

December 1968



December 1972



Keeping the Memory Alive



MARS



Memories of the Dedication of the	
Redstone Rocket	2
Whereabouts	3
Whereabouts	4
7 Months To Go	4
From A Carnarvon Viewpoint - ctd	5
CROing about Carnarvon - ctd	6
Extracts from " <i>Recollections From My Years</i> At Carnarvon" - ctd.	7
Houston, the Consoles Have Landed	
Thousion, the consoles have Landed	8
Apollo XI 50th Anniversary Coins	
	8
Apollo XI 50th Anniversary Coins	8 9
Apollo XI 50th Anniversary Coins Social Club News - April 1967	8 9 10
Apollo XI 50th Anniversary Coins Social Club News - April 1967 CRO Gemini Flight Controller Manning	8 9 10 10

Terence (Terry) Kierans - Editor CRO Trackers PO Box 93 QUINNS ROCKS WA 6030 AUSTRALIA Mobile: 0414 25 1091

> tk@crotrak.com http://www.crotrak.com





Memories of the Dedication of the Redstone Rocket

By the Editor



Gerry Griffin "Just look at it. Nobody stayed put. Boundaries kept being pushed wider and wider and frontiers opened up. Australia probably one of the best examples of a real frontier that was

opened with a great deal of difficulty. I'm sure people asked the same question: why would you want to go to the place? And now look at it. It's a beautiful country, beautiful people.

I really think that in the long run we've got to learn how to travel within our solar system and even beyond it. And the reason is one day maybe 1,000 years from now, maybe 2,000, maybe 3,000, we may use this planet up. We may have to go somewhere else.

That's why the scientists that are working trying to find other places that look similar to earth. And they're starting to find them now. They're in orbit around other stars, not our sun. and they look about the same size, they've got an atmosphere, they haven't been fully tested yet.

Mars is kind of a natural mission but it's not a very friendly place to live. I think the atmosphere is mostly methane so you can't breathe it, you have to wear a space suit. But Mars gets us into deep space and we've got to learn how to make that transition.

I can tell you that lower earth orbit satellites and spacecraft are much easier to deal with than even sending a spacecraft to the moon. And so there's a big learning curve.

For instance, at the lower earth orbit if we have a problem on the International Space Station today and we've got to evacuate, we can have those guys home in three or four hours. At the moon, minimum 3¹/₂ days. At Mars maybe eight to ten months the fastest you could get 'em back.

So that's the practical part. Besides the exploration and the potential of doing everything out in the universe, we've got to learn how to do it.

And one thing that is really important I believe,

a lot of people think that NASA's budget was huge. It was never - I think at the peak of Apollo it hit a little over 3%, but after Apollo we've been less than 1% of our federal budget has gone to space. It's a very small amount.

You're starting a space agency now and it got approved I think last Tuesday in the parliament and got funding. So you're gonna have your own space agency and I think the leaders of it, we've talked to some of them. They're gonna start slowly and build it up. They're not gonna try to be NASA tomorrow. But Australia is gonna have a very important role I think going forward.

And so just keep that in mind, and I think the whole reason for all of this is primarily learning. And that's important. And I hope you wind up in the space program somewhere."

Lyn Beazley "Would you like to be in the space program? Do you like that answer? Happy?"

Boy "Be an astronaut."

Lyn Beazley "There's a big nod there. That's great. Now I think the young gentleman in the front here."

John McCloy "Yeah I think there was a gentleman down there wasn't there? A young guy, I saw the hand go up. And then there's a couple up the back there."

Lyn Beazley *"Keep your questions at the front of your mind and we'll come to you next."*

2nd Boy *"How do you operate the Mission Control console?"*

Lyn Beazley *"How do you operate the Mission Control console? Now that's a very specific question. Well done."*

Gerry Griffin "That's very specific and a good one.

Have you been to the Space and Technology Museum? Okay so you've seen those consoles and what they look like. They've got gauges that measure different things. Those things are in the spacecraft. They put sensors on places like pressure tanks so they can measure the pressure. And that's radioed down to the earth so that the guy on the ground can see it.

The nice thing about the people on the earth is that they can see a lot more than the astronauts can. On Apollo we could see literally hundreds of measurements on the spacecraft that the crew could not read on their few gauges." To be continued

Whereabouts

s 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.

