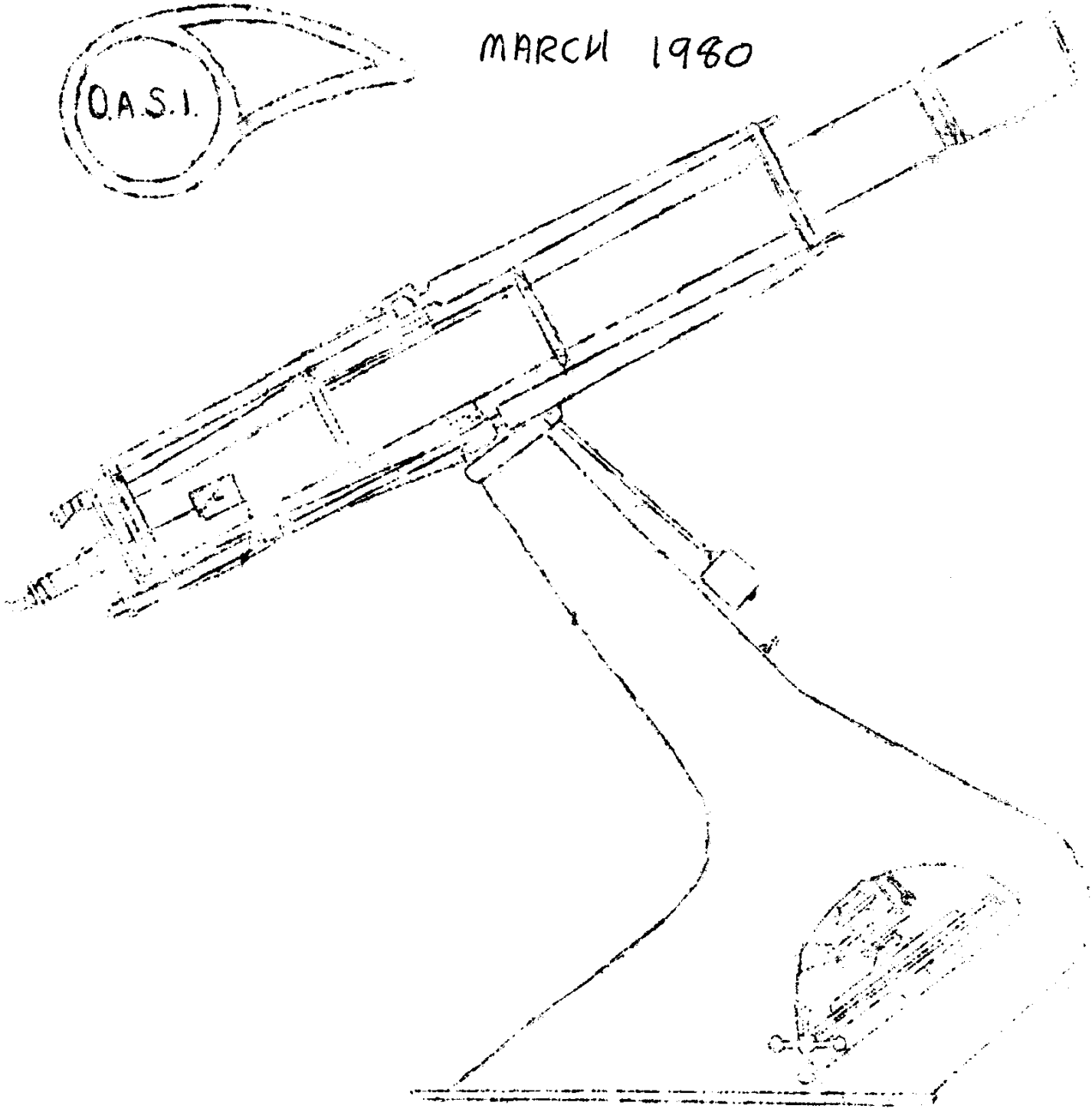
JOURNAL OF THE ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

Editor: Mr. P. Burt, [redacted], Ipswich, IP1 6PP
'phone Ipswich [redacted]
Producer: Mr. R.M. Cheesman, [redacted]
WEST HANNINGFIELD, Chelmsford, Essex. CM2 8[redacted]

MARCH 1980



The Orwell Park 16 inch Astronomical Telescope
at Nacton near Ipswich

MEMBERSHIP SUBSCRIPTIONS:

All membership subscriptions to our Society became due for 1980 on the 1st January. If you have not renewed your subscriptions and would like to do so please send your cheque made out to 'Orwell Astronomical Society (Ipswich) to

Mr. M. Barriskill,
[redacted],
IPSWICH.

Membership subscriptions are at the following rates:

Family Membership	£4.
Full Membership	£3.
Junior Membership	£2.

***** PLEASE NOTE that Membership Renewals should be sent to Mr. M. Barriskill and NOT Mrs. P. Bearcroft.

It has come to our notice that many members have sent their renewals to Mrs. Bearcroft at her old address and the Post Office, after many reminders, have not forwarded them on so if you did send them to the old address please check that we have received them from Mr. Barriskill.

