

# DANIEL ON THE MOON

DAN  
SCHAIEWITZ'S  
APOLLO  
EXPERIENCE  
IN HIS OWN  
WORDS



Ever since I can remember, I wanted to be an astronaut ...

**MY EXPERIENCE TRAINING APOLLO ASTRONAUTS  
TO WALK ON THE MOON**

**PART 1**

## DAN SCHAIIEWITZ

### APOLLO PROGRAM PORTABLE LIFE SUPPORT SYSTEM (PLSS) ASTRONAUT CREW TRAINING MISSION MANAGER, APOLLO SPACE SUIT TEST SUBJECT AND PLSS TEST ENGINEER

Ever since I can remember, I wanted to be an astronaut. When President Kennedy made landing a man on the moon a national goal, I wanted to become involved in the lunar landing program. I established my long range goals, i.e. obtaining a degree in engineering and getting a job involved with the complexities of keeping a man alive on the moon.

After obtaining my engineering degree in 1967, I was fortunate enough to have been offered a position with the company that had the contract for the Apollo Portable Life Support System (PLSS) which included the Emergency Oxygen Supply System called the "Oxygen Purge System" (OPS).

I arrived at Cape Kennedy Thanksgiving Day, 1968. I was so excited that I forgot it was a holiday and spent the entire day at the Visitors Information Center. Seeing the Vehicle Assembly Building, the Apollo 8 rocket on pad 39 and the rest of the space center was beyond the realm of my imagination. It was difficult to believe that I would be a part of a team that would change science fiction to science fact.

As I began my assignment at the Kennedy Space Center (KSC), I became very inquisitive and was determined to get involved in every way possible. I read every document and manual related to space suit operations I could get my hands on.

As we got closer to Apollo 11, the mission the whole world was looking forward to, I realized that I was an important part in making the mission a success. I worked six and seven days a week, 16 to 18 hours a day much of it on my own unpaid time looking for and "making" work. I felt guilty getting paid for the one thing I always dreamed of doing.

One of my most vivid memories was charging the Apollo 11 Life Support Systems. Four individuals, one technician, two quality control personnel and myself adding the life sustaining water and oxygen to the hardware that would be used in just a few days to support the first humans to walk on the moon. I felt a lot of pride along with a lot of butterflies.

Alone one night at about 1AM at our KSC office, I found a memo that stated the Apollo 11 astronauts (Armstrong and Aldrin) were coming to KSC to practice their lunar surface activities and that our support would be needed. The following day I contacted the Manned Spacecraft Center (MSC) in Texas to find out all I could about the support that would be required. I then informed responsible parties at KSC of my desire to handle the support required without it interfering with my other responsibilities.

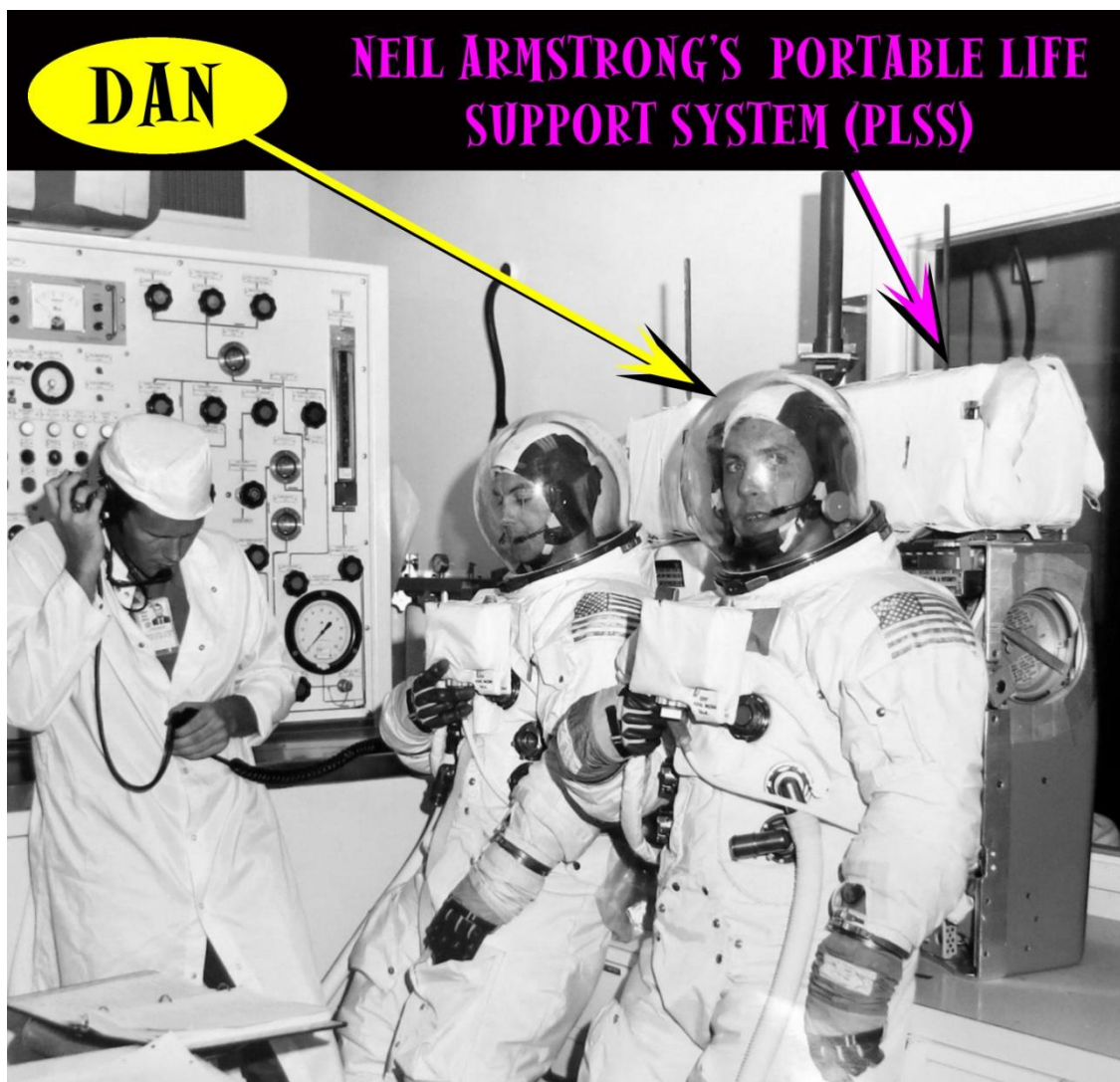
Subsequently I was assigned the position of Extravehicular Crew Training Engineer at KSC. The Apollo 11 training exercises went so well at KSC that the Apollo training office at the Manned Spacecraft Office in Texas decided to conduct all of the lunar surface training exercises at KSC.

One of the many aspects that made my "adventure" in the crew training area so interesting were the many times that I explained the functional aspects of the Astronaut Life Support System to so many inquisitive people, i.e. workers, reporters, dignitaries, etc. Being so interested in and so enthusiastic about my work, it gave me much pleasure and satisfaction to convey my enthusiasm to others.

I will never forget the first opportunity to wear the Apollo space suit, more specifically Neil Armstrong's suit. The scene took place in our "clean room". The purpose was to check out the Apollo 11 PLSS communications



from the Space Suit to the Spacecraft on Pad 39 to The Manned Spacecraft Center in Houston, Texas. The date was May 5, 1969. What an incredible experience knowing that I was verifying that the Spacesuit communications from the moon to earth and back was in fact working as designed to transmit the voices of the first men on the moon to the entire world.



*Above: Here I am checking Apollo 11 communications using Neil Armstrong's Portable Life Support System (PLSS) Backpack*

Subsequently, I had many opportunities to work with and test procedures using Apollo suits. Being intimately familiar with the procedures used by the astronauts inside the Lunar Module (LM), I was delegated to wear the space suits to develop, troubleshoot and verify procedures used by the astronauts. How close to actually being an astronaut can you get!



*Above: Here I am on my way to the simulated lunar surface outside the KSC crew training building to test out modifications made to the life support training "backpacks."*

My most memorable experience was the "journey" to the Apollo 11 spacecraft the night before the Apollo 11 launch to deliver the Astronaut Suit Life Support Equipment and "stow" it in the Lunar Module. There we were, four of us riding along the same route the giant crawler carried the 40 story rocket to pad 39. The destination of that monstrous rocket could be seen that night as a beautiful half sphere.

While riding toward the spacecraft, I kept having flashbacks of moon rockets I had seen in "Flash Gordon and Captain Video" TV series of the early 1950s. The closer we got to the base of the Saturn V rocket the faster the "butterflies fluttered"! Then the elevator ride to the Lunar Module level 36 stories high. The ride to our LM destination seemed endless as I watched the diameter of the rocket get smaller and smaller. When we passed the giant American Flag painted on the side of the rocket I felt proud to be an American.

Once inside the protective room that surrounded the Lunar Module, we removed the two Portable Life Support Systems (PLSS) and The Emergency Oxygen Purge Systems (OPS) from their protective containers. We then installed the hardware in their respective stowage locations. I had the distinction of crawling through the LM hatch into the LM to make the final verification of the PLSS controls and switches. I again could not believe where I was and how I got there. It was hard to comprehend that in just a few days these amazing Life Support Systems ("backpacks") would help make one of man's oldest dreams come true.



# DAN WEARING "FIRST MAN ON THE MOON" NEIL ARMSTRONG'S SPACE SUIT



*Above: Here I am evaluating Apollo 11 prep and post procedural changes before the Apollo 11 liftoff in the training LM at KSC wearing Armstrong's training suit.*





*Above: Here I am going through Extravehicular Activity (EVA) pre EVA and post EVA procedures before the astronauts went through the same procedures.*

I'll never forget the instance that my name was referred to by Apollo Astronaut Eugene Cernan commander of the Apollo 17 flight while on the lunar surface. How many people can say they've had a shout out from the moon?



### ASTRONAUT SILVER SNOOPY AWARD

I feel extremely proud to have received the "Silver Snoopy" Award from Apollo 14 astronaut Ed Mitchell (below photo). The letter included with the "Silver Snoopy" Award Pin was signed by Apollo 13 astronaut Fred Haise (below).

At the time I received the award I recall feeling "guilty" being recognized for accomplishments that were to me tasks that I considered part of "acting out my dream."

Looking back, I recognize the significance of the award and how lucky I was and how proud I now am.

## RECEIVING "SNOOPY" AWARD FROM ASTRONAUT ED MITCHELL



# "SNOOPY" AWARD LETTER SIGNED BY ASTRONAUT FRED HAISE



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
MANNED SPACECRAFT CENTER  
HOUSTON, TEXAS 77058

REPLY TO  
ATTN OF: CB

Mr. Daniel Schaiowitz  
Hamilton Standard  
Division of United Aircraft Corporation  
ECS East Test Cell, HSD  
Kennedy Space Center, Florida 32899

Dear Mr. Schaiowitz:

As an engineer for Hamilton Standard, your efforts on the Apollo program have been highly professional and have contributed importantly to the success of our manned lunar effort.

This letter is our way of saying thanks for the outstanding support you have given us through quality work in monitoring cryogenics in the PLSS units and checking of flight hardware. We know that the success of our Apollo flights depends upon the skill and dedication of persons, such as yourself, who are willing to accept nothing short of perfection in getting the job done for manned space flight.

As a token of our appreciation, we would like you to have and to wear our own award, the "Silver Snoopy". This pin denotes excellence in workmanship to those persons whom we regard as the very best in their respective professions.

Sincerely,

*Fred W. Haise*  
NASA Astronaut



**PHOTO OF ME TALKING TO APOLLO 11 ASTRONAUT  
ARMSTRONG (FIRST MAN ON THE MOON) DISCUSSING  
A MODIFICATION MADE TO THE LUNAR SURFACE  
CAMERA MOUNTING BRACKET TWO WEEKS PRIOR TO  
THE APOLLO 11 MISSION**



LETTER OF COMMENDATION

Prior to an Apollo 16 crew training EVA exercise with Astronauts John Young and Charlie Duke in the Crew Training building at KSC, Charlie handed me an envelope and suggested I open it at the completion of the exercise.

When I opened the envelope, I found the below photo and letter. Looking at the photo of me (getting suited up) and my team members, I was extremely excited that I not only had a letter to share with my team, I also had a great photo.

I decided to make copies of both the photo and letter and gave each team member copies. You can't imagine how pleased they were to have memorabilia that recognized their outstanding contribution to help make Apollo 16 a success.

# LETTER OF COMMENDATION FROM ASTRONAUTS DUKE AND YOUNG



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
MANNED SPACECRAFT CENTER  
HOUSTON, TEXAS 77058  
(Kennedy Space Center, Florida 32899)

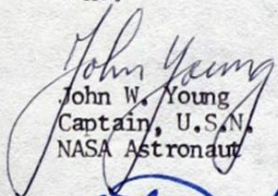
REPLY TO  
ATTN OF: CB


April 14, 1972

Hamilton Standard  
Division of United Aircraft Corporation  
Attn: Mr. E. H. Brisson  
Field Support Manager  
Mail Code HSD  
Kennedy Space Center, Florida 32899

Subject: Letter of Commendation

We would personally like to commend Dan Schaiowitz and his team for their outstanding support during the extent of Apollo 16 crew training at KSC. Their 100% support without a single glitch was beyond our expectations. It can also be said that their diligent efforts in this difficult task contributed significantly to our preparedness for achieving the Apollo 16 mission goals. Many thanks to Dan and his team for a job well done.

  
John W. Young  
Captain, U.S.N.  
NASA Astronaut

  
Charles M. Duke, Jr.  
Lt. Colonel, U.S.A.F.  
NASA Astronaut



**ME AND MY "TEAM" AS DISCUSSED IN  
THE LETTER FROM APOLLO 16  
ASTRONAUTS YOUNG and DUKE**





APOLLO 11 ASTRONAUTS ARMSTRONG AND ALDRIN CARRIED THE  
BELOW TIE TACK TO THE MOON FOR ME AS A MEMENTO TO THANK ME  
FOR KEEPING THEM SAFE DURING APOLLO 11 CREW TRAINING.



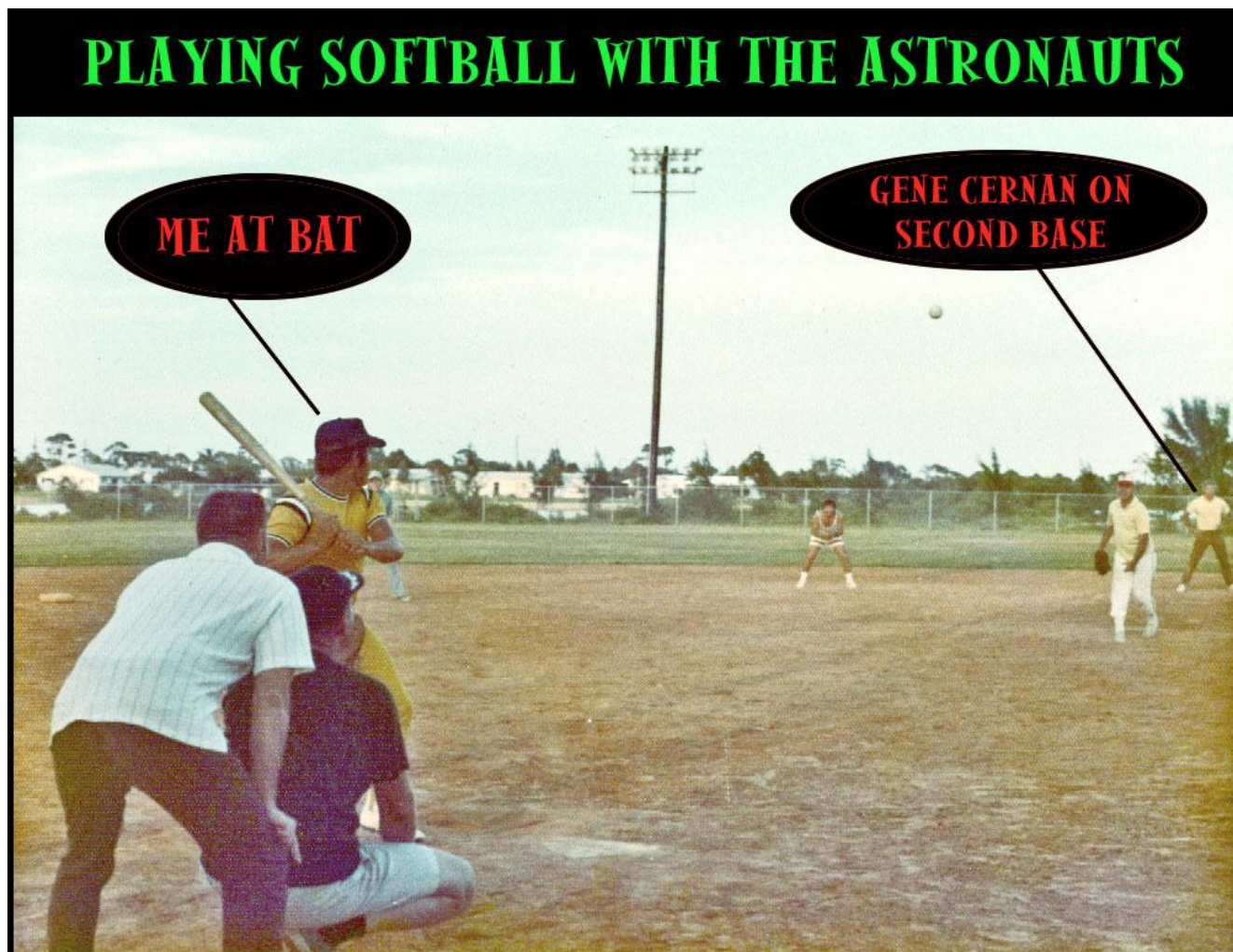


## PLAYING SOFTBALL WITH THE ASTRONAUTS

On a number of occasions, the astronauts challenged contractor personal to play softball. As I recall, only 4 or 5 astronauts volunteered to participate. I was asked to play on the astronauts team. Somehow they found out I played in a softball league on Merritt Island, FL.

In the he photo below, I'm at bat with Apollo 17 astronaut Gene Cernan on second base.

It is very interesting to note (in Gene Cernan's book) that a few weeks before his Apollo 17 moon mission, Gene pulled a ligament playing softball and almost lost his chance to walk on the moon. Luckily the flight surgeon "secretly" helped Gene with ligament rehab. Guess where it happened. Yep, you guessed it, after I hit the ball to the second baseman astronaut Cernan slid into third base where he was injured.



