards, they find themselves level with less dense air. Negative buoyancy drags it back down but it may overshoot the neutral buoyancy level, so pop back up and so on, oscillating. Physics laws make an additional rotation within the oscillation expedient. A wave cloud's top surface is often smooth and well-defined and the top marks where the inversion, containing the cloud, has been warped upwards by the wave motion.

Some wave clouds are stationary, their location usually controlled by a hill or mountain, and the air moves through them and on its way.

A different cloud phenomenon is a rotor or horizontal vortex cloud. The Helm cloud over the Eden valley, Cumbria, is a well-known and regular one.

This picture is of a Helm Bar. It is stationary, being controlled by airstream oscillations over the Pennines and the Eden valley. It doesn't move, and seems to consist of a cylinder of rotating air. This one appears to be genuinely tubular so its possible air is making complete rotations inside. There is the possibility that spinning vortex activity is lowering the pressure to produce cloud. Wing-tip vortices from aircraft are small-scale, but very intense rotations of low pressure



air. it.

Standing-wave clouds can occur to the lee of any mountain range, and even hills like the Cotswolds. The wave is usually flatter in shape than the Morning Glory. More generally, lenticular clouds form when moist air touching the base of an inversion is set in vertical oscillation by gravity. For best effects, the upper winds are uniform with height so as to avoid fragmentation of the clouds, and promote laminar air flow within the wave. As I finalise this document, I learn of this video which was filmed in California. The word "Fognado" has no status, just being the media making-up a word from "Fog Tornado":-

<https://www.youtube.com/watch?v=DlwPwDP5cq0>

Richard, G4MUF, August 2017

The Story of B-N Islander G-AVCN.

It is not widely known that, in terms of numbers produced and longevity of service, Britain's most successful aircraft began life when two De Havilland trained engineers began developing crop spraying equipment on the Isle of Wight. John Britten and Desmond Norman realised that there was a market for a simple rugged twin engine aircraft that could be operated from short rough airstrips on high density commuter flights – in fact a “Land Rover” of the sky. Thus was born the BN-2 Islander which first took to the sky 52 years ago on June 13th 1965. To date almost 1300 have been produced with around 700 still in service around the World and it is the only British commercial aircraft still in production.

In 1966 the BN-2 prototype G-ATCT crashed in Holland. The second prototype was later converted to become the first Trislander before being scrapped at Bembridge.

Following various changes of ownership, by 2000 the third production Islander G-AVCN was lying semi-derelict in Puerto Rica. A group of BN Historians obtained sponsorship and with some difficulty dismantled “Charlie November” and packed it into a container for shipment back to Bembridge on the Isle of Wight where it arrived on March 6th 2000.

In December 2000 the “Britten Norman Aircraft Preservation Society” – BNAPS - was formed. Initially Charlie November had its own separate work area in the Britten Norman factory. The restoration was to be a joint project between the BN-Group and BNAPS. As a result of the BN Group's expanding business needs it was not possible to proceed with the restoration of Charlie November as originally planned and the airframe was placed in open storage at the Bembridge factory. In 2009 it became obvious that G-AVCN was at risk in open storage, so BNAPS members set about the urgent task of finding secure weather proof storage for the aircraft.

In 2010 permission was granted by BN to move the aircraft and it was taken by the BNAPS members to a building that they had rented on the Island.

The members of BNAPS – many of them ex BN employees – drew up a restoration programme and in 2011 the task of re-building G-AVCN started in earnest. It was accepted at an early stage that a

restoration to flight, whilst being within the technical ability of the members was going to be way beyond the financial resources of the group. The plan is now to restore Charlie November to a very high standard static exhibit.

To date the fuselage has been restored including the installation of the complete instrument panel and electrical systems. Cosmetically the fuselage has been stripped of all paint before any panel was damage repaired. Surprisingly very little corrosion was found during this process.

It has now been resprayed in the same yellow colour that it wore when it first entered service with Aurigny Airways in the Channel Islands in 1968.

This painting is of the aircraft taking off from Bembridge in 1967 and shows it as it was delivered in its Aurigny Livery. The picture was produced and donated to the project by the aviation artist Ivan Berryman and copies are available from BNAPS.



The restoration project has been supported by a number of organisations. Surplus parts have been donated by various companies including B-N group, Cormack Islander Aircraft and Saywell International. Two

propellers have been restored to exhibition standard by Proptech and two non-functional Lycoming engines have been constructed by Norvic Aero Engines.

The major activities are now concentrating on the refurbishment of the wing, together with the landing gear and engine cowlings. Work on the tail plane, rudder, fin and flaps is already under way.

As the first production Islander G-AVCN has been recognised as of historic significance by the British Aviation Preservation Council. At the end of 2014 the project gained further national acclaim when BNAPS received the Ron Wilsden Award from the Transport Trust in recognition of the high quality of the restoration work. In 2017 two further grants have been made towards the restoration project.

The restored aircraft will be a tribute to John Britten and Desmond Norman and all who worked with them over the years.

Further information on the project or membership of BNAPS can be obtained by contacting:

solentaeromarine@hotmail.co.uk

Many thanks to Clynton Perrott who forwarded this article to the RRG.

Editors Ramblings

Over these past months with the transition from autumn to winter it has been a pleasure to view the landscape around Liden Lagoon Lake change from it's green coat of leaves on the trees and surrounding flora to the sparseness of the winter with the trees showing their preparation to survive the winter months. I note the fauna i.e. the wild birds that use this lake seem at home whether the weather is cold or warm. Seeing them feeding and preening during the warmer months and walking on the ice covered water in colder months. It is intriguing to see these birds integrating with local residents as the larger of these birds appear to queue up to be fed in the mornings outside of the houses that surround the lake's edge.



As you can see nothing seems to affect these visitors to Liden Lagoon Lake even when it is iced over.



More of our feathered friends using the facilities at the Lagoon Lake.