# Apollo 16 Home After Busy Trip 

# ROUNDUP 

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PROBLEMS

TOUCHDOWN
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Thi frotne at Denartes start cal more da: but dave earlier Lithofi som Pad i of Launch Complex is at the kenned space Comer in Florida wa righ (a) time 11:5t am. Sunday April 16. 1972 . A litule mere than two and a hall hame later, the crew per formed the eranslunar injection burn that beaded them wward the

## FLAKING LM

Pain: haking from the ascent stage of Orime a herup in Cas per's matigation ortem. and a balky stectatele antema (on Orion countered betore the landines bur they prowed far hos worrisome than the thenst vecter control sit mation.
But. (nce on the surtice, Young and Duke turned their atention

FIRST EVA
The first exita-vehicular activ ity, during which the lunar roving rehicle was assembled, the Apollo lumar surfici esperiments pack age (ALSEP, deployed, the United states flag raised and the sohar wind composition exper ment erected, lasted 7 hours and 11 minutes

The rever loyred 4.2 kilometers of lunar travel, and the explorers collected +1 pounds of rock and dust samples.

EVA Two lasted 12 minutes longer tian the first, and sample
weight was exactly double. Rover travel was 11.5 kilometers CRYSTALLINE?
Yeung picked up a rock and make barththound scentists perk
Lep wi:h This is the first one Ive seen I really believe is cryThe pair also sooped up a apeciad sample from under a hunar The hied and that sumace ex-
plomaton wa the shorest- 5
 in awseme sight, threc-quarter, of a mile across ans moe than 200 yaks deep, the general vicinHEAVYWEIGHT Collected samples weighed a bout 40 pounds, bringing the dhree day total io 212 to 214. Distatace covered in the rover whalled 27.1 kilomesers, about 16.8 mike. And time on the three DVA, ddded up to 20 hours 14 Man:ingly, in Casper was


## Scientific

## Packages

 WorkingScience from the moon suffered a few disappointments, but most of the instruments left behind by Apollo 16 are returning good data.

The Alsep heat-flow experiment was put out of commission when Iohn Young accidentally pulled a wire loose, but the rest of the package is returning steady in formation.

The 24 -hour-early ending to Aollo 16 meant moving the splash point from Island, but that presented no problems to crew or recovery team. Casper's passengers were as happy to get home as "Jumping Jack Young was to get to the moon in the above picture photographed from a TV screen

The scientific subsatellite was launched into a six-to-nine-month orbit rather than the pre-planned one year lifetime. This was a re sult of skipping a shaping burn by the spacecraft so as not to exercise the service propulsion system any more than necessary

Radio contact with the sub satellite was achieved after Orion's batteries died - the science package and the LM use the same frequency.

## T. Ballentine: Scientist And EEO Counsellor

(This is the first of a series of articles introducing the Center's Equal Employment Opportunity counselors. The function of the EEO cotinstors is to provide an open and symputhetic channel througb which employees and applicants may raise qutestions, discuss grievances, and attempt to resolve, on an intormal basis, discriminatoin complaints based upon race, color, religion, sex, or national origin.)

Thomas Ballentine is a physical scientist who tests materials for their physical, chemical, and mechanical characteristics in the Crew Systems Division, Engineering and Development Directorate.
He hails from Pulaski, Tennessee, where he finished Bridgeport High School ( named for his grandfather) in $19+2$.

His college career at Tennessee A\&I was interrupted by a 3 -year tour in the Navy during World War II. After the war he attained
 a baccaulerate degree in Chemistry at Morehouse College of Atlanta, Georgia. He received his masters degree from Atlanta Univers. BALLENTINE ity in 1952.
He joined MSC in March 1964 when the work force was relocating from Houston to Clear Lake, as a chemist. He later was promoted to his present position of manager of the Materials De velopment Laboratory
He directs testing and development of all nonmetallic items (plastics, fabrics, polymers, etc.) with which astronauts come in contact.
Ballentine modestly feels he is not particularly equipped to be a counselor, but he is intensely interested in helping people of all groups ( not necessarily minority) who feel they need someone to talk to in order to satisfy doubts and to resolve grievances.

