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## CENTRAL INTELLIGENCE AGENCY WASHINGTON, D.C. 20505

11 NOV 1975

MEMORANDUM FOR:

Dr. Betsy Ancker-Johnson

Assistant Secretary for Science and Technology

U.S. Department of Commerce, Room 3864

SUBJECT:

Evaluation of the Soviet M-4030 Computer

REFERENCE:

State Telegram, Moscow 14757

- 1. Recent State Department reporting claims that a quantum jump has taken place in Soviet computer technology as evidenced in the M-4030 model computer displayed at the Interorgtekhnika-75 exhibition in Moscow. These statements are far too dramatic when the M-4030 is assessed in the overall context of Soviet computer development. This memorandum summarizes our judgments regarding the M-4030.
- The M-4030 computer is the largest of a series of computers, referred to as the ASVT models, developed by the Ministry of Instrument Building, Automation Equipment, and Control Systems. The ASVT series is one of two lines of IBM 360-compatible computers built by the USSR. is the so-called Ryad series which is the responsibility of the Ministry of the Radio Industry and is a much larger program combining the resources of the USSR and most of the Eastern European countries. It is the Ministry of the Radio Industry, not the Ministry of Instrument Building, which has formal authority to develop a full range of general-purpose computers. The Ministry of Instrument Building has authority only to develop and manufacture computers for industrial control applications. Thus extension of the ASVT series much beyond the  $\hat{M}$ -4030, which compares with the Ryad ES-1030 or the IBM 360/40, is very unlikely.

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- 3. The M-4030 is not a dramatically new machine. It is a redesign of the earlier unsuccessful M-4000 model which dates back to 1972. It incorporates the same types of integrated circuits as do the Ryad ES-1020 and ES-1030 but most of its other parts are manufactured within the same plant in Kiev. The efforts of the Kiev plant to become vertically integrated, rather than depending on larger supplies of parts available elsewhere, imply that large volume production of the M-4030 probably will never be realized. The high quality workmanship and reliability reported for the M-4030 is not surprising; the products of the Ministry of Instrument Building have a good reputation for quality. For what it is intended to be the M-4030 is a good machine but certainly not a giant leap forward.
- Of greatest importance is the fact that much more powerful Ryad computer models already exist, such as the ES-1050 which compares with the IBM 360/75. Also, an entirely new Ryad Series is planned which will correspond to the IBM 370 series. While there have been reliability problems associated with the Ryad models, there is no question that the Ministry of the Radio Industry will retain the authority and the bulk of Soviet resources for the further development and manufacture of general-purpose computers. With these greater resources, the Ryad developers should be able to provide far more extensive software and other user support in the future than can be supplied for the ASVT models. Also, while both the Ryad and ASVT models are IBM 360-compatible, some differences certainly exist which would cause problems in upgrading from an ASVT model to a larger Ryad machine.

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