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July-September 1973



Keeping the Memory Alive

Vol 17 September 2018



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Memories of the Dedication of the Redstone Rocket

By the Editor



Photograph: Carnarvon Space and Technology Museum

(Applause)

Lyn Beazley "Fantastic. Thank you for that.



Professor Lyn Beazley

One of the conversations we've had is how young people were in your team. Many of them under thirty. Is that right? And they were almost straight out of college some of them?

How did you get such a united team? You're the leader. You knew what every single person did. How did you manage to take such young people and thrust them into such positions of responsibility, and challenge?"

Gerry Griffin "Well, I think the answer is, it was the right time; as I said in the film everything collided together, with support, public support, resources. We had never done anything like sending people to another place in the solar system. So we started with a clean book.

And I was telling you earlier, I was doing aeronautical engineering, there was no Space on the Internet and I had to learn what an orbit was, after I got to NASA. Thank goodness we had some scientists, a few physicists and a couple of mathematicians, and some astronomers who understood how it all worked, and they were able to teach us. Nowadays you come out of college and you're ready.

Most of the people in Mission Control, and early on, particularly in Mercury and Gemini, came right out of college. They were 21, 22 years old.

When I got to the control centre I was an older guy because I had been in the air force for four years and I had a commitment to college that I

had to do, so I was one of the old guys, and I was in my late twenties. I think the average age on Gemini, probably very much like the trackers that are here tonight, was about 25, 26.

I was a Flight Director, I was 32 when I was made Flight Director; I was 32 years old, and had this great responsibility that (unintelligible) and so forth and later I became the Director of the Johnson Space Centre in Houston and had all that responsibility underneath me, and I can tell you the best job I ever had in my life was being a Flight Director in Mission Control".

(Applause)

Lyn Beazley "Isn't that a great answer and. I'd love to ask far more questions, but I am sure there are people here in the audience who'd love to ask you some questions.

I'd love to have one from the people here that you would have been talking to from Carnarvon. Please, hands up and we will get a mike to you.

Lady in the fur coat".

John McCloy "I've got a microphone here so I can run up (unintelligible). This is one of our winners of our write-in competition".

(Pause)

"Okay, If you're a little bit shy, that's okay we don't mind. So Mum, Mum will ask the question on your behalf. Congratulations, you can come up tomorrow to see your entry put into the time capsule".

Mum "He wants to know, why you actually wanted to send man into space"?

Lyn Beazley "Why did you want to send man into space?

That's a very basic and informed question. Well said".

Gerry Griffin "There's a number of reasons why. Some are more direct than others, but let me get started at the 20,000 foot level. It is in the DNA of the human species to explore. Humans will explore, it goes clear back to our beginning,

To be continued

Whereabouts

As a result of Paul Dench supplying his "staffing list", augmented courtesy the late Brian Milne, the "Whereabouts" table of those for whom we have no contact details has expanded to more than one page.

C Abott	Cheryl? Dixon	Ian Jones
Eric Ainsworth	L Donkin	Mike Keen
Gay Albon	John Draper	Jim Keenan
Bill Arbery	Mike Dresser	John Kelman
Allan Barber	Bruce Duff	Joy King
John (Allan) Barber	I Dunleavy	Roy Mallinson
Matt Barber	Dave Elliot	Bob Marr
Keith Barnard	J Erickson	Keith Mathieson
Barrow	Ian Few	Alec Matthews
Deidre Beaumont	Ian Findlay	K McCarson
Elizabeth Beckett	G Francis	Ian McDonald
Keith Beveridge	Ben Franklin	S McDonald
Michael Billings	David Froom	Frank McGregor
G Bond	Jamie Gardiner	Eileen McLaughlan
S Boyce	L Gardner	Don McLellan
B Bradley	S Garner	Nola Meiklejohn (O'Byrne)
Phil Brindley	G Carrick	R Miller
Hans Britz	C George	Ray Mills
Dave Brooks	Joe George	John Mogg
T.F.A Brown	Richard Govern	Sharon Morgan (Todd)
W Brown	Peter Hardwicke	J Murray
J Burdett	Ron Harmes	Dennis Naylor
R Burdett	Anne Harvey (Brookes)	Gloria Neal
Robert Burns	D Hatch	Ellie Nichols
Joy Cameron	Gail Heileman	K Elton Nickerson
Geoff Cardwell	Stan Hills	Graham Nielsen
Brian Clifford	Ernie Hindley	John Noble
Keith Clifton-James	Dave Hine	? O'Brien
Barbara Cobcroft	A Holgate	Joan Oats

