



December 1965





Keeping the Memory Alive

Vol 8 December 2010



We've now run out of CRO supported NASA manned space flight missions of the sixties and seventies, so until we can come up with a new, suitable and lasting, theme (suggestions welcomed) the newsletter will continue to be somewhat patchwork in content.

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## **More Patches That Never Flew**

By kind permission of Eugene Dorr.

#### **SMEAT**

SMEAT (Skylab Medical Experiment Altitude Test) was a 56-day ground-based simulation starting on 26<sup>th</sup> July 1972.



Original artwork for the SMEAT patch

Photograph courtesy NASA

The sim was designed to gather baseline medical data for medical studies that would be carried out during the Skylab flights.

The crew, comprising Robert Crippen, William Thornton, and Karol Bobko, ran through a full simulated mission including a program of experimental studies, and housekeeping and leisure activities.



**Embroidered Reproduction** 

The crew worked with the late Charles Schulz, creator of "Peanuts", who did the drawing for the patch.



SMEAT crew of Robert Crippen, William Thornton, and Karol Bobko Thanks to Ed Hengeveld for the photo.

# LOS

## Margaret (Maggie) Whitworth

We regret having to record the passing of a yet another CRO personality, "draughtsman" Maggie; widow of the late Harry Whitworth.

### 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 Eric Ainsworth Gay Albon Bill Arbery Allan Barber John (Allan) Barber Matt Barber Keith Barnard Barrow Deidre Beaumont Elizabeth Beckett Beveridge Michael Billings Denis Black G Bond S Boyce Bill Boyle **B** Bradley Phil Brindley Hans Britz Dave Brooks Charlie Brown T.F.A Brown W Brown J Burdett R Burdett Martin Burgess Robert Burns Joe Cabone

Jov Cameron

Brian Clarke

**Brian Clifford** 

Bill Comstock

?? Coombs

Ron Cottis

Keith Clifton-James

Barbara Cobcroft

G Carrick

Geoff Cardwell

Jim Crossland Noel Cunningham F Dawes Peter Dawson Peter Del Fante Andrew Dempster Jean DeVis Marilyn Dick Olive Dick Phil Dickinson Neville Dippell Cheryl?Dixon L Donkin John Draper Mike Dresser Bruce Duff I Dunleavy **Bob Dwyer** Dave Elliot J Erickson Ross Eyre Martin Fenney Ian Few Ian Findlay **G** Francis Ben Franklin David Froom Don Frost Jamie Gardiner L Gardner S Garner C George Joe George J Gerschwitz G Goodlace L Gore

Geoff Hammond R Hanes Bea Hardman Peter Hardwicke Ron Harmes Anne Harvey (Brookes) D Hatch Gail Heileman Stan Hills Ernie Hindley Dave Hine A Holgate Phyllis Hook (Watson) J Hopkins Vivienne Hopper Ted Hopper (Lawer) Deidre Howard **B** Hughes **B** Hunter **D** Hutchins Ian Jones S??? Judd Vera Kastropil John Keane Mike Keen Jim Keenan John Kelman Joy King M King L King Roy Kjellgren Gloria Klarie Peter Kloppenburg Henry Larsen

Russ Leighton

**G** Linney

F Lippett

Alex Liu

The quest continues; the list never seems to get very much shorter.

Claude Granville

Lyn Grant

**Bob Halse** 

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 Reunion Dinner brought out some missing persons, but there are also a few who do not wish to be contacted.

## Whereabouts ctd.

Gloria Lyon-Roberts Ross MacDonald John Mahaffey Peter Maine Roy Mallinson Bob Marr Keith Mathieson Alec Matthews

K McCarson
Ian McDonald
S McDonald
Frank McGregor
Eileen McLaughlan
Don McLellan

Nola Meiklejohn (O'Byrne)

R Miller Bill Mills Ray Mills

Marilyn Milner (Gobby)

John Mogg

Sharon Morgan (Todd)

J Murray
Dennis Naylor
Gloria Neal
Ellie Nichols
K Elton Nickerson
Graham Nielsen
John Noble

? O'Brien Joan Oats W Oliver Denis Owens John Paddon ??? Mrs Parkinson John Parkinson Alan Paterson ? Paull

Mike Pender Wendy Petersen Don Pettitt T Phillips

A Rees

Diane Pitman (Housley)

John Platten
Gerry Plummer
D Powell
M.J.K Power
Wendy Puccinelli
Lorna Quinn
Roger Ramsden

