ANNUAL REPORT OF RESEARCH FACILITY

FACILITY LOCATION:DAM
1. AIR FORCE RESEARCH LAB
   BROOKS AT BASE, TX 78235

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY during the year ended:

A. Animals Covered by Animal Welfare Regulations
   1. Mammals used in experiments, testing, breeding, teaching, training, surgery, or observation 10
   2. Birds used in experiments, testing, breeding, teaching, training, surgery, or observation 8
   3. Fish used in experiments, testing, breeding, teaching, training, surgery, or observation 118
   4. Pigs used in experiments, testing, breeding, teaching, training, surgery, or observation 187
   5. Other Farm Animals 104
   6. Other Animals 816
   Total 10

ASSURANCE OF ATTENDANCE

1. Professionals responsible for experiments, testing, breeding, teaching, training, surgery, or observation have received appropriate training and have attended annual and quarterly meetings as required.

2. Each principal investigator has attended an annual meeting and has submitted an annual report.

3. The annual report includes a description of the animals used, the methods of their care and use, and the number of animals used.

4. The animal care committee has reviewed the annual report.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL

DATE ISSUED

APHIS FORM 7323

(AUG 91)
**CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)**

**REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Other than animals in research or testing, teaching, and breeding, or animals used for such purposes).**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>10</td>
<td>25</td>
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**ABSORBANCE STATEMENTS**

1. All animals are normally provided with the care, treatment, and use of persons, including personnel at all times, except while they are being used for research, teaching, or other purposes, and in accordance with the standards and regulations of the United States Department of Agriculture. Absorbance materials and accessories are followed by the research facility.

2. The research facility is adhering to the standards and regulations under the Animal Welfare Act, and is fully responsible for the implementation and adherence to the standards and regulations specified by the research facility. Absorbance of the standards and regulations of the United States Department of Agriculture, including the reporting of adverse outcomes, is in accordance with the standards and regulations specified by the research facility.

3. The research facility is adhering to the standards and regulations under the Animal Welfare Act, and is fully responsible for the implementation and adherence to the standards and regulations specified by the research facility. Absorbance of the standards and regulations of the United States Department of Agriculture, including the reporting of adverse outcomes, is in accordance with the standards and regulations specified by the research facility.

4. The research facility is adhering to the standards and regulations under the Animal Welfare Act, and is fully responsible for the implementation and adherence to the standards and regulations specified by the research facility. Absorbance of the standards and regulations of the United States Department of Agriculture, including the reporting of adverse outcomes, is in accordance with the standards and regulations specified by the research facility.

5. The research facility is adhering to the standards and regulations under the Animal Welfare Act, and is fully responsible for the implementation and adherence to the standards and regulations specified by the research facility. Absorbance of the standards and regulations of the United States Department of Agriculture, including the reporting of adverse outcomes, is in accordance with the standards and regulations specified by the research facility.

**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL**

(Chief Executive Officer or Legally Responsible Institutional Officer)

Signature: ____________________________ Date: 11/16/1994

APHIS FORM 7023A (Revised 9/91) which is deleted

PART I - HEADQUARTERS

(AUG 91)
APHIS Form 7023 Column E Explanation

This form is intended as an aid to completing the APHIS Form 7023 Column E explanation. It is not an official form and its use is voluntary. Names, descriptors, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written in as to be understood by lay persons as well as scientists.

1. Registration Number: 7AF-0001

2. Species (common name) & Number of animals used in this study:
   Dogs (15)

4. Explain the procedure producing pain and/or distress.
   Dogs will be exposed to a non-lethal weapon system, which penetrates the skin of its target to a depth of approximately 0.3 mm, leading to intense, momentary pain and escape-flight behavior.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For federally mandated testing see Item 6 below)
   The question that the proposed research is designed to answer is: What is the effect of a specific form of momentary and escapeable pain on the behavior of a dog, specifically a military working dog? More specifically, the key question is: Does this type of pain impact in the short term the MWDS' trained behavior? In order to answer these questions, an anesthetic, plot and unaffected (by use of anesthetics, tranquilizers, etc) dog must be used. This is a study in which the use of anesthetics and/or analgesics would be contraindicated.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102)
   Agency: None.
   CFR:
APHIS Form 7023 Column E Explanation:

This form is intended as an aid to completing the APHIS Form 7023 Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: TAF-0001

2/3. Species (common name) & Number of animals used in this study:

Non-human Primates (5)

4. Explain the procedure producing pain and/or distress.

Monkeys are required to perform a continuous compensatory tracking task, on the primate equilibrium platform (PEP). By the nature of this aversively motivated task performance, the subject must avoid or escape the aversive stimulus (fixed tail shock) by meeting the performance requirements of the task.

5. Provide scientific justification why pain and/or distress could not be alleviated. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

The criterion for shock delivery is set so that trained animals can easily perform for many hours without experiencing a shock. Many animals voluntarily experience occasional shock to "test the system", i.e., to ascertain whether they are still being required to perform. This demonstrates the necessity of maintaining the shock contingency and the mildness of the distress involved. Attempts to train similar performance under appetitive motivation (food rewards) for successful performance are counterproductive. Such training has been attempted and was found to take at least 4 to 10 times longer to produce a final performance that is much less stable than that attained by aversively motivated subjects.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency: None.

CFR: 
1. Registration Number: 74-F-0001 / 1433

2/3. Species (common name) & Number of animals used in this study:
Mice (500)

4. Explain the procedure producing pain and/or distress.

Mice will be infected with [BL/6J] will be delivered to the lungs by placing drops of spore suspension on the tip of the nose and allowing inhalation while under anesthesia. Resulting infection can produce pain/disease.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 5 below)

The use of anesthetics is not justified since this may be a confounder in the progress of infection.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency: None.

CFR:

Approval Status:
Approved/Disapproved by:

Date:

Disapproved Reason:


253. Species (common name) & Number of animals used in this study:
Rats (202)

4. Explain the procedure producing pain and/or distress.

1. Rats will be exposed to millimeter waves, environmental heat, and infrared heating. They may experience pain during the recovery period but will not be given routine analgesia. 2. Rats will be given intracardiac injection as a necessary positive control for neuronal damage.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or reagents used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see item 6 below)

6. Routine administration of analgesics to the recovery animals will not be used because pain and distress is expected to be minimal and the analgesics are very likely to confound the results of the assay used in this study. Animals that are identified as moribund or in noticeable pain or distress will be immediately and humanely euthanized. 2. The use of ketamine solid to induce neurodegeneration leads to succinylcholine.

8. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS 9 CFR 113.102):
Agency: N/A
CFR: N/A

Approval Status: Approved/Disapproved By: Date:

Disapproved Reason: