# The INTERNET: What's in it for Bangladesh?

#### Bangladesh on the Global **Information Super**

During the past few years a tremendous development has been taking place in the information and communication technology. The information super highway, primarily dominated by the Internet, has been making instantaneous global telecommunication very quick and inexpensive.

While such a technological revolution has been taking place globally. Bangladesh remained virtually aloof from the main stream. A few dynamic entrepreneurs specialising in computer and communication have however attempted to provide Electronic Mail (email) services to the local users through ISD lines. A Bangladeshi user in this system sends his mail from his computer to the server of the e-mail service provider which has an arrangement with an overseas Internet service provider. The mail sent by the senders are kept in waiting in the server of the local service provider for subsequent dial-up transmission to the overseas Internet service provider who linally transmits them to their respective destinations. Since ISD phone lines with about 9.6 kbps capacity are used upto the point of the overseas service provider, the transmission is slow and expensive. Moreover, being an off-line service, all in-coming e-mails await at the other end till a link is established by dialing. Thus, the e-mail system prevailing in Bangladesh until recently was considered to be inferior to fax service, although very soon most of the latter should be substituted by e-mail which can be instantaneous and quite cheap when connected to the proposed on-line Internet system as discussed below. However, the contribution of the off-line service providers must not be ignored. Undoubtedly they made a bold attempt

to put Bangladesh on the global

In the month of February,

IRIDIUM (Motorola ): 66

ODYSSEY (TRW, US): 12

Connections in high places

(LEOS), stationed 500 to 1,500kms above the Earth

• Major projects involving large numbers of LEOS: .

TELEDESIC (Microsoft, Craig McCaw): (840)

GLOBALSTAR (US-European consortium)

GONETS (Russian-led consortium) 36

INMARSAT-P (multinational consortium)

New communications networks will use Low Earth Orbit Satellites

information super highway.

Board sanctioned five VSATs (Very Small Aperture Terminal) Highway - one of which is installed in the office of Information Services Network Ltd (ISN), a public limited company formed by a group of entrepreneurs from among management economists, computer network experts, media specialists and business leaders of the country. Out of these five VSAT recipients only two - ISN and Grameen Cybernet have started offering various Internet services to the public. Access to Internet

### through VSAT

1996, the Bangladesh T & T

The best way of accessing the Internet is via a direct data connection between the Local Network and an on-line Internet node. This has not been possible in Bangladesh so far since we are not on the backbone connecting the Internet. ISN has the connectivity with Hong Kong Supernet, an overseas Internet service provider through which it will access the Internet. A local Internet user who must have a computer, a modem and local telephone line will enter (log in) the ISN server (host) and then through VSAT, established at ISN, will get connected via Asia Sat with the Hong Kong Supernet and then onto the global Internet. Overseas Internet users will similarly communicate with the Bangladeshi users in the same manner in the reverse order.

The potential user by being a subscriber to ISN's on-line services or to those of other service providers can now take full advantage of the recent development in the communication technology. The sanction of VSAT data circuit by BT&TB is therefore a step in the right direction since the cost of various Internet uses including e-mail will be quite inexpensive about Tk 200 per hour data transmission all over the world. This is possible, because VSAT data circuit is very fast -64 kilo bit per second (kbps). One can transmit over 2500 words per minute when used by a large number of users at a

time. If the number of users are fewer at a time the data transmission is even faster than this. And this is ON-LINE, i.e., open 24 hours a day, 7 days a week. Needless to say that if Bangladesh were on the backbone connecting the Internet. the communication would have been faster and much more inexpensive. I will return to this point in a short while. Let me briefly discuss the various Internet services available in the country.

#### **Various Internet Services** Currently Available in Bangladesh

All the Internet services available in Bangladesh are provided by ISN:

E-mail: Send and receive electronic mail to and from another e-mail user in the world inexpensively and speedily on real-time basis.

