## INTERPLANETARY EXPLORATTON SOCIETY <br> New England Members and Friends

Bulletin " ${ }^{\prime \prime} 15$
February, 1900
Next open meeting March 5, 1960 7-11 PM
Saturday evening
as usual
Hotel Touraine
Roylston \&s Tremont Streets
Boston, Massachusetts
Probably in the Adams Romm ... but check the directory by the elevators...

## Topic: Machine Translation.

At least, that is what the committee is trying for.
Jim Hill will be there to stand in for Tom, who is unable to attend. Alma Hill vill come in from Naine, unless barred by a blizzard or the like. She says her knowledee of the subject is skimpy but so's everybody's; and word work is what she does best.
Minutes of the meeting, February 6:
Chairman's notes as received:
Hon. Secy.:
Good film on Weather, good talk on the history of gravitation theory \&c. good Coffee \& Talk. Attendance: 10. Mext meeting Krabek Jr aid jarill will each try to get a speaker on Machine Translation, Hope for 1 , between them, wouldn't hurt to have 2. We have other ideas we will pass on when I get to a Itr. [had to quit awaiting ltr. to get this newsletter out. ABM.] As mentioned, I'll be missing Warch. French phoned nere while I vas out to a Scout $C$ t. Honor Friday nite, to say he'd miss the meeting; would call me Sat, but apparently didn't get to it. I'll mail on his copy [photostat of Precognitive Potato" article as mentioned in Brass Tacks; very interesting; we should have some accessible place to file such things/ will bry to get together with him when time permits. Lv. on a business trip Wea. thru Sat. will write you in more detail on return. Neither I.A. nor W.B. (with spouses) were present so I'll have to mail the set of pix
to I.A. I had for him... Sarill promised to send yru minutes. He's been sick 3 wks, still hoarse; A.Y. in bed jet; same bugs! P.S. Hector French came for a 3 hr visit today $2 / 7 / 60$
we misdoubt thet Sarill may be back sick abed - he is the kind who will turn up when ne says he will, whether or not it is convenient. He gets perfectionistic and delays notes; but -even if ne is in gond health by now - three weeks" illness is a hard blow in one's freshman year in college. Bill must be swamped with catching up, if nothing worse, and we retract with remorse our suggestion of an assistant armed with sharp stick
to get minutes out sooner. Any volunteer's in this situation? As afpoesaid, Alma plans to come in herselt, which ought to take care of that for the next meeting. $]$
[flu all over town, we fear] Not submitted except in the above temporary form until we find out whether that's adequate.
nutes of the meeting of F January 2, 1960
By all accounta, this meeting was so much fun that the secretary is kicking herself for being deterred by a mere 300 snowy miles. Dr. Krabelk gave a lecture on rematodes, illustrated with pickled examples; apparentiy iu was so good it was horrifying. Then we had a birthतay cake with forty candles, it, being member Asimov's birthlay. "te then discovered that it wes also Blanee. Patteau's - she wouldn't say how may canoles. We figure that with all of six children, she must be over 21 ; but since sne dnesn't look much over, she car afford to be vague as she Likes about how much. Since both Isaac and Blanca came to the mecting, with spouses, before stepping out elsewhere, that should show that our meetings really are fun. We had the ciake in thiee layors, one for each Law of Robotics, and some plastic spacerobous and a spaceship which Isaac took his chiluran. Ton tock some photojrphe which came out well, buc he's still puttering witn raproiuction - we'll put them in the newsletter, when and if. They are not oniy good likenesses of good friends, but also gocd likenesses of goc? g:oxpings. The expression that accompanies listening to, or offering, a good idea has a glow all its own. They seem th heve taken ur a little of everything. Fragments have reached here, inciuding a note from Isaac about what a gond time he had, and a comment from Janet (Soul Stirred) Frecman who says she also saw Hal Clemens and a guy named findy Young who looked and dressed beat, but sounded sensible = he would not give Isaac a lock of his beard to remember it by. Ethat beard makes sense for an astronomer:observatories get $C * O * L * D$
[while on the subject of this friend, we may add that he wrote some rather upnosed opinions of the worth of this operation, and we'll quote them elsewhere since they're interesting. Then he attended a meeting and accidentally stumbled over news of a way he could improve his technique for photographing stars which will help him solve, according to report, his doctorate problem; and though he hasn't joined yet he hasn't missed many meetings either 7 Janet Freeman mentions that one conversation cluster took up and settled the hash of most current science-fletion magazines, thus:
"AMAZINE and FANTASTIC: For kids

