

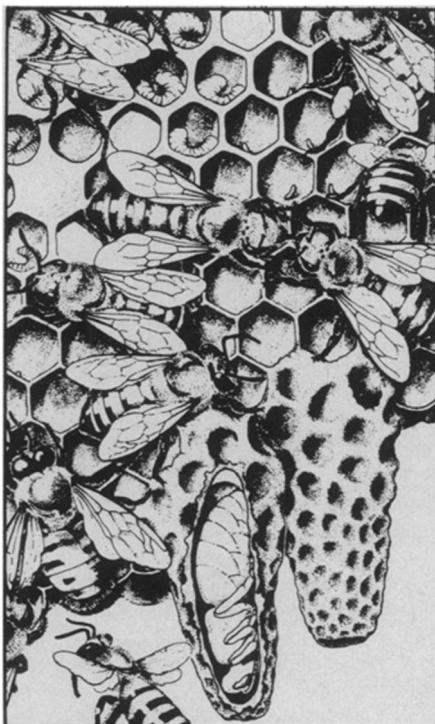
Science News of the Year

This is a review of important science news stories of 1975 as reported in the pages of SCIENCE NEWS. The references after each item refer to the volume and page number in which the main article on the subject appeared in SCIENCE NEWS (Vol. 107 is Jan-June; Vol. 108 is July-Dec.) Where several references exist, the news developed and was reported in more than one issue. Back issues or, when out of stock, copies of articles are available for 50 cents each by writing to SCIENCE NEWS, 1719 N Street, N.W., Washington, D.C. 20036.

Biology

- Molecular biologists met at Asilomar, Calif., to write an historic set of rules to guide research in the field of recombinant genetic engineering. Their final report appeared three months later and more specific National Institutes of Health research guidelines, after much dispute, appeared later still. 107:148, 194, 366; 108:372
- A new approach to measuring evolutionary changes was proposed. The theory suggests that changes in the arrangement of genes on chromosomes or changes within control sequences may account for the appearance of major phenotypic changes during evolution. 107:268
- Researchers mapped the oncogenic gene of an RNA tumor virus, an important step toward decoding the "cancer message." 108:278
- A mammalian gene was totally synthesized for the first time. The achievement opened the door to learning more about gene action and regulation, the origin of certain genetic defects and to correcting these diseases by replacing the faulty gene with a synthetic, healthy one. 108:372
- The preponderance of left-handed amino acids in terrestrial life was explained on the basis of the weak interaction of particle physics. 108:340
- Studies showed that lungs can be considered quasi-endocrine glands that control blood pressure by processing circulating blood hormones. 108:147
- The availability of magnesium ions was hypothesized as the underlying control mechanism that accelerates or decelerates a whole array of cell processes. 108:326
- Almost 400 species of plants and animals were formally proposed for the endangered or threatened lists. The accelerated activity in the Interior Department's office of endangered species was partly due to review hearings held by the House Subcommittee on Fisheries and Wildlife Conservation. 108:212, 230

- Researchers reported that pili, the stubby appendages on some bacteria, are the key organs in the ability of pathogenic bacteria to colonize host organisms and cause disease. 107:301
- Pheromone-like aromatic substances were found in the vaginal secretions of young women. 107:5
- Actin and myosin, proteins responsible for contraction of muscles and other tissues, were found to play a role in one of the most crucial of movements—chromosome migration along nuclear spindle fibers. 108:39
- Nobel laureate Francis H.C. Crick proposed a theory for the way DNA, sometimes more than a meter of it per cell, can fold up into tiny, nuclear chromatin beads and still direct cell activity. 107:413
- An important new synthesis of psychology, ethology, genetics and ecology was presented in Edward O. Wilson's well-received book *Sociobiology: The New Synthesis*. 108:347



Sarah Landry, from *Sociobiology*, permission of Edward O. Wilson

- A supermicrobe that can digest crude oil was created. Patent applications and environmental testing will precede its release as an agent for cleaning up oil spills. 108:180
- A basic discovery about the natural balance of soil microbes, oxygen and ethylene promised to explain the link between cultivation and soil depletion, and lead to less damaging agricultural practices. 107:37
- An attempt to duplicate the famous *Ciona* experiments that, in part, led to the scandalous suicide of Paul Kammerer in 1926, failed, adding evidence to the claim that Kammerer faked his controversial neo-Lamarckian work. 107:348