Tele Discussion : Participate in discussion groups and join a real-time conversation with hundreds of people all over the world on a topic of mutual interest. Students in one university classroom can converse with teachers/students in another university without any travel involved.

File Transfer (ftp): Copy and transfer files (data, programs, graphics) from one computer to another. Many universities and research organisations maintain large repositories of fascinating reports, manuscripts and unpublished dissertations which are already available on the Internet. The US Weather Service, the Library of Congress and the Smithsonian, to name a few, maintain archives of information, images, data files, and many other softwares on the Internet.

Searching Materials: One Internet user can gain access to worldwide computing resources. The search is not only accessible to thousands of computers for files and data but also to hundreds of Bulletin Board Services meant for various purposes. One of the most powerful Internet tool is Gopher which lets one effortlessly explore information resources on hundreds of Gopher servers on the Internet.

Telnet: An Internet user can convert one's computer into a terminal of a remote computer. World Wide Web (WWW): It is

the hottest new way for various types of business to communicate with the existing and potential customers. Millions of people already have access to the Web and it is observed that the number is growing by about 10 per cent each month.

Web sites can serve a lot of purposes - depending on one's business needs. For example, a garment exporter who previously went through buying houses to showcase his products to the international market. can now create a web site and put up pictures, material details and prices of his products. Foreign buyers can simply look at these sites and get all the required information at nominal cost and without any travel involved.

Web documents : One can search one of the largest

by A K Sayeedul Huq

databases, more than 11.5 million pages

Reviews : One can search over 50,000 web site reviews. Usenet: It is a specialised news service provided by no one else in Bangladesh except ISN. From this one can have access to the latest international news and more than one million ar ticles provided by over 10,000 news groups.

Advances in Information Technology will enable people all over the world to come closer together, faster and more conveniently. One can undoubtedly predict a rapid growth in email, vicarious travel. International Internet clubs, Internetbased expositions and conventions and lots of people to people uses.

#### Problems of the Development of the Internet Services in Bangladesh

I have already said that the best way of accessing the Internet is via direct data connection between the Bangladeshi network and an on-line Internet mode. As Bangladesh is not on the backbone connecting the Internet, a local service provider is forced to go through another overseas Internet service provider. As already mentioned, ISN has a connectivity with the Hong Kong Supernet. Similarly, the Grameen Cybernet, another local Internet services provider, has a connectivity with Singapore's Singnet. This might create several prob-

1. Bangladesh T. & T Board has given the contract to Pak Datacom to set up VSAT in the premises of the Bangladeshi Internet service providers. In our case, Pak Datacom has the responsibility to make the payment to the Hong Kong Telecom for the half circuit facility provided by Hong Kong Telecom. Thus, ISN pays the rent for VSAT to Bangladesh T & T Board which pays Pak Datacom for their contractual services including the fee for the half circuit to the Hong Kong Telecom. In case, there is a delay in payment to the Hong Kong Telecom, the latter is entitled to disconnect the communication link. The situation is not any different in the case of Grameen Cybernet also.

In view of the above, one can easily visualise the risk involved in providing on-line internet services by the local service providers. Given the opportunity the local service providers could have organised their own VSATs including the payment to the overseas halfcircuit provider. This way the risk of the local service providers would have been min-

on the consideration that it is the hub of technological innovation in the telecommunication field in the Asia Pacific region. Additionally, the services provided by the Hong Kong Supernet are quite flexible and very satisfactory as much as one could expect from a fastest growing free-market operator. This is all right for the present

Senal) 7:45 English News 8:00

Potluck 8:20 Ali Baba 8:45 Tum

Se Kahan Tha (Serial) 9:00

Break for Headline News 10:00

Khabarnama 11:15 Classics

Drama Serial: Janglee 12:20

Special TBA 1:00 Khas Khas

**SONY ET** 

8:30am Yaedon Ki Baarat 9:00

The Three Stooges 9:30 Den-

nis The Menace 10:00 | Dream

Of Jeannie 10:30 Surf-Wheel

Of Fortune (Game Show) 11:00

Cover Story-Hostel (Serial)