The quest continues; the list has got a bit shorter, thanks to George Allen; Sue van Dongen et al. I have been given information concerning the possible whereabouts of a few of these, but so far have not been successful in obtaining, or confirming, details. The last Reunion Dinner brought out some missing persons, but there are also a few who do not wish to be contacted.

Additions have been marked with an asterisk.

Whereabouts ctd.

W Oliver	Russell Schwarzer	Alan Thomas
Roger Ramsden	Dorcas Sefton-Bellion	Christine Thomas
A Rees	George Sefton-Bellion	Howard Thomas
Dave Rendell	D Selby	Jack Thompson
Frank Rice	Ron Shand	Patsy Thompson(Nolan)
Doug Richards	Fred Sharland	Les Tink*
D Richardson	? Sheehan	Larry Tomkins
Harry Richmond	Jeff Shuttleworth	Frank Toomey
Ralph Richmond	Ray Skender	Mike Travell
Dave Rickards	George Small	Ernst Uhl
G Riley	Lyn Smart (Willis)	Tony Vingerhoets
Brian Robinson	J Smith	Dave Walker
Lynne Rosser	P Smith	Mrs B Ward
Ted Rosser	Roger Smith	Tom Ward
Lindsay Sage	Bill Smythe	N Wardle
Stewart Sands	Hazel Snook (Howse)	A Watermeyer
Ron Sargeant	Dave Standbury	Irene West
Bob Scott	John Stanton	Bernie Wilbourne
Lorraine Scott-Malcolm (Erlandsen)	Barbara Stephenson (Vernon)	Jim Wilcox
Michael Scott-Malcolm	Barbara Teasdale	Garnet Wilmott
MalcolmTeahan	Des Terrill	Brian Wilson

10 Months To ?



From A Carnarvon Viewpoint - ctd.

Gemini IV

America's first EVA

White soars into space ctd.

Grissom, "Take some pictures."

White, "Okay. I'm going to work on getting some pictures, Jim."

McDivitt: "Get out in front where I can see you again. I've only got about three (pictures) on the Hasselblad. Where are you?"

White, "Right out in front now. I don't have the control I had any more without the gun."

McDivitt, "Yes, I noticed that."

In Houston, Flight Director Chris Kraft was beginning to look anxiously at the time. The Flight Plan called for a space walk of 12 minutes, and it was already well past that with no signs of White returning.

Grissom, "You've got about five minutes."

White, "But I want to get out and shoot some good pictures. I'm drifting down under the spacecraft."

McDivitt, "I'm going to start firing the thrusters now."

White, "There's no difficulty in recontacting the spacecraft. It's all very soft, particularly as long as you move nice and slow. I'm very thankful to have the experience. It's great, Gus. Right now I'm right on top of the spacecraft - just above Jim's window. I'll bring myself in and put myself out of your view, Jim."

McDivitt, "Okay...hold it and I'll take your picture."

White, "Right now I could manoeuvre much better if I didn't have the gun with the camera on it because I have to tie one hand up with it."

McDivitt, "Stay right there if you can. Do you want me to manoeuvre for you now, Ed?"

White, "No ... I think you're doing fine. What I'd like to do is get all the way out, Jim, and get a picture of the whole spacecraft. I don't seem to be doing that."

McDivitt, "Yes, I had noticed that. You don't seem to get far enough away."