STAMPS FOR POSTING JOURNAL:

After many reminders members living outside our delivery area have not sent in stamps to cover posting the Monthly Journal. As the Post Office charges have now risen from 10p to 12p for 1st Class and from 8p to 10p for 2nd Class I cannot afford to keep sending the Journals out!

Stamps should be sent A.S.A.P. to

Mr. R.M. Cheesman,
[redacted],
WEST HANNINGFIELD,
Chelmsford,
Essex.

thank you.

THE NIGHT SKY AS SEEN FROM ORWELL PARK IN MARCH:

The zenith area is filled by Ursa Major during late evening this month, with the Plough 'handle' pointing eastwards towards Bootes and Arcturus, now well above the horizon, by midnight. Leo is on the meridian at midnight at the beginning of the month and beneath Leo can be found Hydra, winding away to the south-eastern horizon, passing below Corvus and Crater on it's way. Virgo, also is in the south-east, is fully visible by late evening. The western sky is dominated by Gemini, Auriga and Perseus, with Orion and Taurus slipping below the western horizon before midnight by the end of the month.

THE SUN:

Sunrise is at 06h 50m at the beginning of the month, changing to 05h 50m at month-end. Sunset changes from 17h30m to 18h 30m. The Sun moves from Aquarius to Pisces during the month.

THE MOON - PHASES:

Full Moon	1d 21h 00m	New Moon	16d 18h 56m
Last Quarter	9d 23h 49m	First Quarter	23d 12h 31m
Full Moon	31d 15h 14m		

Occultations:

	Star	Phase	Mag.	Time		
**	2128	R	5.8	7d	3h	49.4m
	2245	R	6.4	8	4	23.2
	405	D	4.4	19	20	00.4
*	692	D	1.1	21	18	32.7
*	692	R	1.1	21	19	22.8
*	1124	D	6.9	24	20	34.5

D = Disappearance R = Reappearance

* denotes double star

** denotes time is correct for latitude and longitude of Greenwich.

Stars listed according to Zodiacal Catalog (ZC) numbers.

ECLIPSE:

There is a penumbral eclipse of the Moon on March 1st, visible in Europe and Africa:-

Moon enters penumbra 18hr 43m (P = 157°)
Moon leaves penumbra 22hr 47m (P = 237°)
Moonrise is at 17hr 20m

THE PLANETS:

Mercury reaches inferior conjunction on the 6th. after which it will be a morning star rising only 40 minutes before the Sun and therefore not visible.

Venus is an evening star setting 4½ hours after the Sun, at Mag. -3.8.

Earth. Spring Equinox is at 20d 11h 16m

Mars is visible all night at mag. 0.0 (approx), retrograding in Leo.

Jupiter is also in retrograde motion in Leo, is at mag. -2.0 and is visible until the early hours of the morning.

Saturn reaches opposition on the 14th at mag. +0.3, between Leo and Virgo.

Source: B.A.A. Handbook 1980. All times are U.T. = B.S.T. minus 1 hour

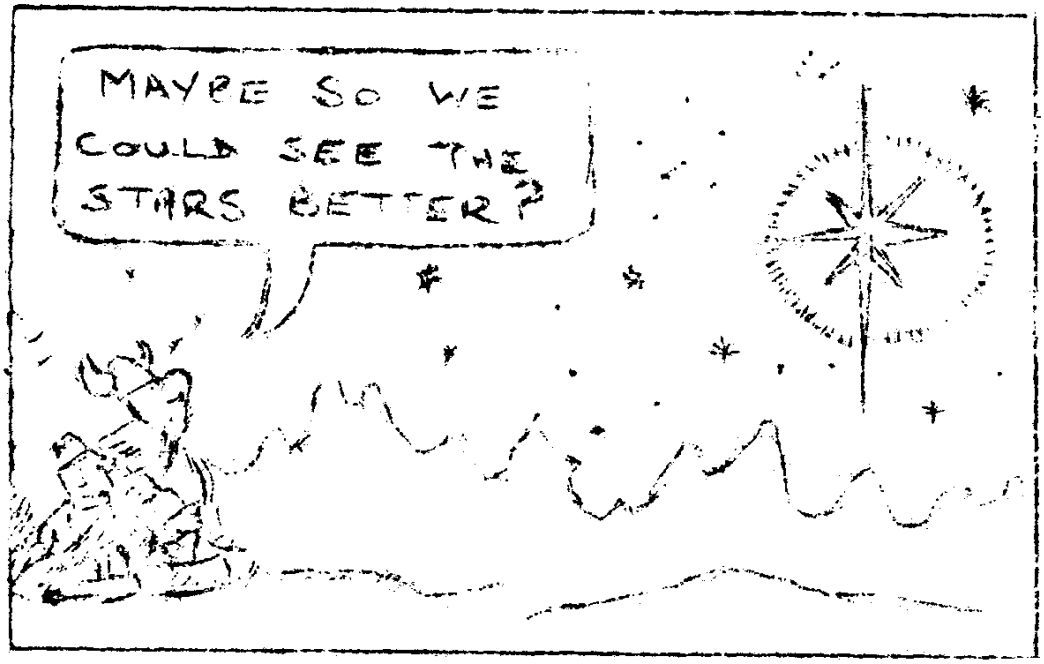
HAGAR THE HORRIBLE

FROM OTHER JOURNALS:

Giant Galactic Gas Bubble: Two American astrophysicists Webster Cash and Philip Charles, have discovered from X-ray images taken by the H.E.A.O.- 1 satellite, the presence of a giant gas cloud in the Milky Way. It lies about 6000 light ye away, in a spiral arm of the galaxy, adjacent to the arm that contains our Solar System. Measurements have indicated that the gas cloud (dubbed 'Superbubble' by the U.S. Press) has a diameter of 1200 light years, and an amazing high temperature of 2 million degrees centigrade. According to Webster Cash, there is no known phenomenon in the Galaxy that has the amount of energy required to maintain the cloud at that temperature.