12:00 Mere Message Meri Geet

1:30 Baat Ek Raz Ki (Serial)

2:30 Cine Matinee-Hindi Fea-

ture Film 4:30 The Rasoi

Show 5:30 The Three Stooges

6:00 Mere Message Meri Geet

6:30 Dennis The Menace 7:00

Premier 7:30 | Dream of Jean-

nie 8:00 Surf-Wheel Of Fortune

8:30 Taak Jhaank 9:00 Jevan

Mirtu (Serial) 9:30 Yeh Sadi

Nahi Ho Sakti 10:00 Chamatkar

(Drama Serial) 10:30 Ghave

11:00 The Young And The

Restless 12:30 O' Maria (Serial)

1:00 Pehli Mulakat 1:30 Surf

Wheel Of Fortune 2:00 Premier

DD 7

10:30 Janmadin 10:35 Educ

Prog 11:00 Nazrulgeeti 11:15

Folk Songs 12:30 Ek Silpi Onek

Gaan 1:00 Janani 1:30 Mono-

rama Cabin 2:30 Ek Diner Sul-

tan 3:00 Gaan Niye/Darpan

3:30 Irsha 5:05 Nepali Pro-

gramme 5:30 News 5:35 Desh

Bidesher Khela 6:00 Palli Katha

6:30 Batayan 6:55 Arati 7:30

2:30 Closed

Khabrain/ Close down

as far as the service conditions with respect to free flow of information is concerned but the situation remains uncertain as

to what will happen in the near future when Hong Kong goes under Chinese control. Although we expect that the Government of the People's Republic of China will let Hong Kong continue to function, more or less. in the free market system, one cannot be fully certain about

Similarly, the Singapore Government has recently started introducing considerable control on the free flow of information and data on the Internet. This control system might be good or bad, but we believe that the Internet is a global medium of communication and expression without any restriction. If any censorship of a certain type of Internet materials is necessary, given the cultural background of Bangladesh, the right of censorship should be with Bangladesh and not with a third country. Unfortunately, such a decision remains in some one else's con-

The purpose of the two examples given above is to demonstrate the advantages that Bangladesh can have by being on the backbone directly connecting the Internet.

#### Prospect of the Internet in Bangladesh

Bangladesh has just entered the global super highway. The number of users of the Internet services is still very low. Altogether the total number of Internet users will not at present exceed 3000. However the potential market appears to be quite large although there are two main problems hindering the growth of the market. These

1) Low rate of computer literacy: Because of the lack of computer education and knowledge, the number of people in the age group, say, 35 years and above with computer literacy is very low. These are the people who are controlling most of the country's business and administration. These people have currently become used to fax communication. Although one can achieve about 90 per cent cost saving by switching over from fax to electronic mail. these people are hesitant to do so because of their lack of knowledge. The advantages of various Internet uses are not obvious to them.

2) High cost: If one is to worry about the cost of brows ing time on the Internet, needless to say, many will be hesitant to use the Internet extensively for education, research or even for fun. In Bangladesh 2. ISN has chosen Hong Kong the Internet services are very expensive compared to that even in India, not to speak about the situation in developed countries. The reasons for high cost of the services in Bangladesh are many, but the most important one is the exorbitantly high line rent both in Bangladesh and at the overseas end. The situation would have been otherwise, if Bangladesh could get on to the Internet directly.

#### Suggestions for a Healthy **Growth of the Market**

In view of what has been discussed above. I would like to venture some suggestions for a healthy growth of the Market for the Internet services in Bangladesh. These are briefly mentioned below:

1)Association of the Service Providers: It is suggested that the Internet service providers in Bangladesh should form an association so that:

- they can exchange ideas for solving common problems.
- a common development program can be formulated. they can represent the service providers' interest to various controlling
- authorities. they can adopt a program to provide free or subsidised training to the potential

2) The Government is urged to progressively move towards privatisation. Instead of remaining in the controller's seat, the Government should play the role of a facilitator. Private sector should play a competitive role so that the quality of telecommunication services can improve.

