

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

Aviation.—In 1961, le statounitese lineas aeree transportava plus que 58 milliones passageros, con tres major accidentes e le perdita de 124 vitas. Durante le mesme anno, le 78.000 aviones private del Status Unite suffreva 4.650 accidentes, con le perdita de 794 vitas. In 1960, le lineas aeree habeva 12 accidentes e perdeva 326 vitas.

Biochimia.—Scientistas del Universitate California e del Institutos National de Sanitate ha monstrate que il es possibile transformar le material crude de un bacterio ad in le material que forma un virus. Lo que es plus importante, lor resultatos provide le plus definitive evidencia ancora discoperite que le codice genetic que regula le disveloppamento de organismos es un "lingua commun" comprehendite per omne cellulas vivente. Le experimentos monstrava que le enzymas e altere substantias de *Escherichia coli*, un bacterio que vive normalmente in le tracto digestive, pote "leger" le codice genetic in acido nucleic prendite ab le virus de morbo mosaic de tabaco, e formar le proteina typic de iste virus. Il es probable que le mesme bacterio—date le correcte codice in le forma de acidos nucleic—essera capace de reproducere le proteina de non importa qual organismo vivente.

Demographia.—Cinquanta-cinque pro cento del population del Status Unite, i.e. un total de 97.600.000 personas, es concentrate in sex pro cento del territorio del pais. Iste sex pro cento se distribue inter 21 "conurbaciones", incluse le quatro megapoles de (1) le costa atlantic inter Washington e Portland, (2) le costa pacific inter le frontiera mexican e San Francisco, (3) le costa del Golfo inter Miami e Tampa in Florida, e (4) le region del Grande Lacos inter Green Bay in Wisconsin e Rochester in New York. On expecta que iste quatro concentrations populatori va consistir in 1980 de 50, 27, 10, e 37 milliones habitantes, respectivamente. Le plus proliferative conurbaciones cresce al mesura de 40 pro cento in dece annos. Le conurbation del costa atlantic (que include le citate de New York) cresce currentemente al mesura de "solamente" 15 pro cento in 10 annos.

Ecologia.—Le effectos del civilisation include le facto que in le curso del passate 2000 annos quasi 200 species de mammas e aves ha disparite irrevocabilmente ab le superficie del terra. Le numero del eradicate animales minor, sin mentionar le plantas, es ancora plus horrende.

Floricultura.—Es cognoscite que le florescentia de flores ornamental pote esser retardate (si le condiciones del mercato lo rende desirabile) per le simple methodo de exponer los durante le nocte a un lumine artificial con le intensitate del lumine natural de die. Iste procedimento es evidentemente costose. Sed un floriculturista de Florida ha trovate que le mesme effecto pote esser obtenite per le uso de un illumination nocturne a intermittentia regular, con un duration cumulative total de solamente 10 pro cento tempore continue.

Medicina General.—Le traction de gravitate intra le pulmones, aggravate per le postura erecte de humanos, possibilemente explica le susceptibilitate del homine a morbos—como tuberculosis e emphysema—in le portion superior del pulmones. Dr. G. L. Snider, del Hospital Mt. Sinai in Chicago, explica que le pression del sanguine in le pulmones es solamente un sexto del pression in altere partes del corpore. Consequentemente, pauc sanguine es pumpate a lor portiones superior. Le reduction del circulation in le pulmones superior resulta in un augmento in le quantitate de oxygeno—essential pro le bacillo de tuberculosis—presente in le tissu pulmonar, e in un diminution in

fluxo de anticorpos e altere factores que deberea combatter le bacillos.

Oceanographia.—Un catena de submarin piccos de montania se extende, in un curva est-sud, ab le costa del Nove Anglaterra verso Bermuda. Illo pare consistir de extincte vulcanos de un etate de 70 a 100 milliones annos. Le catena esseva discoperite recentemente in le curso de explorationes conducite per le Institution Oceanographic Woods Hole e le Officio Hydrographic del Marina Statounitese. Le facto que illo non esseva notate in previe explorationes se explica per su quasi complete mastication per forte stratos sedimentose in ille region del Atlantico.

Physica Atomic.—Quando explosiones atomic experimentale es effectuate in altissime stratos del atmosphera, le resultant precipitation radio-activa require, pro retornar al terra, si longe intervallos de tempore que le isotopos con curte periodos de disintegration perde omne lor radio-activitate ante le fin de lor descendita. Strontium-90, cesium-137, e carbon-14 es exemplos de isotopos de lente disintegration. Nulle test atomic va unquam esser effectuate a un altitude atmospheric sufficiente pro garantir le complete disintegration de ille isotopos ante lor retorno al terra.

