

SPACE DRIVE

INTERNATIONAL

No 8



15p
NON MEMBR

NOW IN FULL COLOUR



Published by ESCD at 30, Heckerill St, Bishop's Stortford

Editor: Edward A. Harris. (Herts, England.)

Artwork

Editorial: Roger Tripp, Edward Harris.
this issue;

CORRESPONDENTS: Janet Busell, Malcolm Jay, Edward Harris.

INFORMATION SERVICES: U.S. Information Service, NOVOSTI
Information Service U.S.S.R.,
BISTRA Information Service.

TRANSLATORS This voluntary position is still vacant.

PHOTOS: Where it has been impossible to trace the
copyright holders, the editor offers apologies,
should any rights to reproduce be inadvertently
broken. Otherwise all acknowledgements will
be made. This means untraced articles and news
items too.

COVER PICTURE: Drawing of the planet Saturn showing top
picture of rings at inclination of about 14°
and bottom, the rings at a plane of about $3\frac{1}{2}^{\circ}$.

COPYRIGHT: Space-Drive 1971. Some material may be taken
from Space-Drive unless quoted from another source
which will have to be acknowledged, also our
address published and acknowledged.

SUBSCRIPTIONS:

By post 3/- (15p) This was not mentioned in the
last issue. Normal price is reduced to 2/6 (12 $\frac{1}{2}$ p)

Air Mail: \$3.50. Surface overseas \$2. PRICES

SUBJECT TO CORRECTION BUT WILL BE STABLE BY

ISSUE No. 9. (this is for overseas only)

OUTLETS: Julie Briden, 13, Bedford Crescent, Enfield, Middx
London, England. Orders can be placed also with
Janet Busell at 75, Parkside Estate, Rutland Road,
Hackney, London, England, E.9.

ADVERTS: \$5. WHOLE PAGE. 22.50 half page, 42 $\frac{1}{2}$ p block 4x3"
Small Ads: 2 $\frac{1}{2}$ p per word. Ads in colour-add the
price for a single advert for each colour
required.

Informative and interesting correspondence will be publish-
ed and shortened where necessary. Mail seen here involved
the UFO MIRROR edition only.

FROM NICAP GB

Dear Ted, Though the recent postal strike, contact with
individual groups was somewhat shattered. Now that we are
getting back to normal we hope to distribute the next edit-
ion of the Journal during the latter part of April. Your
affiliation was considered and was officially approved.
...Your organisation Space-Drive (editor's note..not Space-
Drive but Experimental Space Craft Development-ESCD)...
isherby now affiliated to NICAP. Confirmation of this will
be published in the next NICAP JOURNAL. DEREK SALPSON.

FROM CHINGFORD, LONDON.

Dear Ted, Thanks for the copy of Space-Drive, I'ts getting
better all the time but the picture was bloody awful-
what a waste of time and money. I am still making UFO
detectors and have had a few enquiries. Well that's all,
I hope to hear from you again. MALCOLM JAY

FROM COS-MOS-LONDON.

Dear Ted, Thank you for your letter and copy of SPACE-
Drive No.6. Just two points on SPACEDRIVE at the moment:-
1. Could you please print in your next issue the number of
votes given to each of the 'Top Ten' magazines. I intend
no criticism-I am quite satisfied with COS-MOS at No.6,
but would be most interested to know the number voting.
2. I think you should omit publishing letters which just
ask you to send a copy of SPACEDRIVE to the writer, since
the writers obviously haven't seen the magazine yet!
Best wishes, I look forward to the next issue with inter-
est. NORMAN OLIVER, DIRECTOR, COS-MOS.

Editor's reply: The TOP TEN POLL was based only on
hearsay, and general comments in UFO circles..BUT! In
the next issue will contain, I hope, actual poll
figures. This is because we are going to put out a
national and international poll paper. When all groups
get it would they kindly like to help and send us in
your votes. Then the TOP TEN will be MORE accurate.

FROM UFO OBSERVER, Australia.

Dear Edward, have you received the Jan-Feb-March issues of UFO OBSERVER yet. We are now having them Bi-Monthly and they are down to quarto size. We have joined the ISTRG International. I notice you have a big say in it looking at their publications. Is this true? Did you know I come from England? I was born in Alysbury. All my relatives are there. I am looking forward to the next issue of Space Drive.

