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exposure

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The combined magazine for the nuclear community

Free to members of the British Nuclear Community | Veterans | Spouses | Offspring

Grayboy58 / Pixabay

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Foreword

It has been an exciting time since the last edition, the research projects have achieved key success milestones, the next phase of the Remembrance Project is well underway and significant developments on the international stage will add considerable value to NCCF activities within the UK.

With Phase I practically complete we have been able to turn our attention to the Phase II projects and aspirations. Increasing our Trustee base and looking for a Patron who will be able to make a positive contribution to our Nuclear Family Lost Generations Campaign.

Further development of the IT cloud services used by the NCCF has reduced the response time for managing Care, Wellbeing and Inclusion Fund Applications and we are currently achieving an average 14 day turnaround which is a huge improvement on the original 60 day plus.

Your Exposure Magazine remains the best source for factual information on matters affecting the British Nuclear Survivor Community. Every edition brings messages of appreciation and support from our readers. If you have a story to tell please send it to the editor so we can share with the community.

As we move to our second year of production we will start looking at other measures to extend the life of the magazine beyond the initially funded three years of the NCCF Communications Project. Increased circulation from the Lost Generations campaign, the introduction of selected advertising, the inclusion of editorials from common purpose organisations and the exploitation of alternative publishing outlets will ensure that Exposure is here to stay.

You can also visit the Exposure Online Magazine at
www.exposure.press

Cover Image
English Electric Canberra WH773 PR.7 - similar to the aircraft in our story "Operation Bagpipes" on p04. This aircraft can be seen at Gatwick Aviation Museum in Crawley, Sussex. Photographer - Grayboy58 / Pixabay

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The Pacific Venture ‘Operation Bagpipes’

A light-hearted account of a very unusual Royal Air Force Operation

This was to be a special mission and one that was without precedent for the Royal Air Force. Our flying task would be a leap into the unknown in a potentially dangerous environment, on the far side of the world with little or no backing possible from the UK. On top of that it would be undertaken purely as guests of another nation. To explain, our specialised RAF detachment had been tasked to fly nuclear cloud full penetration sorties, as part of the US Government’s forthcoming atomic test series in the Pacific. We would operate from a US Navy airfield on a tiny Marshall Islands atoll, in the middle of the vast Pacific Ocean. It was now late into 1953, and the tests were due to start in March 1954.

The Mission

The whole situation was far from the norm. The United States was about to hold the series of these atomic tests in the Pacific at Bikini and Eniwetok, names then largely unknown. Some months earlier, their government had quietly requested of ours that the RAF provide Canberra aircraft to take samples of the radioactive debris directly from the active atomic cloud created by the explosions. In those days American sampling aircraft could not do the same job as our specially adapted Canberra’s. We were No.1323 Flight, a Canberra research unit at RAF Wyton, and because we had been associated with sampling of the upper atmosphere for some time, we had been given the task.

Four 2-man crews were selected: myself and my navigator Phil Demmer and one other crew were from our Flight and, since it was already heavily tasked, the other two crews came from No. 540 Photo Reece. Sqn. - also at Wyton. The two Canberra’s and all our ground support came from 1323 Flight. Far from our routine passive sampling missions, now it was to be collection of the highly radioactive atomic material immediately following each detonation.

In those few weeks of frenzied activity, our aircraft had been much modified and fitted with the only long-range navigation aids then available. We had been briefed, inoculated against everything (from ingrowing toenails to beri-beri!), sworn to secrecy, ‘jabbed’ again for things unmentionable, re-briefed, and finally briefed again ..... until reduced to a state of exhausted preparedness!

The Trip out

On 15th February 1954 the two special Canberra’s B2s left for the Pacific, accompanied en route by Hastings transport aircraft carrying our ground support plus, turn and turn about, two of the four Canberra crews as passengers. The whole operation was under a veil of secrecy since the UK was not officially involved in these American tests, and I recall that the plan was to paint out the RAF markings on our Canberra’s on arrival.

The deal, apparently, was that whatever we collected as atomic samples for the US Government, part would be flown home in the empty Hastings transports for our research people at Aldermaston. Seemingly the intense scientific interest lay in the fact that the US intended to detonate the world’s biggest thermonuclear weapon during these tests - the advent of the hydrogen bomb!

Shades of the Distant Past!

All had gone fairly smoothly until we all arrived at Darwin in Northern Australia. As one of the Canberra crews my navigator and I were due to do the next leg of the journey to Townsville in Queensland as Hastings passengers, some 2000 miles across the top of Australia. At Darwin, on the eve of our arrival, both of us had gone to eat with the Royal Australian Air Force (RAAF) at their Officers’ Mess. The Hastings crew had instead gone into town for a seafood dinner and the following morning, after some half an hour of flight the Hastings navigator complained of feeling ill. Within minutes the rest of the Hastings crew became decidedly unwell and, one by one, they lost all interest in the flight. Although unqualified on this type of aircraft I ended up flying the Hastings with Phil doing his bit to get us from A to B. They say troubles never come singly. Some hours later, during one of his rare excursions from the loo to the cockpit, the Hastings flight engineer declared an engine to be overheating and that it had to be shut down.

The Hastings

I thanked my stars that at least I'd had some experience of flying four-engined 'steam-driven' aeroplanes, but wondered how I would cope with a 3-engined landing at an unknown airfield. Maybe my guardian angel heard me, because the Hastings captain recovered sufficiently to take over and to do the arrival himself, with my help from the co-pilot's seat. I did the rest of the outgoing journey by Canberra, but the same Hastings crew had more problems on the way. At one of the remote island staging posts unfamiliar ground-crew had refilled the engine tanks with the wrong detergent oil. The poor captain ended up with each engine in tum overheating to the point where it had to be shut down. For hours out over the lonely Pacific the aircraft flew with a permutation of any 2 out of four engines, whilst the others cooled down before each could be restarted. With typical sang froid the captain declared afterwards that it had been "*A fairly unusual trip*".

The Last leg

Our last outbound leg was directly across the Pacific to this tiny isolated atoll south of the atomic test area. The lack of time had meant that we were ill prepared. One important factor to us was the dearth of Canberra engine performance data at the abnormally cold temperatures to be found at great heights in the tropics.

With our early Rolls Royce Avon engines, if conditions were right, at the higher power settings an engine would without warning surge and 'flame-out', giving total loss of motive power. It could not then be relit at height and one had to come down to lower altitudes and warmer temperatures to regain power. That meant delay and unplanned use of precious fuel etc., but it was not disastrous - that is unless both engines flamed-out' simultaneously. This could and did happen, and that meant an emergency descent to relight whilst one still had sufficient strength in the battery.

I remember that I had one double and two single engine 'flame-outs' during one sortie, and other pilots had similar problems. On our last leg to the Pacific base the temperatures that day were critical and our Canberra that arrived safely had suffered with engine surges and one 'flame-out' at height. We had our hands full on that sortie; what with engine problems, navigation equipment failures, aircraft electrical faults and massive thunderstorms well over 50,000 feet high, it was hardly surprising that our thoughts barely included the problems of others.

Disaster At The Start

Our first operational aircraft had only just landed at Kwajalein, our final destination - and already we had a major problem!

We were worried as to why our second Canberra had failed to arrive on schedule within minutes of my similar aircraft. The boss, our detachment commander, had been on the island for a while to get things set up and was rightly anxious. I had just landed and he buttonholed me as we climbed out of our Canberra and quizzed me with "*Where the devil can they have got to? We've had their take-off time from the Australian staging post but we've heard nothing from them since*" I responded with, "*Well, they took-off just before us and we had sight of them on the climb out. I caught glimpses of them on and off for the first hour as we each threaded our way around the tops of the thunderstorms but, with problems. of our own, we were not unduly worried when we lost contact with them. We certainly heard nothing from them nor any distress call.*" The other crew members confirmed that they also had seen or heard nothing of our sister aircraft. The boss pondered this information and then made up his mind. He said "*No one has heard an emergency call from them. They do have ample fuel reserve so since they too may have had difficulties which delayed them, we 'II hold on a bit before we push the panic button.*" Shortly afterwards we did have to declare the Canberra missing and the full air/sea rescue system swung into action ..... And we waited ..... and waited!

