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Amateur Astronomers' Association (Bombay)

C/o. Department of Physics, St. Xavier's College, Bombay 400 001.

Regn. No. Bom-532/77 G.B.B.S Dated :8-12-77 Under the Societies Register. Act. 1860

EXECUTIVE COMMITTEE MEMBERS

Mr. Wilfred Fernandes
Mr. Bharat Adur
Mr. Dilip Vyas
Ms. Manognya Desai

ADVISORY COMMITTEE

Prof R V Kamat
Prof. J. B. Mistry
Dr.(Mrs.) S.S. Pandya

Field Trip to Vangani

Meet at C S T Local Railway Station near A H Wheeler Book Stall.
Get your Food, water, red torch, starmaps, warm clothing.
Wear closed shoes only. Smoking and drinking is strictly prohibited at the site.
Return next morning. No person will be allowed to come late or leave early without prior permission of the organisers. Return train fare Rs.26/- Demages Rs.5/-.

Editorial Board

Prof. R. V. Kamat
Mr. Bharat Adur
Mr. Dilip Vyas

Editorial

May 1, 1996.

Dear Member

It has been a long time since the Newsletter has rolled off the Press and now it is out with lots of news, pictures, sketches, articles and observations and we hope you will find it interesting enough to keep you looking forward for the next issue.

It was decided in the Executive Committee meeting of 6th Jan 1996 that the New Executive Committee consisting of Mr. Wilfred Fernandes, Mr. Bharat Adur, Mr. Dilip Vyas and Ms. Manognya Desai with Advisory Committee consisting of Prof. R.V. Kamat, Prof. J.B. Mistry and Dr.(Mrs.) S.S. Pandya to advise on technical and other matters will be selected. The erstwhile Executive Committee was dissolved to streamline the functioning of the Association in consultation with the Auditors of the Association.

In the absence of the newsletters, I would like to update you on the activities of the Association in the past few months. A separate report of activities has been presented to you in a following article.

Total Solar Eclipse 95 (Expeditions and Post Eclipse Exhibitions) at Bombay, Madras and Bangalore were some the major events for 1995. After seeing the great demand for Eclipse Photographs, the Association decided to sell two sets - one containing 12 photographs and the other containing 5 (both of 4" x 6") for Rs. 100/- and 50/- respectively. The Association could sell as many as 200 sets approx.

The Comet fever is now on and the year 1996 and 1997 are

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Programmes for May and June 1996

May	11	3.00 p.m.	Library Day
		5.30 p.m.	Field Trip to Vangani
May	17	5.30 p.m.	Lecture By Prof K.S.Krishnaswamy of TIFR on 'What are Comets? Why do we Study them?' at Nehru Planetarium
	25	3.00 p.m.	Library Day
June	8	3.30 p.m.	Library Day
	15	3.30 p.m.	Library Day

Report of Activities During October 95 to April 1996.

October 1995

Total Solar Eclipse 95 : Association Members went to Andhari Dst. Bharatpur Rajasthan and Barkhakhana, Bihar and observed the Eclipse, took some excellent photographs and conducted many scientific experiments successfully. The team from Bombay also observed partial solar eclipse using projection technique.

December 95 and January 1996

Experiments results and photographs of Total Solar Eclipse 95 were exhibited at Exhibition in St. Xavier's College, Bombay and subsequently at Nehru Planetarium. The Exhibitions were attended by Bombayites in a large number and invited lot of media coverage in TV and Newspapers.

Exhibition was also taken to Madras during Sixth All India Amateur Astronomer's Meet where several members participated.

February 96.

The Association members Aadil Desai and Rajesh Rangarajan were invited to attend the National Workshop on the Total Solar Eclipse organised by Indian Institute of Astrophysics at Bangalore whereat they presented a paper on the exhibition and the results. The Flash Spectrum Photograph taken by Rajesh and Bhairavi was well received and highly appreciated.

The Photographs taken during the Eclipse from both the sites are being actively studied and analysed by members of the Expedition and efforts are being made to for digitising them with the help of Prof. Jagdev Singh of Indian Institute of Astrophysics Bangalore.

Aadil Desai conducted a lecture cum slide show program at Vistas Club on general Astronomy and Comets. This talk was well received and attended by many members of Vistas Club.

March and April 96

Comets Observation has been one of major activities during March and April 96, and will be continuing activity during 1996-1997. Comet Hyakutake (P/Hyakutake 96 B2) brightened beyond its expected magnitude and hence was spotted by naked eyes for quite a long period during March/April 96 and provided a great visual delight to many who participated in Comet Observation Programmes from Vangani and from Kirti College Terrace, Bombay.