Medicine

- For the first time, leukemia was actually prevented and cured in mammals, using a viral antiserum, opening the way to possibly curing leukemia patients and vaccinating people against leukemia. 108:260
- Bone-marrow cells that give rise to the body's blood cells and immune system were maintained in the test tube for extended periods, setting the stage for understanding how bone-marrow cells differentiate into blood cells and immune cells and, most crucial, how blood cells and immune cells become leukemic. 108:260
- The EMI brain scanner, which was already revolutionizing diagnosis of the brain, became available for the body as well, and the inventors of the scanner received a Lasker award, America's most prestigious medical research commendation. 107:303; 108:327
- The neuropathology of previously unexplained mental retardation afflicting one to two million American children was identified. 108:311
- A drug was shown to reverse atherosclerosis in primates, opening the way to testing its value in people; atherosclerosis is a major risk factor in heart

disease and the leading cause of death among Americans. 108:340

- A gene was assigned to the human Y chromosome for the first time, and it appeared to be the determinant of sex in males. 108:356

- Although evidence presented at a national cancer conference strongly suggested that cancer research was extending the lives of cancer patients, several science critics challenged that view. 107:26; 108:54

- It looked as if smallpox, once a great infectious disease scourge of humankind, would be completely eradicated from the world by the end of the year. 107:74

- The internationally debated Karen Ann Quinlan case raised the legal question of whether guardians of unconscious patients have the right to shut off life-support machines. 108:213

- A defective human fetus was successfully treated in the womb. 108:121

- Patients received pain relief with a battery pack that stimulated electrodes implanted in their brains. 108:327

- Heavy drinking among men (four drinks or more a night) was linked with spontaneous abortions and birth defects in their offspring. 107:116

- Although no one was sure how long people can remain submerged in water without drowning or suffering brain damage, a Norwegian boy survived without brain damage after being submerged for 40 minutes. 108:9

- Enzyme engineering loomed as therapy for persons suffering from certain fat-and sugar-metabolism diseases. 107:211

- Eye color was linked with pain sensitivity. 107:350

Physics

- New particles suspected of association with the property called charm continued to be found in various experiments. Theorists tried to explain them. 107:58, 88, 132, 252, 300; 108:36, 68

- Discovery of a magnetic monopole was claimed and vigorously debated. 108:118, 164, 222

- Droplets formed of excitons ("liquid electricity") were photographed for the first time. 107:322

- A number of advances toward controlled thermonuclear fusion were reported. 108:324

- Experiments failed to find ultradense nuclei predicted by new theories. 107:137

- The bending of radio waves by a gravitational field as predicted by general relativity was observed for the first time. 107:24

- Recent work in general relativity tended to attack basic axioms of physics—determinism and causality. 107:262; 108:29

- Progress was reported toward the first two-body solution of Einstein's equations. 108:46

- The first superconducting polymer was found. 107:92

- An organic compound that conducts electricity was synthesized. 107:236

- Superconductivity was found in the enzyme lysozyme (its first appearance in a biological compound). 108:124

- Quark structure manifested itself in simple nuclei. 107:301

- The apparent need for yet another new quantum number (beyond charm) was deduced from evidence for the existence of another new particle. 108:309

Astronomy

- Astronomers intensified their debate over whether the universe is open or closed. 107:55, 285; 108:293

- A visible connection between a galaxy and its radio-emitting lobes was photographed for the first time. 107:252. One astronomer used the discovery to argue that quasars are not cosmological but objects associated with such galactic connections. 108:344

- Measurement of the redshift of galaxy 3C123 showed it to be the farthest yet determined (8 billion light-years). 108:5

- A morphological classification and evolutionary sequence for radio galaxies was worked out. 108:204

- Evidence that all is not well with traditional redshift-distance relationships for galaxies continued to appear. 108:37; 108:277

- Whether Cygnus X-1 is the first observed black hole continued to be argued. 107:150, 383; 108:24

- A third (medium-speed) class of pulsing X-ray source was found 107:270; theorists suggested its power source is gravity waves. 108:220

- A very near satellite galaxy to the Milky Way was found. 108:309

- A star radiating in the extreme ultraviolet range was found. 108:71

- New interstellar molecules were discovered: vinyl cyanide 107:137; ethanol 107:257; ice 107:332; methyl formate 107:339; sulfur dioxide 108:24; cyanamide 108:344, formyl 108:399.

