

# Chelmsford Amateur Radio Society

Affiliated to the RSGB.

President: Dick Brocks G3WHR

Secretary: Charles Shelton G0GJS

Club Call Sign: G0MWT

Chairman: John Bowen G8DET

Treasurer: Brian Thwaites G3CVI

Newsletter No. 393

October 1998

## ANNUAL GENERAL MEETING

**THE ANNUAL GENERAL MEETING** will be held this year on October 6th at 7.30pm.

The opportunity to receive the latest first hand information regarding the financial and management matters of the Club from the Committee. Opinions will be welcome from members concerning past and future activities.

Following reports prepared by the present Committee, they will retire and the President will invite actions:-

- 1) Nominations for the new committee.
- 2) Voting for the committee election.
- 3) The setting of the subscription rate.
- 4) Suggestions for future meetings and A.O.B.

All members of the present committee have offered their services if elected, however, if any nominations or further volunteers are proposed, the normal democratic process of election will be conducted.

The meeting will be invited to submit nominations and if necessary vote for candidates in our Annual Amateur of the Year award. In addition to our regular draw we will be holding the jackpot raffle for a years free subscription to CARS.

Finally, to ensure that not a valuable word is missed our Chairman will conduct an 'AUDIO ENHANCEMENT EXPERIMENT'.

## **DATES FOR YOUR DIARY**

- 9-11th. October RSGB International & IOTA Convention.  
Beaumont Conference Centre, Old Windsor,  
11th. October. Brixham Computercations 98 Radio and  
Computer Rally. Kingswear Rd, Brixham  
17-18th. October. JOTA. With Chris G0IPU (and others)  
3rd November. Club JUNK SALE (It's all good stuff)  
8th November. Birmingham Radio & Computer Rally.

### **Tune in on Tuesdays (and Thursdays)**

**G0MWT** is the callsign used for the Tuesday evening **CLUB NET** using 28.325MHz starting at 2030 local. It has become customary for Club members to run the net on a monthly basis, carrying on the work of Roy G3PMX who ran the net superbly for so many years. We are about to reach the end of the current list of volunteers with Ken G3PMW currently in the hot seat and Harry G5HF for October. David M0BQC has volunteered for November. (Thanks David.). Chris G0IPU will again control for December, Colin G0TRM for January, Geoff G3EDM for February, Ken G3PMW for March and Harry G5HF for April. Given notice Brian G3CVI will act as standby if any of the above are unable to operate. If you would like to take control once in a while contact G0TRM.

**2M Net.** It is suggested on the final Tuesday of each month the above Net should be held on 2M instead of 28MHz. Your views Gentleman, will be most welcome at the next Club meeting.

**G0MWT** is also used for the **Thursday** evening **SSTV** net on 28.680MHz again at 2030 local. The man in charge is usually Chris G0IPU, who has a wealth of knowledge on the topic which he is more than willing to pass on to old and new viewers alike. The results can be

**LAST MONTH'S MEETING**-Amateur Satellites with An Environmental Update, by Pat Gowen G3IOR

**Reports by JOHN G8DET & BRIAN G3CVI**

The Meeting was started with a warm welcome to the many Ladies in the audience and a "thank-you" to Tony, G4YTG for 'talking-in' Pat and his wife on 2metres - without which there may not have been a meeting!

Pat brought us up to date with the current situation reminding us of the many Satellites that have been launched over the years. (Members will recall Pat's initial detailed listing given in the August 1991 newsletter.) The basic Oscar 1 launched in 1961 was followed by many, far more complex other ones. When the Satellite is being built it has a code name or number but once in orbit it is called an Orbiting Satellite Carrying Amateur Radio or OSCAR XX, where XX is in sequence.

Pat reminded the meeting that the Russian series RS 1 and 2 later coded OSCAR 8 where at about 1,000km. The Russians then launched RS 3 to 8 as permanent satellites. Then 9 and 10 but about 8 weeks ago when the ground command post changed hands due to cut backs they switched off the spacecraft command receiver - hence nothing now heard from it. Whoops! Unfortunately, due to the current financial situation in Russia many of their satellites and fine facilities have also been lost including the Aere Cosmic Laboratory and there may be no more Russian satellites to come. Hopefully RS12 and RS15 will be dispatched sometime. It is however very expensive indeed to launch these days, to give some idea Pat told us a modern communications satellite could cost between £20 and £30 million to put in orbit.