White, "No."

McDivitt, "Where are you now? Am I clear to thrust a little bit?"

White, "No - don't thrust now."

He didn't want any accidents from the thruster propellents.

McDivitt, "Okay, Ed. Just free-float around. Right now we're pointing just about straight down at the ground."

White, "I'm coming back down the spacecraft. I can sit up here and see the whole California coast."

White, "How you doing old buddy?"

McDivitt, "Pretty good ...how about you?"

White, "Good. Looking right in your window."

McDivitt, "Where? You're not even there.....are you there, Ed?"

White, "No. I'm moving out now."

An increasingly anxious Grissom, "You've got 4 minutes and 30 seconds left."



EVA Space Suit

CROing about Carnarvon

A personal reminiscence by John Ford.

I had no real experience on bass, though I had idly fiddled with them, as you do in a band, trying each other's instruments.



He took me across to the reception office, and Jenny Tuckey produced a bass guitar which had been left as "collateral" by some itinerant, and there it was. I ended up buying the bass, and played it in the Port band for several years.

I stripped the frets off, which gave it a passably jazzy sound. By then I had brought my guitars and amplifier up from Perth, and I managed to use the guitar amp through an old bass speaker enclosure with reasonable results.



This was a Fender Super Reverb amp, now a collector's icon worth \$10,000 second-hand. Then it was just a hot item, lusted after by my friends, but I lived in terror of

blowing a speaker or two. Bass puts out enormous power.

This ended up being a pretty good band, especially when augmented during Tropical Festival time with the then Western Command Army band and some mates from Perth, such as the Van Den Dongen brothers on reeds.

Tom Lysaght (the incomparable Baron von Lightsout!) was also part of the band with his trumpet, and Geoff Broom joined too with his trombone. Leo Overington was also involved on his clarinet.

Anyhow, my shiftwork now posed a problem, as it meant that every four weeks I was unavailable in the evenings. So, after some heart-

searching I applied for a transfer to MSFN, where the hours were standard day shift unless in mission status, in which case the whole town just about shut down.

Eventually this came to be, and I said my goodbyes and moved up the hill to work for the MSFN in the Telemetry & Control building. I was assigned to the Acquisition Aids team, then consisting of John Draper, our keen young engineer, and Mike Billings, who was part of my Port pub singles cohort. The overall Telemetry section engineer was Ron Limbert, an absolute gentleman and a pleasure to know.

We were one senior technician down, but one was on the way from UK, a chap by the name of Bill "Jeff" Chandler.



Jeff Chandler (In later years)
Photograph: Trevor Hoisley

Those of us familiar with popular films of the day couldn't help envisaging a tanned, athletic figure with steel-grey crew-cut and a jutting jaw, twinkling his sardonic eyes at us. But, as we now know, it was our much more likable Jeff Chandler, complete with Amy and their large and loving family, who were winging their way to Carnarvon.

Later, having brought us up to speed on the Acq. Aids, Mike Billings moved on into PCM Telemetry, so through the end of Gemini and most of Apollo (and indeed later for Skylab) it was Geoff and I who maintained, calibrated and operated the VHF Acq. Aids.

My best professional moment during this time was not during a mission, though they were great times, and very demanding. The Acquisition Aids were used, as the name suggests, to acquire a lock on the space craft as it emerged over the horizon.

To be continued

Extracts from "Recollections From My Years At Carnarvon"

David Johns

The Flybys ctd.

The engineer's desk was reasonably large and faced the right side of the aircraft with a whole wall of dials, controls and oscilloscopes. The two pilots sat immediately in front of the engineer's area.



By today's standards, the entire plane, particularly in the flight crew area, had an old fashioned roominess about it. The navigator and engineer work spaces, crew storage and flight crew bunks took up most of the first five metres behind the pilots, space that would be more efficiently on today's aircraft.

In the computer area of the plane, NASA personnel were already plugged into their communication consoles and were preparing their equipment for the day's work.