3) For the reduction of the cost of Internet services.

- The Government should reduce the rent for VSAT.
- The Internet services must be kept out of VAT net.
- The service providers should be allowed tax holiday like that in other growthindustry.

4) Connected with the Internet services the software development must also take place for the sake of a systematic growth of the entire sector. In this respect, the following issues are relevant:

Copy Right Laws: In the early 1990s the Export Promotion Bureau, an organisation under the Ministry of Commerce, started various activities with a view to exploring the export possibilities of computer software and data entry services. One of the major problems identified in this respect was the lack of quick and efficient data transmission facilities. Now this problem is being overcome with the provision of VSAT to private sector investors who have already put Bangladesh on the global Information Super Highway. However there remains a bigger problem in the local software development field which is the lack of adequate copyright laws. Whatever laws there are. are not at all effective. Imported softwares are being freely copied in Bangladesh. As a consequence, the potential soft ware-developing companies or individuals are highly discouraged to put effort and money in this area since the market is flooded with pirated softwares. We therefore urge the Government to reinforce the existing copy right laws in the country with the provision of severe penalty for violations.

Incentives for Investment in Software Development : In addition to the above, an incentive scheme is to be introduced by the Government so that potential investors become interested to come forward in the field of software development.

It is well known that the gestation period in the field of software development is quite long between the time of investment and the time when one can expect to receive some results. Traditionally, there is a lack of a strong domestic market and the potential to explore development of software is not obvious to the Bangladeshi investors because of the information gap about the overseas market.

Accordingly, it is essential that the Government offers various attractive incentives to the potential investors to undertake software development activities. The incentives that can be considered are:

- Suitable credit schemes for the potential investors. Organising seminars and
- dissemination of information about the export mar Tax holiday for the com-
- panies investing in the development of computer softwares.
- Encouraging joint ventures among overseas software companies and the potential' Bangladeshi investors.
- Complete abolition of duty and taxes on the imported

computers and related materials.