GALAXY
If
FUTURE and OSFA

FANTASY \& SF
ASTOUNDING (ANALOG)
FANTASTIC UNIVERSE HEW WORLDS
: Tongue in cheok, \& you can get awfully sick of that
: "tad hoper for ith, but since Gold took it over, it.'s become another Galaxy
: Lowndes coes an prifully good job with his buacet, inter is nothirg, but he has "nstioct"
:Dian't crtan tre vords, but thet didn't fit them e ther, too quien, se.
: They liked it! only good stit nagazine out. I didn't say it, thay did.
: for some reason, this ne was overlooked and is added here in justice to scholarly editor Santesson. He has in titile of everything, and in fact ran so many act articles in the January issue ticat he ztole a marcir on Campbell's pion to harease fact material. New Worlds is a. B-jtish publication, very ilifferert. Iraidentally, the publishers are now and so is the format lock among the not--rnd sired zines instead of the poiket sizen to rind these. I

Chairman's notes on this meeting. "fsaar hiew out tire cendles in one mighty blast, although he had io go anman the rake to do it... " [never underestimate the lungpower oi a science-ficition author] Z.ESTTONS TO THE MEETING:IAll hands gaid "nll you anet of clippings, quotes, etc," and no hands shoved bu the jimitatiun choices... next is to get people to send them in...
2. All felt that a littie more programplanning would je good, several said they'd join me the first 10-15 minutes of the next meeting to set up a committee, and I also asked
people to send me suggestions by phone, postcard, etc." [Thomas T. Hill, 37 Oxford Street, Winchester, Mass., you can find him in the phone book 7 "Bill Sarill is anxious to do our next program on GRAVITY. I do not know what Bill widl say except that he is sure Andy will disagree. We have some program possibilities also, paricularly Br. Holt Ashlet of MIT Astronautical...Jim got Wayne Batteau to promise to talk to his Winchester Explorer Scout Post soon, to which Ashley made an excellent presentati $n$ last month."

Tom also suggests reporting on the "loo Proofs that the Earth Is Not a Globe" (q.v.) and concludes with a dissolute pun to the effect that 100 -proof is only $50 \%$.

This seems to scratch the surface of what all went on

- this may be a good place to quote something Andy had to say about the moon-orbit trajectory published in our
last. He stated that there is no single formula for computing a satellite trajectory. First you get it up to where earth's gravitational attraction is less and the sun's is more of a factor, from there you work out one to where the moon"s amounts to more, and so on. It sounds suspiciously complex, doesn't it. Naybe no other way is known yet, but a better one should exist if it could be found and seen. Bruce Berry sends a clipping of a reprinted orbit diagram for Lunik, released by TASS and reprinted by papers here. Bruce notes that a polar orbit is used. The curve is a smooth one as diagrammed. He says that a polar orbit is incomprehensible to conventional thinking, but is a sure-fire way to hit the other of a two-planet system. We note also that there are newspaper reports of a satellite with a polar orbit which nobody will claim, and Bruce raises the question whether this is not Lunik, which was supposed to circle the moon twice and return, and may in fact have done so.

One thing more about meetings: they are nothing very impressive, nor meant to be: yet they are the life of this operation. This newsletter can process some data for those who really cannot attend; but for efficiency the ratio for vis-a-vis is 1000/1. This advantage is both for the amount you can compare 1 also for the time you can do it in.




