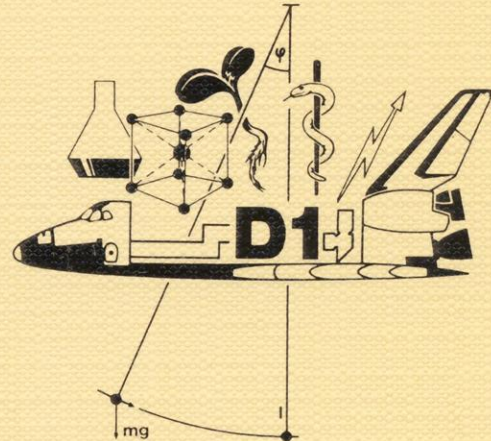


CREW LT BOOK

DEUTSCHE
SPACELAB
MISSION **D1**

DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT
FÜR LUFT- UND RAUMFAHRT
POSTFACH 90 60 58, 5000 KÖLN 90
PAYLOAD OPERATIONS

DOCUMENT REF CODE: D1-OP-PR-129-RF
ISSUE NO: FINAL
REVISION:
DATE: OCTOBER 30, 85



PAYLOAD FLIGHT DATA FILE

PAYLOAD OPERATIONS

SPACELAB MISSION D1

LEISURE TIME BOOK

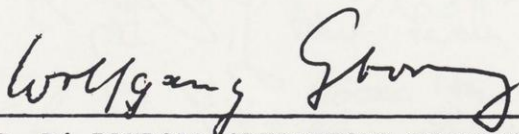
FINAL

OCT 30, 1985

PREPARED BY:

D1 - MOST

APPROVED BY:



DR. W. WYBORNY, DFVLR, D1 PAYLOAD OPERATIONS DIRECTOR

All proposed changes and comments to this document should be submitted to W. Wyborny, telephone 02203-601-2454

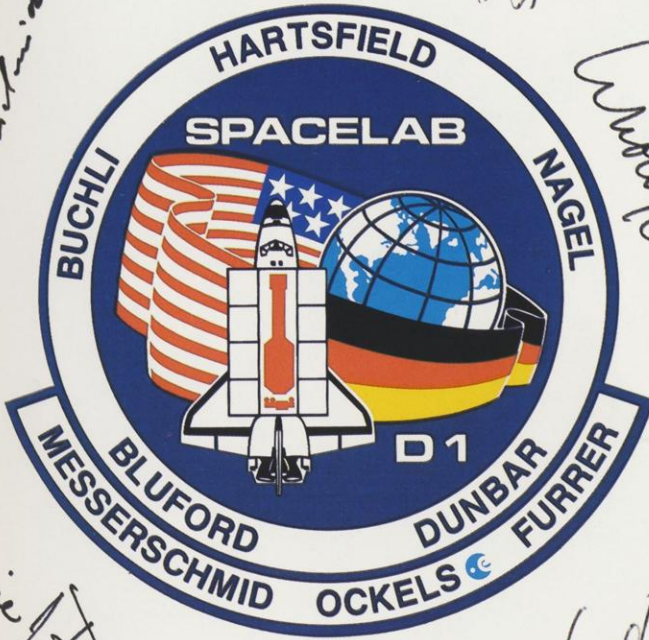
Steve Nagel Hawk Hartfield

Jim Buchli

Gov. S. Bell

Tom Jannasch

Wally Jones



Donnie J. Dunbar

Rene Gust Furrer

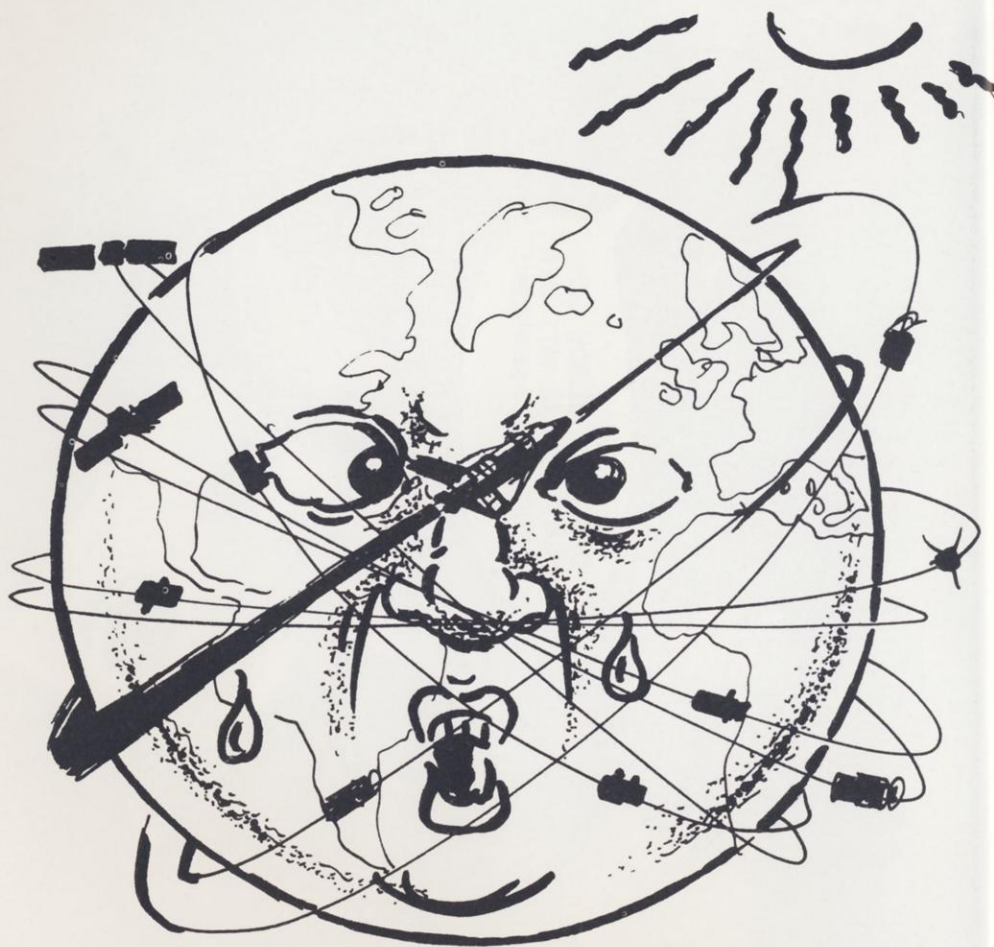


DAS DING WÜRD EICH NICHT EINMAL MIT DER KNEIFZANGE ANFASSEN!

CREW LT BOOK

D1

PROB. FORT. DATA



OH GOTT,
JETZT SIND AUCH NOCH DIE
DEUTSCHEN DABEI!

I DON'T KNOW
HOW WE CAN DO THIS MISSION;
WE NEVER CAN ENTER THIS
D1-MODULE!



FIELD
NASA

I JUST DON'T KNOW WHAT TO DO!
JIM KEEPS FALLING ASLEEP DURING
PRESS CONFERENCES!





ULF, HANDS OFF MY
COMMANDER!

IN A FEW SECONDS
THE SHOW IS OVER!

YOU'D NEVER GUESS
I USE BLENDEX
TOOTH PASTE.

EXCUSE ME HANK, BUT
WE HAVE TO FOLLOW
THIS PROCEDURE!

OH NO JIM,
NOT AGAIN!

... CHR ... CHR ... CHR ...

CHEESE!



WELCOME IN ORBIT

... UND EINE
ERFOLGREICHE MISSION !




READ A D1-PROCEDURE
AND YOU WILL CRY BITTERLY!


FURRER

NASA



A woman with dark hair, wearing a blue NASA jumpsuit, is shown in profile, looking upwards and to the right. She is working on a complex control panel or instrument rack. The panel features various dials, switches, and a wooden tray. The background is filled with more equipment and structural elements of what appears to be a spacecraft or a simulation environment. A speech bubble is positioned above her head, containing text.

A YEAR AGO I REALLY THOUGHT
I WOULD DEDICATE MY LIFE TO
SPACE FLIGHTS, BUT !



LEFT - LEFT - DOWN
LEFT --- DOWN
CENTRE FIRE !!!



