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July-September 1973



Keeping the Memory Alive

Vol 16 September 2017

THE TRACKERS' CROCNICLE

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Memories of the Opening of the 3rd Phase of Museum

By the Editor

Before Gene Cernan commenced his address Phil Youd stepped forward holding a frame in his hands.



He referred to someone who had been involved with the Museum from the start, and

was "keeping the memory alive". He then called me forward to present me with a Certificate of Appreciation on behalf of the Museum and the "Trackers".

Very self-consciously I stepped to accept. This gave me the opportunity to present Gene Cernan, on behalf of Alison Gregg and Paul Dench, with an autographed copy of "Carnarvon and Apollo...".

"I didn't expect all this so thank you. I know



you've got better things to do than to come here and listen to me blab a little bit. But I've gotta come here and I've gotta say thank you.

Thank you for all you did because what you have done for me and for the Apollo program and for humanity in general as we left the cradle of civilisation here on this planet to go to another one is significant. Carnarvon's name will always live with the Apollo program - with space - with discovery. And actually Carnarvon/discovery - they go hand in hand.

And I don't know exactly what you did but I know it was significant. And I know for a fact that every time we flew, you guys, you men and ladies were on board with us, and that was a very good feeling to have. And I knew what you were doing, and everybody who put up a nut and bolt, and why you're in the spacecraft, was on board with us. And what you did, what they did, was not gonna fail. And I can tell you that gave me a lot of courage to do what I had to do at that point in time.

But to me it's sort of an historical moment. I've never been here before. And I didn't know what to expect quite frankly. I go to Carnarvon and Perth and, you know, we got the Goddard Space Flight Centre. We had - what? - [unintelligible] Spain I think where we trained - delighted to find where we were.

I was telling someone on the way in, we had on-board navigation systems on our Apollo spacecraft [unintelligible]. You know, we're a long way away. So Carnarvon would go behind the moon and we'd have to have something else.

But we had an Inertial Navigation Platform. But like everything else, it would drift. The further we'd go the more it'd get off course. And the only thing we had to really depend upon was the information you would give us.

You pinpointed exactly where we were because - and I'll tell you why that's important. When it came time to come home, if we weren't in the place that we thought we were in, we wouldn't be here. I wouldn't be here. We wouldn't have come home. We would've been somewhere out in space - lost in space if you will.

So what you did - never allow anyone to diminish the input and the importance that you folks - all of you - not just the folks that were at the station. You folks here who supported what was going on at that point in time. We're talking about, for me, over 40 years ago.

To be continued

Whereabouts

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

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	Roy Mallinson
John (Allan) Barber	I Dunleavy	Bob Marr
Matt Barber	Dave Elliot	Keith Mathieson
Keith Barnard	J Erickson	Alec Matthews
Barrow	Ian Few	K McCarson
Deidre Beaumont	Ian Findlay	Ian McDonald
Elizabeth Beckett	G Francis	S McDonald
Keith Beveridge	Ben Franklin	Frank McGregor
Michael Billings	David Froom	Eileen McLaughlan
G Bond	Jamie Gardiner	Don McLellan
S Boyce	L Gardner	Nola Meiklejohn (O'Byrne)
B Bradley	S Garner	R Miller
Phil Brindley	G Carrick	Ray Mills
Hans Britz	C George	John Mogg
Dave Brooks	Joe George	Sharon Morgan (Todd)
T.F.A Brown	Richard Govern	J Murray
W Brown	Peter Hardwicke	Dennis Naylor
J Burdett	Ron Harmes	Gloria Neal
R Burdett	Anne Harvey (Brookes)	Ellie Nichols
Robert Burns	D Hatch	K Elton Nickerson
Joy Cameron	Gail Heileman	Graham Nielsen
Geoff Cardwell	Stan Hills	John Noble
Brian Clifford	Ernie Hindley	? O'Brien
Keith Clifton-James	Dave Hine	Joan Oats
Barbara Cobcroft	A Holgate	W Oliver
Jim Crossland	Phyllis Hook (Watson)	Denis Owens
Noel Cunningham	J Hopkins	John Paddon
F Dawes	Vivienne Lawer (Hopper)	Diane Pitman (Housley)
Andrew Dempster	Deidre Howard	John Platten
Jean DeVis	B Hughes	Gerry Plummer
Marilyn Dick	B Hunter	D Powell
Olive Dick	D Hutchins	M.J.K Power
Neville Dippell	Vera Kastropil	Wendy Puccinelli
	John Keane	Lorna Quinn

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 marked with an asterisk.