Dave Rendell
Frank Rice
Doug Richards
D Richardson
Harry Richmond
Ralp Richmond
Dave Rickards
G Riley
Brian Robinson

Lynne Rosser
Ted Rosser
Lindsay Sage
Stewart Sands
Ron Sargeant
Russell Schwarzer

**Bob Scott** 

Michael Scott-Malcolm

Lorraine Scott-Malcolm (Erlandsen)

Dorcas Sefton-Bellion George Sefton-Bellion

D Selby Ron Shand Fred Sharland E Sharples ? Sheehan Jeff Shuttleworth

P Sims Ray Skender George Small Lyn Smart (Willis)

J Smith Mary Smith P Smith Roger Smith Bill Smythe

Hazel Snook (Howse)
Dave Standbury
John Stanton
Alex Stevenson

Barbara Stephenson (Vernon)

Barbara Teahan
Barbara Teasdale
Des Terrill
Alan Thomas
Christine Thomas
Howard Thomas
Don Thompson
Jack Thompson

Patsy Thompson (Nolan)

L Tink
Larry Tomkins
Frank Toomey
Mike Travell
Norma Turner
Ernst Uhl
Tony Vingerhoets

TonyVingerhoets
Dave Walker
Mrs B Ward
Tom Ward
N Wardle
A Watermeyer
Irene West
Bernie Wilbourne
Garnet Wilmott
Brian Wilson
Ray Zatorski

# **Birthday Achievement**

Must be something to do with the Carnarvon air.

Earlier this year, one of the Tracking Station stalw arts, Joan Hopper, celebrated her 90<sup>th</sup> birthday.

Just to jog your memory, she was one of those who served us so well behind

the scenes; she was a cook in the Tracking Station canteen from its early days until closure.

From all accounts Joan still leads an active life, serving as a volunteer for Friends of Citiz ens Under Stress (FOCUS); but reckons that at her age birthdays come round too quickly.

# 6th Picnic Day

Five years is still a long time between drinks.

So...

The Perth Chapter of the CRO Trackers will be holding their sixth annual picnic / barbeque at:

Whitemans Park, Mussel Pool,

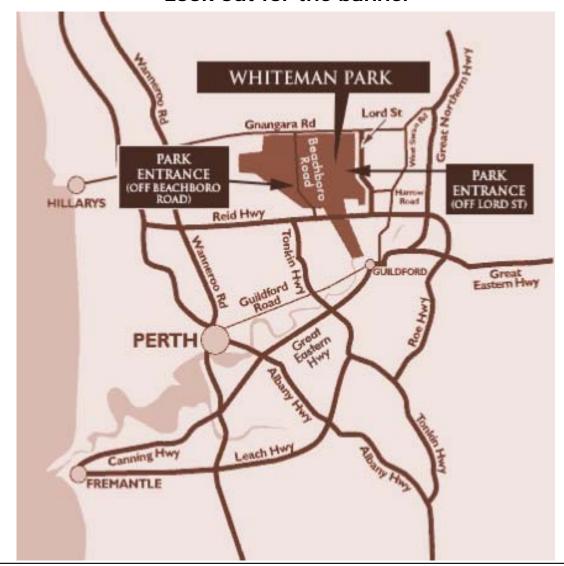
some 20 kms and 25 minutes from the Perth CBD.

**Date:** Sunday May 1<sup>st</sup> 2011 (1<sup>st</sup> Sunday after Easter)

Time: Kick off 11 am WST

**BYO:** Everything

#### Look out for the banner



## Christmas 1968

Apollo 8 was launched at 7:51:00 a.m. EST on December 21, 1968, and was inserted into a 103 by 98 nautical mile parking orbit. The launch vehicle was a three-stage Saturn V and the spacecraft was a standard



Let there be light: and there was light. And God saw the light, that it was good: and God divided the light from the darkness."

#### Jim Lovell:

"And God called the light Day, and the darkness he called

Night. And the evening and the morning were the first day.

And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.

And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so.

And God called the firmament Heaven. And the evening and the morning were the second day."

#### Frank Borman:

'And God said, Let the waters under the heavens be gathered together unto one place, and let the dry land appear: and it was so.

And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good."

Borman then added, "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."

The Apollo 8 mission took seven days and included 10 orbits around the Moon. Alm ost without exception, spacecraft systems operated as intended.

block II command and service module configuration. A lunar module test article was m ounted in the spacecraft/launch vehicle adapter for mass loading purposes.

This first manned mission to the Moon, entered lunar orbit on Christmas Eve, December 24, 1968.