LAST TIME HE DROPPED HIS LEFT EYE!

esa

ESA
D17
MIR



SPACE CROSSWORD

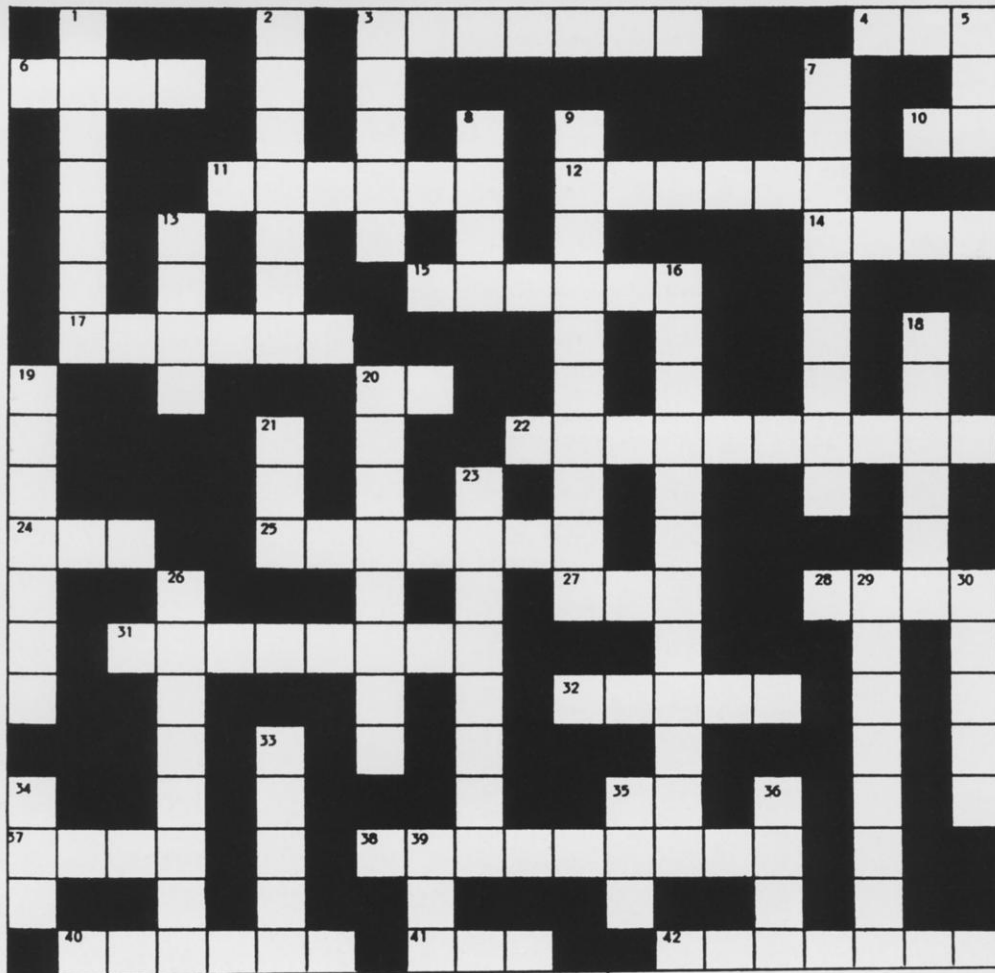
ACROSS

1. Civilian, born in San Jose, Costa Rica, Astronaut Group 9.
2. He made his second flight in July 1969.
4. Commander of Columbia's second mission.
5. Apollo 11 CMP.
8. First flight in 1973; 1427hr 9min 4sec.
10. He commanded three Shuttle missions.
11. He was at DFVLR-Cologne on launch day of STS-9.
14. First woman onboard Challenger.
15. First name, made 6 space flights.
16. First postmaster on the moon.
18. First name; 4th man on the moon.
20. Mission Specialist onboard STS-6.
23. Commander on STS-4.
25. SKYLAB SL-3 Commander.
26. esa-science astronaut.
28. He informed Houston MCC: "Houston, we have a problem."
29. STS-1 Pilot; nickname.
30. Youngest astronaut; Group 10; born 1956.
32. MS onboard Spacelab-1.
33. First scientist on the moon.
36. First name; MS Mission 41-G.
37. First name; EVA in February 1984.
38. First name; Pilot on Mission 41-G.
40. First name; Assigned as Pilot for Space Shuttle mission 51-G.
42. Mission Specialist on Space Shuttle mission 51-F.
44. STS-8 Commander.
46. He made his first flight with Hank's second Shuttle mission.
48. David C. _____.
49. She made an MMU-EVA.
50. On America's 206th birthday he was welcomed by President Reagan and his wife Nancy, one hour after landing.
51. Apollo 17 CMP.
- 55a. Sultan Al-_____.
57. Currently serves as Director, Space and Life Sciences, JSC.
59. STS-astronaut; resigned from NASA.
60. Commander, Spacelab 2 mission.
61. Commander in June 1985.

DOWN

1. Pilot Mission 51-E.
3. First American in Earth orbit.
6. 8th man on the moon.
7. Commander of Challenger's maiden flight.
9. 6th man on the moon.
11. First name; America's first woman in space.
12. STS-astronaut; resigned from NASA.
13. Karol J. _____.
14. She is called J.R..
17. Spacelab-3 MS.
19. Flew on 41-C.
20. Bruce _____ II.
21. Studied in Kiel, West Germany.
22. First name; second man on the moon.
24. Spacelab-3 MS. First name.
27. Shocked the Recovery Force on May 24, 1962.
31. First name; B.S. in mathematics and statistics, B.A. in chemistry, M.B.A. in operations analysis and computer programming M.S. in physiology and biophysics, M.D..
34. Died on January 27th, 1967.
35. First name; Original Seven Astronaut.
39. First name; 7th man on the moon.
40. MS onboard STS-8.
41. Nickname; MR-4 astronaut.
43. _____ E. Graveline.
45. DFVLR-science astronaut.
47. MS onboard Mission 51-D.
48. MS onboard Spacelab-2.
52. _____ bin Salman bin Abbul Aziz Al Saud.
53. James A. Mc_____.
54. Commander; last SKYLAB mission.
- 55b. Drove first LRV on the moon.
56. SKYLAB-4 crew member.
57. First name, OFT-Commander.
58. He did the last Mercury mission in May 1963.

SPACE CROSSWORD PUZZLE





CUCKOO !



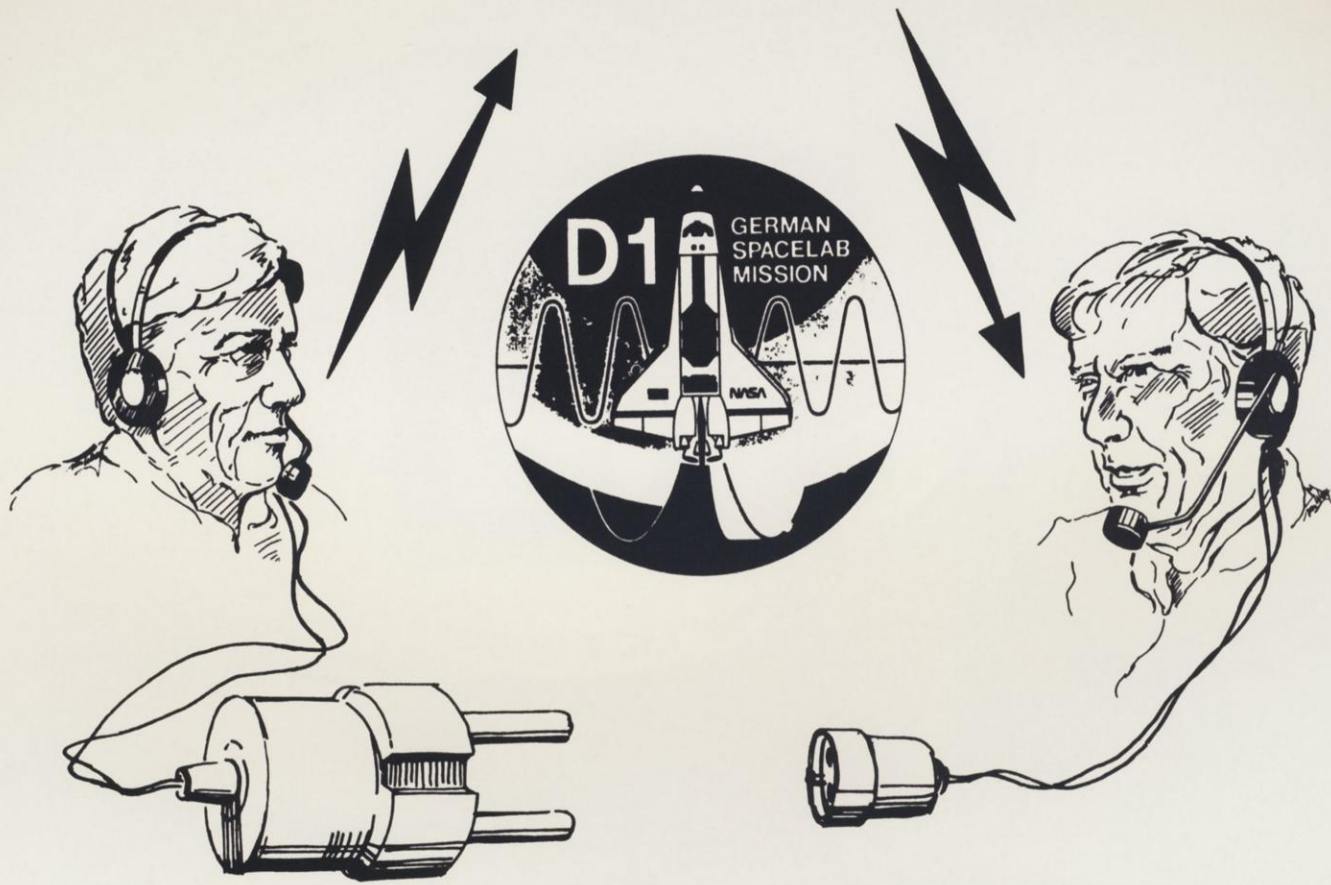


DO YOU REALLY MEAN TO TELL ME
THERE ARE LIVING CREATURES IN HERE?

INCUBATOR B
37°C

AGAIN AND AGAIN,
EVERYTHING WE HAVE TO DO
BY OURSELVES!





Anforderungen

Möglichkeiten



DIESE AMERIKANISCHEN HOSENTRÄGER
SIND JA GANZ NETT, ABER DIE
BAYRISCHEN GEFALLEN MIR BESSER!