Ballentine thinks a good counselor aids communications be tween management and potential complainants and he admits that his being black may have sharpened his senses to the possible existence of prejudice.
He shares the concern of mosi

managers in that minority group members and women have not attained their proportionate share of responsibility and authority in government.
The Ballentines reside at 3826 Iulius Lane in Houston. Tom reads and "gardens" in his very little spare time. Also, he enjoys foorball. basketball, and baseball as a spectator.
He is married to the former Wilhelmina Thompson of Little ock, Arkansas. They have five children: daughter Tracy in college, son Troy in the eleventh grade, daughter Jill in the sixth grade, Roger in the fifth grade, and Bryant in the second grade.

## Aero Club Starts

## Ground Schooling

The first session of the Aero Club's private-pilot ground school meets next Tuesday at 5 in Room 720 of Building 2.

Partially subsidized by the Employees Activities Association, the Aero Club is conducting the ground school for $\$ 20$.
The course also can be taken as part of the non-pilot introduc-tion-to-flying program offered by the club.
Registration will be held at the Tuesday session, or advanced registration can be done through Bob Moncsko, extension 4667.

## Dinner-Theatre

Specials Scheduled
Two NASA nights have been scheduled at the Dean Goss Dinner Theatre for the performance of "What's So Bad About Living With a Stranger?"
The regular $\$ 8.50$ tickets, which include the play and a buffet dinner, for the May 3 and 4 shows are available to MSC employees and contractors for $\$ 6$ each through Joanne Sanchez, extension +303 .

## Job-Hunt Session

Starts Thursday
That free-of-charge workshop to help the professional or technical person conduct an effective job hunting campaign starts Thursday May 4 in Building 32
Hours for the evening session organized by the American Institute of Aeronautics and Astronaurics with the support of other local technical societies, are 6:30 to $9: 30$.

The second of the three-part program will be held the following Thursday, May 11, the last one a week after that.
Reservations are being taken by telephone, 333-2865.

## Soviets, US Okay More Reports On Joint Flight

The Soviet Academy of Sciences and the U.S. National Acronautics and Space Administration have approved a second set of reports on compatible rendezvous and docking systems for manned spacecraft.

The joint working groups that generated the reports met last November and December in Moscow.

Purpose of those meetings was to define technical requirements for rendezvous and docking of United States and Russian spacecraft.
Compatible systems would permit emergency assistance as well as joint experiments.
However, no decision has been taken that commits either nation to a joint manned space mission with the other
The first meeting of the joint working groups took place at MSC in June 1971.
The next--third-conference also will be held in the United States.

## Contract Managers

## To Meet May 11

The fourth annual procurement conference of the National Contract Management Association is set for 9 a.m. Thursday May 11 at the Nassau Bay Motor Hotel.
Seven representatives of govern ment and industry will present their views on the conference's three main topics: "Federal Procurement Principles," "Cost Ac counting Standards" and "The Acquisition Process.'

Contacts are Mike Ballas, extension 3803, and Jack Fuller 5007.

## JIMMY WARREN MEMORIAL

bowling league

| Ball Busters | $731 / 2$ | $461 / 2$ |
| :--- | :--- | :--- |
| Spoilers | 70 | 50 |
| Hertz | 70 | 50 |
| Chokers | $641 / 2$ | $551 / 2$ |
| Fabricators | $631 / 2$ | $561 / 2$ |
| Alley Oops | $621 / 2$ | $571 / 2$ |
| Hexes* | 61 | 55 |
| Team 14 | 61 | 59 |
| Bit Pickers | $591 / 2$ | $601 / 2$ |
| Pin Pounders | 59 | 61 |
| Mixers | 58 | 62 |
| Achievers | $491 / 2$ | $701 / 2$ |
| Splitters* | 47 | 69 |
| Left Overs | 37 | 83 |

## *Match postponed

Hi team set 4-20: Hertz 2999
Hi team game 4-20: Ball Busters 1031
Hi individual set 4-20: Skillman, Bit Pickers, 694 and individ ual game Gierspeck, Fabricators, 255.
Individual scratch hi 4:20: Gierspeck $244 / 632$, Skillman 619, Morgan, Alley Oops, 222/611 and Cooper, Mixers, 230/587.

