

# Satellite to provide cheap, across-country phone call

By Don Wesley

The day isn't too far away when telephone, telegraph, television, data transmission, radio and other electronic services are brought to us via satellite. If fully and properly developed, the synchronous communications satellite will provide a fast, reliable, inexpensive means of long-distance communications.

However, there are serious doubts that satellite technology will be fully and properly developed. To understand those doubts one needs to take a look at the brief history of communications satellites. Arthur C. Clarke, British science-fiction writer, prophesized in 1945 that one day satellites launched into a synchronous earth orbit at 22,300 miles above the earth would act as relay stations bringing telephone, telegraph, and television communication to the world. Eighteen years later, in 1963, Clarke proved correct when SYNCOM I was launched by the United States into synchronous orbit. SYNCOM II and III provided noise-free, wireless communications across oceans, deserts and mountains.

#### COMSAT created

About this same time the Communications Satellite Corporation (COMSAT) was created after the passage of the Communications Satellite Act of 1962. COMSAT was to develop an international, commercial, communications satellite system. The corporation was a most convenient marriage between government and industry and its creation was hotly debated. A Senate minority report opposing the formation of COMSAT stated that the issue was "Government ownership of a tax-financed resource, with operation for the benefit of all the American people, or ownership by a government-created private monopoly."

The communications satellite is a product of taxpayers' \$80 billion investment in the space program. But when a decision must be made as to who benefits from that investment, private interests consistently prevail over the public interest.

Following the creation of COMSAT (which then formed INTELSAT, a profit-making international telecommunications satellite network which includes 91 nations as members) in 1965 the FCC received a proposal from the American Broadcasting Corporation (ABC) and Hughes Aircraft Company (which was hired by the U.S. military in 1960 to engineer and construct communications satellites) to use satellites to distribute ABC-produced programming to all of the network's radio and tele-

vision affiliates. This proposal touched off further prolonged debate concerning how communications satellite systems should be developed.

#### Public interest forgotten

The Nixon administration proposed a solution—a policy of no-holds-barred, free competition in space. Finally, on June 16, 1972, that White House position became national policy, or rather, national non-policy. The muscle of the marketplace would rule, the Federal Communications Commission (FCC) would not regulate the technology, and the public interest was all but forgotten.

Since 1972 several commercial domestic satellite systems have been developed in the U.S. There are plans to launch up to nine satellites and to build 410 earth stations to send and receive communications. Various commercial interests have a part in this development, which is, given an estimated total investment cost of \$818 million.

Technical advances of recent years will drastically reduce satellite hardware and operating costs.

The Japanese have engineered a prototype satellite receiver costing only \$1,500 to build which can be attached to television sets. It is anticipated that, when mass produced, these receivers will cost only \$100. Traditional Earth stations cost between \$100,000 and \$500,000.

#### Canada moving ahead

The Canadian government has notified the International Frequency Regulation Board (the agency which coordinates the use of the radio spectrum worldwide) that it intends to inaugurate a direct-to-home television system serving 500,000 homes by 1980.

Make no mistake about it, the battle to control satellite technology is political. It is a battle between vested, special interests and the general, public interest. The former is well organized, the latter is not.

American Telephone and Telegraph's telephone monopoly is seriously threatened by satellite technology. Satellites don't need miles of wire, cable or poles. Satellites don't need Bell Telephone's multi-billion dollar investment in long-lines technology to transmit long-distance telephone messages. In fact the term "long-distance" would no longer be significant.

From the satellite's heavenly perch, cost will no longer be a function of distance. It would cost no more to call New York from Lincoln than it would to call Omaha from Lincoln. Satellite manufacturers have said a telephone call

from New York to Los Angeles could cost a dime.

Of course, telephone companies oppose further development of satellite communications systems.

Broadcasters particularly fear what direct satellite-to-home broadcasting could do. Satellites, with greater channel capacity, could loosen the commercial networks' stranglehold on television. Satellite technology may be able to do the job that cable television, despite its early fanfare, has failed to do.

#### Cable falls short

Cable television was to open television to a wide variety of educational, entertaining and informative programming. This hasn't really happened due to cable television's capital-intensive nature.

Satellites should prove to be much less costly. Satellite technology will not only permit additional broadcast channels into the home, but it also could spawn the creation of new regional and national television networks.