Congratulations to our members like Raju Patel, Aadil Desai, Suresh Sali, K R Nair from Vega Club, Sunil, Farzad, Nilesh Vayada, Ajay Talwar for having excellent photographs of the Comet Hyakutake.

Our sketching Groupkudos for having maintained daily records by way of sketches: They are Uma, Ujjwal, Gilroy, Girish, and Aadil.

The recent Total Lunar Eclipse of April 4, 1996 was observed by many of members and was photographed by Aadil Desai, Suresh Sali and K R Nair of Vega Club. The Photograph Albums of Total Solar Eclipse 95, Comet Hyakutake and Total Lunar Eclipse are available for reference purpose from Dilip Vyas during Library Day/Field Trips and Lecture Day.

Prof. Mohan Apte of Bhavan's College, Bombay gave an excellent and informative talk on 'Extra Solar Planets' on 13th April 96 at St. Xavier's College.

During all these months there have been number of Field Trips to Vangani for Sky Observation and Comet Observation. Attendance during all these trips has been very encouraging.

The Stock taking of Library Books and Other Material has been completed by Dilip Vyas and Aadil Desai.

Renewal of Membership

Your Membership has expired on 31st March 96. All Ordinary and Students Members are requested to renew their membership by payment of renewal fees Rs.40/- and Rs.30/- respectively.

Contact **Mr. Dilip Vyas** during any of the Library Day for payment of renewal fees

Sale of Photographs

Following Photographs are available for Sale to Members

Total Solar Eclipse 95(A set of 5 photographs)	Rs.50/-
Comet Hyakutake (Set of two Photographs)	Rs.30/-
Total Lunar Eclipse 96 (per Photograph 4 x 6)	Rs.10/-

Contact **Mr. Dilip Vyas** during any Library or Field Trip Day.

Editorial

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going to offer many Comets for visual delight. The supposedly brightest Comet Hale-Bopp (C/1995-01) which is now visible through small telescopes and will be visible to the unaided eye later this year and in 1997 should provide an excellent opportunity to study this in greater details visually as well as photographically. The Plans to study this Comet are in final stages and the Association needs Observers, volunteers and financial donations to work on this once in a life-time project. Those interested in participating may contact Mr. Bharat Adur (Tel No.385 7293).

The Association invites the members to send the reports of Observation of TSE 95, Total Lunar Eclipse and Comet Hyakutake.

For the benefit of our members who are not so fortunate to take photographs or observe these celestial phenomenon, we are planning to build photographic albums. These will be available for reference purpose during the Library days.

In the past few months there have been many fieldtrips to Vangani for regular sky observation work as well as special trips to observe and photograph Comet Hyakutake on a regular basis. This has produced quite encouraging response from the members and others who visited with us. We hope to have many such programs in the future.

Last month our Association has completed 19 years of popularising Astronomy, observing and photographing major events like eclipses, Comets and other objects, evoking a keen interest in astronomy amongst its members and the laypublic. We hope to continue doing so and in a better way in the years to come.

**Recent Addition of Books in the Library
Capt. Basu has donated following books to the
Association.**

- Primeval Universe
- Lighter Side of Gravity
- Violent Phenomenon in the Universe
all by J. V. Narlikar.
- X ray Astronomy.
- Phillips Atlas of the Universe
- In search of Infinity

Thanks Capt. Basu for providing continued support and encouragement

Planetary Data for May 1996.

Mercury: In the beginning of the month it is in Taurus and moves in Aries on 15th. It can be seen in the western sky after sunset in the beginning of the month. It will be in inferior conjunction with the sun on 15th and will not be visible in the later part of the month and will emerge in predawn sky in June..

Venus: Moves in Taurus. It will be at its soul-searing brightest on May 5th and will reach at its greatest declination north in the year (27.8 degrees). Thrilling story however, for the month is of its tremendous fall, from 40 degrees north to hardly more than 10 degrees. The interval between the sunset and Venus-set collapses during May from 3.5 hours to about 1 hour.

Jupiter: It roams in Sagittarius. It rises in the eastern sky as night sets. It rises at 10.49 p.m. on 1st and at 9.54 p.m. on 15th. On May 24th it will be in the northern celestial hemisphere for the first time in the decade.

Saturn: Moves in Pisces with direct motion. It can be seen in the small hours of the morning. Rises at 3.08 a.m. on 1st and 2.18 a.m. on 15th. On 13th it is 7 degrees East and 1.02 degrees south of crescent waning moon.