Whereabouts ctd.

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



From the wing of the space shuttle to the top of the NASA homepage, the agency's official insignia is probably its best-known symbol.

The round red, white and blue insignia, nicknamed the "meatball," was designed by employee James Modarelli in 1959, NASA's second year. The design incorporates references to different aspects of

the mission of the National Aeronautics and Space Administration. The round shape of the insignia represents a planet. The stars represent space. The red v-shaped vector represents aeronautics. The circular orbit around the agency's name represents space travel.

After it was introduced, the "meatball" was the most common symbol of NASA for 16 years, but in 1975 NASA decided to create a more "modern" logo. That logo, which consisted of the word "NASA" in a unique type style, was nicknamed the "worm."



That logo was retired in 1992, and the classic meatball insignia has been the most common agency symbol since.

From A Carnarvon Viewpoint - ctd.

Gemini IV America's first EVA 4 - 8 June 1965 AEST

Carnarvon Second Pass.

On the second pass over Carnarvon, at 2:24:22 GET (0340:21 AEST) the astronauts were finding conditions very difficult.

McDivitt called to the Carnarvon Capcom, Ed Fendell, *"Listen, you might advise Flight that we are running late on this thing. There's a lot to do and we are having trouble keeping track of all this stuff. I'll give you a blood pressure as soon as I get around to it."*

Fendell, *"Full scale on your blood pressure."*

McDivitt, *"I don't think you got a good blood pressure the bulb popped off."*

Fendell, *"Gemini 4 you are GO for EVA and decompression. Disregard the blood pressure unless you have got some minutes and then try and get it for us. We'd appreciate it."*

McDivitt snapped back, *"We don't have any time at all. We're really pressed here."*

Fendell, *"We're not going to say anything here on the ground. If you need anything we'll wait."*

McDivitt, *"Okay. Listen, has Houston been advised yet we're runnin' a little late and we might not be ready at Hawaii?"*

Fendell, *"Okay. He's ready he knows that. Houston advises you can use any attitude you like for your extra vehicular activity."*

With the cabin rather a jumble of items, and McDivitt feeling they would be too rushed this time around, he decided to delay the EVA until the next orbit, so we had to wait for another pass before the big event.

At 3:00:19 GET (1316:18 USEST) the Houston Capcom told the crew,

"Jim, you're going to be live (on television) as you make your pass across the States this time."

McDivitt, *"Okay. Anything in particular you want me to say?"*

Grissom, *"Suit yourself."*

McDivitt, *"Okay."*

Four minutes later, approaching the American coast, Grissom asked,

"How about describing the way the cockpit is laid out now, with all of your gear out?"

McDivitt, *"Okay, well we've got to the get-out position here. Ed has most of the equipment on him right now. I've got the gun and the camera and the hatch fitting - the fitting to tie the two suit hoses together. Ed has all the paraphernalia on him right now, but he's on the suit circuit. I think when we get over Africa we're going to go through the checklist again and when we get to Carnarvon we'll be all set."*

Grissom, *"Roger. Have you taken any pictures yet?"*

To be continued

CROing about Carnarvon

A personal reminiscence by John Ford.

I had no real living expenses, but I reluctantly concluded that this was not going to get the job done. I had enjoyed the life, and even at sea at night it was pretty balmy, with no real discomfort.

My shipmates had been friendly, each in their own way, and I knew I would miss the companionable side of our existence, but I said farewell. Instead, I got a temporary job as a barman at



the wild and woolly (and improbably named) Sandhurst Hotel, out in East Carnarvon

- not a British Army officer in sight!

Sadly, within a year or so the old Darwin had dragged her anchor in a blow and washed up on the seaward shore of Babbage Island, wrecked. She is there still, I think.