ES IST EIN KLEINER SCHRITT FÜR UNS, ABER EIN RIESENSPRUNG FÜR DIE BUNDESDEUTSCHE WISSENSCHAFT.

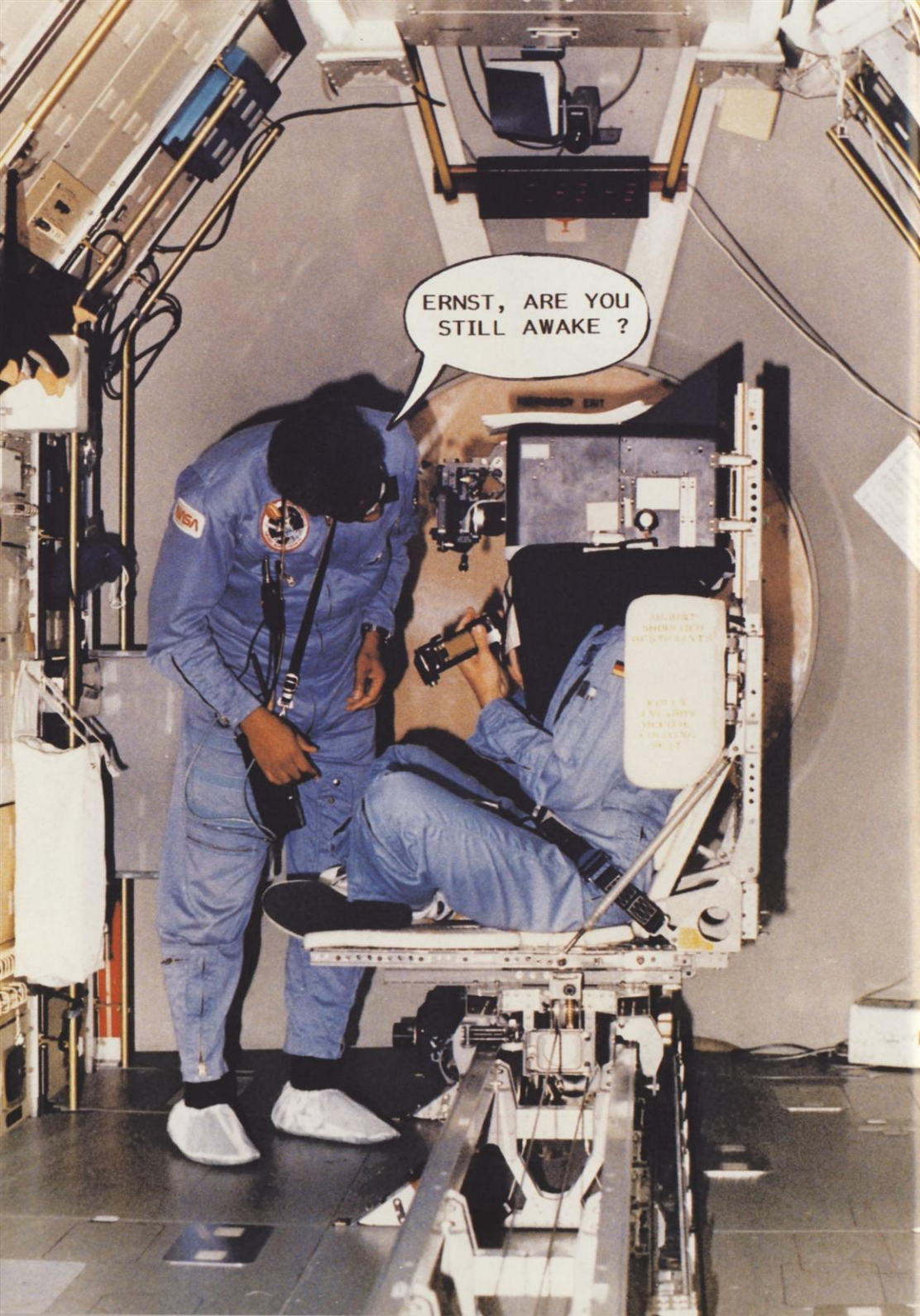




ALWAYS THIS DRY FOOD
WITHOUT A DRINK ...

NASA

M21 KIM-6



ERNST, ARE YOU
STILL AWAKE ?

SECRET
OPERATION
INSTRUMENTS

KEITH'S
SLEEPING
ARRANGEMENT
FOR THE
FIRST

Frankly, guys, I am somewhat disturbed
that I can't seem to get my arm
around this mission.

Houston, March 6, 1985

HANK HARTSFIELD:

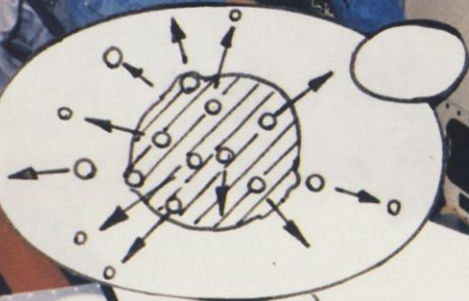


Frankly, guys, I am somewhat surprised that I finally got my arms
around this mission!


In orbit during mission 61A

WENN WIR DEN COFFEINGEHALT
BEIBEHALTEN, DEN ZUCKERGEHALT
ERHÖHEN, DANN KÖNNTEN WIR DIE
KRISTALLBILDUNG BESCHLEUNIGEN!

EXPERIMENT D1-COKE 1-USA:
BUBBLE MOTIONS IN COKE UNDER
MICROGRAVITY.



Coke



EITHER YOU DO NOW
THIS EXPERIMENT OR GO
FINALLY TO SLEEP!