Cheryl? Dixon	Ian Jones	
L Donkin	Mike Keen	
John Draper	Jim Keenan	
Mike Dresser	John Kelman	
Bruce Duff	Joy King	
I Dunleavy	Roy Mallinson	
Dave Elliot	Bob Marr	
J Erickson	Keith Mathieson	
Ian Few	Alec Matthews	
Ian Findlay	K McCarson	
G Francis	Ian McDonald	
Ben Franklin	S McDonald	
David Froom	Frank McGregor	
Jamie Gardiner	Eileen McLaughlan	
L Gardner	Don McLellan	
S Garner	Nola Meiklejohn (O'Byrne)	
G Carrick	R Miller	
C George	Ray Mills	
Joe George	John Mogg	
Richard Govern	Sharon Morgan (Todd)	
Peter Hardwicke	J Murray	
Ron Harmes	Dennis Naylor	
Anne Harvey (Brookes)	Gloria Neal	
D Hatch	Ellie Nichols	
Gail Heileman	K Elton Nickerson	
Stan Hills	Graham Nielsen	
Ernie Hindley	John Noble	
Dave Hine	? O'Brien	
A Holgate	Joan Oats	
	L Donkin John Draper Mike Dresser Bruce Duff I Dunleavy Dave Elliot J Erickson Ian Few Ian Findlay G Francis Ben Franklin David Froom Jamie Gardiner L Gardner S Garner G Carrick C George Joe George Richard Govern Peter Hardwicke Ron Harmes Anne Harvey (Brookes) D Hatch Gail Heileman Stan Hills Ernie Hindley Dave Hine	

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 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 MalcolmTeahan

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 Des Terrill

Alan Thomas Christine Thomas Howard Thomas 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

7 Months To Go



Keeping the Memory Alive

From A Carnarvon Viewpoint - ctd.

Gemini IV

America's first EVA

White soars into space ctd.

White, "I'm looking right down your gun barrel. All right." McDivitt, "You smeared up my windshield, you dirty dog." White, "Well...hand me a Kleenex and I'll clean it." McDivitt, "Ha! See how it's all smeared up there." White, "Yes." looks like we're about over Texas. As a matter of fact, you know, that looks like Houston down below us." McDivitt, "We've been tumbling around. I don't even know exactly where we are, but it White, "I believe it is, Jim." McDivitt, "Gus, this is Jim. Got any message for us"? Grissom, "Gemini 4 - Get back in." McDivitt, "We're coming over the east now and they want you to come back in now." White, "Back in"? McDivitt, "Back in." Grissom, "Roger. We've been trying to talk to you for a while here." White, "Aw, Cape, let me just find a few pictures." McDivitt, "No, back in. Come on." White, "Coming in. Listen, you could almost not drag me in, but I'm coming." Grissom, "You have 4 minutes till Bermuda LOS (Loss of signal)." McDivitt, "Okay. Okay. Don't wear yourself out now. Just come on in." White, "I'm trying to get a picture of the spacecraft now." McDivitt, "Ed, come on in here. Let's get back here before it gets dark." White sighed, "Okay. This is the saddest moment of my life." McDivitt, "Well, you're going to find a sadder one when we have to come down from this whole thing." White, "I'm comina." McDivitt, "Have you any messages for us Houston"?

Grissom, "Are you getting him back in"?

White's boots thumped on the spacecraft as he reluctantly worked himself to the top of the capsule hatch, handed back the camera, and again stood on the seat. Savouring the moment he stood briefly on the seat, looking at the stunning view of Earth spread out below them.

At 4:50:04 GET (0606:03 AEST) McDivitt announced the end of the spacewalk, "He's standing on the seat now. His legs are down below the instrument panel." Capcom, "Okay. Get him back in. You are going to have Bermuda LOS in about 20 seconds."

End of the EVA.

After White struggled to get back into his seat in the spacecraft they closed the hatch and grabbed the ratchet handle to secure it. To White's shock it failed to catch, so the fastenings had to be manoeuvred into place by hand and secured, McDivitt trying to hold him down in the seat. Throughout the EVA the hatch seal had been exposed to the vacuum of space, and the intense cold had stiffened the seal material making it extremely difficult to close tightly.

To be continued

CROing about Carnarvon

A personal reminiscence by John Ford.

At that point the signals are bouncing off the earth and can seem to change their bearings erratically and often, but as the Acq Aids had a beam width of 15 degrees



this was not a real problem for us,



and we could very quickly get locked into auto-tracking mode. The other much more precise instruments on the station could then "slave" to whichever Acq Aid was more stable, and they would be pointing within a degree or

Photograph: Hamish Lindsay

so of their own signals, C-band for FPQ6 radar and S-band for the new USB system.

They would therefore be able to lock on for themselves as soon as their signals were stable, and commence the tasks demanded of them. In the case of USB this included precision tracking, telemetry download, command upload, and voice; hence the name: "Unified S Band".



Photograph: Editor

Though the Acq Aids still downloaded some VHF telemetry, the USB system had the important role. It was designed for Apollo, to replace Gemini's VHF/UHF, and was in fact a development of the R&RR S-Band system.

To my chagrin, there was a persistent error on the Acquisition Bus which connected our two systems to the FPQ6 radar, the USB system, and the old UHF command site.

This was a serious embarrassment to us. It meant that the prime USB

system and the FPQ6 radar rarely slaved to us, and that in turn meant they might wait an extra minute or so before locking on to the Apollo spacecraft.

The Bus was our baby, and I spent days trying to find the mysterious gremlin that was distorting the synchro signals as they were fed around the Bus. We had to rely on the remote sites zeroing their own synchro errors, and over and over again I would phone around and have people verify zero error, then try to zero our own; but then on having FPQ6 or USB slave to us to test, lo half a degree out!

Finally I got a vehicle and went around all the sites myself, and it turned out that the technician at FPQ6 had been using a Vacuum Tube Voltmeter to zero out the error. This was great on paper, as the VTVM was a really sensitive



FPQ-6 Antenna Photograph: Hamish Lindsay

instrument, but unfortunately it was giving a distorted zero, due no doubt to all the inductance in the synchros and the Bus.

When I zeroed the FPQ6 synchros with the passive voltmeter I had been using elsewhere, no error! Such a simple thing- it took a while to overcome the scepticism of the USB team, and even FPQ6, but once they slaved and saw zero error, they were with us.

Back in town, things were just fine, and I was having a lot of fun with the band and with our busy social lives. We singles at the Port Hotel spent a lot of time in each other's company, eating together and partying together, and a convention developed that we were "family", and that there should be no romantic involvement among us. No doubt there was the odd exception to this, and that properly remains the business only of the people concerned.

To be continued

Extracts from

"Recollections From My Years At Carnarvon"

David Johns

The Flybys ctd.

All the staff were out on the southern lawn taking photos of the plane as it roared by at low altitude and we on the plane were taking photos of the people on the ground.



As we passed USB Frank rolled the plane into a wide left 180° turn and we followed the main road into Carnarvon and went right up the main street at low altitude. I regret not looking at the altimeter at the time but my best estimate today is that our Constellation flew right over his classroom. altitude was about 300 ft.

We held that height for a second pass past the station and then back over the airfield and the town but on our third and last pass, we were at about 500 ft and then we started a slow climb and set track for Perth.

The trip back to Perth was uneventful. By then I had used most of my film and I spent most of my time talking to the pilots and listening to their stories about the places they had flown to.

We touched down at about 5:00pm, with Roger and I standing behind the pilots again. The approach and touchdown were interesting. Unlike modern jets where the pilots wear headsets and communicate at normal voice volume and the pilots also was by talking loudly and on some occasions by shouting and because the four big radial engines needed careful monitoring, any changes to the throttle had to be done by the engineer who would change the throttles and then monitor and change other engine settings to accommodate that effects of the throttle change. Thus the descent and landing had to be a team effort with Captain controlling the plane by yoke and pedals but calling the power settings to the engineer.

On descent Frank was controlling speed and attitude and he would shout throttle instructions back over his right shoulder, like "give me fifty". The engineer would make several adjustments and shout a reply "you have fifty", then after a while "give me forty" and the reply would soon be "you have forty".

Eventually we were flying above the runway but without enough power to sustain flight and there was a gentle flare

and the plane was running on the runway without the Captain having touched the throttles - not efficient by today's standards.

After we landed the four-air crew obliged with a group photo in front of the nose wheel of the plane. To me that photo was a priceless memento of a wonderful day and when I later discovered that I had not focused the camera at all, I was very annoyed with myself.

Roger and I drove back to Carnarvon the next day, well pleased with our trip. A few days later I was talking to a local school teacher, Greg Kerr. Greg told me that he had been in class, looking forward to a quiet end to the day when the Super He said the noise was shattering and intensely loud. He said they all went outside to watch the second and third passes.

Over the following months, many town people commented to me about the low passes. The most common comment was the awesome noise of the engines. There are probably locals in Carnarvon still who remember that day in November 1972 when a NASA Super Constellation flew up the main street of the town.

