

panies are gaining in the current procurement program to meet Vietnam needs, their capability for making the more difficult timing devices used in fuzes and other ordnance items is increasing substantially. Accordingly, there is a basis for believing that they would be able to meet peak mobilization requirements for mechanical timing devices as well as safety and arming devices.

If necessary, the Government could establish an in-house capability for making critical components in the event that circumstances disclose that they cannot be obtained from either the watch or non-watch companies. The Department does not believe, however, that such an alternative is likely to become necessary in view of the broad capability of American industry.

Over the long run the current dependence upon mechanical timing devices for rockets, missiles and ammunition in general may be reduced if non-mechanical devices based on chemical or electronic techniques prove to be feasible.

In the area of research and development, the Department's principal use of the industry has been in the developmental area, particularly in production engineering. Fuze design philosophy, conception, engineering design and other phases of invention are ordinarily done in the Department's own arsenals and laboratories. Although technical know-how and equipment is, to a minor degree, available in-house for prototype production, it is customary to use private industry for this work. The watch industry relies on its production resources to support its capabilities in developmental work. While these companies have contended that loss of production facilities would result in an impairment of developmental resources, the continued requirement for a defense production base should prevent any diminution in these capabilities in the foreseeable future.

In the light of the above, the Department cannot assert that the continued importation of watch movements will threaten to impair the national security, because action will be taken to assure a source of production within or outside the watch industry.

At the request of this Office, the Department reviewed the report on this investigation submitted by the Department of Commerce. On September 28, 1966, Secretary McNamara advised as follows:

The Department finds the report informative and helpful as a document to be used in maintaining continuing surveillance over the situation and for planning to insure that both current and mobilization requirements for timing devices will be met.

However, in the Department's opinion, there is nothing in the report to cause it to alter or modify the conclusions stated in the previous DOD report to this Office.

The Department further advises that it has made a detailed check of its inventory of equipment of the type specified in the Commerce report. The results show:

1. Sufficient DOD equipment is available to meet the alleged shortages mentioned in the Commerce report. The equipment is in very good condition and a substantial portion of it is unused.

2. While the available equipment may not in all instances be the most modern type, it is adequate and fully capable of meeting defense production requirements. Therefore, there is no need to be dependent upon imports to satisfy these requirements in a mobilization period.

3. Should it ever be considered necessary, replacement of part of this equipment is possible by importing Swiss-type machines which are available within reasonable price levels and lead times. Furthermore, some American firms are interested in providing this type of equipment, if orders of sufficient magnitude are involved. Lead time of such domestic equipment is about two years.

4. As a further consideration affecting equipment requirements, an intensive product improvement program is now under way which includes the redesign of fuzes to allow such parts as gears to be manufactured by stamping and die casting the gear, pinion and pin as one piece, thus eliminating more costly and time-consuming machinery processes.

The Department which has been continuously exploring potential replacements for mechanical timers now advises that since its previous report to this Office, many advances in integrated circuit techniques have been achieved by industry which bring electronic timers closer to realization.

THE ATOMIC ENERGY COMMISSION

The AEC advised this Office that national security implications pertinent to the investigation were found only in the ordnance segment of AEC's nuclear weapons program, and that certain horological skills and experiences presently found only in the jeweled-lever segment of the domestic watch industry "have