## PARTY AT THE ASTRONAUT BEACH HOUSE

### **What Happens At The Astronaut Beach House Stays ....**

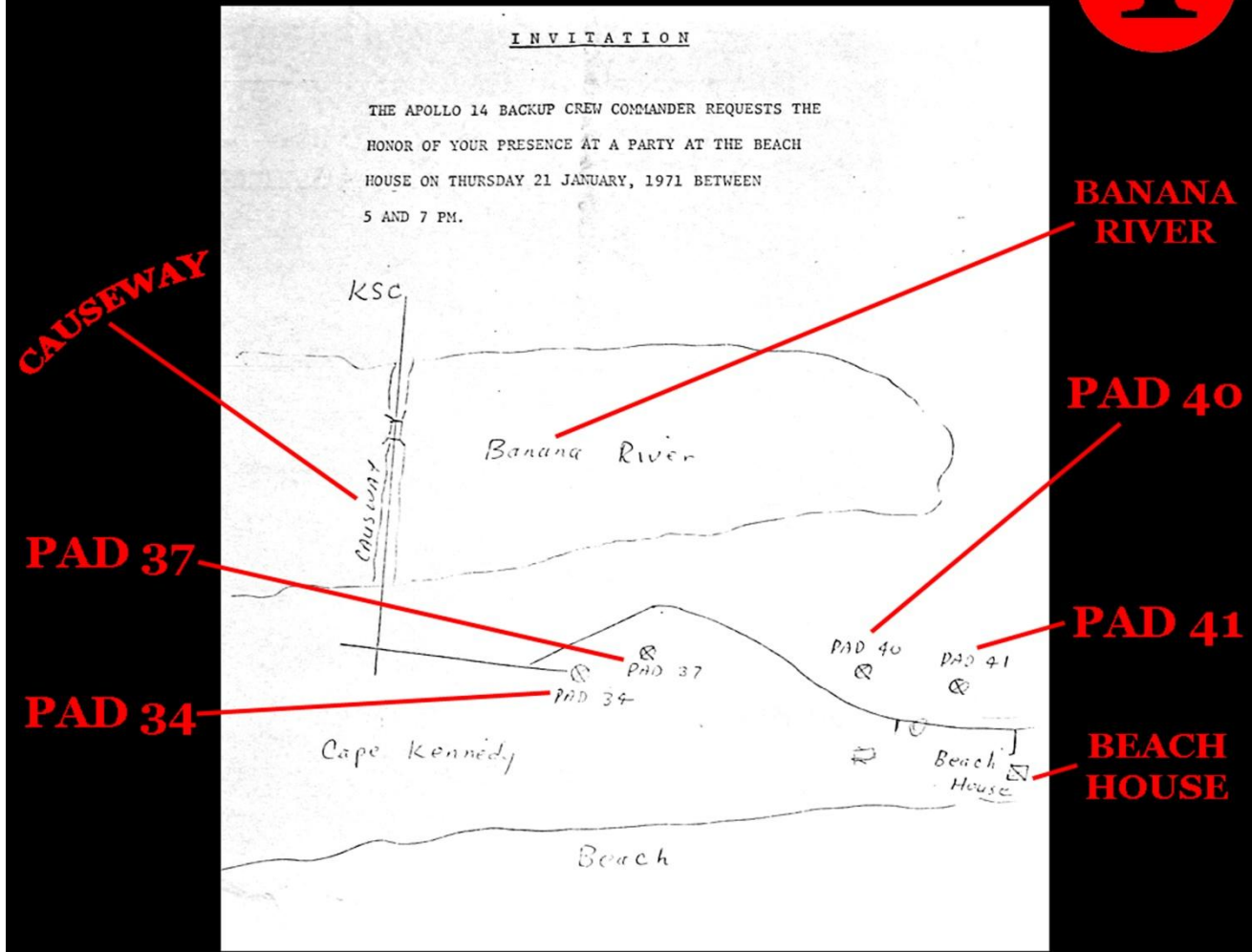
What happened at the Astronaut Beach House stayed at the Astronaut Beach House. Well, not always!

I had the honor and privilege of being invited to a party at the Astronaut Beach House as the below Figure 1 suggests. The invitation read: The Apollo 14 backup Crew Commander requests the honor of your presence at a party at the Beach House on Tuesday 21 January, 1971 between 5 and 7 PM.

This Pre-Launch Party was held 10 days before the Apollo 14 launch. Eight people (including myself) other than the Astronauts were invited.

# INVITATION TO PRIVATE ASTRONAUT BEACH HOUSE FOR A PRE-LAUNCH PARTY 10 DAYS BEFORE APOLLO 14 LAUNCH. (ONLY 8 PEOPLE INVITED)

1



I wanted to add a bit of levity to the party by presenting Astronauts Shepard and Mitchell with "gag" gifts related to their upcoming mission. I had some reservations with what I was about to do as I was not sure Mitchell's sense of humor rivaled that of Shepard's. During EVA Crew Training exercises I can't recall Astronaut Mitchell laughing. On the other hand, Shepard was, on most occasions, ready to demonstrate his jovial, witty personality. I figured, worst case scenario was that I would be "protected" by Shepard if I alienated Mitchell!

The first "gift" I gave them was an "Enema Bag" that Mitchell is holding (Figure 2 below) to be used as a backup Urine Collection and Transfer Assembly (UCTA) . Both astronauts, as you can see in the photo, laughed and could not stop laughing. Mitchell's laughter was a welcome relief and a confidence builder for continuing my mischief!



**URINE COLLECTION  
AND TRANSFER  
ASSEMBLY  
(UCTA)**



**ENEMA BAG TO  
BE USED AS A  
BACK UP URINE  
COLLECTION &  
TRANSFER  
ASSEMBLY  
(UCTA)**



**I GAVE ASTRONAUTS MITCHELL &  
SHEPARD AN "ENEMA BAG" AS A JOKE TO  
BE USED AS A BACK UP URINE COLLECTION  
AND TRANSFER ASSEMBLY. BOTH  
ASTRONAUTS COULD NOT STOP LAUGHING.**

**MITCHELL**

**2**

**SHEPARD**

**ME**



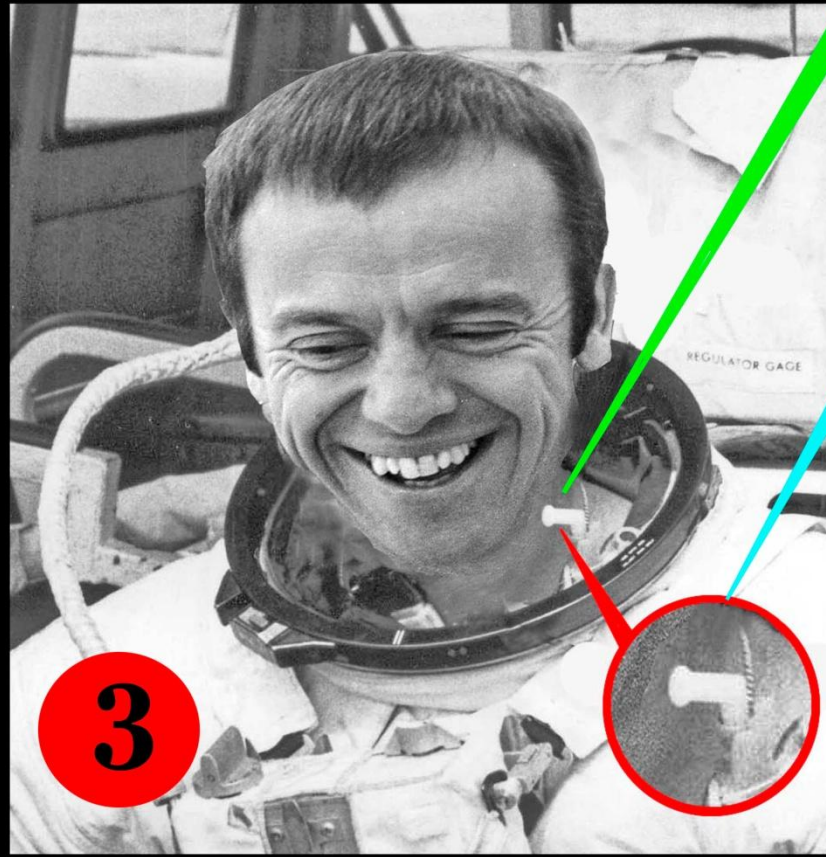
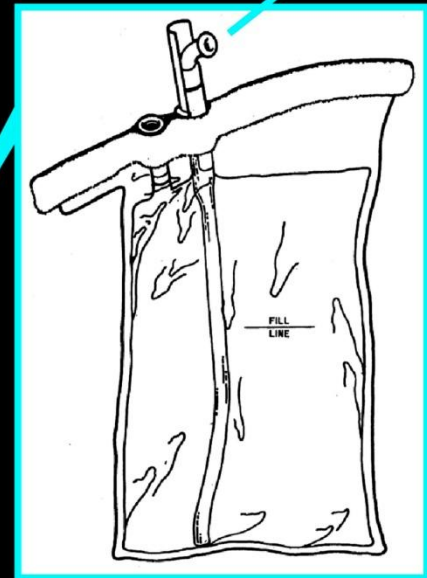
Here's some background about my next "gift". The In Suit Drinking Device (ISDD) was first used on Apollo 14. The purpose of the ISDD was to provide a source of drinking water during EVA. I can recall on a number of EVA runs, Astronaut Shepard complained that the ISDD nozzle was uncomfortable (not his exact word, but you get the idea) to use and, as he said, "I'd rather be sucking on a Baby Bottle Nipple". No further explanation needed as Figure 3 below explains it all.

**I GAVE SHEPARD &  
MITCHELL BABY BOTTLE  
NIPPLES TO PLACE OVER  
THE ISDD NOZZLE!**

**IN SUIT DRINKING DEVICE  
NIPPLE COVER (ISDDNC)**



**IN SUIT  
DRINKING  
DEVICE  
(ISDD)**



Looking at the "perfect solution" to Al's ongoing In Suit Drinking Device "sucking" problem, Al said to Ed jokingly (I thought) "why don't we take this (the nipple) with us (to the moon) and try it out". What happened with the "Baby Bottle Nipple" is a story that Al revealed to me at a party at my apartment in Cocoa Beach. After returning from the moon, Al handed the "Baby Bottle Nipple" to me and related that he took it with him to the moon with the intent to "jokingly" try it out if the mission was "going well" and if there was time for a little levity. Al said that no one but "Deke" (Deke Slayton was the Chief Astronaut) knew about the prank. Slayton was also the only one that was aware of the smuggled golf club prank (Al also brought a golf club on his Apollo 14 mission). The bottom line according to Al was there was no realistic opportunity to discuss the "sucking" problem and the "Baby Bottle Nipple" solution.



My last "gift" was a backup camera to be used if the crew "misplaced the Hasselblad camera or had a non functioning Hasselblad. If I recall correctly, the backup camera was a cheap Kodak pocket instamatic. You can see Al holding it in his left hand.

**SHEPARD IS HOLDING THE BACK UP  
CAMERA I GAVE HIM JUST IN CASE  
HE LOSES HIS HASSELBLAD**

**4**

**FLIGHT HASSELBLAD CAMERA**



**MITCHELL**

**SHEPARD**

**ME**



**CAMERA I  
GAVE  
SHEPARD AS A  
BACK UP TO  
HIS  
HASSELBLAD**

**CONDUCTING LUNAR ROVER PLSS FLIGHT HARDWARE COMMUNICATIONS TEST**

Many, many times I look back to my Apollo days at KSC and I still cannot believe that I was so intimately involved with helping the U.S. land on the moon.

Case in point: Looking through my Apollo photos, I found the three (3) photos below taken on August 15, 1972 during a final mission simulation to check out the Lunar Rover and all its systems prior to the Apollo 17 mission.

How LUCKY was I to be assigned the task of conducting the procedures to check the communications (voice and telemetry) from the astronaut backpacks to the Manned Spacecraft Center (MSC) in Houston. I still get "goose bumps" thinking about it. As a youngster, I was a SPACE FANATIC and could never have dreamed that I would end up right "smack dab" in the middle of it all!

Getting back to reality, the lunar rover maintained direct radio contact with Earth using its own antennas and the Lunar Communications Relay Unit (LCRU). Voice and telemetry were transmitted via the low gain S-band antenna (identified in photo 2 below). This was the antenna used during the communications test that I conducted. The large "umbrella" antenna was used for TV transmissions.

If I recall correctly, I was a nervous wreck and was unable to sleep the night before. However, luckily, the test went extremely well. I consider myself one of the luckiest men alive to have been a part of man's greatest adventure and technological achievement.

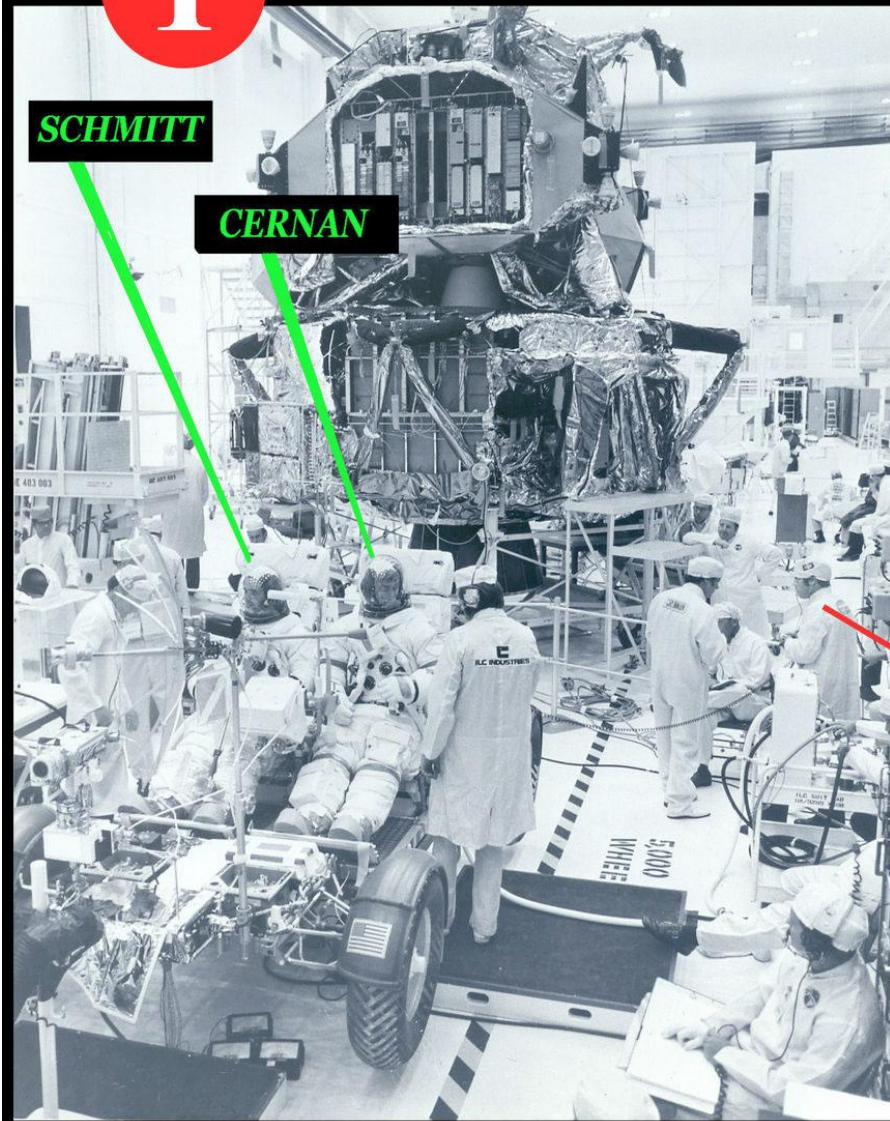
**AUGUST 15, 1972 APOLLO 17 MISSION  
SIMULATION LUNAR ROVER SYSTEMS  
CHECKOUT PRIOR TO AUGUST 28th  
PAD 39 ROLLOUT**

**1**

**DAN**

**SCHMITT**

**CERNAN**



**DAN  
CONDUCTING  
ASTRONAUT/  
ROVER/HOUSTON  
COMMUNICATIONS  
CHECK**



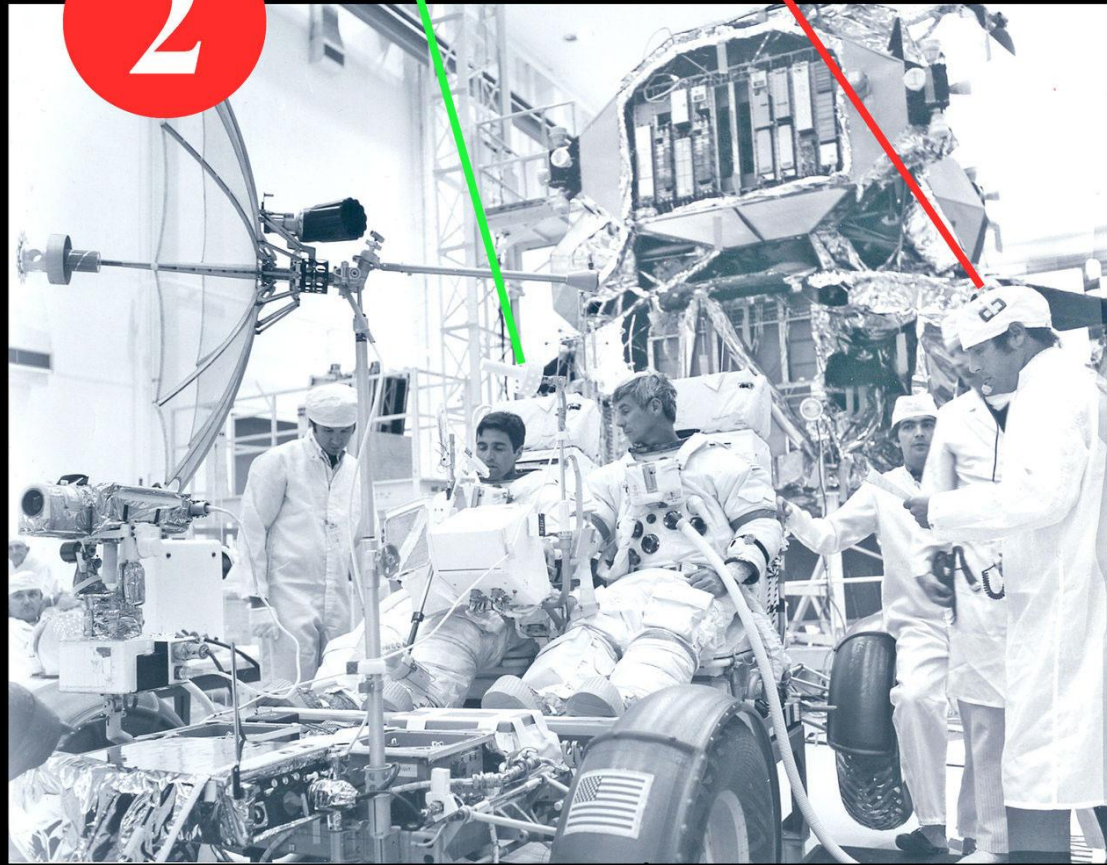
**LOOKS  
LIKE I'M  
REVIEWING  
THE TEST  
PROCEDURE  
BEFORE  
CERNAN &  
SCHMITT  
CONNECT  
THEIR  
COMM.  
CARRIERS**