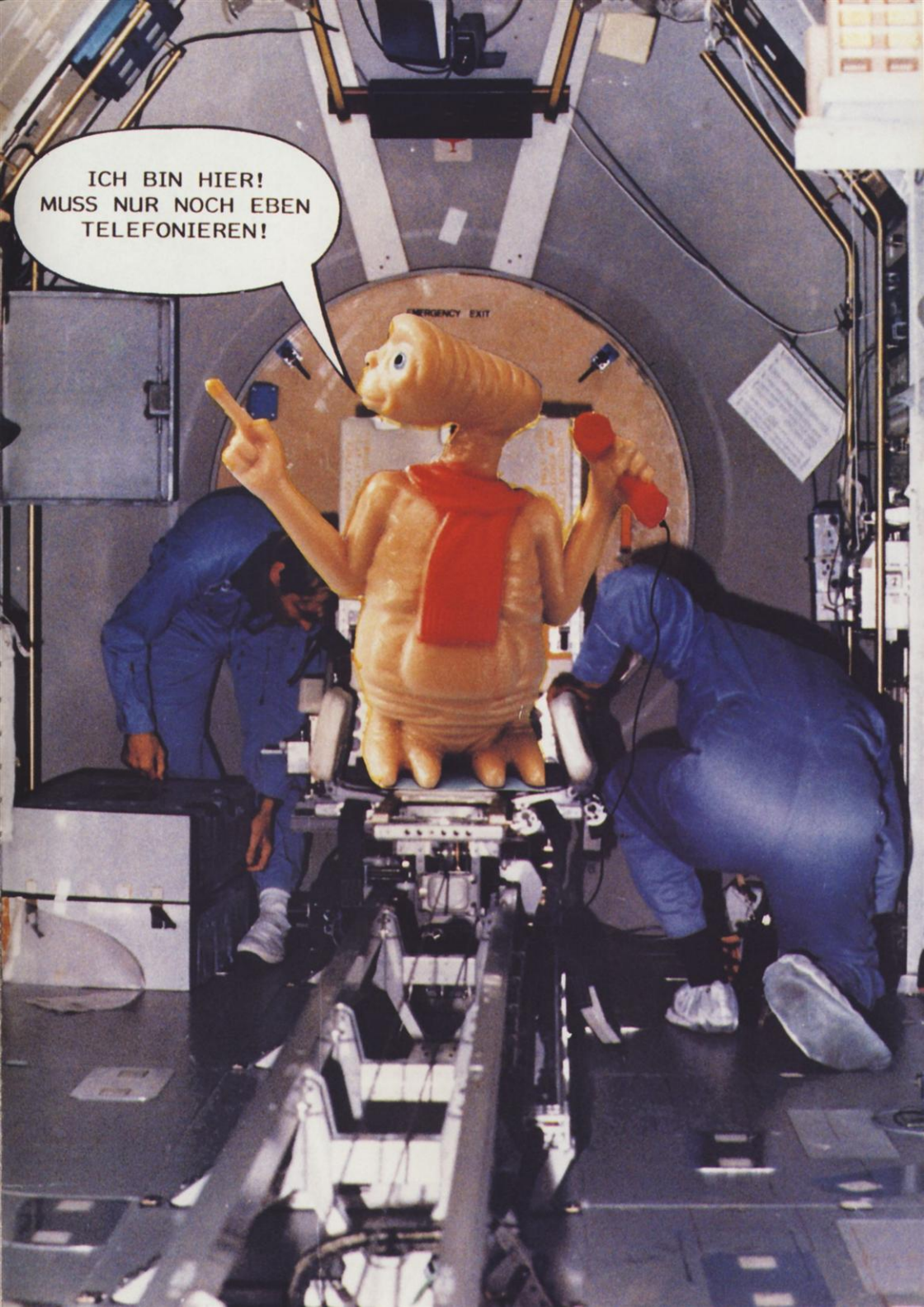
aea



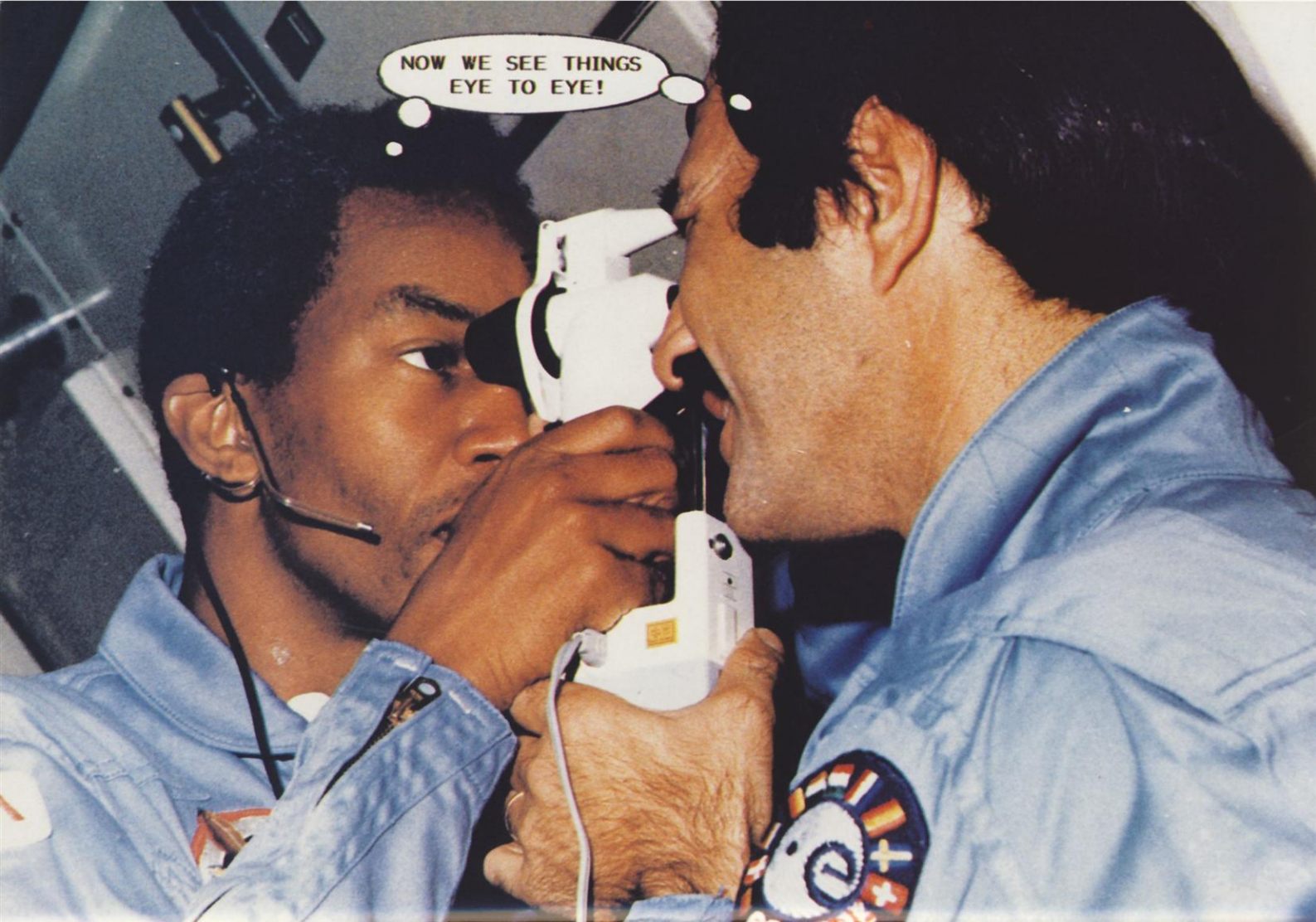
NIE WIEDER
APFELSTRUDEL!



ICH BIN HIER!
MUSS NUR NOCH EBEN
TELEFONIEREN!



NOW WE SEE THINGS
EYE TO EYE!





I NEVER UNDERSTAND
HOW THE OPS GUYS DID THIS ...
BEST PEEP SHOW
I EVER SAW!

DFVLR

INTERCO

VOR 10

3.5

READY

LOCK

CROSSWORD-RÄTSEL

CWP-1/LT-00

P R E F A C E

This crossword-Rätzel is designed
to be a
Team-Effort
und die Sprache is the
Dl-slang
Ger-glish.

Sometimes muß man two or three times
um die Ecke denken.

```

*****
*
*   C A U T I O N
*
*   The GO for Reentry Burn
*   will be given only after
*   complete and correct
*   answer to all questions!
*
*****
    
```

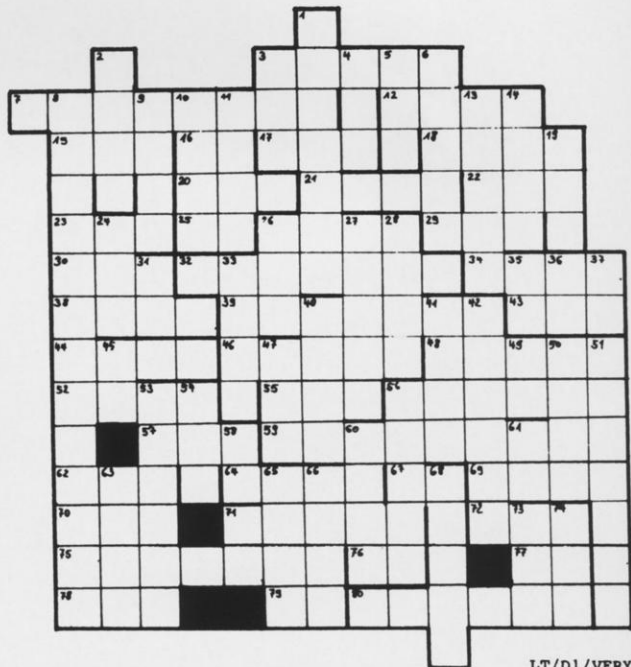
- | | | | | |
|-------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------|----------|-----------------------------------------------|
| TBD | 1 | Remove pencil from
intermediate stowage
with right hand | sw - cw | Eventual location:
Left upper arm |
| <pre> ***** * * NOTE: * * Left-hander the other way * round (sw - ccw) * ***** </pre> | | | | |
| MF71M | 2 | Obtain FDF LT-book | | |
| TBD | 3 | Brain | sw - ON | Location: somewhere
above neck (depending) |
| DRW1 | 4 | Mental attitude
√ Seriousness | sw - OFF | |
| | 5 | PTT
√ | sw - off | |
| | 6 | Solve the D!
Kreuzwort-Puzzle | | Time: ∞ |
| | 7 | Report successful completion
on A/G 1, A/G 2 and ICOM
simultaneously | | Time: ∞ + 1 |
| 0g | 8 | Relax
√ Brain | sw - OFF | |
- END OF PROCEDURE