- A device for taking infrared spectrograms in real time was successfully tested in the laboratory. 107:365

- A thirteenth satellite of Jupiter was confirmed, and a possible fourteenth was discovered. 107:367; 108:229

- Two unusual novae exploded, one in Cygnus, one in Monoceros (at first designated Orion). 108:122, 164, 196, 213, 373

- A star embedded in an ice cloud was observed. 107:332

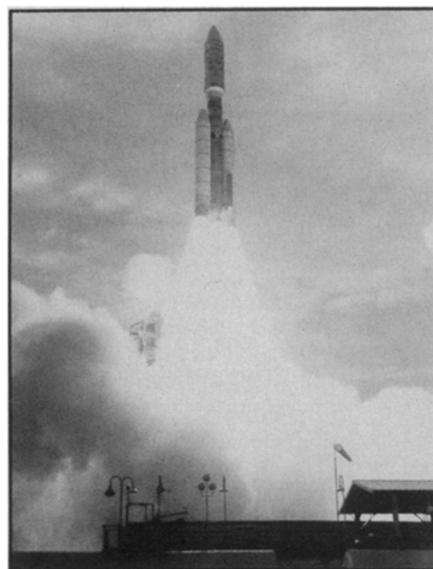
- The sun was found to pulse acousti-

cally 108:68. Planetary evidence seemed to show that the sun's light output fluctuates. 108:37

Space

- The first pictures of the surface of Venus were transmitted by the Soviet Venera 9 and 10 probes, revealing rocky terrain with surprisingly uneroded features. 107:382, 414; 108:276

- The first two spacecraft ever designed to look for life on another planet, Vikings 1 and 2, were launched toward a 1976 landing on Mars, instrumented also for mapping, physical and chemical studies. 107:398; 108:76, 120, 148, 165, 218, 310



- American and Soviet spacemen met in orbit during the Apollo-Soyuz Test Project. 108:10, 71, 72

- Marking the end of an era, the National Aeronautics and Space Administration abolished the Apollo Spacecraft Program Office, 108:248, and at least five astronauts left the agency rather than face four grounded years until the space shuttle takes off. 108:184, 218

- Soyuz 17 cosmonauts set a 30-day Soviet manned orbital record aboard the Salyut 4 space station, 107:39, 102, only to have it broken again by the 63-day flight of the Soyuz 18 crew. 107:351, 414

- The Mariner 10 probe completed its third and final pass by Mercury, providing strong evidence that the planet's weak magnetic field (which Mariner 10 discovered on its first pass a year before) is intrinsic. 107:118, 188

- The German Helios probe flew closer to the sun than any manmade object before it, coming to within 46,291,060 kilometers. 107:188

- A second Landsat earth-resources satellite, its schedule accelerated a full year in response to its predecessor's di-

verse successes, was placed in orbit. 107:22

- India joined the space club with the launch of its first satellite, a multipurpose scientific probe called Aryabhata, 107:271. Other firsts included a gamma-ray astronomy probe named COS-B for the newly organized European Space Agency, 108:102, and a small beeper named Kiku (Chrysanthemum) for the Japanese government, which had been upstaged for years by the University of Tokyo while trying to develop a Japanese launching rocket. 108:184

- Several significant, specialized weather satellites were launched, including the second Synchronous Meteorological Satellite and its successor GOES-1, 107:54; Nimbus 6, heavily instrumented to gather data for the 1978-79 international Global Atmospheric Research Program, 107:414; Atmosphere Explorer D, carrying a sensor to hunt nitric oxide, important in ozone production and depletion, 108:245, and Atmosphere Explorer E, equipped to monitor ozone itself from as low as 130 kilometers above the earth. 108:341

- The third Geodynamics Experimental Ocean Satellite was sent aloft to be tracked by radio, radar and laser beam in hopes of measuring the shape of the earth and the state of the oceans to within less than one meter. 107:255

- Latest in the Orbiting Solar Observatory series, OSO-8 was launched carrying a pair of ultraviolet telescopes and other instruments to study the sun and other stars. 107:414

- Following a series of educational and health-oriented communications experiments in the United States, the geosynchronous ATS-3 Applications Technology Satellite was moved to a new position where it began a year-long test of direct broadcasting to inexpensive community receivers in rural India. 107:368; 108:42