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 ess if the cuter Dited 11 December 959 references and notes:
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. Dusos du Hauron Ls 'riplace photographique des couleurs et 'impriIERIE (Gauthier-Villais, Paris 76DD)oops 1397
P Prevosu Mem soc phys eu a hist nau Genve 3121 ( $82 j-20$ ) J Cohen amd D Gordon Poychol Euil $31(-97)$ There is also a foonowe to we elfect that Dr Brom as a semior esearch fellow of the $U S$ Puolic itecibh serv.ce $D_{1}$ Rown conciudes: It would appeal hat spatial and tempoial lintexact on effects in the retina which give cise to the perception of inues hot ordinailly essociated w th the spec ral distribution of the stimulating lishu are sufficiently disinct n their mediation to limioit o enimence each other These oiservations may afford nev avenues of approach towaird an uilderstanding of the physiological bases of color perception

## Phil Kohn, Yokneam, Israel:

## POSTAL

"Iumbers are created by mathematical operations. 0 and 1 are simply is and is-nct of everyday language. 2-12, created by counting. 12-19 by adding, 20-k9 by multiplication, all higher numbers are powers (plus, of course, multiples and additions of counts). We may call all of these countine numbers, but should remember that they aren't strictly so. It is not strictly practicable to count $1,000,000,000$ - even a machine nas to order; that is, use povers to do so. When an operation, like division, or taking roots; cannot be universally carried out within the existing system, one may create new kinds of numbers, provided only they are, or can be made intc, a self-consistent system. However, 2 such systems may not be consistent with each other. In such a case, the mathematician should take note thet he is obvi@usly using different kinds of rumber under the sume name.
"For instance, the 7 , which is a prime number, is not the same seven which is carable of being divided into $3 \frac{1}{2}$ by a factor of 2. Kids learning in the same year or so about primes and fractions are naturally confused -- it's the one who accepts the system who's stupid. So, 2 main kinds of numbers are counting nuabers and measuring numbers. We may find something to unite them into a singite system, by cbserving divisibilty reluctance.
[that's what he says here: divisibility reluctance]
"Assume that we are dealing with a class of all fractions whose divisor is not larger than a, which may be myfinite pasitive whole number. We find then tiat each raction has two nearest fractions, one larger and one smaller.
"The following proposition then holds true: The difference between a fraction whose divisor is b , and a nearest fraction, is never smaller than $1 / a b$. In other words, fractions are unevenly distributed. If a be 1000, there is $n 0$ fraction nearer to $I / 2$ than $1 / 2000$; but there is only $1 / 990,000$ between $1 / 000$ and $1 / 999$. The large fractions, one might say, push aside the smaller fractions.
[even anong symbols, a pecking order?]
"If a is increased, l/ab naturally decreases in all cases; but the difference between the largest and the samlest possible $b$ increases; FIMITE FRACTIOLS ARE NOT EVEILY DISTRIBUTED.
"If we assume that, to any number, there is always a next bigger one, then the nuniber of all numbers is equal to: the number of all numbers divisible by 5 .
[typist here": "WIERE IN ALL CRTATION DID HE GET THIS 5?"]
(Phil Kohn, continuing) "However, ith any number divisible by $5^{\prime \prime}$
[5: Five? 5? Like '''''? THY FIVE?] we can certainly always group 4 other numbers, falling between it and the next smaller number divisible by $5^{\prime \prime}$
[WHEHCE 0 whence these fives?]
" $(25 / 21,22,23,24)$ consequently the number of all numbers is 5 "
typist just left, maddern a wet hen. Wait while she cools/ times the number of all numbers divisible by 5."
[? Where IS
he gettinc all these fives? Ai, we have it:
Instructor: "And what would you do if another stom blew up from the norch?"
Examinee: "I would throw out a fifth anchor."
Instructor: "liow hold on a minute. There are you getting all those anchors?"
Examinec: "Sir, from the same place you"re gtting all that wind."

THAT'S WHERE RE GOI THAT 5! So okay. 7
"Consequently, the number of all numbers cannot be infinite."
"Is there a biggest number? Niot generaliy so. But there is, in any particular context, always, necessarily, anindefinite region, above which, adaitions become irrelevant or impossible. "We must therefore replace INFINITY with INDEFINITY. Example of an indefinite number: woman asked to give her age in court: 'Over 2l.' Oisserve, tinat like cantors' alefs, this number can be increased in any manner whatever, without being altered-formally. It is my belief that cantors' alcfs are really indefinite numbers. There nay be successive realms of such. A court would not believe an'over 210'- a historian would not believe 'over 21,000' - a geclogist would disbelieve 'over 21 billion'. Alef null is arithmetical - alef one, geometrical. It becomes now the mathematician's task to study the possible shapes and laws and limits of indefinity - a study which is likely to prove fruitful for uncertainty physics.
[he has another page of this stuff, which we will put into another issue if you write and ask for it. Right now, the typist is walking around and around her chair with a look on her face which makes us feel uneasy about continuing immediately.]

