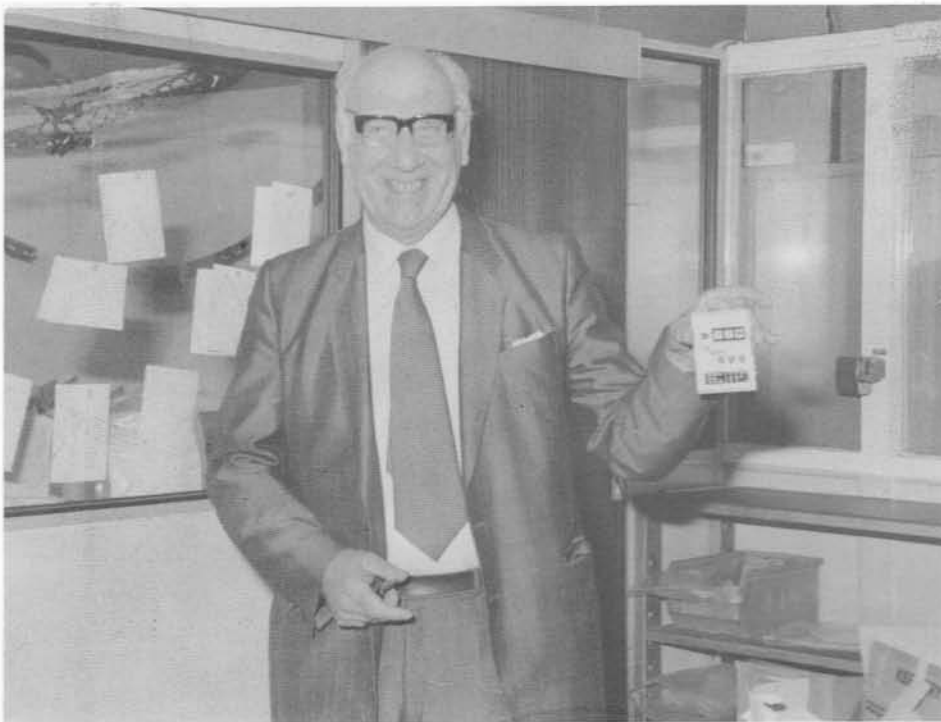


❧ Farewell to Fred ❧



Mr A. J. "FRED" Thompson retired on Friday 14th December, after more than 30 years service with the Company. For over 20 years Fred has been in charge of the Model Shop, his jovial personality and friendly manner will be greatly missed.

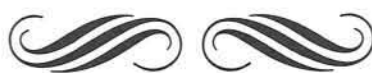
Always ready to help, his favourite sayings were "Sketch it on the back of a cigarette packet and I will make it", and when one of the Staff left the firm "was it something I said".

He was presented with a magnificent Grandmother clock by Mr. D. Jackson who congratulated Fred on his career with the Company. "WAS IT SOMETHING WE SAID, FRED".

We trust that he will enjoy a long and happy retirement with Doris, his wife, they celebrated their RUBY Wedding Anniversary on the 17th December.

~& happy landings to Betty Manning

Betty Manning, for nineteen years secretary and later personal assistant to Peter Mariner, left the Company on 31st August 1984. Her friends and colleagues clubbed together and bought her a wristwatch, a vase and a lovely bouquet. She is now secretary and personal assistant to Admiral Sir Raymond Lygo — Managing Director British Aerospace, at their offices in Pall Mall and is thoroughly enjoying her new role. We wish her all the best of good fortune.



★ National Register of First Aiders ★

The British Safety Council established a National Register of trained First Aiders, the first of its kind in the world. The launching took place in the historic 'Dining Room B' at the House of Commons on October 10th, 1983. Its prime aim is to keep First Aiders in touch with new techniques, changes in legislation and new products, by way of a tabloid journal called 'First Aid News'. Members automatically have insurance cover at Lloyds of £1,000,000 to cover any medical contingency, plus numerous other benefits. Membership fees are £15 per person, and GEC enrolled all its First Aiders.

On Thursday, 28th June, 1984, Dr A. R. Bellau, Medical Advisor to the Borehamwood site kindly agreed to present Membership Certificates.

The photograph below depicts some of those who were able to attend.