The Sandhurst then was a very plain two-storeyed corrugated iron building, situated near the river about four km east of town. The walls were also iron - it would now be seen as highly desirable architecture. Then, it loomed out of the stark river flats looking for all the world like the Bates house from "Psycho".

This pub was favoured by the planters and the aboriginal population, but in 1966 these two factions were fairly rigidly segregated. The planters mostly lived along the Gascoyne River



on their banana and mango plantations, and some of them were pretty hard men, though most had a good sense of humour. There was a mixture of cultures: typical rural Australians, some Italians, and a few Yugoslavs.

The long side bar used by the planters was usually quiet and well-behaved, as these men guarded their reputations. As a young and somewhat callow barman, I needed to be a bit deferential to them. This was OK; they were a likable lot, larger than life and with big appetites, and in some cases fierce passions.

Some also owned cattle stations, and in due course I was invited to a couple, for barbeques and to shoot on the properties. An East Carnarvon station BBQ would probably involve an entire steer rotating on a spit, a ute full of beer and ice, and some very robust conversation. I loved it all.

In an interesting contrast to today's attitude to firearms, I was simply given an elderly single-shot .22 rifle, in thanks for fixing a wiring problem in a "gramophone", and I shot a few rabbits with it, too. I certainly had no firearm safe to keep it in, and I cannot recall getting it licensed, other than the fact that I had a Victorian firearms licence.

As was usual in country towns of the era, the Aborigines had a separate, smaller bar, a pretty sorry affair which made no pretence at conviviality. This was at the front corner of the Sandhurst, and in fact it was not regularly used as a place to drink; more as a place to buy grog to take away.

When there were Aboriginal patrons drinking in this bar, however, the chances of a fight were pretty good.

To be continued

Extracts from "Recollections From My Years At Carnarvon"

David Johns

Fishing

After that, if you ever suggested a quiet day of fishing to John, he would look at you like you were mad.



I didn't mind a bit of fishing myself. On one occasion, about ten of us trackers hired a local fishing charter boat to do a day of handline fishing. None of us were fanatical about fishing so it was going to be a relaxing day.

The boat owner seemed to be experienced and we headed straight to the northern tip of Bernier Island, about 50 kilometres offshore from Carnarvon. At about one hundred metres north of the tip of the island, the boat owner cruised slowly around in random circles while he watched the depth sounder. He said he was looking for fish but I wondered if he was just trying to impress us.



After a while he found a secondary reflection at about 120 ft deep, about 20 ft above the bottom. His theory was that the turbulence where two currents met at the tip of the island produced oxygen and fish congregated there. I hoped he knew more about fishing than he did about marine chemistry.

He stopped the boat above the echoes and in no time we were pulling up big snapper. It was not exactly a case of the skilful hunter out foxing the prey. It was more a case of random luck.

The hand lines were of heavy nylon, about 80 lb breaking strain, with three hooks and a heavy sinker. All three hooks would be baited and then the line would be fed over the side. It took a fair while to feed out 120 ft and as the baited hooks passed through the school of snapper there would

be a flurry of snaps at the baits and jags on the line and if you were lucky, you had a fish, but more commonly the bait would be gone and you would have to haul it back up, bait the hooks and do it all over again.

It takes a long time to feed out and haul up 120 ft or more of hand line. The boatman supplied gloves to most of the party but there were not enough gloves for everyone so I had none.

We were all catching good fish but my hands got very sore hauling that line up and down and so on some occasions when I would loose all of my bait, I would pretend that I was still fishing but I would leave the line on the bottom for ten or fifteen minutes while I had a rest.

The boatman could tell by the feel of the line whether it had bait or not and a couple of times he well meaningfully interrupted my rests and insisted I pull the line up and check for bait. I would fake a surprised look when I saw that it had no bait and he would busy himself by getting more bait for me and would not rest until I had the line out again.

We were going to stay out all day but by midday we had more fish than we needed and some people were getting queasy from the rocking of the boat so we packed up and came home and spent the rest of the day cleaning fish.

The Flybys

When an Apollo mission went to the moon, it wasn't just a matter of firing off a rocket and waiting ten days for the crew to come back. From before the time that the rocket entered its first Earth orbit, telemetry information was pouring back into the Earth stations and command information was going up from the Earth stations to the rocket and crew.