Earth Sciences

- A year of significant progress toward earthquake prediction was highlighted by the successful anticipation of a small quake near Hollister, Calif., 107:23, and a reported prediction in China, 108:55, as well as the first Federal proposal for a plan of action in the event of future major predictions. 108:308

- Concern was expressed in many quarters about possible consequences of an apparent return to the cooler climate characteristic of past centuries, 107:52, 139, although there was evidence that the cooling trend may have reversed, at least in the North Atlantic region. 108:101

- Evidence from deep-sea cores indicated that volcanic activity has been atypically high in the last 2 million years, the strongest evidence yet of an associa-

tion between volcanism and periods of major and rapidly oscillating glacial and interglacial cycles. 107:100

- The fossilized remains of apparently the largest flying creature that ever lived on earth, a pterosaur with a wingspan of an estimated 15.5 meters, were found in western Texas. 107:166

- Geologists using satellite data published the most detailed map yet of variations in the earth's magnetic field, a valuable guide to tectonic movements and mineral concentrations. 107:340

- An ice core obtained from the Greenland ice cap at a site called Crête extended the climatic record there back to A.D. 554 and indicated that climatic changes happen in Greenland centuries before they do elsewhere in the Northern Hemisphere. 107:316

- A new theory related cycles of ice ages on earth to passages of the solar system through dust lanes between spiral arms of the galaxy, 108:23, 99. Evidence supporting the hypothesis was found in the dust of lunar cores. 108:309

- Drilling by the Glomar Challenger in the North Atlantic revealed a section of the most deeply subsided former island so far recorded from the ocean basin (2.5 miles below sea level) and also cast doubt on the hypothesis that mantle hotspots produced the New England Seamount Chain. 108:165

- Cores from the bottom of the Black Sea showed that it has alternated between existence as a sea and as a lake according to glacial periods. 108:55

- The Glomar Challenger began the next phase of its ocean-drilling odyssey, deep penetration into the crystalline sedimentary rock in the International Phase of Ocean Drilling. 107:9; 108:295

- Despite continued effort, previously reported 3.8-billion-year-old dates for rocks from southwestern Minnesota could not be confirmed. The claim that they were as old as rocks in Greenland and Labrador remained to be demonstrated. 108:302

- A group of geophysicists proposed the Continental Drilling Project, an extensive program of deep dry-land drilling for scientific research. 107:398

- The first detailed study of a magnetic reversal during the Precambrian era showed that the reversal process has remained essentially unchanged for most of the last 2 billion years. 107:154

- Studies of fluctuations of the prehistoric Lake Bonneville in Utah—a climatic indicator for North America—revealed far more oscillations in the last million years than previously suspected. 108:296

- A new theory related the massive extinctions at the end of the Permian period to changes in temperature and salinity of the oceans. 108:279

- A new class of violent, huge, nocturnal thunderstorms that flare up rapidly and then disappear was discovered over the tropical Atlantic. 107:152

Chemistry

- Two groups of atmospheric chemists provided confirmation of three important predictions about the behavior of aerosol propellants in the troposphere: 1) Fluorocarbons 11 and 12 are present in the predicted concentrations at the predicted altitudes; 2) the fluorocarbons are breaking down in the troposphere as predicted and 3) there are no major sinks in the troposphere. 108:84

- A method of separating and enriching radioactive isotopes with laser light was announced. It is the simplest and most successful such separation technique yet made public. 107:284, 365

- The simplest Schrödinger equation, describing the quantum mechanics of one hydrogen atom reacting with one hydrogen molecule, was solved by two physical chemists and a very large computer. 108:293

- Henry Eyring modified his original absolute reaction rate theory to include the behavior of chemicals at very high temperatures. The new theory has implications for fusion and explosives research. 107:236

- Although they haven't been found or manufactured yet, chemists calculated that elements 112, 114 and 118 will be relatively inert gases, rather than metallic solids as are most of the known transuranic elements. 108:197

- The simple fact that fluorine forms a very stable bond with carbon was leading to the design and development of safer anesthetics and X-ray contrast agents. 108:148

- Using a system of organometallic complexes and acids at normal temperatures and pressures, instead of the Haber process, two groups successfully fixed atmospheric nitrogen (N₂) into ammonia (NH₃). The research clarified the natural process of nitrogen fixation and opened the way for new industrial fertilizer processes. 107:132