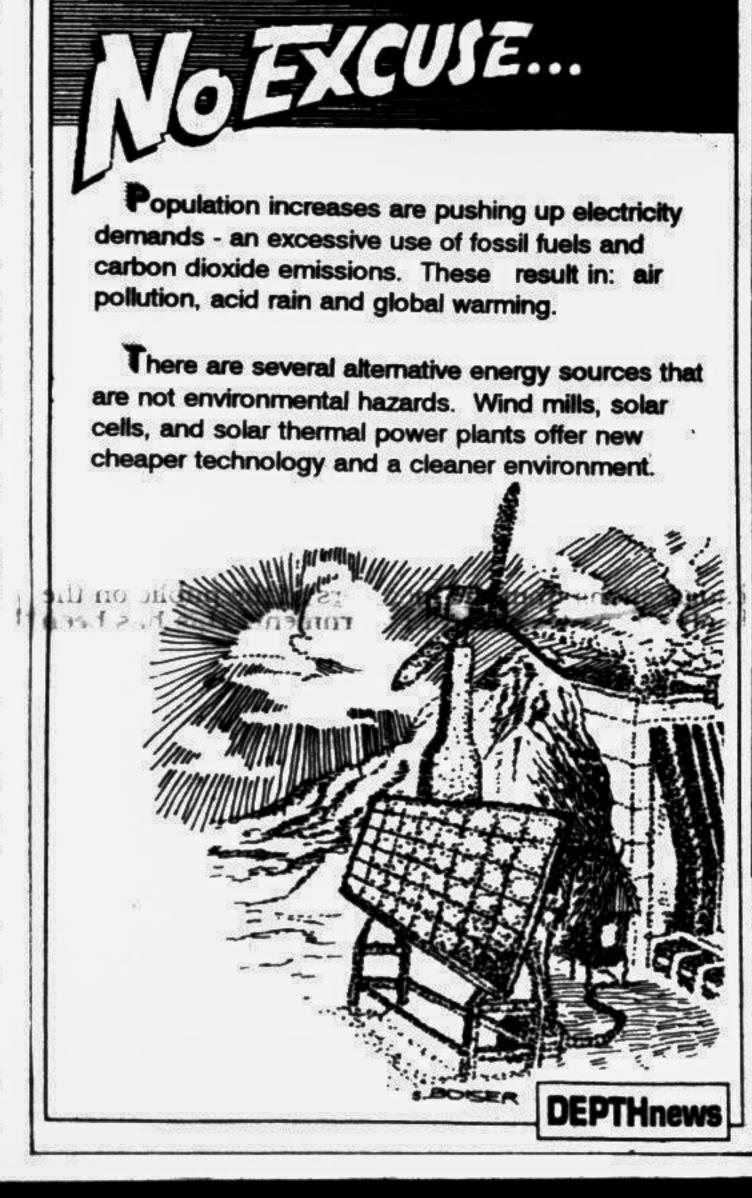
#### **Concluding Observations**

The Internet has just come to Bangladesh. Various Internet service providers do not have long experience in the field. The technology is quite new in Bangladesh. There is a great shortage of technical people to provide services efficiently. Our experience during the past few months of operation is that the customers tend to be impatient.

Very often their lack of knowledge in operating the system is the cause of the problem. ISN currently offers free orientation classes every Saturday; very soon ISN will start offering free courses on the Internet operation with support from hardware vendors. For a systematic growth of the service system cooperation between the service providers and service users is very essential.

Finally, we appeal to our Government to make every effort so that Bangladesh could be on the backbone directly connecting the Internet. This will be tremendously beneficial for this service industry.

- 1. Presented to the "Internet Week Seminar" organised by the North South University during September 18-24.
- 2. The author is the Managing Director of Information Services Network Ltd (ISN) and President of House of Consultants Ltd (HCL), Dhaka,



### The Daily Star Entertainment Guide

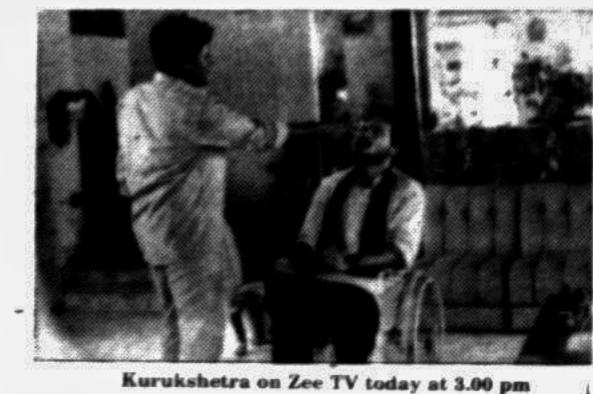
Monday 30th September (All programmes are in local time. There may be changes in the programmes).

#### BTV 3:00 Opening Announcement

Al-Quran Programme Summary 3:10 Recitation From the Bible 3:15 Cartoon Film: Macron 3:45 Drama Series: Retelecast of Selected Dramas 4:00 News in Bangla 4:45 Tal-O-Chanda 5:00 News in Bangla 5:25 Nazrul Songs 5:50 Sports Programme 6:00 News in Bangla 6:30 Shikkanggan 7:00 The News 7:05 Open University 7:25 Unish Bish 8:00 News in Bangla 8:40 Package Drama 10:00 News in English 10:30 Shasthatatha 10:35 Sukher Thikana: Family Planning Programme 10:55 Comedy series: Coach 11:30 News in Bangla 11:35 Tuesday's Programme 11:40 Close down