It was essential that the personnel in the ground stations knew their job and did not make mistakes, which was a tall order because the only really true practice that could be had was during a real mission.

To be continued

VEGEMITE & GENE CERNAN

From John Preece

Though Gene stayed in a serviced apartment while in Carnarvon to open the third stage of the museum, he and his party breakfasted at the Carnarvon Motel, where I and other trackers stayed.

Gene and I happened to be at the buffet together and I thanked him for signing my NASA jacket. (Kindly arranged by Phil Youd). Then I returned to my table. Gene and his party sat at the next table.

While they were having breakfast a member of his party tried to introduce Gene to that great Australian delicacy, Vegemite. As usual, more Vegemite than crust on the offered sample.

Gene took it looked at it and smelled it and exclaimed "*Do not know how Australians can eat this, the smell will alone will kill you*". After some prompting he eventually started to eat it, and finding no way to spit it out swallowed it. Exclaiming more forcefully "*It will kill you*". Of course great laughter from those at the table



I then returned to the buffet took a Vegemite portion; signed and dated it with the CRO call sign. I then presented it to Gene, saying,

"You signed something for me, only right I sign something for you". He took the portion, looked at it carefully and stated "*Well my son I will take it back to Texas with me but I will not put it in my survival kit; it will kill me*". Again, much laughter from those at the tables.

Footnote:

I worked at CRO as a wiretech from June 1968 until June 1970, leaving after Apollo 13.

Then I joined the Airport Fire Service at Perth Airport; there for 16 years then moved into airport administration.

Retired in 2010 after 40 years at the Airport, due to ill health.

At a private dinner those that I worked with presented me with a NASA jacket. This was later signed by both Andy Thomas and Gene Cernan.

I also met Buzz Aldrin when he opened the first stage of the Museum.

MINI-REUNION



Kathy Franin, Viv Batty and Lauri Glocke (aka Teeny Bopper), all three of Carnarvon STADAN, were happily reunited, after many years, at Viv's home in Geraldton.

ACROBITS '73

"CARNARVON- THIS IS DELTA MIKE INDIA
TAXIING - FOR CORAL BAY" (ctd.)

It may sound tedious, but a flight plan can be completed accurately in ten minutes with practice.

Once airborne, regular position reports are transmitted to the nearest Flight Service Unit on VHF or HF, depending on distance and altitude. Occasionally unusual atmospheric conditions can surprise you; for instance in January, four of us flew in DMI to Coral Bay for the afternoon. On the return flight we could not raise Carnarvon on VHF or HF, but Meekatharra came in on HF quite clearly 3rd relayed our position report to Carnarvon. The ADF (Automatic Direction Finder) is a very useful NAVAID, and giving a reasonably accurate bearing to a DCA beacon or broadcast station. It is also useful in that one can listen to music or sport while flying and get a bearing on the station at the same time. Normally in VMC (Visual Meteorological Conditions) navigation is done by following a compass heading after allowing for wind velocity, magnetic variation and compass deviation. Progress over the ground is checked by map reading, with the track drawn on the appropriate chart. Normally a 1:1,000,000 WAC (World Aeronautical Chart) series is used, backed up by a VEC (Visual En-route Chart). Visual 'fixes' are made by pin-pointing positions from the map, and calculating the ground-speed from the distance and time interval between 'fixes'. If this ground speed differs from the flight-plan ground speed, an amended ETA for the next position report or destination is passed to Flight Service. A variation in Flight plan ground speed is caused by the actual wind velocity differing from the forecast wind velocity. Amended MET information is also passed by Flight Service to the pilot, enabling him to amend his flight plan while en-route. Hazardous conditions en-route or at destination, such as thunderstorms, heavy icing and hail, severe turbulence, fog, low cloud, or dust-storms, may necessitate diverting to an alternative aerodrome. Fortunately this is not a common occurrence in these latitudes.