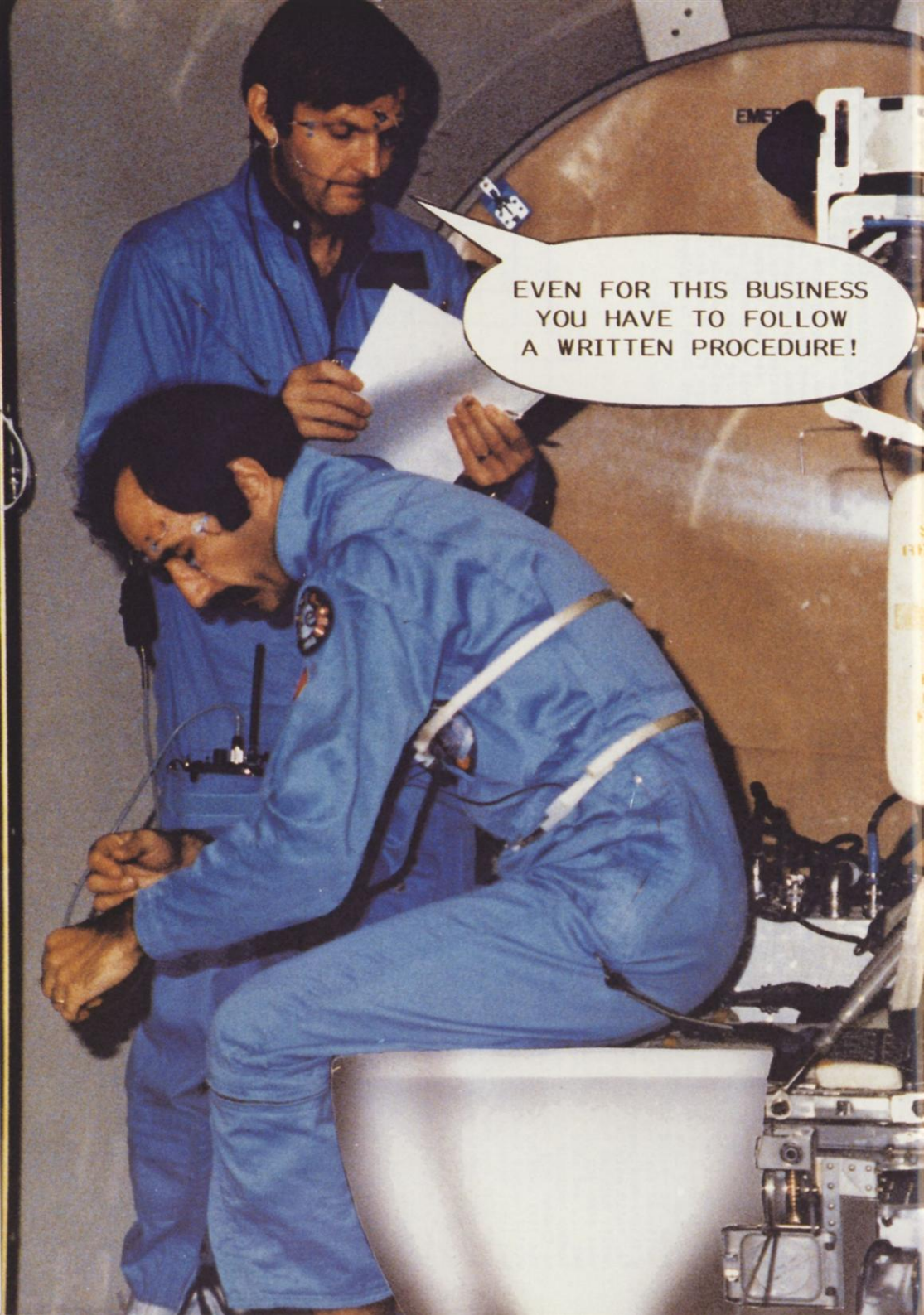
(3) If too little of it is in the loop, you're gonna feel warm (7)
 A certain predecessor to Mr. C., but not the one of 1492 (12) Close
 to Quebec (15) skips sometimes (16) sort of goodbye to PC (short)
 (17) bothers in sins, but only shortly (18) Bei Busch wendet er
 sich mit Grausen (20) ancient title between 30° - 60° E, 12° -
 32° N (21) sometimes it is useful for work (22) Think of: wild
 west, God's own country (23) Herrn Kirschs Hobby on D1 (25) Never
 say it on a loop (26) Notwendig für 23, rockt zwar nicht, aber
 rollt bei manchen Leuten (29) Son of Isaac, minus radioactive
 heavy metal, now space-active (30) Even astronauts do it, on
 ground and on 68 (32) Europäischer Gemischtwarenladen in Zellen,
 mit Handschuhen (34) Develops hi tech in Deutschlands Norden
 (38) Reversed hosiery, enables MS's to monitor and control (39)
 You will be this to come home after GO for mission day 10 (43)
 Einer der -bolde (44) Being tracked, observed, celebrated, in-
 terviewed (46) close to Quebec, the other side (48) What would
 a frightened person say calling the Houston CIC (52) Close to
 64, valid only on the way up and down, not around (55) Er und
 Moritz machten Schneider, Bäcker und Witwen berühmt (56) Es gibt
 zwar eine Uhr in 27, aber dieser Teil fehlt ihr (57) not rock'n ...,
 but ... and this (59) Sobick wants to see it protoplasmic (62)
 Romans mnemonic data management system (64) not quite so close
 to Quebec (67) She was once considered 11 on a scale from 1 to
 Ten (69) Sort of ballpark (70) Shows you what 69 you are in (71)
 Vielgefragter location code im PDF (72) If 15 is it, PI is in
 bad luck. Take the atmospheric constituent away, and he is happy
 again (75) Das werdet Ihr Euch, aber nicht sofort nach der Lan-
 dung (76) location R3 & R4, houses tadpoles and all they need
 (77) heavy German couple, without the rare gas, Z = 91 (78) A
 short ... time is desired, if a system goes down (79) Think of
 "home", also POD ASSIST (80) Integraler Bestandteil von Gin-Tonic

SENKRECHT

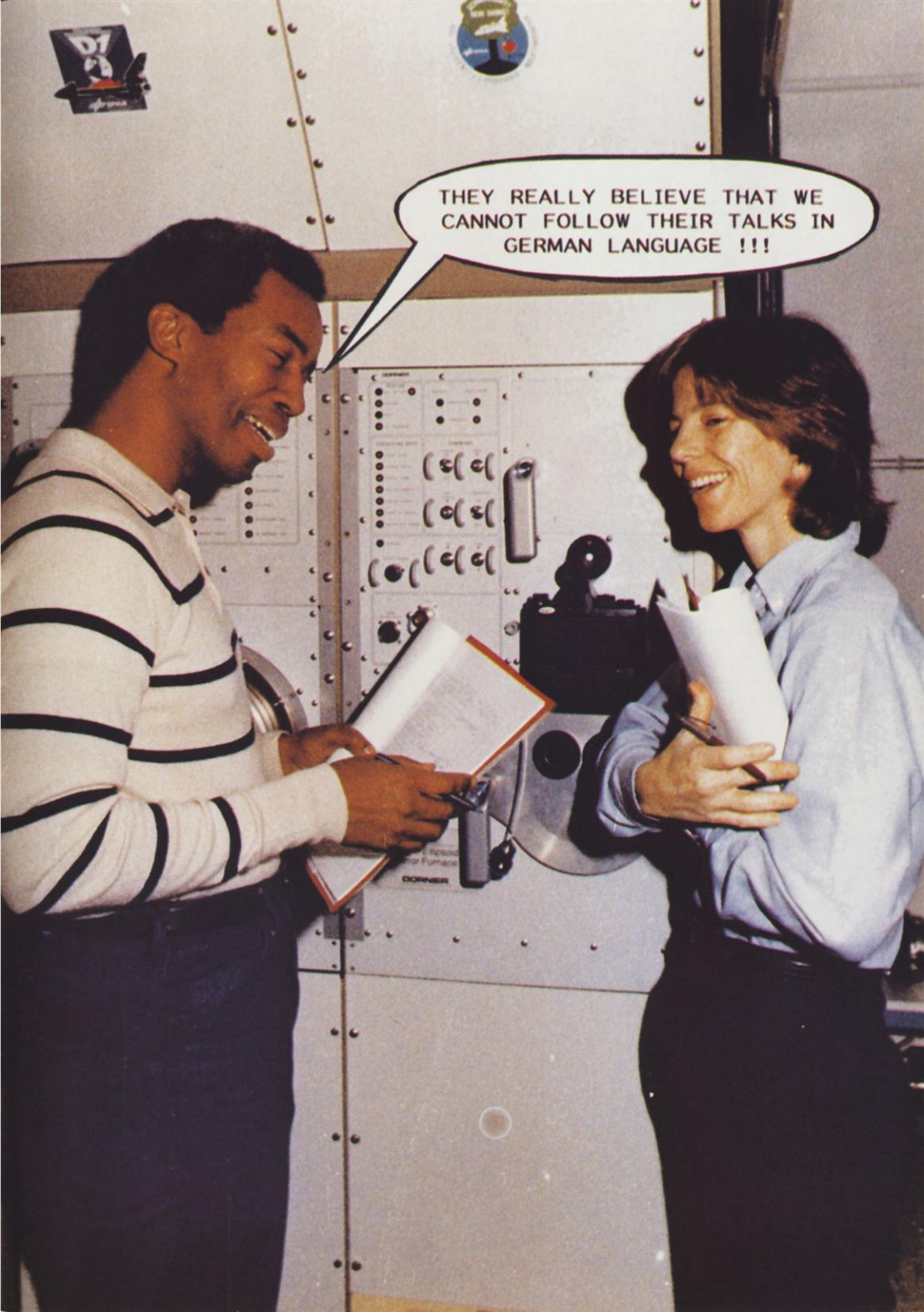
(1) Carries 7, but not always (2) In 1955 he had his greatest
 success in Vienna, Washington and Moscow, but now it is only used
 for switching SL computers (3) If it quits, L.Y. has to turn to
 v.B. for help; if he quits, 9 and 41 are out of business (4) This
 part of the mission is certain, sooner or later (5) Pampering
 station for 1, close to VAB (6) Has a certain relation to a town
 near Tübingen (8) Kleiner Raum für gerichtliche Auseinandersetzungen,
 u.a. wegen Booten und Wellen (9) Er wurde auch mit 62 kein bischen
 weiser (10) Fehlt Trägen (11) Die Jugend sagt es für Roger, aber auch
 companies are allowed to show it on D1 h/w (13) There won't be many
 of these breaks between MET 0 to 24 (14) Austrian type of management,
 concerned with solar and other extraterrestrial activities (19) The
 GO for this valley in Germany (or Austria) reached Challenger a split
 second too late on 51F (24) Manager of "Son et Lumiere" at GSOC (26)
 Linear, even though it is investigated in a circular orbit (27) clock
 work on D1, Albert E. schau obal (31) Indicates all sorts of directio
 (33) There are 4 of this kind in 7, otherwise it were inconvenient
 at the 76 (35) Discovered in 1844, oxide toxic, boiling point 3900° C
 (36) home of tulips, cows, PS3 and origin of L5M2 (37) Indicates
 a certain relation (40) What 46 did to Juliette, Latin version
 (41) Fliegt 3² 11 Luftballons (42) It's use on A/G 1 requires
 hi level approval (45) If we didn't have this "metal", we'd have
 some mass problems sometimes (47) Sometimes you have to cool it to

be able to heat its pod (49) Low concentration product of Utah,
 can't do without in electronics wherever (50) Wenn 1 dieses 7 flöge,
 könnte 68 größeres R haben, aber vielleicht wäre dann 6 dieses Arbeit
 (51) 48 of this p.s. is the max. dumping rate (53) One of Cogolis
 babies (54) Transatlantic connection, mostly for PAP & FAO (56) Nicht
 promoviertes Gegeteil des Buben (58) Deutsch-Europäischer Gemischt-
 warenladen für Festes und Flüssiges, meistens schwerer, manchmal schwere-
 los (Abk.) (60) Their SAS was less than 2 Garns on SL3 (61) Latin rage,
 reduced to 66 %, sometimes gives you a warm feeling (63) If it comes
 flying towards you, you do it for cover (65) 48 could be a member of
 this (66) Alabamians way of saying 60 seconds (68) May be shaped and
 inclined in many different ways (71) short for 7 (73) Anrede für Eis-
 spender von Enkeln (74) Ancient Greek fluteplayer






EVEN FOR THIS BUSINESS
YOU HAVE TO FOLLOW
A WRITTEN PROCEDURE!