Small pieces of the bubble had been spotted previously, but had not been linked together. Even the H.E.A.O. 1 images did not reveal the whole thing, as much of the bubble is obsc by the Great Cygnus Rift, a dense cloud of gas and dust. The presence of the Rift has given an idea to the two astrophysicis as to how the bubble might have formed. Their theory begins with a single supernova which exploded behind the Rift, compressing the gas and dust in the Rift so greatly that perhaps a thousand new stars condensed there about ten of which were themselves supernovas a million years later creating more new stars. This chain reaction produced a huge expanding cloud of ~~gas that is continually spreading outwards as an ever~~ growing bubble. The two astrophysicists now plan to look for more of

Dik Browne, from The Sun newspaper



gas bubbles, which they believe are scattered through the galaxy.

- New Scientist.

ARTICLES TO READ:

"SS 433 - MYSTERY STAR" - New Scientist 24th Jan.

The Story of the mystery object that appears to be ejecting matter at a quarter of the speed of light, and is thought to be a new type of supernova remnant.

"TRUCKING OFF FOR A TRIP IN SPACE"
- New Scientist 31st Jan.

A look at British Aerospace's ideas on reusable satellite loads for the Space Shuttle.

"THE INFRARED LANDSCAPE" - New Scientist 31st Jan.

An account of the emergence of infrared astronomy and the discoveries that have been made from observations in this part of the electro-magnetic spectrum.

METEOR NOTES by David Barnard.

Just as last month, there are no major meteor showers during March but look forward to the Lyrids Shower during April.

We will, however, be holding a 'Sporadic Meteor Count' on SATURDAY 15thMARCH and everybody is invited to come along to this meeting. Please meet at 8p.m. at THE OBSERVATORY at Orwell Park.

PROPOSED VISITS THIS YEAR

We are at the moment thinking of arranging visits during the year to the Royal Air Force Base at Farnborough to see their satellite tracking equipment and other sections which deal with space. Also we hope to visit British Aerospace at Stevenage which according to our information is a visit not to be missed.

If you would like to come along to both, or either, of these visits please get your name in early as numbers will be limited.

If you would like us to arrange to go to any other place of astronomical interest please contact Mr. M. Barriskill, 15 London Road, Ipswich.

Full details of visits will be given in the Journal when arrangements are made.

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

MEETINGS FOR MARCH, 1980.

AT OBSERVATORY:

Tuesdays: from 7p.m. Planetary Section.
Directors: Mr. J. Hood, [redacted], Ipswich
Mr. J. Ranson, [redacted], Ipswich
phone Ipswich [redacted]
March 11th and 25th.

Tuesdays: from 7p.m. Solar & Lunar Section.
Directors: Mr. J. Hood, [redacted], Ipswich
Mr. M. Barritt, [redacted], Ipswich
March 5th and 19th.

Wednesdays: from 8p.m. Nebulae & Faint Objects Section
Directors Mr. D. Payne, [redacted]
Wickham Market, phone Wickham Market [redacted]
Mr. M. Cook, [redacted], Ipswich
Phone Ipswich [redacted]
March 12th and 26th.

Saturdays: from 8p.m. General Observations Section
Directors: Mr. M. Barriskill, [redacted], Ipswich
Mr. R. Adams, [redacted], Ipswich
phone Ipswich [redacted]
March 15th, 22nd, and 29th.

Saturdays: Meteor Sections.
Director Mr. D. Barnard, [redacted], Ipswich
phone Ipswich [redacted]

SPORADIC METEOR COUNT, meet at Observatory at 8p.m on SATURDAY 8th MARCH.

Sun day:
Committee Meeting at Observatory at 8p.m on Sunday 9th

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AT THE FRIENDS MEETING HOUSE, FONNEREAU ROAD, IPSWICH

Instead of the Monthly Lecture, this month we are having an informal get to gether at The Friends Meeting House on FRIDAY 21st March from 8p.m. Come along and bring any items of astronomical equipmemt which you have which will be of interest to other members, or just come along for a 'Chin-wag'

Information for new members and a reminder for members:

O.A.S.I. stands for 'Orwell Astronomical Society (Ipswich)'

Affiliations: The O.A.S.I. is affiliated to the following organisations:

The British Astronomical Association
The Junior Astronomical Society
The Federation of Astronomical Societies

What the O.A.S.I. offers:-

1. NEWSLETTER: All members receive the monthly Journal. Each member is asked to supply a dozen stamps each year to ease and speed the distribution of the Monthly Journal, not to mention the saving of a small fortune in postage by the Society.