- The exact structure of the red tide toxin, saxitoxin, was deciphered and a fast, efficient chemical assay technique developed. 107:210, 321

- The oldest indigenous biochemicals, two cyclic ethers, were found in fossils dated at 2.3 billion years old. They may be the breakdown products of sugar storage molecules from very early algae, indicating that the evolution of life had reached a complex level that long ago. 108:7

- A major study on the possible carcinogenicity of the non-nutritive sweetener saccharin ended in an impasse. The National Academy of Sciences report concluded that more data are needed before judgments can be made. 107:53

- Flame-retarded polyurethane foam was found to give off toxic fumes when heated. 107:134

Energy & Resources

• A report by the National Academy of Sciences showed that the chances of America gaining energy independence are slim, that official Government estimates of oil and gas resources are unrealistically high and that financing the proposed alternatives may be the country's greatest crisis. 107:101

• The Energy Research and Development Agency (ERDA) issued a sweeping new "National Plan" for energy, sharply decreasing the emphasis on breeder reactors and increasing the priority of solar energy. 108:4

• An ERDA report showed that solar energy may meet 25 percent of the nation's needs by the year 2020, but that "life cycle costing" for houses must be adopted before home units can be economically acceptable. 108:122

• A National Academy of Sciences panel concluded that American agricultural productivity is peaking out and that a major new research effort would be needed for crop yields to increase significantly. 107:36

• A conference of agricultural scientists recommended major new funding for research in genetic engineering and cell culture techniques as a way to increase crop productivity. 108:279

• A Danish study showed that windy countries, such as Denmark, might cut their electricity production costs by half by installing a series of large windmills. 108:104

• A delegation of scientists traveling through China reported stable crop yields and modern farming methods throughout the country. But they found that Chinese agricultural researchers were relatively old and out of touch with advances elsewhere. 107:369

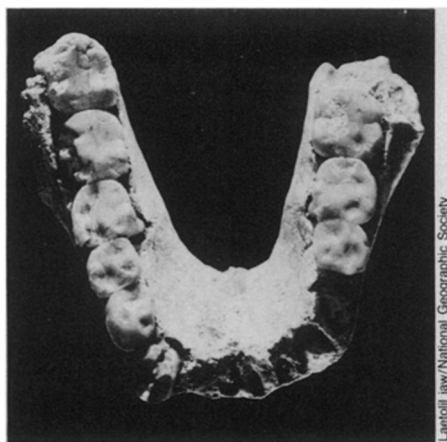
• A group of biologists and wildlife managers called for new Federal policies regarding management of species not yet on the endangered list, in order to avoid over-exploitation. 107:237, 259

• One energy study concluded that a massive, \$800 billion investment program could make the United States a net energy exporter by 1985, without developing breeder reactors. 107:369

• A growing problem of cutting away vital forests to provide firewood was found in several countries. 108:198

• Nitrogen fixation in a test tube, using bacteria, was developed, together with several other promising techniques for improving this important natural process. 108:314

• President Ford offered legislation for establishing an Energy Independence Agency to finance alternatives to petroleum fuel: The bill immediately ran into trouble in the Congress. 108:244



Laetoli jaw/National Geographic Society

Anthropology & Archaeology

• The oldest fossil hominids yet (including jaw bones and teeth of 11 individuals) were found south of Olduvai Gorge at a site called Laetoli and have been dated at 3.35 to 3.75 million years. 108:292

• A theory was proposed suggesting that the human language ability originated during Neanderthal times and that modifiers probably preceded nouns as the first elements of language. 108:378

• Carbon dating of charcoal samples found at the Meadowcroft Rockshelter in Pennsylvania confirmed the site as one of the oldest known areas of human habitation (16,000 years) in the Western Hemisphere. 108:69

• The racemization process was successfully used to date fossil specimens much older than could be dated by carbon 14. 107:349

• Excavations in Ecuador suggested that the Valdivian peoples may have lived in planned, well-organized towns at least 5,000 years ago. 108:346

• The oldest shipwreck yet discovered (4,500 years) was excavated off the coast of the Greek island Dhokos. 108:196

• A 1,900-year-old city unearthed in northeastern Yugoslavia was expected to shed light on the Sarmatians, Huns and other invaders of the Roman Empire. 108:229