Dr. A.R. Bellau and Sister Margaret Chell, Sister in charge - Medical Department, Borehamwood



Bath M. Eng. Students undertake Masters Project within the Company

The first group of Bath M.Eng. sponsored students have now joined the Company having successfully completed the B.Sc. element of their degree course. The students are currently working on the final element of their course which consists of a six-month Masters project, which is carried out within the Company.

The Philosophy of the M.Eng. course calls on the students not just

to produce work of a high technical standard, but also demonstrate by the way in which they manage and control the projects that they have understood and are able to utilise many of the wider skills needed by a professional engineer, which are taught on the first degree course at Bath University.

Two of the students, Tim Harrabin and Mark Westcott, are carrying out projects for the Microwave group at

Radlett, the students are being tutored both by staff at Bath University and by Dennis Crips from Airborne Warning Systems Division. Tony Barrelson is working on a project to produce a simulated test target for use by the Sonar group within Special Projects Division, Tony is being tutored by Richard Westgarth at Welwyn Garden City.

The final student is Mike Wood who is building a three position modulation encoder and decoder as part of a project within the Instrumentation group at Milton Keynes. Mike is being tutored by Malcolm Stewart on



MAJORCA

(The 'inside' story)



The popular image of sundrenched beaches backed by the bars and discos of Palma Nova does little justice to the other 3640 square kilometres of what has been called the Garden Island.

The story of Majorca starts some 100 million years ago when the limestone deposits were laid down as part of the Iberian land mass starting in Alicante and extending through Ibiza, Majorca and Minorca. Changes in sea level laid down sandy deposits and beaches around 30 million years ago, and the subsequent Alpine mountain building not only threw up the mountains which run the whole length of the north western coast, but stood these old beaches on their sides, and their remains can be seen today quite clearly running the length of the Boquer valley near Puerto Pollensa.

In more recent times the changes in climate which caused the ice ages in Northern Europe left their mark in Majorca too. In the now dry caves of Campanet and Arta which are far more interesting than the popular Caves of Drach, can be seen the effects of deluge after deluge over hundreds of thousands of years. The "Queen of Stalagmites" in Arta, some 20 metres high is reputed to have taken ½ million years in its formation and shows upwards of 20 distinct cycles of ebb and flow of rainfall. The same rainfall carved out the spectacular 1000 foot deep gorge of the Torrent de Pareis north

of Soller, and washed out of the mountains the minerals of volcanic origin which now make the Majorcan soil so very fertile.

Water is the long term key to the Majorcan economy. Throughout the island the river beds of the "Torrente" are bone dry from March onwards and the surface reservoirs are less than full, and most of the water has to be pumped from underground. Scattered throughout the island are the remains of horse- and wind-driven pumps, some of very ingenious construction, but more and more the farmers are relying on electrically pumped sprinkler systems, while water bottling plants in the mountains are removing increasing quantities of ground water to meet tourist demand. The problem of water balance can be seen most unusually near Colonia Sant Jordi in the south. Just inland are the ½ square mile salt pans of Salinas de Levante, which are fed from a seawater pump via a canal from the Playa de Trench. Even in April, the rate of evaporation from the Salinas, as roughly calculated from the rate of flow down the canal, exceeds the average rainfall by a factor of two. Growing tourism and recent years of drought will bring increasing difficulties for farmers

and tourists alike in decades to come.

The farmers themselves, mostly it seems smallholders, till their plots with dedication using traditional methods and often horse-drawn ploughs. Donkeys and carts are everywhere to be seen inland, but the most ingenious form of transport was a rotoator sedately towing a trailer with the farmer and his wife at a snails-pace through Soller. On the slopes of the mountain the terraces of olive groves are a monument to the skill and perseverance of many generations of Mallorquins since the time of the Moors, who were not the only people to have left their mark. There are prehistoric remains throughout the island and the Roman town and theatre at Alcudia and the medieval castle and derelict walled towns such as Capdepera bear witness to the strategic importance of the Balearics. After the expulsion of the Moors by James I in 1229, sovereignty of the island changed hands several times with British, French and finally, Spanish rule. During the Civil War Majorca sided with Franco and against the Republicans of Minorca, but the memorials bear testimony to the suffering of both sides.

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behalf of Airborne Radar Systems Division.

All four projects will be completed and submitted to Bath University in March 1985, if successful the students will be awarded their Masters of Engineering degrees in the summer of 1985.

It is of course hoped that the students will shortly take up permanent positions within the Company where they will be able to put into practice much that they have learnt during their course, and region project.