RS 14 was OSCAR 21, RS 15 was controlled by Army & Space Agency who paid for much of the equipment for Amateurs - but not any longer. Indeed they have ideas of selling off radio frequencies like the UK but they are going to include Amateur Bands as well!

Like most agencies AMSAT is also looking for money. (Who isn't.)

Phase 3 series was proposed to have a highly elliptical orbit to favour the Northern Hemisphere. These orbits could be something like 30,000km for the high point, the apogee and 200 for the low point, the perigee. The satellite would be all things for all people eg very sensitive receivers - high power TX (200 watts) from space - very large solar panels to recharge batteries. It would have an uplink frequency coverage of 15m, 2m, 70cm, 23cm, 13cm and 6cm, and down links at 10m, 2m, 70cm, 13cm, 3cm and 1.5cm. as well as analogue beacons. Numerous digital links would also be present. Originally a European delivery was planned with an Ariane 4 launch but that did not work out, but maybe the Russians might help as they to launch using old ICBM rockets so who knows what will happen.

As the globe is an oblate spheroid some satellites when geostationary run out of fuel after 2 to 3 years due to corrections to keep it on station.

Pat showed a video of Phase 3D satellite - it was a huge octagonal rack of equipment with shining cylinders in the middle which may have been for fuel?

The video concentrated on the final stages of in-depth testing during which we were

### **Jamboree on The Air.** 17th. and 18th. October.

Chris G0IPU and many others will be operating from the Lawn Lane Scout Headquarters from approx 10Am until 4PM taking part in this years JOTA activities. They hope to be on all bands except 4m and 70cms using the call sign GB4CDS (Chelmsford District Scouts). They will be very pleased to hear from you, so give them a call.

shown close-ups of various bays housing the many varied modules. These ranged from exciters to modulators, power supplies to power amps, from receivers to complex change-over switches, which enabled any equipment to be connected to any antenna as desired. Many specialist antennas such as GPS and Lband dishes were also fitted. Many different countries provided the equipment for this project. Where necessary the modules were cooled by pumping ammonia through cooling pipes.

One major problem has been amateurs over loading the receiver by using too much power - Pat likened these persons to Alligators - Little ears - small brains and large mouths. To overcome this problem a system was designed by Dr Karl Meinzer, DJ4ZC called I.E.I.A. The video showed testing this aspect and culminated with a successful in house test 'CQ Call' through the craft.

In passing Pat commented that March 2000 should be a Sun Spot high as indeed was 1066, this was discovered by checking on Norman furniture.

Once again Pat held his audience in a fascinating grip - will the Phase 3D ever get into space - we all hope so. - **John G8DET.**

**Part 2.** The evening started with a short video giving a view of the east coast erosion and the demise of Pat's house so we knew we were to learn some hard facts.

It was after escaping from university that Pat first began to discover the extent of the degradation taking place in the North Sea: he "took ship" with fishermen and saw what was happening to the water quality and hence to the living creatures in, upon and around the sea. He realized that the enormous population explosions taking place were causing greater and greater quantities of untreated effluent to be deposited via offshore pipelines. Armed with numerous analyses of water samples he successfully "engineered" public campaigns to bring the facts to the notice of the "authorities" who now have understood that the main cause of the ever lessening fish stocks is the pollution of the sea and destruction of the spawning grounds on the sea bed. The latter problem became his main theme.

Pat described how enormous off shore dredging was carried out along the east coast within about three miles of the shore line. Tens of millions of tonnes of sand per year are taken and sold to Holland to enable them to continue their reclamation projects, they having forbidden their engineers to use their own sandbanks as source. This digging away of the sea bottom leaves huge areas of sterile submarine waste land which allows water to flow back from the beaches during storm and tidal flow thereby denuding them of their sand. This causes the sea defences to collapse and allow cliffs and good territory to tumble into the waves along with the homes and farms of unfortunate folk in Norfolk, Suffolk and Essex and other adjacent counties. We then buy back sand from the dredging companies to replace that which is lost...how stupid can we get? Pat inferred that since the sand banks are within Crown property and that very large tax returns were attracted from the trade, then money had much to do with it.