I commented to the Captain that it must have been satisfying to be able to bring friends and family on the plane and he looked baffled. I told him about seeing the young mother alight from the plane on the TV news. He did not know that a TV crew had been at the airport to see the plane arrive and he was very annoyed to hear that the mother and child had been on the news and he told us the full story.

As Captain of the plane, he was under very strict instructions to only carry assigned flyby personnel, or other tracking station personnel if there was a legitimate work need. He said Roger and I should not really be on the plane but if he had to, he would argue that he wanted us there to tell him about the workings of the Carnarvon Tracking Station.

When they were just about to depart Mauritius Island, the local Police Commissioner came to the plane and asked them to carry a sick four-year-old girl and a doctor to Perth. At first the Captain declined but the commissioner said that the girl was desperately ill and may die so the Captain agreed, subject to the Commissioner supplying a letter stating that it was a matter of life or death for the girl that she get to a hospital in Perth. The letter was quickly written and passed over and then the Commissioner added that the mother would have to go too because there would be a long convalescence for the patient and she would need her mother there.

The Captain felt he had been conned a bit but he agreed and the mother's name was added to the letter and the patient and doctor arrived and were made comfortable on the plane. At the last moment the mother arrived with another daughter and the Commissioner said that the other daughter should go too because she would be with her mother.

Frank did not have time to argue any more and the plane was already late for departure so he put the mother and the other daughter on board and took off.

During the flight to Perth, he specifically briefed the mother that he did not want her making a show of arriving on the plane and should go discreetly with ambulance when it came to the plane to collect the sick child.

Frank did not know until I told him that the TV news had panned in on the mother and daughter alighting from the plane and Frank was very annoyed that the mother had let herself be filmed. Frank expected to get a please explain letter from his employers back in the USA.

When we reached Carnarvon we took up a position flying a long loop with parallel sides. The eastern end of the loop was over the Carnarvon Jetty and the western end was about over Bernier Island. We droned on for hours, flying the same loop while data and communications flashed up and down between the plane and the ground station.

From 13,000 ft the scenery was very different from what I had seen from small planes in the Carnarvon area. The continuous loop gave a lot of opportunities to take photos of different features on the ground and in the ocean.

I was intrigued to see that off the coast and extending for miles out to sea, particularly south of Carnarvon, there is a definite pattern of deeper channels on an otherwise flat sea floor.

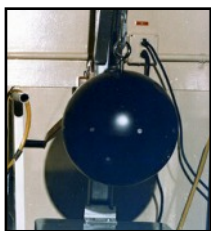
At lunch time, there was a lull in activities at the station so at my suggestion the crew flew the plane up the coast so I could get some photos of the blowholes area and Cape Cuvier. I wondered how many other amateur photographers could direct a Super Constellation around the sky to enable preferred photo angles.

At about mid afternoon we were finished the work for the day and Frank said he would like to have a close look at Carnarvon Tracking Station. He advised the tracking station that he intended to make a low pass on the southern side of the USB antenna.

To be continued

Lesser Known CRO Activities

Musketball



During the late sixties and early seventies, the U.S. Air Force launched a series of Orbiting Vehicle (OV) satellites; they were essentially of a scientific and technology nature.

US Air Force "Orbiting Vehicle" OV1-20 and OV1-21 were launched on 7th August 1971 by the US Department of Defence (DoD) into retrograde polar orbits with each ejecting a low-altitude density sub-satellite. The drag on these as they passed through the fringe of the Earth's atmosphere required extra radar tracking to redefine their orbital parameters.

CRO FPQ-6 was called upon to help, following negotiation with the Australian Government; given assurance that these DoD satellites were entirely scientific in accordance with the NASA charter.

OV1-21 was equipped with an experiment to determine the non-linear impedance and non-linear plasma effects of a long electric dipole

antenna, an experiment to measure the atomic oxygen density and the variations in this density during geomagnetic activity as well as an instrument to measure the solar flux and atmospheric composition.