Tragedy Twice

No trace of our other Canberra was ever found. We could only surmise that the crew had had a 'flame-out' of both engines, and had been forced down into a thunderstorm which had broken up the aeroplane. The Canberra, the Hastings and US Navy ships and aircraft all searched for three days but tragically, neither wreckage nor crew were ever found. In their wisdom the then Air Ministry decided to send out a replacement Canberra, with even less preparation time available before the tests began.

A typical Marshall Islands outrigger canoe

We charted its progress eastwards across the world, and again sat waiting for it in vain at the expected arrival time on its last leg to our Pacific isle. It didn't arrive, and yet again history repeated itself and we all searched over hundreds of square miles fruitlessly for any trace. The RAF personnel on the island helped to man the Rescue Coordination Centre and I remember that as the only time I have ever had to resort to drug stimulants so as to stay awake; as I recall, for the whole 72 hours of the search.

This part of the saga does have a happy ending. Some nights after the aircraft had disappeared I was woken by a puzzled US Navy officer. He showed me a grubby sweat-stained scrap of paper on which were the pencilled words "*We 're down but safe, come and get us!*" followed by a signature I knew well. The note had been handed in to a US_ Coastguard station on a neighbouring atoll by a native who had paddled his outrigger canoe over 100 miles to get there. He must have had some sort of sixth sense to find his way for he had no map, charts nor instruments of any kind.

Recovery

Our American friends despatched a flying boat at dawn that day and confirmed sight of our missing Canberra and crew sitting forlornly on a coral beach below the tide line, on the atoll the native had identified. It turned out to be the only inhabited island in the area and was actually some 110 sea-miles south from our base. The flying boat landed in the lagoon and, sharks notwithstanding, our pilot and navigator swam out to them. That was some reunion! They were safe and had the story to tell, but the boss was faced with yet another problem. What on earth was to be done about the Canberra - and the time was by then very short?

It seems that they too had had navigation equipment and radio problems and with nothing else to rely on, had descended early to look for their destination. They never did see it, and we worked out later that our tiny speck of an atoll must have been concealed beneath a puff of cloud. They searched in vain until their fuel ran low and spotting, just in time, this other atoll they had put down on the coral beach. For the next

Awash - Our first look at WH697 on the beach. Wally Kenyon is near the wing and I'm at the entrance door.

Tide Out - WH697 as we first saw it on the beach. Kenyon and I had just paddled in from the dinghy.

week they had lived in the tiny village, speaking no word of the native tongue, and being feasted right royally as 'intrepid birdmen from the sky'. Knowing them both I can see how the prospect of being 'King for a week' must have appealed -but they swore that they would never look another coconut in the face! The situation had its good side for from it I was able to acquire an authentic grass skirt for my then girl friend.

Because of the security blackout then in force the aeroplane, still with its distinctive RAF markings, could not remain where it was. Its pilot was adamant that with more fuel it might still be flown out, so the boss, myself and an engineering team embarked on a US Navy salvage ship to go and see. for ourselves. Airsick l never was, seasick I might well have become, because for the 15 hour journey we were confined in misery below decks in this thoroughly unstable flat-bottomed vessel as it battered its way through mountainous seas. The RAF has a saying "*If you can't take a joke then you shouldn't have joined*" which aptly covers that situation! We anchored finally some hundred yards from the coral beach.

The sailors swam in while the Air Force arrived with much more dignity in a rubber dinghy - after all we did have the tools to carry!

Removing the Evidence

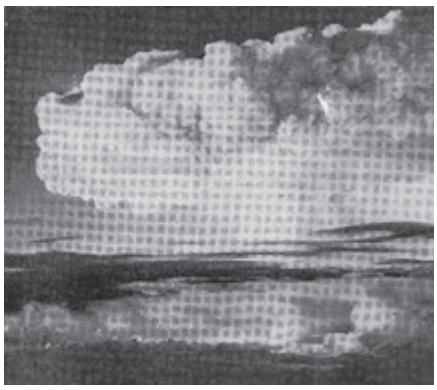
It was plainly obvious to us that the aircraft could never fly again. Force of water on landing had bent metalwork and salt-water corrosion had taken a terrible toll, even in that short time.

The coral beach was razor sharp and for the life of me, I couldn't understand why the aeroplane's tyres were still intact. I know how deadly the coral spines were because I slipped and gashed my leg on them and had to have my backside injected by the US Navy to prevent coral poisoning. We stripped the aircraft of everything we could remove, even the engines, and had it all transferred to the ship. We did have to swim out with some of the equipment, and had to be ever mindful of the sharks that abounded in the area. The Navy crew had warned us to be very careful and always had an armed guard standing by when anyone was in the water: they reminded us that shortly before we arrived one of their transport aircraft had ditched off the end of the· runway at the base with 40 nurses on board - and that the sharks had taken over half of them before the rescue boats could get there .. l do recall that, on .one occasion, an enormous Manta Ray swam by underneath me and scared the hell out of me!

"I was never designed as an amphibian" - The task of stripping WH697 at Ailingolapalap on the beach. Note the sharp coral spines beneath the surface.

Asset Stripping - This is an original photo taken from the US Ship, Showing us stripping WH697.
I'm the on the wing in the light bathing Trunks.

The final plunge - Last shot of WH697 being towed out to sea prior to its sinking. Note that we'd stripped off as much as we could - even the rudder.



Taken from the air a few seconds after the first thermonuclear explosion

The remaining hulk was winched off the beach by the ship and towed out to sea. First they tried gunfire to sink it but it wouldn't go, in desperation it had to be rammed several times before it finally sank beneath the waves. I got quite emotional as the tail disappeared - by an unfortunate coincidence it had been my own aircraft since early days in Germany. The wing tip fuel tanks we had removed. They were far too corroded for our purposes so, since the village headman had signified his interest in them, we left them with him in gratitude for all his help to our people. He was quite overcome and insisted that we accept in return twelve grass skirts and a rush mat. I quite forget where the rush mat went to.

We loaded the engines and all the equipment we had removed from the downed aircraft onto a Hastings and sent it home. The Canberra crew concerned passed a thorough medical check by the US Navy, and went home on the same Hastings. It was very plain that with so little time left, we might have to rely on just the one aircraft to do the task.

Final preparations

Back at base we were thrown into yet more frantic preparations for the forthcoming atomic tests. These were very early days in that field, so both our flying techniques and our ground handling procedures for the highly radioactive samples had to be worked out and practised, and practised again and again until we had minimised all the risks. In that process we set up probably the first nuclear decontamination centre the British Forces had ever seen. Our mentor in all this was an RAF senior officer who, because of his unmilitary approach and the depth of his knowledge, we suspected actually to be a scientist from the British Atomic Energy Authority. He did a superb job in training us, the more so since no one at that stage had any experience of thermonuclear detonations. He wanted to see and photograph the test sites for himself and my navigator and I were duly authorised by the Americans to take him in our Canberra to look at them beforehand: the three of us were I think the only Brits to have seen the atolls at Bikini and Eniwetok before they were vaporised.

The Tests

At first light on 1st March we, everyone on the base, were outside facing as taught away from the direction of the explosion. Precise to the second the whole dawn sky lit up as though from below from one horizon to the other. This changed rapidly to become a pearly pink glow and then, of course, the inevitable mushroom shaped cloud climbed to the stratosphere: probably the most awe-inspiring spectacle I have ever witnessed. I don't recall exactly how many tests there were after that but I know that each Canberra crew flew at least three or four sampling missions through the upper cloud - usually with several aircraft penetrations for the same explosion. We had expected severe turbulence inside but in reality it was quite smooth. The cloud itself contained particles of coral, sand, salt water and earthly debris and its whole colour varied from grey through amber to a pinkish tinge. Our internal cockpit air was filtered and radiation was closely monitored on a system of Geiger counters. When radiation reached a certain limit we had to turn and seek a 'cooler' spot. Better late then never, a second Canberra finally did arrive with us to help do the job. Sometimes then we flew a penetration as a single aircraft and sometimes as a pair in formation. Despite all the precautions, this exposure meant that every pilot, navigator and crewman picked up radiation, some more than others.

On return from a sampling mission there was a very strict procedure. All other aircraft were held clear while the Canberra landed and was taxied to a specially prepared area, enclosed on three sides by a low concrete bund. Engines were shut down before we came to rest to avoid jet blast radiation. A monitoring team swathed in full protective gear approached the aircraft first to check radiation levels at specific points. Only when declared safe would we, the crew, open the aircraft hatch so as to leave. Samples were removed next using special long-handled grips, placed in custom-made lead lined containers and spirited away.