THE JOURNAL PROVIDES:

News of O.A.S.I. meetings, observation sessions, outings, etc; the night sky that month, news and discussions of astronomical research and space exploration, other items of local and national astronomical interest, advertisements, etc.

Members are invited to submit articles for publication in the Journal.

2. THE OBSERVATORY: At Orwell Park School, Nacton near Ipswich Suffolk, the Society uses and maintains the 250mm refractor which was built in 1872. The history of Orwell Park and the Observatory is published in a booklet priced at 15p which can be purchased at the Observatory.

There are frequent evening O.A.S.I. meetings at the Observatory supervised by authorised members. All members and their guests are invited to attend these nights which are notified in the Journal.

The Committee often arranges for outside organisations (Boy Scouts, mens clubs, womens clubs, etc) to visit the Observatory. Any member wishing to invite a club or organisati must have the visit authorised by the Committee.

If you would like the Observatory opened up specially for you to do some observational work you must ask the Committee, who will arrange for two authorised keyholders to look after you that evening. Under no circumstances may the Observatory be opened without at least TWO authorised keyholders present, the Committee will take a serious view if this standing rule is breached. This rule is a result of safety, insurance, and fire regulations. There is a great deal of expensive, delicate and dangerous equipment in the Observatory, unsupervised visitors are therefore a danger to themselves as well as other

If you have any enquiries relating to the use of the Observatory you should ask a Committee Member, who will always be willing to help.

3. LECTURES: During the winter months the O.A.S.I. organises monthly public lectures on Friday evenings at The Friends Meeting House, Fonnereau Road, Ipswich. A specialist, either professional or amateur, is invited to talk on a subject of astronomical interest. At the end of the lecture time is allowed for members of the audience to ask the speaker questions. There is no entrance fee to these lectures but to defray expenses collection tins are distributed at the lectures. The Committee are open to suggestions for speakers and subject matter, but it must be remembered that travelling expenses limit the distance from which a speaker can be invited.

Also the Committee arranges for our members to give talks to other organisations which are arranged through the Committee.

4. LIBRARY: The O.A.S.I. library is in the Observatory club room. Members are allowed to draw books provided that the books are available for loan. Certain reference books and magazines (which are marked) are NOT available for loan. If you wish to borrow books you must make an entry in the Library Log Book which is in the bookcase. The use of the Library is free to members.

Most of the books are donated by members and other benefactors. If you have any spare books or magazines etc. and you would like to donate them to the Society please contact any Committee Member. The Library contains a star atlas which goes down to the 14th magnitude which must not be taken away from the Observatory. Also in the Club Room is a wide selection of current, and past editions, of: 'Hermes', 'Spectrum', 'The Astronomer', The F.A.S. Journal', the B.A.A. Journal and yearly handbook and other Journals sent to us by other astronomical societies throughout the U.K. Also we have just started subscribing to 'The Sky & Telescope'.

5. TELESCOPES: The Society has two reflecting type telescopes available for loan to members. 'The Cannon' is a 5" reflector and 'The Barrell' is a reflector which can take mirrors from 5" to 18" of varying focal lengths. This telescope is mainly a 'test bed' telescope for testing mirrors but is available for loan to members with a 8½" mirror. The Society also has just purchased two very old telescopes which are at the moment being renovated. If you would like to borrow one of these instruments please contact our Secretary or Chairman.

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6. OBSERVING EXPEDITIONS: As well as making astronomical observations with the Orwell Park Telescope and their own instruments members are invited to come along on observing expeditions. So far these are of two kinds: regular Saturday evening meteor watches, dates, times and places to meet are advertised in the monthly Journal, and occassional trips further afield to observe grazing occultations.

7. OUTINGS: The O.A.S.I. organises outings to other Societies and day trips to places of astronomical interest. A fee is charged to cover the coach hire. All members and their friends are invited on these events which are always very enjoyable. Details of planned outings are given well in advance and are advertised in the Journal.

8. YOUR CONSTITUTIONAL RIGHTS.

The day to day running of the Society is done by the Committee but any suggestions or comments which you would like voiced should be addressed to the Secretary and they will be discussed at the following Committee Meeting, and if necessary you could be invited to attend the Committee meeting. The Annual General Meeting of the O.A.S.I. is normally held in the library of Orwell Park School early on a Friday early each January. Advance notice is given in the Journal.

At the A.G.M. all members are entited to vote. A family with one family membership is entited to one shared vote. The Officers of the Committee are elected by secret vote at the A.G.M. All paid up members have the right to stand on the Committee provided that they are nominated and seconded by two other paid up members of the Society and that they are voted onto the Committee at the A.G.M.

The Agenda of the A.G.M. is arranged at the preceeding Committee Meeting, all items for inclusion on the Agenda must be submitted to the Honourary Secretary before or at that meeting.

9. YOUR CONTRIBUTION; By paying your annual subscription you are contributing to the O.A.S.I., there is no obligation to do anymore. There are many other ways in which members can contribute if they wish. The O.A.S.I. is run entirely by unpaid volunteers in their spare time. Helpers are always needed. A great deal of manpower is always needed to run the Society and for holding Club Nights at the Observatory. Also at the annual Open Day a great deal of help is needed in preparations both on the day and in the preparation.