Jeremey Holden Tasmanian UFO Bureau.

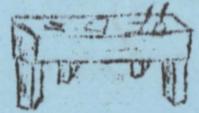
Editor's reply: No I did not get the Jan-Feb-March issues. The ISTRG story was published in issue number 7. You are dead right I did have a say in ISTRG considering I founded the organisation in 1957.

FROM TOPSIDE, CANADA.

Dear Edward, I am sorry about the long gap in our correspondence, which has been due to both my husband and I being sick again, followed by the long U.K Postal strike. However I did finally manage, under great difficulties, to get out the unavoidably delayed Winter issue of TOPSIDE, a copy of which has been sent to you. I have featured your newly-named SPACE DRIVE & UFO MIRROR. I was uncertain of the price of the new issue and unable to quote this, but if you will let me know this, I will quote it, with another special write-up on your magazine in the next issue of TOPSIDE. I shall look forward to receiving a copy of the new format which I note will be in full colour and will give it a special review in the next issue of TOPSIDE. I am quite sure you are worthy to re-join CONTACT & hope you will do so. Thank you so much for the Sept. '70 & pre-issue xmas SPACE-DRIVE, as always of great interest & much enjoyed & I'm now eagerly awaiting your new issue! Do hope you will get an article from Brinsley to go with that artist's sketch of him, which I'd like very much to see. Thanks again for your interest and kindness, very much appreciated. Shall look forward to hearing from you soon. Best wishes for all your endeavours. Sincerely, Carol-Halford-Watkins. CONTACT CANADA.

EDITORS REPLY: Many thanks Carol for the kind and friendly words, which was music to my ears. I think one's endeavours to do his or her best can be summed up with this quotation I found recently which reads: "A Man of Words and not deeds is like a garden full of weeds." I am carefully WEEDING Space-Drive, I hope all will like the better changes to come. Brinsley? Well see for yourself in this issue!

EDITORIAL



Dear readers,
This issue of Space-Drive is not UFO MIRROR included. This issue is the space research edition only.

For the first time in the history of publishing the Interplanetary News, and then Space-Drive I have at last been able to attempt colour separation by a self-invented photographic method so to bring you Space - Drive in full colour.

I am really thrilled and pleased with myself, to say the least, for it now cuts out a lot of very expensive colour separation of the negatives. The virtual impossibility of it all is to be able to run them on a duplicator machine. Now at last, after many years of DO-IT-MYSELF attempts to print in colour, the problem is virtually solved. I therefore really do hope to bring you a better class magazine, in future editions.

The problem of bad photo reproductions, our constant problem is now being solved gradually.

Several different types of screening is now being employed, and we will soon find out which suits us.

I therefore do really hope that after THIS issue the photograph problem, which is very necessary, will NO LONGER BE OUR PROBLEM.

CAN YOU HELP ?

Below, are pictures of your editor in full colour, what I want to know is, the fact, that, 3 entirely different colour systems were used. Can you pick for me the photo, that in your opinion, has reproduced the best. Once this has been established, the chosen system will be adopted for future use in this magazine. Write with your choice stating TOP, MIDDLE, or BOTTOM. Etc.,.

OPS! As we seem to have run out of space, the photos will be seen on page 67. ...

If very little comment is received, it will be left to us here to pick 'the winner'.

Colour US



Our apologies to Brinsley Le Poer Trench for the reproduction of his photo in the issue No.6. We hope that the above portrait by Roger Tripp makes up for it. TIME TO GROW UP was featured in issue no 6. by Mr. Trench and was to contain the above artwork. We do hope that Mr. Trench will accept our misgivings and write another splendid article for us sometime in the near future.

SEE PAGE

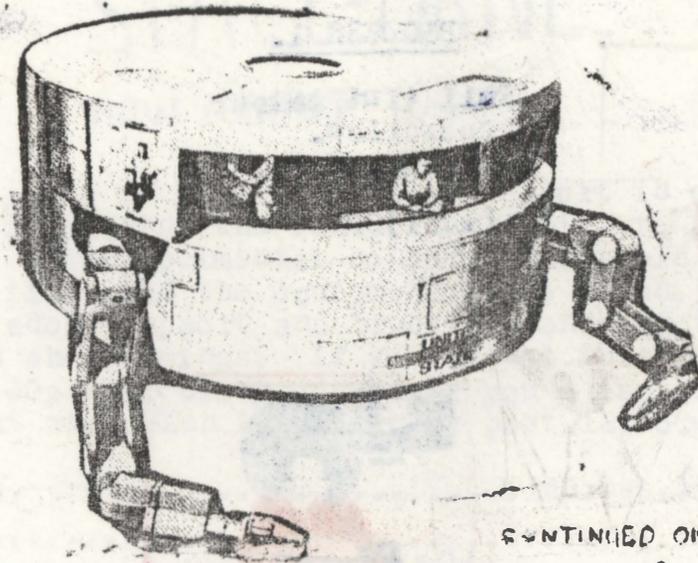
16

HELP US
CHOOSE

THANK
YOU!

MAN IN SPACE

The SHAPE of things to
— Come —



CONTINUED ON PAGE
10

DESIGN FOR A SPACE TUG . . .

The crew module of a space tug, now under study by American scientists, would look something like this. The craft would be assembled in space and would include propulsion, living, cargo and guidance units. Among its missions might be the repair or replacement of satellites in orbit, the rescue of men from disabled vehicles, the assembly of launch platforms and stations in space, and the servicing of future bases on the moon. It is part of an integrated space transportation system for the 1970s, including space shuttles, orbiting stations and transfer vehicles

COLOUR US... We are a bit mixed up with where to put our colour work. we picked at last this page. What's more we don't know what sytem to use. Can you help? Below are three different colour systems, We would like you to tell us which in your opinion looks REASONABLY the best. 1-2 or 3. We know the register of the colour is not very good-well what do you expect on equipment dated 1895. Still with your help are our determination Space-Drive can do it. So let us know-won't you. And Many thanks.



THEY ARE ALL
READING
SPACE-DRIVE...
HOW ABOUT YOU??

PROCESS 1.



Full tint colour
separation.
Col. Pap. Code.

(left)

Every magazine depends on its readers for support in order to become the kind of magazine the reader would like to get for his or her money. This experimental colour issue could become 100 times better if we had the equipment to do it on. We therefore value the readers support and trust you enjoyed this issue despite its shortcomings. If so, why not Subscribe for a year's supply? 60p will bring you bring you 4 issues in colour with a 5th free at xmas. Each issue 15p by post. 12p ordinary.

Process 2. (below)

B/W SEP. Col. PAP.



SUBSCRIPTION FORM. Name..... Address.....

(Please send me- 5 issues....(tick) I only want 1 copy.....(tick) I enclose remittance of..... Make payable to Mr. E. Harris 30, Hockemill St., Bishop's Stortford, Hertfordshire, England. All overseas orders welcome. Send International money order to the value of our New money system. Your bank will tell you how.



PROCESS 3.

B/W Bromide. One Col. Pap. for plus: tint. -only.

