

By Roger Makings

OW DO you get 92 metric tonnes of bomber - bulging with fuel nuclear missiles, hi-tech avionics and a crew of five - airborne in under three minutes? And then climb it to an altitude of 60 000 feet in 20 minutes?

Today, most air forces would say: "With a lot of help from above". But five men living in the coastal town of Margate on the KZN South Coast - all of whom are in their 70s – or close – know the answer.

What you need is a delta-wing Avro Vulcan, a sharpish crew of 20-something, and technology that was way ahead of its time. Oh, and maybe the knowledge that the ground you are running over can be blown to smithereens before you make it into the air.

It is 1962 and the USSR is shipping medium range missiles to Cuba. US President, John F Kennedy, is not happy. He is expecting the missiles to be launched at the US. Britain, a close ally, knows it will have to play its part in the nuclear Armageddon that was surely only days away.

"Well actually it wasn't all that difficult. We had had enough practice and the right equipment to do it, " said Chris Abram, a former Vulcan pilot during the early years of the Cold War in the 1960s.

An alarm would rouse the crews, who slept fully clothed in huts just metres

away from their parked Vulcans. They sprinted to the four bombers, which were already prepped for takeoff, and clambered up the ladders into the cockpits.

"Once on the flight deck, the first thing I did was hit the rapid start pushbutton. All four Olympus engines fire up simultaneously, powered by gas bottles in each engine. The throttles have already been set at 60% power. As the engines wind up, a row of doll's eyes on the panel turn black indicating all systems are online. All I had to do was release the park brake and we were rolling.

"The lanyard connected to the ground power unit pulls out as the bomber begins to move . Within 20 minutes we should be at 60 000ft and headed for southern Russia," recalled Abram.

Gripping stuff, but how unusual for a man of that era to be sharing lunch with other members of the SAAF Association in the South Coast village of Uvongo who, sitting on either side of him, are also former members of the RAF who served on the V- force bomber squadrons during those critical Cold War years.

And it is sheer coincidence that brought them together. None of the men knew each while in the RAF.

And the unlikeliness doesn't end there. The general manager of the Sappers Glen

retirement home and sometime barman in the clubhouse where the SAAFAs meet, also worked on and flew in V-bombers as a civilian.

Gerry Gregory, who was a quality control engineer for Vickers Armstrong worked on the flight control surfaces of Victor bombers during the early 1960s when they were being converted to inflight tankers.

Gregory, who ended his working life at Atlas Aircraft and helped manage the project to restore Evelyn, the ill-fated Spitfire that would be spirited away from the South African Air Force and sneaked out of the country for sale in the US. says the Victors were the mainstay of Bomber Command's nuclear strike force during the 1950s.

"However, wing fatigue stopped the Victors from operating at low altitude and they were converted into airborne tankers," says the man who also worked on the flight control systems of the superadvanced TSR-2 at Boscombe Down.

Chairman of the South Coast chapter of the SAAF Association, Ken Bannister, a former weapons technician on the Valiant, says it was the only one of the three types to drop a nuclear weapon and even that was a test.

Valiant air radar fitter, Ian Andrew, says it was the Valiant in 1958 that began the highly successful tests on in-flight refuelling using the probe and drogue system that led to the vital service it is today in all the world's top air forces.

Bannister and Andrew agree that the Cuban crisis was probably the most frightening period of their careers.

"We were convinced that those bombers, armed with nuclear weapons, in their scramble pans at the end of the runway, would be launched against the Warsaw Pact countries," said Andrew.

Sharing their fears in 1962 was air radar fitter, Robbie Williams, who worked on both Vulcans and Valiants. He remembers the respect he had for the bombers.

"Although I liked the Vulcan – I was always crawling through the fuselage or over those huge delta wings – I wasn't happy about working in the cockpit or on the wings. In the cockpit we were dead scared of firing off the pilots' ejection seats. And when we had to de-ice those slippery delta wings, it was a good 20-foot fall to the ground."

Abram, who also flew Hunters for the then Rhodesian Air Force during the height of the bush war, says the Vulcan was streets ahead of its American B-52 counterpart.

"It handled like a fighter. No wonder the control column was a stick and not a yoke. The power-to-weight ratio was higher than in the fighters of that era. When the RAF visited the US in the 1960s, their fighters (like the Voodoo) couldn't match us for speed or height."

And it was incredibly manoeuvrable. At air shows, the Vulcan easily performs within the airfield perimeter. Not so the lumbering B-52. An overhead pass was about as much as she could muster, with maybe a languid bank to end things off.

Abram, who also flew Lightnings at the Empire Test Pilot School, in Boscombe Down, and DC-8s for the Rhodesian sanctions-busting cargo operation, Affretair, illustrates the point when, during war games against Lightnings in Cyprus, he jokingly made a landing approach towards the deck of *HMS Ark Royal* and only abandoned the manoeuvre at 50 feet.

"There is no end to my admiration for that aircraft. In exercises in Cyprus, the Lightnings would try to intercept us. We would put the Vulcan down on the deck, 200-feet above the water, and wait for the fighters to find us. When we saw them on our rear-facing radar they would have to go really low, say 50-feet, to have a shot at us. At night that was a big risk."



Margate's Vulcan "Old Boys" seen at a recent SAAF Association function. They are (I to r): Ken Bannister, Gerry Gregory, Chris Abrams, Robbie Willims and Ian Andrew. Below: Some crew members seen disembarking from a Vulcan during Cold War operations from Darwin, Australia, in the 1960s (Photo: Emie Todd, former Vulcan crew member).



Abram said Vulcan crews had a good chance of making it home in a nuclear attack. When it became clear that the USSR had the technology to shoot down high-flying aircraft, the V-Force bomber strategy of high-altitude bombing was reversed to low-altitude with the introduction of terrain-following radar.

The Vulcan was particularly suited to the low-level strategy as it was highly manoeuvrable and very fast.

"An incursion would theoretically go something this: We would be armed with the stand-off Blue Steel nuclear missile. Following the first strike ICBM and Polaris missiles, we would be approaching our targets in southern Russia at low level flying on TFR (terrain-following radar).

"Going into the attack we would draw down our black-out curtains, fly on radar and launch our missiles about 100 miles from the target. Thereafter, it would be low-level out of that situation relying on the TFR and rear-facing radar to get us home in one piece," Abram explained.

It is no wonder the British public was happy to hand over £400 000 (sterling) to keep its last Vulcan flying for the next two years. It is probably worth a trip to the UK to see this magnificent example of 1960's technology beating up the runways during the summer air show season.