Cont.....

If you can help in anyway please contact the Committee. Help is always needed to paint and repair the Observatory, and on the Open Day, help is needed to park cars, escort visitors, transport telescopes loan by members who have no transport, prepare and sell refreshments and souveniers, selling raffle tickets and much more.

If you would like to play a more active part in the Society's affairs please contact the Secretary, Chairman or any Committee Member.

Original material Mr. C. Radley
edited by Mr. R.M. Cheesman
30th September, 1977.

updated 1st March, 1980 by Mr. R.M. Cheesman
O.A.S.I.

NEWS REVIEW, MARCH 1980

Note: Unless otherwise stated, the following News Items come direct from the organisation or contractor. To these we are once more grateful.

NOV. 19th - ENGINE UNDERGOES TESTS AT J.S.C.

One of Columbia's OMS engine candidates was shipped to Johnson Space center, Houston, recently for extensive tests; including vibration tests to certify the engine structurally. The engine had just completed the final phase of qualification tests at the White Sands test facility. At the WSTF, the engine underwent 98 firings totalling 6076 seconds. The conditions specifically focussed on high and low temperature exposure. The engine was gimballed (turned) 92,690 times! A previous engine for Columbia also graduated from the WSTF recently. That engine was subjected to 45 firings which totalled 2743 seconds. The engine was then used to qualify the OMS propulsion system.

- Rockwell Space Systems Group.

DECEMBER - SYLDA READY FOR NEXT STAGE

Work has just been completed on the Dual Launch Facility (SYLDA) for E.S.A.'s Ariane launcher. The adaptor will enable Ariane to place into orbit, two satellites, one upon another, each in the range 600-1020 kg with latter Ariane vehicles, this range is expected to increase to 1400 kg through upgrading of the first two stages. SYLDA will be just the thing for ECS, MARECS, TELECOM 1, METEOSAT.....In addition, the adaptor is the largest Carbon fibre structure ever made in Europe. The lightness and rigidity of Carbon fibre means SYLDA weighs 180 kg. SYLDA is to be used first on the fifth Ariane launch, which will place in orbit SIRIO 2 and MARECS B.

- Aerospatiale, Division Systemes Balistiques et Spatiaux

DEC 3rd. MAJOR EVENTS AT KSC AND NSTL

At the National Space Technology laboratories tests have been conducted on the three Main Propulsion Test Article engines. The MPTA was fired for 520 seconds. That engine test was set for Dec. 11th after the test was shut down twice previously. Friday Dec. 14th saw the beginning of a five day integration test using Shuttle Orbiter Columbia. Both Shuttle crews were to take part. The tests comprise the crew seated in Columbia and all systems linked with Houston Mission Control and Rockwells Shuttle simulation facility at Downey, C.A. The tests were to simulate four launches of which three were under adverse conditions. A fifth test was to simulate a Shuttle descent.

- Rockwell Space Systems Group.

DEC 13th - VANISHING SATELLITES

RCA's SATCOM III satellite, recently launched from Kennedy, has mysteriously gone missing. The satellite was intended to primarily serve the cable TV industry and many stations had already invested millions in staff and the purchase of TV series. Of the customers, Ted Turners 'Superstation' in Atlanta - WTBS has suffered. The station relies heavily on transmission of programs to other cable TV networks around the country via satellite. The mood in the cable TV industry was frantic when the news was heard, and immediately RCA received requests for time on the already congested SATCOM 1 already in orbit. RCA says that the earliest it could put aloft a replacement satellite was not earlier than the end of the year. That one - SATCOM IV has however, already been partly booked, and would not relieve congestion fully. SATCOM IV would have been scheduled for launch June 1981. RCA will however, continue until the last to search for the missing SATCOM III.

- COMSAT/NEW YORK TIMES.

DEC. 17th - A PROBLEM SOLVED?

Rockwells Advanced Manufacturing Technology group has come up with a process that will increase Shuttle Tile strength by a factor of 2. The problem that the team had to get over, was that between the Shuttle skin and the Thermal Protection System Tiles there is a Strain Isolator pad which reduced Tile to Skin bonding strength. A Du-Pont chemical called Ludox was added to the silica SIP's which created a cement. The compound is then mixed with water creating a finished hard surface.

Rockwell Space Systems Group

DEC. 7th U.S.A.F. AWARDS CONTRACT FOR SOLAR CELL PANEL

Hughes Aircraft company, it has been announced, has been awarded a 2.5 million dollar contract to build a high efficiency solar panel using Gallium Arsenide Solar-cells. Gallium Arsenide Solar cells are much more efficient, and decay at a much slower rate than the presently used silicon cells. The GaA's cells convert 15½% of incident sunlight into electricity. The cost when a Gallium Arsenide cell was first developed was 1000 dollars. It has now decreased to 200. The cells are to be developed at Hughes Malibu Laboratories.