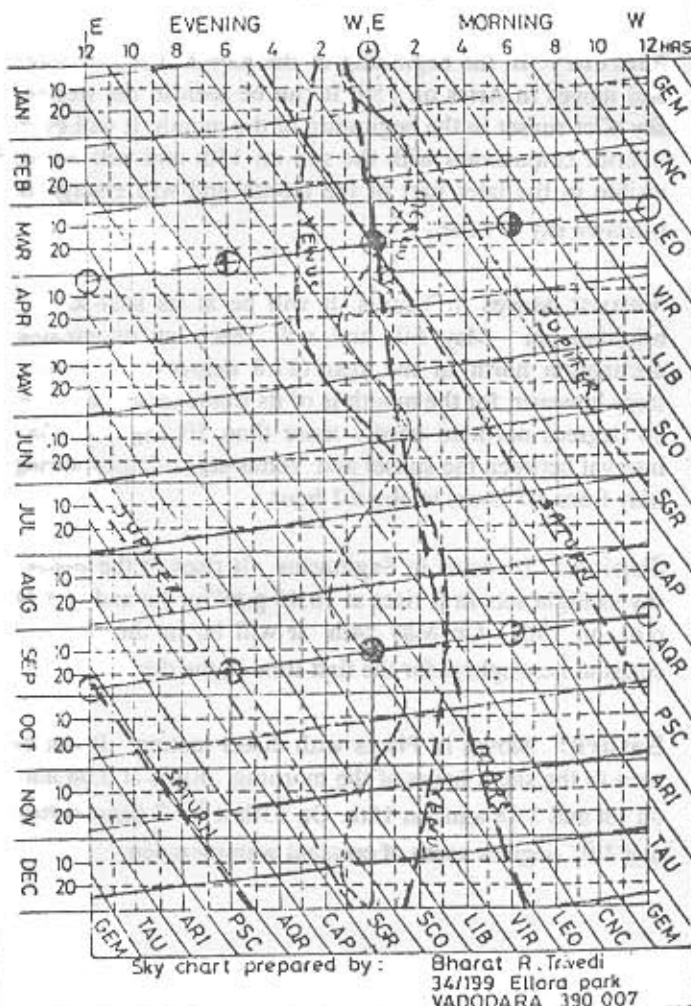
Its bright rings are opening into view again, but the planet is still low before sun rise for us to get a steady view.

Neptune and Uranus: Both of them will be in Sagittarius Capricornus border, follow about an hour of right ascension behind Jupiter. So they are not as high when dawn begins to stir.

Vesta: The brightest of the minor planets, is almost as bright as it can become when it reaches opposition on May 8th. On that this naked-eye asteroid shines at magnitude 5.6 less than 3 degrees north of Beta Librae

All those who have borrowed Library Books and not yet returned them are requested to do so immediately on the next library day and Library members also need to pay renewal reading charges.

1996 SUN MOON AND PLANETS



SUN MOON AND PLANETS

Here is a unique chart that gives a pictorial view of the Planetary positions and position of Sun and Moon during 1996. It shows elongation of the moon and all five naked eye planets against background of zodiacal belt.

The chart is vertically divided by the Sun line. Right half shows morning sky and left half the evening sky. The positions of Moon and planets is shown for elongation upto 12 hours on either side (depending upon where it is visible). The elongation, therefore, forms the X six of the chart. The dates are given on the extreme left as Y axis. The zodiacs are named on extreme right and at the bottom of the chart.

To a keen stargazer the chart serves as an excellent planner for night sky observation. Just put a ruler along the date line and you can read which planet is in which zodiacal sign, when it rises and when it sets, the age of the moon and many other things such as conjunctions and oppositions.

Those interested in observing remaining planets viz. Uranus, Pluto, Neptune may note that while planets Uranus and Neptune wander along frontal region of Capricorn within a few degrees of each other, the planet Pluto remains on frontal edge of Scorpius throughout the year 1996.

Bharat Trivedi
Member -AAA

<p>Regular Association Timings 2nd Saturday 3.30 p.m.- 5.30 p.m. Library Timings; 2nd Saturday 2.30 p.m. 5.30 p.m. 4th Saturday 3.30 p.m.- 4.30 p.m.</p>	<p>Telephone Numbers: Prof R V Kamat : 411 1117 Mr. Bharat Adur : 385 7293(res) 492 0510 (O) Mr. Wilfred Fernandes 836 1439 Mr. Dilip Vyas 838 9316 (O)</p>	<p>Membership Fees: Student Rs. 40/ Ordinary Rs. 50/ Life Membership Rs. 500/- Outstation Membership Rs. 40/-</p>
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MAY '96

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