Physiologia.—Micare vibrations, trovate in le corpores de animales de sanguine calide, es possibilemente le mecanismo que regula lor temperatura corporee. Dr. H. Rohrer del Instituto de Physiologia al Universitate de Vienna, le discoperitor de iste microvibraciones, describe los como alternante contracciones muscular que persiste durante tote le vita (e etiam circa un hora post morte), excepte durante periodos de hibernation in certe animales. Le vibraciones es variabile: plus frequente in status de activitate e stress, e minus frequente in status de somno e sedation. In humanos le distribution normal es inter 7 e 13 impulsos per secunda. Proque iste microvibraciones es permanente in animales de sanguine calide, e absente in altere animales, Dr. Rohrer conclude que illos es le mecanismo que permette al animales de sanguine calide mantener constante temperaturas corporee.

Recercas de Cancere.—Cellulas normal esseva experimentalmente rendite cancerose per le injection de "materia genetic" (=acido disoxyribonucleic) ab cellulas ex tissus previemente rendite cancerose per le effecto de virus de polyoma. Le injicite "materia genetic" esseva libere de virus como tal. Iste constatacion—reportate per recercatores al Universitate California—suggere le sequente mechanismo pro le causation de cancer per virus: Le virus (que consiste de un copertura de proteina replenate de acido disoxyribonucleic) penetra in un cellula normal ubi illo corrumpe permanentemente le ordine reproductori per introducir su proprie acido disoxyribonucleic ad in le acido disoxyribonucleic del cellula.

Sociologia.—Le disveloppamento industrial in le pais del Occidente pote esser regardate como progredente ab le phase del sistema de officinas local e individual, via le phase del sistema de fabricas de empleo e de production in massa, ad le phase (futur) del sistema de production a regulation e direction automatisate. Dr. J. E. Gibson, qui es un statounitese ingeniero electric, reporta post un visita in Russia su forte impression que, in un certe senso, le currente trend del economia sovietic visa a progredere ab le prime al tertie del supra-listate phases, con le omission plus o minus total del tipo de production in massa que es ancora le base del industrialismo american.

• Science News Letter, 81:404 June 30, 1962

GENERAL SCIENCE

Reading Interlingua

► YOU CAN READ Interlingua if you had no more than one semester of high school French or Spanish or Latin and flunked it. You can read and understand a great deal of it even if you have never had contact with any foreign language.

Twenty-three medical journals regularly publish in Interlingua abstracts of their original papers.

Send this page to an acquaintance abroad and tell him that he can get additional information about Interlingua from Alexander Gode, SCIENCE SERVICE's Interlingua Division, 80 E. 11th St., New York 3, N. Y.

Financial contributions to the Interlingua program are needed.

• Science News Letter, 81:404 June 30, 1962

SCIENCE NEWS LETTER

VOL. 81 JUNE 30, 1962 NO. 26

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., North 7-2255. Cable Address: SCIENCE-SERV.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include postal zone number.

Copyright © 1962 by Science Service, Inc. Republication of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also produces and distributes THINGS of science (monthly), produces and publishes books, and conducts the National Science Youth Program.

Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U.S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member of Audit Bureau of Circulation.



SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, University of California at Los Angeles; Wallace R. Brode, Washington, D. C. (Treasurer); Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University; Henry Allen Moe, John Simon Guggenheim Memorial Foundation. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution (President); John R. Dunning, Columbia University; Benjamin H. Willier, Johns Hopkins University. Nominated by the Journalistic Profession: Michael J. Ogdan, Providence Journal-Bulletin; O. W. Riegel, Washington and Lee University; Ralph B. Curry, Flint Journal. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Ludwell Denny, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio (Vice President and Chairman of Executive Committee).

Staff—Director: Watson Davis. Assistant Director: Dorothy Schriver. Writers: Ann Ewing, Lillian Levy, Faye Marley, Vincent Marteka, William E. Small, Marjorie Van de Water, Judy Viorst. Science Youth Division: Joseph H. Kraus, Leslie Watkins. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Syndicate Sales: Hallie Jenkins. Conferences: Jane Marye. Librarian: Margit Friedrich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, METropolitan 8-2562, Washington, D. C.