

THE D.G.ENG BUGLE

IT'S OFFICIAL!!! CONFIRMED BY THOSE ATTENDING THE JANUARY D. G.Eng REUNION THAT THIS WAS THE BEST ONE YET. COMMENTS AND LETTERS HAVE BEEN RECEIVED BYTED TO THIS AFFECT (MAINLY DUE TO TED WOODGATE'S PERSISTENCE IN GETTING OUR OWN ROOM THIS TIME, 'MAKING FOR A MUCH MORE CONVIVIAL STYLE OF GET TOGETHER. THIS WILL REMAIN FOR FUTURE REUNIONS. WELL DONE TEDI I)

It was super to see so many attending the January binge in London. There were new faces as well which is always a very pleasant surprise. Norman Waldren in particular had not changed from his days in St Giles Ct and has clearly found the 'excelsior' of life. See below - or did he cheat with that photograph somehow? The CONNEX train strike made for some travelling difficulties but many were able to find alternative routes albeit somewhat lengthy. It was a pity that Tom Witchell was stranded on Sevenoaks station - hopefully next time Tom!

Correspondence has been received from: Pat Lund (formally Pat Gay, many congratulations!) who wishes to be remembered to all. Similarly, Derek Bettison, Pat Carter, Eric Driver, Rodney Garrard, Gerry Green, Colin Hockenhull, Alan Morris, Mike Neale, Terry Profit, John Roberts, John Stephens (whatever happened to that invite onto your narrow boat?) John Thompson and Ben Wright, all send their good wishes and hope to attend the next meeting.

On a sadder note, Ted heard from Tony Peduzzi's wife Margaret that he had been involved in an accident (not with his beloved E-Type) with a London bus earlier last year, receiving injuries that proved fatal. Margaret sent a very nice letter explaining the circumstances and also generously gave a donation to the fund. Lovely lady!

We hear regularly from Glyn Golesworthy who is still living the 'good life' in France. Apart from a short annual return to the UK in December, Glyn scampers back to the wine, food and great weather for the rest of the year. What a life! Perhaps we shall see him at a reunion one of these days.

Thank you to all attendees in January many of whom came from all over the UK (including the present RTOs at ROLLS-ROYCE East Kilbride Scotland, Great to see you lads and hope that you will make this a regular trip!)

To ease cost of travelling, Ted has arranged a different time for next years session which he explains in his

accompanying letter. I hope that you can all make it again and bring a friend.

And now for some more of those history lessons, with thanks to everyone who have sent in contributions>



Norman Waldren EngRD41966-72

It is 1966 and I am searching out a HQ posting as PPTO after earning my ticket at NGTE Pyestock. I remember extolling my virtues to both Engine Production and Development Branches and immediately going down with flu, descending to the depths of despondency which became even worse when I realised that I had left myself open to selection for a production job. Since 1943, after completing an apprenticeship at RAE, my career had been in gas turbine research - night testing, bench testing and component rig testing and the thought of production had always been an "over my dead body" concept even though I had had a spell in charge of workshops to "improve my prospects".

Fortunately, Eric Carter, 111en DEng2 saw fit to engage me and I took over from Bill Downie in EngRD4b under AD Jim Forshaw, in a section dealing with engine starting systems and Constant Speed Drivers.

While disappointed at not working on an engine, I was pleased to find my charge included two brand new

small gas turbines as starting Systems for SpeylPhantom and Pegasus/Harrier plus an experienced team of Ex.RAF Engineer Officers (Wg.Cdr Penny, Sqn.Ldr Stoneman, Sqn.Ldr. Butcher and Ft.Lt. Parkes).

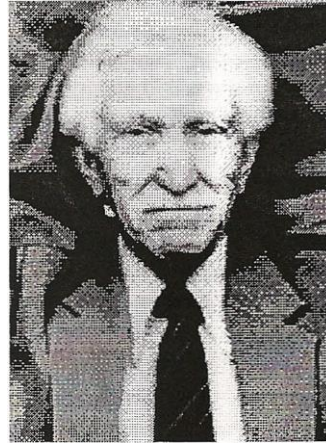
My first large project meeting was on the SpeylPhantom. I spelt out the problems we were having on the unique starting system and for my first accolade was hammered *into* the floor. Things got worse and I dreaded the next project meeting. However, with Jim Forshaw holding my hand, I briefed the Project Director with graphs of defects and "get better" predictions and the following meeting was quite painless. Adopting this approach at subsequent meetings at HQ and abroad avoided the need to carry a crash helmet!

In 1969, the uprating of the Pegasus engine to Mk 9, 10 and IT was *in* progress for the Harrier prior to introduction *into* the RAF. Engine Type Approval was imminent and a key candidate for project officer. Jack Annear, who had followed the engine up rating at Bristol as RTO, suddenly died. I took over under *Jim* Forshaw and what happened over the next 2 to 3 years, would fill a book as the Harrier went *into* both RAF and US Marine Corps service.

By 1972 the Pegasus engine had been on support funding for over a year and life became less frantic. Eric Carter had become DGE, Jim Forshaw had been promoted to DEng2 and Ray Holl had returned from the States to take over ADEngRD4. Ray's first job, like mine in 1969, was on a Board of Inquiry into the crash of a second development, 2 seater Harrier due to control systems failure (what can I say?).