THEY REALLY BELIEVE THAT WE
CANNOT FOLLOW THEIR TALKS IN
GERMAN LANGUAGE !!!

A man wearing a blue jumpsuit and a head-mounted device is shown in profile, adjusting the device with his right hand. He is holding a black cable that runs down the side of the frame. The background is a blurred interior space with various mechanical and structural elements.

BEVOR ICH DAS EXPERIMENT NOCH
EINMAL AUSFÜHRE, HÄNGE ICH MICH
LIEBER AUF !



HOPE NO ONE WILL NOTICE
I'VE GOT TERRIBLE TOOTH ACHE.



WHO GAVE ME
THE COOK BOOK INSTEAD OF
THE PROCEDURES?

DFVLR

ENTWICKELUNGSGESCHICHTE
DER VERFLUGUNG

INTERCOM REMOTE STATION




sa

SAVLR



"AND WHERE IS MY SLEEPING PLACE"

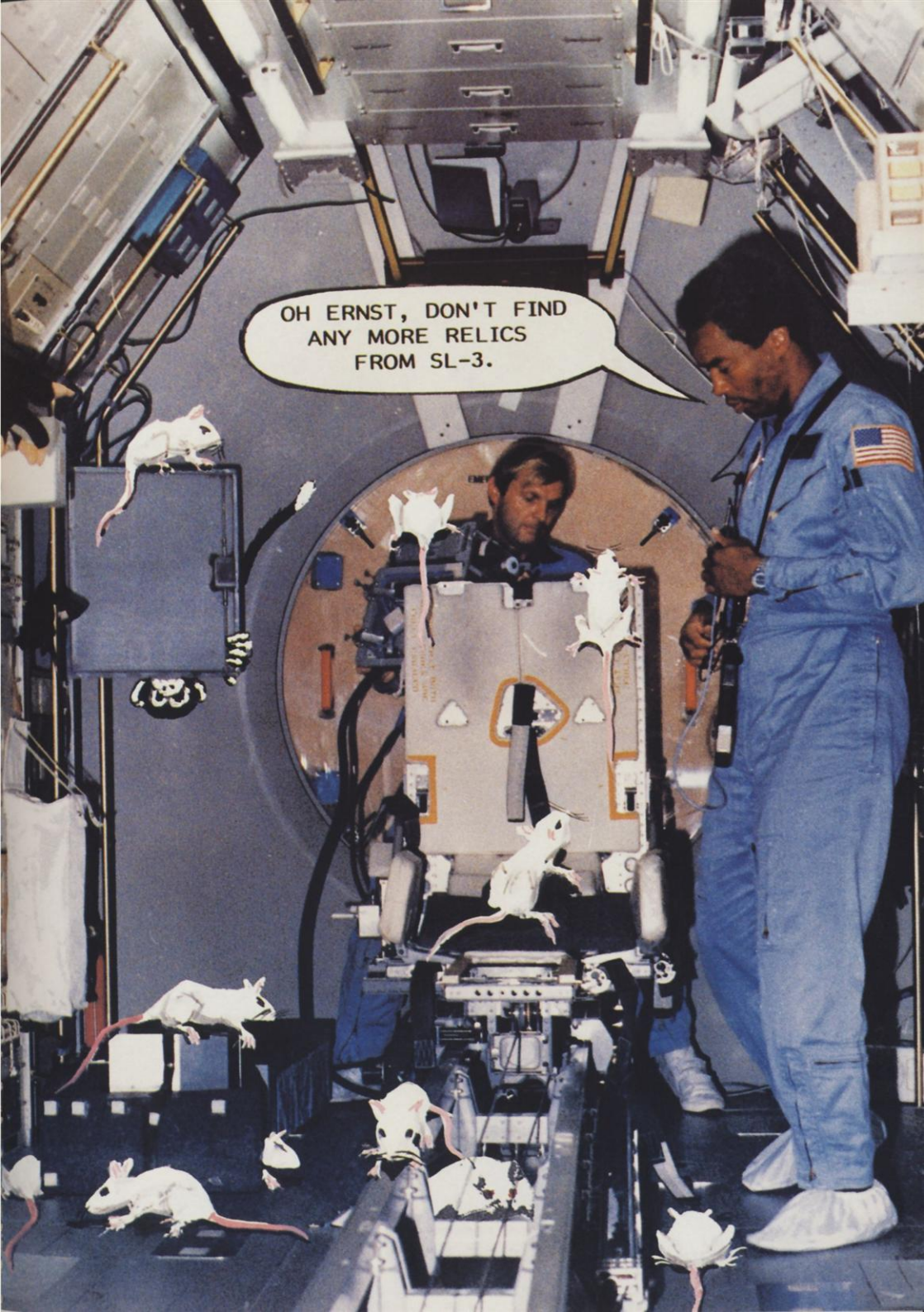


A NEW RECORD!!!
I NEEDED LESS THAN
16 MINUTES TO CLOSE
THE ZIPPER.

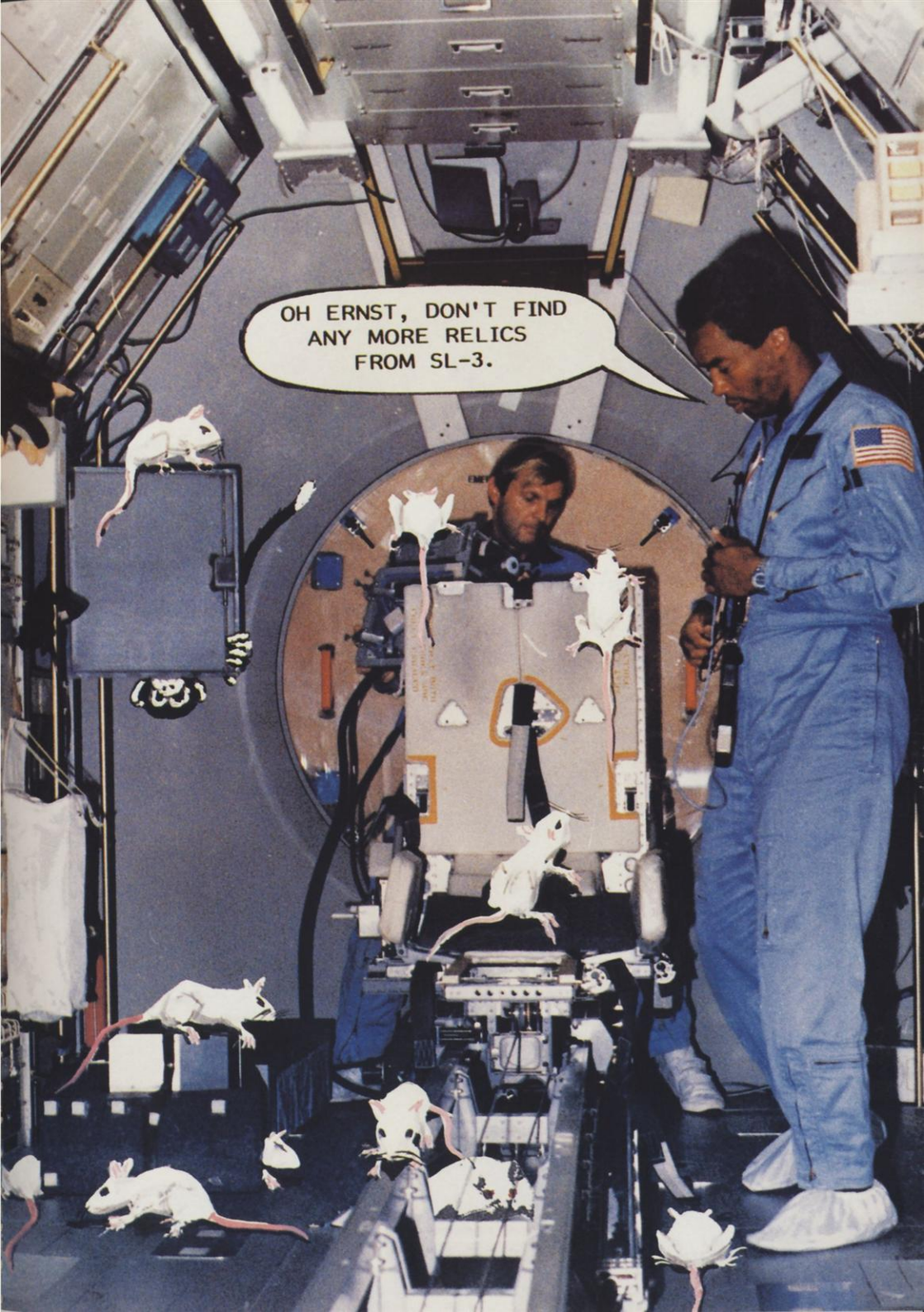
OH BOY! NOW HE NEEDED
MORE THAN 15 MINUTES
TO CLOSE HIS ZIPPER.