...ds could be ...e words were: ... the year circum- ...ould so demand we ...ot hesitate to take more ...cal measures at a later ...te."

He had many nice things to say about the country's vigour and buoyancy—record productivity, increased gold and dollar reserves, favourable "terms of trade" which have enabled us to buy overseas nine per cent more food and materials at

see the first co... the National In... since the post-war ... established. And he problem at that.

Nor had he much more t... about the campaign for eq... pay for men and women, excep... that as a large employer in the Civil Servi... he is going to start by meetin... the staff side of Government employees to discuss the best lines of progress.

Mr. Butler, when he reviewed the accounts for last year, took satisfaction in what must be the

R.A.F. 'WATCHED' H-BLASTS

TWO R.A.F. Canberra bombers flew near the site of the H-bomb explosion on March 1 "some hours after it occurred," Sir Winston Churchill told the Commons yesterday.

A similar flight was made after the March 27 explosion. No injury or damage was suffered by the planes or crew on either occasion. But two Canberras were lost on their way to the U.S. base in the Pacific.

The loss was "in no way due to the risks of their special mission."

R.A.F. 'H-Bomb Patrol' Crews Pass Radio-Activity Test

By CYRIL BIRKS
"Evening News" Air Reporter

SPECIALLY picked R.A.F. Canberra jet bomber crews on flights timed to coincide with the recent hydrogen bomb explosion in the Pacific have been medically examined at their base in Australia.

The aircraft, which flew in the vicinity of the atom-isle testing ground, were also carefully checked. As a result, the Air Ministry told me to-day, both men and planes were found to be unaffected.

Report in an unknown newspaper - March 1954

Extract from a paper early March 1954. This was the first public announcement after Churchill's revelation in the house.

A Hastings always took-off within the hour bound for home. Whilst the Canberra crew went through a full decontamination process, the aeroplane was washed down for hours and irradiated water held within the bund was washed into marked containers for disposal. It says much for the system that everyone knew his part and followed the procedures, and that no mishap ever occurred. Basics apart, we were all fairly ignorant of 'things atomic' at that stage, and I do remember how magnificently our lads worked night and day to keep the aircraft going under the most unusual and trying circumstances. It was for all of us a journey largely into uncharted waters.

About this time, the article above about our task appeared in an evening paper and deserves some explanation. Because of other media releases some people at home already had a vague idea of what we were about - and might have raised unwelcome questions. The rest of our special unit was actually detached and operating from a base in Australia at the time, so that's why this cover story was used by the Air Ministry to quell speculation and to give our people some reassurance. In fact, none of us was 'medically examined' at the time - there was thought to be no need because we had been closely monitored. Could they possibly have been wrong?

Impressions!

On the lighter side, I have one abiding memory of these sorties. For this task we had been specially issued with a newly developed 'air ventilated suit' for wear in the tropics under our flying gear. This crude device was a sort of 'clown's undergarment' in nylon with tiny plastic air tubes all over its surface, all of which finally connected to give cooled air to the body from a supply in the cockpit. Since, in the Pacific area we had pre-flight cockpit temperatures on the ground up to some 50 degrees Celsius, we wore these suits as our only underwear next to the skin. They chafed, scratched and 'bit' like blazes under a tight ejection seat harness - but "*Oooh*" the sensual bliss when we first started the engines and were able to tum the air on!!! When stripped for a later swim, one could always tell who had flown that day by the marks left by the suit. Shades of the 'Spiderman' perhaps, but we were certainly 'deeply impressed' by the suits!

Winding down!

Operational duties aside, life on this tropical island was very pleasant and our hospitable American hosts went out of their way to help us relax when off duty. We sailed, we swam, we went scuba diving, we learned to drive the Navy power boats - and we became very familiar with their enormous T-bone steaks!

My favourite pastime was to go game fishing with my American friends. Their boats, courtesy of the US Navy were wonderfully equipped and the local ocean teemed with predatory monsters. I soon learned that to land a strike successfully, technique was not enough: one also needed a great deal of muscle and patience. I wasn't very good at it!

Towards the end of our time there we all, Americans and Brits alike, were aware that we were privileged to have been part of one of the most significant events of our time. Before we left we held a parade for our hosts when the American admiral of the base congratulated the detachment and formally thanked us on behalf of the US Government -: we must have done something right! When the tests were finished and the good-byes said, we all left for home. We had hopes of completing our circumnavigation of the world by returning Eastwards through Hawaii, the United States and the Atlantic but no, for security reasons authority decided that we should go home the way we had come.

Homebound

The RAAF who had looked after us on the. way out seemed equally pleased to see us on our return. When they heard that our detachment was coming through, the Australian staff at their outpost on Manus Island (North of New Guinea) prepared us a feast. In one of their long huts they presented us with a table full of seafood: not that unusual you might say - except that the trestle table was some 100 feet long and their proud boast was that no dish on it was repeated more then once. Seafood in that area was so abundant that all they had to do was to toss a stick of explosive over a boat's side and collect the harvest in large nets. Whilst there one of our lads, while swimming, rescued a local child from drowning and was decorated for his efforts back in the UK ..

Pungent Memories

I never missed any opportunity I could create to fly or to fly in, anything and everything possible. "*He's at it again*'' as my navigator would often say of me. I had flown the RAF Avro Lincoln before so, back at Darwin we had a day or two to spare and the RAAF were misguided enough to let me have a go in their maritime variant of the British bomber; this one with dual controls and an extra 7 feet or so of nose in front which completely 'blotted out' the runway on landing. Quite exciting until I got the hang of it!

The mention of Darwin reminds me: the living quarters where we stayed briefly were raised above ground level with their toilet cubicles open to the elements beneath them. I remember these 'Dunnys' (the Aussie term) because that area was infested with enormous green frogs, which would croak in unison at one during a visit - a bit disconcerting at night when one was half asleep!

Our Aussie hosts would have us believe that some of their frogs were aggressive and poisonous, so the unscrupulous among us adopted the local habit of flicking a lighted cigarette end at the nearest one. The frog would make a dirty dart to seize it, leap several feet into the air and then depart hastily accompanied by all its startled companions. Not very nice perhaps, but it left one to one's peaceful contemplation! At Singapore we rested for a day or two, and braced ourselves for the return to the cold of the English summer. Deciding that they needed a beer, one intrepid crew hailed a taxi and were confronted by a moon-faced driver who spoke no English. After several desperate attempts to transmit their wishes, one of them hit upon the right phrase, "*Take us to a Number 1 Place*" he said. The moon-face lit up, they scrambled aboard and were off into the Singapore night. Thirty minutes and some money later they arrived - at Number 1 Quay on the docks! That took some living down in the crewroom.

Wanderers Returned

Once back home there was as always the welcome from families and colleagues, plus the ever present pile of bills to be paid. Our most difficult part for the first few weeks was just how to explain where we'd been and what we'd done - because of course we couldn't say a word about it. We had supposedly been in Australia for several months, and could hardly be convincing about a country of which we'd seen so little. Snippets in the newspapers I mentioned didn't help, and to begin with I'm quite certain that some of our families wondered what the hell it was all about! Of course in time, the broad detail filtered out officially and the facts fell into place. Later, there was also a visit for one of us to see Her Majesty but, regardless, all were recognised for their participation in this, a unique operation.

The Sequel

Our efforts in 1954 may have contributed to the development of our British nuclear deterrent - but at a human cost! At that time little was known of the long term effects of radiation and so it was that, long after they had retired from service, most of those who had flown through those thermonuclear clouds died from cancer in one form or another. At this stage, Phil and I are the only ones left. In 1991 an eminent surgeon removed successfully removed my tumour and Phil has escaped the problem. What I don't know is what might also have happened to our lads who worked so long and so hard at Kwajalein, and who, as a result, must themselves also have received some nuclear contamination. My tribute to them!

In Memoriam

Tragically, in March 2019 Phil Demmer died after a long illness. He was undoubtedly the best navigator with whom I ever flew - and we shared the same cockpit for over 9 years. He was also my great friend, the 'best man' at my wedding and I at his.

Rest In Peace Phil!