Furthermore, the satellite released six sub-satellites, one of which, the Radar Tracking Density Satellite OAR-907 or Musketball, carried a C-band transponder to make air density measurements in the fringes of the Earth's atmosphere.

Musketball was a 30-cm-diameter brass sphere with a 2.5 cm wall thickness. Mounted on the surface were two beacon antennas, spaced 180 degrees apart, for a C-band transponder. Internal electronics consisted of the transponder and a silver-cadmium battery pack. The battery, with an expected 12-day lifetime, was the sole source of power for the spacecraft. The spacecraft employed an automatic timing device to turn on the transponder for periodic interrogation.

This satellite performed normally until it re-entered the earth's atmosphere on 19th September 1971.

CRO012A
RR APBA
DE ACRO 015
06/0150Z
FM JACOMB
TO LESLIE, WAINWRIGHT, MORRISON

THE FOLLOWING TWX IS REPEATED FOR INFORMATION
FM AOCC/GUPA
TO ACRO
R 021821Z SEP 71
FM AFETR/DOOT/CAPE KENNEDY AFS FLA
TORUCLBOF/ACRO/STA DIR
BT
UNCLAS DOOT-09-03-058
OAR 907 SUPPORT SUMMARY

ON 24 AUGUST 1971 THE LAST OFFICIAL ACQUISITION OF MUSKETBALL BY NASA AND AFETR RADARS TOOK PLACE. THIS ACQUISITION MARKED THE END OF A HIGHLY SUCCESSFUL EFFORT TO COLLECT BASIC RESEARCH DATA FROM NEAR EARTH SPACE. THE OVERWHELMING SUCCESS OF THIS DATA COLLECTION PROGRAM WAS DUE, FOR THE MOST PART, TO THE OUTSTANDING PERFORMANCE OF MEMBER STATIONS OF THE DATA COLLECTION NETWORK. CARNARVON HAS SUPPORTED THE MUSKETBALL PROGRAM ON AN EXTREMELY SHORT NOTICE, UNDER EXTREMELY DIFFICULT CONDITIONS AND DURING LATE PERIODS AND WEEKENDS. IN EVERY INSTANCE, THE PEOPLE INVOLVED PERFORMED WITH A HIGH DEGREE OF PROFESSIONALISM AND PROVIDED SERVICE ENTHUSIASTICALLY, EFFECTIVELY, AND FAR BEYOND THAT WHICH WAS REQUIRED. WE CONSIDER OURSELVES FORTUNATE AND ARE MOST APPRECIATIVE OF THE SUPERIOR SUPPORT TO THE MUSKETBALL PROGRAM PROVIDED BY CARNARVON.

06/0158Z SEP 71 ACRO

SOCIAL CLUB NEWS April 1967 ctd.SOCIAL NEWS

by RON SARGEANT

Congratulations are extended to Bill Hoare, who on Palm Sunday was ordained a Deacon in the Church of God at St. George's Anglican Church by the Bishop of the North West the Rt. Rev'd H. Witt. This relieves Archdeacon (Ted) Doncaster, enabling him to travel more in his vast but sparsely populated parish to minister to his parishioners. The sermon at the Service was preached by the Rev'd Michael Pennington, Rector of Port Hedland. Bill and Michael were both parishioners of Howell Witt when he was a priest at Elizabeth S.A. The Vestry presented Bill with his alb and almice as a token of their gratitude and esteem.

- 8 -

The Repertory Club is at present rehearsing a drama "The Late Edwina Black" to be performed in the Memorial Theatre (next to the Post Office) on 20th, 21st and 24th April. The play is produced by Mrs Winifred Bell, the talented mother of our Bill. Tickets obtainable from Dick Simons, Bill Bell or the Tourist Bureau.

The Rifle Club resumes on the first week in April and will be shooting every Sunday.

The Carnarvon Target Pistol Club (a rimfire club) shoots every Thursday night and Sunday morning.