Barry Dearmer

:NEWS RELEASE

UK's UNIQUE SPEED SENSOR CHOSEN FOR SPANISH CASA C101DD AIRCRAFT

GEC Avionics Limited has been selected to supply the groundspeed sensor for Spain's CASA C101DD aircraft. The AD660 airborne Doppler Velocity Sensor, the world's smallest, is produced by Airadio Products Division, Basildon.

The C101DD Aviojet advanced trainer and ground attack aircraft, built by Construcciones Aeronauticas SA, Madrid, Spain, will use the AD660 as a vital element in its navigation system. It will provide readouts of ground speed and drift to the pilot as well as velocity data to the aircraft's attitude and heading reference system and the head-up display.

The sensor, measuring only 379 mm x 237 mm x 132 mm, is a completely self-contained single box system designed to fit between the stringers and frame members of an aircraft's structure, thereby eliminating the need to cut either during installation.



GEC AVIONICS UNITED STATES ASSOCIATE OPENS NEW FACILITY

**MARCONI AVIONICS INC.,
based in Atlanta, Georgia,
moves to new 15-acre site.**

Our United States company opened a new 15-acre factory site at Atlanta, Georgia, on 29th October 1984.

The new major manufacturing and support facility covers 84,000 square feet and the 15 acre site can accommodate further growth to a capacity of 200,000 square feet.

GEC AVIONICS AND McDONNELL DOUGLAS ELECTRONICS TO CO-OPERATE ON HELMET- MOUNTED DISPLAY SYSTEMS

US Government approves Agreement

With the approval of the United States' Government, GEC Avionics has made an agreement with McDonnell Douglas Electronics Company to co-operate in developing a helmet-mounted display system for advanced aircraft of the future. The two companies have agreed to combine their experience for the development and production of a new type of integrated display system, for use in day and night operations.

Airborne Display Division, Rochester, will be responsible for system integration and for the pilot's display itself. This will be based on the successfully-tested Cat's Eyes night vision goggles, using the same optical combiner system and the LED matrix displays already tested successfully in several US and UK aircraft. The display will be linked to the well-proven electro-magnetic Head Positioning System, which is produced by the Polhemus Navigation Sciences Division of McDonnell Douglas Electronics Company.



The American company began operations in Georgia in 1966 as a product support facility for the major systems which were then being supplied for the US Air Force Lockheed C-5A Galaxy and the US Air Force/US Navy A-7 jet fighter.



Cats Eyes NV Goggles



AERMACCHI CHOOSES NEW INTEGRATED NAVIGATION SYSTEM FOR MB 339K AIRCRAFT

GEC Avionics is again selected.

Aermacchi, whose current production MB 339 aircraft are equipped with the AD 620C navigation system, has again chosen GEC Avionics to supply a new Integrated Navigation System for the MB 339K, its advanced trainer and close support aircraft.

The new system, the AD 620K, is produced in Airadio Products Division, Basildon. This has an enhanced navigation capability compared with previous versions of the AD 620 system, due to the addition of an AD 660 Doppler Velocity Sensor and associated processing and display. The system operates in conjunction with an inertial platform, and navigation and attack information are displayed to the pilot on a wide angle head-up display.

The AD 620K system for the MB 339K comprises, in addition to the AD 660 Doppler, an AA 6247 Navigation Computer Unit and AA 6248 Remote Display Unit.



NEWS RELEASE:

UNIQUE INSTRUMENT CAN MEASURE TEMPERATURE INSIDE AIRCRAFT TYRES

A new aircraft instrument system, the first which can measure temperature inside an airliner's tyres, was exhibited at the Farnborough Air Show by GEC Avionics. Developed by Powerplant Systems Division, Rochester, it will assist pilots in making safe decisions about taxiing and take off, and reduce any risk of tyre damage.

The system, which does not rely on physical contact with the tyres, comprises a radiometer sensor head on each undercarriage bogie, which senses the temperature right inside the carcass of the tyre. It relays this information via digital data link for data processing and display in the cockpit.



FOKKER NOMINATES GEC AVIONICS AS MISSION SYSTEM INTEGRATOR FOR MARITIME ENFORCER AIRCRAFT

GEC Avionics has been selected to make a major contribution to the new Fokker Maritime Enforcer Aircraft. Maritime Aircraft Systems Division (MASD), Rochester, has been nominated by Fokker as the overall Mission Avionics integrator and as a supplier of major sub-systems for the aircraft.