More Flybys

There were also more flyby visits during the Skylab series of flights. In about October 1973, another Flyby visit was due and I arranged again to ride on the plane. I think the Tracking Station Director was uneasy about my joy-flights and he scowled when I said I was going again. His scowl was an control the throttles, in the Super Constellation, all flight deck communication qo.



This time the plane was a DC6B aircraft, a large four engined aircraft but not as heavy as the Super

Constellation. The plane was under the command of Captain W T Morgan, but everyone called him Bill. I still have his card today.

He was a very friendly fellow and we chatted away for much of the trip. On the way to Carnárvon Bill said that they needed to collect some equipment and he had been given permission to land at Carnarvon, which was a surprise to me. He expected to be on the ground for about two hours. To be continued

Houston, the Consoles Have Landed



Posted by Space Center Houston (Creator)

The first two rows of restored consoles arrived at Ellington Airport today, where a crowd of NASA officials, Cosmosphere personnel, Apollo Alumni and Space Center Houston officials celebrated their safe return.

Apollo XI 50th Anniversary Coins



Solomon Islands Moon Landing 50th Anniversary 2019 \$5 Dome Shaped Silver Proof Coin.

Struck in a unique, concave/convex format; mintage limited to just 1,969 coins.



2019 Royal Australian Mint proof six coin year set - 50^{th} anniversary of the Moon landing.

Sets include two unique coins: a 5 cent coin representing the Moon with the Apollo 11 landing site, and a \$1 coin representing Earth and the Honeysuckle Creek Tracking Station.

Vol 17

SOCIAL CLUB NEWS April 1967 ctd.

SOCIAL NEWS

by RON SARGEANT

A variety concert will be held in the Memorial Theatre on April 10th at 8.00pm in aid of the Minoo Malgoo Kindergarten. It will be organised by the Aboriginal Advancement Association who would be grateful for any assistance in the way (of) contribution of items, suggestions to the committee, or donations.

Anyone interested in helping this worthy cause should contact Susan Ellison, c/- Box 216 Carnarvon.

- 10 -

SPORTS NEWS

by John Rudkin

CRICKET.

It has been said in the past that the gentle art of cricket is in need of being livened up. The latest in(n)ovation of the game by the Tracking Station was the attempted introduction of five a side.

"It's a pity"someone remarked on the day of the game, "that the other team have eleven men. You'd think they'd realise that half of our players would have found something else to do".

It is worth noting that four players out of the original eleven turned out for the game, they were:-N. McBain; F. Vinton; F. Dykstra and T. Lysaght

Searching the outfield and the scrub, brandishing their bats like scythes, this lonesome four managed to capture Leo Overington and Peter Dawson and transport them to the field of battle. The numbers of this valiant crew then stood at six. It was at this stage that three unsuspecting aboriginal boys were seen to be kicking an egg shaped ball around in a somewhat unusual manner and immediately a Mr. Cook, Mr. Pierce and a Mr. McMahon were conscripted.

To be continued

CRO Gemini Flight Controller Manning

Courtesy Gene Kranz and Gerry Griffin.

	GEMINI 5	GEMINI 6 SC	GEMINI 76	
CRO-CC	Lewis	Garvin - Draughon	Kundel	
GEMINI	Klingbeil	T White	G6 Moser	
AGENA	Canin A/S	Smith - Weichel	G7 Bliss A/S Dunbar	
A/M	Jernigan	Humbert - Bishop	Beckman, Mury, Walsh	
CARNARVON SPACE & TECHNOLOGY				

Plans for the Apollo 11 50th anniversary in Carnarvon.



July 20 - Cocktail party with entertainment.

July 21 - Official opening of new NASA Tracking Station fountain replica.

Possible astronaut visit July/August

Harrison Schmitt (Apollo 17 moonwalker) may be coming.

LOS

George Allan (FPQ-6 Radar Console Operator)

28.01.1940 - 17.10.2018

(Information supplied by Tony Green)

Joined the Tracking Station 30.9.63

Keeping the Memory Alive



Keeping the Memory Alive



And from the crew of Apollo 8, we close with good night, good luck, a Merry Christmas, and God bless all of you - all of you on the good Earth." — Frank Borman

A very merry Christmas, and a healthy and prosperous New Year to you and your families —

from the editor.

If undelivered please return to: CROTrackers PO Box 93 Quinns Rocks WA 6030