If anyone is interested in joining, or would like further information on any of the abovementioned clubs please contact Ron Sergeant.

The latest recruit to the station is Peter Lavers. Peter is working in USB and will assist Dave Brooks as a Supervising Technician.

- 9 -

To be continued

Answer to June Question

Hamish Lindsay
Comms



CRO Gemini Flight Controller Manning

Courtesy Gene Kranz and Gerry Griffin.

	NS-1	GEMINI 3	GEMINI 4
CRO-CC	Hunter - Conrad	Hunter - Conrad	Fendell
GEMINI	Muse - Loe - Walton	White	Smith - Fuller
AGENA	Smith	Walton A/S	Ferry A/S
A/M		Pollard - Bishop	Pollard - Walsh - Murray-alston
OBSERVERS			D. Scott



Gemini 4 Flight Control Team in Gemini Control Room

Back row: Dick Simons, Fred Mitchell, Lewis Wainwright, Dave Scott

Front row: Dr Bill Walsh (RAAF), Harry Smith, Dr Michael Murray-alston (RAAF), John Ferry, Ed Fendell (CC)
Joe Fuller and Dr Dick Pollard (NASA)

Photograph - Hamish Lindsay

Quotation



"If you can't be good, be colorful."
~ Pete Conrad

LOS

From Christine Tyrer Huxley - July 7 2018:

Some of you who worked at Carnarvon may remember Philip Dickinson. Despite rumours that he died years ago, he didn't, but sadly, he did today aged 88.

Vale Phillip.

LOS

Bill Kempees (TLM Supervising Engineer)

1920 - 2018

(Information supplied by Ed Goldsmith)

LOS

John Pettit (TLM)

Passed away August 6th 2017

14.3.1934 - 6.8.2017

(Information supplied by son Paul)

Last of the German Rocket Team



Neil Armstrong and Dr von Tiesanhausen

Dr. Georg von Tiesenhhausen, the last of the German rocket scientists who was part of Dr. Wernher von Braun's moon rocket team, died at his Alabama home in June 2018. He was 104.

Von Tiesenhhausen developed the reputation of Marshall's resident dreamer, working tirelessly to achieve his goal of

establishing a permanent lunar base and then one on Mars.

Von T - as he was known to the Germans - was a legend in rocketry. When the U.S. Space & Rocket Center in Huntsville gave von Tiesenhhausen a lifetime achievement award in 2011, Neil Armstrong made a rare public appearance to present it.

"He is and has been a person who imagines what can be, and he has the skills to convert that image into reality", Armstrong said.

Several years after the war, von Tiesenhhausen joined von Braun in Huntsville, Alabama. While there, he proved instrumental in forming the backbone of the US space programme, ultimately aiding in the launch of the first US satellite and the first US astronauts.

While at the Marshall Space Flight Center, von Tiesenhhausen designed and created the lunar rover that accompanied the last three Apollo missions in 1971 and 1972.

Keeping the Memory Alive



KEEPING THE MEMORY ALIVE

Carnarvon Tracking Station 1964 - 1975



CARNARVON TRACKING STATION

This is the entrance to the site of the former Carnarvon Tracking Station which operated from 1964 to 1975.

It was a joint venture between the Commonwealth Government of Australia and the National Aeronautics and Space Administration of the United States of America.

Maintenance and coordination services were provided by Airalginate Wireless (Australia).

The Carnarvon Tracking Station was closely involved with the NASA Space program which included the Gemini, Apollo and Skylab missions.

For more information please visit the Canberra Space and Technology Museum just a few kilometres south from where the old CFC Satellite Earth Station site.

Present Day [Click for full size](#)

Mick and Sue Coffey's Carnarvon Steel Supplies of Cornish St Carnarvon fabricated and donated the sign
Signwriting generously donated by W&K Painting of Egan St, Carnarvon
Photograph by Phil Youd - Edited by Terence Kierans

[Click here to commence entry to the original station](#)

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