## Eleven Suggestors Earn $\$ 1380$ For Their Ideas

Eleven MSC employees have carned $\$ 1380$ for seven sugges. tions and one invention calculated to save the government time or money or both.
Largest of the awards went to a group of four: Nickolas L. Faust and Donald J. Jezewski of Mission Planning and Analysis, and David R. Glandorf and Harry L. Rozendaal of Lockhecd Electronics Company. They split $\$ 1000$ for a new technique for development of space flight trajectorics to extend existing optimization capability

## This Mother Earth

This Earth, this womb where we began,
This mother's life gave birth to Man.
As children fed by dear green Earth
Through all the dreams of human birth,
We did not breath, nor see, nor stir,
Bur through the death of some of her.

So from our mother's breast we part
To take this burden from her heart

And there in space ourselves to cast,
To give her peace, due peace at last.
So now from out our cradle sprung,
The Child of Man himself has flung.
In search of Grace his dreams now grasp
The moon, the sun, the stars at last.

So much of Earth, so much of space!
This Child of Earth, this Child of Grace
Will search until himself he finds
And then to Earth he homeward winds.
For when our ships are cold and dark,
We shall again
to home embark
Like sailing ships
from distant shore
Not parted long, .at last to part no more.
Thomas L. Wilson
Flight Simulation Branch

Next-high was a $\$ 125$ award to Joyce K. Patureon of Financial Management. Administration and Finance Office. She suggested a "per diem rate chart" to cover all eventualities and climinate the need for por diem claims to be computed for each individual trav. cler.
An award of $\$ 105$ went to Robert F. Hall of Skylab Manage ment ()perations. His suggestion showed how to eliminate duplication of effort between two divis ions concerning the procedure for requesting and statusing technical evaluations on a major contract,
An invention award of $\$ 50$ was presented to Richard S. Johnston. director of Life Sciences, for his tabric for micrometeoroid protection. He found a new fabrication method which eliminates high. temperature shorts along the stitches and seams of multi-layer protective garments.
Recipients of $\$ 25$ awards were John F. Herrmann of Apollo Program Control. Kenneth M. Ramke of Flight Support, E. Dee Sisson of Engineering Division, and Dwight L. Suiter of Apollo Test Division.
Herrmann suggested routine trimming of tree branches over sidewalks to avoid injury to pedestrians.
Ramke proposed installation of proper guards on rotary mowers or their replacement by reel mowers to reduce the possibility of injury to employees or visitors.

Sisson revised the form for entering daily time and attendance records to more closely coincide with the format of the official time and attendance cards
Suiter suggested installing rollers on the guardrails of the upper floors in Building 30 to case the handling of fire hose.

## Howard Gibbons,

PAO, Dead At 49
Howard Gibbons, Chief of Special Events in the Public Affairs Office, died April 20 of lung cancer. He was 49

Gibbons, a veteran of the space program since Mercury, was among the first NASA arrivals in Houston when MSC was established.
He is survived by his wife, Mary Anne, sons James and Robert, and daughter Anne Claire.