**DAN**



**S-BAND  
ANTENNA**

**2**





**LOOKS LIKE I'M A  
NERVOUS WRECK  
CONDUCTING THE  
TEST. IN FACT, I  
PROBABLY WAS!**



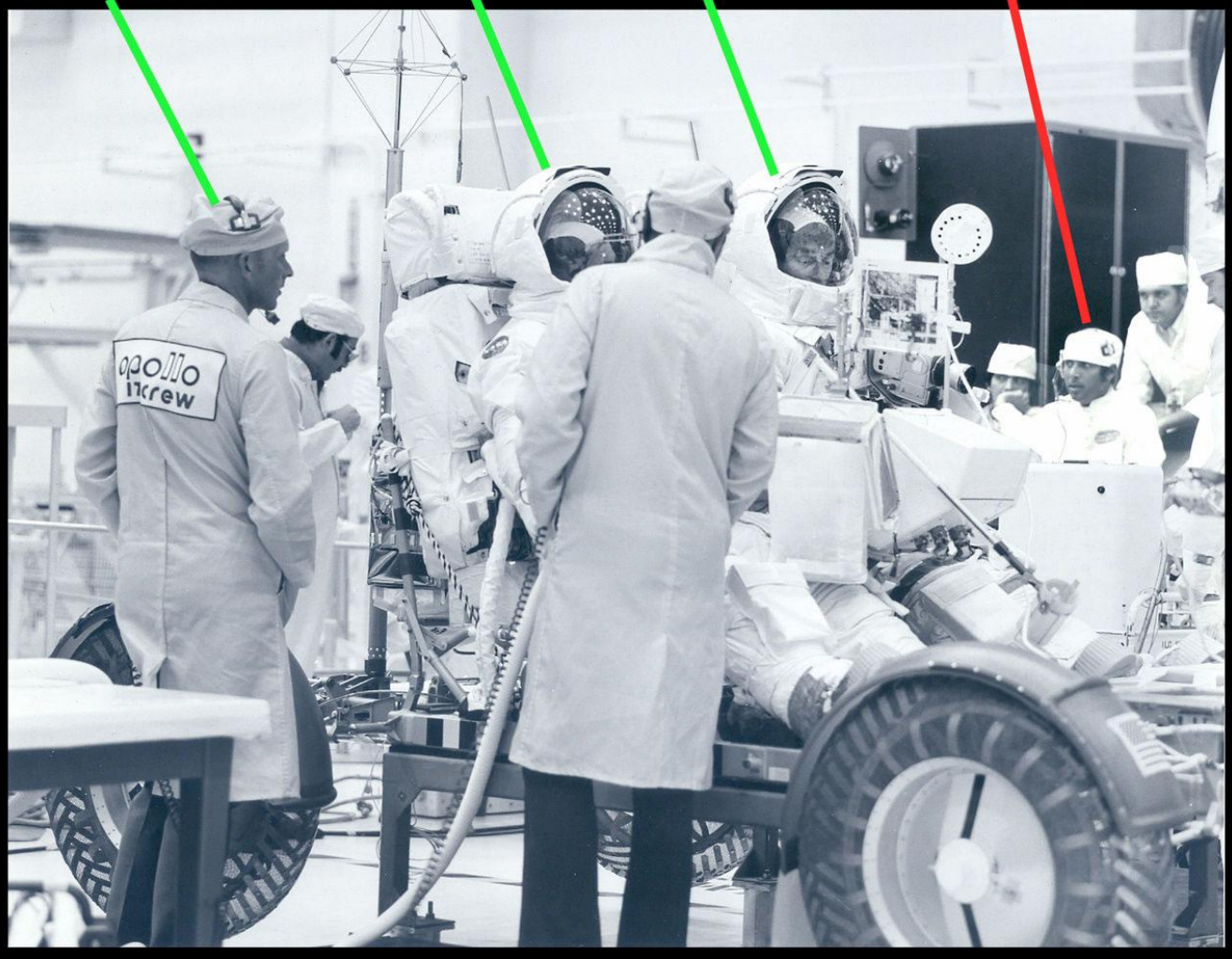
**3**

**DAN**

**SCHMITT**

**ASTRONAUT  
GORDON FULLERTON**

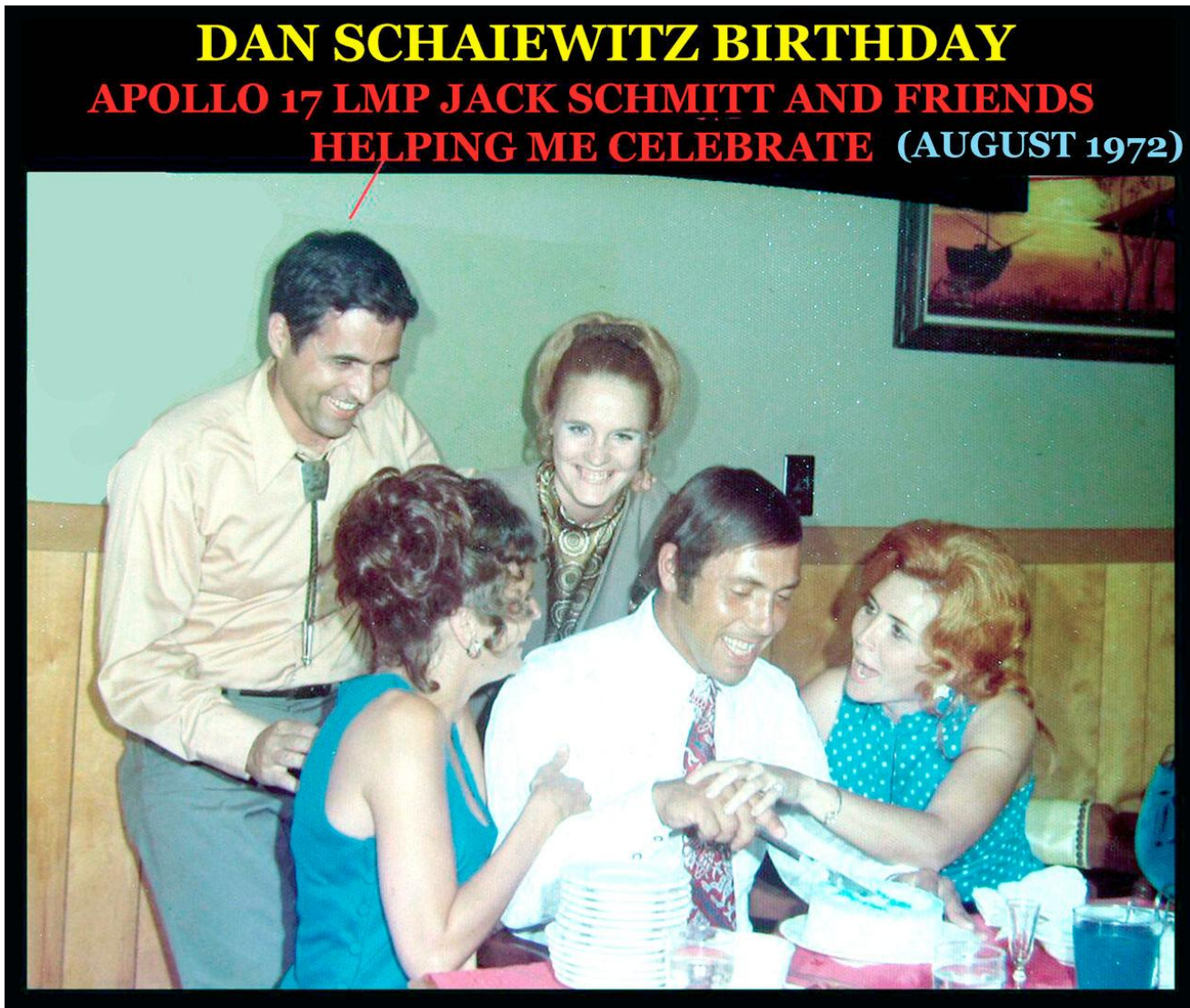
**CERNAN**





### CELEBRATING MY BIRTHDAY

Sorting through my Apollo memorabilia, I found this photo of Apollo 17 LMP Jack Schmitt and "friends" helping me celebrate my 29th Birthday.



### PARTIES WITH ASTRONAUTS AT MY APARTMENT IN COCOA BEACH

When historians look back at man's first adventure to another world they should be able to look back and come to the conclusion that the human beings we now call astronauts were not "robots" but men and women like you and I that had their own unique DNA, DNA that not only gave them the intelligence and motivation to pursue and accomplish their dreams, but also DNA that gave them each a "unique personality." Astronaut personalities varied from "fun loving" to "extremely serious and laser focused."

I hope that the photos below showing parties that I hosted at my apartment in Cocoa Beach convey to historians that astronauts were not just "robot Gods" but were human beings with attributes that make us all so unique and special!



*Astronauts Cernan, Roosa and Allen bobbing for apples at my apartment in Cocoa Beach.*

# **HALLOWEEN APPLE BOBBING AT DAN'S PLACE**

**GENE CERNAN**

**JOE ALLEN**

**STU ROOSA**





*The below photo was taken at a party I hosted by the pool in front of my apartment. I was cooking beef ribs on the grill and astronaut Cernan offered to help. Great memories!*

**DAN SCHAIWITZ COOKING RIBS WITH  
ASTRONAUT CERNAN'S MORAL SUPPORT  
(PARTY AT DAN'S APARTMENT IN COCOA BEACH)**





**PRE-LAUNCH PARTY AT DAN'S PAD**

**SHEPARD**

**GUENTER WENDT (PAD LEADER)**





***GENE CERNAN***

***STU ROOSA***

***RON EVANS***





My apartment was located in the Morgan Manor apts. at 7801 Ridgewood Ave. Cape Canaveral, FL 32920.

I can't believe it's still there after 50 years. It has not changed much except for the pool area. There was no fence and the grass went to the edges of the pool. The photo I posted below reflects the same red doors that I remember.

**MORGAN MANOR APTS.  
7801 RIDGEWOOD AVE.  
CAPE CANAVERAL, FL 32920**

**ASTRONAUT CERNAN**

**BUILT IN 1968  
STILL HERE AFTER  
48 YEARS**

**NO FENCE WHEN I LIVED  
THERE 1968-1973**

**MY  
APARTMENT  
IN CAPE  
CANAVERAL**





When I hosted parties at my Cape Canaveral apartment complex, the party goers had access to the inside of my apartment to use the bathroom, get a beverage from the fridge or just "hang out".

In the below photo, you can see the entrance to the apartment with the door open suggesting an "open invitation" to walk in.

## **ENTRANCE TO MY APARTMENT**

**ASTRONAUT  
CERNAN**



Below is a photo of Al Shepard smiling and having a great time. Al, to my surprise, at one of the parties asked me why I didn't have a photo of him in any of my rooms, i.e. not one in the kitchen, not one in the living room, and especially not one in the bedroom! I had no idea what he was thinking until he said (not an exact quote), how do expect to get girls into your bedroom without a picture of me on your wall!

## **ASTRONAUT AL SHEPARD AT ONE OF MY PARTIES**

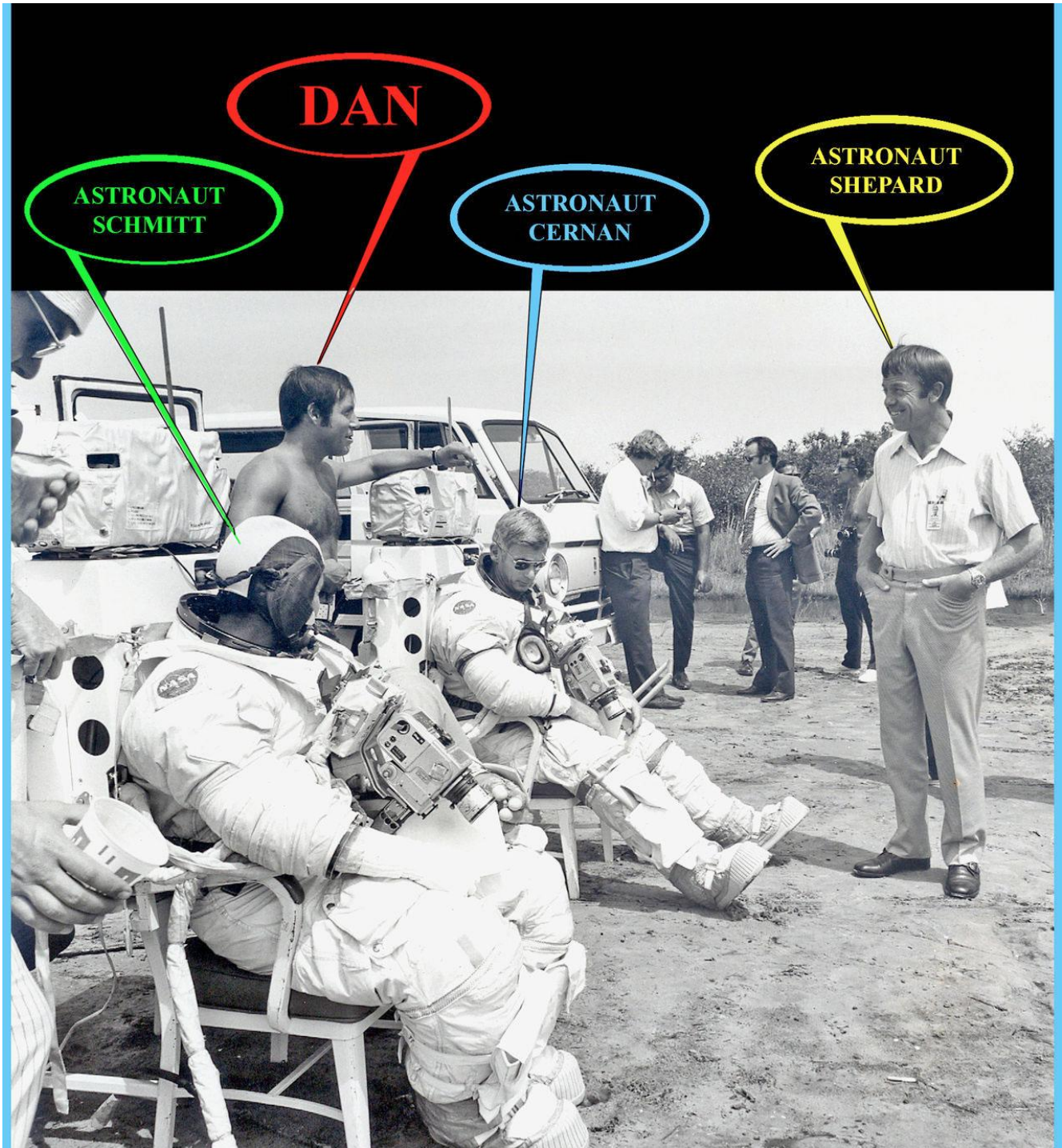




WORKING WITH ASTRONAUTS SHEPARD, CERNAN AND SCHMITT

The following photo of astronaut Shepard and myself smiling is one of my favorites.

I remember Al looking at me and saying "Dan, that may be the dress code at the beach but it's not the dress code on the moon" (not his exact words but very close). After working with the astronauts and gaining their confidence, I felt very comfortable working shirtless as you can see in the below photo.





**BEFORE I FELT  
“COMFORTABLE” ENOUGH  
AROUND THE ASTRONAUTS TO  
WORK “SHIRTLESS”, I WORE A  
“SUIT AND TIE” IN THE HOT  
FLORIDA SUN!**

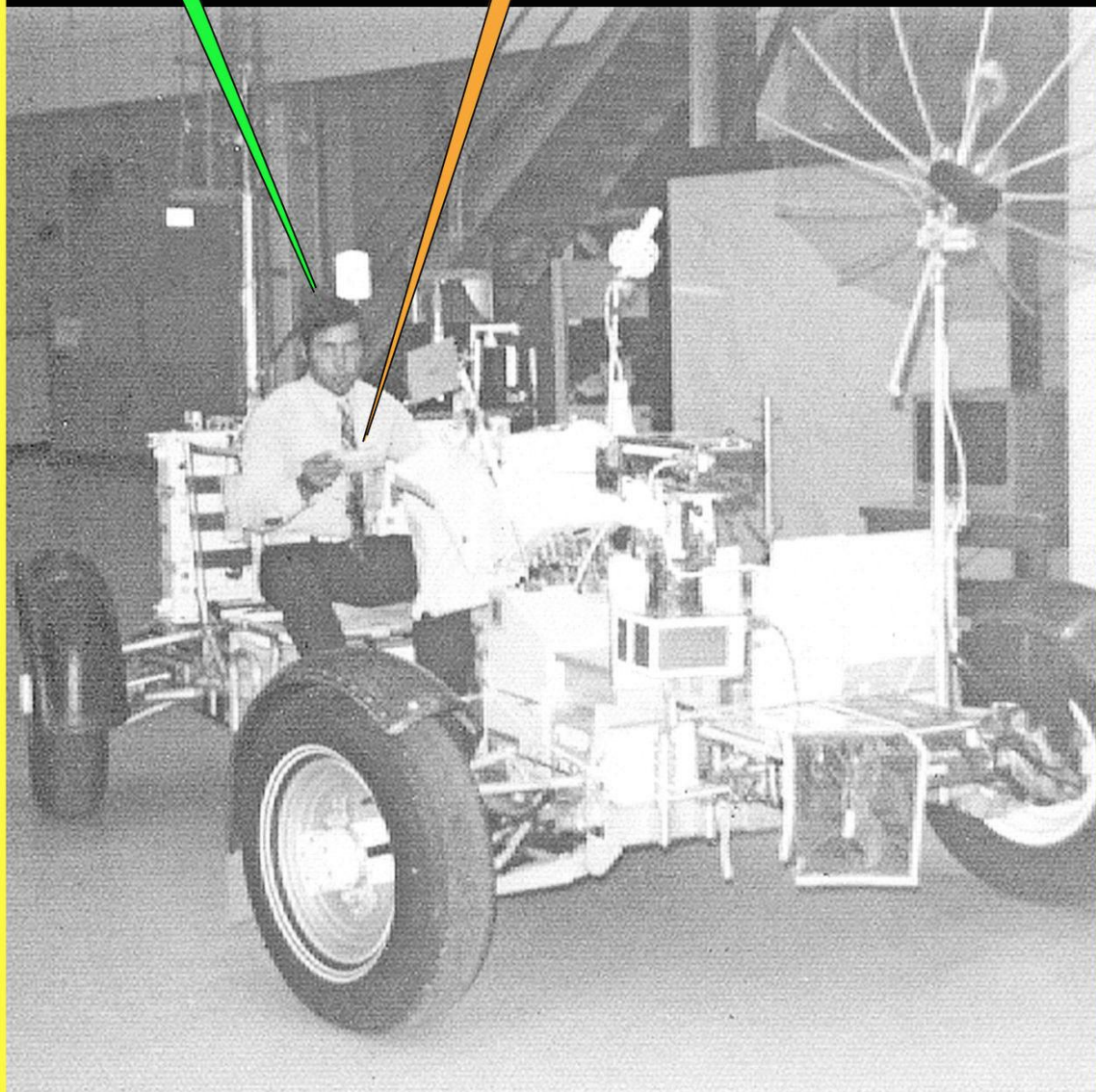




**DRIVING THE TRAINING ROVER  
FROM INSIDE THE KSC CREW  
TRAINING BUILDING TO THE  
OUTSIDE SIMULATED LUNAR  
SURFACE STAGING AREA IN  
PREPARATION FOR A CREW  
TRAINING EVA EXERCISE**

**DAN**

**ROVER DRIVING INSTRUCTIONS**





***WHAT WERE MY THOUGHTS  
50 YEARS AGO  
(JULY 16TH, 1969) AS I STOOD  
IN FRONT OF THE APOLLO 11  
PAD 39 VIEWING STAND***

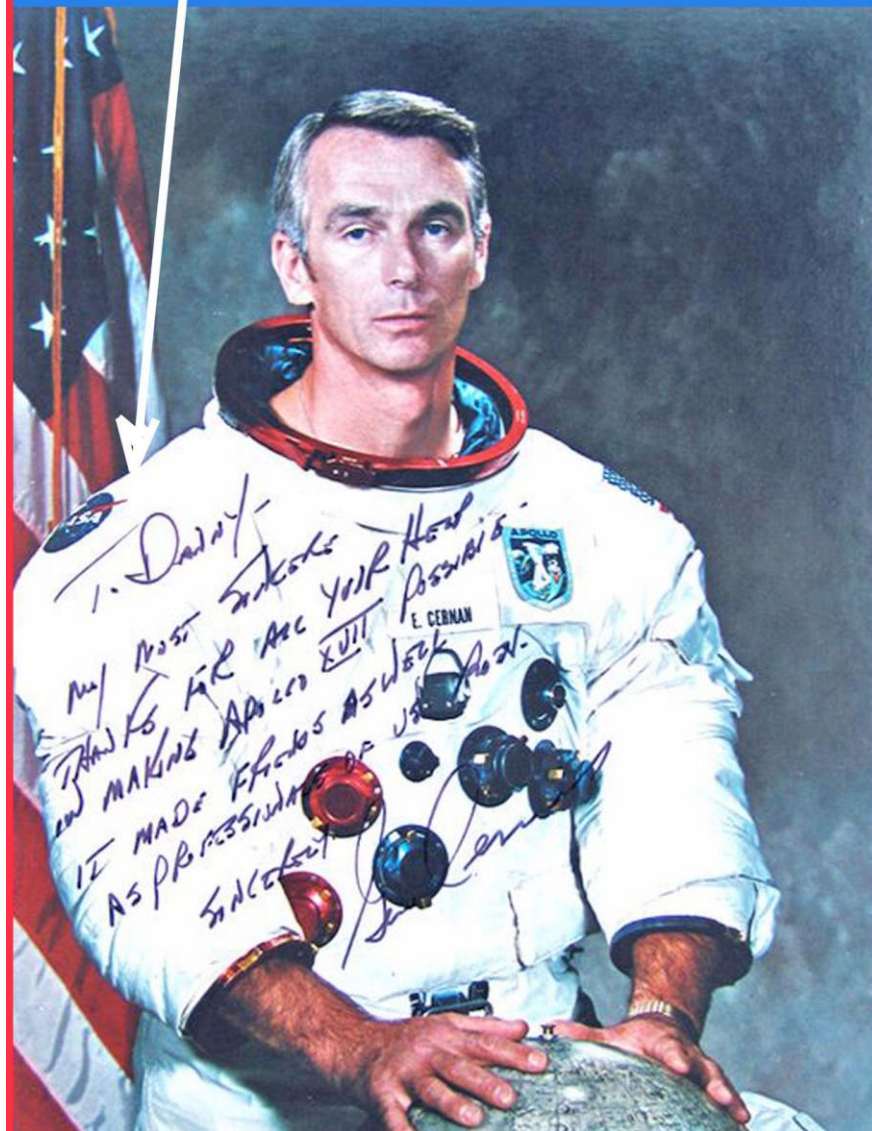


**I CANNOT BELIEVE THAT JUST OVER 24  
HOURS AGO I WAS INSIDE THE LUNAR  
MODULE STOWING THE APOLLO 11  
PLSS'S AND OPS'S AND BEING THE LAST  
PERSON TO VERIFY THE CORRECT  
POSITIONS OF THE PLSS CONTROLS!  
I AM BOTH VERY EXCITED AND VERY  
NERVOUS!**



CHERISHED SENTIMENTS FROM THE LAST MAN TO WALK ON THE MOON,  
APOLLO 17 ASTRONAUT GENE CERNAN

TO DANNY-  
MY MOST SINCERE THANKS FOR  
ALL YOUR HELP IN MAKING  
APOLLO XVII POSSIBLE. IT  
MADE FRIENDS AS WELL AS  
PROFESSIONALS OF US BOTH.  
SINCERELY  
GENE CERNAN



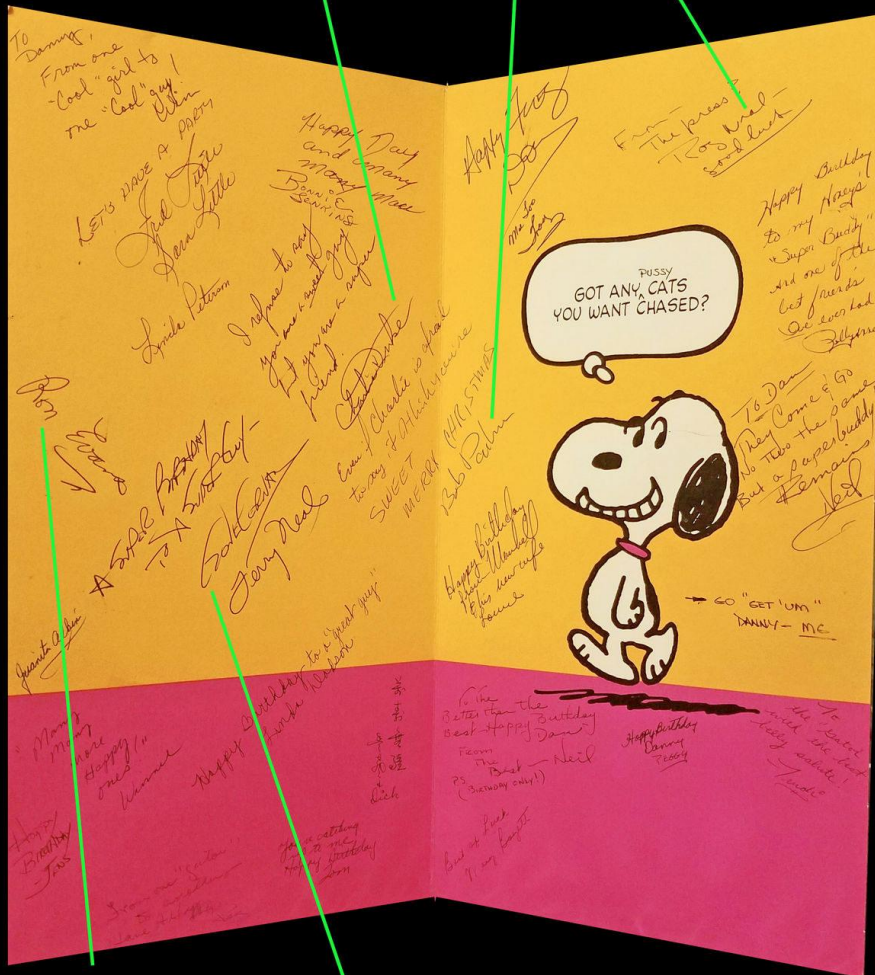
CELEBRATING ANOTHER FANTASTIC BIRTHDAY AT THE CAPE WITH MANY FANTASTIC FRIENDS INCLUDING ASTRONAUTS GENE CERNAN, CHARLIE DUKE, RON EVANS AND BOB PALMER.

# DAN'S BIRTHDAY CARD

**Bob Palmer (STS-9, STS-35)**  
"Even if Charlie is afraid to say, I think you're sweet. Merry Christmas"

**Charlie Duke**  
"I refuse to say you are a sweet guy, but you are a super friend"

**Roy Neal**  
"From the press? good luck"  
(NBC News)



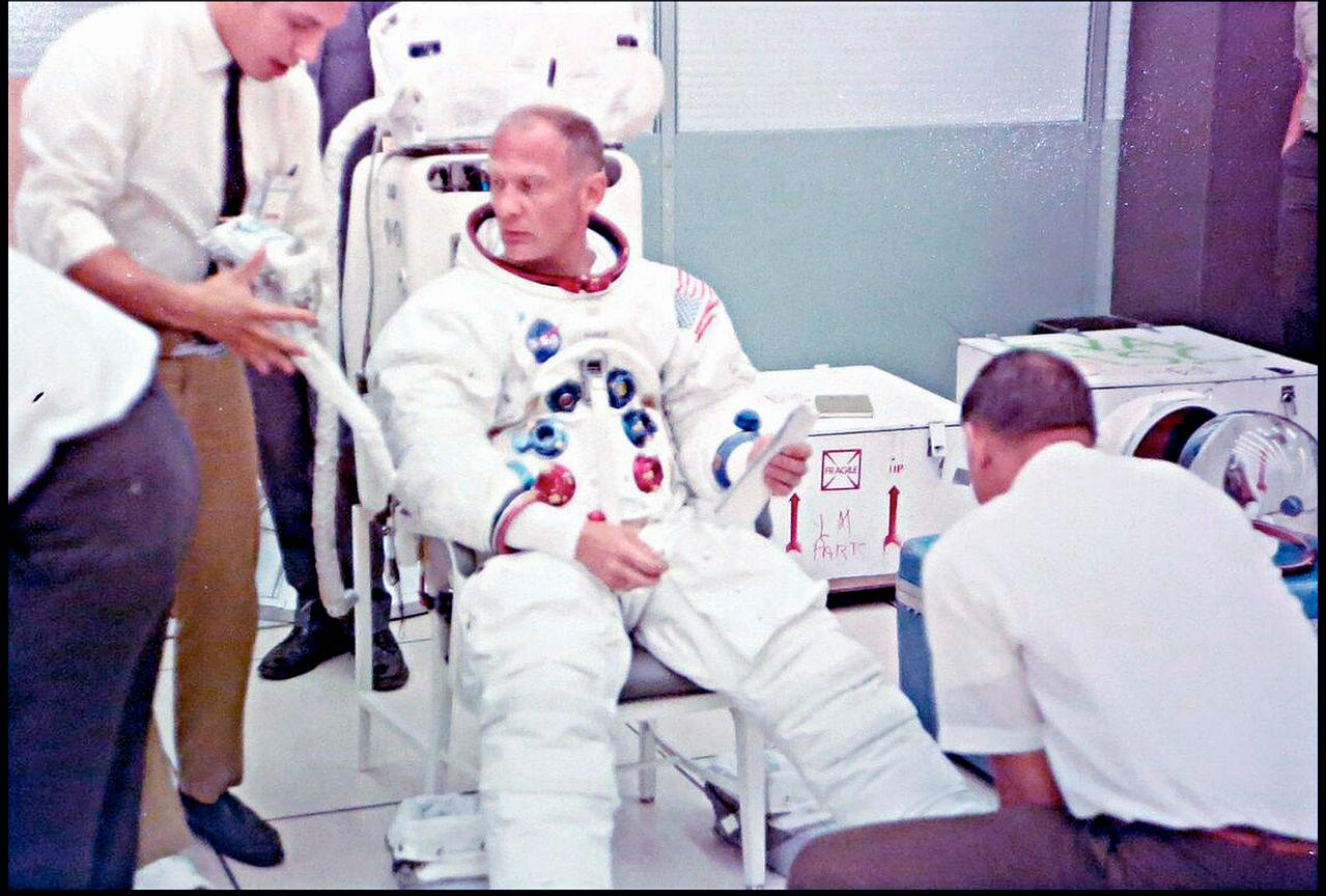
**Ron Evans**

**Gene Cernan**  
"\* Super Birthday to a super guy"



DISCUSSION WITH APOLLO 11 ASTRONAUT BUZZ ALDRIN

**I'M TALKING TO A "SERIOUS AND FOCUSED"  
BUZZ ALDRIN.**



SPEAKING TO ELEMENTARY STUDENTS

One of my most rewarding assignments during my time at KSC was being invited to speak to elementary students. It was so inspiring watching student reactions to the suit and PLSS related hardware I was able to present to them. The interest and excitement represented to me a positive future for the U.S. space program.

Apparently, teachers asked their students to write a letter to me describing their experience. Following are three representative letters I received from the Cape View Elementary School in Cape Canaveral:

Cape View Ele.  
Cape Canaveral  
May 25, 1970

Dear Mr. Schaeiwitz,

Thank you for coming to our room.  
We enjoyed having you. I especially like  
the back pack, underwear, scoop, emergency pack,  
rock-picker - uper. I hope you can come back  
with a suit next time.

Sincerely yours,  
David David

Cape View Ele.  
Cape Canaveral Fla.  
May 27, 1970

Dear Mr. Schaeiwitz,

Thank-you very much  
for coming to our class. I  
appreciate you getting the af-  
ternoon off to explain to us  
things of space. It's interesting.  
You're a big man with a  
gigantic brain. I enjoyed  
it.

P.S. Please come  
again.

Your New  
Friends,  
Monique  
Merrow

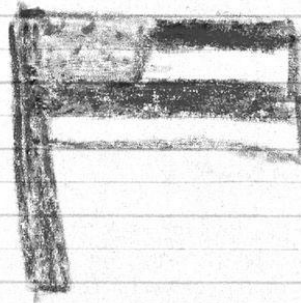


Cape View Ele,  
Cape Canaveral Fla  
May 27, 1970

Dear Mr. Schaefer,

Thank you very much for  
coming to our room to show us the  
space stuff. We enjoyed having  
you. I especially liked the  
Back pack and helmet gloves and  
rock picker uper. We hope you  
come back again.

Sincerely  
Tommy J.



#### DEMONSTRATING THE SPACE SUIT AT A PRATT & WHITNEY MANAGEMENT CLUB MEETING

On several occasions, I was invited to demonstrate the Apollo Space Suit at various venues. In December 1972, about a week after the December 7, 1972 liftoff of Apollo 17, I had the privilege of "walking into" a meeting of the Pratt & Whitney Management Club to the surprise of all but the club president (it was planned as a surprise).

Just think about that, how would you react to an unexpected visit by an Apollo astronaut. (At least that's what everyone believed until I removed my helmet!)

*Guess who dropped in (by invitation) for dinner at the December meeting of the Management Club? It was Dan Schaiowitz of Hamilton Standard and he's shown demonstrating the spacesuit and portable life support system worn by U.S. astronauts as they explored the moon's surface.*

**DAN  
"INTERRUPTS"  
PRATT &  
WHITNEY  
MANAGEMENT  
CLUB  
MEETING**

**(DECEMBER, 1972)**

**DAN**



JANUARY 1973

**Pratt & Whitney Aircraft**

**orbit**

DIVISION OF UNITED AIRCRAFT CORP.

RESEARCH & DEVELOPMENT CENTER

**All Named General Manager; Gorton Retires**

Pratt & Whitney Aircraft last week named Edmund V. Marshall as vice president and general manager of its Florida Research and Development Center. Marshall, who has been executive vice president of United Aircraft Corporation's Hamilton Standard division in Windsor Locks, Connecticut, succeeds W. L. Gorton Jr., who has elected to retire after 17 years of service.

The capital that the scheduled domestic air transportation industry will need to meet the requirements for new flight equipment and ground equipment will amount to about \$27.7 billion in current dollars. Of this total, \$7.4 billion will be spent during the 1971-1975 period and \$20.3 billion during the remainder of the decade. Most of this money will flow into the economy through contractors, subcontractors and suppliers in all 50 states.

**Cost Savings Top \$5 Million**

Cost consciousness is a major factor in the location of the accessory drive gearbox and oil reservoir. On the Dash 20, the unit is suspended beneath the fan case while on the Dash 7 the units are located behind the case.

The acoustically-treated long ducts in the DC-10's nacelles and the low noise features designed into the JT9D engine result in the JT9D-20-powered DC-10-40 having the lowest side line and takeoff noise levels of any wide-body airplane.

**5 Years —** Arthur Audaer, Mark Herd, Ronald Dillard R. C. Wood, Marion T. Dwyer, Gail P. Engels, Barbara Thomas W. Jac Neville, John M. Caldwell, Frank

**5 Years —** Alan V. DiPinc thuis, Donald Millard Hoskins III, Charles T. O. Whipple, W. Gerald D. St. F. B. McCarty, Harold C. Roy, C. Crill III, J. Jr., Thomas Carl J. Thelan Donald C. C. Blanchard, Howard C. F. Larkin Jr., S. Harry E. Gree Howard, Danie vin W. Deines Bryan J. Mack Barlow, Nadee Richard C. V. Harris, Bruce

**10 Years —** Joseph A. Alonzi, William P. Mei, Edward M. Hogan, Victor R. Feltz, Raymond J. Brown, Wilmer G. Pierson, Hunter H. Taliaferro, Eric H.



**THE ORBIT**



**NEWSPAPER CLIPPING  
TITLED  
"GETTING INSTRUCTIONS"**

**FRED IS NOT PAYING ATTENTION TO  
ME. HE APPEARS TO BE GIVING THE  
PHOTOGRAPHER THE "EVIL EYE"!**

**FRED WAS NOT HAPPY WITH PRESS  
PHOTOGRAPHERS INTERRUPTING HIS  
EVA ON "PRESS DAY"!**

**APOLLO 13 LMP  
FRED HAISE**

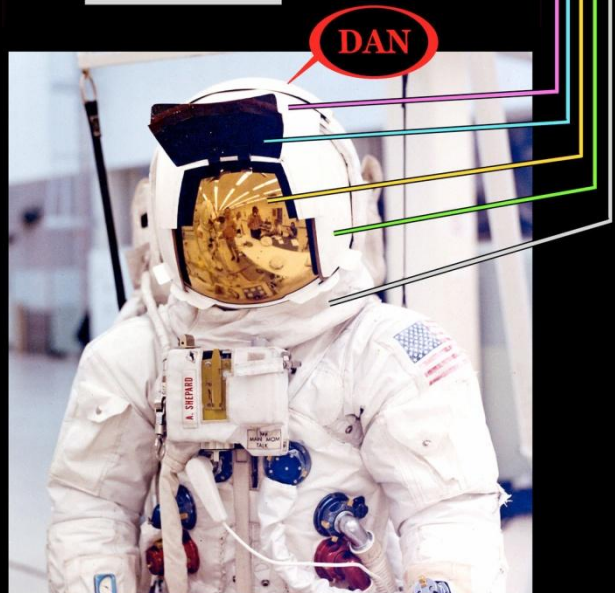
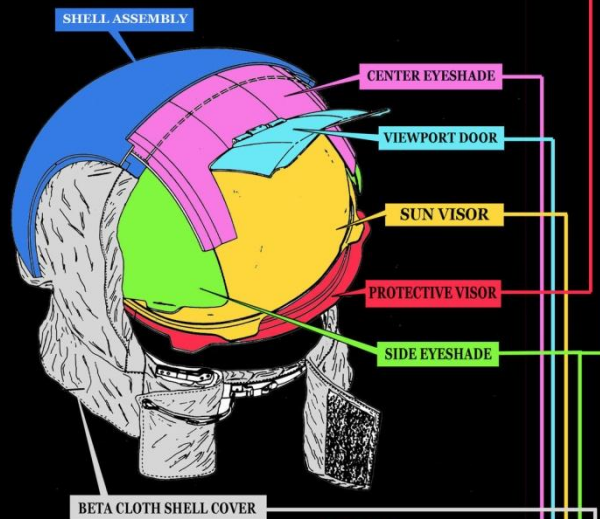
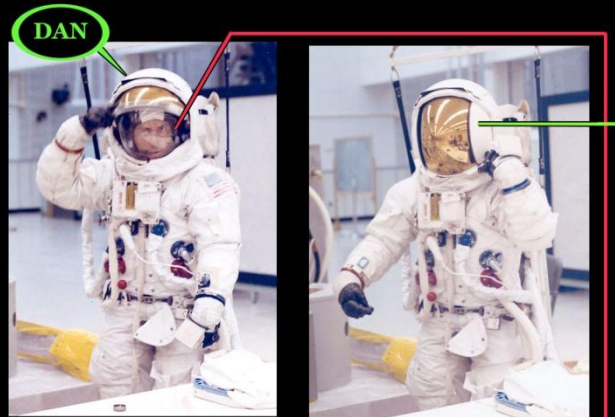
**DAN**



***Getting Instructions***

Apollo 13 Lunar Module pilot Fred W. Haise Jr. seems to be getting directions as he has suit checked prior to practice Moon-walk at Kennedy Space Center. Scheduled for an April 11 blastoff, mission programmed to land in the Fra Mauro region to seek out exploration sites, obtain samples of the lunar surface and develop man's capability to work in lunar environment. (UPI)

# DAN DEMONSTRATING THE LUNAR EXTRAVEHICULAR VISOR ASSEMBLY (LEVA)





PHOTOS OF ME EVALUATING PROCEDURES WEARING  
THE APOLLO SPACE SUIT

**EVA SUIT DONNING PROCEDURE:  
DAN & TRAINING PARTNER  
MOUNTING HELMET TO  
PGA NECK RING**



**EVA SUIT DONNING  
PROCEDURE:**

**GOING THROUGH LM TO CM  
CONTINGENCY  
TRANSFER USING THE OPS IN  
THE WAIST MOUNTED  
CONFIGURATION**

**DAN**





# **EVA SUIT DONNING PROCEDURE:**

**MY LM PARTNER IS HELPING  
ME DON EVA LUNAR BOOTS  
WHILE SITTING ON A  
MOCKUP LM ENGINE COVER**

**DAN**



**EVA SUIT DONNING  
PROCEDURE:**

**I'M HELPING MY LM  
PARTNER DON EVA LUNAR  
BOOTS.**

**IT APPEARS THAT WE ARE  
SMILING. COMIC RELIEF  
WAS WELCOME DURING  
VERY SERIOUS SCHEDULE  
DRIVEN GOALS.**

**DAN**





APOLLO 17 MEDIA DAY

AS FAR AS WHY I WAS SITTING IN A CHAIR APPEARING TO BE ASLEEP! I MUST HAVE BEEN  
EXTREMELY EXHAUSTED AFTER BEING OUTSIDE "CHASING THE LUNAR ROVER AROUND"  
FOR 2.5 HOURS

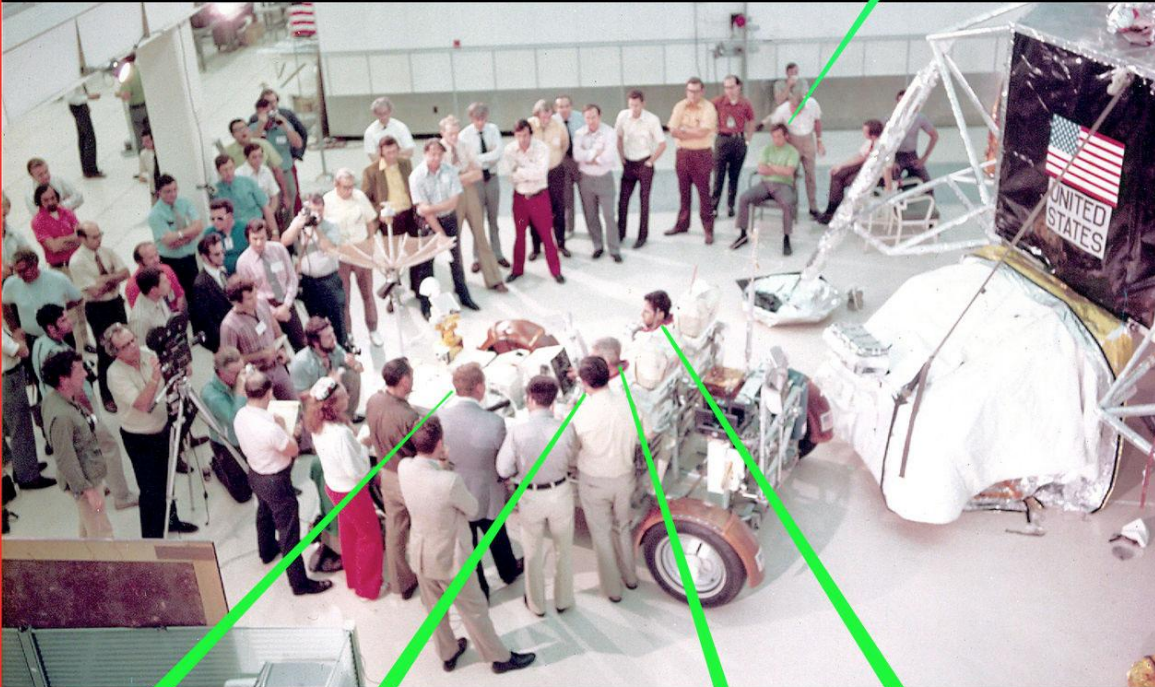
**APOLLO 17 MEDIA DAY  
OCTOBER 11TH, 1972  
KSC CREW TRAINING**

**WELL KNOWN MEDIA SPACE  
REPORTERS IN ATTENDENCE**

**INCLUDED:**

**ROY NEAL (NBC) &  
JULES BERGMAN (ABC)**

**DAN**



**ROY  
NEAL  
(NBC)**

**JULES  
BERGMAN  
(ABC)**

**ASTRONAUT  
CERNAN  
APOLLO 17  
CDR**

**ASTRONAUT  
SCHMITT  
APOLLO 17  
LMP**

LETTER FROM APOLLO 16 LMP CHARLIE DUKE

I received the below letter from Apollo 16 Astronaut Charlie Duke authenticating two charms that I gave the crew to be flown to the moon and back in the astronauts Personal Preference Kit" (PPK).