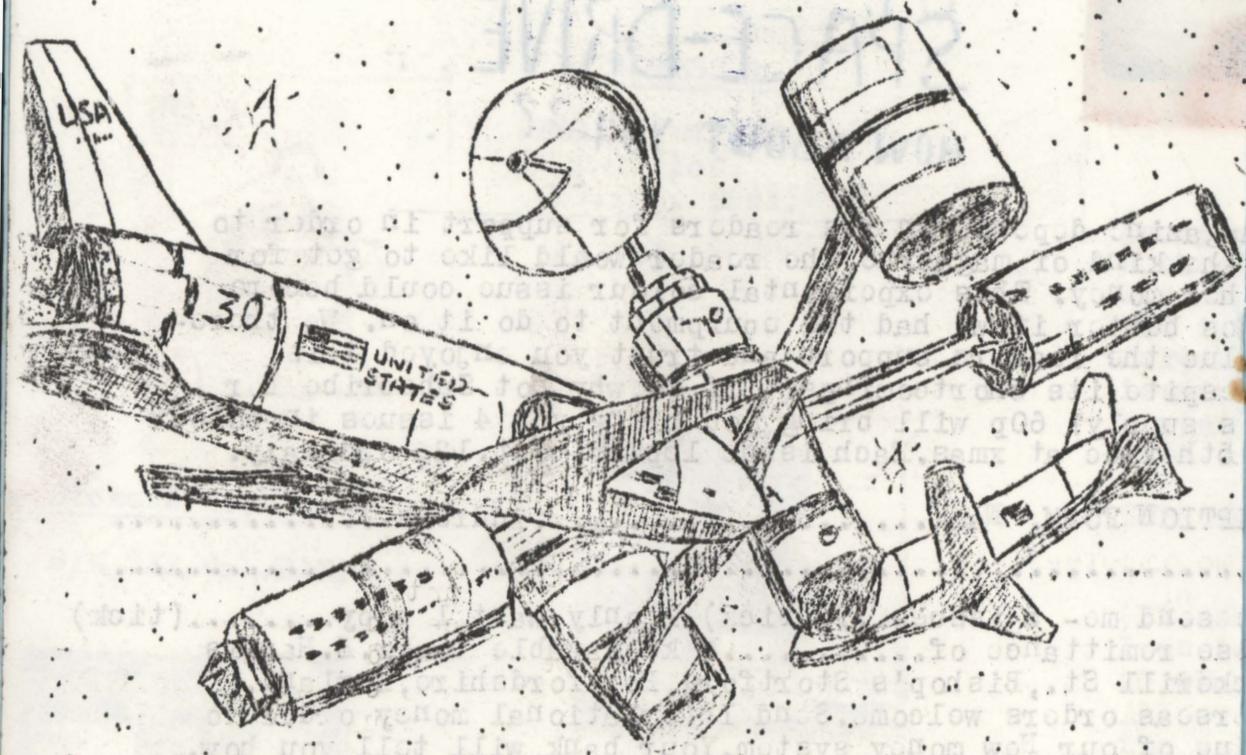
(above photo)

NEXT ISSUE: The Crews Hill Skywatch saga of 1968 with photos of the event in Black and white. UFO LANDING IN CANADA. RUSSIA and America in space and much more..... Limited supply so hurry!

Other pictures will follow with progress.

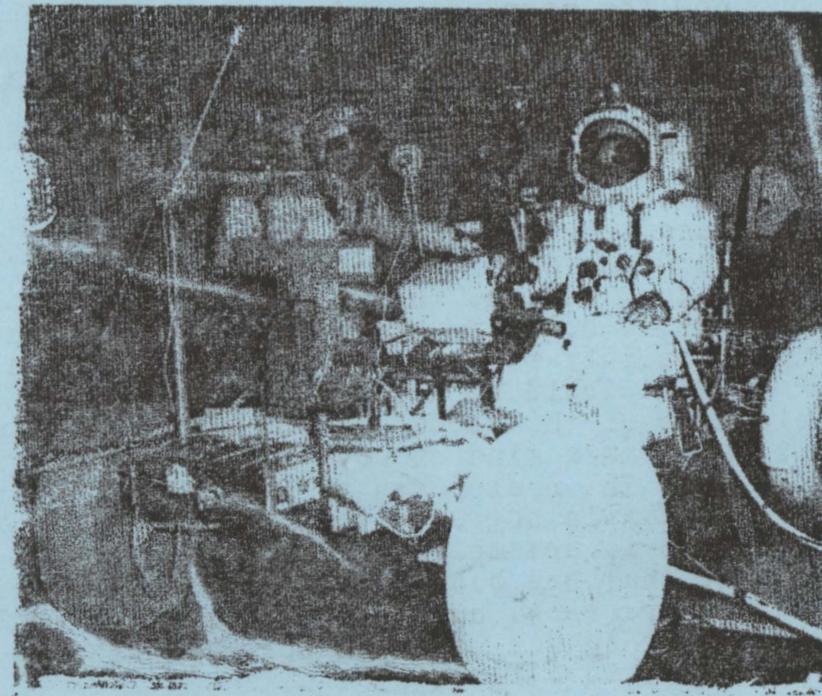
MAN IN SPACE..The shape of things to come..continued from page 7.