SAGENHAFT - DIESE GALLENSTEINE!






OH ERNST, DON'T FIND
ANY MORE RELICS
FROM SL-3.



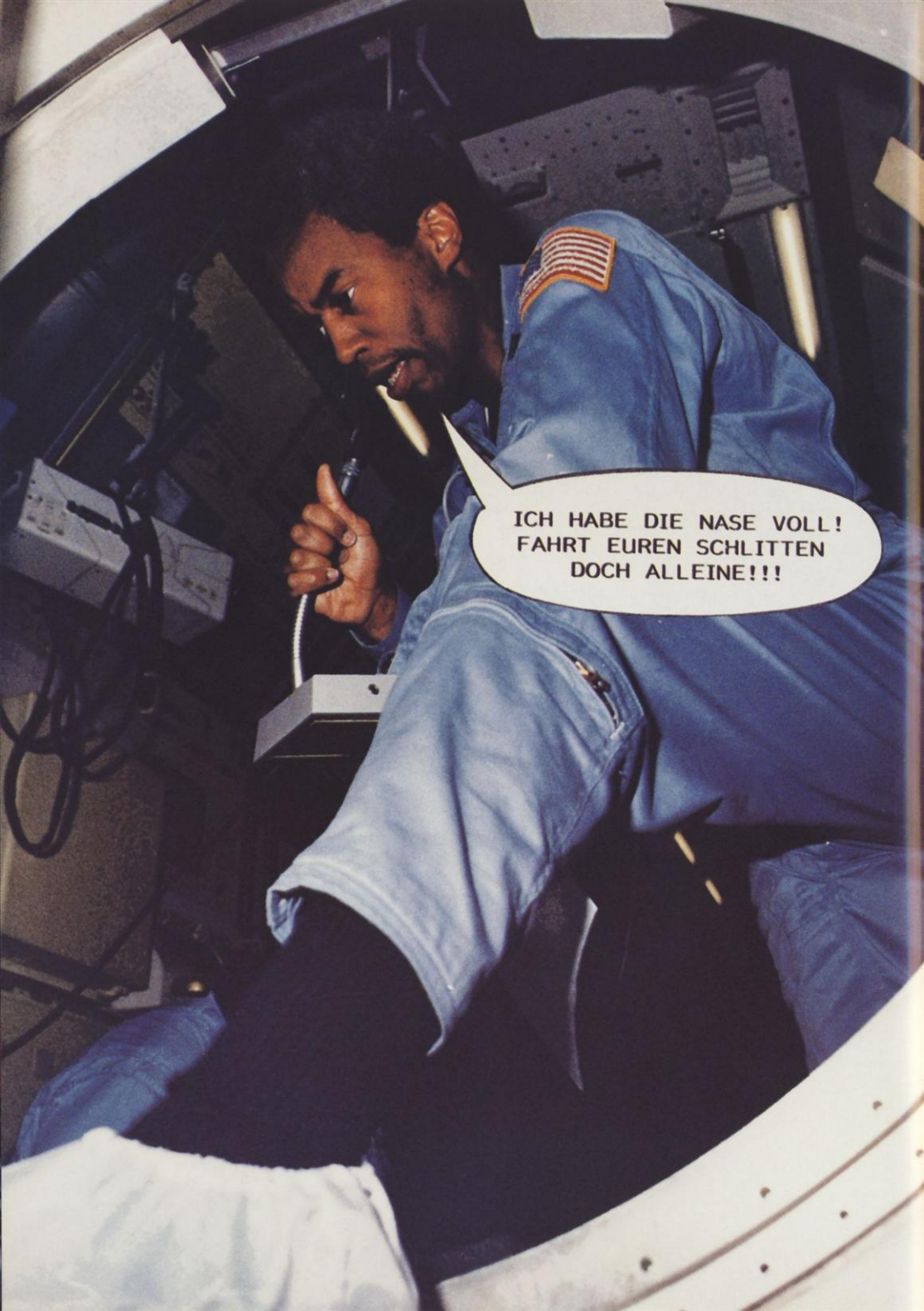


THAT WAS NOT MY QUESTION!
PLEASE ANSWER MY QUESTION!
I SIMPLY ASKED YOU:
"SHALL I PULL OR NOT!"



WHO TOLD ME THIS IS A
SUBMARINE PERISCOPE?





ICH HABE DIE NASE VOLL!
FAHRT EUREN SCHLITTEN
DOCH ALLEINE!!!

KEEP QUIET!
YOU HAVE TO BE A NICE
LOOKING BOY FOR THE
VIP CONFERENCE!



SPACE CROSSWORD PUZZLE

ACROSS

3. KSC Director who made first official landing on Orbiter Landing Facility.
4. Lunar Roving Vehicle.
6. Number of planets in solar system.
10. Launch Complex.
11. Planet with unusual ring system; largest moon is Titan.
12. Spacecraft that made closest approach to the sun; joint projects of the United States and West Germany.
14. ____ Canaveral.
15. 77.5 ton space station.
17. Dry lake bed in California.
20. Command Module.
22. Name of Orbiter 101.
24. Milky ____.
25. Reusable space vehicle; Space ____.
27. Radio Astronomy Explorer.
28. First commercial satellite launched by NASA for COMSAT Corporation; second word of name.
31. Name of Orbiter 102.
32. Airline company that started a waiting list of 90,000 reservations for the first commercial flight to the moon.
35. Public Affairs.
37. Garment worn by astronauts during EVA.
38. Country where Skylab fragments fell.
40. Space probe landing on Mars July 20, 1976.

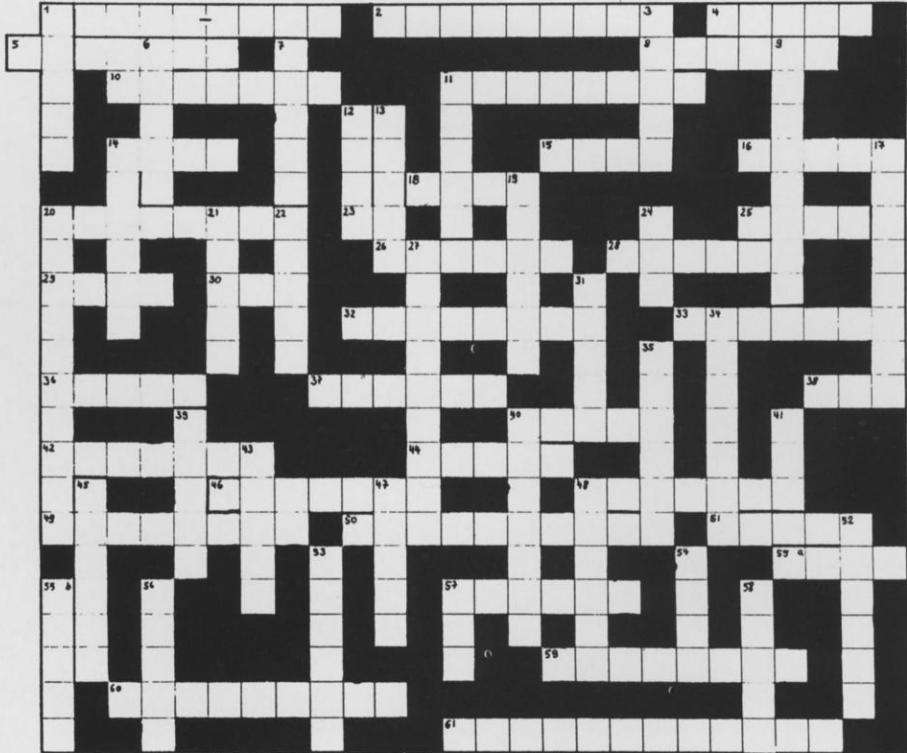
41. This spacecraft took first photos of solar flare spouting from far side of sun.
42. Largest in solar system; first planet observed by Pioneer 10.

