## [Proceedings of the National Symposium on Machine Translation, UCLA February 1960] Session 11: EQUIPMENT SUMMATION BY CHAIRMAN

WARE: Before I answer Mr.Mersel's question, let me first give my summary. I think that those of you who may be seriously contemplating the establishment of a production system for MT ought to take Colonel Kellogg's words to heart. I have not heard any definitive remarks which suggest to me that any of you, as MT users, have any important changes that you wish to see made in present machines. We have heard the usual "Give us more storage", "Give us more speed", but nothing sig-By way of perspective, I do not see such changes sugnificantly new. gested anywhere else either. This is good in one respect, but not so good in another. As users you are in an unfortunate spot. The machines are those which the sales organizations of some large corporations happen to think will return a profit to the company, and this situation is not likely to change until somebody on the using side of the fence really has some keen insight as to how he wants things done differently. I think it has been clear from a number of remarks this afternoon that no-one believes that MT is yet to the point where special-purpose machines are the order of the day. It still looks as though there is much research to be one and that we ought to continue doing the job with general-purpose machines until we get more insight.

For perspective, I would like to cite for you one man's notion of what a language-translation machine might consist of. (I will tell you after a bit who the man is.) The device should have an input reader based on We all agree on this. The device ought to have a some simple logic. large read-only store, perhaps 100,000 words, perhaps larger, for the dictionary and for a large part of the routine. He visualizes only a small internal operating store, perhaps 1,000 or 2,000 words. He wants only logical instructions in the machine; he does not necessarily want alphanumeric capability; and his guess is that the logical instructions he wants will depend on a Boolean algebra of two arguments. The man is N. L. Korolev, a mathematician who took part in the first Russian-English work on BESM-1, and who is continuing MT work in Lebedev's Institute for Precise Mechanics. It is a wish on his part. It is a device that he does not have, although there are some indications that a Russian machine called the LEM-1 is being built by Gutenmaker

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at his Laboratory for Electro-Modeling. With respect to work which may be in progress, the Soviets are in an odd situation. They are short of machine time and, therefore, as is fairly clear even from the published information, the bulk of their work has been devoted to theory and hand simulation. Apparently only a few experiments on the machines have been conducted, and apparently this has been directed toward the old BESM-1. As a matter of curiosity, neither BESM-1 nor any other Soviet machines which we know of have alphanumeric input or output capability.

Dr. Yngve has asked for the opportunity to say a few words at this time.

YNGVE: We have reached the end of the Symposium. I, for one, have had a good time and have learned a lot. I am sure I can speak for all of the participants and guests when I say that these four days spent together have been most rewarding. I know you will all want to join with me in an expression of our deepest appreciation of the great efforts of the organizing and program-planning committee. We owe a debt of gratitude especially to these men: Harold P. Edmundson, Robert M. Hayes, Sidney M. Lamb, Lew R. Micklesen, Charles B. Tompkins, Sam M. Houston, Eleazer Lecky, and H. L. Tallman. We also owe our thanks to those who have given so generously of their time to act as chairmen and introducers, often a thankless job. I would also like to thank, on behalf of all of you, the University of California, Los Angeles; the University of California, Berkeley; the University of Southern California; and the University of Washington, Seattle, under whose auspices the conference was organized. To UCLA I would like to give our thanks for providing comfortable and convenient facilities. To the State of California we owe our thanks for the ideal weather.

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