I was most impressed with Charlie's inspirational last sentence quote from Descartes:

*There is nothing so far removed from us that we cannot reach it, or so hidden that we cannot discover it.*

**I WAS HONORED WHEN THE APOLLO 16  
CREW CARRIED MY TWO STERLING SILVER  
CHARMS TO THE LUNAR SURFACE IN  
THEIR PERSONAL PREFERENCE KIT.**

**FOLLOWING IS A LETTER OF  
AUTHENTICATION FROM APOLLO 16 LMP  
CHARLES DUKE**



Charles M. Duke, Jr.  
Astronaut

February 19, 2000

Daniel Schaiowitz

Dear Daniel,

It was with great pleasure that I carried your two sterling charms to the moon with me aboard the Command Module "Casper". This letter will serve as the authentication that the two charms as pictured in the accompanying photograph were taken to the moon.

We lifted off from the Kennedy Space Center on April 16, 1972 and landed on the Moon on the Cayley Plains in the Descartes Highlands on April 20, 1972. We splashed down in the Pacific Ocean on April 27, 1972. When we returned to Houston, I returned the charms to you. Be a good caretaker. I hope that you keep the charms as a remembrance of the Apollo Era. May it serve as a symbol to remind future generations that, God willing, there is no goal or dream that is impossible to achieve or as Rene Descartes says "**There is nothing so far removed from us that we cannot reach it, or so hidden that we cannot discover it.**"

Sincerely,

A handwritten signature in blue ink that reads 'Charles M. Duke, Jr.' The signature is fluid and cursive.

Charles M. Duke, Jr.  
Brigadier General, USAF(Ret.)  
Apollo 16 Astronaut



### MY NINTH GRADE SCIENCE NOTEBOOK

In September, 1957 I presented my ninth grade Science Notebook Project to my Science teacher Mr. Pratt about two weeks before the successful Sputnik launch on October 4, 1957. I was 14 years old at the time (Graphic #1 below).

The very first section of the notebook was titled "Exploring Space" (Graphic #2). Included in this section were answers to questions, i.e. "Reasons For Space Travel", "What will we find in Space", "Problems of Space Travel" and other space travel related questions (Graphic #3).

In Graphic #4, "Anatomy Of The First US Satellite", I drew my interpretation of the Vanguard 1 Satellite that would have been the first US orbital Satellite if it was not for a launch failure on December 6, 1957.

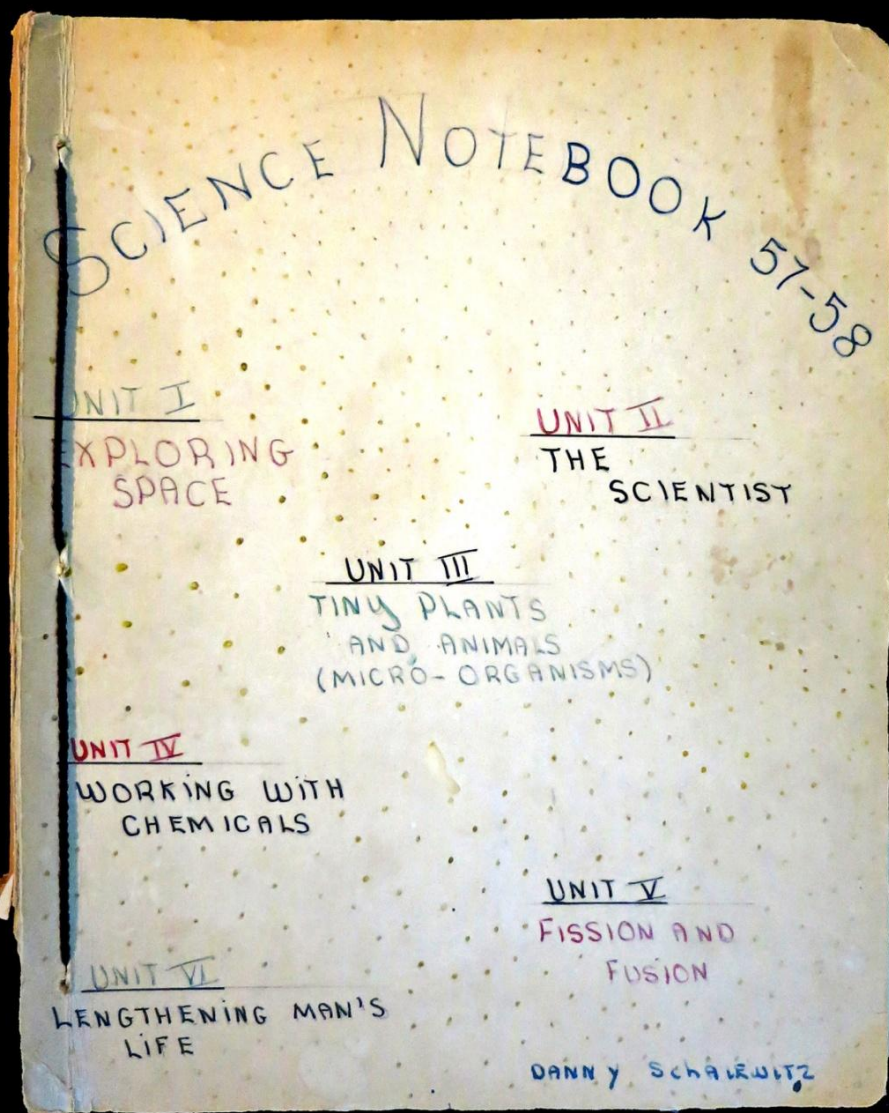
When I wrote about the Vanguard, neither I nor anyone in the scientific community were aware that the Soviet Union was about to launch Sputnik. I cannot speak for the rest of the world at the time but I was totally devastated as I was and had been a "space fanatic" since the age of ten.

My evolving interest in space travel began when I discovered and began religiously watching the TV series "Captain Video and his Video Rangers" in 1953. When the "Flash Gordon" TV series came on air in October of 1954, I had two Space Related TV series to inspire my desire to someday be involved in Space Exploration.

The devastating feeling after Sputnik turned into cautious optimism when the US successfully launched its first Satellite, Explorer 1 on January 31, 1958. From that point on my dream was kept alive by the incredible U.S. space program successes and the rest is history!

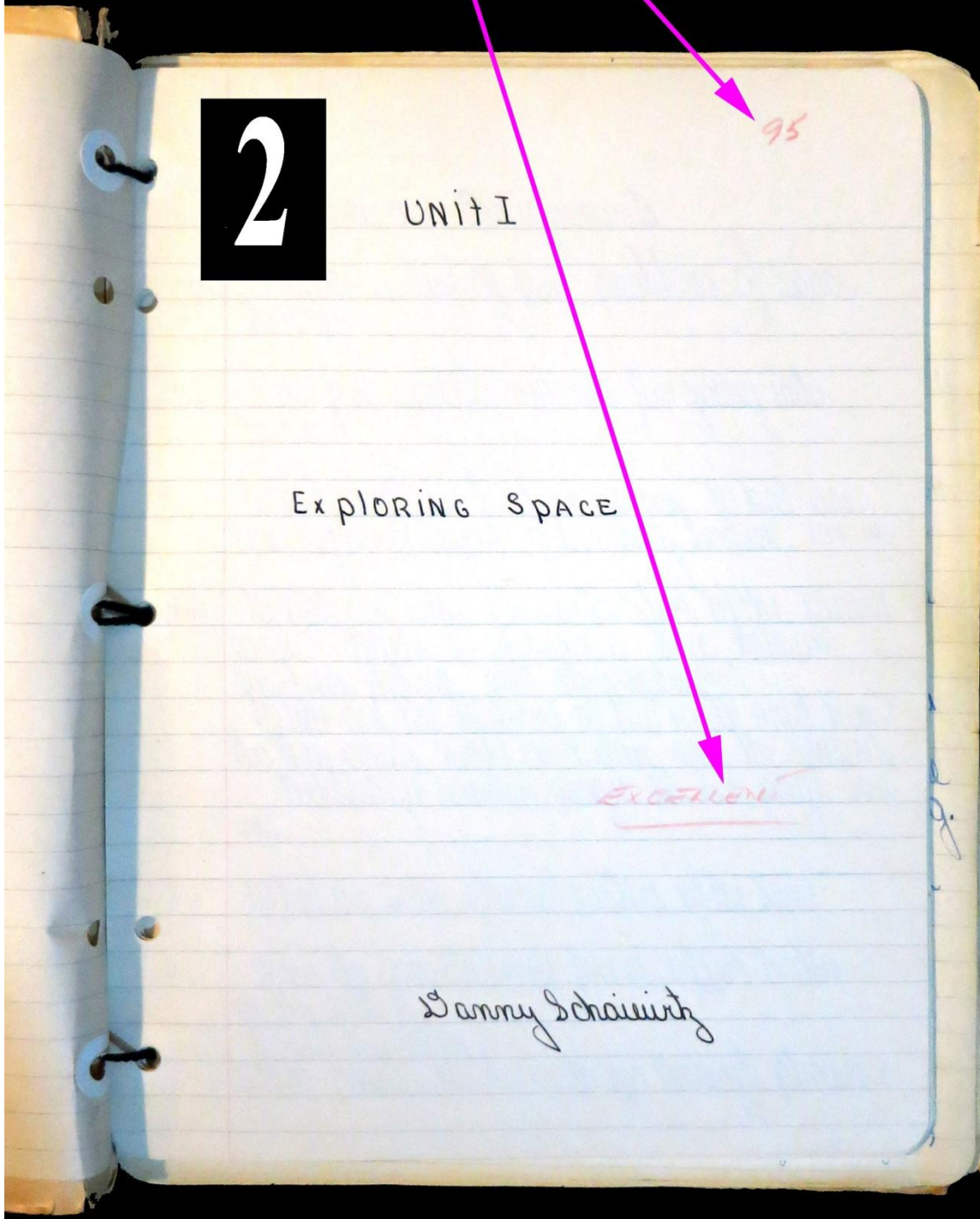
1

**DAN'S**  
**SCIENCE NOTEBOOK**  
**INCLUDING**  
**"EXPLORING SPACE"**  
**WRITTEN SEPTEMBER**  
**1957**  
**ABOUT TWO WEEKS**  
**BEFORE SPUTNIK**  
**LAUNCH OCT. 4TH, 1957**





DAN WAS 14 YEARS OLD  
AND IN 9TH GRADE WHEN  
WRITTEN. RECEIVED  
GRADE 95 AND  
“EXCELLENT” COMMENT



# IN DAN'S OWN WORDS AND HAND WRITING

1957

## REASONS FOR SPACE TRAVEL. WHAT WILL WE FIND IN SPACE. PROBLEMS OF SPACE TRAVEL

3

1. Why should we travel into space.

2. What shall we find in space.

3. What are some problems of space travel and how can they be solved.

Reasons for traveling into space

1. To gain a military advantage.

2. To secure new sources of uranium and valuable metals.

3. To find another planet on which to live.

4. To study the earth.

5. To study the sun and planets without atmosphere interference.

6. To deposit radioactive waste.

(over)



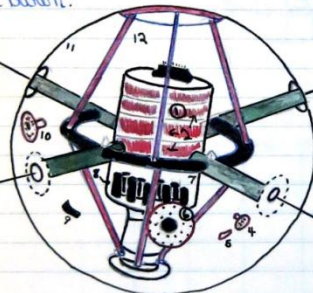
# ANATOMY OF THE FIRST US SATELLITE

DAN'S DESCRIPTION AND DRAWING OF THE VANGUARD 1 THAT WOULD HAVE BEEN THE FIRST US SATELLITE IF IT WAS NOT FOR LAUNCH FAILURE ON DEC. 6th, 1957

4

## ANATOMY OF THE FIRST U.S. SATELLITE

1. "modact" radio transmitter relays data to the earth
2. miniature computer and memory unit prepare data to be sent down.



3. Antennas flip out as the satellite nears its orbit.
4. Super-sensitive microphone hears the ping of meteor dust on the satellite's skin.
5. Electrical leads measure temperature from 150-140 degrees centigrade.
6. Photo cell for clearing a memory unit each time the satellite reappears in the sunlight.
7. Gold-plated aluminum canister for insulation.
8. Mercury batteries, supplying power for two weeks.
9. Metal ribbon records the reactions of meteor dust.

EXPLORER 1 LAUNCHED JAN. 31TH, 1958 WAS THE FIRST SUCCESSFUL US SATELLITE

LIONS CLUB LETTER OF APPRECIATION

I thoroughly enjoyed lecturing to groups about the Apollo program, specifically the Apollo Suit, PLSS and OPS.

One such lecture was at the Miami Lions Club. I will remember this occasion for more than one reason as I illuminate in the below photo.



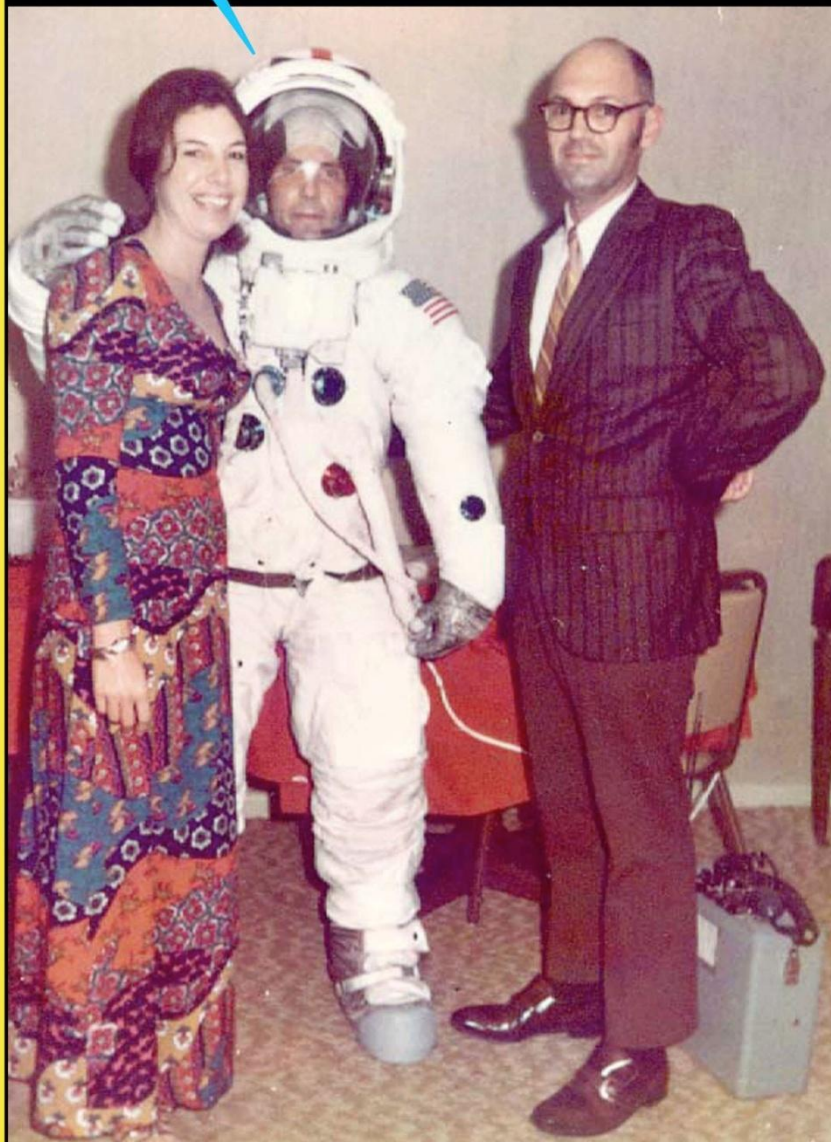


**I WILL NEVER FORGET THIS PHOTO.  
WHY?**

**BECAUSE I WAS NOT WEARING A UTCA  
(URINE TRANSFER COLLECTION  
ASSEMBLY)**

**"MAN DID I HAVE TO GO"  
UNDERSTANDABLY SO AFTER LECTURING  
FOR AN HOUR + AND THEN AGREEING TO  
TAKE PHOTOS WITH THE LIONS CLUB  
ATTENDEES AND THEIR WIVES.**

**DAN**



**MY 15 MINUTES  
OF FAME !**

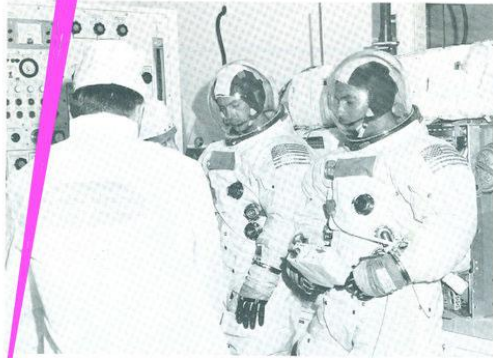
**WAVING TO A GROUP OF  
VIP'S TOURING THE  
CREW TRAINING  
BUILDING**



**IT'S CONCEIVABLE THAT SOME MAY  
HAVE THOUGHT THEY WERE WAVING  
TO AN ASTRONAUT.**



**PRE-MISSION TEST—NASA's Jerry Ellzey, center, and Hamilton Standard's Daniel Schaiowitz check out life support backpacks at Kennedy Space Center in preparation for Apollo II moon-landing. At left are employees Terrence Xavier, a technician, and, partly hidden from camera, KFC operations manager Edgar H. Brisson.**



PRE-MISSION TEST—NASA's Jerry Ellzey, center, and Hamilton Standard's Daniel Schaiowitz check out life support backpacks at Kennedy Space Center in preparation for Apollo II moon-landing. At left are employees Terrence Xavier, a technician, and, partly hidden from camera, KFC operations manager Edgar H. Brisson.

## Man's First Lunar Landing Set

When astronaut Neil A. Armstrong steps from the Apollo 11 Lunar Module at or about 12:10 a.m. July 21, he will fulfill an age-old dream of man and will establish, in that moment, a milestone which will stand forever in the gallery of mankind's mightiest achievements.

And as Armstrong becomes the first human being to set foot on the moon, Hamilton Standard, in a very real sense, will be there with him—a vital participant in this historic event.

No less than nine different types of equipment developed and built by the division will play a part in the moon-landing program.

A Hamilton Standard environmental control system will provide Armstrong and fellow-astronaut Edwin E. Aldrin with a life-sustaining atmosphere inside the cabin of the bug-like LM in which they will descend from

the orbiting Command Module to the moon's craggy surface.

### Life Support Systems

Division-built portable life support systems—worn as backpacks and connected to the astronauts' space suits by umbilicals—will provide them with the essentials of survival when they leave the LM's snug cabin and step onto the bleak expanse of the moon's surface.