‘Rogues Gallery’
‘Operation Bagpipes’ Detachment
Feb – May 1954

Wg.Cdr. W.N. (Wally) Kenyon AFC - Detachment commander Ex- CO of 540 P.R.Sqn - awarded the OBE?
Flt.Lt. (Frank) Garside 540 Sqn - Pilot Killed
Fg.OffG. A.(Gordon) Naldrett 540 Sqn - Navigator Killed
Fg.Off l.G. (Bunny) Warren 1323 Flt -Pilot - awarded the AFC
Fg. Off. D.A. (Derek) Spackman 1323 Flt- Navigator- awarded the QC
Fg.Off. J.W. (John) Crompton 540 Sqn - Pilot - awarded the AFC?
Fg. Off. R.G. (Bob) Reeve 540 Sqn- Navigator- awarded the QC?
Fg.Off. P.H.J. (Pete) Peters 1323 Flt - Pilot- decorated with the AFC by HM the Queen.
Fg.Off: P.S. (Phil) Demmer 1323 Flt - Navigator - awarded the QC
Sqn. Ldr. J.A. (John) Blythe BCAS- Health/Physics Adviser - awarded the OBE?
Flt.It. S. W. (Pat) Pattinson - Engineer Officer
Flt.Lt. J.O. (Black) Thomas Temp.1323 Flt Crash Landed
Fg.Off. M.B. (Chalky) White Temp.1323 Flt Crash Landed
Flt. Sgt. H.C. Dormer BEM. 1323 Flt - NCO i/c Killed
Sgt. J.A.Crane Assumed NCO i/c - believed awarded
Cpl. I.J.Malcolm
Cpl. G.E.Blackall
Cpl. E. Robinson
Cpl. V. Bartley
SAC A.R. Lewis - awarded the MBE
SAC L. Warner
SACP. Kemp
SAC P. Richardson
LAC J. Berrymen
LAC J.W. Cash
LAC A.H. Hicks
LAC W.T.A. Bishop

Canberra Aircraft:

WH881, WH887, WH738 (Lost en route)
WH697 (Crash landed then destroyed)

Phil Emmerson - Shutterstock

The Nuclear Community Charity Fund

Care Wellbeing and Inclusion Fund

Help when you need it

P14

Can the CWI Fund Help Me?

We show how the fund can help you and how it has helped others

P15

Meet 2 of the new trustees

Other new trustees will be featured in the coming months

P16

The Nuclear Community Charity Fund

Making that difference

Care Wellbeing and Inclusion Fund - Help When You Need It

Get help now - it's easier than you think.

CWI Fund
Making lives better

No matter what you are struggling with there is probably something the NCCF can do for you. Thanks to our new streamlined application process we can usually get a decision from the Grant Panel within 14 days, less if it is an urgent need.

From the outset the Care and Wellbeing fund was designed to reduce suffering and increase wellbeing across the entire British Nuclear Test Community. This specifically includes Veterans, Spouses their children, Grandchildren, Great Grandchildren and following generations.

This was a key requirement in the negotiations that created the Aged Veterans Fund and was fully agreed during the awarding of both grants.

Grant Requirements

There are very few requirements to receive support from the fund:

- You must be a British Nuclear Test Veteran, spouse or genetic descendant
- Your application must address the reduction of suffering and increase of wellbeing
- You can not easily afford the requested support.

Application Form

We have just introduced a new simplified application form, you will find a copy included with this edition of Exposure.

The form helps identify the three key grant requirements and is very easy to complete. If we need further information we will contact you, this is usually to ensure we are doing everything possible to address your issues.

Identifying Suffering

Suffering can be caused by many factors and is not limited to physical or mental illness. Social isolation, Continued exposure to stressful situations, sudden unexpected changes in circumstances are amongst some of the many things that can cause suffering.

Identifying Measures

You may already know what you need to address your situation and that's great but often we find people who have sought help from us are unsure, luckily we have gained a reasonable experience in identifying measures to address various problems. We have access to manufacturers and suppliers of disabled living adaptations, Occupational Therapist Assessments, Support and counselling services and many other innovative options like respite breaks.

The Wealth Question

This is a straightforward check: Can you easily afford to fund the addressing of your suffering?

This is a very reasonable question. All charitable support to the ex-forces community is subject to financial scrutiny and 'means testing' and the NCCF is no different. The charity has an implicit responsibility to ensure all its activities are in support of the public good.

Basically we look at your free savings, this is any savings over your 'personal allowance' you have that are not allocated to things like paying for your funeral or planned property costs or other important events.

The Personal Allowance is based on the Government set levels for receiving benefits and these are £6,000 or £10,000 if you are in receipt of a pension.

We provided some worked examples of this check in a previous edition of Exposure and you can read them online by visiting:

https://exposure.press/cwi-fund-regulation-of-grant-applications/

What Next

Even if you are not sure exactly what help you may need complete the form that came with this magazine as best you can and send it in to us. Our aim is to ensure that as many people receive help as possible.

If you are still unsure just give us a call or send a letter or email.

Write to:

NCCF Care
PO BOX 8244
Castle Donington
DE74 2BY

Call: **0115 8883442**
Or email: **care@thenccf.org**

Can the CWI Fund Help Me?

We have received feedback from a number of people who didn't think they could get help from Care Wellbeing and Inclusion Fund. As they all found out this is not the case! Here are a couple of case studies highlighting our work.

Case Study 1

We were approached by the daughter of a nuclear veteran with concerns about her fathers mobility, she explained that both her mother and father were very alert and mentally active but that they were suffering the rigours of decreasing physical ability.

The initial application was just for a mobility scooter however the fund team managed to get the veteran to agree to having an Occupational Therapist assessment. We have reproduced the provision recommendations from that report, they speak for themselves.

OT Report

Provision of a mobility scooter similar to a Veo Sport

Mobility has deteriorated significantly over the past year. He has a disabled parking badge but even with this, he is often unable to park close enough to facilities he needs to access. He is reliant upon his family to transport him directly to the entrance of facilities. The provision of a mobility scooter would allow him to be able to access local facilities independently. A mobility scooter which can be transported in a vehicle will also enable him to accompany his family on days out and on holiday.

Provision of a four wheeled walker

He has fallen whilst in his garden. His indoor and outdoor mobility are impaired due to arthritis.

The provision of a four-wheeled walker would provide additional support for him whilst mobilising and allow him to sit down to rest as required when mobilising.

Provision of a rail right side descending on the steps to the back access.

The provision of a rail right side descending on the steps to the back access. This will provide two stable points of support for the beneficiary as he ascends and descends the steps reducing his risk of falling. It is recommended that the rail be approximately 800 mm apart from the existing rail and built to the same height as the existing rail. The length of rail is to be the same as the existing rail which is approximately 500 mm in length.

The provision of two adjoining profiling beds.

The provision of a profiling bed will enable the beneficiary to sit himself up in bed from lying to facilitate independent bed transfers. It will also enable him to easily adjust his position in bed to achieve a comfortable sleeping position and improve the quality and quantity of his sleep, whilst allowing him to continue to share the bed with his wife. A profiling bed will also assist the beneficiaries spouse with her bed transfers and bed mobility.

With the justification of having a professional assessment the Grant Panel were able to authorise the provision of these measures and both the veteran and his wife are now benefiting from these adaptations.

Case Study 2

We were approached by a veteran who had self funded much of the adaptations they needed. Living with his wife in a self owned property and suffering impaired mobility due to replaced knees, hip and spinal damage. He encounters difficulty with steps, rough ground and inclines, hearing issues also affect his balance and sitting posture was increasing pain.

After being visited by a care solution provider he had been advised of a riser recliner massage chair which cost £6,376.

Thankfully before signing the paperwork for the chair he asked the NCCF for help and we were able to identify a superior chair from one of our trusted suppliers which only cost £1,300!

This is not the first time we have discovered extortionate prices being quoted to people by some suppliers. Usually they have come from adverts in magazines and their prices are not directly shown on their websites.

The NCCF use both CareCo:

https://www.careco.co.uk/

and NRS Healthcare:

https://www.nrshealthcare.co.uk/

for the majority of our disabled living aids. They provide prompt service and have a comprehensive range of products.

Meet the Trustees - Katy Morris

Katy Morris is an Account Manager in BT Global, with a passion for driving sustainable business. Katy's role is to develop strong relationships with customers, connecting with key business executives and stakeholders.