#### BBC

6:00 BBC Newsroom inc. World Business Report/Asia Today/24 Hours 9:00 BBC World Headlines 9:05 The Money Programme 10:00 BBC Newsday 1:00 pm BBC World News 1:15 The Money Programme 2:00 BBC World News 2:30 Time Out: Top Gear 3:00 BBC World News 3:30 Time Out: Fat Man In France 4:00 BBC Newsdesk 6:00 BBC News Headlines 6:05 Correspondent 7:00 BBC World News 7:15 World Business Report 7:30 BBC Newshour Asia & Pacific 8:30 Time Out : One Foot in The Past 9:00 BBC World News 9:15 The Money Programme 10:00 BBC World News 10:30 Time Out: Tomorrow's World 11:00 The World Today 1:00 BBC World Headlines 1:05 The Money Programme 1:50 Building Sights 2:00 BBC World News 2:30 Time Out: The Travel Show 3:00 BBC World Report inc. World Business Report/24 Hours 5:00 BBC World News 5:10 Newsnight



Retro-Active 5:00 Teenage Mutant Ninja Turtles 5:30 Adven-

tures Of Black Stallio 6:00 Lost

in Space 7:00 Home and Away

7:30 Charles in Charge 8:00

MASH 8:30 Mystery Movies : In-

spector Morse Last Bus To

Woodstock 10:30 The Bold &

The Beautiful 11:00 Santa Bar-

bara 12:00mn The New Twi-

light Zone 12:30 Hearts Afire

1:00 Grace Under Fire 1:30

Barnaby Jones 2:30 Videofash-

ion News : Retro-Active 3:00

The Oprah Winfrey Show 4:00

Hooperman 4:30 Home and

Away 5:00 The Sullivans 5:30

STAR SPORTS

6:00 Prime Boxing Fight TBC

7:30 Inside PGA Tour 8:00

Marlboro League 96' Chinese

National Football League Bei-jing vs Dalian 10:00 1996

Omega Tour Highlights 11:00 Poonawalla Astonish Million

11:30 Omega Sailing Magazine

12:30 Spark 1:30 The Asian

Football Show 2:30 1996

Singer World Series India vs Sri

Lanka Highlights 6:30 Trans

World Sport 7:30 Spanish

Football League H/L 8:00 WTA

Tour 1996 Nicherei Int'l Ladies

Japan 9:30 SEA Touring Cars

Rds 9 & 10 10:00 The Asian

Football Show 11:00 The Eu-

ropean tour Smurfit European

Open Day 4 1:00 Mariboro

League 96' Chinese National

Football League Beijing vs.

Dalian 3:00 Trans World Sport

Championship From Tokyo.

The Flying Doctors

#### CHANNEL V

6:00 Frame by Frame 7:00

Rewind VJ Sophiya 8:00 Jump

Start VJ Trey 9:00 Frame by Frame 11:00 The Vibe VJ Luke 12:00 Rewind VJ Sophiya 1:00 By Demand VJ Trey 2:00 Frame by Frame 2:30 First Day First Show 3:00 Sansui Mangta Hai 4:00 Planet Ruby 4:30 By Demand VJ Trey 5:30 Rewind VJ Sophiya 7:00 Big Bang VJ Alessandra 8:00 Planet Ruby 8:33 The Vibe 9:00 BPL Ove! 10:00 First Day First Show 10:33 Launch Pad VJ Sophiya 11:33 The Hide VJ Trey 12:00mn Over The Edge VJ Sophiya 12:30 Big Bang VJ Alessandra 1:00 Haysah 2:00 By Demand VJ Trey 3:00 Big Bang VJ Alessandra 4:30 Asian Top 20 VJ Trey

