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Author

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Report/Article Title Papers Regarding an Ecological Survey of Eglin AFB
Test Area C-52A to Evaluate Long Term Herbicidal
Effects on the Plants, Animals and Soils of the Test
Area

Journal/Book Title

Year 1973

Month/Day

Color

Number of Images 55

Description Notes Filed by Alvin Young in a folder labeled: "Eglin Ecological
Evolution Survey "Pertinent Papers."

DEPARTMENT OF THE AIR FORCE
DEPARTMENT OF LIFE AND BEHAVIORAL SCIENCES
USAF ACADEMY, COLORADO SPRINGS



18 May 1973

Delivered 1430 hrs
[Signature]

TO: DFLS/Captain Young
SUBJECT: Non-Personal Services Contract

FROM: LGPC

1. The Department of Life and Behavioral Sciences is participating with AMURD-WB/AFSC-SDMC, Andrews AFB, Washington, D.C., in conducting an ecological survey of Test Area C-52A, Eglin AFB, Florida. One of the objectives of this survey is to assess the effects of military herbicides on the vegetation of this test area. Accordingly, it is necessary to acquire personnel that are competent in assessing such vegetative damage and/or plant ecological succession. Since the three chemicals that were used on the test area were produced by the Dow Chemical U.S.A. (one of the products being proprietary), Dow Chemical Herbicide Personnel are best qualified to recognize and assess the ecological effects caused by these materials.
2. Funds for a non-personal services contract have been appropriated under P.O. AFSC-73-5154-02. These funds are to be used to purchase the required services from Dow Chemical U.S.A. (see attached sole source justification). The cost of such a contract may not exceed \$2,450.00. It is planned that 15 days (120 hours) will be sufficient time in which to complete the ecological assessment. The 15 days may be non-consecutive but must be between 15 June and 15 July 1973. During this specific time period, Air Force Academy personnel will be at Eglin AFB conducting other ecological surveys on the same test area. Consequently, they will arrange transportation to and from the test site, access passes to the area, and will provide all necessary equipment in which to carryout the vegetative assessment. The personnel selected for this service will prepare a written report to be submitted to USAFA/DFLS personnel NLT 15 July 1973. A typist and photographic support will be provided at Eglin AFB for use in preparing the required report.
3. Request you proceed with appropriate action to consummate this project as soon as possible. The contract representative for this project from Dow Chemical U.S.A., is Mr. Paul M. Ritty, Dow Chemical U.S.A., Suite 203A, 4210 Johnson Drive, Shawnee Mission, Kansas 66205, Phone: 913-362-2100.

[Signature]
LOUIS F. WAILLY, Major, USAF
Director of Research
Department of Life & Behavioral Sciences

DEPARTMENT OF THE AIR FORCE
DEPARTMENT OF LIFE AND BEHAVIORAL SCIENCES
USAF ACADEMY, COLORADO 80840



REPORT TO
ATTN: DFLS

18 May 73

Delivered 1430hrs
CAT

1. Sole Source Justification

10-LGPC

1. The services required on the attached "Request for Purchase" are uniquely possessed by the Ag-Organics Department of Dow Chemical U.S.A. Dow Chemical is the sole producer of the herbicide picloram (4-amino-3,5,6-trichloropicolinic acid) and the major producer of the herbicides 2,4-D (2,4-dichlorophenoxyacetic acid) and 2,4,5-T (2,4,5-trichlorophenoxyacetic acid). The Dow Chemical Herbicide Personnel are specialists in the assessment of vegetative damage and/or ecological succession following applications of these herbicides. Test Area C-52A, Eglin AFB Reservation received massive quantities of 2,4-D, 2,4,5-T, and picloram. To distinguish the separate and accumulative effects of these herbicides on vegetation it requires personnel uniquely trained in recognizing 'phytotoxic' symptoms. Dow Chemical has such personnel.

LOUIS F. MAILLY, Major, USAF
Director of Research
Department of Life & Behavioral Sciences

EGLIN ECOLOGICAL INVESTIGATIONS
10 June-14 July 1973

PERSONNEL ASSIGNED TO THE PROJECT

Lt. Col. William E. Ward, USAFA/DFLS.Project Director
Major Charles E. Thalken, USAFA/DFLS
Captain Kenneth Ayers, AFIP, Washington
Captain William J. Cairney, USAFA/DFLS
Captain Alvin L. Young, USAFA/DFLS.Principal Investigator,
Captain Robert Clegren, EHL, Kelly AFB, Texas
Dr. John H. Hunter, Dow Chemical U.S.A., Atlanta, Georgia
Mr. Jeffery Lehn, Ithicon Research, Somerville, New Jersey
Lt. John W. Sigler, AFATL/DLIP

CADETS ASSIGNED TO THE PROJECT

C/1C Horn, Steven R.
C/1C Iacobucci, James C.
C/1C Kelly, William M.
C/1C Lucca, Michael J.
C/1C Sayers, Robert

BACKGROUND

From June 1962 to October 1970, aerial spray equipment was tested at Test Area C-52A on the Eglin AFB Reservation, Florida in support of the military Defoliation Program. In order to realistically evaluate the spray equipment, most missions utilized military herbicides. The active ingredients of these herbicides were 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). It is probable that the 2,4,5-T herbicide contained the highly teratogenic (fetus deforming) contaminant 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). The one square mile test area, a unique opportunity exists to evaluate the short and long-term effects of massive quantities of herbicides (1890 pounds of herbicide/acre vs a normal application rate of 4-6 pounds herbicide/area) on the plants, animals and soils of the test area.

OBJECTIVES

USAFA/DFLS shall during the period of this study accomplish an ecological survey of Eglin TEST AREA C-52A to evaluate the long term herbicidal effects on the plants, animals and soils of the test area. The study shall include but not be limited to the following work:

- A. To obtain data on:
 - 1. Herbicide and TCDD residue in soils of the test grid.
 - 2. Animal populations of the test area, including mammals, reptiles, fish and insects.
 - 3. Revegetation of the test area.
 - 4. Soil microorganisms populations.

- B. To compare these data with baseline data obtained during the past three years and to evaluate the ecological impact of the spray program.

- C. To prepare a final report for submission to AMC (ARMY MATERIEL COMMAND) NLT 1 August 1973.

DEPARTMENT OF THE AIR FORCE
USAF REGIONAL HOSPITAL EGLIN (AFSC)
EGLIN AIR FORCE BASE, FLORIDA 32542



REPLY TO
ATTN OF:

SGV

15 May 1973

SUBJECT:

Toxic Studies conducted in the past at AFATL

TO:

Maj. Charles E. Thalken
USAFA - DFLS
USAF Acedemy, Colo. 80840

1. Mr. Nick Cox is the most knowledgable man in the Air Force in the study areas listed above. When he was on active duty he was the project officer for many years, and director of the department concerned with Air Force CW-BW in the Armament Laboratory.

2. Mr. Cox can be reached by calling Eglin Air Force Base at 882-5343. He is able to supply information on all aspects of the above mentioned subjects provided the requestor has Top Secret Clearance.

Erby L. Massie

ERBY L. MASSIE, LT COL, USAF, VC
Chief, Veterinary Services