With this approach to work, Katy is quick to identify potential growth opportunities. More recently Katy took the role of Digital Impact and Sustainability Lead for Global alongside her Account Management role. In this role she leads the engagement activity of volunteering for over 15,000 employees. She also supports communication of sustainability messages across BT's global products and services.

Previous to Katy's role in Account Management she was a Commercial Manager working across both public and private contracts, having started in Major and Public Sector and later moving into Global. Whichever area of BT, Katy has consistently led and organised volunteering across the wider organisation by championing change and encouraging others to share stories and opportunities.

Before joining BT, Katy worked as an Associate Consultant in the healthcare and pharmaceutical sector, focussing on organisation development. She uses this experience to unlock opportunity and drive ambition/growth within business.

Katy brings a fresh perspective to the NCCF and is passionate about growing the charity and ensuring its' sustainability long-term. Katy is keen to support the charity through growing awareness, education and advocating for the nuclear veterans and their families. Going forward Katy is look at how social media can be utilised more effectively to grow our reach and build awareness to the community.

Katy's education includes:

(i) Institute of Contract and Commercial Management Practitioner Accreditation; and
(ii) LLB in Law with International Relations from the University of Portsmouth (2:1).

Outside of work Katy enjoys playing tennis, long walks and reading.

Meet the Trustees - Will Long

It is a real pleasure to be able to introduce myself as a new trustee of the NCCF. It is my first appointment of this kind and, as such, I am still finding my feet. I am looking forward to developing a role that serves the community which, of course, will take a little time.

I was born in Colchester, Essex a few months before England won the world cup for the one and only time in our history. I was born at home, as was the fashion in those days, and the story goes that it was the doctor who suggested the name of William. The name obviously stuck and I enjoyed a happy childhood with my three siblings.

My father had married quite late in life and I recall seeing pictures of his in his RAF uniform. Everything was great until my father developed cancer and passed away at the age of 59. It was whilst I was listening to the Eulogy at his funeral that the full extent of his experiences became known to me. At the tender age of 19, my Dad had found himself sitting in the rear cockpit of a Lancaster bomber over occupied Europe. He flew a total of 42 missions and was awarded the Distinguished Flying Cross.

© William Long

Will pictured holding one of the 2 books he has written for carers

The upshot of his death was that my mother was left to bring up four children. She did a great job and we have all gone on to lead happy and productive lives. My Mum developed Parkinson's disease in her fifties, and I found myself increasingly taking on the role of her carer as her condition worsened. One thing I learned out of that experience was the heavy price that carers pay in terms of their life balance and physical and emotional health. I researched the effects of carer syndrome and have written two books as a result.

Most of my career was spent in what was HM Customs and Excise. I had a varied and enjoyable time as a Customs officer and later I became a trainer. It was during my trainer days that I first met Nigel Heaps. I spent a lot of time training with Nigel and I recall tasting his home-made wine on more than one occasion. At his retirement event, Nigel sold me on the idea of becoming involved in the NCCF.

I now live in Derbyshire. I am married to Mel and we have two children and three grandchildren. Our son is also in the RAF and has just spent four months training in the Falklands. We love living in the area and are keen walkers, taking full advantage of living so close to the Peak District.

I see a very important future for the community as it serves its members. I believe that the cutting- edge medical research being funded will continue to reveal the full effects of the nuclear testing carried out decades ago. Anyway, that's a little about me and I look forward to meeting many of you at future events.

The Contented Carer

‘A Gift For Carers’ Book **FREE** from the NCCF

In 2015 NCCF Trustee Will Long published his first book ‘A Gift for Carers’ The impact of this book was one of the key reasons that the NCCF recruited Will to the Trustee Board.

The book was written following Will’s personal struggle with the psychological and physical pressures of caring for his mum. His experiences and research led him to develop a solution which counters the devastating effects of what the medical world refers to as “Caregiver Syndrome.”

Will identifies seven areas that make for a joyful life. This book is packed full of stories that will educate, inform and inspire the reader to create a better life and future. His engaging style will ensure that you definitely will not want to put this book down.

After reading this book you will enjoy:

- Higher levels of self-esteem
- An improvement in your physical health
- A greater understanding of yourself and others
- A powerful mind-set
- A more optimistic outlook
- The ability to handle change
- The confidence just to be yourself
- Greater focus and a sense of direction
- A general feeling of contentment and wellbeing

The NCCF Care & Wellbeing Fund have decided to support providing a copy of this book to any person providing care to a member of the British Nuclear Survivor Community.

To apply for your copy simply send your name, address, the details of the Nuclear Community person you are caring for and a copy of your ‘Carers Allowance’ award notification.

The NCCF
Po Box 8244
Castle Donington
DE74 2BY

Or by email to: **office@thenccf.org**

If you do not provide care for more than 33 hours a week and thus are not in receipt of the carers allowance then you can still apply, please give details of the care you provide (type and number of hours a week), The Grant Panel will make a rapid decision.

A Gift for Carers has received many positive reviews, Derek Kemp writes:

“

This is one of those must read books if you are having to care for someone and are looking for some support and advice. Having had to care for an elderly Mother-in-law and Sister-in-law I can assure you that the information the author shares is extremely helpful to anyone looking to get their life back and move on. Thank you William Long, well written.”

Derek Kemp

Memorial Plaque Article

After the great success of the unveiling and rededication of the new memorial stones at the National Memorial Arboretum, we were approached by a number of people asking if they could have a plaque placed onto the stones to remember their loved ones. We are pleased to announce that we are offering this service.

The memorial at the National Memorial Arboretum, Alrewas Staffordshire.

Plaques on the back of the main memorial stone

The new memorial features the plaques that were taken from the old benches that used to be on the site, which are now installed onto the back on the centre stone, leaving space for additional plaques.

We have sourced a plaque supplier who will supply us individual plaques at a cost of £28 each. The NCCF will pay for our stonemason to visit the NMA and install the plaques onto the back of the stone on a quarterly basis depending on the demand.

If you would like to have a plaque mounted on the memorial please call the NCCF on:
01158 883 442
or email:
office@thenccf.org

Each plaque is made of solid 3mm thick brass and are be 5 inches wide by 2 inches high. You can choose whatever text you would like on the plaque yourselves but we advise no more than 5 lines of text per plaque, the manufacturer will reduce the text size to fit. The Plaque above is actual size.

Nuclear Family Lost Generations

In the last edition of Exposure we revealed the possible extent of the British Nuclear Survivor Community to be in excess of 120,000 people. The Nuclear Family Lost Generations campaign will launch early 2020 and aims to reconnect as many of those missing community members as possible.

The new Trustees Will, Katy & Victoria are taking this essential campaign forward and there may be an announcement of a new Patron who will get behind the campaign and really get things moving.

Our Care, Wellbeing and Inclusion Fund is open to all members of the British Nuclear Survivor Community and there are undoubtedly many people out there who are suffering on a daily basis who do not know about the help they can receive.

These potential beneficiaries are out there, within the last month two NCCF officials have spoken to people they have known for some considerable time only to find they were part of this Lost Generation. We need to find the rest.

You can do your bit by sharing your copy of Exposure with anyone you know who may be connected with our community. Talk about the help on offer, remembrance, research and information communication that the NCCF are freely sharing with the community.

We will use the NCCF social media platforms and Exposure Magazine to keep you all updated on this campaign.

If you are on Facebook or Twitter please use the hashtags **#LostGenerations** and **#NuclearCommunity** on any relevant posts and share our posts on any other social media site or page that could be read by members of the nuclear community. The more times you share our posts the more chance we have of helping people who may not be aware of the help we can give them.

#lostgenerations

#nuclearcommunity

CHRC

Centre for Health Effects of Radiological and Chemical Agents

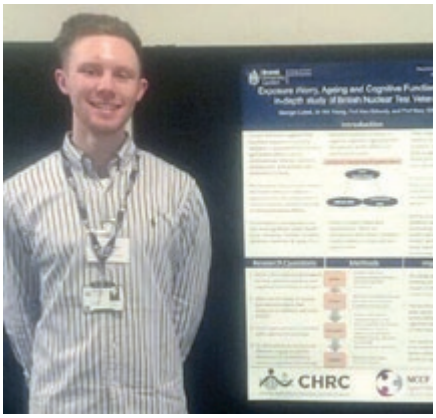
Exposure Editorial Summer 2019

Centre for Health Effects of Radiological and Chemical Agents

In this issue, Alex Perry describes how researchers from all over the world are investigating the health consequences of exposure to ionising radiation.