Fokker's choice has been based on the systems experience and equipment which GEC Avionics has applied to a number of major maritime aircraft, and they are the only company which could offer Fokker the total range of highly capable tactical processing and sonar processing systems, which are needed to achieve success in attacks against modern types of submarine.



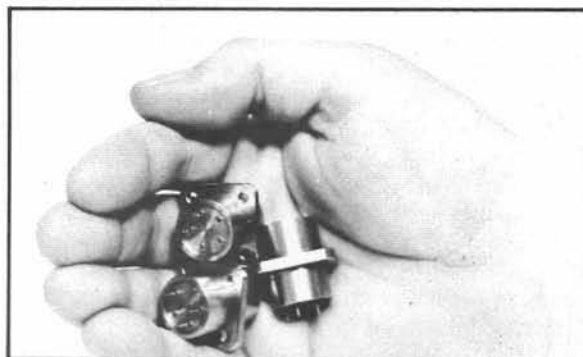
NEW, LOW COST, RATE SENSOR IS SOLID STATE

Based on the Company's research into alternatives to spinning wheel gyroscopes, a new solid state angular rate transducer (START) has been developed by Guidance Systems Division, Rochester. Its' low production cost, an order of magnitude below that of precision rate gyroscopes, will meet new and growing requirements for sensors used in weapon guidance systems.

The development of START, which is smaller than thumb-size and

weighs less than 25 grams, extends this capability to the guidance and control of such weapons as hyper-velocity missiles, terminally-guided submunitions and precision-guided munitions.

Guidance Systems Division is now offering a range of new guidance units for these, and other applications, where relatively short flight times are coupled with a need for low cost and high volume production.



Solid-state Angular Rate Transducer



GEC AVIONICS ANTI-SUBMARINE EQUIPMENT SELECTED FOR INDIAN NAVY

The Indian Navy has selected the GEC Avionics AQS-902 as the sonobuoy processor on its new Westland Sea King anti-submarine (ASW) helicopters. The aircraft will also use the GEC Avionics TPS (Tactical Processing System) to integrate the other tactical sensors into a centralised display and control system.

Both these equipments are designed and produced by Maritime

Aircraft Systems Division (MASD), Rochester, which won a Queen's Award for Technological Achievement in 1983 for its ASW systems.

MASD has supplied AQS-901 and 902 sonobuoy processing systems for the RAF Nimrod Mk2 Fleet, the RAAF P-3C squadrons, the Royal Navy's Sea King Mk5 squadrons, and the Royal Swedish Navy, and is developing AQS-903 for the RN's EH 101 helicopter.



FAM



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Barry Dearmer





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MAJORCA (The "inside" story)

continued from Page 3

Tourism, which many of us have enjoyed, is always a mixed blessing because of the pressures which it brings on irreplaceable amenities such as the Albufera marsh in the north east. There is no organised "conservation" as such in Majorca but Pat Watkinson (now Bishop), an expatriate Englishwoman, has for years been fighting a lone battle against the developers to preserve this wildlife haven, which in particular is a vital "refuelling" point for migrant birds, and home for many of the resident species. In the middle of the marsh, the slightly elevated area of "Lone Pine", which is carpeted with orchids, gives spectacular panoramic views of ospreys and marsh harriers hunting for food against a backdrop of the mountains.

Behind the beaches is an historic island of great richness and diversity, but which because of the pressures of tourism is now itself an endangered species. Whether by accident or design, the Mallorquin Council does not seem to be ploughing back into the island very much of the immense revenues of tourism, although some roads are being improved. There is now, I suspect, development enough, and one would hope that the Council will see the sense of taking active steps to preserve the widely varying character of the island which makes it so uniquely attractive to residents and visitors alike.

D. M. Crips
AWS Division



Ability is the power to do something special — like speaking several languages or keeping your mouth shut in one.



Old maths teachers never die, they just multiply.



Sign on a spiritualist's door: Please ring bell, knocking only confuses things.



'BUMBLE'

Milton Keynes Sports & Social Club



I should like to take this opportunity to introduce the readers of "Earshot" to the Milton Keynes site — our newly formed Sports and Social Club (which by the way, we still call Marconi Avionics (Milton Keynes) Sports and Social Club) and to our own "Newsletter", of which I am one of the Editors.