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Photographer: A. "Pat" Patnesky

## Roundup Swap-Shop

Deadiine or Swap-Shop classified ads is Thursday of the week preceding Roundup publication date. Ads are limited to
corie end home telephone
Miscellaneous

|  |  |  |  |
| :---: | :---: | :---: | :---: | Golf cart $\$ 2$, whle lamps S3, floor lamp S2 488.40f5

Jacueri whirlpool biath. best offer. Clairod Kindness inf curters Mins nimer hems. Lai. 483.6451.
Remmernish $55 \%$ BDL (Deluxe) auto 22 rifle. Xlint rndn. S4s. new
$471-3314$
Larue Sears cabin tent $10 \times 18$ external trame flour large windthws, divider. canopy. case. orig S215, now S95. Kilbourn. 482.7879
Gememharl: o;en hole professional flute S200. King b.flat cornet $\$ 125$ Both xint
condn. Chewemis. 4 it 1.2447 . Children's ways xint ondn: croagcet $\$ 2$.
 chair S2. baskethall hoop $52.438-4005$. Kindness $\%$ instant hairdresser. xint cndn.
used less than year, 58 Paulns. 473.7745 . Tent. Coleman Oasis super deluxe $10 \times 16$ 1453.

Electric uolling motor, foot control lazi95. Best offer. Glyin. 488-4453

Complete set used McGregor Tourney golf clubs. irons $2.9 \&$ wedges. woods $1-4$, also Smith. 333 -4761.
Deer hunters: father/son lease, 1350 acres Menard County, deer, quall. turkey.
house/elec/water. S255. Franklin. $334-2853$. AC grade plywood approx 400 sq ft 530. 488 -4005

Metal higר chair $\$ 5$, large standing chalk
board $\$ 3.2$ lamps $\$ 5$ ea Lapko, 946.4311 Rollei 35 ran camera, smallest made that takes ful-size slides. spotless wi/case.
flash \& shade. Pearce. $747-3646$. 4.ton room air conditioning unit. new. Free pine logs cut 2 \& 3 . Ingth. Statz. Free $\quad$ p
482.7607 .

Trailer or trailer fhassis suitable for 50
$\times 72$ inch Jed. McCown, 471.0716 . Drake R84. T4X. power supply. Collins 32S.3. 75S-3B. $515 \mathrm{~F}-2$ power supply. Smith 334-3396. 406 Bayou View Dr.. Seabrook.
4151.
Formal d ning rm suite, table 6 chairs china. Smith, $334-3396$
Small cement mixer. Bristow. 485-2219. Vice for hnme workshop
Jaw. Rosentaum. 474-4386.
PROPERTY \& RENTALS
Beach fromt. corner lot (second line) utilities. 59590 . Holt. $488-5117$. Rent. large bark with food drinks. en
tertainment etc. furnished, one day only
(September 23), price one ticket to MSC Halt acre lot Picmi $125^{\circ}$ on shell street. Houston, bank schon, 3 churches within 8 blocks,
$\$ 3500$. Barr. 549.1751 . \$3500. Barr. $549 \cdot 1751$.
tdrm 2 ba:h Miller. 488.0621 after 4 .
CLC $3.2-2$ across from school, playgound cold. fenced. living diming. paneled
pooiltins, equity. Christopher, 488.2774 . 3 br-bati) liv-k:t din, builtins. central heat.
$2 a \mathrm{c}$ unts, detached garage. on $100 \times 130$ woded loc. Sthoreacres. LaPorte, avail im med $\$ 17.001)$ Schnell. 471-2373.
HOUSEHOLD APTICLES 2 wrought tron table
cond. Stu as 4a3.4095.
Metal wheel barrow. rubber tire. S9. 16
wood extevsion ladder. gd candn. S10. 488 4005 .
Fedders 14.000 BTU air conditioner $\$ 100$ Maytag elfatronc dryer S100. Lawnmower
S25. Gremi Iion. 479.6872 . 8 large rectangular cushions wi zipper Covers $\$ 2$ al Straight back wood chair $\$ 2$.
$488-4005$. Spinet piano. pft enar. walnut
warranty \& guarantee in effect. S325. Frank.
$471-2848$.
King-size Beautyrest firm mattress \& box spring. like new. S150 Maple veneer bed room set. dbl bookcase bed. dbi dresse Wrought iron dinette, marbelized Formica