#### STAR PLUS

6:30 Voltron 7:00 Teenage Mutant Ninja Turtles 7:30 G I Joe 8:00 Saber Rider And The Star Sherrif 8:30 Adventures Of Black Stallio 9:00 Aerobics Oz Style 9:30 Charles in Charge 10:00 Mr Belvedere 10:30 Cooking Secrets of the CIA 11:00 Videofashion News Retro-Active 11:30 The Flying Doctors 12:30 Santa Barbara 1:30 The Bold & The Beautiful 2:00 The Oprah Winfrey Show 3:00 Remington Steele 4:00 Cooking Secrets of the CIA 4:30 Videofashion News

4:00 Sports India 5:00 1996 Omega Tour Highlights

#### STAR MOVIES

7:30 Classic : All About Eve G (Arabic Subtitles) 9:30 Comedy Heavenly Pursuits 15 (Arabic Subtitles) 11:30 Adventure The Trial 15 (Hindi Subtitles) 1:30 Action : Killer Instinct 15 (Hindi Subtitles) 3:30 Comedy Sunset Limousine 12 (Hindi Subtitles) 5:30 Western Borderline 15 (Hindi Subtitles) 7:30 Film Fiction Treasure Island 15 (Hindi Subtitles) 9:00 Deccan Dream 9:30 This Week That Year 10:00 Cornedy: The Book Of Love 18 (Hindi Subtitles) 11:30 World Cinema : A Cause D'Elle (English Subtitles)1:30 After Dark: Thirst 18 (Arabic Subtitles) 3:30 Comedy : Foreign Body 18 5:30 Action The Long Good Friday 18 (Arabic

#### ZEE TV 5:30 Surtal 6:00 The News

6:30 Jagran 7:00 ZED 8:30 Dream Merchants 9:00 Hum Zameen 9:30 Gaane Anjaane 10:00 Sailaab 10:30 Positive Health Show 11:00 Apna Ghar/Dak Ghar 11:30 Gopaljee 12:00 Suno Suno Tring Tring 12:30 Celeste 1:00 ZED 1:30 Asian Sky Shop 2:30 Tara 3:00 Kurukshetra 3:30 Mere Ghar Ana Zindagi 4:00 Mano Ya Na Mano 4:30 Lijjat Khana Khanaza 5:00 ZED 5:30 Akbar Birbal 6:00 Cartoons 6:30 Love Story 7:00 ZED 7:30 Tol Mol Ke Bol 8:30 TVS Sa Re Ga Ma 9:30 Campus 10:00 Daraar 10:30 The News 11:00 Shehar Aur Sapna 11:30 Close Up Antakshari 12:00 Parivartan 12:30 Andaz 1:00 9 Malabar Hill 1:30 Tumhare Live 2:00 Arabic Programme 4:00 Index 4:30 All Out 5:00 Jagran

8:00 am Tilawat Aur Tarjuma-/Hamd/Naat 8:20 Cartoon 8:30 Khabrain 8:45 Abb Pata Challa 9:05 Khat Farmaish 9:20 Sargam Sargam 9:45 Ilaai-Bill-

Ghiza Pakistan 10:05 Shab Bangla Sambad 7:55 Dinindan Daigh 10:35 English Film . Goof 8:00 Dik Darshan 8:45 Sap-Troop 10:55 Milli Naghma tahiki 9:00 Janani 9:30 11:00 Khabrain 11:10 The Pracheer 10:00 Bengali Movie Saint (Roger Moor) 12:00 Club Film Show Aurager Shama (Drama Serial) 12:55pm Chhoa 1:00 Closed Quran-e-Hakeem 1:02 Bismillah 1:15 Angaar (Drama Serial) 2:00 Shehrad (Drama Serial) EL TV 2:50 The Face Of Cultural 3:15 Roushni 3:30 Paimaney 4:00 Ghardari 4:35 Biology for 10th/ Geography/ Chemistry 5:55 Inter College Quiz 6:25 Arou