Other Hamilton Standard equipment which figures integrally into the mission's success—from launch, through moon-landing to splashdown—include:

• the LM abort sensor assembly, heart of the semi-automatic backup guidance system of the Lunar Module;

• the porous plate sublimator, which cools the guidance and telemetry equipment in the Saturn V launch vehicle's instrument unit;

• LM general purpose inverters, which change direct current into the alternating current that powers a variety of LM electronic equipment;

• S-II inverters, five power supplies that operate engine and telemetry monitors on Saturn V's S-II second stage, which will place the Apollo spacecraft into

(Continued on Page 2)

*the Hamilton Standard*



Hamilton Standard  
U  
A®  
DIVISION OF UNITED AIRCRAFT CORP.

June 1969

### Message To Employees:

## Cost-Cuts Mean More Business

Hamilton Standard, like many other aerospace companies, is currently going through a retrenchment period. The workforce has been reduced by six per cent. A series of cost savings and cost elimination steps have been taken, and others are under way. The Hamilton Standard this month invited Division President Charles T. Roelke to give his views of what problems—and opportunities—confront the division in the months ahead.



### Bloodmobile to Visit July 1-3

The Red Cross Bloodmobile will visit Hamilton Standard July 1 through 3 to help meet the critical need for blood during the Independence Day holiday weekend.

Nevin F. Decker, assistant to the division president and chairman of the blood program, said the need for blood is greater than ever. "Hamilton Standard employees have always turned out to help the Red Cross meet its needs," he said.

Decker urged employees who have not previously donated blood to sign up for the July visit. "This will help guarantee free blood to all residents of Connecticut from the Independence Day holiday weekend through the end of the month."

### Boeing Tests Boron Flap

Flight testing of a boron composite wing foreflap on a Boeing 707 is being conducted by The Boeing Company in Seattle, Wash., to determine the in-service reliability of the new high strength, low weight, structural material.



THE STORY OF ASTRONAUT SHEPARD AND GATORADE

ME

**APOLLO 14 ASTRONAUT  
SHEPARD DRINKING  
“WATER” OR “GATORADE” ?**



**THE DATE:** July 16, 1970

**THE PLACE:** Apollo EVA Simulated Lunar Surface Training "Sand Pile" outside the KSC Crew Training Building.

**THE PHOTO SUBJECT:** Apollo 14 Astronaut Alan Shepard



**THE SITUATION:** Astronaut Shepard drinking "water" or "Gatorade" during an EVA crew training 15 minute break.

**BACKGROUND AND STORY:** Gatorade was formulated by University of Florida researchers in 1965 to help the University football team increase their energy levels during the course of a football game.

Gatorade was and still is a precisely balanced carbohydrate, electrolyte beverage that replaces the fluids and electrolytes lost through exercise and sweating.

Gatorade became the "go to" drink for athletes and others that needed to regain stamina during arduous activities like, of course, the arduous activity associated with a two to three hour EVA training exercise wearing an earth weight EMU (Space Suit and Back Pack) under the hot Florida sun.

Gatorade became available to the mass market during the same Apollo era time frame, 1968-1972. Some, not all of our Apollo astronauts from Apollo 12 on realized the possible benefits of Gatorade. They tried it and subsequently "insisted" that Gatorade on ice was available during EVA training sessions.

During one particular EVA session on the subject July 16, 1970 day, "water" was poured into the cups of both astronauts Shepard and Mitchell for their well deserved consumption.

Are you ready for the "fun"! I knew astronaut Shepard to be consistently "calm, cool, and collected" with a great sense of humor. It was extremely unusual to witness moments of "displeasure" from "happy go-lucky" Al.

When Al realized he was drinking water instead of his anticipated Gatorade, all "hell broke loose!" Al, without mincing words, expressed his "displeasure" when he was told there was no Gatorade available. He wanted to know whose responsibility it was to make sure Gatorade was available for all EVA training sessions. When one of the suit techs admitted it was his responsibility, Al gave the suit tech a "laser directed" look.

At that precise moment, the suit tech dropped everything and started running toward the Crew Training Building. No one came to any conclusions for the suit techs "quick accelerated rabbit like exit" from the "sand pile."

Are you ready for the conclusion! Just before the end of the EVA exercise we saw a human "rocket powered" suit tech racing toward our EVA location carrying two bottles of Gatorade. By that time Shepard was sitting on his EVA chair with his helmet removed and was ready for his beverage. He knew what to expect as he was witness to the "rocket powered" suit tech's delivery.

He began drinking his Gatorade, and with the previously described "laser focused" displeased look, addressed the suit tech with, if I remember Al's exact words, "you are one lucky individual, you redeemed yourself"!

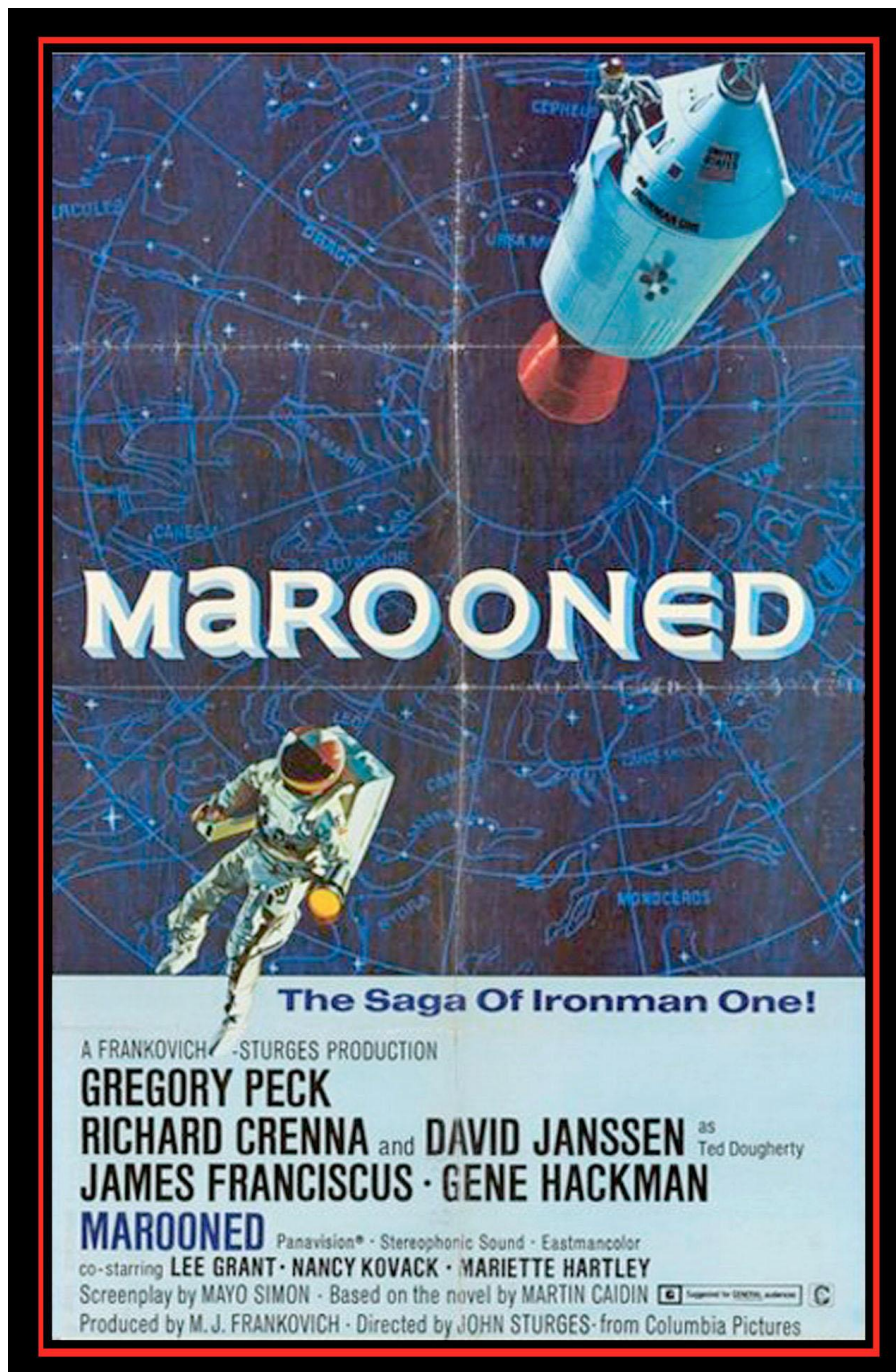
When the tech turned away everyone including Al broke out into continuous laughter. Al finally called the tech over and gave him the accolades he deserved for his redemption effort!

## MOVIE MAROONED OPENING DAY PREVIEW

In November of 1969, NASA CSD (Crew Systems Division) was asked if they would be willing to provide an Apollo suited subject to participate in a Brevard County movie theater premiere of the movie "Marooned." I do not remember the name of the theater, however, I seem to recall that it might have been the first Florida AMC theatre that opened in the fall of 1969.

Myself and three other contractor representatives were there, not only to monitor the status of our suited subject (one of my techs that keep hinting at wanting to suit up), but also to answer questions from folks as they entered the theater (we were located in the lobby).

Guess what question topped the list? You guessed it, i.e. "How did the astronauts go to the bathroom"? Of course, that question was from the mouths of inquisitive future astronauts!

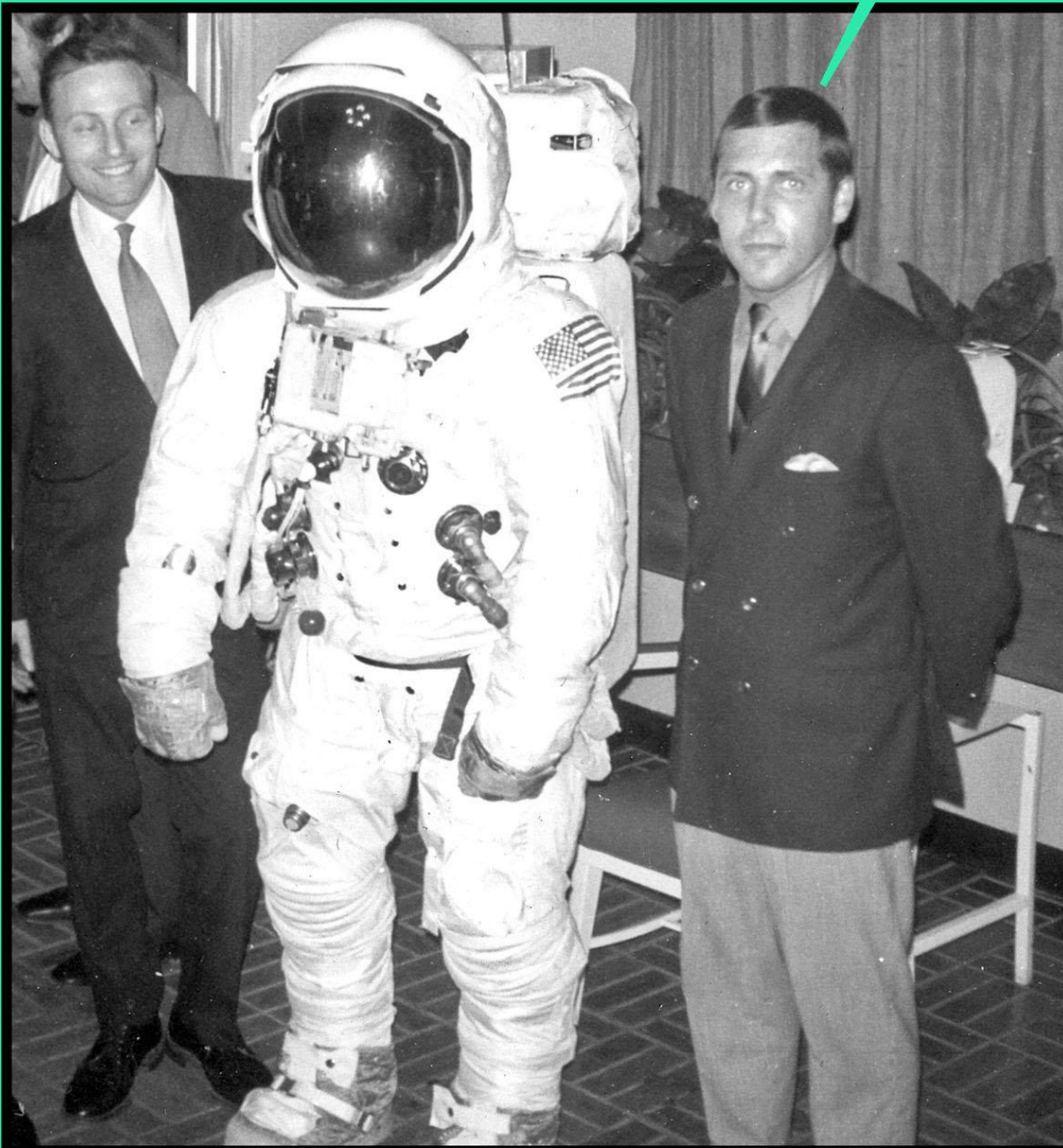




**“MAROONED”**

**BREVARD  
COUNTY  
PREMIERE**

**DAN**

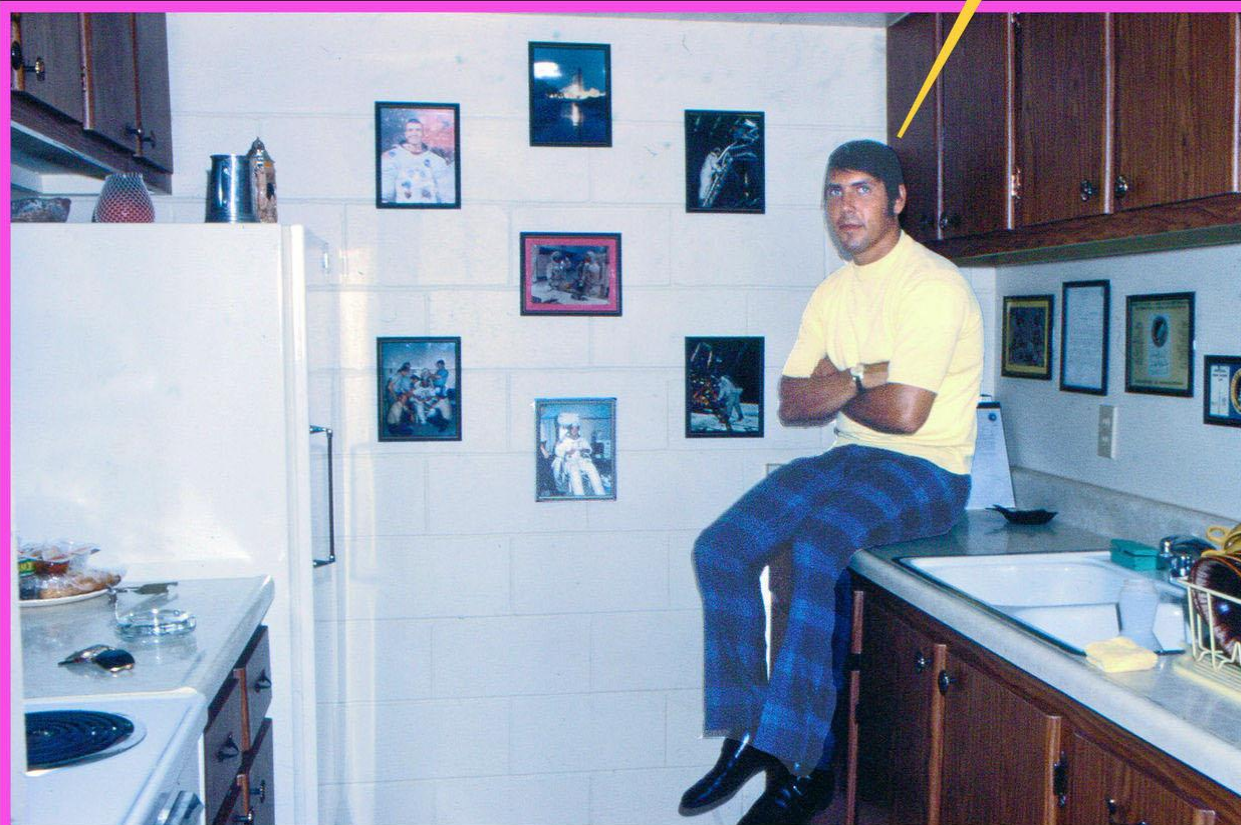


**DAN'S**  
**CAPE CANAVERAL**  
**"SPACE FANATIC"**  
**APARTMENT**

**(APOLLO RELATED PHOTOS**  
**IN EVERY ROOM!)**

**KITCHEN**

**DAN**





**LIVING ROOM**

**DAN**



**BED ROOM**



**“WHAT THE MIND OF  
MAN CAN CONCEIVE, THE  
MIND OF MAN CAN  
ACHIEVE”**

**WAS AND STILL IS MY “LIFE  
MOTIVATOR”**

**AFTER ACCOMPLISHING  
MANKIND’S DREAM OF  
LANDING MEN ON THE MOON**



**WHAT THE MIND  
OF MAN CAN  
CONCEIVE, THE  
MIND OF MAN  
CAN ACHIEVE.**





**“OFFICIAL” APOLLO 17  
GOOD LUCK  
MISSION SUCCESS  
“HUG”**

**ASTRONAUT  
CERNAN**

**DAN**



**FLIGHT CREW HEALTH STABILIZATION PROGRAM**

There are times when I look back and realize that I was a critical link to making the EVA Astronaut Crew Training effort a success.

One such time was being on a list of only 43 individuals that were permitted to have personal contact with prime and backup crew members 21 days before flight during implementation of the "Flight Crew Health Stabilization Program." This program was implemented to help prevent astronauts from becoming ill before their missions.

Stated in the Flight Crew Health Stabilization document, "Flight and Backup crews contact with KSC personnel will be 'limited to absolute minimum Mission Essential Personnel' called Primary Contacts."

Imagine, at the height of the Apollo program, there were approximately 400,000 individuals involved in the program either directly or indirectly. To think that I was one of 43 on a list of "absolute minimum mission essential personnel was and still is "mind-boggling!"

**APOLLO**  
**"FLIGHT CREW HEALTH**  
**STABILIZATION PROGRAM"**  
**"MISSION ESSENTIAL**  
**PERSONNEL"**  
**ONLY 43 INDIVIDUALS**  
**(INCLUDING MYSELF) WERE**  
**PERMITTED PERSONAL**  
**CONTACT WITH PRIME AND**  
**BACKUP CREWS 21 DAYS**  
**BEFORE FLIGHT**

**DAN**

"FLIGHT CREW HEALTH STABILIZATION PROGRAM"

Apollo 14 Primary Contacts at KSC

NR-LO

(Contact - Neil Mullins, Ex. 7868)

J. H. Creagle      Bond Room QC  
R. J. Lang          Bond Room QC

Wendt              Pad Leader  
Briant              Pad Leader  
Tanner              Pad Leader

Broadwell          Pad. Tech.  
J. A. Butler        Pad Tech.  
M. Ahrens          Pad Tech.  
C. Gardner         Pad Tech.  
J. Grissinger      Pad Tech.  
R. A. Williams     Pad Tech.

NASA-KSC

(Contact - Euell Hilyer, Ex. 3885)

Hammond           CSM Bond Room QC  
Grammel            CSM Bond Room QC

Webb                LM Bond Room QC  
Chitwood           LM Bond Room QC

Ramsey             Suit QC

P. Hooper          LM S/C NASA QC  
G. Conklin         LM S/C NASA QC  
J. C. Branam       LM S/C NASA QC

O. D. Harr          CSM S/C NASA QC  
J. A. Delillo       CSM S/C NASA QC  
E. L. Williams     CSM S/C NASA QC

BIOMEDICAL - KSC

G. G. Meogling    Biomed. Engr.  
J. P. Wise          Biomed. Tech.  
H. F. Heidler      Biomed. Tech.  
R. F. Hart          Biomed. Tech.

GAC

(Contact - R. Sands, Ex. 7298)

R. Bowling        Bond Room QC  
R. Caldwell        Bond Room QC

G. Walden         Pad Leader  
V. Durby           Pad Leader  
C. Moser            Pad Leader

G. Dowling        GAC Pilot  
K. Lindsley        GAC Pilot

HAMILTON STANDARD (PLSS)

(Contact - Mr. Brisson, Ex. 7323)

D. O. Schalewitz PLSS Engr.  
R. E. Arnold       PLSS Engr. Tech  
D. R. Bennett     PLSS Engr. Qual

INTERNATIONAL LATEX CORP.