- Hughes Aircraft Company - 'Hughes news'

JANUARY - EASING THE ENERGY CRISIS THE SATELLITE WAY

INTELSATS Director General, Mr. Santiago Astrain said recently that satellite communications would more and more prove to be an alternative to transportation. He said it has always been easier to move information than people! Mr. Astrain also said the recent industry wide move to Digital communications would make the moving of information much more attractive. Using NASA figures on projected demand for telecommunications by the year 2000, he cited there would be 20 million long distance voice channels in operation, 350 long distance video channels, and facilities to handle 35,000 terabits of information a year. Figures derived from INTELSAT signatories indicate a requirement for 500,000 voice circuits by year 2000. Of course there will also be increases in such services as computer networking, electronic mail, digitized voice and video conferencing.

- International Telecommunications Satellite Organisation

JANUARY 3rd. VOYAGER STATUS

Voyager 1 returned to its normal mode of operation on December 20th, after the spacecraft had failed to re-orientate. Voyager 1, now 970 million km from earth is responding to commands, transmitting data and the trajectory correction proved successful. The spacecraft had previously failed to re-orient due to a conflicting onboard programming instruction. (See previous NR). However, Voyager 1's imaging photopolarimeter was declared inactive in December 1979. The main factor influencing the decision was the quality of the photomultiplier tube. The tube was shown under tests to be inadequate in converting incident light into electrical charge to a sufficient degree. Therefore we will be getting no photols of Saturn this year from Voyager 1. Voyager 2 should still be able to transmit us images, thats one relief, although large doses of radiation have affected the instruments polarization analyser wheel. So we will now have to hang on to August 1981 for our first good resolution photols of the Saturnian system.

- NASA/Jet Propulsion Laboratory

JAN 8th - SORRY, NO PASSENGERS ALLOWED

NASA has formally announced that it is not taking reservations for rides aboard the Space Shuttle. The misconception came about due to NASA's program to offer small experimental payloads about the shuttles for 500 dollars.

- NASA

Jan 9th - FLTSACOM III LAUNCH JAN. 17th

The third in a series of U.S. Navy communications satellites was due for launch from Cape Canaveral no earlier than Jan. 17th. FLTSATCOM had been readied for launch on Dec. 4th, but delays caused by technical problems with the first stage of the delta vehicle caused the launch to be postponed. The FLTSATCOM series of satellites provide communications for ships, submarines, aircraft and last based units. The system will also provide direct Presidential contact with officers in the field. FLTSATCOM III will extend the coverage from an area extending from the African continent to Australia and New Zealand. FLTSATCOM 1 on the other hand provides coverage from Midway Island to the Azores, while no II covers mid U.S. across the Atlantic Ocean to the Indian Ocean. The spacecraft weighs 4,100 lbs and is being placed into Geosynchronous orbit.

- TRW space and Defense Systems/NASA.

Jan. 17th - FLIGHT CONTROLLER CLOCKS 19th BIRTHDAY

When the Shuttle takes to the air, one of the flight controllers will be Jackie Parker, a 19 year old data processing system technician. But what's it like being the youngest flight controller even. Well at 13 she was accepted at the North Carolina College, and graduated at 14. Her interests, Maths and Computing Studies made a job with NASA look very tempting. However, she admits the training was very hard. So what's next - to be an Astronaut. In fact she says that's very possible.

- NASA

Jan. 28th - MAKING MAXIMUM USE OF SATELLITE TIME

A new device called an Intelligent Wideband Communications controller has been unveiled at a recent Washington Communications Exposition. The device is able to split a data stream into segments to carry, voice, facsimile, video and computer data. The device is designed for a transmission rate of 56 kbps. However, the controller can be changed to allow for higher rates of transmission. At some time, a company may be using the system to transmit voice messages. If then a video channel is switched in, the voice channel will receive a lower proportion of the data rate space. Therefore, it is only the clarity of the voice channel that would suffer.

- American Satellite Corporation

Jan. 31st SATELLITE GROUND STATIONS

RCA has received an 11 million dollar contract from the U.S. Airforce to build four transportable ground stations. The mobile ground stations will be able to transmit and receive on from six to 60 channels. Also the antenna diameter can be changed from 8ft. to 20ft.

- RCA Commercial Communications Systems.

Feb. 2nd - NEW WESTAR SATELLITES

Western Union has chosen Hughes Aircraft company to build a new more powerful Westair communications satellite. The new design would have 24 transponders, twice that of previous Westars. The satellite is scheduled for launch in January 1982 and will be designated WESTAR IV. The contract also calls for updating and adding to Western Unions satellite control centre in New Jersey. An additional satellite to the one ordered may be procured at a later date.