That evening, the astronauts; Commander Frank Borman, Command Module Pilot Jim Lovell, and Lunar Module Pilot William Anders did a live television broadcast from lunar orbit, in which they showed pictures of the Earth and Moon seen from Apollo 8.

Lovell said, "The vast loneliness is awe-inspiring and it makes you realize just what you have back there on Earth." They ended the broadcast with the crew taking turns reading from the book of Genesis.

#### William Anders:

"For all the people on Earth the crew of Apollo 8 has a message we would like to send you".

"In the beginning God created the heaven and the earth.

And the earth was without form, and void; and darkness was upon the face of the deep.

And the Spirit of God moved upon the face of the waters. And God said,

## Where Are They Now

Frank Brian Davies

 ${f I}$  stayed until 1971 when the Apollo programme was starting to wind down and went to Nurrunga.

At Woomera for two years, and then got a job at Pine Gap which was pretty eye-opening regarding the technology the USA had. I was one of two Aussie techs there. There were several ex-Carnarvon people on the "data" monitoring such as Greg Tacey, John Coulson, Mike ?. Also in Alice Springs at the OTH radar were a couple more ex CRO people, Jim Symonds, Les ?.

I was there four years which gave us a good financial start as we had a flash company house; the only thing we had to pay for was the telephone calls. They even replaced the furniture every two years and provided free firewood! Yes you do need an open fire in Alice in winter!

Shift work finally lost it's appeal and I got a job at Mount Isa mines as the electronic projects engineer. it was a super interesting job getting the mine into the 20<sup>th</sup> century!

Much more challenging than space technology; with space technology nobody ran over your equipment with front end loaders, blew it up or just plain stole it!

Most of my work was getting information to and from underground. I worked closely with a Barry Budd who was a cockney with a ferret-like attitude who found all these interesting and sometimes crackpot ideas and projects, which we put into practice and saved heaps of money for MIM.

We should have worked on commission for electric savings!

The mine installed a huge refrigeration plant to pump cold water for the newer deep copper mine below 1,000m. All the potential energy (0.5 ton sq inch) was going to waste and the water still had to be pumped back to the surface refrigeration plant. MIM now has probably one of the highest head Pelton wheel generators, which paid for itself in a few months and also cooled the water by two degrees.

I took early retirement in 1993 as MIM was "downsizing" and we moved to Coolum Beach, on the Sunshine Coast.

Only took 25 years or so to cross Australia!

## The Fisherman Who Rode a Horse

Continuation of an extract from the autobiography of Ken Watters.

Sometimes the signal from a satellite would be horizontally polarised, sometimes vertically and at other times it might be what we called circularly polarised. This depended on the satellites orientation relative to earth. A change in polarisation meant climbing to the top of the antenna and shifting the connections on half a dozen coaxial cables.

The code of operations book said that the antenna was to be pointed vertically with the hydraulics turned off to enable the technicians or assistant to climb up through the centre of the antenna to make the changes. However this was a real pain in the butt because after climbing back down and relocating the antenna to receive the satellite we quite often found that the polarisation chosen was incorrect and we would have to point the antenna back to the vertical, stop the hydraulics, climb back up and change to another polarisation, hoping that this time it would be the correct choice. If it was still not right we would have to do it all over again.

We got into the habit of climbing the antenna while it was pointing at the satellite and changing the polarisation while the crew in the receiving van would monitor the signal strength and let us know on the intercom when it was at its best. We could only do this when our engineer Mr. Simons was not on the site otherwise we would cop a real roasting. When crawling on the outside of the antenna hanging backwards over a fifty foot drop, my grip on the antenna would be so tight that I would leave my fingernails stuck into the paintwork and steel. We were all very conscious of the dangers and one of my fellow shift workers took advantage of this.

We were working on the antenna one day wearing white overalls and we found ourselves in need of a 3/8 inch spanner. I volunteered to climb down to fetch the spanner. While I was climbing down John took off his overalls and as I walked away from the base of the antenna he let o ut a blood curdling scream and threw his overalls out from the top of the antenna. They very nicely filled with air and for the life of me I would swear that when I looked up at these overalls falling to wards me with outstretched arms I honestly thought that he had fallen and was about to land at my feet on the concrete apron. My heart jumped into my throat, I didn't know whether to try to catch him as he fell or to go and fetch a shovel to pick him up after he landed. I had to sit down for a while to let my nerves settle. John thought that it was the best trick that he had ever played on anyone and could not understand why I threatened to chuck him off the top of the antenna if ever again he pulled a stunt like that.