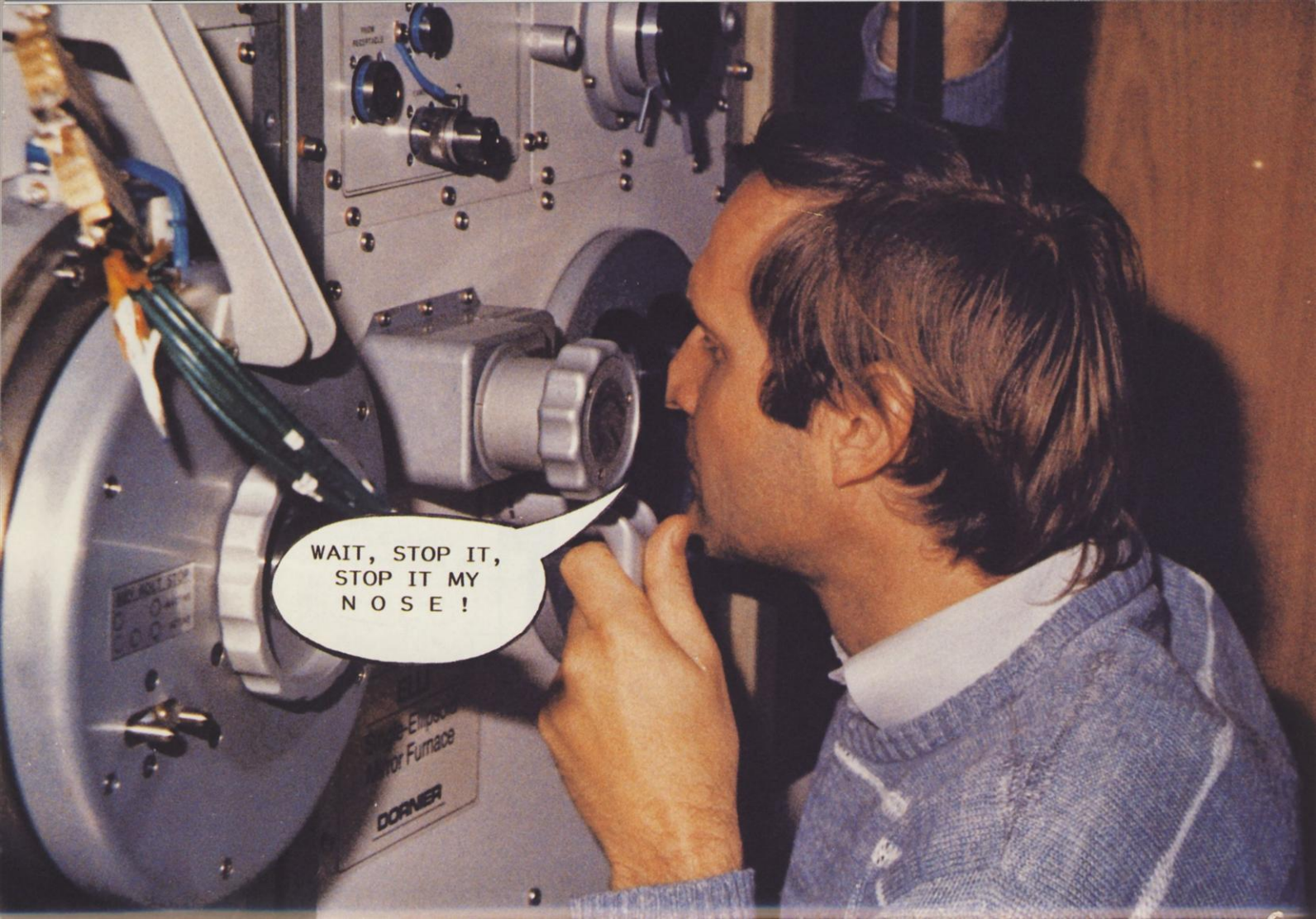
DOWN

1. This interplanetary probe became first spacecraft to reach Jupiter.
2. This interplanetary probe scanned Jupiter and Saturn.
3. USSR spacecraft.
5. Visitor's Information Center.
7. Name of Orbiter 103.
8. Canadian Domestic Communications Satellite (Eskimo for brother).
9. Name of Orbiter 099.
13. Last name of May 29, 1979 selection for Director of Shuttle Operations at KSC.
16. Largest American flag ever painted and a 110-foot American revolution symbol were painted on the South Wall of VAB in observance of this.
18. Satellite that made America's first mail delivery via satellite, sending "mailgram".
19. The mighty tortoise; designed National Historic Mechanical Engineering Landmarks; largest land vehicles ever build.
20. Second space shuttle orbiter to arrive at Kennedy Space Center atop 747 carrier.
21. Applications Technology Satellite.
23. Name of Orbiter 104.
26. Comet discovered on March 18, 1973.
29. International Telecommunications Satellite Organization.
30. Name of 1979 Hurricane that roared through KSC, but did little damage.
33. This country borrowed KSC's Saturn 1B rocket for 18 months as part of its Space Science Exposition.
34. European Space Agency.
35. A nonflammable platform; LC-39"A".
36. Name of prime recovery vessel for first US-EVA space flight.
39. Unidentified Flying Object.

ASTRONAUT NAME CROSSWORD PUZZLE

**SPACE
CROSSWORD
PUZZLE**



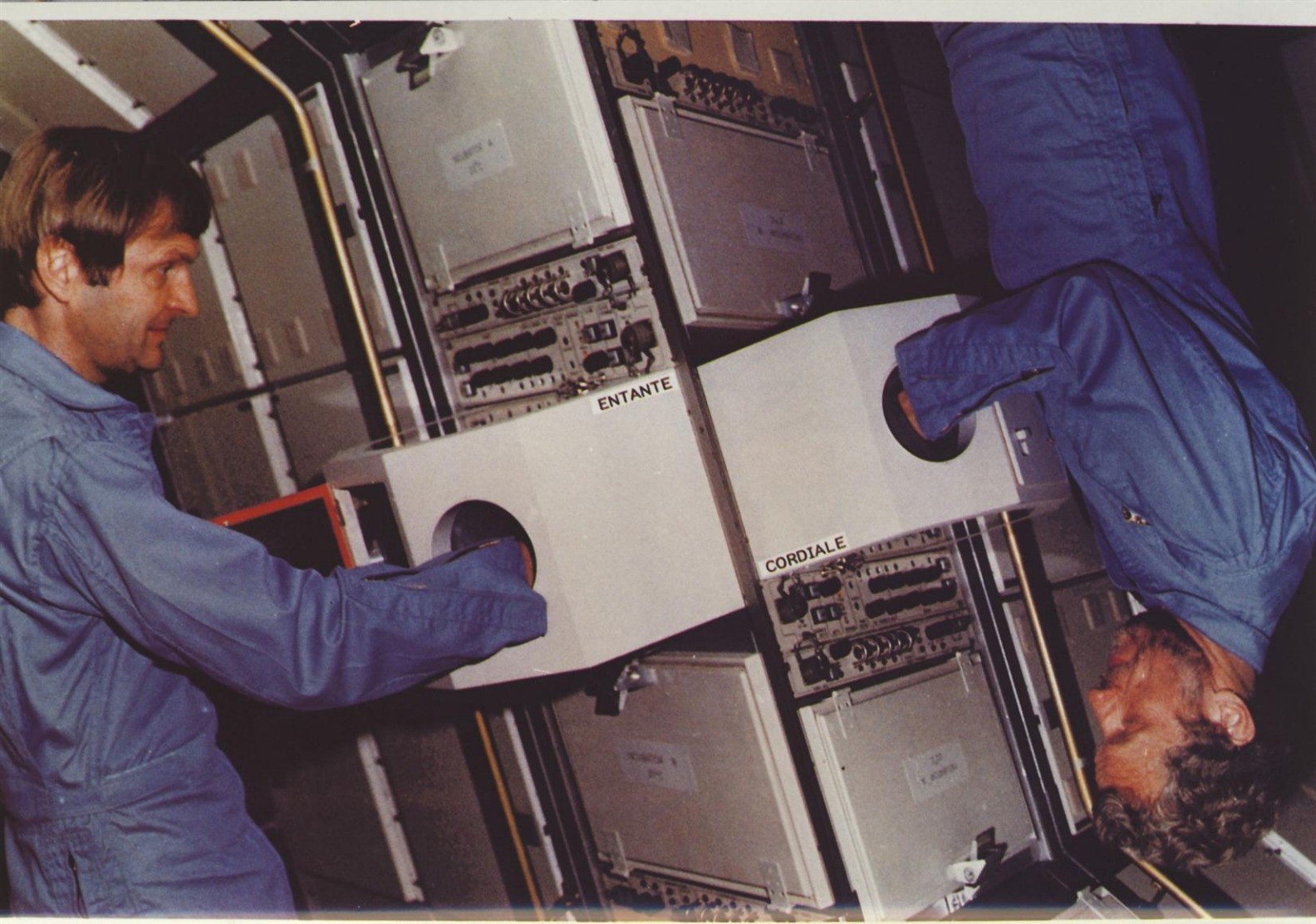


WAIT, STOP IT,
STOP IT MY
NOSE!

Single-Envelope
Furnace
DORNER



HABT IHR AUCH EINE
GEHALTSESRHÖHUNG BEKOMMEN?



ENTANTE


CORDIALE

EXPERIMENT DI-BR 18 D





KEINE PANIK.
DAS HABEN WIR IN EINER MINUTE!

A man with dark hair, wearing a dark blue pinstriped suit jacket over a white shirt, is shown in profile from the chest up. He is looking towards the left, where he is working on a piece of equipment. His right hand is on a white cylindrical component of the machine. A speech bubble originates from his head, containing German text. The equipment he is working on has a label with the text 'ELLI', 'Single-Ellipsoid Mirror Furnace', and 'DORNIER'. The background is dark and indistinct.

WENN DAS SO WEITER GEHT,
DARF ICH AN DER ELLI NUR NOCH
IM FRACK ARBEITEN!

ELLI

Single-Ellipsoid
Mirror Furnace

DORNIER



AFTER ME - 1 - 2 - 3
'THE YELLOW ROSE
OF TEXAS ...'



POPS, WE LOVE YOU,
YES WE DO,
POPS, WE LOVE ...



VOM HIM - MEL HOCH, DA KOMM' ICH HER, ...

INCUBATOR B
37°C



WENN ICH DEN ERWISCHE ... !