- HUGHES AIRCRAFT COMPANY.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE TRANSPORTATION SYSTEMS

BUDGET PLAN
(Thousands of Dollars)

	FY 1979	FY 1980	FY 1981
SPACE SHUTTLE	1,638,300	1,886,000[a/]	1,873,000
Design, development, test and evaluation	(1,270,300)	(1,030,500)	(683,000)
Orbiter	727,800	560,900	320,900
Main engine	172,700	140,600	145,700
External tanks	104,800	79,400	48,000
Solid rocket boosters	115,400	61,200	14,000
Launch and landing	149,600	188,400	154,400
Changes/systems upgrading	(---)	(100,000)	(150,000)
Production	(368,000)	(755,500)	(1,040,000)
Orbiter	264,500	572,600	768,200
Main engine	75,500	123,600	121,500
Launch and landing	7,000	16,400	40,400
Spares and equipment	21,000	42,900	109,900
SPACE FLIGHT OPERATIONS	299,700	446,600	809,500
Space transportation system operations capability development	64,500	54,100	89,000
Spacelab	26,700	58,800	151,700
Space transportation system operations	24,300	148,100	374,500
Development, test and mission support	177,200	172,600	183,500
Advanced programs	7,000	13,000	10,800
EXPENDABLE LAUNCH VEHICLES	73,600	70,700	55,700
Scout	10,600	5,100	2,200
Centaur	17,300	18,300	5,600
Delta	45,700	46,100	47,900
Atlas-F	---	1,200	---
TOTAL SPACE TRANSPORTATION SYSTEMS	2,011,600	2,403,300	2,738,200

a/ Includes proposed supplemental of $300,000,000.

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

MINUTES OF THE ANNUAL GENERAL MEETING

HELD ON SATURDAY 12th JAN. 1980.

in the Library of Orwell Park School, Nacton, Ipswich.

The minutes of the previous A.G.M. were distributed among those present and agreed to be a true account of that meeting.

APOLOGIES FOR ABSENCE:

Apologies for absence were received from Mr. N. Gage, and Mr. D.M.J. Brown.

The Chairman, Mr. R.M. Cheesman, before the Meeting started, said that at Committee Meetings it was agreed that there should be a no smoking rule and asked those present if they wished this rule also to apply to the A.G.M. Members present agreed that this rule should also apply at A.G.M.s.

Mr. R.M. Cheesman then took the chair and said that it was his sad duty to advise members of the Society of the death on December 27th, 1979 of Mr. N.C.C. Barrell, F.R.A.S. who had been an Honourary Member of the Society since 1973. Mr. Barrell had donated many items of astronomical equipment to the Society over the last few years which included many astronomical books, the large astronomical clock and a large reflecting telescope. The telescope which was on loan to members had been named 'The Barrell Telescope' in 1976 and would be continued to be known as 'The Barrell'. Throughout his association with the Society Mr. Barrell had shown great interest in our Society's affairs but had only managed to visit Orwell Park once because of ill health. Many members had spent many enjoyable evenings at Mr. Barrell's home in Brandeston and his death was a great shock to us all.

CHAIRMAN'S REPORT:

Mr. Cheesman reported that as he now worked away from Ipswich that he could not spend as much time on the Society's affairs as he would like to and many duties fell on Mr. A.J. Smith our Vice Chairman and Mr. M. Barriskill to fulfil. He thanked both Mr. Smith and Mr. Barriskill for all their work for the Society throughout 1979. Thanks were also given to Mrs. P. Bearcroft our Treasurer and all the Committee Members all of whom had done so much during 1979. Special thanks were given to Messrs. D. Barnard and M. Cook who had done all the organising and work in repairing and decorating the telescope and Observatory and in their spare time had spent many hours in repairing the Orwell Park Clock and managed to get it going again.

'The Journal had presented the Society with many problems during 1978 and during the early part of 1979, but these problems had been overcome only to come again during December, 1979. The Journal printing and distribution was a big job with many problems and it was hoped to get the Society's printing machine working again to produce the Journal. On the subject of the Journal Mr. Cheesman thanked the Editor, Mr. P. Burt for looking after the collection of information for the Journal and thanks were also given to Mr. S. Harvey and all the other members of the Society who had sent in articles regularly for publication.

'During the year Mr. Barriskill had arranged many lectures and a day trip to Greenwich and Mr. D. Barnard had been invited by Radio Orwell to talk about astronomy on a regular basis.

SECRETARY'S REPORT:

Mr. M. Barriskill reported that once again in 1979 much of the Committee's time had been spent dealing with various problems associated with the Journal. The Journal during late 1978 was costing the Society more to produce than what they had wanted it to do but during the middle of 1979 alternative means of printing were arranged with virtually no cost to the Society. In July Mr. R. Adams resigned as Journal Producer and nobody was prepared to fill the vacant position. The burden of producing the Journal once again fell on our Chairman who has continued to do it ever since. Unfortunately during November 1979 the Society lost its alternative means of printing the Journal and it was decided to print the Journal with the Society's ink printing [illegible]

'The Society organised a number of functions during 1979, the most important was the 'Open Day' held in September which was well attended and most profitable for the Society. Also during the year a day trip was arranged to Greenwich which was also well attended. A number of visits were arranged for groups of people to use the Orwell Park Telescope and these visitors had donated to the Society funds. Many improvements and additions were made to the Society's equipment during the year, during early January the 10" O.G. had been taken out of the Orwell Park telescope and taken to Mr. H. Dall to be cleaned. A friction drive was added to the telescope's drive system by David Payne and other members and during the year a new eyepiece had been purchased for the telescope. The Society had purchased two very old reflecting type telescopes which were now being rebuilt.