SeaArama Tickets
caArama tickets, good through the month of May, are available now from Emplovees Activities Association representatives. Adult tickets are $\$ 2$, children $\$ 1$, a sav ing of 95 cents in each case. Kids under 5 get in free

| Vacuum cleaner wifall attachments, hose ic fan unit $\$ 5$. 488-4005. <br> Early American bookcase bed \& mattress | fctory air. radio, pwr steer, 5 xint tires, S895. Levy, 645-1001 <br> Girls 3 -spd 20 -in spyder bike w/basket \& hand brakes. xint endn. S30. Shapiro, 488 - |
| :---: | :---: |
| 60. Early American dresser $\$ 50$. Raiistic |  |
| mponeit AM/FM stere \& turntable | 66 Plymouth Sport Fury 2-dr hdtp, all pwr air bucket seats console floor shift, auto. |
| e 18" Silvertone bsw TV. in yr old. | 383. 2-bbl carb, S695. Morton, 946-4 |
| n: cridn. S40. Sullivan. 483-0337. <br> Redwood picnic table, 2 benches, \$5. 4 | 66 Dodge pickup $1 / 2$-ton, custom cab, eetside bed, radio \& heater. std trans. |
|  | slant 6, \$345. Morton, 946-4752. |
| Chair. green u | Boys 26 -in 3 -spd bike, very S20. Wilsor. 334-1895, |
| rocker S15. 488-4005. <br> 70 GE $12^{\prime \prime}$ Portacolor TV wi clock | 60 VW , god body, new tires \& battery, en. |
| - | gine needs repair. S100. McCaulley, 471-3298. |
| RCA | Holiday Rambler 27 trailer. 1968, Ik now dn. air \& extras. Becker. 643-4151. |
| , | 0.000 |
| Antique piayer piano, player | 471.2744 |
| tely rebuilt, wood-grained antique | 69 Mercury Marquis 4-dr hdtp, air, viny! |
| 25. Brandon. 944-0227. <br> Italian Provincial beige sofa | top \& seats, compare at $\$ 2500$, must sell S2200. Russell, 477-6393. |
| S50 both. Gaffney. 483-4319. | $13^{\prime}$ Shasta Compact Travel trailer, 2 yr |
| AKC black \& silver Germ | ol, icebox. gas stov |
| es. wormed, males \$60, female \$50 | brakes. S1000 firm |
| atts, 487.4275. | 71 Honda CL 350, blue wi helmets S650. Wolz, 554-3 |
| chshund-poodle | r-tent camp |
| 67. <br> Bay mare wi/Western sad | covered nylon. sleeps 1181. |
| 75. Weldon | 62 VW . xint mech ondn, recent eng over- |
| kittens. half-Burmese | haul. gd tires, body |
| d. free to good home. Kusiak. | 4946. |
| ter 4. <br> Big Reds: Ir | New 71650 Yamaha f complete. Make offer. |
| grees AKC | hevrolet sta wgn, auto, air, r/h |
| Morris. 333-2910. | , xlnt mech endn. 2 new tires, \$1150. |
| cker spaniels, AKC. red $\&$ |  |
| Accepting applications AKC Samoyed pups, | SKA wi/3l/2 gal tank |
| sire American \& Canadian champ, sire | 311 |
| bitch both of Karatyll's Kennel. Bazhaw. | ooden Lightning sailboat wi/3 S950 Schiesser 482.3217 |
| Vehicles | Fiberglas Sunfish sailboat |
| 1 Olds Cutless Supreme | odn $\$ 350$ |
| e. air. radio, auto, 2 dr. buc sole, gr tires. Coan. 48e-6534. | nd 5 hp obm. S 1800 . Hill. 332-3838. |
| Girls Sears Spyder bicycle. | 18' plywood boat, 75 hp Johnson, ideal for |
| Robertson, 488-2897 | g. skiing, many extras, \$950 |
| 71 Honda CB 350 K 3.1200 mi . luggage |  |
| ck. adjustable backrest. mirrors. $\$ 750$ | LATE ENTRIES |
| Reeves, 482-7233. <br> 68 Pontiac LeMans 4 dr hdtp, air, power | Baby playpen. Casco, nylo andn, S10. Hill, $332 \cdot 3838$. |
| xint entr, blue. Micorrie | alumuinum folding be |
| 67 Ford LID 2 dr hdtp, power and air | ttresses. ideal for camping. |
| Stephenson. 471-4694. <br> 68 Honda 50, new | summer, S7 ea. Bentley, 333-3001. <br> 64 Chevrolet Impala, new 327 engine, 3 |
| justment. he!met incl. Sj5. Boys 3 -sp | spd floor shift, radio, heat, oil \& amp |
| cle 525. Truman, 482-7042 | gauges. Suggs, 644-4631 |
| 67 Mercury Montclair, A. 1 cndn. | Want late mode! Honda CB-100. |
| 000. Vogt. 488 | 482.7643. |
| 72 Ford Mustang. pwr steer. air. | Want to rent 3 or 3 br house, prefer |
| racio, heat, S200 \& take up notes. Must | ced back yard, priced reasonable in |
| 333.2491 after |  |
| 67 Plymouth Barracuda, x/n: car, V8. auto. | . |