He briefly summarises the studies by scientists of different groups of people who are known to have been exposed to radiation. These populations include the survivors of the atomic bombings of Hiroshima and Nagasaki and their descendants, people affected by the 1986 Chernobyl nuclear power plant accident and American nuclear test veterans. Our aim in summarising these studies is to highlight their relevance for British nuclear test veterans and their families and to show how they relate to some of CHRC's ongoing research.

We know that many of you are keen to hear about our progress with the Genetic and Cytogenetic Study. Invitations continue to be forwarded by various GPs so please do respond if you receive one. However, we are pleased to let you know that have reached an important milestone in our recruitment target for nuclear test veteran couples. Although there remains a lengthy process in progressing each family member through the formal consent process, we can say we are nearing completion of this stage of the study. Our laboratories also continue to be busy with the receipt, processing and analysis of all of the blood samples donated by those who are participating in the study. This continues to be a big effort with a lot of in-depth analysis underway and this work will continue over the next year. We thank everyone who is taking part in this study.



George Collett

Amy Prescott

As ever, it is important to remind everyone that we have no way of knowing what the results will show. If any evidence of genetic change in veterans of nuclear weapons testing and their children is found, when compared to family groups not associated with nuclear testing, further research would be required to assess the meaning and possible health impacts of this.

We would also like to take the opportunity to update you on the other studies where members of your community are volunteering.

George Collett, who is investigating the relationships between exposure worry and cognitive functions, has to date conducted 60 cognitive tests over the telephone. George will invite an additional 20 veterans to take part in these tests by the end of August. These veterans have already taken part in earlier research with George and have agreed to be contacted for follow-up studies. He will analyse the data from these tests to assess whether exposure worry affects cognitive functions such as memory and reasoning.

Amy Prescott, who is investigating the relationships between sport, culture and wellbeing, has conducted 13 face-to-face interviews over a 4-week period in the South of England. Telephone interviews are currently being conducted and are due to be completed by the end of August. Some of the participants will be invited for follow-up phone calls in September to clarify topics discussed in their interviews. Amy will be in touch directly with those involved.

Both George and Amy would like to thank all of the veterans who have given their time to these studies and greatly appreciate their contributions.

We will continue to keep you updated on the progress of these studies but in the meantime we hope you are all enjoying the summer.

Radiation Exposed Populations

Researchers from all over the world are investigating the health consequences of exposure to ionising radiation. They are seeking answers to questions which range from how to improve the benefits of using radiation to treat diseases such as cancer through to what the potential adverse health effects of exposure may be.

As part of this endeavour, many scientists are studying the effects of exposure within different groups of people who are known to have been exposed to radiation. In this article we briefly describe these populations, as the findings from these studies are often very relevant for British nuclear test veterans and their families.

The main human populations include:

1. People who receive natural doses of radiation that are higher than the global average dose of 2.4 mSv per year.
2. Patients who receive doses of radiation for medical reasons.
3. Workers who are exposed to radiation because of their occupation.
4. People who are exposed to radiation through war.
5. People who are exposed to radiation through accidents.

High Natural Background Radiation

We all receive a natural background radiation dose which depends upon our geographical location. The annual natural dose for the average person in the UK is 2.3 mSv. However, this is higher in places where the rocks in the ground contain higher levels of uranium (a radioactive substance), for example in Cornwall the annual radiation dose is 7.8 mSv which is more than three times the UK average.

The radioactive substances in the ground, uranium and thorium, produce radon gas, which is the most hazardous part of this background radiation. This radioactive gas emits alpha-particles, which can damage lungs and other cells when it is inhaled. Indeed, radon is the second most important cause of lung cancer after smoking, though smoking poses far greater health risks. Scientists have found that the combination of exposure to radon gas and smoking (which is predominately a chemical hazard) is more harmful than either radon or smoking alone.

Relevance to Veterans

- Fallout includes radioactive substances which emit alpha-particles similar to radon gas.
- The chemical insecticide DDT was used on Christmas Island as a control measure against mosquitos.

CHRC's Research

We are investigating the effect of radiation and chemicals on cells, to gain understanding of the possible risks of such combined exposures on health.

Please refer to page 16 of our annual report for further details:
https://www.chrc4veterans.uk/wp-content/uploads/sites/30/2019/01/CHRC-Annual-Report-2017-2018.pdf

Medical Exposure to Radiation

Many of us will have been exposed to radiation such as X-rays for medical reasons, which can range from the lower doses which are used for diagnostic purposes to the high doses which are given during radiotherapy.

The average annual radiation dose for medical purposes in the UK is 0.44 mSv, which is much lower than for the United States (3 mSv). The bulk of the UK medical average dose (0.40 mSv) is accounted for in diagnostic procedures. Many procedures that we commonly receive such as dental X-rays (0.005 mSv) and chest X-rays (0.014 mSv) have very small doses. There are some diagnostic procedures which have larger doses. For example, a computerised tomography (CT) scan has a dose in the region of 10 mSv. Doctors get useful information from these procedures, which are performed based on medical need and the benefits gained for the patient.

Many procedures that we commonly receive such as dental X-rays (0.005 mSv) and chest X-rays (0.014 mSv) have very small doses.

Radiotherapy patients receive the highest doses of radiation because of the medical need to kill cancer cells. The total dose applied depends upon the type of cancer being treated and the stage of its progression. For example, a dose in the region of 20 to 80 Gy may be required to treat a solid tumour. This could be fatal to the patient if applied as a single dose, so the radiation is applied in repeated doses called fractions with each single dose being no more than 2 Gy.

Targeted radiotherapy is a newer form of radiotherapy which 'concentrates' or targets a radioactive substance at specific disease sites to kill the cancer cells whilst minimising damage of non-diseased normal tissue. One example of this treatment is where patients are injected with radium (an alpha-particle emitter) to treat late-stage prostate cancer which has spread to the bone.

Relevance to Veterans

- Radium used in radiotherapy emits alpha-particles which are similar in action to those emitted from radon or some forms of nuclear fallout.
- Radiation therapy can give information about the effects of internal exposure to alpha-particles on normal, non-cancer tissue.

CHRC's Research

We are investigating the impact of injected radium on the normal blood cells of a group of prostate cancer patients.

Please refer to page 17 of our annual report for further details:
https://www.chrc4veterans.uk/wp-content/uploads/sites/30/2019/01/CHRC-Annual-Report-2017-2018.pdf

Occupational Exposure to Radiation

Workers performing their normal, day-to-day duties receive low radiation doses in a number of occupations. For many of these professions exposure levels are monitored, any health effects are recorded and exposure limits are set using all of the available evidence. In the UK, the annual whole body dose limit for a worker is currently set at 20 mSv, based on research into health effects. In practice, most workers do not reach these limits.

Three out of four workers are exposed to ionising radiation work in the healthcare sector with an annual average radiation dose per worker of 0.5 mSv. This includes members of clinical teams who use radiation during surgery or to treat cancer.

Workers in the nuclear power industry have been monitored for exposure for several decades. The global average annual dose for these workers has fallen from 4.4 mSv in the 1970s to 1 mSv today, because of the successful implementation of radiation protection measures. This is lower than the doses experienced by coal miners (2.4 mSv). Coal miners may not consider themselves to be radiation workers, however, they are exposed to radioactive radon gas.

A very large health effects project called "The Million Persons Study" is in progress in the USA. This study includes registered radiation workers in a range of occupations and also a population of American nuclear test veterans.

Relevance to Veterans

- The Million Persons Study includes an investigation into the doses received by American veterans as a consequence of participation in nuclear testing and the subsequent health outcomes.

CHRC are following this study and will communicate the findings over the coming year.

Atomic Bombings of Japan

A joint Japanese-American scientific body called the Radiation Effects Research Foundation (RERF) is investigating the long-term health consequences of the survivors and their descendants of the atomic bombings of Hiroshima and Nagasaki in 1945. Scientists from RERF (formerly known as the Atomic Bomb Casualty Commission) have produced thousands of peer-reviewed scientific papers and continue to publish findings today.