As you probably have already heard — we are now in possession of a fine new "Permanent" building, of which we are justly proud, this is the first stage in the development of the Milton Keynes site and is naturally called Block 'A'. Block 'A' comprises various sections including the Drawing Office, Print Room, Goods Inwards and Inspection, Trials Support and various Labs — the whole being temperature controlled. We understand that the next phase will be started this coming summer.

Included in the above building phase (Block A) we had built a rather spacious Staff Restaurant/Exec. Dining Room/Conference Rooms/Kitchens and our very own club room — this we are extremely pleased with and since our opening night, on Friday, 28 September, we have had various functions and I am happy to report — our members are being very supportive. We have on order the furniture for the Club Room and we are expecting it to arrive within the next two weeks. At the moment all the furniture we are using is begged, borrowed or "the other thing". We

have a part time bar lady for lunch times and we on the Committee are working the bar ourselves in the evening. We are hoping that it will not be too long before we will be employing a full-time steward.

The "Newsletter" is just a bit of fun — it was started by Bob Allen (no relation) three to three and a half years ago and I came onto the scene about two years ago, we advertise in the "Newsletter", try to keep abreast of local Company information — report on the Sports and Social Club and introduce copy from people on site — and from other contributors — we do, most of the time, manage to keep it light-hearted, however, should their be more serious matters to report we do that too — we rarely turn down any copy, our rules being that it's kept clean (risque we don't mind) and we are not asked to print anything of a libelous nature. Apart from that "anything goes".

I hope that "Earshot" readers will find something of interest in this small report, and should anyone have any questions, copy they would like printed or any further information, please do not hesitate to contact me at Milton Keynes, Block 25, extension 3343.

Tina Allen

Aren't you a lucky lot out there!
EDITOR

Congratulations: Congratulations: Congratulations:



Wedding bells were ringing again in the 313 Model Shop on Saturday, 29th September, for Suzanne Gee when she married Lee Fleetwood at All Saints Church, Borehamwood. Her bridesmaids were Pamela Rich from 314 Test House and 3-year-old Kelly Troth. The reception was held in the Social Club and Suzanne and Lee spent their honeymoon in the Lake District. We wish them both every happiness for their future.



Systems Simulation and Test Department, 317 Division, Blueroom have had a busy year this year with four weddings and a birth.

The weddings began with Debbie Hall who married Mr. Jon Webb at St. James' Parish Church, Bushey Village, on the 7th July 1984. The

reception was held in Rowley Lane Social Club and the couple honeymooned in the Seychelles. Debbie is the word processor operator for the Mission Simulator Project.

Second to marry were Wendy Blakeley, SSTD Secretary and John Barton of GEC Computers, at All Saints Parish Church, Borehamwood, on the 18th August 1984, the couple then honeymooned in Austria.

Third to "catch the bug", and subsequently catch the Mission Simulator Team napping were Dave Ryalls of the Mission Simulator Team and Sue Wigham, late of Mission Simulator and currently with Mission Analysis, at St. Albans Registry Office on the 8th September 1984.

And lastly, but by no means least, Gill Clare, Secretary for ATE married Mr. Mark Ogle at Barnet Registry Office on the 17th November 1984.

All four couples are warmly wished every happiness for the future.

And finally, warmest congratulations are sent to Dave Trivedi of the Mission Simulator Project and his wife Minaxi at the birth of their first child, a son, born on the 8th November, and weighing in at 7 lbs.



& Best Wishes for a Happy Retirement



Frank Briant retired from this Company on 16th November 1984 after 30 years service. Fred Thompson hosted his retirement lunch on Monday, 12th November. Frank and his wife, Maureen, are emigrating to Australia in the near future. We wish them every happiness in the retirement.



Malcolm Lester is a member of GEC Avionics Accounts Department at Borehamwood where he is O & M Accountant. He also serves as a Borough Councillor in the London Borough of Barnet, where his interests include Finance, Libraries and Arts, Establishment, Education Appeals, Pensioners Link, the Governorship of nine schools, and more.

Malcolm is seen here deep in conversation with the Prime Minister at a function in support of the Anglo-Asian Conservative Association. She is President of the Association and always makes time to be active in her Constituency and Malcolm and his colleagues are happy to support her.



Letters to the Editor :

Dear Sir

Bible Readings, Ancient & Modern

The Company's annual Carol Service has quickly become a much loved tradition, and once again this year was smoothly and efficiently organised and gave great enjoyment to the very many employees and friends who filled St Albans Abbey to capacity.