(Contact-Tom Parish, Ex. 7431)

Bowman            Suit Engr.  
McCarthy          Suit Engr.  
McNair             Suit Tech. B/U  
Kayes               Suit Qal.

TWA FIREMAN

(Contact - Norris Gray, Ex. 3795)

Larry Ford        Suit Room  
O2 Flows

CAMERAMAN

(Contact - Dean Cockerham, Ex. 6002)

M. E. Thomas     Still Photo  
L. Summers       Motion Pictures

F-90 days Medical History Forms due November 2nd.  
Complete all Physical Examination by F-45, Dec. 17th.  
Conduct Clinical Laboratory Tests F-45 (Dec. 17) to F-30 (Jan. 1)  
F-21 Quarantine begins on January 10th.



## WEARING AND WORKING IN THE APOLLO SPACE SUIT

I was asked many times how I remember my experience working and moving in the bulky Apollo Space Suit.

My responsibilities when "suited up" did not include mobility evaluations. I was strictly focused on EVA procedures and PLSS performance. I can say that required procedures while wearing the suit were consistent with suit design mobility.

In the photo below, I was wearing an A7L suit. The next generation A7LB suit was designed with an added waist joint to allow the astronauts to sit relatively comfortably in the Lunar Rover seats.

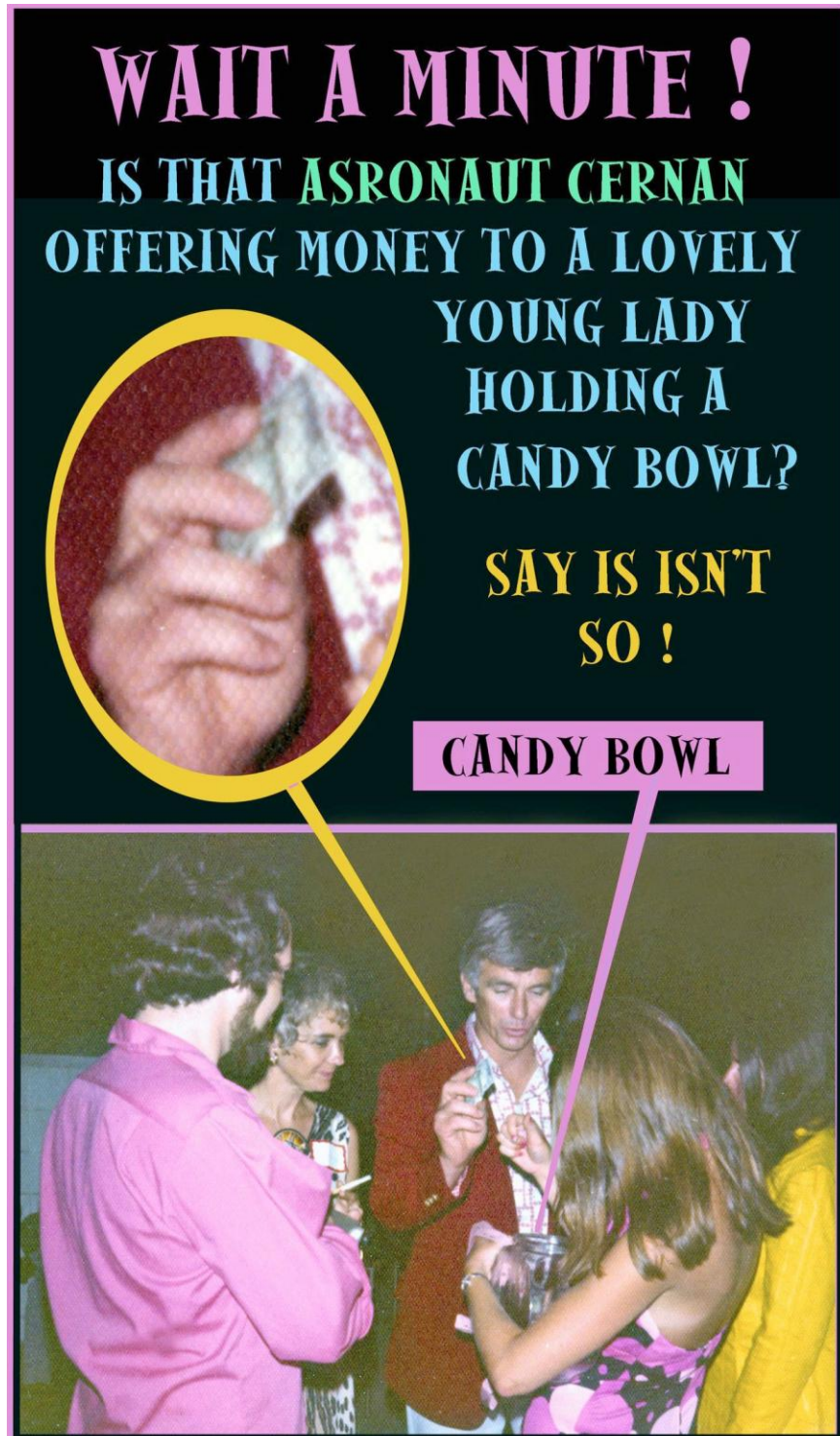
If I had been wearing an A7LB suit in the photo, I would not have looked like a "beach ball" ready to roll over!

**DAN IS WEARING AN A7L  
SUIT. IT IS APPARENT  
THAT THE A7L SUIT WAS  
NOT DESIGNED FOR THE  
SITTING POSITION!**



**WHY IS ASTRONAUT CERNAN ABOUT TO DROP MONEY INTO A CANDY BOWL AT MY APOLLO 17 PRE-LAUNCH PARTY?**

When I planned the pre-launch party, I wanted to provide a subliminal morale boost for mission success. What better way to accomplish my objective than to collect money for an Apollo 17 Splashdown party assuring a positive outlook for the safe return of our astronauts and success of all mission objectives.





# LIVING MY DREAM "STARRY-EYED" CHILDHOOD FANTASY FLASHBACK!



## ASTRONAUTS SHEPARD AND YOUNG PERSONALITY DIFFERENCES

I was extremely fortunate to have had the opportunity to work with the Apollo Astronauts. A question that I've addressed on numerous occasions is, "were there significant astronaut personality differences and, if so, did the differences affect the astronauts competency to carry out mission objectives."

My answer was and still is, "YES, there were significant personality differences and NO, their differences did not affect mission objectives."

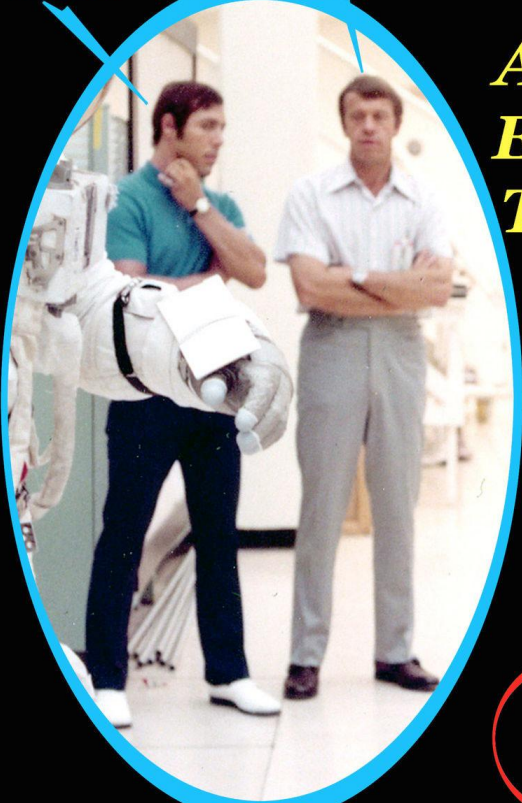
Following is one of my "first hand" experiences dealing with astronaut personality differences, specifically, Apollo 14 CDR Alan Shepard and Apollo 16 CDR John Young. As you read my observations, keep in mind that both astronauts carried out mission objectives with personality differences having no impact.

Alan Shepard was gregarious with a good sense of humor. On the other hand, John Young, if he was outgoing with a sense of humor, did not exhibit those personality traits when I worked with him.

In Photo #1 below, I'm standing next to Astronaut Shepard which was usually the case when he unexpectedly paid a visit to the Crew Training Building to witness Crew Training EVA activities. Instead of the intuitive question one would think Al would ask, i.e. "How is training going Dan," he would ask one or both of the following questions, "Will you be at the Hilton this Saturday night?" or "When is your next party?" and continuing with a few "dry sense of humor digs." It was also apparent to me that he was simultaneously watching and concentrating on the EVA.

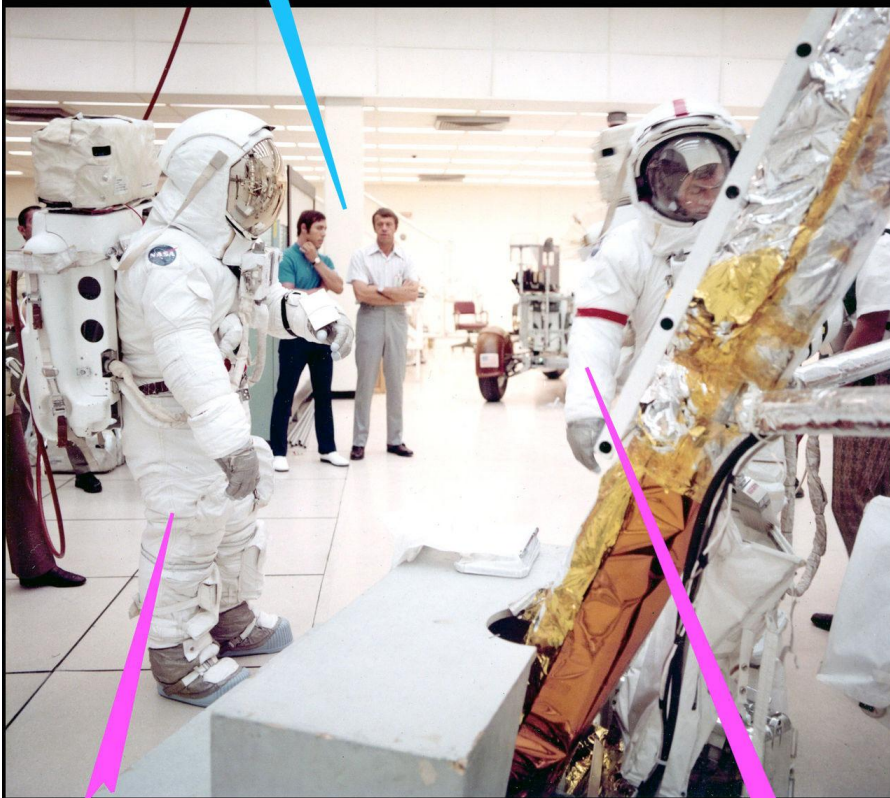
On the other hand, as you can see in Photo #2, Astronaut Young is maintaining his distance from me and appears to be focused on nothing else but Crew Training activities. John most always appeared to be serious, with little or no "small talk."

*DAN*  
*AL SHEPARD*



**APOLLO 17  
EVA CREW  
TRAINING  
WITH  
CERNAN  
&  
SCHMITT**

**1**



**APOLLO 17 LMP SCHMITT  
APOLLO 17 CDR CERNAN**

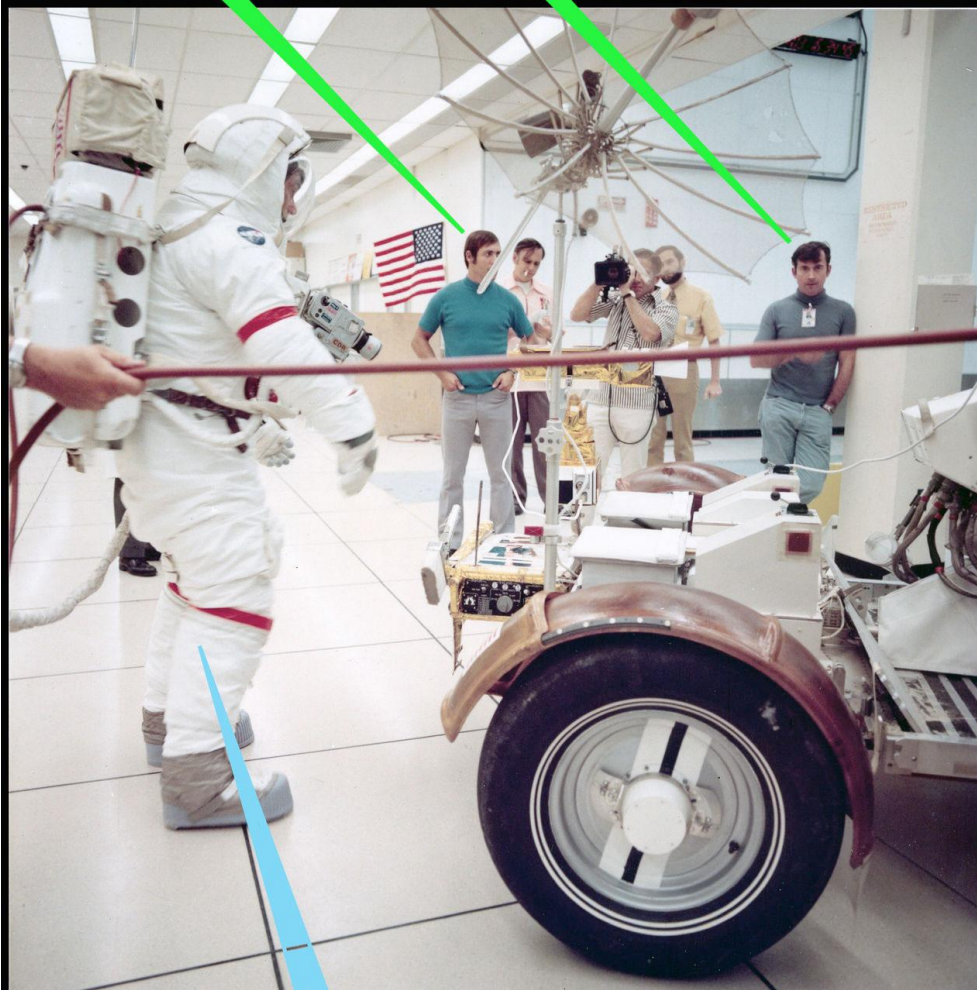


**DAN JOHN YOUNG**



**APOLLO 17  
EVA  
CREW  
TRAINING**

**2**



**APOLLO 17 CDR CERNAN**



REFERENCES TO APOLLO 11 ASTRONAUTS ARMSTRONG AND ALDRIN IN MY LOG BOOKS

When reviewing my Apollo log books from Kennedy Space Center, I found a few of the many specific references to Apollo 11 astronauts Armstrong and Aldrin. Any and all references to Armstrong and Aldrin bring back incredible memories.

**DAN'S  
LOG BOOK  
INCLUDING SPECIFIC  
REFERENCES TO APOLLO  
11 ASTRONAUTS  
ARMSTRONG  
&  
ALDRIN**

RECORD

7530-286-6945  
FEDERAL SUPPLY SERVICE  
(8P0)