So, American broadcasters and common carriers have taken steps to thwart satellite development. Satellite technology poses a serious threat to their massive investment in older technologies and their control of large, mass markets.

I cannot underestimate the critical questions we must answer concerning communication.

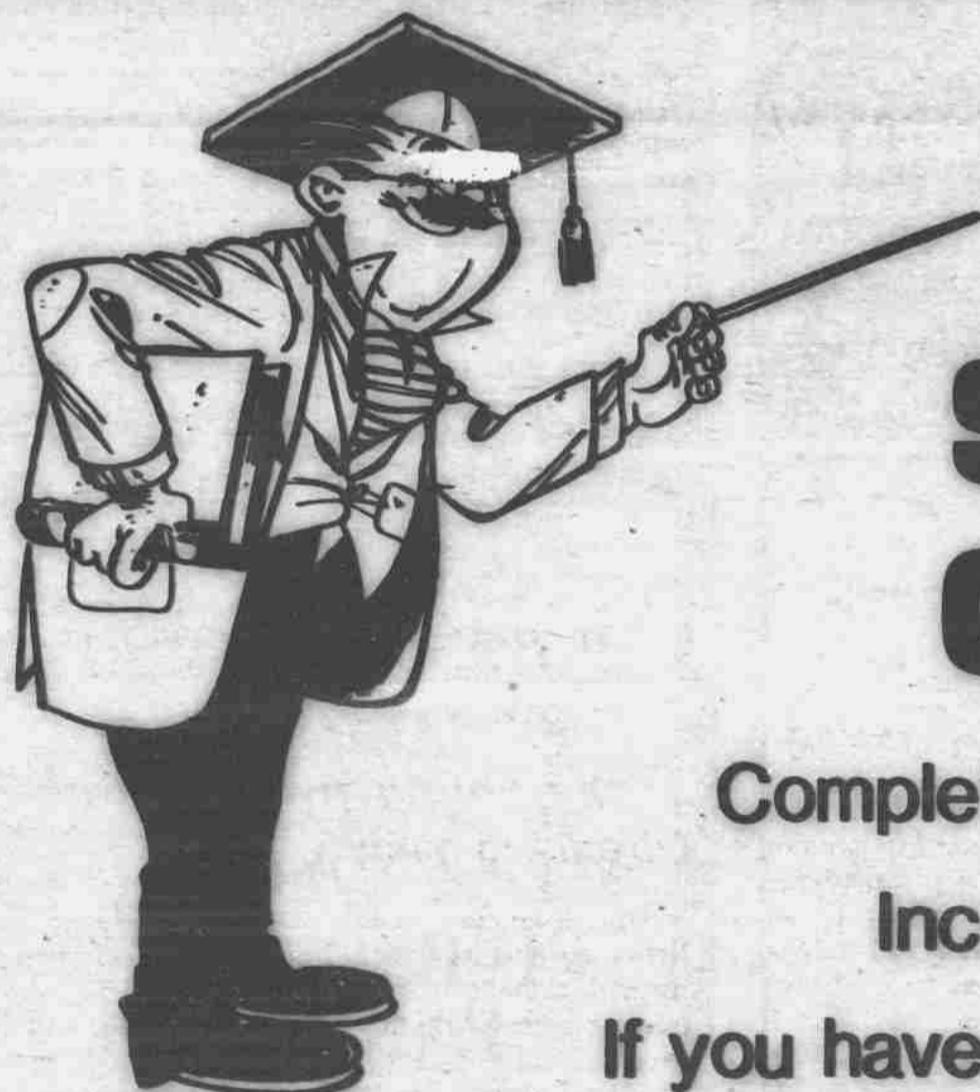
The next three years will be crucial. The FCC has convened the Joint Industry/Government Committee to compile data about all project uses of high-powered satellites

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through the year 2000. The committee findings will form the basis of U.S. policy at the Geneva World Administration Radio Conference in 1977 and 1979. Decisions at the conference will set the ground rules for all satellite development until the end of the century.

In America we are fortunate that the Public Interest Satellite Association (PISA) has been created to influence satellite policy and technology in the public interest. PISA's ultimate objective is to work toward the creation of a non-profit, public interest communications satellite system in the United States.



# ATTENTION 1976 Summer Reading Course Students

Complete the course work NOW in October.

Incompletes will be given sparingly.

If you have any questions, contact your instructor.

#### MEETINGS and/or EXAMS are scheduled for these courses:

American Studies 308c—Country/Bluegrass Music - New instructor - Roger Welch (338D Andrews Hall)  
ALL STUDENTS - Meeting October 7th at 7:00 p.m. in Room 119 Burnett  
Classic 180c—Classical Myth - T. Rinkevich (235 Andrews) Exam - Wed. Oct. 13th at 2:30 p.m. in And. RM 26  
Econ 307c—Prin. Inv. - G. Fajda (345 CBA) Exam: Thurs. Oct. 7th at 3:00 p.m. in CBA  
Engl 230Ac—Shakespeare - M. Marcus (206 And) Exam: Sat. Oct. 8th-10:00 a.m. to 12 noon in Andrews RM 120  
Mod. Lang. 308c—Novels Herman Hesse - Mark Cory (1103 OldH) Exam: Oct. 6th, Wed. at 3:45 p.m. in OldH RM 113B  
Psych 207c—Psych. of Personality - R. Dienstbier (210 Burn) Class Discussion: Thurs. Oct. 14th at 3:30 p.m. in Burn RM 226. Test: Tues. Oct. 26th at 3:30 p.m. in Burn RM 226  
Pub Hlth 212c—Prin. Community Hlth. - R. Wilson (128-501 Bldg.) Class Discussion: Tues. Oct. 12th at 4:00 p.m. in 501 bldg. RM 116. Exam: Tues. Oct. 19th at 4:00 p.m. in 501 bldg. RM 116  
Soc 217c—Minority Relations - J. Siegan (740 OldH) Exam: Tues. Oct. 12th at 3:30 p.m. in OldH RM 209  
Soc 242c—Urban Soc. - J. Siegan (740 OldH) Exam: Tues. Oct. 19th at 3:30 p.m. in OldH RM 209

#### For the following courses, students will contact the instructor for a conference or the work should have been completed on the schedule set last spring.

Arch 398c—Mexican Arch. - Ted Erti (327 Arch Hall) Conference	History 102c—Western Tradition in Crisis - L. Beck (637 OldH) Conference
Biol 295c—Evol. of Biol. - John McClelland (405 OldH) Conference	History 427c/627c—Europe Soc. & Cult. History - L. Beck (637 OldH) Conference
Econ 303c—Intro. Money - E. Hauswald (203 CBA) Completed	Journ 408c—Issues in Broadcasting - P. Mayeux (254 AvH) Conference
Econ 388c—Com. Econ. Sys. - J. Petz (350 CBA) Completed	Mach 201c/601c—Geom. for Elem. Tchr. - Mientka (915 OldH) Completed
Engl 200c (810)—Novel & Short Story - J. Roberts (219 And) Conference	Philos 298c (810)—Children Logic - E. Carpenter (1040 OldH) Conference
Engl 200c (820)—Novel & Short Story - G. Wolf (313 And) Conference	Philos 308c (820)—Gen. Epistemology - E. Carpenter (1040 OldH) Conference
Engl 2058c (810)—Novel 1800 to Present - N. Hostettler (319 And) Conference	Philos 380c (830)—Philos of Suffragette - S. Hoagland (1041 OldH & 2112 Happen) Conference
Engl 2058c (820)—Novel 1800 to Present - D. Gregory (140 And) Conference	Philos 380c (940)—Concept of Femininity - S. Hoagland (1041 OldH & 2112) Conference
Engl 244c—Afro-American Lit. - C. Fontanet (353 And) Conference	Physics 108c—Philos of Physics - E. Zimmerman (256 BoL) Conference
F & N 388c (810)—Food in History - C. Kiss (316 F & N) Conference	Pol Sci 398c (810)—Pres. Nom. Conv. - J. Comer (539 OldH) Conference
F & N 388c (820)—Food Additives - F. Caporeto (214 F & N) Conference	Pol Sci 398c (820)—Political Violence - W. Avery (527 OldH) Conference
F & N 451c/851c—History of Nutrition - C. Kiss (316 F & N) Conference	Psych 208c—Psych. Soc. Behav. - J. Berman (204B Burn) Completed
Forestry 241c—Tree Resources - W. Bigley (107 PI) Conference	

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