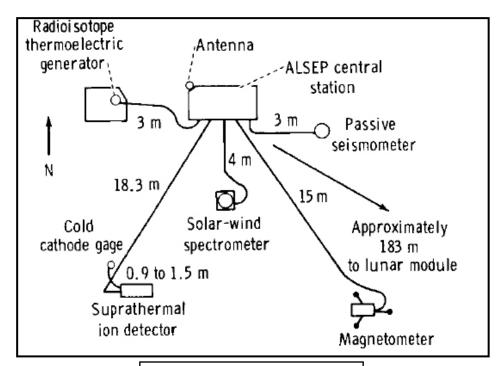
(To be continued)

# **Apollo Lunar Surface Experiments Package**

Many happy hours were spent by CRO MSFN staff, and later by R&RR I believe, collecting and recording data from the ALSEP packages deployed on the moon's surface by the astro nauts on I unar EVA—some nine million measurements per ALSEP per day.

Set up by the Apollo 11 LM crew was a forerunner of ALSEP, known as the Early Apollo Scientific Experiment Package (EASEP). EASEP differed from ALSEP in that its power was derived from solar cells. EASEP also contained (RTG), were attached. It provided power distribution, communications with Earth, etc. The rest of the experiments were connected to this unit by cables. Power for all of the experiments was provided by the RTG.

Each experiment was assigned its own name and number. With several of the packages in place on the Moon, networks provided more information than any single one could provide. For example, the seismometer network provided by ALSEPs set up by Apollo-12, 14, 15, and 16 enabled the location of



only two experiments, Passive S eismic

Experiment (PSE) and Lunar Dust Detector (LDD).

Each ALSEP package was a mixture of experiments to be transported on pallets a suitable distance from the LM.

There was a central processing station to which all of the peripheral experiments, and the SNAP-27 Radio-isotope Thermoelectric Generator

Apollo 12 ALSEP Configuration

impacts and moonquakes to

be determined.

A network of three LSMs enabled the study of solar wind plasma movement by detection of its contained magnetic field. The ALSEP on A-17 carried different instruments after the networks had been established by earlier flights.

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#### "JIM"NASTICS AT Q-6 concluded

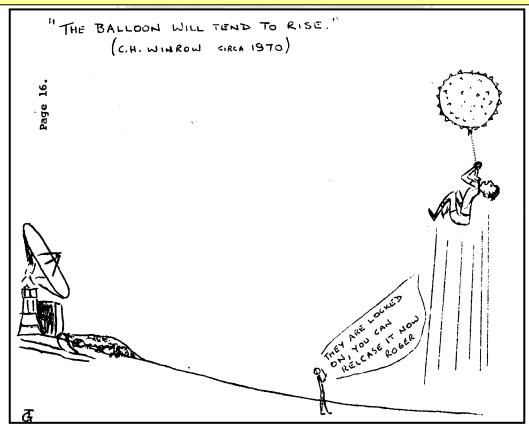
Each sphere contains a lead ballast of 100 grams and two pressure-relief valves which ensure good stability and shape up to the Jimsphere ceiling altitude and also prevent explosion.

The rate of ascent of a typical Jimsphere is 5 metres/ second. Each Jimsphere is inflated with Helium gas and then released at a given signal so that tracking will take place as soon as is possible.

In the average Carnarvon wind conditions, the bravery of the launch-man is equalled only by his weight, for obvious reasons. If there are any volunteers on site who are very strong and with a weight not less than 300 pounds who wish to launch a Jimsphere, would they please report to the Jimsphere Engineer at Q-6.

Tony Green -Q-6

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# **KEEPING THE MEMORY ALIVE**



## Carnarvon Tracking Station 1964 - 1975





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y sincere thanks to all of those who have contributed to the website so far; listed at: http://crotrak.com/thank\_you.htm .

There is a lot to come including more photographs from the 40<sup>th</sup> Anniversary Reunion Dinner, courtesy Trevor Housley, Tito & Joan Teraci, Margaret Hall and Max Garth. Just wish I had more than two hands - need to get them done before the next dinner

I can arrange copying, scanning, whatever, so as to get them up on our website; you need have no fears regarding their safety.

# Where Are They Now (2)



Keith and Jean Chant Enjoying Their Retirement in Sunny WA

# Keeping the Memory Alive





ACQ. AID ANTENNAE CARNARVON TRACKING STATION

A very merry Christmas

and

a healthy and prosperous New Year

to you and your families

from the editor.

If undelivered, please return to: **CRO Trackers**PO Box 93, Quinns Rocks, WA 6030