That was the bouquet. Now for the raspberry.

Unfortunately the selection of readings seems to be in the hands of a small clique with a quite incomprehensible predilection for the various modern travesties of the good old King James' Bible; travesties which are written in stilted approximations to modern English.

This year there was not a single reading to remind us of the magnificent cadences of the Authorised Version which to anyone over forty are an essential part of Christmas, and which have been a universal influence upon all good writing in English, for almost four hundred years.

I have made my own individual protest against this deprivation after every Carol Service, but obviously to no avail. I am told that these dreadful modern translations are "easier to understand".

I am convinced that this is a gross injustice to the employees of GEC Avionics who are well able to understand the seventeenth century prose of the Bible, and who would derive a lot more pleasure from hearing it in its old familiar form.

May I, through your columns, seek the opinion of my colleagues? Will all those who agree with me please indicate so to me by IC. If I get enough support, perhaps I can persuade the Cabal to let us have an "all Authorised Version" service next year, so that we can put the relative popularity to a fair test.

I promise also to deal fairly with any IC's which express disagreement: I will pass those over to the opposition.

Yours faithfully

Peter Chinn

P D Chinn
Borehamwood

Memo's for or against to Mr. Chinn please. Editor



I watched them tearing a building down,
A gang of men in a busy town,
With a ho-heave-ho and a lusty yell,
They swung a beam, and a side wall fell.

I asked the foreman, "Are these men skilled
And the men you'd hire, if you want to build?"
He gave a laugh and said, "No, indeed,
just common labour is all I need".

I can easily wreck in a day or two,
what builders have taken a year to do,
And I thought to myself as I went my way,
Which of the roles have I tried to play?

Am I a builder who works with care,
Measuring life by rule and the square?
Am I shaping my deeds to a well-made plan,
Patiently doing the best I can?
Or am I a wrecker who walks the town,
Content with the labour of tearing down?

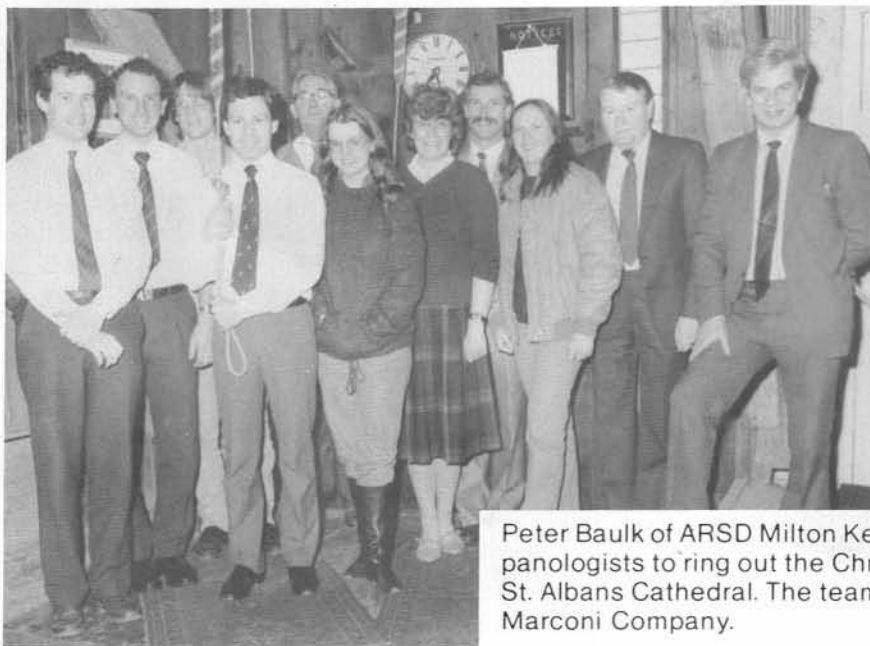
It's too bad that people who really run the country are too busy driving taxicabs and cutting hair.

"Dad, if I'm good will you give me a Pound!" "Nothing doing Son, when I was your age I was good for nothing!"

"BUMBLE"



-& Finally those Christmas Bells



Peter Balk of ARSD Milton Keynes organised a very successful team of Campanologists to ring out the Christmas message at the annual Carol Service at St. Albans Cathedral. The team comprises people from GEC Avionics and the Marconi Company.