RERF's investigation into the health of the survivors is called the Life Span Study (LSS), because starting from 1950 all of the participants are subject to follow-up studies at regular intervals for the rest of their lives. The areas of health that have been monitored by RERF include cancer, non-cancer diseases (such as cataracts and heart disease) and mortality.

To date, RERF have found that people who were exposed to radiation have a greater risk (called an excess relative risk) of getting cancer during their lifetime than people who had not been exposed.

The size of this excess relative risk was found to depend upon the radiation dose. It was found that the excess relative risk could be as high as 50% for people who received a dose of 1 Gy. However, just 2.5% of the survivors received this dose or more. Approximately, 80% of survivors received a dose of 100 mGy or less and their excess relative health risks are considered to be very low. There are uncertainties in precisely quantifying the low risks to health for low radiation doses (below 100 mGy or 100 mSv) and for low dose rates (below 0.1 mGy/minute) and a great deal of research is underway to address this.

There is evidence that people who were either young children or who were in the womb at the time of the bombings do have a greater lifetime risk of developing cancer than people exposed as adults. Furthermore, some children exposed to radiation when in the womb were born with smaller head sizes and mental disabilities.

RERF's investigation into the children of the survivors conceived after the bombings is called the F1 study, because they are following the health of the first generation of the survivors' descendants over their entire lifetimes. Scientists have found no clear evidence of an increase in the incidence of cancer or of any other health condition in children conceived after the time of the atomic bombings.

Scientists have found no clear evidence of an increase in the incidence of cancer or of any other health condition in children conceived after the time of the atomic bombings.

CHRC's Research

We are exploring this question of whether there are any health effects in children conceived after one or more of their parents was exposed to radiation by carrying out an in-depth review of the published literature.

Relevance to Veterans

- The long-term risk of health effects due to radiation exposure depend upon the dose received.
- There is no clear evidence of an increase in any health problems in children conceived after the time of the atomic bombings.

Radiation Exposure through Accidents

The most serious accident in the history of nuclear power occurred at the Chernobyl nuclear power plant on 26th April 1986. The Chernobyl accident resulted in the exposure of different populations to varying low to high doses of radiation which were received over relatively short times or over a period of several years.

Plant workers and emergency workers, especially firefighters, received large radiation doses at the scene of the accident. This caused a number of cases of radiation sickness requiring hospitalisation (134) with some cases leading to death (28 died within three months of the accident).

Those surviving plant workers, emergency workers and the recovery workers who were tasked with decontaminating the scene of the accident (called the liquidators) have been enrolled in health surveillance programmes. This will allow individuals to be supported and also help scientists to understand the long-term health effects such as cancer which may emerge decades after the accident.

The accident resulted in a large quantity of radioactive material being released into the environment. The contamination of fresh milk with the short-lived radioactive substance, iodine-131 (half-life 8 days) led to children and adolescents receiving large doses of radiation to their thyroid glands. This has led to an excess of cases of thyroid cancer. However, there has been no relative increase in thyroid cancer amongst people who were adults at the time of the accident.

Many residents of contaminated areas in Belarus, the Russian Federation and the Ukraine were evacuated from their homes. Many of these residents would have received low doses of radiation and although there are many uncertainties about health consequences after low dose exposure, the risks are considered to be small.

However, many evacuated residents showed symptoms of psychological stress. Indeed, more people were affected by the Chernobyl accident with regards to their mental health than their physical health.

Relevance to Veterans

- Environmental contamination can lead to exposure to ionising radiation.
- More people were affected by the Chernobyl accident with regards to their mental health than their physical health.

CHRC's Research

We are investigating the levels of "exposure worry" experienced by British nuclear test veterans. We are exploring ways that culture and sport can lift the spirits and enhance the overall wellbeing of veterans.

Please refer to pages 13 and 15 of our annual report for further details: **https://www.chrc4veterans.uk/wp-content/uploads/sites/30/2019/01/CHRC-Annual-Report-2017-2018.pdf**

Further Reading

For additional information please refer to:

1. Public Health England:
   https://www.phe-protectionservices.org.uk/radiationandyou/
   and
   https://www.pheprotectionservices.org.uk/cms/assets/gfx/content/resource_3595cscOe8517b1f.pdf
2. The United Nations Environment Programme: **https://www.unscear.org/unscear/en/publications/booklet.html**
3. The Radiation Effects Research Foundation: **https://www.rerf.or.jp/en/**
4. The One Million U.S. Radiation Workers and Veterans Study: **http://www.onemillionworkerstudy.org/**
5. The International Commission for Radiological Protection: **http://www.icrp.org/**
6. World Health Organisation: **https://www.who.int/ionizing_radiation/chernobyl/en/**

Supplier Spotlight – Catton Print

From my first involvement in the Nuclear community Catton Print have been producing the magazine for us from the old campaign magazines and now the exposure magazine you have today. Here is a spotlight on the company and how they are an integral part in getting your magazine to you.

Established in 1989 as a partnership between two Norwich printers, Simon Laskey and Stuart Rowles, Catton Print quickly established itself by a hands-on approach to its business.

Throughout the 1990s the business grew quickly and when Stuart retired in 2000 Simon took over as MD.

The key to the success since then has been the purchase and continual updating of quality equipment operated by well-trained staff, and always aiming to produce the kind of work that customers are really pleased with.

We are spread over two branches, our Base in Roundtree Close is home to our litho and digital presses and a full complement of finishing equipment.

Our other branch in Salhouse Road houses copying, digital and wide format printing as well as a large retail outlet selling a full range of stationery items along with greetings cards, soft and wooden toys.

The Exposure magazine is printed on 130gsm silk paper which comes from FSC accredited sources and as we are committed to helping the environment we give a percentage of our paper costs (which is not added to any invoices) to the Woodland Trust, a Organisation who manages new forests of native hardwood trees in the UK, I have personally planted over 300 Oak trees.

To produce the magazine it is printed process colour throughout which means all four colours, cyan, magenta, yellow and black make up the full range of colours used in one pass through the press. From the artwork supplied we impose the pages and send to our CTP machine that produces the printing plates.

After drying the flat sheets will be folded and gathered together to be turned into the magazine you receive.

Obsiven

Obsiven Update

Meeting in Paris constitutes Obsiven as an International Charity

P30

City of Hiroshima Peace Declaration

A historic letter from the city of Hiroshima

P31

OBSIVEN Update

Meeting in Paris - Charity Registration - Delegation to NAAV

Since our last edition the OBSIVEN organisation has undergone a significant organisational change. At a meeting in Paris on the 25th May this year; Jean-Luc Sans, Jean-Claude Kouyoumdjian, Jean-François Grenot, Keith Kiefer and Nigel Heaps developed the idea they had discussed at the previous years AVEN AG and it was decided to constitute the OBSIVEN movement as an international charity based in the United Kingdom.

Left to right: Jean-Claude Kouyoumdjian, Nigel Heaps MBE, Jean-Luc Sans, our brilliant translator, Keith Kiefer and finally Jean-François Grenot

The Constitution, Codes of Conduct and all other necessary documentation has now been completed and the charity registration documents have been submitted.

The aims of International Observatory of Persons Affected by Radiological and Chemical Agents Damaging to Health (OBSIVEN) are:

- To deliver education, research and support activities to ease suffering, increase health, wellbeing and enhance social inclusion of the International Radiological and Chemical Agents Survivor Community. This community is formed of people who may have encountered potential clastogenic exposure of radiological or chemical agents, their spouses and offspring.

- To conduct or promote research into the causes and effects and treatment of such clastogenic exposure and to disseminate the results of such research.

- To provide a communications network to disseminate information and promote discussion throughout the International Radiological and Chemical Agents Survivor Community and to wider international communities.

Full details of the OBSIVEN structure and membership criteria will be provided to groups representing nuclear, chemical and biological survivour communities across the world.