• Hominid fossils discovered in Hungary suggested a possible European connection in the evolutionary development of *Homo sapiens*. 108:277

• A 3,000-year-old, hand-worked bar of magnetized iron ore found in Mexico may indicate that Middle American cultures discovered the principle of the compass a millenium before the Chinese did. 108:148

• A national anthropological film center for the preservation and archival use of films was established at the Smithsonian Institution. 107:326

Behavior

• Experimental evidence was presented suggesting that psychological factors may be as or more important than physiological factors in producing stress reactions. 107:356

• Evidence indicated that men react more strongly to stress than do women, as measured by catecholamine secretion, perhaps explaining why men are more prone to stress-related diseases. 107:238

• A Supreme Court ruling that could affect thousands of involuntarily confined mental patients stated: "A finding of 'mental illness' alone cannot justify a State's locking a person up against his will and keeping him indefinitely in simple custodial confinement." 108:30

• Instrumentation was developed that will help researchers communicate (visually) with either hemisphere of the brain, rather than both. 108:22

• Human emotional reactions were found to be related to activity in the right hemisphere of the brain. 108:244

• For the first time, psychologists and mental health professionals met to exchange research data and strategies for the prevention (rather than cure) of psychopathology. 108:90

• Evidence showed that separation of mother and infant immediately after birth (a common hospital practice) may have long-lasting effects on mother-child interaction and on the future psychological development of the child. 108:106

• Women show more signs of serious depression; some researchers suggested the cause may be sexist attitudes. 108:173

• Statistics showed that women are becoming increasingly active in crime. 107:384

• A long-term, multidisciplinary study of chronic marijuana users in Costa Rica found among other things that marijuana seems to have no effect on serum testosterone levels. 108:374

• Marijuana was found to be an effective medication for controlling vomiting and nausea and for stimulating the appetite. 108:262

Technology

• The first optical transistor was demonstrated, showing the capability of amplifying light beams directly, without the need for conversion of a signal to electricity and back again. 108:262

• Marketing of videodisks began, with three major systems vying for public acceptance; a two-hour feature movie cost about \$12 to \$15. 108:203

• Laser weapons, including prototype antimissile lasers, developed rapidly, with Pentagon spokesmen saying that by the end of this decade, decisions on how to deploy the weapons for field use should

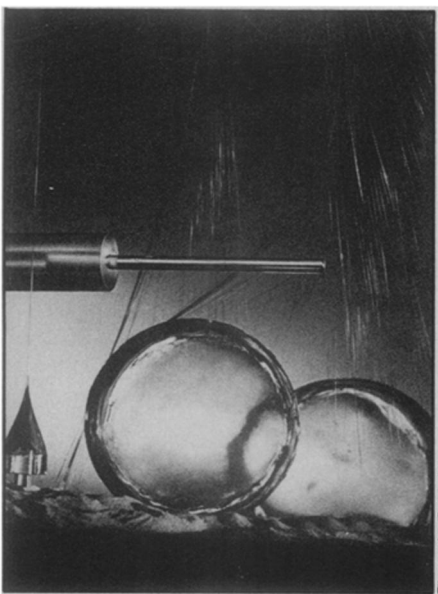
be possible. 108:191

- Charged coupled devices (CCD's) capable of telemetering video signals from missiles were developed; their use in miniaturized television systems for civilian application seemed assured. 107:123, 210

- The development of CCD's, bubble memories and superconducting logic units promised to create a new computer revolution. 108:154, 170, 220

- Fire-retardant foams were found to be more dangerous than conventional materials under some conditions because of toxic fumes they produce when heated. 107:134

- Development of lasers the size of grains of salt, extra-pure glass fibers and optical "integrated circuits" promised to speed the introduction of all-optical communications systems. 108:44, 60



Fiber optics/Bell Labs

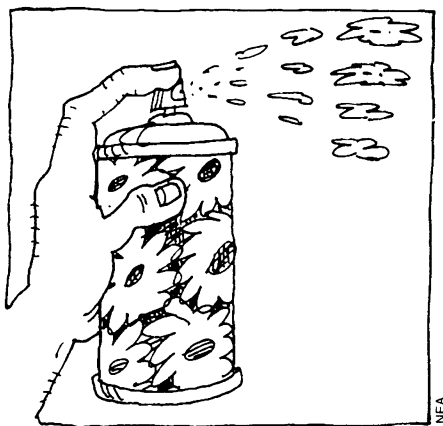
- A technique was demonstrated to produce color microholograms, capable of storing on microfilm full-color images reproducible by nonlaser light. 107:105