BELOW: The next concept of manned space flight is to build the inevitable Space Station. Under study is the giant two winged shuttle delivering men and cargo to space stations. This science fiction epic may soon become reality by the late 1970s.



MODEL OF A LUNAR ROVER

Astronauts Charles Duke and John Young check out a full-scale model of the lunar rover to be used on the moon during the Apollo-15 mission in July 1971. A final design review was held in June and the first flight model is being built.



Mankind, no matter which country has developed it, has come a long way since the early advent of space travel. Now we have had men on the arid wasteland of the moon. A dream of centuries. Only the hardware developed today could have pulled it off. But is the moon an arid wasteland? Moondust brought back by Apollo 11 astronauts promotes the growth of some plants, according to scientists who have been studying the effects of lunar material on earth plants. In laboratory tests at the NASA's Manned Spacecraft Centre in Houston Texas, the dust not only failed to harm the plants but several kinds of plants sprinkled with the 3,500-million-year-old dust grew faster or became

greener than plants growing in ordinary soil beds. "We started with some very primitive plants, liverwort, and fern." reports biologist Charles Walkinshaw. "We put a bit of powdered rock from the sea of Tranquility on some of them and left others in a natural state. First thing you know, the moon dust plants were very clearly ahead of the others in growth."

The dust also made lettuce seeds grow faster.

OUR HYPOTHESIS ON THE ABOVE. It is the opinion of this magazine that the moon dust contained no bacteria. In fact perhaps the absence of micro organisms could somehow be the reason why the plants are growing greener and faster. Perhaps some earth plants are being kept from growing to fast etc., because they are SUFFERING from some undetectable micro organism parasite. The addition of moon dust could possibly wipe out the "pest" and then the plant grows what would be a really healthy life. A sort of "cleaning of the blood" of the plant, perhaps the moon dust acts as a kind of anti-biotic on the plant..... perhaps. The real reasons we would like to know!

MR. A. Harris suggests that the reason could be that moon soil is untampered soil, He likened it to Epping Forest, that has been untouched for centuries, that if plants were to be cultivated there they would grow like wildfire. However, this is pure speculation, and what we want is more facts.

MOONTIME? In the last issue we showed you a lunar watch. This was the oddest watch in existence for the lunar time is based on lunours. This first Lunar time piece is now on show at the Hayden Planetarium in New York. The watch does not immediately solve all the time-keeping problems on the moon. On earth we can say what time is in relation to each other because we all count time from the Greenwich meridian. Until some such standard is set for the moon, two astronauts standing 50 miles apart and wearing a lunar watch could each insist that it was 12 lunours past zero and time for lunch.

APOLLO 16 NEWS Astronaut John W. Young has been named as commander of the Apollo 16 mission, due to be launched in March, 1972. It will be his fourth space flight.

When this went to press the Apollo 15 would have been to the moon but we hope with luck and good research so lots have a review of the tasks they had then to perform. For a starter, Apollo 15 will stay for 67 hours on the moon.

As scientists begin the study of ancient rocks brought back by Apollo 14 astronauts, preparations are already well advanced at Cape Kennedy and Houston for the next American manned flight to the moon.

The Apollo 15 flight will be the most ambitious so far. This mission will last for 12 days, six of which will be spent on or around the moon.

The two surface explorers, Col. David B. Scott and Lt. Col. James B. Irwin, will stay on the moon for about 67 hours-twice as long as their Apollo 14 colleagues did.

They will make three excursions outside their space-craft, spending a record 20 hours each working on the moon. And this time they will be able to ride around on the surface.

The third member of the crew, Major Alfred M. Worden, will remain in lunar orbit in the command module, surveying the moon with a new set of cameras. He will also walk in space to retrieve film packs from the spacecraft's service module.

Apollo 15 will be the first flight using spacecraft which have been specially modified for what are known as long duration missions-up to 15 days.

The lunar module would have made a steep descent, flying over high mountains to a landing on a small plain near Hadley Rille, which lies between the sea of rains and the sea of Serenity. The landing on a small plain site is about 700 miles north-east of the Apollo 14 Fra Mauro site.