#### Courses 7:00 Taranum (Drama

12:30am Shammi Kapoor Spe-

cial 1:30 Dance Dance 2:30 Jugal Jodi 3:30 Party Time 4:30 Tarane Aur Fasane 5:30 Shammi Kapoor Special 6:30 Dance Dance 7:30 Jugal Jodi 8:30 Party Time 9:30 Tarane Aur Fasane 10:30 Kal Bhi Aai Bhi 11:00 Ten Bhi Chup 11:30 WW Amar Prem 12:00 Manoranjan 12:30 Daane Anar

Ke 1:00 Mohd Rafi Special 2:00 Aaya Saawan 3:00 Shatranj 3:30 Fat Or Fit 4:00 Brigadier Balwant Bhawan 4:30 The Music Show 5:00 Fauji 5:30 Jhoomo Nacho 6:30 Dev Anand Special 7:30 Nukkad 8:00 Hollywood Se Bollywood 8:20 Haseen Pal 8:30 Sory Mery Lory 9:00 Zandu Balm

Dance Mania 9:30 Karz 10:00 Foltene Chalo Cinema 10:30 Stand By 10:40 Silsila 11:00 Song Yatra 11:30 Ortem Hit Thai Hit Hai 12:00 Intezaar

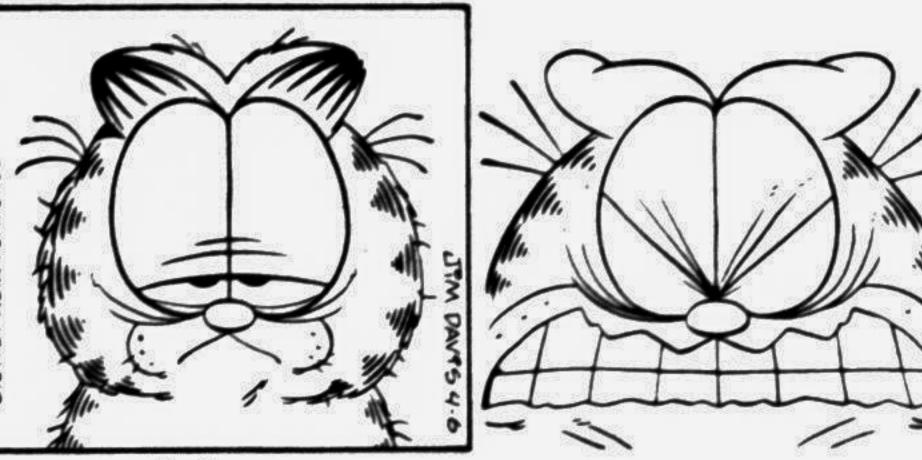
#### ZEE CINEMA

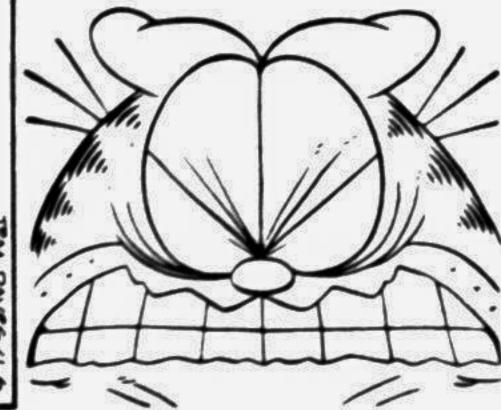
6:30 Tarana 7:00 Raju Dada 9:00 Shooting Shooting 9:30

12:15 Na Jane Kyon 12:30 Film : Upasana 3:15 Shoot Shoot 3:45 Film : Himmat Aur Mohabat 6:30 Film : Kichak Wadh (Marathi) 9:15 Songs 10:00 Film Bees Saal Baad 12:45 Film: Chanda Aur Bijli 3:30 Anbann 4:00 Film Channi

Film Yeh To Kamal Hogava

## Garfield ®







by Jim Davis

#### Tom and Jerry

WHY ARE



I THINK I'M

