



DEPARTMENT OF THE AIR FORCE

WRIGHT LABORATORY (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

MEMORANDUM FOR Galileo Research, Inc
ATTENTION: Kenneth Galitello
P.O. Box 25
Torrington CT 06790-0025

14 JUN 1994

FROM: WL/POKA
Building 7
2530 C Street
Wright-Patterson AFB OH 45433-7607

SUBJECT: Debriefing, Topic AF94-182, "A Free Piston
Engine-Generator" - INFORMATION MEMORANDUM

1. In response to your debriefing request, the following is provided based upon the evaluation by the appropriate Aero Propulsion and Power Directorate technical personnel knowledgeable in this topic area.

2. Your proposal was determined to be technically satisfactory. The proposed approach was sound and technically reasonable. It showed a logical first step toward the generation of a prototype free-piston engine with integral linear AC electric generator. This engine would have primarily non-aircraft applications in ground hybrid electric vehicles, life support and survival equipment, and remote base support. The free-piston design would also allow the machine to provide an integral vacuum/compressor function. However, the approach did not demonstrate an understanding of the complexity associated with the intake/exhaust valving to operate this machine at speeds approaching 5000 cycles per second. The qualifications of the proposed principal investigator and supporting staff are very good.

- not contained in proposal

3. Your interest in the Air Force Small Business Innovation Research (SBIR) program is sincerely appreciated and you are encouraged to participate in the future.

Lynn A. Warner

LYNN A. WARNER
Contracting Officer