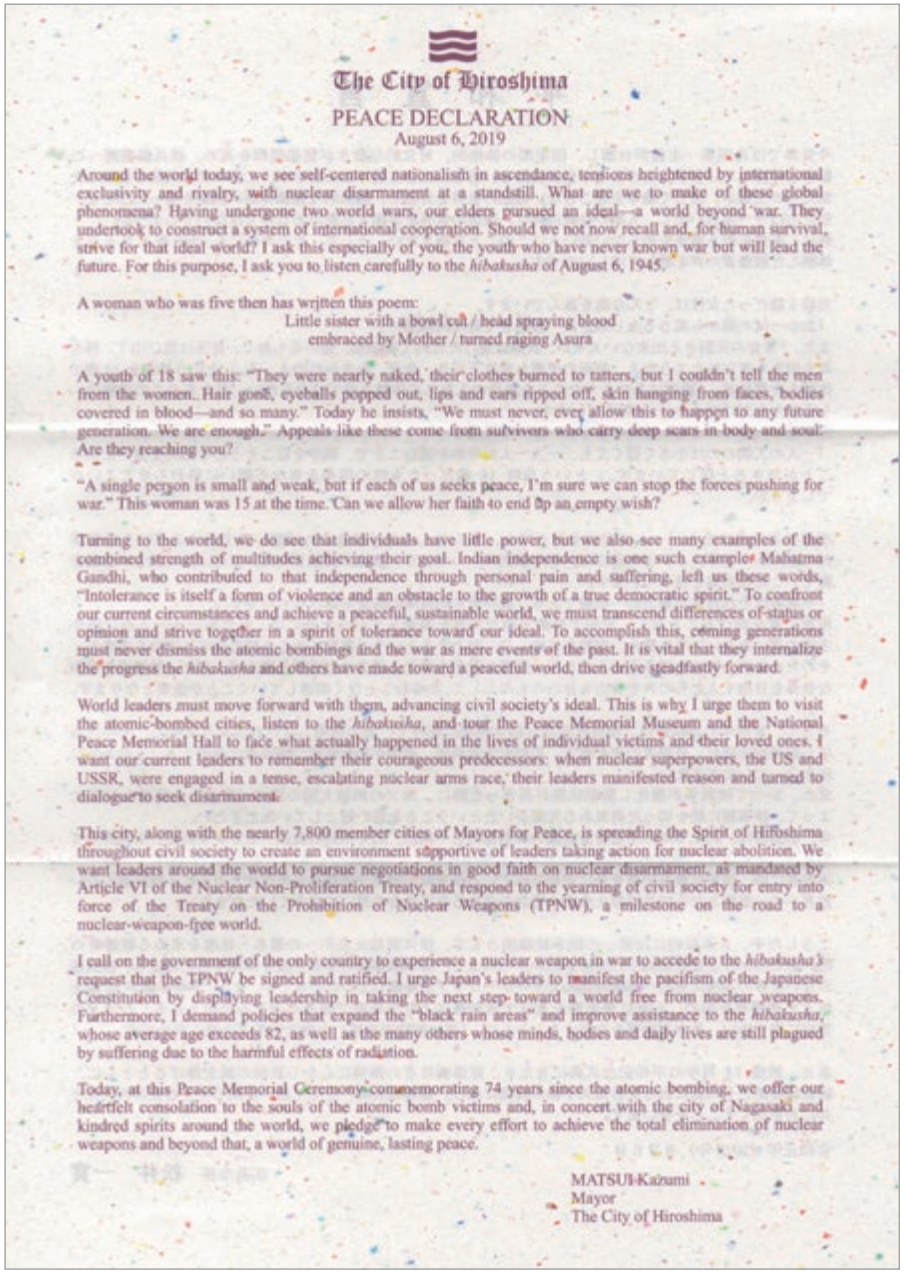
OBSIVEN will be fully represented at both the American NAAV 40th Annual convention in Ohio, USA between the 11th and 13th September and at the French AVEN AG in MAUGES SUR LOIRE on 28th and 29th September.

Developments and information from the OBSIVEN movement will be covered by Exposure magazine as part of our commitment to increase wellbeing by sharing advancements in our international community.

City of Hiroshima Peace Declaration - August 6th 2019

Kazumi Matsui, the Mayor of Hiroshima City has written to OBSIVEN telling us about the Peace Memorial ceremony conducted on the 74th anniversary of the bombings of Hiroshima and Nagasaki.

He also sent a copy of the new City of Hiroshima's Peace Declaration with the hope that we would share to all our people. The peoples of Hiroshima and Nagasaki are amongst the very first nuclear survivor communities in the world and in their footsteps many other brothers and sisters sadly tread.
Below is the declaration in full.



The City of Hiroshima

PEACE DECLARATION

August 6, 2019

Around the world today, we see self-centered nationalism in ascendance, tensions heightened by international exclusivity and rivalry, with nuclear disarmament at a standstill. What are we to make of these global phenomena? Having undergone two world wars, our elders pursued an ideal—a world beyond war. They undertook to construct a system of international cooperation. Should we not now recall and, for human survival, strive for that ideal world? I ask this especially of you, the youth who have never known war but will lead the future. For this purpose, I ask you to listen carefully to the *hibakusha* of August 6, 1945.

A woman who was five then has written this poem:

Little sister with a bowl cut / head spraying blood
embraced by Mother / turned raging Asura

A youth of 18 saw this: "They were nearly naked, their clothes burned to tatters, but I couldn't tell the men from the women. Hair gone, eyeballs popped out, lips and ears ripped off, skin hanging from faces, bodies covered in blood—and so many." Today he insists, "We must never, ever allow this to happen to any future generation. We are enough." Appeals like these come from survivors who carry deep scars in body and soul. Are they reaching you?

"A single person is small and weak, but if each of us seeks peace, I'm sure we can stop the forces pushing for war." This woman was 15 at the time. Can we allow her faith to end up an empty wish?

Turning to the world, we do see that individuals have little power, but we also see many examples of the combined strength of multitudes achieving their goal. Indian independence is one such example. Mahatma Gandhi, who contributed to that independence through personal pain and suffering, left us these words, "Intolerance is itself a form of violence and an obstacle to the growth of a true democratic spirit." To confront our current circumstances and achieve a peaceful, sustainable world, we must transcend differences of status or opinion and strive together in a spirit of tolerance toward our ideal. To accomplish this, coming generations must never dismiss the atomic bombings and the war as mere events of the past. It is vital that they internalize the progress the *hibakusha* and others have made toward a peaceful world, then drive steadfastly forward.

World leaders must move forward with them, advancing civil society's ideal. This is why I urge them to visit the atomic-bombed cities, listen to the *hibakusha*, and tour the Peace Memorial Museum and the National Peace Memorial Hall to face what actually happened in the lives of individual victims and their loved ones. I want our current leaders to remember their courageous predecessors: when nuclear superpowers, the US and USSR, were engaged in a tense, escalating nuclear arms race, their leaders manifested reason and turned to dialogue to seek disarmament.

This city, along with the nearly 7,800 member cities of Mayors for Peace, is spreading the Spirit of Hiroshima throughout civil society to create an environment supportive of leaders taking action for nuclear abolition. We want leaders around the world to pursue negotiations in good faith on nuclear disarmament, as mandated by Article VI of the Nuclear Non-Proliferation Treaty, and respond to the yearning of civil society for entry into force of the Treaty on the Prohibition of Nuclear Weapons (TPNW), a milestone on the road to a nuclear-weapon-free world.

I call on the government of the only country to experience a nuclear weapon in war to accede to the *hibakusha*'s request that the TPNW be signed and ratified. I urge Japan's leaders to manifest the pacifism of the Japanese Constitution by displaying leadership in taking the next step toward a world free from nuclear weapons. Furthermore, I demand policies that expand the "black rain areas" and improve assistance to the *hibakusha*, whose average age exceeds 82, as well as the many others whose minds, bodies and daily lives are still plagued by suffering due to the harmful effects of radiation.

Today, at this Peace Memorial Ceremony commemorating 74 years since the atomic bombing, we offer our heartfelt consolation to the souls of the atomic bomb victims and, in concert with the city of Nagasaki and kindred spirits around the world, we pledge to make every effort to achieve the total elimination of nuclear weapons and beyond that, a world of genuine, lasting peace.

MATSUI Kazumi
Mayor
The City of Hiroshima

平和宣言

HIROSHIMA

PAR AVION
航空郵便

The beautiful letter from the Mayor of Hiroshima.

exposure
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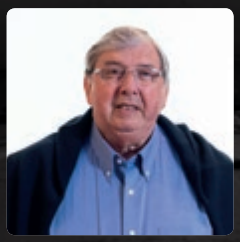

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