Richard Kyle of Joshua Tree, Califormia
"... "Quite right when you say that these things don't verbalize well. I don't think it is the subject itself that creates the trouble... but rather, that philosophical terminology in general and metaphysical terminology in particular are so inexact. I don't think that for all the talk that goes on in the field, much work has been done to devermine the mechanics, the logical progressions, of philosophy by those wh do not have a cause of their own to espouse... and philosophers tend to make more promises for their creations than politicians do for their parties the day before election.
"Of course. without exact terminology, writing about anything is terribly difficult. The other day I was over at a friand's house tryingto talk about his hi-ti set with him. I know nothing about such stuff and I am darned near tone deaf, and my efforts to comprehend the subtleties of woofers and tweeters and all that jaz: were probably prety funny. But I was struck at the time with the thought that if my friend's technical terminology were taken away from him and he had to explain the subject to me cold, it might be almost impossible. It is amazing that complexities of thought one word can symbolize."
Hector French of Wakefield, Massachusetts:"When Judy practices the piano, it seems the longer she is able to go without an error, the worse the ercor sounds when she hits it. When she hits it, my wife (Jean) and I wince. Lately, I've been noticing my wife starting to wince just before Judy bits the clinker...
"I discovered I can dowse. Followed a "vein of water" all ove: my dad's place. I put 'vein of water,' in quotes because I'm not ready to claim there's water there - merely that therd somathing going on when I hold a stick just so, and that this something follows a certain path on the terrain, and that it is stronger some places than at others. My brother and dad can do it much better than I can. Can work out with a pair of wires too...
"As for being an electrocardiograph expert, I guess you might call me so. I'm more of an engineer, though, who writes for a living. Direct a group of technical writers, artists, etc., at Sanbor Company, turning out the Instruction Manuals, Parts Lists and so ol Have written about fifteen articles for the various professional magazines, and now intend to have a go at Science Fiction when I get a chance."
[much more of interest but time and space are runnil out and we have a page of general cluo news and thoughts which we had BEITPER he workine nn. This chonnel neads menenfrements. 7

## EDITORIAL AFTERTHOUGHTS

We ran off and mailed over 100 copies of this bulletin. About 60 of these are members or good friends living in New England and presumably able to get in to meetings, of which they wish to be notified. The resi are being used to spread and attract, news, mainly by sending them to science fiction fars in the hope that some of them will tiansmit iafnumat"un in this or some other helpful direction.

We a-e supposcaly pait of a national group but for al? we rai get out of the fodd office, we could be existing $i_{i}$ a dard vacuum.

Ilowever, we have friends.
For example, there is a correspondence fan group (founded in Boston, as a matter of fact - any founders Ieft around? None on the roster currently) called the National Fantasy Fan Federation. Your secretary has been ruining a fangossip column in this club's official orgair and puts in occasionel plugs for IES. We also took a halfpage advertisement in the procram of the Forld Science Fiction Society's progress report for nert science fiction convention. That is going to be in tine Pitt-Sherator IJotel, Pitisourgh, Pennsylvania, over Labor Day weekend, if you are interested. They asled me to have an eye on the N3F clubrooms, so thai'll ve one IES meeting I'll have to miss.

Belle Dietz, who writes"Fannotations" - a departnent in Santesson's "Fentastic Universe" devo ted to fanzines, got me to put sore material into the nevly-formed aneieur press association (in Fanspeak, apa) formed by N3F and called..'. N'APA. We put in notice $\# 5$ or thereabouts to make weight, but are now postmailing occasional copies of our nouices tb the members of this apa, since they are communicative people who can help us locate the other fund founders, maybe, we hope. If this sounds like slow work, small wonder.

Our policy is a very
vague and slippery "Anything". How does one program a thing like that! True, we are firding means. We nay be showing the way; there may be no others right now. The groups which began may have tried to be too specific too soon. We have to find. and spend time as needed, and yet it must be spare time also. How can one tell how much time to spare? Well, how can oue etaluate information before one finds it?