- The first large-scale superconducting generator was attached to a commercial power system in Massachusetts. 107:73

- Industrial use of powerful lasers for cutting and welding increased rapidly, thanks to development of lasers capable of delivering 20 kilowatts of power to a spot no bigger than 0.1 millimeters. 107:384

Environment

- The effects of fluorocarbons on the upper atmosphere were widely studied. A Federal task force composed of 15 scientific agencies recommended that unless startling new evidence turns up to exonerate aerosol propellants in their theoretical role as destroyers of the ozone layer, their use should be banned by January 1978. 107:396



- Following last year's discovery of potential carcinogens in New Orleans's drinking water, the Environmental Protection Agency surveyed 80 more cities and concluded that the chlorination process itself may be creating dangerous contaminants. Proposed by EPA were new interim standards for maximum levels of several potentially harmful chemicals. 107:208, 269

- The National Cancer Institute published a series of "cancer maps," showing previously unseen correlations between proximity to certain types of industrial activity and some types of cancer. 107:286

- A National Research Council report concluded that jet engines are so capable of damage to the earth's protective ozone layer that they will need to be completely redesigned or their fleet sizes strictly limited, if numerous additional cases of skin cancer are to be avoided. 107:220

- A National Academy of Sciences report warned that this century's warm climate may be on the way out and urged a sweeping new research program to assess the agricultural, environmental and social consequences of the transition from warm to cold. 107:52

- Add-on catalytic converters, EPA said, may do more harm than good, by creating sulfuric acid as they decrease hydrocarbons and carbon monoxide. The agency suspended the 1977 auto emission standards, which would have necessitated the use of present catalytic converters. 107:168

- Studies indicated that home handypersons may be exposed to a dangerously high level of carcinogenic asbestos particles through the use of consumer spackling, patching and jointing compounds. 108:100

- More than 150 permanent and semi-permanent hair dyes proved mutagenic in a sensitive bacterial assay system. Nine of the eighteen chemical components used in them also proved mutagenic. 107:207

- A unique low-temperature incinerator, a "microwave disintegrator," was reported that can safely destroy toxic chemicals such as nerve gases, herbicides and deadly industrial by-products. 107:190

Science & Society

- Legislation to reinstitute the office of White House Science Adviser was introduced in Congress, amidst cheers from the scientific community, but progress was slow. 107:6, 349, 397

- The National Science Foundation came under fire for sponsoring "silly" research, and legislation was introduced to put the agency's grant-giving function under direct Congressional supervision. The bill was finally defeated. 107:165, 253, 412; 108:87

- Total research and development purchasing power decreased roughly three percent in 1975, the biggest drop occurring in basic research. 108:21

- Various studies showed that students were becoming less knowledgeable in science, that most adults had trouble with even simple math, and that roughly 20 percent of the country's citizens did not have the basic verbal and mathematical "literacy" to function competently in society. 107:206; 108:71, 294

- National Science Foundation funding for science education dropped to nearly half the actual dollar expenditures of a decade earlier, the biggest decrease coming in "science literacy" programs. 107:169

- Unemployment among the nation's 229,000 doctoral scientists and engineers was only 1.2 percent (1973 data). The median salary for men was \$20,900; for women, \$17,600. 108:181

- Studies in some developing countries showed that the transition period between peasant and industrial economy is accompanied by increasing, rather than decreasing birth rates; one of the strongest factors in population control appeared to be the literacy of women. 107:68; 108:38

- Leaders of the American Association for the Advancement of Science pushed to restructure the association's annual meeting away from issues and toward research. 107:86

- A CIA effort to hoist a sunken Russian submarine under the guise of mineral recovery caused concern that it might endanger international cooperation in ocean research. 107:204

- A group of 186 leading scientists fired a broadside at the ancient art of astrology. 108:166

- An opinion poll among scientists indicated many believe artificial "outdoor" environments, much more leisure time for the average person and a retirement age of 50 await us by the turn of the century. 107:192

- A study concluded that much of the news about science originates from the statements and actions of a relatively small number of highly visible scientists. 107:370