I left HQ in mid 1972 when I was tempted back to NGTE Pyestock and was fortunate to be there when Mike Neale became Director. He revitalised gas turbine component research and I built up a team of engineers, designing and procuring research compressors, turbines and associated test facilities. I retired *in* 1982 to Cornwall. My best wishes to you all.

(Keep taking the pills Norman, you Look great!)



Stan Grav . Ten Year Stint. EngR. 1951-1961

As a new boy to the DGE get-together, beaten by a twelvemonth by Bill for the title of 'Old Boy' and with only ten years HQ service, I had hesitated to make a contribution to The Bugle. On reflection however, the period was of no small interest in EngRD history and was highly traumatic for the Industry. So at the risk of nostalgic rambling, I had better get *in* my piece while I can.

On 2 July 1951 I first made my way along the embankment for Thames House, a rather reluctant transferee from Pyestock, The sight of a couple of river police dumping a naked body onto Lambeth Pier did nothing to lift my mood (how long does it take to come to that"). John Drinkwater was ADEngR. "Hello Gray" he greeted me "have you still got my old motor-bike?" (a 1927 AJS I had acquired two owners down from ID himself). Thames House had a good facade and front offices, but the rest were dim, the canteen dire and the journey up for the Saturday half-day was a real bind. The move to St. Giles was a great improvement (after all, it had ceased to be a leper colony in the 16th. Century). except for the canteen that is.

EngR dealt with research contracts at the big five, Armstrong Siddeley. BristoL de Havilland, Napier and Rolls Royce and with work on combustion, fuels and oils and at Universities. We also liaised with NGTE and represented DGE on relevant subcommittees of the ARC and GTCC. My own field was the aerodynamics of intakes, compressors, turbines and exhaust systems.

With the lifting of security clamps on gas turbines and jet-propulsion, the postwar years saw an explosive proliferation of effort on research, testing, facilities, development on schemes and projects. Heady times indeed, but in retrospect quite unsustainable. Now the lime of cut and contract was upon us. Take the work on powered-lift, for example. on which I had to do a review. From helicopter tip drive. swivel-wings. tilting engines, jet-deflection. lift-augmentation. the jet-flap to lightweight engines and the flying bedstead. I dug

up projects by the pageful; but what has survived? Top-speed aircraft now demanded thrusts exceeding-all-up weight; engines could deliver the thrust/weight required; couple the by-pass unit with swivelling nozzles and you have a true classic, the right answer at the right time for the right job-the Harrier Yet even this only survived its early age as a private venture. Do you remember Duncan-Sandys and the rocket era? Is that all that the Services need? Is the RAF to be redundant? Great was the relief when we could coin the phrase "The time of Sandys is running out".

In EngR we were subjected to interminable wrangles on what was research and what development, on control, costing, duplication. Bulk annual contracts were now anathema, so we broke down all programmes into objectives as a basis for separate, and numerous, contracts. The expected howls from Contracts Branch put a stop to that. Then we came up with a compromise system by which annual contracts would specify budget levels but individual programme proposals, to a definable stage for which time and cost estimates could reasonably be made, were to be submitted for approval through EngR, subsequently progressing to include costing. Now the howls of protest came from the firms, but they had no real option. In the event the system worked pretty well and by a twelvemonth some quite senior research engineers were admitting, off the record, that having to face up to the costs of their pet schemes had been a salutary experience.

Then there were the programme review papers; Chief Scientist, DCARD, CA, R&D Board etc. they all wanted their own presentations. I was involved with twenty of them during 1958/9 having inherited the job of collecting and collating contributions. This was during Bob Weir's time in the DG's chair. Now it is one thing to be on speaking terms with the Boss (we had met the Weirs earlier through mutual friends); it is quite another to live not much more than a mile away. "Do you think you can pop round with the latest draft this evening? That meant a revision session with the aid of Bunty Weir's coffee, but it was a very busy time and who could say "No"?

The big theme behind all this, of course, was the Ministry's exercise on "Size and Shape" for the aircraft industry. So the process ground on inexorably. Napier's budget was cut and the wind-down of programmes started; ASM and Bristol were pressured into the BSE merger and Napier split up, losing its place in the aero-engine field. De Havilland Engines lasted another year before being absorbed into BSE:-----
And then there were two.

The final act, but not till 1966, was the ROLLS-ROYCE buy-out of BSE, reportedly to forestall possible links with P&W and SNECMA. Well before that, in 1960, Bob Weir became DNGTE and Peter Lloyd 'oved from Pyestock to the DGEEng post. In October of the following year the EngR section and the

monitoring of research contracts were transferred to NGTE. And so ended my ten-year HQ stint.

PS A few days after getting my new Pyestock pass, I was greeted at the gate by one of the older Ministry Police. "Hello Mr Gray. Haven't seen you around lately. Have you been away?"

PPS Some time after my retirement in 1977, I received an unexpected phone call. "Hello Stanley, John Drinkwater here. Have you still got my old motor-bike? Could I buy it back for an enthusiast in the family?",

(Thank you Stan for a fascinating insight into a significant period of D. G.Eng history. I believe that the contract and finance 'initiatives' were re-invented every 7 years. There's nothing new on this earth! Can anyone else, apart from Bill Moschini, beat the 1951 date?)

PLEASE keep your contributions coming. We still have not heard from any NAMMAINETMA experiences, Fleetlands, apprenticeships in Royal Dockyards and of course the Services (the RAF in particular) were very active. Let us hear from you please.

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