 radio contact could be made with it since its operating frequency was the same as the lunar modWI ithout attitude control the LM ascent stage could not be impacted onto the moon as planned. It is expected to fall from orbit on its own in about 200 days. Apollo 16 headed home at $8: 27$ Monday evening. When the craft

## Disney Discounts

"Disney on Parade" discount coupons are available from Employees Activities Association representatives. The show is May 914 at Sam Houston Coliseum, and the coupons knock a dollar off the regular $\$ 5, \$ 4$ or $\$ 3$ tickets
rounded the moon and radio con tract was reestablished after the cameras and scientific instruments

After lunar liftoff, televised by the remotely controlled camera on the rover, and rendezvous and docking with the command mod-trans-earth injection burn, Mattingly reported that "morale around here just went up a couple hundred per cent."

Apparently the thrust vector control problem had not been forgotten.
On the homeward leg. Matting. $y$ got his own chance to conduct EVA. He spent a bit more than an hour outside the spacecraft, retricving film from the scientific insrtument module and activating the microbial response experiment.
With splashdown in the Pacific some 175 miles southeast of Christmas Island, Apollo 16 became history. Only one manned flight to the moon remains on the schedule

Young, Mattingly and Duke are due to return to Houston tomorrow evening at $8: 45$

## Cost Reduction Corner

The 95 Government-owned punched card machines around MSC require periodic maintenance, provided by the equipment manufacturer. Cost over the past eight months: $\$ 36,180$

Last month, a local third-party vendor of maintenance services took over the job, providing the same services at an eight-month cost of $\$ 26,673$.

Hugh O. Wallace of Computer Operations Office reported the changed method and points out the saving to John Q. Taxpayer is $\$ 9,507$ for the period covered.


UP, UP AND AWAY - Three Hous tonians took a ride that was out of this world while a group of others utilized some more prosaic transportation to be on hand when the trio departed. The former, of course, were John Young. Ken Mattingly and Charley Duke. The latter were MSC personnel and their families who took advantage of the Employees Activities Association, charter flight to Flcrida. Young, Mattingly and Duke started their journey atop a flaming Saturn $V$ rocket (above). Two days earlier, the viewers boarded buuses at the Building 14 parking lot (left) to head for Houston Intercontinental Airport and Florida The EAA contingent was back in Houston, having seen the flawless liftoff and spent a day at Disneyland, when Young and Duke took another trip. This time it was in the lunar module Orion, first down to the moon's surface, then (right) up to rejoin Mattingly in the command rejoin Mattingly in the command module Gaspe. Once Apolo 16 launch sounds and sights disappear ed, the liftoff audience joined everyone else - including the mission
controllers (below left) - whose visual contact with the travellers was via the TV tube. That picture on the Mission Operations Control Room wall screen is of Earth from 8300
 miles away. That shot also was seen on home TV screens as was the one below of Young setting up the lunar portable magnetometer during the first of three lunar extravehicular activities.