Having set the scene of coastal erosion he showed another longer video of the effects of the undertow of water after the breaking of waves. Huge quantities of sand wash back and along the shores to be deposited where they are not welcome, for example Harwich Harbour where almost continuous dredging is required to keep the port open to the shipping. He cited the ability of the Anglo-Saxons to build groynes at right angles to the shore line which reduced the long-shore drift so as to create harbours for their early traders. We should be emulating those folk who "knew a thing or two".

Sandbanks off shore, we were informed give enormous protection from storm created waves: the Sizewell banks being good examples of the success of this system. However "authority" appears to be dragging its feet when money is involved and Pat then outlined for us the calculated effects of the lack of efficient defences, rising sea levels (7mm per year), storm surges, spring tides, gales from dangerous directions etc. There appears to be no properly co-ordinated progress in combating the disasters yet to occur: There are over two hundred local and central bodies responsible for our eastern coastline from the Thames to the Humber, even the N.R.A. does not appear to achieve very much.

Pat showed a map of East Anglia with some black areas which, apparently can be considered as sacrificial in that the sea could be allowed to flow in and re-establish a new coastline!! The areas shown were extensive and frighteningly close to centres of population especially where the land is already at or below sea level: even Cambridge would be floodable and Kings Lynn and large parts of eastern Essex.

The coincidence of various natural phenomena cannot be reliably forecast but there can be no doubt that during a February sometime in the future things will "go wrong" again just as was experienced in the great floods of the sixties when the loss of life and property was so severe. Were such events to be repeated the higher sea level and consequent flooding would produce enormous threats to public safety and health. Now that we bury our waste materials from the domestic dustbins in landfill sites very close to the coasts any encroachment by the sea would carry toxic and infectious substances far inland: in some areas vital sewerage services could be overwhelmed.

Summing up Pat reminded us that East Anglia is tipping into the sea at the rate of about 1.5 millimetres per year and this together with the world wide rising sea level due to the global warming melting the ice caps and hitherto unforeseen weather effects bodes ill for folk living in the regions mentioned. How many more dwellings will fall victim to uncontrolled nature? The insurance companies do not want to know!!!! **Brian G3CVI**

## Letters to the Editor.

We have received a letter from Gwyn G4FKH, regarding his recent address to the Club on 'Solar Cycle 23' and the excellent subsequent write up by Geoff EDM. Geoff commented: "The cycles are truly 22 year cycles (Hale Cycles) taking into account the rotation of the magnetic field around each spot.....(which) does enable the astronomers to say when a Solar cycle starts and finishes".

Gwyn would like us to point out that the 22 year Hale Cycle is caused by another mechanism and he goes on to state: 'The start and ending of the cycle is generally recognised by the polarity of the leading and following aspect of the magnetic flux associated with

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## Christmas Dinner 1998

The time has come to make your reservations for the 1998 Christmas Dinner. Following the success of last year, the dinner will be held again at the Beehive Gt. Waltham on Thursday 10th December. The price will be £13 per person. Please contact David M0BQC on 01245 602838 with your requests for tickets. The numbers are limited so book early to avoid disappointment.

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## Data Protection Act.

For purposes of distributing this newsletter and other matter Members are reminded that their names and addresses are held on a computer data base. Any member wishing to have their name and address removed should contact Geoff G7KLV.

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**New Members.** Do you know anyone that may be interested in joining us on Tuesday evenings?. Contact Brian G3CVI. or any committee member. Or better still, bring them along.

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**Subs.** Our treasurer Brian G3CVI would be very happy to receive your subs at the AGM and he would appreciate it very much if you could pay by cheque if possible Please. (Amount to be decided)

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## Club Test Equipment.

Testing a new antenna, checking your new rig? Learning Morse? Then contact John G8DET for availability of equipment to borrow from the Club's top grade collection.

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## Puzzle Corner.

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## Committee Mtg: Wed. 14th. October

The next Committee Meeting will again be held at the QTH of ELA G6HKM at 7-30PM. You are welcome to join our

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## For Sale and Wanted.

**Wanted!** 70CMS Multimode Radio, Usual Requirements! Brilliant Spec! Lots of Knobs! Very Few Pounds (£)! Contact: Jan G7UVP 01245 223386

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**The Editorial Staff** would be glad to receive your written views on this N/L or any other topic of your choice. Even more glad to receive an article! Sharpen up

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## Joint Editors

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## Consulting Editor

Ela G6HKM

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**Deadline for the next News Letter is 17th. October**