' A considerable amount of decoration was carried out in the Observatory during 1979 largly by Messrs. Barnard, Cook and Gooding, and the Observatory is now in very good condition. The Society was also well advertised during the year with articles appearing in the local papers and with David Barnard's regular item on Radio Orwell. The lectures held at Fonnereau Road were unfortunately less successful than in previous years with three of the lectures having to be cancelled at the last minute because of either bad weather or the lecturer going sick.

During early 1979 Charles Radley wrote to the European Space Agency in Paris requesting some publicity material which we could hand out at our Open Day. The material was posted to us after the Open Day and was followed up with a bill for transportation of over £70. After much letter writing E.S.A. had agreed to pay the full costs of getting the material to us.

'In conclusion I would like to thank all those members of the Society who have worked so hard to make 1979 a succesful year for the Society.

VICE-CHAIRMAN'S REPORT:

Mr. A.J. Smith thanked all those members present for coming to the A.G.M. and stated that 1979 had been one of mixed fortunes. He thanked Mr. Cheesman for all the organisation he had to do to keep the Society running and special thanks were also expressed to Mr. Barriskill, Mrs. P. Bearcroft and to the members of the Society who had done so much work in decorating, renovating and modifying the Observatory and Telescope.

'The highlight of the year was the Open Day and in his estimation was the best one that the Society had organised. Mr. Smith stated that the Constitution of the Society was to promote the science of astronomy and that whilst this had been achieved as far as possible, as reported in previous years, the telescope had not been used to it's full potential. The sessions at the Observatory, the meteor counts and articles for publication in the Journal always seemed to be same members and he hoped that more members would participate in the Society's activities during the coming years.

'Mr. Smith then mentioned the new Southern By-pass which was under construction and that the lights on it might obliterate all observations in that area of the sky. He asked if any member could find out more details of the proposed lighting of it so that we might purchase special filters to cut the light pollution down or we might even be able to approach the Council to see if it would change it's mind on the type of lights used if we were unable to use filters satisfactory.

TREASURER'S REPORT:

Mrs. P. Bearcroft informed the members present that as at 31st December 1979 the Society's money in the bank, in hand and our current account at the bank totalled £477.46 and this figure was higher than the Committee had hoped for because of the high costs of producing the monthly Journal. Mrs. Bearcroft said that the Society was on a sound financial basis although with the ever increasing cost of running the Society and that many items were required for the telescope and observatory this bank balance could easily be erroded. The A.G.M. might at this meeting decide as to if it should decide to make provision for increasing Membership Subscriptions as at 1st January, 1981.

ELECTION OF COMMITTEE:

The Committee for 1980: After a secret ballot the Committee voted for to represent the Society for 1980 was:-

CHAIRMAN: Mr. P.M. [illegible]

[illegible]

Ordinary Members:

Mr. D. Barnard
Mr. M. Cook
Mr. D. Payne

ANY OTHER BUSINESS:

VOTING RIGHTS:

Mr. D. Payne proposed, seconded by Mr. A.J. Smith that the Constitution of the Society be ameded from 1st January 1981 that all members of a Family Membership over the age of fourteen should be eligable to vote at the A.G.M.

This motion was put to the A.G.M. and after a great deal of discussion the motion was carried.

MEMBERSHIP SECRETARY:

Mr. A.J. Smith suggested that as the Society was getting bigger all the time that he thought that the position of Membership Secretary should be created so that some of the work load could be taken off the Treasurer. The Chairman said that this was a good idea and it was agreed to raise this position. Mr. Barriskill said that he would fill this position in conjuntion with being the Society's Secretary until the Committee could fill the position.

MEMBERSHIP SUBSCRIPTIONS FOR 1981:

Mr. A.J. Smith, seconded by Mr. P. Burt suggested that provision should be made to give the Committee authorisation to increase membership Subscriptions as from 1st January 1981 in the light of ever increasing prices. After a great deal of discussion the amounts voted for and agreed to be a maximum were:- Family Membership £5; Full Membership £4; Junior Membership £3.

EQUIPMENT ETC. FOR THE OBSERVATORY:

Mr. D. Payne, together with Messrs. D. Barnard and M. Barriskill proposed that monies should be set aside for purchasing books, equipment, etc. for the Society. The main items were: a wide field eyepiece for the telescope, a suitable heater for the club room, modern astronomical books and maps and various items for modifying the telescope, the total cost of this was in the region of £250. After going through all the items and costs a vote was taken on this expenditure which was carried.

EXTRA COMMITTEE MEMBERS:

Mr. D. Payne proposed that in the light of the new position of Membership Secretary being created and that the Society was getting bigger in membership and that the exisiting Committee were generally overworked that the Constitution be changed so that as from 1st January 1981 the Committee be increased from One Chairman and six members to One Chairman and eight Members. The proposal was seconded by Mr. A.J. Smith. The Chairman said that he thought this a good proposal in the light of the work load during 1979 and that many Committee Members had not been able to attend Meetings because of business commitments. The proposal was put to the vote and carried.

AS THERE WAS NO OTHER BUSINESS the Chairman called the Meeting to a close at 10.40p.m.

Proposed as being an accurate account of the 1979 A.G.M.

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Seconded by .....

Signed.....

R.M. CHEESMAN CHAIRMAN