Exmouth, Coral Bay and Denham are all short flights from Carnarvon, and have landing strips available. A party of four can leave Carnarvon in the morning, fly to such places in a quarter the time it takes to drive, spend the day fishing, sailing or whatever, and take off late in the afternoon to arrive back in Carnarvon before last light. On Easter Sunday, four of us flew to Exmouth in Cessna 172 VH-EGH.. We were met at the strip by two of our work mates who had driven up on Good Friday, and we spent the afternoon skin-diving. The following morning we visited the Harold E. Holt base; local flying with U.S. Navy passengers in the afternoon, and then back to Carnarvon in 1½ hours.

'It sure beats the hell out of driving, man'.

A.D.P

What Did Playtex Have to Do With Neil Armstrong?

"A spacesuit is made out of a flight suit, a Goodrich tire, a bra, a girdle, a raincoat, a tomato worm."

~ From the book *"Spacesuit: Fashioning Apollo"*, by Nicholas de Monchaux.

Or, that's what a spacesuit was made from in 1969 when astronaut Neil Armstrong donned the bulky, Pillsbury-Doughboy-looking suit of great engineering and design ingenuity to take humankind's first steps on the moon.



Neil Armstrong's Apollo 11 Suit
Courtesy NASA

The astronaut's lunar outfit was designed by the women's bra manufacturer and inspired a series of space age fashions.

Over 300 spacesuits, including the one Armstrong wore on the Apollo 11 mission, are in the Smithsonian collection at the National Air and Space Museum. They are lovingly cared for, conserved and covered in muslin (to absorb the hydrochloric acid the suits emit) at a Smithsonian storage facility outside of Washington, D.C. And they require a lot of care.

The evolution of the spacesuit has been one of trial and error, nixing skin-tight, multi-layered garments that took a team to get on and off, as well as individualized, pressurized rolling balloon structures. But Armstrong's handmade, completely customized suit (complete with an American flag stitched on the shoulder), the first

garment to touch the surface the moon, was a product of the industrial division of the women's bra manufacturer Playtex, the International Latex Corporation in Dover, Delaware.

The L.A. Review of Books, in reviewing *"Spacesuit: Fashioning Apollo"*, described how, as underdogs, the Playtex team secured the contract with their innovative-thinking, couture-level sewing skills and sheer determination:

ILC's team, a motley group of seamstresses and engineers, led by a car mechanic and a former television repairman, manages to convince NASA to let them enter their "test suit" in a closed, invitation-only competitive bid at their own expense.

They spend six weeks working around the clock—at times breaking into their own offices to work 24-hour shifts—to arrive at a suit solution that starkly outperforms the two invited competitors.

In open, direct competition with larger, more moneyed companies, ILC manages to produce a superior space suit by drawing on the craft-culture handiwork and expertise of seamstresses, rather than on the hard-line culture of engineering.

The toughest challenge was to contain the pressure necessary to support life (about 3.75 pounds per square inch of pure oxygen), while maintaining enough flexibility to afford freedom of motion.

ILC had engineers who understood a thing or two about rubber garments. They invented a bellows-like joint called a convolute out of neoprene reinforced with nylon tricot that allowed an astronaut to bend at the shoulders, elbows, knees, hips and ankles with relatively little effort. Steel aircraft cables were used throughout the suit to absorb tension forces and help maintain its shape under pressure.

With the enormously exciting success of the Curiosity roving on Mars and people like Richard Branson planning intergalactic vacations, we need to continue innovating on what we'll wear in the cosmos.

The Clock



From hazy memory I recall that this clock, or one very much like it, hung in the corridor of the T&C building.

My store of photographs doesn't help, so if anyone has a suitable picture I would very much appreciate a copy together with description.

Thank you.

Subscriptions & Material

My grateful thanks to those who have been generous enough to make a donation alongside their subscription renewal.

Regrettable, without their generosity we would be looking at the end of the journey for the CRONicle since the total of subscriptions alone would not break even with the cost of production.

Looking back over the years since the inception of this newsletter - in the year 2004-2005 we had 92 subscribers, this year we have 28. In between years costs, particularly postage, have risen steadily.

Also, we are in need of material relating to the Tracking Station to keep your interest. Thank you.

Keeping the Memory Alive

KEEPING THE MEMORY ALIVE



Carnarvon Tracking Station 1964 - 1975



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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