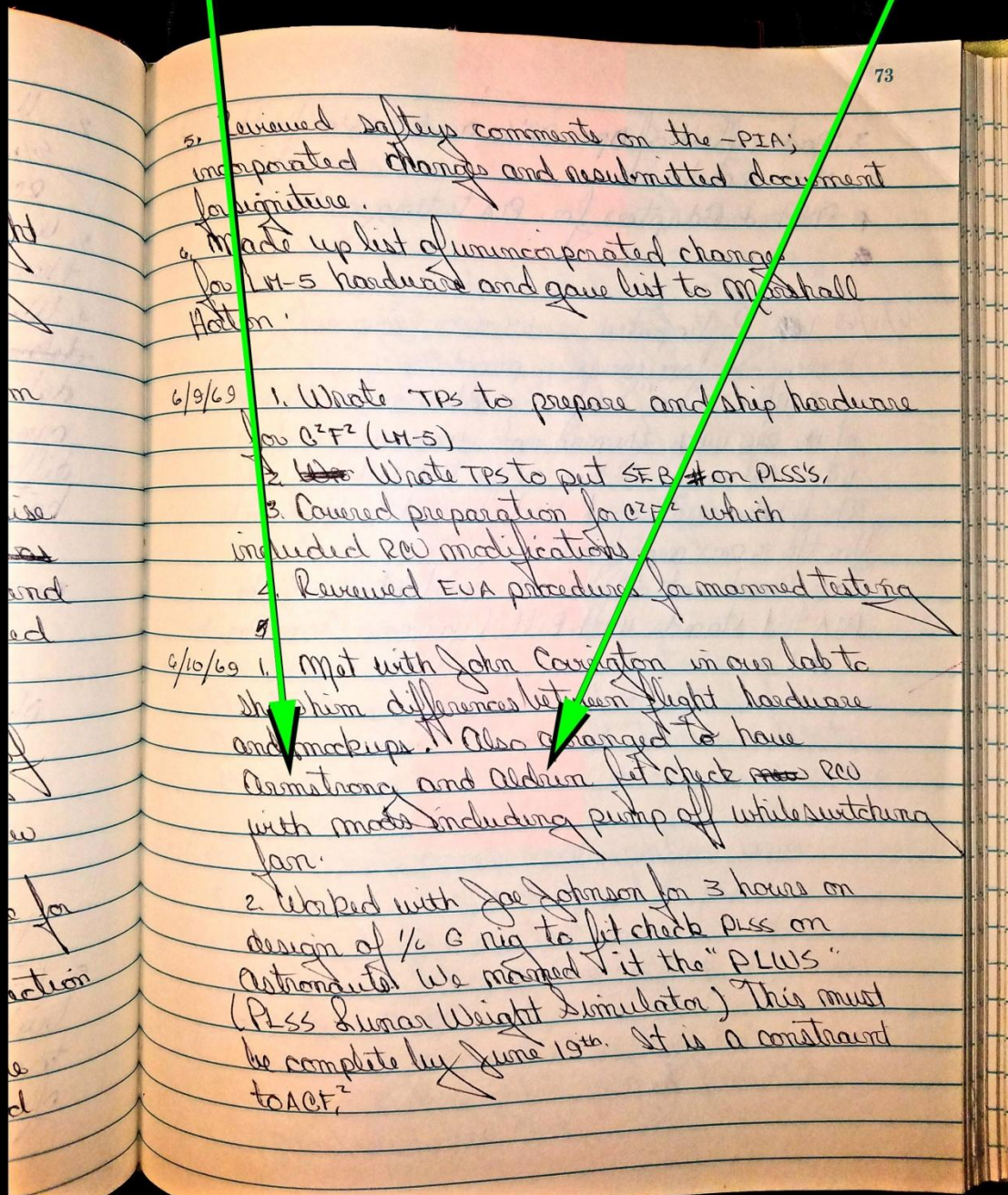
# LOG BOOK PAGE 73

JUNE 10, 1969

ARRANGED TO HAVE

ARMSTRONG & ALDRIN

FIT CHECK FLIGHT RCUS  
AFTER MODIFICATIONS





# LOG BOOK PAGE 78

JUNE 20, 1969

SUPPORTED A POST EVA CREW  
TRAINING EXERCISE

WITH

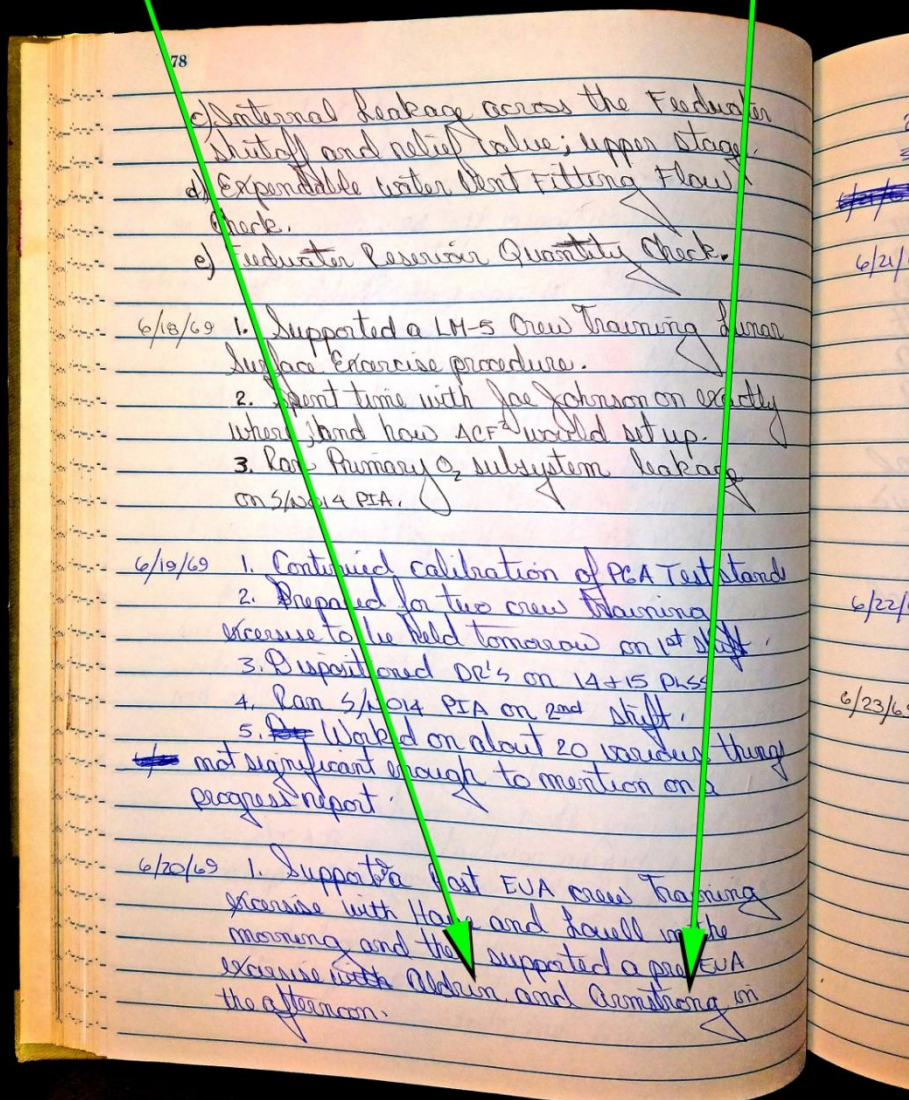
HAISE & LOVELL

IN THE MORNING AND THEN

SUPPORTED A PRE EVA EXERCISE  
WITH

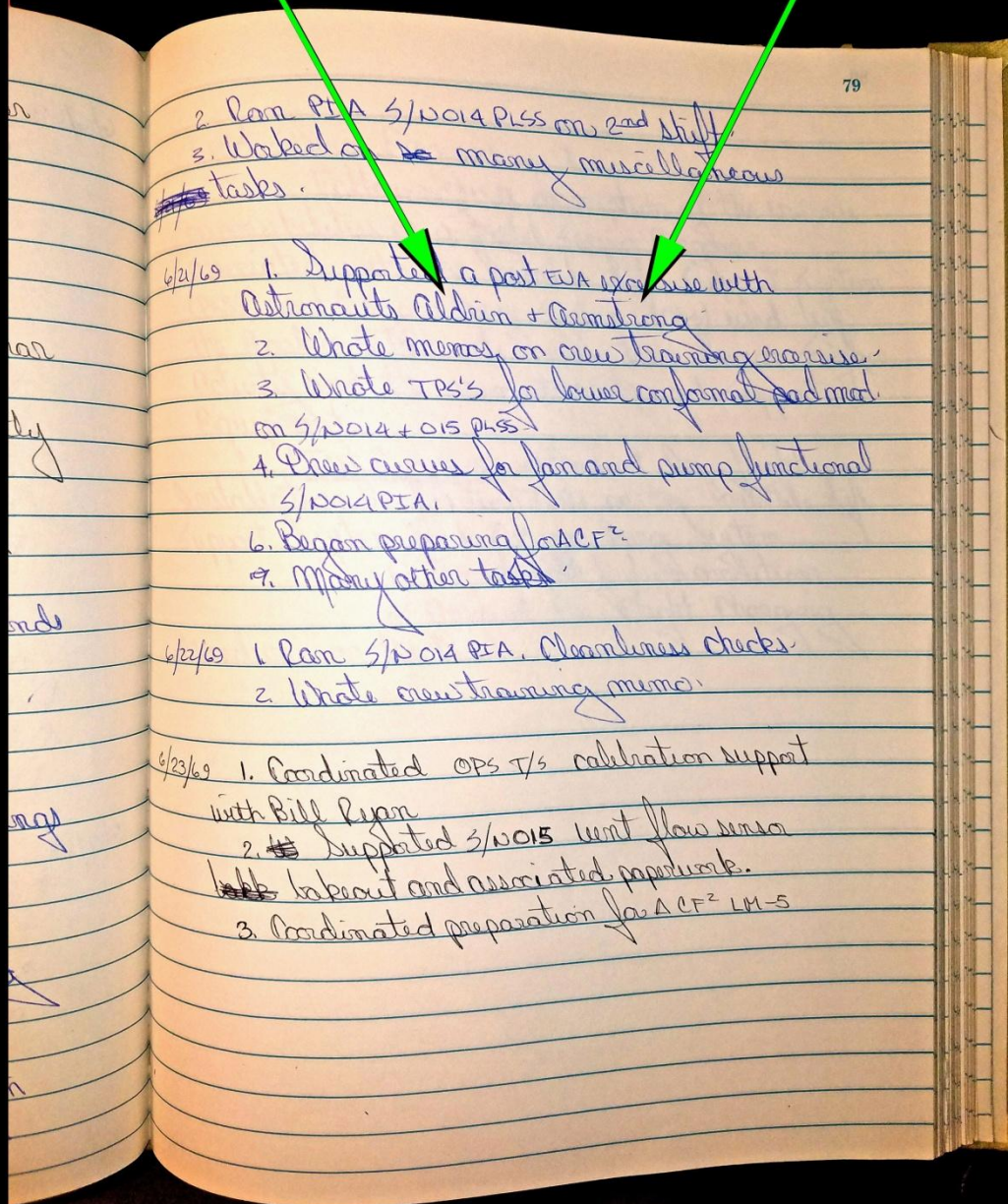
ALDRIN & ARMSTRONG

IN THE AFTERNOON





**LOG BOOK PAGE 79**  
**JUNE 21, 1969**  
**SUPPORTED A POST EVA**  
**EXERCISE WITH**  
**ASTRONAUTS**  
**ALDRIN & ARMSTRONG**





# LOG BOOK PAGE 72

JUNE 6, 1969

I WAS INFORMED THAT THE  
FLIGHT PLSS HARNESES FOR  
ALDRIN & ARMSTRONG  
WERE COMPLETE AND  
WOULD BE AT THE CAPE  
IN TIME FOR C2F2

72

6. Called Ed Travis concerning SI on PCV  
tongue test. He promised to send it to us  
this week.

7. Marm Balis informed me that the flight  
PLSS harnesses for Aldrin and Armstrong  
were complete and would be at the Cape in  
time for C2F2.

8. Coordinated with Gene Chase and Marm  
Balis to determine configuration of  
PLSS after gas trap and 3 PCV mods.

9. Supported a Lunar Surface EVA exercise  
at the crew training building. ~~The crew was~~  
The crewman involved were Fred Howe and  
Jim Howell. The cryogenic PLSS's worked  
well and the run was a success.

6/7/69 1) Monitored PCV mods and sewing of  
name tags on thermal garments,  
2. Repaired 2 PCV mockups to support crew  
training.  
3. Reviewed feedwater collection procedure for  
LM-5. Found that the Apollo 11 EVA  
procedure does not mention feedwater collection  
bag.

4 Found out that locking bayonets on the  
PLSS PCV receptacle do not have to be rounded  
off in the LM-5 vehicle.



AS I DOCUMENT MY APOLLO RELATED EXPERIENCES, I WANT YOU TO KNOW THAT I AM AS PASSIONATE NOW ABOUT MY EXPERIENCE(S) AS I WAS THEN. THE ONLY DIFFERENCE IS THAT I WAS THEN A 24 YEAR OLD GIVEN THE OPPORTUNITY TO LIVE A DREAM AND I'M NOW A 76 YEAR OLD RELIVING THE DREAM THROUGH VIVID MEMORIES AND LOVING IT! FOLLOWING ARE SOME RANDOM PHOTOS OF ME WORKING WITH APOLLO ASTRONAUTS.

**PRESENTING AND DEMONSTRATING  
THE NEW SPARE OPS ANTENNA  
(ADDED FOR APOLLO 17) TO APOLLO 17  
BACKUP CREW YOUNG & DUKE**





**DAN REVIEWING LM TO CM  
CONTINGENCY TRANSFER  
PROCEDURES WITH APOLLO 15  
CMP AL WORDEN USING THE OPS  
IN THE WAIST MOUNTED  
CONFIGURATION.**

**OPS**





*DAN IS EVALUATING  
ASTRONAUT JOHN  
YOUNG'S ABILITY TO  
"UNSTOW THE PLSS  
HARNESSES" PRIOR TO  
EVA.*





**DAN REVIEWING SIM BAY CASSETTE  
RETRIEVAL EVA PROCEDURES WITH  
APOLLO 16 CMP KEN MATTINGLY  
USING THE "FLIGHT" OPS IN THE  
HELMET MOUNTED  
CONFIGURATION**

**ME**



**OPS  
HOSE**

**DAN ASSISTING MATTINGLY REACH FOR THE  
OPS OXYGEN HOSE SO THAT HE CAN MAKE  
THE CONNECTION TO THE PGA OXYGEN INLET  
CONNECTOR.**

**(NOTE THAT MATTINGLY WILL BE ASSISTED BY YOUNG  
AND/OR DUKE IN THE CM AS I WON'T BE THERE TO  
ASSIST. DARN IT!)**



DESIGNING THE PLAQUE FOR THE 15 YEAR REUNION OF THE MERCURY 7 ASTRONAUTS

How I ended up designing and coordinating the fabrication of the plaque for the Mercury astronauts 15 year reunion on May 17, 1974:



This story centers around Alan Shepard and Henri Landwirth. Landwirth is a Holocaust survivor who came to America looking for the "American Dream."

He went into the motel/hotel business in Cocoa Beach. He first managed the Starlite Hotel and subsequently the Cocoa Beach Holiday Inn.

I'm sure many of you are aware of the close relationships Henri developed with the Mercury astronauts. Henri treated them like royalty and they spent a lot of time at the Starlight and then the Holiday Inn, "letting off steam" after vigorous training sessions at the Space Center.

During Apollo 14 EVA training sessions and subsequent Apollo 15, 16 and 17 training I considered myself a friend of Al Shepard, as well as a dedicated engineer responsible for PLSS/OPS EVA training at Kennedy Space Center.

Besides addressing me by my first name "Dan," Al, on many occasions, called me "Super Jew" because, as he explained, the Apollo crews never missed a training session as a result of problems associated with the PLSS/OPS training backpacks. (There were, in fact, many problems to solve!)

Al Shepard was known to many as having a dual personality. He could be very serious and hard-headed, as well as a prankster who got a lot of satisfaction when his pranks went off without a hitch.

Al told me a story about a prank on Henri Landwirth that he witnessed, a prank that the astronauts lawyer was responsible for. The lawyer arranged a meeting with Landwirth and the Mercury astronauts in Miami to discuss a hotel partnership. He (the lawyer) convinced Landwirth that jews weren't very welcome at the hotel and Henri went around with a raincoat over his head until the lawyer admitted his joke. Shepard saw the whole thing and they both thought it was hilarious.

I have to imagine that Al related the story to me since, as a jew, I could relate to religious prejudices of that era.

In early 1974, Henri had ownership interest in the Altamonte Springs Holiday Inn. I had moved to Orlando after Apollo 17 and being young and single frequented the "Why Not Lounge" at the Holiday Inn in Altamonte Springs.

One Friday or Saturday evening sometime in March of '74 (at the "Why Not Lounge") I saw Al Shepard at a table with a friend. I went over to say hello to Al and he immediately began smiling and introduced me to his friend who just happened to be Henri Landwirth.

Now, I'm not sure of Al's exact words, but to my recollection, Al said to Henri with a big grin on his face: "Henri, this is Dan Schaiewitz the "Super Jew" I told you about. We all laughed and I sat down to have a couple of drinks and a sandwich that Henri graciously offered me.

One or two weeks later I got a call from Henri asking me to meet him in his office at the Holiday Inn in Altamonte Springs. At the meeting, Henri told me about a 15 year reunion that he was arranging for the Mercury astronauts with Betty Grissom attending for Gus. He asked me if I would design a plaque for the reunion for each of the astronauts. How could I turn down that amazing opportunity!

Henri said he would send me photos of the "7" including a photo of himself that he wanted included on the plaque. The below photo represents the plaque that I designed and had fabricated for the reunion. Each plaque had the individual astronauts name. The plaque in the photo was Astronaut Schirra's.



After the reunion, I received the below letter from Henri.

# LETTER OF APPRECIATION FROM HENRI LANDWIRTH

P. O. BOX 636

TELEPHONE 834-4455, A.C. 3



**Holiday Inn**® ORLANDO-ALTAMONTE SPRINGS

HI-WAY 436 & I-4

ALTAMONTE SPRINGS, FLORIDA 32701

May 21, 1974

Mr. Dan Schaiowitz  
3111 S. Semoran Blvd.  
Orlando, Florida 32807

Dear Dan:

Please accept my thanks for all the time and effort you exerted in helping prepare the beautiful plaque for our reunion. Everything was just perfect, and I can assure you, this gift brought forth a great deal of emotion on everyone's part. In appreciation, I have enclosed an autographed photo which everyone felt you should have.

In all the commotion, I somehow forgot to order one of the plaques for myself, and I wondered if you could possibly do so for me. Please advise me, as I would be most upset not to have one, and am uncertain where to obtain it.

I do thank you for everything, and hope you will enjoy having this small memento of the occasion.

Sincerely,

A handwritten signature in blue ink that reads 'Henri'.

Henri Landwirth

HL:cb

Enclosure

**SIGNED PHOTO GIVEN TO ME IN  
APPRECIATION FOR DESIGNING MERCURY  
ASTRONAUT 15 YEAR REUNION PLAQUE**





MORE ASTRONAUT PHOTOS TAKEN AT PARTIES AT MY COCOA BEACH APARTMENT

**"MASTER CHEF"  
CHARLIE DUKE  
GRILLING "RIBS"**



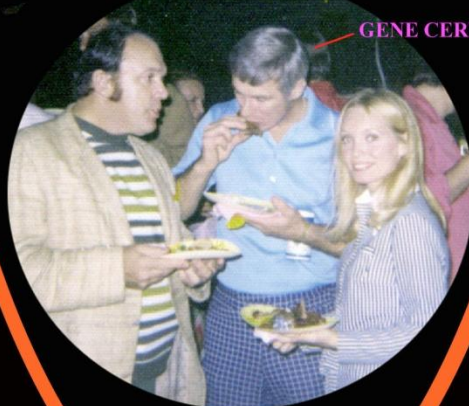
**WHY IS CHARLIE SMILING?  
IS IT BECAUSE HE IS ENJOYING THE COMPANY OF TWO  
FEMALES OR IS CHARLIE HAPPY THAT HIS "BOSS" (AL  
SHEPARD) LIKES "CHEF" CHARLIE'S RIBS.**

**CHARLIE  
DUKE**



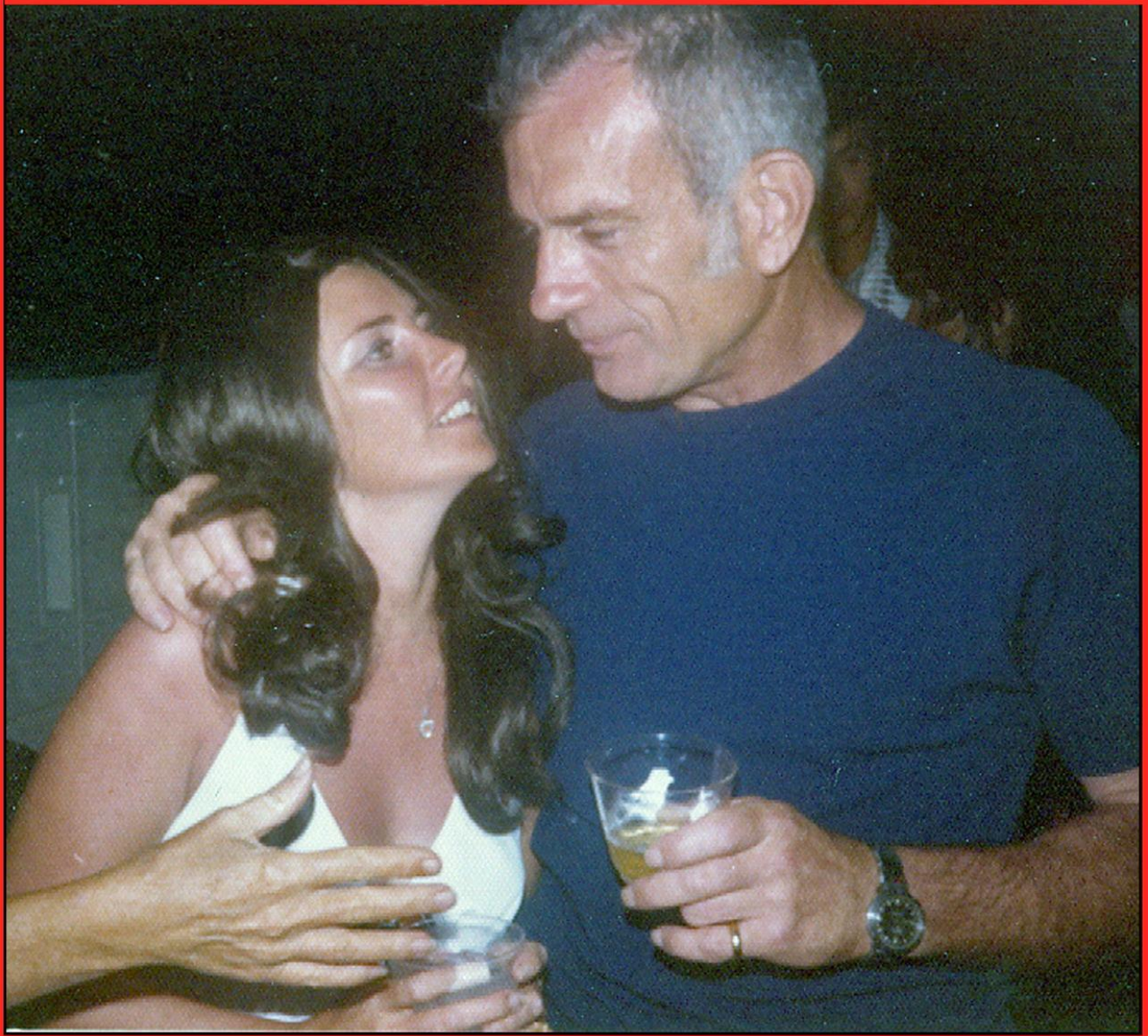
**AL  
SHEPARD**

**LOOKS LIKE GENE CERNAN IS ALSO FOND OF  
"CHEF" CHARLIE'S CULINARY SKILLS!**



**GENE CERNAN**

**WAIT A MINUTE!  
WHY ISN'T  
DEKE SLAYTON  
EATING CHARLIE'S RIBS?**





**SLOGAN AND SIGN DAN  
CREATED FOR APOLLO 17  
PRE-LAUNCH PARTY  
AT DAN'S PLACE SUBSEQUENTLY  
DISPLAYED NEXT TO LM MOCKUP  
IN CREW TRAINING BUILDING**

**APOLLO 17 ASTRONAUT  
JACK SCHMITT**



**MAKING THE SCENE  
WITH A GREEN  
SEVENTEEN**

**ASTRONAUT AL SHEPARD  
AT ONE OF MY PARTIES**





THE CASE OF THE FAKE MUSTACHES

**THE CASE OF THE FAKE MUSTACHES!**  
**APOLLO 17 PRIME CREW, BACKUP CREW & SUPPORT CREW,**  
**DAN SCHAIIEWITZ AND TWO OF HIS TECHNICIANS**  
**THE APOLLO 17 PRIME AND BACKUP CREW HAVE MUSTACHES:**  
**(CERNAN, SCHMITT, EVANS, YOUNG, DUKE, & ROOSA)**  
**WHOSE MUSTACHES ARE REAL?**

