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#### DEPARTMENT OF THE ARMY

UNITED STATES ARMY INTELLIGENCE AND SECURITY COMMAND FREEDOM OF INFORMATION/PRIVACY OFFICE FORT GEORGE G. MEADE, MARYLAND 20755-5995

Freedom of Information/ Privacy Office

SEP 17 2009

Mr. John Greenewald, Jr.

Dear Mr. Greenewald:

This responds to your electronic Freedom of Information Act (FOIA) request of July 4, 2009, to the Defense Technical Information Center (DTIC), for a copy of AD0850880, titled Engineer Machines of the Future and supplements our response of August 14, 2009.

Coordination has been completed with another element of this command and the manual has been returned to this office for our review. As a result of this review, information has been sanitized that would result in an unwarranted invasion of the privacy rights of the individual concerned. This information is exempt from public disclosure provisions of the FOIA pursuant to Title 5 U.S. Code 552 (b)(6).

The withholding of the information described above is a partial denial of your request. This denial is made on behalf of Colonel Richard H. Saddler, Acting Commander, U.S. Army Intelligence and Security Command, who is the Initial Denial Authority for Army intelligence investigative and security records under the Privacy Act and the Initial Denial Authority for Army intelligence investigative and security records under the FOIA. You have the right to appeal this decision to the Secretary of the Army. Your appeal must be postmarked no later than 60 calendar days from the date of our letter. After the 60-day period, the case may be considered closed; however, such closure does not preclude you from filing litigation in the courts. You should state the basis of your disagreement with the response and provide justification for a reconsideration of the denial. An appeal may not serve as a request for additional or new information. An appeal may only address information denied in this response. Your appeal is to be made to this office, for forwarding, as appropriate, to the Secretary of the Army, Office of the General Counsel.

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If you have any questions regarding this action, feel free to contact this office at 1-866-548-5651 or email the INSCOM FOIA office at INSCOM\_FOIA\_ServiceCenter@mi.army.mil and refer to case #587F-09.

Sincerely,

usan J. Butterfield

Director

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ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER ...

06 MAR 1969

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FSTC-HT-23-618-68

# U.S. ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER

AD850880



ENGINEER MACHINES OF THE FUTURE

COUNTRY: POLAND



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#### TECHNICAL TRANSLATION

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ENGINEER MACHINES OF THE FUTURE

SOURCE: (b) (6)
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#### ENGINEER MACHINES OF THE FUTURE

Within the measure of the evolution of the means of war contemporary engineer machines are becoming more and more obsolete. They are heavy, normanageable and not adaptable for operation in terrain contaminated with radioactive fallout. Specialists of the whole world are working on further perfection of the construction of this machinery extensively applying the newest technological achievements. Behold, several of the proposed designs.

For the light caterpillar tractor-amphibian (Figure 1), whose weight does not exceed 2.7 t., excavator and dump truck qualities have been combined. Such a tractor can rapidly clear and level every area. On the other hand the machine shown in Figure 2 is designed for raising fills, constructing roads and runway strips at airfields. It has been equipped with smooth and goffered rollers for compacting ground. The pressure created by these rollers can be increased thanks to the elevation of the front or rear portion of the machine. The hydraulic lift system serves for this purpose.

The machine for constructing tunnels and underground air raid shelters (Figure 3) is equipped with a boring device and a mechanism for emplacing blasting charges automatically. After the rock blasting, the stones will be extracted with the aid of a belt conveyor which is installed between the caterpiller treads.

On the foot of the machine shown in Figure 4, a boring device is installed resembling a gun barrel. This device, however, has some other utilization—it is designated for making cuts and defiles in mountains. A high output of the device can be achieved thanks to vibrations of great frequency. First of all the rock is blasted, then the fragments are removed by the scoop.

The weight of the machine designed for constructing roads in mountains (Figure 5) amounts to hardly 4.5 t. A powerful helicopter can easily purvey it to every difficultly accessible area in mountains. The machine is equipped with a chain saw and bulldozer.

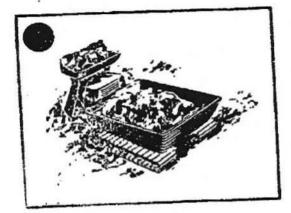


Figure 1.

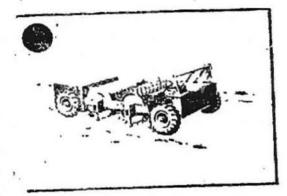


Figure 2.

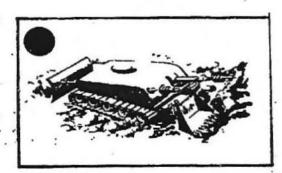


Figure 3.





Figure 4.

Figure 5.

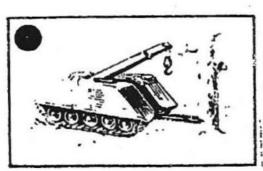


Figure 6.



Figure 7.

The next two caterpillar machines are in many respects similar to each other. One of them (Figure 6) clears passage ways in forested backwoods. Especially thick stumps are difficult to cut or thrust aside from the roadway. And for this designated purpose a hoist is installed on the machine.

The machine in Figure 7 is designated for removing ruins on demolished streets of cities. It is equipped with a powerful single bull-dozer loader, a hydraulic crane and two mechanical arm manipulators: one with an acetylene torch for cutting metal construction, the other with a chain saw which remarkably gets along well with large stone boulders. All the machines have been equipped with special shields which protect the crew against radioactive radiation.

J. H.

Security Classification DOCUMENT CONTROL DATA - R & B Foreign Science and Technology Center AEPORT SECURITY CLASSIFICATIO Unclassified US Army Muteriel Command Department of the Army AEPORT TITLE Engineer 4 thines of the Future L. DESCRIPTIVE MOTES (Type of report and inclusive dates) Translation REPORT DATE N/A FSTC-HT-23-618-68 A. PROJECT NO. 9917003 . 9.223628 2301 OTHER REP ACS1 Control Number IO. DISTAURUTION STATEMENT Each transmittal of this document outside the agencies of the U. S. Government must have the prior approval of the US Army Foreign Science and Technology Center. IL SUPPLEMENTARY HOTES 12. SPONSORING MILITARY ACTIVITY The translation rights for this document have not been obtained. This document is US Army Foreign Science and Technology not in the public domain. Center D ADSTRACT <sup>VA</sup>A description of several proposed designs for engineering equipment. The equipment includes a light caterpillar tractor-amphibian, weighing not over 2.7 t, with the properties of an excavator and dump truck as well; a machine for constructing tunnels and underground air raid shelters, equipped with a boarding device and a mechanism for placing blasting charges automatically; a road constructing machine for mountain area work, weighing 4.5 t so that it can be lifted by high powered helicopter; and other modern engineering equipment.

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