However, all this is new history. We have only mentioned some detail for the record.

We hope to include photos in the next issue of this epic flight, which seemed to be man's longest stay on another world yet!



ASTRONOMY * 2

The following introduction is by Patrick Moore and was taken from the Observer's Book of Astronomy, published by Frederick Warne & Co., Ltd, LONDON, for which we acknowledge.

INTRODUCTION TO THE STARS

FEW PEOPLE can fail to be impressed with the glory of a brilliantly starlit night. It is sometimes hard to believe that instead of being able to see millions of stars one can never see more than a few thousand at any one moment. The whole sky gives the impression of being crowded, with here and there a particularly bright star outshining all its neighbours.

For convenience the stars are divided into grades or magnitudes of apparent brilliancy. The rule is the brighter the star, the smaller the magnitude. Stars of magnitude 6 are just visible to the naked eye under normal conditions; stars of magnitude 5 are brighter, 4 brighter still, and so on. Aldebaran, the reddish star in the constellation of the Bull, is very prominent, and is of about magnitude 1 (more accurately 0.8) so that it is slightly above the first magnitude.) The four brightest stars in the sky have negative magnitudes, the most splendid of all, Sirius, being measured -1.4 . On this scale Venus the brightest planet, is of magnitude -4.4 , while the Sun is estimated at -26 .

Any small telescope, or pair of binoculars, will extend the visible range below magnitude 6. A 2-inch refractor will reach down to magnitude 9.1; a 3-inch to 9.9 a 4 inch to 10.7 and a 6-inch to 11.6. The Palomar reflector can photograph stars with magnitudes as great as $+23$. It is important to note that apparent magnitude is not necessary a key to the star's real luminosity, for the simple reason that the stars are not all at the same distance from us. For example, Vega the lovely blue star in the Lyre (magnitude 0.0) is very slightly brighter than Rigel in Orion (magnitude 0.1) Yet Vega, at a distance of only 26 light years is a mere 52 times as luminous as the Sun; the far more remote Rigel shines, as we have seen, as brilliantly as some 50,000 suns.

RUSSIA LAUNCHES WORLD'S FIRST SPACE STATION

Salyut orbital scientific station, was launched by the Soviet Union on April 19th 1971. The station was launched for the purpose of perfecting elements of the design and on-board systems and for conducting scientific research and experiments in space.

SALYUT was put into a very low orbit, and with an initial period of revolution of 88.5 minutes, apogee 222 kilometers (over 138 miles) perigee 200 kilometers (124 miles), and inclination of the orbit 51.6 degrees.

The on-board systems, equipment and scientific apparatus of the station are functioning normally and the co-ordination-computing centre is processing the incoming information.

FIVE MONTHS ON THE MOON

April 19th 1971 The sixth regular lunar day of Lunokhod 1 is nearing completion. Five months have passed since it left its first imprint on the moon. Lunokhod's manoeuvring in the first half of the lunar day was exceptionally complex and demanded considerable expenditures of on-board power. In view of this the power sources are now being recharged, with the fulfilment of the lunar programme continuing without much movement of the lunar vehicle.

METEOR SATELLITE LAUNCHED Another Meteor satellite was launched in the Soviet Union on April 17th. For gathering information on the weather.

GEOPHYSICAL ROCKET PROBE April 7th 1971. has been used to study the solar corona.

LUNAR SOIL PRESENTED TO FRENCH SPECIALISTS Samples of Luna ground brought back by Luna 16 were handed to representatives of the French Embassy in Moscow the U.S.S.R. Academy of Sciences and the French National Space Research Centre. The samples are to be studied at French Laboratories. Luna rock is also being studied by scientists of socialist countries.

COS-MOS 406 Launched Another satellite in the cosmos series was launched in the Soviet Union on April 14th 1971

NEW SOVIET BOOK ON SPACE A new book by a group of Soviet scientists entitled SPACE AND MAN and devoted to problems of using space vehicles for economic purposes has been published in Moscow. The authors--Alexander Koval, Georgi Uspensky and Valeri Yashnov--deal with the emergence of cosmonautics as a science.